Full wwPDB X-ray Structure Validation Report (i)

Mar 6, 2026 – 04:30 AM UTC

PDB ID	:	5E81 / pdb_00005e81
Title	:	Structure of T. thermophilus 70S ribosome complex with mRNA and tRNALys in the A-site with wobble pair
Authors	:	Rozov, A.; Demeshkina, N.; Khusainov, I.; Yusupov, M.; Yusupova, G.
Deposited on	:	2015-10-13
Resolution	:	2.95 Å(reported)

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

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

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

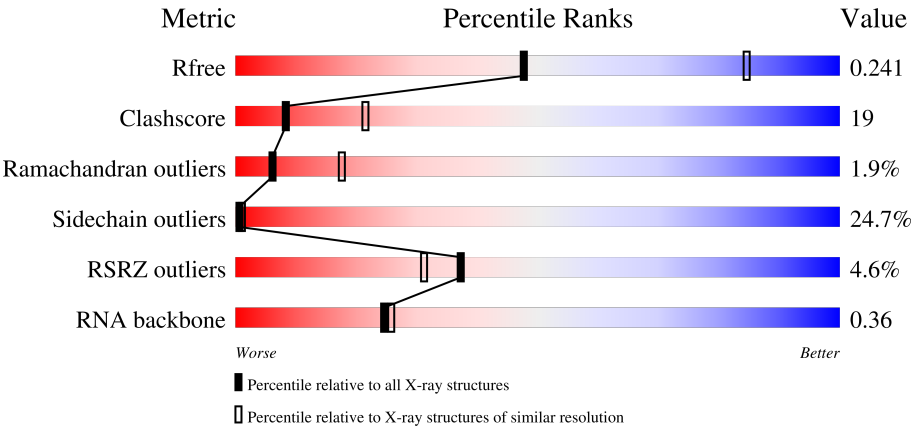
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.95 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	1130 (2.98-2.94)
Clashscore	190562	1157 (2.98-2.94)
Ramachandran outliers	187476	1101 (2.98-2.94)
Sidechain outliers	187428	1101 (2.98-2.94)
RSRZ outliers	180081	1130 (2.98-2.94)
RNA backbone	3983	1046 (3.16-2.76)

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	1519	2% 35% 48% 14%
1	1G	1519	2% 40% 45% 14%
2	12	256	9% 32% 39% 9% 19%
2	1E	256	9% 34% 41% 13% 10%

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Mol	Chain	Length	Quality of chain
3	22	239	4% 39% 34% 8% 18%
3	2E	239	2% 44% 35% 7% 14%
4	32	209	6% 38% 46% 14%
4	3E	209	5% 41% 42% 15%
5	42	162	7% 44% 38% 9% 8%
5	4E	162	6% 44% 38% 9% 8%
6	52	101	4% 57% 31% 12%
6	5E	101	5% 51% 39% 8%
7	62	156	8% 38% 42% 10% 10%
7	6E	156	4% 58% 35% 6%
8	72	138	8% 47% 41% 10%
8	7E	138	6% 41% 46% 13%
9	82	128	15% 38% 43% 12% 5%
9	8E	128	12% 45% 40% 13%
10	1A	105	23% 33% 31% 10% 24%
10	1I	105	5% 49% 32% 9% 10%
11	2A	129	7% 48% 30% 9% 12%
11	2I	129	5% 34% 42% 9% 14%
12	3A	132	14% 45% 30% 15% 8%
12	3I	132	8% 46% 34% 11% 8%
13	4A	126	19% 28% 43% 15% 12%
13	4I	126	10% 34% 42% 16% 6%
14	5A	61	15% 36% 46% 13%
14	5I	61	5% 49% 36% 11%
15	6A	89	2% 61% 31% 6%

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Mol	Chain	Length	Quality of chain
15	6I	89	2% 47% 40% 10%
16	7A	88	10% 48% 41% 6% 5%
16	7I	88	9% 32% 48% 15% 6%
17	8A	105	6% 44% 45% 6% 6%
17	8I	105	4% 43% 39% 12% 5%
18	9A	88	8% 32% 35% 9% 24%
18	9I	88	5% 45% 25% 7% 23%
19	AA	93	14% 24% 34% 8% 33%
19	AI	93	4% 40% 37% 6% 5% 12%
20	BA	106	4% 50% 31% 9% 7%
20	BI	106	6% 44% 38% 9% 8%
21	1B	27	11% 37% 41% 19%
21	1F	27	33% 44% 7% 15%
22	1K	76	18% 32% 29% 34% 5%
22	1L	76	28% 36% 33% 20% 9%
23	2K	77	42% 39% 18%
23	2L	77	8% 36% 43% 18%
24	3K	76	18% 18% 29% 45% 8%
24	3L	76	22% 17% 49% 29% 5%
25	4K	27	26% 26% 22% 30% 22%
25	4L	27	22% 22% 30% 19% 30%
26	14	2917	38% 44% 15%
26	1H	2917	40% 42% 16%
27	16	122	36% 49% 15%
27	1J	122	2% 34% 48% 18%

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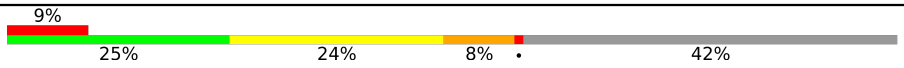
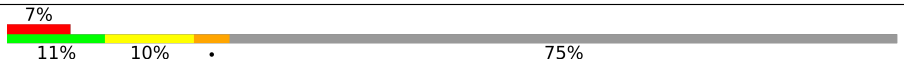
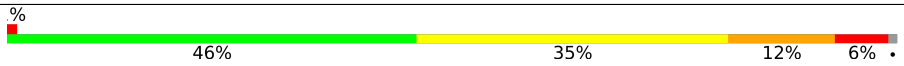
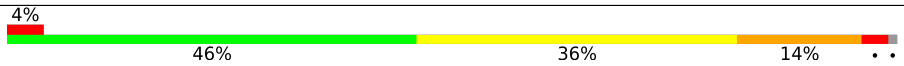
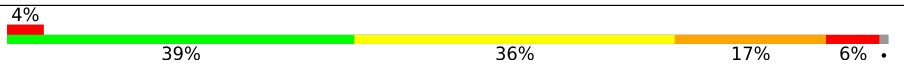
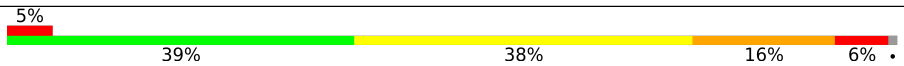
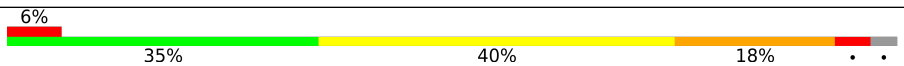
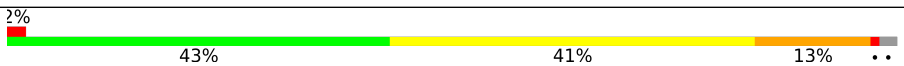
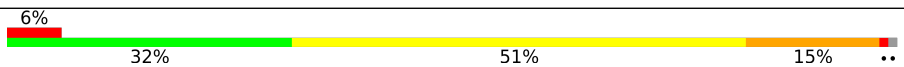
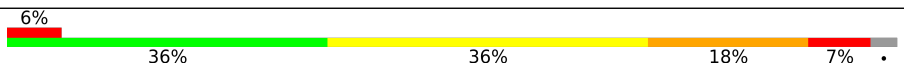
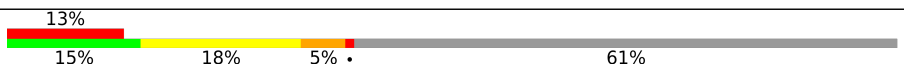
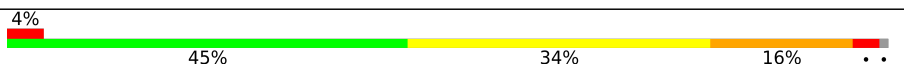
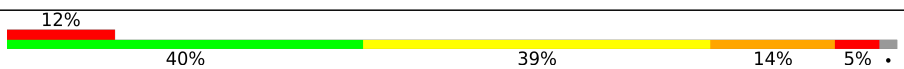
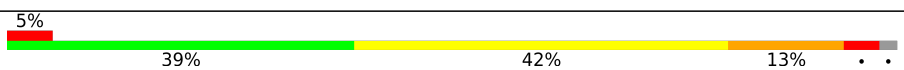
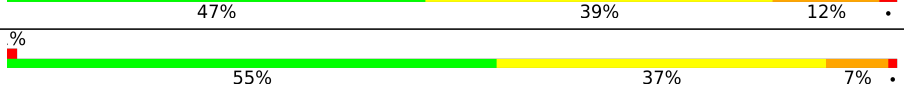
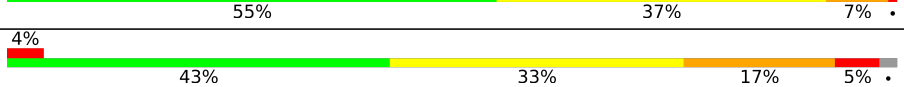
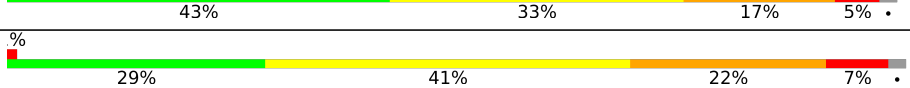
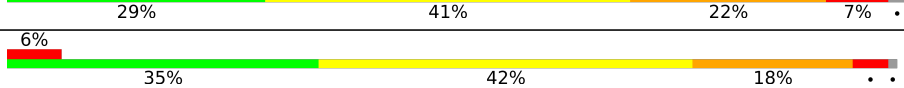
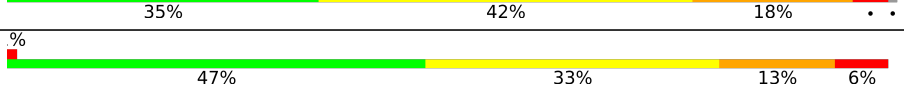
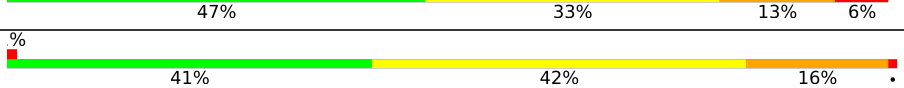
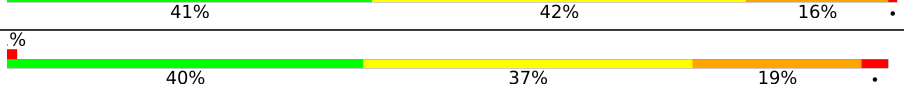
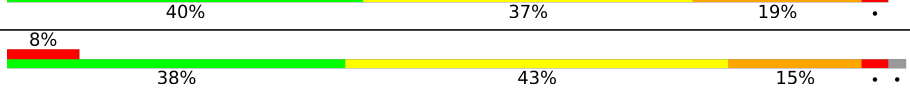
Mol	Chain	Length	Quality of chain
28	71	229	
28	79	229	
29	11	276	
29	19	276	
30	21	206	
30	29	206	
31	31	210	
31	39	210	
32	41	182	
32	49	182	
33	51	180	
33	59	180	
34	61	148	
34	69	148	
35	15	140	
35	58	140	
36	25	122	
36	68	122	
37	35	150	
37	78	150	
38	45	141	
38	88	141	
39	55	118	
39	98	118	
40	65	112	

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Mol	Chain	Length	Quality of chain
40	A8	112	2% 33% 51% 14%
41	75	146	5% 29% 47% 15% 9%
41	B8	146	12% 32% 41% 18% 7%
42	85	118	6% 43% 42% 12%
42	C8	118	3% 45% 39% 12%
43	95	101	6% 39% 46% 13%
43	D8	101	4% 42% 41% 15%
44	A5	113	3% 50% 35% 12%
44	E8	113	3% 53% 35% 9%
45	B5	96	2% 41% 40% 16%
45	F8	96	% 48% 42% 8%
46	C5	110	25% 30% 39% 20% 5% 5%
46	G8	110	9% 29% 46% 12% 6% 6%
47	D5	206	3% 24% 27% 12% 35%
47	H8	206	2% 31% 36% 14% 17%
48	E5	85	2% 42% 40% 6% 11%
48	I8	85	4% 44% 33% 12% 9%
49	F5	98	7% 48% 29% 16%
49	J8	98	8% 52% 32% 11%
50	G5	72	4% 35% 39% 17% 6%
50	K8	72	4% 33% 29% 25% 7% 6%
51	H5	60	57% 35% 5%
51	L8	60	55% 23% 17%
52	M8	71	8% 20% 31% 13% 6% 31%
53	J5	60	2% 45% 38% 8% 7%

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Mol	Chain	Length	Quality of chain
53	N8	60	2% 35% 32% 13% 20%
54	L5	49	2% 63% 29%
54	P8	49	4% 37% 49% 10%
55	M5	65	5% 38% 43% 15%
55	Q8	65	38% 40% 15% 5%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	13	1655	-	-	-	X
56	MG	14	3028	-	-	-	X
56	MG	14	3149	-	-	-	X
56	MG	14	3212	-	-	-	X
56	MG	1G	1641	-	-	-	X
56	MG	1G	1656	-	-	-	X
56	MG	1H	3015	-	-	-	X
56	MG	1H	3258	-	-	-	X
57	SF4	32	302	-	-	X	-

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 297904 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	1506	Total	C	N	O	P	0	0	0
			32371	14409	6001	10456	1505			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	207	Total	C	N	O	S	0	0	0
			1698	1064	338	289	7			
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	149	Total	C	N	O	S	0	0	0
			1139	721	216	198	4			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	6E	154	Total	C	N	O	S	0	0	0
			1242	770	250	216	6			
7	62	140	Total	C	N	O	S	0	0	0
			1120	695	223	196	6			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	95	Total	C	N	O	S	0	0	0
			754	471	148	134	1			

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
10	1A	80	Total C N O 646 403 129 114	0	0	0

- 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 823 512 154 154 3	0	0	0
11	2A	113	Total C N O S 835 520 156 156 3	0	0	0

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

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

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

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

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
14	5I	60	Total C N O S 491 312 104 71 4	0	0	0
14	5A	59	Total C N O S 486 309 103 70 4	0	0	0

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	82	Total	C	N	O	S	0	0	0
			661	422	123	114	2			
19	AA	62	Total	C	N	O	S	0	0	0
			481	306	85	88	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	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

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

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

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

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	1K	72	Total	C	N	O	P	S	0	0	0
			1542	691	269	509	72	1			
22	1L	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	298	535	77	1			
23	2L	77	Total	C	N	O	P	S	0	0	0
			1646	735	298	535	77	1			

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

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

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	21	Total	C	N	O	P	0	0	0
			464	208	99	136	21			
25	4L	19	Total	C	N	O	P	0	0	0
			419	188	89	123	19			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2885	Total	C	N	O	P	0	3	0
			62204	27685	11631	20000	2888			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	2855	Total	C	N	O	P	0	0	0
			61505	27372	11512	19766	2855			

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			
28	79	57	Total	C	N	O		0	0	0
			456	283	91	82				

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	41	179	Total	C	N	O	S	0	0	0
			1457	931	265	257	4			
32	49	181	Total	C	N	O	S	0	0	0
			1468	937	268	259	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	51	174	Total	C	N	O	S	0	0	0
			1328	842	249	236	1			
33	59	70	Total	C	N	O		0	0	0
			543	341	110	92				

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	58	137	Total	C	N	O	S	0	0	0
			1096	706	205	181	4			
35	15	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	88	141	Total	C	N	O	S	0	0	0
			1117	712	211	187	7			
38	45	139	Total	C	N	O	S	0	0	0
			1104	705	209	184	6			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B8	136	Total 1124	C 700	N 231	O 192	S 1	0	0	0
41	75	133	Total 1109	C 691	N 228	O 189	S 1	0	0	0

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	F8	95	Total 743	C 482	N 134	O 126	S 1	0	0	0

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

- 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 783 504 148 126 5	0	0	0
46	C5	104	Total C N O S 794 510 152 127 5	0	0	0

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
47	H8	170	Total C N O S 1365 870 246 246 3	0	0	0
47	D5	133	Total C N O S 1079 694 194 189 2	0	0	0

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

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

- 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 737 463 146 127 1	0	0	0
49	F5	94	Total C N O S 737 463 146 127 1	0	0	0

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

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

- 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	49	Total	C	N	O	S	0	0	0
			376	240	63	68	5			

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

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

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

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

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

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

- Molecule 56 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	13	161	Total	Mg	0	0
			161	161		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	5E	1	Total Mg 1 1	0	0
56	5I	1	Total Mg 1 1	0	0
56	1K	1	Total Mg 1 1	0	0
56	2K	3	Total Mg 3 3	0	0
56	4K	1	Total Mg 1 1	0	0
56	1H	572	Total Mg 572 572	0	0
56	16	13	Total Mg 13 13	0	0
56	11	3	Total Mg 3 3	0	0
56	21	3	Total Mg 3 3	0	0
56	41	2	Total Mg 2 2	0	0
56	78	2	Total Mg 2 2	0	0
56	88	3	Total Mg 3 3	0	0
56	98	1	Total Mg 1 1	0	0
56	F8	1	Total Mg 1 1	0	0
56	I8	1	Total Mg 1 1	0	0
56	L8	1	Total Mg 1 1	0	0
56	P8	1	Total Mg 1 1	0	0
56	Q8	1	Total Mg 1 1	0	0
56	1G	126	Total Mg 126 126	0	0
56	32	1	Total Mg 1 1	0	0
56	42	2	Total Mg 2 2	0	0

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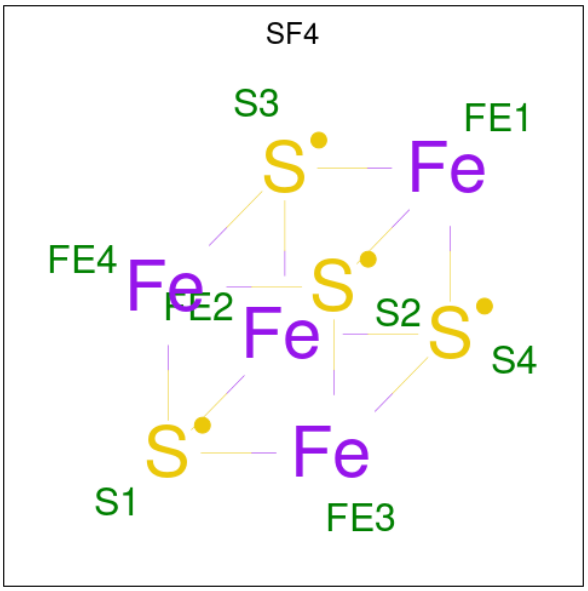
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	52	1	Total Mg 1 1	0	0
56	2A	1	Total Mg 1 1	0	0
56	2L	3	Total Mg 3 3	0	0
56	14	471	Total Mg 471 471	0	0
56	1J	11	Total Mg 11 11	0	0
56	29	1	Total Mg 1 1	0	0
56	39	2	Total Mg 2 2	0	0
56	25	2	Total Mg 2 2	0	0
56	35	3	Total Mg 3 3	0	0
56	45	2	Total Mg 2 2	0	0
56	B5	1	Total Mg 1 1	0	0
56	E5	3	Total Mg 3 3	0	0
56	M5	1	Total Mg 1 1	0	0

- Molecule 57 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



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

- Molecule 58 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	5I	1	Total Zn 1 1	0	0
58	G8	1	Total Zn 1 1	0	0
58	5A	1	Total Zn 1 1	0	0
58	C5	1	Total Zn 1 1	0	0

- Molecule 59 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	13	389	Total O 389 389	0	0
59	1E	1	Total O 1 1	0	0
59	3E	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	4E	1	Total O 1 1	0	0
59	8E	3	Total O 3 3	0	0
59	1I	2	Total O 2 2	0	0
59	3I	2	Total O 2 2	0	0
59	4I	2	Total O 2 2	0	0
59	5I	2	Total O 2 2	0	0
59	6I	3	Total O 3 3	0	0
59	7I	1	Total O 1 1	0	0
59	1F	2	Total O 2 2	0	0
59	1K	8	Total O 8 8	0	0
59	2K	6	Total O 6 6	0	0
59	3K	1	Total O 1 1	0	0
59	4K	5	Total O 5 5	0	0
59	1H	1539	Total O 1539 1539	0	0
59	16	35	Total O 35 35	0	0
59	11	16	Total O 16 16	0	0
59	21	7	Total O 7 7	0	0
59	31	6	Total O 6 6	0	0
59	41	1	Total O 1 1	0	0
59	58	2	Total O 2 2	0	0
59	68	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	78	8	Total O 8 8	0	0
59	88	8	Total O 8 8	0	0
59	C8	4	Total O 4 4	0	0
59	D8	2	Total O 2 2	0	0
59	F8	2	Total O 2 2	0	0
59	G8	1	Total O 1 1	0	0
59	I8	7	Total O 7 7	0	0
59	J8	2	Total O 2 2	0	0
59	K8	1	Total O 1 1	0	0
59	L8	3	Total O 3 3	0	0
59	P8	1	Total O 1 1	0	0
59	Q8	8	Total O 8 8	0	0
59	1G	297	Total O 297 297	0	0
59	32	2	Total O 2 2	0	0
59	42	1	Total O 1 1	0	0
59	52	4	Total O 4 4	0	0
59	62	3	Total O 3 3	0	0
59	2A	3	Total O 3 3	0	0
59	3A	1	Total O 1 1	0	0
59	6A	1	Total O 1 1	0	0
59	7A	6	Total O 6 6	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	9A	2	Total O 2 2	0	0
59	BA	5	Total O 5 5	0	0
59	1L	1	Total O 1 1	0	0
59	2L	6	Total O 6 6	0	0
59	4L	5	Total O 5 5	0	0
59	14	1225	Total O 1225 1225	0	0
59	1J	12	Total O 12 12	0	0
59	19	11	Total O 11 11	0	0
59	29	5	Total O 5 5	0	0
59	39	7	Total O 7 7	0	0
59	25	6	Total O 6 6	0	0
59	35	8	Total O 8 8	0	0
59	45	4	Total O 4 4	0	0
59	55	3	Total O 3 3	0	0
59	85	1	Total O 1 1	0	0
59	95	1	Total O 1 1	0	0
59	A5	1	Total O 1 1	0	0
59	B5	1	Total O 1 1	0	0
59	C5	3	Total O 3 3	0	0
59	F5	1	Total O 1 1	0	0
59	H5	2	Total O 2 2	0	0

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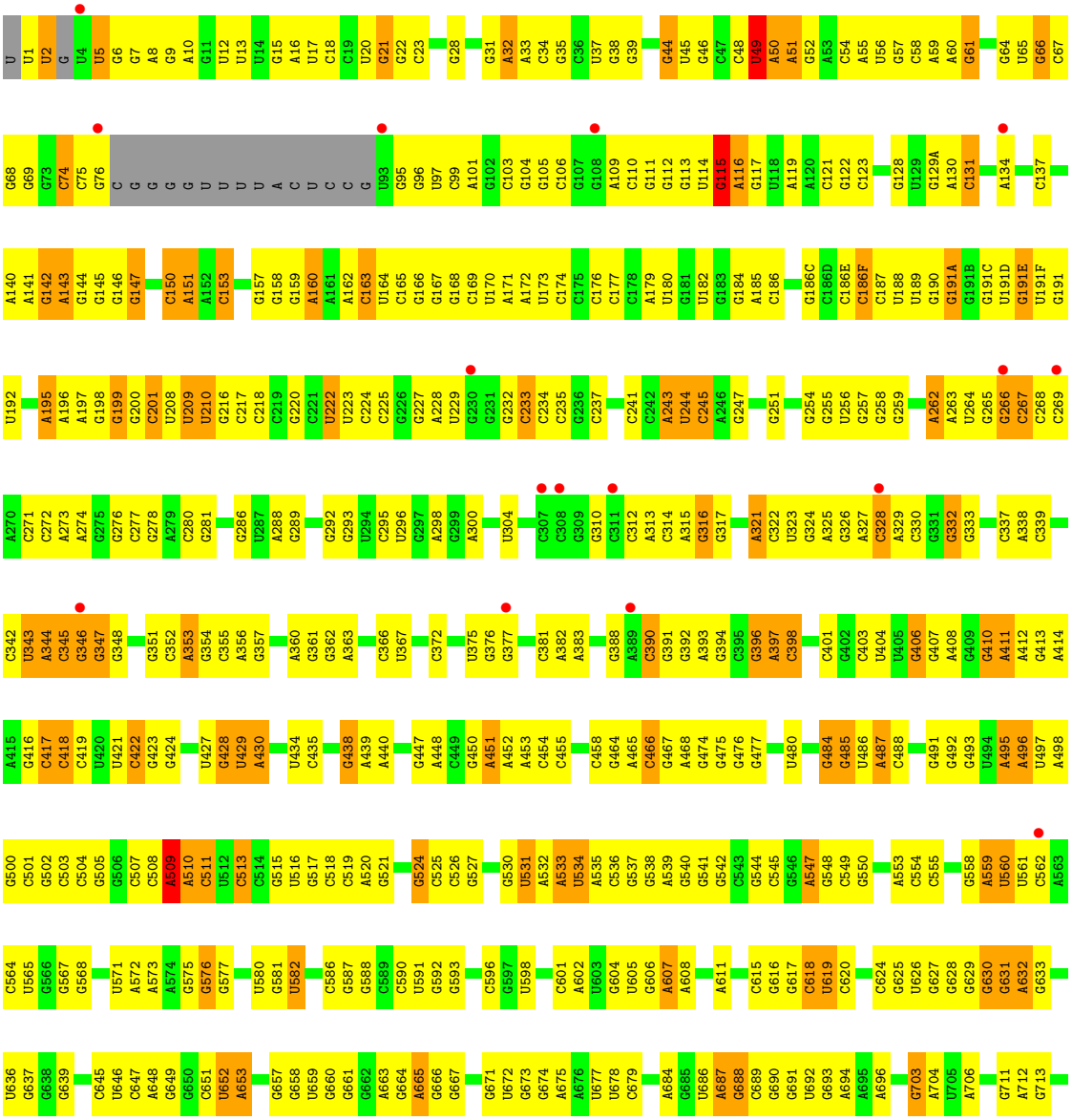
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	L5	3	Total O 3 3	0	0
59	M5	6	Total O 6 6	0	0

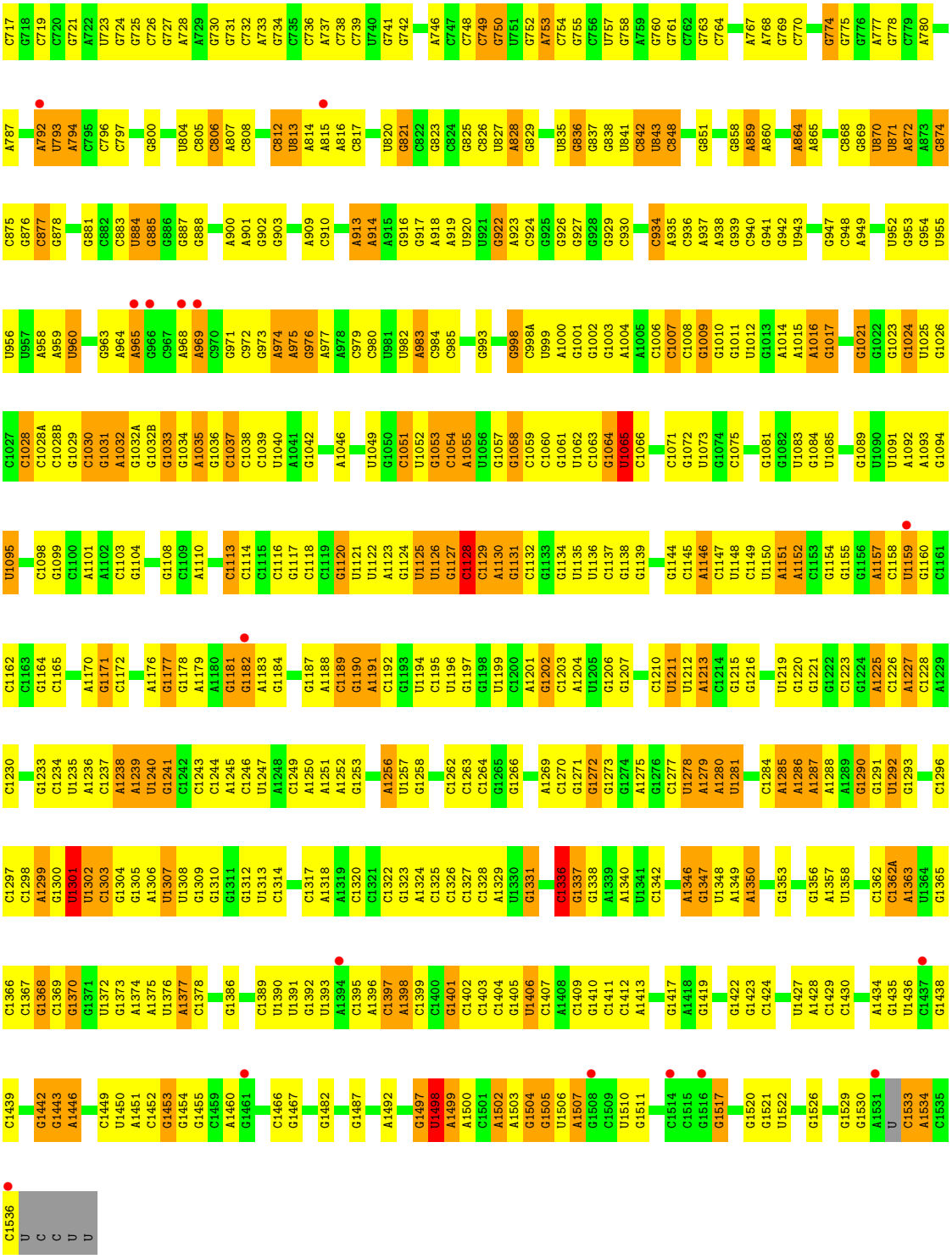
3 Residue-property plots (i)

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

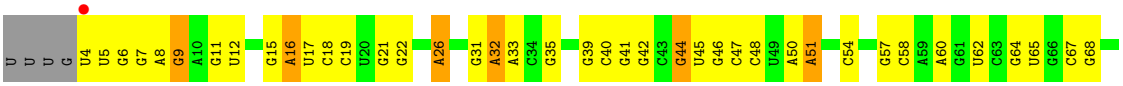
Chain 13:

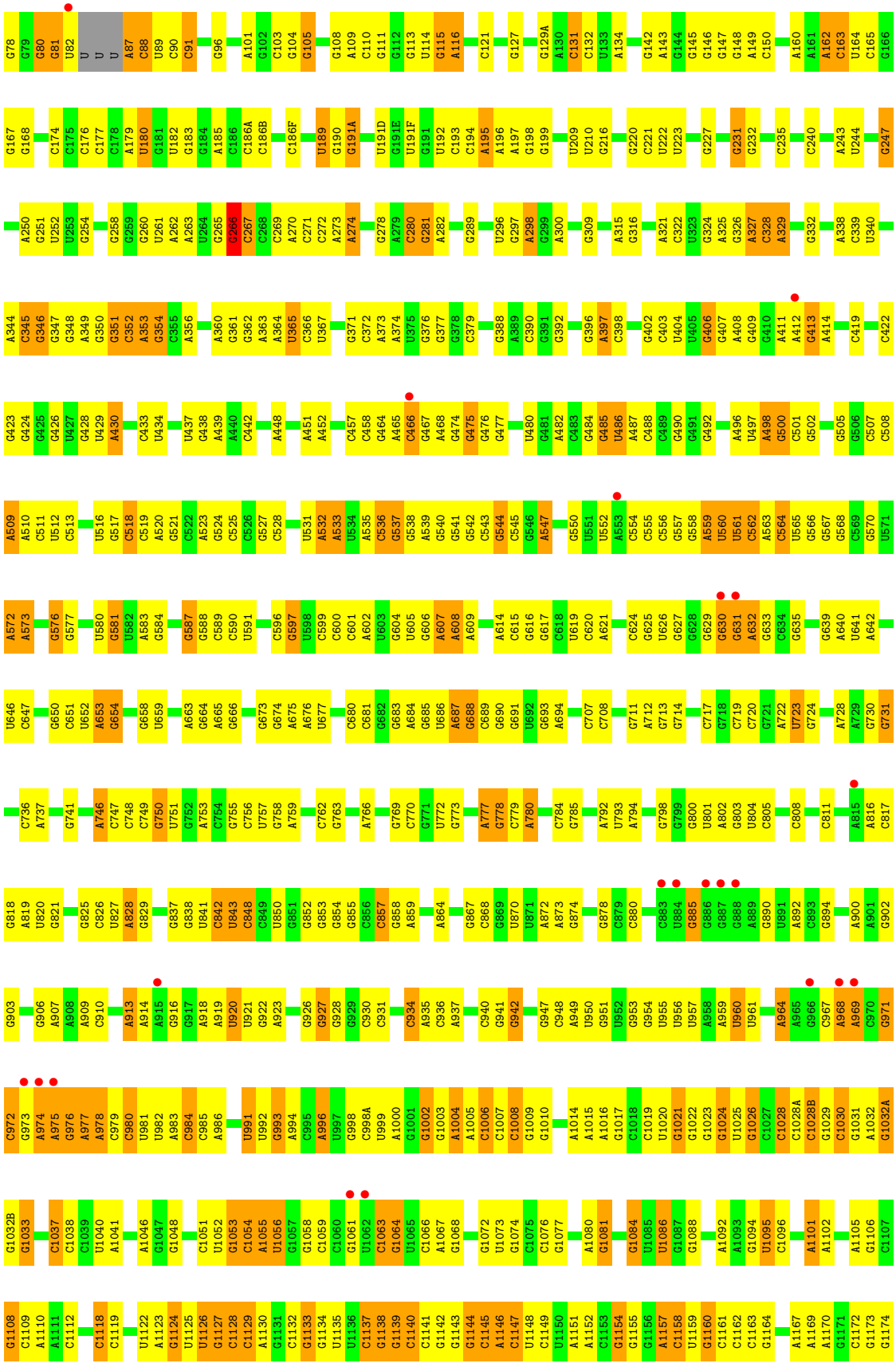




• Molecule 1: 16S ribosomal RNA

Chain 1G:




G78 G79 G80 G81 U82 U U U A87 C88 U89 C90 C91 G96 A101 G102 C103 G104 G105 G108 A109 C110 G111 G112 G113 U114 G115 A116 C121 G127 G129A A130 C131 C132 U133 A134 G142 A143 G144 G145 G146 G147 G148 A149 C150 A160 A161 A162 C163 U164 C165 G166
G167 G168 C174 C175 C176 C177 C178 A179 U180 G181 U182 G183 G184 A185 C186 C186A C186B C186F U189 G190 G191A U191D G191E U191F G191 U192 C193 C194 A195 A196 A197 G198 G199 U209 U210 G216 G220 C221 U222 U223 G227 G231 G232 C235 C240 A243 U244 G247
A250 G251 U252 U253 G254 G258 G259 G260 U261 A262 A263 U264 G265 G266 C267 C268 C269 A270 C271 C272 A273 A274 G278 A279 C280 G281 A282 G289 U296 G297 A298 G299 A300 G309 A315 G316 A321 C322 U323 G324 A325 G326 A327 C328 A329 G332 A338 C339 U340
A344 C345 G346 G347 G348 A349 G350 G351 C352 A353 G354 C355 A356 A360 G361 G362 A363 A364 U365 C366 U367 G371 C372 A373 A374 U375 G376 G377 G378 C379 G388 A389 C390 G391 G392 G396 A397 C398 G402 C403 U404 U405 G406 G407 A408 G409 G410 A411 A412 G413 A414 C419 C422
G423 G424 G425 G426 U427 G428 U429 A430 C433 U434 U437 G438 A439 A440 C442 A448 A451 A452 C457 C458 G464 A465 C466 G467 A468 G474 G475 G476 G477 U480 G481 A482 C483 G484 G485 U486 A487 C488 C489 G490 G491 G492 A496 U497 A498 G500 C501 G502 G505 G506 C507 C508
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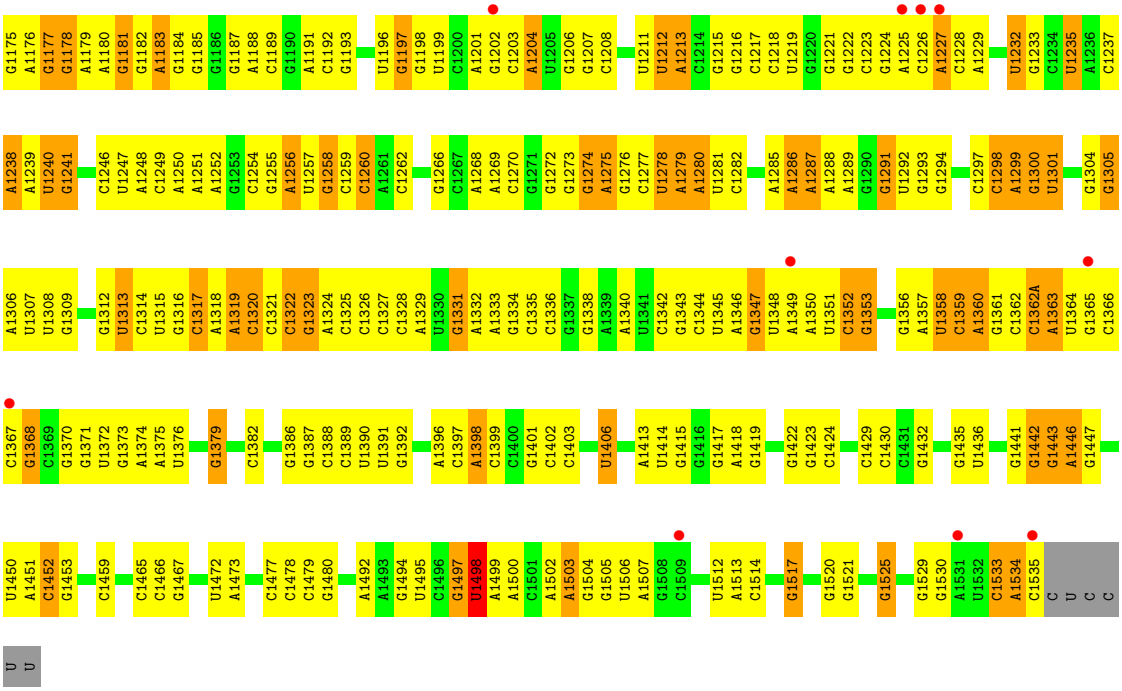
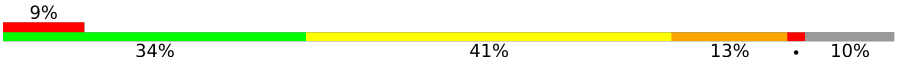
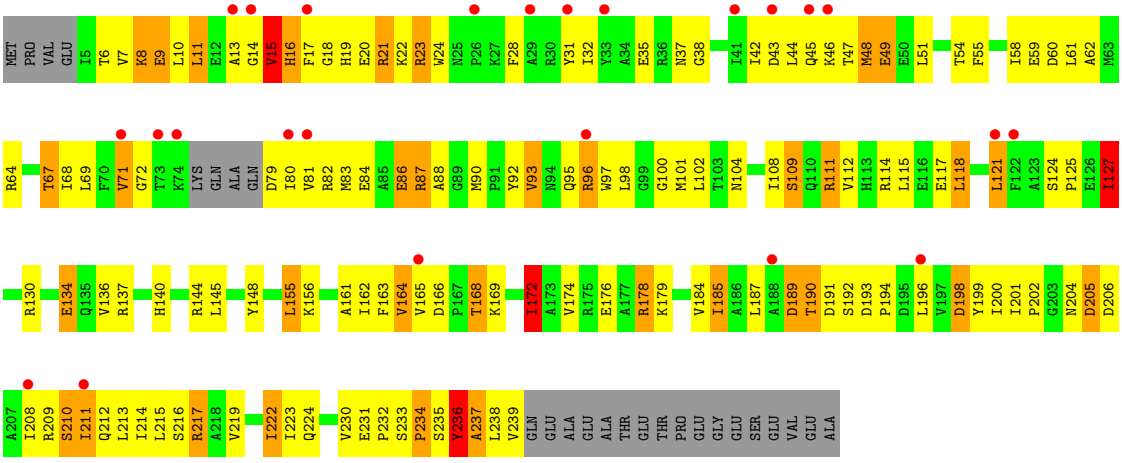


• Molecule 2: 30S ribosomal protein S2

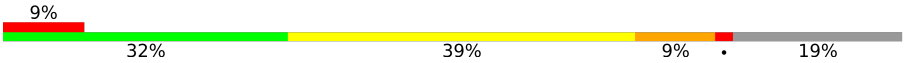
Chain 1E:

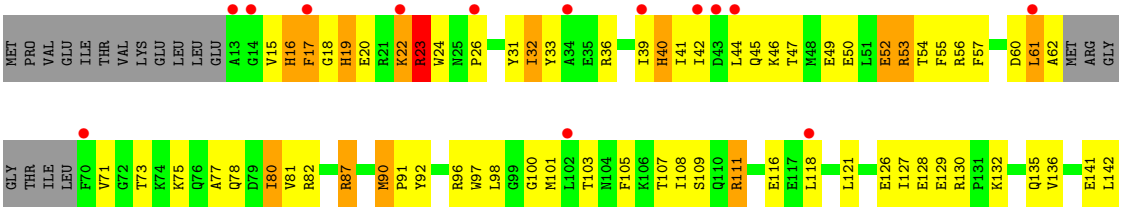


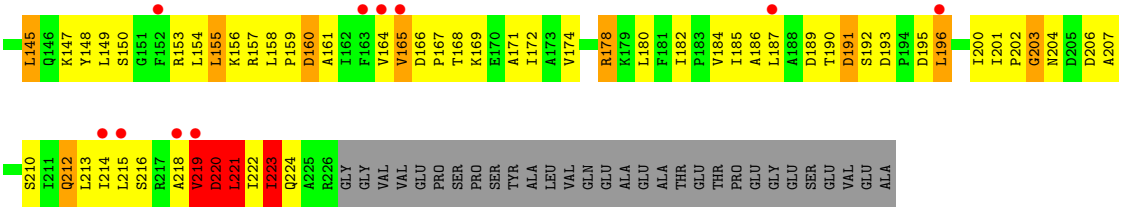


• Molecule 2: 30S ribosomal protein S2

Chain 12:

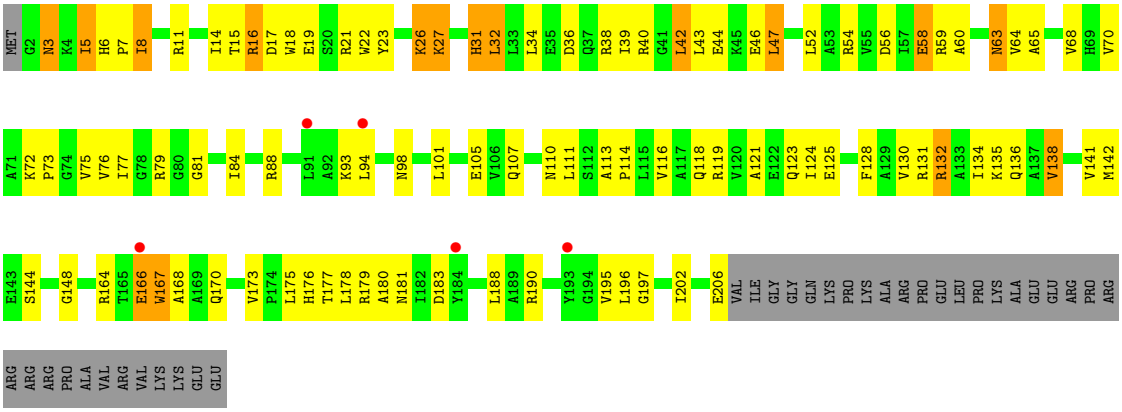






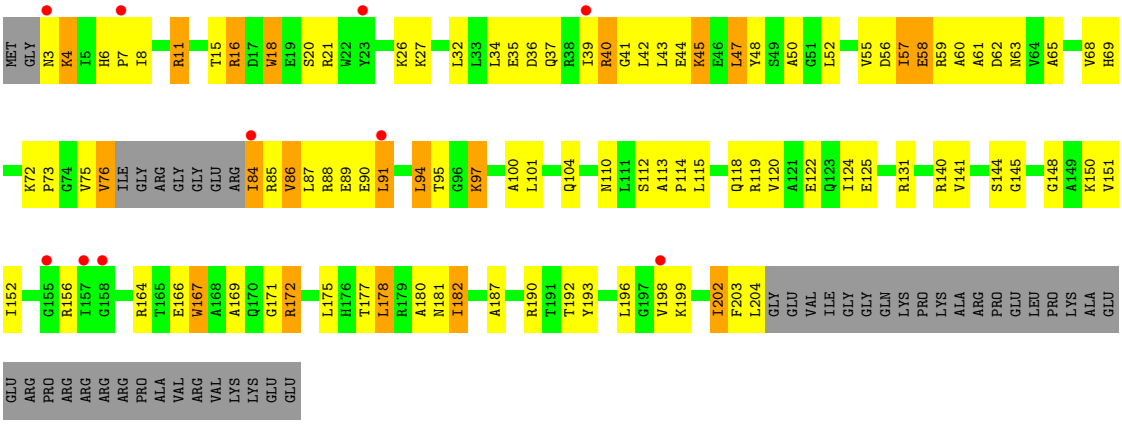
• Molecule 3: 30S ribosomal protein S3

Chain 2E:



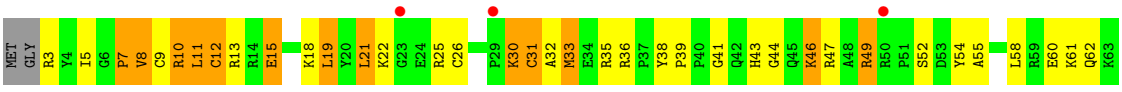
• Molecule 3: 30S ribosomal protein S3

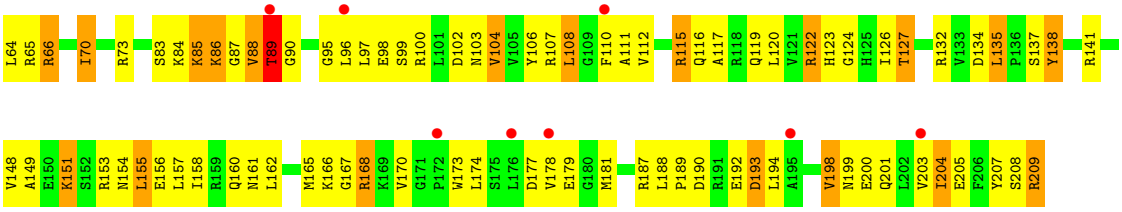
Chain 22:



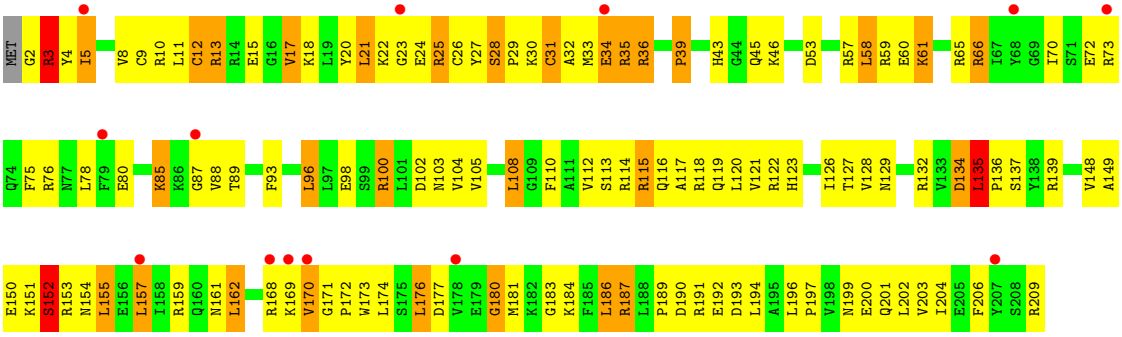
• Molecule 4: 30S ribosomal protein S4

Chain 3E:

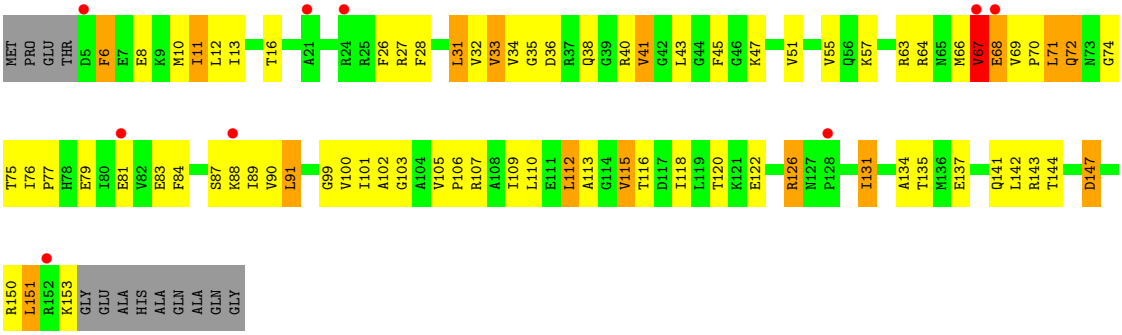




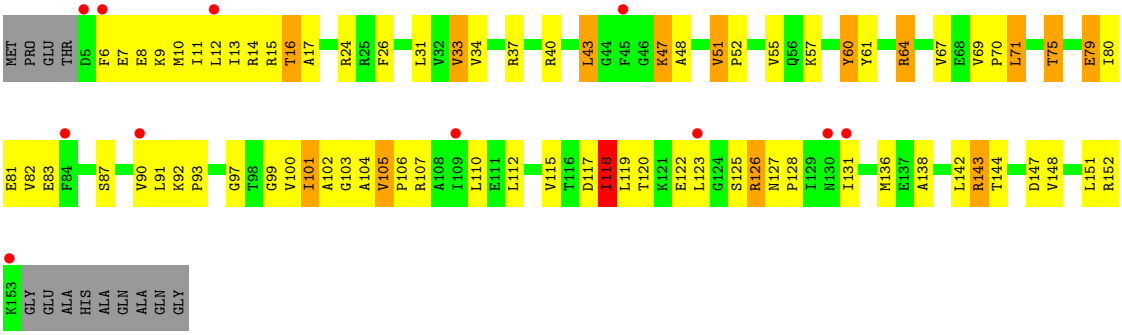
• Molecule 4: 30S ribosomal protein S4



• Molecule 5: 30S ribosomal protein S5

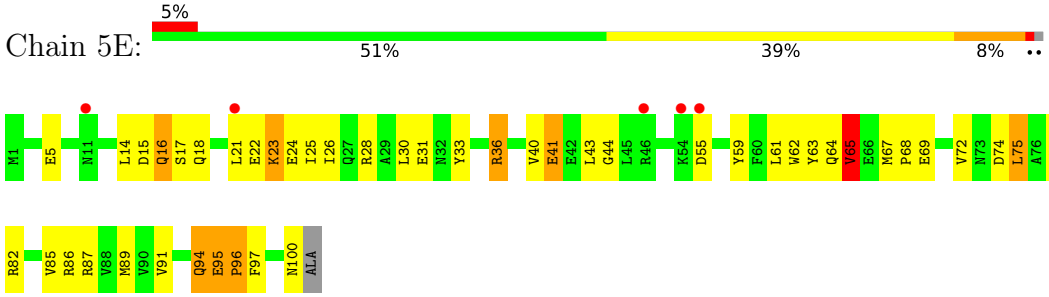


• Molecule 5: 30S ribosomal protein S5



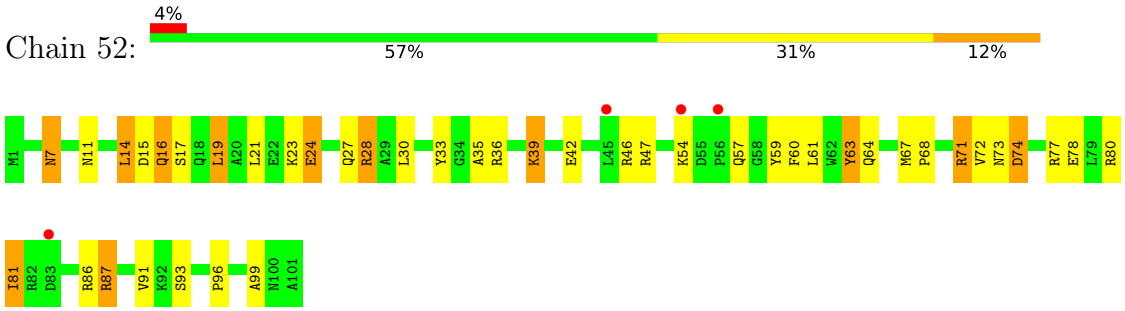
• Molecule 6: 30S ribosomal protein S6

Chain 5E:



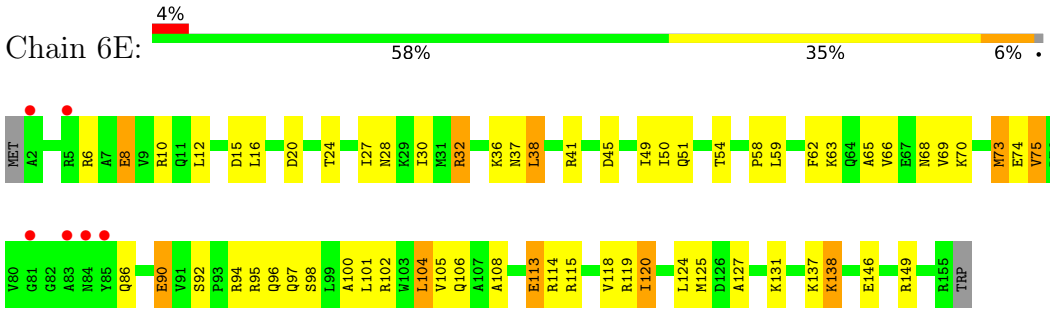
• Molecule 6: 30S ribosomal protein S6

Chain 52:



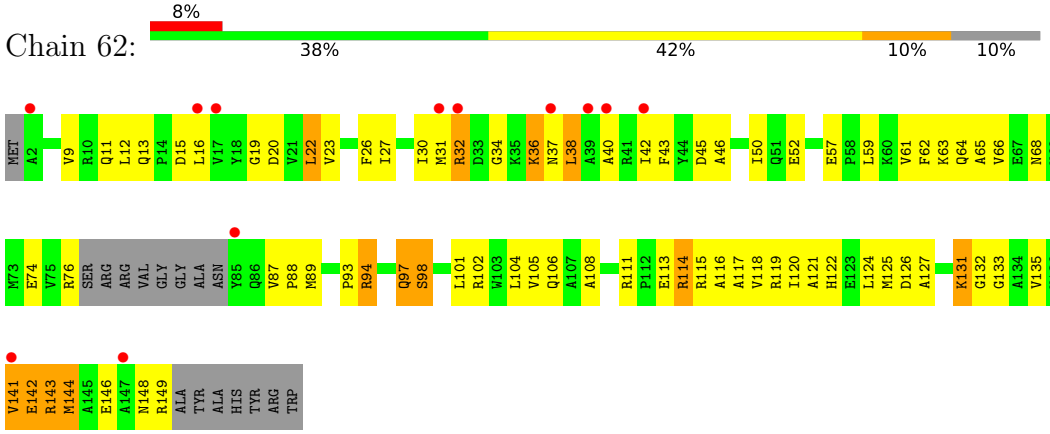
• Molecule 7: 30S ribosomal protein S7

Chain 6E:



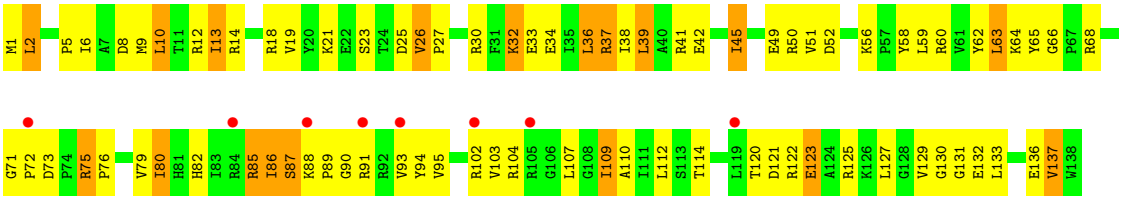
• Molecule 7: 30S ribosomal protein S7

Chain 62:



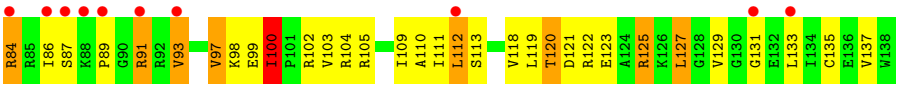
• Molecule 8: 30S ribosomal protein S8

Chain 7E:



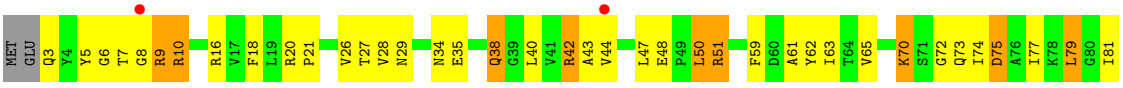
• Molecule 8: 30S ribosomal protein S8

Chain 72:



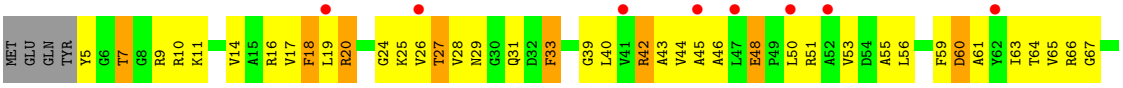
• Molecule 9: 30S ribosomal protein S9

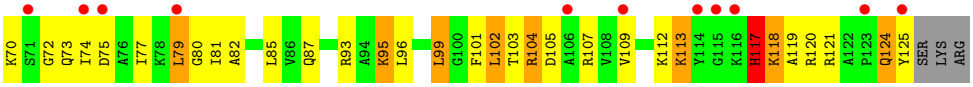
Chain 8E:



• Molecule 9: 30S ribosomal protein S9

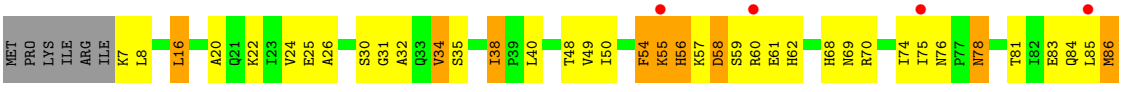
Chain 82:

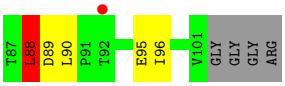




• Molecule 10: 30S ribosomal protein S10

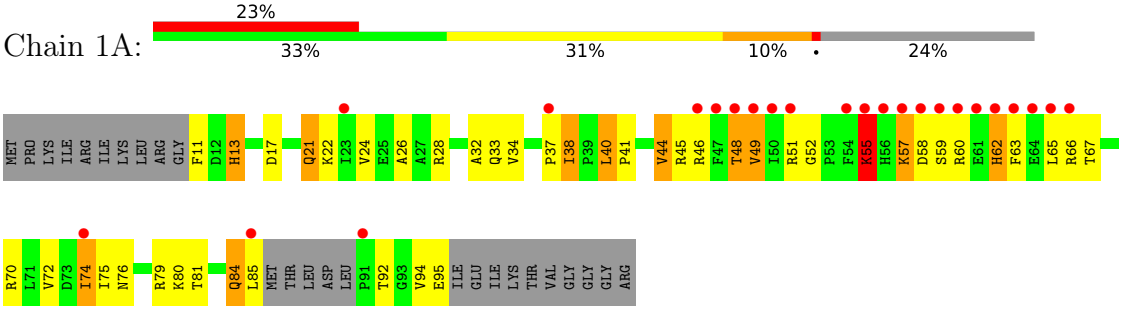
Chain 1I:





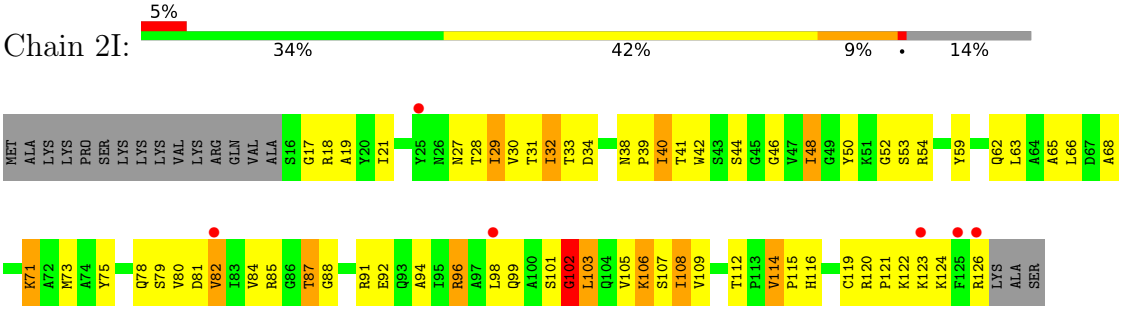
• Molecule 10: 30S ribosomal protein S10

Chain 1A:



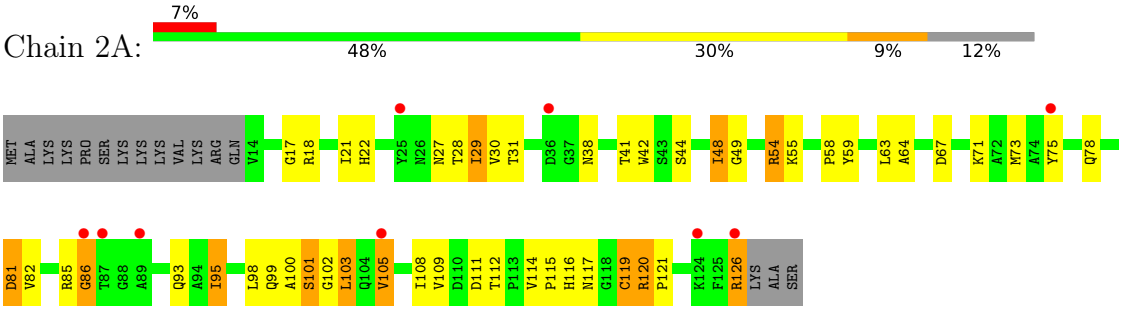
• Molecule 11: 30S ribosomal protein S11

Chain 2I:



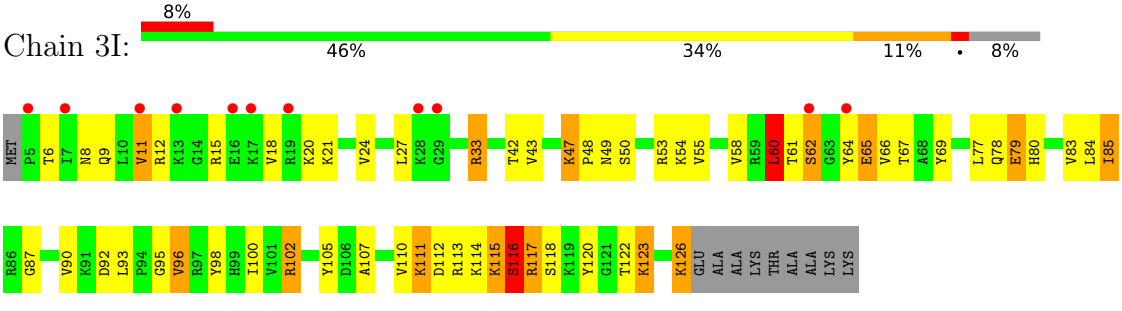
• Molecule 11: 30S ribosomal protein S11

Chain 2A:



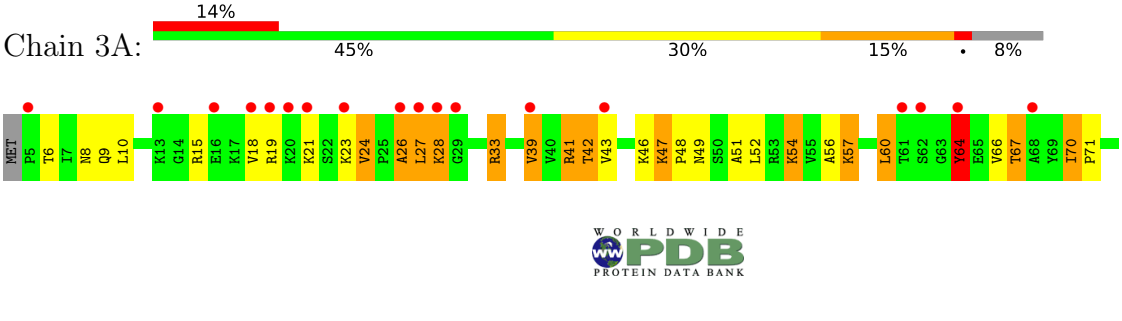
• Molecule 12: 30S ribosomal protein S12

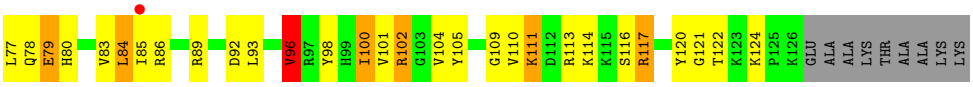
Chain 3I:



• Molecule 12: 30S ribosomal protein S12

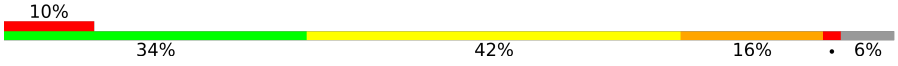
Chain 3A:

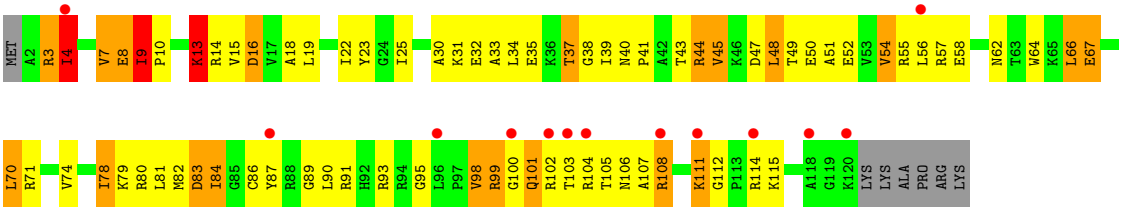




• Molecule 13: 30S ribosomal protein S13

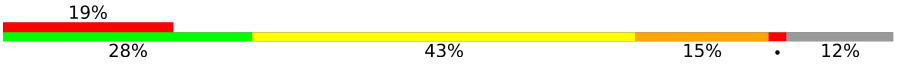
Chain 4I:

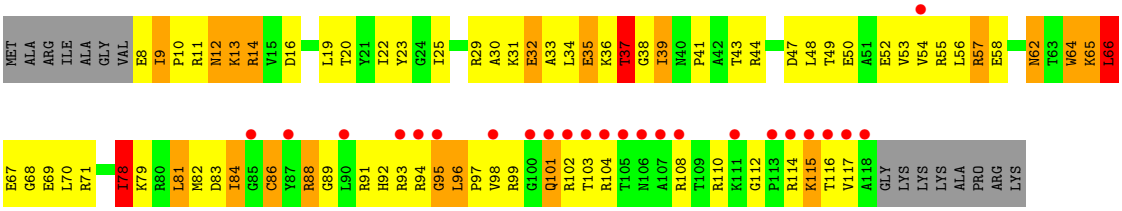




• Molecule 13: 30S ribosomal protein S13

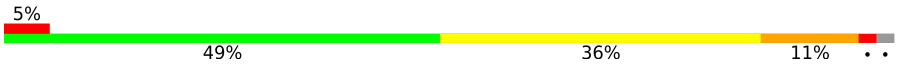
Chain 4A:

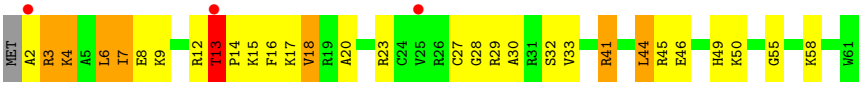




• Molecule 14: 30S ribosomal protein S14 type Z

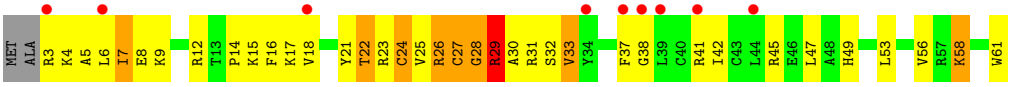
Chain 5I:





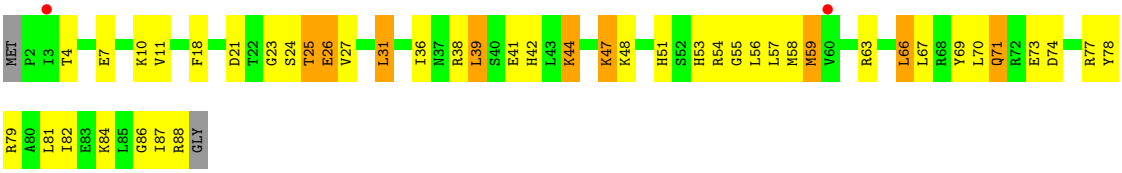
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:



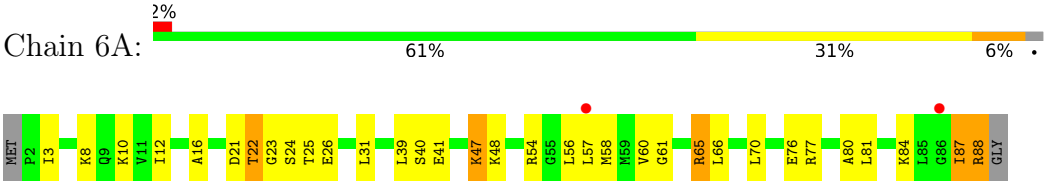
• Molecule 15: 30S ribosomal protein S15

Chain 6I:



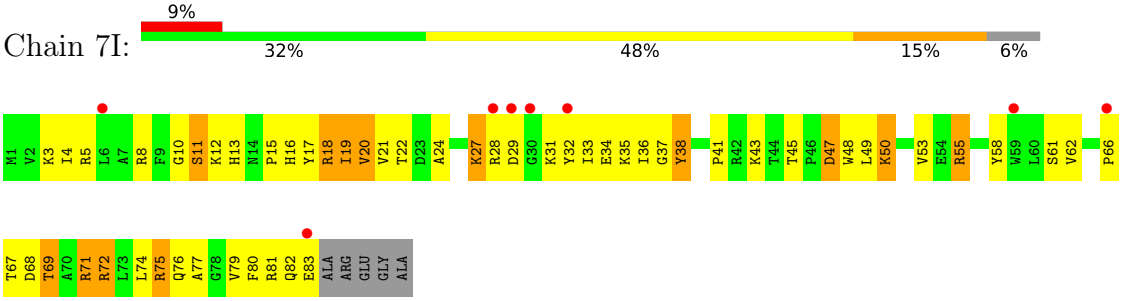
• Molecule 15: 30S ribosomal protein S15

Chain 6A:



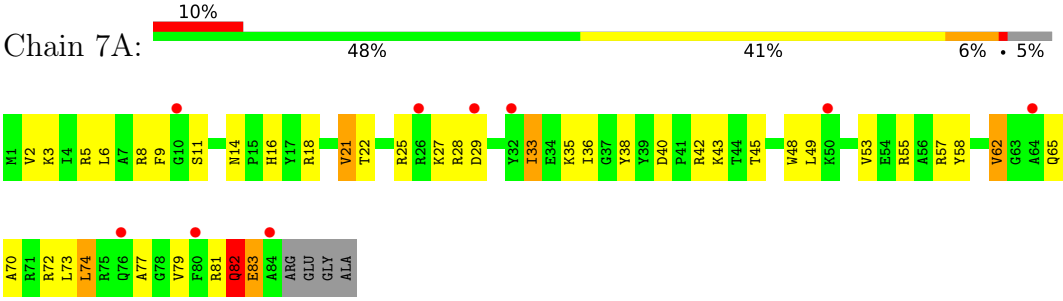
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



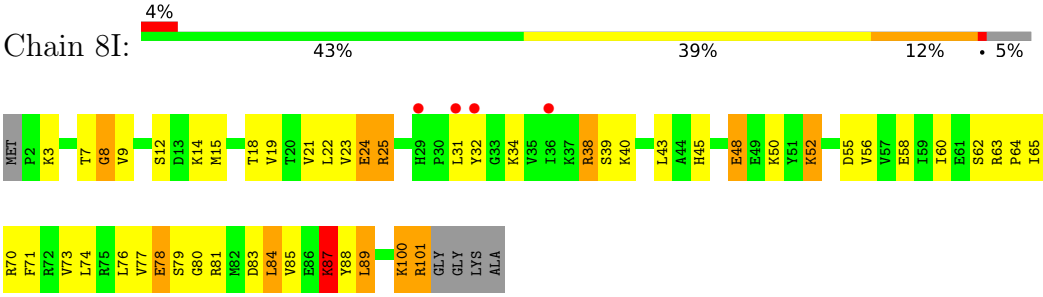
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



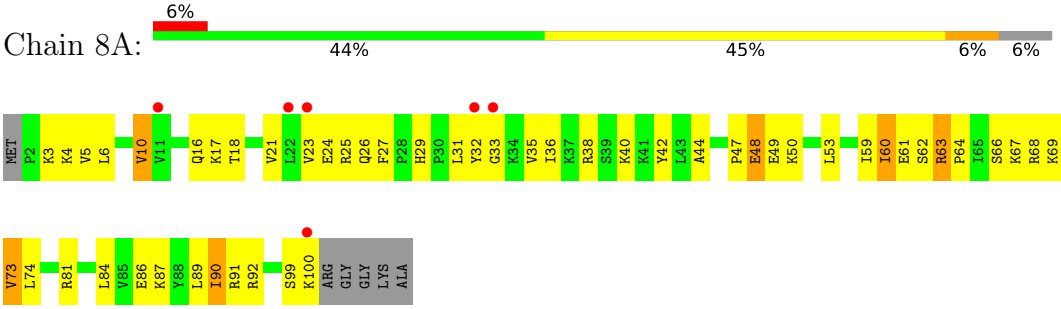
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



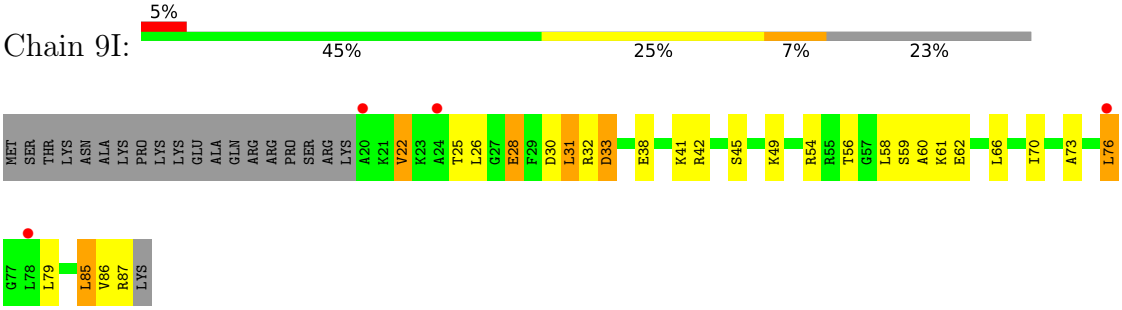
• Molecule 17: 30S ribosomal protein S17

Chain 8A:



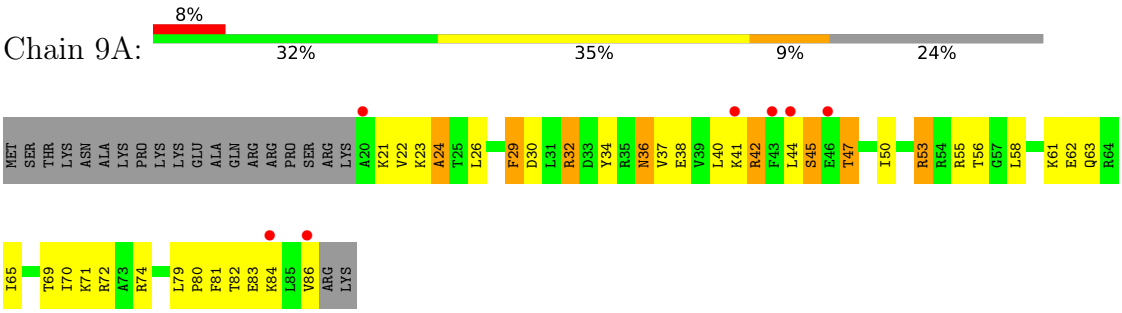
• Molecule 18: 30S ribosomal protein S18

Chain 9I:



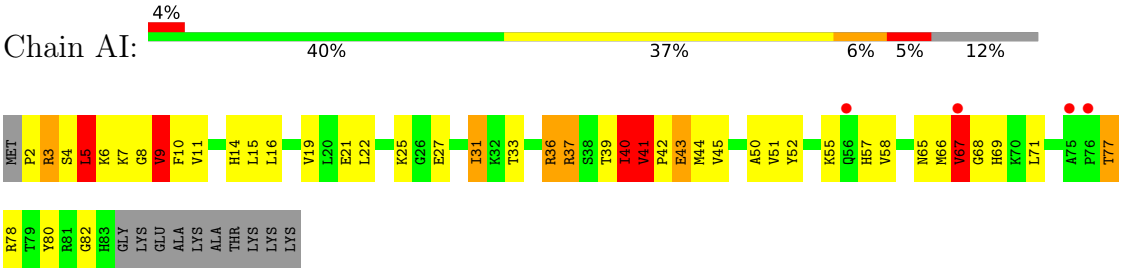
• Molecule 18: 30S ribosomal protein S18

Chain 9A:



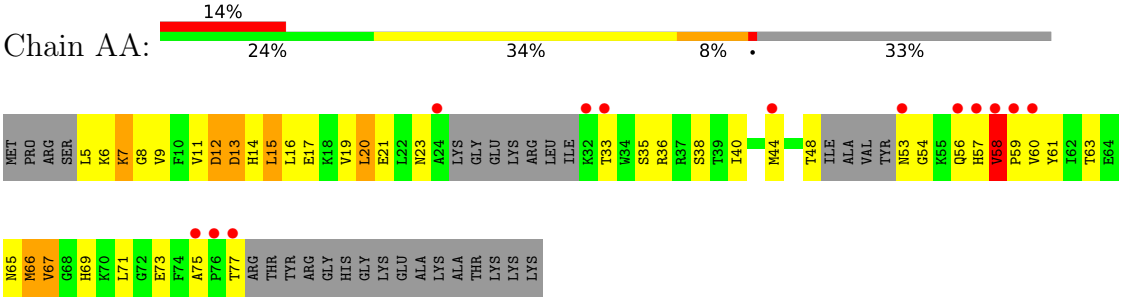
• Molecule 19: 30S ribosomal protein S19

Chain AI:



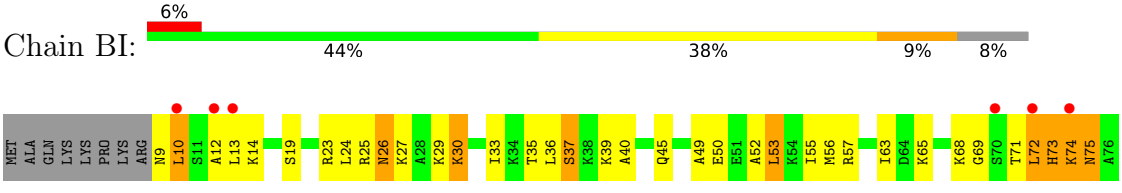
• Molecule 19: 30S ribosomal protein S19

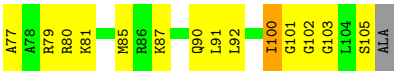
Chain AA:



• Molecule 20: 30S ribosomal protein S20

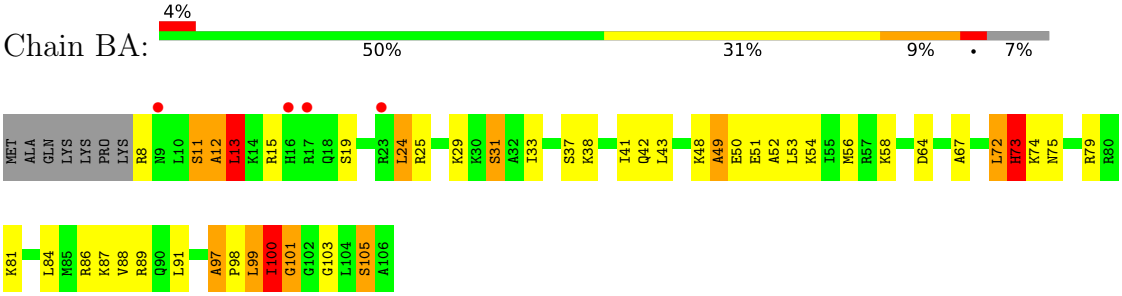
Chain BI:





• Molecule 20: 30S ribosomal protein S20

Chain BA:

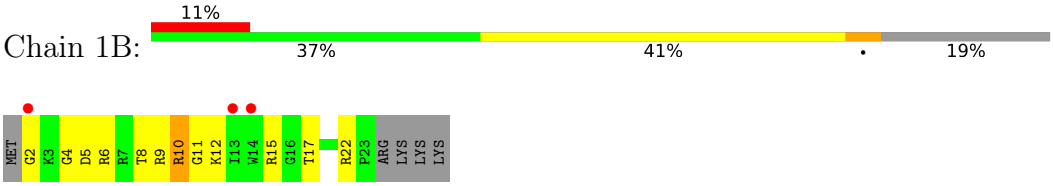


• Molecule 21: 30S ribosomal protein Thx

Chain 1F:

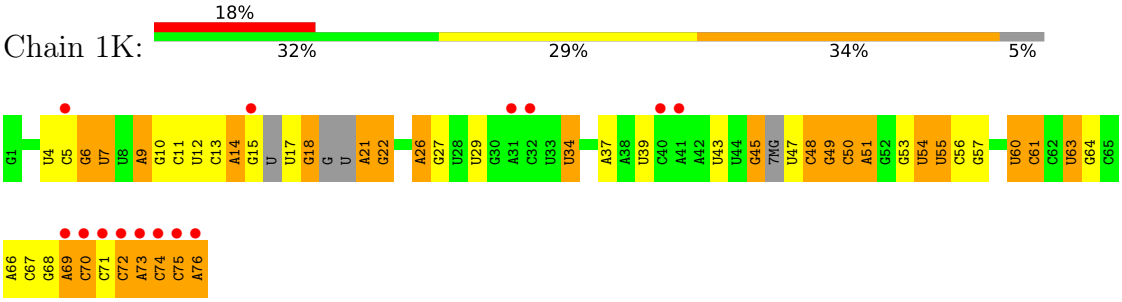
• Molecule 21: 30S ribosomal protein Thx

