Full wwPDB X-ray Structure Validation Report ⓘ

Sep 10, 2026 – 07:08 am BST

PDB ID	:	5EL4 / pdb_00005el4
Title	:	Structure of T. thermophilus 70S ribosome complex with mRNA and tRNALys in the A-site with a U-U mismatch in the first position
Authors	:	Rozov, A.; Demeshkina, N.; Khusainov, I.; Yusupov, M.; Yusupova, G.
Deposited on	:	2015-11-04
Resolution	:	3.15 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ 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:

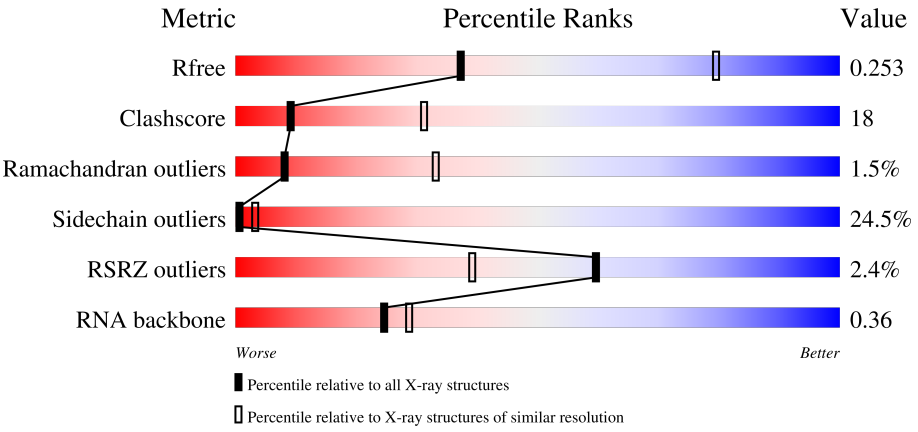
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.15 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	2361 (3.20-3.12)
Clashscore	190562	2486 (3.20-3.12)
Ramachandran outliers	187476	2405 (3.20-3.12)
Sidechain outliers	187428	2404 (3.20-3.12)
RSRZ outliers	180081	2361 (3.20-3.12)
RNA backbone	3983	1113 (3.42-2.90)

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

Mol	Chain	Length	Quality of chain
1	13	1522	38% 45% 15%
1	1G	1522	37% 47% 15%
2	12	256	28% 36% 15% 19%
2	1E	256	39% 39% 12% 10%

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Mol	Chain	Length	Quality of chain
3	22	239	5% 40% 33% 8% 19%
3	2E	239	3% 51% 28% 6% 14%
4	32	209	38% 51% 9%
4	3E	209	44% 43% 11%
5	42	162	6% 40% 38% 12% 9%
5	4E	162	44% 36% 11% 8%
6	52	101	3% 49% 45% 7%
6	5E	101	47% 47% 6%
7	62	156	40% 38% 9% 12%
7	6E	156	48% 37% 11%
8	72	138	4% 46% 41% 11%
8	7E	138	47% 37% 15%
9	82	128	5% 43% 42% 11%
9	8E	128	9% 38% 44% 16%
10	1A	105	18% 31% 30% 12% 26%
10	1I	105	37% 36% 11% 13%
11	2A	129	49% 29% 9% 12%
11	2I	129	43% 34% 9% 14%
12	3A	132	11% 44% 39% 9% 8%
12	3I	132	3% 43% 36% 12% 8%
13	4A	126	5% 28% 40% 20% 13%
13	4I	126	36% 44% 11% 8%
14	5A	61	3% 34% 38% 18% 7%
14	5I	61	48% 41% 11%
15	6A	89	55% 37% 6%

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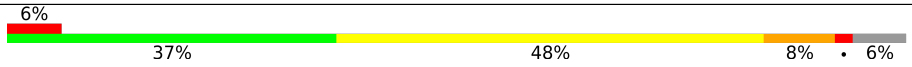
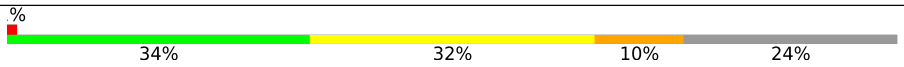
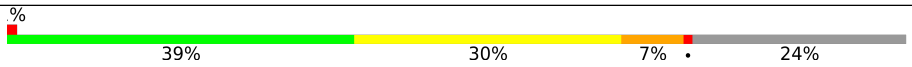
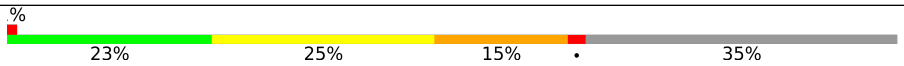
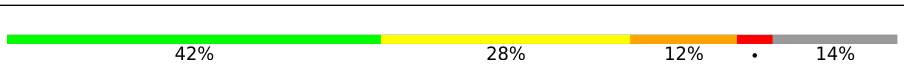
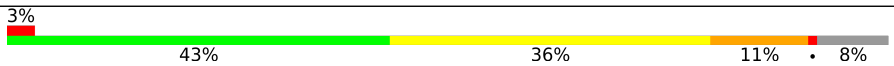
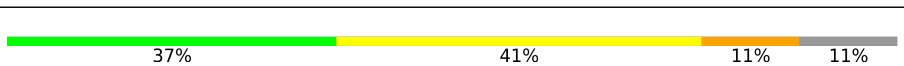
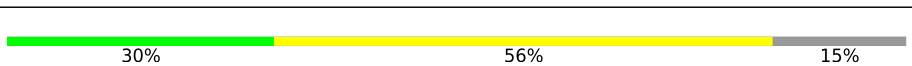
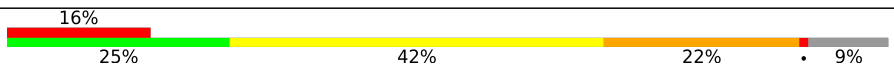
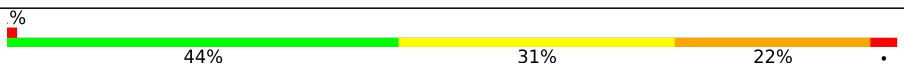
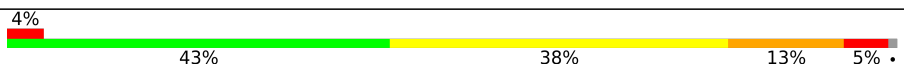
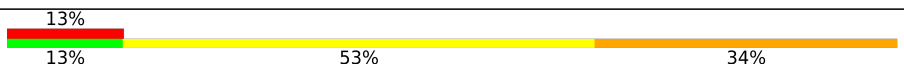
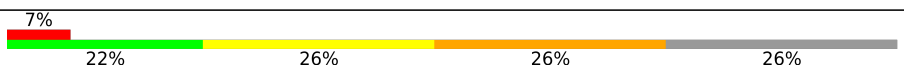
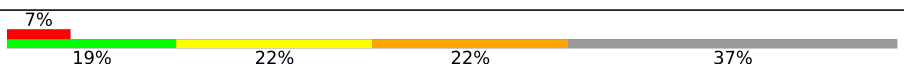
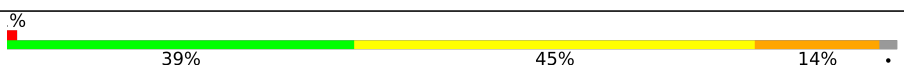
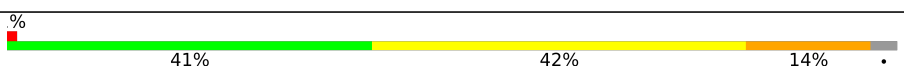
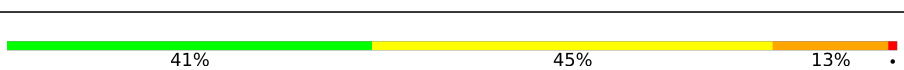
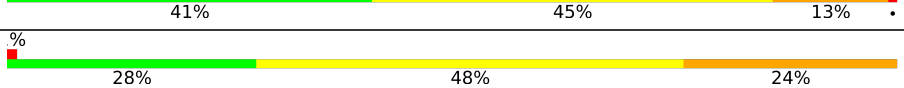
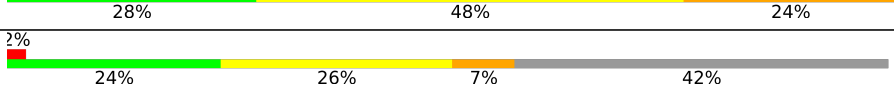
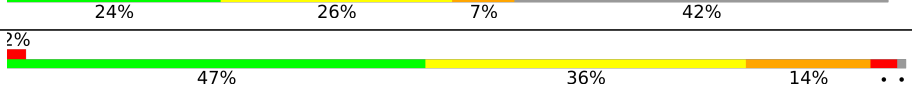
Mol	Chain	Length	Quality of chain
15	6I	89	
16	7A	88	
16	7I	88	
17	8A	105	
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
20	BA	106	
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	76	
23	2K	77	
23	2L	77	
24	3K	76	
25	4K	27	
25	4L	27	
26	14	2917	
26	1H	2917	
27	16	122	
27	1J	122	
28	71	229	
29	11	276	

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Mol	Chain	Length	Quality of chain
29	19	276	2% 44% 40% 13%
30	21	206	3% 42% 39% 14%
30	29	206	6% 41% 36% 17%
31	31	210	40% 40% 15%
31	39	210	36% 47% 11%
32	41	182	2% 41% 45% 12%
32	49	182	3% 39% 49% 10%
33	51	180	6% 42% 38% 15%
33	59	180	14% 15% 14% 8% 62%
34	61	148	3% 43% 32% 22%
34	69	148	2% 47% 34% 17%
35	15	140	6% 46% 36% 16%
35	58	140	10% 37% 44% 16%
36	25	122	3% 47% 39% 14%
36	68	122	2% 52% 41% 7%
37	35	150	4% 34% 37% 21% 7%
37	78	150	3% 31% 42% 19% 5%
38	45	141	10% 40% 40% 14%
38	88	141	2% 44% 38% 17%
39	55	118	46% 38% 16%
39	98	118	2% 37% 49% 14%
40	65	112	30% 44% 23%
40	A8	112	36% 45% 17%
41	75	146	2% 38% 38% 17% 7%
41	B8	146	5% 38% 35% 17% 8%

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Mol	Chain	Length	Quality of chain
42	85	118	3% 52% 36% 10%
42	C8	118	3% 45% 46% 5%
43	95	101	5% 30% 53% 10% 5%
43	D8	101	2% 34% 41% 20% 5%
44	A5	113	58% 34% 6%
44	E8	113	55% 32% 12%
45	B5	96	2% 49% 34% 12%
45	F8	96	2% 42% 43% 16%
46	C5	110	16% 33% 40% 16% 5% 5%
46	G8	110	5% 23% 45% 21% 5% 6%
47	D5	206	19% 29% 11% 39%
47	H8	206	27% 32% 9% 28%
48	E5	85	4% 46% 35% 11% 8%
48	I8	85	5% 51% 32% 8% 8%
49	F5	98	7% 40% 40% 16%
49	J8	98	2% 47% 39% 9%
50	G5	72	32% 33% 29%
50	K8	72	29% 42% 18% 6% 6%
51	H5	60	2% 53% 35% 8%
51	L8	60	50% 37% 10%
52	M8	71	24% 25% 14% 34%
53	J5	60	3% 53% 33% 7% 7%
53	N8	60	2% 37% 35% 8% 18%
54	L5	49	2% 53% 39%
54	P8	49	49% 39% 6%

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Mol	Chain	Length	Quality of chain
55	M5	65	3% 40% 42% 11% 6%
55	Q8	65	2% 40% 38% 17%
56	1L	76	12% 28% 43% 26%
57	3L	76	8% 33% 46% 18%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
58	MG	14	3068	-	-	-	X
58	MG	14	3102	-	-	-	X
58	MG	14	3226	-	-	-	X
58	MG	14	3277	-	-	-	X
58	MG	1H	3317	-	-	-	X
58	MG	1H	3318	-	-	-	X

2 Entry composition (i)

There are 61 unique types of molecules in this entry. The entry contains 294304 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	1496	Total	C	N	O	P	0	0	0
			32157	14313	5960	10388	1496			
1	1G	1507	Total	C	N	O	P	0	0	0
			32391	14418	6004	10463	1506			

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
13	1542	G	-	insertion	GB 55771382
13	1543	C	-	insertion	GB 55771382
13	1544	U	-	insertion	GB 55771382
1G	1542	G	-	insertion	GB 55771382
1G	1543	C	-	insertion	GB 55771382
1G	1544	U	-	insertion	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	208	Total	C	N	O	S	0	0	0
			1711	1094	307	306	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	194	Total	C	N	O	S	0	0	0
			1529	967	296	265	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			
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	147	Total	C	N	O	S	0	0	0
			1123	709	214	196	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	149	Total	C	N	O	S	0	0	0
			1214	754	244	210	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	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	8E	127	Total	C	N	O	0	0	0
			1005	637	197	171			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	82	124	Total	C	N	O	0	0	0
			983	624	190	169			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	91	Total	C	N	O	S	0	0	0
			734	459	144	130	1			
10	1A	78	Total	C	N	O		0	0	0
			626	388	126	112				

- 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	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
13	4A	110	Total	C	N	O	S	0	0	0
			888	549	182	155	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	5I	61	Total	C	N	O	S	0	0	0
			496	315	105	72	4			
14	5A	57	Total	C	N	O	S	0	0	0
			466	297	97	68	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	6I	88	Total	C	N	O	S	0	0	0
			733	459	147	125	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	80	Total	C	N	O	S	0	0	0
			671	427	132	111	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	99	Total	C	N	O	S	0	0	0
			823	528	151	142	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	67	Total	C	N	O	0	0	0
			544	349	104	91			
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	80	Total	C	N	O	S	0	0	0
			643	411	118	112	2			
19	AA	60	Total	C	N	O	S	0	0	0
			471	300	83	86	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	97	Total	C	N	O	S	0	0	0
			746	461	157	126	2			
20	BA	98	Total	C	N	O	S	0	0	0
			757	467	161	127	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	24	Total	C	N	O	0	0	0
			208	128	50	30			

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

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	1K	69	Total	C	N	O	P	S	0	0	0
			1477	662	257	488	69	1			

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

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
23	2K	77	Total	C	N	O	P	S	0	0	0
			1646	735	297	536	77	1			
23	2L	76	Total	C	N	O	P	S	0	0	0
			1626	726	295	528	76	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	76	Total	C	N	O	P	0	0	0
			1611	721	281	534	75			

- 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
			439	197	91	131	20			
25	4L	17	Total	C	N	O	P	0	0	0
			373	167	76	113	17			

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

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

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	133	Total	C	N	O	S	0	0	0
			1033	651	194	187	1			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
71	19	ILE	VAL	conflict	UNP Q5SLP7
71	27	HIS	ARG	conflict	UNP Q5SLP7

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	21	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	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	205	Total	C	N	O	S	0	0	0
			1606	1024	300	280	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	41	180	Total	C	N	O	S	0	0	0
			1464	936	266	258	4			
32	49	180	Total	C	N	O	S	0	0	0
			1464	936	266	258	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	51	173	Total	C	N	O	S	0	0	0
			1327	842	249	235	1			
33	59	69	Total	C	N	O		0	0	0
			539	339	109	91				

- 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	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	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	148	Total	C	N	O	S	0	0	0
			1130	704	230	193	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
			1113	709	210	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			

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B8	134	Total	C	N	O	S	0	0	0
			1118	696	229	192	1			
41	75	136	Total	C	N	O	S	0	0	0
			1132	704	232	195	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	D8	100	Total	C	N	O	S	0	0	0
			774	499	141	133	1			
43	95	99	Total	C	N	O	S	0	0	0
			763	493	137	132	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	F8	96	Total	C	N	O		0	0	0
			751	489	135	127				
45	B5	94	Total	C	N	O	S	0	0	0
			738	479	133	125	1			

- 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	148	Total	C	N	O	S	0	0	0
			1222	781	221	217	3			
47	D5	126	Total	C	N	O	S	0	0	0
			1034	667	187	178	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	I8	78	Total	C	N	O	S	0	0	0
			616	381	130	104	1			
48	E5	78	Total	C	N	O	S	0	0	0
			616	381	130	104	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	J8	94	Total	C	N	O	S	0	0	0
			737	463	146	127	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
			571	355	115	100	1			
50	G5	69	Total	C	N	O	S	0	0	0
			573	355	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	47	Total	C	N	O	S	0	0	0
			366	234	61	66	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	N8	49	Total	C	N	O	S	0	0	0
			381	238	76	62	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 tRNA-Lys.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	1L	74	Total	C	N	O	P	0	0	0
			1570	702	271	523	74			

- Molecule 57 is a RNA chain called tRNA-Lys.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	3L	74	Total	C	N	O	P	0	0	0
			1571	703	277	518	73			

- Molecule 58 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	13	142	Total	Mg	0	0
			142	142		
58	1I	1	Total	Mg	0	0
			1	1		
58	2I	1	Total	Mg	0	0
			1	1		
58	3I	1	Total	Mg	0	0
			1	1		
58	4I	1	Total	Mg	0	0
			1	1		
58	5I	1	Total	Mg	0	0
			1	1		
58	7I	1	Total	Mg	0	0
			1	1		
58	1K	1	Total	Mg	0	0
			1	1		
58	2K	2	Total	Mg	0	0
			2	2		
58	4K	1	Total	Mg	0	0
			1	1		
58	1H	495	Total	Mg	0	0
			495	495		
58	16	11	Total	Mg	0	0
			11	11		
58	11	1	Total	Mg	0	0
			1	1		
58	21	2	Total	Mg	0	0
			2	2		
58	41	1	Total	Mg	0	0
			1	1		

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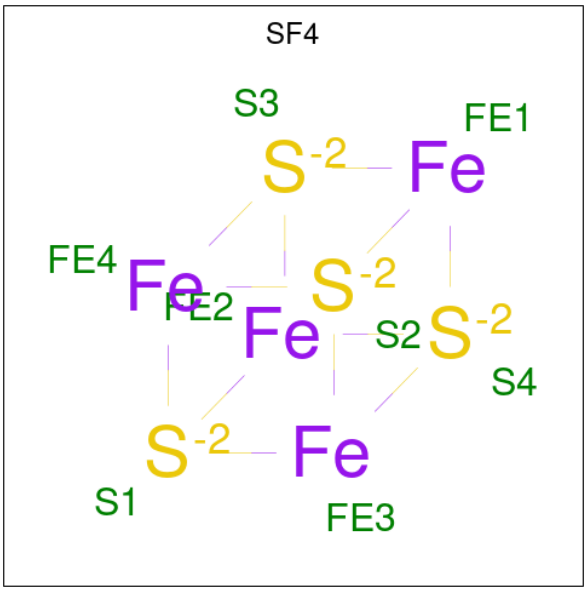
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	78	1	Total Mg 1 1	0	0
58	88	3	Total Mg 3 3	0	0
58	I8	1	Total Mg 1 1	0	0
58	J8	1	Total Mg 1 1	0	0
58	N8	1	Total Mg 1 1	0	0
58	P8	1	Total Mg 1 1	0	0
58	Q8	1	Total Mg 1 1	0	0
58	1G	95	Total Mg 95 95	0	0
58	2L	2	Total Mg 2 2	0	0
58	3L	1	Total Mg 1 1	0	0
58	14	421	Total Mg 421 421	0	0
58	1J	6	Total Mg 6 6	0	0
58	19	1	Total Mg 1 1	0	0
58	29	3	Total Mg 3 3	0	0
58	39	2	Total Mg 2 2	0	0
58	25	1	Total Mg 1 1	0	0
58	45	3	Total Mg 3 3	0	0
58	E5	1	Total Mg 1 1	0	0

- Molecule 59 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



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

- Molecule 60 is ZINC ION (CCD ID: ZN) (formula: Zn).

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

- Molecule 61 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	13	207	Total O 207 207	0	0
61	3E	2	Total O 2 2	0	0
61	4E	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	8E	1	Total O 1 1	0	0
61	1I	1	Total O 1 1	0	0
61	3I	2	Total O 2 2	0	0
61	5I	2	Total O 2 2	0	0
61	6I	1	Total O 1 1	0	0
61	4K	4	Total O 4 4	0	0
61	1H	819	Total O 819 819	0	0
61	16	22	Total O 22 22	0	0
61	11	9	Total O 9 9	0	0
61	21	6	Total O 6 6	0	0
61	31	4	Total O 4 4	0	0
61	78	1	Total O 1 1	0	0
61	B8	1	Total O 1 1	0	0
61	C8	3	Total O 3 3	0	0
61	F8	1	Total O 1 1	0	0
61	I8	5	Total O 5 5	0	0
61	J8	2	Total O 2 2	0	0
61	L8	3	Total O 3 3	0	0
61	1G	117	Total O 117 117	0	0
61	32	2	Total O 2 2	0	0
61	2A	1	Total O 1 1	0	0

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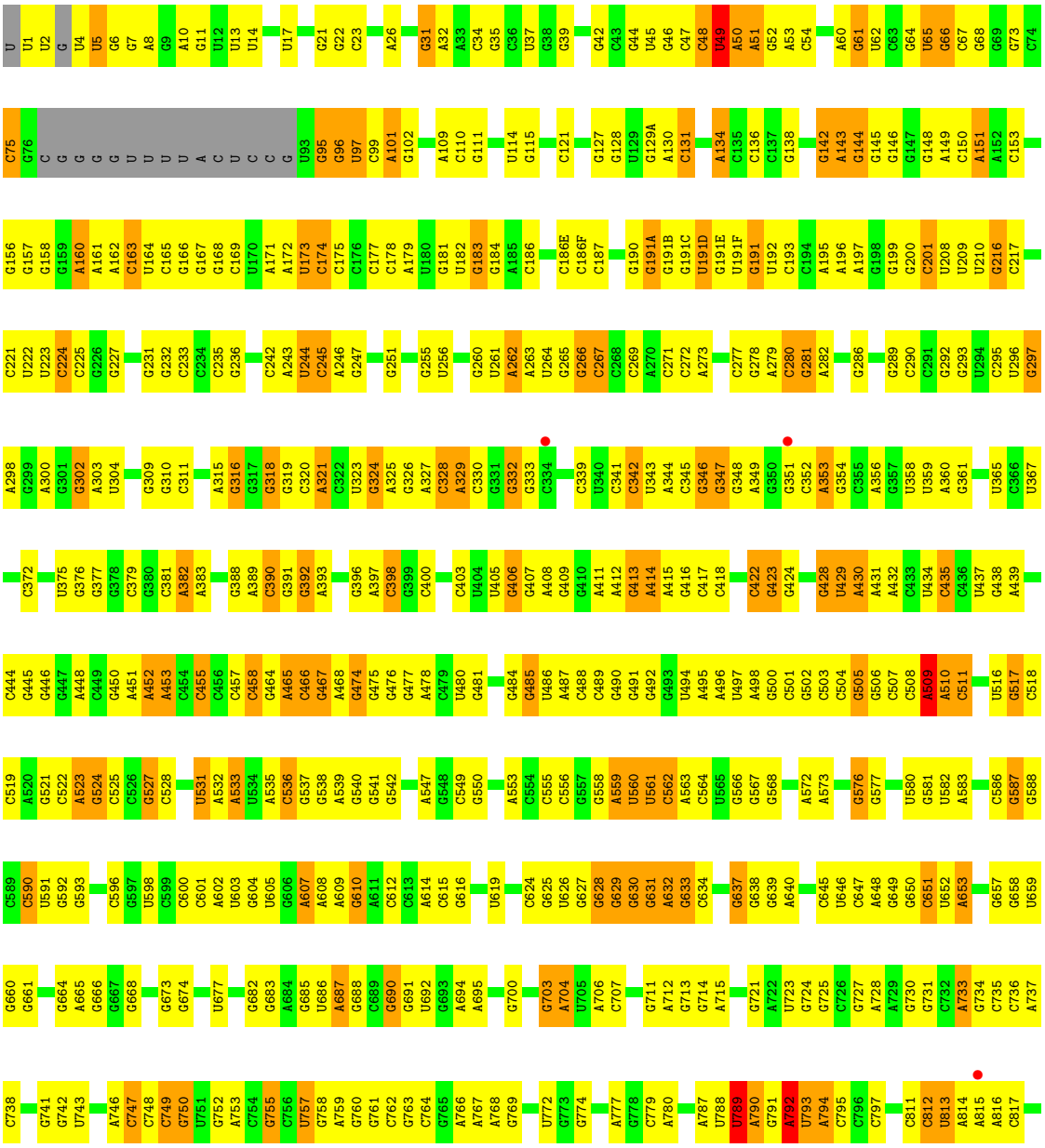
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	6A	2	Total O 2 2	0	0
61	7A	1	Total O 1 1	0	0
61	BA	1	Total O 1 1	0	0
61	14	717	Total O 717 717	0	0
61	1J	6	Total O 6 6	0	0
61	19	10	Total O 10 10	0	0
61	29	3	Total O 3 3	0	0
61	39	3	Total O 3 3	0	0
61	15	1	Total O 1 1	0	0
61	35	3	Total O 3 3	0	0
61	75	2	Total O 2 2	0	0
61	85	3	Total O 3 3	0	0
61	M5	3	Total O 3 3	0	0

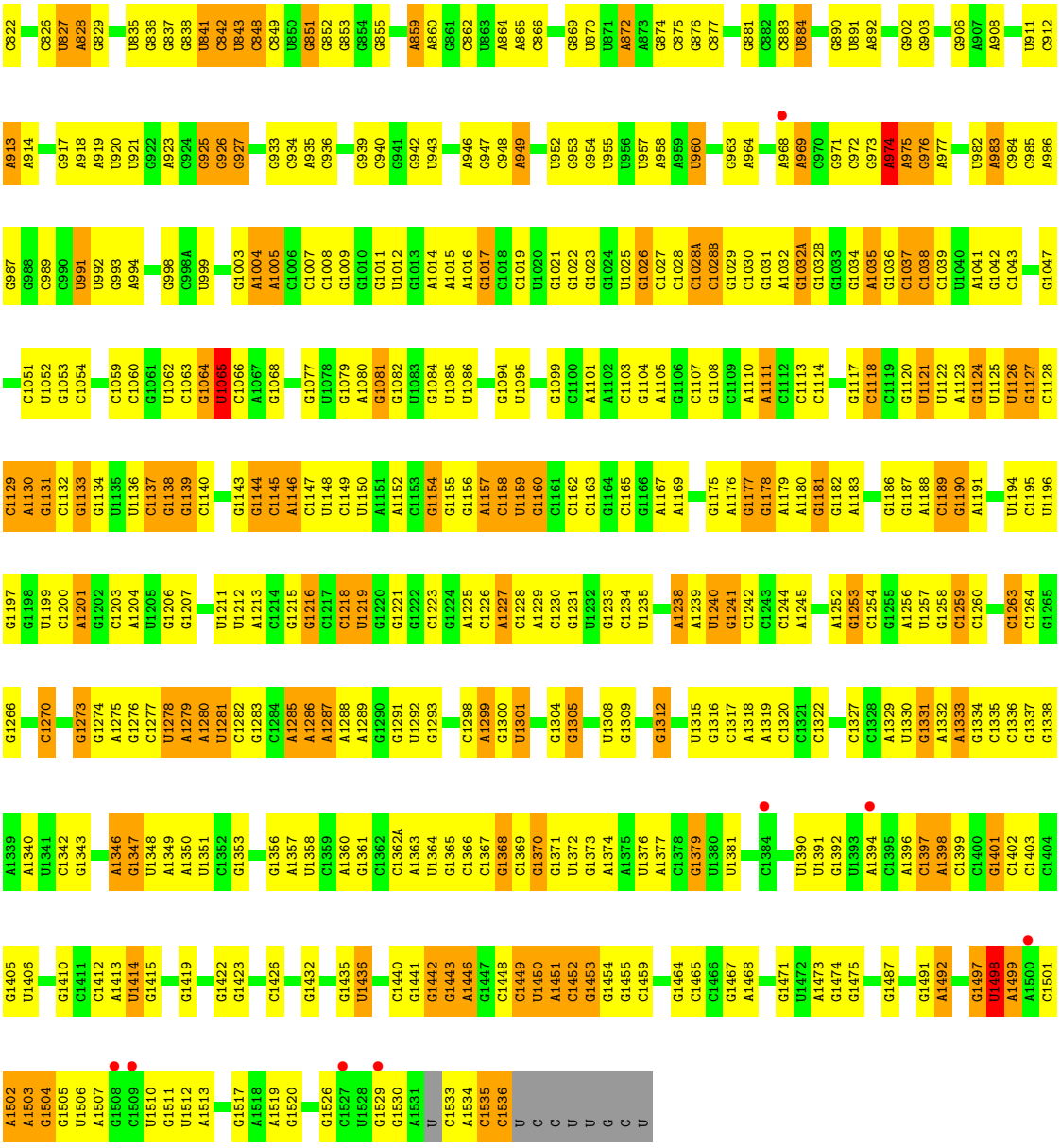
3 Residue-property plots (i)

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

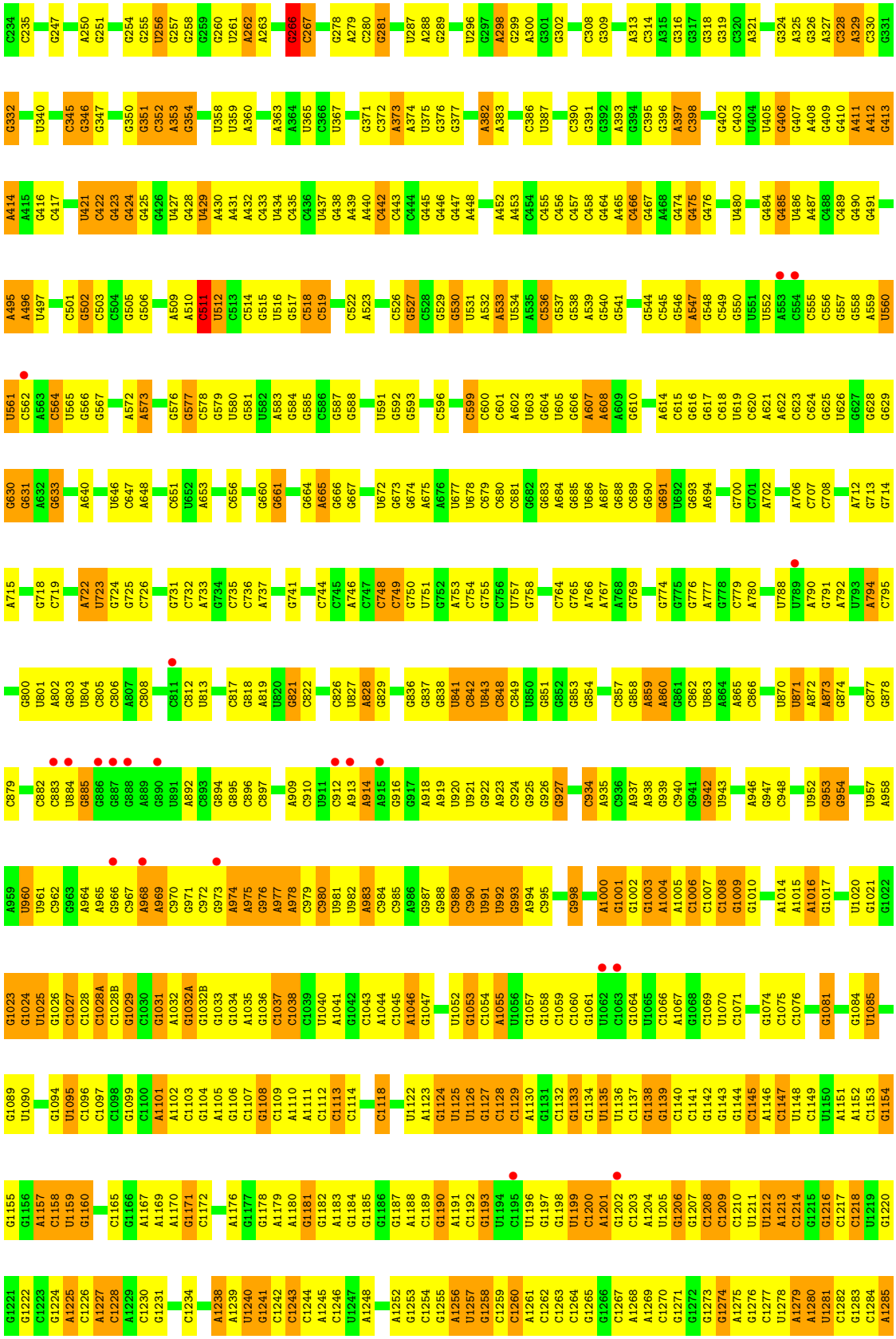
Chain 13:

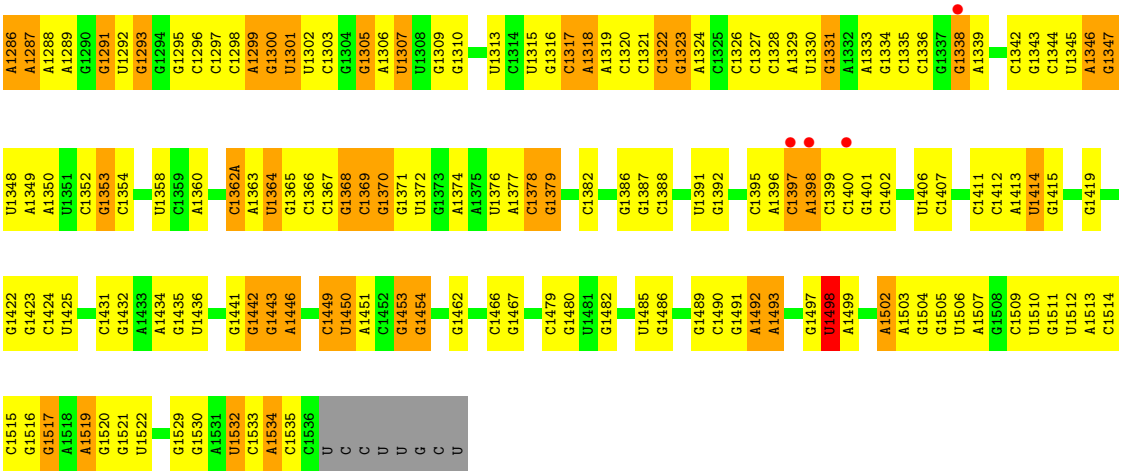




• Molecule 1: 16S ribosomal RNA

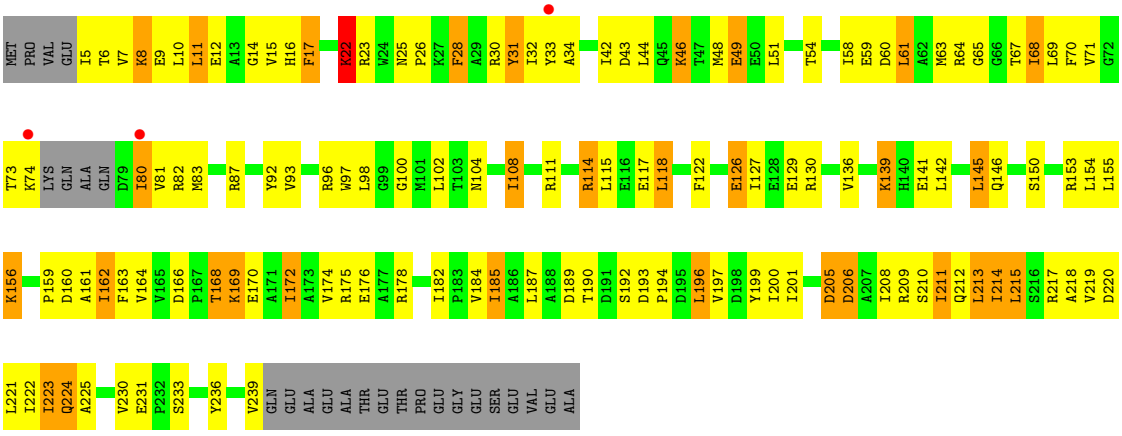
Chain 1G:





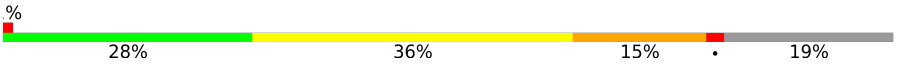
• Molecule 2: 30S ribosomal protein S2

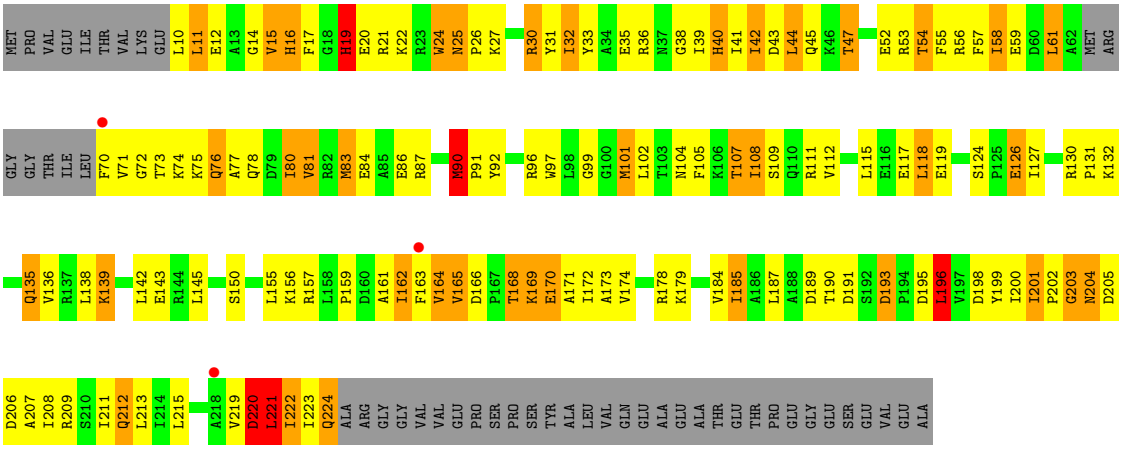
Chain 1E:



• Molecule 2: 30S ribosomal protein S2

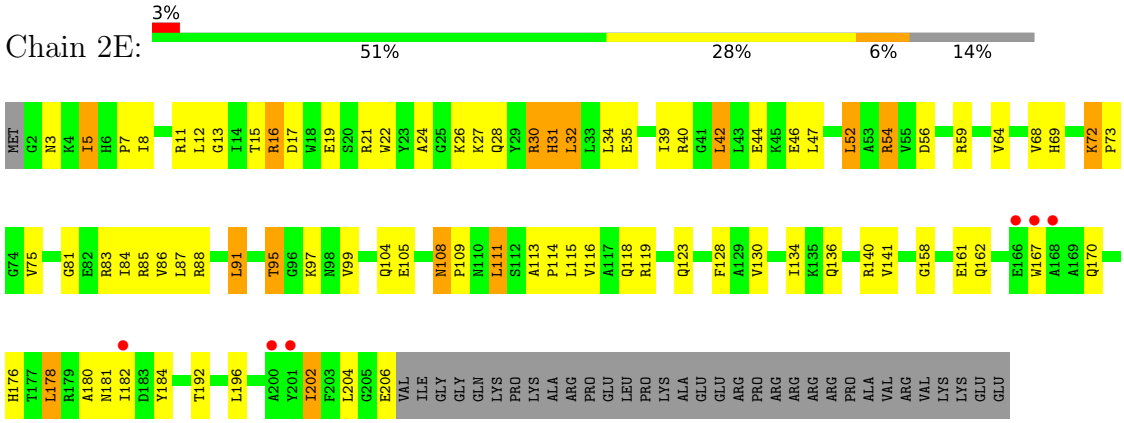
Chain 12:





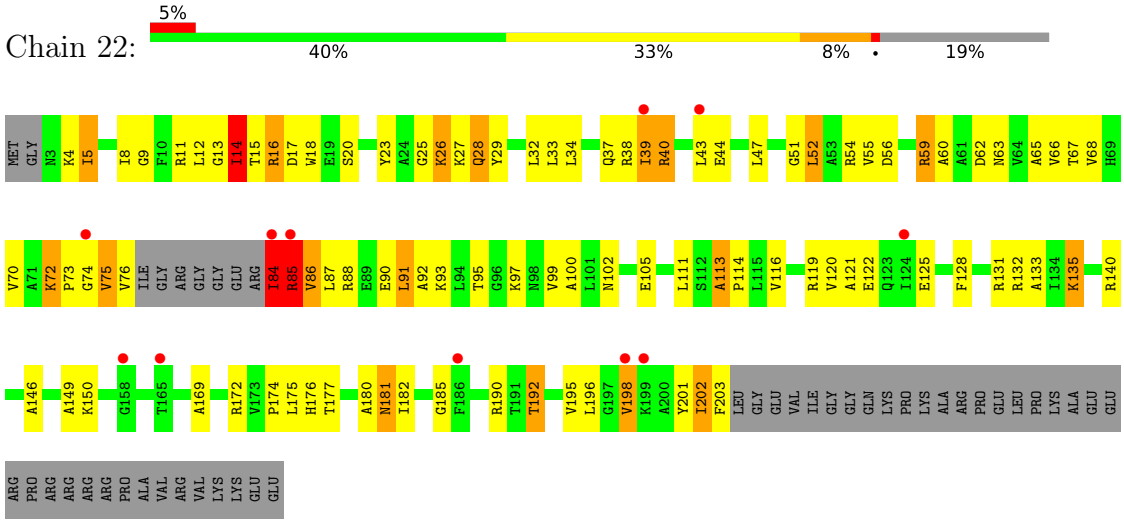
• Molecule 3: 30S ribosomal protein S3

Chain 2E:



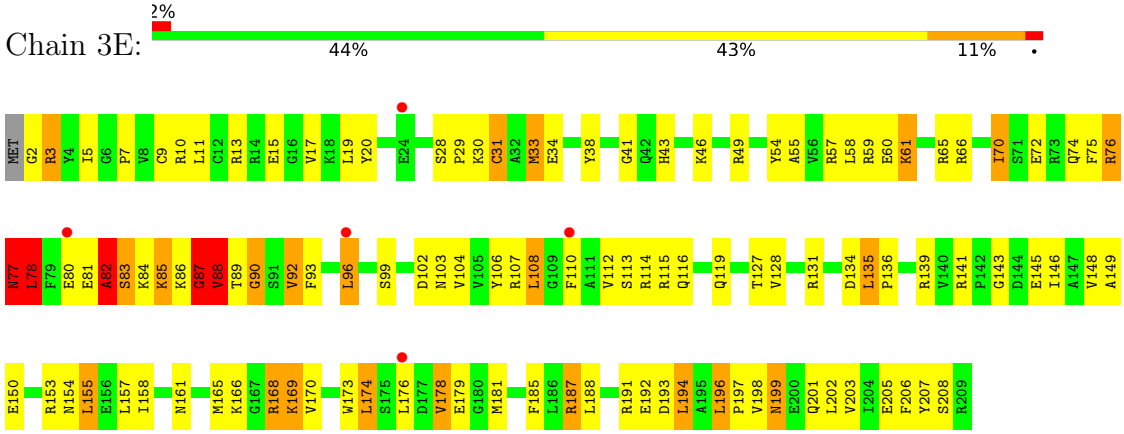
• Molecule 3: 30S ribosomal protein S3

Chain 22:



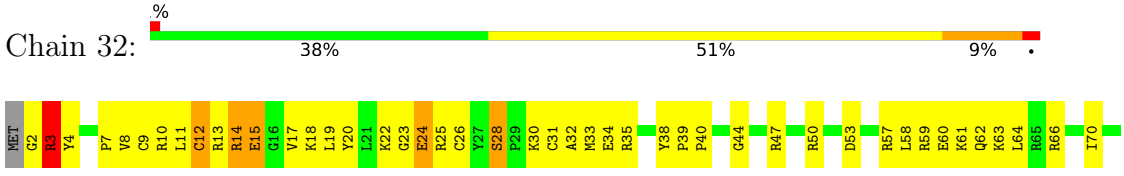
• Molecule 4: 30S ribosomal protein S4

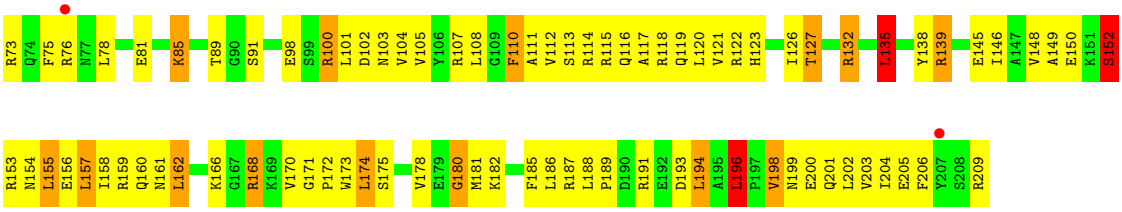
Chain 3E:



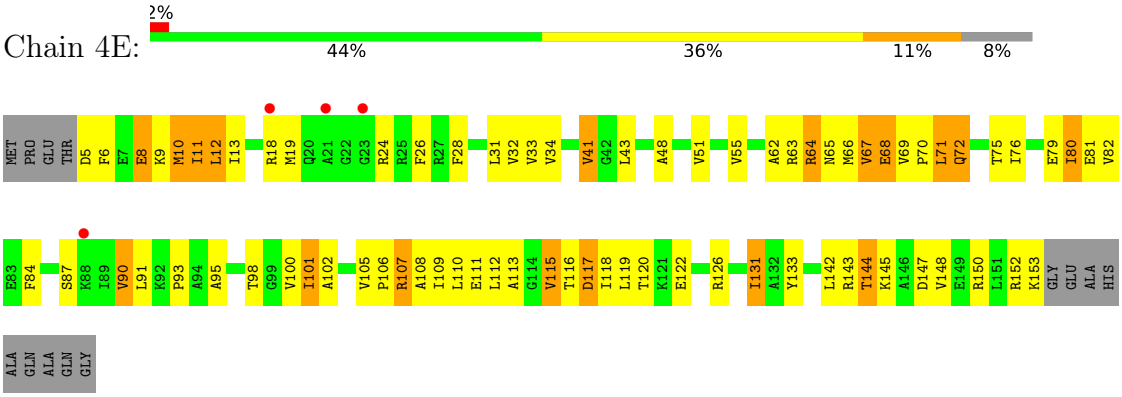
• Molecule 4: 30S ribosomal protein S4

Chain 32:

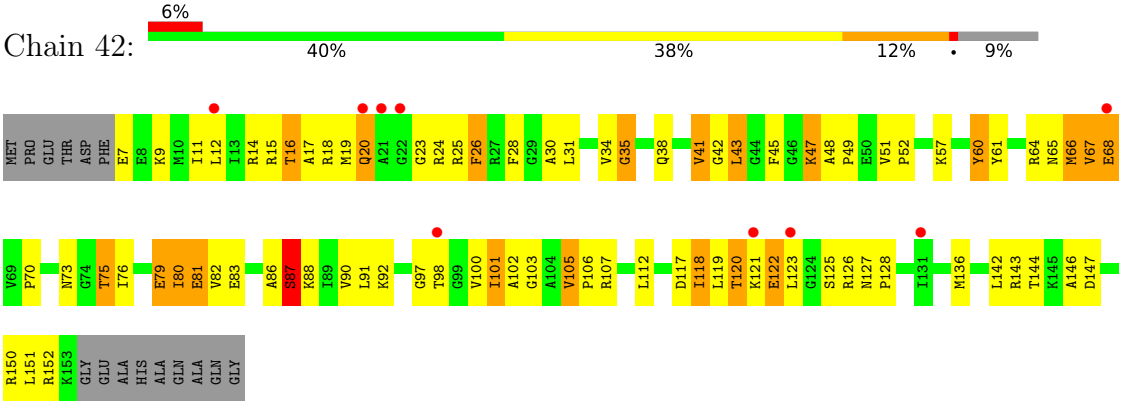




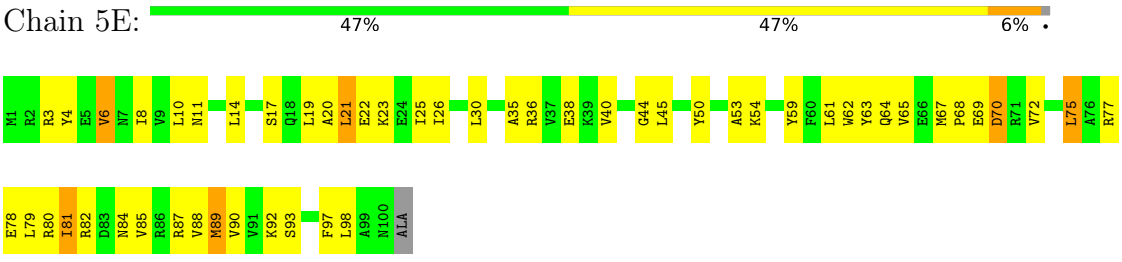
• Molecule 5: 30S ribosomal protein S5



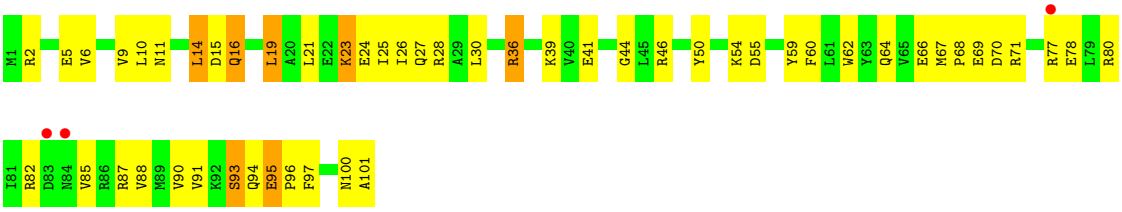
• Molecule 5: 30S ribosomal protein S5



• Molecule 6: 30S ribosomal protein S6

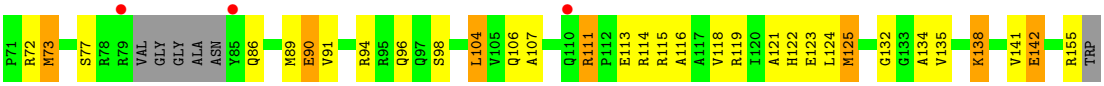


• Molecule 6: 30S ribosomal protein S6



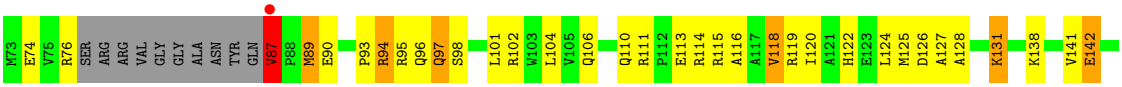
• Molecule 7: 30S ribosomal protein S7

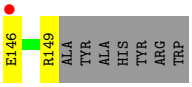
Chain 6E:



• Molecule 7: 30S ribosomal protein S7

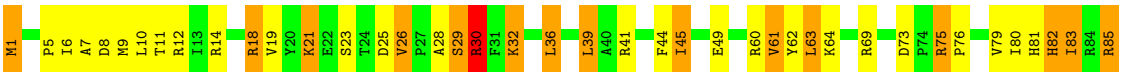
Chain 62:

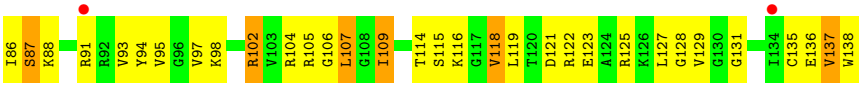




• Molecule 8: 30S ribosomal protein S8

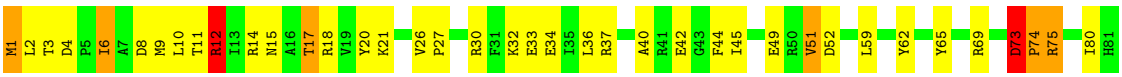
Chain 7E:

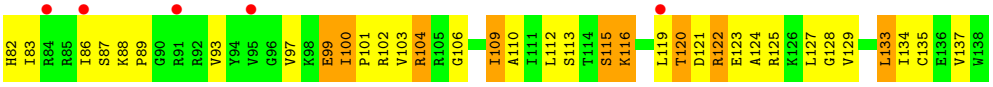




• Molecule 8: 30S ribosomal protein S8

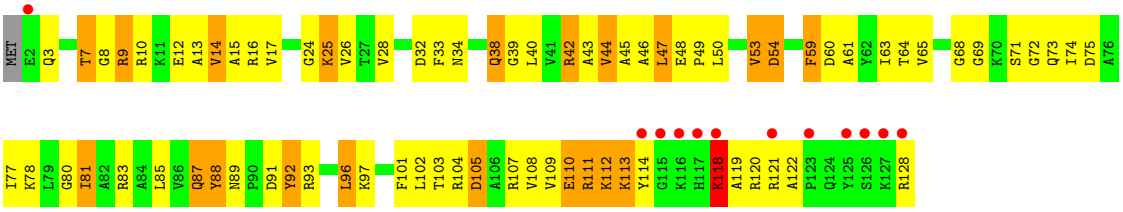
Chain 72:





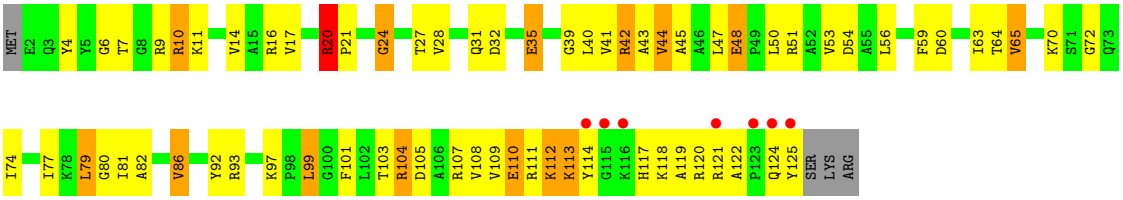
• Molecule 9: 30S ribosomal protein S9

Chain 8E:



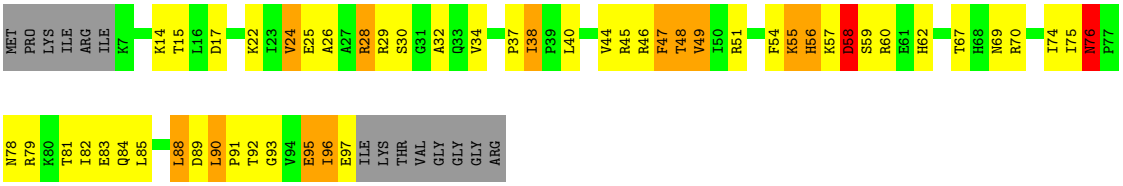
• Molecule 9: 30S ribosomal protein S9

Chain 82:



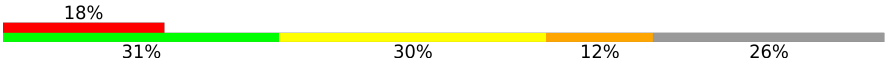
• Molecule 10: 30S ribosomal protein S10

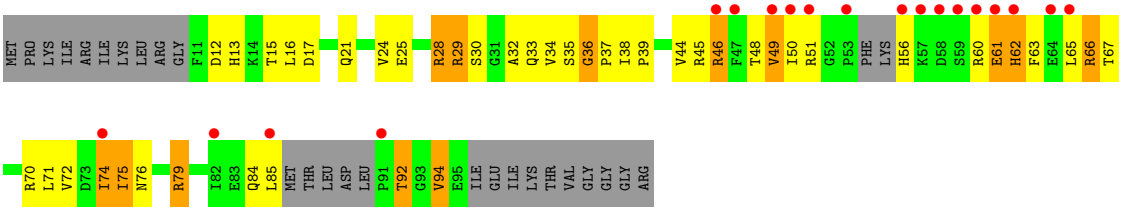
Chain 1I:



• Molecule 10: 30S ribosomal protein S10

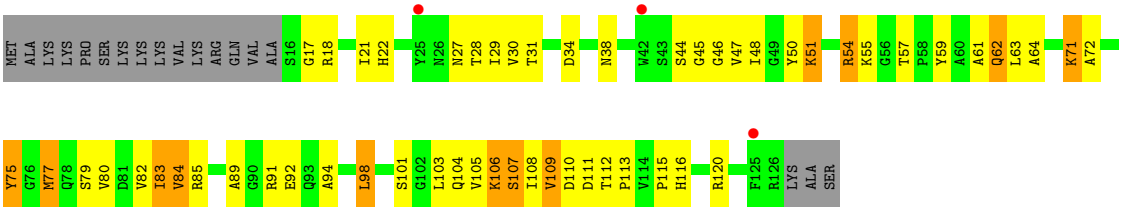
Chain 1A:





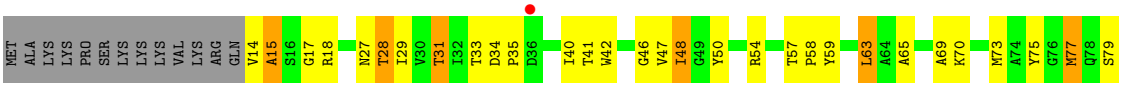
• Molecule 11: 30S ribosomal protein S11

Chain 2I:



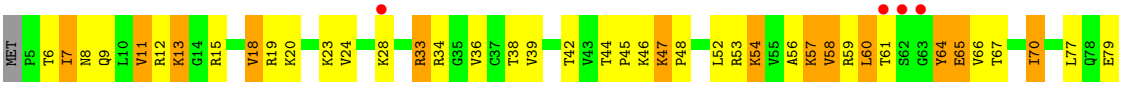
• Molecule 11: 30S ribosomal protein S11

Chain 2A:



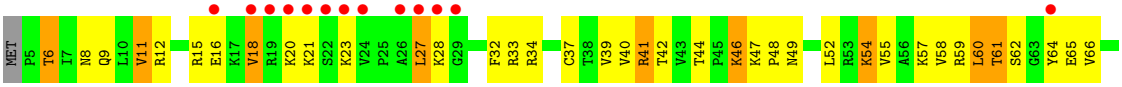
• Molecule 12: 30S ribosomal protein S12

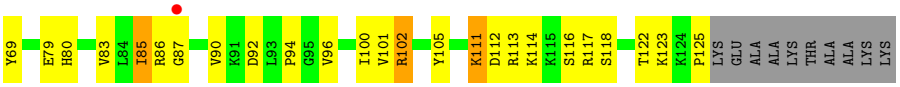
Chain 3I:



• Molecule 12: 30S ribosomal protein S12

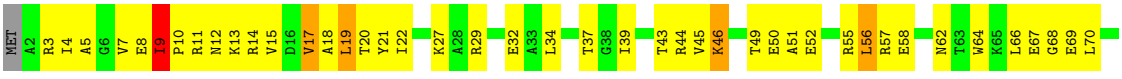
Chain 3A:





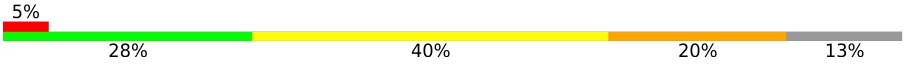
• Molecule 13: 30S ribosomal protein S13

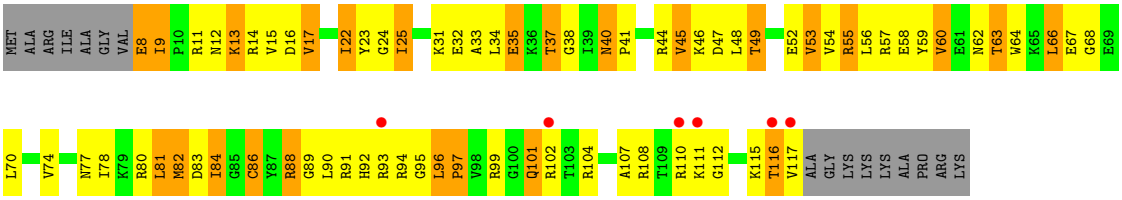
Chain 4I:



• Molecule 13: 30S ribosomal protein S13

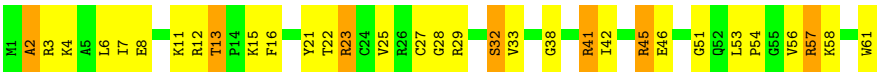
Chain 4A:





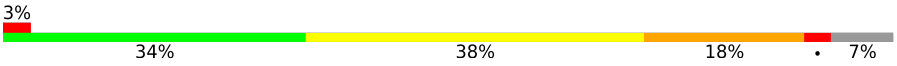
• Molecule 14: 30S ribosomal protein S14 type Z

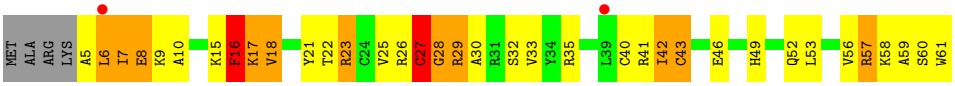
Chain 5I:



• Molecule 14: 30S ribosomal protein S14 type Z

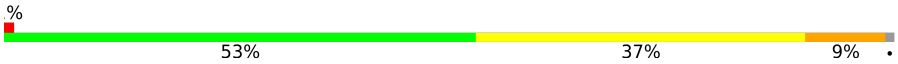
Chain 5A:

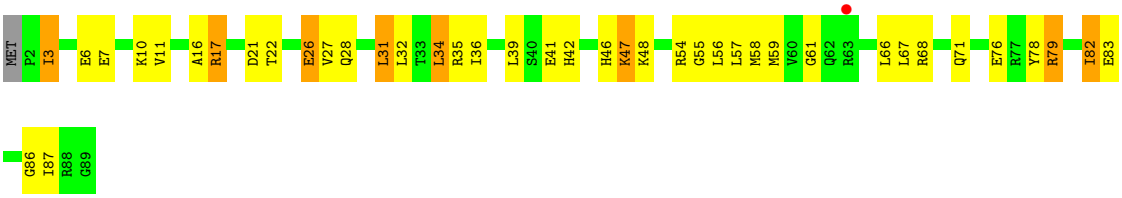




• Molecule 15: 30S ribosomal protein S15

Chain 6I:





• Molecule 15: 30S ribosomal protein S15

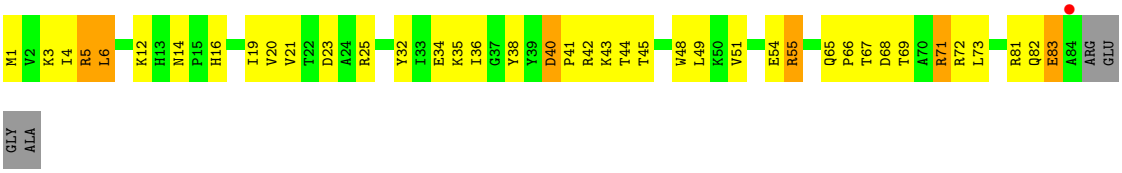
Chain 6A:

• Molecule 16: 30S ribosomal protein S16

Chain 7I:

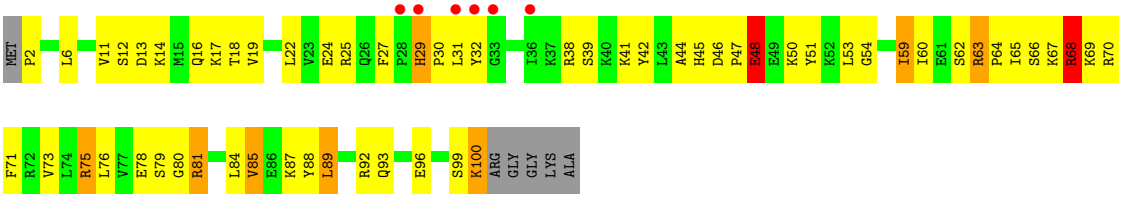
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



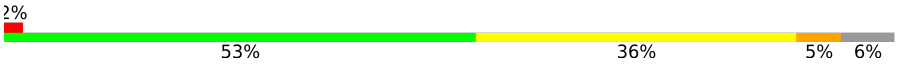
• Molecule 17: 30S ribosomal protein S17

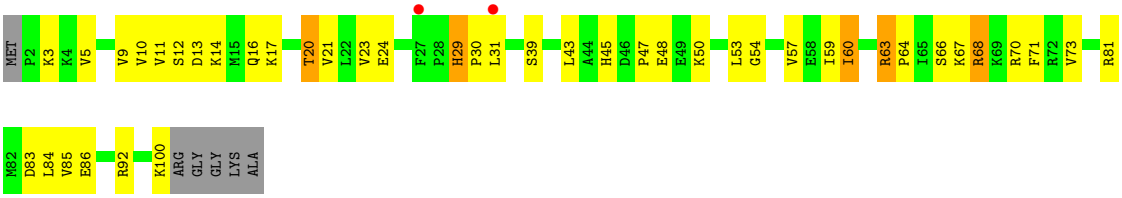
Chain 8I:



• Molecule 17: 30S ribosomal protein S17

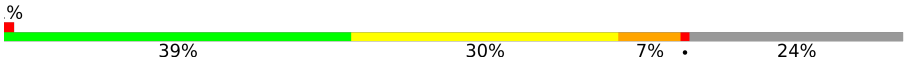
Chain 8A:

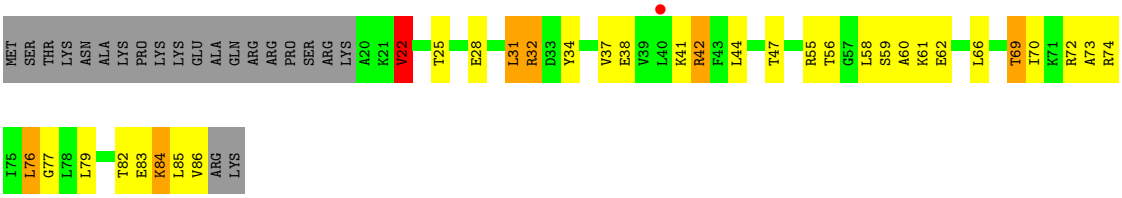




• Molecule 18: 30S ribosomal protein S18

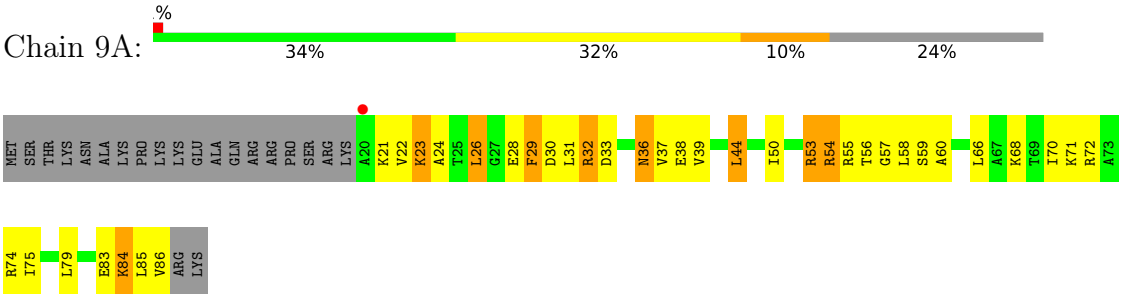
Chain 9I:





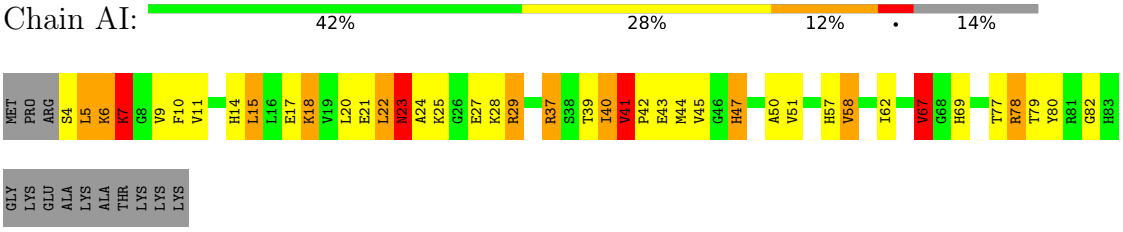
• Molecule 18: 30S ribosomal protein S18

Chain 9A:



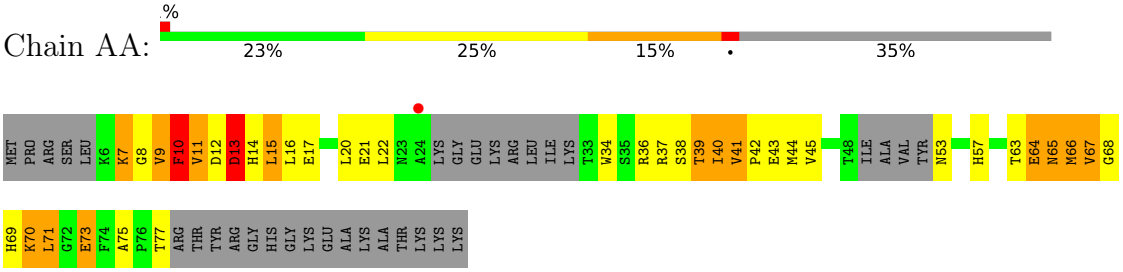
• Molecule 19: 30S ribosomal protein S19

Chain AI:



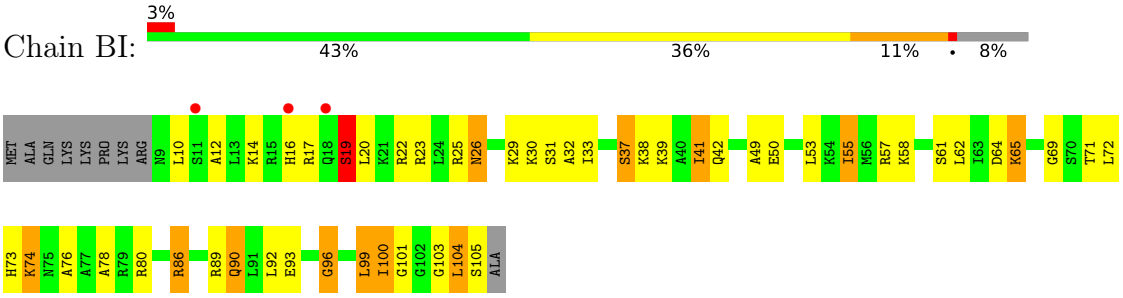
• Molecule 19: 30S ribosomal protein S19

Chain AA:



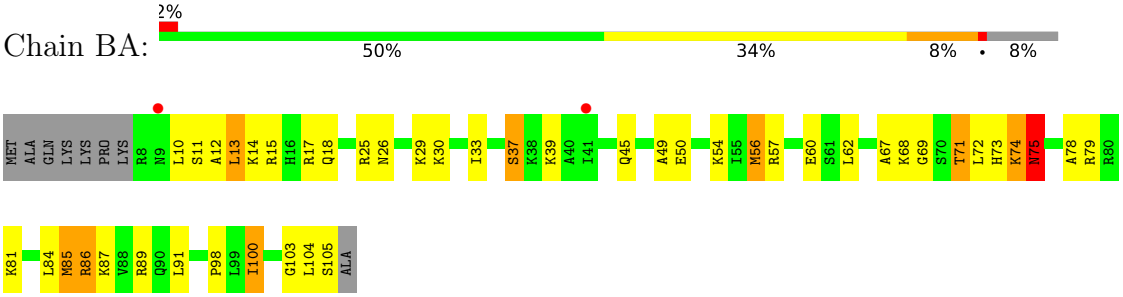
• Molecule 20: 30S ribosomal protein S20

Chain BI:



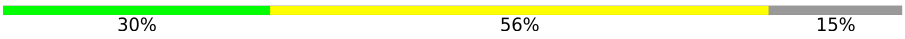
• Molecule 20: 30S ribosomal protein S20

Chain BA:



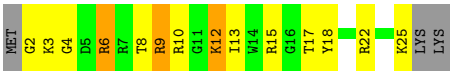
• Molecule 21: 30S ribosomal protein Thx

Chain 1F:



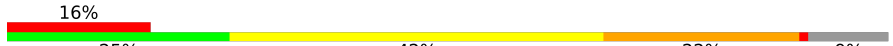
• Molecule 21: 30S ribosomal protein Thx

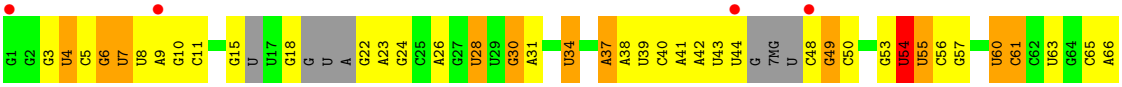
Chain 1B:

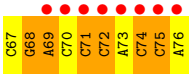


• Molecule 22: tRNA-Lys

Chain 1K:

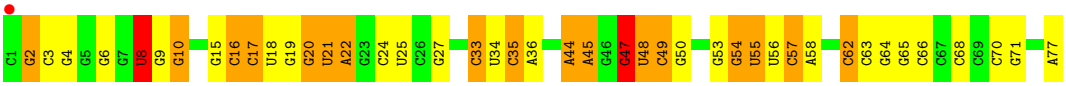






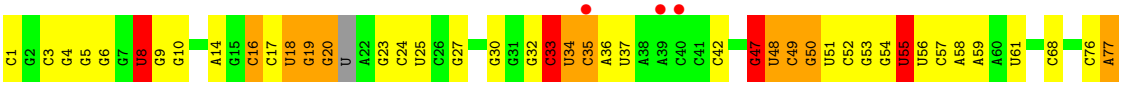
• Molecule 23: tRNA-fMet

Chain 2K:



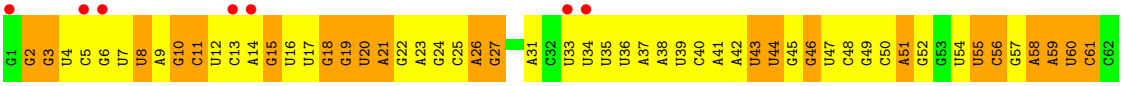
• Molecule 23: tRNA-fMet

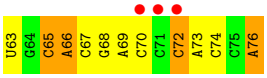
Chain 2L:



• Molecule 24: tRNA-Lys

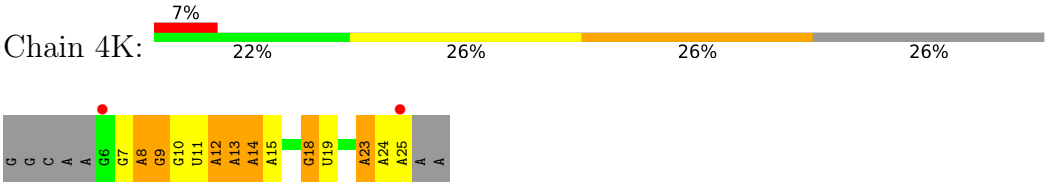
Chain 3K:





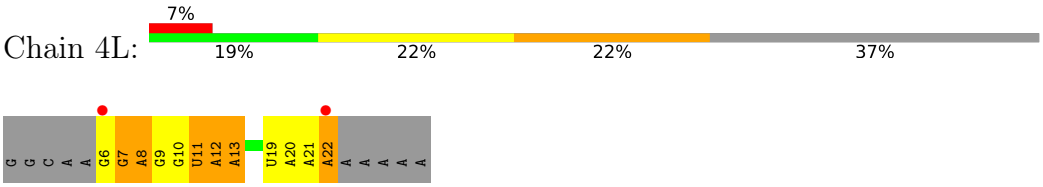
• Molecule 25: mRNA

Chain 4K:



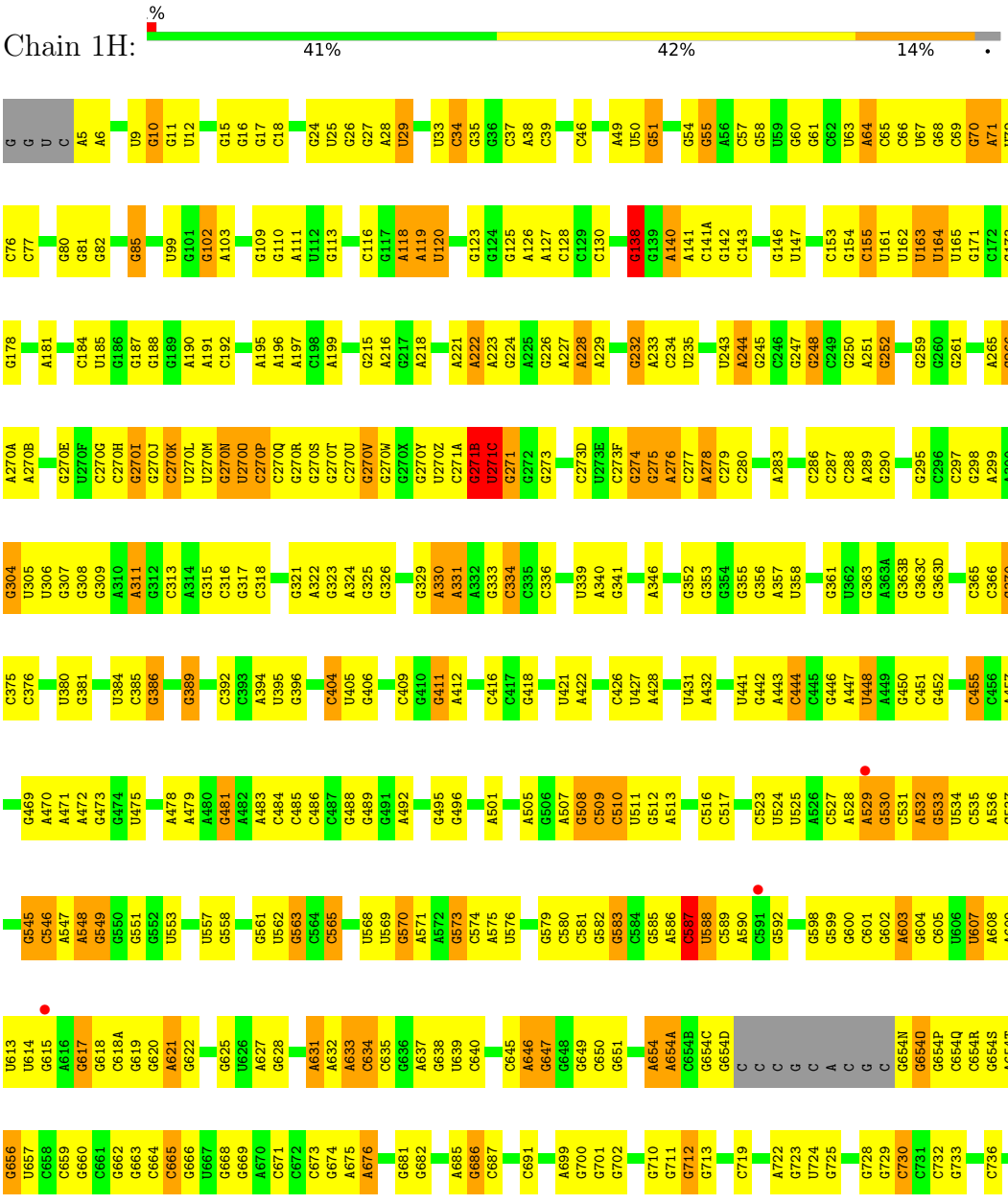
• Molecule 25: mRNA

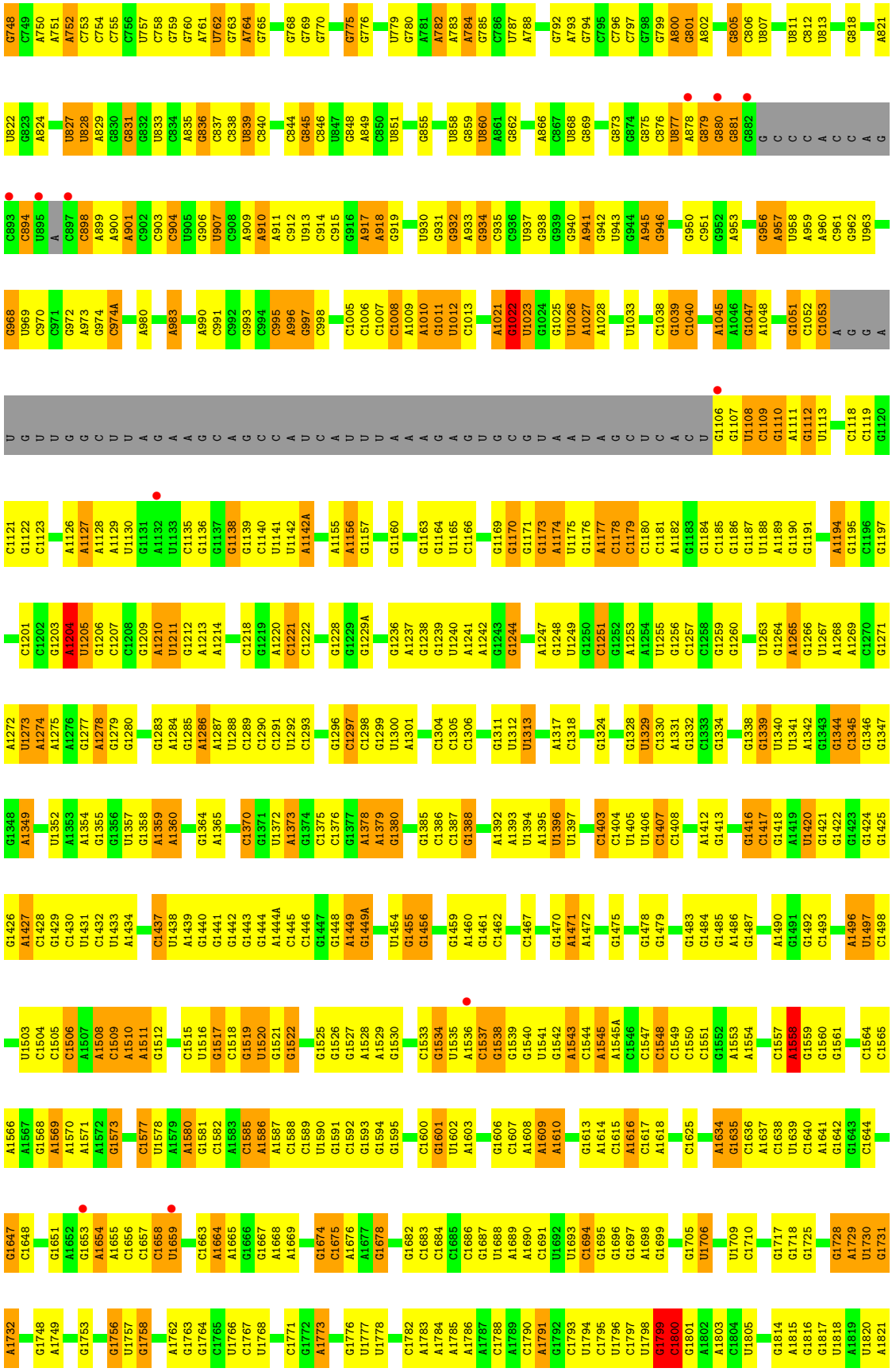
Chain 4L:

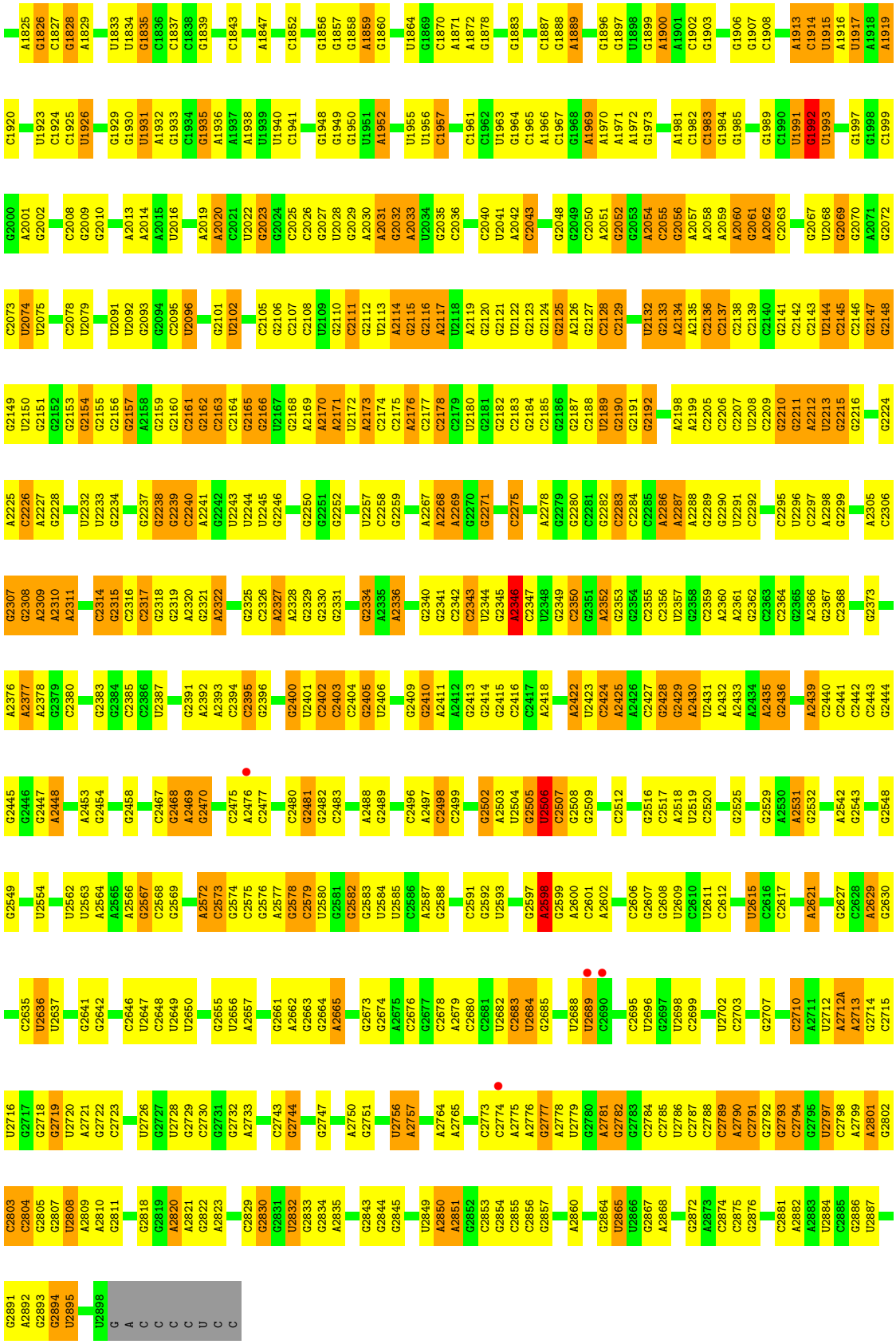


• Molecule 26: 23S ribosomal RNA

Chain 1H:

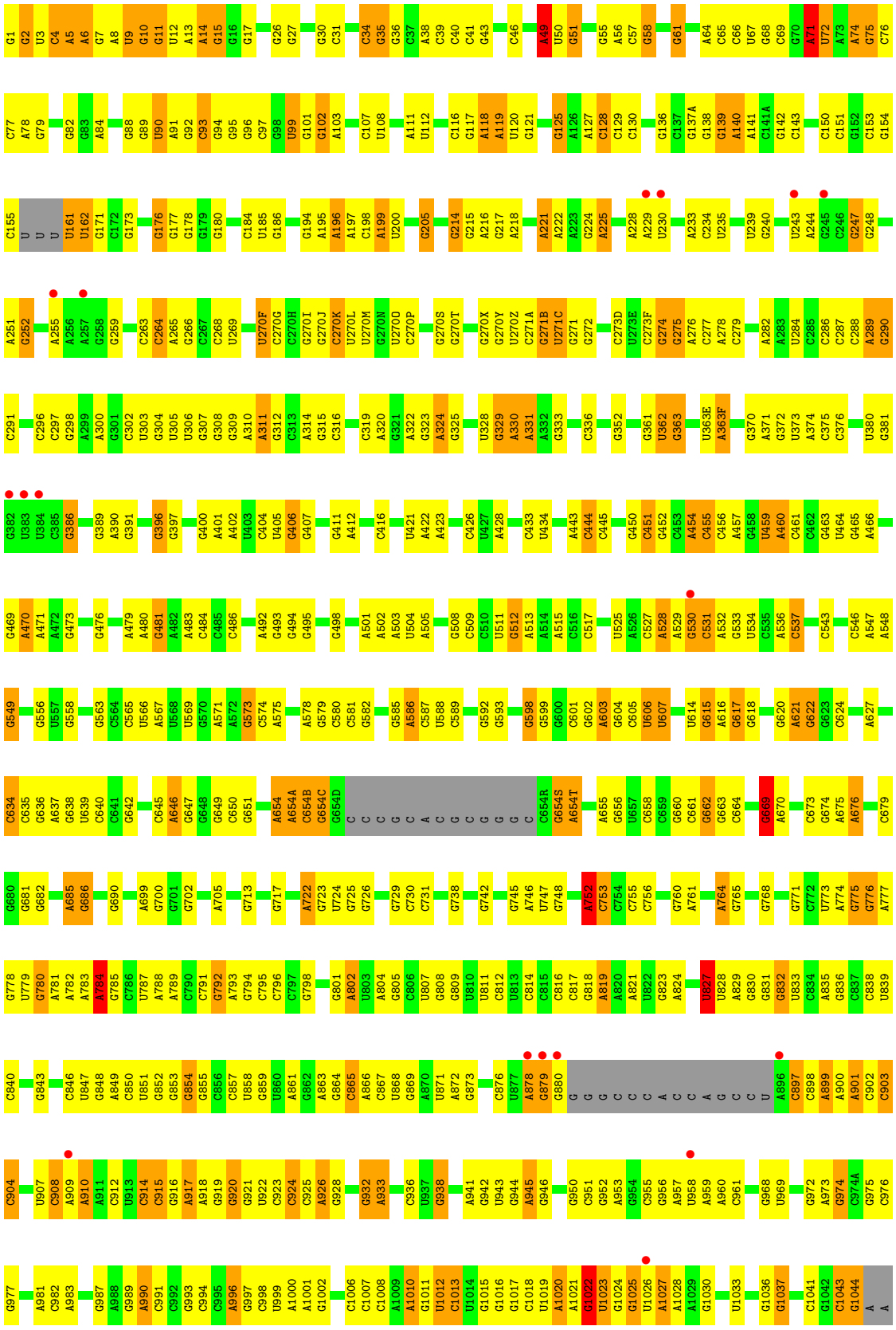


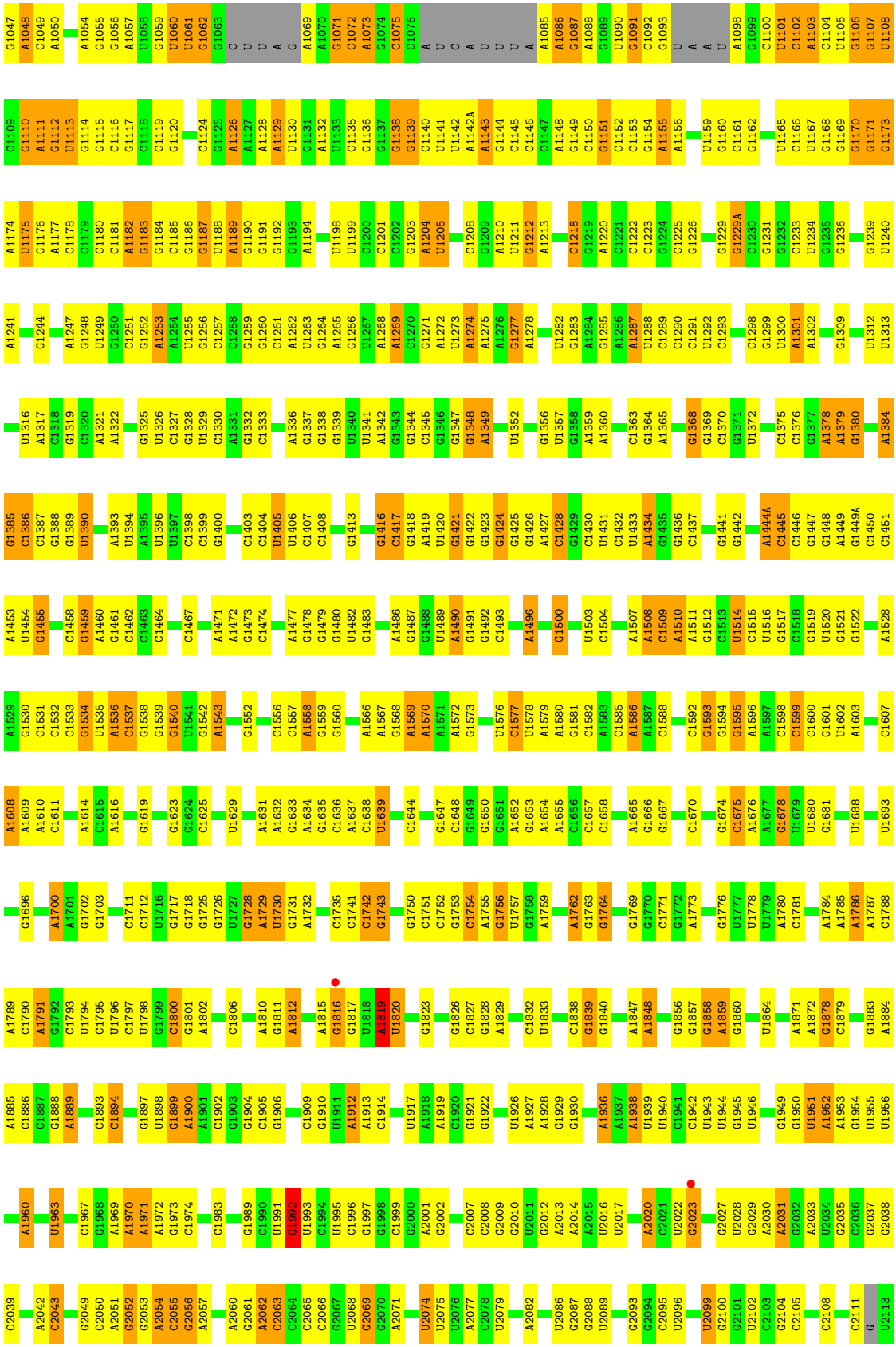


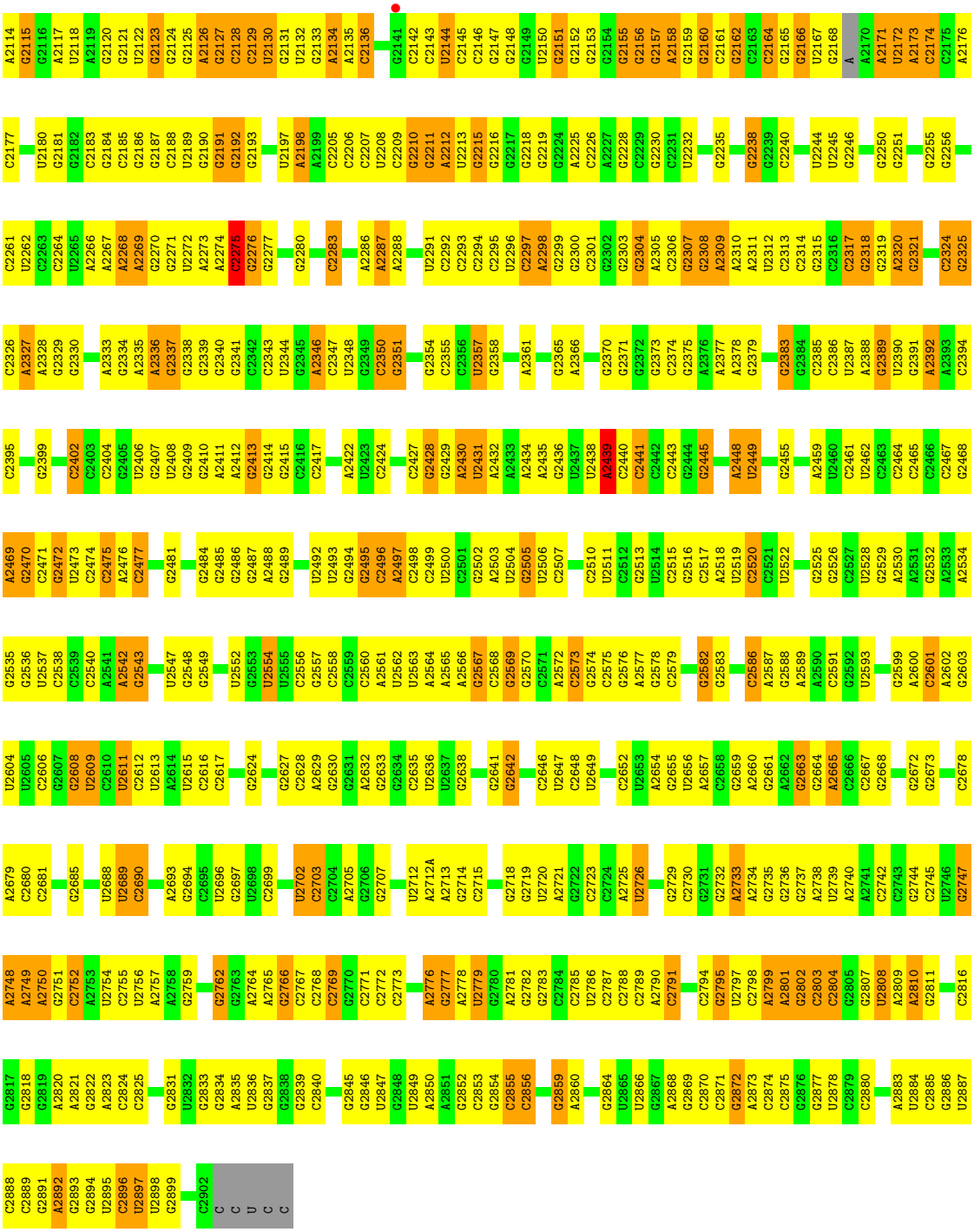


• Molecule 26: 23S ribosomal RNA

Chain 14:

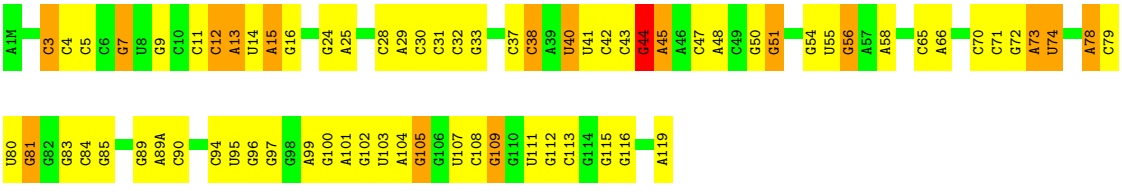






• Molecule 27: 5S ribosomal RNA

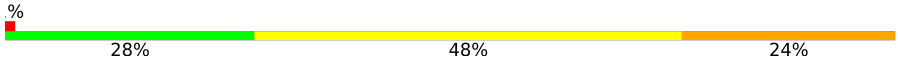
Chain 16:

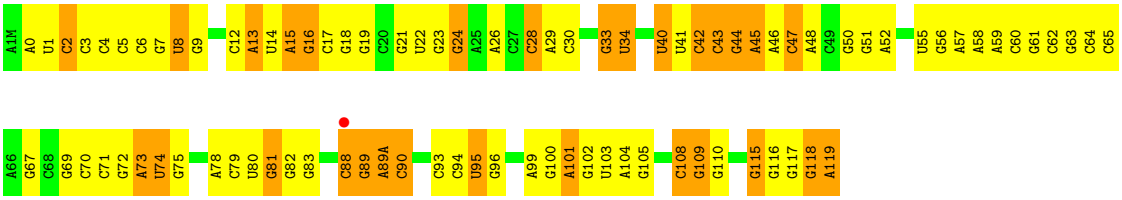


WORLDWIDE PDB PROTEIN DATA BANK

• Molecule 27: 5S ribosomal RNA

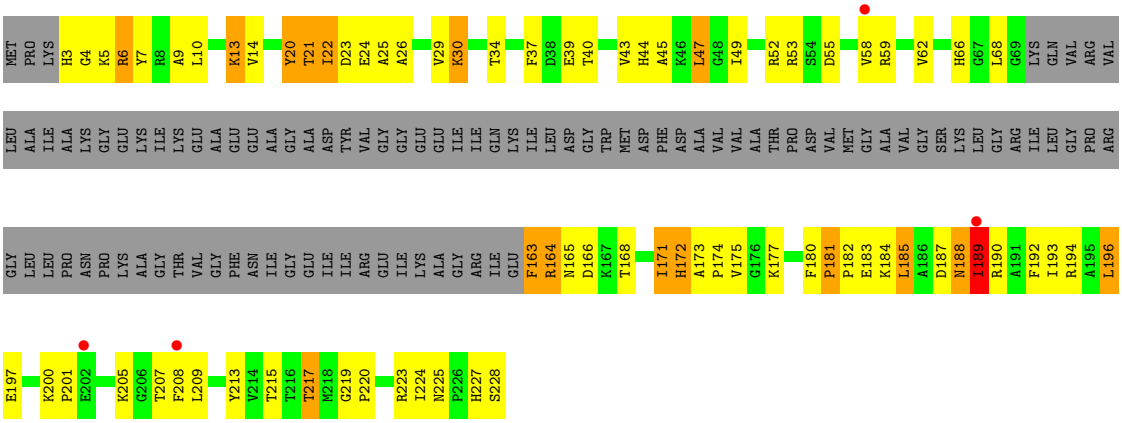
Chain 1J:





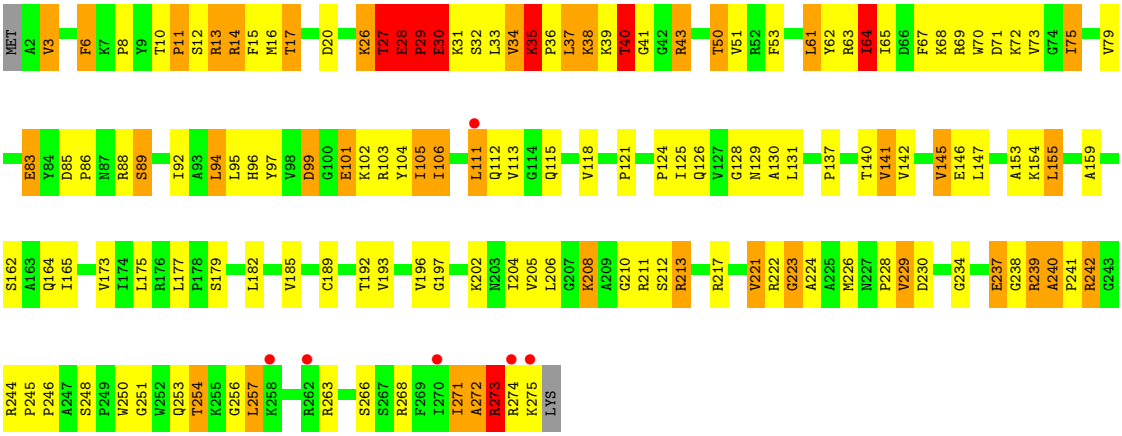
• Molecule 28: 50S ribosomal protein L1

Chain 71:



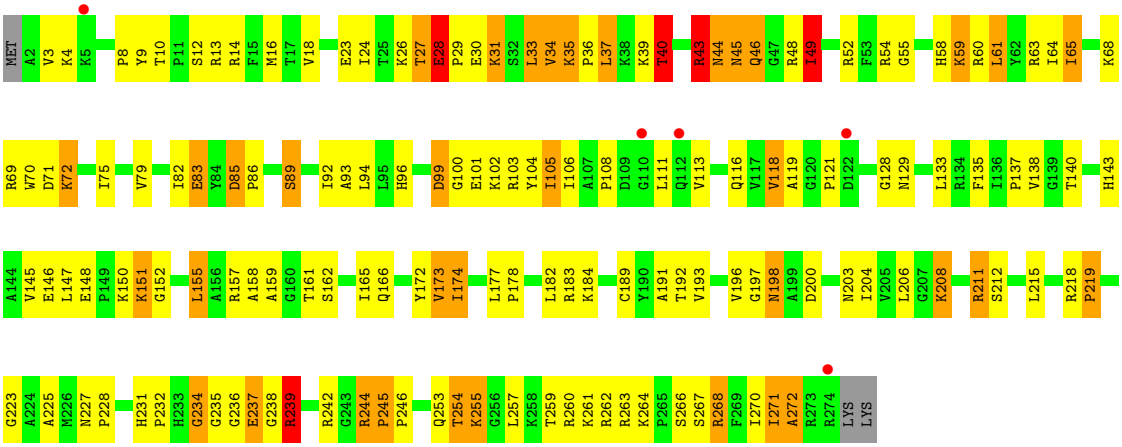
• Molecule 29: 50S ribosomal protein L2

Chain 11:



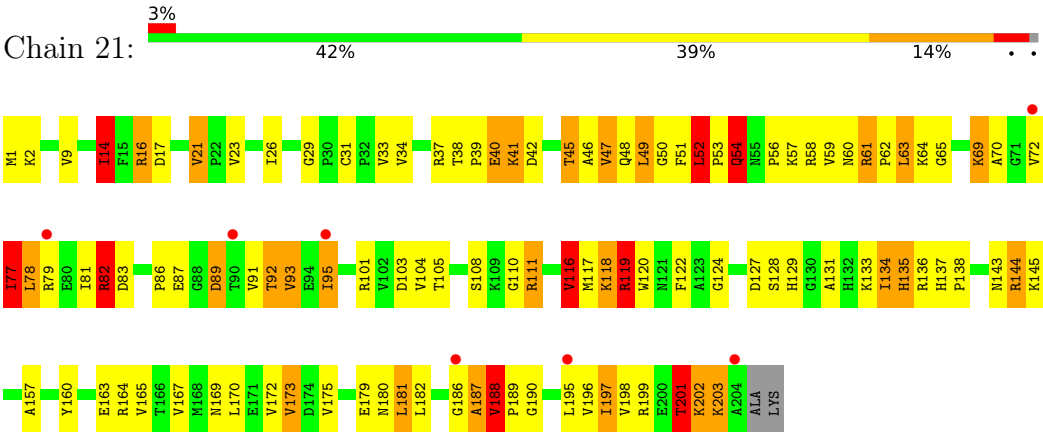
• Molecule 29: 50S ribosomal protein L2

Chain 19:



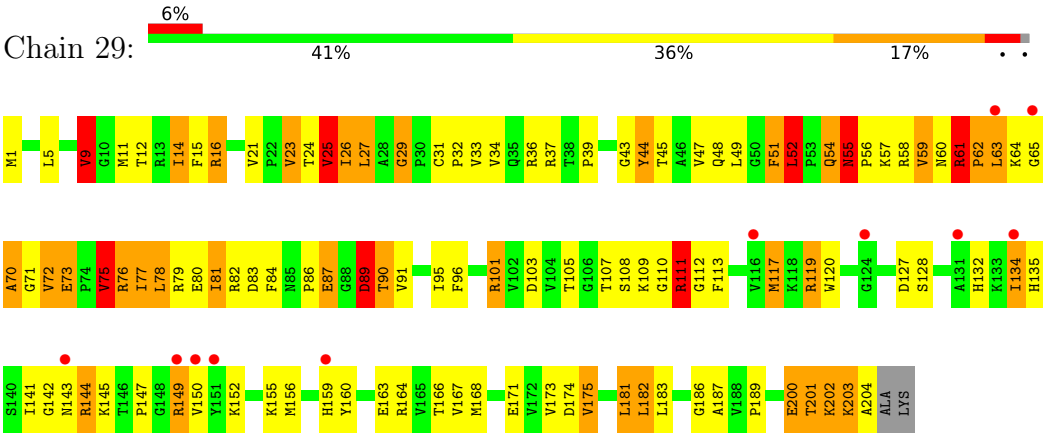
• Molecule 30: 50S ribosomal protein L3

Chain 21:



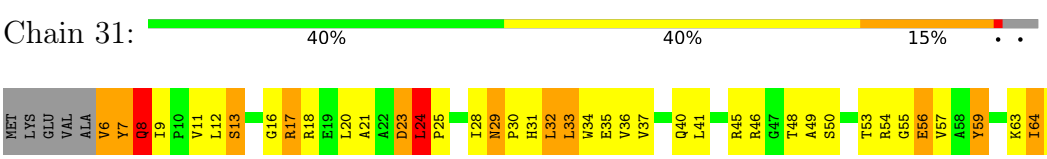
• Molecule 30: 50S ribosomal protein L3

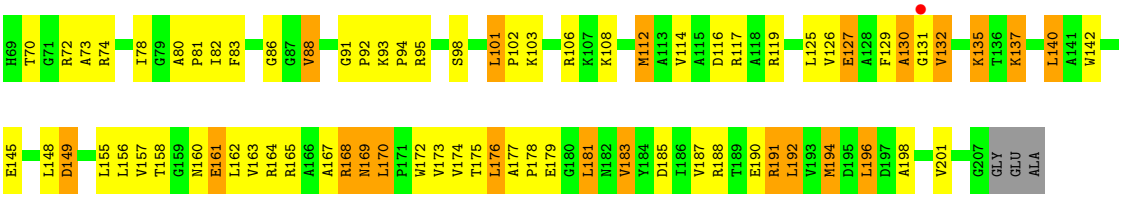
Chain 29:



• Molecule 31: 50S ribosomal protein L4

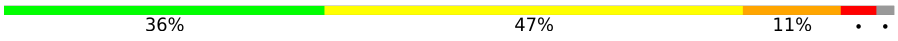
Chain 31:





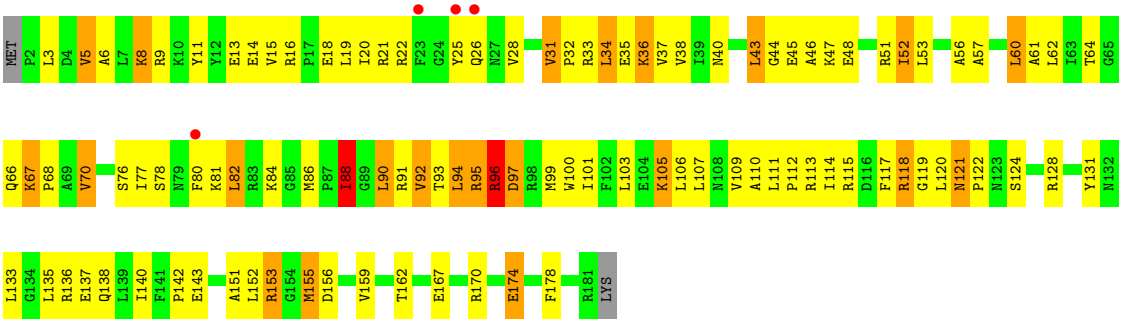
• Molecule 31: 50S ribosomal protein L4

Chain 39:



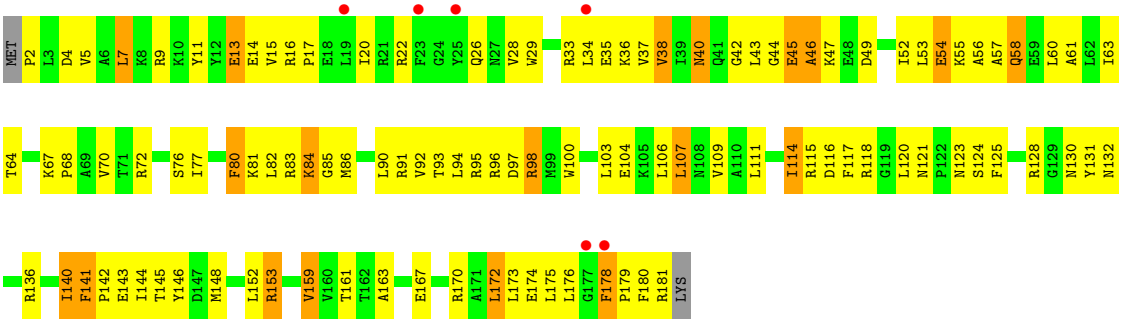
• Molecule 32: 50S ribosomal protein L5

Chain 41:



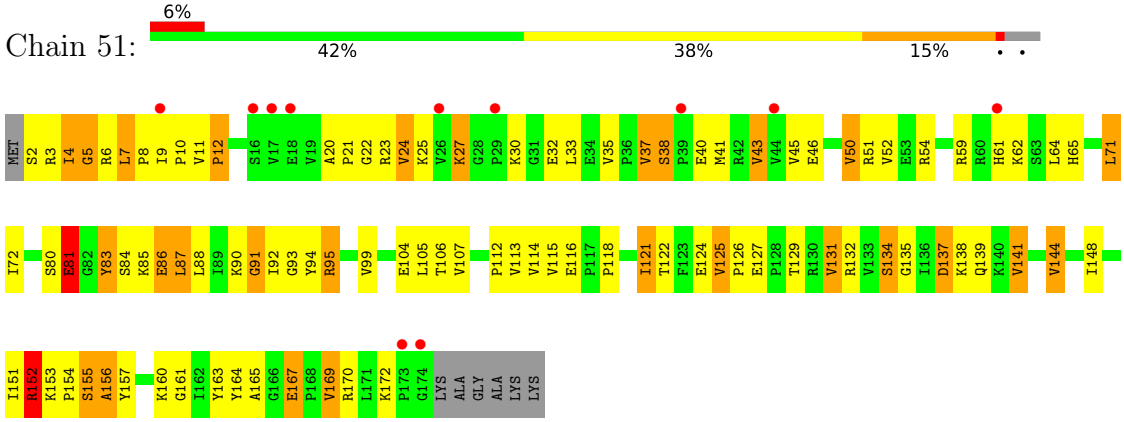
• Molecule 32: 50S ribosomal protein L5

Chain 49:



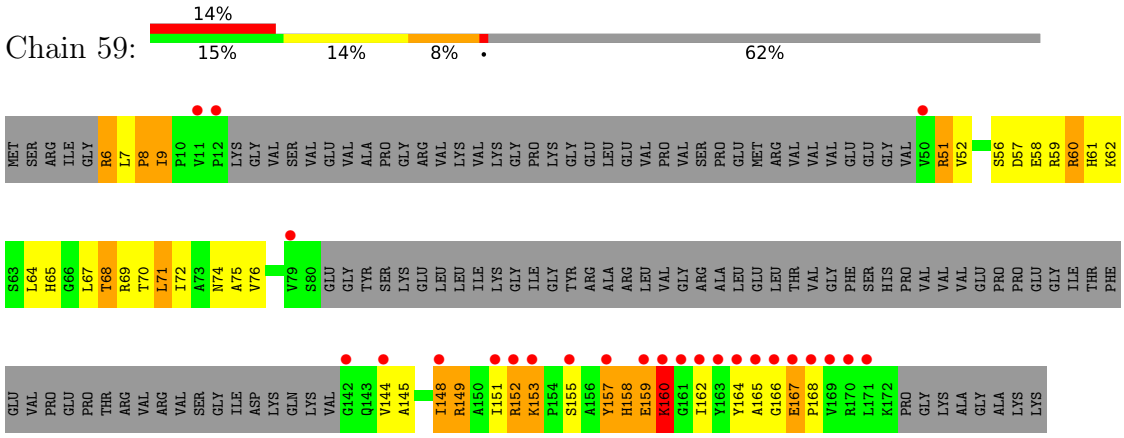
• Molecule 33: 50S ribosomal protein L6

Chain 51:



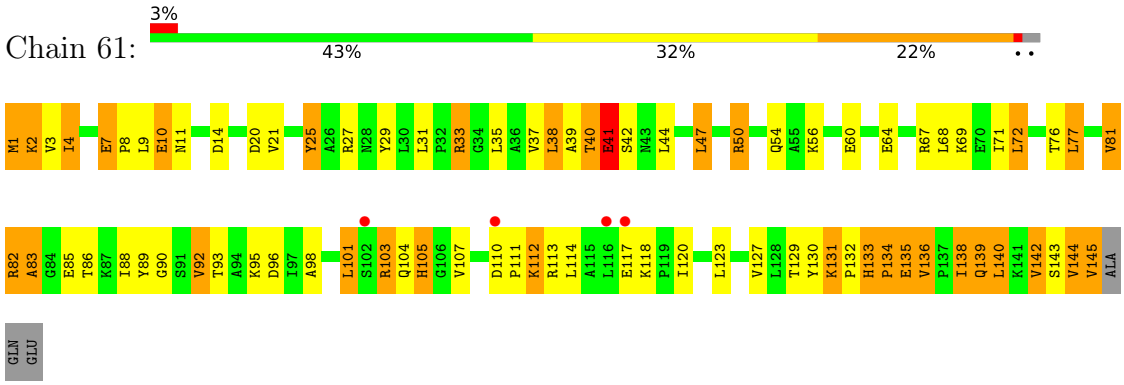
• Molecule 33: 50S ribosomal protein L6

Chain 59:



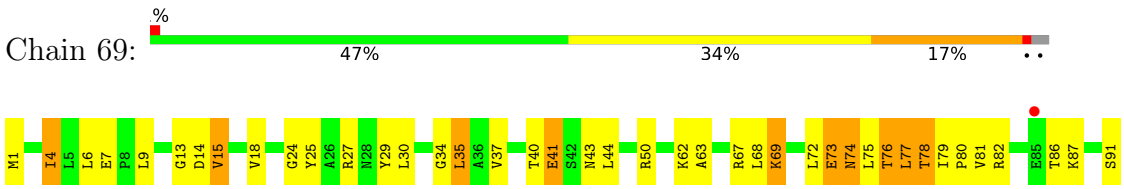
• Molecule 34: 50S ribosomal protein L9

Chain 61:



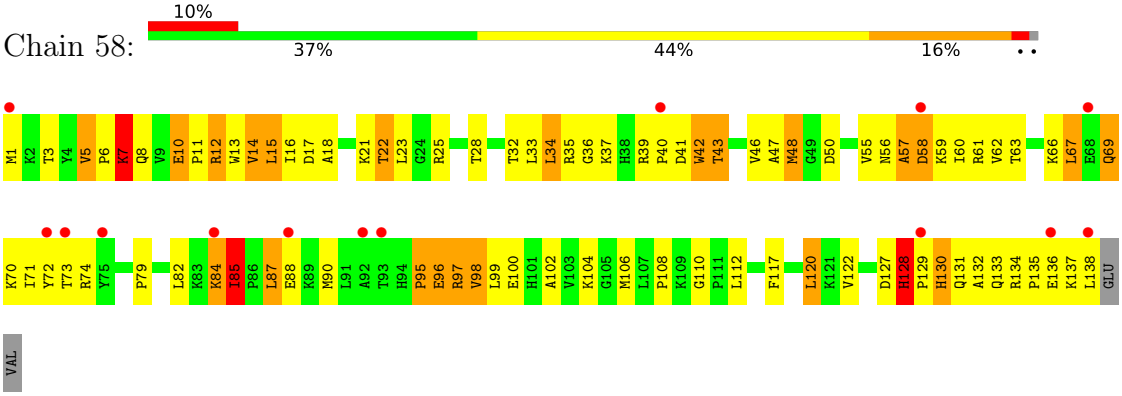
• Molecule 34: 50S ribosomal protein L9

Chain 69:



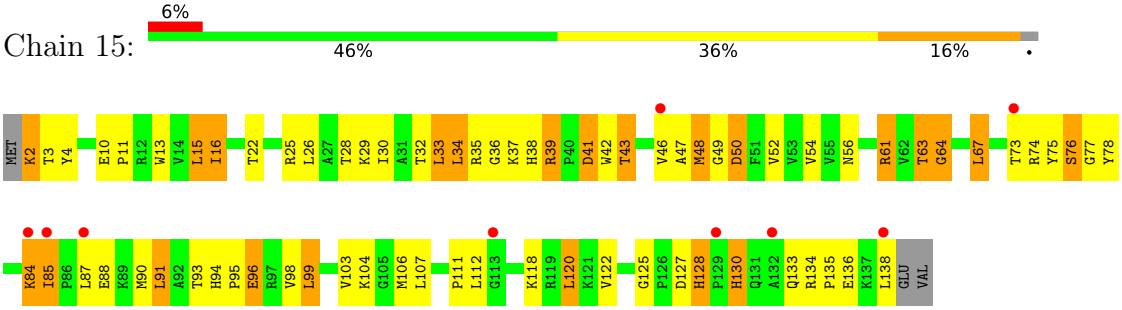
• Molecule 35: 50S ribosomal protein L13

Chain 58:



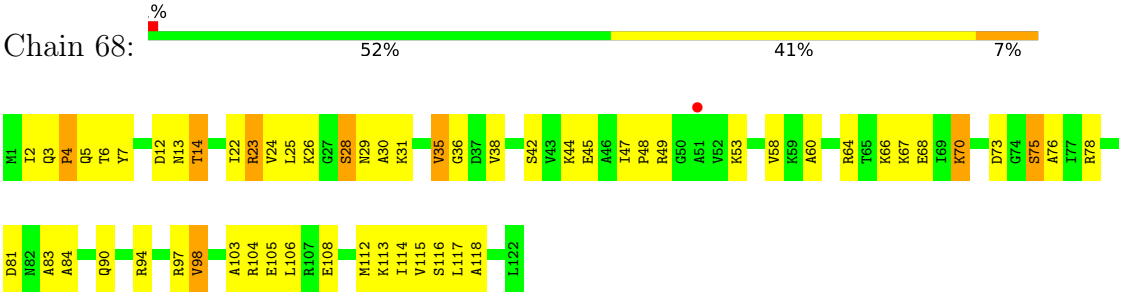
• Molecule 35: 50S ribosomal protein L13

Chain 15:



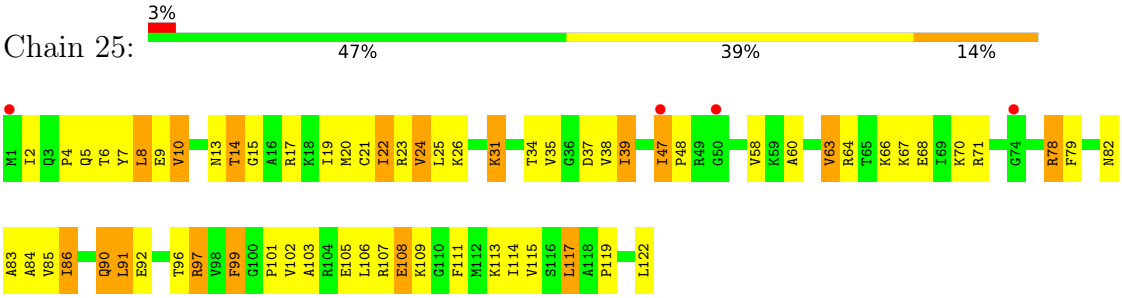
• Molecule 36: 50S ribosomal protein L14

Chain 68:



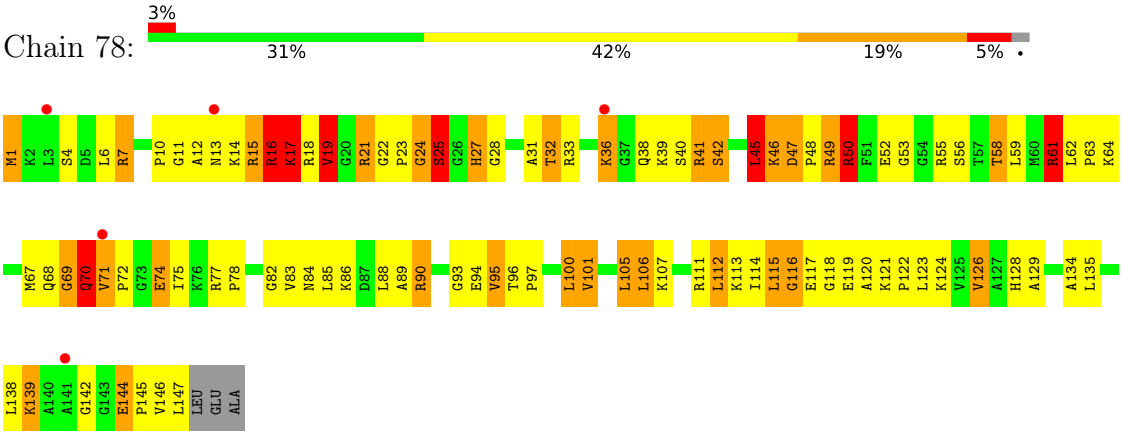
• Molecule 36: 50S ribosomal protein L14

Chain 25:



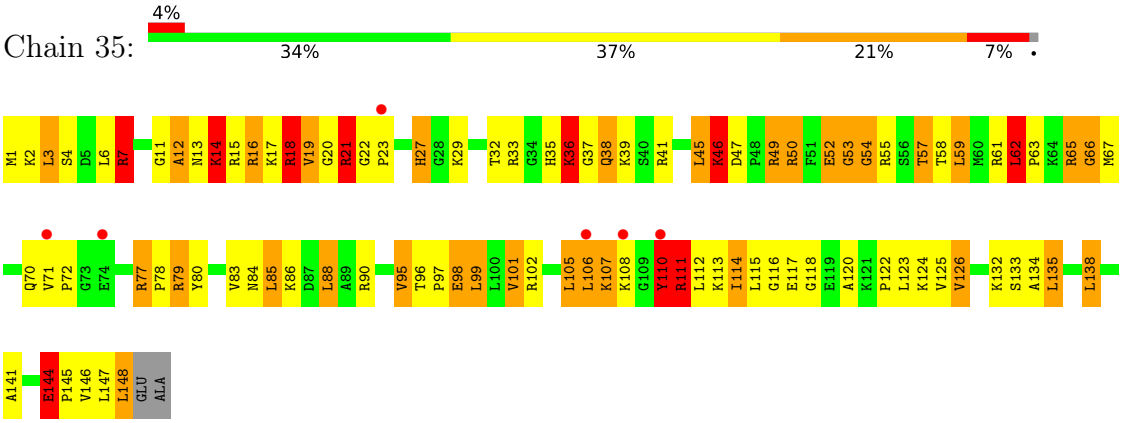
• Molecule 37: 50S ribosomal protein L15

Chain 78:



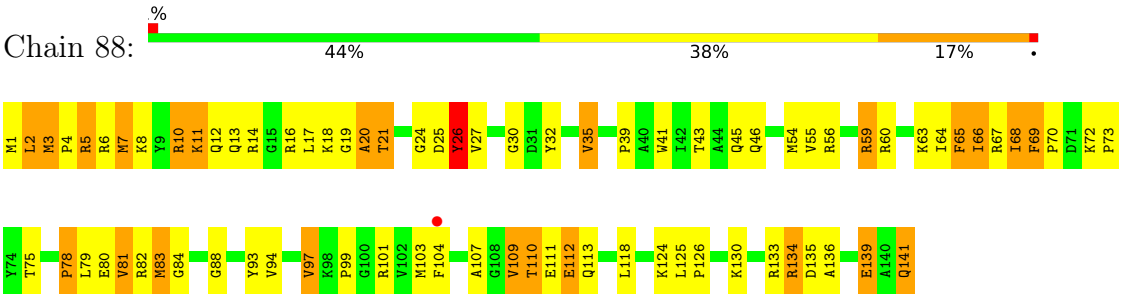
• Molecule 37: 50S ribosomal protein L15

Chain 35:



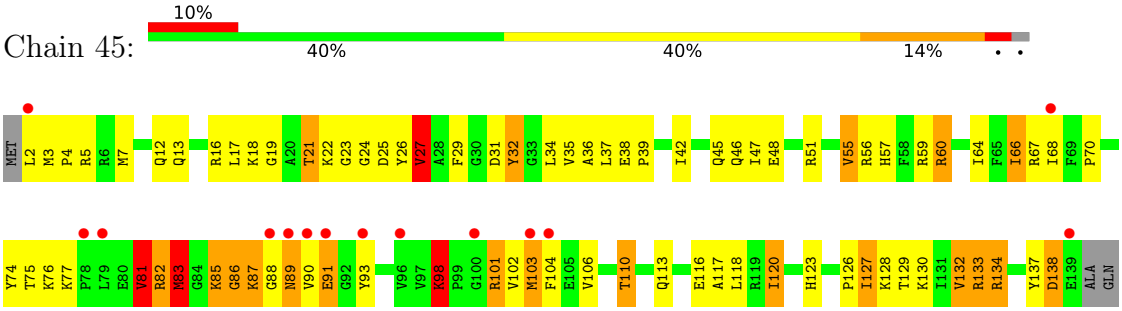
• Molecule 38: 50S ribosomal protein L16

Chain 88:



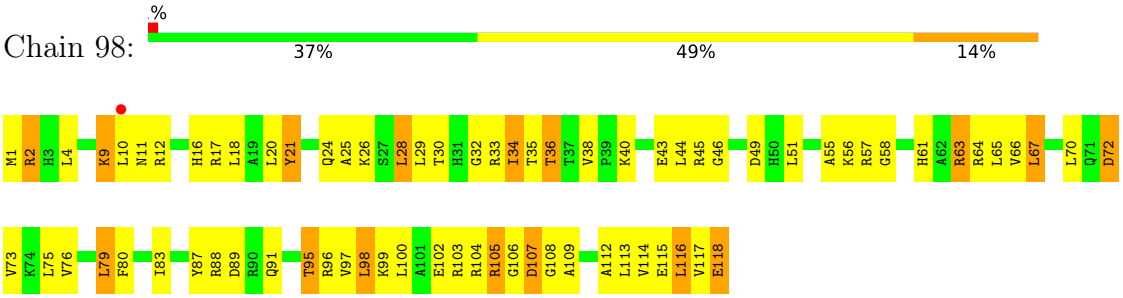
• Molecule 38: 50S ribosomal protein L16

Chain 45:



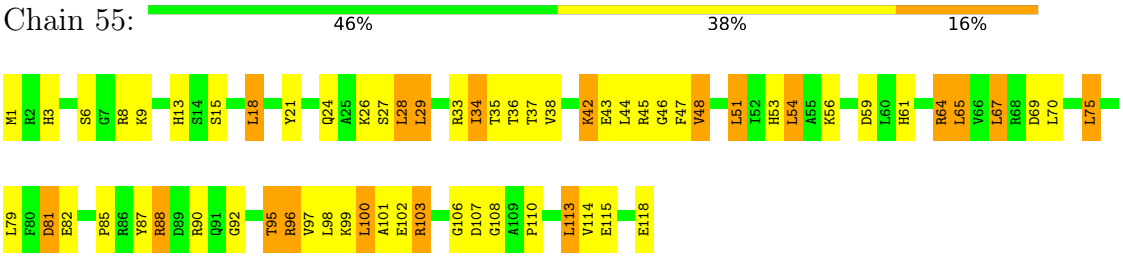
• Molecule 39: 50S ribosomal protein L17

Chain 98:



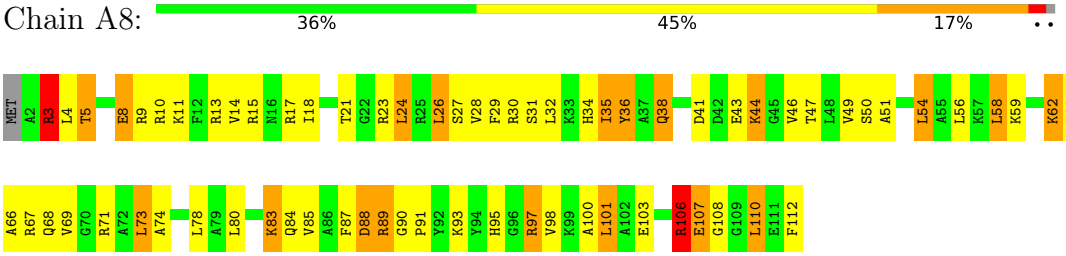
• Molecule 39: 50S ribosomal protein L17

Chain 55:



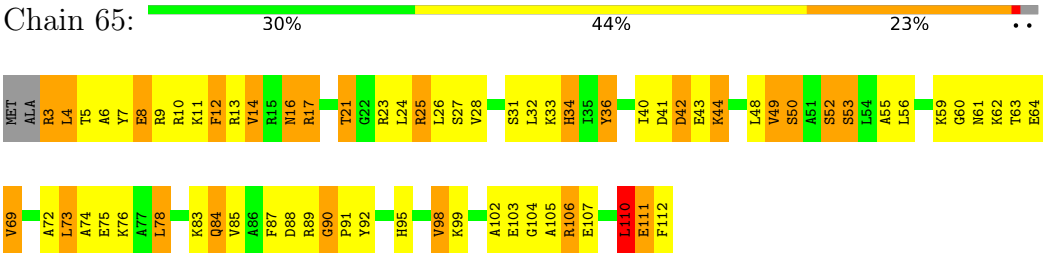
• Molecule 40: 50S ribosomal protein L18

Chain A8:



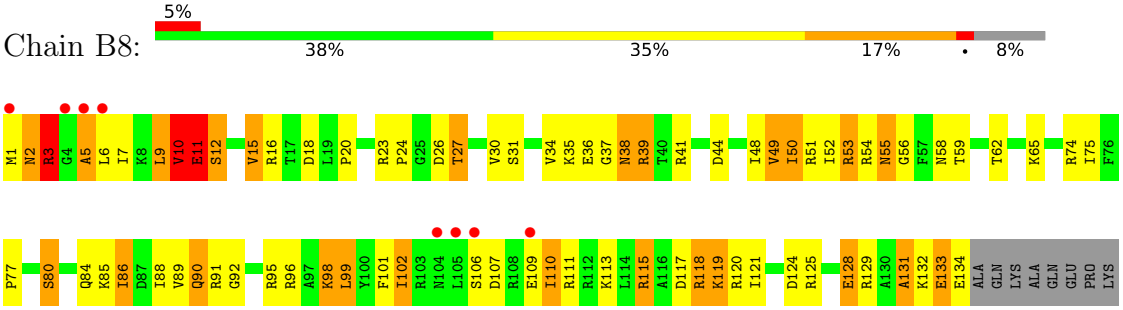
• Molecule 40: 50S ribosomal protein L18

Chain 65:



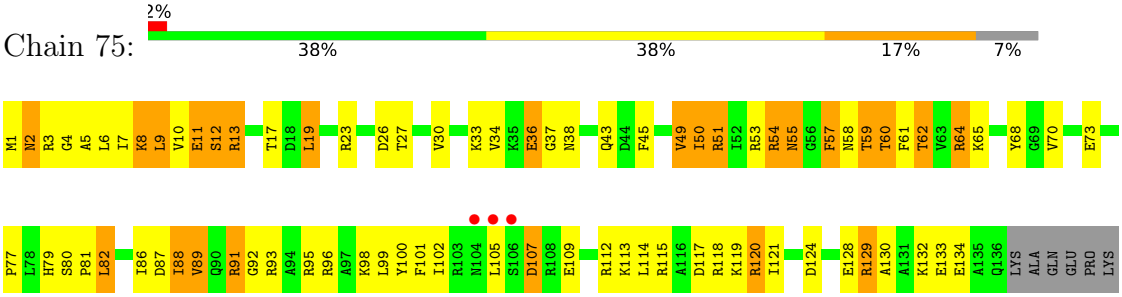
• Molecule 41: 50S ribosomal protein L19

Chain B8:



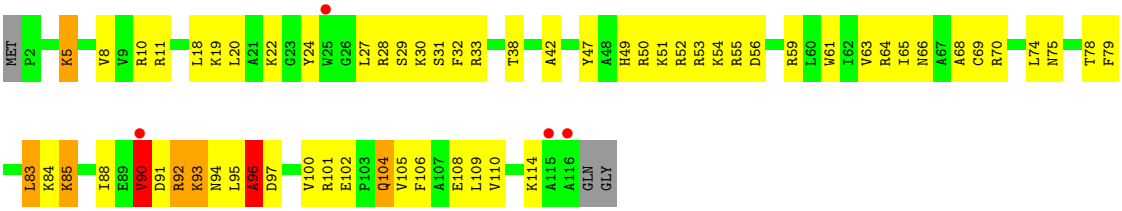
• Molecule 41: 50S ribosomal protein L19

Chain 75:



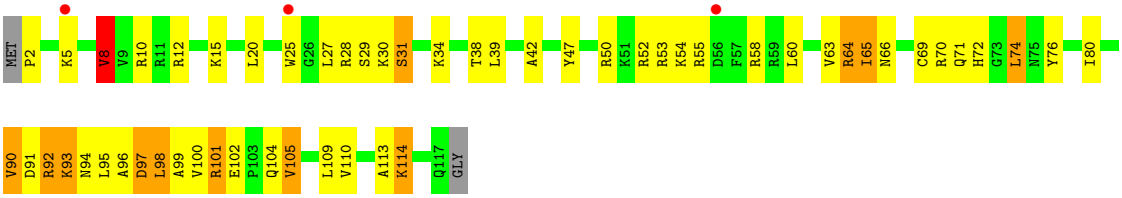
• Molecule 42: 50S ribosomal protein L20

Chain C8:



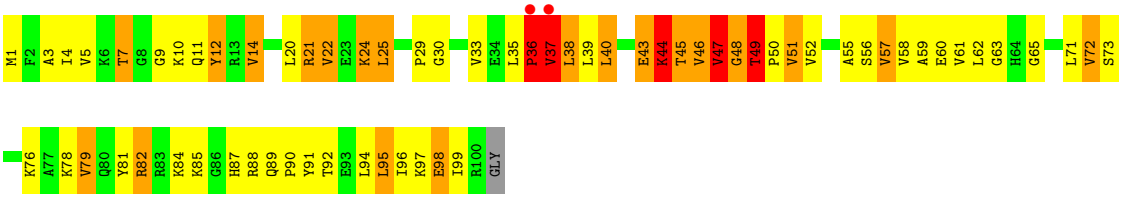
• Molecule 42: 50S ribosomal protein L20

Chain 85:



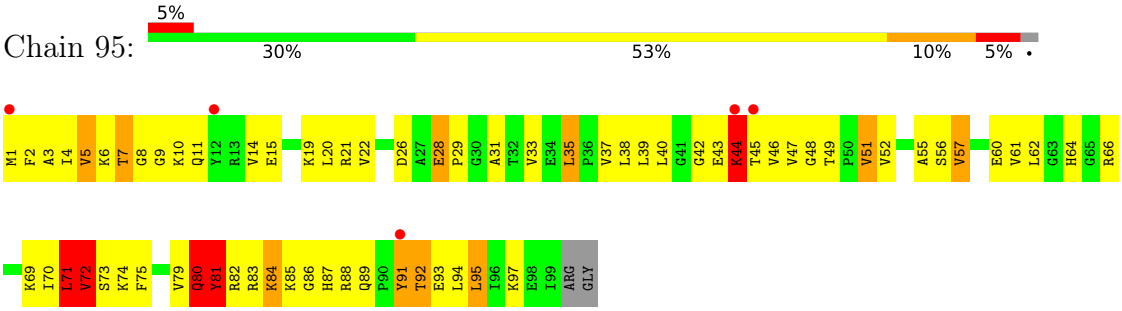
• Molecule 43: 50S ribosomal protein L21

Chain D8:



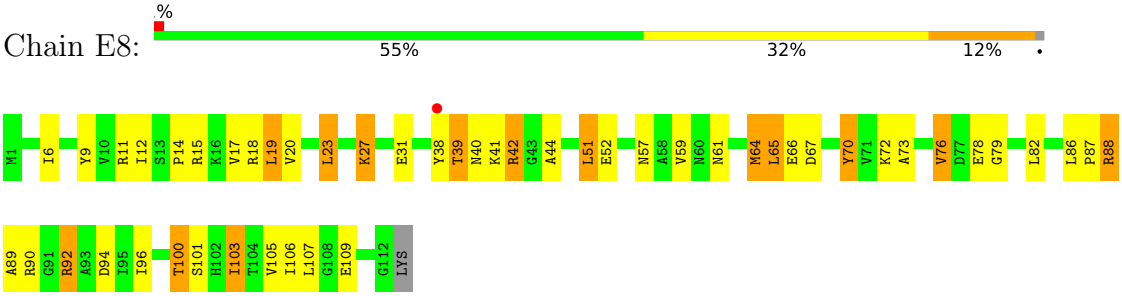
• Molecule 43: 50S ribosomal protein L21

Chain 95:



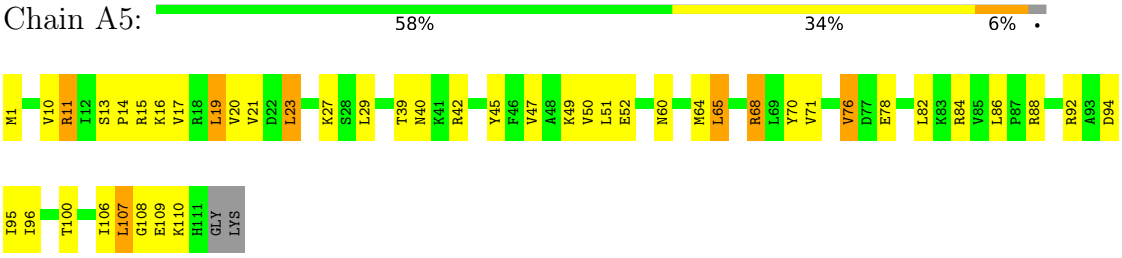
• Molecule 44: 50S ribosomal protein L22

Chain E8:



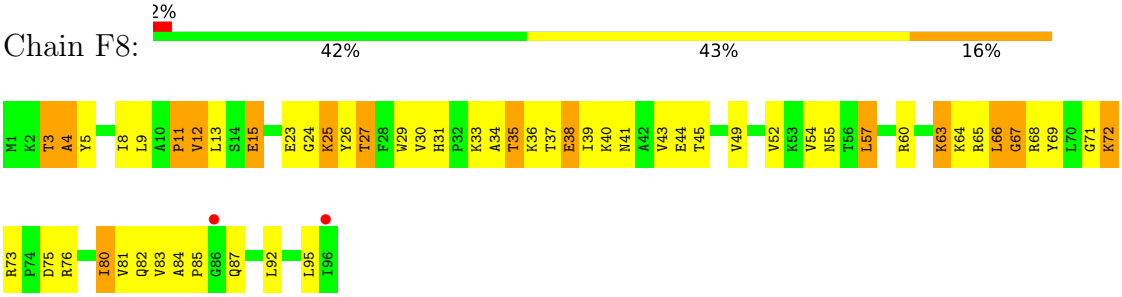
• Molecule 44: 50S ribosomal protein L22

Chain A5:



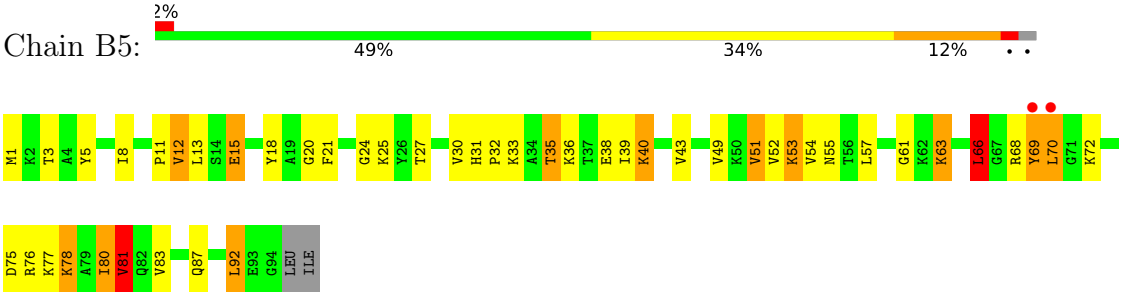
• Molecule 45: 50S ribosomal protein L23

Chain F8:



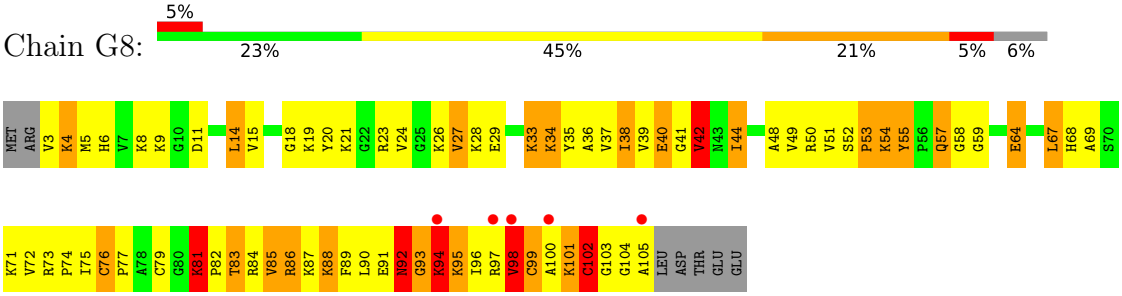
• Molecule 45: 50S ribosomal protein L23

Chain B5:



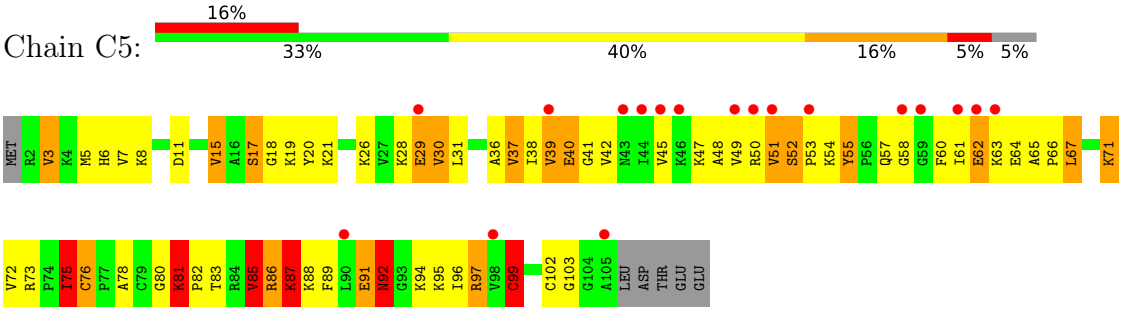
• Molecule 46: 50S ribosomal protein L24

Chain G8:



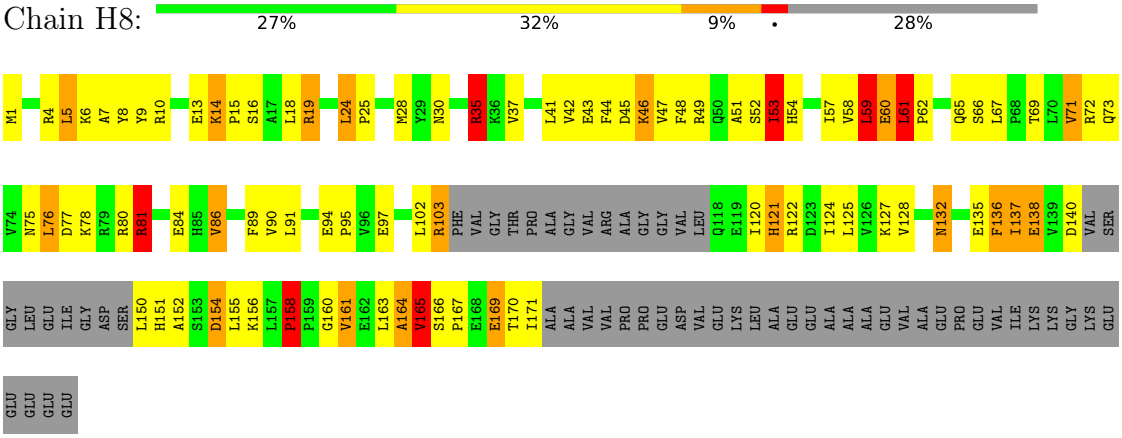
• Molecule 46: 50S ribosomal protein L24

Chain C5:



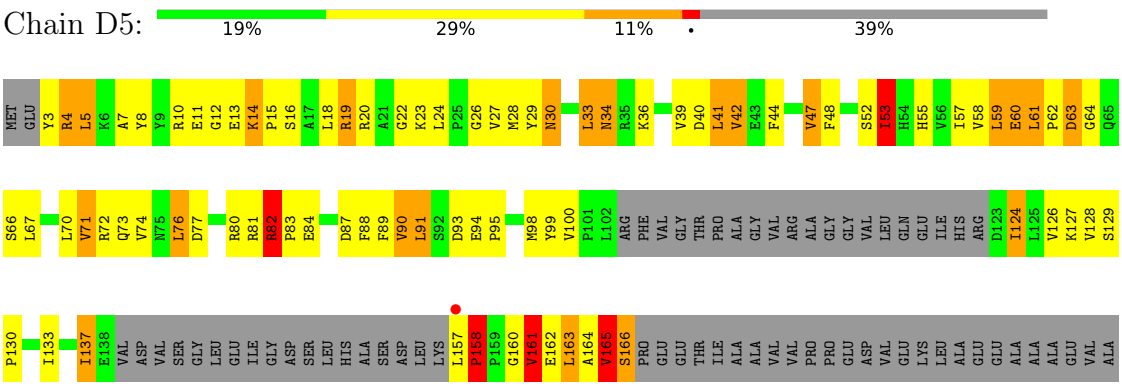
• Molecule 47: 50S ribosomal protein L25

Chain H8:



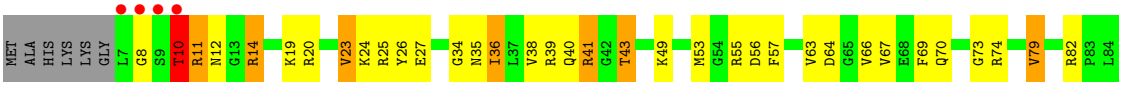
• Molecule 47: 50S ribosomal protein L25

Chain D5:



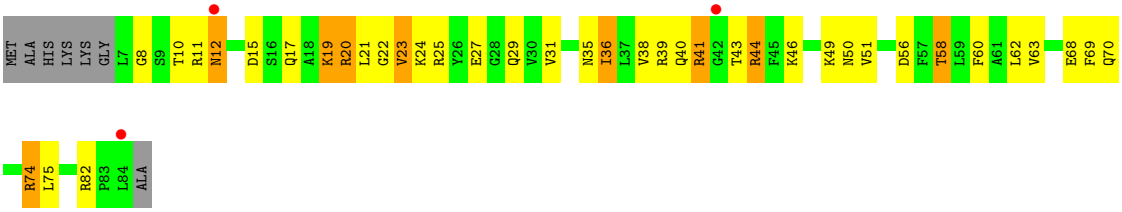
• Molecule 48: 50S ribosomal protein L27

Chain I8:



• Molecule 48: 50S ribosomal protein L27

Chain E5:

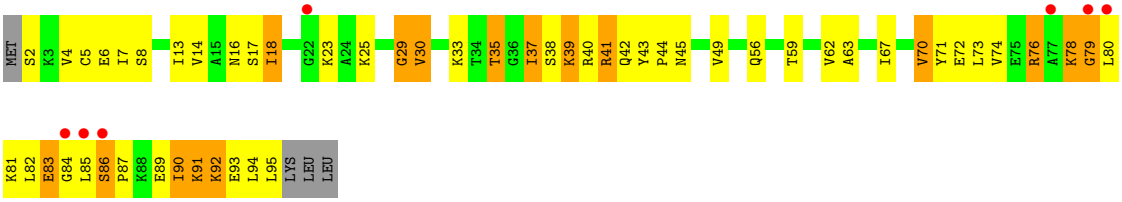


• Molecule 49: 50S ribosomal protein L28

Chain J8:

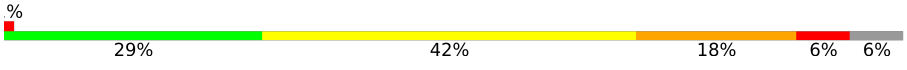
• Molecule 49: 50S ribosomal protein L28

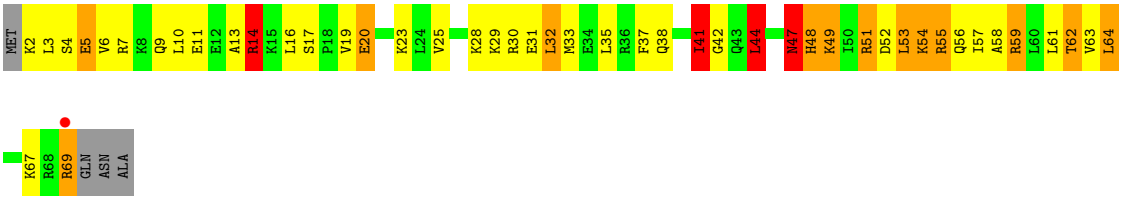
Chain F5:



• Molecule 50: 50S ribosomal protein L29

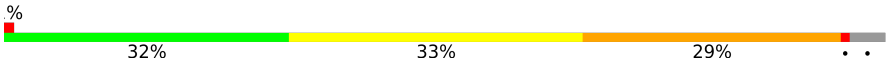
Chain K8:

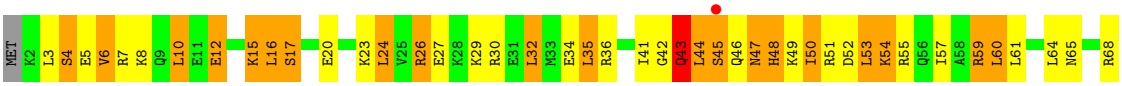




• Molecule 50: 50S ribosomal protein L29

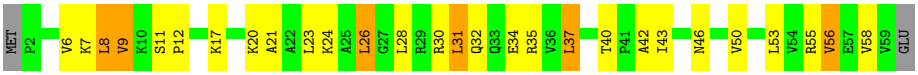
Chain G5:





• Molecule 51: 50S ribosomal protein L30

Chain L8:

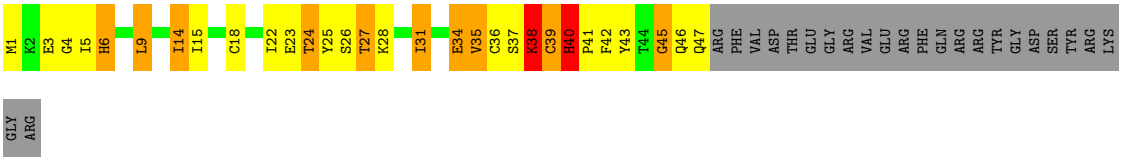


• Molecule 51: 50S ribosomal protein L30

Chain H5:

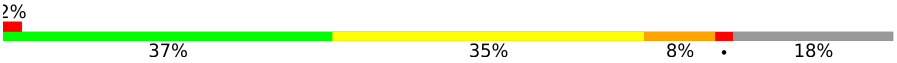
• Molecule 52: 50S ribosomal protein L31

Chain M8:



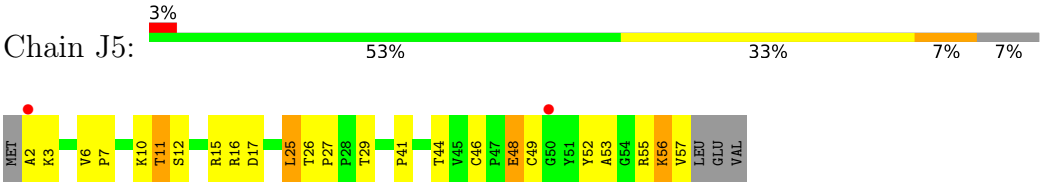
• Molecule 53: 50S ribosomal protein L32

Chain N8:



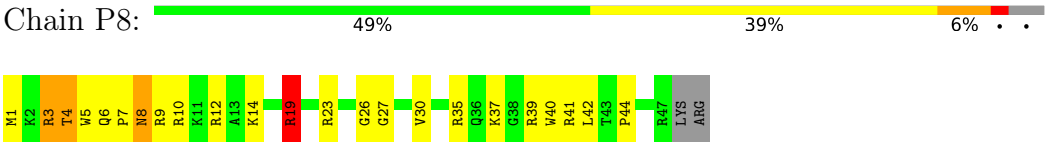
• Molecule 53: 50S ribosomal protein L32

Chain J5:



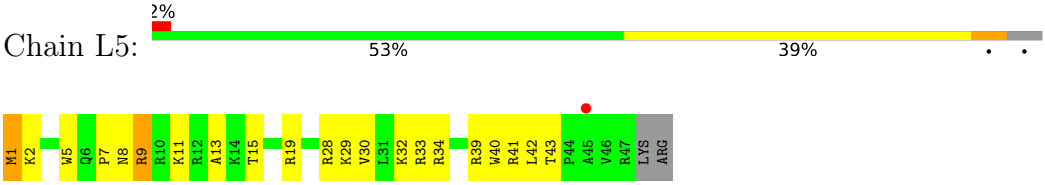
• Molecule 54: 50S ribosomal protein L34

Chain P8:



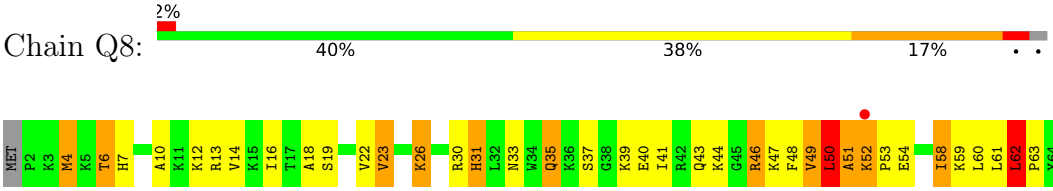
• Molecule 54: 50S ribosomal protein L34

Chain L5:



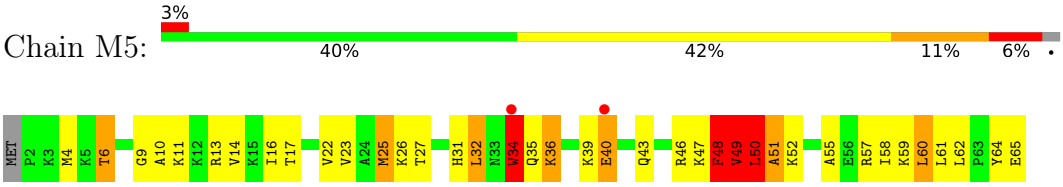
• Molecule 55: 50S ribosomal protein L35

Chain Q8:



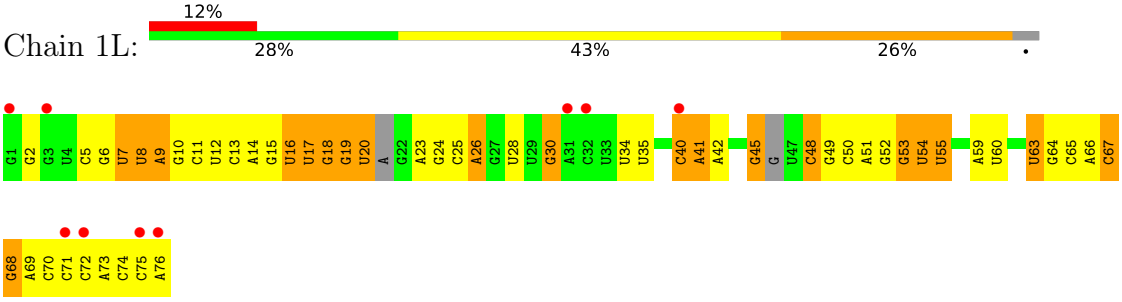
• Molecule 55: 50S ribosomal protein L35

Chain M5:



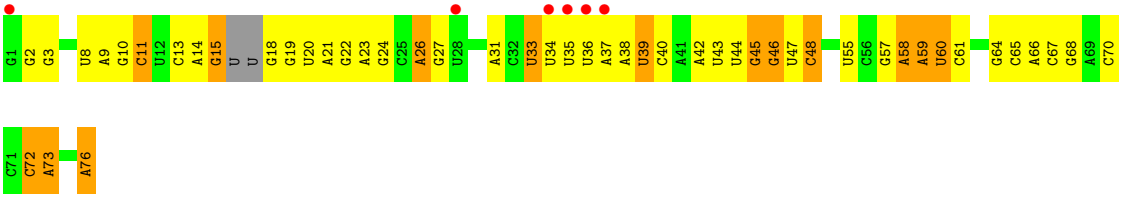
• Molecule 56: tRNA-Lys

Chain 1L:



• Molecule 57: tRNA-Lys

Chain 3L:


G1 G2 G3 U8 A9 G10 C11 U12 C13 A14 G15 U U G18 G19 U20 A21 G22 A23 G24 C25 A26 G27 U28 A31 C32 U33 U34 U35 U36 A37 A38 U39 C40 A41 A42 U43 U44 G45 G46 U47 C48 U55 C56 G57 A58 A59 U60 C61 G64 C65 A66 C67 G68 A69 C70
C71 C72 A73 A76

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	208.90Å 447.80Å 617.50Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	151.53 – 3.15 151.53 – 3.15	Depositor EDS
% Data completeness (in resolution range)	100.0 (151.53-3.15) 93.3 (151.53-3.15)	Depositor EDS
R_{merge}	0.31	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.79 (at 3.13Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.193 , 0.251 0.195 , 0.253	Depositor DCC
R_{free} test set	2000 reflections (0.20%)	wwPDB-VP
Wilson B-factor (Å^2)	85.9	Xtriage
Anisotropy	0.296	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 54.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.44$, $< L^2 > = 0.26$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	294304	wwPDB-VP
Average B, all atoms (Å^2)	106.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.46% 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: ZN, U8U, MG, OMC, T6A, 4SU, 5MU, SF4, PSU, 7MG

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	0.44	0/35994	0.69	11/56171 (0.0%)
1	1G	0.37	0/36258	0.60	4/56589 (0.0%)
2	12	0.67	1/1742 (0.1%)	1.22	21/2346 (0.9%)
2	1E	0.59	0/1908	1.06	8/2573 (0.3%)
3	22	0.59	0/1552	1.08	11/2093 (0.5%)
3	2E	0.68	0/1629	1.03	2/2195 (0.1%)
4	32	0.59	0/1732	1.12	13/2318 (0.6%)
4	3E	0.72	0/1732	1.17	10/2318 (0.4%)
5	42	0.63	0/1138	1.15	9/1532 (0.6%)
5	4E	0.73	0/1158	1.12	7/1559 (0.4%)
6	52	0.64	0/855	1.03	5/1154 (0.4%)
6	5E	0.64	0/850	1.01	1/1147 (0.1%)
7	62	0.59	0/1122	1.15	12/1500 (0.8%)
7	6E	0.59	0/1230	1.04	9/1645 (0.5%)
8	72	0.53	0/1135	0.96	3/1527 (0.2%)
8	7E	0.63	0/1135	1.10	5/1527 (0.3%)
9	82	0.57	0/1002	1.00	5/1346 (0.4%)
9	8E	0.62	0/1024	1.04	2/1374 (0.1%)
10	1A	0.64	0/636	1.05	4/855 (0.5%)
10	1I	0.67	0/747	1.11	5/1006 (0.5%)
11	2A	0.66	0/850	1.10	3/1150 (0.3%)
11	2I	0.73	0/838	1.21	10/1133 (0.9%)
12	3A	0.72	0/963	1.07	2/1290 (0.2%)
12	3I	0.96	1/972 (0.1%)	1.36	8/1301 (0.6%)
13	4A	0.65	0/898	1.09	9/1204 (0.7%)
13	4I	0.69	0/938	1.11	5/1258 (0.4%)
14	5A	0.60	0/475	1.14	2/632 (0.3%)
14	5I	0.72	2/505 (0.4%)	1.09	2/671 (0.3%)
15	6A	0.56	0/740	0.95	1/987 (0.1%)
15	6I	0.66	0/744	1.04	1/992 (0.1%)
16	7A	0.60	0/721	1.09	5/970 (0.5%)
16	7I	0.63	0/687	1.15	6/925 (0.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.58	0/836	0.97	3/1117 (0.3%)
17	8I	0.75	0/836	1.13	7/1117 (0.6%)
18	9A	0.62	0/549	1.00	0/732
18	9I	0.67	0/549	1.07	1/732 (0.1%)
19	AA	0.57	0/480	1.13	2/648 (0.3%)
19	AI	0.73	1/657 (0.2%)	1.23	5/885 (0.6%)
20	BA	0.62	0/759	1.02	2/1000 (0.2%)
20	BI	0.60	0/748	1.03	4/986 (0.4%)
21	1B	0.53	0/212	0.87	0/277
21	1F	0.51	0/203	0.94	0/266
22	1K	0.38	0/1516	0.56	0/2350
23	2K	0.47	0/1721	0.69	0/2682
23	2L	0.39	0/1698	0.62	0/2644
24	3K	0.37	0/1799	0.57	0/2801
25	4K	0.47	0/495	0.66	0/771
25	4L	0.38	0/420	0.53	0/654
26	14	0.51	0/69023	0.76	21/107740 (0.0%)
26	1H	0.58	0/68351	0.83	25/106700 (0.0%)
27	16	0.47	0/2928	0.76	1/4568 (0.0%)
27	1J	0.41	0/2928	0.68	0/4568
28	71	0.79	1/1055 (0.1%)	1.17	8/1425 (0.6%)
29	11	1.05	4/2175 (0.2%)	1.49	37/2933 (1.3%)
29	19	1.04	6/2170 (0.3%)	1.48	31/2926 (1.1%)
30	21	0.88	2/1596 (0.1%)	1.48	27/2153 (1.3%)
30	29	0.86	1/1596 (0.1%)	1.41	23/2153 (1.1%)
31	31	0.95	1/1620 (0.1%)	1.33	17/2194 (0.8%)
31	39	0.79	1/1641 (0.1%)	1.27	15/2223 (0.7%)
32	41	0.68	0/1489	1.08	6/2005 (0.3%)
32	49	0.54	0/1489	1.17	11/2005 (0.5%)
33	51	0.79	0/1353	1.34	19/1830 (1.0%)
33	59	0.75	0/548	1.35	7/738 (0.9%)
34	61	0.68	0/1146	1.10	12/1551 (0.8%)
34	69	0.65	0/1146	1.12	9/1551 (0.6%)
35	15	0.65	1/1123 (0.1%)	1.12	5/1515 (0.3%)
35	58	0.81	0/1131	1.27	14/1525 (0.9%)
36	25	0.78	0/942	1.19	6/1269 (0.5%)
36	68	0.85	0/942	1.18	3/1269 (0.2%)
37	35	0.88	1/1147 (0.1%)	1.54	26/1525 (1.7%)
37	78	0.96	1/1139 (0.1%)	1.48	19/1514 (1.3%)
38	45	0.85	2/1120 (0.2%)	1.27	10/1498 (0.7%)
38	88	0.97	1/1134 (0.1%)	1.34	13/1519 (0.9%)
39	55	0.83	0/981	1.08	0/1312
39	98	0.82	1/981 (0.1%)	1.15	4/1312 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
40	65	0.69	0/886	1.19	7/1180 (0.6%)
40	A8	0.83	0/891	1.21	3/1187 (0.3%)
41	75	0.78	0/1146	1.21	3/1531 (0.2%)
41	B8	0.88	0/1132	1.33	10/1512 (0.7%)
42	85	0.74	0/977	1.08	2/1301 (0.2%)
42	C8	0.89	1/968 (0.1%)	1.14	3/1289 (0.2%)
43	95	0.96	3/774 (0.4%)	1.35	6/1038 (0.6%)
43	D8	0.87	0/785	1.26	8/1052 (0.8%)
44	A5	0.82	0/897	1.11	2/1204 (0.2%)
44	E8	0.92	0/901	1.18	2/1209 (0.2%)
45	B5	0.92	0/752	1.24	4/1010 (0.4%)
45	F8	0.99	0/765	1.27	5/1029 (0.5%)
46	C5	0.87	0/807	1.24	5/1076 (0.5%)
46	G8	1.04	3/796 (0.4%)	1.58	19/1062 (1.8%)
47	D5	0.64	0/1057	1.24	7/1430 (0.5%)
47	H8	0.68	1/1248 (0.1%)	1.14	8/1687 (0.5%)
48	E5	0.79	0/624	1.34	9/832 (1.1%)
48	I8	0.98	1/624 (0.2%)	1.23	1/832 (0.1%)
49	F5	0.86	0/744	1.21	4/989 (0.4%)
49	J8	0.88	1/744 (0.1%)	1.30	5/989 (0.5%)
50	G5	0.71	0/575	1.22	3/762 (0.4%)
50	K8	0.90	0/573	1.19	5/759 (0.7%)
51	H5	0.64	0/464	1.13	2/623 (0.3%)
51	L8	0.77	0/464	1.26	2/623 (0.3%)
52	M8	0.70	0/375	1.29	7/507 (1.4%)
53	J5	0.81	1/448 (0.2%)	1.32	4/606 (0.7%)
53	N8	0.93	0/394	1.40	5/534 (0.9%)
54	L5	0.91	0/409	1.30	1/540 (0.2%)
54	P8	1.08	0/409	1.34	2/540 (0.4%)
55	M5	1.00	0/524	1.26	3/691 (0.4%)
55	Q8	1.02	0/524	1.53	7/691 (1.0%)
56	1L	0.36	0/1705	0.53	0/2649
57	3L	0.33	0/1732	0.50	0/2695
All	All	0.59	39/316396 (0.0%)	0.88	748/474130 (0.2%)

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	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	1
4	32	0	2
4	3E	0	4
7	62	0	1
7	6E	0	1
10	1A	0	1
12	3A	0	2
12	3I	0	2
13	4I	0	2
14	5A	0	1
19	AA	0	1
19	AI	0	3
28	71	0	1
29	11	0	4
29	19	0	2
30	21	0	2
30	29	0	6
31	31	0	2
31	39	0	6
32	41	0	1
32	49	0	2
33	51	0	3
33	59	0	1
34	61	0	3
34	69	0	1
35	58	0	1
37	35	0	10
37	78	0	7
38	45	0	4
38	88	0	1
40	65	0	1
40	A8	0	1
41	75	0	3
41	B8	0	4
42	85	0	2
42	C8	0	3
43	D8	0	3
45	B5	0	3
45	F8	0	1
46	C5	0	4
46	G8	0	2
47	D5	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
47	H8	0	2
50	G5	0	3
52	M8	0	2
55	M5	0	2
55	Q8	0	2
All	All	0	119

All (39) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	71	189	ILE	CA-CB	10.59	1.68	1.54
29	19	40	THR	CA-C	8.37	1.62	1.52
43	95	80	GLN	CA-C	8.07	1.63	1.52
29	19	34	VAL	CA-CB	7.58	1.63	1.53
29	19	272	ALA	CA-CB	-7.49	1.48	1.54
29	19	27	THR	CA-CB	7.46	1.62	1.53
29	19	271	ILE	CA-C	7.33	1.62	1.52
29	11	271	ILE	CA-C	6.54	1.61	1.52
29	11	34	VAL	CA-CB	6.12	1.62	1.54
38	45	27	VAL	CA-CB	6.12	1.62	1.54
39	98	107	ASP	CA-C	-6.06	1.47	1.52
29	11	272	ALA	CA-C	6.01	1.60	1.52
31	39	28	ILE	CA-CB	5.96	1.62	1.54
37	35	18	ARG	CA-C	5.91	1.60	1.52
2	12	212	GLN	N-CA	5.89	1.53	1.46
46	G8	83	THR	CA-CB	5.86	1.62	1.53
29	11	40	THR	N-CA	5.77	1.53	1.46
47	H8	165	VAL	CA-CB	5.76	1.62	1.54
37	78	16	ARG	CA-C	5.67	1.60	1.52
35	15	75	TYR	CA-C	5.63	1.59	1.52
38	45	82	ARG	CA-C	5.63	1.59	1.52
43	95	72	VAL	CA-CB	5.44	1.61	1.54
42	C8	96	ALA	CA-CB	-5.43	1.45	1.53
53	J5	27	PRO	CA-C	5.39	1.54	1.51
30	21	119	ARG	CA-C	-5.37	1.48	1.53
38	88	135	ASP	CA-C	-5.36	1.45	1.52
14	5I	13	THR	CA-CB	5.32	1.59	1.53
43	95	81	TYR	N-CA	5.32	1.52	1.45
30	21	135	HIS	CA-CB	-5.32	1.45	1.53
12	3I	86	ARG	CA-C	-5.31	1.46	1.52
30	29	75	VAL	CA-CB	5.27	1.60	1.54
19	AI	41	VAL	CA-CB	5.25	1.60	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	G8	98	VAL	CA-CB	5.24	1.61	1.54
48	I8	79	VAL	CA-CB	5.23	1.60	1.54
49	J8	7	ILE	CA-CB	-5.15	1.50	1.55
29	19	272	ALA	CA-C	5.15	1.58	1.53
46	G8	83	THR	CA-C	5.09	1.60	1.53
14	5I	2	ALA	CA-C	5.07	1.59	1.52
31	31	73	ALA	CA-CB	-5.06	1.46	1.53

All (748) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	19	272	ALA	N-CA-C	14.46	125.12	108.49
29	19	235	GLY	N-CA-C	14.44	126.77	112.04
30	21	73	GLU	CA-C-N	13.99	134.16	119.89
30	21	73	GLU	C-N-CA	13.99	134.16	119.89
47	D5	157	LEU	CA-C-N	13.81	134.60	120.38
47	D5	157	LEU	C-N-CA	13.81	134.60	120.38
34	69	143	SER	N-CA-C	12.51	125.71	110.19
5	42	23	GLY	N-CA-C	12.42	126.18	110.29
29	19	271	ILE	N-CA-C	12.28	123.84	112.17
29	11	271	ILE	N-CA-C	11.56	123.15	112.17
43	95	49	THR	CA-C-N	-11.55	106.26	118.85
43	95	49	THR	C-N-CA	-11.55	106.26	118.85
55	Q8	62	LEU	CA-C-N	-11.24	105.79	119.84
55	Q8	62	LEU	C-N-CA	-11.24	105.79	119.84
41	75	13	ARG	N-CA-C	-11.07	99.77	113.28
38	45	82	ARG	N-CA-C	11.00	129.41	113.02
51	L8	11	SER	CA-C-N	10.92	131.23	119.87
51	L8	11	SER	C-N-CA	10.92	131.23	119.87
43	D8	49	THR	CA-C-N	-10.72	108.09	119.24
43	D8	49	THR	C-N-CA	-10.72	108.09	119.24
2	12	222	ILE	N-CA-C	10.60	122.55	111.00
30	29	73	GLU	CA-C-N	10.33	130.28	119.85
30	29	73	GLU	C-N-CA	10.33	130.28	119.85
46	G8	81	LYS	CA-C-N	10.15	151.37	127.00
46	G8	81	LYS	C-N-CA	10.15	151.37	127.00
30	21	186	GLY	N-CA-C	10.13	128.28	115.42
38	88	26	TYR	N-CA-C	9.72	125.42	112.88
37	35	62	LEU	CA-C-N	9.61	129.66	119.76
37	35	62	LEU	C-N-CA	9.61	129.66	119.76
33	59	153	LYS	CA-C-N	-9.59	107.86	119.84
33	59	153	LYS	C-N-CA	-9.59	107.86	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	11	28	GLU	CA-C-N	9.57	131.80	119.84
29	11	28	GLU	C-N-CA	9.57	131.80	119.84
26	14	1992	G	C2'-C3'-O3'	9.52	123.77	109.50
29	11	273	ARG	N-CA-C	9.27	123.66	108.26
33	51	9	ILE	N-CA-C	9.21	116.67	107.55
48	I8	8	GLY	N-CA-C	9.12	126.40	110.80
7	62	87	VAL	CA-C-N	9.11	129.83	119.99
7	62	87	VAL	C-N-CA	9.11	129.83	119.99
16	7I	40	ASP	CA-C-N	8.96	128.61	119.82
16	7I	40	ASP	C-N-CA	8.96	128.61	119.82
30	21	188	VAL	N-CA-C	8.88	117.28	109.02
13	4A	95	GLY	N-CA-C	8.81	126.80	112.89
33	51	11	VAL	CA-C-N	8.80	130.84	119.84
33	51	11	VAL	C-N-CA	8.80	130.84	119.84
33	59	167	GLU	CA-C-N	8.79	130.83	119.84
33	59	167	GLU	C-N-CA	8.79	130.83	119.84
29	19	218	ARG	CA-C-N	8.73	130.76	119.84
29	19	218	ARG	C-N-CA	8.73	130.76	119.84
37	78	23	PRO	CA-C-O	-8.67	111.95	121.23
41	B8	5	ALA	N-CA-C	-8.67	101.79	111.07
43	95	81	TYR	N-CA-C	8.67	122.95	109.52
16	7A	40	ASP	CA-C-N	8.62	128.25	118.85
16	7A	40	ASP	C-N-CA	8.62	128.25	118.85
51	H5	11	SER	CA-C-N	8.62	128.83	119.87
51	H5	11	SER	C-N-CA	8.62	128.83	119.87
29	19	44	ASN	CA-C-N	8.59	137.16	121.70
29	19	44	ASN	C-N-CA	8.59	137.16	121.70
29	11	223	GLY	N-CA-C	-8.56	102.46	112.73
50	G5	43	GLN	N-CA-C	8.42	121.96	109.24
37	78	71	VAL	CA-C-N	-8.40	111.14	119.87
37	78	71	VAL	C-N-CA	-8.40	111.14	119.87
37	35	66	GLY	N-CA-C	8.39	124.64	112.55
46	G8	81	LYS	C-N-CD	-8.37	102.19	120.60
2	1E	231	GLU	CA-C-N	8.35	130.28	119.84
2	1E	231	GLU	C-N-CA	8.35	130.28	119.84
53	J5	6	VAL	CA-C-N	-8.35	111.29	120.14
53	J5	6	VAL	C-N-CA	-8.35	111.29	120.14
46	G8	99	CYS	N-CA-C	8.29	120.31	111.28
2	12	25	ASN	CA-C-N	8.28	128.49	119.87
2	12	25	ASN	C-N-CA	8.28	128.49	119.87
48	E5	46	LYS	CA-C-N	8.27	130.18	119.84
48	E5	46	LYS	C-N-CA	8.27	130.18	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	35	144	GLU	CA-C-N	8.26	130.16	119.84
37	35	144	GLU	C-N-CA	8.26	130.16	119.84
31	31	29	ASN	CA-C-N	-8.24	110.79	121.91
31	31	29	ASN	C-N-CA	-8.24	110.79	121.91
40	65	90	GLY	CA-C-N	8.21	128.41	119.87
40	65	90	GLY	C-N-CA	8.21	128.41	119.87
12	3I	70	ILE	CA-C-N	8.17	128.10	119.85
12	3I	70	ILE	C-N-CA	8.17	128.10	119.85
37	35	36	LYS	CB-CA-C	-8.14	104.94	116.34
29	19	43	ARG	N-CA-C	8.08	121.59	108.34
26	1H	1992	G	C2'-C3'-O3'	8.07	121.61	109.50
30	29	55	ASN	CA-C-N	-8.05	109.78	119.84
30	29	55	ASN	C-N-CA	-8.05	109.78	119.84
30	29	80	GLU	N-CA-C	8.05	123.10	113.28
46	G8	6	HIS	N-CA-C	8.04	122.19	112.38
33	59	166	GLY	N-CA-C	8.01	122.87	112.13
30	21	52	LEU	CA-C-N	7.98	129.82	119.84
30	21	52	LEU	C-N-CA	7.98	129.82	119.84
40	A8	5	THR	N-CA-C	7.98	120.88	110.43
37	35	14	LYS	N-CA-C	7.79	118.16	107.73
30	29	52	LEU	CA-C-N	7.78	128.26	119.93
30	29	52	LEU	C-N-CA	7.78	128.26	119.93
55	M5	51	ALA	N-CA-C	-7.78	96.78	108.99
29	11	248	SER	CA-C-N	-7.77	110.95	119.19
29	11	248	SER	C-N-CA	-7.77	110.95	119.19
30	21	190	GLY	CA-C-N	7.77	127.70	119.85
30	21	190	GLY	C-N-CA	7.77	127.70	119.85
31	39	83	PHE	N-CA-C	7.76	122.46	112.92
2	12	45	GLN	N-CA-C	7.75	120.71	111.33
29	19	40	THR	N-CA-C	7.75	120.85	109.07
2	12	20	GLU	N-CA-C	7.75	120.31	110.24
38	45	81	VAL	N-CA-C	7.75	125.46	109.34
12	3I	15	ARG	N-CA-C	7.72	122.88	113.38
33	51	153	LYS	CA-C-N	7.71	145.50	127.00
33	51	153	LYS	C-N-CA	7.71	145.50	127.00
4	32	171	GLY	CA-C-N	7.70	129.47	119.84
4	32	171	GLY	C-N-CA	7.70	129.47	119.84
37	35	36	LYS	N-CA-C	7.68	119.37	108.00
30	21	58	ARG	N-CA-C	-7.66	103.04	113.30
4	32	85	LYS	N-CA-C	-7.64	95.58	108.26
44	E8	92	ARG	N-CA-C	7.64	119.51	111.03
46	G8	4	LYS	N-CA-C	7.54	119.50	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	12	193	ASP	CA-C-N	7.51	127.22	119.56
2	12	193	ASP	C-N-CA	7.51	127.22	119.56
46	G8	79	CYS	N-CA-C	7.51	117.91	108.45
31	31	91	GLY	CA-C-N	7.50	127.55	119.90
31	31	91	GLY	C-N-CA	7.50	127.55	119.90
50	K8	14	ARG	N-CA-C	-7.48	100.66	110.53
38	88	65	PHE	N-CA-C	7.46	123.42	113.72
28	71	180	PHE	CA-C-N	7.43	125.01	119.66
28	71	180	PHE	C-N-CA	7.43	125.01	119.66
30	29	21	VAL	CA-C-N	7.43	127.88	119.93
30	29	21	VAL	C-N-CA	7.43	127.88	119.93
41	B8	55	ASN	N-CA-C	7.39	122.41	112.88
29	11	39	LYS	N-CA-C	7.39	126.54	110.80
1	13	1498	U	C2'-C3'-O3'	7.37	120.55	109.50
29	19	244	ARG	CA-C-N	-7.37	112.79	120.38
29	19	244	ARG	C-N-CA	-7.37	112.79	120.38
5	4E	48	ALA	CA-C-N	7.36	128.01	119.47
5	4E	48	ALA	C-N-CA	7.36	128.01	119.47
4	32	196	LEU	CA-C-N	-7.32	112.02	121.91
4	32	196	LEU	C-N-CA	-7.32	112.02	121.91
43	D8	40	LEU	N-CA-C	7.32	117.53	107.73
16	7I	20	VAL	N-CA-C	7.31	118.87	108.42
4	32	135	LEU	CA-C-N	7.30	127.93	119.47
4	32	135	LEU	C-N-CA	7.30	127.93	119.47
2	1E	23	ARG	N-CA-C	-7.28	103.97	112.92
52	M8	39	CYS	N-CA-C	-7.26	95.34	110.80
49	J8	79	GLY	N-CA-C	7.23	125.39	114.61
30	21	61	ARG	CA-C-N	-7.22	111.35	120.23
30	21	61	ARG	C-N-CA	-7.22	111.35	120.23
32	49	98	ARG	N-CA-C	-7.22	104.28	113.23
26	14	669	G	C2'-C3'-O3'	7.19	120.28	109.50
31	31	7	TYR	N-CA-C	7.17	122.08	111.96
31	31	131	GLY	N-CA-C	-7.15	104.98	115.63
8	7E	75	ARG	CA-C-N	7.12	127.54	119.92
8	7E	75	ARG	C-N-CA	7.12	127.54	119.92
32	49	178	PHE	CA-C-N	7.12	128.74	119.84
32	49	178	PHE	C-N-CA	7.12	128.74	119.84
34	61	135	GLU	N-CA-C	7.11	118.04	108.23
2	12	17	PHE	N-CA-C	7.09	120.12	108.99
30	21	187	ALA	N-CA-C	7.08	122.92	113.72
39	98	108	GLY	N-CA-C	-7.07	105.48	115.30
12	3I	18	VAL	N-CA-C	7.06	118.93	112.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	12	14	GLY	N-CA-C	7.05	124.52	114.64
26	1H	2346	A	O4'-C1'-N9	7.05	118.77	108.20
30	29	61	ARG	CA-C-N	7.04	128.64	119.84
30	29	61	ARG	C-N-CA	7.04	128.64	119.84
32	41	88	ILE	N-CA-C	7.04	118.90	112.29
31	31	8	GLN	N-CA-C	7.03	120.43	107.99
29	11	29	PRO	CA-N-CD	-7.02	102.18	112.00
37	78	17	LYS	CA-C-N	7.01	134.32	121.70
37	78	17	LYS	C-N-CA	7.01	134.32	121.70
10	1I	76	ASN	CA-C-N	6.99	127.16	120.31
10	1I	76	ASN	C-N-CA	6.99	127.16	120.31
35	58	69	GLN	N-CA-C	6.99	119.75	111.71
28	71	4	GLY	N-CA-C	6.98	121.60	112.25
40	65	34	HIS	N-CA-C	6.95	119.05	109.18
43	95	82	ARG	N-CA-C	6.94	120.62	108.75
29	19	28	GLU	CA-C-N	-6.92	111.19	119.84
29	19	28	GLU	C-N-CA	-6.92	111.19	119.84
30	21	65	GLY	N-CA-C	-6.90	96.82	113.18
41	B8	11	GLU	CA-C-N	-6.90	113.06	122.86
41	B8	11	GLU	C-N-CA	-6.90	113.06	122.86
46	G8	42	VAL	CA-C-N	-6.89	113.28	122.85
46	G8	42	VAL	C-N-CA	-6.89	113.28	122.85
4	3E	83	SER	N-CA-C	-6.88	105.04	113.50
10	1I	56	HIS	N-CA-C	-6.87	95.92	107.80
8	72	73	ASP	CA-C-N	6.87	128.42	119.84
8	72	73	ASP	C-N-CA	6.87	128.42	119.84
19	AA	13	ASP	N-CA-C	6.84	119.75	111.40
26	1H	587	C	C4'-C3'-O3'	6.84	119.66	109.40
55	Q8	46	ARG	CA-C-N	6.84	134.01	121.70
55	Q8	46	ARG	C-N-CA	6.84	134.01	121.70
33	51	155	SER	CA-C-N	6.82	133.98	121.70
33	51	155	SER	C-N-CA	6.82	133.98	121.70
41	B8	80	SER	CA-C-N	-6.82	111.32	119.84
41	B8	80	SER	C-N-CA	-6.82	111.32	119.84
47	D5	82	ARG	CA-C-N	6.81	127.19	119.83
47	D5	82	ARG	C-N-CA	6.81	127.19	119.83
4	32	180	GLY	N-CA-C	-6.81	103.64	113.86
11	2I	38	ASN	CA-C-N	6.80	127.20	119.93
11	2I	38	ASN	C-N-CA	6.80	127.20	119.93
33	51	153	LYS	C-N-CD	-6.79	105.66	120.60
26	1H	1799	G	C2'-C3'-O3'	6.79	119.69	109.50
12	3I	64	TYR	N-CA-C	6.78	119.67	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	51	81	GLU	N-CA-C	6.78	120.73	111.17
19	AA	34	TRP	N-CA-C	6.78	121.71	113.17
28	71	66	HIS	N-CA-C	6.76	120.01	111.69
31	39	130	ALA	N-CA-C	-6.76	102.87	112.13
19	AI	23	ASN	CA-C-N	-6.76	112.62	123.23
19	AI	23	ASN	C-N-CA	-6.76	112.62	123.23
41	75	57	PHE	N-CA-C	-6.76	104.78	113.16
39	98	106	GLY	N-CA-C	-6.75	106.85	115.42
43	95	44	LYS	CB-CA-C	-6.74	107.77	115.79
26	1H	752	A	C4'-C3'-O3'	6.74	119.50	109.40
37	35	38	GLN	N-CA-C	6.73	121.09	112.34
47	H8	138	GLU	N-CA-C	6.73	119.63	110.55
10	1A	38	ILE	CA-C-N	6.72	128.24	119.84
10	1A	38	ILE	C-N-CA	6.72	128.24	119.84
44	E8	64	MET	N-CA-C	6.72	121.63	113.17
46	C5	39	VAL	N-CA-C	6.69	121.45	113.22
53	J5	26	THR	CA-C-N	6.68	124.54	119.66
53	J5	26	THR	C-N-CA	6.68	124.54	119.66
33	51	38	SER	CA-C-N	6.67	126.12	118.85
33	51	38	SER	C-N-CA	6.67	126.12	118.85
1	13	792	A	C2'-C3'-O3'	-6.67	99.50	109.50
1	13	1065	U	P-O3'-C3'	6.65	130.18	120.20
46	G8	42	VAL	N-CA-C	6.65	116.78	110.53
32	49	107	LEU	N-CA-C	6.65	119.87	111.69
4	3E	33	MET	N-CA-C	-6.64	105.17	113.28
26	14	1022	G	C2'-C3'-O3'	6.64	119.47	109.50
43	D8	38	LEU	N-CA-C	6.64	124.94	110.80
29	19	196	VAL	N-CA-C	6.61	116.77	110.42
5	42	120	THR	N-CA-C	6.57	119.17	108.26
45	B5	25	LYS	N-CA-C	6.57	118.99	108.41
17	8I	80	GLY	N-CA-C	6.56	125.41	115.63
19	AI	23	ASN	N-CA-C	-6.55	103.40	111.40
29	11	39	LYS	CA-C-N	6.54	134.02	121.54
29	11	39	LYS	C-N-CA	6.54	134.02	121.54
45	F8	11	PRO	CA-C-N	-6.53	113.94	122.37
45	F8	11	PRO	C-N-CA	-6.53	113.94	122.37
33	59	151	ILE	N-CA-C	6.53	117.28	110.62
29	19	234	GLY	N-CA-C	6.52	121.14	110.97
41	B8	118	ARG	N-CA-C	-6.52	104.25	111.36
35	58	136	GLU	N-CA-C	6.51	119.33	109.63
38	88	24	GLY	N-CA-C	-6.51	98.91	111.02
30	21	14	ILE	N-CA-C	6.50	117.84	111.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	5A	8	GLU	N-CA-C	6.48	118.04	110.97
3	22	85	ARG	CA-CB-CG	-6.48	101.15	114.10
11	2I	34	ASP	CA-C-N	-6.46	113.16	119.87
11	2I	34	ASP	C-N-CA	-6.46	113.16	119.87
30	21	134	ILE	N-CA-C	6.44	118.29	112.17
29	11	230	ASP	N-CA-C	6.44	118.38	111.36
31	31	24	LEU	CA-C-N	6.43	127.88	119.84
31	31	24	LEU	C-N-CA	6.43	127.88	119.84
45	F8	67	GLY	N-CA-C	-6.43	97.95	113.18
45	B5	12	VAL	N-CA-C	-6.43	100.40	108.89
49	J8	4	VAL	N-CA-C	6.42	117.33	109.30
31	39	68	LYS	CA-C-N	-6.42	111.51	122.56
31	39	68	LYS	C-N-CA	-6.42	111.51	122.56
37	35	57	THR	CA-C-N	-6.42	111.98	122.26
37	35	57	THR	C-N-CA	-6.42	111.98	122.26
55	Q8	48	PHE	N-CA-C	6.42	118.61	108.79
48	E5	22	GLY	N-CA-C	6.42	119.92	111.70
50	G5	44	LEU	N-CA-C	-6.42	105.45	113.28
31	31	16	GLY	N-CA-C	6.40	119.83	110.80
26	14	2439	A	P-O3'-C3'	6.40	129.81	120.20
34	61	7	GLU	CA-C-N	-6.40	113.36	120.14
34	61	7	GLU	C-N-CA	-6.40	113.36	120.14
13	4I	9	ILE	CA-C-N	-6.40	111.84	119.84
13	4I	9	ILE	C-N-CA	-6.40	111.84	119.84
20	BI	74	LYS	CB-CA-C	-6.39	109.19	116.54
33	59	160	LYS	N-CA-C	6.38	119.23	110.24
30	21	135	HIS	N-CA-C	6.37	118.78	111.02
38	88	136	ALA	N-CA-C	-6.36	104.35	111.28
32	49	44	GLY	N-CA-C	-6.36	105.75	115.66
2	1E	34	ALA	CA-C-N	-6.34	114.34	122.77
2	1E	34	ALA	C-N-CA	-6.34	114.34	122.77
26	1H	271(B)	G	P-O3'-C3'	6.34	127.30	119.70
39	98	9	LYS	N-CA-C	-6.33	98.92	109.24
46	G8	102	CYS	N-CA-C	6.33	124.28	110.80
26	14	752	A	C4'-C3'-O3'	6.32	118.88	109.40
36	25	109	LYS	N-CA-C	-6.30	105.24	113.17
37	35	99	LEU	N-CA-C	-6.29	103.95	111.69
29	11	254	THR	N-CA-C	6.29	121.10	113.17
38	88	20	ALA	N-CA-C	6.29	118.84	109.59
41	B8	10	VAL	N-CA-C	-6.29	104.82	113.00
5	4E	67	VAL	N-CA-C	6.28	116.64	108.35
11	2I	120	ARG	CA-C-N	-6.28	111.99	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	2I	120	ARG	C-N-CA	-6.28	111.99	119.84
2	12	40	HIS	N-CA-C	6.27	118.81	110.53
31	39	67	GLN	CA-C-N	-6.27	109.56	121.54
31	39	67	GLN	C-N-CA	-6.27	109.56	121.54
37	35	110	TYR	CB-CA-C	-6.26	108.34	115.79
4	32	3	ARG	CB-CA-C	-6.26	108.34	115.79
31	31	59	TYR	N-CA-C	6.25	118.37	110.24
35	58	85	ILE	CA-C-N	6.25	126.76	120.14
35	58	85	ILE	C-N-CA	6.25	126.76	120.14
41	B8	3	ARG	N-CA-C	6.24	124.10	110.80
54	L5	9	ARG	N-CA-C	-6.24	105.49	113.23
7	6E	111	ARG	CA-C-N	6.24	125.86	119.56
7	6E	111	ARG	C-N-CA	6.24	125.86	119.56
50	K8	41	ILE	N-CA-C	-6.24	104.59	113.07
16	7I	48	TRP	N-CA-C	6.23	120.49	113.01
38	88	10	ARG	N-CA-C	-6.21	102.33	110.53
38	88	3	MET	CA-C-N	-6.20	113.37	119.76
38	88	3	MET	C-N-CA	-6.20	113.37	119.76
37	78	32	THR	N-CA-CB	-6.20	107.91	114.10
35	58	7	LYS	N-CA-C	-6.16	100.81	110.36
5	4E	69	VAL	CA-C-N	6.14	127.52	119.84
5	4E	69	VAL	C-N-CA	6.14	127.52	119.84
7	6E	132	GLY	N-CA-C	6.14	119.09	112.33
48	E5	44	ARG	N-CA-C	-6.14	105.43	113.17
4	3E	174	LEU	N-CA-C	6.13	118.27	109.14
20	BI	19	SER	N-CA-C	-6.13	105.29	112.89
3	22	59	ARG	N-CA-C	6.13	118.09	108.96
37	78	19	VAL	N-CA-C	6.12	122.07	109.34
35	58	7	LYS	CA-C-N	-6.12	111.23	121.39
35	58	7	LYS	C-N-CA	-6.12	111.23	121.39
29	19	85	ASP	CA-C-N	6.12	126.23	119.87
29	19	85	ASP	C-N-CA	6.12	126.23	119.87
20	BA	71	THR	N-CA-C	6.11	117.64	110.97
38	45	98	LYS	CA-C-N	-6.11	114.32	120.31
38	45	98	LYS	C-N-CA	-6.11	114.32	120.31
35	15	77	GLY	N-CA-C	-6.11	107.42	114.69
34	69	124	GLY	N-CA-C	6.09	119.03	110.38
53	N8	6	VAL	CB-CA-C	6.09	115.30	109.33
30	21	203	LYS	N-CA-C	6.07	118.42	108.52
32	49	141	PHE	CA-C-N	6.07	126.52	119.47
32	49	141	PHE	C-N-CA	6.07	126.52	119.47
49	F5	81	LYS	N-CA-C	-6.07	105.45	112.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	12	90	MET	CA-C-N	6.07	125.83	119.76
2	12	90	MET	C-N-CA	6.07	125.83	119.76
48	E5	35	ASN	CA-C-N	-6.06	114.56	122.37
48	E5	35	ASN	C-N-CA	-6.06	114.56	122.37
55	M5	50	LEU	CB-CA-C	-6.05	109.58	116.54
7	6E	56	GLN	N-CA-C	6.04	119.72	110.36
12	3I	105	TYR	CB-CA-C	-6.04	109.02	117.23
47	H8	14	LYS	CA-C-N	6.03	127.38	119.84
47	H8	14	LYS	C-N-CA	6.03	127.38	119.84
34	61	143	SER	N-CA-C	6.02	123.63	110.80
26	14	669	G	P-O3'-C3'	6.02	129.22	120.20
26	1H	271(B)	G	C2'-C3'-O3'	6.01	118.52	109.50
36	68	29	ASN	N-CA-C	6.01	119.92	112.59
26	14	1786	A	N9-C1'-C2'	6.00	123.00	114.00
29	11	75	ILE	CA-C-N	-6.00	112.34	119.84
29	11	75	ILE	C-N-CA	-6.00	112.34	119.84
26	1H	1204	A	O4'-C1'-N9	5.98	117.17	108.20
13	4A	97	PRO	N-CA-C	5.98	119.83	110.80
29	11	240	ALA	CA-C-N	-5.97	112.37	119.84
29	11	240	ALA	C-N-CA	-5.97	112.37	119.84
7	62	74	GLU	N-CA-C	5.97	116.44	108.38
5	42	48	ALA	CA-C-N	5.96	126.39	119.47
5	42	48	ALA	C-N-CA	5.96	126.39	119.47
49	J8	3	LYS	N-CA-C	-5.96	106.05	113.15
35	15	39	ARG	CA-C-N	-5.96	112.39	119.84
35	15	39	ARG	C-N-CA	-5.96	112.39	119.84
55	M5	48	PHE	N-CA-C	5.96	118.10	107.80
1	13	49	U	P-O3'-C3'	5.95	129.13	120.20
29	19	49	ILE	N-CA-CB	5.95	117.42	110.82
28	71	181	PRO	O-C-N	5.95	123.94	121.15
35	58	21	LYS	N-CA-C	-5.93	102.70	110.53
3	22	85	ARG	CG-CD-NE	-5.93	98.95	112.00
39	98	72	ASP	N-CA-C	5.92	118.10	108.26
34	61	136	VAL	CA-C-N	5.92	126.42	120.14
34	61	136	VAL	C-N-CA	5.92	126.42	120.14
31	39	125	LEU	CA-CB-CG	5.92	137.03	116.30
53	N8	50	GLY	N-CA-C	5.92	121.75	110.86
50	K8	49	LYS	N-CA-C	-5.91	105.56	112.89
37	35	36	LYS	CA-C-N	5.91	128.58	120.72
37	35	36	LYS	C-N-CA	5.91	128.58	120.72
52	M8	28	LYS	CA-C-N	5.90	125.87	120.21
52	M8	28	LYS	C-N-CA	5.90	125.87	120.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	29	111	ARG	N-CA-C	-5.89	106.09	113.28
30	29	67	PHE	N-CA-C	-5.89	106.18	113.19
17	8I	48	GLU	CA-C-N	-5.89	112.63	122.17
17	8I	48	GLU	C-N-CA	-5.89	112.63	122.17
26	14	71	A	C4'-C3'-O3'	5.88	118.22	109.40
37	35	116	GLY	N-CA-C	5.87	127.09	113.18
12	3I	117	ARG	N-CA-C	5.86	123.29	110.80
46	G8	99	CYS	CA-C-N	5.86	132.25	121.70
46	G8	99	CYS	C-N-CA	5.86	132.25	121.70
26	14	2439	A	C2'-C3'-O3'	5.86	118.28	109.50
33	51	125	VAL	CA-C-N	5.85	127.15	119.84
33	51	125	VAL	C-N-CA	5.85	127.15	119.84
37	78	61	ARG	CG-CD-NE	5.85	124.87	112.00
4	32	188	LEU	CA-C-N	5.84	127.14	119.84
4	32	188	LEU	C-N-CA	5.84	127.14	119.84
53	N8	38	ALA	N-CA-C	5.83	117.42	110.19
3	2E	158	GLY	N-CA-C	-5.83	107.61	115.36
47	D5	14	LYS	CA-C-N	5.81	125.67	119.28
47	D5	14	LYS	C-N-CA	5.81	125.67	119.28
31	39	93	LYS	CA-C-N	-5.81	113.80	119.90
31	39	93	LYS	C-N-CA	-5.81	113.80	119.90
37	78	53	GLY	N-CA-C	-5.80	107.09	115.27
20	BI	96	GLY	N-CA-C	5.79	121.95	110.77
6	52	95	GLU	CA-C-N	5.79	127.08	119.84
6	52	95	GLU	C-N-CA	5.79	127.08	119.84
37	35	21	ARG	N-CA-C	5.78	123.11	110.80
26	14	2275	C	P-O3'-C3'	5.78	128.87	120.20
7	62	8	GLU	N-CA-C	5.78	117.75	110.24
26	1H	2598	A	C2'-C3'-O3'	5.77	122.36	113.70
47	D5	158	PRO	N-CA-C	5.75	117.72	110.70
37	35	7	ARG	CA-C-N	-5.75	112.66	119.84
37	35	7	ARG	C-N-CA	-5.75	112.66	119.84
26	1H	1558	A	P-O3'-C3'	5.74	128.82	120.20
35	58	110	GLY	CA-C-N	5.74	124.94	118.97
35	58	110	GLY	C-N-CA	5.74	124.94	118.97
4	32	154	ASN	N-CA-C	5.74	117.99	111.11
31	31	135	LYS	N-CA-C	-5.73	98.55	108.69
38	88	69	PHE	CA-C-N	5.73	127.00	119.84
38	88	69	PHE	C-N-CA	5.73	127.00	119.84
29	11	256	GLY	N-CA-C	5.72	121.69	114.25
31	39	70	THR	N-CA-C	5.72	118.25	111.33
37	35	54	GLY	N-CA-C	-5.72	107.08	115.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	789	U	C2'-C3'-O3'	-5.72	105.13	113.70
3	22	84	ILE	CA-C-N	5.72	127.94	120.28
3	22	84	ILE	C-N-CA	5.72	127.94	120.28
26	14	197	A	OP2-P-O3'	5.71	125.14	108.00
31	31	80	ALA	CA-C-N	5.71	125.42	119.82
31	31	80	ALA	C-N-CA	5.71	125.42	119.82
17	8A	13	ASP	N-CA-C	-5.71	105.90	112.92
1	13	690	G	C4-N9-C1'	5.71	143.63	126.50
33	51	12	PRO	CA-C-N	5.70	132.44	121.54
33	51	12	PRO	C-N-CA	5.70	132.44	121.54
2	12	15	VAL	N-CA-C	5.70	116.44	110.62
26	14	1992	G	P-O3'-C3'	5.70	128.75	120.20
11	2A	120	ARG	CA-C-N	5.70	125.68	120.21
11	2A	120	ARG	C-N-CA	5.70	125.68	120.21
26	1H	138	G	N9-C1'-C2'	5.69	120.54	112.00
47	H8	158	PRO	CA-C-N	5.69	126.95	119.84
47	H8	158	PRO	C-N-CA	5.69	126.95	119.84
29	11	145	VAL	N-CA-C	5.68	116.76	108.58
29	11	64	ILE	CA-C-N	-5.67	114.76	122.92
29	11	64	ILE	C-N-CA	-5.67	114.76	122.92
6	52	55	ASP	CA-C-N	5.66	125.75	119.87
6	52	55	ASP	C-N-CA	5.66	125.75	119.87
26	14	1819	A	C4'-C3'-O3'	5.66	117.88	109.40
32	49	121	ASN	CA-C-N	5.65	125.27	119.56
32	49	121	ASN	C-N-CA	5.65	125.27	119.56
30	21	116	VAL	N-CA-C	-5.65	101.44	109.51
8	72	12	ARG	N-CA-C	-5.65	105.27	111.82
26	1H	2506	U	P-O3'-C3'	5.64	128.66	120.20
37	35	49	ARG	N-CA-C	-5.64	104.77	111.03
2	12	203	GLY	N-CA-C	5.62	119.91	111.42
46	C5	75	ILE	N-CA-C	5.62	116.27	110.82
40	A8	107	GLU	N-CA-C	-5.61	103.49	111.24
38	45	83	MET	N-CA-C	5.61	119.22	112.93
26	1H	839	U	O5'-P-OP2	-5.61	91.18	108.00
46	G8	103	GLY	N-CA-C	5.60	119.51	112.79
13	4A	112	GLY	CA-C-N	5.60	126.84	119.84
13	4A	112	GLY	C-N-CA	5.60	126.84	119.84
37	35	144	GLU	N-CA-C	5.60	117.30	108.23
8	7E	30	ARG	N-CA-C	-5.59	105.10	111.14
7	62	141	VAL	N-CA-C	-5.59	100.01	108.17
35	58	21	LYS	CA-C-N	-5.59	110.87	121.54
35	58	21	LYS	C-N-CA	-5.59	110.87	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	C5	103	GLY	N-CA-C	5.59	126.42	113.18
1	13	509	A	C2'-C3'-O3'	5.58	122.08	113.70
7	6E	77	SER	N-CA-C	5.58	118.19	108.76
17	8I	29	HIS	CA-C-N	5.58	125.05	119.24
17	8I	29	HIS	C-N-CA	5.58	125.05	119.24
34	69	131	LYS	CA-C-N	5.58	140.40	127.00
34	69	131	LYS	C-N-CA	5.58	140.40	127.00
1	1G	266	G	P-O3'-C3'	5.58	128.57	120.20
29	11	30	GLU	CB-CA-C	5.58	120.70	110.10
29	11	272	ALA	N-CA-C	5.58	122.67	110.80
54	P8	19	ARG	N-CA-C	-5.57	106.33	113.23
32	41	8	LYS	N-CA-C	-5.57	105.11	111.07
52	M8	40	HIS	CA-C-N	5.57	126.80	119.84
52	M8	40	HIS	C-N-CA	5.57	126.80	119.84
26	14	49	A	C4'-C3'-O3'	5.57	117.75	109.40
29	19	155	LEU	N-CA-C	5.57	118.47	109.40
12	3A	87	GLY	N-CA-C	5.56	117.23	111.95
49	J8	56	GLN	N-CA-C	5.56	118.65	110.59
17	8I	99	SER	N-CA-C	5.56	118.56	110.17
2	1E	196	LEU	N-CA-C	-5.55	106.09	112.92
16	7A	83	GLU	CB-CA-C	-5.55	109.68	117.23
2	12	126	GLU	N-CA-C	-5.55	106.36	113.02
31	39	91	GLY	CA-C-N	5.54	125.72	119.90
31	39	91	GLY	C-N-CA	5.54	125.72	119.90
29	19	35	LYS	CA-C-N	5.54	126.77	119.84
29	19	35	LYS	C-N-CA	5.54	126.77	119.84
1	1G	1498	U	C2'-C3'-O3'	5.54	117.81	109.50
44	A5	10	VAL	CA-C-N	-5.54	115.15	122.85
44	A5	10	VAL	C-N-CA	-5.54	115.15	122.85
1	13	49	U	C2'-C3'-O3'	5.54	117.81	109.50
29	19	129	ASN	N-CA-C	5.54	117.32	108.41
1	1G	266	G	C2'-C3'-O3'	5.53	117.80	109.50
29	11	3	VAL	N-CA-C	5.53	120.84	109.34
30	29	31	CYS	CA-C-N	5.53	125.43	119.85
30	29	31	CYS	C-N-CA	5.53	125.43	119.85
32	49	128	ARG	N-CA-C	-5.53	106.39	113.02
26	1H	1022	G	C2'-C3'-O3'	5.52	117.79	109.50
11	2I	115	PRO	CA-C-N	-5.52	114.62	122.41
11	2I	115	PRO	C-N-CA	-5.52	114.62	122.41
32	41	121	ASN	CA-C-N	5.52	125.61	119.87
32	41	121	ASN	C-N-CA	5.52	125.61	119.87
26	14	827	U	O5'-P-OP2	-5.52	91.43	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	1065	U	C2'-C3'-O3'	5.52	117.78	109.50
7	6E	57	GLU	CA-C-N	5.52	125.61	119.32
7	6E	57	GLU	C-N-CA	5.52	125.61	119.32
42	85	8	VAL	N-CA-C	5.51	117.94	111.05
46	G8	92	ASN	N-CA-C	5.51	116.59	107.73
31	39	132	VAL	N-CA-C	-5.50	97.89	109.34
29	11	53	PHE	N-CA-C	5.50	119.22	111.52
32	41	40	ASN	N-CA-C	5.50	117.38	108.26
38	45	103	MET	N-CA-C	-5.49	101.22	109.95
34	61	69	LYS	N-CA-C	-5.49	106.09	112.89
34	61	144	VAL	N-CA-C	5.48	115.54	107.75
29	11	29	PRO	N-CA-C	-5.48	101.19	112.47
43	D8	79	VAL	N-CA-C	-5.47	107.79	113.10
14	5I	23	ARG	N-CA-C	-5.47	101.04	109.52
26	14	49	A	P-O3'-C3'	5.46	128.40	120.20
37	78	50	ARG	NE-CZ-NH2	5.46	124.12	119.20
50	G5	27	GLU	N-CA-C	-5.46	105.41	111.36
3	22	12	LEU	N-CA-C	5.45	117.93	111.33
38	88	84	GLY	N-CA-C	-5.45	101.00	112.45
7	62	70	LYS	CA-C-N	5.45	125.62	119.90
7	62	70	LYS	C-N-CA	5.45	125.62	119.90
35	15	64	GLY	N-CA-C	5.45	120.99	111.78
5	42	67	VAL	N-CA-C	5.45	116.21	108.42
13	4I	101	GLN	N-CA-C	5.44	122.39	110.80
34	61	118	LYS	CA-C-N	5.43	126.63	119.84
34	61	118	LYS	C-N-CA	5.43	126.63	119.84
42	C8	102	GLU	CA-C-N	5.43	124.89	119.24
42	C8	102	GLU	C-N-CA	5.43	124.89	119.24
4	32	33	MET	N-CA-C	-5.43	103.22	110.55
2	12	222	ILE	CA-C-N	5.43	131.47	121.70
2	12	222	ILE	C-N-CA	5.43	131.47	121.70
46	C5	87	LYS	N-CA-C	5.42	117.09	108.79
26	14	784	A	P-O3'-C3'	5.42	128.33	120.20
31	31	13	SER	N-CA-C	-5.42	102.65	110.40
36	25	99	PHE	N-CA-C	5.42	117.58	107.99
26	14	71	A	P-O3'-C3'	5.42	128.32	120.20
40	65	110	LEU	CA-CB-CG	5.42	135.25	116.30
4	3E	196	LEU	CA-C-N	-5.41	114.60	121.91
4	3E	196	LEU	C-N-CA	-5.41	114.60	121.91
45	F8	11	PRO	CA-C-O	-5.41	115.25	121.86
29	19	4	LYS	N-CA-C	5.41	117.87	110.24
38	45	93	TYR	N-CA-C	5.41	118.38	109.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	8I	68	ARG	N-CA-CB	-5.40	108.70	114.10
29	11	177	LEU	CA-C-N	-5.40	114.26	119.87
29	11	177	LEU	C-N-CA	-5.40	114.26	119.87
19	AI	82	GLY	N-CA-C	5.39	122.71	112.62
11	2A	47	VAL	N-CA-C	-5.39	105.27	110.72
29	19	245	PRO	CA-C-N	5.39	125.70	119.93
29	19	245	PRO	C-N-CA	5.39	125.70	119.93
3	22	72	LYS	CA-C-N	5.38	124.71	118.85
3	22	72	LYS	C-N-CA	5.38	124.71	118.85
34	69	13	GLY	N-CA-C	5.37	118.92	110.91
48	E5	11	ARG	CA-C-N	-5.37	115.21	122.95
48	E5	11	ARG	C-N-CA	-5.37	115.21	122.95
18	9I	22	VAL	N-CA-C	5.37	120.51	109.34
5	42	105	VAL	CA-C-N	-5.37	114.14	119.56
5	42	105	VAL	C-N-CA	-5.37	114.14	119.56
26	1H	271(C)	U	P-O3'-C3'	5.37	126.14	119.70
30	29	137	HIS	CA-C-N	5.37	125.45	119.87
30	29	137	HIS	C-N-CA	5.37	125.45	119.87
29	11	250	TRP	N-CA-C	-5.36	106.51	113.16
14	5A	28	GLY	N-CA-C	5.36	125.89	113.18
45	B5	81	VAL	CA-C-N	-5.36	115.60	123.00
45	B5	81	VAL	C-N-CA	-5.36	115.60	123.00
9	82	20	ARG	CA-C-N	5.36	125.36	119.89
9	82	20	ARG	C-N-CA	5.36	125.36	119.89
8	7E	28	ALA	N-CA-C	5.36	117.78	110.55
10	1A	49	VAL	N-CA-C	5.36	117.49	108.81
29	11	224	ALA	CA-C-N	-5.35	115.22	123.14
29	11	224	ALA	C-N-CA	-5.35	115.22	123.14
7	62	89	MET	CA-C-N	5.35	128.44	120.95
7	62	89	MET	C-N-CA	5.35	128.44	120.95
29	11	28	GLU	N-CA-C	5.35	121.64	109.81
4	3E	82	ALA	CA-C-N	-5.35	112.67	121.92
4	3E	82	ALA	C-N-CA	-5.35	112.67	121.92
30	21	110	GLY	N-CA-C	5.35	119.31	110.97
29	19	8	PRO	CA-C-O	-5.34	117.36	121.31
36	25	24	VAL	CA-C-N	-5.34	114.87	122.77
36	25	24	VAL	C-N-CA	-5.34	114.87	122.77
5	42	87	SER	N-CA-C	5.34	117.75	110.55
37	35	110	TYR	N-CA-C	5.34	119.14	109.32
26	1H	2060	A	C4'-C3'-O3'	5.33	117.40	109.40
31	31	86	GLY	N-CA-C	-5.33	104.44	112.60
46	G8	53	PRO	CA-C-O	-5.33	115.46	121.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	E5	40	GLN	N-CA-C	5.32	116.93	108.79
30	29	203	LYS	N-CA-C	5.31	119.46	112.92
2	12	11	LEU	N-CA-C	5.31	116.75	111.07
19	AI	67	VAL	N-CA-C	5.31	120.38	109.34
47	H8	164	ALA	N-CA-C	-5.29	107.00	112.93
31	31	18	ARG	N-CA-C	5.28	116.74	110.19
12	3A	105	TYR	CB-CA-C	-5.28	110.05	117.23
30	21	31	CYS	CA-C-N	5.28	125.53	119.83
30	21	31	CYS	C-N-CA	5.28	125.53	119.83
11	2I	75	TYR	N-CA-C	-5.28	106.52	113.17
4	3E	87	GLY	N-CA-C	5.27	128.59	113.30
15	6I	47	LYS	N-CA-C	-5.27	106.36	112.89
38	88	5	ARG	N-CA-C	-5.26	102.69	110.48
38	45	26	TYR	CA-C-N	5.26	131.44	121.97
38	45	26	TYR	C-N-CA	5.26	131.44	121.97
3	2E	32	LEU	N-CA-C	-5.26	105.24	110.97
36	68	90	GLN	N-CA-C	-5.26	106.64	113.16
29	11	250	TRP	CA-CB-CG	-5.25	103.62	113.60
35	58	57	ALA	N-CA-C	-5.25	101.60	109.79
37	78	28	GLY	N-CA-C	-5.25	105.56	112.81
1	13	974	A	O4'-C1'-N9	5.25	116.07	108.20
46	G8	93	GLY	CA-C-O	-5.25	117.51	122.39
30	21	119	ARG	N-CA-C	-5.25	100.38	110.56
27	16	44	G	P-O3'-C3'	5.24	128.07	120.20
32	41	119	GLY	N-CA-C	5.24	117.39	112.04
26	1H	752	A	P-O3'-C3'	5.24	128.05	120.20
47	H8	35	ARG	N-CA-C	5.23	116.95	108.26
20	BA	75	ASN	N-CA-C	-5.23	106.67	113.16
1	13	690	G	O4'-C1'-N9	5.23	116.34	108.50
34	61	112	LYS	N-CA-C	-5.22	102.26	110.36
29	19	236	GLY	CA-C-O	5.22	127.72	120.25
35	15	50	ASP	N-CA-C	-5.22	101.64	109.95
30	21	137	HIS	CA-C-N	5.22	124.73	119.19
30	21	137	HIS	C-N-CA	5.22	124.73	119.19
26	14	2275	C	C4'-C3'-O3'	5.22	117.23	109.40
2	12	219	VAL	N-CA-C	5.22	118.00	112.83
50	K8	29	LYS	N-CA-C	-5.22	105.77	111.82
13	4A	116	THR	N-CA-C	5.22	119.74	113.17
34	69	136	VAL	CA-C-N	-5.22	114.36	119.99
34	69	136	VAL	C-N-CA	-5.22	114.36	119.99
28	71	219	GLY	CA-C-N	5.21	126.36	119.84
28	71	219	GLY	C-N-CA	5.21	126.36	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	45	126	PRO	CA-C-O	-5.21	117.45	121.31
26	1H	222	A	P-O3'-C3'	5.21	128.02	120.20
36	68	4	PRO	CA-C-O	-5.21	115.52	121.56
2	1E	201	ILE	CA-C-N	5.21	126.35	119.84
2	1E	201	ILE	C-N-CA	5.21	126.35	119.84
26	1H	1800	C	O5'-P-OP2	5.20	123.61	108.00
38	88	93	TYR	N-CA-C	5.20	117.90	108.69
46	C5	81	LYS	N-CA-C	5.20	121.31	109.81
37	78	45	LEU	N-CA-C	5.20	116.64	110.19
49	J8	80	LEU	N-CA-C	5.20	116.89	108.26
15	6A	23	GLY	N-CA-C	5.20	125.49	113.18
37	78	64	LYS	N-CA-C	-5.19	103.18	110.50
3	22	88	ARG	N-CA-C	5.19	118.08	111.69
7	62	95	ARG	N-CA-C	-5.19	105.30	111.69
34	69	120	ILE	N-CA-C	5.19	115.33	110.30
9	82	24	GLY	N-CA-C	5.19	121.91	114.64
29	11	121	PRO	CA-C-N	5.18	128.19	120.31
29	11	121	PRO	C-N-CA	5.18	128.19	120.31
55	Q8	33	ASN	N-CA-C	5.18	119.70	113.17
30	29	29	GLY	N-CA-C	-5.18	105.72	112.10
2	12	220	ASP	N-CA-C	5.18	118.70	112.38
13	4A	45	VAL	N-CA-C	-5.18	106.51	112.98
30	29	55	ASN	N-CA-C	-5.18	98.36	109.81
34	69	102	SER	N-CA-C	-5.18	99.77	110.80
40	A8	3	ARG	N-CA-C	-5.18	101.92	109.63
29	11	11	PRO	CA-C-O	-5.17	115.36	121.67
49	F5	29	GLY	CA-C-N	5.17	131.28	121.97
49	F5	29	GLY	C-N-CA	5.17	131.28	121.97
45	F8	25	LYS	N-CA-C	5.17	117.80	107.62
50	K8	44	LEU	N-CA-C	-5.17	106.56	112.92
12	3I	13	LYS	N-CA-C	5.16	117.70	111.40
43	D8	37	VAL	CA-C-N	5.16	131.40	121.54
43	D8	37	VAL	C-N-CA	5.16	131.40	121.54
42	85	99	ALA	N-CA-C	-5.16	105.66	113.51
30	29	132	HIS	N-CA-C	5.16	117.47	111.02
10	1I	83	GLU	N-CA-C	-5.16	106.49	112.89
30	29	23	VAL	N-CA-C	5.16	120.07	109.34
30	21	186	GLY	CA-C-N	-5.16	114.06	122.26
30	21	186	GLY	C-N-CA	-5.16	114.06	122.26
6	5E	6	VAL	N-CA-C	5.15	115.52	107.99
42	C8	84	LYS	N-CA-C	-5.15	105.67	111.28
47	H8	136	PHE	N-CA-C	5.15	115.03	108.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	52	60	PHE	N-CA-C	5.15	117.00	108.20
16	7I	79	VAL	N-CA-C	-5.14	106.08	113.07
17	8A	29	HIS	CA-C-N	5.14	124.86	119.82
17	8A	29	HIS	C-N-CA	5.14	124.86	119.82
46	G8	52	SER	CA-C-N	5.14	125.13	119.89
46	G8	52	SER	C-N-CA	5.14	125.13	119.89
36	25	90	GLN	N-CA-C	-5.13	106.80	113.16
13	4A	67	GLU	CB-CA-C	-5.13	110.68	116.63
3	22	113	ALA	CA-C-N	-5.13	114.38	119.56
3	22	113	ALA	C-N-CA	-5.13	114.38	119.56
33	51	27	LYS	N-CA-C	5.13	116.91	110.91
43	D8	79	VAL	CB-CA-C	5.12	116.56	110.93
53	N8	46	CYS	CA-C-N	5.12	126.24	119.84
53	N8	46	CYS	C-N-CA	5.12	126.24	119.84
8	7E	30	ARG	N-CA-CB	5.12	117.49	110.07
16	7A	44	THR	N-CA-C	-5.11	107.06	113.15
55	Q8	58	ILE	N-CA-C	-5.11	104.59	111.44
29	19	198	ASN	N-CA-C	-5.11	104.84	111.74
29	19	272	ALA	CB-CA-C	-5.11	107.15	114.87
43	95	80	GLN	CB-CG-CD	5.11	121.29	112.60
9	8E	59	PHE	N-CA-C	5.11	116.71	108.34
13	4I	96	LEU	CA-C-N	-5.10	114.73	120.14
13	4I	96	LEU	C-N-CA	-5.10	114.73	120.14
29	11	43	ARG	N-CA-C	5.10	118.03	110.48
26	1H	1992	G	P-O3'-C3'	5.10	127.85	120.20
33	51	164	TYR	N-CA-C	-5.10	103.86	110.19
26	1H	2710	C	OP2-P-O3'	5.10	123.30	108.00
54	P8	3	ARG	N-CA-C	5.10	117.60	109.65
36	25	114	ILE	N-CA-C	5.09	115.76	110.82
26	14	1384	A	P-O3'-C3'	5.09	127.83	120.20
7	62	141	VAL	CA-C-N	5.08	130.85	121.70
7	62	141	VAL	C-N-CA	5.08	130.85	121.70
37	78	23	PRO	CA-C-N	-5.08	111.45	121.41
37	78	23	PRO	C-N-CA	-5.08	111.45	121.41
5	4E	28	PHE	CA-C-N	-5.08	116.64	121.46
5	4E	28	PHE	C-N-CA	-5.08	116.64	121.46
26	1H	1573	G	OP1-P-O3'	-5.08	92.77	108.00
11	2I	89	ALA	CB-CA-C	-5.07	110.33	117.23
13	4A	40	ASN	CA-C-N	5.07	124.52	119.24
13	4A	40	ASN	C-N-CA	5.07	124.52	119.24
37	35	18	ARG	O-C-N	-5.07	115.84	122.59
16	7I	63	GLY	N-CA-C	5.07	124.33	116.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	39	78	ILE	CA-C-N	-5.07	114.73	122.28
31	39	78	ILE	C-N-CA	-5.07	114.73	122.28
37	78	42	SER	CA-C-N	-5.07	114.36	119.98
37	78	42	SER	C-N-CA	-5.07	114.36	119.98
41	B8	131	ALA	N-CA-C	5.07	116.80	111.28
1	1G	511	C	P-O3'-C3'	5.07	127.80	120.20
7	6E	13	GLN	CA-C-N	5.07	125.06	119.89
7	6E	13	GLN	C-N-CA	5.07	125.06	119.89
35	58	21	LYS	CA-C-O	-5.07	116.00	121.87
40	65	53	SER	N-CA-C	-5.07	106.94	113.02
41	75	38	ASN	N-CA-C	-5.06	106.89	113.16
40	65	16	ASN	N-CA-C	5.06	116.60	111.14
9	82	48	GLU	CA-C-N	-5.06	113.72	119.28
9	82	48	GLU	C-N-CA	-5.06	113.72	119.28
26	1H	659	C	OP1-P-O3'	-5.05	92.84	108.00
40	65	52	SER	N-CA-C	5.05	115.01	107.88
37	78	116	GLY	N-CA-C	5.05	125.15	113.18
26	14	676	A	O4'-C1'-N9	5.05	116.08	108.50
26	1H	1420	U	C2'-C3'-O3'	5.05	117.07	109.50
30	29	134	ILE	N-CA-C	5.05	116.97	112.17
32	49	80	PHE	N-CA-C	-5.05	103.74	110.55
29	19	254	THR	N-CA-C	5.04	119.57	113.38
9	8E	118	LYS	N-CA-C	5.03	119.11	112.92
37	35	111	ARG	N-CA-C	5.03	118.27	110.17
28	71	47	LEU	N-CA-C	5.02	116.92	109.69
30	21	201	THR	N-CA-C	5.02	117.01	110.43
52	M8	38	LYS	CA-C-N	5.02	131.14	121.54
52	M8	38	LYS	C-N-CA	5.02	131.14	121.54
16	7A	5	ARG	N-CA-C	5.02	115.16	108.38
34	61	41	GLU	N-CA-C	-5.02	106.67	112.89
29	19	55	GLY	N-CA-C	5.02	117.80	110.63
20	BI	37	SER	N-CA-C	-5.01	105.95	111.71
33	51	5	GLY	CA-C-N	5.01	131.11	121.54
33	51	5	GLY	C-N-CA	5.01	131.11	121.54
37	78	69	GLY	N-CA-C	5.01	116.71	111.95
49	F5	79	GLY	N-CA-C	5.01	118.79	110.97
10	1I	58	ASP	N-CA-C	-5.01	103.98	110.19
37	35	37	GLY	N-CA-C	-5.01	103.88	110.74
26	1H	2054	A	OP1-P-O3'	-5.01	92.98	108.00
5	42	35	GLY	N-CA-C	5.01	117.79	110.38
10	1A	36	GLY	N-CA-C	5.00	118.00	112.00
14	5I	51	GLY	N-CA-C	-5.00	108.22	115.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	3E	28	SER	CA-C-N	-5.00	116.60	121.65
4	3E	28	SER	C-N-CA	-5.00	116.60	121.65
2	12	196	LEU	CA-CB-CG	5.00	133.81	116.30

There are no chirality outliers.

All (119) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	141	VAL	Peptide
29	11	197	GLY	Peptide
29	11	237	GLU	Peptide
29	11	29	PRO	Peptide
2	12	19	HIS	Peptide
2	12	221	LEU	Peptide
29	19	197	GLY	Peptide
29	19	237	GLU	Peptide
10	1A	92	THR	Peptide
2	1E	169	LYS	Peptide
30	21	56	PRO	Peptide
30	21	77	ILE	Peptide
30	29	117	MET	Peptide
30	29	202	LYS	Peptide
30	29	61	ARG	Peptide
30	29	72	VAL	Peptide
30	29	77	ILE	Peptide
30	29	89	ASP	Peptide
31	31	130	ALA	Peptide
31	31	6	VAL	Peptide
4	32	152	SER	Peptide
4	32	28	SER	Peptide
37	35	106	LEU	Peptide
37	35	107	LYS	Peptide
37	35	110	TYR	Peptide
37	35	14	LYS	Peptide
37	35	16	ARG	Peptide
37	35	18	ARG	Peptide
37	35	36	LYS	Peptide
37	35	46	LYS	Peptide
37	35	65	ARG	Peptide
37	35	66	GLY	Peptide
31	39	127	GLU	Peptide
31	39	16	GLY	Peptide

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Mol	Chain	Res	Type	Group
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	25	PRO	Peptide
31	39	68	LYS	Peptide
12	3A	18	VAL	Peptide
12	3A	61	THR	Peptide
4	3E	77	ASN	Peptide
4	3E	82	ALA	Peptide
4	3E	87	GLY	Peptide
4	3E	88	VAL	Peptide
12	3I	47	LYS	Peptide
12	3I	87	GLY	Peptide
32	41	36	LYS	Peptide
38	45	137	TYR	Peptide
38	45	138	ASP	Peptide
38	45	86	GLY	Peptide
38	45	87	LYS	Peptide
32	49	13	GLU	Peptide
32	49	46	ALA	Peptide
13	4I	105	THR	Peptide
13	4I	107	ALA	Peptide
33	51	137	ASP	Peptide
33	51	152	ARG	Peptide
33	51	91	GLY	Peptide
35	58	95	PRO	Peptide
33	59	155	SER	Peptide
14	5A	27	CYS	Peptide
34	61	11	ASN	Peptide
34	61	114	LEU	Peptide
34	61	134	PRO	Peptide
7	62	87	VAL	Peptide
40	65	53	SER	Peptide
34	69	142	VAL	Peptide
7	6E	55	GLY	Peptide
28	71	188	ASN	Peptide
41	75	11	GLU	Peptide
41	75	12	SER	Peptide
41	75	134	GLU	Peptide
37	78	115	LEU	Peptide
37	78	15	ARG	Peptide
37	78	17	LYS	Peptide
37	78	22	GLY	Peptide

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Mol	Chain	Res	Type	Group
37	78	24	GLY	Peptide
37	78	36	LYS	Peptide
37	78	70	GLN	Peptide
42	85	90	VAL	Peptide
42	85	98	LEU	Peptide
38	88	21	THR	Peptide
40	A8	106	ARG	Peptide
19	AA	10	PHE	Peptide
19	AI	24	ALA	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
45	B5	24	GLY	Peptide
45	B5	61	GLY	Peptide
45	B5	66	LEU	Peptide
41	B8	12	SER	Peptide
41	B8	2	ASN	Peptide
41	B8	3	ARG	Peptide
41	B8	58	ASN	Peptide
46	C5	78	ALA	Peptide
46	C5	81	LYS	Peptide
46	C5	91	GLU	Peptide
46	C5	99	CYS	Peptide
42	C8	90	VAL	Peptide
42	C8	92	ARG	Peptide
42	C8	96	ALA	Peptide
47	D5	61	LEU	Peptide
43	D8	36	PRO	Peptide
43	D8	44	LYS	Peptide
43	D8	48	GLY	Peptide
45	F8	3	THR	Peptide
50	G5	15	LYS	Peptide
50	G5	17	SER	Peptide
50	G5	42	GLY	Peptide
46	G8	3	VAL	Peptide
46	G8	94	LYS	Peptide
47	H8	165	VAL	Peptide
47	H8	59	LEU	Peptide
55	M5	40	GLU	Peptide
55	M5	48	PHE	Peptide
52	M8	40	HIS	Peptide
52	M8	45	GLY	Peptide
55	Q8	49	VAL	Peptide

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Mol	Chain	Res	Type	Group
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	32157	0	16233	799	0
1	1G	32391	0	16352	818	1
2	12	1711	0	1751	92	0
2	1E	1874	0	1926	87	0
3	22	1529	0	1592	72	0
3	2E	1605	0	1668	50	0
4	32	1702	0	1766	101	0
4	3E	1702	0	1762	108	0
5	42	1123	0	1191	58	0
5	4E	1142	0	1204	48	0
6	52	842	0	857	33	0
6	5E	837	0	852	48	0
7	62	1110	0	1163	53	0
7	6E	1214	0	1259	41	0
8	72	1115	0	1177	46	0
8	7E	1115	0	1177	56	0
9	82	983	0	1006	58	0
9	8E	1005	0	1033	76	0
10	1A	626	0	639	34	0
10	1I	734	0	761	50	0
11	2A	835	0	847	40	0
11	2I	823	0	833	33	0
12	3A	947	0	1033	51	0
12	3I	956	0	1046	43	0
13	4A	888	0	941	67	0
13	4I	928	0	987	53	0
14	5A	466	0	499	39	0
14	5I	496	0	535	25	0
15	6A	729	0	768	29	0
15	6I	733	0	771	25	0
16	7A	705	0	725	31	0
16	7I	671	0	693	41	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
17	8A	823	0	891	33	0
17	8I	823	0	891	48	0
18	9A	544	0	605	30	0
18	9I	544	0	605	30	0
19	AA	471	0	464	35	0
19	AI	643	0	662	37	0
20	BA	757	0	856	37	0
20	BI	746	0	843	43	0
21	1B	208	0	221	27	0
21	1F	199	0	208	7	0
22	1K	1477	0	758	31	0
23	2K	1646	0	844	29	0
23	2L	1626	0	835	30	0
24	3K	1611	0	817	57	0
25	4K	439	0	218	14	0
25	4L	373	0	185	9	0
26	14	61630	0	31070	1405	1
26	1H	61028	0	30763	1412	0
27	16	2617	0	1328	71	0
27	1J	2617	0	1328	87	0
28	71	1033	0	1048	55	0
29	11	2125	0	2199	124	0
29	19	2120	0	2197	119	0
30	21	1563	0	1629	98	0
30	29	1563	0	1629	114	0
31	31	1585	0	1632	105	0
31	39	1606	0	1652	99	0
32	41	1464	0	1522	78	0
32	49	1464	0	1522	73	0
33	51	1327	0	1405	62	0
33	59	539	0	563	35	0
34	61	1131	0	1218	51	0
34	69	1131	0	1218	55	0
35	15	1096	0	1168	64	0
35	58	1104	0	1180	68	0
36	25	932	0	996	47	0
36	68	932	0	996	42	0
37	35	1130	0	1217	98	0
37	78	1122	0	1206	93	0
38	45	1099	0	1154	68	0
38	88	1113	0	1157	56	0
39	55	967	0	1033	47	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	98	967	0	1033	48	0
40	65	876	0	938	81	0
40	A8	881	0	943	61	0
41	75	1132	0	1189	75	0
41	B8	1118	0	1176	64	0
42	85	959	0	1019	67	0
42	C8	950	0	1011	56	0
43	95	763	0	836	72	0
43	D8	774	0	849	53	0
44	A5	886	0	948	25	0
44	E8	890	0	951	32	0
45	B5	738	0	792	37	0
45	F8	751	0	807	41	0
46	C5	794	0	886	55	0
46	G8	783	0	873	67	0
47	D5	1034	0	1061	72	0
47	H8	1222	0	1247	79	0
48	E5	616	0	633	37	0
48	I8	616	0	633	27	0
49	F5	737	0	813	45	0
49	J8	737	0	813	40	0
50	G5	573	0	616	34	0
50	K8	571	0	623	36	0
51	H5	459	0	512	17	0
51	L8	459	0	512	17	0
52	M8	366	0	370	31	0
53	J5	434	0	454	18	0
53	N8	381	0	397	29	0
54	L5	401	0	436	18	0
54	P8	401	0	436	21	0
55	M5	516	0	582	34	0
55	Q8	516	0	582	34	0
56	1L	1570	0	798	34	0
57	3L	1571	0	798	35	0
58	11	1	0	0	0	0
58	13	142	0	0	0	0
58	14	421	0	0	0	0
58	16	11	0	0	0	0
58	19	1	0	0	0	0
58	1G	95	0	0	0	0
58	1H	495	0	0	0	0
58	1I	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	1J	6	0	0	0	0
58	1K	1	0	0	0	0
58	21	2	0	0	0	0
58	25	1	0	0	0	0
58	29	3	0	0	0	0
58	2I	1	0	0	0	0
58	2K	2	0	0	0	0
58	2L	2	0	0	0	0
58	39	2	0	0	0	0
58	3I	1	0	0	0	0
58	3L	1	0	0	0	0
58	41	1	0	0	0	0
58	45	3	0	0	0	0
58	4I	1	0	0	0	0
58	4K	1	0	0	0	0
58	5I	1	0	0	0	0
58	78	1	0	0	0	0
58	7I	1	0	0	0	0
58	88	3	0	0	0	0
58	E5	1	0	0	0	0
58	I8	1	0	0	0	0
58	J8	1	0	0	0	0
58	N8	1	0	0	0	0
58	P8	1	0	0	0	0
58	Q8	1	0	0	0	0
59	32	8	0	0	0	0
59	3E	8	0	0	0	0
60	5A	1	0	0	0	0
60	5I	1	0	0	0	0
60	C5	1	0	0	0	0
60	G8	1	0	0	0	0
61	11	9	0	0	2	0
61	13	207	0	0	36	0
61	14	717	0	0	118	0
61	15	1	0	0	0	0
61	16	22	0	0	3	0
61	19	10	0	0	4	0
61	1G	117	0	0	23	0
61	1H	819	0	0	164	0
61	1I	1	0	0	0	0
61	1J	6	0	0	0	0
61	21	6	0	0	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	29	3	0	0	0	0
61	2A	1	0	0	0	0
61	31	4	0	0	1	0
61	32	2	0	0	0	0
61	35	3	0	0	0	0
61	39	3	0	0	0	0
61	3E	2	0	0	0	0
61	3I	2	0	0	0	0
61	4E	2	0	0	0	0
61	4K	4	0	0	0	0
61	5I	2	0	0	0	0
61	6A	2	0	0	1	0
61	6I	1	0	0	0	0
61	75	2	0	0	0	0
61	78	1	0	0	0	0
61	7A	1	0	0	0	0
61	85	3	0	0	1	0
61	8E	1	0	0	0	0
61	B8	1	0	0	0	0
61	BA	1	0	0	0	0
61	C8	3	0	0	1	0
61	F8	1	0	0	0	0
61	I8	5	0	0	0	0
61	J8	2	0	0	0	0
61	L8	3	0	0	0	0
61	M5	3	0	0	0	0
All	All	294304	0	195547	8678	1

