Full wwPDB X-ray Structure Validation Report ⓘ

Jan 4, 2024 – 11:10 am GMT

PDB ID	:	5IB8
Title	:	Structure of T. thermophilus 70S ribosome complex with mRNA, tRNAfMet and near-cognate tRNALys with U-G mismatch in the A-site
Authors	:	Rozov, A.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2016-02-22
Resolution	:	3.13 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:

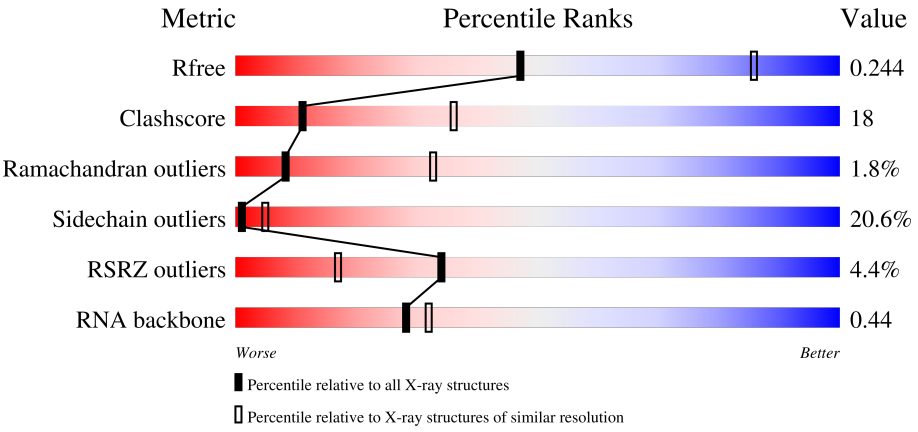
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	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 3.13 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	1626 (3.18-3.10)
Clashscore	141614	1735 (3.18-3.10)
Ramachandran outliers	138981	1677 (3.18-3.10)
Sidechain outliers	138945	1677 (3.18-3.10)
RSRZ outliers	127900	1588 (3.18-3.10)
RNA backbone	3102	1000 (3.46-2.82)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	13	1522	33% 49% 15%
1	1G	1522	34% 47% 16%
2	12	256	5% 32% 38% 11% 19%
2	1E	256	2% 38% 42% 9% 10%

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Mol	Chain	Length	Quality of chain
3	22	239	11% 35% 38% 8% 18%
3	2E	239	5% 46% 33% 6% 14%
4	32	209	48% 42% 10%
4	3E	209	44% 45% 9%
5	42	162	51% 34% 7% 7%
5	4E	162	46% 37% 9% 8%
6	52	101	51% 42% 6%
6	5E	101	% 50% 41% 8%
7	62	156	8% 40% 41% 8% 12%
7	6E	156	19% 53% 38% 8%
8	72	138	% 56% 36% 8%
8	7E	138	11% 41% 50% 9%
9	82	128	24% 28% 57% 8% 5%
9	8E	128	2% 42% 45% 12%
10	1A	105	10% 36% 30% 10% 24%
10	1I	105	25% 51% 34% 10%
11	2A	129	10% 54% 27% 6% 12%
11	2I	129	22% 46% 28% 11% 14%
12	3A	132	14% 51% 31% 10% 8%
12	3I	132	2% 48% 33% 11% 8%
13	4A	126	11% 32% 41% 13% 13%
13	4I	126	2% 40% 40% 11% 7%
14	5A	61	43% 48% 39% 8%
14	5I	61	7% 49% 31% 16%
15	6A	89	57% 37%

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Mol	Chain	Length	Quality of chain
15	6I	89	2% 53% 38% 7%
16	7A	88	49% 44% 5%
16	7I	88	36% 49% 9% 6%
17	8A	105	57% 32% 5% 6%
17	8I	105	14% 36% 50% 10% 5%
18	9A	88	40% 31% 6% 24%
18	9I	88	41% 33% 23%
19	AA	93	10% 30% 28% 12% 30%
19	AI	93	8% 46% 27% 14% 12%
20	BA	106	16% 50% 38% 7%
20	BI	106	20% 40% 48% 8%
21	1B	27	15% 44% 33% 19%
21	1F	27	37% 37% 11% 15%
22	1K	76	20% 45% 22% 8% 5%
23	2K	77	3% 38% 34% 22% 6%
23	2L	77	39% 43% 16%
24	3K	76	25% 17% 38% 30% 7% 8%
24	3L	76	3% 18% 45% 29% 5%
25	4K	30	13% 23% 13% 27% 33%
25	4L	30	3% 7% 27% 23% 7% 37%
26	14	2917	35% 41% 17%
26	1H	2917	34% 42% 18%
27	16	122	44% 39% 11% 6%
27	1J	122	34% 42% 22%
28	71	229	4% 27% 23% 7% 42%

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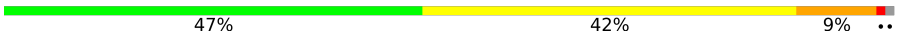
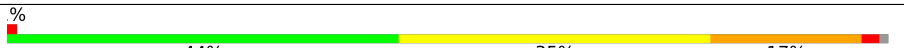
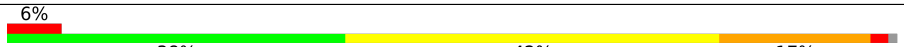
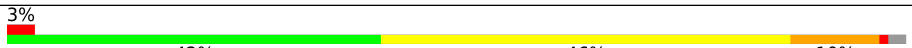
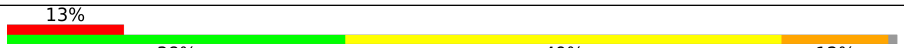
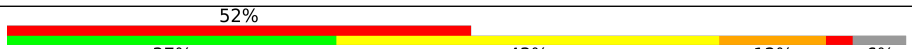
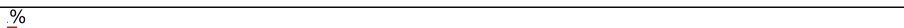
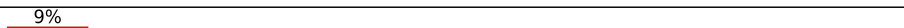
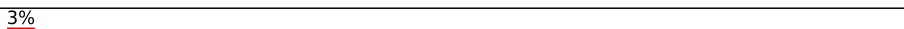
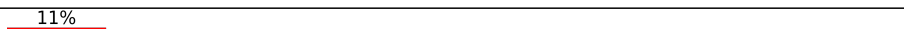
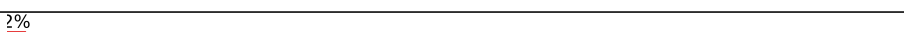
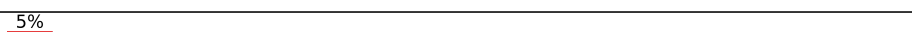
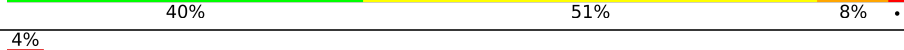
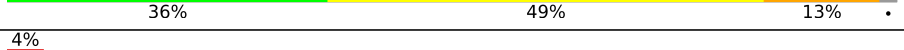
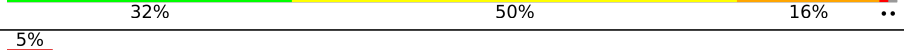
Mol	Chain	Length	Quality of chain
29	11	276	
29	19	276	
30	21	206	
30	29	206	
31	31	210	
31	39	210	
32	41	182	
32	49	182	
33	51	180	
33	59	180	
34	61	148	
34	69	148	
35	15	140	
35	58	140	
36	25	122	
36	68	122	
37	35	150	
37	78	150	
38	45	141	
38	88	141	
39	55	118	
39	98	118	
40	65	112	
40	A8	112	
41	75	146	

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Mol	Chain	Length	Quality of chain
41	B8	146	38% 38% 16% 8%
42	85	118	52% 35% 11%
42	C8	118	56% 32% 8%
43	95	101	6% 50% 43% 6%
43	D8	101	17% 44% 40% 14%
44	A5	113	48% 46%
44	E8	113	4% 60% 30% 7%
45	B5	96	12% 55% 31% 11%
45	F8	96	60% 32% 5%
46	C5	110	17% 35% 41% 18% 5%
46	G8	110	48% 32% 13% 6%
47	D5	206	24% 33% 38% 14% 14%
47	H8	206	27% 40% 33% 8% 17%
48	E5	85	4% 42% 41% 6% 11%
48	I8	85	49% 35% 6% 9%
49	F5	98	20% 48% 38% 9%
49	J8	98	51% 33% 10%
50	G5	72	4% 46% 32% 14%
50	K8	72	32% 44% 15% 6%
51	H5	60	55% 33% 8%
51	L8	60	52% 32% 12%
52	M8	71	14% 38% 28% 17% 15%
53	J5	60	57% 27% 10% 7%
53	N8	60	40% 32% 8% 20%
54	L5	49	4% 49% 43%

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Mol	Chain	Length	Quality of chain
54	P8	49	59% 31% 6%
55	M5	65	28% 43% 46% 8%
55	Q8	65	46% 38% 12%
56	1L	76	3% 25% 36% 25% 13%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	13	1610	-	-	-	X
57	MG	13	1621	-	-	-	X
57	MG	13	1638	-	-	-	X
57	MG	13	1648	-	-	-	X
57	MG	13	1655	-	-	-	X
57	MG	14	3074	-	-	-	X
57	MG	14	3079	-	-	-	X
57	MG	14	3103	-	-	-	X
57	MG	14	3115	-	-	-	X
57	MG	14	3133	-	-	-	X
57	MG	14	3134	-	-	-	X
57	MG	14	3138	-	-	-	X
57	MG	14	3160	-	-	-	X
57	MG	14	3163	-	-	-	X
57	MG	14	3165	-	-	-	X
57	MG	14	3175	-	-	-	X
57	MG	14	3177	-	-	-	X
57	MG	14	3183	-	-	-	X
57	MG	14	3187	-	-	-	X
57	MG	14	3194	-	-	-	X
57	MG	14	3199	-	-	-	X
57	MG	1G	1609	-	-	-	X
57	MG	1G	1611	-	-	-	X
57	MG	1G	1620	-	-	-	X
57	MG	1H	3077	-	-	-	X
57	MG	1H	3087	-	-	-	X
57	MG	1H	3089	-	-	-	X
57	MG	1H	3142	-	-	-	X
57	MG	1H	3157	-	-	-	X
57	MG	1H	3162	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	1H	3167	-	-	-	X
57	MG	1H	3176	-	-	-	X
57	MG	1H	3215	-	-	-	X
57	MG	1H	3237	-	-	-	X
57	MG	1H	3540	-	-	-	X
57	MG	1H	3548	-	-	-	X
57	MG	E5	101	-	-	-	X
57	MG	P8	101	-	-	-	X
58	SF4	32	302	-	-	X	-

2 Entry composition (i)

There are 61 unique types of molecules in this entry. The entry contains 296999 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	13	1500	Total	C	N	O	P	0	0	0
			32246	14352	5978	10416	1500			
1	1G	1509	Total	C	N	O	P	0	0	0
			32437	14437	6010	10481	1509			

There are 2 discrepancies between the modelled and reference sequences:

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1E	231	Total	C	N	O	S	0	0	0
			1874	1199	334	336	5			
2	12	207	Total	C	N	O	S	0	0	0
			1696	1083	306	303	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	2E	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	22	195	Total	C	N	O	S	0	0	0
			1537	973	297	266	1			

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

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	32	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	4E	149	Total	C	N	O	S	0	0	0
			1142	722	216	200	4			
5	42	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			
10	1A	80	Total	C	N	O		0	0	0
			646	403	129	114				

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	4I	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			
13	4A	109	Total	C	N	O	S	0	0	0
			879	544	181	152	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	5I	59	Total	C	N	O	S	0	0	0
			486	309	103	70	4			
14	5A	59	Total	C	N	O	S	0	0	0
			486	309	103	70	4			

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

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

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

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

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

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

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

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

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

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BA	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

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

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

- Molecule 22 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	1K	72	Total	C	N	O	P	S	0	0	0
			1542	691	269	509	72	1			

- Molecule 23 is a RNA chain called tRNAfMet.

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

- Molecule 24 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	70	Total	C	N	O	P	0	0	0
			1483	664	260	490	69			
24	3L	72	Total	C	N	O	P	0	0	0
			1528	684	270	503	71			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	20	Total	C	N	O	P	0	0	0
			442	198	94	130	20			
25	4L	19	Total	C	N	O	P	0	0	0
			419	188	89	123	19			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2831	Total	C	N	O	P	0	0	0
			60991	27142	11416	19602	2831			
26	14	2825	Total	C	N	O	P	0	0	0
			60857	27083	11390	19559	2825			

There are 14 discrepancies between the modelled and reference sequences:

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	71	132	Total	C	N	O	S	0	0	0
			1027	648	193	185	1			

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

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	19	274	Total	C	N	O	S	0	0	0
			2125	1341	422	359	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	21	203	Total	C	N	O	S	0	0	0
			1546	978	295	267	6			
30	29	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	41	179	Total	C	N	O	S	0	0	0
			1457	931	265	257	4			
32	49	180	Total	C	N	O	S	0	0	0
			1459	931	266	258	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	51	174	Total	C	N	O	S	0	0	0
			1328	842	249	236	1			
33	59	169	Total	C	N	O	S	0	0	0
			1295	823	241	230	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	58	137	Total	C	N	O	S	0	0	0
			1096	706	205	181	4			
35	15	137	Total	C	N	O	S	0	0	0
			1096	707	205	181	3			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	88	141	Total	C	N	O	S	0	0	0
			1117	712	211	187	7			
38	45	138	Total	C	N	O	S	0	0	0
			1099	702	208	183	6			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B8	135	Total 1119	C 697	N 230	O 191	S 1	0	0	0
41	75	133	Total 1109	C 691	N 228	O 189	S 1	0	0	0

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	F8	95	Total 750	C 488	N 135	O 126	S 1	0	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
45	B5	94	Total	C	N	O	0	0	0
			735	477	133	125			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	G8	103	Total	C	N	O	S	0	0	0
			783	504	148	126	5			
46	C5	104	Total	C	N	O	S	0	0	0
			794	510	152	127	5			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 56 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	1L	66	Total	C	N	O	P	0	0	0
			1402	627	244	465	66			

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	13	141	Total Mg 141 141	0	0
57	2I	1	Total Mg 1 1	0	0
57	3I	1	Total Mg 1 1	0	0
57	2K	3	Total Mg 3 3	0	0
57	1H	552	Total Mg 552 552	0	0
57	16	12	Total Mg 12 12	0	0
57	21	3	Total Mg 3 3	0	0
57	31	1	Total Mg 1 1	0	0
57	41	1	Total Mg 1 1	0	0
57	88	3	Total Mg 3 3	0	0
57	F8	1	Total Mg 1 1	0	0
57	I8	2	Total Mg 2 2	0	0
57	P8	1	Total Mg 1 1	0	0
57	Q8	1	Total Mg 1 1	0	0
57	1G	125	Total Mg 125 125	0	0
57	32	1	Total Mg 1 1	0	0
57	42	2	Total Mg 2 2	0	0
57	52	1	Total Mg 1 1	0	0
57	7A	1	Total Mg 1 1	0	0
57	2L	2	Total Mg 2 2	0	0
57	4L	1	Total Mg 1 1	0	0

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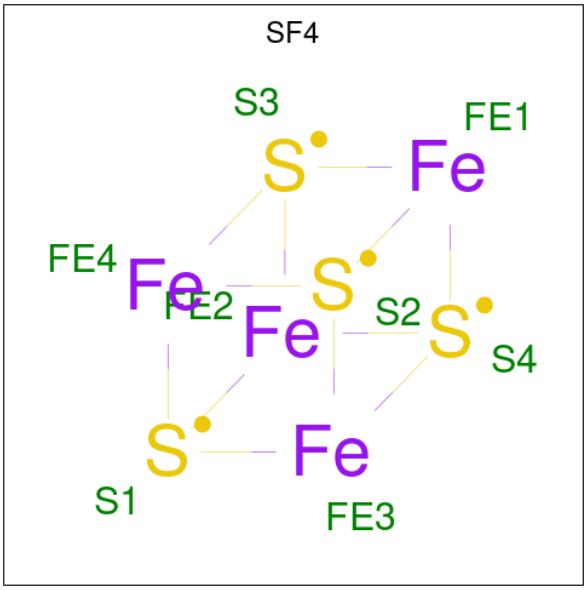
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	14	460	Total Mg 460 460	0	0
57	1J	10	Total Mg 10 10	0	0
57	19	1	Total Mg 1 1	0	0
57	29	1	Total Mg 1 1	0	0
57	39	1	Total Mg 1 1	0	0
57	25	1	Total Mg 1 1	0	0
57	35	2	Total Mg 2 2	0	0
57	45	1	Total Mg 1 1	0	0
57	B5	1	Total Mg 1 1	0	0
57	E5	2	Total Mg 2 2	0	0
57	M5	1	Total Mg 1 1	0	0

- Molecule 58 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe_4S_4).

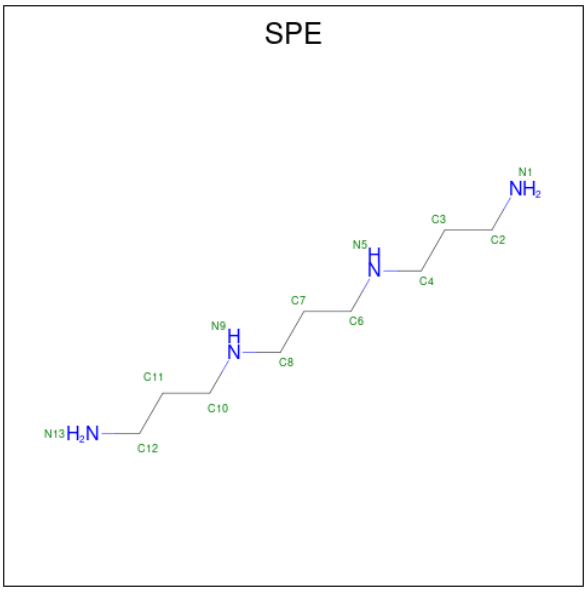


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	3E	1	Total Fe S 8 4 4	0	0
58	32	1	Total Fe S 8 4 4	0	0

- Molecule 59 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	5I	1	Total Zn 1 1	0	0
59	G8	1	Total Zn 1 1	0	0
59	5A	1	Total Zn 1 1	0	0
59	C5	1	Total Zn 1 1	0	0

- Molecule 60 is THERMINE (three-letter code: SPE) (formula: $C_9H_{24}N_4$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1G	1	Total C N 13 9 4	0	0
60	14	1	Total C N 13 9 4	0	0

- Molecule 61 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	13	354	Total O 354 354	0	0
61	3E	2	Total O 2 2	0	0
61	4E	3	Total O 3 3	0	0
61	8E	2	Total O 2 2	0	0
61	1I	2	Total O 2 2	0	0
61	3I	2	Total O 2 2	0	0
61	5I	1	Total O 1 1	0	0
61	7I	2	Total O 2 2	0	0
61	BI	3	Total O 3 3	0	0
61	1K	1	Total O 1 1	0	0
61	2K	8	Total O 8 8	0	0
61	3K	1	Total O 1 1	0	0
61	4K	5	Total O 5 5	0	0
61	1H	1720	Total O 1720 1720	0	0
61	16	12	Total O 12 12	0	0
61	11	10	Total O 10 10	0	0
61	21	6	Total O 6 6	0	0
61	31	6	Total O 6 6	0	0
61	58	2	Total O 2 2	0	0
61	68	2	Total O 2 2	0	0
61	78	13	Total O 13 13	0	0
61	98	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	B8	1	Total O 1 1	0	0
61	C8	4	Total O 4 4	0	0
61	E8	1	Total O 1 1	0	0
61	F8	3	Total O 3 3	0	0
61	G8	3	Total O 3 3	0	0
61	I8	6	Total O 6 6	0	0
61	J8	5	Total O 5 5	0	0
61	L8	4	Total O 4 4	0	0
61	N8	1	Total O 1 1	0	0
61	Q8	5	Total O 5 5	0	0
61	1G	364	Total O 364 364	0	0
61	32	4	Total O 4 4	0	0
61	42	1	Total O 1 1	0	0
61	52	4	Total O 4 4	0	0
61	1A	2	Total O 2 2	0	0
61	2A	1	Total O 1 1	0	0
61	4A	2	Total O 2 2	0	0
61	6A	3	Total O 3 3	0	0
61	7A	4	Total O 4 4	0	0
61	9A	2	Total O 2 2	0	0
61	BA	3	Total O 3 3	0	0

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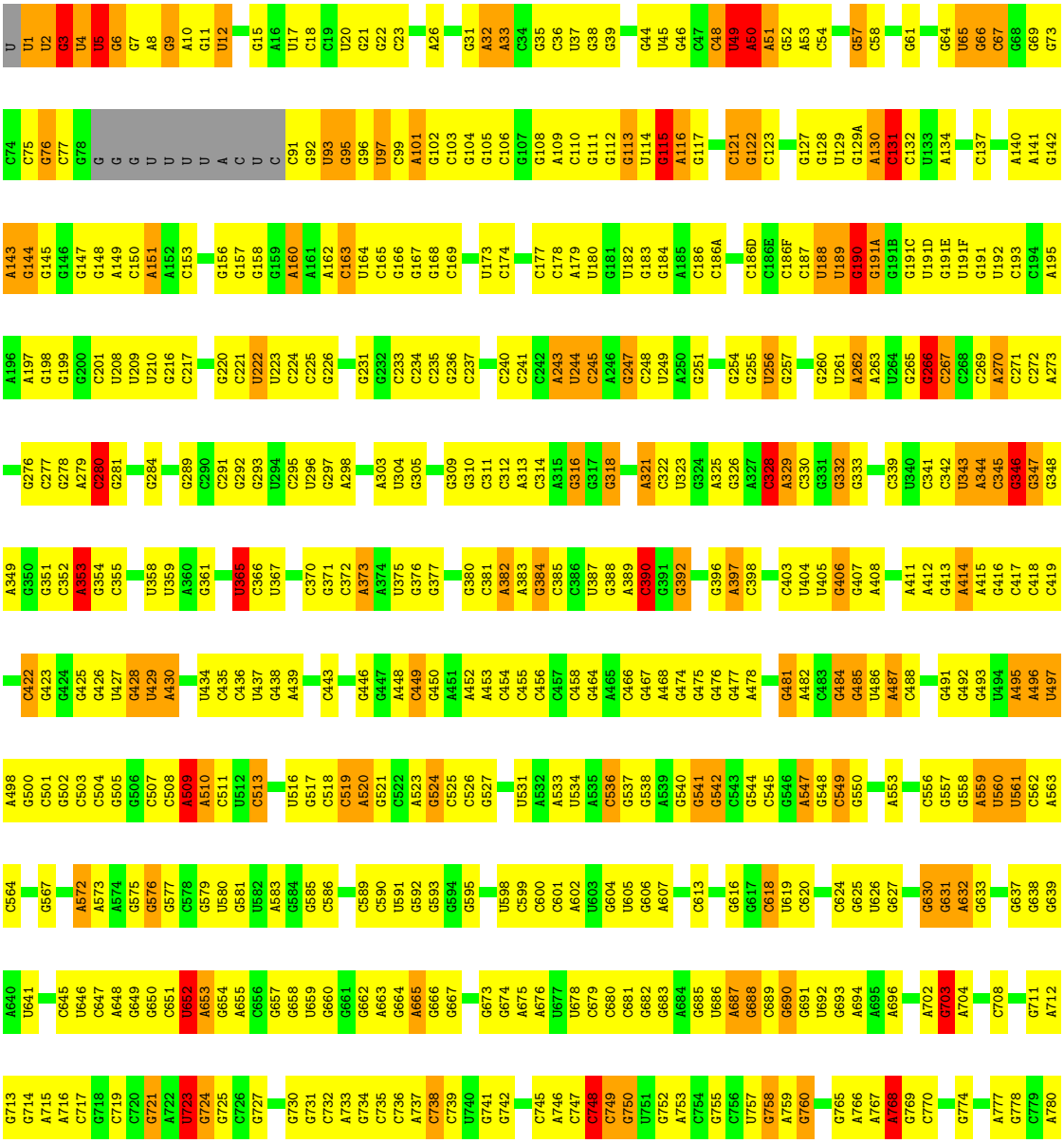
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	2L	8	Total O 8 8	0	0
61	4L	3	Total O 3 3	0	0
61	14	1303	Total O 1303 1303	0	0
61	1J	27	Total O 27 27	0	0
61	19	14	Total O 14 14	0	0
61	29	6	Total O 6 6	0	0
61	39	8	Total O 8 8	0	0
61	15	3	Total O 3 3	0	0
61	25	8	Total O 8 8	0	0
61	35	8	Total O 8 8	0	0
61	55	1	Total O 1 1	0	0
61	75	1	Total O 1 1	0	0
61	85	1	Total O 1 1	0	0
61	B5	1	Total O 1 1	0	0
61	C5	3	Total O 3 3	0	0
61	F5	1	Total O 1 1	0	0
61	H5	1	Total O 1 1	0	0
61	L5	1	Total O 1 1	0	0
61	M5	8	Total O 8 8	0	0

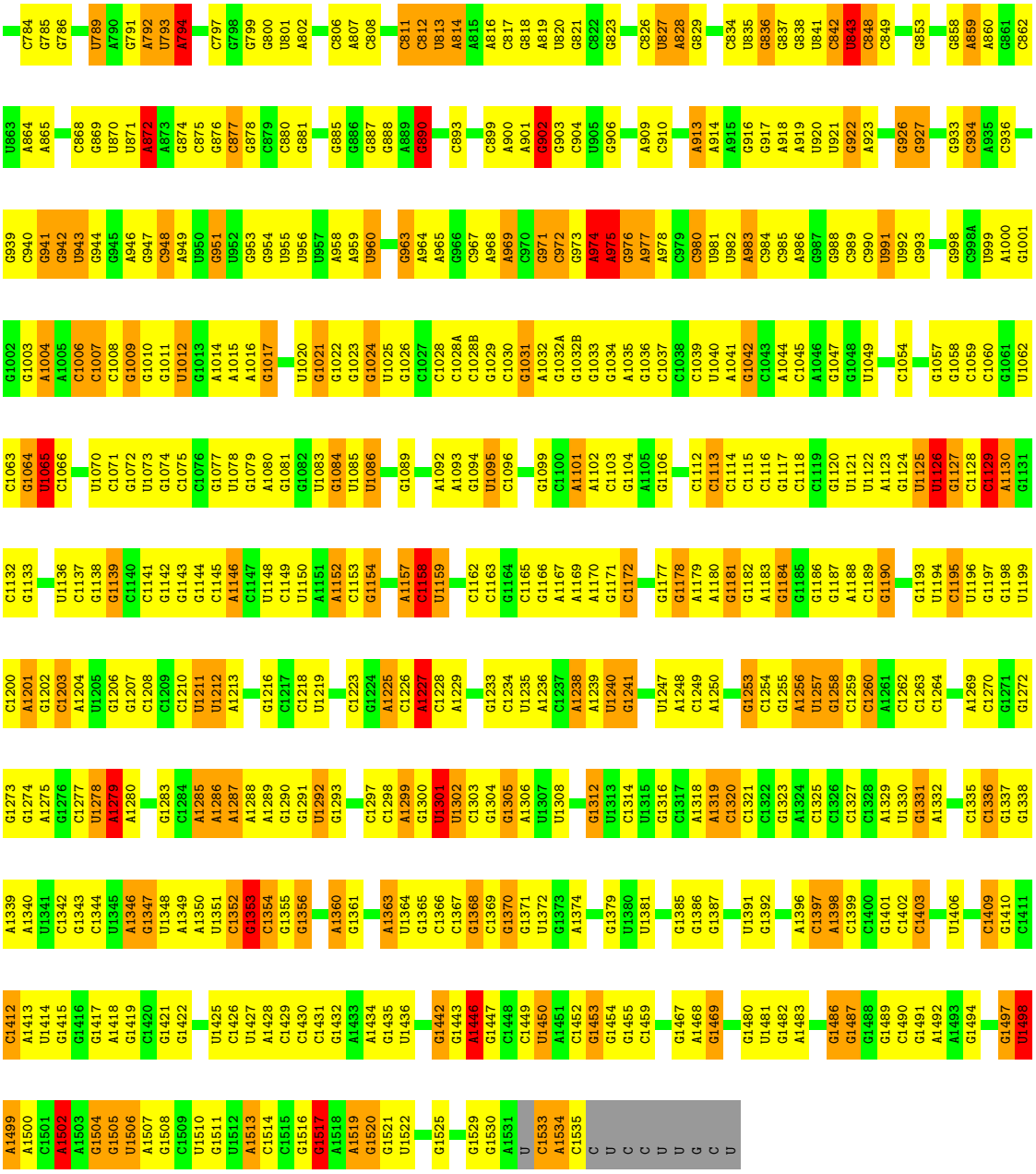
3 Residue-property plots (i)

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

- Molecule 1: 16S ribosomal RNA

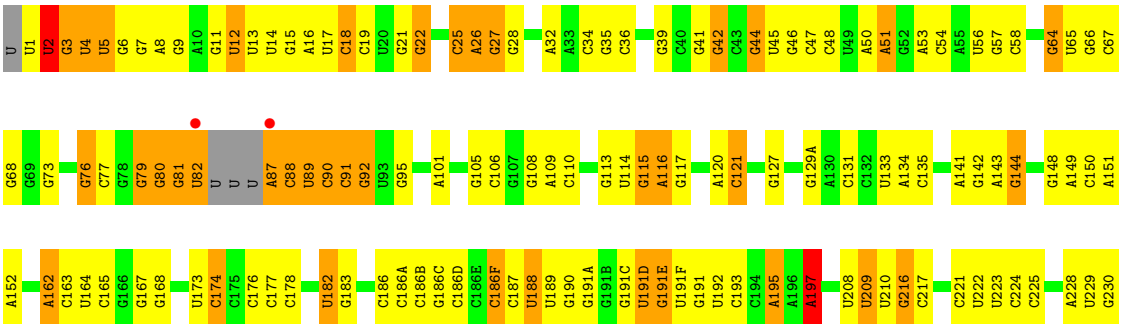
Chain 13: 33% 49% 15%

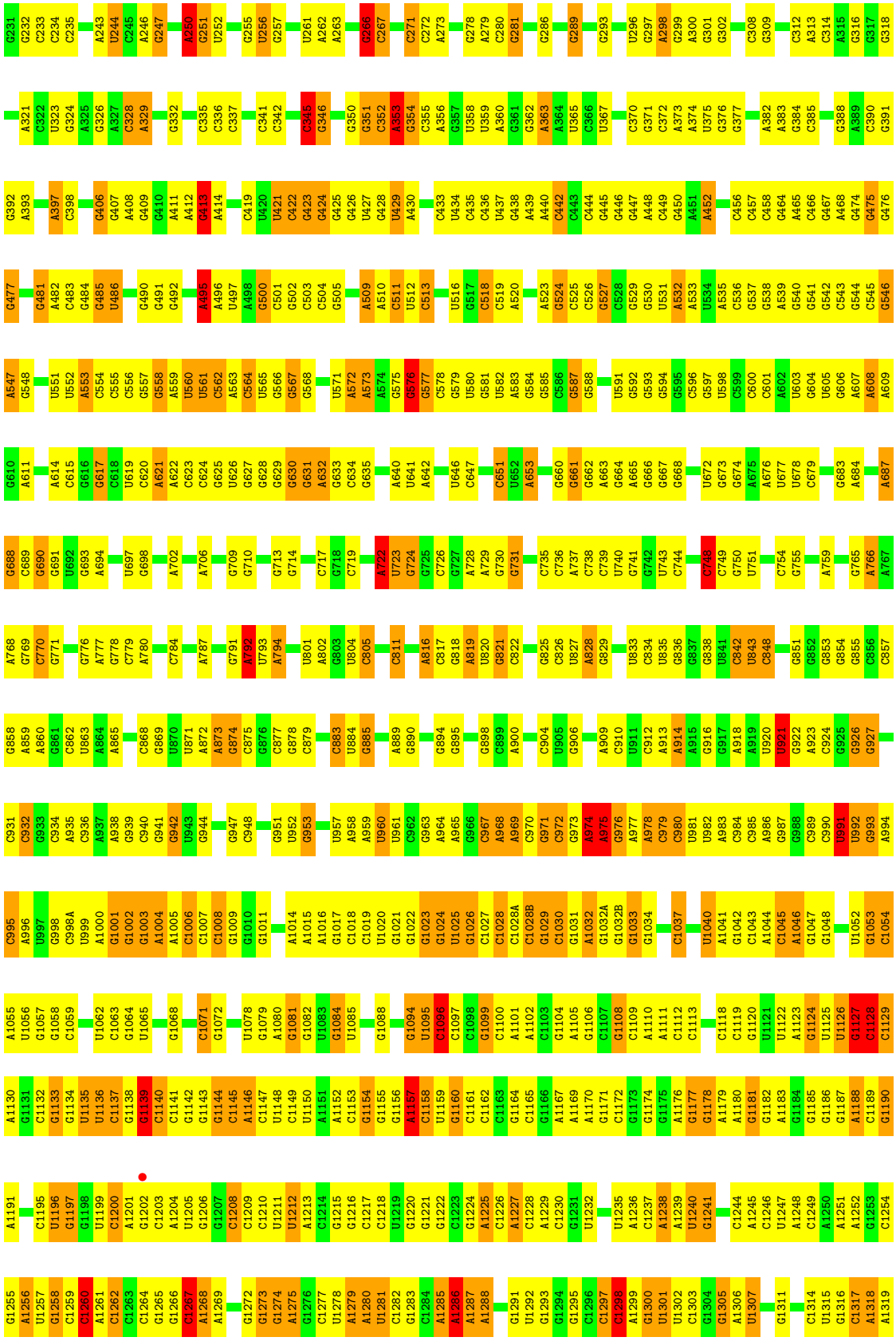


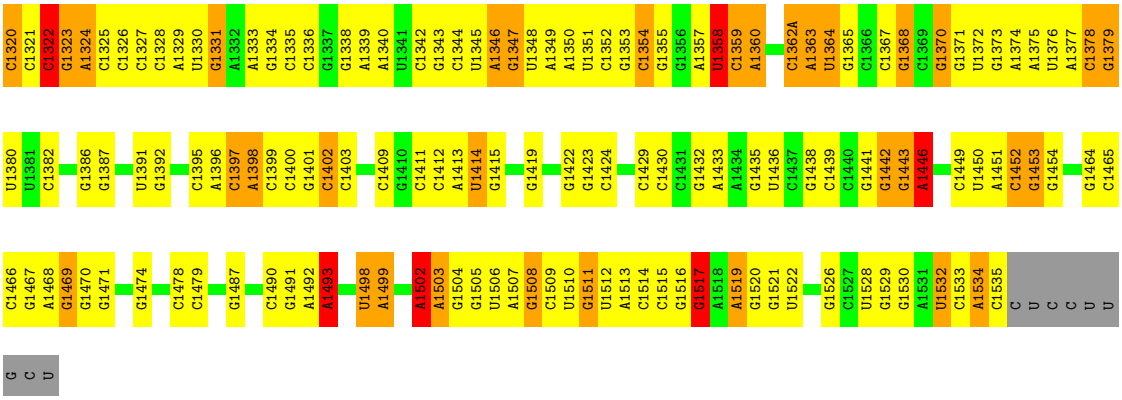


• Molecule 1: 16S ribosomal RNA

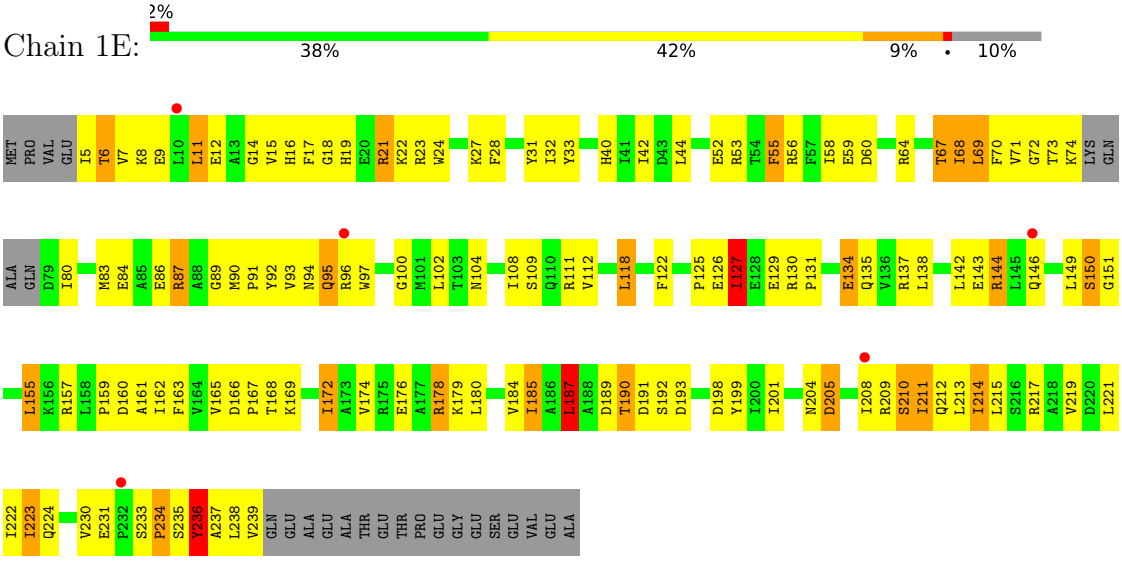
Chain 1G:



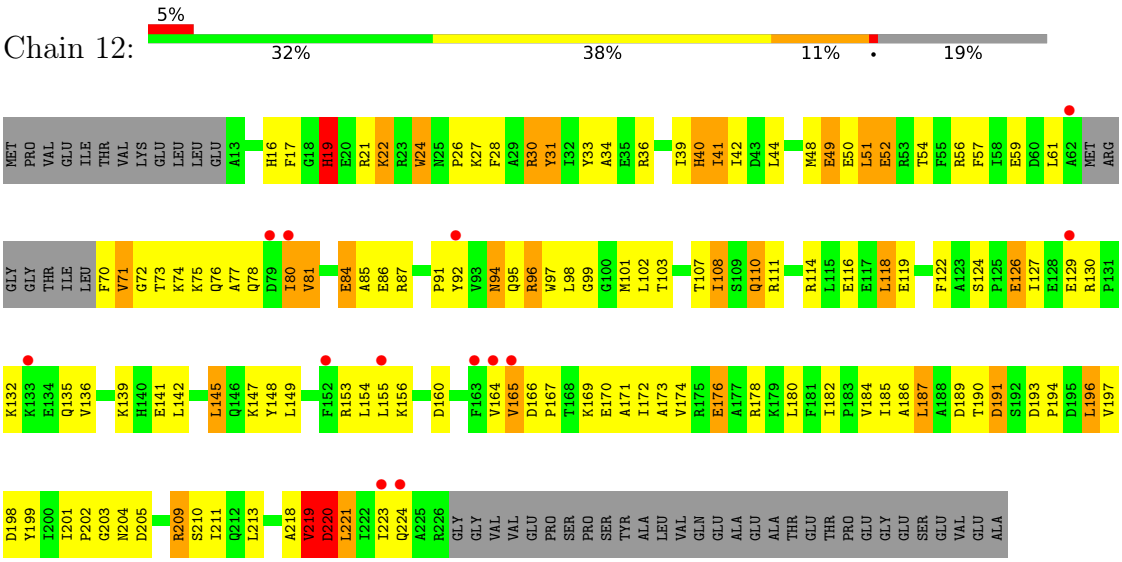




• Molecule 2: 30S ribosomal protein S2

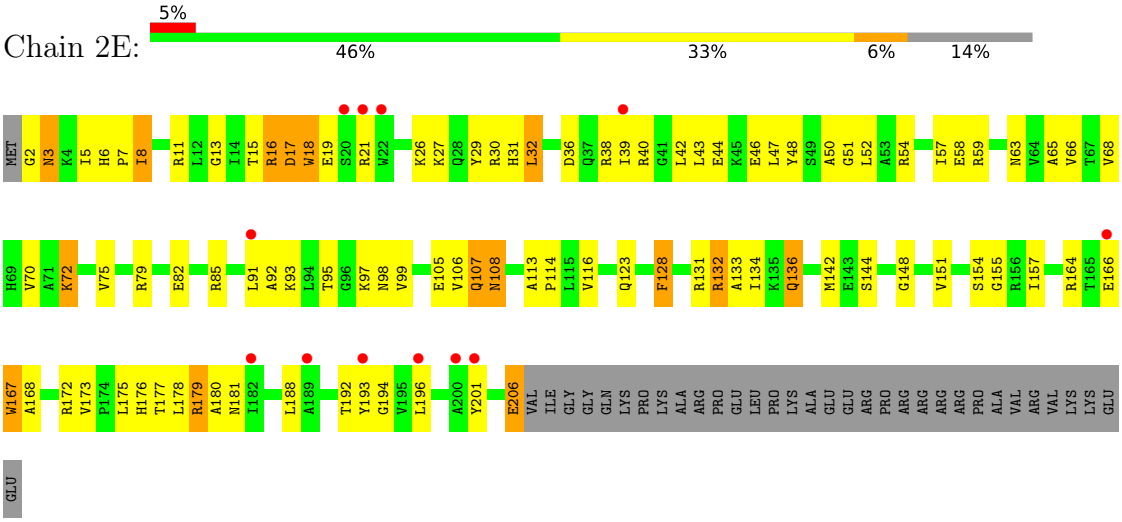


• Molecule 2: 30S ribosomal protein S2



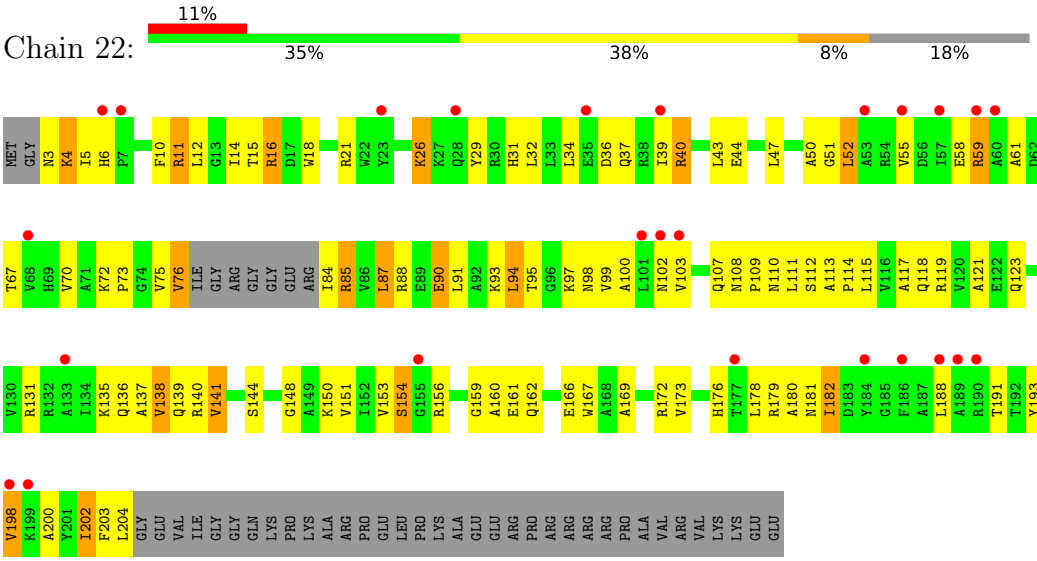
• Molecule 3: 30S ribosomal protein S3

Chain 2E:



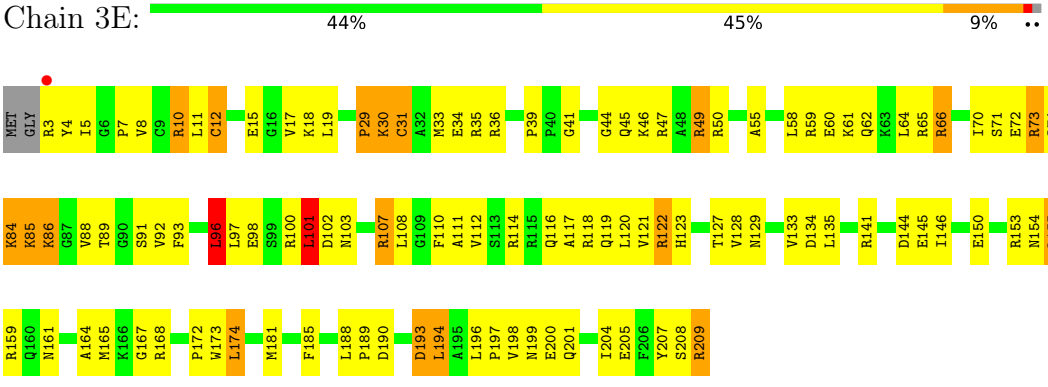
• Molecule 3: 30S ribosomal protein S3

Chain 22:



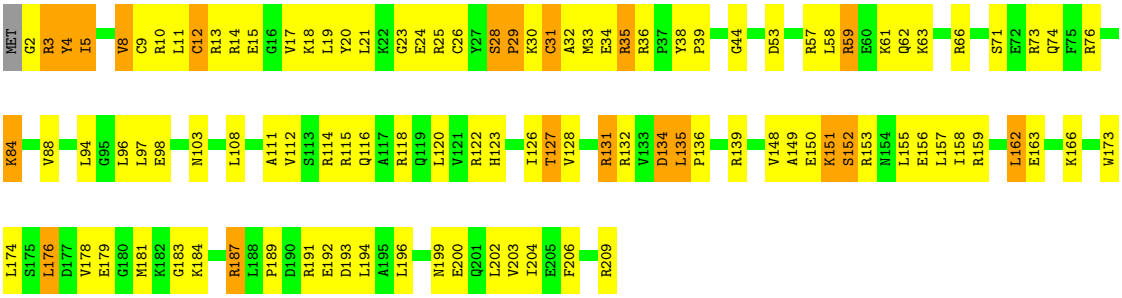
• Molecule 4: 30S ribosomal protein S4

Chain 3E:



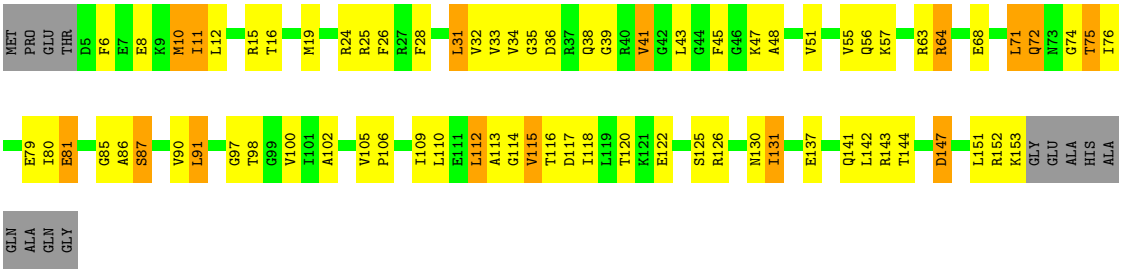
• Molecule 4: 30S ribosomal protein S4

Chain 32:



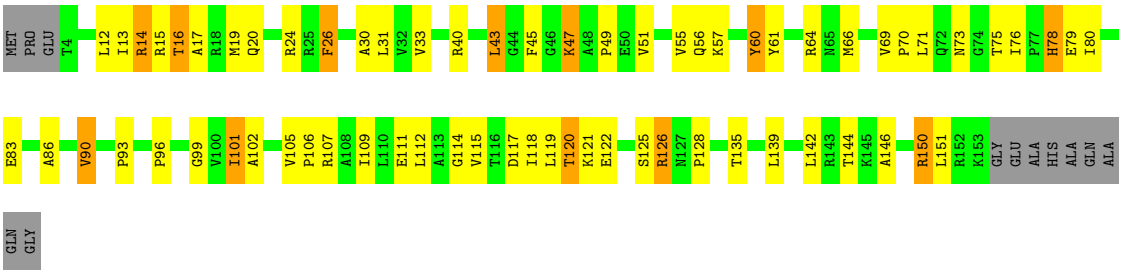
• Molecule 5: 30S ribosomal protein S5

Chain 4E:



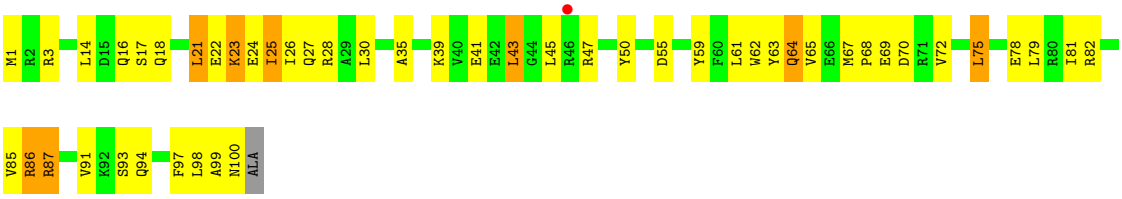
• Molecule 5: 30S ribosomal protein S5

Chain 42:



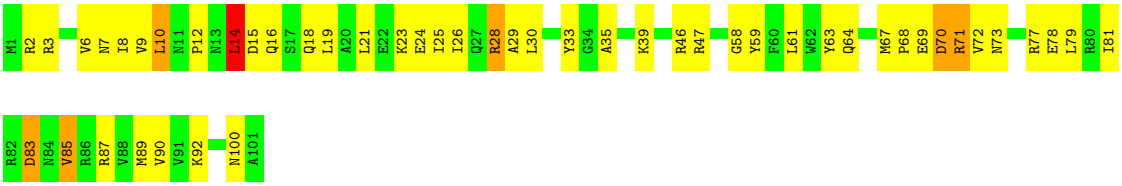
• Molecule 6: 30S ribosomal protein S6

Chain 5E:



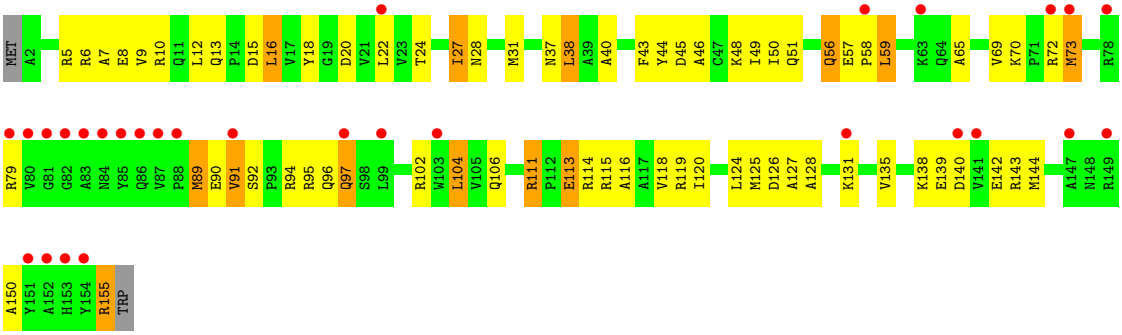
• Molecule 6: 30S ribosomal protein S6

Chain 52:



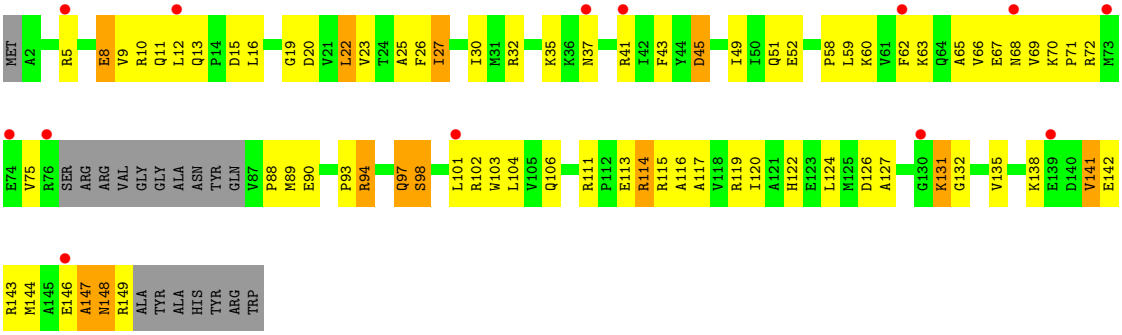
• Molecule 7: 30S ribosomal protein S7

Chain 6E:



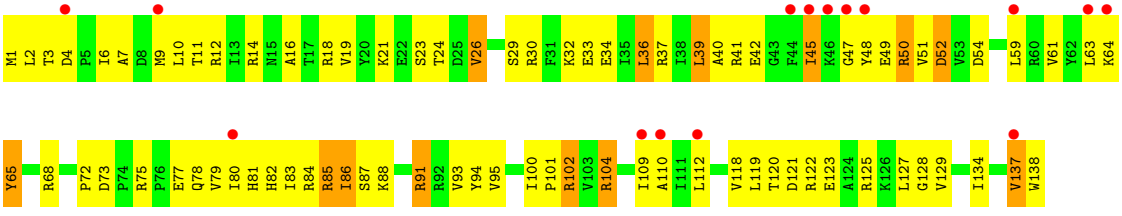
• Molecule 7: 30S ribosomal protein S7

Chain 62:



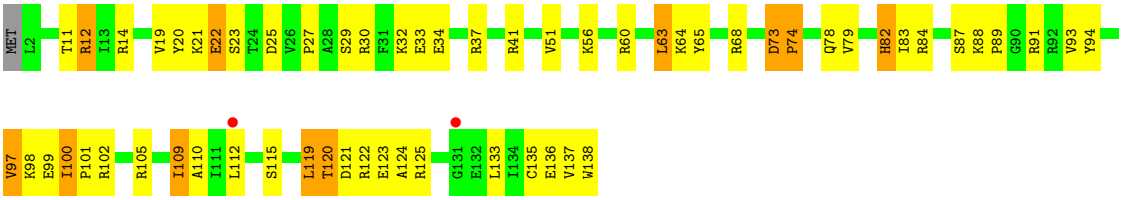
• Molecule 8: 30S ribosomal protein S8

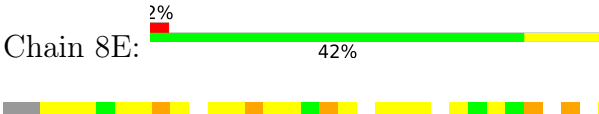
Chain 7E:



• Molecule 8: 30S ribosomal protein S8

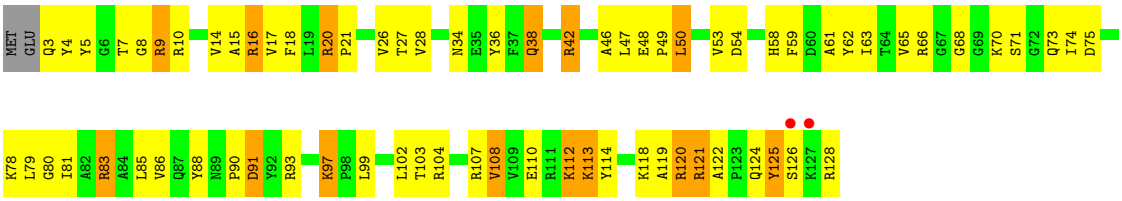
Chain 72:





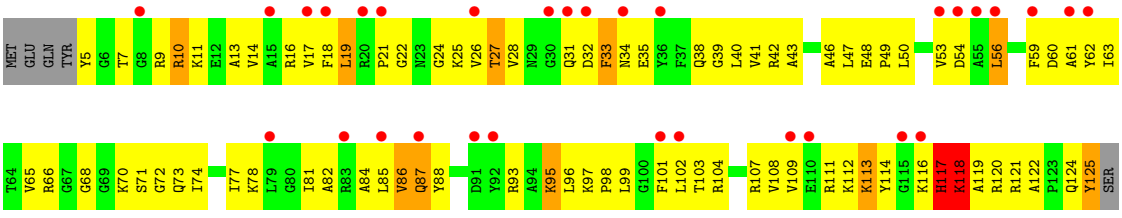
• Molecule 9: 30S ribosomal protein S9

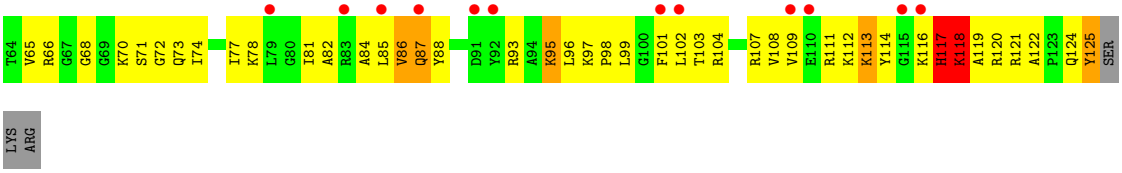
Chain 8E:



• Molecule 9: 30S ribosomal protein S9

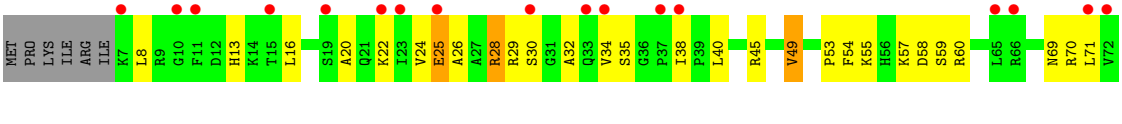
Chain 82:

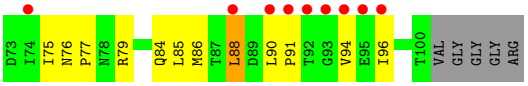




• Molecule 10: 30S ribosomal protein S10

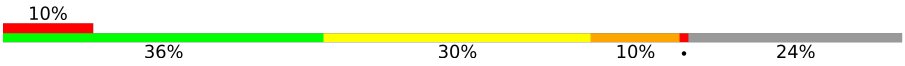
Chain 1I:

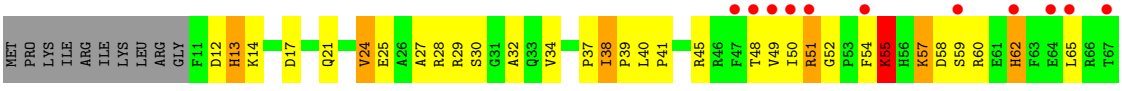




• Molecule 10: 30S ribosomal protein S10

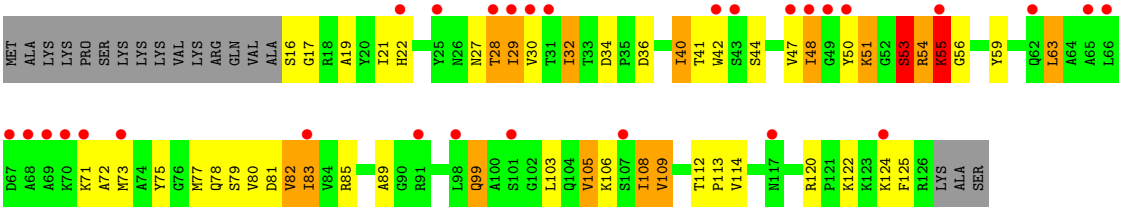
Chain 1A:





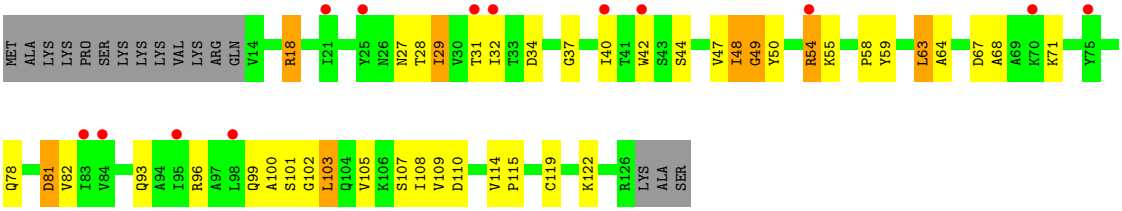
• Molecule 11: 30S ribosomal protein S11

Chain 2I:



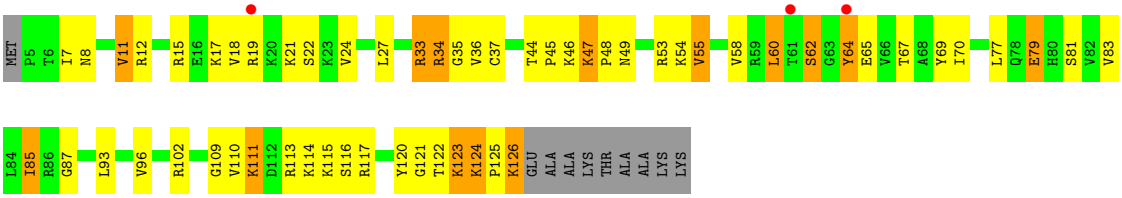
• Molecule 11: 30S ribosomal protein S11

Chain 2A:



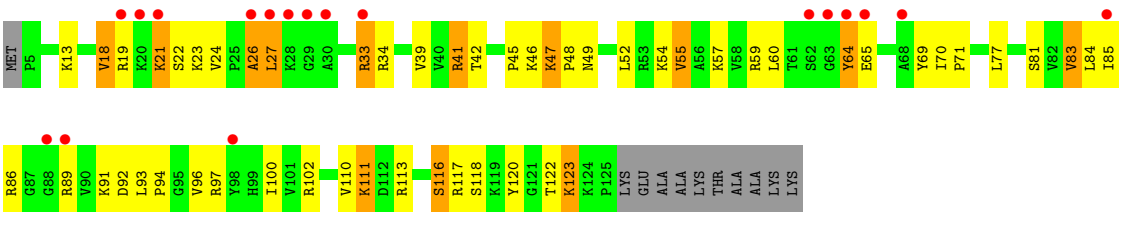
• Molecule 12: 30S ribosomal protein S12

Chain 3I:



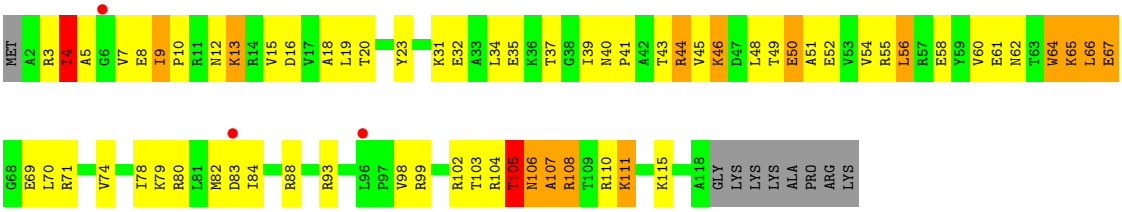
• Molecule 12: 30S ribosomal protein S12

Chain 3A:



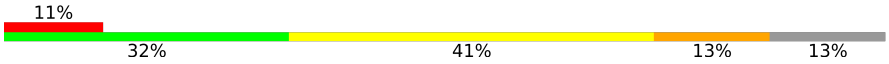
• Molecule 13: 30S ribosomal protein S13

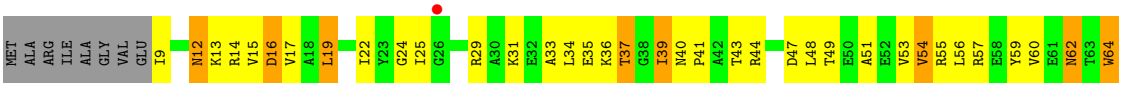
Chain 4I:

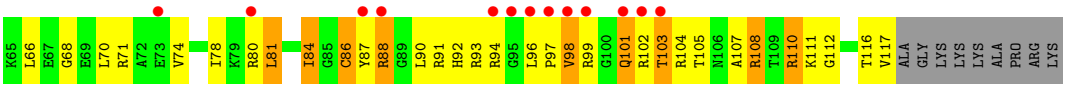


• Molecule 13: 30S ribosomal protein S13

Chain 4A:

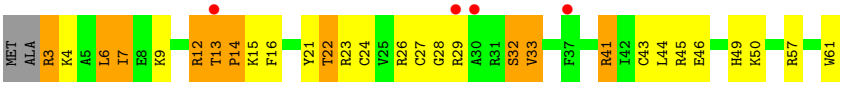






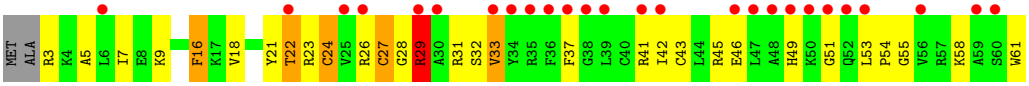
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:



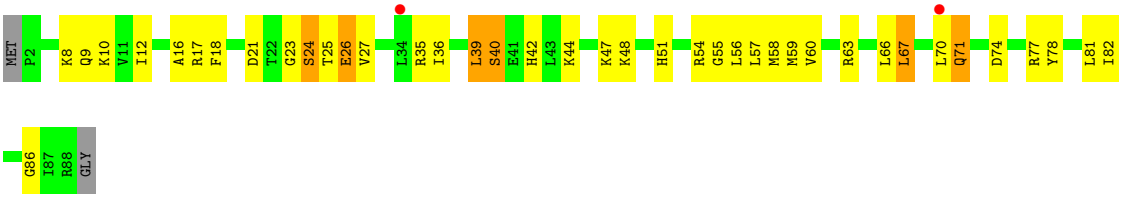
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:



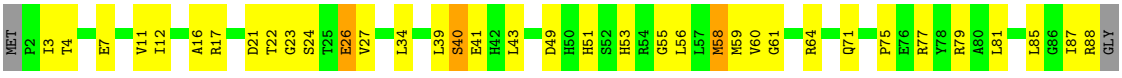
• Molecule 15: 30S ribosomal protein S15

Chain 6I:



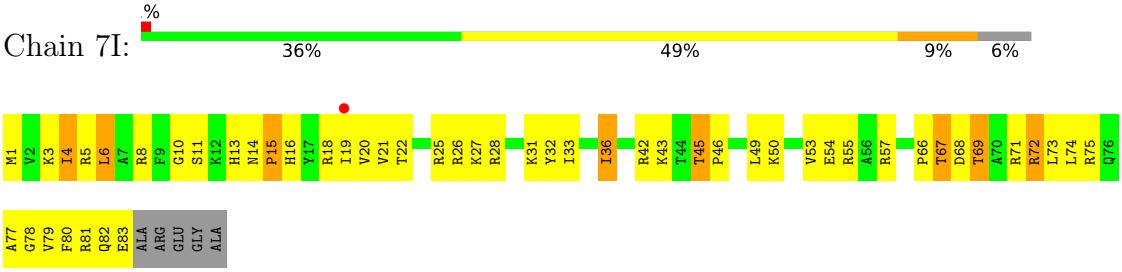
• Molecule 15: 30S ribosomal protein S15

Chain 6A:



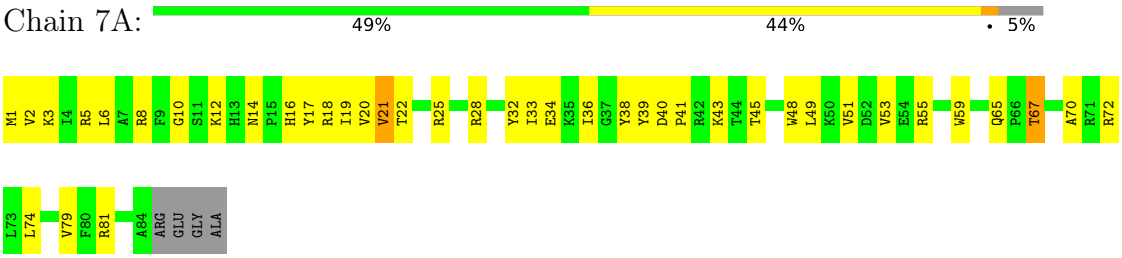
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



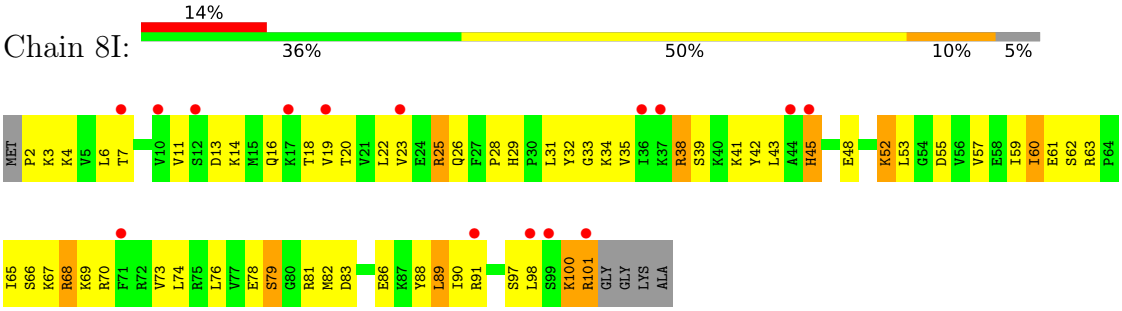
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



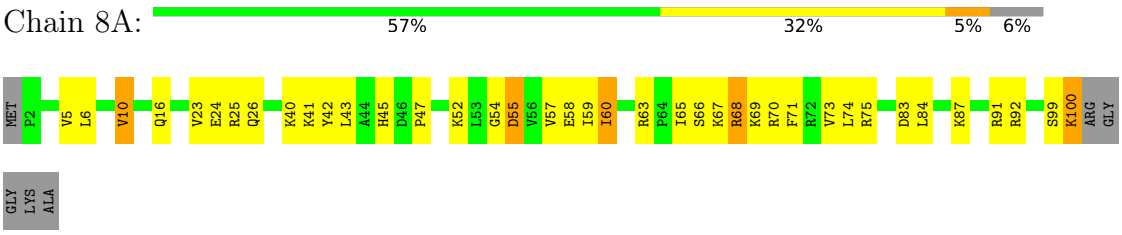
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



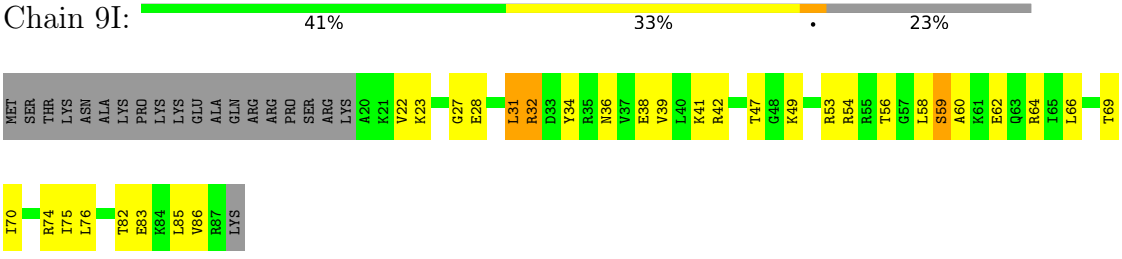
• Molecule 17: 30S ribosomal protein S17

Chain 8A:



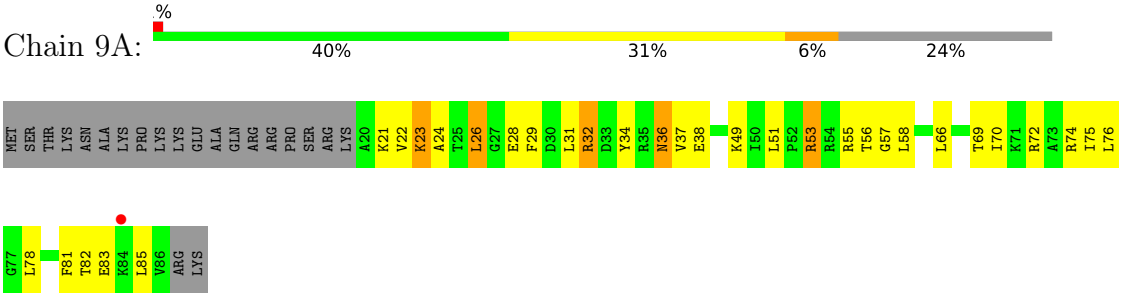
• Molecule 18: 30S ribosomal protein S18

Chain 9I:



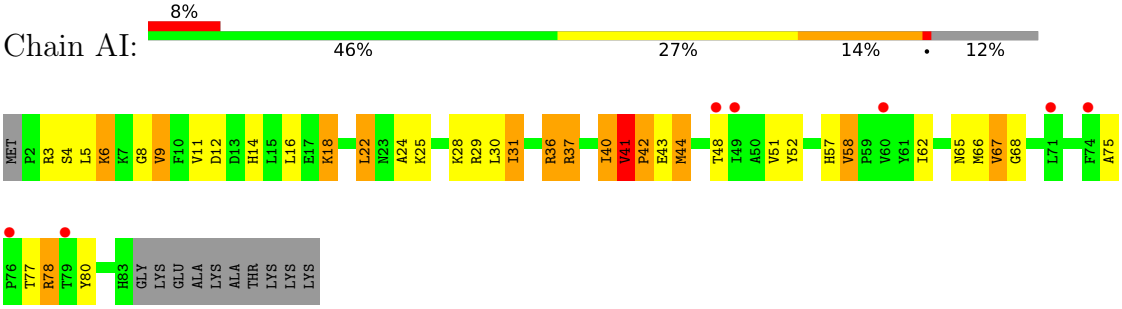
• Molecule 18: 30S ribosomal protein S18

Chain 9A:



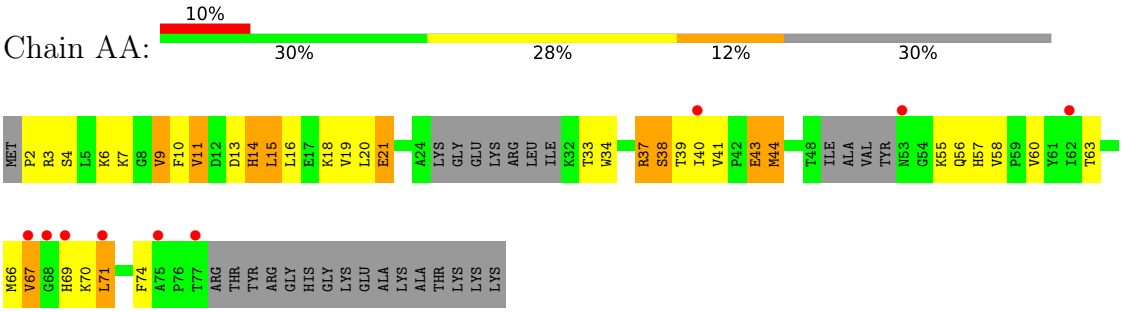
• Molecule 19: 30S ribosomal protein S19

Chain AI:



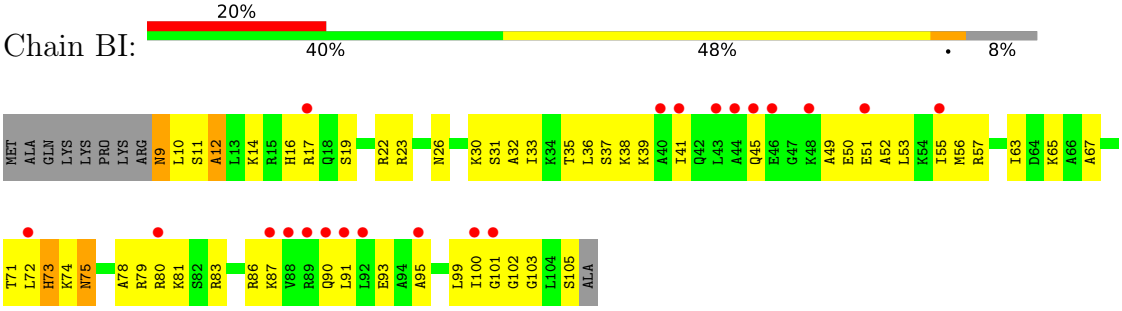
• Molecule 19: 30S ribosomal protein S19

Chain AA:



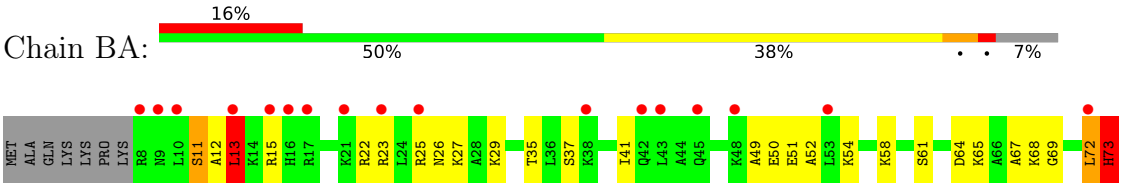
• Molecule 20: 30S ribosomal protein S20

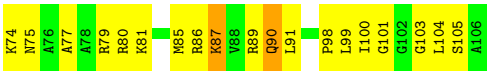
Chain BI:



• Molecule 20: 30S ribosomal protein S20

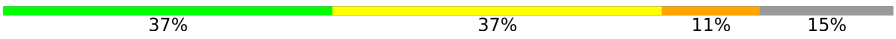
Chain BA:





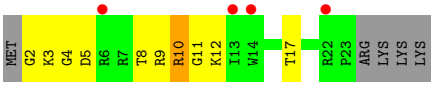
• Molecule 21: 30S ribosomal protein Thx

Chain 1F:



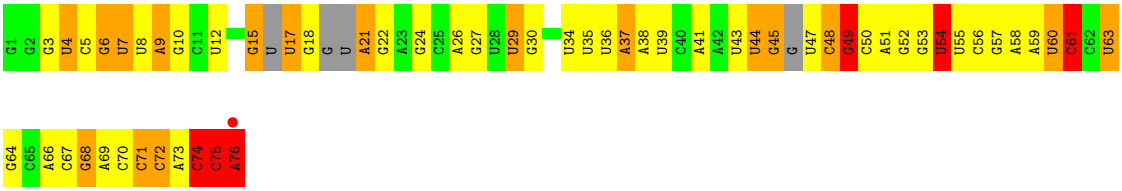
• Molecule 21: 30S ribosomal protein Thx

Chain 1B:



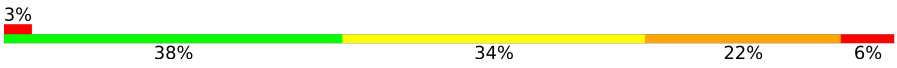
• Molecule 22: tRNALys

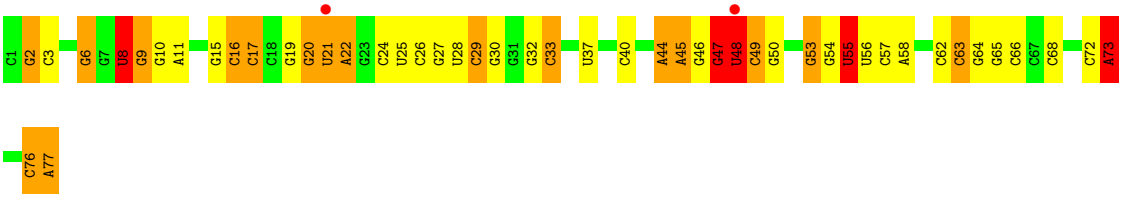
Chain 1K:



• Molecule 23: tRNAfMet

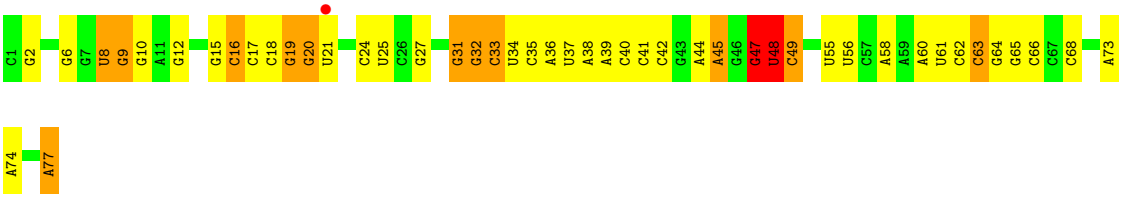
Chain 2K:





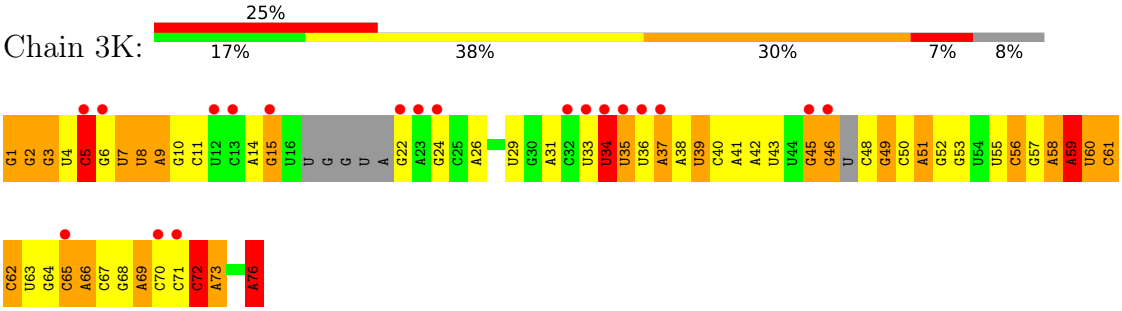
• Molecule 23: tRNAfMet

Chain 2L:



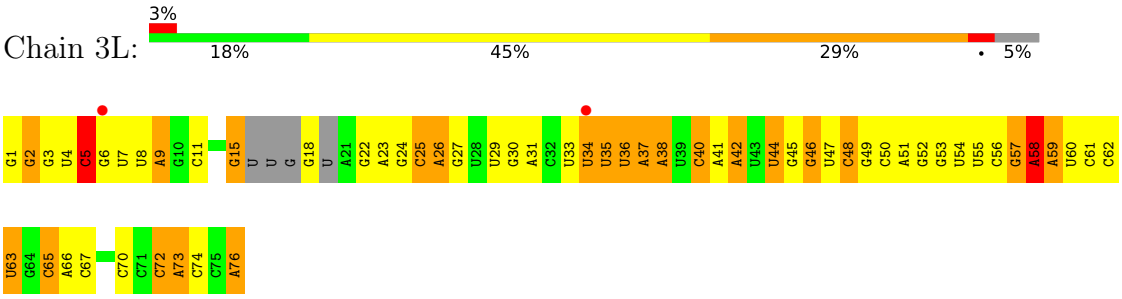
• Molecule 24: tRNALys

Chain 3K:



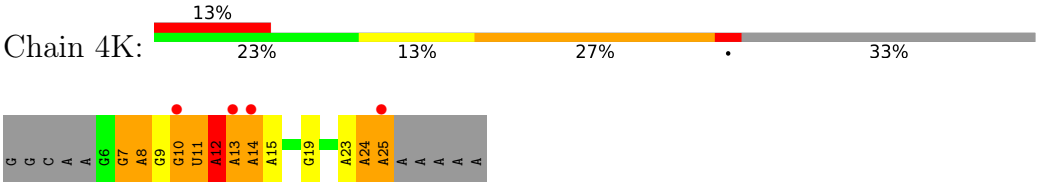
• Molecule 24: tRNALys

Chain 3L:



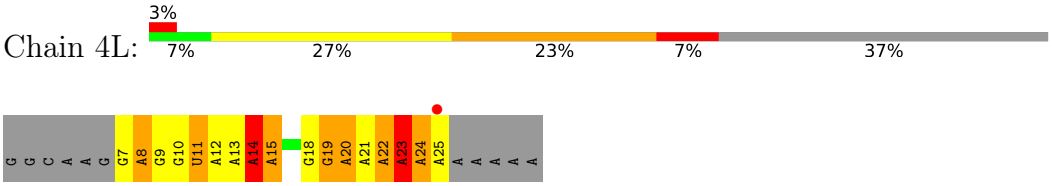
• Molecule 25: mRNA

Chain 4K:



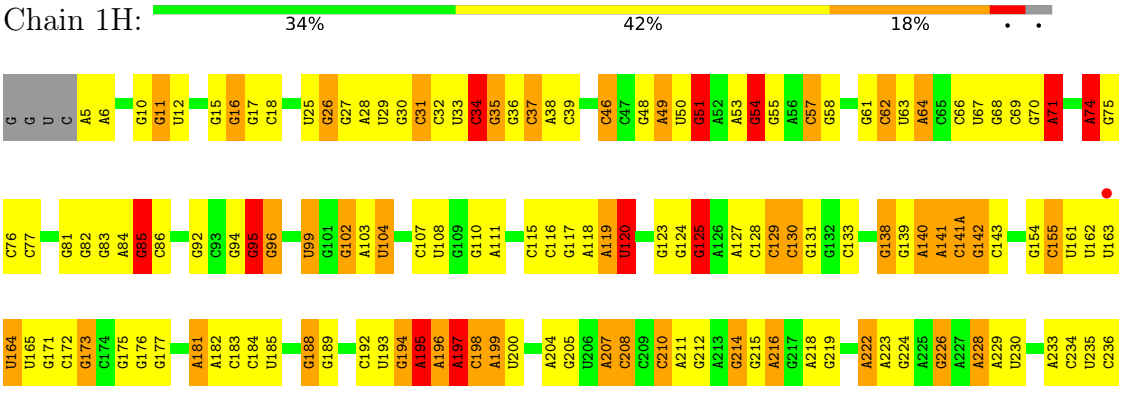
• Molecule 25: mRNA

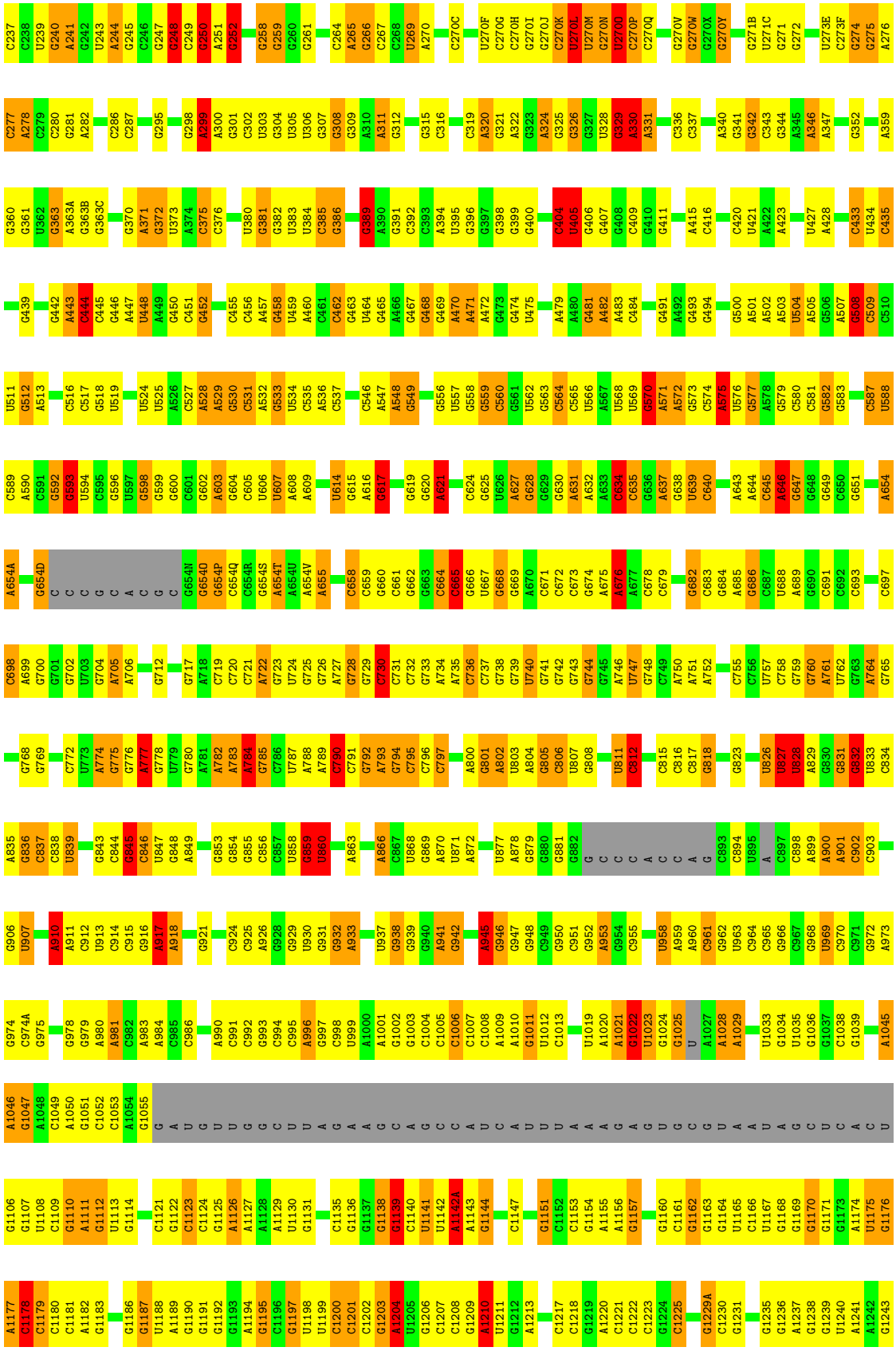
Chain 4L:

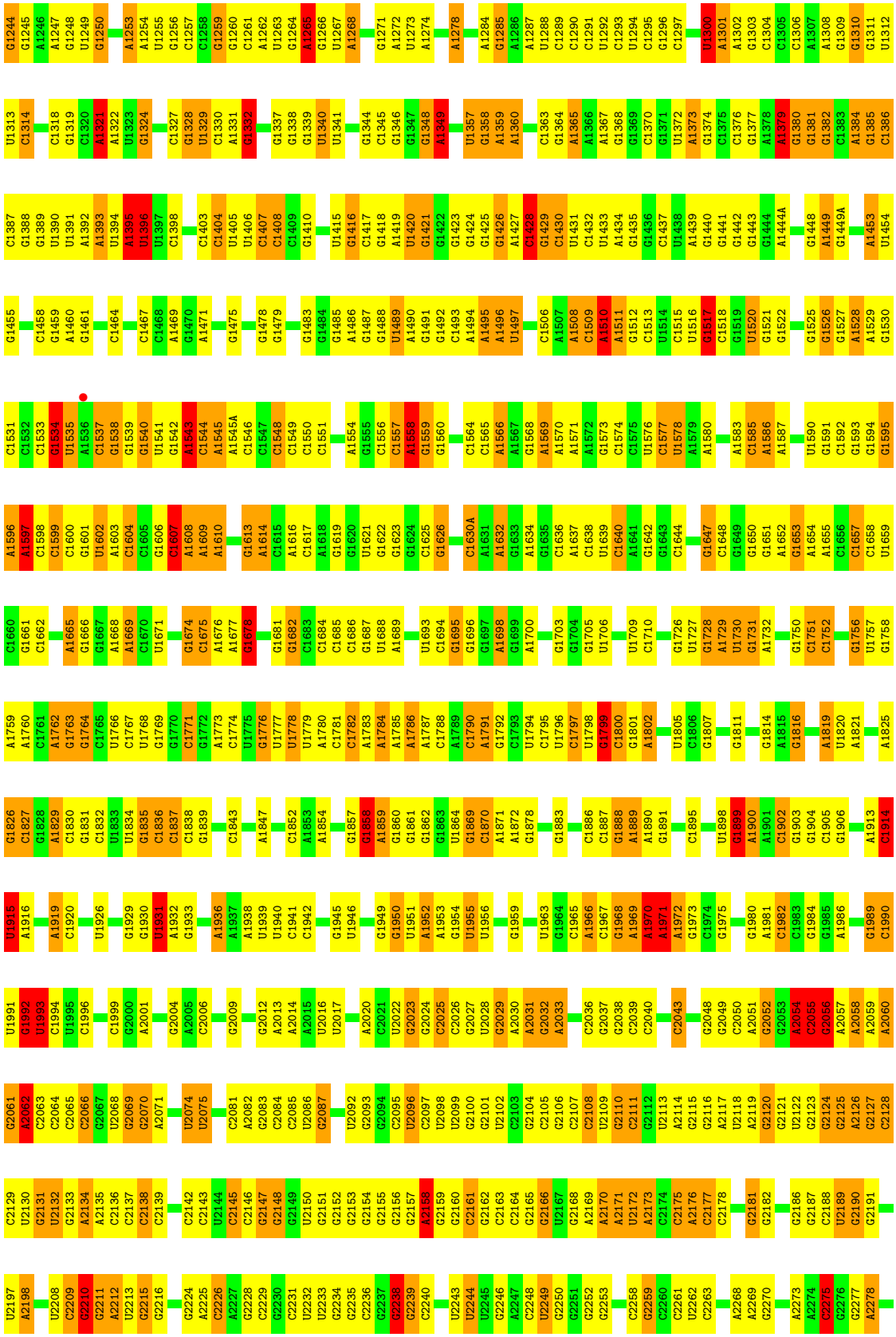


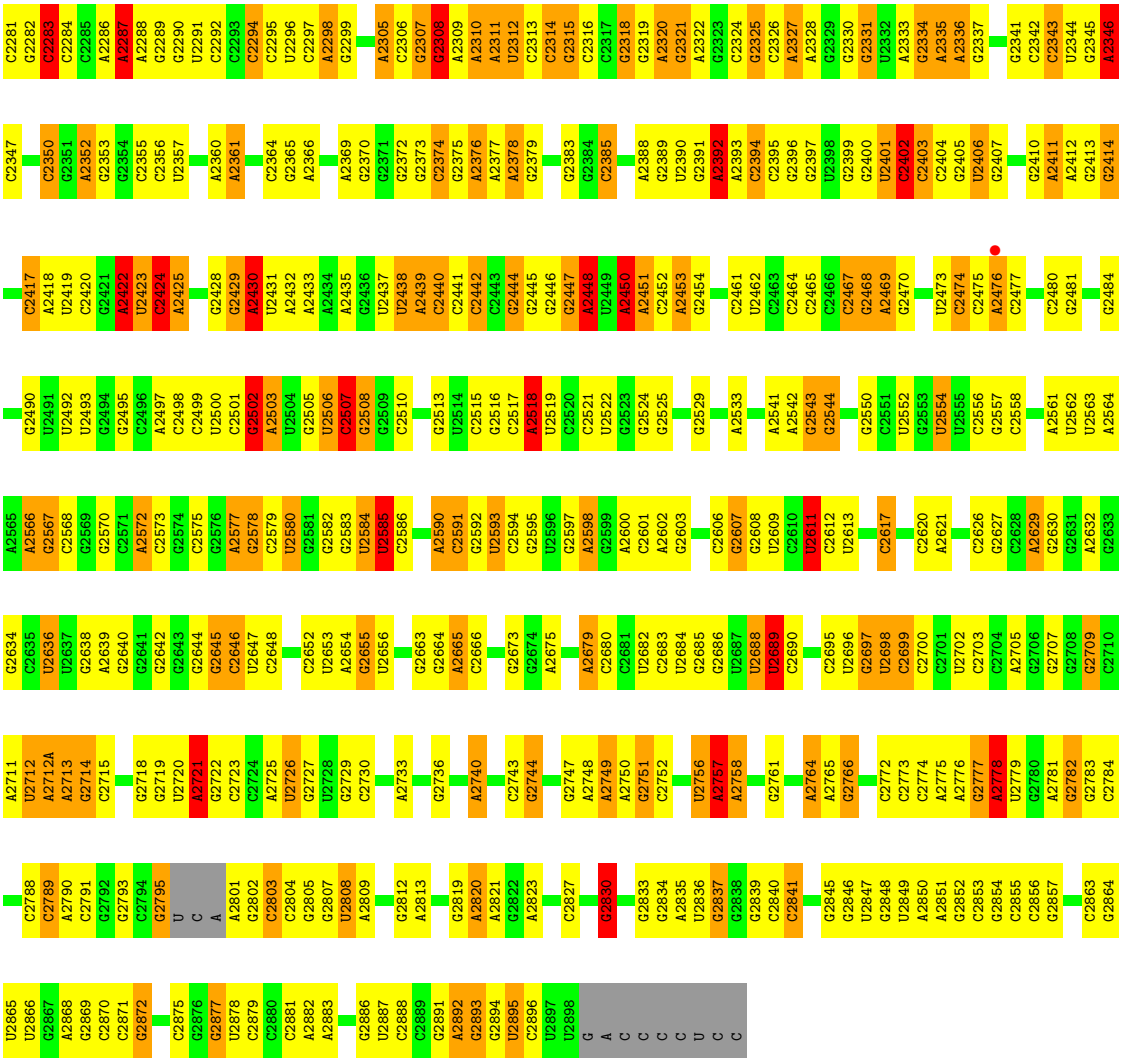
• Molecule 26: 23S ribosomal RNA

Chain 1H:



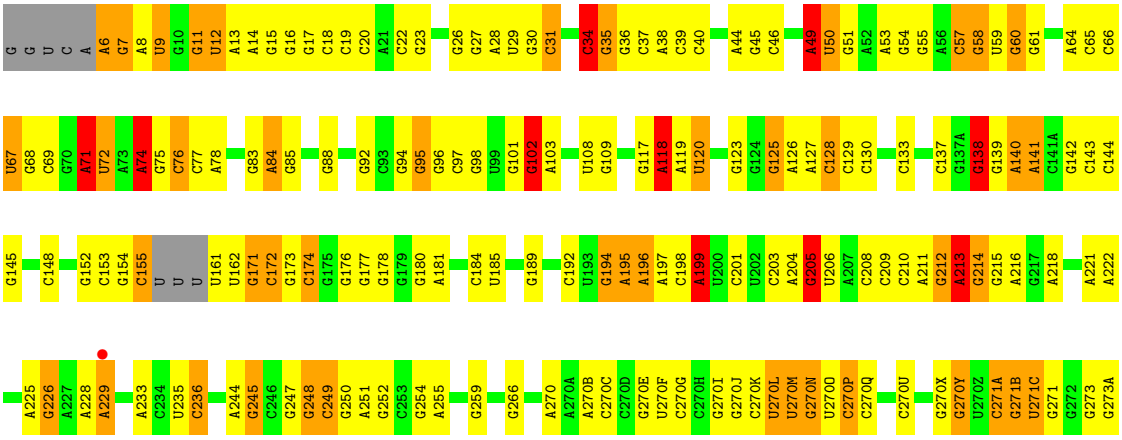


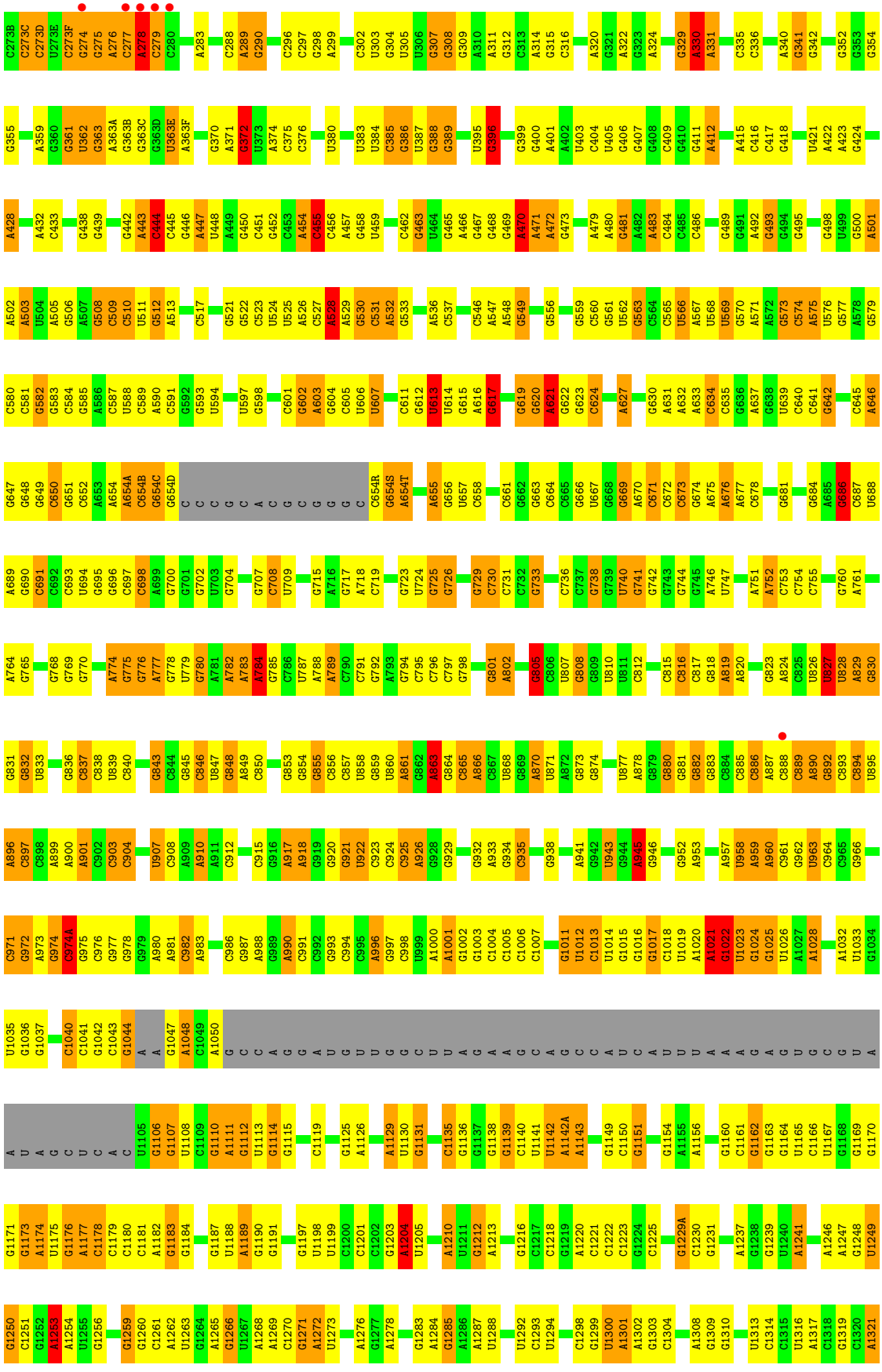


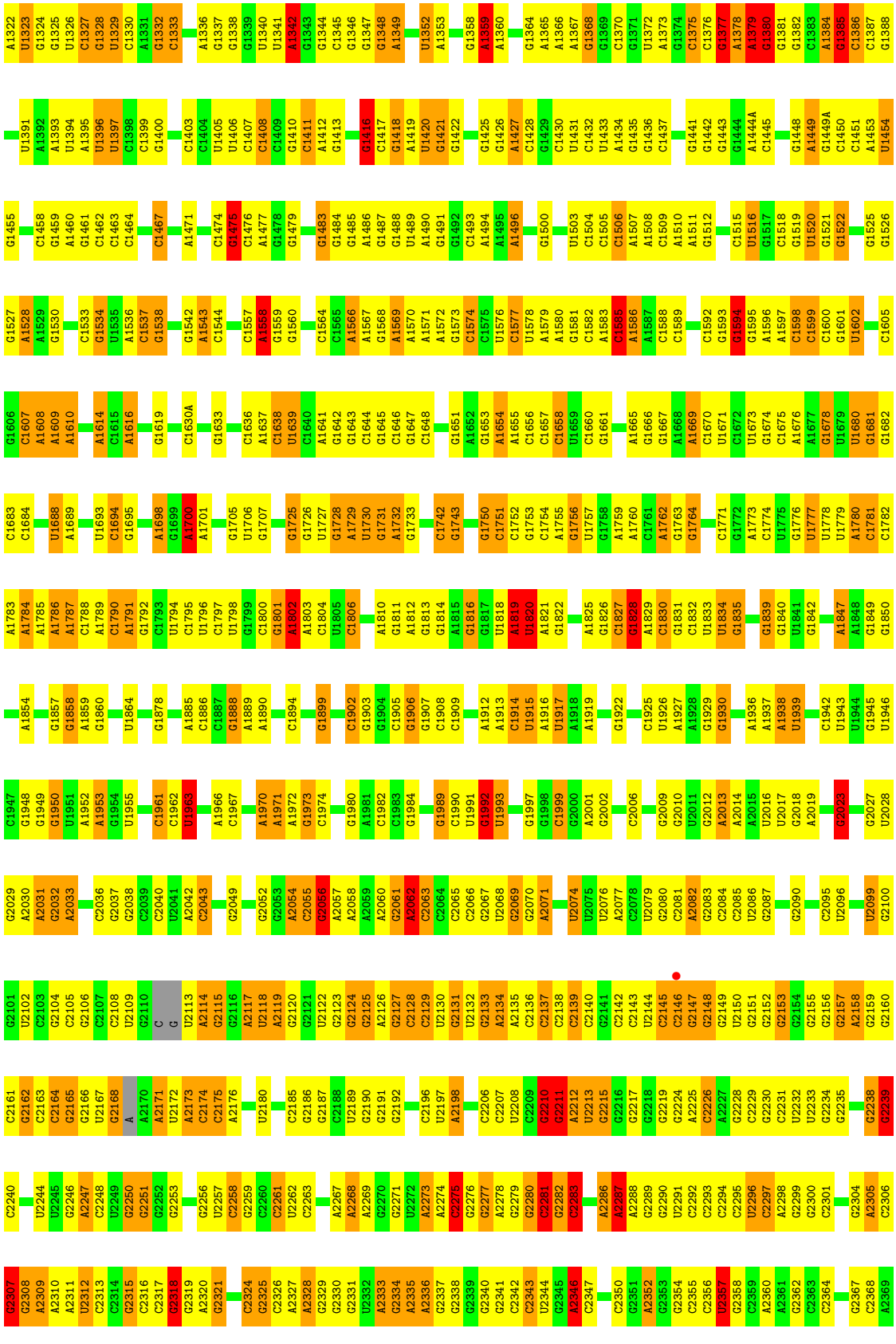


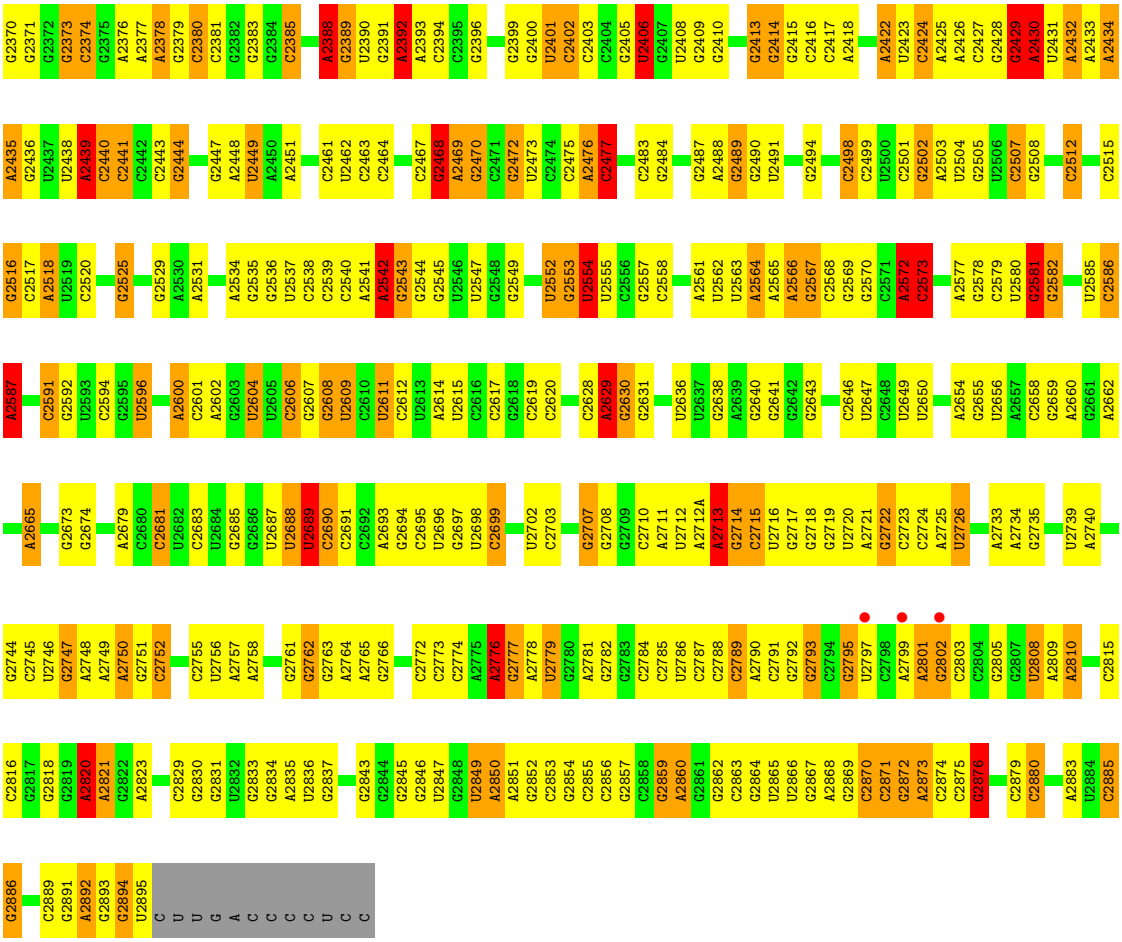
• Molecule 26: 23S ribosomal RNA

Chain 14:



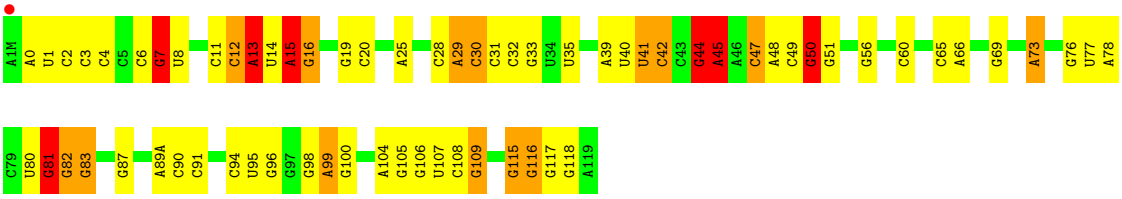






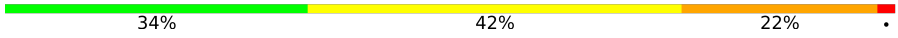
• Molecule 27: 5S ribosomal RNA

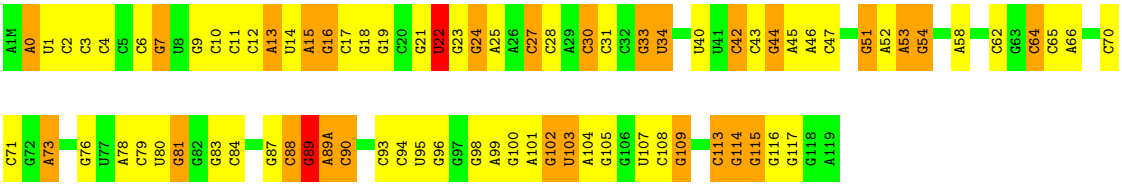
Chain 16:



• Molecule 27: 5S ribosomal RNA

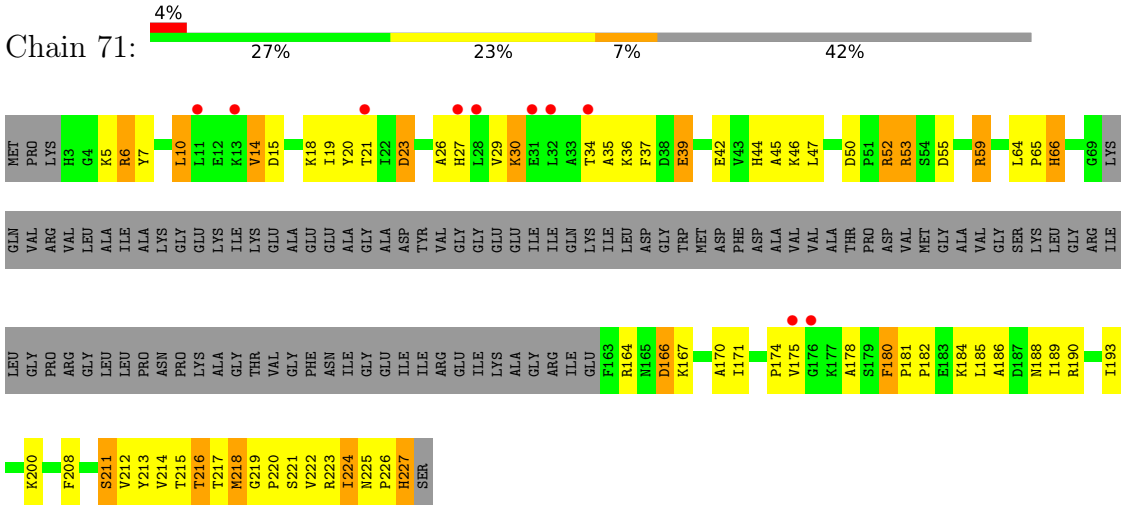
Chain 1J:





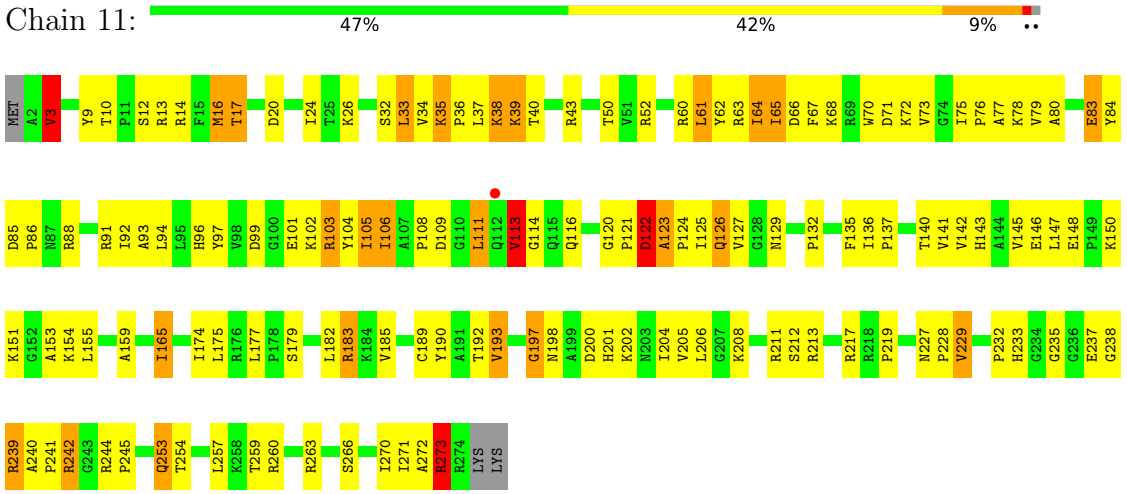
• Molecule 28: 50S ribosomal protein L1

Chain 71:



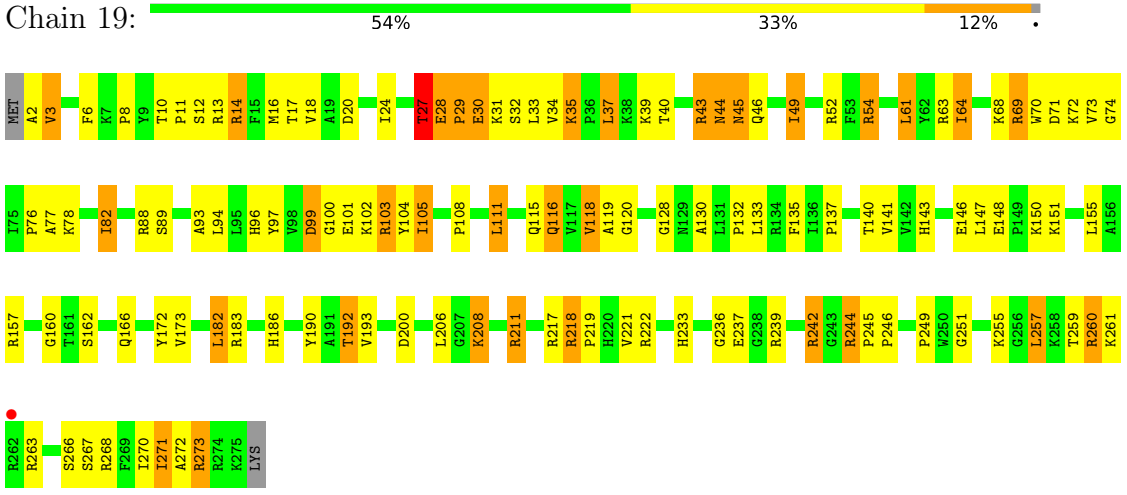
• Molecule 29: 50S ribosomal protein L2

Chain 11:



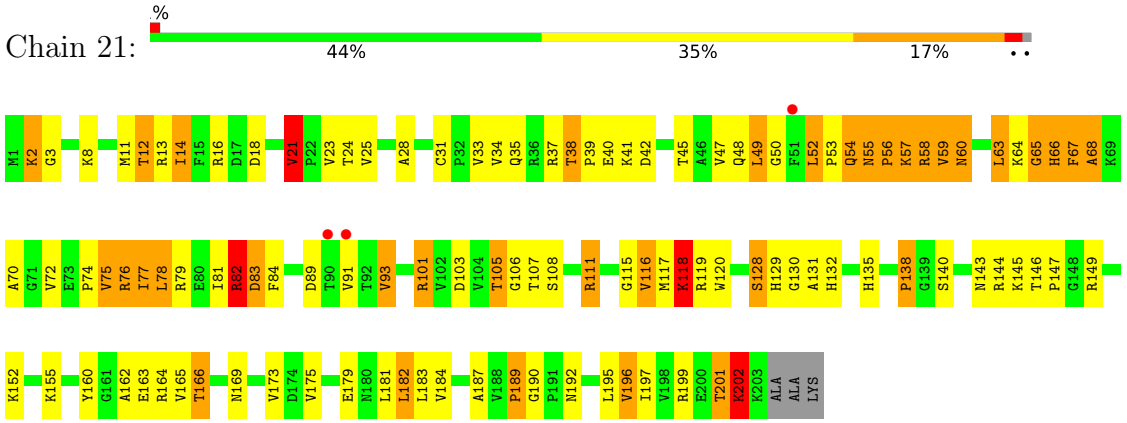
• Molecule 29: 50S ribosomal protein L2

Chain 19:



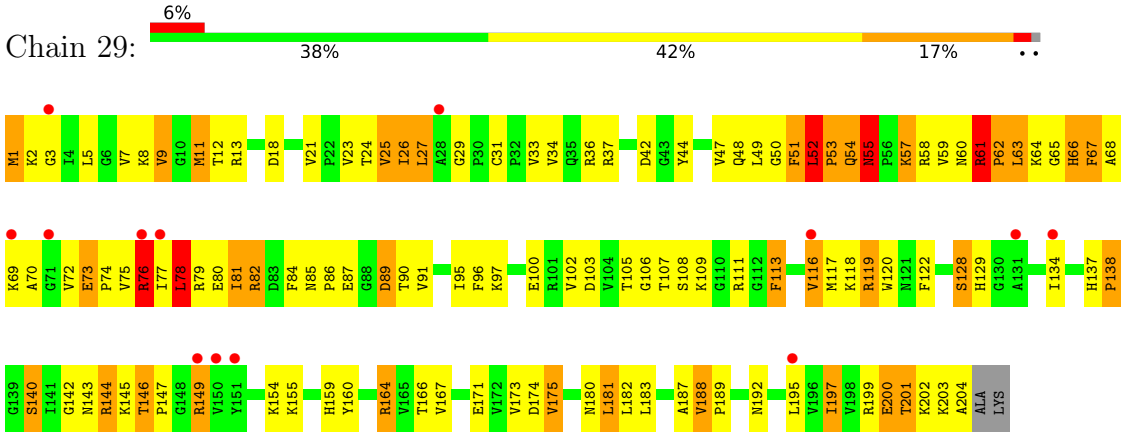
• Molecule 30: 50S ribosomal protein L3

Chain 21:



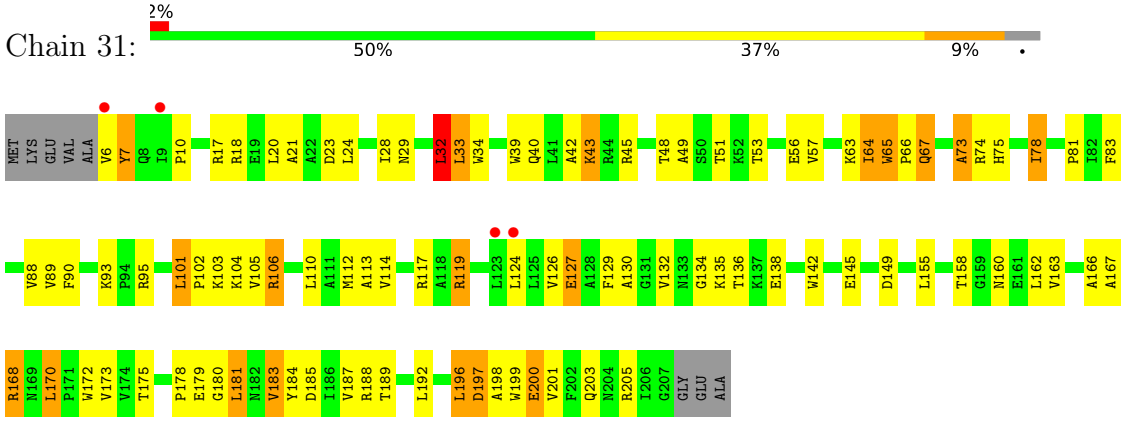
• Molecule 30: 50S ribosomal protein L3

Chain 29:



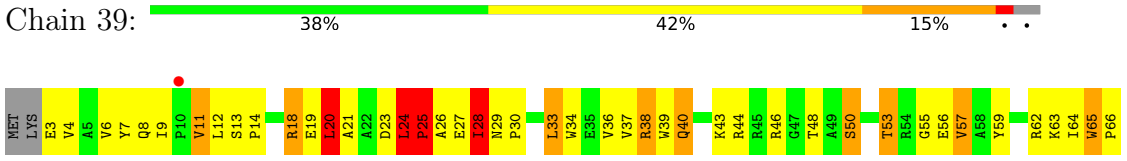
• Molecule 31: 50S ribosomal protein L4

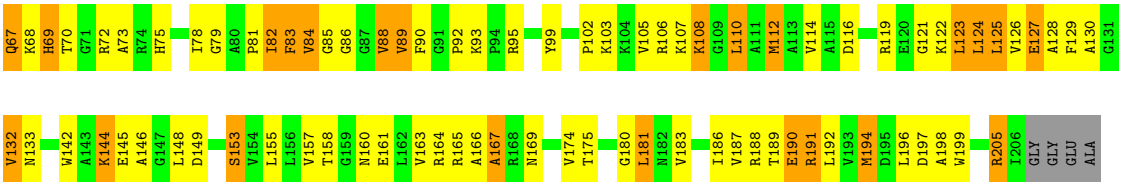
Chain 31:



• Molecule 31: 50S ribosomal protein L4

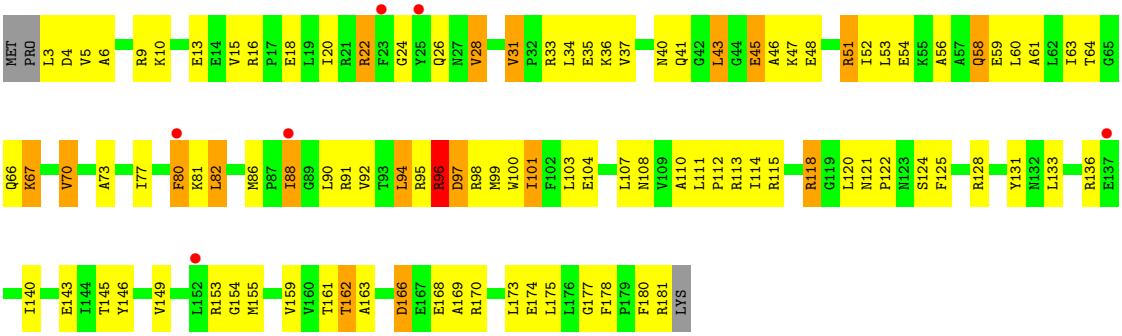
Chain 39:





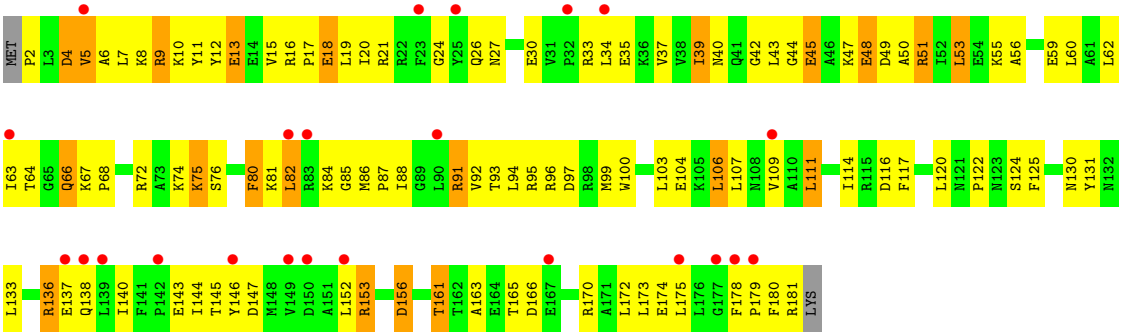
• Molecule 32: 50S ribosomal protein L5

Chain 41:



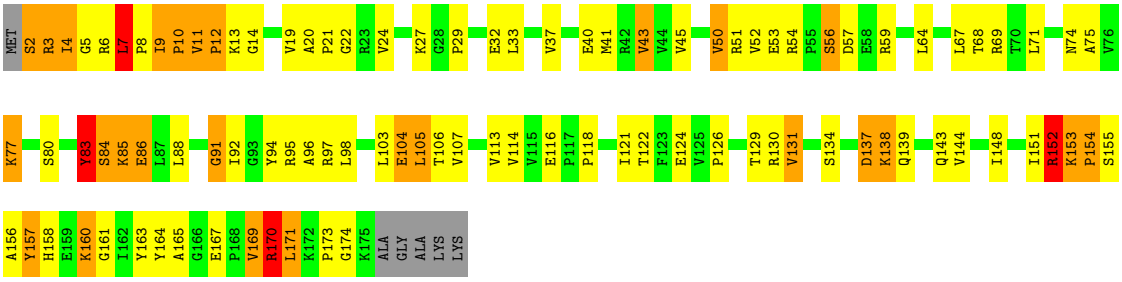
• Molecule 32: 50S ribosomal protein L5

Chain 49:



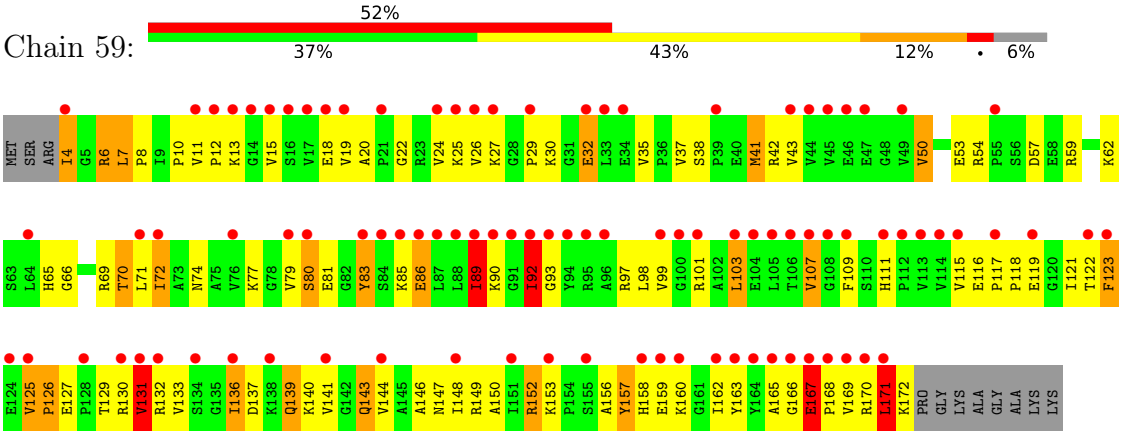
• Molecule 33: 50S ribosomal protein L6

Chain 51:



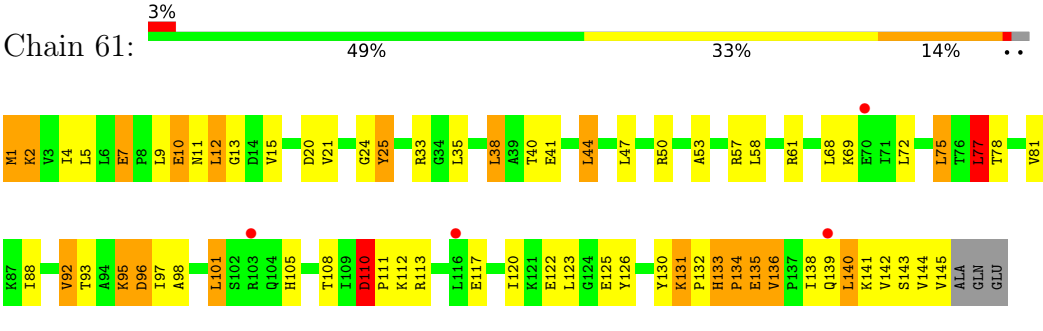
• Molecule 33: 50S ribosomal protein L6

Chain 59:



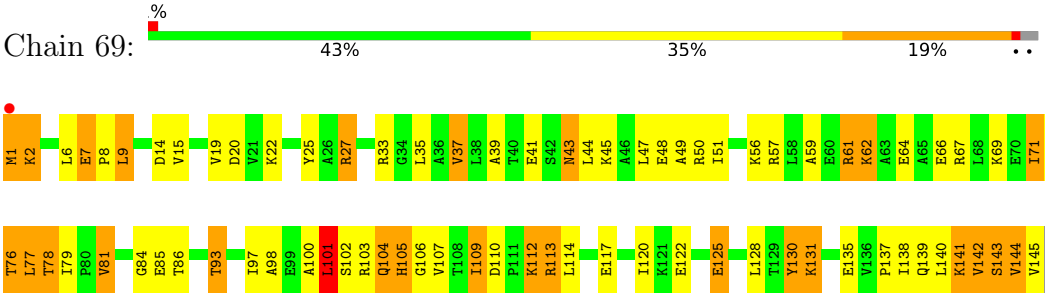
• Molecule 34: 50S ribosomal protein L9

Chain 61:



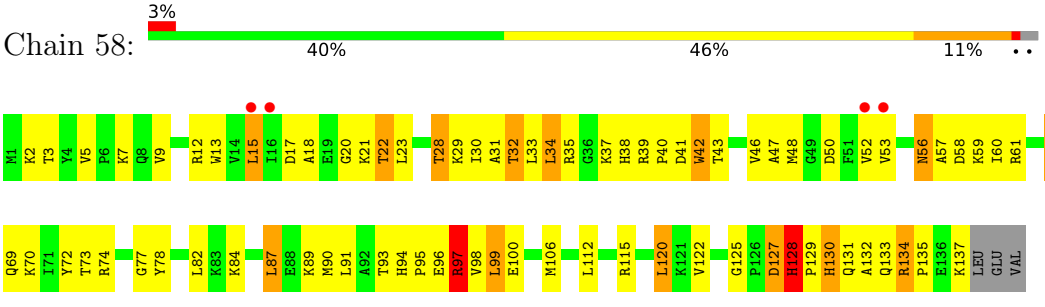
• Molecule 34: 50S ribosomal protein L9

Chain 69:



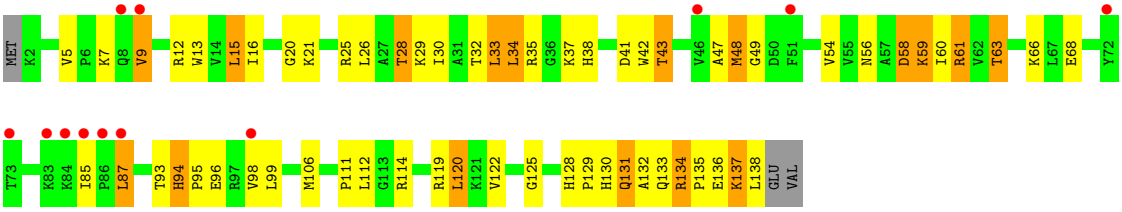
• Molecule 35: 50S ribosomal protein L13

Chain 58:

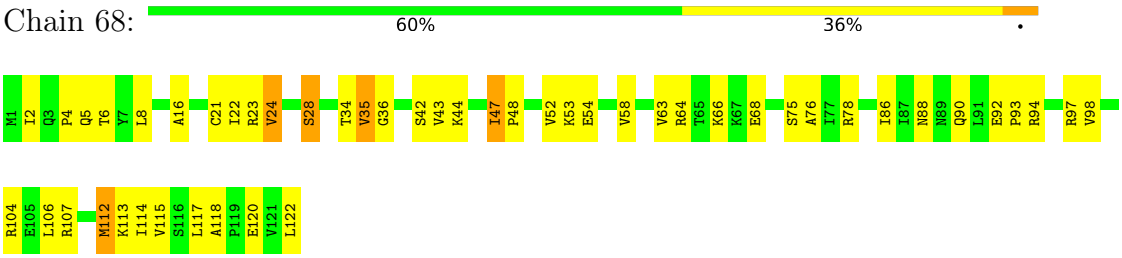


• Molecule 35: 50S ribosomal protein L13

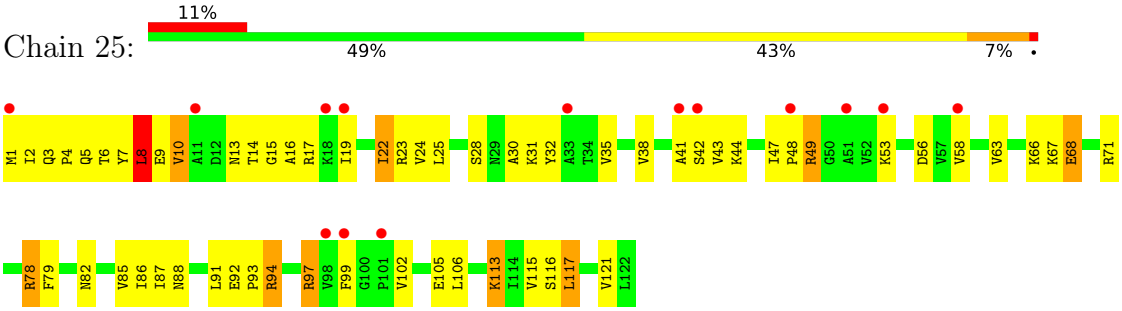
Chain 15:



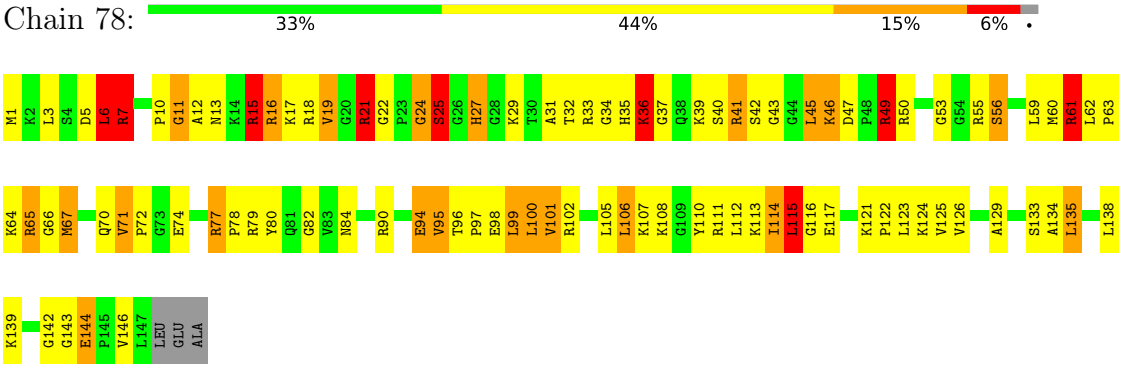
• Molecule 36: 50S ribosomal protein L14



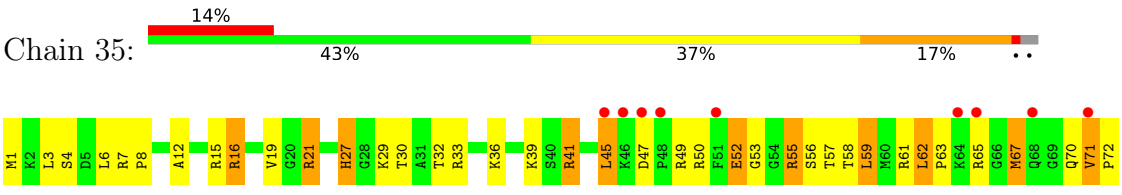
• Molecule 36: 50S ribosomal protein L14

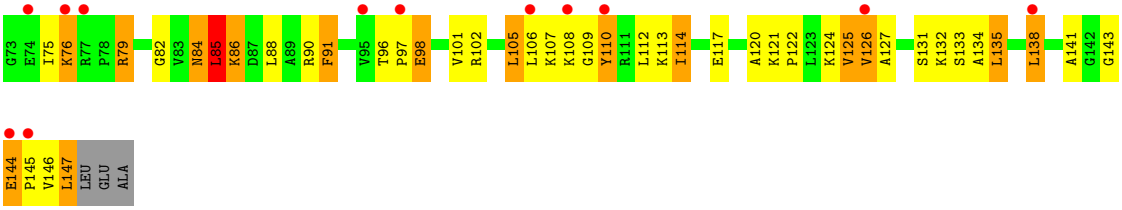


• Molecule 37: 50S ribosomal protein L15



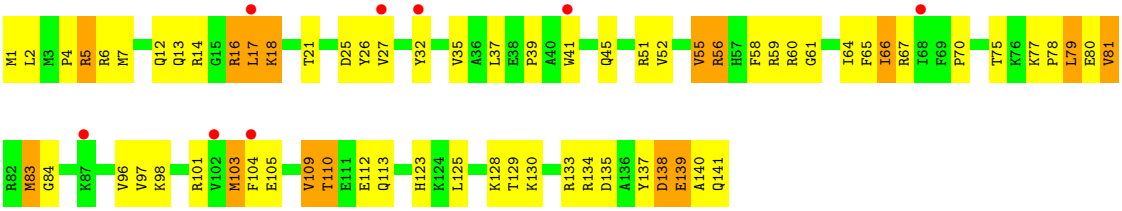
• Molecule 37: 50S ribosomal protein L15





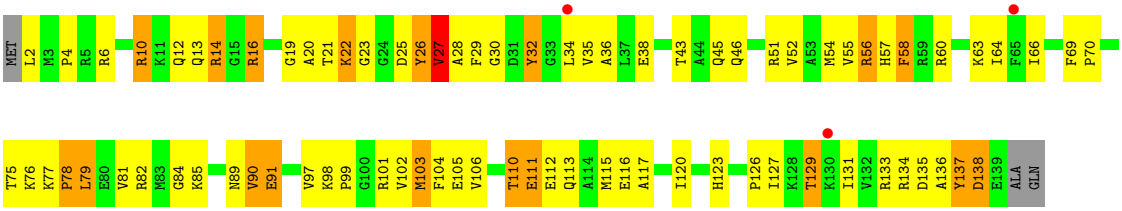
• Molecule 38: 50S ribosomal protein L16

Chain 88:



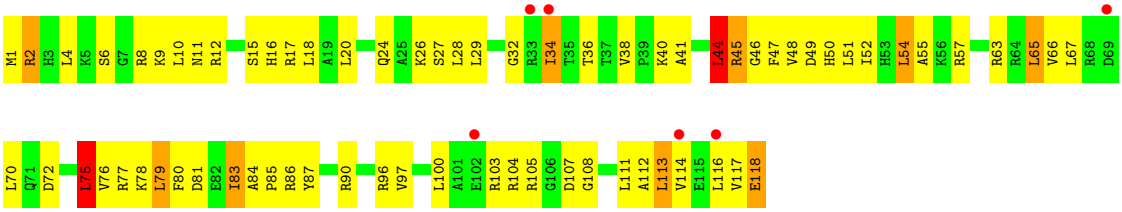
• Molecule 38: 50S ribosomal protein L16

Chain 45:



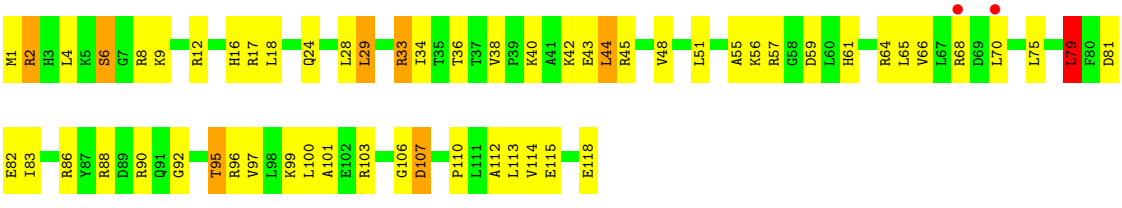
• Molecule 39: 50S ribosomal protein L17

Chain 98:



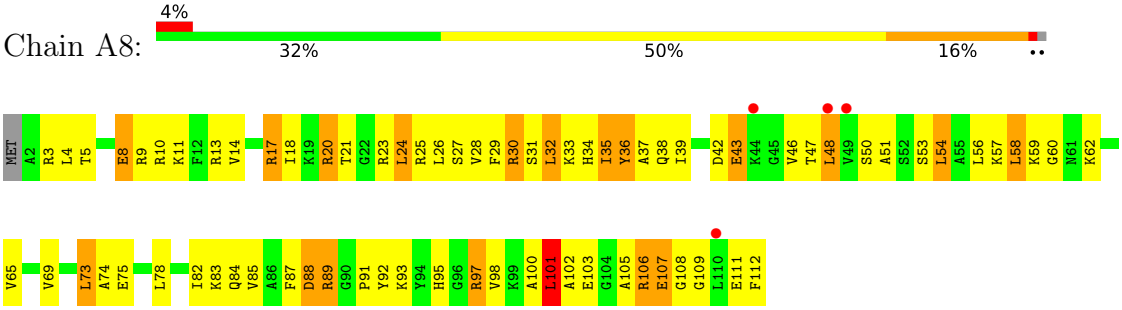
• Molecule 39: 50S ribosomal protein L17

Chain 55:



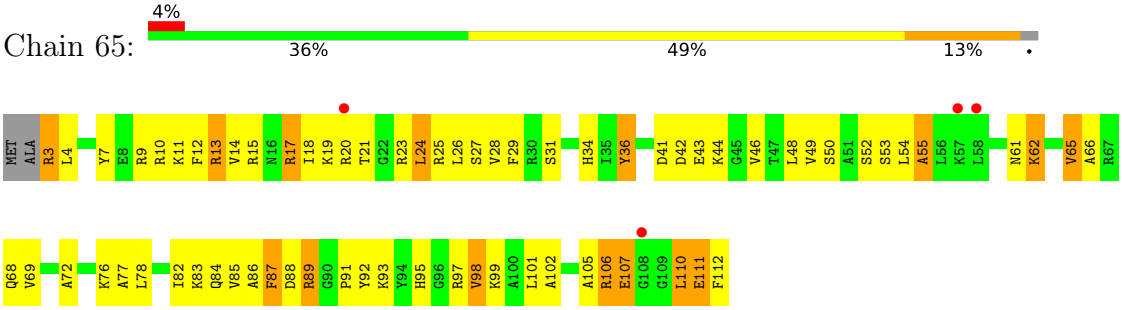
• Molecule 40: 50S ribosomal protein L18

Chain A8:



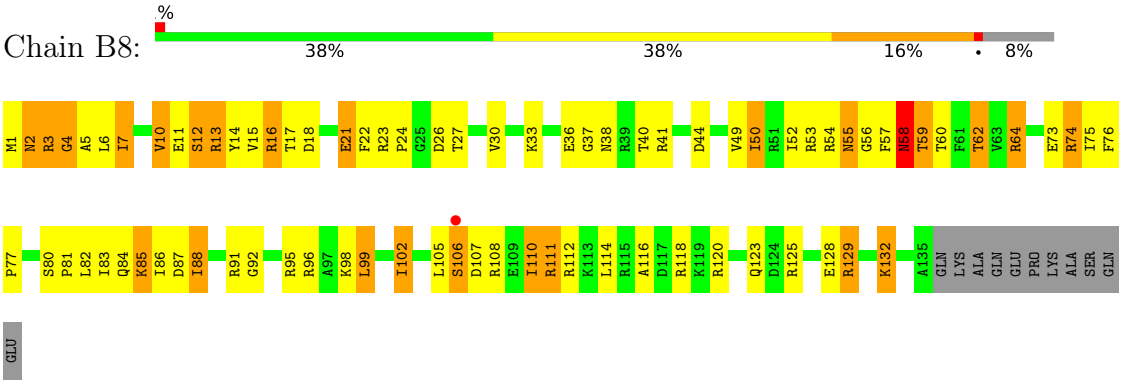
• Molecule 40: 50S ribosomal protein L18

Chain 65:



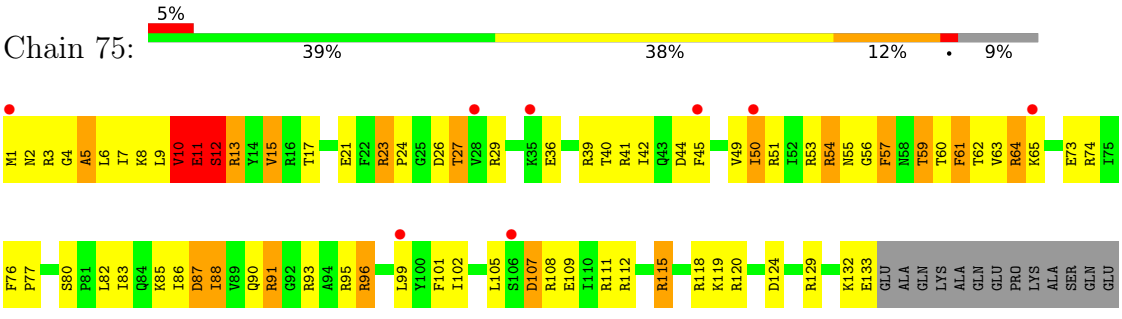
• Molecule 41: 50S ribosomal protein L19

Chain B8:



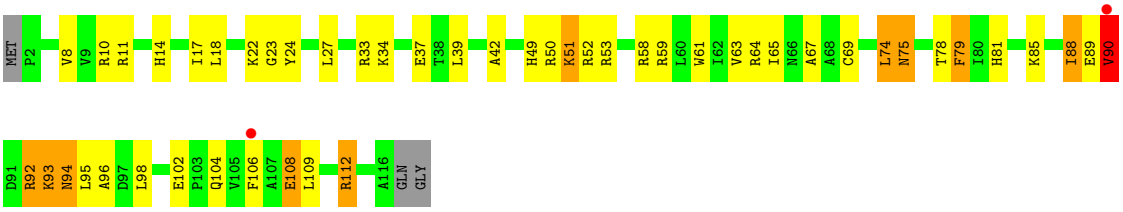
• Molecule 41: 50S ribosomal protein L19

Chain 75:



• Molecule 42: 50S ribosomal protein L20

Chain C8:

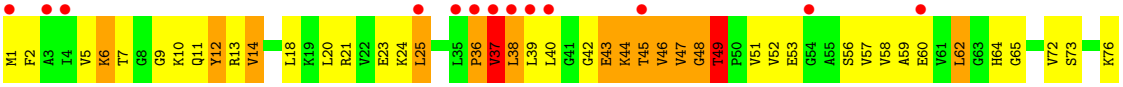


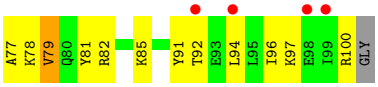
• Molecule 42: 50S ribosomal protein L20

Chain 85:

• Molecule 43: 50S ribosomal protein L21

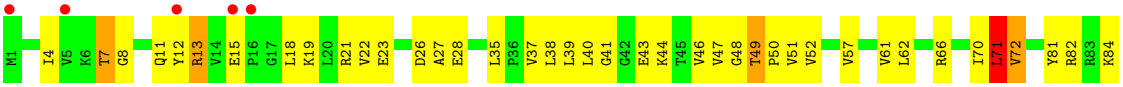
Chain D8:

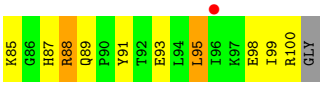




• Molecule 43: 50S ribosomal protein L21

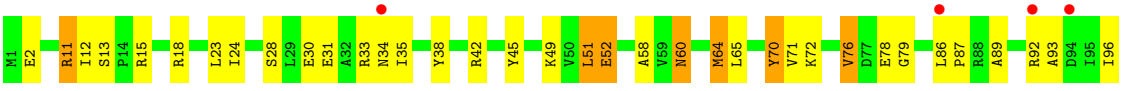
Chain 95:





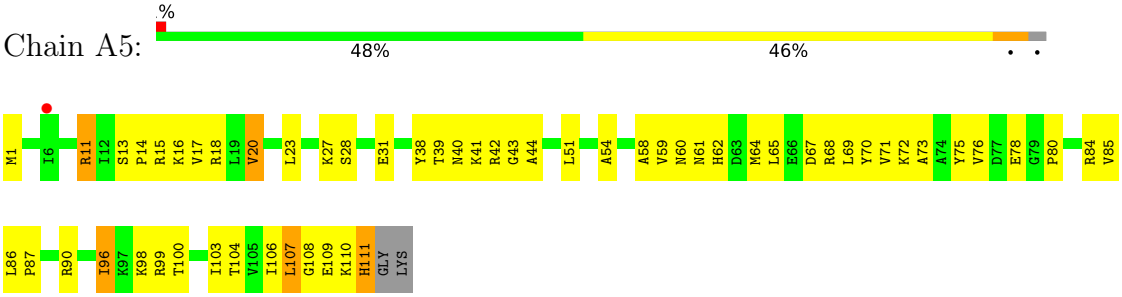
• Molecule 44: 50S ribosomal protein L22

Chain E8:



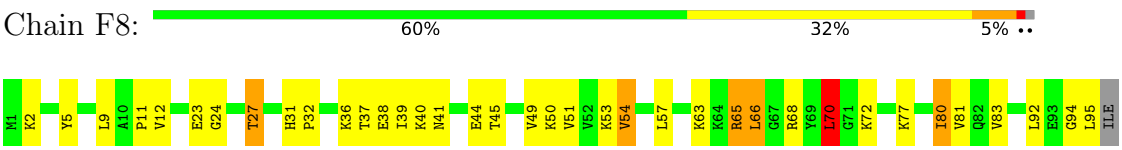
• Molecule 44: 50S ribosomal protein L22

Chain A5:



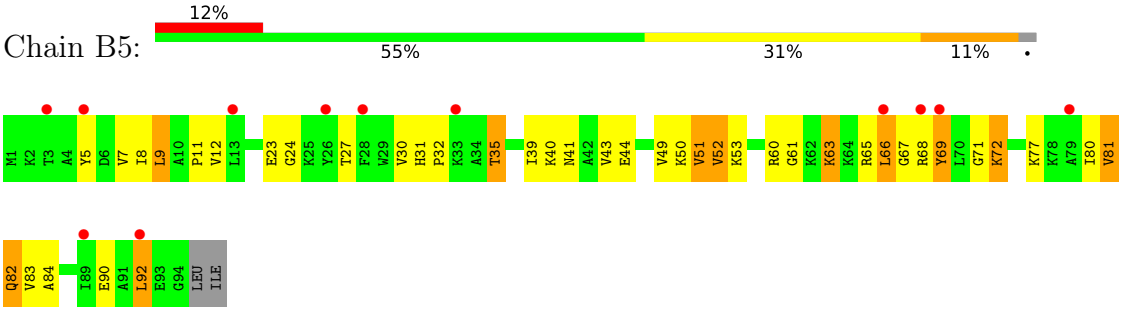
• Molecule 45: 50S ribosomal protein L23

Chain F8:



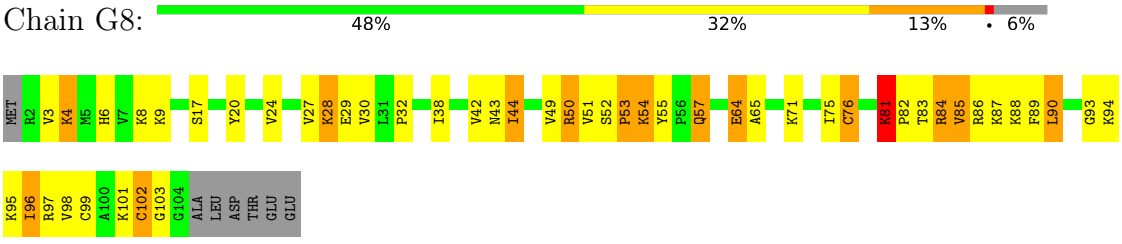
• Molecule 45: 50S ribosomal protein L23

Chain B5:



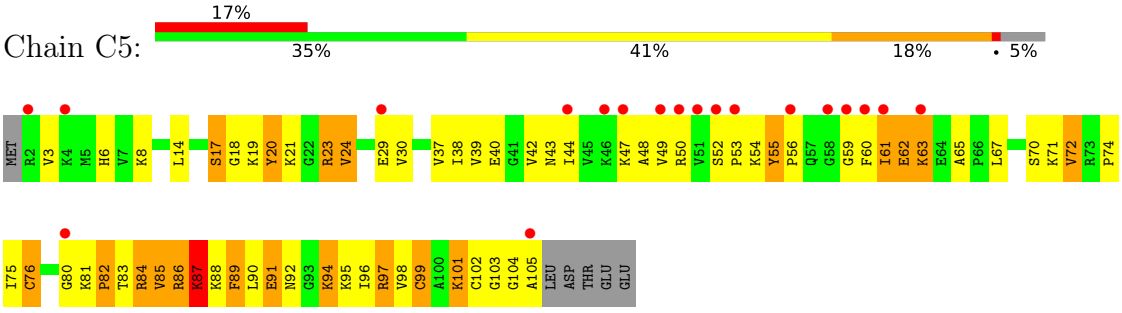
• Molecule 46: 50S ribosomal protein L24

Chain G8:



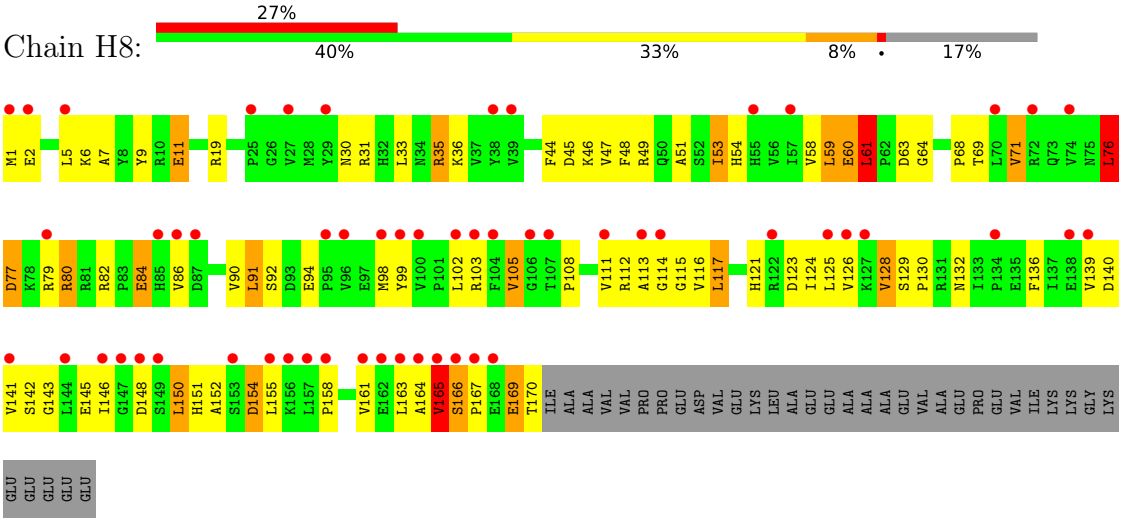
• Molecule 46: 50S ribosomal protein L24

Chain C5:



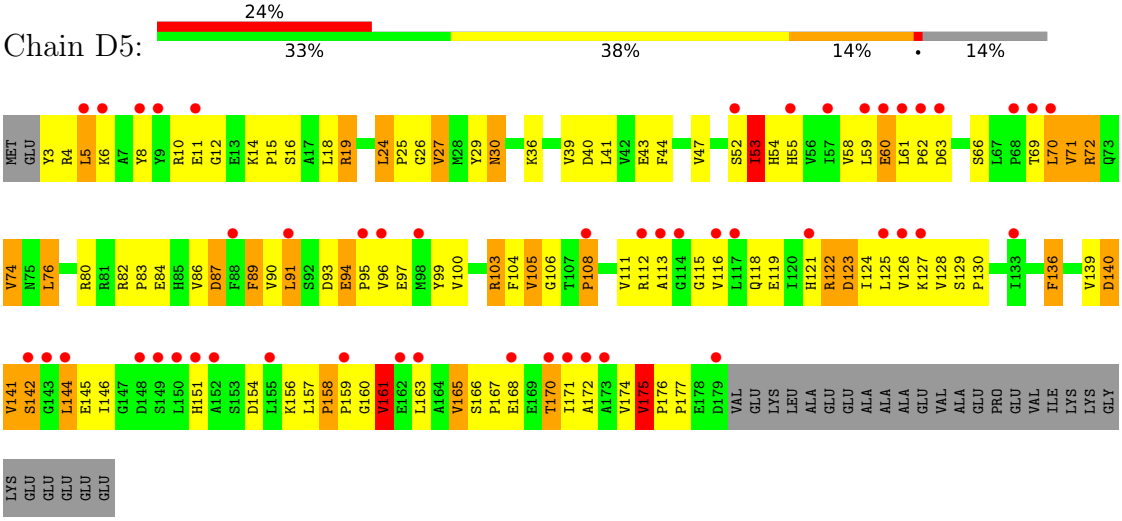
• Molecule 47: 50S ribosomal protein L25

Chain H8:



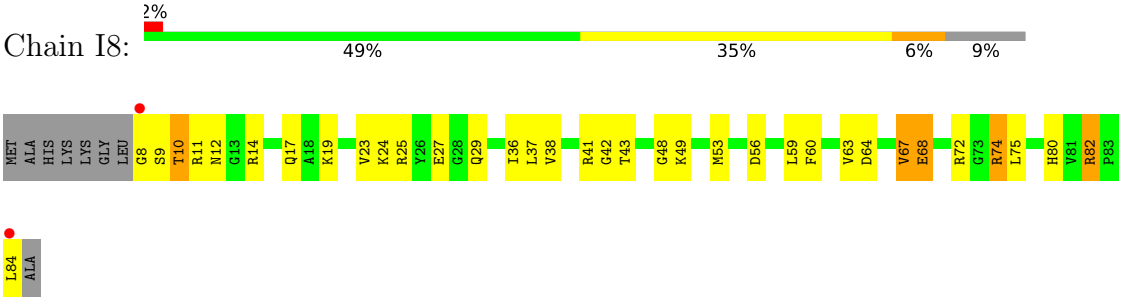
• Molecule 47: 50S ribosomal protein L25

Chain D5:



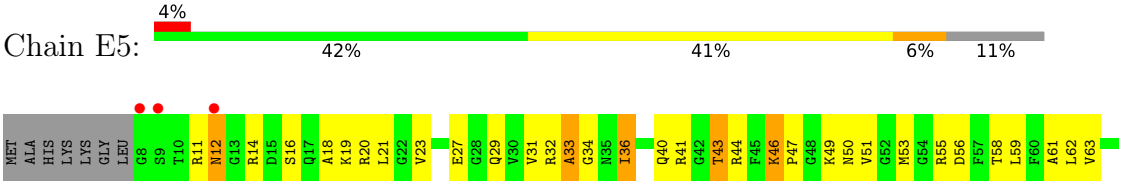
• Molecule 48: 50S ribosomal protein L27

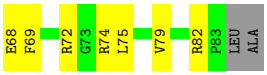
Chain I8:



• Molecule 48: 50S ribosomal protein L27

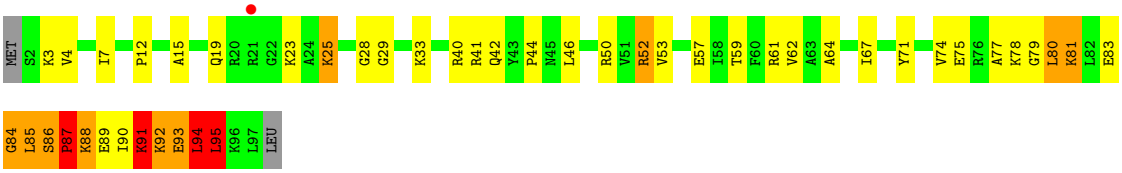
Chain E5:





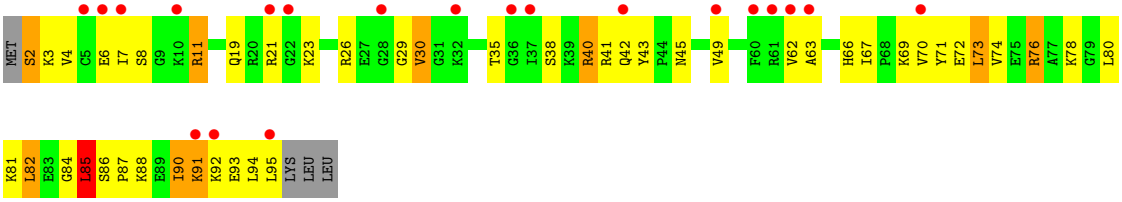
• Molecule 49: 50S ribosomal protein L28

Chain J8:



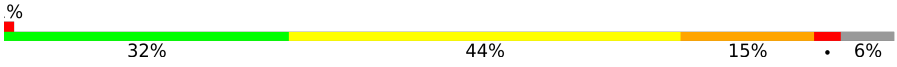
• Molecule 49: 50S ribosomal protein L28

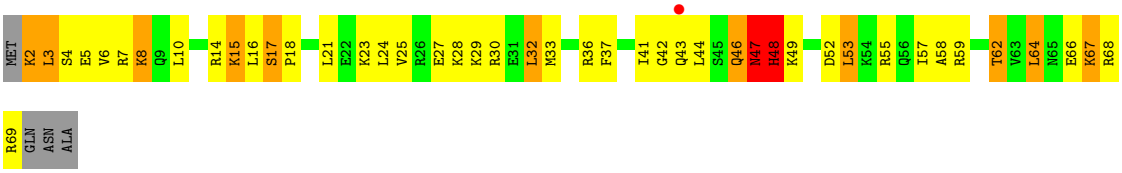
Chain F5:



• Molecule 50: 50S ribosomal protein L29

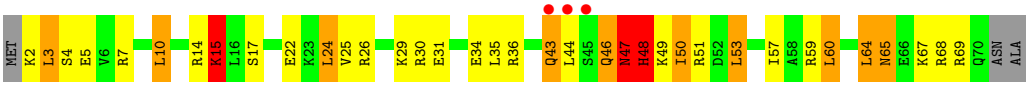
Chain K8:





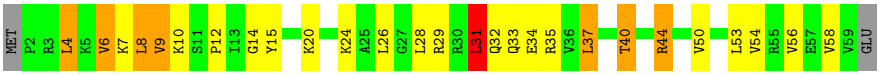
• Molecule 50: 50S ribosomal protein L29

Chain G5:



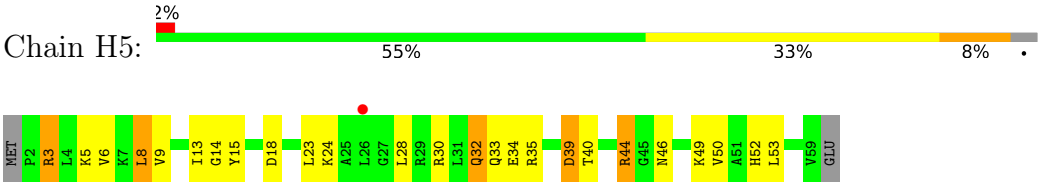
• Molecule 51: 50S ribosomal protein L30

Chain L8:



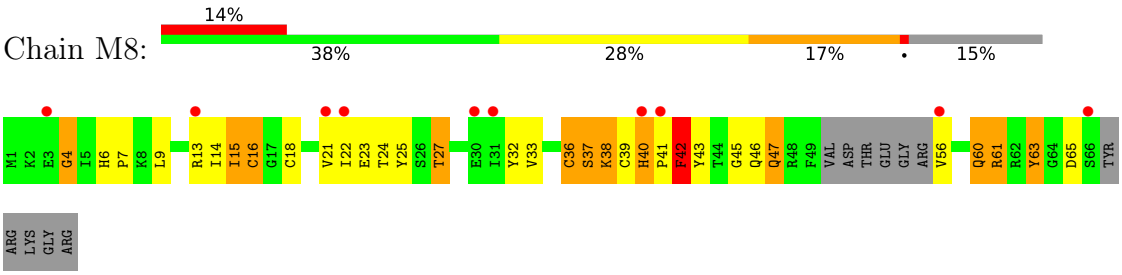
• Molecule 51: 50S ribosomal protein L30

Chain H5:



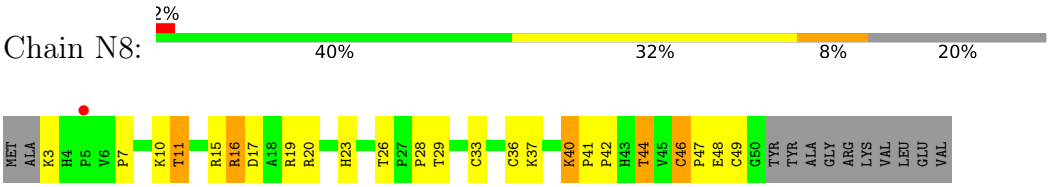
• Molecule 52: 50S ribosomal protein L31

Chain M8:



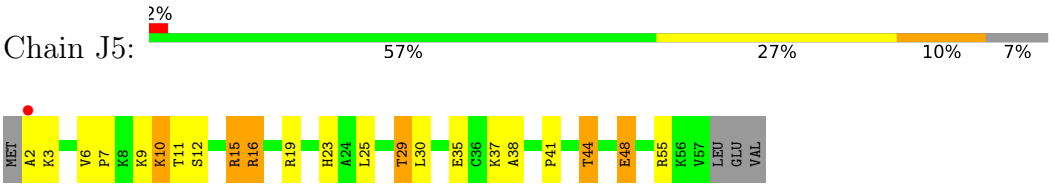
• Molecule 53: 50S ribosomal protein L32

Chain N8:



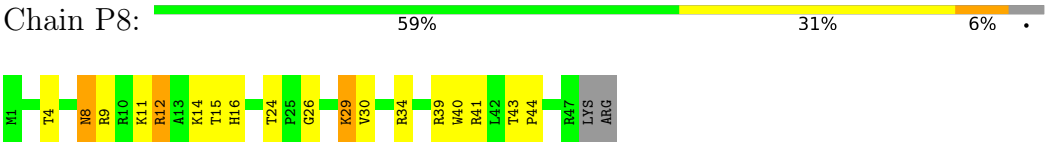
• Molecule 53: 50S ribosomal protein L32

Chain J5:



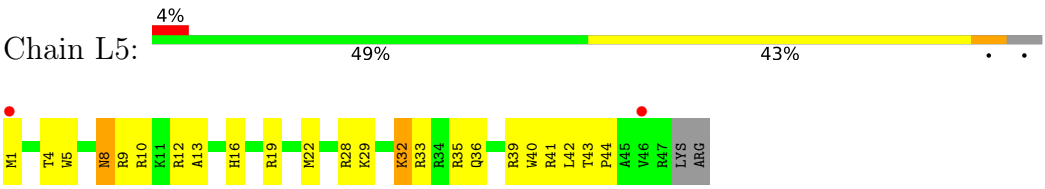
• Molecule 54: 50S ribosomal protein L34

Chain P8:



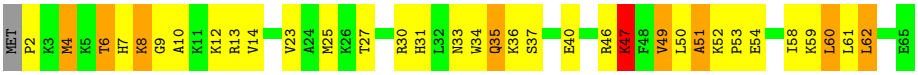
• Molecule 54: 50S ribosomal protein L34

Chain L5:



• Molecule 55: 50S ribosomal protein L35

Chain Q8:

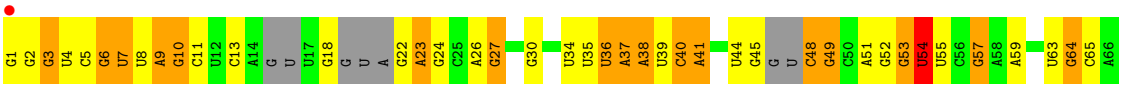


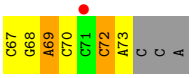
• Molecule 55: 50S ribosomal protein L35

Chain M5:

• Molecule 56: tRNALys

Chain 1L:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.15Å 448.16Å 617.80Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	154.45 – 3.13 161.54 – 3.13	Depositor EDS
% Data completeness (in resolution range)	100.0 (154.45-3.13) 90.9 (161.54-3.13)	Depositor EDS
R_{merge}	0.42	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.81 (at 3.13Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.192 , 0.244 0.192 , 0.244	Depositor DCC
R_{free} test set	2000 reflections (0.20%)	wwPDB-VP
Wilson B-factor (Å^2)	89.4	Xtriage
Anisotropy	0.275	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 75.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	296999	wwPDB-VP
Average B, all atoms (Å^2)	109.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.50% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: 5MU, T6A, 7MG, U8U, SPE, OMC, 4SU, SF4, ZN, PSU, H2U, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	13	0.67	3/36095 (0.0%)	1.26	206/56332 (0.4%)
1	1G	0.60	2/36309 (0.0%)	1.18	153/56668 (0.3%)
2	12	0.38	0/1727	0.64	2/2326 (0.1%)
2	1E	0.40	0/1908	0.62	2/2573 (0.1%)
3	22	0.47	1/1560 (0.1%)	0.58	0/2104
3	2E	0.44	1/1629 (0.1%)	0.60	1/2195 (0.0%)
4	32	0.41	0/1732	0.60	0/2318
4	3E	0.49	1/1728 (0.1%)	0.64	3/2313 (0.1%)
5	42	0.40	0/1156	0.62	0/1557
5	4E	0.40	0/1158	0.61	0/1559
6	52	0.45	0/855	0.61	1/1154 (0.1%)
6	5E	0.47	0/850	0.61	0/1147
7	62	0.39	0/1122	0.56	0/1500
7	6E	0.40	0/1259	0.51	0/1686
8	72	0.38	0/1127	0.59	0/1517
8	7E	0.40	0/1135	0.61	0/1527
9	82	0.36	0/971	0.62	0/1304
9	8E	0.38	0/1019	0.61	0/1367
10	1A	0.93	2/658 (0.3%)	0.57	0/885
10	1I	0.37	0/762	0.61	0/1027
11	2A	0.40	0/850	0.60	0/1150
11	2I	0.43	0/838	0.62	0/1133
12	3A	0.48	0/963	0.69	1/1290 (0.1%)
12	3I	0.57	0/972	0.76	0/1301
13	4A	0.34	0/889	0.58	0/1192
13	4I	0.46	0/943	0.65	0/1265
14	5A	0.40	0/495	0.66	0/657
14	5I	0.49	0/495	0.74	1/657 (0.2%)
15	6A	0.39	0/740	0.56	0/987
15	6I	0.44	0/740	0.61	0/987
16	7A	0.41	0/721	0.63	0/970
16	7I	0.40	0/716	0.67	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.45	0/836	0.59	0/1117
17	8I	0.48	0/847	0.66	0/1131
18	9A	0.44	0/549	0.64	0/732
18	9I	0.42	0/554	0.63	0/739
19	AA	0.38	0/520	0.71	0/700
19	AI	0.40	0/676	0.72	1/910 (0.1%)
20	BA	0.37	0/764	0.66	1/1007 (0.1%)
20	BI	0.36	0/748	0.60	1/986 (0.1%)
21	1B	0.37	0/192	0.58	0/252
21	1F	0.43	0/203	0.62	0/266
22	1K	0.57	0/1568	1.21	10/2434 (0.4%)
23	2K	0.73	0/1721	1.30	11/2682 (0.4%)
23	2L	0.67	1/1721 (0.1%)	1.17	4/2682 (0.1%)
24	3K	0.49	0/1654	1.14	11/2570 (0.4%)
24	3L	0.53	0/1705	1.15	12/2650 (0.5%)
25	4K	0.79	0/499	1.32	5/778 (0.6%)
25	4L	0.67	0/473	1.32	3/737 (0.4%)
26	14	0.84	35/68159 (0.1%)	1.43	876/106398 (0.8%)
26	1H	0.99	95/68309 (0.1%)	1.56	1280/106631 (1.2%)
27	16	0.74	0/2928	1.41	33/4568 (0.7%)
27	1J	0.65	0/2928	1.31	16/4568 (0.4%)
28	71	0.30	0/1049	0.54	0/1417
29	11	0.64	1/2170 (0.0%)	0.85	2/2926 (0.1%)
29	19	0.62	1/2175 (0.0%)	0.79	2/2933 (0.1%)
30	21	0.57	0/1579	0.90	5/2131 (0.2%)
30	29	0.56	0/1596	0.82	2/2153 (0.1%)
31	31	0.62	0/1620	0.84	1/2194 (0.0%)
31	39	0.53	1/1637 (0.1%)	0.80	1/2218 (0.0%)
32	41	0.43	0/1481	0.67	0/1994
32	49	0.45	1/1483 (0.1%)	0.62	1/1997 (0.1%)
33	51	0.52	0/1354	0.85	2/1833 (0.1%)
33	59	0.38	0/1320	0.68	2/1787 (0.1%)
34	61	0.43	0/1146	0.71	2/1551 (0.1%)
34	69	0.48	1/1146 (0.1%)	0.68	1/1551 (0.1%)
35	15	0.42	0/1123	0.64	0/1515
35	58	0.51	0/1123	0.76	1/1514 (0.1%)
36	25	0.52	0/942	0.72	1/1269 (0.1%)
36	68	0.57	0/942	0.73	0/1269
37	35	0.52	0/1139	0.78	1/1514 (0.1%)
37	78	0.62	1/1139 (0.1%)	0.96	4/1514 (0.3%)
38	45	0.55	0/1120	0.82	0/1498
38	88	0.61	0/1138	0.90	1/1523 (0.1%)
39	55	0.50	0/981	0.77	1/1312 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	98	0.48	0/981	0.79	1/1312 (0.1%)
40	65	0.46	0/886	0.75	1/1180 (0.1%)
40	A8	0.53	0/891	0.78	1/1187 (0.1%)
41	75	0.51	0/1123	0.76	1/1500 (0.1%)
41	B8	0.55	0/1133	0.76	1/1514 (0.1%)
42	85	0.46	0/977	0.67	1/1301 (0.1%)
42	C8	0.59	0/968	0.76	1/1289 (0.1%)
43	95	0.46	0/781	0.79	1/1048 (0.1%)
43	D8	0.58	0/785	0.75	1/1052 (0.1%)
44	A5	0.53	0/897	0.69	0/1204
44	E8	0.56	0/886	0.75	0/1189
45	B5	0.56	0/749	0.73	0/1007
45	F8	0.62	0/764	0.80	1/1025 (0.1%)
46	C5	0.64	0/807	0.86	1/1076 (0.1%)
46	G8	0.65	0/796	0.94	2/1062 (0.2%)
47	D5	0.72	1/1443 (0.1%)	0.65	0/1960
47	H8	0.43	0/1395	0.73	2/1890 (0.1%)
48	E5	0.49	0/611	0.73	0/814
48	I8	0.62	0/619	0.81	0/825
49	F5	0.52	0/744	0.84	1/989 (0.1%)
49	J8	0.66	0/754	0.95	3/1003 (0.3%)
50	G5	0.51	0/578	0.70	0/766
50	K8	0.61	0/577	0.93	1/763 (0.1%)
51	H5	0.48	0/464	0.64	0/623
51	L8	0.48	0/464	0.77	1/623 (0.2%)
52	M8	0.45	0/485	0.78	0/652
53	J5	0.49	0/448	0.74	0/606
53	N8	0.59	0/381	0.77	0/516
54	L5	0.52	0/409	0.76	0/540
54	P8	0.67	0/409	0.88	1/540 (0.2%)
55	M5	0.65	0/524	0.85	0/691
55	Q8	0.60	0/524	0.90	1/691 (0.1%)
56	1L	0.47	1/1516 (0.1%)	0.95	1/2350 (0.0%)
All	All	0.74	149/316848 (0.0%)	1.26	2688/474550 (0.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	4
4	32	0	5
4	3E	0	1
8	72	0	1
9	82	0	2
9	8E	0	2
10	1A	0	1
11	2A	0	1
12	3A	0	1
12	3I	0	3
13	4I	0	3
14	5A	0	1
16	7I	0	1
19	AA	0	1
19	AI	0	1
20	BA	0	3
20	BI	0	1
29	11	0	4
29	19	0	2
30	21	0	7
30	29	0	5
31	39	0	8
32	49	0	2
33	51	0	6
33	59	0	4
34	61	0	3
34	69	0	4
35	15	0	1
35	58	0	1
37	35	0	1
37	78	0	6
38	45	0	2
38	88	0	1
39	98	0	2
40	65	0	2
40	A8	0	1
41	75	0	3
41	B8	0	3
42	85	0	4
42	C8	0	3
43	D8	0	3
44	A5	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
45	B5	0	2
46	C5	0	3
46	G8	0	3
47	D5	0	4
47	H8	0	5
49	F5	0	1
49	J8	0	3
50	G5	0	3
50	K8	0	3
52	M8	0	4
55	M5	0	4
55	Q8	0	2
All	All	0	151

All (149) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	D5	94	GLU	C-N	23.32	1.78	1.34
10	1A	38	ILE	C-N	19.43	1.71	1.34
26	1H	2430	A	N9-C4	-14.21	1.29	1.37
26	1H	774	A	N9-C4	-13.66	1.29	1.37
3	22	173	VAL	C-N	12.84	1.58	1.34
26	1H	783	A	N9-C4	-12.51	1.30	1.37
26	14	783	A	N9-C4	-11.93	1.30	1.37
26	1H	676	A	N9-C4	-10.21	1.31	1.37
26	1H	1786	A	N9-C4	-10.04	1.31	1.37
26	1H	1332	G	N9-C4	-9.91	1.30	1.38
4	3E	36	ARG	C-N	-9.68	1.15	1.34
10	1A	76	ASN	C-N	9.67	1.52	1.34
26	1H	1142(A)	A	N9-C4	-9.28	1.32	1.37
32	49	86	MET	C-N	9.05	1.51	1.34
26	14	774	A	N9-C4	-8.93	1.32	1.37
34	69	79	ILE	C-N	-8.89	1.17	1.34
26	14	74	A	N9-C4	-8.77	1.32	1.37
26	1H	783	A	N3-C4	-8.62	1.29	1.34
26	1H	2346	A	N3-C4	-8.48	1.29	1.34
26	1H	676	A	N9-C8	8.30	1.44	1.37
1	1G	3	G	C5-C4	8.00	1.44	1.38
26	14	1786	A	N9-C4	-7.99	1.33	1.37
26	14	783	A	N7-C5	-7.68	1.34	1.39
26	14	1950	G	C2-N3	7.60	1.38	1.32
26	1H	71	A	N9-C4	-7.57	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	676	A	C5-C4	7.51	1.44	1.38
26	1H	783	A	C5-C6	-7.50	1.34	1.41
26	14	528	A	N9-C4	-7.46	1.33	1.37
26	1H	2287	A	N9-C4	-7.43	1.33	1.37
26	1H	1786	A	C5-C6	-7.43	1.34	1.41
26	1H	74	A	N9-C4	-7.36	1.33	1.37
23	2L	77	A	N9-C4	-7.07	1.33	1.37
26	1H	1187	G	N7-C5	6.97	1.43	1.39
26	1H	1698	A	N3-C4	-6.97	1.30	1.34
26	1H	1332	G	N3-C4	-6.96	1.30	1.35
26	14	1698	A	N9-C4	-6.91	1.33	1.37
26	1H	1332	G	C5-C6	-6.82	1.35	1.42
26	14	783	A	N3-C4	-6.81	1.30	1.34
26	1H	772	C	N1-C6	-6.77	1.33	1.37
26	1H	71	A	C5-C6	-6.76	1.34	1.41
26	1H	1899	G	N9-C4	-6.76	1.32	1.38
26	14	1021	A	N9-C4	-6.71	1.33	1.37
3	2E	173	VAL	C-N	6.55	1.46	1.34
26	1H	1616	A	N7-C5	-6.49	1.35	1.39
26	14	789	A	N9-C4	-6.47	1.33	1.37
26	1H	774	A	N3-C4	-6.46	1.30	1.34
26	1H	140	A	C5-C6	-6.43	1.35	1.41
26	14	2451	A	N9-C4	-6.36	1.34	1.37
26	1H	71	A	N9-C8	6.34	1.42	1.37
26	1H	2476	A	N9-C4	6.34	1.41	1.37
26	1H	1616	A	C5-C6	-6.29	1.35	1.41
26	14	2287	A	N9-C4	-6.26	1.34	1.37
26	1H	2713	A	C5-C4	6.25	1.43	1.38
26	1H	204	A	N3-C4	-6.24	1.31	1.34
1	13	3	G	C5-C4	6.21	1.42	1.38
26	1H	1678	G	N9-C8	6.19	1.42	1.37
26	1H	2058	A	N3-C4	-6.16	1.31	1.34
26	1H	1698	A	N9-C4	-6.16	1.34	1.37
26	1H	1966	A	N9-C4	-6.13	1.34	1.37
26	1H	1021	A	N9-C4	-6.13	1.34	1.37
26	1H	774	A	C5-C6	-6.10	1.35	1.41
26	1H	1678	G	N3-C4	-6.10	1.31	1.35
26	14	1786	A	N3-C4	-6.07	1.31	1.34
26	1H	1981	A	N9-C4	-6.03	1.34	1.37
26	1H	2430	A	N3-C4	-6.03	1.31	1.34
26	1H	698	C	N1-C6	-6.01	1.33	1.37
26	14	1780	A	C6-N1	-6.00	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	39	65	TRP	CB-CG	-5.99	1.39	1.50
26	1H	945	A	N9-C4	-5.98	1.34	1.37
26	14	1786	A	C5-C6	-5.95	1.35	1.41
26	1H	621	A	N9-C4	-5.94	1.34	1.37
26	1H	2518	A	N9-C4	-5.92	1.34	1.37
26	1H	2062	A	N3-C4	5.91	1.38	1.34
26	1H	528	A	N9-C4	-5.89	1.34	1.37
26	1H	2452	C	N1-C6	-5.89	1.33	1.37
26	1H	1786	A	N3-C4	-5.87	1.31	1.34
26	1H	777	A	N9-C4	-5.85	1.34	1.37
26	14	777	A	N7-C5	-5.84	1.35	1.39
26	14	2873	A	N7-C5	-5.84	1.35	1.39
26	1H	1950	G	N9-C8	5.83	1.42	1.37
26	14	2346	A	N3-C4	-5.83	1.31	1.34
26	1H	74	A	N3-C4	-5.80	1.31	1.34
26	1H	471	A	N9-C4	-5.78	1.34	1.37
29	19	30	GLU	CG-CD	5.75	1.60	1.51
26	14	784	A	N9-C4	-5.72	1.34	1.37
26	1H	2051	A	N7-C5	-5.69	1.35	1.39
26	1H	2438	U	N1-C6	-5.67	1.32	1.38
26	1H	1899	G	N3-C4	-5.64	1.31	1.35
26	1H	2064	C	N1-C6	-5.64	1.33	1.37
26	1H	330	A	N9-C4	-5.63	1.34	1.37
26	1H	2503	A	C5-C6	-5.63	1.35	1.41
26	1H	2689	U	C2-N3	-5.62	1.33	1.37
26	1H	1614	A	N9-C4	-5.62	1.34	1.37
26	1H	1786	A	N7-C5	-5.62	1.35	1.39
26	14	945	A	C5-C6	-5.61	1.36	1.41
26	1H	1602	U	C4-O4	5.56	1.28	1.23
26	1H	5	A	N9-C4	5.55	1.41	1.37
26	14	945	A	N3-C4	-5.55	1.31	1.34
26	1H	530	G	N9-C8	5.53	1.41	1.37
29	11	122	ASP	CB-CG	5.53	1.63	1.51
1	1G	3	G	N9-C4	5.53	1.42	1.38
26	1H	783	A	N7-C5	-5.52	1.35	1.39
26	1H	2561	A	N9-C4	-5.51	1.34	1.37
26	1H	752	A	N9-C4	-5.51	1.34	1.37
37	78	121	LYS	C-N	5.51	1.44	1.34
26	1H	2713	A	N9-C8	5.50	1.42	1.37
26	1H	138	G	N9-C8	5.49	1.41	1.37
26	1H	2446	G	N7-C5	-5.47	1.35	1.39
26	14	74	A	N3-C4	-5.45	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	783	A	C5-C6	-5.44	1.36	1.41
26	1H	2448	A	C5-C4	-5.41	1.34	1.38
26	14	774	A	C5-C6	-5.41	1.36	1.41
26	1H	722	A	N9-C4	-5.41	1.34	1.37
26	1H	1899	G	C2-N3	-5.39	1.28	1.32
26	1H	689	A	N3-C4	-5.38	1.31	1.34
26	14	1204	A	N9-C4	-5.37	1.34	1.37
26	1H	795	C	N3-C4	-5.36	1.30	1.33
26	1H	1827	C	N1-C6	-5.33	1.33	1.37
26	14	2430	A	N9-C4	-5.32	1.34	1.37
26	1H	1665	A	C8-N7	5.31	1.35	1.31
26	1H	2062	A	N9-C4	5.30	1.41	1.37
26	1H	2062	A	N7-C5	5.30	1.42	1.39
56	1L	38	A	N9-C4	5.30	1.41	1.37
26	14	2776	A	N9-C4	5.29	1.41	1.37
26	1H	2444	G	N7-C5	-5.29	1.36	1.39
26	1H	207	A	N9-C4	-5.29	1.34	1.37
26	1H	37	C	N3-C4	-5.29	1.30	1.33
26	1H	1678	G	N9-C4	-5.28	1.33	1.38
26	1H	2688	U	N3-C4	-5.28	1.33	1.38
26	1H	945	A	C2-N3	5.25	1.38	1.33
26	1H	1902	C	C4-C5	-5.24	1.38	1.43
26	1H	2064	C	N3-C4	-5.23	1.30	1.33
26	1H	2577	A	N3-C4	-5.23	1.31	1.34
26	14	676	A	N9-C8	5.22	1.42	1.37
1	13	1360	A	N7-C5	5.20	1.42	1.39
26	14	1678	G	N9-C4	-5.20	1.33	1.38
26	14	1605	C	N1-C6	-5.20	1.34	1.37
26	14	974(A)	C	N1-C2	5.18	1.45	1.40
26	14	1616	A	N9-C4	-5.17	1.34	1.37
26	1H	197	A	N3-C4	-5.12	1.31	1.34
26	1H	2448	A	C5-C6	-5.11	1.36	1.41
26	1H	104	U	N1-C2	-5.10	1.33	1.38
26	14	2629	A	N9-C4	5.10	1.41	1.37
26	14	213	A	N9-C4	-5.09	1.34	1.37
26	1H	140	A	N9-C4	-5.06	1.34	1.37
26	1H	945	A	C5-C4	5.05	1.42	1.38
26	1H	1786	A	C5-C4	5.03	1.42	1.38
26	1H	189	G	C5-C4	-5.02	1.34	1.38
1	13	3	G	C2-N3	5.00	1.36	1.32

All (2688) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1899	G	N3-C4-N9	-18.59	114.85	126.00
26	1H	1332	G	C5-N7-C8	-17.78	95.41	104.30
26	1H	1332	G	C2-N3-C4	-17.15	103.32	111.90
26	1H	676	A	C2-N3-C4	-16.45	102.38	110.60
26	1H	783	A	C2-N3-C4	-16.44	102.38	110.60
26	1H	1332	G	N1-C6-O6	16.30	129.68	119.90
26	1H	1786	A	C2-N3-C4	-16.10	102.55	110.60
26	1H	1786	A	C5-N7-C8	-15.78	96.01	103.90
26	1H	1678	G	C2-N3-C4	-15.02	104.39	111.90
26	14	74	A	C2-N3-C4	-14.98	103.11	110.60
26	1H	945	A	N1-C6-N6	14.61	127.37	118.60
26	1H	945	A	C6-C5-N7	-14.55	122.11	132.30
26	1H	1332	G	C4-C5-N7	14.54	116.62	110.80
26	1H	140	A	C5-N7-C8	-14.51	96.64	103.90
26	14	1786	A	C5-N7-C8	-14.39	96.70	103.90
26	1H	74	A	C2-N3-C4	-14.32	103.44	110.60
26	14	1786	A	C2-N3-C4	-14.14	103.53	110.60
26	1H	1786	A	N7-C8-N9	14.08	120.84	113.80
26	1H	1332	G	N3-C4-C5	14.06	135.63	128.60
26	14	783	A	C5-N7-C8	-13.97	96.91	103.90
26	1H	783	A	C5-N7-C8	-13.93	96.94	103.90
26	1H	2287	A	C2-N3-C4	-13.69	103.75	110.60
26	1H	2430	A	C2-N3-C4	-13.68	103.76	110.60
26	14	1786	A	N7-C8-N9	13.55	120.58	113.80
26	1H	1496	A	N7-C8-N9	13.39	120.50	113.80
26	1H	1899	G	N3-C4-C5	13.39	135.30	128.60
26	1H	2346	A	N1-C2-N3	13.38	135.99	129.30
26	1H	676	A	C5-N7-C8	-13.29	97.26	103.90
1	13	980	C	O5'-P-OP1	-13.23	93.79	105.70
26	1H	1899	G	C8-N9-C1'	13.08	144.00	127.00
26	1H	774	A	C2-N3-C4	-12.96	104.12	110.60
26	1H	1496	A	C8-N9-C4	-12.92	100.63	105.80
26	1H	140	A	N7-C8-N9	12.72	120.16	113.80
26	14	1984	G	O5'-P-OP2	-12.57	94.39	105.70
26	1H	917	A	C2-N3-C4	-12.52	104.34	110.60
26	1H	2713	A	C2-N3-C4	-12.52	104.34	110.60
26	1H	774	A	N3-C4-C5	12.51	135.56	126.80
26	1H	621	A	C2-N3-C4	-12.43	104.39	110.60
26	1H	1332	G	N7-C8-N9	12.39	119.30	113.10
26	14	2873	A	N7-C8-N9	12.08	119.84	113.80
26	14	510	C	O5'-P-OP2	-12.04	94.86	105.70
26	14	1249	U	O5'-P-OP1	-12.04	94.86	105.70
26	1H	676	A	N3-C4-C5	11.93	135.15	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2346	A	O4'-C1'-N9	11.88	117.70	108.20
26	1H	945	A	C2-N3-C4	-11.87	104.66	110.60
26	1H	1899	G	N3-C2-N2	-11.79	111.65	119.90
26	14	945	A	N1-C6-N6	11.71	125.63	118.60
26	1H	138	G	C4-C5-N7	11.67	115.47	110.80
26	14	774	A	C2-N3-C4	-11.58	104.81	110.60
26	1H	1899	G	C4-N9-C1'	-11.54	111.50	126.50
26	1H	140	A	C4-C5-N7	11.45	116.43	110.70
26	1H	71	A	C5-N7-C8	-11.38	98.21	103.90
26	1H	624	C	O5'-P-OP1	-11.35	95.48	105.70
26	14	783	A	C2-N3-C4	-11.34	104.93	110.60
26	1H	783	A	N3-C4-C5	11.24	134.67	126.80
26	1H	1332	G	C6-C5-N7	-11.18	123.69	130.40
26	1H	1899	G	N9-C4-C5	11.12	109.85	105.40
26	1H	1614	A	O5'-P-OP1	-11.11	95.70	105.70
26	1H	2490	G	C5-N7-C8	-11.08	98.76	104.30
26	1H	2430	A	N3-C4-C5	11.06	134.54	126.80
26	14	945	A	C6-C5-N7	-11.00	124.60	132.30
26	1H	138	G	C5-C6-O6	-10.99	122.01	128.60
26	1H	2688	U	N3-C2-O2	-10.99	114.51	122.20
26	1H	140	A	N1-C6-N6	10.97	125.18	118.60
26	14	827	U	O5'-P-OP2	-10.96	95.83	105.70
26	1H	676	A	N3-C4-N9	-10.95	118.64	127.40
26	14	2518	A	N1-C6-N6	10.91	125.14	118.60
26	1H	138	G	C5-N7-C8	-10.87	98.86	104.30
26	14	528	A	C2-N3-C4	-10.86	105.17	110.60
26	14	783	A	N7-C8-N9	10.82	119.21	113.80
26	1H	399	G	O5'-P-OP2	-10.77	96.01	105.70
26	14	2873	A	N1-C2-N3	10.72	134.66	129.30
26	1H	74	A	C5-N7-C8	-10.70	98.55	103.90
49	J8	85	LEU	CA-CB-CG	10.63	139.75	115.30
1	13	1517	G	O5'-P-OP2	-10.62	96.14	105.70
26	1H	945	A	C4-C5-C6	10.56	122.28	117.00
26	14	669	G	O5'-P-OP2	-10.56	96.20	105.70
26	14	1332	G	C6-C5-N7	-10.55	124.07	130.40
26	14	2502	G	O5'-P-OP1	-10.55	96.20	105.70
26	1H	751	A	O5'-P-OP1	-10.54	96.21	105.70
26	14	783	A	C4-C5-N7	10.53	115.97	110.70
26	1H	141	A	C5-N7-C8	-10.51	98.64	103.90
26	1H	783	A	C4-C5-N7	10.50	115.95	110.70
26	14	676	A	C5-N7-C8	-10.50	98.65	103.90
26	1H	2490	G	C4-C5-N7	10.49	115.00	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	71	A	C2-N3-C4	-10.48	105.36	110.60
26	1H	945	A	C5-N7-C8	-10.40	98.70	103.90
26	14	783	A	N1-C6-N6	10.36	124.81	118.60
26	1H	1786	A	C4-C5-N7	10.35	115.88	110.70
26	14	624	C	O5'-P-OP1	-10.34	96.39	105.70
26	1H	621	A	C5-N7-C8	-10.33	98.74	103.90
26	14	2873	A	C2-N3-C4	-10.33	105.44	110.60
26	1H	1332	G	C5-C6-O6	-10.32	122.41	128.60
26	1H	945	A	N1-C2-N3	10.32	134.46	129.30
26	14	1602	U	O5'-P-OP2	10.31	123.07	110.70
26	14	1332	G	C5-N7-C8	-10.25	99.17	104.30
26	1H	1698	A	C2-N3-C4	-10.24	105.48	110.60
26	14	1332	G	C4-C5-N7	10.21	114.88	110.80
26	14	676	A	C2-N3-C4	-10.15	105.53	110.60
26	1H	1382	G	C5-C6-O6	-10.14	122.51	128.60
26	1H	1786	A	C6-C5-N7	-10.11	125.22	132.30
26	14	774	A	N3-C4-C5	10.07	133.85	126.80
27	16	47	C	C6-N1-C2	10.06	124.32	120.30
26	1H	1678	G	C5-N7-C8	-10.01	99.30	104.30
26	1H	576	U	N3-C2-O2	-10.00	115.20	122.20
26	14	1698	A	C5-N7-C8	-10.00	98.90	103.90
26	1H	774	A	N3-C4-N9	-9.99	119.40	127.40
26	1H	1332	G	N3-C4-N9	-9.96	120.02	126.00
26	14	945	A	C2-N3-C4	-9.96	105.62	110.60
26	1H	1678	G	N3-C4-C5	9.94	133.57	128.60
26	1H	1021	A	C2-N3-C4	-9.93	105.63	110.60
26	14	2873	A	C8-N9-C4	-9.84	101.86	105.80
1	13	113	G	O5'-P-OP1	-9.82	96.86	105.70
26	1H	945	A	C4-C5-N7	9.82	115.61	110.70
26	1H	1931	U	N3-C2-O2	-9.80	115.34	122.20
26	1H	863	A	O5'-P-OP2	-9.78	96.90	105.70
26	1H	1496	A	C5-N7-C8	-9.77	99.01	103.90
26	14	2713	A	C5-N7-C8	-9.77	99.02	103.90
26	14	2873	A	C6-C5-N7	-9.77	125.46	132.30
26	1H	1278	A	C8-N9-C4	9.73	109.69	105.80
26	14	71	A	C5-N7-C8	-9.73	99.03	103.90
26	14	783	A	C6-C5-N7	-9.71	125.50	132.30
26	1H	2311	A	C2-N3-C4	-9.66	105.77	110.60
26	1H	783	A	N3-C4-N9	-9.65	119.68	127.40
26	1H	2430	A	N3-C4-N9	-9.65	119.68	127.40
26	14	1204	A	C2-N3-C4	-9.64	105.78	110.60
26	1H	676	A	N7-C8-N9	9.64	118.62	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2346	A	C2-N3-C4	-9.63	105.79	110.60
22	1K	76	A	N7-C8-N9	9.62	118.61	113.80
26	14	1821	A	N1-C6-N6	9.61	124.37	118.60
26	1H	761	A	O5'-P-OP2	9.60	122.22	110.70
26	1H	71	A	C4-C5-N7	9.59	115.50	110.70
26	14	742	G	O5'-P-OP1	-9.59	97.07	105.70
26	1H	140	A	C6-C5-N7	-9.57	125.60	132.30
26	14	2873	A	C5-N7-C8	-9.56	99.12	103.90
26	1H	1210	A	C5-N7-C8	-9.55	99.12	103.90
26	1H	2385	C	O5'-P-OP2	-9.54	97.12	105.70
1	13	422	C	C6-N1-C2	-9.53	116.49	120.30
26	14	2287	A	C2-N3-C4	-9.52	105.84	110.60
26	14	2430	A	C2-N3-C4	-9.52	105.84	110.60
26	1H	2249	U	O5'-P-OP1	-9.51	97.14	105.70
26	1H	49	A	O5'-P-OP2	-9.48	97.17	105.70
26	14	330	A	C2-N3-C4	-9.46	105.87	110.60
26	14	974(A)	C	N1-C2-O2	9.42	124.55	118.90
26	14	2430	A	N1-C2-N3	9.41	134.01	129.30
26	1H	1602	U	C4-C5-C6	9.40	125.34	119.70
26	14	140	A	C5-N7-C8	-9.40	99.20	103.90
26	14	2056	G	N1-C6-O6	9.38	125.53	119.90
1	13	974	A	O4'-C1'-N9	9.37	115.69	108.20
26	1H	913	U	O5'-P-OP2	-9.35	97.29	105.70
26	14	331	A	C2-N3-C4	-9.32	105.94	110.60
26	14	1930	G	O5'-P-OP1	-9.32	97.31	105.70
26	1H	31	C	O5'-P-OP1	-9.32	97.31	105.70
26	14	2609	U	O5'-P-OP2	-9.32	97.31	105.70
26	1H	774	A	C5-N7-C8	-9.30	99.25	103.90
26	14	1619	G	O5'-P-OP2	-9.30	97.33	105.70
26	14	1899	G	N1-C2-N2	-9.29	107.84	116.20
1	1G	413	G	C4-N9-C1'	-9.28	114.44	126.50
26	1H	140	A	C8-N9-C4	-9.26	102.10	105.80
26	1H	761	A	N1-C6-N6	9.25	124.15	118.60
26	14	2346	A	N1-C2-N3	9.24	133.92	129.30
26	1H	2688	U	C5-C4-O4	9.23	131.44	125.90
26	14	741	G	O5'-P-OP1	-9.22	97.40	105.70
27	16	15	A	O4'-C1'-N9	9.22	115.58	108.20
26	1H	1616	A	C5-N7-C8	-9.22	99.29	103.90
26	14	621	A	C2-N3-C4	-9.21	106.00	110.60
26	14	774	A	N1-C6-N6	9.21	124.12	118.60
26	14	1616	A	C5-N7-C8	-9.18	99.31	103.90
26	1H	2287	A	N1-C6-N6	9.17	124.10	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2430	A	N1-C6-N6	9.15	124.09	118.60
26	1H	74	A	N1-C2-N3	9.14	133.87	129.30
26	14	2029	G	O5'-P-OP1	-9.13	97.48	105.70
1	1G	1322	C	N1-C2-O2	9.09	124.35	118.90
26	1H	252	G	O5'-P-OP2	-9.08	97.53	105.70
26	1H	1616	A	C6-C5-N7	-9.08	125.94	132.30
26	1H	774	A	N1-C6-N6	9.07	124.04	118.60
26	1H	2699	C	C6-N1-C2	9.06	123.92	120.30
26	1H	138	G	N7-C8-N9	9.05	117.62	113.10
26	1H	1310	G	N1-C6-O6	9.05	125.33	119.90
1	13	690	G	C6-C5-N7	-9.04	124.98	130.40
26	1H	609	A	N1-C6-N6	9.04	124.02	118.60
26	1H	210	C	C6-N1-C2	9.02	123.91	120.30
26	1H	509	C	O5'-P-OP2	-9.02	97.59	105.70
26	1H	2712	U	C5-C4-O4	9.01	131.31	125.90
26	1H	860	U	C4-C5-C6	9.01	125.11	119.70
27	16	115	G	N1-C6-O6	8.99	125.29	119.90
26	14	2542	A	C8-N9-C4	8.96	109.39	105.80
26	14	1786	A	N1-C2-N3	8.96	133.78	129.30
26	14	1786	A	C4-C5-N7	8.95	115.18	110.70
26	1H	2085	C	O5'-P-OP2	-8.95	97.65	105.70
26	1H	1204	A	O5'-P-OP2	-8.95	97.65	105.70
1	13	690	G	O4'-C1'-N9	8.94	115.35	108.20
26	14	31	C	O5'-P-OP1	-8.93	97.67	105.70
26	1H	621	A	N1-C6-N6	8.91	123.94	118.60
26	1H	2311	A	N1-C2-N3	8.90	133.75	129.30
26	1H	74	A	N7-C8-N9	8.88	118.24	113.80
26	1H	783	A	N1-C6-N6	8.86	123.92	118.60
26	1H	1428	C	O5'-P-OP1	-8.85	97.73	105.70
1	13	1260	C	C6-N1-C2	-8.85	116.76	120.30
51	L8	31	LEU	CA-CB-CG	8.84	135.64	115.30
26	1H	812	C	N1-C2-O2	-8.83	113.60	118.90
26	14	1284	A	O5'-P-OP2	-8.82	97.76	105.70
26	1H	917	A	N1-C2-N3	8.81	133.71	129.30
26	1H	1022	G	N9-C4-C5	8.80	108.92	105.40
26	14	1694	C	O5'-P-OP1	-8.80	97.78	105.70
26	1H	1616	A	N1-C6-N6	8.78	123.86	118.60
26	14	1332	G	N7-C8-N9	8.78	117.49	113.10
26	1H	621	A	C4-C5-N7	8.76	115.08	110.70
26	1H	1616	A	C4-C5-N7	8.76	115.08	110.70
26	14	2449	U	C5-C4-O4	-8.76	120.65	125.90
26	14	1899	G	N3-C2-N2	8.74	126.02	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	467	G	O5'-P-OP2	-8.74	97.84	105.70
27	1J	89	G	O5'-P-OP2	-8.73	97.84	105.70
26	14	2572	A	O5'-P-OP1	-8.73	97.84	105.70
26	1H	2554	U	O5'-P-OP1	-8.72	97.85	105.70
26	1H	141	A	N7-C8-N9	8.71	118.16	113.80
26	1H	1021	A	C5-N7-C8	-8.70	99.55	103.90
26	1H	2613	U	O5'-P-OP1	-8.70	97.87	105.70
26	1H	330	A	C2-N3-C4	-8.69	106.26	110.60
26	14	205	G	C8-N9-C4	8.68	109.87	106.40
1	13	690	G	C4-N9-C1'	8.67	137.78	126.50
25	4K	12	A	O4'-C1'-N9	8.67	115.14	108.20
26	1H	265	A	C2-N3-C4	-8.65	106.27	110.60
26	1H	1142(A)	A	C2-N3-C4	-8.63	106.28	110.60
26	1H	621	A	N1-C2-N3	8.62	133.61	129.30
26	1H	1989	G	N1-C6-O6	8.62	125.07	119.90
26	14	1496	A	N7-C8-N9	8.61	118.11	113.80
26	14	2056	G	C5-C6-O6	-8.60	123.44	128.60
26	14	74	A	N3-C4-C5	8.59	132.81	126.80
1	1G	991	U	P-O3'-C3'	8.58	130.00	119.70
26	1H	1678	G	N3-C4-N9	-8.57	120.86	126.00
26	1H	2830	G	C8-N9-C4	-8.56	102.97	106.40
26	1H	783	A	N7-C8-N9	8.56	118.08	113.80
26	14	1678	G	C5-N7-C8	-8.55	100.02	104.30
26	1H	1786	A	N1-C6-N6	8.55	123.73	118.60
26	1H	1914	C	C6-N1-C2	-8.55	116.88	120.30
26	1H	2287	A	N1-C2-N3	8.55	133.57	129.30
26	14	1828	G	C8-N9-C4	-8.54	102.98	106.40
26	1H	559	G	N1-C6-O6	8.52	125.01	119.90
26	1H	1210	A	N7-C8-N9	8.50	118.05	113.80
26	14	1204	A	O4'-C1'-N9	8.50	115.00	108.20
26	14	1950	G	C4-N9-C1'	8.47	137.52	126.50
26	14	676	A	N7-C8-N9	8.46	118.03	113.80
26	1H	1187	G	C5-N7-C8	-8.45	100.08	104.30
26	14	676	A	O4'-C1'-N9	8.43	114.94	108.20
26	14	1328	G	C5-C6-O6	-8.41	123.55	128.60
26	1H	576	U	C5-C4-O4	8.40	130.94	125.90
26	14	2518	A	C6-C5-N7	-8.38	126.44	132.30
26	14	945	A	N1-C2-N3	8.37	133.48	129.30
24	3L	76	A	C5-N7-C8	-8.35	99.72	103.90
26	1H	688	U	O5'-P-OP2	-8.35	98.19	105.70
26	1H	774	A	C4-C5-N7	8.34	114.87	110.70
26	14	801	G	N1-C6-O6	-8.34	114.90	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2346	A	O5'-P-OP1	-8.34	98.20	105.70
26	1H	755	C	N3-C4-C5	-8.33	118.57	121.90
26	14	2542	A	N7-C8-N9	-8.32	109.64	113.80
22	1K	76	A	C8-N9-C4	-8.30	102.48	105.80
26	14	120	U	O5'-P-OP2	-8.30	98.22	105.70
26	1H	1321	A	C8-N9-C4	8.30	109.12	105.80
26	1H	1332	G	O4'-C1'-N9	-8.30	101.56	108.20
1	13	1203	C	C6-N1-C2	-8.29	116.98	120.30
26	1H	2374	C	C6-N1-C2	8.29	123.61	120.30
1	13	1360	A	C5-N7-C8	-8.28	99.76	103.90
26	1H	1616	A	O4'-C1'-N9	8.27	114.82	108.20
26	1H	751	A	O5'-P-OP2	8.26	120.62	110.70
26	1H	140	A	C2-N3-C4	-8.24	106.48	110.60
26	1H	676	A	C4-C5-N7	8.24	114.82	110.70
26	14	2297	C	O5'-P-OP1	-8.24	98.29	105.70
26	14	1021	A	C2-N3-C4	-8.23	106.48	110.60
26	1H	1786	A	N1-C2-N3	8.22	133.41	129.30
26	14	34	C	N1-C2-O2	8.21	123.83	118.90
26	1H	2712	U	N3-C4-O4	-8.20	113.66	119.40
1	1G	117	G	N1-C6-O6	8.21	124.82	119.90
1	13	1227	A	O5'-P-OP2	-8.20	98.32	105.70
26	1H	1899	G	C2-N3-C4	-8.20	107.80	111.90
26	14	140	A	C4-C5-N7	8.20	114.80	110.70
26	1H	2503	A	N1-C2-N3	-8.19	125.20	129.30
26	1H	2598	A	O5'-P-OP1	-8.19	98.33	105.70
26	14	2689	U	C5-C4-O4	8.19	130.82	125.90
26	1H	2446	G	C6-C5-N7	-8.18	125.49	130.40
27	16	30	C	C6-N1-C2	-8.18	117.03	120.30
26	14	528	A	N1-C2-N3	8.17	133.38	129.30
27	16	115	G	C5-C6-O6	-8.17	123.70	128.60
26	1H	1899	G	C6-C5-N7	8.14	135.28	130.40
26	14	2699	C	C6-N1-C2	8.13	123.55	120.30
26	14	1950	G	N7-C8-N9	8.13	117.16	113.10
26	14	672	C	O5'-P-OP2	-8.13	98.39	105.70
26	14	2346	A	O4'-C1'-N9	8.12	114.70	108.20
26	14	74	A	N1-C2-N3	8.12	133.36	129.30
26	1H	945	A	N9-C4-C5	-8.11	102.56	105.80
26	1H	1029	A	N1-C6-N6	8.10	123.46	118.60
26	14	613	U	N3-C2-O2	-8.10	116.53	122.20
26	1H	2490	G	N7-C8-N9	8.10	117.15	113.10
26	14	1332	G	C2-N3-C4	-8.09	107.85	111.90
26	14	621	A	C5-C6-N1	-8.08	113.66	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2438	U	O5'-P-OP2	-8.06	98.44	105.70
26	14	1786	A	C6-C5-N7	-8.05	126.67	132.30
26	14	250	G	O5'-P-OP1	-8.04	98.47	105.70
26	1H	596	G	C5-C6-O6	-8.02	123.79	128.60
26	1H	1382	G	N1-C6-O6	8.02	124.71	119.90
26	1H	1602	U	N3-C4-C5	-8.01	109.79	114.60
22	1K	76	A	O4'-C1'-N9	8.01	114.61	108.20
26	1H	383	U	C5-C6-N1	-8.01	118.70	122.70
26	14	1992	G	P-O3'-C3'	7.99	129.29	119.70
26	1H	860	U	C5-C6-N1	-7.99	118.71	122.70
26	1H	1162	G	O5'-P-OP1	-7.98	98.52	105.70
24	3L	76	A	N7-C8-N9	7.97	117.79	113.80
26	14	2713	A	C4-C5-N7	7.97	114.69	110.70
26	14	140	A	N7-C8-N9	7.96	117.78	113.80
26	1H	2518	A	C5-N7-C8	-7.96	99.92	103.90
26	14	1585	C	N1-C2-O2	7.96	123.67	118.90
26	1H	1837	C	N1-C2-O2	7.95	123.67	118.90
1	13	1446	A	O4'-C1'-N9	7.95	114.56	108.20
1	1G	690	G	N3-C4-N9	-7.95	121.23	126.00
26	1H	1678	G	N1-C2-N3	7.92	128.65	123.90
26	1H	945	A	C4-N9-C1'	7.91	140.54	126.30
26	14	2464	C	C6-N1-C2	7.91	123.46	120.30
26	14	945	A	C4-C5-C6	7.91	120.95	117.00
26	14	574	C	C6-N1-C2	7.90	123.46	120.30
26	1H	1950	G	C5-N7-C8	-7.89	100.35	104.30
26	1H	74	A	N1-C6-N6	7.89	123.33	118.60
26	1H	74	A	C6-C5-N7	-7.89	126.78	132.30
26	1H	945	A	N7-C8-N9	7.88	117.74	113.80
26	1H	1786	A	C8-N9-C4	-7.88	102.65	105.80
27	16	45	A	O5'-P-OP1	-7.88	98.61	105.70
26	1H	1781	C	C6-N1-C2	7.86	123.44	120.30
26	1H	930	U	C5-C4-O4	7.85	130.61	125.90
1	1G	1358	U	C2-N1-C1'	7.84	127.11	117.70
26	1H	930	U	N3-C4-O4	-7.83	113.92	119.40
26	14	2713	A	N1-C6-N6	7.83	123.30	118.60
26	1H	81	G	N1-C6-O6	7.83	124.60	119.90
26	1H	593	G	O5'-P-OP2	-7.83	98.66	105.70
26	1H	389	G	C8-N9-C4	7.82	109.53	106.40
26	1H	1025	G	C8-N9-C4	-7.80	103.28	106.40
26	1H	1678	G	C4-C5-N7	7.79	113.92	110.80
26	14	2873	A	C4-C5-C6	7.79	120.90	117.00
26	1H	576	U	N1-C2-N3	7.78	119.57	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2476	A	C8-N9-C4	-7.77	102.69	105.80
37	78	61	ARG	NE-CZ-NH1	7.77	124.19	120.30
26	1H	1396	U	N3-C2-O2	-7.77	116.76	122.20
26	1H	1678	G	N7-C8-N9	7.76	116.98	113.10
26	14	1359	A	C8-N9-C4	7.76	108.91	105.80
26	14	1678	G	C2-N3-C4	-7.76	108.02	111.90
26	14	1332	G	N1-C6-O6	7.76	124.56	119.90
26	14	71	A	N7-C8-N9	7.76	117.68	113.80
1	13	963	G	N1-C2-N2	-7.76	109.22	116.20
26	1H	451	C	C6-N1-C2	7.76	123.40	120.30
26	1H	1210	A	C8-N9-C4	-7.76	102.70	105.80
26	1H	2346	A	N7-C8-N9	7.76	117.68	113.80
26	1H	1313	U	C2-N1-C1'	7.75	127.00	117.70
26	1H	747	U	O5'-P-OP1	-7.75	98.73	105.70
26	14	2439	A	N7-C8-N9	7.75	117.67	113.80
26	1H	2346	A	C6-C5-N7	-7.75	126.88	132.30
26	1H	789	A	O5'-P-OP1	-7.73	98.74	105.70
26	1H	2499	C	N1-C2-O2	-7.73	114.26	118.90
26	14	1319	G	O5'-P-OP2	-7.73	98.74	105.70
26	1H	211	A	N1-C6-N6	7.72	123.23	118.60
26	14	2430	A	N1-C6-N6	7.72	123.23	118.60
26	14	2463	C	C6-N1-C2	7.72	123.39	120.30
26	1H	1142(A)	A	N3-C4-C5	7.71	132.20	126.80
26	1H	621	A	N7-C8-N9	7.71	117.65	113.80
26	14	2439	A	O4'-C1'-N9	-7.71	102.03	108.20
26	14	1786	A	C8-N9-C4	-7.70	102.72	105.80
1	13	1502	A	C5-N7-C8	-7.70	100.05	103.90
1	13	980	C	N1-C2-O2	7.70	123.52	118.90
26	14	1678	G	N7-C8-N9	7.70	116.95	113.10
26	14	2273	A	O5'-P-OP2	-7.70	98.77	105.70
26	14	1616	A	O4'-C1'-N9	7.69	114.35	108.20
27	16	81	G	C4-C5-N7	7.68	113.87	110.80
26	1H	2430	A	C5-N7-C8	-7.68	100.06	103.90
31	39	125	LEU	CA-CB-CG	7.68	132.96	115.30
26	1H	54	G	O5'-P-OP1	-7.67	98.80	105.70
26	1H	596	G	N1-C6-O6	7.67	124.50	119.90
26	1H	1698	A	N1-C2-N3	7.67	133.13	129.30
26	14	2436	G	O5'-P-OP1	-7.67	98.80	105.70
26	14	2518	A	C4-C5-N7	7.66	114.53	110.70
26	1H	2450	A	O5'-P-OP2	-7.66	98.81	105.70
26	1H	1544	C	N1-C2-O2	7.65	123.49	118.90
26	14	1661	G	C8-N9-C4	7.65	109.46	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1260	C	C6-N1-C2	-7.65	117.24	120.30
26	1H	1021	A	N7-C8-N9	7.64	117.62	113.80
26	14	34	C	C6-N1-C2	-7.63	117.25	120.30
27	1J	30	C	C6-N1-C2	-7.62	117.25	120.30
26	14	774	A	C4-C5-N7	7.62	114.51	110.70
26	14	2566	A	O5'-P-OP2	-7.62	98.85	105.70
26	14	74	A	C5-C6-N1	-7.60	113.90	117.70
26	1H	513	A	C8-N9-C4	-7.59	102.76	105.80
26	14	462	C	O5'-P-OP2	-7.59	98.87	105.70
26	1H	945	A	C8-N9-C1'	-7.59	114.03	127.70
1	13	3	G	N1-C6-O6	-7.59	115.35	119.90
26	1H	2688	U	N1-C2-N3	7.59	119.45	114.90
26	14	2688	U	N3-C2-O2	-7.58	116.89	122.20
26	1H	71	A	N7-C8-N9	7.57	117.59	113.80
26	1H	2584	U	C5-C4-O4	7.57	130.44	125.90
26	14	2056	G	C6-C5-N7	-7.56	125.86	130.40
26	14	2023	G	O5'-P-OP2	-7.56	98.89	105.70
26	1H	1394	U	C5-C6-N1	7.55	126.47	122.70
26	14	2275	C	P-O3'-C3'	7.55	128.75	119.70
1	1G	413	G	C6-C5-N7	7.54	134.93	130.40
26	14	1475	G	N7-C8-N9	7.54	116.87	113.10
26	1H	1310	G	N3-C2-N2	-7.54	114.62	119.90
26	14	1698	A	C4-C5-N7	7.53	114.46	110.70
26	1H	2346	A	C4-N9-C1'	7.52	139.84	126.30
26	1H	2688	U	C4-C5-C6	7.52	124.21	119.70
26	14	1342	A	N1-C2-N3	7.52	133.06	129.30
1	13	690	G	C8-N9-C1'	-7.51	117.23	127.00
26	14	694	U	O5'-P-OP2	-7.51	98.94	105.70
26	1H	71	A	N1-C6-N6	7.50	123.10	118.60
26	14	1948	G	O5'-P-OP1	-7.50	98.95	105.70
26	14	613	U	C5-C4-O4	7.50	130.40	125.90
26	1H	51	G	O5'-P-OP1	-7.50	98.95	105.70
26	1H	1022	G	C8-N9-C4	-7.50	103.40	106.40
26	1H	676	A	O4'-C1'-N9	7.50	114.20	108.20
26	1H	2751	G	C8-N9-C4	7.49	109.40	106.40
1	13	5	U	N3-C2-O2	-7.49	116.96	122.20
26	1H	1677	A	O5'-P-OP1	-7.49	98.96	105.70
1	13	328	C	C2-N1-C1'	7.48	127.03	118.80
26	14	945	A	C4-C5-N7	7.48	114.44	110.70
1	13	811	C	C6-N1-C2	7.48	123.29	120.30
26	1H	2346	A	C8-N9-C4	-7.47	102.81	105.80
26	1H	761	A	O5'-P-OP1	-7.47	98.98	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1382	G	C4-C5-N7	7.47	113.79	110.80
26	1H	1324	G	N1-C6-O6	7.46	124.38	119.90
26	1H	1332	G	N3-C2-N2	-7.46	114.67	119.90
26	1H	2287	A	C5-C6-N1	-7.46	113.97	117.70
24	3K	76	A	N1-C6-N6	7.46	123.07	118.60
26	14	2440	C	O5'-P-OP1	-7.45	99.00	105.70
26	1H	761	A	C6-C5-N7	-7.45	127.09	132.30
26	14	2473	U	N3-C2-O2	-7.43	117.00	122.20
26	14	1476	C	N1-C2-O2	-7.43	114.44	118.90
26	14	2426	A	N1-C6-N6	7.43	123.06	118.60
26	1H	2689	U	N3-C2-O2	-7.42	117.01	122.20
26	14	1396	U	N3-C2-O2	-7.42	117.01	122.20
26	14	676	A	C4-C5-N7	7.42	114.41	110.70
1	13	1158	C	C2-N1-C1'	7.42	126.96	118.80
26	1H	141	A	C4-C5-N7	7.42	114.41	110.70
26	1H	2424	C	OP1-P-OP2	7.41	130.72	119.60
26	1H	560	C	O5'-P-OP1	-7.41	99.03	105.70
26	14	409	C	C6-N1-C2	7.40	123.26	120.30
26	1H	140	A	C5-C6-N6	-7.40	117.78	123.70
26	14	1616	A	N7-C8-N9	7.40	117.50	113.80
26	1H	34	C	O5'-P-OP2	7.40	119.58	110.70
26	14	922	U	O5'-P-OP1	-7.40	99.04	105.70
26	1H	2422	A	C8-N9-C4	-7.39	102.84	105.80
26	1H	1931	U	C5-C4-O4	7.39	130.33	125.90
26	14	2564	A	O5'-P-OP1	-7.39	99.05	105.70
26	1H	409	C	C6-N1-C2	7.38	123.25	120.30
26	1H	2402	C	C6-N1-C2	-7.38	117.35	120.30
26	1H	1950	G	C4-C5-N7	7.37	113.75	110.80
26	14	1780	A	N1-C6-N6	-7.36	114.18	118.60
26	1H	1187	G	N1-C6-O6	-7.35	115.49	119.90
1	13	843	U	C2-N1-C1'	7.35	126.52	117.70
26	14	74	A	N1-C6-N6	7.35	123.01	118.60
26	14	2084	C	C6-N1-C2	7.35	123.24	120.30
26	14	49	A	P-O3'-C3'	7.34	128.51	119.70
26	1H	120	U	C4-C5-C6	7.34	124.11	119.70
26	1H	945	A	C5-C6-N6	-7.34	117.83	123.70
26	14	2726	U	C5-C4-O4	7.32	130.29	125.90
1	13	758	G	N1-C6-O6	7.32	124.29	119.90
1	13	888	G	C6-C5-N7	-7.32	126.01	130.40
26	1H	1278	A	N7-C8-N9	-7.32	110.14	113.80
26	1H	1187	G	N3-C4-N9	-7.31	121.61	126.00
1	1G	413	G	C8-N9-C1'	7.31	136.51	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	95	41	GLY	N-CA-C	-7.31	94.82	113.10
26	14	2490	G	N7-C8-N9	7.31	116.76	113.10
26	14	574	C	C2-N1-C1'	-7.31	110.76	118.80
26	1H	2713	A	C5-N7-C8	-7.30	100.25	103.90
26	14	620	G	O5'-P-OP2	-7.30	99.13	105.70
26	1H	1265	A	O5'-P-OP2	-7.30	99.13	105.70
1	1G	1358	U	N1-C2-O2	7.30	127.91	122.80
26	1H	2513	G	O5'-P-OP2	-7.29	99.14	105.70
26	14	34	C	C2-N1-C1'	7.29	126.82	118.80
26	1H	765	G	O5'-P-OP2	-7.26	99.16	105.70
26	14	783	A	C8-N9-C4	-7.26	102.89	105.80
26	1H	981	A	N1-C2-N3	-7.26	125.67	129.30
26	1H	1187	G	N3-C4-C5	7.25	132.22	128.60
26	14	2346	A	C2-N3-C4	-7.25	106.98	110.60
1	13	5	U	N1-C2-O2	7.24	127.86	122.80
26	1H	2490	G	N3-C4-C5	7.22	132.21	128.60
26	14	1313	U	C2-N1-C1'	7.22	126.37	117.70
26	1H	2331	G	C5-C6-O6	-7.22	124.27	128.60
26	1H	1203	G	O5'-P-OP2	-7.21	99.21	105.70
26	1H	2318	G	O4'-C1'-N9	7.21	113.97	108.20
26	1H	226	G	O4'-C1'-N9	7.21	113.97	108.20
26	14	102	G	O4'-C1'-N9	7.21	113.97	108.20
26	1H	1332	G	C5-C6-N1	-7.20	107.90	111.50
26	1H	2586	C	C6-N1-C2	7.20	123.18	120.30
26	14	1821	A	C6-C5-N7	-7.19	127.27	132.30
26	14	2518	A	C2-N3-C4	-7.19	107.00	110.60
26	1H	1244	G	C5-C6-O6	-7.18	124.29	128.60
26	1H	739	G	N1-C6-O6	7.17	124.20	119.90
26	14	71	A	C4-C5-N7	7.17	114.29	110.70
26	14	1671	U	O5'-P-OP1	-7.17	99.25	105.70
26	14	2352	A	C2-N3-C4	-7.17	107.01	110.60
26	14	34	C	N3-C2-O2	-7.17	116.88	121.90
26	1H	2346	A	C4-C5-C6	7.16	120.58	117.00
26	1H	1914	C	C5-C6-N1	7.16	124.58	121.00
1	13	963	G	N3-C4-N9	7.15	130.29	126.00
26	1H	2584	U	N3-C2-O2	-7.15	117.19	122.20
26	1H	659	C	C6-N1-C2	7.15	123.16	120.30
26	14	1661	G	N9-C4-C5	-7.15	102.54	105.40
27	16	115	G	C4-C5-N7	7.15	113.66	110.80
26	1H	1268	A	C2-N3-C4	-7.14	107.03	110.60
26	1H	2713	A	N3-C4-C5	7.14	131.80	126.80
26	1H	1385	G	N3-C4-N9	-7.14	121.72	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1838	C	C6-N1-C2	7.14	123.16	120.30
26	1H	2446	G	C4-C5-N7	7.14	113.66	110.80
26	14	1616	A	C4-C5-N7	7.13	114.27	110.70
26	14	2873	A	N1-C6-N6	7.13	122.88	118.60
26	1H	74	A	C4-C5-N7	7.13	114.27	110.70
26	1H	702	G	N1-C6-O6	7.13	124.18	119.90
1	1G	690	G	N3-C4-C5	7.13	132.17	128.60
1	1G	1281	U	N3-C2-O2	-7.13	117.21	122.20
26	1H	270(O)	U	C2-N1-C1'	7.13	126.25	117.70
26	1H	382	G	N1-C6-O6	7.13	124.18	119.90
37	78	15	ARG	C-N-CA	7.12	139.50	121.70
26	14	133	C	C6-N1-C2	7.12	123.15	120.30
26	14	2715	C	C6-N1-C2	7.12	123.15	120.30
26	1H	330	A	N1-C2-N3	7.12	132.86	129.30
26	1H	512	G	O4'-C1'-N9	7.11	113.89	108.20
1	1G	1397	C	C2-N1-C1'	7.11	126.62	118.80
26	1H	2697	G	OP1-P-OP2	7.11	130.26	119.60
26	14	2776	A	C8-N9-C4	-7.11	102.96	105.80
26	1H	175	G	N1-C6-O6	-7.10	115.64	119.90
26	1H	698	C	C6-N1-C2	7.10	123.14	120.30
26	1H	793	A	O5'-P-OP2	-7.10	99.31	105.70
26	14	2518	A	C5-N7-C8	-7.09	100.35	103.90
26	1H	1496	A	C6-C5-N7	-7.09	127.33	132.30
46	G8	81	LYS	C-N-CD	-7.09	105.00	120.60
1	13	1158	C	N1-C2-O2	7.09	123.16	118.90
26	1H	2503	A	N9-C4-C5	-7.09	102.96	105.80
26	1H	1665	A	C5-N7-C8	-7.09	100.36	103.90
26	1H	1142(A)	A	N1-C6-N6	7.09	122.85	118.60
26	1H	1975	G	O5'-P-OP2	-7.09	99.32	105.70
1	1G	1358	U	C5-C6-N1	7.08	126.24	122.70
26	14	856	C	C6-N1-C2	-7.08	117.47	120.30
1	13	690	G	N1-C6-O6	7.08	124.15	119.90
26	14	2591	C	N1-C2-O2	-7.08	114.66	118.90
26	1H	1368	G	C5-C6-O6	-7.07	124.36	128.60
26	1H	659	C	O5'-P-OP2	-7.06	99.34	105.70
26	1H	133	C	C6-N1-C2	7.06	123.12	120.30
26	14	673	C	O5'-P-OP1	7.06	119.17	110.70
26	14	2067	G	O5'-P-OP1	-7.06	99.35	105.70
1	1G	1358	U	N3-C2-O2	-7.06	117.26	122.20
26	14	2301	C	C6-N1-C2	-7.06	117.48	120.30
26	1H	783	A	C6-C5-N7	-7.05	127.36	132.30
26	1H	1758	G	N1-C6-O6	7.05	124.13	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2477	C	N1-C2-O2	7.05	123.13	118.90
26	14	2439	A	C6-C5-N7	-7.04	127.37	132.30
26	1H	784	A	N9-C4-C5	7.04	108.62	105.80
26	1H	2446	G	C5-C6-O6	-7.04	124.38	128.60
26	14	118	A	N1-C6-N6	-7.04	114.38	118.60
26	14	912	C	C6-N1-C2	-7.04	117.48	120.30
26	1H	2580	U	C2-N1-C1'	7.02	126.12	117.70
26	1H	1332	G	N1-C2-N3	7.01	128.10	123.90
26	1H	839	U	O5'-P-OP2	-7.00	99.40	105.70
26	14	1332	G	C4-N9-C1'	7.00	135.60	126.50
26	1H	1217	C	N1-C2-O2	-7.00	114.70	118.90
26	14	1184	G	N9-C4-C5	-7.00	102.60	105.40
26	1H	1187	G	C4-C5-C6	-6.99	114.60	118.80
24	3L	76	A	O4'-C1'-N9	6.99	113.80	108.20
26	14	2473	U	N1-C2-O2	6.99	127.69	122.80
26	14	1902	C	N3-C4-C5	6.99	124.70	121.90
26	14	752	A	P-O3'-C3'	6.99	128.09	119.70
26	1H	2374	C	C5-C6-N1	-6.98	117.51	121.00
26	1H	863	A	O5'-P-OP1	6.97	119.07	110.70
26	14	2490	G	C8-N9-C4	-6.97	103.61	106.40
26	1H	2331	G	N1-C6-O6	6.97	124.08	119.90
26	1H	1971	A	OP1-P-O3'	6.97	120.53	105.20
26	1H	1984	G	O5'-P-OP2	-6.96	99.43	105.70
26	1H	1528	A	O4'-C1'-N9	6.96	113.77	108.20
26	14	2335	A	N1-C6-N6	-6.96	114.42	118.60
26	14	2518	A	O4'-C1'-N9	-6.96	102.63	108.20
26	1H	2585	U	N3-C4-C5	6.96	118.78	114.60
1	13	902	G	O5'-P-OP2	-6.96	99.44	105.70
26	1H	252	G	O5'-P-OP1	6.96	119.05	110.70
26	14	2473	U	C2-N1-C1'	6.96	126.05	117.70
26	14	1342	A	C2-N3-C4	-6.94	107.13	110.60
26	1H	624	C	O5'-P-OP2	6.94	119.03	110.70
26	1H	2544	G	N1-C6-O6	6.94	124.06	119.90
26	1H	1616	A	N7-C8-N9	6.94	117.27	113.80
26	1H	621	A	C6-C5-N7	-6.93	127.44	132.30
26	1H	793	A	N3-C4-C5	-6.93	121.95	126.80
33	51	153	LYS	C-N-CD	-6.93	105.35	120.60
26	14	1204	A	N1-C2-N3	6.93	132.77	129.30
26	14	2307	G	C4-N9-C1'	6.93	135.52	126.50
1	1G	1260	C	C5-C6-N1	6.92	124.46	121.00
26	14	1520	U	C5-C4-O4	6.92	130.05	125.90
26	1H	1373	A	C8-N9-C4	6.91	108.57	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2552	U	N1-C2-O2	-6.91	117.97	122.80
26	1H	2598	A	O5'-P-OP2	6.91	118.99	110.70
1	1G	1281	U	N1-C2-O2	6.90	127.63	122.80
1	13	121	C	N1-C2-O2	6.90	123.04	118.90
1	13	1502	A	N7-C8-N9	6.90	117.25	113.80
23	2K	77	A	C5-N7-C8	-6.89	100.45	103.90
26	14	74	A	N3-C4-N9	-6.89	121.89	127.40
26	1H	1395	A	O5'-P-OP2	-6.89	99.50	105.70
26	1H	1370	C	O5'-P-OP2	6.88	118.96	110.70
26	14	1899	G	C6-C5-N7	-6.88	126.27	130.40
26	1H	728	G	O5'-P-OP2	-6.88	99.51	105.70
26	1H	828	U	C5-C4-O4	6.87	130.02	125.90
26	1H	1373	A	N7-C8-N9	-6.87	110.36	113.80
26	1H	2544	G	C5-C6-O6	-6.87	124.48	128.60
55	Q8	47	LYS	N-CA-C	-6.85	92.50	111.00
26	1H	2525	G	N1-C6-O6	6.85	124.01	119.90
26	14	2439	A	C8-N9-C4	-6.85	103.06	105.80
26	1H	2281	C	C5-C4-N4	-6.85	115.41	120.20
26	1H	2721	A	O5'-P-OP1	-6.85	99.54	105.70
1	1G	504	C	O5'-P-OP1	-6.85	99.54	105.70
27	16	47	C	N3-C4-C5	6.84	124.64	121.90
26	1H	2453	A	N1-C6-N6	-6.84	114.50	118.60
26	1H	797	C	O5'-P-OP2	-6.84	99.55	105.70
26	1H	828	U	N1-C2-O2	6.84	127.58	122.80
1	13	1129	C	C2-N1-C1'	6.83	126.32	118.80
26	1H	1229(A)	G	O5'-P-OP2	-6.83	99.55	105.70
25	4L	23	A	OP1-P-O3'	6.83	120.23	105.20
26	14	746	A	O5'-P-OP2	6.83	118.90	110.70
26	14	2713	A	N7-C8-N9	6.83	117.22	113.80
26	1H	528	A	N3-C4-C5	6.83	131.58	126.80
26	1H	566	U	OP1-P-O3'	6.83	120.22	105.20
26	14	140	A	N1-C6-N6	6.83	122.69	118.60
26	1H	1774	C	O5'-P-OP1	-6.82	99.56	105.70
26	1H	1698	A	C5-N7-C8	-6.81	100.50	103.90
1	1G	1200	C	N1-C2-O2	6.81	122.99	118.90
26	14	1313	U	C6-N1-C2	-6.81	116.92	121.00
26	1H	528	A	O4'-C1'-N9	-6.80	102.76	108.20
26	1H	2679	A	O5'-P-OP2	-6.80	99.58	105.70
23	2L	40	C	C6-N1-C2	-6.80	117.58	120.30
26	14	2301	C	C5-C6-N1	6.80	124.40	121.00
26	1H	210	C	N3-C4-C5	6.79	124.62	121.90
26	1H	1235	G	C8-N9-C4	-6.79	103.68	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	259	G	N1-C6-O6	6.79	123.97	119.90
1	13	115	G	P-O3'-C3'	6.79	127.84	119.70
26	14	1909	C	O5'-P-OP2	-6.79	99.59	105.70
26	1H	1786	A	O5'-P-OP2	-6.79	99.59	105.70
26	1H	1255	U	N3-C4-O4	6.78	124.15	119.40
26	14	2429	G	OP1-P-OP2	-6.78	109.43	119.60
26	14	1949	G	O5'-P-OP1	-6.78	99.60	105.70
26	1H	2688	U	N3-C4-O4	-6.78	114.65	119.40
26	14	1395	A	O4'-C1'-N9	6.78	113.62	108.20
26	1H	189	G	C5-C6-O6	-6.77	124.54	128.60
27	16	29	A	C8-N9-C4	-6.77	103.09	105.80
26	14	1953	A	O5'-P-OP2	6.77	118.82	110.70
26	1H	1752	C	C6-N1-C2	6.76	123.01	120.30
26	1H	2550	G	C8-N9-C4	-6.76	103.69	106.40
26	1H	138	G	C5-C6-N1	6.76	114.88	111.50
26	1H	917	A	N1-C6-N6	6.76	122.66	118.60
1	1G	483	C	C6-N1-C2	6.76	123.00	120.30
26	1H	676	A	C8-N9-C4	-6.75	103.10	105.80
26	1H	1790	C	C2-N3-C4	-6.75	116.53	119.90
26	14	2689	U	N3-C4-O4	-6.74	114.68	119.40
26	1H	197	A	OP2-P-O3'	6.74	120.02	105.20
26	1H	966	G	N1-C6-O6	-6.74	115.86	119.90
26	14	1142	U	N1-C2-O2	6.73	127.51	122.80
26	14	1678	G	N3-C4-N9	-6.72	121.97	126.00
26	14	1328	G	N1-C6-O6	6.72	123.93	119.90
26	14	141	A	C5-N7-C8	-6.72	100.54	103.90
26	1H	783	A	C5-C6-N1	-6.72	114.34	117.70
26	1H	2541	A	O5'-P-OP1	-6.72	99.66	105.70
26	1H	2607	G	C6-C5-N7	-6.71	126.37	130.40
26	14	388	G	N3-C4-N9	-6.71	121.97	126.00
1	13	652	U	O5'-P-OP1	-6.71	99.66	105.70
26	14	2401	U	C5-C6-N1	6.71	126.05	122.70
26	14	566	U	C6-N1-C2	6.71	125.02	121.00
24	3L	76	A	C4-C5-N7	6.70	114.05	110.70
26	14	2711	A	O5'-P-OP1	-6.70	99.67	105.70
26	1H	609	A	N9-C4-C5	-6.70	103.12	105.80
26	1H	1602	U	C5-C6-N1	-6.70	119.35	122.70
1	13	509	A	P-O3'-C3'	6.70	127.74	119.70
26	1H	634	C	O5'-P-OP2	-6.70	99.67	105.70
26	1H	704	G	C8-N9-C4	-6.69	103.72	106.40
1	13	513	C	C5-C6-N1	6.69	124.34	121.00
26	1H	1970	A	O5'-P-OP2	-6.69	99.68	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2296	U	C2-N1-C1'	6.69	125.73	117.70
26	1H	2848	G	O4'-C1'-N9	6.69	113.55	108.20
26	14	1678	G	C8-N9-C4	-6.68	103.73	106.40
2	12	196	LEU	CA-CB-CG	6.67	130.65	115.30
26	14	2352	A	N1-C2-N3	6.67	132.64	129.30
26	14	1681	G	N1-C6-O6	6.67	123.90	119.90
1	13	1279	A	N7-C8-N9	6.67	117.13	113.80
30	29	78	LEU	CA-CB-CG	6.67	130.63	115.30
26	1H	1244	G	N1-C6-O6	6.66	123.90	119.90
1	13	748	C	C5-C6-N1	6.66	124.33	121.00
26	1H	1313	U	C5-C6-N1	6.66	126.03	122.70
26	1H	200	U	O5'-P-OP1	-6.66	99.71	105.70
1	1G	1395	C	O5'-P-OP1	-6.66	99.70	105.70
1	13	1260	C	C5-C6-N1	6.66	124.33	121.00
26	1H	2507	C	C6-N1-C2	-6.66	117.64	120.30
26	1H	1786	A	N3-C4-C5	6.65	131.46	126.80
26	1H	1950	G	O4'-C1'-N9	6.65	113.52	108.20
26	14	2282	G	O5'-P-OP2	6.65	118.68	110.70
26	14	2518	A	N9-C4-C5	-6.65	103.14	105.80
26	1H	964	C	N3-C4-N4	6.64	122.65	118.00
1	13	1158	C	C6-N1-C2	-6.64	117.64	120.30
26	1H	802	A	OP2-P-O3'	6.64	119.80	105.20
26	14	501	A	O5'-P-OP2	-6.64	99.73	105.70
26	14	1496	A	C5-N7-C8	-6.64	100.58	103.90
26	14	1162	G	O5'-P-OP1	-6.63	99.73	105.70
1	13	738	C	C6-N1-C2	-6.63	117.65	120.30
26	14	575	A	O5'-P-OP1	-6.63	99.73	105.70
26	1H	383	U	C2-N1-C1'	-6.63	109.75	117.70
26	14	1142	U	C2-N1-C1'	6.62	125.64	117.70
26	14	1253	A	N1-C6-N6	6.62	122.57	118.60
26	14	2582	G	OP1-P-O3'	6.61	119.75	105.20
26	1H	676	A	C5-C6-N1	-6.61	114.40	117.70
26	14	2435	A	C8-N9-C4	-6.61	103.16	105.80
26	1H	1142(A)	A	C5-N7-C8	-6.60	100.60	103.90
24	3L	5	C	C6-N1-C2	-6.60	117.66	120.30
26	1H	35	G	O5'-P-OP2	-6.60	99.76	105.70
26	1H	2258	C	O5'-P-OP1	-6.60	99.76	105.70
26	1H	1914	C	C2-N1-C1'	6.60	126.06	118.80
26	1H	2312	U	O5'-P-OP1	-6.60	99.76	105.70
26	14	1963	U	N1-C2-O2	6.60	127.42	122.80
26	14	1780	A	N9-C4-C5	6.60	108.44	105.80
26	1H	1858	G	C4-N9-C1'	6.59	135.07	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1210	A	C4-C5-N7	6.59	114.00	110.70
26	14	1382	G	C5-C6-O6	-6.59	124.65	128.60
26	1H	1899	G	N1-C2-N2	6.59	122.13	116.20
1	13	880	C	C6-N1-C2	6.59	122.94	120.30
1	13	1486	G	N1-C6-O6	6.59	123.85	119.90
26	14	855	G	C8-N9-C4	-6.58	103.77	106.40
1	13	576	G	N1-C6-O6	6.58	123.84	119.90
1	1G	974	A	O4'-C1'-N9	6.58	113.46	108.20
1	13	190	G	P-O3'-C3'	6.57	127.59	119.70
1	13	1227	A	C5-N7-C8	-6.57	100.61	103.90
1	13	974	A	C6-C5-N7	-6.57	127.70	132.30
26	14	2326	C	C6-N1-C2	-6.57	117.67	120.30
26	1H	845	G	N3-C4-C5	6.57	131.88	128.60
26	1H	859	G	N3-C4-C5	6.57	131.88	128.60
26	14	2430	A	C6-C5-N7	-6.57	127.70	132.30
26	1H	1321	A	N7-C8-N9	-6.56	110.52	113.80
41	B8	13	ARG	N-CA-C	6.56	128.71	111.00
1	13	1498	U	P-O3'-C3'	6.55	127.56	119.70
26	1H	120	U	N3-C2-O2	-6.55	117.61	122.20
26	14	621	A	N7-C8-N9	6.55	117.07	113.80
26	1H	2406	U	O4'-C1'-N1	-6.54	102.97	108.20
26	1H	326	G	C5-N7-C8	-6.54	101.03	104.30
26	1H	2375	G	C8-N9-C4	6.54	109.02	106.40
26	14	1302	A	N1-C6-N6	-6.54	114.68	118.60
26	14	2573	C	C2-N1-C1'	6.54	125.99	118.80
26	1H	508	G	C4-N9-C1'	6.54	135.00	126.50
2	1E	187	LEU	CA-CB-CG	6.54	130.33	115.30
24	3K	76	A	C6-C5-N7	-6.54	127.73	132.30
26	1H	2392	A	C2-N3-C4	-6.53	107.33	110.60
26	14	71	A	P-O3'-C3'	6.53	127.54	119.70
26	14	94	G	N1-C6-O6	6.53	123.82	119.90
26	1H	1358	G	C6-C5-N7	-6.53	126.48	130.40
26	1H	2083	G	N1-C6-O6	6.53	123.82	119.90
1	1G	1128	C	C6-N1-C2	-6.53	117.69	120.30
26	1H	1678	G	C6-C5-N7	-6.53	126.48	130.40
26	1H	124	G	N3-C4-C5	6.53	131.86	128.60
26	1H	258	G	N1-C6-O6	-6.53	115.98	119.90
26	1H	2407	G	O5'-P-OP2	-6.53	99.83	105.70
26	14	676	A	N3-C4-C5	6.53	131.37	126.80
26	1H	2857	G	O5'-P-OP1	-6.52	99.83	105.70
27	1J	81	G	C4-C5-N7	6.52	113.41	110.80
26	14	2335	A	O4'-C1'-N9	6.52	113.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2698	U	C5-C6-N1	-6.51	119.44	122.70
26	1H	1602	U	O5'-P-OP2	6.51	118.51	110.70
27	1J	89	G	N3-C4-C5	-6.51	125.35	128.60
26	1H	131	G	C5-C6-O6	-6.50	124.70	128.60
26	1H	222	A	P-O3'-C3'	6.50	127.50	119.70
26	1H	1698	A	C6-C5-N7	-6.50	127.75	132.30
26	1H	1768	U	OP2-P-O3'	6.50	119.50	105.20
26	1H	2392	A	C5-N7-C8	-6.50	100.65	103.90
26	14	2594	C	C6-N1-C2	6.50	122.90	120.30
26	14	2873	A	C4-N9-C1'	6.50	137.99	126.30
26	1H	1786	A	C5-C6-N1	-6.49	114.45	117.70
26	14	1660	C	C6-N1-C2	-6.49	117.70	120.30
25	4K	12	A	N1-C6-N6	-6.49	114.71	118.60
26	14	71	A	C2-N3-C4	-6.49	107.36	110.60
26	1H	2054	A	N7-C8-N9	6.48	117.04	113.80
26	14	1786	A	N9-C1'-C2'	6.48	122.43	114.00
1	13	1502	A	C4-C5-N7	6.48	113.94	110.70
26	1H	1161	C	C6-N1-C2	-6.48	117.71	120.30
26	1H	1786	A	N9-C1'-C2'	6.48	122.43	114.00
26	1H	2438	U	C5-C6-N1	-6.48	119.46	122.70
26	1H	2346	A	C5-N7-C8	-6.48	100.66	103.90
26	1H	1760	A	O5'-P-OP2	-6.48	99.87	105.70
1	13	1329	A	N1-C6-N6	6.48	122.49	118.60
26	1H	2417	C	O5'-P-OP2	-6.48	99.87	105.70
26	1H	2428	G	C5-N7-C8	-6.48	101.06	104.30
26	1H	1939	U	O5'-P-OP1	-6.47	99.87	105.70
27	16	115	G	C6-C5-N7	-6.47	126.52	130.40
26	1H	2390	U	O5'-P-OP1	-6.47	99.88	105.70
1	1G	690	G	C5-N7-C8	-6.46	101.07	104.30
26	14	673	C	O5'-P-OP2	-6.46	99.88	105.70
26	1H	2429	G	OP1-P-OP2	-6.46	109.91	119.60
26	1H	382	G	C5-C6-O6	-6.46	124.73	128.60
26	14	2592	G	O5'-P-OP2	-6.46	99.89	105.70
26	14	1475	G	C8-N9-C4	-6.46	103.82	106.40
26	1H	2050	C	C6-N1-C2	-6.45	117.72	120.30
26	1H	2503	A	C8-N9-C4	6.45	108.38	105.80
26	1H	1621	U	N1-C2-O2	-6.44	118.29	122.80
26	14	1899	G	C2-N3-C4	-6.44	108.68	111.90
26	14	1950	G	C8-N9-C1'	-6.44	118.62	127.00
26	1H	1996	C	C6-N1-C2	6.44	122.88	120.30
26	1H	2740	A	N1-C6-N6	6.44	122.47	118.60
26	1H	655	A	C5-N7-C8	-6.44	100.68	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	703	G	P-O3'-C3'	6.44	127.42	119.70
26	1H	258	G	N3-C2-N2	6.44	124.41	119.90
26	14	2607	G	C6-C5-N7	-6.43	126.54	130.40
1	1G	690	G	O4'-C1'-N9	6.43	113.34	108.20
26	14	470	A	C5-C6-N6	-6.43	118.56	123.70
26	14	688	U	O5'-P-OP2	-6.43	99.91	105.70
26	14	2281	C	C6-N1-C2	-6.43	117.73	120.30
1	1G	1267	C	C2-N1-C1'	6.43	125.87	118.80
26	1H	2287	A	C8-N9-C4	6.42	108.37	105.80
26	14	71	A	N1-C6-N6	6.42	122.45	118.60
26	14	1396	U	C2-N1-C1'	6.42	125.41	117.70
26	14	2490	G	C5-N7-C8	-6.42	101.09	104.30
26	1H	74	A	C5-C6-N1	-6.41	114.49	117.70
26	14	1496	A	C8-N9-C4	-6.41	103.23	105.80
26	14	1564	C	C6-N1-C2	-6.41	117.73	120.30
26	1H	2001	A	C8-N9-C4	-6.41	103.23	105.80
26	14	2287	A	N1-C6-N6	6.41	122.45	118.60
26	1H	910	A	N1-C6-N6	6.41	122.45	118.60
26	1H	508	G	N7-C8-N9	6.41	116.30	113.10
1	13	1519	A	C5-C6-N6	6.41	128.83	123.70
26	1H	308	G	C4-N9-C1'	6.41	134.83	126.50
26	1H	917	A	C5-N7-C8	-6.40	100.70	103.90
26	1H	1661	G	C8-N9-C4	6.40	108.96	106.40
27	16	7	G	N1-C6-O6	6.40	123.74	119.90
26	14	574	C	N3-C4-N4	-6.40	113.52	118.00
1	13	586	C	C6-N1-C2	6.40	122.86	120.30
1	1G	3	G	N7-C8-N9	6.39	116.30	113.10
26	14	1950	G	C8-N9-C4	-6.39	103.84	106.40
26	1H	915	C	N1-C2-O2	6.39	122.73	118.90
26	14	1700	A	O5'-P-OP2	6.39	118.37	110.70
26	14	2518	A	C5-C6-N6	-6.39	118.59	123.70
22	1K	49	G	C4-N9-C1'	-6.39	118.20	126.50
26	14	2392	A	C5-C6-N1	-6.39	114.51	117.70
26	1H	1379	A	C5-N7-C8	-6.38	100.71	103.90
26	1H	2446	G	N3-C4-N9	6.38	129.83	126.00
26	1H	452	G	N1-C6-O6	-6.38	116.07	119.90
26	1H	389	G	N9-C4-C5	-6.37	102.85	105.40
26	14	1819	A	P-O3'-C3'	6.37	127.34	119.70
26	1H	790	C	N3-C2-O2	6.37	126.36	121.90
26	14	1302	A	OP1-P-OP2	6.37	129.15	119.60
26	14	1821	A	C5-C6-N6	-6.36	118.61	123.70
26	14	1375	C	OP2-P-O3'	6.36	119.19	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	963	G	N3-C2-N2	6.36	124.35	119.90
26	1H	2688	U	C5-C6-N1	-6.36	119.52	122.70
26	1H	120	U	O5'-P-OP2	6.36	118.33	110.70
26	1H	211	A	C5-C6-N6	-6.36	118.62	123.70
26	1H	2709	G	C8-N9-C4	-6.36	103.86	106.40
26	14	1323	U	OP1-P-O3'	6.36	119.18	105.20
26	14	1678	G	N3-C4-C5	6.35	131.78	128.60
26	1H	2699	C	N3-C4-C5	6.35	124.44	121.90
1	13	1360	A	C4-C5-C6	-6.35	113.83	117.00
1	13	888	G	N1-C6-O6	6.35	123.71	119.90
26	1H	2430	A	C5-C6-N1	-6.35	114.53	117.70
26	14	400	G	N1-C6-O6	6.35	123.71	119.90
26	14	2596	U	O5'-P-OP2	-6.35	99.98	105.70
26	1H	1203	G	N1-C6-O6	-6.34	116.09	119.90
26	14	684	G	C8-N9-C4	-6.34	103.86	106.40
26	14	945	A	N9-C4-C5	-6.34	103.26	105.80
26	1H	2308	G	C6-N1-C2	6.34	128.90	125.10
26	14	1142	U	N3-C2-O2	-6.34	117.76	122.20
26	1H	1520	U	C6-N1-C2	-6.34	117.20	121.00
26	14	53	A	N1-C6-N6	-6.34	114.80	118.60
26	14	2501	C	C2-N1-C1'	-6.34	111.83	118.80
26	1H	1597	A	O4'-C1'-N9	6.33	113.27	108.20
1	13	328	C	N1-C2-O2	6.33	122.69	118.90
26	14	1950	G	O4'-C1'-N9	6.33	113.26	108.20
1	13	811	C	C5-C6-N1	-6.32	117.84	121.00
26	1H	946	G	O5'-P-OP1	-6.32	100.01	105.70
1	1G	1322	C	N3-C2-O2	-6.32	117.47	121.90
26	1H	729	G	C8-N9-C4	-6.32	103.87	106.40
26	1H	1210	A	N1-C6-N6	6.32	122.39	118.60
26	1H	1310	G	C5-C6-O6	-6.32	124.81	128.60
26	14	2261	C	OP2-P-O3'	6.32	119.11	105.20
26	1H	1376	C	O5'-P-OP1	-6.32	100.01	105.70
26	14	1950	G	N3-C4-N9	6.32	129.79	126.00
26	14	1914	C	C6-N1-C2	-6.31	117.78	120.30
26	1H	793	A	C2-N3-C4	6.31	113.75	110.60
26	14	1760	A	O5'-P-OP2	-6.31	100.02	105.70
26	1H	621	A	O4'-C1'-N9	6.31	113.25	108.20
26	1H	984	A	O5'-P-OP2	-6.30	100.03	105.70
26	1H	189	G	C8-N9-C4	6.30	108.92	106.40
1	13	1158	C	N3-C2-O2	-6.30	117.49	121.90
26	1H	195	A	N1-C6-N6	6.30	122.38	118.60
26	1H	791	C	P-O3'-C3'	6.30	127.26	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1790	C	N1-C2-O2	-6.30	115.12	118.90
26	1H	104	U	N1-C2-O2	-6.30	118.39	122.80
26	1H	2446	G	N1-C6-O6	6.30	123.68	119.90
26	14	380	U	O5'-P-OP2	-6.29	100.03	105.70
26	1H	468	G	C5-C6-O6	-6.29	124.82	128.60
27	1J	89	G	N3-C4-N9	6.29	129.78	126.00
26	14	2413	G	C5-C6-O6	-6.29	124.83	128.60
1	13	49	U	P-O3'-C3'	6.29	127.25	119.70
26	14	2346	A	C4-N9-C1'	6.29	137.62	126.30
1	13	1301	U	P-O3'-C3'	6.29	127.24	119.70
26	1H	1385	G	N3-C4-C5	6.29	131.74	128.60
26	1H	2607	G	C4-C5-C6	6.29	122.57	118.80
27	16	44	G	OP2-P-O3'	6.28	119.02	105.20
26	1H	1306	C	C6-N1-C2	6.28	122.81	120.30
26	1H	913	U	OP1-P-OP2	6.27	129.01	119.60
26	1H	1346	G	N1-C6-O6	-6.27	116.14	119.90
26	1H	2439	A	O5'-P-OP2	-6.27	100.06	105.70
26	1H	2451	A	N9-C4-C5	6.27	108.31	105.80
24	3L	76	A	N1-C6-N6	6.27	122.36	118.60
26	14	1786	A	N1-C6-N6	6.27	122.36	118.60
26	14	1681	G	C5-N7-C8	-6.27	101.17	104.30
26	1H	1769	G	O5'-P-OP2	-6.26	100.07	105.70
26	14	971	C	C6-N1-C2	-6.26	117.80	120.30
26	14	102	G	C4-N9-C1'	-6.25	118.37	126.50
26	14	2238	G	C2-N3-C4	6.25	115.03	111.90
26	1H	2249	U	N3-C4-O4	-6.25	115.02	119.40
26	14	1658	C	C6-N1-C2	-6.25	117.80	120.30
26	14	2435	A	N7-C8-N9	6.25	116.93	113.80
26	14	1642	G	OP2-P-O3'	6.25	118.95	105.20
26	14	1332	G	C5-C6-O6	-6.25	124.85	128.60
26	14	2357	U	O5'-P-OP2	-6.25	100.08	105.70
26	14	2542	A	O5'-P-OP1	6.25	118.20	110.70
26	14	1698	A	C2-N3-C4	-6.25	107.48	110.60
26	1H	2503	A	C5-C6-N6	-6.24	118.71	123.70
26	1H	71	A	N3-C4-C5	6.24	131.17	126.80
26	1H	735	A	C8-N9-C4	6.24	108.30	105.80
26	14	2374	C	C6-N1-C2	6.24	122.80	120.30
26	1H	196	A	O4'-C1'-N9	6.24	113.19	108.20
26	1H	140	A	O4'-C1'-N9	6.23	113.19	108.20
26	1H	790	C	N1-C2-O2	-6.23	115.16	118.90
23	2L	48	U	P-O3'-C3'	6.23	127.18	119.70
26	14	707	G	C5-C6-N1	-6.23	108.38	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1364	G	N9-C4-C5	-6.23	102.91	105.40
26	1H	1888	G	N3-C4-N9	6.23	129.74	126.00
1	1G	1128	C	C5-C6-N1	6.23	124.11	121.00
23	2K	6	G	C8-N9-C4	6.23	108.89	106.40
23	2K	77	A	C4-C5-N7	6.23	113.81	110.70
1	13	1412	C	C6-N1-C2	6.23	122.79	120.30
1	13	974	A	C4-N9-C1'	6.22	137.50	126.30
26	1H	1926	U	O5'-P-OP2	-6.22	100.10	105.70
26	1H	948	G	O5'-P-OP2	6.22	118.16	110.70
26	14	1021	A	N3-C4-C5	6.22	131.15	126.80
26	14	2726	U	N3-C2-O2	-6.22	117.85	122.20
26	14	2688	U	C5-C4-O4	6.22	129.63	125.90
26	14	1816	G	O5'-P-OP1	-6.21	100.11	105.70
24	3K	76	A	C5-N7-C8	-6.21	100.80	103.90
26	1H	2495	G	N3-C2-N2	-6.21	115.56	119.90
26	1H	2600	A	N1-C6-N6	-6.21	114.88	118.60
1	13	1360	A	N7-C8-N9	6.21	116.90	113.80
26	1H	2830	G	N9-C4-C5	6.21	107.88	105.40
26	14	55	G	C5-N7-C8	-6.21	101.20	104.30
26	1H	609	A	C5-C6-N6	-6.20	118.74	123.70
26	1H	2054	A	OP2-P-O3'	6.20	118.85	105.20
26	14	2776	A	P-O3'-C3'	6.20	127.14	119.70
26	14	2449	U	N3-C4-O4	6.20	123.74	119.40
1	13	328	C	C6-N1-C1'	-6.20	113.37	120.80
26	1H	2543	G	C5-C6-O6	-6.19	124.88	128.60
35	58	15	LEU	CA-CB-CG	6.19	129.54	115.30
26	14	774	A	C5-N7-C8	-6.19	100.80	103.90
26	14	2873	A	C5-C6-N1	-6.19	114.60	117.70
26	1H	1942	C	C5-C6-N1	6.19	124.10	121.00
26	14	963	U	O5'-P-OP1	-6.19	100.13	105.70
26	14	2392	A	C2-N3-C4	-6.19	107.50	110.60
26	1H	2490	G	C2-N3-C4	-6.19	108.81	111.90
26	1H	2713	A	N1-C6-N6	6.19	122.31	118.60
26	1H	1758	G	N9-C4-C5	-6.19	102.92	105.40
26	14	676	A	C8-N9-C4	-6.19	103.33	105.80
1	1G	1474	G	N1-C6-O6	6.19	123.61	119.90
26	14	1021	A	N3-C4-N9	-6.18	122.45	127.40
26	1H	2495	G	N1-C6-O6	6.18	123.61	119.90
26	1H	2501	C	OP2-P-O3'	6.18	118.80	105.20
26	14	1950	G	N3-C2-N2	6.18	124.23	119.90
26	1H	964	C	C5-C4-N4	-6.18	115.87	120.20
26	14	945	A	C5-C6-N6	-6.18	118.75	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	566	U	C5-C4-O4	-6.18	122.19	125.90
26	1H	1363	C	O5'-P-OP2	-6.18	100.14	105.70
1	1G	1139	G	N3-C4-C5	6.18	131.69	128.60
26	14	1903	G	O5'-P-OP1	-6.18	100.14	105.70
26	1H	1616	A	OP1-P-O3'	6.18	118.79	105.20
26	1H	2595	G	N1-C6-O6	-6.17	116.20	119.90
26	14	783	A	N3-C4-C5	6.17	131.12	126.80
26	14	2304	G	N3-C4-N9	-6.17	122.30	126.00
27	16	13	A	O5'-P-OP2	-6.17	100.14	105.70
26	1H	2593	U	OP2-P-O3'	6.17	118.77	105.20
26	1H	772	C	N3-C4-N4	6.17	122.32	118.00
1	1G	1358	U	C6-N1-C2	-6.17	117.30	121.00
26	1H	1284	A	O5'-P-OP2	-6.17	100.15	105.70
1	1G	1526	G	C4-N9-C1'	6.17	134.51	126.50
26	1H	71	A	O4'-C1'-N9	-6.16	103.27	108.20
26	1H	2056	G	C8-N9-C1'	-6.16	118.99	127.00
26	1H	1274	A	O5'-P-OP2	-6.16	100.16	105.70
26	14	1011	G	O4'-C1'-N9	6.16	113.13	108.20
26	1H	420	C	C6-N1-C2	6.16	122.76	120.30
26	14	1011	G	C4-N9-C1'	-6.16	118.50	126.50
1	13	1084	G	N3-C4-N9	6.15	129.69	126.00
26	14	530	G	C4-C5-N7	6.15	113.26	110.80
1	13	890	G	O4'-C1'-N9	6.15	113.12	108.20
26	1H	1528	A	N7-C8-N9	6.15	116.88	113.80
22	1K	74	C	N3-C4-C5	6.15	124.36	121.90
1	1G	932	C	C2-N1-C1'	6.15	125.57	118.80
26	14	1939	U	OP2-P-O3'	6.15	118.73	105.20
26	14	1610	A	C8-N9-C4	6.15	108.26	105.80
26	14	138	G	N3-C4-C5	-6.15	125.53	128.60
26	14	2413	G	N1-C6-O6	6.14	123.59	119.90
27	1J	30	C	C2-N1-C1'	6.14	125.56	118.80
26	14	642	G	N7-C8-N9	6.14	116.17	113.10
26	1H	624	C	N1-C2-O2	-6.14	115.22	118.90
1	13	1356	G	C4-N9-C1'	6.14	134.48	126.50
26	1H	71	A	C5-C6-N6	-6.14	118.79	123.70
26	1H	761	A	C5-N7-C8	-6.14	100.83	103.90
26	1H	1799	G	P-O3'-C3'	6.14	127.06	119.70
26	14	1698	A	N7-C8-N9	6.14	116.87	113.80
1	13	1336	C	C5-C6-N1	6.13	124.07	121.00
26	1H	115	C	C6-N1-C2	6.13	122.75	120.30
1	13	703	G	C4-N9-C1'	6.13	134.47	126.50
23	2K	77	A	N1-C6-N6	6.13	122.28	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	345	C	P-O3'-C3'	6.13	127.05	119.70
26	14	1654	A	N1-C6-N6	-6.13	114.92	118.60
26	14	2211	G	C4-N9-C1'	6.13	134.47	126.50
26	1H	2406	U	O5'-P-OP1	-6.12	100.19	105.70
26	14	1382	G	C4-C5-N7	6.12	113.25	110.80
1	13	3	G	C8-N9-C4	-6.12	103.95	106.40
54	P8	12	ARG	NE-CZ-NH1	-6.12	117.24	120.30
26	14	2417	C	O5'-P-OP2	-6.12	100.19	105.70
1	1G	883	C	O5'-P-OP1	-6.12	100.19	105.70
26	1H	2392	A	C5-C6-N1	-6.12	114.64	117.70
26	14	1950	G	C6-C5-N7	-6.12	126.73	130.40
26	14	2829	C	C6-N1-C2	6.12	122.75	120.30
26	14	2439	A	N1-C6-N6	6.12	122.27	118.60
26	1H	46	C	O5'-P-OP1	-6.11	100.20	105.70
26	1H	2474	C	N1-C2-O2	6.11	122.57	118.90
40	65	110	LEU	CA-CB-CG	6.11	129.36	115.30
26	1H	964	C	N1-C2-O2	-6.11	115.23	118.90
24	3L	76	A	C6-C5-N7	-6.11	128.02	132.30
1	13	974	A	N1-C6-N6	6.11	122.27	118.60
26	1H	1310	G	N1-C2-N2	6.11	121.70	116.20
26	14	1638	C	OP1-P-O3'	-6.10	91.77	105.20
26	1H	536	A	O5'-P-OP1	6.10	118.02	110.70
26	1H	1404	C	O5'-P-OP2	-6.10	100.21	105.70
26	14	389	G	N3-C4-N9	6.10	129.66	126.00
1	1G	495	A	N1-C6-N6	-6.10	114.94	118.60
26	14	2336	A	O4'-C1'-N9	-6.10	103.32	108.20
1	13	3	G	N7-C8-N9	6.09	116.15	113.10
26	1H	679	C	C6-N1-C2	6.09	122.74	120.30
26	1H	2037	G	O5'-P-OP1	6.09	118.01	110.70
26	1H	765	G	N1-C6-O6	6.09	123.55	119.90
26	1H	1662	C	C6-N1-C2	6.09	122.74	120.30
26	1H	127	A	N1-C6-N6	6.09	122.25	118.60
26	14	1024	G	N1-C6-O6	6.09	123.55	119.90
26	14	1391	U	O5'-P-OP2	6.08	118.00	110.70
26	1H	2442	C	C6-N1-C2	6.08	122.73	120.30
1	1G	1517	G	O5'-P-OP2	-6.08	100.22	105.70
26	14	689	A	O5'-P-OP2	-6.08	100.22	105.70
26	14	1616	A	C2-N3-C4	-6.08	107.56	110.60
1	13	963	G	N3-C4-C5	-6.08	125.56	128.60
26	1H	1006	C	O5'-P-OP1	-6.08	100.23	105.70
26	1H	2062	A	C2-N3-C4	6.08	113.64	110.60
1	1G	117	G	C6-C5-N7	-6.08	126.75	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2281	C	C5-C6-N1	6.08	124.04	121.00
1	1G	413	G	O4'-C1'-N9	6.08	113.06	108.20
26	1H	474	G	N3-C4-N9	-6.08	122.35	126.00
26	1H	1600	C	O5'-P-OP2	-6.08	100.23	105.70
26	14	982	C	C6-N1-C2	-6.08	117.87	120.30
26	14	2438	U	O5'-P-OP2	-6.08	100.23	105.70
26	1H	2062	A	C8-N9-C4	6.08	108.23	105.80
26	1H	74	A	O4'-C1'-N9	-6.07	103.34	108.20
26	14	691	C	N1-C2-O2	-6.07	115.26	118.90
26	14	2318	G	C4-N9-C1'	6.07	134.40	126.50
26	1H	774	A	O5'-P-OP2	-6.07	100.24	105.70
26	1H	2392	A	N7-C8-N9	6.07	116.83	113.80
26	14	270(C)	C	C6-N1-C2	-6.07	117.87	120.30
27	1J	89	G	C4-N9-C1'	6.07	134.39	126.50
1	13	365	U	O4'-C1'-N1	6.07	113.05	108.20
26	1H	760	G	N1-C6-O6	6.07	123.54	119.90
26	1H	1367	A	C2-N3-C4	-6.07	107.57	110.60
26	14	2477	C	N3-C2-O2	-6.07	117.65	121.90
1	13	1519	A	N9-C4-C5	6.06	108.23	105.80
26	1H	827	U	N3-C2-O2	6.06	126.44	122.20
26	14	1780	A	C5-C6-N6	6.06	128.55	123.70
1	1G	1200	C	C2-N1-C1'	6.06	125.47	118.80
26	14	512	G	O4'-C1'-N9	6.06	113.05	108.20
24	3K	5	C	C6-N1-C2	-6.06	117.88	120.30
26	1H	1022	G	N3-C2-N2	-6.06	115.66	119.90
26	1H	1698	A	O4'-C1'-N9	6.06	113.05	108.20
26	14	621	A	C5-N7-C8	-6.06	100.87	103.90
26	1H	1558	A	P-O3'-C3'	6.05	126.96	119.70
26	14	493	G	N1-C6-O6	6.05	123.53	119.90
26	14	2373	G	N3-C4-C5	6.05	131.63	128.60
26	1H	575	A	C8-N9-C4	6.05	108.22	105.80
26	1H	1681	G	N3-C4-C5	6.05	131.62	128.60
26	14	2429	G	O5'-P-OP1	6.05	117.96	110.70
26	1H	746	A	O4'-C1'-N9	6.05	113.04	108.20
26	1H	1993	U	N1-C2-O2	-6.05	118.57	122.80
26	1H	2071	A	N1-C6-N6	6.05	122.23	118.60
26	1H	2378	A	N1-C6-N6	6.05	122.23	118.60
26	14	2439	A	C4-N9-C1'	6.05	137.19	126.30
26	1H	783	A	C8-N9-C4	-6.05	103.38	105.80
26	1H	1313	U	C6-N1-C2	-6.04	117.37	121.00
26	1H	1348	G	C4-N9-C1'	-6.04	118.64	126.50
26	1H	2585	U	N1-C2-O2	6.04	127.03	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	982	C	N3-C4-C5	-6.04	119.48	121.90
26	14	2494	G	N3-C4-C5	6.04	131.62	128.60
26	14	805	G	C6-C5-N7	-6.04	126.78	130.40
26	14	982	C	N3-C4-N4	6.04	122.23	118.00
1	13	1195	C	C6-N1-C2	-6.04	117.88	120.30
25	4K	11	U	OP1-P-O3'	6.03	118.47	105.20
26	1H	265	A	N7-C8-N9	6.03	116.82	113.80
26	14	1950	G	N3-C4-C5	-6.03	125.58	128.60
26	1H	691	C	N1-C2-O2	-6.03	115.28	118.90
26	1H	1528	A	C8-N9-C4	-6.03	103.39	105.80
26	14	148	C	C6-N1-C2	6.03	122.71	120.30
26	14	1328	G	C4-C5-N7	6.03	113.21	110.80
26	14	2307	G	O4'-C1'-N9	6.03	113.02	108.20
1	13	5	U	C2-N1-C1'	6.03	124.94	117.70
1	1G	117	G	C5-C6-O6	-6.03	124.98	128.60
26	1H	1989	G	C5-C6-O6	-6.03	124.98	128.60
26	14	57	C	OP2-P-O3'	6.03	118.46	105.20
26	1H	1574	C	N1-C2-O2	-6.02	115.29	118.90
26	1H	1771	C	N1-C2-O2	-6.02	115.29	118.90
1	1G	1499	A	C8-N9-C4	6.02	108.21	105.80
26	14	788	A	N1-C6-N6	6.02	122.21	118.60
26	14	470	A	N1-C6-N6	6.02	122.21	118.60
26	14	1899	G	C4-C5-N7	6.02	113.21	110.80
26	1H	1674	G	C6-C5-N7	-6.02	126.79	130.40
26	1H	1972	A	OP1-P-OP2	-6.02	110.57	119.60
26	1H	1236	G	C8-N9-C4	6.02	108.81	106.40
26	1H	2054	A	C5-N7-C8	-6.02	100.89	103.90
1	13	827	U	C2-N1-C1'	6.01	124.92	117.70
26	1H	138	G	C8-N9-C4	-6.01	103.99	106.40
24	3K	76	A	O4'-C1'-N9	6.01	113.01	108.20
26	1H	1428	C	C6-N1-C2	6.01	122.70	120.30
1	1G	883	C	C6-N1-C2	-6.01	117.90	120.30
26	14	330	A	N1-C6-N6	6.01	122.20	118.60
26	1H	1382	G	N9-C4-C5	-6.01	103.00	105.40
26	1H	805	G	N9-C4-C5	-6.00	103.00	105.40
1	13	1065	U	P-O3'-C3'	6.00	126.90	119.70
26	1H	205	G	C8-N9-C4	6.00	108.80	106.40
26	1H	752	A	N1-C2-N3	6.00	132.30	129.30
26	14	1301	A	O4'-C1'-N9	6.00	113.00	108.20
1	1G	1474	G	N3-C4-C5	6.00	131.60	128.60
26	1H	1601	G	N3-C2-N2	6.00	124.10	119.90
26	1H	1898	U	N1-C2-O2	-6.00	118.60	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2287	A	N3-C4-C5	6.00	131.00	126.80
26	1H	752	A	C2-N3-C4	-6.00	107.60	110.60
26	14	102	G	C8-N9-C1'	6.00	134.79	127.00
26	14	672	C	O5'-P-OP1	5.99	117.89	110.70
26	1H	2518	A	C4-C5-N7	5.99	113.70	110.70
27	16	12	C	C6-N1-C2	-5.99	117.90	120.30
26	14	2689	U	P-O3'-C3'	5.99	126.89	119.70
46	G8	81	LYS	C-N-CA	5.99	147.15	122.00
26	1H	1790	C	C5-C4-N4	-5.99	116.01	120.20
1	13	975	A	N1-C6-N6	5.98	122.19	118.60
22	1K	49	G	C8-N9-C1'	5.98	134.78	127.00
26	1H	827	U	N1-C2-O2	-5.98	118.61	122.80
26	14	576	U	C5-C4-O4	-5.98	122.31	125.90
26	1H	1626	G	N3-C2-N2	-5.98	115.71	119.90
26	1H	1621	U	N3-C2-O2	5.98	126.39	122.20
26	1H	248	G	C8-N9-C4	5.98	108.79	106.40
26	1H	1797	C	N1-C2-O2	-5.98	115.31	118.90
26	14	2247	A	C8-N9-C4	-5.98	103.41	105.80
26	14	2378	A	N1-C6-N6	5.97	122.19	118.60
26	1H	2025	C	C6-N1-C2	-5.97	117.91	120.30
26	1H	2210	G	P-O3'-C3'	5.97	126.87	119.70
26	1H	834	C	N1-C2-O2	-5.97	115.32	118.90
27	16	41	U	C5-C6-N1	-5.97	119.72	122.70
1	13	972	C	O5'-P-OP1	-5.97	100.33	105.70
1	1G	1267	C	N1-C2-O2	5.97	122.48	118.90
1	1G	1322	C	N3-C4-N4	-5.96	113.83	118.00
26	1H	138	G	C6-C5-N7	-5.96	126.82	130.40
26	1H	729	G	N1-C6-O6	5.96	123.47	119.90
26	1H	837	C	C6-N1-C2	-5.96	117.92	120.30
26	14	1332	G	C8-N9-C1'	-5.95	119.26	127.00
26	1H	577	G	C6-C5-N7	-5.95	126.83	130.40
26	1H	270(L)	U	O4'-C1'-N1	5.95	112.96	108.20
26	1H	741	G	N1-C6-O6	5.95	123.47	119.90
26	14	37	C	O5'-P-OP2	-5.95	100.35	105.70
26	14	67	U	C2-N3-C4	5.95	130.57	127.00
26	14	1210	A	C5-N7-C8	-5.95	100.92	103.90
26	14	307	G	N1-C6-O6	5.95	123.47	119.90
26	14	1779	U	C2-N1-C1'	5.95	124.83	117.70
26	1H	48	G	OP2-P-O3'	5.94	118.28	105.20
26	1H	739	G	C5-C6-O6	-5.94	125.03	128.60
26	1H	945	A	O4'-C1'-N9	5.94	112.95	108.20
26	1H	1408	C	N1-C2-O2	-5.94	115.34	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	205	G	N9-C4-C5	-5.94	103.03	105.40
26	1H	1192	G	N1-C6-O6	5.94	123.46	119.90
26	14	1314	C	N1-C2-O2	5.93	122.46	118.90
26	1H	785	G	N3-C2-N2	-5.93	115.75	119.90
26	1H	646	A	C8-N9-C4	-5.93	103.43	105.80
26	1H	2318	G	N7-C8-N9	5.93	116.06	113.10
26	1H	1657	C	OP1-P-O3'	5.93	118.24	105.20
26	1H	2297	C	OP1-P-OP2	5.93	128.49	119.60
26	1H	1616	A	C5-C6-N6	-5.93	118.96	123.70
26	14	2436	G	C5-C6-O6	-5.93	125.04	128.60
26	1H	783	A	O5'-P-OP2	-5.93	100.37	105.70
26	1H	843	G	O5'-P-OP1	5.93	117.81	110.70
26	1H	1642	G	O5'-P-OP1	-5.93	100.37	105.70
26	1H	1426	G	C5-C6-O6	-5.92	125.05	128.60
26	1H	1981	A	C4-C5-C6	-5.92	114.04	117.00
1	1G	722	A	N1-C6-N6	5.92	122.15	118.60
26	14	194	G	N1-C6-O6	5.92	123.45	119.90
1	1G	1096	C	C6-N1-C2	-5.92	117.93	120.30
26	14	784	A	N3-C4-N9	-5.92	122.66	127.40
26	14	2328	A	C6-N1-C2	-5.92	115.05	118.60
26	14	2287	A	N1-C2-N3	5.92	132.26	129.30
26	1H	2507	C	N3-C2-O2	-5.92	117.76	121.90
26	14	201	C	C5-C6-N1	-5.92	118.04	121.00
26	14	2573	C	N1-C2-O2	5.92	122.45	118.90
26	14	341	G	O5'-P-OP2	-5.92	100.38	105.70
26	14	774	A	N3-C4-N9	-5.92	122.67	127.40
26	14	203	C	N1-C2-O2	-5.91	115.35	118.90
26	1H	2253	G	C5-N7-C8	-5.91	101.34	104.30
26	1H	2259	G	N1-C6-O6	5.91	123.45	119.90
1	13	1203	C	C5-C6-N1	5.91	123.95	121.00
26	1H	472	A	O5'-P-OP2	-5.91	100.38	105.70
26	14	641	C	C6-N1-C2	5.91	122.66	120.30
22	1K	76	A	C5-N7-C8	-5.91	100.95	103.90
26	1H	2056	G	C5-N7-C8	5.91	107.25	104.30
27	16	81	G	C5-N7-C8	-5.91	101.35	104.30
26	14	74	A	C5-N7-C8	-5.91	100.94	103.90
1	13	738	C	C5-C6-N1	5.90	123.95	121.00
26	1H	464	U	C5-C6-N1	-5.90	119.75	122.70
26	14	1787	A	C4-N9-C1'	5.90	136.92	126.30
26	14	2079	U	O5'-P-OP1	-5.90	100.39	105.70
26	1H	1899	G	C4-C5-C6	-5.90	115.26	118.80
1	13	121	C	C2-N1-C1'	5.90	125.29	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	195	A	P-O3'-C3'	5.90	126.78	119.70
26	14	428	A	C8-N9-C4	-5.90	103.44	105.80
26	14	1828	G	N7-C8-N9	5.90	116.05	113.10
14	5I	12	ARG	C-N-CA	5.89	136.44	121.70
26	1H	299	A	OP2-P-O3'	5.89	118.16	105.20
26	1H	77	C	C5-C4-N4	-5.89	116.08	120.20
26	14	2392	A	N7-C8-N9	5.89	116.75	113.80
1	13	509	A	C2'-C3'-O3'	5.89	123.12	113.70
26	1H	2311	A	N7-C8-N9	5.89	116.75	113.80
37	78	61	ARG	NE-CZ-NH2	-5.89	117.36	120.30
27	1J	114	G	O4'-C1'-N9	5.89	112.91	108.20
26	1H	1548	C	OP1-P-O3'	5.88	118.14	105.20
1	1G	27	G	N1-C6-O6	5.88	123.43	119.90
26	14	1225	C	C6-N1-C2	5.88	122.65	120.30
26	1H	85	G	O5'-P-OP1	5.88	117.76	110.70
26	1H	2830	G	N7-C8-N9	5.88	116.04	113.10
26	14	1914	C	N3-C2-O2	-5.88	117.78	121.90
26	14	2873	A	C4-C5-N7	5.88	113.64	110.70
26	1H	125	G	N1-C2-N2	-5.88	110.91	116.20
26	14	642	G	N1-C6-O6	5.88	123.43	119.90
1	13	572	A	N1-C6-N6	-5.88	115.07	118.60
1	13	974	A	C8-N9-C1'	-5.88	117.12	127.70
26	1H	2071	A	C4-C5-C6	5.88	119.94	117.00
26	14	2211	G	C8-N9-C1'	-5.88	119.36	127.00
1	13	266	G	C5-N7-C8	-5.88	101.36	104.30
26	1H	678	C	C5-C6-N1	-5.88	118.06	121.00
26	1H	2869	G	C8-N9-C4	-5.88	104.05	106.40
1	1G	2	U	P-O3'-C3'	5.88	126.75	119.70
26	14	189	G	C5-C6-O6	-5.88	125.08	128.60
26	1H	668	G	OP1-P-O3'	5.87	118.12	105.20
26	14	943	U	OP1-P-O3'	5.87	118.12	105.20
26	1H	463	G	N1-C2-N2	-5.87	110.92	116.20
26	14	330	A	N1-C2-N3	5.87	132.24	129.30
26	14	729	G	C8-N9-C4	-5.87	104.05	106.40
1	13	975	A	O4'-C1'-N9	-5.87	103.50	108.20
26	1H	99	U	C2-N1-C1'	5.87	124.74	117.70
26	14	76	C	C6-N1-C2	-5.87	117.95	120.30
26	1H	270(W)	G	N1-C6-O6	5.87	123.42	119.90
26	1H	462	C	O5'-P-OP2	-5.87	100.42	105.70
26	1H	2827	C	C6-N1-C2	5.87	122.65	120.30
26	1H	439	G	N1-C6-O6	5.86	123.42	119.90
26	1H	1348	G	N3-C4-C5	5.86	131.53	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1801	G	C5-C6-O6	-5.86	125.08	128.60
26	14	2820	A	OP1-P-O3'	5.86	118.09	105.20
1	13	121	C	C6-N1-C1'	-5.86	113.77	120.80
26	1H	658	C	O5'-P-OP2	-5.86	100.43	105.70
26	1H	948	G	N3-C4-N9	-5.86	122.49	126.00
1	13	1103	C	C6-N1-C2	-5.86	117.96	120.30
26	14	605	C	C6-N1-C2	5.86	122.64	120.30
26	14	1661	G	C6-C5-N7	-5.85	126.89	130.40
26	1H	2554	U	N1-C2-O2	-5.85	118.70	122.80
26	14	2013	A	C2-N3-C4	-5.85	107.67	110.60
25	4K	12	A	C2-N3-C4	5.85	113.53	110.60
26	1H	1510	A	C2-N3-C4	5.85	113.53	110.60
1	1G	921	U	O5'-P-OP1	5.85	117.72	110.70
26	1H	1829	A	N1-C6-N6	-5.84	115.09	118.60
26	14	1787	A	N7-C8-N9	5.84	116.72	113.80
1	13	888	G	C4-C5-N7	5.84	113.14	110.80
26	1H	2283	C	N3-C2-O2	5.84	125.99	121.90
1	1G	974	A	P-O3'-C3'	5.84	126.71	119.70
26	1H	208	C	OP2-P-O3'	5.84	118.05	105.20
27	16	7	G	C6-C5-N7	-5.84	126.89	130.40
36	25	8	LEU	CA-CB-CG	5.84	128.74	115.30
1	1G	991	U	OP2-P-O3'	5.84	118.05	105.20
26	14	945	A	C4-N9-C1'	5.84	136.81	126.30
26	1H	115	C	C5-C4-N4	-5.84	116.11	120.20
26	14	575	A	C5-C6-N6	-5.84	119.03	123.70
26	1H	458	G	C8-N9-C1'	5.84	134.59	127.00
26	1H	624	C	N3-C2-O2	5.84	125.99	121.90
33	59	92	ILE	CG1-CB-CG2	-5.83	98.56	111.40
26	1H	189	G	N1-C6-O6	5.83	123.40	119.90
26	1H	2713	A	C4-C5-N7	5.83	113.62	110.70
26	14	945	A	C8-N9-C1'	-5.83	117.20	127.70
26	14	1661	G	C5-C6-O6	-5.83	125.10	128.60
26	1H	1517	G	OP1-P-O3'	5.83	118.02	105.20
26	1H	1623	G	N1-C6-O6	-5.83	116.40	119.90
1	1G	413	G	N3-C4-N9	-5.83	122.50	126.00
26	1H	198	C	N3-C4-C5	5.83	124.23	121.90
26	14	1332	G	N1-C2-N3	5.83	127.40	123.90
26	14	2392	A	C5-N7-C8	-5.83	100.99	103.90
32	49	2	PRO	N-CA-CB	5.83	110.29	103.30
26	1H	142	G	C4-N9-C1'	-5.82	118.93	126.50
1	1G	1113	C	C5-C6-N1	5.82	123.91	121.00
26	1H	1021	A	C8-N9-C4	-5.82	103.47	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	57	G	N3-C4-C5	-5.82	125.69	128.60
1	13	1506	U	C5-C4-O4	-5.82	122.41	125.90
25	4L	14	A	C8-N9-C4	5.82	108.13	105.80
24	3K	76	A	C4-C5-N7	5.82	113.61	110.70
26	1H	774	A	C5-C6-N1	-5.82	114.79	117.70
26	1H	2503	A	N1-C6-N6	5.82	122.09	118.60
26	14	855	G	N7-C8-N9	5.82	116.01	113.10
26	1H	1669	A	C8-N9-C4	-5.81	103.47	105.80
26	1H	577	G	C4-C5-C6	5.81	122.29	118.80
1	1G	413	G	N7-C8-N9	-5.81	110.19	113.10
1	1G	771	G	C5-C6-O6	5.81	132.09	128.60
26	14	2426	A	C6-C5-N7	-5.81	128.23	132.30
26	14	2594	C	N3-C2-O2	5.81	125.97	121.90
26	1H	834	C	OP2-P-O3'	5.81	117.98	105.20
26	1H	958	U	C6-N1-C2	-5.81	117.52	121.00
26	1H	1496	A	C4-C5-N7	5.81	113.60	110.70
26	14	133	C	N3-C4-C5	5.81	124.22	121.90
26	14	1285	G	OP2-P-O3'	5.81	117.98	105.20
26	1H	1858	G	C8-N9-C1'	-5.81	119.45	127.00
26	1H	628	G	OP1-P-OP2	5.80	128.31	119.60
26	14	1786	A	N3-C4-C5	5.80	130.86	126.80
1	13	1084	G	N3-C4-C5	-5.80	125.70	128.60
26	1H	34	C	O5'-P-OP1	-5.80	100.48	105.70
26	1H	761	A	C8-N9-C1'	-5.80	117.26	127.70
1	1G	553	A	O5'-P-OP2	-5.80	100.48	105.70
26	1H	2689	U	N3-C4-O4	-5.80	115.34	119.40
26	14	1377	G	N1-C6-O6	5.80	123.38	119.90
26	1H	917	A	C5-C6-N1	-5.80	114.80	117.70
26	1H	1557	C	O5'-P-OP2	-5.80	100.48	105.70
26	14	830	G	C8-N9-C4	5.80	108.72	106.40
26	14	2552	U	N3-C4-O4	5.80	123.46	119.40
1	13	67	C	C6-N1-C2	-5.80	117.98	120.30
26	1H	815	C	N3-C4-C5	5.80	124.22	121.90
26	1H	945	A	C5-C6-N1	-5.80	114.80	117.70
26	14	700	G	C8-N9-C4	-5.80	104.08	106.40
26	14	1283	G	O5'-P-OP2	-5.80	100.48	105.70
26	1H	194	G	C8-N9-C4	5.79	108.72	106.40
26	14	774	A	N9-C4-C5	-5.79	103.48	105.80
25	4L	23	A	P-O3'-C3'	5.79	126.65	119.70
26	14	642	G	C6-C5-N7	-5.79	126.92	130.40
26	1H	1698	A	C4-C5-N7	5.79	113.59	110.70
26	14	1388	G	O5'-P-OP2	-5.79	100.49	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1161	C	C5-C6-N1	5.79	123.89	121.00
1	13	888	G	C5-C6-O6	-5.79	125.13	128.60
26	1H	917	A	C4-C5-N7	5.79	113.59	110.70
26	1H	1025	G	N3-C4-C5	-5.79	125.71	128.60
30	21	49	LEU	CA-CB-CG	-5.79	101.99	115.30
26	14	141	A	N7-C8-N9	5.79	116.69	113.80
26	1H	1368	G	N1-C6-O6	5.78	123.37	119.90
26	14	1784	A	OP1-P-OP2	5.78	128.28	119.60
1	13	129	U	C5-C4-O4	5.78	129.37	125.90
26	1H	2469	A	C2-N3-C4	-5.78	107.71	110.60
1	1G	1298	C	C2-N1-C1'	5.78	125.15	118.80
1	13	748	C	C6-N1-C2	-5.78	117.99	120.30
47	H8	76	LEU	CA-CB-CG	5.78	128.59	115.30
26	1H	609	A	C8-N9-C4	5.77	108.11	105.80
26	1H	1886	C	C6-N1-C2	5.77	122.61	120.30
26	14	2381	C	C2-N1-C1'	-5.77	112.45	118.80
27	1J	22	U	C5-C6-N1	5.77	125.59	122.70
1	13	858	G	C8-N9-C4	-5.77	104.09	106.40
26	1H	593	G	C6-C5-N7	-5.77	126.94	130.40
26	1H	1210	A	C6-C5-N7	-5.77	128.26	132.30
26	1H	1596	A	N1-C6-N6	-5.77	115.14	118.60
26	14	2334	G	C8-N9-C4	5.77	108.71	106.40
26	1H	468	G	C8-N9-C4	5.77	108.71	106.40
26	1H	2006	C	C6-N1-C2	5.77	122.61	120.30
27	16	44	G	P-O3'-C3'	5.77	126.62	119.70
1	1G	422	C	O4'-C1'-N1	5.77	112.81	108.20
26	1H	330	A	C5-N7-C8	-5.76	101.02	103.90
26	1H	2451	A	N1-C6-N6	-5.76	115.14	118.60
26	14	2439	A	C4-C5-C6	5.76	119.88	117.00
6	52	14	LEU	CA-CB-CG	5.76	128.55	115.30
26	1H	582	G	C6-C5-N7	-5.76	126.94	130.40
26	1H	970	C	O5'-P-OP2	5.76	117.61	110.70
26	1H	1852	C	N1-C2-O2	-5.76	115.44	118.90
26	14	1585	C	C2-N1-C1'	5.76	125.14	118.80
26	1H	142	G	N3-C4-C5	5.76	131.48	128.60
1	13	977	A	N1-C6-N6	-5.76	115.14	118.60
26	1H	1695	G	OP1-P-OP2	5.76	128.24	119.60
26	14	2210	G	C4-N9-C1'	5.76	133.99	126.50
26	1H	1821	A	C2-N3-C4	-5.76	107.72	110.60
26	1H	1950	G	C2-N3-C4	-5.75	109.02	111.90
26	1H	2253	G	C5-C6-O6	-5.75	125.15	128.60
26	1H	2346	A	C8-N9-C1'	-5.75	117.34	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	125	G	N3-C2-N2	5.75	123.92	119.90
26	1H	1758	G	C8-N9-C4	5.75	108.70	106.40
26	14	1328	G	C6-C5-N7	-5.75	126.95	130.40
26	1H	1235	G	C4-N9-C1'	5.75	133.97	126.50
26	14	205	G	OP1-P-OP2	5.75	128.22	119.60
26	1H	2401	U	C5-C6-N1	5.75	125.57	122.70
26	14	945	A	O4'-C1'-N9	5.75	112.80	108.20
26	14	1347	G	OP1-P-O3'	5.75	117.85	105.20
26	14	2552	U	C5-C4-O4	-5.75	122.45	125.90
26	1H	2210	G	OP2-P-O3'	5.75	117.84	105.20
26	1H	1029	A	C5-C6-N6	-5.75	119.10	123.70
1	1G	266	G	P-O3'-C3'	5.74	126.59	119.70
26	1H	1950	G	N3-C4-C5	5.74	131.47	128.60
1	1G	1286	A	C8-N9-C4	-5.74	103.50	105.80
26	1H	969	U	C5-C4-O4	-5.74	122.46	125.90
26	1H	1776	G	N9-C4-C5	-5.74	103.10	105.40
1	1G	353	A	N7-C8-N9	5.74	116.67	113.80
1	1G	413	G	C8-N9-C4	5.74	108.70	106.40
26	14	2315	G	OP1-P-O3'	5.74	117.83	105.20
26	14	2346	A	N9-C1'-C2'	5.74	121.46	114.00
26	14	837	C	C5-C4-N4	-5.74	116.18	120.20
26	14	1779	U	C6-N1-C1'	-5.74	113.17	121.20
26	1H	74	A	N3-C4-C5	5.73	130.81	126.80
26	1H	372	G	O4'-C1'-N9	5.73	112.79	108.20
26	1H	1475	G	N3-C2-N2	-5.73	115.89	119.90
26	14	2542	A	O5'-P-OP2	-5.73	100.54	105.70
26	14	2615	U	O5'-P-OP1	-5.73	100.54	105.70
26	1H	1528	A	C5-N7-C8	-5.73	101.03	103.90
26	1H	2495	G	C5-C6-N1	-5.73	108.64	111.50
1	13	721	G	N3-C4-N9	5.73	129.44	126.00
26	1H	1576	U	OP2-P-O3'	5.73	117.80	105.20
1	1G	1157	A	P-O3'-C3'	5.73	126.57	119.70
26	14	784	A	C2-N3-C4	-5.73	107.74	110.60
26	14	1930	G	C4-N9-C1'	-5.73	119.06	126.50
26	1H	1192	G	C6-C5-N7	-5.73	126.96	130.40
26	1H	25	U	C5-C4-O4	-5.72	122.47	125.90
26	1H	877	U	C5-C6-N1	5.72	125.56	122.70
26	1H	2246	G	N3-C4-C5	-5.72	125.74	128.60
26	1H	2751	G	N3-C4-C5	5.72	131.46	128.60
27	1J	54	G	C8-N9-C4	-5.72	104.11	106.40
26	1H	265	A	C5-C6-N1	-5.72	114.84	117.70
26	1H	1992	G	P-O3'-C3'	5.72	126.56	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1658	C	N3-C4-C5	-5.72	119.61	121.90
26	14	1786	A	C4-N9-C1'	5.72	136.60	126.30
26	14	2430	A	C4-C5-C6	5.72	119.86	117.00
27	1J	103	U	C6-N1-C2	5.72	124.43	121.00
26	1H	1931	U	N1-C2-N3	5.72	118.33	114.90
26	1H	2024	G	O5'-P-OP1	-5.72	100.55	105.70
26	14	1656	C	C6-N1-C2	-5.72	118.01	120.30
26	1H	761	A	N9-C4-C5	-5.72	103.51	105.80
26	1H	1559	G	N3-C4-C5	5.72	131.46	128.60
26	14	2489	G	OP2-P-O3'	5.72	117.78	105.20
26	1H	2375	G	N7-C8-N9	-5.71	110.24	113.10
1	1G	1374	A	O4'-C1'-N9	5.71	112.77	108.20
26	14	201	C	C6-N1-C2	5.71	122.59	120.30
26	14	383	U	O5'-P-OP2	5.71	117.56	110.70
26	1H	930	U	N3-C2-O2	-5.71	118.20	122.20
26	1H	1157	G	C4-N9-C1'	5.71	133.93	126.50
1	1G	1397	C	C6-N1-C1'	-5.71	113.94	120.80
26	1H	2590	A	OP1-P-O3'	5.71	117.76	105.20
26	14	2315	G	N3-C4-N9	5.71	129.43	126.00
26	1H	240	G	O5'-P-OP1	5.71	117.55	110.70
26	1H	945	A	OP1-P-OP2	-5.71	111.04	119.60
26	1H	1595	G	O5'-P-OP1	-5.71	100.56	105.70
26	1H	575	A	C6-N1-C2	-5.71	115.18	118.60
26	1H	2655	G	O4'-C1'-N9	5.71	112.77	108.20
26	1H	458	G	N3-C4-N9	-5.71	122.58	126.00
26	14	1681	G	C5-C6-O6	-5.71	125.18	128.60
41	75	13	ARG	N-CA-C	-5.70	95.61	111.00
26	1H	761	A	C4-N9-C1'	5.70	136.56	126.30
26	1H	2603	G	O5'-P-OP1	-5.70	100.57	105.70
26	14	681	G	N1-C2-N2	-5.70	111.07	116.20
1	13	687	A	P-O3'-C3'	5.70	126.54	119.70
1	13	1381	U	C2-N1-C1'	5.70	124.54	117.70
26	1H	162	U	C2-N1-C1'	5.70	124.54	117.70
26	1H	1197	G	OP2-P-O3'	5.70	117.74	105.20
26	1H	1403	C	C6-N1-C2	-5.70	118.02	120.30
26	1H	2062	A	N3-C4-N9	5.70	131.96	127.40
26	1H	2598	A	N9-C4-C5	-5.70	103.52	105.80
1	13	893	C	C6-N1-C2	5.70	122.58	120.30
26	1H	1625	C	N1-C2-O2	5.70	122.32	118.90
26	1H	2213	U	O4'-C1'-N1	5.69	112.75	108.20
26	1H	2063	C	C6-N1-C2	5.69	122.58	120.30
26	14	736	C	N1-C2-O2	-5.69	115.49	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	704	G	N9-C4-C5	5.69	107.67	105.40
26	14	1313	U	C5-C6-N1	5.69	125.54	122.70
26	1H	912	C	C6-N1-C2	-5.69	118.03	120.30
26	14	2592	G	N3-C4-N9	5.69	129.41	126.00
26	1H	2029	G	O5'-P-OP1	-5.68	100.59	105.70
1	1G	1519	A	C8-N9-C4	-5.68	103.53	105.80
23	2L	35	C	C2-N1-C1'	5.68	125.05	118.80
26	14	2722	G	N1-C6-O6	5.68	123.31	119.90
1	13	1356	G	C6-C5-N7	-5.68	126.99	130.40
26	1H	741	G	C5-C6-O6	-5.68	125.19	128.60
26	1H	860	U	N3-C2-O2	-5.68	118.22	122.20
26	1H	1157	G	C8-N9-C1'	-5.68	119.62	127.00
26	1H	450	G	C5-C6-O6	-5.68	125.19	128.60
26	14	707	G	N1-C6-O6	5.68	123.31	119.90
26	14	2424	C	N1-C2-O2	5.68	122.31	118.90
26	1H	736	C	O5'-P-OP2	5.68	117.51	110.70
26	1H	1671	U	N3-C4-O4	5.68	123.37	119.40
26	1H	2490	G	C8-N9-C4	-5.68	104.13	106.40
26	14	575	A	O5'-P-OP2	5.68	117.51	110.70
26	14	783	A	N1-C2-N3	5.68	132.14	129.30
26	14	1787	A	N1-C2-N3	5.68	132.14	129.30
26	14	2356	C	OP2-P-O3'	5.68	117.69	105.20
23	2K	48	U	OP2-P-O3'	5.67	117.69	105.20
27	16	99	A	OP1-P-OP2	5.67	128.11	119.60
26	14	1022	G	C8-N9-C4	-5.67	104.13	106.40
26	14	1638	C	OP2-P-O3'	5.67	117.68	105.20
26	1H	1364	G	C4-C5-N7	5.67	113.07	110.80
26	1H	2586	C	N3-C4-C5	5.67	124.17	121.90
26	14	808	G	N3-C4-C5	-5.67	125.77	128.60
26	1H	2439	A	OP1-P-O3'	5.67	117.67	105.20
26	14	444	C	OP1-P-O3'	5.67	117.67	105.20
26	1H	1790	C	N3-C4-C5	5.67	124.17	121.90
26	1H	744	G	O5'-P-OP2	-5.66	100.60	105.70
26	1H	1586	A	N1-C6-N6	5.66	122.00	118.60
26	14	140	A	C8-N9-C4	-5.66	103.53	105.80
26	14	1780	A	N1-C2-N3	5.66	132.13	129.30
26	1H	659	C	OP2-P-O3'	5.66	117.66	105.20
26	1H	1669	A	N7-C8-N9	5.66	116.63	113.80
26	1H	2521	C	O5'-P-OP1	-5.66	100.61	105.70
26	1H	1025	G	N1-C6-O6	-5.66	116.50	119.90
26	1H	1857	G	N3-C4-N9	5.66	129.40	126.00
26	1H	2058	A	C8-N9-C4	-5.66	103.54	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1248	G	N3-C4-C5	5.66	131.43	128.60
26	1H	1858	G	P-O3'-C3'	5.66	126.49	119.70
1	13	3	G	C5-C6-O6	5.66	131.99	128.60
26	14	566	U	N3-C2-O2	5.66	126.16	122.20
26	14	2230	G	C8-N9-C4	-5.66	104.14	106.40
1	13	422	C	P-O3'-C3'	5.65	126.48	119.70
26	1H	1989	G	N3-C2-N2	-5.65	115.94	119.90
26	1H	790	C	C6-N1-C2	5.65	122.56	120.30
26	1H	2869	G	N9-C4-C5	5.65	107.66	105.40
26	1H	1187	G	C5-C6-O6	5.65	131.99	128.60
1	1G	110	C	C6-N1-C2	5.65	122.56	120.30
1	13	1513	A	N1-C6-N6	5.65	121.99	118.60
26	14	624	C	O5'-P-OP2	5.65	117.47	110.70
26	1H	1665	A	O5'-P-OP1	-5.64	100.62	105.70
26	14	1698	A	N1-C6-N6	5.64	121.99	118.60
26	14	2006	C	O5'-P-OP1	-5.64	100.62	105.70
26	1H	1217	C	N3-C2-O2	5.64	125.85	121.90
26	1H	1376	C	C6-N1-C2	-5.64	118.04	120.30
26	1H	2607	G	C8-N9-C1'	-5.64	119.67	127.00
26	14	856	C	C5-C6-N1	5.64	123.82	121.00
26	1H	508	G	P-O3'-C3'	5.64	126.47	119.70
26	1H	664	C	O5'-P-OP2	-5.64	100.62	105.70
26	1H	730	C	C6-N1-C2	-5.64	118.04	120.30
26	14	1558	A	P-O3'-C3'	5.64	126.47	119.70
26	1H	752	A	C8-N9-C4	5.64	108.06	105.80
1	1G	244	U	C5-C4-O4	-5.64	122.52	125.90
1	13	814	A	N1-C6-N6	5.64	121.98	118.60
26	1H	197	A	N1-C2-N3	5.64	132.12	129.30
26	1H	528	A	C8-N9-C1'	5.64	137.85	127.70
26	1H	2083	G	C5-C6-O6	-5.64	125.22	128.60
26	14	97	C	OP1-P-OP2	5.64	128.06	119.60
26	14	1661	G	N3-C4-N9	5.64	129.38	126.00
26	14	2549	G	N1-C6-O6	5.64	123.28	119.90
1	13	899	C	C6-N1-C2	5.63	122.55	120.30
1	1G	271	C	C6-N1-C2	-5.63	118.05	120.30
26	14	2587	A	N1-C6-N6	5.63	121.98	118.60
2	12	220	ASP	N-CA-C	5.63	126.21	111.00
26	1H	250	G	C8-N9-C4	-5.63	104.15	106.40
1	1G	481	G	C6-C5-N7	-5.63	127.02	130.40
26	14	508	G	O5'-P-OP1	-5.63	100.63	105.70
26	14	827	U	N1-C2-O2	-5.63	118.86	122.80
26	14	915	C	C6-N1-C2	-5.63	118.05	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1655	A	C8-N9-C4	5.63	108.05	105.80
26	1H	528	A	C4-N9-C1'	-5.62	116.18	126.30
26	1H	1313	U	O4'-C1'-N1	5.62	112.70	108.20
26	1H	1314	C	C2-N1-C1'	5.62	124.99	118.80
26	1H	2084	C	C5-C6-N1	-5.62	118.19	121.00
26	1H	2556	C	C5-C4-N4	-5.62	116.26	120.20
26	14	1599	C	C6-N1-C2	-5.62	118.05	120.30
1	13	802	A	N1-C6-N6	5.62	121.97	118.60
26	1H	141	A	C2-N3-C4	-5.62	107.79	110.60
26	1H	1955	U	C5-C6-N1	-5.62	119.89	122.70
26	1H	1346	G	N3-C2-N2	5.62	123.83	119.90
26	14	1820	U	C6-N1-C2	5.62	124.37	121.00
26	14	2318	G	C6-C5-N7	-5.62	127.03	130.40
26	1H	679	C	C5-C6-N1	-5.62	118.19	121.00
1	1G	748	C	P-O3'-C3'	5.62	126.44	119.70
1	1G	792	A	C8-N9-C4	5.62	108.05	105.80
22	1K	75	C	N1-C2-O2	5.61	122.27	118.90
1	1G	1397	C	N1-C2-O2	5.61	122.27	118.90
26	14	1527	G	N3-C4-N9	-5.61	122.63	126.00
26	1H	2244	U	C4-C5-C6	5.61	123.07	119.70
26	14	1585	C	N3-C2-O2	-5.61	117.97	121.90
26	14	1728	G	N3-C4-N9	5.61	129.37	126.00
26	1H	1235	G	C6-C5-N7	-5.61	127.03	130.40
26	14	1642	G	C5-C6-O6	-5.61	125.23	128.60
26	1H	630	G	C8-N9-C4	5.61	108.64	106.40
26	1H	2411	A	O5'-P-OP1	-5.61	100.66	105.70
26	1H	2430	A	N1-C2-N3	5.61	132.10	129.30
26	14	1385	G	N3-C4-C5	5.61	131.40	128.60
26	1H	609	A	C4-C5-N7	5.60	113.50	110.70
26	1H	575	A	N1-C2-N3	5.60	132.10	129.30
26	1H	1318	C	N3-C4-N4	5.60	121.92	118.00
26	1H	1577	C	O5'-P-OP2	-5.60	100.66	105.70
26	14	725	G	C8-N9-C4	-5.60	104.16	106.40
26	14	1377	G	C5-C6-O6	-5.60	125.24	128.60
26	14	1842	G	N1-C6-O6	-5.60	116.54	119.90
26	14	1989	G	N3-C2-N2	-5.60	115.98	119.90
26	14	2374	C	N3-C4-C5	5.60	124.14	121.90
26	14	2871	C	O5'-P-OP2	-5.60	100.66	105.70
26	1H	1396	U	N1-C2-O2	5.60	126.72	122.80
26	1H	942	G	N3-C2-N2	-5.60	115.98	119.90
26	1H	1786	A	OP1-P-O3'	5.60	117.52	105.20
26	1H	2392	A	C8-N9-C4	-5.60	103.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	J8	94	LEU	CA-CB-CG	5.60	128.18	115.30
26	1H	1489	U	C5-C4-O4	5.60	129.26	125.90
26	14	140	A	C6-C5-N7	-5.60	128.38	132.30
26	14	784	A	O5'-P-OP1	-5.60	100.66	105.70
26	14	1678	G	C4-C5-N7	5.60	113.04	110.80
23	2K	29	C	OP2-P-O3'	5.60	117.51	105.20
26	1H	2428	G	N7-C8-N9	5.60	115.90	113.10
1	13	956	U	C6-N1-C2	-5.59	117.64	121.00
26	1H	965	C	C5-C6-N1	5.59	123.80	121.00
1	13	690	G	C4-C5-C6	5.59	122.16	118.80
26	14	372	G	O4'-C1'-N9	5.59	112.67	108.20
26	1H	1758	G	C4-C5-N7	5.59	113.04	110.80
26	1H	1778	U	OP2-P-O3'	5.59	117.50	105.20
26	1H	1857	G	C4-N9-C1'	5.59	133.77	126.50
26	14	736	C	O5'-P-OP2	5.59	117.41	110.70
26	1H	658	C	OP2-P-O3'	5.59	117.49	105.20
26	1H	1249	U	OP1-P-OP2	5.59	127.98	119.60
26	14	2328	A	N1-C2-N3	5.59	132.09	129.30
1	1G	687	A	P-O3'-C3'	5.58	126.40	119.70
26	1H	2578	G	C8-N9-C4	5.58	108.63	106.40
26	1H	508	G	C8-N9-C4	-5.58	104.17	106.40
26	1H	795	C	O5'-P-OP2	-5.58	100.68	105.70
26	14	801	G	N9-C4-C5	5.58	107.63	105.40
26	14	2606	C	C2-N1-C1'	-5.58	112.66	118.80
26	1H	793	A	N3-C4-N9	5.58	131.86	127.40
22	1K	49	G	O4'-C1'-N9	5.57	112.66	108.20
26	1H	2346	A	N1-C6-N6	5.57	121.94	118.60
26	14	1283	G	N3-C4-C5	-5.57	125.81	128.60
26	1H	575	A	O5'-P-OP1	-5.57	100.69	105.70
26	1H	1559	G	N1-C6-O6	5.57	123.24	119.90
26	1H	1698	A	N1-C6-N6	5.57	121.94	118.60
26	14	245	G	C4-N9-C1'	5.57	133.74	126.50
26	14	1300	U	OP1-P-O3'	5.57	117.45	105.20
26	14	1348	G	N1-C6-O6	5.57	123.24	119.90
1	13	768	A	OP1-P-OP2	5.57	127.95	119.60
26	1H	1324	G	N3-C2-N2	-5.57	116.00	119.90
26	14	672	C	OP2-P-O3'	5.57	117.45	105.20
1	13	1129	C	C5-C6-N1	5.57	123.78	121.00
26	1H	1021	A	C4-C5-N7	5.57	113.48	110.70
26	1H	2311	A	C5-N7-C8	-5.57	101.12	103.90
34	69	131	LYS	C-N-CD	-5.57	108.35	120.60
26	1H	1147	C	O5'-P-OP2	-5.57	100.69	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2524	G	N1-C6-O6	-5.57	116.56	119.90
26	1H	1992	G	C8-N9-C4	-5.56	104.17	106.40
26	1H	2518	A	N7-C8-N9	5.56	116.58	113.80
26	14	2304	G	N9-C4-C5	5.56	107.63	105.40
26	1H	1203	G	C5-C6-O6	5.56	131.94	128.60
27	16	6	C	C6-N1-C2	5.56	122.53	120.30
26	1H	193	U	N3-C4-O4	5.56	123.29	119.40
26	1H	697	C	C5-C4-N4	-5.56	116.31	120.20
26	1H	138	G	O4'-C1'-N9	5.56	112.65	108.20
26	1H	1757	U	OP1-P-O3'	5.56	117.43	105.20
26	1H	2054	A	N1-C6-N6	5.56	121.93	118.60
26	14	1656	C	OP2-P-O3'	5.56	117.43	105.20
26	14	1518	C	O5'-P-OP1	-5.56	100.70	105.70
1	13	503	C	C6-N1-C2	-5.55	118.08	120.30
26	1H	2819	G	N1-C6-O6	5.55	123.23	119.90
26	1H	329	G	O5'-P-OP2	-5.55	100.70	105.70
26	1H	593	G	C2-N3-C4	-5.55	109.12	111.90
26	1H	655	A	N7-C8-N9	5.55	116.58	113.80
26	1H	784	A	N3-C4-N9	-5.55	122.96	127.40
26	1H	1382	G	C6-C5-N7	-5.55	127.07	130.40
1	1G	413	G	N3-C4-C5	5.55	131.38	128.60
26	14	204	A	C6-N1-C2	-5.55	115.27	118.60
30	21	195	LEU	CA-CB-CG	5.55	128.06	115.30
1	1G	312	C	C6-N1-C2	-5.55	118.08	120.30
26	14	236	C	C6-N1-C2	5.55	122.52	120.30
26	14	1574	C	OP2-P-O3'	5.55	117.41	105.20
1	13	346	G	N7-C8-N9	5.55	115.87	113.10
26	1H	2501	C	C2-N1-C1'	-5.55	112.70	118.80
26	1H	1139	G	N3-C4-C5	-5.54	125.83	128.60
26	14	447	A	O4'-C1'-N9	-5.54	103.76	108.20
26	1H	1201	C	C5-C4-N4	-5.54	116.32	120.20
26	1H	1300	U	N3-C4-O4	-5.54	115.52	119.40
26	14	118	A	N9-C4-C5	5.54	108.02	105.80
26	1H	577	G	N1-C6-O6	5.54	123.22	119.90
26	1H	698	C	C4-C5-C6	5.54	120.17	117.40
26	1H	803	U	C5-C6-N1	-5.54	119.93	122.70
26	1H	1024	G	OP1-P-OP2	5.54	127.91	119.60
26	1H	2438	U	C4-C5-C6	5.54	123.02	119.70
26	14	2464	C	N3-C4-C5	5.54	124.12	121.90
26	14	582	G	N1-C6-O6	5.54	123.22	119.90
26	14	738	G	O5'-P-OP2	-5.54	100.71	105.70
26	14	1655	A	N7-C8-N9	-5.54	111.03	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	326	G	N7-C8-N9	5.54	115.87	113.10
26	1H	2580	U	OP2-P-O3'	5.54	117.39	105.20
26	14	1786	A	OP1-P-O3'	5.54	117.38	105.20
26	14	2281	C	C2-N1-C1'	5.54	124.89	118.80
1	13	1516	G	OP2-P-O3'	5.54	117.38	105.20
1	1G	697	U	C5-C6-N1	-5.54	119.93	122.70
26	1H	698	C	C5-C6-N1	-5.54	118.23	121.00
26	1H	1601	G	N1-C2-N2	-5.54	111.22	116.20
26	1H	2054	A	C8-N9-C4	-5.54	103.59	105.80
26	1H	2453	A	N9-C4-C5	5.54	108.01	105.80
26	1H	2506	U	N3-C2-O2	-5.54	118.33	122.20
26	1H	2525	G	N9-C4-C5	-5.54	103.19	105.40
26	14	1973	G	C5-C6-O6	5.54	131.92	128.60
26	1H	912	C	C2-N1-C1'	5.53	124.89	118.80
26	1H	1428	C	N1-C2-O2	-5.53	115.58	118.90
49	J8	95	LEU	CA-CB-CG	5.53	128.03	115.30
26	14	2032	G	C5-N7-C8	5.53	107.07	104.30
26	1H	826	U	C4-C5-C6	5.53	123.02	119.70
26	1H	1416	G	O4'-C1'-N9	5.53	112.62	108.20
26	1H	1393	A	O5'-P-OP2	-5.53	100.73	105.70
26	1H	2502	G	N3-C4-C5	-5.53	125.84	128.60
12	3A	27	LEU	CA-CB-CG	5.53	128.01	115.30
1	13	794	A	N1-C6-N6	5.53	121.92	118.60
26	1H	265	A	N1-C2-N3	5.53	132.06	129.30
26	1H	513	A	N9-C4-C5	5.53	108.01	105.80
1	13	1227	A	N7-C8-N9	5.52	116.56	113.80
26	1H	702	G	C5-C6-O6	-5.52	125.29	128.60
26	1H	2070	G	O5'-P-OP2	-5.52	100.73	105.70
26	14	694	U	O5'-P-OP1	5.52	117.33	110.70
26	1H	1410	G	C4-N9-C1'	-5.52	119.33	126.50
26	1H	1675	C	OP1-P-O3'	5.52	117.34	105.20
26	1H	2318	G	C8-N9-C4	-5.52	104.19	106.40
1	13	1172	C	C6-N1-C2	-5.52	118.09	120.30
26	14	1804	C	C5-C4-N4	-5.52	116.34	120.20
26	14	2307	G	N3-C4-C5	-5.52	125.84	128.60
26	1H	210	C	C5-C6-N1	-5.51	118.24	121.00
26	1H	1604	C	N1-C2-O2	-5.51	115.59	118.90
26	1H	1950	G	N7-C8-N9	5.51	115.86	113.10
26	1H	2713	A	N3-C4-N9	-5.51	122.99	127.40
26	14	330	A	C4-C5-N7	5.51	113.46	110.70
26	1H	265	A	C5-N7-C8	-5.51	101.14	103.90
26	1H	508	G	C5-N7-C8	-5.51	101.54	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	761	A	C4-C5-C6	5.51	119.75	117.00
26	1H	832	G	C5-C6-N1	-5.51	108.74	111.50
26	14	1961	C	C6-N1-C2	5.51	122.50	120.30
26	1H	576	U	C6-N1-C2	-5.51	117.69	121.00
26	1H	910	A	O5'-P-OP2	-5.51	100.74	105.70
26	1H	1769	G	C4-N9-C1'	5.51	133.66	126.50
26	1H	451	C	C2-N1-C1'	-5.51	112.74	118.80
26	1H	1278	A	O5'-P-OP2	-5.51	100.75	105.70
29	11	111	LEU	CA-CB-CG	5.51	127.97	115.30
26	14	671	C	C6-N1-C2	-5.51	118.10	120.30
26	1H	845	G	C4-C5-N7	5.50	113.00	110.80
26	1H	1295	C	N1-C2-O2	-5.50	115.60	118.90
27	16	115	G	C5-N7-C8	-5.50	101.55	104.30
1	1G	770	C	O5'-P-OP2	-5.50	100.75	105.70
26	14	801	G	C5-C6-O6	5.50	131.90	128.60
26	14	1594	G	C8-N9-C4	-5.50	104.20	106.40
26	1H	71	A	C8-N9-C4	-5.50	103.60	105.80
26	1H	1981	A	O5'-P-OP1	5.50	117.30	110.70
26	14	655	A	N1-C2-N3	5.50	132.05	129.30
1	1G	1139	G	C4-N9-C1'	-5.50	119.35	126.50
1	1G	912	C	C2-N1-C1'	-5.50	112.75	118.80
26	14	801	G	C6-C5-N7	5.50	133.70	130.40
26	1H	141	A	C6-C5-N7	-5.50	128.45	132.30
26	1H	2055	C	OP2-P-O3'	5.50	117.29	105.20
26	1H	1811	G	OP2-P-O3'	5.50	117.29	105.20
26	14	1966	A	C5-C6-N1	5.50	120.45	117.70
26	1H	175	G	C5-C6-O6	5.49	131.90	128.60
26	1H	1599	C	O5'-P-OP2	-5.49	100.76	105.70
26	1H	1973	G	C5-C6-O6	5.49	131.90	128.60
26	1H	2600	A	N9-C4-C5	5.49	108.00	105.80
26	14	59	U	C5-C4-O4	5.49	129.20	125.90
26	14	828	U	OP2-P-O3'	5.49	117.28	105.20
26	1H	465	G	O5'-P-OP1	-5.49	100.76	105.70
26	14	2585	U	N3-C2-O2	-5.49	118.36	122.20
1	13	353	A	OP2-P-O3'	5.49	117.27	105.20
26	1H	816	C	O5'-P-OP1	5.49	117.29	110.70
26	1H	966	G	C5-C6-O6	5.49	131.89	128.60
26	1H	845	G	P-O3'-C3'	5.49	126.28	119.70
26	1H	1374	G	N1-C6-O6	5.49	123.19	119.90
26	14	2600	A	OP2-P-O3'	5.49	117.27	105.20
26	1H	371	A	N1-C6-N6	5.49	121.89	118.60
26	1H	1381	G	O5'-P-OP1	-5.49	100.76	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	51	153	LYS	C-N-CA	5.49	145.04	122.00
26	14	1391	U	O5'-P-OP1	-5.49	100.76	105.70
26	14	1204	A	C5-C6-N1	-5.48	114.96	117.70
26	14	489	G	C6-C5-N7	-5.48	127.11	130.40
26	1H	308	G	C8-N9-C1'	-5.48	119.88	127.00
26	1H	470	A	C2-N3-C4	-5.48	107.86	110.60
26	1H	2287	A	N9-C4-C5	-5.48	103.61	105.80
26	14	921	G	C8-N9-C4	-5.48	104.21	106.40
26	14	2090	G	C8-N9-C4	5.48	108.59	106.40
26	14	676	A	N1-C6-N6	5.48	121.89	118.60
1	13	942	G	OP1-P-O3'	5.48	117.25	105.20
26	14	226	G	O4'-C1'-N9	5.48	112.58	108.20
26	1H	647	G	N7-C8-N9	5.48	115.84	113.10
24	3L	76	A	C2-N3-C4	-5.47	107.86	110.60
26	14	141	A	C4-C5-N7	5.47	113.44	110.70
26	14	1266	G	C5-C6-O6	-5.47	125.32	128.60
26	14	1570	A	N1-C6-N6	5.47	121.88	118.60
26	1H	693	C	OP2-P-O3'	5.47	117.24	105.20
26	1H	2087	G	N9-C4-C5	-5.47	103.21	105.40
26	1H	2503	A	C2-N3-C4	5.47	113.34	110.60
1	1G	576	G	C4-N9-C1'	5.47	133.61	126.50
26	1H	205	G	N7-C8-N9	-5.47	110.36	113.10
26	1H	400	G	N1-C6-O6	5.47	123.18	119.90
26	1H	2584	U	N3-C4-O4	-5.47	115.57	119.40
1	1G	246	A	N1-C6-N6	5.47	121.88	118.60
26	1H	1022	G	P-O3'-C3'	5.47	126.26	119.70
26	1H	1349	A	C2-N3-C4	-5.47	107.86	110.60
26	1H	2550	G	O5'-P-OP2	-5.47	100.78	105.70
26	14	784	A	N3-C4-C5	5.47	130.63	126.80
26	1H	1959	G	OP2-P-O3'	5.47	117.23	105.20
1	13	768	A	C6-N1-C2	-5.47	115.32	118.60
26	14	1963	U	N3-C2-O2	-5.47	118.37	122.20
1	13	797	C	N1-C2-O2	-5.46	115.62	118.90
26	14	1476	C	N3-C2-O2	5.46	125.72	121.90
26	14	1982	C	C6-N1-C2	-5.46	118.11	120.30
1	13	723	U	C5-C6-N1	5.46	125.43	122.70
26	1H	2258	C	N3-C4-N4	5.46	121.82	118.00
26	1H	1774	C	OP1-P-OP2	5.46	127.79	119.60
26	14	71	A	C6-C5-N7	-5.46	128.48	132.30
26	14	678	C	C5-C6-N1	-5.46	118.27	121.00
26	14	2401	U	C2-N1-C1'	5.46	124.25	117.70
1	13	12	U	O5'-P-OP1	-5.46	100.79	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	3	G	P-O3'-C3'	5.46	126.25	119.70
26	14	1616	A	N1-C6-N6	5.46	121.88	118.60
26	1H	947	G	N1-C6-O6	5.46	123.17	119.90
1	1G	819	A	OP1-P-O3'	5.46	117.21	105.20
26	1H	739	G	N3-C2-N2	-5.46	116.08	119.90
26	1H	917	A	N3-C4-C5	5.46	130.62	126.80
26	14	774	A	C8-N9-C4	5.46	107.98	105.80
26	14	2712	U	C5-C4-O4	5.46	129.17	125.90
26	14	2713	A	C6-C5-N7	-5.46	128.48	132.30
26	14	2275	C	C6-N1-C2	-5.46	118.12	120.30
26	1H	735	A	N7-C8-N9	-5.45	111.07	113.80
26	1H	2296	U	N3-C4-O4	5.45	123.22	119.40
26	14	271(A)	C	C2-N1-C1'	5.45	124.80	118.80
26	14	2362	G	C5-C6-O6	-5.45	125.33	128.60
26	1H	409	C	N3-C2-O2	5.45	125.72	121.90
26	1H	594	U	C5-C6-N1	-5.45	119.97	122.70
26	14	140	A	C2-N3-C4	-5.45	107.87	110.60
26	14	2230	G	N9-C4-C5	5.45	107.58	105.40
26	1H	141	A	C8-N9-C4	-5.45	103.62	105.80
26	1H	639	U	O5'-P-OP2	-5.45	100.80	105.70
1	1G	449	C	C6-N1-C2	-5.45	118.12	120.30
26	14	676	A	N3-C4-N9	-5.45	123.04	127.40
26	14	802	A	O5'-P-OP2	-5.45	100.80	105.70
26	14	1308	A	C8-N9-C4	-5.45	103.62	105.80
26	14	2779	U	N3-C2-O2	-5.45	118.39	122.20
26	1H	463	G	N3-C2-N2	5.45	123.71	119.90
26	1H	468	G	N1-C6-O6	5.45	123.17	119.90
1	1G	1157	A	N1-C2-N3	5.45	132.02	129.30
26	1H	2394	C	C6-N1-C2	-5.44	118.12	120.30
30	29	61	ARG	C-N-CD	-5.44	108.62	120.60
19	AI	41	VAL	C-N-CD	-5.44	108.62	120.60
26	1H	210	C	OP2-P-O3'	5.44	117.17	105.20
26	14	863	A	O5'-P-OP2	-5.44	100.80	105.70
26	14	2056	G	N3-C4-N9	5.44	129.27	126.00
26	1H	1764	G	C5-C6-O6	5.44	131.86	128.60
26	1H	2584	U	N1-C2-N3	5.44	118.16	114.90
1	1G	1446	A	O4'-C1'-N9	5.44	112.55	108.20
26	14	389	G	C8-N9-C1'	-5.44	119.93	127.00
26	14	575	A	N1-C6-N6	5.44	121.86	118.60
26	14	1661	G	N1-C6-O6	5.44	123.17	119.90
26	14	1930	G	C6-C5-N7	5.44	133.66	130.40
26	1H	845	G	C5-N7-C8	-5.44	101.58	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1502	A	C6-C5-N7	-5.44	128.49	132.30
26	1H	2591	C	N1-C2-O2	-5.44	115.64	118.90
26	14	729	G	N3-C2-N2	-5.44	116.09	119.90
26	1H	382	G	C8-N9-C4	5.44	108.57	106.40
26	1H	2346	A	C5-C6-N1	-5.44	114.98	117.70
1	13	1486	G	C5-C6-O6	-5.43	125.34	128.60
26	1H	1694	C	C6-N1-C2	5.43	122.47	120.30
26	1H	1790	C	P-O3'-C3'	5.43	126.22	119.70
26	14	1332	G	O4'-C1'-N9	-5.43	103.85	108.20
1	1G	576	G	N3-C4-C5	-5.43	125.88	128.60
26	1H	739	G	N1-C2-N2	5.43	121.09	116.20
26	1H	755	C	C6-N1-C2	-5.43	118.13	120.30
26	1H	898	C	N3-C2-O2	-5.43	118.10	121.90
26	1H	1986	A	C8-N9-C4	-5.43	103.63	105.80
1	1G	990	C	C6-N1-C2	-5.43	118.13	120.30
33	59	166	GLY	C-N-CA	5.43	135.27	121.70
26	1H	96	G	N1-C6-O6	5.43	123.16	119.90
26	1H	778	G	C5-C6-O6	5.43	131.86	128.60
26	1H	1758	G	N3-C4-C5	5.43	131.31	128.60
26	14	742	G	O5'-P-OP2	5.43	117.21	110.70
26	14	2307	G	C8-N9-C1'	-5.43	119.94	127.00
26	1H	2424	C	N1-C2-O2	5.43	122.16	118.90
26	14	1380	G	O5'-P-OP1	-5.43	100.82	105.70
26	14	1999	C	OP2-P-O3'	5.43	117.14	105.20
4	3E	101	LEU	CA-CB-CG	5.42	127.78	115.30
23	2K	76	C	N1-C2-O2	-5.42	115.65	118.90
26	1H	130	C	C5-C4-N4	-5.42	116.40	120.20
1	1G	587	G	C6-C5-N7	-5.42	127.14	130.40
1	1G	771	G	N1-C6-O6	-5.42	116.64	119.90
27	16	7	G	C4-C5-N7	5.42	112.97	110.80
26	1H	685	A	N1-C6-N6	5.42	121.85	118.60
26	14	801	G	C4-C5-N7	-5.42	108.63	110.80
26	1H	1669	A	C6-N1-C2	-5.42	115.35	118.60
26	14	1831	G	C6-C5-N7	-5.42	127.15	130.40
1	13	1519	A	C8-N9-C4	-5.42	103.63	105.80
26	1H	635	C	C6-N1-C2	-5.42	118.13	120.30
1	1G	1071	C	C6-N1-C2	-5.42	118.13	120.30
1	13	1279	A	C8-N9-C4	-5.42	103.63	105.80
26	1H	1678	G	C8-N9-C4	-5.42	104.23	106.40
26	1H	1950	G	N3-C4-N9	-5.42	122.75	126.00
26	1H	2877	G	OP1-P-O3'	5.42	117.12	105.20
1	13	1129	C	C6-N1-C1'	-5.41	114.30	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	2037	G	N3-C4-C5	-5.41	125.89	128.60
1	1G	557	G	N3-C4-N9	5.41	129.25	126.00
1	1G	942	G	N3-C4-N9	5.41	129.25	126.00
26	14	307	G	C5-C6-O6	-5.41	125.35	128.60
26	14	1408	C	N1-C2-O2	-5.41	115.65	118.90
26	1H	762	U	C5-C4-O4	-5.41	122.65	125.90
27	16	60	C	C5-C6-N1	5.41	123.71	121.00
43	D8	37	VAL	C-N-CA	5.41	135.23	121.70
26	1H	71	A	C6-C5-N7	-5.41	128.51	132.30
26	1H	1021	A	C5-C6-N1	-5.41	115.00	117.70
26	1H	1311	G	N1-C6-O6	5.41	123.14	119.90
26	14	791	C	C6-N1-C2	5.41	122.46	120.30
1	13	562	C	O5'-P-OP2	-5.41	100.83	105.70
26	1H	2508	G	N9-C4-C5	5.41	107.56	105.40
1	13	1279	A	C5-N7-C8	-5.40	101.20	103.90
26	14	611	C	C6-N1-C2	5.40	122.46	120.30
26	14	1776	G	N3-C4-N9	5.40	129.24	126.00
26	1H	973	A	C8-N9-C4	5.40	107.96	105.80
26	1H	1518	C	O5'-P-OP1	-5.40	100.84	105.70
26	14	2428	G	C8-N9-C4	-5.40	104.24	106.40
1	13	534	U	N3-C4-O4	-5.40	115.62	119.40
1	13	789	U	C6-N1-C2	-5.40	117.76	121.00
1	13	990	C	C6-N1-C2	-5.40	118.14	120.30
26	1H	898	C	N1-C2-O2	5.40	122.14	118.90
26	1H	1989	G	C6-C5-N7	-5.40	127.16	130.40
1	1G	932	C	N1-C2-O2	5.40	122.14	118.90
26	14	982	C	C5-C6-N1	5.40	123.70	121.00
1	13	948	C	OP1-P-O3'	5.40	117.08	105.20
26	1H	2748	A	P-O3'-C3'	5.40	126.18	119.70
26	1H	104	U	N3-C2-O2	5.40	125.98	122.20
26	14	684	G	O5'-P-OP2	-5.40	100.84	105.70
26	14	725	G	N7-C8-N9	5.40	115.80	113.10
27	1J	81	G	O4'-C1'-N9	5.40	112.52	108.20
26	1H	1178	C	OP1-P-O3'	5.40	117.07	105.20
26	14	2607	G	N1-C6-O6	5.40	123.14	119.90
1	13	353	A	C8-N9-C4	-5.39	103.64	105.80
1	13	390	C	N1-C2-O2	-5.39	115.66	118.90
1	13	703	G	C8-N9-C1'	-5.39	119.99	127.00
26	1H	124	G	C8-N9-C4	5.39	108.56	106.40
1	1G	974	A	OP2-P-O3'	5.39	117.07	105.20
26	14	1597	A	O5'-P-OP2	-5.39	100.84	105.70
26	1H	818	G	OP2-P-O3'	5.39	117.06	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2439	A	O5'-P-OP2	-5.39	100.85	105.70
26	14	34	C	P-O3'-C3'	5.39	126.17	119.70
26	1H	509	C	OP1-P-O3'	-5.39	93.34	105.20
26	1H	866	A	O4'-C1'-N9	-5.39	103.89	108.20
26	1H	2075	U	OP2-P-O3'	5.39	117.06	105.20
26	1H	2709	G	N9-C4-C5	5.39	107.56	105.40
26	14	2392	A	C8-N9-C4	-5.39	103.64	105.80
26	1H	1610	A	N1-C6-N6	5.39	121.83	118.60
26	14	1694	C	C2-N1-C1'	-5.39	112.87	118.80
1	13	786	G	OP2-P-O3'	5.39	117.05	105.20
26	1H	2287	A	C6-C5-N7	-5.39	128.53	132.30
1	1G	606	G	C8-N9-C4	-5.39	104.25	106.40
26	14	1839	G	N3-C4-N9	5.39	129.23	126.00
1	13	1502	A	C6-C5-N7	-5.38	128.53	132.30
26	1H	859	G	N3-C4-N9	-5.38	122.77	126.00
26	1H	918	A	O5'-P-OP1	-5.38	100.86	105.70
26	14	1377	G	C6-C5-N7	-5.38	127.17	130.40
1	13	115	G	C8-N9-C4	-5.38	104.25	106.40
26	1H	1613	G	N3-C4-N9	5.38	129.23	126.00
1	13	862	C	C2-N1-C1'	-5.38	112.88	118.80
26	1H	1786	A	C4-N9-C1'	5.38	135.98	126.30
26	1H	2423	U	C6-N1-C2	5.38	124.23	121.00
26	14	775	G	N3-C4-C5	-5.38	125.91	128.60
26	14	2439	A	OP1-P-O3'	5.38	117.03	105.20
26	14	2447	G	C5-C6-O6	-5.38	125.37	128.60
1	13	318	G	N1-C6-O6	5.38	123.13	119.90
26	1H	2437	U	OP1-P-OP2	5.38	127.66	119.60
1	1G	1465	C	C6-N1-C2	-5.38	118.15	120.30
26	14	49	A	C8-N9-C4	-5.38	103.65	105.80
26	14	988	A	N1-C6-N6	5.38	121.83	118.60
26	14	2307	G	N3-C4-N9	5.38	129.23	126.00
26	1H	806	C	C4-C5-C6	-5.38	114.71	117.40
26	14	2056	G	C4-C5-C6	5.38	122.03	118.80
1	13	1113	C	C6-N1-C2	-5.37	118.15	120.30
26	1H	765	G	N3-C2-N2	-5.37	116.14	119.90
26	14	1953	A	N1-C6-N6	5.37	121.83	118.60
26	14	2304	G	C8-N9-C1'	5.37	133.98	127.00
1	13	549	C	C6-N1-C2	5.37	122.45	120.30
26	1H	530	G	N1-C6-O6	-5.37	116.68	119.90
26	1H	2311	A	C5-C6-N1	-5.37	115.01	117.70
26	14	2468	G	O4'-C1'-N9	5.37	112.50	108.20
26	1H	665	C	C6-N1-C2	5.37	122.45	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	528	A	C2-N3-C4	-5.37	107.92	110.60
26	14	1698	A	N3-C4-C5	5.37	130.56	126.80
26	1H	1674	G	N7-C8-N9	5.37	115.78	113.10
26	1H	1936	A	O4'-C1'-N9	5.37	112.49	108.20
26	1H	2644	G	N3-C4-N9	-5.37	122.78	126.00
26	1H	2645	G	C2-N3-C4	-5.37	109.22	111.90
26	14	2776	A	N7-C8-N9	5.37	116.48	113.80
26	1H	1278	A	N9-C4-C5	-5.36	103.66	105.80
26	1H	2690	C	C4-C5-C6	5.36	120.08	117.40
27	16	81	G	C6-C5-N7	-5.36	127.18	130.40
26	14	1601	G	OP1-P-O3'	5.36	117.00	105.20
1	13	1517	G	O5'-P-OP1	5.36	117.13	110.70
26	14	2401	U	C5-C4-O4	-5.36	122.68	125.90
26	1H	451	C	N1-C2-O2	-5.36	115.68	118.90
1	1G	1139	G	N3-C4-N9	-5.36	122.78	126.00
26	14	671	C	C6-N1-C1'	5.36	127.23	120.80
2	1E	89	GLY	C-N-CA	5.36	135.10	121.70
26	1H	537	C	O5'-P-OP1	5.36	117.13	110.70
1	13	703	G	N3-C4-N9	5.36	129.21	126.00
26	1H	1826	G	N7-C8-N9	-5.36	110.42	113.10
26	1H	2464	C	C6-N1-C2	5.36	122.44	120.30
31	31	32	LEU	CA-CB-CG	5.36	127.62	115.30
26	14	1888	G	N3-C4-C5	-5.36	125.92	128.60
46	C5	103	GLY	N-CA-C	5.36	126.50	113.10
1	13	770	C	OP1-P-OP2	-5.36	111.57	119.60
1	13	1371	G	O5'-P-OP2	5.36	117.13	110.70
26	1H	138	G	N1-C6-O6	5.36	123.11	119.90
26	14	1630(A)	C	N3-C4-C5	5.36	124.04	121.90
4	3E	11	LEU	CA-CB-CG	5.35	127.61	115.30
26	14	829	A	OP1-P-OP2	5.35	127.63	119.60
26	14	1475	G	C5-N7-C8	-5.35	101.62	104.30
26	1H	575	A	O5'-P-OP2	5.35	117.12	110.70
26	1H	947	G	C5-C6-O6	-5.35	125.39	128.60
26	1H	2779	U	N3-C4-O4	-5.35	115.65	119.40
26	14	195	A	N1-C6-N6	5.35	121.81	118.60
26	14	602	G	C6-C5-N7	-5.35	127.19	130.40
26	1H	2331	G	C4-C5-N7	5.35	112.94	110.80
26	1H	1357	U	C6-N1-C2	-5.35	117.79	121.00
26	14	307	G	C4-C5-N7	5.35	112.94	110.80
26	14	725	G	C4-C5-C6	5.35	122.01	118.80
26	14	2688	U	N1-C2-N3	5.35	118.11	114.90
39	55	79	LEU	CA-CB-CG	5.35	127.60	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1153	C	N1-C2-O2	-5.34	115.69	118.90
1	1G	511	C	P-O3'-C3'	5.34	126.11	119.70
26	1H	2275	C	O4'-C1'-N1	-5.34	103.93	108.20
26	1H	598	G	O5'-P-OP2	-5.34	100.89	105.70
26	1H	966	G	N1-C2-N2	-5.34	111.39	116.20
26	1H	1495	A	OP1-P-O3'	5.34	116.95	105.20
26	1H	1768	U	C2-N1-C1'	-5.34	111.29	117.70
26	1H	1950	G	C8-N9-C4	-5.34	104.26	106.40
1	1G	12	U	O5'-P-OP1	-5.34	100.89	105.70
26	14	463	G	OP1-P-O3'	5.34	116.94	105.20
1	13	963	G	C8-N9-C1'	-5.34	120.06	127.00
26	1H	1142(A)	A	N3-C4-N9	-5.34	123.13	127.40
26	14	1566	A	C5-C6-N6	-5.34	119.43	123.70
26	14	2581	G	N3-C4-C5	-5.34	125.93	128.60
26	1H	391	G	N1-C6-O6	5.33	123.10	119.90
26	1H	407	G	N1-C6-O6	-5.33	116.70	119.90
26	1H	2501	C	C6-N1-C1'	5.33	127.20	120.80
1	1G	811	C	N1-C2-O2	-5.33	115.70	118.90
26	14	678	C	C6-N1-C2	5.33	122.43	120.30
26	1H	241	A	C8-N9-C4	5.33	107.93	105.80
1	1G	890	G	O4'-C1'-N9	5.33	112.47	108.20
26	14	1506	C	C5-C6-N1	5.33	123.67	121.00
26	14	1806	C	OP1-P-OP2	5.33	127.60	119.60
26	1H	621	A	N3-C4-C5	5.33	130.53	126.80
23	2K	40	C	C6-N1-C2	-5.33	118.17	120.30
1	1G	1498	U	P-O3'-C3'	5.33	126.09	119.70
23	2L	77	A	N3-C4-C5	5.33	130.53	126.80
26	14	512	G	C5-C6-O6	5.33	131.80	128.60
26	1H	750	A	N1-C6-N6	5.33	121.80	118.60
26	14	1353	A	OP2-P-O3'	5.33	116.92	105.20
1	13	843	U	N1-C2-O2	5.33	126.53	122.80
1	13	1084	G	C6-C5-N7	-5.33	127.20	130.40
26	14	1253	A	N9-C4-C5	-5.33	103.67	105.80
45	F8	70	LEU	CA-CB-CG	5.32	127.55	115.30
1	1G	197	A	N7-C8-N9	5.32	116.46	113.80
26	14	1781	C	C6-N1-C2	5.32	122.43	120.30
26	1H	2066	C	OP1-P-O3'	5.32	116.91	105.20
26	1H	755	C	N3-C4-N4	5.32	121.72	118.00
1	1G	768	A	N1-C2-N3	5.32	131.96	129.30
26	14	1801	G	N1-C6-O6	5.32	123.09	119.90
1	13	703	G	C6-C5-N7	-5.32	127.21	130.40
1	1G	117	G	C8-N9-C1'	-5.32	120.09	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1725	G	C4-N9-C1'	5.32	133.41	126.50
26	14	1827	C	N3-C2-O2	-5.32	118.18	121.90
26	1H	1328	G	N3-C4-N9	5.32	129.19	126.00
26	1H	2675	A	N1-C6-N6	-5.32	115.41	118.60
26	14	1385	G	O4'-C1'-N9	5.32	112.45	108.20
1	13	481	G	C6-C5-N7	-5.31	127.21	130.40
26	14	725	G	C6-C5-N7	-5.31	127.21	130.40
26	1H	1543	A	C2-N3-C4	-5.31	107.94	110.60
26	1H	2872	G	C4-C5-N7	-5.31	108.68	110.80
39	98	75	LEU	CA-CB-CG	5.31	127.51	115.30
1	1G	250	A	P-O3'-C3'	5.31	126.07	119.70
26	1H	1029	A	C6-C5-N7	-5.31	128.58	132.30
26	1H	1669	A	C6-C5-N7	-5.31	128.59	132.30
26	1H	1674	G	C5-C6-O6	-5.31	125.42	128.60
27	16	44	G	C4-N9-C1'	-5.30	119.60	126.50
26	14	613	U	C6-N1-C2	-5.30	117.82	121.00
26	14	2406	U	O4'-C1'-N1	-5.30	103.96	108.20
1	13	346	G	C8-N9-C4	-5.30	104.28	106.40
1	13	481	G	C4-N9-C1'	5.30	133.39	126.50
26	1H	593	G	N1-C2-N2	-5.30	111.43	116.20
26	1H	1365	A	N9-C4-C5	5.30	107.92	105.80
1	1G	1414	U	C5-C4-O4	5.30	129.08	125.90
26	14	613	U	N1-C2-O2	5.30	126.51	122.80
26	14	1835	G	C5-C6-O6	5.30	131.78	128.60
26	1H	444	C	OP1-P-O3'	5.30	116.86	105.20
26	14	752	A	N1-C2-N3	5.30	131.95	129.30
26	14	856	C	O5'-P-OP1	-5.30	100.93	105.70
26	1H	528	A	N3-C4-N9	-5.30	123.16	127.40
26	1H	1398	C	OP2-P-O3'	5.30	116.85	105.20
26	1H	1534	G	C4-N9-C1'	5.30	133.39	126.50
26	14	1790	C	N1-C2-O2	-5.30	115.72	118.90
26	14	1970	A	O4'-C1'-N9	-5.30	103.96	108.20
26	14	2067	G	N9-C4-C5	5.30	107.52	105.40
26	1H	128	C	N3-C4-C5	5.29	124.02	121.90
26	1H	939	G	N9-C4-C5	5.29	107.52	105.40
26	1H	1394	U	O5'-P-OP1	-5.29	100.94	105.70
26	1H	1653	G	N3-C4-N9	5.29	129.18	126.00
26	1H	2490	G	N3-C4-N9	-5.29	122.83	126.00
26	1H	2585	U	C6-N1-C1'	-5.29	113.79	121.20
1	1G	18	C	C5-C6-N1	5.29	123.65	121.00
26	14	155	C	N1-C2-O2	5.29	122.07	118.90
26	14	470	A	C5-N7-C8	-5.29	101.25	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	872	A	N9-C4-C5	-5.29	103.68	105.80
26	1H	458	G	C4-N9-C1'	-5.29	119.62	126.50
26	1H	1318	C	C5-C4-N4	-5.29	116.50	120.20
26	1H	1826	G	C8-N9-C4	5.29	108.52	106.40
26	1H	2009	G	N1-C6-O6	5.29	123.07	119.90
26	14	396	G	C8-N9-C4	-5.29	104.28	106.40
26	1H	404	C	P-O3'-C3'	5.29	126.05	119.70
26	1H	2709	G	C5-C6-O6	5.29	131.77	128.60
26	14	652	C	C6-N1-C2	-5.29	118.19	120.30
1	13	541	G	C5-C6-O6	-5.29	125.43	128.60
26	1H	559	G	C6-C5-N7	-5.29	127.23	130.40
26	1H	921	G	C8-N9-C4	-5.29	104.29	106.40
26	1H	1891	G	N1-C6-O6	5.29	123.07	119.90
26	1H	1981	A	C4-N9-C1'	-5.29	116.79	126.30
26	1H	2465	C	C6-N1-C2	5.29	122.41	120.30
26	14	602	G	C4-N9-C1'	5.29	133.37	126.50
26	14	2388	A	O4'-C1'-N9	5.29	112.43	108.20
26	14	2561	A	O5'-P-OP2	-5.29	100.94	105.70
22	1K	61	C	C2-N1-C1'	5.28	124.61	118.80
26	1H	1379	A	C4-C5-N7	5.28	113.34	110.70
26	14	1448	G	C8-N9-C4	-5.28	104.29	106.40
26	14	1688	U	N1-C2-O2	-5.28	119.10	122.80
1	13	913	A	P-O3'-C3'	5.28	126.04	119.70
26	1H	1674	G	N1-C6-O6	5.28	123.07	119.90
23	2K	46	G	O5'-P-OP1	-5.28	100.95	105.70
26	1H	566	U	C2-N3-C4	-5.28	123.83	127.00
26	1H	1990	C	N1-C2-O2	-5.28	115.73	118.90
26	1H	2430	A	C4-N9-C1'	-5.28	116.80	126.30
26	14	566	U	C5-C4-O4	-5.28	122.73	125.90
26	1H	270(O)	U	C5-C6-N1	5.28	125.34	122.70
26	1H	672	C	OP2-P-O3'	5.28	116.81	105.20
26	1H	1662	C	C2-N1-C1'	-5.28	113.00	118.80
26	1H	1888	G	C4-N9-C1'	5.28	133.36	126.50
26	14	126	A	C8-N9-C4	-5.28	103.69	105.80
26	14	870	A	C8-N9-C4	5.28	107.91	105.80
26	14	1346	G	C8-N9-C4	5.28	108.51	106.40
24	3K	59	A	N9-C1'-C2'	-5.28	106.20	112.00
25	4K	12	A	C6-C5-N7	5.28	135.99	132.30
26	1H	571	A	C8-N9-C4	5.28	107.91	105.80
30	21	202	LYS	N-CA-C	5.28	125.25	111.00
26	14	1294	U	N1-C2-O2	-5.28	119.11	122.80
26	14	1416	G	C4-N9-C1'	-5.28	119.64	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	690	G	N7-C8-N9	5.27	115.74	113.10
26	1H	405	U	C2-N1-C1'	5.27	124.03	117.70
26	1H	1630(A)	C	O5'-P-OP1	-5.27	100.95	105.70
26	14	528	A	N3-C4-C5	5.27	130.49	126.80
26	14	1594	G	N7-C8-N9	5.27	115.74	113.10
26	14	2581	G	O5'-P-OP2	-5.27	100.95	105.70
26	1H	1142(A)	A	C4-C5-N7	5.27	113.33	110.70
26	1H	1379	A	N1-C6-N6	5.27	121.76	118.60
26	1H	435	C	C2-N1-C1'	5.27	124.60	118.80
26	1H	845	G	C4-N9-C1'	-5.27	119.65	126.50
26	1H	1203	G	C8-N9-C4	-5.27	104.29	106.40
26	1H	1662	C	N3-C4-C5	5.27	124.01	121.90
26	1H	2508	G	N3-C4-N9	-5.27	122.84	126.00
26	14	278	A	P-O3'-C3'	5.27	126.02	119.70
26	14	1506	C	C6-N1-C2	-5.27	118.19	120.30
26	14	1802	A	C6-N1-C2	-5.27	115.44	118.60
26	14	2592	G	N3-C4-C5	-5.27	125.97	128.60
1	1G	1469	G	N1-C6-O6	5.27	123.06	119.90
26	14	740	U	O5'-P-OP1	5.27	117.02	110.70
26	14	2282	G	O5'-P-OP1	-5.27	100.96	105.70
26	1H	1644	C	C6-N1-C2	-5.26	118.19	120.30
26	14	1854	A	N1-C6-N6	-5.26	115.44	118.60
26	14	2463	C	C2-N1-C1'	-5.26	113.01	118.80
1	13	1126	U	C5-C6-N1	5.26	125.33	122.70
1	1G	558	G	C5-C6-O6	5.26	131.76	128.60
26	14	945	A	N9-C1'-C2'	5.26	120.84	114.00
24	3K	1	G	O4'-C1'-N9	5.26	112.41	108.20
26	1H	2158	A	C8-N9-C4	-5.26	103.70	105.80
26	14	389	G	N9-C4-C5	-5.26	103.30	105.40
26	14	693	C	OP2-P-O3'	5.26	116.78	105.20
26	14	1263	U	C2-N1-C1'	5.26	124.02	117.70
26	14	2512	C	N3-C2-O2	5.26	125.58	121.90
26	1H	592	G	OP2-P-O3'	5.26	116.77	105.20
26	1H	801	G	O5'-P-OP2	-5.26	100.97	105.70
26	14	1384	A	O5'-P-OP2	-5.26	100.97	105.70
26	14	2335	A	N9-C4-C5	5.26	107.90	105.80
26	14	2346	A	C6-C5-N7	-5.26	128.62	132.30
1	13	1403	C	N3-C4-N4	-5.26	114.32	118.00
26	1H	36	G	O5'-P-OP2	-5.26	100.97	105.70
26	1H	129	C	C4-C5-C6	5.26	120.03	117.40
26	1H	2275	C	OP1-P-O3'	5.26	116.76	105.20
26	14	2380	C	C6-N1-C2	-5.26	118.20	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	265	A	C8-N9-C4	-5.25	103.70	105.80
26	1H	1626	G	N3-C4-N9	-5.25	122.85	126.00
30	21	65	GLY	N-CA-C	5.25	126.24	113.10
26	1H	1661	G	N7-C8-N9	-5.25	110.47	113.10
26	1H	2510	C	C5-C6-N1	-5.25	118.37	121.00
26	1H	2350	C	N3-C2-O2	-5.25	118.22	121.90
1	1G	529	G	N1-C6-O6	5.25	123.05	119.90
26	14	245	G	C8-N9-C1'	-5.25	120.17	127.00
26	14	733	G	C6-C5-N7	-5.25	127.25	130.40
26	14	2346	A	C8-N9-C1'	-5.25	118.25	127.70
26	14	2346	A	N7-C8-N9	5.25	116.43	113.80
26	14	278	A	OP1-P-O3'	5.25	116.75	105.20
1	13	1450	U	N1-C2-O2	5.25	126.47	122.80
26	1H	1392	A	N1-C6-N6	-5.25	115.45	118.60
34	61	110	ASP	C-N-CD	-5.25	109.05	120.60
1	1G	819	A	C5-C6-N6	-5.25	119.50	123.70
26	1H	1004	C	C6-N1-C2	-5.25	118.20	120.30
26	1H	1340	U	C6-N1-C2	5.25	124.15	121.00
26	1H	1364	G	C5-C6-O6	-5.25	125.45	128.60
26	1H	1827	C	N3-C4-C5	-5.25	119.80	121.90
26	1H	211	A	C4-C5-N7	5.25	113.32	110.70
26	1H	2278	A	N1-C2-N3	5.25	131.92	129.30
26	1H	570	G	C5-C6-N1	-5.24	108.88	111.50
26	14	1840	G	O5'-P-OP2	5.24	116.99	110.70
26	14	2286	A	N7-C8-N9	5.24	116.42	113.80
26	1H	1807	G	N9-C4-C5	-5.24	103.30	105.40
26	1H	1939	U	N3-C2-O2	5.24	125.87	122.20
27	1J	89	G	C8-N9-C4	-5.24	104.30	106.40
26	1H	528	A	C6-N1-C2	5.24	121.74	118.60
26	1H	1249	U	N1-C2-O2	-5.24	119.13	122.80
26	14	1011	G	C8-N9-C1'	5.24	133.81	127.00
26	14	2287	A	C8-N9-C4	5.24	107.90	105.80
26	14	2699	C	C2-N1-C1'	-5.24	113.04	118.80
24	3K	34	U	P-O3'-C3'	5.24	125.99	119.70
27	16	100	G	N3-C4-N9	5.24	129.14	126.00
26	14	778	G	C5-C6-O6	5.24	131.74	128.60
26	14	2062	A	C4-C5-C6	-5.24	114.38	117.00
26	14	2283	C	N1-C2-O2	-5.24	115.76	118.90
26	14	2516	G	OP2-P-O3'	5.24	116.72	105.20
26	1H	2645	G	N3-C4-C5	5.24	131.22	128.60
27	1J	81	G	C5-N7-C8	-5.24	101.68	104.30
34	61	77	LEU	CA-CB-CG	5.24	127.34	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	88	17	LEU	CA-CB-CG	-5.24	103.26	115.30
26	14	687	C	OP2-P-O3'	5.24	116.72	105.20
26	14	2688	U	N3-C4-O4	-5.24	115.73	119.40
26	1H	2319	G	N1-C2-N2	-5.23	111.49	116.20
26	14	472	A	N9-C4-C5	5.23	107.89	105.80
26	14	866	A	C8-N9-C1'	-5.23	118.28	127.70
26	1H	739	G	O5'-P-OP2	-5.23	100.99	105.70
26	1H	2096	U	C6-N1-C2	-5.23	117.86	121.00
26	14	1326	U	O5'-P-OP1	-5.23	100.99	105.70
26	1H	131	G	N1-C6-O6	5.23	123.04	119.90
26	1H	2508	G	N3-C2-N2	-5.23	116.24	119.90
1	1G	819	A	N1-C6-N6	5.23	121.74	118.60
1	1G	1298	C	P-O3'-C3'	5.23	125.97	119.70
26	14	569	U	C2-N3-C4	-5.23	123.86	127.00
26	14	2033	A	N1-C6-N6	-5.23	115.46	118.60
26	1H	420	C	C5-C6-N1	-5.23	118.39	121.00
26	1H	739	G	C8-N9-C4	5.23	108.49	106.40
27	16	29	A	N7-C8-N9	5.23	116.41	113.80
26	1H	337	C	O5'-P-OP2	-5.22	101.00	105.70
26	1H	2469	A	N1-C6-N6	5.22	121.73	118.60
50	K8	32	LEU	CA-CB-CG	5.22	127.31	115.30
26	1H	1311	G	N9-C4-C5	-5.22	103.31	105.40
1	1G	1493	A	C3'-C2'-C1'	-5.22	97.32	101.50
26	14	1695	G	C8-N9-C1'	-5.22	120.21	127.00
1	13	50	A	C8-N9-C4	-5.22	103.71	105.80
26	1H	530	G	C4-C5-C6	-5.22	115.67	118.80
26	1H	828	U	C2-N1-C1'	5.22	123.96	117.70
1	1G	1498	U	O4'-C1'-N1	-5.22	104.03	108.20
26	14	1379	A	C5-N7-C8	-5.22	101.29	103.90
1	13	108	G	C4-C5-N7	5.22	112.89	110.80
1	13	266	G	C4-C5-N7	5.21	112.89	110.80
26	1H	270(L)	U	C5-C6-N1	5.21	125.31	122.70
26	1H	834	C	N3-C2-O2	5.21	125.55	121.90
26	1H	860	U	C2-N1-C1'	5.21	123.96	117.70
26	1H	2617	C	OP2-P-O3'	5.21	116.67	105.20
26	14	141	A	C2-N3-C4	-5.21	107.99	110.60
26	14	197	A	OP2-P-O3'	5.21	116.67	105.20
26	14	470	A	C4-C5-N7	5.21	113.31	110.70
26	14	2490	G	C4-C5-N7	5.21	112.89	110.80
26	1H	980	A	OP1-P-O3'	5.21	116.67	105.20
26	1H	1195	G	N3-C2-N2	-5.21	116.25	119.90
26	1H	1332	G	C8-N9-C4	-5.21	104.31	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1857	G	C6-C5-N7	-5.21	127.27	130.40
26	14	2373	G	N3-C4-N9	-5.21	122.87	126.00
1	13	1354	C	C6-N1-C2	-5.21	118.22	120.30
26	1H	2392	A	N3-C4-C5	5.21	130.45	126.80
26	14	2338	G	N1-C6-O6	5.21	123.03	119.90
26	1H	504	U	C2-N1-C1'	5.21	123.95	117.70
26	1H	1758	G	C5-C6-O6	-5.21	125.47	128.60
1	1G	900	A	O5'-P-OP2	5.21	116.95	110.70
1	1G	1081	G	C8-N9-C4	5.21	108.48	106.40
1	1G	1526	G	N3-C4-C5	-5.21	126.00	128.60
26	14	60	G	OP2-P-O3'	5.21	116.66	105.20
26	14	1276	A	O5'-P-OP1	-5.21	101.01	105.70
26	14	2436	G	N1-C6-O6	5.21	123.03	119.90
1	13	449	C	C2-N1-C1'	5.21	124.53	118.80
26	1H	62	C	C6-N1-C2	5.21	122.38	120.30
26	1H	863	A	OP2-P-O3'	5.21	116.66	105.20
26	1H	910	A	N9-C4-C5	-5.21	103.72	105.80
26	14	396	G	C6-C5-N7	-5.21	127.28	130.40
26	14	602	G	N7-C8-N9	5.21	115.70	113.10
26	14	1619	G	OP1-P-OP2	5.21	127.41	119.60
26	14	1673	U	N3-C2-O2	5.21	125.84	122.20
26	14	686	G	C6-C5-N7	-5.20	127.28	130.40
26	1H	1178	C	P-O3'-C3'	5.20	125.94	119.70
26	1H	2252	G	N7-C8-N9	-5.20	110.50	113.10
26	14	1742	C	C6-N1-C2	-5.20	118.22	120.30
26	14	2711	A	O5'-P-OP2	5.20	116.94	110.70
3	2E	188	LEU	CA-CB-CG	5.20	127.26	115.30
26	1H	2352	A	C8-N9-C4	5.20	107.88	105.80
26	1H	2819	G	C5-C6-O6	-5.20	125.48	128.60
26	14	528	A	C5-N7-C8	-5.20	101.30	103.90
26	14	1616	A	C6-C5-N7	-5.20	128.66	132.30
26	14	576	U	N3-C4-O4	5.20	123.04	119.40
26	14	1516	U	N3-C2-O2	-5.20	118.56	122.20
26	1H	458	G	O4'-C1'-N9	5.20	112.36	108.20
1	13	1356	G	C8-N9-C4	-5.19	104.32	106.40
1	1G	1414	U	O4'-C1'-N1	5.19	112.35	108.20
1	1G	1511	G	C6-C5-N7	-5.19	127.28	130.40
26	14	783	A	C5-C6-N6	-5.19	119.55	123.70
26	14	2726	U	N3-C4-O4	-5.19	115.77	119.40
26	14	789	A	C2-N3-C4	-5.19	108.00	110.60
26	1H	702	G	O5'-P-OP2	-5.19	101.03	105.70
26	1H	2056	G	C4-C5-N7	-5.19	108.72	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	3K	76	A	C2-N3-C4	-5.19	108.01	110.60
26	1H	120	U	C5-C6-N1	-5.19	120.11	122.70
26	1H	1285	G	OP2-P-O3'	5.19	116.61	105.20
26	14	1332	G	N9-C4-C5	-5.19	103.33	105.40
26	1H	110	G	O5'-P-OP2	-5.19	101.03	105.70
26	14	1776	G	O5'-P-OP1	5.19	116.92	110.70
26	14	199	A	C2-N3-C4	5.18	113.19	110.60
26	14	642	G	C8-N9-C4	-5.18	104.33	106.40
26	1H	646	A	N7-C8-N9	5.18	116.39	113.80
26	1H	917	A	C6-C5-N7	-5.18	128.67	132.30
26	1H	1678	G	N1-C6-O6	5.18	123.01	119.90
27	16	50	G	OP2-P-O3'	5.18	116.60	105.20
26	1H	124	G	C5-C6-O6	-5.18	125.49	128.60
26	1H	617	G	C8-N9-C4	5.18	108.47	106.40
26	1H	1751	C	N3-C2-O2	5.18	125.53	121.90
26	1H	141(A)	C	OP2-P-O3'	5.18	116.60	105.20
26	1H	2253	G	C4-C5-N7	5.18	112.87	110.80
26	1H	2617	C	C6-N1-C2	5.18	122.37	120.30
26	14	1683	C	C6-N1-C2	-5.18	118.23	120.30
26	1H	729	G	C5-C6-O6	-5.18	125.49	128.60
26	1H	463	G	C8-N9-C4	5.18	108.47	106.40
1	1G	14	U	C5-C6-N1	5.18	125.29	122.70
1	1G	353	A	OP2-P-O3'	5.18	116.59	105.20
26	14	137	C	C6-N1-C2	-5.18	118.23	120.30
26	14	1899	G	N9-C4-C5	-5.18	103.33	105.40
26	14	2213	U	C2-N1-C1'	5.18	123.91	117.70
26	1H	2675	A	N9-C4-C5	5.17	107.87	105.80
56	1L	59	A	O4'-C1'-N9	5.17	112.34	108.20
26	14	2393	A	N1-C6-N6	5.17	121.70	118.60
26	1H	2066	C	C6-N1-C2	-5.17	118.23	120.30
40	A8	101	LEU	CA-CB-CG	5.17	127.20	115.30
26	14	602	G	N3-C4-N9	5.17	129.10	126.00
26	14	1950	G	C5-N7-C8	-5.17	101.71	104.30
26	14	2573	C	C5-C6-N1	5.17	123.59	121.00
26	14	2581	G	N3-C4-N9	5.17	129.10	126.00
1	13	523	A	N1-C6-N6	5.17	121.70	118.60
26	1H	320	A	N1-C6-N6	5.17	121.70	118.60
26	1H	761	A	N7-C8-N9	5.17	116.39	113.80
26	1H	1021	A	N3-C4-C5	5.17	130.42	126.80
26	14	1011	G	N3-C4-N9	-5.17	122.90	126.00
1	13	690	G	C4-C5-N7	5.17	112.87	110.80
26	1H	831	G	C5-C6-O6	5.17	131.70	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1427	A	N1-C2-N3	5.17	131.88	129.30
26	14	1906	G	C5-C6-O6	-5.17	125.50	128.60
26	14	2217	G	N1-C6-O6	5.17	123.00	119.90
23	2K	11	A	OP2-P-O3'	5.17	116.57	105.20
26	1H	2269	A	C2-N3-C4	-5.17	108.02	110.60
26	1H	2751	G	N7-C8-N9	-5.17	110.52	113.10
26	14	12	U	N3-C2-O2	-5.17	118.58	122.20
26	14	945	A	C5-N7-C8	-5.17	101.32	103.90
26	14	918	A	C8-N9-C4	-5.17	103.73	105.80
26	1H	783	A	N1-C2-N3	5.16	131.88	129.30
26	1H	1363	C	C2-N3-C4	-5.16	117.32	119.90
26	1H	1981	A	C8-N9-C1'	5.16	137.00	127.70
1	1G	337	C	C6-N1-C2	-5.16	118.23	120.30
26	14	2239	G	N3-C2-N2	5.16	123.51	119.90
26	1H	915	C	N3-C2-O2	-5.16	118.29	121.90
26	14	1930	G	C8-N9-C1'	5.16	133.71	127.00
26	1H	508	G	C8-N9-C1'	-5.16	120.29	127.00
24	3L	58	A	OP1-P-O3'	5.16	116.55	105.20
26	14	455	C	N1-C2-O2	5.16	122.00	118.90
26	14	2334	G	N9-C4-C5	-5.16	103.34	105.40
26	1H	474	G	N9-C4-C5	5.16	107.46	105.40
26	14	1241	A	C5-C6-N1	-5.16	115.12	117.70
26	14	1253	A	O4'-C1'-N9	-5.16	104.07	108.20
26	1H	682	G	C4-N9-C1'	5.16	133.20	126.50
26	14	584	C	N1-C2-O2	-5.16	115.81	118.90
1	13	129	U	C6-N1-C1'	5.16	128.42	121.20
26	1H	57	C	OP2-P-O3'	5.16	116.54	105.20
26	1H	760	G	C5-C6-O6	-5.16	125.51	128.60
26	1H	1573	G	OP2-P-O3'	5.16	116.54	105.20
26	1H	2361	A	C8-N9-C4	5.16	107.86	105.80
26	1H	691	C	C6-N1-C2	5.15	122.36	120.30
26	1H	1857	G	C8-N9-C1'	-5.15	120.30	127.00
1	13	131	C	N1-C2-O2	5.15	121.99	118.90
26	1H	528	A	C5-N7-C8	-5.15	101.32	103.90
26	1H	2249	U	C4-C5-C6	-5.15	116.61	119.70
26	1H	1255	U	C4-C5-C6	5.15	122.79	119.70
26	1H	1858	G	N3-C4-N9	5.15	129.09	126.00
26	1H	1314	C	C6-N1-C1'	-5.15	114.62	120.80
26	1H	2025	C	N3-C4-C5	-5.15	119.84	121.90
26	1H	2070	G	N1-C2-N2	-5.15	111.57	116.20
26	14	1828	G	N3-C4-C5	-5.15	126.03	128.60
26	1H	1357	U	N3-C4-C5	-5.15	111.51	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1625	C	N3-C2-O2	-5.15	118.30	121.90
26	1H	2319	G	N3-C2-N2	5.15	123.50	119.90
1	1G	353	A	C5-N7-C8	-5.15	101.33	103.90
26	14	2498	C	C6-N1-C2	5.15	122.36	120.30
1	13	943	U	O5'-P-OP1	-5.14	101.07	105.70
26	1H	450	G	N1-C6-O6	5.14	122.99	119.90
47	H8	150	LEU	CA-CB-CG	5.14	127.13	115.30
26	14	31	C	N1-C2-O2	-5.14	115.81	118.90
1	13	481	G	N3-C4-N9	5.14	129.09	126.00
1	13	758	G	N3-C4-C5	5.14	131.17	128.60
26	1H	2070	G	N1-C2-N3	5.14	126.98	123.90
26	14	1001	A	N1-C6-N6	-5.14	115.51	118.60
1	13	422	C	C2-N1-C1'	5.14	124.45	118.80
1	13	1323	G	O5'-P-OP1	-5.14	101.07	105.70
24	3L	34	U	C5-C6-N1	5.14	125.27	122.70
26	14	380	U	OP1-P-OP2	5.14	127.31	119.60
26	14	1728	G	N3-C4-C5	-5.14	126.03	128.60
26	1H	647	G	C8-N9-C4	-5.14	104.34	106.40
24	3L	1	G	C2-N3-C4	5.14	114.47	111.90
26	14	1566	A	N1-C6-N6	5.14	121.68	118.60
26	1H	1415	U	C5-C4-O4	5.14	128.98	125.90
26	14	1032	A	N1-C6-N6	5.14	121.68	118.60
26	1H	2446	G	C5-N7-C8	-5.14	101.73	104.30
26	14	1821	A	C4-C5-C6	5.14	119.57	117.00
26	1H	470	A	N1-C2-N3	5.13	131.87	129.30
26	1H	1776	G	C8-N9-C4	5.13	108.45	106.40
26	14	1321	A	C8-N9-C4	5.13	107.85	105.80
26	14	1671	U	OP1-P-OP2	5.13	127.30	119.60
1	13	481	G	C8-N9-C1'	-5.13	120.33	127.00
26	1H	1802	A	C6-N1-C2	-5.13	115.52	118.60
26	1H	2561	A	C8-N9-C4	5.13	107.85	105.80
26	14	2715	C	N3-C2-O2	5.13	125.49	121.90
1	13	1519	A	N1-C6-N6	-5.13	115.52	118.60
20	BI	95	ALA	CB-CA-C	5.13	117.80	110.10
26	1H	969	U	N3-C2-O2	5.13	125.79	122.20
26	14	1022	G	P-O3'-C3'	5.13	125.86	119.70
26	14	1253	A	C5-C6-N6	-5.13	119.59	123.70
26	14	1342	A	C6-C5-N7	-5.13	128.71	132.30
26	1H	2620	C	C5-C4-N4	-5.13	116.61	120.20
26	14	1992	G	C8-N9-C4	-5.13	104.35	106.40
26	1H	737	C	N1-C2-O2	-5.12	115.83	118.90
26	1H	2056	G	N7-C8-N9	-5.12	110.54	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1382	G	N3-C4-C5	5.12	131.16	128.60
26	1H	599	G	N3-C2-N2	5.12	123.49	119.90
26	1H	772	C	C6-N1-C2	5.12	122.35	120.30
26	1H	1259	G	OP2-P-O3'	5.12	116.47	105.20
26	14	2318	G	C8-N9-C1'	-5.12	120.34	127.00
26	1H	1391	U	C2-N1-C1'	5.12	123.85	117.70
26	1H	2490	G	C6-C5-N7	-5.12	127.33	130.40
26	14	489	G	C4-C5-N7	5.12	112.85	110.80
26	1H	933	A	O5'-P-OP2	-5.12	101.09	105.70
26	1H	2074	U	N3-C4-O4	5.12	122.98	119.40
27	16	7	G	C5-C6-O6	-5.12	125.53	128.60
27	16	98	G	OP1-P-OP2	5.12	127.28	119.60
26	14	866	A	C4-N9-C1'	5.12	135.52	126.30
26	1H	1297	C	OP1-P-O3'	5.12	116.46	105.20
26	1H	2518	A	N1-C6-N6	5.12	121.67	118.60
1	1G	698	G	N1-C6-O6	5.12	122.97	119.90
26	14	1915	U	N3-C2-O2	-5.12	118.62	122.20
26	14	2607	G	N9-C4-C5	-5.12	103.35	105.40
26	14	1695	G	N3-C4-N9	5.12	129.07	126.00
26	1H	385	C	OP2-P-O3'	5.12	116.45	105.20
26	14	1313	U	O4'-C1'-N1	5.12	112.29	108.20
26	14	1544	C	O4'-C1'-N1	5.12	112.29	108.20
26	1H	433	C	OP2-P-O3'	5.11	116.45	105.20
26	1H	1854	A	N9-C4-C5	5.11	107.84	105.80
26	1H	2757	A	O5'-P-OP2	-5.11	101.10	105.70
26	1H	2778	A	C8-N9-C4	5.11	107.85	105.80
26	14	2501	C	C6-N1-C1'	5.11	126.94	120.80
37	35	85	LEU	CA-CB-CG	5.11	127.06	115.30
26	1H	133	C	O5'-P-OP1	5.11	116.83	110.70
1	1G	25	C	O5'-P-OP2	-5.11	101.10	105.70
26	14	2401	U	N3-C4-O4	5.11	122.98	119.40
1	13	1356	G	N7-C8-N9	5.11	115.66	113.10
26	1H	1394	U	C6-N1-C2	-5.11	117.93	121.00
26	14	2699	C	C5-C6-N1	-5.11	118.44	121.00
49	F5	85	LEU	CA-CB-CG	5.11	127.06	115.30
26	1H	2550	G	N7-C8-N9	5.11	115.65	113.10
26	14	1327	C	OP2-P-O3'	5.11	116.44	105.20
26	14	1751	C	N1-C2-O2	-5.11	115.83	118.90
1	13	1353	G	C4-N9-C1'	5.11	133.14	126.50
26	1H	1610	A	N9-C4-C5	-5.11	103.76	105.80
1	1G	1499	A	O5'-P-OP1	-5.11	101.10	105.70
1	1G	1502	A	N1-C2-N3	5.11	131.85	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	823	G	O5'-P-OP2	5.11	116.83	110.70
26	1H	683	C	C5-C4-N4	-5.10	116.63	120.20
26	1H	1914	C	O4'-C1'-N1	5.10	112.28	108.20
1	1G	690	G	C8-N9-C4	-5.10	104.36	106.40
26	14	2296	U	C6-N1-C1'	-5.10	114.06	121.20
29	19	29	PRO	N-CA-C	-5.10	98.83	112.10
1	13	542	G	O5'-P-OP1	-5.10	101.11	105.70
26	1H	1430	C	OP1-P-O3'	5.10	116.42	105.20
1	1G	1127	G	O5'-P-OP1	-5.10	101.11	105.70
26	14	617	G	C8-N9-C4	5.10	108.44	106.40
26	14	1259	G	OP2-P-O3'	5.10	116.42	105.20
26	14	1342	A	O4'-C1'-N9	5.10	112.28	108.20
1	13	903	G	O5'-P-OP2	-5.10	101.11	105.70
26	1H	2004	G	O5'-P-OP1	-5.10	101.11	105.70
1	13	1498	U	O4'-C1'-N1	-5.10	104.12	108.20
26	1H	1895	C	N1-C2-O2	-5.10	115.84	118.90
26	14	780	G	C5-N7-C8	-5.10	101.75	104.30
26	1H	382	G	N9-C4-C5	-5.10	103.36	105.40
26	1H	673	C	N3-C4-N4	5.10	121.57	118.00
26	1H	2430	A	C4-C5-N7	5.10	113.25	110.70
26	1H	2841	C	C6-N1-C2	5.10	122.34	120.30
26	14	810	U	C5-C4-O4	-5.10	122.84	125.90
26	14	986	C	OP2-P-O3'	-5.10	93.98	105.20
26	14	2307	G	N7-C8-N9	5.10	115.65	113.10
26	14	2381	C	C6-N1-C2	5.10	122.34	120.30
26	1H	722	A	C2-N3-C4	-5.10	108.05	110.60
26	1H	961	C	O4'-C1'-N1	5.10	112.28	108.20
27	16	44	G	C8-N9-C1'	5.10	133.62	127.00
26	14	805	G	N3-C4-N9	5.10	129.06	126.00
1	13	280	C	C6-N1-C2	5.09	122.34	120.30
26	1H	815	C	C6-N1-C2	5.09	122.34	120.30
26	1H	952	G	C4-C5-N7	5.09	112.84	110.80
26	1H	2700	C	C6-N1-C2	5.09	122.34	120.30
1	1G	906	G	C5-C6-O6	-5.09	125.54	128.60
26	14	34	C	C5-C6-N1	5.09	123.55	121.00
1	13	534	U	C2-N1-C1'	-5.09	111.59	117.70
1	1G	690	G	N7-C8-N9	5.09	115.65	113.10
26	1H	400	G	C5-C6-O6	-5.09	125.55	128.60
26	1H	845	G	C8-N9-C1'	5.09	133.62	127.00
26	1H	1377	G	N3-C4-C5	-5.09	126.06	128.60
1	1G	1128	C	C2-N1-C1'	5.09	124.40	118.80
26	14	409	C	N3-C4-C5	5.09	123.94	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1902	C	C5-C4-N4	-5.09	116.64	120.20
26	14	2250	G	C2-N3-C4	5.09	114.45	111.90
26	1H	1784	A	O4'-C1'-N9	-5.09	104.13	108.20
26	14	744	G	O5'-P-OP2	-5.09	101.12	105.70
26	14	1359	A	N9-C4-C5	-5.09	103.76	105.80
26	1H	398	G	OP1-P-OP2	5.09	127.23	119.60
26	14	55	G	N7-C8-N9	5.09	115.64	113.10
26	14	2581	G	C4-N9-C1'	5.09	133.12	126.50
26	1H	1496	A	N1-C6-N6	5.09	121.65	118.60
1	1G	64	G	C4-N9-C1'	5.09	133.11	126.50
1	1G	1108	G	C5-C6-O6	5.09	131.65	128.60
26	1H	16	G	O5'-P-OP2	-5.08	101.12	105.70
26	1H	2004	G	OP1-P-OP2	5.08	127.23	119.60
26	1H	2333	A	OP1-P-O3'	5.08	116.38	105.20
26	1H	2607	G	N3-C4-N9	5.08	129.05	126.00
26	1H	966	G	N3-C2-N2	5.08	123.46	119.90
26	14	1647	G	O4'-C1'-N9	-5.08	104.13	108.20
26	14	2789	C	O4'-C1'-N1	5.08	112.27	108.20
26	1H	1777	U	OP1-P-O3'	5.08	116.38	105.20
26	1H	1294	U	N1-C2-O2	-5.08	119.25	122.80
26	14	918	A	N7-C8-N9	5.08	116.34	113.80
26	1H	829	A	N1-C6-N6	5.08	121.64	118.60
26	1H	2424	C	O5'-P-OP1	-5.08	101.13	105.70
26	14	2206	C	C6-N1-C2	5.08	122.33	120.30
26	14	2870	C	C6-N1-C2	-5.08	118.27	120.30
1	13	1301	U	OP1-P-O3'	5.07	116.36	105.20
26	1H	684	G	N3-C4-C5	-5.07	126.06	128.60
26	1H	1678	G	C5-C6-N1	-5.07	108.96	111.50
26	1H	1914	C	N3-C2-O2	-5.07	118.35	121.90
26	14	593	G	O5'-P-OP2	-5.07	101.13	105.70
26	14	2439	A	C5-N7-C8	-5.07	101.36	103.90
26	1H	559	G	C5-C6-N1	-5.07	108.96	111.50
26	1H	811	U	O5'-P-OP1	-5.07	101.14	105.70
1	1G	1354	C	C6-N1-C2	-5.07	118.27	120.30
26	1H	843	G	OP1-P-OP2	-5.07	111.99	119.60
26	1H	1790	C	OP1-P-O3'	5.07	116.36	105.20
26	14	870	A	OP1-P-O3'	5.07	116.36	105.20
26	14	2090	G	N3-C4-C5	5.07	131.13	128.60
26	1H	835	A	O5'-P-OP1	5.07	116.78	110.70
26	1H	1340	U	C5-C4-O4	-5.07	122.86	125.90
26	1H	2607	G	N9-C4-C5	-5.07	103.37	105.40
26	14	2681	C	N3-C4-N4	-5.07	114.45	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	572	A	N7-C8-N9	-5.07	111.27	113.80
26	1H	659	C	C2-N1-C1'	-5.07	113.23	118.80
26	1H	955	C	O5'-P-OP2	-5.07	101.14	105.70
26	1H	1632	A	N1-C6-N6	5.07	121.64	118.60
26	14	1304	C	N3-C4-C5	5.07	123.93	121.90
42	85	98	LEU	CA-CB-CG	5.07	126.95	115.30
26	14	752	A	OP2-P-O3'	5.06	116.34	105.20
26	1H	516	C	O5'-P-OP1	-5.06	101.14	105.70
24	3L	1	G	N3-C4-C5	-5.06	126.07	128.60
26	14	562	U	N1-C2-N3	5.06	117.94	114.90
27	1J	98	G	C5-C6-O6	-5.06	125.56	128.60
26	1H	772	C	C5-C4-N4	-5.06	116.66	120.20
1	1G	576	G	N3-C4-N9	5.06	129.03	126.00
26	14	1302	A	N9-C4-C5	5.06	107.82	105.80
26	14	1352	U	C5-C4-O4	-5.06	122.86	125.90
1	13	1199	U	C6-N1-C2	-5.06	117.97	121.00
26	1H	738	G	N7-C8-N9	5.06	115.63	113.10
26	1H	1379	A	N7-C8-N9	5.06	116.33	113.80
26	1H	1780	A	N1-C6-N6	-5.06	115.57	118.60
26	14	2554	U	O5'-P-OP1	-5.06	101.15	105.70
26	14	2604	U	O5'-P-OP1	-5.06	101.15	105.70
26	14	2253	G	C5-C6-O6	-5.06	125.57	128.60
26	1H	210	C	C2-N3-C4	-5.05	117.37	119.90
26	1H	774	A	C4-N9-C1'	-5.05	117.20	126.30
26	1H	1141	U	O4'-C1'-N1	5.05	112.24	108.20
26	1H	1428	C	C2-N3-C4	-5.05	117.37	119.90
26	1H	860	U	C6-N1-C1'	-5.05	114.13	121.20
24	3K	72	C	C6-N1-C2	-5.05	118.28	120.30
26	1H	2761	G	N3-C4-N9	-5.05	122.97	126.00
1	1G	1508	G	O5'-P-OP1	-5.05	101.15	105.70
26	14	848	G	O5'-P-OP2	-5.05	101.15	105.70
26	1H	740	U	OP2-P-O3'	5.05	116.31	105.20
26	1H	2447	G	C5-C6-O6	-5.05	125.57	128.60
26	14	2427	C	OP2-P-O3'	5.05	116.31	105.20
27	1J	22	U	C2-N1-C1'	5.05	123.76	117.70
26	1H	805	G	C6-C5-N7	-5.05	127.37	130.40
26	14	978	G	OP1-P-O3'	5.05	116.31	105.20
1	13	520	A	N1-C6-N6	5.05	121.63	118.60
26	1H	381	G	OP1-P-O3'	5.05	116.30	105.20
26	1H	1602	U	N3-C4-O4	5.05	122.93	119.40
26	1H	1992	G	O4'-C1'-N9	-5.05	104.16	108.20
26	1H	2506	U	N1-C2-O2	5.05	126.33	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	11	52	ARG	NE-CZ-NH2	5.05	122.82	120.30
1	1G	197	A	N9-C1'-C2'	5.05	120.56	114.00
26	14	117	G	C4-C5-N7	5.05	112.82	110.80
26	14	843	G	C4-C5-N7	5.05	112.82	110.80
26	14	1333	C	N3-C4-C5	5.05	123.92	121.90
26	1H	1410	G	N3-C4-C5	5.04	131.12	128.60
26	14	2545	G	N1-C6-O6	5.04	122.93	119.90
26	14	2876	G	N1-C6-O6	5.04	122.93	119.90
1	13	20	U	OP1-P-O3'	5.04	116.29	105.20
26	1H	705	A	N1-C6-N6	5.04	121.62	118.60
42	C8	74	LEU	CA-CB-CG	5.04	126.90	115.30
26	14	681	G	N9-C4-C5	-5.04	103.38	105.40
26	1H	1566	A	OP1-P-O3'	5.04	116.29	105.20
26	1H	1931	U	N1-C2-O2	5.04	126.33	122.80
26	1H	1407	C	N1-C2-O2	-5.04	115.88	118.90
26	1H	1915	U	N3-C2-O2	-5.04	118.67	122.20
1	1G	209	U	N3-C2-O2	-5.04	118.67	122.20
26	1H	630	G	C5-C6-O6	-5.04	125.58	128.60
26	1H	1607	C	O5'-P-OP1	-5.04	101.17	105.70
26	14	1907	G	O5'-P-OP1	-5.04	101.17	105.70
26	1H	856	C	C6-N1-C2	-5.04	118.29	120.30
26	1H	1574	C	OP2-P-O3'	5.04	116.28	105.20
27	16	83	G	C5-C6-N1	-5.04	108.98	111.50
26	14	1643	G	O5'-P-OP1	-5.04	101.17	105.70
26	1H	189	G	N7-C8-N9	-5.03	110.58	113.10
26	1H	1787	A	O4'-C1'-N9	-5.03	104.17	108.20
26	1H	2611	U	OP2-P-O3'	5.03	116.27	105.20
1	1G	1528	U	C6-N1-C2	5.03	124.02	121.00
26	14	698	C	OP1-P-OP2	5.03	127.15	119.60
26	14	1644	C	N3-C2-O2	-5.03	118.38	121.90
26	14	2281	C	N3-C4-N4	5.03	121.52	118.00
26	14	2444	G	N1-C6-O6	-5.03	116.88	119.90
26	14	2640	G	N3-C2-N2	-5.03	116.38	119.90
26	1H	1780	A	N9-C4-C5	5.03	107.81	105.80
26	1H	1984	G	C5'-C4'-O4'	5.03	115.14	109.10
26	1H	2238	G	O5'-P-OP2	-5.03	101.17	105.70
26	14	1607	C	C6-N1-C1'	-5.03	114.76	120.80
26	1H	2253	G	N1-C6-O6	5.03	122.92	119.90
37	78	49	ARG	CG-CD-NE	5.03	122.36	111.80
1	1G	1433	A	O5'-P-OP1	-5.03	101.17	105.70
26	14	213	A	C8-N9-C4	5.03	107.81	105.80
26	14	2722	G	C5-C6-O6	-5.03	125.58	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	365	U	C2-N1-C1'	5.03	123.73	117.70
20	BA	11	SER	C-N-CA	5.03	134.27	121.70
26	1H	2060	A	P-O3'-C3'	5.03	125.73	119.70
26	1H	2370	G	N1-C6-O6	-5.03	116.89	119.90
26	14	330	A	N9-C4-C5	-5.02	103.79	105.80
26	1H	866	A	N9-C4-C5	-5.02	103.79	105.80
26	1H	1394	U	O5'-P-OP2	5.02	116.73	110.70
26	14	774	A	C5-C6-N6	-5.02	119.68	123.70
1	13	585	G	O5'-P-OP2	-5.02	101.18	105.70
26	1H	1306	C	C5-C6-N1	-5.02	118.49	121.00
1	13	129	U	O4'-C1'-N1	5.02	112.21	108.20
26	1H	1021	A	N1-C2-N3	5.02	131.81	129.30
26	14	271(A)	C	C6-N1-C2	-5.02	118.29	120.30
26	14	1787	A	O5'-P-OP1	-5.02	101.19	105.70
1	13	858	G	C4-N9-C1'	5.01	133.02	126.50
26	1H	2468	G	O4'-C1'-N9	5.01	112.21	108.20
26	14	2258	C	N3-C4-N4	5.01	121.51	118.00
29	19	257	LEU	CA-CB-CG	5.01	126.83	115.30
1	13	1227	A	C2-N3-C4	-5.01	108.09	110.60
26	1H	765	G	C8-N9-C4	5.01	108.41	106.40
26	14	36	G	OP2-P-O3'	5.01	116.22	105.20
26	14	330	A	C6-C5-N7	-5.01	128.79	132.30
1	13	575	G	O5'-P-OP2	-5.01	101.19	105.70
23	2K	73	A	C8-N9-C4	5.01	107.80	105.80
1	1G	975	A	O4'-C1'-N9	-5.01	104.19	108.20
1	1G	1285	A	P-O3'-C3'	5.01	125.71	119.70
1	13	53	A	N1-C6-N6	5.01	121.61	118.60
4	3E	96	LEU	CA-CB-CG	5.01	126.82	115.30
26	1H	198	C	C6-N1-C2	5.01	122.30	120.30
30	21	54	GLN	C-N-CA	5.01	134.22	121.70
26	1H	1321	A	OP2-P-O3'	5.01	116.22	105.20
26	1H	1644	C	C2-N1-C1'	5.01	124.31	118.80
1	1G	784	C	C6-N1-C2	5.01	122.30	120.30
26	1H	572	A	C4-C5-C6	5.00	119.50	117.00
1	13	380	G	N3-C4-N9	-5.00	123.00	126.00
26	1H	1367	A	N1-C2-N3	5.00	131.80	129.30
26	1H	1429	G	O5'-P-OP2	-5.00	101.20	105.70
1	1G	197	A	C4-N9-C1'	5.00	135.31	126.30
26	1H	95	G	C4-N9-C1'	5.00	133.00	126.50
26	1H	772	C	OP2-P-O3'	5.00	116.20	105.20
26	14	385	C	OP2-P-O3'	5.00	116.20	105.20