Chain 1B:



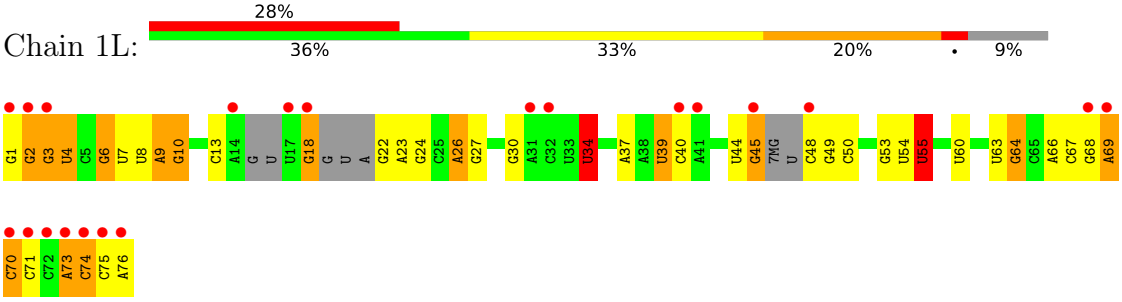
• Molecule 22: tRNA-Lys

Chain 1K:



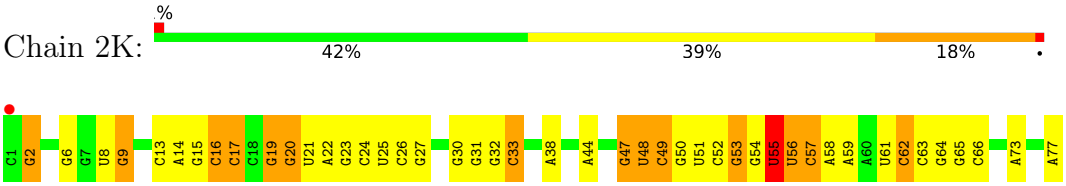
• Molecule 22: tRNA-Lys

Chain 1L:



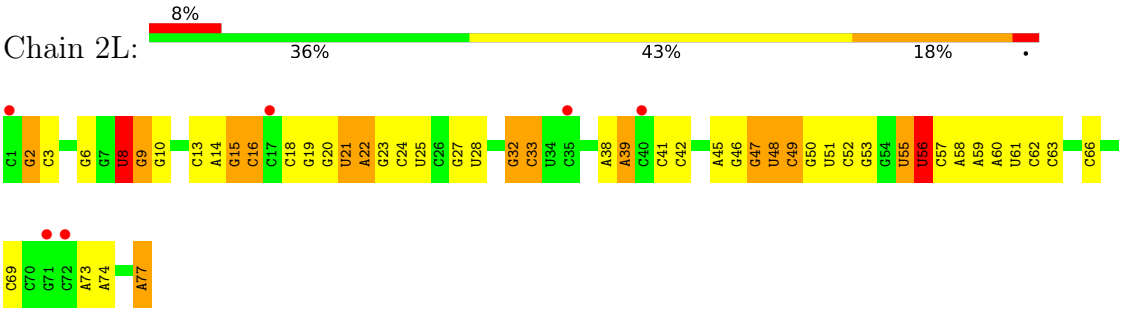
• Molecule 23: tRNA-fMet

Chain 2K:



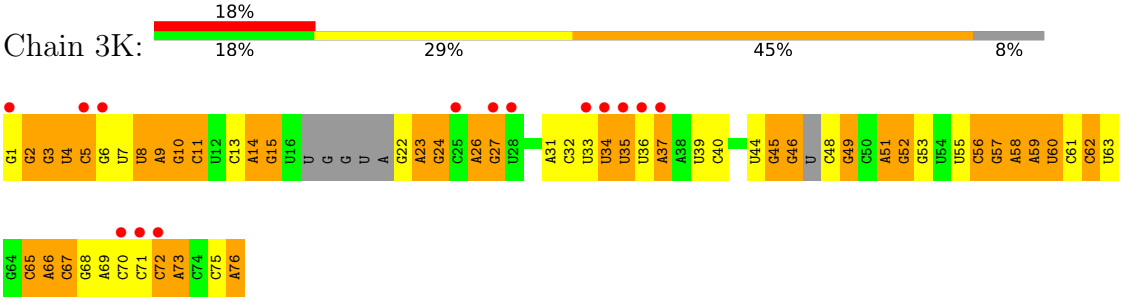
• Molecule 23: tRNA-fMet

Chain 2L:



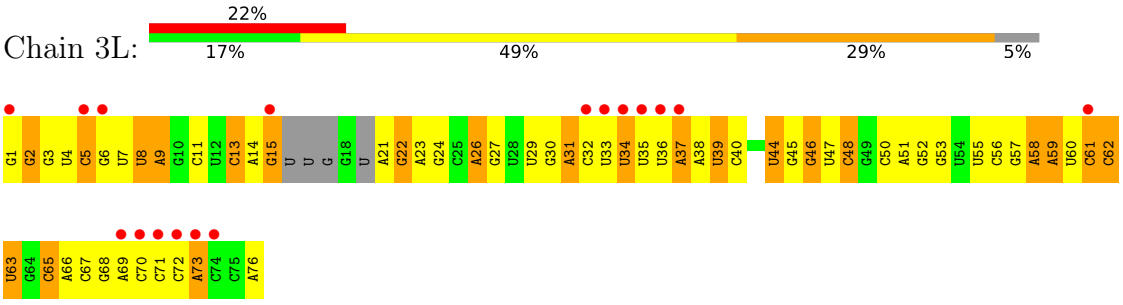
• Molecule 24: tRNA-Lys

Chain 3K:



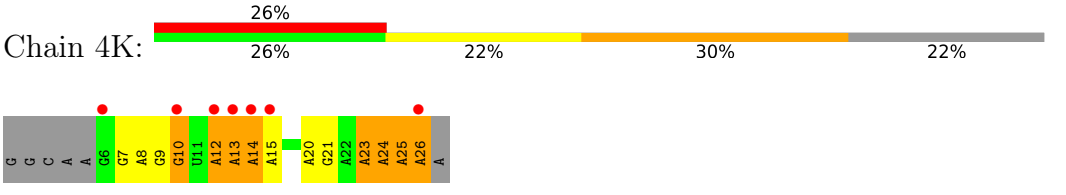
• Molecule 24: tRNA-Lys

Chain 3L:



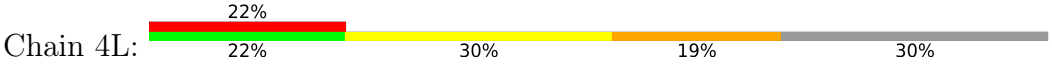
• Molecule 25: mRNA

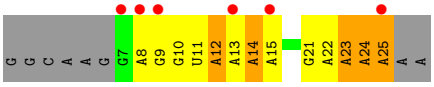
Chain 4K:



• Molecule 25: mRNA

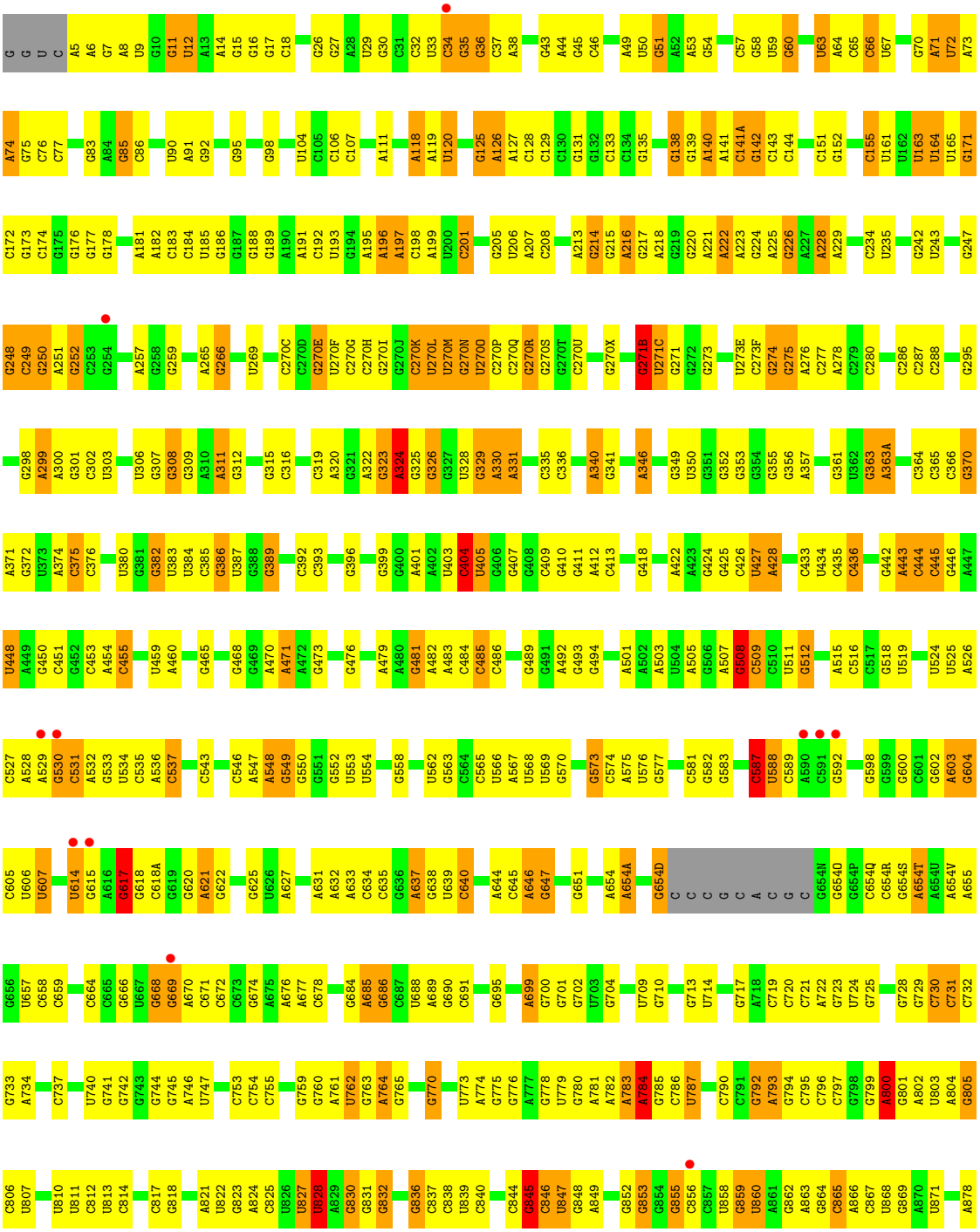
Chain 4L:

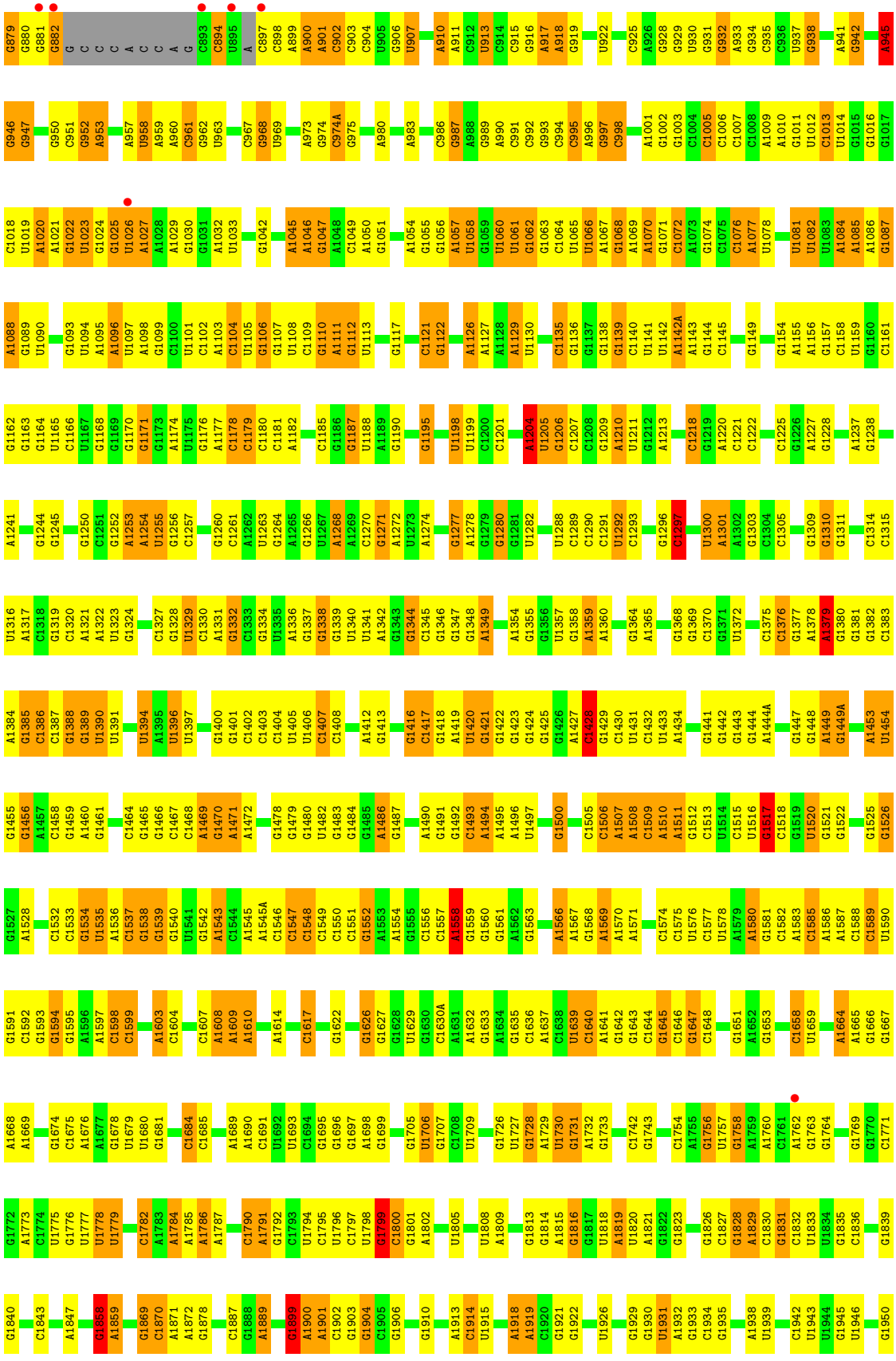


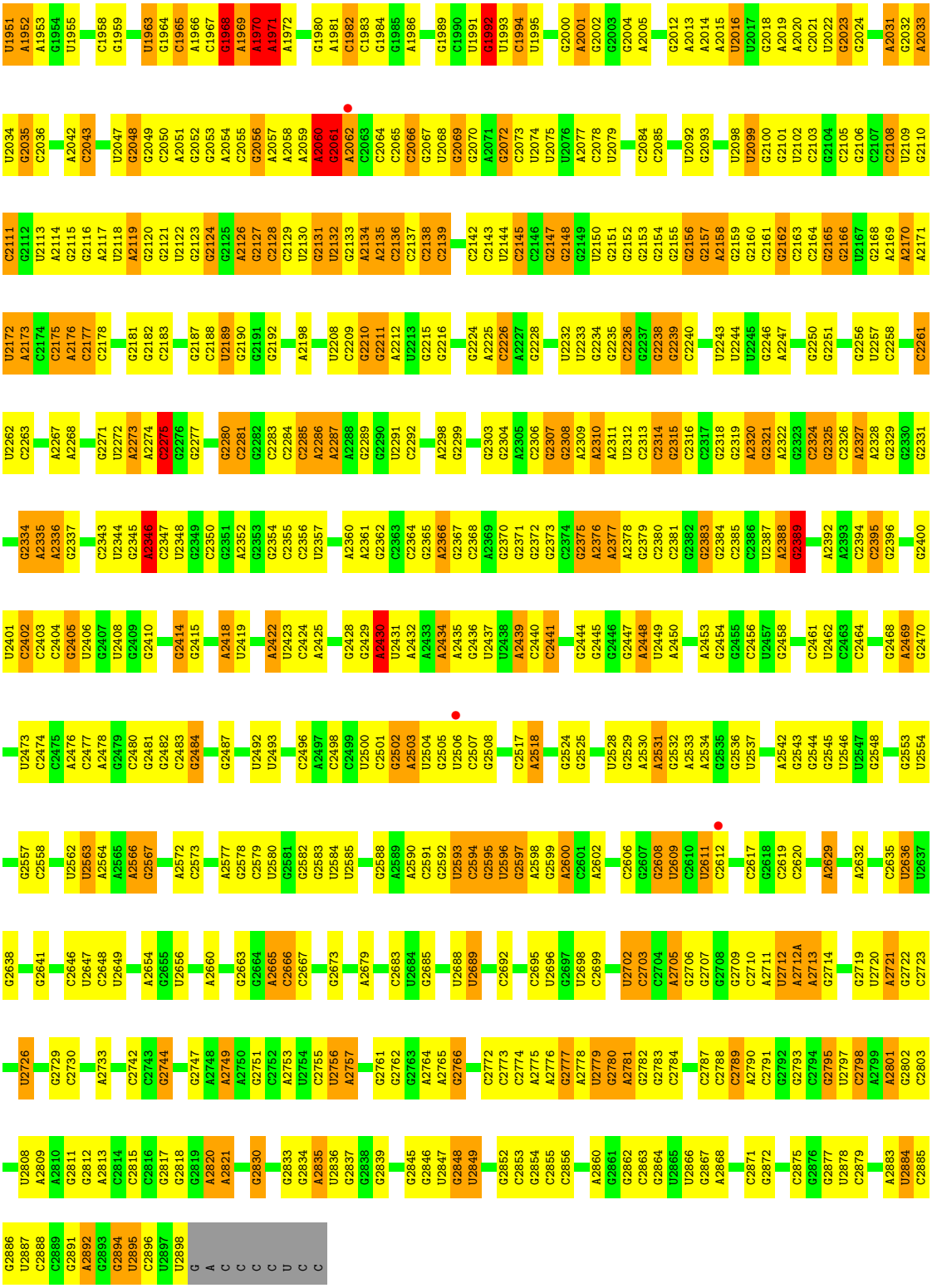


• Molecule 26: 23S ribosomal RNA

Chain 1H:

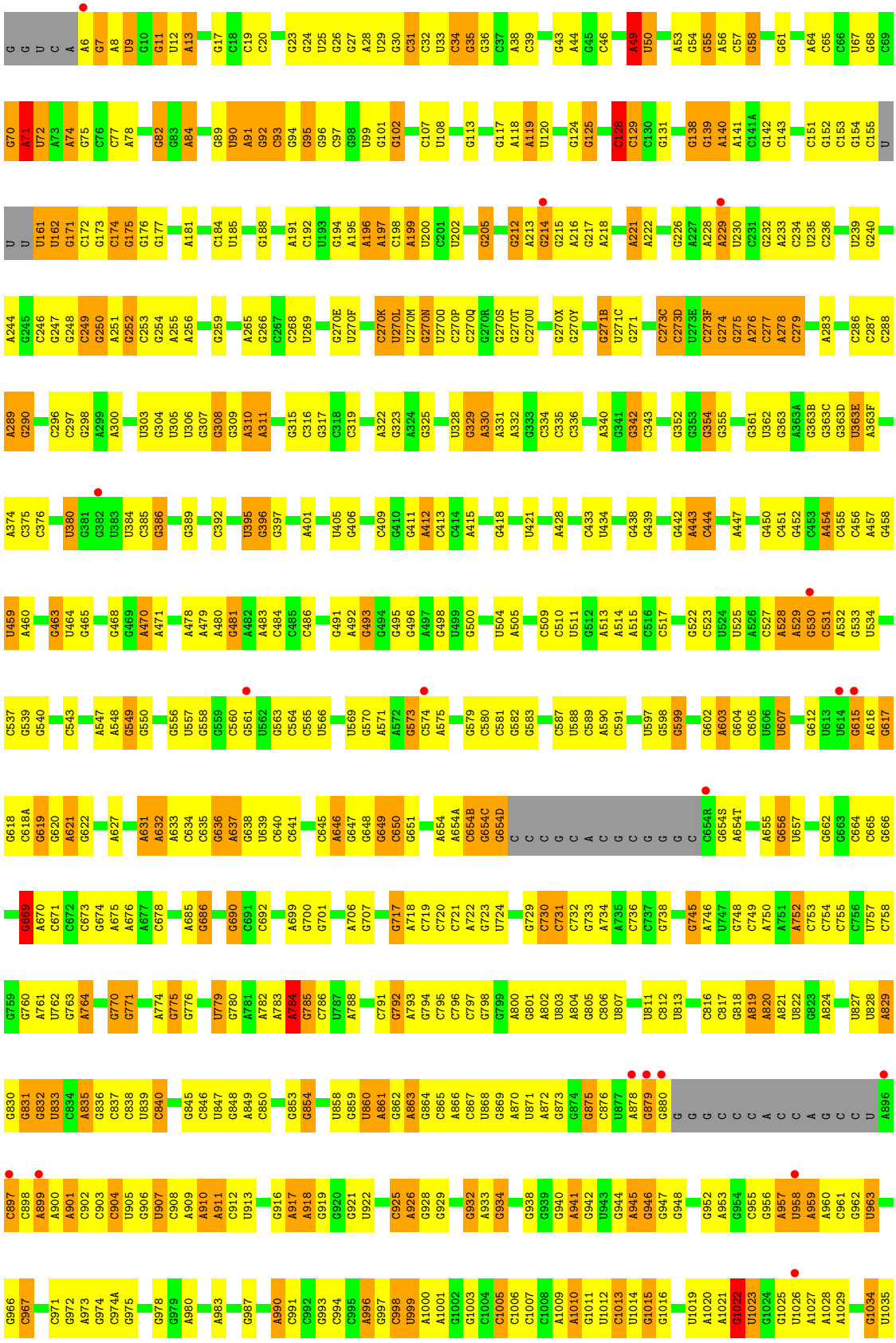


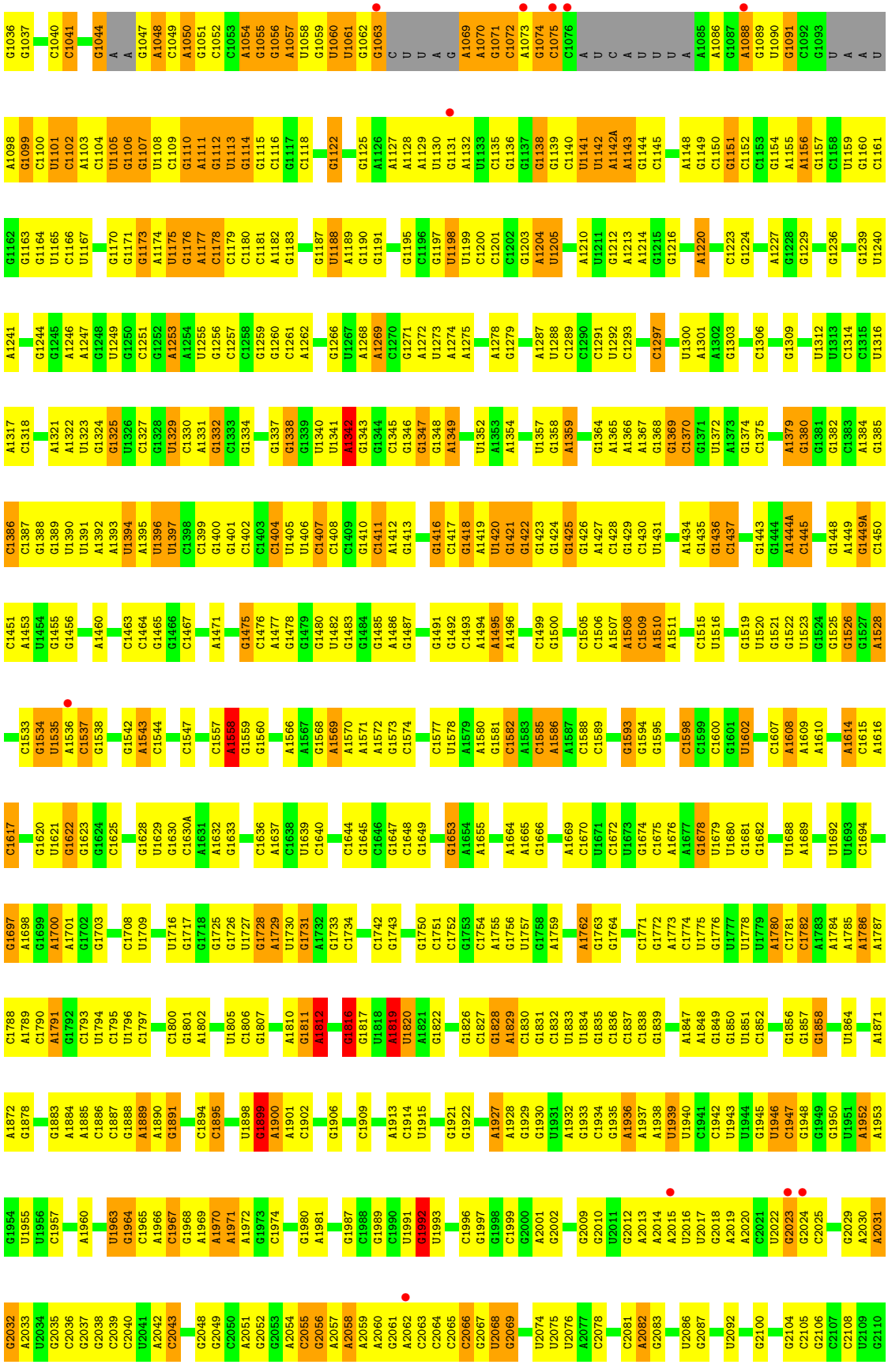


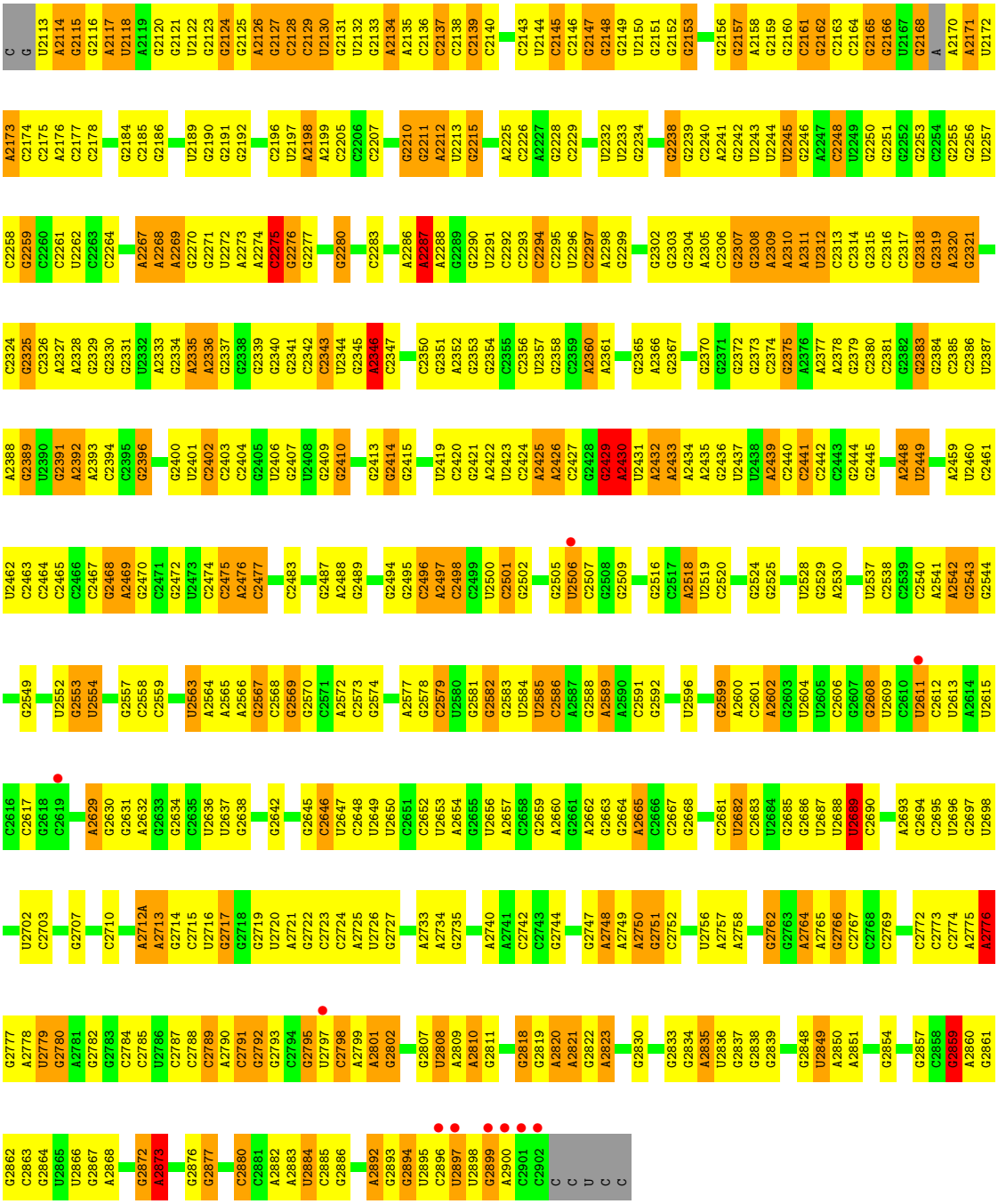


• Molecule 26: 23S ribosomal RNA

Chain 14:

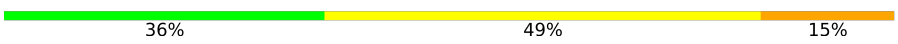


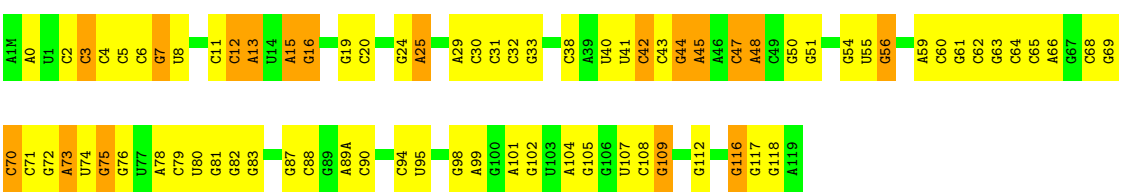




• Molecule 27: 5S ribosomal RNA

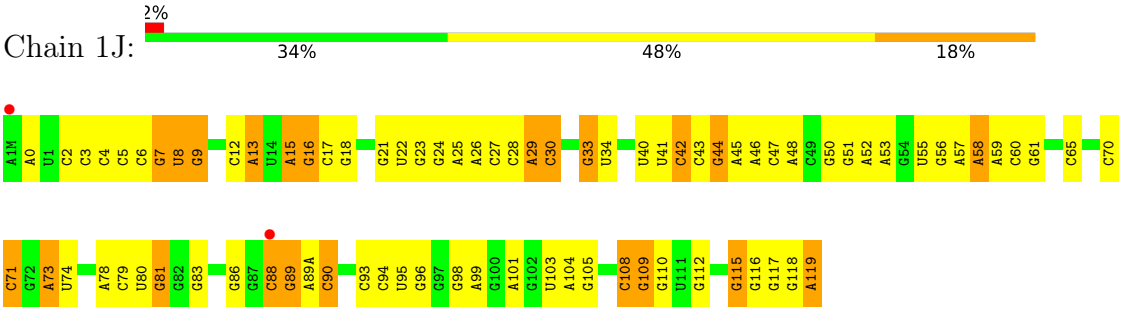
Chain 16:





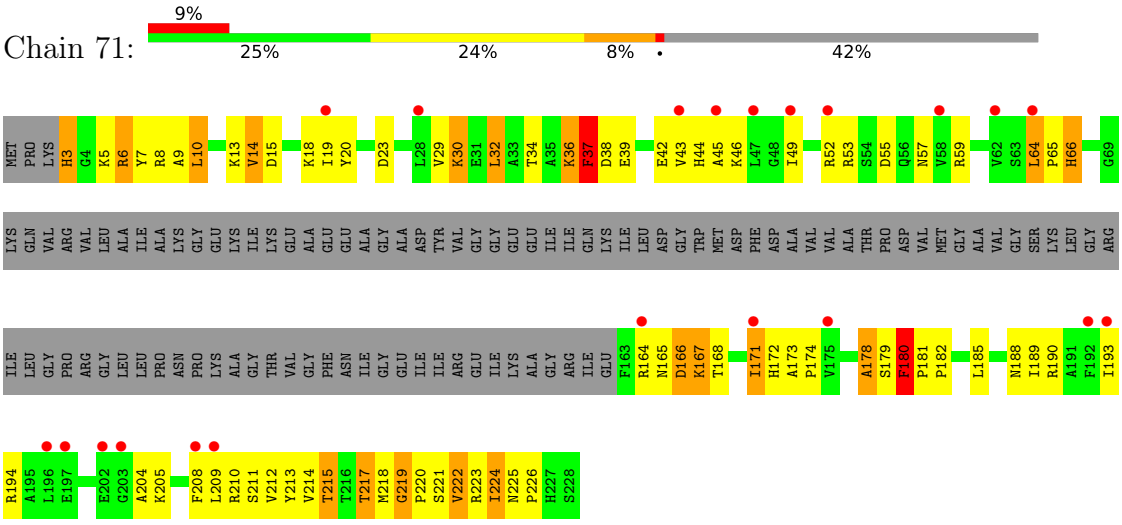
• Molecule 27: 5S ribosomal RNA

Chain 1J:



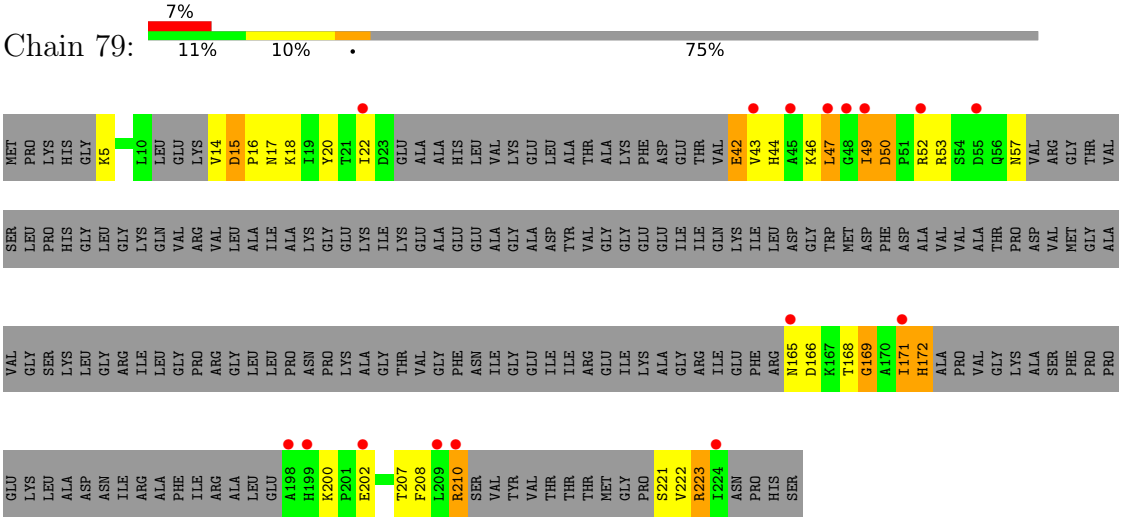
• Molecule 28: 50S ribosomal protein L1

Chain 71:



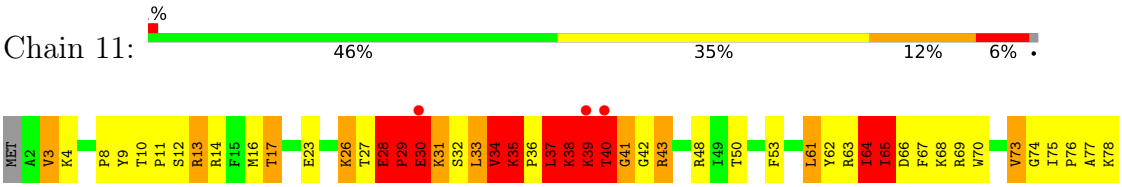
• Molecule 28: 50S ribosomal protein L1

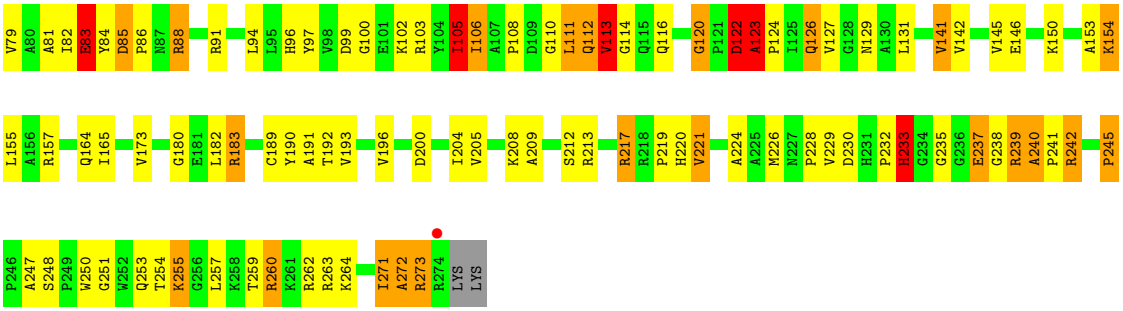
Chain 79:



• Molecule 29: 50S ribosomal protein L2

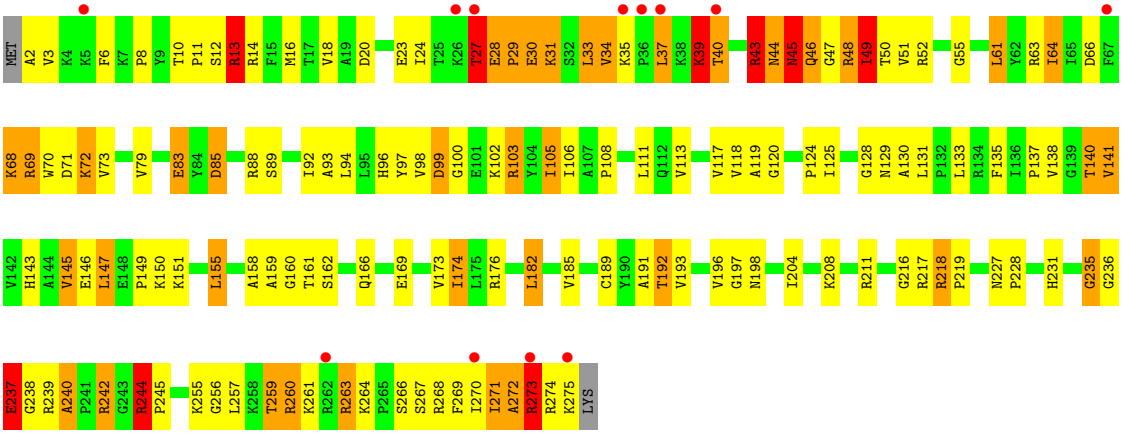
Chain 11:





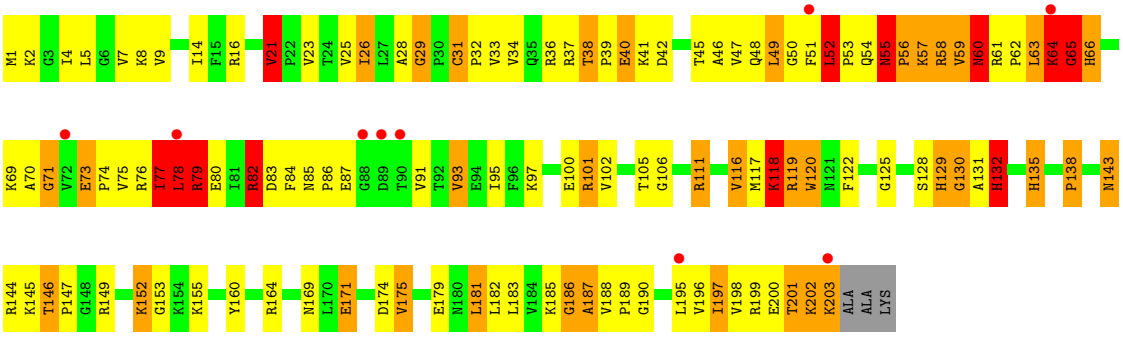
• Molecule 29: 50S ribosomal protein L2

Chain 19:



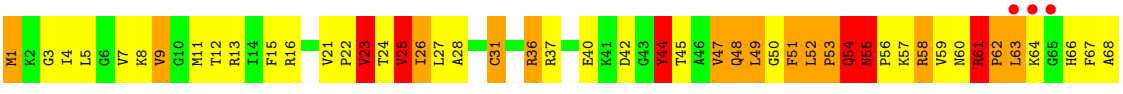
• Molecule 30: 50S ribosomal protein L3

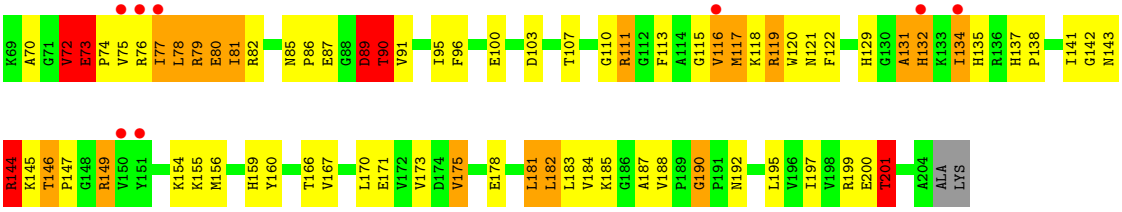
Chain 21:



• Molecule 30: 50S ribosomal protein L3

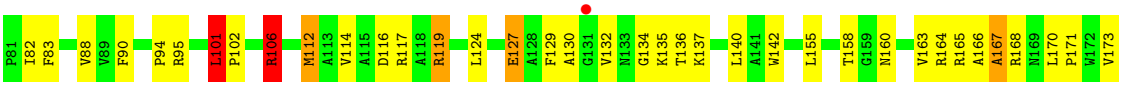
Chain 29:

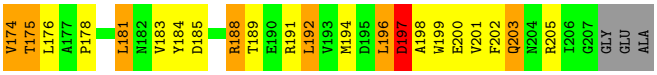




• Molecule 31: 50S ribosomal protein L4

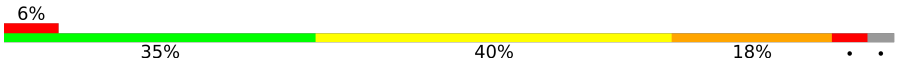
Chain 31:

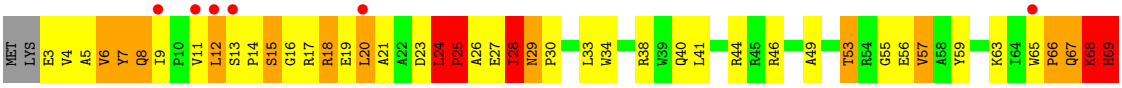


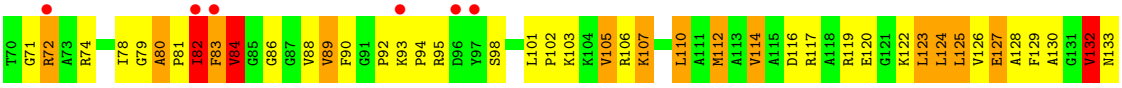


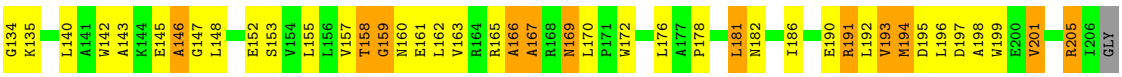
• Molecule 31: 50S ribosomal protein L4

Chain 39:



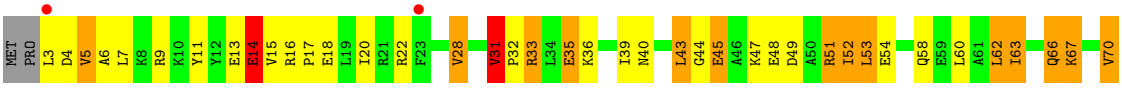


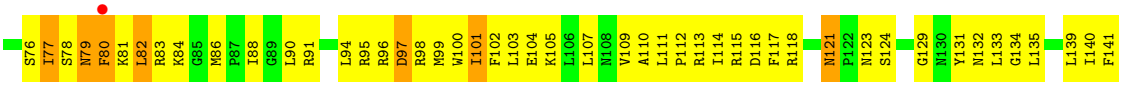




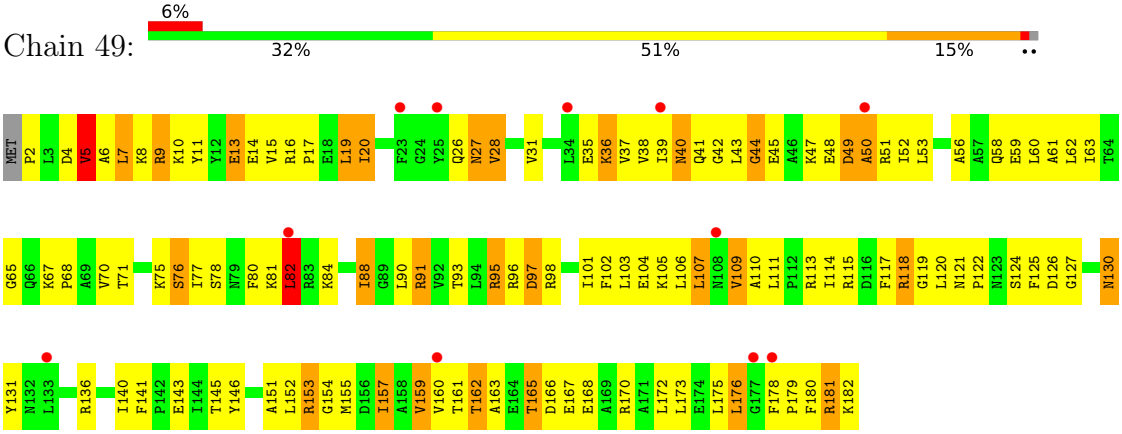
• Molecule 32: 50S ribosomal protein L5

Chain 41:

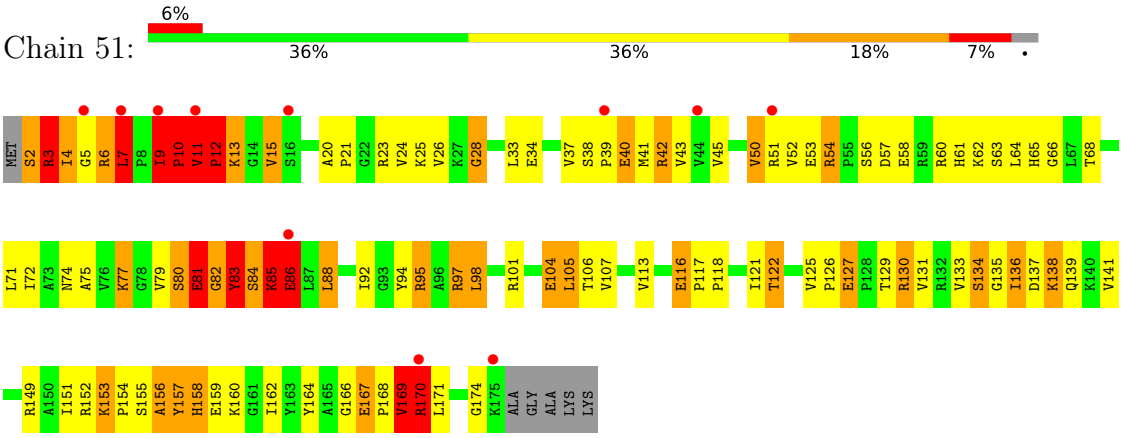




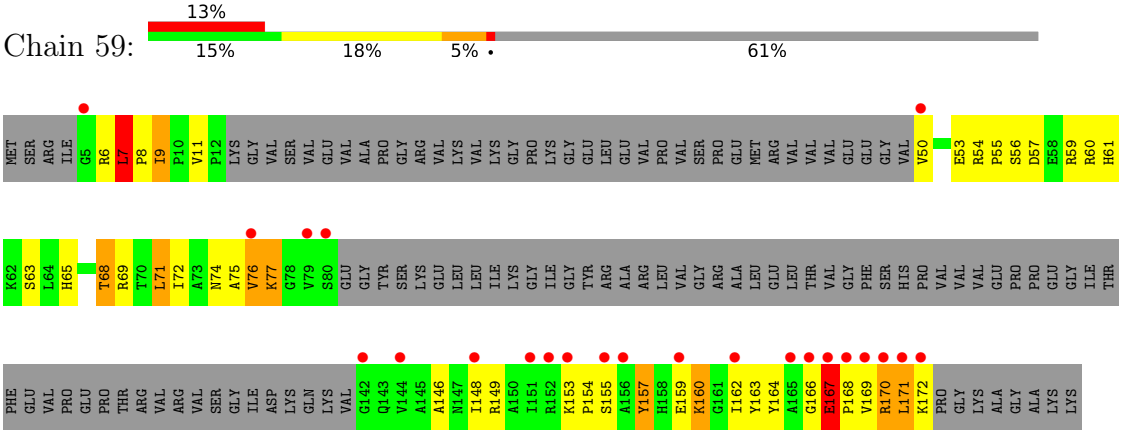
• Molecule 32: 50S ribosomal protein L5



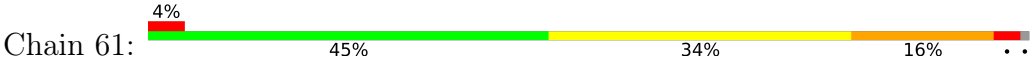
• Molecule 33: 50S ribosomal protein L6

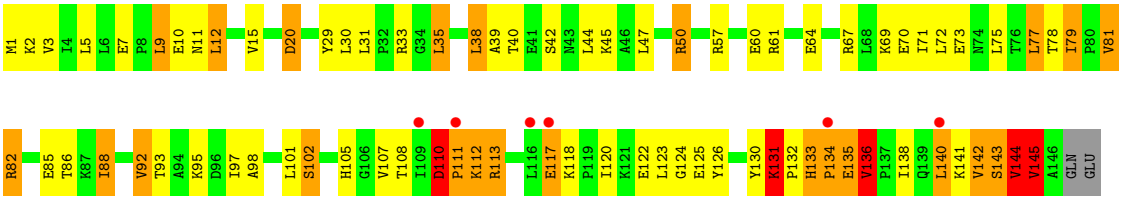


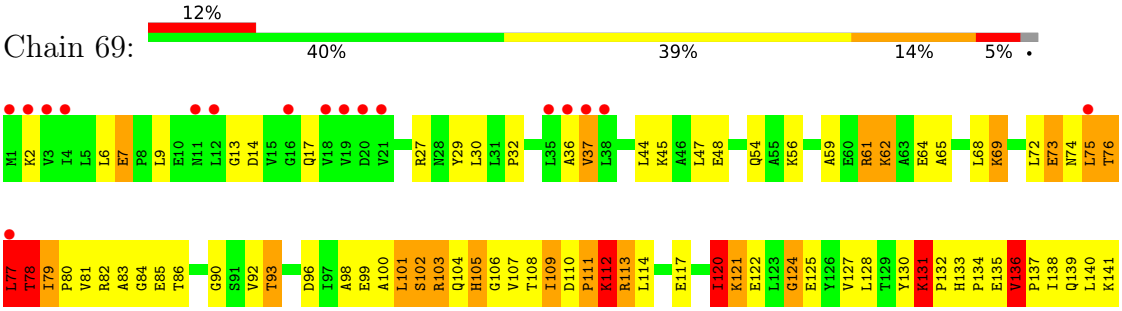
• Molecule 33: 50S ribosomal protein L6



• Molecule 34: 50S ribosomal protein L9

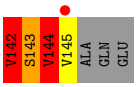






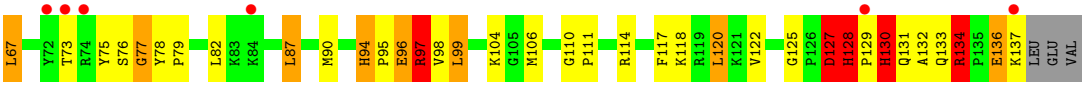
• Molecule 34: 50S ribosomal protein L9

Chain 69:



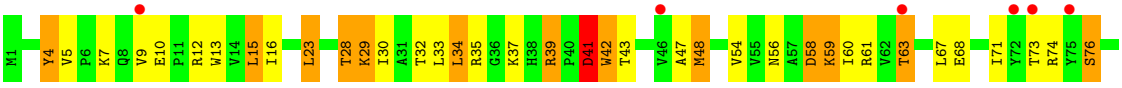
• Molecule 35: 50S ribosomal protein L13

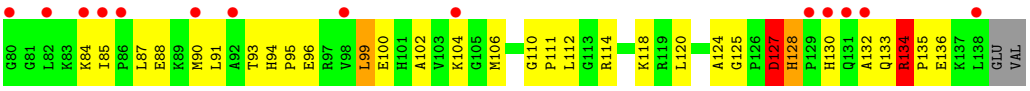
Chain 58:



• Molecule 35: 50S ribosomal protein L13

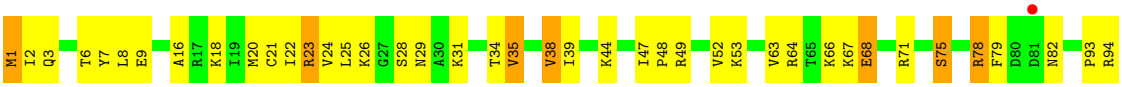
Chain 15:

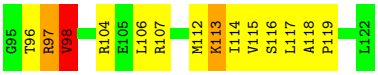




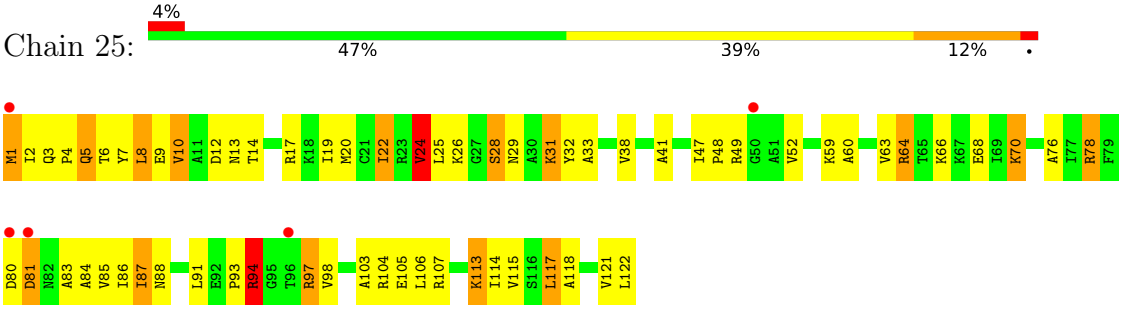
• Molecule 36: 50S ribosomal protein L14

Chain 68:

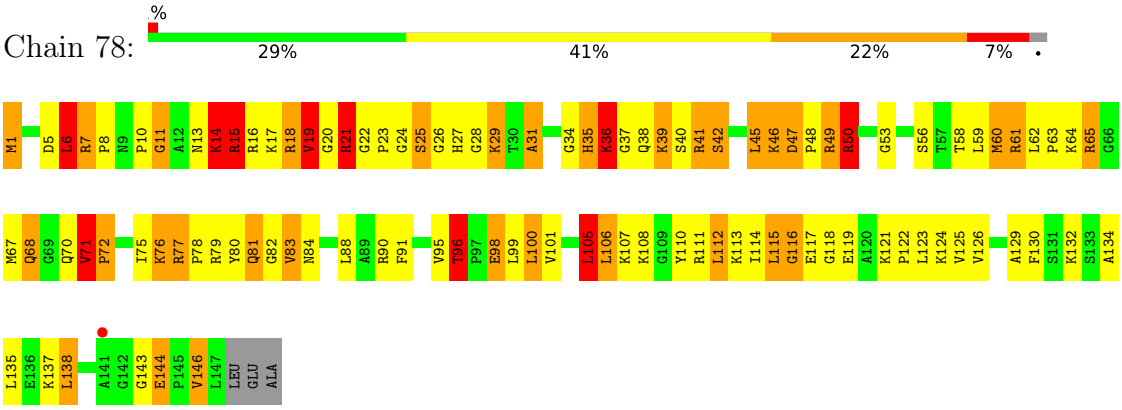




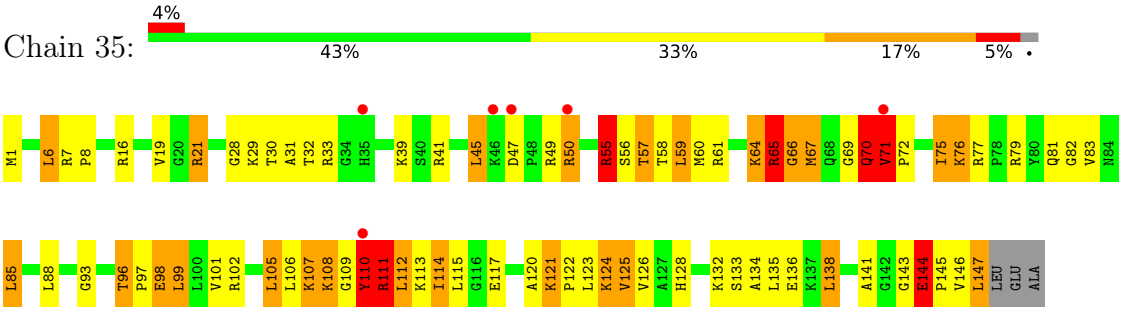
• Molecule 36: 50S ribosomal protein L14



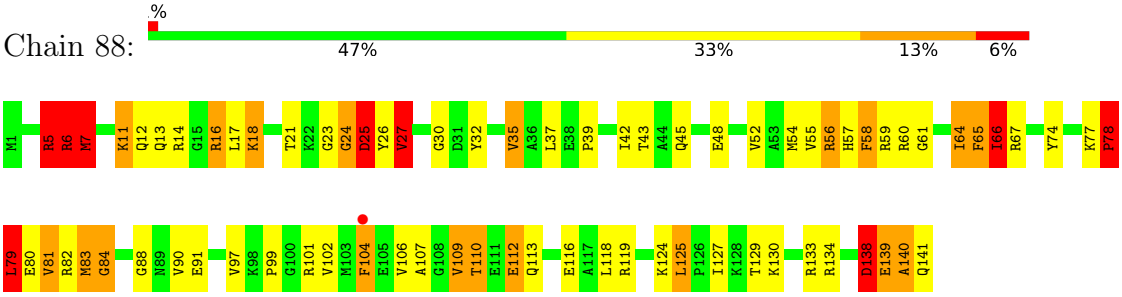
• Molecule 37: 50S ribosomal protein L15



• Molecule 37: 50S ribosomal protein L15

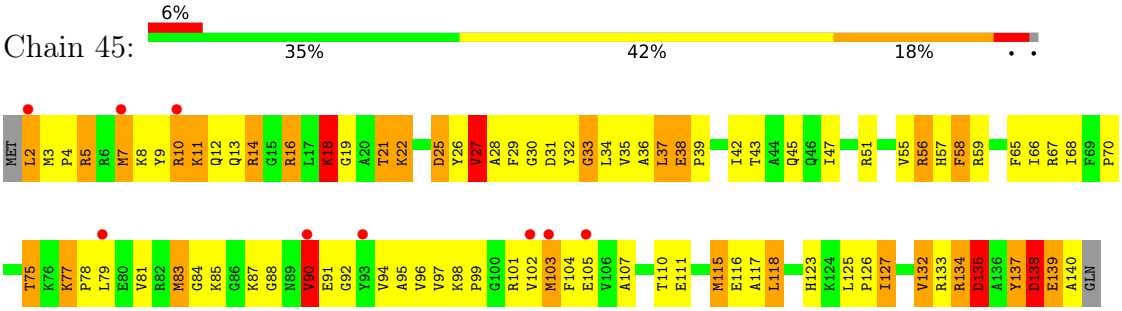


• Molecule 38: 50S ribosomal protein L16



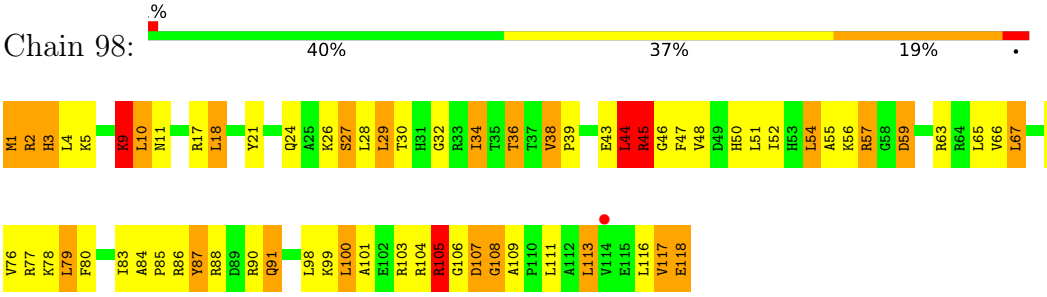
• Molecule 38: 50S ribosomal protein L16

Chain 45:



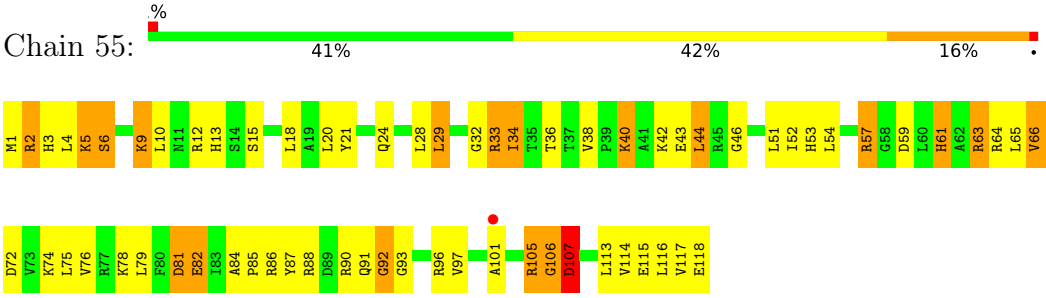
• Molecule 39: 50S ribosomal protein L17

Chain 98:



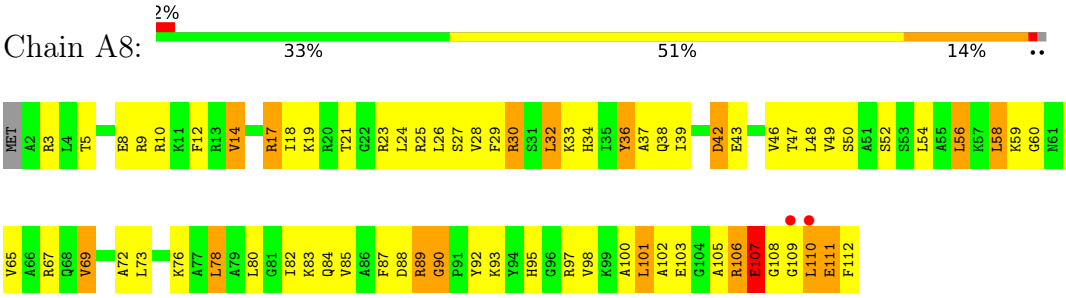
• Molecule 39: 50S ribosomal protein L17

Chain 55:



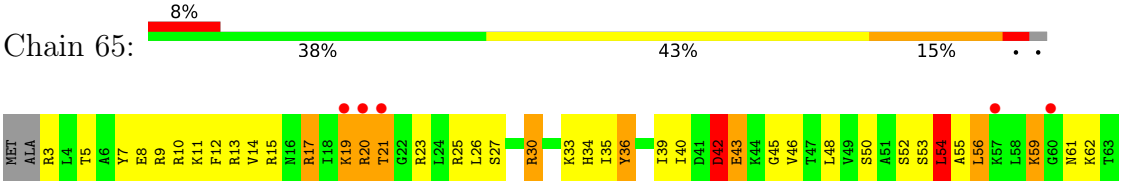
• Molecule 40: 50S ribosomal protein L18

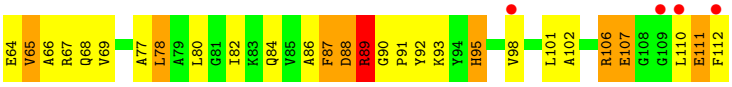
Chain A8:



• Molecule 40: 50S ribosomal protein L18

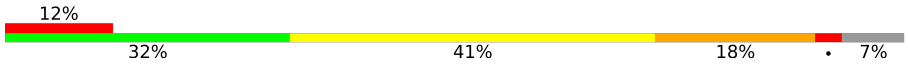
Chain 65:

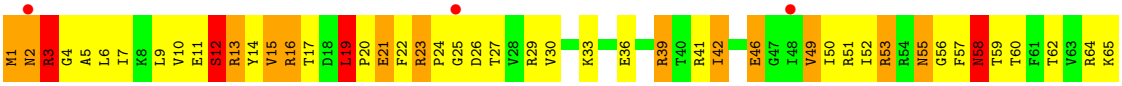


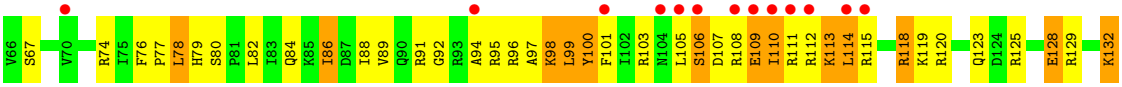


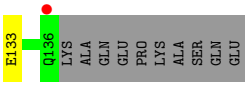
• Molecule 41: 50S ribosomal protein L19

Chain B8:



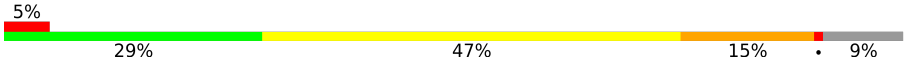


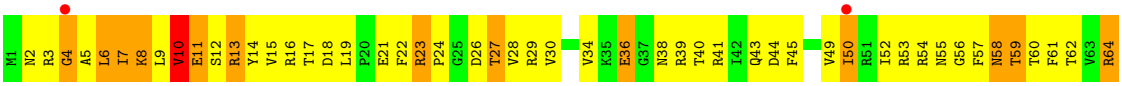


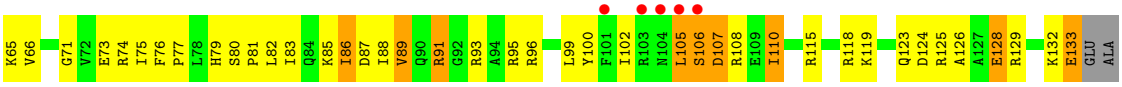


• Molecule 41: 50S ribosomal protein L19

Chain 75:

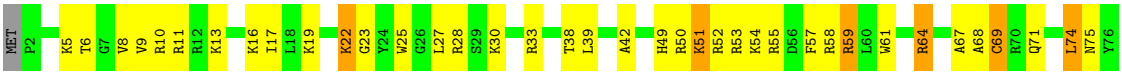


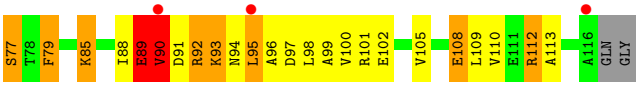




• Molecule 42: 50S ribosomal protein L20

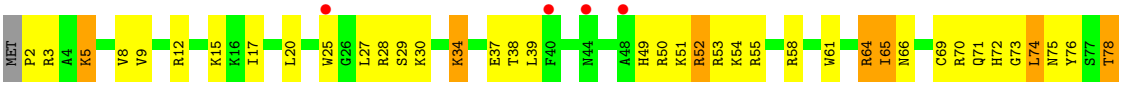
Chain C8:

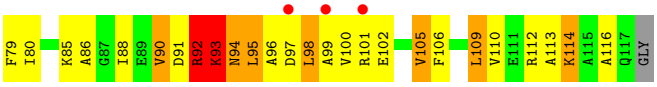




• Molecule 42: 50S ribosomal protein L20

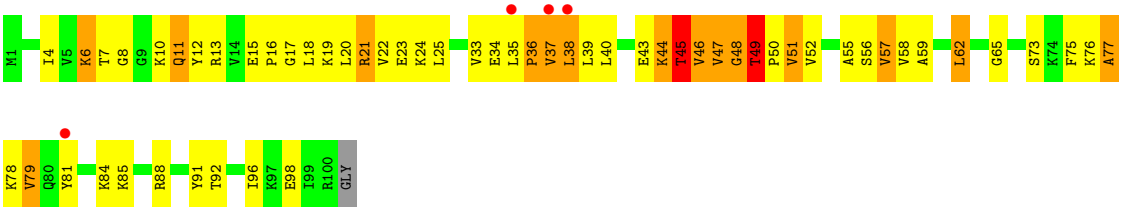
Chain 85:





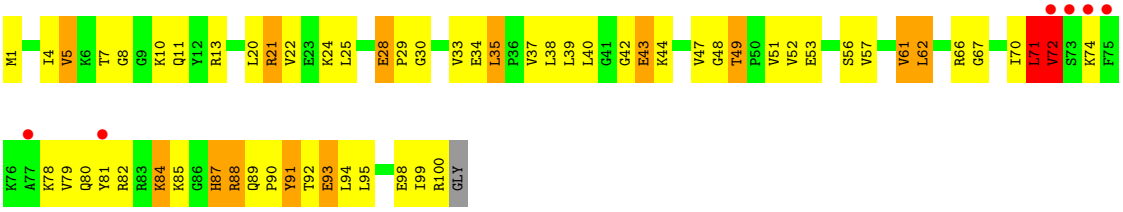
• Molecule 43: 50S ribosomal protein L21

Chain D8:



• Molecule 43: 50S ribosomal protein L21

Chain 95:

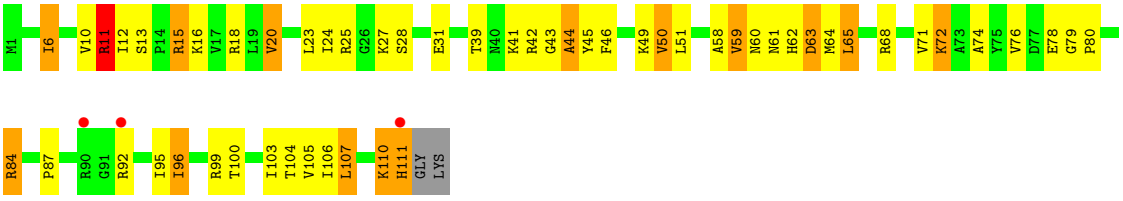


• Molecule 44: 50S ribosomal protein L22

Chain E8:

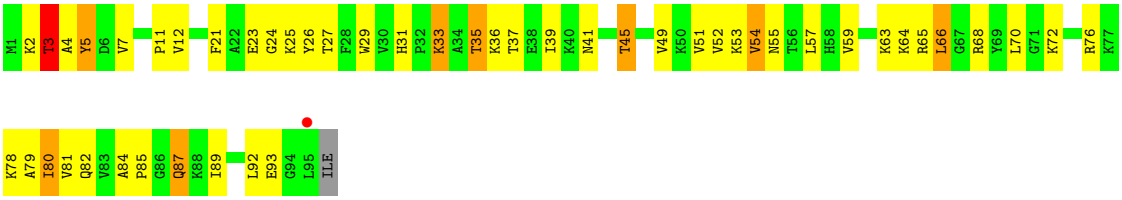
• Molecule 44: 50S ribosomal protein L22

Chain A5:



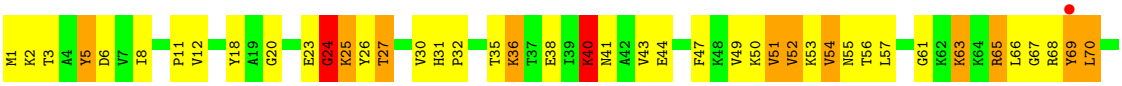
• Molecule 45: 50S ribosomal protein L23

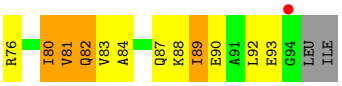
Chain F8:



• Molecule 45: 50S ribosomal protein L23

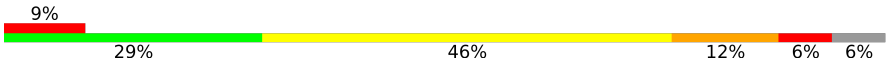
Chain B5:

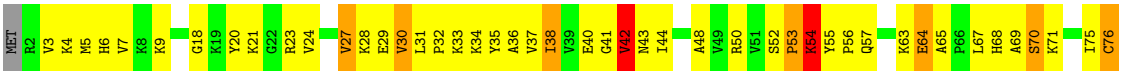


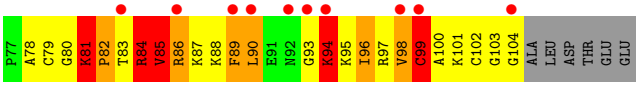


• Molecule 46: 50S ribosomal protein L24

Chain G8:

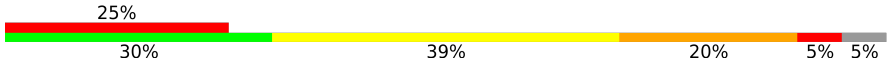


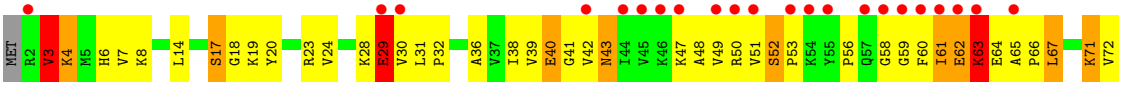


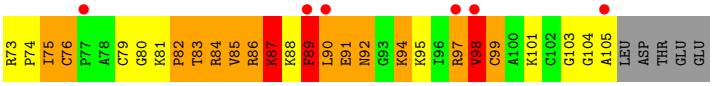


• Molecule 46: 50S ribosomal protein L24

Chain C5:

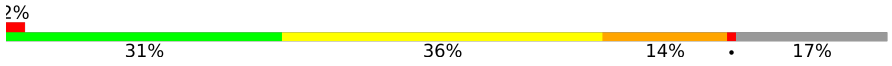


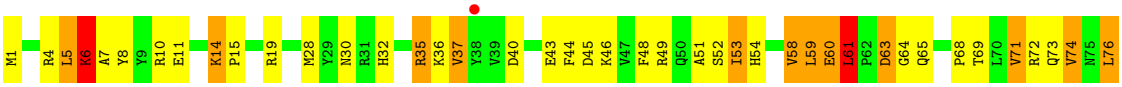


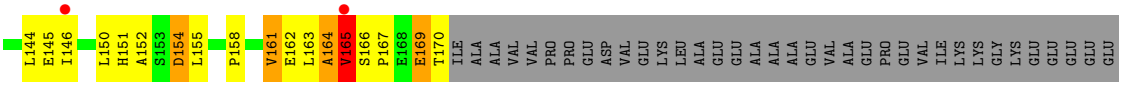


• Molecule 47: 50S ribosomal protein L25

Chain H8:

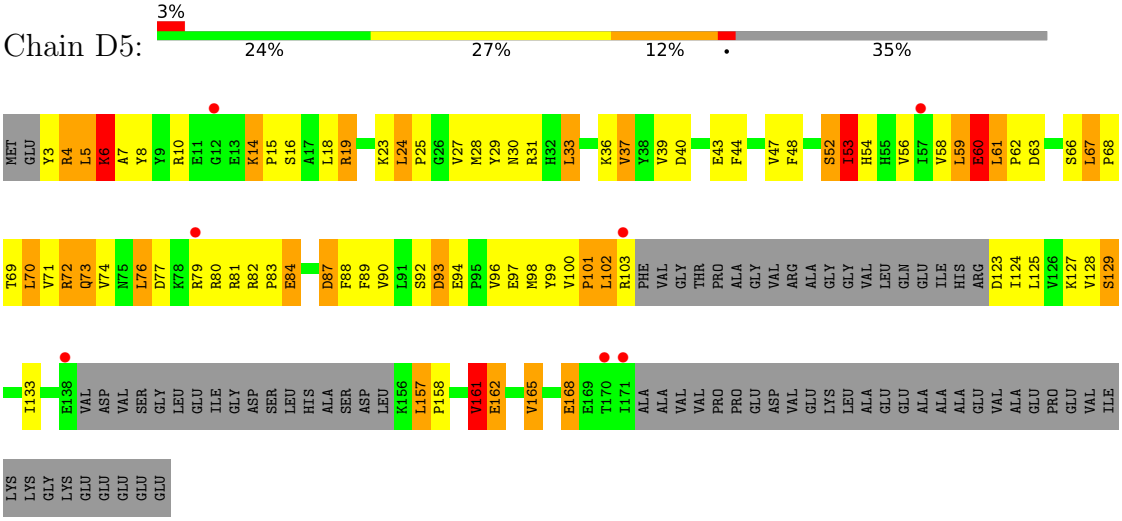






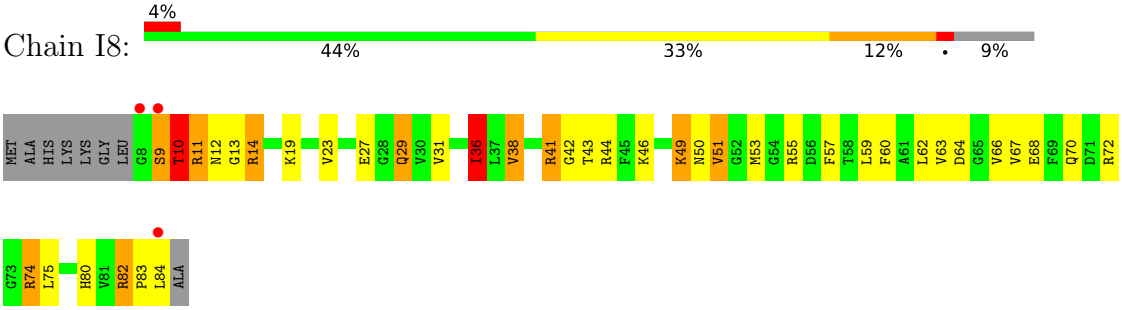
• Molecule 47: 50S ribosomal protein L25

Chain D5:



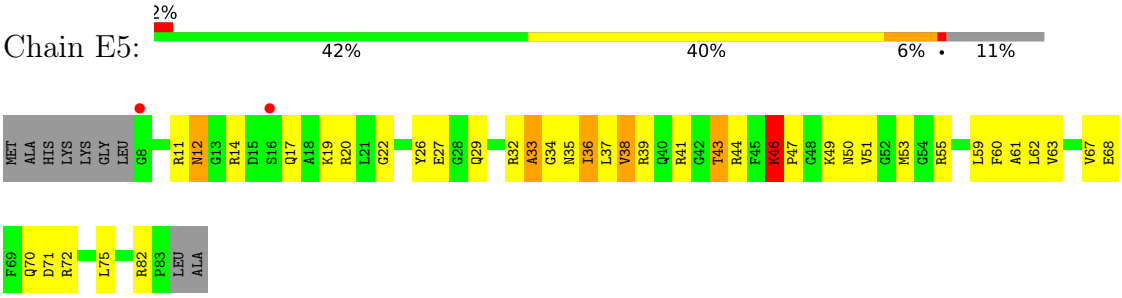
• Molecule 48: 50S ribosomal protein L27

Chain I8:



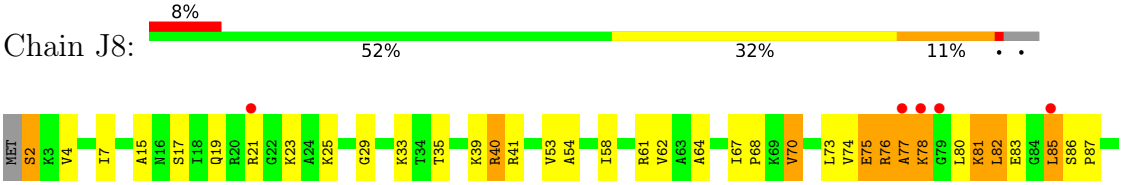
• Molecule 48: 50S ribosomal protein L27

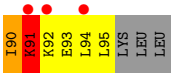
Chain E5:



• Molecule 49: 50S ribosomal protein L28

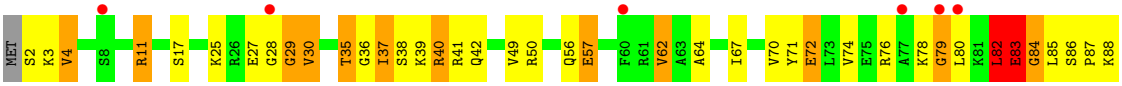
Chain J8:

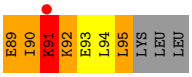




• Molecule 49: 50S ribosomal protein L28

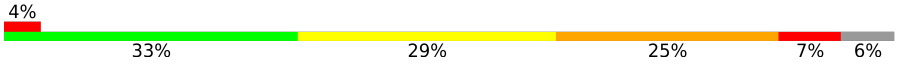
Chain F5:

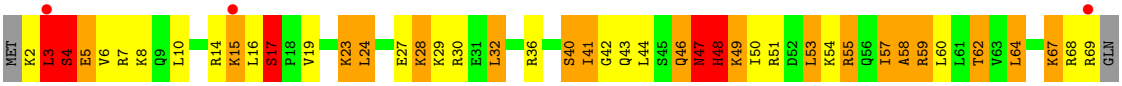




• Molecule 50: 50S ribosomal protein L29

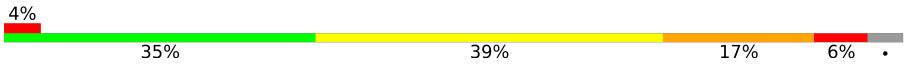
Chain K8:

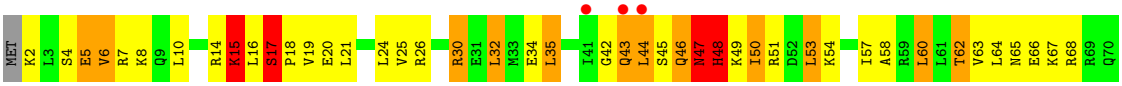




• Molecule 50: 50S ribosomal protein L29

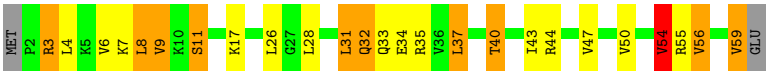
Chain G5:





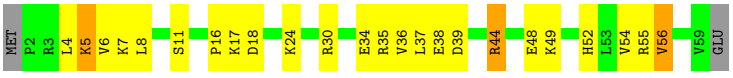
• Molecule 51: 50S ribosomal protein L30

Chain L8:



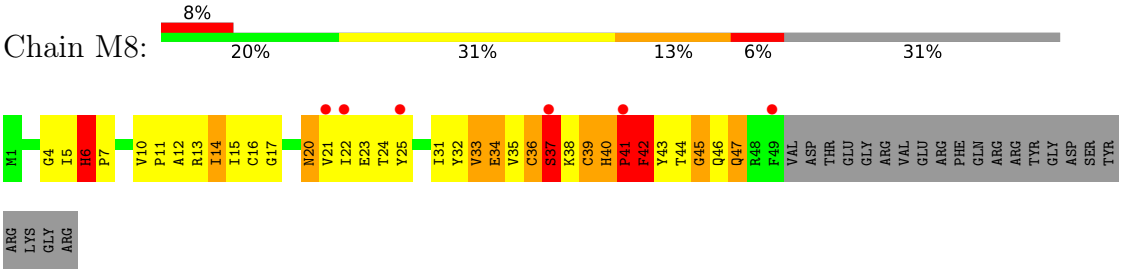
• Molecule 51: 50S ribosomal protein L30

Chain H5:



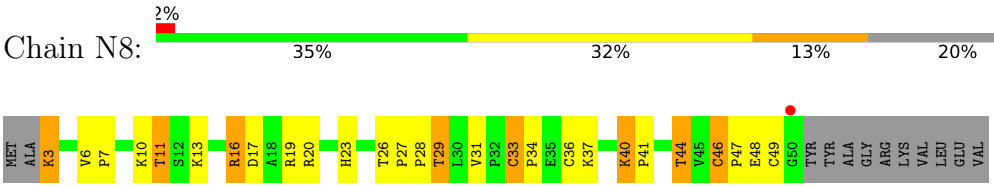
• Molecule 52: 50S ribosomal protein L31

Chain M8:



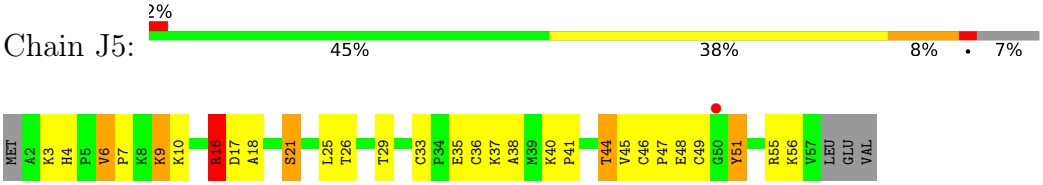
• Molecule 53: 50S ribosomal protein L32

Chain N8:



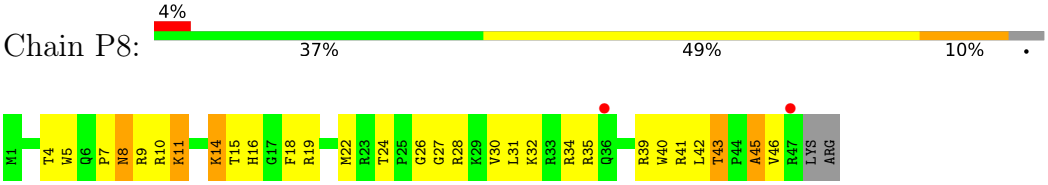
• Molecule 53: 50S ribosomal protein L32

Chain J5:



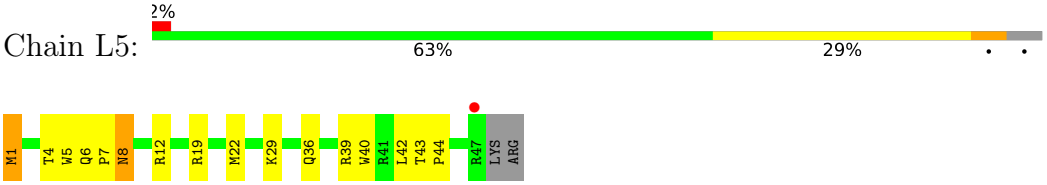
• Molecule 54: 50S ribosomal protein L34

Chain P8:



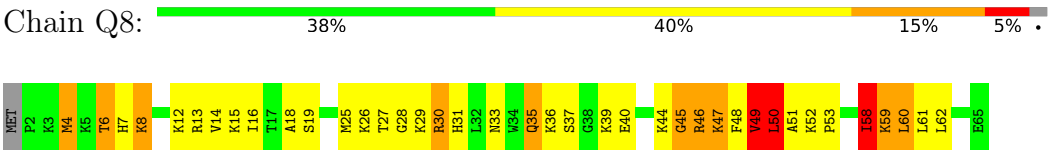
• Molecule 54: 50S ribosomal protein L34

Chain L5:



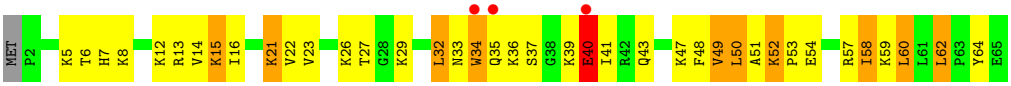
• Molecule 55: 50S ribosomal protein L35

Chain Q8:



• Molecule 55: 50S ribosomal protein L35

Chain M5:


MET
P2
K5
T6
H7
K8
K12
R13
V14
K15
I16
K21
V22
V23
K26
T27
G28
K29
L32
N33
W34
Q35
K36
S37
G38
K39
E40
I41
R42
Q43
K47
F48
V49
L50
A51
K52
P53
E54
R57
I58
K59
L60
L61
L62
P63
Y64
E65

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.20Å 448.50Å 619.90Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	147.01 – 2.95 147.01 – 2.95	Depositor EDS
% Data completeness (in resolution range)	100.0 (147.01-2.95) 91.6 (147.01-2.95)	Depositor EDS
R_{merge}	0.32	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.91 (at 2.96Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.196 , 0.242 0.197 , 0.241	Depositor DCC
R_{free} test set	2000 reflections (0.17%)	wwPDB-VP
Wilson B-factor (Å^2)	77.9	Xtriage
Anisotropy	0.354	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 66.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	297904	wwPDB-VP
Average B, all atoms (Å^2)	98.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.48% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: 4SU, ZN, G7M, 5MU, T6A, OMC, U8U, PSU, SF4, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	13	0.51	0/35994	0.79	19/56171 (0.0%)
1	1G	0.43	0/36236	0.70	8/56555 (0.0%)
2	12	0.59	0/1727	1.17	12/2326 (0.5%)
2	1E	0.65	0/1908	1.22	20/2573 (0.8%)
3	22	0.58	0/1560	0.99	1/2104 (0.0%)
3	2E	0.75	0/1629	1.04	0/2195
4	32	0.67	0/1732	1.17	11/2318 (0.5%)
4	3E	0.74	0/1728	1.20	9/2313 (0.4%)
5	42	0.67	0/1155	1.07	5/1555 (0.3%)
5	4E	0.82	0/1158	1.16	6/1559 (0.4%)
6	52	0.76	0/855	1.02	2/1154 (0.2%)
6	5E	0.79	0/850	1.05	4/1147 (0.3%)
7	62	0.62	0/1132	1.08	7/1514 (0.5%)
7	6E	0.65	0/1259	0.97	1/1686 (0.1%)
8	72	0.59	0/1127	1.10	5/1517 (0.3%)
8	7E	0.74	0/1135	1.21	6/1527 (0.4%)
9	82	0.56	0/971	1.04	2/1304 (0.2%)
9	8E	0.65	0/1019	1.06	7/1367 (0.5%)
10	1A	0.61	0/658	1.18	4/885 (0.5%)
10	1I	0.84	1/767 (0.1%)	1.15	3/1034 (0.3%)
11	2A	0.69	0/850	1.10	8/1150 (0.7%)
11	2I	0.80	0/838	1.28	11/1133 (1.0%)
12	3A	0.86	0/972	1.22	7/1301 (0.5%)
12	3I	1.09	1/972 (0.1%)	1.40	7/1301 (0.5%)
13	4A	0.61	0/903	1.15	8/1211 (0.7%)
13	4I	0.81	0/952	1.22	8/1277 (0.6%)
14	5A	0.63	0/495	1.10	3/657 (0.5%)
14	5I	0.89	0/500	1.14	2/664 (0.3%)
15	6A	0.72	0/740	0.96	1/987 (0.1%)
15	6I	0.83	1/740 (0.1%)	1.05	2/987 (0.2%)
16	7A	0.80	0/721	1.20	5/970 (0.5%)
16	7I	0.75	0/716	1.13	2/963 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.68	0/836	1.07	2/1117 (0.2%)
17	8I	0.82	0/847	1.15	6/1131 (0.5%)
18	9A	0.75	0/549	1.10	1/732 (0.1%)
18	9I	0.76	0/554	1.17	1/739 (0.1%)
19	AA	0.60	0/490	1.14	5/662 (0.8%)
19	AI	0.85	2/676 (0.3%)	1.45	9/910 (1.0%)
20	BA	0.68	0/764	1.13	4/1007 (0.4%)
20	BI	0.61	0/748	1.12	1/986 (0.1%)
21	1B	0.62	0/192	1.20	0/252
21	1F	0.60	0/203	1.13	2/266 (0.8%)
22	1K	0.45	0/1589	0.63	0/2464
22	1L	0.35	0/1516	0.53	0/2350
23	2K	0.58	1/1721 (0.1%)	0.82	0/2682
23	2L	0.49	1/1721 (0.1%)	0.74	0/2682
24	3K	0.40	0/1654	0.62	0/2570
24	3L	0.37	0/1705	0.57	0/2650
25	4K	0.56	0/523	0.73	0/813
25	4L	0.42	0/473	0.76	0/737
26	14	0.61	0/68883	0.88	58/107521 (0.1%)
26	1H	0.70	1/69669 (0.0%)	0.97	113/108757 (0.1%)
27	16	0.58	0/2928	0.95	0/4568
27	1J	0.50	0/2928	0.82	0/4568
28	71	0.58	1/1055 (0.1%)	1.19	8/1425 (0.6%)
28	79	0.56	0/459	1.08	6/608 (1.0%)
29	11	1.33	12/2170 (0.6%)	1.70	56/2926 (1.9%)
29	19	1.17	9/2175 (0.4%)	1.54	32/2933 (1.1%)
30	21	1.10	3/1591 (0.2%)	1.66	36/2146 (1.7%)
30	29	1.06	3/1596 (0.2%)	1.53	34/2153 (1.6%)
31	31	1.11	1/1620 (0.1%)	1.43	15/2194 (0.7%)
31	39	0.97	1/1637 (0.1%)	1.50	19/2218 (0.9%)
32	41	0.85	1/1481 (0.1%)	1.25	9/1994 (0.5%)
32	49	0.66	0/1492	1.16	9/2008 (0.4%)
33	51	0.98	1/1354 (0.1%)	1.59	34/1833 (1.9%)
33	59	0.66	0/552	1.50	8/743 (1.1%)
34	61	0.79	0/1151	1.29	15/1558 (1.0%)
34	69	0.78	1/1146 (0.1%)	1.35	20/1551 (1.3%)
35	15	0.75	0/1131	1.22	12/1525 (0.8%)
35	58	0.90	1/1123 (0.1%)	1.37	10/1514 (0.7%)
36	25	0.92	1/942 (0.1%)	1.26	7/1269 (0.6%)
36	68	1.02	0/942	1.27	8/1269 (0.6%)
37	35	0.93	1/1139 (0.1%)	1.54	18/1514 (1.2%)
37	78	1.12	0/1139	1.75	31/1514 (2.0%)
38	45	0.96	1/1125 (0.1%)	1.36	11/1505 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	88	1.25	4/1138 (0.4%)	1.53	23/1523 (1.5%)
39	55	0.93	0/981	1.27	4/1312 (0.3%)
39	98	0.96	1/981 (0.1%)	1.30	7/1312 (0.5%)
40	65	0.80	0/886	1.33	5/1180 (0.4%)
40	A8	0.97	0/891	1.29	5/1187 (0.4%)
41	75	0.91	0/1123	1.28	6/1500 (0.4%)
41	B8	1.02	0/1138	1.49	22/1521 (1.4%)
42	85	0.92	0/977	1.24	6/1301 (0.5%)
42	C8	1.06	2/968 (0.2%)	1.25	5/1289 (0.4%)
43	95	0.86	1/781 (0.1%)	1.40	5/1048 (0.5%)
43	D8	0.91	1/785 (0.1%)	1.39	4/1052 (0.4%)
44	A5	1.08	3/897 (0.3%)	1.25	3/1204 (0.2%)
44	E8	1.04	0/886	1.29	4/1189 (0.3%)
45	B5	1.01	1/749 (0.1%)	1.27	6/1007 (0.6%)
45	F8	1.15	0/757	1.49	10/1017 (1.0%)
46	C5	0.94	1/807 (0.1%)	1.34	7/1076 (0.7%)
46	G8	1.14	1/796 (0.1%)	1.65	18/1062 (1.7%)
47	D5	0.71	0/1103	1.26	17/1494 (1.1%)
47	H8	0.81	2/1395 (0.1%)	1.22	8/1890 (0.4%)
48	E5	1.01	0/611	1.33	6/814 (0.7%)
48	I8	1.18	1/619 (0.2%)	1.63	10/825 (1.2%)
49	F5	1.03	1/744 (0.1%)	1.60	21/989 (2.1%)
49	J8	1.11	2/744 (0.3%)	1.42	6/989 (0.6%)
50	G5	0.82	0/578	1.33	4/766 (0.5%)
50	K8	1.09	1/577 (0.2%)	1.51	11/763 (1.4%)
51	H5	0.83	0/464	1.32	4/623 (0.6%)
51	L8	1.03	1/464 (0.2%)	1.41	7/623 (1.1%)
52	M8	0.91	0/385	1.64	9/521 (1.7%)
53	J5	1.05	0/448	1.37	6/606 (1.0%)
53	N8	1.07	1/381 (0.3%)	1.52	7/516 (1.4%)
54	L5	1.05	0/409	1.45	2/540 (0.4%)
54	P8	1.31	0/409	1.53	6/540 (1.1%)
55	M5	1.10	1/524 (0.2%)	1.42	7/691 (1.0%)
55	Q8	1.27	2/524 (0.4%)	1.77	13/691 (1.9%)
All	All	0.69	72/318108 (0.0%)	1.00	1080/476630 (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	5

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	1
4	32	0	1
9	82	0	1
9	8E	0	1
10	1I	0	1
11	2A	0	1
11	2I	0	1
12	3I	0	3
13	4A	0	2
13	4I	0	3
14	5A	0	1
20	BA	0	3
28	71	0	3
29	11	0	6
29	19	0	5
30	21	0	9
30	29	0	5
31	39	0	10
32	41	0	1
32	49	0	3
33	51	0	5
33	59	0	3
34	61	0	3
34	69	0	5
35	15	0	2
35	58	0	2
37	35	0	3
37	78	0	5
38	45	0	3
38	88	0	2
39	55	0	1
39	98	0	1
40	65	0	1
41	75	0	1
41	B8	0	3
42	85	0	3
42	C8	0	2
43	95	0	1
43	D8	0	4
44	A5	0	1
45	B5	0	2
45	F8	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
46	C5	0	2
46	G8	0	6
47	D5	0	5
47	H8	0	3
49	F5	0	2
49	J8	0	3
50	G5	0	3
50	K8	0	4
52	M8	0	4
54	P8	0	1
55	M5	0	2
55	Q8	0	2
All	All	0	158

All (72) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	11	39	LYS	CA-C	9.43	1.65	1.52
48	I8	10	THR	CA-CB	9.28	1.69	1.53
29	11	123	ALA	CA-CB	-8.52	1.40	1.53
29	19	40	THR	CA-C	8.30	1.63	1.52
30	21	131	ALA	CA-CB	8.07	1.67	1.53
29	19	44	ASN	CA-C	7.70	1.64	1.53
44	A5	12	ILE	CA-CB	-7.69	1.50	1.55
30	29	135	HIS	CA-C	-7.59	1.44	1.52
29	11	40	THR	CA-C	7.54	1.68	1.52
43	95	72	VAL	CA-CB	7.40	1.64	1.54
29	11	271	ILE	CA-C	7.20	1.62	1.53
30	21	21	VAL	CA-CB	7.09	1.63	1.54
19	AI	41	VAL	CB-CG1	-6.97	1.29	1.52
29	19	44	ASN	C-O	6.92	1.31	1.24
42	C8	9	VAL	CA-CB	-6.91	1.47	1.54
29	11	224	ALA	CA-CB	-6.90	1.41	1.53
55	Q8	49	VAL	CA-C	-6.90	1.45	1.53
36	25	24	VAL	CA-CB	6.88	1.62	1.54
29	19	27	THR	CA-CB	6.85	1.61	1.53
30	29	144	ARG	CA-C	-6.71	1.47	1.53
32	41	31	VAL	CA-CB	6.66	1.62	1.54
38	88	65	PHE	CA-C	6.64	1.61	1.52
47	H8	165	VAL	CA-CB	6.60	1.63	1.54
30	21	131	ALA	C-O	-6.32	1.16	1.24
28	71	66	HIS	ND1-CE1	6.28	1.38	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	39	84	VAL	CA-CB	6.26	1.62	1.54
47	H8	164	ALA	CA-CB	-6.22	1.44	1.53
12	3I	64	TYR	CA-C	6.08	1.58	1.52
29	11	64	ILE	CA-CB	6.07	1.62	1.54
29	19	271	ILE	CA-C	6.04	1.60	1.53
33	51	4	ILE	CA-CB	6.03	1.60	1.53
29	11	65	ILE	CA-CB	5.97	1.65	1.55
15	6I	87	ILE	CA-C	5.93	1.60	1.52
38	45	27	VAL	CA-CB	5.90	1.62	1.54
29	19	237	GLU	CA-C	5.83	1.60	1.52
49	J8	91	LYS	C-O	-5.82	1.16	1.24
44	A5	11	ARG	C-N	-5.81	1.30	1.33
38	88	138	ASP	CA-C	5.80	1.59	1.52
29	19	231	HIS	CA-C	5.77	1.59	1.52
50	K8	58	ALA	CA-CB	-5.76	1.44	1.53
46	C5	98	VAL	CA-CB	5.75	1.62	1.54
44	A5	103	ILE	CA-CB	-5.74	1.47	1.54
46	G8	84	ARG	CA-C	-5.62	1.45	1.52
51	L8	9	VAL	CA-CB	5.61	1.60	1.54
19	AI	41	VAL	CA-C	5.56	1.58	1.52
38	88	127	ILE	CA-CB	-5.54	1.47	1.54
55	Q8	58	ILE	CA-CB	-5.52	1.46	1.54
42	C8	89	GLU	CA-C	5.50	1.60	1.52
29	11	240	ALA	CA-C	-5.48	1.46	1.52
38	88	102	VAL	CA-CB	5.43	1.59	1.53
55	M5	35	GLN	CG-CD	5.43	1.65	1.52
35	58	94	HIS	CA-C	-5.39	1.45	1.52
29	19	272	ALA	CA-CB	-5.39	1.49	1.54
53	N8	19	ARG	CA-C	-5.39	1.45	1.52
29	11	260	ARG	C-O	-5.38	1.17	1.23
26	1H	2430	A	N9-C4	-5.30	1.27	1.37
30	29	132	HIS	N-CA	5.29	1.53	1.46
10	1I	56	HIS	CA-C	-5.26	1.47	1.52
49	F5	35	THR	CA-C	-5.26	1.46	1.52
45	B5	52	VAL	CA-C	5.25	1.59	1.52
29	19	240	ALA	CA-CB	-5.20	1.45	1.53
23	2K	8	4SU	O3'-P	5.19	1.61	1.56
29	11	122	ASP	CB-CG	5.17	1.65	1.52
29	11	29	PRO	CA-C	-5.16	1.45	1.52
31	31	167	ALA	CA-CB	-5.16	1.45	1.53
23	2L	8	4SU	O3'-P	5.14	1.61	1.56
29	11	34	VAL	CA-CB	5.13	1.60	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	69	76	THR	CA-CB	5.12	1.61	1.53
39	98	38	VAL	CA-CB	-5.11	1.51	1.54
49	J8	91	LYS	CA-C	-5.09	1.46	1.52
43	D8	75	PHE	CA-C	-5.08	1.46	1.52
37	35	57	THR	N-CA	5.04	1.52	1.46