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

All (8678) 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)
1:13:788:U:H2'	1:13:789:U:H5'	1.29	1.06
30:21:135:HIS:NE2	61:21:401:HOH:O	1.87	1.06
26:1H:511:U:OP2	61:1H:3501:HOH:O	1.72	1.05
47:H8:5:LEU:HD11	47:H8:44:PHE:HA	1.40	1.02
26:14:1899:G:H21	26:14:1902:C:N4	1.56	1.02
26:14:2448:A:OP2	61:14:3501:HOH:O	1.77	1.01
26:14:1771:C:HO2'	26:14:1786:A:H8	1.06	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1614:A:OP1	61:1H:3502:HOH:O	1.79	0.99
1:1G:910:C:OP2	12:3A:21:LYS:NZ	1.96	0.98
35:58:47:ALA:HB2	35:58:112:LEU:HD11	1.45	0.98
29:11:182:LEU:H	29:11:272:ALA:HB3	1.25	0.98
26:1H:187:G:N7	61:1H:3523:HOH:O	1.97	0.97
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.09	0.97
26:1H:761:A:N7	61:1H:3526:HOH:O	1.98	0.97
26:1H:1997:G:OP2	61:1H:3503:HOH:O	1.80	0.96
42:85:92:ARG:HD3	42:85:94:ASN:HB3	1.46	0.96
26:14:774:A:H2	26:14:787:U:HO2'	0.99	0.96
26:14:2128:C:H42	26:14:2160:G:H22	1.11	0.95
1:13:788:U:C2'	1:13:789:U:H5'	1.96	0.95
32:41:66:GLN:HA	52:M8:6:HIS:HE1	1.31	0.95
27:1J:18:G:H1	27:1J:65:C:H42	1.15	0.94
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.48	0.94
4:3E:107:ARG:HH22	4:3E:194:LEU:HD13	1.30	0.94
26:1H:2608:G:N7	61:1H:3533:HOH:O	2.01	0.94
26:14:1757:U:H3	26:14:1762:A:H2	0.96	0.94
26:14:676:A:H8	26:14:2069:G:H21	0.97	0.94
1:13:1372:U:H5"	9:8E:71:SER:HB3	1.50	0.93
29:19:182:LEU:H	29:19:272:ALA:HB3	1.32	0.93
26:1H:1265:A:OP2	61:1H:3504:HOH:O	1.85	0.93
31:31:130:ALA:H	31:31:132:VAL:HG13	1.34	0.92
3:2E:16:ARG:HH11	3:2E:16:ARG:HB2	1.32	0.92
26:1H:943:U:OP2	37:78:36:LYS:NZ	2.03	0.92
24:3K:76:A:H8	26:1H:2394:C:H42	1.12	0.92
27:16:15:A:H5'	27:16:16:G:C8	2.04	0.92
41:75:5:ALA:HB1	41:75:9:LEU:HB2	1.52	0.92
44:A5:14:PRO:HG2	44:A5:78:GLU:HG3	1.51	0.91
1:13:963:G:N3	10:1I:55:LYS:NZ	2.18	0.91
26:1H:751:A:OP1	61:1H:3505:HOH:O	1.87	0.91
26:1H:1342:A:OP2	61:1H:3507:HOH:O	1.89	0.91
28:71:171:ILE:HD12	28:71:196:LEU:HD11	1.51	0.91
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.53	0.91
47:D5:128:VAL:HG23	47:D5:160:GLY:HA3	1.52	0.91
26:14:1359:A:H62	26:14:1372:U:H3	0.91	0.91
12:3A:27:LEU:HD21	12:3A:62:SER:H	1.36	0.90
26:1H:1138:G:H21	35:58:106:MET:HE3	1.36	0.90
26:1H:913:U:O4	61:1H:3506:HOH:O	1.88	0.90
49:F5:87:PRO:HA	49:F5:90:ILE:HG23	1.53	0.90
26:14:84:A:N6	26:14:102:G:O2'	2.04	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1496:A:H8	26:1H:1577:C:HO2'	0.92	0.90
26:1H:2308:G:H1	26:1H:2311:A:H2	1.10	0.90
40:A8:26:LEU:HD13	40:A8:87:PHE:HD1	1.36	0.90
29:19:37:LEU:H	29:19:37:LEU:HD12	1.37	0.90
1:1G:258:G:N7	61:1G:1703:HOH:O	2.03	0.89
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.38	0.89
1:1G:1502:A:H2	1:1G:1505:G:H1	1.17	0.89
26:1H:2469:A:H2	26:1H:2481:G:H21	1.21	0.89
21:1B:6:ARG:HE	21:1B:6:ARG:H	1.18	0.89
26:14:450:G:O6	61:14:3503:HOH:O	1.89	0.89
26:14:2873:A:H8	39:55:6:SER:H	1.12	0.89
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.38	0.89
26:14:2589:A:OP1	61:14:3504:HOH:O	1.90	0.89
42:85:65:ILE:HD11	42:85:96:ALA:HB1	1.53	0.89
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.37	0.88
26:14:2499:C:OP2	61:14:3501:HOH:O	1.90	0.88
26:1H:370:G:OP2	61:1H:3510:HOH:O	1.90	0.88
26:14:259:G:H21	26:14:621:A:H8	1.18	0.88
26:1H:1113:U:H5'	33:51:2:SER:HB2	1.54	0.88
26:1H:1676:A:OP2	61:1H:3509:HOH:O	1.90	0.88
26:14:2588:G:OP1	61:14:3502:HOH:O	1.89	0.88
26:1H:2226:C:OP2	61:1H:3513:HOH:O	1.92	0.88
26:1H:1647:G:OP2	61:1H:3512:HOH:O	1.91	0.88
26:14:833:U:O2	37:35:55:ARG:NH1	2.07	0.88
1:13:1160:G:H1	1:13:1177:G:H22	1.17	0.87
32:41:6:ALA:H	52:M8:23:GLU:HG3	1.37	0.87
26:14:1162:G:N7	61:14:3525:HOH:O	2.05	0.87
26:1H:2101:G:H1	26:1H:2188:C:H42	1.23	0.87
51:L8:35:ARG:HB3	51:L8:37:LEU:HD21	1.54	0.87
1:13:75:C:H1'	1:13:96:G:H1	1.38	0.87
26:1H:2582:G:OP2	61:1H:3508:HOH:O	1.90	0.87
29:19:43:ARG:HB3	29:19:49:ILE:HA	1.55	0.87
43:95:85:LYS:HD2	43:95:86:GLY:H	1.39	0.87
26:1H:2271:G:N7	61:1H:3547:HOH:O	2.07	0.87
26:14:945:A:N3	61:14:3530:HOH:O	2.07	0.87
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.57	0.87
26:14:784:A:OP2	61:14:3504:HOH:O	1.92	0.87
26:14:974:G:O2'	26:14:975:G:N7	2.08	0.87
26:14:1434:A:H61	26:14:1558:A:N6	1.73	0.87
31:31:29:ASN:H	31:31:112:MET:HE1	1.38	0.86
26:14:1187:G:O6	61:14:3505:HOH:O	1.92	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2287:A:H62	26:14:2344:U:H3	1.22	0.86
26:1H:2227:A:OP2	61:1H:3511:HOH:O	1.91	0.86
4:32:20:TYR:HD1	4:32:26:CYS:HB3	1.40	0.86
1:1G:827:U:H3	1:1G:872:A:H62	1.23	0.86
24:3K:2:G:N2	26:1H:1852:C:OP1	2.08	0.86
1:13:315:A:OP1	61:13:1801:HOH:O	1.93	0.86
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.08	0.86
43:95:85:LYS:HG3	43:95:87:HIS:H	1.39	0.86
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.88	0.86
26:1H:660:G:H21	37:78:12:ALA:HA	1.40	0.85
26:1H:676:A:H8	26:1H:2069:G:H21	1.21	0.85
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.09	0.85
3:22:26:LYS:HG3	3:22:27:LYS:HG2	1.56	0.85
26:14:1839:G:OP2	61:14:3506:HOH:O	1.92	0.85
1:13:1007:C:H42	1:13:1022:G:H1	1.20	0.85
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.09	0.85
4:32:157:LEU:O	4:32:161:ASN:ND2	2.07	0.85
26:1H:270(K):C:O2	26:1H:270(N):G:N1	2.10	0.85
3:2E:136:GLN:OE1	3:2E:140:ARG:NH1	2.09	0.85
26:1H:607:U:H3	26:1H:621:A:H2	1.20	0.85
26:1H:2032:G:H21	30:21:146:THR:HG23	1.41	0.85
1:1G:1123:A:H4'	10:1A:36:GLY:HA3	1.59	0.85
33:51:6:ARG:HH21	33:51:7:LEU:HD11	1.41	0.85
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.58	0.84
26:1H:586:A:OP2	61:1H:3518:HOH:O	1.95	0.84
26:1H:760:G:OP1	61:1H:3516:HOH:O	1.95	0.84
32:41:112:PRO:HB3	52:M8:37:SER:H	1.40	0.84
26:1H:732:C:OP2	61:1H:3514:HOH:O	1.93	0.84
8:72:11:THR:HG23	8:72:14:ARG:HH12	1.42	0.84
26:14:2324:C:H5"	26:14:2325:G:H5'	1.58	0.84
1:1G:411:A:H61	1:1G:430:A:H62	1.24	0.84
26:1H:49:A:N7	26:1H:120:U:H5	1.75	0.84
26:1H:1357:U:OP2	61:1H:3517:HOH:O	1.95	0.84
1:1G:278:G:N7	17:8A:92:ARG:NH2	2.25	0.84
26:14:592:G:H21	55:M5:4:MET:HE3	1.43	0.84
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.10	0.84
26:14:1190:G:N7	61:14:3533:HOH:O	2.10	0.84
28:71:20:TYR:HB2	28:71:224:ILE:HG22	1.60	0.84
26:14:1816:G:OP2	29:19:39:LYS:NZ	2.11	0.84
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.60	0.83
26:14:2136:C:N4	26:14:2155:G:O6	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2785:C:O2'	30:29:64:LYS:NZ	2.10	0.83
26:1H:1948:G:N7	61:1H:3570:HOH:O	2.11	0.83
26:1H:1346:G:OP2	61:1H:3521:HOH:O	1.96	0.83
26:1H:1616:A:O2'	61:1H:3515:HOH:O	1.95	0.83
37:35:147:LEU:HG	37:35:148:LEU:H	1.44	0.83
29:11:29:PRO:HB2	29:11:30:GLU:HA	1.60	0.83
29:11:273:ARG:O	29:11:273:ARG:NE	2.10	0.83
26:14:1970:A:OP2	61:14:3507:HOH:O	1.95	0.83
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.11	0.83
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.59	0.83
1:13:963:G:H1	1:13:972:C:H42	1.27	0.83
26:1H:2857:G:N2	26:1H:2860:A:OP2	2.11	0.83
26:1H:730:C:OP2	61:1H:3520:HOH:O	1.96	0.83
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.60	0.83
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	1.61	0.82
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.13	0.82
26:1H:2499:C:N3	61:1H:3575:HOH:O	2.12	0.82
1:13:452:A:N6	1:13:480:U:O2	2.12	0.82
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.14	0.82
26:1H:1828:G:OP1	61:1H:3519:HOH:O	1.96	0.82
26:14:585:G:OP2	61:14:3509:HOH:O	1.97	0.82
26:1H:574:C:OP1	61:1H:3525:HOH:O	1.98	0.82
26:1H:759:G:OP1	61:1H:3524:HOH:O	1.98	0.82
1:1G:536:C:OP2	61:1G:1701:HOH:O	1.97	0.82
56:1L:30:G:N2	56:1L:40:C:N3	2.27	0.82
26:1H:1634:A:OP2	61:1H:3528:HOH:O	1.98	0.82
31:31:178:PRO:HB2	31:31:201:VAL:HG11	1.61	0.82
26:14:2808:U:H3	26:14:2892:A:H62	1.27	0.82
2:1E:187:LEU:HD11	2:1E:214:ILE:HD13	1.61	0.82
26:1H:996:A:OP2	42:C8:92:ARG:NH2	2.13	0.82
1:1G:79:G:H1	1:1G:90:C:H42	1.24	0.82
1:1G:324:G:N7	61:1G:1707:HOH:O	2.11	0.82
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.61	0.82
5:4E:63:ARG:HA	5:4E:66:MET:HE2	1.60	0.82
43:95:1:MET:HG3	43:95:43:GLU:HG2	1.61	0.81
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.63	0.81
31:31:31:HIS:NE2	31:31:35:GLU:OE2	2.12	0.81
1:1G:1252:A:H61	1:1G:1285:A:H61	1.27	0.81
27:1J:15:A:H5'	27:1J:16:G:C8	2.15	0.81
40:65:106:ARG:HA	40:65:110:LEU:HD21	1.61	0.81
41:75:2:ASN:ND2	41:75:5:ALA:O	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.60	0.81
26:1H:1209:G:OP2	61:1H:3522:HOH:O	1.97	0.81
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.15	0.81
26:14:1249:U:OP1	61:14:3508:HOH:O	1.97	0.81
40:65:85:VAL:HG22	40:65:110:LEU:HB2	1.63	0.81
33:51:23:ARG:HH12	33:51:25:LYS:HE3	1.45	0.81
1:1G:1227:A:OP2	13:4A:111:LYS:NZ	2.13	0.81
15:6A:88:ARG:NH2	26:14:713:G:OP2	2.14	0.81
34:69:74:ASN:N	34:69:74:ASN:OD1	2.14	0.81
26:1H:2574:G:OP1	61:1H:3529:HOH:O	1.99	0.81
7:62:93:PRO:HD2	7:62:94:ARG:HH21	1.45	0.80
2:1E:118:LEU:HB3	2:1E:142:LEU:HD12	1.63	0.80
26:1H:1006:C:OP2	61:1H:3531:HOH:O	1.99	0.80
26:1H:1981:A:OP1	61:1H:3527:HOH:O	1.98	0.80
26:14:1828:G:OP1	61:14:3511:HOH:O	1.99	0.80
31:39:123:LEU:O	31:39:125:LEU:N	2.11	0.80
1:13:153:C:H42	1:13:168:G:H22	1.30	0.80
1:13:1286:A:H8	1:13:1287:A:H4'	1.45	0.80
26:1H:510:C:OP1	61:1H:3501:HOH:O	2.00	0.80
26:1H:1022:G:N2	26:1H:1142(A):A:N1	2.29	0.80
14:5A:27:CYS:SG	14:5A:29:ARG:NH2	2.54	0.80
1:13:1:U:H5'	1:13:630:G:H21	1.45	0.80
26:1H:1484:G:N2	26:1H:1505:C:O2	2.12	0.80
26:1H:2573:C:OP1	61:1H:3532:HOH:O	1.99	0.80
26:14:818:G:OP2	61:14:3510:HOH:O	1.98	0.80
26:14:1632:A:N7	61:14:3546:HOH:O	2.14	0.80
1:13:766:A:OP2	61:13:1802:HOH:O	1.99	0.80
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.14	0.80
26:1H:2032:G:N7	61:1H:3583:HOH:O	2.14	0.80
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.64	0.80
26:14:2287:A:N6	26:14:2344:U:H3	1.78	0.80
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.62	0.80
30:29:1:MET:N	30:29:200:GLU:OE2	2.13	0.80
36:25:14:THR:HG21	36:25:86:ILE:HG13	1.62	0.80
26:1H:192:C:N3	61:1H:3580:HOH:O	2.13	0.80
26:1H:1778:U:H2'	26:1H:1784:A:N6	1.95	0.80
42:85:110:VAL:HG12	42:85:114:LYS:HD3	1.63	0.80
26:1H:1678:G:N2	26:1H:1989:G:H22	1.78	0.80
26:14:2292:C:OP1	40:65:17:ARG:NH2	2.14	0.80
32:49:2:PRO:HB2	32:49:4:ASP:H	1.45	0.80
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.13	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:12:GLU:HB3	2:1E:44:LEU:HD13	1.63	0.80
26:1H:780:G:H21	26:1H:783:A:H62	1.24	0.80
23:2L:8:4SU:O2	23:2L:14:A:N6	2.15	0.80
26:14:2624:G:N7	61:14:3547:HOH:O	2.14	0.79
26:1H:1689:A:H62	26:1H:1698:A:H2	1.30	0.79
26:14:1568:G:OP2	29:19:63:ARG:NH2	2.14	0.79
26:1H:2392:A:H2	26:1H:2424:C:H42	1.30	0.79
29:11:27:THR:C	29:11:29:PRO:HD3	2.06	0.79
43:D8:1:MET:HE1	43:D8:43:GLU:HB2	1.64	0.79
26:14:686:G:OP1	54:L5:11:LYS:NZ	2.14	0.79
35:15:39:ARG:NH2	35:15:41:ASP:OD2	2.16	0.79
26:1H:2032:G:N7	61:1H:3585:HOH:O	2.15	0.79
2:1E:126:GLU:HA	2:1E:129:GLU:HG3	1.63	0.79
29:11:16:MET:HE1	29:11:208:LYS:HD3	1.63	0.79
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.15	0.79
26:1H:80:G:N7	61:1H:3582:HOH:O	2.14	0.79
26:1H:1345:C:OP2	61:1H:3521:HOH:O	2.00	0.79
27:16:100:G:OP2	61:16:301:HOH:O	1.99	0.79
41:B8:3:ARG:O	41:B8:7:ILE:N	2.14	0.79
26:1H:2592:G:N7	61:1H:3584:HOH:O	2.14	0.79
31:31:66:PRO:O	31:31:67:GLN:HB3	1.79	0.79
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.29	0.79
37:35:16:ARG:HB3	37:35:17:LYS:HG2	1.65	0.79
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.16	0.79
33:51:27:LYS:HG3	33:51:32:GLU:HG2	1.63	0.79
1:1G:395:C:N4	61:1G:1710:HOH:O	2.14	0.79
26:1H:259:G:H21	26:1H:621:A:H8	1.31	0.79
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.47	0.79
40:A8:62:LYS:HA	40:A8:65:VAL:HB	1.62	0.79
3:22:26:LYS:HE2	3:22:27:LYS:HE2	1.63	0.79
26:14:31:C:OP1	61:14:3513:HOH:O	1.99	0.79
26:14:910:A:H62	38:45:12:GLN:HA	1.45	0.79
29:19:228:PRO:O	61:19:401:HOH:O	2.01	0.79
1:13:792:A:O2'	1:13:794:A:N7	2.16	0.79
26:14:452:G:OP2	61:14:3514:HOH:O	2.00	0.79
26:14:1828:G:OP1	61:14:3515:HOH:O	2.00	0.79
26:14:1359:A:N6	26:14:1372:U:H3	1.76	0.78
26:14:2343:C:O2'	26:14:2373:G:O2'	1.98	0.78
1:1G:1113:C:N3	1:1G:1187:G:N2	2.32	0.78
26:14:1970:A:OP1	61:14:3517:HOH:O	2.01	0.78
26:14:2299:G:N2	26:14:2317:C:O2	2.15	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:98:ALA:HA	34:69:109:ILE:HD11	1.66	0.78
34:61:113:ARG:HB2	34:61:131:LYS:HD3	1.64	0.78
26:14:1757:U:N3	26:14:1762:A:H2	1.79	0.78
38:45:25:ASP:HB3	38:45:102:VAL:H	1.47	0.78
26:1H:764:A:N3	29:11:213:ARG:NH1	2.31	0.78
26:1H:1021:A:H62	26:1H:1141:U:H3	1.30	0.78
26:14:67:U:H3	26:14:74:A:H2	1.30	0.78
26:14:141:A:H8	26:14:1595:G:H21	1.27	0.78
41:75:99:LEU:HD22	41:75:101:PHE:HE1	1.47	0.78
22:1K:22:G:OP1	22:1K:48:C:N4	2.16	0.78
1:13:509:A:N1	61:13:1815:HOH:O	2.15	0.78
26:1H:860:U:H5	26:1H:917:A:C2	2.02	0.78
1:1G:718:G:H5'	11:2A:117:ASN:HB2	1.64	0.78
36:25:35:VAL:HG11	36:25:103:ALA:HB3	1.64	0.78
1:13:838:G:O6	1:13:848:C:N4	2.17	0.78
26:1H:2056:G:OP2	61:1H:3530:HOH:O	1.99	0.78
26:14:1226:G:OP1	43:95:69:LYS:NZ	2.15	0.78
26:14:1729:A:O2'	26:14:1731:G:N2	2.16	0.78
40:65:99:LYS:NZ	40:65:103:GLU:OE1	2.15	0.78
26:1H:1728:G:H8	26:1H:1732:A:H62	1.32	0.78
1:1G:1395:C:HO2'	1:1G:1401:G:HO2'	1.30	0.78
26:14:2010:G:H5"	44:A5:42:ARG:HB2	1.66	0.78
26:1H:270(R):G:N2	26:1H:270(S):G:O6	2.16	0.77
26:1H:878:A:N1	26:1H:898:C:N4	2.32	0.77
51:L8:12:PRO:O	51:L8:20:LYS:NZ	2.17	0.77
1:1G:377:G:H1	1:1G:386:C:H42	1.32	0.77
47:H8:165:VAL:HB	47:H8:167:PRO:HD3	1.65	0.77
26:14:1623:G:O6	61:14:3519:HOH:O	2.02	0.77
50:G5:17:SER:N	50:G5:20:GLU:OE2	2.17	0.77
22:1K:76:A:H8	26:1H:2583:G:H21	1.30	0.77
27:16:15:A:H5'	27:16:16:G:H8	1.49	0.77
26:14:1114:G:H2'	26:14:1115:G:C8	2.20	0.77
1:13:504:C:OP1	61:13:1805:HOH:O	2.03	0.77
26:1H:1664:A:OP2	61:1H:3534:HOH:O	2.02	0.77
26:14:450:G:OP2	61:14:3516:HOH:O	2.01	0.77
26:14:1301:A:OP1	61:14:3518:HOH:O	2.01	0.77
1:13:221:C:H2'	1:13:222:U:H6	1.48	0.77
26:1H:1416:G:H1	26:1H:1582:C:H42	1.31	0.77
4:32:189:PRO:HB2	4:32:194:LEU:HD11	1.66	0.77
24:3K:3:G:H1	24:3K:70:C:H42	1.32	0.77
29:19:28:GLU:HG3	29:19:29:PRO:HD3	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:538:G:O6	61:13:1803:HOH:O	2.00	0.77
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.16	0.77
1:1G:962:C:H42	1:1G:973:G:H1	1.33	0.77
26:14:1536:A:H8	26:14:1537:C:H1'	1.49	0.77
26:14:1633:G:O6	61:14:3512:HOH:O	1.99	0.77
2:1E:68:ILE:HG13	2:1E:161:ALA:HB3	1.67	0.77
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.17	0.77
1:1G:1007:C:O2	1:1G:1023:G:N1	2.17	0.77
32:41:138:GLN:HE22	32:41:152:LEU:HA	1.48	0.77
13:4A:54:VAL:HA	13:4A:57:ARG:HB2	1.66	0.77
29:19:166:GLN:HB3	29:19:174:ILE:HG22	1.67	0.77
32:49:161:THR:HG22	32:49:163:ALA:H	1.50	0.77
27:16:15:A:H4'	27:16:15:A:OP1	1.83	0.77
47:H8:30:ASN:HD22	47:H8:90:VAL:HB	1.50	0.77
31:39:28:ILE:HA	31:39:112:MET:HE3	1.67	0.77
26:14:2079:U:O3'	49:F5:35:THR:OG1	2.02	0.76
26:14:2280:G:O2'	26:14:2388:A:N1	2.17	0.76
26:1H:1639:U:OP1	61:1H:3537:HOH:O	2.03	0.76
26:1H:2597:G:O3'	61:1H:3535:HOH:O	2.02	0.76
1:1G:979:C:H42	14:5A:18:VAL:HB	1.50	0.76
8:7E:85:ARG:NE	8:7E:87:SER:O	2.16	0.76
53:N8:36:CYS:SG	53:N8:37:LYS:N	2.59	0.76
1:1G:713:G:H2'	1:1G:714:G:C8	2.20	0.76
1:13:413:G:O2'	1:13:428:G:N2	2.19	0.76
32:41:44:GLY:HA2	32:41:88:ILE:HG22	1.66	0.76
1:1G:979:C:H3'	1:1G:980:C:H5"	1.67	0.76
41:75:55:ASN:H	41:75:59:THR:HB	1.51	0.76
51:H5:7:LYS:HG3	51:H5:34:GLU:HG3	1.66	0.76
7:62:20:ASP:HB3	7:62:23:VAL:HB	1.68	0.76
1:13:972:C:OP1	61:13:1804:HOH:O	2.03	0.76
26:1H:563:G:OP2	61:1H:3542:HOH:O	2.04	0.76
34:61:110:ASP:HB3	34:61:112:LYS:H	1.50	0.76
1:1G:664:G:H22	1:1G:741:G:H1	1.32	0.76
20:BI:14:LYS:HB2	20:BI:17:ARG:HH21	1.50	0.76
26:1H:450:G:OP2	61:1H:3544:HOH:O	2.04	0.76
40:A8:11:LYS:HD2	40:A8:15:ARG:HH21	1.49	0.76
5:42:43:LEU:HD22	5:42:136:MET:HG3	1.68	0.76
38:45:81:VAL:O	38:45:82:ARG:NE	2.19	0.76
13:4I:12:ASN:HA	13:4I:46:LYS:HZ1	1.50	0.76
26:1H:2576:G:OP1	61:1H:3538:HOH:O	2.03	0.76
46:G8:82:PRO:HB3	46:G8:99:CYS:HB2	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:560:U:OP2	61:1G:1702:HOH:O	2.02	0.76
19:AA:40:ILE:HB	19:AA:67:VAL:HA	1.68	0.76
40:65:74:ALA:HB1	40:65:107:GLU:HB2	1.68	0.76
4:3E:107:ARG:NH2	4:3E:194:LEU:HD13	2.01	0.76
26:1H:800:A:OP1	61:1H:3539:HOH:O	2.03	0.76
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.51	0.76
1:1G:1070:U:H2'	1:1G:1071:C:H6	1.50	0.76
26:14:1187:G:N7	61:14:3562:HOH:O	2.17	0.76
46:C5:19:LYS:HG3	46:C5:20:TYR:H	1.51	0.76
1:13:619:U:H3	4:3E:134:ASP:HB2	1.51	0.75
6:5E:36:ARG:NH2	6:5E:38:GLU:OE2	2.19	0.75
26:1H:1533:C:O2	26:1H:1539:G:N2	2.19	0.75
26:1H:2598:A:OP1	61:1H:3536:HOH:O	2.03	0.75
36:68:75:SER:OG	41:B8:74:ARG:NH2	2.20	0.75
42:C8:104:GLN:HG2	43:D8:44:LYS:HD3	1.67	0.75
1:1G:78:G:H1	1:1G:91:C:H42	1.31	0.75
1:1G:877:C:H5"	8:72:88:LYS:HD3	1.68	0.75
1:1G:1305:G:N2	1:1G:1331:G:H2'	1.99	0.75
26:14:1022:G:O2'	26:14:1023:U:OP2	2.04	0.75
36:25:24:VAL:HA	36:25:39:ILE:HG22	1.67	0.75
40:65:3:ARG:HE	40:65:4:LEU:N	1.85	0.75
24:3K:51:A:N6	24:3K:63:U:O4	2.18	0.75
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.69	0.75
1:1G:452:A:N6	1:1G:480:U:O2	2.19	0.75
14:5A:27:CYS:O	14:5A:29:ARG:NE	2.15	0.75
20:BA:11:SER:HA	20:BA:13:LEU:HD22	1.68	0.75
26:14:1091:G:N2	26:14:1092:C:N3	2.34	0.75
26:14:1247:A:OP1	31:39:95:ARG:NH2	2.19	0.75
6:5E:97:PHE:HB2	18:9I:32:ARG:HE	1.52	0.75
26:1H:1249:U:OP1	61:1H:3540:HOH:O	2.04	0.75
26:1H:1653:G:H3'	39:98:2:ARG:HG2	1.68	0.75
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.51	0.75
13:4A:31:LYS:HA	13:4A:34:LEU:HD12	1.68	0.75
29:19:69:ARG:NH2	29:19:128:GLY:O	2.19	0.75
47:D5:53:ILE:HG22	47:D5:71:VAL:HG13	1.66	0.75
1:13:576:G:OP1	61:13:1807:HOH:O	2.04	0.75
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.19	0.75
7:6E:70:LYS:HG2	7:6E:96:GLN:HB3	1.69	0.75
26:1H:2183:C:H2'	26:1H:2184:G:H8	1.51	0.75
1:1G:975:A:H5'	1:1G:975:A:H8	1.52	0.75
26:14:2270:G:OP2	61:14:3523:HOH:O	2.04	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:255:LYS:H	29:19:255:LYS:NZ	1.84	0.75
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.66	0.75
30:21:38:THR:H	30:21:42:ASP:HB2	1.51	0.75
31:31:6:VAL:N	31:31:24:LEU:O	2.19	0.75
26:14:1048:A:N1	26:14:1112:G:O2'	2.19	0.75
36:25:68:GLU:OE2	36:25:78:ARG:NH1	2.19	0.75
24:3K:19:G:O2'	24:3K:57:G:N3	2.18	0.75
1:1G:991:U:O4	1:1G:1212:U:O2'	2.05	0.75
26:14:789:A:N1	61:14:3569:HOH:O	2.19	0.75
27:1J:44:G:O2'	27:1J:47:C:N4	2.20	0.75
3:2E:8:ILE:HG23	3:2E:16:ARG:HG2	1.69	0.75
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.52	0.75
26:14:2250:G:H2'	38:45:82:ARG:HG3	1.68	0.75
26:1H:1888:G:N2	26:1H:1888:G:OP2	2.19	0.75
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.19	0.75
46:G8:55:TYR:HB3	46:G8:58:GLY:HA3	1.69	0.75
26:14:1229:G:N7	61:14:3567:HOH:O	2.18	0.75
1:13:550:G:OP1	61:13:1808:HOH:O	2.04	0.74
26:1H:270(G):C:H42	26:1H:270(R):G:H22	1.34	0.74
26:14:567:A:OP1	61:14:3522:HOH:O	2.04	0.74
26:14:955:C:OP1	38:45:85:LYS:NZ	2.19	0.74
1:13:588:G:OP2	61:13:1809:HOH:O	2.05	0.74
1:13:664:G:H22	1:13:741:G:H1	1.33	0.74
1:13:1216:G:OP2	61:13:1806:HOH:O	2.04	0.74
2:1E:73:THR:OG1	2:1E:170:GLU:OE2	2.05	0.74
26:1H:2287:A:N6	26:1H:2344:U:H3	1.84	0.74
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.50	0.74
1:1G:1200:C:O2'	1:1G:1201:A:OP2	2.03	0.74
8:72:83:ILE:HG13	8:72:137:VAL:HG22	1.69	0.74
34:69:135:GLU:OE1	34:69:135:GLU:N	2.20	0.74
1:13:1309:G:OP2	13:4I:99:ARG:NH2	2.20	0.74
26:1H:907:U:O2'	38:88:101:ARG:NH2	2.17	0.74
30:21:39:PRO:HD3	30:21:45:THR:HG22	1.69	0.74
55:M5:43:GLN:HG3	55:M5:46:ARG:HH21	1.50	0.74
1:13:827:U:H5	1:13:872:A:N1	1.85	0.74
1:13:1118:C:OP1	9:8E:104:ARG:NH1	2.19	0.74
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.20	0.74
26:1H:2074:U:OP1	61:1H:3541:HOH:O	2.04	0.74
26:1H:2577:A:OP1	61:1H:3538:HOH:O	2.04	0.74
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.19	0.74
26:14:2771:C:H4'	30:29:202:LYS:HG3	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.68	0.74
26:14:784:A:OP1	61:14:3527:HOH:O	2.06	0.74
41:75:6:LEU:O	41:75:10:VAL:N	2.20	0.74
1:13:1238:A:N3	1:13:1241:G:O2'	2.20	0.74
26:14:847:U:OP2	61:14:3526:HOH:O	2.05	0.74
48:I8:38:VAL:HG12	48:I8:40:GLN:HG2	1.69	0.74
11:2A:54:ARG:NH2	57:3L:39:PSU:O2'	2.19	0.74
26:14:125:G:H5"	54:L5:19:ARG:HD3	1.66	0.74
26:14:792:G:OP2	61:14:3521:HOH:O	2.04	0.74
26:14:1022:G:H22	26:14:1142(A):A:H2	1.35	0.74
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.70	0.74
18:9I:22:VAL:O	18:9I:42:ARG:NH2	2.21	0.74
3:22:16:ARG:HH22	3:22:181:ASN:HA	1.52	0.74
13:4I:14:ARG:HB3	13:4I:17:VAL:HB	1.68	0.74
26:1H:945:A:OP1	61:1H:3546:HOH:O	2.05	0.74
26:1H:1244:G:N7	61:1H:3612:HOH:O	2.21	0.74
26:1H:1283:G:N2	26:1H:1286:A:OP2	2.20	0.74
1:1G:402:G:N7	61:1G:1718:HOH:O	2.19	0.74
26:14:2685:G:O6	61:14:3520:HOH:O	2.03	0.74
39:55:100:LEU:HD21	39:55:113:LEU:HD13	1.70	0.74
26:1H:973:A:OP2	61:1H:3543:HOH:O	2.04	0.74
7:62:111:ARG:NH1	7:62:126:ASP:OD2	2.21	0.74
8:72:113:SER:HB2	8:72:134:ILE:HD11	1.69	0.74
26:14:289:A:H3'	26:14:290:G:H8	1.53	0.74
26:14:2009:G:H1'	39:55:107:ASP:O	1.88	0.74
43:95:71:LEU:HA	43:95:86:GLY:HA2	1.69	0.74
9:8E:26:VAL:HG22	9:8E:61:ALA:HB3	1.70	0.73
25:4K:24:A:H2'	25:4K:25:A:C8	2.23	0.73
26:1H:1007:C:OP2	61:1H:3545:HOH:O	2.04	0.73
46:G8:85:VAL:HG21	46:G8:98:VAL:HB	1.69	0.73
5:42:24:ARG:HB3	5:42:26:PHE:CE1	2.22	0.73
26:14:2277:G:OP2	48:E5:12:ASN:ND2	2.21	0.73
61:14:3524:HOH:O	29:19:227:ASN:ND2	2.21	0.73
1:13:736:C:H2'	1:13:737:A:C8	2.22	0.73
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.70	0.73
3:22:29:TYR:HE1	3:22:33:LEU:HD13	1.53	0.73
26:14:784:A:OP2	61:14:3524:HOH:O	2.05	0.73
42:85:90:VAL:HG22	43:95:39:LEU:HB3	1.68	0.73
7:6E:118:VAL:HG13	7:6E:122:HIS:HE1	1.53	0.73
45:F8:15:GLU:H	45:F8:15:GLU:CD	1.94	0.73
1:1G:1076:C:H42	1:1G:1081:G:H1	1.35	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.20	0.73
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.71	0.73
28:71:20:TYR:O	28:71:225:ASN:N	2.18	0.73
29:11:26:LYS:HD2	29:11:29:PRO:HG3	1.70	0.73
47:H8:77:ASP:OD2	47:H8:80:ARG:NH1	2.21	0.73
1:1G:37:U:H2'	1:1G:38:G:H8	1.51	0.73
2:12:32:ILE:HA	2:12:42:ILE:HA	1.68	0.73
26:14:2399:G:N2	26:14:2417:C:O2	2.19	0.73
40:65:14:VAL:HG11	40:65:89:ARG:HD3	1.70	0.73
50:G5:3:LEU:C	50:G5:5:GLU:HB3	2.14	0.73
40:A8:27:SER:HA	40:A8:88:ASP:HB3	1.70	0.73
50:K8:2:LYS:O	50:K8:6:VAL:HG23	1.87	0.73
1:1G:1315:U:O2'	1:1G:1360:A:O2'	2.05	0.73
56:1L:20:U:O2'	56:1L:48:C:N4	2.22	0.73
26:14:1413:G:O6	61:14:3528:HOH:O	2.06	0.73
29:19:93:ALA:HB3	29:19:105:ILE:HG22	1.70	0.73
41:75:88:ILE:HD11	41:75:91:ARG:HG2	1.70	0.73
1:13:318:G:N7	61:13:1823:HOH:O	2.22	0.73
2:1E:16:HIS:CE1	2:1E:214:ILE:HD11	2.24	0.73
26:1H:2792:G:N2	26:1H:2793:G:O6	2.22	0.73
34:61:83:ALA:HB2	34:61:144:VAL:HG23	1.70	0.73
41:B8:5:ALA:O	41:B8:9:LEU:HB2	1.89	0.73
1:1G:766:A:OP2	61:1G:1704:HOH:O	2.05	0.73
1:1G:920:U:H2'	1:1G:921:U:C6	2.22	0.73
8:72:116:LYS:HE3	8:72:129:VAL:HG11	1.71	0.73
31:39:178:PRO:HB3	31:39:198:ALA:HB1	1.69	0.73
26:1H:2058:A:N7	61:1H:3609:HOH:O	2.20	0.73
2:12:74:LYS:NZ	2:12:205:ASP:OD1	2.20	0.73
26:14:1110:G:H2'	26:14:1111:A:C8	2.24	0.73
26:14:2855:C:H2'	26:14:2856:C:H6	1.53	0.73
50:G5:43:GLN:HB2	50:G5:45:SER:H	1.53	0.73
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.20	0.73
35:58:96:GLU:C	35:58:98:VAL:H	1.96	0.73
46:G8:29:GLU:HB3	46:G8:38:ILE:HG23	1.70	0.73
26:14:397:G:N7	61:14:3579:HOH:O	2.21	0.73
26:14:1762:A:N6	61:14:3575:HOH:O	2.21	0.73
8:7E:102:ARG:HE	8:7E:102:ARG:H	1.34	0.73
26:1H:2057:A:OP2	61:1H:3530:HOH:O	2.05	0.73
28:71:45:ALA:HB3	28:71:171:ILE:HB	1.71	0.73
4:32:60:GLU:OE2	4:32:199:ASN:N	2.22	0.73
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:27:THR:OG1	9:82:31:GLN:O	2.07	0.73
26:14:1665:A:N7	61:14:3584:HOH:O	2.22	0.73
1:13:67:C:H2'	1:13:68:G:H8	1.54	0.73
26:1H:71:A:H2	45:F8:31:HIS:NE2	1.84	0.73
42:C8:92:ARG:O	42:C8:94:ASN:N	2.22	0.73
12:3A:117:ARG:HB3	12:3A:122:THR:HB	1.70	0.73
3:2E:46:GLU:HB2	3:2E:47:LEU:HD12	1.70	0.72
30:21:111:ARG:HA	39:98:1:MET:HE3	1.70	0.72
1:1G:1188:A:H4'	14:5A:58:LYS:HE3	1.71	0.72
26:14:676:A:H8	26:14:2069:G:N2	1.82	0.72
26:14:2394:C:H2'	26:14:2395:C:H6	1.53	0.72
26:14:2846:G:N7	61:14:3580:HOH:O	2.22	0.72
51:H5:39:ASP:OD1	51:H5:44:ARG:NH1	2.22	0.72
26:1H:1899:G:N2	26:1H:1902:C:H5	1.88	0.72
43:D8:14:VAL:HB	43:D8:96:ILE:HG13	1.71	0.72
1:1G:630:G:H3'	1:1G:631:G:H5'	1.70	0.72
1:1G:1095:U:P	1:1G:1108:G:H1	2.12	0.72
26:1H:2101:G:N2	26:1H:2189:U:O2'	2.22	0.72
26:1H:2308:G:N1	26:1H:2311:A:H2	1.87	0.72
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.68	0.72
26:1H:2210:G:H3'	26:1H:2211:G:C4	2.24	0.72
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.22	0.72
35:58:34:LEU:HD21	35:58:120:LEU:HB2	1.70	0.72
5:42:80:ILE:HG13	8:72:104:ARG:HH12	1.55	0.72
20:BA:33:ILE:O	20:BA:37:SER:OG	2.07	0.72
27:1J:90:C:P	38:45:16:ARG:HH21	2.13	0.72
1:13:1086:U:H3	1:13:1099:G:H22	1.37	0.72
1:1G:736:C:H2'	1:1G:737:A:C8	2.24	0.72
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.22	0.72
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.69	0.72
10:1I:48:THR:OG1	10:1I:62:HIS:ND1	2.21	0.72
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.71	0.72
56:1L:30:G:H1	56:1L:40:C:H42	1.34	0.72
26:1H:1109:C:O2	26:1H:1110:G:N2	2.23	0.72
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.71	0.72
52:M8:23:GLU:O	52:M8:25:TYR:N	2.19	0.72
1:1G:1016:A:O2'	1:1G:1217:C:O2'	2.06	0.72
1:13:160:A:N6	1:13:346:G:O6	2.19	0.72
25:4K:8:A:H2'	25:4K:9:G:H8	1.55	0.72
26:1H:2074:U:OP1	61:1H:3549:HOH:O	2.08	0.72
32:41:96:ARG:HB2	32:41:96:ARG:HH11	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.08	0.72
26:14:2207:C:O2	29:19:151:LYS:NZ	2.17	0.72
36:25:108:GLU:OE1	36:25:108:GLU:N	2.23	0.72
40:65:50:SER:O	40:65:76:LYS:NZ	2.17	0.72
1:13:1397:C:OP2	5:4E:24:ARG:NH2	2.23	0.72
29:11:30:GLU:CD	29:11:63:ARG:HE	1.97	0.72
29:11:34:VAL:C	29:11:35:LYS:HZ2	1.97	0.72
38:88:14:ARG:HG2	38:88:41:TRP:HH2	1.55	0.72
42:C8:106:PHE:HA	42:C8:109:LEU:HD12	1.71	0.72
49:J8:23:LYS:HB3	49:J8:29:GLY:HA3	1.72	0.72
1:1G:1015:A:H2'	1:1G:1016:A:H8	1.54	0.72
13:4A:82:MET:HG2	13:4A:93:ARG:HG2	1.71	0.72
26:14:1171:G:O2'	26:14:1173:G:O4'	2.08	0.72
27:1J:5:C:H42	27:1J:115:G:H1	1.36	0.72
37:35:101:VAL:HG12	37:35:106:LEU:HD23	1.72	0.72
38:45:88:GLY:O	38:45:89:ASN:ND2	2.23	0.72
1:13:975:A:H4'	1:13:976:G:H5"	1.71	0.71
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.70	0.71
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.72	0.71
30:29:127:ASP:HA	30:29:135:HIS:HD2	1.55	0.71
33:59:149:ARG:HB2	33:59:149:ARG:HH11	1.55	0.71
1:13:157:G:N2	1:13:165:C:O2	2.23	0.71
1:13:316:G:OP1	61:13:1810:HOH:O	2.07	0.71
26:1H:879:G:H5'	26:1H:894:C:H41	1.55	0.71
26:1H:2334:G:H5'	40:A8:9:ARG:HG2	1.72	0.71
1:1G:128:G:H4'	17:8A:3:LYS:HG3	1.72	0.71
1:1G:1027:C:O2'	1:1G:1034:G:N2	2.23	0.71
30:29:54:GLN:HE22	30:29:57:LYS:HA	1.55	0.71
42:85:28:ARG:NH1	42:85:38:THR:OG1	2.23	0.71
1:1G:142:G:H2'	1:1G:143:A:H8	1.55	0.71
1:1G:254:G:N2	17:8A:16:GLN:OE1	2.21	0.71
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.21	0.71
9:82:21:PRO:HA	9:82:59:PHE:HA	1.72	0.71
40:65:27:SER:HA	40:65:88:ASP:HB3	1.72	0.71
26:1H:446:G:OP2	61:1H:3550:HOH:O	2.08	0.71
26:1H:1664:A:OP2	61:1H:3556:HOH:O	2.09	0.71
26:1H:2142:C:O2	26:1H:2149:G:N2	2.24	0.71
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.23	0.71
34:61:9:LEU:HD21	34:61:35:LEU:HD11	1.72	0.71
40:A8:35:ILE:HG22	40:A8:97:ARG:HH21	1.56	0.71
26:14:5:A:H2'	26:14:6:A:H5"	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:330:A:H2	26:14:1210:A:HO2'	1.38	0.71
44:A5:88:ARG:NH1	44:A5:94:ASP:OD2	2.23	0.71
12:3I:38:THR:HB	12:3I:57:LYS:HB3	1.72	0.71
26:14:2680:C:H5'	30:29:189:PRO:HA	1.71	0.71
27:1J:80:U:H2'	27:1J:81:G:H21	1.53	0.71
41:75:11:GLU:OE1	41:75:11:GLU:N	2.24	0.71
2:1E:69:LEU:HB3	2:1E:162:ILE:HG22	1.73	0.71
26:1H:600:G:N2	26:1H:605:C:O3'	2.24	0.71
26:1H:974(A):C:OP1	61:1H:3554:HOH:O	2.08	0.71
28:71:181:PRO:HG2	28:71:184:LYS:HB2	1.72	0.71
40:A8:74:ALA:HB1	40:A8:108:GLY:HA3	1.73	0.71
1:1G:375:U:OP1	16:7A:69:THR:OG1	2.07	0.71
26:1H:563:G:OP2	61:1H:3557:HOH:O	2.09	0.71
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.26	0.71
34:61:98:ALA:HB2	34:61:111:PRO:HB3	1.70	0.71
26:14:1055:G:O6	26:14:1103:A:N6	2.19	0.71
1:13:737:A:H2'	1:13:738:C:H6	1.56	0.71
1:13:1122:U:O4	1:13:1123:A:N6	2.23	0.71
1:13:1492:A:H4'	12:3I:47:LYS:HD3	1.71	0.71
44:E8:73:ALA:HB3	44:E8:106:ILE:HB	1.70	0.71
4:32:100:ARG:NH1	4:32:102:ASP:OD1	2.23	0.71
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.71	0.71
41:75:5:ALA:HB1	41:75:6:LEU:HA	1.73	0.71
26:1H:11:G:HO2'	26:1H:2802:G:HO2'	1.16	0.71
26:1H:517:C:OP1	53:N8:16:ARG:NH2	2.22	0.71
26:1H:963:U:OP1	61:1H:3553:HOH:O	2.08	0.71
33:51:40:GLU:OE1	33:51:61:HIS:NE2	2.23	0.71
38:88:65:PHE:O	38:88:66:ILE:HG13	1.91	0.71
1:1G:610:G:O6	61:1G:1705:HOH:O	2.07	0.71
47:D5:60:GLU:HA	47:D5:66:SER:HA	1.73	0.71
1:13:639:G:H2'	1:13:640:A:H8	1.56	0.71
17:8I:22:LEU:HD22	17:8I:88:TYR:HD2	1.56	0.71
24:3K:19:G:H5"	24:3K:20:U:C5	2.25	0.71
50:G5:8:LYS:O	50:G5:12:GLU:HB3	1.90	0.71
1:13:1230:C:H2'	1:13:1231:G:H8	1.55	0.70
1:13:1277:C:H1'	1:13:1282:C:H1'	1.73	0.70
1:13:1366:C:H2'	1:13:1367:C:H6	1.55	0.70
2:1E:118:LEU:HD12	2:1E:142:LEU:HB2	1.73	0.70
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.73	0.70
1:1G:538:G:H5"	12:3A:114:LYS:HB2	1.74	0.70
1:1G:577:G:N2	1:1G:764:C:O2	2.19	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1997:G:OP2	61:14:3532:HOH:O	2.10	0.70
33:59:72:ILE:HA	33:59:75:ALA:HB3	1.72	0.70
26:1H:2057:A:OP2	61:1H:3548:HOH:O	2.07	0.70
1:13:1240:U:OP2	7:6E:116:ALA:N	2.20	0.70
26:1H:2189:U:H2'	26:1H:2190:G:C8	2.25	0.70
1:1G:1106:G:H5"	3:22:172:ARG:HG2	1.72	0.70
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.73	0.70
47:D5:158:PRO:HD2	47:D5:161:VAL:HG13	1.72	0.70
1:13:1277:C:H2'	1:13:1279:A:H8	1.56	0.70
26:1H:33:U:H4'	26:1H:34:C:OP1	1.90	0.70
26:1H:2295:C:OP1	40:A8:10:ARG:NH1	2.24	0.70
38:88:54:MET:HE3	38:88:64:ILE:HD13	1.72	0.70
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.24	0.70
10:1A:34:VAL:HG12	10:1A:74:ILE:HA	1.73	0.70
26:14:1398:C:OP1	45:B5:53:LYS:NZ	2.25	0.70
26:14:2115:G:O2'	26:14:2171:A:N6	2.23	0.70
26:14:2656:U:H3	26:14:2665:A:H2	1.37	0.70
2:1E:17:PHE:HB3	2:1E:44:LEU:HD11	1.74	0.70
26:1H:2502:G:OP2	61:1H:3551:HOH:O	2.08	0.70
48:I8:24:LYS:O	48:I8:25:ARG:NH1	2.24	0.70
26:14:1342:A:H2	26:14:1602:U:H3	1.39	0.70
26:14:1871:A:H2'	26:14:1872:A:C8	2.26	0.70
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.72	0.70
1:13:612:C:O2	1:13:629:G:N2	2.25	0.70
26:1H:654(C):G:N2	26:1H:654(D):G:N7	2.38	0.70
26:1H:2575:C:OP2	61:1H:3558:HOH:O	2.09	0.70
29:11:96:HIS:CD2	29:11:102:LYS:HE2	2.27	0.70
31:31:64:ILE:HG23	31:31:65:TRP:CD1	2.26	0.70
31:31:191:ARG:HB3	31:31:191:ARG:HH11	1.57	0.70
33:51:93:GLY:O	33:51:95:ARG:NH2	2.23	0.70
34:61:113:ARG:HG3	34:61:131:LYS:HB2	1.73	0.70
40:A8:11:LYS:HD3	40:A8:91:PRO:HD3	1.71	0.70
1:1G:1257:U:H5'	1:1G:1258:G:C8	2.26	0.70
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	1.73	0.70
26:14:2801:A:H2'	26:14:2802:G:O4'	1.91	0.70
34:69:81:VAL:H	34:69:143:SER:HB2	1.56	0.70
35:15:103:VAL:HG11	35:15:120:LEU:HD13	1.74	0.70
55:M5:48:PHE:O	55:M5:50:LEU:N	2.18	0.70
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.25	0.70
19:AI:44:MET:O	19:AI:47:HIS:HB2	1.92	0.70
26:1H:2143:C:H2'	26:1H:2144:U:H4'	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:9:G:OP1	5:42:122:GLU:HB2	1.90	0.70
17:8A:48:GLU:HB2	17:8A:50:LYS:HB2	1.72	0.70
26:14:2415:G:H4'	37:35:67:MET:H	1.56	0.70
27:1J:18:G:N2	27:1J:65:C:N3	2.40	0.70
30:29:57:LYS:HD2	30:29:59:VAL:HG12	1.73	0.70
46:C5:49:VAL:HG12	46:C5:51:VAL:HG22	1.73	0.70
3:2E:16:ARG:HB2	3:2E:16:ARG:NH1	2.06	0.70
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.25	0.70
26:1H:1510:A:O2'	26:1H:1512:G:N7	2.24	0.70
30:21:9:VAL:HG13	41:B8:3:ARG:HG2	1.74	0.70
41:B8:24:PRO:HA	41:B8:49:VAL:HG22	1.73	0.70
8:72:12:ARG:HE	8:72:26:VAL:HA	1.57	0.70
16:7A:14:ASN:OD1	16:7A:42:ARG:NH2	2.23	0.70
26:14:273(F):C:H3'	26:14:274:G:H5"	1.73	0.70
26:14:1225:C:O3'	43:95:85:LYS:HA	1.91	0.70
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	1.72	0.70
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.26	0.70
43:D8:49:THR:HG22	43:D8:51:VAL:H	1.55	0.70
51:L8:9:VAL:HG21	51:L8:55:ARG:HG3	1.73	0.70
1:1G:1133:G:N2	1:1G:1141:C:O2	2.25	0.70
33:59:52:VAL:HG11	33:59:69:ARG:HB2	1.71	0.70
1:13:437:U:H5'	4:3E:155:LEU:HD21	1.74	0.70
26:1H:1242:A:OP2	61:1H:3559:HOH:O	2.09	0.70
28:71:59:ARG:HH21	28:71:171:ILE:HD13	1.57	0.70
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.72	0.70
26:14:205:G:O6	49:F5:39:LYS:NZ	2.25	0.70
26:14:1593:G:H2'	26:14:1594:G:C8	2.27	0.70
45:B5:40:LYS:HA	45:B5:51:VAL:HG11	1.74	0.70
55:M5:22:VAL:HB	55:M5:55:ALA:HB1	1.72	0.70
7:6E:118:VAL:HG13	7:6E:122:HIS:CE1	2.27	0.69
26:1H:422:A:OP2	61:1H:3561:HOH:O	2.10	0.69
26:1H:733:G:OP2	61:1H:3560:HOH:O	2.09	0.69
26:1H:761:A:OP2	61:1H:3555:HOH:O	2.09	0.69
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.27	0.69
1:1G:1129:C:N4	1:1G:1139:G:H22	1.89	0.69
1:1G:1298:C:H4'	1:1G:1299:A:C4	2.26	0.69
7:6E:73:MET:HE2	7:6E:90:GLU:HB3	1.74	0.69
26:1H:2787:C:H1'	30:21:62:PRO:HG3	1.74	0.69
1:1G:1245:A:OP2	21:1B:9:ARG:NH1	2.24	0.69
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.27	0.69
26:14:1416:G:O2'	26:14:1417:C:O5'	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.57	0.69
37:78:116:GLY:H	37:78:134:ALA:HB2	1.57	0.69
23:2L:9:G:O2'	23:2L:10:G:N7	2.25	0.69
25:4L:11:U:H2'	25:4L:12:A:H4'	1.72	0.69
26:14:1062:G:N7	26:14:1071:G:O2'	2.26	0.69
50:G5:47:ASN:O	50:G5:49:LYS:N	2.25	0.69
26:1H:392:C:OP1	61:1H:3564:HOH:O	2.10	0.69
26:1H:2788:C:OP1	30:21:61:ARG:NH2	2.25	0.69
36:68:113:LYS:O	36:68:116:SER:OG	2.10	0.69
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.32	0.69
48:I8:23:VAL:HG13	48:I8:38:VAL:HG22	1.74	0.69
2:12:54:THR:HA	2:12:57:PHE:HB2	1.73	0.69
17:8A:20:THR:HG23	17:8A:43:LEU:HD23	1.74	0.69
40:65:12:PHE:O	40:65:16:ASN:ND2	2.25	0.69
1:13:812:C:N3	61:13:1825:HOH:O	2.25	0.69
27:16:42:C:O2'	32:41:67:LYS:O	2.10	0.69
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.26	0.69
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.28	0.69
26:14:2134:A:H2	26:14:2159:G:H1'	1.58	0.69
26:14:2250:G:C2	38:45:82:ARG:HB3	2.28	0.69
26:14:2415:G:H4'	37:35:67:MET:N	2.07	0.69
34:69:101:LEU:HB2	34:69:105:HIS:HB2	1.74	0.69
1:13:652:U:O4	1:13:752:G:O2'	2.05	0.69
12:3I:60:LEU:HD23	12:3I:64:TYR:HB2	1.73	0.69
26:1H:730:C:H3'	61:1H:3520:HOH:O	1.91	0.69
26:1H:2773:C:H5"	30:21:164:ARG:HG3	1.75	0.69
29:11:29:PRO:CB	29:11:30:GLU:HA	2.21	0.69
1:1G:474:G:H2'	1:1G:475:G:C8	2.28	0.69
9:82:20:ARG:NH1	9:82:60:ASP:OD2	2.24	0.69
26:14:463:G:N2	26:14:466:A:OP2	2.24	0.69
34:69:72:LEU:HD21	34:69:107:VAL:HG11	1.73	0.69
47:D5:10:ARG:NH2	47:D5:26:GLY:O	2.25	0.69
26:1H:141:A:H8	26:1H:1595:G:H21	1.40	0.69
26:1H:2161:C:H2'	26:1H:2162:G:H8	1.58	0.69
32:41:131:TYR:O	32:41:159:VAL:HG22	1.92	0.69
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.25	0.69
4:32:70:ILE:HD11	4:32:75:PHE:HD1	1.58	0.69
26:14:259:G:O2'	26:14:621:A:O2'	2.08	0.69
26:14:1579:A:H2'	26:14:1580:A:C8	2.28	0.69
38:45:38:GLU:HG3	38:45:127:ILE:HG22	1.73	0.69
1:13:1422:G:H5"	36:68:48:PRO:HB3	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:57:LYS:HE3	10:1I:60:ARG:HH22	1.58	0.69
26:1H:2058:A:OP1	61:1H:3568:HOH:O	2.11	0.69
26:1H:2228:G:O6	61:1H:3552:HOH:O	2.08	0.69
28:71:58:VAL:HG21	28:71:201:PRO:HD3	1.75	0.69
31:31:23:ASP:OD1	31:31:23:ASP:N	2.24	0.69
35:58:96:GLU:HG2	35:58:97:ARG:N	2.06	0.69
46:G8:15:VAL:HG21	46:G8:42:VAL:HG21	1.75	0.69
46:G8:85:VAL:HB	46:G8:96:ILE:HG13	1.75	0.69
1:1G:1298:C:N4	7:62:114:ARG:HB3	2.07	0.69
1:1G:1441:G:H5"	1:1G:1442:G:H5'	1.74	0.69
5:42:42:GLY:HA3	5:42:65:ASN:O	1.93	0.69
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.58	0.69
26:14:602:G:O2'	26:14:604:G:O2'	1.99	0.69
26:14:1828:G:OP2	61:14:3534:HOH:O	2.10	0.69
26:14:2294:C:P	40:65:89:ARG:HH22	2.16	0.69
26:14:2519:U:OP2	61:14:3531:HOH:O	2.09	0.69
40:65:106:ARG:HH21	40:65:107:GLU:CD	2.00	0.69
4:3E:77:ASN:O	4:3E:80:GLU:N	2.26	0.69
2:12:27:LYS:O	2:12:30:ARG:NH1	2.26	0.69
56:1L:9:A:OP2	56:1L:13:C:N4	2.26	0.69
26:14:155:C:N3	26:14:171:G:N1	2.41	0.69
33:59:9:ILE:O	33:59:69:ARG:NH1	2.25	0.69
37:35:17:LYS:O	37:35:18:ARG:HG2	1.93	0.69
1:13:1348:U:H3	1:13:1374:A:H2	1.40	0.69
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.26	0.69
26:1H:370:G:OP2	61:1H:3563:HOH:O	2.10	0.69
39:98:107:ASP:HB3	39:98:109:ALA:H	1.57	0.69
1:1G:619:U:O2	4:32:135:LEU:HD22	1.92	0.69
18:9A:30:ASP:HB3	18:9A:33:ASP:HB2	1.73	0.69
31:39:111:ALA:HB2	31:39:206:ILE:HG21	1.74	0.69
51:H5:8:LEU:HB2	51:H5:28:LEU:HD22	1.73	0.69
32:41:47:LYS:HE3	32:41:81:LYS:HD2	1.74	0.68
2:12:19:HIS:CE1	2:12:206:ASP:H	2.11	0.68
26:14:259:G:N2	26:14:621:A:H8	1.91	0.68
26:14:1332:G:C8	26:14:1332:G:H5'	2.28	0.68
26:14:1670:C:OP1	61:14:3536:HOH:O	2.11	0.68
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.26	0.68
17:8I:13:ASP:HA	17:8I:19:VAL:HG12	1.74	0.68
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.28	0.68
26:1H:748:G:OP2	61:1H:3562:HOH:O	2.10	0.68
26:1H:780:G:H21	26:1H:783:A:N6	1.91	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2519:U:OP2	61:1H:3573:HOH:O	2.12	0.68
2:12:118:LEU:HD22	2:12:142:LEU:HB2	1.75	0.68
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.57	0.68
29:19:37:LEU:H	29:19:37:LEU:CD1	2.05	0.68
43:95:44:LYS:C	43:95:46:VAL:H	2.01	0.68
1:13:477:G:H2'	1:13:478:A:C8	2.28	0.68
4:3E:187:ARG:NH1	4:3E:193:ASP:OD2	2.26	0.68
6:52:100:ASN:ND2	18:9A:26:LEU:O	2.26	0.68
26:14:1900:A:OP2	61:14:3535:HOH:O	2.11	0.68
29:19:68:LYS:HB3	29:19:70:TRP:CH2	2.28	0.68
26:1H:760:G:OP2	61:1H:3569:HOH:O	2.11	0.68
27:16:90:C:H5'	38:88:18:LYS:HA	1.75	0.68
32:41:95:ARG:HA	32:41:99:MET:HB2	1.76	0.68
3:22:47:LEU:HB3	3:22:52:LEU:HB3	1.76	0.68
26:14:729:G:OP2	29:19:13:ARG:NH1	2.24	0.68
26:14:1364:G:OP2	49:F5:2:SER:N	2.26	0.68
48:E5:23:VAL:HG12	48:E5:38:VAL:HG22	1.75	0.68
7:6E:15:ASP:OD1	7:6E:20:ASP:N	2.24	0.68
26:1H:733:G:N7	61:1H:3641:HOH:O	2.26	0.68
26:1H:1170:G:N2	26:1H:1180:C:O2	2.26	0.68
26:1H:2712(A):A:H5"	26:1H:2713:A:OP2	1.94	0.68
27:16:7:G:H4'	40:A8:29:PHE:HD2	1.56	0.68
56:1L:5:C:H42	56:1L:68:G:H1	1.41	0.68
31:39:25:PRO:HB2	31:39:27:GLU:C	2.18	0.68
1:13:5:U:H5	4:3E:87:GLY:HA3	1.57	0.68
6:5E:89:MET:HG3	18:9I:76:LEU:HD21	1.76	0.68
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.28	0.68
1:1G:766:A:OP2	61:1G:1706:HOH:O	2.10	0.68
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.28	0.68
26:14:925:C:H2'	26:14:926:A:H8	1.59	0.68
26:14:1266:G:O4'	44:A5:15:ARG:NH2	2.27	0.68
26:14:2350:C:OP2	61:14:3537:HOH:O	2.11	0.68
1:13:730:G:C5	1:13:731:G:H1'	2.29	0.68
33:51:137:ASP:OD1	33:51:138:LYS:N	2.25	0.68
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	1.76	0.68
9:82:50:LEU:HB3	9:82:56:LEU:HA	1.75	0.68
13:4A:8:GLU:OE1	32:49:115:ARG:NH2	2.26	0.68
26:14:1568:G:P	29:19:63:ARG:HH22	2.16	0.68
26:14:1676:A:OP2	61:14:3538:HOH:O	2.12	0.68
42:85:92:ARG:HG2	43:95:11:GLN:OE1	1.94	0.68
1:13:1412:C:H2'	1:13:1413:A:C8	2.29	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:270(L):U:C2	34:61:50:ARG:HG2	2.29	0.68
26:1H:409:C:OP1	61:1H:3577:HOH:O	2.12	0.68
1:1G:1015:A:H2'	1:1G:1016:A:C8	2.29	0.68
57:3L:3:G:N2	57:3L:70:C:N3	2.34	0.68
29:19:255:LYS:H	29:19:255:LYS:CE	2.07	0.68
31:39:188:ARG:HA	37:35:3:LEU:HD11	1.76	0.68
6:5E:10:LEU:HD13	6:5E:61:LEU:HD13	1.76	0.68
6:5E:81:ILE:HD11	29:11:125:ILE:HB	1.74	0.68
13:4I:37:THR:O	13:4I:55:ARG:NH1	2.27	0.68
26:1H:1509:C:H3'	26:1H:1510:A:H5"	1.76	0.68
26:1H:2305:A:O2'	32:41:136:ARG:NH1	2.26	0.68
26:1H:2588:G:OP2	61:1H:3566:HOH:O	2.11	0.68
32:41:109:VAL:HG21	52:M8:14:ILE:HD13	1.74	0.68
37:35:50:ARG:HB3	37:35:50:ARG:HH11	1.59	0.68
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.27	0.68
26:1H:298:G:N7	46:G8:84:ARG:NH1	2.41	0.68
26:1H:1009:A:OP2	61:1H:3571:HOH:O	2.11	0.68
26:1H:1568:G:OP1	29:11:63:ARG:NH1	2.21	0.68
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.59	0.68
26:14:1030:G:OP2	38:45:128:LYS:NZ	2.27	0.68
26:14:2593:U:O4	61:14:3529:HOH:O	2.06	0.68
30:29:12:THR:HG22	41:75:58:ASN:HD21	1.58	0.68
34:69:77:LEU:HD13	34:69:141:LYS:HE2	1.76	0.68
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.12	0.67
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.76	0.67
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.27	0.67
26:14:2655:G:N2	26:14:2665:A:OP2	2.25	0.67
40:65:106:ARG:NH2	40:65:107:GLU:OE2	2.26	0.67
1:13:592:G:H2'	1:13:593:G:H8	1.59	0.67
1:13:972:C:OP1	61:13:1811:HOH:O	2.10	0.67
26:1H:1364:G:N7	49:J8:2:SER:HB3	2.09	0.67
26:1H:1776:G:OP2	61:1H:3567:HOH:O	2.11	0.67
29:11:242:ARG:O	61:11:401:HOH:O	2.11	0.67
1:1G:517:G:N2	1:1G:530:G:OP1	2.27	0.67
30:29:81:ILE:HG22	30:29:82:ARG:H	1.59	0.67
1:13:474:G:H2'	1:13:475:G:C8	2.28	0.67
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.27	0.67
26:1H:1370:C:OP2	61:1H:3578:HOH:O	2.13	0.67
26:1H:2576:G:OP1	61:1H:3565:HOH:O	2.11	0.67
35:58:137:LYS:NZ	35:58:138:LEU:O	2.27	0.67
43:D8:44:LYS:O	43:D8:46:VAL:N	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1091:G:H1'	26:14:1101:U:H1'	1.76	0.67
43:95:37:VAL:HG21	43:95:57:VAL:H	1.58	0.67
1:13:1160:G:H1	1:13:1177:G:N2	1.89	0.67
26:1H:1184:G:OP1	51:L8:30:ARG:NH1	2.27	0.67
26:1H:1534:G:H21	26:1H:1538:G:N2	1.91	0.67
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.77	0.67
26:1H:2656:U:H3	26:1H:2665:A:H2	1.40	0.67
8:72:69:ARG:HD3	8:72:75:ARG:O	1.95	0.67
26:14:818:G:OP2	61:14:3505:HOH:O	2.11	0.67
26:14:2375:G:N7	61:14:3599:HOH:O	2.27	0.67
1:13:766:A:OP2	61:13:1812:HOH:O	2.11	0.67
14:5I:4:LYS:O	14:5I:7:ILE:HG13	1.94	0.67
15:6I:76:GLU:OE2	15:6I:79:ARG:NH1	2.27	0.67
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.26	0.67
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.76	0.67
23:2L:30:G:H1	23:2L:42:C:H42	1.42	0.67
26:1H:585:G:OP2	61:1H:3572:HOH:O	2.12	0.67
26:1H:1189:A:OP2	61:1H:3579:HOH:O	2.13	0.67
26:1H:1434:A:H61	26:1H:1558:A:N6	1.92	0.67
32:41:124:SER:HB2	32:41:131:TYR:CE2	2.29	0.67
43:D8:79:VAL:HG13	43:D8:81:TYR:HB3	1.76	0.67
1:1G:1148:U:H2'	1:1G:1149:C:O4'	1.95	0.67
26:14:811:U:H2'	37:35:21:ARG:HA	1.77	0.67
26:14:1828:G:OP2	61:14:3541:HOH:O	2.12	0.67
26:14:2787:C:O2'	30:29:61:ARG:O	2.11	0.67
37:35:52:GLU:O	37:35:54:GLY:N	2.28	0.67
44:A5:45:TYR:OH	44:A5:49:LYS:NZ	2.28	0.67
1:13:737:A:H2'	1:13:738:C:C6	2.30	0.67
11:2I:85:ARG:HE	11:2I:111:ASP:HB3	1.60	0.67
13:4I:17:VAL:O	13:4I:20:THR:HG22	1.93	0.67
26:1H:138:G:N2	45:F8:44:GLU:OE2	2.18	0.67
29:11:17:THR:HG22	29:11:204:ILE:HA	1.77	0.67
26:14:1423:G:N7	61:14:3601:HOH:O	2.28	0.67
26:14:2232:U:P	49:F5:40:ARG:HH22	2.17	0.67
1:13:75:C:O2'	1:13:95:G:N2	2.28	0.67
26:1H:1212:G:N2	26:1H:1236:G:O2'	2.28	0.67
12:3A:114:LYS:HE3	12:3A:125:PRO:HG3	1.76	0.67
26:14:1536:A:C8	26:14:1537:C:H1'	2.30	0.67
26:14:1754:C:H2'	26:14:1755:A:C8	2.30	0.67
26:14:2009:G:H4'	44:A5:40:ASN:HD22	1.59	0.67
26:14:2537:U:H2'	26:14:2538:C:C6	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:118:ARG:H	32:49:118:ARG:HD2	1.59	0.67
1:13:278:G:OP2	17:8I:92:ARG:NH1	2.22	0.67
6:5E:97:PHE:HD2	18:9I:31:LEU:HD11	1.60	0.67
9:8E:71:SER:HA	9:8E:74:ILE:HD12	1.76	0.67
33:51:83:TYR:HB2	33:51:134:SER:HA	1.77	0.67
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.30	0.67
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.22	0.67
26:14:993:G:N3	43:95:89:GLN:NE2	2.42	0.67
26:14:1225:C:O2'	43:95:85:LYS:N	2.27	0.67
32:49:54:GLU:O	32:49:58:GLN:NE2	2.27	0.67
37:35:19:VAL:HG23	37:35:20:GLY:H	1.60	0.67
48:E5:36:ILE:HD12	48:E5:58:THR:HG21	1.77	0.67
1:13:1182:G:H4'	1:13:1183:A:H5"	1.77	0.67
1:13:1315:U:O2'	1:13:1360:A:O2'	2.13	0.67
26:1H:442:G:H1'	31:31:48:THR:HG21	1.77	0.67
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.60	0.67
26:1H:1665:A:N7	61:1H:3645:HOH:O	2.28	0.67
2:12:220:ASP:OD1	2:12:220:ASP:N	2.20	0.67
26:14:1771:C:H1'	26:14:1786:A:C8	2.29	0.67
26:14:2685:G:N7	61:14:3611:HOH:O	2.28	0.67
41:75:4:GLY:HA3	41:75:8:LYS:HB2	1.77	0.67
46:C5:76:CYS:SG	46:C5:97:ARG:HG3	2.35	0.67
48:E5:21:LEU:HD21	48:E5:41:ARG:HH12	1.58	0.67
18:9I:37:VAL:HG12	18:9I:41:LYS:HE3	1.76	0.66
22:1K:60:U:H5'	22:1K:61:C:H5	1.60	0.66
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.60	0.66
27:16:101:A:OP2	61:16:302:HOH:O	2.11	0.66
30:21:105:THR:HB	30:21:197:ILE:HG23	1.77	0.66
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.28	0.66
1:1G:1127:G:H22	1:1G:1144:G:H1	1.43	0.66
20:BA:89:ARG:HH11	20:BA:104:LEU:HB3	1.60	0.66
26:14:2781:A:H5"	26:14:2782:G:H5'	1.78	0.66
46:C5:87:LYS:HG2	46:C5:88:LYS:H	1.60	0.66
1:13:1497:G:H2'	1:13:1498:U:H5'	1.77	0.66
5:4E:12:LEU:HB3	5:4E:31:LEU:HB2	1.76	0.66
6:5E:6:VAL:HG22	6:5E:90:VAL:HG22	1.76	0.66
26:1H:1278:A:H4'	39:98:34:ILE:HD11	1.77	0.66
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.59	0.66
43:D8:37:VAL:O	43:D8:38:LEU:HG	1.93	0.66
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.59	0.66
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:375:C:OP1	61:1H:3574:HOH:O	2.12	0.66
27:16:54:G:H2'	27:16:55:U:H6	1.61	0.66
40:A8:100:ALA:HA	40:A8:103:GLU:HG3	1.78	0.66
3:22:14:ILE:HG23	3:22:15:THR:H	1.60	0.66
9:82:121:ARG:NH1	9:82:122:ALA:O	2.28	0.66
19:AA:37:ARG:O	19:AA:70:LYS:NZ	2.27	0.66
26:14:863:A:H2'	26:14:864:G:H8	1.59	0.66
26:14:2228:G:OP1	29:19:261:LYS:NZ	2.28	0.66
26:14:2377:A:H4'	40:65:111:GLU:HG2	1.77	0.66
30:29:9:VAL:HA	41:75:3:ARG:HG3	1.78	0.66
47:D5:30:ASN:OD1	47:D5:33:LEU:N	2.25	0.66
26:1H:2502:G:OP2	61:1H:3581:HOH:O	2.13	0.66
7:62:70:LYS:HG2	7:62:96:GLN:HB3	1.78	0.66
26:14:1582:C:HO2'	26:14:1586:A:H8	1.42	0.66
26:14:2409:G:N7	61:14:3612:HOH:O	2.29	0.66
26:14:2520:C:H41	26:14:2542:A:H62	1.43	0.66
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	1.76	0.66
7:6E:28:ASN:HA	7:6E:31:MET:HE3	1.76	0.66
17:8I:68:ARG:H	17:8I:70:ARG:NH1	1.93	0.66
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.61	0.66
5:42:24:ARG:HD2	5:42:26:PHE:HZ	1.59	0.66
6:52:101:ALA:O	18:9A:28:GLU:HB3	1.96	0.66
21:1B:6:ARG:H	21:1B:6:ARG:NE	1.91	0.66
43:95:35:LEU:HB2	43:95:37:VAL:HG13	1.76	0.66
1:13:1127:G:H2'	1:13:1128:C:C2	2.31	0.66
26:1H:10:G:H21	26:1H:2801:A:HO2'	1.43	0.66
26:1H:1009:A:OP2	35:58:37:LYS:NZ	2.28	0.66
26:1H:2298:A:H62	26:1H:2318:G:H8	1.43	0.66
29:11:37:LEU:CD1	29:11:37:LEU:H	2.03	0.66
47:H8:151:HIS:O	47:H8:171:ILE:HG12	1.95	0.66
51:L8:7:LYS:HB2	51:L8:34:GLU:HG2	1.77	0.66
1:1G:547:A:OP1	61:1G:1709:HOH:O	2.13	0.66
4:32:57:ARG:NH2	4:32:205:GLU:OE2	2.29	0.66
26:14:2417:C:O3'	61:14:3544:HOH:O	2.14	0.66
1:13:1:U:OP1	1:13:630:G:N2	2.28	0.66
26:1H:2176:A:N3	28:71:44:HIS:NE2	2.44	0.66
29:11:14:ARG:HD3	29:11:15:PHE:CZ	2.31	0.66
51:L8:26:LEU:HD21	51:L8:46:ASN:HB3	1.78	0.66
1:1G:606:G:H1'	1:1G:633:G:H22	1.61	0.66
27:1J:102:G:N3	47:D5:73:GLN:NE2	2.33	0.66
35:58:40:PRO:HB3	42:C8:68:ALA:HB2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:53:VAL:HG22	49:J8:74:VAL:HG23	1.78	0.66
1:1G:1023:G:C4	1:1G:1024:G:H1'	2.31	0.66
26:14:2238:G:H2'	26:14:2238:G:N3	2.09	0.66
38:45:110:THR:HG23	38:45:113:GLN:HB2	1.76	0.66
1:13:501:C:H2'	1:13:502:G:H8	1.60	0.66
1:13:1157:A:H61	1:13:1178:G:H21	1.44	0.66
1:13:1390:U:H2'	1:13:1391:U:H6	1.61	0.66
18:9I:59:SER:HB3	18:9I:62:GLU:HG3	1.77	0.66
24:3K:6:G:N2	24:3K:67:C:O2	2.28	0.66
26:1H:1899:G:H22	26:1H:1902:C:H41	1.42	0.66
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.31	0.66
1:1G:837:G:O6	1:1G:849:C:N4	2.28	0.66
10:1A:46:ARG:HB3	10:1A:46:ARG:HH11	1.61	0.66
19:AA:11:VAL:HG22	19:AA:12:ASP:H	1.61	0.66
26:14:607:U:OP1	31:39:102:PRO:HA	1.96	0.66
26:14:731:C:H5"	61:14:3615:HOH:O	1.96	0.66
26:14:972:G:O2'	61:14:3540:HOH:O	2.12	0.66
1:1G:788:U:O2	1:1G:795:C:N4	2.29	0.66
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.29	0.66
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.77	0.66
2:12:101:MET:HB2	2:12:102:LEU:HD12	1.78	0.66
19:AA:41:VAL:HG12	19:AA:42:PRO:HD2	1.76	0.66
26:14:635:C:O2'	26:14:639:U:OP1	2.14	0.66
26:14:2157:G:H4'	26:14:2158:A:C8	2.30	0.66
31:39:157:VAL:HB	31:39:194:MET:HG2	1.76	0.66
1:13:1279:A:O2'	1:13:1281:U:OP2	2.11	0.65
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.60	0.65
22:1K:75:C:O2	26:1H:2507:C:O2'	2.14	0.65
26:1H:660:G:N2	37:78:12:ALA:HA	2.09	0.65
26:1H:2213:U:O2	49:J8:52:ARG:NH2	2.28	0.65
26:1H:2801:A:H2'	26:1H:2802:G:O4'	1.96	0.65
27:16:102:G:N3	47:H8:73:GLN:NE2	2.45	0.65
29:11:10:THR:OG1	29:11:13:ARG:HB2	1.96	0.65
46:G8:91:GLU:O	46:G8:92:ASN:ND2	2.29	0.65
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.76	0.65
20:BA:45:GLN:HA	20:BA:91:LEU:HD22	1.76	0.65
26:14:1864:U:OP1	26:14:2410:G:O2'	2.10	0.65
1:13:1118:C:H1'	1:13:1179:A:C4	2.30	0.65
1:13:1159:U:O4'	1:13:1182:G:N2	2.29	0.65
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.11	0.65
26:1H:2469:A:H2	26:1H:2481:G:N2	1.93	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:36:LYS:HB3	37:78:40:SER:HB3	1.76	0.65
1:1G:803:G:OP1	61:1G:1711:HOH:O	2.14	0.65
1:1G:987:G:N2	1:1G:1218:C:N3	2.43	0.65
17:8A:66:SER:O	17:8A:70:ARG:NH1	2.28	0.65
1:13:677:U:H3	1:13:713:G:H22	1.44	0.65
1:13:1435:G:H2'	1:13:1436:U:C6	2.31	0.65
2:1E:166:ASP:O	2:1E:168:THR:N	2.30	0.65
6:5E:23:LYS:HG3	6:5E:61:LEU:HD21	1.78	0.65
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.32	0.65
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.13	0.65
26:1H:811:U:O4	37:78:21:ARG:NH2	2.30	0.65
26:1H:880:G:H3'	26:1H:881:G:H8	1.61	0.65
28:71:59:ARG:HH11	28:71:165:ASN:HA	1.60	0.65
1:1G:1502:A:H2	1:1G:1505:G:N1	1.90	0.65
26:14:1225:C:H4'	43:95:85:LYS:HD3	1.77	0.65
26:14:1447:G:N7	61:14:3603:HOH:O	2.28	0.65
26:14:2589:A:OP1	61:14:3543:HOH:O	2.13	0.65
42:85:66:ASN:HB2	42:85:76:TYR:HB2	1.79	0.65
1:13:97:U:H2'	1:13:99:C:C5	2.31	0.65
1:13:1390:U:H2'	1:13:1391:U:C6	2.31	0.65
26:1H:761:A:C8	61:1H:3555:HOH:O	2.48	0.65
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.31	0.65
28:71:22:ILE:HG22	28:71:26:ALA:HB2	1.79	0.65
29:11:238:GLY:O	61:11:402:HOH:O	2.14	0.65
26:14:1938:A:O5'	61:14:3545:HOH:O	2.14	0.65
30:29:105:THR:HG21	30:29:164:ARG:HE	1.61	0.65
5:4E:76:ILE:HG13	5:4E:93:PRO:HG3	1.77	0.65
17:8I:11:VAL:HG12	17:8I:85:VAL:HG13	1.79	0.65
18:9I:25:THR:HB	18:9I:42:ARG:HH21	1.60	0.65
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.29	0.65
26:1H:2052:G:H4'	30:21:143:ASN:O	1.96	0.65
31:31:8:GLN:OE1	31:31:21:ALA:HB2	1.95	0.65
43:D8:37:VAL:HG12	43:D8:55:ALA:O	1.97	0.65
50:K8:4:SER:HA	50:K8:7:ARG:HG2	1.79	0.65
9:82:10:ARG:NH1	9:82:105:ASP:OD1	2.30	0.65
9:82:48:GLU:HA	9:82:51:ARG:HD3	1.78	0.65
26:14:300:A:N6	61:14:3610:HOH:O	2.28	0.65
26:14:1069:A:O2'	26:14:1073:A:OP2	2.15	0.65
26:14:2750:A:H8	26:14:2752:C:H41	1.45	0.65
35:15:96:GLU:H	35:15:96:GLU:CD	2.05	0.65
6:5E:30:LEU:HB3	6:5E:35:ALA:HB3	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1429:G:H2'	26:1H:1430:C:H6	1.61	0.65
26:1H:2117:A:H2'	26:1H:2147:G:H21	1.61	0.65
31:31:108:LYS:O	31:31:112:MET:HG3	1.97	0.65
34:61:110:ASP:HB3	34:61:112:LYS:N	2.11	0.65
46:G8:94:LYS:HA	46:G8:94:LYS:NZ	2.11	0.65
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.79	0.65
13:4A:15:VAL:HG12	13:4A:45:VAL:HG22	1.79	0.65
26:14:1187:G:OP2	61:14:3551:HOH:O	2.15	0.65
26:14:1678:G:H22	26:14:1989:G:H1	1.45	0.65
26:14:2062:A:OP1	61:14:3550:HOH:O	2.15	0.65
26:14:2776:A:OP1	26:14:2776:A:H3'	1.97	0.65
26:14:2831:G:OP1	30:29:58:ARG:NH1	2.25	0.65
42:85:91:ASP:O	42:85:92:ARG:HG3	1.97	0.65
8:7E:82:HIS:NE2	8:7E:136:GLU:OE2	2.28	0.65
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.29	0.65
26:1H:1022:G:N2	26:1H:1023:U:O4	2.28	0.65
47:H8:30:ASN:ND2	47:H8:90:VAL:HB	2.11	0.65
26:14:459:U:H2'	26:14:460:A:H8	1.62	0.65
26:14:1639:U:OP1	61:14:3549:HOH:O	2.14	0.65
27:1J:13:A:N1	27:1J:69:G:O2'	2.28	0.65
29:19:96:HIS:CE1	29:19:102:LYS:HE2	2.32	0.65
39:55:45:ARG:HA	39:55:95:THR:HG21	1.78	0.65
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.78	0.65
1:13:1502:A:H2	1:13:1505:G:H1	1.44	0.65
24:3K:3:G:N2	24:3K:70:C:N3	2.43	0.65
26:1H:620:G:H4'	26:1H:621:A:H5"	1.79	0.65
12:3A:28:LYS:HZ1	12:3A:33:ARG:HH22	1.45	0.65
26:14:498:G:H21	46:C5:47:LYS:NZ	1.95	0.65
26:14:832:G:H5'	37:35:45:LEU:HD11	1.78	0.65
26:14:839:U:H2'	26:14:840:C:C6	2.32	0.65
26:14:910:A:C5	38:45:13:GLN:HG3	2.32	0.65
26:14:1013:C:N3	26:14:1149:G:N2	2.42	0.65
35:15:42:TRP:HA	35:15:48:MET:HE1	1.77	0.65
1:13:601:C:H2'	1:13:602:A:H8	1.62	0.65
1:13:859:A:H2'	1:13:860:A:C8	2.32	0.65
26:1H:1021:A:H61	26:1H:1142(A):A:H61	1.44	0.65
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.15	0.65
28:71:181:PRO:O	28:71:185:LEU:N	2.30	0.65
29:11:35:LYS:HA	29:11:64:ILE:HG22	1.77	0.65
30:21:105:THR:HG21	30:21:164:ARG:NH2	2.11	0.65
5:42:9:LYS:HB3	5:42:112:LEU:HD11	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:146:GLU:HG3	11:2A:54:ARG:HG2	1.79	0.65
26:14:71:A:H2	45:B5:31:HIS:HE2	1.44	0.65
26:14:1786:A:H2	26:14:2606:C:H1'	1.62	0.65
26:14:2314:C:H2'	26:14:2315:G:C8	2.31	0.65
46:C5:73:ARG:NH2	46:C5:81:LYS:O	2.30	0.65
49:F5:84:GLY:O	49:F5:87:PRO:HD2	1.97	0.65
6:5E:89:MET:HE1	18:9I:72:ARG:HG2	1.78	0.64
26:1H:2502:G:OP2	61:1H:3586:HOH:O	2.15	0.64
33:51:24:VAL:HG13	33:51:35:VAL:HB	1.79	0.64
49:J8:87:PRO:HA	49:J8:90:ILE:HG12	1.80	0.64
52:M8:14:ILE:HB	52:M8:24:THR:HG21	1.79	0.64
26:14:1368:G:OP1	54:L5:28:ARG:NH2	2.30	0.64
43:95:21:ARG:HE	43:95:91:TYR:HB3	1.61	0.64
45:B5:31:HIS:CE1	45:B5:33:LYS:HG3	2.32	0.64
22:1K:60:U:H5'	22:1K:61:C:C5	2.33	0.64
24:3K:21:A:N7	24:3K:46:G:N2	2.44	0.64
26:1H:805:G:OP2	37:78:41:ARG:HG2	1.97	0.64
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.31	0.64
38:88:66:ILE:O	38:88:104:PHE:N	2.29	0.64
47:H8:152:ALA:HB2	47:H8:169:GLU:H	1.62	0.64
1:1G:73:G:N2	1:1G:97:U:O2	2.26	0.64
1:1G:371:G:H1	1:1G:390:C:H42	1.45	0.64
27:1J:8:U:O3'	40:65:25:ARG:NH2	2.27	0.64
1:13:591:U:H2'	1:13:592:G:C8	2.32	0.64
1:13:859:A:H2'	1:13:860:A:H8	1.61	0.64
5:4E:101:ILE:O	5:4E:120:THR:OG1	2.13	0.64
26:1H:1266:G:O5'	44:E8:15:ARG:NH2	2.25	0.64
26:1H:2331:G:O3'	48:I8:43:THR:HG22	1.96	0.64
35:58:57:ALA:C	35:58:59:LYS:H	2.03	0.64
1:1G:503:C:OP2	12:3A:116:SER:HB3	1.97	0.64
1:1G:973:G:H3'	1:1G:974:A:H5"	1.78	0.64
1:1G:1368:G:H5'	9:82:112:LYS:HB3	1.80	0.64
57:3L:55:U:H3	57:3L:57:G:H3'	1.62	0.64
26:14:2256:G:O6	61:14:3548:HOH:O	2.14	0.64
30:29:120:TRP:CD2	30:29:155:LYS:HG2	2.32	0.64
31:39:150:GLY:HA2	31:39:172:TRP:CD2	2.31	0.64
39:55:33:ARG:NH2	39:55:115:GLU:OE2	2.28	0.64
42:85:92:ARG:C	42:85:94:ASN:H	2.05	0.64
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.13	0.64
2:1E:60:ASP:O	2:1E:64:ARG:NE	2.28	0.64
24:3K:34:U:H2'	24:3K:35:U:H5'	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:275:G:N7	26:1H:363:G:N1	2.46	0.64
26:1H:1899:G:H1	26:1H:1902:C:H41	1.45	0.64
26:1H:2132:U:H5	28:71:5:LYS:HG2	1.61	0.64
3:22:32:LEU:HB3	3:22:59:ARG:HH12	1.61	0.64
23:2L:48:U:O2'	23:2L:49:C:OP2	2.13	0.64
26:14:103:A:OP1	61:14:3554:HOH:O	2.15	0.64
26:14:634:C:H2'	26:14:635:C:C6	2.32	0.64
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.80	0.64
44:A5:21:VAL:HG21	44:A5:76:VAL:HG12	1.80	0.64
16:7I:8:ARG:HB3	16:7I:28:ARG:NH1	2.12	0.64
26:1H:1470:G:N2	26:1H:1522:G:OP2	2.30	0.64
30:21:104:VAL:HG22	30:21:198:VAL:HG22	1.78	0.64
37:78:31:ALA:O	37:78:32:THR:HB	1.98	0.64
26:14:878:A:H5'	26:14:900:A:H61	1.63	0.64
26:14:1167:U:O2	26:14:1183:G:N2	2.30	0.64
26:14:2210:G:H4'	26:14:2211:G:OP2	1.98	0.64
1:13:983:A:H5"	1:13:984:C:OP2	1.97	0.64
1:13:1318:A:H2'	1:13:1319:A:H5"	1.78	0.64
8:7E:87:SER:HA	8:7E:93:VAL:HG23	1.79	0.64
30:21:57:LYS:HG3	30:21:59:VAL:HG12	1.78	0.64
36:68:12:ASP:OD1	36:68:14:THR:OG1	2.15	0.64
57:3L:18:G:H1'	57:3L:58:A:H2	1.62	0.64
26:14:2836:U:H2'	26:14:2837:G:C8	2.32	0.64
30:29:11:MET:HA	30:29:24:THR:HA	1.80	0.64
37:35:78:PRO:HB3	37:35:111:ARG:HE	1.61	0.64
1:13:727:G:N2	1:13:730:G:OP2	2.26	0.64
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	1.78	0.64
12:3I:38:THR:HG22	12:3I:39:VAL:HG23	1.80	0.64
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.32	0.64
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.28	0.64
26:14:654(B):C:O2'	26:14:654(S):G:N2	2.31	0.64
26:14:798:G:OP1	61:14:3552:HOH:O	2.15	0.64
26:14:2162:G:H3'	26:14:2164:C:H5	1.63	0.64
26:14:2346:A:C2	26:14:2383:G:C2	2.86	0.64
27:1J:42:C:O2'	32:49:67:LYS:O	2.13	0.64
26:1H:49:A:N7	26:1H:120:U:C5	2.64	0.64
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.33	0.64
34:61:144:VAL:HG13	34:61:145:VAL:HG23	1.78	0.64
1:1G:42:G:O2'	1:1G:622:A:N1	2.27	0.64
30:29:91:VAL:HB	30:29:95:ILE:HD11	1.80	0.64
38:45:36:ALA:HB2	38:45:103:MET:SD	2.38	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:91:ARG:HD2	41:75:124:ASP:OD2	1.98	0.64
54:L5:19:ARG:HG2	54:L5:19:ARG:HH11	1.62	0.64
1:13:396:G:O2'	1:13:398:C:OP1	2.15	0.64
1:13:452:A:O2'	1:13:453:A:O4'	2.16	0.64
32:41:43:LEU:O	32:41:46:ALA:N	2.27	0.64
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.61	0.64
1:1G:964:A:N3	1:1G:969:A:O2'	2.25	0.64
3:22:11:ARG:NH2	3:22:177:THR:O	2.31	0.64
27:1J:18:G:H2'	27:1J:19:G:C8	2.33	0.64
30:29:29:GLY:H	30:29:51:PHE:HE1	1.44	0.64
1:13:148:G:H2'	1:13:149:A:H8	1.62	0.64
1:13:736:C:H2'	1:13:737:A:H8	1.62	0.64
10:1I:76:ASN:OD1	10:1I:76:ASN:N	2.30	0.64
35:58:35:ARG:HH21	35:58:42:TRP:HH2	1.44	0.64
40:A8:14:VAL:O	40:A8:18:ILE:HD13	1.98	0.64
26:14:1072:C:N4	26:14:1098:A:OP1	2.31	0.64
26:14:1165:U:H2'	26:14:1166:C:C6	2.33	0.64
26:14:1856:G:N2	26:14:1886:C:O2	2.31	0.64
45:B5:43:VAL:HG23	45:B5:51:VAL:HG21	1.78	0.64
1:13:224:C:H2'	1:13:225:C:C6	2.33	0.63
26:1H:273(F):C:H3'	26:1H:274:G:H5"	1.80	0.63
26:1H:860:U:C5	26:1H:917:A:C2	2.86	0.63
26:1H:2159:G:H2'	26:1H:2160:G:H8	1.64	0.63
33:51:107:VAL:HB	33:51:152:ARG:HG2	1.80	0.63
14:5A:10:ALA:HB2	14:5A:23:ARG:HE	1.62	0.63
15:6A:70:LEU:HG	15:6A:78:TYR:HB2	1.79	0.63
26:14:1141:U:OP2	35:15:63:THR:OG1	2.13	0.63
26:14:1218:C:H42	26:14:1231:G:H1	1.44	0.63
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.80	0.63
38:45:22:LYS:N	38:45:23:GLY:HA3	2.13	0.63
1:13:791:G:C2'	1:13:792:A:H5'	2.28	0.63
1:13:974:A:OP2	14:5I:29:ARG:NH2	2.31	0.63
20:BI:26:ASN:HB2	20:BI:71:THR:OG1	1.97	0.63
26:1H:2145:C:H5	26:1H:2148:G:H21	1.45	0.63
52:M8:40:HIS:CE1	52:M8:45:GLY:HA3	2.33	0.63
26:14:752:A:H4'	26:14:753:C:H5'	1.80	0.63
26:14:1289:C:H2'	26:14:1290:C:H6	1.62	0.63
26:14:2075:U:OP2	61:14:3553:HOH:O	2.15	0.63
26:14:2519:U:H4'	26:14:2520:C:OP1	1.98	0.63
37:35:3:LEU:H	37:35:3:LEU:HD12	1.64	0.63
40:65:95:HIS:N	40:65:99:LYS:HB2	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:27:THR:HG23	41:75:89:VAL:HG22	1.79	0.63
7:6E:41:ARG:O	7:6E:45:ASP:HB2	1.98	0.63
50:K8:42:GLY:O	50:K8:44:LEU:N	2.32	0.63
55:Q8:51:ALA:CB	55:Q8:52:LYS:HB2	2.28	0.63
1:1G:1127:G:N3	1:1G:1147:C:N4	2.47	0.63
26:14:528:A:C2	26:14:2042:A:H2'	2.32	0.63
26:14:2647:U:H3	26:14:2673:G:H1	1.45	0.63
40:65:88:ASP:O	40:65:90:GLY:N	2.31	0.63
1:13:260:G:H2'	1:13:261:U:C6	2.34	0.63
1:13:603:U:H2'	1:13:604:G:H8	1.62	0.63
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.63	0.63
26:1H:243:U:OP1	55:Q8:6:THR:OG1	2.16	0.63
26:1H:607:U:OP1	31:31:102:PRO:HA	1.99	0.63
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.34	0.63
26:1H:1899:G:N2	26:1H:1902:C:C5	2.65	0.63
29:11:35:LYS:HB2	29:11:63:ARG:HA	1.80	0.63
33:51:6:ARG:NH1	33:51:54:ARG:HH12	1.97	0.63
43:D8:47:VAL:HG22	43:D8:48:GLY:H	1.62	0.63
26:14:938:G:OP2	55:M5:52:LYS:NZ	2.23	0.63
26:14:2681:C:H5	26:14:2725:A:H62	1.45	0.63
35:15:10:GLU:HG3	35:15:11:PRO:HD2	1.79	0.63
41:75:4:GLY:HA2	41:75:8:LYS:H	1.63	0.63
25:4K:23:A:H2	25:4K:24:A:H62	1.46	0.63
26:1H:548:A:N3	43:D8:21:ARG:NH2	2.46	0.63
26:1H:1856:G:OP2	61:1H:3587:HOH:O	2.15	0.63
26:1H:2133:G:H2'	26:1H:2157:G:H1	1.61	0.63
26:1H:2345:G:H4'	26:1H:2346:A:O5'	1.99	0.63
26:1H:2751:G:OP2	33:51:4:ILE:HG23	1.98	0.63
40:A8:18:ILE:O	40:A8:21:THR:HG22	1.98	0.63
1:1G:954:G:O6	13:4A:104:ARG:NH1	2.31	0.63
12:3A:11:VAL:HG22	17:8A:29:HIS:CD2	2.34	0.63
26:14:34:C:O2'	26:14:35:G:O5'	2.15	0.63
26:14:1778:U:H2'	26:14:1784:A:N6	2.12	0.63
26:14:2788:C:H5'	30:29:61:ARG:HH12	1.62	0.63
1:13:707:C:OP1	11:2I:85:ARG:NH1	2.30	0.63
25:4K:8:A:H2'	25:4K:9:G:C8	2.34	0.63
42:C8:95:LEU:HD22	43:D8:4:ILE:HG12	1.79	0.63
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.29	0.63
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.32	0.63
49:J8:7:ILE:HD12	49:J8:62:VAL:HG11	1.81	0.63
2:12:19:HIS:CE1	2:12:207:ALA:H	2.15	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.32	0.63
21:1B:6:ARG:HB3	21:1B:12:LYS:HD3	1.81	0.63
26:14:2788:C:O2'	26:14:2809:A:N3	2.31	0.63
30:29:111:ARG:HD2	30:29:160:TYR:CD2	2.32	0.63
31:39:198:ALA:HA	31:39:201:VAL:HG13	1.81	0.63
43:95:85:LYS:HG3	43:95:87:HIS:N	2.13	0.63
49:F5:91:LYS:NZ	49:F5:92:LYS:H	1.97	0.63
18:9I:22:VAL:HG13	18:9I:42:ARG:HH22	1.63	0.63
26:1H:848:G:H2'	26:1H:849:A:C8	2.33	0.63
26:1H:1517:G:H5"	26:1H:1518:C:OP2	1.99	0.63
27:16:43:C:H5"	52:M8:1:MET:HG2	1.81	0.63
35:58:39:ARG:HD3	35:58:48:MET:HE2	1.80	0.63
37:78:88:LEU:HD11	37:78:95:VAL:HG11	1.78	0.63
1:1G:353:A:H5'	1:1G:353:A:H8	1.63	0.63
1:1G:677:U:H3	1:1G:713:G:H22	1.45	0.63
1:1G:922:G:H4'	5:42:20:GLN:HA	1.81	0.63
3:22:181:ASN:O	3:22:181:ASN:ND2	2.31	0.63
4:32:20:TYR:CD1	4:32:26:CYS:HB3	2.28	0.63
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.80	0.63
26:14:857:C:H4'	48:E5:23:VAL:HG21	1.80	0.63
26:14:1599:C:H2'	26:14:1600:C:H6	1.63	0.63
43:95:35:LEU:O	43:95:37:VAL:N	2.32	0.63
48:E5:27:GLU:OE1	48:E5:69:PHE:N	2.29	0.63
1:13:631:G:O2'	1:13:632:A:H8	1.81	0.63
1:13:1047:G:H5"	14:5I:4:LYS:HD2	1.80	0.63
24:3K:19:G:H5"	24:3K:20:U:H5	1.63	0.63
26:1H:226:G:H21	26:1H:228:A:H2	1.45	0.63
26:1H:990:A:H1'	26:1H:1156:A:C2	2.34	0.63
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.81	0.63
31:31:6:VAL:HG11	31:31:119:ARG:HA	1.81	0.63
50:K8:42:GLY:C	50:K8:44:LEU:H	2.04	0.63
1:1G:560:U:H5'	1:1G:566:G:N2	2.14	0.63
26:14:102:G:OP1	50:G5:7:ARG:NH2	2.31	0.63
26:14:1503:U:H2'	26:14:1504:C:C6	2.34	0.63
26:14:2002:G:N7	61:14:3578:HOH:O	2.31	0.63
26:14:2525:G:H1	26:14:2538:C:H42	1.46	0.63
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.79	0.63
1:13:1034:G:N2	1:13:1035:A:N7	2.44	0.63
15:6I:16:ALA:HB1	15:6I:21:ASP:HB3	1.81	0.63
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.63	0.63
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:256:U:H2'	1:1G:257:G:C8	2.33	0.63
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.34	0.63
1:1G:1259:C:N4	1:1G:1260:C:O2	2.32	0.63
3:22:182:ILE:HG22	3:22:203:PHE:HB2	1.79	0.63
4:32:146:ILE:HD11	4:32:185:PHE:HB2	1.79	0.63
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.33	0.63
34:69:143:SER:OG	34:69:144:VAL:N	2.24	0.63
37:35:147:LEU:CG	37:35:148:LEU:H	2.09	0.63
1:13:165:C:H2'	1:13:166:G:C8	2.34	0.62
1:13:793:U:H5'	1:13:794:A:H5"	1.80	0.62
9:8E:33:PHE:CE2	9:8E:47:LEU:HD21	2.34	0.62
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.79	0.62
26:1H:330:A:HO2'	26:1H:331:A:H8	1.47	0.62
26:1H:548:A:H2'	26:1H:549:G:H5'	1.81	0.62
34:61:31:LEU:HD21	34:61:38:LEU:HG	1.81	0.62
40:A8:26:LEU:HD13	40:A8:87:PHE:CD1	2.26	0.62
42:C8:49:HIS:HA	42:C8:52:ARG:HB3	1.81	0.62
45:F8:24:GLY:O	45:F8:83:VAL:HG22	1.99	0.62
47:H8:102:LEU:HD21	47:H8:124:ILE:HG22	1.81	0.62
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.81	0.62
10:1A:24:VAL:HG21	10:1A:37:PRO:HG3	1.81	0.62
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.30	0.62
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.25	0.62
26:1H:836:G:H5"	26:1H:837:C:OP2	1.99	0.62
26:1H:958:U:H5'	38:88:14:ARG:HD3	1.80	0.62
26:1H:1667:G:N1	61:1H:3658:HOH:O	2.31	0.62
26:1H:2646:C:OP2	26:1H:2732:G:O2'	2.12	0.62
35:58:96:GLU:O	35:58:98:VAL:HG12	1.99	0.62
55:Q8:51:ALA:HB1	55:Q8:52:LYS:HB2	1.81	0.62
26:14:1486:A:H2'	26:14:1487:G:H8	1.63	0.62
26:14:2588:G:OP1	61:14:3555:HOH:O	2.16	0.62
38:45:37:LEU:HD21	38:45:130:LYS:HB3	1.81	0.62
2:1E:192:SER:OG	2:1E:193:ASP:N	2.28	0.62
2:1E:208:ILE:HG23	2:1E:211:ILE:HD11	1.80	0.62
11:2I:98:LEU:O	11:2I:101:SER:OG	2.16	0.62
20:BI:53:LEU:HD12	20:BI:103:GLY:H	1.62	0.62
26:1H:1007:C:H5"	35:58:35:ARG:HH11	1.64	0.62
26:1H:2469:A:O2'	38:88:56:ARG:HG2	2.00	0.62
32:41:57:ALA:HB2	32:41:90:LEU:HD21	1.81	0.62
47:H8:7:ALA:HB2	47:H8:59:LEU:HD22	1.80	0.62
55:Q8:39:LYS:O	55:Q8:43:GLN:HG3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:111:ARG:HB2	9:82:113:LYS:HZ3	1.62	0.62
13:4A:48:LEU:HG	13:4A:53:VAL:HG12	1.81	0.62
56:1L:76:A:H1'	26:14:2583:G:H21	1.63	0.62
32:49:4:ASP:OD2	32:49:9:ARG:NH2	2.32	0.62
33:59:152:ARG:HG3	33:59:153:LYS:HG3	1.81	0.62
1:13:1211:U:H4'	1:13:1213:A:H1'	1.80	0.62
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.99	0.62
36:68:98:VAL:HG13	36:68:117:LEU:HB2	1.80	0.62
37:78:71:VAL:HG13	37:78:72:PRO:HD3	1.81	0.62
1:1G:600:C:H2'	1:1G:601:C:C6	2.35	0.62
1:1G:1453:G:H1	20:BA:54:LYS:HZ2	1.48	0.62
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.81	0.62
26:14:676:A:H1'	26:14:2443:C:H1'	1.81	0.62
48:E5:50:ASN:C	48:E5:62:LEU:HD12	2.24	0.62
50:G5:43:GLN:NE2	50:G5:46:GLN:OE1	2.33	0.62
1:13:560:U:H5'	1:13:566:G:N2	2.15	0.62
19:AI:15:LEU:HA	19:AI:18:LYS:HG3	1.79	0.62
25:4K:13:A:C2	25:4K:14:A:H1'	2.33	0.62
26:1H:270(A):A:N3	26:1H:365:C:O2'	2.32	0.62
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.80	0.62
31:31:11:VAL:HG22	31:31:125:LEU:HB2	1.80	0.62
46:G8:68:HIS:HB3	46:G8:71:LYS:HG2	1.80	0.62
1:1G:1046:A:H3'	1:1G:1047:G:H8	1.65	0.62
14:5A:21:TYR:CE2	14:5A:23:ARG:HG3	2.35	0.62
26:14:1728:G:H8	26:14:1732:A:H62	1.47	0.62
46:C5:48:ALA:HB1	46:C5:50:ARG:HG3	1.81	0.62
47:D5:163:LEU:HD23	47:D5:163:LEU:H	1.63	0.62
1:13:673:G:H2'	1:13:674:G:C8	2.34	0.62
1:13:837:G:OP2	1:13:842:C:N4	2.31	0.62
1:13:1292:U:OP1	7:6E:41:ARG:NH2	2.32	0.62
1:13:1346:A:OP1	9:8E:120:ARG:NH1	2.30	0.62
24:3K:21:A:H61	24:3K:46:G:H2'	1.64	0.62
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.64	0.62
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.30	0.62
28:71:163:PHE:N	28:71:163:PHE:CD1	2.68	0.62
32:41:38:VAL:HG22	32:41:93:THR:HG23	1.80	0.62
34:61:21:VAL:HG21	34:61:25:TYR:HD2	1.64	0.62
1:1G:371:G:O2'	1:1G:373:A:N7	2.31	0.62
1:1G:382:A:H2'	1:1G:383:A:C8	2.35	0.62
1:1G:382:A:H2'	1:1G:383:A:H8	1.65	0.62
13:4A:54:VAL:O	13:4A:58:GLU:N	2.27	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:71:A:OP2	26:14:71:A:H3'	1.99	0.62
26:14:2791:C:O2	26:14:2807:G:N2	2.32	0.62
32:49:56:ALA:HB2	32:49:153:ARG:NE	2.15	0.62
1:13:1179:A:OP2	9:8E:97:LYS:NZ	2.31	0.62
26:1H:1022:G:O6	35:58:66:LYS:NZ	2.32	0.62
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.34	0.62
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.25	0.62
50:K8:32:LEU:HD11	50:K8:54:LYS:HG3	1.81	0.62
1:1G:1532:U:O2'	1:1G:1534:A:N7	2.32	0.62
26:14:981:A:OP2	26:14:982:C:N4	2.32	0.62
1:13:1286:A:C8	1:13:1287:A:H4'	2.32	0.62
26:1H:1416:G:N2	26:1H:1582:C:N3	2.41	0.62
30:21:38:THR:HG23	30:21:41:LYS:H	1.65	0.62
30:21:105:THR:HG21	30:21:164:ARG:HH21	1.63	0.62
32:41:16:ARG:O	32:41:20:ILE:HG13	1.99	0.62
46:G8:94:LYS:HA	46:G8:94:LYS:HZ2	1.64	0.62
1:1G:828:A:H2'	1:1G:829:G:O4'	1.99	0.62
26:14:2164:C:O2'	26:14:2165:G:O4'	2.11	0.62
26:14:2330:G:O3'	48:E5:44:ARG:NH1	2.32	0.62
26:14:2873:A:H8	39:55:6:SER:N	1.93	0.62
36:25:13:ASN:HD21	36:25:97:ARG:H	1.48	0.62
1:13:948:C:H2'	1:13:949:A:H5'	1.82	0.62
1:13:1372:U:OP1	9:8E:72:GLY:N	2.31	0.62
1:13:1377:A:OP2	7:6E:94:ARG:NH2	2.33	0.62
26:1H:547:A:H2	26:1H:548:A:H62	1.48	0.62
26:1H:768:G:O2'	26:1H:1379:A:N6	2.32	0.62
47:H8:28:MET:HB3	47:H8:35:ARG:HB3	1.82	0.62
1:1G:87:A:O2'	1:1G:88:C:H5"	2.00	0.62
1:1G:376:G:H1	1:1G:387:U:H3	1.48	0.62
1:1G:1060:C:H2'	1:1G:1061:G:H8	1.65	0.62
3:22:92:ALA:HB2	3:22:99:VAL:HG13	1.82	0.62
17:8A:17:LYS:HG2	17:8A:47:PRO:HA	1.81	0.62
26:14:1633:G:O6	61:14:3542:HOH:O	2.12	0.62
29:19:37:LEU:HD12	29:19:37:LEU:N	2.13	0.62
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.34	0.62
34:69:75:LEU:HD21	34:69:77:LEU:HB3	1.80	0.62
41:75:80:SER:HB2	41:75:82:LEU:HD12	1.82	0.62
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.33	0.62
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	1.82	0.62
32:41:77:ILE:HG22	32:41:82:LEU:HD12	1.82	0.62
47:H8:128:VAL:HG12	47:H8:161:VAL:HB	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:474:G:H2'	1:1G:475:G:H8	1.62	0.62
2:12:185:ILE:HG23	2:12:199:TYR:HB2	1.82	0.62
12:3A:86:ARG:HB2	12:3A:101:VAL:HG23	1.82	0.62
26:14:722:A:H5'	26:14:723:G:OP2	2.00	0.62
26:14:1203:G:H3'	26:14:1204:A:H5"	1.82	0.62
34:69:69:LYS:HG2	34:69:136:VAL:HG22	1.81	0.62
37:35:79:ARG:HG2	37:35:110:TYR:HB2	1.80	0.62
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.80	0.62
46:G8:104:GLY:N	46:G8:105:ALA:HB3	2.15	0.61
52:M8:36:CYS:HB3	52:M8:39:CYS:HB2	1.81	0.61
1:1G:539:A:H2'	1:1G:540:G:C8	2.35	0.61
3:22:8:ILE:HD12	3:22:16:ARG:HG2	1.82	0.61
26:14:34:C:O2'	26:14:35:G:H8	1.83	0.61
26:14:548:A:C5	26:14:549:G:H1'	2.35	0.61
26:14:848:G:H2'	26:14:849:A:C8	2.35	0.61
37:35:98:GLU:HA	37:35:101:VAL:HG13	1.82	0.61
1:13:541:G:O6	61:13:1814:HOH:O	2.15	0.61
26:1H:274:G:N2	26:1H:276:A:H61	1.99	0.61
31:31:65:TRP:CZ3	31:31:72:ARG:HB3	2.35	0.61
37:78:59:LEU:HD11	55:Q8:10:ALA:HA	1.82	0.61
52:M8:9:LEU:HD12	52:M8:27:THR:H	1.65	0.61
1:1G:191(F):U:O2	20:BA:105:SER:OG	2.09	0.61
26:14:996:A:OP2	42:85:92:ARG:NH1	2.32	0.61
29:19:39:LYS:O	29:19:40:THR:HG23	1.99	0.61
1:13:60:A:H4'	1:13:61:G:H5'	1.80	0.61
1:13:262:A:H2'	1:13:263:A:C8	2.35	0.61
13:4I:3:ARG:HB2	13:4I:7:VAL:O	1.99	0.61
26:1H:192:C:O2'	26:1H:802:A:N3	2.32	0.61
26:1H:2125:G:N2	26:1H:2173:A:H62	1.99	0.61
39:98:12:ARG:HG2	39:98:16:HIS:CG	2.35	0.61
43:D8:47:VAL:HG22	43:D8:48:GLY:N	2.14	0.61
1:1G:1057:G:H1	1:1G:1203:C:H42	1.48	0.61
13:4A:16:ASP:HB3	13:4A:34:LEU:HD11	1.81	0.61
56:1L:51:A:H2	56:1L:63:U:H3	1.47	0.61
26:14:990:A:H5'	26:14:990:A:H8	1.65	0.61
29:19:31:LYS:HZ3	29:19:33:LEU:HB3	1.65	0.61
1:13:501:C:H2'	1:13:502:G:C8	2.35	0.61
1:13:875:C:H4'	8:7E:18:ARG:HH22	1.65	0.61
1:13:976:G:N2	1:13:1362(A):C:OP2	2.29	0.61
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.00	0.61
26:1H:2074:U:P	61:1H:3541:HOH:O	2.57	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:138:LEU:HD23	37:78:144:GLU:HG2	1.83	0.61
40:A8:83:LYS:NZ	40:A8:110:LEU:HD21	2.15	0.61
49:J8:87:PRO:O	49:J8:91:LYS:HB2	2.00	0.61
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.65	0.61
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.81	0.61
26:14:863:A:H2'	26:14:864:G:C8	2.34	0.61
26:14:1812:A:O2'	29:19:45:ASN:HB2	2.00	0.61
26:14:2050:C:H2'	26:14:2051:A:C8	2.34	0.61
26:14:2441:C:OP2	26:14:2586:C:O2'	2.19	0.61
26:14:2745:C:H42	26:14:2759:G:H1	1.48	0.61
30:29:12:THR:O	30:29:23:VAL:HG22	2.00	0.61
41:75:112:ARG:HD2	41:75:113:LYS:HD3	1.83	0.61
1:13:4:U:O2'	1:13:5:U:OP1	2.13	0.61
19:AI:7:LYS:HG2	19:AI:7:LYS:O	2.01	0.61
26:1H:1138:G:H21	35:58:106:MET:CE	2.11	0.61
29:11:112:GLN:O	29:11:115:GLN:HG2	2.00	0.61
30:21:101:ARG:O	30:21:201:THR:OG1	2.18	0.61
1:1G:718:G:C8	11:2A:116:HIS:HB3	2.35	0.61
1:1G:838:G:N2	1:1G:848:C:N3	2.48	0.61
34:69:138:ILE:HG12	34:69:139:GLN:H	1.66	0.61
1:13:157:G:H1	1:13:164:U:H3	1.47	0.61
26:1H:1174:A:H1'	26:1H:1178:C:H42	1.64	0.61
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.36	0.61
38:88:66:ILE:HD12	38:88:67:ARG:H	1.66	0.61
1:1G:714:G:H2'	1:1G:715:A:C8	2.34	0.61
1:1G:980:C:H5'	1:1G:981:U:C5	2.35	0.61
1:1G:1255:G:O2'	1:1G:1258:G:N3	2.32	0.61
26:14:646:A:H2'	26:14:647:G:O4'	2.01	0.61
26:14:1491:G:O2'	29:19:101:GLU:HB2	1.99	0.61
26:14:2392:A:H2	26:14:2424:C:H42	1.47	0.61
35:15:56:ASN:H	35:15:125:GLY:HA3	1.64	0.61
1:13:101:A:H2'	1:13:102:G:H8	1.65	0.61
1:13:780:A:OP2	61:13:1818:HOH:O	2.16	0.61
26:1H:459:U:H2'	26:1H:460:A:H8	1.65	0.61
26:1H:860:U:H5	26:1H:917:A:N1	1.98	0.61
26:1H:1434:A:H61	26:1H:1558:A:H62	1.47	0.61
26:1H:2415:G:H4'	37:78:67:MET:N	2.15	0.61
41:B8:20:PRO:HB2	41:B8:88:ILE:HD11	1.82	0.61
4:32:12:CYS:SG	4:32:18:LYS:HA	2.41	0.61
4:32:57:ARG:HH22	5:42:107:ARG:HD2	1.65	0.61
26:14:330:A:H2	26:14:1210:A:O2'	1.84	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1215:G:OP2	61:13:1817:HOH:O	2.16	0.61
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	1.83	0.61
26:1H:732:C:H3'	61:1H:3560:HOH:O	2.00	0.61
26:1H:906:G:OP1	38:88:26:TYR:OH	2.12	0.61
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	1.99	0.61
26:1H:1678:G:H8	26:1H:1678:G:O5'	1.83	0.61
28:71:29:VAL:HG11	28:71:185:LEU:HD12	1.81	0.61
26:14:1019:U:H3	26:14:1142(A):A:H62	1.49	0.61
26:14:1434:A:H61	26:14:1558:A:H62	1.44	0.61
26:14:1784:A:H4'	26:14:1785:A:O5'	2.01	0.61
26:14:2394:C:H2'	26:14:2395:C:C6	2.36	0.61
27:1J:88:C:H4'	27:1J:89:G:OP2	2.01	0.61
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.82	0.61
9:8E:50:LEU:O	9:8E:54:ASP:N	2.33	0.61
22:1K:5:C:H2'	22:1K:6:G:C8	2.36	0.61
22:1K:28:U:H3	22:1K:42:A:H2	1.49	0.61
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.35	0.61
32:41:66:GLN:HE21	32:41:92:VAL:HG23	1.66	0.61
34:61:76:THR:OG1	34:61:139:GLN:OE1	2.17	0.61
1:1G:1453:G:O2'	1:1G:1454:G:OP1	2.19	0.61
5:42:16:THR:OG1	5:42:17:ALA:N	2.32	0.61
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.65	0.61
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.66	0.61
26:14:49:A:H5"	26:14:51:G:O4'	2.00	0.61
26:14:57:C:H2'	26:14:58:G:O4'	2.01	0.61
26:14:943:U:O4	61:14:3539:HOH:O	2.12	0.61
27:1J:15:A:H5'	27:1J:16:G:H8	1.66	0.61
40:65:3:ARG:HE	40:65:3:ARG:C	2.07	0.61
46:C5:52:SER:HA	46:C5:55:TYR:O	2.00	0.61
1:13:791:G:H2'	1:13:792:A:H5'	1.83	0.61
1:13:1305:G:N2	1:13:1331:G:H2'	2.15	0.61
13:4I:3:ARG:HD3	13:4I:7:VAL:HA	1.82	0.61
19:AI:20:LEU:HD23	19:AI:23:ASN:HD21	1.65	0.61
53:N8:31:VAL:HB	53:N8:42:PRO:HG3	1.83	0.61
1:1G:427:U:OP1	4:32:13:ARG:NH2	2.29	0.61
1:1G:751:U:H4'	15:6A:24:SER:HA	1.81	0.61
13:4A:84:ILE:HG12	19:AA:63:THR:HG21	1.82	0.61
26:14:832:G:H21	37:35:53:GLY:HA3	1.66	0.61
26:14:1509:C:H3'	26:14:1510:A:O4'	2.01	0.61
34:69:120:ILE:HG23	34:69:126:TYR:HE2	1.66	0.61
37:35:85:LEU:HA	37:35:88:LEU:HB3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:87:HIS:CE1	43:95:89:GLN:HB2	2.36	0.61
49:F5:5:CYS:SG	49:F5:8:SER:OG	2.53	0.61
1:13:591:U:H2'	1:13:592:G:H8	1.66	0.60
1:13:1007:C:N4	1:13:1022:G:H1	1.95	0.60
1:13:1315:U:HO2'	1:13:1360:A:HO2'	1.43	0.60
1:13:1449:C:O2'	1:13:1451:A:N6	2.33	0.60
26:1H:2387:U:OP1	48:I8:55:ARG:NH1	2.34	0.60
32:41:143:GLU:OE1	52:M8:26:SER:OG	2.18	0.60
1:1G:142:G:H2'	1:1G:143:A:C8	2.35	0.60
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.84	0.60
26:14:139:G:N2	26:14:141:A:N1	2.48	0.60
26:14:903:C:H2'	26:14:904:C:C6	2.35	0.60
26:14:2600:A:H2'	26:14:2601:C:C6	2.36	0.60
27:1J:90:C:OP2	38:45:16:ARG:NH2	2.34	0.60
31:39:28:ILE:HG22	31:39:112:MET:HG2	1.82	0.60
1:13:811:C:N3	61:13:1831:HOH:O	2.30	0.60
1:13:1376:U:H2'	1:13:1377:A:C8	2.35	0.60
9:8E:49:PRO:O	9:8E:53:VAL:HG23	2.00	0.60
24:3K:40:C:H2'	24:3K:41:A:H8	1.66	0.60
26:1H:1265:A:H8	26:1H:1265:A:OP1	1.83	0.60
26:1H:1899:G:H22	26:1H:1902:C:N4	1.99	0.60
29:11:31:LYS:HD3	29:11:94:LEU:HD11	1.84	0.60
54:P8:10:ARG:O	54:P8:14:LYS:HG3	2.01	0.60
26:14:39:C:O2	31:39:46:ARG:NH2	2.34	0.60
26:14:1786:A:C2	26:14:2606:C:H1'	2.36	0.60
26:14:2327:A:H2'	26:14:2328:A:C8	2.36	0.60
39:55:97:VAL:HG12	39:55:114:VAL:HG22	1.82	0.60
45:B5:3:THR:HG21	50:G5:26:ARG:HD3	1.84	0.60
4:3E:85:LYS:HD3	4:3E:90:GLY:N	2.15	0.60
5:4E:144:THR:OG1	5:4E:147:ASP:OD1	2.19	0.60
13:4I:50:GLU:CD	13:4I:50:GLU:H	2.09	0.60
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.01	0.60
26:1H:270(N):G:H4'	26:1H:270(O):U:N3	2.16	0.60
26:1H:528:A:O2'	26:1H:529:A:H5"	2.01	0.60
26:1H:568:U:O4	61:1H:3543:HOH:O	2.11	0.60
26:1H:607:U:N3	26:1H:621:A:H2	1.97	0.60
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.36	0.60
31:31:29:ASN:H	31:31:112:MET:CE	2.11	0.60
37:78:97:PRO:HA	37:78:100:LEU:HB2	1.83	0.60
1:1G:544:G:OP1	4:32:62:GLN:NE2	2.34	0.60
1:1G:1047:G:H1	1:1G:1210:C:H42	1.48	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:41:ARG:HG3	14:5A:42:ILE:HG13	1.83	0.60
26:14:699:A:H2'	26:14:700:G:O4'	2.01	0.60
26:14:2816:C:O3'	39:55:99:LYS:NZ	2.34	0.60
43:95:48:GLY:HA3	43:95:51:VAL:C	2.26	0.60
45:B5:63:LYS:H	45:B5:63:LYS:CE	2.14	0.60
50:G5:48:HIS:O	50:G5:52:ASP:HB2	2.01	0.60
26:1H:67:U:H3	26:1H:74:A:H2	1.49	0.60
26:1H:190:A:OP2	49:J8:39:LYS:HE3	2.01	0.60
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.35	0.60
26:1H:2068:U:H3	26:1H:2430:A:H2	1.45	0.60
37:78:111:ARG:HG2	37:78:128:HIS:CD2	2.36	0.60
45:F8:36:LYS:HG2	45:F8:54:VAL:HB	1.84	0.60
1:1G:665:A:H1'	1:1G:733:A:O4'	2.00	0.60
11:2A:92:GLU:HA	11:2A:95:ILE:HD12	1.82	0.60
18:9A:22:VAL:C	18:9A:24:ALA:H	2.09	0.60
26:14:479:A:N3	26:14:481:G:H5"	2.16	0.60
26:14:768:G:O2'	26:14:1379:A:N6	2.34	0.60
26:14:1997:G:OP2	61:14:3558:HOH:O	2.17	0.60
35:15:104:LYS:HA	35:15:107:LEU:HD12	1.82	0.60
1:13:403:C:OP2	4:3E:74:GLN:NE2	2.34	0.60
26:1H:111:A:H4'	50:K8:69:ARG:NH2	2.16	0.60
26:1H:1355:G:O6	61:1H:3591:HOH:O	2.17	0.60
29:11:145:VAL:HG12	29:11:146:GLU:O	2.01	0.60
35:58:130:HIS:O	35:58:134:ARG:NH1	2.34	0.60
39:98:51:LEU:HD13	39:98:70:LEU:HD11	1.83	0.60
46:G8:85:VAL:O	46:G8:86:ARG:HD3	2.01	0.60
1:1G:780:A:OP2	61:1G:1713:HOH:O	2.16	0.60
1:1G:974:A:OP2	14:5A:41:ARG:NH1	2.35	0.60
2:12:58:ILE:HB	2:12:221:LEU:HG	1.84	0.60
4:32:57:ARG:HG3	4:32:202:LEU:HB3	1.83	0.60
7:62:116:ALA:HA	7:62:119:ARG:HE	1.67	0.60
12:3A:27:LEU:HD21	12:3A:62:SER:N	2.11	0.60
26:14:214:G:H4'	26:14:214:G:OP1	2.00	0.60
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.83	0.60
41:75:26:ASP:OD1	41:75:120:ARG:NH2	2.32	0.60
1:13:963:G:N2	1:13:972:C:N3	2.42	0.60
4:3E:96:LEU:HG	4:3E:139:ARG:HH12	1.66	0.60
8:7E:9:MET:HG3	8:7E:26:VAL:HG21	1.83	0.60
8:7E:23:SER:HA	8:7E:61:VAL:O	2.02	0.60
26:1H:2577:A:OP1	61:1H:3592:HOH:O	2.17	0.60
27:16:13:A:O2'	27:16:15:A:H5"	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.67	0.60
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.15	0.60
49:J8:41:ARG:HH11	49:J8:41:ARG:HG3	1.65	0.60
1:1G:608:A:OP2	61:1G:1712:HOH:O	2.15	0.60
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.36	0.60
2:12:19:HIS:HE1	2:12:207:ALA:H	1.47	0.60
9:82:40:LEU:HD23	9:82:74:ILE:HD11	1.83	0.60
10:1A:79:ARG:HB3	10:1A:79:ARG:HH11	1.66	0.60
21:1B:6:ARG:HB3	21:1B:12:LYS:HA	1.83	0.60
26:14:2162:G:H3'	26:14:2164:C:C5	2.35	0.60
32:49:46:ALA:HA	32:49:52:ILE:HG21	1.83	0.60
1:13:13:U:OP1	61:13:1816:HOH:O	2.16	0.60
7:6E:121:ALA:O	7:6E:125:MET:HG2	2.01	0.60
26:1H:265:A:C8	26:1H:266:G:H1'	2.37	0.60
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.50	0.60
26:1H:968:G:O6	61:1H:3576:HOH:O	2.12	0.60
26:1H:1658:C:OP1	61:1H:3590:HOH:O	2.17	0.60
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.00	0.60
45:F8:41:ASN:O	45:F8:45:THR:HG23	2.01	0.60
1:1G:744:C:O2'	1:1G:851:G:N2	2.35	0.60
1:1G:1171:G:H2'	1:1G:1172:C:H6	1.67	0.60
7:62:26:PHE:CE2	7:62:30:ILE:HD11	2.36	0.60
10:1A:50:ILE:HD13	10:1A:60:ARG:HD3	1.84	0.60
31:39:53:THR:HG23	31:39:55:GLY:H	1.67	0.60
37:35:86:LYS:HB3	37:35:118:GLY:HA3	1.84	0.60
1:13:1280:A:H3'	1:13:1281:U:H5'	1.83	0.60
4:3E:72:GLU:OE1	4:3E:207:TYR:OH	2.16	0.60
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.84	0.60
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.02	0.60
26:1H:1638:C:H5"	26:1H:2710:C:O2'	2.01	0.60
26:1H:2396:G:H5"	49:J8:25:LYS:HD3	1.84	0.60
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.33	0.60
40:A8:78:LEU:HD12	40:A8:108:GLY:HA2	1.82	0.60
40:A8:88:ASP:O	40:A8:89:ARG:HB3	2.02	0.60
56:1L:76:A:H1'	26:14:2583:G:N2	2.15	0.60
26:14:1189:A:OP2	61:14:3533:HOH:O	2.16	0.60
26:14:2068:U:H3	26:14:2430:A:H2	1.49	0.60
29:19:69:ARG:HD3	29:19:105:ILE:HD11	1.84	0.60
42:85:90:VAL:HA	43:95:39:LEU:HD22	1.82	0.60
45:B5:36:LYS:HA	45:B5:39:ILE:HD12	1.83	0.60
1:13:626:U:C2	1:13:627:G:C8	2.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1113:C:H2'	1:13:1114:C:H6	1.66	0.60
26:1H:2343:C:O2'	26:1H:2373:G:O2'	2.20	0.60
29:11:69:ARG:NH2	29:11:128:GLY:O	2.21	0.60
31:31:168:ARG:HG3	31:31:175:THR:HG21	1.83	0.60
33:51:20:ALA:HB1	33:51:21:PRO:HD2	1.83	0.60
33:51:106:THR:HG22	33:51:112:PRO:HB3	1.84	0.60
1:1G:147:G:N2	1:1G:176:C:O2	2.34	0.60
1:1G:989:C:H2'	1:1G:990:C:H5'	1.83	0.60
4:32:119:GLN:HG2	4:32:123:HIS:CD2	2.37	0.60
57:3L:72:C:H3'	57:3L:73:A:H5"	1.84	0.60
26:14:39:C:H2'	26:14:40:C:C6	2.37	0.60
33:59:68:THR:HA	33:59:71:LEU:HD22	1.82	0.60
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.84	0.60
26:1H:2359:C:H5'	55:Q8:52:LYS:HD2	1.84	0.60
31:31:24:LEU:HD12	31:31:25:PRO:HD2	1.84	0.60
36:68:68:GLU:CD	36:68:68:GLU:H	2.08	0.60
26:14:1581:G:H2'	26:14:1582:C:O4'	2.02	0.60
26:14:1945:G:H2'	26:14:1946:U:C6	2.36	0.60
29:19:31:LYS:NZ	29:19:33:LEU:HB3	2.17	0.60
31:39:25:PRO:HB3	31:39:28:ILE:HG23	1.83	0.60
31:39:63:LYS:HG3	31:39:75:HIS:O	2.02	0.60
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.84	0.60
1:13:406:G:H5'	4:3E:5:ILE:HD13	1.85	0.59
1:13:1177:G:OP1	1:13:1177:G:H4'	2.02	0.59
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	1.84	0.59
12:3I:111:LYS:NZ	12:3I:112:ASP:H	2.00	0.59
33:51:27:LYS:HA	33:51:32:GLU:HA	1.82	0.59
49:J8:87:PRO:HB3	49:J8:91:LYS:NZ	2.17	0.59
4:32:25:ARG:NH1	4:32:30:LYS:O	2.36	0.59
11:2A:18:ARG:NH1	11:2A:35:PRO:O	2.30	0.59
26:14:548:A:H8	26:14:548:A:O5'	1.85	0.59
26:14:639:U:H2'	26:14:640:C:C6	2.36	0.59
26:14:2887:U:H2'	26:14:2888:C:C6	2.37	0.59
40:65:41:ASP:OD2	40:65:44:LYS:HB2	2.02	0.59
43:95:48:GLY:HA3	43:95:52:VAL:N	2.17	0.59
1:13:429:U:H1'	1:13:430:A:H5"	1.85	0.59
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.31	0.59
10:1I:89:ASP:HB3	10:1I:91:PRO:HD3	1.84	0.59
18:9I:22:VAL:HB	18:9I:55:ARG:O	2.02	0.59
22:1K:53:G:O2'	22:1K:54:5MU:H5"	2.02	0.59
26:1H:1386:C:OP2	26:1H:1396:U:H5	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2378:A:O2'	40:A8:21:THR:HG21	2.02	0.59
26:1H:2391:G:O6	26:1H:2425:A:H8	1.85	0.59
47:H8:125:LEU:HG	47:H8:164:ALA:CB	2.32	0.59
47:H8:163:LEU:HD12	47:H8:167:PRO:HA	1.84	0.59
19:AA:36:ARG:NH1	19:AA:75:ALA:O	2.30	0.59
26:14:660:G:N2	37:35:12:ALA:HB1	2.17	0.59
26:14:674:G:O2'	31:39:74:ARG:HG3	2.01	0.59
26:14:957:A:H5'	38:45:76:LYS:HD3	1.84	0.59
26:14:1593:G:H2'	26:14:1594:G:H8	1.65	0.59
26:14:2068:U:N3	26:14:2430:A:C2	2.67	0.59
26:14:2471:C:N4	26:14:2476:A:O2'	2.35	0.59
33:59:62:LYS:HA	33:59:65:HIS:HB3	1.83	0.59
46:C5:39:VAL:HG23	46:C5:41:GLY:H	1.66	0.59
1:13:75:C:H1'	1:13:96:G:N1	2.14	0.59
1:13:735:C:H2'	1:13:736:C:H6	1.68	0.59
1:13:890:G:O2'	1:13:906:G:O6	2.10	0.59
1:13:1259:C:N4	1:13:1260:C:O2	2.35	0.59
1:13:1455:G:H5'	20:BI:32:ALA:HB2	1.84	0.59
5:4E:80:ILE:HG12	5:4E:81:GLU:H	1.65	0.59
26:1H:322:A:P	31:31:168:ARG:HH21	2.25	0.59
26:1H:956:G:OP2	38:88:14:ARG:NH2	2.35	0.59
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.38	0.59
26:1H:1332:G:N2	26:1H:1610:A:C8	2.70	0.59
26:1H:1663:C:H2'	61:1H:3534:HOH:O	2.03	0.59
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.37	0.59
26:1H:2287:A:C2	26:1H:2346:A:H2	2.21	0.59
26:1H:2392:A:C8	37:78:61:ARG:HD2	2.38	0.59
21:1B:6:ARG:HH11	21:1B:15:ARG:NH1	2.00	0.59
26:14:529:A:H4'	26:14:530:G:H5'	1.82	0.59
26:14:2880:C:O2'	39:55:90:ARG:HD3	2.02	0.59
30:29:5:LEU:HD11	30:29:79:ARG:HB2	1.84	0.59
30:29:55:ASN:O	30:29:57:LYS:N	2.33	0.59
35:15:15:LEU:HD23	35:15:134:ARG:HD2	1.83	0.59
36:25:63:VAL:HG11	36:25:85:VAL:HG23	1.83	0.59
45:B5:15:GLU:CD	45:B5:15:GLU:H	2.10	0.59
1:13:148:G:H2'	1:13:149:A:C8	2.37	0.59
2:1E:215:LEU:HA	2:1E:218:ALA:HB3	1.84	0.59
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.02	0.59
5:4E:10:MET:HE1	5:4E:13:ILE:HG13	1.84	0.59
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.67	0.59
22:1K:65:C:H2'	22:1K:66:A:C8	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:34:C:O2'	26:1H:35:G:OP2	2.21	0.59
26:1H:1359:A:C2	26:1H:1372:U:O4	2.55	0.59
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.37	0.59
26:1H:2123:G:H2'	26:1H:2124:G:O4'	2.02	0.59
28:71:163:PHE:N	28:71:163:PHE:HD1	2.00	0.59
31:31:177:ALA:HB1	31:31:178:PRO:HD2	1.84	0.59
32:41:111:LEU:HD22	32:41:117:PHE:CZ	2.38	0.59
39:98:55:ALA:HB2	39:98:79:LEU:HD13	1.85	0.59
47:H8:154:ASP:N	47:H8:154:ASP:OD1	2.35	0.59
1:1G:800:G:O6	61:1G:1708:HOH:O	2.12	0.59
1:1G:978:A:O2'	1:1G:1322:C:N3	2.35	0.59
4:32:196:LEU:HB2	4:32:198:VAL:HG23	1.83	0.59
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.02	0.59
26:1H:761:A:H8	61:1H:3555:HOH:O	1.85	0.59
26:1H:2212:A:H1'	26:1H:2215:G:C4	2.37	0.59
26:1H:2432:A:C4	49:J8:33:LYS:HG2	2.38	0.59
30:21:104:VAL:HG11	30:21:188:VAL:HB	1.83	0.59
33:51:148:ILE:HA	33:51:151:ILE:HD12	1.85	0.59
47:H8:67:LEU:HD23	47:H8:90:VAL:HG11	1.84	0.59
47:H8:132:ASN:OD1	47:H8:132:ASN:N	2.31	0.59
49:J8:18:ILE:HG12	49:J8:37:ILE:HG12	1.84	0.59
1:1G:448:A:OP2	1:1G:485:G:N2	2.25	0.59
1:1G:1081:G:N7	5:42:47:LYS:NZ	2.50	0.59
1:1G:1368:G:C2'	1:1G:1369:C:H5'	2.32	0.59
1:1G:1395:C:O2'	1:1G:1401:G:O2'	2.07	0.59
57:3L:15:G:H2'	57:3L:59:A:N1	2.17	0.59
26:14:1341:U:OP2	26:14:1394:U:O2'	2.11	0.59
27:1J:118:G:N1	27:1J:119:A:N7	2.50	0.59
1:13:1366:C:H2'	1:13:1367:C:C6	2.37	0.59
13:4I:83:ASP:OD1	13:4I:93:ARG:NH2	2.35	0.59
15:6I:56:LEU:HA	15:6I:59:MET:HE2	1.85	0.59
26:1H:270(O):U:O4	34:61:56:LYS:NZ	2.35	0.59
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.37	0.59
45:F8:26:TYR:O	45:F8:81:VAL:HG12	2.03	0.59
1:1G:78:G:H1	1:1G:91:C:N4	2.00	0.59
1:1G:617:G:OP2	61:1G:1714:HOH:O	2.17	0.59
9:82:9:ARG:HG2	9:82:14:VAL:HG22	1.85	0.59
10:1A:92:THR:H	10:1A:94:VAL:HG22	1.66	0.59
26:14:1657:C:H2'	26:14:1658:C:C6	2.37	0.59
31:39:53:THR:HG22	31:39:56:GLU:HG3	1.85	0.59
33:59:9:ILE:HG22	33:59:52:VAL:H	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:15:VAL:HG12	46:C5:21:LYS:HA	1.84	0.59
1:13:411:A:C4	1:13:413:G:H1'	2.37	0.59
1:13:1062:U:H2'	1:13:1063:C:C6	2.37	0.59
5:4E:147:ASP:O	5:4E:150:ARG:NH1	2.36	0.59
12:3I:42:THR:HG22	12:3I:54:LYS:HD3	1.84	0.59
24:3K:27:G:H1	24:3K:44:U:H1'	1.68	0.59
26:1H:125:G:C6	54:P8:10:ARG:HG3	2.38	0.59
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.02	0.59
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.67	0.59
27:16:28:C:OP1	40:A8:36:TYR:OH	2.16	0.59
28:71:59:ARG:HG3	28:71:163:PHE:CD1	2.37	0.59
29:11:29:PRO:HB2	29:11:30:GLU:CA	2.32	0.59
40:A8:84:GLN:HA	40:A8:110:LEU:HB2	1.83	0.59
46:G8:94:LYS:HG3	46:G8:95:LYS:N	2.18	0.59
52:M8:37:SER:OG	52:M8:42:PHE:O	2.16	0.59
1:1G:994:A:C2	14:5A:5:ALA:HA	2.38	0.59
4:32:11:LEU:O	4:32:15:GLU:HB2	2.02	0.59
4:32:15:GLU:OE1	4:32:59:ARG:NE	2.25	0.59
4:32:139:ARG:HH11	4:32:139:ARG:HG3	1.67	0.59
26:14:2291:U:O2'	26:14:2374:C:O2	2.20	0.59
29:19:182:LEU:N	29:19:272:ALA:HB3	2.11	0.59
26:1H:452:G:OP2	61:1H:3596:HOH:O	2.17	0.59
26:1H:1773:A:OP2	61:1H:3594:HOH:O	2.17	0.59
26:1H:2849:U:O4	41:B8:23:ARG:NH2	2.36	0.59
34:61:39:ALA:HB1	34:61:44:LEU:HD13	1.85	0.59
35:58:70:LYS:HE3	35:58:72:TYR:CE1	2.36	0.59
38:88:19:GLY:O	38:88:21:THR:OG1	2.19	0.59
39:98:55:ALA:HA	39:98:80:PHE:CE2	2.38	0.59
43:D8:60:GLU:HB2	43:D8:97:LYS:HE2	1.85	0.59
1:1G:583:A:H2'	1:1G:584:G:O4'	2.03	0.59
1:1G:1279:A:O2'	1:1G:1281:U:OP2	2.18	0.59
1:1G:1424:C:H2'	1:1G:1425:U:O4'	2.03	0.59
19:AA:66:MET:HA	19:AA:67:VAL:HB	1.84	0.59
26:14:271(B):G:N7	26:14:421:U:H2'	2.18	0.59
26:14:1114:G:H2'	26:14:1115:G:H8	1.66	0.59
26:14:2134:A:H62	26:14:2156:G:H2'	1.67	0.59
30:29:11:MET:SD	30:29:24:THR:HG22	2.43	0.59
33:59:164:TYR:CG	33:59:165:ALA:N	2.71	0.59
37:35:27:HIS:HB3	37:35:32:THR:CG2	2.32	0.59
1:13:588:G:OP1	61:13:1819:HOH:O	2.17	0.59
1:13:1453:G:OP2	1:13:1453:G:H4'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.02	0.59
26:1H:770:G:OP2	61:1H:3593:HOH:O	2.17	0.59
26:1H:1569:A:O2'	29:11:37:LEU:HD23	2.02	0.59
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.68	0.59
30:21:117:MET:HE1	30:21:136:ARG:HA	1.84	0.59
44:E8:23:LEU:HD22	53:N8:25:LEU:HB3	1.85	0.59
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.35	0.59
16:7A:68:ASP:O	16:7A:71:ARG:HB3	2.03	0.59
26:14:1316:U:H2'	26:14:1317:A:C8	2.38	0.59
26:14:2264:C:N4	48:E5:15:ASP:OD2	2.30	0.59
26:14:2810:A:N6	26:14:2891:G:O2'	2.36	0.59
29:19:71:ASP:OD1	29:19:103:ARG:NH2	2.33	0.59
1:13:767:A:H3'	61:13:1841:HOH:O	2.01	0.59
31:31:140:LEU:HD21	31:31:170:LEU:HD11	1.85	0.59
1:1G:1125:U:H2'	1:1G:1126:U:C5	2.37	0.59
2:12:33:TYR:N	2:12:41:ILE:O	2.32	0.59
2:12:47:THR:HG23	2:12:202:PRO:HD2	1.85	0.59
26:14:1637:A:OP2	61:14:3561:HOH:O	2.17	0.59
26:14:2016:U:O2	53:J5:7:PRO:HG2	2.03	0.59
26:14:2062:A:O2'	26:14:2063:C:OP1	2.19	0.59
26:14:2439:A:H5'	26:14:2439:A:C8	2.38	0.59
27:1J:115:G:H8	27:1J:115:G:OP2	1.86	0.59
36:25:68:GLU:HB3	36:25:78:ARG:NH1	2.17	0.59
38:45:22:LYS:HG3	38:45:23:GLY:HA2	1.83	0.59
1:13:486:U:H2'	1:13:487:A:C8	2.38	0.58
9:8E:17:VAL:HG11	9:8E:81:ILE:HD13	1.84	0.58
19:AI:5:LEU:HD13	19:AI:10:PHE:CD1	2.38	0.58
26:1H:274:G:H1'	26:1H:276:A:C2	2.37	0.58
26:1H:880:G:H3'	26:1H:881:G:C8	2.37	0.58
26:1H:2061:G:OP2	26:1H:2502:G:H5'	2.02	0.58
26:1H:2155:G:H2'	26:1H:2156:G:H5'	1.83	0.58
1:1G:1206:G:H4'	3:22:192:THR:O	2.03	0.58
3:22:114:PRO:HA	3:22:185:GLY:HA3	1.85	0.58
5:42:91:LEU:HD23	5:42:120:THR:HG23	1.85	0.58
25:4L:19:U:H2'	25:4L:20:A:H8	1.68	0.58
5:4E:98:THR:HB	5:4E:117:ASP:HB3	1.83	0.58
9:8E:25:LYS:HD3	9:8E:60:ASP:HB3	1.85	0.58
26:1H:582:G:H2'	26:1H:583:G:C8	2.38	0.58
26:1H:860:U:C5	26:1H:917:A:H2	2.21	0.58
26:1H:937:U:H2'	26:1H:938:G:O4'	2.02	0.58
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1378:A:O2'	26:1H:1380:G:N7	2.33	0.58
28:71:30:LYS:HD2	28:71:182:PRO:HG3	1.85	0.58
4:32:81:GLU:O	4:32:85:LYS:HB2	2.03	0.58
7:62:126:ASP:HB3	7:62:131:LYS:O	2.03	0.58
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.68	0.58
57:3L:26:A:H61	57:3L:44:U:H3	1.51	0.58
26:14:1001:A:H2'	26:14:1002:G:O4'	2.03	0.58
26:14:2354:G:O2'	48:E5:36:ILE:HG23	2.03	0.58
27:1J:89(A):A:C8	27:1J:90:C:H1'	2.39	0.58
1:13:658:G:H2'	1:13:659:U:C6	2.38	0.58
1:13:664:G:N2	1:13:741:G:H1	2.00	0.58
1:13:1212:U:H4'	1:13:1213:A:C8	2.38	0.58
18:9I:59:SER:H	18:9I:62:GLU:HB2	1.67	0.58
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.02	0.58
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.38	0.58
27:16:72:G:OP2	61:16:303:HOH:O	2.17	0.58
31:31:55:GLY:O	61:31:301:HOH:O	2.17	0.58
33:51:6:ARG:NH2	33:51:7:LEU:HD11	2.17	0.58
35:58:40:PRO:O	42:C8:64:ARG:HG2	2.03	0.58
1:1G:1317:C:OP1	14:5A:17:LYS:HG3	2.02	0.58
11:2A:57:THR:HG22	11:2A:59:TYR:H	1.69	0.58
26:14:663:G:OP1	37:35:17:LYS:HA	2.03	0.58
26:14:1239:G:H5"	61:14:3979:HOH:O	2.03	0.58
26:14:2657:A:O3'	33:59:160:LYS:NZ	2.34	0.58
37:35:27:HIS:HB3	37:35:32:THR:HG22	1.85	0.58
51:H5:28:LEU:HD23	51:H5:33:GLN:HG2	1.85	0.58
3:2E:27:LYS:O	3:2E:31:HIS:HE1	1.85	0.58
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.03	0.58
37:78:46:LYS:O	37:78:47:ASP:HB3	2.03	0.58
37:78:82:GLY:HA2	37:78:113:LYS:O	2.04	0.58
1:1G:352:C:O2'	1:1G:354:G:OP1	2.19	0.58
4:32:3:ARG:HE	4:32:118:ARG:HD3	1.69	0.58
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.84	0.58
13:4A:54:VAL:HG22	13:4A:57:ARG:HH21	1.68	0.58
26:14:270(X):G:O6	61:14:3556:HOH:O	2.16	0.58
26:14:780:G:H21	26:14:783:A:H62	1.52	0.58
26:14:819:A:OP2	26:14:1187:G:N2	2.32	0.58
29:19:72:LYS:NZ	29:19:99:ASP:OD2	2.31	0.58
8:7E:81:HIS:HB2	8:7E:138:TRP:C	2.29	0.58
19:AI:40:ILE:HG12	19:AI:41:VAL:HG13	1.85	0.58
24:3K:18:G:N2	24:3K:58:A:H62	2.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:357:A:H2'	26:1H:358:U:C6	2.38	0.58
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.34	0.58
30:21:33:VAL:HG12	30:21:89:ASP:HA	1.85	0.58
1:1G:19:C:OP1	5:42:125:SER:OG	2.19	0.58
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.38	0.58
26:14:198:C:H5'	26:14:2244:U:OP1	2.02	0.58
26:14:1041:C:H1'	26:14:1115:G:N2	2.19	0.58
43:95:70:ILE:O	43:95:71:LEU:HB2	2.02	0.58
1:13:153:C:N4	1:13:168:G:H22	1.98	0.58
1:13:1213:A:H2'	1:13:1215:G:N7	2.18	0.58
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.04	0.58
24:3K:22:G:N7	24:3K:46:G:N2	2.38	0.58
26:1H:459:U:H2'	26:1H:460:A:C8	2.39	0.58
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.69	0.58
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.03	0.58
41:B8:77:PRO:HG2	41:B8:80:SER:HB2	1.84	0.58
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.38	0.58
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.85	0.58
13:4A:59:TYR:HD2	13:4A:60:VAL:HG22	1.69	0.58
26:14:1479:G:O2'	26:14:1558:A:H5'	2.04	0.58
26:14:2296:U:OP2	40:65:9:ARG:NH1	2.21	0.58
35:15:43:THR:H	35:15:48:MET:HE1	1.68	0.58
35:15:76:SER:HB3	35:15:78:TYR:H	1.67	0.58
40:65:10:ARG:HH21	40:65:91:PRO:HB2	1.68	0.58
6:5E:62:TRP:C	6:5E:63:TYR:HD1	2.11	0.58
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.86	0.58
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.37	0.58
26:1H:2843:G:H1	26:1H:2874:C:H42	1.51	0.58
34:61:72:LEU:HD11	34:61:107:VAL:HG21	1.85	0.58
35:58:57:ALA:O	35:58:59:LYS:N	2.34	0.58
37:78:17:LYS:HB2	37:78:18:ARG:HA	1.85	0.58
1:1G:216:G:O2'	1:1G:217:C:O4'	2.20	0.58
1:1G:262:A:H5'	20:BA:74:LYS:HD3	1.84	0.58
2:12:215:LEU:H	2:12:215:LEU:HD12	1.69	0.58
56:1L:11:C:O2	56:1L:24:G:N2	2.36	0.58
26:14:142:G:H2'	26:14:143:C:H6	1.67	0.58
26:14:1062:G:H1	26:14:1075:C:H1'	1.69	0.58
26:14:1198:U:H2'	26:14:1199:U:C6	2.38	0.58
26:14:1516:U:H2'	26:14:1517:G:H8	1.68	0.58
26:14:1913:A:H4'	26:14:1914:C:H5"	1.84	0.58
26:14:2099:U:H3	26:14:2190:G:H1	1.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2277:G:H5”	38:45:85:LYS:HB2	1.86	0.58
26:14:2777:G:OP2	26:14:2781:A:O2’	2.18	0.58
26:14:2896:C:H2’	26:14:2897:U:H4’	1.84	0.58
40:65:3:ARG:NH2	40:65:4:LEU:HB2	2.19	0.58
40:65:32:LEU:O	40:65:62:LYS:HE2	2.03	0.58
43:95:69:LYS:HG2	43:95:86:GLY:HA3	1.84	0.58
50:G5:35:LEU:HD12	50:G5:53:LEU:HD12	1.85	0.58
51:H5:4:LEU:O	51:H5:36:VAL:HA	2.04	0.58
1:13:1239:A:H62	1:13:1299:A:H62	1.52	0.58
4:3E:76:ARG:HG3	4:3E:207:TYR:CZ	2.39	0.58
6:5E:26:ILE:O	6:5E:30:LEU:HD12	2.04	0.58
26:1H:534:U:H5’	42:C8:42:ALA:HB1	1.86	0.58
26:1H:2228:G:OP2	29:11:263:ARG:NH2	2.36	0.58
26:1H:2309:A:C5	26:1H:2310:A:H8	2.22	0.58
26:1H:2776:A:H4’	26:1H:2777:G:H5”	1.84	0.58
27:16:50:G:OP1	40:A8:63:THR:HG23	2.04	0.58
27:16:80:U:H2’	27:16:81:G:H21	1.68	0.58
30:21:111:ARG:HG3	30:21:160:TYR:CD2	2.39	0.58
39:98:67:LEU:HD22	39:98:76:VAL:HG21	1.85	0.58
1:1G:316:G:OP2	1:1G:351:G:O2’	2.22	0.58
1:1G:376:G:H5”	16:7A:5:ARG:HB2	1.84	0.58
1:1G:438:G:H4’	4:32:123:HIS:ND1	2.19	0.58
1:1G:573:A:N3	1:1G:883:C:O2’	2.35	0.58
6:52:50:TYR:OH	18:9A:74:ARG:O	2.14	0.58
26:14:184:C:H2’	26:14:185:U:C6	2.39	0.58
26:14:450:G:O6	61:14:3563:HOH:O	2.17	0.58
26:14:1107:G:N2	26:14:1108:U:O2’	2.37	0.58
26:14:1508:A:H4’	26:14:1510:A:C2	2.39	0.58
26:14:2652:C:H42	26:14:2668:G:H1	1.51	0.58
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.86	0.58
44:A5:82:LEU:HD13	44:A5:84:ARG:HH21	1.69	0.58
1:13:540:G:H2’	1:13:541:G:O4’	2.03	0.58
1:13:994:A:N7	1:13:1216:G:H4’	2.19	0.58
15:6I:82:ILE:O	15:6I:86:GLY:N	2.36	0.58
26:1H:2032:G:H21	30:21:146:THR:CG2	2.14	0.58
1:1G:1114:C:O2’	14:5A:60:SER:O	2.17	0.58
1:1G:1353:G:H1	1:1G:1369:C:H42	1.51	0.58
21:1B:9:ARG:HE	21:1B:10:ARG:HD2	1.68	0.58
26:14:1496:A:H8	26:14:1577:C:O2’	1.87	0.58
32:49:7:LEU:HB2	32:49:104:GLU:HG3	1.86	0.58
1:13:614:A:H2’	1:13:615:C:H6	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:975:A:H5'	1:13:975:A:H8	1.68	0.58
1:13:1497:G:C2'	1:13:1498:U:H5'	2.34	0.58
3:2E:7:PRO:O	3:2E:11:ARG:NH1	2.37	0.58
3:2E:73:PRO:HG3	3:2E:105:GLU:HB2	1.85	0.58
7:6E:62:PHE:HD1	7:6E:124:LEU:HD11	1.67	0.58
18:9I:56:THR:HB	18:9I:58:LEU:HD13	1.86	0.58
26:1H:1156:A:C8	42:C8:51:LYS:HG2	2.39	0.58
26:1H:1956:U:H2'	26:1H:1957:C:H5'	1.84	0.58
29:11:70:TRP:CD1	29:11:70:TRP:C	2.81	0.58
30:21:2:LYS:HE2	30:21:95:ILE:HG23	1.84	0.58
32:41:3:LEU:HB3	32:41:5:VAL:HG23	1.85	0.58
33:51:135:GLY:HA3	33:51:141:VAL:HG22	1.86	0.58
36:68:75:SER:OG	36:68:76:ALA:N	2.34	0.58
37:78:39:LYS:HG3	37:78:45:LEU:HD22	1.85	0.58
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.85	0.58
1:1G:967:C:H3'	1:1G:968:A:H2'	1.86	0.58
56:1L:34:U:H2'	56:1L:35:U:C6	2.39	0.58
23:2L:24:C:H2'	23:2L:25:U:H6	1.69	0.58
26:14:150:C:H2'	26:14:151:C:C6	2.38	0.58
26:14:528:A:O2'	26:14:529:A:H5'	2.03	0.58
26:14:1425:G:N2	26:14:1573:G:N7	2.51	0.58
31:39:196:LEU:HA	31:39:199:TRP:HB3	1.86	0.58
1:13:608:A:OP2	61:13:1820:HOH:O	2.17	0.57
1:13:1120:G:H2'	1:13:1121:U:C6	2.39	0.57
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.85	0.57
29:11:35:LYS:HZ2	29:11:35:LYS:HB3	1.68	0.57
31:31:67:GLN:HG3	31:31:67:GLN:O	2.03	0.57
47:H8:165:VAL:HB	47:H8:166:SER:HA	1.85	0.57
1:1G:79:G:H1	1:1G:90:C:N4	1.97	0.57
1:1G:491:G:O6	61:1G:1716:HOH:O	2.17	0.57
1:1G:690:G:H2'	1:1G:691:G:O4'	2.04	0.57
26:14:1011:G:O2'	26:14:1013:C:O4'	2.19	0.57
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.36	0.57
26:14:1718:G:N2	26:14:1741:C:O2	2.28	0.57
26:14:1936:A:O2'	61:14:3564:HOH:O	2.17	0.57
34:69:77:LEU:HB2	34:69:141:LYS:HG2	1.86	0.57
42:85:92:ARG:NH2	43:95:11:GLN:H	2.01	0.57
50:G5:29:LYS:HG2	50:G5:57:ILE:HD13	1.86	0.57
15:6I:55:GLY:HA2	15:6I:58:MET:HE3	1.86	0.57
29:11:85:ASP:HB2	29:11:92:ILE:HG12	1.86	0.57
39:98:29:LEU:HB3	39:98:75:LEU:HD21	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:A8:88:ASP:OD1	40:A8:90:GLY:N	2.37	0.57
26:14:867:C:C6	26:14:868:U:H5	2.21	0.57
26:14:2615:U:H2'	26:14:2616:C:H6	1.69	0.57
32:49:11:TYR:OH	32:49:16:ARG:NH2	2.37	0.57
40:65:78:LEU:HD12	40:65:107:GLU:HB3	1.85	0.57
1:13:129(A):G:H4'	1:13:130:A:H5"	1.85	0.57
9:8E:65:VAL:HG21	9:8E:73:GLN:HB3	1.85	0.57
26:1H:34:C:OP2	26:1H:34:C:H6	1.87	0.57
26:1H:918:A:H8	26:1H:918:A:O5'	1.87	0.57
26:1H:1454:U:H5'	39:98:63:ARG:NH2	2.19	0.57
26:1H:2210:G:H4'	26:1H:2211:G:OP2	2.02	0.57
33:51:155:SER:HB2	33:51:156:ALA:O	2.03	0.57
51:L8:8:LEU:HB2	51:L8:28:LEU:HD23	1.86	0.57
1:1G:621:A:OP1	61:1G:1715:HOH:O	2.17	0.57
26:14:55:G:O2'	26:14:127:A:N1	2.30	0.57
26:14:64:A:H1'	45:B5:66:LEU:HB2	1.86	0.57
26:14:620:G:H4'	26:14:621:A:H5"	1.85	0.57
26:14:1010:A:N3	26:14:1153:C:H1'	2.19	0.57
26:14:1139:G:O2'	26:14:1143:A:N1	2.31	0.57
26:14:2355:C:H4'	48:E5:24:LYS:HG3	1.87	0.57
30:29:25:VAL:HG12	30:29:26:ILE:H	1.68	0.57
34:69:81:VAL:N	34:69:143:SER:HB2	2.19	0.57
45:B5:11:PRO:HB3	45:B5:92:LEU:HD11	1.85	0.57
47:D5:27:VAL:HG12	47:D5:87:ASP:HA	1.85	0.57
47:D5:77:ASP:OD2	47:D5:80:ARG:NH1	2.38	0.57
53:J5:12:SER:OG	53:J5:15:ARG:HB2	2.04	0.57
1:13:5:U:C5	4:3E:87:GLY:HA3	2.37	0.57
1:13:26:A:N6	1:13:558:G:O2'	2.37	0.57
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.39	0.57
1:13:405:U:O4	4:3E:2:GLY:N	2.36	0.57
10:1I:28:ARG:HD3	10:1I:34:VAL:HG22	1.86	0.57
33:51:124:GLU:HB2	33:51:132:ARG:HB3	1.84	0.57
1:1G:1343:G:H2'	1:1G:1344:C:H6	1.68	0.57
1:1G:1490:C:H2'	1:1G:1491:G:O4'	2.04	0.57
7:62:102:ARG:O	7:62:106:GLN:HG3	2.03	0.57
17:8A:81:ARG:HA	17:8A:81:ARG:HE	1.70	0.57
26:14:96:G:H4'	50:G5:48:HIS:CD2	2.39	0.57
26:14:1011:G:OP2	42:85:70:ARG:NH2	2.38	0.57
26:14:1257:C:H4'	31:39:83:PHE:CE1	2.39	0.57
29:19:242:ARG:HG3	29:19:246:PRO:HG3	1.85	0.57
42:85:93:LYS:O	42:85:96:ALA:HB3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:64:HIS:ND1	43:95:92:THR:OG1	2.21	0.57
55:M5:40:GLU:HA	55:M5:43:GLN:HB3	1.85	0.57
1:13:431:A:H2'	1:13:432:A:O4'	2.05	0.57
7:6E:54:THR:OG1	7:6E:55:GLY:N	2.37	0.57
26:1H:1021:A:H3'	26:1H:1022:G:H5"	1.85	0.57
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.39	0.57
29:11:71:ASP:N	29:11:71:ASP:OD1	2.37	0.57
47:H8:132:ASN:ND2	47:H8:160:GLY:HA3	2.19	0.57
1:1G:108:G:H5'	1:1G:109:A:H5"	1.86	0.57
1:1G:673:G:H2'	1:1G:674:G:C8	2.39	0.57
1:1G:980:C:H3'	1:1G:981:U:C6	2.39	0.57
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.37	0.57
1:1G:1443:G:N2	41:75:119:LYS:HB2	2.19	0.57
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.85	0.57
4:32:162:LEU:HD13	4:32:181:MET:HE2	1.85	0.57
26:14:296:C:H2'	26:14:297:C:H6	1.70	0.57
26:14:603:A:H8	26:14:604:G:H1'	1.69	0.57
26:14:2387:U:H4'	48:E5:41:ARG:HH21	1.68	0.57
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.04	0.57
27:1J:50:G:OP1	40:65:62:LYS:HB2	2.03	0.57
32:49:76:SER:OG	32:49:84:LYS:N	2.37	0.57
43:95:35:LEU:HB2	43:95:37:VAL:CG1	2.34	0.57
44:A5:65:LEU:HD13	44:A5:68:ARG:HD3	1.85	0.57
51:H5:3:ARG:HG3	51:H5:59:VAL:C	2.30	0.57
1:13:407:G:OP1	4:3E:115:ARG:NH1	2.38	0.57
1:13:542:G:H5'	4:3E:41:GLY:HA3	1.87	0.57
1:13:1277:C:H2'	1:13:1279:A:C8	2.39	0.57
1:13:1373:G:H5"	7:6E:36:LYS:HB2	1.86	0.57
4:3E:103:ASN:HD22	4:3E:114:ARG:HE	1.51	0.57
15:6I:32:LEU:O	15:6I:35:ARG:N	2.38	0.57
26:1H:1285:G:N2	26:1H:1329:U:OP1	2.36	0.57
26:1H:1416:G:O2'	26:1H:1417:C:O5'	2.23	0.57
26:1H:2106:G:H2'	26:1H:2107:C:H5'	1.86	0.57
26:1H:2336:A:H61	48:I8:43:THR:HB	1.69	0.57
29:11:92:ILE:HD12	29:11:104:TYR:CE1	2.39	0.57
32:41:107:LEU:HD11	32:41:178:PHE:CE1	2.40	0.57
32:41:110:ALA:HA	32:41:140:ILE:O	2.05	0.57
46:G8:39:VAL:O	46:G8:42:VAL:HG13	2.05	0.57
55:Q8:7:HIS:CD2	55:Q8:61:LEU:HD13	2.40	0.57
55:Q8:54:GLU:O	55:Q8:58:ILE:HD13	2.05	0.57
2:12:21:ARG:HA	2:12:39:ILE:HA	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:59:ARG:HD2	3:22:97:LYS:HZ2	1.70	0.57
26:14:6:A:H2'	26:14:6:A:N3	2.19	0.57
26:14:72:U:OP1	45:B5:1:MET:HB2	2.05	0.57
26:14:573:G:O2'	26:14:574:C:H3'	2.05	0.57
26:14:661:C:O4'	37:35:13:ASN:HB3	2.04	0.57
26:14:871:U:OP1	38:45:5:ARG:HG2	2.04	0.57
26:14:1503:U:H2'	26:14:1504:C:H6	1.67	0.57
26:14:1945:G:H2'	26:14:1946:U:H6	1.68	0.57
27:1J:70:C:H2'	27:1J:71:C:H6	1.70	0.57
1:13:603:U:H2'	1:13:604:G:C8	2.38	0.57
1:13:813:U:OP2	1:13:816:A:N6	2.36	0.57
1:13:1316:G:N2	1:13:1319:A:OP2	2.27	0.57
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.37	0.57
26:1H:527:C:N4	26:1H:2777:G:O2'	2.36	0.57
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.69	0.57
26:1H:1264:G:H5'	53:N8:11:THR:CG2	2.35	0.57
26:1H:1416:G:H1	26:1H:1582:C:N4	2.00	0.57
26:1H:1613:G:O2'	61:1H:3598:HOH:O	2.18	0.57
26:1H:1799:G:O6	29:11:179:SER:HB3	2.05	0.57
32:41:135:LEU:HD12	32:41:155:MET:HE3	1.85	0.57
11:2A:48:ILE:HG13	11:2A:63:LEU:HB3	1.87	0.57
56:1L:52:G:H2'	56:1L:53:G:O4'	2.05	0.57
26:14:498:G:H21	46:C5:47:LYS:HZ3	1.52	0.57
1:13:630:G:H2'	1:13:631:G:C8	2.40	0.57
10:1I:78:ASN:O	10:1I:79:ARG:NH1	2.38	0.57
12:3I:52:LEU:O	12:3I:54:LYS:NZ	2.37	0.57
26:1H:185:U:H4'	26:1H:218:A:H4'	1.87	0.57
26:1H:589:C:H2'	26:1H:590:A:C8	2.40	0.57
26:1H:1729:A:O2'	26:1H:1730:U:H5"	2.04	0.57
26:1H:1991:U:H2'	26:1H:1992:G:H5"	1.85	0.57
27:16:90:C:P	38:88:16:ARG:HH21	2.27	0.57
28:71:59:ARG:NH1	28:71:165:ASN:HA	2.19	0.57
31:31:50:SER:HB2	31:31:94:PRO:HD3	1.86	0.57
44:E8:12:ILE:HG13	44:E8:42:ARG:HH11	1.69	0.57
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.32	0.57
7:62:16:LEU:HD11	9:82:45:ALA:HB2	1.87	0.57
26:14:607:U:H3	26:14:621:A:H2	1.51	0.57
26:14:1204:A:C2	26:14:1241:A:N1	2.72	0.57
26:14:1806:C:O2'	29:19:46:GLN:OE1	2.10	0.57
40:65:103:GLU:O	40:65:106:ARG:HD3	2.05	0.57
43:95:62:LEU:HD21	43:95:95:LEU:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:328:C:H4'	1:13:329:A:H5'	1.86	0.57
2:1E:115:LEU:HD13	2:1E:145:LEU:HB3	1.86	0.57
2:1E:122:PHE:HD1	2:1E:139:LYS:HE2	1.69	0.57
26:1H:2019:A:N7	53:N8:9:LYS:HE3	2.20	0.57
46:G8:28:LYS:NZ	46:G8:64:GLU:OE2	2.36	0.57
49:J8:83:GLU:HG3	49:J8:85:LEU:HB2	1.87	0.57
52:M8:4:GLY:C	52:M8:5:ILE:HG13	2.28	0.57
53:N8:40:LYS:HG2	53:N8:47:PRO:HD2	1.87	0.57
1:1G:518:C:H5"	1:1G:519:C:C6	2.40	0.57
1:1G:1025:U:H4'	1:1G:1026:G:H8	1.70	0.57
1:1G:1157:A:H1'	1:1G:1158:C:OP2	2.05	0.57
23:2L:24:C:H2'	23:2L:25:U:C6	2.40	0.57
26:14:30:G:O6	61:14:3560:HOH:O	2.17	0.57
26:14:486:C:H4'	44:A5:60:ASN:HD22	1.70	0.57
41:75:91:ARG:NH1	41:75:124:ASP:OD2	2.37	0.57
47:D5:10:ARG:HH21	47:D5:26:GLY:H	1.53	0.57
1:13:713:G:H2'	1:13:714:G:C8	2.39	0.57
6:5E:70:ASP:OD1	6:5E:70:ASP:N	2.31	0.57
24:3K:18:G:H2'	24:3K:19:G:H4'	1.87	0.57
26:1H:176:G:O2'	26:1H:177:G:H5'	2.05	0.57
26:1H:532:A:OP1	26:1H:561:G:N2	2.30	0.57
26:1H:571:A:H5'	26:1H:2030:A:N7	2.20	0.57
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.16	0.57
26:1H:2309:A:C6	26:1H:2310:A:H8	2.23	0.57
34:61:27:ARG:NH2	49:J8:68:PRO:HG3	2.20	0.57
1:1G:1126:U:C4	1:1G:1281:U:C6	2.93	0.57
26:14:2505:G:H2'	26:14:2576:G:O6	2.05	0.57
33:59:56:SER:OG	33:59:57:ASP:N	2.38	0.57
51:H5:8:LEU:HD12	51:H5:28:LEU:HB3	1.87	0.57
1:13:21:G:H2'	1:13:22:G:C8	2.39	0.56
1:13:323:U:H4'	20:BI:22:ARG:HB3	1.87	0.56
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.38	0.56
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.69	0.56
26:1H:1784:A:H5"	61:1H:3834:HOH:O	2.04	0.56
28:71:10:LEU:HA	28:71:13:LYS:HD3	1.86	0.56
29:11:223:GLY:O	29:11:226:MET:HB2	2.05	0.56
35:58:96:GLU:O	35:58:98:VAL:N	2.35	0.56
47:H8:164:ALA:O	47:H8:165:VAL:HG22	2.05	0.56
48:I8:23:VAL:HB	48:I8:26:TYR:HE1	1.70	0.56
2:12:223:ILE:HB	2:12:224:GLN:HA	1.87	0.56
4:32:32:ALA:HA	4:32:35:ARG:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:5:THR:O	40:65:8:GLU:N	2.37	0.56
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.87	0.56
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.87	0.56
1:13:1037:C:H2'	1:13:1038:C:C6	2.41	0.56
1:13:1244:C:H2'	1:13:1245:A:C8	2.40	0.56
3:2E:123:GLN:OE1	3:2E:136:GLN:NE2	2.32	0.56
26:1H:1496:A:H5'	26:1H:1497:U:OP1	2.06	0.56
26:1H:1678:G:H21	26:1H:1989:G:H22	1.50	0.56
26:1H:2287:A:H2	26:1H:2346:A:H2	1.53	0.56
33:51:30:LYS:HD2	33:51:81:GLU:H	1.68	0.56
36:68:104:ARG:NH1	41:B8:36:GLU:OE1	2.38	0.56
37:78:59:LEU:O	55:Q8:13:ARG:HD2	2.05	0.56
48:I8:23:VAL:HG13	48:I8:38:VAL:CG2	2.35	0.56
53:N8:40:LYS:CG	53:N8:47:PRO:HD2	2.35	0.56
26:14:1486:A:H2'	26:14:1487:G:C8	2.40	0.56
26:14:1533:C:N4	26:14:1534:G:N3	2.52	0.56
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.04	0.56
38:45:37:LEU:HD12	38:45:128:LYS:HB3	1.86	0.56
47:D5:8:TYR:HA	47:D5:62:PRO:HD3	1.85	0.56
48:E5:17:GLN:O	48:E5:19:LYS:HD2	2.05	0.56
1:13:1128:C:H5"	1:13:1129:C:OP2	2.04	0.56
2:1E:166:ASP:C	2:1E:168:THR:H	2.14	0.56
8:7E:102:ARG:H	8:7E:102:ARG:NE	2.02	0.56
22:1K:3:G:O2'	22:1K:4:U:O5'	2.21	0.56
24:3K:26:A:H2'	24:3K:27:G:H5'	1.87	0.56
26:1H:64:A:N9	45:F8:66:LEU:HD23	2.21	0.56
26:1H:724:U:H2'	26:1H:725:G:O4'	2.05	0.56
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.40	0.56
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.39	0.56
26:1H:2239:G:OP2	61:1H:3599:HOH:O	2.18	0.56
26:1H:2287:A:H62	26:1H:2344:U:H3	1.50	0.56
26:1H:2404:C:O3'	37:78:77:ARG:NH2	2.38	0.56
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.40	0.56
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.39	0.56
30:21:108:SER:OG	30:21:163:GLU:HG2	2.06	0.56
35:58:132:ALA:O	35:58:134:ARG:NH2	2.39	0.56
1:1G:1262:C:H42	1:1G:1273:G:H1	1.52	0.56
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.16	0.56
2:12:178:ARG:NH1	2:12:198:ASP:OD1	2.37	0.56
7:62:54:THR:HG22	7:62:125:MET:HE3	1.87	0.56
14:5A:17:LYS:HE3	14:5A:17:LYS:C	2.29	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:84:A:H61	26:14:102:G:HO2'	1.47	0.56
26:14:495:G:O6	61:14:3557:HOH:O	2.16	0.56
26:14:1111:A:O3'	26:14:1112:G:H4'	2.04	0.56
26:14:1794:U:H2'	26:14:1795:C:C6	2.40	0.56
26:14:2115:G:H1'	26:14:2171:A:H61	1.70	0.56
26:14:2404:C:O3'	37:35:77:ARG:NH2	2.38	0.56
26:14:2635:C:H5"	30:29:78:LEU:O	2.04	0.56
30:29:143:ASN:HD22	30:29:147:PRO:HD3	1.70	0.56
33:59:149:ARG:HA	33:59:162:ILE:HG21	1.88	0.56
1:13:486:U:H2'	1:13:487:A:H8	1.69	0.56
1:13:1301:U:O3'	13:4I:21:TYR:OH	2.24	0.56
26:1H:10:G:N2	26:1H:2801:A:O2'	2.24	0.56
26:1H:265:A:H1'	26:1H:266:G:O4'	2.05	0.56
26:1H:646:A:H2'	26:1H:647:G:O4'	2.06	0.56
49:J8:10:LYS:NZ	49:J8:65:SER:OG	2.37	0.56
1:1G:974:A:P	14:5A:41:ARG:HH12	2.29	0.56
26:14:459:U:H2'	26:14:460:A:C8	2.41	0.56
26:14:617:G:OP1	31:39:40:GLN:HG3	2.05	0.56
26:14:1418:G:H2'	26:14:1579:A:N6	2.19	0.56
40:65:83:LYS:HG3	40:65:84:GLN:H	1.70	0.56
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.19	0.56
15:6I:17:ARG:HA	15:6I:17:ARG:CZ	2.36	0.56
26:1H:748:G:C8	44:E8:89:ALA:HB1	2.40	0.56
26:1H:1249:U:OP1	61:1H:3597:HOH:O	2.17	0.56
26:1H:1479:G:N7	26:1H:1510:A:N6	2.54	0.56
28:71:58:VAL:O	28:71:59:ARG:HB2	2.03	0.56
30:21:169:ASN:OD1	30:21:201:THR:HG21	2.06	0.56
41:B8:39:ARG:HB2	41:B8:39:ARG:HH11	1.69	0.56
1:1G:791:G:C6	1:1G:792:A:N7	2.74	0.56
1:1G:827:U:H3	1:1G:872:A:N6	1.99	0.56
2:12:221:LEU:HD22	2:12:221:LEU:H	1.70	0.56
3:22:113:ALA:HB2	3:22:202:ILE:HG13	1.86	0.56
26:14:1688:U:O2	26:14:1700:A:H5'	2.06	0.56
27:1J:3:C:H42	27:1J:117:G:H22	1.53	0.56
32:49:95:ARG:HG2	32:49:96:ARG:H	1.70	0.56
46:C5:39:VAL:O	46:C5:40:GLU:HB2	2.05	0.56
1:13:62:U:O2'	1:13:379:C:O2	2.23	0.56
1:13:196:A:O2'	1:13:197:A:H2'	2.05	0.56
1:13:1133:G:H2'	1:13:1134:G:H8	1.70	0.56
26:1H:270(I):G:O6	26:1H:270(Q):C:N4	2.38	0.56
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:27:THR:OG1	29:11:28:GLU:N	2.38	0.56
29:11:37:LEU:H	29:11:37:LEU:HD12	1.69	0.56
33:51:23:ARG:NH1	33:51:25:LYS:HE3	2.19	0.56
38:88:35:VAL:HG13	38:88:130:LYS:HB3	1.87	0.56
44:E8:27:LYS:HB3	44:E8:31:GLU:HG3	1.88	0.56
1:1G:328:C:H4'	1:1G:329:A:H5"	1.87	0.56
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.40	0.56
8:72:11:THR:HG23	8:72:14:ARG:NH1	2.16	0.56
14:5A:40:CYS:SG	14:5A:43:CYS:HB2	2.46	0.56
26:14:1249:U:OP1	61:14:3565:HOH:O	2.18	0.56
26:14:1800:C:OP2	29:19:183:ARG:NH2	2.39	0.56
26:14:1889:A:O2'	26:14:2087:G:H5'	2.05	0.56
26:14:2712:U:H2'	26:14:2714:G:H5"	1.86	0.56
29:19:44:ASN:HB3	29:19:46:GLN:N	2.21	0.56
30:29:101:ARG:CZ	30:29:171:GLU:HB2	2.35	0.56
36:25:34:THR:HG22	36:25:37:ASP:OD2	2.06	0.56
39:55:81:ASP:O	39:55:82:GLU:HG2	2.05	0.56
48:E5:27:GLU:HB2	48:E5:69:PHE:HD1	1.71	0.56
22:1K:57:G:OP1	38:88:60:ARG:NH2	2.39	0.56
26:1H:1194:A:H8	26:1H:1194:A:OP2	1.89	0.56
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.06	0.56
26:1H:2641:G:OP1	35:58:74:ARG:NE	2.38	0.56
35:58:35:ARG:NH1	35:58:108:PRO:HG3	2.20	0.56
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.41	0.56
12:3A:58:VAL:N	12:3A:66:VAL:O	2.34	0.56
20:BA:86:ARG:NH1	20:BA:86:ARG:HB2	2.20	0.56
23:2L:17:C:H3'	23:2L:18:U:H2'	1.87	0.56
57:3L:47:U:O2'	57:3L:48:C:O4'	2.23	0.56
26:14:1904:G:OP1	61:14:3566:HOH:O	2.18	0.56
26:14:2273:A:H2'	26:14:2274:A:C8	2.41	0.56
1:13:767:A:H2'	1:13:768:A:O4'	2.06	0.56
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.88	0.56
2:1E:100:GLY:O	2:1E:104:ASN:N	2.39	0.56
4:3E:81:GLU:O	4:3E:82:ALA:HB3	2.05	0.56
6:5E:4:TYR:HD1	6:5E:92:LYS:HA	1.70	0.56
24:3K:21:A:H2'	24:3K:22:G:H8	1.69	0.56
26:1H:581:C:H2'	26:1H:582:G:H8	1.71	0.56
26:1H:1011:G:OP1	42:C8:75:ASN:HB3	2.06	0.56
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.70	0.56
26:1H:2864:G:OP1	41:B8:119:LYS:HG3	2.06	0.56
1:1G:952:U:H4'	1:1G:964:A:N1	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1205:U:H4'	3:22:195:VAL:HG11	1.87	0.56
3:22:62:ASP:O	3:22:97:LYS:HB2	2.05	0.56
26:14:1942:C:OP2	26:14:1943:U:O2'	2.12	0.56
26:14:2542:A:N3	26:14:2542:A:H5"	2.21	0.56
35:15:61:ARG:HB3	35:15:61:ARG:NH1	2.21	0.56
42:85:29:SER:OG	42:85:30:LYS:NZ	2.39	0.56
53:J5:41:PRO:O	53:J5:44:THR:OG1	2.19	0.56
8:7E:39:LEU:HB3	8:7E:45:ILE:HG12	1.86	0.56
23:2K:47:7MG:H81	23:2K:48:U:H5	1.69	0.56
26:1H:278:A:H3'	26:1H:279:C:C6	2.40	0.56
26:1H:587:C:N3	37:78:33:ARG:NH1	2.54	0.56
26:1H:1176:G:N7	26:1H:1177:A:N6	2.53	0.56
28:71:184:LYS:HA	28:71:187:ASP:HB2	1.88	0.56
32:41:66:GLN:HA	52:M8:6:HIS:CE1	2.24	0.56
32:41:170:ARG:HE	32:41:174:GLU:HG2	1.70	0.56
35:58:73:THR:HG22	35:58:84:LYS:HG3	1.88	0.56
43:D8:24:LYS:HD3	43:D8:90:PRO:HB2	1.86	0.56
44:E8:51:LEU:HD23	44:E8:105:VAL:HG11	1.86	0.56
46:G8:82:PRO:HG3	46:G8:97:ARG:HB3	1.87	0.56
47:H8:81:ARG:HG3	47:H8:81:ARG:O	2.06	0.56
26:14:34:C:HO2'	26:14:35:G:P	2.29	0.56
26:14:2748:A:H4'	33:59:70:THR:HG21	1.88	0.56
29:19:44:ASN:HB3	29:19:45:ASN:C	2.31	0.56
34:69:123:LEU:HD23	34:69:142:VAL:HG23	1.86	0.56
37:35:13:ASN:O	37:35:14:LYS:NZ	2.25	0.56
43:95:38:LEU:HD12	43:95:55:ALA:C	2.31	0.56
49:F5:7:ILE:HD13	49:F5:91:LYS:HE3	1.88	0.56
1:13:346:G:H4'	41:B8:41:ARG:CZ	2.36	0.56
1:13:601:C:H42	1:13:637:G:H1	1.54	0.56
8:7E:9:MET:SD	8:7E:32:LYS:HG2	2.46	0.56
12:3I:42:THR:HB	12:3I:52:LEU:HB3	1.87	0.56
15:6I:39:LEU:O	15:6I:42:HIS:N	2.39	0.56
26:1H:1454:U:H5'	39:98:63:ARG:CZ	2.36	0.56
38:88:109:VAL:HG13	38:88:113:GLN:HB2	1.88	0.56
39:98:117:VAL:O	39:98:118:GLU:HB2	2.05	0.56
1:1G:446:G:H2'	1:1G:447:G:O4'	2.06	0.56
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.06	0.56
19:AA:10:PHE:HD1	19:AA:11:VAL:HB	1.71	0.56
56:1L:24:G:H2'	56:1L:25:C:C6	2.41	0.56
26:14:71:A:H5'	26:14:71:A:C8	2.41	0.56
26:14:2134:A:N6	26:14:2156:G:H2'	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2611:U:H6	26:14:2611:U:H5'	1.70	0.56
29:19:108:PRO:HB3	29:19:143:HIS:NE2	2.21	0.56
35:15:90:MET:HE2	35:15:90:MET:HA	1.87	0.56
43:95:2:PHE:H	43:95:42:GLY:HA3	1.70	0.56
4:3E:155:LEU:HD13	4:3E:158:ILE:HD11	1.88	0.55
6:5E:97:PHE:CD2	18:9I:31:LEU:HD11	2.41	0.55
26:1H:602:G:O2'	26:1H:604:G:O2'	2.06	0.55
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.36	0.55
26:1H:2068:U:N3	26:1H:2430:A:C2	2.67	0.55
34:61:110:ASP:N	34:61:130:TYR:OH	2.39	0.55
40:A8:89:ARG:O	40:A8:89:ARG:HG2	2.00	0.55
49:J8:60:PHE:CE2	49:J8:91:LYS:HE2	2.41	0.55
1:1G:617:G:N7	61:1G:1725:HOH:O	2.32	0.55
1:1G:660:G:H2'	1:1G:661:G:O4'	2.06	0.55
1:1G:707:C:H2'	1:1G:708:C:C6	2.41	0.55
3:22:132:ARG:HH12	4:32:47:ARG:HH22	1.54	0.55
7:62:97:GLN:HG3	7:62:98:SER:N	2.20	0.55
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.41	0.55
26:14:2232:U:OP1	49:F5:40:ARG:NH2	2.39	0.55
34:69:14:ASP:OD1	34:69:15:VAL:N	2.39	0.55
1:13:37:U:O2'	1:13:500:G:H4'	2.05	0.55
1:13:505:G:N7	61:13:1833:HOH:O	2.32	0.55
1:13:601:C:H2'	1:13:602:A:C8	2.40	0.55
7:6E:138:LYS:HD3	7:6E:142:GLU:OE2	2.06	0.55
18:9I:25:THR:HB	18:9I:42:ARG:NH2	2.21	0.55
25:4K:23:A:H2	25:4K:24:A:N6	2.03	0.55
26:1H:957:A:N1	26:1H:2458:G:H4'	2.20	0.55
26:1H:2135:A:H62	26:1H:2156:G:H1'	1.71	0.55
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.28	0.55
30:21:14:ILE:HB	30:21:21:VAL:HB	1.88	0.55
34:61:3:VAL:HG12	34:61:38:LEU:HA	1.88	0.55
43:D8:25:LEU:HD11	43:D8:94:LEU:HD11	1.88	0.55
52:M8:40:HIS:HE1	52:M8:45:GLY:O	1.90	0.55
1:1G:363:A:OP1	12:3A:33:ARG:HG3	2.06	0.55
1:1G:411:A:H61	1:1G:430:A:N6	2.00	0.55
1:1G:620:C:H2'	1:1G:621:A:O4'	2.06	0.55
1:1G:958:A:N3	1:1G:985:C:O2'	2.39	0.55
2:12:101:MET:HA	2:12:108:ILE:HG13	1.87	0.55
2:12:195:ASP:O	8:72:74:PRO:HG3	2.05	0.55
9:82:77:ILE:O	9:82:81:ILE:HG12	2.05	0.55
26:14:1012:U:O4	35:15:25:ARG:HA	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:40:THR:O	34:69:43:ASN:N	2.36	0.55
37:35:47:ASP:OD1	37:35:49:ARG:NE	2.32	0.55
38:45:21:THR:HG21	38:45:101:ARG:HD2	1.88	0.55
38:45:117:ALA:HA	38:45:120:ILE:HB	1.87	0.55
39:55:107:ASP:OD1	39:55:108:GLY:N	2.39	0.55
47:D5:19:ARG:NH1	47:D5:84:GLU:HB2	2.21	0.55
1:13:445:G:H1	1:13:489:C:H42	1.54	0.55
1:13:963:G:H21	10:1I:55:LYS:CE	2.18	0.55
3:2E:91:LEU:HB2	3:2E:99:VAL:HG11	1.88	0.55
13:4I:66:LEU:C	13:4I:70:LEU:HB2	2.31	0.55
26:1H:2287:A:C2	26:1H:2346:A:C2	2.95	0.55
1:1G:975:A:H4'	1:1G:976:G:H5"	1.87	0.55
3:22:14:ILE:HG23	3:22:15:THR:N	2.21	0.55
7:62:68:ASN:ND2	7:62:127:ALA:O	2.40	0.55
11:2A:65:ALA:HB1	11:2A:98:LEU:HD21	1.88	0.55
26:14:1858:G:H1'	26:14:1884:A:N6	2.22	0.55
26:14:2315:G:OP1	32:49:36:LYS:NZ	2.39	0.55
26:14:2736:G:N2	26:14:2768:C:O2	2.39	0.55
29:19:24:ILE:HG23	29:19:83:GLU:HA	1.88	0.55
40:65:88:ASP:C	40:65:90:GLY:H	2.14	0.55
45:B5:13:LEU:HD11	50:G5:41:ILE:HG22	1.88	0.55
47:D5:5:LEU:HD23	47:D5:47:VAL:HG11	1.88	0.55
47:D5:62:PRO:O	47:D5:63:ASP:HB3	2.06	0.55
53:J5:11:THR:HG23	53:J5:15:ARG:HB3	1.89	0.55
1:13:1285:A:O5'	1:13:1285:A:H8	1.89	0.55
4:3E:85:LYS:N	4:3E:86:LYS:HA	2.22	0.55
12:3I:60:LEU:HD21	12:3I:66:VAL:HG12	1.88	0.55
20:BI:30:LYS:HA	20:BI:33:ILE:HD12	1.87	0.55
26:1H:76:C:O2'	50:K8:62:THR:HG21	2.07	0.55
26:1H:330:A:H2	26:1H:1210:A:H2'	1.71	0.55
26:1H:1956:U:C2'	26:1H:1957:C:H5'	2.37	0.55
33:51:33:LEU:HD11	33:51:137:ASP:HA	1.89	0.55
47:H8:19:ARG:HH11	47:H8:84:GLU:HB2	1.70	0.55
1:1G:1240:U:OP2	7:62:116:ALA:N	2.38	0.55
4:32:150:GLU:HA	4:32:153:ARG:HG2	1.87	0.55
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.42	0.55
57:3L:9:A:O2'	57:3L:10:G:N7	2.37	0.55
26:14:456:C:H2'	45:B5:69:TYR:HE2	1.72	0.55
26:14:460:A:H5"	26:14:461:C:OP2	2.06	0.55
26:14:850:C:H5"	51:H5:18:ASP:HB2	1.88	0.55
26:14:2320:A:N6	26:14:2333:A:H2'	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:15:LEU:HD23	35:15:134:ARG:HB2	1.87	0.55
4:3E:85:LYS:HD2	4:3E:87:GLY:N	2.22	0.55
13:4I:82:MET:O	13:4I:84:ILE:N	2.40	0.55
26:1H:270(B):A:N1	26:1H:273:G:O2'	2.30	0.55
26:1H:535:C:O3'	42:C8:53:ARG:NH1	2.40	0.55
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.06	0.55
26:1H:1534:G:H21	26:1H:1538:G:H21	1.53	0.55
26:1H:2588:G:P	61:1H:3566:HOH:O	2.64	0.55
29:11:29:PRO:HG2	29:11:83:GLU:OE1	2.05	0.55
44:E8:86:LEU:HD12	44:E8:87:PRO:HD2	1.88	0.55
1:1G:539:A:H2'	1:1G:540:G:H8	1.70	0.55
1:1G:1255:G:H2'	1:1G:1279:A:N6	2.22	0.55
19:AA:14:HIS:CD2	19:AA:15:LEU:HD13	2.42	0.55
26:14:1101:U:H2'	26:14:1102:C:O4'	2.05	0.55
26:14:1292:U:H2'	26:14:1293:C:C6	2.41	0.55
26:14:1386:C:H2'	26:14:1387:C:H6	1.71	0.55
26:14:1639:U:P	61:14:3549:HOH:O	2.64	0.55
31:39:28:ILE:HG13	31:39:28:ILE:O	2.07	0.55
42:85:97:ASP:OD1	42:85:98:LEU:N	2.40	0.55
47:D5:163:LEU:HD12	47:D5:165:VAL:HG23	1.87	0.55
55:M5:14:VAL:HG11	55:M5:22:VAL:HG13	1.88	0.55
10:1I:26:ALA:O	10:1I:30:SER:OG	2.22	0.55
12:3I:119:LYS:O	12:3I:121:GLY:N	2.38	0.55
24:3K:2:G:N1	24:3K:72:C:H1'	2.22	0.55
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.50	0.55
26:1H:248:G:H5'	26:1H:250:G:N7	2.21	0.55
26:1H:827:U:H5'	26:1H:828:U:O5'	2.06	0.55
26:1H:1899:G:N2	26:1H:1902:C:H41	2.03	0.55
26:1H:2149:G:H3'	26:1H:2150:U:H6	1.72	0.55
30:21:116:VAL:O	30:21:117:MET:HB3	2.05	0.55
30:21:201:THR:HG22	30:21:203:LYS:H	1.71	0.55
34:61:33:ARG:C	34:61:35:LEU:H	2.13	0.55
43:D8:20:LEU:HG	43:D8:22:VAL:HG23	1.89	0.55
1:1G:1326:C:OP1	21:1B:17:THR:OG1	2.19	0.55
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.72	0.55
13:4A:78:ILE:O	13:4A:81:LEU:N	2.39	0.55
31:39:38:ARG:HH21	31:39:99:TYR:HE2	1.53	0.55
32:49:68:PRO:HA	32:49:92:VAL:HB	1.87	0.55
32:49:124:SER:HB2	32:49:131:TYR:CZ	2.42	0.55
38:45:32:TYR:N	38:45:32:TYR:CD1	2.74	0.55
41:75:99:LEU:HD22	41:75:101:PHE:CE1	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:69:LYS:HE3	43:95:86:GLY:HA3	1.87	0.55
3:2E:108:ASN:HB3	3:2E:111:LEU:HB2	1.88	0.55
11:2I:79:SER:OG	11:2I:106:LYS:NZ	2.34	0.55
14:5I:8:GLU:O	14:5I:11:LYS:N	2.36	0.55
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.06	0.55
17:8I:78:GLU:OE1	17:8I:81:ARG:NE	2.40	0.55
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.06	0.55
22:1K:74:C:H42	26:1H:2508:G:H5'	1.71	0.55
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.06	0.55
30:21:78:LEU:HD23	30:21:79:ARG:HB2	1.88	0.55
42:C8:93:LYS:H	42:C8:93:LYS:HD2	1.71	0.55
51:L8:6:VAL:HG12	51:L8:56:VAL:HG13	1.89	0.55
1:1G:1352:C:P	21:1B:3:LYS:HZ1	2.30	0.55
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.70	0.55
4:32:60:GLU:OE2	4:32:198:VAL:HG12	2.07	0.55
56:1L:9:A:C5	56:1L:45:G:C8	2.94	0.55
26:14:11:G:H5'	26:14:2799:A:C6	2.42	0.55
26:14:13:A:N1	26:14:525:U:H2'	2.22	0.55
26:14:1011:G:N3	26:14:1151:G:N2	2.55	0.55
26:14:1342:A:H2	26:14:1602:U:N3	2.03	0.55
31:39:25:PRO:HB2	31:39:27:GLU:CA	2.36	0.55
37:35:106:LEU:O	37:35:106:LEU:HG	2.07	0.55
40:65:102:ALA:HA	40:65:105:ALA:HB3	1.89	0.55
55:M5:6:THR:HG23	55:M5:64:TYR:HD2	1.72	0.55
1:13:64:G:O2'	1:13:65:U:OP1	2.25	0.55
1:13:75:C:O2'	1:13:96:G:N2	2.37	0.55
1:13:517:G:N1	1:13:533:A:OP2	2.36	0.55
3:2E:59:ARG:HG3	3:2E:64:VAL:HG12	1.89	0.55
22:1K:37:T6A:H2'	22:1K:38:A:O4'	2.07	0.55
26:1H:507:A:H5"	26:1H:508:G:H3'	1.88	0.55
26:1H:1728:G:H3'	26:1H:1729:A:H5"	1.89	0.55
26:1H:2405:G:OP1	37:78:77:ARG:NH2	2.40	0.55
30:21:77:ILE:O	30:21:79:ARG:N	2.39	0.55
43:D8:36:PRO:O	43:D8:38:LEU:N	2.38	0.55
47:H8:95:PRO:HB2	47:H8:127:LYS:HD2	1.87	0.55
1:1G:6:G:O2'	1:1G:7:G:H5"	2.07	0.55
1:1G:501:C:H2'	1:1G:502:G:C8	2.42	0.55
1:1G:601:C:H2'	1:1G:602:A:C8	2.41	0.55
1:1G:1023:G:C5	1:1G:1024:G:H1'	2.42	0.55
1:1G:1368:G:H4'	10:1A:46:ARG:HH22	1.72	0.55
5:42:146:ALA:HB1	5:42:150:ARG:HH21	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:11:THR:O	8:72:15:ASN:ND2	2.40	0.55
11:2A:79:SER:OG	11:2A:106:LYS:HD2	2.06	0.55
19:AA:40:ILE:HG12	19:AA:71:LEU:HD23	1.87	0.55
26:14:854:G:H2'	26:14:855:G:C8	2.42	0.55
26:14:1223:C:OP2	43:95:88:ARG:NH2	2.40	0.55
26:14:1951:U:N3	26:14:1954:G:OP2	2.29	0.55
26:14:2054:A:H5"	26:14:2055:C:O5'	2.07	0.55
26:14:2151:G:H2'	26:14:2152:G:O4'	2.06	0.55
32:49:46:ALA:O	32:49:49:ASP:N	2.40	0.55
38:45:35:VAL:HB	38:45:130:LYS:HG2	1.89	0.55
1:13:983:A:H5'	14:5I:3:ARG:HH22	1.71	0.55
6:5E:69:GLU:O	6:5E:72:VAL:HG12	2.07	0.55
8:7E:8:ASP:O	8:7E:12:ARG:HB2	2.07	0.55
26:1H:1174:A:H1'	26:1H:1178:C:N4	2.22	0.55
26:1H:2209:C:O2	26:1H:2216:G:C2	2.60	0.55
32:41:114:ILE:HG22	32:41:115:ARG:O	2.07	0.55
48:I8:69:PHE:CE2	48:I8:79:VAL:HG22	2.42	0.55
1:1G:222:U:H2'	1:1G:223:U:C6	2.42	0.55
1:1G:396:G:O2'	1:1G:398:C:OP1	2.19	0.55
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.40	0.55
26:14:362:U:H5'	26:14:363:G:OP2	2.06	0.55
26:14:2115:G:N2	26:14:2172:U:O4	2.36	0.55
27:1J:103:U:O2'	47:D5:72:ARG:HG2	2.06	0.55
31:39:192:LEU:HD22	31:39:194:MET:HE2	1.88	0.55
47:D5:67:LEU:HD22	47:D5:90:VAL:HG11	1.89	0.55
1:13:413:G:N2	1:13:428:G:H1'	2.22	0.55
14:5I:27:CYS:SG	14:5I:29:ARG:HB2	2.47	0.55
16:7I:4:ILE:HD12	16:7I:66:PRO:HD3	1.89	0.55
26:1H:581:C:H2'	26:1H:582:G:C8	2.42	0.55
26:1H:1826:G:H4'	29:11:242:ARG:HE	1.71	0.55
28:71:201:PRO:HD2	28:71:208:PHE:CE1	2.42	0.55
42:C8:29:SER:HB3	42:C8:30:LYS:HE2	1.89	0.55
1:1G:1074:G:O2'	1:1G:1101:A:N1	2.33	0.55
2:12:58:ILE:HA	2:12:61:LEU:HB2	1.89	0.55
5:42:68:GLU:OE2	5:42:70:PRO:HG3	2.06	0.55
26:14:2121:G:O6	26:14:2177:C:N4	2.31	0.55
30:29:5:LEU:HD22	30:29:5:LEU:H	1.72	0.55
30:29:70:ALA:O	30:29:72:VAL:N	2.39	0.55
30:29:110:GLY:O	39:55:3:HIS:NE2	2.39	0.55
43:95:5:VAL:HB	43:95:37:VAL:HG12	1.89	0.55
48:E5:21:LEU:HD11	48:E5:41:ARG:HH11	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1379:G:O6	7:6E:2:ALA:N	2.40	0.54
13:4I:39:ILE:HD12	13:4I:56:LEU:HD23	1.89	0.54
18:9I:47:THR:HA	18:9I:83:GLU:HB2	1.89	0.54
22:1K:67:C:H2'	22:1K:68:G:C8	2.41	0.54
26:1H:796:C:H2'	26:1H:797:C:C6	2.42	0.54
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.42	0.54
29:11:30:GLU:HB3	29:11:104:TYR:OH	2.07	0.54
39:98:104:ARG:HB2	39:98:107:ASP:HB2	1.89	0.54
41:B8:50:ILE:HD11	41:B8:102:ILE:HD13	1.89	0.54
54:P8:27:GLY:HA2	54:P8:30:VAL:HG23	1.89	0.54
1:1G:165:C:H2'	1:1G:166:G:H8	1.73	0.54
1:1G:1096:C:O2'	1:1G:1170:A:O2'	2.25	0.54
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.40	0.54
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.42	0.54
7:62:93:PRO:CD	7:62:94:ARG:HH21	2.19	0.54
8:72:87:SER:HA	8:72:93:VAL:HG23	1.89	0.54
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	1.89	0.54
57:3L:55:U:N3	57:3L:57:G:H3'	2.21	0.54
26:14:2210:G:H5"	26:14:2211:G:N2	2.22	0.54
26:14:2737:G:H2'	26:14:2738:A:C8	2.42	0.54
30:29:174:ASP:HB3	30:29:183:LEU:HD22	1.89	0.54
46:C5:17:SER:HB2	46:C5:71:LYS:CE	2.38	0.54
49:F5:71:TYR:O	49:F5:74:VAL:HG12	2.07	0.54
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.22	0.54
4:3E:192:GLU:N	4:3E:192:GLU:OE1	2.41	0.54
8:7E:86:ILE:HG12	8:7E:135:CYS:HA	1.88	0.54
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.88	0.54
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.88	0.54
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.72	0.54
24:3K:11:C:H2'	24:3K:12:U:H6	1.72	0.54
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.88	0.54
35:58:73:THR:HB	35:58:82:LEU:HD11	1.89	0.54
37:78:144:GLU:OE2	37:78:144:GLU:N	2.40	0.54
38:88:30:GLY:CA	38:88:107:ALA:HB2	2.37	0.54
44:E8:79:GLY:HA3	44:E8:100:THR:HG22	1.88	0.54
1:1G:1046:A:H3'	1:1G:1047:G:C8	2.41	0.54
1:1G:1399:C:C2	1:1G:1502:A:N6	2.75	0.54
7:62:23:VAL:HG13	7:62:43:PHE:HE2	1.72	0.54
8:72:30:ARG:O	8:72:34:GLU:HG2	2.07	0.54
11:2A:14:VAL:HG22	11:2A:15:ALA:H	1.72	0.54
26:14:919:G:N2	26:14:2269:A:OP2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1902:C:H5'	29:19:246:PRO:HD3	1.89	0.54
26:14:2303:G:O2'	32:49:132:ASN:HB2	2.07	0.54
26:14:2526:G:H5'	26:14:2742:C:O2'	2.07	0.54
31:39:63:LYS:HA	31:39:76:GLY:O	2.07	0.54
34:69:81:VAL:H	34:69:143:SER:CB	2.20	0.54
40:65:61:ASN:HB3	40:65:64:GLU:H	1.71	0.54
1:13:49:U:C2	1:13:361:G:N2	2.75	0.54
1:13:243:A:H4'	1:13:244:U:H3'	1.89	0.54
1:13:272:C:H2'	1:13:273:A:H8	1.71	0.54
1:13:963:G:H21	10:1I:55:LYS:HE3	1.72	0.54
1:13:1124:G:O2'	1:13:1145:C:N4	2.40	0.54
4:3E:70:ILE:HG23	4:3E:75:PHE:HB2	1.89	0.54
12:3I:113:ARG:HH21	12:3I:116:SER:HB2	1.72	0.54
24:3K:66:A:H2'	24:3K:67:C:O4'	2.08	0.54
26:1H:1021:A:H61	26:1H:1142(A):A:N6	2.04	0.54
26:1H:2057:A:P	61:1H:3548:HOH:O	2.66	0.54
32:41:56:ALA:HB2	32:41:153:ARG:HE	1.73	0.54
1:1G:196:A:OP1	20:BA:68:LYS:NZ	2.40	0.54
1:1G:1289:A:OP1	21:1B:10:ARG:NE	2.40	0.54
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.42	0.54
19:AA:40:ILE:HD12	19:AA:67:VAL:H	1.73	0.54
26:14:1322:A:N1	26:14:1333:C:O2'	2.35	0.54
26:14:1567:A:OP1	29:19:60:ARG:NE	2.41	0.54
26:14:1680:U:H2'	26:14:1681:G:O4'	2.07	0.54
26:14:2547:U:H2'	26:14:2548:G:H8	1.73	0.54
46:C5:6:HIS:CD2	46:C5:7:VAL:HG13	2.42	0.54
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.40	0.54
5:4E:101:ILE:HG13	5:4E:119:LEU:HD23	1.89	0.54
10:1I:58:ASP:N	10:1I:58:ASP:OD1	2.40	0.54
13:4I:84:ILE:HG23	13:4I:86:CYS:H	1.71	0.54
18:9I:22:VAL:HG13	18:9I:42:ARG:HH12	1.72	0.54
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.89	0.54
26:1H:729:G:OP2	29:11:13:ARG:NH1	2.40	0.54
26:1H:900:A:H2'	26:1H:901:A:C8	2.42	0.54
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.43	0.54
26:1H:1638:C:O2	26:1H:2698:U:O2'	2.24	0.54
26:1H:1843:C:H5'	29:11:253:GLN:OE1	2.08	0.54
26:1H:2311:A:H8	32:41:88:ILE:HG21	1.71	0.54
32:41:76:SER:HB2	32:41:84:LYS:HB2	1.90	0.54
33:51:167:GLU:N	33:51:167:GLU:OE1	2.40	0.54
41:B8:90:GLN:HG3	41:B8:91:ARG:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:14:VAL:HG21	43:D8:57:VAL:HG21	1.88	0.54
53:N8:40:LYS:HD3	53:N8:46:CYS:SG	2.47	0.54
6:52:5:GLU:HG3	6:52:93:SER:OG	2.07	0.54
8:72:1:MET:SD	8:72:1:MET:N	2.75	0.54
9:82:99:LEU:HB3	9:82:101:PHE:CD1	2.42	0.54
26:14:993:G:OP1	42:85:50:ARG:NH2	2.40	0.54
26:14:1013:C:H42	26:14:1149:G:H1	1.55	0.54
26:14:1173:G:H2'	26:14:1175:U:H4'	1.89	0.54
37:35:85:LEU:HD12	37:35:138:LEU:HD23	1.88	0.54
1:13:321:A:C2	1:13:333:G:C2	2.96	0.54
1:13:510:A:H8	61:13:1839:HOH:O	1.90	0.54
1:13:1292:U:P	7:6E:41:ARG:HH22	2.30	0.54
4:3E:82:ALA:O	4:3E:85:LYS:NZ	2.38	0.54
18:9I:34:TYR:HA	18:9I:69:THR:HG23	1.90	0.54
25:4K:24:A:H2'	25:4K:25:A:H8	1.70	0.54
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.90	0.54
26:1H:469:G:N7	54:P8:37:LYS:NZ	2.54	0.54
26:1H:751:A:OP1	61:1H:3600:HOH:O	2.18	0.54
26:1H:946:G:OP1	61:1H:3602:HOH:O	2.18	0.54
26:1H:1503:U:H2'	26:1H:1504:C:H6	1.71	0.54
39:98:97:VAL:HG22	39:98:114:VAL:HG22	1.89	0.54
43:D8:3:ALA:HB1	43:D8:38:LEU:HD22	1.88	0.54
43:D8:29:PRO:HB3	43:D8:63:GLY:HA2	1.87	0.54
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.41	0.54
1:1G:373:A:H2'	1:1G:374:A:H8	1.73	0.54
1:1G:1515:C:H2'	1:1G:1516:G:C8	2.42	0.54
7:62:106:GLN:O	7:62:110:GLN:HG2	2.07	0.54
11:2A:100:ALA:O	11:2A:101:SER:OG	2.21	0.54
55:M5:40:GLU:H	55:M5:43:GLN:HB2	1.72	0.54
1:13:792:A:H4'	1:13:793:U:O5'	2.07	0.54
1:13:843:U:H3'	1:13:848:C:C6	2.42	0.54
4:3E:143:GLY:N	4:3E:185:PHE:O	2.34	0.54
26:1H:286:C:H2'	26:1H:287:C:H6	1.73	0.54
26:1H:297:C:H5"	46:G8:86:ARG:HG2	1.90	0.54
26:1H:818:G:H4'	26:1H:838:C:O3'	2.08	0.54
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.43	0.54
26:1H:2635:C:H5"	30:21:78:LEU:O	2.08	0.54
31:31:149:ASP:OD1	31:31:149:ASP:N	2.27	0.54
34:61:77:LEU:HD13	34:61:140:LEU:HB3	1.90	0.54
38:88:14:ARG:HG2	38:88:41:TRP:CH2	2.39	0.54
47:H8:125:LEU:HG	47:H8:164:ALA:HB3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:58:ILE:HG23	49:J8:87:PRO:HG3	1.88	0.54
1:1G:67:C:H2'	1:1G:68:G:C8	2.43	0.54
4:32:14:ARG:HB3	4:32:40:PRO:HD3	1.88	0.54
21:1B:6:ARG:O	21:1B:12:LYS:HG2	2.08	0.54
57:3L:3:G:H1	57:3L:70:C:H42	1.55	0.54
26:14:324:A:H2'	26:14:325:G:O4'	2.08	0.54
26:14:2068:U:N3	26:14:2430:A:H2	2.05	0.54
26:14:2074:U:H2'	26:14:2075:U:C6	2.42	0.54
26:14:2308:G:O2'	26:14:2309:A:OP1	2.22	0.54
26:14:2557:G:H2'	26:14:2558:C:C6	2.42	0.54
30:29:105:THR:HG21	30:29:164:ARG:NE	2.22	0.54
47:D5:40:ASP:OD1	47:D5:42:VAL:HG23	2.06	0.54
49:F5:76:ARG:HG3	49:F5:94:LEU:HD13	1.88	0.54
1:13:150:C:H2'	1:13:151:A:O4'	2.07	0.54
1:13:504:C:OP1	61:13:1821:HOH:O	2.17	0.54
1:13:1111:A:OP2	1:13:1111:A:H8	1.91	0.54
1:13:1369:C:H2'	1:13:1370:G:C8	2.43	0.54
22:1K:30:G:H5'	22:1K:31:A:OP2	2.08	0.54
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.72	0.54
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.21	0.54
33:51:144:VAL:O	33:51:148:ILE:HG12	2.08	0.54
39:98:38:VAL:HG22	39:98:112:ALA:HB2	1.90	0.54
1:1G:313:A:H2'	1:1G:314:C:C6	2.43	0.54
1:1G:486:U:H2'	1:1G:487:A:C8	2.43	0.54
7:62:70:LYS:CG	7:62:96:GLN:HB3	2.37	0.54
10:1A:48:THR:HA	10:1A:62:HIS:CB	2.33	0.54
19:AA:11:VAL:HG23	19:AA:39:THR:N	2.21	0.54
26:14:654(C):G:H1'	26:14:654(S):G:C2	2.42	0.54
26:14:1060:U:H4'	26:14:1061:U:H5"	1.89	0.54
26:14:1416:G:HO2'	26:14:1417:C:P	2.31	0.54
26:14:2627:G:N2	26:14:2777:G:OP1	2.36	0.54
38:45:25:ASP:HB3	38:45:102:VAL:HG23	1.89	0.54
53:J5:16:ARG:HG3	53:J5:17:ASP:N	2.23	0.54
13:4I:82:MET:C	13:4I:84:ILE:H	2.16	0.54
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.43	0.54
26:1H:529:A:H8	26:1H:530:G:C6	2.26	0.54
26:1H:542:C:H42	26:1H:551:G:H1	1.55	0.54
26:1H:2278:A:OP1	38:88:10:ARG:NH2	2.41	0.54
27:16:41:U:C5	32:41:70:VAL:HG13	2.43	0.54
32:41:170:ARG:HH21	32:41:174:GLU:CD	2.16	0.54
38:88:78:PRO:O	38:88:79:LEU:HB3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:71:LEU:HD22	43:D8:84:LYS:HE2	1.89	0.54
55:Q8:46:ARG:HB2	55:Q8:47:LYS:HB2	1.89	0.54
1:1G:260:G:H2'	1:1G:261:U:C6	2.43	0.54
1:1G:377:G:H5'	16:7A:5:ARG:HH12	1.72	0.54
1:1G:422:C:O2'	1:1G:423:G:N2	2.41	0.54
1:1G:1127:G:N3	1:1G:1127:G:H2'	2.21	0.54
7:62:115:ARG:HB3	7:62:118:VAL:HG13	1.90	0.54
26:14:320:A:N3	31:39:169:ASN:ND2	2.55	0.54
26:14:567:A:P	61:14:3522:HOH:O	2.65	0.54
26:14:872:A:H4'	38:45:66:ILE:HD11	1.89	0.54
30:29:52:LEU:O	30:29:75:VAL:HG23	2.08	0.54
31:39:53:THR:CG2	31:39:55:GLY:H	2.21	0.54
41:75:91:ARG:HH11	41:75:124:ASP:CG	2.14	0.54
43:95:85:LYS:CG	43:95:87:HIS:H	2.16	0.54
49:F5:87:PRO:O	49:F5:91:LYS:N	2.40	0.54
1:13:223:U:H2'	1:13:224:C:H6	1.72	0.54
1:13:1305:G:H8	1:13:1305:G:OP2	1.91	0.54
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.40	0.54
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.89	0.54
26:1H:16:G:H2'	26:1H:17:G:H8	1.72	0.54
26:1H:322:A:H5'	26:1H:340:A:H1'	1.89	0.54
26:1H:495:G:H1'	44:E8:57:ASN:OD1	2.08	0.54
26:1H:638:G:N2	26:1H:651:G:H1'	2.23	0.54
26:1H:1047:G:HO2'	26:1H:1048:A:H8	1.56	0.54
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.43	0.54
26:1H:1805:U:O2	29:11:50:THR:HB	2.08	0.54
26:1H:2287:A:H2	26:1H:2346:A:C2	2.25	0.54
1:1G:1230:C:H2'	1:1G:1231:G:H8	1.73	0.54
1:1G:1386:G:C2	1:1G:1387:G:C8	2.96	0.54
9:82:118:LYS:HB2	9:82:121:ARG:HB3	1.90	0.54
20:BA:67:ALA:HA	20:BA:73:HIS:H	1.73	0.54
26:14:271(B):G:O6	26:14:421:U:O2'	2.25	0.54
26:14:445:C:OP1	42:85:2:PRO:HA	2.08	0.54
26:14:2773:C:OP1	30:29:166:THR:OG1	2.26	0.54
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.08	0.54
29:19:59:LYS:HG2	29:19:60:ARG:N	2.23	0.54
41:75:53:ARG:HG3	41:75:53:ARG:O	2.08	0.54
45:B5:27:THR:HG22	45:B5:80:ILE:HG22	1.90	0.54
49:F5:2:SER:O	49:F5:4:VAL:HG13	2.08	0.54
1:13:1175:G:H2'	1:13:1176:A:C8	2.42	0.54
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	1.89	0.54
26:1H:17:G:H2'	26:1H:18:C:C6	2.42	0.54
26:1H:1047:G:H2'	26:1H:1110:G:C6	2.43	0.54
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.08	0.54
31:31:127:GLU:HG2	31:31:196:LEU:HD23	1.90	0.54
48:I8:41:ARG:NE	48:I8:41:ARG:HA	2.22	0.54
1:1G:157:G:H1	1:1G:164:U:H3	1.54	0.54
1:1G:828:A:OP1	8:72:21:LYS:NZ	2.41	0.54
1:1G:882:C:H2'	1:1G:883:C:H6	1.73	0.54
1:1G:1070:U:H2'	1:1G:1071:C:C6	2.38	0.54
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.42	0.54
2:12:190:THR:O	2:12:191:ASP:HB3	2.06	0.54
11:2A:54:ARG:HH12	57:3L:40:C:P	2.31	0.54
11:2A:58:PRO:HB3	11:2A:93:GLN:HG3	1.90	0.54
17:8A:21:VAL:HG21	17:8A:59:ILE:HD11	1.90	0.54
20:BA:26:ASN:O	20:BA:30:LYS:HB2	2.07	0.54
56:1L:9:A:H5"	56:1L:11:C:H5	1.73	0.54
26:14:195:A:H4'	26:14:251:A:O2'	2.08	0.54
26:14:315:G:H2'	26:14:316:C:C6	2.42	0.54
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.42	0.54
26:14:1116:C:H2'	26:14:1117:G:C8	2.43	0.54
30:29:147:PRO:HB2	30:29:149:ARG:HG2	1.90	0.54
32:49:72:ARG:HD2	32:49:85:GLY:O	2.06	0.54
43:95:44:LYS:O	43:95:46:VAL:HG12	2.08	0.54
1:13:328:C:H4'	1:13:329:A:C5'	2.38	0.53
1:13:686:U:O2'	1:13:687:A:OP2	2.25	0.53
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.89	0.53
4:3E:43:HIS:HA	4:3E:46:LYS:HD2	1.89	0.53
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.08	0.53
22:1K:65:C:H2'	22:1K:66:A:H8	1.73	0.53
26:1H:507:A:C5'	26:1H:508:G:H5'	2.38	0.53
26:1H:821:A:H5"	26:1H:822:U:H6	1.73	0.53
29:11:29:PRO:C	29:11:30:GLU:HG2	2.33	0.53
29:11:31:LYS:O	29:11:35:LYS:NZ	2.38	0.53
29:11:68:LYS:HD3	29:11:70:TRP:CH2	2.43	0.53
30:21:64:LYS:O	30:21:70:ALA:HB2	2.08	0.53
1:1G:591:U:H2'	1:1G:592:G:C8	2.42	0.53
1:1G:998:G:N2	1:1G:1044:A:N7	2.53	0.53
2:12:44:LEU:O	2:12:47:THR:OG1	2.23	0.53
26:14:314:A:H2'	26:14:315:G:C8	2.44	0.53