There are no chirality outliers.

All (151) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	113	VAL	Peptide
29	11	114	GLY	Peptide
29	11	122	ASP	Peptide
29	11	197	GLY	Peptide
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
35	15	41	ASP	Peptide
29	19	27	THR	Peptide
29	19	28	GLU	Peptide
10	1A	55	LYS	Peptide
2	1E	15	VAL	Peptide
2	1E	234	PRO	Peptide
2	1E	236	TYR	Peptide
2	1E	9	GLU	Peptide
30	21	118	LYS	Peptide
30	21	187	ALA	Peptide
30	21	56	PRO	Peptide
30	21	58	ARG	Peptide
30	21	66	HIS	Peptide
30	21	68	ALA	Peptide
30	21	82	ARG	Peptide
30	29	201	THR	Peptide
30	29	53	PRO	Peptide
30	29	61	ARG	Peptide
30	29	73	GLU	Peptide
30	29	76	ARG	Peptide
11	2A	49	GLY	Peptide
4	32	152	SER	Peptide
4	32	179	GLU	Peptide
4	32	29	PRO	Peptide
4	32	31	CYS	Peptide
4	32	84	LYS	Peptide
37	35	110	TYR	Peptide
31	39	127	GLU	Peptide
31	39	146	ALA	Peptide
31	39	166	ALA	Peptide
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	25	PRO	Peptide
31	39	26	ALA	Peptide
31	39	89	VAL	Peptide

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Mol	Chain	Res	Type	Group
12	3A	18	VAL	Peptide
4	3E	29	PRO	Peptide
12	3I	125	PRO	Peptide
12	3I	47	LYS	Peptide
12	3I	87	GLY	Peptide
38	45	58	PHE	Peptide
38	45	78	PRO	Peptide
32	49	106	LEU	Peptide
32	49	13	GLU	Peptide
13	4I	105	THR	Peptide
13	4I	107	ALA	Peptide
13	4I	66	LEU	Peptide
33	51	137	ASP	Peptide
33	51	152	ARG	Peptide
33	51	156	ALA	Peptide
33	51	170	ARG	Peptide
33	51	7	LEU	Peptide
33	51	91	GLY	Peptide
35	58	56	ASN	Peptide
33	59	171	LEU	Peptide
33	59	4	ILE	Peptide
33	59	89	ILE	Peptide
33	59	90	LYS	Peptide
14	5A	27	CYS	Peptide
34	61	11	ASN	Peptide
34	61	134	PRO	Peptide
34	61	82	ARG	Peptide
40	65	53	SER	Peptide
40	65	55	ALA	Peptide
34	69	101	LEU	Peptide
34	69	112	LYS	Peptide
34	69	142	VAL	Peptide
34	69	143	SER	Peptide
8	72	74	PRO	Peptide
41	75	10	VAL	Peptide
41	75	12	SER	Peptide
41	75	5	ALA	Peptide
37	78	11	GLY	Peptide
37	78	115	LEU	Peptide
37	78	21	ARG	Peptide
37	78	24	GLY	Peptide
37	78	36	LYS	Peptide

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Mol	Chain	Res	Type	Group
37	78	70	GLN	Peptide
16	7I	15	PRO	Peptide
9	82	117	HIS	Peptide
9	82	118	LYS	Peptide
42	85	72	HIS	Peptide
42	85	90	VAL	Peptide
42	85	98	LEU	Peptide
42	85	99	ALA	Peptide
38	88	139	GLU	Peptide
9	8E	110	GLU	Peptide
9	8E	4	TYR	Peptide
39	98	44	LEU	Peptide
39	98	8	ARG	Peptide
44	A5	43	GLY	Peptide
40	A8	107	GLU	Peptide
19	AA	4	SER	Peptide
19	AI	24	ALA	Peptide
45	B5	24	GLY	Peptide
45	B5	61	GLY	Peptide
41	B8	12	SER	Peptide
41	B8	4	GLY	Peptide
41	B8	58	ASN	Peptide
20	BA	101	GLY	Peptide
20	BA	72	LEU	Peptide
20	BA	73	HIS	Peptide
20	BI	12	ALA	Peptide
46	C5	82	PRO	Peptide
46	C5	87	LYS	Peptide
46	C5	91	GLU	Peptide
42	C8	75	ASN	Peptide
42	C8	90	VAL	Peptide
42	C8	95	LEU	Peptide
47	D5	113	ALA	Peptide
47	D5	158	PRO	Peptide
47	D5	175	VAL	Peptide
47	D5	60	GLU	Peptide
43	D8	36	PRO	Peptide
43	D8	44	LYS	Peptide
43	D8	48	GLY	Peptide
49	F5	81	LYS	Peptide
50	G5	15	LYS	Peptide
50	G5	17	SER	Peptide

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Mol	Chain	Res	Type	Group
50	G5	43	GLN	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	84	ARG	Peptide
47	H8	117	LEU	Peptide
47	H8	143	GLY	Peptide
47	H8	158	PRO	Peptide
47	H8	165	VAL	Peptide
47	H8	63	ASP	Peptide
49	J8	83	GLU	Peptide
49	J8	84	GLY	Peptide
49	J8	87	PRO	Peptide
50	K8	17	SER	Peptide
50	K8	2	LYS	Peptide
50	K8	46	GLN	Peptide
55	M5	40	GLU	Peptide
55	M5	49	VAL	Peptide
55	M5	51	ALA	Peptide
55	M5	64	TYR	Peptide
52	M8	37	SER	Peptide
52	M8	4	GLY	Peptide
52	M8	40	HIS	Peptide
52	M8	42	PHE	Peptide
55	Q8	49	VAL	Peptide
55	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	858	0
1	1G	32437	0	16372	887	2
2	12	1696	0	1730	94	0
2	1E	1874	0	1926	99	0
3	22	1537	0	1603	87	0
3	2E	1605	0	1668	60	0
4	32	1702	0	1765	98	0
4	3E	1698	0	1761	84	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	42	1141	0	1198	41	0
5	4E	1142	0	1204	54	0
6	52	842	0	857	34	0
6	5E	837	0	852	34	0
7	62	1110	0	1163	66	0
7	6E	1242	0	1286	54	0
8	72	1107	0	1165	49	0
8	7E	1115	0	1177	69	0
9	82	953	0	983	75	0
9	8E	1000	0	1031	61	0
10	1A	646	0	662	41	0
10	1I	749	0	767	45	0
11	2A	835	0	847	27	0
11	2I	823	0	832	41	0
12	3A	947	0	1033	37	0
12	3I	956	0	1046	33	0
13	4A	879	0	935	67	0
13	4I	933	0	992	51	0
14	5A	486	0	525	34	0
14	5I	486	0	524	28	0
15	6A	729	0	768	27	0
15	6I	729	0	768	31	0
16	7A	705	0	725	29	0
16	7I	700	0	720	49	0
17	8A	823	0	891	32	0
17	8I	834	0	904	62	0
18	9A	544	0	605	23	0
18	9I	549	0	607	23	0
19	AA	510	0	507	34	0
19	AI	661	0	683	38	0
20	BA	762	0	861	40	0
20	BI	746	0	843	45	0
21	1B	188	0	195	11	0
21	1F	199	0	208	12	0
22	1K	1542	0	790	43	0
23	2K	1646	0	843	36	0
23	2L	1646	0	845	32	0
24	3K	1483	0	756	67	0
24	3L	1528	0	778	48	0
25	4K	442	0	219	9	0
25	4L	419	0	208	23	0
26	14	60857	0	30679	1311	1

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	1H	60991	0	30744	1358	1
27	16	2617	0	1328	56	0
27	1J	2617	0	1328	84	0
28	71	1027	0	1043	66	0
29	11	2120	0	2197	121	0
29	19	2125	0	2199	108	0
30	21	1546	0	1602	94	0
30	29	1563	0	1629	110	0
31	31	1585	0	1632	87	0
31	39	1602	0	1649	97	0
32	41	1457	0	1514	76	0
32	49	1459	0	1507	73	0
33	51	1328	0	1396	77	0
33	59	1295	0	1366	74	0
34	61	1131	0	1218	44	0
34	69	1131	0	1218	58	0
35	15	1096	0	1168	56	0
35	58	1096	0	1169	67	0
36	25	932	0	996	48	0
36	68	932	0	996	38	0
37	35	1122	0	1206	75	0
37	78	1122	0	1206	99	0
38	45	1099	0	1154	74	0
38	88	1117	0	1168	55	0
39	55	967	0	1033	47	0
39	98	967	0	1033	51	0
40	65	876	0	938	55	0
40	A8	881	0	943	55	0
41	75	1109	0	1170	63	0
41	B8	1119	0	1177	71	0
42	85	959	0	1019	64	0
42	C8	950	0	1011	55	0
43	95	770	0	838	41	0
43	D8	774	0	849	42	0
44	A5	886	0	948	35	0
44	E8	876	0	941	27	0
45	B5	735	0	785	32	0
45	F8	750	0	814	33	0
46	C5	794	0	885	61	0
46	G8	783	0	869	48	0
47	D5	1411	0	1436	83	0
47	H8	1365	0	1391	60	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
48	E5	603	0	620	40	0
48	I8	611	0	631	32	0
49	F5	737	0	813	43	0
49	J8	747	0	817	35	0
50	G5	576	0	625	33	0
50	K8	575	0	634	45	0
51	H5	459	0	512	15	0
51	L8	459	0	512	22	0
52	M8	475	0	465	34	0
53	J5	434	0	454	23	0
53	N8	369	0	388	21	0
54	L5	401	0	436	21	0
54	P8	401	0	436	13	0
55	M5	516	0	582	28	0
55	Q8	516	0	582	34	0
56	1L	1402	0	715	32	0
57	13	141	0	0	0	0
57	14	460	0	0	0	0
57	16	12	0	0	0	0
57	19	1	0	0	0	0
57	1G	125	0	0	0	0
57	1H	552	0	0	0	0
57	1J	10	0	0	0	0
57	21	3	0	0	0	0
57	25	1	0	0	0	0
57	29	1	0	0	0	0
57	2I	1	0	0	0	0
57	2K	3	0	0	0	0
57	2L	2	0	0	0	0
57	31	1	0	0	0	0
57	32	1	0	0	0	0
57	35	2	0	0	0	0
57	39	1	0	0	0	0
57	3I	1	0	0	0	0
57	41	1	0	0	0	0
57	42	2	0	0	0	0
57	45	1	0	0	0	0
57	4L	1	0	0	0	0
57	52	1	0	0	0	0
57	7A	1	0	0	0	0
57	88	3	0	0	0	0
57	B5	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	E5	2	0	0	0	0
57	F8	1	0	0	0	0
57	I8	2	0	0	0	0
57	M5	1	0	0	0	0
57	P8	1	0	0	0	0
57	Q8	1	0	0	0	0
58	32	8	0	0	2	0
58	3E	8	0	0	0	0
59	5A	1	0	0	0	0
59	5I	1	0	0	0	0
59	C5	1	0	0	0	0
59	G8	1	0	0	0	0
60	14	13	0	24	0	0
60	1G	13	0	22	3	0
61	11	10	0	0	6	0
61	13	354	0	0	20	0
61	14	1303	0	0	91	0
61	15	3	0	0	0	0
61	16	12	0	0	1	0
61	19	14	0	0	1	0
61	1A	2	0	0	0	0
61	1G	364	0	0	24	0
61	1H	1720	0	0	128	0
61	1I	2	0	0	0	0
61	1J	27	0	0	1	0
61	1K	1	0	0	0	0
61	21	6	0	0	1	0
61	25	8	0	0	0	0
61	29	6	0	0	0	0
61	2A	1	0	0	0	0
61	2K	8	0	0	0	0
61	2L	8	0	0	0	0
61	31	6	0	0	0	0
61	32	4	0	0	1	0
61	35	8	0	0	0	0
61	39	8	0	0	0	0
61	3E	2	0	0	0	0
61	3I	2	0	0	0	0
61	3K	1	0	0	0	0
61	42	1	0	0	0	0
61	4A	2	0	0	0	0
61	4E	3	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	4K	5	0	0	0	0
61	4L	3	0	0	0	0
61	52	4	0	0	0	0
61	55	1	0	0	0	0
61	58	2	0	0	0	0
61	5I	1	0	0	0	0
61	68	2	0	0	0	0
61	6A	3	0	0	0	0
61	75	1	0	0	0	0
61	78	13	0	0	4	0
61	7A	4	0	0	0	0
61	7I	2	0	0	0	0
61	85	1	0	0	0	0
61	8E	2	0	0	0	0
61	98	1	0	0	2	0
61	9A	2	0	0	0	0
61	B5	1	0	0	0	0
61	B8	1	0	0	0	0
61	BA	3	0	0	0	0
61	BI	3	0	0	1	0
61	C5	3	0	0	0	0
61	C8	4	0	0	0	0
61	E8	1	0	0	0	0
61	F5	1	0	0	0	0
61	F8	3	0	0	1	0
61	G8	3	0	0	0	0
61	H5	1	0	0	2	0
61	I8	6	0	0	0	0
61	J8	5	0	0	0	0
61	L5	1	0	0	0	0
61	L8	4	0	0	0	0
61	M5	8	0	0	2	0
61	N8	1	0	0	0	0
61	Q8	5	0	0	1	0
All	All	296999	0	196564	8532	2