All (1080) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	88	140	ALA	N-CA-C	-19.86	85.65	108.49
43	95	49	THR	CA-C-N	-14.82	102.69	118.85
43	95	49	THR	C-N-CA	-14.82	102.69	118.85
29	19	272	ALA	N-CA-C	14.57	125.24	108.49
29	11	271	ILE	N-CA-C	14.22	126.95	111.88
31	39	80	ALA	CA-C-N	-14.21	102.08	119.84
31	39	80	ALA	C-N-CA	-14.21	102.08	119.84
30	21	52	LEU	CA-C-N	14.15	133.99	119.56
30	21	52	LEU	C-N-CA	14.15	133.99	119.56
33	59	153	LYS	CA-C-N	-13.19	103.35	119.84
33	59	153	LYS	C-N-CA	-13.19	103.35	119.84
52	M8	40	HIS	CA-C-N	13.18	136.31	119.84
52	M8	40	HIS	C-N-CA	13.18	136.31	119.84
48	I8	10	THR	N-CA-C	-13.14	82.81	110.80
55	Q8	62	LEU	CA-C-N	-12.91	103.70	119.84
55	Q8	62	LEU	C-N-CA	-12.91	103.70	119.84
43	D8	49	THR	CA-C-N	-12.61	106.12	119.24
43	D8	49	THR	C-N-CA	-12.61	106.12	119.24
8	72	73	ASP	CA-C-N	12.36	132.12	119.64
8	72	73	ASP	C-N-CA	12.36	132.12	119.64
33	51	11	VAL	CA-C-N	12.28	135.19	119.84
33	51	11	VAL	C-N-CA	12.28	135.19	119.84
2	1E	231	GLU	CA-C-N	12.23	135.13	119.84
2	1E	231	GLU	C-N-CA	12.23	135.13	119.84
29	11	28	GLU	CA-C-N	12.04	134.88	119.84
29	11	28	GLU	C-N-CA	12.04	134.88	119.84
29	19	40	THR	N-CA-C	12.03	123.61	108.45
51	L8	11	SER	CA-C-N	11.93	132.28	119.87
51	L8	11	SER	C-N-CA	11.93	132.28	119.87
30	21	132	HIS	N-CA-C	11.69	124.59	110.91
29	19	271	ILE	N-CA-C	11.67	124.25	111.88
37	78	15	ARG	CA-C-N	11.53	143.56	121.54
37	78	15	ARG	C-N-CA	11.53	143.56	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	G5	42	GLY	N-CA-C	-11.52	98.17	112.68
45	F8	3	THR	CA-C-N	11.20	141.86	121.70
45	F8	3	THR	C-N-CA	11.20	141.86	121.70
46	G8	81	LYS	CA-C-N	11.10	153.64	127.00
46	G8	81	LYS	C-N-CA	11.10	153.64	127.00
33	51	86	GLU	N-CA-C	11.03	123.05	111.14
44	E8	92	ARG	N-CA-C	11.03	123.05	111.14
33	59	167	GLU	CA-C-N	10.97	133.55	119.84
33	59	167	GLU	C-N-CA	10.97	133.55	119.84
34	69	79	ILE	CA-C-N	10.66	133.17	119.84
34	69	79	ILE	C-N-CA	10.66	133.17	119.84
30	29	80	GLU	N-CA-C	10.65	126.59	113.17
37	35	66	GLY	N-CA-C	10.55	123.52	110.96
37	78	20	GLY	N-CA-C	-10.35	100.22	115.63
37	78	71	VAL	CA-C-N	-10.22	109.24	119.56
37	78	71	VAL	C-N-CA	-10.22	109.24	119.56
11	2I	120	ARG	CA-C-N	-10.18	109.86	120.85
11	2I	120	ARG	C-N-CA	-10.18	109.86	120.85
2	12	90	MET	CA-C-N	10.16	130.22	119.76
2	12	90	MET	C-N-CA	10.16	130.22	119.76
26	14	1992	G	C2'-C3'-O3'	10.08	124.62	109.50
30	29	73	GLU	CA-C-N	10.04	130.46	120.52
30	29	73	GLU	C-N-CA	10.04	130.46	120.52
29	19	44	ASN	CA-C-N	10.01	139.72	121.70
29	19	44	ASN	C-N-CA	10.01	139.72	121.70
50	G5	44	LEU	N-CA-C	-9.93	100.66	113.17
29	19	235	GLY	N-CA-C	9.88	126.00	112.17
45	F8	3	THR	N-CA-C	-9.79	97.34	110.55
2	1E	233	SER	CA-C-N	9.73	130.12	119.90
2	1E	233	SER	C-N-CA	9.73	130.12	119.90
30	21	135	HIS	N-CA-C	9.66	122.70	111.11
30	21	31	CYS	CA-C-N	9.61	131.85	119.84
30	21	31	CYS	C-N-CA	9.61	131.85	119.84
34	69	78	THR	CA-C-N	-9.61	112.69	123.25
34	69	78	THR	C-N-CA	-9.61	112.69	123.25
41	75	7	ILE	N-CA-C	-9.60	101.51	110.53
51	H5	11	SER	CA-C-N	9.59	129.25	119.56
51	H5	11	SER	C-N-CA	9.59	129.25	119.56
31	39	68	LYS	CA-C-N	-9.54	107.73	123.37
31	39	68	LYS	C-N-CA	-9.54	107.73	123.37
2	1E	72	GLY	N-CA-C	9.52	125.00	111.10
29	19	44	ASN	N-CA-C	9.52	126.83	109.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	G8	81	LYS	C-N-CD	-9.47	99.77	120.60
28	71	180	PHE	CA-C-N	9.43	130.09	120.38
28	71	180	PHE	C-N-CA	9.43	130.09	120.38
46	C5	39	VAL	N-CA-C	9.41	121.94	112.90
31	39	24	LEU	CA-C-N	-9.40	108.09	119.84
31	39	24	LEU	C-N-CA	-9.40	108.09	119.84
37	35	144	GLU	CA-C-N	9.38	130.08	120.14
37	35	144	GLU	C-N-CA	9.38	130.08	120.14
39	98	9	LYS	N-CA-C	-9.35	94.43	109.76
37	78	16	ARG	N-CA-C	9.31	130.64	110.80
10	1A	55	LYS	N-CA-C	9.17	123.56	107.61
37	35	65	ARG	CA-C-N	-9.08	107.54	121.62
37	35	65	ARG	C-N-CA	-9.08	107.54	121.62
49	F5	29	GLY	N-CA-C	9.00	121.98	111.63
26	1H	1992	G	C2'-C3'-O3'	9.00	123.00	109.50
29	11	85	ASP	CA-C-N	-8.99	108.60	119.84
29	11	85	ASP	C-N-CA	-8.99	108.60	119.84
37	78	35	HIS	N-CA-C	8.98	129.92	110.80
37	78	47	ASP	CA-C-N	8.88	129.05	119.28
37	78	47	ASP	C-N-CA	8.88	129.05	119.28
31	39	83	PHE	N-CA-C	8.84	124.31	113.17
46	G8	84	ARG	N-CA-C	-8.81	95.31	108.79
46	G8	85	VAL	N-CA-C	-8.78	95.28	107.75
54	L5	6	GLN	CA-C-N	8.63	129.17	119.93
54	L5	6	GLN	C-N-CA	8.63	129.17	119.93
35	58	136	GLU	N-CA-C	8.63	123.23	109.86
41	B8	1	MET	CA-C-N	8.61	137.20	121.70
41	B8	1	MET	C-N-CA	8.61	137.20	121.70
53	N8	27	PRO	O-C-N	8.58	125.18	121.15
38	88	24	GLY	N-CA-C	-8.56	92.89	113.18
41	B8	19	LEU	CA-C-N	8.55	128.42	120.21
41	B8	19	LEU	C-N-CA	8.55	128.42	120.21
35	58	46	VAL	N-CA-C	8.54	119.79	111.67
26	1H	271(B)	G	P-O3'-C3'	8.54	129.95	119.70
2	12	17	PHE	N-CA-C	8.54	123.06	110.17
1	13	1498	U	C2'-C3'-O3'	8.50	122.25	109.50
49	F5	79	GLY	N-CA-C	8.45	124.15	110.97
19	AI	41	VAL	C-N-CD	-8.40	102.11	120.60
2	12	20	GLU	N-CA-C	8.38	121.14	110.24
32	41	121	ASN	CA-C-N	-8.36	109.39	119.84
32	41	121	ASN	C-N-CA	-8.36	109.39	119.84
10	1A	52	GLY	CA-C-N	8.36	127.93	119.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	1A	52	GLY	C-N-CA	8.36	127.93	119.24
11	2I	107	SER	CB-CA-C	-8.35	105.85	115.79
29	11	237	GLU	N-CA-C	8.34	120.67	110.91
19	AI	41	VAL	CA-C-N	8.32	146.97	127.00
19	AI	41	VAL	C-N-CA	8.32	146.97	127.00
19	AI	41	VAL	N-CA-CB	-8.31	99.58	111.21
33	51	9	ILE	CA-C-N	-8.30	109.46	119.84
33	51	9	ILE	C-N-CA	-8.30	109.46	119.84
30	29	137	HIS	CA-C-N	-8.24	109.54	119.84
30	29	137	HIS	C-N-CA	-8.24	109.54	119.84
31	39	16	GLY	N-CA-C	-8.24	103.99	114.37
37	35	71	VAL	CA-C-N	-8.21	111.27	119.56
37	35	71	VAL	C-N-CA	-8.21	111.27	119.56
28	71	219	GLY	CA-C-N	8.17	130.06	119.84
28	71	219	GLY	C-N-CA	8.17	130.06	119.84
32	49	44	GLY	N-CA-C	-8.16	104.29	114.16
33	51	153	LYS	CA-C-N	8.11	146.47	127.00
33	51	153	LYS	C-N-CA	8.11	146.47	127.00
38	45	138	ASP	N-CA-C	8.11	123.39	113.17
38	45	126	PRO	CA-C-O	-8.10	115.31	121.31
55	Q8	46	ARG	CA-C-N	8.09	136.27	121.70
55	Q8	46	ARG	C-N-CA	8.09	136.27	121.70
46	G8	99	CYS	N-CA-C	8.08	120.17	111.36
13	4I	9	ILE	CA-C-N	-8.05	112.37	120.98
13	4I	9	ILE	C-N-CA	-8.05	112.37	120.98
12	3I	117	ARG	N-CA-C	8.03	122.78	112.34
20	BA	97	ALA	CA-C-N	7.97	129.81	119.84
20	BA	97	ALA	C-N-CA	7.97	129.81	119.84
12	3I	18	VAL	N-CA-C	7.95	119.66	111.00
30	29	61	ARG	CA-C-N	7.95	129.77	119.84
30	29	61	ARG	C-N-CA	7.95	129.77	119.84
47	D5	100	VAL	CA-C-N	7.94	129.77	119.84
47	D5	100	VAL	C-N-CA	7.94	129.77	119.84
49	F5	35	THR	N-CA-C	-7.94	96.74	109.76
4	32	87	GLY	N-CA-C	7.94	121.15	110.43
30	29	23	VAL	N-CA-C	7.94	125.85	109.34
35	58	39	ARG	CA-C-N	-7.92	109.94	119.84
35	58	39	ARG	C-N-CA	-7.92	109.94	119.84
31	31	101	LEU	CA-C-N	-7.90	111.86	119.76
31	31	101	LEU	C-N-CA	-7.90	111.86	119.76
30	21	202	LYS	N-CA-C	7.88	123.10	113.17
36	68	29	ASN	N-CA-C	7.86	122.63	112.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	59	171	LEU	N-CA-C	7.83	127.47	110.80
2	1E	16	HIS	N-CA-C	7.81	122.53	112.92
34	69	78	THR	N-CA-C	7.80	121.92	111.30
34	69	136	VAL	N-CA-C	7.80	115.88	108.15
47	H8	65	GLN	N-CA-C	-7.78	98.71	110.14
48	E5	22	GLY	N-CA-C	7.76	122.85	111.76
29	11	83	GLU	N-CA-C	7.74	119.78	108.86
34	69	102	SER	N-CA-C	-7.73	94.33	110.80
52	M8	4	GLY	N-CA-C	-7.73	99.41	110.46
49	J8	2	SER	CA-C-N	-7.72	111.52	122.41
49	J8	2	SER	C-N-CA	-7.72	111.52	122.41
29	11	112	GLN	CA-C-N	-7.71	113.35	122.22
29	11	112	GLN	C-N-CA	-7.71	113.35	122.22
46	G8	98	VAL	N-CA-C	-7.71	103.94	112.80
42	C8	96	ALA	N-CA-C	-7.69	102.99	113.30
26	1H	1297	C	OP2-P-O3'	-7.68	84.96	108.00
36	25	29	ASN	N-CA-C	7.66	121.45	112.72
33	51	85	LYS	CA-C-N	7.65	130.85	120.44
33	51	85	LYS	C-N-CA	7.65	130.85	120.44
55	Q8	48	PHE	N-CA-C	7.63	119.74	108.60
47	D5	101	PRO	CA-C-N	7.63	135.43	121.70
47	D5	101	PRO	C-N-CA	7.63	135.43	121.70
45	B5	40	LYS	CA-C-N	-7.62	110.73	122.16
45	B5	40	LYS	C-N-CA	-7.62	110.73	122.16
38	88	65	PHE	N-CA-C	7.60	123.60	113.72
11	2I	40	ILE	N-CA-C	-7.59	104.46	111.67
38	88	5	ARG	N-CA-C	-7.59	98.43	109.59
30	29	49	LEU	N-CA-C	7.58	120.93	110.24
38	88	84	GLY	N-CA-C	-7.58	98.94	112.58
34	69	124	GLY	N-CA-C	7.57	120.65	110.43
30	21	77	ILE	N-CA-C	-7.56	104.38	111.48
42	85	99	ALA	N-CA-C	-7.54	102.05	113.51
30	21	55	ASN	CA-C-N	-7.53	110.43	119.84
30	21	55	ASN	C-N-CA	-7.53	110.43	119.84
30	21	187	ALA	N-CA-C	7.51	122.56	112.88
5	4E	105	VAL	CA-C-N	-7.50	111.24	119.19
5	4E	105	VAL	C-N-CA	-7.50	111.24	119.19
26	1H	138	G	N9-C1'-C2'	7.49	123.23	112.00
29	11	35	LYS	CA-C-N	7.48	129.19	119.84
29	11	35	LYS	C-N-CA	7.48	129.19	119.84
33	51	81	GLU	N-CA-C	7.46	121.53	111.24
26	14	1786	A	N9-C1'-C2'	7.46	125.18	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	88	106	VAL	N-CA-C	7.45	119.71	109.80
33	51	153	LYS	C-N-CD	-7.44	104.24	120.60
30	29	21	VAL	CA-C-N	7.44	127.42	119.76
30	29	21	VAL	C-N-CA	7.44	127.42	119.76
26	1H	800	A	O5'-P-OP1	-7.42	85.73	108.00
29	19	49	ILE	N-CA-CB	7.42	119.06	110.82
47	D5	52	SER	N-CA-C	7.42	120.29	111.02
30	21	58	ARG	N-CA-C	-7.41	103.81	112.92
34	69	131	LYS	CA-C-N	7.39	144.75	127.00
34	69	131	LYS	C-N-CA	7.39	144.75	127.00
33	51	10	PRO	N-CA-C	7.38	127.67	112.47
34	61	110	ASP	CA-C-N	7.36	144.65	127.00
34	61	110	ASP	C-N-CA	7.36	144.65	127.00
1	1G	1498	U	C2'-C3'-O3'	7.36	120.53	109.50
41	75	13	ARG	N-CA-C	-7.35	95.15	110.80
37	35	111	ARG	N-CA-C	7.34	121.62	109.95
47	D5	14	LYS	CA-C-N	7.33	126.96	119.56
47	D5	14	LYS	C-N-CA	7.33	126.96	119.56
19	AA	58	VAL	CA-C-N	-7.31	111.24	120.23
19	AA	58	VAL	C-N-CA	-7.31	111.24	120.23
40	A8	90	GLY	CA-C-N	-7.31	110.70	119.84
40	A8	90	GLY	C-N-CA	-7.31	110.70	119.84
47	D5	67	LEU	CA-C-N	7.31	128.97	119.84
47	D5	67	LEU	C-N-CA	7.31	128.97	119.84
19	AI	40	ILE	CA-C-N	7.30	135.63	122.13
19	AI	40	ILE	C-N-CA	7.30	135.63	122.13
48	I8	14	ARG	N-CA-C	7.28	120.40	110.35
2	1E	235	SER	N-CA-C	-7.27	104.29	113.02
41	B8	5	ALA	N-CA-C	-7.27	102.74	111.69
39	98	106	GLY	N-CA-C	-7.27	106.04	114.69
38	45	25	ASP	N-CA-C	7.26	121.90	112.89
36	25	94	ARG	N-CA-C	-7.26	103.89	112.89
29	11	38	LYS	CA-C-O	-7.25	113.40	120.94
28	71	173	ALA	CA-C-N	7.25	127.82	119.99
28	71	173	ALA	C-N-CA	7.25	127.82	119.99
26	1H	2346	A	O4'-C1'-N9	7.24	119.06	108.20
42	C8	51	LYS	N-CA-C	-7.24	102.79	111.69
33	51	6	ARG	N-CA-C	-7.23	95.40	110.80
19	AA	75	ALA	CA-C-N	7.23	126.99	119.76
19	AA	75	ALA	C-N-CA	7.23	126.99	119.76
47	H8	6	LYS	N-CA-C	-7.22	95.42	110.80
49	F5	83	GLU	N-CA-C	-7.22	95.42	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	88	125	LEU	CA-C-N	7.22	127.38	119.87
38	88	125	LEU	C-N-CA	7.22	127.38	119.87
40	A8	42	ASP	N-CA-C	-7.21	100.82	110.55
26	14	2689	U	C2'-C3'-O3'	7.20	120.29	109.50
33	51	166	GLY	N-CA-C	-7.18	96.17	113.18
29	19	244	ARG	CA-C-N	-7.18	112.98	120.38
29	19	244	ARG	C-N-CA	-7.18	112.98	120.38
37	35	49	ARG	N-CA-C	-7.18	102.86	111.69
41	75	38	ASN	N-CA-C	-7.17	104.27	113.16
29	11	232	PRO	CA-C-N	-7.17	112.09	122.06
29	11	232	PRO	C-N-CA	-7.17	112.09	122.06
46	C5	87	LYS	N-CA-C	7.17	117.33	107.73
13	4A	66	LEU	N-CA-C	7.15	117.71	108.34
42	C8	9	VAL	N-CA-C	7.14	117.66	110.23
34	61	136	VAL	CA-C-N	7.11	127.68	120.14
34	61	136	VAL	C-N-CA	7.11	127.68	120.14
29	19	43	ARG	N-CA-C	7.11	120.67	108.02
34	61	112	LYS	N-CA-C	-7.09	101.39	110.19
8	7E	56	LYS	CA-C-N	7.09	128.70	119.84
8	7E	56	LYS	C-N-CA	7.09	128.70	119.84
34	61	110	ASP	N-CA-C	7.09	121.81	112.17
1	13	571	U	OP1-P-O3'	-7.04	86.88	108.00
49	F5	84	GLY	N-CA-C	7.02	129.81	113.18
19	AI	5	LEU	N-CA-C	-7.00	100.09	110.23
16	7A	82	GLN	CB-CA-C	-6.99	101.62	112.31
35	15	110	GLY	N-CA-C	6.98	120.38	112.00
47	H8	118	GLN	N-CA-C	6.96	119.72	111.02
34	69	131	LYS	C-N-CD	-6.96	105.29	120.60
55	Q8	28	GLY	N-CA-C	6.95	124.24	114.85
37	78	22	GLY	N-CA-C	6.94	126.49	112.34
1	13	913	A	C2'-C3'-O3'	6.93	119.90	109.50
4	3E	33	MET	N-CA-C	-6.93	104.30	112.89
46	G8	79	CYS	N-CA-C	6.92	125.53	110.80
19	AI	25	LYS	N-CA-C	-6.91	96.08	110.80
41	B8	12	SER	N-CA-C	6.89	119.03	108.07
35	15	127	ASP	CB-CA-C	-6.89	107.59	115.79
31	39	69	HIS	N-CA-C	6.88	120.79	107.71
28	79	169	GLY	N-CA-C	6.88	126.60	115.67
51	L8	56	VAL	N-CA-C	6.87	118.19	108.36
26	1H	1784	A	O5'-P-OP2	-6.87	87.40	108.00
29	19	68	LYS	CA-C-N	-6.85	110.40	122.26
29	19	68	LYS	C-N-CA	-6.85	110.40	122.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	7E	73	ASP	CA-C-N	6.85	126.99	119.87
8	7E	73	ASP	C-N-CA	6.85	126.99	119.87
41	75	4	GLY	N-CA-C	6.85	133.16	113.30
49	F5	28	GLY	N-CA-C	6.85	122.38	113.27
53	N8	19	ARG	N-CA-C	-6.83	103.28	111.69
35	15	39	ARG	CA-C-N	-6.83	111.30	119.84
35	15	39	ARG	C-N-CA	-6.83	111.30	119.84
2	12	221	LEU	N-CA-C	-6.83	104.83	113.02
49	F5	82	LEU	CA-C-N	6.83	134.57	121.54
49	F5	82	LEU	C-N-CA	6.83	134.57	121.54
31	31	80	ALA	CA-C-N	6.82	126.97	119.87
31	31	80	ALA	C-N-CA	6.82	126.97	119.87
26	1H	845	G	P-O3'-C3'	6.82	130.43	120.20
31	31	59	TYR	N-CA-C	6.81	118.63	110.19
1	13	792	A	N9-C1'-C2'	6.80	124.21	114.00
29	11	272	ALA	CA-C-N	6.78	134.50	121.54
29	11	272	ALA	C-N-CA	6.78	134.50	121.54
26	14	1022	G	C2'-C3'-O3'	6.74	119.61	109.50
45	B5	25	LYS	N-CA-C	6.73	119.70	108.20
6	5E	95	GLU	CA-C-N	6.69	126.73	119.90
6	5E	95	GLU	C-N-CA	6.69	126.73	119.90
41	B8	113	LYS	N-CA-C	-6.69	104.03	112.93
37	35	144	GLU	N-CA-C	6.69	119.06	108.23
5	42	118	ILE	N-CA-C	6.69	115.86	107.70
29	11	41	GLY	N-CA-C	6.68	129.01	113.18
5	4E	103	GLY	N-CA-C	-6.66	102.42	113.02
55	Q8	49	VAL	CB-CA-C	-6.66	104.53	112.19
45	B5	5	TYR	N-CA-C	-6.64	105.14	113.18
4	32	135	LEU	CA-C-N	6.64	127.17	119.47
4	32	135	LEU	C-N-CA	6.64	127.17	119.47
12	3A	64	TYR	N-CA-C	6.64	119.50	111.40
42	85	73	GLY	N-CA-C	6.64	118.96	110.20
39	55	82	GLU	N-CA-C	6.63	123.59	113.51
13	4A	112	GLY	CA-C-N	6.63	126.55	119.85
13	4A	112	GLY	C-N-CA	6.63	126.55	119.85
42	C8	95	LEU	CA-C-N	6.63	132.76	122.49
42	C8	95	LEU	C-N-CA	6.63	132.76	122.49
32	49	2	PRO	N-CA-CB	6.62	110.28	103.00
11	2I	102	GLY	N-CA-C	-6.62	101.82	110.29
16	7I	48	TRP	N-CA-C	6.62	121.06	113.19
30	29	52	LEU	CA-C-N	6.61	128.11	119.84
30	29	52	LEU	C-N-CA	6.61	128.11	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	I8	9	SER	N-CA-C	-6.61	102.00	110.19
46	G8	5	MET	CB-CA-C	-6.60	107.18	115.89
26	14	49	A	P-O3'-C3'	6.60	130.10	120.20
13	4A	83	ASP	N-CA-C	-6.59	101.83	110.53
35	15	134	ARG	CA-C-N	6.59	128.08	119.84
35	15	134	ARG	C-N-CA	6.59	128.08	119.84
48	I8	11	ARG	N-CA-C	-6.59	96.77	110.80
11	2I	81	ASP	N-CA-C	6.58	121.47	113.38
30	21	125	GLY	CA-C-N	-6.56	113.20	119.76
30	21	125	GLY	C-N-CA	-6.56	113.20	119.76
53	J5	40	LYS	CA-C-N	-6.56	113.62	120.38
53	J5	40	LYS	C-N-CA	-6.56	113.62	120.38
2	1E	15	VAL	N-CA-C	6.55	119.51	112.96
31	31	197	ASP	N-CA-C	-6.55	96.85	110.80
29	19	29	PRO	N-CA-C	-6.55	98.98	112.47
37	78	23	PRO	CA-C-N	-6.55	108.58	121.41
37	78	23	PRO	C-N-CA	-6.55	108.58	121.41
47	D5	6	LYS	N-CA-C	6.54	118.21	111.14
30	21	186	GLY	N-CA-C	6.54	128.69	113.18
29	11	91	ARG	CA-C-N	-6.54	114.66	123.10
29	11	91	ARG	C-N-CA	-6.54	114.66	123.10
26	1H	2346	A	C4-N9-C1'	6.54	145.91	126.30
37	78	36	LYS	CB-CA-C	-6.49	107.25	116.34
37	78	26	GLY	N-CA-C	-6.48	100.22	111.50
35	58	24	GLY	N-CA-C	-6.47	104.70	113.37
17	8I	48	GLU	CA-C-N	-6.47	111.69	122.17
17	8I	48	GLU	C-N-CA	-6.47	111.69	122.17
35	58	57	ALA	N-CA-C	-6.47	99.70	109.79
9	8E	118	LYS	N-CA-C	6.46	121.22	112.88
39	98	108	GLY	N-CA-C	-6.46	106.41	115.32
50	K8	17	SER	N-CA-C	6.46	124.08	109.81
26	1H	1799	G	C2'-C3'-O3'	6.45	119.17	109.50
54	P8	18	PHE	N-CA-C	6.45	119.13	111.33
49	F5	36	GLY	N-CA-C	6.43	128.43	113.18
34	61	79	ILE	N-CA-C	6.43	114.48	107.60
26	1H	587	C	C4'-C3'-O3'	6.43	119.04	109.40
38	45	33	GLY	N-CA-C	6.43	123.05	111.03
26	1H	252	G	O5'-P-OP2	-6.42	88.73	108.00
5	4E	67	VAL	N-CA-C	6.42	116.82	108.35
5	4E	6	PHE	N-CA-C	6.41	119.97	110.48
20	BA	12	ALA	N-CA-C	-6.41	97.15	110.80
33	51	28	GLY	CA-C-N	6.40	126.90	119.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	51	28	GLY	C-N-CA	6.40	126.90	119.47
37	35	99	LEU	N-CA-C	-6.40	103.82	111.69
29	19	44	ASN	CB-CA-C	-6.39	108.19	115.79
30	21	131	ALA	CA-C-N	6.39	132.58	122.93
30	21	131	ALA	C-N-CA	6.39	132.58	122.93
40	65	19	LYS	N-CA-C	-6.39	97.24	108.23
4	3E	89	THR	CB-CA-C	-6.39	107.40	116.34
41	B8	13	ARG	N-CA-C	6.38	128.88	111.00
4	3E	89	THR	N-CA-C	6.38	117.44	108.00
26	14	1602	U	O5'-P-OP2	6.37	127.10	108.00
26	1H	216	A	O5'-P-OP1	-6.36	88.91	108.00
38	45	92	GLY	N-CA-C	6.36	119.72	110.63
41	75	125	ARG	N-CA-C	-6.35	104.27	111.07
29	11	39	LYS	N-CA-C	6.33	124.28	110.80
1	1G	1498	U	P-O3'-C3'	6.33	129.69	120.20
26	14	2275	C	C4'-C3'-O3'	6.33	118.89	109.40
39	98	9	LYS	CA-C-N	-6.32	112.97	123.33
39	98	9	LYS	C-N-CA	-6.32	112.97	123.33
32	49	121	ASN	CA-C-N	6.31	125.88	119.19
32	49	121	ASN	C-N-CA	6.31	125.88	119.19
37	35	107	LYS	N-CA-C	6.31	120.23	111.90
49	F5	29	GLY	CA-C-N	6.31	133.33	121.97
49	F5	29	GLY	C-N-CA	6.31	133.33	121.97
26	14	71	A	C4'-C3'-O3'	6.30	118.85	109.40
30	29	44	TYR	N-CA-C	6.30	121.56	113.18
34	61	110	ASP	C-N-CD	-6.29	106.76	120.60
26	14	786	C	O5'-P-OP2	-6.29	89.12	108.00
14	5A	28	GLY	N-CA-C	6.29	128.08	113.18
42	85	3	ARG	CA-C-N	-6.28	113.64	123.13
42	85	3	ARG	C-N-CA	-6.28	113.64	123.13
54	P8	11	LYS	N-CA-C	-6.28	104.51	111.36
4	32	171	GLY	CA-C-N	6.28	125.97	119.56
4	32	171	GLY	C-N-CA	6.28	125.97	119.56
26	1H	1574	C	OP1-P-O3'	-6.27	89.18	108.00
11	2I	115	PRO	CA-C-N	-6.26	113.51	122.77
11	2I	115	PRO	C-N-CA	-6.26	113.51	122.77
26	14	784	A	P-O3'-C3'	6.26	129.59	120.20
30	29	31	CYS	CA-C-N	6.25	126.47	119.90
30	29	31	CYS	C-N-CA	6.25	126.47	119.90
7	62	133	GLY	N-CA-C	-6.25	104.48	113.86
9	8E	89	ASN	CA-C-N	-6.25	113.47	121.91
9	8E	89	ASN	C-N-CA	-6.25	113.47	121.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1379	A	N9-C1'-C2'	6.25	123.37	114.00
47	H8	169	GLU	N-CA-C	-6.25	100.58	108.45
47	D5	157	LEU	CA-C-N	6.22	126.79	120.38
47	D5	157	LEU	C-N-CA	6.22	126.79	120.38
13	4A	37	THR	N-CA-C	-6.22	105.34	113.17
26	1H	1603	A	O5'-P-OP1	-6.21	89.36	108.00
31	39	67	GLN	CA-C-N	-6.21	112.61	122.17
31	39	67	GLN	C-N-CA	-6.21	112.61	122.17
34	61	131	LYS	CA-C-N	6.20	141.88	127.00
34	61	131	LYS	C-N-CA	6.20	141.88	127.00
39	55	92	GLY	N-CA-C	6.20	118.31	110.38
31	39	71	GLY	N-CA-C	-6.19	105.97	114.64
30	21	29	GLY	N-CA-C	-6.19	104.49	112.10
26	1H	1899	G	O3'-P-O5'	-6.17	94.74	104.00
52	M8	45	GLY	N-CA-C	-6.17	98.55	113.18
26	1H	1970	A	OP1-P-O3'	-6.17	89.49	108.00
33	51	12	PRO	CA-C-N	6.17	133.32	121.54
33	51	12	PRO	C-N-CA	6.17	133.32	121.54
47	H8	14	LYS	CA-C-N	6.17	126.35	119.32
47	H8	14	LYS	C-N-CA	6.17	126.35	119.32
26	1H	2060	A	C4'-C3'-O3'	6.16	118.64	109.40
55	M5	49	VAL	O-C-N	-6.16	116.78	123.18
55	M5	48	PHE	N-CA-C	6.15	116.19	108.45
6	5E	41	GLU	N-CA-C	6.14	119.72	112.72
29	11	73	VAL	N-CA-C	6.14	117.35	109.30
31	39	95	ARG	N-CA-C	6.14	118.19	108.79
34	69	7	GLU	CA-C-N	-6.14	113.63	120.14
34	69	7	GLU	C-N-CA	-6.14	113.63	120.14
13	4I	101	GLN	CB-CA-C	-6.14	107.78	115.89
50	K8	3	LEU	CA-CB-CG	6.14	137.78	116.30
29	11	247	ALA	N-CA-C	6.13	119.03	109.52
2	12	219	VAL	CA-C-N	6.13	132.74	121.70
2	12	219	VAL	C-N-CA	6.13	132.74	121.70
17	8I	80	GLY	N-CA-C	6.13	126.06	116.01
31	31	16	GLY	N-CA-C	6.13	123.25	112.10
54	P8	45	ALA	N-CA-C	6.13	118.75	111.33
13	4I	13	LYS	CB-CA-C	-6.12	108.90	117.23
26	1H	1204	A	O4'-C1'-N9	6.12	117.38	108.20
28	79	15	ASP	CA-C-N	6.12	127.49	119.84
28	79	15	ASP	C-N-CA	6.12	127.49	119.84
1	13	1336	C	C4'-C3'-O3'	6.12	118.57	109.40
31	31	58	ALA	N-CA-C	6.11	117.94	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	F5	37	ILE	N-CA-C	6.11	116.67	107.75
29	19	196	VAL	CA-C-N	-6.11	112.04	121.45
29	19	196	VAL	C-N-CA	-6.11	112.04	121.45
31	31	47	GLY	CA-C-O	6.11	126.78	119.82
29	19	256	GLY	N-CA-C	6.11	122.35	115.08
36	68	71	ARG	CA-C-N	6.11	126.00	119.28
36	68	71	ARG	C-N-CA	6.11	126.00	119.28
50	K8	50	ILE	N-CA-C	-6.10	104.56	110.72
1	13	792	A	O4'-C1'-N9	6.10	117.34	108.20
26	1H	126	A	OP1-P-O3'	-6.09	89.72	108.00
26	1H	1784	A	O5'-P-OP1	6.09	126.27	108.00
36	25	81	ASP	N-CA-C	6.09	117.44	108.86
31	31	106	ARG	N-CA-C	-6.08	104.22	111.69
29	19	85	ASP	CA-C-N	6.07	125.77	119.82
29	19	85	ASP	C-N-CA	6.07	125.77	119.82
29	19	272	ALA	CA-C-N	6.07	133.14	121.54
29	19	272	ALA	C-N-CA	6.07	133.14	121.54
33	51	156	ALA	CA-C-N	6.07	133.13	121.54
33	51	156	ALA	C-N-CA	6.07	133.13	121.54
52	M8	6	HIS	N-CA-C	6.06	123.21	109.81
45	F8	3	THR	O-C-N	-6.06	115.95	122.85
41	B8	25	GLY	CA-C-N	-6.06	114.15	122.93
41	B8	25	GLY	C-N-CA	-6.06	114.15	122.93
26	1H	1899	G	N3-C4-N9	-6.05	107.83	126.00
2	12	16	HIS	N-CA-C	6.05	120.37	112.92
45	B5	24	GLY	N-CA-C	6.05	121.12	114.40
5	42	71	LEU	N-CA-C	6.05	118.58	110.35
26	1H	793	A	O5'-P-OP2	-6.05	89.85	108.00
30	21	129	HIS	CA-C-N	-6.04	110.22	120.79
30	21	129	HIS	C-N-CA	-6.04	110.22	120.79
30	29	22	PRO	CA-C-O	-6.04	114.45	121.34
26	1H	1187	G	OP2-P-O3'	6.04	126.11	108.00
50	K8	5	GLU	N-CA-C	-6.03	105.41	112.89
36	25	47	ILE	CA-C-N	6.03	127.38	119.84
36	25	47	ILE	C-N-CA	6.03	127.38	119.84
5	4E	99	GLY	N-CA-C	-6.03	105.89	112.04
7	6E	8	GLU	N-CA-C	6.02	118.48	110.53
1	13	49	U	P-O3'-C3'	6.02	129.23	120.20
40	65	5	THR	N-CA-C	6.02	118.06	110.24
26	1H	445	C	OP2-P-O3'	-6.00	90.00	108.00
1	1G	687	A	C2'-C3'-O3'	6.00	118.50	109.50
29	11	40	THR	N-CA-CB	-6.00	101.31	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	141(A)	C	OP1-P-O3'	-5.99	90.02	108.00
34	61	131	LYS	C-N-CD	-5.99	107.42	120.60
11	2A	38	ASN	CA-C-N	5.99	126.30	119.83
11	2A	38	ASN	C-N-CA	5.99	126.30	119.83
16	7A	77	ALA	N-CA-C	-5.99	105.56	112.92
42	85	74	LEU	N-CA-C	5.99	118.28	110.43
26	1H	195	A	P-O3'-C3'	5.99	129.18	120.20
1	13	49	U	C2'-C3'-O3'	5.98	118.47	109.50
8	7E	66	GLY	CA-C-N	5.98	126.48	120.14
8	7E	66	GLY	C-N-CA	5.98	126.48	120.14
34	69	100	ALA	CA-C-N	-5.97	114.55	122.85
34	69	100	ALA	C-N-CA	-5.97	114.55	122.85
46	G8	42	VAL	CA-C-N	-5.96	113.64	122.41
46	G8	42	VAL	C-N-CA	-5.96	113.64	122.41
31	39	82	ILE	N-CA-C	-5.96	105.53	112.98
40	A8	5	THR	N-CA-C	5.96	118.23	110.43
30	29	190	GLY	CA-C-N	-5.96	114.42	120.85
30	29	190	GLY	C-N-CA	-5.96	114.42	120.85
29	11	272	ALA	N-CA-C	5.95	123.48	110.80
34	61	143	SER	N-CA-C	5.95	123.48	110.80
26	1H	2597	G	OP1-P-O3'	-5.95	90.16	108.00
38	88	26	TYR	N-CA-C	5.95	120.55	112.88
26	14	752	A	C2'-C3'-O3'	5.94	118.41	109.50
29	11	120	GLY	CA-C-N	-5.93	113.51	119.56
29	11	120	GLY	C-N-CA	-5.93	113.51	119.56
38	45	104	PHE	CA-C-N	-5.92	112.31	123.27
38	45	104	PHE	C-N-CA	-5.92	112.31	123.27
2	1E	11	LEU	N-CA-C	-5.92	105.64	112.92
36	68	98	VAL	N-CA-C	5.92	117.72	109.55
48	I8	10	THR	N-CA-CB	5.92	120.49	110.49
46	G8	89	PHE	CB-CA-C	-5.92	109.74	116.54
34	69	120	ILE	N-CA-C	5.91	116.12	110.74
12	3I	116	SER	N-CA-C	5.91	119.25	112.57
26	14	1141	U	C4'-C3'-O3'	-5.91	104.14	113.00
26	1H	1574	C	OP2-P-O3'	5.91	125.72	108.00
33	51	82	GLY	CA-C-N	5.90	132.82	121.54
33	51	82	GLY	C-N-CA	5.90	132.82	121.54
50	K8	17	SER	CA-C-N	5.90	141.17	127.00
50	K8	17	SER	C-N-CA	5.90	141.17	127.00
26	14	2275	C	C5'-C4'-O4'	-5.90	100.25	109.10
33	59	168	PRO	N-CA-C	5.90	124.62	112.47
30	21	71	GLY	N-CA-C	-5.90	103.49	112.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	2A	120	ARG	CA-C-N	5.90	125.87	120.21
11	2A	120	ARG	C-N-CA	5.90	125.87	120.21
29	11	262	ARG	N-CA-C	5.90	117.40	110.97
50	G5	17	SER	CA-C-N	5.89	125.27	118.85
50	G5	17	SER	C-N-CA	5.89	125.27	118.85
26	14	1939	U	OP2-P-O3'	5.88	125.64	108.00
29	19	46	GLN	N-CA-C	5.88	118.47	111.71
45	F8	3	THR	CA-C-O	-5.88	114.88	121.81
13	4A	93	ARG	N-CA-C	-5.88	104.23	111.40
48	E5	46	LYS	CA-C-N	5.88	127.19	119.84
48	E5	46	LYS	C-N-CA	5.88	127.19	119.84
52	M8	40	HIS	N-CA-C	5.87	122.79	109.81
16	7A	11	SER	N-CA-C	5.87	115.84	108.45
41	B8	78	LEU	CA-C-N	-5.86	114.09	122.77
41	B8	78	LEU	C-N-CA	-5.86	114.09	122.77
29	11	40	THR	CA-C-N	5.86	132.90	121.41
29	11	40	THR	C-N-CA	5.86	132.90	121.41
29	11	53	PHE	N-CA-C	5.86	119.72	112.58
29	11	264	LYS	CA-C-N	5.85	126.26	119.47
29	11	264	LYS	C-N-CA	5.85	126.26	119.47
33	51	3	ARG	CA-C-N	-5.85	115.69	122.95
33	51	3	ARG	C-N-CA	-5.85	115.69	122.95
54	P8	43	THR	CA-C-N	-5.85	113.66	119.92
54	P8	43	THR	C-N-CA	-5.85	113.66	119.92
35	58	130	HIS	N-CA-C	5.85	120.55	113.17
30	29	58	ARG	N-CA-C	-5.85	104.59	110.97
34	69	83	ALA	N-CA-C	5.84	117.95	109.07
52	M8	20	ASN	N-CA-C	5.84	119.43	110.20
49	F5	35	THR	CA-C-O	-5.84	114.32	120.80
30	21	65	GLY	CA-C-N	5.82	132.18	121.70
30	21	65	GLY	C-N-CA	5.82	132.18	121.70
41	75	14	TYR	N-CA-C	5.82	119.91	112.34
26	1H	1589	C	O5'-P-OP2	5.82	125.45	108.00
26	1H	404	C	C2'-C3'-O3'	5.81	118.22	109.50
29	19	273	ARG	N-CA-C	5.81	123.18	110.80
38	88	139	GLU	CA-C-N	5.81	130.28	120.81
38	88	139	GLU	C-N-CA	5.81	130.28	120.81
28	79	50	ASP	CA-C-N	5.81	125.91	119.87
28	79	50	ASP	C-N-CA	5.81	125.91	119.87
2	1E	236	TYR	N-CA-C	-5.80	106.06	113.02
13	4A	78	ILE	N-CA-C	5.80	117.33	111.00
29	19	29	PRO	CA-C-N	-5.80	111.30	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	19	29	PRO	C-N-CA	-5.80	111.30	123.20
32	41	31	VAL	CA-C-N	5.80	126.13	119.93
32	41	31	VAL	C-N-CA	5.80	126.13	119.93
26	14	835	A	O5'-P-OP1	5.80	125.39	108.00
31	39	15	SER	CB-CA-C	-5.79	109.91	116.63
26	1H	945	A	C6-C5-N7	-5.79	114.92	132.30
9	8E	5	TYR	N-CA-C	5.79	118.98	109.72
2	12	223	ILE	CA-C-N	5.79	132.12	121.70
2	12	223	ILE	C-N-CA	5.79	132.12	121.70
46	G8	89	PHE	N-CA-C	5.79	117.11	108.31
13	4I	95	GLY	N-CA-C	5.78	123.30	115.32
26	1H	1782	C	OP2-P-O3'	-5.78	90.66	108.00
30	29	131	ALA	N-CA-C	5.78	119.80	112.87
1	13	1336	C	P-O3'-C3'	5.77	128.86	120.20
13	4I	3	ARG	N-CA-C	5.77	118.52	108.76
19	AI	7	LYS	N-CA-C	-5.77	106.00	113.16
37	35	50	ARG	N-CA-C	5.76	120.46	112.45
26	14	2873	A	C4-N9-C1'	5.75	143.56	126.30
26	14	632	A	O5'-P-OP2	5.75	125.25	108.00
1	1G	266	G	P-O3'-C3'	5.75	128.82	120.20
26	14	1141	U	P-O3'-C3'	5.75	128.82	120.20
30	21	130	GLY	N-CA-C	5.75	121.78	114.66
29	11	131	LEU	CA-C-N	-5.74	113.85	119.76
29	11	131	LEU	C-N-CA	-5.74	113.85	119.76
33	51	11	VAL	N-CA-C	5.74	121.28	108.88
29	11	196	VAL	CA-C-N	-5.74	113.62	122.69
29	11	196	VAL	C-N-CA	-5.74	113.62	122.69
30	21	86	PRO	CA-C-N	-5.74	114.79	122.42
30	21	86	PRO	C-N-CA	-5.74	114.79	122.42
38	88	106	VAL	CB-CA-C	-5.74	103.36	111.28
20	BI	74	LYS	CB-CA-C	-5.73	108.31	116.34
26	1H	1428	C	O5'-P-OP1	-5.73	90.81	108.00
26	1H	1858	G	C2'-C3'-O3'	5.73	118.09	109.50
20	BA	100	ILE	N-CA-C	5.73	116.68	110.21
53	N8	10	LYS	CA-C-N	-5.72	113.23	121.42
53	N8	10	LYS	C-N-CA	-5.72	113.23	121.42
4	32	3	ARG	CB-CA-C	-5.72	108.32	116.34
34	61	144	VAL	N-CA-C	5.72	117.31	108.44
44	E8	90	ARG	NE-CZ-NH1	-5.72	115.78	121.50
26	1H	945	A	C4-N9-C1'	5.72	143.46	126.30
2	1E	237	ALA	N-CA-C	-5.71	103.11	110.19
26	1H	774	A	C8-N9-C1'	5.71	144.83	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	195	A	O3'-P-O5'	5.71	112.56	104.00
26	1H	222	A	P-O3'-C3'	5.70	128.75	120.20
30	21	202	LYS	CA-C-N	5.70	131.96	121.70
30	21	202	LYS	C-N-CA	5.70	131.96	121.70
41	B8	46	GLU	N-CA-C	5.70	117.66	107.80
47	D5	101	PRO	CA-C-O	-5.70	110.22	120.60
26	1H	784	A	OP2-P-O3'	-5.70	90.91	108.00
1	13	687	A	C2'-C3'-O3'	5.70	118.05	109.50
37	78	65	ARG	N-CA-C	5.70	118.77	108.69
11	2A	114	VAL	CA-C-N	-5.70	114.70	120.85
11	2A	114	VAL	C-N-CA	-5.70	114.70	120.85
31	39	8	GLN	N-CA-C	5.69	117.72	109.07
26	14	2776	A	C2'-C3'-O3'	5.69	118.03	109.50
6	52	60	PHE	N-CA-C	5.69	117.68	108.41
26	1H	512	G	O4'-C1'-N9	5.68	116.72	108.20
26	1H	845	G	OP1-P-O3'	5.68	125.04	108.00
2	12	23	ARG	N-CA-C	-5.68	96.44	107.62
18	9I	22	VAL	N-CA-C	5.67	121.14	109.34
51	L8	54	VAL	N-CA-C	5.67	118.60	110.09
3	22	145	GLY	N-CA-C	5.67	123.17	115.00
9	82	117	HIS	N-CA-C	5.67	119.90	112.92
45	F8	5	TYR	N-CA-C	-5.67	105.70	113.30
29	11	248	SER	CA-C-N	-5.67	113.83	119.56
29	11	248	SER	C-N-CA	-5.67	113.83	119.56
7	62	141	VAL	N-CA-C	-5.67	99.89	108.17
26	1H	1786	A	N9-C1'-C2'	5.67	122.50	114.00
37	78	50	ARG	NE-CZ-NH2	5.67	124.30	119.20
4	32	39	PRO	CA-C-N	5.67	125.65	120.21
4	32	39	PRO	C-N-CA	5.67	125.65	120.21
26	1H	2712	U	P-O3'-C3'	5.67	126.50	119.70
12	3A	124	LYS	CA-C-N	-5.67	114.92	120.98
12	3A	124	LYS	C-N-CA	-5.67	114.92	120.98
11	2I	88	GLY	N-CA-C	5.66	117.82	112.04
16	7A	83	GLU	CB-CA-C	-5.66	110.07	116.63
1	13	115	G	C2'-C3'-O3'	5.66	117.98	109.50
51	L8	40	THR	CA-C-N	-5.65	112.69	118.85
51	L8	40	THR	C-N-CA	-5.65	112.69	118.85
44	A5	10	VAL	CA-C-N	-5.65	114.10	122.41
44	A5	10	VAL	C-N-CA	-5.65	114.10	122.41
26	1H	271(B)	G	C4'-C3'-O3'	5.64	117.86	109.40
4	32	85	LYS	N-CA-C	-5.64	100.16	108.79
6	52	47	ARG	N-CA-C	-5.64	102.14	110.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	H5	11	SER	N-CA-C	5.64	117.59	109.48
46	G8	5	MET	N-CA-C	5.63	118.48	109.02
50	K8	4	SER	N-CA-C	5.63	126.77	111.00
45	F8	25	LYS	N-CA-C	5.63	117.95	107.99
26	14	1255	U	N1-C1'-C2'	5.62	120.43	112.00
30	29	87	GLU	N-CA-C	-5.62	101.86	109.95
2	12	203	GLY	N-CA-C	5.62	117.57	110.38
40	65	42	ASP	N-CA-C	-5.62	102.44	110.59
5	42	105	VAL	CA-C-N	-5.62	113.89	119.56
5	42	105	VAL	C-N-CA	-5.62	113.89	119.56
11	2A	17	GLY	N-CA-C	5.62	119.53	112.79
4	32	180	GLY	N-CA-C	-5.61	99.88	113.18
36	25	118	ALA	CA-C-N	5.61	125.45	119.28
36	25	118	ALA	C-N-CA	5.61	125.45	119.28
26	14	1819	A	C4'-C3'-O3'	5.61	117.81	109.40
26	14	2873	A	N9-C1'-C2'	5.60	122.41	114.00
35	58	134	ARG	N-CA-C	5.60	122.19	109.81
28	79	22	ILE	N-CA-C	5.60	116.05	110.23
26	1H	2430	A	C8-N9-C1'	5.60	144.50	127.70
26	1H	2261	C	OP1-P-O3'	-5.59	91.22	108.00
34	61	7	GLU	CA-C-N	-5.59	113.79	119.83
34	61	7	GLU	C-N-CA	-5.59	113.79	119.83
17	8A	63	ARG	CA-C-N	5.59	125.87	119.83
17	8A	63	ARG	C-N-CA	5.59	125.87	119.83
33	59	160	LYS	N-CA-C	5.59	118.12	110.24
38	88	57	HIS	CA-C-N	-5.59	114.53	122.41
38	88	57	HIS	C-N-CA	-5.59	114.53	122.41
41	B8	53	ARG	CA-C-N	-5.59	114.76	122.30
41	B8	53	ARG	C-N-CA	-5.59	114.76	122.30
40	65	54	LEU	N-CA-C	-5.58	103.16	110.53
30	21	152	LYS	CA-C-N	-5.58	110.47	121.41
30	21	152	LYS	C-N-CA	-5.58	110.47	121.41
16	7A	82	GLN	CA-CB-CG	5.58	125.25	114.10
26	14	2275	C	P-O3'-C3'	5.57	128.56	120.20
32	41	44	GLY	N-CA-C	-5.57	99.98	113.18
38	88	78	PRO	CA-C-O	-5.57	110.47	120.60
28	71	219	GLY	N-CA-C	5.56	123.68	112.34
33	51	5	GLY	CA-C-N	5.56	132.15	121.54
33	51	5	GLY	C-N-CA	5.56	132.15	121.54
26	1H	617	G	O5'-P-OP2	-5.55	91.33	108.00
26	14	669	G	OP1-P-OP2	5.55	136.26	119.60
26	1H	967	C	O5'-P-OP2	-5.55	91.34	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	C5	41	GLY	N-CA-C	-5.55	100.02	113.18
26	1H	845	G	OP2-P-O3'	-5.55	91.35	108.00
26	14	1816	G	O5'-P-OP1	-5.55	91.36	108.00
29	19	218	ARG	CA-C-N	5.54	125.54	119.89
29	19	218	ARG	C-N-CA	5.54	125.54	119.89
26	14	128	C	C4'-C3'-O3'	5.53	121.30	113.00
34	69	13	GLY	N-CA-C	5.53	118.81	110.18
29	11	180	GLY	N-CA-C	-5.53	108.11	114.69
32	41	134	GLY	N-CA-C	5.52	119.19	110.96
1	13	687	A	P-O3'-C3'	5.52	128.48	120.20
1	13	1128	C	C2'-C3'-O3'	5.52	121.98	113.70
44	E8	64	MET	N-CA-C	5.52	120.89	113.72
35	15	47	ALA	N-CA-C	5.52	117.36	110.91
45	F8	93	GLU	N-CA-C	5.52	119.11	112.38
18	9A	24	ALA	N-CA-C	-5.51	106.39	113.23
55	Q8	50	LEU	CA-C-N	-5.51	112.62	122.32
55	Q8	50	LEU	C-N-CA	-5.51	112.62	122.32
11	2I	119	CYS	N-CA-C	5.51	118.01	110.24
2	1E	23	ARG	N-CA-C	-5.51	106.54	113.20
26	1H	2389	G	O3'-P-O5'	-5.51	95.74	104.00
11	2A	86	GLY	CA-C-O	-5.51	118.64	122.22
26	1H	784	A	O5'-P-OP1	-5.50	91.50	108.00
30	29	36	ARG	N-CA-C	5.50	120.67	113.30
26	1H	640	C	OP1-P-O3'	5.49	124.48	108.00
46	G8	99	CYS	CA-C-N	5.49	131.59	121.70
46	G8	99	CYS	C-N-CA	5.49	131.59	121.70
6	5E	65	VAL	N-CA-C	5.49	120.76	109.34
26	1H	133	C	OP1-P-O3'	-5.49	91.53	108.00
17	8I	8	GLY	N-CA-C	5.49	119.09	110.91
43	D8	77	ALA	N-CA-C	5.49	117.38	110.24
31	31	75	HIS	N-CA-C	5.49	117.31	109.14
30	29	72	VAL	N-CA-C	-5.49	105.16	110.42
2	1E	172	ILE	N-CA-C	-5.48	105.16	110.42
2	1E	234	PRO	N-CA-C	5.48	119.08	110.80
13	4I	37	THR	N-CA-C	-5.48	106.26	113.17
36	68	1	MET	CA-C-N	5.48	128.79	120.95
36	68	1	MET	C-N-CA	5.48	128.79	120.95
2	1E	9	GLU	N-CA-C	5.48	119.66	112.92
26	1H	270(C)	C	OP2-P-O3'	5.47	117.24	105.20
43	95	35	LEU	CA-C-N	5.47	125.48	119.90
43	95	35	LEU	C-N-CA	5.47	125.48	119.90
1	13	509	A	C2'-C3'-O3'	5.46	121.90	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	5A	27	CYS	N-CA-C	5.46	117.12	107.61
33	51	158	HIS	CA-C-N	-5.46	115.26	122.85
33	51	158	HIS	C-N-CA	-5.46	115.26	122.85
45	F8	51	VAL	CA-C-N	-5.46	117.38	123.16
45	F8	51	VAL	C-N-CA	-5.46	117.38	123.16
26	14	1812	A	O5'-P-OP2	-5.46	91.63	108.00
41	B8	3	ARG	N-CA-C	5.45	118.22	110.10
14	5I	13	THR	N-CA-C	5.45	121.85	109.81
26	1H	865	C	O5'-P-OP2	5.45	124.34	108.00
26	1H	1598	C	OP1-P-O3'	5.45	124.34	108.00
43	95	80	GLN	N-CA-C	-5.45	105.07	112.26
29	11	191	ALA	CA-C-N	-5.44	115.49	123.00
29	11	191	ALA	C-N-CA	-5.44	115.49	123.00
26	14	829	A	OP1-P-OP2	5.44	135.92	119.60
53	J5	4	HIS	CA-C-N	5.44	125.44	119.89
53	J5	4	HIS	C-N-CA	5.44	125.44	119.89
49	J8	54	ALA	CB-CA-C	-5.44	110.29	116.54
29	19	83	GLU	N-CA-C	5.44	118.42	109.72
26	14	2068	U	OP2-P-O3'	-5.44	91.69	108.00
26	1H	140	A	OP2-P-O3'	5.43	124.30	108.00
26	1H	1790	C	O3'-P-O5'	-5.43	95.85	104.00
26	14	963	U	O5'-P-OP1	-5.43	91.71	108.00
26	14	2516	G	OP2-P-O3'	5.43	124.29	108.00
26	1H	846	C	OP2-P-O3'	-5.42	91.73	108.00
2	1E	130	ARG	CA-C-N	5.42	125.72	119.92
2	1E	130	ARG	C-N-CA	5.42	125.72	119.92
26	14	2518	A	O4'-C1'-N9	-5.42	100.06	108.20
30	29	48	GLN	N-CA-C	5.42	119.00	112.93
48	E5	35	ASN	CA-C-N	-5.42	112.96	121.62
48	E5	35	ASN	C-N-CA	-5.42	112.96	121.62
7	62	74	GLU	N-CA-C	5.41	115.69	108.38
19	AA	11	VAL	N-CA-C	5.41	115.95	110.05
26	1H	324	A	O5'-P-OP2	5.41	124.24	108.00
38	88	58	PHE	CB-CA-C	-5.41	103.82	112.05
37	78	72	PRO	N-CA-C	-5.41	107.10	113.86
35	58	7	LYS	N-CA-C	-5.41	102.00	110.17
48	I8	13	GLY	N-CA-C	5.41	121.12	114.69
32	49	107	LEU	N-CA-C	5.41	118.21	111.24
26	1H	1994	C	O5'-P-OP2	-5.40	91.80	108.00
29	19	13	ARG	N-CA-C	-5.40	105.42	112.23
49	F5	39	LYS	N-CA-C	5.40	118.73	110.20
1	13	1065	U	C2'-C3'-O3'	5.39	117.59	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	11	106	ILE	N-CA-CB	5.39	116.41	110.53
41	B8	15	VAL	N-CA-C	-5.39	104.17	110.05
33	51	54	ARG	CA-C-N	5.39	124.73	118.85
33	51	54	ARG	C-N-CA	5.39	124.73	118.85
12	3A	19	ARG	N-CA-C	-5.39	99.31	110.80
26	1H	2275	C	OP1-P-O3'	5.39	124.17	108.00
38	45	90	VAL	N-CA-C	5.38	120.53	109.34
40	65	20	ARG	N-CA-C	-5.38	99.34	110.80
26	1H	2503	A	OP1-P-OP2	-5.38	103.47	119.60
42	85	9	VAL	N-CA-C	5.38	115.52	110.30
49	F5	92	LYS	N-CA-C	-5.38	99.35	110.80
26	1H	2430	A	C4-N9-C1'	-5.37	110.19	126.30
41	B8	12	SER	CA-C-N	5.37	131.37	121.70
41	B8	12	SER	C-N-CA	5.37	131.37	121.70
53	N8	33	CYS	CA-C-N	5.37	124.83	119.24
53	N8	33	CYS	C-N-CA	5.37	124.83	119.24
7	62	141	VAL	CA-C-N	5.37	131.37	121.70
7	62	141	VAL	C-N-CA	5.37	131.37	121.70
38	45	18	LYS	N-CA-C	5.37	119.53	112.92
12	3A	24	VAL	CA-C-N	-5.37	113.13	119.84
12	3A	24	VAL	C-N-CA	-5.37	113.13	119.84
26	14	2287	A	N9-C1'-C2'	-5.37	105.95	114.00
31	39	159	GLY	N-CA-C	-5.37	106.71	115.46
55	M5	49	VAL	CA-C-N	5.37	131.36	121.70
55	M5	49	VAL	C-N-CA	5.37	131.36	121.70
4	3E	88	VAL	N-CA-C	5.37	116.39	108.45
38	88	104	PHE	CA-CB-CG	-5.36	108.44	113.80
4	32	201	GLN	N-CA-C	-5.36	106.74	113.28
8	72	56	LYS	CA-C-N	5.36	125.53	119.90
8	72	56	LYS	C-N-CA	5.36	125.53	119.90
26	14	1325	G	O5'-P-OP2	5.36	124.08	108.00
34	69	121	LYS	N-CA-C	5.36	119.77	113.23
26	1H	1786	A	OP1-P-O3'	5.36	124.07	108.00
38	45	138	ASP	N-CA-CB	-5.36	102.56	110.49
37	78	31	ALA	N-CA-C	5.35	118.97	111.74
46	G8	81	LYS	N-CA-C	-5.35	97.98	109.81
26	1H	961	C	OP1-P-O3'	5.35	124.04	108.00
2	1E	90	MET	CA-C-N	5.35	125.81	120.14
2	1E	90	MET	C-N-CA	5.35	125.81	120.14
26	1H	987	G	O5'-P-OP2	5.34	124.03	108.00
38	88	58	PHE	CA-C-O	-5.33	116.11	122.13
10	1I	56	HIS	N-CA-C	-5.33	98.34	107.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	35	28	GLY	N-CA-C	-5.33	103.37	112.64
50	K8	17	SER	C-N-CD	-5.32	108.90	120.60
26	14	2689	U	P-O3'-C3'	5.32	128.18	120.20
46	G8	78	ALA	N-CA-C	5.32	122.13	110.80
26	1H	770	G	O5'-P-OP2	5.32	123.95	108.00
26	14	1216	G	OP2-P-O3'	-5.32	92.05	108.00
33	59	7	LEU	N-CA-C	5.32	119.73	112.55
10	1I	54	PHE	CA-C-N	-5.31	114.51	122.47
10	1I	54	PHE	C-N-CA	-5.31	114.51	122.47
52	M8	17	GLY	N-CA-C	-5.31	108.08	114.66
26	14	1899	G	N1-C2-N2	-5.31	100.27	116.20
26	14	1992	G	P-O3'-C3'	5.31	128.16	120.20
26	14	2078	C	O5'-P-OP2	5.31	123.92	108.00
31	39	147	GLY	N-CA-C	-5.31	107.72	115.63
26	1H	1517	G	OP1-P-O3'	5.30	123.90	108.00
26	1H	2061	G	OP1-P-O3'	5.30	123.90	108.00
43	D8	11	GLN	N-CA-C	5.29	117.28	108.02
26	1H	1376	C	O5'-P-OP1	-5.29	92.12	108.00
38	88	84	GLY	CA-C-N	5.29	131.22	121.70
38	88	84	GLY	C-N-CA	5.29	131.22	121.70
49	J8	2	SER	N-CA-C	5.29	125.82	111.00
29	19	40	THR	CA-C-O	5.29	126.59	121.14
30	29	44	TYR	CA-CB-CG	5.29	123.42	113.90
2	1E	14	GLY	N-CA-C	5.29	125.71	113.18
29	11	37	LEU	N-CA-C	5.29	117.56	109.95
54	P8	34	ARG	N-CA-C	-5.29	105.57	112.23
30	29	55	ASN	CA-C-N	-5.28	113.23	119.84
30	29	55	ASN	C-N-CA	-5.28	113.23	119.84
13	4I	98	VAL	N-CA-C	5.28	118.06	112.83
41	B8	2	ASN	CA-C-N	5.28	128.27	120.82
41	B8	2	ASN	C-N-CA	5.28	128.27	120.82
44	E8	26	GLY	N-CA-C	-5.28	107.96	115.30
15	6A	47	LYS	N-CA-C	-5.28	106.88	113.38
26	1H	2596	U	OP1-P-O3'	-5.28	92.17	108.00
26	1H	783	A	N9-C1'-C2'	-5.28	104.09	112.00
31	39	132	VAL	N-CA-C	-5.28	98.37	109.34
26	14	2335	A	O4'-C1'-N9	5.27	116.11	108.20
1	1G	913	A	P-O3'-C3'	5.27	128.11	120.20
37	78	16	ARG	CA-C-N	5.27	128.82	121.02
37	78	16	ARG	C-N-CA	5.27	128.82	121.02
29	11	105	ILE	CA-C-N	-5.27	114.39	121.66
29	11	105	ILE	C-N-CA	-5.27	114.39	121.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1829	A	O5'-P-OP1	-5.27	92.20	108.00
26	1H	1297	C	OP1-P-O3'	5.26	123.80	108.00
26	1H	1829	A	O5'-P-OP1	-5.26	92.22	108.00
26	1H	1255	U	N1-C1'-C2'	5.26	119.89	112.00
30	21	120	TRP	N-CA-C	5.26	119.39	112.92
9	8E	91	ASP	N-CA-C	-5.26	106.55	113.17
26	1H	1375	C	OP1-P-O3'	5.26	123.78	108.00
53	J5	51	TYR	CA-CB-CG	5.26	123.36	113.90
14	5I	18	VAL	N-CA-C	5.25	115.98	110.62
26	1H	784	A	OP1-P-O3'	5.25	123.75	108.00
33	51	13	LYS	N-CA-C	5.25	121.98	110.80
12	3A	23	LYS	N-CA-C	-5.25	106.65	113.16
17	8I	78	GLU	N-CA-C	5.25	120.33	113.30
1	1G	365	U	N1-C1'-C2'	5.24	119.86	112.00
1	13	422	C	P-O3'-C3'	5.24	128.06	120.20
48	E5	71	ASP	N-CA-C	5.24	117.26	107.99
39	55	52	ILE	N-CA-C	-5.24	105.61	110.53
26	1H	1968	G	N9-C1'-C2'	-5.24	104.15	112.00
35	58	21	LYS	N-CA-C	-5.24	103.12	110.50
26	1H	1347	G	OP1-P-O3'	5.23	123.70	108.00
13	4A	95	GLY	N-CA-C	5.23	125.58	113.18
26	14	2430	A	O5'-P-OP2	5.23	123.69	108.00
17	8I	87	LYS	N-CA-C	-5.23	105.27	110.97
49	J8	40	ARG	CA-C-N	-5.23	114.03	122.82
49	J8	40	ARG	C-N-CA	-5.23	114.03	122.82
31	31	11	VAL	N-CA-C	5.23	116.32	109.58
48	I8	29	GLN	N-CA-C	-5.23	103.49	110.55
11	2I	52	GLY	N-CA-C	5.22	116.98	110.29
46	C5	51	VAL	CB-CA-C	5.22	116.95	110.73
28	71	217	THR	N-CA-C	-5.22	105.76	111.82
30	29	89	ASP	CA-C-N	5.21	131.50	121.54
30	29	89	ASP	C-N-CA	5.21	131.50	121.54
30	29	144	ARG	N-CA-CB	5.21	114.83	109.51
33	51	12	PRO	N-CA-C	5.21	123.20	112.47
49	F5	35	THR	CA-C-N	-5.21	111.19	121.41
49	F5	35	THR	C-N-CA	-5.21	111.19	121.41
29	11	260	ARG	NE-CZ-NH1	-5.21	116.29	121.50
46	C5	52	SER	N-CA-C	5.21	121.32	109.81
9	8E	6	GLY	N-CA-C	5.20	119.70	110.80
26	1H	60	G	OP1-P-O3'	-5.20	92.39	108.00
31	31	95	ARG	N-CA-C	5.20	116.71	108.96
26	14	2346	A	O4'-C1'-N9	5.20	116.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	78	105	LEU	N-CA-C	-5.20	101.17	109.23
32	49	118	ARG	N-CA-C	-5.20	104.02	110.41
51	H5	56	VAL	N-CA-C	5.20	115.61	108.12
29	11	230	ASP	N-CA-C	5.20	118.78	112.23
7	62	70	LYS	CA-C-N	5.19	125.35	119.90
7	62	70	LYS	C-N-CA	5.19	125.35	119.90
26	1H	1599	C	OP2-P-O3'	5.19	123.57	108.00
33	51	4	ILE	CB-CA-C	5.18	118.91	111.81
26	14	1781	C	O4'-C1'-N1	5.18	115.97	108.20
38	88	25	ASP	N-CA-C	5.18	121.82	110.80
26	1H	226	G	O4'-C1'-N9	5.17	115.96	108.20
26	14	2375	G	N9-C1'-C2'	-5.17	104.24	112.00
49	F5	36	GLY	CA-C-N	-5.17	116.22	123.10
49	F5	36	GLY	C-N-CA	-5.17	116.22	123.10
4	3E	187	ARG	N-CA-C	5.17	115.06	108.24
30	21	143	ASN	CA-C-N	-5.17	114.81	121.79
30	21	143	ASN	C-N-CA	-5.17	114.81	121.79
32	49	20	ILE	N-CA-C	-5.17	104.63	111.09
29	11	233	HIS	CB-CA-C	-5.16	104.43	112.07
26	1H	537	C	O5'-P-OP1	5.16	123.48	108.00
55	Q8	61	LEU	CA-C-N	-5.15	117.12	122.89
55	Q8	61	LEU	C-N-CA	-5.15	117.12	122.89
30	29	68	ALA	CB-CA-C	-5.15	109.12	116.34
4	3E	38	TYR	CA-C-N	5.15	123.42	119.66
4	3E	38	TYR	C-N-CA	5.15	123.42	119.66
15	6I	44	LYS	N-CA-C	-5.15	105.74	111.36
29	11	123	ALA	CA-C-N	-5.15	114.64	119.90
29	11	123	ALA	C-N-CA	-5.15	114.64	119.90
35	15	10	GLU	CA-C-N	5.15	125.31	119.90
35	15	10	GLU	C-N-CA	5.15	125.31	119.90
26	14	2248	C	O5'-P-OP2	-5.15	92.56	108.00
55	Q8	49	VAL	CA-C-O	-5.15	114.99	120.14
26	14	2859	G	C4'-C3'-O3'	5.14	120.72	113.00
9	8E	112	LYS	N-CA-C	-5.14	99.85	110.80
29	11	40	THR	N-CA-C	5.14	125.39	111.00
26	14	1786	A	OP1-P-O3'	5.14	123.42	108.00
1	13	913	A	P-O3'-C3'	5.14	127.90	120.20
26	14	641	C	O5'-P-OP2	5.13	123.41	108.00
26	14	1394	U	O5'-P-OP2	5.13	123.40	108.00
26	1H	1970	A	O5'-P-OP2	-5.13	92.60	108.00
26	1H	1394	U	OP1-P-OP2	-5.13	104.21	119.60
38	88	140	ALA	N-CA-CB	5.13	114.74	109.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	687	A	P-O3'-C3'	5.13	127.89	120.20
26	1H	1778	U	OP2-P-O3'	5.13	123.38	108.00
32	49	155	MET	N-CA-C	5.13	115.11	107.88
40	A8	107	GLU	N-CA-C	-5.12	104.92	110.91
37	78	96	THR	CA-C-N	-5.12	115.00	121.91
37	78	96	THR	C-N-CA	-5.12	115.00	121.91
8	72	131	GLY	N-CA-C	5.12	119.15	111.42
45	B5	55	ASN	N-CA-C	-5.12	100.00	108.75
49	F5	72	GLU	N-CA-C	-5.12	107.04	113.28
37	35	57	THR	N-CA-C	5.12	121.70	110.80
26	1H	195	A	OP1-P-O3'	-5.11	92.66	108.00
48	I8	10	THR	CB-CA-C	5.11	120.59	110.42
26	1H	1858	G	P-O3'-C3'	5.11	127.87	120.20
26	1H	2431	U	OP2-P-O3'	-5.11	92.67	108.00
26	1H	222	A	C2'-C3'-O3'	5.11	117.16	109.50
26	1H	2346	A	N9-C1'-C2'	5.11	121.66	114.00
26	1H	828	U	N1-C1'-C2'	5.11	119.66	112.00
9	82	67	GLY	N-CA-C	5.11	118.51	112.33
26	14	2429	G	OP1-P-OP2	-5.11	104.28	119.60
46	C5	103	GLY	N-CA-C	5.11	125.28	113.18
26	1H	1775	U	OP2-P-O3'	-5.11	92.69	108.00
47	D5	82	ARG	CA-C-N	5.11	125.50	119.99
47	D5	82	ARG	C-N-CA	5.11	125.50	119.99
32	41	40	ASN	N-CA-C	5.10	116.71	108.34
1	1G	266	G	C2'-C3'-O3'	5.10	117.16	109.50
26	1H	142	G	OP1-P-O3'	-5.10	92.69	108.00
38	88	27	VAL	CB-CA-C	-5.10	102.92	111.29
50	K8	51	ARG	CA-C-N	-5.10	113.14	122.38
50	K8	51	ARG	C-N-CA	-5.10	113.14	122.38
29	11	220	HIS	CA-C-N	-5.10	115.62	122.91
29	11	220	HIS	C-N-CA	-5.10	115.62	122.91
26	1H	1626	G	O5'-P-OP2	5.10	123.29	108.00
37	35	55	ARG	N-CA-C	-5.09	104.14	110.41
26	1H	508	G	C4'-C3'-C2'	-5.09	97.51	102.60
26	14	49	A	C2'-C3'-O3'	5.09	117.14	109.50
39	98	105	ARG	NE-CZ-NH1	-5.09	116.41	121.50
29	11	250	TRP	N-CA-C	-5.09	106.66	112.92
10	1A	49	VAL	N-CA-C	5.09	117.35	108.90
32	49	50	ALA	N-CA-C	-5.09	107.07	113.28
37	78	21	ARG	CA-C-N	-5.09	113.88	121.87
37	78	21	ARG	C-N-CA	-5.09	113.88	121.87
48	I8	82	ARG	N-CA-C	-5.09	102.17	109.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	15	71	ILE	N-CA-C	5.09	115.37	107.28
26	1H	945	A	N1-C6-N6	5.08	133.85	118.60
37	35	96	THR	CA-C-N	-5.08	114.48	119.92
37	35	96	THR	C-N-CA	-5.08	114.48	119.92
21	1F	22	ARG	CA-C-N	5.08	124.84	119.76
21	1F	22	ARG	C-N-CA	5.08	124.84	119.76
1	13	1498	U	P-O3'-C3'	5.08	127.82	120.20
47	H8	92	SER	CA-C-N	-5.08	114.94	122.41
47	H8	92	SER	C-N-CA	-5.08	114.94	122.41
4	3E	204	ILE	N-CA-C	-5.08	105.38	110.30
34	69	75	LEU	N-CA-C	5.08	115.90	107.73
26	1H	2366	A	OP1-P-O3'	-5.07	92.78	108.00
29	11	245	PRO	CA-C-N	5.07	125.36	119.93
29	11	245	PRO	C-N-CA	5.07	125.36	119.93
31	31	94	PRO	CA-C-O	-5.07	115.80	121.23
26	14	1835	G	O5'-P-OP1	-5.07	92.78	108.00
30	21	79	ARG	CB-CG-CD	5.07	122.97	111.30
35	15	7	LYS	N-CA-C	-5.07	101.84	109.85
35	15	41	ASP	N-CA-C	-5.07	107.14	113.38
48	I8	36	ILE	CB-CA-C	5.07	117.19	110.91
26	1H	2375	G	N9-C1'-C2'	-5.07	104.40	112.00
26	1H	740	U	O5'-P-OP2	-5.07	92.80	108.00
51	L8	9	VAL	N-CA-CB	-5.07	106.64	112.21
39	55	61	HIS	N-CA-C	-5.07	105.67	111.14
55	M5	21	LYS	CA-C-N	-5.07	116.55	122.93
55	M5	21	LYS	C-N-CA	-5.07	116.55	122.93
15	6I	87	ILE	N-CA-C	5.06	119.87	109.34
37	78	60	MET	N-CA-C	-5.06	106.79	113.17
26	14	1312	U	O5'-P-OP1	-5.06	92.81	108.00
26	1H	1347	G	OP2-P-O3'	-5.06	92.82	108.00
26	14	1558	A	C2'-C3'-O3'	5.06	117.09	109.50
30	21	73	GLU	CA-C-N	5.06	126.31	120.85
30	21	73	GLU	C-N-CA	5.06	126.31	120.85
38	45	104	PHE	N-CA-C	5.06	121.58	110.80
26	1H	1971	A	O5'-P-OP1	-5.06	92.83	108.00
37	78	116	GLY	N-CA-C	5.05	125.16	113.18
5	42	67	VAL	N-CA-C	5.05	115.02	108.35
39	98	87	TYR	N-CA-C	5.05	120.07	113.30
26	14	835	A	O5'-P-OP2	-5.05	92.85	108.00
37	78	26	GLY	CA-C-O	-5.05	115.32	121.68
12	3I	95	GLY	CA-C-N	-5.05	116.32	122.93
12	3I	95	GLY	C-N-CA	-5.05	116.32	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	J5	16	ARG	CD-NE-CZ	5.05	131.47	124.40
26	1H	404	C	P-O3'-C3'	5.04	127.77	120.20
47	D5	133	ILE	CA-C-N	5.04	125.28	119.83
47	D5	133	ILE	C-N-CA	5.04	125.28	119.83
37	78	15	ARG	O-C-N	5.04	129.30	122.59
1	13	1301	U	C2'-C3'-O3'	5.04	117.06	109.50
36	68	26	LYS	CA-C-N	-5.04	113.82	123.29
36	68	26	LYS	C-N-CA	-5.04	113.82	123.29
26	14	1342	A	N9-C1'-C2'	5.04	121.56	114.00
44	A5	72	LYS	N-CA-C	-5.04	105.50	111.69
55	M5	39	LYS	N-CA-C	-5.04	102.83	110.28
52	M8	5	ILE	N-CA-C	5.03	119.81	109.34
26	1H	942	G	OP2-P-O3'	-5.03	92.90	108.00
12	3I	60	LEU	N-CA-C	5.03	118.41	109.96
26	1H	913	U	O5'-P-OP2	-5.03	92.91	108.00
30	29	54	GLN	CA-CB-CG	5.03	124.16	114.10
12	3I	15	ARG	N-CA-C	5.03	120.04	113.30
32	41	14	GLU	CA-C-N	-5.03	114.21	121.65
32	41	14	GLU	C-N-CA	-5.03	114.21	121.65
50	K8	49	LYS	N-CA-C	-5.02	107.00	113.23
26	1H	728	G	OP1-P-O3'	-5.02	92.94	108.00
26	1H	1129	A	O5'-P-OP2	-5.02	92.94	108.00
46	C5	83	THR	N-CA-C	-5.02	102.08	109.86
41	B8	100	TYR	N-CA-C	-5.02	107.16	113.28
14	5A	30	ALA	N-CA-C	-5.02	107.14	114.12
31	31	18	ARG	N-CA-C	5.02	116.76	110.24
16	7I	38	TYR	N-CA-C	5.01	114.91	108.34
26	1H	1187	G	P-O3'-C3'	5.01	127.72	120.20
37	78	81	GLN	CA-C-N	-5.01	116.71	121.57
37	78	81	GLN	C-N-CA	-5.01	116.71	121.57
29	19	98	VAL	N-CA-C	-5.01	105.53	112.50
30	29	132	HIS	N-CA-C	5.01	121.47	110.80
55	Q8	45	GLY	N-CA-C	-5.01	101.31	113.18
53	N8	27	PRO	CA-C-O	-5.01	116.78	120.73
26	14	1574	C	OP2-P-O3'	5.00	123.01	108.00
4	3E	198	VAL	N-CA-C	5.00	116.66	109.51
26	1H	1558	A	C2'-C3'-O3'	5.00	117.00	109.50
26	1H	1899	G	C8-N9-C1'	5.00	142.00	127.00
49	F5	91	LYS	N-CA-C	-5.00	103.93	110.53