26:14:320:A:H4'	26:14:322:A:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:996:A:N6	26:14:1160:G:C6	2.75	0.53
29:19:30:GLU:CD	29:19:63:ARG:HH21	2.16	0.53
30:29:47:VAL:HG21	30:29:86:PRO:CD	2.38	0.53
44:A5:64:MET:HE1	44:A5:108:GLY:HA2	1.90	0.53
1:13:1176:A:H3'	1:13:1177:G:H5"	1.90	0.53
1:13:1213:A:H2'	1:13:1215:G:C8	2.44	0.53
1:13:1410:G:C4	1:13:1491:G:N2	2.76	0.53
4:3E:78:LEU:HB3	4:3E:93:PHE:HE1	1.71	0.53
26:1H:579:G:H2'	26:1H:580:C:C6	2.43	0.53
26:1H:747:U:O2	26:1H:2014:A:H1'	2.08	0.53
26:1H:900:A:H2'	26:1H:901:A:H8	1.73	0.53
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.43	0.53
26:1H:2055:C:H1'	30:21:145:LYS:HZ2	1.72	0.53
26:1H:2393:A:H2'	26:1H:2394:C:H6	1.74	0.53
1:1G:625:G:H4'	16:7A:16:HIS:CG	2.43	0.53
1:1G:1226:C:H41	13:4A:104:ARG:HB2	1.73	0.53
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.74	0.53
1:1G:1352:C:OP1	21:1B:3:LYS:NZ	2.36	0.53
26:14:406:G:H8	26:14:406:G:OP2	1.91	0.53
26:14:1665:A:H4'	36:25:67:LYS:HB2	1.90	0.53
43:95:28:GLU:HG3	43:95:29:PRO:HD2	1.90	0.53
1:13:841:U:H5"	1:13:842:C:O5'	2.08	0.53
7:6E:72:ARG:HG3	7:6E:142:GLU:OE2	2.07	0.53
26:1H:2685:G:OP2	41:B8:51:ARG:NH2	2.41	0.53
29:11:137:PRO:O	29:11:140:THR:OG1	2.20	0.53
36:68:68:GLU:HA	36:68:78:ARG:HB2	1.90	0.53
40:A8:106:ARG:HH12	40:A8:107:GLU:HG2	1.72	0.53
45:F8:3:THR:O	45:F8:4:ALA:C	2.51	0.53
1:1G:735:C:H2'	1:1G:736:C:C6	2.43	0.53
2:12:102:LEU:HD12	2:12:102:LEU:H	1.74	0.53
3:22:91:LEU:HD12	3:22:99:VAL:HG12	1.90	0.53
18:9A:29:PHE:N	18:9A:29:PHE:HD1	2.06	0.53
26:14:118:A:N3	26:14:178:G:H1'	2.22	0.53
26:14:298:G:O2'	26:14:322:A:N1	2.38	0.53
26:14:580:C:H2'	26:14:581:C:H6	1.73	0.53
26:14:868:U:C2	26:14:869:G:C8	2.96	0.53
26:14:1430:C:H2'	26:14:1431:U:C6	2.43	0.53
26:14:1445:C:H2'	26:14:1446:C:C6	2.43	0.53
1:13:438:G:O2'	1:13:494:U:O4	2.18	0.53
1:13:1128:C:H2'	1:13:1139:G:O6	2.08	0.53
2:1E:16:HIS:CE1	2:1E:210:SER:HB2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:81:LEU:O	13:4I:84:ILE:HG22	2.08	0.53
26:1H:74:A:H5"	26:1H:74:A:H8	1.74	0.53
26:1H:392:C:OP1	61:1H:3601:HOH:O	2.18	0.53
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.08	0.53
26:1H:1640:C:H2'	26:1H:1641:A:C8	2.43	0.53
26:1H:2068:U:N3	26:1H:2430:A:H2	2.05	0.53
29:11:8:PRO:HB3	29:11:14:ARG:HB3	1.89	0.53
44:E8:70:TYR:HD1	44:E8:70:TYR:H	1.57	0.53
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.43	0.53
1:1G:192:U:O4'	20:BA:103:GLY:HA2	2.07	0.53
1:1G:300:A:H1'	1:1G:565:U:O2	2.08	0.53
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.40	0.53
1:1G:667:G:H4'	15:6A:51:HIS:ND1	2.23	0.53
7:62:16:LEU:HD13	9:82:44:VAL:HG22	1.89	0.53
8:72:6:ILE:O	8:72:10:LEU:HG	2.08	0.53
8:72:106:GLY:HA2	8:72:122:ARG:HH22	1.73	0.53
26:14:34:C:O2	26:14:34:C:H2'	2.07	0.53
26:14:1024:G:H3'	26:14:1025:G:H5"	1.90	0.53
27:1J:103:U:HO2'	47:D5:29:TYR:HH	1.56	0.53
1:13:171:A:H2'	1:13:172:A:C8	2.43	0.53
1:13:746:A:H2'	1:13:747:C:C6	2.44	0.53
1:13:790:A:H5"	1:13:791:G:OP2	2.08	0.53
1:13:1011:G:H2'	1:13:1012:U:O4'	2.08	0.53
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.38	0.53
1:13:1504:G:OP1	1:13:1507:A:H4'	2.08	0.53
2:1E:30:ARG:HB2	2:1E:31:TYR:CD1	2.42	0.53
2:1E:74:LYS:NZ	2:1E:206:ASP:OD2	2.42	0.53
6:5E:19:LEU:O	6:5E:23:LYS:HB2	2.09	0.53
14:5I:15:LYS:HG2	14:5I:16:PHE:CE2	2.44	0.53
26:1H:244:A:H4'	37:78:74:GLU:HB3	1.89	0.53
26:1H:1359:A:N1	26:1H:1372:U:C4	2.76	0.53
26:1H:2239:G:P	61:1H:3599:HOH:O	2.66	0.53
47:H8:28:MET:O	47:H8:35:ARG:N	2.41	0.53
1:1G:416:G:H1	1:1G:427:U:H3	1.55	0.53
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.44	0.53
1:1G:1202:G:H2'	1:1G:1203:C:C6	2.44	0.53
1:1G:1243:C:H5"	21:1B:8:THR:HB	1.90	0.53
1:1G:1349:A:H2'	1:1G:1350:A:O4'	2.08	0.53
2:12:142:LEU:HA	2:12:145:LEU:HD23	1.90	0.53
4:32:119:GLN:O	4:32:123:HIS:HD2	1.90	0.53
5:42:34:VAL:HG13	5:42:66:MET:HE1	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:17:LYS:HE2	14:5A:18:VAL:HG13	1.90	0.53
15:6A:27:VAL:O	15:6A:31:LEU:HB2	2.08	0.53
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	1.91	0.53
26:14:93:C:H5'	26:14:94:G:OP2	2.08	0.53
26:14:817:C:H4'	26:14:932:G:C6	2.44	0.53
26:14:827:U:H2'	26:14:2430:A:C2	2.44	0.53
26:14:2261:C:O2'	26:14:2262:U:H5'	2.08	0.53
26:14:2537:U:H2'	26:14:2538:C:H6	1.74	0.53
26:14:2648:C:H2'	26:14:2649:U:C6	2.43	0.53
29:19:28:GLU:HG3	29:19:29:PRO:CD	2.38	0.53
42:85:91:ASP:CG	42:85:96:ALA:HB2	2.33	0.53
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.41	0.53
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.42	0.53
2:1E:17:PHE:HA	2:1E:42:ILE:HG22	1.90	0.53
23:2K:24:C:H2'	23:2K:25:U:H6	1.73	0.53
26:1H:376:C:P	61:1H:3760:HOH:O	2.66	0.53
26:1H:389:G:N1	37:78:71:VAL:HG12	2.23	0.53
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.44	0.53
26:1H:1298:C:H5"	26:1H:1299:G:OP2	2.09	0.53
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.73	0.53
26:1H:2785:C:H2'	26:1H:2786:U:O4'	2.09	0.53
26:1H:2845:G:OP2	61:1H:3603:HOH:O	2.19	0.53
27:16:4:C:H42	27:16:116:G:H1	1.55	0.53
30:21:181:LEU:HD11	41:B8:7:ILE:HG21	1.90	0.53
38:88:17:LEU:HB3	38:88:39:PRO:HB2	1.90	0.53
38:88:43:THR:HG22	38:88:94:VAL:HG12	1.91	0.53
42:C8:19:LYS:HG3	42:C8:22:LYS:HE2	1.88	0.53
42:C8:59:ARG:O	42:C8:63:VAL:HG23	2.09	0.53
45:F8:11:PRO:CB	45:F8:92:LEU:HD21	2.38	0.53
1:1G:39:G:O6	1:1G:547:A:H5"	2.09	0.53
1:1G:406:G:H21	4:32:119:GLN:HE22	1.56	0.53
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.44	0.53
5:42:7:GLU:HB3	5:42:35:GLY:O	2.08	0.53
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.38	0.53
26:14:5:A:H5"	26:14:2783:G:OP1	2.08	0.53
26:14:747:U:O2	26:14:2014:A:H1'	2.07	0.53
26:14:1145:C:H2'	26:14:1146:C:H6	1.73	0.53
26:14:1823:G:N7	61:14:3629:HOH:O	2.34	0.53
26:14:2572:A:C8	30:29:144:ARG:HD2	2.44	0.53
26:14:2766:G:H5"	26:14:2767:C:OP2	2.07	0.53
43:95:71:LEU:H	43:95:86:GLY:HA2	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:17:SER:O	46:C5:21:LYS:HB2	2.08	0.53
53:J5:46:CYS:SG	53:J5:48:GLU:HG2	2.48	0.53
1:13:324:G:N2	1:13:326:G:H3'	2.24	0.53
1:13:329:A:C5	1:13:332:G:C6	2.96	0.53
1:13:458:C:H2'	1:13:464:G:O4'	2.09	0.53
1:13:827:U:C5	1:13:872:A:N1	2.72	0.53
9:8E:96:LEU:HD23	9:8E:102:LEU:HG	1.89	0.53
26:1H:676:A:H8	26:1H:2069:G:N2	2.00	0.53
26:1H:844:C:H2'	26:1H:845:G:O4'	2.09	0.53
26:1H:1108:U:C2	26:1H:1109:C:H5	2.27	0.53
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.41	0.53
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.09	0.53
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.91	0.53
41:B8:12:SER:HB3	41:B8:15:VAL:HG22	1.89	0.53
42:C8:95:LEU:HD11	43:D8:11:GLN:O	2.09	0.53
54:P8:26:GLY:O	54:P8:30:VAL:HG23	2.09	0.53
1:1G:377:G:OP1	16:7A:3:LYS:NZ	2.39	0.53
2:12:174:VAL:O	2:12:178:ARG:HG2	2.08	0.53
57:3L:18:G:H2'	57:3L:57:G:H22	1.74	0.53
26:14:1204:A:H2	26:14:1241:A:N1	2.07	0.53
37:35:18:ARG:HB2	37:35:19:VAL:HG12	1.90	0.53
42:85:97:ASP:OD2	42:85:101:ARG:NE	2.42	0.53
46:C5:42:VAL:O	46:C5:65:ALA:N	2.25	0.53
55:M5:34:TRP:O	55:M5:36:LYS:N	2.42	0.53
1:13:342:C:H2'	1:13:343:U:O4'	2.09	0.53
1:13:1179:A:H2'	1:13:1180:A:O4'	2.09	0.53
23:2K:4:G:H1	23:2K:70:C:H42	1.55	0.53
24:3K:18:G:H21	24:3K:58:A:H62	1.57	0.53
24:3K:76:A:H8	26:1H:2394:C:N4	1.92	0.53
26:1H:2319:G:O2'	40:A8:3:ARG:NH2	2.42	0.53
29:11:28:GLU:N	29:11:29:PRO:HD3	2.22	0.53
29:11:112:GLN:N	29:11:115:GLN:OE1	2.30	0.53
32:41:95:ARG:CA	32:41:99:MET:HB2	2.39	0.53
32:41:170:ARG:HE	32:41:174:GLU:CG	2.22	0.53
47:H8:138:GLU:HB2	47:H8:156:LYS:HD3	1.91	0.53
1:1G:1203:C:H2'	1:1G:1204:A:O4'	2.09	0.53
4:32:153:ARG:NH1	4:32:181:MET:HB2	2.24	0.53
16:7A:20:VAL:HG11	16:7A:32:TYR:CD2	2.43	0.53
26:14:38:A:H2'	26:14:39:C:C6	2.44	0.53
26:14:569:U:H5"	26:14:821:A:C2	2.44	0.53
26:14:839:U:H2'	26:14:840:C:H6	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1858:G:O2'	26:14:1859:A:O5'	2.24	0.53
26:14:2361:A:OP1	55:M5:27:THR:HG23	2.09	0.53
26:14:2402:C:H5	26:14:2415:G:H22	1.56	0.53
26:14:2638:G:OP2	30:29:82:ARG:NH2	2.42	0.53
35:15:36:GLY:H	35:15:42:TRP:HZ3	1.56	0.53
49:F5:89:GLU:HA	49:F5:93:GLU:HG3	1.91	0.53
50:G5:47:ASN:HD22	50:G5:47:ASN:N	2.06	0.53
1:13:22:G:C6	1:13:23:C:C4	2.96	0.53
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.08	0.53
1:13:1240:U:OP1	7:6E:119:ARG:NH2	2.41	0.53
1:13:1442:G:H2'	1:13:1443:G:H5'	1.91	0.53
5:4E:71:LEU:HD22	5:4E:115:VAL:H	1.74	0.53
13:4I:57:ARG:HD2	52:M8:35:VAL:HG23	1.91	0.53
26:1H:271(C):U:O2'	26:1H:271:G:H4'	2.08	0.53
26:1H:2340:G:O2'	26:1H:2341:G:H5'	2.09	0.53
29:11:221:VAL:HG22	29:11:226:MET:HE3	1.90	0.53
31:31:129:PHE:HB2	31:31:132:VAL:HG12	1.91	0.53
33:51:4:ILE:HG13	33:51:6:ARG:CZ	2.38	0.53
37:78:97:PRO:HD3	37:78:126:VAL:O	2.09	0.53
38:88:4:PRO:HD3	38:88:70:PRO:O	2.08	0.53
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.23	0.53
1:1G:979:C:H3'	1:1G:980:C:C5'	2.37	0.53
1:1G:1239:A:H4'	1:1G:1240:U:H5'	1.91	0.53
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.44	0.53
26:14:566:U:OP1	37:35:29:LYS:HD2	2.08	0.53
26:14:1059:G:H2'	26:14:1060:U:C5	2.43	0.53
26:14:2255:G:OP2	61:14:3568:HOH:O	2.19	0.53
26:14:2628:C:H1'	26:14:2781:A:H2'	1.91	0.53
26:14:2748:A:H2'	26:14:2749:A:C8	2.43	0.53
43:95:85:LYS:CD	43:95:86:GLY:H	2.17	0.53
55:M5:23:VAL:HG22	55:M5:47:LYS:HB3	1.90	0.53
1:13:828:A:N3	2:1E:26:PRO:HG2	2.24	0.53
23:2K:50:G:H1	23:2K:66:C:H42	1.57	0.53
26:1H:1358:G:N2	26:1H:1372:U:C5	2.77	0.53
26:1H:2032:G:H22	26:1H:2572:A:H5'	1.74	0.53
26:1H:2183:C:H2'	26:1H:2184:G:C8	2.39	0.53
26:1H:2250:G:C5	38:88:83:MET:HB3	2.44	0.53
27:16:104:A:H2'	27:16:105:G:O4'	2.09	0.53
36:68:73:ASP:OD1	36:68:75:SER:HB3	2.08	0.53
48:I8:63:VAL:HG23	48:I8:64:ASP:O	2.09	0.53
1:1G:46:G:O2'	1:1G:365:U:H1'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:438:G:N2	1:1G:495:A:OP2	2.32	0.53
1:1G:485:G:H1'	1:1G:486:U:H5	1.74	0.53
1:1G:1071:C:H5"	5:42:49:PRO:HG3	1.90	0.53
1:1G:1158:C:N3	1:1G:1160:G:C8	2.77	0.53
1:1G:1255:G:O2'	1:1G:1258:G:H1'	2.09	0.53
26:14:944:G:H5"	26:14:945:A:O5'	2.09	0.53
31:39:20:LEU:HD13	31:39:199:TRP:CH2	2.43	0.53
32:49:83:ARG:H	32:49:86:MET:HE3	1.73	0.53
1:13:266:G:H5"	1:13:267:C:C5	2.44	0.52
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.44	0.52
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.44	0.52
26:1H:321:G:O3'	31:31:168:ARG:NH2	2.41	0.52
26:1H:459:U:H4'	54:P8:40:TRP:CZ3	2.44	0.52
26:1H:617:G:OP1	31:31:40:GLN:NE2	2.40	0.52
26:1H:634:C:H2'	26:1H:635:C:C6	2.44	0.52
26:1H:763:G:OP1	61:1H:3604:HOH:O	2.19	0.52
26:1H:839:U:O2'	26:1H:1191:G:N3	2.41	0.52
26:1H:2159:G:H2'	26:1H:2160:G:C8	2.44	0.52
26:1H:2393:A:H2'	26:1H:2394:C:C6	2.45	0.52
26:1H:2832:U:C5	26:1H:2884:U:H5"	2.44	0.52
30:21:92:THR:O	30:21:95:ILE:HB	2.10	0.52
30:21:181:LEU:HD11	41:B8:7:ILE:HD13	1.90	0.52
32:41:5:VAL:HG11	32:41:100:TRP:HB2	1.91	0.52
35:58:133:GLN:C	35:58:134:ARG:HE	2.16	0.52
45:F8:36:LYS:HA	45:F8:39:ILE:HD12	1.90	0.52
47:H8:45:ASP:OD1	47:H8:49:ARG:NH1	2.42	0.52
1:1G:23:C:OP2	1:1G:561:U:N3	2.41	0.52
1:1G:114:U:H2'	1:1G:115:G:C8	2.44	0.52
8:72:20:TYR:HA	8:72:65:TYR:OH	2.09	0.52
11:2A:59:TYR:CE1	11:2A:63:LEU:HD23	2.44	0.52
11:2A:69:ALA:CB	11:2A:101:SER:HB2	2.40	0.52
12:3A:59:ARG:HA	12:3A:65:GLU:H	1.74	0.52
18:9A:36:ASN:O	18:9A:36:ASN:ND2	2.32	0.52
23:2L:20:G:H5'	23:2L:61:U:O4	2.08	0.52
26:14:824:A:H1'	26:14:2358:G:N7	2.24	0.52
26:14:1450:C:H2'	26:14:1451:C:C6	2.43	0.52
47:D5:39:VAL:HG21	47:D5:44:PHE:CD2	2.44	0.52
1:13:474:G:H2'	1:13:475:G:H8	1.74	0.52
10:1I:78:ASN:HB2	10:1I:81:THR:HG23	1.92	0.52
12:3I:7:ILE:HD11	17:8I:32:TYR:HB3	1.90	0.52
26:1H:996:A:O3'	42:C8:92:ARG:HG2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.24	0.52
26:1H:2396:G:C5'	49:J8:25:LYS:HD3	2.39	0.52
41:B8:56:GLY:O	41:B8:59:THR:HG22	2.08	0.52
45:F8:25:LYS:HG3	45:F8:82:GLN:OE1	2.09	0.52
48:I8:10:THR:HG23	48:I8:10:THR:O	2.08	0.52
1:1G:522:C:OP2	12:3A:69:TYR:OH	2.26	0.52
1:1G:866:C:O2'	1:1G:919:A:OP1	2.27	0.52
8:72:11:THR:HG22	8:72:15:ASN:ND2	2.24	0.52
8:72:12:ARG:NH2	8:72:27:PRO:HD3	2.24	0.52
26:14:180:G:N2	26:14:215:G:O6	2.42	0.52
26:14:1021:A:H62	26:14:1141:U:H3	1.57	0.52
26:14:2494:G:C2'	26:14:2495:G:H5'	2.39	0.52
31:39:20:LEU:HD13	31:39:199:TRP:HH2	1.74	0.52
42:85:66:ASN:CB	42:85:76:TYR:HB2	2.39	0.52
43:95:44:LYS:C	43:95:46:VAL:N	2.65	0.52
46:C5:17:SER:OG	46:C5:18:GLY:O	2.27	0.52
46:C5:37:VAL:HG23	46:C5:67:LEU:HB3	1.91	0.52
49:F5:83:GLU:N	49:F5:83:GLU:OE2	2.43	0.52
50:G5:4:SER:HA	50:G5:6:VAL:N	2.24	0.52
1:13:1064:G:H4'	1:13:1065:U:OP1	2.08	0.52
4:3E:108:LEU:HD23	4:3E:110:PHE:CE1	2.44	0.52
5:4E:147:ASP:HA	5:4E:150:ARG:NH2	2.25	0.52
13:4I:8:GLU:O	13:4I:10:PRO:HD3	2.09	0.52
22:1K:6:G:O2'	22:1K:7:U:OP1	2.24	0.52
2:12:19:HIS:HE1	2:12:206:ASP:H	1.56	0.52
3:22:72:LYS:HG3	3:22:75:VAL:HB	1.91	0.52
26:14:89:G:H3'	26:14:90:U:H5"	1.90	0.52
26:14:363(F):A:OP2	26:14:363(F):A:H8	1.92	0.52
26:14:373:U:OP2	26:14:400:G:N1	2.25	0.52
26:14:2547:U:H2'	26:14:2548:G:C8	2.44	0.52
30:29:81:ILE:HG21	30:29:84:PHE:HD2	1.74	0.52
38:45:83:MET:HG2	48:E5:8:GLY:O	2.09	0.52
43:95:21:ARG:NH2	43:95:91:TYR:O	2.41	0.52
50:G5:5:GLU:O	50:G5:7:ARG:N	2.42	0.52
1:13:746:A:H2'	1:13:747:C:H6	1.72	0.52
1:13:957:U:H3	1:13:960:U:H5"	1.75	0.52
7:6E:44:TYR:HA	7:6E:47:CYS:SG	2.50	0.52
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.91	0.52
19:AI:5:LEU:HD13	19:AI:10:PHE:HD1	1.74	0.52
26:1H:528:A:C2	26:1H:2043:C:H4'	2.44	0.52
26:1H:710:G:H2'	26:1H:711:G:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1903:G:OP1	29:11:241:PRO:HB2	2.08	0.52
26:1H:2138:C:N4	26:1H:2153:G:O6	2.43	0.52
32:41:47:LYS:HD2	32:41:81:LYS:HB2	1.91	0.52
33:51:124:GLU:O	33:51:131:VAL:HA	2.09	0.52
1:1G:1412:C:H2'	1:1G:1413:A:C8	2.44	0.52
2:12:80:ILE:HD11	2:12:215:LEU:HD13	1.91	0.52
5:42:35:GLY:HA3	5:42:41:VAL:HG12	1.90	0.52
10:1A:45:ARG:O	10:1A:65:LEU:N	2.29	0.52
26:14:2056:G:H1	53:J5:3:LYS:HB3	1.74	0.52
32:49:64:THR:HB	32:49:94:LEU:HD11	1.91	0.52
46:C5:62:GLU:CD	46:C5:63:LYS:H	2.17	0.52
1:13:913:A:OP1	12:3I:46:LYS:NZ	2.42	0.52
1:13:1263:C:H2'	1:13:1264:C:H6	1.74	0.52
1:13:1401:G:OP1	25:4K:18:G:O2'	2.23	0.52
13:4I:91:ARG:HB2	13:4I:98:VAL:CG1	2.40	0.52
1:1G:577:G:H2'	1:1G:578:C:H6	1.75	0.52
1:1G:818:G:N2	1:1G:873:A:OP1	2.42	0.52
4:32:156:GLU:O	4:32:160:GLN:HG3	2.09	0.52
15:6A:8:LYS:O	15:6A:12:ILE:HG13	2.10	0.52
19:AA:11:VAL:HG22	19:AA:12:ASP:N	2.25	0.52
27:1J:46:A:H2'	27:1J:47:C:C6	2.44	0.52
29:19:49:ILE:CD1	29:19:52:ARG:HA	2.37	0.52
29:19:148:GLU:HB2	29:19:151:LYS:HD2	1.90	0.52
32:49:43:LEU:HD12	32:49:45:GLU:CD	2.34	0.52
35:15:13:TRP:O	35:15:135:PRO:HD2	2.09	0.52
37:35:58:THR:HG22	37:35:61:ARG:HD3	1.90	0.52
46:C5:75:ILE:O	46:C5:80:GLY:N	2.42	0.52
1:13:640:A:O2'	8:7E:115:SER:HB3	2.08	0.52
1:13:1278:U:H5'	1:13:1279:A:O4'	2.10	0.52
2:1E:17:PHE:HD1	2:1E:17:PHE:H	1.56	0.52
9:8E:47:LEU:HB3	9:8E:50:LEU:HD12	1.91	0.52
10:1I:46:ARG:NH1	10:1I:46:ARG:HB2	2.23	0.52
12:3I:56:ALA:HB2	12:3I:70:ILE:HD11	1.91	0.52
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.44	0.52
22:1K:42:A:H8	22:1K:42:A:O5'	1.92	0.52
26:1H:664:C:H4'	26:1H:941:A:OP1	2.10	0.52
26:1H:2171:A:H2'	26:1H:2172:U:C6	2.45	0.52
26:1H:2171:A:H2'	26:1H:2172:U:H6	1.75	0.52
26:1H:2575:C:H2'	26:1H:2578:G:O6	2.10	0.52
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.45	0.52
31:31:129:PHE:HB2	31:31:132:VAL:CG1	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:183:VAL:O	31:31:187:VAL:HG23	2.09	0.52
32:41:11:TYR:HA	32:41:15:VAL:HB	1.91	0.52
39:98:21:TYR:OH	39:98:43:GLU:HG2	2.09	0.52
46:G8:85:VAL:CG2	46:G8:98:VAL:HB	2.38	0.52
1:1G:4:U:H3'	1:1G:5:U:H5'	1.91	0.52
1:1G:438:G:H4'	4:32:123:HIS:HD1	1.74	0.52
1:1G:452:A:O2'	1:1G:453:A:O4'	2.23	0.52
1:1G:1453:G:H1	20:BA:54:LYS:NZ	2.07	0.52
1:1G:1509:C:H2'	1:1G:1510:U:O4'	2.10	0.52
4:32:150:GLU:C	4:32:152:SER:H	2.18	0.52
6:52:77:ARG:NH2	6:52:78:GLU:HG2	2.24	0.52
17:8A:81:ARG:HB3	17:8A:84:LEU:HD12	1.92	0.52
26:14:198:C:H2'	26:14:199:A:H5"	1.92	0.52
26:14:374:A:C2	26:14:401:A:C4	2.98	0.52
26:14:481:G:OP2	46:C5:47:LYS:HB2	2.09	0.52
26:14:1277:G:O2'	39:55:24:GLN:HG2	2.08	0.52
26:14:1607:C:H4'	26:14:1608:A:O5'	2.09	0.52
27:1J:21:G:H1	27:1J:62:C:H42	1.57	0.52
30:29:15:PHE:CD2	41:75:81:PRO:HD3	2.44	0.52
30:29:57:LYS:HD2	30:29:59:VAL:CG1	2.37	0.52
30:29:60:ASN:OD1	30:29:61:ARG:N	2.43	0.52
35:15:47:ALA:HB2	35:15:112:LEU:HD11	1.92	0.52
37:35:18:ARG:HB3	37:35:19:VAL:HA	1.90	0.52
38:45:4:PRO:HD3	38:45:70:PRO:O	2.10	0.52
50:G5:43:GLN:NE2	50:G5:46:GLN:HA	2.24	0.52
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.36	0.52
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.10	0.52
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.09	0.52
12:3I:59:ARG:HA	12:3I:65:GLU:HA	1.92	0.52
24:3K:15:G:H2'	24:3K:59:A:H61	1.74	0.52
26:1H:274:G:H2'	26:1H:275:G:C1'	2.40	0.52
26:1H:620:G:H4'	26:1H:621:A:C5'	2.39	0.52
26:1H:1653:G:O6	39:98:11:ASN:ND2	2.43	0.52
29:11:37:LEU:HD12	29:11:37:LEU:N	2.25	0.52
33:51:6:ARG:HH11	33:51:54:ARG:HH12	1.58	0.52
38:88:32:TYR:OH	38:88:111:GLU:OE1	2.19	0.52
41:B8:107:ASP:H	41:B8:110:ILE:HG22	1.75	0.52
46:G8:85:VAL:HG11	46:G8:98:VAL:HG23	1.91	0.52
1:1G:403:C:N4	61:1G:1735:HOH:O	2.42	0.52
1:1G:620:C:OP1	61:1G:1717:HOH:O	2.19	0.52
1:1G:1084:G:H2'	1:1G:1085:U:C5	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1443:G:N2	26:14:2864:G:OP1	2.39	0.52
26:14:1991:U:C2'	26:14:1992:G:H5"	2.39	0.52
26:14:2445:G:OP1	31:39:74:ARG:NH2	2.43	0.52
31:39:80:ALA:O	31:39:83:PHE:HB2	2.08	0.52
32:49:114:ILE:HG12	32:49:140:ILE:HG21	1.92	0.52
37:35:38:GLN:O	37:35:38:GLN:HG2	2.10	0.52
37:35:138:LEU:HD12	37:35:144:GLU:HG3	1.91	0.52
41:75:107:ASP:CG	41:75:109:GLU:HB2	2.35	0.52
1:13:272:C:H2'	1:13:273:A:C8	2.45	0.52
5:4E:19:MET:HE1	5:4E:24:ARG:HH21	1.74	0.52
7:6E:12:LEU:H	7:6E:12:LEU:HD12	1.74	0.52
26:1H:638:G:C5	26:1H:651:G:C2	2.98	0.52
26:1H:729:G:O4'	29:11:208:LYS:NZ	2.43	0.52
61:1H:3562:HOH:O	44:E8:88:ARG:HA	2.09	0.52
29:11:213:ARG:NH1	29:11:213:ARG:HG3	2.23	0.52
30:21:51:PHE:H	30:21:74:PRO:HB3	1.75	0.52
37:78:49:ARG:HG3	37:78:49:ARG:HH11	1.75	0.52
40:A8:31:SER:O	40:A8:97:ARG:NH2	2.38	0.52
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.91	0.52
47:H8:15:PRO:HB2	47:H8:19:ARG:NH2	2.25	0.52
1:1G:424:G:H2'	1:1G:425:G:H8	1.75	0.52
1:1G:1317:C:H5"	1:1G:1318:A:OP2	2.10	0.52
14:5A:28:GLY:O	14:5A:29:ARG:HD2	2.10	0.52
16:7A:43:LYS:HG2	16:7A:48:TRP:CE2	2.44	0.52
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.77	0.52
21:1B:12:LYS:HB3	21:1B:22:ARG:HD3	1.91	0.52
26:14:10:G:H1'	26:14:2801:A:OP1	2.10	0.52
26:14:90:U:O2'	26:14:91:A:H8	1.91	0.52
26:14:162:U:H4'	26:14:171:G:O4'	2.09	0.52
26:14:587:C:O2	37:35:33:ARG:NH1	2.43	0.52
26:14:589:C:H5"	31:39:95:ARG:HH12	1.75	0.52
26:14:1011:G:C2	26:14:1151:G:C2	2.98	0.52
26:14:2191:G:H3'	26:14:2192:G:H5"	1.92	0.52
36:25:10:VAL:HG13	36:25:17:ARG:O	2.10	0.52
37:35:84:ASN:HB3	37:35:86:LYS:HG2	1.92	0.52
37:35:95:VAL:HA	37:35:99:LEU:HD23	1.91	0.52
39:55:54:LEU:HD21	39:55:65:LEU:HD23	1.91	0.52
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.92	0.52
43:95:71:LEU:CA	43:95:86:GLY:HA2	2.39	0.52
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.43	0.52
3:2E:84:ILE:HA	3:2E:87:LEU:HD12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:8:GLU:HB3	5:4E:34:VAL:HG22	1.92	0.52
9:8E:9:ARG:HB3	9:8E:14:VAL:HG13	1.92	0.52
24:3K:61:C:O2'	28:71:52:ARG:NH2	2.43	0.52
26:1H:1205:U:H4'	26:1H:1206:G:OP2	2.10	0.52
26:1H:1344:G:H4'	61:1H:3669:HOH:O	2.09	0.52
26:1H:2747:G:N7	61:1H:3672:HOH:O	2.34	0.52
27:16:40:U:H1'	27:16:45:A:H61	1.75	0.52
27:16:71:C:C4	27:16:72:G:N7	2.78	0.52
31:31:24:LEU:HD21	31:31:114:VAL:HG12	1.92	0.52
35:58:96:GLU:C	35:58:98:VAL:N	2.65	0.52
40:A8:83:LYS:HZ1	40:A8:110:LEU:HD21	1.73	0.52
1:1G:35:G:C2	1:1G:550:G:C2	2.98	0.52
1:1G:280:C:H3'	1:1G:281:G:H5'	1.92	0.52
2:12:70:PHE:N	2:12:92:TYR:HA	2.25	0.52
8:72:106:GLY:HA2	8:72:122:ARG:NH2	2.25	0.52
9:82:11:LYS:H	9:82:104:ARG:HH21	1.57	0.52
18:9A:21:LYS:HZ1	18:9A:57:GLY:HA3	1.75	0.52
20:BA:49:ALA:O	20:BA:100:ILE:HG21	2.10	0.52
26:14:184:C:H2'	26:14:185:U:H6	1.75	0.52
26:14:1312:U:H4'	26:14:1313:U:O5'	2.10	0.52
26:14:1516:U:H2'	26:14:1517:G:C8	2.44	0.52
30:29:37:ARG:HD2	30:29:44:TYR:CZ	2.45	0.52
30:29:103:ASP:OD1	30:29:201:THR:HG23	2.10	0.52
31:39:120:GLU:HG3	31:39:122:LYS:HG2	1.90	0.52
36:25:63:VAL:HB	36:25:102:VAL:HG12	1.92	0.52
37:35:59:LEU:HD11	55:M5:10:ALA:HB2	1.91	0.52
39:55:28:LEU:HD12	39:55:48:VAL:HG21	1.91	0.52
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.44	0.52
47:D5:93:ASP:H	47:D5:130:PRO:HG2	1.75	0.52
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.09	0.52
1:13:339:C:OP2	36:68:97:ARG:NH1	2.42	0.52
1:13:580:U:H2'	1:13:581:G:O4'	2.10	0.52
16:7I:72:ARG:HB3	16:7I:72:ARG:HH11	1.75	0.52
20:BI:10:LEU:HD21	20:BI:12:ALA:HB3	1.92	0.52
23:2K:33:OMC:HM22	23:2K:34:U:H5'	1.92	0.52
26:1H:274:G:H2'	26:1H:275:G:O4'	2.10	0.52
26:1H:357:A:H2'	26:1H:358:U:H6	1.75	0.52
26:1H:1141:U:H6	35:58:63:THR:OG1	1.92	0.52
26:1H:1242:A:N1	37:78:4:SER:OG	2.38	0.52
26:1H:2048:G:C2	26:1H:2621:A:C2	2.98	0.52
26:1H:2124:G:O6	26:1H:2174:C:N4	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2470:G:H5'	38:88:56:ARG:NH2	2.25	0.52
27:16:7:G:H5"	27:16:7:G:H8	1.73	0.52
31:31:164:ARG:HG3	31:31:175:THR:OG1	2.10	0.52
38:88:78:PRO:HB2	38:88:81:VAL:HG11	1.92	0.52
44:E8:18:ARG:HD3	44:E8:76:VAL:HG13	1.91	0.52
1:1G:56:U:H2'	1:1G:57:G:C8	2.45	0.52
1:1G:263:A:OP2	20:BA:79:ARG:NH1	2.41	0.52
1:1G:1516:G:N2	1:1G:1519:A:OP2	2.42	0.52
3:22:175:LEU:HD21	3:22:201:TYR:CE2	2.45	0.52
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.92	0.52
25:4L:12:A:O2'	25:4L:13:A:O5'	2.27	0.52
26:14:972:G:OP2	26:14:973:A:O2'	2.22	0.52
26:14:1899:G:N2	26:14:1902:C:N4	2.40	0.52
26:14:2335:A:C8	26:14:2337:G:C5	2.98	0.52
27:1J:2:C:H2'	27:1J:3:C:C6	2.45	0.52
34:69:9:LEU:HD21	34:69:35:LEU:HD13	1.92	0.52
41:75:26:ASP:O	41:75:49:VAL:HG13	2.10	0.52
41:75:51:ARG:HD3	41:75:98:LYS:HE3	1.92	0.52
46:C5:8:LYS:HG3	46:C5:95:LYS:HZ1	1.75	0.52
47:D5:60:GLU:HB2	47:D5:66:SER:OG	2.10	0.52
1:13:625:G:H4'	16:7I:16:HIS:CG	2.45	0.51
3:2E:44:GLU:HA	3:2E:52:LEU:HD11	1.91	0.51
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.91	0.51
23:2K:8:4SU:O5'	23:2K:8:4SU:H6	2.10	0.51
24:3K:3:G:H1	24:3K:70:C:N4	2.05	0.51
26:1H:71:A:H5'	26:1H:73:A:C8	2.45	0.51
26:1H:628:G:O3'	55:Q8:18:ALA:HB2	2.10	0.51
26:1H:2239:G:H5'	29:11:251:GLY:HA3	1.92	0.51
27:16:24:G:N7	27:16:56:G:H2'	2.25	0.51
47:H8:69:THR:HG22	47:H8:90:VAL:HA	1.92	0.51
52:M8:36:CYS:O	52:M8:39:CYS:HB3	2.10	0.51
55:Q8:37:SER:O	55:Q8:40:GLU:N	2.42	0.51
1:1G:324:G:N2	1:1G:326:G:H3'	2.25	0.51
1:1G:979:C:H5	1:1G:980:C:C6	2.28	0.51
1:1G:1205:U:H4'	3:22:195:VAL:CG1	2.39	0.51
3:22:47:LEU:O	3:22:51:GLY:N	2.43	0.51
11:2A:96:ARG:O	11:2A:99:GLN:HB2	2.10	0.51
13:4A:81:LEU:HG	13:4A:88:ARG:HH21	1.74	0.51
19:AA:14:HIS:O	19:AA:17:GLU:HB3	2.10	0.51
26:14:300:A:H1'	26:14:319:C:H1'	1.91	0.51
26:14:565:C:H4'	26:14:1253:A:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1592:C:H2'	26:14:1593:G:C8	2.45	0.51
26:14:2328:A:H2'	26:14:2329:G:C8	2.45	0.51
34:69:93:THR:O	34:69:97:ILE:HG13	2.10	0.51
42:85:25:TRP:CD1	42:85:25:TRP:C	2.88	0.51
42:85:91:ASP:C	42:85:93:LYS:H	2.17	0.51
50:G5:53:LEU:O	50:G5:57:ILE:HG13	2.09	0.51
1:13:192:U:H2'	1:13:193:C:H6	1.75	0.51
1:13:952:U:H2'	1:13:953:G:H8	1.75	0.51
2:1E:212:GLN:NE2	2:1E:233:SER:O	2.44	0.51
26:1H:271(B):G:H1	26:1H:404:C:H42	1.56	0.51
26:1H:315:G:H2'	26:1H:316:C:C6	2.45	0.51
26:1H:483:A:H1'	46:G8:59:GLY:O	2.11	0.51
29:11:101:GLU:HG3	29:11:102:LYS:N	2.25	0.51
33:51:40:GLU:O	33:51:41:MET:HB2	2.10	0.51
40:A8:83:LYS:O	40:A8:110:LEU:N	2.39	0.51
47:H8:97:GLU:HG2	47:H8:127:LYS:HE3	1.92	0.51
52:M8:1:MET:SD	52:M8:6:HIS:NE2	2.82	0.51
1:1G:706:A:H1'	11:2A:31:THR:HG21	1.93	0.51
1:1G:1318:A:H1'	19:AA:37:ARG:HE	1.75	0.51
3:22:20:SER:HB2	3:22:40:ARG:NH2	2.25	0.51
20:BA:14:LYS:HB2	20:BA:17:ARG:NH2	2.24	0.51
23:2L:33:OMC:H2'	23:2L:33:OMC:O5'	2.10	0.51
26:14:451:C:H5'	61:14:3514:HOH:O	2.10	0.51
26:14:660:G:N2	37:35:13:ASN:OD1	2.37	0.51
26:14:1264:G:H8	26:14:1264:G:O5'	1.92	0.51
26:14:1338:G:O2'	26:14:1393:A:N1	2.33	0.51
26:14:2485:G:H5"	38:45:46:GLN:HE21	1.75	0.51
27:1J:88:C:H3'	27:1J:89:G:C8	2.45	0.51
29:19:261:LYS:HD2	29:19:262:ARG:H	1.75	0.51
30:29:1:MET:HA	30:29:84:PHE:HB2	1.91	0.51
33:59:6:ARG:HH11	33:59:6:ARG:HB2	1.75	0.51
38:45:57:HIS:HE1	38:45:116:GLU:HB3	1.75	0.51
40:65:85:VAL:H	40:65:110:LEU:HA	1.75	0.51
42:85:92:ARG:NH1	42:85:94:ASN:OD1	2.42	0.51
46:C5:81:LYS:HD2	46:C5:99:CYS:SG	2.50	0.51
1:13:14:U:H5'	61:13:1813:HOH:O	2.10	0.51
1:13:1230:C:H2'	1:13:1231:G:C8	2.41	0.51
1:13:1405:G:O4'	1:13:1519:A:H4'	2.11	0.51
1:13:1448:C:H42	1:13:1455:G:H1	1.56	0.51
3:2E:16:ARG:HD2	3:2E:54:ARG:HH12	1.75	0.51
26:1H:580:C:H2'	26:1H:581:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1931:U:H5	26:1H:1969:A:N7	2.08	0.51
26:1H:2684:U:H1'	36:68:70:LYS:HE2	1.91	0.51
26:1H:2789:C:O2	26:1H:2894:G:N2	2.42	0.51
28:71:193:ILE:O	28:71:197:GLU:HG3	2.10	0.51
36:68:22:ILE:HD11	36:68:42:SER:HB2	1.92	0.51
47:H8:76:LEU:HD23	47:H8:76:LEU:H	1.75	0.51
55:Q8:49:VAL:HG12	55:Q8:49:VAL:O	2.11	0.51
5:42:68:GLU:HG3	5:42:68:GLU:O	2.09	0.51
12:3A:27:LEU:HB3	12:3A:33:ARG:HG2	1.91	0.51
13:4A:68:GLY:HA3	32:49:116:ASP:OD1	2.10	0.51
18:9A:70:ILE:O	18:9A:74:ARG:HG3	2.10	0.51
26:14:307:G:O2'	26:14:309:G:N7	2.42	0.51
26:14:690:G:H5'	26:14:780:G:H5"	1.91	0.51
26:14:1176:G:O2'	26:14:1178:C:N4	2.43	0.51
26:14:2256:G:N7	61:14:3548:HOH:O	2.34	0.51
26:14:2467:C:H4'	38:45:123:HIS:CG	2.44	0.51
30:29:32:PRO:HA	30:29:90:THR:HA	1.92	0.51
32:49:16:ARG:O	32:49:20:ILE:HG13	2.09	0.51
41:75:113:LYS:O	41:75:114:LEU:HD23	2.11	0.51
47:D5:57:ILE:HG22	47:D5:59:LEU:H	1.76	0.51
1:13:393:A:OP2	16:7I:12:LYS:NZ	2.33	0.51
1:13:1015:A:H2'	1:13:1016:A:C8	2.45	0.51
3:2E:5:ILE:HG22	10:1I:51:ARG:HH12	1.74	0.51
4:3E:15:GLU:OE1	4:3E:59:ARG:NH2	2.44	0.51
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.92	0.51
23:2K:16:C:O2'	23:2K:62:C:OP1	2.25	0.51
26:1H:557:U:H2'	26:1H:558:G:H8	1.75	0.51
26:1H:580:C:H2'	26:1H:581:C:H6	1.75	0.51
26:1H:1210:A:H5"	26:1H:1212:G:H5'	1.92	0.51
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.09	0.51
26:1H:2422:A:N7	55:Q8:31:HIS:HE1	2.08	0.51
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.34	0.51
42:C8:104:GLN:OE1	42:C8:105:VAL:N	2.42	0.51
50:K8:41:ILE:HD13	50:K8:44:LEU:HG	1.92	0.51
52:M8:9:LEU:HD12	52:M8:27:THR:N	2.24	0.51
1:1G:486:U:H2'	1:1G:487:A:H8	1.74	0.51
1:1G:983:A:N1	1:1G:1222:G:N2	2.59	0.51
1:1G:1159:U:H5	1:1G:1182:G:C8	2.28	0.51
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.91	0.51
23:2L:17:C:OP2	23:2L:18:U:O2'	2.25	0.51
26:14:1921:G:H2'	26:14:1922:G:H8	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2733:A:H2	30:29:204:ALA:H	1.59	0.51
26:14:2875:C:OP1	41:75:3:ARG:NH2	2.44	0.51
27:1J:15:A:H1'	27:1J:109:G:C8	2.45	0.51
34:69:29:TYR:HD2	34:69:30:LEU:HD23	1.76	0.51
46:C5:91:GLU:HG3	46:C5:92:ASN:CG	2.36	0.51
47:D5:99:TYR:HA	47:D5:124:ILE:O	2.10	0.51
49:F5:67:ILE:O	49:F5:70:VAL:HB	2.10	0.51
4:3E:104:VAL:O	4:3E:107:ARG:N	2.44	0.51
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.10	0.51
20:BI:76:ALA:O	20:BI:80:ARG:HG3	2.11	0.51
23:2K:63:C:H2'	23:2K:64:G:H8	1.74	0.51
24:3K:18:G:N3	24:3K:58:A:N6	2.58	0.51
24:3K:40:C:H2'	24:3K:41:A:C8	2.44	0.51
26:1H:2061:G:H5"	26:1H:2503:A:C2	2.46	0.51
32:41:97:ASP:H	32:41:100:TRP:HD1	1.58	0.51
34:61:1:MET:HB3	34:61:21:VAL:O	2.09	0.51
38:88:39:PRO:HA	38:88:97:VAL:O	2.09	0.51
40:A8:32:LEU:O	40:A8:62:LYS:NZ	2.42	0.51
46:G8:85:VAL:HG21	46:G8:98:VAL:N	2.25	0.51
47:H8:19:ARG:NH1	47:H8:84:GLU:HB2	2.25	0.51
54:P8:8:ASN:OD1	54:P8:8:ASN:C	2.53	0.51
1:1G:511:C:H4'	1:1G:512:U:OP1	2.10	0.51
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.10	0.51
1:1G:1329:A:H4'	13:4A:24:GLY:HA2	1.93	0.51
2:12:165:VAL:HG23	2:12:166:ASP:H	1.76	0.51
5:42:57:LYS:O	5:42:60:TYR:HB2	2.10	0.51
57:3L:67:C:H2'	57:3L:68:G:C8	2.46	0.51
26:14:997:G:O2'	26:14:998:C:H5'	2.11	0.51
26:14:1085:A:H2	26:14:1086:A:H62	1.58	0.51
26:14:1115:G:H2'	26:14:1116:C:C6	2.44	0.51
26:14:2303:G:C2'	26:14:2304:G:H5'	2.41	0.51
26:14:2438:U:O3'	26:14:2439:A:H3'	2.11	0.51
34:69:6:LEU:HD22	34:69:34:GLY:O	2.11	0.51
37:35:80:TYR:CD2	37:35:111:ARG:HB3	2.46	0.51
40:65:66:ALA:O	40:65:69:VAL:HG13	2.11	0.51
46:C5:36:ALA:HB1	46:C5:66:PRO:HB3	1.93	0.51
49:F5:91:LYS:HZ2	49:F5:92:LYS:H	1.57	0.51
50:G5:4:SER:HA	50:G5:6:VAL:H	1.76	0.51
1:13:377:G:OP1	16:7I:3:LYS:HD2	2.11	0.51
1:13:1127:G:H2'	1:13:1128:C:C6	2.46	0.51
1:13:1167:A:H2'	1:13:1169:A:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.92	0.51
8:7E:60:ARG:HD3	8:7E:62:TYR:OH	2.11	0.51
9:8E:46:ALA:HB2	9:8E:74:ILE:HG23	1.91	0.51
14:5I:2:ALA:HB3	14:5I:3:ARG:C	2.35	0.51
16:7I:38:TYR:CZ	16:7I:50:LYS:HB2	2.46	0.51
24:3K:54:U:H5"	24:3K:55:U:OP2	2.10	0.51
26:1H:247:G:H4'	26:1H:386:G:C5	2.46	0.51
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.45	0.51
26:1H:1396:U:H5'	61:1H:4024:HOH:O	2.09	0.51
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.10	0.51
29:11:35:LYS:HZ2	29:11:35:LYS:N	2.09	0.51
31:31:12:LEU:O	31:31:127:GLU:N	2.44	0.51
31:31:155:LEU:HD11	31:31:176:LEU:HD22	1.92	0.51
34:61:81:VAL:HG11	34:61:88:ILE:HG12	1.92	0.51
47:H8:102:LEU:HD22	47:H8:137:ILE:HB	1.92	0.51
1:1G:547:A:H5'	61:1G:1735:HOH:O	2.10	0.51
1:1G:1014:A:H4'	19:AA:14:HIS:NE2	2.26	0.51
1:1G:1239:A:O2'	1:1G:1298:C:N4	2.41	0.51
5:42:152:ARG:HD2	8:72:42:GLU:O	2.10	0.51
26:14:470:A:OP1	31:39:59:TYR:HE1	1.94	0.51
26:14:1771:C:C1'	26:14:1786:A:H8	2.24	0.51
26:14:2601:C:H2'	26:14:2603:G:C8	2.45	0.51
31:39:23:ASP:OD1	31:39:24:LEU:N	2.44	0.51
36:25:64:ARG:HG2	36:25:79:PHE:CG	2.46	0.51
36:25:67:LYS:HE3	36:25:68:GLU:OE1	2.11	0.51
49:F5:29:GLY:O	49:F5:30:VAL:HG22	2.11	0.51
1:13:319:G:H2'	1:13:320:C:O4'	2.11	0.51
1:13:1051:C:H2'	1:13:1052:U:C6	2.45	0.51
2:1E:7:VAL:HB	2:1E:217:ARG:HD2	1.93	0.51
10:1I:24:VAL:O	10:1I:28:ARG:N	2.42	0.51
19:AI:25:LYS:HG2	19:AI:27:GLU:OE1	2.10	0.51
26:1H:311:A:H2	26:1H:331:A:H5"	1.76	0.51
26:1H:654(V):A:H2	26:1H:655:A:C2	2.29	0.51
26:1H:1688:U:H2'	26:1H:1698:A:N6	2.26	0.51
26:1H:2283:C:H4'	26:1H:2283:C:OP1	2.11	0.51
27:16:5:C:H42	27:16:115:G:H1	1.59	0.51
34:61:29:TYR:O	34:61:33:ARG:HB2	2.11	0.51
38:88:30:GLY:HA3	38:88:107:ALA:HB2	1.92	0.51
53:N8:16:ARG:HG3	53:N8:17:ASP:N	2.25	0.51
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.26	0.51
26:14:176:G:O2'	26:14:177:G:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:270(F):U:H2'	26:14:270(G):C:C6	2.46	0.51
26:14:1188:U:C2'	26:14:1189:A:H5'	2.40	0.51
26:14:1427:A:H4'	26:14:1428:C:O4'	2.09	0.51
26:14:2056:G:C2	26:14:2057:A:C8	2.99	0.51
26:14:2696:U:H2'	26:14:2697:G:C8	2.45	0.51
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.46	0.51
36:25:47:ILE:HG23	36:25:48:PRO:HD2	1.92	0.51
37:35:52:GLU:N	37:35:52:GLU:OE2	2.44	0.51
46:C5:28:LYS:O	46:C5:29:GLU:HG2	2.10	0.51
1:13:948:C:C2'	1:13:949:A:H5'	2.41	0.51
1:13:991:U:C4	1:13:1212:U:H1'	2.46	0.51
3:2E:180:ALA:HB1	3:2E:182:ILE:HG13	1.93	0.51
4:3E:77:ASN:O	4:3E:78:LEU:C	2.53	0.51
20:BI:100:ILE:HG12	20:BI:101:GLY:N	2.26	0.51
24:3K:65:C:H2'	24:3K:66:A:C8	2.46	0.51
26:1H:65:C:H2'	26:1H:66:C:H6	1.76	0.51
26:1H:271(B):G:C6	26:1H:421:U:H2'	2.46	0.51
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.11	0.51
26:1H:565:C:OP1	43:D8:82:ARG:NH2	2.43	0.51
26:1H:1534:G:O2'	26:1H:1535:U:O4'	2.16	0.51
26:1H:1784:A:H4'	26:1H:1785:A:O5'	2.11	0.51
26:1H:2016:U:O2	53:N8:7:PRO:HG2	2.11	0.51
26:1H:2056:G:C2	26:1H:2057:A:C8	2.99	0.51
26:1H:2149:G:H3'	26:1H:2150:U:C6	2.45	0.51
26:1H:2331:G:O2'	26:1H:2336:A:N1	2.36	0.51
27:16:71:C:C2	27:16:72:G:C8	2.99	0.51
34:61:88:ILE:HG22	34:61:90:GLY:N	2.26	0.51
39:98:21:TYR:N	39:98:21:TYR:CD1	2.77	0.51
43:D8:79:VAL:CG1	43:D8:81:TYR:HB3	2.41	0.51
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.34	0.51
1:1G:1521:G:H2'	1:1G:1522:U:H6	1.76	0.51
4:32:153:ARG:HD3	4:32:181:MET:SD	2.51	0.51
9:82:82:ALA:O	9:82:86:VAL:HB	2.10	0.51
26:14:61:G:H5'	50:G5:50:ILE:HD13	1.93	0.51
26:14:548:A:C6	26:14:549:G:H1'	2.45	0.51
26:14:1072:C:O2'	26:14:1093:G:OP2	2.29	0.51
26:14:1239:G:H2'	26:14:1240:U:O4'	2.10	0.51
26:14:1537:C:H2'	26:14:1538:G:C8	2.46	0.51
26:14:1678:G:N2	26:14:1989:G:H1	2.09	0.51
45:B5:70:LEU:H	45:B5:70:LEU:HD12	1.76	0.51
1:13:183:G:H2'	1:13:184:G:H8	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.25	0.51
10:1I:82:ILE:HG23	10:1I:85:LEU:HD13	1.93	0.51
13:4I:19:LEU:HD13	13:4I:22:ILE:HD13	1.93	0.51
13:4I:107:ALA:HB3	13:4I:111:LYS:HB2	1.93	0.51
17:8I:13:ASP:OD1	17:8I:14:LYS:NZ	2.33	0.51
20:BI:86:ARG:HH22	20:BI:90:GLN:HG3	1.75	0.51
26:1H:11:G:O2'	26:1H:2802:G:O2'	2.01	0.51
26:1H:309:G:H4'	46:G8:18:GLY:HA2	1.93	0.51
26:1H:960:A:C8	26:1H:962:G:C8	2.99	0.51
26:1H:1053:C:H41	26:1H:1106:G:H21	1.59	0.51
26:1H:1526:G:H2'	26:1H:1527:G:O4'	2.11	0.51
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.45	0.51
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.76	0.51
27:16:3:C:H2'	27:16:4:C:H6	1.75	0.51
29:11:130:ALA:C	29:11:131:LEU:HD12	2.36	0.51
32:41:107:LEU:HD11	32:41:178:PHE:CD1	2.45	0.51
41:B8:124:ASP:O	41:B8:128:GLU:HB3	2.11	0.51
1:1G:666:G:OP2	1:1G:725:G:N2	2.37	0.51
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.74	0.51
1:1G:1238:A:N7	1:1G:1303:C:H1'	2.26	0.51
1:1G:1255:G:P	10:1A:45:ARG:HH22	2.34	0.51
1:1G:1372:U:OP1	9:82:72:GLY:N	2.43	0.51
1:1G:1492:A:H5'	1:1G:1493:A:OP2	2.11	0.51
20:BA:69:GLY:O	20:BA:73:HIS:NE2	2.43	0.51
26:14:654(A):A:H2	26:14:654(T):A:N1	2.09	0.51
26:14:1434:A:H61	26:14:1558:A:H61	1.56	0.51
26:14:1926:U:H2'	26:14:1928:A:OP2	2.11	0.51
26:14:2520:C:H41	26:14:2542:A:N6	2.08	0.51
26:14:2535:G:H2'	26:14:2536:G:H8	1.76	0.51
37:35:65:ARG:HD3	55:M5:25:MET:SD	2.51	0.51
1:13:21:G:OP1	61:13:1822:HOH:O	2.18	0.51
1:13:955:U:H1'	1:13:1227:A:N6	2.26	0.51
1:13:1330:U:O4	1:13:1331:G:N2	2.44	0.51
1:13:1446:A:OP1	1:13:1446:A:H4'	2.11	0.51
3:2E:130:VAL:O	3:2E:134:ILE:HG12	2.11	0.51
4:3E:201:GLN:O	4:3E:205:GLU:HG3	2.10	0.51
6:5E:78:GLU:O	6:5E:81:ILE:HG22	2.11	0.51
12:3I:111:LYS:HZ3	12:3I:112:ASP:H	1.59	0.51
19:AI:20:LEU:HD23	19:AI:23:ASN:ND2	2.26	0.51
26:1H:155:C:H5'	26:1H:161:U:OP2	2.11	0.51
26:1H:375:C:H2'	26:1H:376:C:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:443:A:N7	31:31:45:ARG:HG2	2.26	0.51
26:1H:699:A:H2'	26:1H:700:G:O4'	2.11	0.51
26:1H:1141:U:O2	26:1H:1142(A):A:N6	2.44	0.51
26:1H:2175:C:H2'	26:1H:2176:A:C8	2.46	0.51
31:31:6:VAL:HG21	31:31:119:ARG:HB2	1.92	0.51
33:51:157:TYR:H	33:51:170:ARG:HA	1.76	0.51
38:88:46:GLN:HE22	38:88:126:PRO:HG3	1.75	0.51
39:98:79:LEU:HA	39:98:83:ILE:HD12	1.93	0.51
42:C8:28:ARG:HD3	42:C8:38:THR:OG1	2.11	0.51
3:22:180:ALA:HB1	3:22:182:ILE:HG23	1.93	0.51
4:32:155:LEU:HD23	4:32:157:LEU:H	1.76	0.51
15:6A:26:GLU:HB3	15:6A:81:LEU:HD22	1.92	0.51
18:9A:44:LEU:HD21	18:9A:79:LEU:HD13	1.93	0.51
57:3L:18:G:H1'	57:3L:58:A:C2	2.44	0.51
27:1J:83:G:H5'	51:H5:52:HIS:CE1	2.46	0.51
50:G5:10:LEU:HD11	50:G5:59:ARG:HG2	1.93	0.51
1:13:280:C:N3	17:8I:39:SER:N	2.59	0.50
1:13:637:G:H2'	1:13:638:G:H8	1.76	0.50
1:13:1007:C:N3	1:13:1022:G:N2	2.46	0.50
1:13:1178:G:N2	1:13:1181:G:H8	2.09	0.50
2:1E:11:LEU:C	2:1E:14:GLY:H	2.19	0.50
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.51	0.50
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.11	0.50
26:1H:488:G:N2	26:1H:492:A:OP2	2.44	0.50
26:1H:1291:C:H2'	26:1H:1292:U:C6	2.46	0.50
26:1H:1508:A:H4'	26:1H:1509:C:C1'	2.41	0.50
26:1H:1533:C:C6	26:1H:1534:G:H5"	2.46	0.50
26:1H:1614:A:N6	44:E8:88:ARG:H	2.09	0.50
26:1H:1827:C:H2'	26:1H:1828:G:H5'	1.92	0.50
26:1H:2392:A:H2'	26:1H:2393:A:O4'	2.10	0.50
29:11:206:LEU:O	29:11:211:ARG:HD3	2.11	0.50
31:31:31:HIS:O	31:31:35:GLU:N	2.41	0.50
31:31:64:ILE:HG23	31:31:65:TRP:NE1	2.26	0.50
31:31:192:LEU:HD21	31:31:194:MET:HE2	1.92	0.50
37:78:83:VAL:HG12	37:78:112:LEU:HD21	1.92	0.50
41:B8:51:ARG:HB2	41:B8:98:LYS:HD3	1.93	0.50
55:Q8:6:THR:HG22	55:Q8:62:LEU:HA	1.92	0.50
1:1G:448:A:P	1:1G:485:G:H22	2.34	0.50
7:62:13:GLN:O	7:62:24:THR:HG21	2.11	0.50
26:14:139:G:N2	26:14:1596:A:H4'	2.25	0.50
26:14:243:U:OP1	55:M5:6:THR:OG1	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:705:A:H1'	29:19:9:TYR:CE2	2.46	0.50
26:14:858:U:O2	26:14:2268:A:H2'	2.11	0.50
26:14:1225:C:C5'	43:95:85:LYS:HD3	2.41	0.50
26:14:1938:A:P	61:14:3545:HOH:O	2.70	0.50
27:1J:73:A:C4	27:1J:104:A:C2	2.98	0.50
31:39:116:ASP:OD2	37:35:1:MET:N	2.44	0.50
55:M5:31:HIS:CD2	55:M5:32:LEU:HD22	2.46	0.50
1:13:144:G:N2	1:13:179:A:H1'	2.26	0.50
1:13:232:G:C5	1:13:233:C:C5	2.99	0.50
1:13:476:G:H2'	1:13:477:G:C4	2.46	0.50
1:13:1124:G:HO2'	1:13:1145:C:N4	2.10	0.50
1:13:1137:C:O2	1:13:1138:G:N2	2.44	0.50
1:13:1277:C:C2'	1:13:1279:A:H8	2.20	0.50
2:1E:168:THR:OG1	2:1E:192:SER:HB2	2.11	0.50
3:2E:95:THR:HG22	3:2E:97:LYS:HG3	1.94	0.50
14:5I:53:LEU:HB3	14:5I:56:VAL:HG21	1.93	0.50
24:3K:50:C:H2'	24:3K:51:A:C8	2.46	0.50
26:1H:232:G:H5"	26:1H:232:G:H8	1.77	0.50
26:1H:1439:A:C2	26:1H:1553:A:C4	2.99	0.50
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.45	0.50
26:1H:1800:C:OP1	29:11:266:SER:OG	2.26	0.50
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.38	0.50
30:21:29:GLY:H	30:21:51:PHE:HE1	1.59	0.50
33:51:5:GLY:HA2	33:51:8:PRO:HD3	1.93	0.50
37:78:62:LEU:O	55:Q8:13:ARG:HD3	2.11	0.50
46:G8:81:LYS:HD2	46:G8:99:CYS:SG	2.51	0.50
1:1G:411:A:C5	1:1G:413:G:H1'	2.46	0.50
1:1G:1338:G:C6	1:1G:1339:A:C6	3.00	0.50
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.10	0.50
26:14:11:G:H5'	26:14:2799:A:N1	2.26	0.50
26:14:925:C:H2'	26:14:926:A:C8	2.43	0.50
26:14:1007:C:OP1	35:15:37:LYS:NZ	2.41	0.50
26:14:1537:C:O2'	26:14:1538:G:O4'	2.21	0.50
26:14:1926:U:O2'	26:14:1928:A:N7	2.38	0.50
26:14:2314:C:H2'	26:14:2315:G:H8	1.76	0.50
26:14:2497:A:N3	26:14:2498:C:N4	2.57	0.50
32:49:36:LYS:HG3	32:49:93:THR:HG23	1.93	0.50
32:49:174:GLU:HG3	32:49:180:PHE:CD2	2.46	0.50
47:D5:52:SER:O	47:D5:52:SER:OG	2.17	0.50
48:E5:23:VAL:CG1	48:E5:38:VAL:HG22	2.41	0.50
1:13:327:A:HO2'	1:13:329:A:H8	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:468:A:H4'	16:7I:80:PHE:HB2	1.93	0.50
1:13:1180:A:OP1	9:8E:103:THR:OG1	2.22	0.50
1:13:1312:G:H5'	19:AI:6:LYS:HD3	1.92	0.50
13:4I:69:GLU:HG3	32:41:118:ARG:HH22	1.77	0.50
17:8I:66:SER:OG	17:8I:69:LYS:HB2	2.11	0.50
22:1K:68:G:H2'	22:1K:69:A:C8	2.47	0.50
26:1H:81:G:O6	61:1H:3595:HOH:O	2.17	0.50
26:1H:997:G:OP1	42:C8:93:LYS:HD2	2.11	0.50
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.47	0.50
26:1H:1756:G:H1'	26:1H:1758:G:C2	2.46	0.50
26:1H:2137:C:H1'	26:1H:2155:G:H22	1.75	0.50
28:71:43:VAL:HG22	28:71:173:ALA:H	1.76	0.50
30:21:117:MET:CE	30:21:136:ARG:HA	2.41	0.50
41:B8:12:SER:CB	41:B8:15:VAL:HG22	2.42	0.50
47:H8:9:TYR:HE1	47:H8:35:ARG:HG2	1.76	0.50
54:P8:10:ARG:HD3	54:P8:14:LYS:HD2	1.93	0.50
1:1G:841:U:H4'	1:1G:842:C:C6	2.47	0.50
5:42:41:VAL:O	5:42:67:VAL:HG12	2.11	0.50
9:82:113:LYS:H	9:82:119:ALA:HB2	1.76	0.50
26:14:455:C:N3	26:14:473:G:H5'	2.27	0.50
26:14:1106:G:C8	26:14:1107:G:C8	3.00	0.50
26:14:1316:U:H2'	26:14:1317:A:H8	1.76	0.50
26:14:1991:U:H2'	26:14:1992:G:H5"	1.93	0.50
26:14:2536:G:C6	26:14:2537:U:C4	3.00	0.50
29:19:183:ARG:HG3	29:19:270:ILE:HG13	1.93	0.50
31:39:3:GLU:HG3	31:39:20:LEU:O	2.11	0.50
34:69:76:THR:HG23	34:69:139:GLN:O	2.11	0.50
41:75:51:ARG:HB3	41:75:51:ARG:HH11	1.76	0.50
42:85:10:ARG:NH1	61:85:202:HOH:O	2.45	0.50
48:E5:21:LEU:HD21	48:E5:41:ARG:NH1	2.26	0.50
1:13:186:C:H5'	20:BI:78:ALA:HB1	1.94	0.50
1:13:789:U:C5	1:13:791:G:H3'	2.47	0.50
1:13:986:A:H2'	1:13:987:G:O4'	2.11	0.50
1:13:1127:G:H2'	1:13:1128:C:N1	2.26	0.50
1:13:1346:A:H5"	9:8E:120:ARG:NH1	2.26	0.50
2:1E:211:ILE:O	2:1E:214:ILE:HD12	2.10	0.50
8:7E:32:LYS:O	8:7E:36:LEU:HD12	2.10	0.50
26:1H:28:A:H1'	26:1H:513:A:C2	2.47	0.50
26:1H:422:A:P	61:1H:3622:HOH:O	2.68	0.50
26:1H:751:A:H5'	44:E8:90:ARG:HA	1.92	0.50
26:1H:1386:C:OP2	26:1H:1396:U:C5	2.63	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1665:A:N6	61:1H:3645:HOH:O	2.27	0.50
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.46	0.50
26:1H:1999:C:OP1	30:21:118:LYS:NZ	2.43	0.50
26:1H:2120:G:H2'	26:1H:2121:G:C8	2.46	0.50
30:21:16:ARG:HG3	30:21:16:ARG:O	2.11	0.50
37:78:122:PRO:HA	37:78:142:GLY:HA3	1.92	0.50
38:88:2:LEU:H	38:88:2:LEU:HD12	1.77	0.50
42:C8:10:ARG:NH2	61:C8:203:HOH:O	2.44	0.50
1:1G:390:C:H2'	1:1G:391:G:C8	2.47	0.50
1:1G:536:C:H2'	1:1G:537:G:C8	2.47	0.50
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.10	0.50
1:1G:599:C:H2'	1:1G:600:C:C6	2.46	0.50
1:1G:1254:C:OP1	10:1A:45:ARG:HA	2.12	0.50
1:1G:1298:C:H4'	1:1G:1299:A:C5	2.47	0.50
26:14:234:C:H2'	26:14:235:U:H6	1.76	0.50
26:14:1592:C:H2'	26:14:1593:G:H8	1.77	0.50
26:14:2262:U:OP2	48:E5:19:LYS:HD3	2.12	0.50
29:19:106:ILE:O	29:19:108:PRO:HD3	2.11	0.50
31:39:130:ALA:O	31:39:132:VAL:HG12	2.11	0.50
35:15:35:ARG:HB3	35:15:42:TRP:CH2	2.46	0.50
1:13:1450:U:O2	1:13:1452:C:H5'	2.12	0.50
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.45	0.50
22:1K:76:A:C8	26:1H:2507:C:H1'	2.46	0.50
26:1H:274:G:H2'	26:1H:275:G:H1'	1.93	0.50
26:1H:934:G:H2'	26:1H:935:C:H6	1.77	0.50
26:1H:1248:G:N2	31:31:88:VAL:HG21	2.25	0.50
26:1H:1331:A:O2'	26:1H:1332:G:C8	2.63	0.50
26:1H:1683:C:H2'	26:1H:1684:C:H6	1.77	0.50
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.11	0.50
26:1H:2531:A:H5'	33:51:157:TYR:CZ	2.46	0.50
36:68:60:ALA:HB1	36:68:84:ALA:HB1	1.93	0.50
47:H8:103:ARG:HD3	47:H8:136:PHE:CG	2.45	0.50
1:1G:957:U:H1'	1:1G:960:U:C5	2.46	0.50
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.77	0.50
10:1A:48:THR:CA	10:1A:62:HIS:HB3	2.34	0.50
16:7A:36:ILE:O	16:7A:36:ILE:HG13	2.12	0.50
56:1L:9:A:H3'	56:1L:10:G:C8	2.46	0.50
26:14:764:A:H2	29:19:219:PRO:HG3	1.75	0.50
26:14:1262:A:N3	53:J5:10:LYS:NZ	2.57	0.50
26:14:1291:C:H2'	26:14:1292:U:C6	2.46	0.50
26:14:2185:C:H2'	26:14:2186:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2198:A:C2	34:69:29:TYR:HB2	2.46	0.50
26:14:2461:C:H2'	26:14:2462:U:C6	2.47	0.50
27:1J:3:C:N4	27:1J:117:G:H22	2.10	0.50
29:19:24:ILE:HA	29:19:82:ILE:O	2.12	0.50
29:19:70:TRP:CD1	29:19:70:TRP:C	2.89	0.50
35:15:128:HIS:NE2	35:15:130:HIS:HA	2.27	0.50
40:65:3:ARG:HH21	40:65:4:LEU:HB2	1.76	0.50
42:85:91:ASP:C	42:85:93:LYS:N	2.67	0.50
47:D5:93:ASP:HA	47:D5:130:PRO:HD2	1.94	0.50
49:F5:41:ARG:HB2	49:F5:43:TYR:HE1	1.76	0.50
1:13:422:C:H1'	1:13:423:G:N1	2.26	0.50
1:13:918:A:H2'	1:13:919:A:C8	2.46	0.50
1:13:1059:C:O3'	14:5I:45:ARG:NH2	2.44	0.50
1:13:1139:G:H4'	1:13:1140:C:H5'	1.93	0.50
1:13:1298:C:P	7:6E:114:ARG:HH22	2.35	0.50
4:3E:3:ARG:H	4:3E:3:ARG:HD3	1.77	0.50
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.11	0.50
24:3K:76:A:O2'	26:1H:2394:C:O2	2.29	0.50
26:1H:74:A:H8	26:1H:74:A:C5'	2.25	0.50
26:1H:330:A:O2'	26:1H:331:A:H8	1.94	0.50
26:1H:784:A:C5	29:11:229:VAL:HG21	2.47	0.50
26:1H:2016:U:H1'	53:N8:6:VAL:HG13	1.92	0.50
26:1H:2124:G:H4'	28:71:174:PRO:HG3	1.94	0.50
27:16:15:A:H1'	27:16:109:G:C4	2.47	0.50
29:11:40:THR:OG1	29:11:41:GLY:N	2.45	0.50
31:31:6:VAL:HG21	31:31:119:ARG:HE	1.77	0.50
31:31:53:THR:O	31:31:56:GLU:N	2.43	0.50
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.46	0.50
37:78:68:GLN:CD	55:Q8:12:LYS:HG2	2.37	0.50
37:78:93:GLY:O	37:78:95:VAL:HG23	2.12	0.50
41:B8:11:GLU:OE1	41:B8:11:GLU:HA	2.04	0.50
46:G8:100:ALA:HB1	46:G8:101:LYS:HD3	1.93	0.50
1:1G:44:G:N7	61:1G:1730:HOH:O	2.35	0.50
1:1G:359:U:H2'	1:1G:360:A:C8	2.45	0.50
1:1G:1275:A:H2'	1:1G:1276:G:C8	2.46	0.50
6:52:36:ARG:HB3	6:52:36:ARG:HH11	1.76	0.50
18:9A:54:ARG:HG2	18:9A:55:ARG:HG2	1.94	0.50
26:14:14:A:H5"	26:14:15:G:OP2	2.11	0.50
26:14:17:G:H4'	42:85:25:TRP:CZ3	2.47	0.50
26:14:71:A:C2	45:B5:31:HIS:NE2	2.78	0.50
26:14:307:G:H22	26:14:310:A:P	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1794:U:H2'	26:14:1795:C:H6	1.75	0.50
26:14:1833:U:O2'	26:14:1969:A:N1	2.36	0.50
26:14:2877:G:H2'	26:14:2878:U:O4'	2.12	0.50
41:75:121:ILE:O	41:75:124:ASP:HB2	2.11	0.50
1:13:668:G:O2'	15:6I:46:HIS:HB3	2.11	0.50
1:13:1178:G:H5"	9:8E:93:ARG:HH22	1.77	0.50
2:1E:114:ARG:HG3	2:1E:118:LEU:HD23	1.94	0.50
3:2E:119:ARG:O	3:2E:123:GLN:HG3	2.12	0.50
4:3E:106:TYR:HE1	4:3E:107:ARG:HH11	1.58	0.50
5:4E:152:ARG:HA	8:7E:64:LYS:HE2	1.93	0.50
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.12	0.50
22:1K:3:G:N1	22:1K:71:C:H1'	2.26	0.50
24:3K:35:U:H2'	24:3K:36:U:H6	1.77	0.50
24:3K:67:C:H2'	24:3K:68:G:C8	2.46	0.50
26:1H:674:G:O2'	31:31:74:ARG:HD2	2.11	0.50
26:1H:745:G:OP2	30:21:133:LYS:HE2	2.11	0.50
26:1H:1332:G:H21	26:1H:1610:A:H8	1.57	0.50
26:1H:1364:G:P	49:J8:2:SER:HG	2.34	0.50
26:1H:2137:C:O2	26:1H:2155:G:N1	2.36	0.50
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.76	0.50
28:71:201:PRO:HD2	28:71:208:PHE:HE1	1.76	0.50
29:11:118:VAL:HG11	29:11:124:PRO:HD2	1.93	0.50
35:58:137:LYS:HD2	35:58:138:LEU:H	1.77	0.50
37:78:47:ASP:OD1	37:78:49:ARG:NH1	2.44	0.50
1:1G:1167:A:H2'	1:1G:1169:A:O4'	2.11	0.50
4:32:108:LEU:HD12	4:32:170:VAL:HG11	1.93	0.50
6:52:21:LEU:HA	6:52:24:GLU:HB2	1.94	0.50
13:4A:13:LYS:HD3	13:4A:14:ARG:N	2.26	0.50
16:7A:43:LYS:HG2	16:7A:48:TRP:CD2	2.47	0.50
23:2L:8:4SU:C2	23:2L:14:A:H62	2.17	0.50
26:14:528:A:C2	26:14:2043:C:H4'	2.47	0.50
26:14:916:G:C2'	26:14:917:A:H5"	2.42	0.50
26:14:1043:C:H42	26:14:1112:G:H1	1.59	0.50
26:14:1149:G:N2	26:14:1150:C:N3	2.60	0.50
26:14:2031:A:N3	26:14:2455:G:O2'	2.34	0.50
26:14:2528:U:O2'	26:14:2530:A:OP1	2.19	0.50
26:14:2869:G:H2'	26:14:2870:C:O4'	2.12	0.50
27:1J:50:G:P	40:65:62:LYS:HB2	2.51	0.50
27:1J:63:G:H2'	27:1J:64:C:C6	2.47	0.50
35:15:128:HIS:CE1	35:15:130:HIS:HA	2.47	0.50
41:75:129:ARG:HG3	41:75:130:ALA:N	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:201:C:N4	1:13:216:G:H22	2.10	0.50
1:13:686:U:O4	1:13:703:G:H1'	2.11	0.50
1:13:1014:A:H4'	19:AI:14:HIS:CG	2.47	0.50
1:13:1178:G:H5"	9:8E:93:ARG:NH2	2.27	0.50
1:13:1286:A:N3	21:1F:18:TYR:OH	2.45	0.50
1:13:1413:A:H2'	1:13:1414:U:O4'	2.11	0.50
4:3E:82:ALA:CA	4:3E:85:LYS:HG2	2.41	0.50
5:4E:72:GLN:O	5:4E:75:THR:HG22	2.12	0.50
6:5E:10:LEU:HB2	6:5E:59:TYR:HB3	1.94	0.50
7:6E:111:ARG:HE	7:6E:123:GLU:HB2	1.77	0.50
9:8E:87:GLN:HE21	9:8E:88:TYR:H	1.59	0.50
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.11	0.50
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.12	0.50
26:1H:1965:C:H3'	26:1H:1966:A:H2'	1.93	0.50
26:1H:2310:A:H4'	26:1H:2310:A:OP1	2.12	0.50
26:1H:2794:C:C5	26:1H:2797:U:H4'	2.47	0.50
28:71:43:VAL:HG21	28:71:192:PHE:CE2	2.46	0.50
33:51:86:GLU:OE1	33:51:165:ALA:N	2.45	0.50
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.75	0.50
46:G8:97:ARG:O	46:G8:101:LYS:HA	2.11	0.50
50:K8:17:SER:H	50:K8:20:GLU:HG3	1.77	0.50
1:1G:625:G:H4'	16:7A:16:HIS:CD2	2.47	0.50
1:1G:736:C:H2'	1:1G:737:A:H8	1.75	0.50
1:1G:981:U:O5'	1:1G:981:U:H6	1.94	0.50
1:1G:1141:C:H2'	1:1G:1142:G:C8	2.45	0.50
3:22:9:GLY:N	14:5A:49:HIS:O	2.45	0.50
9:82:14:VAL:O	9:82:65:VAL:HG23	2.12	0.50
12:3A:11:VAL:HG22	17:8A:29:HIS:HD2	1.74	0.50
19:AA:13:ASP:O	19:AA:16:LEU:HB3	2.12	0.50
23:2L:24:C:C2	23:2L:25:U:C5	3.00	0.50
26:14:817:C:H2'	26:14:818:G:O4'	2.12	0.50
26:14:1532:C:H42	26:14:1539:G:H1	1.58	0.50
26:14:1790:C:H5"	26:14:1791:A:OP1	2.11	0.50
29:19:264:LYS:HE2	29:19:266:SER:HB3	1.94	0.50
31:39:25:PRO:HB2	31:39:27:GLU:N	2.26	0.50
34:69:69:LYS:HD2	34:69:73:GLU:HG3	1.93	0.50
36:25:13:ASN:ND2	36:25:97:ARG:HB2	2.27	0.50
41:75:92:GLY:HA2	41:75:117:ASP:H	1.77	0.50
42:85:110:VAL:O	42:85:113:ALA:HB3	2.12	0.50
45:B5:80:ILE:O	45:B5:80:ILE:HG13	2.11	0.50
1:13:4:U:O4	8:7E:105:ARG:HG3	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:20:TYR:CZ	6:52:15:ASP:HB3	2.47	0.50
4:3E:57:ARG:HB3	4:3E:206:PHE:HB2	1.93	0.50
5:4E:31:LEU:HD22	5:4E:43:LEU:HD11	1.94	0.50
9:8E:47:LEU:H	9:8E:47:LEU:HD22	1.77	0.50
26:1H:286:C:H2'	26:1H:287:C:C6	2.47	0.50
26:1H:2070:G:C2	26:1H:2442:C:C2	3.00	0.50
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.94	0.50
29:11:182:LEU:N	29:11:272:ALA:HB3	2.08	0.50
30:21:23:VAL:HG12	30:21:173:VAL:HG21	1.93	0.50
30:21:47:VAL:HG11	30:21:86:PRO:HD2	1.94	0.50
36:68:47:ILE:HG12	36:68:48:PRO:HD2	1.94	0.50
38:88:11:LYS:HE2	38:88:88:GLY:O	2.12	0.50
41:B8:24:PRO:HD3	41:B8:52:ILE:HD12	1.94	0.50
43:D8:36:PRO:C	43:D8:38:LEU:H	2.16	0.50
50:K8:4:SER:HA	50:K8:7:ARG:CG	2.42	0.50
51:L8:31:LEU:O	51:L8:32:GLN:HB2	2.12	0.50
1:1G:1031:G:H2'	1:1G:1032:A:C8	2.46	0.50
1:1G:1090:U:H4'	1:1G:1170:A:H2	1.77	0.50
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.40	0.50
2:12:178:ARG:HD3	2:12:196:LEU:O	2.11	0.50
3:22:37:GLN:NE2	14:5A:52:GLN:OE1	2.38	0.50
5:42:122:GLU:HB3	5:42:126:ARG:NH1	2.26	0.50
26:14:251:A:C5	26:14:252:G:H1'	2.47	0.50
26:14:2507:C:H5"	26:14:2573:C:N4	2.26	0.50
26:14:2659:G:H2'	26:14:2661:G:OP2	2.12	0.50
40:65:5:THR:O	40:65:8:GLU:HG3	2.12	0.50
40:65:61:ASN:CB	40:65:64:GLU:HB3	2.42	0.50
47:D5:91:LEU:HD12	47:D5:91:LEU:H	1.76	0.50
1:13:200:G:O6	1:13:217:C:N4	2.41	0.49
1:13:1036:G:H3'	1:13:1037:C:C6	2.47	0.49
1:13:1120:G:H2'	1:13:1121:U:H6	1.76	0.49
1:13:1137:C:H1'	1:13:1138:G:C2	2.47	0.49
8:7E:127:LEU:H	8:7E:127:LEU:HD12	1.77	0.49
10:1I:54:PHE:CG	10:1I:55:LYS:HD3	2.47	0.49
26:1H:750:A:OP2	61:1H:3608:HOH:O	2.20	0.49
26:1H:990:A:H1'	26:1H:1156:A:N3	2.27	0.49
26:1H:1916:A:H3'	26:1H:1917:U:H6	1.76	0.49
27:16:80:U:O2'	27:16:81:G:H5"	2.11	0.49
30:21:131:ALA:HB1	61:21:401:HOH:O	2.12	0.49
35:58:132:ALA:O	35:58:134:ARG:CZ	2.59	0.49
41:B8:54:ARG:HA	41:B8:59:THR:OG1	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:75:THR:OG1	5:42:117:ASP:O	2.22	0.49
17:8A:11:VAL:HG12	17:8A:85:VAL:HG12	1.94	0.49
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.77	0.49
20:BA:103:GLY:O	20:BA:104:LEU:HD23	2.11	0.49
26:14:634:C:H2'	26:14:635:C:H6	1.77	0.49
26:14:1364:G:N7	49:F5:2:SER:HB2	2.27	0.49
26:14:1448:G:H1'	26:14:1528:A:H62	1.76	0.49
26:14:2037:G:H2'	26:14:2038:G:C8	2.47	0.49
26:14:2062:A:N6	26:14:2503:A:H62	2.09	0.49
26:14:2295:C:H41	40:65:13:ARG:NH2	2.09	0.49
26:14:2432:A:C8	49:F5:33:LYS:HD2	2.46	0.49
26:14:2737:G:H2'	26:14:2738:A:H8	1.77	0.49
26:14:2772:C:H5'	30:29:168:MET:SD	2.51	0.49
27:1J:108:C:H4'	27:1J:108:C:OP1	2.12	0.49
30:29:1:MET:HG3	30:29:83:ASP:O	2.11	0.49
32:49:15:VAL:HG22	32:49:175:LEU:HB3	1.93	0.49
36:25:7:TYR:HE1	36:25:20:MET:HE3	1.77	0.49
54:L5:5:TRP:CD1	54:L5:7:PRO:HG3	2.47	0.49
1:13:650:G:H2'	1:13:651:C:H6	1.77	0.49
7:6E:16:LEU:HD12	9:8E:42:ARG:HA	1.93	0.49
12:3I:82:VAL:O	12:3I:106:ASP:HB2	2.13	0.49
19:AI:51:VAL:O	19:AI:58:VAL:HG13	2.11	0.49
26:1H:1010:A:OP2	61:1H:3571:HOH:O	2.20	0.49
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.39	0.49
26:1H:2138:C:H41	26:1H:2154:G:H21	1.59	0.49
27:16:15:A:OP2	27:16:107:U:O2'	2.27	0.49
30:21:127:ASP:HA	30:21:135:HIS:CE1	2.47	0.49
37:78:50:ARG:HH21	37:78:50:ARG:CG	2.24	0.49
39:98:96:ARG:HG2	39:98:98:LEU:HD23	1.92	0.49
49:J8:92:LYS:HA	49:J8:95:LEU:HD12	1.94	0.49
51:L8:31:LEU:HB3	51:L8:32:GLN:OE1	2.12	0.49
1:1G:1244:C:OP2	21:1B:8:THR:OG1	2.25	0.49
1:1G:1281:U:H3'	1:1G:1282:C:H5	1.76	0.49
1:1G:1302:U:C6	13:4A:17:VAL:HG11	2.47	0.49
2:12:35:GLU:HG3	2:12:40:HIS:CE1	2.47	0.49
26:14:817:C:H4'	26:14:932:G:C5	2.47	0.49
26:14:1138:G:H21	35:15:106:MET:HE3	1.77	0.49
26:14:1913:A:H4'	26:14:1914:C:C5'	2.42	0.49
32:49:68:PRO:HB2	32:49:90:LEU:HD22	1.94	0.49
1:13:942:G:C2	1:13:943:U:C6	3.01	0.49
1:13:1360:A:O2'	1:13:1361:G:H5'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.28	0.49
17:8I:14:LYS:N	17:8I:14:LYS:HD2	2.27	0.49
26:1H:573:G:O2'	26:1H:574:C:H3'	2.13	0.49
26:1H:608:A:H1'	26:1H:621:A:N6	2.27	0.49
26:1H:855:G:O2'	48:I8:27:GLU:OE2	2.25	0.49
26:1H:1214:A:OP2	61:1H:3606:HOH:O	2.20	0.49
26:1H:1425:G:N2	26:1H:1573:G:N7	2.60	0.49
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.47	0.49
26:1H:2102:U:H3	26:1H:2187:G:H1	1.60	0.49
27:16:78:A:C2	27:16:99:A:C4	3.00	0.49
27:16:79:C:O5'	27:16:79:C:H6	1.94	0.49
28:71:190:ARG:HB3	28:71:194:ARG:NH1	2.26	0.49
29:11:30:GLU:HG3	29:11:63:ARG:CZ	2.43	0.49
29:11:67:PHE:HB3	29:11:153:ALA:H	1.78	0.49
29:11:85:ASP:OD2	29:11:88:ARG:NH1	2.41	0.49
37:78:63:PRO:HB3	55:Q8:30:ARG:HE	1.76	0.49
41:B8:1:MET:HG3	41:B8:2:ASN:H	1.76	0.49
1:1G:909:A:H2'	1:1G:910:C:O4'	2.12	0.49
1:1G:953:G:O6	1:1G:1228:C:N4	2.45	0.49
3:22:25:GLY:N	3:22:28:GLN:OE1	2.45	0.49
19:AA:21:GLU:HG2	19:AA:22:LEU:HD22	1.94	0.49
23:2L:35:C:H5"	23:2L:36:A:OP2	2.11	0.49
26:14:228:A:H2'	26:14:230:U:O4'	2.13	0.49
26:14:574:C:N3	30:29:145:LYS:NZ	2.54	0.49
26:14:1156:A:P	42:85:55:ARG:HH12	2.35	0.49
26:14:1405:U:H2'	26:14:1406:U:C6	2.47	0.49
26:14:1569:A:H2'	26:14:1570:A:C8	2.47	0.49
26:14:1999:C:H4'	26:14:2723:C:O2	2.12	0.49
26:14:2157:G:H4'	26:14:2158:A:H8	1.77	0.49
31:39:110:LEU:O	31:39:114:VAL:HG23	2.12	0.49
35:15:73:THR:HG22	35:15:84:LYS:HB3	1.93	0.49
38:45:25:ASP:CB	38:45:102:VAL:H	2.20	0.49
42:85:95:LEU:HD13	43:95:4:ILE:HG23	1.93	0.49
1:13:475:G:H2'	1:13:476:G:H5'	1.94	0.49
1:13:835:U:H3	1:13:851:G:H1	1.58	0.49
1:13:989:C:H42	1:13:1216:G:H1	1.59	0.49
1:13:1016:A:H2'	1:13:1017:G:O4'	2.12	0.49
5:4E:5:ASP:CG	5:4E:6:PHE:H	2.21	0.49
9:8E:32:ASP:OD1	9:8E:33:PHE:N	2.44	0.49
17:8I:76:LEU:HD21	17:8I:79:SER:HB2	1.94	0.49
26:1H:251:A:C5	26:1H:252:G:H1'	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1705:G:H2'	26:1H:1706:U:H5'	1.94	0.49
26:1H:2134:A:HO2'	26:1H:2159:G:H21	1.58	0.49
26:1H:2563:U:H4'	36:68:28:SER:HA	1.94	0.49
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.47	0.49
31:31:101:LEU:HD22	31:31:102:PRO:HD2	1.94	0.49
36:68:98:VAL:HG22	36:68:118:ALA:HA	1.94	0.49
55:Q8:7:HIS:CG	55:Q8:61:LEU:HD13	2.48	0.49
1:1G:373:A:N3	1:1G:374:A:C8	2.81	0.49
1:1G:604:G:H2'	1:1G:605:U:O4'	2.13	0.49
1:1G:1025:U:H4'	1:1G:1026:G:C8	2.48	0.49
2:12:193:ASP:OD1	2:12:193:ASP:N	2.36	0.49
3:22:23:TYR:HE2	10:1A:67:THR:HG23	1.77	0.49
26:14:303:U:H2'	26:14:304:G:O4'	2.12	0.49
26:14:531:C:C5	26:14:2035:G:C2	3.00	0.49
26:14:581:C:C2	26:14:582:G:C8	3.00	0.49
26:14:662:G:H5'	37:35:16:ARG:HA	1.93	0.49
26:14:819:A:C4	26:14:1189:A:C2	3.01	0.49
26:14:1375:C:H2'	26:14:1376:C:H6	1.77	0.49
26:14:2412:A:C2	26:14:2413:G:H1'	2.48	0.49
26:14:2542:A:H4'	26:14:2542:A:OP1	2.11	0.49
41:75:124:ASP:O	41:75:128:GLU:HG3	2.12	0.49
43:95:71:LEU:N	43:95:86:GLY:HA2	2.28	0.49
1:13:160:A:N6	1:13:344:A:O2'	2.46	0.49
1:13:721:G:C6	1:13:733:A:C2	3.01	0.49
1:13:1149:C:H2'	1:13:1150:U:C6	2.47	0.49
2:1E:16:HIS:HE2	2:1E:213:LEU:HB2	1.76	0.49
9:8E:8:GLY:O	9:8E:15:ALA:N	2.42	0.49
26:1H:875:G:H2'	26:1H:876:C:O4'	2.13	0.49
26:1H:1696:G:C6	26:1H:1697:G:C4	3.00	0.49
26:1H:2844:G:O6	61:1H:3605:HOH:O	2.19	0.49
27:16:73:A:H2'	27:16:74:U:O4'	2.12	0.49
35:58:104:LYS:HB2	35:58:117:PHE:CE1	2.48	0.49
39:98:12:ARG:HG2	39:98:16:HIS:ND1	2.28	0.49
41:B8:20:PRO:HG2	41:B8:86:ILE:O	2.12	0.49
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.46	0.49
47:H8:52:SER:C	47:H8:54:HIS:H	2.21	0.49
1:1G:656:C:O2	15:6A:28:GLN:NE2	2.41	0.49
1:1G:753:A:OP1	15:6A:69:TYR:OH	2.27	0.49
1:1G:1006:C:H41	1:1G:1038:C:H4'	1.78	0.49
1:1G:1378:C:H3'	1:1G:1379:G:H5"	1.94	0.49
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:113:ALA:HA	3:22:116:VAL:HG12	1.94	0.49
5:42:30:ALA:O	5:42:45:PHE:HA	2.12	0.49
13:4A:97:PRO:HA	13:4A:110:ARG:HD3	1.95	0.49
26:14:289:A:H3'	26:14:290:G:C8	2.41	0.49
26:14:957:A:N6	26:14:2459:A:C8	2.80	0.49
26:14:1282:U:H2'	26:14:1283:G:O4'	2.12	0.49
26:14:1858:G:H2'	26:14:1883:G:H22	1.76	0.49
26:14:2173:A:H5'	26:14:2174:C:OP2	2.12	0.49
30:29:60:ASN:OD1	30:29:63:LEU:HD22	2.11	0.49
32:49:96:ARG:C	32:49:98:ARG:H	2.21	0.49
40:65:72:ALA:O	40:65:76:LYS:HG3	2.12	0.49
45:B5:63:LYS:H	45:B5:63:LYS:NZ	2.10	0.49
47:D5:29:TYR:HB3	47:D5:34:ASN:ND2	2.27	0.49
50:G5:43:GLN:HE21	50:G5:46:GLN:HA	1.76	0.49
55:M5:22:VAL:O	55:M5:50:LEU:HB2	2.13	0.49
1:13:450:G:N7	1:13:481:G:C6	2.81	0.49
1:13:920:U:H2'	1:13:921:U:C6	2.47	0.49
1:13:963:G:C2	10:1I:55:LYS:NZ	2.81	0.49
1:13:1053:G:N7	1:13:1199:U:H3'	2.28	0.49
6:5E:11:ASN:ND2	6:5E:84:ASN:OD1	2.46	0.49
7:6E:50:ILE:O	7:6E:54:THR:HG23	2.12	0.49
26:1H:601:C:O2'	26:1H:605:C:OP1	2.26	0.49
26:1H:1359:A:H2	26:1H:1372:U:O4	1.94	0.49
26:1H:1439:A:C8	26:1H:1440:G:C8	3.01	0.49
26:1H:2061:G:H5'	61:1H:3551:HOH:O	2.12	0.49
31:31:17:ARG:O	31:31:17:ARG:HD3	2.13	0.49
53:N8:40:LYS:HG2	53:N8:46:CYS:HA	1.93	0.49
1:1G:115:G:H1'	1:1G:116:A:N7	2.27	0.49
6:52:6:VAL:HG22	6:52:90:VAL:HG22	1.95	0.49
23:2L:34:U:N3	23:2L:37:U:OP2	2.37	0.49
23:2L:76:C:H2'	23:2L:77:A:C8	2.48	0.49
26:14:676:A:H2	26:14:802:A:H61	1.55	0.49
26:14:833:U:O4'	37:35:52:GLU:HA	2.13	0.49
26:14:854:G:H2'	26:14:855:G:H8	1.77	0.49
26:14:2143:C:H2'	26:14:2144:U:H4'	1.95	0.49
32:49:56:ALA:HB2	32:49:153:ARG:CZ	2.43	0.49
35:15:61:ARG:HB3	35:15:61:ARG:HH11	1.77	0.49
37:35:61:ARG:HB3	37:35:61:ARG:HH21	1.77	0.49
42:85:60:LEU:HA	42:85:63:VAL:HG12	1.95	0.49
42:85:72:HIS:CD2	42:85:110:VAL:HG21	2.46	0.49
50:G5:50:ILE:HD12	50:G5:51:ARG:H	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:102:G:O2'	1:13:151:A:N3	2.45	0.49
1:13:271:C:H2'	1:13:272:C:H6	1.78	0.49
1:13:625:G:H4'	16:7I:16:HIS:CD2	2.47	0.49
1:13:789:U:H5	1:13:791:G:H3'	1.78	0.49
1:13:925:G:H1'	1:13:1502:A:C4	2.47	0.49
4:3E:85:LYS:C	4:3E:88:VAL:HB	2.37	0.49
18:9I:44:LEU:HD11	18:9I:70:ILE:HG21	1.95	0.49
23:2K:63:C:H2'	23:2K:64:G:C8	2.48	0.49
26:1H:1177:A:H4'	26:1H:1178:C:O5'	2.11	0.49
26:1H:1264:G:H3'	26:1H:1265:A:H5"	1.93	0.49
26:1H:2125:G:O6	26:1H:2171:A:H5"	2.13	0.49
26:1H:2567:G:H2'	26:1H:2568:C:C6	2.48	0.49
28:71:21:THR:HA	28:71:225:ASN:HB3	1.94	0.49
28:71:59:ARG:HD3	28:71:164:ARG:N	2.27	0.49
29:11:68:LYS:HD3	29:11:70:TRP:CZ2	2.48	0.49
29:11:79:VAL:HG21	29:11:111:LEU:HD11	1.94	0.49
34:61:93:THR:O	34:61:96:ASP:HB2	2.12	0.49
39:98:25:ALA:O	39:98:26:LYS:C	2.55	0.49
39:98:34:ILE:HG22	39:98:114:VAL:HB	1.93	0.49
50:K8:10:LEU:O	50:K8:14:ARG:HG3	2.13	0.49
1:1G:195:A:C6	1:1G:196:A:N1	2.81	0.49
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.13	0.49
1:1G:1442:G:HO2'	1:1G:1443:G:P	2.34	0.49
3:22:121:ALA:HB2	3:22:198:VAL:HG21	1.94	0.49
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.37	0.49
13:4A:93:ARG:O	13:4A:94:ARG:HD3	2.13	0.49
23:2L:16:C:H2'	23:2L:17:C:C5	2.48	0.49
26:14:307:G:N2	26:14:309:G:H3'	2.27	0.49
26:14:654(A):A:H2	26:14:654(T):A:C6	2.31	0.49
26:14:977:G:H5'	26:14:1155:A:H4'	1.94	0.49
26:14:1072:C:H5'	26:14:1073:A:H5"	1.92	0.49
26:14:1771:C:H1'	26:14:1786:A:H8	1.76	0.49
26:14:1819:A:H4'	26:14:1820:U:O5'	2.13	0.49
26:14:2228:G:OP2	29:19:263:ARG:NH2	2.46	0.49
26:14:2734:A:H2'	26:14:2735:G:O4'	2.13	0.49
1:13:690:G:C2	1:13:691:G:C6	3.00	0.49
1:13:875:C:O2'	8:7E:14:ARG:HD2	2.13	0.49
3:2E:56:ASP:OD1	3:2E:69:HIS:NE2	2.46	0.49
4:3E:82:ALA:HA	4:3E:85:LYS:HG2	1.95	0.49
5:4E:33:VAL:HG11	5:4E:108:ALA:O	2.13	0.49
6:5E:67:MET:SD	6:5E:75:LEU:HD12	2.53	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:48:GLU:HB3	9:8E:101:PHE:CZ	2.48	0.49
11:2I:72:ALA:HB1	11:2I:77:MET:HE3	1.95	0.49
16:7I:4:ILE:HA	16:7I:20:VAL:O	2.13	0.49
16:7I:20:VAL:HG21	16:7I:32:TYR:CG	2.48	0.49
16:7I:71:ARG:O	16:7I:75:ARG:N	2.37	0.49
17:8I:45:HIS:NE2	17:8I:47:PRO:HG3	2.28	0.49
24:3K:74:C:H4'	49:J8:23:LYS:HD2	1.93	0.49
26:1H:533:G:H5'	42:C8:24:TYR:CE1	2.48	0.49
26:1H:598:G:H1'	37:78:12:ALA:HB2	1.94	0.49
26:1H:736:C:O5'	26:1H:736:C:H6	1.96	0.49
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.95	0.49
26:1H:2409:G:N7	61:1H:3676:HOH:O	2.35	0.49
30:21:116:VAL:HG11	30:21:138:PRO:HB3	1.93	0.49
31:31:185:ASP:HA	31:31:188:ARG:NH1	2.27	0.49
33:51:4:ILE:HB	33:51:6:ARG:HD3	1.94	0.49
43:D8:37:VAL:HG23	43:D8:51:VAL:HG21	1.94	0.49
2:12:72:GLY:HA2	2:12:165:VAL:HG11	1.94	0.49
17:8A:45:HIS:O	17:8A:73:VAL:HG12	2.13	0.49
26:14:589:C:H5"	31:39:95:ARG:NH1	2.28	0.49
26:14:1629:U:O4	61:14:3559:HOH:O	2.17	0.49
26:14:2552:U:C2	26:14:2554:U:H5'	2.47	0.49
26:14:2641:G:O3'	35:15:76:SER:OG	2.31	0.49
26:14:2859:G:C8	26:14:2859:G:H3'	2.48	0.49
29:19:223:GLY:HA3	29:19:231:HIS:CD2	2.48	0.49
30:29:54:GLN:HG2	30:29:72:VAL:O	2.13	0.49
30:29:68:ALA:O	30:29:69:LYS:C	2.56	0.49
34:69:41:GLU:HA	34:69:44:LEU:HB2	1.94	0.49
35:15:33:LEU:HD12	35:15:38:HIS:ND1	2.27	0.49
41:75:77:PRO:HG2	41:75:80:SER:HB3	1.95	0.49
42:85:52:ARG:O	42:85:52:ARG:HG3	2.12	0.49
43:95:69:LYS:HG3	43:95:88:ARG:HG2	1.95	0.49
47:D5:3:TYR:O	47:D5:58:VAL:N	2.40	0.49
49:F5:92:LYS:O	49:F5:94:LEU:N	2.45	0.49
1:13:553:A:H5"	12:3I:24:VAL:HG21	1.95	0.49
1:13:735:C:H2'	1:13:736:C:C6	2.48	0.49
1:13:1028(A):C:C2	1:13:1028(B):C:H5	2.31	0.49
1:13:1349:A:H2'	1:13:1350:A:C8	2.47	0.49
4:3E:7:PRO:HB2	4:3E:10:ARG:HG2	1.95	0.49
9:8E:24:GLY:HA2	9:8E:59:PHE:O	2.13	0.49
12:3I:119:LYS:C	12:3I:121:GLY:H	2.20	0.49
17:8I:75:ARG:NH1	17:8I:75:ARG:HB2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:58:LYS:HE3	20:BI:62:LEU:HD21	1.95	0.49
23:2K:21:U:O2'	23:2K:22:A:H5'	2.12	0.49
26:1H:270(I):G:N1	26:1H:270(R):G:N3	2.58	0.49
26:1H:587:C:H4'	26:1H:588:U:H6	1.78	0.49
26:1H:609:A:H8	26:1H:609:A:O5'	1.96	0.49
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.28	0.49
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.12	0.49
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.47	0.49
39:98:21:TYR:N	39:98:21:TYR:HD1	2.11	0.49
40:A8:51:ALA:HB3	40:A8:73:LEU:HG	1.93	0.49
46:G8:35:TYR:CD2	46:G8:69:ALA:HB3	2.48	0.49
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.12	0.49
1:1G:1277:C:H1'	1:1G:1282:C:O2	2.13	0.49
1:1G:1515:C:H2'	1:1G:1516:G:H8	1.78	0.49
2:12:73:THR:OG1	2:12:170:GLU:OE2	2.30	0.49
8:72:44:PHE:CD1	8:72:80:ILE:HG12	2.47	0.49
11:2A:106:LYS:HB2	11:2A:106:LYS:HZ3	1.78	0.49
12:3A:55:VAL:HG23	12:3A:69:TYR:HA	1.93	0.49
26:14:9:U:H2'	26:14:10:G:H5'	1.95	0.49
26:14:910:A:N7	38:45:13:GLN:HG3	2.27	0.49
26:14:1006:C:O2'	35:15:106:MET:O	2.27	0.49
26:14:1771:C:C1'	26:14:1786:A:C8	2.95	0.49
1:13:309:G:H1'	1:13:608:A:C2	2.47	0.49
1:13:457:C:H2'	1:13:458:C:H6	1.78	0.49
1:13:511:C:OP2	4:3E:49:ARG:NH2	2.45	0.49
1:13:608:A:H2'	1:13:609:A:O4'	2.13	0.49
1:13:828:A:H2'	1:13:829:G:O4'	2.11	0.49
1:13:973:G:O4'	10:1I:55:LYS:HB3	2.12	0.49
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.94	0.49
13:4I:10:PRO:HB3	13:4I:18:ALA:HB1	1.95	0.49
26:1H:298:G:N7	46:G8:84:ARG:NH2	2.60	0.49
26:1H:507:A:H5"	26:1H:508:G:H5'	1.93	0.49
26:1H:545:G:H2'	26:1H:546:C:H5"	1.95	0.49
26:1H:1177:A:OP1	26:1H:1178:C:N4	2.46	0.49
26:1H:1247:A:OP1	31:31:95:ARG:NH2	2.46	0.49
26:1H:1475:G:N2	26:1H:1519:G:C4	2.81	0.49
26:1H:2311:A:C8	32:41:88:ILE:HG21	2.48	0.49
27:16:11:C:OP2	27:16:12:C:N4	2.34	0.49
39:98:33:ARG:NH1	39:98:113:LEU:HD21	2.28	0.49
39:98:83:ILE:HG22	39:98:87:TYR:HE2	1.78	0.49
40:A8:38:GLN:HB3	40:A8:47:THR:HG21	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:52:LYS:HB3	55:Q8:53:PRO:CD	2.43	0.49
1:1G:1347:G:N7	9:82:10:ARG:NH2	2.42	0.49
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.12	0.49
12:3A:47:LYS:HG3	12:3A:48:PRO:HD2	1.94	0.49
13:4A:37:THR:HG22	13:4A:55:ARG:NE	2.28	0.49
13:4A:59:TYR:O	13:4A:63:THR:OG1	2.30	0.49
18:9A:66:LEU:O	18:9A:70:ILE:HG13	2.13	0.49
26:14:370:G:H4'	26:14:371:A:OP2	2.13	0.49
26:14:1639:U:H4'	26:14:2699:C:H4'	1.95	0.49
26:14:2020:A:P	42:85:27:LEU:HD12	2.52	0.49
27:1J:12:C:O2	48:E5:74:ARG:NH1	2.45	0.49
32:49:42:GLY:O	32:49:43:LEU:HD13	2.12	0.49
37:35:15:ARG:O	37:35:16:ARG:HG2	2.13	0.49
37:35:79:ARG:O	37:35:110:TYR:HB3	2.12	0.49
46:C5:87:LYS:HG2	46:C5:88:LYS:N	2.27	0.49
1:13:201:C:H42	1:13:216:G:H22	1.60	0.48
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.47	0.48
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.94	0.48
14:5I:42:ILE:O	14:5I:46:GLU:HG3	2.13	0.48
15:6I:27:VAL:HG12	15:6I:31:LEU:HD22	1.94	0.48
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.95	0.48
26:1H:619:G:N7	31:31:103:LYS:NZ	2.59	0.48
26:1H:997:G:O2'	26:1H:998:C:H5'	2.13	0.48
26:1H:1264:G:OP1	53:N8:19:ARG:NH2	2.25	0.48
26:1H:1277:G:H2'	26:1H:1278:A:O4'	2.13	0.48
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.13	0.48
28:71:168:THR:O	28:71:168:THR:OG1	2.29	0.48
29:11:6:PHE:N	29:11:6:PHE:CD1	2.81	0.48
29:11:35:LYS:HB3	29:11:35:LYS:NZ	2.16	0.48
30:21:103:ASP:OD1	30:21:201:THR:HG23	2.12	0.48
31:31:126:VAL:O	31:31:196:LEU:HD22	2.13	0.48
41:B8:9:LEU:C	41:B8:11:GLU:N	2.69	0.48
50:K8:13:ALA:O	50:K8:16:LEU:HB2	2.13	0.48
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.13	0.48
1:1G:256:U:H2'	1:1G:257:G:H8	1.75	0.48
1:1G:300:A:O2'	1:1G:564:C:N3	2.34	0.48
1:1G:1023:G:H5"	1:1G:1024:G:H21	1.78	0.48
1:1G:1301:U:O2	1:1G:1301:U:H2'	2.12	0.48
1:1G:1320:C:N4	1:1G:1321:C:N3	2.61	0.48
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.46	0.48
16:7A:4:ILE:HG12	16:7A:21:VAL:HG12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:3L:76:A:H8	26:14:2394:C:H42	1.61	0.48
26:14:1379:A:H4'	26:14:1380:G:OP2	2.13	0.48
26:14:2104:G:N2	26:14:2186:G:C2	2.81	0.48
26:14:2689:U:P	26:14:2719:G:H22	2.36	0.48
26:14:2750:A:H8	26:14:2752:C:N4	2.08	0.48
27:1J:80:U:H2'	27:1J:81:G:N2	2.26	0.48
30:29:89:ASP:O	30:29:90:THR:HB	2.12	0.48
37:35:63:PRO:HG2	55:M5:25:MET:HB3	1.95	0.48
38:45:17:LEU:HB3	38:45:39:PRO:HB2	1.94	0.48
41:75:112:ARG:CD	41:75:113:LYS:HD3	2.43	0.48
45:B5:51:VAL:HG13	45:B5:81:VAL:HG23	1.94	0.48
1:13:657:G:N2	1:13:749:C:O2	2.32	0.48
4:3E:85:LYS:HZ2	4:3E:90:GLY:HA3	1.77	0.48
6:5E:69:GLU:H	6:5E:69:GLU:CD	2.20	0.48
11:2I:61:ALA:HB1	11:2I:94:ALA:HB2	1.95	0.48
26:1H:484:C:OP1	46:G8:51:VAL:HG22	2.12	0.48
26:1H:589:C:H2'	26:1H:590:A:H8	1.78	0.48
26:1H:910:A:C6	26:1H:911:A:C6	3.01	0.48
26:1H:919:G:N2	26:1H:2269:A:OP2	2.46	0.48
26:1H:969:U:H2'	26:1H:970:C:C6	2.48	0.48
26:1H:1026:U:H4'	26:1H:1027:A:OP1	2.13	0.48
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.14	0.48
26:1H:1887:C:H2'	26:1H:1888:G:H5'	1.96	0.48
26:1H:2162:G:H2'	26:1H:2163:C:C6	2.48	0.48
26:1H:2743:C:H2'	26:1H:2744:G:O4'	2.13	0.48
29:11:36:PRO:HB2	29:11:37:LEU:HD12	1.94	0.48
29:11:213:ARG:HG3	29:11:213:ARG:HH11	1.77	0.48
33:51:124:GLU:C	33:51:126:PRO:HD3	2.38	0.48
1:1G:222:U:H2'	1:1G:223:U:H6	1.78	0.48
1:1G:626:U:H4'	16:7A:38:TYR:CZ	2.49	0.48
1:1G:977:A:N3	1:1G:977:A:H2'	2.27	0.48
1:1G:1152:A:H5'	10:1A:13:HIS:ND1	2.28	0.48
3:22:16:ARG:HH22	3:22:181:ASN:CA	2.22	0.48
3:22:149:ALA:HA	3:22:201:TYR:O	2.13	0.48
4:32:145:GLU:OE2	4:32:182:LYS:HD2	2.12	0.48
7:62:67:GLU:HA	7:62:70:LYS:HE3	1.96	0.48
12:3A:28:LYS:NZ	12:3A:33:ARG:HH22	2.10	0.48
23:2L:18:U:O2'	23:2L:19:G:H5'	2.12	0.48
57:3L:65:C:H2'	57:3L:66:A:H8	1.77	0.48
26:14:275:G:N2	26:14:276:A:N7	2.61	0.48
26:14:807:U:H2'	26:14:808:G:H8	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1328:G:H2'	26:14:1330:C:C5	2.48	0.48
39:55:102:GLU:C	39:55:103:ARG:HG2	2.38	0.48
47:D5:62:PRO:C	47:D5:64:GLY:H	2.21	0.48
1:13:939:G:H2'	1:13:940:C:C6	2.48	0.48
1:13:947:G:H2'	1:13:948:C:C6	2.48	0.48
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.43	0.48
4:3E:155:LEU:O	4:3E:157:LEU:N	2.46	0.48
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.49	0.48
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.13	0.48
26:1H:1433:U:O2	26:1H:1561:G:C2	2.66	0.48
26:1H:2128:C:O2'	26:1H:2129:C:H5'	2.13	0.48
31:31:129:PHE:HA	31:31:142:TRP:CD1	2.48	0.48
37:78:78:PRO:HB3	37:78:111:ARG:NH2	2.27	0.48
55:Q8:22:VAL:HG12	55:Q8:50:LEU:HD13	1.94	0.48
1:1G:7:G:H21	5:42:121:LYS:HG2	1.77	0.48
1:1G:302:G:O2'	1:1G:556:C:H5"	2.14	0.48
1:1G:421:U:O2'	1:1G:423:G:N7	2.44	0.48
1:1G:1028(A):C:H42	1:1G:1032(B):G:H22	1.61	0.48
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.46	0.48
1:1G:1187:G:H2'	1:1G:1188:A:C8	2.47	0.48
1:1G:1287:A:N3	1:1G:1353:G:O2'	2.43	0.48
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.94	0.48
3:22:39:ILE:HD11	3:22:95:THR:HG21	1.94	0.48
12:3A:46:LYS:HD2	12:3A:47:LYS:HB2	1.95	0.48
26:14:305:U:H2'	26:14:306:U:C6	2.49	0.48
26:14:832:G:N2	37:35:53:GLY:HA3	2.29	0.48
26:14:1210:A:H5'	26:14:1212:G:O4'	2.13	0.48
26:14:1634:A:N1	61:14:3631:HOH:O	2.35	0.48
26:14:1666:G:OP1	36:25:66:LYS:HD3	2.12	0.48
26:14:2271:G:H2'	26:14:2272:U:C6	2.48	0.48
30:29:112:GLY:O	30:29:159:HIS:HA	2.13	0.48
35:15:54:VAL:HB	35:15:122:VAL:HG22	1.96	0.48
37:35:49:ARG:HD2	55:M5:60:LEU:HD13	1.95	0.48
38:45:75:THR:HA	38:45:89:ASN:HA	1.94	0.48
1:13:244:U:H4'	1:13:245:C:O5'	2.13	0.48
1:13:509:A:H5'	4:3E:54:TYR:HD2	1.77	0.48
1:13:1157:A:O2'	1:13:1158:C:H5"	2.13	0.48
8:7E:116:LYS:HG3	8:7E:127:LEU:HD22	1.95	0.48
9:8E:10:ARG:HE	9:8E:105:ASP:CG	2.21	0.48
11:2I:59:TYR:HA	11:2I:62:GLN:HB3	1.94	0.48
26:1H:529:A:H4'	26:1H:530:G:H5'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:654:A:H3'	26:1H:654(A):A:H5"	1.94	0.48
26:1H:1317:A:H2'	26:1H:1318:C:C6	2.49	0.48
26:1H:1799:G:O2'	26:1H:1800:C:OP2	2.25	0.48
26:1H:2319:G:N7	40:A8:3:ARG:HB2	2.28	0.48
26:1H:2435:A:H2'	26:1H:2436:G:O5'	2.13	0.48
29:11:213:ARG:HH11	29:11:213:ARG:CG	2.26	0.48
34:61:130:TYR:C	34:61:131:LYS:HD2	2.38	0.48
37:78:89:ALA:HA	37:78:121:LYS:HD3	1.95	0.48
38:88:18:LYS:HB3	38:88:18:LYS:HE2	1.52	0.48
39:98:58:GLY:HA2	39:98:80:PHE:CE2	2.48	0.48
39:98:105:ARG:C	39:98:107:ASP:H	2.20	0.48
40:A8:24:LEU:HB2	40:A8:85:VAL:HG12	1.95	0.48
45:F8:57:LEU:N	45:F8:57:LEU:HD23	2.29	0.48
46:G8:19:LYS:HB3	46:G8:19:LYS:HE2	1.57	0.48
1:1G:358:U:H2'	1:1G:359:U:C6	2.49	0.48
1:1G:801:U:H2'	1:1G:802:A:C8	2.48	0.48
1:1G:894:G:C6	1:1G:895:G:C5	3.01	0.48
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.48	0.48
2:12:73:THR:HG21	2:12:97:TRP:N	2.28	0.48
5:42:57:LYS:HE2	5:42:61:TYR:OH	2.13	0.48
17:8A:10:VAL:HG23	17:8A:54:GLY:H	1.77	0.48
23:2L:10:G:N2	23:2L:27:G:H1'	2.28	0.48
23:2L:51:U:C2	23:2L:52:C:C5	3.02	0.48
26:14:34:C:O2'	26:14:35:G:C8	2.64	0.48
26:14:89:G:O5'	26:14:90:U:H5"	2.13	0.48
26:14:909:A:O2'	26:14:910:A:H5"	2.13	0.48
26:14:909:A:N6	26:14:912:C:O2	2.46	0.48
26:14:1288:U:O4	39:55:106:GLY:HA3	2.13	0.48
26:14:2320:A:C6	26:14:2333:A:C8	3.01	0.48
26:14:2572:A:N7	30:29:145:LYS:HB2	2.29	0.48
26:14:2884:U:H2'	26:14:2885:C:O4'	2.14	0.48
27:1J:104:A:H2'	27:1J:105:G:O4'	2.13	0.48
30:29:81:ILE:HG22	30:29:82:ARG:N	2.28	0.48
31:39:117:ARG:HA	31:39:117:ARG:HH11	1.78	0.48
41:75:88:ILE:O	41:75:88:ILE:HG13	2.12	0.48
1:13:64:G:H3'	1:13:65:U:H5'	1.96	0.48
1:13:316:G:OP2	1:13:351:G:O2'	2.30	0.48
1:13:416:G:C5	1:13:417:C:C4	3.02	0.48
1:13:507:C:OP2	1:13:508:C:O2'	2.27	0.48
1:13:953:G:C2	1:13:954:G:H1'	2.49	0.48
2:1E:122:PHE:CD1	2:1E:139:LYS:HE2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:217:ARG:HE	2:1E:217:ARG:HB2	1.50	0.48
3:2E:35:GLU:OE1	3:2E:95:THR:HG23	2.13	0.48
20:BI:53:LEU:HB3	20:BI:57:ARG:HH12	1.79	0.48
26:1H:512:G:C8	61:1H:3727:HOH:O	2.64	0.48
26:1H:587:C:OP2	37:78:21:ARG:NH2	2.46	0.48
26:1H:1027:A:C2	26:1H:2488:A:H5'	2.48	0.48
26:1H:1580:A:H3'	26:1H:1581:G:C8	2.49	0.48
26:1H:1871:A:H2'	26:1H:1872:A:H8	1.76	0.48
31:31:185:ASP:HA	31:31:188:ARG:HH12	1.78	0.48
32:41:37:VAL:HG22	32:41:159:VAL:HG12	1.94	0.48
32:41:37:VAL:O	32:41:94:LEU:HD12	2.14	0.48
34:61:2:LYS:HZ3	34:61:20:ASP:HB2	1.77	0.48
35:58:69:GLN:O	35:58:71:ILE:HD12	2.14	0.48
46:G8:87:LYS:O	46:G8:94:LYS:HB2	2.13	0.48
50:K8:28:LYS:HE3	50:K8:56:GLN:OE1	2.13	0.48
1:1G:985:C:N3	1:1G:1220:G:N2	2.58	0.48
1:1G:1101:A:H8	2:12:172:ILE:HD11	1.79	0.48
2:12:21:ARG:HB3	2:12:39:ILE:HG12	1.95	0.48
3:22:40:ARG:HH11	3:22:40:ARG:HB2	1.78	0.48
4:32:22:LYS:O	4:32:113:SER:HB3	2.13	0.48
4:32:178:VAL:C	4:32:180:GLY:H	2.22	0.48
4:32:199:ASN:C	4:32:201:GLN:H	2.21	0.48
4:32:199:ASN:HB3	4:32:202:LEU:HG	1.94	0.48
26:14:7:G:H2'	26:14:8:A:C8	2.49	0.48
26:14:127:A:H5"	26:14:128:C:C6	2.49	0.48
26:14:433:C:C4	26:14:434:U:O4	2.66	0.48
26:14:1198:U:H2'	26:14:1199:U:H6	1.75	0.48
26:14:1233:C:H2'	26:14:1234:U:H6	1.79	0.48
26:14:1441:G:H2'	26:14:1442:G:H8	1.79	0.48
26:14:1949:G:H2'	26:14:1950:G:O4'	2.13	0.48
29:19:242:ARG:HH11	29:19:242:ARG:H	1.61	0.48
29:19:242:ARG:O	61:19:402:HOH:O	2.20	0.48
31:39:178:PRO:HG2	31:39:179:GLU:OE1	2.14	0.48
35:15:91:LEU:O	35:15:95:PRO:HB3	2.14	0.48
41:75:87:ASP:N	41:75:87:ASP:OD1	2.45	0.48
45:B5:32:PRO:HA	45:B5:77:LYS:HB2	1.95	0.48
1:13:749:C:H2'	1:13:750:G:H8	1.78	0.48
1:13:1229:A:OP2	13:4I:114:ARG:HD3	2.13	0.48
1:13:1256:A:N6	1:13:1278:U:OP2	2.43	0.48
8:7E:98:LYS:H	8:7E:98:LYS:HD2	1.78	0.48
12:3I:28:LYS:HB2	12:3I:33:ARG:NH1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.48	0.48
24:3K:43:U:O5'	24:3K:43:U:H6	1.96	0.48
26:1H:322:A:OP2	31:31:169:ASN:HB2	2.13	0.48
26:1H:510:C:H5"	61:1H:3501:HOH:O	2.13	0.48
26:1H:782:A:C2	29:11:226:MET:HG2	2.48	0.48
26:1H:822:U:P	61:1H:3665:HOH:O	2.72	0.48
26:1H:1475:G:C2	26:1H:1519:G:C2	3.02	0.48
26:1H:1936:A:C8	26:1H:1940:U:O2	2.67	0.48
26:1H:2721:A:H2'	26:1H:2722:G:O4'	2.13	0.48
26:1H:2802:G:C5	26:1H:2803:C:H1'	2.49	0.48
27:16:13:A:O2'	27:16:14:U:H5"	2.13	0.48
30:21:116:VAL:H	30:21:157:ALA:HB2	1.78	0.48
31:31:157:VAL:HB	31:31:194:MET:HB3	1.95	0.48
38:88:59:ARG:HE	38:88:59:ARG:HB2	1.33	0.48
38:88:130:LYS:NZ	47:H8:81:ARG:HG2	2.28	0.48
49:J8:87:PRO:HB3	49:J8:91:LYS:CE	2.44	0.48
50:K8:58:ALA:O	50:K8:62:THR:HG22	2.13	0.48
53:N8:9:LYS:HD3	53:N8:9:LYS:HA	1.67	0.48
1:1G:501:C:H2'	1:1G:502:G:H8	1.79	0.48
1:1G:537:G:H5"	12:3A:113:ARG:NH1	2.28	0.48
1:1G:630:G:H5'	1:1G:631:G:OP2	2.14	0.48
1:1G:735:C:H2'	1:1G:736:C:H6	1.77	0.48
1:1G:1278:U:H4'	1:1G:1279:A:N3	2.29	0.48
3:22:18:TRP:HE1	14:5A:56:VAL:H	1.62	0.48
5:42:87:SER:OG	5:42:125:SER:HB3	2.14	0.48
5:42:144:THR:H	5:42:147:ASP:HB2	1.77	0.48
6:52:26:ILE:O	6:52:30:LEU:HG	2.13	0.48
26:14:74:A:H4'	26:14:75:G:O5'	2.13	0.48
26:14:270(S):G:H4'	49:F5:78:LYS:NZ	2.29	0.48
26:14:606:U:H4'	26:14:658:C:H4'	1.94	0.48
26:14:1019:U:H2'	26:14:1020:A:C8	2.49	0.48
26:14:1312:U:OP2	45:B5:63:LYS:HD3	2.12	0.48
26:14:1531:C:H42	26:14:1540:G:H1	1.60	0.48
26:14:1675:C:N3	30:29:128:SER:OG	2.47	0.48
26:14:2096:U:H3	26:14:2193:G:H1	1.59	0.48
26:14:2212:A:H1'	26:14:2215:G:C5	2.49	0.48
26:14:2473:U:O2	26:14:2473:U:H2'	2.13	0.48
27:1J:51:G:C6	27:1J:52:A:H2	2.32	0.48
30:29:70:ALA:O	30:29:72:VAL:HG22	2.12	0.48
40:65:23:ARG:NH2	40:65:84:GLN:HB3	2.29	0.48
41:75:5:ALA:HA	41:75:8:LYS:H	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:193:C:O2'	20:BI:64:ASP:OD2	2.31	0.48
1:13:652:U:HO2'	1:13:653:A:P	2.35	0.48
6:5E:10:LEU:HD11	6:5E:26:ILE:HD11	1.96	0.48
7:6E:53:LYS:HE2	7:6E:53:LYS:HB2	1.67	0.48
20:BI:89:ARG:HB2	20:BI:104:LEU:HD21	1.94	0.48
24:3K:11:C:H2'	24:3K:12:U:C6	2.47	0.48
26:1H:313:C:H5'	61:1H:3677:HOH:O	2.14	0.48
26:1H:1206:G:C6	26:1H:1207:C:C4	3.01	0.48
26:1H:2061:G:P	61:1H:3551:HOH:O	2.71	0.48
26:1H:2078:C:O2'	26:1H:2079:U:H5'	2.14	0.48
26:1H:2349:G:C5	26:1H:2350:C:C6	3.02	0.48
26:1H:2364:C:H4'	48:I8:56:ASP:OD1	2.13	0.48
35:58:95:PRO:O	35:58:96:GLU:CD	2.56	0.48
42:C8:90:VAL:HG12	42:C8:91:ASP:HA	1.96	0.48
47:H8:152:ALA:HB2	47:H8:169:GLU:N	2.28	0.48
47:H8:163:LEU:C	47:H8:165:VAL:H	2.21	0.48
1:1G:151:A:OP1	61:1G:1719:HOH:O	2.20	0.48
1:1G:186:C:H1'	20:BA:81:LYS:HE3	1.96	0.48
1:1G:1364:U:O2'	1:1G:1365:G:H5'	2.13	0.48
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.49	0.48
7:62:76:ARG:HD3	7:62:89:MET:SD	2.53	0.48
20:BA:25:ARG:O	20:BA:29:LYS:HG2	2.13	0.48
26:14:125:G:H1'	54:L5:13:ALA:HB1	1.96	0.48
26:14:873:G:H1'	38:45:29:PHE:HE2	1.78	0.48
26:14:1017:G:N2	26:14:1018:C:O2	2.47	0.48
26:14:1633:G:OP2	61:14:3570:HOH:O	2.20	0.48
26:14:1786:A:H1'	26:14:1938:A:N6	2.27	0.48
26:14:2022:U:O2'	26:14:2617:C:H5'	2.13	0.48
26:14:2320:A:H61	26:14:2333:A:H2'	1.79	0.48
31:39:11:VAL:HG23	31:39:12:LEU:H	1.78	0.48
41:75:6:LEU:HA	41:75:9:LEU:HB2	1.96	0.48
41:75:50:ILE:HD11	41:75:102:ILE:CD1	2.44	0.48
42:85:92:ARG:HG2	43:95:11:GLN:CD	2.39	0.48
44:A5:64:MET:HE3	44:A5:109:GLU:CD	2.38	0.48
1:13:509:A:H5"	4:3E:55:ALA:HB2	1.95	0.48
2:1E:98:LEU:HD12	2:1E:108:ILE:HD11	1.95	0.48
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.43	0.48
15:6I:6:GLU:O	15:6I:10:LYS:HG3	2.14	0.48
26:1H:528:A:N1	26:1H:2042:A:H2'	2.28	0.48
26:1H:844:C:H3'	26:1H:845:G:H8	1.79	0.48
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.13	0.48
26:1H:1265:A:H3'	53:N8:19:ARG:NH1	2.29	0.48
26:1H:1396:U:O2	26:1H:1396:U:H2'	2.12	0.48
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.13	0.48
26:1H:2111:C:H5	26:1H:2145:C:H2'	1.79	0.48
26:1H:2881:C:C2	26:1H:2882:A:C8	3.02	0.48
34:61:92:VAL:HG13	34:61:120:ILE:HG23	1.95	0.48
36:68:2:ILE:HD12	36:68:6:THR:HG21	1.95	0.48
40:A8:68:GLN:HG2	40:A8:71:ARG:HH12	1.78	0.48
42:C8:91:ASP:O	42:C8:92:ARG:C	2.56	0.48
42:C8:104:GLN:OE1	42:C8:105:VAL:HG23	2.14	0.48
45:F8:34:ALA:HA	45:F8:38:GLU:OE1	2.13	0.48
1:1G:197:A:H3'	1:1G:197:A:OP2	2.14	0.48
1:1G:397:A:H5'	1:1G:398:C:OP1	2.14	0.48
1:1G:1028(A):C:N4	1:1G:1032(B):G:H22	2.10	0.48
1:1G:1302:U:H5	13:4A:17:VAL:HG21	1.78	0.48
26:14:71:A:H2	45:B5:31:HIS:NE2	2.10	0.48
26:14:1260:G:C6	26:14:1261:C:C4	3.01	0.48
26:14:2365:G:O6	55:M5:39:LYS:NZ	2.47	0.48
30:29:26:ILE:HB	30:29:182:LEU:HB3	1.94	0.48
30:29:39:PRO:HA	30:29:43:GLY:H	1.78	0.48
31:39:3:GLU:OE1	31:39:3:GLU:N	2.47	0.48
35:15:112:LEU:HD12	35:15:112:LEU:HA	1.59	0.48
37:35:63:PRO:HD2	55:M5:27:THR:HG22	1.96	0.48
38:45:68:ILE:HD13	38:45:103:MET:HG2	1.96	0.48
39:55:96:ARG:HD3	39:55:98:LEU:HD11	1.96	0.48
41:75:23:ARG:HG3	41:75:120:ARG:NH1	2.28	0.48
42:85:65:ILE:CD1	42:85:96:ALA:HB1	2.36	0.48
45:B5:43:VAL:HG23	45:B5:51:VAL:CG2	2.43	0.48
1:13:1226:C:N4	13:4I:104:ARG:HG3	2.28	0.48
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.78	0.48
1:13:1349:A:H2'	1:13:1350:A:H8	1.79	0.48
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.96	0.48
8:7E:21:LYS:O	8:7E:63:LEU:HD23	2.14	0.48
16:7I:50:LYS:HD3	16:7I:51:VAL:N	2.29	0.48
24:3K:21:A:N6	24:3K:46:G:N3	2.62	0.48
26:1H:340:A:H2'	26:1H:341:G:O4'	2.13	0.48
26:1H:380:U:H2'	26:1H:381:G:H8	1.78	0.48
26:1H:582:G:H2'	26:1H:583:G:H8	1.77	0.48
26:1H:1328:G:H2'	26:1H:1330:C:C4	2.48	0.48
29:11:70:TRP:O	29:11:73:VAL:HG23	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:72:LYS:HE2	29:11:101:GLU:HG2	1.95	0.48
31:31:33:LEU:HD12	31:31:33:LEU:HA	1.77	0.48
32:41:25:TYR:CD2	32:41:31:VAL:HG12	2.48	0.48
32:41:33:ARG:O	32:41:162:THR:HG23	2.14	0.48
33:51:27:LYS:CG	33:51:32:GLU:HG2	2.40	0.48
35:58:47:ALA:CB	35:58:112:LEU:HD11	2.31	0.48
43:D8:50:PRO:HB2	43:D8:51:VAL:HG12	1.96	0.48
1:1G:718:G:O6	18:9A:74:ARG:NH1	2.46	0.48
1:1G:1368:G:C5'	9:82:112:LYS:HB3	2.43	0.48
2:12:19:HIS:CG	2:12:204:ASN:HB3	2.49	0.48
5:42:26:PHE:N	5:42:26:PHE:CD1	2.81	0.48
6:52:68:PRO:HG2	6:52:71:ARG:HG3	1.95	0.48
9:82:4:TYR:HD2	9:82:59:PHE:HE2	1.60	0.48
9:82:119:ALA:O	9:82:120:ARG:HB2	2.14	0.48
10:1A:30:SER:HB2	10:1A:84:GLN:OE1	2.14	0.48
10:1A:44:VAL:HG21	10:1A:66:ARG:HH21	1.78	0.48
10:1A:63:PHE:HD1	14:5A:58:LYS:HA	1.79	0.48
10:1A:92:THR:HG22	10:1A:94:VAL:HG13	1.96	0.48
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.14	0.48
17:8A:83:ASP:OD1	17:8A:84:LEU:N	2.46	0.48
26:14:90:U:HO2'	26:14:91:A:H8	1.60	0.48
26:14:867:C:C5	26:14:868:U:H5	2.31	0.48
26:14:1036:G:H2'	26:14:1037:G:O4'	2.14	0.48
26:14:1359:A:N7	26:14:1372:U:O4	2.47	0.48
26:14:1444(A):A:HO2'	26:14:1445:C:P	2.36	0.48
26:14:1969:A:H5'	61:14:3782:HOH:O	2.13	0.48
26:14:2053:G:H5'	30:29:144:ARG:O	2.13	0.48
26:14:2427:C:H5"	26:14:2428:G:OP1	2.13	0.48
27:1J:81:G:N3	27:1J:81:G:H5'	2.29	0.48
27:1J:118:G:C6	27:1J:119:A:N7	2.82	0.48
31:39:8:GLN:HG3	31:39:9:ILE:HG13	1.96	0.48
31:39:83:PHE:O	31:39:85:GLY:N	2.44	0.48
34:69:125:GLU:CD	34:69:141:LYS:HB2	2.38	0.48
55:M5:23:VAL:HG23	55:M5:49:VAL:H	1.79	0.48
1:13:111:G:H8	1:13:111:G:O5'	1.96	0.48
1:13:407:G:H2'	1:13:408:A:C8	2.49	0.48
1:13:582:U:H2'	1:13:583:A:C8	2.49	0.48
1:13:1148:U:H2'	1:13:1149:C:O4'	2.14	0.48
2:1E:146:GLN:O	2:1E:150:SER:HB3	2.14	0.48
2:1E:163:PHE:HE2	2:1E:215:LEU:HD11	1.79	0.48
17:8I:25:ARG:CZ	17:8I:27:PHE:HE2	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:270(J):G:H1	26:1H:270(P):C:H42	1.62	0.48
26:1H:607:U:N3	26:1H:621:A:C2	2.71	0.48
26:1H:996:A:H4'	42:C8:92:ARG:HE	1.79	0.48
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.78	0.48
26:1H:1693:U:H1'	29:11:14:ARG:NH2	2.29	0.48
26:1H:2688:U:H1'	26:1H:2721:A:N6	2.29	0.48
30:21:48:GLN:NE2	30:21:77:ILE:HD12	2.29	0.48
35:58:96:GLU:HB2	35:58:122:VAL:HG12	1.96	0.48
45:F8:11:PRO:HB2	45:F8:92:LEU:HD21	1.96	0.48
46:G8:87:LYS:H	46:G8:94:LYS:HG2	1.78	0.48
49:J8:8:SER:HB3	49:J8:66:HIS:CD2	2.49	0.48
1:1G:107:G:C2	1:1G:108:G:H1'	2.48	0.48
1:1G:540:G:H2'	1:1G:541:G:O4'	2.14	0.48
1:1G:922:G:N3	1:1G:1398:A:H2	2.12	0.48
1:1G:1104:G:H4'	2:12:111:ARG:HE	1.79	0.48
1:1G:1261:A:H62	1:1G:1274:G:H21	1.60	0.48
2:12:104:ASN:ND2	2:12:107:THR:HB	2.29	0.48
3:22:66:VAL:H	3:22:100:ALA:HB3	1.79	0.48
5:42:24:ARG:HB3	5:42:26:PHE:CZ	2.49	0.48
6:52:80:ARG:NH1	6:52:88:VAL:O	2.47	0.48
13:4A:49:THR:O	13:4A:53:VAL:HG13	2.14	0.48
56:1L:30:G:H8	56:1L:30:G:OP2	1.97	0.48
26:14:444:C:P	42:85:2:PRO:HD3	2.53	0.48
26:14:469:G:C6	54:L5:39:ARG:NH1	2.82	0.48
26:14:547:A:H2'	26:14:548:A:C8	2.48	0.48
26:14:638:G:C6	26:14:639:U:C4	3.02	0.48
26:14:1436:G:O2'	26:14:1477:A:H4'	2.13	0.48
26:14:2001:A:H2'	26:14:2002:G:C8	2.49	0.48
26:14:2027:G:H2'	26:14:2028:U:O4'	2.13	0.48
26:14:2050:C:H1'	30:29:156:MET:HE2	1.94	0.48
26:14:2093:G:O5'	34:69:24:GLY:HA3	2.14	0.48
26:14:2211:G:H3'	26:14:2212:A:N3	2.29	0.48
29:19:118:VAL:HG22	29:19:119:ALA:O	2.14	0.48
29:19:145:VAL:HG13	29:19:191:ALA:HB2	1.96	0.48
29:19:267:SER:O	29:19:268:ARG:HB3	2.13	0.48
30:29:95:ILE:HG22	30:29:96:PHE:CD1	2.49	0.48
38:45:74:TYR:HB3	38:45:91:GLU:HG2	1.95	0.48
39:55:85:PRO:O	39:55:88:ARG:HD2	2.14	0.48
47:D5:71:VAL:HB	47:D5:88:PHE:CE1	2.49	0.48
48:E5:29:GLN:O	48:E5:31:VAL:HG13	2.14	0.48
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:222:U:H2'	1:13:223:U:C6	2.49	0.47
1:13:883:C:C2'	1:13:884:U:H5'	2.44	0.47
1:13:1292:U:H2'	1:13:1293:G:C8	2.49	0.47
1:13:1356:G:H2'	1:13:1357:A:C8	2.48	0.47
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	1.94	0.47
9:8E:69:GLY:O	9:8E:73:GLN:HG3	2.12	0.47
21:1F:17:THR:O	21:1F:22:ARG:NH1	2.36	0.47
26:1H:330:A:C2	26:1H:1210:A:H2'	2.48	0.47
26:1H:625:G:N7	37:78:107:LYS:NZ	2.62	0.47
26:1H:649:G:C5	26:1H:650:C:C4	3.01	0.47
26:1H:805:G:H4'	26:1H:806:C:OP2	2.14	0.47
26:1H:1683:C:H2'	26:1H:1684:C:C6	2.49	0.47
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.49	0.47
26:1H:2893:G:H4'	26:1H:2894:G:O4'	2.14	0.47
28:71:192:PHE:O	28:71:196:LEU:HB2	2.14	0.47
35:58:22:THR:OG1	35:58:23:LEU:N	2.45	0.47
35:58:96:GLU:HG2	35:58:97:ARG:H	1.76	0.47
41:B8:91:ARG:HB2	41:B8:121:ILE:HG13	1.96	0.47
45:F8:9:LEU:HB2	45:F8:29:TRP:O	2.14	0.47
45:F8:12:VAL:HG13	45:F8:27:THR:O	2.14	0.47
45:F8:64:LYS:HE2	45:F8:73:ARG:NH2	2.29	0.47
48:I8:36:ILE:HD11	48:I8:39:ARG:HG2	1.95	0.47
50:K8:17:SER:H	50:K8:20:GLU:CG	2.27	0.47
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.14	0.47
1:1G:561:U:HO2'	1:1G:562:C:P	2.37	0.47
1:1G:1157:A:N7	1:1G:1181:G:H1'	2.28	0.47
1:1G:1330:U:O4	1:1G:1331:G:C2	2.67	0.47
3:22:195:VAL:C	3:22:196:LEU:HD22	2.39	0.47
56:1L:41:A:H8	56:1L:41:A:OP2	1.97	0.47
57:3L:9:A:H2'	57:3L:11:C:N4	2.28	0.47
26:14:528:A:N1	26:14:2042:A:H2'	2.29	0.47
26:14:1388:G:H2'	26:14:1389:G:H8	1.79	0.47
26:14:2615:U:C2	53:J5:7:PRO:HA	2.48	0.47
26:14:2689:U:H4'	26:14:2690:C:H5'	1.95	0.47
26:14:2811:G:OP1	30:29:61:ARG:HB3	2.13	0.47
26:14:2855:C:H2'	26:14:2856:C:C6	2.40	0.47
30:29:96:PHE:O	30:29:175:VAL:HG11	2.14	0.47
34:69:109:ILE:HB	34:69:130:TYR:CZ	2.49	0.47
36:25:64:ARG:HB2	36:25:83:ALA:HB3	1.96	0.47
43:95:35:LEU:O	43:95:37:VAL:HG22	2.14	0.47
54:L5:19:ARG:HG2	54:L5:19:ARG:NH1	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.47	0.47
1:13:1507:A:OP2	25:4K:12:A:H2	1.98	0.47
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.96	0.47
7:6E:31:MET:HE1	7:6E:36:LYS:HD2	1.96	0.47
8:7E:44:PHE:HE2	8:7E:109:ILE:HG21	1.79	0.47
11:2I:71:LYS:H	11:2I:71:LYS:HG2	1.43	0.47
11:2I:109:VAL:HA	18:9I:85:LEU:O	2.14	0.47
18:9I:59:SER:OG	18:9I:60:ALA:N	2.46	0.47
24:3K:59:A:H2'	24:3K:60:U:O4'	2.15	0.47
26:1H:140:A:H8	26:1H:1408:C:O2'	1.96	0.47
26:1H:270(H):C:H2'	26:1H:270(I):G:O4'	2.14	0.47
26:1H:370:G:H4'	26:1H:371:A:OP2	2.14	0.47
26:1H:509:C:O3'	61:1H:3589:HOH:O	2.20	0.47
26:1H:2177:C:H5"	28:71:213:TYR:CD1	2.49	0.47
26:1H:2213:U:H1'	49:J8:52:ARG:NH2	2.29	0.47
29:11:228:PRO:HG3	29:11:234:GLY:O	2.14	0.47
32:41:151:ALA:O	32:41:153:ARG:NH1	2.47	0.47
36:68:4:PRO:O	36:68:5:GLN:CB	2.63	0.47
41:B8:50:ILE:O	41:B8:99:LEU:HD12	2.13	0.47
1:1G:1007:C:H1'	1:1G:1023:G:N2	2.28	0.47
1:1G:1273:G:C2	1:1G:1274:G:H1'	2.49	0.47
6:52:11:ASN:HB3	6:52:14:LEU:HD13	1.94	0.47
15:6A:24:SER:OG	15:6A:27:VAL:HG23	2.14	0.47
18:9A:71:LYS:O	18:9A:75:ILE:HG13	2.14	0.47
21:1B:6:ARG:HE	21:1B:6:ARG:N	1.99	0.47
26:14:451:C:H41	26:14:454:A:H5'	1.78	0.47
26:14:1795:C:H2'	26:14:1796:U:H6	1.79	0.47
26:14:1952:A:C2	36:25:22:ILE:HG13	2.48	0.47
26:14:2008:C:H2'	26:14:2009:G:H8	1.78	0.47
29:19:44:ASN:ND2	29:19:48:ARG:HB2	2.28	0.47
32:49:170:ARG:HA	32:49:170:ARG:HD2	1.75	0.47
44:A5:71:VAL:HA	44:A5:107:LEU:HD12	1.94	0.47
48:E5:39:ARG:HD3	48:E5:58:THR:HG23	1.96	0.47
50:G5:16:LEU:HD21	50:G5:24:LEU:HD12	1.95	0.47
1:13:34:C:H2'	1:13:35:G:C8	2.49	0.47
1:13:191:G:H5"	1:13:192:U:OP2	2.13	0.47
1:13:444:C:H2'	1:13:445:G:O4'	2.15	0.47
1:13:626:U:N3	1:13:627:G:N7	2.62	0.47
1:13:1127:G:H1'	1:13:1148:U:H3	1.79	0.47
1:13:1288:A:N1	1:13:1371:G:H1'	2.30	0.47
1:13:1342:C:H2'	1:13:1343:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:155:LEU:HD11	2:1E:159:PRO:HD3	1.96	0.47
2:1E:163:PHE:CE2	2:1E:215:LEU:HD11	2.49	0.47
26:1H:673:C:H5"	31:31:81:PRO:HD2	1.96	0.47
26:1H:1278:A:OP1	39:98:36:THR:HG22	2.13	0.47
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.96	0.47
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.14	0.47
26:1H:1639:U:H4'	26:1H:2699:C:H4'	1.95	0.47
26:1H:2211:G:O2'	26:1H:2212:A:OP1	2.27	0.47
30:21:73:GLU:HA	30:21:74:PRO:HD2	1.57	0.47
31:31:28:ILE:O	31:31:30:PRO:HD3	2.14	0.47
31:31:63:LYS:HE3	31:31:67:GLN:HB2	1.95	0.47
33:51:135:GLY:HA3	33:51:141:VAL:CG2	2.44	0.47
44:E8:38:TYR:OH	53:N8:40:LYS:HE2	2.15	0.47
45:F8:25:LYS:HA	45:F8:81:VAL:O	2.14	0.47
49:J8:52:ARG:NH2	49:J8:55:GLY:O	2.47	0.47
1:1G:1205:U:O2'	3:22:195:VAL:HG22	2.14	0.47
1:1G:1306:A:N6	1:1G:1331:G:H1'	2.29	0.47
7:62:58:PRO:O	7:62:62:PHE:N	2.43	0.47
10:1A:48:THR:HG23	10:1A:62:HIS:HB3	1.96	0.47
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.94	0.47
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.29	0.47
25:4L:10:G:H2'	25:4L:11:U:H5"	1.96	0.47
26:14:823:G:H2'	26:14:824:A:C8	2.49	0.47
26:14:1794:U:O2'	26:14:1795:C:H5'	2.15	0.47
26:14:2723:C:O3'	39:55:1:MET:HE1	2.14	0.47
30:29:127:ASP:HA	30:29:135:HIS:CD2	2.42	0.47
39:55:38:VAL:HG12	39:55:42:LYS:HD2	1.96	0.47
45:B5:78:LYS:O	45:B5:78:LYS:HG2	2.13	0.47
47:D5:95:PRO:O	47:D5:127:LYS:HG3	2.14	0.47
49:F5:18:ILE:HG12	49:F5:37:ILE:HD11	1.96	0.47
1:13:52:G:H2'	1:13:53:A:H8	1.78	0.47
1:13:161:A:H2'	1:13:162:A:C8	2.49	0.47
1:13:178:C:H2'	1:13:179:A:O4'	2.14	0.47
1:13:191(F):U:O2	20:BI:105:SER:HB2	2.14	0.47
1:13:491:G:H2'	1:13:492:G:O4'	2.13	0.47
1:13:864:A:H2'	1:13:865:A:C8	2.50	0.47
1:13:963:G:H1	1:13:972:C:N4	2.04	0.47
20:BI:16:HIS:O	20:BI:19:SER:N	2.43	0.47
23:2K:24:C:H2'	23:2K:25:U:C6	2.49	0.47
26:1H:1264:G:H5'	53:N8:11:THR:HG21	1.97	0.47
26:1H:1364:G:C8	49:J8:2:SER:HB3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1776:G:H2'	26:1H:1776:G:N3	2.29	0.47
26:1H:2055:C:H4'	26:1H:2056:G:H5"	1.96	0.47
26:1H:2169:A:H3'	26:1H:2170:A:C8	2.49	0.47
26:1H:2232:U:OP1	49:J8:40:ARG:NH1	2.39	0.47
26:1H:2674:G:H4'	36:68:30:ALA:HB2	1.97	0.47
26:1H:2728:U:H2'	26:1H:2729:G:C8	2.50	0.47
37:78:38:GLN:HG2	37:78:45:LEU:HD12	1.94	0.47
38:88:112:GLU:H	38:88:112:GLU:CD	2.23	0.47
38:88:133:ARG:O	38:88:134:ARG:HB2	2.14	0.47
1:1G:579:G:H2'	1:1G:580:U:C6	2.50	0.47
1:1G:593:G:H1	1:1G:646:U:H3	1.60	0.47
1:1G:689:C:OP1	11:2A:27:ASN:ND2	2.47	0.47
1:1G:1129:C:N4	1:1G:1139:G:N2	2.61	0.47
3:22:44:GLU:HG3	3:22:52:LEU:HD21	1.96	0.47
5:42:24:ARG:HB3	5:42:26:PHE:HE1	1.77	0.47
9:82:32:ASP:OD1	9:82:35:GLU:HB2	2.13	0.47
11:2A:34:ASP:HB2	11:2A:35:PRO:HD2	1.95	0.47
14:5A:29:ARG:HG2	14:5A:30:ALA:H	1.79	0.47
15:6A:75:PRO:O	15:6A:78:TYR:HB3	2.14	0.47
20:BA:75:ASN:HA	20:BA:78:ALA:HB3	1.96	0.47
26:14:34:C:H1'	26:14:35:G:OP1	2.14	0.47
26:14:194:G:H2'	26:14:195:A:O4'	2.15	0.47
26:14:1567:A:O2'	29:19:63:ARG:NH2	2.47	0.47
26:14:1939:U:OP1	26:14:2604:U:O2'	2.31	0.47
26:14:2794:C:H3'	26:14:2795:G:C8	2.49	0.47
29:19:96:HIS:ND1	29:19:102:LYS:HG2	2.29	0.47
37:35:50:ARG:HH11	37:35:50:ARG:CB	2.27	0.47
41:75:36:GLU:HG2	41:75:37:GLY:N	2.30	0.47
42:85:47:TYR:HA	42:85:50:ARG:NH2	2.30	0.47
43:95:6:LYS:HE3	43:95:9:GLY:HA2	1.96	0.47
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.13	0.47
46:C5:54:LYS:HD3	46:C5:54:LYS:HA	1.71	0.47
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.67	0.47
47:D5:82:ARG:HA	47:D5:83:PRO:HD3	1.77	0.47
1:13:604:G:H2'	1:13:605:U:O4'	2.14	0.47
2:1E:97:TRP:HH2	2:1E:176:GLU:CD	2.21	0.47
3:2E:42:LEU:O	3:2E:46:GLU:HG2	2.15	0.47
4:3E:82:ALA:C	4:3E:85:LYS:HG2	2.40	0.47
6:5E:75:LEU:O	6:5E:79:LEU:HG	2.15	0.47
9:8E:25:LYS:O	9:8E:60:ASP:HA	2.14	0.47
12:3I:86:ARG:HG3	12:3I:101:VAL:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:127:A:H5"	26:1H:128:C:C6	2.49	0.47
26:1H:2128:C:C2'	26:1H:2129:C:H5'	2.45	0.47
26:1H:2685:G:H5'	36:68:68:GLU:OE1	2.14	0.47
26:1H:2781:A:H5"	26:1H:2782:G:C5'	2.44	0.47
33:51:10:PRO:HB2	33:51:50:VAL:HG13	1.96	0.47
36:68:4:PRO:O	36:68:5:GLN:HB2	2.13	0.47
37:78:126:VAL:HG13	37:78:145:PRO:HG2	1.97	0.47
42:C8:54:LYS:H	42:C8:54:LYS:HG2	1.52	0.47
47:H8:58:VAL:O	47:H8:60:GLU:N	2.45	0.47
47:H8:158:PRO:O	47:H8:161:VAL:HG22	2.13	0.47
50:K8:33:MET:HG2	50:K8:37:PHE:CE1	2.49	0.47
1:1G:8:A:C5	4:32:209:ARG:HA	2.49	0.47
1:1G:689:C:C2'	1:1G:690:G:H5'	2.45	0.47
1:1G:862:C:O2'	1:1G:863:U:H5'	2.15	0.47
1:1G:1128:C:H5"	9:82:16:ARG:NH2	2.29	0.47
1:1G:1479:C:H2'	1:1G:1480:G:O4'	2.15	0.47
2:12:168:THR:HA	2:12:171:ALA:HB2	1.96	0.47
11:2A:106:LYS:HB2	11:2A:106:LYS:NZ	2.29	0.47
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.95	0.47
19:AA:21:GLU:N	19:AA:21:GLU:OE2	2.47	0.47
26:14:91:A:H2'	26:14:92:G:O4'	2.15	0.47
26:14:107:C:H2'	26:14:108:U:H6	1.79	0.47
26:14:244:A:C2	26:14:255:A:C4	3.02	0.47
26:14:579:G:H2'	26:14:580:C:C6	2.50	0.47
26:14:686:G:N2	26:14:788:A:H61	2.12	0.47
26:14:752:A:H3'	54:L5:1:MET:SD	2.54	0.47
26:14:2646:C:H2'	26:14:2647:U:O4'	2.14	0.47
34:69:124:GLY:H	34:69:142:VAL:CG2	2.28	0.47
35:15:15:LEU:HD21	35:15:134:ARG:HH11	1.80	0.47
36:25:22:ILE:HD12	36:25:22:ILE:HA	1.47	0.47
43:95:8:GLY:O	43:95:10:LYS:HE3	2.14	0.47
47:D5:76:LEU:H	47:D5:76:LEU:HD23	1.79	0.47
1:13:998:G:N2	1:13:1043:C:O2	2.46	0.47
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.14	0.47
23:2K:20:G:C4	23:2K:58:A:C2	3.03	0.47
26:1H:301:G:C4	26:1H:302:C:C5	3.03	0.47
26:1H:375:C:H2'	26:1H:376:C:H6	1.78	0.47
26:1H:1800:C:H5"	29:11:147:LEU:HD21	1.96	0.47
26:1H:2210:G:H5'	26:1H:2211:G:C5	2.49	0.47
30:21:52:LEU:O	30:21:75:VAL:HG23	2.14	0.47
42:C8:91:ASP:OD1	42:C8:96:ALA:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:110:VAL:HG12	42:C8:114:LYS:HD2	1.96	0.47
47:H8:61:LEU:HB2	47:H8:62:PRO:HD2	1.97	0.47
1:1G:266:G:H2'	1:1G:266:G:N3	2.30	0.47
1:1G:440:A:H3'	1:1G:442:C:C6	2.50	0.47
6:52:39:LYS:H	6:52:64:GLN:HB3	1.80	0.47
13:4A:9:ILE:O	13:4A:11:ARG:HG3	2.14	0.47
26:14:7:G:C2	26:14:8:A:C4	3.03	0.47
26:14:853:G:O2'	26:14:854:G:H5'	2.14	0.47
26:14:1167:U:C2	26:14:1183:G:N2	2.82	0.47
26:14:1515:C:H2'	26:14:1516:U:H6	1.80	0.47
29:19:72:LYS:HB2	29:19:75:ILE:HD12	1.96	0.47
29:19:89:SER:HB2	29:19:159:ALA:H	1.79	0.47
30:29:9:VAL:HG12	41:75:8:LYS:NZ	2.30	0.47
31:39:108:LYS:HB2	31:39:108:LYS:NZ	2.30	0.47
31:39:123:LEU:C	31:39:125:LEU:H	2.16	0.47
32:49:84:LYS:HB3	32:49:84:LYS:HE2	1.64	0.47
32:49:174:GLU:HG3	32:49:180:PHE:HD2	1.79	0.47
37:35:18:ARG:CB	37:35:19:VAL:HA	2.45	0.47
47:D5:73:GLN:H	47:D5:87:ASP:HB2	1.78	0.47
1:13:31:G:H2'	1:13:48:C:N4	2.30	0.47
1:13:381:C:H2'	1:13:382:A:O4'	2.15	0.47
1:13:826:C:H2'	1:13:827:U:O2	2.14	0.47
2:1E:31:TYR:CD1	2:1E:31:TYR:N	2.81	0.47
2:1E:189:ASP:CG	2:1E:205:ASP:HB3	2.39	0.47
4:3E:128:VAL:O	4:3E:131:ARG:HB2	2.15	0.47
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.15	0.47
17:8I:48:GLU:O	17:8I:50:LYS:N	2.48	0.47
19:AI:6:LYS:HB3	19:AI:6:LYS:HE2	1.62	0.47
20:BI:33:ILE:O	20:BI:37:SER:OG	2.23	0.47
20:BI:49:ALA:HB2	20:BI:99:LEU:HD23	1.95	0.47
22:1K:23:A:H2'	22:1K:24:G:C8	2.49	0.47
26:1H:70:G:H21	26:1H:71:A:H62	1.62	0.47
26:1H:143:C:H5'	45:F8:35:THR:HG21	1.96	0.47
26:1H:280:C:C2	26:1H:361:G:N2	2.83	0.47
26:1H:287:C:H2'	26:1H:288:C:H6	1.79	0.47
26:1H:389:G:H1	37:78:71:VAL:HG12	1.78	0.47
26:1H:602:G:H3'	26:1H:654(V):A:H61	1.80	0.47
26:1H:633:A:H2'	26:1H:634:C:H5'	1.96	0.47
26:1H:806:C:C2	26:1H:807:U:C5	3.03	0.47
26:1H:833:U:O2	37:78:55:ARG:NH2	2.42	0.47
26:1H:858:U:O2	26:1H:2268:A:H2'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:934:G:H2'	26:1H:935:C:C6	2.50	0.47
26:1H:1274:A:N1	26:1H:1644:C:O2'	2.36	0.47
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.15	0.47
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.77	0.47
26:1H:1529:A:H2'	26:1H:1530:G:O4'	2.13	0.47
26:1H:1537:C:O5'	26:1H:1537:C:H6	1.98	0.47
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.50	0.47
26:1H:2147:G:P	26:1H:2147:G:H8	2.38	0.47
26:1H:2359:C:OP1	55:Q8:52:LYS:NZ	2.45	0.47
26:1H:2402:C:H2'	26:1H:2403:C:H5'	1.96	0.47
26:1H:2636:U:H2'	26:1H:2637:U:C6	2.49	0.47
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.95	0.47
27:16:7:G:O5'	40:A8:29:PHE:CE2	2.67	0.47
32:41:167:GLU:O	32:41:170:ARG:HB3	2.15	0.47
33:51:46:GLU:CD	33:51:51:ARG:HH12	2.22	0.47
35:58:14:VAL:HG12	35:58:15:LEU:H	1.79	0.47
37:78:139:LYS:HB3	37:78:139:LYS:HE3	1.69	0.47
41:B8:99:LEU:HB3	41:B8:101:PHE:CE1	2.50	0.47
42:C8:8:VAL:HG23	42:C8:11:ARG:NH2	2.29	0.47
45:F8:55:ASN:HB2	45:F8:80:ILE:HG12	1.96	0.47
47:H8:61:LEU:HD21	47:H8:65:GLN:HB2	1.97	0.47
1:1G:287:U:H2'	1:1G:288:A:C8	2.50	0.47
1:1G:410:G:N1	1:1G:429:U:O2	2.48	0.47
1:1G:603:U:H2'	1:1G:604:G:C8	2.50	0.47
1:1G:801:U:H2'	1:1G:802:A:H8	1.80	0.47
1:1G:1230:C:H2'	1:1G:1231:G:C8	2.50	0.47
1:1G:1422:G:H2'	1:1G:1423:G:H8	1.79	0.47
1:1G:1497:G:H2'	1:1G:1498:U:H5'	1.97	0.47
2:12:16:HIS:NE2	2:12:213:LEU:HD13	2.30	0.47
3:22:67:THR:HG23	3:22:102:ASN:HB2	1.96	0.47
3:22:70:VAL:HG12	3:22:72:LYS:H	1.79	0.47
4:32:111:ALA:HB3	4:32:117:ALA:HB2	1.97	0.47
8:72:9:MET:HE1	8:72:32:LYS:HA	1.95	0.47
13:4A:58:GLU:O	13:4A:62:ASN:ND2	2.47	0.47
19:AA:66:MET:HG3	19:AA:67:VAL:O	2.14	0.47
25:4L:6:G:H21	25:4L:7:G:N2	2.13	0.47
26:14:308:G:H1'	26:14:501:A:OP1	2.14	0.47
26:14:311:A:C6	26:14:328:U:C4	3.03	0.47
26:14:616:A:C8	31:39:176:LEU:HD11	2.50	0.47
26:14:801:G:OP2	61:14:3572:HOH:O	2.20	0.47
26:14:1259:G:H2'	26:14:1260:G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1742:C:H5'	26:14:1743:G:OP2	2.14	0.47
26:14:2392:A:H2	26:14:2424:C:N4	2.12	0.47
26:14:2846:G:H2'	26:14:2847:U:O4'	2.15	0.47
27:1J:14:U:H4'	27:1J:70:C:O2	2.15	0.47
30:29:65:GLY:C	30:29:68:ALA:H	2.23	0.47
30:29:81:ILE:O	30:29:82:ARG:HB2	2.15	0.47
31:39:28:ILE:HA	31:39:112:MET:CE	2.42	0.47
32:49:173:LEU:HD13	32:49:178:PHE:CD2	2.50	0.47
35:15:67:LEU:O	35:15:88:GLU:HG3	2.14	0.47
41:75:4:GLY:HA2	41:75:7:ILE:HG23	1.96	0.47
1:13:232:G:H1'	1:13:262:A:N1	2.29	0.47
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.15	0.47
4:3E:65:ARG:HD2	4:3E:70:ILE:O	2.14	0.47
4:3E:82:ALA:O	4:3E:85:LYS:HG2	2.15	0.47
5:4E:81:GLU:HG2	5:4E:90:VAL:HB	1.96	0.47
6:5E:72:VAL:CG2	6:5E:90:VAL:HG11	2.45	0.47
10:1I:46:ARG:HB2	10:1I:46:ARG:HH11	1.78	0.47
13:4I:101:GLN:HB3	13:4I:102:ARG:H	1.57	0.47
24:3K:5:C:O2'	24:3K:68:G:N2	2.48	0.47
26:1H:71:A:H5"	26:1H:72:U:H3'	1.96	0.47
26:1H:140:A:C8	26:1H:1408:C:O2'	2.67	0.47
26:1H:302:C:O2'	26:1H:303:U:H5'	2.15	0.47
26:1H:516:C:OP1	53:N8:13:LYS:NZ	2.39	0.47
26:1H:1793:C:H2'	26:1H:1794:U:H6	1.80	0.47
26:1H:2393:A:O2'	26:1H:2394:C:H5'	2.15	0.47
26:1H:2435:A:C2'	26:1H:2436:G:O5'	2.63	0.47
26:1H:2679:A:H4'	30:21:165:VAL:HG11	1.96	0.47
27:16:44:G:H1'	27:16:47:C:N4	2.30	0.47
30:21:14:ILE:HD13	30:21:14:ILE:HA	1.68	0.47
30:21:111:ARG:H	30:21:111:ARG:HG2	1.59	0.47
35:58:42:TRP:O	42:C8:64:ARG:NH2	2.35	0.47
37:78:71:VAL:CG1	37:78:72:PRO:HD3	2.44	0.47
38:88:110:THR:HG23	38:88:113:GLN:OE1	2.15	0.47
38:88:134:ARG:NH1	47:H8:122:ARG:HD2	2.30	0.47
47:H8:121:HIS:HB2	47:H8:171:ILE:HG23	1.97	0.47
1:1G:416:G:H2'	1:1G:417:C:C6	2.49	0.47
1:1G:794:A:C6	1:1G:795:C:N3	2.83	0.47
1:1G:1075:C:H5"	2:12:179:LYS:HE2	1.97	0.47
1:1G:1189:C:OP1	10:1A:51:ARG:NH1	2.48	0.47
2:12:86:GLU:HB3	2:12:92:TYR:HE2	1.80	0.47
13:4A:81:LEU:HD13	13:4A:81:LEU:HA	1.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:9:VAL:HG22	19:AA:10:PHE:H	1.79	0.47
56:1L:2:G:H1	56:1L:71:C:H42	1.63	0.47
26:14:130:C:O3'	26:14:1349:A:H1'	2.15	0.47
26:14:329:G:P	46:C5:71:LYS:HE3	2.54	0.47
26:14:602:G:OP2	26:14:602:G:H8	1.98	0.47
26:14:830:G:H4'	26:14:831:G:OP2	2.15	0.47
26:14:914:C:N3	26:14:915:C:H1'	2.29	0.47
26:14:1461:G:H2'	26:14:1462:C:H6	1.79	0.47
26:14:2286:A:H4'	26:14:2287:A:O4'	2.15	0.47
26:14:2591:C:OP1	29:19:239:ARG:HG3	2.15	0.47
26:14:2788:C:H5'	30:29:61:ARG:NH1	2.29	0.47
26:14:2836:U:C4	26:14:2883:A:N6	2.82	0.47
32:49:53:LEU:O	32:49:57:ALA:HB2	2.14	0.47
34:69:69:LYS:HD2	34:69:136:VAL:HG13	1.95	0.47
35:15:133:GLN:HB3	35:15:134:ARG:H	1.44	0.47
42:85:92:ARG:O	42:85:94:ASN:N	2.46	0.47
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.29	0.47
53:J5:56:LYS:HB2	53:J5:56:LYS:NZ	2.28	0.47
1:13:405:U:OP2	4:3E:3:ARG:NH2	2.48	0.47
1:13:509:A:H5'	4:3E:54:TYR:CD2	2.50	0.47
1:13:954:G:H2'	1:13:955:U:C6	2.49	0.47
1:13:1203:C:H2'	1:13:1204:A:O4'	2.15	0.47
1:13:1228:C:H2'	1:13:1229:A:H8	1.79	0.47
1:13:1397:C:H4'	1:13:1398:A:OP2	2.14	0.47
1:13:1432:G:OP1	41:B8:107:ASP:HB2	2.15	0.47
2:1E:69:LEU:HD12	2:1E:70:PHE:H	1.79	0.47
8:7E:106:GLY:HA2	8:7E:122:ARG:HH12	1.80	0.47
11:2I:83:ILE:HA	11:2I:109:VAL:HG23	1.97	0.47
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.15	0.47
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.80	0.47
26:1H:25:U:H2'	26:1H:26:G:C8	2.50	0.47
26:1H:426:C:H2'	26:1H:427:U:H6	1.80	0.47
26:1H:485:C:H2'	26:1H:486:C:C6	2.50	0.47
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.50	0.47
26:1H:1602:U:O4	61:1H:3507:HOH:O	2.20	0.47
26:1H:2124:G:O6	26:1H:2125:G:N2	2.48	0.47
26:1H:2134:A:O2'	26:1H:2159:G:N2	2.40	0.47
26:1H:2784:C:O2	30:21:37:ARG:NH1	2.47	0.47
33:51:6:ARG:HB3	33:51:65:HIS:CG	2.50	0.47
1:1G:442:C:H2'	1:1G:443:C:C6	2.50	0.47
1:1G:853:G:O2'	1:1G:854:G:H5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1002:G:N2	1:1G:1003:G:H1'	2.30	0.47
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.50	0.47
1:1G:1368:G:H2'	1:1G:1369:C:H5'	1.97	0.47
26:14:776:G:H4'	26:14:777:A:O5'	2.15	0.47
26:14:861:A:N3	27:1J:79:C:O2'	2.47	0.47
26:14:1404:C:C2'	26:14:1405:U:H5'	2.45	0.47
26:14:1752:C:P	41:75:115:ARG:HH22	2.38	0.47
36:25:119:PRO:HB2	41:75:68:TYR:CE2	2.50	0.47
41:75:50:ILE:HG22	41:75:62:THR:OG1	2.15	0.47
44:A5:82:LEU:HD13	44:A5:84:ARG:NH2	2.29	0.47
45:B5:21:PHE:CZ	45:B5:92:LEU:HD23	2.49	0.47
47:D5:39:VAL:HG21	47:D5:44:PHE:HD2	1.79	0.47
1:13:657:G:H4'	15:6I:28:GLN:HG2	1.97	0.47
1:13:972:C:O3'	10:1I:57:LYS:HD3	2.15	0.47
1:13:1107:C:C4	1:13:1108:G:C8	3.03	0.47
1:13:1252:A:H2'	1:13:1253:G:O4'	2.15	0.47
6:5E:3:ARG:NH1	6:5E:38:GLU:OE2	2.48	0.47
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.14	0.47
26:1H:68:G:H2'	26:1H:69:C:O4'	2.15	0.47
26:1H:161:U:H1'	26:1H:171:G:N2	2.30	0.47
26:1H:288:C:H2'	26:1H:289:A:C8	2.50	0.47
26:1H:2027:G:C5	26:1H:2028:U:C5	3.03	0.47
27:16:12:C:O2	48:I8:74:ARG:HD3	2.15	0.47
27:16:12:C:H2'	48:I8:73:GLY:HA3	1.97	0.47
27:16:48:A:OP2	40:A8:30:ARG:NH2	2.48	0.47
32:41:36:LYS:HG3	32:41:95:ARG:NH1	2.30	0.47
32:41:67:LYS:H	32:41:67:LYS:HE2	1.79	0.47
36:68:13:ASN:ND2	36:68:97:ARG:HB2	2.30	0.47
41:B8:50:ILE:HD12	41:B8:50:ILE:HA	1.64	0.47
42:C8:79:PHE:CE1	42:C8:83:LEU:HD21	2.50	0.47
43:D8:24:LYS:HG3	43:D8:92:THR:HG23	1.97	0.47
44:E8:14:PRO:O	44:E8:18:ARG:HB2	2.14	0.47
1:1G:409:G:H2'	1:1G:410:G:O4'	2.15	0.47
1:1G:1212:U:H4'	1:1G:1213:A:C8	2.50	0.47
1:1G:1306:A:N6	1:1G:1331:G:O2'	2.48	0.47
1:1G:1367:C:N3	1:1G:1368:G:C8	2.83	0.47
2:12:156:LYS:HB3	2:12:157:ARG:HE	1.79	0.47
5:42:31:LEU:HD11	5:42:43:LEU:HD12	1.96	0.47
13:4A:52:GLU:O	13:4A:56:LEU:HD12	2.14	0.47
18:9A:38:GLU:OE2	18:9A:39:VAL:HG23	2.14	0.47
56:1L:7:U:C4	56:1L:49:G:N7	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:55:G:H2'	26:14:56:A:C8	2.50	0.47
26:14:55:G:H2'	26:14:56:A:H8	1.80	0.47
26:14:588:U:H2'	26:14:589:C:C6	2.50	0.47
26:14:635:C:H2'	26:14:636:G:O4'	2.14	0.47
26:14:2283:C:C2	26:14:2389:G:C2	3.03	0.47
26:14:2608:G:H5"	26:14:2609:U:OP1	2.15	0.47
26:14:2762:G:C8	26:14:2762:G:H5"	2.49	0.47
26:14:2887:U:H2'	26:14:2888:C:H6	1.77	0.47
27:1J:28:C:N3	27:1J:56:G:N2	2.57	0.47
29:19:133:LEU:HB3	29:19:173:VAL:HG11	1.97	0.47
29:19:137:PRO:O	29:19:140:THR:HG23	2.14	0.47
32:49:145:THR:O	32:49:146:TYR:HB3	2.14	0.47
39:55:87:TYR:HD1	39:55:90:ARG:HE	1.63	0.47
54:L5:34:ARG:HG2	54:L5:39:ARG:HG3	1.95	0.47
1:13:67:C:H2'	1:13:68:G:C8	2.42	0.46
1:13:517:G:H5'	1:13:519:C:C2	2.50	0.46
1:13:789:U:H3'	1:13:789:U:O2	2.15	0.46
1:13:935:A:N6	7:6E:3:ARG:HG2	2.30	0.46
1:13:1079:G:H2'	1:13:1080:A:C8	2.50	0.46
1:13:1280:A:C3'	1:13:1281:U:H5'	2.45	0.46
1:13:1305:G:OP2	1:13:1305:G:C8	2.68	0.46
2:1E:209:ARG:NH1	2:1E:236:TYR:HA	2.30	0.46
9:8E:25:LYS:HG2	9:8E:26:VAL:N	2.28	0.46
12:3I:7:ILE:CD1	17:8I:32:TYR:HB3	2.45	0.46
20:BI:38:LYS:HA	20:BI:41:ILE:HD11	1.97	0.46
24:3K:5:C:H42	24:3K:65:C:H42	1.63	0.46
24:3K:18:G:H1'	24:3K:58:A:C5	2.50	0.46
26:1H:1519:G:C2'	26:1H:1520:U:H5'	2.46	0.46
26:1H:1528:A:C2	26:1H:1542:G:C2	3.03	0.46
26:1H:1709:U:H2'	26:1H:1710:C:C6	2.50	0.46
27:16:31:C:H2'	27:16:32:C:H6	1.80	0.46
31:31:64:ILE:HA	31:31:64:ILE:HD12	1.53	0.46
33:51:59:ARG:HA	33:51:62:LYS:HD3	1.95	0.46
33:51:152:ARG:HG3	33:51:161:GLY:HA2	1.96	0.46
33:51:154:PRO:HA	33:51:161:GLY:HA3	1.96	0.46
37:78:84:ASN:HB3	37:78:86:LYS:HG2	1.97	0.46
40:A8:88:ASP:OD1	40:A8:89:ARG:N	2.49	0.46
41:B8:132:LYS:HG2	41:B8:133:GLU:HG2	1.98	0.46
1:1G:942:G:H2'	1:1G:943:U:H6	1.79	0.46
1:1G:1003:G:N2	1:1G:1038:C:O2	2.47	0.46
1:1G:1053:G:C6	1:1G:1199:U:H2'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.29	0.46
1:1G:1432:G:OP1	41:75:107:ASP:HB2	2.15	0.46
2:12:105:PHE:HA	2:12:108:ILE:HB	1.97	0.46
26:14:742:G:H4'	26:14:1676:A:H5'	1.97	0.46
26:14:1289:C:H2'	26:14:1290:C:C6	2.48	0.46
26:14:2128:C:H3'	26:14:2129:C:C4'	2.45	0.46
26:14:2275:C:C6	26:14:2275:C:H5'	2.51	0.46
26:14:2575:C:H2'	26:14:2578:G:O6	2.14	0.46
26:14:2823:A:OP1	30:29:113:PHE:HB2	2.15	0.46
27:1J:57:A:N3	32:49:29:TRP:HB3	2.31	0.46
40:65:24:LEU:HD23	40:65:41:ASP:HB2	1.96	0.46
42:85:91:ASP:C	42:85:92:ARG:HG3	2.40	0.46
46:C5:5:MET:HE2	46:C5:30:VAL:HG13	1.97	0.46
47:D5:130:PRO:HA	47:D5:133:ILE:HD11	1.97	0.46
49:F5:40:ARG:NH2	49:F5:42:GLN:HE21	2.13	0.46
1:13:452:A:O2'	1:13:453:A:O5'	2.33	0.46
1:13:711:G:O2'	1:13:712:A:H5'	2.15	0.46
1:13:714:G:H2'	1:13:715:A:C8	2.50	0.46
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.83	0.46
13:4I:12:ASN:HA	13:4I:46:LYS:NZ	2.24	0.46
17:8I:89:LEU:HA	17:8I:89:LEU:HD13	1.73	0.46
26:1H:17:G:H2'	26:1H:18:C:H6	1.81	0.46
26:1H:99:U:C6	26:1H:102:G:N1	2.84	0.46
26:1H:546:C:H5'	26:1H:547:A:OP2	2.15	0.46
26:1H:665:C:H2'	26:1H:666:G:C8	2.50	0.46
26:1H:757:U:H2'	26:1H:758:C:O4'	2.15	0.46
26:1H:1171:G:C2	26:1H:1179:C:N3	2.83	0.46
26:1H:1244:G:H5'	37:78:7:ARG:HB2	1.97	0.46
26:1H:2148:G:H8	26:1H:2148:G:O5'	1.97	0.46
27:16:31:C:H2'	27:16:32:C:C6	2.50	0.46
35:58:85:ILE:HA	35:58:85:ILE:HD13	1.72	0.46
1:1G:678:U:H2'	1:1G:679:C:C6	2.49	0.46
1:1G:1431:C:H2'	1:1G:1432:G:O4'	2.15	0.46
4:32:24:GLU:H	4:32:24:GLU:HG2	1.61	0.46
16:7A:25:ARG:HH11	16:7A:25:ARG:HG3	1.80	0.46
17:8A:20:THR:HG23	17:8A:43:LEU:CD2	2.45	0.46
17:8A:45:HIS:NE2	17:8A:47:PRO:HB3	2.31	0.46
57:3L:76:A:O2'	26:14:2394:C:O2	2.30	0.46
26:14:247:G:H4'	26:14:386:G:C5	2.50	0.46
26:14:722:A:H3'	26:14:723:G:H8	1.80	0.46
26:14:802:A:H4'	61:14:4050:HOH:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:901:A:H3'	26:14:902:C:C6	2.51	0.46
26:14:987:G:O2'	26:14:1000:A:N3	2.42	0.46
26:14:1793:C:H2'	26:14:1794:U:H6	1.79	0.46
61:14:3890:HOH:O	29:19:238:GLY:HA3	2.15	0.46
27:1J:60:C:H2'	27:1J:61:G:C8	2.50	0.46
29:19:16:MET:HG3	29:19:206:LEU:O	2.16	0.46
39:55:36:THR:OG1	39:55:37:THR:N	2.41	0.46
40:65:24:LEU:CD2	40:65:41:ASP:HB2	2.45	0.46
46:C5:88:LYS:O	46:C5:89:PHE:HB3	2.15	0.46
47:D5:28:MET:HE1	47:D5:67:LEU:HD13	1.96	0.46
1:13:66:G:O4'	1:13:173:U:C4	2.69	0.46
1:13:517:G:N3	1:13:531:U:H5'	2.31	0.46
1:13:1194:U:H2'	1:13:1195:C:C6	2.50	0.46
2:1E:28:PHE:CD1	2:1E:194:PRO:HD3	2.50	0.46
3:2E:30:ARG:HG3	3:2E:31:HIS:N	2.29	0.46
4:3E:61:LYS:HA	4:3E:203:VAL:HG22	1.96	0.46
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.97	0.46
20:BI:58:LYS:O	20:BI:61:SER:HB3	2.15	0.46
26:1H:259:G:O2'	26:1H:621:A:O2'	2.17	0.46
26:1H:1820:U:H4'	26:1H:1821:A:OP2	2.16	0.46
26:1H:2448:A:N6	61:1H:3739:HOH:O	2.45	0.46
30:21:105:THR:HG1	30:21:199:ARG:NH2	2.13	0.46
31:31:160:ASN:OD1	31:31:163:VAL:HG23	2.15	0.46
34:61:72:LEU:HD21	34:61:107:VAL:HG21	1.97	0.46
35:58:10:GLU:HA	35:58:11:PRO:HD3	1.81	0.46
37:78:6:LEU:HA	37:78:6:LEU:HD12	1.57	0.46
39:98:61:HIS:O	39:98:64:ARG:N	2.48	0.46
40:A8:67:ARG:O	40:A8:71:ARG:HG3	2.14	0.46
46:G8:85:VAL:C	46:G8:86:ARG:HD3	2.40	0.46
1:1G:555:C:H2'	1:1G:556:C:C6	2.51	0.46
1:1G:580:U:H2'	1:1G:581:G:C8	2.50	0.46
1:1G:1118:C:H42	1:1G:1155:G:H1	1.63	0.46
1:1G:1252:A:H2'	1:1G:1253:G:O4'	2.15	0.46
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.49	0.46
3:22:195:VAL:O	3:22:196:LEU:HD13	2.16	0.46
4:32:13:ARG:HD2	4:32:38:TYR:O	2.14	0.46
4:32:119:GLN:O	4:32:123:HIS:CD2	2.68	0.46
7:62:50:ILE:O	7:62:54:THR:HG23	2.15	0.46
8:72:121:ASP:O	8:72:125:ARG:HG3	2.16	0.46
16:7A:4:ILE:HB	16:7A:66:PRO:HA	1.97	0.46
23:2L:1:C:H4'	38:45:87:LYS:NZ	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:4L:6:G:H21	25:4L:7:G:H22	1.63	0.46
26:14:755:C:H2'	26:14:756:C:C6	2.49	0.46
26:14:1500:G:O2'	29:19:100:GLY:O	2.22	0.46
26:14:1515:C:H2'	26:14:1516:U:C6	2.51	0.46
26:14:2210:G:H2'	26:14:2211:G:C2	2.50	0.46
26:14:2688:U:H1'	26:14:2721:A:N6	2.30	0.46
35:15:47:ALA:HB2	35:15:112:LEU:HD21	1.96	0.46
35:15:56:ASN:N	35:15:125:GLY:HA3	2.28	0.46
40:65:69:VAL:O	40:65:72:ALA:HB3	2.15	0.46
49:F5:91:LYS:HG3	49:F5:92:LYS:N	2.29	0.46
50:G5:32:LEU:HD21	50:G5:54:LYS:HG2	1.98	0.46
1:13:446:G:H1	1:13:488:C:H42	1.63	0.46
1:13:1059:C:H2'	1:13:1060:C:H6	1.81	0.46
1:13:1157:A:N6	1:13:1178:G:H21	2.11	0.46
1:13:1263:C:H2'	1:13:1264:C:C6	2.49	0.46
1:13:1275:A:H2'	1:13:1276:G:O4'	2.16	0.46
4:3E:148:VAL:HG12	4:3E:149:ALA:O	2.15	0.46
10:1I:82:ILE:HA	10:1I:85:LEU:HB2	1.97	0.46
26:1H:142:G:H1'	45:F8:37:THR:CG2	2.46	0.46
26:1H:632:A:O2'	26:1H:633:A:H5'	2.15	0.46
26:1H:686:G:H8	54:P8:6:GLN:O	1.97	0.46
27:16:73:A:C4	27:16:104:A:C2	3.04	0.46
29:11:16:MET:HE1	29:11:208:LYS:CD	2.40	0.46
31:31:20:LEU:HD12	31:31:21:ALA:N	2.31	0.46
31:31:53:THR:N	31:31:56:GLU:OE1	2.47	0.46
31:31:103:LYS:HG2	31:31:106:ARG:HH21	1.80	0.46
38:88:32:TYR:OH	38:88:111:GLU:HB2	2.15	0.46
40:A8:29:PHE:CD1	40:A8:29:PHE:C	2.91	0.46
46:G8:15:VAL:HB	46:G8:20:TYR:O	2.15	0.46
47:H8:150:LEU:HD23	47:H8:151:HIS:N	2.31	0.46
55:Q8:23:VAL:O	55:Q8:23:VAL:HG12	2.15	0.46
1:1G:406:G:N2	4:32:119:GLN:HE22	2.13	0.46
1:1G:606:G:H22	1:1G:631:G:H1'	1.80	0.46
1:1G:722:A:H5"	1:1G:723:U:OP2	2.14	0.46
1:1G:989:C:C2'	1:1G:990:C:H5'	2.45	0.46
3:22:13:GLY:HA3	14:5A:57:ARG:HD3	1.97	0.46
11:2A:46:GLY:HA2	11:2A:50:TYR:O	2.16	0.46
19:AA:10:PHE:HB2	19:AA:39:THR:OG1	2.16	0.46
57:3L:58:A:O2'	57:3L:60:U:H5	1.97	0.46
26:14:511:U:C5	26:14:512:G:C5	3.04	0.46
26:14:571:A:H5'	26:14:2030:A:N7	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:901:A:H3'	26:14:902:C:H6	1.81	0.46
26:14:1678:G:H8	26:14:1678:G:O5'	1.99	0.46
26:14:1832:C:N4	26:14:1833:U:C4	2.84	0.46
26:14:1893:C:C2'	26:14:1894:C:H5'	2.45	0.46
26:14:2296:U:OP2	40:65:6:ALA:HB2	2.16	0.46
26:14:2461:C:H2'	26:14:2462:U:H6	1.79	0.46
26:14:2808:U:H5"	26:14:2891:G:O6	2.15	0.46
27:1J:45:A:OP1	32:49:95:ARG:HD2	2.14	0.46
29:19:36:PRO:O	29:19:61:LEU:HD12	2.16	0.46
31:39:41:LEU:HA	31:39:44:ARG:HD3	1.97	0.46
32:49:61:ALA:HB2	32:49:68:PRO:HD3	1.98	0.46
35:15:30:ILE:HG22	35:15:34:LEU:HD22	1.96	0.46
36:25:107:ARG:HG2	36:25:115:VAL:HG21	1.97	0.46
37:35:6:LEU:HD12	37:35:6:LEU:HA	1.63	0.46
37:35:78:PRO:HB3	37:35:111:ARG:NE	2.29	0.46
38:45:19:GLY:O	38:45:98:LYS:HD2	2.16	0.46
43:95:37:VAL:HG11	43:95:57:VAL:HG13	1.97	0.46
47:D5:30:ASN:HB3	47:D5:90:VAL:HB	1.98	0.46
47:D5:52:SER:O	47:D5:53:ILE:HG12	2.14	0.46
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.16	0.46
1:13:614:A:H2'	1:13:615:C:C6	2.49	0.46
1:13:706:A:N3	11:2I:31:THR:HG21	2.31	0.46
1:13:902:G:H2'	1:13:903:G:H8	1.81	0.46
1:13:1145:C:H4'	1:13:1146:A:O5'	2.16	0.46
1:13:1510:U:H2'	1:13:1511:G:C8	2.51	0.46
4:3E:81:GLU:O	4:3E:82:ALA:CB	2.64	0.46
4:3E:85:LYS:NZ	4:3E:90:GLY:HA3	2.30	0.46
13:4I:108:ARG:HA	13:4I:108:ARG:HH11	1.80	0.46
16:7I:58:TYR:O	16:7I:62:VAL:HG22	2.16	0.46
20:BI:49:ALA:HB1	20:BI:99:LEU:HB2	1.98	0.46
22:1K:3:G:H1	22:1K:71:C:H1'	1.81	0.46
26:1H:1654:A:H1'	26:1H:2823:A:H5'	1.97	0.46
26:1H:2507:C:H5'	26:1H:2573:C:N4	2.31	0.46
33:51:43:VAL:HB	33:51:52:VAL:HG22	1.97	0.46
37:78:85:LEU:HD13	37:78:120:ALA:HB2	1.97	0.46
37:78:116:GLY:N	37:78:134:ALA:HB2	2.29	0.46
1:1G:1169:A:H3'	1:1G:1170:A:H8	1.81	0.46
1:1G:1246:C:O5'	1:1G:1246:C:H6	1.99	0.46
4:32:101:LEU:HD23	4:32:121:VAL:HG11	1.97	0.46
4:32:172:PRO:HB2	4:32:187:ARG:HH12	1.81	0.46
7:62:15:ASP:HB3	7:62:20:ASP:H	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:120:THR:HG22	8:72:123:GLU:HG3	1.96	0.46
11:2A:17:GLY:HA3	11:2A:77:MET:SD	2.55	0.46
26:14:848:G:C2	26:14:933:A:H1'	2.49	0.46
26:14:2365:G:H4'	48:E5:60:PHE:CZ	2.51	0.46
26:14:2378:A:O2'	40:65:21:THR:HG21	2.15	0.46
26:14:2748:A:H2'	26:14:2749:A:H8	1.79	0.46
26:14:2754:U:H2'	26:14:2755:C:H5"	1.98	0.46
26:14:2849:U:OP2	41:75:95:ARG:NH1	2.49	0.46
26:14:2895:U:H2'	26:14:2896:C:H5	1.80	0.46
27:1J:44:G:H5"	27:1J:45:A:OP1	2.16	0.46
27:1J:44:G:H1'	27:1J:47:C:H42	1.80	0.46
30:29:24:THR:HG21	30:29:187:ALA:HA	1.98	0.46
31:39:72:ARG:HB3	31:39:72:ARG:HH11	1.81	0.46
33:59:158:HIS:O	33:59:158:HIS:ND1	2.46	0.46
34:69:78:THR:C	34:69:80:PRO:HD3	2.41	0.46
34:69:138:ILE:HG12	34:69:139:GLN:N	2.29	0.46
37:35:88:LEU:HD12	37:35:88:LEU:O	2.15	0.46
45:B5:18:TYR:O	45:B5:20:GLY:N	2.48	0.46
45:B5:35:THR:HG23	45:B5:38:GLU:HB3	1.97	0.46
46:C5:28:LYS:O	46:C5:38:ILE:HB	2.15	0.46
50:G5:45:SER:O	50:G5:45:SER:OG	2.34	0.46
55:M5:23:VAL:HG23	55:M5:49:VAL:N	2.31	0.46
1:13:131:C:O2	1:13:131:C:H2'	2.16	0.46
1:13:156:G:H1'	1:13:166:G:H22	1.80	0.46
1:13:1535:C:H2'	1:13:1536:C:C5	2.50	0.46
2:1E:111:ARG:HA	2:1E:111:ARG:HD2	1.61	0.46
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.51	0.46
5:4E:110:LEU:HB3	5:4E:115:VAL:HG11	1.97	0.46
11:2I:21:ILE:O	11:2I:85:ARG:N	2.41	0.46
26:1H:65:C:H2'	26:1H:66:C:C6	2.51	0.46
26:1H:176:G:C2'	26:1H:177:G:H5'	2.45	0.46
26:1H:278:A:H5'	26:1H:279:C:C5	2.50	0.46
26:1H:651:G:H4'	55:Q8:18:ALA:HB3	1.98	0.46
26:1H:1045:A:H4'	26:1H:1045:A:OP1	2.15	0.46
26:1H:1394:U:H4'	26:1H:1603:A:H4'	1.97	0.46
26:1H:1833:U:H2'	26:1H:1834:U:H6	1.80	0.46
26:1H:1949:G:C6	26:1H:1950:G:C5	3.03	0.46
26:1H:2572:A:N7	30:21:145:LYS:HB2	2.30	0.46
29:11:30:GLU:OE2	29:11:63:ARG:NE	2.33	0.46
31:31:127:GLU:O	31:31:129:PHE:N	2.49	0.46
40:A8:5:THR:O	40:A8:8:GLU:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M8:23:GLU:C	52:M8:25:TYR:H	2.15	0.46
1:1G:452:A:O2'	1:1G:453:A:O5'	2.34	0.46
1:1G:1187:G:O5'	1:1G:1187:G:H8	1.97	0.46
5:42:147:ASP:O	5:42:151:LEU:HG	2.16	0.46
6:52:91:VAL:HG11	18:9A:72:ARG:NH1	2.31	0.46
8:72:49:GLU:OE2	8:72:62:TYR:OH	2.33	0.46
12:3A:94:PRO:O	12:3A:96:VAL:HG23	2.15	0.46
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.16	0.46
26:14:380:U:H2'	26:14:381:G:H8	1.80	0.46
26:14:1110:G:C6	26:14:1111:A:N6	2.84	0.46
26:14:1161:C:H4'	43:95:8:GLY:HA2	1.96	0.46
26:14:1537:C:H2'	26:14:1538:G:H8	1.80	0.46
26:14:2312:U:O2	32:49:42:GLY:HA3	2.15	0.46
27:1J:12:C:H6	27:1J:12:C:OP2	1.98	0.46
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.45	0.46
30:29:181:LEU:HA	30:29:181:LEU:HD12	1.73	0.46
31:39:51:THR:HG23	31:39:92:PRO:HG2	1.97	0.46
39:55:59:ASP:OD2	39:55:61:HIS:HB3	2.15	0.46
40:65:42:ASP:O	40:65:43:GLU:HB3	2.16	0.46
40:65:59:LYS:CD	40:65:60:GLY:H	2.28	0.46
40:65:61:ASN:HB2	40:65:64:GLU:HB3	1.97	0.46
49:F5:91:LYS:HZ3	49:F5:91:LYS:HA	1.80	0.46
1:13:516:U:C4	1:13:517:G:C6	3.04	0.46
1:13:537:G:H5"	12:3I:113:ARG:NH1	2.31	0.46
1:13:789:U:C6	1:13:791:G:C8	3.03	0.46
2:1E:59:GLU:HB2	2:1E:221:LEU:HD11	1.97	0.46
2:1E:219:VAL:HA	2:1E:222:ILE:CD1	2.45	0.46
4:3E:80:GLU:HB3	4:3E:84:LYS:NZ	2.31	0.46
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.81	0.46
19:AI:28:LYS:HE2	19:AI:28:LYS:HB3	1.65	0.46
26:1H:271(C):U:H3'	26:1H:271(C):U:OP2	2.15	0.46
26:1H:639:U:H2'	26:1H:640:C:C6	2.50	0.46
26:1H:1007:C:OP2	26:1H:1008:C:O2'	2.21	0.46
26:1H:1387:C:O2	26:1H:1388:G:C8	2.68	0.46
26:1H:1771:C:C1'	26:1H:1786:A:C8	2.99	0.46
26:1H:1814:G:H2'	26:1H:1815:A:C8	2.51	0.46
26:1H:2680:C:OP2	30:21:111:ARG:NH2	2.45	0.46
26:1H:2689:U:P	26:1H:2719:G:H22	2.38	0.46
26:1H:2886:G:H2'	26:1H:2887:U:C6	2.50	0.46
31:31:34:TRP:CZ3	31:31:35:GLU:HG3	2.49	0.46
31:31:178:PRO:HG2	31:31:179:GLU:OE1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:94:GLU:CG	37:78:124:LYS:HD3	2.46	0.46
39:98:17:ARG:O	39:98:20:LEU:HB3	2.16	0.46
40:A8:23:ARG:NH2	40:A8:84:GLN:OE1	2.49	0.46
47:H8:30:ASN:HA	47:H8:89:PHE:HE1	1.79	0.46
51:L8:26:LEU:HB2	51:L8:28:LEU:CD1	2.45	0.46
1:1G:108:G:H5'	1:1G:109:A:C5'	2.46	0.46
1:1G:680:C:H2'	1:1G:681:C:C6	2.51	0.46
1:1G:1129:C:C4	1:1G:1139:G:N1	2.83	0.46
1:1G:1227:A:O2'	13:4A:115:LYS:HB2	2.16	0.46
3:22:175:LEU:HD21	3:22:201:TYR:HE2	1.80	0.46
6:52:19:LEU:O	6:52:23:LYS:HG3	2.16	0.46
7:62:20:ASP:HB3	7:62:23:VAL:CB	2.44	0.46
18:9A:59:SER:OG	18:9A:60:ALA:N	2.49	0.46
26:14:1461:G:H2'	26:14:1462:C:C6	2.50	0.46
26:14:1657:C:H2'	26:14:1658:C:H6	1.79	0.46
26:14:1810:A:H2'	26:14:1811:G:O4'	2.16	0.46
26:14:1858:G:H1'	26:14:1884:A:H62	1.80	0.46
26:14:2127:G:H2'	26:14:2128:C:C6	2.51	0.46
26:14:2156:G:O6	26:14:2157:G:N2	2.49	0.46
26:14:2183:C:H2'	26:14:2184:G:C8	2.51	0.46
46:C5:89:PHE:O	46:C5:89:PHE:CG	2.68	0.46
49:F5:37:ILE:HA	49:F5:37:ILE:HD13	1.67	0.46
1:13:417:C:H2'	1:13:418:C:H6	1.80	0.46
1:13:1148:U:O3'	9:8E:14:VAL:HG11	2.15	0.46
4:3E:78:LEU:HA	4:3E:78:LEU:HD13	1.59	0.46
4:3E:153:ARG:O	4:3E:181:MET:HE1	2.16	0.46
6:5E:75:LEU:HD22	6:5E:79:LEU:HD11	1.96	0.46
23:2K:16:C:H5'	23:2K:17:C:C5	2.50	0.46
26:1H:569:U:O2'	26:1H:983:A:N1	2.40	0.46
26:1H:574:C:P	61:1H:3525:HOH:O	2.72	0.46
26:1H:1280:G:N2	26:1H:1291:C:C2	2.83	0.46
26:1H:1437:C:H2'	26:1H:1438:U:H6	1.81	0.46
26:1H:2362:G:OP1	55:Q8:44:LYS:NZ	2.26	0.46
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.51	0.46
27:16:90:C:OP2	38:88:16:ARG:NH2	2.48	0.46
32:41:96:ARG:HB2	32:41:96:ARG:NH1	2.27	0.46
36:68:113:LYS:O	36:68:117:LEU:HD12	2.16	0.46
45:F8:72:LYS:HE2	45:F8:75:ASP:OD1	2.16	0.46
46:G8:9:LYS:HA	46:G8:27:VAL:CG2	2.45	0.46
53:N8:25:LEU:HA	53:N8:25:LEU:HD23	1.71	0.46
1:1G:1029:G:H1'	1:1G:1032(A):G:O6	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1105:A:C2	1:1G:1106:G:N7	2.84	0.46
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.51	0.46
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.50	0.46
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.98	0.46
21:1B:2:GLY:O	21:1B:4:GLY:N	2.49	0.46
26:14:529:A:H8	26:14:530:G:C6	2.33	0.46
26:14:620:G:H4'	26:14:621:A:C5'	2.46	0.46
26:14:1010:A:O2'	26:14:1152:C:O2'	2.33	0.46
26:14:1857:G:C6	26:14:1858:G:N1	2.84	0.46
29:19:159:ALA:HB1	29:19:198:ASN:O	2.16	0.46
30:29:68:ALA:O	30:29:70:ALA:N	2.49	0.46
37:35:134:ALA:O	37:35:138:LEU:HB2	2.16	0.46
38:45:66:ILE:HG22	38:45:104:PHE:CE1	2.51	0.46
43:95:38:LEU:HA	43:95:38:LEU:HD23	1.44	0.46
1:13:266:G:C2	1:13:269:C:H5	2.34	0.46
1:13:411:A:OP1	4:3E:30:LYS:HE3	2.15	0.46
1:13:1005:A:H1'	1:13:1036:G:N2	2.31	0.46
4:3E:149:ALA:O	4:3E:153:ARG:HG2	2.16	0.46
5:4E:147:ASP:HA	5:4E:150:ARG:HH22	1.81	0.46
10:1I:30:SER:O	10:1I:78:ASN:ND2	2.49	0.46
22:1K:55:PSU:O5'	22:1K:55:PSU:H6	1.99	0.46
26:1H:524:U:H2'	26:1H:525:U:C6	2.51	0.46
26:1H:879:G:C6	26:1H:880:G:C8	3.03	0.46
26:1H:1204:A:C2	26:1H:1241:A:N1	2.84	0.46
26:1H:2129:C:OP1	28:71:6:ARG:HD3	2.16	0.46
26:1H:2275:C:C6	26:1H:2275:C:H5'	2.51	0.46
26:1H:2286:A:H4'	26:1H:2287:A:O4'	2.16	0.46
28:71:215:THR:OG1	28:71:220:PRO:O	2.18	0.46
33:51:118:PRO:HD2	33:51:121:ILE:HG21	1.97	0.46
37:78:52:GLU:OE2	37:78:58:THR:HG23	2.15	0.46
39:98:32:GLY:HA2	39:98:116:LEU:HD23	1.98	0.46
43:D8:44:LYS:HB2	43:D8:45:THR:H	1.60	0.46
46:G8:53:PRO:O	46:G8:54:LYS:HB3	2.16	0.46
52:M8:46:GLN:HG2	52:M8:47:GLN:H	1.81	0.46
1:1G:20:U:H2'	1:1G:21:G:O4'	2.15	0.46
1:1G:60:A:N6	1:1G:110:C:N3	2.58	0.46
1:1G:79:G:H8	1:1G:79:G:OP2	1.99	0.46
1:1G:191(E):G:H2'	1:1G:191(F):U:C6	2.50	0.46
1:1G:1330:U:H4'	13:4A:23:TYR:CZ	2.51	0.46
1:1G:1449:C:O2'	1:1G:1450:U:OP1	2.31	0.46
3:22:73:PRO:O	3:22:76:VAL:HG13	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:69:ALA:HB1	11:2A:101:SER:HB2	1.97	0.46
12:3A:6:THR:H	12:3A:9:GLN:HB2	1.80	0.46
13:4A:77:ASN:O	13:4A:81:LEU:HD23	2.15	0.46
26:14:390:A:N6	37:35:71:VAL:HG21	2.30	0.46
26:14:452:G:H5"	61:14:3745:HOH:O	2.15	0.46
26:14:1061:U:H5'	26:14:1062:G:OP2	2.15	0.46
26:14:1520:U:H2'	26:14:1521:G:O4'	2.16	0.46
26:14:1973:G:H2'	26:14:1974:C:C6	2.50	0.46
26:14:2180:U:H2'	26:14:2181:G:O4'	2.16	0.46
26:14:2872:G:C4	26:14:2873:A:C2	3.04	0.46
29:19:146:GLU:HG2	29:19:152:GLY:C	2.41	0.46
30:29:44:TYR:N	30:29:44:TYR:CD1	2.83	0.46
30:29:54:GLN:HB3	30:29:55:ASN:H	1.49	0.46
33:59:58:GLU:HG2	33:59:60:ARG:H	1.80	0.46
33:59:72:ILE:O	33:59:76:VAL:N	2.41	0.46
33:59:167:GLU:HA	33:59:168:PRO:HD3	1.70	0.46
37:35:85:LEU:HA	37:35:88:LEU:HD23	1.98	0.46
46:C5:73:ARG:NH2	46:C5:82:PRO:O	2.49	0.46
55:M5:31:HIS:O	55:M5:32:LEU:HB2	2.15	0.46
1:13:201:C:H42	1:13:216:G:H1	1.64	0.46
1:13:265:G:N2	1:13:267:C:H5'	2.30	0.46
1:13:292:G:N7	1:13:293:G:H1'	2.30	0.46
1:13:347:G:H21	1:13:348:G:H1'	1.80	0.46
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.98	0.46
2:1E:30:ARG:HB2	2:1E:31:TYR:CE1	2.51	0.46
14:5I:32:SER:HB3	14:5I:41:ARG:HG2	1.98	0.46
26:1H:479:A:HO2'	26:1H:481:G:H8	1.60	0.46
26:1H:1373:A:OP2	26:1H:1373:A:H8	1.99	0.46
26:1H:1614:A:OP1	61:1H:3610:HOH:O	2.21	0.46
26:1H:1614:A:H61	44:E8:88:ARG:H	1.64	0.46
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.51	0.46
26:1H:2787:C:O2'	30:21:61:ARG:HB3	2.16	0.46
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.51	0.46
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.31	0.46
30:21:105:THR:HG1	30:21:199:ARG:HH21	1.59	0.46
35:58:132:ALA:O	35:58:134:ARG:NE	2.49	0.46
40:A8:41:ASP:OD2	40:A8:44:LYS:HB2	2.16	0.46
46:G8:9:LYS:HA	46:G8:27:VAL:HG22	1.98	0.46
1:1G:808:C:OP1	15:6A:48:LYS:NZ	2.47	0.46
1:1G:826:C:H5'	8:72:12:ARG:NH1	2.31	0.46
1:1G:859:A:H2'	1:1G:860:A:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:937:A:H1'	1:1G:1379:G:N2	2.31	0.46
2:12:61:LEU:HD22	2:12:90:MET:HE1	1.98	0.46
2:12:201:ILE:HA	2:12:202:PRO:HD2	1.86	0.46
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.45	0.46
15:6A:68:ARG:NH1	61:6A:101:HOH:O	2.43	0.46
20:BA:86:ARG:HB2	20:BA:86:ARG:CZ	2.46	0.46
26:14:1071:G:H5"	26:14:1072:C:C6	2.50	0.46
26:14:2306:C:H3'	26:14:2307:G:H5"	1.97	0.46
26:14:2705:A:H2	39:55:64:ARG:NH1	2.13	0.46
26:14:2772:C:H2'	26:14:2773:C:C6	2.51	0.46
31:39:172:TRP:CD1	31:39:172:TRP:H	2.34	0.46
32:49:103:LEU:HA	32:49:106:LEU:HB2	1.97	0.46
32:49:106:LEU:HG	32:49:111:LEU:CD1	2.46	0.46
38:45:31:ASP:O	38:45:134:ARG:HB3	2.16	0.46
40:65:64:GLU:O	40:65:68:GLN:HG3	2.16	0.46
42:85:65:ILE:HG22	42:85:66:ASN:N	2.31	0.46
47:D5:22:GLY:O	47:D5:41:LEU:HB2	2.16	0.46
1:13:45:U:H2'	1:13:46:G:C8	2.51	0.45
1:13:186(E):C:H42	1:13:191(B):G:H1	1.63	0.45
1:13:413:G:H22	1:13:428:G:H1'	1.81	0.45
1:13:633:G:H5"	1:13:634:C:OP2	2.15	0.45
1:13:760:G:H2'	1:13:761:G:H5'	1.98	0.45
1:13:779:C:H2'	1:13:780:A:O4'	2.16	0.45
1:13:963:G:H21	10:1I:55:LYS:NZ	2.14	0.45
1:13:1005:A:H1'	1:13:1036:G:H22	1.80	0.45
1:13:1291:G:P	7:6E:37:ASN:HD22	2.38	0.45
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.16	0.45
9:8E:91:ASP:OD1	9:8E:91:ASP:N	2.48	0.45
22:1K:76:A:C8	26:1H:2583:G:N2	2.71	0.45
24:3K:63:U:O5'	24:3K:63:U:H6	1.98	0.45
26:1H:365:C:H2'	26:1H:366:C:O4'	2.16	0.45
26:1H:509:C:O2'	61:1H:3589:HOH:O	2.16	0.45
26:1H:991:C:C5	26:1H:1185:C:N4	2.84	0.45
26:1H:1039:G:H2'	26:1H:1040:C:O4'	2.16	0.45
26:1H:1675:C:O2	30:21:128:SER:OG	2.33	0.45
26:1H:1797:C:C2'	26:1H:1798:U:H5'	2.46	0.45
26:1H:2120:G:N2	26:1H:2178:C:O2	2.37	0.45
26:1H:2439:A:H4'	26:1H:2440:C:O5'	2.16	0.45
29:11:35:LYS:HB3	29:11:35:LYS:HE3	1.63	0.45
32:41:35:GLU:OE1	32:41:36:LYS:N	2.47	0.45
32:41:112:PRO:HB3	52:M8:37:SER:N	2.21	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:84:ASN:HA	37:78:115:LEU:O	2.16	0.45
40:A8:66:ALA:HB1	40:A8:101:LEU:HB2	1.98	0.45
41:B8:107:ASP:OD1	41:B8:107:ASP:N	2.48	0.45
42:C8:85:LYS:HA	42:C8:85:LYS:NZ	2.32	0.45
51:L8:9:VAL:HG11	51:L8:55:ARG:NH1	2.30	0.45
1:1G:412:A:O2'	1:1G:413:G:OP2	2.28	0.45
1:1G:424:G:H2'	1:1G:425:G:C8	2.51	0.45
1:1G:529:G:O6	12:3A:49:ASN:HA	2.16	0.45
1:1G:601:C:H2'	1:1G:602:A:H8	1.80	0.45
1:1G:757:U:H2'	1:1G:758:G:O4'	2.16	0.45
1:1G:975:A:H5'	1:1G:975:A:C8	2.40	0.45
1:1G:1103:C:C4	1:1G:1104:G:N7	2.84	0.45
1:1G:1291:G:H4'	9:82:39:GLY:HA3	1.97	0.45
1:1G:1371:G:OP1	9:82:11:LYS:HG2	2.16	0.45
6:52:96:PRO:HB3	18:9A:30:ASP:OD2	2.16	0.45
26:14:139:G:H22	26:14:1596:A:H4'	1.81	0.45
26:14:270(I):G:H2'	26:14:270(J):G:C8	2.51	0.45
26:14:616:A:C5	31:39:180:GLY:HA3	2.50	0.45
26:14:973:A:H5'	26:14:1188:U:H1'	1.98	0.45
26:14:990:A:C6	26:14:1186:G:H1'	2.50	0.45
26:14:1015:G:H2'	26:14:1016:G:H8	1.80	0.45
26:14:1838:C:N4	26:14:1898:U:H2'	2.31	0.45
26:14:1983:C:H4'	26:14:2606:C:H4'	1.97	0.45
26:14:2298:A:N6	26:14:2318:G:H2'	2.31	0.45
27:1J:48:A:O2'	40:65:95:HIS:HE1	1.98	0.45
29:19:225:ALA:O	61:19:403:HOH:O	2.20	0.45
37:35:50:ARG:O	37:35:57:THR:HG23	2.15	0.45
41:75:3:ARG:O	41:75:4:GLY:C	2.58	0.45
43:95:70:ILE:N	43:95:86:GLY:O	2.38	0.45
47:D5:28:MET:HE1	47:D5:67:LEU:CD1	2.46	0.45
49:F5:92:LYS:O	49:F5:93:GLU:C	2.57	0.45
1:13:955:U:H1'	1:13:1227:A:H61	1.81	0.45
2:1E:25:ASN:ND2	2:1E:193:ASP:HB3	2.31	0.45
4:3E:31:CYS:C	4:3E:33:MET:H	2.23	0.45
10:1I:22:LYS:NZ	10:1I:90:LEU:HB2	2.32	0.45
11:2I:54:ARG:HA	11:2I:57:THR:HG23	1.97	0.45
17:8I:19:VAL:HG23	17:8I:44:ALA:HB3	1.98	0.45
21:1F:3:LYS:HB3	21:1F:14:TRP:CD1	2.51	0.45
26:1H:2008:C:H2'	26:1H:2009:G:H8	1.82	0.45
26:1H:2010:G:H5"	44:E8:42:ARG:HB3	1.98	0.45
26:1H:2328:A:H2'	26:1H:2329:G:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:61:ARG:O	30:21:63:LEU:HD22	2.16	0.45
37:78:90:ARG:H	37:78:90:ARG:HG2	1.60	0.45
37:78:121:LYS:HE2	37:78:123:LEU:HD21	1.98	0.45
41:B8:16:ARG:HB2	41:B8:18:ASP:OD1	2.16	0.45
41:B8:34:VAL:CG2	41:B8:41:ARG:HG3	2.46	0.45
42:C8:61:TRP:O	42:C8:65:ILE:HG13	2.15	0.45
45:F8:35:THR:HG22	45:F8:38:GLU:OE1	2.16	0.45
47:H8:46:LYS:HE2	47:H8:47:VAL:HG23	1.97	0.45
47:H8:52:SER:O	47:H8:53:ILE:HG12	2.16	0.45
1:1G:458:C:H2'	1:1G:464:G:H8	1.81	0.45
1:1G:664:G:N2	1:1G:741:G:H1	2.07	0.45
1:1G:1058:G:H2'	1:1G:1059:C:C6	2.51	0.45
1:1G:1286:A:C8	1:1G:1286:A:H3'	2.51	0.45
1:1G:1414:U:H2'	1:1G:1415:G:C8	2.51	0.45
3:22:93:LYS:HB3	3:22:93:LYS:HE2	1.76	0.45
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.99	0.45
15:6A:24:SER:O	15:6A:28:GLN:HG3	2.16	0.45
18:9A:44:LEU:HD11	18:9A:70:ILE:HG21	1.98	0.45
18:9A:83:GLU:HG2	18:9A:84:LYS:NZ	2.32	0.45
23:2L:47:7MG:H3'	23:2L:48:U:H6	1.81	0.45
26:14:864:G:C6	26:14:865:C:N4	2.85	0.45
26:14:918:A:O2'	27:1J:96:G:N2	2.44	0.45
26:14:1000:A:C6	26:14:1001:A:C6	3.03	0.45
26:14:1210:A:H5"	26:14:1211:U:H3'	1.97	0.45
26:14:2086:U:H2'	26:14:2087:G:C8	2.51	0.45
26:14:2693:A:H2'	26:14:2694:G:H8	1.81	0.45
34:69:62:LYS:HB2	34:69:133:HIS:NE2	2.31	0.45
34:69:120:ILE:HG22	34:69:122:GLU:H	1.81	0.45
41:75:34:VAL:HG21	41:75:43:GLN:HB3	1.98	0.45
42:85:66:ASN:OD1	42:85:76:TYR:N	2.49	0.45
42:85:90:VAL:O	42:85:92:ARG:N	2.49	0.45
47:D5:61:LEU:HD11	47:D5:67:LEU:HD12	1.98	0.45
47:D5:67:LEU:HD23	47:D5:67:LEU:HA	1.83	0.45
1:13:596:C:O5'	1:13:596:C:H6	1.99	0.45
1:13:891:U:H2'	1:13:892:A:H8	1.81	0.45
1:13:1473:A:H2'	1:13:1474:G:C8	2.51	0.45
5:4E:43:LEU:C	5:4E:62:ALA:HA	2.42	0.45
7:6E:31:MET:HG3	7:6E:35:LYS:O	2.16	0.45
8:7E:29:SER:HB3	8:7E:32:LYS:HE3	1.99	0.45
9:8E:17:VAL:HG21	9:8E:80:GLY:HA3	1.98	0.45
11:2I:45:GLY:O	11:2I:50:TYR:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:85:ARG:HG2	11:2I:112:THR:HA	1.98	0.45
13:4I:67:GLU:HB3	13:4I:68:GLY:H	1.47	0.45
20:BI:20:LEU:O	20:BI:23:ARG:HB3	2.17	0.45
26:1H:64:A:C8	45:F8:66:LEU:HD23	2.51	0.45
26:1H:153:C:H2'	26:1H:154:G:C8	2.51	0.45
26:1H:409:C:P	61:1H:3577:HOH:O	2.72	0.45
26:1H:496:G:H1'	44:E8:61:ASN:OD1	2.16	0.45
26:1H:846:C:C4	26:1H:930:U:C4	3.04	0.45
26:1H:996:A:H4'	42:C8:92:ARG:NE	2.31	0.45
26:1H:1007:C:H5"	35:58:35:ARG:NH1	2.31	0.45
26:1H:1479:G:H5'	26:1H:1558:A:H2	1.81	0.45
26:1H:1589:C:H2'	26:1H:1590:U:C6	2.52	0.45
26:1H:2352:A:C4	26:1H:2366:A:C2	3.04	0.45
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.16	0.45
29:11:145:VAL:HB	29:11:155:LEU:HB2	1.97	0.45
37:78:47:ASP:OD1	37:78:49:ARG:HG3	2.16	0.45
38:88:69:PHE:HA	38:88:70:PRO:HD2	1.72	0.45
41:B8:3:ARG:O	41:B8:6:LEU:N	2.49	0.45
44:E8:88:ARG:HB3	44:E8:92:ARG:HB2	1.98	0.45
51:L8:23:LEU:HD23	51:L8:23:LEU:HA	1.70	0.45
52:M8:46:GLN:HG2	52:M8:47:GLN:N	2.31	0.45
1:1G:17:U:H2'	1:1G:18:C:C6	2.50	0.45
1:1G:111:G:H8	1:1G:111:G:O5'	2.00	0.45
1:1G:647:C:H2'	1:1G:648:A:H8	1.82	0.45
1:1G:1242:C:H2'	1:1G:1243:C:O4'	2.17	0.45
1:1G:1278:U:H5'	1:1G:1279:A:H5'	1.98	0.45
1:1G:1284:C:OP2	1:1G:1285:A:O2'	2.33	0.45
1:1G:1489:G:H2'	1:1G:1490:C:O4'	2.17	0.45
4:32:196:LEU:HB2	4:32:198:VAL:CG2	2.46	0.45
12:3A:8:ASN:O	12:3A:12:ARG:HG3	2.16	0.45
17:8A:23:VAL:O	17:8A:39:SER:HA	2.17	0.45
19:AA:14:HIS:CE1	19:AA:15:LEU:HD22	2.51	0.45
57:3L:76:A:H8	26:14:2394:C:N4	2.14	0.45
26:14:65:C:H2'	26:14:66:C:H6	1.81	0.45
26:14:290:G:H2'	26:14:291:C:O4'	2.16	0.45
26:14:578:A:OP1	26:14:1255:U:H4'	2.17	0.45
26:14:818:G:H4'	26:14:838:C:O3'	2.17	0.45
26:14:973:A:O4'	26:14:1188:U:C6	2.69	0.45
26:14:1339:G:N2	26:14:1603:A:H1'	2.31	0.45
26:14:1508:A:H4'	26:14:1510:A:N1	2.32	0.45
26:14:1542:G:O5'	26:14:1543:A:H5"	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:12:SER:HB2	29:19:208:LYS:HB3	1.98	0.45
31:39:64:ILE:C	31:39:65:TRP:CD1	2.94	0.45
40:65:7:TYR:O	40:65:11:LYS:HB2	2.16	0.45
40:65:7:TYR:CZ	40:65:91:PRO:HG3	2.51	0.45
42:85:76:TYR:O	42:85:80:ILE:HG12	2.15	0.45
47:D5:11:GLU:HB3	47:D5:13:GLU:OE1	2.15	0.45
55:M5:9:GLY:O	55:M5:13:ARG:HD2	2.16	0.45
1:13:536:C:H2'	1:13:537:G:C8	2.51	0.45
1:13:1259:C:O2	1:13:1283:G:H1'	2.16	0.45
2:1E:8:LYS:CG	2:1E:9:GLU:H	2.29	0.45
2:1E:74:LYS:HE2	2:1E:169:LYS:HD2	1.99	0.45
3:2E:27:LYS:HE2	3:2E:27:LYS:HA	1.98	0.45
6:5E:45:LEU:HD12	6:5E:59:TYR:HD2	1.80	0.45
13:4I:82:MET:HB3	13:4I:93:ARG:HG2	1.98	0.45
23:2K:35:C:H5"	23:2K:36:A:OP2	2.15	0.45
26:1H:655:A:H8	26:1H:656:G:O4'	1.99	0.45
26:1H:762:U:H4'	26:1H:763:G:O5'	2.17	0.45
26:1H:764:A:H5'	29:11:210:GLY:CA	2.46	0.45
26:1H:1012:U:O4	35:58:25:ARG:HA	2.16	0.45
26:1H:2750:A:H3'	33:51:4:ILE:CG2	2.46	0.45
28:71:190:ARG:HH21	28:71:228:SER:C	2.25	0.45
29:11:11:PRO:O	29:11:12:SER:OG	2.30	0.45
30:21:16:ARG:HD3	30:21:17:ASP:OD1	2.16	0.45
30:21:70:ALA:O	30:21:73:GLU:N	2.49	0.45
41:B8:9:LEU:C	41:B8:11:GLU:H	2.22	0.45
41:B8:131:ALA:HA	41:B8:134:GLU:OE2	2.16	0.45
54:P8:12:ARG:HH21	54:P8:44:PRO:HB3	1.80	0.45
1:1G:28:G:H21	1:1G:296:U:H4'	1.81	0.45
1:1G:458:C:N4	1:1G:464:G:O6	2.49	0.45
1:1G:790:A:N1	1:1G:1497:G:H5"	2.32	0.45
1:1G:1307:U:O5'	1:1G:1307:U:H6	1.99	0.45
1:1G:1346:A:H2'	7:62:10:ARG:HH22	1.82	0.45
57:3L:14:A:C5	57:3L:22:G:C2	3.04	0.45
26:14:4:C:O2	26:14:4:C:H2'	2.16	0.45
26:14:994:C:OP2	42:85:54:LYS:NZ	2.36	0.45
26:14:1018:C:H2'	26:14:1019:U:H6	1.81	0.45
26:14:2313:C:H5"	32:49:91:ARG:HD3	1.99	0.45
26:14:2386:C:H2'	26:14:2387:U:O4'	2.16	0.45
26:14:2540:C:O2'	26:14:2740:A:N3	2.39	0.45
26:14:2749:A:H2'	33:59:59:ARG:HH11	1.82	0.45
26:14:2786:U:O2'	30:29:63:LEU:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2889:C:H2'	26:14:2891:G:O4'	2.17	0.45
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.98	0.45
42:85:92:ARG:CZ	43:95:11:GLN:H	2.30	0.45
45:B5:55:ASN:HB2	45:B5:80:ILE:HG13	1.99	0.45
50:G5:35:LEU:HD23	50:G5:45:SER:HB2	1.97	0.45
1:13:186(E):C:N3	1:13:191(B):G:N2	2.44	0.45
1:13:271:C:H2'	1:13:272:C:C6	2.52	0.45
1:13:587:G:H3'	61:13:1809:HOH:O	2.16	0.45
1:13:971:G:N2	1:13:1363:A:OP2	2.39	0.45
1:13:1308:U:H5"	13:4I:98:VAL:CG2	2.47	0.45
1:13:1467:G:H8	1:13:1467:G:O5'	1.99	0.45
2:1E:172:ILE:O	2:1E:175:ARG:HB2	2.17	0.45
2:1E:220:ASP:O	2:1E:224:GLN:HB2	2.17	0.45
8:7E:114:THR:HG22	8:7E:131:GLY:HA3	1.98	0.45
26:1H:569:U:C4	26:1H:570:G:C6	3.04	0.45
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.50	0.45
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.81	0.45
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.17	0.45
26:1H:1766:U:O2'	26:1H:1767:C:H5'	2.17	0.45
26:1H:1999:C:H5"	26:1H:2723:C:O2'	2.17	0.45
26:1H:2443:C:OP1	31:31:68:LYS:HD3	2.16	0.45
42:C8:79:PHE:HE2	42:C8:106:PHE:CZ	2.34	0.45
43:D8:9:GLY:O	43:D8:10:LYS:HG3	2.16	0.45
47:H8:43:GLU:HA	47:H8:46:LYS:HD3	1.98	0.45
1:1G:54:C:N4	1:1G:353:A:OP2	2.39	0.45
1:1G:565:U:H3'	1:1G:566:G:H2'	1.99	0.45
1:1G:1009:G:H8	1:1G:1009:G:OP2	1.98	0.45
1:1G:1310:G:N2	1:1G:1328:C:O2	2.50	0.45
1:1G:1485:U:H2'	1:1G:1486:G:C8	2.51	0.45
2:12:42:ILE:HG13	2:12:43:ASP:N	2.30	0.45
6:52:97:PHE:HB2	18:9A:32:ARG:HE	1.82	0.45
10:1A:51:ARG:HD3	10:1A:61:GLU:HB2	1.97	0.45
11:2A:18:ARG:HB3	11:2A:33:THR:OG1	2.16	0.45
12:3A:27:LEU:CB	12:3A:33:ARG:HG2	2.47	0.45
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.82	0.45
26:14:116:C:H2'	26:14:117:G:O4'	2.16	0.45
26:14:1022:G:C6	26:14:1140:C:C4	3.05	0.45
26:14:1288:U:C2	26:14:1327:C:O2	2.70	0.45
26:14:1654:A:C1'	26:14:2823:A:H5'	2.46	0.45
46:C5:17:SER:HB2	46:C5:71:LYS:HE2	1.97	0.45
1:13:407:G:H2'	1:13:408:A:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:624:C:H4'	16:7I:11:SER:N	2.32	0.45
1:13:836:G:OP1	18:9I:61:LYS:NZ	2.46	0.45
1:13:976:G:H5'	1:13:1358:U:O2'	2.17	0.45
1:13:1218:C:H2'	1:13:1219:U:C6	2.51	0.45
1:13:1278:U:H5'	1:13:1279:A:O5'	2.16	0.45
1:13:1440:C:H2'	1:13:1441:G:O4'	2.17	0.45
10:1I:84:GLN:HG2	10:1I:88:LEU:HD23	1.99	0.45
11:2I:48:ILE:HD11	11:2I:64:ALA:HA	1.99	0.45
26:1H:191:A:H2'	26:1H:192:C:C6	2.52	0.45
26:1H:234:C:H2'	26:1H:235:U:H6	1.81	0.45
26:1H:483:A:O4'	46:G8:48:ALA:HB1	2.15	0.45
26:1H:654(O):G:C8	26:1H:654(P):G:N3	2.84	0.45
26:1H:910:A:C5	38:88:13:GLN:HG3	2.52	0.45
26:1H:1251:C:H5	61:1H:3989:HOH:O	2.00	0.45
26:1H:1266:G:P	44:E8:15:ARG:HH22	2.39	0.45
26:1H:1728:G:H3'	26:1H:1729:A:C5'	2.47	0.45
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.16	0.45
33:51:152:ARG:HD3	33:51:152:ARG:HA	1.62	0.45
46:G8:87:LYS:HD2	46:G8:89:PHE:HD2	1.81	0.45
1:1G:464:G:C6	1:1G:466:C:H5'	2.51	0.45
1:1G:616:G:H1'	1:1G:625:G:N2	2.31	0.45
1:1G:672:U:H2'	1:1G:673:G:C8	2.52	0.45
1:1G:947:G:H2'	1:1G:948:C:O4'	2.17	0.45
1:1G:1152:A:H2'	1:1G:1153:C:C6	2.51	0.45
1:1G:1453:G:HO2'	1:1G:1454:G:P	2.39	0.45
2:12:27:LYS:NZ	2:12:195:ASP:HB2	2.31	0.45
2:12:159:PRO:HB2	2:12:161:ALA:O	2.16	0.45
3:22:74:GLY:O	3:22:84:ILE:HD12	2.16	0.45
5:42:51:VAL:HB	5:42:52:PRO:HD3	1.99	0.45
8:72:110:ALA:HB3	8:72:121:ASP:HB3	1.99	0.45
10:1A:33:GLN:O	10:1A:75:ILE:HG23	2.17	0.45
12:3A:20:LYS:HE2	12:3A:20:LYS:HB3	1.80	0.45
14:5A:59:ALA:HB1	14:5A:61:TRP:HZ3	1.82	0.45
20:BA:74:LYS:HB2	20:BA:75:ASN:H	1.45	0.45
26:14:41:C:H2'	26:14:43:G:O4'	2.16	0.45
26:14:1180:C:H2'	26:14:1181:C:C6	2.51	0.45
26:14:1638:C:H2'	26:14:1639:U:O4'	2.15	0.45
26:14:1796:U:H2'	26:14:1797:C:C6	2.52	0.45
27:1J:42:C:C4	27:1J:43:C:C5	3.05	0.45
29:19:45:ASN:HB3	29:19:46:GLN:H	1.57	0.45
29:19:228:PRO:HD3	29:19:234:GLY:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:34:LEU:HD21	32:49:172:LEU:HD21	1.98	0.45
32:49:63:ILE:HG22	32:49:143:GLU:HB2	1.97	0.45
34:69:77:LEU:HD12	34:69:78:THR:H	1.81	0.45
34:69:133:HIS:CG	34:69:134:PRO:HD3	2.50	0.45
38:45:81:VAL:C	38:45:82:ARG:HG2	2.39	0.45
38:45:118:LEU:HD23	38:45:118:LEU:HA	1.80	0.45
39:55:69:ASP:N	39:55:69:ASP:OD1	2.47	0.45
41:75:53:ARG:HH12	41:75:60:THR:HG23	1.81	0.45
41:75:107:ASP:N	41:75:107:ASP:OD1	2.48	0.45
47:D5:72:ARG:HH11	47:D5:89:PHE:HD2	1.65	0.45
1:13:148:G:H1	1:13:174:C:H42	1.63	0.45
1:13:1360:A:H2'	1:13:1361:G:C8	2.51	0.45
1:13:1367:C:H4'	10:1I:48:THR:HG21	1.98	0.45
4:3E:7:PRO:HB2	4:3E:10:ARG:HD2	1.98	0.45
4:3E:199:ASN:OD1	4:3E:202:LEU:HG	2.17	0.45
5:4E:10:MET:HB2	5:4E:10:MET:HE2	1.40	0.45
9:8E:33:PHE:HE2	9:8E:47:LEU:HD11	1.81	0.45
18:9I:22:VAL:CG1	18:9I:42:ARG:HH12	2.28	0.45
18:9I:47:THR:O	18:9I:83:GLU:N	2.41	0.45
23:2K:57:C:O2'	32:41:78:SER:HB2	2.17	0.45
24:3K:6:G:H21	24:3K:68:G:H1'	1.81	0.45
26:1H:288:C:H2'	26:1H:289:A:H8	1.81	0.45
26:1H:325:G:O2'	26:1H:326:G:H5'	2.16	0.45
26:1H:475:U:C4	26:1H:481:G:O6	2.70	0.45
26:1H:728:G:H4'	29:11:13:ARG:HD3	1.99	0.45
26:1H:801:G:OP2	61:1H:3611:HOH:O	2.21	0.45
26:1H:903:C:H2'	26:1H:904:C:H6	1.82	0.45
26:1H:1173:G:H5'	26:1H:1174:A:N1	2.32	0.45
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.51	0.45
26:1H:1485:G:H2'	26:1H:1486:A:H8	1.81	0.45
26:1H:2790:A:H4'	26:1H:2791:C:OP2	2.17	0.45