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

All (8532) 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)
10:1A:38:ILE:C	10:1A:39:PRO:N	1.71	1.39
47:D5:94:GLU:C	47:D5:95:PRO:N	1.78	1.36
38:45:27:VAL:HB	38:45:28:ALA:HA	1.16	1.08
26:1H:1604:C:OP2	61:1H:3655:HOH:O	1.75	1.04
8:72:12:ARG:HH21	8:72:27:PRO:HD3	1.22	1.02
26:14:1582:C:HO2'	26:14:1586:A:H8	1.07	1.01
49:J8:84:GLY:H	49:J8:85:LEU:HG	1.21	1.01
1:1G:910:C:OP2	12:3A:21:LYS:NZ	1.94	1.00
26:14:1496:A:H8	26:14:1577:C:HO2'	1.06	0.99
26:14:1757:U:H3	26:14:1762:A:H2	1.09	0.98
26:14:676:A:H8	26:14:2069:G:H21	1.00	0.97
26:1H:2308:G:H1	26:1H:2311:A:H2	1.13	0.97
19:AI:40:ILE:HG12	19:AI:41:VAL:HG13	1.47	0.96
27:1J:18:G:H1	27:1J:65:C:H42	1.10	0.95
26:1H:138:G:N2	45:F8:44:GLU:OE2	1.99	0.94
26:14:2873:A:H8	39:55:6:SER:H	1.13	0.94
29:11:182:LEU:H	29:11:272:ALA:HB3	1.30	0.94
31:39:25:PRO:HB2	31:39:27:GLU:H	1.32	0.94
26:14:1899:G:H21	26:14:1902:C:N4	1.67	0.93
26:1H:2032:G:H21	30:21:146:THR:HG23	1.34	0.93
29:19:182:LEU:H	29:19:272:ALA:HB3	1.33	0.92
26:14:815:C:OP1	43:95:85:LYS:NZ	2.02	0.92
26:1H:1653:G:H3'	39:98:2:ARG:HG3	1.52	0.92
12:3A:47:LYS:HD2	12:3A:48:PRO:HD2	1.52	0.92
40:A8:78:LEU:HD12	40:A8:108:GLY:HA2	1.52	0.92
26:1H:607:U:H3	26:1H:621:A:H2	1.15	0.92
22:1K:76:A:H8	26:1H:2583:G:H21	1.07	0.91
31:39:28:ILE:HA	31:39:112:MET:HG2	1.51	0.91
26:1H:2607:G:N7	61:1H:3822:HOH:O	2.02	0.91
26:14:152:G:H1	26:14:174:C:H42	1.14	0.91
26:14:1043:C:H42	26:14:1112:G:H1	1.19	0.91
30:29:54:GLN:HB2	30:29:72:VAL:HB	1.52	0.91
38:88:79:LEU:HD12	38:88:80:GLU:HG3	1.53	0.91
13:4A:16:ASP:HB3	13:4A:34:LEU:HD11	1.54	0.90
26:14:2821:A:OP2	61:14:3518:HOH:O	1.87	0.89
28:71:23:ASP:HB2	28:71:190:ARG:HH22	1.37	0.89
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.95	0.89
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.54	0.89
1:13:1502:A:H2	1:13:1505:G:H1	1.18	0.89
26:14:2032:G:H21	30:29:146:THR:HG23	1.36	0.89
5:4E:10:MET:HB3	5:4E:32:VAL:HG22	1.53	0.88
26:1H:2711:A:OP2	61:1H:3603:HOH:O	1.91	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:97:ARG:NH2	46:G8:103:GLY:O	2.06	0.88
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.56	0.88
38:45:26:TYR:CD1	38:45:27:VAL:HG23	2.07	0.88
26:1H:2396:G:H5"	49:J8:25:LYS:HD3	1.53	0.88
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.53	0.88
1:13:601:C:H2'	1:13:602:A:H8	1.39	0.88
26:1H:1049:C:N3	33:51:3:ARG:NH1	2.22	0.88
26:1H:2580:U:H4'	30:21:130:GLY:HA3	1.53	0.88
26:14:84:A:N6	26:14:102:G:O2'	2.05	0.88
1:1G:998:G:N2	1:1G:1043:C:N3	2.21	0.88
26:1H:661:C:O2'	37:78:13:ASN:O	1.91	0.87
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.54	0.87
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.56	0.87
26:1H:1496:A:H8	26:1H:1577:C:HO2'	0.87	0.87
38:45:27:VAL:CB	38:45:28:ALA:HA	2.03	0.87
1:13:153:C:H42	1:13:168:G:H1	1.18	0.87
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.56	0.87
19:AI:41:VAL:O	52:M8:63:TYR:OH	1.93	0.86
7:62:20:ASP:HB3	7:62:23:VAL:HB	1.58	0.86
1:13:1034:G:N2	1:13:1035:A:N7	2.24	0.86
1:13:1372:U:H5"	9:8E:71:SER:HB3	1.58	0.86
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.57	0.86
1:13:737:A:H2'	1:13:738:C:H6	1.41	0.85
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.10	0.85
49:J8:87:PRO:O	49:J8:89:GLU:N	2.10	0.85
26:14:907:U:O2'	38:45:101:ARG:NH2	2.08	0.85
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.58	0.85
1:1G:1502:A:H2	1:1G:1505:G:H1	1.25	0.85
26:14:67:U:H3	26:14:74:A:H2	1.17	0.85
34:61:38:LEU:HD11	49:J8:75:GLU:HG3	1.58	0.85
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.58	0.85
26:14:2415:G:H4'	37:35:67:MET:H	1.41	0.85
26:1H:780:G:H21	26:1H:783:A:H62	1.24	0.85
1:1G:1224:G:H1	1:1G:1322:C:HO2'	1.25	0.85
2:1E:16:HIS:HE1	2:1E:213:LEU:HD12	1.42	0.85
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.59	0.85
47:D5:157:LEU:HA	47:D5:161:VAL:HG11	1.58	0.85
29:19:69:ARG:NH2	29:19:128:GLY:O	2.10	0.84
38:45:27:VAL:HB	38:45:28:ALA:CA	2.04	0.84
4:32:23:GLY:N	4:32:26:CYS:SG	2.49	0.84
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.11	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:33:ASN:HA	55:Q8:36:LYS:HD2	1.57	0.84
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.59	0.84
26:1H:676:A:H8	26:1H:2069:G:H21	1.24	0.84
56:1L:5:C:H42	56:1L:68:G:H1	1.26	0.84
30:29:197:ILE:HD11	30:29:199:ARG:HE	1.42	0.84
1:13:456:C:H42	1:13:476:G:H1	1.23	0.84
26:14:2343:C:O2'	26:14:2373:G:O2'	1.95	0.84
38:45:27:VAL:HG22	38:45:137:TYR:O	1.78	0.84
39:98:86:ARG:HH21	39:98:118:GLU:HG2	1.42	0.84
34:69:81:VAL:H	34:69:143:SER:HB3	1.42	0.84
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.10	0.84
26:1H:1678:G:N2	26:1H:1989:G:H22	1.76	0.83
26:1H:49:A:N7	26:1H:120:U:H5	1.75	0.83
35:58:47:ALA:HB2	35:58:112:LEU:HD11	1.59	0.83
26:14:1689:A:H62	26:14:1698:A:H2	1.23	0.83
8:72:110:ALA:H	8:72:121:ASP:HB2	1.43	0.83
8:72:121:ASP:OD1	8:72:125:ARG:NH2	2.11	0.83
1:1G:974:A:O2'	1:1G:975:A:OP2	1.97	0.83
45:B5:63:LYS:H	45:B5:63:LYS:HE3	1.41	0.83
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.61	0.83
41:75:77:PRO:HG2	41:75:80:SER:HB2	1.58	0.83
26:1H:1021:A:H62	26:1H:1141:U:H3	1.22	0.82
26:1H:1309:G:N7	61:1H:3842:HOH:O	2.12	0.82
26:14:910:A:H62	38:45:12:GLN:HA	1.44	0.82
26:14:2745:C:O2	33:59:139:GLN:NE2	2.09	0.82
35:58:96:GLU:O	35:58:98:VAL:N	2.11	0.82
26:14:2068:U:H3	26:14:2430:A:H2	1.28	0.82
47:D5:157:LEU:HB3	47:D5:161:VAL:HG21	1.62	0.82
11:2I:54:ARG:O	11:2I:56:GLY:N	2.11	0.82
26:14:1899:G:H21	26:14:1902:C:H42	1.24	0.82
1:13:1467:G:N7	61:13:1840:HOH:O	2.12	0.82
26:1H:2111:C:N4	26:1H:2147:G:O6	2.12	0.82
23:2L:47:7MG:H82	23:2L:47:7MG:H5'	1.61	0.82
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.44	0.82
31:31:101:LEU:HD23	31:31:102:PRO:HD2	1.61	0.82
37:78:71:VAL:HG13	37:78:72:PRO:HD3	1.60	0.82
1:13:262:A:H2'	1:13:263:A:C8	2.15	0.82
31:39:157:VAL:HB	31:39:194:MET:HG3	1.62	0.82
26:1H:847:U:OP2	61:1H:3821:HOH:O	1.98	0.82
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.61	0.82
48:E5:53:MET:HG3	48:E5:59:LEU:HD23	1.62	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:39:ILE:HD12	13:4I:56:LEU:HD23	1.61	0.81
26:14:2843:G:N7	61:14:3628:HOH:O	2.11	0.81
26:14:372:G:OP2	49:F5:69:LYS:NZ	2.13	0.81
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.28	0.81
31:39:25:PRO:HB3	31:39:28:ILE:HG23	1.60	0.81
32:41:161:THR:HG22	32:41:163:ALA:H	1.46	0.81
35:15:128:HIS:ND1	35:15:129:PRO:O	2.13	0.81
1:13:975:A:H4'	1:13:976:G:H5"	1.62	0.81
43:D8:65:GLY:HA3	43:D8:91:TYR:CZ	2.15	0.81
26:14:1806:C:O2'	29:19:46:GLN:NE2	2.12	0.81
27:1J:3:C:N3	27:1J:117:G:N2	2.27	0.81
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.14	0.81
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.14	0.81
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.14	0.81
26:1H:1782:C:OP1	61:1H:3625:HOH:O	1.97	0.81
47:H8:116:VAL:HG22	47:H8:146:ILE:HG12	1.63	0.81
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.12	0.81
36:68:63:VAL:HG12	36:68:106:LEU:HD11	1.62	0.81
52:M8:37:SER:HB3	52:M8:42:PHE:CE2	2.15	0.81
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.61	0.81
37:35:71:VAL:HG13	37:35:72:PRO:HD3	1.62	0.81
1:13:963:G:H1	1:13:972:C:H42	1.25	0.81
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.62	0.80
26:14:71:A:H2	45:B5:31:HIS:HE2	1.29	0.80
1:1G:353:A:H5'	1:1G:353:A:H8	1.46	0.80
26:14:141:A:H8	26:14:1595:G:H21	1.28	0.80
2:1E:27:LYS:NZ	2:1E:193:ASP:OD2	2.14	0.80
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.13	0.80
19:AA:10:PHE:HB2	19:AA:11:VAL:HB	1.63	0.80
26:14:259:G:H21	26:14:621:A:H8	1.28	0.80
1:1G:991:U:O2'	1:1G:992:U:OP2	1.98	0.80
1:1G:1028:C:N3	1:1G:1033:G:N2	2.28	0.80
30:29:36:ARG:NH1	30:29:85:ASN:OD1	2.15	0.80
26:1H:1569:A:H5'	29:11:61:LEU:HD21	1.64	0.80
3:22:84:ILE:HG23	3:22:85:ARG:HD2	1.63	0.80
26:14:833:U:O2	37:35:55:ARG:NH1	2.13	0.80
26:14:2789:C:O2	26:14:2894:G:N2	2.13	0.80
1:13:1348:U:H3	1:13:1374:A:H2	1.29	0.80
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.63	0.80
30:21:39:PRO:HD3	30:21:45:THR:HG22	1.64	0.80
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:38:LYS:HG2	29:11:40:THR:HG22	1.64	0.80
1:1G:1043:C:H2'	1:1G:1044:A:H8	1.46	0.80
7:62:93:PRO:HD2	7:62:94:ARG:HH21	1.46	0.80
26:14:2781:A:H5"	26:14:2782:G:H5'	1.64	0.80
1:1G:972:C:O3'	10:1A:55:LYS:NZ	2.14	0.80
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.64	0.80
26:1H:929:G:N7	61:1H:3850:HOH:O	2.14	0.80
26:1H:1022:G:N2	26:1H:1023:U:O4	2.14	0.80
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.63	0.80
26:14:450:G:OP2	61:14:3616:HOH:O	1.99	0.80
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.12	0.79
49:J8:84:GLY:N	49:J8:85:LEU:HG	1.95	0.79
3:22:135:LYS:O	3:22:135:LYS:NZ	2.16	0.79
49:J8:86:SER:HB3	49:J8:88:LYS:HB3	1.65	0.79
51:L8:35:ARG:HB3	51:L8:37:LEU:HD21	1.64	0.79
1:1G:297:G:O2'	61:1G:1846:HOH:O	2.00	0.79
24:3K:33:U:H2'	24:3K:34:U:H2'	1.64	0.79
24:3L:76:A:H8	26:14:2394:C:H42	1.30	0.79
26:14:275:G:N2	26:14:276:A:N7	2.30	0.79
31:39:53:THR:HG22	31:39:56:GLU:HG3	1.65	0.79
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.48	0.79
26:14:2138:C:H42	26:14:2153:G:H22	1.26	0.79
30:29:50:GLY:HA2	30:29:78:LEU:HB3	1.62	0.79
1:13:1453:G:H2'	20:BI:39:LYS:HE2	1.64	0.79
24:3K:76:A:H8	26:1H:2394:C:H42	1.30	0.79
26:1H:2048:G:N7	61:1H:3849:HOH:O	2.14	0.79
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.15	0.79
26:1H:2430:A:N7	61:1H:3848:HOH:O	2.14	0.79
28:71:7:TYR:HA	28:71:10:LEU:HB2	1.64	0.79
40:A8:74:ALA:HB1	40:A8:108:GLY:HA3	1.64	0.79
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.46	0.79
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.63	0.79
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.16	0.79
26:1H:6:A:H4'	35:58:129:PRO:HB3	1.65	0.79
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.28	0.79
26:1H:870:A:OP1	38:88:5:ARG:NH2	2.16	0.79
34:61:110:ASP:N	34:61:110:ASP:OD1	2.15	0.79
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.11	0.79
1:1G:1402:C:OP2	61:1G:1847:HOH:O	2.01	0.79
36:25:68:GLU:OE2	36:25:78:ARG:NH1	2.14	0.79
1:13:474:G:H5"	16:7I:81:ARG:HE	1.48	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2176:A:H1'	28:71:215:THR:HG21	1.64	0.79
26:14:1729:A:H2'	26:14:1731:G:H22	1.47	0.79
26:1H:2132:U:H3	28:71:5:LYS:HB2	1.47	0.79
41:B8:99:LEU:HB2	41:B8:102:ILE:HD11	1.64	0.79
42:85:28:ARG:NH1	42:85:38:THR:OG1	2.16	0.79
52:M8:45:GLY:O	52:M8:47:GLN:NE2	2.16	0.78
26:14:900:A:H3'	26:14:901:A:H8	1.47	0.78
26:1H:620:G:H4'	26:1H:621:A:H5"	1.65	0.78
31:31:66:PRO:O	31:31:67:GLN:HB3	1.80	0.78
46:G8:82:PRO:HB3	46:G8:99:CYS:HB2	1.66	0.78
26:14:2785:C:O2'	30:29:64:LYS:NZ	2.17	0.78
41:B8:50:ILE:HD11	41:B8:102:ILE:HG13	1.62	0.78
26:14:2296:U:OP2	40:65:9:ARG:NH1	2.13	0.78
31:39:53:THR:HG23	31:39:55:GLY:H	1.49	0.78
31:39:116:ASP:OD2	37:35:1:MET:N	2.16	0.78
27:16:42:C:O3'	32:41:67:LYS:NZ	2.16	0.78
37:78:63:PRO:HB2	55:Q8:30:ARG:HH21	1.47	0.78
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.49	0.78
9:82:19:LEU:HD11	9:82:84:ALA:HB1	1.65	0.78
1:13:963:G:H21	10:1I:55:LYS:HE2	1.49	0.78
26:1H:442:G:H1'	31:31:48:THR:HG21	1.65	0.78
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.15	0.78
26:14:123:G:N7	61:14:3647:HOH:O	2.16	0.78
7:62:148:ASN:ND2	7:62:148:ASN:O	2.16	0.78
31:39:24:LEU:HD22	31:39:25:PRO:HD3	1.66	0.78
1:13:1366:C:H2'	1:13:1367:C:H6	1.46	0.78
39:98:20:LEU:HD21	39:98:40:LYS:HD3	1.66	0.78
26:14:1678:G:N2	26:14:1989:G:H22	1.81	0.78
26:14:2714:G:OP2	61:14:3504:HOH:O	2.02	0.78
24:3K:7:U:H2'	24:3K:49:G:H5'	1.66	0.78
26:1H:34:C:O2'	26:1H:35:G:OP2	2.02	0.78
7:6E:89:MET:HE1	7:6E:155:ARG:HD2	1.65	0.77
34:69:41:GLU:HA	34:69:44:LEU:HB2	1.65	0.77
20:BI:73:HIS:HB3	20:BI:74:LYS:HG2	1.64	0.77
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.00	0.77
1:1G:838:G:N2	1:1G:848:C:N3	2.32	0.77
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.66	0.77
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.65	0.77
26:14:483:A:H4'	46:C5:49:VAL:HA	1.64	0.77
1:13:659:U:H2'	1:13:660:G:H8	1.49	0.77
1:13:737:A:H2'	1:13:738:C:C6	2.19	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:55:ASN:HB3	30:21:58:ARG:H	1.49	0.77
38:45:135:ASP:N	38:45:136:ALA:HA	1.99	0.77
26:14:789:A:N1	61:14:3650:HOH:O	2.16	0.77
1:13:967:C:HO2'	9:8E:125:TYR:HH	1.32	0.77
3:22:50:ALA:HB2	3:22:75:VAL:HB	1.67	0.77
26:14:2681:C:H5	26:14:2725:A:H62	1.33	0.77
46:C5:88:LYS:HG3	46:C5:89:PHE:H	1.49	0.77
1:13:452:A:OP1	16:7I:43:LYS:NZ	2.15	0.77
26:1H:1613:G:N7	61:1H:3861:HOH:O	2.17	0.77
1:13:1505:G:OP1	61:13:1839:HOH:O	2.01	0.77
1:1G:572:A:OP2	61:1G:1848:HOH:O	2.03	0.77
51:H5:13:ILE:O	61:H5:101:HOH:O	2.02	0.77
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.49	0.76
26:1H:660:G:H21	37:78:12:ALA:HA	1.50	0.76
37:78:32:THR:O	61:78:201:HOH:O	2.03	0.76
7:62:116:ALA:HA	7:62:119:ARG:HE	1.49	0.76
26:1H:1010:A:OP2	61:1H:3823:HOH:O	2.03	0.76
1:13:1145:C:H4'	1:13:1146:A:H5'	1.66	0.76
40:A8:28:VAL:HG11	40:A8:98:VAL:HG13	1.67	0.76
1:1G:664:G:H22	1:1G:741:G:H1	1.34	0.76
33:51:126:PRO:HG2	33:51:130:ARG:HH12	1.50	0.76
34:61:98:ALA:HB2	34:61:111:PRO:HB3	1.68	0.76
41:75:2:ASN:HB3	41:75:4:GLY:O	1.85	0.76
1:13:659:U:H2'	1:13:660:G:C8	2.21	0.76
26:1H:1382:G:O6	61:1H:3824:HOH:O	2.04	0.76
26:14:1022:G:H22	26:14:1142(A):A:H2	1.32	0.76
51:H5:3:ARG:HB3	51:H5:3:ARG:HH11	1.51	0.76
1:1G:1255:G:OP1	10:1A:45:ARG:NH2	2.16	0.76
4:32:53:ASP:OD1	5:42:107:ARG:NH2	2.18	0.76
32:49:11:TYR:OH	32:49:16:ARG:NH2	2.19	0.76
24:3K:29:U:O4	24:3K:41:A:N6	2.15	0.76
48:I8:27:GLU:HG3	48:I8:68:GLU:HA	1.67	0.76
2:1E:80:ILE:HG21	2:1E:212:GLN:HA	1.68	0.76
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.68	0.76
26:1H:1009:A:OP2	35:58:37:LYS:NZ	2.19	0.76
28:71:30:LYS:HG3	28:71:182:PRO:HD3	1.65	0.76
30:21:38:THR:HB	30:21:41:LYS:H	1.49	0.76
1:13:1:U:H1'	1:13:2:U:H4'	1.67	0.76
26:1H:1204:A:H62	26:1H:1241:A:H2	1.33	0.76
17:8A:45:HIS:HB2	17:8A:65:ILE:HD13	1.66	0.76
26:14:2498:C:OP2	61:14:3510:HOH:O	2.03	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:89:THR:HG23	4:3E:91:SER:H	1.50	0.75
10:1I:22:LYS:HD2	10:1I:90:LEU:HD22	1.68	0.75
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.67	0.75
10:1A:28:ARG:HH21	10:1A:34:VAL:H	1.31	0.75
26:14:2541:A:N7	61:14:3662:HOH:O	2.20	0.75
1:1G:411:A:H62	1:1G:413:G:H21	1.34	0.75
36:25:115:VAL:HG13	36:25:121:VAL:HG21	1.68	0.75
26:14:125:G:H5"	54:L5:19:ARG:HD3	1.69	0.75
1:13:339:C:OP2	36:68:97:ARG:NH1	2.19	0.75
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.50	0.75
1:1G:1221:G:OP1	1:1G:1321:C:N4	2.18	0.75
56:1L:57:G:OP2	38:45:60:ARG:NH2	2.19	0.75
26:14:2287:A:N6	26:14:2344:U:H3	1.83	0.75
33:59:15:VAL:HG12	33:59:29:PRO:HD2	1.67	0.75
1:13:652:U:O2'	1:13:653:A:O5'	2.03	0.75
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.68	0.75
26:14:854:G:H2'	26:14:855:G:H8	1.51	0.75
19:AI:11:VAL:HG11	19:AI:16:LEU:HD22	1.68	0.75
1:13:1178:G:OP2	9:8E:93:ARG:NH2	2.19	0.75
26:1H:2850:A:OP1	61:1H:3827:HOH:O	2.05	0.75
26:14:635:C:O2'	26:14:639:U:OP1	2.03	0.75
26:14:818:G:HO2'	26:14:838:C:HO2'	1.34	0.75
26:14:2392:A:H2	26:14:2424:C:H42	1.35	0.75
1:13:812:C:N3	61:13:1843:HOH:O	2.20	0.75
24:3K:22:G:N7	24:3K:46:G:N1	2.34	0.75
35:58:132:ALA:O	35:58:134:ARG:NH2	2.20	0.75
26:1H:1800:C:OP2	29:11:183:ARG:NH2	2.19	0.75
2:12:27:LYS:O	2:12:30:ARG:NH1	2.19	0.75
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.69	0.75
34:69:77:LEU:HA	34:69:141:LYS:HB3	1.67	0.75
1:13:735:C:H2'	1:13:736:C:H6	1.52	0.74
26:1H:1395:A:OP2	61:1H:3825:HOH:O	2.04	0.74
29:11:242:ARG:O	61:11:301:HOH:O	2.03	0.74
6:52:7:ASN:HD21	18:9A:34:TYR:HE2	1.35	0.74
43:95:98:GLU:OE1	43:95:100:ARG:NH1	2.19	0.74
26:1H:2419:U:O4	61:1H:3826:HOH:O	2.04	0.74
26:1H:2447:G:O5'	61:1H:3828:HOH:O	2.05	0.74
9:8E:17:VAL:HG21	9:8E:80:GLY:HA3	1.69	0.74
43:D8:44:LYS:O	43:D8:46:VAL:N	2.20	0.74
1:1G:973:G:H5"	1:1G:974:A:H5"	1.69	0.74
5:42:105:VAL:HG21	5:42:128:PRO:HB3	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:3:ARG:HD2	19:AA:7:LYS:HG2	1.68	0.74
26:14:1364:G:OP2	49:F5:2:SER:N	2.20	0.74
26:14:1477:A:N6	26:14:1516:U:O4	2.18	0.74
1:13:1256:A:N6	1:13:1278:U:OP2	2.20	0.74
37:78:49:ARG:HD2	55:Q8:60:LEU:HB3	1.68	0.74
9:82:27:THR:OG1	9:82:31:GLN:O	2.06	0.74
47:D5:115:GLY:HA2	47:D5:177:PRO:HG2	1.69	0.74
4:3E:64:LEU:HD22	4:3E:198:VAL:HG11	1.68	0.74
26:1H:517:C:OP1	53:N8:16:ARG:NH2	2.20	0.74
1:1G:316:G:OP2	1:1G:351:G:O2'	2.04	0.74
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.51	0.74
26:14:2226:C:OP2	61:14:3618:HOH:O	2.04	0.74
26:1H:270(J):G:N2	26:1H:270(P):C:O2	2.19	0.74
1:1G:286:G:N7	61:1G:1857:HOH:O	2.18	0.74
1:1G:545:C:OP1	4:32:61:LYS:NZ	2.20	0.74
1:1G:1028(B):C:O2	1:1G:1030:C:N4	2.21	0.74
26:14:1041:C:H42	26:14:1114:G:H1	1.33	0.74
26:14:2292:C:OP1	40:65:17:ARG:NH2	2.20	0.74
41:75:26:ASP:OD1	41:75:120:ARG:NH2	2.20	0.74
1:13:1508:G:OP1	61:13:1839:HOH:O	2.06	0.74
26:1H:941:A:H4'	61:1H:4025:HOH:O	1.86	0.74
51:L8:8:LEU:HB2	51:L8:28:LEU:HD22	1.68	0.74
1:1G:2:U:OP1	1:1G:630:G:O2'	2.06	0.74
26:14:782:A:H5'	26:14:783:A:C2	2.23	0.74
26:14:848:G:H2'	26:14:849:A:C8	2.21	0.74
1:1G:1259:C:N4	1:1G:1260:C:O2	2.21	0.74
9:8E:86:VAL:HG11	9:8E:93:ARG:HG3	1.70	0.74
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.19	0.74
38:88:66:ILE:O	38:88:104:PHE:N	2.19	0.74
33:59:8:PRO:HB2	33:59:69:ARG:HH21	1.52	0.74
26:1H:512:G:N7	61:1H:3875:HOH:O	2.20	0.74
33:59:7:LEU:HD12	33:59:8:PRO:HD3	1.70	0.74
47:D5:10:ARG:NH2	47:D5:26:GLY:O	2.21	0.74
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.21	0.73
26:1H:588:U:H2'	26:1H:589:C:C6	2.22	0.73
39:98:104:ARG:NH1	39:98:107:ASP:OD2	2.21	0.73
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.53	0.73
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.23	0.73
1:1G:1248:A:N6	1:1G:1288:A:OP2	2.21	0.73
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.53	0.73
30:21:53:PRO:HA	30:21:75:VAL:H	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1022:G:O2'	26:14:1023:U:OP2	2.05	0.73
33:59:70:THR:O	33:59:74:ASN:ND2	2.19	0.73
1:13:76:G:N1	1:13:93:U:O2	2.18	0.73
1:13:1347:G:H5"	9:8E:107:ARG:HB3	1.70	0.73
33:51:6:ARG:HH21	33:51:7:LEU:HD11	1.53	0.73
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.21	0.73
26:14:1922:G:OP1	61:14:3619:HOH:O	2.07	0.73
30:29:81:ILE:HG22	30:29:82:ARG:H	1.53	0.73
1:13:1144:G:H21	1:13:1146:A:H62	1.36	0.73
35:58:20:GLY:HA2	35:58:61:ARG:HD3	1.70	0.73
1:1G:1315:U:O2'	1:1G:1360:A:O2'	2.06	0.73
22:1K:27:G:H1	22:1K:43:U:H3	1.37	0.73
50:K8:58:ALA:O	50:K8:62:THR:HG22	1.88	0.73
1:1G:544:G:OP1	4:32:62:GLN:NE2	2.21	0.73
1:1G:1119:C:H42	1:1G:1154:G:H1	1.34	0.73
26:14:1787:A:N3	61:14:3663:HOH:O	2.20	0.73
26:14:2415:G:H4'	37:35:67:MET:N	2.03	0.73
33:59:152:ARG:HG3	33:59:153:LYS:HB2	1.71	0.73
1:13:1023:G:H3'	1:13:1024:G:H5"	1.68	0.73
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.70	0.73
26:1H:787:U:OP1	61:1H:3829:HOH:O	2.05	0.73
31:31:119:ARG:HB3	31:31:119:ARG:CZ	2.19	0.73
33:51:12:PRO:HG2	33:51:13:LYS:HG2	1.70	0.73
26:14:957:A:H5'	38:45:76:LYS:HD3	1.68	0.73
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.71	0.73
33:51:10:PRO:HD2	33:51:50:VAL:O	1.88	0.73
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.70	0.72
13:4I:37:THR:O	13:4I:55:ARG:NH1	2.21	0.72
40:A8:25:ARG:NH1	40:A8:42:ASP:OD2	2.22	0.72
45:F8:36:LYS:HG2	45:F8:54:VAL:HB	1.70	0.72
46:G8:102:CYS:SG	46:G8:103:GLY:N	2.61	0.72
26:1H:1434:A:H61	26:1H:1558:A:N6	1.86	0.72
31:31:130:ALA:H	31:31:132:VAL:HG13	1.54	0.72
1:1G:573:A:OP2	61:1G:1848:HOH:O	2.07	0.72
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	1.69	0.72
26:14:602:G:HO2'	26:14:604:G:HO2'	1.20	0.72
26:14:1537:C:H2'	26:14:1538:G:C8	2.24	0.72
26:14:1651:G:O6	61:14:3621:HOH:O	2.07	0.72
26:14:2553:G:H5"	26:14:2554:U:OP2	1.90	0.72
47:D5:10:ARG:HH21	47:D5:26:GLY:H	1.36	0.72
1:13:411:A:C4	1:13:413:G:H1'	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:17:LYS:H	12:3I:17:LYS:HD2	1.54	0.72
26:1H:860:U:H1'	26:1H:2268:A:H5'	1.71	0.72
7:62:111:ARG:NH1	7:62:126:ASP:OD2	2.22	0.72
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.72	0.72
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.71	0.72
26:1H:1899:G:H22	26:1H:1902:C:H41	1.36	0.72
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.22	0.72
42:C8:69:CYS:HG	42:C8:79:PHE:HD2	1.38	0.72
4:32:31:CYS:HB2	4:32:33:MET:H	1.55	0.72
6:52:68:PRO:HG2	6:52:71:ARG:HG3	1.71	0.72
26:14:6:A:H62	35:15:131:GLN:H	1.37	0.72
42:C8:92:ARG:O	42:C8:94:ASN:N	2.22	0.72
1:1G:780:A:OP2	61:1G:1849:HOH:O	2.06	0.72
26:14:1593:G:H2'	26:14:1594:G:C8	2.24	0.72
26:14:2058:A:OP1	61:14:3620:HOH:O	2.07	0.72
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.22	0.72
36:25:88:ASN:HB3	36:25:94:ARG:HD3	1.71	0.72
26:1H:2298:A:H62	26:1H:2318:G:H8	1.36	0.72
31:31:103:LYS:HA	31:31:106:ARG:HG3	1.71	0.72
26:14:1653:G:H3'	39:55:2:ARG:HG2	1.70	0.72
15:6I:82:ILE:O	15:6I:86:GLY:N	2.23	0.72
26:1H:2197:U:OP2	61:1H:3830:HOH:O	2.07	0.72
1:1G:677:U:H3	1:1G:713:G:H22	1.37	0.72
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.72	0.72
34:69:78:THR:HG21	34:69:104:GLN:HG3	1.70	0.72
50:G5:47:ASN:O	50:G5:49:LYS:N	2.21	0.72
1:13:448:A:OP2	1:13:485:G:N2	2.17	0.72
26:14:588:U:H2'	26:14:589:C:C6	2.24	0.72
26:14:929:G:O6	61:14:3617:HOH:O	2.03	0.72
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.22	0.72
27:1J:15:A:H5'	27:1J:16:G:C8	2.25	0.72
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.23	0.72
11:2I:99:GLN:HB3	11:2I:105:VAL:HG11	1.72	0.72
17:8I:41:LYS:HD2	17:8I:88:TYR:HE2	1.54	0.72
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.55	0.72
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.73	0.72
40:A8:27:SER:HA	40:A8:88:ASP:HB2	1.72	0.72
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.33	0.72
26:14:1434:A:H61	26:14:1558:A:H62	1.36	0.72
31:39:66:PRO:O	31:39:67:GLN:HB3	1.88	0.72
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:35:LYS:HD3	29:11:36:PRO:HD2	1.72	0.71
1:1G:377:G:OP1	16:7A:3:LYS:NZ	2.22	0.71
1:1G:533:A:OP1	61:1G:1850:HOH:O	2.08	0.71
1:1G:1157:A:H2	1:1G:1180:A:C6	2.07	0.71
26:14:526:A:OP1	61:14:3622:HOH:O	2.07	0.71
1:13:664:G:H22	1:13:741:G:H1	1.38	0.71
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.54	0.71
26:1H:270(L):U:C2	34:61:50:ARG:HG2	2.25	0.71
26:1H:2447:G:OP1	61:1H:3831:HOH:O	2.08	0.71
38:88:138:ASP:OD1	38:88:138:ASP:N	2.23	0.71
44:E8:79:GLY:HA3	44:E8:100:THR:HG22	1.71	0.71
26:14:95:G:H4'	50:G5:46:GLN:HB2	1.71	0.71
50:G5:29:LYS:HE2	50:G5:57:ILE:HG21	1.71	0.71
9:8E:3:GLN:HB3	9:8E:20:ARG:HD3	1.71	0.71
26:1H:2577:A:N7	61:1H:3880:HOH:O	2.22	0.71
47:H8:165:VAL:HB	47:H8:166:SER:HA	1.71	0.71
48:I8:53:MET:HG3	48:I8:59:LEU:HD23	1.71	0.71
1:1G:1315:U:HO2'	1:1G:1360:A:HO2'	1.36	0.71
2:1E:185:ILE:HB	2:1E:199:TYR:HB2	1.72	0.71
4:3E:150:GLU:HA	4:3E:153:ARG:HG3	1.72	0.71
50:K8:42:GLY:O	50:K8:44:LEU:N	2.23	0.71
1:13:376:G:H1	1:13:387:U:H3	1.37	0.71
26:1H:674:G:H1'	31:31:74:ARG:HD3	1.70	0.71
26:1H:1607:C:N4	26:1H:1622:G:OP2	2.21	0.71
1:13:148:G:H2'	1:13:149:A:C8	2.26	0.71
26:1H:336:C:OP1	46:G8:83:THR:HG23	1.89	0.71
26:1H:1266:G:O5'	44:E8:15:ARG:NH2	2.23	0.71
26:1H:1521:G:N7	61:1H:3890:HOH:O	2.24	0.71
32:41:47:LYS:HD2	32:41:81:LYS:HB2	1.71	0.71
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.72	0.71
26:14:329:G:H1	46:C5:19:LYS:NZ	1.88	0.71
24:3K:3:G:H1	24:3K:70:C:H42	1.39	0.71
26:1H:2270:G:OP2	61:1H:3833:HOH:O	2.09	0.71
26:14:910:A:C5	38:45:13:GLN:HG3	2.25	0.71
26:14:2444:G:OP2	31:39:68:LYS:HE2	1.91	0.71
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.73	0.71
26:1H:2305:A:O2'	32:41:136:ARG:NH1	2.23	0.71
56:1L:53:G:O3'	38:45:56:ARG:NH1	2.23	0.71
23:2L:24:C:H2'	23:2L:25:U:C6	2.26	0.71
26:14:1416:G:HO2'	26:14:1417:C:H6	1.38	0.71
31:39:123:LEU:O	31:39:125:LEU:N	2.18	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:72:LEU:HD21	34:69:107:VAL:HG11	1.73	0.71
55:M5:14:VAL:HG11	55:M5:22:VAL:HG13	1.72	0.71
26:1H:860:U:H5	26:1H:917:A:C2	2.09	0.71
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.09	0.71
1:1G:1352:C:OP1	21:1B:3:LYS:NZ	2.15	0.71
3:22:182:ILE:HG22	3:22:203:PHE:HA	1.73	0.71
8:72:12:ARG:NH2	8:72:27:PRO:HD3	2.03	0.71
14:5A:27:CYS:O	14:5A:29:ARG:NH2	2.23	0.71
1:13:624:C:O3'	16:7I:10:GLY:HA2	1.91	0.71
1:13:673:G:H2'	1:13:674:G:C8	2.26	0.71
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.23	0.71
1:1G:1071:C:H2'	1:1G:1072:G:H8	1.55	0.71
26:14:6:A:H3'	26:14:7:G:H5'	1.73	0.71
26:14:1216:G:O6	61:14:3623:HOH:O	2.08	0.71
1:13:1305:G:N2	1:13:1331:G:H2'	2.06	0.70
31:31:6:VAL:N	31:31:24:LEU:O	2.23	0.70
1:1G:539:A:H2'	1:1G:540:G:C8	2.26	0.70
26:14:1681:G:N3	61:14:3680:HOH:O	2.23	0.70
38:45:34:LEU:HD11	38:45:129:THR:HB	1.72	0.70
26:14:71:A:OP2	26:14:71:A:H3'	1.91	0.70
26:14:1864:U:OP1	26:14:2410:G:O2'	2.10	0.70
41:75:54:ARG:HA	41:75:59:THR:HB	1.71	0.70
47:D5:8:TYR:HA	47:D5:62:PRO:HD3	1.74	0.70
1:13:963:G:N7	61:13:1848:HOH:O	2.24	0.70
26:1H:16:G:H2'	26:1H:17:G:H8	1.55	0.70
26:1H:1029:A:H5"	38:88:128:LYS:HE2	1.73	0.70
49:J8:93:GLU:N	49:J8:93:GLU:OE2	2.24	0.70
13:4A:40:ASN:HD22	13:4A:43:THR:HG23	1.56	0.70
26:14:1418:G:N7	61:14:3686:HOH:O	2.24	0.70
29:19:260:ARG:HH12	29:19:267:SER:HB3	1.55	0.70
1:13:501:C:H2'	1:13:502:G:H8	1.56	0.70
4:3E:157:LEU:O	4:3E:161:ASN:ND2	2.22	0.70
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.71	0.70
26:14:528:A:OP2	35:15:114:ARG:NH1	2.24	0.70
26:14:2299:G:N2	26:14:2317:C:O2	2.16	0.70
1:13:955:U:H1'	1:13:1227:A:H61	1.56	0.70
2:1E:73:THR:HG22	2:1E:74:LYS:HG2	1.72	0.70
26:1H:269:U:OP2	61:1H:3834:HOH:O	2.09	0.70
26:1H:2244:U:O2'	61:1H:3836:HOH:O	2.10	0.70
37:78:18:ARG:HH21	37:78:18:ARG:HG3	1.56	0.70
26:14:2537:U:H2'	26:14:2538:C:C6	2.27	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:619:U:H3	4:3E:134:ASP:HB2	1.55	0.70
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.72	0.70
14:5I:6:LEU:HD13	14:5I:23:ARG:HH22	1.56	0.70
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.74	0.70
3:22:162:GLN:NE2	25:4L:24:A:O5'	2.24	0.70
7:6E:5:ARG:CZ	7:6E:7:ALA:HA	2.21	0.70
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.27	0.70
27:16:80:U:H2'	27:16:81:G:H21	1.57	0.70
3:22:88:ARG:HA	3:22:91:LEU:HD13	1.73	0.70
26:14:2239:G:OP2	61:14:3624:HOH:O	2.08	0.70
1:13:1129:C:H1'	1:13:1146:A:H61	1.57	0.70
26:1H:527:C:OP1	61:1H:3832:HOH:O	2.09	0.70
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.27	0.70
31:31:102:PRO:HB2	31:31:105:VAL:HG23	1.72	0.70
49:J8:53:VAL:HG22	49:J8:74:VAL:HG23	1.73	0.70
26:14:731:C:OP2	61:14:3626:HOH:O	2.10	0.70
36:25:14:THR:HG21	36:25:86:ILE:HG13	1.73	0.70
20:BI:35:THR:OG1	61:BI:201:HOH:O	2.09	0.69
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.74	0.69
26:14:2582:G:OP2	61:14:3625:HOH:O	2.10	0.69
1:13:837:G:OP2	1:13:842:C:N4	2.24	0.69
26:1H:272:G:N7	61:1H:3892:HOH:O	2.24	0.69
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.73	0.69
1:1G:79:G:H1	1:1G:90:C:H42	1.37	0.69
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.55	0.69
26:14:848:G:H2'	26:14:849:A:H8	1.56	0.69
26:14:1342:A:H2	26:14:1602:U:H3	1.40	0.69
1:1G:573:A:N3	1:1G:883:C:O2'	2.25	0.69
1:1G:1095:U:P	1:1G:1108:G:H1	2.15	0.69
14:5A:29:ARG:HB2	14:5A:31:ARG:H	1.57	0.69
26:14:2238:G:N7	61:14:3691:HOH:O	2.25	0.69
27:1J:80:U:H2'	27:1J:81:G:H21	1.56	0.69
32:49:18:GLU:OE2	32:49:21:ARG:NH2	2.22	0.69
38:45:138:ASP:N	38:45:138:ASP:OD1	2.22	0.69
42:85:92:ARG:HG3	42:85:94:ASN:HB3	1.75	0.69
47:D5:19:ARG:HH11	47:D5:84:GLU:HB2	1.56	0.69
49:F5:80:LEU:HD12	49:F5:82:LEU:HB2	1.74	0.69
26:1H:2352:A:OP2	61:1H:3837:HOH:O	2.10	0.69
32:41:113:ARG:HD2	52:M8:33:VAL:HG13	1.74	0.69
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.24	0.69
3:22:44:GLU:HG3	3:22:52:LEU:HD21	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:64:ARG:HB2	41:75:73:GLU:HG2	1.72	0.69
2:12:91:PRO:HG2	2:12:155:LEU:HG	1.74	0.69
38:45:77:LYS:HE3	38:45:84:GLY:HA3	1.75	0.69
40:65:23:ARG:NH2	40:65:84:GLN:HB3	2.08	0.69
26:1H:270(V):G:H2'	26:1H:270(W):G:H8	1.55	0.69
50:K8:3:LEU:H	50:K8:4:SER:C	1.96	0.69
1:1G:838:G:H1	1:1G:848:C:H42	1.40	0.69
26:14:2520:C:H41	26:14:2542:A:H62	1.40	0.69
2:1E:16:HIS:CE1	2:1E:213:LEU:HD12	2.27	0.69
24:3K:6:G:N2	24:3K:67:C:O2	2.25	0.69
26:1H:1245:G:OP1	37:78:13:ASN:ND2	2.20	0.69
44:E8:2:GLU:OE1	44:E8:72:LYS:NZ	2.25	0.69
1:1G:448:A:OP2	1:1G:485:G:N2	2.20	0.69
19:AA:10:PHE:HB3	19:AA:39:THR:HB	1.75	0.69
26:14:1358:G:N7	61:14:3696:HOH:O	2.26	0.69
39:55:97:VAL:HG12	39:55:114:VAL:HG22	1.74	0.69
24:3K:63:U:H6	28:71:53:ARG:HH22	1.39	0.69
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.57	0.69
37:78:43:GLY:O	61:78:202:HOH:O	2.11	0.69
37:78:49:ARG:HG3	37:78:49:ARG:HH11	1.58	0.69
1:1G:926:G:N2	25:4L:15:A:OP2	2.25	0.69
13:4A:19:LEU:HD23	13:4A:22:ILE:HD12	1.75	0.69
26:14:1774:C:OP1	61:14:3627:HOH:O	2.11	0.69
27:1J:18:G:N2	27:1J:65:C:N3	2.40	0.69
33:59:6:ARG:HB3	33:59:66:GLY:HA2	1.74	0.69
46:C5:74:PRO:HG2	46:C5:82:PRO:HG2	1.74	0.69
10:1I:28:ARG:HG3	10:1I:34:VAL:HG22	1.74	0.69
22:1K:76:A:H8	26:1H:2583:G:N2	1.88	0.69
26:1H:1509:C:O2'	26:1H:1510:A:OP1	2.09	0.69
26:1H:2433:A:OP2	61:1H:3835:HOH:O	2.10	0.69
26:14:2327:A:H2'	26:14:2328:A:C8	2.28	0.69
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.58	0.69
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.58	0.69
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.28	0.69
26:1H:2124:G:H4'	28:71:174:PRO:HG3	1.75	0.69
10:1A:55:LYS:HZ1	10:1A:57:LYS:HG2	1.57	0.69
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.26	0.69
23:2L:41:C:H2'	23:2L:42:C:H6	1.58	0.69
26:14:768:G:O2'	26:14:1379:A:N6	2.26	0.69
34:69:45:LYS:HA	34:69:48:GLU:HB3	1.75	0.69
39:55:57:ARG:NE	39:55:59:ASP:OD1	2.19	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:27:GLU:HG3	48:E5:68:GLU:HA	1.75	0.69
2:1E:11:LEU:HG	2:1E:213:LEU:HD13	1.74	0.68
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.27	0.68
27:16:15:A:H1'	27:16:109:G:C5	2.28	0.68
29:11:96:HIS:CE1	29:11:102:LYS:HE2	2.28	0.68
1:1G:1319:A:OP2	19:AA:3:ARG:HG3	1.93	0.68
9:82:112:LYS:HE3	9:82:118:LYS:H	1.57	0.68
26:14:890:A:H2'	26:14:892:G:C8	2.28	0.68
31:39:122:LYS:HD2	31:39:191:ARG:HE	1.55	0.68
10:1I:91:PRO:HB3	10:1I:94:VAL:HB	1.75	0.68
11:2I:53:SER:HA	11:2I:54:ARG:C	2.12	0.68
38:88:55:VAL:HG12	38:88:64:ILE:HD12	1.75	0.68
37:35:126:VAL:HG12	37:35:147:LEU:HD22	1.75	0.68
48:E5:21:LEU:HD11	48:E5:41:ARG:HH11	1.57	0.68
1:13:468:A:H5"	16:7I:80:PHE:HB3	1.74	0.68
26:14:273(F):C:H3'	26:14:274:G:H5"	1.76	0.68
26:14:1992:G:N7	61:14:3697:HOH:O	2.26	0.68
33:59:6:ARG:HH12	33:59:62:LYS:HB2	1.58	0.68
1:13:890:G:O2'	1:13:906:G:O6	2.10	0.68
1:13:963:G:N3	10:1I:55:LYS:NZ	2.40	0.68
26:1H:1200:C:H5'	61:1H:4397:HOH:O	1.94	0.68
26:1H:2111:C:N3	26:1H:2118:U:O2'	2.26	0.68
1:1G:978:A:OP2	1:1G:1362(A):C:N4	2.23	0.68
1:1G:827:U:H3	1:1G:872:A:H62	1.41	0.68
4:32:61:LYS:HB2	4:32:203:VAL:HG13	1.75	0.68
23:2L:24:C:H2'	23:2L:25:U:H6	1.56	0.68
26:14:2378:A:H4'	40:65:23:ARG:HH11	1.59	0.68
41:75:45:PHE:CE2	41:75:74:ARG:HG3	2.29	0.68
45:B5:50:LYS:HG2	45:B5:84:ALA:HB2	1.76	0.68
26:1H:2334:G:H5'	40:A8:9:ARG:HG2	1.74	0.68
43:D8:38:LEU:O	43:D8:51:VAL:HG23	1.94	0.68
1:1G:975:A:H4'	1:1G:976:G:H5"	1.75	0.68
1:1G:1043:C:H2'	1:1G:1044:A:C8	2.29	0.68
26:14:958:U:OP2	38:45:14:ARG:NH1	2.26	0.68
29:19:44:ASN:OD1	29:19:45:ASN:N	2.26	0.68
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.76	0.68
33:59:81:GLU:HG3	33:59:83:TYR:HB2	1.76	0.68
28:71:50:ASP:OD1	28:71:52:ARG:NH1	2.26	0.68
1:1G:1104:G:H4'	2:12:111:ARG:HE	1.57	0.68
4:32:94:LEU:HA	4:32:97:LEU:HD12	1.73	0.68
26:14:780:G:H21	26:14:783:A:H62	1.39	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:993:G:OP1	42:85:50:ARG:NH2	2.27	0.68
1:13:1149:C:H2'	1:13:1150:U:H6	1.57	0.68
30:21:82:ARG:O	30:21:84:PHE:N	2.27	0.68
43:D8:14:VAL:HB	43:D8:96:ILE:HG13	1.76	0.68
26:14:1043:C:N3	26:14:1112:G:N2	2.35	0.68
26:14:1486:A:H2'	26:14:1487:G:H8	1.58	0.68
29:19:148:GLU:HB2	29:19:151:LYS:HD2	1.76	0.68
55:M5:40:GLU:HA	55:M5:43:GLN:HB3	1.76	0.68
5:4E:85:GLY:O	61:4E:201:HOH:O	2.11	0.68
11:2I:19:ALA:HA	11:2I:32:ILE:HG22	1.75	0.68
26:1H:1899:G:H22	26:1H:1902:C:N4	1.91	0.68
27:16:40:U:H1'	27:16:45:A:H61	1.59	0.68
29:11:84:TYR:HE1	29:11:86:PRO:HB3	1.59	0.68
1:1G:993:G:O6	1:1G:1045:C:N4	2.26	0.68
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.74	0.68
26:14:1141:U:OP2	35:15:63:THR:OG1	2.08	0.68
26:14:1403:C:OP1	26:14:1522:G:N2	2.19	0.68
26:14:1693:U:O2'	29:19:14:ARG:NH2	2.26	0.68
41:75:24:PRO:HA	41:75:49:VAL:HG23	1.75	0.68
41:75:88:ILE:HD11	41:75:91:ARG:HG2	1.75	0.68
1:13:1144:G:N2	1:13:1146:A:H62	1.92	0.68
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	1.75	0.68
18:9I:38:GLU:HA	18:9I:41:LYS:HZ2	1.58	0.68
26:1H:270(K):C:H1'	26:1H:270(N):G:H1	1.57	0.68
26:1H:818:G:OP2	61:1H:3843:HOH:O	2.12	0.68
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.09	0.68
26:1H:2712(A):A:OP2	61:1H:3838:HOH:O	2.11	0.68
51:L8:12:PRO:O	51:L8:20:LYS:NZ	2.27	0.68
1:13:1171:G:H2'	1:13:1172:C:H6	1.58	0.67
22:1K:36:U:H3	25:4K:19:G:H1	1.41	0.67
26:1H:243:U:OP1	55:Q8:6:THR:OG1	2.13	0.67
32:41:41:GLN:NE2	32:41:154:GLY:O	2.25	0.67
26:14:843:G:H1	26:14:935:C:H42	1.40	0.67
30:29:52:LEU:HD12	30:29:53:PRO:HD2	1.75	0.67
2:1E:100:GLY:O	2:1E:104:ASN:N	2.24	0.67
28:71:35:ALA:HB2	28:71:218:MET:HG2	1.76	0.67
42:C8:102:GLU:HG3	43:D8:2:PHE:CE2	2.29	0.67
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.60	0.67
26:14:731:C:OP1	61:14:3630:HOH:O	2.12	0.67
26:14:1169:G:H1	26:14:1180:C:H42	1.41	0.67
1:13:524:G:H2'	1:13:525:C:C6	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2751:G:O6	33:51:3:ARG:NH1	2.27	0.67
26:1H:2849:U:O2'	61:1H:3840:HOH:O	2.11	0.67
1:1G:607:A:OP1	61:1G:1851:HOH:O	2.11	0.67
1:1G:1023:G:C5	1:1G:1024:G:H1'	2.30	0.67
1:1G:1181:G:N2	1:1G:1182:G:O2'	2.28	0.67
2:12:119:GLU:OE2	2:12:153:ARG:NH1	2.21	0.67
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.59	0.67
34:69:77:LEU:HD23	34:69:78:THR:H	1.59	0.67
2:1E:11:LEU:HD23	2:1E:213:LEU:HD22	1.75	0.67
26:14:1579:A:H2'	26:14:1580:A:C8	2.30	0.67
20:BI:50:GLU:HG2	20:BI:100:ILE:HB	1.76	0.67
26:1H:1454:U:OP1	39:98:77:ARG:NH1	2.28	0.67
50:K8:47:ASN:O	50:K8:49:LYS:N	2.24	0.67
3:22:110:ASN:HB3	3:22:141:VAL:HG13	1.76	0.67
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.58	0.67
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.24	0.67
26:14:607:U:H3	26:14:621:A:H2	1.40	0.67
27:1J:18:G:H2'	27:1J:19:G:C8	2.29	0.67
32:49:15:VAL:HG13	32:49:175:LEU:HB3	1.76	0.67
33:59:149:ARG:HA	33:59:162:ILE:HG21	1.75	0.67
1:13:750:G:N3	15:6I:23:GLY:HA3	2.09	0.67
13:4I:69:GLU:HG3	32:41:118:ARG:HH22	1.60	0.67
23:2K:62:C:H2'	23:2K:63:C:H6	1.59	0.67
2:12:167:PRO:O	2:12:171:ALA:N	2.27	0.67
27:1J:80:U:H2'	27:1J:81:G:N2	2.10	0.67
47:D5:29:TYR:HE1	47:D5:87:ASP:HB2	1.60	0.67
1:13:1129:C:H42	1:13:1143:G:H1	1.43	0.67
33:51:97:ARG:NH2	33:51:104:GLU:OE2	2.27	0.67
55:Q8:54:GLU:O	55:Q8:58:ILE:HG12	1.94	0.67
24:3L:5:C:H2'	24:3L:6:G:C8	2.30	0.67
26:14:870:A:H5"	38:45:6:ARG:HB3	1.75	0.67
26:14:2139:C:N3	26:14:2153:G:N2	2.42	0.67
24:3K:49:G:H1'	24:3K:66:A:C6	2.30	0.67
25:4K:24:A:H2'	25:4K:25:A:C8	2.30	0.67
26:1H:320:A:OP1	31:31:135:LYS:NZ	2.27	0.67
26:1H:2372:G:O6	61:1H:3839:HOH:O	2.11	0.67
1:1G:972:C:OP1	61:1G:1853:HOH:O	2.13	0.67
1:1G:1162:C:H42	1:1G:1174:G:H1	1.42	0.67
42:85:52:ARG:HA	42:85:55:ARG:HD3	1.77	0.67
45:B5:40:LYS:HA	45:B5:51:VAL:HG11	1.75	0.67
49:F5:84:GLY:HA2	49:F5:85:LEU:HB3	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:157:G:H1	1:13:164:U:H3	1.42	0.67
1:13:887:G:N7	61:13:1853:HOH:O	2.28	0.67
1:13:1159:U:O4'	1:13:1182:G:N2	2.28	0.67
32:41:67:LYS:HE2	52:M8:6:HIS:CE1	2.30	0.67
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.29	0.67
16:7A:34:GLU:OE1	16:7A:59:TRP:NE1	2.26	0.67
20:BA:89:ARG:NH1	20:BA:105:SER:O	2.27	0.67
27:1J:15:A:H5'	27:1J:16:G:H8	1.59	0.67
31:39:12:LEU:HD23	31:39:14:PRO:HD3	1.76	0.67
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.77	0.67
1:13:1157:A:H61	1:13:1178:G:H21	1.42	0.67
5:4E:8:GLU:OE2	5:4E:63:ARG:NH2	2.28	0.67
26:1H:370:G:OP2	61:1H:3845:HOH:O	2.13	0.67
41:B8:24:PRO:HD3	41:B8:52:ILE:HD12	1.77	0.67
47:H8:108:PRO:HB2	47:H8:112:ARG:HA	1.77	0.67
48:I8:9:SER:OG	48:I8:10:THR:N	2.28	0.67
53:N8:41:PRO:O	53:N8:44:THR:OG1	2.12	0.67
1:1G:114:U:H2'	1:1G:115:G:C8	2.30	0.67
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.75	0.67
39:55:38:VAL:HG12	39:55:42:LYS:HD2	1.76	0.67
7:6E:51:GLN:HB2	7:6E:58:PRO:HD3	1.75	0.66
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.75	0.66
1:1G:1029:G:N2	1:1G:1032:A:OP2	2.28	0.66
4:3E:85:LYS:HE2	4:3E:89:THR:HA	1.77	0.66
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.30	0.66
28:71:29:VAL:HG11	28:71:185:LEU:HD12	1.75	0.66
47:H8:165:VAL:HB	47:H8:167:PRO:HD3	1.78	0.66
1:1G:560:U:O2'	1:1G:561:U:OP2	2.13	0.66
26:14:1781:C:O2'	61:14:3631:HOH:O	2.13	0.66
26:14:2720:U:H3	26:14:2873:A:H2	1.43	0.66
1:13:982:U:H5"	14:5I:6:LEU:HD11	1.78	0.66
1:13:1292:U:H2'	1:13:1293:G:C8	2.29	0.66
26:1H:70:G:H21	26:1H:71:A:H62	1.44	0.66
26:1H:1186:G:OP1	61:1H:3844:HOH:O	2.13	0.66
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.30	0.66
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.28	0.66
37:78:56:SER:HB2	37:78:61:ARG:HD2	1.77	0.66
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.78	0.66
1:1G:54:C:N4	1:1G:353:A:OP2	2.28	0.66
1:1G:577:G:H2'	1:1G:578:C:H6	1.61	0.66
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1322:A:N1	26:14:1333:C:O2'	2.28	0.66
34:69:104:GLN:OE1	34:69:105:HIS:ND1	2.27	0.66
1:13:1:U:H3'	1:13:630:G:H21	1.60	0.66
1:13:1062:U:H2'	1:13:1063:C:C6	2.31	0.66
2:1E:18:GLY:H	2:1E:42:ILE:HB	1.59	0.66
30:21:59:VAL:HG13	30:21:60:ASN:H	1.61	0.66
30:21:147:PRO:HB2	30:21:149:ARG:HG2	1.76	0.66
1:1G:575:G:OP1	61:1G:1852:HOH:O	2.12	0.66
29:19:43:ARG:HA	29:19:49:ILE:HA	1.77	0.66
36:25:1:MET:HG3	36:25:67:LYS:HG2	1.78	0.66
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.21	0.66
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.60	0.66
50:K8:42:GLY:C	50:K8:44:LEU:H	1.95	0.66
52:M8:13:ARG:HA	52:M8:24:THR:HG21	1.77	0.66
23:2L:63:C:H2'	23:2L:64:G:H8	1.60	0.66
26:14:581:C:H2'	26:14:582:G:H8	1.58	0.66
26:14:1021:A:H62	26:14:1141:U:H3	1.44	0.66
33:59:18:GLU:HB2	33:59:25:LYS:HB2	1.78	0.66
35:15:13:TRP:O	35:15:135:PRO:HD2	1.96	0.66
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.76	0.66
1:13:266:G:H5"	1:13:267:C:H5	1.60	0.66
2:1E:97:TRP:HZ3	2:1E:172:ILE:HB	1.60	0.66
26:1H:844:C:H3'	26:1H:845:G:H8	1.59	0.66
50:K8:15:LYS:H	50:K8:67:LYS:HE2	1.61	0.66
1:1G:750:G:OP2	61:1G:1854:HOH:O	2.14	0.66
1:1G:1279:A:O2'	1:1G:1282:C:N4	2.28	0.66
2:12:184:VAL:HG23	2:12:198:ASP:H	1.60	0.66
10:1A:28:ARG:NH2	10:1A:34:VAL:O	2.29	0.66
29:19:8:PRO:HB3	29:19:14:ARG:HB2	1.78	0.66
33:59:54:ARG:NH2	33:59:57:ASP:OD1	2.28	0.66
46:C5:81:LYS:HG3	46:C5:99:CYS:SG	2.36	0.66
47:D5:151:HIS:HB3	47:D5:167:PRO:HB3	1.78	0.66
1:13:688:G:H2'	1:13:689:C:H6	1.59	0.66
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.61	0.66
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.28	0.66
1:1G:512:U:H2'	1:1G:513:C:C6	2.30	0.66
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.78	0.66
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.77	0.66
23:2L:48:U:O2'	23:2L:49:C:OP2	2.14	0.66
24:3L:4:U:H2'	24:3L:5:C:O4'	1.95	0.66
26:14:826:U:O3'	61:14:3634:HOH:O	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1329:U:H5”	26:14:1330:C:H5	1.61	0.66
26:1H:218:A:OP2	61:1H:3841:HOH:O	2.12	0.66
1:1G:328:C:H4’	1:1G:329:A:H5”	1.78	0.66
8:72:109:ILE:HG12	8:72:110:ALA:N	2.10	0.66
26:14:2689:U:OP2	26:14:2719:G:N2	2.27	0.66
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.31	0.66
26:1H:646:A:H2’	26:1H:647:G:O4’	1.95	0.66
26:1H:2169:A:N7	26:1H:2170:A:N6	2.44	0.66
26:1H:2400:G:H2’	26:1H:2401:U:H6	1.60	0.66
26:14:1040:C:H2’	26:14:1041:C:C6	2.31	0.66
26:14:1890:A:OP2	61:14:3632:HOH:O	2.13	0.66
26:14:2331:G:O3’	48:E5:43:THR:HG22	1.95	0.66
47:D5:53:ILE:HG22	47:D5:71:VAL:HG13	1.78	0.66
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.23	0.66
9:82:5:TYR:N	9:82:87:GLN:OE1	2.29	0.66
26:14:1567:A:O2’	29:19:63:ARG:NH2	2.29	0.66
26:14:1783:A:OP1	61:14:3629:HOH:O	2.12	0.66
26:14:2857:G:N7	61:14:3707:HOH:O	2.28	0.66
47:D5:115:GLY:HA3	47:D5:174:VAL:HG13	1.76	0.66
26:1H:1178:C:H4’	26:1H:1179:C:OP1	1.94	0.65
26:1H:2854:G:H2’	26:1H:2855:C:C6	2.31	0.65
28:71:185:LEU:O	28:71:189:ILE:N	2.29	0.65
43:D8:36:PRO:O	43:D8:38:LEU:N	2.27	0.65
47:H8:154:ASP:OD1	47:H8:154:ASP:N	2.24	0.65
1:1G:1224:G:C6	1:1G:1322:C:H1’	2.31	0.65
1:1G:1288:A:O2’	21:1B:10:ARG:NH2	2.24	0.65
14:5A:22:THR:HB	14:5A:33:VAL:HG21	1.77	0.65
20:BA:12:ALA:O	20:BA:15:ARG:N	2.29	0.65
26:14:1165:U:H2’	26:14:1166:C:C6	2.31	0.65
26:14:1997:G:OP2	61:14:3642:HOH:O	2.15	0.65
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.77	0.65
1:13:1228:C:H2’	1:13:1229:A:H8	1.60	0.65
1:13:1385:G:N7	61:13:1856:HOH:O	2.29	0.65
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.29	0.65
2:1E:209:ARG:HD2	2:1E:239:VAL:HG13	1.78	0.65
9:8E:28:VAL:HA	9:8E:63:ILE:O	1.97	0.65
26:1H:1314:C:OP1	61:1H:3622:HOH:O	2.14	0.65
26:14:1942:C:OP2	26:14:1943:U:O2’	2.12	0.65
26:14:2377:A:H4’	40:65:111:GLU:HG2	1.78	0.65
26:14:2801:A:H2’	26:14:2802:G:O4’	1.94	0.65
1:13:601:C:H2’	1:13:602:A:C8	2.25	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.30	0.65
1:13:917:G:H2'	1:13:918:A:C8	2.30	0.65
29:19:182:LEU:N	29:19:272:ALA:HB3	2.09	0.65
1:13:353:A:H8	1:13:353:A:H5'	1.61	0.65
33:51:2:SER:HB2	33:51:3:ARG:HD3	1.79	0.65
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.20	0.65
1:1G:1177:G:O2'	1:1G:1178:G:O4'	2.14	0.65
1:1G:1345:U:OP2	61:1G:1855:HOH:O	2.14	0.65
26:14:275:G:O2'	26:14:276:A:O4'	2.11	0.65
26:14:2689:U:P	26:14:2719:G:H22	2.18	0.65
30:29:25:VAL:HG12	30:29:26:ILE:H	1.62	0.65
45:B5:11:PRO:HB3	45:B5:92:LEU:HD11	1.77	0.65
1:13:780:A:OP2	61:13:1841:HOH:O	2.13	0.65
26:1H:1304:C:OP2	61:1H:3846:HOH:O	2.13	0.65
26:1H:2145:C:H5	26:1H:2148:G:H21	1.42	0.65
41:B8:57:PHE:O	41:B8:58:ASN:ND2	2.29	0.65
47:H8:7:ALA:HB2	47:H8:59:LEU:HD22	1.77	0.65
49:J8:71:TYR:HA	49:J8:74:VAL:HG12	1.76	0.65
1:1G:1023:G:H5"	1:1G:1024:G:H21	1.61	0.65
1:1G:1216:G:H5"	14:5A:5:ALA:HB3	1.78	0.65
7:62:15:ASP:HB3	7:62:20:ASP:H	1.61	0.65
8:72:110:ALA:N	8:72:121:ASP:HB2	2.12	0.65
26:14:247:G:H4'	26:14:386:G:C5	2.31	0.65
26:14:1614:A:OP2	61:14:3639:HOH:O	2.14	0.65
26:14:1778:U:H2'	26:14:1784:A:N6	2.11	0.65
30:29:52:LEU:O	30:29:74:PRO:HB2	1.96	0.65
48:E5:32:ARG:O	48:E5:34:GLY:N	2.26	0.65
1:13:233:C:H2'	1:13:234:C:H6	1.62	0.65
1:13:963:G:N2	1:13:972:C:N3	2.37	0.65
1:13:1446:A:OP1	1:13:1446:A:H4'	1.96	0.65
11:2I:41:THR:HG21	11:2I:71:LYS:HD2	1.79	0.65
26:1H:2747:G:N7	61:1H:3913:HOH:O	2.29	0.65
1:1G:1004:A:H8	1:1G:1026:G:C8	2.14	0.65
26:14:1950:G:OP1	61:14:3641:HOH:O	2.14	0.65
26:14:2277:G:OP2	48:E5:12:ASN:ND2	2.29	0.65
26:14:2542:A:H4'	26:14:2542:A:OP1	1.93	0.65
26:14:2782:G:N7	61:14:3717:HOH:O	2.30	0.65
33:59:89:ILE:HG21	33:59:130:ARG:HA	1.78	0.65
1:13:727:G:N2	1:13:730:G:OP2	2.25	0.65
16:7I:11:SER:HB2	16:7I:14:ASN:HB3	1.78	0.65
26:1H:67:U:H3	26:1H:74:A:H2	1.42	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:979:G:N7	61:1H:3917:HOH:O	2.29	0.65
41:B8:1:MET:N	41:B8:2:ASN:OD1	2.26	0.65
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	1.79	0.65
2:12:71:VAL:HB	2:12:165:VAL:HG22	1.78	0.65
3:22:131:ARG:NH2	3:22:166:GLU:OE2	2.30	0.65
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.78	0.65
30:29:134:ILE:HD12	30:29:134:ILE:O	1.97	0.65
42:85:66:ASN:HD21	42:85:70:ARG:HH21	1.44	0.65
1:13:686:U:O4	1:13:703:G:H1'	1.97	0.65
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.30	0.65
10:1I:85:LEU:HB2	10:1I:86:MET:SD	2.37	0.65
22:1K:7:U:O2'	22:1K:49:G:N2	2.30	0.65
22:1K:53:G:H2'	22:1K:54:5MU:H5'	1.79	0.65
26:1H:1626:G:OP2	61:1H:3847:HOH:O	2.14	0.65
26:1H:2313:C:H4'	32:41:91:ARG:HG3	1.79	0.65
26:1H:2656:U:H3	26:1H:2665:A:H2	1.45	0.65
39:98:38:VAL:HG22	39:98:112:ALA:HB2	1.78	0.65
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.24	0.65
26:14:889:C:H2'	26:14:890:A:H4'	1.78	0.65
45:B5:32:PRO:HA	45:B5:77:LYS:HB2	1.77	0.65
46:C5:76:CYS:SG	46:C5:97:ARG:HG3	2.37	0.65
1:13:920:U:H2'	1:13:921:U:C6	2.32	0.65
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.29	0.65
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.60	0.65
50:K8:3:LEU:H	50:K8:5:GLU:N	1.94	0.65
1:1G:735:C:H2'	1:1G:736:C:H6	1.61	0.65
1:1G:736:C:H2'	1:1G:737:A:C8	2.32	0.65
1:1G:920:U:H2'	1:1G:921:U:C6	2.31	0.65
1:1G:1254:C:OP1	10:1A:45:ARG:HA	1.96	0.65
5:42:71:LEU:HD21	5:42:115:VAL:HG22	1.79	0.65
9:82:111:ARG:HB2	9:82:113:LYS:HE2	1.79	0.65
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.77	0.65
26:14:2547:U:O2	36:25:23:ARG:NH2	2.29	0.65
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.11	0.65
30:21:63:LEU:O	30:21:66:HIS:N	2.30	0.65
53:N8:36:CYS:HB2	53:N8:49:CYS:SG	2.37	0.65
26:14:34:C:H1'	26:14:35:G:OP1	1.97	0.65
26:14:784:A:OP2	61:14:3645:HOH:O	2.15	0.65
1:13:1059:C:O3'	14:5I:45:ARG:NH2	2.30	0.64
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.29	0.64
20:BI:75:ASN:OD1	20:BI:75:ASN:N	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:226:G:H21	26:1H:228:A:H2	1.45	0.64
26:1H:906:G:OP1	38:88:26:TYR:OH	2.13	0.64
26:1H:2287:A:N6	26:1H:2344:U:H3	1.94	0.64
29:11:142:VAL:HG23	29:11:193:VAL:HA	1.77	0.64
36:68:2:ILE:HD12	36:68:6:THR:HG21	1.79	0.64
3:22:76:VAL:HG21	3:22:103:VAL:HG21	1.79	0.64
26:14:1641:A:OP2	61:14:3637:HOH:O	2.14	0.64
46:C5:20:TYR:CZ	46:C5:42:VAL:HA	2.32	0.64
4:3E:30:LYS:HA	4:3E:35:ARG:HE	1.62	0.64
26:1H:2309:A:H2'	26:1H:2310:A:O4'	1.97	0.64
27:16:44:G:H1'	27:16:47:C:N4	2.11	0.64
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.31	0.64
6:52:12:PRO:HD3	6:52:58:GLY:HA2	1.80	0.64
8:72:119:LEU:HD12	8:72:124:ALA:HA	1.79	0.64
23:2L:63:C:H2'	23:2L:64:G:C8	2.32	0.64
26:14:634:C:H2'	26:14:635:C:C6	2.32	0.64
26:14:882:G:H1	26:14:894:C:H42	1.43	0.64
26:14:1786:A:H2	26:14:2606:C:H1'	1.62	0.64
26:14:2405:G:N7	61:14:3716:HOH:O	2.30	0.64
37:35:55:ARG:HG2	37:35:56:SER:H	1.62	0.64
47:D5:10:ARG:HD2	47:D5:36:LYS:HD2	1.79	0.64
53:J5:41:PRO:O	53:J5:44:THR:OG1	2.14	0.64
1:13:165:C:H2'	1:13:166:G:H8	1.63	0.64
26:1H:768:G:O2'	26:1H:1379:A:N6	2.30	0.64
26:1H:1009:A:O5'	61:1H:3852:HOH:O	2.15	0.64
42:C8:65:ILE:HG13	42:C8:96:ALA:HB2	1.79	0.64
1:1G:1:U:O5'	1:1G:630:G:N2	2.30	0.64
1:1G:751:U:H4'	15:6A:24:SER:HA	1.78	0.64
8:72:120:THR:HG22	8:72:123:GLU:H	1.62	0.64
26:14:674:G:OP2	61:14:3635:HOH:O	2.13	0.64
26:14:2037:G:H2'	26:14:2038:G:C8	2.32	0.64
35:15:21:LYS:O	35:15:60:ILE:HG13	1.96	0.64
22:1K:6:G:N2	22:1K:67:C:O2'	2.30	0.64
26:1H:1535:U:O4	26:1H:1538:G:O2'	2.10	0.64
29:11:17:THR:HG22	29:11:205:VAL:H	1.62	0.64
35:58:39:ARG:NH2	35:58:41:ASP:OD2	2.31	0.64
35:58:96:GLU:O	35:58:98:VAL:HG12	1.97	0.64
42:C8:14:HIS:O	42:C8:18:LEU:HD12	1.97	0.64
1:1G:424:G:H2'	1:1G:425:G:H8	1.62	0.64
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.62	0.64
26:14:1533:C:H3'	26:14:1534:G:H4'	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1997:G:OP2	61:14:3638:HOH:O	2.14	0.64
44:A5:86:LEU:HD12	44:A5:87:PRO:HD2	1.78	0.64
47:D5:74:VAL:HG13	47:D5:86:VAL:HG22	1.79	0.64
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.28	0.64
26:1H:846:C:O3'	61:1H:3624:HOH:O	2.14	0.64
26:1H:2130:U:OP2	28:71:6:ARG:NH1	2.23	0.64
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.61	0.64
12:3A:55:VAL:HG23	12:3A:69:TYR:HA	1.79	0.64
26:14:1341:U:OP2	26:14:1394:U:O2'	2.12	0.64
26:14:2816:C:O3'	39:55:99:LYS:NZ	2.29	0.64
1:13:736:C:H2'	1:13:737:A:C8	2.31	0.64
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.25	0.64
19:AI:41:VAL:HA	19:AI:44:MET:HG3	1.78	0.64
26:1H:1728:G:H8	26:1H:1732:A:H62	1.43	0.64
26:1H:1932:A:H2'	26:1H:1933:G:O4'	1.97	0.64
26:1H:2016:U:O2	53:N8:7:PRO:HG2	1.97	0.64
1:1G:1179:A:H4'	9:82:103:THR:HA	1.78	0.64
26:14:918:A:O2'	27:1J:96:G:N2	2.31	0.64
26:14:1449:A:O2'	26:14:1530:G:N2	2.21	0.64
26:14:2788:C:O2'	26:14:2809:A:N3	2.29	0.64
30:29:54:GLN:NE2	30:29:55:ASN:O	2.30	0.64
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.80	0.64
45:B5:43:VAL:HG23	45:B5:51:VAL:HG21	1.78	0.64
1:13:1422:G:H5"	36:68:48:PRO:HB3	1.78	0.64
31:31:101:LEU:HD23	31:31:102:PRO:CD	2.27	0.64
1:1G:108:G:C6	20:BA:15:ARG:HD2	2.32	0.64
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.21	0.64
2:12:118:LEU:HD22	2:12:142:LEU:HB2	1.80	0.64
26:14:847:U:OP2	61:14:3643:HOH:O	2.15	0.64
26:14:2294:C:P	40:65:89:ARG:HH22	2.21	0.64
50:G5:4:SER:N	50:G5:5:GLU:HB2	2.12	0.64
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.78	0.64
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.32	0.64
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.63	0.64
28:71:64:LEU:HD11	28:71:188:ASN:HD21	1.63	0.64
33:51:153:LYS:HB2	33:51:155:SER:H	1.63	0.64
36:68:98:VAL:HG13	36:68:117:LEU:HB2	1.79	0.64
1:1G:1346:A:H5"	9:82:120:ARG:HH12	1.62	0.64
12:3A:117:ARG:HG2	12:3A:122:THR:HB	1.79	0.64
26:14:49:A:H4'	26:14:50:U:H5"	1.79	0.64
26:14:1278:A:H5"	39:55:36:THR:HG22	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2158:A:H1'	26:14:2159:G:C8	2.32	0.64
26:14:2400:G:H2'	26:14:2401:U:C6	2.33	0.64
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.33	0.64
11:2I:17:GLY:O	11:2I:80:VAL:HA	1.98	0.64
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.33	0.64
26:1H:2749:A:H5"	33:51:4:ILE:HD11	1.78	0.64
28:71:23:ASP:OD1	28:71:190:ARG:NH1	2.29	0.64
39:98:78:LYS:HE2	39:98:83:ILE:HD11	1.78	0.64
44:E8:18:ARG:HD3	44:E8:76:VAL:HG13	1.80	0.64
3:22:14:ILE:HG23	3:22:15:THR:HG23	1.80	0.64
26:14:248:G:OP1	61:14:3640:HOH:O	2.14	0.64
26:14:1442:G:H2'	26:14:1443:G:C8	2.33	0.64
27:1J:44:G:O2'	27:1J:47:C:N4	2.30	0.64
32:49:4:ASP:OD2	32:49:9:ARG:NH1	2.31	0.64
40:65:89:ARG:HG3	40:65:92:TYR:O	1.98	0.64
1:13:8:A:N7	4:3E:208:SER:HB3	2.13	0.64
1:13:1006:C:O2	1:13:1023:G:N2	2.27	0.64
7:6E:79:ARG:NH2	24:3K:33:U:O2'	2.30	0.64
13:4I:3:ARG:HD3	13:4I:7:VAL:HG13	1.80	0.64
13:4I:107:ALA:HB3	13:4I:111:LYS:HD3	1.80	0.64
26:1H:176:G:O2'	26:1H:177:G:H5'	1.98	0.64
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.61	0.64
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.33	0.64
10:1A:55:LYS:NZ	10:1A:57:LYS:HG2	2.12	0.64
26:14:2313:C:H4'	32:49:91:ARG:HG3	1.80	0.64
30:29:12:THR:HG21	41:75:11:GLU:OE1	1.99	0.64
30:29:24:THR:HG21	30:29:188:VAL:HG13	1.80	0.64
42:85:91:ASP:O	42:85:92:ARG:HG2	1.98	0.64
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.80	0.63
16:7I:71:ARG:O	16:7I:75:ARG:N	2.30	0.63
26:1H:2062:A:N6	26:1H:2503:A:H62	1.97	0.63
32:41:16:ARG:O	32:41:20:ILE:HG13	1.97	0.63
43:D8:36:PRO:C	43:D8:38:LEU:H	1.97	0.63
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.30	0.63
26:14:2537:U:H2'	26:14:2538:C:H6	1.63	0.63
32:49:47:LYS:HG2	32:49:48:GLU:H	1.63	0.63
36:25:13:ASN:HD21	36:25:97:ARG:H	1.43	0.63
26:1H:330:A:HO2'	26:1H:331:A:H8	1.46	0.63
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.33	0.63
26:1H:1993:U:OP2	61:1H:3854:HOH:O	2.15	0.63
31:31:198:ALA:O	31:31:201:VAL:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:300:A:H1'	1:1G:565:U:O2	1.98	0.63
1:1G:600:C:H2'	1:1G:601:C:C6	2.33	0.63
3:22:114:PRO:O	3:22:118:GLN:NE2	2.29	0.63
26:14:330:A:H2	26:14:1210:A:HO2'	1.46	0.63
26:14:2068:U:N3	26:14:2430:A:H2	1.96	0.63
32:49:120:LEU:HG	32:49:179:PRO:O	1.98	0.63
1:13:153:C:N4	1:13:168:G:H1	1.93	0.63
3:2E:16:ARG:HH11	3:2E:16:ARG:HB2	1.62	0.63
26:1H:844:C:H3'	26:1H:845:G:C8	2.33	0.63
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.79	0.63
40:A8:34:HIS:CE1	40:A8:54:LEU:HD23	2.32	0.63
26:14:1375:C:H3'	61:14:3670:HOH:O	1.98	0.63
26:14:2010:G:H5"	44:A5:42:ARG:HB2	1.79	0.63
26:14:2128:C:H42	26:14:2160:G:H1	1.46	0.63
27:1J:70:C:H2'	27:1J:71:C:H6	1.63	0.63
36:25:113:LYS:O	36:25:117:LEU:HD22	1.98	0.63
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.79	0.63
38:45:117:ALA:HA	38:45:120:ILE:HB	1.79	0.63
20:BI:30:LYS:HE3	20:BI:80:ARG:HH22	1.64	0.63
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.34	0.63
26:1H:1826:G:H4'	29:11:242:ARG:HH21	1.63	0.63
26:1H:2405:G:OP1	37:78:77:ARG:NH2	2.31	0.63
29:11:70:TRP:O	29:11:73:VAL:HG23	1.98	0.63
40:A8:26:LEU:HD12	40:A8:39:ILE:HD11	1.79	0.63
41:B8:77:PRO:HG2	41:B8:80:SER:HB2	1.78	0.63
46:G8:97:ARG:O	46:G8:101:LYS:HG3	1.99	0.63
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.63	0.63
37:35:27:HIS:HB3	37:35:32:THR:HG23	1.81	0.63
1:13:963:G:H21	10:1I:55:LYS:CE	2.10	0.63
26:1H:299:A:H5'	26:1H:300:A:OP2	1.98	0.63
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.33	0.63
26:1H:1689:A:H62	26:1H:1698:A:H2	1.45	0.63
33:51:86:GLU:H	33:51:86:GLU:CD	1.99	0.63
46:G8:81:LYS:HD2	46:G8:99:CYS:SG	2.39	0.63
47:H8:111:VAL:HG11	47:H8:146:ILE:H	1.64	0.63
53:N8:40:LYS:CG	53:N8:47:PRO:HD2	2.29	0.63
1:1G:1321:C:N4	1:1G:1322:C:H41	1.97	0.63
1:13:719:C:O2'	18:9I:49:LYS:HB3	1.98	0.63
26:1H:1990:C:OP2	61:1H:3851:HOH:O	2.15	0.63
33:51:9:ILE:HG23	33:51:51:ARG:HB3	1.79	0.63
36:68:104:ARG:HD3	41:B8:36:GLU:HG2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:57:G:H2'	1:1G:58:C:C6	2.33	0.63
7:62:65:ALA:HB3	7:62:124:LEU:HD23	1.81	0.63
26:14:271(B):G:N7	26:14:421:U:H2'	2.13	0.63
26:14:2577:A:H5'	53:J5:3:LYS:HD3	1.81	0.63
33:59:117:PRO:HB3	33:59:123:PHE:HZ	1.63	0.63
9:8E:7:THR:O	9:8E:83:ARG:NH1	2.30	0.63
24:3K:57:G:H2'	24:3K:58:A:H5'	1.79	0.63
26:1H:1022:G:N7	35:58:66:LYS:NZ	2.46	0.63
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.34	0.63
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.31	0.63
33:51:5:GLY:HA2	33:51:8:PRO:HD3	1.80	0.63
46:G8:9:LYS:HA	46:G8:27:VAL:HG22	1.79	0.63
1:1G:411:A:C5	1:1G:413:G:H1'	2.34	0.63
1:1G:957:U:H1'	1:1G:960:U:C5	2.33	0.63
26:14:2399:G:H2'	26:14:2400:G:O4'	1.99	0.63
26:1H:1174:A:H1'	26:1H:1178:C:H41	1.63	0.63
26:1H:1332:G:N1	61:1H:3915:HOH:O	2.29	0.63
32:41:61:ALA:HB2	32:41:67:LYS:HA	1.81	0.63
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.38	0.63
46:G8:94:LYS:HA	46:G8:94:LYS:HZ2	1.64	0.63
1:1G:1535:C:H41	25:4L:10:G:H21	1.46	0.63
13:4A:14:ARG:HA	13:4A:43:THR:O	1.99	0.63
33:59:30:LYS:NZ	33:59:80:SER:O	2.26	0.63
1:13:591:U:H2'	1:13:592:G:C8	2.34	0.63
1:13:692:U:O4	11:2I:53:SER:OG	2.17	0.63
1:13:1435:G:H2'	1:13:1436:U:C6	2.33	0.63
26:1H:1021:A:H3'	26:1H:1022:G:H5"	1.80	0.63
32:41:37:VAL:O	32:41:94:LEU:HD23	1.99	0.63
7:62:67:GLU:HA	7:62:70:LYS:HD2	1.81	0.63
24:3L:72:C:H3'	24:3L:73:A:H5"	1.81	0.63
1:13:618:C:H5"	1:13:619:U:H5"	1.81	0.62
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.34	0.62
32:41:37:VAL:HG22	32:41:159:VAL:HG13	1.81	0.62
39:98:41:ALA:O	39:98:44:LEU:N	2.32	0.62
50:K8:15:LYS:HZ2	50:K8:67:LYS:HE2	1.63	0.62
1:1G:501:C:OP1	12:3A:117:ARG:NH2	2.32	0.62
1:1G:588:G:H1	1:1G:651:C:H42	1.47	0.62
20:BA:41:ILE:HD13	20:BA:87:LYS:HD2	1.80	0.62
26:14:587:C:O2	37:35:33:ARG:NH1	2.32	0.62
26:14:2849:U:O4	41:75:23:ARG:NH2	2.32	0.62
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.80	0.62
30:21:101:ARG:O	30:21:201:THR:OG1	2.16	0.62
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.63	0.62
4:32:103:ASN:OD1	4:32:114:ARG:NH2	2.25	0.62
26:14:1771:C:HO2'	26:14:1786:A:H8	1.46	0.62
26:14:2693:A:H2'	26:14:2694:G:H8	1.64	0.62
40:65:34:HIS:CE1	40:65:54:LEU:HD12	2.33	0.62
1:13:735:C:H2'	1:13:736:C:C6	2.34	0.62
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.81	0.62
12:3I:53:ARG:HB3	12:3I:69:TYR:HE1	1.64	0.62
26:1H:302:C:H2'	26:1H:303:U:H6	1.64	0.62
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.64	0.62
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.62	0.62
26:1H:2068:U:N3	26:1H:2430:A:C2	2.62	0.62
61:1H:3776:HOH:O	29:11:238:GLY:HA2	1.99	0.62
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.15	0.62
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.34	0.62
26:14:1040:C:O2	26:14:1115:G:N2	2.18	0.62
41:75:10:VAL:O	41:75:12:SER:N	2.33	0.62
41:75:56:GLY:O	41:75:59:THR:HG23	1.99	0.62
50:G5:65:ASN:HB3	50:G5:69:ARG:HH21	1.63	0.62
1:13:323:U:O3'	20:BI:22:ARG:HD3	2.00	0.62
15:6I:16:ALA:HB1	15:6I:21:ASP:HB3	1.82	0.62
26:1H:185:U:H4'	26:1H:218:A:H4'	1.82	0.62
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.34	0.62
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.35	0.62
26:1H:2784:C:H1'	30:21:37:ARG:HH12	1.65	0.62
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.34	0.62
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.81	0.62
26:14:259:G:N2	26:14:621:A:H8	1.97	0.62
26:14:581:C:H2'	26:14:582:G:C8	2.35	0.62
34:69:76:THR:HG21	34:69:140:LEU:HD12	1.81	0.62
37:35:59:LEU:HD11	55:M5:10:ALA:HB2	1.80	0.62
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.13	0.62
3:2E:43:LEU:HB3	3:2E:47:LEU:HD22	1.79	0.62
9:8E:125:TYR:HD1	9:8E:126:SER:H	1.47	0.62
19:AI:40:ILE:HG12	19:AI:41:VAL:H	1.64	0.62
26:1H:907:U:O2'	38:88:101:ARG:NH2	2.32	0.62
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.14	0.62
47:H8:77:ASP:OD1	47:H8:80:ARG:HD2	2.00	0.62
26:14:1973:G:H2'	26:14:1974:C:C6	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:55:VAL:HG23	38:45:64:ILE:HD12	1.82	0.62
2:1E:237:ALA:O	2:1E:239:VAL:N	2.31	0.62
26:1H:606:U:OP2	31:31:104:LYS:NZ	2.33	0.62
30:21:64:LYS:HD2	30:21:65:GLY:HA2	1.80	0.62
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.12	0.62
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.32	0.62
23:2L:41:C:H2'	23:2L:42:C:C6	2.34	0.62
1:13:1133:G:N2	1:13:1141:C:O2	2.31	0.62
1:13:1366:C:H2'	1:13:1367:C:C6	2.34	0.62
26:1H:1602:U:H5	61:1H:4831:HOH:O	1.83	0.62
26:1H:2099:U:N3	26:1H:2190:G:O6	2.19	0.62
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.62	0.62
46:G8:87:LYS:HD2	46:G8:89:PHE:HD2	1.65	0.62
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.35	0.62
3:22:70:VAL:HG12	3:22:72:LYS:H	1.65	0.62
5:42:16:THR:OG1	5:42:17:ALA:N	2.32	0.62
26:14:6:A:H62	35:15:131:GLN:N	1.97	0.62
26:14:2306:C:H3'	26:14:2307:G:H5"	1.82	0.62
26:14:2354:G:O2'	48:E5:36:ILE:HG23	1.98	0.62
46:C5:17:SER:OG	46:C5:18:GLY:O	2.17	0.62
1:13:1455:G:OP1	20:BI:35:THR:OG1	2.13	0.62
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.65	0.62
26:1H:270(N):G:H4'	26:1H:270(O):U:C4	2.34	0.62
26:1H:1971:A:C4	29:11:241:PRO:HD3	2.34	0.62
33:51:107:VAL:HB	33:51:152:ARG:HG2	1.82	0.62
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.35	0.62
26:14:1442:G:H2'	26:14:1443:G:H8	1.65	0.62
46:C5:50:ARG:HB3	46:C5:53:PRO:HG3	1.82	0.62
1:13:141:A:H2'	1:13:142:G:H8	1.64	0.62
4:3E:7:PRO:HB2	4:3E:10:ARG:HD2	1.80	0.62
26:1H:102:G:OP1	50:K8:7:ARG:NH2	2.32	0.62
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.65	0.62
26:1H:2680:C:H5'	30:21:189:PRO:HA	1.81	0.62
29:11:24:ILE:HD11	29:11:91:ARG:HD2	1.81	0.62
29:11:238:GLY:O	61:11:302:HOH:O	2.16	0.62
30:21:16:ARG:NH2	30:21:173:VAL:HG13	2.15	0.62
37:78:114:ILE:HD13	37:78:125:VAL:HG11	1.81	0.62
4:32:28:SER:HB2	4:32:29:PRO:HA	1.81	0.62
26:14:1246:A:OP2	61:14:3649:HOH:O	2.16	0.62
40:65:27:SER:HA	40:65:88:ASP:HB2	1.81	0.62
1:13:1128:C:H42	1:13:1144:G:H1	1.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:100:ASN:ND2	18:9I:27:GLY:O	2.22	0.62
26:1H:860:U:H5	26:1H:917:A:N1	1.98	0.62
26:1H:2751:G:N7	33:51:3:ARG:NH2	2.47	0.62
1:1G:345:C:OP2	41:75:39:ARG:NH2	2.33	0.62
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.32	0.62
1:1G:433:C:H2'	1:1G:434:U:H6	1.65	0.62
1:1G:877:C:H5"	8:72:88:LYS:HD3	1.81	0.62
1:1G:1316:G:O6	19:AA:3:ARG:HG2	1.98	0.62
5:42:57:LYS:HE2	5:42:61:TYR:OH	2.00	0.62
31:39:192:LEU:HD13	31:39:194:MET:HE1	1.81	0.62
47:D5:29:TYR:CE1	47:D5:87:ASP:HB2	2.35	0.62
49:F5:40:ARG:HH21	49:F5:42:GLN:HG2	1.63	0.62
3:2E:16:ARG:HD2	3:2E:54:ARG:HH21	1.65	0.61
17:8I:13:ASP:HA	17:8I:19:VAL:HG12	1.81	0.61
26:1H:1779:U:H2'	61:1H:4432:HOH:O	2.00	0.61
28:71:64:LEU:HG	28:71:65:PRO:HD2	1.81	0.61
30:21:64:LYS:HA	30:21:67:PHE:O	2.00	0.61
30:21:111:ARG:HG3	30:21:160:TYR:CD2	2.34	0.61
35:58:12:ARG:HG2	35:58:13:TRP:N	2.15	0.61
1:1G:1001:G:N2	1:1G:1040:U:O2	2.33	0.61
4:32:12:CYS:SG	4:32:19:LEU:N	2.66	0.61
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.15	0.61
1:13:1305:G:H5"	21:1F:4:GLY:HA3	1.81	0.61
20:BI:30:LYS:HA	20:BI:33:ILE:HD12	1.82	0.61
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.64	0.61
26:1H:2177:C:H5"	28:71:213:TYR:HB2	1.81	0.61
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.35	0.61
38:88:52:VAL:O	38:88:56:ARG:HB2	2.00	0.61
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.00	0.61
26:14:1375:C:H2'	26:14:1376:C:H6	1.65	0.61
26:14:2611:U:H6	26:14:2611:U:H5'	1.64	0.61
27:1J:2:C:H2'	27:1J:3:C:C6	2.35	0.61
1:13:223:U:H2'	1:13:224:C:H6	1.62	0.61
30:21:128:SER:OG	30:21:129:HIS:N	2.31	0.61
1:1G:8:A:N7	4:32:209:ARG:HA	2.16	0.61
1:1G:1515:C:H2'	1:1G:1516:G:C8	2.35	0.61
4:32:199:ASN:HB3	4:32:202:LEU:HG	1.81	0.61
7:62:131:LYS:NZ	7:62:131:LYS:HB3	2.15	0.61
30:29:60:ASN:ND2	30:29:62:PRO:O	2.34	0.61
1:13:143:A:H2	1:13:220:G:H1	1.48	0.61
1:13:443:C:H42	1:13:491:G:H1	1.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1259:C:N4	1:13:1260:C:O2	2.33	0.61
1:13:1391:U:H2'	1:13:1392:G:C8	2.35	0.61
10:1I:25:GLU:O	10:1I:29:ARG:HG2	2.01	0.61
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.81	0.61
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	1.82	0.61
35:58:57:ALA:C	35:58:59:LYS:H	2.01	0.61
38:88:65:PHE:O	38:88:66:ILE:HG13	2.00	0.61
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.36	0.61
1:1G:1372:U:OP1	9:82:72:GLY:N	2.32	0.61
4:32:13:ARG:HD2	4:32:38:TYR:O	1.99	0.61
14:5A:21:TYR:CE1	14:5A:23:ARG:HB2	2.36	0.61
15:6A:39:LEU:HD12	15:6A:56:LEU:HB2	1.82	0.61
26:14:152:G:H1	26:14:174:C:N4	1.93	0.61
26:14:2138:C:H42	26:14:2153:G:N2	1.98	0.61
26:14:2162:G:O2'	26:14:2173:A:OP1	2.18	0.61
36:25:63:VAL:HG11	36:25:85:VAL:HG23	1.82	0.61
47:D5:111:VAL:HG22	47:D5:112:ARG:HG2	1.81	0.61
1:13:375:U:OP1	16:7I:69:THR:HG21	2.01	0.61
1:13:1247:U:H3	1:13:1290:G:H1	1.48	0.61
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	1.82	0.61
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.81	0.61
23:2K:54:G:O2'	23:2K:55:5MU:H5"	2.00	0.61
26:1H:1379:A:H4'	26:1H:1380:G:OP2	2.00	0.61
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.35	0.61
30:21:101:ARG:HG2	30:21:169:ASN:OD1	2.00	0.61
40:A8:106:ARG:HH12	40:A8:107:GLU:HG2	1.65	0.61
1:1G:56:U:H2'	1:1G:57:G:C8	2.36	0.61
1:1G:693:G:H2'	1:1G:694:A:C8	2.34	0.61
1:1G:959:A:O2'	1:1G:984:C:O2'	2.18	0.61
1:1G:1016:A:O2'	1:1G:1217:C:O2'	2.17	0.61
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.82	0.61
7:62:22:LEU:HD23	7:62:62:PHE:HE2	1.66	0.61
8:72:109:ILE:HG12	8:72:110:ALA:H	1.66	0.61
26:14:1048:A:N6	26:14:1111:A:O2'	2.33	0.61
31:39:4:VAL:HA	31:39:19:GLU:HB3	1.80	0.61
33:59:109:PHE:CZ	33:59:152:ARG:HD3	2.35	0.61
36:25:14:THR:HG23	36:25:16:ALA:H	1.65	0.61
40:65:106:ARG:HA	40:65:110:LEU:HD11	1.81	0.61
1:13:8:A:N6	4:3E:205:GLU:O	2.33	0.61
3:2E:123:GLN:O	3:2E:128:PHE:HB2	2.00	0.61
26:1H:996:A:OP2	42:C8:92:ARG:NH2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1021:A:H3'	26:1H:1021:A:C8	2.34	0.61
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.65	0.61
28:71:10:LEU:HB3	28:71:220:PRO:HG3	1.83	0.61
1:1G:527:G:O6	12:3A:49:ASN:ND2	2.32	0.61
26:14:67:U:N3	26:14:74:A:H2	1.94	0.61
37:35:47:ASP:OD1	37:35:49:ARG:NE	2.28	0.61
1:13:1149:C:OP1	9:8E:9:ARG:NH2	2.34	0.61
9:8E:50:LEU:HA	9:8E:53:VAL:HG22	1.81	0.61
11:2I:85:ARG:HG2	11:2I:112:THR:H	1.66	0.61
24:3K:38:A:H2'	24:3K:39:U:O4'	2.01	0.61
26:1H:270(K):C:HO2'	26:1H:270(N):G:H22	1.47	0.61
26:1H:639:U:H2'	26:1H:640:C:C6	2.36	0.61
26:1H:1905:C:OP2	61:1H:3856:HOH:O	2.16	0.61
29:11:85:ASP:OD2	29:11:88:ARG:NH1	2.27	0.61
32:41:18:GLU:O	32:41:22:ARG:HB2	2.01	0.61
1:1G:1106:G:H5"	3:22:172:ARG:HG2	1.83	0.61
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.33	0.61
9:82:121:ARG:NH1	9:82:122:ALA:O	2.32	0.61
26:14:880:G:N2	26:14:897:C:O2	2.31	0.61
26:14:2656:U:H3	26:14:2665:A:H2	1.49	0.61
27:1J:7:G:H1	27:1J:113:C:H42	1.47	0.61
29:19:39:LYS:O	29:19:40:THR:HG23	2.00	0.61
30:29:116:VAL:HG11	30:29:138:PRO:HB3	1.81	0.61
1:13:321:A:H62	1:13:328:C:H1'	1.65	0.61
1:13:748:C:H6	1:13:748:C:O5'	1.83	0.61
3:2E:57:ILE:HG12	3:2E:66:VAL:HG22	1.82	0.61
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.82	0.61
26:1H:76:C:O2'	50:K8:62:THR:HG21	2.00	0.61
26:1H:634:C:H2'	26:1H:635:C:C6	2.36	0.61
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.34	0.61
26:1H:2062:A:H62	26:1H:2503:A:H62	1.47	0.61
26:1H:2287:A:C2	26:1H:2346:A:H2	2.19	0.61
31:31:29:ASN:H	31:31:112:MET:HE3	1.66	0.61
40:A8:106:ARG:NH1	40:A8:107:GLU:HG2	2.16	0.61
50:K8:17:SER:HB3	50:K8:67:LYS:HE3	1.81	0.61
53:N8:40:LYS:HG3	53:N8:47:PRO:HD2	1.83	0.61
24:3L:9:A:H2'	24:3L:11:C:H41	1.64	0.61
24:3L:15:G:H1	24:3L:48:C:N4	1.99	0.61
26:14:1266:G:O5'	44:A5:15:ARG:NH2	2.33	0.61
1:13:517:G:H5'	1:13:519:C:C2	2.36	0.61
1:13:1497:G:H2'	1:13:1498:U:H5'	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:53:VAL:HG21	9:8E:85:LEU:HD22	1.83	0.61
26:1H:568:U:O4	61:1H:3712:HOH:O	2.12	0.61
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.35	0.61
26:1H:1639:U:C2'	26:1H:1640:C:H5"	2.31	0.61
26:1H:2308:G:N1	26:1H:2311:A:H2	1.93	0.61
1:1G:728:A:H2'	1:1G:729:A:C8	2.36	0.61
2:12:72:GLY:HA3	2:12:81:VAL:HG21	1.82	0.61
32:49:63:ILE:HG22	32:49:143:GLU:HB2	1.81	0.61
47:D5:115:GLY:O	47:D5:118:GLN:NE2	2.32	0.61
1:13:244:U:H4'	1:13:245:C:O5'	1.98	0.61
1:13:280:C:C2	17:8I:38:ARG:HG3	2.36	0.61
1:13:606:G:O2'	1:13:632:A:N6	2.28	0.61
6:5E:69:GLU:O	6:5E:72:VAL:HG12	2.01	0.61
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.83	0.61
26:1H:83:G:N7	61:1H:3921:HOH:O	2.31	0.61
26:1H:991:C:H2'	26:1H:992:C:H6	1.65	0.61
26:1H:1022:G:N2	26:1H:1142(A):A:N1	2.45	0.61
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.65	0.61
41:B8:24:PRO:HA	41:B8:49:VAL:HG22	1.82	0.61
26:14:71:A:H4'	26:14:72:U:H5"	1.83	0.61
30:29:12:THR:O	30:29:23:VAL:HG22	2.01	0.61
33:59:6:ARG:HB2	33:59:65:HIS:CD2	2.35	0.61
26:1H:71:A:C8	26:1H:71:A:H5'	2.36	0.60
26:1H:938:G:OP1	55:Q8:52:LYS:NZ	2.28	0.60
26:1H:2052:G:H4'	30:21:143:ASN:O	2.01	0.60
26:1H:2061:G:H5'	61:1H:3912:HOH:O	2.00	0.60
26:1H:2061:G:OP2	26:1H:2502:G:H5'	2.01	0.60
26:1H:2445:G:OP1	31:31:74:ARG:NH2	2.33	0.60
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.24	0.60
1:1G:1352:C:H42	1:1G:1370:G:H1	1.47	0.60
1:1G:1391:U:H2'	1:1G:1392:G:C8	2.36	0.60
16:7A:49:LEU:HD11	16:7A:51:VAL:HG23	1.83	0.60
26:14:528:A:OP1	61:14:3646:HOH:O	2.16	0.60
26:14:548:A:C6	26:14:549:G:H1'	2.36	0.60
27:1J:88:C:H4'	27:1J:89:G:OP2	2.01	0.60
41:75:12:SER:HA	41:75:15:VAL:HG22	1.83	0.60
44:A5:72:LYS:HB3	44:A5:106:ILE:HG13	1.83	0.60
25:4K:12:A:O2'	25:4K:13:A:O5'	2.12	0.60
26:1H:49:A:N7	26:1H:120:U:C5	2.65	0.60
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.83	0.60
26:1H:860:U:C5	26:1H:917:A:C2	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1971:A:C5	29:11:241:PRO:HD3	2.36	0.60
26:1H:2751:G:N7	33:51:3:ARG:CZ	2.65	0.60
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.66	0.60
49:J8:95:LEU:HD13	49:J8:95:LEU:H	1.64	0.60
1:1G:998(A):C:O2	1:1G:1042:G:N2	2.28	0.60
3:22:108:ASN:OD1	3:22:144:SER:OG	2.20	0.60
4:32:71:SER:HB3	4:32:74:GLN:HG3	1.82	0.60
12:3A:54:LYS:HD2	12:3A:54:LYS:H	1.64	0.60
19:AA:38:SER:O	19:AA:71:LEU:HB2	2.00	0.60
26:14:498:G:H21	46:C5:47:LYS:NZ	1.99	0.60
26:14:2418:A:OP2	55:M5:29:LYS:NZ	2.27	0.60
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.81	0.60
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.36	0.60
35:15:16:ILE:HB	35:15:54:VAL:HG22	1.83	0.60
37:35:98:GLU:HA	37:35:101:VAL:HG12	1.82	0.60
39:55:51:LEU:HD22	39:55:66:VAL:HG13	1.83	0.60
41:75:8:LYS:O	41:75:12:SER:OG	2.19	0.60
47:D5:60:GLU:HA	47:D5:66:SER:HA	1.83	0.60
49:F5:40:ARG:NH2	49:F5:42:GLN:HE21	1.99	0.60
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.34	0.60
1:13:1298:C:P	7:6E:114:ARG:HH22	2.24	0.60
1:13:1412:C:H2'	1:13:1413:A:C8	2.36	0.60
24:3K:15:G:O6	24:3K:48:C:N4	2.34	0.60
26:1H:245:G:OP2	61:1H:3858:HOH:O	2.17	0.60
26:1H:286:C:H2'	26:1H:287:C:H6	1.66	0.60
26:1H:724:U:H2'	26:1H:725:G:O4'	2.01	0.60
26:1H:1406:U:H2'	26:1H:1407:C:H6	1.66	0.60
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.65	0.60
1:1G:673:G:H2'	1:1G:674:G:C8	2.36	0.60
18:9A:32:ARG:HA	18:9A:69:THR:HG21	1.82	0.60
26:14:920:G:H2'	26:14:921:G:H8	1.65	0.60
32:49:7:LEU:HD12	32:49:104:GLU:HA	1.82	0.60
34:69:143:SER:OG	34:69:144:VAL:N	2.34	0.60
1:13:145:G:H1	1:13:177:C:H42	1.50	0.60
1:13:1502:A:H2	1:13:1505:G:N1	1.95	0.60
10:1I:57:LYS:HE3	10:1I:60:ARG:HH22	1.66	0.60
26:1H:732:C:H3'	61:1H:3870:HOH:O	2.01	0.60
26:1H:761:A:N7	61:1H:3790:HOH:O	2.32	0.60
26:1H:2125:G:H21	26:1H:2173:A:H62	1.49	0.60
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.37	0.60
29:11:137:PRO:O	29:11:140:THR:OG1	2.13	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:56:SER:OG	33:51:57:ASP:N	2.32	0.60
1:1G:1004:A:O2'	1:1G:1027:C:N4	2.34	0.60
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.36	0.60
26:14:329:G:H1	46:C5:19:LYS:HZ3	1.47	0.60
26:14:495:G:O6	61:14:3644:HOH:O	2.15	0.60
26:14:597:U:H2'	26:14:598:G:C8	2.36	0.60
26:14:1239:G:H5"	61:14:3805:HOH:O	2.00	0.60
26:14:1292:U:H2'	26:14:1293:C:C6	2.35	0.60
26:14:1568:G:OP1	29:19:63:ARG:NH1	2.24	0.60
26:14:2250:G:OP1	38:45:85:LYS:NZ	2.34	0.60
26:14:2331:G:H4'	48:E5:43:THR:H	1.66	0.60
27:1J:89(A):A:H5'	27:1J:90:C:OP2	2.01	0.60
46:C5:97:ARG:NH1	46:C5:104:GLY:O	2.32	0.60
1:13:322:C:OP2	1:13:328:C:N4	2.34	0.60
1:13:967:C:O2'	9:8E:125:TYR:OH	2.13	0.60
26:1H:581:C:H2'	26:1H:582:G:H8	1.66	0.60
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.01	0.60
26:1H:1678:G:H22	26:1H:1989:G:H22	1.48	0.60
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.00	0.60
26:1H:2469:A:H2	26:1H:2481:G:H21	1.44	0.60
35:58:96:GLU:C	35:58:98:VAL:H	2.04	0.60
38:88:59:ARG:C	38:88:61:GLY:H	2.03	0.60
1:1G:358:U:H2'	1:1G:359:U:H6	1.67	0.60
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.35	0.60
3:22:67:THR:HG23	3:22:102:ASN:HB3	1.83	0.60
5:42:69:VAL:O	5:42:71:LEU:N	2.35	0.60
26:14:96:G:H4'	50:G5:48:HIS:CD2	2.36	0.60
26:14:646:A:H2'	26:14:647:G:O4'	2.02	0.60
26:14:774:A:H2	26:14:787:U:HO2'	1.50	0.60
26:14:2789:C:H1'	26:14:2892:A:H2	1.67	0.60
33:59:92:ILE:HG22	33:59:93:GLY:N	2.16	0.60
36:25:8:LEU:HD13	36:25:82:ASN:HB3	1.83	0.60
37:35:55:ARG:HG2	37:35:56:SER:N	2.16	0.60
50:G5:4:SER:HA	50:G5:7:ARG:H	1.65	0.60
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.36	0.60
1:13:657:G:N2	1:13:749:C:O2	2.29	0.60
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.66	0.60
26:1H:600:G:N2	26:1H:605:C:O3'	2.34	0.60
26:1H:620:G:H4'	26:1H:621:A:C5'	2.31	0.60
40:A8:32:LEU:O	40:A8:62:LYS:NZ	2.34	0.60
21:1B:5:ASP:O	21:1B:11:GLY:HA3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1794:U:H2'	26:14:1795:C:H6	1.67	0.60
26:14:2718:G:N7	61:14:3723:HOH:O	2.30	0.60
30:29:1:MET:HA	30:29:84:PHE:HB2	1.84	0.60
35:15:13:TRP:HB2	35:15:133:GLN:HB2	1.83	0.60
42:85:66:ASN:HB2	42:85:76:TYR:HB2	1.83	0.60
1:13:1342:C:H2'	1:13:1343:G:C8	2.36	0.60
14:5I:21:TYR:OH	14:5I:23:ARG:NH2	2.35	0.60
26:1H:1676:A:OP2	61:1H:3859:HOH:O	2.17	0.60
26:1H:2401:U:H2'	26:1H:2402:C:O4'	2.01	0.60
26:1H:2473:U:H2'	26:1H:2474:C:H5'	1.82	0.60
41:B8:58:ASN:C	41:B8:58:ASN:HD22	2.03	0.60
52:M8:13:ARG:HH12	52:M8:22:ILE:HG23	1.67	0.60
52:M8:36:CYS:SG	52:M8:37:SER:N	2.75	0.60
1:1G:1305:G:HO2'	1:1G:1306:A:H8	1.49	0.60
25:4L:21:A:H3'	25:4L:22:A:H5"	1.84	0.60
26:14:71:A:H2	45:B5:31:HIS:NE2	1.97	0.60
26:14:1332:G:C8	26:14:1332:G:H5'	2.36	0.60
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.34	0.60
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.35	0.60
1:13:859:A:H2'	1:13:860:A:H8	1.67	0.60
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.83	0.60
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.82	0.60
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.84	0.60
19:AI:41:VAL:HG12	19:AI:44:MET:HB2	1.83	0.60
26:1H:273(F):C:H3'	26:1H:274:G:H5"	1.84	0.60
29:11:38:LYS:HA	29:11:38:LYS:NZ	2.16	0.60
38:88:109:VAL:HG13	38:88:113:GLN:HB3	1.82	0.60
43:D8:45:THR:O	43:D8:47:VAL:HG23	2.02	0.60
1:1G:1342:C:H2'	1:1G:1343:G:H8	1.66	0.60
26:14:38:A:H2'	26:14:39:C:C6	2.36	0.60
26:14:528:A:C2	26:14:2042:A:H2'	2.37	0.60
26:14:1018:C:H2'	26:14:1019:U:H6	1.65	0.60
26:14:1035:U:H2'	26:14:1036:G:C8	2.37	0.60
26:14:1486:A:H2'	26:14:1487:G:C8	2.35	0.60
26:14:1728:G:H8	26:14:1732:A:H62	1.49	0.60
26:14:2855:C:H2'	26:14:2856:C:H6	1.66	0.60
30:29:64:LYS:N	30:29:73:GLU:OE2	2.35	0.60
33:59:118:PRO:HG2	33:59:121:ILE:HG13	1.84	0.60
36:25:49:ARG:HA	36:25:53:LYS:NZ	2.17	0.60
42:85:66:ASN:O	42:85:70:ARG:HB2	2.00	0.60
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:247:G:OP2	17:8I:100:LYS:HB3	2.01	0.60
1:13:501:C:H2'	1:13:502:G:C8	2.37	0.60
10:1I:57:LYS:O	10:1I:60:ARG:NH2	2.34	0.60
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.02	0.60
26:1H:2118:U:O2	26:1H:2148:G:O2'	2.18	0.60
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.84	0.60
20:BA:61:SER:OG	20:BA:65:LYS:NZ	2.35	0.60
26:14:71:A:H5'	26:14:71:A:C8	2.37	0.60
26:14:270(E):G:H2'	26:14:270(F):U:C6	2.36	0.60
26:14:2219:G:OP1	29:19:172:TYR:OH	2.19	0.60
30:29:128:SER:OG	30:29:129:HIS:N	2.35	0.60
33:59:6:ARG:HG2	33:59:7:LEU:H	1.67	0.60
1:13:93:U:H5'	1:13:95:G:OP2	2.02	0.60
1:13:1077:G:N2	1:13:1080:A:OP2	2.29	0.60
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.15	0.60
7:6E:72:ARG:HG3	7:6E:142:GLU:OE1	2.02	0.60
26:1H:598:G:H5'	37:78:11:GLY:HA3	1.84	0.60
1:1G:19:C:OP1	5:42:125:SER:OG	2.18	0.60
26:14:1914:C:H2'	26:14:1915:U:O4'	2.02	0.60
26:1H:607:U:N3	26:1H:621:A:H2	1.95	0.59
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.37	0.59
26:1H:2311:A:H8	32:41:88:ILE:HG21	1.67	0.59
30:21:53:PRO:HA	30:21:75:VAL:N	2.17	0.59
1:1G:41:G:H2'	1:1G:42:G:C8	2.37	0.59
1:1G:501:C:H2'	1:1G:502:G:H8	1.65	0.59
7:62:68:ASN:ND2	7:62:127:ALA:O	2.28	0.59
26:14:1259:G:H2'	26:14:1260:G:C8	2.37	0.59
26:14:1827:C:OP2	29:19:222:ARG:NH1	2.33	0.59
26:14:2074:U:OP1	61:14:3651:HOH:O	2.16	0.59
33:59:41:MET:N	33:59:41:MET:SD	2.75	0.59
36:25:3:GLN:HB2	36:25:4:PRO:HD2	1.84	0.59
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.35	0.59
1:13:1106:G:H5"	3:2E:172:ARG:HG3	1.84	0.59
1:13:1122:U:O4	1:13:1123:A:N6	2.35	0.59
26:1H:533:G:H5'	42:C8:24:TYR:CE1	2.37	0.59
26:1H:859:G:O2'	26:1H:916:G:O6	2.19	0.59
26:1H:1534:G:N1	26:1H:1539:G:N3	2.49	0.59
26:1H:1899:G:N2	26:1H:1902:C:H41	1.99	0.59
26:1H:2638:G:P	30:21:82:ARG:HH22	2.24	0.59
29:11:10:THR:OG1	29:11:13:ARG:HB2	2.01	0.59
29:11:84:TYR:CE1	29:11:86:PRO:HB3	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:66:VAL:H	3:22:100:ALA:HB3	1.67	0.59
26:14:1997:G:H5"	61:14:3642:HOH:O	2.02	0.59
31:39:67:GLN:HG3	31:39:67:GLN:O	2.01	0.59
42:85:29:SER:OG	42:85:30:LYS:NZ	2.35	0.59
47:D5:19:ARG:NH1	47:D5:84:GLU:HB2	2.16	0.59
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.85	0.59
1:13:1118:C:H1'	1:13:1179:A:C4	2.37	0.59
19:AI:67:VAL:HG11	52:M8:56:VAL:HA	1.84	0.59
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.02	0.59
26:1H:995:C:O2	35:58:3:THR:OG1	2.20	0.59
26:1H:1113:U:OP1	33:51:2:SER:N	2.35	0.59
42:C8:90:VAL:HA	43:D8:39:LEU:HD13	1.83	0.59
1:1G:144:G:H1	1:1G:178:C:H42	1.49	0.59
1:1G:359:U:H2'	1:1G:360:A:C8	2.37	0.59
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.02	0.59
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.85	0.59
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.67	0.59
24:3L:15:G:H22	24:3L:48:C:H41	1.48	0.59
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.02	0.59
1:13:1360:A:H8	1:13:1360:A:OP1	1.85	0.59
5:4E:35:GLY:HA3	5:4E:112:LEU:HB3	1.85	0.59
13:4I:7:VAL:HB	32:41:115:ARG:HH22	1.67	0.59
26:1H:2572:A:C8	30:21:144:ARG:HD3	2.37	0.59
30:21:74:PRO:HA	30:21:75:VAL:HB	1.85	0.59
34:61:50:ARG:HD3	34:61:53:ALA:HB3	1.83	0.59
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.18	0.59
2:12:165:VAL:HG23	2:12:166:ASP:H	1.66	0.59
26:14:654(C):G:N1	26:14:654(R):C:O2'	2.33	0.59
26:14:1028:A:N6	26:14:1125:G:H2'	2.17	0.59
26:14:2849:U:H4'	26:14:2868:A:C2	2.37	0.59
40:65:62:LYS:O	40:65:66:ALA:N	2.35	0.59
45:B5:50:LYS:HB3	45:B5:84:ALA:H	1.66	0.59
1:13:291:C:H42	1:13:309:G:H1	1.49	0.59
23:2K:21:U:O2'	23:2K:22:A:H5'	2.03	0.59
24:3K:15:G:H1	24:3K:48:C:H41	1.50	0.59
26:1H:125:G:H5'	26:1H:125:G:H8	1.68	0.59
45:F8:36:LYS:HA	45:F8:39:ILE:HD12	1.82	0.59
1:1G:501:C:H2'	1:1G:502:G:C8	2.38	0.59
1:1G:1025:U:H5'	1:1G:1026:G:H5'	1.84	0.59
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.67	0.59
4:32:61:LYS:HD2	4:32:206:PHE:CE2	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.83	0.59
23:2L:33:OMC:HM22	23:2L:34:U:H5'	1.84	0.59
26:14:363:G:H2'	26:14:363(A):A:H8	1.67	0.59
26:14:2123:G:H22	26:14:2174:C:H41	1.51	0.59
32:49:51:ARG:HH12	32:49:55:LYS:HE2	1.67	0.59
1:13:1306:A:H61	1:13:1331:G:H1'	1.67	0.59
2:1E:80:ILE:HG12	2:1E:212:GLN:HB2	1.84	0.59
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.83	0.59
5:4E:10:MET:HA	5:4E:32:VAL:HA	1.85	0.59
5:4E:98:THR:HB	5:4E:117:ASP:HB3	1.83	0.59
26:1H:900:A:H3'	26:1H:901:A:H8	1.65	0.59
26:1H:1247:A:OP1	31:31:95:ARG:NH2	2.35	0.59
33:51:137:ASP:OD1	33:51:138:LYS:N	2.32	0.59
34:61:92:VAL:HG13	34:61:120:ILE:HG23	1.83	0.59
35:58:32:THR:HG22	35:58:37:LYS:HB2	1.84	0.59
50:K8:4:SER:N	50:K8:7:ARG:HG2	2.16	0.59
50:K8:4:SER:O	50:K8:4:SER:OG	2.15	0.59
1:1G:1:U:O4	4:32:84:LYS:NZ	2.34	0.59
1:1G:456:C:H42	1:1G:476:G:H1	1.51	0.59
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.68	0.59
15:6A:40:SER:HB2	26:14:715:G:H21	1.65	0.59
26:14:832:G:H21	37:35:53:GLY:HA3	1.67	0.59
26:14:1665:A:H4'	36:25:67:LYS:HB2	1.85	0.59
26:14:1999:C:H4'	26:14:2723:C:O2	2.02	0.59
27:1J:14:U:OP2	27:1J:70:C:O2'	2.14	0.59
32:49:136:ARG:HD3	32:49:137:GLU:HG3	1.84	0.59
43:95:48:GLY:HA3	43:95:51:VAL:C	2.22	0.59
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.31	0.59
1:13:667:G:OP1	1:13:732:C:O2'	2.13	0.59
2:1E:212:GLN:NE2	2:1E:233:SER:O	2.34	0.59
3:2E:3:ASN:N	3:2E:3:ASN:OD1	2.36	0.59
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.84	0.59
22:1K:49:G:N7	22:1K:59:A:H4'	2.17	0.59
26:1H:1903:G:OP1	29:11:241:PRO:HB2	2.03	0.59
36:68:88:ASN:HD21	36:68:92:GLU:HB2	1.66	0.59
1:1G:617:G:OP2	61:1G:1856:HOH:O	2.16	0.59
1:1G:619:U:N3	4:32:134:ASP:OD1	2.32	0.59
4:32:31:CYS:C	4:32:33:MET:H	2.06	0.59
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.02	0.59
26:14:2628:C:H1'	26:14:2781:A:H2'	1.85	0.59
30:29:1:MET:N	30:29:200:GLU:OE2	2.29	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:97:ASP:OD1	42:85:98:LEU:N	2.36	0.59
47:D5:157:LEU:HD21	47:D5:163:LEU:HD22	1.84	0.59
1:13:266:G:H5"	1:13:267:C:C5	2.37	0.59
1:13:377:G:OP1	16:7I:3:LYS:NZ	2.31	0.59
1:13:1360:A:H2'	1:13:1361:G:C8	2.38	0.59
3:2E:8:ILE:HG23	3:2E:16:ARG:HG2	1.84	0.59
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.36	0.59
26:1H:243:U:OP2	55:Q8:8:LYS:NZ	2.35	0.59
26:1H:796:C:H2'	26:1H:797:C:C6	2.38	0.59
26:1H:1756:G:N2	61:1H:3946:HOH:O	2.34	0.59
33:51:7:LEU:H	33:51:7:LEU:HD12	1.66	0.59
1:1G:520:A:N1	1:1G:536:C:H1'	2.18	0.59
1:1G:666:G:H5'	1:1G:726:C:H1'	1.83	0.59
1:1G:842:C:O2'	1:1G:848:C:N3	2.35	0.59
1:1G:1028(A):C:N3	1:1G:1032(B):G:N2	2.44	0.59
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.37	0.59
10:1A:12:ASP:OD1	10:1A:14:LYS:N	2.27	0.59
26:14:1520:U:H2'	26:14:1521:G:O4'	2.02	0.59
26:14:2273:A:H2'	26:14:2274:A:C8	2.38	0.59
26:14:2745:C:H1'	33:59:143:GLN:HG2	1.84	0.59
1:13:128:G:O2'	17:8I:3:LYS:NZ	2.33	0.59
1:13:507:C:OP2	1:13:508:C:O2'	2.16	0.59
2:1E:21:ARG:O	2:1E:23:ARG:N	2.35	0.59
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.84	0.59
28:71:14:VAL:HG11	28:71:222:VAL:HG22	1.85	0.59
31:31:29:ASN:H	31:31:112:MET:CE	2.16	0.59
1:1G:582:U:OP1	15:6A:64:ARG:NH1	2.36	0.59
1:1G:976:G:OP1	14:5A:32:SER:N	2.36	0.59
5:42:51:VAL:O	5:42:55:VAL:HG23	2.02	0.59
17:8A:6:LEU:HD22	17:8A:23:VAL:HG11	1.84	0.59
26:14:2520:C:H41	26:14:2542:A:N6	2.01	0.59
30:29:68:ALA:C	30:29:70:ALA:H	2.06	0.59
49:F5:90:ILE:HA	49:F5:93:GLU:OE1	2.03	0.59
1:13:590:C:O3'	8:7E:30:ARG:NH1	2.36	0.59
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.38	0.59
26:1H:125:G:H5'	26:1H:125:G:C8	2.38	0.59
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.85	0.59
29:11:92:ILE:HD12	29:11:104:TYR:CE1	2.38	0.59
54:P8:11:LYS:HE3	54:P8:15:THR:OG1	2.03	0.59
1:1G:87:A:H4'	1:1G:88:C:OP1	2.02	0.59
1:1G:1246:C:O2	1:1G:1291:G:N2	2.25	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.02	0.59
2:12:127:ILE:HA	2:12:130:ARG:CZ	2.33	0.59
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.84	0.59
26:14:486:C:H4'	44:A5:60:ASN:HD22	1.68	0.59
26:14:528:A:O2'	26:14:529:A:H5'	2.03	0.59
26:14:920:G:H2'	26:14:921:G:C8	2.38	0.59
29:19:30:GLU:HG3	29:19:63:ARG:NH2	2.18	0.59
31:39:3:GLU:O	31:39:19:GLU:HB2	2.03	0.59
37:35:47:ASP:HB3	37:35:49:ARG:N	2.18	0.59
41:75:91:ARG:NH1	41:75:124:ASP:OD2	2.29	0.59
44:A5:75:TYR:CZ	44:A5:104:THR:HG21	2.37	0.59
1:13:581:G:N2	1:13:760:G:N7	2.51	0.58
1:13:1239:A:H62	1:13:1299:A:H62	1.51	0.58
23:2K:9:G:O4'	23:2K:47:7MG:C2	2.56	0.58
26:1H:17:G:H2'	26:1H:18:C:C6	2.38	0.58
26:1H:299:A:H8	26:1H:299:A:H5"	1.68	0.58
29:11:71:ASP:N	29:11:71:ASP:OD1	2.33	0.58
47:H8:53:ILE:HG22	47:H8:71:VAL:HG22	1.85	0.58
1:1G:537:G:H5"	12:3A:113:ARG:NH1	2.18	0.58
4:32:31:CYS:H	4:32:35:ARG:CZ	2.16	0.58
26:14:587:C:OP2	37:35:21:ARG:NH2	2.36	0.58
26:14:2062:A:O2'	26:14:2063:C:OP1	2.21	0.58
26:14:2378:A:O2'	40:65:21:THR:HG21	2.03	0.58
26:14:2689:U:H4'	26:14:2690:C:H5'	1.84	0.58
34:69:57:ARG:O	34:69:61:ARG:HB2	2.03	0.58
1:13:456:C:N4	1:13:476:G:H1	1.98	0.58
1:13:693:G:C4	25:4K:13:A:H1'	2.37	0.58
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.04	0.58
2:1E:118:LEU:HD12	2:1E:142:LEU:HB2	1.85	0.58
2:1E:126:GLU:OE1	2:1E:130:ARG:NH1	2.35	0.58
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.85	0.58
24:3K:3:G:O6	24:3K:69:A:N6	2.36	0.58
26:1H:322:A:P	31:31:168:ARG:HH21	2.25	0.58
26:1H:1826:G:H4'	29:11:242:ARG:HE	1.67	0.58
1:1G:628:G:H2'	1:1G:629:G:C8	2.38	0.58
1:1G:1008:C:H42	1:1G:1021:G:H22	1.52	0.58
26:14:29:U:H2'	26:14:30:G:C8	2.38	0.58
31:39:34:TRP:CZ3	37:35:8:PRO:HB3	2.38	0.58
35:15:43:THR:N	35:15:48:MET:HE3	2.18	0.58
42:85:17:ILE:HG23	42:85:39:LEU:HD12	1.85	0.58
1:13:1124:G:H5"	10:1I:35:SER:OG	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1240:U:OP1	7:6E:119:ARG:NH2	2.36	0.58
30:21:67:PHE:HD1	30:21:67:PHE:H	1.51	0.58
1:1G:129(A):G:N2	61:1G:1877:HOH:O	2.35	0.58
1:1G:192:U:H2'	1:1G:193:C:C6	2.38	0.58
1:1G:991:U:H4'	1:1G:992:U:H5"	1.85	0.58
1:1G:1071:C:H2'	1:1G:1072:G:C8	2.36	0.58
1:1G:1352:C:N4	1:1G:1370:G:H1	2.01	0.58
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.85	0.58
26:14:796:C:H2'	26:14:797:C:C6	2.39	0.58
26:14:1794:U:H2'	26:14:1795:C:C6	2.38	0.58
26:14:2432:A:H2'	26:14:2433:A:C8	2.39	0.58
1:13:189:U:O2	17:8I:63:ARG:NH2	2.36	0.58
1:13:1500:A:OP1	61:13:1839:HOH:O	2.17	0.58
6:5E:30:LEU:HB3	6:5E:35:ALA:HB3	1.84	0.58
22:1K:74:C:N4	26:1H:2507:C:O3'	2.36	0.58
26:1H:50:U:H3'	26:1H:51:G:H5'	1.85	0.58
26:1H:275:G:N2	26:1H:276:A:N7	2.47	0.58
26:1H:1678:G:N2	26:1H:1989:G:N2	2.51	0.58
26:1H:2321:G:H5"	26:1H:2322:A:OP2	2.04	0.58
33:51:92:ILE:H	33:51:92:ILE:HD12	1.66	0.58
40:A8:48:LEU:HD23	40:A8:82:ILE:HD11	1.84	0.58
41:B8:108:ARG:HA	41:B8:111:ARG:NE	2.18	0.58
1:1G:1400:C:H5'	25:4L:18:G:C6	2.39	0.58
26:14:71:A:H5'	26:14:71:A:H8	1.69	0.58
26:14:1299:G:OP1	61:14:3653:HOH:O	2.17	0.58
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.33	0.58
29:19:242:ARG:HG2	29:19:246:PRO:HG3	1.85	0.58
30:29:105:THR:OG1	30:29:199:ARG:NH2	2.36	0.58
45:B5:63:LYS:H	45:B5:63:LYS:CE	2.15	0.58
1:13:838:G:H1	1:13:848:C:H42	1.51	0.58
1:13:934:C:O5'	61:13:1842:HOH:O	2.17	0.58
1:13:1079:G:C6	1:13:1080:A:N6	2.71	0.58
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.03	0.58
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.68	0.58
8:7E:9:MET:SD	8:7E:32:LYS:HG2	2.42	0.58
26:1H:997:G:OP1	42:C8:93:LYS:HD2	2.04	0.58
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.38	0.58
26:1H:2688:U:C5	26:1H:2720:U:OP2	2.56	0.58
35:58:22:THR:OG1	35:58:23:LEU:N	2.36	0.58
26:14:16:G:O6	61:14:3654:HOH:O	2.17	0.58
26:14:522:G:H2'	26:14:523:C:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:640:C:H42	26:14:648:G:H1	1.51	0.58
30:29:54:GLN:HA	30:29:74:PRO:HA	1.85	0.58
34:69:14:ASP:OD1	34:69:15:VAL:N	2.36	0.58
40:65:46:VAL:HG12	40:65:48:LEU:HD12	1.86	0.58
1:13:974:A:OP2	14:5I:29:ARG:NH1	2.33	0.58
26:1H:607:U:OP1	31:31:102:PRO:HA	2.03	0.58
26:1H:2127:G:H2'	26:1H:2128:C:O4'	2.03	0.58
26:1H:2795:G:O6	26:1H:2803:C:N4	2.36	0.58
27:16:77:U:OP1	47:H8:19:ARG:NH2	2.36	0.58
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.86	0.58
47:H8:53:ILE:HA	47:H8:71:VAL:HG13	1.86	0.58
1:1G:662:G:H2'	1:1G:663:A:C8	2.38	0.58
1:1G:967:C:H3'	1:1G:968:A:H2'	1.85	0.58
7:62:23:VAL:HG13	7:62:43:PHE:HE2	1.67	0.58
26:14:249:C:O2	55:M5:12:LYS:NZ	2.35	0.58
26:14:270:A:OP2	26:14:270(Y):G:N1	2.28	0.58
26:14:270(B):A:N7	26:14:270(X):G:N2	2.51	0.58
26:14:495:G:N3	44:A5:61:ASN:ND2	2.48	0.58
26:14:2836:U:H2'	26:14:2837:G:C8	2.38	0.58
34:69:110:ASP:H	34:69:130:TYR:HH	1.48	0.58
48:E5:12:ASN:HA	48:E5:14:ARG:HH21	1.67	0.58
5:4E:143:ARG:NE	8:7E:77:GLU:OE1	2.32	0.58
7:6E:56:GLN:OE1	7:6E:57:GLU:N	2.31	0.58
26:1H:286:C:H2'	26:1H:287:C:C6	2.38	0.58
26:1H:2129:C:OP2	28:71:36:LYS:NZ	2.37	0.58
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.69	0.58
30:21:131:ALA:HB1	61:21:401:HOH:O	2.04	0.58
39:98:12:ARG:HG2	39:98:16:HIS:CG	2.39	0.58
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.86	0.58
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.02	0.58
1:1G:653:A:C8	8:72:56:LYS:HE3	2.39	0.58
1:1G:1291:G:OP1	7:62:37:ASN:ND2	2.37	0.58
8:72:120:THR:HG23	8:72:122:ARG:H	1.69	0.58
10:1A:75:ILE:HG13	10:1A:76:ASN:N	2.18	0.58
26:14:1198:U:H2'	26:14:1199:U:C6	2.39	0.58
26:14:1812:A:H2'	26:14:1813:G:C8	2.39	0.58
26:14:2147:G:C5	26:14:2148:G:H1'	2.39	0.58
26:14:2531:A:H4'	33:59:157:TYR:CE2	2.38	0.58
32:49:161:THR:HG22	32:49:163:ALA:H	1.68	0.58
33:59:125:VAL:HG22	33:59:126:PRO:HA	1.86	0.58
37:35:85:LEU:HA	37:35:88:LEU:HB2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:29:PHE:HE1	40:65:31:SER:HB3	1.68	0.58
3:2E:15:THR:HG21	3:2E:181:ASN:HA	1.84	0.58
18:9I:59:SER:HB3	18:9I:62:GLU:HB2	1.86	0.58
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.38	0.58
34:61:78:THR:HG22	34:61:141:LYS:HE3	1.84	0.58
1:1G:1024:G:H4'	1:1G:1024:G:OP1	2.03	0.58
26:14:994:C:OP2	42:85:54:LYS:NZ	2.21	0.58
26:14:2210:G:H3'	26:14:2211:G:C8	2.39	0.58
33:59:42:ARG:NH1	33:59:53:GLU:O	2.37	0.58
37:35:47:ASP:OD2	37:35:50:ARG:NH1	2.36	0.58
41:75:5:ALA:HB1	41:75:8:LYS:HB2	1.85	0.58
47:D5:30:ASN:HA	47:D5:89:PHE:HE1	1.68	0.58
55:M5:22:VAL:HB	55:M5:55:ALA:HB1	1.85	0.58
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.85	0.58
2:1E:208:ILE:HG22	2:1E:211:ILE:HD11	1.84	0.58
26:1H:259:G:H21	26:1H:621:A:H8	1.52	0.58
26:1H:270(F):U:H2'	26:1H:270(G):C:C6	2.38	0.58
26:1H:2422:A:N7	55:Q8:31:HIS:HE1	2.01	0.58
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.39	0.58
2:12:61:LEU:HG	2:12:160:ASP:HB2	1.86	0.58
4:32:53:ASP:O	4:32:57:ARG:NH1	2.37	0.58
19:AA:9:VAL:CB	19:AA:10:PHE:HA	2.33	0.58
26:14:251:A:C5	26:14:252:G:H1'	2.38	0.58
26:14:389:G:H1	37:35:70:GLN:HB3	1.68	0.58
26:14:747:U:O2	26:14:2014:A:H1'	2.04	0.58
26:14:2280:G:O2'	26:14:2388:A:N1	2.28	0.58
41:75:91:ARG:HD2	41:75:124:ASP:OD2	2.03	0.58
43:95:46:VAL:HG22	43:95:52:VAL:HG22	1.85	0.58
1:13:345:C:O2'	1:13:346:G:N3	2.35	0.58
1:13:564:C:O2'	8:7E:91:ARG:NH2	2.36	0.58
4:3E:84:LYS:HB3	4:3E:86:LYS:HG3	1.84	0.58
26:1H:270(K):C:O2'	26:1H:270(N):G:N2	2.19	0.58
26:1H:389:G:H1	37:78:71:VAL:HG12	1.69	0.58
26:1H:1308:A:H4'	61:1H:4626:HOH:O	2.03	0.58
38:88:110:THR:HG23	38:88:113:GLN:OE1	2.02	0.58
47:H8:5:LEU:HD23	47:H8:47:VAL:HG21	1.86	0.58
1:1G:143:A:O3'	1:1G:144:G:H8	1.86	0.58
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.85	0.58
18:9A:31:LEU:HD23	18:9A:31:LEU:H	1.69	0.58
26:14:370:G:OP2	61:14:3652:HOH:O	2.17	0.58
26:14:1639:U:OP2	61:14:3655:HOH:O	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2148:G:H2'	26:14:2149:G:H8	1.68	0.58
30:29:49:LEU:HD22	30:29:91:VAL:HG21	1.86	0.58
32:49:114:ILE:HG12	32:49:140:ILE:HG21	1.86	0.58
46:C5:37:VAL:HG21	46:C5:72:VAL:HG11	1.86	0.58
46:C5:75:ILE:HA	46:C5:80:GLY:HA2	1.86	0.58
3:2E:107:GLN:OE1	3:2E:107:GLN:N	2.34	0.57
24:3K:14:A:H2'	24:3K:15:G:C8	2.39	0.57
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.39	0.57
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.34	0.57
30:21:63:LEU:HD12	30:21:67:PHE:HE1	1.68	0.57
37:78:27:HIS:HB3	37:78:32:THR:HG23	1.86	0.57
40:A8:59:LYS:HG2	40:A8:60:GLY:H	1.69	0.57
1:1G:79:G:H1	1:1G:90:C:N4	2.00	0.57
1:1G:444:C:H2'	1:1G:445:G:C8	2.38	0.57
1:1G:828:A:H2'	1:1G:829:G:O4'	2.04	0.57
2:12:114:ARG:O	2:12:118:LEU:N	2.37	0.57
2:12:132:LYS:HA	2:12:135:GLN:HB2	1.86	0.57
2:12:190:THR:O	2:12:191:ASP:HB3	2.02	0.57
4:32:153:ARG:NH1	4:32:181:MET:HB2	2.19	0.57
29:19:71:ASP:OD1	29:19:103:ARG:NH2	2.33	0.57
39:55:97:VAL:HA	39:55:113:LEU:O	2.04	0.57
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.86	0.57
1:13:50:A:H1'	1:13:52:G:C8	2.39	0.57
1:13:1223:C:P	19:AI:78:ARG:HH12	2.28	0.57
8:7E:9:MET:HG3	8:7E:26:VAL:HG21	1.87	0.57
26:1H:1264:G:H5'	53:N8:11:THR:HG21	1.85	0.57
26:1H:2287:A:H62	26:1H:2344:U:H3	1.49	0.57
48:I8:24:LYS:O	48:I8:25:ARG:NH1	2.35	0.57
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.39	0.57
16:7A:22:THR:HA	16:7A:33:ILE:HD12	1.85	0.57
26:14:139:G:N2	26:14:141:A:N1	2.51	0.57
26:14:141:A:C8	26:14:1408:C:H1'	2.39	0.57
26:14:863:A:H2'	26:14:864:G:H8	1.69	0.57
26:14:2016:U:O2	53:J5:7:PRO:HG2	2.04	0.57
26:14:2197:U:H1'	26:14:2198:A:C8	2.39	0.57
26:14:2572:A:C8	30:29:144:ARG:HD2	2.38	0.57
34:69:7:GLU:HA	34:69:15:VAL:HG13	1.86	0.57
42:85:102:GLU:HB3	42:85:105:VAL:HG13	1.86	0.57
1:13:347:G:C2	1:13:348:G:H1'	2.39	0.57
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.39	0.57
26:1H:2032:G:N2	30:21:146:THR:HG23	2.12	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2238:G:H4'	26:1H:2239:G:OP1	2.05	0.57
27:16:48:A:P	40:A8:30:ARG:HH22	2.27	0.57
30:21:48:GLN:OE1	30:21:78:LEU:HG	2.04	0.57
34:61:113:ARG:HH21	34:61:132:PRO:HB3	1.68	0.57
38:88:66:ILE:HD12	38:88:67:ARG:H	1.69	0.57
1:1G:298:A:H5"	1:1G:299:G:OP2	2.04	0.57
14:5A:37:PHE:CE1	14:5A:53:LEU:HD13	2.38	0.57
26:14:1771:C:O2'	26:14:1786:A:H8	1.86	0.57
26:14:2439:A:C8	26:14:2439:A:H5"	2.38	0.57
30:29:54:GLN:HE21	30:29:57:LYS:H	1.52	0.57
40:65:107:GLU:H	40:65:110:LEU:HD11	1.69	0.57
1:13:113:G:H2'	1:13:114:U:H6	1.70	0.57
1:13:406:G:H21	4:3E:119:GLN:HE22	1.51	0.57
1:13:827:U:H5	1:13:872:A:N1	2.02	0.57
24:3K:1:G:N3	24:3K:1:G:H2'	2.19	0.57
26:1H:581:C:H2'	26:1H:582:G:C8	2.39	0.57
26:1H:1508:A:O2'	26:1H:1509:C:O5'	2.21	0.57
26:1H:2772:C:OP1	30:21:202:LYS:NZ	2.36	0.57
26:1H:2882:A:OP1	39:98:96:ARG:NH1	2.33	0.57
34:61:110:ASP:H	34:61:130:TYR:HH	1.53	0.57
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.04	0.57
10:1A:32:ALA:HA	10:1A:76:ASN:HD21	1.69	0.57
26:14:198:C:H5'	26:14:2244:U:OP1	2.04	0.57
26:14:1106:G:H3'	26:14:1107:G:H8	1.69	0.57
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.05	0.57
26:14:2655:G:N2	26:14:2665:A:OP2	2.36	0.57
30:29:68:ALA:O	30:29:70:ALA:N	2.38	0.57
47:D5:94:GLU:O	47:D5:129:SER:HA	2.04	0.57
1:13:160:A:C6	1:13:344:A:H8	2.23	0.57
1:13:613:C:H42	1:13:627:G:H1	1.51	0.57
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.86	0.57
23:2K:24:C:H2'	23:2K:25:U:C6	2.39	0.57
26:1H:1338:G:O2'	26:1H:1393:A:N1	2.37	0.57
26:1H:2392:A:H8	37:78:61:ARG:HB3	1.68	0.57
26:1H:2801:A:H5'	26:1H:2895:U:O2'	2.04	0.57
39:98:100:LEU:HD11	39:98:113:LEU:HD13	1.87	0.57
1:1G:540:G:H2'	1:1G:541:G:O4'	2.04	0.57
1:1G:1047:G:H1	1:1G:1210:C:H42	1.51	0.57
4:32:173:TRP:HB3	4:32:187:ARG:HH11	1.69	0.57
26:14:315:G:H2'	26:14:316:C:C6	2.39	0.57
44:A5:78:GLU:OE1	44:A5:99:ARG:HD3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.86	0.57
1:13:947:G:H2'	1:13:948:C:C6	2.40	0.57
1:13:1257:U:H5'	1:13:1258:G:C8	2.39	0.57
1:13:1304:G:N1	1:13:1332:A:OP2	2.30	0.57
3:2E:134:ILE:HG23	3:2E:151:VAL:HB	1.86	0.57
4:3E:167:GLY:HA2	29:19:135:PHE:CE1	2.40	0.57
24:3K:8:U:H5'	24:3K:48:C:O2'	2.04	0.57
24:3K:62:C:H2'	28:71:53:ARG:HH21	1.68	0.57
26:1H:1156:A:C8	42:C8:51:LYS:HG2	2.39	0.57
33:51:154:PRO:HB2	33:51:163:TYR:CZ	2.40	0.57
41:B8:2:ASN:O	41:B8:6:LEU:N	2.38	0.57
1:1G:1274:G:H2'	1:1G:1275:A:C8	2.39	0.57
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.05	0.57
3:22:117:ALA:HB2	3:22:200:ALA:HB2	1.85	0.57
21:1B:2:GLY:O	21:1B:4:GLY:N	2.37	0.57
24:3L:3:G:H2'	24:3L:4:U:O4'	2.05	0.57
26:14:910:A:N7	38:45:13:GLN:HG3	2.19	0.57
26:14:1204:A:H2	26:14:1241:A:N1	2.02	0.57
26:14:2162:G:H2'	26:14:2163:C:H5'	1.86	0.57
30:29:119:ARG:HG2	30:29:160:TYR:HB2	1.87	0.57
37:35:97:PRO:O	37:35:98:GLU:HG3	2.05	0.57
43:95:38:LEU:HA	43:95:52:VAL:H	1.70	0.57
1:13:664:G:N2	1:13:741:G:H1	2.02	0.57
17:8I:41:LYS:HD2	17:8I:88:TYR:CE2	2.39	0.57
26:1H:71:A:H5'	26:1H:71:A:H8	1.69	0.57
26:1H:244:A:H4'	37:78:74:GLU:HB2	1.86	0.57
32:41:111:LEU:HD23	32:41:114:ILE:HD12	1.86	0.57
37:78:82:GLY:HA2	37:78:113:LYS:O	2.03	0.57
1:1G:572:A:H5'	1:1G:573:A:OP2	2.05	0.57
1:1G:922:G:O5'	5:42:20:GLN:NE2	2.37	0.57
8:72:41:ARG:NH2	8:72:123:GLU:OE2	2.27	0.57
15:6A:26:GLU:OE2	15:6A:77:ARG:NH1	2.37	0.57
17:8A:66:SER:O	17:8A:70:ARG:NH1	2.38	0.57
23:2L:62:C:H2'	23:2L:63:C:H6	1.68	0.57
26:14:483:A:H1'	46:C5:60:PHE:HE1	1.69	0.57
26:14:2329:G:H2'	26:14:2330:G:C8	2.39	0.57
38:45:10:ARG:NH1	38:45:10:ARG:HA	2.19	0.57
46:C5:62:GLU:CD	46:C5:63:LYS:H	2.07	0.57
1:13:141:A:O2'	1:13:182:U:O2	2.12	0.57
26:1H:1455:G:OP2	61:1H:3857:HOH:O	2.16	0.57
26:1H:2118:U:O4'	26:1H:2147:G:N1	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2404:C:O3'	37:78:77:ARG:NH2	2.37	0.57
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.86	0.57
41:B8:60:THR:HG22	41:B8:77:PRO:HA	1.86	0.57
1:1G:186(F):C:N4	61:1G:1879:HOH:O	2.37	0.57
1:1G:1240:U:C2	7:62:32:ARG:HG3	2.40	0.57
2:12:22:LYS:HB3	2:12:40:HIS:NE2	2.20	0.57
8:72:100:ILE:HD12	8:72:125:ARG:HG3	1.87	0.57
26:14:6:A:C8	35:15:129:PRO:HB2	2.40	0.57
32:49:27:ASN:HB3	32:49:30:GLU:HG3	1.87	0.57
33:59:159:GLU:O	33:59:163:TYR:OH	2.16	0.57
35:15:96:GLU:H	35:15:96:GLU:CD	2.08	0.57
1:13:648:A:H2'	1:13:649:G:C8	2.39	0.57
1:13:1120:G:H2'	1:13:1121:U:C6	2.39	0.57
1:13:1218:C:H2'	1:13:1219:U:C6	2.40	0.57
13:4I:50:GLU:O	13:4I:54:VAL:HG23	2.05	0.57
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.69	0.57
26:1H:1434:A:H61	26:1H:1558:A:H62	1.52	0.57
35:58:56:ASN:N	35:58:125:GLY:O	2.23	0.57
46:G8:20:TYR:CE2	46:G8:43:ASN:HA	2.40	0.57
1:1G:1028(A):C:H42	1:1G:1032(B):G:H1	1.51	0.57
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.23	0.57
2:12:114:ARG:HG3	2:12:118:LEU:HD12	1.87	0.57
10:1A:50:ILE:HG22	10:1A:52:GLY:H	1.70	0.57
26:14:2745:C:H2'	26:14:2746:U:O4'	2.04	0.57
27:1J:2:C:H2'	27:1J:3:C:H6	1.69	0.57
27:1J:6:C:H2'	27:1J:7:G:H5"	1.86	0.57
35:15:95:PRO:O	35:15:98:VAL:HG22	2.05	0.57
42:85:92:ARG:HD2	43:95:11:GLN:HB2	1.87	0.57
1:13:113:G:H2'	1:13:114:U:C6	2.39	0.57
1:13:224:C:H2'	1:13:225:C:C6	2.40	0.57
1:13:536:C:H2'	1:13:537:G:C8	2.40	0.57
4:3E:12:CYS:SG	4:3E:19:LEU:N	2.68	0.57
11:2I:72:ALA:HB1	11:2I:77:MET:HE3	1.87	0.57
24:3K:3:G:H1	24:3K:70:C:N4	2.01	0.57
26:1H:265:A:H1'	26:1H:266:G:O4'	2.04	0.57
26:1H:639:U:O2'	26:1H:640:C:H5'	2.05	0.57
26:1H:2209:C:O2	26:1H:2216:G:C2	2.58	0.57
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.40	0.57
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.40	0.57
37:78:59:LEU:O	55:Q8:13:ARG:HD2	2.05	0.57
41:B8:1:MET:HA	41:B8:3:ARG:N	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:45:ASP:CG	47:H8:49:ARG:HH12	2.08	0.57
1:1G:1007:C:H1'	1:1G:1023:G:N1	2.20	0.57
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.04	0.57
1:1G:1157:A:H61	1:1G:1177:G:H1	1.53	0.57
1:1G:1255:G:P	10:1A:45:ARG:HH22	2.27	0.57
2:12:22:LYS:HB3	2:12:40:HIS:CE1	2.40	0.57
2:12:56:ARG:NH1	2:12:56:ARG:O	2.37	0.57
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.87	0.57
19:AA:66:MET:HA	19:AA:67:VAL:C	2.25	0.57
26:14:456:C:C2	45:B5:69:TYR:CE2	2.93	0.57
26:14:923:C:H2'	26:14:924:C:C6	2.40	0.57
32:49:56:ALA:HB2	32:49:153:ARG:NE	2.20	0.57
35:15:133:GLN:O	35:15:134:ARG:HG3	2.05	0.57
40:65:26:LEU:O	40:65:88:ASP:HB2	2.05	0.57
43:95:37:VAL:O	43:95:39:LEU:N	2.32	0.57
50:G5:53:LEU:O	50:G5:57:ILE:HG13	2.04	0.57
55:M5:54:GLU:O	55:M5:58:ILE:HG23	2.05	0.57
1:13:674:G:H2'	1:13:675:A:H8	1.70	0.56
1:13:1171:G:H2'	1:13:1172:C:C6	2.40	0.56
1:13:1347:G:H22	1:13:1374:A:P	2.28	0.56
17:8I:3:LYS:HD2	17:8I:60:ILE:HD11	1.87	0.56
26:1H:1191:G:OP1	61:1H:3863:HOH:O	2.18	0.56
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.39	0.56
26:1H:2801:A:H2'	26:1H:2802:G:H8	1.69	0.56
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.39	0.56
35:58:38:HIS:O	42:C8:67:ALA:HB1	2.05	0.56
39:98:117:VAL:O	39:98:118:GLU:HB2	2.05	0.56
47:H8:45:ASP:OD2	47:H8:49:ARG:NH1	2.35	0.56
1:1G:429:U:H3'	4:32:9:CYS:SG	2.45	0.56
1:1G:624:C:H2'	1:1G:625:G:H8	1.69	0.56
3:22:32:LEU:HD22	3:22:59:ARG:HH22	1.70	0.56
11:2A:67:ASP:OD2	11:2A:71:LYS:NZ	2.36	0.56
26:14:479:A:N3	26:14:481:G:H5"	2.20	0.56
30:29:143:ASN:HD22	30:29:147:PRO:HD2	1.69	0.56
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.20	0.56
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.34	0.56
55:M5:32:LEU:O	55:M5:36:LYS:HE3	2.05	0.56
2:1E:155:LEU:HD13	2:1E:157:ARG:O	2.04	0.56
3:2E:42:LEU:O	3:2E:46:GLU:HG2	2.06	0.56
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.05	0.56
17:8I:18:THR:OG1	17:8I:69:LYS:NZ	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:10:LEU:HD21	20:BI:12:ALA:HB3	1.87	0.56
24:3K:3:G:N2	24:3K:70:C:N3	2.53	0.56
26:1H:319:C:H2'	26:1H:320:A:C8	2.40	0.56
26:1H:572:A:N7	61:1H:3928:HOH:O	2.32	0.56
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.39	0.56
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.39	0.56
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.20	0.56
46:G8:94:LYS:NZ	46:G8:95:LYS:H	2.03	0.56
26:14:1386:C:H2'	26:14:1387:C:C6	2.40	0.56
26:14:1503:U:H2'	26:14:1504:C:C6	2.40	0.56
26:14:2105:C:H2'	26:14:2106:G:O4'	2.05	0.56
26:14:2117:A:H2'	26:14:2118:U:C5	2.39	0.56
26:14:2118:U:O2'	26:14:2145:C:N3	2.37	0.56
26:14:2689:U:H5"	26:14:2713:A:C2	2.40	0.56
54:L5:29:LYS:O	54:L5:33:ARG:HG3	2.05	0.56
1:13:601:C:H42	1:13:637:G:H1	1.53	0.56
7:6E:15:ASP:OD2	7:6E:18:TYR:N	2.37	0.56
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.05	0.56
13:4I:39:ILE:HD13	13:4I:52:GLU:HB2	1.86	0.56
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.71	0.56
20:BI:49:ALA:HB3	20:BI:99:LEU:HD22	1.87	0.56
23:2K:48:U:O2'	23:2K:49:C:OP2	2.22	0.56
26:1H:568:U:OP1	37:78:36:LYS:HE3	2.06	0.56
26:1H:784:A:C5	29:11:229:VAL:HG21	2.39	0.56
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.69	0.56
26:1H:2210:G:H3'	26:1H:2211:G:C4	2.41	0.56
27:16:90:C:P	38:88:16:ARG:HH21	2.28	0.56
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.20	0.56
1:1G:222:U:H2'	1:1G:223:U:C6	2.40	0.56
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.39	0.56
1:1G:411:A:H62	1:1G:413:G:N2	2.01	0.56
1:1G:986:A:H1'	19:AA:55:LYS:HA	1.85	0.56
3:22:180:ALA:HB1	3:22:203:PHE:CE1	2.40	0.56
8:72:22:GLU:HG3	8:72:23:SER:N	2.19	0.56
9:82:5:TYR:HE1	9:82:16:ARG:HG2	1.70	0.56
26:14:198:C:O2'	26:14:199:A:H5'	2.06	0.56
26:14:456:C:C2	45:B5:69:TYR:HE2	2.21	0.56
26:14:673:C:O2'	31:39:82:ILE:HD11	2.05	0.56
26:14:1581:G:H2'	26:14:1582:C:O4'	2.04	0.56
26:14:1757:U:N3	26:14:1762:A:H2	1.92	0.56
26:14:2293:C:H5"	40:65:89:ARG:NH2	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2318:G:H5'	26:14:2319:G:OP2	2.05	0.56
27:1J:40:U:O2	27:1J:43:C:H5"	2.05	0.56
30:29:96:PHE:HD2	30:29:182:LEU:HD21	1.69	0.56
31:39:38:ARG:HH21	31:39:99:TYR:HE2	1.51	0.56
35:15:35:ARG:HB3	35:15:42:TRP:CZ3	2.40	0.56
35:15:56:ASN:H	35:15:125:GLY:HA3	1.71	0.56
38:45:89:ASN:OD1	38:45:89:ASN:N	2.37	0.56
41:75:3:ARG:N	41:75:4:GLY:O	2.38	0.56
55:M5:30:ARG:NH1	61:M5:201:HOH:O	2.38	0.56
1:13:1203:C:H2'	1:13:1204:A:O4'	2.05	0.56
26:1H:141:A:H8	26:1H:1595:G:H21	1.51	0.56
26:1H:848:G:H2'	26:1H:849:A:C8	2.40	0.56
52:M8:16:CYS:HB3	52:M8:36:CYS:H	1.71	0.56
52:M8:38:LYS:HA	52:M8:38:LYS:HE3	1.87	0.56
1:1G:426:G:OP1	4:32:38:TYR:OH	2.20	0.56
1:1G:1007:C:H2'	1:1G:1008:C:C6	2.40	0.56
2:12:33:TYR:HB3	2:12:41:ILE:HG23	1.88	0.56
4:32:12:CYS:SG	4:32:18:LYS:HA	2.45	0.56
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.88	0.56
17:8A:55:ASP:OD1	17:8A:55:ASP:N	2.39	0.56
26:14:675:A:N3	26:14:2443:C:O2'	2.34	0.56
26:14:987:G:O2'	26:14:1000:A:N3	2.31	0.56
30:29:27:LEU:HD12	41:75:1:MET:SD	2.46	0.56
36:25:93:PRO:HD2	36:25:113:LYS:HD3	1.88	0.56
41:75:7:ILE:HG13	41:75:8:LYS:H	1.68	0.56
41:75:61:PHE:CE1	41:75:76:PHE:HB2	2.40	0.56
47:D5:52:SER:O	47:D5:54:HIS:N	2.39	0.56
1:13:403:C:OP2	4:3E:74:GLN:NE2	2.39	0.56
1:13:1078:U:O2	5:4E:130:ASN:ND2	2.37	0.56
4:3E:141:ARG:N	4:3E:144:ASP:OD2	2.32	0.56
11:2I:50:TYR:HD2	11:2I:54:ARG:HB3	1.70	0.56
26:1H:389:G:N1	37:78:71:VAL:HG12	2.21	0.56
29:11:201:HIS:O	29:11:204:ILE:HG12	2.06	0.56
35:58:73:THR:HB	35:58:82:LEU:HD11	1.87	0.56
41:B8:85:LYS:NZ	41:B8:87:ASP:OD2	2.38	0.56
44:E8:35:ILE:HG23	53:N8:28:PRO:HD2	1.87	0.56
50:K8:47:ASN:C	50:K8:49:LYS:H	2.08	0.56
1:1G:108:G:H5'	1:1G:109:A:H5"	1.88	0.56
1:1G:363:A:OP1	12:3A:33:ARG:HG3	2.05	0.56
13:4A:19:LEU:HB3	13:4A:25:ILE:HG21	1.86	0.56
26:14:273(C):C:H42	26:14:363(C):G:H1	1.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:863:A:H2'	26:14:864:G:C8	2.40	0.56
26:14:1156:A:C8	42:85:51:LYS:HD3	2.41	0.56
26:14:1259:G:H2'	26:14:1260:G:H8	1.71	0.56
26:14:1359:A:H62	26:14:1372:U:H3	1.53	0.56
26:14:1792:G:N3	61:14:3732:HOH:O	2.33	0.56
26:14:2542:A:N3	26:14:2542:A:H5"	2.20	0.56
29:19:17:THR:O	29:19:211:ARG:NH2	2.39	0.56
30:29:103:ASP:OD1	30:29:201:THR:HG23	2.06	0.56
35:15:59:LYS:HE3	35:15:60:ILE:N	2.20	0.56
40:65:41:ASP:OD2	40:65:44:LYS:HB2	2.06	0.56
42:85:92:ARG:C	42:85:94:ASN:H	2.09	0.56
11:2I:21:ILE:HG12	11:2I:30:VAL:HG12	1.86	0.56
26:1H:219:G:O6	61:1H:3860:HOH:O	2.17	0.56
26:1H:2210:G:H4'	26:1H:2211:G:OP2	2.04	0.56
39:98:67:LEU:HD22	39:98:76:VAL:HG21	1.88	0.56
46:G8:83:THR:HG22	46:G8:84:ARG:HG2	1.86	0.56
26:14:270(E):G:N2	26:14:270(U):C:O2	2.35	0.56
26:14:886:C:H1'	26:14:890:A:H2	1.71	0.56
26:14:2032:G:O6	61:14:3636:HOH:O	2.14	0.56
26:14:2126:A:H2	26:14:2162:G:H22	1.53	0.56
47:D5:97:GLU:HB3	47:D5:125:LEU:HD11	1.88	0.56
7:6E:13:GLN:O	7:6E:24:THR:HG21	2.06	0.56
26:1H:259:G:O2'	26:1H:621:A:O2'	2.06	0.56
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.36	0.56
35:58:34:LEU:HD21	35:58:120:LEU:HB2	1.87	0.56
37:78:18:ARG:O	37:78:19:VAL:HB	2.06	0.56
41:B8:26:ASP:O	41:B8:49:VAL:HG13	2.04	0.56
1:1G:421:U:O2'	1:1G:423:G:N7	2.39	0.56
1:1G:940:C:H2'	1:1G:941:G:H8	1.71	0.56
2:12:73:THR:OG1	2:12:170:GLU:OE2	2.24	0.56
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.87	0.56
24:3L:50:C:H2'	24:3L:51:A:H8	1.71	0.56
26:14:289:A:H3'	26:14:290:G:H8	1.70	0.56
26:14:654(C):G:H1	26:14:654(R):C:HO2'	1.53	0.56
26:14:2342:C:O2'	26:14:2374:C:H5"	2.06	0.56
26:14:2364:C:OP1	48:E5:55:ARG:NH1	2.38	0.56
29:19:115:GLN:HG2	29:19:116:GLN:N	2.20	0.56
35:15:43:THR:H	35:15:48:MET:HE3	1.71	0.56
1:13:553:A:H5"	12:3I:24:VAL:HG21	1.86	0.56
13:4I:60:VAL:HG12	13:4I:66:LEU:HD11	1.87	0.56
19:AI:41:VAL:HG12	19:AI:44:MET:CB	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:59:A:H3'	24:3K:60:U:C5'	2.36	0.56
26:1H:1395:A:P	61:1H:3825:HOH:O	2.64	0.56
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.40	0.56
26:1H:2287:A:H2	26:1H:2346:A:H2	1.53	0.56
26:1H:2590:A:OP2	29:11:238:GLY:HA2	2.06	0.56
26:1H:2679:A:H4'	30:21:165:VAL:HG11	1.88	0.56
27:16:44:G:H1'	27:16:47:C:H42	1.71	0.56
31:31:20:LEU:HD12	31:31:21:ALA:H	1.71	0.56
9:82:13:ALA:HB2	9:82:68:GLY:HA3	1.86	0.56
13:4A:92:HIS:CD2	13:4A:98:VAL:HG11	2.39	0.56
26:14:996:A:OP2	42:85:92:ARG:NH1	2.35	0.56
26:14:1366:A:H2'	26:14:1367:A:O4'	2.06	0.56
26:14:2118:U:O2	26:14:2147:G:N2	2.38	0.56
26:14:2129:C:H5"	26:14:2130:U:C5	2.41	0.56
26:14:2147:G:H2'	26:14:2148:G:H4'	1.88	0.56
26:14:2508:G:HO2'	26:14:2554:U:HO2'	1.52	0.56
32:49:95:ARG:HG2	32:49:96:ARG:H	1.70	0.56
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.05	0.56
2:1E:94:ASN:OD1	2:1E:95:GLN:N	2.36	0.56
2:1E:231:GLU:OE1	2:1E:231:GLU:N	2.34	0.56
4:3E:82:ALA:O	4:3E:85:LYS:HE3	2.06	0.56
26:1H:674:G:C1'	31:31:74:ARG:HD3	2.36	0.56
26:1H:1053:C:N4	26:1H:1106:G:H1	2.04	0.56
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.40	0.56
61:1H:5128:HOH:O	46:G8:83:THR:HG21	2.06	0.56
29:11:24:ILE:HG23	29:11:83:GLU:HA	1.86	0.56
34:61:75:LEU:HD21	34:61:105:HIS:HB3	1.87	0.56
1:1G:825:G:H1	1:1G:875:C:H42	1.54	0.56
1:1G:957:U:H1'	1:1G:960:U:H5	1.71	0.56
6:52:61:LEU:HD23	6:52:63:TYR:OH	2.06	0.56
9:82:77:ILE:O	9:82:81:ILE:HG12	2.06	0.56
16:7A:36:ILE:O	16:7A:36:ILE:HG13	2.05	0.56
27:1J:104:A:H2'	27:1J:105:G:O4'	2.06	0.56
29:19:73:VAL:HG13	29:19:120:GLY:HA3	1.88	0.56
34:69:143:SER:O	34:69:144:VAL:HG22	2.06	0.56
1:13:723:U:H5"	1:13:724:G:OP2	2.06	0.56
1:13:814:A:N7	1:13:816:A:C4	2.74	0.56
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.06	0.56
26:1H:533:G:H5'	42:C8:24:TYR:CD1	2.41	0.56
26:1H:1206:G:C6	26:1H:1207:C:C4	2.94	0.56
26:1H:1278:A:OP1	39:98:36:THR:HG22	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2845:G:N2	26:1H:2871:C:O2	2.38	0.56
27:16:90:C:H5'	38:88:18:LYS:HA	1.88	0.56
29:11:3:VAL:HG12	29:11:17:THR:HG23	1.88	0.56
31:31:185:ASP:OD1	31:31:188:ARG:NH1	2.39	0.56
37:78:15:ARG:NH2	37:78:16:ARG:HG2	2.21	0.56
9:82:10:ARG:HH21	9:82:107:ARG:HD3	1.69	0.56
9:82:116:LYS:HD3	9:82:120:ARG:H	1.70	0.56
19:AA:16:LEU:HA	19:AA:19:VAL:HG23	1.86	0.56
26:14:2402:C:H5	26:14:2415:G:H22	1.53	0.56
31:39:6:VAL:HB	31:39:124:LEU:HA	1.87	0.56
2:1E:11:LEU:HD12	2:1E:14:GLY:H	1.70	0.55
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.05	0.55
26:1H:1053:C:H42	26:1H:1106:G:H1	1.55	0.55
28:71:45:ALA:HB2	28:71:212:VAL:HG22	1.88	0.55
31:31:127:GLU:HA	31:31:127:GLU:OE2	2.06	0.55
49:J8:75:GLU:O	49:J8:78:LYS:HG3	2.06	0.55
50:K8:2:LYS:O	50:K8:3:LEU:HD23	2.06	0.55
1:1G:516:U:O2'	1:1G:519:C:N3	2.38	0.55
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.72	0.55
9:82:40:LEU:HB3	9:82:43:ALA:HB2	1.86	0.55
26:14:1434:A:H61	26:14:1558:A:N6	2.01	0.55
26:14:1633:G:OP2	61:14:3656:HOH:O	2.18	0.55
1:13:221:C:H2'	1:13:222:U:H6	1.71	0.55
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.38	0.55
22:1K:15:G:H1	22:1K:48:C:H41	1.55	0.55
26:1H:234:C:H2'	26:1H:235:U:H6	1.71	0.55
26:1H:783:A:H8	26:1H:784:A:H4'	1.71	0.55
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.40	0.55
26:1H:1657:C:H2'	26:1H:1658:C:H6	1.69	0.55
28:71:212:VAL:HG21	28:71:226:PRO:HG3	1.88	0.55
32:41:81:LYS:NZ	32:41:81:LYS:H	2.05	0.55
42:C8:79:PHE:HE2	42:C8:106:PHE:CZ	2.24	0.55
49:J8:91:LYS:HZ2	49:J8:91:LYS:C	2.09	0.55
26:14:375:C:H2'	26:14:376:C:C6	2.40	0.55
31:39:9:ILE:HB	31:39:128:ALA:HB2	1.89	0.55
32:49:75:LYS:HA	32:49:84:LYS:HG3	1.87	0.55
33:59:149:ARG:NH1	33:59:162:ILE:O	2.39	0.55
47:D5:52:SER:O	47:D5:52:SER:OG	2.22	0.55
1:13:859:A:H2'	1:13:860:A:C8	2.40	0.55
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.06	0.55
26:1H:625:G:N7	37:78:107:LYS:NZ	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:637:A:H2'	37:78:117:GLU:OE1	2.06	0.55
26:1H:998:C:OP2	42:C8:58:ARG:NH1	2.39	0.55
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.88	0.55
30:21:45:THR:O	30:21:83:ASP:N	2.39	0.55
32:41:77:ILE:HG22	32:41:82:LEU:HD12	1.88	0.55
38:88:77:LYS:HE3	38:88:84:GLY:O	2.06	0.55
44:E8:38:TYR:OH	53:N8:47:PRO:HG2	2.06	0.55
26:14:424:G:O6	61:14:3648:HOH:O	2.16	0.55
26:14:565:C:OP1	43:95:82:ARG:NH2	2.40	0.55
26:14:924:C:H2'	26:14:925:C:C6	2.41	0.55
27:1J:46:A:H2'	27:1J:47:C:H6	1.70	0.55
31:39:124:LEU:HG	31:39:126:VAL:HG12	1.89	0.55
32:49:64:THR:HB	32:49:94:LEU:HD21	1.87	0.55
33:59:11:VAL:HB	33:59:13:LYS:HD3	1.88	0.55
38:45:134:ARG:HG2	38:45:136:ALA:CB	2.36	0.55
49:F5:4:VAL:HG12	49:F5:11:ARG:HB3	1.87	0.55
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.07	0.55
13:4I:60:VAL:HG13	13:4I:64:TRP:HE1	1.72	0.55
22:1K:43:U:H2'	22:1K:44:U:C6	2.41	0.55
26:1H:86:C:H4'	26:1H:104:U:H1'	1.89	0.55
26:1H:582:G:H2'	26:1H:583:G:C8	2.41	0.55
37:78:39:LYS:HB2	37:78:45:LEU:HD22	1.89	0.55
1:1G:44:G:H2'	1:1G:45:U:O4'	2.06	0.55
1:1G:678:U:H2'	1:1G:679:C:C6	2.42	0.55
1:1G:833:U:H2'	1:1G:834:C:H6	1.70	0.55
1:1G:976:G:P	14:5A:32:SER:H	2.29	0.55
1:1G:999:U:H2'	1:1G:1000:A:C8	2.42	0.55
26:14:1131:G:O6	26:14:2040:C:H1'	2.05	0.55
26:14:1945:G:H2'	26:14:1946:U:C6	2.41	0.55
26:14:2629:A:H4'	26:14:2630:G:H5'	1.89	0.55
34:69:98:ALA:HA	34:69:109:ILE:HD11	1.89	0.55
8:7E:81:HIS:N	8:7E:138:TRP:O	2.33	0.55
26:1H:62:C:H42	26:1H:92:G:H1	1.52	0.55
26:1H:533:G:O6	61:1H:3853:HOH:O	2.15	0.55
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.90	0.55
26:1H:2655:G:O2'	26:1H:2664:G:O6	2.21	0.55
29:11:35:LYS:CD	29:11:36:PRO:HD2	2.37	0.55
30:21:12:THR:OG1	30:21:13:ARG:N	2.39	0.55
33:51:43:VAL:HB	33:51:52:VAL:HG22	1.87	0.55
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.41	0.55
1:1G:971:G:N2	1:1G:1363:A:OP2	2.29	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1399:C:C2	1:1G:1502:A:N6	2.75	0.55
13:4A:29:ARG:HD3	13:4A:64:TRP:CE2	2.42	0.55
16:7A:43:LYS:HG2	16:7A:48:TRP:CE2	2.41	0.55
26:14:566:U:OP1	37:35:29:LYS:HD2	2.07	0.55
26:14:1688:U:O2	26:14:1700:A:H5'	2.06	0.55
32:49:56:ALA:HA	32:49:59:GLU:HB3	1.87	0.55
55:M5:22:VAL:HG12	55:M5:50:LEU:HG	1.88	0.55
55:M5:22:VAL:O	55:M5:50:LEU:HB3	2.07	0.55
1:13:397:A:N7	1:13:548:G:C8	2.74	0.55
1:13:1003:G:H1	1:13:1037:C:H42	1.54	0.55
1:13:1126:U:C4	1:13:1127:G:C5	2.95	0.55
4:3E:114:ARG:HA	4:3E:117:ALA:HB3	1.89	0.55
6:5E:67:MET:SD	6:5E:75:LEU:HD12	2.47	0.55
26:1H:370:G:H4'	26:1H:371:A:OP2	2.05	0.55
26:1H:587:C:N3	37:78:33:ARG:NH1	2.55	0.55
26:1H:671:C:OP1	37:78:42:SER:O	2.23	0.55
26:1H:953:A:OP2	38:88:16:ARG:HD3	2.07	0.55
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.07	0.55
26:1H:1491:G:O4'	29:11:99:ASP:HB3	2.07	0.55
27:16:29:A:OP2	40:A8:31:SER:HB2	2.07	0.55
31:31:51:THR:O	31:31:93:LYS:HE2	2.06	0.55
33:51:153:LYS:CB	33:51:155:SER:H	2.20	0.55
34:61:110:ASP:OD2	34:61:113:ARG:HD3	2.07	0.55
1:1G:561:U:O2'	1:1G:562:C:OP2	2.22	0.55
1:1G:624:C:H2'	1:1G:625:G:C8	2.42	0.55
9:82:117:HIS:N	9:82:121:ARG:O	2.37	0.55
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.88	0.55
24:3L:55:U:N3	24:3L:58:A:OP1	2.28	0.55
26:14:602:G:OP2	26:14:602:G:H8	1.89	0.55
26:14:1129:A:N6	26:14:2491:U:OP1	2.38	0.55
26:14:1678:G:N2	26:14:1989:G:H1	2.05	0.55
27:1J:44:G:H1'	27:1J:47:C:H42	1.72	0.55
35:15:21:LYS:O	35:15:61:ARG:N	2.24	0.55
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.88	0.55
1:13:191(F):U:H2'	1:13:191:G:C8	2.41	0.55
1:13:625:G:H4'	16:7I:16:HIS:CG	2.42	0.55
1:13:1346:A:H5"	9:8E:120:ARG:NH1	2.22	0.55
7:6E:102:ARG:O	7:6E:106:GLN:HG3	2.07	0.55
13:4I:37:THR:HB	13:4I:55:ARG:HD2	1.89	0.55
26:1H:274:G:N2	26:1H:276:A:H61	2.05	0.55
26:1H:1187:G:H5"	43:D8:81:TYR:CE2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:68:36:GLY:HA2	36:68:106:LEU:HD23	1.89	0.55
39:98:32:GLY:HA2	39:98:116:LEU:HD12	1.88	0.55
47:H8:77:ASP:N	47:H8:84:GLU:HG2	2.22	0.55
1:1G:547:A:OP2	4:32:2:GLY:N	2.40	0.55
1:1G:1535:C:H41	25:4L:10:G:N2	2.05	0.55
9:82:95:LYS:HZ2	9:82:95:LYS:HB3	1.72	0.55
13:4A:53:VAL:O	13:4A:57:ARG:N	2.18	0.55
26:14:2262:U:H4'	26:14:2328:A:C2	2.42	0.55
27:1J:40:U:C2	27:1J:43:C:H5"	2.42	0.55
1:13:1071:C:H2'	1:13:1072:G:C8	2.42	0.55
8:7E:23:SER:HA	8:7E:61:VAL:O	2.07	0.55
20:BI:14:LYS:HB2	20:BI:17:ARG:HH21	1.70	0.55
26:1H:493:G:H2'	26:1H:494:G:O4'	2.06	0.55
26:1H:728:G:H4'	29:11:13:ARG:HD3	1.89	0.55
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.40	0.55
26:1H:2126:A:C8	26:1H:2163:C:H1'	2.41	0.55
30:21:37:ARG:HD3	30:21:42:ASP:CG	2.27	0.55
31:31:184:TYR:O	31:31:188:ARG:HG3	2.07	0.55
36:68:34:THR:OG1	36:68:35:VAL:N	2.39	0.55
39:98:97:VAL:HG22	39:98:114:VAL:HG22	1.88	0.55
46:G8:49:VAL:HG21	46:G8:55:TYR:CD2	2.41	0.55
1:1G:390:C:O2'	16:7A:28:ARG:NH1	2.40	0.55
6:52:2:ARG:NH2	6:52:69:GLU:HG3	2.21	0.55
26:14:639:U:H2'	26:14:640:C:C6	2.41	0.55
26:14:730:C:H3'	61:14:3626:HOH:O	2.06	0.55
26:14:1430:C:H2'	26:14:1431:U:C6	2.41	0.55
29:19:44:ASN:OD1	29:19:46:GLN:N	2.27	0.55
37:35:105:LEU:O	37:35:106:LEU:HB3	2.07	0.55
47:D5:27:VAL:HG12	47:D5:87:ASP:HB3	1.89	0.55
1:13:49:U:C2	1:13:361:G:N2	2.75	0.55
1:13:407:G:H2'	1:13:408:A:C8	2.42	0.55
1:13:985:C:H2'	1:13:986:A:C8	2.41	0.55
1:13:1167:A:H2'	1:13:1169:A:C8	2.42	0.55
3:2E:82:GLU:HA	3:2E:85:ARG:HB3	1.88	0.55
7:6E:50:ILE:HD13	7:6E:125:MET:HG3	1.89	0.55
24:3K:76:A:O2'	26:1H:2394:C:O2	2.22	0.55
26:1H:18:C:O3'	42:C8:23:GLY:HA2	2.07	0.55
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.87	0.55
26:1H:712:G:H1	26:1H:719:C:H42	1.54	0.55
26:1H:1869:G:H8	26:1H:1869:G:H5"	1.72	0.55
29:11:125:ILE:HG13	29:11:137:PRO:HD3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:E8:58:ALA:HB1	44:E8:64:MET:HE2	1.89	0.55
4:32:34:GLU:HB2	4:32:35:ARG:HH22	1.71	0.55
4:32:176:LEU:HG	4:32:178:VAL:HG23	1.88	0.55
24:3L:9:A:H2'	24:3L:11:C:N4	2.21	0.55
26:14:839:U:H2'	26:14:840:C:C6	2.41	0.55
26:14:1533:C:H5'	26:14:1534:G:OP2	2.06	0.55
49:F5:84:GLY:CA	49:F5:85:LEU:HB3	2.36	0.55
8:7E:10:LEU:HD22	8:7E:83:ILE:HD11	1.89	0.55
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.89	0.55
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.72	0.55
26:1H:811:U:H2'	37:78:21:ARG:HA	1.89	0.55
26:1H:1614:A:C2	44:E8:93:ALA:HB2	2.42	0.55
32:41:95:ARG:HA	32:41:99:MET:HB2	1.89	0.55
33:51:74:ASN:HA	33:51:77:LYS:HD3	1.89	0.55
41:B8:91:ARG:O	41:B8:116:ALA:HA	2.07	0.55
44:E8:86:LEU:HD12	44:E8:87:PRO:HD2	1.89	0.55
1:1G:15:G:H4'	5:42:24:ARG:NH1	2.22	0.55
1:1G:801:U:H2'	1:1G:802:A:H8	1.71	0.55
1:1G:1187:G:H4'	9:82:111:ARG:HH11	1.71	0.55
26:14:19:C:H2'	26:14:20:C:H6	1.72	0.55
26:14:531:C:H4'	26:14:532:A:H5"	1.87	0.55
26:14:1005:C:H2'	26:14:1006:C:C6	2.41	0.55
26:14:1436:G:O2'	26:14:1477:A:H4'	2.07	0.55
26:14:2815:C:H5'	53:J5:29:THR:HG21	1.88	0.55
36:25:63:VAL:HG12	36:25:106:LEU:HD11	1.89	0.55
43:95:87:HIS:NE2	43:95:89:GLN:HB2	2.22	0.55
47:D5:99:TYR:HB3	47:D5:123:ASP:HB3	1.89	0.55
1:13:1130:A:H5'	9:8E:18:PHE:CE2	2.43	0.54
1:13:1223:C:OP1	19:AI:78:ARG:NH1	2.40	0.54
7:6E:73:MET:HG3	7:6E:89:MET:O	2.07	0.54
26:1H:320:A:H2'	31:31:136:THR:HG21	1.89	0.54
26:1H:330:A:O2'	26:1H:331:A:H8	1.90	0.54
26:1H:459:U:H2'	26:1H:460:A:C8	2.42	0.54
26:1H:721:C:H2'	26:1H:722:A:H8	1.72	0.54
26:1H:1264:G:OP1	53:N8:19:ARG:NH2	2.28	0.54
26:1H:1300:U:O4	61:1H:3855:HOH:O	2.16	0.54
26:1H:1619:G:N7	61:1H:3935:HOH:O	2.33	0.54
29:11:33:LEU:O	29:11:64:ILE:HG23	2.07	0.54
46:G8:42:VAL:HG23	46:G8:43:ASN:N	2.21	0.54
47:H8:60:GLU:O	47:H8:61:LEU:HB3	2.06	0.54
1:1G:1048:G:O4'	1:1G:1215:G:H4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.40	0.54
3:22:40:ARG:HH11	3:22:40:ARG:HB2	1.72	0.54
12:3A:110:VAL:HA	12:3A:111:LYS:HE2	1.89	0.54
26:14:139:G:N2	26:14:1596:A:H4'	2.23	0.54
26:14:673:C:H5"	31:39:81:PRO:HD2	1.89	0.54
26:14:908:C:OP1	38:45:22:LYS:HB3	2.08	0.54
26:14:2138:C:N4	26:14:2153:G:H22	2.00	0.54
30:29:48:GLN:NE2	30:29:78:LEU:HD12	2.21	0.54
38:45:32:TYR:CE2	38:45:111:GLU:HB2	2.42	0.54
42:85:110:VAL:HG12	42:85:114:LYS:HD3	1.88	0.54
47:D5:10:ARG:HH21	47:D5:26:GLY:N	2.04	0.54
47:D5:19:ARG:NH1	47:D5:84:GLU:O	2.40	0.54
47:D5:30:ASN:HA	47:D5:89:PHE:CE1	2.42	0.54
1:13:279:A:H4'	1:13:280:C:H5"	1.89	0.54
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.39	0.54
1:13:1074:G:O2'	1:13:1101:A:N1	2.39	0.54
1:13:1171:G:O2'	1:13:1172:C:H5'	2.07	0.54
9:8E:17:VAL:HA	9:8E:63:ILE:HG12	1.88	0.54
24:3K:9:A:H1'	24:3K:46:G:C8	2.42	0.54
26:1H:29:U:H2'	26:1H:30:G:H8	1.72	0.54
26:1H:274:G:H1'	26:1H:276:A:C2	2.42	0.54
26:1H:2432:A:C4	49:J8:33:LYS:HG2	2.43	0.54
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.07	0.54
41:B8:4:GLY:HA2	41:B8:7:ILE:HG12	1.89	0.54
41:B8:21:GLU:OE1	41:B8:91:ARG:NH2	2.41	0.54
1:1G:25:C:H2'	1:1G:26:A:C8	2.42	0.54
1:1G:192:U:H2'	1:1G:193:C:H6	1.71	0.54
1:1G:433:C:H2'	1:1G:434:U:C6	2.42	0.54
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.19	0.54
3:22:70:VAL:HG12	3:22:72:LYS:N	2.22	0.54
9:82:96:LEU:HG	9:82:101:PHE:HB2	1.89	0.54
56:1L:1:G:N2	56:1L:72:C:O2	2.39	0.54
26:14:1138:G:H21	35:15:106:MET:HE3	1.72	0.54
26:14:1247:A:OP1	31:39:95:ARG:NH2	2.41	0.54
26:14:1849:G:H2'	26:14:1850:G:H8	1.72	0.54
26:14:2113:U:H3'	26:14:2114:A:H4'	1.90	0.54
26:14:2591:C:OP2	29:19:239:ARG:HB3	2.08	0.54
42:85:92:ARG:CZ	43:95:11:GLN:H	2.21	0.54
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.71	0.54
1:13:674:G:H2'	1:13:675:A:C8	2.41	0.54
1:13:827:U:C5	1:13:872:A:N1	2.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1277:C:O2'	1:13:1279:A:H1'	2.08	0.54
2:1E:234:PRO:HB2	2:1E:236:TYR:H	1.72	0.54
26:1H:270(V):G:H2'	26:1H:270(W):G:C8	2.38	0.54
26:1H:1332:G:H21	26:1H:1610:A:H8	1.54	0.54
26:1H:1359:A:C2	26:1H:1372:U:O4	2.61	0.54
26:1H:1639:U:H2'	26:1H:1640:C:H5"	1.89	0.54
28:71:27:HIS:HA	28:71:182:PRO:HB3	1.88	0.54
30:21:116:VAL:O	30:21:117:MET:HB3	2.06	0.54
36:68:120:GLU:HG2	36:68:122:LEU:HG	1.89	0.54
46:G8:87:LYS:HD3	46:G8:88:LYS:N	2.22	0.54
55:Q8:52:LYS:N	55:Q8:53:PRO:HD2	2.22	0.54
1:1G:1137:C:O2	1:1G:1138:G:N2	2.40	0.54
1:1G:1162:C:N4	1:1G:1174:G:H1	2.05	0.54
1:1G:1190:G:H5'	3:22:176:HIS:NE2	2.22	0.54
1:1G:1262:C:H42	1:1G:1273:G:H1	1.53	0.54
1:1G:1532:U:O2'	1:1G:1534:A:OP2	2.25	0.54
9:82:97:LYS:HB3	9:82:98:PRO:HD3	1.89	0.54
13:4A:40:ASN:ND2	13:4A:43:THR:HG23	2.20	0.54
26:14:1260:G:H2'	26:14:1261:C:H6	1.72	0.54
26:14:1952:A:C6	36:25:22:ILE:HD11	2.42	0.54
27:1J:18:G:H1	27:1J:65:C:N4	1.93	0.54
29:19:115:GLN:HG2	29:19:116:GLN:H	1.71	0.54
34:69:59:ALA:HA	34:69:62:LYS:HG2	1.89	0.54
1:13:413:G:N2	1:13:428:G:H1'	2.22	0.54
1:13:501:C:OP1	12:3I:117:ARG:NH2	2.39	0.54
1:13:1049:U:OP1	14:5I:3:ARG:HB3	2.08	0.54
26:1H:2836:U:H2'	26:1H:2837:G:H8	1.72	0.54
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.89	0.54
1:1G:197:A:C6	1:1G:221:C:H4'	2.43	0.54
1:1G:353:A:H5'	1:1G:353:A:C8	2.36	0.54
1:1G:1124:G:HO2'	1:1G:1145:C:N4	2.05	0.54
1:1G:1244:C:OP2	21:1B:9:ARG:HG2	2.07	0.54
26:14:30:G:H2'	26:14:31:C:C6	2.42	0.54
26:14:695:G:OP1	26:14:1380:G:O2'	2.25	0.54
26:14:997:G:O2'	26:14:998:C:H5'	2.07	0.54
26:14:2287:A:C2	26:14:2346:A:H2	2.25	0.54
26:14:2441:C:OP2	26:14:2586:C:O2'	2.24	0.54
30:29:174:ASP:HB3	30:29:183:LEU:HD22	1.90	0.54
32:49:60:LEU:HD22	32:49:68:PRO:HB3	1.88	0.54
32:49:106:LEU:HG	32:49:111:LEU:HD12	1.89	0.54
37:35:79:ARG:HG2	37:35:110:TYR:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:65:ILE:HD11	42:85:96:ALA:HB3	1.89	0.54
47:D5:30:ASN:ND2	47:D5:90:VAL:O	2.41	0.54
48:E5:34:GLY:HA2	48:E5:61:ALA:O	2.08	0.54
1:13:922:G:H1'	5:4E:19:MET:HB2	1.88	0.54
1:13:1182:G:H4'	1:13:1183:A:H5"	1.89	0.54
4:3E:60:GLU:OE2	4:3E:199:ASN:N	2.41	0.54
5:4E:147:ASP:OD1	5:4E:147:ASP:N	2.29	0.54
10:1I:86:MET:SD	10:1I:86:MET:N	2.81	0.54
26:1H:548:A:H2'	26:1H:549:G:H5'	1.90	0.54
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.42	0.54
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.70	0.54
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.42	0.54
26:1H:2502:G:N7	61:1H:3941:HOH:O	2.34	0.54
26:1H:2879:C:O2	26:1H:2881:C:N4	2.40	0.54
28:71:214:VAL:HG23	28:71:224:ILE:HG12	1.90	0.54
31:31:185:ASP:HA	31:31:188:ARG:HD3	1.88	0.54
32:41:112:PRO:HB3	52:M8:37:SER:HB2	1.90	0.54
37:78:65:ARG:HB3	61:78:208:HOH:O	2.06	0.54
40:A8:35:ILE:HG22	40:A8:97:ARG:HH21	1.72	0.54
52:M8:24:THR:OG1	52:M8:25:TYR:N	2.40	0.54
1:1G:821:G:H2'	1:1G:822:C:H6	1.73	0.54
6:52:70:ASP:OD1	6:52:70:ASP:N	2.29	0.54
26:14:76:C:O3'	50:G5:59:ARG:HG3	2.08	0.54
26:14:1819:A:H4'	26:14:1820:U:O5'	2.07	0.54
26:14:2638:G:OP2	30:29:82:ARG:NH2	2.39	0.54
26:14:2823:A:OP1	30:29:159:HIS:NE2	2.39	0.54
30:29:37:ARG:HD2	30:29:44:TYR:OH	2.07	0.54
30:29:202:LYS:HD2	30:29:202:LYS:N	2.22	0.54
31:39:57:VAL:HG13	31:39:59:TYR:HD1	1.73	0.54
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.42	0.54
31:39:164:ARG:O	31:39:167:ALA:HB3	2.08	0.54
33:59:32:GLU:CD	33:59:32:GLU:H	2.10	0.54
33:59:103:LEU:HD22	33:59:123:PHE:CZ	2.43	0.54
47:D5:111:VAL:HG12	47:D5:145:GLU:HB2	1.88	0.54
8:7E:73:ASP:OD1	8:7E:75:ARG:NE	2.41	0.54
26:1H:631:A:OP2	55:Q8:47:LYS:NZ	2.40	0.54
26:1H:2820:A:O5'	39:98:4:LEU:HD23	2.07	0.54
27:16:40:U:H1'	27:16:45:A:N6	2.21	0.54
42:C8:8:VAL:HG23	42:C8:11:ARG:NH2	2.23	0.54
47:H8:116:VAL:H	47:H8:146:ILE:HG12	1.72	0.54
1:1G:115:G:H1'	1:1G:116:A:N7	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.42	0.54
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.08	0.54
26:14:606:U:H4'	26:14:658:C:H4'	1.89	0.54
26:14:873:G:O3'	38:45:63:LYS:NZ	2.40	0.54
26:14:1786:A:C2	26:14:2606:C:H1'	2.41	0.54
26:14:2408:U:H2'	26:14:2409:G:C8	2.43	0.54
26:14:2535:G:H2'	26:14:2536:G:H8	1.72	0.54
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.43	0.54
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.40	0.54
31:39:110:LEU:O	31:39:114:VAL:HG23	2.07	0.54
34:69:93:THR:O	34:69:97:ILE:HG13	2.07	0.54
43:95:48:GLY:HA3	43:95:52:VAL:N	2.23	0.54
44:A5:28:SER:OG	44:A5:31:GLU:HG3	2.07	0.54
47:D5:174:VAL:O	47:D5:175:VAL:HB	2.06	0.54
1:13:417:C:H2'	1:13:418:C:H6	1.73	0.54
1:13:1286:A:H8	1:13:1287:A:H4'	1.73	0.54
5:4E:91:LEU:HD12	5:4E:120:THR:HG22	1.89	0.54
26:1H:1798:U:H5'	29:11:259:THR:OG1	2.08	0.54
26:1H:2208:U:O2'	26:1H:2209:C:H5'	2.07	0.54
35:58:67:LEU:HA	35:58:87:LEU:HD12	1.90	0.54
36:68:112:MET:HA	36:68:115:VAL:HG13	1.90	0.54
37:78:15:ARG:HH22	37:78:16:ARG:HG2	1.73	0.54
44:E8:97:LYS:HE2	44:E8:99:ARG:NH2	2.23	0.54
1:1G:1255:G:N2	1:1G:1259:C:O2	2.34	0.54
2:12:78:GLN:O	2:12:94:ASN:ND2	2.36	0.54
7:62:37:ASN:HB2	9:82:41:VAL:HG23	1.90	0.54
26:14:492:A:H2'	26:14:493:G:O4'	2.08	0.54
26:14:782:A:OP2	61:14:3657:HOH:O	2.18	0.54
26:14:1777:U:O2'	26:14:1778:U:H5'	2.07	0.54
26:14:2164:C:N3	26:14:2165:G:N2	2.55	0.54
27:1J:94:C:H2'	27:1J:95:U:C6	2.42	0.54
33:59:107:VAL:HG11	33:59:152:ARG:HG2	1.90	0.54
37:35:86:LYS:HB3	37:35:117:GLU:O	2.08	0.54
41:75:2:ASN:C	41:75:4:GLY:HA3	2.28	0.54
1:13:295:C:H2'	1:13:296:U:O4'	2.07	0.54
1:13:1063:C:H3'	1:13:1064:G:H2'	1.90	0.54
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.07	0.54
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.42	0.54
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.90	0.54
17:8I:22:LEU:HD22	17:8I:88:TYR:HD2	1.72	0.54
26:1H:433:C:H2'	26:1H:434:U:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:945:A:H4'	61:1H:3605:HOH:O	2.06	0.54
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.43	0.54
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.41	0.54
26:1H:2776:A:H4'	26:1H:2777:G:H5"	1.89	0.54
30:21:38:THR:HG22	30:21:40:GLU:HG2	1.90	0.54
31:31:64:ILE:HG23	31:31:65:TRP:CD1	2.43	0.54
36:68:47:ILE:HG13	36:68:48:PRO:HD2	1.89	0.54
41:B8:7:ILE:O	41:B8:11:GLU:HB2	2.08	0.54
1:1G:947:G:H2'	1:1G:948:C:O4'	2.08	0.54
1:1G:1095:U:OP2	1:1G:1108:G:N1	2.33	0.54
26:14:273(F):C:H3'	26:14:274:G:C5'	2.38	0.54
26:14:443:A:H1'	26:14:1201:C:O4'	2.08	0.54
26:14:2414:G:H21	37:35:67:MET:CE	2.21	0.54
27:1J:46:A:H2'	27:1J:47:C:C6	2.41	0.54
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.89	0.54
33:59:146:ALA:O	33:59:150:ALA:N	2.40	0.54
34:69:101:LEU:HD23	34:69:101:LEU:H	1.72	0.54
41:75:3:ARG:HA	41:75:6:LEU:HB3	1.90	0.54
42:85:92:ARG:HD2	43:95:11:GLN:NE2	2.22	0.54
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.90	0.54
46:C5:17:SER:HB2	46:C5:71:LYS:CE	2.38	0.54
49:F5:91:LYS:HZ3	49:F5:91:LYS:HA	1.71	0.54
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.40	0.54
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.08	0.54
15:6I:9:GLN:HA	15:6I:12:ILE:HD12	1.88	0.54
15:6I:63:ARG:HG2	15:6I:67:LEU:HD12	1.89	0.54
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	1.90	0.54
26:1H:2364:C:H4'	48:I8:56:ASP:OD1	2.07	0.54
39:98:50:HIS:CE1	39:98:54:LEU:HD21	2.43	0.54
40:A8:89:ARG:HG3	40:A8:92:TYR:O	2.08	0.54
48:I8:72:ARG:NH1	48:I8:75:LEU:HD12	2.21	0.54
52:M8:7:PRO:HB3	52:M8:27:THR:HG21	1.90	0.54
1:1G:438:G:H4'	4:32:123:HIS:ND1	2.23	0.54
1:1G:979:C:H3'	1:1G:980:C:H5"	1.90	0.54
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.43	0.54
1:1G:1364:U:O2'	1:1G:1365:G:H5'	2.08	0.54
7:62:26:PHE:O	7:62:30:ILE:HG13	2.08	0.54
26:14:140:A:H8	26:14:1408:C:HO2'	1.53	0.54
26:14:335:C:H2'	26:14:336:C:H6	1.72	0.54
26:14:854:G:H2'	26:14:855:G:C8	2.37	0.54
26:14:2129:C:H3'	26:14:2130:U:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2238:G:H2'	26:14:2238:G:N3	2.23	0.54
26:14:2540:C:O2'	26:14:2740:A:N3	2.39	0.54
31:39:103:LYS:HA	31:39:106:ARG:HG3	1.90	0.54
38:45:57:HIS:NE2	38:45:116:GLU:HG2	2.23	0.54
41:75:55:ASN:N	41:75:59:THR:HG22	2.23	0.54
42:85:92:ARG:NH2	43:95:11:GLN:H	2.05	0.54
1:13:277:C:H2'	1:13:278:G:H8	1.73	0.54
1:13:346:G:OP1	41:B8:41:ARG:NH2	2.38	0.54
1:13:1327:C:OP1	21:1F:21:TYR:HD2	1.91	0.54
1:13:1504:G:OP1	1:13:1507:A:H4'	2.07	0.54
4:3E:92:VAL:HG12	4:3E:96:LEU:HD21	1.89	0.54
26:1H:1526:G:H2'	26:1H:1527:G:O4'	2.08	0.54
26:1H:1543:A:C2	26:1H:1545:A:C4	2.96	0.54
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.73	0.54
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.43	0.54
26:1H:1899:G:N2	26:1H:1902:C:C5	2.75	0.54
30:21:105:THR:HG21	30:21:164:ARG:CZ	2.38	0.54
33:51:144:VAL:O	33:51:148:ILE:HG12	2.08	0.54
37:78:62:LEU:O	55:Q8:13:ARG:HD3	2.08	0.54
44:E8:58:ALA:HB1	44:E8:64:MET:HB2	1.89	0.54
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.89	0.54
1:1G:1376:U:OP1	7:62:98:SER:HB3	2.08	0.54
26:14:329:G:P	46:C5:71:LYS:HE3	2.48	0.54
26:14:1048:A:OP2	26:14:1110:G:N2	2.41	0.54
26:14:1250:G:H5'	61:14:4311:HOH:O	2.07	0.54
26:14:1729:A:H2'	26:14:1731:G:N2	2.20	0.54
26:14:2137:C:H2'	26:14:2138:C:H6	1.72	0.54
40:65:3:ARG:HD2	40:65:4:LEU:H	1.73	0.54
55:M5:37:SER:OG	55:M5:39:LYS:O	2.26	0.54
1:13:843:U:H5"	1:13:848:C:C5	2.43	0.53
1:13:1014:A:H4'	19:AI:14:HIS:CE1	2.43	0.53
26:1H:950:G:H2'	26:1H:951:C:C6	2.43	0.53
26:1H:1050:A:H2'	26:1H:1051:G:O4'	2.08	0.53
26:1H:1110:G:HO2'	26:1H:1111:A:H8	1.54	0.53
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.08	0.53
29:11:239:ARG:N	61:11:303:HOH:O	2.42	0.53
32:41:66:GLN:OE1	32:41:98:ARG:NH1	2.41	0.53
47:H8:150:LEU:HD23	47:H8:151:HIS:N	2.23	0.53
52:M8:16:CYS:HB3	52:M8:36:CYS:HB3	1.90	0.53
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.43	0.53
1:1G:1357:A:H61	1:1G:1363:A:H2	1.55	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1454:G:H5”	20:BA:35:THR:HG21	1.90	0.53
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.89	0.53
13:4A:92:HIS:HD2	13:4A:98:VAL:HG11	1.72	0.53
56:1L:8:U:H3’	56:1L:13:C:H42	1.73	0.53
29:19:69:ARG:HD3	29:19:105:ILE:HD11	1.89	0.53
31:39:7:TYR:HD1	31:39:18:ARG:H	1.55	0.53
49:F5:41:ARG:HD3	49:F5:43:TYR:HE1	1.71	0.53
1:13:985:C:H2’	1:13:986:A:H8	1.73	0.53
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.72	0.53
26:1H:467:G:OP2	54:P8:34:ARG:NH1	2.40	0.53
26:1H:1359:A:N1	26:1H:1372:U:C4	2.77	0.53
26:1H:2033:A:OP1	61:1H:3865:HOH:O	2.19	0.53
26:1H:2172:U:H5’	26:1H:2173:A:OP2	2.08	0.53
26:1H:2212:A:O2’	26:1H:2215:G:C8	2.60	0.53
26:1H:2564:A:OP1	26:1H:2648:C:H4’	2.08	0.53
34:61:125:GLU:OE1	34:61:141:LYS:HG2	2.09	0.53
42:C8:92:ARG:NH1	42:C8:94:ASN:OD1	2.40	0.53
47:H8:61:LEU:O	47:H8:64:GLY:HA2	2.08	0.53
47:H8:152:ALA:HB3	47:H8:167:PRO:O	2.08	0.53
48:I8:82:ARG:HH21	48:I8:84:LEU:HB2	1.73	0.53
50:K8:3:LEU:O	50:K8:6:VAL:HB	2.08	0.53
1:1G:1441:G:O5’	1:1G:1441:G:H8	1.92	0.53
3:22:47:LEU:HB3	3:22:52:LEU:HD22	1.90	0.53
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.43	0.53
8:72:20:TYR:HA	8:72:65:TYR:CE2	2.43	0.53
11:2A:100:ALA:O	11:2A:102:GLY:N	2.42	0.53
26:14:296:C:H2’	26:14:297:C:H6	1.71	0.53
26:14:2247:A:N6	61:14:3783:HOH:O	2.41	0.53
26:14:2330:G:H1	26:14:2385:C:H42	1.55	0.53
33:59:4:ILE:HD12	33:59:6:ARG:HE	1.73	0.53
46:C5:8:LYS:NZ	46:C5:95:LYS:HD3	2.23	0.53
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.89	0.53
51:H5:8:LEU:HB2	51:H5:28:LEU:HD13	1.90	0.53
1:13:260:G:H2’	1:13:261:U:C6	2.43	0.53
1:13:592:G:H2’	1:13:593:G:H8	1.73	0.53
1:13:1070:U:H2’	1:13:1071:C:H6	1.72	0.53
1:13:1071:C:H2’	1:13:1072:G:H8	1.73	0.53
17:8I:86:GLU:O	17:8I:90:ILE:HG12	2.09	0.53
20:BI:11:SER:O	20:BI:14:LYS:HB3	2.08	0.53
26:1H:744:G:OP1	30:21:132:HIS:ND1	2.38	0.53
26:1H:1006:C:H1’	35:58:106:MET:HE3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2111:C:C4	26:1H:2145:C:C2	2.97	0.53
27:16:87:G:N2	27:16:89(A):A:OP2	2.38	0.53
29:11:38:LYS:HB3	29:11:39:LYS:HA	1.89	0.53
29:11:70:TRP:CD1	29:11:70:TRP:C	2.82	0.53
29:11:177:LEU:HD11	29:11:183:ARG:HG2	1.88	0.53
30:21:35:GLN:HB3	30:21:48:GLN:HE21	1.72	0.53
40:A8:35:ILE:HD11	40:A8:101:LEU:HD23	1.89	0.53
41:B8:26:ASP:CB	41:B8:92:GLY:H	2.21	0.53
46:G8:94:LYS:HZ1	46:G8:95:LYS:H	1.54	0.53
53:N8:33:CYS:HB2	53:N8:40:LYS:HD2	1.90	0.53
1:1G:1326:C:OP1	21:1B:17:THR:OG1	2.20	0.53
1:1G:1372:U:H2'	1:1G:1373:G:O4'	2.08	0.53
5:42:33:VAL:HG21	5:42:109:ILE:HG12	1.90	0.53
8:72:30:ARG:O	8:72:34:GLU:HG2	2.09	0.53
26:14:1260:G:H2'	26:14:1261:C:C6	2.44	0.53
26:14:2119:A:C6	26:14:2171:A:H2	2.27	0.53
27:1J:21:G:H2'	27:1J:22:U:O4'	2.08	0.53
35:15:42:TRP:O	42:85:64:ARG:NH2	2.40	0.53
37:35:101:VAL:HG21	37:35:108:LYS:HB2	1.89	0.53
38:45:137:TYR:HD1	38:45:137:TYR:C	2.11	0.53
44:A5:27:LYS:O	44:A5:71:VAL:HG23	2.07	0.53
1:13:57:G:C5	1:13:58:C:C4	2.96	0.53
1:13:163:C:O2'	1:13:164:U:O4'	2.26	0.53
1:13:345:C:H4'	1:13:346:G:C8	2.43	0.53
1:13:1292:U:H2'	1:13:1293:G:H8	1.74	0.53
9:8E:9:ARG:HE	9:8E:14:VAL:HG13	1.73	0.53
26:1H:1728:G:O6	26:1H:1730:U:H5"	2.08	0.53
26:1H:2164:C:OP1	26:1H:2166:G:N1	2.42	0.53
26:1H:2311:A:C8	32:41:88:ILE:HG21	2.43	0.53
28:71:166:ASP:OD1	28:71:166:ASP:N	2.39	0.53
41:B8:56:GLY:O	41:B8:59:THR:HG22	2.08	0.53
1:1G:67:C:H2'	1:1G:68:G:C8	2.44	0.53
1:1G:1340:A:O2'	23:2L:33:OMC:H5"	2.07	0.53
1:1G:1396:A:H4'	1:1G:1397:C:H5"	1.91	0.53
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.74	0.53
17:8A:99:SER:OG	17:8A:100:LYS:N	2.42	0.53
56:1L:3:G:N2	56:1L:4:U:O4	2.41	0.53
26:14:125:G:H1'	54:L5:13:ALA:HB1	1.89	0.53
26:14:138:G:N2	45:B5:44:GLU:OE2	2.35	0.53
26:14:481:G:OP2	46:C5:47:LYS:HB2	2.08	0.53
26:14:498:G:H21	46:C5:47:LYS:HZ1	1.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:847:U:H5'	61:14:3741:HOH:O	2.07	0.53
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.40	0.53
26:14:2777:G:OP2	26:14:2781:A:O2'	2.18	0.53
30:29:147:PRO:HB2	30:29:149:ARG:HG2	1.90	0.53
33:59:53:GLU:HA	33:59:65:HIS:CE1	2.43	0.53
38:45:137:TYR:C	38:45:137:TYR:CD1	2.82	0.53
41:75:88:ILE:O	41:75:88:ILE:HG13	2.08	0.53
1:13:51:A:OP2	1:13:52:G:H8	1.91	0.53
1:13:129(A):G:H4'	1:13:130:A:H5"	1.90	0.53
1:13:404:U:H5'	4:3E:122:ARG:HD2	1.90	0.53
1:13:736:C:H2'	1:13:737:A:H8	1.73	0.53
1:13:1003:G:N2	1:13:1037:C:N3	2.40	0.53
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.08	0.53
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.24	0.53
22:1K:74:C:N4	26:1H:2507:C:O2'	2.42	0.53
26:1H:184:C:H2'	26:1H:185:U:C6	2.44	0.53
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.91	0.53
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.73	0.53
26:1H:2128:C:H2'	26:1H:2129:C:C6	2.43	0.53
26:1H:2723:C:H5"	39:98:1:MET:HE2	1.89	0.53
27:16:41:U:C5	32:41:70:VAL:HG13	2.44	0.53
28:71:20:TYR:HB2	28:71:223:ARG:O	2.07	0.53
30:21:116:VAL:HG11	30:21:138:PRO:HB3	1.90	0.53
52:M8:15:ILE:HG22	52:M8:16:CYS:H	1.74	0.53
1:1G:15:G:H1'	5:42:19:MET:HE1	1.89	0.53
1:1G:1224:G:N1	1:1G:1322:C:O2'	2.35	0.53
2:12:77:ALA:HB2	2:12:211:ILE:HD13	1.90	0.53
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.90	0.53
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.42	0.53