There are no chirality outliers.

All (158) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	113	VAL	Peptide
29	11	114	GLY	Peptide
29	11	122	ASP	Peptide
29	11	233	HIS	Mainchain
29	11	29	PRO	Peptide
29	11	38	LYS	Peptide
2	12	15	VAL	Peptide
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
2	12	44	LEU	Peptide
35	15	124	ALA	Peptide
35	15	41	ASP	Peptide
29	19	197	GLY	Peptide
29	19	237	GLU	Peptide
29	19	27	THR	Peptide
29	19	28	GLU	Peptide
29	19	45	ASN	Mainchain
2	1E	15	VAL	Peptide
10	1I	88	LEU	Peptide
30	21	153	GLY	Peptide
30	21	186	GLY	Peptide
30	21	56	PRO	Peptide
30	21	64	LYS	Peptide
30	21	65	GLY	Peptide
30	21	66	HIS	Peptide
30	21	77	ILE	Peptide
30	21	78	LEU	Peptide
30	21	82	ARG	Peptide
30	29	115	GLY	Peptide
30	29	201	THR	Peptide
30	29	53	PRO	Peptide
30	29	61	ARG	Peptide
30	29	73	GLU	Peptide
11	2A	49	GLY	Peptide
11	2I	102	GLY	Peptide
4	32	152	SER	Peptide
37	35	110	TYR	Peptide
37	35	65	ARG	Peptide
37	35	70	GLN	Peptide
31	39	12	LEU	Peptide
31	39	127	GLU	Peptide
31	39	146	ALA	Peptide

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Mol	Chain	Res	Type	Group
31	39	166	ALA	Peptide
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	25	PRO	Peptide
31	39	26	ALA	Peptide
31	39	69	HIS	Mainchain
31	39	89	VAL	Peptide
12	3I	118	SER	Peptide
12	3I	47	LYS	Peptide
12	3I	87	GLY	Peptide
32	41	95	ARG	Peptide
38	45	135	ASP	Peptide
38	45	27	VAL	Peptide
38	45	58	PHE	Peptide
32	49	13	GLU	Peptide
32	49	36	LYS	Peptide
32	49	82	LEU	Peptide
13	4A	9	ILE	Peptide
13	4A	94	ARG	Peptide
13	4I	105	THR	Peptide
13	4I	4	ILE	Peptide
13	4I	66	LEU	Peptide
33	51	152	ARG	Peptide
33	51	156	ALA	Peptide
33	51	170	ARG	Peptide
33	51	174	GLY	Peptide
33	51	7	LEU	Peptide
39	55	106	GLY	Peptide
35	58	136	GLU	Peptide
35	58	49	GLY	Peptide
33	59	155	SER	Peptide
33	59	170	ARG	Peptide
33	59	7	LEU	Peptide
14	5A	29	ARG	Peptide
34	61	11	ASN	Peptide
34	61	134	PRO	Peptide
34	61	82	ARG	Peptide
40	65	53	SER	Peptide
34	69	101	LEU	Peptide
34	69	112	LYS	Peptide
34	69	142	VAL	Peptide
34	69	143	SER	Peptide

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Mol	Chain	Res	Type	Group
34	69	77	LEU	Peptide
28	71	178	ALA	Peptide
28	71	36	LYS	Peptide
28	71	37	PHE	Peptide
41	75	10	VAL	Peptide
37	78	11	GLY	Peptide
37	78	115	LEU	Peptide
37	78	24	GLY	Peptide
37	78	36	LYS	Peptide
37	78	70	GLN	Peptide
9	82	117	HIS	Peptide
42	85	72	HIS	Peptide
42	85	90	VAL	Peptide
42	85	98	LEU	Peptide
38	88	23	GLY	Peptide
38	88	6	ARG	Peptide
9	8E	110	GLU	Peptide
43	95	87	HIS	Peptide
39	98	44	LEU	Peptide
44	A5	43	GLY	Peptide
45	B5	24	GLY	Peptide
45	B5	61	GLY	Peptide
41	B8	12	SER	Peptide
41	B8	133	GLU	Peptide
41	B8	58	ASN	Peptide
20	BA	101	GLY	Peptide
20	BA	13	LEU	Peptide
20	BA	72	LEU	Peptide
46	C5	82	PRO	Peptide
46	C5	91	GLU	Peptide
42	C8	90	VAL	Peptide
42	C8	92	ARG	Peptide
47	D5	4	ARG	Peptide
47	D5	5	LEU	Peptide
47	D5	60	GLU	Peptide
47	D5	61	LEU	Peptide
47	D5	93	ASP	Peptide
43	D8	36	PRO	Peptide
43	D8	44	LYS	Peptide
43	D8	45	THR	Peptide
43	D8	48	GLY	Peptide
49	F5	82	LEU	Peptide

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Mol	Chain	Res	Type	Group
49	F5	89	GLU	Peptide
45	F8	2	LYS	Peptide
45	F8	3	THR	Peptide
50	G5	15	LYS	Peptide
50	G5	17	SER	Peptide
50	G5	43	GLN	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	80	GLY	Peptide
46	G8	84	ARG	Peptide
46	G8	93	GLY	Peptide
46	G8	99	CYS	Peptide
47	H8	158	PRO	Peptide
47	H8	165	VAL	Peptide
47	H8	63	ASP	Peptide
49	J8	75	GLU	Peptide
49	J8	77	ALA	Peptide
49	J8	85	LEU	Peptide
50	K8	17	SER	Peptide
50	K8	3	LEU	Peptide
50	K8	4	SER	Peptide
50	K8	46	GLN	Peptide
55	M5	40	GLU	Peptide
55	M5	51	ALA	Peptide
52	M8	37	SER	Peptide
52	M8	40	HIS	Peptide
52	M8	41	PRO	Peptide
52	M8	42	PHE	Peptide
54	P8	45	ALA	Peptide
55	Q8	30	ARG	Peptide
55	Q8	49	VAL	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	16234	832	0
1	1G	32371	0	16342	805	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	12	1696	0	1730	103	0
2	1E	1874	0	1926	117	0
3	22	1537	0	1603	78	0
3	2E	1605	0	1668	53	0
4	32	1702	0	1764	128	0
4	3E	1698	0	1759	103	0
5	42	1139	0	1202	51	0
5	4E	1142	0	1204	57	0
6	52	842	0	857	32	0
6	5E	837	0	852	35	0
7	62	1120	0	1167	57	0
7	6E	1242	0	1286	39	0
8	72	1107	0	1165	58	0
8	7E	1115	0	1177	60	0
9	82	953	0	983	82	0
9	8E	1000	0	1031	56	0
10	1A	646	0	662	36	0
10	1I	754	0	769	45	0
11	2A	835	0	847	33	0
11	2I	823	0	833	34	0
12	3A	956	0	1046	42	0
12	3I	956	0	1046	42	0
13	4A	893	0	946	59	0
13	4I	942	0	997	63	0
14	5A	486	0	525	38	0
14	5I	491	0	529	28	0
15	6A	729	0	768	17	0
15	6I	729	0	768	36	0
16	7A	705	0	725	23	0
16	7I	700	0	720	50	0
17	8A	823	0	891	31	0
17	8I	834	0	904	47	0
18	9A	544	0	605	32	0
18	9I	549	0	607	18	0
19	AA	481	0	468	31	0
19	AI	661	0	683	64	0
20	BA	762	0	861	38	0
20	BI	746	0	843	44	0
21	1B	188	0	195	11	0
21	1F	199	0	208	14	0
22	1K	1542	0	790	46	0
22	1L	1477	0	758	27	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	2K	1646	0	844	24	0
23	2L	1646	0	844	36	0
24	3K	1483	0	756	63	0
24	3L	1528	0	778	49	0
25	4K	464	0	231	20	0
25	4L	419	0	208	11	0
26	14	61505	0	30997	1443	0
26	1H	62204	0	31336	1596	0
27	16	2617	0	1328	74	0
27	1J	2617	0	1328	69	0
28	71	1033	0	1048	73	0
28	79	456	0	460	25	0
29	11	2120	0	2197	138	0
29	19	2125	0	2199	132	0
30	21	1558	0	1624	108	0
30	29	1563	0	1629	103	0
31	31	1585	0	1632	80	0
31	39	1602	0	1649	115	0
32	41	1457	0	1514	93	0
32	49	1468	0	1520	85	0
33	51	1328	0	1396	102	0
33	59	543	0	566	30	0
34	61	1136	0	1223	54	0
34	69	1131	0	1218	57	0
35	15	1104	0	1180	40	0
35	58	1096	0	1169	75	0
36	25	932	0	996	49	0
36	68	932	0	996	32	0
37	35	1122	0	1206	69	0
37	78	1122	0	1206	95	0
38	45	1104	0	1159	94	0
38	88	1117	0	1168	54	0
39	55	967	0	1033	57	0
39	98	967	0	1033	52	0
40	65	876	0	938	73	0
40	A8	881	0	943	64	0
41	75	1109	0	1170	78	0
41	B8	1124	0	1179	76	0
42	85	959	0	1019	60	0
42	C8	950	0	1011	58	0
43	95	770	0	838	46	0
43	D8	774	0	849	39	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	A5	886	0	948	38	0
44	E8	876	0	941	27	0
45	B5	735	0	785	39	0
45	F8	743	0	794	35	0
46	C5	794	0	886	64	0
46	G8	783	0	869	58	0
47	D5	1079	0	1088	65	0
47	H8	1365	0	1391	78	0
48	E5	603	0	620	37	0
48	I8	611	0	631	33	0
49	F5	737	0	813	42	0
49	J8	737	0	813	43	0
50	G5	576	0	625	31	0
50	K8	575	0	634	49	0
51	H5	459	0	512	9	0
51	L8	459	0	512	12	0
52	M8	376	0	374	53	0
53	J5	434	0	454	21	0
53	N8	369	0	388	21	0
54	L5	401	0	436	15	0
54	P8	401	0	436	19	0
55	M5	516	0	581	28	0
55	Q8	516	0	582	44	0
56	11	3	0	0	0	0
56	13	161	0	0	0	0
56	14	471	0	0	0	0
56	16	13	0	0	0	0
56	1G	126	0	0	0	0
56	1H	572	0	0	0	0
56	1J	11	0	0	0	0
56	1K	1	0	0	0	0
56	21	3	0	0	0	0
56	25	2	0	0	0	0
56	29	1	0	0	0	0
56	2A	1	0	0	0	0
56	2K	3	0	0	0	0
56	2L	3	0	0	0	0
56	32	1	0	0	0	0
56	35	3	0	0	0	0
56	39	2	0	0	0	0
56	41	2	0	0	0	0
56	42	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	45	2	0	0	0	0
56	4K	1	0	0	0	0
56	52	1	0	0	0	0
56	5E	1	0	0	0	0
56	5I	1	0	0	0	0
56	78	2	0	0	0	0
56	88	3	0	0	0	0
56	98	1	0	0	0	0
56	B5	1	0	0	0	0
56	E5	3	0	0	0	0
56	F8	1	0	0	0	0
56	I8	1	0	0	0	0
56	L8	1	0	0	0	0
56	M5	1	0	0	0	0
56	P8	1	0	0	0	0
56	Q8	1	0	0	0	0
57	32	8	0	0	3	0
57	3E	8	0	0	0	0
58	5A	1	0	0	0	0
58	5I	1	0	0	0	0
58	C5	1	0	0	0	0
58	G8	1	0	0	0	0
59	11	16	0	0	6	0
59	13	389	0	0	54	0
59	14	1225	0	0	216	0
59	16	35	0	0	7	0
59	19	11	0	0	3	0
59	1E	1	0	0	0	0
59	1F	2	0	0	0	0
59	1G	297	0	0	46	0
59	1H	1539	0	0	288	0
59	1I	2	0	0	0	0
59	1J	12	0	0	2	0
59	1K	8	0	0	1	0
59	1L	1	0	0	0	0
59	21	7	0	0	1	0
59	25	6	0	0	0	0
59	29	5	0	0	0	0
59	2A	3	0	0	0	0
59	2K	6	0	0	0	0
59	2L	6	0	0	0	0
59	31	6	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	32	2	0	0	1	0
59	35	8	0	0	1	0
59	39	7	0	0	0	0
59	3A	1	0	0	0	0
59	3E	2	0	0	0	0
59	3I	2	0	0	0	0
59	3K	1	0	0	0	0
59	41	1	0	0	0	0
59	42	1	0	0	0	0
59	45	4	0	0	0	0
59	4E	1	0	0	0	0
59	4I	2	0	0	0	0
59	4K	5	0	0	0	0
59	4L	5	0	0	0	0
59	52	4	0	0	0	0
59	55	3	0	0	4	0
59	58	2	0	0	0	0
59	5I	2	0	0	0	0
59	62	3	0	0	0	0
59	68	2	0	0	0	0
59	6A	1	0	0	0	0
59	6I	3	0	0	0	0
59	78	8	0	0	1	0
59	7A	6	0	0	0	0
59	7I	1	0	0	0	0
59	85	1	0	0	0	0
59	88	8	0	0	0	0
59	8E	3	0	0	0	0
59	95	1	0	0	0	0
59	9A	2	0	0	1	0
59	A5	1	0	0	0	0
59	B5	1	0	0	0	0
59	BA	5	0	0	1	0
59	C5	3	0	0	0	0
59	C8	4	0	0	1	0
59	D8	2	0	0	0	0
59	F5	1	0	0	0	0
59	F8	2	0	0	0	0
59	G8	1	0	0	0	0
59	H5	2	0	0	0	0
59	I8	7	0	0	1	0
59	J8	2	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	K8	1	0	0	0	0
59	L5	3	0	0	0	0
59	L8	3	0	0	0	0
59	M5	6	0	0	1	0
59	P8	1	0	0	0	0
59	Q8	8	0	0	1	0
All	All	297904	0	196675	9120	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 19.