27:16:54:G:H2'	27:16:55:U:C6	2.47	0.45
29:11:50:THR:O	29:11:51:VAL:HG23	2.17	0.45
30:21:92:THR:HG22	30:21:93:VAL:HG23	1.99	0.45
31:31:29:ASN:C	31:31:31:HIS:H	2.23	0.45
32:41:106:LEU:HD11	32:41:111:LEU:HG	1.99	0.45
33:51:87:LEU:HD22	33:51:87:LEU:HA	1.82	0.45
43:D8:21:ARG:HG2	43:D8:91:TYR:CE2	2.52	0.45
43:D8:35:LEU:HB2	43:D8:57:VAL:HG12	1.98	0.45
50:K8:52:ASP:O	50:K8:56:GLN:HB2	2.16	0.45
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1193:G:O2'	5:42:25:ARG:NH2	2.45	0.45
2:12:53:ARG:HA	2:12:56:ARG:HD2	1.97	0.45
2:12:127:ILE:HG23	2:12:135:GLN:NE2	2.31	0.45
3:22:128:PHE:HD2	3:22:133:ALA:HB2	1.82	0.45
4:32:63:LYS:HB2	4:32:63:LYS:HE3	1.65	0.45
4:32:202:LEU:O	4:32:206:PHE:N	2.49	0.45
5:42:80:ILE:HG12	5:42:81:GLU:N	2.32	0.45
23:2L:36:A:H2'	23:2L:37:U:C6	2.52	0.45
26:14:1357:U:OP2	61:14:3574:HOH:O	2.20	0.45
26:14:1812:A:H1'	29:19:45:ASN:ND2	2.31	0.45
26:14:2269:A:H5"	61:14:3523:HOH:O	2.17	0.45
26:14:2503:A:OP2	26:14:2503:A:H3'	2.17	0.45
29:19:30:GLU:HG3	29:19:63:ARG:NH2	2.32	0.45
37:35:120:ALA:HB1	37:35:138:LEU:HD22	1.97	0.45
38:45:34:LEU:HD12	38:45:130:LYS:O	2.17	0.45
38:45:34:LEU:HD11	38:45:129:THR:HB	1.97	0.45
40:65:92:TYR:HB3	40:65:98:VAL:HG21	1.99	0.45
42:85:92:ARG:C	42:85:94:ASN:N	2.73	0.45
47:D5:11:GLU:CD	47:D5:12:GLY:H	2.24	0.45
1:13:48:C:H6	1:13:365:U:O4	1.99	0.45
1:13:192:U:H2'	1:13:193:C:C6	2.52	0.45
1:13:524:G:H2'	1:13:525:C:C6	2.52	0.45
1:13:658:G:H2'	1:13:659:U:H6	1.81	0.45
1:13:659:U:H2'	1:13:660:G:C8	2.52	0.45
1:13:690:G:H2'	1:13:691:G:O4'	2.15	0.45
1:13:789:U:C5	1:13:792:A:OP2	2.70	0.45
1:13:1004:A:C8	1:13:1026:G:C5	3.05	0.45
1:13:1028(A):C:H42	1:13:1032(A):G:N2	2.15	0.45
1:13:1123:A:O2'	10:1I:37:PRO:O	2.33	0.45
1:13:1312:G:O3'	19:AI:6:LYS:NZ	2.43	0.45
1:13:1426:C:H42	1:13:1474:G:H1	1.64	0.45
6:5E:21:LEU:HD13	6:5E:25:ILE:HD11	1.98	0.45
10:1I:54:PHE:CD2	10:1I:55:LYS:HD3	2.52	0.45
23:2K:20:G:C2	23:2K:58:A:N3	2.85	0.45
23:2K:44:A:C2	23:2K:45:A:C4	3.05	0.45
26:1H:153:C:H2'	26:1H:154:G:H8	1.82	0.45
26:1H:662:G:H5'	37:78:15:ARG:HA	1.99	0.45
26:1H:818:G:H5'	26:1H:839:U:OP1	2.16	0.45
26:1H:918:A:O2'	27:16:96:G:N2	2.44	0.45
26:1H:1311:G:N7	54:P8:9:ARG:NH2	2.65	0.45
26:1H:1767:C:H2'	26:1H:1768:U:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1828:G:P	61:1H:3643:HOH:O	2.74	0.45
26:1H:2092:U:H4'	26:1H:2093:G:O5'	2.16	0.45
26:1H:2392:A:H8	37:78:61:ARG:HD2	1.82	0.45
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.52	0.45
29:11:30:GLU:HG3	29:11:63:ARG:NE	2.31	0.45
31:31:161:GLU:H	31:31:161:GLU:HG2	1.57	0.45
32:41:64:THR:HB	32:41:94:LEU:HD23	1.99	0.45
40:A8:34:HIS:CE1	40:A8:54:LEU:HD23	2.52	0.45
53:N8:40:LYS:HD3	53:N8:46:CYS:HG	1.82	0.45
53:N8:42:PRO:C	53:N8:44:THR:H	2.25	0.45
1:1G:169:C:H2'	1:1G:170:U:C6	2.51	0.45
1:1G:197:A:C6	1:1G:221:C:H4'	2.52	0.45
1:1G:393:A:OP2	16:7A:12:LYS:HD3	2.17	0.45
1:1G:438:G:H4'	4:32:123:HIS:CE1	2.52	0.45
1:1G:628:G:H2'	1:1G:629:G:C8	2.51	0.45
1:1G:689:C:H2'	1:1G:690:G:H5'	1.99	0.45
1:1G:987:G:H2'	1:1G:988:G:C8	2.52	0.45
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.16	0.45
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.51	0.45
9:82:10:ARG:HE	9:82:11:LYS:HB2	1.81	0.45
13:4A:32:GLU:OE2	13:4A:33:ALA:N	2.50	0.45
26:14:469:G:O6	54:L5:39:ARG:NH1	2.50	0.45
26:14:2126:A:H2	26:14:2162:G:H22	1.65	0.45
30:29:14:ILE:HD11	30:29:173:VAL:HG11	1.97	0.45
33:59:145:ALA:O	33:59:148:ILE:HG12	2.16	0.45
37:35:144:GLU:CD	37:35:144:GLU:N	2.75	0.45
46:C5:19:LYS:CG	46:C5:20:TYR:H	2.20	0.45
1:13:266:G:H5"	1:13:267:C:H5	1.82	0.45
1:13:498:A:H4'	1:13:500:G:OP1	2.15	0.45
1:13:645:C:P	61:13:1852:HOH:O	2.74	0.45
1:13:691:G:O2'	1:13:797:C:H4'	2.16	0.45
1:13:1234:C:H2'	1:13:1235:U:C6	2.51	0.45
1:13:1304:G:N2	1:13:1332:A:OP2	2.50	0.45
1:13:1347:G:H5"	9:8E:107:ARG:HG2	1.98	0.45
1:13:1348:U:C2	1:13:1349:A:C8	3.05	0.45
1:13:1391:U:H2'	1:13:1392:G:C8	2.52	0.45
1:13:1399:C:C2	1:13:1502:A:N6	2.85	0.45
2:1E:80:ILE:HD12	2:1E:81:VAL:H	1.80	0.45
2:1E:189:ASP:OD1	2:1E:189:ASP:N	2.44	0.45
19:AI:29:ARG:HE	19:AI:29:ARG:HB2	1.50	0.45
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:34:C:OP2	26:1H:34:C:C6	2.69	0.45
26:1H:458:G:O2'	54:P8:39:ARG:HD3	2.16	0.45
26:1H:880:G:H2'	26:1H:880:G:N3	2.32	0.45
26:1H:1265:A:OP1	26:1H:1265:A:C8	2.68	0.45
26:1H:1568:G:H5"	29:11:61:LEU:HD22	1.99	0.45
26:1H:2376:A:H2	40:A8:112:PHE:HB3	1.82	0.45
28:71:173:ALA:HA	28:71:174:PRO:HD3	1.87	0.45
31:31:93:LYS:O	31:31:94:PRO:C	2.58	0.45
32:41:52:ILE:HD12	32:41:52:ILE:HA	1.74	0.45
37:78:113:LYS:HA	37:78:129:ALA:O	2.17	0.45
43:D8:35:LEU:HD23	43:D8:35:LEU:HA	1.73	0.45
45:F8:3:THR:O	45:F8:5:TYR:N	2.50	0.45
1:1G:1347:G:H22	1:1G:1374:A:P	2.40	0.45
4:32:100:ARG:O	4:32:104:VAL:HG23	2.17	0.45
5:42:103:GLY:C	5:42:106:PRO:HD2	2.41	0.45
20:BA:14:LYS:HB2	20:BA:17:ARG:CZ	2.46	0.45
26:14:336:C:OP1	46:C5:83:THR:HG23	2.16	0.45
26:14:536:A:H2'	26:14:537:C:C6	2.52	0.45
26:14:679:C:H42	26:14:798:G:H1	1.65	0.45
26:14:907:U:C2'	26:14:908:C:H5'	2.47	0.45
26:14:2542:A:H1'	26:14:2543:G:C8	2.52	0.45
31:39:18:ARG:NH2	31:39:20:LEU:HB2	2.32	0.45
34:69:50:ARG:HG2	34:69:50:ARG:HH11	1.80	0.45
37:35:113:LYS:HD3	37:35:115:LEU:HD21	1.99	0.45
38:45:27:VAL:HB	38:45:134:ARG:HA	1.99	0.45
47:D5:4:ARG:HA	47:D5:58:VAL:HB	1.97	0.45
47:D5:16:SER:O	47:D5:20:ARG:HG3	2.17	0.45
49:F5:40:ARG:HH21	49:F5:42:GLN:HE21	1.64	0.45
49:F5:91:LYS:NZ	49:F5:95:LEU:HD22	2.32	0.45
2:1E:206:ASP:OD1	2:1E:206:ASP:N	2.48	0.45
4:3E:78:LEU:HB3	4:3E:93:PHE:CE1	2.50	0.45
4:3E:166:LYS:HD2	4:3E:178:VAL:HG21	1.99	0.45
9:8E:14:VAL:O	9:8E:65:VAL:HG23	2.17	0.45
14:5I:21:TYR:HE2	14:5I:23:ARG:NE	2.15	0.45
17:8I:44:ALA:HA	17:8I:71:PHE:O	2.17	0.45
20:BI:92:LEU:O	20:BI:96:GLY:HA3	2.17	0.45
23:2K:10:G:N2	23:2K:27:G:H1'	2.32	0.45
23:2K:48:U:O2'	23:2K:49:C:OP2	2.26	0.45
26:1H:51:G:H1'	26:1H:119:A:N1	2.32	0.45
26:1H:273(F):C:H3'	26:1H:274:G:C5'	2.47	0.45
26:1H:446:G:OP2	61:1H:3614:HOH:O	2.21	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:783:A:H8	26:1H:784:A:H4'	1.81	0.45
26:1H:962:G:H2'	26:1H:963:U:C6	2.52	0.45
26:1H:1189:A:P	61:1H:3649:HOH:O	2.75	0.45
26:1H:1580:A:H8	26:1H:1580:A:OP2	2.00	0.45
26:1H:1585:C:H2'	26:1H:1586:A:H5'	1.99	0.45
26:1H:2055:C:H1'	30:21:145:LYS:NZ	2.31	0.45
26:1H:2240:C:O2'	26:1H:2241:A:H5'	2.16	0.45
26:1H:2299:G:H8	26:1H:2299:G:O5'	2.00	0.45
26:1H:2316:C:H2'	26:1H:2317:C:H6	1.82	0.45
26:1H:2331:G:H4'	48:I8:43:THR:H	1.81	0.45
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.17	0.45
29:11:29:PRO:CB	29:11:30:GLU:CA	2.91	0.45
30:21:49:LEU:HD21	30:21:91:VAL:HG21	1.98	0.45
30:21:75:VAL:C	30:21:76:ARG:HD2	2.43	0.45
32:41:64:THR:HB	32:41:94:LEU:CD2	2.47	0.45
33:51:4:ILE:HB	33:51:6:ARG:CD	2.47	0.45
33:51:37:VAL:HG13	33:51:38:SER:O	2.17	0.45
41:B8:27:THR:HA	41:B8:48:ILE:HA	1.99	0.45
46:G8:5:MET:HB2	46:G8:5:MET:HE2	1.67	0.45
1:1G:411:A:OP1	4:32:30:LYS:NZ	2.47	0.45
1:1G:1320:C:H2'	1:1G:1321:C:O4'	2.17	0.45
2:12:53:ARG:HH11	2:12:56:ARG:NH1	2.15	0.45
2:12:91:PRO:CB	2:12:155:LEU:HB2	2.47	0.45
2:12:211:ILE:O	2:12:215:LEU:HD12	2.17	0.45
3:22:122:GLU:HA	3:22:125:GLU:OE1	2.17	0.45
5:42:11:ILE:HD12	5:42:31:LEU:HD12	1.98	0.45
9:82:53:VAL:HG11	9:82:92:TYR:CE1	2.52	0.45
10:1A:51:ARG:HG2	10:1A:60:ARG:HA	1.98	0.45
11:2A:77:MET:HE2	11:2A:77:MET:HB2	1.78	0.45
26:14:271(A):C:H1'	26:14:272:G:H1'	1.99	0.45
26:14:956:G:H5"	38:45:77:LYS:HD2	1.97	0.45
26:14:1119:C:H2'	26:14:1120:G:O4'	2.17	0.45
26:14:1184:G:C6	26:14:1185:C:C4	3.05	0.45
26:14:1225:C:C4'	43:95:85:LYS:HD3	2.47	0.45
26:14:1274:A:N1	26:14:1644:C:O2'	2.36	0.45
26:14:1582:C:O2'	26:14:1586:A:H8	1.98	0.45
26:14:1793:C:H2'	26:14:1794:U:C6	2.51	0.45
26:14:1795:C:H2'	26:14:1796:U:C6	2.51	0.45
26:14:2245:U:O2'	26:14:2436:G:OP2	2.30	0.45
26:14:2705:A:H2	39:55:64:ARG:HH11	1.65	0.45
29:19:246:PRO:C	29:19:254:THR:HG22	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:56:PRO:HD2	30:29:58:ARG:NH2	2.32	0.45
31:39:65:TRP:CZ3	31:39:75:HIS:HD2	2.35	0.45
36:25:91:LEU:HD13	36:25:91:LEU:HA	1.69	0.45
47:D5:10:ARG:HB3	47:D5:36:LYS:HG3	1.98	0.45
49:F5:79:GLY:O	49:F5:80:LEU:HD13	2.17	0.45
1:13:42:G:H1	1:13:400:C:H42	1.65	0.44
1:13:439:A:H8	1:13:439:A:H5"	1.83	0.44
1:13:646:U:H2'	1:13:647:C:C6	2.51	0.44
1:13:954:G:C2	1:13:955:U:C2	3.06	0.44
1:13:1464:G:H2'	1:13:1465:C:H6	1.82	0.44
4:3E:112:VAL:HG13	4:3E:113:SER:H	1.81	0.44
8:7E:39:LEU:HA	8:7E:39:LEU:HD12	1.74	0.44
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.99	0.44
17:8I:54:GLY:HA2	17:8I:85:VAL:HG21	1.98	0.44
26:1H:102:G:OP1	50:K8:7:ARG:NH1	2.47	0.44
26:1H:270(G):C:H2'	26:1H:270(H):C:C6	2.52	0.44
26:1H:674:G:H1'	31:31:74:ARG:NE	2.32	0.44
26:1H:675:A:OP1	31:31:63:LYS:HE2	2.16	0.44
26:1H:828:U:H4'	26:1H:831:G:N1	2.32	0.44
26:1H:2161:C:H2'	26:1H:2162:G:C8	2.45	0.44
27:16:30:C:H2'	27:16:31:C:H5'	1.98	0.44
31:31:148:LEU:HA	31:31:148:LEU:HD23	1.75	0.44
34:61:1:MET:O	34:61:21:VAL:N	2.36	0.44
34:61:33:ARG:C	34:61:35:LEU:N	2.75	0.44
34:61:64:GLU:HG3	34:61:67:ARG:CZ	2.47	0.44
48:I8:23:VAL:HB	48:I8:26:TYR:CE1	2.50	0.44
1:1G:6:G:HO2'	1:1G:7:G:H5"	1.80	0.44
1:1G:865:A:H2'	1:1G:866:C:O4'	2.16	0.44
1:1G:938:A:N6	1:1G:939:G:C5	2.86	0.44
1:1G:994:A:H2	14:5A:5:ALA:HA	1.79	0.44
1:1G:1190:G:OP1	3:22:5:ILE:HD12	2.17	0.44
1:1G:1309:G:OP2	13:4A:99:ARG:NH2	2.29	0.44
1:1G:1323:G:H2'	1:1G:1324:A:C8	2.51	0.44
1:1G:1534:A:H2'	1:1G:1534:A:N3	2.32	0.44
2:12:12:GLU:HB2	2:12:15:VAL:HG23	1.98	0.44
4:32:61:LYS:HA	4:32:203:VAL:HG22	1.98	0.44
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.17	0.44
16:7A:72:ARG:HH21	16:7A:73:LEU:HD21	1.82	0.44
57:3L:65:C:H2'	57:3L:66:A:C8	2.52	0.44
26:14:443:A:H1'	26:14:1201:C:O4'	2.17	0.44
26:14:942:G:OP1	37:35:39:LYS:HE2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1344:G:O2'	26:14:1385:G:H2'	2.16	0.44
26:14:1572:A:H2'	26:14:1573:G:O4'	2.16	0.44
29:19:44:ASN:HB3	29:19:45:ASN:CA	2.46	0.44
30:29:70:ALA:C	30:29:72:VAL:H	2.26	0.44
30:29:89:ASP:HB3	30:29:90:THR:HG22	1.98	0.44
33:59:160:LYS:H	33:59:160:LYS:HG2	1.39	0.44
45:B5:83:VAL:CG2	45:B5:87:GLN:HB2	2.47	0.44
53:J5:52:TYR:CD2	53:J5:53:ALA:N	2.84	0.44
1:13:200:G:H2'	1:13:201:C:O4'	2.17	0.44
1:13:343:U:O2	1:13:347:G:C6	2.70	0.44
1:13:1143:G:N2	1:13:1144:G:N3	2.65	0.44
2:1E:46:LYS:HA	2:1E:49:GLU:OE1	2.18	0.44
2:1E:49:GLU:H	2:1E:49:GLU:HG3	1.38	0.44
4:3E:82:ALA:HB2	4:3E:92:VAL:HB	2.00	0.44
10:1I:34:VAL:HG12	10:1I:74:ILE:HG23	2.00	0.44
10:1I:57:LYS:O	10:1I:60:ARG:NH2	2.50	0.44
22:1K:53:G:C2'	22:1K:54:5MU:H5"	2.47	0.44
24:3K:35:U:H2'	24:3K:36:U:C6	2.53	0.44
26:1H:27:G:C4	26:1H:512:G:N2	2.85	0.44
26:1H:64:A:C4	45:F8:66:LEU:HD23	2.52	0.44
26:1H:304:G:H2'	26:1H:305:U:H6	1.82	0.44
26:1H:574:C:OP1	61:1H:3613:HOH:O	2.21	0.44
26:1H:631:A:H61	26:1H:2402:C:N4	2.15	0.44
26:1H:663:G:OP1	37:78:17:LYS:HB3	2.17	0.44
26:1H:1210:A:OP1	26:1H:1211:U:O2'	2.30	0.44
26:1H:1273:U:O2'	26:1H:1274:A:H5"	2.17	0.44
26:1H:2025:C:H2'	26:1H:2026:C:C6	2.52	0.44
26:1H:2259:G:C2	26:1H:2282:G:C6	3.05	0.44
26:1H:2655:G:O2'	26:1H:2664:G:O6	2.25	0.44
33:51:22:GLY:O	33:51:37:VAL:HG12	2.16	0.44
37:78:63:PRO:HB3	55:Q8:30:ARG:HH21	1.82	0.44
41:B8:7:ILE:O	41:B8:10:VAL:N	2.44	0.44
45:F8:15:GLU:CD	45:F8:15:GLU:N	2.68	0.44
49:J8:87:PRO:HB3	49:J8:91:LYS:HE3	1.99	0.44
50:K8:7:ARG:O	50:K8:11:GLU:HG2	2.18	0.44
1:1G:683:G:H2'	1:1G:684:A:C8	2.52	0.44
1:1G:1278:U:H5'	1:1G:1279:A:C5'	2.47	0.44
1:1G:1291:G:OP1	7:62:41:ARG:NH2	2.50	0.44
1:1G:1345:U:H4'	1:1G:1346:A:H5"	1.99	0.44
1:1G:1360:A:H8	1:1G:1360:A:OP1	1.98	0.44
2:12:127:ILE:HG23	2:12:135:GLN:CD	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.98	0.44
56:1L:75:C:O2'	26:14:2507:C:H4'	2.17	0.44
26:14:274:G:N2	26:14:276:A:N7	2.65	0.44
26:14:654(C):G:H1'	26:14:654(S):G:N1	2.32	0.44
26:14:972:G:OP2	26:14:974:G:H5"	2.17	0.44
26:14:2313:C:H2'	26:14:2314:C:C6	2.52	0.44
27:1J:16:G:H2'	27:1J:17:C:H6	1.82	0.44
29:19:121:PRO:HB3	29:19:135:PHE:CE2	2.52	0.44
29:19:177:LEU:HB3	29:19:178:PRO:HD2	1.98	0.44
30:29:113:PHE:HA	30:29:159:HIS:HD2	1.82	0.44
34:69:62:LYS:HG3	34:69:63:ALA:N	2.31	0.44
35:15:127:ASP:HB3	35:15:128:HIS:H	1.53	0.44
36:25:4:PRO:HA	36:25:21:CYS:O	2.16	0.44
41:75:6:LEU:O	41:75:10:VAL:HG23	2.17	0.44
42:85:69:CYS:O	42:85:74:LEU:HD12	2.17	0.44
46:C5:17:SER:HB2	46:C5:71:LYS:HZ3	1.82	0.44
1:13:51:A:N7	1:13:114:U:O2'	2.50	0.44
1:13:1499:A:H1'	1:13:1520:G:O5'	2.16	0.44
5:4E:110:LEU:O	5:4E:115:VAL:HB	2.18	0.44
7:6E:5:ARG:CZ	7:6E:7:ALA:HA	2.48	0.44
13:4I:84:ILE:HD12	13:4I:84:ILE:HA	1.80	0.44
23:2K:53:G:C6	23:2K:54:G:C5	3.05	0.44
26:1H:28:A:C2'	26:1H:29:U:H5'	2.47	0.44
26:1H:270(T):G:C6	26:1H:270(U):C:C4	3.06	0.44
26:1H:700:G:H2'	26:1H:701:G:O4'	2.18	0.44
26:1H:2238:G:H2'	26:1H:2238:G:N3	2.32	0.44
26:1H:2562:U:H1'	36:68:23:ARG:NH1	2.33	0.44
26:1H:2592:G:C2'	26:1H:2593:U:H5'	2.48	0.44
26:1H:2822:G:O6	39:98:2:ARG:HG3	2.17	0.44
28:71:68:LEU:O	28:71:177:LYS:HG2	2.17	0.44
31:31:7:TYR:CE2	31:31:21:ALA:HB1	2.53	0.44
37:78:19:VAL:HG22	37:78:27:HIS:HB2	1.98	0.44
37:78:61:ARG:CB	37:78:61:ARG:HH11	2.30	0.44
42:C8:20:LEU:HA	42:C8:20:LEU:HD23	1.73	0.44
46:G8:40:GLU:HA	46:G8:41:GLY:HA2	1.78	0.44
1:1G:445:G:H1	1:1G:489:C:H42	1.65	0.44
1:1G:547:A:OP2	4:32:2:GLY:N	2.50	0.44
1:1G:991:U:O2	1:1G:993:G:H8	1.99	0.44
1:1G:1333:A:H2'	1:1G:1334:G:O4'	2.17	0.44
1:1G:1353:G:C2	1:1G:1370:G:C2	3.05	0.44
3:22:17:ASP:OD1	3:22:18:TRP:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:89:THR:H	5:42:97:GLY:HA3	1.82	0.44
5:42:105:VAL:HG21	5:42:128:PRO:HB3	1.99	0.44
10:1A:35:SER:O	10:1A:72:VAL:HG13	2.17	0.44
15:6A:32:LEU:HD23	15:6A:32:LEU:HA	1.84	0.44
26:14:463:G:N2	26:14:465:G:H3'	2.33	0.44
26:14:685:A:O2'	26:14:773:U:O4	2.26	0.44
26:14:851:U:OP1	51:H5:49:LYS:HE2	2.17	0.44
26:14:908:C:P	38:45:22:LYS:HE2	2.58	0.44
26:14:1019:U:H2'	26:14:1020:A:H8	1.81	0.44
26:14:1542:G:H3'	26:14:1543:A:H5"	2.00	0.44
26:14:2191:G:H5'	26:14:2192:G:OP2	2.17	0.44
26:14:2641:G:H2'	26:14:2642:G:O4'	2.17	0.44
27:1J:4:C:H2'	27:1J:5:C:C6	2.53	0.44
32:49:130:ASN:HB3	32:49:159:VAL:O	2.17	0.44
34:69:79:ILE:HD11	34:69:140:LEU:HD11	2.00	0.44
37:35:78:PRO:HA	37:35:110:TYR:CE1	2.52	0.44
39:55:18:LEU:HA	39:55:18:LEU:HD23	1.55	0.44
40:65:33:LYS:HB3	40:65:34:HIS:CD2	2.52	0.44
41:75:1:MET:HE3	41:75:3:ARG:HA	1.99	0.44
41:75:82:LEU:HD12	41:75:82:LEU:H	1.83	0.44
45:B5:31:HIS:HE1	45:B5:33:LYS:HG3	1.81	0.44
48:E5:27:GLU:HG3	48:E5:68:GLU:HA	1.99	0.44
49:F5:16:ASN:HB3	49:F5:37:ILE:HD12	1.99	0.44
1:13:302:G:C6	1:13:303:A:C5	3.06	0.44
1:13:567:G:H2'	1:13:568:G:O4'	2.18	0.44
1:13:639:G:H2'	1:13:640:A:C8	2.45	0.44
1:13:1117:G:H5"	9:8E:104:ARG:CZ	2.48	0.44
1:13:1133:G:H2'	1:13:1134:G:C8	2.51	0.44
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.52	0.44
1:13:1315:U:C5	1:13:1316:G:C5	3.05	0.44
1:13:1316:G:N2	1:13:1319:A:H5'	2.33	0.44
2:1E:93:VAL:HG21	2:1E:97:TRP:HD1	1.83	0.44
6:5E:3:ARG:HB3	6:5E:93:SER:HB2	1.99	0.44
12:3I:59:ARG:HB2	12:3I:65:GLU:OE2	2.17	0.44
19:AI:7:LYS:HB3	19:AI:7:LYS:NZ	2.32	0.44
19:AI:22:LEU:HG	19:AI:28:LYS:HA	2.00	0.44
26:1H:50:U:H3'	26:1H:51:G:H5'	1.99	0.44
26:1H:764:A:H5'	29:11:210:GLY:HA2	2.00	0.44
26:1H:873:G:H8	26:1H:873:G:O5'	2.01	0.44
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.17	0.44
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1448:G:N2	26:1H:1449:A:N6	2.65	0.44
26:1H:1931:U:O2'	26:1H:1932:A:H5'	2.17	0.44
26:1H:2124:G:N2	26:1H:2175:C:O2	2.50	0.44
26:1H:2125:G:N2	26:1H:2172:U:OP1	2.50	0.44
26:1H:2250:G:O2'	26:1H:2496:C:OP1	2.20	0.44
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.53	0.44
26:1H:2400:G:H1	26:1H:2416:C:H42	1.64	0.44
27:16:29:A:H2'	27:16:30:C:C6	2.52	0.44
28:71:7:TYR:HE1	28:71:220:PRO:HB3	1.82	0.44
29:11:147:LEU:HD13	29:11:155:LEU:HD21	1.99	0.44
30:21:46:ALA:HA	30:21:82:ARG:O	2.17	0.44
30:21:82:ARG:HB3	30:21:83:ASP:H	1.59	0.44
31:31:101:LEU:HA	31:31:101:LEU:HD23	1.56	0.44
34:61:133:HIS:HB2	34:61:134:PRO:HD2	1.99	0.44
38:88:72:LYS:HB3	38:88:94:VAL:HG23	2.00	0.44
51:L8:31:LEU:HD22	51:L8:31:LEU:HA	1.85	0.44
1:1G:475:G:C4	1:1G:476:G:C8	3.05	0.44
1:1G:607:A:H2'	1:1G:608:A:O4'	2.18	0.44
1:1G:894:G:O6	1:1G:895:G:C6	2.70	0.44
1:1G:1160:G:H2'	1:1G:1160:G:N3	2.32	0.44
5:42:86:ALA:HB3	5:42:125:SER:HB2	1.98	0.44
10:1A:28:ARG:NH2	10:1A:34:VAL:HG23	2.32	0.44
56:1L:25:C:C2	56:1L:26:A:H1'	2.53	0.44
56:1L:28:U:H3	56:1L:42:A:H2	1.64	0.44
26:14:140:A:H8	26:14:1408:C:HO2'	1.61	0.44
26:14:312:G:H5'	26:14:331:A:O2'	2.17	0.44
26:14:451:C:N4	26:14:454:A:H5'	2.32	0.44
26:14:580:C:H2'	26:14:581:C:C6	2.52	0.44
26:14:725:G:H8	26:14:725:G:O5'	1.99	0.44
26:14:745:G:C2'	26:14:746:A:H5'	2.46	0.44
26:14:1027:A:C2	26:14:2488:A:H5'	2.53	0.44
26:14:1655:A:OP1	61:14:3573:HOH:O	2.20	0.44
26:14:1728:G:N2	26:14:1730:U:OP2	2.50	0.44
26:14:1909:C:H2'	26:14:1910:G:C8	2.52	0.44
26:14:2494:G:C5	26:14:2495:G:N7	2.86	0.44
61:14:3572:HOH:O	31:39:55:GLY:HA2	2.17	0.44
31:39:73:ALA:HB3	31:39:75:HIS:HE2	1.82	0.44
31:39:123:LEU:HA	31:39:192:LEU:C	2.42	0.44
31:39:130:ALA:H	31:39:142:TRP:CD1	2.36	0.44
37:35:95:VAL:O	37:35:126:VAL:HG23	2.17	0.44
40:65:28:VAL:HG11	40:65:98:VAL:HG12	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:27:LEU:HD22	42:85:31:SER:HB3	1.98	0.44
49:F5:86:SER:N	49:F5:87:PRO:HD2	2.32	0.44
51:H5:6:VAL:O	51:H5:34:GLU:HA	2.17	0.44
1:13:448:A:OP2	1:13:485:G:N2	2.30	0.44
1:13:953:G:H2'	1:13:954:G:O4'	2.17	0.44
2:1E:54:THR:O	2:1E:58:ILE:HG13	2.18	0.44
8:7E:10:LEU:HD22	8:7E:83:ILE:HG13	1.99	0.44
25:4K:7:G:O6	25:4K:8:A:N6	2.51	0.44
26:1H:130:C:O3'	26:1H:1349:A:H1'	2.18	0.44
26:1H:141:A:OP2	26:1H:141(A):C:N4	2.48	0.44
26:1H:631:A:N3	26:1H:2415:G:O2'	2.36	0.44
26:1H:932:G:H4'	26:1H:933:A:O5'	2.17	0.44
26:1H:950:G:H2'	26:1H:951:C:C6	2.52	0.44
26:1H:1186:G:H2'	26:1H:1187:G:O4'	2.18	0.44
26:1H:1394:U:H3'	26:1H:1394:U:C6	2.53	0.44
26:1H:2050:C:H2'	26:1H:2051:A:C8	2.53	0.44
26:1H:2845:G:H5"	41:B8:54:ARG:O	2.17	0.44
34:61:101:LEU:HD13	34:61:101:LEU:HA	1.81	0.44
34:61:104:GLN:HG2	34:61:105:HIS:CE1	2.52	0.44
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.98	0.44
36:68:64:ARG:NH1	36:68:81:ASP:OD1	2.44	0.44
36:68:112:MET:HE2	36:68:112:MET:HB2	1.86	0.44
52:M8:42:PHE:O	52:M8:43:TYR:HB3	2.16	0.44
1:1G:146:G:H2'	1:1G:147:G:C8	2.52	0.44
1:1G:377:G:H1	1:1G:386:C:N4	2.07	0.44
1:1G:408:A:H2'	1:1G:409:G:O4'	2.18	0.44
1:1G:518:C:H5"	1:1G:519:C:H6	1.81	0.44
1:1G:562:C:H1'	12:3A:15:ARG:HD2	2.00	0.44
1:1G:885:G:O2'	1:1G:914:A:N1	2.43	0.44
1:1G:1179:A:H4'	9:82:103:THR:HA	1.99	0.44
1:1G:1243:C:OP1	21:1B:8:THR:HG21	2.18	0.44
2:12:162:ILE:HD11	2:12:184:VAL:HG22	1.98	0.44
6:52:24:GLU:O	6:52:28:ARG:HG2	2.17	0.44
12:3A:39:VAL:HB	12:3A:57:LYS:HZ2	1.82	0.44
26:14:558:G:P	35:15:111:PRO:HD2	2.58	0.44
26:14:1007:C:OP1	35:15:35:ARG:NH1	2.51	0.44
26:14:1798:U:H5'	29:19:259:THR:OG1	2.16	0.44
26:14:2472:G:H22	26:14:2477:C:P	2.40	0.44
31:39:4:VAL:HG21	31:39:17:ARG:NH2	2.33	0.44
35:15:43:THR:N	35:15:48:MET:HE1	2.32	0.44
39:55:26:LYS:HE2	39:55:70:LEU:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:47:PHE:O	39:55:51:LEU:HD13	2.18	0.44
40:65:49:VAL:HB	40:65:73:LEU:HD21	1.98	0.44
41:75:2:ASN:ND2	41:75:2:ASN:O	2.51	0.44
41:75:55:ASN:O	41:75:59:THR:N	2.51	0.44
46:C5:39:VAL:HG23	46:C5:41:GLY:N	2.32	0.44
1:13:142:G:H2'	1:13:143:A:H8	1.83	0.44
1:13:221:C:H2'	1:13:222:U:C6	2.39	0.44
1:13:555:C:H2'	1:13:556:C:C6	2.52	0.44
1:13:757:U:H5"	1:13:822:C:O2	2.17	0.44
3:2E:141:VAL:HG11	3:2E:202:ILE:HD13	2.00	0.44
4:3E:154:ASN:H	4:3E:154:ASN:ND2	2.15	0.44
6:5E:44:GLY:HA2	6:5E:59:TYR:CE1	2.53	0.44
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.48	0.44
25:4K:9:G:N3	25:4K:9:G:H2'	2.33	0.44
26:1H:1051:G:H2'	26:1H:1051:G:N3	2.33	0.44
26:1H:2516:G:C6	26:1H:2517:C:N4	2.85	0.44
26:1H:2830:G:H5"	26:1H:2830:G:H8	1.83	0.44
31:31:59:TYR:CD1	31:31:78:ILE:HD11	2.53	0.44
40:A8:56:LEU:HB2	40:A8:58:LEU:HD11	1.98	0.44
44:E8:65:LEU:HD23	44:E8:67:ASP:HB2	1.98	0.44
47:H8:77:ASP:OD2	47:H8:80:ARG:HG2	2.18	0.44
48:I8:40:GLN:HE21	48:I8:57:PHE:HB3	1.81	0.44
50:K8:38:GLN:HA	50:K8:41:ILE:HG22	1.98	0.44
1:1G:45:U:H2'	1:1G:46:G:C8	2.53	0.44
1:1G:135:C:O2	16:7A:1:MET:HB3	2.17	0.44
1:1G:266:G:O3'	17:8A:67:LYS:HB2	2.18	0.44
1:1G:562:C:O2'	12:3A:16:GLU:O	2.26	0.44
1:1G:585:G:H4'	12:3A:8:ASN:OD1	2.17	0.44
1:1G:1127:G:O2'	1:1G:1128:C:H5'	2.18	0.44
13:4A:108:ARG:HD3	13:4A:108:ARG:HA	1.81	0.44
19:AA:11:VAL:HG23	19:AA:39:THR:H	1.82	0.44
26:14:82:G:N1	26:14:103:A:OP2	2.44	0.44
26:14:298:G:OP1	46:C5:85:VAL:HA	2.18	0.44
26:14:923:C:H2'	26:14:924:C:C6	2.52	0.44
26:14:1011:G:C6	26:14:1013:C:C4	3.06	0.44
26:14:1024:G:C3'	26:14:1025:G:H5"	2.47	0.44
26:14:1337:G:H2'	26:14:1338:G:H8	1.83	0.44
26:14:1514:U:H2'	26:14:1515:C:C6	2.52	0.44
26:14:1953:A:N1	26:14:2549:G:O2'	2.39	0.44
26:14:2023:G:H5'	26:14:2617:C:H4'	2.00	0.44
26:14:2165:G:H3'	26:14:2166:G:H5'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2336:A:H61	48:E5:43:THR:HG22	1.83	0.44
26:14:2702:U:O2	26:14:2703:C:N4	2.51	0.44
26:14:2794:C:H3'	26:14:2795:G:H8	1.81	0.44
26:14:2794:C:H5"	26:14:2795:G:N7	2.32	0.44
26:14:2822:G:P	30:29:110:GLY:HA3	2.57	0.44
26:14:2849:U:H4'	26:14:2868:A:C2	2.52	0.44
27:1J:33:G:H1'	27:1J:50:G:H22	1.83	0.44
34:69:80:PRO:HA	34:69:143:SER:HB2	2.00	0.44
37:35:18:ARG:HB2	37:35:19:VAL:CG1	2.47	0.44
41:75:55:ASN:OD1	41:75:58:ASN:HB2	2.17	0.44
43:95:20:LEU:O	43:95:94:LEU:N	2.50	0.44
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.99	0.44
47:D5:27:VAL:O	47:D5:88:PHE:HB2	2.17	0.44
55:M5:50:LEU:HB3	55:M5:55:ALA:HB2	2.00	0.44
1:13:114:U:H2'	1:13:115:G:C8	2.53	0.44
1:13:630:G:O2'	1:13:631:G:H5'	2.17	0.44
4:3E:199:ASN:ND2	4:3E:199:ASN:C	2.74	0.44
5:4E:63:ARG:HB2	5:4E:64:ARG:NH2	2.32	0.44
7:6E:63:LYS:O	7:6E:66:VAL:HG12	2.17	0.44
14:5I:21:TYR:HE2	14:5I:23:ARG:HE	1.66	0.44
16:7I:14:ASN:N	16:7I:15:PRO:HD3	2.33	0.44
16:7I:19:ILE:HG22	16:7I:36:ILE:HG13	1.99	0.44
19:AI:6:LYS:O	19:AI:7:LYS:NZ	2.36	0.44
24:3K:25:C:C2	24:3K:26:A:H1'	2.53	0.44
26:1H:611:C:H2'	26:1H:612:G:O4'	2.18	0.44
26:1H:654(U):A:H2'	26:1H:654(V):A:O4'	2.18	0.44
26:1H:942:G:H4'	26:1H:1190:G:H5'	1.99	0.44
26:1H:1408:C:C2	26:1H:1595:G:N2	2.86	0.44
26:1H:1425:G:H2'	26:1H:1426:G:C8	2.51	0.44
26:1H:2512:C:H4'	30:21:122:PHE:CE2	2.53	0.44
26:1H:2573:C:H3'	61:1H:3529:HOH:O	2.17	0.44
26:1H:2600:A:H2'	26:1H:2601:C:C6	2.52	0.44
27:16:43:C:P	32:41:67:LYS:HZ2	2.41	0.44
28:71:166:ASP:OD1	28:71:166:ASP:N	2.51	0.44
37:78:100:LEU:HD12	37:78:105:LEU:HD13	1.98	0.44
37:78:101:VAL:HG12	37:78:106:LEU:HD12	1.99	0.44
39:98:56:LYS:HE3	39:98:88:ARG:HA	2.00	0.44
47:H8:60:GLU:HA	47:H8:66:SER:HA	1.99	0.44
1:1G:994:A:C5	1:1G:1216:G:H4'	2.53	0.44
1:1G:1134:G:C6	1:1G:1135:U:H1'	2.53	0.44
1:1G:1396:A:H4'	1:1G:1397:C:O5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:4:TYR:CD1	4:32:4:TYR:C	2.95	0.44
4:32:155:LEU:O	4:32:158:ILE:HG22	2.17	0.44
5:42:98:THR:HB	5:42:117:ASP:HB3	2.00	0.44
5:42:118:ILE:HG12	5:42:119:LEU:N	2.33	0.44
57:3L:58:A:O2'	57:3L:59:A:P	2.75	0.44
26:14:760:G:H2'	26:14:761:A:O4'	2.18	0.44
26:14:950:G:C6	26:14:951:C:C4	3.06	0.44
26:14:972:G:H3'	26:14:973:A:H2'	2.00	0.44
26:14:1116:C:H2'	26:14:1117:G:H8	1.83	0.44
26:14:1260:G:C5	26:14:1261:C:C5	3.06	0.44
26:14:1399:C:H2'	26:14:1400:G:C8	2.52	0.44
26:14:1678:G:N2	26:14:1989:G:H22	2.16	0.44
26:14:1681:G:C4	61:14:3658:HOH:O	2.70	0.44
26:14:1717:G:C6	26:14:1743:G:C6	3.06	0.44
26:14:1856:G:H2'	26:14:1857:G:H5'	1.99	0.44
26:14:1969:A:H3'	61:14:3507:HOH:O	2.18	0.44
26:14:2134:A:C5	26:14:2158:A:C8	3.06	0.44
26:14:2142:C:H2'	26:14:2143:C:C6	2.52	0.44
26:14:2338:G:N2	26:14:2339:G:C4	2.86	0.44
26:14:2430:A:H8	26:14:2431:U:C5	2.35	0.44
26:14:2465:C:O2	26:14:2486:G:C2	2.70	0.44
26:14:2635:C:H5'	30:29:78:LEU:HB2	1.99	0.44
26:14:2696:U:H2'	26:14:2697:G:H8	1.83	0.44
26:14:2726:U:H6	36:25:67:LYS:HZ3	1.66	0.44
30:29:111:ARG:HD2	30:29:160:TYR:CE2	2.53	0.44
31:39:167:ALA:HB1	31:39:173:VAL:HG11	1.99	0.44
32:49:144:ILE:HA	32:49:148:MET:SD	2.58	0.44
33:59:58:GLU:HB3	33:59:61:HIS:ND1	2.33	0.44
36:25:113:LYS:O	36:25:117:LEU:HD13	2.18	0.44
37:35:11:GLY:HA3	37:35:12:ALA:O	2.17	0.44
47:D5:28:MET:HE2	47:D5:28:MET:HB3	1.62	0.44
47:D5:95:PRO:HA	47:D5:128:VAL:C	2.42	0.44
1:13:1226:C:H4'	1:13:1227:A:OP1	2.17	0.44
9:8E:89:ASN:O	9:8E:92:TYR:HB2	2.18	0.44
13:4I:10:PRO:CB	13:4I:18:ALA:HB1	2.48	0.44
20:BI:49:ALA:CB	20:BI:99:LEU:HB2	2.46	0.44
24:3K:3:G:O6	24:3K:69:A:N6	2.50	0.44
25:4K:13:A:H2'	25:4K:14:A:H4'	1.99	0.44
26:1H:274:G:H21	26:1H:276:A:H61	1.66	0.44
26:1H:455:C:N3	26:1H:472:A:H2'	2.33	0.44
26:1H:511:U:C5	26:1H:512:G:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	2.00	0.44
26:1H:1600:C:H2'	26:1H:1601:G:H8	1.83	0.44
26:1H:1952:A:C2	36:68:22:ILE:HG23	2.52	0.44
26:1H:2642:G:N2	26:1H:2773:C:C2	2.86	0.44
27:16:44:G:O2'	27:16:45:A:OP2	2.31	0.44
29:11:244:ARG:HB2	29:11:245:PRO:HD2	1.99	0.44
35:58:39:ARG:HH11	35:58:48:MET:CE	2.31	0.44
45:F8:5:TYR:HB3	50:K8:33:MET:HB2	1.98	0.44
47:H8:7:ALA:O	47:H8:8:TYR:CG	2.71	0.44
49:J8:58:ILE:CG2	49:J8:87:PRO:HG3	2.47	0.44
1:1G:193:C:H2'	1:1G:194:C:C6	2.52	0.44
1:1G:619:U:C2	4:32:135:LEU:HD22	2.53	0.44
1:1G:719:C:O2'	18:9A:50:ILE:O	2.24	0.44
1:1G:757:U:O2'	1:1G:879:C:H1'	2.18	0.44
1:1G:1004:A:H4'	1:1G:1004:A:OP2	2.18	0.44
1:1G:1200:C:HO2'	1:1G:1201:A:P	2.38	0.44
1:1G:1323:G:H2'	1:1G:1324:A:H8	1.82	0.44
1:1G:1354:C:O5'	1:1G:1354:C:H6	2.00	0.44
7:62:27:ILE:HD11	7:62:40:ALA:HA	1.99	0.44
13:4A:107:ALA:O	13:4A:111:LYS:HB2	2.18	0.44
21:1B:3:LYS:H	21:1B:3:LYS:HG3	1.60	0.44
26:14:67:U:H2'	26:14:68:G:H8	1.82	0.44
26:14:288:C:H2'	26:14:289:A:C8	2.53	0.44
26:14:827:U:O2'	26:14:2068:U:C2	2.64	0.44
26:14:1425:G:H2'	26:14:1426:G:C8	2.53	0.44
26:14:1511:A:H2'	26:14:1512:G:O4'	2.18	0.44
26:14:1614:A:N6	44:A5:92:ARG:O	2.51	0.44
26:14:1731:G:N3	26:14:1731:G:H5"	2.33	0.44
26:14:1889:A:H1'	26:14:2087:G:O4'	2.18	0.44
26:14:2123:G:N2	26:14:2176:A:N1	2.66	0.44
26:14:2370:G:H2'	26:14:2371:G:O4'	2.18	0.44
26:14:2567:G:H2'	26:14:2568:C:C6	2.53	0.44
27:1J:6:C:C2	27:1J:115:G:N2	2.86	0.44
27:1J:73:A:H3'	27:1J:74:U:H6	1.83	0.44
29:19:92:ILE:HD12	29:19:104:TYR:CD1	2.52	0.44
34:69:120:ILE:HD12	34:69:126:TYR:CE2	2.53	0.44
35:15:42:TRP:O	42:85:64:ARG:NH2	2.49	0.44
36:25:13:ASN:O	36:25:15:GLY:N	2.51	0.44
37:35:12:ALA:HA	37:35:13:ASN:HA	1.32	0.44
37:35:39:LYS:HA	37:35:45:LEU:HD13	1.99	0.44
42:85:47:TYR:HD2	43:95:72:VAL:HG23	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:31:ALA:O	43:95:61:VAL:HG23	2.17	0.44
46:C5:75:ILE:O	46:C5:76:CYS:HB3	2.17	0.44
48:E5:36:ILE:HD12	48:E5:58:THR:CG2	2.46	0.44
50:G5:69:ARG:HA	50:G5:70:GLN:HA	1.62	0.44
1:13:52:G:H2'	1:13:53:A:C8	2.53	0.44
1:13:246:A:C4	1:13:282:A:N6	2.86	0.44
1:13:376:G:H5"	16:7I:5:ARG:HB2	1.99	0.44
1:13:434:U:H2'	1:13:435:C:O4'	2.18	0.44
1:13:788:U:C3'	1:13:789:U:H5'	2.45	0.44
1:13:1126:U:O4	10:1I:38:ILE:HD12	2.17	0.44
2:1E:187:LEU:CD1	2:1E:214:ILE:HD13	2.40	0.44
4:3E:15:GLU:CD	4:3E:59:ARG:HH21	2.26	0.44
4:3E:87:GLY:O	4:3E:88:VAL:HG23	2.17	0.44
4:3E:92:VAL:C	4:3E:96:LEU:HD22	2.42	0.44
4:3E:169:LYS:HE2	4:3E:170:VAL:H	1.83	0.44
6:5E:80:ARG:NH1	6:5E:88:VAL:HB	2.33	0.44
19:AI:17:GLU:O	19:AI:21:GLU:HB2	2.18	0.44
20:BI:73:HIS:C	20:BI:74:LYS:HG2	2.43	0.44
22:1K:23:A:H2'	22:1K:24:G:H8	1.83	0.44
23:2K:2:G:H2'	23:2K:3:C:C6	2.52	0.44
26:1H:275:G:N2	26:1H:276:A:N7	2.49	0.44
26:1H:355:G:H2'	26:1H:356:G:C8	2.52	0.44
26:1H:754:C:H2'	26:1H:755:C:C6	2.53	0.44
26:1H:1372:U:H2'	26:1H:1373:A:O4'	2.18	0.44
26:1H:1613:G:O2'	54:P8:3:ARG:NE	2.50	0.44
26:1H:2144:U:O2'	26:1H:2148:G:N2	2.49	0.44
26:1H:2427:C:H5"	26:1H:2428:G:OP1	2.16	0.44
26:1H:2678:C:H2'	26:1H:2679:A:O4'	2.18	0.44
26:1H:2818:G:N2	26:1H:2829:C:C2	2.86	0.44
26:1H:2850:A:H3'	26:1H:2851:A:C8	2.53	0.44
31:31:28:ILE:HG21	31:31:119:ARG:NH2	2.32	0.44
43:D8:1:MET:O	43:D8:99:ILE:HD12	2.18	0.44
47:H8:77:ASP:HB3	47:H8:84:GLU:OE2	2.18	0.44
1:1G:428:G:H4'	1:1G:429:U:O5'	2.18	0.44
1:1G:779:C:H2'	1:1G:780:A:O4'	2.17	0.44
1:1G:1305:G:O2'	1:1G:1306:A:H8	2.00	0.44
1:1G:1376:U:H2'	1:1G:1377:A:H8	1.83	0.44
1:1G:1399:C:H4'	1:1G:1400:C:H5"	2.00	0.44
5:42:88:LYS:HB3	5:42:123:LEU:HB2	1.98	0.44
6:52:46:ARG:HE	6:52:46:ARG:HB3	1.67	0.44
7:62:54:THR:OG1	7:62:55:GLY:N	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:17:THR:HG22	8:72:18:ARG:HH11	1.83	0.44
13:4A:55:ARG:HH11	13:4A:55:ARG:HG3	1.83	0.44
13:4A:66:LEU:HA	13:4A:70:LEU:HD12	1.99	0.44
13:4A:88:ARG:H	13:4A:88:ARG:HG3	1.40	0.44
56:1L:16:U:H5'	56:1L:17:U:OP2	2.17	0.44
57:3L:37:A:H2'	57:3L:38:A:O4'	2.17	0.44
26:14:263:C:H2'	26:14:264:C:O4'	2.17	0.44
26:14:470:A:H5'	26:14:470:A:H8	1.83	0.44
26:14:527:C:H2'	26:14:2779:U:C5	2.53	0.44
26:14:1018:C:C5	26:14:1019:U:H5	2.36	0.44
26:14:1030:G:H1	26:14:1124:C:H42	1.65	0.44
26:14:1107:G:N1	26:14:1108:U:H1'	2.33	0.44
26:14:1138:G:H21	35:15:106:MET:CE	2.31	0.44
26:14:1995:U:H3'	26:14:1996:C:H2'	1.99	0.44
26:14:2205:C:H2'	26:14:2206:C:H6	1.83	0.44
26:14:2611:U:H2'	53:J5:2:ALA:O	2.18	0.44
26:14:2849:U:H1'	26:14:2866:U:O2	2.18	0.44
27:1J:33:G:C2	27:1J:34:U:C2	3.06	0.44
29:19:261:LYS:HE2	29:19:263:ARG:H	1.81	0.44
32:49:120:LEU:N	32:49:179:PRO:O	2.42	0.44
34:69:74:ASN:O	34:69:75:LEU:HB2	2.17	0.44
34:69:120:ILE:CG2	34:69:126:TYR:HE2	2.29	0.44
35:15:30:ILE:HG23	35:15:52:VAL:HG11	2.00	0.44
36:25:64:ARG:NH1	41:75:70:VAL:HG21	2.33	0.44
40:65:62:LYS:O	40:65:65:VAL:HG12	2.17	0.44
42:85:8:VAL:HG11	42:85:12:ARG:HH21	1.82	0.44
51:H5:55:ARG:O	51:H5:55:ARG:HG2	2.17	0.44
1:13:166:G:H2'	1:13:167:G:H8	1.82	0.43
1:13:658:G:C2	1:13:659:U:C2	3.05	0.43
1:13:685:G:N2	1:13:686:U:C4	2.86	0.43
1:13:1178:G:N2	1:13:1181:G:C8	2.86	0.43
10:1I:60:ARG:HE	10:1I:60:ARG:HB3	1.67	0.43
26:1H:66:C:C4	26:1H:67:U:C4	3.06	0.43
26:1H:687:C:H1'	54:P8:4:THR:HG22	1.99	0.43
26:1H:844:C:H3'	26:1H:845:G:C8	2.53	0.43
26:1H:1021:A:O2'	26:1H:1123:C:OP1	2.31	0.43
26:1H:1445:C:H2'	26:1H:1446:C:H6	1.83	0.43
26:1H:2287:A:N6	26:1H:2344:U:N3	2.60	0.43
26:1H:2401:U:H2'	26:1H:2402:C:H5"	2.00	0.43
26:1H:2801:A:H5'	26:1H:2895:U:H1'	1.99	0.43
27:16:50:G:OP2	40:A8:62:LYS:HG3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:37:LEU:H	29:11:37:LEU:HG	1.30	0.43
32:41:96:ARG:O	32:41:97:ASP:HB2	2.17	0.43
34:61:40:THR:HG22	34:61:41:GLU:H	1.83	0.43
34:61:82:ARG:HB3	34:61:89:TYR:HD2	1.83	0.43
37:78:19:VAL:HG13	37:78:31:ALA:HB1	1.99	0.43
40:A8:62:LYS:HB2	40:A8:97:ARG:HD2	2.00	0.43
41:B8:31:SER:HB2	41:B8:84:GLN:HB3	2.00	0.43
50:K8:57:ILE:HG22	50:K8:61:LEU:HD12	2.00	0.43
1:1G:750:G:H21	15:6A:23:GLY:HA2	1.83	0.43
1:1G:927:G:N2	1:1G:1391:U:H1'	2.33	0.43
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.99	0.43
3:22:65:ALA:HA	3:22:100:ALA:CB	2.48	0.43
3:22:84:ILE:HG12	3:22:85:ARG:N	2.33	0.43
7:62:116:ALA:O	7:62:120:ILE:HG12	2.17	0.43
7:62:122:HIS:O	7:62:126:ASP:N	2.51	0.43
10:1A:28:ARG:HH21	10:1A:34:VAL:HG23	1.83	0.43
13:4A:56:LEU:O	13:4A:60:VAL:HG23	2.18	0.43
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.53	0.43
56:1L:67:C:N4	56:1L:68:G:C6	2.86	0.43
26:14:217:G:H8	26:14:217:G:O5'	2.00	0.43
26:14:534:U:H5'	42:85:42:ALA:HB1	2.00	0.43
26:14:843:G:N2	26:14:936:C:C2	2.86	0.43
26:14:1190:G:H2'	26:14:1191:G:H8	1.83	0.43
26:14:1389:G:H2'	26:14:1390:U:O4'	2.17	0.43
26:14:1507:A:C4	26:14:1508:A:H1'	2.52	0.43
26:14:1702:G:H2'	26:14:1703:G:O4'	2.17	0.43
26:14:1945:G:C4	26:14:1946:U:C5	3.06	0.43
26:14:2346:A:H5"	26:14:2383:G:O4'	2.17	0.43
26:14:2611:U:H3'	26:14:2611:U:OP2	2.18	0.43
26:14:2808:U:C2	26:14:2809:A:C8	3.06	0.43
33:59:6:ARG:HB2	33:59:6:ARG:NH1	2.32	0.43
38:45:27:VAL:HG12	47:D5:81:ARG:NH2	2.33	0.43
43:95:37:VAL:CG2	43:95:56:SER:HA	2.47	0.43
44:A5:13:SER:O	44:A5:16:LYS:HB2	2.18	0.43
49:F5:45:ASN:O	49:F5:63:ALA:HA	2.17	0.43
1:13:191(F):U:H2'	1:13:191:G:C8	2.53	0.43
1:13:323:U:H2'	1:13:324:G:O4'	2.18	0.43
1:13:755:G:H21	8:7E:1:MET:HE1	1.83	0.43
1:13:1077:G:N2	1:13:1080:A:OP2	2.46	0.43
1:13:1244:C:H2'	1:13:1245:A:H8	1.82	0.43
2:1E:162:ILE:HD11	2:1E:184:VAL:HG22	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:54:ARG:NH1	24:3K:39:U:O3'	2.51	0.43
26:1H:275:G:N2	26:1H:278:A:H61	2.15	0.43
26:1H:654:A:H3'	26:1H:654:A:N3	2.33	0.43
26:1H:1021:A:C2	26:1H:1023:U:C2	3.05	0.43
26:1H:1568:G:P	29:11:63:ARG:HH12	2.35	0.43
26:1H:2191:G:H2'	26:1H:2192:G:O4'	2.19	0.43
26:1H:2258:C:H4'	26:1H:2259:G:OP2	2.18	0.43
29:11:205:VAL:O	29:11:206:LEU:C	2.60	0.43
33:51:94:TYR:HA	33:51:106:THR:O	2.19	0.43
36:68:7:TYR:CZ	36:68:44:LYS:HG3	2.53	0.43
39:98:46:GLY:HA2	39:98:49:ASP:HB2	1.99	0.43
41:B8:2:ASN:O	41:B8:6:LEU:HB2	2.18	0.43
44:E8:39:THR:HG22	44:E8:44:ALA:HB2	2.00	0.43
45:F8:63:LYS:HE3	45:F8:63:LYS:HB3	1.64	0.43
46:G8:101:LYS:C	46:G8:102:CYS:SG	3.00	0.43
1:1G:665:A:H2'	1:1G:732:C:O2	2.17	0.43
1:1G:977:A:H1'	1:1G:982:U:O4	2.18	0.43
1:1G:1122:U:N3	1:1G:1123:A:N7	2.66	0.43
4:32:139:ARG:HH11	4:32:139:ARG:CG	2.31	0.43
7:62:69:VAL:O	7:62:69:VAL:HG12	2.18	0.43
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.84	0.43
13:4A:81:LEU:HD12	13:4A:89:GLY:HA3	2.00	0.43
26:14:26:G:H1'	26:14:515:A:H61	1.83	0.43
26:14:792:G:H3'	26:14:793:A:H5'	2.00	0.43
26:14:1399:C:H2'	26:14:1400:G:H8	1.82	0.43
26:14:1635:G:H5"	26:14:1636:C:OP2	2.18	0.43
26:14:1819:A:H5"	29:19:161:THR:HG21	1.99	0.43
26:14:2365:G:H2'	26:14:2366:A:C8	2.53	0.43
26:14:2542:A:H1'	26:14:2543:G:N7	2.33	0.43
26:14:2786:U:O2	30:29:62:PRO:HB3	2.18	0.43
29:19:72:LYS:HB3	29:19:72:LYS:HE2	1.59	0.43
31:39:7:TYR:CE1	31:39:16:GLY:HA3	2.53	0.43
34:69:77:LEU:HG	34:69:78:THR:OG1	2.18	0.43
41:75:45:PHE:CE1	41:75:65:LYS:HG2	2.53	0.43
42:85:66:ASN:ND2	42:85:70:ARG:HE	2.15	0.43
42:85:100:VAL:C	42:85:102:GLU:H	2.26	0.43
1:13:243:A:H4'	1:13:244:U:H5"	1.99	0.43
1:13:408:A:H2'	1:13:409:G:O4'	2.19	0.43
1:13:464:G:C6	1:13:466:C:H5'	2.53	0.43
1:13:1120:G:C2	1:13:1154:G:C2	3.06	0.43
1:13:1190:G:H5"	3:2E:176:HIS:CE1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:139:LYS:HA	2:1E:139:LYS:HE3	2.00	0.43
4:3E:197:PRO:HD3	6:52:16:GLN:HG2	1.99	0.43
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.18	0.43
8:7E:18:ARG:HG2	8:7E:18:ARG:HH11	1.83	0.43
26:1H:330:A:O2'	26:1H:331:A:C8	2.65	0.43
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.83	0.43
37:78:122:PRO:HA	37:78:142:GLY:CA	2.48	0.43
47:H8:15:PRO:O	47:H8:19:ARG:HB2	2.18	0.43
55:Q8:52:LYS:CB	55:Q8:53:PRO:HD2	2.48	0.43
1:1G:186(A):C:H5"	20:BA:86:ARG:NH2	2.32	0.43
1:1G:429:U:H3'	4:32:9:CYS:SG	2.58	0.43
1:1G:924:C:N4	1:1G:925:G:O6	2.51	0.43
1:1G:989:C:H42	1:1G:1216:G:H1	1.66	0.43
1:1G:1003:G:N2	1:1G:1037:C:O2	2.33	0.43
1:1G:1321:C:C4	1:1G:1322:C:C4	3.06	0.43
2:12:25:ASN:HA	2:12:26:PRO:HD3	1.69	0.43
4:32:112:VAL:HG12	4:32:116:GLN:CD	2.42	0.43
7:62:26:PHE:O	7:62:30:ILE:HG12	2.18	0.43
14:5A:6:LEU:H	14:5A:6:LEU:HG	1.55	0.43
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.83	0.43
26:14:34:C:HO2'	26:14:35:G:H8	1.66	0.43
26:14:65:C:H4'	45:B5:69:TYR:CD1	2.53	0.43
26:14:390:A:C6	37:35:71:VAL:HG21	2.52	0.43
26:14:615:G:H2'	31:39:44:ARG:NH1	2.32	0.43
26:14:1568:G:H4'	29:19:59:LYS:HD2	2.00	0.43
26:14:1569:A:O2'	29:19:37:LEU:HD23	2.19	0.43
26:14:2306:C:H2'	26:14:2307:G:N2	2.33	0.43
26:14:2335:A:C8	26:14:2337:G:N7	2.87	0.43
26:14:2387:U:H1'	48:E5:41:ARG:HE	1.83	0.43
26:14:2438:U:H5"	26:14:2600:A:OP1	2.17	0.43
27:1J:72:G:O2'	27:1J:104:A:N6	2.51	0.43
37:35:62:LEU:HA	37:35:63:PRO:HD2	1.77	0.43
40:65:110:LEU:HG	40:65:112:PHE:CE1	2.54	0.43
47:D5:48:PHE:CE2	47:D5:52:SER:HA	2.54	0.43
1:13:153:C:H42	1:13:168:G:N2	2.08	0.43
1:13:280:C:H3'	1:13:281:G:H5'	2.01	0.43
1:13:627:G:C2	1:13:628:G:C8	3.07	0.43
1:13:724:G:C2	1:13:725:G:C8	3.05	0.43
1:13:1079:G:C6	1:13:1080:A:N6	2.87	0.43
2:1E:114:ARG:NH1	2:1E:141:GLU:OE2	2.52	0.43
8:7E:39:LEU:HB3	8:7E:45:ILE:CG1	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	2.00	0.43
9:8E:13:ALA:HB1	9:8E:73:GLN:HG2	2.00	0.43
20:BI:29:LYS:O	20:BI:33:ILE:HG13	2.18	0.43
20:BI:50:GLU:HG2	20:BI:100:ILE:HD12	2.00	0.43
26:1H:380:U:H2'	26:1H:381:G:C8	2.53	0.43
26:1H:411:G:H4'	26:1H:412:A:OP1	2.19	0.43
26:1H:568:U:H5'	26:1H:945:A:C2	2.53	0.43
26:1H:576:U:H5	61:1H:3943:HOH:O	2.00	0.43
26:1H:1170:G:N2	26:1H:1180:C:C2	2.86	0.43
26:1H:1392:A:H62	26:1H:1393:A:N6	2.16	0.43
26:1H:2799:A:H3'	26:1H:2801:A:O4'	2.19	0.43
26:1H:2810:A:H2'	26:1H:2811:G:O4'	2.18	0.43
28:71:189:ILE:CG2	28:71:190:ARG:N	2.81	0.43
30:21:101:ARG:C	30:21:201:THR:OG1	2.61	0.43
34:61:4:ILE:HG21	34:61:47:LEU:HD13	2.00	0.43
34:61:95:LYS:HA	34:61:111:PRO:HG3	2.00	0.43
39:98:88:ARG:HG3	39:98:89:ASP:N	2.34	0.43
47:H8:24:LEU:HA	47:H8:25:PRO:HD3	1.78	0.43
50:K8:64:LEU:O	50:K8:64:LEU:HD22	2.18	0.43
1:1G:431:A:H2'	1:1G:432:A:O4'	2.19	0.43
1:1G:547:A:H4'	1:1G:548:G:O5'	2.18	0.43
1:1G:993:G:H2'	1:1G:993:G:N3	2.33	0.43
1:1G:1007:C:H1'	1:1G:1023:G:H22	1.84	0.43
1:1G:1124:G:H2'	1:1G:1145:C:C5	2.53	0.43
1:1G:1288:A:H4'	21:1B:13:ILE:CD1	2.46	0.43
2:12:22:LYS:HG3	2:12:24:TRP:CZ2	2.53	0.43
4:32:23:GLY:N	4:32:26:CYS:SG	2.74	0.43
8:72:34:GLU:OE1	8:72:37:ARG:NH2	2.44	0.43
8:72:100:ILE:HA	8:72:101:PRO:HD3	1.83	0.43
9:82:54:ASP:OD1	9:82:54:ASP:N	2.52	0.43
11:2A:121:PRO:HB2	11:2A:125:PHE:HB2	2.00	0.43
11:2A:122:LYS:HE2	11:2A:122:LYS:HB3	1.78	0.43
19:AA:71:LEU:HD22	19:AA:71:LEU:HA	1.87	0.43
20:BA:54:LYS:HA	20:BA:57:ARG:NH1	2.33	0.43
26:14:218:A:C2	26:14:235:U:H4'	2.53	0.43
26:14:239:U:H2'	26:14:240:G:O4'	2.19	0.43
26:14:669:G:N3	26:14:669:G:H2'	2.31	0.43
26:14:729:G:O4'	29:19:208:LYS:NZ	2.51	0.43
26:14:1451:C:H42	26:14:1459:G:H1	1.67	0.43
26:14:1570:A:H4'	29:19:37:LEU:HD21	2.00	0.43
26:14:2475:C:H2'	26:14:2477:C:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2840:C:H4'	39:55:53:HIS:CE1	2.54	0.43
29:19:46:GLN:H	29:19:46:GLN:HG2	1.51	0.43
30:29:49:LEU:HD11	30:29:81:ILE:HG12	2.00	0.43
30:29:163:GLU:HG2	30:29:164:ARG:N	2.33	0.43
31:39:34:TRP:CZ3	31:39:35:GLU:HG2	2.54	0.43
33:59:9:ILE:HG21	33:59:51:ARG:HD3	2.00	0.43
33:59:69:ARG:O	33:59:72:ILE:HG12	2.18	0.43
34:69:133:HIS:CD2	34:69:134:PRO:HD3	2.53	0.43
34:69:140:LEU:HD12	34:69:140:LEU:HA	1.87	0.43
37:35:52:GLU:HG2	37:35:55:ARG:HD2	2.00	0.43
40:65:11:LYS:HG3	40:65:91:PRO:HD3	2.01	0.43
40:65:26:LEU:HD22	40:65:87:PHE:CD1	2.54	0.43
40:65:65:VAL:O	40:65:68:GLN:HB2	2.19	0.43
55:M5:48:PHE:O	55:M5:48:PHE:CG	2.71	0.43
1:13:280:C:H3'	1:13:281:G:C5'	2.49	0.43
1:13:411:A:H2'	1:13:413:G:O4'	2.19	0.43
1:13:607:A:C2	16:7I:31:LYS:HG3	2.54	0.43
1:13:631:G:HO2'	1:13:632:A:H8	1.64	0.43
1:13:758:G:H8	1:13:758:G:O5'	2.02	0.43
1:13:1308:U:H5"	13:4I:98:VAL:HG22	2.00	0.43
1:13:1510:U:O2	1:13:1526:G:C2	2.71	0.43
4:3E:165:MET:HA	4:3E:168:ARG:CD	2.48	0.43
9:8E:12:GLU:O	9:8E:68:GLY:N	2.52	0.43
26:1H:37:C:H2'	26:1H:38:A:C8	2.53	0.43
26:1H:270(V):G:O2'	26:1H:270(W):G:H5'	2.18	0.43
26:1H:481:G:C4	26:1H:507:A:C2	3.07	0.43
26:1H:533:G:H5'	42:C8:24:TYR:CD1	2.54	0.43
26:1H:851:U:O2'	51:L8:42:ALA:O	2.37	0.43
26:1H:969:U:OP1	51:L8:17:LYS:HG2	2.18	0.43
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.18	0.43
26:1H:2177:C:H5"	28:71:213:TYR:CE1	2.54	0.43
26:1H:2431:U:O2	26:1H:2433:A:C8	2.71	0.43
27:16:83:G:C6	27:16:84:C:C5	3.07	0.43
28:71:189:ILE:HG23	28:71:190:ARG:HG3	2.01	0.43
33:51:86:GLU:HG2	33:51:87:LEU:N	2.32	0.43
40:A8:30:ARG:O	40:A8:30:ARG:HG3	2.15	0.43
42:C8:104:GLN:HG3	43:D8:44:LYS:HE2	2.01	0.43
50:K8:33:MET:O	50:K8:37:PHE:HD1	2.02	0.43
52:M8:38:LYS:HD2	52:M8:38:LYS:N	2.34	0.43
1:1G:10:A:OP2	5:42:126:ARG:HD2	2.18	0.43
1:1G:377:G:H5'	16:7A:5:ARG:NH1	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:455:C:O5'	1:1G:455:C:H6	2.01	0.43
1:1G:647:C:H2'	1:1G:648:A:C8	2.54	0.43
1:1G:922:G:C6	1:1G:923:A:C6	3.05	0.43
1:1G:937:A:H1'	1:1G:1379:G:C2	2.54	0.43
1:1G:1008:C:H42	1:1G:1021:G:H1	1.67	0.43
1:1G:1279:A:H5"	1:1G:1280:A:OP2	2.19	0.43
4:32:108:LEU:HG	4:32:110:PHE:HE1	1.83	0.43
6:52:69:GLU:H	6:52:69:GLU:CD	2.27	0.43
19:AA:9:VAL:HG13	19:AA:10:PHE:N	2.33	0.43
26:14:26:G:C6	26:14:27:G:N1	2.86	0.43
26:14:137(A):G:H2'	26:14:139:G:N7	2.33	0.43
26:14:511:U:H5	26:14:512:G:C5	2.36	0.43
26:14:650:C:O3'	55:M5:17:THR:HB	2.18	0.43
26:14:1011:G:N3	26:14:1151:G:C2	2.87	0.43
26:14:1212:G:H1'	26:14:1236:G:N2	2.33	0.43
26:14:1635:G:N3	26:14:1635:G:H2'	2.32	0.43
26:14:2130:U:H3'	26:14:2130:U:H6	1.83	0.43
26:14:2197:U:H1'	26:14:2198:A:C8	2.53	0.43
26:14:2287:A:H2	26:14:2346:A:C2	2.36	0.43
26:14:2314:C:H5'	32:49:38:VAL:HG11	2.00	0.43
26:14:2494:G:C4	26:14:2495:G:C8	3.06	0.43
26:14:2729:G:H4'	30:29:186:GLY:HA3	2.00	0.43
29:19:255:LYS:H	29:19:255:LYS:HZ1	1.61	0.43
30:29:141:ILE:HD12	30:29:150:VAL:HG21	2.00	0.43
31:39:82:ILE:H	31:39:82:ILE:HG13	1.47	0.43
32:49:120:LEU:HB2	32:49:180:PHE:CD1	2.53	0.43
34:69:112:LYS:O	34:69:113:ARG:HB2	2.18	0.43
38:45:57:HIS:ND1	38:45:117:ALA:HB2	2.33	0.43
42:85:66:ASN:CG	42:85:76:TYR:HB2	2.43	0.43
1:13:359:U:H2'	1:13:360:A:C8	2.54	0.43
1:13:843:U:H5"	1:13:848:C:C5	2.54	0.43
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.84	0.43
1:13:1367:C:N3	1:13:1368:G:C8	2.87	0.43
1:13:1507:A:OP2	25:4K:12:A:C2	2.72	0.43
2:1E:114:ARG:HA	2:1E:117:GLU:HB3	2.00	0.43
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.85	0.43
7:6E:107:ALA:HB3	7:6E:134:ALA:HB2	2.01	0.43
10:1I:25:GLU:O	10:1I:29:ARG:HG2	2.19	0.43
17:8I:41:LYS:HD2	17:8I:88:TYR:HE2	1.82	0.43
20:BI:16:HIS:O	20:BI:19:SER:HB2	2.18	0.43
26:1H:126:A:OP2	54:P8:19:ARG:HG3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:485:C:H2'	26:1H:486:C:H6	1.84	0.43
26:1H:1259:G:O2'	26:1H:1260:G:H5'	2.18	0.43
26:1H:1693:U:OP2	26:1H:1694:C:N4	2.42	0.43
26:1H:2502:G:P	61:1H:3586:HOH:O	2.77	0.43
27:16:3:C:H2'	27:16:4:C:C6	2.53	0.43
27:16:14:U:OP2	27:16:70:C:O2'	2.24	0.43
29:11:274:ARG:O	29:11:275:LYS:C	2.60	0.43
37:78:47:ASP:HA	37:78:48:PRO:HD3	1.71	0.43
39:98:98:LEU:HD22	39:98:98:LEU:HA	1.85	0.43
42:C8:66:ASN:O	42:C8:70:ARG:HB2	2.18	0.43
43:D8:7:THR:HG23	43:D8:12:TYR:CE1	2.53	0.43
43:D8:46:VAL:HG23	43:D8:52:VAL:HG21	2.00	0.43
44:E8:57:ASN:O	44:E8:61:ASN:HB2	2.18	0.43
46:G8:37:VAL:HG21	46:G8:72:VAL:HG21	1.99	0.43
49:J8:85:LEU:HA	49:J8:85:LEU:HD13	1.71	0.43
50:K8:53:LEU:O	50:K8:57:ILE:HG13	2.18	0.43
55:Q8:16:ILE:HD13	55:Q8:59:LYS:HG2	2.00	0.43
1:1G:266:G:H5"	1:1G:267:C:C5	2.53	0.43
1:1G:373:A:C2	1:1G:374:A:C8	3.06	0.43
1:1G:474:G:C2	1:1G:475:G:C5	3.06	0.43
1:1G:1170:A:C2	1:1G:1171:G:H1'	2.54	0.43
1:1G:1317:C:C4	14:5A:16:PHE:CZ	3.06	0.43
2:12:19:HIS:CD2	2:12:204:ASN:HB3	2.54	0.43
2:12:86:GLU:HB3	2:12:92:TYR:CE2	2.54	0.43
4:32:39:PRO:O	4:32:44:GLY:HA3	2.18	0.43
5:42:142:LEU:HA	5:42:142:LEU:HD23	1.80	0.43
10:1A:48:THR:HG23	10:1A:62:HIS:ND1	2.32	0.43
26:14:51:G:N3	26:14:119:A:C2	2.87	0.43
26:14:381:G:OP1	49:F5:16:ASN:ND2	2.47	0.43
26:14:1268:A:H2'	26:14:1269:A:O4'	2.18	0.43
26:14:1321:A:H2'	26:14:1322:A:O4'	2.19	0.43
26:14:1418:G:H2'	26:14:1579:A:H62	1.83	0.43
26:14:2007:C:H4'	26:14:2824:C:O2'	2.19	0.43
26:14:2295:C:C4	26:14:2296:U:H5	2.36	0.43
26:14:2340:G:H2'	26:14:2341:G:H8	1.84	0.43
26:14:2468:G:N2	26:14:2481:G:O2'	2.38	0.43
26:14:2556:C:H2'	26:14:2557:G:O4'	2.18	0.43
31:39:32:LEU:HB3	31:39:112:MET:HE1	2.00	0.43
31:39:113:ALA:HB1	31:39:186:ILE:HG21	1.99	0.43
31:39:153:SER:OG	31:39:190:GLU:HG3	2.19	0.43
35:15:127:ASP:O	35:15:128:HIS:HB3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:110:THR:O	38:45:113:GLN:N	2.52	0.43
39:55:13:HIS:HD2	39:55:15:SER:H	1.67	0.43
40:65:60:GLY:O	40:65:61:ASN:HB2	2.19	0.43
41:75:4:GLY:CA	41:75:8:LYS:HB2	2.47	0.43
41:75:5:ALA:C	41:75:7:ILE:H	2.24	0.43
41:75:53:ARG:NH1	41:75:60:THR:HG23	2.33	0.43
42:85:102:GLU:HB3	42:85:105:VAL:HG13	2.01	0.43
44:A5:95:ILE:HG13	44:A5:95:ILE:O	2.17	0.43
44:A5:106:ILE:O	44:A5:106:ILE:HG13	2.17	0.43
48:E5:56:ASP:OD1	48:E5:58:THR:OG1	2.37	0.43
49:F5:41:ARG:HB2	49:F5:43:TYR:CE1	2.52	0.43
1:13:586:C:H2'	1:13:587:G:O4'	2.19	0.43
1:13:649:G:H2'	1:13:650:G:H8	1.83	0.43
4:3E:110:PHE:CE2	4:3E:148:VAL:HG23	2.54	0.43
9:8E:16:ARG:HB2	9:8E:64:THR:OG1	2.18	0.43
9:8E:78:LYS:HE3	9:8E:101:PHE:CD1	2.54	0.43
9:8E:81:ILE:H	9:8E:81:ILE:HG12	1.51	0.43
13:4I:91:ARG:HB2	13:4I:98:VAL:HG13	2.01	0.43
26:1H:57:C:H2'	26:1H:58:G:O4'	2.18	0.43
26:1H:495:G:H1'	44:E8:57:ASN:CG	2.44	0.43
26:1H:1788:C:OP1	29:11:222:ARG:NH2	2.49	0.43
26:1H:1828:G:H8	26:1H:1828:G:OP2	2.01	0.43
26:1H:2040:C:H2'	26:1H:2041:U:O4'	2.18	0.43
26:1H:2117:A:H2'	26:1H:2147:G:N2	2.31	0.43
26:1H:2135:A:H4'	26:1H:2160:G:H5'	2.00	0.43
28:71:59:ARG:HD3	28:71:164:ARG:C	2.44	0.43
30:21:1:MET:HB3	30:21:83:ASP:O	2.19	0.43
30:21:82:ARG:HA	30:21:82:ARG:HD3	1.38	0.43
34:61:7:GLU:HG2	34:61:8:PRO:CD	2.48	0.43
35:58:12:ARG:HH11	35:58:14:VAL:HG22	1.83	0.43
37:78:94:GLU:HG3	37:78:124:LYS:HD3	2.00	0.43
41:B8:51:ARG:HB2	41:B8:98:LYS:HZ2	1.84	0.43
42:C8:95:LEU:CD1	43:D8:11:GLN:HB2	2.49	0.43
43:D8:59:ALA:HA	43:D8:95:LEU:O	2.18	0.43
46:G8:33:LYS:HE2	46:G8:33:LYS:HB2	1.48	0.43
46:G8:54:LYS:HE2	46:G8:55:TYR:CE2	2.53	0.43
50:K8:51:ARG:NH1	50:K8:55:ARG:HH12	2.16	0.43
1:1G:146:G:H2'	1:1G:147:G:H8	1.84	0.43
1:1G:821:G:H2'	1:1G:822:C:C6	2.53	0.43
1:1G:939:G:C6	1:1G:940:C:N4	2.87	0.43
1:1G:1053:G:H5'	1:1G:1055:A:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1158:C:C2	1:1G:1160:G:C8	3.06	0.43
1:1G:1198:G:H2'	1:1G:1199:U:C6	2.53	0.43
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.82	0.43
5:42:11:ILE:HG21	5:42:105:VAL:HG22	2.00	0.43
5:42:28:PHE:O	5:42:47:LYS:HA	2.19	0.43
9:82:42:ARG:HE	9:82:42:ARG:HB2	1.33	0.43
9:82:79:LEU:HD23	9:82:82:ALA:HB3	2.00	0.43
11:2A:69:ALA:O	11:2A:73:MET:HG3	2.19	0.43
13:4A:90:LEU:C	13:4A:92:HIS:H	2.27	0.43
14:5A:25:VAL:O	14:5A:26:ARG:HB3	2.17	0.43
18:9A:50:ILE:HG13	18:9A:74:ARG:NH2	2.33	0.43
57:3L:58:A:O2'	57:3L:59:A:OP1	2.34	0.43
26:14:68:G:H2'	26:14:69:C:C6	2.54	0.43
26:14:71:A:H4'	26:14:72:U:O5'	2.19	0.43
26:14:141:A:H8	26:14:1595:G:N2	2.07	0.43
26:14:1169:G:C2	26:14:1170:G:H1'	2.54	0.43
26:14:1455:G:P	61:14:3659:HOH:O	2.76	0.43
26:14:1680:U:N3	26:14:1764:G:OP2	2.35	0.43
26:14:1954:G:O2'	26:14:1956:U:O4	2.32	0.43
26:14:2030:A:N3	26:14:2499:C:H5"	2.34	0.43
26:14:2062:A:HO2'	26:14:2063:C:P	2.40	0.43
26:14:2816:C:O2	26:14:2883:A:O2'	2.36	0.43
27:1J:56:G:H4'	27:1J:57:A:C8	2.53	0.43
27:1J:59:A:H3'	27:1J:60:C:H6	1.83	0.43
29:19:65:ILE:HG13	29:19:104:TYR:HB3	2.00	0.43
30:29:143:ASN:HD22	30:29:147:PRO:CD	2.32	0.43
37:35:46:LYS:HE2	37:35:46:LYS:HB3	1.54	0.43
39:55:8:ARG:HB2	39:55:43:GLU:OE2	2.19	0.43
40:65:110:LEU:HG	40:65:112:PHE:CZ	2.54	0.43
43:95:21:ARG:HH21	43:95:91:TYR:CB	2.32	0.43
50:G5:24:LEU:HD22	50:G5:60:LEU:HD21	2.01	0.43
1:13:130:A:C8	17:8I:63:ARG:HB2	2.54	0.43
1:13:359:U:OP1	34:69:87:LYS:HD2	2.18	0.43
1:13:444:C:H42	1:13:490:G:H1	1.67	0.43
1:13:872:A:C4	1:13:874:G:N7	2.87	0.43
1:13:947:G:H2'	1:13:948:C:O4'	2.19	0.43
1:13:1137:C:H1'	1:13:1138:G:N1	2.34	0.43
2:1E:17:PHE:HB3	2:1E:44:LEU:HD21	2.01	0.43
4:3E:148:VAL:HG21	4:3E:181:MET:HE2	1.99	0.43
4:3E:185:PHE:HE2	4:3E:188:LEU:HD23	1.83	0.43
7:6E:69:VAL:HG22	7:6E:135:VAL:HG22	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:7:THR:O	9:8E:83:ARG:NH1	2.41	0.43
9:8E:33:PHE:CE2	9:8E:47:LEU:HD11	2.54	0.43
26:1H:585:G:P	61:1H:3572:HOH:O	2.76	0.43
26:1H:603:A:N1	26:1H:625:G:O2'	2.47	0.43
26:1H:671:C:OP1	37:78:42:SER:O	2.36	0.43
26:1H:917:A:H8	27:16:97:G:N2	2.17	0.43
26:1H:1406:U:H2'	26:1H:1407:C:H6	1.83	0.43
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.18	0.43
26:1H:2349:G:C6	26:1H:2350:C:C6	3.07	0.43
30:21:134:ILE:C	30:21:134:ILE:HD12	2.44	0.43
37:78:112:LEU:O	37:78:128:HIS:HB2	2.18	0.43
41:B8:35:LYS:HE3	41:B8:38:ASN:HA	2.00	0.43
41:B8:117:ASP:CG	41:B8:120:ARG:HG3	2.44	0.43
54:P8:5:TRP:HA	54:P8:5:TRP:CE3	2.52	0.43
1:1G:170:U:O2'	1:1G:171:A:H5'	2.18	0.43
1:1G:328:C:O2	1:1G:328:C:H2'	2.17	0.43
1:1G:975:A:H4'	1:1G:976:G:C5'	2.48	0.43
1:1G:1344:C:H5"	9:82:120:ARG:O	2.18	0.43
1:1G:1378:C:H3'	1:1G:1379:G:C5'	2.48	0.43
2:12:105:PHE:HE2	2:12:157:ARG:HA	1.83	0.43
4:32:105:VAL:HB	4:32:117:ALA:HB1	2.01	0.43
14:5A:29:ARG:CG	14:5A:30:ALA:N	2.82	0.43
19:AA:40:ILE:O	19:AA:68:GLY:N	2.52	0.43
57:3L:27:G:H1	57:3L:43:U:H3	1.65	0.43
26:14:380:U:H2'	26:14:381:G:C8	2.53	0.43
26:14:593:G:H1	26:14:664:C:H42	1.67	0.43
26:14:675:A:C8	26:14:804:A:C6	3.06	0.43
26:14:777:A:O2'	26:14:778:G:H5'	2.19	0.43
26:14:1149:G:C2	26:14:1150:C:N3	2.87	0.43
26:14:1210:A:H5'	26:14:1212:G:C5'	2.49	0.43
26:14:1359:A:H2'	26:14:1360:A:H5'	2.01	0.43
26:14:1599:C:H2'	26:14:1600:C:C6	2.50	0.43
26:14:1653:G:C5	39:55:9:LYS:HD2	2.54	0.43
26:14:1864:U:OP1	26:14:2411:A:H5'	2.19	0.43
26:14:1921:G:H2'	26:14:1922:G:C8	2.54	0.43
26:14:2853:C:H2'	26:14:2854:G:H8	1.82	0.43
27:1J:33:G:N2	27:1J:34:U:O2	2.52	0.43
27:1J:52:A:H62	40:65:33:LYS:HG3	1.84	0.43
29:19:211:ARG:O	29:19:215:LEU:HG	2.18	0.43
33:59:148:ILE:HG12	33:59:148:ILE:H	1.54	0.43
35:15:128:HIS:CD2	35:15:134:ARG:NH1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:101:VAL:HA	37:35:105:LEU:O	2.18	0.43
37:35:102:ARG:CZ	37:35:102:ARG:HB3	2.49	0.43
42:85:114:LYS:H	42:85:114:LYS:HG2	1.49	0.43
43:95:60:GLU:HB2	43:95:97:LYS:HE2	2.01	0.43
55:M5:50:LEU:HB3	55:M5:51:ALA:H	1.40	0.43
1:13:563:A:O4'	1:13:566:G:N2	2.51	0.43
1:13:651:C:H2'	1:13:652:U:C6	2.54	0.43
1:13:816:A:OP1	1:13:1526:G:O2'	2.32	0.43
1:13:848:C:H2'	1:13:849:C:O4'	2.18	0.43
1:13:1154:G:C4	1:13:1155:G:C8	3.07	0.43
2:1E:22:LYS:HE2	2:1E:22:LYS:HB3	1.83	0.43
2:1E:51:LEU:HD23	2:1E:51:LEU:HA	1.85	0.43
5:4E:95:ALA:O	5:4E:98:THR:OG1	2.33	0.43
16:7I:43:LYS:HG2	16:7I:48:TRP:CZ3	2.54	0.43
17:8I:59:ILE:HB	17:8I:71:PHE:HB3	2.01	0.43
26:1H:118:A:OP2	26:1H:119:A:H2'	2.19	0.43
26:1H:275:G:N7	26:1H:363:G:C6	2.87	0.43
26:1H:536:A:OP1	42:C8:53:ARG:NH1	2.52	0.43
26:1H:1332:G:N2	26:1H:1609:A:HO2'	2.16	0.43
26:1H:1455:G:C2'	26:1H:1456:G:H5'	2.48	0.43
26:1H:2137:C:H1'	26:1H:2155:G:N2	2.33	0.43
26:1H:2350:C:O2	26:1H:2350:C:H2'	2.18	0.43
26:1H:2509:G:H1	26:1H:2579:C:H42	1.67	0.43
26:1H:2647:U:H2'	26:1H:2648:C:H6	1.83	0.43
31:31:20:LEU:HD12	31:31:21:ALA:H	1.82	0.43
32:41:121:ASN:HA	32:41:122:PRO:HD2	1.81	0.43
36:68:22:ILE:HD13	36:68:22:ILE:HG21	1.86	0.43
37:78:144:GLU:HA	37:78:145:PRO:HD3	1.77	0.43
40:A8:106:ARG:NH1	40:A8:107:GLU:HG2	2.32	0.43
45:F8:11:PRO:HG2	45:F8:13:LEU:HD21	2.01	0.43
45:F8:65:ARG:O	45:F8:65:ARG:HG3	2.19	0.43
54:P8:35:ARG:HG3	54:P8:42:LEU:HD11	2.00	0.43
1:1G:358:U:H2'	1:1G:359:U:H6	1.82	0.43
1:1G:377:G:P	16:7A:5:ARG:HH11	2.42	0.43
1:1G:870:U:H4'	1:1G:871:U:H5"	2.01	0.43
1:1G:1127:G:N2	1:1G:1144:G:H22	2.17	0.43
1:1G:1191:A:H5"	3:22:4:LYS:NZ	2.34	0.43
1:1G:1348:U:N3	1:1G:1374:A:H2	2.17	0.43
6:52:11:ASN:HB3	6:52:14:LEU:CD1	2.49	0.43
6:52:67:MET:HE3	6:52:67:MET:HB2	1.85	0.43
26:14:312:G:H4'	26:14:331:A:N3	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:579:G:C8	26:14:2017:U:C4	3.07	0.43
26:14:1263:U:H2'	26:14:1264:G:C8	2.54	0.43
26:14:1776:G:OP2	61:14:3571:HOH:O	2.20	0.43
26:14:2718:G:O2'	26:14:2847:U:OP1	2.30	0.43
26:14:2768:C:H2'	26:14:2769:C:O4'	2.19	0.43
37:35:132:LYS:HA	37:35:132:LYS:HD2	1.82	0.43
51:H5:5:LYS:HE3	51:H5:57:GLU:HB2	2.01	0.43
1:13:51:A:C6	1:13:353:A:C2	3.06	0.43
1:13:160:A:N1	1:13:344:A:H8	2.17	0.43
1:13:876:G:H1'	8:7E:11:THR:HG21	2.01	0.43
1:13:994:A:H2'	1:13:994:A:N3	2.34	0.43
1:13:1329:A:H5'	13:4I:29:ARG:HD2	2.01	0.43
2:1E:97:TRP:CH2	2:1E:176:GLU:CD	2.97	0.43
2:1E:223:ILE:H	2:1E:223:ILE:HG12	1.52	0.43
4:3E:150:GLU:HG3	4:3E:153:ARG:NH2	2.34	0.43
13:4I:107:ALA:HB3	13:4I:111:LYS:HD2	2.00	0.43
16:7I:17:TYR:HE2	16:7I:41:PRO:HG3	1.84	0.43
20:BI:25:ARG:O	20:BI:29:LYS:HG3	2.19	0.43
20:BI:53:LEU:HG	20:BI:100:ILE:HG23	2.01	0.43
26:1H:55:G:C2	26:1H:116:C:N3	2.87	0.43
26:1H:146:G:H2'	26:1H:147:U:O4'	2.18	0.43
26:1H:289:A:C4	26:1H:290:G:C8	3.07	0.43
26:1H:317:G:N2	26:1H:318:C:C2	2.87	0.43
26:1H:1155:A:OP1	42:C8:55:ARG:HD3	2.19	0.43
26:1H:1313:U:H4'	26:1H:1332:G:H4'	2.01	0.43
26:1H:1444:G:C2	26:1H:1548:C:N3	2.87	0.43
26:1H:2715:C:C4	26:1H:2716:U:C5	3.07	0.43
26:1H:2807:G:H3'	26:1H:2808:U:H5"	2.01	0.43
27:16:15:A:H1'	27:16:109:G:N9	2.34	0.43
32:41:113:ARG:NH1	32:41:142:PRO:HA	2.34	0.43
36:68:64:ARG:HB2	36:68:83:ALA:HB3	2.00	0.43
37:78:19:VAL:O	37:78:19:VAL:HG12	2.19	0.43
42:C8:47:TYR:CD1	42:C8:47:TYR:C	2.97	0.43
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.17	0.43
47:H8:151:HIS:N	47:H8:154:ASP:OD2	2.45	0.43
54:P8:5:TRP:NE1	54:P8:7:PRO:HG3	2.34	0.43
1:1G:41:G:H2'	1:1G:42:G:C8	2.54	0.43
1:1G:193:C:H2'	1:1G:194:C:H6	1.84	0.43
1:1G:464:G:O6	1:1G:466:C:H5'	2.19	0.43
1:1G:516:U:O2'	1:1G:519:C:N3	2.52	0.43
1:1G:1342:C:H2'	1:1G:1343:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:77:ALA:O	2:12:81:VAL:HG23	2.19	0.43
9:82:17:VAL:HG21	9:82:80:GLY:HA3	1.99	0.43
12:3A:27:LEU:CD2	12:3A:60:LEU:HB3	2.49	0.43
13:4A:12:ASN:HA	13:4A:46:LYS:HG3	2.01	0.43
17:8A:10:VAL:HG23	17:8A:54:GLY:N	2.34	0.43
23:2L:54:G:O2'	23:2L:55:5MU:H5"	2.18	0.43
26:14:444:C:H4'	31:39:49:ALA:HB2	2.01	0.43
26:14:932:G:H4'	26:14:933:A:O5'	2.19	0.43
26:14:1007:C:H5"	35:15:35:ARG:HH11	1.83	0.43
26:14:1161:C:H2'	26:14:1162:G:C8	2.54	0.43
26:14:2298:A:H61	26:14:2318:G:H2'	1.83	0.43
29:19:85:ASP:HA	29:19:86:PRO:HD2	1.83	0.43
31:39:31:HIS:NE2	31:39:35:GLU:OE1	2.52	0.43
31:39:183:VAL:O	31:39:187:VAL:HG23	2.19	0.43
32:49:142:PRO:HG2	32:49:143:GLU:OE2	2.19	0.43
36:25:9:GLU:O	36:25:83:ALA:HA	2.18	0.43
46:C5:57:GLN:HB3	46:C5:58:GLY:H	1.64	0.43
46:C5:67:LEU:HD12	46:C5:67:LEU:HA	1.72	0.43
46:C5:85:VAL:HB	46:C5:86:ARG:H	1.64	0.43
1:13:142:G:H2'	1:13:143:A:C8	2.53	0.42
1:13:600:C:OP1	8:7E:97:VAL:HG12	2.19	0.42
1:13:682:G:H2'	1:13:683:G:H8	1.84	0.42
1:13:926:G:H5"	1:13:927:G:O5'	2.19	0.42
1:13:1147:C:H6	1:13:1147:C:O5'	2.02	0.42
1:13:1351:U:O4	9:8E:118:LYS:HE3	2.19	0.42
5:4E:10:MET:HB3	5:4E:32:VAL:HG22	2.00	0.42
11:2I:21:ILE:HG12	11:2I:30:VAL:HG12	2.01	0.42
12:3I:111:LYS:NZ	12:3I:111:LYS:HA	2.34	0.42
17:8I:22:LEU:HD22	17:8I:88:TYR:CD2	2.45	0.42
19:AI:40:ILE:HG22	19:AI:69:HIS:O	2.19	0.42
26:1H:55:G:C2	26:1H:116:C:C2	3.06	0.42
26:1H:306:U:C5	26:1H:307:G:C5	3.07	0.42
26:1H:1268:A:C2	26:1H:2013:A:C4	3.07	0.42
26:1H:2114:A:H5"	26:1H:2117:A:H5'	2.01	0.42
26:1H:2503:A:H4'	26:1H:2504:U:OP1	2.19	0.42
26:1H:2505:G:O6	26:1H:2576:G:H2'	2.18	0.42
26:1H:2850:A:H3'	26:1H:2851:A:H8	1.84	0.42
30:21:16:ARG:HG2	30:21:21:VAL:HG21	1.99	0.42
30:21:170:LEU:HD21	30:21:187:ALA:HB3	2.02	0.42
33:51:41:MET:HG3	33:51:54:ARG:HA	2.01	0.42
37:78:95:VAL:HG21	37:78:123:LEU:HD13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:20:ALA:CB	38:88:99:PRO:HD2	2.49	0.42
38:88:68:ILE:HD13	38:88:103:MET:HB3	2.00	0.42
47:H8:48:PHE:HE1	47:H8:71:VAL:HG11	1.83	0.42
47:H8:137:ILE:HG21	47:H8:155:LEU:HD13	2.01	0.42
1:1G:200:G:H1	1:1G:217:C:N4	2.16	0.42
1:1G:580:U:H5"	15:6A:58:MET:HG2	2.01	0.42
1:1G:600:C:H2'	1:1G:601:C:H6	1.80	0.42
1:1G:625:G:C5	1:1G:626:U:C5	3.06	0.42
1:1G:640:A:N3	8:72:115:SER:HB3	2.33	0.42
1:1G:683:G:N2	1:1G:708:C:C2	2.87	0.42
1:1G:790:A:C2	1:1G:1497:G:H5"	2.54	0.42
1:1G:836:G:C6	1:1G:851:G:C6	3.07	0.42
1:1G:1191:A:H5"	3:22:4:LYS:HZ3	1.84	0.42
1:1G:1228:C:OP1	13:4A:115:LYS:N	2.38	0.42
1:1G:1326:C:OP1	21:1B:12:LYS:HE3	2.18	0.42
1:1G:1422:G:OP1	36:25:48:PRO:HA	2.19	0.42
2:12:166:ASP:CG	2:12:169:LYS:HB2	2.44	0.42
4:32:201:GLN:HA	4:32:204:ILE:HG22	2.00	0.42
7:62:57:GLU:OE1	7:62:57:GLU:N	2.48	0.42
8:72:99:GLU:OE2	8:72:100:ILE:N	2.25	0.42
15:6A:36:ILE:HG23	15:6A:56:LEU:HD11	2.00	0.42
20:BA:98:PRO:C	20:BA:100:ILE:H	2.26	0.42
26:14:268:C:H2'	26:14:269:U:O4'	2.19	0.42
26:14:781:A:N1	26:14:1776:G:O2'	2.48	0.42
26:14:1028:A:N6	26:14:1126:A:OP1	2.52	0.42
26:14:1386:C:H2'	26:14:1387:C:C6	2.53	0.42
26:14:1536:A:H3'	26:14:1537:C:O4'	2.19	0.42
26:14:2262:U:H4'	26:14:2328:A:C2	2.53	0.42
26:14:2689:U:OP2	26:14:2719:G:N2	2.45	0.42
43:95:85:LYS:HE3	43:95:87:HIS:HA	2.00	0.42
47:D5:11:GLU:HB3	47:D5:13:GLU:CD	2.43	0.42
47:D5:39:VAL:HG21	47:D5:44:PHE:HB2	1.99	0.42
51:H5:5:LYS:HE3	51:H5:5:LYS:HB3	1.70	0.42
1:13:295:C:H2'	1:13:296:U:O4'	2.19	0.42
1:13:917:G:H2'	1:13:918:A:C8	2.54	0.42
1:13:946:A:O2'	1:13:1333:A:H2'	2.20	0.42
1:13:1200:C:H4'	1:13:1201:A:H5"	2.01	0.42
1:13:1240:U:H5'	1:13:1241:G:C8	2.54	0.42
1:13:1343:G:H4'	9:8E:122:ALA:HB3	2.01	0.42
2:1E:16:HIS:NE2	2:1E:213:LEU:HB2	2.33	0.42
17:8I:68:ARG:H	17:8I:70:ARG:HH12	1.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9I:22:VAL:HG12	18:9I:56:THR:HA	2.01	0.42
23:2K:54:G:O2'	23:2K:55:5MU:H5"	2.20	0.42
23:2K:70:C:H2'	23:2K:71:G:O4'	2.19	0.42
24:3K:10:G:C2	24:3K:26:A:C2	3.08	0.42
24:3K:37:A:H3'	24:3K:38:A:C8	2.54	0.42
26:1H:99:U:C6	26:1H:102:G:C2	3.08	0.42
26:1H:118:A:H5'	26:1H:119:A:H8	1.83	0.42
26:1H:813:U:H5	37:78:25:SER:HB2	1.84	0.42
26:1H:1387:C:O2	26:1H:1387:C:H2'	2.18	0.42
26:1H:2378:A:H4'	40:A8:23:ARG:CZ	2.49	0.42
26:1H:2532:G:H8	26:1H:2532:G:O5'	2.02	0.42
28:71:59:ARG:HD3	28:71:163:PHE:HB2	2.00	0.42
29:11:36:PRO:O	29:11:61:LEU:HD12	2.19	0.42
33:51:71:LEU:HD12	33:51:71:LEU:HA	1.88	0.42
34:61:81:VAL:CG1	34:61:88:ILE:HG12	2.49	0.42
43:D8:37:VAL:C	43:D8:38:LEU:HG	2.44	0.42
46:G8:8:LYS:O	46:G8:11:ASP:HB2	2.19	0.42
47:H8:52:SER:O	47:H8:52:SER:OG	2.25	0.42
50:K8:59:ARG:O	50:K8:62:THR:HG23	2.19	0.42
51:L8:21:ALA:O	51:L8:24:LYS:N	2.46	0.42
53:N8:33:CYS:HB3	53:N8:36:CYS:H	1.83	0.42
54:P8:27:GLY:HA2	54:P8:30:VAL:CG2	2.49	0.42
1:1G:308:C:H2'	1:1G:309:G:C8	2.53	0.42
1:1G:557:G:N1	1:1G:558:G:C2	2.87	0.42
1:1G:685:G:C2	1:1G:686:U:C4	3.07	0.42
1:1G:1190:G:P	3:22:5:ILE:HG23	2.59	0.42
1:1G:1407:C:O2'	26:14:1912:A:N1	2.43	0.42
1:1G:1510:U:H2'	1:1G:1511:G:C8	2.54	0.42
2:12:53:ARG:HB3	2:12:57:PHE:CE2	2.54	0.42
3:22:172:ARG:NH1	3:22:174:PRO:HG3	2.34	0.42
9:82:99:LEU:HB3	9:82:101:PHE:HD1	1.82	0.42
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	2.01	0.42
19:AA:38:SER:O	19:AA:71:LEU:HB2	2.19	0.42
20:BA:14:LYS:O	20:BA:18:GLN:HG3	2.19	0.42
20:BA:71:THR:HG22	20:BA:72:LEU:HD13	2.02	0.42
21:1B:6:ARG:HH11	21:1B:15:ARG:HH12	1.66	0.42
26:14:1142(A):A:N7	26:14:1144:G:C5	2.88	0.42
26:14:1299:G:C5	26:14:1639:U:C5	3.06	0.42
26:14:1599:C:C5	26:14:1600:C:H5	2.38	0.42
26:14:2377:A:O3'	40:65:111:GLU:HG2	2.19	0.42
33:59:158:HIS:HD1	33:59:158:HIS:C	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:76:THR:OG1	34:69:77:LEU:O	2.37	0.42
35:15:95:PRO:O	35:15:98:VAL:HG22	2.19	0.42
39:55:21:TYR:OH	39:55:43:GLU:HG2	2.19	0.42
40:65:63:THR:O	40:65:66:ALA:HB3	2.18	0.42
40:65:106:ARG:O	40:65:106:ARG:NE	2.39	0.42
54:L5:29:LYS:O	54:L5:33:ARG:HG2	2.19	0.42
1:13:148:G:H1	1:13:174:C:N4	2.17	0.42
1:13:187:C:O2	1:13:191(A):G:N1	2.52	0.42
1:13:865:A:H2'	1:13:866:C:C6	2.55	0.42
1:13:872:A:C5	1:13:874:G:C8	3.07	0.42
1:13:875:C:C4	1:13:876:G:N7	2.87	0.42
1:13:1081:G:H2'	1:13:1082:G:C8	2.55	0.42
1:13:1121:U:C4	1:13:1122:U:C4	3.07	0.42
1:13:1128:C:C5	1:13:1139:G:C2	3.07	0.42
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.30	0.42
1:13:1288:A:H2'	1:13:1289:A:O4'	2.19	0.42
1:13:1394:A:C6	1:13:1501:C:H4'	2.54	0.42
3:2E:59:ARG:CG	3:2E:64:VAL:HG12	2.49	0.42
6:5E:4:TYR:CD1	6:5E:92:LYS:HA	2.54	0.42
13:4I:8:GLU:CD	13:4I:22:ILE:HA	2.44	0.42
23:2K:65:G:H2'	23:2K:66:C:C6	2.55	0.42
26:1H:38:A:H2'	26:1H:39:C:C6	2.54	0.42
26:1H:109:G:H2'	26:1H:110:G:O4'	2.19	0.42
26:1H:444:C:C4'	31:31:49:ALA:HB2	2.49	0.42
26:1H:618:G:H2'	26:1H:618(A):C:O4'	2.19	0.42
26:1H:876:C:H2'	26:1H:877:U:O4'	2.19	0.42
26:1H:1163:G:N2	26:1H:1164:G:C4	2.87	0.42
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.84	0.42
26:1H:1925:C:C2'	26:1H:1926:U:H5'	2.50	0.42
26:1H:2483:C:O2	38:88:124:LYS:HE3	2.19	0.42
26:1H:2781:A:H5"	26:1H:2782:G:O5'	2.19	0.42
26:1H:2820:A:O5'	39:98:4:LEU:HD23	2.18	0.42
31:31:32:LEU:O	31:31:36:VAL:HG23	2.20	0.42
31:31:93:LYS:HD2	31:31:93:LYS:HA	1.78	0.42
31:31:185:ASP:OD1	31:31:188:ARG:NH1	2.41	0.42
33:51:91:GLY:HA3	33:51:160:LYS:HA	2.01	0.42
33:51:115:VAL:HG11	33:51:148:ILE:HD11	2.00	0.42
35:58:42:TRP:O	35:58:42:TRP:CD1	2.72	0.42
42:C8:18:LEU:HD23	42:C8:18:LEU:HA	1.89	0.42
47:H8:14:LYS:HA	47:H8:15:PRO:HD2	1.67	0.42
49:J8:91:LYS:O	49:J8:93:GLU:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M8:34:GLU:H	52:M8:34:GLU:HG3	1.55	0.42
1:1G:565:U:H2'	1:1G:566:G:C8	2.54	0.42
1:1G:750:G:H21	15:6A:23:GLY:CA	2.32	0.42
1:1G:983:A:H2	1:1G:984:C:C6	2.38	0.42
2:12:70:PHE:CD1	2:12:162:ILE:HG22	2.54	0.42
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	2.01	0.42
14:5A:29:ARG:HG2	14:5A:30:ALA:N	2.35	0.42
57:3L:9:A:H2'	57:3L:11:C:H41	1.84	0.42
26:14:362:U:H6	26:14:362:U:H2'	1.67	0.42
26:14:725:G:C6	26:14:726:G:N1	2.87	0.42
26:14:814:C:N3	26:14:1194:A:C2	2.87	0.42
26:14:898:C:H2'	26:14:899:A:O4'	2.19	0.42
26:14:993:G:C5	26:14:994:C:C5	3.08	0.42
26:14:994:C:OP1	42:85:53:ARG:NH2	2.52	0.42
26:14:1007:C:C4	26:14:1008:C:C5	3.07	0.42
26:14:1047:G:N1	26:14:1110:G:O6	2.52	0.42
26:14:1567:A:H5'	29:19:58:HIS:CG	2.55	0.42
26:14:2134:A:H2'	26:14:2134:A:N3	2.34	0.42
26:14:2228:G:P	29:19:263:ARG:HH21	2.43	0.42
26:14:2733:A:C2	30:29:204:ALA:HA	2.55	0.42
26:14:2803:C:N3	26:14:2804:C:N4	2.67	0.42
29:19:61:LEU:O	29:19:63:ARG:NH1	2.53	0.42
29:19:158:ALA:HB3	29:19:161:THR:HG21	2.02	0.42
30:29:144:ARG:HB3	30:29:145:LYS:H	1.45	0.42
32:49:95:ARG:CG	32:49:96:ARG:H	2.31	0.42
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.54	0.42
32:49:125:PHE:O	32:49:125:PHE:CG	2.71	0.42
38:45:89:ASN:ND2	38:45:89:ASN:O	2.43	0.42
43:95:48:GLY:H	43:95:52:VAL:HG23	1.84	0.42
45:B5:18:TYR:C	45:B5:20:GLY:N	2.76	0.42
46:C5:97:ARG:HG2	46:C5:102:CYS:O	2.19	0.42
1:13:128:G:H5'	17:8I:2:PRO:O	2.20	0.42
1:13:724:G:O6	1:13:733:A:N6	2.52	0.42
1:13:1110:A:N7	61:13:1837:HOH:O	2.37	0.42
1:13:1376:U:H2'	1:13:1377:A:H8	1.80	0.42
1:13:1402:C:H2'	1:13:1403:C:O4'	2.19	0.42
2:1E:219:VAL:O	2:1E:223:ILE:HG12	2.20	0.42
4:3E:85:LYS:O	4:3E:88:VAL:HB	2.19	0.42
4:3E:194:LEU:HD11	4:3E:196:LEU:HG	2.00	0.42
5:4E:11:ILE:HG12	5:4E:31:LEU:HB3	2.01	0.42
6:5E:62:TRP:O	6:5E:63:TYR:HD1	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:87:SER:HG	8:7E:93:VAL:H	1.59	0.42
9:8E:102:LEU:HD23	9:8E:102:LEU:HA	1.82	0.42
11:2I:18:ARG:HA	11:2I:80:VAL:HB	2.01	0.42
12:3I:85:ILE:HD13	12:3I:85:ILE:HA	1.70	0.42
14:5I:25:VAL:HG13	14:5I:38:GLY:O	2.18	0.42
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.20	0.42
26:1H:1248:G:OP1	31:31:92:PRO:HG3	2.19	0.42
26:1H:1334:G:N7	61:1H:3685:HOH:O	2.36	0.42
26:1H:1991:U:C2'	26:1H:1992:G:H5"	2.49	0.42
26:1H:2321:G:H5"	26:1H:2322:A:OP2	2.19	0.42
26:1H:2443:C:C2'	26:1H:2444:G:O5'	2.67	0.42
30:21:128:SER:OG	30:21:129:HIS:N	2.52	0.42
32:41:95:ARG:C	32:41:99:MET:HB2	2.44	0.42
35:58:17:ASP:O	35:58:56:ASN:HB2	2.20	0.42
47:H8:53:ILE:HG22	47:H8:71:VAL:HG13	2.00	0.42
47:H8:135:GLU:OE1	47:H8:135:GLU:N	2.52	0.42
48:I8:55:ARG:HG3	48:I8:56:ASP:N	2.34	0.42
1:1G:191:G:H1'	20:BA:104:LEU:O	2.19	0.42
1:1G:216:G:O2'	1:1G:217:C:O5'	2.33	0.42
1:1G:329:A:C2	1:1G:332:G:C8	3.07	0.42
1:1G:625:G:H2'	1:1G:626:U:H6	1.85	0.42
1:1G:774:G:N2	1:1G:806:C:C2	2.88	0.42
1:1G:1009:G:C2	1:1G:1010:G:C8	3.08	0.42
1:1G:1101:A:H4'	1:1G:1102:A:O5'	2.20	0.42
1:1G:1158:C:C2	1:1G:1160:G:H8	2.38	0.42
4:32:187:ARG:NH2	4:32:193:ASP:OD2	2.49	0.42
13:4A:34:LEU:O	13:4A:38:GLY:N	2.50	0.42
13:4A:48:LEU:HD12	13:4A:52:GLU:HG2	2.02	0.42
14:5A:21:TYR:HE2	14:5A:23:ARG:HG3	1.84	0.42
26:14:492:A:C2'	26:14:493:G:H5'	2.48	0.42
26:14:996:A:H4'	42:85:92:ARG:CZ	2.50	0.42
26:14:1129:A:N1	26:14:2569:G:O2'	2.49	0.42
26:14:1356:G:C6	26:14:1357:U:C4	3.07	0.42
26:14:1432:C:H2'	26:14:1433:U:O4'	2.18	0.42
26:14:1693:U:O2'	29:19:14:ARG:NH2	2.52	0.42
26:14:2297:C:C2	26:14:2298:A:C8	3.07	0.42
26:14:2329:G:H2'	26:14:2330:G:C8	2.54	0.42
26:14:2378:A:H4'	40:65:23:ARG:NH1	2.35	0.42
26:14:2530:A:C4	33:59:157:TYR:HE2	2.37	0.42
26:14:2845:G:H2'	26:14:2846:G:C8	2.54	0.42
31:39:3:GLU:O	31:39:19:GLU:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:10:PRO:HD2	31:39:13:SER:O	2.18	0.42
31:39:51:THR:HB	31:39:88:VAL:HG21	2.02	0.42
32:49:14:GLU:O	32:49:17:PRO:HG2	2.19	0.42
32:49:37:VAL:HG22	32:49:159:VAL:HB	2.01	0.42
33:59:67:LEU:O	33:59:71:LEU:HD13	2.18	0.42
34:69:128:LEU:O	34:69:138:ILE:HG22	2.19	0.42
38:45:47:ILE:HG22	38:45:48:GLU:N	2.35	0.42
43:95:75:PHE:CD2	43:95:81:TYR:CD1	3.08	0.42
43:95:84:LYS:HA	43:95:84:LYS:HD2	1.87	0.42
45:B5:63:LYS:HA	45:B5:72:LYS:HA	2.01	0.42
46:C5:97:ARG:HG2	46:C5:97:ARG:H	1.59	0.42
1:13:7:G:H5'	1:13:298:A:O4'	2.19	0.42
1:13:348:G:H8	1:13:348:G:OP2	2.02	0.42
1:13:465:A:H2'	1:13:467:G:N7	2.35	0.42
1:13:539:A:H2'	1:13:540:G:C8	2.55	0.42
1:13:939:G:C6	1:13:940:C:N4	2.88	0.42
1:13:963:G:H4'	61:13:1959:HOH:O	2.18	0.42
2:1E:61:LEU:O	2:1E:65:GLY:N	2.53	0.42
3:2E:24:ALA:HB1	3:2E:28:GLN:HB2	2.02	0.42
3:2E:81:GLY:O	3:2E:84:ILE:HG22	2.19	0.42
3:2E:84:ILE:HG23	3:2E:88:ARG:NH2	2.34	0.42
4:3E:13:ARG:HD2	4:3E:38:TYR:O	2.19	0.42
4:3E:104:VAL:HA	4:3E:107:ARG:HB2	2.01	0.42
8:7E:104:ARG:HD3	8:7E:107:LEU:HD12	2.01	0.42
12:3I:45:PRO:HA	12:3I:93:LEU:HD23	2.02	0.42
13:4I:5:ALA:O	13:4I:8:GLU:HG3	2.20	0.42
15:6I:58:MET:C	15:6I:61:GLY:H	2.28	0.42
17:8I:17:LYS:HG2	17:8I:47:PRO:HA	2.01	0.42
24:3K:3:G:C6	24:3K:69:A:N6	2.87	0.42
26:1H:384:U:O2'	26:1H:385:C:H5'	2.19	0.42
26:1H:835:A:OP1	55:Q8:53:PRO:HG3	2.19	0.42
26:1H:1324:G:C4	26:1H:1328:G:O6	2.72	0.42
26:1H:1690:A:H3'	26:1H:1691:C:H6	1.84	0.42
26:1H:1817:G:C5	26:1H:1818:U:C5	3.07	0.42
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.35	0.42
26:1H:2356:C:O3'	48:I8:20:ARG:HD3	2.19	0.42
26:1H:2468:G:N3	26:1H:2468:G:O4'	2.53	0.42
26:1H:2591:C:P	29:11:239:ARG:HG3	2.59	0.42
26:1H:2607:G:H2'	26:1H:2608:G:O4'	2.20	0.42
31:31:172:TRP:CD1	31:31:172:TRP:H	2.38	0.42
33:51:92:ILE:H	33:51:92:ILE:HD12	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:100:LEU:HD12	37:78:105:LEU:CD1	2.50	0.42
38:88:109:VAL:CG1	38:88:113:GLN:HB2	2.50	0.42
44:E8:76:VAL:HG23	44:E8:101:SER:HB3	2.02	0.42
46:G8:49:VAL:HG21	46:G8:55:TYR:CD2	2.54	0.42
46:G8:83:THR:HG22	46:G8:84:ARG:N	2.35	0.42
55:Q8:26:LYS:HA	55:Q8:26:LYS:HD2	1.75	0.42
1:1G:27:G:H8	1:1G:27:G:O5'	2.02	0.42
1:1G:152:A:N6	1:1G:170:U:C2	2.87	0.42
1:1G:165:C:H2'	1:1G:166:G:C8	2.54	0.42
1:1G:821:G:H2'	1:1G:822:C:H6	1.85	0.42
1:1G:982:U:O2	1:1G:1222:G:N1	2.32	0.42
1:1G:1190:G:H5'	3:22:176:HIS:NE2	2.34	0.42
1:1G:1209:C:O2'	1:1G:1214:C:N4	2.53	0.42
1:1G:1225:A:H5"	1:1G:1226:C:OP2	2.19	0.42
1:1G:1300:G:O2'	1:1G:1301:U:P	2.78	0.42
2:12:130:ARG:CB	2:12:135:GLN:HE22	2.32	0.42
13:4A:84:ILE:C	13:4A:86:CYS:H	2.26	0.42
25:4L:7:G:H2'	25:4L:8:A:O4'	2.19	0.42
26:14:621:A:H2'	26:14:622:G:C5'	2.50	0.42
26:14:795:C:H2'	26:14:796:C:H6	1.85	0.42
26:14:907:U:O5'	38:45:24:GLY:HA2	2.20	0.42
26:14:1288:U:H4'	26:14:1289:C:OP2	2.19	0.42
26:14:1327:C:H2'	26:14:1328:G:O4'	2.19	0.42
26:14:1441:G:H2'	26:14:1442:G:C8	2.54	0.42
26:14:1444(A):A:O2'	26:14:1445:C:OP1	2.35	0.42
26:14:1936:A:C8	26:14:1940:U:O2	2.72	0.42
26:14:1971:A:H2	61:19:404:HOH:O	2.03	0.42
26:14:2028:U:H2'	26:14:2029:G:O4'	2.19	0.42
26:14:2030:A:H4'	26:14:2031:A:C8	2.55	0.42
26:14:2095:C:H2'	26:14:2096:U:O4'	2.20	0.42
26:14:2642:G:P	35:15:76:SER:HG	2.41	0.42
26:14:2809:A:OP2	26:14:2891:G:N2	2.43	0.42
27:1J:8:U:H6	27:1J:8:U:H5"	1.83	0.42
27:1J:45:A:C6	27:1J:46:A:C5	3.08	0.42
29:19:245:PRO:HA	29:19:246:PRO:HD3	1.82	0.42
31:39:4:VAL:HG11	31:39:17:ARG:NH1	2.34	0.42
31:39:10:PRO:HD2	31:39:13:SER:HB3	2.01	0.42
31:39:46:ARG:HG2	31:39:46:ARG:HH11	1.85	0.42
35:15:98:VAL:HG23	35:15:99:LEU:N	2.34	0.42
36:25:103:ALA:HB1	36:25:105:GLU:OE1	2.19	0.42
43:95:3:ALA:HB1	43:95:38:LEU:HD21	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:64:MET:HE2	44:A5:64:MET:HB3	1.81	0.42
46:C5:71:LYS:HZ2	46:C5:71:LYS:HG3	1.13	0.42
48:E5:24:LYS:O	48:E5:25:ARG:HD3	2.20	0.42
50:G5:43:GLN:HB2	50:G5:45:SER:N	2.29	0.42
1:13:414:A:H2'	1:13:415:A:O4'	2.20	0.42
1:13:416:G:C6	1:13:417:C:C4	3.08	0.42
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.50	0.42
1:13:652:U:O2'	1:13:653:A:O5'	2.37	0.42
1:13:769:G:H4'	1:13:1513:A:H4'	2.00	0.42
1:13:1128:C:O2'	1:13:1146:A:N1	2.51	0.42
2:1E:16:HIS:NE2	2:1E:210:SER:O	2.52	0.42
3:2E:42:LEU:HD13	3:2E:42:LEU:HA	1.75	0.42
4:3E:197:PRO:HD3	6:52:16:GLN:HE21	1.85	0.42
6:5E:35:ALA:HA	6:5E:67:MET:HB3	2.02	0.42
9:8E:110:GLU:HG3	9:8E:111:ARG:N	2.34	0.42
12:3I:9:GLN:O	12:3I:13:LYS:HG2	2.19	0.42
15:6I:36:ILE:HG12	15:6I:59:MET:HE3	2.00	0.42
16:7I:51:VAL:HG12	16:7I:52:ASP:C	2.44	0.42
16:7I:65:GLN:HA	16:7I:66:PRO:HD2	1.90	0.42
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.84	0.42
20:BI:90:GLN:O	20:BI:93:GLU:HB3	2.20	0.42
26:1H:339:U:O5'	26:1H:339:U:H6	2.02	0.42
26:1H:1581:G:O5'	26:1H:1581:G:H8	2.03	0.42
26:1H:2615:U:C2	53:N8:7:PRO:HA	2.54	0.42
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.84	0.42
27:16:103:U:O2'	47:H8:72:ARG:HG3	2.19	0.42
29:11:89:SER:HB2	29:11:159:ALA:HB2	2.02	0.42
30:21:38:THR:HG23	30:21:40:GLU:HG2	2.01	0.42
30:21:146:THR:HA	30:21:147:PRO:C	2.44	0.42
31:31:24:LEU:HA	31:31:25:PRO:HD2	1.81	0.42
31:31:135:LYS:HG2	31:31:137:LYS:HE2	2.02	0.42
32:41:60:LEU:HD13	32:41:68:PRO:HB3	2.02	0.42
35:58:7:LYS:HE3	35:58:7:LYS:HB3	1.72	0.42
35:58:36:GLY:O	35:58:42:TRP:HB2	2.19	0.42
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.32	0.42
39:98:10:LEU:O	39:98:11:ASN:HB2	2.20	0.42
39:98:72:ASP:OD2	39:98:75:LEU:HB2	2.20	0.42
41:B8:125:ARG:O	41:B8:129:ARG:N	2.51	0.42
45:F8:8:ILE:HD11	45:F8:43:VAL:HG22	2.00	0.42
47:H8:45:ASP:O	47:H8:49:ARG:HG3	2.19	0.42
52:M8:18:CYS:SG	52:M8:39:CYS:HA	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:156:G:N2	1:1G:165:C:O2	2.45	0.42
1:1G:318:G:H2'	1:1G:319:G:H8	1.84	0.42
1:1G:526:C:C5	1:1G:527:G:H1'	2.55	0.42
1:1G:712:A:N6	1:1G:713:G:C6	2.88	0.42
1:1G:1069:C:O2'	1:1G:1192:C:O2	2.22	0.42
1:1G:1138:G:O2'	1:1G:1139:G:H5'	2.20	0.42
7:62:43:PHE:O	7:62:46:ALA:HB3	2.20	0.42
8:72:109:ILE:HA	8:72:121:ASP:OD1	2.19	0.42
10:1A:25:GLU:O	10:1A:29:ARG:HB3	2.20	0.42
10:1A:39:PRO:HA	10:1A:70:ARG:HD3	2.02	0.42
13:4A:40:ASN:HA	13:4A:41:PRO:HD2	1.88	0.42
13:4A:80:ARG:O	13:4A:84:ILE:HB	2.20	0.42
14:5A:15:LYS:C	14:5A:16:PHE:CG	2.98	0.42
57:3L:33:U:O2'	57:3L:35:U:H5	2.02	0.42
26:14:218:A:H2	26:14:235:U:H4'	1.81	0.42
26:14:483:A:O3'	46:C5:49:VAL:HG22	2.19	0.42
26:14:586:A:P	61:14:3602:HOH:O	2.77	0.42
26:14:654:A:O2'	26:14:654(A):A:N7	2.46	0.42
26:14:1148:A:C6	26:14:1149:G:C6	3.07	0.42
26:14:1421:G:C2	26:14:1422:G:C8	3.07	0.42
26:14:1423:G:C4	26:14:1424:G:C8	3.07	0.42
26:14:2274:A:C6	26:14:2276:G:C8	3.07	0.42
26:14:2298:A:C2	26:14:2299:G:H1'	2.54	0.42
26:14:2750:A:H2	33:59:59:ARG:HH22	1.67	0.42
27:1J:23:G:C2	27:1J:24:G:O6	2.72	0.42
31:39:36:VAL:HG11	31:39:183:VAL:HG21	2.00	0.42
32:49:33:ARG:O	32:49:34:LEU:HD23	2.18	0.42
36:25:91:LEU:HD12	36:25:111:PHE:CE2	2.55	0.42
38:45:66:ILE:HG22	38:45:104:PHE:HE1	1.85	0.42
54:L5:11:LYS:HE3	54:L5:15:THR:OG1	2.18	0.42
1:13:293:G:H4'	1:13:609:A:N1	2.35	0.42
1:13:438:G:N1	1:13:495:A:OP2	2.36	0.42
1:13:742:G:H2'	1:13:743:U:O4'	2.20	0.42
1:13:1464:G:H2'	1:13:1465:C:C6	2.55	0.42
5:4E:63:ARG:HB2	5:4E:64:ARG:HH22	1.83	0.42
6:5E:14:LEU:HD11	6:5E:84:ASN:HB3	2.02	0.42
8:7E:7:ALA:HB2	8:7E:85:ARG:HD2	2.01	0.42
15:6I:3:ILE:HD12	15:6I:34:LEU:HD23	2.00	0.42
20:BI:73:HIS:CB	20:BI:74:LYS:HE3	2.50	0.42
26:1H:799:G:C6	26:1H:800:A:C6	3.08	0.42
26:1H:1118:C:H2'	26:1H:1119:C:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1203:G:C2	26:1H:1241:A:C2	3.08	0.42
26:1H:1209:G:H21	26:1H:1210:A:H62	1.68	0.42
26:1H:1264:G:H5'	53:N8:11:THR:HG23	2.02	0.42
26:1H:1279:G:N2	26:1H:1292:U:C2	2.88	0.42
26:1H:1392:A:N6	26:1H:1393:A:N6	2.68	0.42
26:1H:1394:U:C6	26:1H:1394:U:C3'	3.03	0.42
26:1H:1444:G:N2	26:1H:1548:C:C2	2.87	0.42
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.55	0.42
26:1H:1589:C:H2'	26:1H:1590:U:H6	1.85	0.42
26:1H:1594:G:H2'	26:1H:1595:G:O4'	2.20	0.42
26:1H:2443:C:H2'	26:1H:2444:G:O5'	2.19	0.42
29:11:38:LYS:HG2	29:11:62:TYR:HB2	2.02	0.42
29:11:254:THR:O	29:11:254:THR:OG1	2.38	0.42
30:21:179:GLU:O	30:21:180:ASN:HB2	2.18	0.42
39:98:28:LEU:HD22	39:98:116:LEU:CD2	2.49	0.42
46:G8:44:ILE:H	46:G8:44:ILE:HG13	1.77	0.42
48:I8:19:LYS:HD3	48:I8:19:LYS:HA	1.67	0.42
53:N8:16:ARG:HG3	53:N8:17:ASP:H	1.85	0.42
1:1G:376:G:H5"	16:7A:5:ARG:HD2	2.02	0.42
1:1G:413:G:O2'	1:1G:414:A:OP2	2.30	0.42
1:1G:938:A:N6	1:1G:939:G:C6	2.87	0.42
1:1G:1096:C:H2'	1:1G:1097:C:H6	1.84	0.42
1:1G:1517:G:H1'	26:14:1919:A:O3'	2.20	0.42
7:62:21:VAL:HG22	7:62:22:LEU:HG	2.02	0.42
13:4A:99:ARG:H	13:4A:101:GLN:NE2	2.17	0.42
16:7A:40:ASP:HA	16:7A:41:PRO:HD2	1.70	0.42
20:BA:49:ALA:C	20:BA:100:ILE:HG21	2.45	0.42
26:14:396:G:O3'	49:F5:44:PRO:HA	2.20	0.42
26:14:470:A:H8	26:14:470:A:C5'	2.33	0.42
26:14:598:G:O4'	37:35:12:ALA:HB3	2.20	0.42
26:14:642:G:H3'	26:14:642:G:C8	2.54	0.42
26:14:1542:G:O6	26:14:1543:A:N6	2.52	0.42
26:14:1952:A:C6	36:25:22:ILE:HD11	2.54	0.42
26:14:2250:G:OP1	38:45:83:MET:HE3	2.20	0.42
26:14:2357:U:OP1	48:E5:20:ARG:HD2	2.19	0.42
26:14:2492:U:H2'	26:14:2493:U:H6	1.84	0.42
26:14:2520:C:N4	26:14:2542:A:H62	2.14	0.42
26:14:2633:G:H1'	30:29:62:PRO:HG2	2.01	0.42
26:14:2663:G:H3'	26:14:2664:G:C8	2.54	0.42
38:45:133:ARG:HE	38:45:133:ARG:HB3	1.55	0.42
39:55:101:ALA:HB2	53:J5:44:THR:CB	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:98:LYS:HB3	41:75:100:TYR:CE2	2.54	0.42
44:A5:27:LYS:O	44:A5:71:VAL:HG23	2.19	0.42
46:C5:50:ARG:C	46:C5:53:PRO:HD3	2.45	0.42
49:F5:8:SER:H	49:F5:8:SER:HG	1.62	0.42
50:G5:43:GLN:HE21	50:G5:46:GLN:CD	2.28	0.42
1:13:97:U:H2'	1:13:99:C:H5	1.82	0.42
1:13:296:U:H2'	1:13:297:G:C8	2.55	0.42
1:13:342:C:N3	1:13:348:G:C2	2.88	0.42
1:13:590:C:OP1	8:7E:30:ARG:N	2.53	0.42
1:13:592:G:H2'	1:13:593:G:C8	2.46	0.42
1:13:626:U:H2'	1:13:627:G:H8	1.84	0.42
1:13:727:G:N1	1:13:731:G:C6	2.88	0.42
2:1E:63:MET:CA	2:1E:225:ALA:HB1	2.50	0.42
3:2E:109:PRO:HA	3:2E:115:LEU:HD12	2.02	0.42
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.20	0.42
12:3I:85:ILE:HG23	12:3I:98:TYR:HB3	2.01	0.42
17:8I:46:ASP:OD1	17:8I:51:TYR:HD2	2.03	0.42
17:8I:100:LYS:O	17:8I:100:LYS:HG2	2.16	0.42
26:1H:448:U:O4	26:1H:583:G:H1'	2.19	0.42
26:1H:557:U:H2'	26:1H:558:G:C8	2.52	0.42
26:1H:722:A:H2'	26:1H:723:G:O4'	2.20	0.42
26:1H:783:A:C8	26:1H:784:A:H4'	2.54	0.42
26:1H:1635:G:H2'	26:1H:1636:C:C6	2.55	0.42
26:1H:1860:G:H4'	28:71:205:LYS:HB3	2.00	0.42
26:1H:2392:A:N1	26:1H:2424:C:N3	2.67	0.42
26:1H:2410:G:C2	26:1H:2411:A:H1'	2.55	0.42
26:1H:2661:G:H2'	26:1H:2662:A:O4'	2.19	0.42
29:11:105:ILE:HA	29:11:105:ILE:HD13	1.58	0.42
29:11:245:PRO:HA	29:11:246:PRO:HD3	1.81	0.42
30:21:52:LEU:HA	30:21:53:PRO:HD2	1.74	0.42
35:58:71:ILE:HG21	35:58:84:LYS:HG2	2.02	0.42
41:B8:107:ASP:O	41:B8:110:ILE:HG23	2.19	0.42
44:E8:64:MET:HE3	44:E8:109:GLU:HG3	2.02	0.42
46:G8:34:LYS:HD3	46:G8:36:ALA:HB2	2.02	0.42
47:H8:48:PHE:CE1	47:H8:71:VAL:HG11	2.54	0.42
50:K8:20:GLU:H	50:K8:20:GLU:HG2	1.54	0.42
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.54	0.42
1:1G:169:C:H2'	1:1G:170:U:H6	1.84	0.42
1:1G:232:G:H2'	1:1G:233:C:O4'	2.20	0.42
1:1G:448:A:C4	1:1G:487:A:C2	3.08	0.42
1:1G:1010:G:C2	1:1G:1020:U:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1286:A:O5'	21:1B:25:LYS:HE3	2.20	0.42
3:22:135:LYS:HA	3:22:135:LYS:HD2	1.81	0.42
3:22:182:ILE:HA	3:22:202:ILE:O	2.19	0.42
4:32:126:ILE:HG22	4:32:127:THR:N	2.35	0.42
26:14:142:G:H2'	26:14:143:C:C6	2.49	0.42
26:14:309:G:H4'	46:C5:18:GLY:HA3	2.00	0.42
26:14:493:G:H2'	26:14:494:G:O4'	2.20	0.42
26:14:587:C:O2'	37:35:19:VAL:HG11	2.18	0.42
26:14:795:C:H2'	26:14:796:C:C6	2.55	0.42
26:14:835:A:N6	26:14:836:G:C6	2.88	0.42
26:14:879:G:O2'	26:14:897:C:N4	2.53	0.42
26:14:1011:G:C2	26:14:1151:G:N1	2.88	0.42
26:14:1511:A:H2'	26:14:1512:G:C8	2.55	0.42
26:14:1750:G:O2'	26:14:1751:C:H5'	2.20	0.42
26:14:1752:C:H2'	26:14:1753:G:C8	2.55	0.42
26:14:1788:C:C2	26:14:1789:A:C8	3.06	0.42
26:14:2065:C:H1'	26:14:2449:U:O2	2.20	0.42
26:14:2186:G:C2	26:14:2187:G:C8	3.08	0.42
26:14:2346:A:H5"	26:14:2383:G:C1'	2.50	0.42
26:14:2582:G:C2	26:14:2583:G:C8	3.08	0.42
26:14:2749:A:H2'	33:59:59:ARG:NH1	2.34	0.42
26:14:2785:C:H2'	26:14:2786:U:O4'	2.20	0.42
26:14:2873:A:C8	39:55:6:SER:N	2.78	0.42
27:1J:60:C:H2'	27:1J:61:G:H8	1.84	0.42
29:19:246:PRO:O	29:19:254:THR:HG22	2.20	0.42
32:49:52:ILE:O	32:49:55:LYS:HB2	2.19	0.42
35:15:16:ILE:HG21	35:15:26:LEU:HD11	2.02	0.42
36:25:4:PRO:O	36:25:5:GLN:HB2	2.19	0.42
39:55:34:ILE:HA	39:55:34:ILE:HD12	1.74	0.42
41:75:5:ALA:HB1	41:75:6:LEU:CA	2.46	0.42
45:B5:63:LYS:H	45:B5:63:LYS:HZ2	1.66	0.42
47:D5:14:LYS:HA	47:D5:15:PRO:HD2	1.78	0.42
1:13:160:A:N1	1:13:344:A:C8	2.88	0.42
1:13:453:A:C4'	16:7I:72:ARG:HB2	2.50	0.42
1:13:692:U:O2'	1:13:694:A:N7	2.43	0.42
1:13:989:C:N4	1:13:1216:G:H1	2.18	0.42
1:13:1253:G:H2'	1:13:1254:C:H6	1.85	0.42
6:5E:53:ALA:O	6:5E:54:LYS:HB2	2.19	0.42
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	2.00	0.42
9:8E:110:GLU:OE2	9:8E:113:LYS:NZ	2.45	0.42
17:8I:31:LEU:HD23	17:8I:32:TYR:CZ	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:43:U:H5"	24:3K:44:U:OP2	2.20	0.42
26:1H:163:U:H3'	26:1H:164:U:C5'	2.50	0.42
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.55	0.42
26:1H:750:A:OP1	26:1H:1615:C:N4	2.45	0.42
26:1H:1210:A:H4'	26:1H:1211:U:O5'	2.20	0.42
26:1H:1475:G:H1	26:1H:1518:C:H42	1.66	0.42
26:1H:1534:G:H2'	26:1H:1535:U:C6	2.55	0.42
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.34	0.42
26:1H:1992:G:O2'	26:1H:1993:U:OP2	2.32	0.42
26:1H:2072:G:H2'	26:1H:2073:C:O4'	2.19	0.42
26:1H:2143:C:N3	26:1H:2144:U:H1'	2.35	0.42
26:1H:2208:U:O2'	26:1H:2209:C:H5'	2.20	0.42
26:1H:2392:A:C2	26:1H:2429:G:C2	3.07	0.42
26:1H:2432:A:C5	49:J8:33:LYS:HG2	2.55	0.42
26:1H:2713:A:O2'	26:1H:2715:C:OP2	2.31	0.42
27:16:11:C:O5'	27:16:12:C:H5	2.02	0.42
27:16:24:G:C2	27:16:56:G:C2	3.07	0.42
29:11:72:LYS:HD3	29:11:97:TYR:CE2	2.54	0.42
31:31:198:ALA:HA	31:31:201:VAL:HG12	2.00	0.42
32:41:142:PRO:HB2	52:M8:31:ILE:HG21	2.02	0.42
34:61:103:ARG:HG3	34:61:104:GLN:H	1.85	0.42
35:58:5:VAL:HG23	35:58:43:THR:HG21	2.02	0.42
36:68:35:VAL:HG21	36:68:103:ALA:CB	2.50	0.42
39:98:51:LEU:HD23	39:98:51:LEU:HA	1.92	0.42
47:H8:4:ARG:CZ	47:H8:4:ARG:HB3	2.48	0.42
47:H8:80:ARG:HG2	47:H8:80:ARG:H	1.60	0.42
47:H8:166:SER:HA	47:H8:167:PRO:HD3	1.87	0.42
49:J8:2:SER:C	49:J8:4:VAL:H	2.28	0.42
50:K8:28:LYS:HA	50:K8:31:GLU:HG3	2.02	0.42
53:N8:40:LYS:HZ1	53:N8:47:PRO:HB2	1.85	0.42
1:1G:34:C:H2'	1:1G:35:G:C8	2.55	0.42
1:1G:458:C:H2'	1:1G:464:G:C8	2.54	0.42
1:1G:675:A:H1'	11:2A:116:HIS:ND1	2.34	0.42
1:1G:841:U:H4'	1:1G:842:C:C5	2.55	0.42
1:1G:1305:G:O2'	1:1G:1306:A:C8	2.73	0.42
2:12:124:SER:O	2:12:126:GLU:N	2.42	0.42
2:12:127:ILE:O	2:12:130:ARG:HB2	2.20	0.42
3:22:60:ALA:HB3	3:22:63:ASN:OD1	2.20	0.42
5:42:122:GLU:C	5:42:126:ARG:HH12	2.28	0.42
7:62:23:VAL:HG13	7:62:43:PHE:CE2	2.52	0.42
12:3A:85:ILE:HD12	12:3A:85:ILE:HA	1.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:84:LYS:HB2	15:6A:84:LYS:HE2	1.85	0.42
26:14:829:A:H4'	61:14:3743:HOH:O	2.19	0.42
26:14:1287:A:H5"	26:14:1288:U:OP2	2.20	0.42
26:14:1530:G:H8	26:14:1530:G:O5'	2.02	0.42
26:14:1970:A:OP2	61:14:3583:HOH:O	2.22	0.42
26:14:2365:G:N7	55:M5:39:LYS:NZ	2.68	0.42
26:14:2510:C:H2'	26:14:2511:U:C6	2.55	0.42
30:29:87:GLU:OE1	30:29:87:GLU:N	2.53	0.42
31:39:9:ILE:HB	31:39:128:ALA:HB2	2.01	0.42
32:49:40:ASN:HA	32:49:90:LEU:O	2.20	0.42
34:69:102:SER:OG	34:69:103:ARG:N	2.50	0.42
35:15:4:TYR:CD2	42:85:100:VAL:HG11	2.55	0.42
35:15:91:LEU:HD13	35:15:91:LEU:HA	1.82	0.42
36:25:71:ARG:HE	36:25:105:GLU:CD	2.27	0.42
41:75:64:ARG:HB2	41:75:73:GLU:HG2	2.01	0.42
41:75:114:LEU:HD23	41:75:114:LEU:HA	1.65	0.42
48:E5:68:GLU:OE1	48:E5:82:ARG:HG3	2.20	0.42
1:13:730:G:C6	1:13:731:G:H1'	2.55	0.42
1:13:964:A:N3	1:13:969:A:O2'	2.43	0.42
1:13:1003:G:H1	1:13:1037:C:H42	1.68	0.42
1:13:1396:A:H4'	1:13:1397:C:H5"	2.02	0.42
8:7E:21:LYS:HE3	8:7E:21:LYS:HB3	1.90	0.42
8:7E:118:VAL:O	8:7E:119:LEU:HD23	2.19	0.42
9:8E:114:TYR:CE1	10:1I:59:SER:HA	2.55	0.42
15:6I:39:LEU:HD23	15:6I:39:LEU:HA	1.85	0.42
15:6I:71:GLN:O	15:6I:71:GLN:HG2	2.20	0.42
26:1H:455:C:H6	26:1H:455:C:H2'	1.62	0.42
26:1H:930:U:H4'	26:1H:931:G:O5'	2.20	0.42
26:1H:1498:C:O4'	26:1H:1577:C:H4'	2.20	0.42
26:1H:1581:G:C6	26:1H:1582:C:C4	3.08	0.42
26:1H:1639:U:O2'	26:1H:1640:C:H5'	2.20	0.42
26:1H:1655:A:H3'	26:1H:1656:C:H6	1.85	0.42
26:1H:1969:A:H1'	26:1H:1973:G:O4'	2.20	0.42
26:1H:2091:U:OP2	26:1H:2092:U:O2'	2.30	0.42
26:1H:2138:C:N4	26:1H:2154:G:H21	2.17	0.42
26:1H:2171:A:HO2'	26:1H:2172:U:C4'	2.33	0.42
26:1H:2206:C:H2'	26:1H:2207:C:H6	1.84	0.42
28:71:22:ILE:HA	28:71:25:ALA:HB3	2.02	0.42
28:71:200:LYS:HA	28:71:208:PHE:CZ	2.55	0.42
30:21:135:HIS:CE1	61:21:401:HOH:O	2.56	0.42
32:41:5:VAL:H	52:M8:25:TYR:HE2	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:154:PRO:HB2	33:51:163:TYR:CZ	2.55	0.42
35:58:14:VAL:HG23	35:58:50:ASP:HB3	2.02	0.42
37:78:38:GLN:HG2	37:78:45:LEU:CD1	2.50	0.42
39:98:10:LEU:HD13	39:98:40:LYS:HG2	2.01	0.42
41:B8:88:ILE:HD12	41:B8:88:ILE:N	2.34	0.42
46:G8:97:ARG:O	46:G8:101:LYS:HG3	2.20	0.42
1:1G:235:C:C5'	17:8A:70:ARG:HG2	2.41	0.42
1:1G:969:A:H2'	1:1G:970:C:O4'	2.19	0.42
1:1G:1149:C:P	9:82:9:ARG:HH11	2.43	0.42
1:1G:1279:A:H8	1:1G:1282:C:N3	2.18	0.42
1:1G:1343:G:O2'	1:1G:1344:C:H5'	2.20	0.42
2:12:163:PHE:CD1	2:12:185:ILE:HB	2.55	0.42
6:52:41:GLU:HG3	6:52:62:TRP:CE3	2.54	0.42
10:1A:12:ASP:HB3	10:1A:15:THR:OG1	2.20	0.42
12:3A:39:VAL:HB	12:3A:57:LYS:NZ	2.35	0.42
12:3A:49:ASN:ND2	12:3A:92:ASP:OD2	2.53	0.42
18:9A:68:LYS:O	18:9A:72:ARG:HG3	2.20	0.42
26:14:951:C:H2'	26:14:952:G:H8	1.84	0.42
26:14:1113:U:H2'	26:14:1114:G:O4'	2.20	0.42
26:14:1960:A:H5"	26:14:1960:A:H8	1.85	0.42
26:14:1963:U:O2	26:14:1963:U:H2'	2.20	0.42
26:14:2002:G:O6	61:14:3578:HOH:O	2.21	0.42
26:14:2038:G:H2'	26:14:2039:C:O4'	2.20	0.42
26:14:2209:C:O2	26:14:2216:G:C2	2.73	0.42
26:14:2370:G:C6	26:14:2371:G:C6	3.08	0.42
26:14:2615:U:H2'	26:14:2616:C:C6	2.50	0.42
26:14:2627:G:O2'	26:14:2781:A:N1	2.36	0.42
26:14:2801:A:H2'	26:14:2802:G:C4'	2.50	0.42
27:1J:46:A:H2'	27:1J:47:C:H6	1.84	0.42
29:19:59:LYS:HG2	29:19:60:ARG:H	1.83	0.42
33:59:159:GLU:HB3	33:59:160:LYS:H	1.62	0.42
37:35:135:LEU:HD22	37:35:135:LEU:HA	1.69	0.42
40:65:36:TYR:CD1	40:65:36:TYR:N	2.88	0.42
40:65:92:TYR:HB2	40:65:98:VAL:HG11	2.01	0.42
47:D5:67:LEU:HD22	47:D5:90:VAL:CG1	2.50	0.42
47:D5:161:VAL:HB	47:D5:162:GLU:H	1.39	0.42
1:13:22:G:C5	1:13:23:C:C5	3.08	0.41
1:13:148:G:C2	1:13:175:C:C2	3.08	0.41
1:13:503:C:OP2	12:3I:116:SER:OG	2.30	0.41
1:13:504:C:C2	1:13:542:G:N2	2.88	0.41
1:13:700:G:H4'	1:13:704:A:H1'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:728:A:C5	15:6I:54:ARG:HD2	2.55	0.41
1:13:789:U:H5	1:13:792:A:OP2	2.03	0.41
1:13:912:C:O2'	1:13:913:A:H5'	2.20	0.41
1:13:1454:G:H2'	1:13:1455:G:C8	2.55	0.41
2:1E:87:ARG:NH2	2:1E:220:ASP:OD1	2.43	0.41
6:5E:50:TYR:CZ	18:9I:77:GLY:HA2	2.54	0.41
8:7E:39:LEU:HG	8:7E:44:PHE:HB2	2.01	0.41
8:7E:69:ARG:NH2	8:7E:73:ASP:O	2.52	0.41
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.20	0.41
9:8E:47:LEU:HD22	9:8E:47:LEU:N	2.35	0.41
11:2I:44:SER:OG	11:2I:47:VAL:HG23	2.20	0.41
12:3I:58:VAL:HG23	12:3I:66:VAL:O	2.20	0.41
16:7I:36:ILE:HG13	16:7I:36:ILE:O	2.18	0.41
26:1H:298:G:N7	46:G8:84:ARG:CZ	2.83	0.41
26:1H:598:G:C1'	37:78:12:ALA:HB2	2.49	0.41
26:1H:691:C:O5'	26:1H:691:C:H6	2.02	0.41
26:1H:972:G:H3'	26:1H:973:A:H2'	2.01	0.41
26:1H:1045:A:H1'	26:1H:1047:G:N3	2.34	0.41
26:1H:1342:A:OP1	45:F8:36:LYS:NZ	2.27	0.41
26:1H:1668:A:O2'	26:1H:1674:G:N7	2.41	0.41
26:1H:1864:U:OP1	26:1H:2411:A:H5'	2.20	0.41
26:1H:2184:G:C6	26:1H:2185:C:C4	3.08	0.41
26:1H:2309:A:C5	26:1H:2310:A:C8	3.07	0.41
26:1H:2689:U:H5"	26:1H:2713:A:C2	2.55	0.41
30:21:172:VAL:HG13	30:21:182:LEU:HD11	2.01	0.41
31:31:41:LEU:HA	31:31:41:LEU:HD23	1.80	0.41
34:61:127:VAL:HA	34:61:138:ILE:O	2.20	0.41
35:58:102:ALA:O	35:58:106:MET:HG3	2.20	0.41
36:68:106:LEU:HD23	36:68:106:LEU:HA	1.76	0.41
47:H8:75:ASN:O	47:H8:84:GLU:N	2.45	0.41
48:I8:34:GLY:O	48:I8:35:ASN:C	2.63	0.41
1:1G:68:G:C5	1:1G:69:G:C8	3.08	0.41
1:1G:345:C:H5'	1:1G:346:G:C5	2.54	0.41
1:1G:434:U:H2'	1:1G:435:C:C6	2.55	0.41
1:1G:514:C:C2	1:1G:515:G:C8	3.07	0.41
1:1G:1007:C:H2'	1:1G:1008:C:C6	2.55	0.41
1:1G:1391:U:H2'	1:1G:1392:G:C8	2.55	0.41
4:32:101:LEU:HD23	4:32:121:VAL:CG1	2.50	0.41
6:52:9:VAL:HB	6:52:87:ARG:HB2	2.01	0.41
7:62:16:LEU:HD12	9:82:41:VAL:O	2.20	0.41
19:AA:37:ARG:H	19:AA:37:ARG:HG2	1.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:4L:19:U:H2'	25:4L:20:A:C8	2.51	0.41
26:14:224:G:H2'	26:14:225:A:O4'	2.19	0.41
26:14:375:C:H2'	26:14:376:C:C6	2.55	0.41
26:14:649:G:H2'	26:14:650:C:C6	2.55	0.41
26:14:920:G:H2'	26:14:921:G:C8	2.55	0.41
26:14:1187:G:C5	61:14:3562:HOH:O	2.70	0.41
26:14:1711:C:H2'	26:14:1712:C:O4'	2.18	0.41
26:14:1753:G:N1	26:14:1756:G:C2	2.87	0.41
26:14:1785:A:H2'	26:14:1787:A:N7	2.34	0.41
26:14:1826:G:H2'	26:14:1827:C:O4'	2.20	0.41
26:14:1878:G:H2'	26:14:1879:C:C6	2.55	0.41
26:14:2219:G:OP1	29:19:172:TYR:OH	2.35	0.41
26:14:2472:G:H8	26:14:2472:G:O5'	2.02	0.41
27:1J:28:C:H2'	27:1J:29:A:C8	2.55	0.41
27:1J:40:U:O2	27:1J:43:C:H5'	2.20	0.41
27:1J:55:U:H1'	32:49:29:TRP:HE1	1.85	0.41
32:49:107:LEU:HD11	32:49:178:PHE:HE1	1.85	0.41
32:49:172:LEU:O	32:49:176:LEU:HB2	2.20	0.41
38:45:66:ILE:HD12	38:45:67:ARG:H	1.84	0.41
43:95:71:LEU:O	43:95:72:VAL:C	2.62	0.41
47:D5:165:VAL:O	47:D5:166:SER:HB2	2.19	0.41
1:13:310:G:H4'	16:7I:31:LYS:HE2	2.02	0.41
1:13:691:G:H1	11:2I:51:LYS:NZ	2.18	0.41
1:13:1126:U:C5	1:13:1127:G:C2	3.08	0.41
1:13:1327:C:OP1	21:1F:21:TYR:HD1	2.03	0.41
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.50	0.41
3:2E:72:LYS:HD3	3:2E:75:VAL:HG21	2.00	0.41
3:2E:204:LEU:HA	3:2E:204:LEU:HD23	1.79	0.41
6:5E:21:LEU:O	6:5E:25:ILE:HG12	2.20	0.41
9:8E:92:TYR:HD1	9:8E:92:TYR:HA	1.73	0.41
11:2I:84:VAL:HG13	11:2I:109:VAL:O	2.20	0.41
13:4I:70:LEU:O	13:4I:73:GLU:HB2	2.20	0.41
16:7I:4:ILE:HB	16:7I:66:PRO:HA	2.03	0.41
17:8I:29:HIS:HA	17:8I:30:PRO:HD2	1.86	0.41
18:9I:22:VAL:CG1	18:9I:56:THR:HA	2.50	0.41
23:2K:64:G:C2	23:2K:65:G:C5	3.08	0.41
26:1H:24:G:C6	26:1H:25:U:C4	3.08	0.41
26:1H:601:C:O2	26:1H:605:C:H4'	2.20	0.41
26:1H:757:U:C2	26:1H:758:C:C6	3.07	0.41
26:1H:780:G:N2	26:1H:783:A:N6	2.62	0.41
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1570:A:H5'	29:11:37:LEU:CD2	2.50	0.41
26:1H:1657:C:O2'	26:1H:1658:C:H5'	2.20	0.41
26:1H:2115:G:H4'	26:1H:2166:G:H1'	2.01	0.41
28:71:9:ALA:O	28:71:13:LYS:HD3	2.20	0.41
29:11:75:ILE:HG12	29:11:99:ASP:OD2	2.20	0.41
29:11:85:ASP:OD1	29:11:86:PRO:HD2	2.20	0.41
29:11:124:PRO:HG2	29:11:129:ASN:HD21	1.84	0.41
30:21:63:LEU:HD23	30:21:63:LEU:O	2.19	0.41
30:21:69:LYS:NZ	30:21:89:ASP:OD2	2.38	0.41
30:21:165:VAL:O	30:21:189:PRO:HG2	2.20	0.41
31:31:68:LYS:HB3	31:31:68:LYS:HE3	1.93	0.41
32:41:20:ILE:HG13	32:41:20:ILE:H	1.70	0.41
33:51:84:SER:O	33:51:85:LYS:HB2	2.20	0.41
34:61:68:LEU:HA	34:61:71:ILE:HG22	2.02	0.41
37:78:86:LYS:HB3	37:78:118:GLY:HA3	2.03	0.41
39:98:49:ASP:OD1	39:98:95:THR:OG1	2.35	0.41
40:A8:36:TYR:CD1	40:A8:36:TYR:N	2.88	0.41
42:C8:31:SER:O	42:C8:32:PHE:C	2.59	0.41
46:G8:14:LEU:HD12	46:G8:23:ARG:O	2.19	0.41
47:H8:59:LEU:HA	47:H8:59:LEU:HD23	1.77	0.41
1:1G:8:A:N7	4:32:209:ARG:HA	2.35	0.41
1:1G:560:U:H5'	1:1G:566:G:H22	1.85	0.41
1:1G:803:G:C6	1:1G:804:U:C4	3.09	0.41
1:1G:843:U:OP1	1:1G:848:C:H1'	2.20	0.41
1:1G:1320:C:H1'	19:AA:73:GLU:HG3	2.02	0.41
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.85	0.41
4:32:107:ARG:HH11	4:32:173:TRP:HZ2	1.67	0.41
5:42:143:ARG:HA	5:42:143:ARG:HD3	1.86	0.41
8:72:40:ALA:HA	8:72:45:ILE:HG13	2.02	0.41
12:3A:102:ARG:HE	12:3A:102:ARG:HB3	1.57	0.41
17:8A:31:LEU:HD12	17:8A:31:LEU:HA	1.74	0.41
23:2L:19:G:C4	23:2L:59:A:C2	3.08	0.41
26:14:78:A:H2'	26:14:79:G:C8	2.56	0.41
26:14:307:G:N2	26:14:310:A:OP2	2.52	0.41
26:14:588:U:H1'	31:39:90:PHE:CG	2.56	0.41
26:14:1087:G:N3	26:14:1087:G:H2'	2.35	0.41
26:14:1144:G:C6	26:14:1145:C:C4	3.08	0.41
26:14:1222:C:C2	26:14:1229(A):G:C2	3.08	0.41
26:14:1477:A:H61	26:14:1516:U:H3	1.67	0.41
26:14:1489:U:O3'	26:14:1490:A:H8	2.03	0.41
26:14:1491:G:O2'	26:14:1492:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2208:U:H4'	29:19:151:LYS:HG2	2.02	0.41
26:14:2516:G:C6	26:14:2517:C:C4	3.08	0.41
26:14:2705:A:C2	39:55:64:ARG:NH1	2.88	0.41
27:1J:88:C:H3'	27:1J:89:G:N7	2.35	0.41
29:19:182:LEU:HD13	29:19:182:LEU:HA	1.85	0.41
33:59:61:HIS:O	33:59:64:LEU:HB2	2.19	0.41
35:15:56:ASN:HA	35:15:125:GLY:HA3	2.01	0.41
36:25:60:ALA:HB1	36:25:84:ALA:HB1	2.01	0.41
36:25:101:PRO:HB3	36:25:122:LEU:HD12	2.02	0.41
37:35:35:HIS:HB3	37:35:36:LYS:H	1.63	0.41
39:55:103:ARG:NH1	39:55:110:PRO:HD3	2.36	0.41
41:75:129:ARG:O	41:75:133:GLU:HG3	2.20	0.41
42:85:39:LEU:HD23	42:85:39:LEU:HA	1.60	0.41
43:95:37:VAL:HG21	43:95:56:SER:HA	2.02	0.41
43:95:51:VAL:HG22	43:95:52:VAL:O	2.21	0.41
47:D5:72:ARG:NH1	47:D5:89:PHE:HD2	2.17	0.41
47:D5:164:ALA:C	47:D5:165:VAL:HG22	2.45	0.41
49:F5:16:ASN:HB3	49:F5:37:ILE:CD1	2.50	0.41
53:J5:56:LYS:HG3	53:J5:57:VAL:H	1.84	0.41
55:M5:36:LYS:HE3	55:M5:36:LYS:HB2	1.84	0.41
1:13:156:G:C2	1:13:166:G:N1	2.88	0.41
1:13:625:G:C6	1:13:626:U:C4	3.09	0.41
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.37	0.41
3:2E:35:GLU:O	3:2E:39:ILE:HG13	2.20	0.41
3:2E:47:LEU:HB2	3:2E:52:LEU:HD13	2.00	0.41
4:3E:65:ARG:HG3	4:3E:70:ILE:HG22	2.01	0.41
19:AI:42:PRO:O	19:AI:45:VAL:HG22	2.21	0.41
20:BI:53:LEU:O	20:BI:57:ARG:HB2	2.21	0.41
26:1H:547:A:H8	26:1H:547:A:O5'	2.04	0.41
26:1H:868:U:C4	26:1H:869:G:N7	2.89	0.41
26:1H:995:C:O2	35:58:3:THR:OG1	2.31	0.41
26:1H:1053:C:N4	26:1H:1106:G:H21	2.16	0.41
26:1H:1379:A:H4'	26:1H:1380:G:OP1	2.19	0.41
26:1H:1380:G:OP2	61:1H:3616:HOH:O	2.21	0.41
26:1H:1471:A:C6	26:1H:1522:G:C2	3.09	0.41
26:1H:2296:U:H4'	26:1H:2297:C:OP1	2.20	0.41
27:16:89(A):A:C5	27:16:90:C:H1'	2.55	0.41
30:21:117:MET:CE	30:21:124:GLY:HA3	2.50	0.41
32:41:91:ARG:HD2	32:41:91:ARG:C	2.46	0.41
35:58:58:ASP:CB	35:58:95:PRO:HB2	2.51	0.41
41:B8:115:ARG:H	41:B8:115:ARG:HD2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:E8:6:ILE:HA	44:E8:103:ILE:O	2.20	0.41
46:G8:73:ARG:HA	46:G8:74:PRO:HD3	1.90	0.41
1:1G:192:U:H2'	1:1G:193:C:H6	1.84	0.41
1:1G:818:G:O2'	1:1G:819:A:H5'	2.21	0.41
1:1G:918:A:H2'	1:1G:919:A:O4'	2.20	0.41
1:1G:1255:G:H2'	1:1G:1279:A:H62	1.85	0.41
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.54	0.41
2:12:97:TRP:HZ3	2:12:99:GLY:HA2	1.84	0.41
3:22:111:LEU:HD22	3:22:146:ALA:HB2	2.02	0.41
4:32:13:ARG:HB3	4:32:38:TYR:O	2.21	0.41
4:32:138:TYR:CD1	4:32:138:TYR:C	2.97	0.41
5:42:79:GLU:HB3	5:42:92:LYS:HG3	2.03	0.41
8:72:30:ARG:O	8:72:33:GLU:HB3	2.20	0.41
12:3A:111:LYS:O	12:3A:112:ASP:HB2	2.21	0.41
13:4A:66:LEU:CA	13:4A:70:LEU:HB2	2.41	0.41
16:7A:49:LEU:HD11	16:7A:51:VAL:HG23	2.02	0.41
26:14:1462:C:H4'	26:14:2703:C:H5'	2.02	0.41
26:14:1860:G:C6	26:14:1883:G:N2	2.88	0.41
26:14:2320:A:H1'	26:14:2321:G:C6	2.55	0.41
26:14:2471:C:H41	26:14:2476:A:HO2'	1.66	0.41
26:14:2484:G:C2	26:14:2485:G:C8	3.09	0.41
26:14:2632:A:O2'	26:14:2811:G:O2'	2.08	0.41
27:1J:8:U:O2'	40:65:40:ILE:HD13	2.20	0.41
27:1J:13:A:O2'	27:1J:15:A:O5'	2.38	0.41
27:1J:56:G:H4'	27:1J:57:A:O5'	2.20	0.41
27:1J:109:G:N1	27:1J:110:G:C5	2.88	0.41
29:19:65:ILE:HD11	29:19:92:ILE:HG21	2.02	0.41
30:29:37:ARG:HD2	30:29:44:TYR:CE2	2.56	0.41
30:29:119:ARG:HA	30:29:160:TYR:CE2	2.55	0.41
31:39:57:VAL:CG1	31:39:59:TYR:HD2	2.33	0.41
35:15:67:LEU:HD23	35:15:88:GLU:HG2	2.01	0.41
36:25:10:VAL:HG13	36:25:17:ARG:C	2.45	0.41
37:35:21:ARG:HB3	37:35:22:GLY:H	1.43	0.41
37:35:84:ASN:ND2	37:35:117:GLU:HB3	2.35	0.41
38:45:74:TYR:O	38:45:89:ASN:HB2	2.19	0.41
39:55:29:LEU:HD12	39:55:29:LEU:HA	1.58	0.41
42:85:98:LEU:CB	42:85:102:GLU:HB2	2.50	0.41
44:A5:19:LEU:HB3	53:J5:25:LEU:HD12	2.01	0.41
44:A5:47:VAL:HA	44:A5:50:VAL:HG12	2.01	0.41
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.34	0.41
47:D5:59:LEU:HB3	47:D5:60:GLU:H	1.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:75:LEU:HD23	48:E5:75:LEU:HA	1.85	0.41
49:F5:79:GLY:C	49:F5:80:LEU:HD22	2.46	0.41
1:13:21:G:P	61:13:1826:HOH:O	2.79	0.41
1:13:134:A:H1'	1:13:325:A:C5	2.56	0.41
1:13:160:A:C6	1:13:344:A:H8	2.38	0.41
1:13:163:C:O2'	1:13:164:U:O4'	2.39	0.41
1:13:600:C:H4'	8:7E:128:GLY:O	2.21	0.41
1:13:741:G:H2'	1:13:742:G:O4'	2.21	0.41
1:13:789:U:H6	1:13:791:G:C8	2.38	0.41
1:13:1266:G:N2	1:13:1270:C:C2	2.89	0.41
1:13:1273:G:C6	1:13:1274:G:C4	3.09	0.41
1:13:1392:G:O2'	1:13:1502:A:H5"	2.20	0.41
1:13:1468:A:H8	1:13:1468:A:O5'	2.03	0.41
3:2E:13:GLY:HA3	14:5I:57:ARG:HH12	1.86	0.41
4:3E:103:ASN:ND2	4:3E:114:ARG:HH21	2.19	0.41
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.23	0.41
16:7I:28:ARG:HG3	16:7I:29:ASP:N	2.34	0.41
17:8I:17:LYS:CG	17:8I:47:PRO:HA	2.50	0.41
19:AI:25:LYS:HE3	19:AI:25:LYS:HB2	1.87	0.41
19:AI:40:ILE:HG12	19:AI:41:VAL:CG1	2.49	0.41
24:3K:21:A:H2'	24:3K:22:G:C8	2.51	0.41
26:1H:64:A:O3'	45:F8:71:GLY:HA3	2.20	0.41
26:1H:113:G:O5'	26:1H:113:G:H8	2.03	0.41
26:1H:336:C:OP1	46:G8:83:THR:HG23	2.20	0.41
26:1H:638:G:H2'	26:1H:639:U:O4'	2.21	0.41
26:1H:654(C):G:N2	26:1H:654(R):C:H42	2.18	0.41
26:1H:757:U:H2'	26:1H:758:C:H6	1.84	0.41
26:1H:1021:A:C8	26:1H:1021:A:C3'	3.00	0.41
26:1H:1108:U:C4	26:1H:1109:C:N4	2.75	0.41
26:1H:1304:C:O2'	26:1H:1305:C:H5'	2.20	0.41
26:1H:1543:A:H8	26:1H:1545:A:OP2	2.04	0.41
26:1H:2175:C:H1'	28:71:217:THR:O	2.20	0.41
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.55	0.41
26:1H:2298:A:H1'	26:1H:2321:G:N2	2.36	0.41
26:1H:2502:G:H5"	26:1H:2503:A:H5"	2.01	0.41
26:1H:2649:U:H2'	26:1H:2650:U:C6	2.56	0.41
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.20	0.41
29:11:89:SER:HB2	29:11:159:ALA:CB	2.50	0.41
29:11:106:ILE:HD11	29:11:196:VAL:HG13	2.01	0.41
32:41:97:ASP:O	32:41:100:TRP:N	2.53	0.41
32:41:105:LYS:HB2	32:41:105:LYS:HE3	1.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:56:LYS:O	34:61:60:GLU:HG2	2.21	0.41
37:78:100:LEU:HD13	37:78:100:LEU:HA	1.87	0.41
47:H8:46:LYS:H	47:H8:46:LYS:HG3	1.42	0.41
49:J8:83:GLU:C	49:J8:85:LEU:N	2.79	0.41
1:1G:130:A:H1'	1:1G:263:A:O2'	2.20	0.41
1:1G:255:G:H2'	1:1G:256:U:C6	2.55	0.41
1:1G:298:A:H5"	1:1G:299:G:OP2	2.20	0.41
1:1G:965:A:C2	1:1G:969:A:C2	3.09	0.41
1:1G:1081:G:H5"	5:42:18:ARG:HG3	2.02	0.41
1:1G:1089:G:C6	1:1G:1090:U:C4	3.09	0.41
1:1G:1095:U:H5"	1:1G:1109:C:O2	2.18	0.41
1:1G:1316:G:H2'	1:1G:1317:C:H5"	2.02	0.41
1:1G:1376:U:H2'	1:1G:1377:A:C8	2.55	0.41
4:32:18:LYS:NZ	4:32:34:GLU:OE1	2.41	0.41
7:62:146:GLU:HG3	11:2A:54:ARG:CG	2.49	0.41
7:62:149:ARG:HH12	11:2A:57:THR:HG23	1.84	0.41
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.49	0.41
13:4A:59:TYR:CD2	13:4A:60:VAL:HG22	2.54	0.41
14:5A:7:ILE:HG22	14:5A:28:GLY:HA2	2.03	0.41
14:5A:29:ARG:NH2	14:5A:40:CYS:SG	2.94	0.41
20:BA:14:LYS:HA	20:BA:17:ARG:HG3	2.01	0.41
23:2L:50:G:H2'	23:2L:51:U:O4'	2.19	0.41
26:14:68:G:H2'	26:14:69:C:O4'	2.20	0.41
26:14:99:U:H4'	26:14:102:G:H1'	2.03	0.41
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.85	0.41
26:14:589:C:O3'	31:39:95:ARG:NH1	2.52	0.41
26:14:1043:C:C2'	26:14:1044:G:H5'	2.50	0.41
26:14:1336:A:H2'	26:14:1337:G:C8	2.55	0.41
26:14:1418:G:H8	26:14:1418:G:O5'	2.03	0.41
26:14:1445:C:H2'	26:14:1446:C:H6	1.84	0.41
26:14:1652:A:OP1	39:55:8:ARG:NH1	2.50	0.41
26:14:2031:A:C6	26:14:2498:C:H1'	2.54	0.41
26:14:2104:G:N2	26:14:2105:C:N4	2.69	0.41
26:14:2211:G:H3'	26:14:2212:A:C2	2.55	0.41
26:14:2390:U:O2'	26:14:2391:G:H5'	2.20	0.41
26:14:2469:A:C2	26:14:2470:G:C5	3.08	0.41
26:14:2534:A:H8	26:14:2534:A:O5'	2.03	0.41
31:39:60:SER:OG	31:39:61:GLY:N	2.52	0.41
38:45:42:ILE:HA	38:45:46:GLN:OE1	2.20	0.41
48:E5:25:ARG:HD2	48:E5:29:GLN:NE2	2.35	0.41
1:13:264:U:O2'	17:8I:64:PRO:O	2.26	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:279:A:H4'	1:13:280:C:H5"	2.02	0.41
1:13:510:A:P	61:13:1839:HOH:O	2.78	0.41
1:13:615:C:C2	1:13:616:G:C8	3.08	0.41
1:13:694:A:H2'	1:13:695:A:O4'	2.20	0.41
1:13:762:C:H2'	1:13:763:G:O4'	2.21	0.41
1:13:925:G:N2	1:13:1503:A:OP1	2.52	0.41
1:13:1011:G:C2	1:13:1019:C:O2	2.73	0.41
1:13:1059:C:H2'	1:13:1060:C:C6	2.55	0.41
1:13:1365:G:C6	1:13:1366:C:C4	3.08	0.41
4:3E:7:PRO:HB2	4:3E:10:ARG:CD	2.51	0.41
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.19	0.41
22:1K:49:G:OP1	22:1K:49:G:H4'	2.14	0.41
26:1H:270(R):G:N2	26:1H:270(S):G:C6	2.87	0.41
26:1H:270(Y):G:C2	26:1H:270(Z):U:O4	2.72	0.41
26:1H:317:G:N2	26:1H:334:C:O2	2.46	0.41
26:1H:592:G:N3	55:Q8:4:MET:HE1	2.35	0.41
26:1H:598:G:H2'	26:1H:599:G:O4'	2.20	0.41
26:1H:787:U:H5"	26:1H:788:A:H5'	2.01	0.41
26:1H:831:G:OP1	61:1H:3615:HOH:O	2.21	0.41
26:1H:1022:G:P	35:58:69:GLN:HE22	2.43	0.41
26:1H:1521:G:H5'	26:1H:1522:G:OP1	2.19	0.41
26:1H:1709:U:H1'	26:1H:2860:A:N3	2.36	0.41
26:1H:1915:U:H2'	26:1H:1916:A:O4'	2.21	0.41
26:1H:2058:A:C6	26:1H:2059:A:N6	2.88	0.41
26:1H:2121:G:H2'	26:1H:2122:U:O4'	2.21	0.41
26:1H:2154:G:H2'	26:1H:2155:G:N7	2.35	0.41
26:1H:2259:G:N1	26:1H:2282:G:O6	2.53	0.41
26:1H:2360:A:H2'	26:1H:2361:A:O4'	2.19	0.41
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.56	0.41
26:1H:2506:U:O2'	26:1H:2507:C:O5'	2.34	0.41
29:11:29:PRO:HD2	29:11:30:GLU:HG2	2.02	0.41
31:31:53:THR:O	31:31:54:ARG:C	2.63	0.41
32:41:34:LEU:HD13	32:41:99:MET:SD	2.60	0.41
34:61:40:THR:HB	34:61:42:SER:H	1.84	0.41
36:68:67:LYS:HE3	36:68:68:GLU:OE1	2.20	0.41
36:68:76:ALA:HB3	41:B8:75:ILE:HB	2.02	0.41
37:78:106:LEU:O	37:78:107:LYS:C	2.63	0.41
43:D8:43:GLU:OE2	43:D8:43:GLU:HA	2.20	0.41
45:F8:92:LEU:HD23	45:F8:92:LEU:HA	1.85	0.41
47:H8:51:ALA:HB3	47:H8:57:ILE:HD11	2.01	0.41
47:H8:124:ILE:HD12	47:H8:125:LEU:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:137:ILE:HG21	47:H8:155:LEU:HB3	2.02	0.41
49:J8:53:VAL:HB	49:J8:58:ILE:HD13	2.03	0.41
50:K8:41:ILE:O	50:K8:41:ILE:HG12	2.21	0.41
50:K8:63:VAL:O	50:K8:67:LYS:HB2	2.20	0.41
1:1G:585:G:O2'	1:1G:879:C:H5"	2.20	0.41
1:1G:675:A:O2'	11:2A:114:VAL:O	2.35	0.41
1:1G:853:G:C2	1:1G:854:G:C8	3.08	0.41
1:1G:896:C:H5'	17:8A:100:LYS:HG2	2.02	0.41
1:1G:1261:A:H5'	1:1G:1283:G:O3'	2.21	0.41
4:32:189:PRO:O	4:32:194:LEU:HD21	2.19	0.41
7:62:15:ASP:O	7:62:19:GLY:HA2	2.20	0.41
9:82:79:LEU:HD23	9:82:79:LEU:HA	1.96	0.41
12:3A:114:LYS:HD3	12:3A:114:LYS:HA	1.85	0.41
13:4A:81:LEU:HD11	13:4A:86:CYS:HB3	2.03	0.41
16:7A:72:ARG:HE	16:7A:73:LEU:HD23	1.86	0.41
20:BA:56:MET:HE2	20:BA:56:MET:HB3	1.79	0.41
56:1L:19:G:N3	56:1L:19:G:H2'	2.35	0.41
57:3L:8:U:O2'	57:3L:48:C:O2	2.34	0.41
57:3L:15:G:N2	57:3L:48:C:H41	2.18	0.41
26:14:817:C:O2'	26:14:839:U:OP1	2.36	0.41
26:14:1006:C:H1'	35:15:106:MET:HE3	2.03	0.41
26:14:1017:G:C2	26:14:1018:C:C2	3.08	0.41
26:14:1496:A:C8	26:14:1577:C:O2'	2.71	0.41
26:14:1519:G:H2'	26:14:1520:U:O4'	2.21	0.41
26:14:1857:G:O2'	26:14:1885:A:N6	2.53	0.41
26:14:2293:C:H5"	40:65:89:ARG:NH2	2.35	0.41
26:14:2350:C:H2'	26:14:2351:G:O4'	2.20	0.41
26:14:2387:U:H1'	48:E5:41:ARG:NE	2.35	0.41
26:14:2582:G:H2'	26:14:2582:G:N3	2.35	0.41
27:1J:52:A:N6	40:65:33:LYS:HG3	2.35	0.41
27:1J:78:A:C2	27:1J:99:A:C4	3.08	0.41
30:29:34:VAL:HG12	30:29:64:LYS:HE3	2.03	0.41
30:29:51:PHE:O	30:29:52:LEU:HB2	2.21	0.41
37:35:62:LEU:O	55:M5:13:ARG:NH1	2.53	0.41
44:A5:23:LEU:HD12	44:A5:23:LEU:HA	1.74	0.41
1:13:657:G:O4'	15:6I:28:GLN:NE2	2.43	0.41
1:13:814:A:N7	1:13:816:A:C4	2.88	0.41
1:13:911:U:H2'	1:13:912:C:C6	2.55	0.41
1:13:911:U:OP1	12:3I:95:GLY:HA2	2.21	0.41
4:3E:84:LYS:H	4:3E:84:LYS:HG2	1.66	0.41
6:5E:25:ILE:HD13	6:5E:25:ILE:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:34:ARG:HG3	12:3I:61:THR:HG23	2.03	0.41
14:5I:58:LYS:HB3	14:5I:58:LYS:HE2	1.75	0.41
16:7I:20:VAL:HG23	16:7I:35:LYS:HA	2.02	0.41
22:1K:38:A:H5'	26:1H:1913:A:C6	2.55	0.41
23:2K:62:C:C2	23:2K:63:C:C5	3.09	0.41
23:2K:63:C:O2	23:2K:64:G:C8	2.73	0.41
26:1H:270(Q):C:O3'	34:61:42:SER:OG	2.28	0.41
26:1H:384:U:H2'	26:1H:385:C:H6	1.85	0.41
26:1H:455:C:N3	26:1H:473:G:H5'	2.36	0.41
26:1H:1263:U:O2'	53:N8:11:THR:HG23	2.21	0.41
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.21	0.41
26:1H:1442:G:H2'	26:1H:1443:G:H8	1.85	0.41
26:1H:1443:G:C2	26:1H:1549:C:N3	2.89	0.41
26:1H:1797:C:H4'	29:11:257:LEU:O	2.20	0.41
26:1H:1899:G:H1	26:1H:1902:C:N4	2.12	0.41
26:1H:2033:A:O2'	26:1H:2035:G:OP2	2.35	0.41
28:71:10:LEU:HB3	28:71:220:PRO:HG2	2.03	0.41
31:31:129:PHE:O	31:31:130:ALA:HB3	2.21	0.41
39:98:58:GLY:HA2	39:98:80:PHE:HE2	1.86	0.41
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.46	0.41
1:1G:184:G:H2'	1:1G:185:A:C8	2.55	0.41
1:1G:198:G:H2'	1:1G:199:G:H8	1.86	0.41
1:1G:533:A:C5	1:1G:536:C:C4	3.08	0.41
1:1G:766:A:H2'	1:1G:767:A:O4'	2.21	0.41
1:1G:967:C:H2'	1:1G:968:A:C8	2.56	0.41
1:1G:1001:G:H1	1:1G:1038:C:H42	1.68	0.41
1:1G:1165:C:N3	1:1G:1171:G:N2	2.68	0.41
1:1G:1346:A:C8	7:62:10:ARG:NH2	2.89	0.41
2:12:136:VAL:HA	2:12:139:LYS:HB3	2.03	0.41
4:32:14:ARG:HB3	4:32:40:PRO:CD	2.50	0.41
4:32:153:ARG:HD3	4:32:153:ARG:HA	1.79	0.41
11:2A:40:ILE:HD13	11:2A:40:ILE:HA	1.87	0.41
26:14:1017:G:N2	26:14:1146:C:C2	2.89	0.41
26:14:1168:G:C2	26:14:1182:A:C2	3.08	0.41
26:14:1191:G:O2'	26:14:1192:G:H5'	2.21	0.41
26:14:1347:G:C4	26:14:1348:G:C8	3.08	0.41
26:14:2088:G:C6	26:14:2089:U:C4	3.09	0.41
26:14:2266:A:H5'	26:14:2267:A:C5	2.55	0.41
26:14:2560:C:C2	26:14:2561:A:C8	3.08	0.41
26:14:2563:U:O2	26:14:2565:A:C8	2.74	0.41
26:14:2641:G:P	35:15:74:ARG:HH21	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2723:C:OP2	30:29:109:LYS:NZ	2.53	0.41
26:14:2839:G:H5"	39:55:46:GLY:HA2	2.03	0.41
30:29:66:HIS:C	30:29:68:ALA:N	2.78	0.41
34:69:97:ILE:O	34:69:100:ALA:HB3	2.20	0.41
38:45:66:ILE:HD12	38:45:67:ARG:N	2.36	0.41
38:45:132:VAL:HG21	47:D5:81:ARG:NE	2.36	0.41
46:C5:87:LYS:NZ	46:C5:89:PHE:HB3	2.35	0.41
51:H5:6:VAL:HG12	51:H5:56:VAL:HG23	2.02	0.41
1:13:44:G:C2	1:13:45:U:H1'	2.56	0.41
1:13:51:A:OP2	1:13:52:G:H8	2.04	0.41
1:13:242:C:H2'	1:13:243:A:H5'	2.03	0.41
1:13:329:A:C4	1:13:332:G:C5	3.08	0.41
1:13:358:U:H2'	1:13:359:U:O4'	2.20	0.41
1:13:712:A:C6	1:13:713:G:C6	3.08	0.41
1:13:1206:G:C6	1:13:1207:G:C5	3.09	0.41
1:13:1253:G:H2'	1:13:1254:C:C6	2.56	0.41
1:13:1442:G:C5	1:13:1446:A:C6	3.08	0.41
2:1E:97:TRP:HZ2	2:1E:102:LEU:HD13	1.85	0.41
5:4E:145:LYS:HB3	5:4E:145:LYS:HE2	1.88	0.41
20:BI:50:GLU:HA	20:BI:100:ILE:HG21	2.02	0.41
26:1H:184:C:H2'	26:1H:185:U:C6	2.56	0.41
26:1H:562:U:C4	26:1H:2036:C:O4'	2.74	0.41
26:1H:598:G:H5'	37:78:11:GLY:HA3	2.03	0.41
26:1H:760:G:H2'	26:1H:761:A:O4'	2.20	0.41
26:1H:1289:C:H2'	26:1H:1290:C:C6	2.55	0.41
26:1H:1508:A:H4'	26:1H:1509:C:H1'	2.01	0.41
26:1H:1525:G:C4	26:1H:1526:G:C8	3.09	0.41
26:1H:1657:C:H5"	30:21:133:LYS:O	2.20	0.41
26:1H:1718:G:C2	26:1H:1725:G:C8	3.09	0.41
26:1H:2636:U:H2'	26:1H:2637:U:H6	1.85	0.41
27:16:37:C:C2'	27:16:38:C:H5'	2.50	0.41
33:51:125:VAL:O	33:51:125:VAL:HG12	2.21	0.41
35:58:97:ARG:HA	35:58:100:GLU:HB2	2.01	0.41
36:68:44:LYS:HD3	36:68:44:LYS:HA	1.84	0.41
37:78:69:GLY:C	37:78:70:GLN:HG3	2.45	0.41
38:88:139:GLU:OE1	38:88:141:GLN:HG2	2.20	0.41
43:D8:30:GLY:N	43:D8:61:VAL:O	2.53	0.41
43:D8:76:LYS:HG3	43:D8:81:TYR:CD2	2.55	0.41
46:G8:57:GLN:H	46:G8:57:GLN:HG3	1.69	0.41
50:K8:2:LYS:HA	50:K8:5:GLU:HB3	2.02	0.41
1:1G:178:C:H2'	1:1G:179:A:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1128:C:H5”	9:82:16:ARG:HH22	1.84	0.41
2:12:38:GLY:HA2	2:12:40:HIS:CE1	2.54	0.41
4:32:15:GLU:HG2	4:32:66:ARG:NH1	2.35	0.41
4:32:127:THR:HG21	4:32:149:ALA:HB2	2.01	0.41
4:32:168:ARG:HG2	4:32:168:ARG:HH11	1.85	0.41
9:82:110:GLU:HG3	9:82:111:ARG:N	2.35	0.41
11:2A:34:ASP:HB2	11:2A:35:PRO:CD	2.51	0.41
14:5A:7:ILE:CG2	14:5A:28:GLY:HA2	2.50	0.41
14:5A:7:ILE:H	14:5A:7:ILE:HG12	1.48	0.41
16:7A:20:VAL:HG11	16:7A:32:TYR:CE2	2.55	0.41
23:2L:52:C:C4	23:2L:53:G:N7	2.88	0.41
57:3L:23:A:H2’	57:3L:24:G:C8	2.56	0.41
26:14:1:G:H5”	26:14:2:G:C8	2.56	0.41
26:14:270(S):G:N1	26:14:270(T):G:C5	2.88	0.41
26:14:282:A:C6	26:14:284:U:C2	3.08	0.41
26:14:702:G:C2	26:14:731:C:C2	3.09	0.41
26:14:921:G:H2’	26:14:922:U:C6	2.56	0.41
26:14:1285:G:C5	26:14:1329:U:C4	3.09	0.41
26:14:1328:G:H2’	26:14:1330:C:C4	2.55	0.41
26:14:1537:C:H4’	26:14:1537:C:OP1	2.20	0.41
26:14:1667:G:O6	61:14:3581:HOH:O	2.22	0.41
26:14:1992:G:O5’	26:14:1992:G:C8	2.74	0.41
26:14:2471:C:N4	26:14:2476:A:HO2’	2.18	0.41
26:14:2488:A:H8	26:14:2488:A:O5’	2.03	0.41
26:14:2535:G:H2’	26:14:2536:G:C8	2.54	0.41
26:14:2689:U:H6	26:14:2689:U:H5’	1.85	0.41
26:14:2747:G:O5’	26:14:2747:G:H8	2.04	0.41
31:39:57:VAL:HG13	31:39:59:TYR:CD2	2.55	0.41
31:39:83:PHE:C	31:39:85:GLY:H	2.29	0.41
31:39:170:LEU:HA	31:39:171:PRO:HD3	1.89	0.41
36:25:8:LEU:HD13	36:25:82:ASN:HB2	2.01	0.41
36:25:115:VAL:H	36:25:115:VAL:HG23	1.64	0.41
37:35:14:LYS:HA	37:35:14:LYS:HD3	1.75	0.41
37:35:114:ILE:O	37:35:115:LEU:HD23	2.21	0.41
38:45:86:GLY:O	38:45:88:GLY:N	2.50	0.41
41:75:19:LEU:HD21	41:75:79:HIS:HE1	1.86	0.41
41:75:54:ARG:HE	41:75:54:ARG:HB2	1.79	0.41
47:D5:19:ARG:HH11	47:D5:84:GLU:HB2	1.85	0.41
1:13:158:G:N1	1:13:163:C:N3	2.67	0.41
1:13:300:A:C8	1:13:300:A:H3’	2.55	0.41
1:13:563:A:N6	61:13:1857:HOH:O	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1015:A:H8	1:13:1015:A:O5'	2.04	0.41
3:2E:13:GLY:HA3	14:5I:57:ARG:NH1	2.36	0.41
5:4E:84:PHE:CE2	5:4E:133:TYR:HB3	2.55	0.41
7:6E:16:LEU:HD13	9:8E:44:VAL:HG22	2.02	0.41
11:2I:85:ARG:HA	11:2I:112:THR:OG1	2.20	0.41
11:2I:109:VAL:HG12	18:9I:84:LYS:HB2	2.01	0.41
13:4I:82:MET:HE3	13:4I:93:ARG:HG2	2.01	0.41
17:8I:67:LYS:O	17:8I:68:ARG:CB	2.69	0.41
19:AI:41:VAL:CG1	19:AI:67:VAL:HA	2.48	0.41
23:2K:17:C:C4	23:2K:18:U:C4	3.09	0.41
24:3K:67:C:H2'	24:3K:68:G:H8	1.86	0.41
26:1H:330:A:H2	26:1H:1210:A:C2'	2.33	0.41
26:1H:489:G:C5	26:1H:1284:A:C2	3.08	0.41
26:1H:656:G:H2'	26:1H:657:U:O4'	2.21	0.41
26:1H:723:G:H2'	26:1H:724:U:O4'	2.20	0.41
26:1H:1387:C:C2	26:1H:1388:G:C8	3.09	0.41
26:1H:1668:A:O4'	26:1H:1669:A:C2	2.74	0.41
26:1H:1748:G:H2'	26:1H:1749:A:C8	2.55	0.41
26:1H:2615:U:OP1	61:1H:3619:HOH:O	2.22	0.41
27:16:111:U:H2'	27:16:112:G:H8	1.86	0.41
29:11:96:HIS:HD2	29:11:102:LYS:HG2	1.85	0.41
32:41:46:ALA:CB	32:41:53:LEU:HD13	2.51	0.41
33:51:22:GLY:C	33:51:37:VAL:HG12	2.45	0.41
37:78:11:GLY:O	37:78:13:ASN:N	2.48	0.41
38:88:12:GLN:HG2	38:88:73:PRO:HD2	2.02	0.41
42:C8:5:LYS:HB2	42:C8:5:LYS:NZ	2.35	0.41
42:C8:91:ASP:OD1	42:C8:96:ALA:HB2	2.20	0.41
44:E8:9:TYR:HA	44:E8:100:THR:HG23	2.02	0.41
44:E8:17:VAL:C	44:E8:19:LEU:N	2.78	0.41
45:F8:67:GLY:C	45:F8:69:TYR:H	2.28	0.41
47:H8:81:ARG:HE	47:H8:81:ARG:HB2	1.73	0.41
49:J8:94:LEU:HA	49:J8:94:LEU:HD23	1.86	0.41
1:1G:103:C:C4	1:1G:104:G:N7	2.89	0.41
1:1G:620:C:C4	4:32:135:LEU:HD21	2.55	0.41
1:1G:939:G:C6	1:1G:940:C:C4	3.09	0.41
1:1G:1000:A:N6	1:1G:1001:G:H21	2.19	0.41
1:1G:1104:G:C2	1:1G:1105:A:C4	3.09	0.41
1:1G:1321:C:O2	19:AA:36:ARG:NH2	2.45	0.41
2:12:97:TRP:CE2	2:12:173:ALA:HB2	2.56	0.41
2:12:185:ILE:HA	2:12:199:TYR:O	2.20	0.41
12:3A:113:ARG:HG3	12:3A:114:LYS:N	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:81:LEU:HB3	13:4A:89:GLY:HA3	2.01	0.41
17:8A:10:VAL:HG23	17:8A:53:LEU:HA	2.01	0.41
17:8A:43:LEU:HD12	17:8A:68:ARG:HG2	2.03	0.41
19:AA:64:GLU:HG2	19:AA:65:ASN:N	2.36	0.41
20:BA:85:MET:H	20:BA:85:MET:HG2	1.67	0.41
56:1L:2:G:H1	56:1L:71:C:N4	2.18	0.41
56:1L:11:C:H2'	56:1L:12:U:C6	2.56	0.41
23:2L:48:U:H1'	23:2L:49:C:P	2.61	0.41
57:3L:45:G:O2'	57:3L:46:G:OP1	2.33	0.41
26:14:601:C:O2	26:14:605:C:H4'	2.21	0.41
26:14:1154:G:O5'	26:14:1154:G:H8	2.03	0.41
26:14:1387:C:O2	26:14:1388:G:C8	2.73	0.41
26:14:2218:G:O2'	29:19:148:GLU:HG2	2.21	0.41
26:14:2499:C:H2'	26:14:2500:U:O4'	2.21	0.41
26:14:2776:A:H4'	26:14:2777:G:O5'	2.19	0.41
27:1J:18:G:H1	27:1J:65:C:N4	1.98	0.41
27:1J:100:G:H2'	27:1J:101:A:O4'	2.20	0.41
30:29:76:ARG:HA	30:29:76:ARG:HD2	1.54	0.41
32:49:111:LEU:HB3	32:49:117:PHE:CE2	2.55	0.41
35:15:22:THR:HA	35:15:61:ARG:O	2.21	0.41
35:15:34:LEU:O	35:15:49:GLY:HA3	2.21	0.41
36:25:97:ARG:NH2	36:25:99:PHE:HE1	2.19	0.41
37:35:14:LYS:HB3	37:35:15:ARG:H	1.61	0.41
37:35:85:LEU:HB3	37:35:114:ILE:CD1	2.50	0.41
43:95:62:LEU:CD2	43:95:95:LEU:HB2	2.50	0.41
55:M5:34:TRP:CE3	55:M5:34:TRP:HA	2.56	0.41
1:13:265:G:O2'	17:8I:67:LYS:N	2.53	0.41
1:13:303:A:H2'	1:13:304:U:O4'	2.21	0.41
1:13:633:G:H8	1:13:633:G:OP2	2.04	0.41
1:13:789:U:O2	1:13:789:U:C3'	2.69	0.41
1:13:1068:G:N2	1:13:1191:A:N3	2.58	0.41
1:13:1103:C:H5"	2:1E:98:LEU:HD13	2.02	0.41
1:13:1104:G:H2'	1:13:1105:A:O4'	2.21	0.41
1:13:1130:A:H3'	1:13:1131:G:C8	2.56	0.41
1:13:1156:G:O5'	1:13:1156:G:H8	2.04	0.41
1:13:1291:G:H4'	9:8E:39:GLY:HA3	2.02	0.41
1:13:1347:G:O2'	1:13:1348:U:OP2	2.39	0.41
1:13:1347:G:N2	1:13:1374:A:O5'	2.46	0.41
2:1E:156:LYS:HD3	2:1E:156:LYS:O	2.21	0.41
3:2E:7:PRO:HG2	3:2E:184:TYR:CG	2.56	0.41
3:2E:15:THR:CG2	3:2E:181:ASN:HA	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:83:ARG:O	3:2E:86:VAL:HG22	2.21	0.41
4:3E:74:GLN:O	4:3E:78:LEU:HD23	2.20	0.41
4:3E:108:LEU:HD13	4:3E:174:LEU:HD13	2.01	0.41
4:3E:179:GLU:CD	4:3E:179:GLU:H	2.29	0.41
6:5E:17:SER:O	6:5E:21:LEU:N	2.54	0.41
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.56	0.41
7:6E:26:PHE:CD2	7:6E:62:PHE:HE1	2.39	0.41
9:8E:77:ILE:O	9:8E:80:GLY:N	2.54	0.41
10:1I:95:GLU:HG3	10:1I:96:ILE:N	2.35	0.41
11:2I:50:TYR:CD2	11:2I:54:ARG:HB2	2.56	0.41
11:2I:83:ILE:H	11:2I:83:ILE:HG12	1.62	0.41
11:2I:112:THR:HA	11:2I:113:PRO:HD3	1.47	0.41
17:8I:18:THR:HG22	17:8I:19:VAL:N	2.35	0.41
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.36	0.41
18:9I:73:ALA:HB3	18:9I:79:LEU:HD12	2.02	0.41
24:3K:56:C:H2'	24:3K:57:G:C8	2.55	0.41
26:1H:82:G:N1	26:1H:103:A:OP2	2.51	0.41
26:1H:118:A:N3	26:1H:178:G:H1'	2.36	0.41
26:1H:304:G:H2'	26:1H:305:U:C6	2.55	0.41
26:1H:321:G:O4'	31:31:165:ARG:HD3	2.20	0.41
26:1H:441:U:O2	31:31:46:ARG:NH2	2.51	0.41
26:1H:523:C:O2	26:1H:553:U:O2'	2.39	0.41
26:1H:537:C:H2'	26:1H:539:G:C8	2.55	0.41
26:1H:547:A:H2'	26:1H:548:A:H8	1.86	0.41
26:1H:681:G:H2'	26:1H:682:G:O4'	2.21	0.41
26:1H:768:G:H2'	26:1H:769:G:O4'	2.20	0.41
26:1H:862:G:P	61:1H:3626:HOH:O	2.79	0.41
26:1H:1197:G:H5'	26:1H:1228:G:O2'	2.20	0.41
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.21	0.41
26:1H:1790:C:H5"	26:1H:1791:A:OP1	2.20	0.41
26:1H:1820:U:O2	29:11:202:LYS:HB3	2.21	0.41
26:1H:1835:G:N3	26:1H:1835:G:H2'	2.36	0.41
26:1H:1856:G:H2'	26:1H:1857:G:H5'	2.02	0.41
26:1H:1907:G:H2'	26:1H:1908:C:C6	2.56	0.41
26:1H:1983:C:O2'	26:1H:1984:G:H5'	2.20	0.41
26:1H:2290:G:H2'	26:1H:2291:U:O4'	2.20	0.41
26:1H:2480:C:H5'	26:1H:2481:G:OP2	2.20	0.41
26:1H:2647:U:H2'	26:1H:2648:C:C6	2.55	0.41
26:1H:2875:C:OP1	41:B8:3:ARG:NH2	2.53	0.41
26:1H:2875:C:H2'	26:1H:2876:G:O4'	2.21	0.41
30:21:38:THR:CG2	30:21:41:LYS:H	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:54:GLN:HB2	30:21:75:VAL:CG2	2.51	0.41
30:21:105:THR:HB	30:21:197:ILE:CG2	2.50	0.41
30:21:119:ARG:HB3	30:21:120:TRP:CD1	2.56	0.41
31:31:8:GLN:HE21	31:31:8:GLN:HB3	1.63	0.41
32:41:53:LEU:HA	32:41:53:LEU:HD12	1.79	0.41
32:41:61:ALA:HA	32:41:66:GLN:O	2.21	0.41
35:58:13:TRP:O	35:58:135:PRO:HD2	2.21	0.41
35:58:18:ALA:HB3	35:58:56:ASN:O	2.21	0.41
36:68:36:GLY:HA2	36:68:106:LEU:HD23	2.02	0.41
36:68:47:ILE:CG1	36:68:48:PRO:HD2	2.51	0.41
38:88:133:ARG:HE	38:88:133:ARG:HB2	1.29	0.41
41:B8:37:GLY:O	41:B8:38:ASN:ND2	2.52	0.41
41:B8:50:ILE:HD11	41:B8:102:ILE:CD1	2.50	0.41
41:B8:102:ILE:HD12	41:B8:110:ILE:HD13	2.03	0.41
43:D8:48:GLY:O	43:D8:49:THR:O	2.39	0.41
45:F8:52:VAL:HG22	45:F8:82:GLN:HB3	2.03	0.41
46:G8:36:ALA:HA	46:G8:67:LEU:O	2.21	0.41
46:G8:38:ILE:HD11	46:G8:64:GLU:HG3	2.02	0.41
50:K8:33:MET:O	50:K8:37:PHE:CD1	2.73	0.41
52:M8:36:CYS:O	52:M8:41:PRO:HD2	2.20	0.41
55:Q8:4:MET:HB2	55:Q8:4:MET:HE3	1.55	0.41
1:1G:162:A:O5’	1:1G:162:A:H8	2.04	0.41
1:1G:458:C:N4	1:1G:464:G:C6	2.89	0.41
1:1G:511:C:O2’	1:1G:534:U:H1’	2.21	0.41
1:1G:545:C:OP1	4:32:61:LYS:NZ	2.54	0.41
1:1G:585:G:N3	1:1G:879:C:H4’	2.36	0.41
1:1G:748:C:H4’	1:1G:749:C:O5’	2.20	0.41
1:1G:829:G:N2	1:1G:857:C:O2	2.48	0.41
1:1G:865:A:O5’	1:1G:865:A:H8	2.03	0.41
1:1G:942:G:C2	1:1G:1342:C:C2	3.08	0.41
1:1G:975:A:N6	1:1G:1366:C:O2’	2.50	0.41
1:1G:992:U:H4’	1:1G:993:G:H5”	2.02	0.41
1:1G:1028(A):C:H41	1:1G:1029:G:H8	1.63	0.41
1:1G:1128:C:N3	1:1G:1139:G:N1	2.69	0.41
1:1G:1179:A:H2’	1:1G:1180:A:O4’	2.21	0.41
1:1G:1255:G:N2	1:1G:1283:G:H1’	2.36	0.41
1:1G:1261:A:O4’	1:1G:1283:G:H5”	2.21	0.41
1:1G:1265:G:C2	1:1G:1271:G:C6	3.09	0.41
1:1G:1269:A:H5’	21:1B:18:TYR:O	2.21	0.41
1:1G:1299:A:C8	1:1G:1301:U:H1’	2.56	0.41
1:1G:1329:A:H5”	13:4A:25:ILE:C	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1442:G:C6	1:1G:1446:A:N6	2.89	0.41
2:12:112:VAL:O	2:12:115:LEU:HB3	2.21	0.41
3:22:32:LEU:HB3	3:22:59:ARG:NH1	2.33	0.41
3:22:125:GLU:HG2	3:22:190:ARG:O	2.20	0.41
4:32:175:SER:HB3	4:32:186:LEU:HD11	2.03	0.41
6:52:44:GLY:HA2	6:52:59:TYR:CE2	2.56	0.41
6:52:82:ARG:HB2	6:52:85:VAL:HG23	2.03	0.41
8:72:100:ILE:HG21	8:72:125:ARG:HG2	2.03	0.41
8:72:124:ALA:O	8:72:128:GLY:N	2.54	0.41
12:3A:27:LEU:HD23	12:3A:61:THR:OG1	2.21	0.41
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.75	0.41
17:8A:29:HIS:HA	17:8A:30:PRO:HD2	1.90	0.41
19:AA:65:ASN:O	19:AA:67:VAL:HG23	2.20	0.41
56:1L:8:U:H3'	56:1L:13:C:N4	2.36	0.41
56:1L:24:G:H2'	56:1L:25:C:H6	1.83	0.41
57:3L:2:G:H2'	57:3L:3:G:C8	2.56	0.41
26:14:6:A:C2	26:14:7:G:C8	3.09	0.41
26:14:76:C:O3'	50:G5:59:ARG:HG3	2.20	0.41
26:14:221:A:C4	26:14:266:G:N7	2.89	0.41
26:14:252:G:OP2	37:35:50:ARG:NH2	2.41	0.41
26:14:270(K):C:H2'	26:14:270(L):U:H2'	2.02	0.41
26:14:323:G:H1'	26:14:1205:U:O2	2.21	0.41
26:14:402:A:H61	26:14:423:A:H61	1.68	0.41
26:14:686:G:H5"	54:L5:11:LYS:NZ	2.35	0.41
26:14:775:G:C4	26:14:794:G:C8	3.08	0.41
26:14:1170:G:H2'	26:14:1171:G:H5'	2.03	0.41
26:14:1363:C:H2'	26:14:1364:G:H8	1.86	0.41
26:14:1472:A:H2'	26:14:1473:G:O4'	2.21	0.41
26:14:2013:A:N6	26:14:2014:A:C6	2.88	0.41
26:14:2065:C:H2'	26:14:2066:C:C6	2.56	0.41
26:14:2079:U:O4	61:14:3577:HOH:O	2.21	0.41
26:14:2330:G:O2'	48:E5:44:ARG:HD2	2.20	0.41
26:14:2492:U:H2'	26:14:2493:U:C6	2.56	0.41
26:14:2729:G:H2'	26:14:2730:C:H6	1.86	0.41
26:14:2787:C:O3'	30:29:61:ARG:NH1	2.51	0.41
27:1J:42:C:N4	27:1J:43:C:C4	2.89	0.41
27:1J:116:G:H2'	27:1J:117:G:O4'	2.21	0.41
29:19:63:ARG:HG2	29:19:92:ILE:HD11	2.03	0.41
30:29:14:ILE:H	30:29:14:ILE:HG13	1.80	0.41
30:29:27:LEU:HD12	41:75:1:MET:SD	2.60	0.41
30:29:63:LEU:HD12	30:29:65:GLY:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:134:ILE:HA	30:29:137:HIS:CD2	2.56	0.41
31:39:28:ILE:HD11	31:39:119:ARG:HE	1.86	0.41
32:49:37:VAL:O	32:49:94:LEU:HB2	2.21	0.41
32:49:106:LEU:HG	32:49:111:LEU:HD11	2.03	0.41
34:69:4:ILE:H	34:69:4:ILE:HG12	1.39	0.41
34:69:120:ILE:HG23	34:69:126:TYR:CE2	2.52	0.41
35:15:85:ILE:HD13	35:15:90:MET:HE3	2.03	0.41
37:35:97:PRO:HD3	37:35:126:VAL:O	2.21	0.41
39:55:67:LEU:HD13	39:55:67:LEU:HA	1.92	0.41
40:65:7:TYR:CE2	40:65:11:LYS:HD3	2.56	0.41
40:65:106:ARG:CA	40:65:110:LEU:HD21	2.42	0.41
47:D5:94:GLU:O	47:D5:129:SER:HA	2.21	0.41
1:13:236:G:H5"	17:8I:42:TYR:OH	2.20	0.41
1:13:341:C:O2'	1:13:342:C:H5'	2.20	0.41
1:13:506:G:H2'	1:13:507:C:O4'	2.21	0.41
1:13:561:U:O2'	1:13:562:C:P	2.79	0.41
1:13:592:G:H1	1:13:647:C:H42	1.68	0.41
1:13:609:A:C2'	1:13:610:G:H5'	2.51	0.41
1:13:632:A:H2'	1:13:633:G:O4'	2.21	0.41
1:13:658:G:O2'	1:13:659:U:H5'	2.21	0.41
1:13:985:C:C2	1:13:1221:G:N2	2.89	0.41
1:13:1137:C:O2'	1:13:1138:G:O5'	2.34	0.41
1:13:1187:G:P	9:8E:113:LYS:HZ1	2.42	0.41
1:13:1199:U:H4'	10:1I:54:PHE:CE2	2.56	0.41
61:13:1811:HOH:O	10:1I:57:LYS:HG2	2.21	0.41
3:2E:22:TRP:CE2	14:5I:54:PRO:HG2	2.55	0.41
4:3E:11:LEU:O	4:3E:15:GLU:HG2	2.21	0.41
4:3E:102:ASP:HB3	4:3E:136:PRO:HB3	2.03	0.41
6:5E:20:ALA:HA	6:5E:23:LYS:HE2	2.03	0.41
6:5E:23:LYS:HB2	6:5E:23:LYS:HE2	1.76	0.41
8:7E:5:PRO:HB3	8:7E:32:LYS:NZ	2.34	0.41
8:7E:21:LYS:H	8:7E:21:LYS:HG2	1.55	0.41
8:7E:91:ARG:NE	17:8I:32:TYR:O	2.46	0.41
10:1I:84:GLN:HB3	10:1I:88:LEU:HB2	2.02	0.41
11:2I:48:ILE:HG21	11:2I:63:LEU:HD13	2.03	0.41
15:6I:39:LEU:C	15:6I:41:GLU:N	2.78	0.41
16:7I:4:ILE:O	16:7I:66:PRO:HA	2.21	0.41
26:1H:271(B):G:O6	26:1H:421:U:H2'	2.20	0.41
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.19	0.41
26:1H:1403:C:O2	26:1H:1403:C:H2'	2.21	0.41
26:1H:1753:G:O6	61:1H:3607:HOH:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2067:G:O2'	26:1H:2069:G:H5"	2.21	0.41
26:1H:2095:C:H2'	26:1H:2096:U:O4'	2.21	0.41
26:1H:2116:G:O2'	26:1H:2117:A:N7	2.54	0.41
26:1H:2135:A:H3'	26:1H:2136:C:O4'	2.21	0.41
26:1H:2843:G:H1	26:1H:2874:C:N4	2.17	0.41
29:11:17:THR:HG22	29:11:205:VAL:H	1.86	0.41
30:21:179:GLU:HB2	30:21:181:LEU:HD22	2.03	0.41
31:31:176:LEU:HD21	31:31:181:LEU:HA	2.03	0.41
32:41:155:MET:N	32:41:155:MET:HE2	2.35	0.41
34:61:10:GLU:O	34:61:10:GLU:HG3	2.21	0.41
34:61:38:LEU:H	34:61:38:LEU:HD12	1.86	0.41
34:61:123:LEU:HD23	34:61:142:VAL:O	2.21	0.41
35:58:12:ARG:NH1	35:58:14:VAL:HG22	2.34	0.41
38:88:3:MET:HE2	38:88:3:MET:HB3	1.93	0.41
40:A8:106:ARG:H	40:A8:106:ARG:HG3	1.62	0.41
42:C8:47:TYR:HD2	43:D8:72:VAL:HG23	1.86	0.41
46:G8:76:CYS:HA	46:G8:77:PRO:HD2	1.95	0.41
1:1G:141:A:H1'	1:1G:182:U:O2	2.21	0.41
1:1G:666:G:H5'	1:1G:726:C:H1'	2.03	0.41
1:1G:896:C:C4	1:1G:897:C:C5	3.08	0.41
8:72:51:VAL:HG23	8:72:52:ASP:N	2.35	0.41
18:9A:22:VAL:HG12	18:9A:56:THR:HA	2.03	0.41
21:1B:8:THR:O	21:1B:12:LYS:HB2	2.21	0.41
21:1B:22:ARG:HG2	21:1B:22:ARG:HH11	1.86	0.41
56:1L:18:G:H4'	56:1L:19:G:OP1	2.20	0.41
26:14:89:G:H3'	26:14:90:U:C5'	2.51	0.41
26:14:287:C:H2'	26:14:288:C:C6	2.56	0.41
26:14:302:C:H2'	26:14:303:U:C6	2.56	0.41
26:14:654(S):G:C2	26:14:654(T):A:C2	3.09	0.41
26:14:969:U:OP1	51:H5:17:LYS:N	2.54	0.41
26:14:1204:A:N1	26:14:1241:A:C2	2.89	0.41
26:14:1480:G:C6	26:14:1482:U:C4	3.09	0.41
26:14:1576:U:N3	26:14:1577:C:C5	2.89	0.41
26:14:1636:C:P	61:14:3590:HOH:O	2.79	0.41
26:14:2292:C:P	40:65:17:ARG:HH21	2.44	0.41
26:14:2300:G:H2'	26:14:2301:C:H6	1.86	0.41
26:14:2562:U:H1'	36:25:23:ARG:NE	2.36	0.41
26:14:2688:U:C5	26:14:2720:U:OP2	2.74	0.41
26:14:2870:C:H2'	26:14:2871:C:O4'	2.21	0.41
31:39:68:LYS:HB3	31:39:69:HIS:ND1	2.36	0.41
33:59:8:PRO:O	33:59:69:ARG:HD3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:67:ARG:HG3	40:65:104:GLY:HA3	2.03	0.41
46:C5:87:LYS:CB	46:C5:94:LYS:HA	2.51	0.41
46:C5:97:ARG:HG3	46:C5:102:CYS:HB2	2.03	0.41
1:13:136:C:H42	1:13:227:G:H1	1.69	0.40
1:13:455:C:H41	1:13:477:G:N2	2.19	0.40
1:13:522:C:H2'	1:13:523:A:O4'	2.21	0.40
1:13:527:G:O2'	1:13:535:A:N1	2.48	0.40
1:13:590:C:H42	1:13:649:G:H1	1.68	0.40
1:13:685:G:O2'	1:13:686:U:H5'	2.22	0.40
1:13:767:A:H8	1:13:767:A:O5'	2.05	0.40
1:13:949:A:C4	1:13:1233:G:N2	2.90	0.40
1:13:1133:G:C2	1:13:1134:G:N7	2.89	0.40
1:13:1160:G:N3	1:13:1160:G:H2'	2.36	0.40
1:13:1304:G:OP1	21:1F:2:GLY:N	2.54	0.40
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.36	0.40
10:1I:45:ARG:HG2	10:1I:47:PHE:CZ	2.55	0.40
10:1I:92:THR:OG1	10:1I:93:GLY:N	2.54	0.40
15:6I:7:GLU:O	15:6I:11:VAL:HG23	2.22	0.40
22:1K:72:C:OP2	22:1K:72:C:H6	2.03	0.40
25:4K:24:A:H2'	25:4K:25:A:N7	2.36	0.40
26:1H:10:G:N2	26:1H:2801:A:HO2'	2.12	0.40
26:1H:389:G:O5'	26:1H:389:G:H8	2.04	0.40
26:1H:431:U:O2'	26:1H:432:A:H5'	2.21	0.40
26:1H:592:G:N3	55:Q8:4:MET:CE	2.84	0.40
26:1H:654(N):G:N7	26:1H:654(P):G:N2	2.69	0.40
26:1H:782:A:H5'	26:1H:783:A:C2	2.56	0.40
26:1H:909:A:H2'	26:1H:912:C:C5	2.55	0.40
26:1H:996:A:C6	26:1H:1160:G:C2	3.09	0.40
26:1H:1426:G:H2'	26:1H:1427:A:C8	2.57	0.40
26:1H:1437:C:C2	26:1H:1438:U:C5	3.09	0.40
26:1H:1794:U:H1'	26:1H:1900:A:N3	2.36	0.40
26:1H:2054:A:OP1	26:1H:2055:C:O2'	2.30	0.40
26:1H:2135:A:H5'	26:1H:2160:G:H4'	2.03	0.40
26:1H:2177:C:O2	28:71:172:HIS:NE2	2.54	0.40
26:1H:2286:A:H4'	26:1H:2287:A:O5'	2.21	0.40
26:1H:2287:A:N3	26:1H:2289:G:C8	2.88	0.40
26:1H:2548:G:H2'	26:1H:2549:G:O4'	2.21	0.40
26:1H:2804:C:H2'	26:1H:2805:G:C8	2.56	0.40
27:16:44:G:C2	27:16:48:A:C2	3.08	0.40
27:16:54:G:O2'	27:16:55:U:H5'	2.20	0.40
30:21:201:THR:HG22	30:21:202:LYS:N	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:33:LEU:HD23	37:78:1:MET:SD	2.61	0.40
32:41:97:ASP:H	32:41:100:TRP:CD1	2.38	0.40
35:58:62:VAL:HG22	35:58:63:THR:H	1.87	0.40
41:B8:26:ASP:HB2	41:B8:90:GLN:O	2.21	0.40
46:G8:86:ARG:HD3	46:G8:86:ARG:HA	1.78	0.40
46:G8:88:LYS:HD3	46:G8:88:LYS:HA	1.63	0.40
52:M8:9:LEU:H	52:M8:27:THR:HB	1.85	0.40
53:N8:39:MET:C	53:N8:40:LYS:HD2	2.47	0.40
1:1G:28:G:C6	1:1G:29:G:C5	3.09	0.40
1:1G:437:U:OP1	4:32:155:LEU:HD11	2.21	0.40
1:1G:456:C:H2'	1:1G:457:C:H6	1.86	0.40
1:1G:1057:G:C4	1:1G:1204:A:C2	3.09	0.40
1:1G:1064:G:OP1	1:1G:1386:G:H4'	2.21	0.40
1:1G:1441:G:H4'	1:1G:1442:G:C4	2.56	0.40
2:12:16:HIS:HB3	2:12:209:ARG:HG3	2.03	0.40
2:12:130:ARG:HA	2:12:131:PRO:HD2	1.91	0.40
4:32:173:TRP:NE1	4:32:174:LEU:HD11	2.35	0.40
5:42:127:ASN:HA	5:42:128:PRO:HD3	1.86	0.40
6:52:95:GLU:HA	6:52:96:PRO:HD3	1.90	0.40
8:72:36:LEU:HD12	8:72:59:LEU:HD13	2.04	0.40
9:82:112:LYS:HD3	9:82:117:HIS:O	2.21	0.40
12:3A:69:TYR:CG	12:3A:90:VAL:HG21	2.56	0.40
13:4A:80:ARG:HH21	19:AA:69:HIS:CE1	2.38	0.40
56:1L:2:G:H22	56:1L:71:C:H42	1.69	0.40
26:14:161:U:H4'	26:14:171:G:H21	1.86	0.40
26:14:198:C:C2'	26:14:199:A:H5"	2.51	0.40
26:14:200:U:O2	26:14:386:G:N2	2.55	0.40
26:14:282:A:N6	26:14:284:U:C2	2.89	0.40
26:14:389:G:H22	37:35:72:PRO:CD	2.33	0.40
26:14:975:G:C6	26:14:976:C:C5	3.10	0.40
26:14:1141:U:C5	35:15:64:GLY:HA3	2.56	0.40
26:14:1171:G:O2'	26:14:1173:G:OP2	2.39	0.40
26:14:1187:G:C6	61:14:3562:HOH:O	2.74	0.40
26:14:1421:G:C2	26:14:1422:G:N7	2.89	0.40
26:14:1570:A:H5'	29:19:37:LEU:HG	2.03	0.40
26:14:1665:A:C4'	36:25:67:LYS:HB2	2.51	0.40
26:14:1815:A:C5	26:14:1817:G:C6	3.09	0.40
26:14:2190:G:H2'	26:14:2191:G:O4'	2.22	0.40
26:14:2377:A:C4'	40:65:111:GLU:HG2	2.49	0.40
26:14:2515:C:O2	26:14:2570:G:C2	2.74	0.40
26:14:2678:C:O5'	26:14:2678:C:H6	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2767:C:H2'	26:14:2768:C:C6	2.56	0.40
26:14:2852:G:H2'	26:14:2853:C:O4'	2.21	0.40
27:1J:93:C:H2'	27:1J:94:C:H6	1.86	0.40
32:49:97:ASP:HA	32:49:100:TRP:HB2	2.03	0.40
32:49:103:LEU:HD23	32:49:106:LEU:HD22	2.02	0.40
37:35:126:VAL:HA	37:35:145:PRO:HG2	2.02	0.40
38:45:55:VAL:HG23	38:45:64:ILE:HD12	2.03	0.40
42:85:8:VAL:O	42:85:12:ARG:HG3	2.21	0.40
49:F5:49:VAL:HG11	49:F5:70:VAL:HG11	2.02	0.40
49:F5:91:LYS:HZ1	49:F5:95:LEU:HD22	1.86	0.40
50:G5:3:LEU:O	50:G5:6:VAL:HG13	2.20	0.40
1:13:146:G:N3	1:13:146:G:H2'	2.36	0.40
1:13:255:G:C6	1:13:256:U:C4	3.09	0.40
1:13:592:G:N3	1:13:593:G:C8	2.90	0.40
1:13:625:G:C5	1:13:626:U:C5	3.09	0.40
1:13:892:A:O2'	1:13:1415:G:H4'	2.21	0.40
1:13:1357:A:C5	1:13:1358:U:C4	3.09	0.40
1:13:1511:G:H2'	1:13:1512:U:O4'	2.21	0.40
2:1E:102:LEU:HD23	2:1E:182:ILE:HD12	2.03	0.40
3:2E:12:LEU:O	3:2E:16:ARG:O	2.39	0.40
5:4E:9:LYS:HE3	5:4E:9:LYS:HB2	1.85	0.40
7:6E:104:LEU:HA	7:6E:104:LEU:HD13	1.82	0.40
26:1H:322:A:H3'	31:31:169:ASN:OD1	2.20	0.40
26:1H:782:A:N7	29:11:221:VAL:HG11	2.36	0.40
26:1H:1471:A:C2	26:1H:1472:A:C4	3.10	0.40
26:1H:1526:G:N2	26:1H:1545(A):A:H62	2.19	0.40
26:1H:1557:C:H5"	26:1H:1558:A:OP2	2.21	0.40
26:1H:1728:G:N2	26:1H:1730:U:OP2	2.54	0.40
26:1H:2164:C:C5	26:1H:2165:G:C6	3.08	0.40
26:1H:2291:U:H5"	26:1H:2380:C:O2'	2.21	0.40
26:1H:2367:G:H2'	26:1H:2368:C:C6	2.56	0.40
27:16:32:C:C2	27:16:51:G:N2	2.89	0.40
27:16:94:C:C4	27:16:95:U:C5	3.10	0.40
47:H8:140:ASP:N	47:H8:140:ASP:OD1	2.53	0.40
1:1G:191(C):G:H2'	1:1G:191(D):U:O4'	2.21	0.40
1:1G:325:A:H2'	1:1G:326:G:O4'	2.20	0.40
1:1G:411:A:H2'	1:1G:413:G:H5'	2.03	0.40
1:1G:1302:U:C5	13:4A:17:VAL:HG21	2.56	0.40
2:12:83:MET:O	2:12:87:ARG:HD3	2.21	0.40
2:12:189:ASP:HB3	2:12:203:GLY:O	2.22	0.40
4:32:7:PRO:HB2	4:32:10:ARG:HG2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:142:GLU:N	7:62:142:GLU:OE2	2.54	0.40
9:82:24:GLY:HA2	9:82:59:PHE:O	2.21	0.40
13:4A:32:GLU:O	13:4A:35:GLU:N	2.54	0.40
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.21	0.40
23:2L:4:G:H2'	23:2L:5:G:C8	2.57	0.40
26:14:185:U:C2	26:14:186:G:C8	3.09	0.40
26:14:196:A:OP2	37:35:46:LYS:NZ	2.53	0.40
26:14:270(Z):U:H4'	26:14:271(A):C:H6	1.86	0.40
26:14:422:A:C6	26:14:423:A:C6	3.09	0.40
26:14:466:A:H5"	54:L5:30:VAL:HG11	2.03	0.40
26:14:773:U:O2'	29:19:48:ARG:HD3	2.21	0.40
26:14:827:U:O2	26:14:2246:G:H4'	2.22	0.40
26:14:981:A:N1	26:14:2027:G:O2'	2.50	0.40
26:14:1021:A:C2	26:14:1023:U:C2	3.09	0.40
26:14:1138:G:O2'	35:15:106:MET:HG3	2.20	0.40
26:14:1309:G:O2'	26:14:1611:C:O2'	2.20	0.40
26:14:1378:A:O2'	26:14:1380:G:N7	2.39	0.40
26:14:1533:C:N3	26:14:1534:G:H1'	2.36	0.40
26:14:1556:C:C2	26:14:1557:C:C5	3.10	0.40
26:14:1996:C:OP1	36:25:31:LYS:HE2	2.21	0.40
26:14:2496:C:P	38:45:81:VAL:HG12	2.61	0.40
26:14:2516:G:C5	26:14:2517:C:C4	3.08	0.40
27:1J:55:U:H6	27:1J:55:U:O5'	2.04	0.40
27:1J:95:U:H2'	27:1J:96:G:C8	2.55	0.40
30:29:201:THR:HG22	30:29:202:LYS:H	1.86	0.40
35:15:38:HIS:CE1	35:15:50:ASP:OD2	2.74	0.40
43:95:52:VAL:CG1	43:95:55:ALA:HB3	2.51	0.40
43:95:66:ARG:HB2	43:95:88:ARG:HB3	2.03	0.40
51:H5:2:PRO:HB2	51:H5:3:ARG:H	1.62	0.40
1:13:8:A:N7	4:3E:208:SER:OG	2.48	0.40
1:13:17:U:O2'	1:13:1079:G:H1'	2.21	0.40
1:13:277:C:H5"	17:8I:68:ARG:NH2	2.36	0.40
1:13:375:U:O3'	16:7I:6:LEU:HB2	2.20	0.40
1:13:391:G:H2'	1:13:392:G:O4'	2.22	0.40
1:13:406:G:H21	4:3E:119:GLN:HE22	1.70	0.40
1:13:690:G:H21	11:2I:55:LYS:CE	2.34	0.40
1:13:1455:G:H8	1:13:1455:G:O5'	2.05	0.40
1:13:1459:C:OP1	20:BI:31:SER:OG	2.32	0.40
4:3E:173:TRP:O	4:3E:174:LEU:HD23	2.22	0.40
6:5E:45:LEU:HD12	6:5E:59:TYR:CD2	2.56	0.40
8:7E:75:ARG:HA	8:7E:76:PRO:HD2	1.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:105:ARG:C	8:7E:107:LEU:H	2.28	0.40
13:4I:34:LEU:HB3	13:4I:39:ILE:O	2.21	0.40
13:4I:96:LEU:HB3	13:4I:97:PRO:CD	2.51	0.40
16:7I:26:ARG:HH21	16:7I:31:LYS:HE3	1.86	0.40
19:AI:78:ARG:H	19:AI:78:ARG:HG3	1.69	0.40
22:1K:76:A:H8	26:1H:2507:C:H1'	1.86	0.40
24:3K:7:U:H5'	24:3K:8:U:OP2	2.21	0.40
26:1H:5:A:H2'	26:1H:6:A:C8	2.56	0.40
26:1H:270(N):G:H4'	26:1H:270(O):U:C4	2.56	0.40
26:1H:394:A:C6	26:1H:395:U:N3	2.89	0.40
26:1H:840:C:OP2	26:1H:932:G:N2	2.46	0.40
26:1H:2001:A:H2'	26:1H:2002:G:O4'	2.21	0.40
26:1H:2171:A:O2'	26:1H:2172:U:O4'	2.36	0.40
26:1H:2627:G:O2'	26:1H:2781:A:N1	2.47	0.40
27:16:5:C:N4	27:16:115:G:H1	2.20	0.40
27:16:41:U:H5	32:41:70:VAL:HG13	1.84	0.40
27:16:112:G:H2'	27:16:113:C:C6	2.56	0.40
28:71:44:HIS:ND1	28:71:172:HIS:HD2	2.19	0.40
31:31:162:LEU:HD23	31:31:162:LEU:HA	1.91	0.40
35:58:46:VAL:O	35:58:47:ALA:HB3	2.20	0.40
35:58:67:LEU:HA	35:58:87:LEU:HD12	2.03	0.40
40:A8:9:ARG:HH11	40:A8:9:ARG:HD2	1.73	0.40
45:F8:84:ALA:HB1	45:F8:85:PRO:HD2	2.03	0.40
48:I8:10:THR:C	48:I8:12:ASN:H	2.29	0.40
49:J8:87:PRO:HA	49:J8:90:ILE:CG1	2.48	0.40
50:K8:47:ASN:HB2	50:K8:48:HIS:H	1.80	0.40
1:1G:114:U:H2'	1:1G:115:G:H8	1.86	0.40
1:1G:580:U:H2'	1:1G:581:G:O4'	2.22	0.40
1:1G:804:U:H5"	1:1G:805:C:OP2	2.21	0.40
1:1G:1084:G:H2'	1:1G:1085:U:C6	2.56	0.40
1:1G:1129:C:OP1	1:1G:1130:A:H8	2.04	0.40
1:1G:1154:G:C4	1:1G:1155:G:C8	3.10	0.40
1:1G:1207:G:C2'	1:1G:1208:C:H5'	2.50	0.40
3:22:86:VAL:HG23	3:22:87:LEU:HD23	2.02	0.40
4:32:12:CYS:SG	4:32:19:LEU:N	2.83	0.40
6:52:25:ILE:HD12	6:52:82:ARG:HD2	2.02	0.40
8:72:3:THR:OG1	8:72:4:ASP:N	2.54	0.40
9:82:11:LYS:N	9:82:104:ARG:HH21	2.18	0.40
9:82:112:LYS:HD2	9:82:112:LYS:C	2.46	0.40
10:1A:32:ALA:CB	10:1A:76:ASN:HB3	2.51	0.40
12:3A:32:PHE:HD1	12:3A:86:ARG:HA	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:31:LEU:HD12	15:6A:31:LEU:HA	1.92	0.40
15:6A:55:GLY:O	15:6A:59:MET:HB2	2.21	0.40
56:1L:5:C:N3	56:1L:68:G:N2	2.67	0.40
56:1L:34:U:H2'	56:1L:35:U:C5	2.56	0.40
56:1L:50:C:O2'	56:1L:65:C:N4	2.49	0.40
23:2L:48:U:H1'	23:2L:49:C:O5'	2.21	0.40
26:14:111:A:C6	26:14:112:U:C4	3.09	0.40
26:14:270(Y):G:C2	26:14:270(Z):U:O4	2.74	0.40
26:14:1309:G:OP1	54:L5:9:ARG:HG3	2.21	0.40
26:14:1339:G:H21	26:14:1603:A:H1'	1.86	0.40
26:14:1543:A:OP1	26:14:1543:A:H4'	2.20	0.40
26:14:1657:C:O2'	26:14:1658:C:H5'	2.22	0.40
26:14:1759:A:H4'	26:14:2715:C:O4'	2.21	0.40
26:14:2448:A:N6	61:14:3613:HOH:O	2.29	0.40
26:14:2733:A:H2	30:29:204:ALA:N	2.20	0.40
31:39:161:GLU:HG3	31:39:162:LEU:N	2.37	0.40
41:75:5:ALA:HB1	41:75:9:LEU:H	1.85	0.40
1:13:49:U:O2'	1:13:50:A:H2'	2.21	0.40
1:13:127:G:O2'	17:8I:2:PRO:O	2.32	0.40
1:13:157:G:C6	1:13:158:G:C5	3.09	0.40
1:13:590:C:OP1	8:7E:29:SER:HA	2.21	0.40
1:13:592:G:C6	1:13:648:A:N1	2.90	0.40
1:13:947:G:OP1	13:4I:108:ARG:HB3	2.21	0.40
1:13:974:A:P	14:5I:41:ARG:HH12	2.43	0.40
1:13:1186:G:H21	14:5I:61:TRP:C	2.27	0.40
1:13:1289:A:N1	1:13:1371:G:O2'	2.53	0.40
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.22	0.40
10:1I:60:ARG:H	10:1I:60:ARG:HG2	1.79	0.40
13:4I:7:VAL:HG23	32:41:115:ARG:NH1	2.36	0.40
13:4I:49:THR:C	13:4I:51:ALA:N	2.77	0.40
15:6I:26:GLU:H	15:6I:26:GLU:HG2	1.46	0.40
26:1H:164:U:H3'	26:1H:164:U:C6	2.56	0.40
26:1H:271(B):G:H8	26:1H:271(B):G:H2'	1.74	0.40
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.86	0.40
26:1H:483:A:O2'	46:G8:59:GLY:HA2	2.21	0.40
26:1H:529:A:C8	26:1H:530:G:C6	3.08	0.40
26:1H:546:C:H3'	26:1H:547:A:C8	2.57	0.40
26:1H:712:G:C6	26:1H:713:G:C5	3.09	0.40
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.52	0.40
26:1H:1188:U:C5'	43:D8:79:VAL:HG22	2.51	0.40
26:1H:1388:G:OP2	61:1H:3620:HOH:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1442:G:H2'	26:1H:1443:G:C8	2.57	0.40
26:1H:1528:A:N1	26:1H:1543:A:H2	2.20	0.40
26:1H:1541:U:H2'	26:1H:1542:G:O4'	2.22	0.40
26:1H:1783:A:C2	26:1H:2587:A:C4	3.10	0.40
26:1H:1833:U:C4	26:1H:1834:U:C5	3.10	0.40
26:1H:2728:U:H2'	26:1H:2729:G:H8	1.84	0.40
29:11:146:GLU:HB2	29:11:189:CYS:HB3	2.03	0.40
35:58:6:PRO:HG3	35:58:41:ASP:HB2	2.03	0.40
40:A8:62:LYS:H	40:A8:62:LYS:HG2	1.53	0.40
43:D8:58:VAL:HG22	43:D8:98:GLU:O	2.21	0.40
44:E8:64:MET:HE2	44:E8:64:MET:HB3	1.79	0.40
1:1G:32:A:H2'	1:1G:33:A:C8	2.57	0.40
1:1G:123:C:H6	1:1G:123:C:O5'	2.04	0.40
1:1G:375:U:O2'	16:7A:6:LEU:O	2.36	0.40
1:1G:702:A:C6	26:14:1848:A:C6	3.10	0.40
1:1G:764:C:H2'	1:1G:765:G:O4'	2.22	0.40
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.57	0.40
1:1G:1240:U:C2	7:62:32:ARG:HG3	2.57	0.40
1:1G:1434:A:H2'	1:1G:1435:G:O4'	2.21	0.40
2:12:76:GLN:H	2:12:76:GLN:HG2	1.61	0.40
2:12:90:MET:HA	2:12:91:PRO:HD3	1.84	0.40
2:12:132:LYS:HA	2:12:132:LYS:HD2	1.85	0.40
6:52:2:ARG:O	6:52:66:GLU:HA	2.20	0.40
7:62:64:GLN:HG3	7:62:128:ALA:HA	2.04	0.40
9:82:6:GLY:O	9:82:17:VAL:HB	2.22	0.40
18:9A:44:LEU:HD11	18:9A:70:ILE:CG2	2.51	0.40
57:3L:21:A:N1	57:3L:48:C:C4	2.90	0.40
25:4L:21:A:N1	25:4L:22:A:N6	2.69	0.40
26:14:30:G:C6	26:14:31:C:C4	3.10	0.40
26:14:196:A:N3	26:14:196:A:H2'	2.36	0.40
26:14:464:U:H2'	26:14:465:G:O4'	2.21	0.40
26:14:480:A:N3	26:14:480:A:H2'	2.36	0.40
26:14:589:C:O5'	26:14:589:C:H6	2.04	0.40
26:14:1142:U:O2	26:14:1142:U:H2'	2.21	0.40
26:14:1156:A:OP1	42:85:55:ARG:NH1	2.47	0.40
26:14:1885:A:H2'	26:14:1886:C:O4'	2.22	0.40
26:14:2250:G:C5	38:45:82:ARG:HD2	2.56	0.40
26:14:2689:U:H5'	26:14:2689:U:C6	2.57	0.40
30:29:16:ARG:HH22	30:29:171:GLU:CD	2.29	0.40
32:49:117:PHE:O	32:49:117:PHE:CG	2.75	0.40
32:49:141:PHE:HD1	32:49:142:PRO:HD2	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:149:ARG:NH1	33:59:162:ILE:O	2.35	0.40
35:15:2:LYS:HB3	35:15:3:THR:H	1.66	0.40
39:55:28:LEU:O	39:55:28:LEU:HD22	2.22	0.40
40:65:3:ARG:HE	40:65:4:LEU:H	1.62	0.40
47:D5:137:ILE:HA	47:D5:137:ILE:HD13	1.83	0.40
1:13:21:G:H2'	1:13:22:G:H8	1.85	0.40
1:13:109:A:H5'	1:13:110:C:C5	2.56	0.40
1:13:160:A:C2	1:13:161:A:O4'	2.75	0.40
1:13:292:G:C5	1:13:293:G:H1'	2.56	0.40
1:13:339:C:OP2	36:68:97:ARG:HD3	2.21	0.40
1:13:429:U:H3'	4:3E:9:CYS:SG	2.61	0.40
1:13:826:C:N4	1:13:827:U:O4	2.55	0.40
1:13:1333:A:H3'	1:13:1334:G:H8	1.86	0.40
12:3I:8:ASN:O	12:3I:11:VAL:HG23	2.21	0.40
12:3I:53:ARG:HH12	12:3I:92:ASP:CG	2.29	0.40
26:1H:775:G:C5	26:1H:794:G:C8	3.09	0.40
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.36	0.40
26:1H:1364:G:P	49:J8:2:SER:OG	2.80	0.40
26:1H:1535:U:H5"	26:1H:1537:C:N4	2.36	0.40
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.21	0.40
26:1H:1717:G:H2'	26:1H:1718:G:C8	2.57	0.40
26:1H:2020:A:C2	26:1H:2022:U:O4'	2.75	0.40
26:1H:2164:C:H5	26:1H:2165:G:C6	2.38	0.40
26:1H:2259:G:C2	26:1H:2282:G:N1	2.90	0.40
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.81	0.40
26:1H:2402:C:H5	26:1H:2415:G:H22	1.69	0.40
26:1H:2893:G:H5"	26:1H:2894:G:OP1	2.21	0.40
27:16:7:G:O5'	40:A8:29:PHE:HE2	2.05	0.40
28:71:59:ARG:NH2	28:71:171:ILE:HD13	2.31	0.40
35:58:67:LEU:HD23	35:58:88:GLU:HB3	2.03	0.40
38:88:20:ALA:HB1	38:88:99:PRO:HD2	2.02	0.40
38:88:118:LEU:HD23	38:88:118:LEU:HA	1.83	0.40
39:98:33:ARG:HG3	39:98:115:GLU:HB3	2.02	0.40
40:A8:30:ARG:HA	40:A8:35:ILE:HA	2.04	0.40
50:K8:47:ASN:C	50:K8:49:LYS:H	2.30	0.40
1:1G:405:U:H5'	1:1G:496:A:H2	1.86	0.40
1:1G:623:C:C4	1:1G:624:C:C5	3.09	0.40
1:1G:693:G:H2'	1:1G:694:A:O4'	2.21	0.40
1:1G:946:A:H61	1:1G:1234:C:H42	1.69	0.40
1:1G:1106:G:H2'	1:1G:1107:C:H6	1.87	0.40
7:62:27:ILE:HA	7:62:30:ILE:HG12	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:97:GLN:O	7:62:101:LEU:HG	2.22	0.40
14:5A:32:SER:O	14:5A:40:CYS:HA	2.22	0.40
15:6A:47:LYS:H	15:6A:47:LYS:HG2	1.59	0.40
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.22	0.40
20:BA:12:ALA:O	20:BA:15:ARG:HB2	2.21	0.40
23:2L:20:G:N1	23:2L:58:A:C2	2.89	0.40
26:14:476:G:H4'	26:14:502:A:N1	2.36	0.40
26:14:569:U:H5"	26:14:821:A:N1	2.35	0.40
26:14:676:A:H1'	26:14:2443:C:C1'	2.48	0.40
26:14:861:A:C2	26:14:917:A:C4	3.09	0.40
26:14:1871:A:H2'	26:14:1872:A:H8	1.79	0.40
26:14:2230:G:H1'	49:F5:45:ASN:OD1	2.21	0.40
26:14:2488:A:H2'	26:14:2489:G:O4'	2.21	0.40
27:1J:24:G:C8	27:1J:56:G:C4	3.08	0.40
27:1J:95:U:H2'	27:1J:96:G:H8	1.86	0.40
29:19:261:LYS:HD2	29:19:262:ARG:N	2.35	0.40
32:49:167:GLU:O	32:49:170:ARG:HB3	2.21	0.40
36:25:13:ASN:C	36:25:15:GLY:N	2.78	0.40
41:75:61:PHE:N	41:75:61:PHE:CD1	2.89	0.40
45:B5:3:THR:O	45:B5:5:TYR:N	2.55	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:82:U:O2'	26:14:271(C):U:O4[3_545]	2.15	0.05