26:14:1420:U:O2'	26:14:1421:G:OP1	2.25	0.53
26:14:1681:G:C2	61:14:3680:HOH:O	2.61	0.53
30:29:47:VAL:HG21	30:29:85:ASN:HA	1.89	0.53
30:29:91:VAL:HB	30:29:95:ILE:HD11	1.91	0.53
31:39:110:LEU:HD21	31:39:181:LEU:HD22	1.90	0.53
32:49:80:PHE:O	32:49:82:LEU:HB2	2.07	0.53
41:75:108:ARG:HA	41:75:111:ARG:HG2	1.91	0.53
42:85:98:LEU:HA	42:85:100:VAL:O	2.09	0.53
47:D5:157:LEU:CB	47:D5:161:VAL:HG21	2.37	0.53
49:F5:6:GLU:O	49:F5:91:LYS:HE3	2.08	0.53
1:13:223:U:H2'	1:13:224:C:C6	2.43	0.53
1:13:1015:A:H2'	1:13:1016:A:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1047:G:H5"	14:5I:4:LYS:HZ2	1.74	0.53
2:1E:150:SER:OG	2:1E:151:GLY:N	2.41	0.53
2:1E:187:LEU:HD23	2:1E:201:ILE:HG22	1.89	0.53
7:6E:70:LYS:HD3	7:6E:96:GLN:HB2	1.91	0.53
16:7I:49:LEU:HD22	16:7I:73:LEU:HD22	1.91	0.53
17:8I:14:LYS:N	17:8I:14:LYS:HD2	2.24	0.53
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.90	0.53
26:1H:631:A:H5"	26:1H:632:A:OP2	2.08	0.53
26:1H:1209:G:H21	26:1H:1210:A:H62	1.56	0.53
26:1H:2164:C:OP2	26:1H:2166:G:N2	2.41	0.53
26:1H:2335:A:C8	26:1H:2337:G:C5	2.97	0.53
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.08	0.53
30:21:52:LEU:O	30:21:75:VAL:HA	2.08	0.53
38:88:32:TYR:O	38:88:105:GLU:HA	2.09	0.53
48:I8:17:GLN:O	48:I8:19:LYS:HE3	2.08	0.53
1:1G:1133:G:N2	1:1G:1141:C:O2	2.42	0.53
1:1G:1202:G:H22	14:5A:46:GLU:CD	2.11	0.53
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.74	0.53
1:1G:1446:A:OP1	1:1G:1446:A:H4'	2.09	0.53
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.44	0.53
8:72:23:SER:HA	8:72:63:LEU:HD22	1.91	0.53
26:14:649:G:H2'	26:14:650:C:C6	2.43	0.53
26:14:2761:G:H1'	33:59:143:GLN:HE22	1.73	0.53
32:49:60:LEU:HD21	32:49:92:VAL:HG11	1.89	0.53
37:35:127:ALA:O	37:35:147:LEU:HB2	2.09	0.53
38:45:136:ALA:N	38:45:137:TYR:HA	2.24	0.53
41:75:60:THR:HG22	41:75:77:PRO:HA	1.91	0.53
47:D5:170:THR:O	47:D5:172:ALA:N	2.39	0.53
1:13:165:C:H2'	1:13:166:G:C8	2.43	0.53
1:13:454:C:H41	1:13:478:A:H2	1.55	0.53
19:AI:67:VAL:HG23	19:AI:68:GLY:H	1.73	0.53
23:2K:62:C:H2'	23:2K:63:C:C6	2.42	0.53
24:3K:15:G:N2	24:3K:59:A:N7	2.56	0.53
26:1H:107:C:H2'	26:1H:108:U:C6	2.44	0.53
26:1H:324:A:H2'	26:1H:325:G:H5'	1.91	0.53
26:1H:740:U:P	61:1H:3900:HOH:O	2.66	0.53
26:1H:2287:A:H2	26:1H:2346:A:C2	2.27	0.53
27:16:1:U:H2'	27:16:2:C:C6	2.43	0.53
30:21:50:GLY:HA2	30:21:77:ILE:O	2.08	0.53
32:41:28:VAL:O	32:41:31:VAL:HG13	2.09	0.53
32:41:101:ILE:HG13	52:M8:25:TYR:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:96:ILE:HA	46:G8:102:CYS:O	2.09	0.53
1:1G:969:A:H2'	1:1G:970:C:O4'	2.09	0.53
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.43	0.53
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.44	0.53
2:12:174:VAL:HG11	2:12:196:LEU:HD13	1.90	0.53
18:9A:36:ASN:O	18:9A:36:ASN:ND2	2.41	0.53
56:1L:9:A:N6	56:1L:23:A:N7	2.56	0.53
26:14:850:C:OP1	61:14:3658:HOH:O	2.19	0.53
26:14:2749:A:N1	26:14:2750:A:N6	2.57	0.53
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.23	0.53
32:49:107:LEU:HD11	32:49:178:PHE:HE1	1.73	0.53
32:49:114:ILE:HG22	32:49:117:PHE:HB2	1.89	0.53
35:15:111:PRO:HA	35:15:114:ARG:NH1	2.24	0.53
46:C5:8:LYS:HZ3	46:C5:95:LYS:HD3	1.74	0.53
1:13:134:A:H61	16:7I:25:ARG:NH1	2.07	0.53
1:13:784:C:H2'	1:13:785:G:O4'	2.08	0.53
1:13:955:U:H1'	1:13:1227:A:N6	2.22	0.53
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.22	0.53
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	1.91	0.53
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.09	0.53
26:1H:29:U:H2'	26:1H:30:G:C8	2.44	0.53
26:1H:107:C:H2'	26:1H:108:U:H6	1.73	0.53
37:78:95:VAL:HG21	37:78:123:LEU:HD13	1.89	0.53
50:K8:23:LYS:NZ	50:K8:27:GLU:OE2	2.41	0.53
1:1G:216:G:O2'	1:1G:217:C:O4'	2.26	0.53
1:1G:1011:G:N2	1:1G:1019:C:H1'	2.24	0.53
1:1G:1157:A:C2	1:1G:1180:A:C6	2.95	0.53
4:32:111:ALA:HB2	4:32:120:LEU:HD12	1.91	0.53
13:4A:29:ARG:HD3	13:4A:64:TRP:CD2	2.44	0.53
25:4L:20:A:H2'	25:4L:21:A:O4'	2.08	0.53
26:14:817:C:H2'	26:14:818:G:O4'	2.08	0.53
26:14:1188:U:O2'	26:14:1189:A:H5'	2.08	0.53
26:14:1223:C:OP2	43:95:88:ARG:NH2	2.42	0.53
26:14:2228:G:OP2	29:19:263:ARG:NH2	2.42	0.53
26:14:2352:A:C2	48:E5:33:ALA:HB1	2.43	0.53
27:1J:89:G:N3	27:1J:89(A):A:H2	2.06	0.53
31:39:107:LYS:HE2	31:39:205:ARG:HD2	1.91	0.53
41:75:53:ARG:HG3	41:75:53:ARG:O	2.09	0.53
50:G5:50:ILE:HD12	50:G5:51:ARG:H	1.74	0.53
1:13:1129:C:OP1	9:8E:16:ARG:NH1	2.42	0.53
20:BI:63:ILE:HG21	20:BI:81:LYS:HG3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:479:A:N3	26:1H:481:G:H5"	2.23	0.53
26:1H:2313:C:O2'	26:1H:2314:C:H5'	2.09	0.53
31:31:179:GLU:CD	31:31:179:GLU:H	2.12	0.53
33:51:164:TYR:O	33:51:167:GLU:HB3	2.09	0.53
35:58:12:ARG:HG2	35:58:13:TRP:H	1.72	0.53
37:78:49:ARG:HH11	37:78:49:ARG:CG	2.20	0.53
41:B8:23:ARG:HG3	41:B8:120:ARG:NH1	2.24	0.53
1:1G:444:C:H2'	1:1G:445:G:H8	1.74	0.53
3:22:123:GLN:O	3:22:128:PHE:HB2	2.08	0.53
17:8A:67:LYS:O	17:8A:69:LYS:N	2.41	0.53
26:14:847:U:OP2	61:14:3617:HOH:O	2.18	0.53
26:14:1204:A:C2	26:14:1241:A:N1	2.77	0.53
26:14:1386:C:H2'	26:14:1387:C:H6	1.73	0.53
32:49:174:GLU:HB2	32:49:180:PHE:HE2	1.74	0.53
48:E5:72:ARG:HB3	48:E5:75:LEU:HB2	1.91	0.53
50:G5:15:LYS:H	50:G5:67:LYS:NZ	2.07	0.53
1:13:429:U:H1'	1:13:430:A:H5"	1.91	0.53
1:13:749:C:H2'	1:13:750:G:H8	1.73	0.53
1:13:948:C:O2'	1:13:949:A:H5'	2.09	0.53
2:1E:55:PHE:HD1	2:1E:58:ILE:HD12	1.73	0.53
2:1E:126:GLU:HA	2:1E:129:GLU:HG2	1.91	0.53
19:AI:40:ILE:HG21	19:AI:66:MET:O	2.09	0.53
20:BI:90:GLN:O	20:BI:93:GLU:HB3	2.09	0.53
23:2K:50:G:H1	23:2K:66:C:H42	1.56	0.53
26:1H:2124:G:O6	26:1H:2173:A:N6	2.42	0.53
31:31:197:ASP:O	31:31:199:TRP:N	2.42	0.53
32:41:41:GLN:HG2	32:41:155:MET:HB3	1.91	0.53
35:58:30:ILE:HG23	35:58:52:VAL:HG11	1.91	0.53
35:58:96:GLU:HB2	35:58:122:VAL:HG12	1.90	0.53
40:A8:11:LYS:HD3	40:A8:91:PRO:HD3	1.90	0.53
51:L8:28:LEU:HA	51:L8:33:GLN:NE2	2.24	0.53
1:1G:853:G:H2'	1:1G:854:G:H8	1.73	0.53
1:1G:1326:C:H5"	21:1B:12:LYS:HZ1	1.73	0.53
3:22:138:VAL:HG23	3:22:151:VAL:HG23	1.91	0.53
9:82:21:PRO:HA	9:82:59:PHE:HA	1.89	0.53
19:AA:10:PHE:HB2	19:AA:11:VAL:CB	2.38	0.53
26:14:39:C:H2'	26:14:40:C:C6	2.44	0.53
26:14:963:U:H2'	26:14:964:C:C6	2.43	0.53
26:14:996:A:N6	26:14:1160:G:C6	2.76	0.53
26:14:1042:G:H2'	26:14:1043:C:C6	2.43	0.53
26:14:1163:G:H2'	26:14:1164:G:H8	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1505:C:H2'	26:14:1506:C:C6	2.45	0.53
26:14:2408:U:H2'	26:14:2409:G:H8	1.73	0.53
26:14:2810:A:N6	26:14:2891:G:O2'	2.41	0.53
30:29:117:MET:HB2	30:29:122:PHE:O	2.09	0.53
47:D5:39:VAL:HG21	47:D5:44:PHE:HB2	1.91	0.53
1:13:411:A:C5	1:13:413:G:H1'	2.44	0.52
2:1E:32:ILE:HD13	2:1E:40:HIS:HB3	1.91	0.52
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.09	0.52
22:1K:7:U:O2'	22:1K:8:U:H5'	2.08	0.52
23:2K:10:G:N2	23:2K:27:G:H1'	2.24	0.52
26:1H:247:G:H4'	26:1H:386:G:C5	2.44	0.52
26:1H:2287:A:C2	26:1H:2346:A:C2	2.97	0.52
31:31:126:VAL:O	31:31:196:LEU:HD22	2.09	0.52
37:78:97:PRO:HA	37:78:100:LEU:HB2	1.91	0.52
39:98:12:ARG:HG2	39:98:16:HIS:ND1	2.24	0.52
53:N8:40:LYS:HG2	53:N8:46:CYS:HA	1.91	0.52
1:1G:448:A:P	1:1G:485:G:H22	2.30	0.52
2:12:73:THR:HG21	2:12:97:TRP:H	1.73	0.52
3:22:111:LEU:HD11	3:22:144:SER:O	2.09	0.52
6:52:83:ASP:OD1	6:52:83:ASP:N	2.41	0.52
26:14:49:A:H5"	26:14:51:G:O4'	2.08	0.52
26:14:71:A:C2	45:B5:31:HIS:NE2	2.71	0.52
26:14:1420:U:HO2'	26:14:1421:G:P	2.31	0.52
26:14:2152:G:N3	26:14:2152:G:H2'	2.24	0.52
26:14:2720:U:N3	26:14:2873:A:H2	2.06	0.52
30:29:27:LEU:HA	30:29:181:LEU:HD12	1.91	0.52
35:15:47:ALA:HB2	35:15:112:LEU:HD21	1.91	0.52
42:85:90:VAL:HG22	43:95:38:LEU:HG	1.92	0.52
47:D5:158:PRO:O	47:D5:161:VAL:HG22	2.09	0.52
1:13:345:C:H4'	1:13:346:G:C5	2.45	0.52
1:13:680:C:H2'	1:13:681:C:H6	1.75	0.52
1:13:1149:C:H2'	1:13:1150:U:C6	2.42	0.52
5:4E:74:GLY:O	5:4E:115:VAL:HA	2.09	0.52
12:3I:11:VAL:HG13	17:8I:29:HIS:CD2	2.44	0.52
12:3I:109:GLY:HA3	12:3I:121:GLY:O	2.09	0.52
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.90	0.52
17:8I:100:LYS:HG2	17:8I:101:ARG:HG3	1.91	0.52
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.57	0.52
26:1H:359:A:H2'	26:1H:360:G:O4'	2.08	0.52
26:1H:1820:U:C2	29:11:202:LYS:HD2	2.44	0.52
26:1H:2250:G:C5	38:88:83:MET:HB3	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.09	0.52
27:16:76:G:N7	61:16:302:HOH:O	2.34	0.52
28:71:189:ILE:O	28:71:193:ILE:HD13	2.09	0.52
29:11:76:PRO:HB2	29:11:116:GLN:HE21	1.74	0.52
41:B8:16:ARG:NH2	41:B8:83:ILE:O	2.42	0.52
52:M8:4:GLY:O	52:M8:6:HIS:HB2	2.09	0.52
1:1G:255:G:H2'	1:1G:256:U:C6	2.44	0.52
1:1G:706:A:H4'	11:2A:29:ILE:HD11	1.91	0.52
1:1G:801:U:H2'	1:1G:802:A:C8	2.44	0.52
1:1G:1104:G:O2'	2:12:111:ARG:NH2	2.42	0.52
3:22:18:TRP:HE1	14:5A:55:GLY:N	2.07	0.52
3:22:113:ALA:HA	3:22:202:ILE:HD11	1.90	0.52
4:32:31:CYS:H	4:32:35:ARG:NH1	2.06	0.52
10:1A:55:LYS:HE3	10:1A:57:LYS:N	2.24	0.52
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.49	0.52
26:14:1505:C:H2'	26:14:1506:C:H6	1.74	0.52
26:14:1783:A:H5'	26:14:2608:G:H4'	1.91	0.52
26:14:1999:C:H5"	26:14:2723:C:O2'	2.09	0.52
26:14:2315:G:H2'	26:14:2316:C:C6	2.44	0.52
33:59:35:VAL:HG11	33:59:72:ILE:HG12	1.91	0.52
40:65:72:ALA:O	40:65:76:LYS:HG3	2.09	0.52
1:13:417:C:H2'	1:13:418:C:C6	2.44	0.52
1:13:1007:C:H42	1:13:1022:G:H1	1.56	0.52
1:13:1248:A:N3	9:8E:70:LYS:HE2	2.24	0.52
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.21	0.52
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.42	0.52
24:3K:57:G:N2	24:3K:60:U:O4	2.40	0.52
26:1H:507:A:H5"	26:1H:508:G:H3'	1.90	0.52
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.09	0.52
26:1H:1999:C:H5"	26:1H:2723:C:O2'	2.09	0.52
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.44	0.52
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.09	0.52
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.43	0.52
30:21:105:THR:HG22	30:21:106:GLY:H	1.73	0.52
31:31:127:GLU:HG2	31:31:196:LEU:HD23	1.91	0.52
37:78:79:ARG:HD2	37:78:110:TYR:HE1	1.74	0.52
50:K8:2:LYS:HE2	50:K8:5:GLU:OE2	2.09	0.52
50:K8:29:LYS:HD3	50:K8:57:ILE:HD13	1.91	0.52
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.44	0.52
1:1G:186(A):C:O2'	20:BA:89:ARG:NH2	2.36	0.52
1:1G:353:A:N7	61:1G:1875:HOH:O	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:603:U:H2'	1:1G:604:G:C8	2.44	0.52
1:1G:722:A:C8	1:1G:724:G:H1'	2.44	0.52
1:1G:1127:G:N2	1:1G:1145:C:N3	2.54	0.52
1:1G:1305:G:N2	1:1G:1331:G:H2'	2.19	0.52
1:1G:1422:G:OP1	36:25:48:PRO:HA	2.09	0.52
56:1L:22:G:OP1	56:1L:48:C:N4	2.43	0.52
56:1L:40:C:H2'	56:1L:41:A:C8	2.44	0.52
26:14:278:A:OP2	26:14:278:A:H2'	2.10	0.52
26:14:861:A:C2	26:14:917:A:C4	2.98	0.52
26:14:1337:G:H2'	26:14:1338:G:H8	1.73	0.52
26:14:1812:A:H2'	26:14:1813:G:H8	1.74	0.52
26:14:2283:C:C2	26:14:2389:G:C2	2.97	0.52
26:14:2614:A:OP1	61:14:3659:HOH:O	2.19	0.52
36:25:92:GLU:OE1	36:25:113:LYS:NZ	2.37	0.52
1:13:365:U:H5"	1:13:366:C:OP1	2.10	0.52
12:3I:34:ARG:HG3	12:3I:35:GLY:N	2.24	0.52
25:4K:14:A:H3'	25:4K:14:A:OP2	2.09	0.52
26:1H:1496:A:C8	26:1H:1577:C:O2'	2.50	0.52
26:1H:1766:U:H2'	26:1H:1767:C:H6	1.73	0.52
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.72	0.52
28:71:218:MET:N	28:71:218:MET:SD	2.82	0.52
30:21:3:GLY:HA3	30:21:81:ILE:HG21	1.92	0.52
33:51:27:LYS:HA	33:51:32:GLU:HA	1.90	0.52
42:C8:88:ILE:C	42:C8:90:VAL:H	2.12	0.52
1:1G:804:U:H5"	1:1G:805:C:OP2	2.09	0.52
1:1G:972:C:O2'	10:1A:55:LYS:HG3	2.09	0.52
1:1G:973:G:H4'	10:1A:55:LYS:HD3	1.92	0.52
3:22:32:LEU:HB3	3:22:59:ARG:HH12	1.75	0.52
4:32:163:GLU:HA	4:32:166:LYS:HE3	1.90	0.52
7:62:45:ASP:HB3	7:62:117:ALA:HB1	1.92	0.52
7:62:51:GLN:HG2	7:62:58:PRO:HD3	1.92	0.52
7:62:97:GLN:HG3	7:62:98:SER:N	2.25	0.52
26:14:329:G:O6	46:C5:19:LYS:HB2	2.10	0.52
26:14:1336:A:O2'	26:14:1337:G:H5'	2.09	0.52
26:14:1525:G:H2'	26:14:1526:G:H8	1.75	0.52
26:14:2081:C:O2'	26:14:2082:A:H5'	2.08	0.52
26:14:2578:G:N7	30:29:140:SER:HB2	2.25	0.52
27:1J:0:A:H2'	27:1J:1:U:C6	2.44	0.52
32:49:42:GLY:O	32:49:43:LEU:HD13	2.09	0.52
37:35:59:LEU:HD21	55:M5:10:ALA:HA	1.90	0.52
37:35:107:LYS:O	37:35:109:GLY:N	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:3:ARG:HD2	40:65:4:LEU:N	2.25	0.52
1:13:160:A:C6	1:13:344:A:C8	2.97	0.52
1:13:1084:G:C5	1:13:1085:U:C4	2.98	0.52
7:6E:65:ALA:HB2	7:6E:128:ALA:HB2	1.90	0.52
23:2K:28:U:H3	23:2K:44:A:H61	1.57	0.52
24:3K:5:C:O2	24:3K:68:G:N1	2.43	0.52
26:1H:833:U:O2	37:78:55:ARG:NH2	2.38	0.52
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.44	0.52
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.39	0.52
29:11:228:PRO:HD3	29:11:235:GLY:CA	2.40	0.52
42:C8:88:ILE:O	42:C8:90:VAL:N	2.43	0.52
47:H8:102:LEU:HD21	47:H8:124:ILE:HG22	1.90	0.52
1:1G:512:U:H2'	1:1G:513:C:H6	1.70	0.52
1:1G:530:G:H2'	1:1G:530:G:N3	2.25	0.52
1:1G:634:C:H2'	1:1G:635:G:H8	1.75	0.52
4:32:11:LEU:O	4:32:15:GLU:HB2	2.10	0.52
11:2A:34:ASP:HB3	11:2A:40:ILE:HD11	1.90	0.52
18:9A:22:VAL:C	18:9A:24:ALA:H	2.13	0.52
20:BA:11:SER:HA	20:BA:13:LEU:HD23	1.91	0.52
23:2L:32:G:H5"	23:2L:33:OMC:OP2	2.08	0.52
26:14:827:U:O2	26:14:2246:G:H4'	2.10	0.52
26:14:1503:U:H2'	26:14:1504:C:H6	1.75	0.52
27:1J:3:C:H2'	27:1J:4:C:C6	2.45	0.52
27:1J:53:A:H2'	27:1J:54:G:O4'	2.10	0.52
29:19:76:PRO:HA	29:19:118:VAL:HG23	1.91	0.52
31:39:155:LEU:HB2	31:39:189:THR:HG21	1.92	0.52
32:49:47:LYS:HG2	32:49:48:GLU:N	2.24	0.52
33:59:10:PRO:HD2	33:59:50:VAL:HG13	1.92	0.52
1:13:1352:C:H2'	1:13:1353:G:C8	2.45	0.52
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	1.92	0.52
26:1H:910:A:C5	38:88:13:GLN:HG3	2.45	0.52
26:1H:1805:U:O2	29:11:50:THR:HB	2.09	0.52
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.08	0.52
26:1H:2782:G:OP2	61:1H:3864:HOH:O	2.18	0.52
1:1G:629:G:H2'	1:1G:630:G:O4'	2.09	0.52
1:1G:993:G:H2'	1:1G:995:C:H41	1.74	0.52
1:1G:1028:C:N4	1:1G:1033:G:H1	2.07	0.52
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.45	0.52
1:1G:1359:C:H4'	1:1G:1360:A:OP2	2.08	0.52
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.91	0.52
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:8:U:H5'	24:3L:49:G:H5'	1.91	0.52
26:14:1309:G:OP1	54:L5:9:ARG:HG3	2.10	0.52
26:14:1839:G:C8	26:14:1927:A:H1'	2.44	0.52
26:14:2685:G:P	41:75:51:ARG:HH22	2.32	0.52
27:1J:1:U:H2'	27:1J:2:C:C6	2.44	0.52
27:1J:51:G:C6	27:1J:52:A:H2	2.27	0.52
29:19:30:GLU:HB2	29:19:35:LYS:NZ	2.24	0.52
1:13:116:A:H2'	1:13:117:G:O4'	2.10	0.52
1:13:144:G:H2'	1:13:145:G:O4'	2.09	0.52
9:8E:65:VAL:HG21	9:8E:73:GLN:HB3	1.92	0.52
22:1K:52:G:H2'	22:1K:53:G:H8	1.75	0.52
24:3K:72:C:H2'	24:3K:73:A:H5"	1.91	0.52
24:3K:76:A:H8	26:1H:2394:C:N4	2.02	0.52
26:1H:415:A:H2'	26:1H:416:C:O4'	2.09	0.52
26:1H:780:G:N2	26:1H:783:A:H62	2.01	0.52
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.73	0.52
26:1H:1820:U:N3	29:11:202:LYS:HD2	2.24	0.52
26:1H:2607:G:O3'	61:1H:3868:HOH:O	2.19	0.52
41:B8:120:ARG:HA	41:B8:123:GLN:HG2	1.92	0.52
1:1G:358:U:H2'	1:1G:359:U:C6	2.45	0.52
1:1G:485:G:H1'	1:1G:486:U:H5	1.75	0.52
3:22:63:ASN:HA	3:22:98:ASN:HB2	1.92	0.52
4:32:13:ARG:C	4:32:15:GLU:H	2.13	0.52
13:4A:84:ILE:HG23	19:AA:74:PHE:CZ	2.44	0.52
19:AA:66:MET:HB3	19:AA:69:HIS:CG	2.45	0.52
23:2L:24:C:C2	23:2L:25:U:C5	2.98	0.52
26:14:1033:U:H3'	26:14:1033:U:H6	1.75	0.52
26:14:2261:C:O2'	26:14:2262:U:H5'	2.10	0.52
29:19:137:PRO:HG2	29:19:140:THR:OG1	2.10	0.52
31:39:3:GLU:OE1	31:39:3:GLU:N	2.43	0.52
33:59:6:ARG:HG2	33:59:7:LEU:HG	1.90	0.52
46:C5:47:LYS:HA	46:C5:60:PHE:CD1	2.44	0.52
47:D5:105:VAL:HG13	47:D5:106:GLY:H	1.75	0.52
54:L5:35:ARG:HG3	54:L5:42:LEU:HD11	1.89	0.52
1:13:10:A:H2'	1:13:11:G:H8	1.74	0.52
1:13:765:G:H5"	1:13:766:A:OP1	2.09	0.52
1:13:1287:A:H2'	1:13:1288:A:C8	2.44	0.52
1:13:1301:U:O2'	1:13:1302:U:H3'	2.10	0.52
7:6E:28:ASN:HA	7:6E:31:MET:HE3	1.92	0.52
19:AI:40:ILE:HG23	19:AI:41:VAL:N	2.25	0.52
26:1H:1478:G:O6	26:1H:1510:A:N6	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1899:G:N2	26:1H:1902:C:H5	2.07	0.52
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.09	0.52
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.43	0.52
29:11:37:LEU:HD12	29:11:60:ARG:HB2	1.92	0.52
44:E8:28:SER:OG	44:E8:31:GLU:HG2	2.10	0.52
47:H8:128:VAL:HG12	47:H8:161:VAL:HB	1.91	0.52
1:1G:1171:G:H2'	1:1G:1172:C:H6	1.73	0.52
1:1G:1292:U:H2'	1:1G:1293:G:H8	1.75	0.52
1:1G:1376:U:H2'	1:1G:1377:A:C8	2.45	0.52
4:32:127:THR:HG21	4:32:149:ALA:HB2	1.90	0.52
8:72:64:LYS:HG2	8:72:79:VAL:HG21	1.90	0.52
26:14:729:G:OP2	29:19:13:ARG:NH1	2.41	0.52
26:14:1607:C:H4'	26:14:1608:A:O5'	2.09	0.52
26:14:2142:C:H2'	26:14:2143:C:C6	2.45	0.52
31:39:89:VAL:HG12	31:39:90:PHE:H	1.75	0.52
34:69:102:SER:O	34:69:106:GLY:N	2.42	0.52
53:J5:38:ALA:HB3	53:J5:48:GLU:HG3	1.91	0.52
1:13:271:C:H2'	1:13:272:C:H6	1.74	0.52
1:13:738:C:H2'	1:13:739:C:C6	2.44	0.52
3:2E:167:TRP:CD1	3:2E:168:ALA:N	2.78	0.52
10:1I:16:LEU:HD11	10:1I:70:ARG:HB2	1.91	0.52
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.43	0.52
17:8I:88:TYR:HD1	17:8I:89:LEU:HD23	1.74	0.52
26:1H:111:A:H4'	50:K8:69:ARG:NH2	2.25	0.52
26:1H:593:G:H1'	55:Q8:4:MET:HE1	1.92	0.52
26:1H:1348:G:H2'	26:1H:1349:A:H5"	1.91	0.52
26:1H:1381:G:N7	61:1H:3943:HOH:O	2.34	0.52
26:1H:2100:G:O6	26:1H:2189:U:N3	2.42	0.52
26:1H:2186:G:H2'	26:1H:2187:G:H8	1.74	0.52
29:11:65:ILE:HD11	29:11:67:PHE:CE1	2.45	0.52
32:41:122:PRO:HD3	32:41:181:ARG:HB2	1.92	0.52
32:41:124:SER:HB2	32:41:131:TYR:CE2	2.45	0.52
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.91	0.52
35:58:57:ALA:O	35:58:59:LYS:N	2.43	0.52
41:B8:64:ARG:HB2	41:B8:73:GLU:HG2	1.91	0.52
50:K8:46:GLN:OE1	50:K8:46:GLN:N	2.42	0.52
55:Q8:30:ARG:NH1	61:Q8:202:HOH:O	2.42	0.52
1:1G:713:G:H2'	1:1G:714:G:C8	2.45	0.52
1:1G:821:G:H2'	1:1G:822:C:C6	2.45	0.52
3:22:11:ARG:HD3	3:22:15:THR:HG21	1.91	0.52
5:42:122:GLU:O	5:42:126:ARG:NH1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.91	0.52
56:1L:64:G:C2	56:1L:65:C:C2	2.98	0.52
26:14:627:A:H62	37:35:84:ASN:ND2	2.08	0.52
26:14:2324:C:H5"	26:14:2325:G:H5'	1.91	0.52
26:14:2335:A:C8	26:14:2337:G:N7	2.78	0.52
26:14:2394:C:H1'	61:14:4343:HOH:O	2.10	0.52
26:14:2469:A:O2'	38:45:56:ARG:HG2	2.10	0.52
26:14:2734:A:H2'	26:14:2735:G:O4'	2.10	0.52
34:69:109:ILE:HB	34:69:130:TYR:CZ	2.45	0.52
38:45:19:GLY:O	38:45:99:PRO:HD2	2.10	0.52
39:55:56:LYS:NZ	39:55:90:ARG:O	2.42	0.52
1:13:9:G:H5"	5:4E:126:ARG:HE	1.75	0.52
1:13:237:C:H5"	17:8I:25:ARG:CZ	2.40	0.52
1:13:446:G:H1	1:13:488:C:H42	1.56	0.52
1:13:688:G:H2'	1:13:689:C:C6	2.44	0.52
1:13:742:G:H5'	15:6I:58:MET:HE3	1.92	0.52
1:13:1086:U:H3	1:13:1099:G:H22	1.58	0.52
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.10	0.52
2:1E:215:LEU:O	2:1E:219:VAL:HG23	2.09	0.52
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.45	0.52
26:1H:309:G:N3	26:1H:329:G:O2'	2.42	0.52
26:1H:1176:G:H5'	26:1H:1177:A:OP2	2.10	0.52
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.44	0.52
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.10	0.52
26:1H:2784:C:H1'	30:21:37:ARG:NH1	2.25	0.52
27:16:42:C:H4'	32:41:67:LYS:HD2	1.92	0.52
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.91	0.52
1:1G:80:G:O2'	1:1G:81:G:OP1	2.27	0.52
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.25	0.52
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.74	0.52
20:BA:67:ALA:O	20:BA:73:HIS:ND1	2.43	0.52
56:1L:53:G:C2'	56:1L:54:5MU:H5"	2.39	0.52
23:2L:16:C:O2'	23:2L:62:C:OP1	2.24	0.52
26:14:395:U:H2'	26:14:396:G:N7	2.25	0.52
26:14:521:G:N7	61:14:3737:HOH:O	2.33	0.52
26:14:829:A:N7	26:14:2248:C:H5'	2.24	0.52
29:19:93:ALA:HB3	29:19:105:ILE:HG22	1.92	0.52
35:15:61:ARG:HA	35:15:61:ARG:NH1	2.25	0.52
47:D5:59:LEU:HG	47:D5:69:THR:OG1	2.10	0.52
48:E5:56:ASP:OD2	48:E5:58:THR:OG1	2.28	0.52
1:13:112:G:OP1	16:7I:27:LYS:HD2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:475:G:H2'	1:13:476:G:O4'	2.10	0.51
1:13:1210:C:C2'	1:13:1211:U:H5'	2.40	0.51
2:1E:21:ARG:O	2:1E:21:ARG:NE	2.41	0.51
26:1H:188:G:H1	26:1H:208:C:H42	1.58	0.51
26:1H:990:A:H1'	26:1H:1156:A:N3	2.25	0.51
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.46	0.51
26:1H:1729:A:O2'	26:1H:1730:U:O5'	2.18	0.51
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.33	0.51
31:31:136:THR:HG22	31:31:166:ALA:O	2.10	0.51
32:41:166:ASP:O	32:41:170:ARG:N	2.34	0.51
34:61:21:VAL:HG21	34:61:25:TYR:HD2	1.75	0.51
36:68:75:SER:HB2	41:B8:74:ARG:HH12	1.73	0.51
41:B8:12:SER:HA	41:B8:14:TYR:H	1.74	0.51
1:1G:552:U:H4'	12:3A:86:ARG:HG2	1.92	0.51
1:1G:940:C:H2'	1:1G:941:G:C8	2.44	0.51
1:1G:974:A:P	14:5A:41:ARG:HH12	2.33	0.51
1:1G:1352:C:O3'	21:1B:10:ARG:NH2	2.41	0.51
3:22:21:ARG:O	3:22:58:GLU:HA	2.10	0.51
25:4L:21:A:O5'	25:4L:21:A:H8	1.92	0.51
26:14:1180:C:H2'	26:14:1181:C:C6	2.45	0.51
31:39:129:PHE:CD2	31:39:163:VAL:HG21	2.46	0.51
36:25:68:GLU:HB3	36:25:78:ARG:NH1	2.25	0.51
45:B5:51:VAL:HG13	45:B5:81:VAL:HG23	1.92	0.51
54:L5:22:MET:O	54:L5:28:ARG:NH1	2.41	0.51
1:13:922:G:C6	1:13:923:A:C6	2.97	0.51
1:13:1064:G:H4'	1:13:1065:U:OP1	2.10	0.51
2:1E:189:ASP:OD2	2:1E:191:ASP:HB2	2.10	0.51
6:5E:26:ILE:O	6:5E:30:LEU:HD12	2.10	0.51
7:6E:113:GLU:HB2	7:6E:118:VAL:HG13	1.92	0.51
21:1F:3:LYS:HB3	21:1F:14:TRP:CD1	2.44	0.51
26:1H:26:G:C6	26:1H:27:G:N1	2.78	0.51
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.11	0.51
26:1H:459:U:H2'	26:1H:460:A:H8	1.75	0.51
26:1H:761:A:N7	61:1H:4032:HOH:O	2.44	0.51
26:1H:910:A:N1	26:1H:2277:G:H1'	2.25	0.51
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.75	0.51
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.45	0.51
29:11:79:VAL:HG12	29:11:113:VAL:HB	1.92	0.51
37:78:47:ASP:OD1	37:78:49:ARG:NH1	2.43	0.51
37:78:78:PRO:HB3	37:78:111:ARG:NH2	2.26	0.51
41:B8:26:ASP:CB	41:B8:91:ARG:HA	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:87:PRO:C	49:J8:89:GLU:H	2.13	0.51
52:M8:42:PHE:O	52:M8:42:PHE:CG	2.63	0.51
1:1G:4:U:O4	8:72:105:ARG:HD3	2.10	0.51
1:1G:148:G:H1	1:1G:174:C:H42	1.58	0.51
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.44	0.51
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.45	0.51
7:62:146:GLU:HG3	11:2A:50:TYR:CZ	2.45	0.51
23:2L:31:G:H5"	23:2L:32:G:OP2	2.09	0.51
26:14:108:U:H2'	26:14:109:G:H8	1.75	0.51
26:14:362:U:H5'	26:14:363:G:OP2	2.08	0.51
26:14:686:G:H1	54:L5:16:HIS:CD2	2.28	0.51
26:14:1047:G:H2'	26:14:1047:G:N3	2.25	0.51
27:1J:93:C:H2'	27:1J:94:C:H6	1.75	0.51
30:29:76:ARG:HG3	30:29:195:LEU:HD22	1.92	0.51
38:45:36:ALA:HB2	38:45:103:MET:SD	2.50	0.51
39:55:44:LEU:HD22	39:55:48:VAL:HG23	1.93	0.51
50:G5:15:LYS:H	50:G5:67:LYS:HZ1	1.57	0.51
1:13:4:U:C5	8:7E:102:ARG:HG3	2.45	0.51
1:13:313:A:H2'	1:13:314:C:C6	2.45	0.51
1:13:452:A:O2'	16:7I:72:ARG:HG3	2.11	0.51
1:13:1044:A:C5	1:13:1045:C:H1'	2.46	0.51
4:3E:85:LYS:HG3	4:3E:88:VAL:O	2.10	0.51
21:1F:9:ARG:HG3	21:1F:10:ARG:N	2.25	0.51
26:1H:860:U:C5	26:1H:917:A:H2	2.28	0.51
26:1H:1324:G:C4	26:1H:1328:G:O6	2.63	0.51
26:1H:2145:C:H3'	26:1H:2146:C:H5'	1.91	0.51
26:1H:2519:U:OP2	61:1H:3867:HOH:O	2.19	0.51
28:71:21:THR:HA	28:71:225:ASN:HB2	1.91	0.51
29:11:108:PRO:HG3	29:11:143:HIS:CE1	2.46	0.51
29:11:232:PRO:HA	61:11:308:HOH:O	2.11	0.51
31:31:39:TRP:HB2	31:31:101:LEU:HD12	1.91	0.51
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.79	0.51
1:1G:408:A:H2'	1:1G:409:G:O4'	2.10	0.51
1:1G:1139:G:H22	1:1G:1143:G:H1	1.59	0.51
5:42:93:PRO:HG2	8:72:105:ARG:NE	2.25	0.51
26:14:463:G:N2	26:14:466:A:OP2	2.34	0.51
26:14:2328:A:H2'	26:14:2329:G:O4'	2.10	0.51
29:19:24:ILE:HA	29:19:82:ILE:HG22	1.90	0.51
36:25:102:VAL:HB	36:25:106:LEU:HD12	1.91	0.51
37:35:50:ARG:HD3	55:M5:7:HIS:CD2	2.45	0.51
50:G5:2:LYS:O	50:G5:5:GLU:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:240:C:H2'	1:13:241:C:C6	2.46	0.51
1:13:843:U:H3'	1:13:848:C:C6	2.46	0.51
1:13:1364:U:O2'	1:13:1365:G:H5'	2.09	0.51
12:3I:45:PRO:HA	12:3I:93:LEU:HD23	1.92	0.51
26:1H:302:C:H2'	26:1H:303:U:C6	2.45	0.51
26:1H:1541:U:H2'	26:1H:1542:G:O4'	2.10	0.51
26:1H:1614:A:P	26:1H:1614:A:H8	2.33	0.51
26:1H:2175:C:O2'	28:71:219:GLY:O	2.26	0.51
26:1H:2895:U:H2'	26:1H:2896:C:C6	2.45	0.51
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.26	0.51
30:21:57:LYS:HG3	30:21:59:VAL:HG12	1.93	0.51
32:41:111:LEU:HD21	32:41:120:LEU:HD21	1.93	0.51
33:51:170:ARG:HA	33:51:171:LEU:HB2	1.93	0.51
36:68:22:ILE:HD11	36:68:42:SER:HB2	1.92	0.51
38:88:14:ARG:HG2	38:88:41:TRP:HH2	1.76	0.51
1:1G:620:C:H2'	1:1G:621:A:O4'	2.11	0.51
4:32:128:VAL:O	4:32:131:ARG:HG2	2.11	0.51
1:13:973:G:H3'	1:13:974:A:H5"	1.93	0.51
1:13:1010:G:C2	1:13:1020:U:H1'	2.46	0.51
2:1E:93:VAL:HG11	2:1E:97:TRP:HD1	1.74	0.51
2:1E:162:ILE:O	2:1E:185:ILE:HG23	2.10	0.51
3:2E:175:LEU:HD21	3:2E:201:TYR:CE2	2.46	0.51
13:4I:44:ARG:HB2	13:4I:46:LYS:HB3	1.93	0.51
26:1H:643:A:N1	26:1H:2369:A:O2'	2.40	0.51
26:1H:1265:A:OP1	61:1H:3866:HOH:O	2.19	0.51
26:1H:1545(A):A:H2'	26:1H:1546:C:O4'	2.09	0.51
26:1H:1668:A:OP1	36:68:5:GLN:NE2	2.42	0.51
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.46	0.51
26:1H:2294:C:P	40:A8:89:ARG:HH22	2.33	0.51
26:1H:2393:A:H2'	26:1H:2394:C:H6	1.76	0.51
26:1H:2401:U:H3'	26:1H:2402:C:H6	1.74	0.51
31:31:135:LYS:HB3	31:31:138:GLU:HG3	1.92	0.51
33:51:10:PRO:O	33:51:11:VAL:HG13	2.11	0.51
35:58:73:THR:HG22	35:58:84:LYS:HG3	1.92	0.51
43:D8:25:LEU:HD21	43:D8:94:LEU:HD11	1.93	0.51
46:G8:89:PHE:HD1	46:G8:90:LEU:H	1.58	0.51
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.08	0.51
1:1G:352:C:O2'	1:1G:354:G:OP1	2.23	0.51
1:1G:458:C:H2'	1:1G:464:G:H8	1.75	0.51
1:1G:818:G:O2'	1:1G:819:A:H5'	2.09	0.51
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:24:VAL:O	12:3A:26:ALA:N	2.44	0.51
17:8A:66:SER:OG	17:8A:67:LYS:O	2.29	0.51
26:14:143:C:H5'	45:B5:35:THR:HG21	1.91	0.51
26:14:1181:C:H2'	26:14:1182:A:H8	1.76	0.51
26:14:1787:A:C2	61:14:3663:HOH:O	2.61	0.51
29:19:102:LYS:C	29:19:103:ARG:HG2	2.30	0.51
32:49:136:ARG:HH11	32:49:137:GLU:HG3	1.75	0.51
37:35:27:HIS:HB3	37:35:32:THR:CG2	2.41	0.51
41:75:2:ASN:OD1	41:75:4:GLY:HA3	2.10	0.51
43:95:21:ARG:HG2	43:95:91:TYR:CD2	2.46	0.51
45:B5:52:VAL:N	45:B5:82:GLN:O	2.41	0.51
47:D5:93:ASP:N	47:D5:130:PRO:HG2	2.26	0.51
1:13:57:G:H2'	1:13:58:C:C6	2.45	0.51
1:13:342:C:H2'	1:13:343:U:H5'	1.93	0.51
1:13:1286:A:C8	1:13:1287:A:H4'	2.45	0.51
1:13:1349:A:OP2	9:8E:118:LYS:NZ	2.43	0.51
2:1E:69:LEU:HD23	2:1E:159:PRO:HG3	1.91	0.51
2:1E:125:PRO:HA	2:1E:127:ILE:HG12	1.92	0.51
6:5E:3:ARG:HB3	6:5E:93:SER:HB2	1.93	0.51
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.45	0.51
16:7I:49:LEU:HD12	16:7I:50:LYS:N	2.25	0.51
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.11	0.51
26:1H:302:C:O2'	26:1H:303:U:H5'	2.11	0.51
26:1H:2895:U:H2'	26:1H:2896:C:H6	1.76	0.51
30:21:13:ARG:NH2	41:B8:77:PRO:HB3	2.26	0.51
41:B8:74:ARG:HD3	41:B8:76:PHE:CZ	2.46	0.51
1:1G:261:U:OP2	20:BA:80:ARG:NH2	2.34	0.51
1:1G:1081:G:N7	5:42:47:LYS:NZ	2.55	0.51
1:1G:1320:C:H2'	1:1G:1321:C:C6	2.45	0.51
13:4A:81:LEU:HD11	13:4A:86:CYS:SG	2.51	0.51
17:8A:45:HIS:NE2	17:8A:47:PRO:HB3	2.25	0.51
26:14:108:U:H2'	26:14:109:G:C8	2.45	0.51
26:14:1156:A:O5'	26:14:1156:A:H8	1.93	0.51
26:14:1176:G:O2'	26:14:1178:C:N4	2.44	0.51
26:14:1218:C:H42	26:14:1231:G:H1	1.58	0.51
26:14:1262:A:N3	53:J5:10:LYS:HE3	2.25	0.51
27:1J:13:A:H5"	27:1J:15:A:N6	2.26	0.51
38:45:32:TYR:HD2	38:45:133:ARG:HG3	1.75	0.51
39:55:34:ILE:HG22	39:55:114:VAL:HB	1.93	0.51
1:13:838:G:O6	1:13:848:C:N4	2.42	0.51
1:13:917:G:H2'	1:13:918:A:H8	1.72	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:166:ASP:HB3	2:1E:169:LYS:HB2	1.92	0.51
10:1I:22:LYS:NZ	10:1I:90:LEU:HD13	2.26	0.51
10:1I:77:PRO:HB2	10:1I:79:ARG:HH12	1.76	0.51
23:2K:24:C:H2'	23:2K:25:U:H6	1.75	0.51
26:1H:140:A:C8	26:1H:1408:C:O2'	2.63	0.51
26:1H:312:G:H5'	26:1H:331:A:O2'	2.10	0.51
26:1H:764:A:H2	29:11:219:PRO:HG3	1.75	0.51
29:11:148:GLU:HB2	29:11:151:LYS:HD2	1.93	0.51
33:51:169:VAL:HG13	33:51:170:ARG:HG3	1.93	0.51
48:I8:53:MET:HG3	48:I8:59:LEU:CD2	2.40	0.51
51:L8:28:LEU:HD23	51:L8:33:GLN:HG2	1.93	0.51
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.38	0.51
1:1G:424:G:H2'	1:1G:425:G:C8	2.44	0.51
1:1G:975:A:H5'	1:1G:1363:A:N6	2.25	0.51
1:1G:1378:C:H3'	1:1G:1379:G:H5"	1.90	0.51
1:1G:1510:U:H2'	1:1G:1511:G:C8	2.46	0.51
3:22:126:ARG:HD2	3:22:128:PHE:CD2	2.45	0.51
23:2L:62:C:H2'	23:2L:63:C:C6	2.44	0.51
26:14:1014:U:H2'	26:14:1015:G:C8	2.45	0.51
26:14:1759:A:H4'	26:14:2715:C:O4'	2.11	0.51
26:14:2080:G:OP1	49:F5:35:THR:OG1	2.28	0.51
26:14:2228:G:OP1	29:19:261:LYS:HE3	2.11	0.51
26:14:2535:G:H2'	26:14:2536:G:C8	2.46	0.51
27:1J:103:U:HO2'	47:D5:29:TYR:HH	1.58	0.51
29:19:35:LYS:HA	29:19:64:ILE:HG22	1.93	0.51
30:29:61:ARG:HA	30:29:63:LEU:HD22	1.92	0.51
38:45:20:ALA:HA	38:45:99:PRO:HG2	1.93	0.51
38:45:78:PRO:O	38:45:81:VAL:HG13	2.10	0.51
46:C5:87:LYS:H	46:C5:94:LYS:HG2	1.75	0.51
47:D5:157:LEU:CA	47:D5:161:VAL:HG11	2.37	0.51
1:13:192:U:H1'	20:BI:103:GLY:HA2	1.93	0.51
1:13:564:C:P	12:3I:15:ARG:HH21	2.34	0.51
1:13:964:A:N6	61:13:1878:HOH:O	2.43	0.51
1:13:1316:G:N2	1:13:1318:A:H3'	2.25	0.51
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	1.93	0.51
22:1K:66:A:H5"	22:1K:67:C:C5	2.46	0.51
26:1H:274:G:H2'	26:1H:275:G:O4'	2.11	0.51
26:1H:1489:U:O2'	26:1H:1490:A:H8	1.93	0.51
26:1H:2160:G:C5	26:1H:2161:C:H1'	2.46	0.51
1:1G:571:U:O2	1:1G:918:A:H5'	2.10	0.51
1:1G:1255:G:H3'	1:1G:1279:A:N6	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1265:G:H2'	1:1G:1266:G:O4'	2.11	0.51
9:82:112:LYS:HE3	9:82:118:LYS:N	2.24	0.51
13:4A:33:ALA:HA	13:4A:59:TYR:CE2	2.45	0.51
26:14:195:A:H61	26:14:198:C:H3'	1.75	0.51
26:14:1857:G:O2'	26:14:1885:A:N6	2.44	0.51
26:14:2785:C:H2'	26:14:2786:U:O4'	2.11	0.51
29:19:132:PRO:HG3	29:19:190:TYR:CE1	2.46	0.51
31:39:157:VAL:HG12	31:39:198:ALA:HB1	1.92	0.51
33:59:117:PRO:HB3	33:59:123:PHE:CZ	2.44	0.51
37:35:124:LYS:HE2	37:35:143:GLY:O	2.11	0.51
50:G5:24:LEU:HD13	50:G5:60:LEU:HD21	1.91	0.51
1:13:73:G:H1	1:13:97:U:H3	1.59	0.51
1:13:186:C:O4'	20:BI:81:LYS:NZ	2.44	0.51
1:13:269:C:H2'	1:13:270:A:C8	2.45	0.51
7:6E:15:ASP:OD1	7:6E:44:TYR:OH	2.28	0.51
7:6E:126:ASP:HB3	7:6E:131:LYS:HB2	1.93	0.51
26:1H:322:A:OP1	31:31:168:ARG:NH2	2.42	0.51
26:1H:2061:G:H5"	26:1H:2503:A:C2	2.46	0.51
26:1H:2170:A:OP2	26:1H:2170:A:H3'	2.10	0.51
29:11:145:VAL:HG12	29:11:146:GLU:O	2.11	0.51
30:21:120:TRP:CE3	30:21:155:LYS:HD3	2.46	0.51
37:78:63:PRO:HG2	55:Q8:25:MET:HB2	1.91	0.51
45:F8:5:TYR:O	50:K8:36:ARG:NH2	2.43	0.51
50:K8:18:PRO:O	50:K8:21:LEU:HB2	2.11	0.51
55:Q8:6:THR:HG22	55:Q8:62:LEU:HA	1.93	0.51
1:1G:162:A:O5'	1:1G:162:A:H8	1.94	0.51
3:22:109:PRO:HB2	3:22:115:LEU:HD12	1.93	0.51
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.91	0.51
9:82:50:LEU:HB3	9:82:56:LEU:HA	1.92	0.51
25:4L:23:A:O2'	25:4L:24:A:H5"	2.11	0.51
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.11	0.51
26:14:607:U:OP1	31:39:102:PRO:HA	2.11	0.51
26:14:990:A:H5'	26:14:990:A:H8	1.75	0.51
26:14:1441:G:H2'	26:14:1442:G:H8	1.76	0.51
26:14:1952:A:C6	26:14:1953:A:N1	2.79	0.51
26:14:1991:U:H2'	26:14:1992:G:H5"	1.92	0.51
26:14:2562:U:H1'	36:25:23:ARG:NE	2.26	0.51
26:14:2853:C:H2'	26:14:2854:G:C8	2.46	0.51
27:1J:16:G:H2'	27:1J:17:C:C6	2.45	0.51
30:29:166:THR:HG21	30:29:199:ARG:HH22	1.75	0.51
35:15:20:GLY:O	35:15:61:ARG:HG3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:106:GLY:O	39:55:107:ASP:HB3	2.11	0.51
42:85:61:TRP:CZ3	42:85:94:ASN:HB2	2.45	0.51
49:F5:92:LYS:O	49:F5:94:LEU:N	2.44	0.51
1:13:626:U:H2'	1:13:627:G:H8	1.76	0.51
1:13:807:A:H2'	1:13:808:C:C6	2.46	0.51
1:13:901:A:C5	1:13:902:G:H1'	2.46	0.51
1:13:919:A:O2'	1:13:920:U:H5'	2.10	0.51
1:13:939:G:N7	61:13:1861:HOH:O	2.35	0.51
1:13:1414:U:H2'	1:13:1415:G:H8	1.76	0.51
4:3E:165:MET:HA	4:3E:168:ARG:HD3	1.93	0.51
9:8E:21:PRO:HA	9:8E:59:PHE:HD1	1.75	0.51
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.93	0.51
15:6I:24:SER:HB3	15:6I:27:VAL:HG23	1.93	0.51
26:1H:33:U:O2'	26:1H:34:C:O2	2.22	0.51
26:1H:731:C:OP2	61:1H:3601:HOH:O	2.19	0.51
26:1H:1019:U:H3	26:1H:1142(A):A:H62	1.58	0.51
26:1H:2749:A:N1	26:1H:2750:A:N6	2.59	0.51
36:68:4:PRO:HA	36:68:21:CYS:O	2.11	0.51
43:D8:6:LYS:HG3	43:D8:6:LYS:O	2.11	0.51
1:1G:1023:G:H3'	1:1G:1024:G:O4'	2.11	0.51
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.75	0.51
6:52:6:VAL:HG22	6:52:90:VAL:HG22	1.93	0.51
23:2L:65:G:H2'	23:2L:66:C:C6	2.45	0.51
26:14:6:A:C3'	26:14:7:G:H5'	2.41	0.51
26:14:1007:C:OP1	35:15:37:LYS:NZ	2.37	0.51
27:1J:42:C:O2'	32:49:67:LYS:O	2.20	0.51
30:29:51:PHE:CG	30:29:52:LEU:N	2.79	0.51
33:59:24:VAL:HG21	33:59:72:ILE:HD13	1.93	0.51
34:69:39:ALA:O	34:69:44:LEU:HG	2.11	0.51
45:B5:63:LYS:HE3	45:B5:63:LYS:N	2.20	0.51
47:D5:158:PRO:HB2	47:D5:159:PRO:HD2	1.93	0.51
1:13:1234:C:H2'	1:13:1235:U:C6	2.46	0.50
3:2E:39:ILE:HG23	3:2E:91:LEU:HD22	1.91	0.50
13:4I:5:ALA:HB2	13:4I:61:GLU:HG2	1.93	0.50
17:8I:68:ARG:H	17:8I:70:ARG:NH1	2.09	0.50
26:1H:322:A:H5'	26:1H:340:A:H1'	1.93	0.50
26:1H:2378:A:H4'	40:A8:23:ARG:NH1	2.26	0.50
27:16:42:C:O2'	32:41:67:LYS:HE3	2.11	0.50
12:3A:93:LEU:HB3	12:3A:96:VAL:HG21	1.93	0.50
26:14:244:A:C2	26:14:255:A:C4	2.98	0.50
26:14:769:G:H2'	26:14:770:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1001:A:H2'	26:14:1002:G:O4'	2.10	0.50
26:14:1479:G:O2'	26:14:1558:A:H5'	2.11	0.50
26:14:2850:A:C2	26:14:2851:A:C4	2.99	0.50
27:1J:15:A:H1'	27:1J:109:G:N9	2.26	0.50
27:1J:24:G:N3	27:1J:27:C:N4	2.59	0.50
29:19:70:TRP:O	29:19:73:VAL:HG23	2.11	0.50
41:75:27:THR:HG23	41:75:90:GLN:HB3	1.93	0.50
41:75:107:ASP:N	41:75:107:ASP:OD1	2.44	0.50
42:85:108:GLU:OE1	42:85:112:ARG:NH1	2.45	0.50
1:13:45:U:H2'	1:13:46:G:C8	2.47	0.50
1:13:767:A:H2'	1:13:768:A:O4'	2.11	0.50
1:13:972:C:OP2	10:1I:57:LYS:HG2	2.11	0.50
1:13:1354:C:H2'	1:13:1355:G:H8	1.77	0.50
2:1E:166:ASP:C	2:1E:168:THR:H	2.15	0.50
9:8E:5:TYR:HE1	9:8E:16:ARG:HG2	1.76	0.50
11:2I:53:SER:HA	11:2I:55:LYS:HB2	1.93	0.50
23:2K:26:C:H2'	23:2K:27:G:O4'	2.12	0.50
24:3K:37:A:H3'	24:3K:38:A:C8	2.46	0.50
26:1H:588:U:C2	31:31:90:PHE:CE1	2.99	0.50
26:1H:614:U:OP2	26:1H:614:U:H6	1.94	0.50
26:1H:667:U:O2	55:Q8:2:PRO:HD2	2.11	0.50
26:1H:811:U:C4	37:78:21:ARG:NH2	2.80	0.50
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.46	0.50
26:1H:2104:G:C2	26:1H:2186:G:C2	3.00	0.50
27:16:78:A:C2	27:16:99:A:C4	2.98	0.50
28:71:66:HIS:NE2	28:71:184:LYS:O	2.39	0.50
30:21:28:ALA:O	30:21:93:VAL:HG22	2.10	0.50
33:51:169:VAL:HG13	33:51:170:ARG:N	2.27	0.50
45:F8:11:PRO:HB3	45:F8:92:LEU:HD21	1.94	0.50
46:G8:30:VAL:HG12	46:G8:32:PRO:HD3	1.93	0.50
1:1G:419:C:N4	1:1G:424:G:H1	2.09	0.50
1:1G:434:U:H2'	1:1G:435:C:C6	2.46	0.50
1:1G:1321:C:N4	1:1G:1322:C:N4	2.59	0.50
4:32:35:ARG:HH11	4:32:35:ARG:HB2	1.77	0.50
5:42:111:GLU:O	5:42:114:GLY:N	2.30	0.50
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.27	0.50
56:1L:53:G:H2'	56:1L:54:5MU:H5"	1.92	0.50
26:14:118:A:N3	26:14:178:G:H1'	2.27	0.50
26:14:389:G:N1	37:35:70:GLN:HB3	2.27	0.50
26:14:1332:G:N2	26:14:1609:A:O2'	2.45	0.50
26:14:2257:U:H2'	26:14:2258:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2889:C:H2'	26:14:2891:G:O4'	2.11	0.50
27:1J:90:C:OP2	38:45:16:ARG:NH2	2.44	0.50
39:55:100:LEU:HD21	39:55:113:LEU:HD13	1.93	0.50
43:95:13:ARG:NH1	43:95:15:GLU:OE1	2.44	0.50
47:D5:128:VAL:HG22	47:D5:129:SER:H	1.75	0.50
1:13:458:C:H42	1:13:474:G:H1	1.58	0.50
1:13:939:G:H2'	1:13:940:C:C6	2.47	0.50
1:13:1260:C:H3'	1:13:1260:C:H6	1.77	0.50
1:13:1396:A:H4'	1:13:1397:C:H5"	1.93	0.50
8:7E:91:ARG:HD3	17:8I:33:GLY:HA3	1.93	0.50
22:1K:15:G:H1	22:1K:48:C:N4	2.09	0.50
26:1H:1396:U:O2	26:1H:1396:U:H2'	2.11	0.50
40:A8:18:ILE:O	40:A8:21:THR:HG22	2.11	0.50
47:H8:31:ARG:HH11	47:H8:31:ARG:HB2	1.76	0.50
51:L8:4:LEU:HD12	51:L8:37:LEU:O	2.10	0.50
1:1G:230:G:O6	60:1G:1725:SPE:H71	2.12	0.50
1:1G:543:C:OP1	4:32:14:ARG:HG2	2.12	0.50
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.93	0.50
16:7A:21:VAL:HG11	16:7A:59:TRP:CD1	2.46	0.50
26:14:469:G:C6	54:L5:39:ARG:NH1	2.80	0.50
26:14:846:C:O2'	61:14:3661:HOH:O	2.20	0.50
26:14:882:G:H1	26:14:894:C:N4	2.08	0.50
26:14:1007:C:OP1	35:15:35:ARG:NH1	2.45	0.50
26:14:1488:G:C6	26:14:1489:U:N3	2.79	0.50
26:14:1678:G:N2	26:14:1989:G:N2	2.57	0.50
26:14:2557:G:H2'	26:14:2558:C:H6	1.75	0.50
30:29:9:VAL:HA	41:75:3:ARG:CD	2.41	0.50
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.51	0.50
35:15:15:LEU:HB2	35:15:134:ARG:HB2	1.92	0.50
38:45:4:PRO:HD3	38:45:70:PRO:O	2.11	0.50
38:45:102:VAL:O	38:45:102:VAL:HG12	2.11	0.50
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.92	0.50
1:13:157:G:N2	1:13:164:U:O2	2.42	0.50
1:13:292:G:N7	1:13:293:G:H1'	2.26	0.50
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.47	0.50
7:6E:5:ARG:HG3	7:6E:7:ALA:H	1.77	0.50
17:8I:88:TYR:CD1	17:8I:89:LEU:HD23	2.47	0.50
20:BI:49:ALA:O	20:BI:52:ALA:N	2.44	0.50
26:1H:210:C:OP2	54:P8:29:LYS:HE3	2.12	0.50
26:1H:271(B):G:N7	26:1H:421:U:H2'	2.26	0.50
26:1H:2061:G:P	61:1H:3912:HOH:O	2.70	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:97:ASP:H	32:41:100:TRP:HD1	1.58	0.50
33:51:104:GLU:HG3	33:51:114:VAL:HG22	1.93	0.50
52:M8:42:PHE:O	52:M8:42:PHE:CD2	2.65	0.50
1:1G:108:G:H5'	1:1G:109:A:C5'	2.40	0.50
1:1G:922:G:N3	1:1G:1398:A:H2	2.08	0.50
1:1G:980:C:H3'	1:1G:981:U:C6	2.47	0.50
4:32:24:GLU:HG2	4:32:25:ARG:H	1.76	0.50
7:62:12:LEU:HD21	7:62:25:ALA:HB2	1.93	0.50
9:82:5:TYR:CE1	9:82:16:ARG:HG2	2.46	0.50
14:5A:37:PHE:CD1	14:5A:53:LEU:HD13	2.47	0.50
26:14:226:G:H21	26:14:228:A:H62	1.59	0.50
26:14:500:G:N1	26:14:503:A:OP2	2.44	0.50
26:14:1011:G:H1	26:14:1150:C:H42	1.60	0.50
26:14:1041:C:N4	26:14:1114:G:H1	2.06	0.50
26:14:1412:A:H2'	26:14:1413:G:C8	2.46	0.50
26:14:2062:A:HO2'	26:14:2063:C:P	2.33	0.50
29:19:27:THR:HG22	29:19:29:PRO:O	2.11	0.50
31:39:181:LEU:HD21	31:39:186:ILE:HD11	1.94	0.50
40:65:78:LEU:HD11	40:65:107:GLU:HB3	1.93	0.50
1:13:375:U:O3'	16:7I:6:LEU:HB2	2.11	0.50
1:13:691:G:H2'	1:13:692:U:C6	2.46	0.50
6:5E:23:LYS:HD3	6:5E:61:LEU:HD21	1.92	0.50
22:1K:74:C:N4	26:1H:2508:G:H5'	2.27	0.50
26:1H:74:A:H5"	26:1H:74:A:H8	1.76	0.50
26:1H:248:G:H5'	26:1H:250:G:N7	2.27	0.50
26:1H:384:U:O2'	26:1H:385:C:H5'	2.11	0.50
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.46	0.50
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.46	0.50
30:21:16:ARG:O	30:21:16:ARG:HG3	2.10	0.50
41:B8:13:ARG:HG3	41:B8:13:ARG:O	2.10	0.50
1:1G:243:A:H4'	1:1G:244:U:H5"	1.93	0.50
1:1G:646:U:H2'	1:1G:647:C:C6	2.46	0.50
1:1G:1140:C:H2'	1:1G:1141:C:C6	2.46	0.50
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.40	0.50
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.77	0.50
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	1.94	0.50
13:4A:108:ARG:HH11	13:4A:108:ARG:HG3	1.76	0.50
17:8A:66:SER:OG	17:8A:69:LYS:HB2	2.11	0.50
20:BA:50:GLU:HA	20:BA:100:ILE:CG2	2.41	0.50
26:14:320:A:H4'	26:14:322:A:N7	2.26	0.50
27:1J:11:C:OP2	27:1J:12:C:N4	2.28	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:73:A:C4	27:1J:104:A:C2	3.00	0.50
27:1J:104:A:OP1	47:D5:72:ARG:NH2	2.44	0.50
31:39:144:LYS:HA	31:39:144:LYS:HE3	1.94	0.50
35:15:61:ARG:HA	35:15:61:ARG:HH11	1.77	0.50
41:75:54:ARG:HG3	41:75:59:THR:HG21	1.93	0.50
1:13:131:C:O2	1:13:131:C:H2'	2.11	0.50
1:13:183:G:H2'	1:13:184:G:H8	1.75	0.50
1:13:1092:A:C6	1:13:1093:A:C6	2.99	0.50
1:13:1125:U:C2	1:13:1126:U:C5	3.00	0.50
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.76	0.50
26:1H:192:C:O2'	26:1H:802:A:N3	2.38	0.50
26:1H:1303:G:OP1	61:1H:3869:HOH:O	2.20	0.50
26:1H:1556:C:H2'	26:1H:1557:C:H6	1.77	0.50
26:1H:2567:G:H2'	26:1H:2568:C:C6	2.46	0.50
26:1H:2638:G:OP2	30:21:82:ARG:NH2	2.44	0.50
30:21:54:GLN:N	30:21:75:VAL:H	2.09	0.50
30:21:152:LYS:HD3	35:58:77:GLY:HA3	1.93	0.50
40:A8:3:ARG:HG3	40:A8:4:LEU:HB2	1.92	0.50
47:H8:126:VAL:HG12	47:H8:163:LEU:HA	1.92	0.50
50:K8:3:LEU:O	50:K8:7:ARG:N	2.36	0.50
1:1G:176:C:H2'	1:1G:177:C:H6	1.77	0.50
1:1G:1053:G:H4'	1:1G:1054:C:H3'	1.94	0.50
1:1G:1305:G:O2'	1:1G:1306:A:H8	1.95	0.50
7:62:126:ASP:HB3	7:62:131:LYS:O	2.12	0.50
9:82:95:LYS:HB3	9:82:95:LYS:NZ	2.27	0.50
10:1A:34:VAL:HG22	10:1A:74:ILE:HA	1.93	0.50
24:3L:15:G:C4	24:3L:59:A:C2	2.99	0.50
26:14:801:G:OP2	31:39:55:GLY:HA2	2.12	0.50
26:14:1434:A:H2'	26:14:1435:G:C8	2.47	0.50
26:14:1771:C:H1'	26:14:1786:A:C8	2.46	0.50
26:14:2076:U:H5"	26:14:2077:A:OP1	2.12	0.50
26:14:2392:A:H2	26:14:2424:C:N4	2.08	0.50
30:29:34:VAL:HG12	30:29:64:LYS:HE3	1.93	0.50
30:29:54:GLN:O	30:29:75:VAL:HG23	2.11	0.50
33:59:136:ILE:H	33:59:136:ILE:HD12	1.76	0.50
46:C5:37:VAL:HG23	46:C5:67:LEU:HB3	1.93	0.50
47:D5:6:LYS:HB2	47:D5:8:TYR:CZ	2.47	0.50
47:D5:108:PRO:CG	47:D5:142:SER:HB3	2.41	0.50
48:E5:53:MET:HG3	48:E5:59:LEU:CD2	2.36	0.50
1:13:1060:C:C5	3:2E:2:GLY:HA2	2.47	0.50
1:13:1240:U:OP2	7:6E:116:ALA:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:36:TYR:OH	9:8E:73:GLN:NE2	2.30	0.50
17:8I:81:ARG:NH2	17:8I:83:ASP:OD2	2.45	0.50
26:1H:82:G:N7	61:1H:3682:HOH:O	2.43	0.50
26:1H:270:A:OP2	26:1H:270(Y):G:N1	2.35	0.50
26:1H:606:U:H4'	26:1H:658:C:H4'	1.94	0.50
26:1H:871:U:OP1	38:88:5:ARG:HG3	2.11	0.50
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.76	0.50
26:1H:2129:C:P	28:71:6:ARG:HH11	2.35	0.50
26:1H:2393:A:H2'	26:1H:2394:C:C6	2.46	0.50
26:1H:2461:C:H2'	26:1H:2462:U:C6	2.46	0.50
34:61:77:LEU:CD1	34:61:140:LEU:HB3	2.42	0.50
1:1G:186(A):C:H2'	1:1G:186(B):C:H6	1.75	0.50
1:1G:974:A:P	14:5A:41:ARG:HH22	2.34	0.50
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.47	0.50
10:1A:81:THR:O	10:1A:84:GLN:NE2	2.37	0.50
56:1L:35:U:H2'	56:1L:36:U:O4'	2.12	0.50
26:14:288:C:H2'	26:14:289:A:C8	2.47	0.50
26:14:483:A:H5'	46:C5:49:VAL:HG22	1.93	0.50
26:14:579:G:H2'	26:14:580:C:C6	2.46	0.50
26:14:2320:A:N6	26:14:2333:A:H2'	2.26	0.50
30:29:60:ASN:OD1	30:29:61:ARG:N	2.44	0.50
31:39:64:ILE:HD12	31:39:65:TRP:CE2	2.47	0.50
32:49:47:LYS:HE3	32:49:81:LYS:HG3	1.93	0.50
41:75:29:ARG:HD3	41:75:44:ASP:OD2	2.11	0.50
42:85:49:HIS:HA	42:85:52:ARG:HB3	1.93	0.50
1:13:711:G:H2'	1:13:712:A:H8	1.77	0.50
4:3E:111:ALA:HB2	4:3E:120:LEU:HD11	1.93	0.50
5:4E:152:ARG:HA	8:7E:64:LYS:HE2	1.93	0.50
13:4I:105:THR:OG1	13:4I:106:ASN:N	2.44	0.50
26:1H:172:C:H2'	26:1H:173:G:C8	2.46	0.50
26:1H:458:G:O2'	26:1H:469:G:O6	2.22	0.50
26:1H:858:U:O2	26:1H:2268:A:H2'	2.12	0.50
26:1H:1170:G:N2	26:1H:1180:C:C2	2.80	0.50
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.27	0.50
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.10	0.50
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.47	0.50
26:1H:2065:C:H2'	26:1H:2066:C:H6	1.77	0.50
26:1H:2392:A:H2	26:1H:2424:C:H42	1.60	0.50
26:1H:2450:A:C2	26:1H:2451:A:C4	3.00	0.50
27:16:19:G:H2'	27:16:20:C:O4'	2.12	0.50
29:11:67:PHE:HE1	29:11:106:ILE:HD11	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:29:ASN:HB3	31:31:112:MET:HE1	1.94	0.50
39:98:15:SER:CB	61:98:201:HOH:O	2.59	0.50
39:98:46:GLY:HA2	39:98:49:ASP:HB2	1.92	0.50
41:B8:107:ASP:O	41:B8:110:ILE:HG23	2.12	0.50
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.76	0.50
42:C8:88:ILE:C	42:C8:90:VAL:N	2.64	0.50
48:I8:63:VAL:HG23	48:I8:64:ASP:O	2.12	0.50
52:M8:14:ILE:HG22	52:M8:24:THR:HG22	1.93	0.50
1:1G:706:A:H1'	11:2A:31:THR:HG21	1.94	0.50
1:1G:942:G:C2	1:1G:1342:C:C2	3.00	0.50
1:1G:973:G:O2'	10:1A:54:PHE:O	2.28	0.50
1:1G:1167:A:H2'	1:1G:1169:A:O4'	2.12	0.50
1:1G:1179:A:H2'	1:1G:1180:A:O4'	2.11	0.50
1:1G:1492:A:H8	1:1G:1492:A:O5'	1.93	0.50
2:12:42:ILE:HG21	2:12:202:PRO:HB2	1.94	0.50
2:12:127:ILE:HA	2:12:130:ARG:NH2	2.27	0.50
3:22:119:ARG:HH22	3:22:137:ALA:HA	1.75	0.50
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.93	0.50
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.45	0.50
26:14:577:G:O2'	26:14:1254:A:OP1	2.28	0.50
26:14:2298:A:H1'	26:14:2321:G:N2	2.27	0.50
30:29:54:GLN:O	30:29:55:ASN:ND2	2.44	0.50
1:13:358:U:H2'	1:13:359:U:O4'	2.12	0.50
1:13:881:G:P	12:3I:12:ARG:HH22	2.35	0.50
1:13:1157:A:N6	1:13:1178:G:H21	2.07	0.50
1:13:1198:G:HO2'	10:1I:54:PHE:HD2	1.59	0.50
1:13:1409:C:H2'	1:13:1410:G:H8	1.77	0.50
6:5E:97:PHE:HD1	18:9I:31:LEU:HD11	1.77	0.50
8:7E:33:GLU:HG2	8:7E:48:TYR:CE2	2.47	0.50
8:7E:81:HIS:HB2	8:7E:138:TRP:CE3	2.47	0.50
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.40	0.50
15:6I:74:ASP:HB3	15:6I:77:ARG:HB3	1.94	0.50
19:AI:22:LEU:HD12	19:AI:25:LYS:HZ2	1.77	0.50
22:1K:7:U:H3	22:1K:66:A:H61	1.59	0.50
22:1K:45:G:O2'	22:1K:47:U:H5'	2.12	0.50
24:3K:2:G:O2'	24:3K:3:G:OP1	2.25	0.50
24:3K:5:C:H2'	24:3K:6:G:C8	2.46	0.50
26:1H:30:G:H2'	26:1H:31:C:C6	2.47	0.50
26:1H:270(C):C:H42	26:1H:270(W):G:H1	1.58	0.50
26:1H:631:A:H1'	37:78:66:GLY:HA2	1.94	0.50
26:1H:699:A:H2'	26:1H:700:G:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1358:G:N2	26:1H:1372:U:C5	2.80	0.50
26:1H:1652:A:N6	39:98:11:ASN:OD1	2.36	0.50
29:11:175:LEU:HD12	29:11:185:VAL:HG21	1.93	0.50
38:88:21:THR:HA	38:88:98:LYS:HB2	1.94	0.50
1:1G:280:C:H3'	1:1G:281:G:H5'	1.93	0.50
1:1G:373:A:C2	1:1G:374:A:C8	2.99	0.50
1:1G:604:G:H2'	1:1G:605:U:O4'	2.12	0.50
1:1G:1160:G:H2'	1:1G:1161:C:C6	2.47	0.50
1:1G:1306:A:N6	1:1G:1331:G:O2'	2.45	0.50
1:1G:1346:A:H5"	9:82:120:ARG:NH1	2.27	0.50
1:1G:1371:G:OP1	9:82:11:LYS:HG2	2.11	0.50
9:82:117:HIS:O	9:82:118:LYS:HB2	2.11	0.50
10:1A:34:VAL:HG13	10:1A:73:ASP:O	2.12	0.50
15:6A:55:GLY:HA2	15:6A:58:MET:HG3	1.94	0.50
17:8A:45:HIS:ND1	17:8A:65:ILE:HG21	2.26	0.50
26:14:468:G:N7	54:L5:39:ARG:NH2	2.60	0.50
26:14:1188:U:C2'	26:14:1189:A:H5'	2.42	0.50
26:14:2557:G:H2'	26:14:2558:C:C6	2.47	0.50
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.93	0.50
36:25:10:VAL:HG13	36:25:17:ARG:O	2.12	0.50
39:55:38:VAL:HG22	39:55:112:ALA:HB2	1.93	0.50
40:65:61:ASN:OD1	40:65:62:LYS:N	2.34	0.50
46:C5:48:ALA:HB1	46:C5:50:ARG:HD2	1.94	0.50
51:H5:18:ASP:OD1	51:H5:18:ASP:N	2.43	0.50
1:13:17:U:H2'	1:13:18:C:C6	2.47	0.49
1:13:127:G:HO2'	17:8I:2:PRO:N	2.10	0.49
5:4E:11:ILE:HD11	5:4E:31:LEU:HD22	1.94	0.49
7:6E:16:LEU:HG	9:8E:42:ARG:HA	1.93	0.49
7:6E:115:ARG:HB3	7:6E:118:VAL:HG12	1.93	0.49
13:4I:82:MET:O	13:4I:84:ILE:N	2.44	0.49
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.12	0.49
24:3K:69:A:H2'	24:3K:70:C:C6	2.47	0.49
26:1H:395:U:H1'	26:1H:396:G:N7	2.26	0.49
26:1H:1634:A:H5"	61:1H:4087:HOH:O	2.11	0.49
26:1H:2038:G:H2'	26:1H:2039:C:C6	2.47	0.49
26:1H:2878:U:H3'	61:1H:3645:HOH:O	2.12	0.49
34:61:10:GLU:HG3	34:61:10:GLU:O	2.12	0.49
50:K8:64:LEU:O	50:K8:68:ARG:HG3	2.13	0.49
1:1G:135:C:O2	16:7A:1:MET:HB3	2.12	0.49
1:1G:235:C:C5'	17:8A:70:ARG:HG2	2.39	0.49
1:1G:826:C:H5'	8:72:12:ARG:HH11	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:963:G:H4'	61:1G:2117:HOH:O	2.12	0.49
1:1G:973:G:H5'	10:1A:55:LYS:HZ3	1.77	0.49
1:1G:1286:A:H8	1:1G:1286:A:H3'	1.77	0.49
4:32:25:ARG:HG2	4:32:30:LYS:O	2.12	0.49
8:72:110:ALA:O	8:72:121:ASP:N	2.45	0.49
24:3L:51:A:H61	24:3L:63:U:H3	1.58	0.49
26:14:853:G:O2'	26:14:854:G:H5'	2.12	0.49
26:14:1752:C:OP1	41:75:115:ARG:NH2	2.45	0.49
26:14:2287:A:H61	26:14:2344:U:H3	1.55	0.49
26:14:2308:G:O2'	26:14:2309:A:OP1	2.27	0.49
26:14:2750:A:H5'	33:59:4:ILE:HG22	1.94	0.49
29:19:70:TRP:CD1	29:19:70:TRP:C	2.85	0.49
32:49:66:GLN:NE2	32:49:93:THR:O	2.43	0.49
35:15:30:ILE:HG22	35:15:34:LEU:HD22	1.94	0.49
49:F5:29:GLY:O	49:F5:30:VAL:HG22	2.12	0.49
49:F5:49:VAL:HG21	49:F5:67:ILE:HD12	1.93	0.49
1:13:123:C:OP1	1:13:311:C:O2'	2.24	0.49
1:13:192:U:C1'	20:BI:103:GLY:HA2	2.43	0.49
1:13:198:G:N7	1:13:220:G:N2	2.60	0.49
1:13:269:C:H2'	1:13:270:A:H8	1.78	0.49
1:13:342:C:C2'	1:13:343:U:H5'	2.42	0.49
1:13:813:U:H5'	1:13:904:C:OP1	2.12	0.49
1:13:1428:A:H2'	1:13:1429:C:C6	2.47	0.49
9:8E:93:ARG:NH2	9:8E:97:LYS:HD2	2.26	0.49
26:1H:142:G:H1'	45:F8:37:THR:CG2	2.43	0.49
26:1H:528:A:C2	26:1H:2043:C:H4'	2.47	0.49
26:1H:1046:A:H4'	26:1H:1047:G:OP2	2.12	0.49
26:1H:1639:U:O2'	26:1H:1640:C:H5"	2.11	0.49
26:1H:2283:C:H2'	26:1H:2284:C:O4'	2.12	0.49
26:1H:2680:C:OP2	30:21:111:ARG:NH2	2.45	0.49
32:41:97:ASP:O	32:41:100:TRP:N	2.45	0.49
33:51:4:ILE:HG23	33:51:6:ARG:NH2	2.27	0.49
44:E8:71:VAL:HA	44:E8:107:LEU:HD12	1.95	0.49
45:F8:41:ASN:O	45:F8:45:THR:HG23	2.12	0.49
46:G8:9:LYS:HA	46:G8:27:VAL:CG2	2.43	0.49
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.42	0.49
55:Q8:52:LYS:H	55:Q8:53:PRO:HD2	1.76	0.49
1:1G:21:G:OP1	61:1G:1858:HOH:O	2.19	0.49
1:1G:490:G:P	4:32:132:ARG:HH22	2.35	0.49
1:1G:1097:C:O2'	1:1G:1169:A:N3	2.39	0.49
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:57:LYS:O	5:42:60:TYR:HB2	2.12	0.49
7:62:146:GLU:OE2	11:2A:54:ARG:HG2	2.12	0.49
19:AA:56:GLN:HG2	19:AA:57:HIS:H	1.77	0.49
23:2L:10:G:N2	23:2L:27:G:H1'	2.27	0.49
24:3L:15:G:H1	24:3L:48:C:H41	1.60	0.49
24:3L:76:A:H8	26:14:2394:C:N4	2.04	0.49
26:14:900:A:H2'	26:14:900:A:N3	2.27	0.49
26:14:1731:G:H2'	26:14:1732:A:O4'	2.11	0.49
26:14:2027:G:H2'	26:14:2028:U:O4'	2.12	0.49
31:39:36:VAL:HG11	31:39:183:VAL:HG21	1.93	0.49
33:59:152:ARG:HD2	33:59:153:LYS:HG3	1.93	0.49
40:65:24:LEU:HD11	40:65:41:ASP:HB2	1.94	0.49
41:75:4:GLY:N	41:75:5:ALA:C	2.66	0.49
42:85:83:LEU:HD22	42:85:88:ILE:HD12	1.92	0.49
45:B5:30:VAL:HG11	45:B5:39:ILE:HD11	1.93	0.49
47:D5:91:LEU:HB3	47:D5:130:PRO:HG3	1.94	0.49
1:13:428:G:C8	1:13:430:A:C4	3.01	0.49
1:13:501:C:H1'	1:13:549:C:H1'	1.94	0.49
1:13:604:G:H2'	1:13:605:U:O4'	2.12	0.49
1:13:1398:A:H5'	1:13:1401:G:H4'	1.93	0.49
1:13:1399:C:C2	1:13:1401:G:C5	3.01	0.49
1:13:1455:G:H5'	20:BI:32:ALA:HB2	1.94	0.49
8:7E:109:ILE:HD11	8:7E:120:THR:HG22	1.93	0.49
10:1I:29:ARG:HG3	10:1I:30:SER:N	2.28	0.49
15:6I:40:SER:O	15:6I:44:LYS:HG3	2.11	0.49
24:3K:9:A:O2'	24:3K:46:G:O4'	2.27	0.49
26:1H:64:A:N3	45:F8:66:LEU:HB2	2.27	0.49
26:1H:511:U:C5	26:1H:512:G:C5	3.00	0.49
26:1H:528:A:O2'	26:1H:529:A:H5'	2.12	0.49
26:1H:769:G:N7	61:1H:3949:HOH:O	2.35	0.49
26:1H:811:U:H3'	37:78:22:GLY:HA2	1.93	0.49
26:1H:1534:G:HO2'	26:1H:1535:U:C4'	2.23	0.49
34:61:7:GLU:HA	34:61:15:VAL:HG22	1.94	0.49
34:61:69:LYS:HG3	34:61:136:VAL:HB	1.93	0.49
37:78:135:LEU:HD22	37:78:139:LYS:HE2	1.94	0.49
39:98:77:ARG:HH11	39:98:77:ARG:HG3	1.78	0.49
45:F8:12:VAL:HG13	45:F8:27:THR:O	2.13	0.49
50:K8:42:GLY:C	50:K8:44:LEU:N	2.64	0.49
1:1G:458:C:H2'	1:1G:464:G:C8	2.48	0.49
1:1G:872:A:O2'	1:1G:873:A:H5"	2.12	0.49
1:1G:1208:C:H2'	1:1G:1209:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.11	0.49
3:22:14:ILE:HG12	3:22:15:THR:H	1.78	0.49
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.94	0.49
16:7A:17:TYR:HE1	16:7A:41:PRO:HG3	1.76	0.49
25:4L:19:G:C4	25:4L:20:A:C8	3.01	0.49
26:14:273(C):C:N4	26:14:363(C):G:H1	2.09	0.49
26:14:1012:U:C5	35:15:28:THR:HG21	2.47	0.49
26:14:1483:G:H2'	26:14:1484:G:H8	1.76	0.49
26:14:1802:A:N1	26:14:1822:G:H1'	2.27	0.49
35:15:58:ASP:OD1	35:15:58:ASP:N	2.37	0.49
39:55:79:LEU:HA	39:55:83:ILE:HB	1.93	0.49
44:A5:71:VAL:HA	44:A5:107:LEU:HD12	1.95	0.49
1:13:509:A:H5"	4:3E:55:ALA:HB2	1.94	0.49
1:13:724:G:C2	1:13:725:G:C8	3.01	0.49
1:13:983:A:H2	1:13:984:C:C6	2.31	0.49
1:13:1399:C:C2	1:13:1502:A:N6	2.80	0.49
1:13:1455:G:H5"	20:BI:31:SER:HB2	1.94	0.49
3:2E:72:LYS:HD3	3:2E:75:VAL:HG21	1.94	0.49
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.45	0.49
11:2I:34:ASP:N	11:2I:40:ILE:HD11	2.27	0.49
20:BI:100:ILE:HG12	20:BI:101:GLY:H	1.77	0.49
26:1H:181:A:H1'	26:1H:435:C:H5'	1.93	0.49
26:1H:577:G:O2'	26:1H:1254:A:OP1	2.27	0.49
26:1H:910:A:H62	38:88:12:GLN:HA	1.77	0.49
26:1H:1290:C:H2'	26:1H:1291:C:H6	1.74	0.49
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.47	0.49
26:1H:2131:G:H5'	26:1H:2132:U:H3'	1.94	0.49
27:16:49:C:C2'	27:16:50:G:H5'	2.42	0.49
31:31:42:ALA:HA	31:31:45:ARG:HG3	1.93	0.49
34:61:93:THR:OG1	34:61:96:ASP:OD1	2.26	0.49
34:61:133:HIS:HB2	34:61:134:PRO:HD2	1.95	0.49
38:88:59:ARG:C	38:88:61:GLY:N	2.65	0.49
43:D8:37:VAL:HB	43:D8:51:VAL:HG22	1.93	0.49
1:1G:667:G:H4'	15:6A:51:HIS:ND1	2.28	0.49
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.47	0.49
1:1G:1205:U:H1'	3:22:195:VAL:HG22	1.93	0.49
2:12:145:LEU:O	2:12:149:LEU:HB2	2.12	0.49
3:22:32:LEU:HD22	3:22:59:ARG:NH2	2.27	0.49
3:22:58:GLU:HB2	3:22:65:ALA:HB3	1.94	0.49
4:32:148:VAL:HG23	4:32:181:MET:O	2.12	0.49
7:62:102:ARG:HG2	7:62:106:GLN:NE2	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:37:A:H2'	24:3L:38:A:O4'	2.12	0.49
26:14:270(Q):C:H5"	34:69:45:LYS:HE3	1.94	0.49
26:14:933:A:H5'	61:14:4238:HOH:O	2.11	0.49
26:14:1287:A:C5	26:14:1288:U:C4	3.00	0.49
26:14:2001:A:H2'	26:14:2002:G:C8	2.48	0.49
30:29:117:MET:HA	30:29:122:PHE:N	2.26	0.49
37:35:120:ALA:O	37:35:121:LYS:HD2	2.13	0.49
38:45:19:GLY:O	38:45:98:LYS:HB3	2.12	0.49
38:45:57:HIS:ND1	38:45:117:ALA:HB2	2.28	0.49
45:B5:65:ARG:HG3	45:B5:67:GLY:H	1.77	0.49
49:F5:88:LYS:HA	49:F5:90:ILE:HG22	1.94	0.49
1:13:9:G:C2	1:13:26:A:C6	3.00	0.49
1:13:245:C:C2	1:13:284:G:C2	3.00	0.49
1:13:600:C:H4'	8:7E:128:GLY:O	2.12	0.49
1:13:1023:G:C3'	1:13:1024:G:H5"	2.39	0.49
1:13:1059:C:O2'	10:1I:53:PRO:HD3	2.13	0.49
3:2E:19:GLU:HG2	3:2E:54:ARG:NH1	2.27	0.49
4:3E:62:GLN:O	4:3E:66:ARG:HB2	2.13	0.49
13:4I:7:VAL:H	32:41:115:ARG:HH12	1.60	0.49
24:3K:36:U:N3	24:3K:37:A:H1'	2.28	0.49
29:11:17:THR:HG22	29:11:204:ILE:HA	1.95	0.49
33:51:6:ARG:NH2	33:51:7:LEU:HD11	2.25	0.49
33:51:169:VAL:HG22	33:51:170:ARG:H	1.77	0.49
38:88:103:MET:HB2	38:88:104:PHE:CD2	2.46	0.49
41:B8:12:SER:CB	41:B8:15:VAL:H	2.25	0.49
1:1G:518:C:H5"	1:1G:519:C:C6	2.47	0.49
1:1G:1022:G:C6	1:1G:1023:G:C8	3.01	0.49
1:1G:1187:G:H2'	1:1G:1188:A:C8	2.47	0.49
1:1G:1191:A:H5"	3:22:4:LYS:HZ2	1.78	0.49
1:1G:1266:G:N2	1:1G:1269:A:OP2	2.44	0.49
3:22:18:TRP:H	3:22:18:TRP:HE3	1.60	0.49
9:82:24:GLY:HA2	9:82:59:PHE:O	2.11	0.49
26:14:140:A:C8	26:14:1408:C:O2'	2.63	0.49
26:14:304:G:H2'	26:14:305:U:C6	2.47	0.49
26:14:341:G:C6	26:14:342:G:C5	3.01	0.49
26:14:528:A:C2	26:14:2043:C:H4'	2.47	0.49
26:14:561:G:H1'	42:85:45:TYR:HE1	1.78	0.49
26:14:760:G:H2'	26:14:761:A:O4'	2.13	0.49
26:14:2688:U:H1'	26:14:2721:A:N6	2.28	0.49
26:14:2697:G:H2'	26:14:2698:U:O4'	2.13	0.49
30:29:173:VAL:N	30:29:183:LEU:O	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:39:LEU:HD23	43:95:40:LEU:N	2.27	0.49
43:95:62:LEU:HD21	43:95:95:LEU:HB2	1.93	0.49
51:H5:14:GLY:HA3	61:H5:101:HOH:O	2.11	0.49
1:13:943:U:C2	1:13:944:G:C8	3.00	0.49
1:13:1079:G:H2'	1:13:1080:A:C8	2.47	0.49
1:13:1202:G:N2	14:5I:46:GLU:OE1	2.24	0.49
1:13:1233:G:H2'	1:13:1234:C:C6	2.47	0.49
2:1E:167:PRO:HG2	2:1E:192:SER:HB3	1.94	0.49
5:4E:87:SER:HB3	5:4E:125:SER:O	2.13	0.49
13:4I:46:LYS:HB2	13:4I:46:LYS:HZ2	1.78	0.49
13:4I:82:MET:C	13:4I:84:ILE:H	2.15	0.49
14:5I:32:SER:HB3	14:5I:41:ARG:HG2	1.93	0.49
26:1H:560:C:N4	61:1H:4033:HOH:O	2.44	0.49
26:1H:2414:G:H21	37:78:67:MET:CE	2.25	0.49
26:1H:2881:C:H2'	26:1H:2882:A:C8	2.48	0.49
30:21:60:ASN:OD1	30:21:63:LEU:HB2	2.13	0.49
31:31:7:TYR:O	31:31:21:ALA:HA	2.13	0.49
32:41:107:LEU:HD11	32:41:178:PHE:CE1	2.47	0.49
40:A8:100:ALA:HA	40:A8:103:GLU:HG2	1.93	0.49
42:C8:108:GLU:OE1	42:C8:112:ARG:NH1	2.45	0.49
49:J8:77:ALA:HA	49:J8:78:LYS:C	2.33	0.49
51:L8:10:LYS:NZ	51:L8:15:TYR:OH	2.38	0.49
1:1G:228:A:N7	60:1G:1725:SPE:H121	2.27	0.49
1:1G:561:U:HO2'	1:1G:562:C:P	2.34	0.49
1:1G:631:G:H4'	8:72:98:LYS:HE2	1.95	0.49
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.11	0.49
1:1G:1264:C:H1'	1:1G:1272:G:N2	2.28	0.49
2:12:184:VAL:HG22	2:12:198:ASP:OD2	2.12	0.49
4:32:18:LYS:HD2	4:32:20:TYR:CE1	2.48	0.49
6:52:19:LEU:HD11	6:52:59:TYR:CE1	2.48	0.49
6:52:30:LEU:HB3	6:52:35:ALA:HB3	1.95	0.49
16:7A:14:ASN:OD1	16:7A:16:HIS:NE2	2.42	0.49
26:14:361:G:OP1	61:14:3660:HOH:O	2.19	0.49
26:14:469:G:C2'	26:14:470:A:H5"	2.42	0.49
26:14:708:C:H5'	26:14:709:U:OP2	2.13	0.49
26:14:1569:A:O2'	29:19:37:LEU:HD23	2.12	0.49
26:14:2149:G:C2	26:14:2150:U:H1'	2.47	0.49
26:14:2406:U:OP2	26:14:2406:U:H2'	2.13	0.49
26:14:2872:G:C4	26:14:2873:A:C2	3.01	0.49
29:19:68:LYS:HB3	29:19:70:TRP:CZ3	2.48	0.49
1:13:179:A:H2'	1:13:180:U:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1115:C:H2'	1:13:1116:C:H6	1.78	0.49
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.78	0.49
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.94	0.49
7:6E:79:ARG:HH21	24:3K:33:U:H4'	1.77	0.49
9:8E:46:ALA:HB2	9:8E:74:ILE:HG23	1.94	0.49
12:3I:37:CYS:HB2	12:3I:79:GLU:O	2.12	0.49
16:7I:57:ARG:NH2	16:7I:78:GLY:O	2.45	0.49
26:1H:298:G:OP2	46:G8:84:ARG:NH1	2.46	0.49
26:1H:500:G:N2	26:1H:502:A:H3'	2.27	0.49
26:1H:621:A:OP2	37:78:108:LYS:NZ	2.46	0.49
26:1H:2228:G:OP2	29:11:263:ARG:NH2	2.46	0.49
26:1H:2324:C:H5"	26:1H:2325:G:H5'	1.94	0.49
26:1H:2412:A:H2'	26:1H:2413:G:O4'	2.13	0.49
27:16:40:U:C1'	27:16:45:A:H61	2.22	0.49
30:21:120:TRP:CD2	30:21:155:LYS:HD3	2.48	0.49
31:31:134:GLY:HA3	31:31:162:LEU:O	2.12	0.49
34:61:33:ARG:HB3	34:61:35:LEU:HD13	1.95	0.49
41:B8:81:PRO:HG2	41:B8:82:LEU:HD12	1.94	0.49
50:K8:47:ASN:O	50:K8:49:LYS:HG3	2.13	0.49
1:1G:674:G:N2	1:1G:717:C:O2	2.46	0.49
1:1G:690:G:H2'	1:1G:691:G:O4'	2.12	0.49
1:1G:974:A:HO2'	1:1G:975:A:P	2.28	0.49
13:4A:102:ARG:HD3	13:4A:105:THR:H	1.78	0.49
26:14:270(F):U:H2'	26:14:270(G):C:C6	2.48	0.49
26:14:270(M):U:H5"	26:14:270(N):G:OP1	2.12	0.49
26:14:1270:C:H5"	26:14:1271:G:O5'	2.13	0.49
26:14:1464:C:HO2'	26:14:1528:A:H8	1.59	0.49
26:14:2335:A:C8	26:14:2337:G:C5	3.00	0.49
31:39:83:PHE:O	31:39:84:VAL:HB	2.12	0.49
36:25:38:VAL:HG11	36:25:91:LEU:HD11	1.95	0.49
37:35:85:LEU:HD13	37:35:114:ILE:HD11	1.94	0.49
38:45:97:VAL:HG11	38:45:103:MET:HE3	1.95	0.49
1:13:116:A:H61	1:13:313:A:H1'	1.78	0.49
1:13:598:U:H4'	8:7E:94:TYR:CG	2.48	0.49
1:13:626:U:H2'	1:13:627:G:C8	2.48	0.49
1:13:631:G:HO2'	1:13:632:A:H8	1.60	0.49
1:13:1129:C:H3'	1:13:1139:G:N7	2.27	0.49
2:1E:5:ILE:HB	2:1E:221:LEU:HD23	1.94	0.49
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.13	0.49
4:3E:207:TYR:O	4:3E:209:ARG:HD3	2.13	0.49
5:4E:15:ARG:HB2	5:4E:28:PHE:CE2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:91:VAL:HB	7:6E:96:GLN:HG2	1.95	0.49
8:7E:33:GLU:HG3	8:7E:59:LEU:HD11	1.95	0.49
24:3K:37:A:H3'	24:3K:38:A:H8	1.78	0.49
26:1H:38:A:H2'	26:1H:39:C:C6	2.47	0.49
26:1H:270(K):C:C5	26:1H:270(M):U:H5"	2.47	0.49
26:1H:654(O):G:H5"	26:1H:654(P):G:C2	2.47	0.49
26:1H:2402:C:H1'	26:1H:2403:C:H5	1.77	0.49
28:71:7:TYR:CE1	28:71:220:PRO:HB3	2.47	0.49
29:11:66:ASP:HB3	29:11:105:ILE:CD1	2.43	0.49
33:51:8:PRO:HG2	33:51:69:ARG:NH2	2.27	0.49
34:61:2:LYS:NZ	34:61:2:LYS:HB3	2.27	0.49
35:58:53:VAL:HG11	35:58:128:HIS:HD2	1.77	0.49
38:88:66:ILE:CG1	38:88:67:ARG:H	2.26	0.49
45:F8:49:VAL:HG12	45:F8:50:LYS:H	1.78	0.49
51:L8:31:LEU:O	51:L8:32:GLN:HB2	2.12	0.49
1:1G:21:G:H2'	1:1G:22:G:C8	2.48	0.49
1:1G:247:G:OP2	17:8A:100:LYS:HA	2.12	0.49
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.12	0.49
1:1G:572:A:H5'	61:1G:1848:HOH:O	2.13	0.49
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.43	0.49
2:12:49:GLU:O	2:12:52:GLU:HG3	2.12	0.49
24:3L:33:U:H1'	24:3L:35:U:H5	1.77	0.49
26:14:277:C:OP2	26:14:278:A:N6	2.46	0.49
26:14:470:A:H5'	26:14:470:A:H8	1.77	0.49
26:14:850:C:H6	26:14:850:C:O5'	1.96	0.49
26:14:1005:C:H2'	26:14:1006:C:H6	1.77	0.49
26:14:1536:A:H8	26:14:1537:C:H1'	1.77	0.49
26:14:1742:C:H5'	26:14:1743:G:OP2	2.11	0.49
26:14:1796:U:H2'	26:14:1797:C:C6	2.48	0.49
26:14:2439:A:C8	26:14:2439:A:C5'	2.96	0.49
26:14:2693:A:H2'	26:14:2694:G:C8	2.45	0.49
34:69:45:LYS:O	34:69:49:ALA:N	2.43	0.49
38:45:110:THR:O	38:45:113:GLN:N	2.45	0.49
39:55:45:ARG:HA	39:55:95:THR:HG21	1.94	0.49
45:B5:53:LYS:HB3	45:B5:82:GLN:HB3	1.94	0.49
45:B5:63:LYS:HA	45:B5:72:LYS:HA	1.95	0.49
1:13:7:G:H5'	1:13:298:A:O4'	2.12	0.49
2:1E:130:ARG:HB3	2:1E:134:GLU:HB3	1.95	0.49
2:1E:189:ASP:CG	2:1E:205:ASP:HB3	2.33	0.49
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.94	0.49
8:7E:33:GLU:HA	8:7E:36:LEU:HD12	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	1.95	0.49
13:4I:108:ARG:N	13:4I:108:ARG:HD2	2.25	0.49
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.13	0.49
26:1H:74:A:H8	26:1H:74:A:C5'	2.26	0.49
26:1H:527:C:N4	26:1H:2777:G:O2'	2.45	0.49
26:1H:592:G:H5"	26:1H:592:G:H8	1.78	0.49
26:1H:1331:A:O2'	26:1H:1332:G:C8	2.65	0.49
26:1H:1632:A:N6	61:1H:3642:HOH:O	2.35	0.49
26:1H:1836:C:H2'	26:1H:1837:C:H6	1.77	0.49
26:1H:2516:G:C6	26:1H:2517:C:N4	2.80	0.49
27:16:16:G:N2	27:16:69:G:H1'	2.28	0.49
29:11:233:HIS:HA	61:11:306:HOH:O	2.13	0.49
37:78:18:ARG:HG3	37:78:18:ARG:NH2	2.25	0.49
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.45	0.49
47:H8:48:PHE:CE1	47:H8:71:VAL:HG21	2.47	0.49
1:1G:1058:G:H2'	1:1G:1059:C:C6	2.47	0.49
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.13	0.49
2:12:81:VAL:O	2:12:85:ALA:N	2.46	0.49
5:42:57:LYS:HG2	5:42:61:TYR:HE1	1.78	0.49
11:2A:31:THR:HG22	11:2A:42:TRP:HB2	1.94	0.49
13:4A:34:LEU:HD13	13:4A:41:PRO:HB3	1.93	0.49
13:4A:86:CYS:SG	13:4A:88:ARG:HG3	2.52	0.49
24:3L:65:C:H2'	24:3L:66:A:H8	1.76	0.49
26:14:403:U:H4'	26:14:404:C:H5'	1.95	0.49
26:14:1024:G:C8	26:14:1025:G:H2'	2.48	0.49
26:14:1963:U:O2	26:14:1963:U:H2'	2.11	0.49
26:14:1990:C:H2'	26:14:1991:U:C6	2.48	0.49
26:14:2290:G:C2	26:14:2343:C:O2	2.65	0.49
33:59:130:ARG:O	33:59:131:VAL:HB	2.13	0.49
39:55:75:LEU:O	39:55:75:LEU:HD23	2.13	0.49
51:H5:44:ARG:HH11	51:H5:44:ARG:HB2	1.77	0.49
1:13:129(A):G:C2	1:13:188:U:O2'	2.66	0.49
1:13:345:C:H4'	1:13:346:G:N7	2.28	0.49
1:13:434:U:H2'	1:13:435:C:C6	2.47	0.49
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.13	0.49
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	1.95	0.49
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.43	0.49
13:4I:74:VAL:O	13:4I:78:ILE:HG13	2.13	0.49
26:1H:569:U:C4	26:1H:570:G:C6	3.01	0.49
26:1H:1556:C:H2'	26:1H:1557:C:C6	2.48	0.49
26:1H:2129:C:H2'	26:1H:2130:U:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2178:C:H5'	28:71:46:LYS:HD3	1.94	0.49
27:16:12:C:O2'	27:16:13:A:OP2	2.27	0.49
29:11:132:PRO:HD3	29:11:190:TYR:CZ	2.48	0.49
30:21:76:ARG:O	30:21:77:ILE:HB	2.12	0.49
34:61:77:LEU:H	34:61:77:LEU:HD12	1.77	0.49
37:78:59:LEU:HD11	55:Q8:10:ALA:HA	1.95	0.49
38:88:66:ILE:CD1	38:88:67:ARG:H	2.26	0.49
50:K8:3:LEU:C	50:K8:7:ARG:H	2.16	0.49
1:1G:476:G:O2'	1:1G:477:G:H5'	2.13	0.49
1:1G:554:C:H2'	1:1G:555:C:C6	2.48	0.49
1:1G:1247:U:H2'	1:1G:1248:A:O4'	2.12	0.49
1:1G:1502:A:H2	1:1G:1505:G:N1	2.04	0.49
3:22:18:TRP:CD1	14:5A:54:PRO:HA	2.47	0.49
4:32:98:GLU:HG3	4:32:189:PRO:HG3	1.94	0.49
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.13	0.49
7:62:69:VAL:HG12	7:62:103:TRP:HE3	1.78	0.49
26:14:384:U:H2'	26:14:385:C:H6	1.77	0.49
26:14:445:C:O2'	26:14:446:G:H5'	2.13	0.49
26:14:1568:G:P	29:19:63:ARG:HH12	2.32	0.49
26:14:2056:G:C2	26:14:2057:A:C8	3.01	0.49
26:14:2370:G:C6	26:14:2371:G:C6	3.01	0.49
26:14:2855:C:H2'	26:14:2856:C:C6	2.45	0.49
29:19:37:LEU:N	29:19:37:LEU:HD12	2.28	0.49
33:59:35:VAL:HG11	33:59:71:LEU:HG	1.95	0.49
39:55:103:ARG:HH21	39:55:110:PRO:HD3	1.78	0.49
47:D5:80:ARG:HH11	47:D5:82:ARG:HH21	1.61	0.49
1:13:316:G:OP2	1:13:351:G:O2'	2.31	0.48
1:13:1165:C:H2'	1:13:1166:G:O4'	2.13	0.48
3:2E:18:TRP:HE3	3:2E:18:TRP:H	1.59	0.48
4:3E:197:PRO:HD3	6:52:16:GLN:HG3	1.96	0.48
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.77	0.48
9:8E:114:TYR:CE1	10:1I:59:SER:HA	2.48	0.48
26:1H:482:A:H5"	26:1H:483:A:OP1	2.13	0.48
26:1H:761:A:H5"	61:1H:3671:HOH:O	2.13	0.48
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.13	0.48
27:16:15:A:H1'	27:16:109:G:C8	2.47	0.48
35:58:65:LYS:HD2	35:58:69:GLN:HE21	1.78	0.48
45:F8:51:VAL:HG13	45:F8:81:VAL:HG23	1.94	0.48
49:J8:77:ALA:HA	49:J8:79:GLY:N	2.28	0.48
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.46	0.48
1:1G:1011:G:H22	1:1G:1019:C:H1'	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1287:A:N3	1:1G:1353:G:O2'	2.38	0.48
5:42:13:ILE:HG13	5:42:13:ILE:O	2.12	0.48
9:82:32:ASP:HB3	9:82:35:GLU:HB3	1.94	0.48
13:4A:88:ARG:CZ	13:4A:88:ARG:HB2	2.43	0.48
15:6A:11:VAL:HG21	15:6A:34:LEU:HD13	1.95	0.48
26:14:336:C:OP1	46:C5:83:THR:HG23	2.13	0.48
26:14:1592:C:H2'	26:14:1593:G:H8	1.78	0.48
31:39:68:LYS:HB3	31:39:69:HIS:CD2	2.47	0.48
37:35:47:ASP:HB3	37:35:49:ARG:H	1.78	0.48
46:C5:59:GLY:O	46:C5:61:ILE:HG12	2.13	0.48
1:13:7:G:O2'	5:4E:120:THR:O	2.31	0.48
1:13:419:C:H5'	1:13:513:C:H1'	1.95	0.48
1:13:941:G:C2	1:13:942:G:H1'	2.48	0.48
1:13:1422:G:H5"	36:68:48:PRO:CB	2.43	0.48
26:1H:607:U:N3	26:1H:621:A:C2	2.73	0.48
26:1H:996:A:O2'	42:C8:92:ARG:HG3	2.13	0.48
26:1H:1332:G:N2	26:1H:1610:A:C8	2.81	0.48
26:1H:1682:G:H5'	26:1H:1762:A:O2'	2.13	0.48
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.13	0.48
26:1H:2107:C:O2	26:1H:2182:G:N2	2.42	0.48
27:16:8:U:O3'	40:A8:25:ARG:NH2	2.46	0.48
31:31:6:VAL:HG11	31:31:119:ARG:N	2.29	0.48
37:78:106:LEU:O	37:78:106:LEU:HD22	2.13	0.48
40:A8:84:GLN:HA	40:A8:111:GLU:CD	2.33	0.48
43:D8:9:GLY:O	43:D8:10:LYS:HG3	2.13	0.48
43:D8:10:LYS:NZ	43:D8:23:GLU:OE1	2.45	0.48
48:I8:72:ARG:HH11	48:I8:75:LEU:HD12	1.77	0.48
1:1G:256:U:H2'	1:1G:257:G:C8	2.48	0.48
1:1G:547:A:H5'	61:1G:1864:HOH:O	2.12	0.48
1:1G:750:G:O2'	15:6A:21:ASP:OD1	2.31	0.48
1:1G:952:U:OP1	1:1G:972:C:N4	2.46	0.48
1:1G:1140:C:H2'	1:1G:1141:C:H6	1.77	0.48
3:22:18:TRP:NE1	14:5A:55:GLY:N	2.61	0.48
7:62:116:ALA:O	7:62:120:ILE:HG12	2.13	0.48
23:2L:60:A:H2'	23:2L:61:U:H5'	1.95	0.48
26:14:235:U:H2'	26:14:236:C:C6	2.48	0.48
26:14:463:G:N2	26:14:465:G:H3'	2.28	0.48
26:14:2146:C:H4'	26:14:2147:G:C8	2.48	0.48
26:14:2708:G:H5'	39:55:68:ARG:HG2	1.95	0.48
42:85:66:ASN:ND2	42:85:70:ARG:HH21	2.10	0.48
50:G5:47:ASN:N	50:G5:47:ASN:OD1	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:145:G:H1	1:13:177:C:N4	2.10	0.48
1:13:537:G:H2'	1:13:538:G:C8	2.47	0.48
1:13:542:G:H5'	4:3E:41:GLY:HA3	1.95	0.48
1:13:648:A:C6	1:13:649:G:C6	3.01	0.48
1:13:746:A:H2'	1:13:747:C:H6	1.78	0.48
1:13:918:A:H2'	1:13:919:A:C8	2.48	0.48
1:13:1346:A:C4	7:6E:10:ARG:NH2	2.81	0.48
2:1E:59:GLU:HB2	2:1E:221:LEU:HD11	1.94	0.48
6:5E:62:TRP:HH2	6:5E:64:GLN:HG3	1.77	0.48
24:3K:48:C:C5	24:3K:59:A:H1'	2.48	0.48
24:3K:56:C:H1'	26:1H:2169:A:H62	1.76	0.48
26:1H:277:C:H5'	26:1H:278:A:C4	2.48	0.48
26:1H:1009:A:P	61:1H:3852:HOH:O	2.70	0.48
26:1H:1021:A:H61	26:1H:1142(A):A:H61	1.61	0.48
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.13	0.48
29:11:67:PHE:HB3	29:11:153:ALA:H	1.78	0.48
45:F8:9:LEU:O	50:K8:36:ARG:NE	2.46	0.48
50:K8:15:LYS:H	50:K8:15:LYS:HZ2	1.60	0.48
1:1G:142:G:H2'	1:1G:143:A:H8	1.78	0.48
1:1G:191(E):G:H2'	1:1G:191(F):U:H6	1.78	0.48
1:1G:1127:G:H2'	1:1G:1128:C:C6	2.48	0.48
1:1G:1228:C:H2'	1:1G:1229:A:H8	1.78	0.48
1:1G:1320:C:H2'	1:1G:1321:C:H6	1.78	0.48
4:32:31:CYS:HB2	4:32:33:MET:N	2.25	0.48
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.48	0.48
10:1A:32:ALA:HA	10:1A:76:ASN:ND2	2.28	0.48
14:5A:24:CYS:HB2	14:5A:33:VAL:HG12	1.95	0.48
26:14:724:U:H2'	26:14:725:G:O4'	2.14	0.48
26:14:925:C:H2'	26:14:926:A:H8	1.77	0.48
26:14:2541:A:H5"	26:14:2542:A:OP2	2.13	0.48
26:14:2698:U:H2'	26:14:2699:C:C6	2.48	0.48
41:75:7:ILE:HG13	41:75:8:LYS:N	2.28	0.48
48:E5:68:GLU:OE2	48:E5:82:ARG:HG3	2.13	0.48
1:13:637:G:H2'	1:13:638:G:H8	1.79	0.48
1:13:673:G:H5"	6:5E:87:ARG:NH1	2.28	0.48
1:13:920:U:H2'	1:13:921:U:H6	1.78	0.48
1:13:1162:C:O5'	1:13:1162:C:H6	1.97	0.48
1:13:1238:A:N3	1:13:1241:G:O2'	2.39	0.48
1:13:1510:U:H2'	1:13:1511:G:C8	2.49	0.48
6:5E:86:ARG:O	6:5E:87:ARG:HG2	2.13	0.48
8:7E:7:ALA:HB2	8:7E:85:ARG:HD2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:22:LYS:HZ2	10:1I:90:LEU:HD13	1.78	0.48
23:2K:47:7MG:H3'	23:2K:47:7MG:P	2.52	0.48
26:1H:94:G:H2'	26:1H:95:G:O4'	2.12	0.48
26:1H:698:C:O2'	26:1H:734:A:N6	2.47	0.48
26:1H:1568:G:OP1	29:11:63:ARG:NH1	2.39	0.48
26:1H:2028:U:H2'	26:1H:2029:G:O4'	2.13	0.48
26:1H:2684:U:C4	26:1H:2685:G:N7	2.81	0.48
26:1H:2845:G:H5"	41:B8:54:ARG:O	2.13	0.48
27:16:31:C:H2'	27:16:32:C:H6	1.78	0.48
31:31:160:ASN:OD1	31:31:163:VAL:HG23	2.12	0.48
33:51:33:LEU:HD12	33:51:75:ALA:HA	1.96	0.48
1:1G:263:A:OP2	20:BA:79:ARG:NH1	2.46	0.48
1:1G:293:G:H4'	1:1G:609:A:N1	2.28	0.48
1:1G:539:A:H2'	1:1G:540:G:H8	1.76	0.48
1:1G:576:G:N2	1:1G:759:A:OP1	2.30	0.48
1:1G:591:U:H2'	1:1G:592:G:C8	2.48	0.48
1:1G:972:C:O2'	10:1A:55:LYS:HE2	2.13	0.48
1:1G:1225:A:H5"	13:4A:103:THR:OG1	2.13	0.48
1:1G:1492:A:H2'	1:1G:1493:A:C8	2.48	0.48
4:32:126:ILE:HG22	4:32:127:THR:N	2.28	0.48
26:14:547:A:H2'	26:14:548:A:C8	2.48	0.48
26:14:1344:G:O2'	26:14:1385:G:H2'	2.13	0.48
26:14:2543:G:H2'	26:14:2544:G:C8	2.49	0.48
26:14:2674:G:H4'	36:25:30:ALA:HB2	1.93	0.48
30:29:105:THR:HG21	30:29:164:ARG:CZ	2.43	0.48
32:49:12:TYR:O	32:49:17:PRO:HD3	2.13	0.48
32:49:56:ALA:HB2	32:49:153:ARG:CZ	2.44	0.48
1:13:192:U:H2'	1:13:193:C:C6	2.48	0.48
1:13:492:G:OP2	61:13:1844:HOH:O	2.20	0.48
1:13:626:U:C2	1:13:627:G:C8	3.01	0.48
1:13:1126:U:H2'	1:13:1127:G:C5'	2.42	0.48
23:2K:47:7MG:O2'	23:2K:48:U:H6	1.96	0.48
26:1H:198:C:O2'	26:1H:199:A:H5'	2.14	0.48
26:1H:774:A:H2	26:1H:787:U:HO2'	1.60	0.48
26:1H:818:G:H5'	26:1H:839:U:OP1	2.14	0.48
26:1H:1207:C:H2'	26:1H:1208:C:H6	1.78	0.48
26:1H:1800:C:OP1	29:11:266:SER:OG	2.28	0.48
26:1H:2259:G:C2	26:1H:2282:G:N1	2.81	0.48
26:1H:2336:A:H61	48:I8:43:THR:HB	1.77	0.48
26:1H:2789:C:O2'	26:1H:2893:G:N2	2.43	0.48
28:71:45:ALA:HA	28:71:211:SER:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:17:ASP:O	35:58:56:ASN:HB2	2.12	0.48
38:88:51:ARG:O	38:88:55:VAL:HG13	2.13	0.48
39:98:15:SER:OG	61:98:201:HOH:O	2.20	0.48
49:J8:7:ILE:HD12	49:J8:62:VAL:HG11	1.96	0.48
50:K8:5:GLU:O	50:K8:8:LYS:HB3	2.13	0.48
1:1G:744:C:O2'	1:1G:851:G:N2	2.46	0.48
1:1G:972:C:C2'	10:1A:55:LYS:HG3	2.43	0.48
7:62:141:VAL:HA	7:62:142:GLU:HB2	1.95	0.48
8:72:20:TYR:HD1	8:72:65:TYR:CD2	2.32	0.48
20:BA:11:SER:HA	20:BA:13:LEU:CD2	2.44	0.48
20:BA:64:ASP:OD2	20:BA:81:LYS:HD2	2.13	0.48
26:14:180:G:P	54:L5:32:LYS:HD2	2.54	0.48
26:14:573:G:O2'	26:14:574:C:H3'	2.14	0.48
26:14:751:A:H5'	44:A5:90:ARG:HA	1.95	0.48
26:14:1268:A:C2	26:14:2013:A:C4	3.01	0.48
26:14:1636:C:H2'	26:14:1637:A:C8	2.48	0.48
26:14:1681:G:C4	61:14:3680:HOH:O	2.66	0.48
26:14:1794:U:O2'	26:14:1795:C:H5'	2.13	0.48
39:55:51:LEU:HA	39:55:51:LEU:HD23	1.71	0.48
47:D5:40:ASP:HB3	47:D5:43:GLU:HB2	1.95	0.48
8:7E:104:ARG:HG3	8:7E:138:TRP:CD1	2.49	0.48
26:1H:557:U:H2'	26:1H:558:G:H8	1.79	0.48
26:1H:581:C:OP1	42:C8:33:ARG:HG3	2.13	0.48
26:1H:1533:C:H2'	26:1H:1534:G:C8	2.49	0.48
26:1H:2068:U:N3	26:1H:2430:A:H2	2.08	0.48
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.49	0.48
28:71:47:LEU:HG	28:71:170:ALA:HA	1.96	0.48
28:71:47:LEU:HD21	28:71:171:ILE:HB	1.95	0.48
1:1G:673:G:O3'	6:52:87:ARG:NH2	2.47	0.48
1:1G:683:G:H2'	1:1G:684:A:C8	2.48	0.48
1:1G:748:C:H6	1:1G:748:C:O5'	1.96	0.48
1:1G:765:G:H5"	1:1G:766:A:OP1	2.14	0.48
1:1G:951:G:HO2'	1:1G:972:C:H5	1.59	0.48
2:12:50:GLU:HG3	2:12:201:ILE:HG12	1.94	0.48
2:12:84:GLU:HA	2:12:87:ARG:HE	1.78	0.48
12:3A:59:ARG:HA	12:3A:65:GLU:H	1.79	0.48
16:7A:8:ARG:HD3	16:7A:17:TYR:CE2	2.49	0.48
20:BA:86:ARG:NH1	20:BA:86:ARG:HB2	2.29	0.48
56:1L:8:U:H3'	56:1L:13:C:N4	2.28	0.48
26:14:95:G:O2'	50:G5:48:HIS:HB3	2.13	0.48
26:14:422:A:C6	26:14:423:A:C6	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1171:G:O2'	26:14:1173:G:O4'	2.14	0.48
26:14:1187:G:H5"	43:95:81:TYR:CE1	2.49	0.48
26:14:1599:C:H2'	26:14:1600:C:H6	1.79	0.48
26:14:2472:G:H1	26:14:2477:C:P	2.37	0.48
26:14:2542:A:O2'	26:14:2543:G:OP2	2.28	0.48
34:69:97:ILE:O	34:69:100:ALA:HB3	2.13	0.48
46:C5:82:PRO:HB3	46:C5:97:ARG:HB3	1.96	0.48
47:D5:80:ARG:HD2	47:D5:82:ARG:HH21	1.79	0.48
49:F5:87:PRO:O	49:F5:90:ILE:HG22	2.14	0.48
1:13:1250:A:H4'	9:8E:68:GLY:N	2.28	0.48
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.78	0.48
4:3E:129:ASN:ND2	4:3E:144:ASP:OD1	2.47	0.48
6:5E:24:GLU:HG3	6:5E:28:ARG:CZ	2.44	0.48
15:6I:36:ILE:HG12	15:6I:59:MET:HE3	1.94	0.48
19:AI:8:GLY:HA3	19:AI:9:VAL:HA	1.47	0.48
19:AI:28:LYS:HE2	19:AI:28:LYS:HB3	1.59	0.48
26:1H:531:C:H5'	61:1H:4752:HOH:O	2.14	0.48
26:1H:1950:G:N2	61:1H:3889:HOH:O	2.23	0.48
26:1H:2175:C:H1'	28:71:217:THR:O	2.13	0.48
26:1H:2500:U:H4'	61:1H:4013:HOH:O	2.14	0.48
26:1H:2597:G:O3'	61:1H:3872:HOH:O	2.20	0.48
42:C8:34:LYS:NZ	42:C8:37:GLU:OE1	2.37	0.48
47:H8:102:LEU:HG	47:H8:123:ASP:HA	1.94	0.48
47:H8:111:VAL:HG11	47:H8:146:ILE:N	2.28	0.48
47:H8:128:VAL:HB	47:H8:161:VAL:HG12	1.95	0.48
1:1G:278:G:OP2	17:8A:92:ARG:NH2	2.46	0.48
1:1G:297:G:N2	1:1G:300:A:OP2	2.45	0.48
1:1G:607:A:H2'	1:1G:608:A:O4'	2.12	0.48
1:1G:991:U:O2	1:1G:993:G:C8	2.67	0.48
4:32:26:CYS:HA	58:32:302:SF4:S2	2.53	0.48
4:32:34:GLU:HB2	4:32:35:ARG:NH2	2.29	0.48
4:32:126:ILE:HG22	4:32:127:THR:H	1.77	0.48
13:4A:99:ARG:HB2	13:4A:101:GLN:OE1	2.14	0.48
18:9A:53:ARG:NE	18:9A:58:LEU:O	2.47	0.48
23:2L:47:7MG:H5'	23:2L:47:7MG:C8	2.42	0.48
26:14:511:U:C5	26:14:512:G:C5	3.02	0.48
26:14:1149:G:H2'	26:14:1150:C:C6	2.49	0.48
26:14:1384:A:N3	26:14:1405:U:H1'	2.29	0.48
26:14:2018:G:P	53:J5:9:LYS:HZ3	2.37	0.48
26:14:2115:G:O2'	26:14:2171:A:N6	2.45	0.48
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:144:VAL:HG12	33:59:148:ILE:HG12	1.96	0.48
37:35:8:PRO:HB2	37:35:12:ALA:HB3	1.94	0.48
46:C5:88:LYS:O	46:C5:89:PHE:HB3	2.13	0.48
51:H5:39:ASP:O	51:H5:44:ARG:NH1	2.47	0.48
1:13:738:C:H2'	1:13:739:C:H6	1.77	0.48
1:13:975:A:O2'	14:5I:32:SER:OG	2.18	0.48
1:13:989:C:H42	1:13:1216:G:H1	1.61	0.48
1:13:1044:A:C6	1:13:1045:C:H1'	2.48	0.48
1:13:1255:G:OP1	10:1I:45:ARG:NH2	2.47	0.48
1:13:1533:C:O2'	1:13:1534:A:OP1	2.29	0.48
2:1E:91:PRO:HG3	2:1E:155:LEU:HB2	1.95	0.48
3:2E:11:ARG:NH2	3:2E:177:THR:O	2.47	0.48
5:4E:6:PHE:HD2	5:4E:63:ARG:NH1	2.12	0.48
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.13	0.48
12:3I:123:LYS:H	12:3I:123:LYS:HG2	1.42	0.48
23:2K:44:A:C2	23:2K:45:A:C4	3.02	0.48
26:1H:910:A:N7	38:88:13:GLN:HG3	2.28	0.48
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.48	0.48
26:1H:1243:G:O2'	37:78:7:ARG:NH2	2.47	0.48
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.47	0.48
26:1H:2123:G:H2'	26:1H:2124:G:O4'	2.14	0.48
26:1H:2125:G:H1	26:1H:2171:A:H5"	1.78	0.48
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.95	0.48
27:16:31:C:H2'	27:16:32:C:C6	2.49	0.48
28:71:39:GLU:O	28:71:178:ALA:HB2	2.13	0.48
28:71:39:GLU:HG3	28:71:178:ALA:HB2	1.94	0.48
30:21:14:ILE:HB	30:21:21:VAL:HG22	1.96	0.48
37:78:94:GLU:OE2	37:78:124:LYS:HD3	2.14	0.48
39:98:44:LEU:HD22	39:98:48:VAL:HG13	1.95	0.48
1:1G:15:G:H1'	5:42:19:MET:CE	2.42	0.48
1:1G:428:G:H4'	1:1G:429:U:O5'	2.13	0.48
1:1G:1088:G:N2	1:1G:1097:C:O2	2.32	0.48
1:1G:1129:C:H5"	1:1G:1139:G:N7	2.28	0.48
7:62:113:GLU:O	7:62:119:ARG:HD3	2.13	0.48
13:4A:108:ARG:NH1	13:4A:112:GLY:O	2.47	0.48
20:BA:85:MET:HB2	20:BA:104:LEU:HD21	1.96	0.48
21:1B:12:LYS:HB3	21:1B:17:THR:O	2.13	0.48
56:1L:52:G:H2'	56:1L:53:G:O4'	2.12	0.48
26:14:527:C:H4'	26:14:528:A:O5'	2.13	0.48
26:14:1139:G:O2'	26:14:1143:A:N1	2.37	0.48
26:14:1316:U:H2'	26:14:1317:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1973:G:H2'	26:14:1974:C:H6	1.78	0.48
31:39:73:ALA:HB3	31:39:75:HIS:CE1	2.48	0.48
38:45:66:ILE:HG22	38:45:104:PHE:CE1	2.49	0.48
42:85:91:ASP:OD1	42:85:96:ALA:HB2	2.13	0.48
48:E5:11:ARG:O	48:E5:14:ARG:NH2	2.47	0.48
50:G5:31:GLU:O	50:G5:35:LEU:HD23	2.14	0.48
51:H5:46:ASN:O	51:H5:50:VAL:HG22	2.13	0.48
1:13:35:G:H2'	1:13:36:C:C6	2.49	0.48
1:13:714:G:H2'	1:13:715:A:C8	2.49	0.48
1:13:954:G:H2'	1:13:955:U:C6	2.48	0.48
1:13:1009:G:C2	1:13:1021:G:C6	3.01	0.48
1:13:1187:G:O5'	9:8E:113:LYS:HE3	2.14	0.48
1:13:1273:G:C2	1:13:1274:G:H1'	2.48	0.48
2:1E:80:ILE:HG22	2:1E:215:LEU:HD23	1.95	0.48
4:3E:85:LYS:CE	4:3E:89:THR:HA	2.44	0.48
26:1H:725:G:C6	26:1H:726:G:N1	2.81	0.48
26:1H:960:A:C8	26:1H:962:G:C8	3.01	0.48
26:1H:2313:C:C2'	26:1H:2314:C:H5'	2.44	0.48
32:41:82:LEU:HA	32:41:86:MET:HE3	1.96	0.48
32:41:113:ARG:HD3	32:41:140:ILE:O	2.14	0.48
39:98:55:ALA:HA	39:98:80:PHE:CE1	2.49	0.48
1:1G:1004:A:C2	1:1G:1006:C:H1'	2.49	0.48
1:1G:1443:G:N2	41:75:119:LYS:HB2	2.29	0.48
2:12:48:MET:HA	2:12:51:LEU:HD11	1.96	0.48
3:22:128:PHE:HD1	3:22:129:ALA:H	1.62	0.48
7:62:20:ASP:HB3	7:62:23:VAL:CB	2.38	0.48
7:62:120:ILE:HG22	7:62:124:LEU:HD12	1.96	0.48
26:14:142:G:H5"	26:14:1598:C:O2'	2.14	0.48
26:14:194:G:H2'	26:14:195:A:O4'	2.13	0.48
26:14:270(I):G:H2'	26:14:270(J):G:C8	2.45	0.48
26:14:623:G:H2'	26:14:624:C:C6	2.49	0.48
26:14:631:A:H2'	26:14:632:A:O4'	2.13	0.48
26:14:2572:A:N7	30:29:144:ARG:HD2	2.29	0.48
26:14:2867:G:OP2	41:75:119:LYS:NZ	2.21	0.48
27:1J:89(A):A:H3'	27:1J:90:C:O4'	2.14	0.48
29:19:6:PHE:CE1	29:19:18:VAL:HG23	2.49	0.48
1:13:449:C:H5	16:7I:42:ARG:HH11	1.62	0.48
1:13:458:C:H2'	1:13:464:G:O4'	2.14	0.48
4:3E:65:ARG:NH1	4:3E:70:ILE:O	2.38	0.48
5:4E:48:ALA:HB2	5:4E:57:LYS:HD3	1.95	0.48
5:4E:110:LEU:O	5:4E:115:VAL:HB	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:8:4SU:OP2	23:2K:8:4SU:H6	2.13	0.48
26:1H:236:C:H2'	26:1H:237:C:C6	2.49	0.48
26:1H:324:A:C2'	26:1H:325:G:H5'	2.44	0.48
26:1H:962:G:H2'	26:1H:963:U:C6	2.49	0.48
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.37	0.48
26:1H:1864:U:H2'	26:1H:1869:G:H5"	1.95	0.48
26:1H:2038:G:H2'	26:1H:2039:C:H6	1.79	0.48
26:1H:2110:G:C5	26:1H:2120:G:C8	3.02	0.48
27:16:73:A:C4	27:16:104:A:C2	3.02	0.48
31:31:32:LEU:HD13	31:31:105:VAL:HG12	1.96	0.48
31:31:119:ARG:HB3	31:31:119:ARG:NH1	2.28	0.48
52:M8:39:CYS:SG	52:M8:41:PRO:HD2	2.53	0.48
1:1G:373:A:N3	1:1G:374:A:C8	2.82	0.48
1:1G:583:A:O2'	17:8A:91:ARG:NH1	2.47	0.48
1:1G:826:C:H5'	8:72:12:ARG:NH1	2.29	0.48
1:1G:1347:G:C8	9:82:107:ARG:HB2	2.49	0.48
3:22:11:ARG:NH2	3:22:182:ILE:HD11	2.29	0.48
4:32:150:GLU:C	4:32:152:SER:H	2.17	0.48
6:52:26:ILE:O	6:52:30:LEU:HG	2.13	0.48
12:3A:113:ARG:HH21	12:3A:116:SER:HB2	1.79	0.48
14:5A:21:TYR:HE1	14:5A:23:ARG:HB2	1.76	0.48
16:7A:18:ARG:HA	16:7A:38:TYR:HA	1.96	0.48
26:14:271(A):C:O2'	26:14:271(B):G:H5'	2.14	0.48
26:14:302:C:OP1	46:C5:81:LYS:HD2	2.14	0.48
26:14:304:G:H2'	26:14:305:U:H6	1.78	0.48
26:14:322:A:OP2	31:39:169:ASN:HB2	2.14	0.48
29:19:12:SER:HB2	29:19:208:LYS:HB3	1.95	0.48
31:39:174:VAL:HG11	31:39:188:ARG:HH22	1.79	0.48
32:49:95:ARG:O	32:49:99:MET:HG2	2.14	0.48
36:25:31:LYS:HB3	36:25:32:TYR:CD1	2.49	0.48
43:95:12:TYR:CZ	43:95:22:VAL:HG23	2.48	0.48
46:C5:104:GLY:HA2	46:C5:105:ALA:HA	1.68	0.48
47:D5:76:LEU:H	47:D5:76:LEU:HD23	1.79	0.48
1:13:190:G:H4'	1:13:191(A):G:OP2	2.14	0.47
1:13:236:G:H5"	17:8I:42:TYR:OH	2.14	0.47
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.48	0.47
1:13:605:U:H2'	1:13:606:G:O4'	2.13	0.47
1:13:676:A:H5"	11:2I:113:PRO:HB3	1.96	0.47
1:13:1497:G:C2'	1:13:1498:U:H5'	2.44	0.47
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.49	0.47
2:1E:70:PHE:HE1	2:1E:90:MET:HB3	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:79:LYS:O	13:4I:83:ASP:HB2	2.14	0.47
15:6I:55:GLY:HA2	15:6I:58:MET:HE3	1.96	0.47
20:BI:57:ARG:HH11	20:BI:102:GLY:HA2	1.79	0.47
26:1H:194:G:H2'	26:1H:195:A:O4'	2.14	0.47
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.79	0.47
30:21:59:VAL:HG13	30:21:60:ASN:N	2.28	0.47
30:21:117:MET:O	30:21:117:MET:HG2	2.14	0.47
31:31:23:ASP:CG	31:31:24:LEU:H	2.17	0.47
32:41:122:PRO:HB3	32:41:180:PHE:HD1	1.78	0.47
34:61:5:LEU:HD13	34:61:13:GLY:O	2.13	0.47
34:61:93:THR:O	34:61:97:ILE:HG13	2.14	0.47
40:A8:24:LEU:HB2	40:A8:85:VAL:HG12	1.94	0.47
43:D8:65:GLY:HA3	43:D8:91:TYR:CE2	2.48	0.47
45:F8:49:VAL:HG12	45:F8:50:LYS:N	2.29	0.47
47:H8:58:VAL:O	47:H8:60:GLU:N	2.47	0.47
53:N8:36:CYS:SG	53:N8:37:LYS:N	2.87	0.47
1:1G:672:U:H2'	1:1G:673:G:C8	2.49	0.47
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.14	0.47
1:1G:1306:A:C6	1:1G:1307:U:C2	3.02	0.47
1:1G:1492:A:H2'	1:1G:1493:A:H8	1.79	0.47
2:12:27:LYS:HE3	2:12:194:PRO:HD2	1.96	0.47
2:12:54:THR:HA	2:12:57:PHE:CD2	2.49	0.47
3:22:16:ARG:NH2	3:22:181:ASN:OD1	2.40	0.47
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.13	0.47
24:3L:44:U:H2'	24:3L:45:G:O4'	2.14	0.47
26:14:270(L):U:O2	34:69:50:ARG:HD3	2.14	0.47
26:14:823:G:H2'	26:14:824:A:C8	2.49	0.47
26:14:1007:C:H5"	35:15:35:ARG:HH11	1.78	0.47
26:14:1011:G:C4	26:14:1151:G:N2	2.82	0.47
26:14:1198:U:C2	26:14:1199:U:C5	3.02	0.47
26:14:2023:G:OP2	26:14:2617:C:H4'	2.14	0.47
26:14:2125:G:H21	26:14:2173:A:N6	2.12	0.47
30:29:33:VAL:HG13	30:29:47:VAL:HG13	1.96	0.47
42:85:66:ASN:CB	42:85:76:TYR:HB2	2.43	0.47
1:13:297:G:H4'	1:13:557:G:H4'	1.96	0.47
1:13:1113:C:H2'	1:13:1114:C:H6	1.77	0.47
3:2E:16:ARG:HD2	3:2E:54:ARG:NH2	2.29	0.47
4:3E:155:LEU:O	4:3E:158:ILE:N	2.40	0.47
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.95	0.47
21:1F:3:LYS:HB3	21:1F:14:TRP:CG	2.48	0.47
24:3K:9:A:O2'	24:3K:46:G:O5'	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:280:C:C2	26:1H:361:G:C2	3.02	0.47
26:1H:1230:C:H2'	26:1H:1231:G:C8	2.49	0.47
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.48	0.47
26:1H:1675:C:H2'	26:1H:1676:A:O4'	2.13	0.47
26:1H:2294:C:H2'	26:1H:2295:C:H6	1.78	0.47
26:1H:2480:C:H5'	26:1H:2481:G:OP2	2.13	0.47
31:31:10:PRO:O	31:31:124:LEU:HD12	2.14	0.47
35:58:12:ARG:HD2	35:58:50:ASP:CG	2.34	0.47
37:78:24:GLY:O	37:78:25:SER:HB3	2.13	0.47
40:A8:111:GLU:HB2	40:A8:112:PHE:CE2	2.49	0.47
53:N8:20:ARG:HG2	53:N8:23:HIS:CE1	2.49	0.47
1:1G:345:C:H4'	1:1G:346:G:O5'	2.14	0.47
1:1G:973:G:O3'	14:5A:41:ARG:NH2	2.41	0.47
1:1G:1329:A:H4'	13:4A:24:GLY:HA2	1.97	0.47
4:32:189:PRO:HB2	4:32:194:LEU:HD21	1.96	0.47
20:BA:73:HIS:HB3	20:BA:74:LYS:HG2	1.95	0.47
26:14:185:U:H4'	26:14:218:A:H4'	1.96	0.47
26:14:374:A:C2	26:14:401:A:C4	3.03	0.47
26:14:1416:G:O2'	26:14:1417:C:O5'	2.31	0.47
26:14:1798:U:H5'	29:19:259:THR:OG1	2.14	0.47
61:14:3916:HOH:O	37:35:39:LYS:HB3	2.13	0.47
37:35:138:LEU:HD12	37:35:144:GLU:OE2	2.14	0.47
40:65:43:GLU:HB2	48:E5:49:LYS:NZ	2.29	0.47
41:75:49:VAL:HG12	41:75:63:VAL:HG22	1.96	0.47
1:13:1305:G:H21	1:13:1331:G:H2'	1.78	0.47
1:13:1435:G:H2'	1:13:1436:U:H6	1.77	0.47
1:13:1459:C:OP1	20:BI:31:SER:OG	2.29	0.47
3:2E:133:ALA:O	3:2E:136:GLN:HG3	2.14	0.47
6:5E:100:ASN:C	18:9I:28:GLU:HB2	2.34	0.47
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.78	0.47
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.15	0.47
18:9I:34:TYR:HB3	18:9I:69:THR:HG23	1.96	0.47
18:9I:59:SER:OG	18:9I:60:ALA:N	2.46	0.47
26:1H:660:G:N2	37:78:12:ALA:HA	2.25	0.47
26:1H:1113:U:H5'	33:51:2:SER:OG	2.15	0.47
26:1H:1568:G:P	29:11:63:ARG:HH12	2.37	0.47
26:1H:2130:U:H2'	26:1H:2131:G:N7	2.29	0.47
26:1H:2282:G:H4'	26:1H:2389:G:O2'	2.14	0.47
30:21:49:LEU:HD12	30:21:49:LEU:HA	1.56	0.47
31:31:39:TRP:CB	31:31:101:LEU:HD12	2.44	0.47
32:41:163:ALA:HB1	32:41:168:GLU:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:80:TYR:CE1	37:78:111:ARG:HD3	2.49	0.47
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	1.96	0.47
1:1G:518:C:H5"	1:1G:519:C:H6	1.79	0.47
1:1G:1111:A:H8	1:1G:1111:A:O5'	1.97	0.47
1:1G:1515:C:H2'	1:1G:1516:G:H8	1.78	0.47
2:12:185:ILE:HG23	2:12:199:TYR:HB2	1.96	0.47
6:52:8:ILE:HD11	6:52:79:LEU:HD13	1.97	0.47
9:82:11:LYS:HG3	9:82:108:VAL:HG23	1.95	0.47
13:4A:12:ASN:O	13:4A:12:ASN:ND2	2.41	0.47
26:14:212:G:H2'	26:14:213:A:O4'	2.14	0.47
26:14:451:C:H41	26:14:454:A:H5'	1.79	0.47
26:14:1449(A):G:H2'	26:14:1450:C:H6	1.77	0.47
26:14:1707:G:C5	26:14:1756:G:C6	3.02	0.47
26:14:2156:G:N7	26:14:2157:G:N2	2.63	0.47
26:14:2305:A:H8	32:49:156:ASP:OD1	1.97	0.47
29:19:6:PHE:HE1	29:19:18:VAL:HG23	1.79	0.47
29:19:31:LYS:HZ2	29:19:33:LEU:HB3	1.79	0.47
31:39:25:PRO:C	31:39:27:GLU:N	2.67	0.47
35:15:135:PRO:O	35:15:137:LYS:HD2	2.15	0.47
37:35:135:LEU:HD22	37:35:135:LEU:HA	1.65	0.47
47:D5:105:VAL:HG13	47:D5:106:GLY:N	2.29	0.47
50:G5:25:VAL:HG12	50:G5:60:LEU:HD23	1.96	0.47
53:J5:16:ARG:HH11	53:J5:16:ARG:CG	2.27	0.47
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.14	0.47
4:3E:101:LEU:HG	4:3E:121:VAL:HG11	1.96	0.47
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	1.96	0.47
19:AI:40:ILE:HG23	19:AI:41:VAL:HG22	1.97	0.47
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.14	0.47
26:1H:68:G:H2'	26:1H:69:C:O4'	2.14	0.47
26:1H:617:G:OP1	31:31:40:GLN:NE2	2.48	0.47
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.14	0.47
26:1H:2378:A:O2'	40:A8:21:THR:HG21	2.14	0.47
26:1H:2461:C:H2'	26:1H:2462:U:H6	1.80	0.47
26:1H:2470:G:H5'	38:88:56:ARG:HH12	1.79	0.47
30:21:182:LEU:HD12	30:21:183:LEU:N	2.29	0.47
32:41:4:ASP:OD2	32:41:9:ARG:NH1	2.47	0.47
35:58:48:MET:SD	35:58:48:MET:O	2.72	0.47
36:68:16:ALA:HB2	36:68:52:VAL:HG21	1.96	0.47
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.41	0.47
40:A8:36:TYR:N	40:A8:36:TYR:CD1	2.83	0.47
42:C8:75:ASN:HB2	42:C8:78:THR:OG1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:858:G:OP2	1:1G:858:G:H8	1.98	0.47
1:1G:1055:A:N7	1:1G:1200:C:N4	2.62	0.47
1:1G:1161:C:H2'	1:1G:1162:C:H6	1.80	0.47
4:32:148:VAL:O	4:32:152:SER:OG	2.30	0.47
7:62:59:LEU:HD21	7:62:63:LYS:NZ	2.30	0.47
7:62:71:PRO:HD3	7:62:103:TRP:CZ3	2.50	0.47
7:62:97:GLN:O	7:62:101:LEU:HG	2.13	0.47
9:82:65:VAL:HG21	9:82:73:GLN:HB3	1.97	0.47
11:2A:18:ARG:HH21	11:2A:37:GLY:N	2.11	0.47
19:AA:3:ARG:HB3	19:AA:7:LYS:HB3	1.96	0.47
26:14:776:G:H4'	26:14:777:A:O5'	2.14	0.47
26:14:1012:U:H5	35:15:28:THR:HG21	1.77	0.47
26:14:1198:U:H2'	26:14:1199:U:H6	1.76	0.47
26:14:1212:G:O6	61:14:3666:HOH:O	2.20	0.47
26:14:1323:U:H2'	26:14:1324:G:H5'	1.96	0.47
26:14:1525:G:H2'	26:14:1526:G:C8	2.48	0.47
26:14:2086:U:H2'	26:14:2087:G:C8	2.49	0.47
26:14:2646:C:H2'	26:14:2647:U:O4'	2.14	0.47
26:14:2795:G:H2'	26:14:2795:G:N3	2.30	0.47
26:14:2869:G:H2'	26:14:2870:C:O4'	2.15	0.47
29:19:172:TYR:CD1	29:19:186:HIS:HA	2.49	0.47
30:29:66:HIS:CG	30:29:67:PHE:N	2.82	0.47
1:13:727:G:N1	1:13:731:G:C6	2.83	0.47
7:6E:45:ASP:O	7:6E:48:LYS:HB3	2.15	0.47
11:2I:122:LYS:HE3	11:2I:124:LYS:HE3	1.97	0.47
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.14	0.47
24:3K:72:C:C3'	24:3K:73:A:H5"	2.45	0.47
26:1H:654(D):G:H2'	26:1H:654(D):G:N3	2.30	0.47
28:71:6:ARG:HB3	28:71:6:ARG:CZ	2.44	0.47
32:41:112:PRO:HB3	52:M8:37:SER:CB	2.44	0.47
33:51:2:SER:C	33:51:3:ARG:HE	2.17	0.47
35:58:15:LEU:HB2	35:58:134:ARG:HB3	1.96	0.47
43:D8:36:PRO:C	43:D8:38:LEU:N	2.67	0.47
48:I8:19:LYS:HD3	48:I8:19:LYS:HA	1.57	0.47
1:1G:382:A:H2'	1:1G:383:A:C8	2.49	0.47
1:1G:885:G:O2'	1:1G:914:A:N1	2.44	0.47
1:1G:1239:A:H4'	1:1G:1240:U:H5'	1.95	0.47
1:1G:1508:G:H2'	1:1G:1509:C:O4'	2.15	0.47
3:22:39:ILE:O	3:22:43:LEU:HB2	2.14	0.47
9:82:9:ARG:O	9:82:104:ARG:HD2	2.14	0.47
24:3L:25:C:H2'	24:3L:26:A:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:65:C:H2'	24:3L:66:A:C8	2.50	0.47
26:14:617:G:OP1	31:39:40:GLN:HG3	2.15	0.47
26:14:850:C:O3'	51:H5:49:LYS:HE2	2.14	0.47
26:14:1952:A:C5	36:25:22:ILE:HD11	2.50	0.47
26:14:2081:C:C2'	26:14:2082:A:H5'	2.45	0.47
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.14	0.47
30:29:8:LYS:HD3	30:29:192:ASN:OD1	2.15	0.47
30:29:9:VAL:HG23	30:29:26:ILE:O	2.15	0.47
30:29:68:ALA:C	30:29:70:ALA:N	2.68	0.47
32:49:39:ILE:HD11	32:49:94:LEU:HD11	1.96	0.47
37:35:58:THR:HG21	55:M5:54:GLU:HB3	1.97	0.47
50:G5:22:GLU:HG2	50:G5:64:LEU:HD11	1.96	0.47
1:13:48:C:H6	1:13:365:U:O4	1.97	0.47
1:13:105:G:H2'	1:13:106:C:C6	2.50	0.47
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.79	0.47
14:5I:3:ARG:O	14:5I:3:ARG:HD3	2.15	0.47
26:1H:27:G:N2	26:1H:512:G:H1'	2.29	0.47
26:1H:445:C:H3'	61:1H:3677:HOH:O	2.15	0.47
26:1H:529:A:H8	26:1H:530:G:C6	2.33	0.47
26:1H:559:G:H22	42:C8:49:HIS:CE1	2.33	0.47
26:1H:2626:C:H2'	26:1H:2627:G:O4'	2.15	0.47
28:71:59:ARG:HG3	28:71:164:ARG:HD2	1.97	0.47
30:21:38:THR:O	30:21:42:ASP:N	2.48	0.47
32:41:64:THR:HB	32:41:94:LEU:HD13	1.97	0.47
37:78:124:LYS:HA	37:78:143:GLY:O	2.14	0.47
43:D8:2:PHE:H	43:D8:42:GLY:HA3	1.80	0.47
43:D8:79:VAL:HG13	43:D8:81:TYR:HB3	1.96	0.47
45:F8:5:TYR:CE1	50:K8:30:ARG:HG3	2.49	0.47
1:1G:46:G:O2'	1:1G:365:U:H1'	2.15	0.47
1:1G:57:G:C5	1:1G:58:C:C4	3.03	0.47
1:1G:324:G:N2	1:1G:326:G:H3'	2.29	0.47
1:1G:524:G:H2'	1:1G:525:C:C6	2.49	0.47
1:1G:583:A:H2'	1:1G:584:G:O4'	2.14	0.47
1:1G:624:C:O3'	16:7A:10:GLY:HA2	2.14	0.47
1:1G:983:A:N1	1:1G:1222:G:N2	2.62	0.47
1:1G:985:C:H2'	1:1G:986:A:C8	2.49	0.47
1:1G:1240:U:OP2	7:62:116:ALA:N	2.41	0.47
1:1G:1286:A:H3'	1:1G:1286:A:C8	2.49	0.47
2:12:176:GLU:O	2:12:180:LEU:HD12	2.14	0.47
2:12:187:LEU:HD21	2:12:205:ASP:HA	1.96	0.47
4:32:39:PRO:O	4:32:44:GLY:HA3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:89:MET:HE1	18:9A:75:ILE:HB	1.95	0.47
10:1A:25:GLU:HG3	10:1A:29:ARG:HD3	1.96	0.47
11:2A:54:ARG:NH2	24:3L:40:C:OP1	2.47	0.47
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.50	0.47
18:9A:66:LEU:O	18:9A:70:ILE:HG13	2.14	0.47
25:4L:21:A:C3'	25:4L:22:A:H5"	2.44	0.47
26:14:11:G:H2'	26:14:12:U:H5'	1.96	0.47
26:14:320:A:H4'	26:14:322:A:C8	2.50	0.47
26:14:582:G:H2'	26:14:583:G:C8	2.50	0.47
26:14:886:C:H1'	26:14:890:A:C2	2.48	0.47
26:14:1340:U:H4'	26:14:1341:U:OP2	2.15	0.47
26:14:1377:G:H8	26:14:1377:G:O5'	1.97	0.47
26:14:2129:C:H5"	26:14:2130:U:H5	1.80	0.47
26:14:2275:C:C6	26:14:2275:C:H5'	2.50	0.47
26:14:2488:A:H2'	26:14:2489:G:O4'	2.13	0.47
26:14:2864:G:OP1	41:75:119:LYS:HD3	2.15	0.47
27:1J:83:G:H5'	51:H5:52:HIS:CE1	2.50	0.47
29:19:49:ILE:O	29:19:49:ILE:HG12	2.15	0.47
29:19:96:HIS:CD2	29:19:102:LYS:HG2	2.49	0.47
33:59:27:LYS:HD3	33:59:32:GLU:HG3	1.97	0.47
33:59:37:VAL:HG13	33:59:38:SER:O	2.14	0.47
47:D5:52:SER:C	47:D5:54:HIS:H	2.15	0.47
53:J5:12:SER:OG	53:J5:15:ARG:HB2	2.15	0.47
1:13:160:A:N6	1:13:344:A:H8	2.13	0.47
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.47	0.47
1:13:310:G:P	16:7I:27:LYS:HZ2	2.38	0.47
1:13:486:U:H2'	1:13:487:A:C8	2.50	0.47
1:13:1118:C:P	9:8E:104:ARG:HH11	2.38	0.47
1:13:1260:C:H4'	1:13:1283:G:O2'	2.15	0.47
1:13:1318:A:H2'	1:13:1319:A:H5"	1.96	0.47
1:13:1338:G:C6	1:13:1339:A:C6	3.02	0.47
1:13:1402:C:H2'	1:13:1403:C:O4'	2.14	0.47
3:2E:32:LEU:HD13	3:2E:59:ARG:HD3	1.95	0.47
11:2I:83:ILE:HD13	11:2I:109:VAL:HG21	1.97	0.47
13:4I:8:GLU:O	13:4I:10:PRO:HD3	2.15	0.47
14:5I:27:CYS:SG	14:5I:29:ARG:HB2	2.55	0.47
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.25	0.47
24:3K:53:G:H1	24:3K:61:C:N4	2.12	0.47
26:1H:70:G:H21	26:1H:71:A:N6	2.09	0.47
26:1H:154:G:H2'	26:1H:155:C:C6	2.50	0.47
26:1H:277:C:H3'	26:1H:278:A:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.48	0.47
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.15	0.47
26:1H:742:G:H2'	26:1H:743:G:C8	2.50	0.47
26:1H:775:G:C4	26:1H:794:G:C8	3.03	0.47
26:1H:853:G:H2'	26:1H:854:G:C8	2.50	0.47
26:1H:1262:A:N3	53:N8:10:LYS:HE3	2.29	0.47
26:1H:1310:G:OP2	54:P8:9:ARG:NE	2.48	0.47
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.15	0.47
26:1H:1597:A:H5"	26:1H:1598:C:OP1	2.15	0.47
26:1H:2058:A:H5"	26:1H:2059:A:OP2	2.15	0.47
26:1H:2186:G:H2'	26:1H:2187:G:C8	2.50	0.47
26:1H:2352:A:C4	26:1H:2366:A:C2	3.03	0.47
26:1H:2881:C:H2'	26:1H:2882:A:H8	1.80	0.47
29:11:101:GLU:OE1	29:11:103:ARG:HD3	2.15	0.47
31:31:24:LEU:HD21	31:31:114:VAL:HG12	1.97	0.47
32:41:6:ALA:HB3	32:41:104:GLU:OE2	2.15	0.47
32:41:54:GLU:O	32:41:58:GLN:HB3	2.15	0.47
33:51:94:TYR:HA	33:51:106:THR:O	2.15	0.47
34:61:50:ARG:HD3	34:61:50:ARG:HA	1.58	0.47
35:58:133:GLN:C	35:58:134:ARG:HE	2.18	0.47
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.50	0.47
38:88:104:PHE:CE2	38:88:125:LEU:HD11	2.46	0.47
39:98:103:ARG:HD3	39:98:108:GLY:O	2.15	0.47
41:B8:33:LYS:HG3	41:B8:82:LEU:HA	1.96	0.47
47:H8:77:ASP:OD2	47:H8:80:ARG:NH1	2.48	0.47
1:1G:271:C:H2'	1:1G:272:C:H6	1.80	0.47
1:1G:308:C:H2'	1:1G:309:G:C8	2.49	0.47
1:1G:406:G:H5'	4:32:5:ILE:HG22	1.96	0.47
1:1G:722:A:H5"	1:1G:723:U:OP2	2.14	0.47
1:1G:735:C:H2'	1:1G:736:C:C6	2.44	0.47
1:1G:991:U:O2	1:1G:993:G:H8	1.96	0.47
1:1G:1220:G:H5'	19:AA:34:TRP:O	2.14	0.47
2:12:178:ARG:HD2	2:12:196:LEU:O	2.14	0.47
3:22:94:LEU:H	3:22:94:LEU:HG	1.44	0.47
3:22:113:ALA:HB3	3:22:114:PRO:HD3	1.97	0.47
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.95	0.47
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.44	0.47
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.15	0.47
20:BA:90:GLN:H	20:BA:90:GLN:HG2	1.57	0.47
24:3L:74:C:H4'	49:F5:23:LYS:HB2	1.97	0.47
26:14:39:C:O2	31:39:46:ARG:NH2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:98:G:OP1	50:G5:3:LEU:HB3	2.14	0.47
26:14:278:A:HO2'	26:14:279:C:H5	1.63	0.47
26:14:571:A:H5'	26:14:2030:A:N7	2.29	0.47
26:14:1141:U:OP1	35:15:25:ARG:NE	2.45	0.47
26:14:1379:A:H1'	26:14:1380:G:OP1	2.14	0.47
26:14:1441:G:H2'	26:14:1442:G:C8	2.49	0.47
26:14:1500:G:O2'	29:19:100:GLY:O	2.31	0.47
26:14:1542:G:O5'	26:14:1543:A:H5"	2.15	0.47
26:14:1665:A:C4'	36:25:67:LYS:HB2	2.44	0.47
26:14:1706:U:O2	26:14:1757:U:H5'	2.15	0.47
31:39:24:LEU:HD21	31:39:119:ARG:HB3	1.97	0.47
33:59:19:VAL:HG12	33:59:20:ALA:H	1.80	0.47
35:15:28:THR:HG22	35:15:29:LYS:N	2.29	0.47
38:45:90:VAL:O	38:45:91:GLU:HB2	2.14	0.47
41:75:10:VAL:C	41:75:12:SER:H	2.17	0.47
41:75:50:ILE:HD12	41:75:50:ILE:HA	1.62	0.47
43:95:22:VAL:HG22	43:95:23:GLU:H	1.80	0.47
46:C5:89:PHE:CG	46:C5:89:PHE:O	2.68	0.47
53:J5:11:THR:HG23	53:J5:15:ARG:HB3	1.95	0.47
1:13:304:U:H2'	1:13:305:G:C8	2.49	0.47
1:13:1258:G:H2'	1:13:1259:C:C6	2.50	0.47
1:13:1499:A:H1'	1:13:1520:G:O5'	2.15	0.47
17:8I:29:HIS:CE1	17:8I:32:TYR:HD2	2.32	0.47
17:8I:81:ARG:HB3	17:8I:83:ASP:OD1	2.15	0.47
23:2K:65:G:C2	23:2K:66:C:C2	3.03	0.47
26:1H:373:U:O2'	26:1H:423:A:H1'	2.14	0.47
26:1H:705:A:C8	26:1H:727:A:C2	3.02	0.47
26:1H:902:C:O2'	26:1H:903:C:H5'	2.15	0.47
26:1H:1007:C:H5"	35:58:35:ARG:HH11	1.79	0.47
26:1H:1168:G:C2	26:1H:1182:A:C2	3.02	0.47
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	1.96	0.47
26:1H:1478:G:H2'	26:1H:1479:G:C8	2.49	0.47
26:1H:1534:G:N2	26:1H:1535:U:H5	2.13	0.47
26:1H:1766:U:H2'	26:1H:1767:C:C6	2.49	0.47
26:1H:2235:G:H2'	26:1H:2236:C:C6	2.50	0.47
30:21:152:LYS:HG2	35:58:78:TYR:CE1	2.49	0.47
31:31:149:ASP:OD1	31:31:149:ASP:N	2.38	0.47
31:31:183:VAL:O	31:31:187:VAL:HG23	2.15	0.47
37:78:63:PRO:HD3	55:Q8:27:THR:HG22	1.96	0.47
39:98:100:LEU:HD11	39:98:113:LEU:HD22	1.97	0.47
41:B8:1:MET:HA	41:B8:3:ARG:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:F8:11:PRO:CB	45:F8:92:LEU:HD21	2.44	0.47
49:J8:80:LEU:HD13	49:J8:81:LYS:HG2	1.97	0.47
52:M8:60:GLN:HB2	52:M8:61:ARG:CZ	2.44	0.47
1:1G:384:G:H2'	1:1G:385:C:C6	2.50	0.47
1:1G:577:G:H2'	1:1G:578:C:C6	2.44	0.47
1:1G:641:U:O3'	1:1G:642:A:H8	1.98	0.47
1:1G:868:C:H2'	1:1G:869:G:O4'	2.15	0.47
1:1G:1015:A:N3	1:1G:1218:C:O2'	2.46	0.47
1:1G:1048:G:OP2	14:5A:3:ARG:NH2	2.46	0.47
1:1G:1084:G:C5	1:1G:1085:U:C4	3.02	0.47
3:22:87:LEU:HD12	3:22:88:ARG:HH21	1.79	0.47
13:4A:91:ARG:HH11	13:4A:96:LEU:HB3	1.78	0.47
13:4A:91:ARG:NH1	13:4A:96:LEU:HB3	2.30	0.47
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.79	0.47
56:1L:27:G:N2	56:1L:44:U:O2	2.47	0.47
25:4L:19:G:O2'	25:4L:20:A:OP2	2.28	0.47
26:14:330:A:HO2'	26:14:331:A:H8	1.61	0.47
26:14:1431:U:H2'	26:14:1432:C:C6	2.48	0.47
26:14:2196:C:O2'	26:14:2197:U:H5'	2.15	0.47
26:14:2416:C:OP1	37:35:65:ARG:O	2.32	0.47
26:14:2793:G:H1	26:14:2803:C:N4	2.12	0.47
26:14:2820:A:P	39:55:2:ARG:HH12	2.38	0.47
32:49:50:ALA:HB2	32:49:87:PRO:HG3	1.97	0.47
34:69:109:ILE:HB	34:69:130:TYR:OH	2.14	0.47
35:15:7:LYS:O	35:15:9:VAL:HG22	2.15	0.47
46:C5:54:LYS:HG2	46:C5:55:TYR:CE1	2.50	0.47
49:F5:2:SER:O	49:F5:4:VAL:HG13	2.14	0.47
1:13:148:G:H2'	1:13:149:A:H8	1.76	0.47
1:13:942:G:C2	1:13:1342:C:C2	3.02	0.47
1:13:1365:G:C6	1:13:1366:C:C4	3.02	0.47
1:13:1513:A:H2'	1:13:1514:C:C6	2.50	0.47
1:13:1517:G:H1'	26:1H:1919:A:O3'	2.15	0.47
4:3E:61:LYS:HD2	4:3E:207:TYR:OH	2.14	0.47
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.30	0.47
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.49	0.47
12:3I:117:ARG:NH2	12:3I:124:LYS:HB2	2.30	0.47
14:5I:3:ARG:NH1	14:5I:3:ARG:HB2	2.30	0.47
16:7I:4:ILE:HA	16:7I:20:VAL:O	2.14	0.47
20:BI:30:LYS:O	20:BI:30:LYS:NZ	2.48	0.47
26:1H:281:G:O2'	26:1H:282:A:O4'	2.30	0.47
26:1H:500:G:N1	26:1H:503:A:OP2	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:994:C:OP1	42:C8:53:ARG:NH2	2.48	0.47
26:1H:2054:A:H5"	26:1H:2055:C:O5'	2.15	0.47
26:1H:2145:C:C3'	26:1H:2146:C:H5'	2.45	0.47
26:1H:2598:A:P	61:1H:3872:HOH:O	2.73	0.47
26:1H:2646:C:H2'	26:1H:2647:U:O4'	2.15	0.47
27:16:1:U:H2'	27:16:2:C:H6	1.80	0.47
27:16:44:G:C2	27:16:48:A:C2	3.02	0.47
44:E8:60:ASN:N	44:E8:60:ASN:OD1	2.48	0.47
49:J8:23:LYS:HB3	49:J8:29:GLY:HA3	1.96	0.47
51:L8:35:ARG:HE	51:L8:37:LEU:CD2	2.27	0.47
1:1G:313:A:H2'	1:1G:314:C:C6	2.49	0.47
1:1G:983:A:H2	1:1G:984:C:C6	2.32	0.47
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.50	0.47
1:1G:999:U:H3	1:1G:1041:A:H61	1.62	0.47
1:1G:1160:G:H1	1:1G:1176:A:H61	1.62	0.47
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.24	0.47
13:4A:16:ASP:OD1	13:4A:16:ASP:N	2.46	0.47
13:4A:37:THR:HG22	13:4A:55:ARG:NE	2.27	0.47
23:2L:73:A:C6	23:2L:74:A:C6	3.03	0.47
26:14:26:G:OP1	44:A5:80:PRO:HB3	2.14	0.47
26:14:480:A:H2'	26:14:480:A:N3	2.29	0.47
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.50	0.47
26:14:1657:C:H2'	26:14:1658:C:C6	2.50	0.47
26:14:1753:G:N1	26:14:1756:G:C2	2.83	0.47
26:14:2400:G:H2'	26:14:2401:U:H6	1.77	0.47
26:14:2468:G:H3'	26:14:2476:A:N1	2.30	0.47
27:1J:116:G:O5'	27:1J:116:G:H8	1.98	0.47
29:19:242:ARG:O	61:19:401:HOH:O	2.20	0.47
32:49:81:LYS:HB3	32:49:82:LEU:H	1.48	0.47
35:15:33:LEU:HD12	35:15:38:HIS:ND1	2.29	0.47
40:65:27:SER:HA	40:65:88:ASP:CB	2.43	0.47
42:85:92:ARG:CD	43:95:11:GLN:HB2	2.44	0.47
47:D5:170:THR:C	47:D5:172:ALA:H	2.16	0.47
49:F5:84:GLY:HA3	49:F5:86:SER:N	2.29	0.47
1:13:177:C:OP2	20:BI:65:LYS:NZ	2.37	0.47
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.80	0.47
1:13:872:A:C4	1:13:874:G:N7	2.83	0.47
1:13:1153:C:H2'	1:13:1154:G:O4'	2.15	0.47
1:13:1194:U:H2'	1:13:1195:C:C6	2.50	0.47
1:13:1320:C:H2'	1:13:1321:C:O4'	2.14	0.47
11:2I:109:VAL:HA	18:9I:85:LEU:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:102:ARG:HG3	12:3I:120:TYR:HA	1.96	0.47
12:3I:126:LYS:HD3	12:3I:126:LYS:HA	1.70	0.47
23:2K:2:G:H5"	48:I8:8:GLY:HA2	1.97	0.47
23:2K:47:7MG:HO2'	23:2K:48:U:H6	1.62	0.47
26:1H:281:G:H1'	26:1H:359:A:N6	2.29	0.47
26:1H:535:C:O3'	42:C8:53:ARG:NH1	2.48	0.47
26:1H:664:C:H4'	26:1H:941:A:OP1	2.15	0.47
26:1H:720:C:H2'	26:1H:721:C:C6	2.50	0.47
26:1H:731:C:P	61:1H:3601:HOH:O	2.72	0.47
26:1H:1936:A:C8	26:1H:1940:U:O2	2.68	0.47
28:71:15:ASP:HB3	28:71:18:LYS:H	1.80	0.47
28:71:44:HIS:O	28:71:212:VAL:HA	2.15	0.47
29:11:165:ILE:H	29:11:165:ILE:HG12	1.59	0.47
34:61:120:ILE:HD11	34:61:126:TYR:OH	2.15	0.47
39:98:27:SER:HB3	39:98:34:ILE:HD11	1.96	0.47
40:A8:105:ALA:O	40:A8:109:GLY:HA3	2.15	0.47
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.15	0.47
1:1G:577:G:C4	1:1G:578:C:C5	3.03	0.47
1:1G:666:G:N2	1:1G:740:U:O2	2.45	0.47
1:1G:987:G:H1	1:1G:1218:C:H42	1.60	0.47
1:1G:1161:C:H2'	1:1G:1162:C:C6	2.50	0.47
4:32:59:ARG:O	4:32:63:LYS:N	2.28	0.47
9:82:9:ARG:HG2	9:82:14:VAL:HG22	1.96	0.47
9:82:82:ALA:O	9:82:86:VAL:HB	2.14	0.47
24:3L:59:A:H2'	24:3L:59:A:N3	2.29	0.47
26:14:642:G:H3'	26:14:642:G:C8	2.50	0.47
26:14:819:A:C4	26:14:1189:A:C2	3.04	0.47
26:14:1557:C:OP2	26:14:1558:A:O2'	2.30	0.47
26:14:2054:A:H5"	26:14:2055:C:O5'	2.16	0.47
26:14:2128:C:N3	26:14:2160:G:N2	2.60	0.47
26:14:2414:G:H21	37:35:67:MET:HE1	1.79	0.47
27:1J:33:G:C2	27:1J:34:U:C2	3.03	0.47
36:25:4:PRO:O	36:25:5:GLN:HB2	2.15	0.47
40:65:18:ILE:O	40:65:21:THR:HG22	2.14	0.47
40:65:62:LYS:HA	40:65:65:VAL:HB	1.97	0.47
41:75:132:LYS:HB3	41:75:133:GLU:OE1	2.15	0.47
1:13:64:G:H4'	1:13:65:U:H5'	1.96	0.46
1:13:222:U:H2'	1:13:223:U:C6	2.50	0.46
1:13:509:A:H3'	61:13:1871:HOH:O	2.15	0.46
1:13:1320:C:O2	19:AI:36:ARG:NH2	2.48	0.46
4:3E:108:LEU:HB3	4:3E:110:PHE:CE1	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:165:MET:SD	4:3E:168:ARG:NH1	2.87	0.46
8:7E:42:GLU:HG3	8:7E:109:ILE:HD12	1.97	0.46
8:7E:118:VAL:O	8:7E:119:LEU:HD23	2.14	0.46
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.15	0.46
12:3I:33:ARG:HB3	12:3I:60:LEU:HD11	1.96	0.46
26:1H:1341:U:H4'	61:1H:3736:HOH:O	2.14	0.46
26:1H:2636:U:H1'	26:1H:2783:G:N2	2.30	0.46
28:71:200:LYS:HA	28:71:208:PHE:CZ	2.50	0.46
36:68:43:VAL:HG12	36:68:54:GLU:HA	1.97	0.46
36:68:93:PRO:HG3	36:68:114:ILE:CG1	2.45	0.46
37:78:59:LEU:HB2	55:Q8:58:ILE:CD1	2.45	0.46
38:88:35:VAL:HA	38:88:101:ARG:O	2.15	0.46
45:F8:40:LYS:HG3	45:F8:51:VAL:HB	1.96	0.46
45:F8:57:LEU:N	45:F8:57:LEU:HD23	2.30	0.46
1:1G:371:G:O2'	1:1G:373:A:N7	2.45	0.46
1:1G:603:U:H2'	1:1G:604:G:H8	1.79	0.46
1:1G:1333:A:H2'	1:1G:1334:G:O4'	2.15	0.46
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.15	0.46
7:62:26:PHE:CE2	7:62:30:ILE:HD11	2.49	0.46
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.30	0.46
16:7A:20:VAL:HG11	16:7A:32:TYR:CD2	2.50	0.46
16:7A:53:VAL:HG22	16:7A:79:VAL:HG22	1.96	0.46
17:8A:40:LYS:HD3	17:8A:42:TYR:CZ	2.50	0.46
19:AA:66:MET:HA	19:AA:67:VAL:O	2.15	0.46
24:3L:26:A:N1	24:3L:45:G:N2	2.63	0.46
26:14:29:U:H2'	26:14:30:G:H8	1.78	0.46
26:14:469:G:O6	54:L5:39:ARG:NH1	2.48	0.46
26:14:589:C:P	37:35:16:ARG:HH22	2.38	0.46
26:14:870:A:H2'	26:14:871:U:O4'	2.15	0.46
26:14:870:A:C5'	38:45:6:ARG:HB3	2.43	0.46
26:14:1342:A:H2	26:14:1602:U:N3	2.08	0.46
26:14:1411:C:H2'	26:14:1412:A:C8	2.49	0.46
26:14:1592:C:H2'	26:14:1593:G:C8	2.50	0.46
26:14:1728:G:C2	26:14:1730:U:OP2	2.68	0.46
26:14:1786:A:H1'	26:14:1938:A:N6	2.30	0.46
26:14:1830:C:O5'	26:14:1830:C:H6	1.99	0.46
26:14:2134:A:H2'	26:14:2134:A:N3	2.31	0.46
26:14:2409:G:N7	61:14:3748:HOH:O	2.36	0.46
29:19:2:ALA:HB3	29:19:20:ASP:HB2	1.96	0.46
31:39:129:PHE:HA	31:39:142:TRP:CD1	2.50	0.46
40:65:15:ARG:HD2	40:65:25:ARG:NH2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:62:LYS:HE2	40:65:97:ARG:HD2	1.97	0.46
42:85:92:ARG:CG	42:85:94:ASN:HB3	2.44	0.46
47:D5:108:PRO:HG2	47:D5:142:SER:HB3	1.96	0.46
1:13:109:A:C6	1:13:326:G:C6	3.04	0.46
1:13:178:C:H2'	1:13:179:A:H8	1.80	0.46
1:13:536:C:H2'	1:13:537:G:H8	1.80	0.46
1:13:601:C:N4	1:13:637:G:H1	2.12	0.46
1:13:1186:G:N2	14:5I:61:TRP:O	2.41	0.46
2:1E:168:THR:OG1	2:1E:192:SER:HB2	2.15	0.46
2:1E:209:ARG:HG2	2:1E:235:SER:HB2	1.96	0.46
4:3E:150:GLU:HG3	4:3E:153:ARG:HH21	1.81	0.46
10:1I:24:VAL:O	10:1I:28:ARG:N	2.39	0.46
13:4I:3:ARG:HB2	13:4I:7:VAL:O	2.14	0.46
17:8I:53:LEU:O	17:8I:82:MET:HE1	2.15	0.46
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.49	0.46
26:1H:275:G:N2	26:1H:278:A:H61	2.13	0.46
26:1H:330:A:H2	26:1H:1210:A:O2'	1.98	0.46
26:1H:675:A:C8	26:1H:804:A:C6	3.04	0.46
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.50	0.46
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.30	0.46
26:1H:2345:G:H4'	26:1H:2346:A:O5'	2.14	0.46
27:16:116:G:H2'	27:16:117:G:O4'	2.16	0.46
30:21:63:LEU:HD12	30:21:67:PHE:CE1	2.48	0.46
39:98:79:LEU:HA	39:98:83:ILE:HB	1.97	0.46
47:H8:11:GLU:HA	47:H8:36:LYS:HE3	1.96	0.46
47:H8:111:VAL:O	47:H8:115:GLY:N	2.47	0.46
47:H8:165:VAL:CB	47:H8:166:SER:HA	2.45	0.46
47:H8:169:GLU:OE1	47:H8:170:THR:N	2.42	0.46
52:M8:37:SER:HB3	52:M8:42:PHE:CZ	2.49	0.46
1:1G:485:G:O2'	1:1G:486:U:O5'	2.33	0.46
1:1G:560:U:H5'	1:1G:566:G:N2	2.31	0.46
1:1G:730:G:C5	1:1G:731:G:H1'	2.50	0.46
1:1G:922:G:C6	1:1G:923:A:C6	3.03	0.46
1:1G:1375:A:H2'	1:1G:1376:U:O4'	2.14	0.46
3:22:12:LEU:HD11	14:5A:51:GLY:HA2	1.97	0.46
5:42:78:HIS:HA	8:72:105:ARG:HG3	1.97	0.46
26:14:819:A:H2'	26:14:820:A:H5'	1.96	0.46
26:14:843:G:H1	26:14:935:C:N4	2.11	0.46
26:14:903:C:H2'	26:14:904:C:C6	2.50	0.46
26:14:1142:U:O2	26:14:1142:U:H2'	2.13	0.46
26:14:1536:A:C8	26:14:1537:C:H1'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1826:G:H2'	26:14:1827:C:O4'	2.16	0.46
26:14:1902:C:H5'	29:19:246:PRO:HD3	1.97	0.46
26:14:2115:G:H1'	26:14:2171:A:H61	1.79	0.46
26:14:2129:C:H5'	26:14:2130:U:OP2	2.15	0.46
27:1J:89(A):A:C8	27:1J:90:C:H1'	2.51	0.46
29:19:118:VAL:HG22	29:19:119:ALA:H	1.81	0.46
31:39:174:VAL:HG11	31:39:188:ARG:NH2	2.30	0.46
34:69:110:ASP:N	34:69:130:TYR:OH	2.32	0.46
35:15:16:ILE:HG21	35:15:26:LEU:HD11	1.97	0.46
41:75:57:PHE:CG	41:75:57:PHE:O	2.68	0.46
49:F5:91:LYS:HE2	49:F5:91:LYS:HB2	1.54	0.46
1:13:291:C:N4	1:13:309:G:H1	2.13	0.46
1:13:872:A:C5	1:13:874:G:C8	3.03	0.46
2:1E:87:ARG:NH1	2:1E:223:ILE:HD11	2.31	0.46
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.41	0.46
10:1I:26:ALA:HA	10:1I:29:ARG:CZ	2.45	0.46
14:5I:3:ARG:O	14:5I:7:ILE:HG22	2.16	0.46
15:6I:26:GLU:OE2	15:6I:77:ARG:HG2	2.16	0.46
17:8I:52:LYS:HG2	17:8I:55:ASP:OD1	2.15	0.46
26:1H:719:C:H2'	26:1H:720:C:H6	1.80	0.46
26:1H:1171:G:C5	26:1H:1174:A:N6	2.84	0.46
26:1H:1186:G:H2'	26:1H:1187:G:O4'	2.16	0.46
26:1H:1287:A:C5	26:1H:1288:U:C4	3.03	0.46
26:1H:1703:G:N7	61:1H:3956:HOH:O	2.36	0.46
27:16:15:A:H1'	27:16:109:G:N7	2.31	0.46
37:78:19:VAL:HG13	37:78:31:ALA:HB1	1.96	0.46
37:78:122:PRO:HA	37:78:142:GLY:HA3	1.96	0.46
46:G8:28:LYS:NZ	46:G8:64:GLU:OE2	2.32	0.46
46:G8:42:VAL:CG2	46:G8:43:ASN:N	2.78	0.46
47:H8:49:ARG:HB2	47:H8:49:ARG:HH11	1.81	0.46
1:1G:281:G:H8	1:1G:281:G:OP2	1.98	0.46
1:1G:1021:G:H2'	1:1G:1022:G:H8	1.77	0.46
1:1G:1236:A:H2'	1:1G:1237:C:C6	2.51	0.46
1:1G:1238:A:N7	1:1G:1303:C:H1'	2.30	0.46
1:1G:1378:C:H5	1:1G:1379:G:C8	2.34	0.46
2:12:51:LEU:H	2:12:51:LEU:HG	1.37	0.46
4:32:108:LEU:HD12	4:32:108:LEU:HA	1.68	0.46
10:1A:48:THR:CA	10:1A:62:HIS:HB3	2.41	0.46
25:4L:14:A:O2'	25:4L:15:A:O5'	2.26	0.46
26:14:67:U:H2'	26:14:68:G:H8	1.81	0.46
26:14:276:A:H2'	26:14:277:C:C5	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:794:G:H2'	26:14:795:C:C6	2.50	0.46
26:14:2291:U:H5"	26:14:2380:C:O2'	2.15	0.46
36:25:71:ARG:HE	36:25:105:GLU:CD	2.18	0.46
45:B5:5:TYR:CE1	50:G5:30:ARG:HG3	2.50	0.46
1:13:22:G:C6	1:13:23:C:C4	3.03	0.46
1:13:963:G:H5'	61:13:1881:HOH:O	2.16	0.46
1:13:1074:G:C4	1:13:1102:A:C2	3.03	0.46
1:13:1120:G:H2'	1:13:1121:U:H6	1.80	0.46
1:13:1179:A:H2'	1:13:1180:A:O4'	2.15	0.46
2:1E:16:HIS:NE2	2:1E:210:SER:O	2.49	0.46
3:2E:58:GLU:HB2	3:2E:65:ALA:CB	2.45	0.46
26:1H:276:A:C8	26:1H:278:A:N1	2.84	0.46
26:1H:981:A:OP1	61:1H:3874:HOH:O	2.20	0.46
26:1H:1021:A:C8	26:1H:1021:A:C3'	2.97	0.46
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.31	0.46
26:1H:2177:C:C5'	28:71:213:TYR:HB2	2.45	0.46
26:1H:2275:C:C6	26:1H:2275:C:H5'	2.51	0.46
32:41:9:ARG:O	32:41:13:GLU:HG2	2.15	0.46
32:41:43:LEU:HD12	32:41:45:GLU:HG3	1.96	0.46
44:E8:33:ARG:NE	44:E8:52:GLU:OE1	2.48	0.46
45:F8:65:ARG:HG2	45:F8:70:LEU:HB2	1.97	0.46
51:L8:12:PRO:HB2	51:L8:20:LYS:HG2	1.97	0.46
1:1G:382:A:H2'	1:1G:383:A:H8	1.81	0.46
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.79	0.46
3:22:37:GLN:O	3:22:40:ARG:N	2.48	0.46
3:22:88:ARG:HB2	3:22:99:VAL:HG21	1.98	0.46
4:32:151:LYS:O	4:32:151:LYS:HD3	2.14	0.46
9:82:46:ALA:HB2	9:82:74:ILE:HG23	1.97	0.46
10:1A:24:VAL:HG21	10:1A:37:PRO:HD3	1.98	0.46
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.31	0.46
15:6A:56:LEU:HA	15:6A:59:MET:HE3	1.97	0.46
16:7A:16:HIS:CD2	16:7A:16:HIS:N	2.83	0.46
26:14:77:C:OP1	50:G5:59:ARG:HD3	2.16	0.46
26:14:620:G:H4'	26:14:621:A:H5"	1.95	0.46
26:14:1011:G:OP2	42:85:70:ARG:NH2	2.49	0.46
26:14:1990:C:H2'	26:14:1991:U:H6	1.80	0.46
29:19:45:ASN:C	29:19:45:ASN:ND2	2.69	0.46
40:65:36:TYR:HA	40:65:52:SER:HB3	1.97	0.46
53:J5:16:ARG:HH11	53:J5:16:ARG:HG2	1.80	0.46
1:13:156:G:H2'	1:13:157:G:C8	2.50	0.46
1:13:813:U:OP2	1:13:816:A:N6	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:926:G:C6	1:13:1505:G:C5	3.03	0.46
1:13:1036:G:H5'	1:13:1037:C:OP2	2.15	0.46
8:7E:39:LEU:HB3	8:7E:45:ILE:HG12	1.98	0.46
24:3K:59:A:H3'	24:3K:60:U:H5"	1.96	0.46
24:3K:72:C:N3	24:3K:73:A:C8	2.83	0.46
26:1H:654:A:N3	26:1H:654(A):A:H5"	2.30	0.46
26:1H:747:U:O2	26:1H:2014:A:H1'	2.15	0.46
26:1H:817:C:H4'	26:1H:932:G:C5	2.51	0.46
26:1H:996:A:C6	26:1H:1160:G:C2	3.04	0.46
26:1H:1783:A:H3'	61:1H:3632:HOH:O	2.16	0.46
26:1H:1830:C:C2'	26:1H:1831:G:H5'	2.46	0.46
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.51	0.46
26:1H:2629:A:H2'	26:1H:2630:G:H5"	1.98	0.46
29:11:33:LEU:HD12	29:11:33:LEU:HA	1.76	0.46
49:J8:44:PRO:HB2	49:J8:46:LEU:HD13	1.98	0.46
54:P8:30:VAL:O	54:P8:34:ARG:HG3	2.16	0.46
1:1G:56:U:H2'	1:1G:57:G:H8	1.80	0.46
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.16	0.46
1:1G:1314:C:N4	19:AA:2:PRO:O	2.47	0.46
2:12:136:VAL:HA	2:12:139:LYS:HD2	1.97	0.46
7:62:93:PRO:HG2	7:62:94:ARG:HE	1.81	0.46
26:14:17:G:H2'	26:14:18:C:C6	2.50	0.46
26:14:568:U:H5'	26:14:945:A:C2	2.51	0.46
26:14:617:G:OP2	31:39:43:LYS:NZ	2.40	0.46
26:14:654(A):A:H2	26:14:654(T):A:N7	2.14	0.46
26:14:1271:G:O3'	26:14:1272:A:H4'	2.15	0.46
26:14:1614:A:H2	61:14:3917:HOH:O	1.97	0.46
26:14:1810:A:H2'	26:14:1811:G:O4'	2.14	0.46
26:14:2095:C:H2'	26:14:2096:U:O4'	2.15	0.46
26:14:2117:A:H2'	26:14:2118:U:H5	1.80	0.46
26:14:2432:A:C2	49:F5:35:THR:HG22	2.50	0.46
26:14:2747:G:O6	26:14:2755:C:H5"	2.16	0.46
37:35:90:ARG:HG3	37:35:91:PHE:H	1.81	0.46
45:B5:67:GLY:C	45:B5:69:TYR:H	2.19	0.46
50:G5:3:LEU:C	50:G5:5:GLU:HB2	2.36	0.46
1:13:186:C:H5'	20:BI:78:ALA:HB1	1.98	0.46
1:13:381:C:H2'	1:13:382:A:O4'	2.16	0.46
2:1E:213:LEU:H	2:1E:213:LEU:HG	1.46	0.46
8:7E:34:GLU:HB3	8:7E:118:VAL:HG21	1.97	0.46
8:7E:109:ILE:HD11	8:7E:120:THR:CG2	2.46	0.46
19:AI:41:VAL:HB	19:AI:42:PRO:C	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:9:ASN:OD1	20:BI:10:LEU:N	2.49	0.46
26:1H:16:G:N3	26:1H:17:G:C8	2.84	0.46
26:1H:141:A:C8	26:1H:1408:C:H1'	2.51	0.46
26:1H:234:C:H2'	26:1H:235:U:C6	2.50	0.46
26:1H:484:C:OP2	46:G8:50:ARG:NH2	2.48	0.46
26:1H:721:C:H2'	26:1H:722:A:C8	2.49	0.46
26:1H:941:A:H3'	26:1H:942:G:H8	1.81	0.46
26:1H:1163:G:C2	26:1H:1164:G:C8	3.04	0.46
26:1H:2721:A:H2'	26:1H:2722:G:O4'	2.16	0.46
26:1H:2758:A:C4	33:51:67:LEU:HD21	2.51	0.46
28:71:64:LEU:HD21	28:71:188:ASN:ND2	2.31	0.46
32:41:20:ILE:O	32:41:24:GLY:HA2	2.16	0.46
32:41:33:ARG:O	32:41:162:THR:HG23	2.15	0.46
35:58:94:HIS:C	35:58:95:PRO:O	2.53	0.46
38:88:17:LEU:HD23	38:88:17:LEU:HA	1.48	0.46
39:98:118:GLU:OE1	39:98:118:GLU:HA	2.15	0.46
44:E8:11:ARG:CZ	44:E8:98:LYS:HB3	2.46	0.46
47:H8:9:TYR:CE1	47:H8:35:ARG:HG2	2.51	0.46
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	1.97	0.46
1:1G:66:G:C2	1:1G:67:C:C6	3.04	0.46
1:1G:500:G:N2	1:1G:546:G:H1'	2.30	0.46
1:1G:588:G:H1	1:1G:651:C:N4	2.13	0.46
1:1G:1261:A:H5'	1:1G:1283:G:O3'	2.16	0.46
1:1G:1338:G:C6	1:1G:1339:A:C6	3.04	0.46
2:12:54:THR:HA	2:12:57:PHE:CG	2.50	0.46
4:32:96:LEU:HD22	4:32:139:ARG:NH1	2.30	0.46
8:72:87:SER:HA	8:72:93:VAL:HG23	1.97	0.46
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.16	0.46
19:AA:3:ARG:HB3	19:AA:7:LYS:CB	2.46	0.46
20:BA:69:GLY:O	20:BA:73:HIS:CE1	2.69	0.46
24:3L:9:A:H5'	24:3L:11:C:H41	1.81	0.46
25:4L:19:G:O2'	25:4L:20:A:P	2.74	0.46
26:14:64:A:O3'	45:B5:71:GLY:HA3	2.16	0.46
26:14:141:A:H8	26:14:1408:C:H1'	1.81	0.46
26:14:1011:G:C2	26:14:1151:G:C2	3.04	0.46
26:14:1316:U:H2'	26:14:1317:A:H8	1.80	0.46
26:14:1818:U:H2'	29:19:157:ARG:HD3	1.97	0.46
26:14:1833:U:H2'	26:14:1834:U:H6	1.81	0.46
26:14:2129:C:H3'	26:14:2130:U:H6	1.81	0.46
26:14:2534:A:O5'	26:14:2534:A:H8	1.99	0.46
26:14:2776:A:OP1	26:14:2776:A:H3'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2831:G:P	30:29:58:ARG:HH11	2.39	0.46
30:29:96:PHE:CD2	30:29:182:LEU:HD21	2.49	0.46
32:49:76:SER:OG	32:49:84:LYS:N	2.49	0.46
33:59:10:PRO:HD2	33:59:50:VAL:O	2.16	0.46
33:59:89:ILE:CG2	33:59:130:ARG:HA	2.45	0.46
36:25:13:ASN:ND2	36:25:97:ARG:H	2.11	0.46
38:45:21:THR:HA	38:45:98:LYS:HB2	1.96	0.46
45:B5:7:VAL:O	45:B5:9:LEU:HD23	2.15	0.46
47:D5:5:LEU:HG	47:D5:47:VAL:HG21	1.98	0.46
47:D5:115:GLY:CA	47:D5:177:PRO:HG2	2.42	0.46
55:M5:15:LYS:HB2	61:M5:205:HOH:O	2.15	0.46
1:13:370:C:C2	1:13:392:G:N2	2.83	0.46
1:13:406:G:H21	4:3E:119:GLN:NE2	2.13	0.46
1:13:416:G:C6	1:13:417:C:C4	3.03	0.46
1:13:1169:A:H2'	1:13:1170:A:C8	2.51	0.46
1:13:1486:G:H2'	1:13:1487:G:O4'	2.16	0.46
17:8I:76:LEU:HD11	17:8I:79:SER:HA	1.98	0.46
20:BI:26:ASN:O	20:BI:30:LYS:HB2	2.16	0.46
26:1H:130:C:O3'	26:1H:1349:A:H1'	2.16	0.46
26:1H:139:G:N3	26:1H:141:A:N1	2.64	0.46
26:1H:315:G:C5	26:1H:316:C:C4	3.03	0.46
26:1H:444:C:C4'	31:31:49:ALA:HB2	2.46	0.46
26:1H:631:A:O2'	37:78:67:MET:HG2	2.15	0.46
26:1H:2109:U:H1'	26:1H:2181:G:N2	2.31	0.46
26:1H:2400:G:O2'	26:1H:2401:U:H5'	2.15	0.46
26:1H:2432:A:C8	49:J8:33:LYS:HG2	2.50	0.46
27:16:15:A:H1'	27:16:109:G:C4	2.51	0.46
35:58:12:ARG:HB3	35:58:50:ASP:OD1	2.15	0.46
35:58:35:ARG:HH21	35:58:42:TRP:HH2	1.64	0.46
35:58:87:LEU:O	35:58:87:LEU:HD22	2.15	0.46
36:68:23:ARG:HG3	36:68:24:VAL:N	2.31	0.46
38:88:135:ASP:O	38:88:138:ASP:N	2.33	0.46
51:L8:40:THR:O	51:L8:44:ARG:HB2	2.14	0.46
1:1G:133:U:O4	60:1G:1725:SPE:H122	2.16	0.46
1:1G:323:U:H4'	20:BA:22:ARG:HB2	1.98	0.46
1:1G:843:U:H3'	1:1G:848:C:O4'	2.16	0.46
1:1G:1379:G:H2'	1:1G:1380:U:C6	2.51	0.46
2:12:17:PHE:CE1	2:12:210:SER:HB3	2.51	0.46
3:22:136:GLN:O	3:22:139:GLN:N	2.48	0.46
9:82:46:ALA:HB2	9:82:74:ILE:CG2	2.46	0.46
17:8A:6:LEU:O	17:8A:59:ILE:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:10:VAL:HG13	17:8A:54:GLY:H	1.79	0.46
24:3L:3:G:H1	24:3L:70:C:H42	1.63	0.46
26:14:1421:G:C2	26:14:1422:G:N7	2.84	0.46
26:14:1432:C:H2'	26:14:1433:U:O4'	2.14	0.46
26:14:1820:U:C4	29:19:160:GLY:HA3	2.51	0.46
26:14:2070:G:H2'	26:14:2071:A:C8	2.49	0.46
26:14:2291:U:H2'	26:14:2292:C:C6	2.51	0.46
26:14:2415:G:C2	26:14:2416:C:C2	3.04	0.46
26:14:2562:U:H4'	36:25:25:LEU:HD21	1.98	0.46
26:14:2776:A:H4'	26:14:2777:G:O5'	2.15	0.46
26:14:2784:C:O2	30:29:37:ARG:NH2	2.49	0.46
27:1J:13:A:H2'	27:1J:70:C:O2'	2.16	0.46
32:49:7:LEU:HA	32:49:10:LYS:HB2	1.97	0.46
32:49:37:VAL:HG23	32:49:99:MET:HE3	1.97	0.46
38:45:133:ARG:O	38:45:134:ARG:HG3	2.15	0.46
44:A5:14:PRO:HG2	44:A5:78:GLU:HG3	1.98	0.46
53:J5:48:GLU:H	53:J5:48:GLU:HG2	1.55	0.46
1:13:157:G:H2'	1:13:158:G:H8	1.80	0.46
1:13:234:C:H2'	1:13:235:C:C6	2.51	0.46
1:13:346:G:N3	1:13:346:G:H2'	2.30	0.46
7:6E:94:ARG:O	7:6E:97:GLN:HB3	2.16	0.46
8:7E:64:LYS:O	8:7E:79:VAL:HB	2.15	0.46
20:BI:45:GLN:HA	20:BI:91:LEU:HB3	1.98	0.46
26:1H:760:G:H4'	26:1H:1776:G:OP1	2.16	0.46
26:1H:1167:U:H2'	26:1H:1168:G:C8	2.51	0.46
26:1H:2308:G:N1	26:1H:2311:A:C2	2.69	0.46
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.81	0.46
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.51	0.46
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.16	0.46
29:11:71:ASP:CG	29:11:103:ARG:HH22	2.19	0.46
32:41:96:ARG:O	32:41:97:ASP:HB2	2.16	0.46
41:B8:84:GLN:HG2	41:B8:85:LYS:HD3	1.96	0.46
42:C8:58:ARG:HA	42:C8:61:TRP:CE3	2.51	0.46
42:C8:102:GLU:HG3	43:D8:2:PHE:HE2	1.80	0.46
46:G8:88:LYS:HD3	46:G8:88:LYS:HA	1.69	0.46
51:L8:35:ARG:HE	51:L8:37:LEU:HD21	1.81	0.46
1:1G:300:A:H2'	1:1G:301:G:O4'	2.16	0.46
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.34	0.46
1:1G:1368:G:H5'	9:82:112:LYS:HB3	1.97	0.46
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.51	0.46
3:22:76:VAL:O	3:22:84:ILE:HA	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:15:GLU:OE1	4:32:59:ARG:NE	2.46	0.46
9:82:71:SER:HA	9:82:74:ILE:HD12	1.98	0.46
11:2A:122:LYS:HE2	11:2A:122:LYS:HB3	1.72	0.46
24:3L:29:U:H2'	24:3L:30:G:O4'	2.15	0.46
26:14:924:C:H2'	26:14:925:C:H6	1.79	0.46
27:1J:90:C:P	38:45:16:ARG:HH21	2.38	0.46
30:29:18:ASP:HB3	41:75:82:LEU:HD11	1.98	0.46
32:49:20:ILE:O	32:49:24:GLY:HA2	2.16	0.46
32:49:173:LEU:HD22	32:49:178:PHE:CE2	2.50	0.46
54:L5:5:TRP:HA	54:L5:5:TRP:CE3	2.50	0.46
1:13:450:G:N7	1:13:481:G:C6	2.84	0.46
5:4E:75:THR:OG1	5:4E:76:ILE:N	2.49	0.46
6:5E:99:ALA:O	18:9I:28:GLU:HA	2.16	0.46
8:7E:51:VAL:HG23	8:7E:52:ASP:N	2.30	0.46
16:7I:26:ARG:NH2	16:7I:31:LYS:HD2	2.31	0.46
23:2K:16:C:H5'	23:2K:17:C:C5	2.50	0.46
24:3K:45:G:H4'	24:3K:46:G:OP1	2.15	0.46
26:1H:248:G:H5"	26:1H:386:G:N2	2.30	0.46
26:1H:662:G:OP1	37:78:15:ARG:NH2	2.49	0.46
26:1H:868:U:C4	26:1H:869:G:N7	2.84	0.46
26:1H:978:G:C2	26:1H:986:C:C2	3.03	0.46
33:51:9:ILE:HD13	33:51:51:ARG:NH2	2.30	0.46
37:78:116:GLY:H	37:78:134:ALA:HB2	1.80	0.46
37:78:122:PRO:HA	37:78:142:GLY:CA	2.45	0.46
41:B8:12:SER:CA	41:B8:14:TYR:H	2.29	0.46
51:L8:9:VAL:HG12	51:L8:53:LEU:O	2.16	0.46
52:M8:14:ILE:HG23	52:M8:21:VAL:HB	1.97	0.46
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.81	0.46
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.97	0.46
3:22:40:ARG:HB2	3:22:40:ARG:NH1	2.31	0.46
4:32:33:MET:C	4:32:35:ARG:HH12	2.19	0.46
7:62:72:ARG:NH2	7:62:138:LYS:HE3	2.30	0.46
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.69	0.46
13:4A:80:ARG:O	13:4A:84:ILE:HB	2.15	0.46
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.63	0.46
26:14:13:A:N1	26:14:525:U:H2'	2.31	0.46
26:14:587:C:N3	37:35:33:ARG:NH1	2.64	0.46
26:14:619:G:H5"	26:14:620:G:OP2	2.16	0.46
26:14:656:G:H2'	26:14:657:U:O4'	2.14	0.46
26:14:1181:C:H2'	26:14:1182:A:C8	2.49	0.46
26:14:1490:A:O2'	29:19:99:ASP:OD1	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2030:A:H4'	26:14:2031:A:C8	2.51	0.46
26:14:2352:A:C2	48:E5:33:ALA:O	2.69	0.46
40:65:28:VAL:HG11	40:65:98:VAL:HG12	1.97	0.46
1:13:520:A:N1	1:13:536:C:H1'	2.30	0.46
1:13:645:C:H2'	1:13:646:U:O4'	2.16	0.46
1:13:1072:G:C6	1:13:1073:U:N3	2.84	0.46
1:13:1116:C:O2'	9:8E:108:VAL:HG21	2.16	0.46
2:1E:73:THR:HG23	2:1E:169:LYS:HG3	1.97	0.46
6:5E:97:PHE:HB2	18:9I:32:ARG:NH1	2.31	0.46
8:7E:14:ARG:O	8:7E:18:ARG:HG3	2.16	0.46
17:8I:31:LEU:HD22	17:8I:32:TYR:CZ	2.51	0.46
22:1K:9:A:H4'	22:1K:10:G:OP2	2.16	0.46
24:3K:1:G:C2	24:3K:73:A:C6	3.04	0.46
24:3K:57:G:N2	24:3K:60:U:C4	2.84	0.46
26:1H:265:A:C8	26:1H:266:G:H1'	2.50	0.46
26:1H:1693:U:O2'	29:11:14:ARG:NH2	2.49	0.46
26:1H:1705:G:C6	26:1H:1706:U:C4	3.04	0.46
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.80	0.46
26:1H:1820:U:O2	29:11:202:LYS:HB3	2.16	0.46
26:1H:1952:A:OP1	36:68:44:LYS:NZ	2.32	0.46
26:1H:2127:G:N1	26:1H:2161:C:O2'	2.40	0.46
26:1H:2176:A:H4'	28:71:221:SER:HB3	1.98	0.46
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.98	0.46
27:16:30:C:H2'	27:16:31:C:H5'	1.97	0.46
29:11:126:GLN:HG2	29:11:127:VAL:N	2.30	0.46
35:58:18:ALA:HA	35:58:21:LYS:HG3	1.98	0.46
38:88:78:PRO:HB2	38:88:81:VAL:HG11	1.97	0.46
41:B8:88:ILE:O	41:B8:88:ILE:HG13	2.16	0.46
42:C8:39:LEU:HD23	42:C8:39:LEU:HA	1.80	0.46
45:F8:11:PRO:HD3	50:K8:37:PHE:CD2	2.50	0.46
47:H8:103:ARG:HG3	47:H8:136:PHE:HB2	1.97	0.46
55:Q8:8:LYS:O	55:Q8:12:LYS:HG3	2.16	0.46
1:1G:232:G:H2'	1:1G:233:C:O4'	2.16	0.46
1:1G:791:G:C6	1:1G:792:A:N7	2.84	0.46
1:1G:1136:U:OP2	1:1G:1137:C:N4	2.48	0.46
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.80	0.46
2:12:219:VAL:HB	2:12:221:LEU:H	1.81	0.46
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.98	0.46
3:22:195:VAL:O	3:22:196:LEU:HD22	2.16	0.46
5:42:121:LYS:HD2	5:42:122:GLU:H	1.81	0.46
10:1A:78:ASN:O	10:1A:81:THR:OG1	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:1L:9:A:OP2	56:1L:13:C:N4	2.49	0.46
26:14:17:G:H2'	26:14:18:C:H6	1.80	0.46
26:14:57:C:H2'	26:14:58:G:O4'	2.16	0.46
26:14:820:A:N3	26:14:943:U:H4'	2.31	0.46
26:14:1011:G:O2'	26:14:1013:C:O4'	2.24	0.46
26:14:2823:A:OP1	30:29:113:PHE:HB2	2.16	0.46
33:59:20:ALA:O	33:59:22:GLY:N	2.47	0.46
34:69:8:PRO:CD	34:69:15:VAL:HG22	2.46	0.46
47:D5:72:ARG:HD2	47:D5:72:ARG:HA	1.42	0.46
49:F5:8:SER:HB3	49:F5:66:HIS:CD2	2.51	0.46
1:13:46:G:H2'	1:13:366:C:H5	1.81	0.45
1:13:820:U:H4'	1:13:821:G:OP2	2.17	0.45
1:13:1127:G:H2'	1:13:1128:C:O4'	2.16	0.45
3:2E:6:HIS:CD2	14:5I:49:HIS:HB3	2.50	0.45
10:1I:54:PHE:CD2	10:1I:55:LYS:HG2	2.52	0.45
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.16	0.45
26:1H:275:G:O6	26:1H:363:G:H1'	2.15	0.45
26:1H:1183:G:O2'	51:L8:29:ARG:NH1	2.49	0.45
26:1H:1194:A:H8	26:1H:1194:A:OP2	1.98	0.45
26:1H:1971:A:H5"	29:11:242:ARG:HH22	1.81	0.45
26:1H:2228:G:C5	26:1H:2229:C:C4	3.04	0.45
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.51	0.45
27:16:3:C:H2'	27:16:4:C:H6	1.81	0.45
31:31:155:LEU:HB2	31:31:189:THR:HG21	1.97	0.45
33:51:153:LYS:HE2	33:51:153:LYS:HB3	1.81	0.45
43:D8:76:LYS:O	43:D8:79:VAL:HG12	2.15	0.45
49:J8:64:ALA:HA	49:J8:67:ILE:HG13	1.98	0.45
1:1G:91:C:H3'	1:1G:92:G:H8	1.82	0.45
1:1G:427:U:OP1	4:32:13:ARG:NH2	2.49	0.45
1:1G:456:C:N4	1:1G:476:G:H1	2.13	0.45
1:1G:535:A:H4'	61:1G:1906:HOH:O	2.15	0.45
1:1G:600:C:OP1	8:72:97:VAL:HG23	2.16	0.45
1:1G:730:G:O6	15:6A:51:HIS:NE2	2.48	0.45
1:1G:931:C:H2'	1:1G:932:C:H6	1.81	0.45
1:1G:1020:U:H2'	1:1G:1021:G:O4'	2.17	0.45
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.51	0.45
1:1G:1490:C:H2'	1:1G:1491:G:C8	2.51	0.45
2:12:16:HIS:CE1	2:12:213:LEU:HD22	2.52	0.45
2:12:74:LYS:O	2:12:75:LYS:HB3	2.16	0.45
2:12:147:LYS:HD2	2:12:148:TYR:CE1	2.51	0.45
3:22:73:PRO:O	3:22:76:VAL:HG22	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:69:GLU:H	6:52:69:GLU:CD	2.19	0.45
13:4A:68:GLY:HA2	13:4A:71:ARG:HB2	1.98	0.45
56:1L:68:G:N3	56:1L:69:A:N6	2.62	0.45
26:14:654(B):C:H4'	26:14:654(T):A:N1	2.31	0.45
26:14:921:G:C6	26:14:922:U:C4	3.04	0.45
26:14:1654:A:H1'	26:14:2823:A:H5'	1.98	0.45
27:1J:11:C:H3'	27:1J:12:C:C6	2.51	0.45
31:39:39:TRP:HB2	31:39:99:TYR:HE1	1.81	0.45
42:85:90:VAL:O	43:95:11:GLN:NE2	2.37	0.45
47:D5:91:LEU:HD12	47:D5:91:LEU:H	1.81	0.45
47:D5:140:ASP:OD1	47:D5:140:ASP:N	2.49	0.45
49:F5:45:ASN:O	49:F5:63:ALA:HA	2.16	0.45
1:13:243:A:H4'	1:13:244:U:H5"	1.99	0.45
1:13:595:G:H1	1:13:641:U:HO2'	1.64	0.45
1:13:648:A:H2'	1:13:649:G:H8	1.80	0.45
1:13:717:C:H2'	1:13:734:G:OP2	2.17	0.45
1:13:848:C:H2'	1:13:849:C:O4'	2.16	0.45
1:13:868:C:H2'	1:13:869:G:O4'	2.15	0.45
26:1H:918:A:N3	27:16:80:U:O2'	2.39	0.45
26:1H:996:A:C5	26:1H:1160:G:N2	2.85	0.45
26:1H:1790:C:H5"	26:1H:1791:A:OP1	2.16	0.45
27:16:7:G:H5"	27:16:7:G:H8	1.79	0.45
27:16:80:U:H2'	27:16:81:G:N2	2.28	0.45
32:41:95:ARG:CA	32:41:99:MET:HB2	2.47	0.45
38:88:35:VAL:HG13	38:88:130:LYS:HB3	1.97	0.45
38:88:39:PRO:HA	38:88:97:VAL:O	2.16	0.45
39:98:104:ARG:HB3	39:98:107:ASP:HB3	1.98	0.45
43:D8:1:MET:SD	43:D8:43:GLU:HG2	2.56	0.45
1:1G:445:G:H2'	1:1G:446:G:C8	2.51	0.45
1:1G:562:C:H4'	1:1G:563:A:O5'	2.15	0.45
1:1G:585:G:N3	1:1G:879:C:H4'	2.32	0.45
1:1G:1132:C:O2'	1:1G:1133:G:H5'	2.15	0.45
6:52:15:ASP:O	6:52:19:LEU:HB2	2.16	0.45
56:1L:6:G:O2'	56:1L:7:U:OP1	2.31	0.45
56:1L:37:A:N6	56:1L:38:A:N3	2.64	0.45
26:14:975:G:C5	26:14:976:C:C5	3.04	0.45
26:14:1000:A:C6	26:14:1001:A:C6	3.04	0.45
26:14:1568:G:OP2	29:19:63:ARG:NH2	2.47	0.45
26:14:1645:G:H5"	26:14:1646:C:H5'	1.98	0.45
26:14:2239:G:OP2	29:19:244:ARG:NH2	2.38	0.45
26:14:2439:A:H5"	26:14:2439:A:H8	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:121:GLY:O	31:39:122:LYS:HD3	2.17	0.45
37:35:125:VAL:O	37:35:144:GLU:HB3	2.17	0.45
38:45:97:VAL:HG21	38:45:103:MET:HE2	1.97	0.45
49:F5:73:LEU:HB3	49:F5:90:ILE:HD11	1.98	0.45
55:M5:52:LYS:N	55:M5:53:PRO:HD2	2.31	0.45
1:13:658:G:C6	1:13:659:U:C4	3.05	0.45
1:13:926:G:H5'	1:13:927:G:O5'	2.17	0.45
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.23	0.45
1:13:1348:U:H2'	1:13:1349:A:H8	1.82	0.45
10:1I:38:ILE:HD11	10:1I:71:LEU:HD23	1.97	0.45
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.37	0.45
26:1H:250:G:C6	26:1H:251:A:C6	3.04	0.45
26:1H:468:G:N7	54:P8:39:ARG:NH2	2.61	0.45
26:1H:792:G:H5"	26:1H:793:A:H5'	1.97	0.45
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.15	0.45
26:1H:1816:G:H8	29:11:62:TYR:CZ	2.35	0.45
26:1H:1858:G:O2'	26:1H:1859:A:OP2	2.31	0.45
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.80	0.45
29:11:109:ASP:HB2	29:11:197:GLY:HA3	1.97	0.45
30:21:143:ASN:HB2	30:21:147:PRO:HD2	1.97	0.45
32:41:145:THR:O	32:41:146:TYR:HB3	2.16	0.45
33:51:19:VAL:HG12	33:51:20:ALA:N	2.32	0.45
33:51:152:ARG:HG3	33:51:161:GLY:HA2	1.99	0.45
40:A8:43:GLU:HB2	48:I8:49:LYS:HE2	1.98	0.45
43:D8:12:TYR:N	43:D8:12:TYR:CD1	2.84	0.45
46:G8:57:GLN:H	46:G8:57:GLN:HG3	1.60	0.45
50:K8:59:ARG:O	50:K8:62:THR:HG23	2.16	0.45
1:1G:25:C:H2'	1:1G:26:A:H8	1.81	0.45
1:1G:35:G:H2'	1:1G:36:C:C6	2.51	0.45
1:1G:151:A:H2'	1:1G:152:A:O4'	2.15	0.45
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.97	0.45
1:1G:1367:C:H5'	10:1A:60:ARG:NH2	2.30	0.45
5:42:30:ALA:O	5:42:45:PHE:HA	2.16	0.45
9:82:26:VAL:HG13	9:82:61:ALA:O	2.16	0.45
11:2A:58:PRO:HB2	11:2A:93:GLN:HG3	1.97	0.45
11:2A:110:ASP:HB3	18:9A:85:LEU:HB3	1.98	0.45
20:BA:86:ARG:O	20:BA:90:GLN:HG2	2.16	0.45
56:1L:39:U:H2'	56:1L:40:C:H6	1.81	0.45
26:14:235:U:H2'	26:14:236:C:H6	1.80	0.45
26:14:483:A:C4'	46:C5:49:VAL:HA	2.43	0.45
26:14:597:U:H2'	26:14:598:G:H8	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2233:U:H2'	26:14:2234:G:C8	2.52	0.45
26:14:2820:A:C5	39:55:4:LEU:HD11	2.51	0.45
27:1J:19:G:N2	27:1J:64:C:O2	2.45	0.45
30:29:52:LEU:HB2	30:29:76:ARG:HB2	1.99	0.45
30:29:96:PHE:O	30:29:175:VAL:HG11	2.16	0.45
31:39:30:PRO:O	31:39:33:LEU:N	2.49	0.45
31:39:83:PHE:C	31:39:85:GLY:H	2.20	0.45
33:59:30:LYS:HB3	33:59:79:VAL:O	2.16	0.45
34:69:51:ILE:HD13	34:69:51:ILE:HA	1.83	0.45
1:13:491:G:H2'	1:13:492:G:O4'	2.16	0.45
1:13:685:G:O2'	1:13:686:U:H5'	2.16	0.45
1:13:835:U:OP1	18:9I:64:ARG:NH1	2.39	0.45
1:13:953:G:H8	1:13:953:G:O5'	1.99	0.45
1:13:1285:A:O5'	1:13:1285:A:H8	1.99	0.45
7:6E:12:LEU:HD21	7:6E:28:ASN:ND2	2.32	0.45
7:6E:43:PHE:O	7:6E:46:ALA:HB3	2.16	0.45
10:1I:8:LEU:HD22	10:1I:96:ILE:HG12	1.99	0.45
10:1I:84:GLN:O	10:1I:88:LEU:HD23	2.17	0.45
15:6I:17:ARG:HD2	15:6I:77:ARG:NH1	2.32	0.45
16:7I:67:THR:HG22	16:7I:68:ASP:H	1.81	0.45
24:3K:36:U:C2	24:3K:37:A:H1'	2.51	0.45
26:1H:142:G:H2'	26:1H:143:C:C6	2.51	0.45
26:1H:616:A:C4	31:31:180:GLY:HA3	2.51	0.45
26:1H:1250:G:H5'	61:1H:4507:HOH:O	2.15	0.45
26:1H:1312:U:OP2	45:F8:63:LYS:NZ	2.35	0.45
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.32	0.45
30:21:107:THR:O	30:21:190:GLY:HA2	2.16	0.45
33:51:14:GLY:O	33:51:29:PRO:HD3	2.17	0.45
34:61:1:MET:HB3	34:61:21:VAL:O	2.16	0.45
36:68:97:ARG:H	36:68:117:LEU:HD22	1.81	0.45
45:F8:24:GLY:O	45:F8:83:VAL:HG22	2.16	0.45
46:G8:82:PRO:HG3	46:G8:97:ARG:HB3	1.98	0.45
47:H8:51:ALA:O	47:H8:54:HIS:HB2	2.15	0.45
1:1G:318:G:C2	1:1G:336:C:N3	2.84	0.45
1:1G:611:A:H61	1:1G:629:G:H1	1.64	0.45
1:1G:1274:G:N2	1:1G:1275:A:H62	2.14	0.45
1:1G:1414:U:H2'	1:1G:1415:G:C8	2.52	0.45
2:12:57:PHE:HZ	2:12:199:TYR:CZ	2.34	0.45
2:12:166:ASP:OD2	2:12:169:LYS:HB2	2.17	0.45
3:22:153:VAL:HG12	3:22:196:LEU:HD12	1.99	0.45
4:32:24:GLU:N	4:32:24:GLU:OE2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:10:PHE:CB	19:AA:11:VAL:HB	2.42	0.45
26:14:17:G:H4'	42:85:25:TRP:CZ3	2.52	0.45
26:14:455:C:N3	26:14:473:G:H5'	2.31	0.45
26:14:483:A:H1'	46:C5:60:PHE:CE1	2.49	0.45
26:14:864:G:C6	26:14:865:C:N4	2.85	0.45
26:14:1542:G:H3'	26:14:1543:A:H5"	1.98	0.45
26:14:2115:G:C6	26:14:2117:A:C8	3.05	0.45
26:14:2126:A:O2'	26:14:2127:G:H5"	2.16	0.45
26:14:2340:G:O2'	26:14:2341:G:H5'	2.16	0.45
29:19:183:ARG:HG3	29:19:270:ILE:HG13	1.98	0.45
30:29:13:ARG:HA	30:29:21:VAL:O	2.17	0.45
30:29:29:GLY:H	30:29:51:PHE:HE1	1.64	0.45
33:59:37:VAL:HG22	33:59:38:SER:H	1.80	0.45
37:35:85:LEU:HD12	37:35:138:LEU:HD23	1.99	0.45
39:55:70:LEU:HD13	39:55:75:LEU:HD22	1.98	0.45
40:65:49:VAL:HG21	40:65:77:ALA:HB2	1.99	0.45
44:A5:38:TYR:CD2	53:J5:30:LEU:HD21	2.51	0.45
46:C5:20:TYR:CE2	46:C5:42:VAL:HA	2.51	0.45
1:13:15:G:H4'	5:4E:24:ARG:NH1	2.32	0.45
1:13:303:A:H2'	1:13:304:U:O4'	2.17	0.45
1:13:652:U:C4	1:13:752:G:N3	2.84	0.45
1:13:980:C:H2'	1:13:981:U:O4'	2.16	0.45
1:13:1129:C:H4'	1:13:1130:A:OP1	2.16	0.45
1:13:1286:A:C2	21:1F:18:TYR:OH	2.69	0.45
1:13:1354:C:H2'	1:13:1355:G:C8	2.52	0.45
13:4I:10:PRO:CB	13:4I:18:ALA:HB1	2.46	0.45
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	1.97	0.45
17:8I:100:LYS:HD2	17:8I:101:ARG:HE	1.81	0.45
20:BI:37:SER:O	20:BI:41:ILE:HG12	2.16	0.45
26:1H:723:G:H2'	26:1H:724:U:O4'	2.16	0.45
26:1H:1052:C:N3	26:1H:1107:G:N2	2.49	0.45
26:1H:1225:C:O2'	43:D8:85:LYS:HA	2.17	0.45
26:1H:1301:A:O2'	26:1H:1302:A:H3'	2.17	0.45
26:1H:2128:C:H3'	28:71:36:LYS:NZ	2.31	0.45
26:1H:2210:G:H3'	26:1H:2211:G:C5	2.51	0.45
26:1H:2438:U:O2'	26:1H:2440:C:OP1	2.26	0.45
26:1H:2563:U:H4'	36:68:28:SER:HA	1.99	0.45
28:71:200:LYS:HG3	28:71:208:PHE:CE1	2.51	0.45
29:11:106:ILE:O	29:11:108:PRO:HD3	2.17	0.45
30:21:108:SER:O	30:21:162:ALA:N	2.48	0.45
31:31:198:ALA:O	31:31:201:VAL:HG12	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:130:HIS:C	35:58:134:ARG:HH12	2.19	0.45
38:88:17:LEU:HB3	38:88:39:PRO:HB2	1.98	0.45
42:C8:106:PHE:HA	42:C8:109:LEU:HD12	1.99	0.45
49:J8:87:PRO:C	49:J8:89:GLU:N	2.69	0.45
1:1G:509:A:C8	1:1G:509:A:H3'	2.52	0.45
1:1G:631:G:H1'	1:1G:632:A:H5'	1.99	0.45
1:1G:1127:G:H1'	1:1G:1148:U:H3	1.82	0.45
1:1G:1370:G:N7	9:82:109:VAL:HG21	2.31	0.45
26:14:102:G:OP1	50:G5:7:ARG:NH2	2.50	0.45
26:14:130:C:O3'	26:14:1349:A:H1'	2.17	0.45
26:14:470:A:H2'	26:14:471:A:O4'	2.17	0.45
26:14:1016:G:H2'	26:14:1017:G:C8	2.52	0.45
26:14:1378:A:O2'	26:14:1380:G:N7	2.41	0.45
26:14:1666:G:OP1	36:25:66:LYS:HD3	2.17	0.45
26:14:2629:A:H2'	26:14:2629:A:N3	2.31	0.45
26:14:2695:C:H2'	26:14:2696:U:C6	2.52	0.45
27:1J:17:C:H2'	27:1J:18:G:O4'	2.16	0.45
29:19:68:LYS:HB3	29:19:70:TRP:CH2	2.51	0.45
30:29:201:THR:HG22	30:29:202:LYS:N	2.31	0.45
49:F5:35:THR:OG1	49:F5:35:THR:O	2.33	0.45
1:13:1162:C:H2'	1:13:1163:C:C6	2.51	0.45
1:13:1178:G:N2	1:13:1181:G:OP2	2.49	0.45
1:13:1206:G:C6	1:13:1207:G:C5	3.05	0.45
2:1E:12:GLU:HB3	2:1E:44:LEU:HD13	1.98	0.45
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.98	0.45
4:3E:155:LEU:O	4:3E:157:LEU:N	2.49	0.45
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.98	0.45
6:5E:21:LEU:O	6:5E:25:ILE:HG12	2.17	0.45
7:6E:91:VAL:HG12	7:6E:95:ARG:HB3	1.98	0.45
8:7E:112:LEU:HA	8:7E:134:ILE:HG12	1.97	0.45
22:1K:45:G:O2'	22:1K:47:U:OP2	2.27	0.45
26:1H:991:C:H2'	26:1H:992:C:C6	2.50	0.45
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.51	0.45
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.17	0.45
26:1H:1650:G:N7	61:1H:3694:HOH:O	2.48	0.45
26:1H:1968:G:P	61:1H:3933:HOH:O	2.73	0.45
26:1H:2287:A:C4	26:1H:2289:G:C8	3.05	0.45
27:16:12:C:O2'	48:I8:74:ARG:HG2	2.16	0.45
38:88:138:ASP:HA	38:88:139:GLU:HA	1.79	0.45
39:98:45:ARG:HB3	39:98:46:GLY:H	1.51	0.45
43:D8:49:THR:HG23	43:D8:51:VAL:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:E8:97:LYS:HE2	44:E8:99:ARG:CZ	2.47	0.45
1:1G:419:C:H42	1:1G:424:G:H1	1.62	0.45
1:1G:444:C:O2	1:1G:490:G:N2	2.34	0.45
6:52:2:ARG:HD3	6:52:92:LYS:HE3	1.98	0.45
7:62:88:PRO:O	7:62:89:MET:HG2	2.16	0.45
12:3A:46:LYS:HE2	12:3A:91:LYS:O	2.17	0.45
19:AA:13:ASP:O	19:AA:16:LEU:HB3	2.16	0.45
24:3L:22:G:N2	24:3L:23:A:C5	2.85	0.45
26:14:853:G:C2'	26:14:854:G:H5'	2.46	0.45
26:14:996:A:O4'	42:85:92:ARG:NH2	2.49	0.45
26:14:1638:C:H5"	26:14:2710:C:O2'	2.17	0.45
26:14:1651:G:OP1	39:55:40:LYS:NZ	2.48	0.45
26:14:1790:C:H2'	26:14:1791:A:C5	2.51	0.45
26:14:2037:G:H2'	26:14:2038:G:H8	1.80	0.45
26:14:2724:C:OP1	30:29:118:LYS:HE3	2.17	0.45
31:39:21:ALA:C	31:39:23:ASP:H	2.20	0.45
34:69:9:LEU:HD21	34:69:35:LEU:HD13	1.98	0.45
38:45:134:ARG:HH22	47:D5:122:ARG:CZ	2.30	0.45
40:65:92:TYR:HB2	40:65:98:VAL:HG11	1.97	0.45
1:13:5:U:O2'	1:13:6:G:O5'	2.35	0.45
1:13:10:A:H2'	1:13:11:G:C8	2.52	0.45
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.45	0.45
1:13:484:G:O2'	1:13:485:G:OP2	2.28	0.45
1:13:564:C:C6	17:8I:31:LEU:HD21	2.51	0.45
1:13:590:C:H42	1:13:649:G:H1	1.63	0.45
1:13:651:C:H2'	1:13:652:U:C6	2.52	0.45
1:13:859:A:H2'	1:13:860:A:O4'	2.16	0.45
1:13:1190:G:H5"	3:2E:176:HIS:NE2	2.32	0.45
1:13:1262:C:H2'	1:13:1263:C:C6	2.51	0.45
1:13:1533:C:H4'	1:13:1534:A:C8	2.52	0.45
2:1E:60:ASP:O	2:1E:64:ARG:NE	2.49	0.45
4:3E:107:ARG:HH22	4:3E:194:LEU:CD2	2.23	0.45
4:3E:201:GLN:HA	4:3E:204:ILE:HD12	1.98	0.45
7:6E:150:ALA:HB2	11:2I:50:TYR:OH	2.16	0.45
17:8I:7:THR:O	17:8I:23:VAL:HG13	2.15	0.45
22:1K:76:A:C8	26:1H:2583:G:N2	2.70	0.45
26:1H:340:A:H2'	26:1H:341:G:O4'	2.17	0.45
26:1H:644:A:H4'	26:1H:645:C:C5	2.51	0.45
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.52	0.45
28:71:10:LEU:HD12	28:71:10:LEU:HA	1.75	0.45
30:21:23:VAL:HA	30:21:184:VAL:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:31:CYS:HB3	30:21:49:LEU:HG	1.97	0.45
35:58:53:VAL:HG11	35:58:128:HIS:CD2	2.51	0.45
35:58:57:ALA:C	35:58:59:LYS:N	2.69	0.45
35:58:70:LYS:HE3	35:58:72:TYR:CE1	2.52	0.45
36:68:58:VAL:HG21	36:68:86:ILE:HG12	1.98	0.45
39:98:72:ASP:OD2	39:98:75:LEU:HB2	2.17	0.45
47:H8:163:LEU:HB3	47:H8:165:VAL:H	1.81	0.45
52:M8:43:TYR:O	52:M8:46:GLN:HA	2.17	0.45
1:1G:186(B):C:O4'	20:BA:89:ARG:NH2	2.49	0.45
1:1G:187:C:H2'	1:1G:188:U:O4'	2.16	0.45
1:1G:266:G:H2'	1:1G:266:G:N3	2.32	0.45
1:1G:620:C:C2	4:32:135:LEU:HG	2.52	0.45
1:1G:662:G:H2'	1:1G:663:A:H8	1.81	0.45
1:1G:731:G:OP1	1:1G:766:A:H1'	2.16	0.45
1:1G:855:G:OP2	1:1G:871:U:N3	2.40	0.45
1:1G:862:C:C5	1:1G:863:U:C5	3.04	0.45
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.17	0.45