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	204/256 (80%)	170 (83%)	32 (16%)	2 (1%)	12 41

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	1E	227/256 (89%)	191 (84%)	34 (15%)	2 (1%)	14 43
3	22	190/239 (80%)	173 (91%)	15 (8%)	2 (1%)	11 39
3	2E	203/239 (85%)	187 (92%)	16 (8%)	0	100 100
4	32	206/209 (99%)	183 (89%)	22 (11%)	1 (0%)	24 55
4	3E	206/209 (99%)	188 (91%)	13 (6%)	5 (2%)	4 23
5	42	145/162 (90%)	136 (94%)	8 (6%)	1 (1%)	18 49
5	4E	147/162 (91%)	139 (95%)	7 (5%)	1 (1%)	18 49
6	52	99/101 (98%)	93 (94%)	6 (6%)	0	100 100
6	5E	98/101 (97%)	95 (97%)	3 (3%)	0	100 100
7	62	134/156 (86%)	126 (94%)	8 (6%)	0	100 100
7	6E	145/156 (93%)	136 (94%)	9 (6%)	0	100 100
8	72	136/138 (99%)	126 (93%)	8 (6%)	2 (2%)	8 33
8	7E	136/138 (99%)	129 (95%)	7 (5%)	0	100 100
9	82	122/128 (95%)	111 (91%)	11 (9%)	0	100 100
9	8E	125/128 (98%)	111 (89%)	13 (10%)	1 (1%)	16 46
10	1A	72/105 (69%)	64 (89%)	8 (11%)	0	100 100
10	1I	89/105 (85%)	81 (91%)	7 (8%)	1 (1%)	11 39
11	2A	111/129 (86%)	99 (89%)	11 (10%)	1 (1%)	14 43
11	2I	109/129 (84%)	99 (91%)	8 (7%)	2 (2%)	6 29
12	3A	119/132 (90%)	99 (83%)	19 (16%)	1 (1%)	16 46
12	3I	120/132 (91%)	104 (87%)	15 (12%)	1 (1%)	16 46
13	4A	108/126 (86%)	87 (81%)	20 (18%)	1 (1%)	14 43
13	4I	114/126 (90%)	93 (82%)	19 (17%)	2 (2%)	6 29
14	5A	55/61 (90%)	46 (84%)	8 (14%)	1 (2%)	6 29
14	5I	59/61 (97%)	51 (86%)	8 (14%)	0	100 100
15	6A	85/89 (96%)	79 (93%)	6 (7%)	0	100 100
15	6I	86/89 (97%)	75 (87%)	10 (12%)	1 (1%)	10 37
16	7A	82/88 (93%)	77 (94%)	5 (6%)	0	100 100
16	7I	78/88 (89%)	76 (97%)	2 (3%)	0	100 100
17	8A	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
17	8I	97/105 (92%)	92 (95%)	5 (5%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
18	9A	65/88 (74%)	61 (94%)	4 (6%)	0	100 100
18	9I	65/88 (74%)	63 (97%)	1 (2%)	1 (2%)	8 33
19	AA	54/93 (58%)	45 (83%)	5 (9%)	4 (7%)	1 4
19	AI	78/93 (84%)	68 (87%)	6 (8%)	4 (5%)	1 10
20	BA	96/106 (91%)	88 (92%)	8 (8%)	0	100 100
20	BI	95/106 (90%)	82 (86%)	13 (14%)	0	100 100
21	1B	22/27 (82%)	21 (96%)	1 (4%)	0	100 100
21	1F	21/27 (78%)	19 (90%)	2 (10%)	0	100 100
28	71	129/229 (56%)	120 (93%)	9 (7%)	0	100 100
29	11	272/276 (99%)	247 (91%)	16 (6%)	9 (3%)	3 17
29	19	271/276 (98%)	249 (92%)	17 (6%)	5 (2%)	6 29
30	21	202/206 (98%)	173 (86%)	25 (12%)	4 (2%)	6 27
30	29	202/206 (98%)	153 (76%)	36 (18%)	13 (6%)	1 6
31	31	200/210 (95%)	179 (90%)	19 (10%)	2 (1%)	12 41
31	39	203/210 (97%)	174 (86%)	24 (12%)	5 (2%)	4 22
32	41	178/182 (98%)	152 (85%)	23 (13%)	3 (2%)	7 30
32	49	178/182 (98%)	158 (89%)	18 (10%)	2 (1%)	11 39
33	51	171/180 (95%)	132 (77%)	35 (20%)	4 (2%)	5 24
33	59	63/180 (35%)	45 (71%)	17 (27%)	1 (2%)	7 32
34	61	143/148 (97%)	116 (81%)	25 (18%)	2 (1%)	9 34
34	69	143/148 (97%)	116 (81%)	27 (19%)	0	100 100
35	15	135/140 (96%)	123 (91%)	11 (8%)	1 (1%)	18 49
35	58	136/140 (97%)	116 (85%)	17 (12%)	3 (2%)	5 25
36	25	120/122 (98%)	112 (93%)	8 (7%)	0	100 100
36	68	120/122 (98%)	114 (95%)	6 (5%)	0	100 100
37	35	146/150 (97%)	112 (77%)	27 (18%)	7 (5%)	2 11
37	78	145/150 (97%)	118 (81%)	20 (14%)	7 (5%)	2 11
38	45	136/141 (96%)	111 (82%)	22 (16%)	3 (2%)	5 25
38	88	139/141 (99%)	114 (82%)	19 (14%)	6 (4%)	2 13
39	55	116/118 (98%)	110 (95%)	6 (5%)	0	100 100
39	98	116/118 (98%)	102 (88%)	14 (12%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
40	65	108/112 (96%)	92 (85%)	14 (13%)	2 (2%)	6 28
40	A8	109/112 (97%)	94 (86%)	13 (12%)	2 (2%)	6 29
41	75	134/146 (92%)	115 (86%)	18 (13%)	1 (1%)	18 49
41	B8	132/146 (90%)	118 (89%)	14 (11%)	0	100 100
42	85	114/118 (97%)	103 (90%)	10 (9%)	1 (1%)	14 43
42	C8	113/118 (96%)	105 (93%)	6 (5%)	2 (2%)	6 29
43	95	97/101 (96%)	78 (80%)	15 (16%)	4 (4%)	2 14
43	D8	98/101 (97%)	87 (89%)	8 (8%)	3 (3%)	3 18
44	A5	109/113 (96%)	99 (91%)	10 (9%)	0	100 100
44	E8	110/113 (97%)	103 (94%)	7 (6%)	0	100 100
45	B5	92/96 (96%)	85 (92%)	6 (6%)	1 (1%)	11 39
45	F8	94/96 (98%)	83 (88%)	8 (8%)	3 (3%)	3 17
46	C5	102/110 (93%)	69 (68%)	26 (26%)	7 (7%)	1 5
46	G8	101/110 (92%)	90 (89%)	9 (9%)	2 (2%)	6 27
47	D5	120/206 (58%)	92 (77%)	24 (20%)	4 (3%)	3 17
47	H8	142/206 (69%)	120 (84%)	15 (11%)	7 (5%)	1 11
48	E5	76/85 (89%)	73 (96%)	3 (4%)	0	100 100
48	I8	76/85 (89%)	67 (88%)	8 (10%)	1 (1%)	9 36
49	F5	92/98 (94%)	83 (90%)	7 (8%)	2 (2%)	5 25
49	J8	92/98 (94%)	88 (96%)	3 (3%)	1 (1%)	11 39
50	G5	67/72 (93%)	60 (90%)	5 (8%)	2 (3%)	3 19
50	K8	66/72 (92%)	62 (94%)	3 (4%)	1 (2%)	8 33
51	H5	56/60 (93%)	53 (95%)	3 (5%)	0	100 100
51	L8	56/60 (93%)	54 (96%)	2 (4%)	0	100 100
52	M8	45/71 (63%)	26 (58%)	18 (40%)	1 (2%)	5 25
53	J5	54/60 (90%)	47 (87%)	7 (13%)	0	100 100
53	N8	47/60 (78%)	43 (92%)	4 (8%)	0	100 100
54	L5	45/49 (92%)	44 (98%)	1 (2%)	0	100 100
54	P8	45/49 (92%)	42 (93%)	3 (7%)	0	100 100
55	M5	62/65 (95%)	50 (81%)	9 (14%)	3 (5%)	2 11
55	Q8	62/65 (95%)	54 (87%)	4 (6%)	4 (6%)	1 6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	10880/12104 (90%)	9578 (88%)	1134 (10%)	168 (2%)	8 33

All (168) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	3E	88	VAL
18	9I	22	VAL
29	11	40	THR
29	11	237	GLU
37	78	16	ARG
37	78	25	SER
46	G8	81	LYS
47	H8	165	VAL
30	29	25	VAL
30	29	90	THR
38	45	27	VAL
46	C5	85	VAL
49	F5	30	VAL
55	M5	49	VAL
4	3E	78	LEU
12	3I	48	PRO
19	AI	67	VAL
29	11	27	THR
30	21	82	ARG
35	58	97	ARG
38	88	6	ARG
38	88	66	ILE
42	C8	93	LYS
47	H8	53	ILE
52	M8	24	THR
12	3A	18	VAL
19	AA	9	VAL
29	19	237	GLU
30	29	9	VAL
30	29	51	PHE
30	29	59	VAL
30	29	81	ILE
30	29	89	ASP
31	39	84	VAL
31	39	124	LEU
31	39	132	VAL
37	35	19	VAL

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Mol	Chain	Res	Type
46	C5	29	GLU
47	D5	53	ILE
47	D5	165	VAL
49	F5	85	LEU
50	G5	48	HIS
55	M5	35	GLN
4	3E	89	THR
29	11	3	VAL
29	11	28	GLU
29	11	29	PRO
30	21	60	ASN
38	88	7	MET
43	D8	45	THR
45	F8	4	ALA
55	Q8	50	LEU
55	Q8	52	LYS
3	22	14	ILE
29	19	45	ASN
37	35	12	ALA
37	35	53	GLY
37	35	107	LYS
43	95	80	GLN
47	D5	161	VAL
50	G5	6	VAL
4	3E	77	ASN
11	2I	107	SER
19	AI	7	LYS
29	11	240	ALA
30	21	54	GLN
32	41	96	ARG
32	41	97	ASP
33	51	156	ALA
33	51	169	VAL
34	61	83	ALA
38	88	134	ARG
40	A8	88	ASP
47	H8	6	LYS
47	H8	59	LEU
47	H8	60	GLU
47	H8	61	LEU
49	J8	91	LYS
50	K8	47	ASN

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Mol	Chain	Res	Type
55	Q8	35	GLN
3	22	26	LYS
8	72	73	ASP
11	2A	15	ALA
29	19	239	ARG
30	29	70	ALA
30	29	78	LEU
32	49	81	LYS
35	15	128	HIS
40	65	55	ALA
40	65	111	GLU
42	85	93	LYS
43	95	45	THR
43	95	71	LEU
46	C5	92	ASN
46	C5	99	CYS
55	M5	34	TRP
9	8E	111	ARG
13	4I	27	LYS
30	21	144	ARG
33	51	172	LYS
35	58	22	THR
35	58	128	HIS
37	78	19	VAL
40	A8	4	LEU
43	D8	49	THR
45	F8	40	LYS
45	F8	68	ARG
48	I8	10	THR
5	42	60	TYR
14	5A	16	PHE
37	35	108	LYS
38	45	60	ARG
46	C5	17	SER
2	1E	22	LYS
4	3E	90	GLY
13	4I	83	ASP
19	AI	41	VAL
29	11	239	ARG
33	51	12	PRO
34	61	133	HIS
37	78	95	VAL

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Mol	Chain	Res	Type
38	88	80	GLU
47	H8	81	ARG
2	12	143	GLU
8	72	74	PRO
29	19	3	VAL
29	19	26	LYS
30	29	26	ILE
30	29	52	LEU
30	29	71	GLY
37	35	21	ARG
41	75	2	ASN
32	41	5	VAL
43	D8	47	VAL
13	4A	84	ILE
30	29	62	PRO
43	95	72	VAL
47	D5	158	PRO
10	1I	24	VAL
11	2I	82	VAL
37	78	47	ASP
42	C8	90	VAL
19	AA	11	VAL
46	C5	76	CYS
5	4E	115	VAL
29	11	35	LYS
37	78	24	GLY
2	12	81	VAL
19	AA	45	VAL
31	39	25	PRO
32	49	5	VAL
33	59	8	PRO
45	B5	51	VAL
2	1E	230	VAL
15	6I	82	ILE
19	AI	9	VAL
31	31	24	LEU
31	31	132	VAL
46	G8	76	CYS
55	Q8	63	PRO
19	AA	67	VAL
31	39	28	ILE
37	35	7	ARG

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Mol	Chain	Res	Type
38	45	81	VAL
46	C5	3	VAL
37	78	7	ARG
38	88	27	VAL
4	32	28	SER

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	12	182/220 (83%)	129 (71%)	53 (29%)	0 1
2	1E	200/220 (91%)	147 (74%)	53 (26%)	0 2
3	22	153/188 (81%)	124 (81%)	29 (19%)	1 7
3	2E	159/188 (85%)	127 (80%)	32 (20%)	1 6
4	32	180/181 (99%)	142 (79%)	38 (21%)	1 6
4	3E	180/181 (99%)	149 (83%)	31 (17%)	2 9
5	42	113/123 (92%)	86 (76%)	27 (24%)	1 3
5	4E	115/123 (94%)	85 (74%)	30 (26%)	0 2
6	52	90/90 (100%)	79 (88%)	11 (12%)	5 19
6	5E	90/90 (100%)	78 (87%)	12 (13%)	4 17
7	62	114/127 (90%)	90 (79%)	24 (21%)	1 6
7	6E	123/127 (97%)	88 (72%)	35 (28%)	0 1
8	72	119/119 (100%)	94 (79%)	25 (21%)	1 6
8	7E	119/119 (100%)	92 (77%)	27 (23%)	1 4
9	82	95/99 (96%)	73 (77%)	22 (23%)	1 4
9	8E	97/99 (98%)	71 (73%)	26 (27%)	0 2
10	1A	69/92 (75%)	53 (77%)	16 (23%)	1 4
10	1I	81/92 (88%)	61 (75%)	20 (25%)	1 3
11	2A	85/99 (86%)	69 (81%)	16 (19%)	1 8
11	2I	84/99 (85%)	64 (76%)	20 (24%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
12	3A	102/109 (94%)	82 (80%)	20 (20%)	1 7
12	3I	103/109 (94%)	79 (77%)	24 (23%)	1 4
13	4A	91/101 (90%)	64 (70%)	27 (30%)	0 1
13	4I	94/101 (93%)	69 (73%)	25 (27%)	0 2
14	5A	47/50 (94%)	31 (66%)	16 (34%)	0 0
14	5I	49/50 (98%)	40 (82%)	9 (18%)	1 8
15	6A	79/80 (99%)	68 (86%)	11 (14%)	3 15
15	6I	79/80 (99%)	64 (81%)	15 (19%)	1 7
16	7A	72/74 (97%)	61 (85%)	11 (15%)	3 12
16	7I	69/74 (93%)	51 (74%)	18 (26%)	0 2
17	8A	94/97 (97%)	84 (89%)	10 (11%)	6 24
17	8I	94/97 (97%)	74 (79%)	20 (21%)	1 5
18	9A	58/77 (75%)	44 (76%)	14 (24%)	1 3
18	9I	58/77 (75%)	47 (81%)	11 (19%)	1 7
19	AA	52/80 (65%)	33 (64%)	19 (36%)	0 0
19	AI	70/80 (88%)	51 (73%)	19 (27%)	0 2
20	BA	76/82 (93%)	62 (82%)	14 (18%)	1 8
20	BI	75/82 (92%)	64 (85%)	11 (15%)	3 14
21	1B	19/22 (86%)	16 (84%)	3 (16%)	2 11
21	1F	18/22 (82%)	14 (78%)	4 (22%)	1 5
28	71	109/181 (60%)	75 (69%)	34 (31%)	0 1
29	11	214/218 (98%)	161 (75%)	53 (25%)	1 3
29	19	214/218 (98%)	157 (73%)	57 (27%)	0 2
30	21	165/166 (99%)	124 (75%)	41 (25%)	1 3
30	29	165/166 (99%)	129 (78%)	36 (22%)	1 5
31	31	161/166 (97%)	121 (75%)	40 (25%)	1 3
31	39	163/166 (98%)	122 (75%)	41 (25%)	0 3
32	41	154/156 (99%)	111 (72%)	43 (28%)	0 2
32	49	154/156 (99%)	126 (82%)	28 (18%)	2 8
33	51	144/148 (97%)	107 (74%)	37 (26%)	0 3
33	59	56/148 (38%)	40 (71%)	16 (29%)	0 1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
34	61	122/124 (98%)	88 (72%)	34 (28%)	0 2
34	69	122/124 (98%)	87 (71%)	35 (29%)	0 1
35	15	116/119 (98%)	87 (75%)	29 (25%)	0 3
35	58	117/119 (98%)	83 (71%)	34 (29%)	0 1
36	25	100/100 (100%)	76 (76%)	24 (24%)	1 3
36	68	100/100 (100%)	79 (79%)	21 (21%)	1 6
37	35	115/116 (99%)	73 (64%)	42 (36%)	0 0
37	78	114/116 (98%)	79 (69%)	35 (31%)	0 1
38	45	109/111 (98%)	79 (72%)	30 (28%)	0 2
38	88	109/111 (98%)	84 (77%)	25 (23%)	1 4
39	55	101/101 (100%)	76 (75%)	25 (25%)	1 3
39	98	101/101 (100%)	73 (72%)	28 (28%)	0 2
40	65	87/88 (99%)	61 (70%)	26 (30%)	0 1
40	A8	87/88 (99%)	58 (67%)	29 (33%)	0 1
41	75	119/127 (94%)	88 (74%)	31 (26%)	0 2
41	B8	118/127 (93%)	85 (72%)	33 (28%)	0 2
42	85	93/94 (99%)	76 (82%)	17 (18%)	2 8
42	C8	92/94 (98%)	78 (85%)	14 (15%)	3 12
43	95	81/82 (99%)	55 (68%)	26 (32%)	0 1
43	D8	82/82 (100%)	51 (62%)	31 (38%)	0 0
44	A5	91/92 (99%)	72 (79%)	19 (21%)	1 6
44	E8	91/92 (99%)	66 (72%)	25 (28%)	0 2
45	B5	75/78 (96%)	54 (72%)	21 (28%)	0 2
45	F8	76/78 (97%)	58 (76%)	18 (24%)	1 4
46	C5	85/91 (93%)	59 (69%)	26 (31%)	0 1
46	G8	84/91 (92%)	56 (67%)	28 (33%)	0 1
47	D5	115/179 (64%)	83 (72%)	32 (28%)	0 2
47	H8	137/179 (76%)	104 (76%)	33 (24%)	1 3
48	E5	62/67 (92%)	50 (81%)	12 (19%)	1 7
48	I8	62/67 (92%)	49 (79%)	13 (21%)	1 6
49	F5	79/83 (95%)	53 (67%)	26 (33%)	0 1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
49	J8	79/83 (95%)	60 (76%)	19 (24%)	1 3
50	G5	62/67 (92%)	35 (56%)	27 (44%)	0 0
50	K8	63/67 (94%)	40 (64%)	23 (36%)	0 0
51	H5	50/52 (96%)	41 (82%)	9 (18%)	2 8
51	L8	50/52 (96%)	39 (78%)	11 (22%)	1 5
52	M8	42/63 (67%)	31 (74%)	11 (26%)	0 2
53	J5	48/52 (92%)	41 (85%)	7 (15%)	3 14
53	N8	44/52 (85%)	33 (75%)	11 (25%)	0 3
54	L5	38/42 (90%)	31 (82%)	7 (18%)	1 8
54	P8	38/42 (90%)	32 (84%)	6 (16%)	2 11
55	M5	54/55 (98%)	37 (68%)	17 (32%)	0 1
55	Q8	54/55 (98%)	42 (78%)	12 (22%)	1 5
All	All	9210/10012 (92%)	6954 (76%)	2256 (24%)	1 3

All (2256) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	5	ILE
2	1E	6	THR
2	1E	8	LYS
2	1E	10	LEU
2	1E	11	LEU
2	1E	15	VAL
2	1E	17	PHE
2	1E	22	LYS
2	1E	28	PHE
2	1E	31	TYR
2	1E	32	ILE
2	1E	46	LYS
2	1E	48	MET
2	1E	49	GLU
2	1E	61	LEU
2	1E	67	THR
2	1E	68	ILE
2	1E	71	VAL
2	1E	80	ILE
2	1E	83	MET
2	1E	96	ARG

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Mol	Chain	Res	Type
2	1E	108	ILE
2	1E	114	ARG
2	1E	118	LEU
2	1E	126	GLU
2	1E	127	ILE
2	1E	130	ARG
2	1E	136	VAL
2	1E	139	LYS
2	1E	145	LEU
2	1E	153	ARG
2	1E	154	LEU
2	1E	156	LYS
2	1E	160	ASP
2	1E	162	ILE
2	1E	164	VAL
2	1E	168	THR
2	1E	172	ILE
2	1E	178	ARG
2	1E	185	ILE
2	1E	190	THR
2	1E	196	LEU
2	1E	197	VAL
2	1E	200	ILE
2	1E	205	ASP
2	1E	206	ASP
2	1E	211	ILE
2	1E	213	LEU
2	1E	214	ILE
2	1E	215	LEU
2	1E	223	ILE
2	1E	224	GLN
2	1E	239	VAL
3	2E	3	ASN
3	2E	5	ILE
3	2E	16	ARG
3	2E	17	ASP
3	2E	21	ARG
3	2E	30	ARG
3	2E	31	HIS
3	2E	32	LEU
3	2E	34	LEU
3	2E	42	LEU

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Mol	Chain	Res	Type
3	2E	52	LEU
3	2E	54	ARG
3	2E	68	VAL
3	2E	72	LYS
3	2E	85	ARG
3	2E	91	LEU
3	2E	95	THR
3	2E	104	GLN
3	2E	108	ASN
3	2E	111	LEU
3	2E	116	VAL
3	2E	118	GLN
3	2E	128	PHE
3	2E	161	GLU
3	2E	162	GLN
3	2E	167	TRP
3	2E	170	GLN
3	2E	178	LEU
3	2E	192	THR
3	2E	196	LEU
3	2E	202	ILE
3	2E	206	GLU
4	3E	3	ARG
4	3E	17	VAL
4	3E	19	LEU
4	3E	31	CYS
4	3E	58	LEU
4	3E	60	GLU
4	3E	61	LYS
4	3E	70	ILE
4	3E	76	ARG
4	3E	78	LEU
4	3E	83	SER
4	3E	85	LYS
4	3E	92	VAL
4	3E	96	LEU
4	3E	99	SER
4	3E	108	LEU
4	3E	127	THR
4	3E	135	LEU
4	3E	141	ARG
4	3E	145	GLU

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Mol	Chain	Res	Type
4	3E	146	ILE
4	3E	155	LEU
4	3E	168	ARG
4	3E	169	LYS
4	3E	176	LEU
4	3E	178	VAL
4	3E	187	ARG
4	3E	191	ARG
4	3E	194	LEU
4	3E	198	VAL
4	3E	199	ASN
5	4E	8	GLU
5	4E	10	MET
5	4E	11	ILE
5	4E	12	LEU
5	4E	18	ARG
5	4E	41	VAL
5	4E	64	ARG
5	4E	65	ASN
5	4E	67	VAL
5	4E	68	GLU
5	4E	71	LEU
5	4E	72	GLN
5	4E	79	GLU
5	4E	80	ILE
5	4E	82	VAL
5	4E	87	SER
5	4E	90	VAL
5	4E	91	LEU
5	4E	101	ILE
5	4E	105	VAL
5	4E	107	ARG
5	4E	109	ILE
5	4E	111	GLU
5	4E	112	LEU
5	4E	116	THR
5	4E	117	ASP
5	4E	131	ILE
5	4E	144	THR
5	4E	148	VAL
5	4E	153	LYS
6	5E	8	ILE

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Mol	Chain	Res	Type
6	5E	21	LEU
6	5E	40	VAL
6	5E	64	GLN
6	5E	65	VAL
6	5E	70	ASP
6	5E	75	LEU
6	5E	77	ARG
6	5E	81	ILE
6	5E	87	ARG
6	5E	89	MET
6	5E	98	LEU
7	6E	4	ARG
7	6E	5	ARG
7	6E	8	GLU
7	6E	9	VAL
7	6E	10	ARG
7	6E	12	LEU
7	6E	20	ASP
7	6E	21	VAL
7	6E	22	LEU
7	6E	24	THR
7	6E	27	ILE
7	6E	30	ILE
7	6E	38	LEU
7	6E	45	ASP
7	6E	47	CYS
7	6E	53	LYS
7	6E	54	THR
7	6E	59	LEU
7	6E	63	LYS
7	6E	66	VAL
7	6E	73	MET
7	6E	86	GLN
7	6E	89	MET
7	6E	90	GLU
7	6E	91	VAL
7	6E	98	SER
7	6E	104	LEU
7	6E	106	GLN
7	6E	113	GLU
7	6E	115	ARG
7	6E	125	MET

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Mol	Chain	Res	Type
7	6E	138	LYS
7	6E	141	VAL
7	6E	142	GLU
7	6E	155	ARG
8	7E	1	MET
8	7E	18	ARG
8	7E	19	VAL
8	7E	21	LYS
8	7E	25	ASP
8	7E	26	VAL
8	7E	29	SER
8	7E	30	ARG
8	7E	32	LYS
8	7E	36	LEU
8	7E	39	LEU
8	7E	45	ILE
8	7E	49	GLU
8	7E	61	VAL
8	7E	63	LEU
8	7E	80	ILE
8	7E	82	HIS
8	7E	83	ILE
8	7E	85	ARG
8	7E	87	SER
8	7E	95	VAL
8	7E	102	ARG
8	7E	107	LEU
8	7E	109	ILE
8	7E	118	VAL
8	7E	129	VAL
8	7E	137	VAL
9	8E	3	GLN
9	8E	7	THR
9	8E	9	ARG
9	8E	14	VAL
9	8E	25	LYS
9	8E	38	GLN
9	8E	40	LEU
9	8E	42	ARG
9	8E	44	VAL
9	8E	47	LEU
9	8E	53	VAL

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Mol	Chain	Res	Type
9	8E	54	ASP
9	8E	75	ASP
9	8E	81	ILE
9	8E	87	GLN
9	8E	88	TYR
9	8E	92	TYR
9	8E	96	LEU
9	8E	105	ASP
9	8E	108	VAL
9	8E	109	VAL
9	8E	110	GLU
9	8E	112	LYS
9	8E	113	LYS
9	8E	118	LYS
9	8E	128	ARG
10	1I	14	LYS
10	1I	15	THR
10	1I	17	ASP
10	1I	28	ARG
10	1I	38	ILE
10	1I	44	VAL
10	1I	47	PHE
10	1I	48	THR
10	1I	49	VAL
10	1I	55	LYS
10	1I	58	ASP
10	1I	67	THR
10	1I	70	ARG
10	1I	75	ILE
10	1I	76	ASN
10	1I	88	LEU
10	1I	90	LEU
10	1I	95	GLU
10	1I	96	ILE
10	1I	97	GLU
11	2I	51	LYS
11	2I	54	ARG
11	2I	62	GLN
11	2I	71	LYS
11	2I	75	TYR
11	2I	77	MET
11	2I	83	ILE

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Mol	Chain	Res	Type
11	2I	84	VAL
11	2I	91	ARG
11	2I	92	GLU
11	2I	98	LEU
11	2I	103	LEU
11	2I	104	GLN
11	2I	105	VAL
11	2I	106	LYS
11	2I	107	SER
11	2I	108	ILE
11	2I	109	VAL
11	2I	110	ASP
11	2I	116	HIS
12	3I	6	THR
12	3I	7	ILE
12	3I	11	VAL
12	3I	18	VAL
12	3I	19	ARG
12	3I	20	LYS
12	3I	23	LYS
12	3I	33	ARG
12	3I	36	VAL
12	3I	44	THR
12	3I	54	LYS
12	3I	57	LYS
12	3I	58	VAL
12	3I	60	LEU
12	3I	65	GLU
12	3I	67	THR
12	3I	79	GLU
12	3I	81	SER
12	3I	83	VAL
12	3I	96	VAL
12	3I	111	LYS
12	3I	116	SER
12	3I	117	ARG
12	3I	126	LYS
13	4I	4	ILE
13	4I	9	ILE
13	4I	11	ARG
13	4I	13	LYS
13	4I	17	VAL

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Mol	Chain	Res	Type
13	4I	19	LEU
13	4I	32	GLU
13	4I	44	ARG
13	4I	45	VAL
13	4I	46	LYS
13	4I	52	GLU
13	4I	56	LEU
13	4I	64	TRP
13	4I	73	GLU
13	4I	79	LYS
13	4I	80	ARG
13	4I	86	CYS
13	4I	94	ARG
13	4I	98	VAL
13	4I	102	ARG
13	4I	105	THR
13	4I	106	ASN
13	4I	108	ARG
13	4I	109	THR
13	4I	117	VAL
14	5I	6	LEU
14	5I	12	ARG
14	5I	13	THR
14	5I	22	THR
14	5I	32	SER
14	5I	33	VAL
14	5I	41	ARG
14	5I	45	ARG
14	5I	57	ARG
15	6I	3	ILE
15	6I	17	ARG
15	6I	22	THR
15	6I	26	GLU
15	6I	31	LEU
15	6I	34	LEU
15	6I	47	LYS
15	6I	48	LYS
15	6I	57	LEU
15	6I	66	LEU
15	6I	67	LEU
15	6I	68	ARG
15	6I	79	ARG

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Mol	Chain	Res	Type
15	6I	83	GLU
15	6I	87	ILE
16	7I	2	VAL
16	7I	6	LEU
16	7I	11	SER
16	7I	12	LYS
16	7I	19	ILE
16	7I	20	VAL
16	7I	21	VAL
16	7I	27	LYS
16	7I	44	THR
16	7I	45	THR
16	7I	47	ASP
16	7I	50	LYS
16	7I	62	VAL
16	7I	67	THR
16	7I	69	THR
16	7I	72	ARG
16	7I	75	ARG
16	7I	80	PHE
17	8I	6	LEU
17	8I	12	SER
17	8I	24	GLU
17	8I	38	ARG
17	8I	48	GLU
17	8I	53	LEU
17	8I	59	ILE
17	8I	60	ILE
17	8I	62	SER
17	8I	63	ARG
17	8I	68	ARG
17	8I	75	ARG
17	8I	81	ARG
17	8I	84	LEU
17	8I	85	VAL
17	8I	87	LYS
17	8I	89	LEU
17	8I	93	GLN
17	8I	96	GLU
17	8I	100	LYS
18	9I	22	VAL
18	9I	28	GLU

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Mol	Chain	Res	Type
18	9I	31	LEU
18	9I	32	ARG
18	9I	42	ARG
18	9I	69	THR
18	9I	74	ARG
18	9I	76	LEU
18	9I	82	THR
18	9I	84	LYS
18	9I	86	VAL
19	AI	4	SER
19	AI	5	LEU
19	AI	7	LYS
19	AI	11	VAL
19	AI	15	LEU
19	AI	18	LYS
19	AI	22	LEU
19	AI	23	ASN
19	AI	29	ARG
19	AI	37	ARG
19	AI	40	ILE
19	AI	41	VAL
19	AI	43	GLU
19	AI	47	HIS
19	AI	58	VAL
19	AI	67	VAL
19	AI	77	THR
19	AI	78	ARG
19	AI	79	THR
20	BI	19	SER
20	BI	26	ASN
20	BI	41	ILE
20	BI	42	GLN
20	BI	55	ILE
20	BI	65	LYS
20	BI	86	ARG
20	BI	90	GLN
20	BI	99	LEU
20	BI	100	ILE
20	BI	104	LEU
21	1F	6	ARG
21	1F	8	THR
21	1F	10	ARG

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Mol	Chain	Res	Type
21	1F	15	ARG
28	71	3	HIS
28	71	6	ARG
28	71	13	LYS
28	71	14	VAL
28	71	20	TYR
28	71	21	THR
28	71	22	ILE
28	71	23	ASP
28	71	24	GLU
28	71	30	LYS
28	71	34	THR
28	71	37	PHE
28	71	39	GLU
28	71	40	THR
28	71	47	LEU
28	71	49	ILE
28	71	53	ARG
28	71	55	ASP
28	71	62	VAL
28	71	163	PHE
28	71	164	ARG
28	71	171	ILE
28	71	172	HIS
28	71	175	VAL
28	71	183	GLU
28	71	185	LEU
28	71	188	ASN
28	71	189	ILE
28	71	196	LEU
28	71	207	THR
28	71	209	LEU
28	71	217	THR
28	71	223	ARG
28	71	227	HIS
29	11	6	PHE
29	11	13	ARG
29	11	14	ARG
29	11	17	THR
29	11	20	ASP
29	11	26	LYS
29	11	27	THR

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Mol	Chain	Res	Type
29	11	30	GLU
29	11	32	SER
29	11	33	LEU
29	11	35	LYS
29	11	37	LEU
29	11	38	LYS
29	11	43	ARG
29	11	50	THR
29	11	61	LEU
29	11	64	ILE
29	11	65	ILE
29	11	83	GLU
29	11	89	SER
29	11	94	LEU
29	11	95	LEU
29	11	99	ASP
29	11	101	GLU
29	11	103	ARG
29	11	105	ILE
29	11	106	ILE
29	11	111	LEU
29	11	113	VAL
29	11	126	GLN
29	11	141	VAL
29	11	142	VAL
29	11	154	LYS
29	11	155	LEU
29	11	162	SER
29	11	164	GLN
29	11	165	ILE
29	11	173	VAL
29	11	175	LEU
29	11	185	VAL
29	11	192	THR
29	11	193	VAL
29	11	208	LYS
29	11	212	SER
29	11	213	ARG
29	11	217	ARG
29	11	221	VAL
29	11	229	VAL
29	11	242	ARG

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Mol	Chain	Res	Type
29	11	257	LEU
29	11	268	ARG
29	11	271	ILE
29	11	273	ARG
30	21	14	ILE
30	21	16	ARG
30	21	21	VAL
30	21	26	ILE
30	21	34	VAL
30	21	40	GLU
30	21	41	LYS
30	21	45	THR
30	21	47	VAL
30	21	49	LEU
30	21	52	LEU
30	21	54	GLN
30	21	63	LEU
30	21	69	LYS
30	21	72	VAL
30	21	77	ILE
30	21	78	LEU
30	21	81	ILE
30	21	82	ARG
30	21	87	GLU
30	21	89	ASP
30	21	92	THR
30	21	93	VAL
30	21	95	ILE
30	21	111	ARG
30	21	116	VAL
30	21	118	LYS
30	21	119	ARG
30	21	144	ARG
30	21	146	THR
30	21	152	LYS
30	21	167	VAL
30	21	173	VAL
30	21	175	VAL
30	21	181	LEU
30	21	188	VAL
30	21	195	LEU
30	21	196	VAL

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Mol	Chain	Res	Type
30	21	197	ILE
30	21	201	THR
30	21	202	LYS
31	31	8	GLN
31	31	9	ILE
31	31	13	SER
31	31	17	ARG
31	31	23	ASP
31	31	24	LEU
31	31	32	LEU
31	31	33	LEU
31	31	37	VAL
31	31	56	GLU
31	31	57	VAL
31	31	64	ILE
31	31	70	THR
31	31	82	ILE
31	31	88	VAL
31	31	98	SER
31	31	101	LEU
31	31	112	MET
31	31	116	ASP
31	31	117	ARG
31	31	127	GLU
31	31	137	LYS
31	31	140	LEU
31	31	145	GLU
31	31	149	ASP
31	31	156	LEU
31	31	158	THR
31	31	161	GLU
31	31	168	ARG
31	31	169	ASN
31	31	170	LEU
31	31	174	VAL
31	31	176	LEU
31	31	181	LEU
31	31	183	VAL
31	31	190	GLU
31	31	191	ARG
31	31	192	LEU
31	31	194	MET

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Mol	Chain	Res	Type
31	31	196	LEU
32	41	8	LYS
32	41	9	ARG
32	41	13	GLU
32	41	14	GLU
32	41	18	GLU
32	41	19	LEU
32	41	21	ARG
32	41	22	ARG
32	41	26	GLN
32	41	28	VAL
32	41	31	VAL
32	41	32	PRO
32	41	34	LEU
32	41	43	LEU
32	41	45	GLU
32	41	48	GLU
32	41	51	ARG
32	41	52	ILE
32	41	60	LEU
32	41	62	LEU
32	41	67	LYS
32	41	70	VAL
32	41	80	PHE
32	41	82	LEU
32	41	86	MET
32	41	88	ILE
32	41	90	LEU
32	41	92	VAL
32	41	94	LEU
32	41	95	ARG
32	41	96	ARG
32	41	101	ILE
32	41	103	LEU
32	41	105	LYS
32	41	118	ARG
32	41	120	LEU
32	41	128	ARG
32	41	133	LEU
32	41	137	GLU
32	41	153	ARG
32	41	155	MET

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Mol	Chain	Res	Type
32	41	156	ASP
32	41	174	GLU
33	51	3	ARG
33	51	4	ILE
33	51	7	LEU
33	51	24	VAL
33	51	37	VAL
33	51	43	VAL
33	51	45	VAL
33	51	50	VAL
33	51	64	LEU
33	51	71	LEU
33	51	72	ILE
33	51	80	SER
33	51	81	GLU
33	51	83	TYR
33	51	86	GLU
33	51	87	LEU
33	51	88	LEU
33	51	90	LYS
33	51	95	ARG
33	51	99	VAL
33	51	104	GLU
33	51	105	LEU
33	51	113	VAL
33	51	114	VAL
33	51	116	GLU
33	51	121	ILE
33	51	122	THR
33	51	127	GLU
33	51	129	THR
33	51	131	VAL
33	51	134	SER
33	51	139	GLN
33	51	141	VAL
33	51	144	VAL
33	51	152	ARG
33	51	167	GLU
33	51	169	VAL
34	61	1	MET
34	61	2	LYS
34	61	4	ILE

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Mol	Chain	Res	Type
34	61	10	GLU
34	61	14	ASP
34	61	25	TYR
34	61	33	ARG
34	61	37	VAL
34	61	38	LEU
34	61	40	THR
34	61	41	GLU
34	61	47	LEU
34	61	50	ARG
34	61	54	GLN
34	61	72	LEU
34	61	77	LEU
34	61	81	VAL
34	61	82	ARG
34	61	85	GLU
34	61	86	THR
34	61	92	VAL
34	61	101	LEU
34	61	103	ARG
34	61	105	HIS
34	61	117	GLU
34	61	129	THR
34	61	131	LYS
34	61	135	GLU
34	61	136	VAL
34	61	138	ILE
34	61	139	GLN
34	61	140	LEU
34	61	142	VAL
34	61	145	VAL
35	58	1	MET
35	58	5	VAL
35	58	7	LYS
35	58	8	GLN
35	58	10	GLU
35	58	12	ARG
35	58	14	VAL
35	58	15	LEU
35	58	16	ILE
35	58	28	THR
35	58	32	THR

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Mol	Chain	Res	Type
35	58	33	LEU
35	58	34	LEU
35	58	42	TRP
35	58	43	THR
35	58	48	MET
35	58	55	VAL
35	58	58	ASP
35	58	60	ILE
35	58	61	ARG
35	58	67	LEU
35	58	79	PRO
35	58	84	LYS
35	58	85	ILE
35	58	87	LEU
35	58	90	MET
35	58	96	GLU
35	58	98	VAL
35	58	99	LEU
35	58	120	LEU
35	58	127	ASP
35	58	128	HIS
35	58	130	HIS
35	58	131	GLN
36	68	3	GLN
36	68	14	THR
36	68	23	ARG
36	68	24	VAL
36	68	25	LEU
36	68	26	LYS
36	68	28	SER
36	68	31	LYS
36	68	35	VAL
36	68	38	VAL
36	68	45	GLU
36	68	53	LYS
36	68	58	VAL
36	68	66	LYS
36	68	70	LYS
36	68	75	SER
36	68	94	ARG
36	68	98	VAL
36	68	105	GLU

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Mol	Chain	Res	Type
36	68	108	GLU
36	68	115	VAL
37	78	1	MET
37	78	10	PRO
37	78	14	LYS
37	78	16	ARG
37	78	19	VAL
37	78	21	ARG
37	78	25	SER
37	78	27	HIS
37	78	41	ARG
37	78	45	LEU
37	78	46	LYS
37	78	49	ARG
37	78	50	ARG
37	78	56	SER
37	78	58	THR
37	78	61	ARG
37	78	70	GLN
37	78	74	GLU
37	78	75	ILE
37	78	90	ARG
37	78	96	THR
37	78	100	LEU
37	78	101	VAL
37	78	105	LEU
37	78	106	LEU
37	78	112	LEU
37	78	114	ILE
37	78	117	GLU
37	78	119	GLU
37	78	126	VAL
37	78	135	LEU
37	78	139	LYS
37	78	144	GLU
37	78	146	VAL
37	78	147	LEU
38	88	1	MET
38	88	2	LEU
38	88	5	ARG
38	88	7	MET
38	88	8	LYS

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Mol	Chain	Res	Type
38	88	11	LYS
38	88	25	ASP
38	88	26	TYR
38	88	35	VAL
38	88	45	GLN
38	88	55	VAL
38	88	59	ARG
38	88	63	LYS
38	88	68	ILE
38	88	75	THR
38	88	78	PRO
38	88	81	VAL
38	88	82	ARG
38	88	83	MET
38	88	97	VAL
38	88	109	VAL
38	88	110	THR
38	88	112	GLU
38	88	139	GLU
38	88	141	GLN
39	98	2	ARG
39	98	9	LYS
39	98	18	LEU
39	98	21	TYR
39	98	24	GLN
39	98	28	LEU
39	98	30	THR
39	98	34	ILE
39	98	35	THR
39	98	36	THR
39	98	44	LEU
39	98	45	ARG
39	98	57	ARG
39	98	63	ARG
39	98	65	LEU
39	98	67	LEU
39	98	73	VAL
39	98	79	LEU
39	98	91	GLN
39	98	95	THR
39	98	98	LEU
39	98	99	LYS

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Mol	Chain	Res	Type
39	98	100	LEU
39	98	102	GLU
39	98	103	ARG
39	98	105	ARG
39	98	116	LEU
39	98	118	GLU
40	A8	3	ARG
40	A8	8	GLU
40	A8	13	ARG
40	A8	24	LEU
40	A8	26	LEU
40	A8	28	VAL
40	A8	35	ILE
40	A8	36	TYR
40	A8	38	GLN
40	A8	43	GLU
40	A8	44	LYS
40	A8	46	VAL
40	A8	49	VAL
40	A8	50	SER
40	A8	54	LEU
40	A8	58	LEU
40	A8	59	LYS
40	A8	62	LYS
40	A8	64	GLU
40	A8	69	VAL
40	A8	73	LEU
40	A8	80	LEU
40	A8	83	LYS
40	A8	89	ARG
40	A8	97	ARG
40	A8	98	VAL
40	A8	101	LEU
40	A8	106	ARG
40	A8	110	LEU
41	B8	9	LEU
41	B8	10	VAL
41	B8	11	GLU
41	B8	15	VAL
41	B8	27	THR
41	B8	30	VAL
41	B8	38	ASN

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Mol	Chain	Res	Type
41	B8	39	ARG
41	B8	44	ASP
41	B8	49	VAL
41	B8	50	ILE
41	B8	53	ARG
41	B8	55	ASN
41	B8	62	THR
41	B8	65	LYS
41	B8	85	LYS
41	B8	86	ILE
41	B8	89	VAL
41	B8	90	GLN
41	B8	96	ARG
41	B8	98	LYS
41	B8	99	LEU
41	B8	102	ILE
41	B8	106	SER
41	B8	109	GLU
41	B8	110	ILE
41	B8	111	ARG
41	B8	113	LYS
41	B8	115	ARG
41	B8	118	ARG
41	B8	119	LYS
41	B8	128	GLU
41	B8	133	GLU
42	C8	5	LYS
42	C8	27	LEU
42	C8	33	ARG
42	C8	56	ASP
42	C8	74	LEU
42	C8	78	THR
42	C8	83	LEU
42	C8	85	LYS
42	C8	88	ILE
42	C8	97	ASP
42	C8	100	VAL
42	C8	101	ARG
42	C8	104	GLN
42	C8	108	GLU
43	D8	5	VAL
43	D8	7	THR

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Mol	Chain	Res	Type
43	D8	12	TYR
43	D8	14	VAL
43	D8	21	ARG
43	D8	22	VAL
43	D8	24	LYS
43	D8	25	LEU
43	D8	33	VAL
43	D8	36	PRO
43	D8	37	VAL
43	D8	40	LEU
43	D8	43	GLU
43	D8	44	LYS
43	D8	46	VAL
43	D8	47	VAL
43	D8	49	THR
43	D8	51	VAL
43	D8	56	SER
43	D8	57	VAL
43	D8	62	LEU
43	D8	72	VAL
43	D8	73	SER
43	D8	78	LYS
43	D8	82	ARG
43	D8	85	LYS
43	D8	87	HIS
43	D8	88	ARG
43	D8	89	GLN
43	D8	95	LEU
43	D8	98	GLU
44	E8	11	ARG
44	E8	19	LEU
44	E8	20	VAL
44	E8	23	LEU
44	E8	27	LYS
44	E8	39	THR
44	E8	40	ASN
44	E8	41	LYS
44	E8	42	ARG
44	E8	51	LEU
44	E8	52	GLU
44	E8	59	VAL
44	E8	65	LEU

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Mol	Chain	Res	Type
44	E8	66	GLU
44	E8	70	TYR
44	E8	72	LYS
44	E8	76	VAL
44	E8	78	GLU
44	E8	82	LEU
44	E8	88	ARG
44	E8	94	ASP
44	E8	96	ILE
44	E8	100	THR
44	E8	103	ILE
44	E8	107	LEU
45	F8	12	VAL
45	F8	15	GLU
45	F8	23	GLU
45	F8	27	THR
45	F8	30	VAL
45	F8	33	LYS
45	F8	35	THR
45	F8	38	GLU
45	F8	49	VAL
45	F8	57	LEU
45	F8	60	ARG
45	F8	63	LYS
45	F8	66	LEU
45	F8	72	LYS
45	F8	76	ARG
45	F8	80	ILE
45	F8	87	GLN
45	F8	95	LEU
46	G8	4	LYS
46	G8	14	LEU
46	G8	21	LYS
46	G8	24	VAL
46	G8	26	LYS
46	G8	27	VAL
46	G8	33	LYS
46	G8	34	LYS
46	G8	38	ILE
46	G8	40	GLU
46	G8	42	VAL
46	G8	44	ILE

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Mol	Chain	Res	Type
46	G8	50	ARG
46	G8	54	LYS
46	G8	55	TYR
46	G8	57	GLN
46	G8	64	GLU
46	G8	67	LEU
46	G8	75	ILE
46	G8	85	VAL
46	G8	86	ARG
46	G8	88	LYS
46	G8	92	ASN
46	G8	94	LYS
46	G8	95	LYS
46	G8	98	VAL
46	G8	101	LYS
46	G8	102	CYS
47	H8	1	MET
47	H8	5	LEU
47	H8	10	ARG
47	H8	13	GLU
47	H8	16	SER
47	H8	18	LEU
47	H8	19	ARG
47	H8	24	LEU
47	H8	35	ARG
47	H8	37	VAL
47	H8	41	LEU
47	H8	42	VAL
47	H8	46	LYS
47	H8	53	ILE
47	H8	61	LEU
47	H8	71	VAL
47	H8	76	LEU
47	H8	78	LYS
47	H8	81	ARG
47	H8	86	VAL
47	H8	91	LEU
47	H8	94	GLU
47	H8	103	ARG
47	H8	120	ILE
47	H8	121	HIS
47	H8	132	ASN

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Mol	Chain	Res	Type
47	H8	137	ILE
47	H8	154	ASP
47	H8	158	PRO
47	H8	161	VAL
47	H8	165	VAL
47	H8	169	GLU
47	H8	170	THR
48	I8	10	THR
48	I8	11	ARG
48	I8	14	ARG
48	I8	23	VAL
48	I8	36	ILE
48	I8	41	ARG
48	I8	43	THR
48	I8	49	LYS
48	I8	53	MET
48	I8	66	VAL
48	I8	67	VAL
48	I8	70	GLN
48	I8	82	ARG
49	J8	4	VAL
49	J8	14	VAL
49	J8	19	GLN
49	J8	21	ARG
49	J8	25	LYS
49	J8	26	ARG
49	J8	35	THR
49	J8	41	ARG
49	J8	46	LEU
49	J8	52	ARG
49	J8	57	GLU
49	J8	59	THR
49	J8	65	SER
49	J8	74	VAL
49	J8	78	LYS
49	J8	80	LEU
49	J8	81	LYS
49	J8	82	LEU
49	J8	90	ILE
50	K8	3	LEU
50	K8	5	GLU
50	K8	9	GLN

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Mol	Chain	Res	Type
50	K8	14	ARG
50	K8	19	VAL
50	K8	20	GLU
50	K8	23	LYS
50	K8	25	VAL
50	K8	30	ARG
50	K8	32	LEU
50	K8	35	LEU
50	K8	41	ILE
50	K8	44	LEU
50	K8	47	ASN
50	K8	48	HIS
50	K8	51	ARG
50	K8	53	LEU
50	K8	54	LYS
50	K8	55	ARG
50	K8	59	ARG
50	K8	62	THR
50	K8	64	LEU
50	K8	69	ARG
51	L8	8	LEU
51	L8	9	VAL
51	L8	26	LEU
51	L8	31	LEU
51	L8	37	LEU
51	L8	40	THR
51	L8	43	ILE
51	L8	50	VAL
51	L8	53	LEU
51	L8	56	VAL
51	L8	58	VAL
52	M8	3	GLU
52	M8	6	HIS
52	M8	9	LEU
52	M8	14	ILE
52	M8	15	ILE
52	M8	22	ILE
52	M8	27	THR
52	M8	31	ILE
52	M8	34	GLU
52	M8	35	VAL
52	M8	38	LYS

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Mol	Chain	Res	Type
53	N8	3	LYS
53	N8	6	VAL
53	N8	11	THR
53	N8	16	ARG
53	N8	26	THR
53	N8	29	THR
53	N8	31	VAL
53	N8	35	GLU
53	N8	40	LYS
53	N8	48	GLU
53	N8	49	CYS
54	P8	1	MET
54	P8	4	THR
54	P8	8	ASN
54	P8	19	ARG
54	P8	23	ARG
54	P8	41	ARG
55	Q8	4	MET
55	Q8	6	THR
55	Q8	14	VAL
55	Q8	19	SER
55	Q8	23	VAL
55	Q8	26	LYS
55	Q8	31	HIS
55	Q8	35	GLN
55	Q8	41	ILE
55	Q8	50	LEU
55	Q8	60	LEU
55	Q8	62	LEU
2	12	10	LEU
2	12	11	LEU
2	12	16	HIS
2	12	19	HIS
2	12	24	TRP
2	12	30	ARG
2	12	31	TYR
2	12	32	ILE
2	12	36	ARG
2	12	42	ILE
2	12	44	LEU
2	12	47	THR
2	12	52	GLU

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Mol	Chain	Res	Type
2	12	54	THR
2	12	55	PHE
2	12	58	ILE
2	12	59	GLU
2	12	61	LEU
2	12	76	GLN
2	12	80	ILE
2	12	83	MET
2	12	84	GLU
2	12	90	MET
2	12	96	ARG
2	12	101	MET
2	12	107	THR
2	12	108	ILE
2	12	109	SER
2	12	117	GLU
2	12	118	LEU
2	12	119	GLU
2	12	135	GLN
2	12	138	LEU
2	12	139	LYS
2	12	150	SER
2	12	162	ILE
2	12	164	VAL
2	12	165	VAL
2	12	168	THR
2	12	169	LYS
2	12	170	GLU
2	12	185	ILE
2	12	187	LEU
2	12	196	LEU
2	12	200	ILE
2	12	201	ILE
2	12	204	ASN
2	12	208	ILE
2	12	212	GLN
2	12	220	ASP
2	12	221	LEU
2	12	222	ILE
2	12	224	GLN
3	22	5	ILE
3	22	14	ILE

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Mol	Chain	Res	Type
3	22	16	ARG
3	22	28	GLN
3	22	34	LEU
3	22	38	ARG
3	22	39	ILE
3	22	40	ARG
3	22	43	LEU
3	22	52	LEU
3	22	54	ARG
3	22	55	VAL
3	22	56	ASP
3	22	75	VAL
3	22	84	ILE
3	22	85	ARG
3	22	86	VAL
3	22	90	GLU
3	22	91	LEU
3	22	105	GLU
3	22	119	ARG
3	22	120	VAL
3	22	131	ARG
3	22	135	LYS
3	22	140	ARG
3	22	181	ASN
3	22	192	THR
3	22	198	VAL
3	22	202	ILE
4	32	3	ARG
4	32	8	VAL
4	32	12	CYS
4	32	14	ARG
4	32	15	GLU
4	32	17	VAL
4	32	24	GLU
4	32	31	CYS
4	32	50	ARG
4	32	53	ASP
4	32	58	LEU
4	32	73	ARG
4	32	76	ARG
4	32	78	LEU
4	32	91	SER

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Mol	Chain	Res	Type
4	32	100	ARG
4	32	110	PHE
4	32	114	ARG
4	32	120	LEU
4	32	122	ARG
4	32	127	THR
4	32	132	ARG
4	32	135	LEU
4	32	139	ARG
4	32	148	VAL
4	32	152	SER
4	32	155	LEU
4	32	157	LEU
4	32	159	ARG
4	32	162	LEU
4	32	166	LYS
4	32	168	ARG
4	32	174	LEU
4	32	191	ARG
4	32	194	LEU
4	32	196	LEU
4	32	198	VAL
4	32	200	GLU
5	42	12	LEU
5	42	14	ARG
5	42	15	ARG
5	42	16	THR
5	42	19	MET
5	42	20	GLN
5	42	26	PHE
5	42	38	GLN
5	42	41	VAL
5	42	43	LEU
5	42	47	LYS
5	42	64	ARG
5	42	66	MET
5	42	68	GLU
5	42	73	ASN
5	42	75	THR
5	42	79	GLU
5	42	80	ILE
5	42	81	GLU

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Mol	Chain	Res	Type
5	42	82	VAL
5	42	83	GLU
5	42	87	SER
5	42	90	VAL
5	42	100	VAL
5	42	101	ILE
5	42	118	ILE
5	42	122	GLU
6	52	10	LEU
6	52	14	LEU
6	52	16	GLN
6	52	19	LEU
6	52	23	LYS
6	52	27	GLN
6	52	36	ARG
6	52	54	LYS
6	52	70	ASP
6	52	93	SER
6	52	94	GLN
7	62	5	ARG
7	62	13	GLN
7	62	21	VAL
7	62	22	LEU
7	62	27	ILE
7	62	48	LYS
7	62	50	ILE
7	62	52	GLU
7	62	54	THR
7	62	57	GLU
7	62	60	LYS
7	62	61	VAL
7	62	63	LYS
7	62	66	VAL
7	62	72	ARG
7	62	87	VAL
7	62	90	GLU
7	62	94	ARG
7	62	97	GLN
7	62	104	LEU
7	62	118	VAL
7	62	131	LYS
7	62	138	LYS

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Mol	Chain	Res	Type
7	62	142	GLU
8	72	1	MET
8	72	2	LEU
8	72	6	ILE
8	72	8	ASP
8	72	12	ARG
8	72	17	THR
8	72	51	VAL
8	72	73	ASP
8	72	75	ARG
8	72	82	HIS
8	72	97	VAL
8	72	99	GLU
8	72	100	ILE
8	72	102	ARG
8	72	103	VAL
8	72	104	ARG
8	72	109	ILE
8	72	112	LEU
8	72	115	SER
8	72	116	LYS
8	72	119	LEU
8	72	120	THR
8	72	122	ARG
8	72	127	LEU
8	72	133	LEU
9	82	7	THR
9	82	10	ARG
9	82	20	ARG
9	82	35	GLU
9	82	42	ARG
9	82	44	VAL
9	82	47	LEU
9	82	64	THR
9	82	65	VAL
9	82	79	LEU
9	82	86	VAL
9	82	97	LYS
9	82	99	LEU
9	82	104	ARG
9	82	107	ARG
9	82	108	VAL

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Mol	Chain	Res	Type
9	82	109	VAL
9	82	110	GLU
9	82	112	LYS
9	82	113	LYS
9	82	114	TYR
9	82	124	GLN
10	1A	16	LEU
10	1A	17	ASP
10	1A	21	GLN
10	1A	28	ARG
10	1A	29	ARG
10	1A	46	ARG
10	1A	56	HIS
10	1A	61	GLU
10	1A	62	HIS
10	1A	66	ARG
10	1A	71	LEU
10	1A	74	ILE
10	1A	75	ILE
10	1A	79	ARG
10	1A	85	LEU
10	1A	94	VAL
11	2A	28	THR
11	2A	29	ILE
11	2A	31	THR
11	2A	48	ILE
11	2A	63	LEU
11	2A	70	LYS
11	2A	75	TYR
11	2A	77	MET
11	2A	82	VAL
11	2A	93	GLN
11	2A	96	ARG
11	2A	99	GLN
11	2A	103	LEU
11	2A	105	VAL
11	2A	106	LYS
11	2A	117	ASN
12	3A	6	THR
12	3A	11	VAL
12	3A	23	LYS
12	3A	27	LEU

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Mol	Chain	Res	Type
12	3A	34	ARG
12	3A	37	CYS
12	3A	40	VAL
12	3A	41	ARG
12	3A	44	THR
12	3A	46	LYS
12	3A	54	LYS
12	3A	60	LEU
12	3A	79	GLU
12	3A	80	HIS
12	3A	83	VAL
12	3A	85	ILE
12	3A	100	ILE
12	3A	102	ARG
12	3A	111	LYS
12	3A	118	SER
13	4A	8	GLU
13	4A	9	ILE
13	4A	13	LYS
13	4A	17	VAL
13	4A	22	ILE
13	4A	25	ILE
13	4A	35	GLU
13	4A	37	THR
13	4A	47	ASP
13	4A	49	THR
13	4A	53	VAL
13	4A	55	ARG
13	4A	60	VAL
13	4A	63	THR
13	4A	64	TRP
13	4A	66	LEU
13	4A	81	LEU
13	4A	82	MET
13	4A	83	ASP
13	4A	86	CYS
13	4A	88	ARG
13	4A	91	ARG
13	4A	96	LEU
13	4A	101	GLN
13	4A	102	ARG
13	4A	116	THR

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Mol	Chain	Res	Type
13	4A	117	VAL
14	5A	6	LEU
14	5A	7	ILE
14	5A	8	GLU
14	5A	16	PHE
14	5A	17	LYS
14	5A	18	VAL
14	5A	22	THR
14	5A	23	ARG
14	5A	27	CYS
14	5A	29	ARG
14	5A	33	VAL
14	5A	35	ARG
14	5A	42	ILE
14	5A	43	CYS
14	5A	46	GLU
14	5A	57	ARG
15	6A	3	ILE
15	6A	17	ARG
15	6A	34	LEU
15	6A	41	GLU
15	6A	44	LYS
15	6A	45	VAL
15	6A	47	LYS
15	6A	48	LYS
15	6A	83	GLU
15	6A	84	LYS
15	6A	88	ARG
16	7A	6	LEU
16	7A	35	LYS
16	7A	45	THR
16	7A	54	GLU
16	7A	55	ARG
16	7A	65	GLN
16	7A	67	THR
16	7A	71	ARG
16	7A	81	ARG
16	7A	82	GLN
16	7A	83	GLU
17	8A	9	VAL
17	8A	12	SER
17	8A	14	LYS

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Mol	Chain	Res	Type
17	8A	20	THR
17	8A	24	GLU
17	8A	57	VAL
17	8A	60	ILE
17	8A	63	ARG
17	8A	68	ARG
17	8A	86	GLU
18	9A	23	LYS
18	9A	26	LEU
18	9A	29	PHE
18	9A	31	LEU
18	9A	32	ARG
18	9A	36	ASN
18	9A	37	VAL
18	9A	44	LEU
18	9A	53	ARG
18	9A	54	ARG
18	9A	58	LEU
18	9A	84	LYS
18	9A	85	LEU
18	9A	86	VAL
19	AA	7	LYS
19	AA	10	PHE
19	AA	13	ASP
19	AA	15	LEU
19	AA	20	LEU
19	AA	39	THR
19	AA	40	ILE
19	AA	41	VAL
19	AA	43	GLU
19	AA	44	MET
19	AA	53	ASN
19	AA	57	HIS
19	AA	64	GLU
19	AA	65	ASN
19	AA	66	MET
19	AA	70	LYS
19	AA	71	LEU
19	AA	73	GLU
19	AA	77	THR
20	BA	10	LEU
20	BA	13	LEU

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Mol	Chain	Res	Type
20	BA	37	SER
20	BA	39	LYS
20	BA	56	MET
20	BA	60	GLU
20	BA	62	LEU
20	BA	74	LYS
20	BA	75	ASN
20	BA	84	LEU
20	BA	85	MET
20	BA	86	ARG
20	BA	87	LYS
20	BA	100	ILE
21	1B	6	ARG
21	1B	9	ARG
21	1B	12	LYS
29	19	18	VAL
29	19	23	GLU
29	19	27	THR
29	19	28	GLU
29	19	31	LYS
29	19	33	LEU
29	19	34	VAL
29	19	35	LYS
29	19	37	LEU
29	19	40	THR
29	19	43	ARG
29	19	46	GLN
29	19	49	ILE
29	19	54	ARG
29	19	59	LYS
29	19	61	LEU
29	19	64	ILE
29	19	65	ILE
29	19	72	LYS
29	19	79	VAL
29	19	83	GLU
29	19	89	SER
29	19	94	LEU
29	19	99	ASP
29	19	105	ILE
29	19	111	LEU
29	19	113	VAL

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Mol	Chain	Res	Type
29	19	116	GLN
29	19	118	VAL
29	19	138	VAL
29	19	147	LEU
29	19	151	LYS
29	19	155	LEU
29	19	157	ARG
29	19	162	SER
29	19	165	ILE
29	19	173	VAL
29	19	174	ILE
29	19	184	LYS
29	19	192	THR
29	19	193	VAL
29	19	200	ASP
29	19	203	ASN
29	19	204	ILE
29	19	208	LYS
29	19	211	ARG
29	19	212	SER
29	19	219	PRO
29	19	232	PRO
29	19	239	ARG
29	19	244	ARG
29	19	253	GLN
29	19	255	LYS
29	19	257	LEU
29	19	260	ARG
29	19	268	ARG
29	19	271	ILE
30	29	9	VAL
30	29	14	ILE
30	29	16	ARG
30	29	25	VAL
30	29	27	LEU
30	29	33	VAL
30	29	36	ARG
30	29	44	TYR
30	29	45	THR
30	29	48	GLN
30	29	52	LEU
30	29	54	GLN

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Mol	Chain	Res	Type
30	29	55	ASN
30	29	63	LEU
30	29	66	HIS
30	29	73	GLU
30	29	75	VAL
30	29	76	ARG
30	29	77	ILE
30	29	87	GLU
30	29	101	ARG
30	29	107	THR
30	29	108	SER
30	29	111	ARG
30	29	117	MET
30	29	119	ARG
30	29	144	ARG
30	29	149	ARG
30	29	152	LYS
30	29	167	VAL
30	29	175	VAL
30	29	181	LEU
30	29	182	LEU
30	29	200	GLU
30	29	201	THR
30	29	203	LYS
31	39	11	VAL
31	39	15	SER
31	39	19	GLU
31	39	20	LEU
31	39	24	LEU
31	39	33	LEU
31	39	37	VAL
31	39	38	ARG
31	39	40	GLN
31	39	44	ARG
31	39	53	THR
31	39	57	VAL
31	39	62	ARG
31	39	66	PRO
31	39	67	GLN
31	39	68	LYS
31	39	70	THR
31	39	72	ARG

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Mol	Chain	Res	Type
31	39	74	ARG
31	39	82	ILE
31	39	83	PHE
31	39	88	VAL
31	39	100	THR
31	39	108	LYS
31	39	110	LEU
31	39	117	ARG
31	39	123	LEU
31	39	125	LEU
31	39	126	VAL
31	39	127	GLU
31	39	140	LEU
31	39	144	LYS
31	39	156	LEU
31	39	158	THR
31	39	175	THR
31	39	181	LEU
31	39	187	VAL
31	39	192	LEU
31	39	193	VAL
31	39	197	ASP
31	39	201	VAL
32	49	7	LEU
32	49	13	GLU
32	49	22	ARG
32	49	26	GLN
32	49	28	VAL
32	49	35	GLU
32	49	38	VAL
32	49	40	ASN
32	49	45	GLU
32	49	47	LYS
32	49	54	GLU
32	49	58	GLN
32	49	60	LEU
32	49	70	VAL
32	49	77	ILE
32	49	80	PHE
32	49	82	LEU
32	49	84	LYS
32	49	109	VAL

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Mol	Chain	Res	Type
32	49	114	ILE
32	49	123	ASN
32	49	136	ARG
32	49	140	ILE
32	49	152	LEU
32	49	153	ARG
32	49	159	VAL
32	49	172	LEU
32	49	181	ARG
33	59	6	ARG
33	59	7	LEU
33	59	9	ILE
33	59	51	ARG
33	59	60	ARG
33	59	68	THR
33	59	71	LEU
33	59	74	ASN
33	59	144	VAL
33	59	148	ILE
33	59	149	ARG
33	59	152	ARG
33	59	157	TYR
33	59	158	HIS
33	59	159	GLU
33	59	160	LYS
34	69	1	MET
34	69	4	ILE
34	69	7	GLU
34	69	15	VAL
34	69	18	VAL
34	69	25	TYR
34	69	27	ARG
34	69	35	LEU
34	69	37	VAL
34	69	41	GLU
34	69	67	ARG
34	69	68	LEU
34	69	69	LYS
34	69	73	GLU
34	69	74	ASN
34	69	76	THR
34	69	77	LEU

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Mol	Chain	Res	Type
34	69	78	THR
34	69	82	ARG
34	69	86	THR
34	69	91	SER
34	69	93	THR
34	69	101	LEU
34	69	109	ILE
34	69	112	LYS
34	69	114	LEU
34	69	117	GLU
34	69	118	LYS
34	69	122	GLU
34	69	123	LEU
34	69	125	GLU
34	69	128	LEU
34	69	136	VAL
34	69	138	ILE
34	69	141	LYS
35	15	2	LYS
35	15	15	LEU
35	15	16	ILE
35	15	28	THR
35	15	29	LYS
35	15	32	THR
35	15	33	LEU
35	15	34	LEU
35	15	41	ASP
35	15	43	THR
35	15	46	VAL
35	15	48	MET
35	15	61	ARG
35	15	63	THR
35	15	67	LEU
35	15	76	SER
35	15	84	LYS
35	15	85	ILE
35	15	87	LEU
35	15	91	LEU
35	15	93	THR
35	15	94	HIS
35	15	96	GLU
35	15	99	LEU

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Mol	Chain	Res	Type
35	15	118	LYS
35	15	120	LEU
35	15	130	HIS
35	15	136	GLU
35	15	138	LEU
36	25	8	LEU
36	25	10	VAL
36	25	14	THR
36	25	19	ILE
36	25	22	ILE
36	25	25	LEU
36	25	26	LYS
36	25	31	LYS
36	25	38	VAL
36	25	39	ILE
36	25	47	ILE
36	25	58	VAL
36	25	63	VAL
36	25	70	LYS
36	25	78	ARG
36	25	86	ILE
36	25	90	GLN
36	25	91	LEU
36	25	92	GLU
36	25	96	THR
36	25	97	ARG
36	25	106	LEU
36	25	108	GLU
36	25	117	LEU
37	35	2	LYS
37	35	3	LEU
37	35	4	SER
37	35	7	ARG
37	35	14	LYS
37	35	18	ARG
37	35	21	ARG
37	35	23	PRO
37	35	27	HIS
37	35	36	LYS
37	35	41	ARG
37	35	45	LEU
37	35	46	LYS

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Mol	Chain	Res	Type
37	35	50	ARG
37	35	52	GLU
37	35	59	LEU
37	35	62	LEU
37	35	70	GLN
37	35	77	ARG
37	35	79	ARG
37	35	83	VAL
37	35	85	LEU
37	35	88	LEU
37	35	90	ARG
37	35	95	VAL
37	35	96	THR
37	35	98	GLU
37	35	101	VAL
37	35	105	LEU
37	35	111	ARG
37	35	112	LEU
37	35	114	ILE
37	35	123	LEU
37	35	124	LYS
37	35	125	VAL
37	35	126	VAL
37	35	133	SER
37	35	135	LEU
37	35	138	LEU
37	35	144	GLU
37	35	146	VAL
37	35	148	LEU
38	45	2	LEU
38	45	3	MET
38	45	7	MET
38	45	18	LYS
38	45	21	THR
38	45	27	VAL
38	45	32	TYR
38	45	45	GLN
38	45	51	ARG
38	45	55	VAL
38	45	56	ARG
38	45	59	ARG
38	45	60	ARG

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Mol	Chain	Res	Type
38	45	66	ILE
38	45	81	VAL
38	45	83	MET
38	45	85	LYS
38	45	89	ASN
38	45	90	VAL
38	45	91	GLU
38	45	98	LYS
38	45	101	ARG
38	45	106	VAL
38	45	110	THR
38	45	120	ILE
38	45	127	ILE
38	45	132	VAL
38	45	133	ARG
38	45	134	ARG
38	45	138	ASP
39	55	18	LEU
39	55	27	SER
39	55	28	LEU
39	55	29	LEU
39	55	34	ILE
39	55	35	THR
39	55	42	LYS
39	55	44	LEU
39	55	48	VAL
39	55	51	LEU
39	55	54	LEU
39	55	56	LYS
39	55	64	ARG
39	55	65	LEU
39	55	67	LEU
39	55	75	LEU
39	55	79	LEU
39	55	81	ASP
39	55	88	ARG
39	55	95	THR
39	55	96	ARG
39	55	100	LEU
39	55	103	ARG
39	55	113	LEU
39	55	118	GLU

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Mol	Chain	Res	Type
40	65	3	ARG
40	65	4	LEU
40	65	8	GLU
40	65	12	PHE
40	65	14	VAL
40	65	17	ARG
40	65	21	THR
40	65	25	ARG
40	65	31	SER
40	65	36	TYR
40	65	42	ASP
40	65	44	LYS
40	65	48	LEU
40	65	49	VAL
40	65	50	SER
40	65	52	SER
40	65	56	LEU
40	65	67	ARG
40	65	69	VAL
40	65	73	LEU
40	65	75	GLU
40	65	78	LEU
40	65	84	GLN
40	65	98	VAL
40	65	106	ARG
40	65	110	LEU
41	75	8	LYS
41	75	9	LEU
41	75	12	SER
41	75	13	ARG
41	75	17	THR
41	75	19	LEU
41	75	30	VAL
41	75	33	LYS
41	75	36	GLU
41	75	49	VAL
41	75	50	ILE
41	75	51	ARG
41	75	54	ARG
41	75	55	ASN
41	75	57	PHE
41	75	59	THR

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Mol	Chain	Res	Type
41	75	60	THR
41	75	62	THR
41	75	64	ARG
41	75	82	LEU
41	75	86	ILE
41	75	88	ILE
41	75	89	VAL
41	75	91	ARG
41	75	93	ARG
41	75	105	LEU
41	75	107	ASP
41	75	118	ARG
41	75	120	ARG
41	75	129	ARG
41	75	132	LYS
42	85	5	LYS
42	85	8	VAL
42	85	15	LYS
42	85	20	LEU
42	85	31	SER
42	85	34	LYS
42	85	64	ARG
42	85	65	ILE
42	85	71	GLN
42	85	74	LEU
42	85	92	ARG
42	85	97	ASP
42	85	101	ARG
42	85	104	GLN
42	85	105	VAL
42	85	109	LEU
42	85	114	LYS
43	95	5	VAL
43	95	7	THR
43	95	14	VAL
43	95	15	GLU
43	95	19	LYS
43	95	26	ASP
43	95	28	GLU
43	95	33	VAL
43	95	35	LEU
43	95	40	LEU

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Mol	Chain	Res	Type
43	95	44	LYS
43	95	47	VAL
43	95	51	VAL
43	95	57	VAL
43	95	71	LEU
43	95	73	SER
43	95	74	LYS
43	95	79	VAL
43	95	80	GLN
43	95	81	TYR
43	95	83	ARG
43	95	84	LYS
43	95	91	TYR
43	95	92	THR
43	95	93	GLU
43	95	95	LEU
44	A5	1	MET
44	A5	11	ARG
44	A5	17	VAL
44	A5	19	LEU
44	A5	20	VAL
44	A5	23	LEU
44	A5	29	LEU
44	A5	39	THR
44	A5	51	LEU
44	A5	52	GLU
44	A5	65	LEU
44	A5	68	ARG
44	A5	70	TYR
44	A5	76	VAL
44	A5	86	LEU
44	A5	96	ILE
44	A5	100	THR
44	A5	107	LEU
44	A5	110	LYS
45	B5	12	VAL
45	B5	15	GLU
45	B5	30	VAL
45	B5	35	THR
45	B5	40	LYS
45	B5	49	VAL
45	B5	52	VAL

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Mol	Chain	Res	Type
45	B5	53	LYS
45	B5	54	VAL
45	B5	57	LEU
45	B5	63	LYS
45	B5	66	LEU
45	B5	68	ARG
45	B5	69	TYR
45	B5	70	LEU
45	B5	75	ASP
45	B5	76	ARG
45	B5	78	LYS
45	B5	80	ILE
45	B5	81	VAL
45	B5	92	LEU
46	C5	3	VAL
46	C5	11	ASP
46	C5	15	VAL
46	C5	26	LYS
46	C5	30	VAL
46	C5	31	LEU
46	C5	37	VAL
46	C5	40	GLU
46	C5	45	VAL
46	C5	51	VAL
46	C5	52	SER
46	C5	55	TYR
46	C5	60	PHE
46	C5	61	ILE
46	C5	62	GLU
46	C5	64	GLU
46	C5	67	LEU
46	C5	71	LYS
46	C5	72	VAL
46	C5	75	ILE
46	C5	85	VAL
46	C5	86	ARG
46	C5	87	LYS
46	C5	92	ASN
46	C5	96	ILE
46	C5	97	ARG
47	D5	4	ARG
47	D5	5	LEU

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Mol	Chain	Res	Type
47	D5	18	LEU
47	D5	19	ARG
47	D5	24	LEU
47	D5	30	ASN
47	D5	33	LEU
47	D5	34	ASN
47	D5	41	LEU
47	D5	42	VAL
47	D5	47	VAL
47	D5	53	ILE
47	D5	55	HIS
47	D5	59	LEU
47	D5	60	GLU
47	D5	63	ASP
47	D5	70	LEU
47	D5	71	VAL
47	D5	74	VAL
47	D5	76	LEU
47	D5	82	ARG
47	D5	90	VAL
47	D5	91	LEU
47	D5	98	MET
47	D5	100	VAL
47	D5	124	ILE
47	D5	126	VAL
47	D5	137	ILE
47	D5	161	VAL
47	D5	163	LEU
47	D5	165	VAL
47	D5	166	SER
48	E5	10	THR
48	E5	12	ASN
48	E5	19	LYS
48	E5	20	ARG
48	E5	23	VAL
48	E5	36	ILE
48	E5	41	ARG
48	E5	49	LYS
48	E5	58	THR
48	E5	63	VAL
48	E5	70	GLN
48	E5	74	ARG

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Mol	Chain	Res	Type
49	F5	6	GLU
49	F5	13	ILE
49	F5	14	VAL
49	F5	17	SER
49	F5	18	ILE
49	F5	23	LYS
49	F5	25	LYS
49	F5	35	THR
49	F5	37	ILE
49	F5	38	SER
49	F5	39	LYS
49	F5	41	ARG
49	F5	56	GLN
49	F5	59	THR
49	F5	62	VAL
49	F5	70	VAL
49	F5	72	GLU
49	F5	73	LEU
49	F5	76	ARG
49	F5	78	LYS
49	F5	82	LEU
49	F5	83	GLU
49	F5	86	SER
49	F5	90	ILE
49	F5	91	LYS
49	F5	92	LYS
50	G5	4	SER
50	G5	10	LEU
50	G5	12	GLU
50	G5	15	LYS
50	G5	16	LEU
50	G5	23	LYS
50	G5	24	LEU
50	G5	26	ARG
50	G5	30	ARG
50	G5	32	LEU
50	G5	34	GLU
50	G5	35	LEU
50	G5	43	GLN
50	G5	44	LEU
50	G5	45	SER
50	G5	47	ASN

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Mol	Chain	Res	Type
50	G5	50	ILE
50	G5	53	LEU
50	G5	54	LYS
50	G5	55	ARG
50	G5	59	ARG
50	G5	60	LEU
50	G5	61	LEU
50	G5	64	LEU
50	G5	65	ASN
50	G5	68	ARG
50	G5	69	ARG
51	H5	16	PRO
51	H5	24	LYS
51	H5	32	GLN
51	H5	33	GLN
51	H5	40	THR
51	H5	49	LYS
51	H5	55	ARG
51	H5	57	GLU
51	H5	59	VAL
53	J5	11	THR
53	J5	25	LEU
53	J5	29	THR
53	J5	48	GLU
53	J5	49	CYS
53	J5	55	ARG
53	J5	56	LYS
54	L5	1	MET
54	L5	2	LYS
54	L5	8	ASN
54	L5	32	LYS
54	L5	41	ARG
54	L5	42	LEU
54	L5	43	THR
55	M5	6	THR
55	M5	11	LYS
55	M5	16	ILE
55	M5	25	MET
55	M5	26	LYS
55	M5	32	LEU
55	M5	34	TRP
55	M5	36	LYS

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Mol	Chain	Res	Type
55	M5	49	VAL
55	M5	50	LEU
55	M5	57	ARG
55	M5	58	ILE
55	M5	59	LYS
55	M5	60	LEU
55	M5	61	LEU
55	M5	62	LEU
55	M5	65	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (70) such sidechains are listed below:

Mol	Chain	Res	Type
3	2E	37	GLN
3	2E	102	ASN
3	2E	104	GLN
4	3E	74	GLN
4	3E	103	ASN
5	4E	65	ASN
5	4E	141	GLN
6	5E	32	ASN
6	5E	64	GLN
7	6E	56	GLN
7	6E	109	ASN
13	4I	62	ASN
13	4I	77	ASN
15	6I	9	GLN
19	AI	23	ASN
20	BI	26	ASN
29	11	87	ASN
29	11	129	ASN
29	11	166	GLN
29	11	203	ASN
29	11	227	ASN
30	21	137	HIS
31	31	204	ASN
32	41	40	ASN
36	68	3	GLN
38	88	12	GLN
38	88	57	HIS
39	98	13	HIS
39	98	71	GLN

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Mol	Chain	Res	Type
43	D8	11	GLN
43	D8	80	GLN
44	E8	60	ASN
47	H8	34	ASN
50	K8	65	ASN
52	M8	40	HIS
2	12	19	HIS
2	12	135	GLN
2	12	140	HIS
2	12	212	GLN
4	32	45	GLN
4	32	77	ASN
5	42	56	GLN
7	62	106	GLN
10	1A	62	HIS
15	6A	9	GLN
16	7A	16	HIS
20	BA	18	GLN
29	19	227	ASN
30	29	192	ASN
32	49	40	ASN
32	49	58	GLN
32	49	79	ASN
34	69	105	HIS
36	25	3	GLN
37	35	27	HIS
38	45	13	GLN
38	45	45	GLN
39	55	31	HIS
42	85	117	GLN
43	95	87	HIS
43	95	89	GLN
44	A5	62	HIS
45	B5	82	GLN
47	D5	32	HIS
47	D5	34	ASN
48	E5	29	GLN
50	G5	43	GLN
50	G5	56	GLN
50	G5	65	ASN
53	J5	23	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1522 (98%)	374 (25%)	34 (2%)
1	1G	1505/1522 (98%)	379 (25%)	30 (1%)
22	1K	65/76 (85%)	32 (49%)	3 (4%)
23	2K	76/77 (98%)	23 (30%)	3 (3%)
23	2L	74/77 (96%)	20 (27%)	3 (4%)
24	3K	75/76 (98%)	43 (57%)	2 (2%)
25	4K	19/27 (70%)	10 (52%)	2 (10%)
25	4L	16/27 (59%)	7 (43%)	0
26	14	2852/2917 (97%)	734 (25%)	47 (1%)
26	1H	2828/2917 (96%)	710 (25%)	52 (1%)
27	16	121/122 (99%)	25 (20%)	2 (1%)
27	1J	121/122 (99%)	41 (33%)	2 (1%)
56	1L	71/76 (93%)	31 (43%)	4 (5%)
57	3L	72/76 (94%)	21 (29%)	2 (2%)
All	All	9388/9634 (97%)	2450 (26%)	186 (1%)

All (2450) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	5	U
1	13	6	G
1	13	11	G
1	13	31	G
1	13	32	A
1	13	39	G
1	13	47	C
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	73	G
1	13	75	C
1	13	95	G
1	13	96	G
1	13	97	U
1	13	101	A

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Mol	Chain	Res	Type
1	13	121	C
1	13	131	C
1	13	134	A
1	13	138	G
1	13	142	G
1	13	143	A
1	13	144	G
1	13	145	G
1	13	151	A
1	13	160	A
1	13	163	C
1	13	169	C
1	13	173	U
1	13	174	C
1	13	182	U
1	13	183	G
1	13	186(F)	C
1	13	190	G
1	13	191(A)	G
1	13	191(D)	U
1	13	191	G
1	13	195	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	224	C
1	13	231	G
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	262	A
1	13	266	G
1	13	267	C
1	13	280	C
1	13	281	G
1	13	286	G
1	13	289	G
1	13	290	C

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Mol	Chain	Res	Type
1	13	297	G
1	13	302	G
1	13	311	C
1	13	316	G
1	13	318	G
1	13	321	A
1	13	324	G
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	342	C
1	13	345	C
1	13	346	G
1	13	347	G
1	13	349	A
1	13	352	C
1	13	353	A
1	13	354	G
1	13	356	A
1	13	367	U
1	13	372	C
1	13	382	A
1	13	383	A
1	13	388	G
1	13	389	A
1	13	390	C
1	13	392	G
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A
1	13	413	G
1	13	414	A
1	13	422	C
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	435	C
1	13	451	A
1	13	453	A

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Mol	Chain	Res	Type
1	13	455	C
1	13	458	C
1	13	465	A
1	13	466	C
1	13	467	G
1	13	474	G
1	13	484	G
1	13	485	G
1	13	496	A
1	13	497	U
1	13	505	G
1	13	509	A
1	13	510	A
1	13	511	C
1	13	517	G
1	13	518	C
1	13	521	G
1	13	523	A
1	13	524	G
1	13	527	G
1	13	528	C
1	13	531	U
1	13	532	A
1	13	533	A
1	13	536	C
1	13	547	A
1	13	549	C
1	13	559	A
1	13	560	U
1	13	561	U
1	13	562	C
1	13	564	C
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	587	G
1	13	590	C
1	13	607	A
1	13	610	G
1	13	629	G
1	13	630	G

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Mol	Chain	Res	Type
1	13	631	G
1	13	632	A
1	13	633	G
1	13	637	G
1	13	651	C
1	13	653	A
1	13	661	G
1	13	665	A
1	13	666	G
1	13	687	A
1	13	688	G
1	13	704	A
1	13	723	U
1	13	733	A
1	13	734	G
1	13	747	C
1	13	748	C
1	13	749	C
1	13	750	G
1	13	753	A
1	13	755	G
1	13	757	U
1	13	759	A
1	13	764	C
1	13	772	U
1	13	774	G
1	13	777	A
1	13	787	A
1	13	789	U
1	13	790	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	795	C
1	13	812	C
1	13	813	U
1	13	815	A
1	13	817	C
1	13	827	U
1	13	828	A
1	13	841	U
1	13	842	C

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Mol	Chain	Res	Type
1	13	843	U
1	13	848	C
1	13	851	G
1	13	852	G
1	13	853	G
1	13	855	G
1	13	859	A
1	13	862	C
1	13	869	G
1	13	870	U
1	13	872	A
1	13	884	U
1	13	908	A
1	13	914	A
1	13	923	A
1	13	925	G
1	13	926	G
1	13	927	G
1	13	933	G
1	13	934	C
1	13	936	C
1	13	949	A
1	13	958	A
1	13	960	U
1	13	968	A
1	13	969	A
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	982	U
1	13	983	A
1	13	991	U
1	13	992	U
1	13	993	G
1	13	999	U
1	13	1004	A
1	13	1005	A
1	13	1008	C
1	13	1009	G
1	13	1017	G
1	13	1021	G

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Mol	Chain	Res	Type
1	13	1023	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
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1035	A
1	13	1037	C
1	13	1038	C
1	13	1039	C
1	13	1041	A
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	1084	G
1	13	1085	U
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1111	A
1	13	1118	C
1	13	1121	U
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1131	G
1	13	1132	C
1	13	1133	G
1	13	1136	U
1	13	1137	C

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Mol	Chain	Res	Type
1	13	1138	G
1	13	1139	G
1	13	1144	G
1	13	1146	A
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1160	G
1	13	1162	C
1	13	1163	C
1	13	1165	C
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1188	A
1	13	1189	C
1	13	1190	G
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1216	G
1	13	1218	C
1	13	1219	U
1	13	1223	C
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1241	G
1	13	1242	C
1	13	1253	G
1	13	1257	U
1	13	1258	G
1	13	1259	C
1	13	1263	C
1	13	1270	C
1	13	1273	G
1	13	1278	U
1	13	1279	A
1	13	1280	A

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Mol	Chain	Res	Type
1	13	1281	U
1	13	1285	A
1	13	1286	A
1	13	1287	A
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1305	G
1	13	1312	G
1	13	1317	C
1	13	1320	C
1	13	1322	C
1	13	1331	G
1	13	1333	A
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1353	G
1	13	1364	U
1	13	1368	G
1	13	1370	G
1	13	1379	G
1	13	1381	U
1	13	1397	C
1	13	1398	A
1	13	1401	G
1	13	1406	U
1	13	1414	U
1	13	1419	G
1	13	1436	U
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1449	C
1	13	1450	U
1	13	1451	A
1	13	1452	C
1	13	1453	G

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Mol	Chain	Res	Type
1	13	1471	G
1	13	1475	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1499	A
1	13	1502	A
1	13	1503	A
1	13	1504	G
1	13	1506	U
1	13	1517	G
1	13	1529	G
1	13	1530	G
1	13	1534	A
1	13	1535	C
1	13	1536	C
22	1K	4	U
22	1K	6	G
22	1K	7	U
22	1K	8	U
22	1K	9	A
22	1K	10	G
22	1K	11	C
22	1K	15	G
22	1K	18	G
22	1K	26	A
22	1K	28	U
22	1K	30	G
22	1K	34	U8U
22	1K	40	C
22	1K	41	A
22	1K	43	U
22	1K	44	U
22	1K	49	G
22	1K	50	C
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

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Mol	Chain	Res	Type
22	1K	70	C
22	1K	71	C
22	1K	72	C
22	1K	73	A
22	1K	74	C
22	1K	75	C
23	2K	2	G
23	2K	6	G
23	2K	8	4SU
23	2K	9	G
23	2K	10	G
23	2K	15	G
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	35	C
23	2K	44	A
23	2K	45	A
23	2K	47	7MG
23	2K	48	U
23	2K	49	C
23	2K	54	G
23	2K	57	C
23	2K	62	C
23	2K	68	C
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	4	U
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	13	C
24	3K	14	A
24	3K	15	G
24	3K	16	U
24	3K	17	U
24	3K	18	G

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Mol	Chain	Res	Type
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	23	A
24	3K	24	G
24	3K	26	A
24	3K	27	G
24	3K	31	A
24	3K	33	U
24	3K	42	A
24	3K	43	U
24	3K	44	U
24	3K	45	G
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	49	G
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	65	C
24	3K	66	A
24	3K	72	C
24	3K	73	A
24	3K	76	A
25	4K	8	A
25	4K	9	G
25	4K	10	G
25	4K	11	U
25	4K	12	A
25	4K	13	A
25	4K	14	A
25	4K	15	A
25	4K	19	U
25	4K	23	A
26	1H	9	U
26	1H	10	G

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Mol	Chain	Res	Type
26	1H	12	U
26	1H	15	G
26	1H	29	U
26	1H	34	C
26	1H	46	C
26	1H	51	G
26	1H	54	G
26	1H	55	G
26	1H	60	G
26	1H	61	G
26	1H	63	U
26	1H	64	A
26	1H	70	G
26	1H	71	A
26	1H	74	A
26	1H	75	G
26	1H	77	C
26	1H	85	G
26	1H	102	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	138	G
26	1H	140	A
26	1H	155	C
26	1H	162	U
26	1H	163	U
26	1H	164	U
26	1H	165	U
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	215	G
26	1H	216	A
26	1H	221	A
26	1H	222	A
26	1H	223	A
26	1H	224	G

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Mol	Chain	Res	Type
26	1H	227	A
26	1H	228	A
26	1H	229	A
26	1H	232	G
26	1H	233	A
26	1H	244	A
26	1H	245	G
26	1H	248	G
26	1H	252	G
26	1H	261	G
26	1H	266	G
26	1H	269	U
26	1H	270(I)	G
26	1H	270(K)	C
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	270(V)	G
26	1H	271(A)	C
26	1H	271(B)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	273(D)	C
26	1H	274	G
26	1H	275	G
26	1H	276	A
26	1H	277	C
26	1H	278	A
26	1H	283	A
26	1H	295	G
26	1H	299	A
26	1H	303	U
26	1H	304	G
26	1H	308	G
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	333	G

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Mol	Chain	Res	Type
26	1H	334	C
26	1H	346	A
26	1H	352	G
26	1H	353	G
26	1H	363(D)	G
26	1H	370	G
26	1H	372	G
26	1H	386	G
26	1H	389	G
26	1H	396	G
26	1H	405	U
26	1H	406	G
26	1H	411	G
26	1H	416	C
26	1H	418	G
26	1H	428	A
26	1H	444	C
26	1H	447	A
26	1H	448	U
26	1H	451	C
26	1H	455	C
26	1H	457	A
26	1H	459	U
26	1H	470	A
26	1H	471	A
26	1H	478	A
26	1H	481	G
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	510	C
26	1H	529	A
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	545	G
26	1H	546	C
26	1H	548	A
26	1H	549	G
26	1H	563	G

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Mol	Chain	Res	Type
26	1H	565	C
26	1H	570	G
26	1H	573	G
26	1H	575	A
26	1H	583	G
26	1H	587	C
26	1H	588	U
26	1H	603	A
26	1H	607	U
26	1H	613	U
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	631	A
26	1H	633	A
26	1H	634	C
26	1H	637	A
26	1H	645	C
26	1H	646	A
26	1H	647	G
26	1H	654	A
26	1H	654(A)	A
26	1H	654(O)	G
26	1H	654(Q)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	656	G
26	1H	665	C
26	1H	669	G
26	1H	676	A
26	1H	686	G
26	1H	702	G
26	1H	712	G
26	1H	719	C
26	1H	730	C
26	1H	748	G
26	1H	752	A
26	1H	753	C
26	1H	762	U

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Mol	Chain	Res	Type
26	1H	764	A
26	1H	765	G
26	1H	775	G
26	1H	776	G
26	1H	779	U
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	792	G
26	1H	793	A
26	1H	801	G
26	1H	805	G
26	1H	812	C
26	1H	824	A
26	1H	827	U
26	1H	828	U
26	1H	829	A
26	1H	831	G
26	1H	836	G
26	1H	845	G
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	877	U
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	894	C
26	1H	898	C
26	1H	899	A
26	1H	901	A
26	1H	904	C
26	1H	907	U
26	1H	910	A
26	1H	914	C
26	1H	915	C
26	1H	917	A
26	1H	918	A
26	1H	932	G
26	1H	934	G
26	1H	940	G
26	1H	941	A

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Mol	Chain	Res	Type
26	1H	945	A
26	1H	946	G
26	1H	953	A
26	1H	956	G
26	1H	957	A
26	1H	959	A
26	1H	961	C
26	1H	968	G
26	1H	974	G
26	1H	974(A)	C
26	1H	980	A
26	1H	983	A
26	1H	995	C
26	1H	996	A
26	1H	997	G
26	1H	1005	C
26	1H	1008	C
26	1H	1010	A
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1021	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1028	A
26	1H	1033	U
26	1H	1039	G
26	1H	1040	C
26	1H	1045	A
26	1H	1047	G
26	1H	1051	G
26	1H	1052	C
26	1H	1053	C
26	1H	1107	G
26	1H	1108	U
26	1H	1109	C
26	1H	1110	G
26	1H	1112	G
26	1H	1121	C

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Mol	Chain	Res	Type
26	1H	1122	G
26	1H	1127	A
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1138	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1156	A
26	1H	1157	G
26	1H	1169	G
26	1H	1170	G
26	1H	1173	G
26	1H	1174	A
26	1H	1175	U
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1194	A
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1221	C
26	1H	1229(A)	G
26	1H	1237	A
26	1H	1244	G
26	1H	1251	C
26	1H	1253	A
26	1H	1255	U
26	1H	1256	G
26	1H	1265	A
26	1H	1267	U
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U

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Mol	Chain	Res	Type
26	1H	1274	A
26	1H	1275	A
26	1H	1278	A
26	1H	1286	A
26	1H	1287	A
26	1H	1288	U
26	1H	1297	C
26	1H	1300	U
26	1H	1301	A
26	1H	1306	C
26	1H	1313	U
26	1H	1329	U
26	1H	1338	G
26	1H	1339	G
26	1H	1344	G
26	1H	1345	C
26	1H	1347	G
26	1H	1349	A
26	1H	1352	U
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1370	C
26	1H	1373	A
26	1H	1378	A
26	1H	1379	A
26	1H	1380	G
26	1H	1385	G
26	1H	1388	G
26	1H	1395	A
26	1H	1396	U
26	1H	1397	U
26	1H	1403	C
26	1H	1407	C
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1422	G
26	1H	1427	A
26	1H	1428	C
26	1H	1437	C

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Mol	Chain	Res	Type
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1455	G
26	1H	1456	G
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1462	C
26	1H	1467	C
26	1H	1471	A
26	1H	1478	G
26	1H	1483	G
26	1H	1490	A
26	1H	1492	G
26	1H	1493	C
26	1H	1496	A
26	1H	1497	U
26	1H	1506	C
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1517	G
26	1H	1519	G
26	1H	1520	U
26	1H	1522	G
26	1H	1534	G
26	1H	1536	A
26	1H	1537	C
26	1H	1538	G
26	1H	1540	G
26	1H	1543	A
26	1H	1544	C
26	1H	1545	A
26	1H	1547	C
26	1H	1548	C
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1566	A

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Mol	Chain	Res	Type
26	1H	1569	A
26	1H	1577	C
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1587	A
26	1H	1601	G
26	1H	1606	G
26	1H	1607	C
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1616	A
26	1H	1617	C
26	1H	1618	A
26	1H	1625	C
26	1H	1634	A
26	1H	1635	G
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1654	A
26	1H	1658	C
26	1H	1659	U
26	1H	1664	A
26	1H	1674	G
26	1H	1675	C
26	1H	1678	G
26	1H	1682	G
26	1H	1694	C
26	1H	1695	G
26	1H	1699	G
26	1H	1706	U
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1732	A
26	1H	1756	G
26	1H	1757	U
26	1H	1758	G

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Mol	Chain	Res	Type
26	1H	1762	A
26	1H	1763	G
26	1H	1764	G
26	1H	1773	A
26	1H	1777	U
26	1H	1782	C
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1803	A
26	1H	1816	G
26	1H	1825	A
26	1H	1826	G
26	1H	1828	G
26	1H	1829	A
26	1H	1835	G
26	1H	1837	C
26	1H	1839	G
26	1H	1847	A
26	1H	1859	A
26	1H	1878	G
26	1H	1889	A
26	1H	1896	G
26	1H	1897	G
26	1H	1900	A
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1915	U
26	1H	1917	U
26	1H	1919	A
26	1H	1923	U
26	1H	1924	C
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1935	G
26	1H	1938	A
26	1H	1941	C
26	1H	1952	A

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Mol	Chain	Res	Type
26	1H	1955	U
26	1H	1957	C
26	1H	1961	C
26	1H	1963	U
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1983	C
26	1H	1985	G
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	2052	G
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2069	G
26	1H	2074	U
26	1H	2096	U
26	1H	2102	U
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2117	A
26	1H	2119	A

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Mol	Chain	Res	Type
26	1H	2125	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2129	C
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2136	C
26	1H	2137	C
26	1H	2139	C
26	1H	2141	G
26	1H	2144	U
26	1H	2145	C
26	1H	2146	C
26	1H	2147	G
26	1H	2148	G
26	1H	2151	G
26	1H	2154	G
26	1H	2157	G
26	1H	2161	C
26	1H	2162	G
26	1H	2163	C
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	2176	A
26	1H	2178	C
26	1H	2180	U
26	1H	2182	G
26	1H	2189	U
26	1H	2190	G
26	1H	2192	G
26	1H	2198	A
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2213	U
26	1H	2215	G

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Mol	Chain	Res	Type
26	1H	2225	A
26	1H	2226	C
26	1H	2237	G
26	1H	2238	G
26	1H	2239	G
26	1H	2240	C
26	1H	2245	U
26	1H	2246	G
26	1H	2252	G
26	1H	2267	A
26	1H	2268	A
26	1H	2269	A
26	1H	2271	G
26	1H	2275	C
26	1H	2280	G
26	1H	2283	C
26	1H	2284	C
26	1H	2286	A
26	1H	2287	A
26	1H	2288	A
26	1H	2307	G
26	1H	2308	G
26	1H	2309	A
26	1H	2310	A
26	1H	2311	A
26	1H	2314	C
26	1H	2315	G
26	1H	2317	C
26	1H	2320	A
26	1H	2322	A
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2343	C
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2352	A
26	1H	2353	G
26	1H	2355	C

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Mol	Chain	Res	Type
26	1H	2357	U
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2395	C
26	1H	2400	G
26	1H	2402	C
26	1H	2403	C
26	1H	2405	G
26	1H	2406	U
26	1H	2410	G
26	1H	2413	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	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2435	A
26	1H	2436	G
26	1H	2439	A
26	1H	2441	C
26	1H	2445	G
26	1H	2448	A
26	1H	2467	C
26	1H	2468	G
26	1H	2469	A
26	1H	2470	G
26	1H	2476	A
26	1H	2477	C
26	1H	2482	G
26	1H	2497	A
26	1H	2498	C
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2518	A
26	1H	2520	C

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Mol	Chain	Res	Type
26	1H	2525	G
26	1H	2529	G
26	1H	2531	A
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2569	G
26	1H	2572	A
26	1H	2573	C
26	1H	2578	G
26	1H	2579	C
26	1H	2582	G
26	1H	2599	G
26	1H	2602	A
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2615	U
26	1H	2621	A
26	1H	2629	A
26	1H	2630	G
26	1H	2636	U
26	1H	2657	A
26	1H	2663	G
26	1H	2665	A
26	1H	2673	G
26	1H	2676	C
26	1H	2682	U
26	1H	2683	C
26	1H	2684	U
26	1H	2689	U
26	1H	2702	U
26	1H	2703	C
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2718	G
26	1H	2719	G
26	1H	2726	U
26	1H	2733	A
26	1H	2744	G

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Mol	Chain	Res	Type
26	1H	2756	U
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2777	G
26	1H	2778	A
26	1H	2779	U
26	1H	2781	A
26	1H	2782	G
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2793	G
26	1H	2794	C
26	1H	2797	U
26	1H	2798	C
26	1H	2801	A
26	1H	2803	C
26	1H	2804	C
26	1H	2808	U
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2832	U
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2850	A
26	1H	2851	A
26	1H	2853	C
26	1H	2865	U
26	1H	2872	G
26	1H	2891	G
26	1H	2892	A
26	1H	2894	G
26	1H	2895	U
27	16	3	C
27	16	7	G
27	16	9	G
27	16	12	C
27	16	13	A
27	16	15	A

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Mol	Chain	Res	Type
27	16	25	A
27	16	33	G
27	16	38	C
27	16	40	U
27	16	45	A
27	16	51	G
27	16	56	G
27	16	58	A
27	16	65	C
27	16	66	A
27	16	73	A
27	16	74	U
27	16	78	A
27	16	81	G
27	16	85	G
27	16	89	G
27	16	105	G
27	16	109	G
27	16	119	A
1	1G	5	U
1	1G	6	G
1	1G	7	G
1	1G	9	G
1	1G	22	G
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	73	G
1	1G	77	C
1	1G	80	G
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	90	C
1	1G	91	C
1	1G	92	G
1	1G	96	G
1	1G	101	A

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Mol	Chain	Res	Type
1	1G	105	G
1	1G	115	G
1	1G	116	A
1	1G	119	A
1	1G	120	A
1	1G	121	C
1	1G	144	G
1	1G	161	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	187	C
1	1G	188	U
1	1G	189	U
1	1G	190	G
1	1G	191(D)	U
1	1G	195	A
1	1G	196	A
1	1G	197	A
1	1G	198	G
1	1G	201	C
1	1G	208	U
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	231	G
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	256	U
1	1G	262	A
1	1G	266	G
1	1G	267	C
1	1G	279	A
1	1G	281	G
1	1G	289	G
1	1G	298	A
1	1G	321	A
1	1G	327	A

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Mol	Chain	Res	Type
1	1G	328	C
1	1G	329	A
1	1G	330	C
1	1G	332	G
1	1G	340	U
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	382	A
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	411	A
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	421	U
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	433	C
1	1G	439	A
1	1G	442	C
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	484	G
1	1G	485	G
1	1G	495	A
1	1G	496	A
1	1G	497	U
1	1G	502	G
1	1G	505	G

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Mol	Chain	Res	Type
1	1G	506	G
1	1G	510	A
1	1G	511	C
1	1G	512	U
1	1G	518	C
1	1G	519	C
1	1G	527	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	536	C
1	1G	546	G
1	1G	547	A
1	1G	549	C
1	1G	552	U
1	1G	559	A
1	1G	561	U
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	587	G
1	1G	588	G
1	1G	596	C
1	1G	599	C
1	1G	607	A
1	1G	608	A
1	1G	614	A
1	1G	615	C
1	1G	618	C
1	1G	630	G
1	1G	631	G
1	1G	633	G
1	1G	651	C
1	1G	653	A
1	1G	661	G
1	1G	665	A
1	1G	688	G
1	1G	691	G

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Mol	Chain	Res	Type
1	1G	700	G
1	1G	722	A
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	746	A
1	1G	749	C
1	1G	754	C
1	1G	755	G
1	1G	769	G
1	1G	776	G
1	1G	777	A
1	1G	794	A
1	1G	813	U
1	1G	817	C
1	1G	821	G
1	1G	828	A
1	1G	841	U
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	858	G
1	1G	859	A
1	1G	860	A
1	1G	871	U
1	1G	873	A
1	1G	874	G
1	1G	884	U
1	1G	885	G
1	1G	912	C
1	1G	914	A
1	1G	916	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	942	G
1	1G	953	G
1	1G	954	G
1	1G	960	U
1	1G	961	U
1	1G	966	G

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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	980	C
1	1G	983	A
1	1G	989	C
1	1G	990	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	995	C
1	1G	998	G
1	1G	1000	A
1	1G	1001	G
1	1G	1003	G
1	1G	1004	A
1	1G	1006	C
1	1G	1008	C
1	1G	1009	G
1	1G	1016	A
1	1G	1017	G
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1027	C
1	1G	1028	C
1	1G	1028(A)	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1035	A
1	1G	1036	G
1	1G	1037	C
1	1G	1038	C

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Mol	Chain	Res	Type
1	1G	1040	U
1	1G	1041	A
1	1G	1043	C
1	1G	1045	C
1	1G	1046	A
1	1G	1054	C
1	1G	1055	A
1	1G	1066	C
1	1G	1067	A
1	1G	1081	G
1	1G	1085	U
1	1G	1094	G
1	1G	1095	U
1	1G	1099	G
1	1G	1101	A
1	1G	1108	G
1	1G	1113	C
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1133	G
1	1G	1135	U
1	1G	1136	U
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1140	C
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	1171	G
1	1G	1176	A
1	1G	1178	G
1	1G	1181	G
1	1G	1183	A

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Mol	Chain	Res	Type
1	1G	1184	G
1	1G	1185	G
1	1G	1190	G
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1199	U
1	1G	1201	A
1	1G	1206	G
1	1G	1208	C
1	1G	1209	C
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1216	G
1	1G	1218	C
1	1G	1225	A
1	1G	1227	A
1	1G	1228	C
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1243	C
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1263	C
1	1G	1264	C
1	1G	1267	C
1	1G	1268	A
1	1G	1270	C
1	1G	1274	G
1	1G	1279	A
1	1G	1280	A
1	1G	1281	U
1	1G	1285	A
1	1G	1286	A
1	1G	1287	A
1	1G	1291	G
1	1G	1293	G

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Mol	Chain	Res	Type
1	1G	1295	G
1	1G	1296	C
1	1G	1297	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1305	G
1	1G	1307	U
1	1G	1313	U
1	1G	1317	C
1	1G	1318	A
1	1G	1319	A
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1338	G
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1364	U
1	1G	1368	G
1	1G	1369	C
1	1G	1370	G
1	1G	1378	C
1	1G	1379	G
1	1G	1382	C
1	1G	1397	C
1	1G	1398	A
1	1G	1402	C
1	1G	1406	U
1	1G	1414	U
1	1G	1419	G
1	1G	1443	G
1	1G	1446	A
1	1G	1450	U
1	1G	1451	A
1	1G	1453	G
1	1G	1454	G

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Mol	Chain	Res	Type
1	1G	1462	G
1	1G	1482	G
1	1G	1492	A
1	1G	1493	A
1	1G	1498	U
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
1	1G	1535	C
56	1L	7	U
56	1L	8	U
56	1L	9	A
56	1L	14	A
56	1L	15	G
56	1L	16	U
56	1L	17	U
56	1L	18	G
56	1L	19	G
56	1L	20	U
56	1L	23	A
56	1L	26	A
56	1L	30	G
56	1L	40	C
56	1L	41	A
56	1L	45	G
56	1L	48	C
56	1L	53	G
56	1L	54	5MU
56	1L	55	PSU
56	1L	59	A
56	1L	60	U

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Mol	Chain	Res	Type
56	1L	63	U
56	1L	64	G
56	1L	66	A
56	1L	67	C
56	1L	68	G
56	1L	70	C
56	1L	72	C
56	1L	73	A
56	1L	74	C
23	2L	3	C
23	2L	6	G
23	2L	8	4SU
23	2L	16	C
23	2L	18	U
23	2L	19	G
23	2L	20	G
23	2L	23	G
23	2L	32	G
23	2L	33	OMC
23	2L	34	U
23	2L	35	C
23	2L	47	7MG
23	2L	48	U
23	2L	49	C
23	2L	50	G
23	2L	55	5MU
23	2L	57	C
23	2L	68	C
23	2L	77	A
57	3L	11	C
57	3L	13	C
57	3L	15	G
57	3L	19	G
57	3L	20	U
57	3L	26	A
57	3L	31	A
57	3L	33	U
57	3L	34	U
57	3L	36	U
57	3L	42	A
57	3L	46	G
57	3L	48	C

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Mol	Chain	Res	Type
57	3L	58	A
57	3L	59	A
57	3L	60	U
57	3L	61	C
57	3L	64	G
57	3L	72	C
57	3L	73	A
57	3L	76	A
25	4L	7	G
25	4L	8	A
25	4L	9	G
25	4L	11	U
25	4L	12	A
25	4L	13	A
25	4L	22	A
26	14	2	G
26	14	3	U
26	14	4	C
26	14	5	A
26	14	6	A
26	14	9	U
26	14	10	G
26	14	11	G
26	14	12	U
26	14	14	A
26	14	15	G
26	14	34	C
26	14	35	G
26	14	36	G
26	14	46	C
26	14	50	U
26	14	51	G
26	14	58	G
26	14	61	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	77	C
26	14	88	G
26	14	90	U
26	14	93	C

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Mol	Chain	Res	Type
26	14	95	G
26	14	97	C
26	14	99	U
26	14	102	G
26	14	118	A
26	14	119	A
26	14	120	U
26	14	121	G
26	14	125	G
26	14	129	C
26	14	136	G
26	14	138	G
26	14	139	G
26	14	140	A
26	14	153	C
26	14	154	G
26	14	161	U
26	14	162	U
26	14	173	G
26	14	176	G
26	14	196	A
26	14	199	A
26	14	205	G
26	14	214	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	225	A
26	14	229	A
26	14	233	A
26	14	247	G
26	14	248	G
26	14	252	G
26	14	264	C
26	14	265	A
26	14	270(F)	U
26	14	270(K)	C
26	14	270(M)	U
26	14	270(O)	U
26	14	270(P)	C
26	14	271(B)	G
26	14	271(C)	U

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Mol	Chain	Res	Type
26	14	271	G
26	14	273(D)	C
26	14	274	G
26	14	275	G
26	14	277	C
26	14	278	A
26	14	279	C
26	14	286	C
26	14	289	A
26	14	290	G
26	14	311	A
26	14	324	A
26	14	329	G
26	14	330	A
26	14	331	A
26	14	333	G
26	14	352	G
26	14	361	G
26	14	362	U
26	14	363	G
26	14	363(E)	U
26	14	363(F)	A
26	14	372	G
26	14	386	G
26	14	391	G
26	14	396	G
26	14	404	C
26	14	405	U
26	14	406	G
26	14	407	G
26	14	411	G
26	14	412	A
26	14	416	C
26	14	426	C
26	14	428	A
26	14	444	C
26	14	451	C
26	14	454	A
26	14	455	C
26	14	457	A
26	14	459	U
26	14	460	A

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Mol	Chain	Res	Type
26	14	470	A
26	14	471	A
26	14	481	G
26	14	484	C
26	14	504	U
26	14	505	A
26	14	508	G
26	14	509	C
26	14	512	G
26	14	513	A
26	14	528	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	543	C
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	586	A
26	14	598	G
26	14	599	G
26	14	603	A
26	14	606	U
26	14	607	U
26	14	614	U
26	14	615	G
26	14	617	G
26	14	618	G
26	14	621	A
26	14	622	G
26	14	624	C
26	14	627	A
26	14	634	C
26	14	637	A
26	14	645	C
26	14	646	A
26	14	651	G

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Mol	Chain	Res	Type
26	14	654	A
26	14	654(A)	A
26	14	654(B)	C
26	14	654(C)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	655	A
26	14	656	G
26	14	662	G
26	14	669	G
26	14	670	A
26	14	673	C
26	14	681	G
26	14	682	G
26	14	685	A
26	14	686	G
26	14	717	G
26	14	722	A
26	14	724	U
26	14	730	C
26	14	738	G
26	14	748	G
26	14	753	C
26	14	764	A
26	14	765	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	780	G
26	14	782	A
26	14	784	A
26	14	785	G
26	14	792	G
26	14	802	A
26	14	805	G
26	14	809	G
26	14	812	C
26	14	816	C
26	14	819	A
26	14	827	U
26	14	828	U

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Mol	Chain	Res	Type
26	14	832	G
26	14	846	C
26	14	852	G
26	14	854	G
26	14	859	G
26	14	865	C
26	14	866	A
26	14	876	C
26	14	878	A
26	14	879	G
26	14	880	G
26	14	897	C
26	14	899	A
26	14	901	A
26	14	903	C
26	14	904	C
26	14	908	C
26	14	910	A
26	14	914	C
26	14	915	C
26	14	917	A
26	14	920	G
26	14	924	C
26	14	926	A
26	14	928	G
26	14	932	G
26	14	933	A
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	953	A
26	14	958	U
26	14	959	A
26	14	961	C
26	14	968	G
26	14	974	G
26	14	983	A
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A

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Mol	Chain	Res	Type
26	14	999	U
26	14	1010	A
26	14	1012	U
26	14	1013	C
26	14	1020	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1027	A
26	14	1033	U
26	14	1037	G
26	14	1043	C
26	14	1044	G
26	14	1048	A
26	14	1049	C
26	14	1050	A
26	14	1054	A
26	14	1056	G
26	14	1057	A
26	14	1060	U
26	14	1061	U
26	14	1062	G
26	14	1071	G
26	14	1072	C
26	14	1073	A
26	14	1075	C
26	14	1086	A
26	14	1087	G
26	14	1088	A
26	14	1090	U
26	14	1091	G
26	14	1100	C
26	14	1101	U
26	14	1102	C
26	14	1103	A
26	14	1104	C
26	14	1105	U
26	14	1106	G
26	14	1107	G
26	14	1108	U
26	14	1110	G

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Mol	Chain	Res	Type
26	14	1111	A
26	14	1112	G
26	14	1113	U
26	14	1126	A
26	14	1128	A
26	14	1129	A
26	14	1130	U
26	14	1132	A
26	14	1135	C
26	14	1136	G
26	14	1138	G
26	14	1139	G
26	14	1143	A
26	14	1151	G
26	14	1155	A
26	14	1159	U
26	14	1170	G
26	14	1171	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1182	A
26	14	1183	G
26	14	1187	G
26	14	1189	A
26	14	1204	A
26	14	1205	U
26	14	1208	C
26	14	1212	G
26	14	1213	A
26	14	1218	C
26	14	1220	A
26	14	1229(A)	G
26	14	1244	G
26	14	1248	G
26	14	1251	C
26	14	1252	G
26	14	1253	A
26	14	1256	G
26	14	1265	A
26	14	1269	A

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Mol	Chain	Res	Type
26	14	1271	G
26	14	1272	A
26	14	1273	U
26	14	1274	A
26	14	1275	A
26	14	1277	G
26	14	1278	A
26	14	1287	A
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1302	A
26	14	1319	G
26	14	1325	G
26	14	1326	U
26	14	1345	C
26	14	1348	G
26	14	1349	A
26	14	1352	U
26	14	1365	A
26	14	1368	G
26	14	1369	G
26	14	1370	C
26	14	1378	A
26	14	1380	G
26	14	1384	A
26	14	1385	G
26	14	1386	C
26	14	1390	U
26	14	1403	C
26	14	1405	U
26	14	1407	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1424	G
26	14	1428	C
26	14	1434	A
26	14	1437	C
26	14	1444(A)	A

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Mol	Chain	Res	Type
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1453	A
26	14	1454	U
26	14	1455	G
26	14	1458	C
26	14	1459	G
26	14	1460	A
26	14	1464	C
26	14	1467	C
26	14	1471	A
26	14	1474	C
26	14	1478	G
26	14	1483	G
26	14	1490	A
26	14	1493	C
26	14	1496	A
26	14	1500	G
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1514	U
26	14	1522	G
26	14	1535	U
26	14	1536	A
26	14	1537	C
26	14	1540	G
26	14	1543	A
26	14	1552	G
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1566	A
26	14	1569	A
26	14	1570	A
26	14	1577	C
26	14	1578	U
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1593	G

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Mol	Chain	Res	Type
26	14	1595	G
26	14	1598	C
26	14	1599	C
26	14	1601	G
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1616	A
26	14	1619	G
26	14	1625	C
26	14	1631	A
26	14	1639	U
26	14	1647	G
26	14	1648	C
26	14	1650	G
26	14	1674	G
26	14	1675	C
26	14	1678	G
26	14	1696	G
26	14	1700	A
26	14	1725	G
26	14	1726	G
26	14	1728	G
26	14	1729	A
26	14	1730	U
26	14	1735	C
26	14	1742	C
26	14	1743	G
26	14	1754	C
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1769	G
26	14	1773	A
26	14	1780	A
26	14	1781	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1802	A
26	14	1812	A

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Mol	Chain	Res	Type
26	14	1816	G
26	14	1820	U
26	14	1829	A
26	14	1839	G
26	14	1840	G
26	14	1847	A
26	14	1848	A
26	14	1858	G
26	14	1859	A
26	14	1878	G
26	14	1888	G
26	14	1889	A
26	14	1894	C
26	14	1897	G
26	14	1900	A
26	14	1905	C
26	14	1906	G
26	14	1912	A
26	14	1917	U
26	14	1927	A
26	14	1929	G
26	14	1930	G
26	14	1936	A
26	14	1938	A
26	14	1944	U
26	14	1951	U
26	14	1952	A
26	14	1955	U
26	14	1960	A
26	14	1963	U
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1993	U
26	14	2020	A
26	14	2023	G
26	14	2031	A
26	14	2033	A
26	14	2043	C
26	14	2049	G
26	14	2052	G

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Mol	Chain	Res	Type
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	2077	A
26	14	2082	A
26	14	2099	U
26	14	2100	G
26	14	2102	U
26	14	2108	C
26	14	2111	C
26	14	2114	A
26	14	2115	G
26	14	2117	A
26	14	2118	U
26	14	2120	G
26	14	2122	U
26	14	2123	G
26	14	2124	G
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C
26	14	2129	C
26	14	2130	U
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G

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Mol	Chain	Res	Type
26	14	2150	U
26	14	2151	G
26	14	2153	G
26	14	2155	G
26	14	2156	G
26	14	2157	G
26	14	2158	A
26	14	2160	G
26	14	2161	C
26	14	2162	G
26	14	2164	C
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	2188	C
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2226	C
26	14	2235	G
26	14	2238	G
26	14	2240	C
26	14	2251	G
26	14	2268	A
26	14	2269	A
26	14	2275	C
26	14	2276	G
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2297	C