1:1G:1152:A:H5'	10:1A:13:HIS:CE1	2.51	0.45
4:32:14:ARG:HA	4:32:39:PRO:HB3	1.98	0.45
10:1A:55:LYS:HA	10:1A:55:LYS:HD2	1.26	0.45
16:7A:45:THR:O	16:7A:48:TRP:HD1	2.00	0.45
19:AA:66:MET:N	19:AA:67:VAL:HB	2.32	0.45
26:14:171:G:H2'	26:14:172:C:C6	2.52	0.45
26:14:975:G:C2	26:14:990:A:C8	3.05	0.45
26:14:1667:G:O2'	26:14:1991:U:O4	2.29	0.45
26:14:2262:U:O2'	26:14:2263:C:H5'	2.17	0.45
26:14:2287:A:H62	26:14:2344:U:H3	1.62	0.45
27:1J:42:C:N4	27:1J:43:C:C4	2.85	0.45
30:29:120:TRP:CE3	30:29:155:LYS:HD3	2.51	0.45
31:39:132:VAL:HG13	31:39:133:ASN:OD1	2.16	0.45
41:75:107:ASP:OD2	41:75:109:GLU:HB2	2.17	0.45
42:85:50:ARG:HH12	43:95:72:VAL:HG23	1.81	0.45
42:85:72:HIS:CE1	42:85:107:ALA:HA	2.52	0.45
1:13:240:C:H2'	1:13:241:C:H6	1.79	0.45
1:13:453:A:C4'	16:7I:72:ARG:HB2	2.43	0.45
1:13:991:U:C4	1:13:1212:U:H1'	2.51	0.45
1:13:1016:A:H2'	1:13:1017:G:O4'	2.17	0.45
1:13:1041:A:H2'	1:13:1042:G:O4'	2.17	0.45
1:13:1095:U:H2'	1:13:1096:C:C6	2.52	0.45
1:13:1120:G:C2	1:13:1154:G:C2	3.05	0.45
1:13:1218:C:H2'	1:13:1219:U:C5	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.32	0.45
1:13:1263:C:H2'	1:13:1264:C:H6	1.82	0.45
1:13:1305:G:H22	1:13:1331:G:H2'	1.81	0.45
1:13:1366:C:O2'	10:1I:60:ARG:NH1	2.42	0.45
2:1E:11:LEU:CG	2:1E:213:LEU:HD13	2.45	0.45
9:8E:91:ASP:OD1	9:8E:91:ASP:N	2.42	0.45
17:8I:22:LEU:HD22	17:8I:88:TYR:CD2	2.51	0.45
17:8I:43:LEU:O	17:8I:69:LYS:HG3	2.17	0.45
19:AI:5:LEU:O	19:AI:6:LYS:HB3	2.16	0.45
26:1H:84:A:H5"	46:G8:8:LYS:HB3	1.99	0.45
26:1H:182:A:H2'	26:1H:183:C:C6	2.52	0.45
26:1H:783:A:C8	26:1H:784:A:H4'	2.51	0.45
26:1H:1028:A:N6	26:1H:1125:G:H2'	2.32	0.45
26:1H:1207:C:H2'	26:1H:1208:C:C6	2.52	0.45
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.99	0.45
26:1H:2056:G:C2	26:1H:2057:A:C8	3.04	0.45
26:1H:2131:G:H1'	26:1H:2158:A:C6	2.52	0.45
26:1H:2151:G:C2	26:1H:2152:G:N7	2.85	0.45
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.16	0.45
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.32	0.45
33:51:157:TYR:O	33:51:158:HIS:CG	2.70	0.45
41:B8:105:LEU:O	41:B8:107:ASP:N	2.50	0.45
43:D8:79:VAL:CG1	43:D8:81:TYR:HB3	2.47	0.45
44:E8:12:ILE:HG13	44:E8:42:ARG:HH11	1.82	0.45
46:G8:43:ASN:OD1	46:G8:65:ALA:HB3	2.16	0.45
47:H8:164:ALA:O	47:H8:165:VAL:HG22	2.17	0.45
51:L8:8:LEU:CD1	51:L8:31:LEU:HA	2.47	0.45
1:1G:474:G:H2'	1:1G:475:G:C8	2.52	0.45
1:1G:865:A:H5'	1:1G:1078:U:C5	2.51	0.45
2:12:180:LEU:HB2	2:12:182:ILE:HD12	1.99	0.45
5:42:86:ALA:HB3	5:42:125:SER:HB2	1.99	0.45
20:BA:25:ARG:O	20:BA:29:LYS:HG3	2.16	0.45
26:14:6:A:N9	35:15:129:PRO:HB2	2.31	0.45
26:14:7:G:OP2	26:14:7:G:H3'	2.17	0.45
26:14:176:G:O2'	26:14:177:G:H5'	2.17	0.45
26:14:214:G:H4'	26:14:214:G:OP1	2.16	0.45
26:14:481:G:OP1	26:14:481:G:H4'	2.17	0.45
26:14:524:U:H2'	26:14:525:U:C6	2.52	0.45
26:14:754:C:H2'	26:14:755:C:C6	2.52	0.45
26:14:797:C:H2'	26:14:798:G:O4'	2.15	0.45
26:14:807:U:C2	26:14:808:G:C8	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1002:G:H2'	26:14:1003:G:O4'	2.17	0.45
26:14:1832:C:N4	26:14:1833:U:C4	2.85	0.45
26:14:2031:A:C6	26:14:2498:C:H1'	2.52	0.45
26:14:2649:U:H2'	26:14:2650:U:C6	2.52	0.45
26:14:2865:U:C4	26:14:2866:U:C4	3.04	0.45
29:19:218:ARG:HB3	29:19:219:PRO:HD2	1.97	0.45
43:95:37:VAL:C	43:95:39:LEU:H	2.15	0.45
43:95:43:GLU:HA	43:95:44:LYS:HA	1.73	0.45
45:B5:50:LYS:H	45:B5:83:VAL:HG23	1.82	0.45
50:G5:65:ASN:HB3	50:G5:69:ARG:NH2	2.31	0.45
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.45	0.45
1:13:592:G:C6	1:13:648:A:C6	3.05	0.45
1:13:637:G:H2'	1:13:638:G:C8	2.52	0.45
1:13:1418:A:C2	1:13:1483:A:C2	3.05	0.45
2:1E:21:ARG:NE	2:1E:22:LYS:HB2	2.32	0.45
2:1E:23:ARG:HB3	2:1E:23:ARG:HH11	1.82	0.45
3:2E:92:ALA:HB2	3:2E:99:VAL:HG22	1.98	0.45
3:2E:108:ASN:OD1	3:2E:144:SER:OG	2.35	0.45
4:3E:89:THR:HB	5:4E:97:GLY:HA2	1.99	0.45
17:8I:11:VAL:HG22	17:8I:20:THR:O	2.16	0.45
22:1K:48:C:H4'	22:1K:49:G:H5'	1.98	0.45
24:3K:48:C:H5	24:3K:59:A:H1'	1.81	0.45
26:1H:264:C:O2'	26:1H:265:A:H2'	2.17	0.45
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.17	0.45
26:1H:1530:G:O6	26:1H:1542:G:N2	2.49	0.45
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.17	0.45
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.16	0.45
26:1H:2121:G:H4'	28:71:167:LYS:NZ	2.32	0.45
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.51	0.45
26:1H:2315:G:H5"	26:1H:2316:C:OP2	2.17	0.45
26:1H:2342:C:O2'	26:1H:2374:C:H5"	2.17	0.45
31:31:53:THR:HG23	31:31:56:GLU:OE2	2.17	0.45
33:51:6:ARG:NH1	33:51:54:ARG:HH12	2.15	0.45
33:51:126:PRO:HG2	33:51:130:ARG:NH1	2.26	0.45
35:58:97:ARG:H	35:58:100:GLU:HG3	1.82	0.45
37:78:46:LYS:O	37:78:47:ASP:HB3	2.16	0.45
41:B8:22:PHE:HD2	41:B8:49:VAL:HG11	1.82	0.45
44:E8:79:GLY:N	44:E8:100:THR:O	2.44	0.45
46:G8:96:ILE:HD12	46:G8:101:LYS:HE2	1.98	0.45
1:1G:341:C:H2'	1:1G:342:C:H6	1.82	0.45
1:1G:924:C:O2'	1:1G:1502:A:N6	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:979:C:H3'	1:1G:980:C:C5'	2.47	0.45
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.52	0.45
1:1G:1298:C:N4	7:62:114:ARG:HB3	2.32	0.45
1:1G:1316:G:H2'	1:1G:1317:C:H5"	1.99	0.45
2:12:107:THR:O	2:12:110:GLN:HB2	2.17	0.45
6:52:77:ARG:NH2	6:52:78:GLU:HG2	2.32	0.45
6:52:100:ASN:ND2	18:9A:26:LEU:O	2.50	0.45
25:4L:19:G:H8	25:4L:19:G:OP2	2.00	0.45
26:14:579:G:H2'	26:14:580:C:H6	1.82	0.45
26:14:836:G:H2'	26:14:837:C:C6	2.52	0.45
26:14:864:G:O2'	26:14:865:C:H5'	2.17	0.45
26:14:2016:U:H1'	53:J5:6:VAL:HG13	1.97	0.45
26:14:2127:G:H2'	26:14:2128:C:O4'	2.16	0.45
26:14:2591:C:OP1	29:19:239:ARG:HG2	2.17	0.45
27:1J:44:G:H1'	27:1J:47:C:N4	2.31	0.45
29:19:16:MET:HG3	29:19:206:LEU:O	2.17	0.45
30:29:119:ARG:HD2	30:29:120:TRP:CE2	2.52	0.45
30:29:120:TRP:CD1	30:29:155:LYS:HB3	2.52	0.45
32:49:117:PHE:O	32:49:117:PHE:CG	2.70	0.45
32:49:120:LEU:HB2	32:49:180:PHE:CD1	2.52	0.45
32:49:144:ILE:HD13	32:49:144:ILE:HA	1.78	0.45
33:59:118:PRO:CG	33:59:121:ILE:HG13	2.46	0.45
37:35:3:LEU:HA	37:35:3:LEU:HD23	1.77	0.45
38:45:54:MET:HG2	38:45:117:ALA:O	2.17	0.45
47:D5:128:VAL:HG23	47:D5:160:GLY:O	2.17	0.45
1:13:265:G:H5"	17:8I:65:ILE:O	2.17	0.45
1:13:321:A:N6	1:13:328:C:H1'	2.32	0.45
1:13:405:U:O2'	1:13:497:U:H5'	2.17	0.45
3:2E:27:LYS:HA	3:2E:27:LYS:HD2	1.67	0.45
3:2E:131:ARG:HG3	3:2E:166:GLU:HG2	1.99	0.45
4:3E:174:LEU:HD23	4:3E:185:PHE:HA	1.99	0.45
22:1K:54:5MU:H5'	22:1K:54:5MU:H6	1.82	0.45
26:1H:281:G:H1'	26:1H:359:A:H61	1.82	0.45
26:1H:722:A:H2'	26:1H:723:G:C8	2.52	0.45
26:1H:2025:C:H2'	26:1H:2026:C:C6	2.51	0.45
26:1H:2238:G:H2'	26:1H:2238:G:N3	2.32	0.45
26:1H:2291:U:O2'	26:1H:2374:C:O2	2.33	0.45
26:1H:2591:C:OP1	29:11:239:ARG:HG3	2.16	0.45
61:1H:3691:HOH:O	30:21:135:HIS:CD2	2.69	0.45
28:71:180:PHE:HA	28:71:181:PRO:HD3	1.84	0.45
29:11:244:ARG:HB2	29:11:245:PRO:HD2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:13:LYS:HA	33:51:13:LYS:HD3	1.81	0.45
37:78:125:VAL:O	37:78:144:GLU:HB2	2.17	0.45
40:A8:58:LEU:HD23	40:A8:58:LEU:H	1.82	0.45
46:G8:87:LYS:HB2	46:G8:96:ILE:CD1	2.47	0.45
1:1G:114:U:H2'	1:1G:115:G:H8	1.80	0.45
1:1G:959:A:H2	1:1G:1221:G:HO2'	1.63	0.45
1:1G:1028:C:H42	1:1G:1033:G:H1	1.65	0.45
1:1G:1057:G:H5"	3:22:154:SER:O	2.17	0.45
1:1G:1318:A:O2'	19:AA:37:ARG:HB3	2.17	0.45
1:1G:1358:U:H2'	1:1G:1359:C:H5'	1.99	0.45
4:32:108:LEU:CD1	4:32:174:LEU:HB3	2.47	0.45
5:42:146:ALA:HB1	5:42:150:ARG:HH21	1.82	0.45
13:4A:84:ILE:HG13	19:AA:63:THR:HG21	1.99	0.45
26:14:19:C:H2'	26:14:20:C:C6	2.52	0.45
26:14:77:C:H5"	50:G5:10:LEU:HD21	1.99	0.45
26:14:690:G:H2'	26:14:691:C:O4'	2.17	0.45
26:14:1329:U:H5"	26:14:1330:C:C5	2.47	0.45
26:14:1399:C:H2'	26:14:1400:G:H8	1.82	0.45
26:14:2212:A:H1'	26:14:2215:G:C5	2.52	0.45
26:14:2271:G:OP1	48:E5:18:ALA:HB1	2.16	0.45
26:14:2320:A:H1'	26:14:2321:G:C6	2.51	0.45
26:14:2429:G:O6	37:35:61:ARG:NH2	2.50	0.45
31:39:25:PRO:HB2	31:39:27:GLU:N	2.15	0.45
33:59:24:VAL:HG21	33:59:72:ILE:HG21	1.99	0.45
35:15:132:ALA:HB1	35:15:133:GLN:HG2	1.98	0.45
37:35:41:ARG:N	37:35:41:ARG:HD2	2.32	0.45
38:45:52:VAL:O	38:45:56:ARG:HB2	2.17	0.45
50:G5:14:ARG:HA	50:G5:67:LYS:HZ3	1.82	0.45
1:13:127:G:H4'	17:8I:2:PRO:HD2	1.99	0.44
1:13:376:G:H5"	16:7I:5:ARG:HB2	1.99	0.44
1:13:376:G:H5"	16:7I:5:ARG:HD2	1.98	0.44
1:13:1003:G:H2'	1:13:1004:A:H4'	1.98	0.44
1:13:1009:G:C2	1:13:1010:G:C8	3.04	0.44
1:13:1104:G:OP1	2:1E:144:ARG:NH1	2.42	0.44
1:13:1286:A:N3	21:1F:18:TYR:OH	2.50	0.44
1:13:1297:C:OP1	13:4I:13:LYS:NZ	2.50	0.44
1:13:1314:C:OP2	19:AI:4:SER:OG	2.34	0.44
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.17	0.44
26:1H:155:C:H5'	26:1H:161:U:OP2	2.18	0.44
26:1H:172:C:H2'	26:1H:173:G:H8	1.81	0.44
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1357:U:H2'	26:1H:1358:G:O4'	2.17	0.44
26:1H:1491:G:O2'	26:1H:1492:G:H5'	2.18	0.44
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.52	0.44
26:1H:1763:G:OP1	26:1H:1763:G:H4'	2.17	0.44
26:1H:2098:U:H3	26:1H:2191:G:H1	1.64	0.44
26:1H:2789:C:H3'	26:1H:2790:A:H5"	2.00	0.44
26:1H:2801:A:H2'	26:1H:2802:G:C8	2.51	0.44
37:78:97:PRO:HD3	37:78:126:VAL:O	2.18	0.44
39:98:104:ARG:HG3	39:98:111:LEU:HD21	1.98	0.44
40:A8:30:ARG:O	40:A8:30:ARG:HG3	2.17	0.44
55:Q8:51:ALA:HB1	55:Q8:52:LYS:HA	1.98	0.44
1:1G:779:C:H2'	1:1G:780:A:O4'	2.17	0.44
1:1G:1023:G:C4	1:1G:1024:G:H1'	2.52	0.44
1:1G:1181:G:C2	1:1G:1182:G:H1'	2.52	0.44
1:1G:1206:G:O2'	3:22:193:TYR:HA	2.17	0.44
2:12:95:GLN:HB2	2:12:148:TYR:HA	1.99	0.44
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.16	0.44
13:4A:31:LYS:O	13:4A:35:GLU:HG2	2.16	0.44
56:1L:51:A:N3	56:1L:64:G:N2	2.66	0.44
26:14:691:C:O4'	29:19:43:ARG:NH2	2.49	0.44
26:14:1511:A:H2'	26:14:1512:G:C8	2.52	0.44
26:14:2124:G:H2'	26:14:2124:G:N3	2.32	0.44
26:14:2430:A:OP1	61:14:3665:HOH:O	2.20	0.44
26:14:2852:G:P	39:55:64:ARG:HH22	2.40	0.44
35:15:94:HIS:HA	35:15:96:GLU:OE2	2.17	0.44
39:55:33:ARG:NH2	39:55:115:GLU:OE2	2.51	0.44
45:B5:43:VAL:HG23	45:B5:51:VAL:CG2	2.46	0.44
47:D5:43:GLU:O	47:D5:47:VAL:HG23	2.17	0.44
1:13:192:U:O3'	20:BI:57:ARG:HD2	2.17	0.44
1:13:690:G:H2'	1:13:691:G:O4'	2.17	0.44
1:13:1125:U:HO2'	1:13:1126:U:H5	1.62	0.44
4:3E:39:PRO:O	4:3E:44:GLY:HA3	2.16	0.44
11:2I:56:GLY:O	11:2I:89:ALA:HB3	2.18	0.44
12:3I:21:LYS:HB3	12:3I:21:LYS:HE2	1.82	0.44
17:8I:78:GLU:OE2	17:8I:81:ARG:HD2	2.17	0.44
23:2K:20:G:C2	23:2K:58:A:N3	2.86	0.44
24:3K:2:G:HO2'	24:3K:3:G:P	2.41	0.44
26:1H:95:G:O2'	50:K8:48:HIS:HB3	2.17	0.44
26:1H:270(P):C:H2'	26:1H:270(Q):C:C6	2.52	0.44
26:1H:306:U:H2'	26:1H:307:G:O4'	2.17	0.44
26:1H:635:C:O2'	26:1H:639:U:OP1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.33	0.44
26:1H:1509:C:H2'	26:1H:1511:A:H8	1.83	0.44
26:1H:2092:U:H4'	26:1H:2093:G:O5'	2.17	0.44
26:1H:2290:G:H2'	26:1H:2291:U:O4'	2.17	0.44
26:1H:2877:G:H2'	26:1H:2878:U:O4'	2.18	0.44
31:31:110:LEU:HD12	31:31:110:LEU:HA	1.74	0.44
35:58:89:LYS:O	35:58:93:THR:OG1	2.32	0.44
47:H8:105:VAL:O	47:H8:140:ASP:HA	2.17	0.44
1:1G:192:U:O4'	20:BA:103:GLY:HA2	2.16	0.44
1:1G:302:G:O2'	1:1G:556:C:H5"	2.18	0.44
1:1G:591:U:OP2	8:72:30:ARG:HD3	2.17	0.44
1:1G:728:A:H2'	1:1G:729:A:H8	1.81	0.44
1:1G:957:U:O2	1:1G:959:A:H8	2.00	0.44
1:1G:1321:C:H4'	13:4A:87:TYR:CZ	2.52	0.44
1:1G:1350:A:C6	1:1G:1351:U:C4	3.05	0.44
2:12:91:PRO:HA	2:12:154:LEU:HD12	2.00	0.44
9:82:25:LYS:NZ	9:82:33:PHE:HB3	2.33	0.44
17:8A:43:LEU:HD11	17:8A:68:ARG:HH11	1.83	0.44
17:8A:58:GLU:OE1	17:8A:75:ARG:HD3	2.16	0.44
26:14:26:G:C6	26:14:27:G:N1	2.85	0.44
26:14:590:A:H2'	26:14:591:C:C6	2.52	0.44
26:14:1485:G:H2'	26:14:1486:A:C8	2.53	0.44
26:14:1784:A:H4'	26:14:1785:A:O5'	2.17	0.44
26:14:2224:G:H4'	26:14:2226:C:C2	2.52	0.44
26:14:2299:G:H2'	26:14:2300:G:H8	1.82	0.44
26:14:2859:G:C8	26:14:2859:G:H3'	2.52	0.44
29:19:35:LYS:HD3	29:19:61:LEU:HG	1.99	0.44
32:49:34:LEU:HB3	32:49:99:MET:HE1	1.99	0.44
33:59:167:GLU:O	33:59:167:GLU:HG2	2.18	0.44
34:69:109:ILE:HB	34:69:130:TYR:CE2	2.53	0.44
38:45:58:PHE:O	38:45:58:PHE:HD1	2.00	0.44
39:55:24:GLN:OE1	39:55:36:THR:HG21	2.17	0.44
42:85:91:ASP:OD2	42:85:96:ALA:HB2	2.17	0.44
42:85:95:LEU:HD23	42:85:95:LEU:HA	1.75	0.44
47:D5:127:LYS:HB3	47:D5:127:LYS:HE2	1.64	0.44
51:H5:6:VAL:O	51:H5:34:GLU:HA	2.17	0.44
1:13:329:A:C5	1:13:332:G:C6	3.05	0.44
1:13:484:G:HO2'	1:13:485:G:P	2.40	0.44
1:13:544:G:C6	1:13:545:C:C4	3.06	0.44
1:13:953:G:H2'	1:13:954:G:O4'	2.16	0.44
1:13:953:G:N7	13:4I:104:ARG:NH2	2.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1072:G:C5	1:13:1073:U:C4	3.04	0.44
5:4E:86:ALA:HA	61:4E:203:HOH:O	2.17	0.44
6:5E:16:GLN:HG2	6:5E:17:SER:N	2.31	0.44
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.83	0.44
22:1K:5:C:O5'	22:1K:5:C:H6	2.01	0.44
26:1H:270(M):U:OP2	34:61:50:ARG:NH1	2.51	0.44
26:1H:346:A:H5"	26:1H:347:A:OP2	2.16	0.44
26:1H:394:A:C6	26:1H:395:U:N3	2.85	0.44
26:1H:579:G:H2'	26:1H:580:C:C6	2.52	0.44
26:1H:938:G:P	55:Q8:52:LYS:HZ3	2.36	0.44
26:1H:1138:G:O2'	35:58:106:MET:HG3	2.18	0.44
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.16	0.44
26:1H:2231:C:OP1	49:J8:42:GLN:HA	2.16	0.44
26:1H:2335:A:O2'	26:1H:2336:A:OP2	2.33	0.44
26:1H:2444:G:OP1	31:31:67:GLN:NE2	2.48	0.44
27:16:28:C:H2'	27:16:29:A:O4'	2.18	0.44
27:16:91:C:H5"	47:H8:79:ARG:NH2	2.33	0.44
36:68:93:PRO:HG3	36:68:114:ILE:HG12	1.99	0.44
47:H8:30:ASN:OD1	47:H8:33:LEU:N	2.50	0.44
1:1G:149:A:H2'	1:1G:150:C:C6	2.52	0.44
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.52	0.44
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.17	0.44
2:12:184:VAL:HG23	2:12:197:VAL:HA	1.99	0.44
2:12:219:VAL:CG2	2:12:221:LEU:H	2.30	0.44
4:32:32:ALA:HA	4:32:35:ARG:HB2	2.00	0.44
25:4L:19:G:P	25:4L:19:G:H2'	2.56	0.44
26:14:64:A:H1'	45:B5:66:LEU:HB2	2.00	0.44
26:14:587:C:C2	37:35:33:ARG:NH1	2.84	0.44
26:14:882:G:OP2	26:14:882:G:H8	2.01	0.44
26:14:2070:G:H2'	26:14:2071:A:H8	1.81	0.44
26:14:2104:G:H2'	26:14:2105:C:C6	2.52	0.44
26:14:2488:A:H8	26:14:2488:A:O5'	1.99	0.44
26:14:2808:U:H5"	26:14:2891:G:O6	2.17	0.44
27:1J:16:G:H2'	27:1J:17:C:H6	1.82	0.44
27:1J:76:G:H5"	47:D5:15:PRO:HG3	1.99	0.44
35:15:15:LEU:O	35:15:136:GLU:HA	2.18	0.44
35:15:34:LEU:O	35:15:49:GLY:HA3	2.18	0.44
42:85:8:VAL:HB	42:85:12:ARG:HE	1.82	0.44
43:95:70:ILE:O	43:95:70:ILE:HG22	2.17	0.44
1:13:663:A:H2'	1:13:664:G:O4'	2.17	0.44
1:13:692:U:O2'	1:13:694:A:N7	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1240:U:P	7:6E:116:ALA:HB2	2.57	0.44
1:13:1425:U:H2'	1:13:1426:C:H6	1.83	0.44
1:13:1427:U:H2'	1:13:1428:A:C8	2.52	0.44
13:4I:23:TYR:HB3	13:4I:67:GLU:CB	2.43	0.44
26:1H:214:G:N2	26:1H:216:A:N3	2.63	0.44
26:1H:608:A:C4	26:1H:621:A:C6	3.05	0.44
26:1H:1630(A):C:H2'	61:1H:3977:HOH:O	2.17	0.44
26:1H:1688:U:O2	26:1H:1700:A:H5"	2.18	0.44
26:1H:1759:A:H4'	26:1H:2715:C:O4'	2.17	0.44
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.18	0.44
26:1H:2473:U:C2'	26:1H:2474:C:H5'	2.47	0.44
26:1H:2852:G:H2'	26:1H:2853:C:O4'	2.18	0.44
30:21:11:MET:HG2	30:21:24:THR:HA	1.98	0.44
31:31:178:PRO:HB3	31:31:198:ALA:HA	1.99	0.44
37:78:96:THR:C	37:78:98:GLU:H	2.20	0.44
41:B8:12:SER:OG	41:B8:13:ARG:N	2.50	0.44
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.52	0.44
1:1G:197:A:N6	1:1G:221:C:H5'	2.33	0.44
1:1G:865:A:O5'	1:1G:865:A:H8	2.01	0.44
1:1G:1054:C:H6	1:1G:1196:U:HO2'	1.60	0.44
1:1G:1130:A:N6	1:1G:1144:G:N3	2.66	0.44
1:1G:1324:A:H2'	1:1G:1325:C:H6	1.82	0.44
1:1G:1470:G:H2'	1:1G:1471:G:O4'	2.17	0.44
2:12:101:MET:HA	2:12:108:ILE:HG21	1.99	0.44
2:12:118:LEU:HD11	2:12:141:GLU:HG2	2.00	0.44
2:12:119:GLU:HA	2:12:122:PHE:HB3	1.98	0.44
2:12:178:ARG:HH22	8:72:68:ARG:HH12	1.66	0.44
4:32:131:ARG:HB3	4:32:131:ARG:CZ	2.47	0.44
6:52:14:LEU:HB2	6:52:18:GLN:HB2	2.00	0.44
8:72:82:HIS:HE1	8:72:136:GLU:HG3	1.82	0.44
12:3A:83:VAL:HG21	12:3A:100:ILE:HD13	1.99	0.44
23:2L:47:7MG:H3'	23:2L:48:U:C5	2.53	0.44
24:3L:48:C:C6	24:3L:59:A:H1'	2.52	0.44
24:3L:53:G:H2'	24:3L:54:U:H5'	1.99	0.44
26:14:244:A:H2'	26:14:245:G:O4'	2.17	0.44
26:14:384:U:H2'	26:14:385:C:C6	2.51	0.44
26:14:754:C:H2'	26:14:755:C:H6	1.82	0.44
26:14:858:U:O2	26:14:2268:A:H2'	2.17	0.44
26:14:1827:C:C2'	26:14:1828:G:H5'	2.48	0.44
26:14:2320:A:C6	26:14:2333:A:C8	3.05	0.44
27:1J:102:G:H8	27:1J:102:G:OP2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:33:VAL:HB	30:29:89:ASP:HB3	1.99	0.44
30:29:182:LEU:O	30:29:183:LEU:HD12	2.18	0.44
31:39:27:GLU:O	31:39:28:ILE:HG12	2.17	0.44
34:69:120:ILE:HG22	34:69:122:GLU:H	1.82	0.44
42:85:30:LYS:HD3	42:85:30:LYS:HA	1.65	0.44
1:13:32:A:C2	1:13:33:A:C4	3.06	0.44
1:13:272:C:H2'	1:13:273:A:C8	2.53	0.44
1:13:492:G:C6	1:13:493:G:C4	3.05	0.44
1:13:658:G:OP1	15:6I:8:LYS:NZ	2.46	0.44
1:13:757:U:H2'	1:13:758:G:O4'	2.17	0.44
1:13:834:C:C2	1:13:853:G:C2	3.06	0.44
1:13:1260:C:H3'	1:13:1260:C:C6	2.52	0.44
1:13:1263:C:H2'	1:13:1264:C:C6	2.53	0.44
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.17	0.44
8:7E:45:ILE:HB	8:7E:47:GLY:H	1.81	0.44
17:8I:59:ILE:HG22	17:8I:73:VAL:HA	1.99	0.44
19:AI:18:LYS:O	19:AI:22:LEU:HD22	2.18	0.44
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	2.00	0.44
22:1K:21:A:C5	22:1K:47:U:C4	3.05	0.44
22:1K:76:A:O2'	26:1H:2585:U:O4	2.15	0.44
26:1H:619:G:H5"	26:1H:620:G:OP2	2.17	0.44
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.52	0.44
26:1H:2393:A:H5"	37:78:63:PRO:HB3	1.98	0.44
26:1H:2562:U:H1'	36:68:23:ARG:NH1	2.25	0.44
26:1H:2820:A:OP1	39:98:2:ARG:NH2	2.39	0.44
26:1H:2840:C:H2'	26:1H:2841:C:C6	2.52	0.44
33:51:84:SER:O	33:51:85:LYS:HB2	2.16	0.44
33:51:113:VAL:HG11	33:51:151:ILE:HD13	2.00	0.44
35:58:95:PRO:O	35:58:96:GLU:CD	2.56	0.44
39:98:51:LEU:HD13	39:98:70:LEU:HD11	1.98	0.44
40:A8:3:ARG:HG3	40:A8:4:LEU:N	2.33	0.44
41:B8:50:ILE:HG22	41:B8:62:THR:OG1	2.18	0.44
1:1G:6:G:H4'	1:1G:298:A:H4'	1.97	0.44
1:1G:12:U:H4'	1:1G:526:C:H4'	2.00	0.44
1:1G:191(E):G:H2'	1:1G:191(F):U:C6	2.52	0.44
1:1G:526:C:OP2	12:3A:91:LYS:HE2	2.17	0.44
1:1G:1188:A:OP1	9:82:114:TYR:OH	2.20	0.44
1:1G:1307:U:O5'	1:1G:1307:U:H6	2.00	0.44
3:22:119:ARG:NH2	3:22:140:ARG:HD2	2.33	0.44
3:22:135:LYS:HZ3	3:22:138:VAL:HG12	1.83	0.44
26:14:1007:C:H5"	35:15:35:ARG:NH1	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:76:ARG:HA	30:29:76:ARG:HD3	1.54	0.44
30:29:119:ARG:HA	30:29:160:TYR:CD2	2.53	0.44
34:69:112:LYS:O	34:69:113:ARG:HG2	2.18	0.44
1:13:22:G:H2'	1:13:23:C:C6	2.53	0.44
1:13:452:A:H1'	16:7I:72:ARG:NH1	2.33	0.44
1:13:591:U:H2'	1:13:592:G:H8	1.79	0.44
1:13:752:G:N7	61:13:1865:HOH:O	2.36	0.44
1:13:900:A:H8	1:13:900:A:O5'	2.00	0.44
1:13:939:G:C6	1:13:940:C:C4	3.06	0.44
1:13:1167:A:C6	1:13:1169:A:C6	3.06	0.44
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.99	0.44
24:3K:14:A:H2'	24:3K:15:G:H8	1.81	0.44
24:3K:65:C:H2'	24:3K:66:A:H5"	1.98	0.44
26:1H:381:G:C4	26:1H:394:A:C2	3.06	0.44
26:1H:524:U:H2'	26:1H:525:U:C6	2.53	0.44
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.05	0.44
26:1H:2197:U:H1'	26:1H:2198:A:C8	2.52	0.44
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.33	0.44
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.52	0.44
28:71:6:ARG:O	28:71:10:LEU:HD13	2.17	0.44
33:51:118:PRO:HD2	33:51:121:ILE:HG21	2.00	0.44
39:98:87:TYR:HD1	39:98:90:ARG:HD2	1.83	0.44
40:A8:26:LEU:HD22	40:A8:87:PHE:HD1	1.82	0.44
41:B8:132:LYS:O	41:B8:132:LYS:HG2	2.17	0.44
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	2.00	0.44
55:Q8:37:SER:O	55:Q8:40:GLU:N	2.50	0.44
1:1G:12:U:H2'	1:1G:13:U:H5"	1.98	0.44
1:1G:15:G:H4'	5:42:24:ARG:CZ	2.48	0.44
1:1G:688:G:H2'	1:1G:689:C:H6	1.82	0.44
1:1G:1046:A:H3'	1:1G:1047:G:C8	2.53	0.44
1:1G:1068:G:N7	1:1G:1094:G:C8	2.86	0.44
1:1G:1099:G:C6	1:1G:1100:C:C2	3.05	0.44
2:12:24:TRP:HE1	2:12:26:PRO:HG3	1.81	0.44
2:12:176:GLU:H	2:12:176:GLU:HG2	1.41	0.44
3:22:5:ILE:HD12	3:22:10:PHE:HB2	1.99	0.44
3:22:12:LEU:HD23	3:22:12:LEU:HA	1.84	0.44
4:32:8:VAL:HA	4:32:11:LEU:HD12	1.99	0.44
4:32:15:GLU:HG2	4:32:66:ARG:NH1	2.32	0.44
7:62:8:GLU:H	7:62:8:GLU:HG3	1.48	0.44
7:62:15:ASP:CB	7:62:20:ASP:H	2.30	0.44
18:9A:74:ARG:NH1	18:9A:81:PHE:HA	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:1L:72:C:H3'	56:1L:73:A:OP2	2.18	0.44
24:3L:3:G:N2	24:3L:70:C:N3	2.43	0.44
26:14:184:C:H2'	26:14:185:U:C6	2.53	0.44
26:14:322:A:C5	26:14:340:A:C2	3.06	0.44
26:14:981:A:N1	26:14:2027:G:O2'	2.42	0.44
26:14:982:C:O5'	26:14:982:C:H6	2.01	0.44
26:14:1022:G:C6	26:14:1140:C:C4	3.05	0.44
26:14:1167:U:C2	26:14:1183:G:N2	2.86	0.44
26:14:1425:G:H2'	26:14:1426:G:C8	2.53	0.44
26:14:2186:G:H2'	26:14:2187:G:H8	1.82	0.44
27:1J:88:C:H3'	27:1J:89:G:N7	2.33	0.44
27:1J:117:G:O5'	27:1J:117:G:H8	2.01	0.44
33:59:54:ARG:HH21	33:59:57:ASP:CG	2.19	0.44
34:69:102:SER:OG	34:69:103:ARG:N	2.51	0.44
36:25:93:PRO:CD	36:25:113:LYS:HD3	2.48	0.44
41:75:7:ILE:O	41:75:10:VAL:N	2.50	0.44
48:E5:21:LEU:HD21	48:E5:41:ARG:HH12	1.83	0.44
49:F5:84:GLY:HA3	49:F5:87:PRO:HD2	1.99	0.44
49:F5:88:LYS:O	49:F5:91:LYS:HB3	2.18	0.44
1:13:187:C:H1'	1:13:191(A):G:N2	2.32	0.44
1:13:377:G:H5'	16:7I:5:ARG:NH1	2.32	0.44
1:13:682:G:H1	1:13:708:C:H42	1.65	0.44
1:13:730:G:C5	1:13:731:G:H1'	2.53	0.44
1:13:1031:G:H2'	1:13:1032:A:H5'	2.00	0.44
1:13:1060:C:P	14:5I:45:ARG:HH22	2.41	0.44
1:13:1298:C:N4	7:6E:114:ARG:HB3	2.32	0.44
2:1E:17:PHE:HB3	2:1E:44:LEU:HG	1.98	0.44
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.84	0.44
4:3E:154:ASN:OD1	4:3E:154:ASN:N	2.50	0.44
6:5E:82:ARG:HE	6:5E:82:ARG:HB3	1.59	0.44
8:7E:120:THR:OG1	8:7E:123:GLU:HG2	2.17	0.44
12:3I:85:ILE:HA	12:3I:85:ILE:HD13	1.53	0.44
23:2K:32:G:H2'	23:2K:33:OMC:H6	1.83	0.44
25:4K:7:G:C6	25:4K:8:A:N6	2.86	0.44
26:1H:17:G:H2'	26:1H:18:C:H6	1.81	0.44
26:1H:49:A:C8	26:1H:120:U:H5	2.35	0.44
26:1H:71:A:H2	45:F8:31:HIS:NE2	2.16	0.44
26:1H:99:U:C6	26:1H:102:G:N1	2.85	0.44
26:1H:795:C:H2'	26:1H:796:C:C6	2.52	0.44
26:1H:1174:A:H8	26:1H:1175:U:H4'	1.83	0.44
26:1H:1222:C:H2'	26:1H:1223:C:H6	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1665:A:H2'	26:1H:1666:G:O4'	2.17	0.44
26:1H:2353:G:N7	61:1H:3837:HOH:O	2.36	0.44
26:1H:2430:A:H8	26:1H:2431:U:C5	2.36	0.44
26:1H:2645:G:H3'	26:1H:2646:C:H5'	1.99	0.44
26:1H:2812:G:C2	26:1H:2813:A:C4	3.05	0.44
29:11:237:GLU:O	61:11:303:HOH:O	2.21	0.44
31:31:6:VAL:HG21	31:31:119:ARG:HB2	2.00	0.44
32:41:64:THR:HB	32:41:94:LEU:CD1	2.48	0.44
35:58:78:TYR:CD1	35:58:78:TYR:N	2.85	0.44
42:C8:85:LYS:HD2	42:C8:85:LYS:HA	1.56	0.44
42:C8:98:LEU:HD23	42:C8:98:LEU:HA	1.72	0.44
47:H8:59:LEU:HA	47:H8:59:LEU:HD23	1.60	0.44
48:I8:48:GLY:HA3	48:I8:80:HIS:ND1	2.32	0.44
1:1G:176:C:H2'	1:1G:177:C:C6	2.53	0.44
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.53	0.44
1:1G:1401:G:OP1	25:4L:18:G:O2'	2.24	0.44
1:1G:1412:C:H2'	1:1G:1413:A:C8	2.52	0.44
7:62:15:ASP:O	7:62:19:GLY:HA2	2.18	0.44
7:62:23:VAL:HG13	7:62:43:PHE:CE2	2.49	0.44
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.81	0.44
18:9A:76:LEU:HD23	18:9A:76:LEU:HA	1.83	0.44
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.18	0.44
26:14:38:A:H1'	31:39:48:THR:HB	2.00	0.44
26:14:273(F):C:N4	26:14:275:G:OP2	2.51	0.44
26:14:528:A:N1	26:14:2042:A:H2'	2.33	0.44
26:14:774:A:HO2'	26:14:775:G:P	2.40	0.44
26:14:857:C:H4'	48:E5:23:VAL:HG21	2.00	0.44
26:14:973:A:O4'	26:14:1188:U:C6	2.71	0.44
26:14:974:G:O2'	26:14:974(A):C:OP1	2.30	0.44
26:14:1858:G:H8	26:14:1858:G:OP2	2.01	0.44
26:14:2076:U:O5'	26:14:2076:U:H6	2.01	0.44
26:14:2117:A:H2'	26:14:2118:U:C6	2.53	0.44
26:14:2232:U:P	49:F5:40:ARG:HH22	2.40	0.44
26:14:2396:G:H4'	49:F5:30:VAL:H	1.82	0.44
26:14:2885:C:H5"	26:14:2886:G:OP2	2.18	0.44
27:1J:15:A:H3'	27:1J:16:G:H5'	1.99	0.44
27:1J:42:C:C4	27:1J:43:C:C4	3.06	0.44
27:1J:100:G:H2'	27:1J:101:A:O4'	2.18	0.44
30:29:106:GLY:HA3	30:29:189:PRO:HB2	2.00	0.44
42:85:41:ALA:O	42:85:45:TYR:HD2	1.99	0.44
42:85:97:ASP:O	42:85:100:VAL:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:68:ARG:NH2	44:A5:111:HIS:O	2.51	0.44
47:D5:11:GLU:HG3	47:D5:12:GLY:N	2.33	0.44
47:D5:126:VAL:HA	47:D5:163:LEU:HA	1.99	0.44
1:13:114:U:H2'	1:13:115:G:C8	2.53	0.44
1:13:191:G:C6	1:13:192:U:C4	3.06	0.44
1:13:793:U:H5'	1:13:794:A:H5"	2.00	0.44
1:13:1121:U:H2'	1:13:1122:U:C6	2.52	0.44
2:1E:92:TYR:CE1	2:1E:151:GLY:HA3	2.52	0.44
2:1E:102:LEU:HB3	2:1E:180:LEU:HD12	1.99	0.44
4:3E:88:VAL:HG12	4:3E:89:THR:HG22	2.00	0.44
6:5E:39:LYS:HB2	6:5E:64:GLN:HB2	1.99	0.44
17:8I:28:PRO:HA	17:8I:35:VAL:HA	2.00	0.44
20:BI:16:HIS:O	20:BI:19:SER:HB2	2.18	0.44
22:1K:3:G:N1	22:1K:71:C:H1'	2.33	0.44
26:1H:32:C:O2'	26:1H:33:U:H5'	2.18	0.44
26:1H:214:G:H4'	26:1H:214:G:OP1	2.18	0.44
26:1H:258:G:C4	26:1H:259:G:C8	3.06	0.44
26:1H:380:U:H2'	26:1H:381:G:H8	1.83	0.44
26:1H:574:C:H4'	26:1H:575:A:O5'	2.18	0.44
26:1H:764:A:O4'	29:11:213:ARG:HG3	2.18	0.44
26:1H:937:U:H2'	26:1H:938:G:O4'	2.17	0.44
26:1H:972:G:H8	26:1H:972:G:O5'	2.00	0.44
26:1H:1264:G:H5'	53:N8:11:THR:CG2	2.47	0.44
26:1H:1300:U:C2	26:1H:1626:G:C6	3.05	0.44
26:1H:1678:G:H21	26:1H:1989:G:H22	1.61	0.44
26:1H:1791:A:C8	26:1H:1792:G:C8	3.05	0.44
26:1H:2154:G:H8	26:1H:2154:G:O5'	2.01	0.44
26:1H:2432:A:C5	49:J8:33:LYS:HG2	2.53	0.44
26:1H:2870:C:H5"	39:98:65:LEU:HD21	2.00	0.44
28:71:217:THR:HB	28:71:218:MET:SD	2.57	0.44
29:11:79:VAL:HG21	29:11:111:LEU:HD11	1.99	0.44
31:31:65:TRP:HZ3	31:31:73:ALA:O	2.01	0.44
35:58:9:VAL:HG11	35:58:39:ARG:HH12	1.82	0.44
38:88:112:GLU:H	38:88:112:GLU:CD	2.20	0.44
38:88:140:ALA:O	38:88:141:GLN:NE2	2.51	0.44
41:B8:105:LEU:C	41:B8:107:ASP:H	2.21	0.44
45:F8:57:LEU:HA	61:F8:201:HOH:O	2.16	0.44
48:I8:41:ARG:NE	48:I8:41:ARG:HA	2.33	0.44
1:1G:547:A:H4'	1:1G:548:G:O5'	2.18	0.44
1:1G:626:U:C2	1:1G:627:G:C8	3.06	0.44
1:1G:927:G:N2	1:1G:1391:U:H1'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1057:G:C4	1:1G:1204:A:C2	3.06	0.44
1:1G:1226:C:O2'	13:4A:111:LYS:NZ	2.27	0.44
1:1G:1244:C:H2'	1:1G:1245:A:C8	2.53	0.44
4:32:25:ARG:CZ	4:32:30:LYS:HB2	2.47	0.44
11:2A:44:SER:OG	11:2A:47:VAL:HG23	2.17	0.44
19:AA:15:LEU:HD12	19:AA:18:LYS:HE2	2.00	0.44
56:1L:38:A:H2'	56:1L:39:U:O4'	2.18	0.44
26:14:415:A:H2'	26:14:416:C:H6	1.83	0.44
26:14:432:A:C6	26:14:433:C:C4	3.05	0.44
26:14:536:A:OP1	42:85:53:ARG:NH1	2.51	0.44
26:14:839:U:H2'	26:14:840:C:H6	1.83	0.44
26:14:1161:C:H2'	26:14:1162:G:C8	2.53	0.44
26:14:1467:C:H42	26:14:1525:G:H1	1.63	0.44
26:14:1657:C:H2'	26:14:1658:C:H6	1.83	0.44
26:14:2074:U:OP1	61:14:3672:HOH:O	2.21	0.44
26:14:2695:C:H2'	26:14:2696:U:H6	1.83	0.44
26:14:2749:A:O2'	33:59:59:ARG:HD3	2.18	0.44
32:49:114:ILE:CG2	32:49:117:PHE:HB2	2.48	0.44
39:55:12:ARG:HG2	39:55:16:HIS:ND1	2.33	0.44
39:55:29:LEU:HD23	39:55:70:LEU:HD11	1.99	0.44
41:75:50:ILE:HD11	41:75:102:ILE:CD1	2.48	0.44
42:85:74:LEU:HB2	42:85:78:THR:OG1	2.18	0.44
49:F5:7:ILE:HG12	49:F5:62:VAL:HG13	1.99	0.44
1:13:537:G:H5"	12:3I:113:ARG:NH1	2.33	0.44
1:13:958:A:C6	1:13:959:A:N1	2.86	0.44
1:13:972:C:O3'	10:1I:57:LYS:HD3	2.18	0.44
1:13:1308:U:OP1	13:4I:98:VAL:N	2.41	0.44
1:13:1397:C:H4'	1:13:1398:A:O5'	2.17	0.44
1:13:1410:G:C4	1:13:1491:G:N2	2.86	0.44
2:1E:53:ARG:NH2	2:1E:198:ASP:O	2.51	0.44
3:2E:16:ARG:HB2	3:2E:16:ARG:NH1	2.32	0.44
4:3E:167:GLY:HA2	29:19:135:PHE:HE1	1.81	0.44
5:4E:80:ILE:HG13	8:7E:104:ARG:NH2	2.32	0.44
7:6E:38:LEU:HD22	7:6E:38:LEU:HA	1.75	0.44
7:6E:102:ARG:HG2	7:6E:106:GLN:OE1	2.18	0.44
14:5I:15:LYS:HG2	14:5I:16:PHE:CD2	2.53	0.44
16:7I:82:GLN:HE21	16:7I:82:GLN:HB3	1.63	0.44
26:1H:303:U:C2	26:1H:315:G:N2	2.86	0.44
26:1H:1122:G:N3	26:1H:1122:G:H2'	2.33	0.44
26:1H:1138:G:H21	35:58:106:MET:HE3	1.81	0.44
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2845:G:H5”	41:B8:55:ASN:HA	1.99	0.44
26:1H:2846:G:H2’	26:1H:2847:U:O4’	2.18	0.44
29:11:123:ALA:HA	29:11:124:PRO:HD2	1.83	0.44
32:41:20:ILE:HG13	32:41:20:ILE:H	1.65	0.44
33:51:10:PRO:C	33:51:11:VAL:HG22	2.39	0.44
33:51:19:VAL:HG12	33:51:20:ALA:H	1.83	0.44
33:51:20:ALA:HB1	33:51:21:PRO:HD2	1.98	0.44
33:51:152:ARG:HD3	33:51:152:ARG:HA	1.52	0.44
1:1G:17:U:H2’	1:1G:18:C:C6	2.52	0.44
1:1G:76:G:C6	1:1G:77:C:C4	3.06	0.44
1:1G:491:G:C2	1:1G:492:G:C4	3.06	0.44
1:1G:1191:A:H5”	3:22:4:LYS:NZ	2.33	0.44
1:1G:1422:G:H5”	36:25:48:PRO:HB3	2.00	0.44
2:12:70:PHE:N	2:12:92:TYR:HA	2.32	0.44
4:32:148:VAL:HG11	4:32:158:ILE:HD13	1.99	0.44
4:32:156:GLU:HA	4:32:159:ARG:HD3	2.00	0.44
8:72:29:SER:HB3	8:72:32:LYS:CG	2.38	0.44
13:4A:78:ILE:HG23	13:4A:92:HIS:ND1	2.33	0.44
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.48	0.44
26:14:273(D):C:H42	26:14:363(B):G:H1	1.65	0.44
26:14:996:A:H4’	42:85:92:ARG:CZ	2.48	0.44
26:14:1408:C:C2	26:14:1595:G:N2	2.85	0.44
26:14:1847:A:H8	26:14:1847:A:OP1	2.01	0.44
26:14:2009:G:N3	39:55:107:ASP:HA	2.33	0.44
26:14:2259:G:C2	26:14:2282:G:C6	3.05	0.44
26:14:2552:U:H2’	26:14:2554:U:H5”	1.99	0.44
29:19:182:LEU:O	29:19:271:ILE:HG13	2.18	0.44
30:29:81:ILE:HG22	30:29:82:ARG:N	2.28	0.44
32:49:122:PRO:HB3	32:49:170:ARG:NH1	2.33	0.44
38:45:98:LYS:HB3	38:45:99:PRO:HD2	2.00	0.44
39:55:103:ARG:HG3	44:A5:40:ASN:ND2	2.32	0.44
40:65:110:LEU:HD13	40:65:112:PHE:CZ	2.53	0.44
1:13:455:C:H42	1:13:477:G:H1	1.66	0.43
1:13:495:A:H4’	1:13:496:A:OP1	2.18	0.43
1:13:583:A:O2’	17:8I:91:ARG:HG3	2.18	0.43
1:13:657:G:C2	1:13:658:G:C8	3.05	0.43
1:13:692:U:O4	11:2I:53:SER:CB	2.65	0.43
1:13:1125:U:HO2’	1:13:1126:U:H6	1.64	0.43
1:13:1210:C:H2’	1:13:1211:U:H5’	2.00	0.43
2:1E:55:PHE:CD1	2:1E:58:ILE:HD12	2.52	0.43
3:2E:13:GLY:CA	14:5I:57:ARG:HH21	2.30	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:18:PHE:CD2	9:8E:62:TYR:HD2	2.35	0.43
9:8E:93:ARG:HB3	9:8E:93:ARG:HH11	1.83	0.43
11:2I:44:SER:OG	11:2I:47:VAL:HG23	2.18	0.43
13:4I:40:ASN:HB3	13:4I:43:THR:HG23	2.00	0.43
22:1K:9:A:C8	22:1K:45:G:C2	3.06	0.43
26:1H:748:G:C8	44:E8:89:ALA:HB1	2.53	0.43
26:1H:811:U:O4	37:78:21:ARG:NH2	2.51	0.43
26:1H:832:G:H5'	37:78:45:LEU:HD11	2.00	0.43
26:1H:979:G:C8	61:1H:3917:HOH:O	2.69	0.43
26:1H:1296:G:OP1	26:1H:2709:G:O2'	2.25	0.43
26:1H:1435:G:O5'	26:1H:1435:G:H8	2.01	0.43
26:1H:1726:G:C6	26:1H:1727:U:C4	3.06	0.43
30:21:37:ARG:O	30:21:45:THR:HA	2.17	0.43
31:31:7:TYR:HD1	31:31:21:ALA:HB1	1.82	0.43
31:31:33:LEU:HD11	31:31:113:ALA:HB2	2.00	0.43
31:31:170:LEU:HG	31:31:172:TRP:CE2	2.53	0.43
32:41:173:LEU:O	32:41:178:PHE:HB2	2.17	0.43
52:M8:15:ILE:HB	52:M8:32:TYR:HD1	1.82	0.43
1:1G:27:G:H8	1:1G:27:G:O5'	2.00	0.43
1:1G:456:C:H2'	1:1G:457:C:H6	1.83	0.43
1:1G:927:G:OP2	1:1G:1503:A:C8	2.70	0.43
1:1G:1144:G:N2	1:1G:1146:A:H62	2.16	0.43
1:1G:1347:G:C5	9:82:107:ARG:NH2	2.86	0.43
2:12:19:HIS:CD2	2:12:204:ASN:HB3	2.53	0.43
2:12:116:GLU:OE2	2:12:156:LYS:NZ	2.51	0.43
3:22:6:HIS:CD2	14:5A:49:HIS:HB3	2.53	0.43
6:52:19:LEU:HD21	6:52:59:TYR:CE2	2.53	0.43
15:6A:75:PRO:HB2	15:6A:79:ARG:NH2	2.33	0.43
26:14:718:A:H3'	26:14:719:C:H6	1.83	0.43
26:14:733:G:O6	26:14:761:A:C8	2.70	0.43
26:14:1916:A:H2'	26:14:1917:U:O4'	2.18	0.43
26:14:2076:U:H5	26:14:2596:U:O2	2.01	0.43
26:14:2239:G:H5'	29:19:251:GLY:HA3	2.00	0.43
27:1J:6:C:C2	27:1J:115:G:N2	2.86	0.43
30:29:25:VAL:HG12	30:29:26:ILE:N	2.32	0.43
31:39:11:VAL:CG2	31:39:12:LEU:N	2.81	0.43
35:15:137:LYS:O	35:15:138:LEU:HD23	2.18	0.43
38:45:58:PHE:O	38:45:58:PHE:CD1	2.71	0.43
40:65:95:HIS:N	40:65:99:LYS:HB2	2.33	0.43
40:65:102:ALA:HA	40:65:105:ALA:HB3	2.00	0.43
46:C5:81:LYS:HE3	46:C5:99:CYS:SG	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:87:LYS:HD3	46:C5:87:LYS:HA	1.64	0.43
47:D5:146:ILE:HD12	47:D5:146:ILE:HA	1.87	0.43
49:F5:91:LYS:NZ	49:F5:92:LYS:H	2.15	0.43
50:G5:43:GLN:H	50:G5:43:GLN:CD	2.21	0.43
1:13:38:G:C2	1:13:397:A:C2	3.06	0.43
1:13:141:A:H2'	1:13:142:G:C8	2.48	0.43
1:13:963:G:H21	10:1I:55:LYS:NZ	2.16	0.43
1:13:1057:G:C6	1:13:1058:G:C4	3.06	0.43
1:13:1343:G:H2'	1:13:1344:C:C6	2.53	0.43
2:1E:109:SER:O	2:1E:112:VAL:HB	2.18	0.43
4:3E:196:LEU:HB3	4:3E:197:PRO:HD2	1.99	0.43
6:5E:18:GLN:HA	6:5E:21:LEU:HB2	1.99	0.43
8:7E:11:THR:HG23	8:7E:14:ARG:HH12	1.83	0.43
8:7E:122:ARG:HD3	8:7E:122:ARG:HA	1.86	0.43
10:1I:22:LYS:HD3	10:1I:88:LEU:HD12	2.00	0.43
22:1K:37:T6A:H2'	22:1K:38:A:O4'	2.18	0.43
23:2K:29:C:H2'	23:2K:30:G:C8	2.53	0.43
24:3K:58:A:H2	24:3K:60:U:C2	2.36	0.43
26:1H:142:G:C1'	45:F8:37:THR:HG21	2.45	0.43
26:1H:1203:G:H5'	37:78:3:LEU:HD12	1.99	0.43
26:1H:1329:U:H3'	26:1H:1330:C:H6	1.82	0.43
26:1H:1614:A:H8	26:1H:1614:A:O5'	2.00	0.43
26:1H:2146:C:H4'	26:1H:2147:G:N7	2.33	0.43
26:1H:2170:A:OP2	26:1H:2170:A:H8	2.00	0.43
26:1H:2189:U:H2'	26:1H:2190:G:C8	2.53	0.43
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.81	0.43
26:1H:2773:C:OP1	30:21:166:THR:OG1	2.37	0.43
28:71:19:ILE:HG12	28:71:223:ARG:HD3	2.00	0.43
29:11:37:LEU:HD23	29:11:37:LEU:HA	1.86	0.43
29:11:232:PRO:HB3	29:11:244:ARG:NH1	2.34	0.43
30:21:81:ILE:HD12	30:21:81:ILE:HG23	1.79	0.43
32:41:110:ALA:HA	32:41:140:ILE:O	2.17	0.43
34:61:95:LYS:HA	34:61:111:PRO:HG3	1.99	0.43
36:68:75:SER:CB	41:B8:74:ARG:HH12	2.31	0.43
47:H8:105:VAL:HG13	47:H8:139:VAL:O	2.17	0.43
55:Q8:4:MET:HE2	55:Q8:4:MET:HB2	1.54	0.43
55:Q8:9:GLY:O	55:Q8:13:ARG:HG2	2.19	0.43
1:1G:164:U:H2'	1:1G:165:C:C6	2.54	0.43
1:1G:532:A:H2	3:22:156:ARG:HH22	1.66	0.43
1:1G:622:A:C8	1:1G:623:C:C6	3.05	0.43
1:1G:1028:C:N4	1:1G:1034:G:H21	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1297:C:OP1	13:4A:13:LYS:HE3	2.17	0.43
4:32:31:CYS:HB2	4:32:33:MET:O	2.19	0.43
7:62:41:ARG:O	7:62:45:ASP:HB2	2.18	0.43
9:82:10:ARG:HA	9:82:104:ARG:NH1	2.32	0.43
12:3A:27:LEU:HB3	12:3A:33:ARG:HD3	2.00	0.43
16:7A:21:VAL:HG21	16:7A:59:TRP:CD2	2.53	0.43
26:14:22:C:H2'	26:14:23:G:O4'	2.19	0.43
26:14:127:A:H5"	26:14:128:C:C6	2.53	0.43
26:14:221:A:C4	26:14:266:G:N7	2.86	0.43
26:14:229:A:H2	26:14:418:G:H4'	1.83	0.43
26:14:370:G:H4'	26:14:371:A:OP2	2.18	0.43
26:14:1035:U:OP2	33:59:59:ARG:NH1	2.50	0.43
26:14:1174:A:H2'	26:14:1176:G:OP1	2.17	0.43
26:14:1190:G:H2'	26:14:1191:G:H8	1.83	0.43
26:14:1222:C:C2	26:14:1229(A):G:C2	3.06	0.43
26:14:1310:G:OP2	54:L5:9:ARG:NE	2.52	0.43
26:14:1515:C:H2'	26:14:1516:U:H6	1.84	0.43
26:14:1729:A:C2	26:14:1730:U:H5	2.35	0.43
26:14:2773:C:H2'	26:14:2774:C:H6	1.82	0.43
30:29:97:LYS:O	30:29:100:GLU:HG3	2.17	0.43
34:69:76:THR:HG22	34:69:139:GLN:O	2.17	0.43
34:69:125:GLU:OE1	34:69:141:LYS:HA	2.18	0.43
34:69:144:VAL:HG23	34:69:144:VAL:O	2.18	0.43
37:35:63:PRO:HD3	55:M5:27:THR:HG22	2.00	0.43
38:45:30:GLY:N	38:45:105:GLU:OE1	2.51	0.43
38:45:84:GLY:HA2	38:45:85:LYS:HB2	2.00	0.43
40:65:7:TYR:O	40:65:11:LYS:HB2	2.19	0.43
40:65:24:LEU:HA	40:65:24:LEU:HD13	1.68	0.43
46:C5:8:LYS:HE2	46:C5:95:LYS:HZ1	1.83	0.43
46:C5:75:ILE:HG22	46:C5:76:CYS:N	2.32	0.43
46:C5:86:ARG:HA	46:C5:94:LYS:HB3	2.01	0.43
1:13:426:G:H2'	1:13:427:U:C6	2.53	0.43
1:13:589:C:OP1	8:7E:32:LYS:NZ	2.47	0.43
1:13:713:G:H2'	1:13:714:G:C8	2.53	0.43
3:2E:13:GLY:HA3	14:5I:57:ARG:HH21	1.84	0.43
5:4E:100:VAL:HG22	5:4E:115:VAL:HG12	1.99	0.43
6:5E:14:LEU:HD22	6:5E:18:GLN:HB3	1.99	0.43
7:6E:69:VAL:HG22	7:6E:135:VAL:HG22	2.00	0.43
8:7E:87:SER:OG	8:7E:93:VAL:N	2.31	0.43
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.34	0.43
24:3K:72:C:C2'	24:3K:73:A:H5"	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:33:U:H4'	26:1H:34:C:OP1	2.18	0.43
26:1H:311:A:C6	26:1H:328:U:C4	3.07	0.43
26:1H:475:U:C4	26:1H:481:G:O6	2.71	0.43
26:1H:518:G:H2'	26:1H:519:U:C6	2.52	0.43
26:1H:574:C:O2	30:21:145:LYS:NZ	2.50	0.43
26:1H:784:A:O4'	29:11:227:ASN:ND2	2.50	0.43
26:1H:1139:G:O2'	26:1H:1143:A:N1	2.37	0.43
26:1H:1259:G:O2'	26:1H:1260:G:H5'	2.18	0.43
26:1H:2515:C:O2	26:1H:2570:G:C2	2.72	0.43
26:1H:2518:A:H5'	26:1H:2518:A:H8	1.83	0.43
27:16:42:C:O2'	32:41:67:LYS:O	2.28	0.43
27:16:94:C:H2'	27:16:95:U:C6	2.53	0.43
28:71:6:ARG:NH2	28:71:6:ARG:H	2.16	0.43
29:11:72:LYS:HE2	29:11:101:GLU:OE2	2.17	0.43
29:11:113:VAL:O	29:11:113:VAL:HG22	2.18	0.43
33:51:91:GLY:HA3	33:51:160:LYS:HA	1.99	0.43
37:78:36:LYS:O	37:78:40:SER:HB3	2.18	0.43
37:78:84:ASN:HA	37:78:115:LEU:O	2.18	0.43
41:B8:58:ASN:ND2	41:B8:58:ASN:O	2.45	0.43
45:F8:94:GLY:O	45:F8:95:LEU:HD12	2.18	0.43
47:H8:69:THR:HG22	47:H8:90:VAL:HA	2.01	0.43
50:K8:4:SER:H	50:K8:7:ARG:HG2	1.80	0.43
1:1G:345:C:H5'	1:1G:346:G:C5	2.53	0.43
1:1G:374:A:C6	1:1G:375:U:C4	3.07	0.43
1:1G:1099:G:C6	1:1G:1100:C:N3	2.86	0.43
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.41	0.43
1:1G:1534:A:N6	25:4L:11:U:O4	2.50	0.43
4:32:32:ALA:N	4:32:35:ARG:HH11	2.16	0.43
4:32:88:VAL:HG22	5:42:96:PRO:HB2	2.01	0.43
6:52:7:ASN:ND2	18:9A:34:TYR:HE2	2.10	0.43
6:52:10:LEU:HD12	6:52:10:LEU:HA	1.86	0.43
8:72:34:GLU:OE1	8:72:37:ARG:NH1	2.45	0.43
9:82:81:ILE:HG22	9:82:85:LEU:HD23	2.01	0.43
24:3L:33:U:H1'	24:3L:35:U:C5	2.52	0.43
26:14:307:G:O5'	26:14:307:G:H8	2.01	0.43
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.53	0.43
26:14:864:G:C2'	26:14:865:C:H5'	2.49	0.43
26:14:1328:G:H2'	26:14:1330:C:C5	2.53	0.43
26:14:2261:C:C6	48:E5:16:SER:HB3	2.53	0.43
26:14:2520:C:N4	26:14:2542:A:H62	2.12	0.43
27:1J:52:A:O2'	27:1J:53:A:N7	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:132:PRO:HD3	29:19:190:TYR:CZ	2.53	0.43
30:29:2:LYS:HD3	30:29:96:PHE:HE1	1.82	0.43
32:49:50:ALA:HA	32:49:53:LEU:HD23	2.00	0.43
33:59:97:ARG:HG2	33:59:98:LEU:H	1.83	0.43
37:35:98:GLU:HA	37:35:101:VAL:CG1	2.49	0.43
43:95:37:VAL:HG12	43:95:52:VAL:HB	2.00	0.43
47:D5:24:LEU:HD12	47:D5:25:PRO:O	2.19	0.43
47:D5:141:VAL:HB	47:D5:144:LEU:HD23	1.99	0.43
1:13:254:G:O2'	17:8I:16:GLN:O	2.34	0.43
1:13:291:C:O2'	1:13:292:G:H5'	2.19	0.43
1:13:650:G:N7	61:13:1862:HOH:O	2.36	0.43
1:13:692:U:O2	1:13:694:A:C8	2.71	0.43
1:13:791:G:C2'	1:13:792:A:H5'	2.49	0.43
1:13:826:C:H4'	8:7E:12:ARG:HG2	2.00	0.43
1:13:864:A:H2'	1:13:865:A:C8	2.53	0.43
1:13:1129:C:H1'	1:13:1146:A:N6	2.30	0.43
3:2E:19:GLU:HA	3:2E:54:ARG:HH12	1.82	0.43
7:6E:140:ASP:O	7:6E:144:MET:HG2	2.18	0.43
15:6I:17:ARG:HD2	15:6I:77:ARG:HH12	1.84	0.43
22:1K:53:G:C2'	22:1K:54:5MU:H5'	2.46	0.43
26:1H:341:G:H2'	26:1H:342:G:O4'	2.17	0.43
26:1H:644:A:H4'	26:1H:645:C:H5	1.83	0.43
26:1H:733:G:OP2	61:1H:3870:HOH:O	2.20	0.43
26:1H:872:A:H4'	38:88:66:ILE:HD11	2.00	0.43
26:1H:969:U:O3'	51:L8:14:GLY:HA2	2.18	0.43
26:1H:1050:A:C8	26:1H:2751:G:N7	2.86	0.43
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.18	0.43
26:1H:1372:U:H2'	26:1H:1373:A:O4'	2.19	0.43
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	2.18	0.43
28:71:215:THR:OG1	28:71:219:GLY:O	2.36	0.43
30:21:54:GLN:H	30:21:75:VAL:H	1.65	0.43
31:31:56:GLU:OE1	31:31:93:LYS:NZ	2.50	0.43
36:68:113:LYS:O	36:68:117:LEU:HD12	2.19	0.43
39:98:113:LEU:HD12	39:98:113:LEU:HA	1.76	0.43
42:C8:50:ARG:NH2	43:D8:72:VAL:HG22	2.34	0.43
47:H8:92:SER:O	47:H8:130:PRO:HG2	2.17	0.43
48:I8:37:LEU:N	48:I8:59:LEU:O	2.50	0.43
1:1G:411:A:OP1	4:32:30:LYS:NZ	2.39	0.43
1:1G:958:A:N3	1:1G:985:C:O2'	2.49	0.43
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.33	0.43
1:1G:1376:U:H2'	1:1G:1377:A:H8	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.53	0.43
3:22:159:GLY:HA2	3:22:193:TYR:CD2	2.53	0.43
7:62:75:VAL:HG23	7:62:142:GLU:HB3	2.00	0.43
15:6A:12:ILE:HG23	15:6A:27:VAL:HG11	1.99	0.43
56:1L:39:U:H2'	56:1L:40:C:C6	2.52	0.43
56:1L:64:G:N2	56:1L:65:C:C2	2.87	0.43
23:2L:20:G:C4	23:2L:58:A:C2	3.06	0.43
26:14:303:U:H2'	26:14:304:G:C8	2.53	0.43
26:14:470:A:H8	26:14:470:A:C5'	2.32	0.43
26:14:1638:C:H1'	26:14:2698:U:O2'	2.19	0.43
26:14:1945:G:H2'	26:14:1946:U:H6	1.81	0.43
26:14:2287:A:C2	26:14:2346:A:C2	3.06	0.43
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.54	0.43
31:39:11:VAL:HG22	31:39:13:SER:HB2	2.00	0.43
31:39:194:MET:HE3	31:39:194:MET:HB2	1.81	0.43
32:49:15:VAL:HG13	32:49:175:LEU:CB	2.46	0.43
33:59:144:VAL:O	33:59:148:ILE:HG12	2.18	0.43
39:55:59:ASP:OD2	39:55:61:HIS:HB3	2.17	0.43
50:G5:2:LYS:HA	50:G5:3:LEU:HA	1.67	0.43
55:M5:33:ASN:O	55:M5:34:TRP:C	2.56	0.43
55:M5:49:VAL:HG23	55:M5:51:ALA:HB2	2.00	0.43
1:13:769:G:H4'	1:13:1513:A:H4'	2.00	0.43
1:13:799:G:C6	1:13:800:G:C4	3.07	0.43
1:13:954:G:C2	1:13:955:U:C2	3.07	0.43
1:13:1014:A:C2	1:13:1219:U:H1'	2.53	0.43
1:13:1089:G:H1	1:13:1096:C:H42	1.66	0.43
1:13:1489:G:H2'	1:13:1490:C:O4'	2.18	0.43
3:2E:128:PHE:HD1	3:2E:132:ARG:HH12	1.65	0.43
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.52	0.43
7:6E:139:GLU:O	7:6E:143:ARG:N	2.44	0.43
11:2I:41:THR:HG22	11:2I:42:TRP:N	2.34	0.43
19:AI:30:LEU:HD12	19:AI:31:ILE:H	1.83	0.43
22:1K:74:C:H2'	22:1K:75:C:H5'	2.00	0.43
26:1H:301:G:C4	26:1H:302:C:C5	3.06	0.43
26:1H:1151:G:H5'	42:C8:81:HIS:CE1	2.53	0.43
26:1H:1263:U:O3'	53:N8:11:THR:HG23	2.18	0.43
26:1H:1834:U:H4'	26:1H:1969:A:C6	2.54	0.43
26:1H:2153:G:H2'	26:1H:2154:G:O4'	2.18	0.43
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.53	0.43
26:1H:2467:C:H4'	38:88:123:HIS:CD2	2.53	0.43
26:1H:2689:U:P	26:1H:2719:G:H22	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2751:G:C6	33:51:3:ARG:CG	3.02	0.43
26:1H:2830:G:H5"	26:1H:2830:G:H8	1.83	0.43
29:11:272:ALA:HB1	29:11:273:ARG:H	1.59	0.43
32:41:10:LYS:O	32:41:15:VAL:HG23	2.19	0.43
32:41:15:VAL:HG13	32:41:175:LEU:HB2	2.00	0.43
32:41:80:PHE:O	32:41:82:LEU:HB2	2.18	0.43
46:G8:94:LYS:CE	46:G8:95:LYS:H	2.31	0.43
47:H8:108:PRO:CB	47:H8:112:ARG:HA	2.47	0.43
48:I8:72:ARG:HB3	48:I8:75:LEU:HB2	1.99	0.43
50:K8:28:LYS:HB3	50:K8:53:LEU:HD21	2.01	0.43
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.34	0.43
1:1G:450:G:N7	1:1G:481:G:C6	2.87	0.43
1:1G:593:G:H2'	1:1G:594:G:O4'	2.18	0.43
1:1G:736:C:H5"	18:9A:72:ARG:NH1	2.34	0.43
1:1G:991:U:O2'	1:1G:992:U:P	2.76	0.43
1:1G:1065:U:C5	1:1G:1190:G:H1'	2.53	0.43
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.33	0.43
1:1G:1126:U:H5'	1:1G:1280:A:C8	2.54	0.43
1:1G:1256:A:OP2	3:22:26:LYS:NZ	2.26	0.43
1:1G:1368:G:C5'	9:82:112:LYS:HB3	2.48	0.43
5:42:26:PHE:CD1	5:42:26:PHE:N	2.86	0.43
6:52:25:ILE:O	6:52:29:ALA:N	2.40	0.43
9:82:48:GLU:N	9:82:49:PRO:HD2	2.33	0.43
12:3A:70:ILE:HG12	12:3A:100:ILE:HD12	2.00	0.43
13:4A:80:ARG:HH21	19:AA:69:HIS:CE1	2.36	0.43
13:4A:90:LEU:HA	13:4A:93:ARG:HB2	2.01	0.43
18:9A:22:VAL:HG12	18:9A:55:ARG:O	2.19	0.43
26:14:210:C:H2'	26:14:211:A:C8	2.54	0.43
26:14:704:G:H1'	26:14:726:G:N2	2.34	0.43
26:14:1961:C:O2'	26:14:1962:C:H5'	2.18	0.43
26:14:2134:A:HO2'	26:14:2159:G:H1	1.67	0.43
26:14:2137:C:H2'	26:14:2138:C:C6	2.53	0.43
26:14:2461:C:H2'	26:14:2462:U:C6	2.54	0.43
26:14:2580:U:C5	26:14:2581:G:C6	3.07	0.43
32:49:145:THR:O	32:49:146:TYR:HB3	2.18	0.43
37:35:144:GLU:CD	37:35:144:GLU:N	2.71	0.43
39:55:33:ARG:HD3	39:55:113:LEU:HG	2.01	0.43
40:65:86:ALA:O	40:65:87:PHE:HB2	2.18	0.43
1:13:191(F):U:O2	20:BI:105:SER:HB2	2.17	0.43
1:13:321:A:C2	1:13:333:G:C2	3.07	0.43
1:13:345:C:O2'	1:13:346:G:C4	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:486:U:H2'	1:13:487:A:H8	1.83	0.43
1:13:678:U:H2'	1:13:679:C:C6	2.53	0.43
1:13:947:G:H2'	1:13:948:C:O4'	2.18	0.43
1:13:1401:G:C2	1:13:1402:C:H1'	2.53	0.43
1:13:1430:C:H2'	1:13:1431:C:H6	1.83	0.43
5:4E:36:ASP:OD1	5:4E:38:GLN:N	2.40	0.43
8:7E:16:ALA:HB2	8:7E:24:THR:HG21	2.00	0.43
22:1K:72:C:H6	22:1K:72:C:OP2	2.01	0.43
26:1H:458:G:O2'	54:P8:39:ARG:HD3	2.18	0.43
26:1H:759:G:OP1	61:1H:3873:HOH:O	2.20	0.43
26:1H:1131:G:O6	26:1H:2040:C:H1'	2.19	0.43
26:1H:1165:U:H2'	26:1H:1166:C:H6	1.82	0.43
26:1H:2295:C:OP1	40:A8:10:ARG:NH1	2.51	0.43
26:1H:2397:G:C2	26:1H:2420:C:O2	2.72	0.43
40:A8:26:LEU:HD22	40:A8:87:PHE:CD1	2.54	0.43
55:Q8:60:LEU:HD12	55:Q8:60:LEU:HA	1.74	0.43
1:1G:560:U:OP2	1:1G:566:G:N2	2.46	0.43
1:1G:673:G:H5"	6:52:87:ARG:CZ	2.48	0.43
1:1G:794:A:OP2	61:1G:1860:HOH:O	2.21	0.43
1:1G:857:C:H2'	1:1G:858:G:O4'	2.18	0.43
1:1G:1122:U:N3	1:1G:1123:A:N7	2.67	0.43
1:1G:1164:G:C6	1:1G:1165:C:C4	3.07	0.43
1:1G:1359:C:N4	14:5A:21:TYR:HB3	2.34	0.43
3:22:32:LEU:O	3:22:36:ASP:HB2	2.17	0.43
7:62:22:LEU:HD23	7:62:62:PHE:CE2	2.49	0.43
12:3A:94:PRO:O	12:3A:96:VAL:HG23	2.18	0.43
13:4A:103:THR:HA	13:4A:107:ALA:HB2	2.00	0.43
14:5A:16:PHE:O	14:5A:18:VAL:N	2.52	0.43
16:7A:43:LYS:HG2	16:7A:48:TRP:CD2	2.53	0.43
26:14:289:A:H3'	26:14:290:G:C8	2.52	0.43
26:14:500:G:N2	26:14:502:A:H3'	2.33	0.43
26:14:506:G:H5"	26:14:509:C:O2'	2.18	0.43
26:14:528:A:H2	26:14:2043:C:H5'	1.83	0.43
26:14:649:G:C5	26:14:650:C:C4	3.06	0.43
26:14:769:G:H2'	26:14:770:G:C8	2.54	0.43
26:14:997:G:OP1	42:85:93:LYS:HE3	2.19	0.43
26:14:1654:A:C1'	26:14:2823:A:H5'	2.49	0.43
26:14:1771:C:C1'	26:14:1786:A:C8	3.01	0.43
26:14:2507:C:H5"	26:14:2573:C:N4	2.33	0.43
26:14:2750:A:H8	26:14:2752:C:H41	1.66	0.43
26:14:2852:G:H2'	26:14:2853:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:35:LYS:HE2	29:19:35:LYS:HB3	1.57	0.43
30:29:11:MET:HE3	30:29:187:ALA:H	1.83	0.43
31:39:33:LEU:HD12	31:39:183:VAL:HG11	2.01	0.43
31:39:63:LYS:NZ	31:39:67:GLN:HB2	2.33	0.43
32:49:97:ASP:HA	32:49:100:TRP:HD1	1.84	0.43
40:65:23:ARG:HB2	40:65:86:ALA:HB2	2.00	0.43
45:B5:60:ARG:HE	45:B5:60:ARG:HB2	1.57	0.43
46:C5:39:VAL:O	46:C5:40:GLU:HB2	2.19	0.43
1:13:111:G:H5"	16:7I:27:LYS:HG2	2.01	0.43
1:13:371:G:O2'	1:13:373:A:N7	2.49	0.43
1:13:428:G:C5	1:13:430:A:C6	3.07	0.43
1:13:579:G:H2'	1:13:580:U:C6	2.54	0.43
1:13:747:C:H3'	1:13:748:C:C5	2.53	0.43
1:13:1325:C:OP1	21:1F:15:ARG:NE	2.46	0.43
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.18	0.43
2:1E:16:HIS:CE1	2:1E:210:SER:O	2.71	0.43
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.83	0.43
9:8E:8:GLY:O	9:8E:15:ALA:N	2.48	0.43
24:3K:72:C:H3'	24:3K:73:A:H5"	2.00	0.43
26:1H:27:G:C2	26:1H:512:G:N3	2.86	0.43
26:1H:69:C:H2'	26:1H:70:G:C8	2.54	0.43
26:1H:207:A:H2'	26:1H:208:C:O4'	2.19	0.43
26:1H:270(L):U:H2'	34:61:50:ARG:CZ	2.47	0.43
26:1H:530:G:C5	26:1H:2022:U:H5"	2.54	0.43
26:1H:565:C:H4'	26:1H:1253:A:N6	2.34	0.43
26:1H:1163:G:H2'	26:1H:1164:G:H8	1.84	0.43
26:1H:1784:A:H4'	26:1H:1785:A:O5'	2.19	0.43
26:1H:2726:U:O2'	26:1H:2727:G:H8	2.01	0.43
28:71:26:ALA:HB3	28:71:186:ALA:HB2	2.00	0.43
28:71:226:PRO:HD2	28:71:227:HIS:CE1	2.53	0.43
35:58:96:GLU:HG2	35:58:97:ARG:N	2.34	0.43
36:68:113:LYS:C	36:68:113:LYS:HD3	2.38	0.43
37:78:64:LYS:HD2	55:Q8:12:LYS:HB3	2.01	0.43
37:78:71:VAL:CG1	37:78:72:PRO:HD3	2.41	0.43
38:88:37:LEU:HA	38:88:37:LEU:HD23	1.68	0.43
41:B8:50:ILE:HD12	41:B8:50:ILE:HA	1.87	0.43
1:1G:105:G:C5	1:1G:106:C:C4	3.06	0.43
1:1G:608:A:C2	1:1G:609:A:H1'	2.53	0.43
1:1G:909:A:H2'	1:1G:910:C:O4'	2.18	0.43
1:1G:952:U:H2'	1:1G:953:G:C8	2.53	0.43
1:1G:1321:C:H4'	13:4A:87:TYR:CE1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1422:G:H2'	1:1G:1423:G:H8	1.83	0.43
2:12:28:PHE:CE1	2:12:31:TYR:HD2	2.36	0.43
6:52:72:VAL:HG13	6:52:73:ASN:H	1.84	0.43
17:8A:41:LYS:HZ1	17:8A:92:ARG:NH2	2.16	0.43
17:8A:83:ASP:O	17:8A:87:LYS:HG2	2.18	0.43
24:3L:55:U:H2'	24:3L:57:G:P	2.59	0.43
26:14:254:G:N7	55:M5:5:LYS:HE2	2.34	0.43
26:14:567:A:OP2	37:35:29:LYS:NZ	2.42	0.43
26:14:571:A:N6	26:14:2499:C:O3'	2.47	0.43
26:14:589:C:O3'	31:39:95:ARG:NH1	2.51	0.43
26:14:1231:G:H8	26:14:1231:G:O5'	2.01	0.43
26:14:1688:U:H2'	26:14:1698:A:N6	2.33	0.43
26:14:1980:G:H4'	61:14:4391:HOH:O	2.19	0.43
29:19:71:ASP:CG	29:19:103:ARG:HH22	2.22	0.43
29:19:111:LEU:HD22	29:19:111:LEU:HA	1.89	0.43
36:25:10:VAL:HG13	36:25:17:ARG:C	2.39	0.43
39:55:86:ARG:HB3	39:55:118:GLU:OE1	2.19	0.43
39:55:101:ALA:HB2	53:J5:44:THR:HB	2.01	0.43
42:85:39:LEU:HD23	42:85:39:LEU:HA	1.81	0.43
1:13:580:U:P	15:6I:54:ARG:HH21	2.41	0.43
1:13:599:C:H2'	1:13:600:C:H6	1.83	0.43
1:13:947:G:C5	1:13:948:C:C4	3.07	0.43
1:13:1007:C:N4	1:13:1022:G:H1	2.17	0.43
1:13:1277:C:H2'	1:13:1279:A:H8	1.83	0.43
2:1E:187:LEU:HD11	2:1E:204:ASN:O	2.18	0.43
3:2E:15:THR:HG22	3:2E:16:ARG:N	2.34	0.43
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.18	0.43
6:5E:75:LEU:HD22	6:5E:79:LEU:HG	2.01	0.43
7:6E:15:ASP:CB	7:6E:20:ASP:H	2.29	0.43
8:7E:50:ARG:H	8:7E:50:ARG:HG2	1.33	0.43
24:3K:2:G:H1	24:3K:72:C:H1'	1.83	0.43
26:1H:28:A:O2'	26:1H:583:G:H5'	2.18	0.43
26:1H:53:A:C8	26:1H:54:G:C8	3.06	0.43
26:1H:484:C:OP1	46:G8:51:VAL:HG22	2.19	0.43
26:1H:2099:U:H2'	26:1H:2100:G:C8	2.54	0.43
26:1H:2228:G:C6	26:1H:2229:C:C4	3.06	0.43
26:1H:2343:C:O2'	26:1H:2373:G:O2'	2.08	0.43
26:1H:2640:G:OP1	35:58:74:ARG:NH1	2.47	0.43
33:51:96:ALA:HA	33:51:105:LEU:HA	2.01	0.43
38:88:135:ASP:OD2	38:88:137:TYR:HD1	2.02	0.43
40:A8:62:LYS:HA	40:A8:65:VAL:HB	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:96:ILE:CG2	46:G8:101:LYS:HG2	2.49	0.43
1:1G:15:G:H2'	1:1G:16:A:C8	2.54	0.43
1:1G:224:C:H2'	1:1G:225:C:C6	2.53	0.43
1:1G:272:C:H2'	1:1G:273:A:C8	2.54	0.43
1:1G:397:A:H3'	1:1G:397:A:N3	2.33	0.43
1:1G:1028(A):C:N4	1:1G:1032(B):G:H1	2.16	0.43
11:2A:29:ILE:HA	11:2A:44:SER:HA	2.00	0.43
16:7A:1:MET:HE1	16:7A:65:GLN:HB2	2.00	0.43
24:3L:63:U:O5'	24:3L:63:U:H6	2.02	0.43
26:14:208:C:H2'	26:14:209:C:H6	1.84	0.43
26:14:619:G:OP2	26:14:620:G:N2	2.46	0.43
26:14:1111:A:O3'	26:14:1112:G:H4'	2.18	0.43
26:14:2152:G:C6	26:14:2153:G:H1'	2.54	0.43
26:14:2299:G:N1	26:14:2318:G:C8	2.86	0.43
27:1J:78:A:C2	27:1J:99:A:C4	3.07	0.43
29:19:236:GLY:O	29:19:237:GLU:C	2.56	0.43
31:39:37:VAL:HG21	37:35:6:LEU:HD21	1.99	0.43
47:D5:94:GLU:HB3	47:D5:96:VAL:HG23	2.00	0.43
47:D5:103:ARG:HB2	47:D5:136:PHE:HB2	2.01	0.43
49:F5:71:TYR:O	49:F5:74:VAL:HG22	2.18	0.43
1:13:384:G:H2'	1:13:385:C:C6	2.54	0.43
1:13:624:C:H4'	16:7I:11:SER:N	2.34	0.43
1:13:746:A:H4'	1:13:837:G:O2'	2.19	0.43
1:13:953:G:C2	1:13:954:G:H1'	2.54	0.43
1:13:1083:U:C5	1:13:1084:G:C6	3.07	0.43
1:13:1200:C:H4'	1:13:1201:A:H5"	2.00	0.43
1:13:1290:G:C4	1:13:1291:G:C8	3.06	0.43
2:1E:137:ARG:HH21	2:1E:138:LEU:HD21	1.84	0.43
3:2E:36:ASP:O	3:2E:40:ARG:HG3	2.19	0.43
4:3E:150:GLU:HG3	4:3E:153:ARG:HE	1.82	0.43
8:7E:39:LEU:HD12	8:7E:39:LEU:HA	1.71	0.43
11:2I:125:PHE:CD1	11:2I:125:PHE:N	2.83	0.43
26:1H:547:A:H8	26:1H:547:A:O5'	2.02	0.43
26:1H:818:G:H4'	26:1H:838:C:O3'	2.19	0.43
26:1H:1257:C:OP1	31:31:75:HIS:HE1	2.02	0.43
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.84	0.43
26:1H:1407:C:C2	26:1H:1596:A:C2	3.07	0.43
26:1H:1496:A:H5'	26:1H:1497:U:OP1	2.19	0.43
26:1H:1544:C:O2	26:1H:1544:C:H2'	2.18	0.43
26:1H:1614:A:N1	44:E8:93:ALA:HB2	2.34	0.43
26:1H:1729:A:HO2'	26:1H:1730:U:P	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2361:A:P	55:Q8:27:THR:HG1	2.41	0.43
26:1H:2714:G:P	61:1H:3991:HOH:O	2.77	0.43
34:61:81:VAL:HG11	34:61:88:ILE:HD12	2.01	0.43
34:61:86:THR:HA	34:61:123:LEU:HD13	2.01	0.43
44:E8:70:TYR:HD1	44:E8:70:TYR:H	1.67	0.43
46:G8:38:ILE:HD11	46:G8:64:GLU:HG3	1.99	0.43
47:H8:48:PHE:HE1	47:H8:71:VAL:HG21	1.84	0.43
1:1G:565:U:OP2	1:1G:566:G:O2'	2.24	0.43
1:1G:922:G:C2	1:1G:923:A:C4	3.07	0.43
1:1G:952:U:P	1:1G:972:C:H41	2.41	0.43
1:1G:991:U:C5	1:1G:1212:U:H1'	2.54	0.43
1:1G:1409:C:H4'	26:14:1915:U:O4	2.18	0.43
1:1G:1438:G:H2'	1:1G:1439:C:H6	1.84	0.43
3:22:126:ARG:HD2	3:22:128:PHE:CE2	2.54	0.43
26:14:67:U:H2'	26:14:68:G:C8	2.54	0.43
26:14:298:G:OP1	46:C5:85:VAL:HA	2.18	0.43
26:14:565:C:H4'	26:14:1253:A:C6	2.54	0.43
26:14:661:C:O3'	61:14:3669:HOH:O	2.21	0.43
26:14:667:U:O2	55:M5:2:PRO:HD2	2.19	0.43
26:14:1278:A:C5'	39:55:36:THR:HG22	2.47	0.43
26:14:2207:C:O2	29:19:151:LYS:NZ	2.37	0.43
26:14:2586:C:C2'	26:14:2587:A:H5'	2.48	0.43
29:19:108:PRO:HB3	29:19:143:HIS:CE1	2.54	0.43
34:69:84:GLY:O	34:69:85:GLU:HB3	2.19	0.43
34:69:130:TYR:HD1	34:69:130:TYR:HA	1.67	0.43
35:15:120:LEU:HG	35:15:122:VAL:HG23	2.00	0.43
37:35:76:LYS:HB3	37:35:76:LYS:HE3	1.70	0.43
39:55:55:ALA:HB2	39:55:79:LEU:HD13	2.00	0.43
40:65:106:ARG:NH1	40:65:107:GLU:OE2	2.51	0.43
47:D5:3:TYR:O	47:D5:58:VAL:N	2.41	0.43
1:13:662:G:O2'	1:13:836:G:OP1	2.35	0.43
1:13:1149:C:P	9:8E:9:ARG:HH21	2.42	0.43
1:13:1409:C:H2'	1:13:1410:G:C8	2.54	0.43
1:13:1525:G:P	11:2I:120:ARG:HH22	2.42	0.43
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.00	0.43
5:4E:137:GLU:OE1	5:4E:141:GLN:NE2	2.46	0.43
7:6E:92:SER:O	7:6E:96:GLN:HG3	2.19	0.43
13:4I:66:LEU:HD23	13:4I:66:LEU:HA	1.82	0.43
17:8I:55:ASP:HB3	17:8I:57:VAL:CG1	2.49	0.43
23:2K:2:G:H2'	23:2K:3:C:C6	2.53	0.43
26:1H:817:C:O2'	26:1H:839:U:H5"	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:910:A:H2'	26:1H:911:A:C8	2.54	0.43
26:1H:1187:G:H8	26:1H:1187:G:O5'	2.01	0.43
26:1H:1260:G:C6	26:1H:1261:C:C4	3.07	0.43
26:1H:1900:A:N1	26:1H:1970:A:C6	2.87	0.43
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.53	0.43
26:1H:2106:G:H2'	26:1H:2107:C:O4'	2.19	0.43
26:1H:2134:A:HO2'	26:1H:2159:G:N2	2.17	0.43
30:21:111:ARG:HA	39:98:1:MET:HE3	2.01	0.43
33:51:157:TYR:H	33:51:171:LEU:HA	1.84	0.43
34:61:4:ILE:HD11	34:61:44:LEU:HD13	1.99	0.43
36:68:76:ALA:HB3	41:B8:75:ILE:HD12	2.01	0.43
36:68:98:VAL:HG22	36:68:118:ALA:HA	2.01	0.43
37:78:19:VAL:HA	37:78:27:HIS:HB2	2.00	0.43
41:B8:37:GLY:O	41:B8:38:ASN:HB3	2.19	0.43
48:I8:27:GLU:HA	48:I8:67:VAL:HG22	2.01	0.43
48:I8:84:LEU:HD12	48:I8:84:LEU:HA	1.69	0.43
50:K8:33:MET:O	50:K8:36:ARG:HB2	2.19	0.43
1:1G:262:A:C6	1:1G:263:A:C6	3.07	0.43
1:1G:370:C:H42	1:1G:391:G:H1	1.66	0.43
1:1G:552:U:H2'	1:1G:553:A:H8	1.83	0.43
1:1G:738:C:H2'	1:1G:739:C:C6	2.54	0.43
1:1G:975:A:H5'	1:1G:1363:A:H61	1.84	0.43
2:12:16:HIS:HD2	2:12:209:ARG:HG3	1.84	0.43
3:22:47:LEU:O	3:22:51:GLY:N	2.46	0.43
11:2A:48:ILE:HG22	11:2A:49:GLY:N	2.32	0.43
23:2L:49:C:O2	23:2L:60:A:H1'	2.19	0.43
26:14:65:C:H2'	26:14:66:C:C6	2.54	0.43
26:14:389:G:H1	37:35:71:VAL:HG12	1.83	0.43
26:14:483:A:H3'	26:14:484:C:H6	1.83	0.43
26:14:807:U:O2'	26:14:808:G:H5'	2.19	0.43
26:14:1160:G:C6	26:14:1161:C:C4	3.07	0.43
26:14:1176:G:H8	26:14:1177:A:H2	1.66	0.43
26:14:1322:A:O3'	44:A5:84:ARG:NH1	2.52	0.43
26:14:1680:U:N3	26:14:1764:G:OP2	2.45	0.43
26:14:2862:G:H2'	26:14:2863:C:C6	2.54	0.43
26:14:2875:C:H2'	26:14:2876:G:O4'	2.19	0.43
31:39:65:TRP:CZ3	31:39:72:ARG:HB3	2.54	0.43
32:49:125:PHE:HB3	32:49:166:ASP:CB	2.40	0.43
34:69:1:MET:HE3	34:69:1:MET:HB2	1.86	0.43
37:35:62:LEU:HD21	55:M5:50:LEU:HD21	2.00	0.43
43:95:71:LEU:O	43:95:85:LYS:O	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:107:LEU:HD12	44:A5:107:LEU:HA	1.78	0.43
47:D5:70:LEU:O	47:D5:89:PHE:N	2.48	0.43
48:E5:50:ASN:C	48:E5:62:LEU:HD12	2.40	0.43
1:13:11:G:C6	1:13:12:U:C4	3.07	0.42
1:13:114:U:O2'	1:13:115:G:H5'	2.18	0.42
1:13:149:A:H2'	1:13:150:C:C6	2.54	0.42
1:13:1064:G:H1'	1:13:1190:G:H21	1.84	0.42
1:13:1083:U:H5	1:13:1084:G:C6	2.37	0.42
1:13:1206:G:O4'	3:2E:194:GLY:HA2	2.19	0.42
3:2E:157:ILE:HD12	3:2E:164:ARG:HG2	2.01	0.42
5:4E:39:GLY:HA2	5:4E:113:ALA:HB1	2.00	0.42
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.19	0.42
10:1I:79:ARG:HA	10:1I:79:ARG:HD3	1.83	0.42
17:8I:3:LYS:HD3	17:8I:61:GLU:O	2.19	0.42
23:2K:29:C:H2'	23:2K:30:G:H8	1.84	0.42
26:1H:320:A:H5"	26:1H:321:G:OP1	2.19	0.42
26:1H:617:G:OP2	31:31:43:LYS:NZ	2.51	0.42
26:1H:827:U:H5'	26:1H:828:U:O5'	2.19	0.42
26:1H:1425:G:H2'	26:1H:1426:G:O4'	2.19	0.42
26:1H:1800:C:H5"	29:11:147:LEU:HD21	2.00	0.42
26:1H:2122:U:H2'	26:1H:2123:G:C8	2.54	0.42
26:1H:2142:C:H2'	26:1H:2143:C:C6	2.54	0.42
26:1H:2159:G:C4	26:1H:2160:G:C8	3.07	0.42
26:1H:2399:G:H1	26:1H:2417:C:H42	1.66	0.42
26:1H:2405:G:P	37:78:77:ARG:NH2	2.92	0.42
26:1H:2584:U:OP2	61:1H:3879:HOH:O	2.22	0.42
29:11:121:PRO:HB3	29:11:135:PHE:CD2	2.54	0.42
41:B8:84:GLN:HG2	41:B8:85:LYS:CD	2.49	0.42
45:F8:92:LEU:HD23	45:F8:92:LEU:HA	1.88	0.42
1:1G:447:G:O6	1:1G:485:G:H2'	2.19	0.42
1:1G:502:G:H2'	1:1G:503:C:O4'	2.19	0.42
1:1G:709:G:H2'	1:1G:710:G:H8	1.85	0.42
1:1G:1130:A:H1'	1:1G:1146:A:C2	2.54	0.42
1:1G:1203:C:H2'	1:1G:1204:A:H8	1.84	0.42
2:12:80:ILE:HG12	2:12:211:ILE:HG22	2.01	0.42
2:12:126:GLU:O	2:12:130:ARG:HD3	2.19	0.42
4:32:15:GLU:HG2	4:32:66:ARG:HH11	1.83	0.42
8:72:120:THR:HG23	8:72:122:ARG:N	2.33	0.42
13:4A:91:ARG:HH12	13:4A:97:PRO:HG2	1.84	0.42
24:3L:18:G:O2'	24:3L:57:G:H2'	2.19	0.42
26:14:702:G:C2	26:14:731:C:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1372:U:H2'	26:14:1373:A:O4'	2.18	0.42
26:14:1665:A:H2'	26:14:1666:G:O4'	2.19	0.42
26:14:1684:C:C2	26:14:1705:G:N2	2.87	0.42
26:14:1993:U:H4'	30:29:128:SER:HB3	2.01	0.42
26:14:2845:G:N2	26:14:2871:C:O2	2.43	0.42
26:14:2846:G:H2'	26:14:2847:U:O4'	2.19	0.42
30:29:47:VAL:HG21	30:29:86:PRO:CD	2.48	0.42
33:59:107:VAL:CG1	33:59:152:ARG:HG2	2.49	0.42
42:85:95:LEU:O	42:85:98:LEU:HG	2.18	0.42
50:G5:2:LYS:C	50:G5:5:GLU:HG3	2.38	0.42
1:13:468:A:H4'	16:7I:80:PHE:O	2.20	0.42
1:13:540:G:H2'	1:13:541:G:O4'	2.18	0.42
1:13:1338:G:H2'	1:13:1339:A:C8	2.54	0.42
2:1E:52:GLU:O	2:1E:56:ARG:HB2	2.19	0.42
6:5E:45:LEU:HD12	6:5E:59:TYR:HD2	1.82	0.42
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.84	0.42
16:7I:79:VAL:HG12	16:7I:80:PHE:CD1	2.53	0.42
19:AI:28:LYS:O	19:AI:29:ARG:HD2	2.18	0.42
21:1F:8:THR:OG1	21:1F:9:ARG:N	2.50	0.42
22:1K:60:U:H5'	22:1K:61:C:H5	1.85	0.42
26:1H:228:A:C8	26:1H:230:U:H1'	2.54	0.42
26:1H:950:G:C5	26:1H:951:C:C4	3.07	0.42
26:1H:1288:U:C2	26:1H:1327:C:O2	2.72	0.42
26:1H:1488:G:C6	26:1H:1489:U:C4	3.07	0.42
26:1H:1766:U:O2'	26:1H:1767:C:H5'	2.19	0.42
26:1H:1799:G:O6	29:11:179:SER:HB3	2.19	0.42
26:1H:2292:C:P	40:A8:17:ARG:HH22	2.42	0.42
27:16:0:A:H3'	27:16:1:U:C6	2.54	0.42
28:71:45:ALA:H	28:71:171:ILE:HG22	1.83	0.42
29:11:127:VAL:HA	29:11:193:VAL:HG22	2.02	0.42
32:41:125:PHE:HB3	32:41:166:ASP:OD2	2.18	0.42
37:78:60:MET:O	55:Q8:13:ARG:NH1	2.52	0.42
37:78:99:LEU:O	37:78:99:LEU:HG	2.14	0.42
44:E8:45:TYR:CZ	44:E8:49:LYS:HD2	2.55	0.42
1:1G:600:C:H2'	1:1G:601:C:H6	1.81	0.42
1:1G:611:A:N6	1:1G:629:G:H1	2.17	0.42
1:1G:791:G:H5'	61:14:3619:HOH:O	2.19	0.42
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.34	0.42
1:1G:1291:G:P	7:62:37:ASN:HD21	2.41	0.42
1:1G:1509:C:H2'	1:1G:1510:U:O4'	2.19	0.42
2:12:24:TRP:C	2:12:24:TRP:CD1	2.92	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:31:CYS:HA	58:32:302:SF4:S2	2.59	0.42
4:32:162:LEU:HA	4:32:162:LEU:HD23	1.61	0.42
5:42:139:LEU:HD23	5:42:142:LEU:HD11	2.00	0.42
18:9A:21:LYS:NZ	18:9A:57:GLY:HA3	2.34	0.42
20:BA:64:ASP:CG	20:BA:81:LYS:HZ2	2.22	0.42
23:2L:44:A:C2	23:2L:45:A:C5	3.07	0.42
26:14:28:A:C2	26:14:513:A:C8	3.07	0.42
26:14:205:G:O2'	26:14:206:U:OP2	2.34	0.42
26:14:208:C:H2'	26:14:209:C:C6	2.53	0.42
26:14:832:G:H5'	37:35:45:LEU:HD11	2.01	0.42
26:14:993:G:N3	43:95:89:GLN:NE2	2.64	0.42
26:14:1229(A):G:H2'	26:14:1230:C:O4'	2.19	0.42
26:14:1328:G:H2'	26:14:1330:C:C4	2.54	0.42
26:14:1367:A:H5"	26:14:1368:G:OP2	2.19	0.42
26:14:1751:C:H2'	26:14:1752:C:C6	2.54	0.42
26:14:2251:G:OP2	38:45:82:ARG:NH2	2.52	0.42
26:14:2280:G:C2'	26:14:2281:C:H5'	2.49	0.42
26:14:2330:G:H1	26:14:2385:C:N4	2.17	0.42
29:19:61:LEU:HD13	29:19:61:LEU:HA	1.74	0.42
31:39:130:ALA:O	31:39:132:VAL:HG12	2.19	0.42
33:59:121:ILE:HA	33:59:133:VAL:HG13	2.01	0.42
36:25:22:ILE:HA	36:25:22:ILE:HD13	1.35	0.42
36:25:97:ARG:NH2	36:25:99:PHE:HE1	2.17	0.42
44:A5:64:MET:HE3	44:A5:109:GLU:OE2	2.19	0.42
44:A5:69:LEU:HA	44:A5:108:GLY:O	2.19	0.42
48:E5:40:GLN:OE1	48:E5:44:ARG:N	2.52	0.42
49:F5:95:LEU:HD12	49:F5:95:LEU:HA	1.72	0.42
1:13:110:C:H2'	1:13:111:G:O4'	2.19	0.42
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.49	0.42
1:13:280:C:H4'	1:13:281:G:OP2	2.20	0.42
1:13:454:C:H3'	1:13:455:C:H6	1.82	0.42
1:13:663:A:H5'	1:13:836:G:OP1	2.18	0.42
1:13:789:U:O2	1:13:792:A:H8	2.02	0.42
1:13:806:C:H2'	1:13:807:A:H8	1.84	0.42
1:13:828:A:H4'	1:13:828:A:OP1	2.19	0.42
1:13:983:A:H5"	1:13:984:C:OP2	2.19	0.42
5:4E:11:ILE:HG12	5:4E:31:LEU:HB3	2.01	0.42
5:4E:72:GLN:O	5:4E:75:THR:HG23	2.19	0.42
11:2I:48:ILE:HG12	11:2I:63:LEU:HB2	2.01	0.42
18:9I:36:ASN:ND2	18:9I:39:VAL:HG21	2.35	0.42
18:9I:76:LEU:HD12	18:9I:76:LEU:HA	1.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:30:LEU:HD12	19:AI:31:ILE:N	2.34	0.42
24:3K:3:G:N2	24:3K:71:C:C2	2.87	0.42
26:1H:57:C:H2'	26:1H:58:G:O4'	2.19	0.42
26:1H:239:U:O2'	26:1H:240:G:H5'	2.19	0.42
26:1H:775:G:O5'	26:1H:777:A:H1'	2.19	0.42
26:1H:1887:C:H2'	26:1H:1888:G:H5'	2.02	0.42
26:1H:1889:A:H2'	26:1H:1890:A:C8	2.54	0.42
26:1H:2096:U:H2'	26:1H:2097:C:C6	2.53	0.42
28:71:216:THR:HB	28:71:218:MET:H	1.84	0.42
29:11:68:LYS:HB3	29:11:70:TRP:CH2	2.54	0.42
29:11:77:ALA:HB2	29:11:97:TYR:CG	2.54	0.42
29:11:206:LEU:HD23	29:11:206:LEU:HA	1.84	0.42
30:21:54:GLN:HB2	30:21:76:ARG:HD2	2.01	0.42
30:21:67:PHE:N	30:21:67:PHE:CD1	2.87	0.42
30:21:105:THR:O	30:21:196:VAL:HB	2.19	0.42
33:51:92:ILE:H	33:51:92:ILE:CD1	2.31	0.42
33:51:170:ARG:CZ	33:51:170:ARG:HB2	2.39	0.42
34:61:68:LEU:HD11	34:61:72:LEU:HD22	2.00	0.42
41:B8:7:ILE:HA	41:B8:10:VAL:HG13	2.00	0.42
41:B8:107:ASP:N	41:B8:107:ASP:OD1	2.44	0.42
41:B8:125:ARG:O	41:B8:129:ARG:N	2.35	0.42
50:K8:15:LYS:HD3	50:K8:15:LYS:HA	1.77	0.42
51:L8:50:VAL:O	51:L8:54:VAL:HG12	2.19	0.42
52:M8:9:LEU:HD12	52:M8:9:LEU:HA	1.82	0.42
1:1G:533:A:H2'	61:1G:2009:HOH:O	2.18	0.42
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.85	0.42
12:3A:33:ARG:O	12:3A:85:ILE:HB	2.20	0.42
23:2L:38:A:H2'	23:2L:39:A:O4'	2.19	0.42
26:14:1364:G:OP1	49:F5:3:LYS:HD2	2.19	0.42
26:14:1786:A:H4'	26:14:1787:A:OP2	2.18	0.42
26:14:2168:G:N3	26:14:2168:G:H3'	2.34	0.42
26:14:2185:C:H2'	26:14:2186:G:C8	2.53	0.42
26:14:2212:A:H1'	26:14:2215:G:C4	2.54	0.42
26:14:2689:U:H5"	26:14:2713:A:H2	1.82	0.42
26:14:2784:C:H2'	26:14:2785:C:C6	2.54	0.42
29:19:130:ALA:HA	29:19:192:THR:HA	2.01	0.42
30:29:37:ARG:HA	30:29:42:ASP:OD2	2.19	0.42
31:39:153:SER:OG	31:39:190:GLU:HB2	2.20	0.42
31:39:183:VAL:O	31:39:187:VAL:HG23	2.19	0.42
32:49:173:LEU:HD23	32:49:173:LEU:HA	1.84	0.42
33:59:92:ILE:HD12	33:59:92:ILE:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:7:GLU:CA	34:69:15:VAL:HG13	2.49	0.42
34:69:27:ARG:HB2	49:F5:71:TYR:CZ	2.55	0.42
35:15:15:LEU:HD23	35:15:134:ARG:HB2	2.00	0.42
40:65:85:VAL:HG22	40:65:110:LEU:HB2	2.00	0.42
51:H5:8:LEU:O	51:H5:32:GLN:N	2.42	0.42
51:H5:28:LEU:HD23	51:H5:28:LEU:HA	1.79	0.42
1:13:21:G:H2'	1:13:22:G:C8	2.54	0.42
1:13:414:A:H2'	1:13:415:A:O4'	2.19	0.42
1:13:526:C:O5'	1:13:526:C:H6	2.03	0.42
1:13:746:A:H2'	1:13:747:C:C6	2.53	0.42
1:13:948:C:OP2	13:4I:106:ASN:HB2	2.20	0.42
1:13:1342:C:O2'	9:8E:124:GLN:HG3	2.19	0.42
2:1E:21:ARG:C	2:1E:23:ARG:H	2.19	0.42
2:1E:130:ARG:HA	2:1E:131:PRO:HD3	1.94	0.42
4:3E:128:VAL:HB	4:3E:133:VAL:HG21	2.02	0.42
10:1I:38:ILE:CG1	10:1I:71:LEU:HB3	2.49	0.42
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.18	0.42
20:BI:83:ARG:HA	20:BI:86:ARG:HB2	2.02	0.42
23:2K:47:7MG:H3'	23:2K:47:7MG:OP1	2.20	0.42
26:1H:184:C:H2'	26:1H:185:U:H6	1.84	0.42
26:1H:199:A:C8	26:1H:2433:A:N6	2.88	0.42
26:1H:218:A:H2	26:1H:235:U:H4'	1.84	0.42
26:1H:375:C:H2'	26:1H:376:C:C6	2.55	0.42
26:1H:665:C:H2'	26:1H:666:G:C8	2.54	0.42
26:1H:761:A:C8	61:1H:4032:HOH:O	2.57	0.42
26:1H:1259:G:H2'	26:1H:1260:G:H8	1.84	0.42
26:1H:1464:C:HO2'	26:1H:1528:A:H8	1.64	0.42
26:1H:1665:A:N6	61:1H:3818:HOH:O	2.48	0.42
26:1H:1949:G:C6	26:1H:1950:G:C6	3.08	0.42
26:1H:1954:G:O2'	26:1H:1956:U:O4	2.29	0.42
26:1H:2414:G:H21	37:78:67:MET:HE1	1.83	0.42
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.54	0.42
26:1H:2611:U:H6	26:1H:2611:U:H5'	1.85	0.42
27:16:12:C:OP2	27:16:12:C:H6	2.03	0.42
28:71:42:GLU:O	28:71:215:THR:HG22	2.19	0.42
30:21:8:LYS:HE2	30:21:192:ASN:OD1	2.19	0.42
32:41:169:ALA:O	32:41:173:LEU:HD23	2.18	0.42
35:58:28:THR:HG22	35:58:29:LYS:N	2.35	0.42
36:68:107:ARG:HD3	41:B8:37:GLY:N	2.34	0.42
38:88:17:LEU:HD21	38:88:96:VAL:HG13	2.01	0.42
39:98:44:LEU:O	39:98:47:PHE:N	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:81:ASP:O	39:98:85:PRO:HG2	2.20	0.42
49:J8:91:LYS:O	49:J8:94:LEU:HG	2.20	0.42
1:1G:428:G:C8	1:1G:430:A:C4	3.07	0.42
1:1G:452:A:H1'	16:7A:72:ARG:HH12	1.85	0.42
1:1G:854:G:C6	1:1G:855:G:N7	2.87	0.42
1:1G:1095:U:H5"	1:1G:1109:C:O2	2.19	0.42
1:1G:1150:U:O2	10:1A:39:PRO:HG2	2.19	0.42
3:22:61:ALA:C	3:22:63:ASN:H	2.22	0.42
3:22:121:ALA:HB2	3:22:198:VAL:HG21	2.02	0.42
4:32:15:GLU:OE2	4:32:63:LYS:HE2	2.19	0.42
7:62:116:ALA:HB2	7:62:119:ARG:HH21	1.84	0.42
7:62:146:GLU:HB3	7:62:147:ALA:H	1.55	0.42
8:72:83:ILE:HB	8:72:137:VAL:HG13	2.01	0.42
13:4A:35:GLU:HG3	13:4A:36:LYS:N	2.34	0.42
18:9A:37:VAL:HG12	18:9A:78:LEU:HB3	2.02	0.42
24:3L:53:G:H2'	24:3L:53:G:N3	2.34	0.42
26:14:44:A:C2	26:14:45:G:C4	3.08	0.42
26:14:144:C:H2'	26:14:145:G:H8	1.85	0.42
26:14:248:G:H2'	61:14:3802:HOH:O	2.19	0.42
26:14:309:G:C5	26:14:330:A:C6	3.07	0.42
26:14:1342:A:C2	26:14:1397:U:C2	3.07	0.42
26:14:1381:G:H1'	26:14:1571:A:N1	2.35	0.42
26:14:1537:C:H4'	26:14:1537:C:OP1	2.20	0.42
26:14:2295:C:OP2	40:65:10:ARG:HD3	2.19	0.42
26:14:2619:C:H2'	26:14:2620:C:C6	2.55	0.42
29:19:11:PRO:C	29:19:13:ARG:H	2.22	0.42
31:39:4:VAL:HG13	31:39:19:GLU:CD	2.40	0.42
32:49:84:LYS:HE2	32:49:84:LYS:HB3	1.92	0.42
34:69:2:LYS:HA	34:69:20:ASP:HA	2.01	0.42
35:15:59:LYS:HE2	35:15:61:ARG:NH2	2.34	0.42
38:45:134:ARG:HG2	38:45:136:ALA:HB1	2.02	0.42
43:95:4:ILE:O	43:95:37:VAL:O	2.37	0.42
1:13:265:G:O3'	17:8I:66:SER:HA	2.19	0.42
1:13:436:C:H2'	1:13:437:U:O4'	2.20	0.42
1:13:665:A:C5	1:13:733:A:C5	3.06	0.42
1:13:691:G:H1'	1:13:696:A:N6	2.35	0.42
1:13:958:A:C6	1:13:959:A:C6	3.07	0.42
1:13:1128:C:N4	1:13:1144:G:H1	2.13	0.42
3:2E:70:VAL:N	3:2E:106:VAL:HG23	2.34	0.42
3:2E:95:THR:HB	3:2E:97:LYS:HG3	2.02	0.42
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:156:GLU:OE1	4:3E:159:ARG:NH1	2.52	0.42
7:6E:150:ALA:HB2	11:2I:50:TYR:CE2	2.54	0.42
10:1I:24:VAL:O	10:1I:28:ARG:HB2	2.19	0.42
12:3I:54:LYS:HD3	12:3I:54:LYS:N	2.34	0.42
14:5I:22:THR:HB	14:5I:33:VAL:HG21	2.01	0.42
18:9I:53:ARG:HA	18:9I:56:THR:OG1	2.20	0.42
23:2K:54:G:C2'	23:2K:55:5MU:H5"	2.49	0.42
26:1H:71:A:C2	45:F8:31:HIS:NE2	2.84	0.42
26:1H:562:U:O4	26:1H:2036:C:H1'	2.19	0.42
26:1H:675:A:OP1	31:31:63:LYS:HE2	2.18	0.42
26:1H:872:A:C2	26:1H:906:G:C4	3.08	0.42
26:1H:1052:C:H42	26:1H:1107:G:H1	1.68	0.42
26:1H:1486:A:C4	26:1H:1487:G:C8	3.07	0.42
26:1H:1835:G:C6	26:1H:1836:C:N4	2.87	0.42
26:1H:1864:U:OP1	26:1H:2411:A:H5'	2.20	0.42
26:1H:2055:C:H5'	26:1H:2056:G:O5'	2.19	0.42
29:11:105:ILE:HD12	29:11:105:ILE:HA	1.87	0.42
33:51:92:ILE:HD12	33:51:92:ILE:N	2.33	0.42
37:78:101:VAL:HB	37:78:107:LYS:O	2.20	0.42
41:B8:21:GLU:H	41:B8:21:GLU:HG3	1.58	0.42
45:F8:27:THR:HB	45:F8:80:ILE:HB	2.00	0.42
47:H8:139:VAL:HG22	47:H8:155:LEU:HD22	2.02	0.42
49:J8:50:ARG:HG2	49:J8:59:THR:OG1	2.19	0.42
50:K8:14:ARG:HB3	50:K8:15:LYS:NZ	2.34	0.42
1:1G:872:A:C4	1:1G:874:G:N7	2.88	0.42
1:1G:973:G:H5'	10:1A:55:LYS:NZ	2.33	0.42
1:1G:1119:C:H2'	1:1G:1120:G:O4'	2.20	0.42
7:62:90:GLU:H	7:62:90:GLU:HG2	1.72	0.42
7:62:132:GLY:H	7:62:135:VAL:HB	1.84	0.42
8:72:101:PRO:HG2	8:72:133:LEU:HD11	2.02	0.42
13:4A:22:ILE:HB	13:4A:25:ILE:CG1	2.49	0.42
24:3L:72:C:C3'	24:3L:73:A:H5"	2.48	0.42
26:14:308:G:H5"	26:14:309:G:OP2	2.19	0.42
26:14:819:A:C2'	26:14:820:A:H5'	2.50	0.42
26:14:827:U:H2'	26:14:2430:A:C2	2.54	0.42
26:14:1110:G:H2'	26:14:1111:A:O4'	2.19	0.42
26:14:1788:C:C2	26:14:1789:A:C8	3.07	0.42
26:14:1925:C:O2'	26:14:1926:U:H5'	2.19	0.42
26:14:2367:G:H2'	26:14:2368:C:H6	1.85	0.42
26:14:2391:G:O6	26:14:2425:A:H8	2.02	0.42
26:14:2734:A:H1'	30:29:204:ALA:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:74:GLY:O	29:19:76:PRO:HD3	2.18	0.42
29:19:119:ALA:HA	29:19:130:ALA:O	2.19	0.42
29:19:206:LEU:HD22	29:19:211:ARG:HG2	2.01	0.42
32:49:43:LEU:HD12	32:49:45:GLU:CD	2.40	0.42
34:69:75:LEU:HD12	34:69:139:GLN:OE1	2.19	0.42
37:35:6:LEU:HD12	37:35:6:LEU:HA	1.72	0.42
37:35:82:GLY:HA2	37:35:113:LYS:O	2.20	0.42
43:95:71:LEU:HA	43:95:71:LEU:HD13	1.59	0.42
49:F5:92:LYS:O	49:F5:93:GLU:C	2.58	0.42
1:13:828:A:H2'	1:13:829:G:O4'	2.19	0.42
7:6E:5:ARG:HG3	7:6E:7:ALA:N	2.35	0.42
14:5I:4:LYS:O	14:5I:7:ILE:HG23	2.19	0.42
15:6I:67:LEU:O	15:6I:71:GLN:HB2	2.19	0.42
22:1K:67:C:H2'	22:1K:68:G:C8	2.55	0.42
26:1H:787:U:H5"	26:1H:788:A:H5'	2.02	0.42
26:1H:826:U:H2'	26:1H:828:U:O4'	2.19	0.42
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.54	0.42
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.20	0.42
26:1H:1202:C:N4	26:1H:1203:G:C6	2.87	0.42
26:1H:1331:A:HO2'	26:1H:1332:G:H8	1.67	0.42
26:1H:1448:G:N3	26:1H:1529:A:H2	2.17	0.42
26:1H:2248:C:C5	26:1H:2249:U:C4	3.08	0.42
26:1H:2312:U:H5'	32:41:88:ILE:HD11	2.02	0.42
29:11:102:LYS:C	29:11:103:ARG:HG2	2.39	0.42
32:41:114:ILE:HG22	32:41:115:ARG:O	2.19	0.42
34:61:123:LEU:HD23	34:61:143:SER:HA	2.01	0.42
39:98:26:LYS:HE2	39:98:70:LEU:O	2.20	0.42
40:A8:53:SER:HA	40:A8:58:LEU:HD21	2.02	0.42
52:M8:16:CYS:HB3	52:M8:36:CYS:N	2.35	0.42
1:1G:11:G:C5	1:1G:12:U:C5	3.08	0.42
1:1G:45:U:H2'	1:1G:46:G:C8	2.55	0.42
1:1G:233:C:H2'	1:1G:234:C:H6	1.84	0.42
1:1G:676:A:H1'	11:2A:115:PRO:HB3	2.01	0.42
1:1G:1008:C:C2	1:1G:1022:G:N2	2.88	0.42
1:1G:1129:C:H1'	1:1G:1132:C:H41	1.85	0.42
1:1G:1187:G:H2'	1:1G:1188:A:H8	1.85	0.42
1:1G:1342:C:H1'	9:82:124:GLN:HG3	2.00	0.42
1:1G:1367:C:OP1	9:82:114:TYR:HA	2.20	0.42
5:42:90:VAL:HG23	5:42:121:LYS:O	2.20	0.42
26:14:85:G:OP1	46:C5:30:VAL:HG21	2.18	0.42
26:14:199:A:N6	26:14:2434:A:C5	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.55	0.42
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.19	0.42
26:14:522:G:H2'	26:14:523:C:H6	1.82	0.42
26:14:602:G:N2	26:14:655:A:C8	2.86	0.42
26:14:634:C:H2'	26:14:635:C:H6	1.80	0.42
26:14:708:C:H42	26:14:723:G:H1	1.67	0.42
26:14:718:A:H3'	26:14:719:C:C6	2.55	0.42
26:14:740:U:H2'	26:14:741:G:C8	2.55	0.42
26:14:824:A:H1'	26:14:2358:G:N7	2.34	0.42
26:14:1174:A:H3'	26:14:1174:A:N3	2.34	0.42
26:14:1248:G:C5	42:85:3:ARG:HB2	2.54	0.42
26:14:1475:G:H5"	26:14:1475:G:H8	1.83	0.42
26:14:2287:A:C2	26:14:2289:G:C8	3.07	0.42
26:14:2600:A:H2'	26:14:2601:C:C6	2.55	0.42
26:14:2859:G:O2'	26:14:2860:A:H5'	2.19	0.42
30:29:44:TYR:HH	30:29:80:GLU:CD	2.22	0.42
31:39:148:LEU:HD23	31:39:148:LEU:HA	1.68	0.42
32:49:5:VAL:O	32:49:5:VAL:HG12	2.19	0.42
32:49:103:LEU:HD23	32:49:106:LEU:HD22	2.00	0.42
33:59:97:ARG:O	33:59:99:VAL:HG12	2.20	0.42
35:15:49:GLY:H	35:15:119:ARG:NH1	2.18	0.42
36:25:15:GLY:O	36:25:47:ILE:HG12	2.19	0.42
36:25:66:LYS:HA	36:25:79:PHE:O	2.20	0.42
41:75:23:ARG:HG3	41:75:120:ARG:NH1	2.35	0.42
44:A5:96:ILE:O	44:A5:96:ILE:HG13	2.19	0.42
1:13:186:C:H2'	1:13:186(A):C:C6	2.54	0.42
1:13:255:G:C5	1:13:256:U:C4	3.07	0.42
1:13:256:U:H2'	1:13:257:G:C8	2.55	0.42
1:13:425:G:O3'	4:3E:45:GLN:NE2	2.53	0.42
1:13:549:C:C2	1:13:550:G:C8	3.08	0.42
1:13:1126:U:O4	1:13:1127:G:C5	2.72	0.42
1:13:1180:A:OP1	9:8E:103:THR:OG1	2.30	0.42
1:13:1434:A:H2'	1:13:1435:G:O4'	2.19	0.42
1:13:1480:G:H2'	1:13:1481:U:O4'	2.20	0.42
2:1E:68:ILE:HG13	2:1E:161:ALA:HB3	2.00	0.42
2:1E:149:LEU:HA	2:1E:149:LEU:HD23	1.72	0.42
3:2E:131:ARG:HA	3:2E:134:ILE:HD12	2.01	0.42
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.59	0.42
9:8E:46:ALA:O	9:8E:78:LYS:HA	2.20	0.42
11:2I:40:ILE:HG22	11:2I:75:TYR:HD2	1.84	0.42
22:1K:29:U:H2'	22:1K:30:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:63:U:H3'	22:1K:64:G:C8	2.55	0.42
24:3K:3:G:C6	24:3K:69:A:N6	2.87	0.42
24:3K:33:U:H2'	24:3K:34:U:H6	1.84	0.42
25:4K:13:A:H61	25:4K:14:A:N6	2.17	0.42
26:1H:164:U:H5'	26:1H:165:U:OP2	2.20	0.42
26:1H:197:A:N6	26:1H:2430:A:H2'	2.34	0.42
26:1H:564:C:H2'	26:1H:565:C:O4'	2.20	0.42
26:1H:637:A:O5'	37:78:116:GLY:HA3	2.20	0.42
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.37	0.42
26:1H:1126:A:H8	26:1H:1126:A:O5'	2.03	0.42
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.20	0.42
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.55	0.42
26:1H:2725:A:C4	26:1H:2727:G:C8	3.08	0.42
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.55	0.42
27:16:12:C:O2	48:I8:74:ARG:HD3	2.20	0.42
31:31:32:LEU:HD13	31:31:105:VAL:CG1	2.50	0.42
31:31:63:LYS:HZ1	31:31:67:GLN:HB2	1.84	0.42
35:58:35:ARG:HB2	35:58:37:LYS:HG3	2.01	0.42
37:78:98:GLU:O	37:78:101:VAL:HG13	2.19	0.42
39:98:55:ALA:HB2	39:98:79:LEU:HD13	2.00	0.42
40:A8:106:ARG:NH2	40:A8:107:GLU:HG2	2.34	0.42
46:G8:44:ILE:H	46:G8:44:ILE:HG13	1.66	0.42
54:P8:26:GLY:O	54:P8:30:VAL:HG23	2.18	0.42
1:1G:18:C:H4'	1:1G:1078:U:O2	2.20	0.42
1:1G:660:G:H2'	1:1G:661:G:O4'	2.19	0.42
1:1G:1152:A:H2'	1:1G:1153:C:H6	1.85	0.42
1:1G:1190:G:OP2	3:22:5:ILE:HG23	2.19	0.42
1:1G:1291:G:H4'	9:82:38:GLN:O	2.20	0.42
1:1G:1300:G:O2'	1:1G:1301:U:P	2.77	0.42
2:12:164:VAL:HB	2:12:186:ALA:HB2	2.02	0.42
2:12:189:ASP:OD1	2:12:189:ASP:N	2.53	0.42
3:22:90:GLU:HA	3:22:93:LYS:HE2	2.02	0.42
6:52:24:GLU:O	6:52:28:ARG:HD2	2.20	0.42
9:82:114:TYR:CD1	9:82:114:TYR:N	2.88	0.42
10:1A:12:ASP:OD1	10:1A:13:HIS:N	2.53	0.42
17:8A:83:ASP:OD1	17:8A:84:LEU:N	2.53	0.42
56:1L:49:G:H5"	56:1L:49:G:H8	1.85	0.42
26:14:38:A:H5'	31:39:50:SER:CB	2.50	0.42
26:14:270(P):C:O5'	26:14:270(P):C:H6	2.02	0.42
26:14:568:U:OP1	37:35:36:LYS:HE3	2.19	0.42
26:14:1406:U:H2'	26:14:1407:C:C6	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1733:G:H8	26:14:1733:G:O5'	2.03	0.42
26:14:1814:G:H5"	29:19:54:ARG:HH11	1.85	0.42
26:14:2019:A:N7	53:J5:9:LYS:HD2	2.35	0.42
26:14:2279:G:O6	48:E5:14:ARG:HD2	2.20	0.42
26:14:2611:U:H2'	53:J5:2:ALA:O	2.20	0.42
27:1J:42:C:C4	32:49:91:ARG:NH2	2.88	0.42
30:29:195:LEU:HD12	30:29:195:LEU:HA	1.80	0.42
33:59:171:LEU:HD13	33:59:172:LYS:C	2.40	0.42
34:69:71:ILE:HG22	34:69:72:LEU:HD23	2.02	0.42
37:35:131:SER:HB3	37:35:134:ALA:CB	2.49	0.42
38:45:135:ASP:N	38:45:136:ALA:CA	2.79	0.42
40:65:48:LEU:HD23	40:65:82:ILE:HD11	2.02	0.42
40:65:102:ALA:O	40:65:105:ALA:N	2.52	0.42
42:85:25:TRP:CD1	42:85:25:TRP:C	2.93	0.42
46:C5:52:SER:HA	46:C5:56:PRO:HA	2.02	0.42
50:G5:60:LEU:HD12	50:G5:60:LEU:HA	1.89	0.42
1:13:407:G:H2'	1:13:408:A:H8	1.83	0.42
1:13:452:A:O2'	1:13:453:A:O4'	2.37	0.42
1:13:516:U:C4	1:13:517:G:C6	3.08	0.42
1:13:1000:A:H2'	1:13:1001:G:C8	2.54	0.42
1:13:1330:U:H4'	13:4I:23:TYR:HE1	1.85	0.42
1:13:1417:G:N2	1:13:1482:G:H2'	2.35	0.42
2:1E:21:ARG:CZ	2:1E:22:LYS:HB2	2.49	0.42
4:3E:97:LEU:O	4:3E:100:ARG:HG3	2.19	0.42
5:4E:36:ASP:CG	5:4E:38:GLN:HB2	2.39	0.42
7:6E:65:ALA:O	7:6E:69:VAL:HG23	2.20	0.42
15:6I:57:LEU:HD23	15:6I:57:LEU:HA	1.78	0.42
20:BI:36:LEU:HD13	20:BI:36:LEU:HA	1.87	0.42
22:1K:12:U:O2	22:1K:24:G:N2	2.52	0.42
26:1H:82:G:N1	26:1H:103:A:OP2	2.41	0.42
26:1H:736:C:O5'	26:1H:736:C:H6	2.03	0.42
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.55	0.42
26:1H:1204:A:N6	26:1H:1241:A:H2	2.08	0.42
26:1H:2101:G:H2'	26:1H:2102:U:O4'	2.20	0.42
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.20	0.42
26:1H:2594:C:N4	61:1H:3646:HOH:O	2.52	0.42
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.85	0.42
26:1H:2743:C:H2'	26:1H:2744:G:O4'	2.20	0.42
26:1H:2839:G:C5	26:1H:2840:C:C4	3.08	0.42
29:11:12:SER:O	29:11:16:MET:HB2	2.20	0.42
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:46:ALA:HB2	32:41:52:ILE:HB	2.02	0.42
34:61:110:ASP:OD1	34:61:111:PRO:HA	2.20	0.42
35:58:47:ALA:HB3	35:58:115:ARG:HH21	1.84	0.42
40:A8:56:LEU:HB2	40:A8:58:LEU:HD22	2.02	0.42
51:L8:6:VAL:HG12	51:L8:56:VAL:HG22	2.00	0.42
1:1G:191(F):U:N3	20:BA:105:SER:OG	2.51	0.42
1:1G:579:G:C6	1:1G:580:U:C4	3.08	0.42
1:1G:596:C:H2'	1:1G:597:G:H8	1.84	0.42
1:1G:952:U:H2'	1:1G:953:G:H8	1.84	0.42
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.15	0.42
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.36	0.42
9:82:22:GLY:HA3	9:82:60:ASP:OD2	2.19	0.42
17:8A:45:HIS:HE2	17:8A:47:PRO:HB3	1.84	0.42
19:AA:10:PHE:HB3	19:AA:39:THR:CB	2.48	0.42
19:AA:14:HIS:CE1	19:AA:15:LEU:HD22	2.54	0.42
19:AA:41:VAL:H	19:AA:44:MET:HB2	1.85	0.42
20:BA:22:ARG:O	20:BA:26:ASN:HB2	2.20	0.42
23:2L:61:U:OP2	23:2L:62:C:N4	2.31	0.42
24:3L:18:G:H5'	24:3L:60:U:N3	2.34	0.42
26:14:815:C:H2'	26:14:816:C:C6	2.54	0.42
26:14:830:G:H4'	26:14:831:G:OP2	2.20	0.42
26:14:1018:C:O2'	26:14:1019:U:H5'	2.18	0.42
26:14:1114:G:H2'	26:14:1115:G:C8	2.55	0.42
26:14:1332:G:H8	26:14:1332:G:H2'	1.67	0.42
26:14:1572:A:H8	26:14:1572:A:O5'	2.03	0.42
26:14:1754:C:H2'	26:14:1755:A:C8	2.54	0.42
26:14:2012:G:P	44:A5:11:ARG:HH22	2.41	0.42
26:14:2531:A:H61	26:14:2662:A:N6	2.18	0.42
26:14:2563:U:O2	26:14:2565:A:C8	2.72	0.42
26:14:2643:G:O6	61:14:3664:HOH:O	2.20	0.42
26:14:2690:C:OP1	39:55:17:ARG:NH1	2.44	0.42
27:1J:12:C:H6	27:1J:12:C:OP2	2.03	0.42
34:69:6:LEU:HD13	34:69:37:VAL:HG22	2.01	0.42
34:69:74:ASN:O	34:69:75:LEU:HB2	2.20	0.42
35:15:35:ARG:HB3	35:15:42:TRP:HZ3	1.82	0.42
36:25:7:TYR:CZ	36:25:44:LYS:HG3	2.55	0.42
38:45:134:ARG:HH22	47:D5:122:ARG:NH1	2.18	0.42
40:65:65:VAL:O	40:65:68:GLN:HB2	2.19	0.42
47:D5:99:TYR:HA	47:D5:124:ILE:O	2.19	0.42
47:D5:139:VAL:HG22	47:D5:156:LYS:HE3	2.01	0.42
49:F5:91:LYS:HZ2	49:F5:92:LYS:H	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:33:A:H8	1:13:33:A:OP2	2.03	0.42
1:13:103:C:C2	1:13:104:G:C8	3.08	0.42
1:13:355:C:H5'	1:13:389:A:OP2	2.19	0.42
1:13:430:A:OP2	4:3E:8:VAL:HG23	2.19	0.42
1:13:811:C:H4'	1:13:900:A:N6	2.34	0.42
1:13:909:A:H2'	1:13:910:C:O4'	2.20	0.42
1:13:1152:A:O2'	1:13:1153:C:H5'	2.19	0.42
2:1E:100:GLY:N	2:1E:176:GLU:OE2	2.52	0.42
6:5E:17:SER:O	6:5E:21:LEU:N	2.50	0.42
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.30	0.42
8:7E:110:ALA:HB3	8:7E:121:ASP:HB3	2.01	0.42
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.20	0.42
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.29	0.42
21:1F:5:ASP:HB3	21:1F:8:THR:HG22	2.01	0.42
23:2K:9:G:O4'	23:2K:47:7MG:N3	2.53	0.42
24:3K:50:C:H2'	24:3K:51:A:O4'	2.19	0.42
26:1H:731:C:H5"	61:1H:3938:HOH:O	2.20	0.42
26:1H:831:G:N2	37:78:53:GLY:O	2.51	0.42
26:1H:1583:A:H5'	26:1H:1585:C:OP1	2.19	0.42
26:1H:1638:C:O2	26:1H:2698:U:O2'	2.36	0.42
26:1H:1647:G:P	61:1H:3960:HOH:O	2.78	0.42
26:1H:1695:G:H2'	26:1H:1696:G:O4'	2.19	0.42
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.84	0.42
26:1H:2093:G:O5'	34:61:24:GLY:HA3	2.19	0.42
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.19	0.42
26:1H:2138:C:C2	26:1H:2154:G:N2	2.88	0.42
29:11:124:PRO:HG2	29:11:129:ASN:HD21	1.85	0.42
30:21:68:ALA:HB1	30:21:70:ALA:O	2.20	0.42
31:31:67:GLN:O	31:31:67:GLN:HG3	2.13	0.42
41:B8:26:ASP:OD2	41:B8:120:ARG:NH2	2.49	0.42
1:1G:628:G:H2'	1:1G:629:G:H8	1.85	0.42
1:1G:834:C:H2'	1:1G:835:U:C6	2.55	0.42
1:1G:1002:G:C6	1:1G:1003:G:C5	3.08	0.42
1:1G:1127:G:H2'	1:1G:1128:C:H6	1.82	0.42
1:1G:1188:A:H5"	14:5A:58:LYS:HZ1	1.85	0.42
1:1G:1217:C:OP1	14:5A:9:LYS:HE2	2.19	0.42
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.55	0.42
1:1G:1328:C:H2'	1:1G:1329:A:C8	2.54	0.42
1:1G:1386:G:C2	1:1G:1387:G:C8	3.08	0.42
5:42:99:GLY:O	5:42:117:ASP:HA	2.19	0.42
8:72:68:ARG:CZ	8:72:74:PRO:HB3	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:45:PRO:HB2	12:3A:92:ASP:HB3	2.01	0.42
26:14:559:G:H2'	26:14:560:C:O4'	2.20	0.42
26:14:1169:G:N2	26:14:1180:C:N3	2.47	0.42
26:14:1410:G:O2'	26:14:1411:C:H5'	2.20	0.42
26:14:1461:G:H2'	26:14:1462:C:H6	1.85	0.42
26:14:1463:C:H2'	26:14:1464:C:H6	1.84	0.42
26:14:1491:G:O2'	29:19:101:GLU:HB2	2.20	0.42
26:14:2009:G:OP1	44:A5:41:LYS:NZ	2.51	0.42
26:14:2151:G:H2'	26:14:2152:G:O4'	2.19	0.42
27:1J:23:G:C2	27:1J:24:G:O6	2.72	0.42
33:59:115:VAL:HG11	33:59:148:ILE:HD11	2.02	0.42
34:69:43:ASN:N	34:69:43:ASN:OD1	2.52	0.42
40:65:61:ASN:OD1	40:65:62:LYS:HG2	2.20	0.42
40:65:87:PHE:CD1	40:65:88:ASP:N	2.88	0.42
42:85:95:LEU:HD13	43:95:4:ILE:HG23	2.01	0.42
50:G5:24:LEU:HD23	50:G5:24:LEU:HA	1.75	0.42
1:13:129(A):G:N1	1:13:188:U:O2'	2.52	0.42
1:13:131:C:H2'	1:13:132:C:C6	2.54	0.42
1:13:140:A:C6	1:13:141:A:C5	3.08	0.42
1:13:474:G:H2'	1:13:475:G:C8	2.54	0.42
1:13:745:C:H2'	1:13:746:A:C8	2.55	0.42
1:13:878:G:H1'	8:7E:3:THR:HG21	2.01	0.42
1:13:1253:G:H2'	1:13:1254:C:C6	2.55	0.42
1:13:1360:A:H2'	1:13:1361:G:H8	1.84	0.42
1:13:1386:G:O2'	1:13:1387:G:H5'	2.20	0.42
11:2I:59:TYR:OH	11:2I:63:LEU:HD21	2.20	0.42
26:1H:37:C:H2'	26:1H:38:A:C8	2.55	0.42
26:1H:96:G:H4'	50:K8:48:HIS:CD2	2.55	0.42
26:1H:534:U:H5'	42:C8:42:ALA:CB	2.50	0.42
26:1H:686:G:OP1	54:P8:11:LYS:NZ	2.53	0.42
26:1H:782:A:O2'	26:1H:1788:C:H4'	2.20	0.42
26:1H:1357:U:C4	26:1H:1358:G:C6	3.07	0.42
26:1H:1539:G:C2	26:1H:1540:G:C5	3.08	0.42
26:1H:2517:C:C2	26:1H:2542:A:N6	2.88	0.42
26:1H:2663:G:C6	26:1H:2664:G:C4	3.08	0.42
29:11:206:LEU:HA	29:11:211:ARG:HD3	2.02	0.42
30:21:103:ASP:OD1	30:21:201:THR:HG23	2.20	0.42
33:51:83:TYR:HB2	33:51:134:SER:HA	2.02	0.42
42:C8:79:PHE:O	42:C8:79:PHE:HD1	2.02	0.42
46:G8:87:LYS:O	46:G8:94:LYS:HB2	2.20	0.42
47:H8:98:MET:O	47:H8:125:LEU:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:89:U:O2'	1:1G:90:C:O5'	2.36	0.42
1:1G:109:A:C6	1:1G:326:G:C6	3.08	0.42
1:1G:195:A:H4'	20:BA:68:LYS:HE3	2.02	0.42
1:1G:318:G:H1	1:1G:335:C:H42	1.67	0.42
1:1G:355:C:C4	1:1G:356:A:N7	2.87	0.42
1:1G:825:G:H2'	1:1G:826:C:O4'	2.20	0.42
1:1G:895:G:H1	1:1G:904:C:H42	1.68	0.42
1:1G:920:U:O4'	1:1G:1080:A:C2	2.73	0.42
1:1G:1170:A:N6	1:1G:1171:G:N3	2.68	0.42
1:1G:1262:C:N4	1:1G:1273:G:H1	2.17	0.42
1:1G:1378:C:H5	1:1G:1379:G:N9	2.17	0.42
2:12:173:ALA:HA	2:12:176:GLU:HG3	2.02	0.42
3:22:50:ALA:HB1	3:22:70:VAL:CG1	2.50	0.42
17:8A:43:LEU:HD11	17:8A:68:ARG:NH1	2.35	0.42
20:BA:23:ARG:NH2	20:BA:27:LYS:HD2	2.34	0.42
56:1L:51:A:C2	56:1L:64:G:C2	3.08	0.42
26:14:252:G:P	37:35:50:ARG:HH22	2.43	0.42
26:14:273:G:C2	26:14:273(A):G:C8	3.08	0.42
26:14:459:U:H4'	54:L5:40:TRP:CH2	2.55	0.42
26:14:1025:G:C4	26:14:1135:C:H1'	2.55	0.42
26:14:1044:G:O2'	26:14:1047:G:O2'	2.05	0.42
26:14:1285:G:C5	26:14:1329:U:C4	3.08	0.42
26:14:1321:A:H2'	26:14:1322:A:O4'	2.20	0.42
26:14:1344:G:H4'	26:14:1384:A:C5	2.55	0.42
26:14:1411:C:H2'	26:14:1412:A:H8	1.85	0.42
26:14:2109:U:H3	26:14:2180:U:H3	1.68	0.42
29:19:34:VAL:HB	29:19:64:ILE:HG23	2.02	0.42
30:29:97:LYS:N	30:29:100:GLU:OE1	2.32	0.42
31:39:3:GLU:HB3	31:39:24:LEU:HB2	2.02	0.42
31:39:128:ALA:O	31:39:129:PHE:C	2.56	0.42
37:35:120:ALA:HB1	37:35:138:LEU:HD22	2.00	0.42
39:55:8:ARG:NE	39:55:43:GLU:OE2	2.35	0.42
41:75:26:ASP:O	41:75:49:VAL:HG22	2.19	0.42
42:85:74:LEU:HD13	42:85:79:PHE:HB2	2.02	0.42
43:95:19:LYS:H	43:95:19:LYS:HG2	1.67	0.42
1:13:167:G:H2'	1:13:168:G:O4'	2.20	0.41
1:13:630:G:H2'	1:13:631:G:C8	2.55	0.41
1:13:652:U:HO2'	1:13:653:A:P	2.40	0.41
1:13:692:U:H1'	1:13:694:A:N7	2.35	0.41
1:13:1075:C:OP1	2:1E:179:LYS:NZ	2.27	0.41
1:13:1223:C:P	19:AI:78:ARG:NH1	2.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1421:G:H5'	61:13:1849:HOH:O	2.19	0.41
1:13:1521:G:H2'	1:13:1522:U:C6	2.55	0.41
2:1E:69:LEU:HD13	2:1E:69:LEU:HA	1.90	0.41
3:2E:17:ASP:O	3:2E:54:ARG:NH2	2.51	0.41
3:2E:19:GLU:HG2	3:2E:54:ARG:CZ	2.49	0.41
4:3E:4:TYR:O	4:3E:5:ILE:HG13	2.21	0.41
4:3E:72:GLU:OE1	4:3E:207:TYR:OH	2.35	0.41
4:3E:107:ARG:HA	4:3E:107:ARG:HD2	1.74	0.41
4:3E:172:PRO:HB2	4:3E:193:ASP:OD2	2.20	0.41
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	2.02	0.41
8:7E:77:GLU:HG2	8:7E:78:GLN:H	1.84	0.41
11:2I:51:LYS:HE2	11:2I:51:LYS:HB3	1.84	0.41
11:2I:73:MET:HE3	11:2I:103:LEU:HD22	2.02	0.41
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	2.01	0.41
12:3I:62:SER:HB2	12:3I:64:TYR:CD1	2.55	0.41
13:4I:34:LEU:HD13	13:4I:41:PRO:HA	2.01	0.41
15:6I:56:LEU:HA	15:6I:59:MET:HE2	2.02	0.41
18:9I:36:ASN:OD1	18:9I:36:ASN:N	2.43	0.41
22:1K:52:G:N2	22:1K:63:U:C2	2.88	0.41
26:1H:530:G:N3	26:1H:530:G:O4'	2.53	0.41
26:1H:589:C:H2'	26:1H:590:A:C8	2.55	0.41
26:1H:719:C:H2'	26:1H:720:C:C6	2.54	0.41
26:1H:807:U:O2'	26:1H:808:G:H5'	2.20	0.41
26:1H:901:A:N3	26:1H:901:A:H2'	2.35	0.41
26:1H:1188:U:O2'	26:1H:1189:A:H5'	2.20	0.41
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.35	0.41
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.35	0.41
26:1H:1607:C:H4'	26:1H:1608:A:O5'	2.20	0.41
26:1H:1861:G:C2	26:1H:1862:G:C8	3.08	0.41
26:1H:2027:G:C5	26:1H:2028:U:C5	3.08	0.41
26:1H:2321:G:H5"	61:1H:4161:HOH:O	2.20	0.41
26:1H:2642:G:N2	26:1H:2773:C:C2	2.88	0.41
26:1H:2756:U:H1'	26:1H:2757:A:H5"	2.00	0.41
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.20	0.41
30:21:81:ILE:O	30:21:81:ILE:HG22	2.20	0.41
34:61:113:ARG:HB3	34:61:131:LYS:HD3	2.02	0.41
35:58:134:ARG:HE	35:58:134:ARG:HB2	1.61	0.41
50:K8:21:LEU:O	50:K8:25:VAL:HG23	2.20	0.41
53:N8:42:PRO:O	53:N8:44:THR:OG1	2.38	0.41
1:1G:567:G:H2'	1:1G:568:G:O4'	2.20	0.41
1:1G:668:G:O4'	15:6A:49:ASP:HB2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:965:A:C2	1:1G:969:A:C2	3.08	0.41
6:52:23:LYS:HB3	6:52:23:LYS:HE2	1.88	0.41
13:4A:102:ARG:HG2	13:4A:104:ARG:H	1.85	0.41
19:AA:37:ARG:H	19:AA:37:ARG:HG3	1.50	0.41
26:14:895:U:H4'	26:14:896:A:C4	2.56	0.41
26:14:1399:C:H2'	26:14:1400:G:C8	2.54	0.41
26:14:1750:G:O2'	26:14:2860:A:N1	2.37	0.41
26:14:2065:C:H2'	26:14:2066:C:C6	2.55	0.41
26:14:2262:U:H2'	26:14:2263:C:C6	2.55	0.41
27:1J:21:G:H1	27:1J:62:C:H42	1.67	0.41
27:1J:70:C:H2'	27:1J:71:C:C6	2.50	0.41
27:1J:116:G:H2'	27:1J:117:G:O4'	2.20	0.41
40:65:10:ARG:HH21	40:65:91:PRO:HB2	1.84	0.41
42:85:92:ARG:O	42:85:94:ASN:N	2.51	0.41
43:95:98:GLU:HG2	43:95:100:ARG:HG2	2.02	0.41
46:C5:101:LYS:N	46:C5:101:LYS:HE3	2.35	0.41
47:D5:100:VAL:O	47:D5:124:ILE:HG22	2.20	0.41
51:H5:52:HIS:CD2	51:H5:53:LEU:HG	2.55	0.41
55:M5:14:VAL:HG12	55:M5:15:LYS:N	2.35	0.41
1:13:123:C:OP1	1:13:312:C:H5'	2.20	0.41
1:13:557:G:H2'	1:13:558:G:C8	2.55	0.41
1:13:680:C:H2'	1:13:681:C:C6	2.53	0.41
1:13:1363:A:H1'	1:13:1365:G:N7	2.35	0.41
2:1E:72:GLY:HA2	2:1E:165:VAL:CG2	2.50	0.41
7:6E:18:TYR:CD1	7:6E:59:LEU:HD12	2.55	0.41
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.35	0.41
9:8E:102:LEU:HD23	9:8E:102:LEU:HA	1.91	0.41
13:4I:50:GLU:H	13:4I:50:GLU:HG2	1.41	0.41
23:2K:53:G:C6	23:2K:54:G:C5	3.08	0.41
26:1H:116:C:O2'	26:1H:117:G:H5'	2.20	0.41
26:1H:627:A:H4'	26:1H:628:G:OP1	2.19	0.41
26:1H:993:G:C6	26:1H:1162:G:C6	3.07	0.41
26:1H:1049:C:C2'	26:1H:1050:A:H5'	2.50	0.41
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.86	0.41
26:1H:1384:A:O2'	26:1H:1404:C:O2	2.38	0.41
26:1H:1530:G:H2'	26:1H:1531:C:C6	2.55	0.41
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.55	0.41
26:1H:1825:A:O4'	29:11:254:THR:HG21	2.20	0.41
26:1H:1826:G:C5	26:1H:1827:C:C5	3.08	0.41
26:1H:2081:C:H2'	26:1H:2082:A:H8	1.84	0.41
26:1H:2365:G:H4'	48:I8:60:PHE:CZ	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2533:A:OP1	26:1H:2665:A:H1'	2.21	0.41
26:1H:2592:G:C5	26:1H:2593:U:C4	3.08	0.41
29:11:145:VAL:HB	29:11:155:LEU:HB2	2.02	0.41
31:31:181:LEU:HD23	31:31:181:LEU:HA	1.90	0.41
32:41:63:ILE:HG22	32:41:143:GLU:HB2	2.02	0.41
33:51:4:ILE:HG12	33:51:6:ARG:NE	2.35	0.41
33:51:4:ILE:O	33:51:6:ARG:NE	2.53	0.41
35:58:40:PRO:O	42:C8:64:ARG:HG2	2.20	0.41
35:58:41:ASP:O	35:58:43:THR:HG23	2.20	0.41
35:58:99:LEU:HD23	35:58:99:LEU:HA	1.86	0.41
37:78:113:LYS:HA	37:78:129:ALA:O	2.19	0.41
41:B8:4:GLY:HA2	41:B8:7:ILE:CG1	2.50	0.41
44:E8:24:ILE:HD12	44:E8:24:ILE:O	2.20	0.41
1:1G:250:A:H4'	1:1G:251:G:O5'	2.20	0.41
1:1G:457:C:H2'	1:1G:458:C:C6	2.55	0.41
1:1G:503:C:OP2	12:3A:116:SER:OG	2.25	0.41
1:1G:952:U:H4'	1:1G:964:A:N1	2.35	0.41
1:1G:1400:C:H5'	25:4L:18:G:O6	2.20	0.41
1:1G:1429:C:H2'	1:1G:1430:C:H6	1.84	0.41
1:1G:1469:G:H2'	1:1G:1470:G:C8	2.55	0.41
2:12:71:VAL:HG23	2:12:165:VAL:HG13	2.03	0.41
6:52:39:LYS:HB2	6:52:64:GLN:HB3	2.02	0.41
6:52:67:MET:HB2	6:52:68:PRO:HD2	2.02	0.41
8:72:19:VAL:HG23	8:72:21:LYS:HB3	2.02	0.41
8:72:51:VAL:HG11	8:72:60:ARG:HB2	2.02	0.41
26:14:442:G:C6	26:14:444:C:N4	2.88	0.41
26:14:775:G:C5	26:14:794:G:C8	3.08	0.41
26:14:795:C:H2'	26:14:796:C:C6	2.55	0.41
26:14:922:U:H2'	26:14:923:C:C6	2.54	0.41
26:14:959:A:C6	26:14:960:A:N1	2.89	0.41
26:14:1161:C:H1'	43:95:8:GLY:O	2.20	0.41
26:14:1197:G:H2'	26:14:1198:U:H6	1.85	0.41
26:14:1203:G:H3'	26:14:1204:A:H5"	2.01	0.41
38:45:69:PHE:CD1	38:45:70:PRO:HD2	2.54	0.41
41:75:99:LEU:HD22	41:75:101:PHE:HE1	1.85	0.41
42:85:98:LEU:HD12	42:85:98:LEU:O	2.20	0.41
44:A5:59:VAL:HG12	44:A5:60:ASN:OD1	2.21	0.41
53:J5:37:LYS:HA	53:J5:37:LYS:HD2	1.79	0.41
55:M5:16:ILE:HD11	55:M5:59:LYS:HG3	2.01	0.41
1:13:498:A:H4'	1:13:500:G:OP1	2.19	0.41
1:13:560:U:O2'	1:13:561:U:OP2	2.30	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:592:G:N3	1:13:593:G:C8	2.88	0.41
1:13:1070:U:H2'	1:13:1071:C:C6	2.53	0.41
3:2E:50:ALA:HB1	3:2E:70:VAL:HG21	2.02	0.41
12:3I:55:VAL:HG12	12:3I:69:TYR:HA	2.01	0.41
15:6I:26:GLU:HA	15:6I:81:LEU:HD22	2.02	0.41
23:2K:9:G:O2'	23:2K:10:G:N7	2.44	0.41
24:3K:35:U:H2'	24:3K:36:U:C6	2.56	0.41
24:3K:53:G:N2	24:3K:61:C:N3	2.60	0.41
26:1H:129:C:H2'	26:1H:130:C:H6	1.85	0.41
26:1H:165:U:H6	26:1H:165:U:H2'	1.66	0.41
26:1H:931:G:O3'	51:L8:24:LYS:NZ	2.53	0.41
26:1H:962:G:C2	26:1H:963:U:C2	3.07	0.41
26:1H:998:C:H2'	26:1H:999:U:O4'	2.20	0.41
26:1H:1011:G:C2	26:1H:1151:G:C2	3.09	0.41
26:1H:1427:A:H4'	26:1H:1428:C:O5'	2.20	0.41
26:1H:1540:G:H2'	26:1H:1541:U:O4'	2.20	0.41
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.54	0.41
26:1H:2086:U:H2'	26:1H:2087:G:C8	2.55	0.41
26:1H:2639:A:H1'	26:1H:2778:A:C2	2.55	0.41
28:71:45:ALA:O	28:71:171:ILE:HG22	2.21	0.41
29:11:93:ALA:HB3	29:11:105:ILE:HG22	2.02	0.41
31:31:81:PRO:CB	31:31:89:VAL:HG23	2.50	0.41
31:31:196:LEU:O	31:31:200:GLU:HB2	2.20	0.41
38:88:109:VAL:HG22	38:88:113:GLN:OE1	2.20	0.41
43:D8:48:GLY:O	43:D8:49:THR:O	2.38	0.41
51:L8:4:LEU:HD12	51:L8:4:LEU:H	1.85	0.41
1:1G:266:G:H5"	1:1G:267:C:C5	2.55	0.41
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.49	0.41
1:1G:436:C:H1'	4:32:157:LEU:HD22	2.01	0.41
1:1G:587:G:N2	1:1G:754:C:OP2	2.53	0.41
1:1G:625:G:C4	1:1G:626:U:C5	3.08	0.41
1:1G:1105:A:C2	1:1G:1106:G:N7	2.89	0.41
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.55	0.41
1:1G:1438:G:H2'	1:1G:1439:C:C6	2.56	0.41
2:12:101:MET:HB2	2:12:102:LEU:HD12	2.02	0.41
9:82:87:GLN:HG3	9:82:88:TYR:N	2.35	0.41
13:4A:96:LEU:C	13:4A:110:ARG:HG2	2.40	0.41
13:4A:108:ARG:HG3	13:4A:108:ARG:NH1	2.35	0.41
17:8A:43:LEU:HD12	17:8A:68:ARG:HG2	2.01	0.41
23:2L:19:G:O2'	23:2L:20:G:O5'	2.37	0.41
24:3L:36:U:O2'	24:3L:37:A:OP1	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:470:A:H5'	26:14:470:A:C8	2.54	0.41
26:14:529:A:H8	26:14:530:G:C6	2.38	0.41
26:14:603:A:C2	26:14:655:A:C2	3.09	0.41
26:14:1453:A:O2'	26:14:1454:U:H2'	2.20	0.41
26:14:1952:A:C6	36:25:22:ILE:CD1	3.03	0.41
26:14:2131:G:H5"	26:14:2133:G:C4'	2.49	0.41
26:14:2299:G:H2'	26:14:2300:G:C8	2.54	0.41
26:14:2536:G:C6	26:14:2537:U:C4	3.07	0.41
26:14:2723:C:OP2	30:29:109:LYS:NZ	2.53	0.41
26:14:2830:G:O6	61:14:3667:HOH:O	2.20	0.41
27:1J:66:A:H61	27:1J:107:U:H2'	1.84	0.41
29:19:31:LYS:HE3	29:19:102:LYS:HD3	2.02	0.41
29:19:70:TRP:CZ3	29:19:146:GLU:OE2	2.73	0.41
30:29:37:ARG:NH1	30:29:80:GLU:OE2	2.53	0.41
30:29:102:VAL:HB	30:29:199:ARG:O	2.21	0.41
32:49:107:LEU:HD11	32:49:178:PHE:CE1	2.54	0.41
46:C5:23:ARG:HG3	46:C5:24:VAL:N	2.35	0.41
48:E5:11:ARG:HE	48:E5:11:ARG:HB2	1.71	0.41
48:E5:47:PRO:HA	48:E5:51:VAL:HG12	2.02	0.41
54:L5:19:ARG:HG2	54:L5:19:ARG:HH11	1.84	0.41
1:13:134:A:H1'	1:13:325:A:C5	2.55	0.41
1:13:342:C:N3	1:13:348:G:C2	2.88	0.41
1:13:403:C:H4'	4:3E:122:ARG:NH1	2.35	0.41
1:13:468:A:H3'	1:13:474:G:C8	2.56	0.41
1:13:563:A:H2'	1:13:567:G:C8	2.55	0.41
1:13:819:A:H4'	1:13:820:U:OP2	2.21	0.41
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.49	0.41
1:13:1207:G:C6	1:13:1208:C:C4	3.09	0.41
4:3E:153:ARG:HB3	4:3E:181:MET:SD	2.60	0.41
4:3E:173:TRP:CD1	4:3E:189:PRO:HG3	2.55	0.41
8:7E:32:LYS:O	8:7E:36:LEU:HD12	2.21	0.41
9:8E:93:ARG:HB3	9:8E:93:ARG:NH1	2.36	0.41
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.51	0.41
22:1K:35:U:H2'	22:1K:36:U:O4'	2.20	0.41
26:1H:304:G:H2'	26:1H:305:U:C6	2.55	0.41
26:1H:654:A:N3	26:1H:654:A:H3'	2.35	0.41
26:1H:705:A:C2	26:1H:706:A:C4	3.07	0.41
26:1H:812:C:H5"	26:1H:1250:G:O2'	2.20	0.41
26:1H:978:G:C2	26:1H:986:C:N3	2.88	0.41
26:1H:1036:G:OP2	33:51:59:ARG:HG3	2.20	0.41
26:1H:1478:G:C6	26:1H:1510:A:N6	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1485:G:C2	26:1H:1486:A:C4	3.08	0.41
26:1H:1509:C:O3'	26:1H:1510:A:H4'	2.21	0.41
26:1H:1655:A:H4'	30:21:115:GLY:N	2.35	0.41
26:1H:1771:C:OP1	61:1H:3881:HOH:O	2.22	0.41
26:1H:2187:G:C6	26:1H:2188:C:C4	3.08	0.41
26:1H:2208:U:H4'	29:11:151:LYS:HG2	2.01	0.41
26:1H:2592:G:C2'	26:1H:2593:U:H5'	2.50	0.41
26:1H:2740:A:C6	26:1H:2764:A:C8	3.08	0.41
29:11:228:PRO:HD3	29:11:235:GLY:N	2.35	0.41
30:21:37:ARG:HA	30:21:42:ASP:OD2	2.21	0.41
31:31:39:TRP:CH2	31:31:106:ARG:HD2	2.55	0.41
31:31:178:PRO:HG2	31:31:179:GLU:CD	2.40	0.41
32:41:51:ARG:CZ	32:41:51:ARG:HB2	2.50	0.41
33:51:22:GLY:C	33:51:37:VAL:HG12	2.40	0.41
37:78:27:HIS:CD2	37:78:27:HIS:H	2.27	0.41
40:A8:20:ARG:HD2	40:A8:20:ARG:HA	1.86	0.41
42:C8:59:ARG:O	42:C8:63:VAL:HG23	2.20	0.41
42:C8:79:PHE:C	42:C8:79:PHE:CD1	2.94	0.41
47:H8:99:TYR:CE1	47:H8:125:LEU:HD13	2.56	0.41
49:J8:15:ALA:O	49:J8:40:ARG:HG3	2.20	0.41
1:1G:309:G:O2'	1:1G:607:A:N1	2.49	0.41
1:1G:393:A:OP2	16:7A:12:LYS:HD3	2.20	0.41
1:1G:551:U:H2'	1:1G:552:U:C6	2.55	0.41
1:1G:598:U:H4'	8:72:94:TYR:CG	2.56	0.41
1:1G:1104:G:H4'	2:12:111:ARG:HH21	1.85	0.41
1:1G:1152:A:O3'	10:1A:13:HIS:HE1	2.02	0.41
1:1G:1329:A:H2'	1:1G:1330:U:O4'	2.21	0.41
6:52:9:VAL:HB	6:52:87:ARG:HB2	2.01	0.41
12:3A:55:VAL:HA	12:3A:70:ILE:HG13	2.02	0.41
13:4A:56:LEU:O	13:4A:60:VAL:HG23	2.19	0.41
18:9A:22:VAL:CG1	18:9A:56:THR:HA	2.51	0.41
23:2L:9:G:O2'	23:2L:10:G:N7	2.42	0.41
23:2L:12:G:H4'	26:14:1908:C:O2	2.20	0.41
25:4L:7:G:H2'	25:4L:8:A:O4'	2.20	0.41
26:14:192:C:O2'	26:14:802:A:N3	2.46	0.41
26:14:933:A:C5	26:14:934:G:C8	3.08	0.41
26:14:1825:A:OP1	29:19:249:PRO:HD3	2.19	0.41
26:14:2056:G:H1	53:J5:3:LYS:HB3	1.85	0.41
26:14:2119:A:C5	26:14:2171:A:H2	2.39	0.41
26:14:2515:C:O2	26:14:2570:G:C2	2.73	0.41
26:14:2563:U:O2	26:14:2565:A:H8	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2707:G:H5'	39:55:68:ARG:HH21	1.85	0.41
26:14:2851:A:O3'	39:55:64:ARG:NH2	2.53	0.41
29:19:37:LEU:HD12	29:19:37:LEU:H	1.84	0.41
34:69:8:PRO:HD3	34:69:15:VAL:HG22	2.01	0.41
42:85:100:VAL:O	42:85:102:GLU:N	2.53	0.41
47:D5:70:LEU:HD23	47:D5:70:LEU:HA	1.77	0.41
48:E5:19:LYS:HA	48:E5:19:LYS:HD3	1.72	0.41
48:E5:27:GLU:HG3	48:E5:69:PHE:H	1.85	0.41
49:F5:85:LEU:O	49:F5:88:LYS:N	2.39	0.41
1:13:101:A:C6	1:13:102:G:C5	3.09	0.41
1:13:673:G:C4	1:13:734:G:C2	3.09	0.41
1:13:963:G:H1	1:13:972:C:N4	2.06	0.41
1:13:973:G:H4'	10:1I:54:PHE:O	2.21	0.41
1:13:1157:A:O2'	1:13:1158:C:H5"	2.20	0.41
1:13:1346:A:OP1	9:8E:120:ARG:NH1	2.51	0.41
2:1E:131:PRO:O	2:1E:135:GLN:HG3	2.21	0.41
3:2E:91:LEU:HB2	3:2E:99:VAL:HG21	2.01	0.41
4:3E:108:LEU:HB3	4:3E:110:PHE:HE1	1.86	0.41
5:4E:80:ILE:HG13	8:7E:104:ARG:HH22	1.85	0.41
6:5E:78:GLU:O	6:5E:81:ILE:HG22	2.20	0.41
8:7E:4:ASP:OD2	8:7E:85:ARG:NH1	2.53	0.41
26:1H:392:C:OP1	61:1H:3877:HOH:O	2.21	0.41
26:1H:445:C:O2'	26:1H:446:G:H5'	2.21	0.41
26:1H:790:C:H6	26:1H:790:C:H2'	1.74	0.41
26:1H:1006:C:O2	35:58:106:MET:HG2	2.20	0.41
26:1H:1166:C:H2'	26:1H:1167:U:C6	2.55	0.41
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.51	0.41
26:1H:1198:U:H2'	26:1H:1199:U:C6	2.55	0.41
26:1H:1359:A:H2	26:1H:1372:U:O4	2.01	0.41
26:1H:1389:G:C2	26:1H:1390:U:C2	3.08	0.41
26:1H:1598:C:H2'	26:1H:1599:C:H6	1.85	0.41
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.51	0.41
26:1H:1931:U:H5	26:1H:1969:A:N7	2.19	0.41
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.79	0.41
26:1H:2522:U:O2'	26:1H:2647:U:OP1	2.28	0.41
26:1H:2575:C:H5'	30:21:144:ARG:HB2	2.02	0.41
27:16:11:C:H3'	27:16:12:C:H6	1.85	0.41
31:31:134:GLY:HA2	31:31:166:ALA:HB2	2.02	0.41
33:51:155:SER:OG	33:51:158:HIS:N	2.53	0.41
34:61:138:ILE:HG12	34:61:139:GLN:H	1.85	0.41
41:B8:18:ASP:OD1	41:B8:18:ASP:N	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:93:GLU:O	49:J8:95:LEU:N	2.53	0.41
53:N8:16:ARG:HG3	53:N8:17:ASP:N	2.35	0.41
1:1G:167:G:O2'	1:1G:168:G:H5'	2.21	0.41
1:1G:191:G:C6	1:1G:192:U:C4	3.08	0.41
1:1G:216:G:O2'	1:1G:217:C:O5'	2.37	0.41
1:1G:468:A:C5	1:1G:474:G:H1'	2.56	0.41
1:1G:985:C:H2'	1:1G:986:A:H8	1.85	0.41
1:1G:1203:C:H2'	1:1G:1204:A:C8	2.55	0.41
1:1G:1239:A:O2'	7:62:114:ARG:O	2.26	0.41
1:1G:1249:C:H1'	9:82:70:LYS:HG3	2.02	0.41
4:32:151:LYS:NZ	61:32:401:HOH:O	2.51	0.41
9:82:18:PHE:HD2	9:82:62:TYR:HD2	1.68	0.41
11:2A:27:ASN:ND2	11:2A:55:LYS:HD2	2.36	0.41
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.86	0.41
13:4A:62:ASN:N	13:4A:62:ASN:OD1	2.52	0.41
13:4A:81:LEU:HD13	13:4A:81:LEU:HA	1.61	0.41
13:4A:102:ARG:NH1	13:4A:105:THR:HG23	2.36	0.41
26:14:298:G:N7	61:14:3541:HOH:O	2.52	0.41
26:14:697:C:C2	26:14:698:C:C5	3.08	0.41
26:14:827:U:H2'	26:14:2430:A:H2	1.85	0.41
26:14:873:G:H2'	26:14:874:G:O4'	2.21	0.41
26:14:1036:G:N2	26:14:1119:C:O2	2.53	0.41
26:14:1268:A:H2'	26:14:1269:A:O4'	2.20	0.41
26:14:1293:C:H6	26:14:1293:C:O5'	2.04	0.41
26:14:2115:G:H1'	26:14:2171:A:N1	2.34	0.41
26:14:2175:C:N4	26:14:2176:A:N7	2.68	0.41
26:14:2261:C:C5	48:E5:16:SER:HB3	2.55	0.41
26:14:2734:A:C8	26:14:2735:G:C8	3.09	0.41
26:14:2849:U:H1'	26:14:2866:U:O2	2.20	0.41
29:19:133:LEU:HD13	29:19:173:VAL:HG11	2.02	0.41
30:29:134:ILE:HG22	30:29:137:HIS:CG	2.55	0.41
31:39:20:LEU:HD13	31:39:199:TRP:HH2	1.85	0.41
31:39:123:LEU:HA	31:39:192:LEU:C	2.41	0.41
32:49:6:ALA:O	32:49:9:ARG:N	2.54	0.41
34:69:81:VAL:H	34:69:143:SER:CB	2.22	0.41
36:25:43:VAL:HG23	36:25:56:ASP:O	2.21	0.41
44:A5:58:ALA:HB1	44:A5:64:MET:HB2	2.02	0.41
46:C5:67:LEU:HD12	46:C5:67:LEU:HA	1.88	0.41
48:E5:21:LEU:HD23	48:E5:21:LEU:HA	1.87	0.41
49:F5:76:ARG:HB2	49:F5:94:LEU:HD13	2.02	0.41
1:13:3:G:H5"	1:13:5:U:H5"	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:130:A:C8	17:8I:63:ARG:HD3	2.56	0.41
1:13:649:G:C2	1:13:650:G:C8	3.08	0.41
1:13:1011:G:H2'	1:13:1012:U:O4'	2.21	0.41
1:13:1430:C:H2'	1:13:1431:C:C6	2.56	0.41
1:13:1432:G:OP1	41:B8:107:ASP:HB2	2.21	0.41
2:1E:187:LEU:HA	2:1E:201:ILE:HB	2.02	0.41
3:2E:48:TYR:O	3:2E:51:GLY:N	2.50	0.41
4:3E:164:ALA:O	4:3E:168:ARG:NE	2.53	0.41
5:4E:71:LEU:HD13	5:4E:114:GLY:HA3	2.02	0.41
6:5E:99:ALA:HB1	18:9I:23:LYS:HE3	2.02	0.41
15:6I:39:LEU:HD13	15:6I:56:LEU:HD12	2.02	0.41
23:2K:63:C:H2'	23:2K:64:G:H8	1.85	0.41
24:3K:36:U:H3'	24:3K:37:A:H4'	2.03	0.41
26:1H:654(A):A:N1	26:1H:654(T):A:N1	2.69	0.41
26:1H:730:C:H3'	61:1H:4566:HOH:O	2.18	0.41
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.35	0.41
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.19	0.41
26:1H:1154:G:H8	26:1H:1154:G:O5'	2.04	0.41
26:1H:1166:C:H2'	26:1H:1167:U:H6	1.85	0.41
26:1H:1423:G:N7	61:1H:3972:HOH:O	2.37	0.41
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.21	0.41
26:1H:1654:A:H1'	26:1H:2823:A:H5'	2.02	0.41
26:1H:1684:C:H2'	26:1H:1685:C:C6	2.56	0.41
26:1H:1831:G:H2'	26:1H:1832:C:H6	1.82	0.41
26:1H:2081:C:H2'	26:1H:2082:A:C8	2.56	0.41
27:16:14:U:H4'	27:16:15:A:OP2	2.20	0.41
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.56	0.41
30:21:63:LEU:O	30:21:66:HIS:HB3	2.21	0.41
30:21:169:ASN:OD1	30:21:201:THR:HG21	2.20	0.41
32:41:73:ALA:HA	32:41:88:ILE:HD11	2.03	0.41
32:41:174:GLU:O	32:41:177:GLY:N	2.45	0.41
33:51:173:PRO:HB2	33:51:174:GLY:HA3	2.03	0.41
37:78:32:THR:C	61:78:201:HOH:O	2.53	0.41
39:98:52:ILE:O	39:98:55:ALA:N	2.52	0.41
41:B8:2:ASN:O	41:B8:5:ALA:HB3	2.20	0.41
44:E8:51:LEU:HD23	44:E8:105:VAL:HG11	2.02	0.41
48:I8:25:ARG:HA	48:I8:29:GLN:OE1	2.20	0.41
1:1G:34:C:H2'	1:1G:35:G:C8	2.55	0.41
1:1G:438:G:N2	1:1G:495:A:OP2	2.41	0.41
1:1G:640:A:N3	8:72:115:SER:HB2	2.36	0.41
1:1G:719:C:H1'	18:9A:49:LYS:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1071:C:H5”	5:42:49:PRO:HG3	2.03	0.41
1:1G:1354:C:H2’	1:1G:1355:G:C8	2.55	0.41
2:12:97:TRP:HZ3	2:12:99:GLY:HA2	1.85	0.41
5:42:70:PRO:HB3	5:42:144:THR:HG22	2.02	0.41
7:62:45:ASP:O	7:62:49:ILE:HG12	2.20	0.41
16:7A:3:LYS:O	16:7A:21:VAL:HA	2.20	0.41
23:2L:36:A:H2’	23:2L:37:U:C6	2.56	0.41
24:3L:2:G:N2	24:3L:72:C:H1’	2.35	0.41
24:3L:41:A:H2’	24:3L:42:A:C8	2.55	0.41
26:14:314:A:H2’	26:14:315:G:C8	2.55	0.41
26:14:341:G:H2’	26:14:342:G:O4’	2.21	0.41
26:14:483:A:C5’	46:C5:49:VAL:HA	2.51	0.41
26:14:612:G:H2’	26:14:613:U:O2	2.21	0.41
26:14:621:A:H3’	26:14:622:G:H8	1.86	0.41
26:14:2228:G:C5	26:14:2229:C:C4	3.08	0.41
26:14:2275:C:O2	38:45:85:LYS:HD3	2.20	0.41
26:14:2415:G:C6	26:14:2416:C:C4	3.09	0.41
26:14:2762:G:H5’	26:14:2763:G:OP2	2.20	0.41
26:14:2820:A:C6	39:55:4:LEU:HD11	2.56	0.41
27:1J:87:G:N2	27:1J:89:G:H3’	2.35	0.41
29:19:77:ALA:HB2	29:19:97:TYR:CG	2.56	0.41
30:29:143:ASN:HD22	30:29:147:PRO:CD	2.32	0.41
31:39:88:VAL:HG23	31:39:89:VAL:O	2.21	0.41
31:39:89:VAL:O	31:39:90:PHE:C	2.59	0.41
32:49:44:GLY:HA2	32:49:88:ILE:HD11	2.02	0.41
32:49:111:LEU:HD23	32:49:117:PHE:CZ	2.55	0.41
32:49:145:THR:C	32:49:147:ASP:H	2.23	0.41
41:75:95:ARG:HD2	41:75:95:ARG:HA	1.88	0.41
46:C5:19:LYS:C	46:C5:21:LYS:H	2.23	0.41
55:M5:50:LEU:HD13	55:M5:50:LEU:HA	1.87	0.41
1:13:5:U:O2	1:13:5:U:H2’	2.20	0.41
1:13:11:G:C5	1:13:12:U:C5	3.08	0.41
1:13:37:U:O2’	1:13:500:G:H4’	2.21	0.41
1:13:129(A):G:C2	1:13:191(A):G:C8	3.09	0.41
1:13:157:G:H2’	1:13:158:G:C8	2.55	0.41
1:13:667:G:H4’	15:6I:51:HIS:ND1	2.36	0.41
1:13:682:G:H1	1:13:708:C:N4	2.18	0.41
1:13:1126:U:C5	1:13:1127:G:N7	2.89	0.41
2:1E:204:ASN:OD1	2:1E:205:ASP:N	2.53	0.41
6:5E:41:GLU:O	6:5E:43:LEU:HD12	2.20	0.41
9:8E:50:LEU:HB3	9:8E:85:LEU:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:32:ILE:HG12	11:2I:41:THR:O	2.21	0.41
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.85	0.41
12:3I:111:LYS:HD3	12:3I:111:LYS:HA	1.68	0.41
23:2K:54:G:C5	23:2K:55:5MU:H72	2.55	0.41
25:4K:14:A:H3'	25:4K:14:A:P	2.61	0.41
26:1H:241:A:H5'	26:1H:243:U:O4'	2.21	0.41
26:1H:270(V):G:C4	26:1H:270(W):G:C8	3.08	0.41
26:1H:301:G:C2	26:1H:302:C:C2	3.09	0.41
26:1H:638:G:C5	26:1H:651:G:C2	3.09	0.41
26:1H:945:A:C4	26:1H:2448:A:C2	3.09	0.41
26:1H:953:A:P	38:88:16:ARG:HD3	2.60	0.41
26:1H:1387:C:H5'	26:1H:1469:A:H4'	2.03	0.41
26:1H:1418:G:O5'	26:1H:1418:G:H8	2.04	0.41
26:1H:1709:U:H2'	26:1H:1710:C:C6	2.55	0.41
26:1H:1952:A:H5"	26:1H:1953:A:OP2	2.21	0.41
26:1H:1952:A:C2	36:68:22:ILE:HG23	2.55	0.41
26:1H:2475:C:H5"	26:1H:2475:C:H6	1.86	0.41
26:1H:2591:C:P	29:11:239:ARG:HG3	2.61	0.41
29:11:61:LEU:HA	29:11:61:LEU:HD13	1.55	0.41
31:31:32:LEU:C	31:31:32:LEU:HD12	2.41	0.41
32:41:67:LYS:HE2	32:41:67:LYS:H	1.86	0.41
35:58:46:VAL:O	35:58:47:ALA:HB3	2.20	0.41
36:68:2:ILE:HG13	36:68:8:LEU:HD11	2.02	0.41
40:A8:38:GLN:HG2	40:A8:47:THR:HG21	2.02	0.41
40:A8:85:VAL:H	40:A8:111:GLU:HG2	1.85	0.41
40:A8:87:PHE:CE1	40:A8:102:ALA:HB2	2.55	0.41
47:H8:76:LEU:HD23	47:H8:76:LEU:H	1.85	0.41
52:M8:47:GLN:HE21	52:M8:47:GLN:N	2.19	0.41
1:1G:57:G:C6	1:1G:58:C:C4	3.08	0.41
1:1G:229:U:H2'	1:1G:230:G:O4'	2.20	0.41
1:1G:625:G:H2'	1:1G:626:U:H6	1.86	0.41
1:1G:631:G:O2'	1:1G:632:A:P	2.79	0.41
1:1G:743:U:H2'	1:1G:744:C:C6	2.55	0.41
1:1G:833:U:O2'	1:1G:834:C:H5'	2.21	0.41
1:1G:938:A:N6	1:1G:939:G:C5	2.88	0.41
1:1G:1240:U:H2'	7:62:32:ARG:NH2	2.35	0.41
1:1G:1378:C:H5"	1:1G:1379:G:OP2	2.21	0.41
1:1G:1464:G:OP1	41:75:108:ARG:NH1	2.54	0.41
2:12:98:LEU:HD23	2:12:98:LEU:HA	1.79	0.41
2:12:219:VAL:HA	2:12:220:ASP:HB3	2.02	0.41
12:3A:110:VAL:HG23	12:3A:120:TYR:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:78:ILE:HD12	13:4A:92:HIS:CE1	2.55	0.41
15:6A:43:LEU:HD23	15:6A:43:LEU:HA	1.82	0.41
19:AA:70:LYS:HD2	19:AA:70:LYS:HA	1.90	0.41
20:BA:98:PRO:O	20:BA:100:ILE:N	2.54	0.41
26:14:34:C:O2'	26:14:35:G:O5'	2.35	0.41
26:14:139:G:N3	26:14:141:A:N1	2.68	0.41
26:14:303:U:H2'	26:14:304:G:H8	1.86	0.41
26:14:455:C:N3	26:14:472:A:H2'	2.36	0.41
26:14:971:C:H2'	26:14:972:G:C5'	2.51	0.41
26:14:1006:C:H1'	35:15:106:MET:HE3	2.03	0.41
26:14:1991:U:C2'	26:14:1992:G:H5"	2.51	0.41
26:14:2162:G:H3'	26:14:2164:C:H5	1.86	0.41
26:14:2722:G:H5"	26:14:2820:A:N7	2.35	0.41
30:29:27:LEU:HA	30:29:180:ASN:O	2.20	0.41
31:39:92:PRO:O	31:39:93:LYS:HD2	2.20	0.41
32:49:5:VAL:HB	32:49:8:LYS:HB3	2.02	0.41
32:49:48:GLU:H	32:49:48:GLU:HG2	1.52	0.41
32:49:174:GLU:HB2	32:49:180:PHE:CE2	2.53	0.41
34:69:61:ARG:NH1	34:69:64:GLU:HG2	2.35	0.41
35:15:34:LEU:HD12	35:15:34:LEU:HA	1.89	0.41
38:45:126:PRO:O	38:45:127:ILE:HG23	2.21	0.41
41:75:80:SER:HB3	41:75:83:ILE:HG13	2.02	0.41
46:C5:89:PHE:O	46:C5:90:LEU:HB3	2.21	0.41
1:13:137:C:H6	1:13:137:C:O5'	2.04	0.41
1:13:1369:C:H2'	1:13:1370:G:C8	2.55	0.41
5:4E:151:LEU:HA	5:4E:151:LEU:HD23	1.86	0.41
9:8E:86:VAL:O	9:8E:90:PRO:HB3	2.21	0.41
10:1I:54:PHE:CZ	10:1I:55:LYS:NZ	2.84	0.41
11:2I:54:ARG:NH1	24:3K:39:U:O2'	2.51	0.41
11:2I:103:LEU:HA	11:2I:103:LEU:HD12	1.91	0.41
23:2K:72:C:H2'	23:2K:73:A:O4'	2.21	0.41
26:1H:442:G:C4	26:1H:444:C:C5	3.09	0.41
26:1H:900:A:H5'	26:1H:901:A:P	2.61	0.41
26:1H:1110:G:O2'	26:1H:1111:A:H8	2.04	0.41
26:1H:1230:C:H2'	26:1H:1231:G:H8	1.85	0.41
26:1H:1348:G:C2'	26:1H:1349:A:H5"	2.50	0.41
26:1H:1535:U:H3'	26:1H:1537:C:C4	2.56	0.41
26:1H:1843:C:H5'	29:11:253:GLN:OE1	2.20	0.41
26:1H:2106:G:C6	26:1H:2107:C:C2	3.09	0.41
26:1H:2331:G:H4'	48:I8:42:GLY:HA3	2.03	0.41
26:1H:2697:G:H2'	26:1H:2698:U:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2744:G:H21	33:51:143:GLN:HE22	1.68	0.41
26:1H:2820:A:C5	39:98:4:LEU:HD11	2.55	0.41
26:1H:2851:A:N6	26:1H:2852:G:C6	2.89	0.41
27:16:32:C:C2	27:16:51:G:N2	2.89	0.41
28:71:225:ASN:HB3	28:71:227:HIS:ND1	2.35	0.41
30:21:18:ASP:HA	41:B8:82:LEU:HD11	2.03	0.41
32:41:56:ALA:HB2	32:41:153:ARG:HE	1.85	0.41
32:41:67:LYS:CE	52:M8:6:HIS:CE1	3.03	0.41
33:51:86:GLU:CD	33:51:165:ALA:HB3	2.41	0.41
37:78:95:VAL:HA	37:78:99:LEU:CD2	2.51	0.41
38:88:56:ARG:HD3	38:88:56:ARG:HA	1.79	0.41
49:J8:90:ILE:O	49:J8:92:LYS:N	2.53	0.41
50:K8:14:ARG:HB3	50:K8:15:LYS:HZ3	1.85	0.41
51:L8:7:LYS:HE2	51:L8:34:GLU:HG2	2.03	0.41
54:P8:8:ASN:OD1	54:P8:8:ASN:C	2.59	0.41
1:1G:5:U:H5”	1:1G:6:G:C5	2.56	0.41
1:1G:113:G:O4’	1:1G:354:G:H4’	2.21	0.41
1:1G:629:G:C6	1:1G:630:G:C8	3.09	0.41
1:1G:631:G:H8	1:1G:631:G:OP2	2.03	0.41
1:1G:1258:G:H2’	1:1G:1259:C:C6	2.55	0.41
4:32:3:ARG:HD2	4:32:118:ARG:NE	2.36	0.41
9:82:10:ARG:HD3	9:82:11:LYS:HB2	2.02	0.41
15:6A:4:THR:OG1	15:6A:7:GLU:HG3	2.20	0.41
15:6A:43:LEU:HD11	15:6A:53:HIS:HA	2.02	0.41
15:6A:81:LEU:O	15:6A:85:LEU:HB2	2.20	0.41
26:14:27:G:O2’	26:14:28:A:OP2	2.36	0.41
26:14:83:G:N2	26:14:103:A:OP2	2.47	0.41
26:14:654(B):C:HO2’	26:14:654(S):G:H1	1.64	0.41
26:14:666:G:H5”	37:35:47:ASP:O	2.21	0.41
26:14:696:G:H2’	26:14:697:C:C6	2.56	0.41
26:14:782:A:N7	29:19:221:VAL:HG21	2.36	0.41
26:14:817:C:H3’	26:14:818:G:H8	1.86	0.41
26:14:952:G:C6	26:14:966:G:C6	3.09	0.41
26:14:1519:G:C6	26:14:1520:U:N3	2.89	0.41
26:14:2099:U:H3	26:14:2190:G:H1	1.67	0.41
26:14:2295:C:H5	40:65:13:ARG:HH22	1.67	0.41
26:14:2312:U:OP2	32:49:74:LYS:HD2	2.21	0.41
26:14:2469:A:C2	26:14:2470:G:C5	3.09	0.41
26:14:2512:C:H4’	30:29:122:PHE:CE2	2.56	0.41
26:14:2772:C:H2’	26:14:2773:C:C6	2.56	0.41
27:1J:14:U:H4’	27:1J:15:A:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:104:TYR:O	29:19:105:ILE:HD12	2.20	0.41
30:29:65:GLY:N	30:29:73:GLU:OE1	2.54	0.41
31:39:36:VAL:O	31:39:40:GLN:HB2	2.21	0.41
34:69:128:LEU:O	34:69:138:ILE:HG22	2.21	0.41
37:35:126:VAL:HG13	37:35:145:PRO:HB2	2.02	0.41
46:C5:87:LYS:HB2	46:C5:96:ILE:HD13	2.02	0.41
1:13:188:U:H2'	1:13:189:U:H5"	2.03	0.41
1:13:265:G:O2'	17:8I:67:LYS:N	2.53	0.41
1:13:389:A:H2'	1:13:390:C:O4'	2.20	0.41
1:13:454:C:H3'	1:13:455:C:C6	2.56	0.41
1:13:556:C:H2'	1:13:557:G:H8	1.85	0.41
1:13:715:A:H2'	1:13:716:A:C8	2.56	0.41
1:13:953:G:OP2	61:13:1845:HOH:O	2.21	0.41
1:13:988:G:N2	1:13:1218:C:C2	2.88	0.41
1:13:1112:C:O5'	1:13:1112:C:H6	2.04	0.41
1:13:1256:A:H5"	1:13:1258:G:N3	2.35	0.41
2:1E:155:LEU:HD23	2:1E:155:LEU:HA	1.72	0.41
3:2E:179:ARG:HB2	3:2E:206:GLU:HG2	2.03	0.41
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	2.02	0.41
4:3E:98:GLU:HG3	4:3E:103:ASN:HD21	1.86	0.41
6:5E:62:TRP:CH2	6:5E:64:GLN:HG3	2.56	0.41
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.68	0.41
11:2I:32:ILE:HG12	11:2I:32:ILE:H	1.74	0.41
15:6I:17:ARG:NH1	15:6I:77:ARG:HD2	2.35	0.41
17:8I:4:LYS:HZ2	17:8I:6:LEU:HD21	1.86	0.41
19:AI:41:VAL:HG13	19:AI:41:VAL:H	1.58	0.41
20:BI:30:LYS:HA	20:BI:30:LYS:HD2	1.74	0.41
22:1K:4:U:H2'	22:1K:5:C:O4'	2.21	0.41
22:1K:52:G:H2'	22:1K:53:G:C8	2.55	0.41
22:1K:57:G:H2'	22:1K:58:A:H5'	2.01	0.41
24:3K:22:G:N7	24:3K:46:G:C2	2.89	0.41
26:1H:18:C:H4'	42:C8:23:GLY:O	2.21	0.41
26:1H:248:G:H2'	61:1H:4224:HOH:O	2.20	0.41
26:1H:301:G:HO2'	26:1H:302:C:H6	1.69	0.41
26:1H:404:C:H1'	26:1H:405:U:OP2	2.21	0.41
26:1H:932:G:H4'	26:1H:933:A:O5'	2.20	0.41
26:1H:1023:U:H4'	26:1H:1123:C:OP1	2.21	0.41
26:1H:1179:C:H2'	26:1H:1180:C:H6	1.86	0.41
26:1H:1263:U:H2'	26:1H:1264:G:O4'	2.21	0.41
26:1H:1529:A:H2'	26:1H:1530:G:O4'	2.20	0.41
26:1H:2017:U:O2	53:N8:10:LYS:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2101:G:N1	26:1H:2189:U:O2	2.54	0.41
26:1H:2109:U:C4	26:1H:2110:G:O6	2.74	0.41
26:1H:2131:G:P	26:1H:2131:G:H8	2.44	0.41
26:1H:2309:A:C6	26:1H:2310:A:N7	2.88	0.41
26:1H:2563:U:H1'	26:1H:2566:A:N6	2.36	0.41
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.21	0.41
27:16:82:G:H2'	27:16:83:G:O4'	2.21	0.41
29:11:70:TRP:CH2	29:11:150:LYS:HA	2.56	0.41
29:11:182:LEU:N	29:11:272:ALA:HB3	2.14	0.41
30:21:2:LYS:HA	30:21:84:PHE:CD1	2.56	0.41
30:21:37:ARG:NH1	30:21:42:ASP:OD1	2.51	0.41
33:51:97:ARG:HH21	33:51:104:GLU:CD	2.21	0.41
40:A8:5:THR:O	40:A8:8:GLU:HG3	2.20	0.41
42:C8:90:VAL:CG2	43:D8:39:LEU:HB3	2.49	0.41
43:D8:62:LEU:HD12	43:D8:62:LEU:HA	1.68	0.41
44:E8:64:MET:HE3	44:E8:64:MET:HB3	1.91	0.41
45:F8:32:PRO:HA	45:F8:77:LYS:HD2	2.03	0.41
45:F8:41:ASN:N	45:F8:41:ASN:OD1	2.54	0.41
1:1G:51:A:C6	1:1G:353:A:C2	3.09	0.41
1:1G:120:A:H2'	1:1G:121:C:H4'	2.02	0.41
1:1G:191(C):G:H2'	1:1G:191(D):U:O4'	2.21	0.41
1:1G:323:U:H2'	1:1G:324:G:O4'	2.20	0.41
1:1G:538:G:H2'	1:1G:539:A:C8	2.55	0.41
1:1G:577:G:C4	1:1G:816:A:C2	3.09	0.41
1:1G:689:C:C2'	1:1G:690:G:H5'	2.51	0.41
1:1G:728:A:C2	1:1G:729:A:C5	3.08	0.41
1:1G:738:C:H2'	1:1G:739:C:H6	1.86	0.41
1:1G:811:C:H5"	1:1G:898:G:H4'	2.03	0.41
1:1G:1005:A:H4'	1:1G:1037:C:O2'	2.21	0.41
1:1G:1099:G:H5'	1:1G:1100:C:OP2	2.21	0.41
1:1G:1104:G:H4'	2:12:111:ARG:NE	2.30	0.41
1:1G:1145:C:H5"	1:1G:1146:A:OP1	2.20	0.41
1:1G:1158:C:N3	1:1G:1160:G:C8	2.89	0.41
1:1G:1241:G:OP1	7:62:35:LYS:NZ	2.54	0.41
1:1G:1267:C:O2	1:1G:1267:C:H2'	2.19	0.41
1:1G:1273:G:C2	1:1G:1274:G:H1'	2.56	0.41
1:1G:1273:G:C4	1:1G:1274:G:C8	3.09	0.41
1:1G:1302:U:C6	13:4A:17:VAL:HG11	2.56	0.41
1:1G:1469:G:H2'	1:1G:1470:G:H8	1.86	0.41
1:1G:1517:G:H1'	26:14:1919:A:O3'	2.20	0.41
1:1G:1535:C:N4	25:4L:10:G:H21	2.15	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:34:ALA:H	2:12:41:ILE:HG23	1.86	0.41
2:12:124:SER:O	2:12:126:GLU:N	2.48	0.41
2:12:189:ASP:HB3	2:12:203:GLY:O	2.21	0.41
5:42:33:VAL:HG22	5:42:43:LEU:HB2	2.02	0.41
8:72:11:THR:HG23	8:72:14:ARG:HH12	1.85	0.41
8:72:25:ASP:OD1	8:72:25:ASP:N	2.52	0.41
11:2A:59:TYR:CZ	11:2A:63:LEU:HD21	2.56	0.41
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.86	0.41
20:BA:87:LYS:HE3	20:BA:87:LYS:HB2	1.70	0.41
24:3L:22:G:C8	24:3L:46:G:N2	2.88	0.41
24:3L:52:G:C6	24:3L:63:U:C4	3.09	0.41
24:3L:55:U:H2'	24:3L:57:G:OP1	2.21	0.41
26:14:6:A:C4	35:15:129:PRO:HG2	2.55	0.41
26:14:142:G:H2'	26:14:143:C:C6	2.56	0.41
26:14:196:A:C4	26:14:805:G:C6	3.09	0.41
26:14:359:A:H8	26:14:359:A:O5'	2.02	0.41
26:14:483:A:C1'	46:C5:60:PHE:HE1	2.31	0.41
26:14:563:G:O6	61:14:3668:HOH:O	2.21	0.41
26:14:569:U:C4	26:14:570:G:C6	3.09	0.41
26:14:594:U:O5'	26:14:594:U:H6	2.04	0.41
26:14:601:C:OP1	31:39:108:LYS:NZ	2.48	0.41
26:14:663:G:H2'	26:14:664:C:O4'	2.21	0.41
26:14:847:U:P	61:14:3673:HOH:O	2.77	0.41
26:14:1000:A:C6	26:14:1001:A:N1	2.89	0.41
26:14:1378:A:H5'	54:L5:10:ARG:HH12	1.86	0.41
26:14:1573:G:C8	26:14:1574:C:C5	3.09	0.41
26:14:1585:C:O2	26:14:1585:C:H2'	2.19	0.41
26:14:1814:G:H5"	29:19:54:ARG:NH1	2.36	0.41
26:14:1992:G:O5'	26:14:1992:G:C8	2.74	0.41
26:14:2257:U:O2'	26:14:2258:C:H5'	2.20	0.41
26:14:2262:U:H4'	26:14:2328:A:H2	1.83	0.41
26:14:2286:A:H4'	26:14:2287:A:O4'	2.21	0.41
26:14:2360:A:O5'	26:14:2360:A:H8	2.03	0.41
26:14:2422:A:H4'	26:14:2422:A:OP1	2.21	0.41
26:14:2467:C:H4'	38:45:123:HIS:CG	2.55	0.41
26:14:2517:C:C2	26:14:2542:A:N1	2.88	0.41
26:14:2531:A:H61	26:14:2662:A:H61	1.68	0.41
26:14:2629:A:H3'	26:14:2629:A:OP2	2.20	0.41
26:14:2658:C:H2'	26:14:2659:G:O4'	2.21	0.41
27:1J:78:A:H2'	27:1J:79:C:O4'	2.20	0.41
29:19:245:PRO:HA	29:19:246:PRO:HD3	1.96	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:89:ASP:O	30:29:90:THR:OG1	2.35	0.41
33:59:10:PRO:O	33:59:12:PRO:HD3	2.21	0.41
33:59:26:VAL:HG13	33:59:79:VAL:HG11	2.01	0.41
33:59:86:GLU:OE2	33:59:165:ALA:HB2	2.20	0.41
34:69:73:GLU:OE2	34:69:137:PRO:HD2	2.20	0.41
34:69:76:THR:CG2	34:69:140:LEU:HD12	2.50	0.41
36:25:10:VAL:HG12	36:25:19:ILE:HG12	2.03	0.41
39:55:56:LYS:HE3	39:55:88:ARG:HA	2.03	0.41
40:65:93:LYS:HG2	40:65:95:HIS:HB3	2.01	0.41
42:85:100:VAL:C	42:85:102:GLU:H	2.23	0.41
44:A5:73:ALA:H	44:A5:106:ILE:HG12	1.86	0.41
46:C5:19:LYS:HB3	46:C5:20:TYR:H	1.68	0.41
47:D5:161:VAL:HG22	47:D5:161:VAL:H	1.54	0.41
48:E5:43:THR:HG23	48:E5:46:LYS:HE2	2.03	0.41
53:J5:19:ARG:HH11	53:J5:19:ARG:HD2	1.70	0.41
54:L5:8:ASN:OD1	54:L5:8:ASN:C	2.59	0.41
1:13:57:G:C6	1:13:58:C:C4	3.10	0.41
1:13:658:G:H2'	1:13:659:U:C6	2.55	0.41
1:13:1126:U:C4	1:13:1127:G:C4	3.08	0.41
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.55	0.41
1:13:1298:C:H4'	1:13:1299:A:O4'	2.20	0.41
1:13:1442:G:C6	1:13:1446:A:C6	3.09	0.41
2:1E:209:ARG:HH11	2:1E:239:VAL:HG13	1.86	0.41
3:2E:155:GLY:O	3:2E:157:ILE:HG13	2.21	0.41
4:3E:86:LYS:HD3	4:3E:86:LYS:N	2.35	0.41
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.88	0.41
5:4E:63:ARG:HB2	5:4E:64:ARG:NH1	2.35	0.41
6:5E:35:ALA:HA	6:5E:67:MET:HB3	2.03	0.41
7:6E:27:ILE:CD1	7:6E:40:ALA:HA	2.51	0.41
8:7E:86:ILE:HG22	8:7E:87:SER:N	2.36	0.41
13:4I:16:ASP:OD1	13:4I:16:ASP:N	2.54	0.41
13:4I:32:GLU:O	13:4I:35:GLU:HG2	2.21	0.41
15:6I:39:LEU:O	15:6I:42:HIS:N	2.54	0.41
23:2K:63:C:H2'	23:2K:64:G:C8	2.56	0.41
24:3K:2:G:N1	24:3K:72:C:H1'	2.36	0.41
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.21	0.41
26:1H:266:G:C6	26:1H:267:C:C5	3.09	0.41
26:1H:444:C:H2'	26:1H:445:C:H6	1.86	0.41
26:1H:1419:A:C8	26:1H:1421:G:C6	3.08	0.41
26:1H:1992:G:H5'	26:1H:1994:C:H41	1.87	0.41
26:1H:2355:C:H5"	26:1H:2356:C:OP2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.56	0.41
29:11:80:ALA:HB2	29:11:96:HIS:CD2	2.55	0.41
29:11:120:GLY:O	29:11:123:ALA:HB2	2.21	0.41
40:A8:32:LEU:N	40:A8:32:LEU:HD23	2.35	0.41
41:B8:110:ILE:HG13	41:B8:111:ARG:N	2.35	0.41
41:B8:114:LEU:HD23	41:B8:114:LEU:HA	1.65	0.41
42:C8:92:ARG:NH2	43:D8:10:LYS:HB3	2.36	0.41
43:D8:60:GLU:HB2	43:D8:97:LYS:HE2	2.03	0.41
44:E8:30:GLU:O	44:E8:34:ASN:ND2	2.54	0.41
46:G8:17:SER:OG	46:G8:71:LYS:HD2	2.21	0.41
48:I8:10:THR:HB	48:I8:12:ASN:H	1.86	0.41
49:J8:91:LYS:O	49:J8:91:LYS:NZ	2.41	0.41
50:K8:64:LEU:HD21	50:K8:68:ARG:NH1	2.36	0.41
1:1G:182:U:H3'	1:1G:183:G:H8	1.85	0.41
1:1G:391:G:OP2	61:1G:1861:HOH:O	2.22	0.41
1:1G:407:G:C2	1:1G:436:C:C2	3.09	0.41
1:1G:750:G:H1'	15:6A:23:GLY:H	1.86	0.41
1:1G:1134:G:C6	1:1G:1135:U:C2	3.09	0.41
1:1G:1320:C:N4	1:1G:1321:C:H41	2.19	0.41
1:1G:1327:C:OP2	21:1B:12:LYS:NZ	2.54	0.41
2:12:30:ARG:HG3	2:12:31:TYR:CE1	2.55	0.41
3:22:178:LEU:HD13	3:22:178:LEU:HA	1.86	0.41
4:32:59:ARG:HA	4:32:62:GLN:HB2	2.01	0.41
7:62:65:ALA:HB2	7:62:124:LEU:O	2.21	0.41
11:2A:48:ILE:HG21	11:2A:63:LEU:HB3	2.03	0.41
18:9A:51:LEU:HD22	18:9A:55:ARG:HG3	2.03	0.41
26:14:616:A:C5	31:39:180:GLY:HA3	2.56	0.41
26:14:675:A:N6	26:14:676:A:N6	2.68	0.41
26:14:1338:G:N3	26:14:1393:A:H2	2.19	0.41
26:14:1669:A:H5"	26:14:1670:C:OP2	2.21	0.41
26:14:2401:U:H2'	26:14:2402:C:H5"	2.03	0.41
27:1J:84:C:OP1	51:H5:15:TYR:OH	2.31	0.41
27:1J:103:U:O2'	47:D5:72:ARG:HG3	2.20	0.41
27:1J:116:G:H5'	40:65:55:ALA:HB2	2.02	0.41
29:19:3:VAL:HG23	29:19:200:ASP:OD2	2.21	0.41
38:45:27:VAL:HG13	38:45:136:ALA:CB	2.51	0.41
41:75:50:ILE:HD11	41:75:102:ILE:HG12	2.03	0.41
46:C5:75:ILE:HG13	46:C5:80:GLY:HA2	2.02	0.41
1:13:122:G:O5'	1:13:122:G:H8	2.04	0.40
1:13:143:A:OP1	1:13:144:G:H5'	2.20	0.40
1:13:153:C:N3	1:13:168:G:N2	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:182:U:H5	1:13:183:G:C4	2.38	0.40
1:13:452:A:H2'	1:13:453:A:C8	2.56	0.40
1:13:468:A:O2'	16:7I:82:GLN:HG2	2.21	0.40
1:13:778:G:H8	1:13:778:G:O5'	2.04	0.40
1:13:951:G:O2'	1:13:972:C:H5	2.03	0.40
1:13:965:A:C2	1:13:969:A:C2	3.09	0.40
1:13:1092:A:N3	1:13:1183:A:N6	2.69	0.40
1:13:1116:C:H42	1:13:1184:G:H1	1.69	0.40
1:13:1125:U:C4	1:13:1126:U:C4	3.10	0.40
1:13:1127:G:H21	1:13:1148:U:H3	1.69	0.40
1:13:1182:G:H4'	1:13:1183:A:C5'	2.50	0.40
1:13:1256:A:O2'	1:13:1257:U:P	2.79	0.40
1:13:1269:A:H2	1:13:1312:G:N3	2.19	0.40
1:13:1468:A:H5"	1:13:1469:G:OP2	2.22	0.40
2:1E:11:LEU:HD21	2:1E:209:ARG:NH2	2.36	0.40
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.61	0.40
6:5E:62:TRP:C	6:5E:63:TYR:CD1	2.94	0.40
8:7E:40:ALA:HB2	8:7E:47:GLY:HA2	2.01	0.40
8:7E:77:GLU:HG2	8:7E:78:GLN:N	2.36	0.40
17:8I:100:LYS:HG2	17:8I:101:ARG:NE	2.37	0.40
18:9I:47:THR:O	18:9I:83:GLU:N	2.50	0.40
26:1H:10:G:H2'	26:1H:11:G:O4'	2.21	0.40
26:1H:274:G:OP1	26:1H:274:G:C4	2.74	0.40
26:1H:325:G:H2'	26:1H:326:G:H8	1.86	0.40
26:1H:1190:G:H5"	37:78:32:THR:O	2.21	0.40
26:1H:1439:A:H2'	26:1H:1440:G:O4'	2.21	0.40
26:1H:1965:C:H3'	26:1H:1966:A:H2'	2.02	0.40
26:1H:1992:G:H1'	61:1H:4065:HOH:O	2.21	0.40
26:1H:2030:A:H4'	26:1H:2031:A:C8	2.56	0.40
26:1H:2070:G:C2	26:1H:2442:C:C2	3.09	0.40
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.56	0.40
26:1H:2804:C:H5'	26:1H:2805:G:OP2	2.21	0.40
32:41:35:GLU:OE1	32:41:36:LYS:N	2.54	0.40
33:51:124:GLU:O	33:51:131:VAL:HA	2.22	0.40
35:58:30:ILE:HG22	35:58:34:LEU:HD22	2.02	0.40
36:68:88:ASN:OD1	36:68:90:GLN:N	2.52	0.40
38:88:4:PRO:HD3	38:88:70:PRO:O	2.20	0.40
39:98:55:ALA:HB1	39:98:84:ALA:HB2	2.03	0.40
45:F8:2:LYS:HE3	45:F8:38:GLU:OE2	2.21	0.40
1:1G:115:G:C2	1:1G:289:G:N7	2.89	0.40
1:1G:186(C):G:H2'	1:1G:186(D):C:O4'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:341:C:H2'	1:1G:342:C:C6	2.56	0.40
1:1G:440:A:H3'	1:1G:442:C:C6	2.56	0.40
2:12:218:ALA:O	2:12:219:VAL:HG22	2.21	0.40
3:22:156:ARG:HB3	3:22:160:ALA:O	2.21	0.40
5:42:90:VAL:O	5:42:120:THR:HA	2.21	0.40
7:62:94:ARG:HA	7:62:97:GLN:HB3	2.02	0.40
19:AA:21:GLU:H	19:AA:21:GLU:HG2	1.46	0.40
20:BA:12:ALA:O	20:BA:15:ARG:HB2	2.20	0.40
56:1L:9:A:H3'	56:1L:10:G:C8	2.56	0.40
56:1L:22:G:H2'	56:1L:23:A:C8	2.56	0.40
56:1L:22:G:H2'	56:1L:23:A:H8	1.85	0.40
23:2L:73:A:N6	23:2L:74:A:C6	2.89	0.40
26:14:8:A:H2'	26:14:9:U:C5	2.56	0.40
26:14:68:G:H2'	26:14:69:C:O4'	2.20	0.40
26:14:196:A:N3	26:14:196:A:H2'	2.36	0.40
26:14:585:G:O6	26:14:1251:C:O2'	2.35	0.40
26:14:959:A:N1	26:14:960:A:C2	2.89	0.40
26:14:960:A:C8	26:14:962:G:C8	3.09	0.40
26:14:1011:G:OP2	42:85:66:ASN:ND2	2.46	0.40
26:14:1187:G:H8	26:14:1187:G:O5'	2.04	0.40
26:14:1247:A:C2	26:14:1249:U:C6	3.08	0.40
26:14:1288:U:O2	26:14:1327:C:C2	2.74	0.40
26:14:1410:G:N2	26:14:1593:G:C4	2.90	0.40
26:14:1461:G:H2'	26:14:1462:C:C6	2.56	0.40
26:14:1971:A:OP2	29:19:242:ARG:NH2	2.54	0.40
26:14:2231:C:H2'	26:14:2232:U:O4'	2.21	0.40
26:14:2364:C:H4'	48:E5:56:ASP:OD1	2.22	0.40
26:14:2516:G:C5	26:14:2517:C:C5	3.09	0.40
27:1J:10:C:C4	27:1J:11:C:C5	3.09	0.40
36:25:113:LYS:CD	36:25:113:LYS:H	2.31	0.40
38:45:16:ARG:HE	38:45:16:ARG:HB3	1.13	0.40
38:45:57:HIS:CE1	38:45:116:GLU:HB3	2.56	0.40
41:75:85:LYS:NZ	41:75:87:ASP:OD2	2.34	0.40
44:A5:62:HIS:HB2	44:A5:64:MET:HG3	2.01	0.40
48:E5:69:PHE:CE1	48:E5:79:VAL:HG22	2.55	0.40
55:M5:49:VAL:HA	55:M5:50:LEU:HB3	2.03	0.40
1:13:595:G:N1	1:13:641:U:O2'	2.52	0.40
1:13:960:U:C6	1:13:1225:A:C8	3.09	0.40
3:2E:11:ARG:HH21	3:2E:180:ALA:HB3	1.87	0.40
7:6E:124:LEU:HD23	7:6E:124:LEU:HA	1.79	0.40
8:7E:11:THR:HG23	8:7E:14:ARG:NH1	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:78:GLN:O	11:2I:103:LEU:HD12	2.20	0.40
16:7I:4:ILE:O	16:7I:66:PRO:HA	2.21	0.40
16:7I:74:LEU:O	16:7I:79:VAL:HB	2.21	0.40
17:8I:11:VAL:O	17:8I:53:LEU:HD11	2.20	0.40
19:AI:67:VAL:CG1	52:M8:56:VAL:HA	2.51	0.40
26:1H:34:C:HO2'	26:1H:35:G:P	2.41	0.40
26:1H:51:G:N3	26:1H:119:A:C2	2.89	0.40
26:1H:247:G:O2'	26:1H:250:G:N7	2.45	0.40
26:1H:343:C:O2'	26:1H:344:G:H5'	2.21	0.40
26:1H:556:G:H2'	26:1H:557:U:C6	2.56	0.40
26:1H:631:A:H5'	61:1H:5004:HOH:O	2.22	0.40
26:1H:806:C:OP2	37:78:41:ARG:HD3	2.22	0.40
26:1H:836:G:C5	26:1H:837:C:C4	3.09	0.40
26:1H:924:C:H2'	26:1H:925:C:C6	2.56	0.40
26:1H:1142(A):A:C4	26:1H:1144:G:N7	2.89	0.40
26:1H:1204:A:OP1	26:1H:1204:A:H8	2.04	0.40
26:1H:1268:A:C2	26:1H:2013:A:C4	3.09	0.40
26:1H:2516:G:C6	26:1H:2517:C:C4	3.09	0.40
26:1H:2592:G:C6	26:1H:2593:U:C4	3.09	0.40
26:1H:2652:C:H2'	26:1H:2653:U:O4'	2.22	0.40
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.56	0.40
27:16:106:G:H2'	27:16:107:U:O4'	2.21	0.40
29:11:159:ALA:HB1	29:11:198:ASN:O	2.21	0.40
31:31:101:LEU:HD23	31:31:102:PRO:N	2.36	0.40
35:58:31:ALA:O	35:58:35:ARG:HG3	2.21	0.40
37:78:59:LEU:HD13	55:Q8:58:ILE:HD12	2.04	0.40
37:78:114:ILE:HD13	37:78:114:ILE:HG21	1.88	0.40
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.22	0.40
46:G8:4:LYS:HD3	46:G8:4:LYS:HA	1.48	0.40
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.56	0.40
51:L8:26:LEU:HB2	51:L8:28:LEU:HD12	2.03	0.40
55:Q8:7:HIS:CD2	55:Q8:61:LEU:HD13	2.56	0.40
1:1G:271:C:H2'	1:1G:272:C:C6	2.56	0.40
1:1G:922:G:P	5:42:20:GLN:HE22	2.43	0.40
1:1G:1078:U:C4	1:1G:1079:G:C5	3.10	0.40
1:1G:1155:G:C6	1:1G:1156:G:C2	3.08	0.40
1:1G:1229:A:H2'	1:1G:1230:C:C6	2.56	0.40
1:1G:1343:G:H2'	1:1G:1344:C:H6	1.86	0.40
1:1G:1346:A:H2'	7:62:10:ARG:HH22	1.84	0.40
2:12:103:THR:HG23	2:12:176:GLU:HB3	2.02	0.40
4:32:150:GLU:O	4:32:152:SER:N	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:141:VAL:HA	7:62:142:GLU:CB	2.51	0.40
9:82:26:VAL:HG22	9:82:61:ALA:N	2.36	0.40
9:82:53:VAL:HG13	9:82:95:LYS:HE3	2.02	0.40
9:82:111:ARG:HD2	14:5A:61:TRP:C	2.41	0.40
10:1A:27:ALA:HA	10:1A:30:SER:HB3	2.03	0.40
11:2A:81:ASP:OD1	11:2A:81:ASP:N	2.54	0.40
13:4A:116:THR:O	13:4A:116:THR:HG22	2.22	0.40
56:1L:37:A:C6	25:4L:19:G:C5	3.09	0.40
24:3L:59:A:C2	24:3L:60:U:O4'	2.74	0.40
26:14:630:G:N2	26:14:633:A:OP2	2.46	0.40
26:14:696:G:H2'	26:14:697:C:H6	1.85	0.40
26:14:981:A:H8	26:14:982:C:C5	2.40	0.40
26:14:1375:C:O5'	61:14:3670:HOH:O	2.21	0.40
26:14:2259:G:C2	26:14:2282:G:N1	2.89	0.40
26:14:2862:G:H2'	26:14:2863:C:H6	1.85	0.40
27:1J:76:G:N7	61:1J:304:HOH:O	2.37	0.40
29:19:260:ARG:NH1	29:19:267:SER:HB3	2.30	0.40
30:29:52:LEU:HD12	30:29:52:LEU:HA	1.62	0.40
34:69:22:LYS:O	34:69:25:TYR:N	2.54	0.40
34:69:77:LEU:CD2	34:69:78:THR:H	2.32	0.40
36:25:10:VAL:HG21	36:25:16:ALA:HB3	2.03	0.40
37:35:86:LYS:HD2	37:35:117:GLU:HG2	2.03	0.40
38:45:29:PHE:N	38:45:105:GLU:OE1	2.54	0.40
38:45:32:TYR:CD1	38:45:32:TYR:N	2.90	0.40
43:95:27:ALA:HB1	43:95:61:VAL:HG21	2.03	0.40
44:A5:14:PRO:HG2	44:A5:78:GLU:CG	2.52	0.40
44:A5:41:LYS:HD3	44:A5:41:LYS:HA	1.90	0.40
44:A5:96:ILE:HD11	44:A5:98:LYS:HG3	2.02	0.40
48:E5:36:ILE:HD12	48:E5:58:THR:HG23	2.02	0.40
49:F5:67:ILE:O	49:F5:70:VAL:HB	2.20	0.40
1:13:46:G:H2'	1:13:366:C:C5	2.56	0.40
1:13:187:C:O2	1:13:191(A):G:N1	2.54	0.40
1:13:438:G:H4'	4:3E:123:HIS:NE2	2.36	0.40
1:13:592:G:H1	1:13:647:C:H42	1.69	0.40
1:13:760:G:O2'	17:8I:98:LEU:HD22	2.21	0.40
1:13:843:U:O2	1:13:843:U:H2'	2.20	0.40
1:13:971:G:N2	1:13:1363:A:OP2	2.48	0.40
1:13:1124:G:O2'	1:13:1145:C:C4	2.74	0.40
1:13:1142:G:H2'	1:13:1143:G:O4'	2.22	0.40
1:13:1330:U:H4'	13:4I:23:TYR:CE1	2.56	0.40
1:13:1351:U:H2'	1:13:1352:C:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1415:G:C6	1:13:1486:G:C6	3.10	0.40
1:13:1504:G:H4'	1:13:1505:G:C4	2.57	0.40
2:1E:18:GLY:HA2	2:1E:42:ILE:HG13	2.02	0.40
2:1E:55:PHE:HD1	2:1E:55:PHE:HA	1.72	0.40
5:4E:63:ARG:HB2	5:4E:64:ARG:HH12	1.86	0.40
10:1I:13:HIS:HA	10:1I:16:LEU:HB3	2.04	0.40
15:6I:56:LEU:O	15:6I:60:VAL:HG23	2.21	0.40
17:8I:11:VAL:HG23	17:8I:20:THR:HB	2.02	0.40
20:BI:35:THR:O	20:BI:38:LYS:HB2	2.21	0.40
25:4K:9:G:H3'	25:4K:10:G:O4'	2.21	0.40
26:1H:141:A:H8	26:1H:1408:C:H1'	1.85	0.40
26:1H:780:G:H21	26:1H:783:A:N6	2.06	0.40
26:1H:784:A:N1	61:1H:3969:HOH:O	2.37	0.40
26:1H:828:U:H4'	26:1H:831:G:N1	2.35	0.40
26:1H:1045:A:OP1	26:1H:1045:A:H4'	2.22	0.40
26:1H:1197:G:H2'	26:1H:1198:U:C6	2.56	0.40
26:1H:2391:G:O6	26:1H:2425:A:H8	2.05	0.40
26:1H:2849:U:H1'	26:1H:2866:U:O2	2.22	0.40
26:1H:2854:G:H2'	26:1H:2855:C:H6	1.85	0.40
27:16:12:C:N3	48:I8:74:ARG:NH1	2.69	0.40
27:16:95:U:H2'	27:16:96:G:C8	2.56	0.40
28:71:35:ALA:CB	28:71:218:MET:HG2	2.50	0.40
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.56	0.40
29:11:174:ILE:HD12	29:11:174:ILE:N	2.36	0.40
32:41:58:GLN:HG3	32:41:59:GLU:N	2.37	0.40
33:51:103:LEU:HD22	33:51:131:VAL:HG21	2.02	0.40
34:61:1:MET:O	34:61:21:VAL:N	2.41	0.40
34:61:57:ARG:O	34:61:61:ARG:HG2	2.20	0.40
39:98:79:LEU:HD23	39:98:83:ILE:HB	2.02	0.40
46:G8:87:LYS:NZ	46:G8:89:PHE:H	2.20	0.40
47:H8:68:PRO:O	47:H8:91:LEU:HD22	2.21	0.40
50:K8:18:PRO:O	50:K8:21:LEU:N	2.55	0.40
1:1G:141:A:H1'	1:1G:182:U:O2	2.21	0.40
1:1G:251:G:H4'	1:1G:252:U:O5'	2.20	0.40
1:1G:1202:G:H2'	1:1G:1203:C:O4'	2.22	0.40
1:1G:1227:A:C8	1:1G:1228:C:O4'	2.74	0.40
1:1G:1311:G:N2	1:1G:1326:C:O2	2.52	0.40
2:12:71:VAL:CG1	2:12:164:VAL:HA	2.48	0.40
3:22:40:ARG:HG3	3:22:55:VAL:HG11	2.04	0.40
3:22:95:THR:C	3:22:97:LYS:H	2.25	0.40
3:22:148:GLY:HA3	3:22:172:ARG:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	2.03	0.40
14:5A:28:GLY:HA3	14:5A:29:ARG:CZ	2.51	0.40
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.21	0.40
17:8A:59:ILE:CG2	17:8A:71:PHE:HB3	2.52	0.40
18:9A:38:GLU:N	18:9A:38:GLU:OE2	2.54	0.40
19:AA:41:VAL:HG23	19:AA:43:GLU:N	2.36	0.40
26:14:832:G:N2	37:35:53:GLY:HA3	2.33	0.40
26:14:977:G:N3	26:14:1001:A:H2	2.19	0.40
26:14:1576:U:N3	26:14:1577:C:C5	2.89	0.40
26:14:2016:U:H2'	26:14:2017:U:C6	2.57	0.40
26:14:2061:G:C2	26:14:2063:C:C4	3.10	0.40
26:14:2131:G:H5"	26:14:2133:G:O4'	2.22	0.40
26:14:2405:G:C8	61:14:3716:HOH:O	2.70	0.40
26:14:2525:G:N2	26:14:2539:C:C2	2.89	0.40
26:14:2716:U:O2'	26:14:2717:G:H5'	2.20	0.40
30:29:47:VAL:CG2	30:29:85:ASN:HA	2.52	0.40
31:39:33:LEU:HD21	31:39:112:MET:HB3	2.03	0.40
31:39:63:LYS:HZ1	31:39:67:GLN:HB2	1.86	0.40
33:59:139:GLN:HG3	33:59:140:LYS:N	2.35	0.40
33:59:156:ALA:HB3	33:59:160:LYS:O	2.21	0.40
35:15:66:LYS:O	35:15:87:LEU:HD12	2.20	0.40
36:25:22:ILE:HB	36:25:41:ALA:HA	2.01	0.40
37:35:52:GLU:OE1	37:35:57:THR:HA	2.22	0.40
1:13:1:U:H3'	1:13:1:U:P	2.61	0.40
1:13:49:U:O2'	1:13:50:A:H2'	2.22	0.40
1:13:151:A:H2'	1:13:151:A:N3	2.37	0.40
1:13:247:G:C2	1:13:248:C:C6	3.09	0.40
1:13:277:C:H5"	17:8I:68:ARG:NH2	2.37	0.40
1:13:310:G:P	16:7I:27:LYS:NZ	2.94	0.40
1:13:558:G:C4	1:13:559:A:C2	3.09	0.40
1:13:946:A:N7	61:13:1867:HOH:O	2.37	0.40
1:13:1060:C:C2	1:13:1198:G:C2	3.09	0.40
2:1E:143:GLU:HA	2:1E:146:GLN:HB2	2.02	0.40
8:7E:86:ILE:O	8:7E:88:LYS:HG2	2.22	0.40
14:5I:26:ARG:HD3	14:5I:43:CYS:HB3	2.03	0.40
18:9I:58:LEU:HA	18:9I:62:GLU:OE1	2.21	0.40
19:AI:42:PRO:HD3	52:M8:63:TYR:OH	2.21	0.40
24:3K:6:G:H2'	24:3K:7:U:H4'	2.03	0.40
26:1H:503:A:H4'	26:1H:504:U:H5"	2.03	0.40
26:1H:547:A:C2	26:1H:549:G:H1'	2.56	0.40
26:1H:603:A:O4'	26:1H:655:A:N6	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:757:U:H2'	26:1H:758:C:O4'	2.21	0.40
26:1H:881:G:N3	26:1H:881:G:H3'	2.36	0.40
26:1H:975:G:H1'	26:1H:990:A:C2	2.57	0.40
26:1H:1259:G:H2'	26:1H:1260:G:C8	2.56	0.40
26:1H:1443:G:C2	26:1H:1549:C:N3	2.89	0.40
26:1H:1751:C:H2'	26:1H:1752:C:C6	2.57	0.40
26:1H:1814:G:P	29:11:40:THR:HG21	2.62	0.40
26:1H:1826:G:C4	26:1H:1827:C:C6	3.10	0.40
26:1H:2134:A:O2'	26:1H:2159:G:N2	2.55	0.40
26:1H:2543:G:H2'	26:1H:2544:G:O4'	2.21	0.40
26:1H:2562:U:O2'	36:68:23:ARG:HD3	2.22	0.40
40:A8:51:ALA:HB3	40:A8:73:LEU:HG	2.03	0.40
40:A8:106:ARG:CZ	40:A8:107:GLU:HG2	2.51	0.40
43:D8:77:ALA:C	43:D8:79:VAL:H	2.24	0.40
46:G8:85:VAL:N	46:G8:96:ILE:O	2.54	0.40
47:H8:49:ARG:NH1	47:H8:49:ARG:HB2	2.36	0.40
47:H8:128:VAL:HG23	47:H8:129:SER:O	2.21	0.40
47:H8:145:GLU:HG2	47:H8:148:ASP:HB2	2.02	0.40
49:J8:52:ARG:NH1	49:J8:57:GLU:HB2	2.37	0.40
1:1G:28:G:H21	1:1G:296:U:H4'	1.86	0.40
1:1G:596:C:H2'	1:1G:597:G:C8	2.56	0.40
1:1G:972:C:H2'	10:1A:55:LYS:HG3	2.04	0.40
1:1G:1047:G:O5'	1:1G:1047:G:H8	2.04	0.40
1:1G:1195:C:N3	1:1G:1197:G:C8	2.89	0.40
2:12:108:ILE:HD13	2:12:108:ILE:HA	1.77	0.40
4:32:134:ASP:O	4:32:136:PRO:HD3	2.21	0.40
5:42:80:ILE:HG21	5:42:142:LEU:HD21	2.04	0.40
6:52:10:LEU:HD12	6:52:85:VAL:HA	2.03	0.40
9:82:84:ALA:O	9:82:87:GLN:HG2	2.22	0.40
16:7A:67:THR:N	16:7A:70:ALA:HB3	2.36	0.40
24:3L:18:G:H8	24:3L:18:G:O5'	2.04	0.40
26:14:312:G:H5'	26:14:331:A:O2'	2.22	0.40
26:14:412:A:O5'	26:14:412:A:H8	2.05	0.40
26:14:670:A:H4'	26:14:671:C:O5'	2.22	0.40
26:14:1006:C:C2	26:14:1138:G:N2	2.89	0.40
26:14:1033:U:H3'	26:14:1033:U:C6	2.55	0.40
26:14:1178:C:H2'	26:14:1179:C:C6	2.56	0.40
26:14:1332:G:H21	26:14:1610:A:H8	1.69	0.40
26:14:1731:G:C8	26:14:1732:A:C8	3.10	0.40
26:14:2207:C:H2'	26:14:2208:U:O4'	2.22	0.40
26:14:2687:U:C4	26:14:2688:U:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:66:GLU:O	34:69:69:LYS:HB3	2.22	0.40
38:45:43:THR:O	38:45:46:GLN:N	2.53	0.40
39:55:29:LEU:HD12	39:55:29:LEU:HA	1.76	0.40
41:75:5:ALA:HB1	41:75:9:LEU:N	2.36	0.40
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.85	0.40
1:13:66:G:C6	1:13:67:C:C4	3.09	0.40
1:13:248:C:H2'	1:13:249:U:H6	1.86	0.40
1:13:592:G:H2'	1:13:593:G:C8	2.56	0.40
1:13:658:G:C2	1:13:659:U:C2	3.10	0.40
1:13:682:G:C4	1:13:683:G:C8	3.09	0.40
1:13:721:G:C6	1:13:733:A:C2	3.09	0.40
1:13:1126:U:H2'	1:13:1127:G:H5'	2.02	0.40
1:13:1127:G:N2	1:13:1148:U:H3	2.20	0.40
1:13:1288:A:H2'	1:13:1289:A:O4'	2.21	0.40
1:13:1415:G:C6	1:13:1486:G:C5	3.10	0.40
2:1E:16:HIS:HE2	2:1E:214:ILE:HD11	1.87	0.40
2:1E:31:TYR:N	2:1E:31:TYR:CD1	2.89	0.40
4:3E:93:PHE:HA	4:3E:96:LEU:HD22	2.03	0.40
8:7E:100:ILE:HG23	8:7E:101:PRO:HD2	2.04	0.40
13:4I:65:LYS:O	13:4I:66:LEU:HD23	2.21	0.40
14:5I:13:THR:N	14:5I:14:PRO:HD2	2.37	0.40
16:7I:36:ILE:H	16:7I:36:ILE:HG13	1.77	0.40
26:1H:448:U:O4	26:1H:583:G:H1'	2.21	0.40
26:1H:602:G:O2'	26:1H:604:G:O2'	2.10	0.40
26:1H:795:C:H2'	26:1H:796:C:H6	1.87	0.40
26:1H:1488:G:C5	26:1H:1489:U:C5	3.10	0.40
26:1H:1578:U:H5	61:1H:5049:HOH:O	2.05	0.40
26:1H:1639:U:H4'	26:1H:2699:C:H4'	2.02	0.40
26:1H:1903:G:P	29:11:241:PRO:HB2	2.61	0.40
26:1H:2095:C:H2'	26:1H:2096:U:O4'	2.21	0.40
26:1H:2171:A:H2'	26:1H:2172:U:H6	1.87	0.40
26:1H:2259:G:N1	26:1H:2282:G:C6	2.89	0.40
26:1H:2397:G:H5"	49:J8:28:GLY:HA2	2.02	0.40
27:16:11:C:H3'	27:16:12:C:C6	2.56	0.40
31:31:34:TRP:HB2	37:78:6:LEU:HG	2.03	0.40
34:61:77:LEU:HD23	34:61:101:LEU:HD13	2.04	0.40
34:61:131:LYS:NZ	34:61:135:GLU:HG2	2.36	0.40
37:78:144:GLU:N	37:78:144:GLU:OE2	2.54	0.40
38:88:32:TYR:CE2	38:88:133:ARG:HG3	2.56	0.40
49:J8:3:LYS:O	49:J8:12:PRO:HD3	2.22	0.40
53:N8:48:GLU:O	53:N8:49:CYS:SG	2.77	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:391:G:C6	1:1G:392:G:C5	3.10	0.40
1:1G:437:U:C4	1:1G:438:G:C6	3.10	0.40
1:1G:872:A:C5	1:1G:874:G:C5	3.10	0.40
1:1G:894:G:C6	1:1G:895:G:C5	3.09	0.40
1:1G:1349:A:H2'	1:1G:1350:A:C8	2.56	0.40
1:1G:1378:C:H3'	1:1G:1379:G:C5'	2.51	0.40
1:1G:1432:G:O2'	1:1G:1468:A:N6	2.54	0.40
4:32:8:VAL:HG22	4:32:115:ARG:HH12	1.86	0.40
4:32:31:CYS:C	4:32:33:MET:N	2.73	0.40
7:62:149:ARG:HA	7:62:149:ARG:HD3	1.88	0.40
12:3A:54:LYS:HD2	12:3A:54:LYS:N	2.35	0.40
12:3A:71:PRO:O	12:3A:102:ARG:NH1	2.55	0.40
13:4A:39:ILE:HG22	13:4A:40:ASN:H	1.87	0.40
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.74	0.40
20:BA:49:ALA:O	20:BA:100:ILE:HG21	2.21	0.40
20:BA:67:ALA:HB2	20:BA:77:ALA:HB2	2.04	0.40
25:4L:19:G:C2	25:4L:20:A:C4	3.09	0.40
26:14:141:A:H1'	26:14:1408:C:O4'	2.21	0.40
26:14:205:G:O2'	26:14:206:U:P	2.79	0.40
26:14:322:A:H3'	31:39:169:ASN:OD1	2.22	0.40
26:14:330:A:H2	26:14:1210:A:O2'	2.03	0.40
26:14:387:U:H4'	26:14:388:G:O5'	2.22	0.40
26:14:438:G:H2'	26:14:439:G:H8	1.85	0.40
26:14:511:U:H5	26:14:512:G:C5	2.40	0.40
26:14:729:G:O5'	29:19:208:LYS:NZ	2.55	0.40
26:14:783:A:H8	26:14:784:A:H4'	1.87	0.40
26:14:1265:A:OP1	26:14:1265:A:H8	2.05	0.40
26:14:1727:U:H3	26:14:1733:G:H1	1.68	0.40
26:14:1803:A:H2	26:14:1822:G:N3	2.19	0.40
26:14:1939:U:OP1	26:14:2604:U:O2'	2.35	0.40
26:14:2376:A:H8	26:14:2376:A:OP1	2.04	0.40
26:14:2390:U:O2'	26:14:2391:G:H5'	2.21	0.40
26:14:2503:A:H4'	26:14:2504:U:OP1	2.21	0.40
26:14:2567:G:H2'	26:14:2568:C:C6	2.57	0.40
27:1J:14:U:H5'	27:1J:70:C:O2	2.21	0.40
27:1J:116:G:H4'	40:65:54:LEU:HD23	2.03	0.40
29:19:133:LEU:HB3	29:19:173:VAL:HG11	2.02	0.40
33:59:6:ARG:CB	33:59:66:GLY:HA2	2.46	0.40
41:75:99:LEU:O	41:75:101:PHE:N	2.54	0.40
43:95:48:GLY:H	43:95:52:VAL:HG23	1.86	0.40
43:95:49:THR:OG1	43:95:50:PRO:HD2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:20:VAL:HG21	44:A5:44:ALA:H	1.86	0.40
44:A5:54:ALA:HB1	44:A5:107:LEU:HD22	2.03	0.40
48:E5:29:GLN:O	48:E5:31:VAL:HG13	2.21	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:82:U:O2'	26:14:271(C):U:O4[3_545]	2.14	0.06
26:1H:2137:C:OP1	1:1G:999:U:O2'[4_555]	2.17	0.03

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%)	173 (85%)	23 (11%)	7 (3%)	3 18
2	1E	227/256 (89%)	186 (82%)	39 (17%)	2 (1%)	17 50
3	22	191/239 (80%)	172 (90%)	19 (10%)	0	100 100
3	2E	203/239 (85%)	186 (92%)	16 (8%)	1 (0%)	29 63
4	32	206/209 (99%)	180 (87%)	25 (12%)	1 (0%)	29 63
4	3E	205/209 (98%)	193 (94%)	11 (5%)	1 (0%)	29 63
5	42	148/162 (91%)	142 (96%)	5 (3%)	1 (1%)	22 56
5	4E	147/162 (91%)	136 (92%)	10 (7%)	1 (1%)	22 56
6	52	99/101 (98%)	96 (97%)	3 (3%)	0	100 100
6	5E	98/101 (97%)	92 (94%)	6 (6%)	0	100 100
7	62	134/156 (86%)	125 (93%)	8 (6%)	1 (1%)	22 56
7	6E	152/156 (97%)	144 (95%)	8 (5%)	0	100 100
8	72	135/138 (98%)	125 (93%)	8 (6%)	2 (2%)	10 37

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
8	7E	136/138 (99%)	126 (93%)	9 (7%)	1 (1%)	22 56
9	82	119/128 (93%)	109 (92%)	9 (8%)	1 (1%)	19 53
9	8E	124/128 (97%)	107 (86%)	17 (14%)	0	100 100
10	1A	76/105 (72%)	71 (93%)	5 (7%)	0	100 100
10	1I	92/105 (88%)	83 (90%)	9 (10%)	0	100 100
11	2A	111/129 (86%)	99 (89%)	10 (9%)	2 (2%)	8 33
11	2I	109/129 (84%)	93 (85%)	11 (10%)	5 (5%)	2 13
12	3A	119/132 (90%)	101 (85%)	14 (12%)	4 (3%)	3 18
12	3I	120/132 (91%)	106 (88%)	13 (11%)	1 (1%)	19 53
13	4A	107/126 (85%)	89 (83%)	17 (16%)	1 (1%)	17 50
13	4I	115/126 (91%)	97 (84%)	17 (15%)	1 (1%)	17 50
14	5A	57/61 (93%)	49 (86%)	7 (12%)	1 (2%)	8 33
14	5I	57/61 (93%)	48 (84%)	7 (12%)	2 (4%)	3 18
15	6A	85/89 (96%)	80 (94%)	5 (6%)	0	100 100
15	6I	85/89 (96%)	79 (93%)	6 (7%)	0	100 100
16	7A	82/88 (93%)	76 (93%)	6 (7%)	0	100 100
16	7I	81/88 (92%)	76 (94%)	5 (6%)	0	100 100
17	8A	97/105 (92%)	91 (94%)	6 (6%)	0	100 100
17	8I	98/105 (93%)	93 (95%)	4 (4%)	1 (1%)	15 47
18	9A	65/88 (74%)	64 (98%)	1 (2%)	0	100 100
18	9I	66/88 (75%)	63 (96%)	2 (3%)	1 (2%)	10 37
19	AA	59/93 (63%)	49 (83%)	7 (12%)	3 (5%)	2 11
19	AI	80/93 (86%)	69 (86%)	7 (9%)	4 (5%)	2 12
20	BA	97/106 (92%)	79 (81%)	16 (16%)	2 (2%)	7 28
20	BI	95/106 (90%)	83 (87%)	12 (13%)	0	100 100
21	1B	20/27 (74%)	19 (95%)	1 (5%)	0	100 100
21	1F	21/27 (78%)	20 (95%)	1 (5%)	0	100 100
28	71	128/229 (56%)	121 (94%)	7 (6%)	0	100 100
29	11	271/276 (98%)	255 (94%)	10 (4%)	6 (2%)	6 27
29	19	272/276 (99%)	248 (91%)	21 (8%)	3 (1%)	14 45
30	21	201/206 (98%)	160 (80%)	28 (14%)	13 (6%)	1 7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
30	29	202/206 (98%)	150 (74%)	40 (20%)	12 (6%)	1 9
31	31	200/210 (95%)	177 (88%)	22 (11%)	1 (0%)	29 63
31	39	202/210 (96%)	159 (79%)	36 (18%)	7 (4%)	3 18
32	41	177/182 (97%)	156 (88%)	18 (10%)	3 (2%)	9 34
32	49	178/182 (98%)	155 (87%)	22 (12%)	1 (1%)	25 59
33	51	172/180 (96%)	139 (81%)	23 (13%)	10 (6%)	1 9
33	59	167/180 (93%)	129 (77%)	32 (19%)	6 (4%)	3 18
34	61	143/148 (97%)	123 (86%)	18 (13%)	2 (1%)	11 39
34	69	143/148 (97%)	112 (78%)	28 (20%)	3 (2%)	7 28
35	15	135/140 (96%)	124 (92%)	11 (8%)	0	100 100
35	58	135/140 (96%)	114 (84%)	16 (12%)	5 (4%)	3 17
36	25	120/122 (98%)	110 (92%)	10 (8%)	0	100 100
36	68	120/122 (98%)	115 (96%)	5 (4%)	0	100 100
37	35	145/150 (97%)	120 (83%)	25 (17%)	0	100 100
37	78	145/150 (97%)	113 (78%)	21 (14%)	11 (8%)	1 5
38	45	136/141 (96%)	110 (81%)	23 (17%)	3 (2%)	6 27
38	88	139/141 (99%)	119 (86%)	14 (10%)	6 (4%)	2 14
39	55	116/118 (98%)	110 (95%)	5 (4%)	1 (1%)	17 50
39	98	116/118 (98%)	101 (87%)	15 (13%)	0	100 100
40	65	108/112 (96%)	87 (81%)	19 (18%)	2 (2%)	8 31
40	A8	109/112 (97%)	89 (82%)	19 (17%)	1 (1%)	17 50
41	75	131/146 (90%)	118 (90%)	11 (8%)	2 (2%)	10 37
41	B8	133/146 (91%)	118 (89%)	14 (10%)	1 (1%)	19 53
42	85	114/118 (97%)	107 (94%)	7 (6%)	0	100 100
42	C8	113/118 (96%)	107 (95%)	2 (2%)	4 (4%)	3 18
43	95	98/101 (97%)	81 (83%)	14 (14%)	3 (3%)	4 21
43	D8	98/101 (97%)	87 (89%)	8 (8%)	3 (3%)	4 21
44	A5	109/113 (96%)	101 (93%)	8 (7%)	0	100 100
44	E8	108/113 (96%)	102 (94%)	6 (6%)	0	100 100
45	B5	92/96 (96%)	82 (89%)	8 (9%)	2 (2%)	6 27
45	F8	93/96 (97%)	87 (94%)	6 (6%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
46	C5	102/110 (93%)	74 (72%)	22 (22%)	6 (6%)	1 9
46	G8	101/110 (92%)	83 (82%)	14 (14%)	4 (4%)	3 15
47	D5	175/206 (85%)	133 (76%)	32 (18%)	10 (6%)	1 9
47	H8	168/206 (82%)	136 (81%)	25 (15%)	7 (4%)	3 14
48	E5	74/85 (87%)	65 (88%)	8 (11%)	1 (1%)	11 39
48	I8	75/85 (88%)	67 (89%)	8 (11%)	0	100 100
49	F5	92/98 (94%)	81 (88%)	10 (11%)	1 (1%)	14 45
49	J8	94/98 (96%)	80 (85%)	9 (10%)	5 (5%)	2 11
50	G5	67/72 (93%)	61 (91%)	4 (6%)	2 (3%)	4 21
50	K8	66/72 (92%)	59 (89%)	4 (6%)	3 (4%)	2 13
51	H5	56/60 (93%)	54 (96%)	2 (4%)	0	100 100
51	L8	56/60 (93%)	54 (96%)	2 (4%)	0	100 100
52	M8	56/71 (79%)	39 (70%)	17 (30%)	0	100 100
53	J5	54/60 (90%)	49 (91%)	5 (9%)	0	100 100
53	N8	46/60 (77%)	43 (94%)	3 (6%)	0	100 100
54	L5	45/49 (92%)	42 (93%)	3 (7%)	0	100 100
54	P8	45/49 (92%)	41 (91%)	4 (9%)	0	100 100
55	M5	62/65 (95%)	51 (82%)	11 (18%)	0	100 100
55	Q8	62/65 (95%)	51 (82%)	7 (11%)	4 (6%)	1 7
All	All	11086/12104 (92%)	9718 (88%)	1167 (10%)	201 (2%)	8 33

All (201) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
11	2I	55	LYS
12	3I	48	PRO
18	9I	22	VAL
19	AI	41	VAL
29	11	239	ARG
30	21	83	ASP
37	78	15	ARG
37	78	25	SER
42	C8	89	GLU
46	G8	81	LYS
47	H8	165	VAL

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Mol	Chain	Res	Type
49	J8	88	LYS
49	J8	91	LYS
2	12	219	VAL
9	82	118	LYS
20	BA	73	HIS
30	29	25	VAL
30	29	54	GLN
31	39	28	ILE
31	39	84	VAL
32	49	5	VAL
39	55	107	ASP
41	75	10	VAL
41	75	11	GLU
47	D5	53	ILE
47	D5	171	ILE
48	E5	33	ALA
49	F5	30	VAL
8	7E	86	ILE
14	5I	13	THR
29	11	273	ARG
30	21	60	ASN
30	21	77	ILE
33	51	10	PRO
33	51	157	TYR
33	51	171	LEU
37	78	6	LEU
37	78	16	ARG
37	78	37	GLY
38	88	6	ARG
38	88	66	ILE
42	C8	93	LYS
47	H8	6	LYS
50	K8	48	HIS
55	Q8	50	LEU
11	2A	48	ILE
12	3A	18	VAL
14	5A	29	ARG
19	AA	9	VAL
29	19	273	ARG
30	29	59	VAL
30	29	81	ILE
31	39	132	VAL

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Mol	Chain	Res	Type
33	59	131	VAL
34	69	113	ARG
46	C5	29	GLU
46	C5	92	ASN
47	D5	105	VAL
47	D5	165	VAL
50	G5	48	HIS
30	21	59	VAL
30	21	72	VAL
33	51	84	SER
35	58	97	ARG
37	78	35	HIS
38	88	7	MET
38	88	134	ARG
43	D8	45	THR
43	D8	49	THR
47	H8	60	GLU
49	J8	93	GLU
50	K8	43	GLN
55	Q8	35	GLN
55	Q8	47	LYS
11	2A	101	SER
12	3A	26	ALA
19	AA	11	VAL
30	29	9	VAL
31	39	25	PRO
31	39	124	LEU
31	39	149	ASP
31	39	167	ALA
33	59	92	ILE
33	59	168	PRO
38	45	27	VAL
38	45	79	LEU
46	C5	20	TYR
47	D5	116	VAL
47	D5	176	PRO
50	G5	47	ASN
4	3E	155	LEU
11	2I	53	SER
11	2I	54	ARG
14	5I	14	PRO
17	8I	79	SER

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Mol	Chain	Res	Type
29	11	122	ASP
30	21	118	LYS
32	41	96	ARG
32	41	97	ASP
33	51	12	PRO
33	51	138	LYS
33	51	154	PRO
35	58	127	ASP
35	58	128	HIS
35	58	135	PRO
37	78	36	LYS
42	C8	90	VAL
46	G8	54	LYS
47	H8	59	LEU
49	J8	87	PRO
50	K8	47	ASN
2	12	220	ASP
30	29	51	PHE
30	29	55	ASN
38	45	90	VAL
40	65	111	GLU
46	C5	17	SER
2	1E	238	LEU
3	2E	30	ARG
30	21	79	ARG
31	31	73	ALA
32	41	5	VAL
33	51	83	TYR
35	58	22	THR
37	78	19	VAL
40	A8	88	ASP
49	J8	92	LYS
55	Q8	46	ARG
2	12	96	ARG
12	3A	19	ARG
20	BA	13	LEU
33	59	167	GLU
33	59	169	VAL
43	95	71	LEU
45	B5	68	ARG
46	C5	99	CYS
2	1E	127	ILE

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Mol	Chain	Res	Type
19	AI	67	VAL
30	21	21	VAL
30	21	55	ASN
30	21	56	PRO
30	21	82	ARG
33	51	85	LYS
33	51	169	VAL
34	61	12	LEU
34	61	133	HIS
38	88	60	ARG
41	B8	106	SER
42	C8	88	ILE
46	G8	76	CYS
47	H8	61	LEU
5	42	60	TYR
7	62	147	ALA
12	3A	47	LYS
30	29	69	LYS
40	65	87	PHE
11	2I	82	VAL
13	4I	4	ILE
19	AI	40	ILE
29	11	3	VAL
30	21	75	VAL
37	78	34	GLY
47	H8	141	VAL
29	19	3	VAL
30	29	62	PRO
43	95	72	VAL
45	B5	51	VAL
37	78	95	VAL
43	D8	47	VAL
2	12	71	VAL
8	72	73	ASP
30	29	26	ILE
47	D5	141	VAL
47	D5	161	VAL
5	4E	115	VAL
29	11	240	ALA
46	G8	53	PRO
2	12	39	ILE
4	32	28	SER

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Mol	Chain	Res	Type
29	19	118	VAL
30	29	52	LEU
11	2I	108	ILE
29	11	123	ALA
37	78	7	ARG
38	88	27	VAL
47	H8	53	ILE
2	12	81	VAL
2	12	223	ILE
8	72	100	ILE
13	4A	84	ILE
30	29	77	ILE
34	69	71	ILE
34	69	144	VAL
43	95	99	ILE
46	C5	3	VAL
47	D5	61	LEU
30	21	189	PRO
19	AA	67	VAL
47	D5	108	PRO
33	59	126	PRO
19	AI	42	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	12	179/220 (81%)	144 (80%)	35 (20%)	1 6
2	1E	200/220 (91%)	158 (79%)	42 (21%)	1 5
3	22	154/188 (82%)	123 (80%)	31 (20%)	1 5
3	2E	159/188 (85%)	127 (80%)	32 (20%)	1 5
4	32	180/181 (99%)	152 (84%)	28 (16%)	2 11
4	3E	180/181 (99%)	146 (81%)	34 (19%)	1 6
5	42	114/123 (93%)	88 (77%)	26 (23%)	1 3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	4E	115/123 (94%)	90 (78%)	25 (22%)	1 4
6	52	90/90 (100%)	78 (87%)	12 (13%)	4 16
6	5E	90/90 (100%)	73 (81%)	17 (19%)	1 6
7	62	114/127 (90%)	91 (80%)	23 (20%)	1 5
7	6E	125/127 (98%)	105 (84%)	20 (16%)	2 10
8	72	118/119 (99%)	101 (86%)	17 (14%)	3 13
8	7E	119/119 (100%)	93 (78%)	26 (22%)	1 4
9	82	92/99 (93%)	73 (79%)	19 (21%)	1 5
9	8E	97/99 (98%)	70 (72%)	27 (28%)	0 1
10	1A	71/92 (77%)	54 (76%)	17 (24%)	0 2
10	1I	81/92 (88%)	75 (93%)	6 (7%)	13 40
11	2A	85/99 (86%)	71 (84%)	14 (16%)	2 9
11	2I	84/99 (85%)	66 (79%)	18 (21%)	1 4
12	3A	102/109 (94%)	82 (80%)	20 (20%)	1 6
12	3I	103/109 (94%)	76 (74%)	27 (26%)	0 1
13	4A	90/101 (89%)	68 (76%)	22 (24%)	0 2
13	4I	94/101 (93%)	67 (71%)	27 (29%)	0 1
14	5A	49/50 (98%)	40 (82%)	9 (18%)	1 7
14	5I	49/50 (98%)	39 (80%)	10 (20%)	1 5
15	6A	79/80 (99%)	71 (90%)	8 (10%)	7 26
15	6I	79/80 (99%)	68 (86%)	11 (14%)	3 15
16	7A	72/74 (97%)	64 (89%)	8 (11%)	6 23
16	7I	72/74 (97%)	58 (81%)	14 (19%)	1 6
17	8A	94/97 (97%)	80 (85%)	14 (15%)	3 12
17	8I	95/97 (98%)	80 (84%)	15 (16%)	2 10
18	9A	58/77 (75%)	49 (84%)	9 (16%)	2 11
18	9I	58/77 (75%)	50 (86%)	8 (14%)	3 15
19	AA	56/80 (70%)	43 (77%)	13 (23%)	1 3
19	AI	72/80 (90%)	57 (79%)	15 (21%)	1 5
20	BA	76/82 (93%)	68 (90%)	8 (10%)	7 24
20	BI	75/82 (92%)	67 (89%)	8 (11%)	6 24

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
21	1B	17/22 (77%)	16 (94%)	1 (6%)	19 48
21	1F	18/22 (82%)	14 (78%)	4 (22%)	1 4
28	71	108/181 (60%)	87 (81%)	21 (19%)	1 6
29	11	214/218 (98%)	172 (80%)	42 (20%)	1 6
29	19	214/218 (98%)	167 (78%)	47 (22%)	1 4
30	21	162/166 (98%)	124 (76%)	38 (24%)	1 3
30	29	165/166 (99%)	125 (76%)	40 (24%)	0 2
31	31	161/166 (97%)	130 (81%)	31 (19%)	1 6
31	39	163/166 (98%)	123 (76%)	40 (24%)	0 2
32	41	153/156 (98%)	120 (78%)	33 (22%)	1 4
32	49	152/156 (97%)	117 (77%)	35 (23%)	1 3
33	51	143/148 (97%)	109 (76%)	34 (24%)	0 2
33	59	140/148 (95%)	101 (72%)	39 (28%)	0 1
34	61	122/124 (98%)	87 (71%)	35 (29%)	0 1
34	69	122/124 (98%)	88 (72%)	34 (28%)	0 1
35	15	116/119 (98%)	91 (78%)	25 (22%)	1 4
35	58	116/119 (98%)	92 (79%)	24 (21%)	1 5
36	25	100/100 (100%)	82 (82%)	18 (18%)	1 7
36	68	100/100 (100%)	89 (89%)	11 (11%)	6 23
37	35	114/116 (98%)	76 (67%)	38 (33%)	0 0
37	78	114/116 (98%)	77 (68%)	37 (32%)	0 0
38	45	109/111 (98%)	82 (75%)	27 (25%)	0 2
38	88	110/111 (99%)	91 (83%)	19 (17%)	2 8
39	55	101/101 (100%)	86 (85%)	15 (15%)	3 12
39	98	101/101 (100%)	79 (78%)	22 (22%)	1 4
40	65	87/88 (99%)	67 (77%)	20 (23%)	1 3
40	A8	87/88 (99%)	61 (70%)	26 (30%)	0 1
41	75	117/127 (92%)	85 (73%)	32 (27%)	0 1
41	B8	117/127 (92%)	84 (72%)	33 (28%)	0 1
42	85	93/94 (99%)	77 (83%)	16 (17%)	2 8
42	C8	92/94 (98%)	80 (87%)	12 (13%)	4 17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
43	95	81/82 (99%)	66 (82%)	15 (18%)	1 7
43	D8	82/82 (100%)	54 (66%)	28 (34%)	0 0
44	A5	91/92 (99%)	72 (79%)	19 (21%)	1 5
44	E8	90/92 (98%)	76 (84%)	14 (16%)	2 11
45	B5	74/78 (95%)	58 (78%)	16 (22%)	1 4
45	F8	77/78 (99%)	67 (87%)	10 (13%)	4 17
46	C5	85/91 (93%)	61 (72%)	24 (28%)	0 1
46	G8	84/91 (92%)	67 (80%)	17 (20%)	1 5
47	D5	156/179 (87%)	118 (76%)	38 (24%)	0 2
47	H8	151/179 (84%)	128 (85%)	23 (15%)	3 11
48	E5	61/67 (91%)	55 (90%)	6 (10%)	8 27
48	I8	62/67 (92%)	56 (90%)	6 (10%)	8 28
49	F5	79/83 (95%)	64 (81%)	15 (19%)	1 6
49	J8	79/83 (95%)	67 (85%)	12 (15%)	3 11
50	G5	63/67 (94%)	47 (75%)	16 (25%)	0 1
50	K8	64/67 (96%)	47 (73%)	17 (27%)	0 1
51	H5	50/52 (96%)	37 (74%)	13 (26%)	0 1
51	L8	50/52 (96%)	41 (82%)	9 (18%)	1 7
52	M8	52/63 (82%)	38 (73%)	14 (27%)	0 1
53	J5	48/52 (92%)	38 (79%)	10 (21%)	1 5
53	N8	43/52 (83%)	34 (79%)	9 (21%)	1 5
54	L5	38/42 (90%)	31 (82%)	7 (18%)	1 7
54	P8	38/42 (90%)	31 (82%)	7 (18%)	1 7
55	M5	54/55 (98%)	44 (82%)	10 (18%)	1 7
55	Q8	54/55 (98%)	43 (80%)	11 (20%)	1 5
All	All	9354/10012 (93%)	7424 (79%)	1930 (21%)	1 5

All (1930) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	6	THR
2	1E	8	LYS
2	1E	11	LEU

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Mol	Chain	Res	Type
2	1E	19	HIS
2	1E	21	ARG
2	1E	24	TRP
2	1E	33	TYR
2	1E	55	PHE
2	1E	67	THR
2	1E	68	ILE
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	108	ILE
2	1E	111	ARG
2	1E	118	LEU
2	1E	122	PHE
2	1E	127	ILE
2	1E	134	GLU
2	1E	144	ARG
2	1E	150	SER
2	1E	155	LEU
2	1E	160	ASP
2	1E	172	ILE
2	1E	178	ARG
2	1E	185	ILE
2	1E	187	LEU
2	1E	190	THR
2	1E	205	ASP
2	1E	210	SER
2	1E	211	ILE
2	1E	214	ILE
2	1E	217	ARG
2	1E	222	ILE
2	1E	223	ILE
2	1E	224	GLN
2	1E	230	VAL
2	1E	236	TYR
3	2E	3	ASN
3	2E	5	ILE
3	2E	8	ILE

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Mol	Chain	Res	Type
3	2E	16	ARG
3	2E	17	ASP
3	2E	18	TRP
3	2E	21	ARG
3	2E	29	TYR
3	2E	31	HIS
3	2E	32	LEU
3	2E	38	ARG
3	2E	52	LEU
3	2E	63	ASN
3	2E	68	VAL
3	2E	72	LYS
3	2E	79	ARG
3	2E	93	LYS
3	2E	98	ASN
3	2E	105	GLU
3	2E	107	GLN
3	2E	108	ASN
3	2E	116	VAL
3	2E	128	PHE
3	2E	132	ARG
3	2E	136	GLN
3	2E	154	SER
3	2E	167	TRP
3	2E	179	ARG
3	2E	192	THR
3	2E	193	TYR
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	17	VAL
4	3E	30	LYS
4	3E	31	CYS
4	3E	46	LYS
4	3E	47	ARG
4	3E	49	ARG
4	3E	50	ARG
4	3E	58	LEU
4	3E	59	ARG

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Mol	Chain	Res	Type
4	3E	66	ARG
4	3E	71	SER
4	3E	73	ARG
4	3E	84	LYS
4	3E	85	LYS
4	3E	86	LYS
4	3E	96	LEU
4	3E	101	LEU
4	3E	107	ARG
4	3E	122	ARG
4	3E	127	THR
4	3E	135	LEU
4	3E	145	GLU
4	3E	146	ILE
4	3E	174	LEU
4	3E	188	LEU
4	3E	190	ASP
4	3E	193	ASP
4	3E	194	LEU
4	3E	200	GLU
4	3E	209	ARG
5	4E	10	MET
5	4E	11	ILE
5	4E	12	LEU
5	4E	16	THR
5	4E	25	ARG
5	4E	31	LEU
5	4E	41	VAL
5	4E	43	LEU
5	4E	56	GLN
5	4E	64	ARG
5	4E	68	GLU
5	4E	71	LEU
5	4E	72	GLN
5	4E	75	THR
5	4E	79	GLU
5	4E	81	GLU
5	4E	87	SER
5	4E	91	LEU
5	4E	105	VAL
5	4E	112	LEU
5	4E	116	THR

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Mol	Chain	Res	Type
5	4E	131	ILE
5	4E	144	THR
5	4E	147	ASP
5	4E	153	LYS
6	5E	1	MET
6	5E	21	LEU
6	5E	23	LYS
6	5E	25	ILE
6	5E	27	GLN
6	5E	43	LEU
6	5E	47	ARG
6	5E	55	ASP
6	5E	64	GLN
6	5E	65	VAL
6	5E	70	ASP
6	5E	75	LEU
6	5E	86	ARG
6	5E	87	ARG
6	5E	91	VAL
6	5E	94	GLN
6	5E	98	LEU
7	6E	6	ARG
7	6E	8	GLU
7	6E	9	VAL
7	6E	16	LEU
7	6E	22	LEU
7	6E	27	ILE
7	6E	37	ASN
7	6E	38	LEU
7	6E	56	GLN
7	6E	59	LEU
7	6E	73	MET
7	6E	89	MET
7	6E	90	GLU
7	6E	91	VAL
7	6E	97	GLN
7	6E	104	LEU
7	6E	111	ARG
7	6E	113	GLU
7	6E	138	LYS
7	6E	155	ARG
8	7E	1	MET

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Mol	Chain	Res	Type
8	7E	2	LEU
8	7E	19	VAL
8	7E	26	VAL
8	7E	29	SER
8	7E	36	LEU
8	7E	39	LEU
8	7E	45	ILE
8	7E	49	GLU
8	7E	50	ARG
8	7E	52	ASP
8	7E	54	ASP
8	7E	63	LEU
8	7E	65	TYR
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	102	ARG
8	7E	104	ARG
8	7E	127	LEU
8	7E	129	VAL
8	7E	137	VAL
9	8E	9	ARG
9	8E	10	ARG
9	8E	16	ARG
9	8E	20	ARG
9	8E	27	THR
9	8E	38	GLN
9	8E	42	ARG
9	8E	47	LEU
9	8E	50	LEU
9	8E	54	ASP
9	8E	58	HIS
9	8E	66	ARG
9	8E	75	ASP
9	8E	79	LEU
9	8E	81	ILE
9	8E	83	ARG
9	8E	88	TYR

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Mol	Chain	Res	Type
9	8E	91	ASP
9	8E	97	LYS
9	8E	99	LEU
9	8E	108	VAL
9	8E	112	LYS
9	8E	113	LYS
9	8E	120	ARG
9	8E	121	ARG
9	8E	125	TYR
9	8E	128	ARG
10	1I	25	GLU
10	1I	28	ARG
10	1I	49	VAL
10	1I	58	ASP
10	1I	75	ILE
10	1I	88	LEU
11	2I	16	SER
11	2I	28	THR
11	2I	29	ILE
11	2I	32	ILE
11	2I	36	ASP
11	2I	40	ILE
11	2I	48	ILE
11	2I	51	LYS
11	2I	53	SER
11	2I	55	LYS
11	2I	63	LEU
11	2I	81	ASP
11	2I	83	ILE
11	2I	99	GLN
11	2I	105	VAL
11	2I	108	ILE
11	2I	109	VAL
11	2I	114	VAL
12	3I	7	ILE
12	3I	8	ASN
12	3I	11	VAL
12	3I	18	VAL
12	3I	19	ARG
12	3I	22	SER
12	3I	33	ARG
12	3I	34	ARG

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Mol	Chain	Res	Type
12	3I	36	VAL
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	79	GLU
12	3I	81	SER
12	3I	83	VAL
12	3I	85	ILE
12	3I	96	VAL
12	3I	111	LYS
12	3I	115	LYS
12	3I	116	SER
12	3I	123	LYS
12	3I	124	LYS
12	3I	126	LYS
13	4I	4	ILE
13	4I	9	ILE
13	4I	12	ASN
13	4I	13	LYS
13	4I	19	LEU
13	4I	20	THR
13	4I	31	LYS
13	4I	44	ARG
13	4I	45	VAL
13	4I	46	LYS
13	4I	48	LEU
13	4I	50	GLU
13	4I	56	LEU
13	4I	64	TRP
13	4I	65	LYS
13	4I	67	GLU
13	4I	70	LEU
13	4I	88	ARG
13	4I	93	ARG
13	4I	99	ARG
13	4I	102	ARG
13	4I	105	THR
13	4I	106	ASN

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Mol	Chain	Res	Type
13	4I	108	ARG
13	4I	110	ARG
13	4I	111	LYS
13	4I	115	LYS
14	5I	3	ARG
14	5I	6	LEU
14	5I	7	ILE
14	5I	22	THR
14	5I	24	CYS
14	5I	32	SER
14	5I	33	VAL
14	5I	41	ARG
14	5I	44	LEU
14	5I	50	LYS
15	6I	10	LYS
15	6I	24	SER
15	6I	26	GLU
15	6I	35	ARG
15	6I	39	LEU
15	6I	40	SER
15	6I	47	LYS
15	6I	48	LYS
15	6I	66	LEU
15	6I	67	LEU
15	6I	71	GLN
16	7I	1	MET
16	7I	4	ILE
16	7I	6	LEU
16	7I	8	ARG
16	7I	18	ARG
16	7I	19	ILE
16	7I	36	ILE
16	7I	45	THR
16	7I	54	GLU
16	7I	55	ARG
16	7I	67	THR
16	7I	69	THR
16	7I	72	ARG
16	7I	83	GLU
17	8I	25	ARG
17	8I	26	GLN
17	8I	34	LYS

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Mol	Chain	Res	Type
17	8I	38	ARG
17	8I	45	HIS
17	8I	48	GLU
17	8I	52	LYS
17	8I	60	ILE
17	8I	62	SER
17	8I	68	ARG
17	8I	74	LEU
17	8I	89	LEU
17	8I	97	SER
17	8I	100	LYS
17	8I	101	ARG
18	9I	31	LEU
18	9I	32	ARG
18	9I	42	ARG
18	9I	54	ARG
18	9I	59	SER
18	9I	75	ILE
18	9I	82	THR
18	9I	86	VAL
19	AI	3	ARG
19	AI	6	LYS
19	AI	9	VAL
19	AI	12	ASP
19	AI	18	LYS
19	AI	22	LEU
19	AI	31	ILE
19	AI	36	ARG
19	AI	37	ARG
19	AI	43	GLU
19	AI	44	MET
19	AI	48	THR
19	AI	58	VAL
19	AI	77	THR
19	AI	78	ARG
20	BI	9	ASN
20	BI	51	GLU
20	BI	53	LEU
20	BI	55	ILE
20	BI	56	MET
20	BI	73	HIS
20	BI	75	ASN

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Mol	Chain	Res	Type
20	BI	87	LYS
21	1F	6	ARG
21	1F	8	THR
21	1F	9	ARG
21	1F	10	ARG
28	71	6	ARG
28	71	10	LEU
28	71	14	VAL
28	71	23	ASP
28	71	30	LYS
28	71	34	THR
28	71	37	PHE
28	71	39	GLU
28	71	52	ARG
28	71	53	ARG
28	71	55	ASP
28	71	59	ARG
28	71	66	HIS
28	71	166	ASP
28	71	175	VAL
28	71	180	PHE
28	71	211	SER
28	71	216	THR
28	71	218	MET
28	71	224	ILE
28	71	227	HIS
29	11	3	VAL
29	11	16	MET
29	11	17	THR
29	11	20	ASP
29	11	26	LYS
29	11	32	SER
29	11	33	LEU
29	11	34	VAL
29	11	35	LYS
29	11	38	LYS
29	11	39	LYS
29	11	43	ARG
29	11	61	LEU
29	11	64	ILE
29	11	65	ILE
29	11	78	LYS

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Mol	Chain	Res	Type
29	11	83	GLU
29	11	94	LEU
29	11	103	ARG
29	11	105	ILE
29	11	106	ILE
29	11	113	VAL
29	11	126	GLN
29	11	136	ILE
29	11	141	VAL
29	11	154	LYS
29	11	165	ILE
29	11	183	ARG
29	11	192	THR
29	11	193	VAL
29	11	200	ASP
29	11	208	LYS
29	11	212	SER
29	11	217	ARG
29	11	229	VAL
29	11	242	ARG
29	11	253	GLN
29	11	257	LEU
29	11	260	ARG
29	11	270	ILE
29	11	271	ILE
29	11	273	ARG
30	21	2	LYS
30	21	12	THR
30	21	14	ILE
30	21	21	VAL
30	21	25	VAL
30	21	33	VAL
30	21	34	VAL
30	21	38	THR
30	21	47	VAL
30	21	52	LEU
30	21	57	LYS
30	21	63	LEU
30	21	67	PHE
30	21	76	ARG
30	21	78	LEU
30	21	82	ARG

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Mol	Chain	Res	Type
30	21	89	ASP
30	21	91	VAL
30	21	93	VAL
30	21	101	ARG
30	21	105	THR
30	21	111	ARG
30	21	116	VAL
30	21	118	LYS
30	21	119	ARG
30	21	128	SER
30	21	138	PRO
30	21	140	SER
30	21	163	GLU
30	21	166	THR
30	21	175	VAL
30	21	179	GLU
30	21	181	LEU
30	21	182	LEU
30	21	196	VAL
30	21	197	ILE
30	21	201	THR
30	21	202	LYS
31	31	7	TYR
31	31	17	ARG
31	31	18	ARG
31	31	28	ILE
31	31	32	LEU
31	31	33	LEU
31	31	43	LYS
31	31	57	VAL
31	31	64	ILE
31	31	65	TRP
31	31	67	GLN
31	31	78	ILE
31	31	88	VAL
31	31	101	LEU
31	31	106	ARG
31	31	117	ARG
31	31	119	ARG
31	31	127	GLU
31	31	145	GLU
31	31	158	THR

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Mol	Chain	Res	Type
31	31	168	ARG
31	31	170	LEU
31	31	175	THR
31	31	181	LEU
31	31	183	VAL
31	31	192	LEU
31	31	196	LEU
31	31	197	ASP
31	31	200	GLU
31	31	203	GLN
31	31	205	ARG
32	41	3	LEU
32	41	22	ARG
32	41	26	GLN
32	41	28	VAL
32	41	31	VAL
32	41	34	LEU
32	41	40	ASN
32	41	43	LEU
32	41	45	GLU
32	41	48	GLU
32	41	51	ARG
32	41	53	LEU
32	41	58	GLN
32	41	60	LEU
32	41	67	LYS
32	41	70	VAL
32	41	80	PHE
32	41	82	LEU
32	41	88	ILE
32	41	90	LEU
32	41	92	VAL
32	41	94	LEU
32	41	96	ARG
32	41	101	ILE
32	41	103	LEU
32	41	108	ASN
32	41	118	ARG
32	41	121	ASN
32	41	128	ARG
32	41	133	LEU
32	41	149	VAL

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Mol	Chain	Res	Type
32	41	162	THR
32	41	166	ASP
33	51	2	SER
33	51	3	ARG
33	51	4	ILE
33	51	7	LEU
33	51	9	ILE
33	51	11	VAL
33	51	24	VAL
33	51	40	GLU
33	51	41	MET
33	51	43	VAL
33	51	45	VAL
33	51	50	VAL
33	51	53	GLU
33	51	56	SER
33	51	64	LEU
33	51	68	THR
33	51	71	LEU
33	51	77	LYS
33	51	80	SER
33	51	83	TYR
33	51	86	GLU
33	51	88	LEU
33	51	95	ARG
33	51	98	LEU
33	51	104	GLU
33	51	105	LEU
33	51	116	GLU
33	51	122	THR
33	51	129	THR
33	51	131	VAL
33	51	139	GLN
33	51	152	ARG
33	51	160	LYS
33	51	170	ARG
34	61	1	MET
34	61	2	LYS
34	61	7	GLU
34	61	9	LEU
34	61	10	GLU
34	61	12	LEU

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Mol	Chain	Res	Type
34	61	20	ASP
34	61	25	TYR
34	61	38	LEU
34	61	40	THR
34	61	41	GLU
34	61	44	LEU
34	61	47	LEU
34	61	58	LEU
34	61	75	LEU
34	61	77	LEU
34	61	82	ARG
34	61	85	GLU
34	61	86	THR
34	61	92	VAL
34	61	95	LYS
34	61	96	ASP
34	61	101	LEU
34	61	108	THR
34	61	110	ASP
34	61	112	LYS
34	61	117	GLU
34	61	122	GLU
34	61	131	LYS
34	61	135	GLU
34	61	136	VAL
34	61	140	LEU
34	61	142	VAL
34	61	144	VAL
34	61	145	VAL
35	58	2	LYS
35	58	5	VAL
35	58	7	LYS
35	58	28	THR
35	58	32	THR
35	58	33	LEU
35	58	34	LEU
35	58	42	TRP
35	58	58	ASP
35	58	60	ILE
35	58	65	LYS
35	58	67	LEU
35	58	87	LEU

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Mol	Chain	Res	Type
35	58	90	MET
35	58	91	LEU
35	58	97	ARG
35	58	99	LEU
35	58	120	LEU
35	58	127	ASP
35	58	128	HIS
35	58	130	HIS
35	58	131	GLN
35	58	134	ARG
35	58	137	LYS
36	68	24	VAL
36	68	28	SER
36	68	35	VAL
36	68	47	ILE
36	68	53	LYS
36	68	64	ARG
36	68	66	LYS
36	68	68	GLU
36	68	78	ARG
36	68	94	ARG
36	68	112	MET
37	78	1	MET
37	78	5	ASP
37	78	6	LEU
37	78	7	ARG
37	78	10	PRO
37	78	15	ARG
37	78	17	LYS
37	78	21	ARG
37	78	25	SER
37	78	27	HIS
37	78	29	LYS
37	78	41	ARG
37	78	45	LEU
37	78	46	LYS
37	78	49	ARG
37	78	56	SER
37	78	61	ARG
37	78	65	ARG
37	78	67	MET
37	78	71	VAL

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Mol	Chain	Res	Type
37	78	77	ARG
37	78	90	ARG
37	78	94	GLU
37	78	99	LEU
37	78	100	LEU
37	78	101	VAL
37	78	102	ARG
37	78	105	LEU
37	78	106	LEU
37	78	112	LEU
37	78	114	ILE
37	78	115	LEU
37	78	133	SER
37	78	135	LEU
37	78	138	LEU
37	78	144	GLU
37	78	146	VAL
38	88	1	MET
38	88	2	LEU
38	88	5	ARG
38	88	16	ARG
38	88	18	LYS
38	88	25	ASP
38	88	45	GLN
38	88	55	VAL
38	88	56	ARG
38	88	58	PHE
38	88	75	THR
38	88	79	LEU
38	88	81	VAL
38	88	83	MET
38	88	103	MET
38	88	109	VAL
38	88	110	THR
38	88	129	THR
38	88	138	ASP
39	98	2	ARG
39	98	6	SER
39	98	9	LYS
39	98	10	LEU
39	98	17	ARG
39	98	18	LEU

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Mol	Chain	Res	Type
39	98	24	GLN
39	98	28	LEU
39	98	29	LEU
39	98	34	ILE
39	98	44	LEU
39	98	45	ARG
39	98	54	LEU
39	98	57	ARG
39	98	63	ARG
39	98	65	LEU
39	98	75	LEU
39	98	79	LEU
39	98	83	ILE
39	98	105	ARG
39	98	113	LEU
39	98	118	GLU
40	A8	8	GLU
40	A8	13	ARG
40	A8	14	VAL
40	A8	17	ARG
40	A8	20	ARG
40	A8	24	LEU
40	A8	30	ARG
40	A8	32	LEU
40	A8	33	LYS
40	A8	35	ILE
40	A8	36	TYR
40	A8	43	GLU
40	A8	46	VAL
40	A8	48	LEU
40	A8	50	SER
40	A8	54	LEU
40	A8	57	LYS
40	A8	58	LEU
40	A8	69	VAL
40	A8	73	LEU
40	A8	75	GLU
40	A8	83	LYS
40	A8	89	ARG
40	A8	97	ARG
40	A8	101	LEU
40	A8	106	ARG

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Mol	Chain	Res	Type
41	B8	2	ASN
41	B8	3	ARG
41	B8	7	ILE
41	B8	10	VAL
41	B8	16	ARG
41	B8	17	THR
41	B8	21	GLU
41	B8	27	THR
41	B8	30	VAL
41	B8	40	THR
41	B8	44	ASP
41	B8	50	ILE
41	B8	55	ASN
41	B8	58	ASN
41	B8	59	THR
41	B8	62	THR
41	B8	64	ARG
41	B8	74	ARG
41	B8	85	LYS
41	B8	86	ILE
41	B8	88	ILE
41	B8	96	ARG
41	B8	98	LYS
41	B8	99	LEU
41	B8	102	ILE
41	B8	106	SER
41	B8	110	ILE
41	B8	111	ARG
41	B8	112	ARG
41	B8	118	ARG
41	B8	128	GLU
41	B8	129	ARG
41	B8	132	LYS
42	C8	17	ILE
42	C8	22	LYS
42	C8	27	LEU
42	C8	51	LYS
42	C8	52	ARG
42	C8	74	LEU
42	C8	79	PHE
42	C8	92	ARG
42	C8	94	ASN

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Mol	Chain	Res	Type
42	C8	104	GLN
42	C8	108	GLU
42	C8	112	ARG
43	D8	5	VAL
43	D8	6	LYS
43	D8	7	THR
43	D8	12	TYR
43	D8	13	ARG
43	D8	14	VAL
43	D8	18	LEU
43	D8	20	LEU
43	D8	21	ARG
43	D8	25	LEU
43	D8	37	VAL
43	D8	38	LEU
43	D8	40	LEU
43	D8	43	GLU
43	D8	46	VAL
43	D8	49	THR
43	D8	52	VAL
43	D8	53	GLU
43	D8	56	SER
43	D8	57	VAL
43	D8	58	VAL
43	D8	62	LEU
43	D8	64	HIS
43	D8	73	SER
43	D8	78	LYS
43	D8	79	VAL
43	D8	82	ARG
43	D8	100	ARG
44	E8	11	ARG
44	E8	13	SER
44	E8	23	LEU
44	E8	51	LEU
44	E8	52	GLU
44	E8	60	ASN
44	E8	64	MET
44	E8	65	LEU
44	E8	70	TYR
44	E8	76	VAL
44	E8	78	GLU

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Mol	Chain	Res	Type
44	E8	92	ARG
44	E8	96	ILE
44	E8	107	LEU
45	F8	23	GLU
45	F8	27	THR
45	F8	53	LYS
45	F8	54	VAL
45	F8	65	ARG
45	F8	66	LEU
45	F8	68	ARG
45	F8	70	LEU
45	F8	72	LYS
45	F8	80	ILE
46	G8	3	VAL
46	G8	4	LYS
46	G8	6	HIS
46	G8	24	VAL
46	G8	28	LYS
46	G8	44	ILE
46	G8	50	ARG
46	G8	52	SER
46	G8	57	GLN
46	G8	64	GLU
46	G8	75	ILE
46	G8	85	VAL
46	G8	86	ARG
46	G8	90	LEU
46	G8	96	ILE
46	G8	98	VAL
46	G8	102	CYS
47	H8	1	MET
47	H8	2	GLU
47	H8	11	GLU
47	H8	35	ARG
47	H8	46	LYS
47	H8	61	LEU
47	H8	71	VAL
47	H8	76	LEU
47	H8	77	ASP
47	H8	80	ARG
47	H8	82	ARG
47	H8	84	GLU

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Mol	Chain	Res	Type
47	H8	91	LEU
47	H8	94	GLU
47	H8	105	VAL
47	H8	117	LEU
47	H8	121	HIS
47	H8	128	VAL
47	H8	132	ASN
47	H8	142	SER
47	H8	154	ASP
47	H8	166	SER
47	H8	169	GLU
48	I8	10	THR
48	I8	36	ILE
48	I8	67	VAL
48	I8	68	GLU
48	I8	74	ARG
48	I8	82	ARG
49	J8	4	VAL
49	J8	19	GLN
49	J8	25	LYS
49	J8	41	ARG
49	J8	52	ARG
49	J8	61	ARG
49	J8	80	LEU
49	J8	81	LYS
49	J8	86	SER
49	J8	91	LYS
49	J8	94	LEU
49	J8	95	LEU
50	K8	3	LEU
50	K8	8	LYS
50	K8	10	LEU
50	K8	15	LYS
50	K8	16	LEU
50	K8	24	LEU
50	K8	32	LEU
50	K8	41	ILE
50	K8	47	ASN
50	K8	48	HIS
50	K8	52	ASP
50	K8	53	LEU
50	K8	55	ARG

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Mol	Chain	Res	Type
50	K8	62	THR
50	K8	64	LEU
50	K8	66	GLU
50	K8	67	LYS
51	L8	4	LEU
51	L8	6	VAL
51	L8	8	LEU
51	L8	9	VAL
51	L8	31	LEU
51	L8	37	LEU
51	L8	40	THR
51	L8	44	ARG
51	L8	58	VAL
52	M8	15	ILE
52	M8	16	CYS
52	M8	18	CYS
52	M8	23	GLU
52	M8	27	THR
52	M8	36	CYS
52	M8	38	LYS
52	M8	40	HIS
52	M8	42	PHE
52	M8	47	GLN
52	M8	60	GLN
52	M8	61	ARG
52	M8	63	TYR
52	M8	65	ASP
53	N8	3	LYS
53	N8	11	THR
53	N8	15	ARG
53	N8	16	ARG
53	N8	26	THR
53	N8	29	THR
53	N8	40	LYS
53	N8	44	THR
53	N8	46	CYS
54	P8	4	THR
54	P8	8	ASN
54	P8	14	LYS
54	P8	24	THR
54	P8	29	LYS
54	P8	41	ARG

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Mol	Chain	Res	Type
54	P8	43	THR
55	Q8	4	MET
55	Q8	6	THR
55	Q8	8	LYS
55	Q8	14	VAL
55	Q8	23	VAL
55	Q8	34	TRP
55	Q8	35	GLN
55	Q8	49	VAL
55	Q8	59	LYS
55	Q8	60	LEU
55	Q8	62	LEU
2	12	19	HIS
2	12	21	ARG
2	12	24	TRP
2	12	30	ARG
2	12	31	TYR
2	12	36	ARG
2	12	40	HIS
2	12	41	ILE
2	12	44	LEU
2	12	49	GLU
2	12	51	LEU
2	12	52	GLU
2	12	59	GLU
2	12	76	GLN
2	12	80	ILE
2	12	84	GLU
2	12	86	GLU
2	12	94	ASN
2	12	96	ARG
2	12	108	ILE
2	12	110	GLN
2	12	118	LEU
2	12	126	GLU
2	12	129	GLU
2	12	145	LEU
2	12	165	VAL
2	12	172	ILE
2	12	176	GLU
2	12	187	LEU
2	12	191	ASP

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Mol	Chain	Res	Type
2	12	193	ASP
2	12	209	ARG
2	12	220	ASP
2	12	221	LEU
2	12	224	GLN
3	22	3	ASN
3	22	4	LYS
3	22	11	ARG
3	22	16	ARG
3	22	26	LYS
3	22	29	TYR
3	22	31	HIS
3	22	34	LEU
3	22	40	ARG
3	22	52	LEU
3	22	59	ARG
3	22	76	VAL
3	22	85	ARG
3	22	87	LEU
3	22	90	GLU
3	22	94	LEU
3	22	107	GLN
3	22	128	PHE
3	22	138	VAL
3	22	141	VAL
3	22	154	SER
3	22	161	GLU
3	22	167	TRP
3	22	179	ARG
3	22	182	ILE
3	22	188	LEU
3	22	191	THR
3	22	195	VAL
3	22	198	VAL
3	22	202	ILE
3	22	204	LEU
4	32	3	ARG
4	32	4	TYR
4	32	5	ILE
4	32	8	VAL
4	32	12	CYS
4	32	17	VAL

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Mol	Chain	Res	Type
4	32	21	LEU
4	32	35	ARG
4	32	58	LEU
4	32	59	ARG
4	32	73	ARG
4	32	76	ARG
4	32	122	ARG
4	32	127	THR
4	32	131	ARG
4	32	134	ASP
4	32	135	LEU
4	32	151	LYS
4	32	155	LEU
4	32	162	LEU
4	32	176	LEU
4	32	184	LYS
4	32	187	ARG
4	32	191	ARG
4	32	192	GLU
4	32	196	LEU
4	32	200	GLU
4	32	204	ILE
5	42	12	LEU
5	42	14	ARG
5	42	15	ARG
5	42	16	THR
5	42	26	PHE
5	42	31	LEU
5	42	40	ARG
5	42	43	LEU
5	42	47	LYS
5	42	56	GLN
5	42	64	ARG
5	42	66	MET
5	42	73	ASN
5	42	75	THR
5	42	78	HIS
5	42	79	GLU
5	42	83	GLU
5	42	90	VAL
5	42	101	ILE
5	42	112	LEU

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Mol	Chain	Res	Type
5	42	118	ILE
5	42	120	THR
5	42	126	ARG
5	42	135	THR
5	42	150	ARG
5	42	151	LEU
6	52	3	ARG
6	52	10	LEU
6	52	14	LEU
6	52	21	LEU
6	52	28	ARG
6	52	46	ARG
6	52	47	ARG
6	52	70	ASP
6	52	71	ARG
6	52	81	ILE
6	52	83	ASP
6	52	85	VAL
7	62	5	ARG
7	62	8	GLU
7	62	9	VAL
7	62	11	GLN
7	62	13	GLN
7	62	16	LEU
7	62	22	LEU
7	62	27	ILE
7	62	45	ASP
7	62	52	GLU
7	62	60	LYS
7	62	66	VAL
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	141	VAL
7	62	143	ARG
7	62	144	MET
7	62	148	ASN
8	72	12	ARG

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Mol	Chain	Res	Type
8	72	22	GLU
8	72	33	GLU
8	72	63	LEU
8	72	73	ASP
8	72	78	GLN
8	72	82	HIS
8	72	84	ARG
8	72	97	VAL
8	72	99	GLU
8	72	102	ARG
8	72	109	ILE
8	72	112	LEU
8	72	119	LEU
8	72	120	THR
8	72	135	CYS
8	72	138	TRP
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	42	ARG
9	82	47	LEU
9	82	54	ASP
9	82	56	LEU
9	82	66	ARG
9	82	78	LYS
9	82	86	VAL
9	82	87	GLN
9	82	95	LYS
9	82	102	LEU
9	82	113	LYS
9	82	117	HIS
9	82	125	TYR
10	1A	13	HIS
10	1A	17	ASP
10	1A	21	GLN
10	1A	24	VAL
10	1A	51	ARG
10	1A	55	LYS
10	1A	57	LYS

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Mol	Chain	Res	Type
10	1A	58	ASP
10	1A	59	SER
10	1A	62	HIS
10	1A	65	LEU
10	1A	70	ARG
10	1A	74	ILE
10	1A	75	ILE
10	1A	79	ARG
10	1A	84	GLN
10	1A	85	LEU
11	2A	18	ARG
11	2A	29	ILE
11	2A	54	ARG
11	2A	63	LEU
11	2A	78	GLN
11	2A	81	ASP
11	2A	96	ARG
11	2A	99	GLN
11	2A	103	LEU
11	2A	105	VAL
11	2A	107	SER
11	2A	109	VAL
11	2A	114	VAL
11	2A	119	CYS
12	3A	13	LYS
12	3A	21	LYS
12	3A	22	SER
12	3A	23	LYS
12	3A	33	ARG
12	3A	34	ARG
12	3A	39	VAL
12	3A	41	ARG
12	3A	55	VAL
12	3A	57	LYS
12	3A	64	TYR
12	3A	81	SER
12	3A	83	VAL
12	3A	84	LEU
12	3A	89	ARG
12	3A	97	ARG
12	3A	111	LYS
12	3A	116	SER

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Mol	Chain	Res	Type
12	3A	118	SER
12	3A	123	LYS
13	4A	9	ILE
13	4A	12	ASN
13	4A	15	VAL
13	4A	16	ASP
13	4A	19	LEU
13	4A	37	THR
13	4A	39	ILE
13	4A	47	ASP
13	4A	48	LEU
13	4A	54	VAL
13	4A	62	ASN
13	4A	64	TRP
13	4A	81	LEU
13	4A	86	CYS
13	4A	88	ARG
13	4A	94	ARG
13	4A	98	VAL
13	4A	101	GLN
13	4A	103	THR
13	4A	108	ARG
13	4A	110	ARG
13	4A	117	VAL
14	5A	7	ILE
14	5A	16	PHE
14	5A	22	THR
14	5A	24	CYS
14	5A	26	ARG
14	5A	29	ARG
14	5A	33	VAL
14	5A	42	ILE
14	5A	43	CYS
15	6A	3	ILE
15	6A	17	ARG
15	6A	22	THR
15	6A	26	GLU
15	6A	40	SER
15	6A	41	GLU
15	6A	58	MET
15	6A	71	GLN
16	7A	2	VAL

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Mol	Chain	Res	Type
16	7A	6	LEU
16	7A	21	VAL
16	7A	39	TYR
16	7A	55	ARG
16	7A	67	THR
16	7A	74	LEU
16	7A	81	ARG
17	8A	10	VAL
17	8A	16	GLN
17	8A	24	GLU
17	8A	25	ARG
17	8A	26	GLN
17	8A	52	LYS
17	8A	55	ASP
17	8A	57	VAL
17	8A	60	ILE
17	8A	63	ARG
17	8A	68	ARG
17	8A	73	VAL
17	8A	74	LEU
17	8A	100	LYS
18	9A	23	LYS
18	9A	26	LEU
18	9A	28	GLU
18	9A	29	PHE
18	9A	32	ARG
18	9A	36	ASN
18	9A	53	ARG
18	9A	82	THR
18	9A	83	GLU
19	AA	6	LYS
19	AA	14	HIS
19	AA	15	LEU
19	AA	20	LEU
19	AA	21	GLU
19	AA	33	THR
19	AA	37	ARG
19	AA	38	SER
19	AA	43	GLU
19	AA	44	MET
19	AA	58	VAL
19	AA	60	VAL

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Mol	Chain	Res	Type
19	AA	71	LEU
20	BA	13	LEU
20	BA	37	SER
20	BA	58	LYS
20	BA	73	HIS
20	BA	75	ASN
20	BA	87	LYS
20	BA	90	GLN
20	BA	99	LEU
21	1B	10	ARG
29	19	14	ARG
29	19	27	THR
29	19	28	GLU
29	19	32	SER
29	19	35	LYS
29	19	37	LEU
29	19	43	ARG
29	19	44	ASN
29	19	45	ASN
29	19	49	ILE
29	19	54	ARG
29	19	61	LEU
29	19	64	ILE
29	19	69	ARG
29	19	72	LYS
29	19	78	LYS
29	19	82	ILE
29	19	88	ARG
29	19	89	SER
29	19	94	LEU
29	19	99	ASP
29	19	103	ARG
29	19	105	ILE
29	19	111	LEU
29	19	116	GLN
29	19	141	VAL
29	19	147	LEU
29	19	155	LEU
29	19	162	SER
29	19	166	GLN
29	19	182	LEU
29	19	192	THR

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Mol	Chain	Res	Type
29	19	193	VAL
29	19	208	LYS
29	19	211	ARG
29	19	217	ARG
29	19	218	ARG
29	19	233	HIS
29	19	242	ARG
29	19	244	ARG
29	19	255	LYS
29	19	257	LEU
29	19	260	ARG
29	19	266	SER
29	19	268	ARG
29	19	271	ILE
29	19	273	ARG
30	29	1	MET
30	29	5	LEU
30	29	7	VAL
30	29	11	MET
30	29	27	LEU
30	29	52	LEU
30	29	55	ASN
30	29	57	LYS
30	29	63	LEU
30	29	66	HIS
30	29	67	PHE
30	29	76	ARG
30	29	78	LEU
30	29	79	ARG
30	29	82	ARG
30	29	87	GLU
30	29	89	ASP
30	29	107	THR
30	29	108	SER
30	29	111	ARG
30	29	113	PHE
30	29	116	VAL
30	29	119	ARG
30	29	128	SER
30	29	138	PRO
30	29	140	SER
30	29	144	ARG

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Mol	Chain	Res	Type
30	29	145	LYS
30	29	146	THR
30	29	149	ARG
30	29	154	LYS
30	29	164	ARG
30	29	167	VAL
30	29	171	GLU
30	29	175	VAL
30	29	181	LEU
30	29	188	VAL
30	29	197	ILE
30	29	200	GLU
30	29	203	LYS
31	39	8	GLN
31	39	11	VAL
31	39	18	ARG
31	39	20	LEU
31	39	24	LEU
31	39	28	ILE
31	39	29	ASN
31	39	33	LEU
31	39	38	ARG
31	39	40	GLN
31	39	44	ARG
31	39	50	SER
31	39	53	THR
31	39	57	VAL
31	39	62	ARG
31	39	67	GLN
31	39	69	HIS
31	39	70	THR
31	39	82	ILE
31	39	83	PHE
31	39	88	VAL
31	39	108	LYS
31	39	110	LEU
31	39	112	MET
31	39	123	LEU
31	39	127	GLU
31	39	144	LYS
31	39	145	GLU
31	39	153	SER

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Mol	Chain	Res	Type
31	39	158	THR
31	39	161	GLU
31	39	165	ARG
31	39	175	THR
31	39	181	LEU
31	39	190	GLU
31	39	191	ARG
31	39	194	MET
31	39	196	LEU
31	39	197	ASP
31	39	205	ARG
32	49	4	ASP
32	49	9	ARG
32	49	13	GLU
32	49	18	GLU
32	49	19	LEU
32	49	26	GLN
32	49	33	ARG
32	49	35	GLU
32	49	39	ILE
32	49	40	ASN
32	49	45	GLU
32	49	48	GLU
32	49	49	ASP
32	49	51	ARG
32	49	53	LEU
32	49	62	LEU
32	49	66	GLN
32	49	75	LYS
32	49	80	PHE
32	49	82	LEU
32	49	91	ARG
32	49	109	VAL
32	49	111	LEU
32	49	116	ASP
32	49	130	ASN
32	49	133	LEU
32	49	136	ARG
32	49	138	GLN
32	49	152	LEU
32	49	153	ARG
32	49	156	ASP

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Mol	Chain	Res	Type
32	49	161	THR
32	49	165	THR
32	49	172	LEU
32	49	181	ARG
33	59	6	ARG
33	59	7	LEU
33	59	32	GLU
33	59	41	MET
33	59	43	VAL
33	59	50	VAL
33	59	70	THR
33	59	72	ILE
33	59	77	LYS
33	59	80	SER
33	59	83	TYR
33	59	85	LYS
33	59	86	GLU
33	59	89	ILE
33	59	101	ARG
33	59	103	LEU
33	59	107	VAL
33	59	111	HIS
33	59	116	GLU
33	59	119	GLU
33	59	122	THR
33	59	123	PHE
33	59	125	VAL
33	59	127	GLU
33	59	129	THR
33	59	131	VAL
33	59	132	ARG
33	59	136	ILE
33	59	137	ASP
33	59	139	GLN
33	59	141	VAL
33	59	143	GLN
33	59	147	ASN
33	59	152	ARG
33	59	157	TYR
33	59	158	HIS
33	59	167	GLU
33	59	170	ARG

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Mol	Chain	Res	Type
33	59	171	LEU
34	69	1	MET
34	69	2	LYS
34	69	7	GLU
34	69	9	LEU
34	69	19	VAL
34	69	27	ARG
34	69	33	ARG
34	69	37	VAL
34	69	43	ASN
34	69	47	LEU
34	69	56	LYS
34	69	61	ARG
34	69	62	LYS
34	69	67	ARG
34	69	75	LEU
34	69	76	THR
34	69	77	LEU
34	69	78	THR
34	69	81	VAL
34	69	86	THR
34	69	93	THR
34	69	101	LEU
34	69	104	GLN
34	69	105	HIS
34	69	109	ILE
34	69	114	LEU
34	69	117	GLU
34	69	125	GLU
34	69	130	TYR
34	69	131	LYS
34	69	135	GLU
34	69	141	LYS
34	69	142	VAL
34	69	145	VAL
35	15	5	VAL
35	15	9	VAL
35	15	12	ARG
35	15	15	LEU
35	15	28	THR
35	15	32	THR
35	15	33	LEU

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Mol	Chain	Res	Type
35	15	34	LEU
35	15	43	THR
35	15	48	MET
35	15	58	ASP
35	15	59	LYS
35	15	61	ARG
35	15	63	THR
35	15	68	GLU
35	15	85	ILE
35	15	87	LEU
35	15	93	THR
35	15	94	HIS
35	15	99	LEU
35	15	120	LEU
35	15	130	HIS
35	15	131	GLN
35	15	134	ARG
35	15	137	LYS
36	25	8	LEU
36	25	9	GLU
36	25	10	VAL
36	25	22	ILE
36	25	24	VAL
36	25	28	SER
36	25	35	VAL
36	25	42	SER
36	25	49	ARG
36	25	58	VAL
36	25	68	GLU
36	25	78	ARG
36	25	87	ILE
36	25	94	ARG
36	25	97	ARG
36	25	113	LYS
36	25	116	SER
36	25	117	LEU
37	35	4	SER
37	35	7	ARG
37	35	15	ARG
37	35	16	ARG
37	35	19	VAL
37	35	21	ARG

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Mol	Chain	Res	Type
37	35	27	HIS
37	35	30	THR
37	35	41	ARG
37	35	45	LEU
37	35	52	GLU
37	35	55	ARG
37	35	59	LEU
37	35	62	LEU
37	35	67	MET
37	35	71	VAL
37	35	75	ILE
37	35	76	LYS
37	35	79	ARG
37	35	84	ASN
37	35	85	LEU
37	35	86	LYS
37	35	91	PHE
37	35	96	THR
37	35	98	GLU
37	35	102	ARG
37	35	105	LEU
37	35	112	LEU
37	35	114	ILE
37	35	125	VAL
37	35	126	VAL
37	35	132	LYS
37	35	133	SER
37	35	135	LEU
37	35	138	LEU
37	35	144	GLU
37	35	146	VAL
37	35	147	LEU
38	45	2	LEU
38	45	10	ARG
38	45	14	ARG
38	45	16	ARG
38	45	22	LYS
38	45	25	ASP
38	45	26	TYR
38	45	27	VAL
38	45	32	TYR
38	45	35	VAL

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Mol	Chain	Res	Type
38	45	38	GLU
38	45	45	GLN
38	45	51	ARG
38	45	56	ARG
38	45	75	THR
38	45	79	LEU
38	45	91	GLU
38	45	103	MET
38	45	106	VAL
38	45	110	THR
38	45	111	GLU
38	45	112	GLU
38	45	115	MET
38	45	129	THR
38	45	131	ILE
38	45	137	TYR
38	45	138	ASP
39	55	1	MET
39	55	2	ARG
39	55	6	SER
39	55	9	LYS
39	55	18	LEU
39	55	28	LEU
39	55	29	LEU
39	55	33	ARG
39	55	44	LEU
39	55	65	LEU
39	55	79	LEU
39	55	81	ASP
39	55	82	GLU
39	55	95	THR
39	55	96	ARG
40	65	3	ARG
40	65	12	PHE
40	65	13	ARG
40	65	14	VAL
40	65	17	ARG
40	65	19	LYS
40	65	20	ARG
40	65	24	LEU
40	65	36	TYR
40	65	42	ASP

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Mol	Chain	Res	Type
40	65	50	SER
40	65	62	LYS
40	65	65	VAL
40	65	69	VAL
40	65	83	LYS
40	65	89	ARG
40	65	98	VAL
40	65	101	LEU
40	65	106	ARG
40	65	107	GLU
41	75	11	GLU
41	75	12	SER
41	75	13	ARG
41	75	15	VAL
41	75	17	THR
41	75	21	GLU
41	75	23	ARG
41	75	27	THR
41	75	36	GLU
41	75	40	THR
41	75	41	ARG
41	75	42	ILE
41	75	50	ILE
41	75	54	ARG
41	75	57	PHE
41	75	59	THR
41	75	61	PHE
41	75	62	THR
41	75	64	ARG
41	75	65	LYS
41	75	86	ILE
41	75	87	ASP
41	75	88	ILE
41	75	91	ARG
41	75	93	ARG
41	75	96	ARG
41	75	105	LEU
41	75	107	ASP
41	75	112	ARG
41	75	115	ARG
41	75	118	ARG
41	75	129	ARG

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Mol	Chain	Res	Type
42	85	3	ARG
42	85	5	LYS
42	85	8	VAL
42	85	20	LEU
42	85	52	ARG
42	85	55	ARG
42	85	64	ARG
42	85	71	GLN
42	85	74	LEU
42	85	85	LYS
42	85	92	ARG
42	85	97	ASP
42	85	101	ARG
42	85	105	VAL
42	85	112	ARG
42	85	114	LYS
43	95	7	THR
43	95	13	ARG
43	95	18	LEU
43	95	26	ASP
43	95	28	GLU
43	95	35	LEU
43	95	47	VAL
43	95	49	THR
43	95	57	VAL
43	95	66	ARG
43	95	71	LEU
43	95	84	LYS
43	95	88	ARG
43	95	93	GLU
43	95	95	LEU
44	A5	1	MET
44	A5	11	ARG
44	A5	17	VAL
44	A5	18	ARG
44	A5	20	VAL
44	A5	23	LEU
44	A5	39	THR
44	A5	51	LEU
44	A5	65	LEU
44	A5	67	ASP
44	A5	70	TYR

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Mol	Chain	Res	Type
44	A5	76	VAL
44	A5	85	VAL
44	A5	96	ILE
44	A5	100	THR
44	A5	103	ILE
44	A5	107	LEU
44	A5	110	LYS
44	A5	111	HIS
45	B5	9	LEU
45	B5	12	VAL
45	B5	23	GLU
45	B5	27	THR
45	B5	35	THR
45	B5	49	VAL
45	B5	52	VAL
45	B5	63	LYS
45	B5	66	LEU
45	B5	69	TYR
45	B5	72	LYS
45	B5	80	ILE
45	B5	81	VAL
45	B5	82	GLN
45	B5	90	GLU
45	B5	92	LEU
46	C5	6	HIS
46	C5	23	ARG
46	C5	24	VAL
46	C5	38	ILE
46	C5	43	ASN
46	C5	44	ILE
46	C5	55	TYR
46	C5	61	ILE
46	C5	62	GLU
46	C5	63	LYS
46	C5	70	SER
46	C5	72	VAL
46	C5	76	CYS
46	C5	84	ARG
46	C5	85	VAL
46	C5	86	ARG
46	C5	87	LYS
46	C5	89	PHE

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Mol	Chain	Res	Type
46	C5	91	GLU
46	C5	94	LYS
46	C5	97	ARG
46	C5	98	VAL
46	C5	101	LYS
46	C5	102	CYS
47	D5	4	ARG
47	D5	5	LEU
47	D5	14	LYS
47	D5	16	SER
47	D5	18	LEU
47	D5	19	ARG
47	D5	24	LEU
47	D5	27	VAL
47	D5	30	ASN
47	D5	41	LEU
47	D5	53	ILE
47	D5	55	HIS
47	D5	63	ASP
47	D5	70	LEU
47	D5	71	VAL
47	D5	72	ARG
47	D5	74	VAL
47	D5	76	LEU
47	D5	87	ASP
47	D5	89	PHE
47	D5	91	LEU
47	D5	103	ARG
47	D5	104	PHE
47	D5	119	GLU
47	D5	121	HIS
47	D5	122	ARG
47	D5	123	ASP
47	D5	136	PHE
47	D5	140	ASP
47	D5	142	SER
47	D5	144	LEU
47	D5	154	ASP
47	D5	161	VAL
47	D5	165	VAL
47	D5	166	SER
47	D5	168	GLU

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Mol	Chain	Res	Type
47	D5	170	THR
47	D5	175	VAL
48	E5	12	ASN
48	E5	36	ILE
48	E5	43	THR
48	E5	46	LYS
48	E5	63	VAL
48	E5	74	ARG
49	F5	2	SER
49	F5	11	ARG
49	F5	19	GLN
49	F5	21	ARG
49	F5	26	ARG
49	F5	38	SER
49	F5	40	ARG
49	F5	72	GLU
49	F5	73	LEU
49	F5	76	ARG
49	F5	78	LYS
49	F5	82	LEU
49	F5	85	LEU
49	F5	90	ILE
49	F5	91	LYS
50	G5	3	LEU
50	G5	10	LEU
50	G5	15	LYS
50	G5	24	LEU
50	G5	26	ARG
50	G5	34	GLU
50	G5	44	LEU
50	G5	46	GLN
50	G5	47	ASN
50	G5	48	HIS
50	G5	50	ILE
50	G5	53	LEU
50	G5	60	LEU
50	G5	64	LEU
50	G5	65	ASN
50	G5	68	ARG
51	H5	3	ARG
51	H5	5	LYS
51	H5	8	LEU

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Mol	Chain	Res	Type
51	H5	9	VAL
51	H5	23	LEU
51	H5	24	LYS
51	H5	30	ARG
51	H5	32	GLN
51	H5	33	GLN
51	H5	35	ARG
51	H5	39	ASP
51	H5	40	THR
51	H5	44	ARG
53	J5	10	LYS
53	J5	15	ARG
53	J5	16	ARG
53	J5	23	HIS
53	J5	25	LEU
53	J5	29	THR
53	J5	35	GLU
53	J5	44	THR
53	J5	48	GLU
53	J5	55	ARG
54	L5	1	MET
54	L5	4	THR
54	L5	8	ASN
54	L5	32	LYS
54	L5	36	GLN
54	L5	41	ARG
54	L5	43	THR
55	M5	31	HIS
55	M5	40	GLU
55	M5	41	ILE
55	M5	42	ARG
55	M5	50	LEU
55	M5	57	ARG
55	M5	58	ILE
55	M5	59	LYS
55	M5	60	LEU
55	M5	62	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (14) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	224	GLN

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Mol	Chain	Res	Type
16	7I	14	ASN
28	71	188	ASN
29	11	116	GLN
32	41	108	ASN
41	B8	58	ASN
44	E8	40	ASN
55	Q8	31	HIS
2	12	16	HIS
10	1A	13	HIS
29	19	46	GLN
30	29	54	GLN
30	29	55	ASN
43	95	11	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1500/1522 (98%)	349 (23%)	39 (2%)
1	1G	1508/1522 (99%)	354 (23%)	40 (2%)
22	1K	69/76 (90%)	29 (42%)	5 (7%)
23	2K	76/77 (98%)	24 (31%)	2 (2%)
23	2L	76/77 (98%)	20 (26%)	1 (1%)
24	3K	67/76 (88%)	39 (58%)	2 (2%)
24	3L	69/76 (90%)	32 (46%)	2 (2%)
25	4K	19/30 (63%)	11 (57%)	2 (10%)
25	4L	18/30 (60%)	13 (72%)	1 (5%)
26	14	2820/2917 (96%)	664 (23%)	45 (1%)
26	1H	2824/2917 (96%)	601 (21%)	36 (1%)
27	16	121/122 (99%)	22 (18%)	3 (2%)
27	1J	121/122 (99%)	33 (27%)	2 (1%)
56	1L	62/76 (81%)	27 (43%)	4 (6%)
All	All	9350/9640 (96%)	2218 (23%)	184 (1%)

All (2218) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	3	G
1	13	4	U
1	13	5	U
1	13	6	G

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Mol	Chain	Res	Type
1	13	9	G
1	13	32	A
1	13	33	A
1	13	39	G
1	13	44	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
1	13	65	U
1	13	66	G
1	13	69	G
1	13	75	C
1	13	76	G
1	13	77	C
1	13	92	G
1	13	93	U
1	13	95	G
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	116	A
1	13	121	C
1	13	122	G
1	13	130	A
1	13	131	C
1	13	143	A
1	13	144	G
1	13	147	G
1	13	151	A
1	13	160	A
1	13	162	A
1	13	163	C
1	13	169	C
1	13	173	U
1	13	174	C
1	13	186(D)	C
1	13	186(F)	C
1	13	188	U

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Mol	Chain	Res	Type
1	13	189	U
1	13	191(A)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	210	U
1	13	216	G
1	13	217	C
1	13	222	U
1	13	226	G
1	13	231	G
1	13	243	A
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	256	U
1	13	262	A
1	13	266	G
1	13	267	C
1	13	270	A
1	13	280	C
1	13	289	G
1	13	316	G
1	13	318	G
1	13	321	A
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	341	C
1	13	343	U
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	349	A
1	13	352	C
1	13	353	A

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Mol	Chain	Res	Type
1	13	354	G
1	13	365	U
1	13	367	U
1	13	372	C
1	13	373	A
1	13	382	A
1	13	383	A
1	13	384	G
1	13	388	G
1	13	390	C
1	13	392	G
1	13	396	G
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A
1	13	414	A
1	13	422	C
1	13	423	G
1	13	429	U
1	13	430	A
1	13	439	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	504	C
1	13	505	G
1	13	510	A
1	13	511	C
1	13	518	C
1	13	519	C
1	13	521	G
1	13	524	G
1	13	527	G
1	13	531	U
1	13	533	A
1	13	536	C

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Mol	Chain	Res	Type
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	616	G
1	13	618	C
1	13	620	C
1	13	630	G
1	13	631	G
1	13	632	A
1	13	633	G
1	13	639	G
1	13	653	A
1	13	654	G
1	13	655	A
1	13	665	A
1	13	666	G
1	13	687	A
1	13	688	G
1	13	702	A
1	13	703	G
1	13	704	A
1	13	723	U
1	13	724	G
1	13	749	C
1	13	750	G
1	13	753	A
1	13	755	G
1	13	759	A
1	13	760	G
1	13	768	A
1	13	774	G
1	13	777	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	801	U
1	13	813	U

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Mol	Chain	Res	Type
1	13	817	C
1	13	818	G
1	13	828	A
1	13	836	G
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	859	A
1	13	870	U
1	13	871	U
1	13	872	A
1	13	876	G
1	13	877	C
1	13	885	G
1	13	890	G
1	13	902	G
1	13	914	A
1	13	916	G
1	13	922	G
1	13	926	G
1	13	927	G
1	13	933	G
1	13	934	C
1	13	936	C
1	13	941	G
1	13	951	G
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	978	A
1	13	983	A
1	13	991	U
1	13	992	U
1	13	993	G
1	13	998	G
1	13	999	U

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Mol	Chain	Res	Type
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	1017	G
1	13	1021	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(A)	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1031	G
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1033	G
1	13	1039	C
1	13	1040	U
1	13	1042	G
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1086	U
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1132	C
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G

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Mol	Chain	Res	Type
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	1177	G
1	13	1178	G
1	13	1181	G
1	13	1184	G
1	13	1188	A
1	13	1189	C
1	13	1190	G
1	13	1193	G
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1211	U
1	13	1212	U
1	13	1213	A
1	13	1225	A
1	13	1227	A
1	13	1236	A
1	13	1238	A
1	13	1240	U
1	13	1241	G
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1270	C
1	13	1272	G
1	13	1275	A
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1286	A
1	13	1287	A
1	13	1292	U
1	13	1299	A
1	13	1300	G
1	13	1302	U

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Mol	Chain	Res	Type
1	13	1303	C
1	13	1305	G
1	13	1312	G
1	13	1319	A
1	13	1320	C
1	13	1331	G
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1352	C
1	13	1353	G
1	13	1356	G
1	13	1363	A
1	13	1368	G
1	13	1370	G
1	13	1379	G
1	13	1397	C
1	13	1398	A
1	13	1406	U
1	13	1409	C
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1447	G
1	13	1449	C
1	13	1450	U
1	13	1452	C
1	13	1453	G
1	13	1469	G
1	13	1487	G
1	13	1492	A
1	13	1494	G
1	13	1497	G
1	13	1499	A
1	13	1502	A
1	13	1504	G
1	13	1505	G

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Mol	Chain	Res	Type
1	13	1506	U
1	13	1517	G
1	13	1519	A
1	13	1520	G
1	13	1529	G
1	13	1530	G
1	13	1534	A
1	13	1535	C
22	1K	4	U
22	1K	6	G
22	1K	7	U
22	1K	9	A
22	1K	15	G
22	1K	18	G
22	1K	22	G
22	1K	26	A
22	1K	29	U
22	1K	41	A
22	1K	44	U
22	1K	45	G
22	1K	48	C
22	1K	50	C
22	1K	51	A
22	1K	54	5MU
22	1K	56	C
22	1K	60	U
22	1K	61	C
22	1K	63	U
22	1K	68	G
22	1K	69	A
22	1K	70	C
22	1K	71	C
22	1K	72	C
22	1K	73	A
22	1K	74	C
22	1K	75	C
22	1K	76	A
23	2K	2	G
23	2K	6	G
23	2K	8	4SU
23	2K	9	G
23	2K	15	G

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Mol	Chain	Res	Type
23	2K	16	C
23	2K	17	C
23	2K	19	G
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	37	U
23	2K	44	A
23	2K	45	A
23	2K	48	U
23	2K	49	C
23	2K	53	G
23	2K	55	5MU
23	2K	57	C
23	2K	63	C
23	2K	68	C
23	2K	73	A
23	2K	76	C
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	4	U
24	3K	5	C
24	3K	7	U
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	15	G
24	3K	24	G
24	3K	26	A
24	3K	31	A
24	3K	34	U
24	3K	35	U
24	3K	37	A
24	3K	39	U
24	3K	40	C
24	3K	42	A
24	3K	43	U
24	3K	45	G
24	3K	46	G
24	3K	49	G

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Mol	Chain	Res	Type
24	3K	51	A
24	3K	52	G
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	C
24	3K	64	G
24	3K	65	C
24	3K	66	A
24	3K	69	A
24	3K	72	C
24	3K	73	A
24	3K	76	A
25	4K	7	G
25	4K	8	A
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
26	1H	11	G
26	1H	12	U
26	1H	15	G
26	1H	26	G
26	1H	34	C
26	1H	46	C
26	1H	51	G
26	1H	54	G
26	1H	55	G
26	1H	61	G
26	1H	63	U
26	1H	64	A
26	1H	66	C
26	1H	71	A
26	1H	74	A

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Mol	Chain	Res	Type
26	1H	75	G
26	1H	85	G
26	1H	95	G
26	1H	102	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	125	G
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	173	G
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	212	G
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	233	A
26	1H	244	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(K)	C
26	1H	270(L)	U
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C

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Mol	Chain	Res	Type
26	1H	270(Y)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	273(E)	U
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	295	G
26	1H	299	A
26	1H	308	G
26	1H	311	A
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	342	G
26	1H	346	A
26	1H	352	G
26	1H	363	G
26	1H	363(A)	A
26	1H	372	G
26	1H	375	C
26	1H	386	G
26	1H	389	G
26	1H	404	C
26	1H	405	U
26	1H	406	G
26	1H	411	G
26	1H	427	U
26	1H	428	A
26	1H	443	A
26	1H	444	C
26	1H	447	A
26	1H	448	U
26	1H	452	G
26	1H	455	C
26	1H	456	C
26	1H	457	A
26	1H	462	C
26	1H	470	A
26	1H	471	A

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Mol	Chain	Res	Type
26	1H	481	G
26	1H	482	A
26	1H	491	G
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
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	563	G
26	1H	564	C
26	1H	570	G
26	1H	571	A
26	1H	573	G
26	1H	575	A
26	1H	587	C
26	1H	588	U
26	1H	593	G
26	1H	603	A
26	1H	607	U
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	621	A
26	1H	627	A
26	1H	631	A
26	1H	634	C
26	1H	637	A
26	1H	640	C
26	1H	645	C
26	1H	646	A
26	1H	649	G
26	1H	654	A
26	1H	654(A)	A
26	1H	654(D)	G
26	1H	654(O)	G
26	1H	654(P)	G

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Mol	Chain	Res	Type
26	1H	654(Q)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	654(V)	A
26	1H	665	C
26	1H	669	G
26	1H	676	A
26	1H	682	G
26	1H	686	G
26	1H	717	G
26	1H	730	C
26	1H	764	A
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	792	G
26	1H	794	G
26	1H	801	G
26	1H	805	G
26	1H	812	C
26	1H	823	G
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	855	G
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	878	A
26	1H	879	G
26	1H	894	C
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	902	C

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Mol	Chain	Res	Type
26	1H	907	U
26	1H	910	A
26	1H	914	C
26	1H	917	A
26	1H	926	A
26	1H	932	G
26	1H	938	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	953	A
26	1H	959	A
26	1H	961	C
26	1H	968	G
26	1H	974	G
26	1H	974(A)	C
26	1H	983	A
26	1H	996	A
26	1H	1003	G
26	1H	1005	C
26	1H	1008	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	1028	A
26	1H	1033	U
26	1H	1034	G
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1055	G
26	1H	1109	C
26	1H	1111	A
26	1H	1112	G
26	1H	1121	C
26	1H	1123	C
26	1H	1126	A
26	1H	1129	A

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Mol	Chain	Res	Type
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1138	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1144	G
26	1H	1151	G
26	1H	1155	A
26	1H	1157	G
26	1H	1169	G
26	1H	1170	G
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1195	G
26	1H	1200	C
26	1H	1204	A
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1225	C
26	1H	1229(A)	G
26	1H	1237	A
26	1H	1244	G
26	1H	1250	G
26	1H	1253	A
26	1H	1256	G
26	1H	1265	A
26	1H	1267	U
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1285	G
26	1H	1289	C
26	1H	1300	U
26	1H	1301	A
26	1H	1319	G

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Mol	Chain	Res	Type
26	1H	1321	A
26	1H	1329	U
26	1H	1332	G
26	1H	1344	G
26	1H	1345	C
26	1H	1349	A
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1395	A
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1428	C
26	1H	1437	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1453	A
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1483	G
26	1H	1493	C
26	1H	1494	A
26	1H	1495	A
26	1H	1497	U
26	1H	1506	C
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1517	G
26	1H	1522	G
26	1H	1526	G
26	1H	1534	G

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Mol	Chain	Res	Type
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	1597	A
26	1H	1606	G
26	1H	1607	C
26	1H	1608	A
26	1H	1609	A
26	1H	1617	C
26	1H	1640	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1674	G
26	1H	1678	G
26	1H	1682	G
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1750	G
26	1H	1756	G
26	1H	1762	A
26	1H	1763	G
26	1H	1764	G
26	1H	1773	A
26	1H	1782	C

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Mol	Chain	Res	Type
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1816	G
26	1H	1819	A
26	1H	1829	A
26	1H	1835	G
26	1H	1836	C
26	1H	1839	G
26	1H	1847	A
26	1H	1859	A
26	1H	1860	G
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1889	A
26	1H	1900	A
26	1H	1904	G
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1915	U
26	1H	1916	A
26	1H	1919	A
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1938	A
26	1H	1941	C
26	1H	1951	U
26	1H	1952	A
26	1H	1955	U
26	1H	1963	U
26	1H	1967	C
26	1H	1968	G
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C

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Mol	Chain	Res	Type
26	1H	1991	U
26	1H	1992	G
26	1H	1993	U
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2043	C
26	1H	2049	G
26	1H	2052	G
26	1H	2054	A
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2069	G
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2117	A
26	1H	2119	A
26	1H	2120	G
26	1H	2124	G
26	1H	2125	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2138	C
26	1H	2139	C
26	1H	2145	C

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Mol	Chain	Res	Type
26	1H	2147	G
26	1H	2148	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A
26	1H	2161	C
26	1H	2162	G
26	1H	2165	G
26	1H	2166	G
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2173	A
26	1H	2175	C
26	1H	2176	A
26	1H	2177	C
26	1H	2181	G
26	1H	2189	U
26	1H	2190	G
26	1H	2198	A
26	1H	2209	C
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2238	G
26	1H	2239	G
26	1H	2240	C
26	1H	2273	A
26	1H	2275	C
26	1H	2278	A
26	1H	2283	C
26	1H	2286	A
26	1H	2287	A
26	1H	2288	A
26	1H	2294	C
26	1H	2298	A
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G

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Mol	Chain	Res	Type
26	1H	2310	A
26	1H	2314	C
26	1H	2315	G
26	1H	2320	A
26	1H	2321	G
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2335	A
26	1H	2336	A
26	1H	2343	C
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2357	U
26	1H	2360	A
26	1H	2376	A
26	1H	2379	G
26	1H	2383	G
26	1H	2385	C
26	1H	2392	A
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	2423	U
26	1H	2424	C
26	1H	2425	A
26	1H	2429	G
26	1H	2430	A
26	1H	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2448	A
26	1H	2450	A
26	1H	2467	C
26	1H	2468	G

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Mol	Chain	Res	Type
26	1H	2476	A
26	1H	2477	C
26	1H	2484	G
26	1H	2497	A
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2518	A
26	1H	2529	G
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2572	A
26	1H	2573	C
26	1H	2582	G
26	1H	2585	U
26	1H	2601	C
26	1H	2602	A
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2621	A
26	1H	2629	A
26	1H	2632	A
26	1H	2634	G
26	1H	2636	U
26	1H	2646	C
26	1H	2654	A
26	1H	2665	A
26	1H	2666	C
26	1H	2673	G
26	1H	2682	U
26	1H	2686	G
26	1H	2689	U
26	1H	2702	U
26	1H	2703	C
26	1H	2705	A
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G

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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	2736	G
26	1H	2744	G
26	1H	2749	A
26	1H	2752	C
26	1H	2756	U
26	1H	2757	A
26	1H	2758	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2777	G
26	1H	2778	A
26	1H	2781	A
26	1H	2782	G
26	1H	2789	C
26	1H	2791	C
26	1H	2793	G
26	1H	2795	G
26	1H	2803	C
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	2837	G
26	1H	2872	G
26	1H	2875	C
26	1H	2883	A
26	1H	2886	G
26	1H	2891	G
26	1H	2892	A
26	1H	2893	G
26	1H	2894	G
26	1H	2895	U
27	16	7	G
27	16	13	A

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Mol	Chain	Res	Type
27	16	15	A
27	16	16	G
27	16	25	A
27	16	33	G
27	16	35	U
27	16	39	A
27	16	42	C
27	16	45	A
27	16	50	G
27	16	56	G
27	16	65	C
27	16	66	A
27	16	73	A
27	16	81	G
27	16	82	G
27	16	105	G
27	16	109	G
27	16	115	G
27	16	116	G
27	16	118	G
1	1G	2	U
1	1G	3	G
1	1G	4	U
1	1G	5	U
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	42	G
1	1G	44	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	53	A
1	1G	65	U
1	1G	73	G
1	1G	76	G
1	1G	79	G
1	1G	80	G

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Mol	Chain	Res	Type
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	90	C
1	1G	91	C
1	1G	92	G
1	1G	95	G
1	1G	101	A
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	127	G
1	1G	131	C
1	1G	144	G
1	1G	162	A
1	1G	163	C
1	1G	173	U
1	1G	174	C
1	1G	182	U
1	1G	186	C
1	1G	186(F)	C
1	1G	188	U
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	191(E)	G
1	1G	195	A
1	1G	197	A
1	1G	208	U
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	256	U
1	1G	266	G
1	1G	267	C
1	1G	279	A
1	1G	281	G
1	1G	289	G

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Mol	Chain	Res	Type
1	1G	298	A
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	346	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	363	A
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	421	U
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	439	A
1	1G	442	C
1	1G	452	A
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	477	G
1	1G	482	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	495	A
1	1G	496	A
1	1G	497	U
1	1G	500	G

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Mol	Chain	Res	Type
1	1G	505	G
1	1G	509	A
1	1G	510	A
1	1G	511	C
1	1G	513	C
1	1G	518	C
1	1G	524	G
1	1G	527	G
1	1G	531	U
1	1G	532	A
1	1G	546	G
1	1G	547	A
1	1G	558	G
1	1G	559	A
1	1G	561	U
1	1G	562	C
1	1G	564	C
1	1G	567	G
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	608	A
1	1G	614	A
1	1G	615	C
1	1G	617	G
1	1G	621	A
1	1G	630	G
1	1G	631	G
1	1G	632	A
1	1G	633	G
1	1G	651	C
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	722	A
1	1G	723	U
1	1G	724	G
1	1G	731	G

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Mol	Chain	Res	Type
1	1G	749	C
1	1G	755	G
1	1G	766	A
1	1G	769	G
1	1G	770	C
1	1G	776	G
1	1G	777	A
1	1G	778	G
1	1G	787	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	805	C
1	1G	816	A
1	1G	817	C
1	1G	820	U
1	1G	821	G
1	1G	828	A
1	1G	836	G
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	859	A
1	1G	860	A
1	1G	873	A
1	1G	874	G
1	1G	884	U
1	1G	885	G
1	1G	889	A
1	1G	914	A
1	1G	916	G
1	1G	921	U
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	944	G
1	1G	953	G
1	1G	960	U
1	1G	961	U
1	1G	967	C

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Mol	Chain	Res	Type
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	979	C
1	1G	980	C
1	1G	982	U
1	1G	989	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	995	C
1	1G	996	A
1	1G	1001	G
1	1G	1002	G
1	1G	1003	G
1	1G	1004	A
1	1G	1006	C
1	1G	1008	C
1	1G	1009	G
1	1G	1017	G
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1026	G
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032	A
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1037	C
1	1G	1040	U
1	1G	1045	C
1	1G	1046	A

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Mol	Chain	Res	Type
1	1G	1054	C
1	1G	1056	U
1	1G	1064	G
1	1G	1082	G
1	1G	1084	G
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1099	G
1	1G	1101	A
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1133	G
1	1G	1135	U
1	1G	1136	U
1	1G	1137	C
1	1G	1139	G
1	1G	1140	C
1	1G	1144	G
1	1G	1146	A
1	1G	1147	C
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1183	A
1	1G	1185	G
1	1G	1186	G
1	1G	1188	A
1	1G	1189	C
1	1G	1190	G
1	1G	1196	U
1	1G	1197	G
1	1G	1199	U

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Mol	Chain	Res	Type
1	1G	1201	A
1	1G	1208	C
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1225	A
1	1G	1227	A
1	1G	1232	U
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1262	C
1	1G	1267	C
1	1G	1268	A
1	1G	1273	G
1	1G	1274	G
1	1G	1275	A
1	1G	1279	A
1	1G	1280	A
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1297	C
1	1G	1298	C
1	1G	1299	A
1	1G	1301	U
1	1G	1305	G
1	1G	1307	U
1	1G	1317	C
1	1G	1318	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1324	A
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1346	A

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Mol	Chain	Res	Type
1	1G	1347	G
1	1G	1358	U
1	1G	1359	C
1	1G	1360	A
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1364	U
1	1G	1368	G
1	1G	1370	G
1	1G	1378	C
1	1G	1379	G
1	1G	1382	C
1	1G	1398	A
1	1G	1402	C
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1487	G
1	1G	1493	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
1	1G	1532	U
1	1G	1533	C
1	1G	1534	A
56	1L	2	G
56	1L	3	G
56	1L	7	U
56	1L	9	A

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Mol	Chain	Res	Type
56	1L	10	G
56	1L	11	C
56	1L	18	G
56	1L	23	A
56	1L	24	G
56	1L	26	A
56	1L	27	G
56	1L	30	G
56	1L	34	U
56	1L	36	U
56	1L	37	A
56	1L	40	C
56	1L	41	A
56	1L	45	G
56	1L	49	G
56	1L	53	G
56	1L	54	5MU
56	1L	57	G
56	1L	63	U
56	1L	64	G
56	1L	67	C
56	1L	70	C
56	1L	72	C
23	2L	2	G
23	2L	6	G
23	2L	8	4SU
23	2L	9	G
23	2L	15	G
23	2L	16	C
23	2L	17	C
23	2L	18	C
23	2L	19	G
23	2L	20	G
23	2L	21	U
23	2L	31	G
23	2L	32	G
23	2L	45	A
23	2L	47	7MG
23	2L	48	U
23	2L	49	C
23	2L	63	C
23	2L	68	C

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Mol	Chain	Res	Type
23	2L	77	A
24	3L	2	G
24	3L	5	C
24	3L	7	U
24	3L	9	A
24	3L	15	G
24	3L	24	G
24	3L	25	C
24	3L	26	A
24	3L	27	G
24	3L	31	A
24	3L	34	U
24	3L	35	U
24	3L	36	U
24	3L	37	A
24	3L	38	A
24	3L	40	C
24	3L	42	A
24	3L	44	U
24	3L	46	G
24	3L	47	U
24	3L	48	C
24	3L	56	C
24	3L	57	G
24	3L	58	A
24	3L	59	A
24	3L	61	C
24	3L	62	C
24	3L	63	U
24	3L	65	C
24	3L	67	C
24	3L	72	C
24	3L	73	A
25	4L	8	A
25	4L	9	G
25	4L	11	U
25	4L	12	A
25	4L	13	A
25	4L	14	A
25	4L	15	A
25	4L	19	G
25	4L	20	A

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Mol	Chain	Res	Type
25	4L	22	A
25	4L	23	A
25	4L	24	A
25	4L	25	A
26	14	7	G
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
26	14	50	U
26	14	54	G
26	14	58	G
26	14	60	G
26	14	61	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	78	A
26	14	84	A
26	14	88	G
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	172	C

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Mol	Chain	Res	Type
26	14	173	G
26	14	174	C
26	14	181	A
26	14	196	A
26	14	199	A
26	14	205	G
26	14	212	G
26	14	213	A
26	14	214	G
26	14	215	G
26	14	216	A
26	14	222	A
26	14	225	A
26	14	229	A
26	14	233	A
26	14	248	G
26	14	249	C
26	14	270(K)	C
26	14	270(L)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	270(P)	C
26	14	270(Y)	G
26	14	271(B)	G
26	14	271(C)	U
26	14	271	G
26	14	273(C)	C
26	14	273(D)	C
26	14	273(F)	C
26	14	274	G
26	14	275	G
26	14	276	A
26	14	277	C
26	14	278	A
26	14	279	C
26	14	283	A
26	14	289	A
26	14	290	G
26	14	299	A
26	14	308	G
26	14	311	A
26	14	324	A

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Mol	Chain	Res	Type
26	14	329	G
26	14	330	A
26	14	352	G
26	14	354	G
26	14	355	G
26	14	361	G
26	14	362	U
26	14	363	G
26	14	363(E)	U
26	14	372	G
26	14	386	G
26	14	396	G
26	14	399	G
26	14	405	U
26	14	406	G
26	14	407	G
26	14	411	G
26	14	412	A
26	14	417	C
26	14	428	A
26	14	443	A
26	14	444	C
26	14	447	A
26	14	448	U
26	14	452	G
26	14	454	A
26	14	455	C
26	14	457	A
26	14	470	A
26	14	471	A
26	14	481	G
26	14	483	A
26	14	501	A
26	14	505	A
26	14	508	G
26	14	509	C
26	14	510	C
26	14	528	A
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C

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Mol	Chain	Res	Type
26	14	546	C
26	14	549	G
26	14	556	G
26	14	563	G
26	14	573	G
26	14	575	A
26	14	603	A
26	14	607	U
26	14	613	U
26	14	614	U
26	14	615	G
26	14	617	G
26	14	619	G
26	14	621	A
26	14	627	A
26	14	634	C
26	14	637	A
26	14	645	C
26	14	646	A
26	14	650	C
26	14	651	G
26	14	654	A
26	14	654(A)	A
26	14	654(B)	C
26	14	654(C)	G
26	14	654(D)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	669	G
26	14	677	A
26	14	686	G
26	14	708	C
26	14	717	G
26	14	726	G
26	14	730	C
26	14	738	G
26	14	752	A
26	14	753	C
26	14	764	A
26	14	765	G
26	14	776	G
26	14	779	U

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Mol	Chain	Res	Type
26	14	782	A
26	14	784	A
26	14	785	G
26	14	792	G
26	14	805	G
26	14	812	C
26	14	816	C
26	14	819	A
26	14	827	U
26	14	828	U
26	14	832	G
26	14	845	G
26	14	846	C
26	14	859	G
26	14	860	U
26	14	861	A
26	14	863	A
26	14	865	C
26	14	866	A
26	14	868	U
26	14	878	A
26	14	880	G
26	14	881	G
26	14	882	G
26	14	883	G
26	14	885	C
26	14	886	C
26	14	887	A
26	14	888	C
26	14	889	C
26	14	890	A
26	14	892	G
26	14	893	C
26	14	894	C
26	14	896	A
26	14	897	C
26	14	899	A
26	14	901	A
26	14	903	C
26	14	904	C
26	14	907	U
26	14	910	A

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Mol	Chain	Res	Type
26	14	917	A
26	14	925	C
26	14	926	A
26	14	932	G
26	14	935	C
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	953	A
26	14	958	U
26	14	959	A
26	14	961	C
26	14	972	G
26	14	974	G
26	14	974(A)	C
26	14	980	A
26	14	983	A
26	14	990	A
26	14	991	C
26	14	996	A
26	14	1004	C
26	14	1012	U
26	14	1013	C
26	14	1017	G
26	14	1020	A
26	14	1021	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1028	A
26	14	1037	G
26	14	1040	C
26	14	1044	G
26	14	1048	A
26	14	1050	A
26	14	1106	G
26	14	1107	G
26	14	1108	U
26	14	1110	G
26	14	1111	A

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Mol	Chain	Res	Type
26	14	1112	G
26	14	1113	U
26	14	1114	G
26	14	1126	A
26	14	1129	A
26	14	1130	U
26	14	1131	G
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1142(A)	A
26	14	1143	A
26	14	1151	G
26	14	1170	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	1183	G
26	14	1189	A
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1213	A
26	14	1220	A
26	14	1221	C
26	14	1229(A)	G
26	14	1237	A
26	14	1250	G
26	14	1253	A
26	14	1256	G
26	14	1271	G
26	14	1272	A
26	14	1273	U
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1325	G
26	14	1329	U

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Mol	Chain	Res	Type
26	14	1342	A
26	14	1345	C
26	14	1348	G
26	14	1349	A
26	14	1352	U
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1370	C
26	14	1377	G
26	14	1378	A
26	14	1379	A
26	14	1380	G
26	14	1385	G
26	14	1386	C
26	14	1397	U
26	14	1411	C
26	14	1416	G
26	14	1418	G
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1427	A
26	14	1428	C
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1451	C
26	14	1454	U
26	14	1455	G
26	14	1458	C
26	14	1459	G
26	14	1460	A
26	14	1467	C
26	14	1471	A
26	14	1474	C
26	14	1475	G
26	14	1483	G
26	14	1493	C
26	14	1494	A

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Mol	Chain	Res	Type
26	14	1507	A
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1522	G
26	14	1528	A
26	14	1534	G
26	14	1537	C
26	14	1538	G
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	1577	C
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	1594	G
26	14	1598	C
26	14	1608	A
26	14	1609	A
26	14	1614	A
26	14	1616	A
26	14	1639	U
26	14	1648	C
26	14	1669	A
26	14	1674	G
26	14	1675	C
26	14	1676	A
26	14	1680	U
26	14	1682	G
26	14	1694	C
26	14	1700	A
26	14	1701	A
26	14	1725	G
26	14	1726	G
26	14	1729	A

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Mol	Chain	Res	Type
26	14	1730	U
26	14	1731	G
26	14	1732	A
26	14	1743	G
26	14	1750	G
26	14	1756	G
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1777	U
26	14	1780	A
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1802	A
26	14	1816	G
26	14	1820	U
26	14	1828	G
26	14	1829	A
26	14	1830	C
26	14	1834	U
26	14	1835	G
26	14	1847	A
26	14	1858	G
26	14	1859	A
26	14	1860	G
26	14	1878	G
26	14	1886	C
26	14	1888	G
26	14	1889	A
26	14	1894	C
26	14	1905	C
26	14	1906	G
26	14	1912	A
26	14	1913	A
26	14	1917	U
26	14	1929	G
26	14	1930	G
26	14	1936	A
26	14	1937	A
26	14	1938	A

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Mol	Chain	Res	Type
26	14	1955	U
26	14	1963	U
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1993	U
26	14	2023	G
26	14	2031	A
26	14	2033	A
26	14	2036	C
26	14	2043	C
26	14	2049	G
26	14	2054	A
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2071	A
26	14	2074	U
26	14	2082	A
26	14	2083	G
26	14	2085	C
26	14	2099	U
26	14	2100	G
26	14	2102	U
26	14	2108	C
26	14	2114	A
26	14	2115	G
26	14	2117	A
26	14	2118	U
26	14	2119	A
26	14	2120	G
26	14	2122	U
26	14	2124	G
26	14	2125	G
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	2139	C
26	14	2140	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2153	G
26	14	2155	G
26	14	2157	G
26	14	2158	A
26	14	2161	C
26	14	2162	G
26	14	2164	C
26	14	2165	G
26	14	2166	G
26	14	2167	U
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	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	2235	G

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Mol	Chain	Res	Type
26	14	2239	G
26	14	2240	C
26	14	2251	G
26	14	2256	G
26	14	2267	A
26	14	2268	A
26	14	2269	A
26	14	2275	C
26	14	2276	G
26	14	2277	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	2297	C
26	14	2305	A
26	14	2307	G
26	14	2309	A
26	14	2310	A
26	14	2311	A
26	14	2312	U
26	14	2318	G
26	14	2321	G
26	14	2324	C
26	14	2325	G
26	14	2333	A
26	14	2334	G
26	14	2336	A
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2355	C
26	14	2357	U
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2389	G
26	14	2392	A
26	14	2402	C

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Mol	Chain	Res	Type
26	14	2403	C
26	14	2406	U
26	14	2413	G
26	14	2414	G
26	14	2422	A
26	14	2423	U
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2432	A
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2448	A
26	14	2449	U
26	14	2468	G
26	14	2469	A
26	14	2470	G
26	14	2472	G
26	14	2475	C
26	14	2476	A
26	14	2477	C
26	14	2483	C
26	14	2484	G
26	14	2487	G
26	14	2502	G
26	14	2505	G
26	14	2507	C
26	14	2518	A
26	14	2525	G
26	14	2529	G
26	14	2542	A
26	14	2543	G
26	14	2553	G
26	14	2554	U
26	14	2555	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G

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Mol	Chain	Res	Type
26	14	2573	C
26	14	2579	C
26	14	2581	G
26	14	2586	C
26	14	2587	A
26	14	2602	A
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2630	G
26	14	2631	G
26	14	2636	U
26	14	2641	G
26	14	2654	A
26	14	2660	A
26	14	2665	A
26	14	2673	G
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2691	C
26	14	2702	U
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2714	G
26	14	2726	U
26	14	2733	A
26	14	2739	U
26	14	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

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Mol	Chain	Res	Type
26	14	2766	G
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2787	C
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G
26	14	2795	G
26	14	2797	U
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	2805	G
26	14	2808	U
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2849	U
26	14	2850	A
26	14	2860	A
26	14	2872	G
26	14	2874	C
26	14	2876	G
26	14	2879	C
26	14	2880	C
26	14	2883	A
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	7	G
27	1J	9	G
27	1J	13	A

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Mol	Chain	Res	Type
27	1J	15	A
27	1J	16	G
27	1J	22	U
27	1J	24	G
27	1J	25	A
27	1J	27	C
27	1J	28	C
27	1J	30	C
27	1J	31	C
27	1J	33	G
27	1J	34	U
27	1J	42	C
27	1J	44	G
27	1J	45	A
27	1J	51	G
27	1J	53	A
27	1J	58	A
27	1J	64	C
27	1J	73	A
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	102	G
27	1J	108	C
27	1J	109	G
27	1J	113	C
27	1J	114	G
27	1J	115	G

All (184) 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	91	C
1	13	115	G
1	13	190	G
1	13	244	U

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Mol	Chain	Res	Type
1	13	266	G
1	13	353	A
1	13	422	C
1	13	428	G
1	13	429	U
1	13	484	G
1	13	495	A
1	13	509	A
1	13	560	U
1	13	652	U
1	13	687	A
1	13	703	G
1	13	748	C
1	13	793	U
1	13	812	C
1	13	871	U
1	13	913	A
1	13	1025	U
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1126	U
1	13	1129	C
1	13	1256	A
1	13	1285	A
1	13	1301	U
1	13	1336	C
1	13	1397	C
1	13	1498	U
1	13	1533	C
22	1K	6	G
22	1K	17	H2U
22	1K	21	A
22	1K	49	G
22	1K	69	A
23	2K	47	7MG
23	2K	48	U
24	3K	2	G
24	3K	34	U
25	4K	11	U
25	4K	24	A
26	1H	125	G

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Mol	Chain	Res	Type
26	1H	195	A
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	668	G
26	1H	764	A
26	1H	776	G
26	1H	800	A
26	1H	974	G
26	1H	1022	G
26	1H	1110	G
26	1H	1176	G
26	1H	1178	C
26	1H	1210	A
26	1H	1379	A
26	1H	1396	U
26	1H	1420	U
26	1H	1508	A
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1799	G
26	1H	1800	C
26	1H	1858	G
26	1H	1899	G
26	1H	1992	G
26	1H	2060	A
26	1H	2172	U
26	1H	2210	G
26	1H	2566	A
26	1H	2756	U
27	16	15	A
27	16	44	G
27	16	108	C
1	1G	2	U
1	1G	3	G
1	1G	64	G
1	1G	80	G

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Mol	Chain	Res	Type
1	1G	87	A
1	1G	89	U
1	1G	115	G
1	1G	188	U
1	1G	250	A
1	1G	266	G
1	1G	345	C
1	1G	412	A
1	1G	465	A
1	1G	466	C
1	1G	485	G
1	1G	509	A
1	1G	560	U
1	1G	561	U
1	1G	572	A
1	1G	573	A
1	1G	687	A
1	1G	748	C
1	1G	793	U
1	1G	884	U
1	1G	913	A
1	1G	974	A
1	1G	991	U
1	1G	1053	G
1	1G	1126	U
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1298	C
1	1G	1300	G
1	1G	1359	C
1	1G	1442	G
1	1G	1449	C
1	1G	1493	A
1	1G	1498	U
1	1G	1533	C
56	1L	6	G
56	1L	9	A
56	1L	48	C
56	1L	69	A
23	2L	48	U
24	3L	36	U

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Mol	Chain	Res	Type
24	3L	58	A
25	4L	23	A
26	14	6	A
26	14	34	C
26	14	49	A
26	14	71	A
26	14	128	C
26	14	270(M)	U
26	14	278	A
26	14	503	A
26	14	686	G
26	14	752	A
26	14	764	A
26	14	827	U
26	14	877	U
26	14	888	C
26	14	893	C
26	14	960	A
26	14	1022	G
26	14	1325	G
26	14	1378	A
26	14	1379	A
26	14	1396	U
26	14	1420	U
26	14	1444(A)	A
26	14	1534	G
26	14	1558	A
26	14	1608	A
26	14	1762	A
26	14	1819	A
26	14	1912	A
26	14	1913	A
26	14	1992	G
26	14	2062	A
26	14	2212	A
26	14	2275	C
26	14	2308	G
26	14	2406	U
26	14	2439	A
26	14	2572	A
26	14	2611	U
26	14	2629	A

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Mol	Chain	Res	Type
26	14	2689	U
26	14	2756	U
26	14	2776	A
26	14	2791	C
26	14	2859	G
27	1J	88	C
27	1J	89	G

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
23	PSU	2K	56	23	18,21,22	1.19	2 (11%)	22,30,33	1.91	4 (18%)
22	PSU	1K	39	22	18,21,22	1.20	1 (5%)	22,30,33	1.58	3 (13%)
23	OMC	2L	33	23	19,22,23	1.79	3 (15%)	26,31,34	0.82	0
22	5MU	1K	54	22	19,22,23	3.97	5 (26%)	28,32,35	3.00	9 (32%)
22	T6A	1K	37	22	27,34,35	2.57	5 (18%)	29,49,52	2.44	5 (17%)
22	H2U	1K	17	22	18,21,22	2.07	4 (22%)	21,30,33	2.18	5 (23%)
23	5MU	2K	55	23	19,22,23	3.79	5 (26%)	28,32,35	3.27	10 (35%)
23	7MG	2L	47	23	22,26,27	2.84	6 (27%)	29,39,42	2.98	10 (34%)
23	4SU	2L	8	23	18,21,22	1.90	3 (16%)	26,30,33	2.45	5 (19%)
22	U8U	1K	34	25,22	19,24,25	2.50	7 (36%)	23,34,37	1.25	3 (13%)
23	4SU	2K	8	23	18,21,22	1.57	3 (16%)	26,30,33	2.62	5 (19%)
23	OMC	2K	33	23	19,22,23	1.72	3 (15%)	26,31,34	0.89	1 (3%)
23	7MG	2K	47	23	22,26,27	3.31	6 (27%)	29,39,42	3.07	12 (41%)
22	PSU	1K	55	22	18,21,22	1.17	1 (5%)	22,30,33	1.72	4 (18%)
23	5MU	2L	55	23	19,22,23	3.96	5 (26%)	28,32,35	3.17	8 (28%)
56	5MU	1L	54	56	19,22,23	3.97	5 (26%)	28,32,35	3.19	9 (32%)
56	PSU	1L	55	56	18,21,22	1.27	1 (5%)	22,30,33	1.62	4 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	PSU	2L	56	23	18,21,22	1.34	2 (11%)	22,30,33	1.73	3 (13%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
22	PSU	1K	39	22	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	0/9/27/28	0/2/2/2
22	5MU	1K	54	22	-	2/7/25/26	0/2/2/2
22	T6A	1K	37	22	-	5/19/41/42	0/3/3/3
22	H2U	1K	17	22	-	0/7/38/39	0/2/2/2
23	5MU	2K	55	23	-	2/7/25/26	0/2/2/2
23	7MG	2L	47	23	-	4/7/37/38	0/3/3/3
23	4SU	2L	8	23	-	2/7/25/26	0/2/2/2
22	U8U	1K	34	25,22	-	1/9/28/29	0/2/2/2
23	4SU	2K	8	23	-	3/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	0/9/27/28	0/2/2/2
23	7MG	2K	47	23	-	3/7/37/38	0/3/3/3
22	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
56	5MU	1L	54	56	-	3/7/25/26	0/2/2/2
56	PSU	1L	55	56	-	0/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2

All (67) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	54	5MU	C2-N1	13.05	1.59	1.38
56	1L	54	5MU	C2-N1	13.01	1.59	1.38
23	2L	55	5MU	C2-N1	12.77	1.58	1.38
23	2K	55	5MU	C2-N1	12.08	1.57	1.38
23	2K	47	7MG	C5-N7	8.64	1.45	1.35
22	1K	37	T6A	C6-N6	7.92	1.50	1.36
23	2L	47	7MG	C5-N7	7.44	1.44	1.35
23	2K	47	7MG	C4-N9	-7.14	1.29	1.37
22	1K	37	T6A	C10-N11	6.73	1.50	1.35
23	2L	47	7MG	C4-N9	-6.39	1.30	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	55	5MU	C4-N3	-6.23	1.27	1.38
22	1K	54	5MU	C2-N3	6.22	1.49	1.38
23	2L	55	5MU	C4-N3	-6.20	1.27	1.38
22	1K	17	H2U	C2-N1	6.13	1.44	1.35
23	2L	47	7MG	C4-N3	6.08	1.48	1.34
56	1L	54	5MU	C2-N3	5.99	1.48	1.38
22	1K	37	T6A	C10-N6	5.98	1.49	1.37
56	1L	54	5MU	C4-N3	-5.98	1.27	1.38
23	2L	55	5MU	C2-N3	5.88	1.48	1.38
22	1K	54	5MU	C6-N1	5.84	1.48	1.38
23	2L	8	4SU	C5-C4	5.75	1.50	1.42
23	2K	55	5MU	C2-N3	5.66	1.48	1.38
23	2K	47	7MG	C4-N3	5.65	1.47	1.34
22	1K	54	5MU	C4-N3	-5.62	1.28	1.38
23	2L	55	5MU	C6-N1	5.54	1.47	1.38
56	1L	54	5MU	C6-N1	5.47	1.47	1.38
22	1K	34	U8U	C2-N3	5.35	1.49	1.37
23	2K	47	7MG	C2-N2	5.33	1.46	1.34
23	2K	55	5MU	C6-N1	5.29	1.47	1.38
23	2L	55	5MU	C4-C5	5.02	1.53	1.44
56	1L	54	5MU	C4-C5	5.02	1.53	1.44
23	2K	55	5MU	C4-C5	4.98	1.53	1.44
23	2K	47	7MG	C8-N9	4.97	1.48	1.46
22	1K	34	U8U	C6-C5	4.94	1.48	1.34
23	2K	33	OMC	C2-N3	4.79	1.46	1.36
23	2K	8	4SU	C5-C4	4.59	1.48	1.42
56	1L	55	PSU	C6-C5	4.54	1.40	1.35
23	2L	33	OMC	C2-N3	4.45	1.45	1.36
22	1K	54	5MU	C4-C5	4.42	1.52	1.44
22	1K	34	U8U	C2-S2	-4.42	1.60	1.67
23	2L	56	PSU	C6-C5	4.35	1.40	1.35
23	2K	47	7MG	C5-C4	-4.30	1.24	1.38
23	2L	33	OMC	C4-N4	4.19	1.43	1.33
23	2L	47	7MG	C5-C4	-4.13	1.24	1.38
23	2K	33	OMC	C4-N4	4.11	1.43	1.33
22	1K	34	U8U	C6-N1	4.11	1.45	1.38
22	1K	39	PSU	C6-C5	4.06	1.40	1.35
22	1K	55	PSU	C6-C5	4.06	1.40	1.35
22	1K	17	H2U	C2-N3	3.93	1.45	1.38
22	1K	34	U8U	C4-N3	3.92	1.46	1.38
23	2K	56	PSU	C6-C5	3.85	1.39	1.35
23	2L	33	OMC	C5-C4	3.73	1.51	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	8	4SU	C2-N1	3.55	1.44	1.38
22	1K	17	H2U	C4-N3	3.34	1.43	1.37
23	2K	33	OMC	C5-C4	3.20	1.50	1.42
23	2L	47	7MG	C2-N2	3.16	1.41	1.34
23	2K	8	4SU	C2-N1	3.01	1.43	1.38
23	2L	8	4SU	C6-N1	2.97	1.45	1.38
22	1K	37	T6A	C5-C4	-2.72	1.33	1.40
22	1K	17	H2U	C6-N1	-2.72	1.42	1.47
23	2K	8	4SU	C6-N1	2.39	1.43	1.38
23	2L	47	7MG	C8-N9	2.38	1.47	1.46
22	1K	34	U8U	C4-C5	2.34	1.50	1.45
23	2L	56	PSU	C2-N1	2.27	1.39	1.36
22	1K	34	U8U	O4-C4	-2.21	1.19	1.23
22	1K	37	T6A	ODB-C13	-2.18	1.23	1.30
23	2K	56	PSU	C4-C5	-2.05	1.38	1.44

All (100) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	1L	54	5MU	C5-C4-N3	10.43	124.21	115.31
23	2K	55	5MU	C5-C4-N3	10.25	124.06	115.31
23	2L	55	5MU	C5-C4-N3	10.10	123.93	115.31
22	1K	54	5MU	C5-C4-N3	9.86	123.72	115.31
23	2K	8	4SU	C4-N3-C2	-8.30	119.28	127.34
23	2L	8	4SU	C4-N3-C2	-8.10	119.47	127.34
22	1K	37	T6A	C12-N11-C10	7.51	134.45	121.94
23	2L	47	7MG	C4-C5-N7	7.34	115.72	105.53
23	2K	47	7MG	C4-C5-N7	7.17	115.48	105.53
23	2K	8	4SU	C5-C4-N3	6.76	120.96	114.69
22	1K	17	H2U	C4-N3-C2	-6.72	120.22	125.79
23	2L	8	4SU	C5-C4-N3	6.71	120.91	114.69
23	2K	47	7MG	C5-C4-N9	6.61	114.93	106.35
22	1K	37	T6A	C2-N1-C6	6.47	122.14	116.59
23	2K	55	5MU	C4-N3-C2	-6.39	119.08	127.35
56	1L	54	5MU	C4-N3-C2	-6.29	119.21	127.35
22	1K	54	5MU	O4-C4-C5	-6.27	117.64	124.90
23	2L	55	5MU	C4-N3-C2	-6.17	119.37	127.35
23	2L	47	7MG	C6-C5-N7	-6.09	122.34	131.91
23	2K	55	5MU	C5-C6-N1	-6.02	117.15	123.34
22	1K	37	T6A	N3-C2-N1	-5.96	119.37	128.68
23	2L	55	5MU	C6-C5-C4	5.83	122.91	118.03
23	2K	55	5MU	C6-C5-C4	5.80	122.88	118.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	47	7MG	C5-C4-N9	5.77	113.84	106.35
23	2L	55	5MU	C5-C6-N1	-5.67	117.51	123.34
23	2L	47	7MG	CM7-N7-C5	5.55	140.73	126.40
56	1L	54	5MU	C6-C5-C4	5.52	122.64	118.03
23	2K	47	7MG	C2-N3-C4	5.49	122.08	112.30
56	1L	54	5MU	C5-C6-N1	-5.38	117.81	123.34
22	1K	54	5MU	C4-N3-C2	-5.37	120.39	127.35
23	2K	55	5MU	C5M-C5-C6	-5.25	115.83	122.85
23	2K	8	4SU	C5-C4-S4	-5.22	117.74	124.47
23	2K	47	7MG	C5-C6-N1	5.15	120.06	110.99
23	2K	47	7MG	CM7-N7-C5	4.99	139.27	126.40
23	2L	47	7MG	C5-C4-N3	-4.97	118.67	128.13
23	2K	56	PSU	N1-C2-N3	4.88	120.66	115.13
56	1L	54	5MU	O4-C4-C5	-4.84	119.29	124.90
23	2L	47	7MG	C5-C6-N1	4.66	119.20	110.99
23	2L	55	5MU	C5M-C5-C6	-4.65	116.64	122.85
23	2K	55	5MU	O4-C4-C5	-4.55	119.63	124.90
23	2K	47	7MG	C6-C5-N7	-4.53	124.80	131.91
22	1K	54	5MU	C6-N1-C2	-4.51	116.73	121.30
23	2L	47	7MG	C2-N3-C4	4.50	120.33	112.30
56	1L	54	5MU	C5M-C5-C6	-4.47	116.88	122.85
22	1K	54	5MU	C6-C5-C4	4.46	121.76	118.03
23	2L	55	5MU	O4-C4-C5	-4.43	119.76	124.90
23	2L	56	PSU	C4-N3-C2	-4.29	120.15	126.34
22	1K	39	PSU	C4-N3-C2	-4.26	120.19	126.34
23	2K	56	PSU	C4-N3-C2	-4.21	120.27	126.34
22	1K	55	PSU	N1-C2-N3	4.16	119.85	115.13
23	2K	47	7MG	C5-C4-N3	-4.14	120.24	128.13
23	2L	8	4SU	N3-C2-N1	4.06	120.28	114.89
22	1K	17	H2U	N3-C2-N1	3.99	120.87	116.65
56	1L	55	PSU	N1-C2-N3	3.98	119.64	115.13
22	1K	55	PSU	C4-N3-C2	-3.97	120.62	126.34
23	2L	56	PSU	N1-C2-N3	3.93	119.59	115.13
22	1K	39	PSU	N1-C2-N3	3.88	119.53	115.13
23	2L	8	4SU	C5-C4-S4	-3.83	119.53	124.47
23	2K	56	PSU	C6-N1-C2	-3.72	118.88	122.68
23	2K	8	4SU	N3-C2-N1	3.72	119.83	114.89
56	1L	55	PSU	C4-N3-C2	-3.59	121.16	126.34
22	1K	54	5MU	C5M-C5-C6	-3.59	118.06	122.85
22	1K	54	5MU	C5-C6-N1	-3.53	119.71	123.34
23	2K	47	7MG	N1-C2-N3	-3.51	116.77	123.32
23	2K	8	4SU	O2-C2-N1	-3.43	118.23	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	17	H2U	C5-C4-N3	3.43	120.50	116.65
23	2L	55	5MU	C6-N1-C2	-3.41	117.84	121.30
56	1L	54	5MU	C6-N1-C2	-3.33	117.92	121.30
22	1K	34	U8U	C5-C4-N3	3.31	119.62	114.97
23	2K	47	7MG	N2-C2-N1	3.29	123.72	116.71
23	2L	47	7MG	O6-C6-C5	-3.25	119.56	127.54
23	2K	47	7MG	O6-C6-C5	-3.25	119.57	127.54
22	1K	55	PSU	O2-C2-N1	-3.16	119.31	122.79
23	2K	56	PSU	O2-C2-N1	-3.10	119.38	122.79
23	2L	47	7MG	C2-N1-C6	-3.06	119.53	125.10
22	1K	37	T6A	C14-C12-C13	3.05	115.39	110.19
56	1L	55	PSU	C6-N1-C2	-2.95	119.67	122.68
56	1L	55	PSU	O2-C2-N1	-2.86	119.64	122.79
23	2K	55	5MU	C6-N1-C2	-2.81	118.45	121.30
22	1K	17	H2U	C5-C6-N1	2.74	120.63	111.61
22	1K	34	U8U	C1'-N1-C6	-2.72	116.60	121.12
23	2L	56	PSU	C6-C5-C4	2.72	120.10	118.20
23	2L	55	5MU	N3-C2-N1	2.68	118.45	114.89
22	1K	55	PSU	C6-N1-C2	-2.64	119.98	122.68
23	2K	55	5MU	N3-C2-N1	2.61	118.36	114.89
22	1K	34	U8U	O4-C4-C5	-2.55	121.17	124.96
23	2K	47	7MG	N9-C8-N7	-2.51	99.78	103.38
56	1L	54	5MU	N3-C2-N1	2.50	118.20	114.89
22	1K	54	5MU	C1'-N1-C2	2.41	121.93	117.57
23	2K	33	OMC	N4-C4-N3	2.37	122.13	117.97
22	1K	37	T6A	O10-C10-N6	-2.32	119.70	123.62
22	1K	17	H2U	O2-C2-N1	-2.30	120.22	123.11
23	2K	55	5MU	C5M-C5-C4	2.29	121.29	118.77
23	2K	55	5MU	O2-C2-N1	-2.23	119.82	122.79
23	2K	47	7MG	C2-N1-C6	-2.19	121.11	125.10
23	2L	47	7MG	N9-C8-N7	-2.14	100.32	103.38
22	1K	54	5MU	N3-C2-N1	2.09	117.66	114.89
56	1L	54	5MU	C1'-N1-C2	2.08	121.34	117.57
22	1K	39	PSU	C6-N1-C2	-2.08	120.55	122.68
23	2L	8	4SU	O2-C2-N1	-2.02	120.10	122.79

There are no chirality outliers.