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Mol	Chain	Res	Type
26	14	2298	A
26	14	2304	G
26	14	2305	A
26	14	2307	G
26	14	2309	A
26	14	2310	A
26	14	2311	A
26	14	2317	C
26	14	2318	G
26	14	2319	G
26	14	2320	A
26	14	2321	G
26	14	2324	C
26	14	2325	G
26	14	2326	C
26	14	2327	A
26	14	2334	G
26	14	2336	A
26	14	2337	G
26	14	2346	A
26	14	2347	C
26	14	2348	U
26	14	2350	C
26	14	2351	G
26	14	2357	U
26	14	2383	G
26	14	2385	C
26	14	2389	G
26	14	2392	A
26	14	2402	C
26	14	2406	U
26	14	2407	G
26	14	2408	U
26	14	2413	G
26	14	2414	G
26	14	2422	A
26	14	2428	G
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2434	A
26	14	2435	A

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Mol	Chain	Res	Type
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2445	G
26	14	2448	A
26	14	2449	U
26	14	2464	C
26	14	2469	A
26	14	2470	G
26	14	2472	G
26	14	2474	C
26	14	2475	C
26	14	2477	C
26	14	2487	G
26	14	2495	G
26	14	2496	C
26	14	2497	A
26	14	2502	G
26	14	2504	U
26	14	2505	G
26	14	2506	U
26	14	2513	G
26	14	2518	A
26	14	2520	C
26	14	2522	U
26	14	2529	G
26	14	2532	G
26	14	2542	A
26	14	2543	G
26	14	2554	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2574	G
26	14	2579	C
26	14	2582	G
26	14	2586	C
26	14	2587	A
26	14	2599	G
26	14	2601	C

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Mol	Chain	Res	Type
26	14	2602	A
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2630	G
26	14	2636	U
26	14	2642	G
26	14	2654	A
26	14	2660	A
26	14	2663	G
26	14	2665	A
26	14	2667	C
26	14	2672	G
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2702	U
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2726	U
26	14	2732	G
26	14	2733	A
26	14	2739	U
26	14	2744	G
26	14	2747	G
26	14	2748	A
26	14	2749	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2757	A
26	14	2762	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2769	C
26	14	2777	G
26	14	2778	A

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Mol	Chain	Res	Type
26	14	2779	U
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	2803	C
26	14	2804	C
26	14	2808	U
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2825	C
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2850	A
26	14	2855	C
26	14	2856	C
26	14	2860	A
26	14	2872	G
26	14	2874	C
26	14	2886	G
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2896	C
26	14	2897	U
26	14	2898	U
26	14	2899	G
27	1J	0	A
27	1J	1	U
27	1J	2	C
27	1J	7	G
27	1J	8	U
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	26	A
27	1J	28	C
27	1J	30	C
27	1J	33	G
27	1J	34	U
27	1J	40	U
27	1J	41	U
27	1J	42	C
27	1J	43	C
27	1J	44	G
27	1J	45	A
27	1J	47	C
27	1J	58	A
27	1J	67	G
27	1J	73	A
27	1J	74	U
27	1J	75	G
27	1J	81	G
27	1J	82	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	95	U
27	1J	101	A
27	1J	108	C
27	1J	109	G
27	1J	115	G
27	1J	118	G
27	1J	119	A

All (186) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	31	G
1	13	49	U
1	13	50	A

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Mol	Chain	Res	Type
1	13	96	G
1	13	181	G
1	13	244	U
1	13	266	G
1	13	345	C
1	13	352	C
1	13	422	C
1	13	428	G
1	13	429	U
1	13	452	A
1	13	484	G
1	13	509	A
1	13	560	U
1	13	628	G
1	13	687	A
1	13	703	G
1	13	748	C
1	13	793	U
1	13	913	A
1	13	1027	C
1	13	1064	G
1	13	1065	U
1	13	1137	C
1	13	1145	C
1	13	1285	A
1	13	1336	C
1	13	1397	C
1	13	1452	C
1	13	1498	U
1	13	1533	C
22	1K	6	G
22	1K	9	A
22	1K	69	A
23	2K	9	G
23	2K	20	G
23	2K	48	U
24	3K	2	G
24	3K	58	A
25	4K	14	A
25	4K	18	G
26	1H	70	G
26	1H	162	U

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Mol	Chain	Res	Type
26	1H	195	A
26	1H	196	A
26	1H	199	A
26	1H	222	A
26	1H	232	G
26	1H	271(B)	G
26	1H	271(C)	U
26	1H	404	C
26	1H	508	G
26	1H	587	C
26	1H	668	G
26	1H	685	A
26	1H	752	A
26	1H	764	A
26	1H	800	A
26	1H	859	G
26	1H	974	G
26	1H	1022	G
26	1H	1026	U
26	1H	1107	G
26	1H	1178	C
26	1H	1210	A
26	1H	1273	U
26	1H	1378	A
26	1H	1379	A
26	1H	1396	U
26	1H	1416	G
26	1H	1420	U
26	1H	1508	A
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1617	C
26	1H	1694	C
26	1H	1799	G
26	1H	1800	C
26	1H	1858	G
26	1H	1992	G
26	1H	2060	A
26	1H	2062	A
26	1H	2210	G
26	1H	2212	A

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Mol	Chain	Res	Type
26	1H	2422	A
26	1H	2428	G
26	1H	2447	G
26	1H	2475	C
26	1H	2481	G
26	1H	2566	A
26	1H	2598	A
26	1H	2756	U
27	16	44	G
27	16	108	C
1	1G	80	G
1	1G	89	U
1	1G	115	G
1	1G	119	A
1	1G	197	A
1	1G	250	A
1	1G	266	G
1	1G	327	A
1	1G	345	C
1	1G	412	A
1	1G	509	A
1	1G	511	C
1	1G	560	U
1	1G	687	A
1	1G	748	C
1	1G	812	C
1	1G	884	U
1	1G	913	A
1	1G	1053	G
1	1G	1126	U
1	1G	1137	C
1	1G	1145	C
1	1G	1157	A
1	1G	1200	C
1	1G	1285	A
1	1G	1300	G
1	1G	1442	G
1	1G	1449	C
1	1G	1498	U
1	1G	1533	C
56	1L	6	G
56	1L	17	U

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Mol	Chain	Res	Type
56	1L	67	C
56	1L	69	A
23	2L	33	OMC
23	2L	47	7MG
23	2L	48	U
57	3L	45	G
57	3L	58	A
26	14	34	C
26	14	49	A
26	14	71	A
26	14	99	U
26	14	101	G
26	14	128	C
26	14	278	A
26	14	503	A
26	14	645	C
26	14	669	G
26	14	685	A
26	14	752	A
26	14	764	A
26	14	784	A
26	14	791	C
26	14	827	U
26	14	960	A
26	14	1022	G
26	14	1378	A
26	14	1379	A
26	14	1396	U
26	14	1416	G
26	14	1420	U
26	14	1444(A)	A
26	14	1534	G
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1762	A
26	14	1819	A
26	14	1858	G
26	14	1899	G
26	14	1992	G
26	14	2062	A
26	14	2135	A

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Mol	Chain	Res	Type
26	14	2210	G
26	14	2212	A
26	14	2275	C
26	14	2308	G
26	14	2406	U
26	14	2439	A
26	14	2611	U
26	14	2629	A
26	14	2689	U
26	14	2756	U
26	14	2776	A
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	4SU	2K	8	23	18,21,22	1.75	3 (16%)	26,30,33	2.38	5 (19%)
22	5MU	1K	54	22	19,22,23	3.81	5 (26%)	28,32,35	3.23	6 (21%)
56	PSU	1L	55	56	18,21,22	1.14	1 (5%)	22,30,33	1.63	4 (18%)
23	PSU	2K	56	23	18,21,22	1.25	1 (5%)	22,30,33	1.89	4 (18%)
57	PSU	3L	39	57	18,21,22	1.17	1 (5%)	22,30,33	1.45	2 (9%)
23	5MU	2L	55	23	19,22,23	3.96	5 (26%)	28,32,35	3.19	9 (32%)
23	OMC	2K	33	23	19,22,23	1.73	3 (15%)	26,31,34	0.95	2 (7%)
23	5MU	2K	55	23	19,22,23	3.88	5 (26%)	28,32,35	3.36	9 (32%)
23	PSU	2L	56	23	18,21,22	1.29	1 (5%)	22,30,33	1.62	3 (13%)
23	OMC	2L	33	23	19,22,23	1.83	4 (21%)	26,31,34	1.09	1 (3%)
22	PSU	1K	39	22	18,21,22	1.15	1 (5%)	22,30,33	1.55	3 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
22	U8U	1K	34	22,25	19,24,25	2.50	6 (31%)	23,34,37	1.27	3 (13%)
22	PSU	1K	55	22	18,21,22	1.30	1 (5%)	22,30,33	1.69	5 (22%)
23	7MG	2L	47	23	22,26,27	3.03	6 (27%)	29,39,42	2.88	11 (37%)
23	7MG	2K	47	23	22,26,27	3.33	6 (27%)	29,39,42	2.57	10 (34%)
23	4SU	2L	8	23	18,21,22	1.92	5 (27%)	26,30,33	2.32	6 (23%)
56	5MU	1L	54	56	19,22,23	3.87	5 (26%)	28,32,35	3.09	11 (39%)
22	T6A	1K	37	22	31,34,35	2.23	9 (29%)	44,49,52	2.22	14 (31%)

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	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
22	5MU	1K	54	22	-	2/7/25/26	0/2/2/2
56	PSU	1L	55	56	-	3/7/25/26	0/2/2/2
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
57	PSU	3L	39	57	-	0/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	2/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	0/9/27/28	0/2/2/2
23	5MU	2K	55	23	-	0/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	4/9/27/28	0/2/2/2
22	PSU	1K	39	22	-	1/7/25/26	0/2/2/2
22	U8U	1K	34	22,25	-	2/9/28/29	0/2/2/2
22	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
23	7MG	2L	47	23	-	3/7/37/38	0/3/3/3
23	7MG	2K	47	23	-	1/7/37/38	0/3/3/3
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2
56	5MU	1L	54	56	-	3/7/25/26	0/2/2/2
22	T6A	1K	37	22	-	4/23/41/42	0/3/3/3

All (68) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	55	5MU	C2-N1	12.72	1.58	1.38
23	2K	55	5MU	C2-N1	12.43	1.58	1.38
22	1K	54	5MU	C2-N1	12.32	1.58	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	1L	54	5MU	C2-N1	12.12	1.57	1.38
23	2K	47	7MG	C5-N7	10.13	1.47	1.35
23	2K	47	7MG	C4-N9	-8.34	1.28	1.37
23	2L	47	7MG	C5-N7	8.10	1.44	1.35
23	2L	47	7MG	C4-N9	-7.58	1.28	1.37
22	1K	37	T6A	C10-N11	6.23	1.49	1.35
23	2L	55	5MU	C4-N3	-6.02	1.27	1.38
56	1L	54	5MU	C4-N3	-5.98	1.27	1.38
23	2K	55	5MU	C4-N3	-5.94	1.27	1.38
23	2K	55	5MU	C2-N3	5.93	1.48	1.38
56	1L	54	5MU	C2-N3	5.90	1.48	1.38
23	2L	55	5MU	C2-N3	5.89	1.48	1.38
22	1K	37	T6A	C10-N6	5.86	1.49	1.37
23	2K	47	7MG	C4-N3	5.82	1.48	1.34
23	2L	47	7MG	C4-N3	5.81	1.48	1.34
22	1K	54	5MU	C2-N3	5.73	1.48	1.38
56	1L	54	5MU	C6-N1	5.72	1.47	1.38
22	1K	54	5MU	C4-N3	-5.69	1.28	1.38
23	2L	55	5MU	C6-N1	5.62	1.47	1.38
23	2L	8	4SU	C5-C4	5.60	1.49	1.42
23	2K	8	4SU	C5-C4	5.49	1.49	1.42
56	1L	54	5MU	C4-C5	5.44	1.53	1.44
22	1K	54	5MU	C6-N1	5.41	1.47	1.38
23	2L	55	5MU	C4-C5	5.37	1.53	1.44
23	2K	55	5MU	C6-N1	5.36	1.47	1.38
23	2K	55	5MU	C4-C5	5.34	1.53	1.44
22	1K	34	U8U	C2-N3	5.28	1.49	1.37
22	1K	37	T6A	C6-N6	5.13	1.49	1.39
22	1K	54	5MU	C4-C5	5.06	1.53	1.44
23	2L	33	OMC	C2-N3	4.83	1.46	1.36
22	1K	34	U8U	C6-C5	4.81	1.48	1.34
23	2K	33	OMC	C2-N3	4.76	1.46	1.36
22	1K	55	PSU	C6-C5	4.51	1.40	1.35
22	1K	34	U8U	C2-S2	-4.47	1.60	1.67
23	2K	56	PSU	C6-C5	4.36	1.40	1.35
23	2L	33	OMC	C4-N4	4.30	1.44	1.33
23	2L	47	7MG	C5-C4	-4.28	1.24	1.38
23	2K	33	OMC	C4-N4	4.27	1.44	1.33
23	2L	56	PSU	C6-C5	4.24	1.40	1.35
22	1K	34	U8U	C6-N1	4.16	1.45	1.38
22	1K	34	U8U	C4-N3	4.14	1.46	1.38
23	2K	47	7MG	C5-C4	-4.06	1.24	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	1L	55	PSU	C6-C5	3.99	1.40	1.35
57	3L	39	PSU	C6-C5	3.98	1.40	1.35
22	1K	39	PSU	C6-C5	3.80	1.39	1.35
23	2L	8	4SU	C2-N1	3.61	1.44	1.38
23	2L	33	OMC	C5-C4	3.51	1.50	1.42
22	1K	37	T6A	C5-C4	-3.30	1.32	1.39
23	2L	47	7MG	C2-N2	3.24	1.41	1.34
23	2K	33	OMC	C5-C4	3.15	1.50	1.42
23	2K	8	4SU	C6-N1	3.04	1.45	1.38
23	2L	8	4SU	C6-N1	2.83	1.44	1.38
23	2K	8	4SU	C2-N1	2.81	1.42	1.38
22	1K	37	T6A	C5-N7	-2.76	1.33	1.39
23	2L	8	4SU	C4-N3	2.60	1.40	1.37
23	2K	47	7MG	C2-N2	2.49	1.40	1.34
23	2K	47	7MG	C5-C6	2.42	1.49	1.43
23	2L	33	OMC	C6-N1	2.39	1.43	1.38
23	2L	47	7MG	C8-N9	2.31	1.47	1.46
22	1K	37	T6A	C4-N9	-2.29	1.32	1.37
23	2L	8	4SU	C2-N3	2.20	1.41	1.38
22	1K	37	T6A	C5-C6	-2.10	1.36	1.41
22	1K	34	U8U	O4-C4	-2.09	1.19	1.23
22	1K	37	T6A	ODA-C13	2.08	1.28	1.22
22	1K	37	T6A	ODB-C13	-2.03	1.23	1.30

All (108) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	54	5MU	C5-C4-N3	10.96	124.67	115.31
23	2L	55	5MU	C5-C4-N3	10.30	124.10	115.31
23	2K	55	5MU	C5-C4-N3	10.20	124.02	115.31
56	1L	54	5MU	C5-C4-N3	9.93	123.78	115.31
23	2K	8	4SU	C4-N3-C2	-7.76	119.80	127.34
23	2L	8	4SU	C4-N3-C2	-7.65	119.91	127.34
23	2L	47	7MG	C4-C5-N7	6.87	115.06	105.53
22	1K	37	T6A	N3-C2-N1	-6.86	117.86	128.60
23	2K	8	4SU	C5-C4-N3	6.63	120.84	114.69
23	2K	55	5MU	C5-C6-N1	-6.63	116.52	123.34
23	2K	55	5MU	C4-N3-C2	-6.53	118.89	127.35
23	2K	55	5MU	C6-C5-C4	6.34	123.33	118.03
23	2L	55	5MU	C4-N3-C2	-6.31	119.19	127.35
23	2K	47	7MG	CM7-N7-C5	6.27	142.57	126.40
23	2L	47	7MG	C5-C4-N9	6.20	114.39	106.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	47	7MG	C5-C4-N9	6.14	114.32	106.35
22	1K	54	5MU	C4-N3-C2	-6.13	119.42	127.35
22	1K	54	5MU	C5-C6-N1	-6.07	117.09	123.34
23	2L	55	5MU	C5-C6-N1	-6.05	117.11	123.34
56	1L	54	5MU	C4-N3-C2	-5.95	119.64	127.35
22	1K	54	5MU	O4-C4-C5	-5.79	118.19	124.90
23	2K	47	7MG	C4-C5-N7	5.77	113.54	105.53
23	2L	55	5MU	C6-C5-C4	5.73	122.82	118.03
23	2L	47	7MG	CM7-N7-C5	5.62	140.91	126.40
23	2K	55	5MU	C5M-C5-C6	-5.56	115.42	122.85
23	2L	8	4SU	C5-C4-N3	5.47	119.77	114.69
56	1L	54	5MU	C5-C6-N1	-5.31	117.88	123.34
56	1L	54	5MU	C6-C5-C4	5.14	122.33	118.03
56	1L	54	5MU	C5M-C5-C6	-5.06	116.09	122.85
23	2L	47	7MG	C6-C5-N7	-5.00	124.05	131.91
22	1K	37	T6A	N9-C8-N7	-4.90	107.21	113.91
22	1K	54	5MU	C6-C5-C4	4.81	122.05	118.03
23	2K	55	5MU	O4-C4-C5	-4.75	119.40	124.90
23	2K	56	PSU	N1-C2-N3	4.58	120.32	115.13
23	2L	47	7MG	C5-C6-N1	4.57	119.04	110.99
23	2L	8	4SU	C5-C4-S4	-4.51	118.65	124.47
22	1K	37	T6A	N6-C10-N11	4.44	119.96	113.76
23	2L	55	5MU	C5M-C5-C6	-4.41	116.96	122.85
22	1K	54	5MU	C5M-C5-C6	-4.35	117.03	122.85
23	2L	55	5MU	O4-C4-C5	-4.29	119.93	124.90
22	1K	37	T6A	C5-C4-N3	-4.28	121.17	126.75
23	2K	56	PSU	C6-N1-C2	-4.21	118.37	122.68
22	1K	39	PSU	C4-N3-C2	-4.20	120.28	126.34
23	2L	33	OMC	O2'-C2'-C1'	4.20	117.27	109.08
23	2L	47	7MG	C2-N3-C4	4.16	119.71	112.30
23	2L	56	PSU	C4-N3-C2	-4.11	120.42	126.34
56	1L	54	5MU	O4-C4-C5	-4.08	120.17	124.90
23	2K	47	7MG	C5-C6-N1	4.06	118.15	110.99
23	2L	47	7MG	C5-C4-N3	-4.04	120.43	128.13
57	3L	39	PSU	C4-N3-C2	-4.02	120.55	126.34
56	1L	55	PSU	N1-C2-N3	4.01	119.68	115.13
22	1K	55	PSU	N1-C2-N3	3.94	119.59	115.13
23	2K	8	4SU	N3-C2-N1	3.91	120.08	114.89
23	2L	56	PSU	N1-C2-N3	3.89	119.53	115.13
56	1L	55	PSU	C4-N3-C2	-3.80	120.86	126.34
22	1K	37	T6A	C4-C5-C6	3.79	119.74	116.81
23	2L	8	4SU	N3-C2-N1	3.72	119.83	114.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	56	PSU	O2-C2-N1	-3.69	118.72	122.79
22	1K	55	PSU	C4-N3-C2	-3.69	121.02	126.34
22	1K	39	PSU	N1-C2-N3	3.61	119.22	115.13
22	1K	37	T6A	C2-N3-C4	3.56	120.16	111.75
23	2K	47	7MG	N9-C8-N7	-3.55	98.30	103.38
57	3L	39	PSU	N1-C2-N3	3.52	119.12	115.13
23	2K	8	4SU	C5-C4-S4	-3.46	120.01	124.47
22	1K	34	U8U	O4-C4-C5	-3.43	119.86	124.96
23	2L	47	7MG	O6-C6-C5	-3.42	119.15	127.54
23	2K	56	PSU	C4-N3-C2	-3.39	121.46	126.34
22	1K	37	T6A	C14-C12-C13	3.37	115.93	110.19
23	2K	47	7MG	C2-N3-C4	3.13	117.88	112.30
56	1L	54	5MU	C6-N1-C2	-3.12	118.14	121.30
22	1K	37	T6A	C5-N7-C8	3.09	107.90	103.51
22	1K	34	U8U	C5-C4-N3	3.05	119.26	114.97
22	1K	34	U8U	C1'-N1-C6	-3.03	116.09	121.12
56	1L	55	PSU	O2-C2-N1	-2.90	119.60	122.79
23	2L	55	5MU	C6-N1-C2	-2.86	118.40	121.30
23	2L	47	7MG	C2-N1-C6	-2.84	119.92	125.10
22	1K	55	PSU	C6-N1-C2	-2.80	119.82	122.68
22	1K	55	PSU	O2-C2-N1	-2.80	119.71	122.79
56	1L	55	PSU	C6-N1-C2	-2.78	119.84	122.68
22	1K	37	T6A	N3-C4-N9	2.77	131.64	127.08
23	2K	47	7MG	C6-C5-N7	-2.72	127.64	131.91
22	1K	37	T6A	C4-N9-C8	2.72	108.67	105.73
23	2K	47	7MG	C5-C4-N3	-2.64	123.11	128.13
23	2L	55	5MU	N3-C2-N1	2.63	118.38	114.89
23	2L	47	7MG	N9-C8-N7	-2.62	99.64	103.38
23	2K	33	OMC	N4-C4-N3	2.61	122.54	117.97
56	1L	54	5MU	C5M-C5-C4	2.56	121.59	118.77
56	1L	54	5MU	N3-C2-N1	2.51	118.23	114.89
23	2K	55	5MU	N3-C2-N1	2.43	118.12	114.89
22	1K	39	PSU	O2-C2-N1	-2.33	120.23	122.79
22	1K	37	T6A	ODB-C13-ODA	-2.28	118.91	124.09
23	2K	8	4SU	O2-C2-N1	-2.27	119.77	122.79
23	2K	55	5MU	C5M-C5-C4	2.25	121.25	118.77
23	2L	8	4SU	C1'-N1-C2	2.25	121.64	117.57
22	1K	37	T6A	O10-C10-N6	-2.23	119.84	123.62
23	2L	56	PSU	C6-N1-C2	-2.22	120.41	122.68
56	1L	54	5MU	O2-C2-N1	-2.20	119.86	122.79
22	1K	37	T6A	C12-N11-C10	2.20	125.60	121.94
23	2K	55	5MU	C6-N1-C2	-2.18	119.09	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	37	T6A	C2-N1-C6	2.18	122.55	115.25
23	2L	55	5MU	O4-C4-N3	-2.17	115.97	120.12
23	2K	47	7MG	C2-N1-C6	-2.16	121.16	125.10
23	2L	8	4SU	O2-C2-N1	-2.14	119.94	122.79
23	2K	47	7MG	O6-C6-C5	-2.13	122.32	127.54
56	1L	54	5MU	O4-C4-N3	-2.13	116.04	120.12
23	2K	33	OMC	C5-C4-N4	-2.10	117.28	120.57
22	1K	55	PSU	C3'-C2'-C1'	-2.06	99.23	101.64
23	2L	47	7MG	N2-C2-N1	2.05	121.07	116.71

There are no chirality outliers.

All (25) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	34	U8U	O4'-C4'-C5'-O5'
22	1K	37	T6A	N11-C12-C14-O14
22	1K	37	T6A	N11-C12-C14-C15
22	1K	37	T6A	C13-C12-C14-O14
22	1K	37	T6A	C13-C12-C14-C15
56	1L	54	5MU	C3'-C4'-C5'-O5'
56	1L	54	5MU	O4'-C4'-C5'-O5'
56	1L	54	5MU	C4'-C5'-O5'-P
22	1K	34	U8U	C3'-C4'-C5'-O5'
23	2L	47	7MG	O4'-C4'-C5'-O5'
23	2L	47	7MG	C3'-C4'-C5'-O5'
23	2L	55	5MU	C3'-C4'-C5'-O5'
22	1K	54	5MU	C3'-C4'-C5'-O5'
23	2L	55	5MU	O4'-C4'-C5'-O5'
22	1K	54	5MU	O4'-C4'-C5'-O5'
23	2L	33	OMC	C2'-C1'-N1-C6
56	1L	55	PSU	O4'-C4'-C5'-O5'
56	1L	55	PSU	C3'-C4'-C5'-O5'
23	2L	33	OMC	O4'-C1'-N1-C6
23	2L	47	7MG	C4'-C5'-O5'-P
22	1K	39	PSU	O4'-C1'-C5-C4
56	1L	55	PSU	O4'-C1'-C5-C4
23	2L	33	OMC	O4'-C1'-N1-C2
23	2L	33	OMC	C4'-C5'-O5'-P
23	2K	47	7MG	C4'-C5'-O5'-P

There are no ring outliers.

12 monomers are involved in 15 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2K	8	4SU	1	0
22	1K	54	5MU	2	0
57	3L	39	PSU	1	0
23	2L	55	5MU	1	0
23	2K	33	OMC	1	0
23	2K	55	5MU	2	0
23	2L	33	OMC	1	0
22	1K	55	PSU	1	0
23	2L	47	7MG	1	0
23	2K	47	7MG	1	0
23	2L	8	4SU	2	0
22	1K	37	T6A	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1213 ligands modelled in this entry, 1211 are monoatomic - leaving 2 for Mogul analysis.

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

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

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

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

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

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	1496/1522 (98%)	-0.58	11 (0%) 84 69	61, 106, 170, 196	0
1	1G	1507/1522 (99%)	-0.42	25 (1%) 69 48	74, 126, 175, 200	0
2	12	208/256 (81%)	0.01	3 (1%) 73 53	134, 156, 168, 176	0
2	1E	231/256 (90%)	0.04	3 (1%) 75 55	116, 144, 162, 166	0
3	22	194/239 (81%)	0.39	11 (5%) 29 17	129, 148, 164, 167	0
3	2E	205/239 (85%)	0.10	6 (2%) 53 34	89, 111, 139, 148	0
4	32	208/209 (99%)	0.12	2 (0%) 79 62	105, 125, 146, 151	0
4	3E	208/209 (99%)	0.02	5 (2%) 59 39	85, 106, 126, 135	0
5	42	147/162 (90%)	0.41	9 (6%) 27 15	112, 126, 138, 145	0
5	4E	149/162 (91%)	0.01	4 (2%) 56 35	81, 103, 122, 131	0
6	52	101/101 (100%)	0.09	3 (2%) 52 32	92, 111, 128, 134	0
6	5E	100/101 (99%)	-0.04	0 100 100	90, 109, 127, 132	0
7	62	138/156 (88%)	0.13	3 (2%) 62 41	122, 133, 142, 148	0
7	6E	149/156 (95%)	0.09	3 (2%) 65 44	107, 124, 143, 149	0
8	72	138/138 (100%)	-0.03	5 (3%) 46 27	112, 131, 141, 149	0
8	7E	138/138 (100%)	-0.09	2 (1%) 73 53	92, 115, 130, 139	0
9	82	124/128 (96%)	0.15	7 (5%) 30 17	121, 153, 162, 166	0
9	8E	127/128 (99%)	0.38	12 (9%) 14 8	91, 137, 154, 159	0
10	1A	78/105 (74%)	1.03	19 (24%) 2 1	119, 148, 159, 161	0
10	1I	91/105 (86%)	0.02	0 100 100	87, 128, 157, 163	0
11	2A	113/129 (87%)	0.46	2 (1%) 67 47	89, 115, 135, 141	0
11	2I	111/129 (86%)	0.34	3 (2%) 56 35	82, 110, 127, 140	0
12	3A	121/132 (91%)	0.66	14 (11%) 9 6	93, 113, 129, 148	0
12	3I	122/132 (92%)	-0.13	4 (3%) 49 29	72, 80, 103, 132	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	110/126 (87%)	0.24	6 (5%) 30 17	135, 149, 160, 164	0
13	4I	116/126 (92%)	0.02	2 (1%) 69 48	94, 127, 141, 150	0
14	5A	57/61 (93%)	0.10	2 (3%) 47 28	134, 146, 155, 158	0
14	5I	61/61 (100%)	-0.28	0 100 100	86, 100, 118, 123	0
15	6A	87/89 (97%)	-0.23	1 (1%) 78 60	93, 119, 139, 144	0
15	6I	88/89 (98%)	-0.25	1 (1%) 78 60	81, 104, 125, 134	0
16	7A	84/88 (95%)	0.06	1 (1%) 76 57	95, 114, 137, 148	0
16	7I	80/88 (90%)	0.08	0 100 100	101, 115, 133, 142	0
17	8A	99/105 (94%)	-0.24	2 (2%) 65 44	102, 119, 130, 135	0
17	8I	99/105 (94%)	0.11	6 (6%) 27 15	93, 109, 125, 130	0
18	9A	67/88 (76%)	-0.05	1 (1%) 72 52	101, 118, 136, 139	0
18	9I	67/88 (76%)	0.08	1 (1%) 72 52	94, 112, 132, 136	0
19	AA	60/93 (64%)	0.21	1 (1%) 69 48	133, 161, 167, 171	0
19	AI	80/93 (86%)	-0.03	0 100 100	105, 121, 143, 150	0
20	BA	98/106 (92%)	-0.17	2 (2%) 65 44	87, 115, 141, 154	0
20	BI	97/106 (91%)	0.15	3 (3%) 51 31	114, 126, 152, 156	0
21	1B	24/27 (88%)	0.07	0 100 100	128, 144, 156, 160	0
21	1F	23/27 (85%)	-0.40	0 100 100	106, 114, 122, 128	0
22	1K	64/76 (84%)	0.89	12 (18%) 3 2	96, 170, 182, 184	0
23	2K	72/77 (93%)	-0.03	1 (1%) 73 53	74, 103, 134, 154	0
23	2L	71/77 (92%)	0.40	3 (4%) 40 23	84, 121, 153, 157	0
24	3K	76/76 (100%)	0.81	10 (13%) 7 5	79, 183, 195, 202	0
25	4K	20/27 (74%)	0.62	2 (10%) 12 7	78, 145, 186, 186	0
25	4L	17/27 (62%)	0.95	2 (11%) 9 5	104, 160, 189, 189	0
26	14	2861/2917 (98%)	-0.63	20 (0%) 84 69	54, 88, 183, 207	0
26	1H	2833/2917 (97%)	-0.74	18 (0%) 85 72	45, 77, 169, 200	0
27	16	122/122 (100%)	-0.96	0 100 100	70, 97, 122, 187	0
27	1J	122/122 (100%)	-0.52	1 (0%) 82 66	94, 131, 151, 186	0
28	71	133/229 (58%)	0.21	4 (3%) 52 32	126, 158, 171, 177	0
29	11	274/276 (99%)	-0.16	6 (2%) 62 41	47, 69, 89, 99	0
29	19	273/276 (98%)	0.13	5 (1%) 67 47	51, 76, 92, 113	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
30	21	204/206 (99%)	0.23	7 (3%) 48 28	52, 92, 133, 150	0
30	29	204/206 (99%)	0.29	12 (5%) 28 16	59, 96, 131, 135	0
31	31	202/210 (96%)	-0.23	1 (0%) 87 75	51, 81, 113, 135	0
31	39	205/210 (97%)	-0.19	1 (0%) 87 75	61, 104, 144, 171	0
32	41	180/182 (98%)	-0.25	4 (2%) 62 41	90, 110, 144, 155	0
32	49	180/182 (98%)	0.16	6 (3%) 49 29	124, 143, 162, 169	0
33	51	173/180 (96%)	0.31	11 (6%) 25 14	87, 109, 124, 137	0
33	59	69/180 (38%)	1.91	25 (36%) 1 1	136, 158, 168, 170	0
34	61	145/148 (97%)	0.09	4 (2%) 55 34	84, 133, 147, 158	0
34	69	145/148 (97%)	-0.01	1 (0%) 84 69	87, 127, 146, 152	0
35	15	137/140 (97%)	0.44	9 (6%) 24 14	78, 109, 138, 155	0
35	58	138/140 (98%)	0.43	14 (10%) 12 7	69, 92, 132, 145	0
36	25	122/122 (100%)	0.10	4 (3%) 49 29	70, 92, 109, 116	0
36	68	122/122 (100%)	0.13	1 (0%) 82 66	60, 81, 99, 113	0
37	35	148/150 (98%)	0.17	6 (4%) 41 24	59, 105, 140, 156	0
37	78	147/150 (98%)	-0.08	5 (3%) 48 28	52, 84, 108, 119	0
38	45	138/141 (97%)	0.34	14 (10%) 12 7	75, 110, 134, 149	0
38	88	141/141 (100%)	-0.22	1 (0%) 84 69	58, 85, 105, 122	0
39	55	118/118 (100%)	-0.42	0 100 100	64, 84, 102, 119	0
39	98	118/118 (100%)	-0.11	1 (0%) 82 66	66, 87, 108, 130	0
40	65	110/112 (98%)	-0.21	0 100 100	92, 120, 137, 142	0
40	A8	111/112 (99%)	-0.44	0 100 100	75, 93, 115, 135	0
41	75	136/146 (93%)	-0.01	3 (2%) 62 41	80, 100, 138, 155	0
41	B8	134/146 (91%)	0.44	8 (5%) 27 16	74, 95, 137, 155	0
42	85	116/118 (98%)	0.06	3 (2%) 57 36	68, 97, 129, 138	0
42	C8	115/118 (97%)	0.17	4 (3%) 47 28	57, 83, 110, 117	0
43	95	99/101 (98%)	0.39	5 (5%) 33 19	65, 123, 136, 145	0
43	D8	100/101 (99%)	0.46	2 (2%) 65 44	59, 102, 124, 139	0
44	A5	111/113 (98%)	-0.10	0 100 100	65, 77, 107, 135	0
44	E8	112/113 (99%)	-0.02	1 (0%) 81 64	61, 75, 105, 140	0
45	B5	94/96 (97%)	-0.11	2 (2%) 63 42	69, 90, 111, 123	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
45	F8	96/96 (100%)	-0.17	2 (2%) 63 42	53, 74, 112, 125	0
46	C5	104/110 (94%)	1.02	18 (17%) 4 2	91, 119, 148, 157	0
46	G8	103/110 (93%)	0.34	5 (4%) 35 20	74, 93, 127, 130	0
47	D5	126/206 (61%)	-0.04	1 (0%) 82 66	117, 137, 159, 164	0
47	H8	148/206 (71%)	-0.30	0 100 100	86, 121, 154, 160	0
48	E5	78/85 (91%)	0.13	3 (3%) 44 26	73, 93, 110, 138	0
48	I8	78/85 (91%)	-0.36	4 (5%) 33 19	62, 77, 98, 110	0
49	F5	94/98 (95%)	0.36	7 (7%) 20 12	65, 86, 123, 133	0
49	J8	94/98 (95%)	-0.06	2 (2%) 63 42	57, 79, 115, 126	0
50	G5	69/72 (95%)	-0.15	1 (1%) 73 53	89, 109, 131, 150	0
50	K8	68/72 (94%)	-0.08	1 (1%) 72 52	64, 81, 98, 126	0
51	H5	58/60 (96%)	-0.16	1 (1%) 69 48	77, 103, 128, 137	0
51	L8	58/60 (96%)	-0.39	0 100 100	66, 81, 110, 129	0
52	M8	47/71 (66%)	0.07	0 100 100	114, 147, 163, 171	0
53	J5	56/60 (93%)	0.12	2 (3%) 46 27	61, 87, 134, 143	0
53	N8	49/60 (81%)	-0.04	1 (2%) 65 44	55, 82, 140, 150	0
54	L5	47/49 (95%)	-0.33	1 (2%) 63 42	57, 62, 79, 91	0
54	P8	47/49 (95%)	-0.46	0 100 100	49, 55, 78, 89	0
55	M5	64/65 (98%)	0.16	2 (3%) 51 31	72, 82, 97, 124	0
55	Q8	64/65 (98%)	-0.14	1 (1%) 70 50	56, 73, 86, 101	0
56	1L	72/76 (94%)	0.72	9 (12%) 8 5	127, 184, 195, 204	0
57	3L	73/76 (96%)	0.42	6 (8%) 17 10	84, 172, 185, 193	0
All	All	20506/21738 (94%)	-0.22	491 (2%) 59 39	45, 104, 163, 207	0

All (491) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
12	3A	19	ARG	10.3
41	B8	104	ASN	9.0
10	1A	58	ASP	9.0
9	82	115	GLY	8.3
33	59	169	VAL	7.5
33	59	162	ILE	6.9
46	C5	29	GLU	6.9

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Mol	Chain	Res	Type	RSRZ
33	59	151	ILE	6.8
26	14	229	A	6.4
33	59	168	PRO	6.4
33	59	165	ALA	6.4
41	B8	1	MET	6.4
43	D8	37	VAL	6.2
38	45	90	VAL	6.1
41	B8	106	SER	6.0
56	1L	76	A	5.9
23	2L	40	C	5.9
10	1A	59	SER	5.7
26	1H	615	G	5.6
12	3A	21	LYS	5.6
1	1G	966	G	5.6
30	29	150	VAL	5.6
22	1K	76	A	5.5
12	3A	23	LYS	5.4
37	35	110	TYR	5.4
10	1A	56	HIS	5.4
9	8E	127	LYS	5.2
33	59	159	GLU	5.1
46	C5	105	ALA	5.1
33	59	155	SER	5.0
10	1A	57	LYS	5.0
37	78	13	ASN	5.0
57	3L	34	U	4.9
12	3A	26	ALA	4.8
24	3K	34	U	4.8
33	59	170	ARG	4.7
12	3A	20	LYS	4.7
35	58	72	TYR	4.6
42	C8	116	ALA	4.6
33	59	163	TYR	4.6
6	52	83	ASP	4.6
46	C5	45	VAL	4.6
22	1K	74	C	4.5
56	1L	40	C	4.5
1	1G	886	G	4.5
30	29	149	ARG	4.5
34	69	85	GLU	4.5
26	1H	882	G	4.5
33	59	167	GLU	4.4

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Mol	Chain	Res	Type	RSRZ
29	19	274	ARG	4.4
27	1J	88	C	4.4
5	4E	21	ALA	4.4
10	1A	60	ARG	4.3
26	1H	2690	C	4.3
9	82	123	PRO	4.3
38	45	79	LEU	4.3
33	59	148	ILE	4.2
10	1A	47	PHE	4.2
56	1L	71	C	4.2
29	11	274	ARG	4.1
23	2L	39	A	4.1
30	21	90	THR	4.1
1	1G	883	C	4.1
33	59	144	VAL	4.1
17	8I	36	ILE	4.1
9	8E	123	PRO	4.0
26	14	880	G	4.0
57	3L	35	U	4.0
9	8E	126	SER	4.0
30	29	151	TYR	3.9
1	1G	1202	G	3.9
43	95	45	THR	3.9
33	59	166	GLY	3.9
13	4A	111	LYS	3.9
32	41	23	PHE	3.9
12	3A	27	LEU	3.9
5	42	22	GLY	3.8
7	6E	110	GLN	3.8
9	8E	117	HIS	3.8
33	59	50	VAL	3.8
35	58	73	THR	3.8
22	1K	48	C	3.7
24	3K	13	C	3.7
26	14	1026	U	3.7
33	59	161	GLY	3.7
10	1A	61	GLU	3.7
3	22	84	ILE	3.7
1	1G	890	G	3.6
50	G5	45	SER	3.6
12	3I	61	THR	3.6
32	49	34	LEU	3.6

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Mol	Chain	Res	Type	RSRZ
33	59	171	LEU	3.6
22	1K	44	U	3.6
46	C5	50	ARG	3.6
7	62	87	VAL	3.6
41	B8	109	GLU	3.6
33	59	142	GLY	3.6
45	F8	96	ILE	3.6
42	85	56	ASP	3.6
36	25	74	GLY	3.6
41	75	106	SER	3.6
13	4A	117	VAL	3.5
38	45	91	GLU	3.5
49	F5	22	GLY	3.5
1	1G	884	U	3.5
33	59	79	VAL	3.4
12	3A	28	LYS	3.4
33	51	174	GLY	3.4
32	41	25	TYR	3.4
8	72	91	ARG	3.3
30	29	116	VAL	3.3
12	3I	28	LYS	3.3
35	58	1	MET	3.3
35	15	46	VAL	3.3
35	58	92	ALA	3.3
1	13	1384	C	3.3
46	C5	43	ASN	3.3
9	8E	115	GLY	3.3
13	4A	102	ARG	3.3
1	1G	887	G	3.3
1	1G	1338	G	3.3
38	45	2	LEU	3.3
22	1K	73	A	3.3
1	1G	1400	C	3.3
24	3K	71	C	3.3
33	51	9	ILE	3.3
26	14	896	A	3.2
22	1K	72	C	3.2
41	75	105	LEU	3.2
48	I8	9	SER	3.2
3	22	43	LEU	3.2
10	1A	49	VAL	3.2
7	6E	79	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
10	1A	46	ARG	3.2
28	71	189	ILE	3.2
11	2I	42	TRP	3.2
24	3K	70	C	3.2
26	1H	893	C	3.2
36	25	1	MET	3.2
37	35	106	LEU	3.1
35	58	75	TYR	3.1
8	72	86	ILE	3.1
17	8I	31	LEU	3.1
31	39	96	ASP	3.1
44	E8	38	TYR	3.1
46	C5	63	LYS	3.1
1	1G	915	A	3.1
24	3K	6	G	3.1
16	7A	84	ALA	3.1
10	1A	85	LEU	3.1
10	1A	74	ILE	3.1
1	1G	912	C	3.0
1	13	1508	G	3.0
55	M5	34	TRP	3.0
10	1A	62	HIS	3.0
3	2E	182	ILE	3.0
35	58	138	LEU	3.0
30	29	124	GLY	3.0
38	45	103	MET	3.0
35	58	40	PRO	3.0
6	52	77	ARG	3.0
9	8E	114	TYR	3.0
33	51	61	HIS	3.0
17	8I	33	GLY	3.0
57	3L	1	G	3.0
5	42	123	LEU	3.0
29	19	5	LYS	3.0
1	1G	1062	U	3.0
4	3E	110	PHE	3.0
43	95	1	MET	3.0
26	14	2141	G	2.9
56	1L	1	G	2.9
33	59	153	LYS	2.9
35	15	84	LYS	2.9
9	82	114	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
20	BA	9	ASN	2.9
3	2E	166	GLU	2.9
46	C5	53	PRO	2.9
2	1E	80	ILE	2.9
35	15	138	LEU	2.9
48	I8	7	LEU	2.9
23	2L	35	C	2.9
46	C5	58	GLY	2.9
33	59	160	LYS	2.9
25	4L	6	G	2.9
13	4A	110	ARG	2.9
9	8E	118	LYS	2.9
29	11	111	LEU	2.9
26	14	382	G	2.9
17	8I	29	HIS	2.8
33	51	39	PRO	2.8
33	59	12	PRO	2.8
15	6A	41	GLU	2.8
12	3A	18	VAL	2.8
20	BI	11	SER	2.8
20	BI	18	GLN	2.8
1	1G	888	G	2.8
26	14	530	G	2.8
1	1G	562	C	2.8
4	3E	24	GLU	2.8
5	42	121	LYS	2.8
35	15	87	LEU	2.8
12	3A	64	TYR	2.8
30	21	72	VAL	2.8
36	25	47	ILE	2.8
57	3L	36	U	2.8
23	2K	1	C	2.8
33	51	29	PRO	2.8
14	5A	6	LEU	2.8
11	2A	36	ASP	2.8
38	45	88	GLY	2.8
48	I8	8	GLY	2.8
9	8E	125	TYR	2.8
26	1H	897	C	2.8
56	1L	75	C	2.8
3	22	124	ILE	2.8
35	58	93	THR	2.8

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Mol	Chain	Res	Type	RSRZ
18	9A	20	ALA	2.7
1	13	815	A	2.7
18	9I	40	LEU	2.7
8	7E	134	ILE	2.7
9	82	125	TYR	2.7
46	G8	105	ALA	2.7
17	8A	31	LEU	2.7
33	59	164	TYR	2.7
37	78	141	ALA	2.7
33	51	17	VAL	2.7
46	C5	90	LEU	2.7
25	4K	6	G	2.7
46	C5	61	ILE	2.7
22	1K	69	A	2.7
9	8E	116	LYS	2.7
55	Q8	52	LYS	2.7
26	14	257	A	2.6
57	3L	37	A	2.6
12	3A	29	GLY	2.6
1	13	968	A	2.6
1	13	1394	A	2.6
41	B8	6	LEU	2.6
2	12	163	PHE	2.6
45	F8	86	GLY	2.6
35	58	68	GLU	2.6
46	C5	46	LYS	2.6
43	D8	36	PRO	2.6
30	21	204	ALA	2.6
33	51	44	VAL	2.6
46	G8	98	VAL	2.6
49	J8	77	ALA	2.6
33	59	152	ARG	2.6
32	41	80	PHE	2.6
26	1H	2476	A	2.6
12	3A	87	GLY	2.6
10	1A	64	GLU	2.6
28	71	202	GLU	2.6
5	42	21	ALA	2.6
42	85	25	TRP	2.5
46	C5	44	ILE	2.5
53	J5	50	GLY	2.5
26	1H	1106	G	2.5

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Mol	Chain	Res	Type	RSRZ
26	14	2023	G	2.5
35	15	73	THR	2.5
1	13	1527	C	2.5
17	8I	28	PRO	2.5
30	29	139	GLY	2.5
45	B5	70	LEU	2.5
5	42	131	ILE	2.5
32	49	23	PHE	2.5
24	3K	1	G	2.5
10	1A	53	PRO	2.5
30	21	79	ARG	2.5
32	49	19	LEU	2.5
42	85	5	LYS	2.5
12	3A	22	SER	2.5
36	68	51	ALA	2.5
7	6E	85	TYR	2.5
37	35	23	PRO	2.5
38	45	78	PRO	2.5
47	D5	157	LEU	2.5
13	4I	117	VAL	2.5
35	15	132	ALA	2.5
24	3K	5	C	2.5
2	12	70	PHE	2.5
26	1H	1659	U	2.5
9	82	116	LYS	2.5
10	1A	51	ARG	2.5
38	45	93	TYR	2.5
12	3A	16	GLU	2.4
22	1K	9	A	2.4
33	51	18	GLU	2.4
46	G8	94	LYS	2.4
32	41	26	GLN	2.4
38	45	139	GLU	2.4
42	C8	25	TRP	2.4
25	4K	25	A	2.4
26	14	878	A	2.4
3	2E	201	TYR	2.4
43	95	91	TYR	2.4
22	1K	71	C	2.4
24	3K	72	C	2.4
26	1H	895	U	2.4
4	3E	96	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
10	1A	91	PRO	2.4
1	1G	913	A	2.4
1	13	1529	G	2.4
29	19	110	GLY	2.4
3	2E	200	ALA	2.4
30	29	131	ALA	2.4
9	82	124	GLN	2.4
32	49	178	PHE	2.4
37	78	3	LEU	2.4
1	1G	1398	A	2.4
26	1H	1536	A	2.4
34	61	117	GLU	2.4
24	3K	33	U	2.4
35	15	129	PRO	2.4
43	95	12	TYR	2.3
4	3E	176	LEU	2.3
5	42	12	LEU	2.3
29	19	112	GLN	2.3
30	21	195	LEU	2.3
55	M5	40	GLU	2.3
33	51	16	SER	2.3
4	32	76	ARG	2.3
48	I8	10	THR	2.3
53	J5	2	ALA	2.3
34	61	110	ASP	2.3
35	58	58	ASP	2.3
34	61	116	LEU	2.3
56	1L	72	C	2.3
5	42	20	GLN	2.3
38	88	104	PHE	2.3
9	8E	2	GLU	2.3
37	78	36	LYS	2.3
3	22	74	GLY	2.3
46	G8	100	ALA	2.3
26	14	909	A	2.3
10	1A	50	ILE	2.3
35	58	129	PRO	2.3
38	45	68	ILE	2.3
41	B8	4	GLY	2.3
46	C5	59	GLY	2.3
11	2A	89	ALA	2.3
49	F5	77	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
3	22	165	THR	2.3
28	71	208	PHE	2.3
8	72	95	VAL	2.3
33	51	26	VAL	2.3
3	22	39	ILE	2.3
29	11	270	ILE	2.3
31	31	131	GLY	2.3
36	25	50	GLY	2.3
17	8A	27	PHE	2.3
45	B5	69	TYR	2.3
30	29	143	ASN	2.3
26	14	879	G	2.2
26	14	1816	G	2.2
5	4E	23	GLY	2.2
1	1G	789	U	2.2
26	14	383	U	2.2
26	14	384	U	2.2
30	29	63	LEU	2.2
11	2I	125	PHE	2.2
38	45	104	PHE	2.2
29	11	275	LYS	2.2
33	59	157	TYR	2.2
53	N8	51	TYR	2.2
5	42	68	GLU	2.2
30	21	186	GLY	2.2
48	E5	84	LEU	2.2
5	42	98	THR	2.2
8	72	84	ARG	2.2
9	8E	121	ARG	2.2
9	82	121	ARG	2.2
50	K8	69	ARG	2.2
1	1G	553	A	2.2
1	1G	968	A	2.2
1	1G	811	C	2.2
26	1H	591	C	2.2
3	2E	168	ALA	2.2
33	51	173	PRO	2.2
39	98	10	LEU	2.2
42	C8	115	ALA	2.2
48	E5	42	GLY	2.2
49	F5	84	GLY	2.2
35	58	84	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
3	22	186	PHE	2.2
13	4I	94	ARG	2.2
15	6I	63	ARG	2.2
17	8I	32	TYR	2.2
33	59	11	VAL	2.2
35	15	85	ILE	2.2
24	3K	14	A	2.2
26	1H	878	A	2.2
1	1G	1397	C	2.2
3	2E	167	TRP	2.2
22	1K	75	C	2.2
13	4A	116	THR	2.2
37	35	71	VAL	2.2
14	5A	39	LEU	2.2
41	B8	105	LEU	2.2
49	F5	80	LEU	2.2
5	4E	88	LYS	2.2
19	AA	24	ALA	2.2
26	14	958	U	2.2
30	29	65	GLY	2.2
43	95	44	LYS	2.2
49	J8	92	LYS	2.2
26	14	230	U	2.2
3	22	85	ARG	2.2
26	14	245	G	2.2
28	71	58	VAL	2.1
37	35	74	GLU	2.1
26	14	243	U	2.1
46	C5	98	VAL	2.1
26	14	255	A	2.1
29	11	258	LYS	2.1
13	4A	93	ARG	2.1
26	1H	1653	G	2.1
4	3E	80	GLU	2.1
12	3I	62	SER	2.1
35	58	88	GLU	2.1
35	58	136	GLU	2.1
49	F5	86	SER	2.1
22	1K	70	C	2.1
56	1L	32	C	2.1
12	3A	24	VAL	2.1
46	C5	39	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
30	29	159	HIS	2.1
30	29	134	ILE	2.1
2	1E	33	TYR	2.1
4	32	207	TYR	2.1
37	35	108	LYS	2.1
57	3L	28	U	2.1
8	7E	91	ARG	2.1
46	G8	97	ARG	2.1
2	12	218	ALA	2.1
7	62	2	ALA	2.1
41	B8	5	ALA	2.1
12	3I	63	GLY	2.1
32	49	177	GLY	2.1
46	C5	62	GLU	2.1
56	1L	31	A	2.1
34	61	102	SER	2.1
6	52	84	ASN	2.1
1	1G	1063	C	2.1
1	1G	1195	C	2.1
8	72	119	LEU	2.1
10	1A	65	LEU	2.1
10	1A	82	ILE	2.1
20	BI	16	HIS	2.1
20	BA	41	ILE	2.1
49	F5	85	LEU	2.1
29	11	262	ARG	2.1
32	49	25	TYR	2.1
54	L5	45	ALA	2.1
26	1H	2689	U	2.1
3	22	158	GLY	2.1
38	45	100	GLY	2.1
49	F5	79	GLY	2.1
3	22	199	LYS	2.1
26	1H	1132	A	2.1
5	4E	18	ARG	2.1
1	13	334	C	2.1
26	1H	2774	C	2.1
22	1K	1	G	2.1
35	15	113	GLY	2.1
51	H5	12	PRO	2.1
37	78	71	VAL	2.0
46	C5	49	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
46	C5	51	VAL	2.0
30	21	95	ILE	2.0
38	45	89	ASN	2.0
41	75	104	ASN	2.0
1	13	1500	A	2.0
11	2I	25	TYR	2.0
25	4L	22	A	2.0
26	1H	529	A	2.0
29	19	122	ASP	2.0
1	1G	554	C	2.0
2	1E	74	LYS	2.0
38	45	96	VAL	2.0
1	13	351	G	2.0
1	1G	973	G	2.0
9	8E	128	ARG	2.0
26	1H	880	G	2.0
56	1L	3	G	2.0
48	E5	12	ASN	2.0
3	22	198	VAL	2.0
7	62	146	GLU	2.0
42	C8	90	VAL	2.0
1	13	1509	C	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	5MU	1L	54	21/22	0.75	0.10	143,156,161,162	0
22	PSU	1K	55	20/21	0.76	0.10	121,129,137,142	0
56	PSU	1L	55	20/21	0.81	0.08	137,155,161,162	0
23	PSU	2L	56	20/21	0.83	0.08	133,136,141,142	0
23	5MU	2L	55	21/22	0.85	0.08	131,139,146,151	0
57	PSU	3L	39	20/21	0.86	0.11	147,156,160,160	0
23	PSU	2K	56	20/21	0.86	0.08	103,115,124,125	0
23	OMC	2L	33	21/22	0.86	0.12	106,117,118,119	0
23	5MU	2K	55	21/22	0.88	0.08	117,123,131,135	0
23	4SU	2L	8	20/21	0.88	0.12	110,128,130,136	0
22	5MU	1K	54	21/22	0.89	0.08	118,129,141,147	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
23	4SU	2K	8	20/21	0.90	0.12	90,100,108,111	0
23	7MG	2L	47	24/25	0.90	0.10	133,141,147,149	0
23	7MG	2K	47	24/25	0.92	0.09	103,111,119,127	0
22	PSU	1K	39	20/21	0.92	0.11	104,124,130,132	0
22	T6A	1K	37	32/33	0.93	0.11	89,102,123,128	0
23	OMC	2K	33	21/22	0.94	0.15	80,86,90,95	0
22	U8U	1K	34	23/24	0.94	0.09	88,99,103,104	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	13	1680	1/1	-0.12	0.29	149,149,149,149	0
58	MG	1H	3294	1/1	0.34	0.28	141,141,141,141	0
58	MG	1K	101	1/1	0.38	0.36	147,147,147,147	0
58	MG	14	3138	1/1	0.43	0.33	91,91,91,91	0
58	MG	1G	1668	1/1	0.44	0.29	141,141,141,141	0
58	MG	1H	3205	1/1	0.44	0.26	101,101,101,101	0
58	MG	1G	1666	1/1	0.47	0.29	125,125,125,125	0
58	MG	1H	3333	1/1	0.49	0.37	88,88,88,88	0
58	MG	3L	101	1/1	0.50	0.20	160,160,160,160	0
58	MG	1J	203	1/1	0.51	0.29	88,88,88,88	0
58	MG	14	3042	1/1	0.52	0.27	95,95,95,95	0
58	MG	14	3241	1/1	0.53	0.27	115,115,115,115	0
58	MG	14	3219	1/1	0.53	0.20	107,107,107,107	0
58	MG	1H	3327	1/1	0.54	0.27	134,134,134,134	0
58	MG	13	1608	1/1	0.54	0.30	86,86,86,86	0
58	MG	1H	3263	1/1	0.58	0.27	106,106,106,106	0
58	MG	1G	1664	1/1	0.59	0.28	122,122,122,122	0
58	MG	1H	3286	1/1	0.59	0.29	100,100,100,100	0
58	MG	14	3289	1/1	0.59	0.20	99,99,99,99	0
58	MG	13	1679	1/1	0.59	0.20	117,117,117,117	0
58	MG	1G	1654	1/1	0.60	0.23	132,132,132,132	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	2L	102	1/1	0.61	0.20	94,94,94,94	0
58	MG	1G	1603	1/1	0.61	0.27	100,100,100,100	0
58	MG	1H	3334	1/1	0.62	0.24	96,96,96,96	0
58	MG	1G	1611	1/1	0.62	0.28	105,105,105,105	0
58	MG	1H	3326	1/1	0.63	0.30	119,119,119,119	0
58	MG	14	3245	1/1	0.64	0.22	90,90,90,90	0
58	MG	14	3257	1/1	0.64	0.30	92,92,92,92	0
58	MG	1H	3272	1/1	0.64	0.24	80,80,80,80	0
58	MG	1G	1616	1/1	0.64	0.15	116,116,116,116	0
58	MG	1H	3284	1/1	0.65	0.34	92,92,92,92	0
58	MG	14	3243	1/1	0.65	0.20	118,118,118,118	0
58	MG	1H	3174	1/1	0.65	0.31	93,93,93,93	0
58	MG	1G	1670	1/1	0.65	0.34	110,110,110,110	0
58	MG	14	3263	1/1	0.65	0.29	86,86,86,86	0
58	MG	14	3199	1/1	0.65	0.29	91,91,91,91	0
58	MG	13	1647	1/1	0.65	0.21	107,107,107,107	0
58	MG	1G	1650	1/1	0.66	0.33	102,102,102,102	0
58	MG	1H	3318	1/1	0.66	0.47	71,71,71,71	0
58	MG	14	3190	1/1	0.66	0.19	106,106,106,106	0
58	MG	1G	1659	1/1	0.66	0.25	107,107,107,107	0
58	MG	14	3201	1/1	0.67	0.27	91,91,91,91	0
58	MG	1H	3201	1/1	0.67	0.18	67,67,67,67	0
58	MG	1H	3293	1/1	0.67	0.36	92,92,92,92	0
58	MG	1H	3313	1/1	0.68	0.27	96,96,96,96	0
58	MG	14	3231	1/1	0.68	0.27	90,90,90,90	0
58	MG	14	3102	1/1	0.68	0.45	76,76,76,76	0
58	MG	14	3115	1/1	0.68	0.23	104,104,104,104	0
58	MG	1G	1655	1/1	0.68	0.33	85,85,85,85	0
58	MG	1G	1648	1/1	0.68	0.33	90,90,90,90	0
58	MG	1G	1660	1/1	0.68	0.26	107,107,107,107	0
58	MG	13	1675	1/1	0.68	0.21	97,97,97,97	0
58	MG	14	3207	1/1	0.68	0.15	66,66,66,66	0
58	MG	14	3226	1/1	0.69	0.41	99,99,99,99	0
58	MG	14	3249	1/1	0.69	0.27	93,93,93,93	0
58	MG	14	3037	1/1	0.69	0.20	55,55,55,55	0
58	MG	13	1690	1/1	0.70	0.30	105,105,105,105	0
58	MG	14	3184	1/1	0.70	0.28	85,85,85,85	0
58	MG	1G	1638	1/1	0.70	0.21	131,131,131,131	0
58	MG	14	3194	1/1	0.70	0.28	74,74,74,74	0
58	MG	13	1701	1/1	0.70	0.20	92,92,92,92	0
58	MG	1G	1656	1/1	0.70	0.20	126,126,126,126	0
58	MG	14	3208	1/1	0.71	0.39	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	13	1667	1/1	0.71	0.17	90,90,90,90	0
58	MG	13	1668	1/1	0.71	0.21	105,105,105,105	0
58	MG	1H	3160	1/1	0.71	0.24	93,93,93,93	0
58	MG	1H	3162	1/1	0.71	0.25	74,74,74,74	0
58	MG	1G	1671	1/1	0.71	0.27	102,102,102,102	0
58	MG	1G	1674	1/1	0.71	0.21	110,110,110,110	0
58	MG	1G	1633	1/1	0.71	0.18	102,102,102,102	0
58	MG	14	3197	1/1	0.71	0.24	146,146,146,146	0
58	MG	1H	3267	1/1	0.71	0.27	97,97,97,97	0
58	MG	14	3003	1/1	0.71	0.26	74,74,74,74	0
58	MG	1G	1641	1/1	0.71	0.19	102,102,102,102	0
58	MG	14	3160	1/1	0.72	0.31	76,76,76,76	0
58	MG	13	1694	1/1	0.72	0.28	88,88,88,88	0
58	MG	13	1696	1/1	0.72	0.28	105,105,105,105	0
58	MG	13	1686	1/1	0.72	0.15	94,94,94,94	0
58	MG	13	1687	1/1	0.72	0.19	96,96,96,96	0
58	MG	1H	3234	1/1	0.72	0.24	78,78,78,78	0
58	MG	1H	3252	1/1	0.72	0.30	77,77,77,77	0
58	MG	14	3258	1/1	0.72	0.20	100,100,100,100	0
58	MG	13	1670	1/1	0.72	0.32	103,103,103,103	0
58	MG	1G	1612	1/1	0.72	0.25	100,100,100,100	0
58	MG	1G	1673	1/1	0.72	0.13	93,93,93,93	0
58	MG	1H	3302	1/1	0.73	0.27	94,94,94,94	0
58	MG	14	3242	1/1	0.73	0.34	90,90,90,90	0
58	MG	13	1702	1/1	0.73	0.16	157,157,157,157	0
58	MG	14	3104	1/1	0.73	0.34	85,85,85,85	0
58	MG	1G	1647	1/1	0.73	0.29	105,105,105,105	0
58	MG	13	1692	1/1	0.73	0.33	101,101,101,101	0
58	MG	14	3144	1/1	0.73	0.29	82,82,82,82	0
58	MG	1H	3072	1/1	0.73	0.16	80,80,80,80	0
58	MG	13	1666	1/1	0.73	0.24	97,97,97,97	0
58	MG	1H	3271	1/1	0.73	0.32	72,72,72,72	0
58	MG	1H	3042	1/1	0.74	0.32	67,67,67,67	0
58	MG	13	1641	1/1	0.74	0.27	86,86,86,86	0
58	MG	1G	1628	1/1	0.74	0.32	102,102,102,102	0
58	MG	14	3232	1/1	0.74	0.27	84,84,84,84	0
58	MG	14	3206	1/1	0.74	0.33	71,71,71,71	0
58	MG	1H	3300	1/1	0.74	0.27	85,85,85,85	0
58	MG	1H	3034	1/1	0.74	0.23	91,91,91,91	0
58	MG	2I	201	1/1	0.75	0.20	98,98,98,98	0
58	MG	1H	3037	1/1	0.75	0.24	99,99,99,99	0
58	MG	14	3246	1/1	0.75	0.20	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3202	1/1	0.75	0.18	84,84,84,84	0
58	MG	13	1698	1/1	0.75	0.20	104,104,104,104	0
58	MG	1H	3295	1/1	0.75	0.30	88,88,88,88	0
58	MG	1H	3219	1/1	0.75	0.21	96,96,96,96	0
58	MG	16	208	1/1	0.75	0.23	82,82,82,82	0
58	MG	1H	3230	1/1	0.75	0.23	85,85,85,85	0
58	MG	14	3077	1/1	0.76	0.28	84,84,84,84	0
58	MG	14	3192	1/1	0.76	0.32	69,69,69,69	0
58	MG	1H	3149	1/1	0.76	0.30	79,79,79,79	0
58	MG	13	1672	1/1	0.76	0.19	112,112,112,112	0
58	MG	14	3107	1/1	0.76	0.28	92,92,92,92	0
58	MG	1H	3068	1/1	0.76	0.24	92,92,92,92	0
58	MG	14	3121	1/1	0.76	0.27	83,83,83,83	0
58	MG	14	3250	1/1	0.76	0.32	87,87,87,87	0
58	MG	13	1699	1/1	0.76	0.22	88,88,88,88	0
58	MG	1H	3226	1/1	0.76	0.30	74,74,74,74	0
58	MG	14	3158	1/1	0.76	0.17	69,69,69,69	0
58	MG	1G	1627	1/1	0.76	0.26	103,103,103,103	0
58	MG	14	3068	1/1	0.76	0.43	86,86,86,86	0
58	MG	1J	205	1/1	0.76	0.26	89,89,89,89	0
58	MG	14	3013	1/1	0.77	0.31	83,83,83,83	0
58	MG	14	3036	1/1	0.77	0.23	115,115,115,115	0
58	MG	1H	3304	1/1	0.77	0.37	94,94,94,94	0
58	MG	14	3227	1/1	0.77	0.32	91,91,91,91	0
58	MG	1H	3288	1/1	0.77	0.26	77,77,77,77	0
58	MG	1H	3317	1/1	0.77	0.48	81,81,81,81	0
58	MG	14	3239	1/1	0.77	0.30	102,102,102,102	0
58	MG	14	3266	1/1	0.77	0.23	72,72,72,72	0
58	MG	14	3276	1/1	0.77	0.28	87,87,87,87	0
58	MG	14	3277	1/1	0.77	0.43	98,98,98,98	0
58	MG	14	3286	1/1	0.77	0.21	103,103,103,103	0
58	MG	1H	3298	1/1	0.77	0.27	84,84,84,84	0
58	MG	1H	3346	1/1	0.77	0.34	80,80,80,80	0
58	MG	1G	1643	1/1	0.77	0.29	83,83,83,83	0
58	MG	1H	3244	1/1	0.78	0.22	100,100,100,100	0
58	MG	13	1605	1/1	0.78	0.33	79,79,79,79	0
58	MG	1H	3024	1/1	0.78	0.22	74,74,74,74	0
58	MG	1H	3075	1/1	0.78	0.27	70,70,70,70	0
58	MG	14	3254	1/1	0.78	0.30	90,90,90,90	0
58	MG	14	3008	1/1	0.78	0.30	85,85,85,85	0
58	MG	1G	1661	1/1	0.78	0.16	96,96,96,96	0
58	MG	14	3152	1/1	0.78	0.33	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3092	1/1	0.78	0.26	69,69,69,69	0
58	MG	1H	3131	1/1	0.78	0.33	59,59,59,59	0
58	MG	1H	3281	1/1	0.78	0.32	85,85,85,85	0
58	MG	13	1673	1/1	0.78	0.36	99,99,99,99	0
58	MG	13	1651	1/1	0.78	0.24	105,105,105,105	0
58	MG	13	1671	1/1	0.78	0.15	121,121,121,121	0
58	MG	14	3103	1/1	0.78	0.27	75,75,75,75	0
58	MG	14	3149	1/1	0.79	0.23	83,83,83,83	0
58	MG	14	3021	1/1	0.79	0.16	77,77,77,77	0
58	MG	14	3217	1/1	0.79	0.25	91,91,91,91	0
58	MG	14	3252	1/1	0.79	0.39	82,82,82,82	0
58	MG	1G	1672	1/1	0.79	0.18	110,110,110,110	0
58	MG	1H	3264	1/1	0.79	0.29	87,87,87,87	0
58	MG	14	3105	1/1	0.79	0.25	91,91,91,91	0
58	MG	14	3230	1/1	0.79	0.23	87,87,87,87	0
58	MG	1H	3207	1/1	0.79	0.34	84,84,84,84	0
58	MG	14	3051	1/1	0.79	0.18	88,88,88,88	0
58	MG	1H	3322	1/1	0.79	0.26	78,78,78,78	0
58	MG	14	3136	1/1	0.79	0.21	79,79,79,79	0
58	MG	14	3287	1/1	0.79	0.38	83,83,83,83	0
58	MG	14	3014	1/1	0.79	0.36	78,78,78,78	0
58	MG	14	3140	1/1	0.79	0.17	90,90,90,90	0
58	MG	14	3095	1/1	0.79	0.21	83,83,83,83	0
58	MG	1H	3156	1/1	0.80	0.24	76,76,76,76	0
58	MG	1H	3158	1/1	0.80	0.25	78,78,78,78	0
58	MG	1H	3119	1/1	0.80	0.27	72,72,72,72	0
58	MG	1H	3031	1/1	0.80	0.21	70,70,70,70	0
58	MG	14	3267	1/1	0.80	0.25	94,94,94,94	0
58	MG	14	3113	1/1	0.80	0.24	84,84,84,84	0
58	MG	14	3176	1/1	0.80	0.25	92,92,92,92	0
58	MG	13	1697	1/1	0.80	0.32	95,95,95,95	0
58	MG	1H	3188	1/1	0.80	0.26	90,90,90,90	0
58	MG	1G	1651	1/1	0.80	0.20	100,100,100,100	0
58	MG	14	3290	1/1	0.80	0.23	89,89,89,89	0
58	MG	1H	3265	1/1	0.80	0.22	115,115,115,115	0
58	MG	1H	3289	1/1	0.80	0.16	91,91,91,91	0
58	MG	45	202	1/1	0.80	0.15	102,102,102,102	0
58	MG	1G	1665	1/1	0.81	0.26	85,85,85,85	0
58	MG	13	1683	1/1	0.81	0.15	97,97,97,97	0
58	MG	1H	3155	1/1	0.81	0.19	71,71,71,71	0
58	MG	14	3253	1/1	0.81	0.28	84,84,84,84	0
58	MG	14	3143	1/1	0.81	0.19	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	13	1642	1/1	0.81	0.19	92,92,92,92	0
58	MG	14	3147	1/1	0.81	0.29	91,91,91,91	0
58	MG	1H	3077	1/1	0.81	0.37	62,62,62,62	0
58	MG	13	1662	1/1	0.81	0.20	81,81,81,81	0
58	MG	1H	3276	1/1	0.81	0.22	67,67,67,67	0
58	MG	1H	3161	1/1	0.81	0.24	71,71,71,71	0
58	MG	1H	3062	1/1	0.81	0.17	88,88,88,88	0
58	MG	14	3233	1/1	0.81	0.22	79,79,79,79	0
58	MG	1G	1618	1/1	0.81	0.12	85,85,85,85	0
58	MG	1G	1658	1/1	0.81	0.20	99,99,99,99	0
58	MG	1H	3122	1/1	0.81	0.17	65,65,65,65	0
58	MG	1H	3249	1/1	0.81	0.18	77,77,77,77	0
58	MG	13	1638	1/1	0.81	0.23	80,80,80,80	0
58	MG	1H	3134	1/1	0.81	0.18	58,58,58,58	0
58	MG	14	3078	1/1	0.82	0.21	76,76,76,76	0
58	MG	1H	3341	1/1	0.82	0.18	81,81,81,81	0
58	MG	1H	3197	1/1	0.82	0.19	91,91,91,91	0
58	MG	1H	3019	1/1	0.82	0.27	64,64,64,64	0
58	MG	13	1607	1/1	0.82	0.32	84,84,84,84	0
58	MG	1H	3303	1/1	0.82	0.26	99,99,99,99	0
58	MG	14	3106	1/1	0.82	0.22	66,66,66,66	0
58	MG	14	3198	1/1	0.82	0.29	69,69,69,69	0
58	MG	1H	3204	1/1	0.82	0.33	81,81,81,81	0
58	MG	1H	3005	1/1	0.82	0.18	52,52,52,52	0
58	MG	1H	3206	1/1	0.82	0.25	69,69,69,69	0
58	MG	1H	3255	1/1	0.82	0.12	68,68,68,68	0
58	MG	14	3134	1/1	0.82	0.23	83,83,83,83	0
58	MG	14	3213	1/1	0.82	0.13	72,72,72,72	0
58	MG	14	3020	1/1	0.82	0.29	78,78,78,78	0
58	MG	14	3270	1/1	0.82	0.20	90,90,90,90	0
58	MG	1H	3259	1/1	0.82	0.40	82,82,82,82	0
58	MG	14	3223	1/1	0.82	0.41	92,92,92,92	0
58	MG	1G	1631	1/1	0.82	0.28	104,104,104,104	0
58	MG	1H	3324	1/1	0.82	0.15	65,65,65,65	0
58	MG	1H	3260	1/1	0.82	0.19	60,60,60,60	0
58	MG	14	3044	1/1	0.82	0.13	85,85,85,85	0
58	MG	1H	3176	1/1	0.82	0.14	76,76,76,76	0
58	MG	1H	3209	1/1	0.82	0.30	87,87,87,87	0
58	MG	1H	3074	1/1	0.82	0.25	44,44,44,44	0
58	MG	1H	3147	1/1	0.83	0.27	90,90,90,90	0
58	MG	1H	3070	1/1	0.83	0.29	68,68,68,68	0
58	MG	14	3122	1/1	0.83	0.27	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3123	1/1	0.83	0.23	79,79,79,79	0
58	MG	14	3124	1/1	0.83	0.24	86,86,86,86	0
58	MG	1G	1652	1/1	0.83	0.24	81,81,81,81	0
58	MG	14	3048	1/1	0.83	0.22	79,79,79,79	0
58	MG	1H	3211	1/1	0.83	0.35	83,83,83,83	0
58	MG	1H	3182	1/1	0.83	0.18	76,76,76,76	0
58	MG	1H	3114	1/1	0.83	0.35	64,64,64,64	0
58	MG	1H	3014	1/1	0.83	0.24	80,80,80,80	0
58	MG	14	3092	1/1	0.83	0.22	74,74,74,74	0
58	MG	1H	3043	1/1	0.83	0.22	86,86,86,86	0
58	MG	1H	3125	1/1	0.83	0.18	79,79,79,79	0
58	MG	2K	101	1/1	0.83	0.36	72,72,72,72	0
58	MG	1H	3343	1/1	0.83	0.34	77,77,77,77	0
58	MG	14	3015	1/1	0.83	0.30	67,67,67,67	0
58	MG	14	3177	1/1	0.83	0.31	75,75,75,75	0
58	MG	14	3182	1/1	0.83	0.23	89,89,89,89	0
58	MG	13	1652	1/1	0.83	0.24	93,93,93,93	0
58	MG	1H	3168	1/1	0.83	0.20	70,70,70,70	0
58	MG	1H	3285	1/1	0.83	0.12	61,61,61,61	0
58	MG	1H	3301	1/1	0.84	0.31	80,80,80,80	0
58	MG	1H	3099	1/1	0.84	0.26	57,57,57,57	0
58	MG	1H	3268	1/1	0.84	0.16	72,72,72,72	0
58	MG	2L	101	1/1	0.84	0.34	81,81,81,81	0
58	MG	1H	3013	1/1	0.84	0.32	67,67,67,67	0
58	MG	1H	3309	1/1	0.84	0.17	77,77,77,77	0
58	MG	1G	1635	1/1	0.84	0.18	82,82,82,82	0
58	MG	14	3229	1/1	0.84	0.09	85,85,85,85	0
58	MG	13	1649	1/1	0.84	0.24	92,92,92,92	0
58	MG	14	3132	1/1	0.84	0.51	81,81,81,81	0
58	MG	14	3009	1/1	0.84	0.53	73,73,73,73	0
58	MG	14	3010	1/1	0.84	0.29	76,76,76,76	0
58	MG	14	3011	1/1	0.84	0.24	66,66,66,66	0
58	MG	1H	3274	1/1	0.84	0.33	75,75,75,75	0
58	MG	1H	3275	1/1	0.84	0.33	69,69,69,69	0
58	MG	1I	201	1/1	0.84	0.23	79,79,79,79	0
58	MG	13	1669	1/1	0.84	0.34	81,81,81,81	0
58	MG	1H	3325	1/1	0.84	0.22	82,82,82,82	0
58	MG	1H	3030	1/1	0.84	0.12	82,82,82,82	0
58	MG	14	3157	1/1	0.84	0.36	67,67,67,67	0
58	MG	13	1622	1/1	0.84	0.14	109,109,109,109	0
58	MG	1H	3195	1/1	0.84	0.19	85,85,85,85	0
58	MG	14	3165	1/1	0.84	0.19	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3287	1/1	0.84	0.20	77,77,77,77	0
58	MG	13	1700	1/1	0.84	0.19	93,93,93,93	0
58	MG	1H	3035	1/1	0.84	0.35	87,87,87,87	0
58	MG	14	3057	1/1	0.84	0.34	64,64,64,64	0
58	MG	14	3185	1/1	0.84	0.20	87,87,87,87	0
58	MG	1H	3290	1/1	0.84	0.22	83,83,83,83	0
58	MG	1H	3447	1/1	0.84	0.10	87,87,87,87	0
58	MG	14	3193	1/1	0.84	0.24	69,69,69,69	0
58	MG	1H	3154	1/1	0.84	0.31	42,42,42,42	0
58	MG	1G	1602	1/1	0.84	0.28	79,79,79,79	0
58	MG	1H	3036	1/1	0.84	0.24	126,126,126,126	0
58	MG	1H	3081	1/1	0.84	0.18	83,83,83,83	0
58	MG	1H	3082	1/1	0.84	0.22	80,80,80,80	0
58	MG	13	1636	1/1	0.84	0.20	76,76,76,76	0
58	MG	1G	1617	1/1	0.84	0.22	101,101,101,101	0
58	MG	14	3166	1/1	0.85	0.23	60,60,60,60	0
58	MG	13	1682	1/1	0.85	0.26	151,151,151,151	0
58	MG	1H	3310	1/1	0.85	0.14	126,126,126,126	0
58	MG	14	3240	1/1	0.85	0.24	82,82,82,82	0
58	MG	13	1693	1/1	0.85	0.20	77,77,77,77	0
58	MG	13	1674	1/1	0.85	0.11	102,102,102,102	0
58	MG	13	1684	1/1	0.85	0.12	101,101,101,101	0
58	MG	1G	1625	1/1	0.85	0.30	87,87,87,87	0
58	MG	1H	3159	1/1	0.85	0.18	70,70,70,70	0
58	MG	14	3033	1/1	0.85	0.21	68,68,68,68	0
58	MG	1H	3126	1/1	0.85	0.34	77,77,77,77	0
58	MG	1H	3128	1/1	0.85	0.25	83,83,83,83	0
58	MG	1G	1632	1/1	0.85	0.20	106,106,106,106	0
58	MG	13	1663	1/1	0.85	0.33	77,77,77,77	0
58	MG	14	3255	1/1	0.85	0.32	79,79,79,79	0
58	MG	1H	3167	1/1	0.85	0.22	78,78,78,78	0
58	MG	14	3139	1/1	0.85	0.30	55,55,55,55	0
58	MG	13	1644	1/1	0.85	0.20	85,85,85,85	0
58	MG	1H	3296	1/1	0.85	0.19	66,66,66,66	0
58	MG	1H	3135	1/1	0.85	0.17	55,55,55,55	0
58	MG	1H	3299	1/1	0.85	0.14	98,98,98,98	0
58	MG	14	3272	1/1	0.85	0.17	71,71,71,71	0
58	MG	14	3218	1/1	0.85	0.19	84,84,84,84	0
58	MG	1H	3136	1/1	0.85	0.29	63,63,63,63	0
58	MG	14	3220	1/1	0.85	0.19	64,64,64,64	0
58	MG	14	3151	1/1	0.85	0.33	65,65,65,65	0
58	MG	13	1604	1/1	0.85	0.26	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3002	1/1	0.85	0.23	53,53,53,53	0
58	MG	1H	3184	1/1	0.85	0.22	81,81,81,81	0
58	MG	1J	204	1/1	0.85	0.14	99,99,99,99	0
58	MG	1H	3241	1/1	0.85	0.26	71,71,71,71	0
58	MG	1H	3001	1/1	0.85	0.29	52,52,52,52	0
58	MG	1H	3051	1/1	0.86	0.32	45,45,45,45	0
58	MG	1H	3130	1/1	0.86	0.20	67,67,67,67	0
58	MG	1H	3231	1/1	0.86	0.32	75,75,75,75	0
58	MG	1G	1644	1/1	0.86	0.21	93,93,93,93	0
58	MG	14	3168	1/1	0.86	0.18	64,64,64,64	0
58	MG	1H	3055	1/1	0.86	0.24	50,50,50,50	0
58	MG	1H	3104	1/1	0.86	0.24	66,66,66,66	0
58	MG	14	3180	1/1	0.86	0.16	83,83,83,83	0
58	MG	1H	3348	1/1	0.86	0.24	63,63,63,63	0
58	MG	13	1643	1/1	0.86	0.17	90,90,90,90	0
58	MG	1H	3280	1/1	0.86	0.21	90,90,90,90	0
58	MG	1H	3246	1/1	0.86	0.15	75,75,75,75	0
58	MG	14	3114	1/1	0.86	0.17	85,85,85,85	0
58	MG	1H	3308	1/1	0.86	0.26	76,76,76,76	0
58	MG	1H	3116	1/1	0.86	0.23	71,71,71,71	0
58	MG	1H	3138	1/1	0.86	0.34	83,83,83,83	0
58	MG	14	3256	1/1	0.86	0.29	77,77,77,77	0
58	MG	14	3018	1/1	0.86	0.31	63,63,63,63	0
58	MG	1H	3067	1/1	0.86	0.19	88,88,88,88	0
58	MG	14	3131	1/1	0.86	0.23	70,70,70,70	0
58	MG	14	3205	1/1	0.86	0.26	63,63,63,63	0
58	MG	1H	3080	1/1	0.86	0.13	65,65,65,65	0
58	MG	14	3032	1/1	0.86	0.20	62,62,62,62	0
58	MG	13	1637	1/1	0.86	0.32	82,82,82,82	0
58	MG	1H	3321	1/1	0.86	0.12	78,78,78,78	0
58	MG	1H	3178	1/1	0.86	0.23	76,76,76,76	0
58	MG	14	3041	1/1	0.86	0.24	81,81,81,81	0
58	MG	1H	3180	1/1	0.86	0.16	71,71,71,71	0
58	MG	1G	1629	1/1	0.86	0.18	98,98,98,98	0
58	MG	1G	1669	1/1	0.86	0.29	93,93,93,93	0
58	MG	13	1606	1/1	0.86	0.19	124,124,124,124	0
58	MG	1H	3266	1/1	0.86	0.15	82,82,82,82	0
58	MG	1H	3225	1/1	0.86	0.33	56,56,56,56	0
58	MG	39	302	1/1	0.86	0.18	96,96,96,96	0
58	MG	1H	3329	1/1	0.86	0.30	91,91,91,91	0
58	MG	14	3043	1/1	0.87	0.17	85,85,85,85	0
58	MG	1H	3132	1/1	0.87	0.13	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3248	1/1	0.87	0.17	77,77,77,77	0
58	MG	1H	3312	1/1	0.87	0.17	80,80,80,80	0
58	MG	1H	3194	1/1	0.87	0.26	79,79,79,79	0
58	MG	14	3066	1/1	0.87	0.24	47,47,47,47	0
58	MG	1H	3095	1/1	0.87	0.32	66,66,66,66	0
58	MG	16	204	1/1	0.87	0.14	80,80,80,80	0
58	MG	14	3195	1/1	0.87	0.21	75,75,75,75	0
58	MG	1H	3253	1/1	0.87	0.18	62,62,62,62	0
58	MG	14	3084	1/1	0.87	0.23	71,71,71,71	0
58	MG	14	3088	1/1	0.87	0.13	70,70,70,70	0
58	MG	Q8	101	1/1	0.87	0.23	72,72,72,72	0
58	MG	13	1611	1/1	0.87	0.14	85,85,85,85	0
58	MG	14	3100	1/1	0.87	0.18	67,67,67,67	0
58	MG	1H	3277	1/1	0.87	0.28	96,96,96,96	0
58	MG	14	3265	1/1	0.87	0.34	83,83,83,83	0
58	MG	1H	3175	1/1	0.87	0.22	84,84,84,84	0
58	MG	1H	3059	1/1	0.87	0.20	66,66,66,66	0
58	MG	14	3153	1/1	0.87	0.25	77,77,77,77	0
58	MG	1G	1649	1/1	0.87	0.18	97,97,97,97	0
58	MG	1H	3061	1/1	0.87	0.25	75,75,75,75	0
58	MG	1H	3142	1/1	0.87	0.35	62,62,62,62	0
58	MG	14	3282	1/1	0.87	0.20	82,82,82,82	0
58	MG	14	3164	1/1	0.87	0.32	70,70,70,70	0
58	MG	14	3108	1/1	0.87	0.16	77,77,77,77	0
58	MG	14	3112	1/1	0.87	0.28	83,83,83,83	0
58	MG	14	3167	1/1	0.87	0.15	50,50,50,50	0
58	MG	1H	3020	1/1	0.87	0.31	52,52,52,52	0
58	MG	14	3170	1/1	0.87	0.20	82,82,82,82	0
58	MG	1H	3242	1/1	0.87	0.17	66,66,66,66	0
58	MG	13	1676	1/1	0.87	0.14	94,94,94,94	0
58	MG	25	201	1/1	0.87	0.27	85,85,85,85	0
58	MG	14	3178	1/1	0.87	0.34	65,65,65,65	0
58	MG	14	3127	1/1	0.88	0.24	69,69,69,69	0
58	MG	1H	3191	1/1	0.88	0.30	67,67,67,67	0
58	MG	1H	3193	1/1	0.88	0.24	89,89,89,89	0
58	MG	14	3222	1/1	0.88	0.19	73,73,73,73	0
58	MG	1H	3336	1/1	0.88	0.10	76,76,76,76	0
58	MG	14	3022	1/1	0.88	0.21	63,63,63,63	0
58	MG	1H	3153	1/1	0.88	0.34	80,80,80,80	0
58	MG	1H	3105	1/1	0.88	0.30	63,63,63,63	0
58	MG	1H	3345	1/1	0.88	0.32	68,68,68,68	0
58	MG	13	1688	1/1	0.88	0.24	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3038	1/1	0.88	0.26	59,59,59,59	0
58	MG	13	1659	1/1	0.88	0.20	87,87,87,87	0
58	MG	14	3236	1/1	0.88	0.13	74,74,74,74	0
58	MG	13	1618	1/1	0.88	0.17	107,107,107,107	0
58	MG	1H	3012	1/1	0.88	0.29	57,57,57,57	0
58	MG	13	1646	1/1	0.88	0.13	93,93,93,93	0
58	MG	88	203	1/1	0.88	0.17	75,75,75,75	0
58	MG	13	1635	1/1	0.88	0.14	97,97,97,97	0
58	MG	1H	3018	1/1	0.88	0.29	51,51,51,51	0
58	MG	13	1695	1/1	0.88	0.23	80,80,80,80	0
58	MG	14	3248	1/1	0.88	0.39	85,85,85,85	0
58	MG	1G	1608	1/1	0.88	0.19	97,97,97,97	0
58	MG	14	3069	1/1	0.88	0.14	64,64,64,64	0
58	MG	14	3073	1/1	0.88	0.28	57,57,57,57	0
58	MG	14	3074	1/1	0.88	0.24	48,48,48,48	0
58	MG	14	3076	1/1	0.88	0.15	88,88,88,88	0
58	MG	1G	1609	1/1	0.88	0.12	98,98,98,98	0
58	MG	13	1678	1/1	0.88	0.22	89,89,89,89	0
58	MG	1H	3215	1/1	0.88	0.19	67,67,67,67	0
58	MG	1H	3058	1/1	0.88	0.26	54,54,54,54	0
58	MG	1H	3222	1/1	0.88	0.18	74,74,74,74	0
58	MG	1H	3273	1/1	0.88	0.12	80,80,80,80	0
58	MG	1H	3083	1/1	0.88	0.14	99,99,99,99	0
58	MG	1H	3088	1/1	0.88	0.18	58,58,58,58	0
58	MG	1H	3227	1/1	0.88	0.13	77,77,77,77	0
58	MG	1H	3089	1/1	0.88	0.27	50,50,50,50	0
58	MG	1H	3023	1/1	0.88	0.25	78,78,78,78	0
58	MG	1H	3232	1/1	0.88	0.22	75,75,75,75	0
58	MG	14	3280	1/1	0.88	0.24	49,49,49,49	0
58	MG	1H	3282	1/1	0.88	0.09	67,67,67,67	0
58	MG	14	3284	1/1	0.88	0.50	81,81,81,81	0
58	MG	14	3007	1/1	0.88	0.24	52,52,52,52	0
58	MG	7I	101	1/1	0.88	0.12	95,95,95,95	0
58	MG	1G	1636	1/1	0.88	0.23	90,90,90,90	0
58	MG	1G	1637	1/1	0.88	0.16	87,87,87,87	0
58	MG	1H	3183	1/1	0.88	0.34	67,67,67,67	0
58	MG	14	3118	1/1	0.88	0.14	53,53,53,53	0
58	MG	14	3012	1/1	0.88	0.12	58,58,58,58	0
58	MG	29	302	1/1	0.88	0.21	74,74,74,74	0
58	MG	13	1657	1/1	0.88	0.19	72,72,72,72	0
58	MG	1G	1642	1/1	0.88	0.18	78,78,78,78	0
58	MG	1H	3064	1/1	0.88	0.22	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	13	1623	1/1	0.89	0.15	81,81,81,81	0
58	MG	14	3017	1/1	0.89	0.27	87,87,87,87	0
58	MG	1H	3078	1/1	0.89	0.36	56,56,56,56	0
58	MG	13	1627	1/1	0.89	0.14	97,97,97,97	0
58	MG	1G	1605	1/1	0.89	0.21	102,102,102,102	0
58	MG	1H	3107	1/1	0.89	0.31	69,69,69,69	0
58	MG	13	1602	1/1	0.89	0.17	74,74,74,74	0
58	MG	13	1665	1/1	0.89	0.23	85,85,85,85	0
58	MG	13	1654	1/1	0.89	0.17	76,76,76,76	0
58	MG	1G	1614	1/1	0.89	0.19	120,120,120,120	0
58	MG	14	3187	1/1	0.89	0.24	72,72,72,72	0
58	MG	1H	3170	1/1	0.89	0.20	70,70,70,70	0
58	MG	1H	3270	1/1	0.89	0.27	43,43,43,43	0
58	MG	1H	3237	1/1	0.89	0.26	72,72,72,72	0
58	MG	1G	1621	1/1	0.89	0.29	79,79,79,79	0
58	MG	1H	3297	1/1	0.89	0.30	78,78,78,78	0
58	MG	1H	3240	1/1	0.89	0.22	49,49,49,49	0
58	MG	1H	3143	1/1	0.89	0.17	75,75,75,75	0
58	MG	14	3262	1/1	0.89	0.14	78,78,78,78	0
58	MG	14	3133	1/1	0.89	0.28	66,66,66,66	0
58	MG	13	1648	1/1	0.89	0.14	76,76,76,76	0
58	MG	14	3060	1/1	0.89	0.23	67,67,67,67	0
58	MG	1H	3342	1/1	0.89	0.20	82,82,82,82	0
58	MG	14	3067	1/1	0.89	0.22	60,60,60,60	0
58	MG	1H	3124	1/1	0.89	0.25	56,56,56,56	0
58	MG	14	3273	1/1	0.89	0.58	87,87,87,87	0
58	MG	14	3274	1/1	0.89	0.10	91,91,91,91	0
58	MG	14	3141	1/1	0.89	0.20	80,80,80,80	0
58	MG	1H	3151	1/1	0.89	0.17	76,76,76,76	0
58	MG	13	1681	1/1	0.89	0.21	66,66,66,66	0
58	MG	1H	3347	1/1	0.89	0.17	66,66,66,66	0
58	MG	1H	3210	1/1	0.89	0.26	67,67,67,67	0
58	MG	1H	3349	1/1	0.89	0.28	89,89,89,89	0
58	MG	1H	3032	1/1	0.89	0.33	78,78,78,78	0
58	MG	14	3224	1/1	0.89	0.23	59,59,59,59	0
58	MG	16	202	1/1	0.89	0.13	90,90,90,90	0
58	MG	16	203	1/1	0.89	0.15	84,84,84,84	0
58	MG	14	3228	1/1	0.89	0.25	76,76,76,76	0
58	MG	1H	3015	1/1	0.89	0.19	70,70,70,70	0
58	MG	16	206	1/1	0.89	0.17	77,77,77,77	0
58	MG	39	301	1/1	0.89	0.42	66,66,66,66	0
58	MG	1H	3283	1/1	0.89	0.23	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	21	301	1/1	0.89	0.18	48,48,48,48	0
58	MG	1H	3096	1/1	0.89	0.18	51,51,51,51	0
58	MG	14	3058	1/1	0.90	0.16	55,55,55,55	0
58	MG	14	3225	1/1	0.90	0.28	84,84,84,84	0
58	MG	1H	3328	1/1	0.90	0.28	65,65,65,65	0
58	MG	1H	3007	1/1	0.90	0.22	83,83,83,83	0
58	MG	14	3146	1/1	0.90	0.24	71,71,71,71	0
58	MG	1H	3010	1/1	0.90	0.24	57,57,57,57	0
58	MG	1H	3169	1/1	0.90	0.10	84,84,84,84	0
58	MG	13	1741	1/1	0.90	0.06	103,103,103,103	0
58	MG	1H	3171	1/1	0.90	0.10	62,62,62,62	0
58	MG	1H	3257	1/1	0.90	0.19	75,75,75,75	0
58	MG	14	3154	1/1	0.90	0.18	66,66,66,66	0
58	MG	14	3156	1/1	0.90	0.19	66,66,66,66	0
58	MG	14	3075	1/1	0.90	0.25	60,60,60,60	0
58	MG	13	1631	1/1	0.90	0.14	55,55,55,55	0
58	MG	14	3159	1/1	0.90	0.18	75,75,75,75	0
58	MG	13	1689	1/1	0.90	0.40	80,80,80,80	0
58	MG	14	3161	1/1	0.90	0.11	99,99,99,99	0
58	MG	1H	3262	1/1	0.90	0.39	78,78,78,78	0
58	MG	1H	3212	1/1	0.90	0.23	42,42,42,42	0
58	MG	1H	3103	1/1	0.90	0.30	75,75,75,75	0
58	MG	14	3090	1/1	0.90	0.25	64,64,64,64	0
58	MG	3I	201	1/1	0.90	0.16	62,62,62,62	0
58	MG	1G	1640	1/1	0.90	0.19	75,75,75,75	0
58	MG	1H	3220	1/1	0.90	0.15	84,84,84,84	0
58	MG	14	3101	1/1	0.90	0.23	61,61,61,61	0
58	MG	1H	3179	1/1	0.90	0.17	76,76,76,76	0
58	MG	1H	3071	1/1	0.90	0.20	80,80,80,80	0
58	MG	1H	3040	1/1	0.90	0.11	89,89,89,89	0
58	MG	14	3259	1/1	0.90	0.39	81,81,81,81	0
58	MG	16	205	1/1	0.90	0.11	88,88,88,88	0
58	MG	1H	3041	1/1	0.90	0.39	86,86,86,86	0
58	MG	1H	3228	1/1	0.90	0.42	68,68,68,68	0
58	MG	5I	101	1/1	0.90	0.16	77,77,77,77	0
58	MG	14	3110	1/1	0.90	0.14	66,66,66,66	0
58	MG	1H	3186	1/1	0.90	0.20	58,58,58,58	0
58	MG	14	3271	1/1	0.90	0.29	77,77,77,77	0
58	MG	P8	101	1/1	0.90	0.17	68,68,68,68	0
58	MG	13	1655	1/1	0.90	0.13	72,72,72,72	0
58	MG	14	3031	1/1	0.90	0.15	75,75,75,75	0
58	MG	13	1664	1/1	0.90	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
58	MG	1H	3235	1/1	0.90	0.33	64,64,64,64	0
58	MG	1H	3278	1/1	0.90	0.19	61,61,61,61	0
58	MG	14	3204	1/1	0.90	0.25	60,60,60,60	0
58	MG	14	3283	1/1	0.90	0.21	78,78,78,78	0
58	MG	1H	3320	1/1	0.90	0.11	84,84,84,84	0
58	MG	13	1640	1/1	0.90	0.15	63,63,63,63	0
58	MG	1H	3056	1/1	0.90	0.28	50,50,50,50	0
58	MG	1G	1662	1/1	0.90	0.18	84,84,84,84	0
58	MG	14	3212	1/1	0.90	0.20	63,63,63,63	0
58	MG	14	3346	1/1	0.90	0.09	144,144,144,144	0
58	MG	1H	3057	1/1	0.90	0.21	51,51,51,51	0
58	MG	14	3215	1/1	0.90	0.12	73,73,73,73	0
58	MG	13	1658	1/1	0.90	0.15	74,74,74,74	0
58	MG	1H	3084	1/1	0.90	0.12	49,49,49,49	0
58	MG	1G	1667	1/1	0.90	0.12	81,81,81,81	0
58	MG	14	3053	1/1	0.90	0.16	74,74,74,74	0
58	MG	14	3055	1/1	0.90	0.28	71,71,71,71	0
58	MG	13	1624	1/1	0.90	0.14	75,75,75,75	0
58	MG	45	203	1/1	0.90	0.19	70,70,70,70	0
60	ZN	G8	201	1/1	0.90	0.22	147,147,147,147	0
58	MG	1H	3102	1/1	0.91	0.26	64,64,64,64	0
58	MG	1H	3203	1/1	0.91	0.07	76,76,76,76	0
58	MG	14	3169	1/1	0.91	0.13	63,63,63,63	0
58	MG	1H	3050	1/1	0.91	0.27	53,53,53,53	0
58	MG	1H	3236	1/1	0.91	0.27	76,76,76,76	0
58	MG	13	1613	1/1	0.91	0.17	76,76,76,76	0
58	MG	1H	3239	1/1	0.91	0.11	58,58,58,58	0
58	MG	1H	3004	1/1	0.91	0.18	54,54,54,54	0
58	MG	1G	1623	1/1	0.91	0.16	80,80,80,80	0
58	MG	1H	3026	1/1	0.91	0.19	60,60,60,60	0
58	MG	1H	3157	1/1	0.91	0.16	67,67,67,67	0
58	MG	14	3046	1/1	0.91	0.12	74,74,74,74	0
58	MG	1H	3108	1/1	0.91	0.23	51,51,51,51	0
58	MG	14	3191	1/1	0.91	0.33	81,81,81,81	0
58	MG	14	3050	1/1	0.91	0.26	71,71,71,71	0
58	MG	1H	3245	1/1	0.91	0.18	72,72,72,72	0
58	MG	1H	3430	1/1	0.91	0.13	112,112,112,112	0
58	MG	14	3129	1/1	0.91	0.24	53,53,53,53	0
58	MG	14	3261	1/1	0.91	0.20	74,74,74,74	0
58	MG	14	3196	1/1	0.91	0.15	87,87,87,87	0
58	MG	14	3130	1/1	0.91	0.22	78,78,78,78	0
58	MG	14	3264	1/1	0.91	0.18	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3054	1/1	0.91	0.19	54,54,54,54	0
58	MG	1H	3443	1/1	0.91	0.08	86,86,86,86	0
58	MG	1H	3113	1/1	0.91	0.22	52,52,52,52	0
58	MG	1H	3485	1/1	0.91	0.07	116,116,116,116	0
58	MG	1H	3486	1/1	0.91	0.17	98,98,98,98	0
58	MG	14	3063	1/1	0.91	0.17	73,73,73,73	0
58	MG	13	1634	1/1	0.91	0.17	81,81,81,81	0
58	MG	13	1620	1/1	0.91	0.10	87,87,87,87	0
58	MG	14	3210	1/1	0.91	0.10	58,58,58,58	0
58	MG	1H	3141	1/1	0.91	0.14	47,47,47,47	0
58	MG	1H	3163	1/1	0.91	0.15	76,76,76,76	0
58	MG	1H	3319	1/1	0.91	0.13	80,80,80,80	0
58	MG	1H	3192	1/1	0.91	0.08	86,86,86,86	0
58	MG	1H	3224	1/1	0.91	0.21	50,50,50,50	0
58	MG	14	3285	1/1	0.91	0.09	70,70,70,70	0
58	MG	1G	1646	1/1	0.91	0.24	70,70,70,70	0
58	MG	13	1630	1/1	0.91	0.07	62,62,62,62	0
58	MG	N8	101	1/1	0.91	0.19	67,67,67,67	0
58	MG	14	3079	1/1	0.91	0.15	63,63,63,63	0
58	MG	4K	101	1/1	0.91	0.21	85,85,85,85	0
58	MG	14	3419	1/1	0.91	0.25	62,62,62,62	0
58	MG	1J	201	1/1	0.91	0.22	76,76,76,76	0
58	MG	1H	3146	1/1	0.91	0.26	72,72,72,72	0
58	MG	1H	3196	1/1	0.91	0.17	72,72,72,72	0
58	MG	1H	3229	1/1	0.91	0.29	59,59,59,59	0
58	MG	1H	3046	1/1	0.91	0.20	55,55,55,55	0
58	MG	14	3019	1/1	0.91	0.21	83,83,83,83	0
58	MG	1H	3047	1/1	0.91	0.24	43,43,43,43	0
58	MG	14	3162	1/1	0.91	0.27	75,75,75,75	0
58	MG	1H	3330	1/1	0.91	0.19	87,87,87,87	0
58	MG	1G	1657	1/1	0.91	0.27	84,84,84,84	0
58	MG	14	3028	1/1	0.91	0.16	53,53,53,53	0
58	MG	14	3238	1/1	0.92	0.29	82,82,82,82	0
58	MG	1H	3238	1/1	0.92	0.10	63,63,63,63	0
58	MG	1H	3291	1/1	0.92	0.10	64,64,64,64	0
58	MG	1H	3006	1/1	0.92	0.15	56,56,56,56	0
58	MG	1H	3217	1/1	0.92	0.05	67,67,67,67	0
58	MG	1H	3021	1/1	0.92	0.23	64,64,64,64	0
58	MG	14	3173	1/1	0.92	0.12	92,92,92,92	0
58	MG	1H	3172	1/1	0.92	0.11	76,76,76,76	0
58	MG	14	3247	1/1	0.92	0.23	75,75,75,75	0
58	MG	14	3109	1/1	0.92	0.12	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3053	1/1	0.92	0.20	54,54,54,54	0
58	MG	14	3047	1/1	0.92	0.20	56,56,56,56	0
58	MG	1G	1639	1/1	0.92	0.31	68,68,68,68	0
58	MG	1H	3065	1/1	0.92	0.24	64,64,64,64	0
58	MG	1H	3332	1/1	0.92	0.12	72,72,72,72	0
58	MG	14	3052	1/1	0.92	0.34	75,75,75,75	0
58	MG	14	3189	1/1	0.92	0.20	90,90,90,90	0
58	MG	14	3119	1/1	0.92	0.20	80,80,80,80	0
58	MG	13	1656	1/1	0.92	0.06	83,83,83,83	0
58	MG	1H	3247	1/1	0.92	0.33	76,76,76,76	0
58	MG	1H	3335	1/1	0.92	0.14	79,79,79,79	0
58	MG	14	3004	1/1	0.92	0.21	57,57,57,57	0
58	MG	14	3126	1/1	0.92	0.30	78,78,78,78	0
58	MG	1H	3177	1/1	0.92	0.16	86,86,86,86	0
58	MG	1H	3339	1/1	0.92	0.26	84,84,84,84	0
58	MG	1H	3340	1/1	0.92	0.26	72,72,72,72	0
58	MG	1H	3121	1/1	0.92	0.11	60,60,60,60	0
58	MG	14	3268	1/1	0.92	0.17	79,79,79,79	0
58	MG	1H	3250	1/1	0.92	0.09	69,69,69,69	0
58	MG	14	3202	1/1	0.92	0.19	77,77,77,77	0
58	MG	1H	3008	1/1	0.92	0.14	90,90,90,90	0
58	MG	13	1625	1/1	0.92	0.23	69,69,69,69	0
58	MG	14	3070	1/1	0.92	0.20	72,72,72,72	0
58	MG	1H	3254	1/1	0.92	0.09	58,58,58,58	0
58	MG	13	1614	1/1	0.92	0.09	81,81,81,81	0
58	MG	1H	3256	1/1	0.92	0.27	70,70,70,70	0
58	MG	1H	3049	1/1	0.92	0.15	57,57,57,57	0
58	MG	14	3142	1/1	0.92	0.16	89,89,89,89	0
58	MG	1G	1622	1/1	0.92	0.16	84,84,84,84	0
58	MG	14	3216	1/1	0.92	0.29	58,58,58,58	0
58	MG	1H	3164	1/1	0.92	0.26	70,70,70,70	0
58	MG	1H	3085	1/1	0.92	0.21	59,59,59,59	0
58	MG	14	3081	1/1	0.92	0.16	56,56,56,56	0
58	MG	1G	1626	1/1	0.92	0.15	93,93,93,93	0
58	MG	14	3086	1/1	0.92	0.25	74,74,74,74	0
58	MG	14	3381	1/1	0.92	0.16	95,95,95,95	0
58	MG	14	3026	1/1	0.92	0.21	51,51,51,51	0
58	MG	1H	3106	1/1	0.92	0.14	46,46,46,46	0
58	MG	1J	202	1/1	0.92	0.26	84,84,84,84	0
58	MG	14	3030	1/1	0.92	0.14	65,65,65,65	0
58	MG	14	3094	1/1	0.92	0.26	67,67,67,67	0
58	MG	1G	1663	1/1	0.92	0.14	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1J	206	1/1	0.92	0.06	115,115,115,115	0
58	MG	29	301	1/1	0.92	0.20	58,58,58,58	0
58	MG	14	3096	1/1	0.92	0.19	65,65,65,65	0
58	MG	14	3097	1/1	0.92	0.23	49,49,49,49	0
58	MG	14	3098	1/1	0.92	0.26	57,57,57,57	0
58	MG	14	3099	1/1	0.92	0.24	69,69,69,69	0
58	MG	1H	3190	1/1	0.92	0.23	66,66,66,66	0
58	MG	1H	3087	1/1	0.92	0.19	46,46,46,46	0
58	MG	1G	1630	1/1	0.92	0.21	79,79,79,79	0
58	MG	1G	1653	1/1	0.93	0.14	86,86,86,86	0
58	MG	1H	3214	1/1	0.93	0.20	50,50,50,50	0
58	MG	14	3186	1/1	0.93	0.22	63,63,63,63	0
58	MG	1H	3039	1/1	0.93	0.23	64,64,64,64	0
58	MG	1H	3315	1/1	0.93	0.30	58,58,58,58	0
58	MG	1H	3139	1/1	0.93	0.08	58,58,58,58	0
58	MG	1H	3022	1/1	0.93	0.18	60,60,60,60	0
58	MG	1G	1620	1/1	0.93	0.22	74,74,74,74	0
58	MG	14	3135	1/1	0.93	0.38	71,71,71,71	0
58	MG	1H	3027	1/1	0.93	0.30	83,83,83,83	0
58	MG	14	3137	1/1	0.93	0.20	55,55,55,55	0
58	MG	1H	3052	1/1	0.93	0.11	57,57,57,57	0
58	MG	14	3085	1/1	0.93	0.14	54,54,54,54	0
58	MG	1H	3269	1/1	0.93	0.27	71,71,71,71	0
58	MG	14	3260	1/1	0.93	0.08	65,65,65,65	0
58	MG	1H	3460	1/1	0.93	0.13	87,87,87,87	0
58	MG	14	3200	1/1	0.93	0.07	84,84,84,84	0
58	MG	1H	3476	1/1	0.93	0.10	72,72,72,72	0
58	MG	14	3034	1/1	0.93	0.31	53,53,53,53	0
58	MG	1H	3479	1/1	0.93	0.12	102,102,102,102	0
58	MG	14	3145	1/1	0.93	0.13	87,87,87,87	0
58	MG	1H	3145	1/1	0.93	0.10	53,53,53,53	0
58	MG	1H	3199	1/1	0.93	0.24	68,68,68,68	0
58	MG	14	3269	1/1	0.93	0.18	86,86,86,86	0
58	MG	14	3148	1/1	0.93	0.24	84,84,84,84	0
58	MG	14	3209	1/1	0.93	0.17	70,70,70,70	0
58	MG	1H	3127	1/1	0.93	0.26	64,64,64,64	0
58	MG	14	3211	1/1	0.93	0.13	85,85,85,85	0
58	MG	1H	3181	1/1	0.93	0.28	74,74,74,74	0
58	MG	1H	3028	1/1	0.93	0.24	63,63,63,63	0
58	MG	1H	3066	1/1	0.93	0.13	60,60,60,60	0
58	MG	14	3278	1/1	0.93	0.08	63,63,63,63	0
58	MG	1G	1634	1/1	0.93	0.13	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3281	1/1	0.93	0.19	93,93,93,93	0
58	MG	13	1639	1/1	0.93	0.20	80,80,80,80	0
58	MG	16	207	1/1	0.93	0.10	84,84,84,84	0
58	MG	1H	3185	1/1	0.93	0.27	63,63,63,63	0
58	MG	1H	3331	1/1	0.93	0.20	84,84,84,84	0
58	MG	88	202	1/1	0.93	0.14	81,81,81,81	0
58	MG	1H	3045	1/1	0.93	0.27	52,52,52,52	0
58	MG	1H	3279	1/1	0.93	0.21	71,71,71,71	0
58	MG	1H	3187	1/1	0.93	0.10	69,69,69,69	0
58	MG	1H	3118	1/1	0.93	0.17	54,54,54,54	0
58	MG	1G	1601	1/1	0.93	0.14	85,85,85,85	0
58	MG	14	3059	1/1	0.93	0.21	63,63,63,63	0
58	MG	1H	3305	1/1	0.93	0.26	90,90,90,90	0
58	MG	14	3062	1/1	0.93	0.23	72,72,72,72	0
58	MG	1H	3307	1/1	0.93	0.22	68,68,68,68	0
58	MG	14	3171	1/1	0.93	0.08	65,65,65,65	0
58	MG	14	3065	1/1	0.93	0.29	67,67,67,67	0
58	MG	14	3235	1/1	0.93	0.23	76,76,76,76	0
58	MG	19	301	1/1	0.93	0.23	70,70,70,70	0
58	MG	14	3175	1/1	0.93	0.13	88,88,88,88	0
58	MG	14	3237	1/1	0.93	0.34	77,77,77,77	0
58	MG	29	303	1/1	0.93	0.14	74,74,74,74	0
58	MG	1G	1604	1/1	0.93	0.11	91,91,91,91	0
58	MG	13	1621	1/1	0.93	0.16	101,101,101,101	0
58	MG	1H	3038	1/1	0.93	0.23	72,72,72,72	0
58	MG	45	201	1/1	0.93	0.13	69,69,69,69	0
58	MG	1H	3213	1/1	0.93	0.20	49,49,49,49	0
58	MG	14	3181	1/1	0.93	0.14	57,57,57,57	0
58	MG	1H	3311	1/1	0.93	0.13	127,127,127,127	0
58	MG	14	3064	1/1	0.94	0.25	62,62,62,62	0
58	MG	14	3188	1/1	0.94	0.14	73,73,73,73	0
58	MG	13	1691	1/1	0.94	0.14	89,89,89,89	0
58	MG	1H	3086	1/1	0.94	0.20	59,59,59,59	0
58	MG	1H	3009	1/1	0.94	0.15	69,69,69,69	0
58	MG	1H	3223	1/1	0.94	0.06	81,81,81,81	0
58	MG	13	1742	1/1	0.94	0.15	85,85,85,85	0
58	MG	1H	3123	1/1	0.94	0.18	63,63,63,63	0
58	MG	14	3071	1/1	0.94	0.10	75,75,75,75	0
58	MG	14	3016	1/1	0.94	0.08	61,61,61,61	0
58	MG	1H	3261	1/1	0.94	0.08	85,85,85,85	0
58	MG	1H	3069	1/1	0.94	0.20	62,62,62,62	0
58	MG	1H	3091	1/1	0.94	0.17	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3337	1/1	0.94	0.21	53,53,53,53	0
58	MG	1G	1606	1/1	0.94	0.10	88,88,88,88	0
58	MG	1H	3025	1/1	0.94	0.18	41,41,41,41	0
58	MG	1H	3094	1/1	0.94	0.18	62,62,62,62	0
58	MG	14	3082	1/1	0.94	0.14	85,85,85,85	0
58	MG	14	3027	1/1	0.94	0.13	49,49,49,49	0
58	MG	1H	3054	1/1	0.94	0.26	45,45,45,45	0
58	MG	14	3029	1/1	0.94	0.25	49,49,49,49	0
58	MG	1H	3129	1/1	0.94	0.14	68,68,68,68	0
58	MG	14	3089	1/1	0.94	0.12	80,80,80,80	0
58	MG	13	1650	1/1	0.94	0.11	100,100,100,100	0
58	MG	1H	3233	1/1	0.94	0.20	77,77,77,77	0
58	MG	14	3093	1/1	0.94	0.25	52,52,52,52	0
58	MG	1H	3098	1/1	0.94	0.23	65,65,65,65	0
58	MG	1H	3073	1/1	0.94	0.11	67,67,67,67	0
58	MG	14	3155	1/1	0.94	0.30	69,69,69,69	0
58	MG	1H	3101	1/1	0.94	0.14	47,47,47,47	0
58	MG	13	1633	1/1	0.94	0.26	91,91,91,91	0
58	MG	1H	3002	1/1	0.94	0.17	48,48,48,48	0
58	MG	14	3039	1/1	0.94	0.07	72,72,72,72	0
58	MG	14	3040	1/1	0.94	0.16	49,49,49,49	0
58	MG	1H	3076	1/1	0.94	0.15	56,56,56,56	0
58	MG	1G	1624	1/1	0.94	0.12	100,100,100,100	0
58	MG	1H	3173	1/1	0.94	0.23	66,66,66,66	0
58	MG	1H	3003	1/1	0.94	0.19	38,38,38,38	0
58	MG	14	3339	1/1	0.94	0.06	109,109,109,109	0
58	MG	14	3342	1/1	0.94	0.05	129,129,129,129	0
58	MG	14	3345	1/1	0.94	0.08	90,90,90,90	0
58	MG	1H	3044	1/1	0.94	0.22	41,41,41,41	0
58	MG	14	3372	1/1	0.94	0.06	119,119,119,119	0
58	MG	13	1601	1/1	0.94	0.13	72,72,72,72	0
58	MG	14	3385	1/1	0.94	0.06	86,86,86,86	0
58	MG	14	3409	1/1	0.94	0.06	106,106,106,106	0
58	MG	14	3416	1/1	0.94	0.16	83,83,83,83	0
58	MG	4I	201	1/1	0.94	0.13	84,84,84,84	0
58	MG	14	3049	1/1	0.94	0.19	63,63,63,63	0
58	MG	1H	3112	1/1	0.94	0.25	52,52,52,52	0
58	MG	1H	3063	1/1	0.94	0.07	58,58,58,58	0
58	MG	14	3234	1/1	0.94	0.22	81,81,81,81	0
58	MG	14	3172	1/1	0.94	0.15	75,75,75,75	0
58	MG	13	1715	1/1	0.94	0.08	106,106,106,106	0
58	MG	1H	3115	1/1	0.94	0.14	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3323	1/1	0.94	0.09	77,77,77,77	0
58	MG	1H	3150	1/1	0.94	0.27	62,62,62,62	0
58	MG	14	3117	1/1	0.94	0.15	62,62,62,62	0
58	MG	14	3179	1/1	0.94	0.16	91,91,91,91	0
58	MG	1H	3251	1/1	0.94	0.47	78,78,78,78	0
58	MG	13	1738	1/1	0.94	0.11	105,105,105,105	0
58	MG	11	301	1/1	0.94	0.21	50,50,50,50	0
58	MG	1H	3218	1/1	0.94	0.14	48,48,48,48	0
58	MG	21	302	1/1	0.94	0.06	69,69,69,69	0
58	MG	78	201	1/1	0.94	0.27	76,76,76,76	0
58	MG	1H	3338	1/1	0.95	0.21	66,66,66,66	0
58	MG	1G	1680	1/1	0.95	0.07	127,127,127,127	0
58	MG	14	3045	1/1	0.95	0.07	83,83,83,83	0
58	MG	1G	1682	1/1	0.95	0.07	113,113,113,113	0
58	MG	1G	1691	1/1	0.95	0.06	123,123,123,123	0
58	MG	1G	1692	1/1	0.95	0.05	130,130,130,130	0
58	MG	2K	102	1/1	0.95	0.30	79,79,79,79	0
58	MG	13	1724	1/1	0.95	0.08	85,85,85,85	0
58	MG	13	1735	1/1	0.95	0.05	124,124,124,124	0
58	MG	13	1737	1/1	0.95	0.08	111,111,111,111	0
58	MG	13	1629	1/1	0.95	0.18	58,58,58,58	0
58	MG	1H	3344	1/1	0.95	0.06	57,57,57,57	0
58	MG	1H	3109	1/1	0.95	0.26	47,47,47,47	0
58	MG	14	3275	1/1	0.95	0.28	71,71,71,71	0
58	MG	14	3163	1/1	0.95	0.36	65,65,65,65	0
58	MG	1H	3316	1/1	0.95	0.28	79,79,79,79	0
58	MG	13	1685	1/1	0.95	0.09	101,101,101,101	0
58	MG	14	3279	1/1	0.95	0.18	77,77,77,77	0
58	MG	14	3111	1/1	0.95	0.18	48,48,48,48	0
58	MG	1G	1645	1/1	0.95	0.09	96,96,96,96	0
58	MG	13	1619	1/1	0.95	0.14	72,72,72,72	0
58	MG	14	3061	1/1	0.95	0.15	56,56,56,56	0
58	MG	1H	3090	1/1	0.95	0.12	48,48,48,48	0
58	MG	1H	3352	1/1	0.95	0.08	70,70,70,70	0
58	MG	1H	3363	1/1	0.95	0.10	53,53,53,53	0
58	MG	1G	1610	1/1	0.95	0.16	92,92,92,92	0
58	MG	14	3120	1/1	0.95	0.26	70,70,70,70	0
58	MG	13	1677	1/1	0.95	0.16	71,71,71,71	0
58	MG	13	1615	1/1	0.95	0.11	85,85,85,85	0
58	MG	1G	1613	1/1	0.95	0.09	89,89,89,89	0
58	MG	1H	3140	1/1	0.95	0.15	61,61,61,61	0
58	MG	13	1645	1/1	0.95	0.23	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3463	1/1	0.95	0.10	99,99,99,99	0
58	MG	14	3379	1/1	0.95	0.09	93,93,93,93	0
58	MG	14	3128	1/1	0.95	0.17	65,65,65,65	0
58	MG	1H	3467	1/1	0.95	0.08	101,101,101,101	0
58	MG	14	3403	1/1	0.95	0.07	119,119,119,119	0
58	MG	14	3408	1/1	0.95	0.06	108,108,108,108	0
58	MG	14	3024	1/1	0.95	0.20	58,58,58,58	0
58	MG	14	3412	1/1	0.95	0.08	113,113,113,113	0
58	MG	14	3415	1/1	0.95	0.12	97,97,97,97	0
58	MG	1G	1619	1/1	0.95	0.07	78,78,78,78	0
58	MG	1H	3060	1/1	0.95	0.20	47,47,47,47	0
58	MG	13	1653	1/1	0.95	0.08	86,86,86,86	0
58	MG	1H	3243	1/1	0.95	0.14	65,65,65,65	0
58	MG	1H	3144	1/1	0.95	0.06	48,48,48,48	0
58	MG	1H	3487	1/1	0.95	0.12	117,117,117,117	0
58	MG	13	1617	1/1	0.95	0.17	74,74,74,74	0
58	MG	14	3083	1/1	0.95	0.15	67,67,67,67	0
58	MG	1H	3079	1/1	0.95	0.25	51,51,51,51	0
58	MG	1H	3221	1/1	0.95	0.12	63,63,63,63	0
58	MG	14	3035	1/1	0.95	0.09	72,72,72,72	0
58	MG	13	1609	1/1	0.95	0.15	79,79,79,79	0
58	MG	1H	3148	1/1	0.95	0.26	77,77,77,77	0
58	MG	13	1628	1/1	0.95	0.29	82,82,82,82	0
58	MG	1H	3198	1/1	0.95	0.34	72,72,72,72	0
58	MG	1H	3306	1/1	0.95	0.13	63,63,63,63	0
58	MG	13	1717	1/1	0.95	0.09	97,97,97,97	0
58	MG	14	3203	1/1	0.95	0.14	71,71,71,71	0
58	MG	1H	3200	1/1	0.95	0.40	72,72,72,72	0
60	ZN	C5	201	1/1	0.95	0.06	153,153,153,153	0
58	MG	1H	3478	1/1	0.96	0.15	64,64,64,64	0
58	MG	13	1603	1/1	0.96	0.24	76,76,76,76	0
58	MG	1H	3120	1/1	0.96	0.09	47,47,47,47	0
58	MG	1H	3093	1/1	0.96	0.32	45,45,45,45	0
58	MG	1H	3048	1/1	0.96	0.20	43,43,43,43	0
58	MG	14	3221	1/1	0.96	0.36	86,86,86,86	0
58	MG	1H	3189	1/1	0.96	0.42	71,71,71,71	0
58	MG	1H	3208	1/1	0.96	0.30	71,71,71,71	0
58	MG	13	1616	1/1	0.96	0.24	62,62,62,62	0
58	MG	14	3025	1/1	0.96	0.16	52,52,52,52	0
58	MG	13	1626	1/1	0.96	0.17	62,62,62,62	0
58	MG	14	3174	1/1	0.96	0.11	53,53,53,53	0
58	MG	1H	3097	1/1	0.96	0.10	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3016	1/1	0.96	0.21	52,52,52,52	0
58	MG	1H	3350	1/1	0.96	0.07	49,49,49,49	0
58	MG	1H	3017	1/1	0.96	0.24	54,54,54,54	0
58	MG	1H	3100	1/1	0.96	0.25	38,38,38,38	0
58	MG	1H	3373	1/1	0.96	0.08	76,76,76,76	0
58	MG	14	3288	1/1	0.96	0.12	56,56,56,56	0
58	MG	14	3080	1/1	0.96	0.09	62,62,62,62	0
58	MG	41	201	1/1	0.96	0.10	86,86,86,86	0
58	MG	14	3299	1/1	0.96	0.05	99,99,99,99	0
58	MG	14	3307	1/1	0.96	0.08	67,67,67,67	0
58	MG	14	3183	1/1	0.96	0.10	59,59,59,59	0
58	MG	1H	3376	1/1	0.96	0.06	71,71,71,71	0
58	MG	14	3343	1/1	0.96	0.08	72,72,72,72	0
58	MG	14	3344	1/1	0.96	0.06	96,96,96,96	0
58	MG	88	201	1/1	0.96	0.16	75,75,75,75	0
58	MG	1H	3379	1/1	0.96	0.10	92,92,92,92	0
58	MG	14	3350	1/1	0.96	0.06	89,89,89,89	0
58	MG	14	3354	1/1	0.96	0.05	92,92,92,92	0
58	MG	1G	1679	1/1	0.96	0.04	103,103,103,103	0
58	MG	14	3373	1/1	0.96	0.09	96,96,96,96	0
58	MG	1H	3394	1/1	0.96	0.09	104,104,104,104	0
58	MG	1H	3421	1/1	0.96	0.04	118,118,118,118	0
58	MG	1G	1686	1/1	0.96	0.05	126,126,126,126	0
58	MG	14	3387	1/1	0.96	0.18	89,89,89,89	0
58	MG	14	3393	1/1	0.96	0.06	140,140,140,140	0
58	MG	14	3396	1/1	0.96	0.14	67,67,67,67	0
58	MG	1G	1687	1/1	0.96	0.07	116,116,116,116	0
58	MG	14	3091	1/1	0.96	0.21	66,66,66,66	0
58	MG	1H	3426	1/1	0.96	0.06	103,103,103,103	0
58	MG	13	1726	1/1	0.96	0.05	122,122,122,122	0
58	MG	14	3414	1/1	0.96	0.05	104,104,104,104	0
58	MG	1G	1695	1/1	0.96	0.04	136,136,136,136	0
58	MG	1H	3439	1/1	0.96	0.07	80,80,80,80	0
58	MG	14	3251	1/1	0.96	0.10	66,66,66,66	0
58	MG	1H	3440	1/1	0.96	0.11	102,102,102,102	0
58	MG	13	1612	1/1	0.96	0.12	75,75,75,75	0
58	MG	1H	3117	1/1	0.96	0.20	68,68,68,68	0
58	MG	1H	3452	1/1	0.96	0.05	85,85,85,85	0
58	MG	14	3150	1/1	0.96	0.21	78,78,78,78	0
58	MG	1H	3454	1/1	0.96	0.13	102,102,102,102	0
58	MG	14	3005	1/1	0.96	0.13	51,51,51,51	0
58	MG	14	3006	1/1	0.96	0.33	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3458	1/1	0.96	0.06	99,99,99,99	0
58	MG	13	1714	1/1	0.96	0.04	106,106,106,106	0
58	MG	1H	3462	1/1	0.96	0.08	91,91,91,91	0
58	MG	14	3056	1/1	0.96	0.20	50,50,50,50	0
58	MG	1H	3165	1/1	0.96	0.12	76,76,76,76	0
58	MG	1H	3465	1/1	0.96	0.07	97,97,97,97	0
58	MG	1H	3166	1/1	0.96	0.22	77,77,77,77	0
58	MG	1H	3469	1/1	0.96	0.14	81,81,81,81	0
58	MG	1H	3474	1/1	0.96	0.05	97,97,97,97	0
58	MG	1H	3133	1/1	0.96	0.11	60,60,60,60	0
58	MG	1H	3110	1/1	0.97	0.19	60,60,60,60	0
58	MG	14	3308	1/1	0.97	0.05	75,75,75,75	0
58	MG	14	3315	1/1	0.97	0.05	81,81,81,81	0
58	MG	14	3321	1/1	0.97	0.12	87,87,87,87	0
58	MG	14	3324	1/1	0.97	0.07	93,93,93,93	0
58	MG	14	3327	1/1	0.97	0.06	102,102,102,102	0
58	MG	14	3332	1/1	0.97	0.08	103,103,103,103	0
58	MG	14	3334	1/1	0.97	0.06	89,89,89,89	0
58	MG	14	3335	1/1	0.97	0.06	120,120,120,120	0
58	MG	1H	3448	1/1	0.97	0.06	67,67,67,67	0
58	MG	1H	3449	1/1	0.97	0.05	76,76,76,76	0
58	MG	1H	3033	1/1	0.97	0.19	66,66,66,66	0
58	MG	1H	3314	1/1	0.97	0.10	76,76,76,76	0
58	MG	1H	3137	1/1	0.97	0.11	56,56,56,56	0
58	MG	I8	101	1/1	0.97	0.11	90,90,90,90	0
58	MG	J8	101	1/1	0.97	0.10	77,77,77,77	0
58	MG	14	3351	1/1	0.97	0.05	79,79,79,79	0
58	MG	13	1707	1/1	0.97	0.06	87,87,87,87	0
58	MG	14	3362	1/1	0.97	0.05	81,81,81,81	0
58	MG	14	3366	1/1	0.97	0.06	68,68,68,68	0
58	MG	14	3370	1/1	0.97	0.06	80,80,80,80	0
58	MG	1H	3152	1/1	0.97	0.07	64,64,64,64	0
58	MG	1H	3360	1/1	0.97	0.05	70,70,70,70	0
58	MG	14	3376	1/1	0.97	0.04	117,117,117,117	0
58	MG	14	3377	1/1	0.97	0.08	105,105,105,105	0
58	MG	1H	3464	1/1	0.97	0.06	97,97,97,97	0
58	MG	13	1730	1/1	0.97	0.04	95,95,95,95	0
58	MG	14	3382	1/1	0.97	0.08	75,75,75,75	0
58	MG	1H	3367	1/1	0.97	0.09	59,59,59,59	0
58	MG	1H	3369	1/1	0.97	0.07	49,49,49,49	0
58	MG	14	3390	1/1	0.97	0.06	118,118,118,118	0
58	MG	13	1732	1/1	0.97	0.03	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3394	1/1	0.97	0.07	101,101,101,101	0
58	MG	1G	1677	1/1	0.97	0.05	130,130,130,130	0
58	MG	14	3399	1/1	0.97	0.10	80,80,80,80	0
58	MG	1G	1678	1/1	0.97	0.09	120,120,120,120	0
58	MG	14	3406	1/1	0.97	0.05	100,100,100,100	0
58	MG	13	1734	1/1	0.97	0.03	130,130,130,130	0
58	MG	13	1711	1/1	0.97	0.06	102,102,102,102	0
58	MG	1H	3385	1/1	0.97	0.05	60,60,60,60	0
58	MG	1G	1685	1/1	0.97	0.04	109,109,109,109	0
58	MG	1H	3484	1/1	0.97	0.05	104,104,104,104	0
58	MG	1H	3388	1/1	0.97	0.13	78,78,78,78	0
58	MG	14	3417	1/1	0.97	0.04	113,113,113,113	0
58	MG	1G	1688	1/1	0.97	0.04	122,122,122,122	0
58	MG	13	1736	1/1	0.97	0.06	116,116,116,116	0
58	MG	1H	3397	1/1	0.97	0.07	79,79,79,79	0
58	MG	16	201	1/1	0.97	0.04	99,99,99,99	0
58	MG	1G	1615	1/1	0.97	0.08	132,132,132,132	0
58	MG	1H	3029	1/1	0.97	0.44	67,67,67,67	0
58	MG	1H	3425	1/1	0.97	0.04	110,110,110,110	0
58	MG	1H	3011	1/1	0.97	0.28	62,62,62,62	0
58	MG	1H	3292	1/1	0.97	0.07	68,68,68,68	0
58	MG	1H	3432	1/1	0.97	0.08	78,78,78,78	0
58	MG	14	3244	1/1	0.97	0.19	78,78,78,78	0
58	MG	1H	3437	1/1	0.97	0.06	82,82,82,82	0
58	MG	1H	3216	1/1	0.97	0.07	57,57,57,57	0
58	MG	14	3125	1/1	0.97	0.08	60,60,60,60	0
58	MG	13	1720	1/1	0.97	0.06	111,111,111,111	0
58	MG	13	1660	1/1	0.97	0.33	63,63,63,63	0
58	MG	14	3292	1/1	0.97	0.06	68,68,68,68	0
58	MG	E5	101	1/1	0.97	0.16	53,53,53,53	0
58	MG	14	3087	1/1	0.97	0.15	56,56,56,56	0
60	ZN	5A	101	1/1	0.97	0.05	128,128,128,128	0
58	MG	14	3302	1/1	0.97	0.06	67,67,67,67	0
58	MG	14	3295	1/1	0.98	0.03	61,61,61,61	0
58	MG	14	3298	1/1	0.98	0.04	69,69,69,69	0
58	MG	13	1705	1/1	0.98	0.04	99,99,99,99	0
58	MG	1H	3466	1/1	0.98	0.04	77,77,77,77	0
58	MG	14	3303	1/1	0.98	0.05	72,72,72,72	0
58	MG	1H	3386	1/1	0.98	0.04	59,59,59,59	0
58	MG	1H	3468	1/1	0.98	0.10	108,108,108,108	0
58	MG	14	3310	1/1	0.98	0.04	59,59,59,59	0
58	MG	14	3311	1/1	0.98	0.05	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3312	1/1	0.98	0.06	56,56,56,56	0
58	MG	13	1721	1/1	0.98	0.04	63,63,63,63	0
58	MG	1H	3470	1/1	0.98	0.04	96,96,96,96	0
58	MG	1H	3473	1/1	0.98	0.04	89,89,89,89	0
58	MG	14	3326	1/1	0.98	0.07	77,77,77,77	0
58	MG	13	1739	1/1	0.98	0.03	110,110,110,110	0
58	MG	14	3331	1/1	0.98	0.04	102,102,102,102	0
58	MG	1G	1675	1/1	0.98	0.04	78,78,78,78	0
58	MG	13	1740	1/1	0.98	0.13	93,93,93,93	0
58	MG	1H	3477	1/1	0.98	0.05	96,96,96,96	0
58	MG	14	3336	1/1	0.98	0.04	107,107,107,107	0
58	MG	14	3337	1/1	0.98	0.07	78,78,78,78	0
58	MG	1H	3398	1/1	0.98	0.04	48,48,48,48	0
58	MG	14	3340	1/1	0.98	0.12	72,72,72,72	0
58	MG	14	3341	1/1	0.98	0.04	92,92,92,92	0
58	MG	1H	3400	1/1	0.98	0.04	71,71,71,71	0
58	MG	1G	1681	1/1	0.98	0.05	88,88,88,88	0
58	MG	1H	3480	1/1	0.98	0.05	98,98,98,98	0
58	MG	1G	1683	1/1	0.98	0.05	106,106,106,106	0
58	MG	1H	3401	1/1	0.98	0.04	71,71,71,71	0
58	MG	14	3347	1/1	0.98	0.04	83,83,83,83	0
58	MG	1H	3406	1/1	0.98	0.05	91,91,91,91	0
58	MG	14	3116	1/1	0.98	0.32	48,48,48,48	0
58	MG	14	3352	1/1	0.98	0.06	69,69,69,69	0
58	MG	1H	3407	1/1	0.98	0.09	59,59,59,59	0
58	MG	14	3361	1/1	0.98	0.05	70,70,70,70	0
58	MG	1H	3409	1/1	0.98	0.04	58,58,58,58	0
58	MG	14	3363	1/1	0.98	0.05	63,63,63,63	0
58	MG	1G	1690	1/1	0.98	0.09	105,105,105,105	0
58	MG	14	3367	1/1	0.98	0.08	67,67,67,67	0
58	MG	1H	3488	1/1	0.98	0.04	92,92,92,92	0
58	MG	1H	3489	1/1	0.98	0.07	83,83,83,83	0
58	MG	1G	1693	1/1	0.98	0.05	123,123,123,123	0
58	MG	1H	3492	1/1	0.98	0.07	95,95,95,95	0
58	MG	1H	3493	1/1	0.98	0.04	96,96,96,96	0
58	MG	1H	3413	1/1	0.98	0.05	72,72,72,72	0
58	MG	1H	3416	1/1	0.98	0.08	108,108,108,108	0
58	MG	14	3001	1/1	0.98	0.06	46,46,46,46	0
58	MG	14	3383	1/1	0.98	0.06	93,93,93,93	0
58	MG	1H	3420	1/1	0.98	0.04	80,80,80,80	0
58	MG	13	1661	1/1	0.98	0.04	86,86,86,86	0
58	MG	1H	3422	1/1	0.98	0.07	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3391	1/1	0.98	0.05	85,85,85,85	0
58	MG	13	1708	1/1	0.98	0.04	76,76,76,76	0
58	MG	13	1727	1/1	0.98	0.15	79,79,79,79	0
58	MG	1H	3427	1/1	0.98	0.04	84,84,84,84	0
58	MG	16	210	1/1	0.98	0.03	80,80,80,80	0
58	MG	14	3402	1/1	0.98	0.08	110,110,110,110	0
58	MG	16	211	1/1	0.98	0.04	88,88,88,88	0
58	MG	14	3405	1/1	0.98	0.07	107,107,107,107	0
58	MG	14	3072	1/1	0.98	0.11	43,43,43,43	0
58	MG	14	3407	1/1	0.98	0.05	98,98,98,98	0
58	MG	13	1728	1/1	0.98	0.05	76,76,76,76	0
58	MG	13	1610	1/1	0.98	0.06	66,66,66,66	0
58	MG	14	3410	1/1	0.98	0.04	75,75,75,75	0
58	MG	14	3411	1/1	0.98	0.05	113,113,113,113	0
58	MG	1H	3433	1/1	0.98	0.09	45,45,45,45	0
58	MG	1H	3353	1/1	0.98	0.06	54,54,54,54	0
58	MG	1H	3438	1/1	0.98	0.04	79,79,79,79	0
58	MG	1H	3354	1/1	0.98	0.04	49,49,49,49	0
58	MG	1H	3356	1/1	0.98	0.05	56,56,56,56	0
58	MG	13	1632	1/1	0.98	0.06	57,57,57,57	0
58	MG	14	3420	1/1	0.98	0.05	72,72,72,72	0
58	MG	1H	3444	1/1	0.98	0.05	50,50,50,50	0
58	MG	1H	3361	1/1	0.98	0.07	47,47,47,47	0
58	MG	13	1733	1/1	0.98	0.12	83,83,83,83	0
58	MG	1H	3364	1/1	0.98	0.05	48,48,48,48	0
58	MG	1H	3451	1/1	0.98	0.04	68,68,68,68	0
58	MG	14	3214	1/1	0.98	0.06	82,82,82,82	0
58	MG	14	3023	1/1	0.98	0.12	42,42,42,42	0
58	MG	1H	3258	1/1	0.98	0.33	66,66,66,66	0
58	MG	1H	3453	1/1	0.98	0.03	98,98,98,98	0
58	MG	13	1703	1/1	0.98	0.04	64,64,64,64	0
58	MG	1H	3456	1/1	0.98	0.04	93,93,93,93	0
58	MG	13	1704	1/1	0.98	0.06	72,72,72,72	0
58	MG	1H	3459	1/1	0.98	0.09	85,85,85,85	0
58	MG	1G	1607	1/1	0.98	0.10	92,92,92,92	0
58	MG	13	1718	1/1	0.98	0.04	100,100,100,100	0
58	MG	1H	3111	1/1	0.98	0.14	39,39,39,39	0
58	MG	1H	3381	1/1	0.98	0.06	47,47,47,47	0
59	SF4	32	301	8/8	0.98	0.03	119,123,130,133	0
58	MG	1H	3382	1/1	0.98	0.06	58,58,58,58	0
58	MG	14	3293	1/1	0.98	0.09	67,67,67,67	0
58	MG	14	3294	1/1	0.98	0.06	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3319	1/1	0.99	0.08	50,50,50,50	0
58	MG	14	3320	1/1	0.99	0.06	78,78,78,78	0
58	MG	13	1709	1/1	0.99	0.04	96,96,96,96	0
58	MG	14	3323	1/1	0.99	0.04	61,61,61,61	0
58	MG	1H	3445	1/1	0.99	0.04	49,49,49,49	0
58	MG	14	3325	1/1	0.99	0.07	75,75,75,75	0
58	MG	1H	3446	1/1	0.99	0.07	77,77,77,77	0
58	MG	1H	3355	1/1	0.99	0.03	60,60,60,60	0
58	MG	14	3328	1/1	0.99	0.07	105,105,105,105	0
58	MG	14	3330	1/1	0.99	0.03	73,73,73,73	0
58	MG	1H	3387	1/1	0.99	0.03	51,51,51,51	0
58	MG	13	1722	1/1	0.99	0.09	70,70,70,70	0
58	MG	14	3333	1/1	0.99	0.04	98,98,98,98	0
58	MG	1H	3450	1/1	0.99	0.08	77,77,77,77	0
58	MG	1H	3391	1/1	0.99	0.04	61,61,61,61	0
58	MG	1H	3358	1/1	0.99	0.06	54,54,54,54	0
58	MG	1H	3395	1/1	0.99	0.06	72,72,72,72	0
58	MG	14	3338	1/1	0.99	0.06	64,64,64,64	0
58	MG	1H	3396	1/1	0.99	0.05	75,75,75,75	0
58	MG	1H	3455	1/1	0.99	0.04	65,65,65,65	0
58	MG	1H	3359	1/1	0.99	0.02	43,43,43,43	0
58	MG	13	1723	1/1	0.99	0.02	80,80,80,80	0
58	MG	13	1710	1/1	0.99	0.03	74,74,74,74	0
58	MG	13	1725	1/1	0.99	0.05	83,83,83,83	0
58	MG	1H	3461	1/1	0.99	0.04	80,80,80,80	0
58	MG	1H	3402	1/1	0.99	0.03	60,60,60,60	0
58	MG	1G	1676	1/1	0.99	0.08	91,91,91,91	0
58	MG	14	3348	1/1	0.99	0.03	86,86,86,86	0
58	MG	14	3349	1/1	0.99	0.03	47,47,47,47	0
58	MG	1H	3404	1/1	0.99	0.07	78,78,78,78	0
58	MG	1H	3405	1/1	0.99	0.03	70,70,70,70	0
58	MG	13	1716	1/1	0.99	0.07	75,75,75,75	0
58	MG	14	3353	1/1	0.99	0.04	80,80,80,80	0
58	MG	1H	3365	1/1	0.99	0.06	60,60,60,60	0
58	MG	14	3355	1/1	0.99	0.03	91,91,91,91	0
58	MG	14	3356	1/1	0.99	0.04	61,61,61,61	0
58	MG	14	3357	1/1	0.99	0.07	83,83,83,83	0
58	MG	14	3358	1/1	0.99	0.06	83,83,83,83	0
58	MG	14	3359	1/1	0.99	0.04	70,70,70,70	0
58	MG	14	3360	1/1	0.99	0.04	48,48,48,48	0
58	MG	1H	3408	1/1	0.99	0.03	61,61,61,61	0
58	MG	1H	3366	1/1	0.99	0.06	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3410	1/1	0.99	0.04	76,76,76,76	0
58	MG	14	3364	1/1	0.99	0.04	98,98,98,98	0
58	MG	14	3365	1/1	0.99	0.04	55,55,55,55	0
58	MG	1G	1684	1/1	0.99	0.07	82,82,82,82	0
58	MG	1H	3412	1/1	0.99	0.04	55,55,55,55	0
58	MG	14	3368	1/1	0.99	0.06	79,79,79,79	0
58	MG	14	3369	1/1	0.99	0.03	49,49,49,49	0
58	MG	1H	3471	1/1	0.99	0.08	92,92,92,92	0
58	MG	14	3371	1/1	0.99	0.06	89,89,89,89	0
58	MG	1H	3472	1/1	0.99	0.03	60,60,60,60	0
58	MG	13	1706	1/1	0.99	0.03	80,80,80,80	0
58	MG	14	3374	1/1	0.99	0.08	95,95,95,95	0
58	MG	14	3375	1/1	0.99	0.04	49,49,49,49	0
58	MG	1G	1689	1/1	0.99	0.03	98,98,98,98	0
58	MG	1H	3414	1/1	0.99	0.03	59,59,59,59	0
58	MG	1H	3475	1/1	0.99	0.09	80,80,80,80	0
58	MG	14	3380	1/1	0.99	0.02	85,85,85,85	0
58	MG	1H	3415	1/1	0.99	0.03	69,69,69,69	0
58	MG	1H	3368	1/1	0.99	0.03	53,53,53,53	0
58	MG	1G	1694	1/1	0.99	0.05	129,129,129,129	0
58	MG	14	3384	1/1	0.99	0.03	93,93,93,93	0
58	MG	1H	3417	1/1	0.99	0.04	83,83,83,83	0
58	MG	14	3386	1/1	0.99	0.03	82,82,82,82	0
58	MG	1H	3418	1/1	0.99	0.04	74,74,74,74	0
58	MG	14	3388	1/1	0.99	0.03	83,83,83,83	0
58	MG	14	3389	1/1	0.99	0.04	94,94,94,94	0
58	MG	1H	3419	1/1	0.99	0.03	51,51,51,51	0
58	MG	1H	3481	1/1	0.99	0.07	100,100,100,100	0
58	MG	14	3392	1/1	0.99	0.05	88,88,88,88	0
58	MG	1H	3482	1/1	0.99	0.08	95,95,95,95	0
58	MG	1H	3483	1/1	0.99	0.03	99,99,99,99	0
58	MG	14	3395	1/1	0.99	0.08	69,69,69,69	0
58	MG	13	1712	1/1	0.99	0.03	66,66,66,66	0
58	MG	14	3397	1/1	0.99	0.03	89,89,89,89	0
58	MG	1H	3371	1/1	0.99	0.05	66,66,66,66	0
58	MG	14	3400	1/1	0.99	0.09	82,82,82,82	0
58	MG	14	3401	1/1	0.99	0.04	83,83,83,83	0
58	MG	1H	3372	1/1	0.99	0.03	73,73,73,73	0
58	MG	1H	3423	1/1	0.99	0.08	71,71,71,71	0
58	MG	14	3404	1/1	0.99	0.02	85,85,85,85	0
58	MG	1H	3424	1/1	0.99	0.02	66,66,66,66	0
58	MG	13	1729	1/1	0.99	0.06	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3490	1/1	0.99	0.03	95,95,95,95	0
58	MG	1H	3374	1/1	0.99	0.05	63,63,63,63	0
58	MG	1H	3375	1/1	0.99	0.04	50,50,50,50	0
58	MG	1H	3494	1/1	0.99	0.04	44,44,44,44	0
58	MG	1H	3495	1/1	0.99	0.06	70,70,70,70	0
58	MG	1H	3428	1/1	0.99	0.03	64,64,64,64	0
58	MG	14	3413	1/1	0.99	0.03	102,102,102,102	0
58	MG	14	3291	1/1	0.99	0.10	55,55,55,55	0
58	MG	1H	3429	1/1	0.99	0.05	105,105,105,105	0
58	MG	13	1719	1/1	0.99	0.04	95,95,95,95	0
58	MG	1H	3431	1/1	0.99	0.03	74,74,74,74	0
58	MG	14	3418	1/1	0.99	0.06	52,52,52,52	0
58	MG	1H	3377	1/1	0.99	0.08	68,68,68,68	0
58	MG	14	3296	1/1	0.99	0.03	67,67,67,67	0
58	MG	14	3421	1/1	0.99	0.04	79,79,79,79	0
58	MG	14	3297	1/1	0.99	0.03	55,55,55,55	0
58	MG	1H	3378	1/1	0.99	0.04	85,85,85,85	0
58	MG	1H	3435	1/1	0.99	0.04	70,70,70,70	0
58	MG	14	3301	1/1	0.99	0.03	49,49,49,49	0
58	MG	1H	3436	1/1	0.99	0.03	73,73,73,73	0
58	MG	1H	3351	1/1	0.99	0.05	49,49,49,49	0
58	MG	14	3304	1/1	0.99	0.04	62,62,62,62	0
58	MG	14	3305	1/1	0.99	0.05	51,51,51,51	0
58	MG	14	3306	1/1	0.99	0.04	64,64,64,64	0
58	MG	1H	3380	1/1	0.99	0.13	56,56,56,56	0
58	MG	13	1731	1/1	0.99	0.04	78,78,78,78	0
58	MG	14	3309	1/1	0.99	0.06	51,51,51,51	0
58	MG	13	1713	1/1	0.99	0.03	84,84,84,84	0
58	MG	1H	3441	1/1	0.99	0.08	78,78,78,78	0
58	MG	1H	3442	1/1	0.99	0.05	64,64,64,64	0
58	MG	14	3313	1/1	0.99	0.03	84,84,84,84	0
58	MG	14	3314	1/1	0.99	0.04	63,63,63,63	0
59	SF4	3E	301	8/8	0.99	0.05	78,90,95,100	0
58	MG	1H	3383	1/1	0.99	0.04	49,49,49,49	0
60	ZN	5I	102	1/1	0.99	0.02	92,92,92,92	0
58	MG	14	3316	1/1	0.99	0.03	59,59,59,59	0
58	MG	14	3317	1/1	0.99	0.04	52,52,52,52	0
58	MG	14	3318	1/1	0.99	0.03	65,65,65,65	0
58	MG	1H	3389	1/1	1.00	0.02	50,50,50,50	0
58	MG	1H	3390	1/1	1.00	0.03	58,58,58,58	0
58	MG	1H	3399	1/1	1.00	0.02	40,40,40,40	0
58	MG	1H	3357	1/1	1.00	0.03	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3300	1/1	1.00	0.03	57,57,57,57	0
58	MG	1H	3457	1/1	1.00	0.03	75,75,75,75	0
58	MG	1H	3411	1/1	1.00	0.02	63,63,63,63	0
58	MG	1H	3434	1/1	1.00	0.02	45,45,45,45	0
58	MG	1H	3392	1/1	1.00	0.02	50,50,50,50	0
58	MG	1H	3393	1/1	1.00	0.01	51,51,51,51	0
58	MG	14	3322	1/1	1.00	0.02	69,69,69,69	0
58	MG	1H	3403	1/1	1.00	0.04	45,45,45,45	0
58	MG	14	3378	1/1	1.00	0.02	90,90,90,90	0
58	MG	14	3398	1/1	1.00	0.06	67,67,67,67	0
58	MG	1H	3370	1/1	1.00	0.06	72,72,72,72	0
58	MG	16	209	1/1	1.00	0.02	64,64,64,64	0
58	MG	1H	3362	1/1	1.00	0.01	42,42,42,42	0
58	MG	1H	3491	1/1	1.00	0.03	91,91,91,91	0
58	MG	1H	3384	1/1	1.00	0.02	45,45,45,45	0
58	MG	14	3329	1/1	1.00	0.07	75,75,75,75	0

6.5 Other polymers (i)

There are no such residues in this entry.