All (25) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	37	T6A	C14-C12-N11-C10
22	1K	37	T6A	N11-C12-C14-O14

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Mol	Chain	Res	Type	Atoms
22	1K	37	T6A	N11-C12-C14-C15
22	1K	37	T6A	C13-C12-C14-O14
22	1K	37	T6A	C13-C12-C14-C15
23	2L	8	4SU	O4'-C4'-C5'-O5'
22	1K	54	5MU	C3'-C4'-C5'-O5'
22	1K	54	5MU	O4'-C4'-C5'-O5'
23	2K	8	4SU	O4'-C4'-C5'-O5'
56	1L	54	5MU	C3'-C4'-C5'-O5'
23	2K	8	4SU	C3'-C4'-C5'-O5'
23	2K	55	5MU	C3'-C4'-C5'-O5'
23	2K	55	5MU	O4'-C4'-C5'-O5'
56	1L	54	5MU	O4'-C4'-C5'-O5'
23	2K	47	7MG	C2'-C1'-N9-C8
23	2L	47	7MG	C2'-C1'-N9-C8
23	2K	47	7MG	C4'-C5'-O5'-P
56	1L	54	5MU	C4'-C5'-O5'-P
23	2K	47	7MG	O4'-C1'-N9-C8
23	2L	47	7MG	O4'-C1'-N9-C8
23	2K	8	4SU	C4'-C5'-O5'-P
23	2L	8	4SU	C4'-C5'-O5'-P
23	2L	47	7MG	C4'-C5'-O5'-P
23	2L	47	7MG	O4'-C4'-C5'-O5'
22	1K	34	U8U	C4'-C5'-O5'-P

There are no ring outliers.

9 monomers are involved in 25 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2L	33	OMC	3	0
22	1K	54	5MU	3	0
22	1K	37	T6A	1	0
23	2K	55	5MU	5	0
23	2L	47	7MG	3	0
23	2K	8	4SU	1	0
23	2K	33	OMC	1	0
23	2K	47	7MG	6	0
56	1L	54	5MU	2	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1345 ligands modelled in this entry, 1341 are monoatomic - leaving 4 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	$\#\|Z\| > 2$
60	SPE	14	3458	-	12,12,12	0.45	0	11,11,11	0.76	0
58	SF4	3E	301	4	0,12,12	-	-	-		
58	SF4	32	302	-	0,12,12	-	-	-		
60	SPE	1G	1725	1	12,12,12	0.41	0	11,11,11	0.73	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	SF4	3E	301	4	-	-	0/6/5/5
60	SPE	14	3458	-	-	5/10/10/10	-
60	SPE	1G	1725	1	-	5/10/10/10	-
58	SF4	32	302	-	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (10) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
60	1G	1725	SPE	C2-C3-C4-N5
60	14	3458	SPE	N9-C10-C11-C12
60	14	3458	SPE	C2-C3-C4-N5
60	14	3458	SPE	C6-C7-C8-N9
60	1G	1725	SPE	C11-C10-N9-C8
60	14	3458	SPE	C11-C10-N9-C8
60	1G	1725	SPE	C7-C6-N5-C4

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Mol	Chain	Res	Type	Atoms
60	14	3458	SPE	N1-C2-C3-C4
60	1G	1725	SPE	C7-C8-N9-C10
60	1G	1725	SPE	C3-C4-N5-C6

There are no ring outliers.

2 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	32	302	SF4	2	0
60	1G	1725	SPE	3	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
56	1L	1
47	D5	1
10	1A	1
34	69	1
4	3E	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	1L	72:C	O3'	73:A	P	3.48
1	D5	94:GLU	C	95:PRO	N	1.78
1	1A	38:ILE	C	39:PRO	N	1.71
1	69	79:ILE	C	80:PRO	N	1.17
1	3E	36:ARG	C	37:PRO	N	1.15

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	13	1500/1522 (98%)	-0.52	0 100 100	67, 111, 176, 243	0
1	1G	1509/1522 (99%)	-0.47	3 (0%) 95 91	76, 123, 193, 253	0
2	12	207/256 (80%)	0.27	13 (6%) 20 9	139, 165, 185, 196	0
2	1E	231/256 (90%)	-0.06	5 (2%) 62 42	118, 145, 172, 180	0
3	22	195/239 (81%)	0.75	27 (13%) 2 1	123, 147, 164, 175	0
3	2E	205/239 (85%)	0.34	12 (5%) 22 10	97, 117, 144, 155	0
4	32	208/209 (99%)	-0.31	0 100 100	104, 123, 142, 149	0
4	3E	207/209 (99%)	-0.20	1 (0%) 91 83	93, 118, 137, 144	0
5	42	150/162 (92%)	-0.23	0 100 100	106, 123, 139, 146	0
5	4E	149/162 (91%)	-0.06	0 100 100	87, 109, 128, 133	0
6	52	101/101 (100%)	-0.42	0 100 100	93, 110, 124, 135	0
6	5E	100/101 (99%)	-0.03	1 (1%) 82 70	92, 111, 127, 135	0
7	62	138/156 (88%)	0.83	13 (9%) 8 3	122, 135, 145, 151	0
7	6E	154/156 (98%)	1.00	29 (18%) 1 0	111, 127, 155, 174	0
8	72	137/138 (99%)	-0.08	2 (1%) 73 56	106, 129, 141, 149	0
8	7E	138/138 (100%)	0.78	15 (10%) 5 2	102, 117, 129, 139	0
9	82	121/128 (94%)	1.39	31 (25%) 0 0	118, 161, 171, 178	0
9	8E	126/128 (98%)	-0.09	2 (1%) 72 53	96, 141, 159, 165	0
10	1A	80/105 (76%)	0.36	11 (13%) 2 1	122, 152, 167, 170	0
10	1I	94/105 (89%)	1.43	26 (27%) 0 0	92, 136, 171, 178	0
11	2A	113/129 (87%)	0.79	13 (11%) 4 2	91, 116, 131, 138	0
11	2I	111/129 (86%)	1.40	29 (26%) 0 0	84, 113, 129, 138	0
12	3A	121/132 (91%)	0.68	18 (14%) 2 1	94, 109, 128, 144	0
12	3I	122/132 (92%)	0.11	3 (2%) 57 37	81, 89, 110, 132	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	109/126 (86%)	0.21	14 (12%) 3 1	125, 152, 170, 187	0
13	4I	117/126 (92%)	-0.04	3 (2%) 56 35	97, 125, 138, 145	0
14	5A	59/61 (96%)	2.08	26 (44%) 0 0	131, 146, 164, 167	0
14	5I	59/61 (96%)	0.51	4 (6%) 17 7	92, 106, 121, 129	0
15	6A	87/89 (97%)	-0.54	0 100 100	93, 117, 133, 137	0
15	6I	87/89 (97%)	0.13	2 (2%) 60 40	89, 107, 126, 130	0
16	7A	84/88 (95%)	-0.37	0 100 100	100, 116, 137, 159	0
16	7I	83/88 (94%)	-0.02	1 (1%) 79 64	107, 119, 145, 163	0
17	8A	99/105 (94%)	0.02	0 100 100	100, 112, 125, 131	0
17	8I	100/105 (95%)	1.09	15 (15%) 2 1	95, 114, 124, 128	0
18	9A	67/88 (76%)	-0.23	1 (1%) 73 56	101, 117, 135, 140	0
18	9I	68/88 (77%)	0.03	0 100 100	97, 113, 133, 138	0
19	AA	65/93 (69%)	0.57	9 (13%) 2 1	130, 162, 174, 180	0
19	AI	82/93 (88%)	0.44	7 (8%) 10 4	108, 126, 146, 153	0
20	BA	99/106 (93%)	0.86	17 (17%) 1 1	94, 119, 140, 153	0
20	BI	97/106 (91%)	0.91	21 (21%) 0 0	113, 127, 150, 157	0
21	1B	22/27 (81%)	1.06	4 (18%) 1 0	122, 139, 143, 150	0
21	1F	23/27 (85%)	-0.44	0 100 100	103, 110, 116, 123	0
22	1K	66/76 (86%)	0.03	1 (1%) 73 56	104, 183, 206, 212	0
23	2K	72/77 (93%)	-0.01	2 (2%) 53 31	75, 100, 133, 145	0
23	2L	72/77 (93%)	-0.23	1 (1%) 75 59	85, 120, 153, 162	0
24	3K	70/76 (92%)	1.17	19 (27%) 0 0	82, 225, 245, 249	0
24	3L	72/76 (94%)	-0.01	2 (2%) 53 31	87, 206, 223, 228	0
25	4K	20/30 (66%)	0.71	4 (20%) 1 0	81, 145, 215, 216	0
25	4L	19/30 (63%)	0.13	1 (5%) 26 12	101, 162, 218, 218	0
26	14	2825/2917 (96%)	-0.29	11 (0%) 92 86	62, 91, 198, 251	0
26	1H	2831/2917 (97%)	-0.32	3 (0%) 95 93	51, 79, 176, 251	0
27	16	122/122 (100%)	-0.57	1 (0%) 86 74	76, 98, 118, 204	0
27	1J	122/122 (100%)	-0.76	0 100 100	94, 133, 152, 210	0
28	71	132/229 (57%)	0.36	10 (7%) 13 5	143, 206, 228, 235	0
29	11	273/276 (98%)	0.12	1 (0%) 92 86	48, 71, 88, 95	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
29	19	274/276 (99%)	0.13	1 (0%) 92 86	56, 80, 94, 111	0
30	21	203/206 (98%)	0.18	3 (1%) 73 56	57, 90, 121, 133	0
30	29	204/206 (99%)	0.40	13 (6%) 19 8	66, 97, 133, 147	0
31	31	202/210 (96%)	0.19	4 (1%) 65 46	51, 82, 114, 134	0
31	39	204/210 (97%)	-0.12	1 (0%) 91 83	64, 105, 148, 175	0
32	41	179/182 (98%)	0.28	6 (3%) 45 24	90, 109, 139, 154	0
32	49	180/182 (98%)	0.59	23 (12%) 3 1	125, 147, 166, 179	0
33	51	174/180 (96%)	-0.31	0 100 100	82, 105, 123, 133	0
33	59	169/180 (93%)	2.49	94 (55%) 0 0	157, 203, 223, 233	0
34	61	145/148 (97%)	0.14	4 (2%) 53 31	82, 128, 147, 153	0
34	69	145/148 (97%)	-0.15	1 (0%) 87 77	91, 129, 149, 154	0
35	15	137/140 (97%)	0.61	12 (8%) 10 4	82, 110, 140, 150	0
35	58	137/140 (97%)	0.31	4 (2%) 51 30	71, 90, 122, 138	0
36	25	122/122 (100%)	1.04	14 (11%) 4 2	74, 90, 108, 120	0
36	68	122/122 (100%)	-0.21	0 100 100	67, 82, 98, 106	0
37	35	147/150 (98%)	0.65	21 (14%) 2 1	64, 106, 141, 158	0
37	78	147/150 (98%)	0.21	0 100 100	58, 84, 106, 114	0
38	45	138/141 (97%)	0.18	3 (2%) 62 42	79, 106, 127, 138	0
38	88	141/141 (100%)	0.62	8 (5%) 23 11	62, 83, 104, 133	0
39	55	118/118 (100%)	0.20	2 (1%) 70 51	68, 85, 100, 113	0
39	98	118/118 (100%)	0.56	6 (5%) 28 13	67, 86, 103, 117	0
40	65	110/112 (98%)	-0.07	4 (3%) 42 22	99, 124, 141, 145	0
40	A8	111/112 (99%)	0.15	4 (3%) 42 22	82, 95, 114, 127	0
41	75	133/146 (91%)	0.72	8 (6%) 21 10	82, 97, 127, 145	0
41	B8	135/146 (92%)	-0.29	1 (0%) 87 77	79, 96, 135, 151	0
42	85	116/118 (98%)	0.03	0 100 100	72, 101, 129, 136	0
42	C8	115/118 (97%)	0.18	2 (1%) 70 51	60, 82, 108, 115	0
43	95	100/101 (99%)	0.55	6 (6%) 21 10	72, 120, 140, 147	0
43	D8	100/101 (99%)	1.15	17 (17%) 1 1	62, 100, 120, 130	0
44	A5	111/113 (98%)	0.15	1 (0%) 84 72	71, 81, 107, 139	0
44	E8	110/113 (97%)	0.27	4 (3%) 42 22	64, 77, 100, 113	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
45	B5	94/96 (97%)	0.84	12 (12%) 3 1	78, 90, 111, 121	0
45	F8	95/96 (98%)	-0.12	0 100 100	59, 74, 98, 108	0
46	C5	104/110 (94%)	1.01	19 (18%) 1 0	92, 119, 152, 158	0
46	G8	103/110 (93%)	-0.38	0 100 100	76, 97, 124, 134	0
47	D5	177/206 (85%)	1.43	50 (28%) 0 0	117, 159, 218, 223	0
47	H8	170/206 (82%)	1.58	56 (32%) 0 0	88, 121, 189, 196	0
48	E5	76/85 (89%)	0.32	3 (3%) 39 20	78, 97, 111, 120	0
48	I8	77/85 (90%)	0.23	2 (2%) 56 35	64, 79, 96, 108	0
49	F5	94/98 (95%)	1.18	20 (21%) 0 0	69, 89, 125, 139	0
49	J8	96/98 (97%)	0.37	1 (1%) 82 70	61, 80, 117, 123	0
50	G5	69/72 (95%)	0.33	3 (4%) 35 17	90, 109, 132, 144	0
50	K8	68/72 (94%)	-0.15	1 (1%) 73 56	68, 84, 105, 129	0
51	H5	58/60 (96%)	0.68	1 (1%) 70 51	81, 101, 126, 136	0
51	L8	58/60 (96%)	0.35	0 100 100	70, 84, 110, 122	0
52	M8	60/71 (84%)	1.13	10 (16%) 1 1	114, 150, 177, 181	0
53	J5	56/60 (93%)	0.13	1 (1%) 68 49	67, 90, 133, 143	0
53	N8	48/60 (80%)	0.27	1 (2%) 63 44	56, 85, 128, 135	0
54	L5	47/49 (95%)	0.46	2 (4%) 35 17	61, 69, 91, 100	0
54	P8	47/49 (95%)	-0.13	0 100 100	54, 59, 77, 89	0
55	M5	64/65 (98%)	1.19	18 (28%) 0 0	76, 86, 101, 117	0
55	Q8	64/65 (98%)	0.22	0 100 100	61, 75, 88, 101	0
56	1L	64/76 (84%)	0.13	2 (3%) 49 27	140, 201, 221, 227	0
All	All	20656/21744 (94%)	0.05	903 (4%) 34 17	48, 105, 181, 253	0

All (903) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
43	D8	37	VAL	14.5
47	H8	113	ALA	10.9
33	59	17	VAL	10.1
33	59	96	ALA	8.5
33	59	95	ARG	8.2
14	5A	26	ARG	8.0
47	H8	146	ILE	8.0

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Mol	Chain	Res	Type	RSRZ
46	C5	59	GLY	7.8
52	M8	40	HIS	7.6
12	3A	28	LYS	7.5
14	5A	39	LEU	7.3
22	1K	76	A	7.3
47	H8	147	GLY	7.2
33	59	107	VAL	7.2
33	59	33	LEU	6.7
11	2I	42	TRP	6.3
14	5A	38	GLY	6.3
33	59	171	LEU	6.2
46	C5	49	VAL	6.2
33	59	106	THR	6.1
20	BA	9	ASN	6.1
33	59	170	ARG	6.1
33	59	87	LEU	5.9
7	6E	82	GLY	5.8
9	82	115	GLY	5.8
33	59	90	LYS	5.8
24	3K	6	G	5.7
33	59	34	GLU	5.7
12	3A	64	TYR	5.7
10	1I	22	LYS	5.6
11	2I	43	SER	5.5
14	5A	34	TYR	5.4
7	6E	78	ARG	5.4
10	1I	90	LEU	5.4
7	6E	81	GLY	5.4
33	59	159	GLU	5.4
43	95	1	MET	5.3
26	14	229	A	5.3
50	G5	44	LEU	5.3
33	59	89	ILE	5.3
52	M8	41	PRO	5.3
26	14	888	C	5.2
33	59	76	VAL	5.2
33	59	94	TYR	5.2
33	59	16	SER	5.2
32	49	138	GLN	5.1
14	5A	37	PHE	5.1
46	C5	50	ARG	5.1
14	5A	53	LEU	5.1

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Mol	Chain	Res	Type	RSRZ
14	5A	52	GLN	5.0
3	22	177	THR	5.0
40	A8	110	LEU	5.0
33	59	25	LYS	5.0
7	6E	80	VAL	5.0
14	5A	25	VAL	5.0
33	59	151	ILE	4.9
33	59	26	VAL	4.9
33	59	72	ILE	4.9
47	D5	126	VAL	4.8
37	35	110	TYR	4.8
46	C5	58	GLY	4.8
33	59	13	LYS	4.8
52	M8	22	ILE	4.7
10	1A	59	SER	4.7
41	75	106	SER	4.7
26	1H	1536	A	4.7
50	G5	43	GLN	4.7
7	6E	79	ARG	4.7
47	D5	9	TYR	4.7
1	1G	82	U	4.7
33	59	153	LYS	4.7
33	59	12	PRO	4.7
33	59	29	PRO	4.7
12	3A	27	LEU	4.6
47	D5	96	VAL	4.6
10	1I	95	GLU	4.6
33	59	169	VAL	4.5
33	59	136	ILE	4.5
47	D5	155	LEU	4.5
33	59	84	SER	4.5
24	3K	12	U	4.5
33	59	160	LYS	4.5
33	59	168	PRO	4.5
49	F5	91	LYS	4.4
10	1I	10	GLY	4.4
24	3K	13	C	4.4
28	71	175	VAL	4.3
33	59	130	ARG	4.3
12	3A	62	SER	4.3
14	5A	51	GLY	4.3
3	22	101	LEU	4.3

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Mol	Chain	Res	Type	RSRZ
9	82	36	TYR	4.3
46	C5	29	GLU	4.3
33	59	112	PRO	4.3
30	29	71	GLY	4.3
12	3A	19	ARG	4.3
43	D8	1	MET	4.3
47	D5	88	PHE	4.2
14	5A	30	ALA	4.2
46	C5	60	PHE	4.2
20	BA	15	ARG	4.2
47	D5	171	ILE	4.2
43	D8	38	LEU	4.2
45	B5	68	ARG	4.2
33	59	32	GLU	4.2
33	59	46	GLU	4.2
14	5A	42	ILE	4.1
12	3A	21	LYS	4.1
2	12	164	VAL	4.1
10	1I	96	ILE	4.1
47	D5	112	ARG	4.1
33	59	167	GLU	4.1
37	35	71	VAL	4.1
33	59	83	TYR	4.1
33	59	93	GLY	4.1
24	3K	65	C	4.1
11	2I	48	ILE	4.1
12	3A	63	GLY	4.1
24	3K	45	G	4.1
43	D8	45	THR	4.0
47	D5	57	ILE	4.0
9	82	102	LEU	4.0
33	59	164	TYR	4.0
10	1I	33	GLN	4.0
14	5A	47	LEU	4.0
19	AA	53	ASN	4.0
3	22	184	TYR	3.9
47	D5	63	ASP	3.9
25	4K	13	A	3.9
33	59	88	LEU	3.9
14	5A	50	LYS	3.9
24	3K	36	U	3.9
20	BI	91	LEU	3.9

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Mol	Chain	Res	Type	RSRZ
26	14	274	G	3.9
36	25	1	MET	3.9
3	22	186	PHE	3.8
32	49	34	LEU	3.8
11	2A	75	TYR	3.8
28	71	176	GLY	3.8
7	6E	153	HIS	3.8
9	82	56	LEU	3.8
10	1I	94	VAL	3.8
10	1A	47	PHE	3.8
47	D5	179	ASP	3.8
47	H8	70	LEU	3.8
11	2I	70	LYS	3.8
48	E5	8	GLY	3.8
13	4A	95	GLY	3.8
33	59	114	VAL	3.8
49	F5	22	GLY	3.8
33	59	115	VAL	3.8
7	6E	86	GLN	3.8
52	M8	31	ILE	3.8
7	6E	152	ALA	3.7
20	BA	10	LEU	3.7
33	59	165	ALA	3.7
48	I8	8	GLY	3.7
10	1I	91	PRO	3.7
17	8I	101	ARG	3.7
11	2I	50	TYR	3.7
14	5A	36	PHE	3.7
37	35	64	LYS	3.7
32	49	32	PRO	3.7
47	D5	150	LEU	3.6
24	3K	23	A	3.6
33	59	49	VAL	3.6
6	5E	46	ARG	3.6
46	C5	51	VAL	3.6
17	8I	37	LYS	3.6
7	62	76	ARG	3.6
3	22	190	ARG	3.6
47	H8	1	MET	3.6
45	B5	79	ALA	3.6
7	6E	99	LEU	3.6
32	49	179	PRO	3.6

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Mol	Chain	Res	Type	RSRZ
46	C5	63	LYS	3.6
50	K8	43	GLN	3.6
12	3A	20	LYS	3.6
2	12	163	PHE	3.6
47	H8	104	PHE	3.6
3	22	155	GLY	3.6
55	M5	9	GLY	3.6
32	49	139	LEU	3.5
14	5A	35	ARG	3.5
14	5A	41	ARG	3.5
47	D5	117	LEU	3.5
47	D5	95	PRO	3.5
47	D5	151	HIS	3.5
33	59	122	THR	3.5
37	35	77	ARG	3.5
7	62	74	GLU	3.5
11	2A	21	ILE	3.5
33	59	111	HIS	3.5
47	H8	155	LEU	3.5
21	1B	6	ARG	3.5
38	88	104	PHE	3.5
10	1I	23	ILE	3.5
47	H8	98	MET	3.5
33	59	108	GLY	3.5
30	29	151	TYR	3.4
32	49	142	PRO	3.4
32	41	23	PHE	3.4
33	59	91	GLY	3.4
13	4A	102	ARG	3.4
49	F5	61	ARG	3.4
47	D5	163	LEU	3.4
7	6E	103	TRP	3.4
10	1I	92	THR	3.4
25	4K	25	A	3.4
33	59	85	LYS	3.4
12	3I	64	TYR	3.4
2	12	62	ALA	3.4
8	7E	59	LEU	3.4
10	1A	65	LEU	3.4
32	49	90	LEU	3.4
33	59	138	LYS	3.4
52	M8	56	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
35	15	51	PHE	3.4
46	C5	61	ILE	3.4
47	H8	168	GLU	3.4
32	49	178	PHE	3.4
47	H8	95	PRO	3.4
46	C5	44	ILE	3.3
10	1I	93	GLY	3.3
33	59	100	GLY	3.3
9	82	20	ARG	3.3
7	6E	88	PRO	3.3
3	22	103	VAL	3.3
33	59	45	VAL	3.3
28	71	21	THR	3.3
11	2I	68	ALA	3.3
26	14	2799	A	3.3
10	1I	88	LEU	3.3
33	59	134	SER	3.3
9	82	79	LEU	3.3
10	1I	72	VAL	3.3
19	AA	67	VAL	3.3
21	1B	13	ILE	3.3
9	82	116	LYS	3.3
33	59	103	LEU	3.3
47	D5	121	HIS	3.3
33	59	80	SER	3.2
47	D5	91	LEU	3.2
7	6E	141	VAL	3.2
33	59	15	VAL	3.2
11	2I	71	LYS	3.2
33	59	131	VAL	3.2
47	H8	96	VAL	3.2
33	59	162	ILE	3.2
40	A8	48	LEU	3.2
35	15	73	THR	3.2
10	1A	64	GLU	3.2
19	AA	62	ILE	3.2
28	71	28	LEU	3.2
13	4A	97	PRO	3.2
7	6E	84	ASN	3.2
24	3K	24	G	3.2
55	M5	12	LYS	3.2
47	D5	125	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
47	D5	69	THR	3.2
11	2I	69	ALA	3.2
20	BA	8	ARG	3.2
46	C5	46	LYS	3.2
47	H8	114	GLY	3.2
47	D5	61	LEU	3.2
56	1L	1	G	3.2
9	82	101	PHE	3.2
35	15	72	TYR	3.2
35	15	85	ILE	3.2
47	H8	144	LEU	3.2
33	59	123	PHE	3.2
47	D5	116	VAL	3.2
17	8I	99	SER	3.1
43	D8	36	PRO	3.1
11	2I	49	GLY	3.1
3	22	102	ASN	3.1
17	8I	12	SER	3.1
33	59	163	TYR	3.1
3	22	39	ILE	3.1
33	59	55	PRO	3.1
20	BI	43	LEU	3.1
43	95	16	PRO	3.1
7	6E	72	ARG	3.1
14	5A	59	ALA	3.1
17	8I	91	ARG	3.1
27	16	1(M)	A	3.1
3	22	189	ALA	3.1
39	98	34	ILE	3.1
9	82	92	TYR	3.1
11	2A	25	TYR	3.1
9	82	15	ALA	3.1
49	F5	63	ALA	3.1
11	2I	31	THR	3.1
33	59	125	VAL	3.1
19	AI	48	THR	3.1
24	3K	22	G	3.1
33	59	79	VAL	3.1
48	E5	9	SER	3.0
9	8E	127	LYS	3.0
33	59	39	PRO	3.0
47	H8	74	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
33	59	105	LEU	3.0
35	58	15	LEU	3.0
3	22	6	HIS	3.0
7	62	139	GLU	3.0
26	14	279	C	3.0
7	6E	149	ARG	3.0
9	82	31	GLN	3.0
20	BI	45	GLN	3.0
47	H8	148	ASP	3.0
7	6E	83	ALA	3.0
49	F5	95	LEU	3.0
47	D5	62	PRO	3.0
3	22	53	ALA	3.0
9	82	55	ALA	3.0
11	2I	25	TYR	3.0
47	D5	152	ALA	3.0
3	22	198	VAL	3.0
2	12	152	PHE	3.0
12	3A	26	ALA	3.0
49	F5	49	VAL	3.0
49	F5	60	PHE	3.0
20	BI	51	GLU	3.0
11	2A	83	ILE	3.0
49	F5	21	ARG	3.0
10	1A	67	THR	3.0
24	3K	46	G	3.0
7	6E	85	TYR	3.0
13	4A	98	VAL	3.0
33	59	27	LYS	3.0
17	8I	71	PHE	3.0
14	5A	29	ARG	2.9
33	59	92	ILE	2.9
33	59	113	VAL	2.9
45	B5	92	LEU	2.9
2	12	224	GLN	2.9
7	6E	97	GLN	2.9
35	15	84	LYS	2.9
49	F5	32	LYS	2.9
10	1I	7	LYS	2.9
47	H8	5	LEU	2.9
10	1I	37	PRO	2.9
8	7E	48	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
47	H8	38	TYR	2.9
7	62	73	MET	2.9
19	AI	71	LEU	2.9
47	H8	165	VAL	2.9
3	22	7	PRO	2.9
20	BI	101	GLY	2.9
30	29	28	ALA	2.9
33	59	109	PHE	2.9
41	75	35	LYS	2.9
33	59	14	GLY	2.9
20	BI	55	ILE	2.9
37	35	68	GLN	2.9
3	22	35	GLU	2.9
28	71	31	GLU	2.9
17	8I	23	VAL	2.9
3	2E	193	TYR	2.9
24	3K	70	C	2.9
41	B8	106	SER	2.9
8	7E	63	LEU	2.9
32	49	23	PHE	2.9
32	49	137	GLU	2.9
52	M8	30	GLU	2.9
37	35	65	ARG	2.9
47	D5	142	SER	2.9
49	F5	28	GLY	2.9
46	C5	53	PRO	2.9
9	82	34	ASN	2.9
24	3L	34	U	2.9
47	D5	55	HIS	2.9
29	11	112	GLN	2.8
47	H8	102	LEU	2.8
47	D5	173	ALA	2.8
35	15	46	VAL	2.8
33	59	47	GLU	2.8
15	6I	70	LEU	2.8
33	59	99	VAL	2.8
40	A8	49	VAL	2.8
41	75	50	ILE	2.8
47	H8	99	TYR	2.8
3	22	199	LYS	2.8
2	12	165	VAL	2.8
7	6E	87	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
47	D5	68	PRO	2.8
7	62	41	ARG	2.8
44	E8	92	ARG	2.8
19	AI	60	VAL	2.8
37	35	95	VAL	2.8
20	BA	16	HIS	2.8
47	H8	25	PRO	2.8
10	1I	74	ILE	2.8
32	49	177	GLY	2.8
45	B5	26	TYR	2.8
20	BI	88	VAL	2.8
43	D8	99	ILE	2.8
18	9A	84	LYS	2.8
46	C5	47	LYS	2.8
47	D5	162	GLU	2.8
9	82	109	VAL	2.8
47	H8	126	VAL	2.8
55	M5	8	LYS	2.8
12	3A	88	GLY	2.8
14	5A	48	ALA	2.8
47	D5	8	TYR	2.8
36	25	99	PHE	2.8
19	AA	40	ILE	2.8
47	D5	127	LYS	2.8
7	62	146	GLU	2.8
23	2K	48	U	2.8
47	H8	127	LYS	2.8
20	BI	41	ILE	2.7
36	25	11	ALA	2.7
47	H8	134	PRO	2.7
17	8I	98	LEU	2.7
38	88	17	LEU	2.7
11	2I	101	SER	2.7
33	59	124	GLU	2.7
14	5A	49	HIS	2.7
49	F5	10	LYS	2.7
47	H8	163	LEU	2.7
14	5A	33	VAL	2.7
33	59	11	VAL	2.7
33	59	19	VAL	2.7
32	41	88	ILE	2.7
28	71	27	HIS	2.7

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Mol	Chain	Res	Type	RSRZ
47	D5	144	LEU	2.7
34	69	1	MET	2.7
3	2E	182	ILE	2.7
10	1A	51	ARG	2.7
49	F5	6	GLU	2.7
38	45	65	PHE	2.7
55	M5	29	LYS	2.7
9	82	110	GLU	2.7
30	29	116	VAL	2.7
2	12	92	TYR	2.7
7	6E	154	TYR	2.7
30	29	150	VAL	2.7
49	F5	70	VAL	2.7
9	82	62	TYR	2.6
7	62	5	ARG	2.6
3	22	55	VAL	2.6
35	15	98	VAL	2.6
10	1I	71	LEU	2.6
33	59	71	LEU	2.6
11	2I	107	SER	2.6
47	H8	86	VAL	2.6
12	3A	33	ARG	2.6
47	D5	170	THR	2.6
8	7E	46	LYS	2.6
2	12	79	ASP	2.6
11	2A	54	ARG	2.6
11	2I	98	LEU	2.6
49	F5	5	CYS	2.6
9	82	8	GLY	2.6
47	H8	122	ARG	2.6
55	M5	22	VAL	2.6
11	2I	83	ILE	2.6
11	2A	98	LEU	2.6
20	BA	53	LEU	2.6
50	G5	45	SER	2.6
43	D8	25	LEU	2.6
47	D5	159	PRO	2.6
47	D5	168	GLU	2.6
2	12	133	LYS	2.6
10	1I	30	SER	2.6
52	M8	66	SER	2.6
7	6E	140	ASP	2.6

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Mol	Chain	Res	Type	RSRZ
3	2E	91	LEU	2.6
47	D5	5	LEU	2.6
49	J8	21	ARG	2.6
47	H8	164	ALA	2.6
33	59	166	GLY	2.6
43	95	15	GLU	2.6
36	25	18	LYS	2.6
54	L5	1	MET	2.6
36	25	19	ILE	2.6
9	82	59	PHE	2.6
21	1B	14	TRP	2.6
32	49	63	ILE	2.6
7	6E	131	LYS	2.6
37	35	144	GLU	2.6
20	BI	80	ARG	2.6
8	72	112	LEU	2.6
8	7E	47	GLY	2.5
10	1I	34	VAL	2.5
3	22	60	ALA	2.5
38	88	41	TRP	2.5
36	25	53	LYS	2.5
2	12	223	ILE	2.5
12	3A	85	ILE	2.5
19	AI	49	ILE	2.5
47	H8	166	SER	2.5
30	29	149	ARG	2.5
2	1E	96	ARG	2.5
24	3K	34	U	2.5
37	35	106	LEU	2.5
56	1L	71	C	2.5
2	12	80	ILE	2.5
11	2A	95	ILE	2.5
33	59	132	ARG	2.5
34	61	103	ARG	2.5
39	98	102	GLU	2.5
8	7E	64	LYS	2.5
49	F5	36	GLY	2.5
11	2I	66	LEU	2.5
11	2A	70	LYS	2.5
9	8E	126	SER	2.5
33	59	21	PRO	2.5
47	H8	161	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
10	1I	66	ARG	2.5
20	BA	17	ARG	2.5
32	49	175	LEU	2.5
45	B5	13	LEU	2.5
11	2A	40	ILE	2.5
33	59	18	GLU	2.5
37	35	108	LYS	2.5
47	H8	162	GLU	2.5
35	15	86	PRO	2.5
49	F5	7	ILE	2.5
32	49	167	GLU	2.5
8	7E	112	LEU	2.5
33	59	128	PRO	2.5
55	M5	10	ALA	2.5
55	M5	61	LEU	2.5
3	2E	22	TRP	2.5
12	3I	61	THR	2.5
30	21	90	THR	2.5
1	1G	1202	G	2.5
32	49	82	LEU	2.5
45	B5	69	TYR	2.5
32	49	150	ASP	2.5
36	25	42	SER	2.5
47	D5	149	SER	2.5
52	M8	21	VAL	2.5
54	L5	46	VAL	2.5
10	1A	54	PHE	2.5
19	AI	74	PHE	2.5
47	D5	108	PRO	2.5
12	3A	65	GLU	2.5
55	M5	40	GLU	2.5
13	4I	96	LEU	2.4
13	4A	26	GLY	2.4
55	M5	64	TYR	2.4
3	22	28	GLN	2.4
43	D8	60	GLU	2.4
11	2I	47	VAL	2.4
47	D5	59	LEU	2.4
49	F5	92	LYS	2.4
7	6E	147	ALA	2.4
10	1I	25	GLU	2.4
28	71	32	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
33	59	43	VAL	2.4
43	D8	3	ALA	2.4
10	1A	48	THR	2.4
26	14	280	C	2.4
33	59	4	ILE	2.4
9	82	21	PRO	2.4
14	5A	56	VAL	2.4
47	H8	153	SER	2.4
14	5A	46	GLU	2.4
47	H8	107	THR	2.4
9	82	30	GLY	2.4
32	41	152	LEU	2.4
37	35	138	LEU	2.4
25	4K	14	A	2.4
12	3A	98	TYR	2.4
13	4A	103	THR	2.4
32	49	109	VAL	2.4
40	65	20	ARG	2.4
24	3K	71	C	2.4
7	6E	151	TYR	2.4
10	1I	19	SER	2.4
26	1H	2476	A	2.4
32	49	146	TYR	2.4
20	BA	45	GLN	2.4
13	4A	87	TYR	2.4
33	59	86	GLU	2.4
10	1I	38	ILE	2.4
33	59	155	SER	2.4
24	3K	15	G	2.4
41	75	65	LYS	2.4
47	H8	106	GLY	2.4
11	2I	22	HIS	2.4
33	59	148	ILE	2.4
3	2E	196	LEU	2.4
20	BI	48	LYS	2.4
24	3K	5	C	2.4
3	2E	21	ARG	2.4
13	4A	73	GLU	2.4
14	5I	13	THR	2.4
32	41	137	GLU	2.4
19	AA	69	HIS	2.4
47	H8	55	HIS	2.4

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Mol	Chain	Res	Type	RSRZ
20	BI	90	GLN	2.4
46	C5	2	ARG	2.4
11	2A	31	THR	2.4
11	2I	62	GLN	2.4
20	BA	48	LYS	2.4
32	49	25	TYR	2.4
55	M5	50	LEU	2.4
9	82	32	ASP	2.3
9	82	53	VAL	2.3
13	4I	6	GLY	2.3
13	4A	94	ARG	2.3
33	59	144	VAL	2.3
38	88	27	VAL	2.3
47	H8	39	VAL	2.3
37	35	74	GLU	2.3
33	59	117	PRO	2.3
55	M5	2	PRO	2.3
3	22	66	VAL	2.3
11	2I	28	THR	2.3
12	3I	19	ARG	2.3
11	2I	55	LYS	2.3
41	75	1	MET	2.3
43	D8	98	GLU	2.3
7	62	62	PHE	2.3
33	59	158	HIS	2.3
47	H8	139	VAL	2.3
26	14	2802	G	2.3
47	H8	156	LYS	2.3
1	1G	87	A	2.3
8	7E	45	ILE	2.3
8	7E	109	ILE	2.3
13	4A	80	ARG	2.3
26	14	278	A	2.3
11	2A	84	VAL	2.3
11	2I	73	MET	2.3
16	7I	19	ILE	2.3
32	41	25	TYR	2.3
47	D5	172	ALA	2.3
12	3A	29	GLY	2.3
23	2K	21	U	2.3
10	1I	15	THR	2.3
13	4A	101	GLN	2.3

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Mol	Chain	Res	Type	RSRZ
10	1A	50	ILE	2.3
48	I8	84	LEU	2.3
30	29	69	LYS	2.3
40	65	57	LYS	2.3
47	D5	11	GLU	2.3
3	22	57	ILE	2.3
10	1I	65	LEU	2.3
32	49	149	VAL	2.3
33	59	141	VAL	2.3
11	2I	124	LYS	2.3
39	55	70	LEU	2.3
24	3K	33	U	2.3
43	95	12	TYR	2.3
45	B5	89	ILE	2.3
32	41	80	PHE	2.3
39	98	33	ARG	2.3
46	C5	56	PRO	2.3
47	D5	98	MET	2.3
32	49	152	LEU	2.3
35	58	16	ILE	2.3
43	D8	4	ILE	2.3
14	5I	37	PHE	2.3
36	25	33	ALA	2.3
11	2I	117	ASN	2.3
26	14	277	C	2.3
19	AI	76	PRO	2.3
20	BI	92	LEU	2.3
24	3L	6	G	2.3
11	2I	29	ILE	2.3
40	65	108	GLY	2.3
53	N8	5	PRO	2.3
55	M5	4	MET	2.3
2	1E	208	ILE	2.3
37	35	51	PHE	2.3
55	M5	16	ILE	2.3
3	22	133	ALA	2.3
25	4L	25	A	2.3
15	6I	34	LEU	2.2
28	71	34	THR	2.2
47	D5	6	LYS	2.2
9	82	85	LEU	2.2
43	D8	35	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
51	H5	26	LEU	2.2
17	8I	36	ILE	2.2
30	29	77	ILE	2.2
37	35	126	VAL	2.2
17	8I	7	THR	2.2
37	35	47	ASP	2.2
36	25	58	VAL	2.2
36	25	98	VAL	2.2
42	C8	90	VAL	2.2
19	AA	75	ALA	2.2
34	61	139	GLN	2.2
47	D5	143	GLY	2.2
17	8I	45	HIS	2.2
26	14	2146	C	2.2
9	82	54	ASP	2.2
47	H8	111	VAL	2.2
2	1E	232	PRO	2.2
39	98	116	LEU	2.2
47	H8	157	LEU	2.2
47	H8	149	SER	2.2
3	22	59	ARG	2.2
9	82	17	VAL	2.2
13	4A	88	ARG	2.2
38	45	130	LYS	2.2
11	2A	42	TRP	2.2
20	BI	17	ARG	2.2
47	H8	79	ARG	2.2
47	D5	133	ILE	2.2
47	H8	125	LEU	2.2
33	59	101	ARG	2.2
24	3K	35	U	2.2
12	3A	30	ALA	2.2
7	6E	22	LEU	2.2
31	31	123	LEU	2.2
47	H8	87	ASP	2.2
47	D5	148	ASP	2.2
48	E5	12	ASN	2.2
55	M5	11	LYS	2.2
20	BI	100	ILE	2.2
34	61	70	GLU	2.2
47	H8	2	GLU	2.2
14	5A	60	SER	2.2

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Mol	Chain	Res	Type	RSRZ
20	BI	44	ALA	2.2
38	88	32	TYR	2.2
44	E8	86	LEU	2.2
47	D5	70	LEU	2.2
53	J5	2	ALA	2.2
13	4A	99	ARG	2.2
32	49	83	ARG	2.2
8	7E	9	MET	2.2
31	31	9	ILE	2.2
2	1E	10	LEU	2.2
3	2E	200	ALA	2.2
13	4A	96	LEU	2.2
43	D8	94	LEU	2.2
46	C5	52	SER	2.2
20	BA	42	GLN	2.2
45	B5	28	PHE	2.2
11	2I	30	VAL	2.2
32	49	5	VAL	2.2
49	F5	37	ILE	2.2
52	M8	3	GLU	2.2
8	72	131	GLY	2.2
30	29	3	GLY	2.2
11	2I	65	ALA	2.2
17	8I	19	VAL	2.2
44	E8	94	ASP	2.2
49	F5	62	VAL	2.2
39	55	68	ARG	2.2
45	B5	33	LYS	2.2
55	M5	7	HIS	2.2
17	8I	44	ALA	2.1
35	15	8	GLN	2.1
8	7E	4	ASP	2.1
7	62	12	LEU	2.1
7	6E	91	VAL	2.1
31	39	10	PRO	2.1
38	88	87	LYS	2.1
47	H8	158	PRO	2.1
7	62	130	GLY	2.1
9	82	91	ASP	2.1
9	82	61	ALA	2.1
2	12	129	GLU	2.1
4	3E	3	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
9	82	87	GLN	2.1
20	BA	25	ARG	2.1
28	71	13	LYS	2.1
47	H8	141	VAL	2.1
37	35	45	LEU	2.1
7	62	68	ASN	2.1
20	BI	40	ALA	2.1
3	22	68	VAL	2.1
33	59	119	GLU	2.1
19	AA	68	GLY	2.1
26	14	2797	U	2.1
36	25	51	ALA	2.1
47	H8	85	HIS	2.1
19	AI	79	THR	2.1
31	31	6	VAL	2.1
33	59	24	VAL	2.1
30	29	76	ARG	2.1
42	C8	106	PHE	2.1
52	M8	13	ARG	2.1
11	2I	67	ASP	2.1
24	3K	37	A	2.1
8	7E	137	VAL	2.1
19	AA	77	THR	2.1
49	F5	42	GLN	2.1
31	31	124	LEU	2.1
55	M5	13	ARG	2.1
7	6E	58	PRO	2.1
3	2E	20	SER	2.1
10	1I	11	PHE	2.1
20	BI	95	ALA	2.1
33	59	44	VAL	2.1
35	58	53	VAL	2.1
47	D5	60	GLU	2.1
20	BI	72	LEU	2.1
20	BA	21	LYS	2.1
43	D8	92	THR	2.1
45	B5	3	THR	2.1
30	21	51	PHE	2.1
36	25	101	PRO	2.1
3	2E	166	GLU	2.1
36	25	41	ALA	2.1
40	A8	44	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
3	22	188	LEU	2.1
14	5A	6	LEU	2.1
26	1H	163	U	2.1
36	25	48	PRO	2.1
17	8I	10	VAL	2.1
17	8I	17	LYS	2.1
13	4I	83	ASP	2.1
20	BA	23	ARG	2.1
37	35	46	LYS	2.1
47	D5	52	SER	2.1
55	M5	30	ARG	2.1
34	61	116	LEU	2.1
2	1E	146	GLN	2.1
7	6E	73	MET	2.1
23	2L	21	U	2.1
41	75	45	PHE	2.1
3	22	65	ALA	2.1
35	15	83	LYS	2.1
37	35	97	PRO	2.1
47	H8	138	GLU	2.1
11	2A	32	ILE	2.1
47	H8	57	ILE	2.1
20	BA	43	LEU	2.1
30	29	195	LEU	2.1
45	B5	66	LEU	2.1
7	6E	63	LYS	2.1
7	62	37	ASN	2.1
12	3A	89	ARG	2.1
46	C5	4	LYS	2.1
3	2E	189	ALA	2.1
14	5I	30	ALA	2.1
35	58	52	VAL	2.1
35	15	9	VAL	2.1
43	95	5	VAL	2.1
8	7E	80	ILE	2.1
19	AA	71	LEU	2.1
46	C5	80	GLY	2.1
25	4K	10	G	2.0
8	7E	110	ALA	2.0
30	21	91	VAL	2.0
38	88	102	VAL	2.0
45	B5	5	TYR	2.0

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Mol	Chain	Res	Type	RSRZ
46	C5	105	ALA	2.0
47	H8	167	PRO	2.0
47	D5	113	ALA	2.0
2	12	155	LEU	2.0
20	BA	72	LEU	2.0
43	D8	54	GLY	2.0
8	7E	44	PHE	2.0
20	BA	38	LYS	2.0
9	82	26	VAL	2.0
3	2E	39	ILE	2.0
30	29	134	ILE	2.0
35	15	87	LEU	2.0
37	35	48	PRO	2.0
41	75	99	LEU	2.0
20	BI	87	LYS	2.0
37	35	76	LYS	2.0
20	BI	89	ARG	2.0
21	1B	22	ARG	2.0
47	H8	103	ARG	2.0
39	98	69	ASP	2.0
7	62	101	LEU	2.0
24	3K	32	C	2.0
30	29	131	ALA	2.0
47	H8	27	VAL	2.0
43	D8	40	LEU	2.0
55	M5	5	LYS	2.0
47	H8	72	ARG	2.0
20	BI	46	GLU	2.0
33	59	104	GLU	2.0
10	1A	62	HIS	2.0
39	98	114	VAL	2.0
47	H8	100	VAL	2.0
9	82	83	ARG	2.0
11	2I	91	ARG	2.0
38	45	34	LEU	2.0
43	95	96	ILE	2.0
47	D5	114	GLY	2.0
37	35	145	PRO	2.0
14	5A	22	THR	2.0
3	2E	201	TYR	2.0
10	1A	49	VAL	2.0
12	3A	68	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
20	BA	13	LEU	2.0
28	71	11	LEU	2.0
33	59	64	LEU	2.0
47	H8	29	TYR	2.0
38	88	68	ILE	2.0
44	A5	6	ILE	2.0
9	82	18	PHE	2.0
44	E8	34	ASN	2.0
3	22	23	TYR	2.0
14	5I	29	ARG	2.0
29	19	262	ARG	2.0
40	65	58	LEU	2.0
41	75	28	VAL	2.0
43	D8	39	LEU	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	PSU	1L	55	20/21	0.85	0.10	121,135,144,145	0
22	H2U	1K	17	20/21	0.86	0.14	130,139,153,158	0
23	7MG	2K	47	24/25	0.88	0.19	99,108,119,120	0
22	PSU	1K	55	20/21	0.88	0.15	115,126,136,137	0
22	5MU	1K	54	21/22	0.89	0.17	116,121,138,149	0
23	PSU	2L	56	20/21	0.90	0.11	112,122,130,133	0
56	5MU	1L	54	21/22	0.92	0.11	125,136,146,154	0
22	T6A	1K	37	32/33	0.93	0.20	91,108,133,134	0
23	4SU	2K	8	20/21	0.93	0.16	91,99,105,106	0
23	5MU	2K	55	21/22	0.94	0.14	105,112,118,128	0
23	PSU	2K	56	20/21	0.94	0.12	102,108,119,120	0
23	4SU	2L	8	20/21	0.94	0.15	108,116,123,125	0
22	PSU	1K	39	20/21	0.94	0.11	100,119,123,124	0
23	7MG	2L	47	24/25	0.94	0.13	124,131,143,146	0
23	OMC	2K	33	21/22	0.96	0.25	85,89,90,91	0
23	5MU	2L	55	21/22	0.96	0.14	115,126,133,135	0
23	OMC	2L	33	21/22	0.96	0.18	100,107,110,117	0
22	U8U	1K	34	23/24	0.97	0.15	98,105,115,118	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3456	1/1	0.12	0.16	118,118,118,118	0
57	MG	1H	3347	1/1	0.14	0.12	113,113,113,113	0
57	MG	1H	3176	1/1	0.32	0.41	102,102,102,102	0
57	MG	13	1648	1/1	0.37	0.49	117,117,117,117	0
57	MG	14	3080	1/1	0.41	0.23	71,71,71,71	0
57	MG	14	3163	1/1	0.44	0.45	104,104,104,104	0
57	MG	1G	1620	1/1	0.45	0.63	93,93,93,93	0
57	MG	1G	1723	1/1	0.45	0.19	127,127,127,127	0
57	MG	14	3074	1/1	0.45	0.59	95,95,95,95	0
57	MG	1H	3452	1/1	0.46	0.10	115,115,115,115	0
57	MG	1H	3534	1/1	0.47	0.11	113,113,113,113	0
57	MG	1H	3421	1/1	0.47	0.38	93,93,93,93	0
57	MG	1G	1629	1/1	0.47	0.19	129,129,129,129	0
57	MG	1H	3493	1/1	0.47	0.16	106,106,106,106	0
57	MG	13	1715	1/1	0.50	0.17	119,119,119,119	0
57	MG	14	3153	1/1	0.50	0.23	123,123,123,123	0
57	MG	14	3199	1/1	0.51	0.55	99,99,99,99	0
57	MG	1H	3197	1/1	0.51	0.38	93,93,93,93	0
57	MG	14	3413	1/1	0.53	0.17	125,125,125,125	0
57	MG	1H	3525	1/1	0.53	0.19	99,99,99,99	0
57	MG	1G	1647	1/1	0.54	0.23	99,99,99,99	0
57	MG	1G	1698	1/1	0.54	0.07	138,138,138,138	0
57	MG	14	3165	1/1	0.54	0.67	97,97,97,97	0
57	MG	1H	3402	1/1	0.54	0.20	71,71,71,71	0
57	MG	1H	3506	1/1	0.54	0.25	103,103,103,103	0
57	MG	1H	3484	1/1	0.54	0.29	97,97,97,97	0
57	MG	13	1692	1/1	0.55	0.15	110,110,110,110	0
57	MG	14	3453	1/1	0.55	0.20	118,118,118,118	0
57	MG	13	1638	1/1	0.55	0.56	103,103,103,103	0
57	MG	13	1669	1/1	0.56	0.14	111,111,111,111	0
57	MG	1H	3514	1/1	0.56	0.13	112,112,112,112	0
57	MG	13	1728	1/1	0.56	0.09	117,117,117,117	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3497	1/1	0.57	0.24	96,96,96,96	0
57	MG	1H	3166	1/1	0.58	0.23	67,67,67,67	0
57	MG	14	3194	1/1	0.58	0.50	84,84,84,84	0
57	MG	14	3135	1/1	0.59	0.38	112,112,112,112	0
57	MG	1H	3432	1/1	0.60	0.17	116,116,116,116	0
57	MG	1G	1711	1/1	0.60	0.06	156,156,156,156	0
57	MG	1H	3013	1/1	0.60	0.18	94,94,94,94	0
57	MG	1H	3062	1/1	0.60	0.17	64,64,64,64	0
57	MG	14	3079	1/1	0.60	0.47	86,86,86,86	0
57	MG	1J	209	1/1	0.60	0.07	131,131,131,131	0
57	MG	1H	3489	1/1	0.61	0.15	107,107,107,107	0
57	MG	1H	3167	1/1	0.61	0.48	86,86,86,86	0
57	MG	14	3177	1/1	0.61	0.46	81,81,81,81	0
57	MG	1H	3177	1/1	0.62	0.20	143,143,143,143	0
57	MG	32	301	1/1	0.62	0.12	137,137,137,137	0
57	MG	14	3355	1/1	0.62	0.20	99,99,99,99	0
57	MG	14	3161	1/1	0.62	0.25	94,94,94,94	0
57	MG	1H	3180	1/1	0.62	0.34	81,81,81,81	0
57	MG	1G	1702	1/1	0.62	0.08	117,117,117,117	0
57	MG	13	1655	1/1	0.62	0.42	83,83,83,83	0
57	MG	1H	3536	1/1	0.63	0.17	104,104,104,104	0
57	MG	1H	3341	1/1	0.63	0.14	113,113,113,113	0
57	MG	13	1668	1/1	0.63	0.29	112,112,112,112	0
57	MG	1H	3371	1/1	0.63	0.15	88,88,88,88	0
57	MG	14	3333	1/1	0.63	0.19	97,97,97,97	0
57	MG	1H	3210	1/1	0.64	0.34	87,87,87,87	0
57	MG	16	206	1/1	0.64	0.24	83,83,83,83	0
57	MG	14	3429	1/1	0.64	0.31	109,109,109,109	0
57	MG	1H	3365	1/1	0.65	0.10	82,82,82,82	0
57	MG	1H	3071	1/1	0.65	0.25	101,101,101,101	0
57	MG	1H	3117	1/1	0.66	0.18	96,96,96,96	0
57	MG	13	1736	1/1	0.66	0.12	129,129,129,129	0
57	MG	1H	3085	1/1	0.66	0.34	79,79,79,79	0
57	MG	1H	3087	1/1	0.66	0.53	75,75,75,75	0
57	MG	1H	3509	1/1	0.67	0.36	114,114,114,114	0
57	MG	1H	3338	1/1	0.67	0.10	99,99,99,99	0
57	MG	1H	3055	1/1	0.67	0.27	62,62,62,62	0
57	MG	1H	3089	1/1	0.67	0.43	88,88,88,88	0
57	MG	1H	3173	1/1	0.67	0.32	77,77,77,77	0
57	MG	13	1667	1/1	0.67	0.15	104,104,104,104	0
57	MG	1H	3333	1/1	0.67	0.09	98,98,98,98	0
57	MG	1H	3335	1/1	0.67	0.09	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	E5	101	1/1	0.67	0.66	99,99,99,99	0
57	MG	14	3138	1/1	0.68	0.45	91,91,91,91	0
57	MG	2K	103	1/1	0.68	0.18	88,88,88,88	0
57	MG	1H	3337	1/1	0.68	0.07	98,98,98,98	0
57	MG	13	1683	1/1	0.68	0.12	119,119,119,119	0
57	MG	1H	3213	1/1	0.68	0.22	83,83,83,83	0
57	MG	1H	3422	1/1	0.68	0.11	114,114,114,114	0
57	MG	14	3109	1/1	0.68	0.31	94,94,94,94	0
57	MG	1H	3175	1/1	0.68	0.37	73,73,73,73	0
57	MG	14	3141	1/1	0.69	0.20	85,85,85,85	0
57	MG	13	1666	1/1	0.69	0.24	98,98,98,98	0
57	MG	14	3399	1/1	0.69	0.09	122,122,122,122	0
57	MG	1H	3481	1/1	0.69	0.15	92,92,92,92	0
57	MG	14	3427	1/1	0.69	0.15	121,121,121,121	0
57	MG	13	1642	1/1	0.69	0.30	95,95,95,95	0
57	MG	14	3431	1/1	0.69	0.17	107,107,107,107	0
57	MG	14	3103	1/1	0.69	0.53	80,80,80,80	0
57	MG	1G	1609	1/1	0.69	0.65	96,96,96,96	0
57	MG	1H	3008	1/1	0.69	0.28	81,81,81,81	0
57	MG	25	301	1/1	0.69	0.20	120,120,120,120	0
57	MG	1H	3433	1/1	0.69	0.10	98,98,98,98	0
57	MG	14	3027	1/1	0.70	0.08	85,85,85,85	0
57	MG	13	1719	1/1	0.70	0.07	118,118,118,118	0
57	MG	13	1740	1/1	0.70	0.14	162,162,162,162	0
57	MG	1G	1704	1/1	0.70	0.21	127,127,127,127	0
57	MG	1H	3124	1/1	0.70	0.36	90,90,90,90	0
57	MG	1G	1638	1/1	0.70	0.34	119,119,119,119	0
57	MG	1H	3152	1/1	0.70	0.28	87,87,87,87	0
57	MG	14	3133	1/1	0.71	0.93	89,89,89,89	0
57	MG	14	3222	1/1	0.71	0.18	73,73,73,73	0
57	MG	1H	3535	1/1	0.71	0.20	110,110,110,110	0
57	MG	14	3010	1/1	0.71	0.23	84,84,84,84	0
57	MG	14	3173	1/1	0.71	0.26	90,90,90,90	0
57	MG	1G	1701	1/1	0.71	0.12	115,115,115,115	0
57	MG	1G	1634	1/1	0.71	0.39	98,98,98,98	0
57	MG	1G	1643	1/1	0.72	0.10	100,100,100,100	0
57	MG	14	3446	1/1	0.72	0.07	118,118,118,118	0
57	MG	1H	3537	1/1	0.72	0.11	112,112,112,112	0
57	MG	14	3455	1/1	0.72	0.37	115,115,115,115	0
57	MG	13	1684	1/1	0.72	0.10	105,105,105,105	0
57	MG	14	3423	1/1	0.72	0.18	118,118,118,118	0
57	MG	P8	101	1/1	0.72	0.46	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3326	1/1	0.72	0.10	109,109,109,109	0
57	MG	14	3185	1/1	0.73	0.24	93,93,93,93	0
57	MG	14	3187	1/1	0.73	0.46	106,106,106,106	0
57	MG	1H	3408	1/1	0.73	0.10	87,87,87,87	0
57	MG	1H	3459	1/1	0.73	0.16	88,88,88,88	0
57	MG	1H	3364	1/1	0.73	0.12	85,85,85,85	0
57	MG	1H	3169	1/1	0.73	0.27	91,91,91,91	0
57	MG	1H	3241	1/1	0.73	0.20	82,82,82,82	0
57	MG	14	3377	1/1	0.73	0.12	72,72,72,72	0
57	MG	14	3457	1/1	0.73	0.09	134,134,134,134	0
57	MG	14	3175	1/1	0.73	0.54	100,100,100,100	0
57	MG	14	3406	1/1	0.73	0.17	121,121,121,121	0
57	MG	13	1610	1/1	0.73	0.56	81,81,81,81	0
57	MG	13	1678	1/1	0.74	0.17	114,114,114,114	0
57	MG	1H	3090	1/1	0.74	0.27	82,82,82,82	0
57	MG	1H	3232	1/1	0.74	0.38	100,100,100,100	0
57	MG	1G	1706	1/1	0.74	0.05	138,138,138,138	0
57	MG	1H	3552	1/1	0.74	0.22	113,113,113,113	0
57	MG	1H	3519	1/1	0.74	0.16	104,104,104,104	0
57	MG	14	3388	1/1	0.74	0.13	72,72,72,72	0
57	MG	1H	3237	1/1	0.74	0.56	85,85,85,85	0
57	MG	14	3179	1/1	0.74	0.30	103,103,103,103	0
57	MG	39	301	1/1	0.74	0.17	80,80,80,80	0
57	MG	1G	1662	1/1	0.74	0.11	118,118,118,118	0
57	MG	1H	3504	1/1	0.74	0.29	104,104,104,104	0
57	MG	1H	3221	1/1	0.75	0.38	81,81,81,81	0
57	MG	1H	3279	1/1	0.75	0.12	68,68,68,68	0
57	MG	1H	3050	1/1	0.75	0.35	85,85,85,85	0
57	MG	13	1654	1/1	0.75	0.34	85,85,85,85	0
57	MG	14	3437	1/1	0.75	0.11	111,111,111,111	0
57	MG	14	3154	1/1	0.75	0.33	78,78,78,78	0
57	MG	1G	1712	1/1	0.75	0.29	110,110,110,110	0
57	MG	1H	3182	1/1	0.76	0.17	108,108,108,108	0
57	MG	14	3392	1/1	0.76	0.15	98,98,98,98	0
57	MG	1H	3147	1/1	0.76	0.39	125,125,125,125	0
57	MG	1H	3077	1/1	0.76	0.42	76,76,76,76	0
57	MG	14	3081	1/1	0.76	0.17	79,79,79,79	0
57	MG	1H	3325	1/1	0.76	0.10	88,88,88,88	0
57	MG	14	3425	1/1	0.76	0.28	106,106,106,106	0
57	MG	13	1675	1/1	0.76	0.16	91,91,91,91	0
57	MG	14	3115	1/1	0.76	0.45	78,78,78,78	0
57	MG	14	3128	1/1	0.76	0.35	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3540	1/1	0.76	0.45	110,110,110,110	0
57	MG	1H	3215	1/1	0.76	0.45	94,94,94,94	0
57	MG	1G	1724	1/1	0.76	0.06	126,126,126,126	0
57	MG	1H	3086	1/1	0.76	0.29	67,67,67,67	0
57	MG	14	3255	1/1	0.76	0.12	110,110,110,110	0
57	MG	14	3301	1/1	0.76	0.11	89,89,89,89	0
57	MG	1J	207	1/1	0.76	0.09	119,119,119,119	0
57	MG	14	3144	1/1	0.76	0.40	84,84,84,84	0
57	MG	14	3341	1/1	0.76	0.32	78,78,78,78	0
57	MG	1G	1684	1/1	0.76	0.07	109,109,109,109	0
57	MG	13	1712	1/1	0.76	0.07	106,106,106,106	0
57	MG	1H	3369	1/1	0.77	0.27	90,90,90,90	0
57	MG	1H	3227	1/1	0.77	0.20	90,90,90,90	0
57	MG	1H	3498	1/1	0.77	0.08	113,113,113,113	0
57	MG	14	3198	1/1	0.77	0.30	88,88,88,88	0
57	MG	14	3145	1/1	0.77	0.39	71,71,71,71	0
57	MG	1H	3181	1/1	0.77	0.35	98,98,98,98	0
57	MG	1H	3170	1/1	0.77	0.23	80,80,80,80	0
57	MG	14	3159	1/1	0.77	0.27	80,80,80,80	0
57	MG	1H	3411	1/1	0.77	0.17	95,95,95,95	0
57	MG	14	3339	1/1	0.77	0.05	106,106,106,106	0
57	MG	1G	1720	1/1	0.77	0.10	135,135,135,135	0
57	MG	1H	3510	1/1	0.77	0.07	104,104,104,104	0
57	MG	13	1723	1/1	0.77	0.12	118,118,118,118	0
57	MG	14	3130	1/1	0.77	0.28	92,92,92,92	0
57	MG	88	202	1/1	0.77	0.31	71,71,71,71	0
57	MG	1H	3208	1/1	0.77	0.19	69,69,69,69	0
57	MG	14	3183	1/1	0.77	0.45	88,88,88,88	0
57	MG	14	3451	1/1	0.78	0.34	110,110,110,110	0
57	MG	13	1629	1/1	0.78	0.31	100,100,100,100	0
57	MG	1H	3162	1/1	0.78	0.61	92,92,92,92	0
57	MG	13	1649	1/1	0.78	0.18	83,83,83,83	0
57	MG	2L	102	1/1	0.78	0.17	126,126,126,126	0
57	MG	14	3087	1/1	0.78	0.18	75,75,75,75	0
57	MG	1J	208	1/1	0.78	0.17	124,124,124,124	0
57	MG	14	3379	1/1	0.78	0.12	107,107,107,107	0
57	MG	1H	3235	1/1	0.78	0.22	96,96,96,96	0
57	MG	14	3300	1/1	0.78	0.08	86,86,86,86	0
57	MG	1H	3494	1/1	0.78	0.20	87,87,87,87	0
57	MG	1G	1611	1/1	0.79	0.62	84,84,84,84	0
57	MG	14	3140	1/1	0.79	0.32	89,89,89,89	0
57	MG	13	1699	1/1	0.79	0.19	114,114,114,114	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1735	1/1	0.79	0.13	105,105,105,105	0
57	MG	1H	3399	1/1	0.79	0.07	109,109,109,109	0
57	MG	1H	3543	1/1	0.79	0.12	166,166,166,166	0
57	MG	13	1709	1/1	0.79	0.05	128,128,128,128	0
57	MG	14	3430	1/1	0.79	0.22	102,102,102,102	0
57	MG	14	3158	1/1	0.79	0.26	84,84,84,84	0
57	MG	1H	3142	1/1	0.79	0.48	87,87,87,87	0
57	MG	13	1621	1/1	0.79	0.48	94,94,94,94	0
57	MG	14	3450	1/1	0.79	0.31	116,116,116,116	0
57	MG	14	3116	1/1	0.79	0.21	77,77,77,77	0
57	MG	14	3124	1/1	0.79	0.35	64,64,64,64	0
57	MG	14	3351	1/1	0.79	0.10	101,101,101,101	0
57	MG	1G	1667	1/1	0.79	0.21	111,111,111,111	0
57	MG	1H	3502	1/1	0.79	0.12	90,90,90,90	0
57	MG	1G	1605	1/1	0.79	0.32	109,109,109,109	0
57	MG	14	3383	1/1	0.79	0.13	91,91,91,91	0
57	MG	14	3384	1/1	0.79	0.09	88,88,88,88	0
57	MG	14	3134	1/1	0.79	0.70	99,99,99,99	0
57	MG	1H	3415	1/1	0.79	0.13	95,95,95,95	0
57	MG	14	3397	1/1	0.79	0.07	162,162,162,162	0
57	MG	1H	3010	1/1	0.80	0.37	87,87,87,87	0
57	MG	1G	1650	1/1	0.80	0.23	111,111,111,111	0
57	MG	1G	1659	1/1	0.80	0.10	120,120,120,120	0
57	MG	1H	3217	1/1	0.80	0.39	79,79,79,79	0
57	MG	14	3400	1/1	0.80	0.08	135,135,135,135	0
57	MG	13	1700	1/1	0.80	0.06	110,110,110,110	0
57	MG	1H	3548	1/1	0.80	0.42	98,98,98,98	0
57	MG	14	3422	1/1	0.80	0.11	104,104,104,104	0
57	MG	1G	1696	1/1	0.80	0.10	109,109,109,109	0
57	MG	1G	1697	1/1	0.80	0.09	125,125,125,125	0
57	MG	1H	3551	1/1	0.80	0.11	86,86,86,86	0
57	MG	1H	3042	1/1	0.80	0.28	67,67,67,67	0
57	MG	1H	3157	1/1	0.80	0.45	89,89,89,89	0
57	MG	21	302	1/1	0.80	0.34	85,85,85,85	0
57	MG	1H	3048	1/1	0.80	0.14	68,68,68,68	0
57	MG	13	1618	1/1	0.80	0.27	72,72,72,72	0
57	MG	13	1727	1/1	0.80	0.07	124,124,124,124	0
57	MG	1H	3513	1/1	0.80	0.14	104,104,104,104	0
57	MG	1H	3456	1/1	0.80	0.15	92,92,92,92	0
57	MG	1H	3246	1/1	0.80	0.17	54,54,54,54	0
57	MG	1H	3110	1/1	0.80	0.34	86,86,86,86	0
57	MG	1G	1633	1/1	0.80	0.12	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3008	1/1	0.80	0.15	73,73,73,73	0
57	MG	14	3375	1/1	0.80	0.39	116,116,116,116	0
57	MG	13	1718	1/1	0.80	0.04	130,130,130,130	0
57	MG	1J	210	1/1	0.80	0.08	135,135,135,135	0
57	MG	1H	3401	1/1	0.80	0.14	99,99,99,99	0
57	MG	14	3160	1/1	0.80	0.45	85,85,85,85	0
57	MG	13	1734	1/1	0.80	0.10	143,143,143,143	0
57	MG	14	3395	1/1	0.81	0.21	98,98,98,98	0
57	MG	1H	3160	1/1	0.81	0.23	79,79,79,79	0
57	MG	1G	1613	1/1	0.81	0.95	93,93,93,93	0
57	MG	1H	3313	1/1	0.81	0.12	62,62,62,62	0
57	MG	14	3210	1/1	0.81	0.09	78,78,78,78	0
57	MG	1H	3172	1/1	0.81	0.23	64,64,64,64	0
57	MG	14	3238	1/1	0.81	0.10	67,67,67,67	0
57	MG	1H	3222	1/1	0.81	0.45	86,86,86,86	0
57	MG	14	3259	1/1	0.81	0.13	97,97,97,97	0
57	MG	14	3267	1/1	0.81	0.07	119,119,119,119	0
57	MG	1H	3436	1/1	0.81	0.10	87,87,87,87	0
57	MG	1H	3383	1/1	0.81	0.16	74,74,74,74	0
57	MG	14	3324	1/1	0.81	0.09	90,90,90,90	0
57	MG	14	3328	1/1	0.81	0.10	95,95,95,95	0
57	MG	1H	3391	1/1	0.81	0.41	90,90,90,90	0
57	MG	14	3448	1/1	0.81	0.10	120,120,120,120	0
57	MG	16	204	1/1	0.81	0.20	89,89,89,89	0
57	MG	1H	3194	1/1	0.81	0.37	80,80,80,80	0
57	MG	1G	1658	1/1	0.81	0.08	97,97,97,97	0
57	MG	14	3454	1/1	0.81	0.12	108,108,108,108	0
57	MG	14	3166	1/1	0.81	0.34	95,95,95,95	0
57	MG	14	3356	1/1	0.81	0.21	78,78,78,78	0
57	MG	1H	3161	1/1	0.81	0.35	77,77,77,77	0
57	MG	1J	205	1/1	0.81	0.12	101,101,101,101	0
57	MG	52	300	1/1	0.81	0.12	133,133,133,133	0
57	MG	1H	3012	1/1	0.81	0.23	81,81,81,81	0
57	MG	14	3381	1/1	0.81	0.07	136,136,136,136	0
57	MG	1H	3065	1/1	0.81	0.16	72,72,72,72	0
57	MG	14	3137	1/1	0.81	0.34	76,76,76,76	0
57	MG	1H	3111	1/1	0.81	0.33	94,94,94,94	0
57	MG	1H	3159	1/1	0.81	0.41	95,95,95,95	0
57	MG	1H	3264	1/1	0.82	0.19	55,55,55,55	0
57	MG	1H	3107	1/1	0.82	0.35	62,62,62,62	0
57	MG	14	3428	1/1	0.82	0.05	110,110,110,110	0
57	MG	1H	3477	1/1	0.82	0.18	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1641	1/1	0.82	0.45	79,79,79,79	0
57	MG	14	3114	1/1	0.82	0.18	77,77,77,77	0
57	MG	14	3364	1/1	0.82	0.08	98,98,98,98	0
57	MG	13	1663	1/1	0.82	0.11	77,77,77,77	0
57	MG	1H	3156	1/1	0.82	0.33	106,106,106,106	0
57	MG	1H	3512	1/1	0.82	0.29	100,100,100,100	0
57	MG	14	3225	1/1	0.82	0.16	79,79,79,79	0
57	MG	1H	3492	1/1	0.82	0.16	107,107,107,107	0
57	MG	14	3250	1/1	0.82	0.11	84,84,84,84	0
57	MG	14	3162	1/1	0.82	0.26	91,91,91,91	0
57	MG	14	3257	1/1	0.82	0.19	118,118,118,118	0
57	MG	14	3009	1/1	0.82	0.28	77,77,77,77	0
57	MG	1J	204	1/1	0.82	0.10	102,102,102,102	0
57	MG	1H	3060	1/1	0.82	0.54	90,90,90,90	0
57	MG	14	3276	1/1	0.82	0.08	85,85,85,85	0
57	MG	1H	3403	1/1	0.82	0.07	68,68,68,68	0
57	MG	14	3068	1/1	0.82	0.47	78,78,78,78	0
57	MG	1H	3007	1/1	0.82	0.24	57,57,57,57	0
57	MG	14	3414	1/1	0.82	0.11	99,99,99,99	0
57	MG	1H	3531	1/1	0.82	0.13	114,114,114,114	0
57	MG	1H	3533	1/1	0.82	0.33	99,99,99,99	0
57	MG	1H	3133	1/1	0.83	0.13	72,72,72,72	0
57	MG	1H	3165	1/1	0.83	0.23	85,85,85,85	0
57	MG	1G	1707	1/1	0.83	0.08	115,115,115,115	0
57	MG	1H	3188	1/1	0.83	0.35	88,88,88,88	0
57	MG	1H	3137	1/1	0.83	0.37	67,67,67,67	0
57	MG	1H	3091	1/1	0.83	0.64	77,77,77,77	0
57	MG	14	3315	1/1	0.83	0.10	83,83,83,83	0
57	MG	14	3095	1/1	0.83	0.31	72,72,72,72	0
57	MG	14	3100	1/1	0.83	0.25	77,77,77,77	0
57	MG	1H	3373	1/1	0.83	0.21	79,79,79,79	0
57	MG	14	3404	1/1	0.83	0.07	121,121,121,121	0
57	MG	1G	1664	1/1	0.83	0.14	82,82,82,82	0
57	MG	1H	3413	1/1	0.83	0.33	93,93,93,93	0
57	MG	1G	1624	1/1	0.83	0.22	103,103,103,103	0
57	MG	1H	3462	1/1	0.83	0.06	99,99,99,99	0
57	MG	1G	1631	1/1	0.83	0.10	103,103,103,103	0
57	MG	14	3424	1/1	0.83	0.12	117,117,117,117	0
57	MG	14	3360	1/1	0.83	0.16	107,107,107,107	0
57	MG	1H	3532	1/1	0.83	0.47	79,79,79,79	0
57	MG	13	1720	1/1	0.83	0.06	121,121,121,121	0
57	MG	13	1623	1/1	0.83	0.20	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3460	1/1	0.84	0.28	85,85,85,85	0
57	MG	1H	3281	1/1	0.84	0.07	85,85,85,85	0
57	MG	1H	3412	1/1	0.84	0.07	90,90,90,90	0
57	MG	13	1645	1/1	0.84	0.21	117,117,117,117	0
57	MG	1H	3168	1/1	0.84	0.18	89,89,89,89	0
57	MG	14	3262	1/1	0.84	0.10	104,104,104,104	0
57	MG	14	3264	1/1	0.84	0.14	88,88,88,88	0
57	MG	1H	3418	1/1	0.84	0.15	122,122,122,122	0
57	MG	14	3024	1/1	0.84	0.14	88,88,88,88	0
57	MG	14	3025	1/1	0.84	0.24	78,78,78,78	0
57	MG	1H	3528	1/1	0.84	0.12	117,117,117,117	0
57	MG	14	3053	1/1	0.84	0.93	82,82,82,82	0
57	MG	1G	1682	1/1	0.84	0.09	123,123,123,123	0
57	MG	14	3071	1/1	0.84	0.15	82,82,82,82	0
57	MG	1H	3491	1/1	0.84	0.23	100,100,100,100	0
57	MG	1G	1685	1/1	0.84	0.07	129,129,129,129	0
57	MG	14	3439	1/1	0.84	0.24	100,100,100,100	0
57	MG	14	3445	1/1	0.84	0.12	119,119,119,119	0
57	MG	1H	3053	1/1	0.84	0.14	47,47,47,47	0
57	MG	1G	1612	1/1	0.84	0.11	103,103,103,103	0
57	MG	2K	101	1/1	0.84	0.13	80,80,80,80	0
57	MG	1G	1615	1/1	0.84	0.15	89,89,89,89	0
57	MG	1H	3056	1/1	0.84	0.47	86,86,86,86	0
57	MG	1H	3057	1/1	0.84	0.43	71,71,71,71	0
57	MG	14	3372	1/1	0.84	0.18	112,112,112,112	0
57	MG	14	3373	1/1	0.84	0.19	94,94,94,94	0
57	MG	1G	1628	1/1	0.84	0.23	123,123,123,123	0
57	MG	13	1647	1/1	0.84	0.38	99,99,99,99	0
57	MG	1G	1710	1/1	0.84	0.08	113,113,113,113	0
57	MG	1H	3501	1/1	0.84	0.07	108,108,108,108	0
57	MG	14	3117	1/1	0.84	0.34	69,69,69,69	0
57	MG	13	1617	1/1	0.84	0.37	69,69,69,69	0
57	MG	1H	3454	1/1	0.84	0.14	104,104,104,104	0
57	MG	1G	1722	1/1	0.84	0.20	116,116,116,116	0
57	MG	13	1738	1/1	0.84	0.05	138,138,138,138	0
57	MG	1H	3103	1/1	0.84	0.15	64,64,64,64	0
57	MG	14	3211	1/1	0.85	0.09	67,67,67,67	0
57	MG	42	202	1/1	0.85	0.26	115,115,115,115	0
57	MG	1G	1654	1/1	0.85	0.21	102,102,102,102	0
57	MG	1H	3072	1/1	0.85	0.12	60,60,60,60	0
57	MG	4L	101	1/1	0.85	0.43	102,102,102,102	0
57	MG	1H	3505	1/1	0.85	0.17	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1741	1/1	0.85	0.11	95,95,95,95	0
57	MG	1H	3059	1/1	0.85	0.14	72,72,72,72	0
57	MG	14	3019	1/1	0.85	0.35	131,131,131,131	0
57	MG	1H	3238	1/1	0.85	0.38	102,102,102,102	0
57	MG	14	3265	1/1	0.85	0.07	100,100,100,100	0
57	MG	1H	3466	1/1	0.85	0.09	103,103,103,103	0
57	MG	1H	3475	1/1	0.85	0.05	99,99,99,99	0
57	MG	14	3284	1/1	0.85	0.29	107,107,107,107	0
57	MG	14	3045	1/1	0.85	0.23	72,72,72,72	0
57	MG	13	1725	1/1	0.85	0.05	99,99,99,99	0
57	MG	1H	3014	1/1	0.85	0.42	86,86,86,86	0
57	MG	14	3069	1/1	0.85	0.22	56,56,56,56	0
57	MG	1H	3154	1/1	0.85	0.43	67,67,67,67	0
57	MG	14	3072	1/1	0.85	0.26	88,88,88,88	0
57	MG	1H	3487	1/1	0.85	0.04	108,108,108,108	0
57	MG	1H	3488	1/1	0.85	0.19	84,84,84,84	0
57	MG	1H	3277	1/1	0.85	0.14	79,79,79,79	0
57	MG	1H	3216	1/1	0.85	0.36	79,79,79,79	0
57	MG	14	3452	1/1	0.85	0.24	122,122,122,122	0
57	MG	1H	3026	1/1	0.85	0.15	82,82,82,82	0
57	MG	14	3089	1/1	0.85	0.23	73,73,73,73	0
57	MG	1H	3119	1/1	0.85	0.23	79,79,79,79	0
57	MG	14	3371	1/1	0.85	0.10	108,108,108,108	0
57	MG	1H	3384	1/1	0.85	0.10	59,59,59,59	0
57	MG	1H	3184	1/1	0.85	0.64	100,100,100,100	0
57	MG	13	1646	1/1	0.85	0.52	91,91,91,91	0
57	MG	1H	3541	1/1	0.85	0.20	109,109,109,109	0
57	MG	1G	1642	1/1	0.85	0.70	100,100,100,100	0
57	MG	1H	3500	1/1	0.85	0.10	90,90,90,90	0
57	MG	1H	3229	1/1	0.85	0.11	84,84,84,84	0
57	MG	14	3203	1/1	0.85	0.31	95,95,95,95	0
57	MG	14	3204	1/1	0.85	0.13	120,120,120,120	0
57	MG	1H	3455	1/1	0.85	0.08	120,120,120,120	0
57	MG	14	3337	1/1	0.86	0.06	116,116,116,116	0
57	MG	1G	1688	1/1	0.86	0.09	123,123,123,123	0
57	MG	1H	3360	1/1	0.86	0.13	102,102,102,102	0
57	MG	14	3345	1/1	0.86	0.15	100,100,100,100	0
57	MG	14	3094	1/1	0.86	0.44	100,100,100,100	0
57	MG	1H	3523	1/1	0.86	0.17	102,102,102,102	0
57	MG	14	3215	1/1	0.86	0.08	98,98,98,98	0
57	MG	1H	3410	1/1	0.86	0.17	108,108,108,108	0
57	MG	1H	3126	1/1	0.86	0.20	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3434	1/1	0.86	0.32	110,110,110,110	0
57	MG	14	3367	1/1	0.86	0.10	101,101,101,101	0
57	MG	1H	3185	1/1	0.86	0.29	76,76,76,76	0
57	MG	88	203	1/1	0.86	0.32	83,83,83,83	0
57	MG	1H	3129	1/1	0.86	0.12	85,85,85,85	0
57	MG	1H	3131	1/1	0.86	0.14	101,101,101,101	0
57	MG	13	1724	1/1	0.86	0.17	116,116,116,116	0
57	MG	13	1650	1/1	0.86	0.38	85,85,85,85	0
57	MG	14	3380	1/1	0.86	0.12	106,106,106,106	0
57	MG	14	3126	1/1	0.86	0.18	89,89,89,89	0
57	MG	1H	3092	1/1	0.86	0.18	67,67,67,67	0
57	MG	1H	3427	1/1	0.86	0.24	102,102,102,102	0
57	MG	1H	3146	1/1	0.86	0.42	85,85,85,85	0
57	MG	14	3181	1/1	0.86	0.45	91,91,91,91	0
57	MG	1H	3073	1/1	0.86	0.35	84,84,84,84	0
57	MG	1G	1672	1/1	0.86	0.04	117,117,117,117	0
57	MG	14	3306	1/1	0.86	0.17	93,93,93,93	0
57	MG	14	3078	1/1	0.86	0.23	88,88,88,88	0
57	MG	1H	3122	1/1	0.86	0.39	80,80,80,80	0
57	MG	14	3405	1/1	0.86	0.05	118,118,118,118	0
57	MG	13	1716	1/1	0.86	0.12	116,116,116,116	0
57	MG	1H	3271	1/1	0.86	0.14	84,84,84,84	0
57	MG	14	3336	1/1	0.86	0.09	109,109,109,109	0
57	MG	E5	102	1/1	0.86	0.28	68,68,68,68	0
60	SPE	1G	1725	13/13	0.86	0.09	110,113,117,118	0
57	MG	1H	3458	1/1	0.87	0.13	89,89,89,89	0
57	MG	14	3143	1/1	0.87	0.31	93,93,93,93	0
57	MG	1H	3193	1/1	0.87	0.72	89,89,89,89	0
57	MG	1G	1687	1/1	0.87	0.14	111,111,111,111	0
57	MG	1H	3354	1/1	0.87	0.17	78,78,78,78	0
57	MG	14	3065	1/1	0.87	0.32	70,70,70,70	0
57	MG	13	1627	1/1	0.87	0.17	94,94,94,94	0
57	MG	1G	1621	1/1	0.87	0.46	105,105,105,105	0
57	MG	14	3417	1/1	0.87	0.07	117,117,117,117	0
57	MG	14	3305	1/1	0.87	0.17	64,64,64,64	0
57	MG	1H	3362	1/1	0.87	0.13	78,78,78,78	0
57	MG	1G	1699	1/1	0.87	0.15	113,113,113,113	0
57	MG	1H	3044	1/1	0.87	0.48	80,80,80,80	0
57	MG	1H	3301	1/1	0.87	0.18	86,86,86,86	0
57	MG	1G	1703	1/1	0.87	0.10	107,107,107,107	0
57	MG	1H	3311	1/1	0.87	0.10	91,91,91,91	0
57	MG	1H	3370	1/1	0.87	0.15	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3093	1/1	0.87	0.31	73,73,73,73	0
57	MG	1H	3135	1/1	0.87	0.31	73,73,73,73	0
57	MG	14	3436	1/1	0.87	0.04	136,136,136,136	0
57	MG	1H	3211	1/1	0.87	0.36	69,69,69,69	0
57	MG	16	210	1/1	0.87	0.36	86,86,86,86	0
57	MG	14	3443	1/1	0.87	0.34	115,115,115,115	0
57	MG	14	3097	1/1	0.87	0.09	84,84,84,84	0
57	MG	1G	1718	1/1	0.87	0.10	124,124,124,124	0
57	MG	14	3359	1/1	0.87	0.10	122,122,122,122	0
57	MG	13	1640	1/1	0.87	0.10	97,97,97,97	0
57	MG	1G	1721	1/1	0.87	0.06	128,128,128,128	0
57	MG	1G	1648	1/1	0.87	0.27	121,121,121,121	0
57	MG	1G	1649	1/1	0.87	0.82	96,96,96,96	0
57	MG	31	301	1/1	0.87	0.15	70,70,70,70	0
57	MG	1G	1651	1/1	0.87	0.29	97,97,97,97	0
57	MG	88	201	1/1	0.87	0.20	83,83,83,83	0
57	MG	1G	1656	1/1	0.87	0.10	89,89,89,89	0
57	MG	1H	3158	1/1	0.87	0.24	71,71,71,71	0
57	MG	1H	3138	1/1	0.87	0.18	98,98,98,98	0
57	MG	14	3007	1/1	0.87	0.28	61,61,61,61	0
57	MG	1H	3530	1/1	0.87	0.55	99,99,99,99	0
57	MG	1H	3074	1/1	0.87	0.25	75,75,75,75	0
57	MG	1G	1606	1/1	0.87	0.25	87,87,87,87	0
57	MG	14	3390	1/1	0.87	0.09	73,73,73,73	0
57	MG	14	3391	1/1	0.87	0.15	87,87,87,87	0
57	MG	13	1705	1/1	0.87	0.12	108,108,108,108	0
57	MG	14	3394	1/1	0.87	0.30	91,91,91,91	0
57	MG	1H	3346	1/1	0.87	0.10	75,75,75,75	0
57	MG	1G	1675	1/1	0.88	0.12	86,86,86,86	0
57	MG	14	3243	1/1	0.88	0.18	93,93,93,93	0
57	MG	1G	1678	1/1	0.88	0.16	98,98,98,98	0
57	MG	1H	3075	1/1	0.88	0.21	75,75,75,75	0
57	MG	1H	3485	1/1	0.88	0.18	102,102,102,102	0
57	MG	1H	3284	1/1	0.88	0.10	62,62,62,62	0
57	MG	1H	3299	1/1	0.88	0.19	105,105,105,105	0
57	MG	13	1680	1/1	0.88	0.12	89,89,89,89	0
57	MG	14	3047	1/1	0.88	0.12	87,87,87,87	0
57	MG	1G	1695	1/1	0.88	0.13	126,126,126,126	0
57	MG	14	3268	1/1	0.88	0.16	89,89,89,89	0
57	MG	14	3274	1/1	0.88	0.15	62,62,62,62	0
57	MG	14	3275	1/1	0.88	0.14	85,85,85,85	0
57	MG	1H	3490	1/1	0.88	0.08	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3148	1/1	0.88	0.18	113,113,113,113	0
57	MG	14	3295	1/1	0.88	0.11	88,88,88,88	0
57	MG	1H	3309	1/1	0.88	0.07	73,73,73,73	0
57	MG	1H	3094	1/1	0.88	0.23	64,64,64,64	0
57	MG	14	3156	1/1	0.88	0.29	81,81,81,81	0
57	MG	1H	3231	1/1	0.88	0.08	103,103,103,103	0
57	MG	14	3314	1/1	0.88	0.19	78,78,78,78	0
57	MG	1H	3127	1/1	0.88	0.19	69,69,69,69	0
57	MG	14	3073	1/1	0.88	0.43	61,61,61,61	0
57	MG	1H	3434	1/1	0.88	0.14	96,96,96,96	0
57	MG	1H	3542	1/1	0.88	0.07	103,103,103,103	0
57	MG	14	3335	1/1	0.88	0.09	94,94,94,94	0
57	MG	1H	3067	1/1	0.88	0.12	55,55,55,55	0
57	MG	1H	3444	1/1	0.88	0.24	72,72,72,72	0
57	MG	1H	3445	1/1	0.88	0.33	87,87,87,87	0
57	MG	14	3169	1/1	0.88	0.15	88,88,88,88	0
57	MG	14	3086	1/1	0.88	0.27	73,73,73,73	0
57	MG	14	3347	1/1	0.88	0.14	97,97,97,97	0
57	MG	1H	3068	1/1	0.88	0.22	66,66,66,66	0
57	MG	1H	3334	1/1	0.88	0.18	103,103,103,103	0
57	MG	1H	3398	1/1	0.88	0.07	86,86,86,86	0
57	MG	16	209	1/1	0.88	0.07	86,86,86,86	0
57	MG	1H	3108	1/1	0.88	0.36	68,68,68,68	0
57	MG	1H	3400	1/1	0.88	0.10	79,79,79,79	0
57	MG	21	303	1/1	0.88	0.12	61,61,61,61	0
57	MG	1H	3058	1/1	0.88	0.07	68,68,68,68	0
57	MG	14	3196	1/1	0.88	0.46	85,85,85,85	0
57	MG	13	1739	1/1	0.88	0.16	119,119,119,119	0
57	MG	1H	3339	1/1	0.88	0.06	99,99,99,99	0
57	MG	13	1690	1/1	0.88	0.10	117,117,117,117	0
57	MG	1G	1663	1/1	0.88	0.21	112,112,112,112	0
57	MG	14	3123	1/1	0.88	0.32	75,75,75,75	0
57	MG	1H	3140	1/1	0.88	0.20	90,90,90,90	0
57	MG	1H	3141	1/1	0.88	0.15	75,75,75,75	0
57	MG	1G	1670	1/1	0.88	0.16	109,109,109,109	0
57	MG	13	1662	1/1	0.88	0.43	90,90,90,90	0
57	MG	1G	1693	1/1	0.89	0.10	121,121,121,121	0
57	MG	14	3011	1/1	0.89	0.57	76,76,76,76	0
57	MG	1G	1636	1/1	0.89	0.35	87,87,87,87	0
57	MG	14	3415	1/1	0.89	0.26	93,93,93,93	0
57	MG	1H	3064	1/1	0.89	0.28	82,82,82,82	0
57	MG	14	3421	1/1	0.89	0.23	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3195	1/1	0.89	0.36	98,98,98,98	0
57	MG	1G	1639	1/1	0.89	0.68	90,90,90,90	0
57	MG	1H	3473	1/1	0.89	0.13	98,98,98,98	0
57	MG	13	1656	1/1	0.89	0.27	107,107,107,107	0
57	MG	14	3344	1/1	0.89	0.07	104,104,104,104	0
57	MG	1H	3212	1/1	0.89	0.08	87,87,87,87	0
57	MG	1H	3136	1/1	0.89	0.20	63,63,63,63	0
57	MG	1H	3420	1/1	0.89	0.22	94,94,94,94	0
57	MG	1H	3243	1/1	0.89	0.10	63,63,63,63	0
57	MG	13	1660	1/1	0.89	0.51	91,91,91,91	0
57	MG	1G	1652	1/1	0.89	0.18	105,105,105,105	0
57	MG	1H	3379	1/1	0.89	0.13	87,87,87,87	0
57	MG	1H	3123	1/1	0.89	0.26	68,68,68,68	0
57	MG	1H	3270	1/1	0.89	0.14	78,78,78,78	0
57	MG	1H	3385	1/1	0.89	0.19	94,94,94,94	0
57	MG	1H	3187	1/1	0.89	0.28	83,83,83,83	0
57	MG	1H	3394	1/1	0.89	0.20	83,83,83,83	0
57	MG	13	1653	1/1	0.89	0.12	95,95,95,95	0
57	MG	14	3082	1/1	0.89	0.41	80,80,80,80	0
57	MG	13	1672	1/1	0.89	0.30	92,92,92,92	0
57	MG	1H	3538	1/1	0.89	0.07	107,107,107,107	0
57	MG	13	1691	1/1	0.89	0.09	107,107,107,107	0
57	MG	14	3382	1/1	0.89	0.08	116,116,116,116	0
57	MG	42	201	1/1	0.89	0.27	107,107,107,107	0
57	MG	14	3270	1/1	0.89	0.19	74,74,74,74	0
57	MG	1J	203	1/1	0.89	0.23	92,92,92,92	0
57	MG	1H	3196	1/1	0.89	0.22	103,103,103,103	0
57	MG	13	1633	1/1	0.89	0.13	82,82,82,82	0
57	MG	13	1651	1/1	0.89	0.22	118,118,118,118	0
57	MG	14	3102	1/1	0.89	0.28	94,94,94,94	0
57	MG	14	3167	1/1	0.89	0.07	95,95,95,95	0
57	MG	1H	3358	1/1	0.89	0.07	100,100,100,100	0
57	MG	14	3104	1/1	0.89	0.25	89,89,89,89	0
57	MG	1H	3306	1/1	0.89	0.11	79,79,79,79	0
57	MG	14	3113	1/1	0.89	0.34	74,74,74,74	0
57	MG	1H	3308	1/1	0.89	0.14	62,62,62,62	0
57	MG	1H	3463	1/1	0.89	0.12	70,70,70,70	0
57	MG	13	1685	1/1	0.90	0.07	79,79,79,79	0
57	MG	14	3389	1/1	0.90	0.18	72,72,72,72	0
57	MG	13	1689	1/1	0.90	0.22	98,98,98,98	0
57	MG	14	3263	1/1	0.90	0.13	86,86,86,86	0
57	MG	1H	3499	1/1	0.90	0.27	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3544	1/1	0.90	0.14	105,105,105,105	0
57	MG	1H	3547	1/1	0.90	0.06	131,131,131,131	0
57	MG	14	3152	1/1	0.90	0.37	99,99,99,99	0
57	MG	13	1706	1/1	0.90	0.15	88,88,88,88	0
57	MG	13	1601	1/1	0.90	0.32	97,97,97,97	0
57	MG	14	3076	1/1	0.90	0.18	80,80,80,80	0
57	MG	1H	3155	1/1	0.90	0.27	106,106,106,106	0
57	MG	16	201	1/1	0.90	0.27	73,73,73,73	0
57	MG	14	3409	1/1	0.90	0.11	87,87,87,87	0
57	MG	14	3289	1/1	0.90	0.16	89,89,89,89	0
57	MG	14	3291	1/1	0.90	0.16	71,71,71,71	0
57	MG	13	1614	1/1	0.90	0.31	102,102,102,102	0
57	MG	1H	3268	1/1	0.90	0.14	70,70,70,70	0
57	MG	14	3418	1/1	0.90	0.16	97,97,97,97	0
57	MG	1H	3098	1/1	0.90	0.17	59,59,59,59	0
57	MG	1G	1715	1/1	0.90	0.07	110,110,110,110	0
57	MG	1H	3101	1/1	0.90	0.19	72,72,72,72	0
57	MG	1H	3406	1/1	0.90	0.08	95,95,95,95	0
57	MG	14	3092	1/1	0.90	0.21	67,67,67,67	0
57	MG	14	3321	1/1	0.90	0.12	89,89,89,89	0
57	MG	1H	3102	1/1	0.90	0.14	52,52,52,52	0
57	MG	1H	3023	1/1	0.90	0.30	71,71,71,71	0
57	MG	14	3174	1/1	0.90	0.25	78,78,78,78	0
57	MG	41	201	1/1	0.90	0.17	81,81,81,81	0
57	MG	1H	3280	1/1	0.90	0.14	47,47,47,47	0
57	MG	1H	3218	1/1	0.90	0.32	70,70,70,70	0
57	MG	1H	3522	1/1	0.90	0.10	112,112,112,112	0
57	MG	14	3438	1/1	0.90	0.13	111,111,111,111	0
57	MG	I8	101	1/1	0.90	0.06	95,95,95,95	0
57	MG	14	3343	1/1	0.90	0.11	84,84,84,84	0
57	MG	14	3444	1/1	0.90	0.48	102,102,102,102	0
57	MG	13	1714	1/1	0.90	0.06	94,94,94,94	0
57	MG	1H	3081	1/1	0.90	0.15	77,77,77,77	0
57	MG	1H	3223	1/1	0.90	0.27	79,79,79,79	0
57	MG	14	3348	1/1	0.90	0.09	102,102,102,102	0
57	MG	13	1632	1/1	0.90	0.08	95,95,95,95	0
57	MG	13	1602	1/1	0.90	0.12	130,130,130,130	0
57	MG	1G	1681	1/1	0.90	0.12	131,131,131,131	0
57	MG	14	3121	1/1	0.90	0.72	92,92,92,92	0
57	MG	14	3200	1/1	0.90	0.10	86,86,86,86	0
57	MG	1H	3190	1/1	0.90	0.13	73,73,73,73	0
57	MG	1G	1683	1/1	0.90	0.09	132,132,132,132	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3018	1/1	0.90	0.24	82,82,82,82	0
57	MG	13	1731	1/1	0.90	0.14	109,109,109,109	0
57	MG	14	3020	1/1	0.90	0.21	69,69,69,69	0
57	MG	14	3221	1/1	0.90	0.10	65,65,65,65	0
57	MG	14	3376	1/1	0.90	0.13	82,82,82,82	0
57	MG	14	3132	1/1	0.90	0.26	90,90,90,90	0
57	MG	1H	3233	1/1	0.90	0.20	94,94,94,94	0
57	MG	1H	3380	1/1	0.90	0.15	76,76,76,76	0
57	MG	1H	3317	1/1	0.90	0.15	70,70,70,70	0
57	MG	35	201	1/1	0.90	0.23	81,81,81,81	0
57	MG	45	201	1/1	0.90	0.68	84,84,84,84	0
57	MG	13	1733	1/1	0.90	0.05	118,118,118,118	0
57	MG	1H	3442	1/1	0.90	0.11	107,107,107,107	0
57	MG	1H	3495	1/1	0.90	0.08	87,87,87,87	0
60	SPE	14	3458	13/13	0.90	0.21	92,101,106,108	0
57	MG	14	3119	1/1	0.91	0.31	69,69,69,69	0
57	MG	21	301	1/1	0.91	0.34	77,77,77,77	0
57	MG	1H	3069	1/1	0.91	0.27	76,76,76,76	0
57	MG	14	3005	1/1	0.91	0.33	83,83,83,83	0
57	MG	13	1737	1/1	0.91	0.11	107,107,107,107	0
57	MG	14	3231	1/1	0.91	0.13	78,78,78,78	0
57	MG	14	3233	1/1	0.91	0.11	85,85,85,85	0
57	MG	1H	3030	1/1	0.91	0.17	89,89,89,89	0
57	MG	1H	3219	1/1	0.91	0.11	83,83,83,83	0
57	MG	14	3248	1/1	0.91	0.14	76,76,76,76	0
57	MG	14	3131	1/1	0.91	0.11	84,84,84,84	0
57	MG	1G	1669	1/1	0.91	0.08	114,114,114,114	0
57	MG	1H	3340	1/1	0.91	0.05	109,109,109,109	0
57	MG	13	1707	1/1	0.91	0.06	88,88,88,88	0
57	MG	14	3260	1/1	0.91	0.16	77,77,77,77	0
57	MG	1H	3520	1/1	0.91	0.10	88,88,88,88	0
57	MG	1H	3465	1/1	0.91	0.09	112,112,112,112	0
57	MG	1H	3342	1/1	0.91	0.10	83,83,83,83	0
57	MG	1H	3343	1/1	0.91	0.09	115,115,115,115	0
57	MG	1H	3139	1/1	0.91	0.50	90,90,90,90	0
57	MG	14	3142	1/1	0.91	0.37	98,98,98,98	0
57	MG	13	1708	1/1	0.91	0.07	91,91,91,91	0
57	MG	14	3411	1/1	0.91	0.07	115,115,115,115	0
57	MG	14	3046	1/1	0.91	0.20	77,77,77,77	0
57	MG	1H	3480	1/1	0.91	0.27	90,90,90,90	0
57	MG	14	3052	1/1	0.91	0.32	59,59,59,59	0
57	MG	1H	3350	1/1	0.91	0.12	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3353	1/1	0.91	0.12	62,62,62,62	0
57	MG	14	3067	1/1	0.91	0.22	77,77,77,77	0
57	MG	1G	1691	1/1	0.91	0.07	104,104,104,104	0
57	MG	14	3296	1/1	0.91	0.10	76,76,76,76	0
57	MG	13	1687	1/1	0.91	0.13	89,89,89,89	0
57	MG	1G	1617	1/1	0.91	0.11	89,89,89,89	0
57	MG	14	3426	1/1	0.91	0.06	99,99,99,99	0
57	MG	1H	3286	1/1	0.91	0.22	65,65,65,65	0
57	MG	13	1639	1/1	0.91	0.44	80,80,80,80	0
57	MG	14	3311	1/1	0.91	0.18	84,84,84,84	0
57	MG	14	3312	1/1	0.91	0.08	109,109,109,109	0
57	MG	1H	3300	1/1	0.91	0.10	73,73,73,73	0
57	MG	1H	3143	1/1	0.91	0.25	79,79,79,79	0
57	MG	1H	3539	1/1	0.91	0.22	95,95,95,95	0
57	MG	1H	3078	1/1	0.91	0.34	85,85,85,85	0
57	MG	1H	3423	1/1	0.91	0.08	115,115,115,115	0
57	MG	1H	3125	1/1	0.91	0.14	79,79,79,79	0
57	MG	14	3334	1/1	0.91	0.09	83,83,83,83	0
57	MG	14	3170	1/1	0.91	0.25	76,76,76,76	0
57	MG	1G	1635	1/1	0.91	0.30	94,94,94,94	0
57	MG	1H	3204	1/1	0.91	0.28	80,80,80,80	0
57	MG	1G	1709	1/1	0.91	0.12	119,119,119,119	0
57	MG	1H	3151	1/1	0.91	0.28	79,79,79,79	0
57	MG	14	3342	1/1	0.91	0.12	105,105,105,105	0
57	MG	1H	3545	1/1	0.91	0.46	102,102,102,102	0
57	MG	2I	201	1/1	0.91	0.10	97,97,97,97	0
57	MG	1H	3240	1/1	0.91	0.20	86,86,86,86	0
57	MG	14	3346	1/1	0.91	0.09	98,98,98,98	0
57	MG	1G	1716	1/1	0.91	0.14	110,110,110,110	0
57	MG	14	3186	1/1	0.91	0.13	95,95,95,95	0
57	MG	14	3461	1/1	0.91	0.07	108,108,108,108	0
57	MG	1J	201	1/1	0.91	0.22	97,97,97,97	0
57	MG	14	3349	1/1	0.91	0.07	99,99,99,99	0
57	MG	1G	1646	1/1	0.91	0.31	78,78,78,78	0
57	MG	14	3191	1/1	0.91	0.46	76,76,76,76	0
57	MG	1J	206	1/1	0.91	0.07	99,99,99,99	0
57	MG	1H	3323	1/1	0.91	0.06	78,78,78,78	0
57	MG	1H	3082	1/1	0.91	0.33	69,69,69,69	0
57	MG	13	1674	1/1	0.91	0.07	105,105,105,105	0
57	MG	14	3363	1/1	0.91	0.05	83,83,83,83	0
57	MG	1H	3105	1/1	0.91	0.18	78,78,78,78	0
57	MG	1H	3453	1/1	0.91	0.19	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3369	1/1	0.91	0.11	90,90,90,90	0
57	MG	16	207	1/1	0.91	0.10	91,91,91,91	0
57	MG	2K	102	1/1	0.91	0.11	99,99,99,99	0
57	MG	1H	3392	1/1	0.91	0.16	74,74,74,74	0
57	MG	14	3374	1/1	0.91	0.10	94,94,94,94	0
57	MG	16	211	1/1	0.91	0.08	93,93,93,93	0
57	MG	14	3038	1/1	0.92	0.27	68,68,68,68	0
57	MG	1H	3419	1/1	0.92	0.26	73,73,73,73	0
57	MG	1G	1616	1/1	0.92	0.24	84,84,84,84	0
57	MG	14	3385	1/1	0.92	0.20	82,82,82,82	0
57	MG	14	3386	1/1	0.92	0.12	65,65,65,65	0
57	MG	1H	3486	1/1	0.92	0.30	99,99,99,99	0
57	MG	1G	1692	1/1	0.92	0.07	103,103,103,103	0
57	MG	1G	1618	1/1	0.92	0.11	91,91,91,91	0
57	MG	14	3057	1/1	0.92	0.05	93,93,93,93	0
57	MG	1H	3009	1/1	0.92	0.16	82,82,82,82	0
57	MG	13	1682	1/1	0.92	0.05	109,109,109,109	0
57	MG	1H	3149	1/1	0.92	0.19	81,81,81,81	0
57	MG	1H	3183	1/1	0.92	0.29	75,75,75,75	0
57	MG	14	3279	1/1	0.92	0.10	93,93,93,93	0
57	MG	1H	3083	1/1	0.92	0.44	80,80,80,80	0
57	MG	1H	3431	1/1	0.92	0.05	102,102,102,102	0
57	MG	14	3290	1/1	0.92	0.17	71,71,71,71	0
57	MG	1G	1632	1/1	0.92	0.25	108,108,108,108	0
57	MG	14	3294	1/1	0.92	0.14	66,66,66,66	0
57	MG	1H	3324	1/1	0.92	0.09	69,69,69,69	0
57	MG	1H	3043	1/1	0.92	0.15	64,64,64,64	0
57	MG	14	3077	1/1	0.92	0.16	85,85,85,85	0
57	MG	1G	1705	1/1	0.92	0.03	117,117,117,117	0
57	MG	1H	3248	1/1	0.92	0.11	57,57,57,57	0
57	MG	1H	3249	1/1	0.92	0.14	61,61,61,61	0
57	MG	1H	3153	1/1	0.92	0.34	71,71,71,71	0
57	MG	1H	3550	1/1	0.92	0.66	111,111,111,111	0
57	MG	1H	3443	1/1	0.92	0.08	112,112,112,112	0
57	MG	1H	3387	1/1	0.92	0.08	87,87,87,87	0
57	MG	1G	1713	1/1	0.92	0.20	120,120,120,120	0
57	MG	13	1670	1/1	0.92	0.60	85,85,85,85	0
57	MG	14	3327	1/1	0.92	0.07	108,108,108,108	0
57	MG	16	202	1/1	0.92	0.27	103,103,103,103	0
57	MG	14	3330	1/1	0.92	0.06	94,94,94,94	0
57	MG	1H	3446	1/1	0.92	0.07	100,100,100,100	0
57	MG	1H	3045	1/1	0.92	0.36	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3191	1/1	0.92	0.30	79,79,79,79	0
57	MG	1H	3397	1/1	0.92	0.14	87,87,87,87	0
57	MG	1H	3508	1/1	0.92	0.11	144,144,144,144	0
57	MG	1H	3192	1/1	0.92	0.25	83,83,83,83	0
57	MG	13	1732	1/1	0.92	0.06	108,108,108,108	0
57	MG	1H	3511	1/1	0.92	0.07	113,113,113,113	0
57	MG	14	3197	1/1	0.92	0.42	92,92,92,92	0
57	MG	13	1619	1/1	0.92	0.21	54,54,54,54	0
57	MG	1G	1660	1/1	0.92	0.12	128,128,128,128	0
57	MG	1H	3225	1/1	0.92	0.35	74,74,74,74	0
57	MG	13	1703	1/1	0.92	0.14	71,71,71,71	0
57	MG	14	3118	1/1	0.92	0.14	96,96,96,96	0
57	MG	14	3205	1/1	0.92	0.11	102,102,102,102	0
57	MG	1H	3228	1/1	0.92	0.15	81,81,81,81	0
57	MG	1H	3404	1/1	0.92	0.67	71,71,71,71	0
57	MG	1H	3297	1/1	0.92	0.17	56,56,56,56	0
57	MG	14	3357	1/1	0.92	0.08	116,116,116,116	0
57	MG	14	3217	1/1	0.92	0.09	76,76,76,76	0
57	MG	13	1665	1/1	0.92	0.19	128,128,128,128	0
57	MG	14	3362	1/1	0.92	0.10	99,99,99,99	0
57	MG	1J	202	1/1	0.92	0.20	106,106,106,106	0
57	MG	1H	3199	1/1	0.92	0.14	81,81,81,81	0
57	MG	1H	3474	1/1	0.92	0.09	83,83,83,83	0
57	MG	1H	3200	1/1	0.92	0.70	82,82,82,82	0
57	MG	1H	3304	1/1	0.92	0.20	64,64,64,64	0
57	MG	14	3370	1/1	0.92	0.14	90,90,90,90	0
57	MG	14	3236	1/1	0.92	0.14	69,69,69,69	0
57	MG	14	3237	1/1	0.92	0.12	67,67,67,67	0
57	MG	1G	1610	1/1	0.92	0.17	84,84,84,84	0
57	MG	14	3239	1/1	0.92	0.10	60,60,60,60	0
57	MG	14	3022	1/1	0.92	0.13	77,77,77,77	0
57	MG	14	3023	1/1	0.92	0.34	58,58,58,58	0
57	MG	1H	3203	1/1	0.92	0.24	78,78,78,78	0
57	MG	14	3378	1/1	0.92	0.14	101,101,101,101	0
57	MG	1H	3307	1/1	0.92	0.17	56,56,56,56	0
57	MG	1H	3130	1/1	0.92	0.41	97,97,97,97	0
57	MG	14	3033	1/1	0.92	0.32	57,57,57,57	0
57	MG	1H	3450	1/1	0.93	0.06	87,87,87,87	0
57	MG	14	3293	1/1	0.93	0.18	70,70,70,70	0
57	MG	13	1704	1/1	0.93	0.38	111,111,111,111	0
57	MG	14	3184	1/1	0.93	0.38	78,78,78,78	0
57	MG	1H	3524	1/1	0.93	0.17	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1694	1/1	0.93	0.10	105,105,105,105	0
57	MG	13	1637	1/1	0.93	0.18	90,90,90,90	0
57	MG	1H	3527	1/1	0.93	0.11	97,97,97,97	0
57	MG	14	3193	1/1	0.93	0.44	96,96,96,96	0
57	MG	14	3307	1/1	0.93	0.15	80,80,80,80	0
57	MG	14	3309	1/1	0.93	0.13	48,48,48,48	0
57	MG	1H	3114	1/1	0.93	0.16	71,71,71,71	0
57	MG	1H	3529	1/1	0.93	0.10	110,110,110,110	0
57	MG	1H	3116	1/1	0.93	0.21	82,82,82,82	0
57	MG	1H	3267	1/1	0.93	0.05	103,103,103,103	0
57	MG	13	1681	1/1	0.93	0.20	91,91,91,91	0
57	MG	1H	3036	1/1	0.93	0.28	73,73,73,73	0
57	MG	1H	3100	1/1	0.93	0.27	77,77,77,77	0
57	MG	1H	3461	1/1	0.93	0.08	80,80,80,80	0
57	MG	14	3420	1/1	0.93	0.11	119,119,119,119	0
57	MG	14	3054	1/1	0.93	0.28	67,67,67,67	0
57	MG	1H	3276	1/1	0.93	0.06	80,80,80,80	0
57	MG	1H	3312	1/1	0.93	0.21	69,69,69,69	0
57	MG	Q8	101	1/1	0.93	0.23	82,82,82,82	0
57	MG	1G	1604	1/1	0.93	0.12	132,132,132,132	0
57	MG	1G	1655	1/1	0.93	0.15	90,90,90,90	0
57	MG	14	3338	1/1	0.93	0.18	112,112,112,112	0
57	MG	14	3139	1/1	0.93	0.84	88,88,88,88	0
57	MG	1H	3040	1/1	0.93	0.20	76,76,76,76	0
57	MG	1H	3395	1/1	0.93	0.07	92,92,92,92	0
57	MG	14	3228	1/1	0.93	0.25	64,64,64,64	0
57	MG	1H	3503	1/1	0.93	0.12	104,104,104,104	0
57	MG	1H	3469	1/1	0.93	0.05	84,84,84,84	0
57	MG	1H	3470	1/1	0.93	0.24	105,105,105,105	0
57	MG	1H	3278	1/1	0.93	0.07	86,86,86,86	0
57	MG	1H	3355	1/1	0.93	0.18	58,58,58,58	0
57	MG	14	3441	1/1	0.93	0.14	103,103,103,103	0
57	MG	13	1622	1/1	0.93	0.05	111,111,111,111	0
57	MG	13	1643	1/1	0.93	0.22	95,95,95,95	0
57	MG	14	3352	1/1	0.93	0.11	95,95,95,95	0
57	MG	13	1659	1/1	0.93	0.39	109,109,109,109	0
57	MG	14	3155	1/1	0.93	0.32	83,83,83,83	0
57	MG	14	3449	1/1	0.93	0.06	105,105,105,105	0
57	MG	14	3251	1/1	0.93	0.18	113,113,113,113	0
57	MG	14	3252	1/1	0.93	0.14	69,69,69,69	0
57	MG	13	1644	1/1	0.93	0.11	99,99,99,99	0
57	MG	14	3361	1/1	0.93	0.16	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3256	1/1	0.93	0.08	99,99,99,99	0
57	MG	14	3083	1/1	0.93	0.20	58,58,58,58	0
57	MG	1G	1674	1/1	0.93	0.18	106,106,106,106	0
57	MG	1H	3144	1/1	0.93	0.15	71,71,71,71	0
57	MG	1H	3367	1/1	0.93	0.09	69,69,69,69	0
57	MG	1G	1680	1/1	0.93	0.14	103,103,103,103	0
57	MG	1G	1622	1/1	0.93	0.16	104,104,104,104	0
57	MG	14	3164	1/1	0.93	0.19	83,83,83,83	0
57	MG	1H	3517	1/1	0.93	0.29	85,85,85,85	0
57	MG	1G	1625	1/1	0.93	0.61	89,89,89,89	0
57	MG	1H	3296	1/1	0.93	0.16	56,56,56,56	0
57	MG	13	1661	1/1	0.93	0.17	101,101,101,101	0
57	MG	1G	1686	1/1	0.93	0.08	113,113,113,113	0
57	MG	1G	1630	1/1	0.93	0.14	132,132,132,132	0
57	MG	16	205	1/1	0.93	0.05	84,84,84,84	0
57	MG	14	3281	1/1	0.93	0.07	75,75,75,75	0
57	MG	14	3282	1/1	0.93	0.10	82,82,82,82	0
57	MG	14	3110	1/1	0.93	0.24	85,85,85,85	0
57	MG	14	3286	1/1	0.93	0.19	58,58,58,58	0
57	MG	14	3287	1/1	0.93	0.13	74,74,74,74	0
57	MG	14	3288	1/1	0.93	0.20	59,59,59,59	0
57	MG	M5	101	1/1	0.93	0.36	81,81,81,81	0
57	MG	14	3111	1/1	0.93	0.17	83,83,83,83	0
57	MG	14	3112	1/1	0.93	0.46	68,68,68,68	0
57	MG	1G	1700	1/1	0.94	0.13	107,107,107,107	0
57	MG	14	3062	1/1	0.94	0.24	97,97,97,97	0
57	MG	1H	3189	1/1	0.94	0.27	83,83,83,83	0
57	MG	14	3149	1/1	0.94	0.31	94,94,94,94	0
57	MG	13	1605	1/1	0.94	0.18	88,88,88,88	0
57	MG	1H	3405	1/1	0.94	0.10	75,75,75,75	0
57	MG	16	212	1/1	0.94	0.07	78,78,78,78	0
57	MG	1H	3348	1/1	0.94	0.11	66,66,66,66	0
57	MG	1H	3015	1/1	0.94	0.47	77,77,77,77	0
57	MG	14	3157	1/1	0.94	0.13	96,96,96,96	0
57	MG	14	3269	1/1	0.94	0.07	104,104,104,104	0
57	MG	13	1615	1/1	0.94	0.41	75,75,75,75	0
57	MG	1G	1708	1/1	0.94	0.12	127,127,127,127	0
57	MG	1H	3472	1/1	0.94	0.13	63,63,63,63	0
57	MG	1H	3104	1/1	0.94	0.16	68,68,68,68	0
57	MG	1H	3079	1/1	0.94	0.17	85,85,85,85	0
57	MG	13	1696	1/1	0.94	0.18	114,114,114,114	0
57	MG	1H	3526	1/1	0.94	0.20	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1714	1/1	0.94	0.11	126,126,126,126	0
57	MG	F8	101	1/1	0.94	0.14	85,85,85,85	0
57	MG	1G	1657	1/1	0.94	0.10	114,114,114,114	0
57	MG	1H	3359	1/1	0.94	0.04	92,92,92,92	0
57	MG	14	3402	1/1	0.94	0.07	111,111,111,111	0
57	MG	13	1613	1/1	0.94	0.18	94,94,94,94	0
57	MG	14	3171	1/1	0.94	0.47	86,86,86,86	0
57	MG	14	3088	1/1	0.94	0.43	82,82,82,82	0
57	MG	14	3407	1/1	0.94	0.18	111,111,111,111	0
57	MG	1H	3305	1/1	0.94	0.15	72,72,72,72	0
57	MG	14	3090	1/1	0.94	0.27	77,77,77,77	0
57	MG	14	3412	1/1	0.94	0.16	106,106,106,106	0
57	MG	14	3176	1/1	0.94	0.52	90,90,90,90	0
57	MG	1H	3035	1/1	0.94	0.36	83,83,83,83	0
57	MG	14	3178	1/1	0.94	0.13	83,83,83,83	0
57	MG	13	1671	1/1	0.94	0.07	108,108,108,108	0
57	MG	14	3302	1/1	0.94	0.26	94,94,94,94	0
57	MG	1H	3063	1/1	0.94	0.24	59,59,59,59	0
57	MG	13	1701	1/1	0.94	0.10	124,124,124,124	0
57	MG	1G	1668	1/1	0.94	0.10	106,106,106,106	0
57	MG	1H	3006	1/1	0.94	0.20	77,77,77,77	0
57	MG	13	1717	1/1	0.94	0.09	93,93,93,93	0
57	MG	1H	3121	1/1	0.94	0.22	89,89,89,89	0
57	MG	14	3106	1/1	0.94	0.33	79,79,79,79	0
57	MG	1H	3375	1/1	0.94	0.10	80,80,80,80	0
57	MG	14	3316	1/1	0.94	0.08	100,100,100,100	0
57	MG	14	3318	1/1	0.94	0.12	65,65,65,65	0
57	MG	14	3001	1/1	0.94	0.16	51,51,51,51	0
57	MG	14	3004	1/1	0.94	0.35	81,81,81,81	0
57	MG	14	3433	1/1	0.94	0.11	90,90,90,90	0
57	MG	1H	3377	1/1	0.94	0.13	94,94,94,94	0
57	MG	14	3435	1/1	0.94	0.05	122,122,122,122	0
57	MG	1H	3435	1/1	0.94	0.30	100,100,100,100	0
57	MG	1G	1679	1/1	0.94	0.17	105,105,105,105	0
57	MG	1H	3314	1/1	0.94	0.15	65,65,65,65	0
57	MG	1H	3260	1/1	0.94	0.07	70,70,70,70	0
57	MG	14	3202	1/1	0.94	0.15	106,106,106,106	0
57	MG	14	3442	1/1	0.94	0.08	83,83,83,83	0
57	MG	1H	3262	1/1	0.94	0.14	59,59,59,59	0
57	MG	1H	3148	1/1	0.94	0.13	88,88,88,88	0
57	MG	13	1664	1/1	0.94	0.25	91,91,91,91	0
57	MG	1H	3178	1/1	0.94	0.46	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3447	1/1	0.94	0.07	107,107,107,107	0
57	MG	14	3340	1/1	0.94	0.09	63,63,63,63	0
57	MG	1H	3150	1/1	0.94	0.34	81,81,81,81	0
57	MG	13	1673	1/1	0.94	0.11	110,110,110,110	0
57	MG	1H	3272	1/1	0.94	0.13	79,79,79,79	0
57	MG	1G	1690	1/1	0.94	0.06	113,113,113,113	0
57	MG	14	3129	1/1	0.94	0.21	90,90,90,90	0
57	MG	14	3223	1/1	0.94	0.22	61,61,61,61	0
57	MG	14	3224	1/1	0.94	0.15	76,76,76,76	0
57	MG	1H	3274	1/1	0.94	0.12	48,48,48,48	0
57	MG	14	3227	1/1	0.94	0.17	52,52,52,52	0
57	MG	14	3030	1/1	0.94	0.40	90,90,90,90	0
57	MG	14	3229	1/1	0.94	0.11	74,74,74,74	0
57	MG	14	3031	1/1	0.94	0.24	51,51,51,51	0
57	MG	14	3232	1/1	0.94	0.11	75,75,75,75	0
57	MG	13	1657	1/1	0.94	0.58	75,75,75,75	0
57	MG	14	3358	1/1	0.94	0.04	78,78,78,78	0
57	MG	14	3034	1/1	0.94	0.28	75,75,75,75	0
57	MG	1H	3049	1/1	0.94	0.27	79,79,79,79	0
57	MG	14	3136	1/1	0.94	0.26	95,95,95,95	0
57	MG	14	3042	1/1	0.94	0.28	54,54,54,54	0
57	MG	14	3240	1/1	0.94	0.25	63,63,63,63	0
57	MG	1H	3507	1/1	0.94	0.15	90,90,90,90	0
57	MG	14	3246	1/1	0.94	0.11	93,93,93,93	0
57	MG	14	3368	1/1	0.94	0.37	92,92,92,92	0
57	MG	35	202	1/1	0.94	0.17	80,80,80,80	0
57	MG	1H	3096	1/1	0.94	0.40	83,83,83,83	0
57	MG	1H	3097	1/1	0.94	0.22	43,43,43,43	0
57	MG	13	1636	1/1	0.94	0.25	81,81,81,81	0
57	MG	1G	1637	1/1	0.94	0.38	106,106,106,106	0
57	MG	14	3253	1/1	0.94	0.12	79,79,79,79	0
57	MG	13	1628	1/1	0.94	0.59	90,90,90,90	0
57	MG	1H	3372	1/1	0.95	0.13	66,66,66,66	0
57	MG	14	3245	1/1	0.95	0.16	74,74,74,74	0
57	MG	1H	3174	1/1	0.95	0.31	73,73,73,73	0
57	MG	1H	3315	1/1	0.95	0.13	61,61,61,61	0
57	MG	14	3249	1/1	0.95	0.05	85,85,85,85	0
57	MG	14	3012	1/1	0.95	0.32	69,69,69,69	0
57	MG	14	3017	1/1	0.95	0.14	74,74,74,74	0
57	MG	1H	3195	1/1	0.95	0.23	85,85,85,85	0
57	MG	1G	1666	1/1	0.95	0.18	110,110,110,110	0
57	MG	1H	3438	1/1	0.95	0.07	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3269	1/1	0.95	0.08	83,83,83,83	0
57	MG	1H	3113	1/1	0.95	0.16	70,70,70,70	0
57	MG	14	3258	1/1	0.95	0.05	97,97,97,97	0
57	MG	1H	3382	1/1	0.95	0.16	43,43,43,43	0
57	MG	1G	1671	1/1	0.95	0.10	101,101,101,101	0
57	MG	14	3261	1/1	0.95	0.12	64,64,64,64	0
57	MG	1H	3226	1/1	0.95	0.51	92,92,92,92	0
57	MG	14	3028	1/1	0.95	0.25	67,67,67,67	0
57	MG	13	1694	1/1	0.95	0.11	92,92,92,92	0
57	MG	1H	3447	1/1	0.95	0.04	98,98,98,98	0
57	MG	14	3266	1/1	0.95	0.10	77,77,77,77	0
57	MG	1H	3448	1/1	0.95	0.23	76,76,76,76	0
57	MG	14	3393	1/1	0.95	0.08	89,89,89,89	0
57	MG	1H	3327	1/1	0.95	0.14	81,81,81,81	0
57	MG	14	3035	1/1	0.95	0.27	69,69,69,69	0
57	MG	14	3037	1/1	0.95	0.49	54,54,54,54	0
57	MG	1H	3331	1/1	0.95	0.06	88,88,88,88	0
57	MG	1H	3390	1/1	0.95	0.13	48,48,48,48	0
57	MG	1G	1601	1/1	0.95	0.20	92,92,92,92	0
57	MG	1G	1602	1/1	0.95	0.32	105,105,105,105	0
57	MG	1H	3515	1/1	0.95	0.12	78,78,78,78	0
57	MG	14	3048	1/1	0.95	0.13	72,72,72,72	0
57	MG	14	3283	1/1	0.95	0.06	105,105,105,105	0
57	MG	13	1688	1/1	0.95	0.07	96,96,96,96	0
57	MG	14	3285	1/1	0.95	0.11	89,89,89,89	0
57	MG	3I	201	1/1	0.95	0.24	75,75,75,75	0
57	MG	1H	3202	1/1	0.95	0.21	80,80,80,80	0
57	MG	1H	3521	1/1	0.95	0.09	65,65,65,65	0
57	MG	14	3059	1/1	0.95	0.20	58,58,58,58	0
57	MG	14	3416	1/1	0.95	0.06	87,87,87,87	0
57	MG	1G	1689	1/1	0.95	0.07	92,92,92,92	0
57	MG	14	3064	1/1	0.95	0.23	99,99,99,99	0
57	MG	14	3419	1/1	0.95	0.27	119,119,119,119	0
57	MG	1H	3038	1/1	0.95	0.16	61,61,61,61	0
57	MG	1H	3396	1/1	0.95	0.17	81,81,81,81	0
57	MG	1H	3099	1/1	0.95	0.15	53,53,53,53	0
57	MG	1G	1614	1/1	0.95	0.58	91,91,91,91	0
57	MG	14	3297	1/1	0.95	0.08	90,90,90,90	0
57	MG	1H	3234	1/1	0.95	0.29	84,84,84,84	0
57	MG	1H	3207	1/1	0.95	0.40	77,77,77,77	0
57	MG	1H	3282	1/1	0.95	0.05	54,54,54,54	0
57	MG	1H	3236	1/1	0.95	0.16	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1721	1/1	0.95	0.18	77,77,77,77	0
57	MG	1H	3468	1/1	0.95	0.05	82,82,82,82	0
57	MG	1H	3287	1/1	0.95	0.10	76,76,76,76	0
57	MG	1G	1623	1/1	0.95	0.12	109,109,109,109	0
57	MG	1H	3293	1/1	0.95	0.10	60,60,60,60	0
57	MG	1H	3471	1/1	0.95	0.17	83,83,83,83	0
57	MG	1H	3084	1/1	0.95	0.29	77,77,77,77	0
57	MG	1H	3239	1/1	0.95	0.09	97,97,97,97	0
57	MG	1H	3070	1/1	0.95	0.15	51,51,51,51	0
57	MG	14	3190	1/1	0.95	0.32	89,89,89,89	0
57	MG	13	1730	1/1	0.95	0.07	110,110,110,110	0
57	MG	13	1722	1/1	0.95	0.18	99,99,99,99	0
57	MG	1H	3356	1/1	0.95	0.15	79,79,79,79	0
57	MG	1H	3004	1/1	0.95	0.25	64,64,64,64	0
57	MG	1H	3482	1/1	0.95	0.10	107,107,107,107	0
57	MG	1H	3483	1/1	0.95	0.06	99,99,99,99	0
57	MG	13	1697	1/1	0.95	0.07	110,110,110,110	0
57	MG	1H	3417	1/1	0.95	0.04	100,100,100,100	0
57	MG	1H	3046	1/1	0.95	0.17	43,43,43,43	0
57	MG	14	3101	1/1	0.95	0.20	87,87,87,87	0
57	MG	1G	1640	1/1	0.95	0.40	80,80,80,80	0
57	MG	1G	1717	1/1	0.95	0.06	126,126,126,126	0
57	MG	1G	1641	1/1	0.95	0.10	115,115,115,115	0
57	MG	14	3206	1/1	0.95	0.27	97,97,97,97	0
57	MG	14	3207	1/1	0.95	0.49	70,70,70,70	0
57	MG	1G	1719	1/1	0.95	0.09	115,115,115,115	0
57	MG	14	3108	1/1	0.95	0.53	103,103,103,103	0
57	MG	1H	3255	1/1	0.95	0.12	72,72,72,72	0
57	MG	1H	3363	1/1	0.95	0.14	73,73,73,73	0
57	MG	1G	1644	1/1	0.95	0.15	130,130,130,130	0
57	MG	1H	3549	1/1	0.95	0.15	94,94,94,94	0
57	MG	14	3350	1/1	0.95	0.09	88,88,88,88	0
57	MG	1H	3258	1/1	0.95	0.10	56,56,56,56	0
57	MG	1G	1726	1/1	0.95	0.19	94,94,94,94	0
57	MG	14	3354	1/1	0.95	0.12	80,80,80,80	0
57	MG	1H	3109	1/1	0.95	0.67	79,79,79,79	0
57	MG	1H	3310	1/1	0.95	0.06	76,76,76,76	0
57	MG	1H	3424	1/1	0.95	0.15	84,84,84,84	0
57	MG	19	301	1/1	0.95	0.30	61,61,61,61	0
57	MG	29	301	1/1	0.95	0.27	65,65,65,65	0
57	MG	1H	3425	1/1	0.95	0.04	81,81,81,81	0
57	MG	14	3230	1/1	0.95	0.15	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	16	203	1/1	0.95	0.28	84,84,84,84	0
57	MG	14	3120	1/1	0.95	0.14	84,84,84,84	0
57	MG	1H	3426	1/1	0.95	0.17	82,82,82,82	0
57	MG	1H	3261	1/1	0.95	0.16	61,61,61,61	0
57	MG	1H	3429	1/1	0.95	0.08	87,87,87,87	0
57	MG	1H	3076	1/1	0.95	0.37	75,75,75,75	0
57	MG	16	208	1/1	0.95	0.26	86,86,86,86	0
57	MG	13	1698	1/1	0.95	0.11	93,93,93,93	0
57	MG	1H	3047	1/1	0.96	0.21	64,64,64,64	0
57	MG	14	3254	1/1	0.96	0.12	87,87,87,87	0
57	MG	1H	3128	1/1	0.96	0.07	66,66,66,66	0
57	MG	1H	3018	1/1	0.96	0.34	63,63,63,63	0
57	MG	14	3146	1/1	0.96	0.08	62,62,62,62	0
57	MG	13	1702	1/1	0.96	0.08	70,70,70,70	0
57	MG	14	3058	1/1	0.96	0.24	83,83,83,83	0
57	MG	14	3150	1/1	0.96	0.16	75,75,75,75	0
57	MG	14	3151	1/1	0.96	0.15	108,108,108,108	0
57	MG	1H	3002	1/1	0.96	0.17	51,51,51,51	0
57	MG	14	3061	1/1	0.96	0.35	60,60,60,60	0
57	MG	1H	3366	1/1	0.96	0.12	56,56,56,56	0
57	MG	14	3063	1/1	0.96	0.20	93,93,93,93	0
57	MG	1H	3132	1/1	0.96	0.20	55,55,55,55	0
57	MG	1H	3368	1/1	0.96	0.06	72,72,72,72	0
57	MG	14	3066	1/1	0.96	0.25	63,63,63,63	0
57	MG	1H	3428	1/1	0.96	0.05	93,93,93,93	0
57	MG	1H	3220	1/1	0.96	0.22	71,71,71,71	0
57	MG	14	3272	1/1	0.96	0.14	71,71,71,71	0
57	MG	14	3273	1/1	0.96	0.11	61,61,61,61	0
57	MG	1H	3029	1/1	0.96	0.21	59,59,59,59	0
57	MG	14	3070	1/1	0.96	0.64	66,66,66,66	0
57	MG	1H	3134	1/1	0.96	0.50	77,77,77,77	0
57	MG	14	3278	1/1	0.96	0.13	83,83,83,83	0
57	MG	14	3396	1/1	0.96	0.07	71,71,71,71	0
57	MG	1G	1645	1/1	0.96	0.20	124,124,124,124	0
57	MG	1H	3316	1/1	0.96	0.07	76,76,76,76	0
57	MG	13	1611	1/1	0.96	0.24	78,78,78,78	0
57	MG	14	3401	1/1	0.96	0.20	89,89,89,89	0
57	MG	14	3075	1/1	0.96	0.28	65,65,65,65	0
57	MG	14	3403	1/1	0.96	0.07	78,78,78,78	0
57	MG	1H	3374	1/1	0.96	0.07	57,57,57,57	0
57	MG	1H	3319	1/1	0.96	0.11	58,58,58,58	0
57	MG	1H	3437	1/1	0.96	0.15	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3376	1/1	0.96	0.10	71,71,71,71	0
57	MG	1H	3320	1/1	0.96	0.08	71,71,71,71	0
57	MG	14	3410	1/1	0.96	0.14	107,107,107,107	0
57	MG	1G	1653	1/1	0.96	0.07	125,125,125,125	0
57	MG	1H	3321	1/1	0.96	0.11	55,55,55,55	0
57	MG	1H	3031	1/1	0.96	0.33	90,90,90,90	0
57	MG	1H	3112	1/1	0.96	0.25	79,79,79,79	0
57	MG	1H	3163	1/1	0.96	0.18	86,86,86,86	0
57	MG	1H	3164	1/1	0.96	0.44	85,85,85,85	0
57	MG	14	3182	1/1	0.96	0.26	66,66,66,66	0
57	MG	13	1616	1/1	0.96	0.30	101,101,101,101	0
57	MG	14	3298	1/1	0.96	0.07	95,95,95,95	0
57	MG	1H	3386	1/1	0.96	0.21	72,72,72,72	0
57	MG	14	3091	1/1	0.96	0.31	92,92,92,92	0
57	MG	1H	3328	1/1	0.96	0.15	81,81,81,81	0
57	MG	13	1726	1/1	0.96	0.05	107,107,107,107	0
57	MG	1H	3332	1/1	0.96	0.10	84,84,84,84	0
57	MG	14	3096	1/1	0.96	0.28	84,84,84,84	0
57	MG	14	3308	1/1	0.96	0.13	64,64,64,64	0
57	MG	1H	3516	1/1	0.96	0.09	122,122,122,122	0
57	MG	14	3310	1/1	0.96	0.10	71,71,71,71	0
57	MG	14	3098	1/1	0.96	0.20	63,63,63,63	0
57	MG	1H	3095	1/1	0.96	0.17	76,76,76,76	0
57	MG	14	3002	1/1	0.96	0.35	63,63,63,63	0
57	MG	14	3432	1/1	0.96	0.25	103,103,103,103	0
57	MG	13	1624	1/1	0.96	0.30	83,83,83,83	0
57	MG	1H	3457	1/1	0.96	0.08	102,102,102,102	0
57	MG	1H	3198	1/1	0.96	0.26	75,75,75,75	0
57	MG	14	3105	1/1	0.96	0.17	92,92,92,92	0
57	MG	14	3322	1/1	0.96	0.14	58,58,58,58	0
57	MG	14	3323	1/1	0.96	0.10	84,84,84,84	0
57	MG	1H	3118	1/1	0.96	0.13	63,63,63,63	0
57	MG	14	3325	1/1	0.96	0.08	88,88,88,88	0
57	MG	14	3107	1/1	0.96	0.58	94,94,94,94	0
57	MG	13	1677	1/1	0.96	0.13	90,90,90,90	0
57	MG	1G	1607	1/1	0.96	0.28	107,107,107,107	0
57	MG	1G	1608	1/1	0.96	0.34	100,100,100,100	0
57	MG	1G	1676	1/1	0.96	0.14	104,104,104,104	0
57	MG	14	3208	1/1	0.96	0.23	63,63,63,63	0
57	MG	14	3016	1/1	0.96	0.27	69,69,69,69	0
57	MG	1H	3171	1/1	0.96	0.18	88,88,88,88	0
57	MG	14	3214	1/1	0.96	0.15	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3120	1/1	0.96	0.37	69,69,69,69	0
57	MG	1H	3288	1/1	0.96	0.11	58,58,58,58	0
57	MG	14	3220	1/1	0.96	0.08	65,65,65,65	0
57	MG	1H	3290	1/1	0.96	0.09	87,87,87,87	0
57	MG	13	1625	1/1	0.96	0.23	68,68,68,68	0
57	MG	1H	3345	1/1	0.96	0.06	85,85,85,85	0
57	MG	1H	3080	1/1	0.96	0.17	75,75,75,75	0
57	MG	14	3459	1/1	0.96	0.10	68,68,68,68	0
57	MG	13	1679	1/1	0.96	0.06	89,89,89,89	0
57	MG	14	3026	1/1	0.96	0.06	74,74,74,74	0
57	MG	1H	3298	1/1	0.96	0.06	52,52,52,52	0
57	MG	1H	3349	1/1	0.96	0.05	61,61,61,61	0
57	MG	1H	3242	1/1	0.96	0.13	50,50,50,50	0
57	MG	14	3127	1/1	0.96	0.06	70,70,70,70	0
57	MG	1H	3351	1/1	0.96	0.09	66,66,66,66	0
57	MG	14	3032	1/1	0.96	0.25	72,72,72,72	0
57	MG	1H	3209	1/1	0.96	0.17	92,92,92,92	0
57	MG	13	1693	1/1	0.96	0.09	95,95,95,95	0
57	MG	1H	3478	1/1	0.96	0.05	79,79,79,79	0
57	MG	1H	3414	1/1	0.96	0.07	52,52,52,52	0
57	MG	1G	1627	1/1	0.96	0.13	122,122,122,122	0
57	MG	1H	3302	1/1	0.96	0.16	54,54,54,54	0
57	MG	14	3044	1/1	0.96	0.23	71,71,71,71	0
57	MG	1H	3416	1/1	0.96	0.07	80,80,80,80	0
57	MG	14	3247	1/1	0.96	0.11	87,87,87,87	0
57	MG	13	1710	1/1	0.96	0.08	73,73,73,73	0
57	MG	14	3365	1/1	0.96	0.10	93,93,93,93	0
57	MG	13	1711	1/1	0.96	0.09	70,70,70,70	0
57	MG	1H	3253	1/1	0.96	0.12	58,58,58,58	0
59	ZN	G8	201	1/1	0.96	0.09	150,150,150,150	0
59	ZN	C5	201	1/1	0.96	0.05	167,167,167,167	0
57	MG	14	3049	1/1	0.96	0.19	69,69,69,69	0
57	MG	14	3050	1/1	0.96	0.44	87,87,87,87	0
57	MG	14	3085	1/1	0.97	0.23	52,52,52,52	0
57	MG	14	3313	1/1	0.97	0.09	67,67,67,67	0
57	MG	1H	3011	1/1	0.97	0.21	79,79,79,79	0
57	MG	14	3234	1/1	0.97	0.09	62,62,62,62	0
57	MG	1H	3518	1/1	0.97	0.11	57,57,57,57	0
57	MG	14	3317	1/1	0.97	0.05	100,100,100,100	0
57	MG	1H	3250	1/1	0.97	0.10	54,54,54,54	0
57	MG	14	3320	1/1	0.97	0.15	70,70,70,70	0
57	MG	1H	3252	1/1	0.97	0.07	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1603	1/1	0.97	0.22	92,92,92,92	0
57	MG	1H	3254	1/1	0.97	0.14	49,49,49,49	0
57	MG	14	3242	1/1	0.97	0.11	82,82,82,82	0
57	MG	1H	3381	1/1	0.97	0.14	58,58,58,58	0
57	MG	14	3326	1/1	0.97	0.10	87,87,87,87	0
57	MG	14	3244	1/1	0.97	0.06	68,68,68,68	0
57	MG	13	1606	1/1	0.97	0.16	88,88,88,88	0
57	MG	1H	3088	1/1	0.97	0.14	87,87,87,87	0
57	MG	14	3331	1/1	0.97	0.14	56,56,56,56	0
57	MG	14	3332	1/1	0.97	0.16	63,63,63,63	0
57	MG	1H	3303	1/1	0.97	0.11	49,49,49,49	0
57	MG	1H	3430	1/1	0.97	0.18	94,94,94,94	0
57	MG	1H	3259	1/1	0.97	0.12	59,59,59,59	0
57	MG	14	3099	1/1	0.97	0.55	101,101,101,101	0
57	MG	1H	3344	1/1	0.97	0.09	60,60,60,60	0
57	MG	13	1612	1/1	0.97	0.14	111,111,111,111	0
57	MG	13	1630	1/1	0.97	0.25	86,86,86,86	0
57	MG	1G	1603	1/1	0.97	0.16	91,91,91,91	0
57	MG	1H	3115	1/1	0.97	0.19	64,64,64,64	0
57	MG	14	3036	1/1	0.97	0.28	85,85,85,85	0
57	MG	1H	3224	1/1	0.97	0.09	72,72,72,72	0
57	MG	1H	3266	1/1	0.97	0.14	92,92,92,92	0
57	MG	14	3041	1/1	0.97	0.29	66,66,66,66	0
57	MG	1H	3016	1/1	0.97	0.35	52,52,52,52	0
57	MG	1H	3439	1/1	0.97	0.04	76,76,76,76	0
57	MG	1H	3017	1/1	0.97	0.27	56,56,56,56	0
57	MG	14	3180	1/1	0.97	0.34	86,86,86,86	0
57	MG	1H	3352	1/1	0.97	0.08	70,70,70,70	0
57	MG	13	1713	1/1	0.97	0.09	96,96,96,96	0
57	MG	1H	3019	1/1	0.97	0.29	53,53,53,53	0
57	MG	14	3353	1/1	0.97	0.10	89,89,89,89	0
57	MG	14	3440	1/1	0.97	0.20	87,87,87,87	0
57	MG	1H	3020	1/1	0.97	0.24	60,60,60,60	0
57	MG	1G	1665	1/1	0.97	0.10	82,82,82,82	0
57	MG	1H	3496	1/1	0.97	0.10	89,89,89,89	0
57	MG	1H	3022	1/1	0.97	0.17	56,56,56,56	0
57	MG	14	3271	1/1	0.97	0.10	67,67,67,67	0
57	MG	13	1607	1/1	0.97	0.23	83,83,83,83	0
57	MG	14	3055	1/1	0.97	0.25	64,64,64,64	0
57	MG	14	3056	1/1	0.97	0.37	74,74,74,74	0
57	MG	14	3122	1/1	0.97	0.14	90,90,90,90	0
57	MG	1H	3051	1/1	0.97	0.29	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3277	1/1	0.97	0.06	64,64,64,64	0
57	MG	1H	3546	1/1	0.97	0.10	105,105,105,105	0
57	MG	14	3125	1/1	0.97	0.10	92,92,92,92	0
57	MG	1H	3318	1/1	0.97	0.04	74,74,74,74	0
57	MG	1H	3361	1/1	0.97	0.07	53,53,53,53	0
57	MG	1G	1673	1/1	0.97	0.11	80,80,80,80	0
57	MG	1H	3052	1/1	0.97	0.28	58,58,58,58	0
57	MG	1H	3407	1/1	0.97	0.07	69,69,69,69	0
57	MG	1H	3025	1/1	0.97	0.24	52,52,52,52	0
57	MG	1G	1677	1/1	0.97	0.09	83,83,83,83	0
57	MG	2L	101	1/1	0.97	0.43	83,83,83,83	0
57	MG	1H	3205	1/1	0.97	0.18	71,71,71,71	0
57	MG	1G	1626	1/1	0.97	0.28	119,119,119,119	0
57	MG	1H	3054	1/1	0.97	0.14	63,63,63,63	0
57	MG	13	1609	1/1	0.97	0.19	88,88,88,88	0
57	MG	14	3003	1/1	0.97	0.17	68,68,68,68	0
57	MG	1H	3179	1/1	0.97	0.24	74,74,74,74	0
57	MG	1H	3028	1/1	0.97	0.16	62,62,62,62	0
57	MG	14	3006	1/1	0.97	0.18	78,78,78,78	0
57	MG	13	1695	1/1	0.97	0.07	91,91,91,91	0
57	MG	14	3299	1/1	0.97	0.06	63,63,63,63	0
57	MG	13	1686	1/1	0.97	0.10	107,107,107,107	0
57	MG	1H	3464	1/1	0.97	0.17	57,57,57,57	0
57	MG	1H	3329	1/1	0.97	0.13	53,53,53,53	0
57	MG	14	3303	1/1	0.97	0.11	52,52,52,52	0
57	MG	1H	3106	1/1	0.97	0.09	73,73,73,73	0
57	MG	B5	101	1/1	0.97	0.10	99,99,99,99	0
57	MG	14	3226	1/1	0.97	0.17	54,54,54,54	0
57	MG	14	3147	1/1	0.97	0.75	86,86,86,86	0
57	MG	13	1634	1/1	0.97	0.33	91,91,91,91	0
57	MG	14	3015	1/1	0.97	0.14	65,65,65,65	0
57	MG	13	1626	1/1	0.97	0.10	96,96,96,96	0
57	MG	14	3084	1/1	0.97	0.27	67,67,67,67	0
57	MG	14	3398	1/1	0.97	0.05	86,86,86,86	0
57	MG	1H	3024	1/1	0.98	0.17	64,64,64,64	0
57	MG	1H	3037	1/1	0.98	0.11	57,57,57,57	0
57	MG	1H	3336	1/1	0.98	0.07	88,88,88,88	0
57	MG	14	3060	1/1	0.98	0.15	65,65,65,65	0
57	MG	13	1631	1/1	0.98	0.35	106,106,106,106	0
57	MG	1H	3476	1/1	0.98	0.16	94,94,94,94	0
57	MG	1H	3145	1/1	0.98	0.09	74,74,74,74	0
57	MG	1G	1619	1/1	0.98	0.07	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3292	1/1	0.98	0.06	71,71,71,71	0
57	MG	14	3013	1/1	0.98	0.30	56,56,56,56	0
57	MG	14	3168	1/1	0.98	0.18	70,70,70,70	0
57	MG	1G	1661	1/1	0.98	0.23	118,118,118,118	0
57	MG	1H	3039	1/1	0.98	0.17	56,56,56,56	0
57	MG	1H	3479	1/1	0.98	0.05	95,95,95,95	0
57	MG	14	3172	1/1	0.98	0.21	82,82,82,82	0
57	MG	13	1729	1/1	0.98	0.08	110,110,110,110	0
57	MG	1H	3440	1/1	0.98	0.05	83,83,83,83	0
57	MG	14	3366	1/1	0.98	0.04	99,99,99,99	0
57	MG	1H	3027	1/1	0.98	0.17	60,60,60,60	0
57	MG	14	3021	1/1	0.98	0.37	63,63,63,63	0
57	MG	14	3241	1/1	0.98	0.14	61,61,61,61	0
57	MG	14	3304	1/1	0.98	0.07	61,61,61,61	0
57	MG	13	1608	1/1	0.98	0.07	93,93,93,93	0
57	MG	1H	3285	1/1	0.98	0.16	69,69,69,69	0
57	MG	1H	3409	1/1	0.98	0.10	83,83,83,83	0
57	MG	13	1652	1/1	0.98	0.18	82,82,82,82	0
57	MG	1H	3021	1/1	0.98	0.28	60,60,60,60	0
57	MG	1H	3263	1/1	0.98	0.11	53,53,53,53	0
57	MG	1H	3449	1/1	0.98	0.24	92,92,92,92	0
57	MG	14	3029	1/1	0.98	0.15	80,80,80,80	0
57	MG	1H	3378	1/1	0.98	0.08	54,54,54,54	0
57	MG	1H	3289	1/1	0.98	0.11	91,91,91,91	0
57	MG	1H	3201	1/1	0.98	0.26	80,80,80,80	0
57	MG	14	3188	1/1	0.98	0.23	69,69,69,69	0
57	MG	14	3189	1/1	0.98	0.32	81,81,81,81	0
57	MG	1H	3292	1/1	0.98	0.07	62,62,62,62	0
57	MG	14	3319	1/1	0.98	0.13	72,72,72,72	0
57	MG	1H	3265	1/1	0.98	0.11	74,74,74,74	0
57	MG	14	3387	1/1	0.98	0.06	83,83,83,83	0
57	MG	1H	3294	1/1	0.98	0.10	68,68,68,68	0
57	MG	1H	3322	1/1	0.98	0.10	59,59,59,59	0
57	MG	I8	102	1/1	0.98	0.06	70,70,70,70	0
57	MG	14	3460	1/1	0.98	0.26	92,92,92,92	0
57	MG	1H	3295	1/1	0.98	0.12	58,58,58,58	0
57	MG	14	3040	1/1	0.98	0.26	80,80,80,80	0
57	MG	1H	3001	1/1	0.98	0.23	49,49,49,49	0
57	MG	1H	3032	1/1	0.98	0.37	68,68,68,68	0
57	MG	14	3093	1/1	0.98	0.29	86,86,86,86	0
57	MG	14	3329	1/1	0.98	0.16	93,93,93,93	0
57	MG	14	3201	1/1	0.98	0.28	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3043	1/1	0.98	0.70	96,96,96,96	0
57	MG	1H	3388	1/1	0.98	0.07	49,49,49,49	0
57	MG	1H	3033	1/1	0.98	0.18	63,63,63,63	0
57	MG	1H	3034	1/1	0.98	0.15	74,74,74,74	0
57	MG	7A	101	1/1	0.98	0.32	110,110,110,110	0
57	MG	1H	3244	1/1	0.98	0.11	47,47,47,47	0
57	MG	1H	3393	1/1	0.98	0.10	63,63,63,63	0
57	MG	14	3209	1/1	0.98	0.18	61,61,61,61	0
57	MG	1H	3206	1/1	0.98	0.34	55,55,55,55	0
57	MG	14	3051	1/1	0.98	0.30	70,70,70,70	0
57	MG	14	3408	1/1	0.98	0.07	77,77,77,77	0
57	MG	14	3213	1/1	0.98	0.12	70,70,70,70	0
57	MG	1H	3467	1/1	0.98	0.11	74,74,74,74	0
57	MG	1H	3330	1/1	0.98	0.09	74,74,74,74	0
57	MG	13	1604	1/1	0.98	0.13	79,79,79,79	0
57	MG	14	3280	1/1	0.98	0.16	76,76,76,76	0
59	ZN	5A	101	1/1	0.98	0.09	129,129,129,129	0
57	MG	14	3219	1/1	0.98	0.14	59,59,59,59	0
57	MG	1H	3273	1/1	0.98	0.16	56,56,56,56	0
57	MG	1H	3066	1/1	0.98	0.23	65,65,65,65	0
57	MG	14	3235	1/1	0.99	0.09	55,55,55,55	0
57	MG	1H	3230	1/1	0.99	0.09	90,90,90,90	0
57	MG	1H	3061	1/1	0.99	0.38	62,62,62,62	0
57	MG	13	1635	1/1	0.99	0.45	83,83,83,83	0
57	MG	1H	3256	1/1	0.99	0.12	48,48,48,48	0
57	MG	14	3212	1/1	0.99	0.11	60,60,60,60	0
57	MG	1H	3441	1/1	0.99	0.07	100,100,100,100	0
57	MG	1H	3257	1/1	0.99	0.16	49,49,49,49	0
57	MG	1H	3214	1/1	0.99	0.18	77,77,77,77	0
57	MG	14	3216	1/1	0.99	0.23	62,62,62,62	0
57	MG	1H	3291	1/1	0.99	0.15	57,57,57,57	0
57	MG	14	3218	1/1	0.99	0.10	55,55,55,55	0
57	MG	14	3192	1/1	0.99	0.14	80,80,80,80	0
57	MG	13	1676	1/1	0.99	0.11	67,67,67,67	0
57	MG	1H	3275	1/1	0.99	0.10	72,72,72,72	0
57	MG	1H	3245	1/1	0.99	0.11	58,58,58,58	0
57	MG	1H	3003	1/1	0.99	0.12	67,67,67,67	0
57	MG	1H	3247	1/1	0.99	0.07	67,67,67,67	0
57	MG	14	3014	1/1	0.99	0.36	72,72,72,72	0
57	MG	1H	3389	1/1	0.99	0.05	63,63,63,63	0
57	MG	13	1658	1/1	0.99	0.28	83,83,83,83	0
57	MG	14	3039	1/1	0.99	0.27	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3041	1/1	0.99	0.27	57,57,57,57	0
58	SF4	3E	301	8/8	0.99	0.21	95,98,106,108	0
58	SF4	32	302	8/8	0.99	0.20	115,120,128,136	0
59	ZN	5I	101	1/1	0.99	0.13	94,94,94,94	0
57	MG	1H	3186	1/1	0.99	0.09	56,56,56,56	0
57	MG	1H	3251	1/1	0.99	0.06	49,49,49,49	0
57	MG	1H	3283	1/1	0.99	0.12	59,59,59,59	0
57	MG	13	1620	1/1	0.99	0.16	68,68,68,68	0
57	MG	1H	3357	1/1	0.99	0.11	64,64,64,64	0
57	MG	1H	3005	1/1	1.00	0.15	67,67,67,67	0
57	MG	1H	3451	1/1	1.00	0.07	55,55,55,55	0

6.5 Other polymers (i)

There are no such residues in this entry.