All (9120) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:592:G:H21	55:Q8:4:MET:HE1	1.06	1.18
39:55:3:HIS:NE2	59:55:201:HOH:O	1.77	1.14
49:J8:93:GLU:HG3	49:J8:94:LEU:H	1.01	1.12
26:14:730:C:OP2	59:14:3501:HOH:O	1.68	1.11
19:AI:3:ARG:HE	19:AI:9:VAL:HG11	1.10	1.10
26:14:2822:G:N7	59:14:3506:HOH:O	1.84	1.10
26:14:761:A:N7	59:14:3507:HOH:O	1.85	1.09
26:1H:576:U:OP1	59:1H:3602:HOH:O	1.71	1.09
26:1H:810:U:OP1	59:1H:3601:HOH:O	1.69	1.09
19:AI:41:VAL:HG13	19:AI:44:MET:H	1.10	1.08
26:1H:1968:G:OP1	59:1H:3603:HOH:O	1.73	1.06
19:AI:40:ILE:HG12	19:AI:41:VAL:HG23	1.36	1.05
29:11:26:LYS:HD2	29:11:29:PRO:HG3	1.37	1.05
26:1H:1597:A:N7	59:1H:3618:HOH:O	1.87	1.05
30:21:135:HIS:NE2	59:21:401:HOH:O	1.88	1.05
38:45:27:VAL:HB	38:45:28:ALA:HA	1.39	1.04
26:1H:1622:G:OP2	59:1H:3606:HOH:O	1.76	1.03
31:31:29:ASN:H	31:31:112:MET:HE1	1.22	1.03
38:45:26:TYR:HD1	38:45:27:VAL:HG22	1.24	1.03
26:1H:2711:A:OP2	59:1H:3604:HOH:O	1.75	1.02
26:14:784:A:OP2	59:14:3502:HOH:O	1.77	1.02
26:1H:733:G:OP2	59:1H:3605:HOH:O	1.76	1.02
26:1H:2056:G:N7	59:1H:3623:HOH:O	1.91	1.01
26:14:2032:G:H21	30:29:146:THR:HG23	1.21	1.01
26:14:733:G:N7	59:14:3507:HOH:O	1.91	1.01
26:14:1632:A:N7	59:14:3525:HOH:O	1.93	1.01
1:13:362:G:O2'	12:3I:33:ARG:NH2	1.93	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:862:G:OP2	59:1H:3607:HOH:O	1.78	1.01
26:14:599:G:N7	59:14:3527:HOH:O	1.94	1.01
49:J8:91:LYS:HZ3	49:J8:91:LYS:HA	1.26	1.00
29:11:37:LEU:H	29:11:37:LEU:HD12	1.23	1.00
26:14:2292:C:OP1	40:65:17:ARG:NH2	1.95	1.00
34:69:130:TYR:HB3	34:69:136:VAL:HG23	1.42	1.00
12:3A:47:LYS:HG3	12:3A:48:PRO:HD2	1.44	0.99
26:1H:620:G:H4'	26:1H:621:A:H5"	1.44	0.98
32:41:112:PRO:HB3	52:M8:37:SER:H	1.25	0.98
1:13:541:G:N7	59:13:1806:HOH:O	1.96	0.98
26:1H:1359:A:N1	26:1H:1372:U:N3	2.12	0.98
33:51:2:SER:HB2	33:51:3:ARG:HD3	1.45	0.98
38:45:138:ASP:N	38:45:139:GLU:HA	1.74	0.98
49:J8:93:GLU:HG3	49:J8:94:LEU:N	1.76	0.97
26:14:763:G:OP1	59:14:3503:HOH:O	1.82	0.97
26:1H:913:U:O4	59:1H:3608:HOH:O	1.81	0.97
26:14:1359:A:H62	26:14:1372:U:H3	1.04	0.97
26:14:2589:A:OP1	59:14:3502:HOH:O	1.81	0.97
26:1H:1959:G:N7	59:1H:3648:HOH:O	1.98	0.96
38:45:26:TYR:CD1	38:45:27:VAL:HG22	2.00	0.96
36:68:68:GLU:OE2	36:68:78:ARG:NH1	1.99	0.96
26:14:141:A:H8	26:14:1595:G:H21	1.13	0.96
26:1H:784:A:OP1	59:1H:3611:HOH:O	1.83	0.96
27:16:82:G:N7	59:16:302:HOH:O	1.99	0.96
17:8I:100:LYS:HG2	17:8I:101:ARG:HE	1.30	0.96
2:1E:16:HIS:HE1	2:1E:213:LEU:HD12	1.29	0.95
19:AI:41:VAL:HG12	19:AI:42:PRO:C	1.90	0.95
29:11:31:LYS:HB3	29:11:34:VAL:HG23	1.44	0.95
26:14:67:U:H3	26:14:74:A:H2	1.09	0.95
49:J8:93:GLU:CG	49:J8:94:LEU:H	1.75	0.95
26:1H:2048:G:N7	59:1H:3649:HOH:O	1.99	0.95
26:1H:2503:A:OP1	59:1H:3602:HOH:O	1.85	0.95
26:1H:574:C:OP1	59:1H:3613:HOH:O	1.85	0.95
26:14:409:C:OP1	59:14:3504:HOH:O	1.84	0.95
26:1H:1939:U:O2	59:1H:3612:HOH:O	1.85	0.94
38:45:27:VAL:CB	38:45:28:ALA:HA	1.97	0.94
26:1H:592:G:O6	59:1H:3609:HOH:O	1.82	0.94
26:1H:2592:G:OP1	59:1H:3610:HOH:O	1.82	0.94
26:14:913:U:O4	59:14:3508:HOH:O	1.85	0.94
1:13:533:A:OP1	59:13:1801:HOH:O	1.86	0.93
26:1H:731:C:OP2	59:1H:3617:HOH:O	1.87	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1253:A:N7	59:1H:3601:HOH:O	2.01	0.93
34:61:144:VAL:HG23	34:61:145:VAL:HG23	1.50	0.93
26:14:54:G:O6	59:14:3509:HOH:O	1.87	0.93
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.02	0.93
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.51	0.93
26:1H:947:G:O6	59:1H:3615:HOH:O	1.86	0.93
26:14:194:G:OP2	59:14:3505:HOH:O	1.84	0.93
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.51	0.92
26:14:900:A:H2'	26:14:901:A:H8	1.34	0.92
34:69:81:VAL:H	34:69:143:SER:HB3	1.33	0.92
24:3L:3:G:N2	24:3L:70:C:N3	2.17	0.92
1:13:975:A:H4'	1:13:976:G:H5"	1.51	0.92
26:14:2712(A):A:OP1	59:14:3512:HOH:O	1.88	0.92
26:1H:1428:C:N3	59:1H:3657:HOH:O	2.01	0.91
26:1H:702:G:OP2	59:1H:3619:HOH:O	1.88	0.91
33:51:170:ARG:HA	33:51:171:LEU:HB2	1.52	0.91
26:14:1762:A:N6	59:14:3549:HOH:O	2.03	0.91
19:AI:41:VAL:HG13	19:AI:44:MET:N	1.84	0.91
26:14:802:A:OP1	59:14:3511:HOH:O	1.88	0.91
26:1H:1665:A:OP2	59:1H:3614:HOH:O	1.86	0.91
26:1H:2656:U:H3	26:1H:2665:A:H2	1.16	0.91
26:14:2821:A:OP2	59:14:3510:HOH:O	1.87	0.91
32:49:130:ASN:HB3	32:49:160:VAL:HA	1.52	0.91
26:1H:761:A:N7	59:1H:3666:HOH:O	2.04	0.91
1:1G:1502:A:H2	1:1G:1505:G:H1	1.17	0.91
26:14:1771:C:HO2'	26:14:1786:A:H8	0.96	0.91
26:1H:1689:A:H62	26:1H:1698:A:H2	1.15	0.91
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.53	0.91
37:35:39:LYS:HD2	37:35:45:LEU:HD21	1.51	0.91
26:1H:2074:U:OP1	59:1H:3616:HOH:O	1.86	0.91
26:14:2342:C:N4	59:14:3546:HOH:O	2.03	0.91
26:1H:2310:A:H62	32:41:79:ASN:HD22	1.15	0.90
26:14:879:G:O2'	26:14:898:C:N4	2.03	0.90
26:14:1372:U:OP2	59:14:3513:HOH:O	1.88	0.90
26:14:1774:C:OP1	59:14:3514:HOH:O	1.89	0.90
27:1J:80:U:H2'	27:1J:81:G:H21	1.36	0.90
1:13:750:G:OP2	59:13:1802:HOH:O	1.88	0.90
32:41:161:THR:HG22	32:41:163:ALA:H	1.36	0.90
31:39:25:PRO:HB2	31:39:27:GLU:H	1.35	0.90
26:1H:574:C:OP2	59:1H:3621:HOH:O	1.89	0.90
22:1K:34:U8U:HN3	25:4K:21:G:H22	1.19	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.05	0.90
1:1G:1191:A:OP1	3:22:3:ASN:ND2	2.05	0.90
26:1H:2705:A:OP2	59:1H:3620:HOH:O	1.89	0.90
22:1L:9:A:N6	22:1L:22:G:N7	2.19	0.90
27:1J:15:A:H3'	27:1J:16:G:H5'	1.53	0.90
32:49:7:LEU:HD12	32:49:104:GLU:HB2	1.54	0.90
26:1H:1185:C:OP2	59:1H:3622:HOH:O	1.90	0.90
47:H8:93:ASP:HB3	47:H8:131:ARG:HH21	1.35	0.90
22:1K:51:A:N1	22:1K:64:G:N2	2.19	0.90
26:1H:49:A:N7	26:1H:120:U:H5	1.70	0.90
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.34	0.89
29:11:182:LEU:H	29:11:272:ALA:HB3	1.36	0.89
26:14:2608:G:N7	59:14:3560:HOH:O	2.05	0.89
4:32:33:MET:O	4:32:35:ARG:NH1	2.05	0.89
45:B5:63:LYS:H	45:B5:63:LYS:HE3	1.38	0.89
26:1H:1899:G:H1	26:1H:1902:C:H41	1.20	0.89
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.55	0.89
1:1G:972:C:O2'	10:1A:55:LYS:NZ	2.06	0.88
26:14:662:G:OP1	59:14:3516:HOH:O	1.90	0.88
26:1H:2308:G:H1	26:1H:2311:A:H2	1.17	0.88
26:1H:2598:A:OP1	59:1H:3624:HOH:O	1.91	0.88
26:14:734:A:OP2	59:14:3515:HOH:O	1.90	0.88
1:13:768:A:OP2	59:13:1803:HOH:O	1.91	0.88
1:13:1129:C:H1'	1:13:1146:A:H61	1.37	0.88
26:1H:2747:G:N7	59:1H:3676:HOH:O	2.05	0.88
29:11:35:LYS:H	29:11:35:LYS:HZ2	1.20	0.88
26:14:2697:G:N7	59:14:3561:HOH:O	2.05	0.88
1:13:581:G:N7	59:13:1815:HOH:O	2.06	0.88
1:13:1502:A:H2	1:13:1505:G:H1	1.19	0.88
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.91	0.88
29:19:182:LEU:H	29:19:272:ALA:HB3	1.37	0.88
1:1G:1028:C:N3	1:1G:1033:G:N2	2.22	0.88
26:14:674:G:OP2	59:14:3517:HOH:O	1.90	0.88
19:AI:3:ARG:NE	19:AI:9:VAL:HG11	1.88	0.88
41:B8:4:GLY:HA2	41:B8:7:ILE:HG12	1.56	0.88
1:13:1422:G:H5"	36:68:48:PRO:HB3	1.54	0.88
26:1H:226:G:H21	26:1H:228:A:H2	1.17	0.88
33:51:4:ILE:HG23	33:51:6:ARG:CZ	2.04	0.88
26:1H:442:G:H1'	31:31:48:THR:HG21	1.55	0.88
1:1G:1127:G:H1'	1:1G:1148:U:H3	1.39	0.88
1:13:1305:G:N2	1:13:1331:G:H2'	1.88	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:157:LEU:O	4:3E:161:ASN:ND2	2.07	0.87
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.56	0.87
27:1J:101:A:N7	59:1J:301:HOH:O	2.06	0.87
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.39	0.87
26:14:2255:G:OP2	59:14:3518:HOH:O	1.91	0.87
26:1H:1899:G:H22	26:1H:1902:C:H5	1.20	0.87
26:14:2392:A:H2	26:14:2424:C:H42	1.18	0.87
24:3L:3:G:H1	24:3L:70:C:H42	1.22	0.87
1:13:608:A:OP2	59:13:1804:HOH:O	1.93	0.87
26:1H:2312:U:H5'	32:41:88:ILE:HD12	1.57	0.87
26:14:1676:A:OP2	59:14:3519:HOH:O	1.91	0.87
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.22	0.87
26:1H:592:G:N2	55:Q8:4:MET:HE1	1.90	0.87
1:1G:78:G:H1	1:1G:91:C:H42	1.18	0.87
26:14:690:G:OP1	59:14:3524:HOH:O	1.93	0.87
26:1H:800:A:OP1	59:1H:3625:HOH:O	1.91	0.86
26:1H:1023:U:OP2	59:1H:3627:HOH:O	1.93	0.86
26:14:1622:G:OP2	59:14:3523:HOH:O	1.93	0.86
14:5A:29:ARG:HB3	14:5A:31:ARG:H	1.39	0.86
26:14:1899:G:H21	26:14:1902:C:N4	1.73	0.86
26:1H:1021:A:H62	26:1H:1141:U:H3	1.21	0.86
26:1H:1653:G:H3'	39:98:2:ARG:HG3	1.58	0.86
29:11:37:LEU:H	29:11:37:LEU:CD1	1.85	0.86
26:14:198:C:OP2	59:14:3526:HOH:O	1.94	0.86
26:14:205:G:OP2	59:14:3521:HOH:O	1.92	0.86
26:14:1891:G:O6	59:14:3522:HOH:O	1.93	0.86
26:14:2822:G:OP2	59:14:3510:HOH:O	1.93	0.86
26:1H:805:G:OP1	59:1H:3628:HOH:O	1.93	0.86
26:1H:2392:A:H2	26:1H:2424:C:H42	1.22	0.86
36:68:75:SER:OG	41:B8:74:ARG:NH2	2.08	0.86
26:14:330:A:H2	26:14:1210:A:HO2'	1.23	0.86
26:14:1890:A:OP2	59:14:3520:HOH:O	1.92	0.86
26:14:1141:U:OP2	35:15:63:THR:OG1	1.95	0.85
1:13:362:G:N7	59:13:1817:HOH:O	2.09	0.85
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.07	0.85
26:1H:847:U:OP2	59:1H:3629:HOH:O	1.93	0.85
1:13:664:G:H22	1:13:741:G:H1	1.24	0.85
26:1H:607:U:H3	26:1H:621:A:H2	1.23	0.85
26:14:71:A:H2	45:B5:31:HIS:HE2	1.21	0.85
19:AI:8:GLY:HA3	19:AI:9:VAL:HG13	1.56	0.85
27:16:81:G:OP2	59:16:301:HOH:O	1.94	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1639:U:OP1	59:1H:3626:HOH:O	1.92	0.85
18:9I:59:SER:HB3	18:9I:62:GLU:HB2	1.59	0.85
26:14:676:A:H8	26:14:2069:G:H21	1.24	0.85
26:1H:1676:A:OP2	59:1H:3633:HOH:O	1.95	0.85
7:62:23:VAL:HG13	7:62:43:PHE:HE2	1.42	0.84
26:14:1418:G:N7	59:14:3583:HOH:O	2.10	0.84
2:1E:185:ILE:HB	2:1E:199:TYR:HB2	1.59	0.84
26:1H:929:G:O6	59:1H:3629:HOH:O	1.95	0.84
33:51:168:PRO:HB2	33:51:170:ARG:CZ	2.07	0.84
2:12:40:HIS:HD2	2:12:190:THR:HG21	1.42	0.84
26:14:397:G:N7	59:14:3580:HOH:O	2.09	0.84
32:49:161:THR:HG22	32:49:163:ALA:H	1.42	0.84
26:1H:566:U:OP1	37:78:29:LYS:NZ	2.09	0.84
29:11:237:GLU:OE2	59:11:401:HOH:O	1.94	0.84
42:C8:92:ARG:O	42:C8:94:ASN:N	2.10	0.84
26:14:2782:G:OP2	59:14:3529:HOH:O	1.95	0.84
37:35:79:ARG:HG2	37:35:110:TYR:HB2	1.59	0.84
26:14:929:G:O6	59:14:3528:HOH:O	1.94	0.84
38:45:135:ASP:HB2	38:45:137:TYR:H	1.43	0.84
24:3K:76:A:H8	26:1H:2394:C:H42	1.24	0.84
33:51:153:LYS:HB2	33:51:155:SER:H	1.43	0.84
30:29:81:ILE:HG22	30:29:82:ARG:H	1.43	0.84
26:1H:453:C:OP1	59:1H:3632:HOH:O	1.95	0.84
26:14:1729:A:H2'	26:14:1731:G:H22	1.41	0.84
41:75:2:ASN:HB3	41:75:4:GLY:HA2	1.59	0.84
2:1E:111:ARG:HG2	2:1E:111:ARG:HH11	1.43	0.83
14:5A:27:CYS:O	14:5A:29:ARG:NH2	2.11	0.83
26:14:761:A:OP1	59:14:3532:HOH:O	1.96	0.83
26:1H:732:C:OP2	59:1H:3636:HOH:O	1.96	0.83
28:71:64:LEU:HD21	28:71:188:ASN:HD21	1.41	0.83
24:3L:76:A:H8	26:14:2394:C:H42	1.26	0.83
26:14:1020:A:N6	26:14:1141:U:HO2'	1.74	0.83
26:1H:1434:A:H61	26:1H:1558:A:H61	1.23	0.83
26:1H:2588:G:OP1	59:1H:3611:HOH:O	1.96	0.83
46:G8:100:ALA:HB1	46:G8:101:LYS:HG3	1.60	0.83
40:A8:59:LYS:HG2	40:A8:60:GLY:H	1.43	0.83
26:14:1757:U:H3	26:14:1762:A:H2	1.25	0.83
27:1J:86:G:N2	27:1J:90:C:O2	2.10	0.83
26:1H:865:C:O2	59:1H:3630:HOH:O	1.94	0.83
26:14:113:G:OP1	59:14:3530:HOH:O	1.95	0.83
26:14:733:G:OP2	59:14:3531:HOH:O	1.96	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1680:U:O4	59:14:3533:HOH:O	1.97	0.83
26:1H:674:G:H1'	31:31:74:ARG:HD3	1.59	0.83
26:1H:1509:C:O2'	26:1H:1510:A:OP1	1.97	0.83
30:21:65:GLY:HA2	30:21:66:HIS:HB2	1.58	0.83
51:L8:35:ARG:HB3	51:L8:37:LEU:HD21	1.60	0.83
53:J5:33:CYS:HG	53:J5:46:CYS:HG	1.25	0.83
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.12	0.83
1:1G:475:G:N7	59:1G:1816:HOH:O	2.12	0.83
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.79	0.83
26:1H:2487:G:O6	59:1H:3634:HOH:O	1.95	0.83
26:14:607:U:H3	26:14:621:A:H2	1.27	0.83
38:88:79:LEU:HD12	38:88:80:GLU:HG3	1.59	0.82
4:32:157:LEU:O	4:32:161:ASN:ND2	2.12	0.82
1:13:588:G:OP2	59:13:1805:HOH:O	1.94	0.82
26:1H:2611:U:H2'	53:N8:3:LYS:HG2	1.59	0.82
50:K8:4:SER:OG	50:K8:7:ARG:N	2.12	0.82
26:14:450:G:OP2	59:14:3536:HOH:O	1.97	0.82
26:14:2837:G:N7	59:14:3585:HOH:O	2.10	0.82
38:45:97:VAL:HG11	38:45:103:MET:HE3	1.59	0.82
27:16:80:U:H2'	27:16:81:G:H21	1.42	0.82
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.13	0.82
26:14:990:A:H5'	26:14:990:A:H8	1.44	0.82
41:75:50:ILE:HD11	41:75:102:ILE:HD11	1.61	0.82
26:1H:592:G:H21	55:Q8:4:MET:CE	1.90	0.82
26:1H:2706:G:O6	59:1H:3631:HOH:O	1.94	0.82
26:1H:1678:G:H22	26:1H:1989:G:H22	1.28	0.82
26:1H:1939:U:H1'	59:1H:3612:HOH:O	1.79	0.82
26:1H:2501:C:OP1	59:1H:3640:HOH:O	1.97	0.82
31:31:66:PRO:O	31:31:67:GLN:HB3	1.79	0.82
26:1H:1007:C:OP2	59:1H:3638:HOH:O	1.97	0.82
26:14:2296:U:OP2	40:65:9:ARG:NH1	2.12	0.82
26:1H:1627:G:OP1	59:1H:3635:HOH:O	1.96	0.82
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.12	0.82
1:1G:1441:G:O6	59:1G:1801:HOH:O	1.97	0.82
26:14:1364:G:OP2	49:F5:2:SER:N	2.13	0.82
26:14:2287:A:N6	26:14:2344:U:H3	1.78	0.82
26:1H:512:G:N7	59:1H:3719:HOH:O	2.13	0.82
26:1H:1049:C:N3	33:51:3:ARG:NH1	2.28	0.82
47:H8:165:VAL:HB	47:H8:166:SER:HA	1.62	0.82
26:1H:67:U:H3	26:1H:74:A:H2	1.27	0.82
26:1H:761:A:OP1	59:1H:3639:HOH:O	1.97	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:778:G:O6	59:1H:3642:HOH:O	1.97	0.82
26:14:1138:G:H21	35:15:106:MET:HE3	1.45	0.82
30:21:101:ARG:HG2	30:21:169:ASN:OD1	1.80	0.82
26:14:78:A:N7	59:14:3596:HOH:O	2.13	0.82
26:14:907:U:O2'	38:45:101:ARG:NH2	2.12	0.82
26:14:2024:G:O6	59:14:3534:HOH:O	1.97	0.82
31:39:123:LEU:O	31:39:125:LEU:N	2.13	0.82
26:1H:780:G:H21	26:1H:783:A:H62	1.26	0.81
19:AI:41:VAL:HG22	19:AI:44:MET:HB2	1.61	0.81
26:1H:1138:G:H21	35:58:106:MET:HE3	1.43	0.81
26:1H:1453:A:OP2	59:1H:3641:HOH:O	1.97	0.81
26:1H:2593:U:O4	59:1H:3644:HOH:O	1.98	0.81
1:1G:105:G:O6	59:1G:1802:HOH:O	1.98	0.81
9:82:5:TYR:O	9:82:87:GLN:NE2	2.13	0.81
26:14:879:G:N2	26:14:880:G:N7	2.29	0.81
30:29:54:GLN:HA	30:29:74:PRO:HA	1.63	0.81
38:45:28:ALA:HB3	38:45:105:GLU:CD	2.05	0.81
26:1H:731:C:H5"	59:1H:3856:HOH:O	1.80	0.81
26:1H:818:G:OP2	59:1H:3637:HOH:O	1.97	0.81
44:A5:65:LEU:HD13	44:A5:68:ARG:HD3	1.63	0.81
29:11:35:LYS:O	29:11:35:LYS:HG2	1.79	0.81
26:14:2583:G:OP2	59:14:3535:HOH:O	1.97	0.81
26:1H:2762:G:N7	59:1H:3714:HOH:O	2.12	0.81
11:2I:98:LEU:O	11:2I:101:SER:OG	1.97	0.81
1:1G:411:A:H62	1:1G:413:G:H21	1.29	0.81
36:25:7:TYR:HE1	36:25:20:MET:HE3	1.44	0.81
26:1H:410:G:OP2	59:1H:3651:HOH:O	1.99	0.81
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.43	0.81
26:14:1314:C:OP1	59:14:3537:HOH:O	1.98	0.81
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.45	0.81
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.46	0.80
26:1H:2503:A:OP1	59:1H:3643:HOH:O	1.98	0.80
35:15:73:THR:HG22	35:15:84:LYS:HB3	1.63	0.80
38:45:27:VAL:HB	38:45:28:ALA:CA	2.11	0.80
5:4E:63:ARG:HA	5:4E:66:MET:HE2	1.63	0.80
1:1G:617:G:N7	59:1G:1817:HOH:O	2.13	0.80
26:14:2857:G:N7	59:14:3602:HOH:O	2.14	0.80
47:D5:30:ASN:HD22	47:D5:90:VAL:HB	1.46	0.80
1:1G:975:A:H4'	1:1G:976:G:H5"	1.62	0.80
31:39:66:PRO:O	31:39:67:GLN:HB3	1.79	0.80
26:1H:193:U:OP1	59:1H:3645:HOH:O	1.98	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2022:U:OP1	59:1H:3647:HOH:O	1.98	0.80
26:14:2022:U:OP1	59:14:3539:HOH:O	1.99	0.80
26:14:2375:G:N7	59:14:3605:HOH:O	2.14	0.80
29:19:260:ARG:HH12	29:19:267:SER:HB3	1.46	0.80
1:13:8:A:H62	4:3E:208:SER:HB3	1.47	0.80
26:1H:259:G:H21	26:1H:621:A:H8	1.29	0.80
26:1H:270(X):G:O6	59:1H:3650:HOH:O	1.99	0.80
26:1H:1245:G:OP1	37:78:13:ASN:ND2	2.15	0.80
26:1H:1382:G:O6	59:1H:3646:HOH:O	1.98	0.80
43:D8:65:GLY:HA3	43:D8:91:TYR:CZ	2.16	0.80
26:14:958:U:OP2	38:45:14:ARG:NH1	2.13	0.80
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.15	0.80
5:4E:83:GLU:HG2	5:4E:88:LYS:HG3	1.63	0.80
26:1H:2502:G:N7	59:1H:3722:HOH:O	2.13	0.80
33:51:4:ILE:O	33:51:6:ARG:NE	2.14	0.80
1:1G:500:G:N2	1:1G:545:C:O2	2.14	0.80
26:14:1581:G:OP2	59:14:3540:HOH:O	1.99	0.80
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.14	0.80
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.14	0.80
26:1H:1228:G:OP2	42:C8:16:LYS:NZ	2.15	0.80
26:1H:1495:A:OP2	59:1H:3652:HOH:O	2.00	0.80
20:BI:73:HIS:HB3	20:BI:74:LYS:HG2	1.64	0.80
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.45	0.80
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.62	0.80
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.46	0.80
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.15	0.79
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.11	0.79
27:16:8:U:N3	27:16:112:G:O6	2.09	0.79
41:B8:24:PRO:HD3	41:B8:52:ILE:HD12	1.63	0.79
1:1G:533:A:OP1	59:1G:1805:HOH:O	2.00	0.79
41:75:64:ARG:HB2	41:75:73:GLU:HG2	1.65	0.79
26:14:1729:A:H2'	26:14:1731:G:N2	1.97	0.79
50:G5:47:ASN:O	50:G5:49:LYS:N	2.14	0.79
1:13:1292:U:OP1	7:6E:41:ARG:NH2	2.14	0.79
26:1H:991:C:OP2	59:1H:3656:HOH:O	2.01	0.79
50:K8:3:LEU:HB3	50:K8:5:GLU:H	1.47	0.79
26:14:780:G:H21	26:14:783:A:H62	1.31	0.79
26:1H:2032:G:H21	30:21:146:THR:HG23	1.45	0.79
26:1H:2600:A:N6	59:1H:3644:HOH:O	2.14	0.79
26:1H:2751:G:OP2	33:51:4:ILE:HD13	1.80	0.79
26:1H:1456:G:OP2	59:1H:3658:HOH:O	2.01	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:576:G:OP1	59:13:1807:HOH:O	2.00	0.79
22:1K:48:C:H1'	22:1K:49:G:C8	2.17	0.79
26:14:1022:G:H22	26:14:1142(A):A:H2	1.30	0.79
26:14:1970:A:OP2	59:14:3538:HOH:O	1.99	0.79
1:1G:607:A:OP1	59:1G:1804:HOH:O	2.00	0.79
26:14:1021:A:N6	26:14:1141:U:O2	2.16	0.79
1:13:366:C:N3	59:13:1824:HOH:O	2.15	0.79
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.29	0.79
26:1H:1016:G:N7	59:1H:3723:HOH:O	2.13	0.79
29:11:242:ARG:O	59:11:402:HOH:O	2.00	0.79
26:14:530:G:N2	59:14:3611:HOH:O	2.16	0.79
1:13:601:C:H2'	1:13:602:A:H8	1.47	0.79
1:1G:1534:A:N6	25:4L:10:G:O6	2.16	0.79
2:12:22:LYS:HB3	2:12:40:HIS:HE1	1.48	0.79
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.64	0.79
26:14:392:C:OP1	59:14:3504:HOH:O	2.01	0.79
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.65	0.79
26:14:1970:A:OP1	59:14:3541:HOH:O	2.00	0.79
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.64	0.79
26:1H:2035:G:OP1	59:1H:3654:HOH:O	2.00	0.78
52:M8:13:ARG:HH12	52:M8:22:ILE:HG23	1.48	0.78
1:1G:780:A:OP2	59:1G:1803:HOH:O	1.99	0.78
26:1H:2354:G:N7	59:1H:3730:HOH:O	2.14	0.78
1:1G:1321:C:H41	1:1G:1322:C:H41	1.32	0.78
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.16	0.78
27:16:42:C:O2'	32:41:67:LYS:HE3	1.84	0.78
26:1H:780:G:H21	26:1H:783:A:N6	1.79	0.78
29:11:235:GLY:O	59:11:403:HOH:O	2.01	0.78
5:42:142:LEU:O	5:42:143:ARG:NH1	2.16	0.78
26:14:2439:A:OP2	59:14:3542:HOH:O	2.01	0.78
41:B8:57:PHE:O	41:B8:58:ASN:ND2	2.17	0.78
1:1G:192:U:H2'	1:1G:193:C:H6	1.47	0.78
4:32:31:CYS:HB3	57:32:302:SF4:S2	2.23	0.78
49:F5:91:LYS:HB2	49:F5:91:LYS:NZ	1.97	0.78
24:3K:53:G:N2	24:3K:61:C:N3	2.32	0.78
26:1H:730:C:OP2	59:1H:3639:HOH:O	2.00	0.78
32:41:67:LYS:HE2	52:M8:6:HIS:CE1	2.19	0.78
32:41:96:ARG:H	32:41:99:MET:HE2	1.46	0.78
1:13:837:G:OP2	1:13:842:C:N4	2.17	0.78
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.65	0.78
26:1H:2588:G:OP2	59:1H:3655:HOH:O	2.01	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:27:VAL:CG2	38:45:28:ALA:HA	2.13	0.78
26:1H:676:A:H8	26:1H:2069:G:H21	1.28	0.78
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.19	0.78
1:13:673:G:H2'	1:13:674:G:C8	2.19	0.78
26:1H:2392:A:H8	37:78:61:ARG:HB3	1.48	0.78
50:K8:41:ILE:HD13	50:K8:44:LEU:HG	1.66	0.78
1:1G:54:C:N4	1:1G:353:A:OP2	2.17	0.78
26:14:2035:G:OP1	59:14:3544:HOH:O	2.02	0.78
31:31:6:VAL:N	31:31:24:LEU:O	2.17	0.78
40:65:30:ARG:HG3	40:65:35:ILE:HD12	1.66	0.77
47:D5:53:ILE:HG22	47:D5:71:VAL:HG23	1.65	0.77
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.49	0.77
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.50	0.77
30:21:105:THR:HG22	30:21:106:GLY:H	1.49	0.77
4:32:23:GLY:N	4:32:26:CYS:SG	2.53	0.77
26:14:730:C:H3'	59:14:4275:HOH:O	1.83	0.77
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.19	0.77
50:K8:42:GLY:O	50:K8:44:LEU:N	2.17	0.77
1:1G:1298:C:O2'	1:1G:1299:A:OP2	2.01	0.77
26:14:993:G:OP1	42:85:50:ARG:NH2	2.17	0.77
1:13:1304:G:OP2	59:13:1808:HOH:O	2.02	0.77
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.48	0.77
13:4I:78:ILE:HG22	13:4I:82:MET:HE2	1.66	0.77
26:1H:1815:A:O2'	59:1H:3653:HOH:O	2.00	0.77
26:1H:2074:U:P	59:1H:3616:HOH:O	2.42	0.77
26:14:2295:C:OP1	40:65:10:ARG:NH1	2.16	0.77
2:1E:198:ASP:OD1	2:1E:198:ASP:N	2.18	0.77
19:AI:41:VAL:HG11	19:AI:45:VAL:HG23	1.66	0.77
33:51:149:ARG:NH1	33:51:167:GLU:OE2	2.15	0.77
26:14:960:A:H61	38:45:83:MET:HE2	1.49	0.77
1:13:1306:A:H61	1:13:1331:G:H1'	1.49	0.77
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	1.65	0.77
26:1H:450:G:OP2	59:1H:3659:HOH:O	2.01	0.77
2:12:223:ILE:HA	2:12:224:GLN:HG3	1.67	0.77
26:14:602:G:HO2'	26:14:604:G:HO2'	1.26	0.77
27:1J:44:G:O2'	27:1J:47:C:N4	2.18	0.77
41:75:24:PRO:HD3	41:75:52:ILE:HD12	1.65	0.77
1:13:812:C:N3	59:13:1828:HOH:O	2.17	0.77
26:1H:974(A):C:OP1	59:1H:3660:HOH:O	2.02	0.77
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.20	0.77
26:1H:2310:A:H62	32:41:79:ASN:ND2	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:10:PRO:HD2	33:51:50:VAL:O	1.85	0.77
37:78:45:LEU:HD12	37:78:46:LYS:H	1.49	0.77
26:1H:2402:C:H1'	26:1H:2403:C:H5	1.48	0.77
1:13:1314:C:OP2	19:AI:4:SER:OG	2.02	0.77
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.17	0.77
47:H8:165:VAL:HB	47:H8:167:PRO:HD3	1.66	0.77
1:1G:176:C:OP1	20:BA:29:LYS:NZ	2.17	0.77
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.67	0.77
26:14:2822:G:OP2	59:14:3550:HOH:O	2.03	0.77
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.49	0.77
26:1H:326:G:N7	59:1H:3750:HOH:O	2.17	0.77
26:1H:1899:G:H1	26:1H:1902:C:N4	1.83	0.77
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.64	0.77
26:14:2063:C:OP1	59:14:3552:HOH:O	2.03	0.77
26:14:2789:C:O2	26:14:2894:G:N2	2.18	0.77
1:13:191(F):U:H2'	1:13:191:G:H8	1.48	0.76
1:13:515:G:O6	59:13:1811:HOH:O	2.03	0.76
26:1H:2753:A:OP2	59:1H:3665:HOH:O	2.03	0.76
26:14:1689:A:H62	26:14:1698:A:H2	1.33	0.76
1:13:1297:C:OP1	13:4I:13:LYS:NZ	2.18	0.76
8:7E:82:HIS:NE2	8:7E:136:GLU:OE2	2.16	0.76
26:1H:1633:G:OP2	59:1H:3662:HOH:O	2.03	0.76
50:K8:4:SER:HB3	50:K8:7:ARG:HG2	1.66	0.76
26:14:2304:G:N7	59:14:3620:HOH:O	2.18	0.76
24:3K:22:G:N7	24:3K:46:G:N1	2.33	0.76
26:1H:2129:C:OP2	28:71:36:LYS:NZ	2.18	0.76
52:M8:45:GLY:O	52:M8:47:GLN:NE2	2.18	0.76
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.18	0.76
26:14:1332:G:OP1	59:14:3537:HOH:O	2.01	0.76
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.66	0.76
41:B8:11:GLU:HG2	41:B8:57:PHE:HD2	1.48	0.76
50:K8:3:LEU:HB3	50:K8:5:GLU:N	2.00	0.76
1:1G:620:C:OP1	59:1G:1806:HOH:O	2.01	0.76
35:15:56:ASN:H	35:15:125:GLY:HA3	1.49	0.76
42:85:91:ASP:OD1	42:85:96:ALA:HB2	1.86	0.76
1:13:1305:G:H22	1:13:1331:G:H2'	1.51	0.76
26:1H:945:A:N3	59:1H:3757:HOH:O	2.18	0.76
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.19	0.76
33:59:54:ARG:NH2	33:59:57:ASP:OD1	2.18	0.76
1:13:550:G:OP1	59:13:1809:HOH:O	2.03	0.76
49:J8:17:SER:OG	59:J8:101:HOH:O	2.04	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1495:A:OP2	59:14:3545:HOH:O	2.02	0.76
1:13:1500:A:OP1	59:13:1812:HOH:O	2.04	0.76
26:1H:2001:A:H2'	26:1H:2002:G:C8	2.21	0.76
1:1G:599:C:O2	1:1G:639:G:N2	2.18	0.76
26:14:530:G:N1	59:14:3539:HOH:O	2.18	0.76
26:14:762:U:OP1	59:14:3554:HOH:O	2.04	0.76
41:75:77:PRO:HG2	41:75:80:SER:HB3	1.66	0.76
2:1E:16:HIS:CD2	2:1E:214:ILE:HD11	2.21	0.76
7:6E:73:MET:HE2	7:6E:90:GLU:HA	1.66	0.76
26:1H:1346:G:OP2	59:1H:3664:HOH:O	2.03	0.76
26:1H:2111:C:N4	26:1H:2147:G:O6	2.18	0.76
34:61:110:ASP:N	34:61:110:ASP:OD1	2.19	0.76
1:1G:1198:G:OP2	59:1G:1807:HOH:O	2.02	0.76
20:BA:12:ALA:O	20:BA:15:ARG:N	2.12	0.76
26:14:948:G:O6	59:14:3547:HOH:O	2.03	0.76
1:13:345:C:H41	36:68:116:SER:HB2	1.51	0.76
26:1H:2502:G:OP2	59:1H:3661:HOH:O	2.03	0.76
32:41:77:ILE:HG22	32:41:82:LEU:HD12	1.66	0.76
9:82:112:LYS:HE3	9:82:118:LYS:H	1.51	0.76
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.18	0.76
26:14:731:C:OP2	59:14:3501:HOH:O	2.04	0.76
11:2I:121:PRO:HG2	11:2I:126:ARG:HG2	1.68	0.75
1:1G:1238:A:H62	1:1G:1301:U:H3	1.33	0.75
7:62:64:GLN:O	7:62:68:ASN:ND2	2.18	0.75
11:2A:98:LEU:O	11:2A:101:SER:OG	2.05	0.75
26:1H:375:C:OP1	59:1H:3672:HOH:O	2.04	0.75
37:78:63:PRO:HB2	55:Q8:30:ARG:HH21	1.49	0.75
47:H8:128:VAL:HB	47:H8:161:VAL:HG12	1.66	0.75
29:19:31:LYS:NZ	29:19:33:LEU:HB3	2.01	0.75
29:19:227:ASN:OD1	59:19:301:HOH:O	2.01	0.75
31:39:103:LYS:HA	31:39:106:ARG:HG3	1.68	0.75
26:1H:2287:A:C2	26:1H:2346:A:H2	2.04	0.75
29:11:35:LYS:HZ2	29:11:35:LYS:N	1.82	0.75
27:1J:15:A:H1'	27:1J:109:G:C8	2.21	0.75
39:55:20:LEU:HD21	39:55:40:LYS:HD3	1.67	0.75
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.66	0.75
26:1H:1951:U:O4	59:1H:3673:HOH:O	2.04	0.75
30:21:36:ARG:NH1	30:21:85:ASN:OD1	2.19	0.75
1:1G:1497:G:H2'	1:1G:1498:U:H5'	1.65	0.75
26:14:2588:G:OP1	59:14:3551:HOH:O	2.03	0.75
30:29:55:ASN:O	30:29:57:LYS:N	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:157:VAL:HB	31:39:194:MET:HG3	1.68	0.75
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.19	0.75
26:1H:2352:A:OP2	59:1H:3668:HOH:O	2.04	0.75
1:1G:581:G:N7	59:1G:1827:HOH:O	2.18	0.75
23:2L:24:C:H2'	23:2L:25:U:H6	1.51	0.75
35:15:42:TRP:HA	35:15:48:MET:HE1	1.67	0.75
1:13:963:G:N2	10:1I:55:LYS:HZ3	1.85	0.75
26:1H:1827:C:H2'	26:1H:1828:G:H5'	1.67	0.75
26:14:376:C:OP1	59:14:3559:HOH:O	2.04	0.75
26:14:1614:A:OP2	59:14:3555:HOH:O	2.04	0.75
50:K8:14:ARG:HB3	50:K8:15:LYS:HZ3	1.52	0.75
1:1G:1008:C:H42	1:1G:1021:G:H1	1.35	0.75
26:14:495:G:N7	59:14:3633:HOH:O	2.20	0.75
26:14:2148:G:H2'	26:14:2149:G:H8	1.50	0.75
34:69:98:ALA:HA	34:69:109:ILE:HD11	1.67	0.75
37:35:98:GLU:HA	37:35:101:VAL:HG12	1.69	0.75
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.51	0.75
1:13:509:A:OP2	59:13:1810:HOH:O	2.03	0.75
23:2K:62:C:H2'	23:2K:63:C:H6	1.51	0.75
26:1H:249:C:O2	55:Q8:12:LYS:NZ	2.20	0.75
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.33	0.75
26:1H:543:C:N4	26:1H:550:G:O6	2.17	0.75
26:1H:2729:G:H1'	30:21:187:ALA:HB2	1.69	0.75
26:14:1678:G:H22	26:14:1989:G:H22	1.32	0.75
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.68	0.75
1:13:509:A:N1	59:13:1837:HOH:O	2.21	0.74
26:1H:1010:A:OP2	59:1H:3670:HOH:O	2.04	0.74
26:1H:1359:A:H2	26:1H:1372:U:O4	1.69	0.74
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.22	0.74
26:14:1434:A:H61	26:14:1558:A:H62	1.34	0.74
26:14:2267:A:OP2	59:14:3563:HOH:O	2.05	0.74
1:13:454:C:OP1	16:7I:75:ARG:NH2	2.20	0.74
1:13:1126:U:C4	1:13:1127:G:C5	2.76	0.74
29:11:35:LYS:H	29:11:35:LYS:NZ	1.85	0.74
47:D5:101:PRO:HB2	47:D5:102:LEU:HB2	1.68	0.74
55:M5:40:GLU:HA	55:M5:43:GLN:HB3	1.69	0.74
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.87	0.74
24:3L:15:G:H22	24:3L:48:C:H41	1.33	0.74
26:14:784:A:OP1	59:14:3556:HOH:O	2.04	0.74
1:13:780:A:OP2	59:13:1814:HOH:O	2.05	0.74
1:13:939:G:N7	59:13:1834:HOH:O	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:26:GLU:OE2	15:6I:77:ARG:NH1	2.20	0.74
33:51:98:LEU:HD13	33:51:125:VAL:HG23	1.69	0.74
1:1G:1162:C:H42	1:1G:1174:G:H1	1.34	0.74
2:12:40:HIS:CD2	2:12:190:THR:HG21	2.23	0.74
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.21	0.74
26:14:1653:G:H3'	39:55:2:ARG:HG2	1.70	0.74
19:AI:41:VAL:HG12	19:AI:42:PRO:CA	2.16	0.74
26:1H:802:A:OP1	59:1H:3669:HOH:O	2.04	0.74
26:1H:2404:C:H1'	37:78:67:MET:HE1	1.70	0.74
27:16:25:A:OP1	59:16:303:HOH:O	2.05	0.74
10:1A:28:ARG:NH2	10:1A:34:VAL:O	2.21	0.74
26:14:450:G:O6	59:14:3548:HOH:O	2.03	0.74
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.22	0.74
1:13:601:C:H2'	1:13:602:A:C8	2.21	0.74
13:4I:15:VAL:O	13:4I:19:LEU:HD23	1.88	0.74
26:1H:365:C:OP2	59:1H:3667:HOH:O	2.04	0.74
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.06	0.74
1:13:153:C:H42	1:13:168:G:H1	1.32	0.74
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.02	0.74
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.22	0.74
26:1H:2789:C:O2	26:1H:2894:G:N2	2.17	0.74
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.69	0.74
1:13:376:G:H5"	16:7I:5:ARG:HD2	1.70	0.74
26:1H:409:C:OP1	59:1H:3671:HOH:O	2.04	0.74
32:41:66:GLN:OE1	32:41:98:ARG:NH1	2.21	0.74
51:L8:8:LEU:HB2	51:L8:28:LEU:HD22	1.69	0.74
19:AA:66:MET:SD	19:AA:66:MET:N	2.60	0.74
26:14:94:G:H21	50:G5:47:ASN:HD22	1.35	0.74
26:14:1357:U:O4	59:14:3543:HOH:O	2.01	0.74
26:14:2685:G:O6	59:14:3565:HOH:O	2.05	0.74
26:14:2791:C:N4	26:14:2802:G:O6	2.20	0.74
1:13:353:A:H8	1:13:353:A:H5'	1.53	0.74
26:1H:879:G:N2	26:1H:880:G:N3	2.35	0.74
1:1G:1206:G:OP1	3:22:190:ARG:NH2	2.19	0.74
26:14:253:C:O2'	59:14:3557:HOH:O	2.04	0.74
26:1H:1164:G:H2'	26:1H:1165:U:H6	1.53	0.74
26:1H:1800:C:OP2	29:11:183:ARG:NH2	2.21	0.74
26:1H:1899:G:N2	26:1H:1902:C:H5	1.85	0.74
31:31:160:ASN:HD22	31:31:163:VAL:HG23	1.51	0.74
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.70	0.74
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:590:C:O3'	8:7E:30:ARG:NH1	2.20	0.73
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.51	0.73
19:AI:11:VAL:HG11	19:AI:16:LEU:HD22	1.68	0.73
26:1H:942:G:O6	59:1H:3677:HOH:O	2.06	0.73
26:1H:1064:C:N4	26:1H:1070:A:OP1	2.21	0.73
30:21:60:ASN:ND2	30:21:63:LEU:HB2	2.03	0.73
39:98:107:ASP:HB3	39:98:109:ALA:H	1.52	0.73
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	1.70	0.73
24:3L:9:A:H5'	24:3L:11:C:H41	1.52	0.73
26:14:463:G:OP2	59:14:3558:HOH:O	2.04	0.73
26:14:792:G:OP2	59:14:3566:HOH:O	2.05	0.73
42:85:34:LYS:NZ	42:85:37:GLU:OE1	2.20	0.73
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.68	0.73
26:1H:1297:C:OP1	26:1H:2710:C:H4'	1.88	0.73
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.14	0.73
26:14:900:A:H2'	26:14:901:A:C8	2.21	0.73
26:14:1268:A:OP1	59:14:3553:HOH:O	2.04	0.73
1:13:1348:U:H3	1:13:1374:A:H2	1.35	0.73
2:1E:19:HIS:HE2	2:1E:206:ASP:HB2	1.54	0.73
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.71	0.73
26:1H:270(L):U:C2	34:61:50:ARG:HG2	2.22	0.73
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.05	0.73
37:78:18:ARG:HH21	37:78:18:ARG:HG3	1.53	0.73
5:42:91:LEU:HD23	5:42:120:THR:HG22	1.70	0.73
5:42:122:GLU:O	5:42:126:ARG:NH1	2.22	0.73
41:75:54:ARG:HA	41:75:59:THR:HB	1.70	0.73
1:13:659:U:H2'	1:13:660:G:C8	2.23	0.73
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.23	0.73
26:1H:393:C:OP2	59:1H:3682:HOH:O	2.07	0.73
52:M8:39:CYS:HB3	52:M8:41:PRO:HD2	1.71	0.73
9:82:10:ARG:HD3	9:82:11:LYS:HB2	1.70	0.73
26:14:1997:G:OP2	59:14:3562:HOH:O	2.05	0.73
26:14:2582:G:OP2	59:14:3564:HOH:O	2.05	0.73
1:13:1347:G:H5"	9:8E:107:ARG:HB3	1.70	0.73
26:1H:704:G:O6	59:1H:3681:HOH:O	2.07	0.73
35:58:96:GLU:O	35:58:98:VAL:N	2.20	0.73
43:D8:16:PRO:HA	43:D8:96:ILE:HG22	1.69	0.73
1:1G:278:G:OP2	17:8A:92:ARG:NH2	2.17	0.73
2:12:22:LYS:HB3	2:12:40:HIS:CE1	2.23	0.73
26:14:1952:A:C6	36:25:22:ILE:HD11	2.22	0.73
27:1J:80:U:H2'	27:1J:81:G:N2	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:57:ARG:NE	39:55:59:ASP:OD1	2.17	0.73
46:C5:97:ARG:NH1	46:C5:104:GLY:O	2.22	0.73
48:E5:12:ASN:HA	48:E5:14:ARG:HH21	1.53	0.73
31:31:185:ASP:OD1	31:31:188:ARG:NH1	2.21	0.73
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.20	0.73
29:19:37:LEU:H	29:19:37:LEU:HD12	1.53	0.73
1:13:652:U:O2'	1:13:653:A:O5'	2.06	0.73
26:1H:135:G:O6	59:1H:3663:HOH:O	2.03	0.73
26:1H:1006:C:OP2	59:1H:3675:HOH:O	2.05	0.73
26:1H:2698:U:N3	26:1H:2709:G:O6	2.19	0.73
38:88:66:ILE:O	38:88:104:PHE:N	2.21	0.73
4:32:173:TRP:HB3	4:32:187:ARG:HH11	1.52	0.73
22:1L:76:A:H2'	26:14:2584:U:H1'	1.71	0.73
1:13:1292:U:H2'	1:13:1293:G:H8	1.52	0.73
24:3K:6:G:N2	24:3K:67:C:O2	2.16	0.73
26:1H:176:G:O2'	26:1H:177:G:H5'	1.89	0.73
26:1H:733:G:N7	59:1H:3766:HOH:O	2.19	0.73
26:1H:1380:G:O6	59:1H:3683:HOH:O	2.07	0.73
2:12:91:PRO:HG2	2:12:155:LEU:HG	1.71	0.73
26:14:1434:A:H61	26:14:1558:A:N6	1.87	0.73
26:14:1778:U:H2'	26:14:1784:A:N6	2.03	0.73
1:13:1391:U:H2'	1:13:1392:G:C8	2.24	0.73
26:1H:286:C:H2'	26:1H:287:C:H6	1.54	0.73
26:1H:2469:A:H2	26:1H:2481:G:H21	1.37	0.73
1:1G:1266:G:N2	1:1G:1270:C:N3	2.36	0.73
12:3A:49:ASN:ND2	12:3A:92:ASP:OD2	2.22	0.73
36:25:68:GLU:OE2	36:25:78:ARG:NH1	2.22	0.73
42:85:28:ARG:NH1	42:85:38:THR:OG1	2.21	0.73
1:13:1239:A:H62	1:13:1299:A:H62	1.34	0.73
26:1H:973:A:OP2	59:1H:3674:HOH:O	2.05	0.73
26:1H:1629:U:O4	59:1H:3685:HOH:O	2.07	0.73
30:21:171:GLU:HG2	30:21:185:LYS:HE3	1.71	0.73
47:H8:108:PRO:HB2	47:H8:112:ARG:HA	1.71	0.73
50:K8:15:LYS:H	50:K8:15:LYS:HZ2	1.35	0.73
1:1G:316:G:OP2	1:1G:351:G:O2'	2.05	0.73
26:14:1229:G:O6	59:14:3567:HOH:O	2.05	0.73
1:13:767:A:H3'	59:13:1803:HOH:O	1.87	0.72
1:13:964:A:OP1	59:13:1813:HOH:O	2.05	0.72
26:1H:2310:A:N6	32:41:79:ASN:HD22	1.87	0.72
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.71	0.72
42:C8:88:ILE:O	42:C8:90:VAL:N	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:87:LYS:HB2	46:G8:96:ILE:HD11	1.70	0.72
3:22:87:LEU:HD12	3:22:88:ARG:HH21	1.54	0.72
26:1H:773:U:OP1	59:1H:3680:HOH:O	2.07	0.72
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.54	0.72
26:1H:2445:G:N7	59:1H:3787:HOH:O	2.22	0.72
31:31:29:ASN:H	31:31:112:MET:CE	2.00	0.72
26:14:89:G:H3'	26:14:90:U:H5'	1.68	0.72
26:14:2277:G:OP2	48:E5:12:ASN:ND2	2.22	0.72
13:4I:34:LEU:HD13	13:4I:41:PRO:HA	1.69	0.72
19:AI:3:ARG:HE	19:AI:9:VAL:CG1	1.98	0.72
26:1H:607:U:OP1	31:31:102:PRO:HA	1.89	0.72
26:1H:800:A:P	59:1H:3625:HOH:O	2.47	0.72
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.54	0.72
26:14:259:G:H21	26:14:621:A:H8	1.36	0.72
26:14:2713:A:OP2	59:14:3570:HOH:O	2.07	0.72
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.71	0.72
26:1H:1022:G:N2	26:1H:1023:U:O4	2.21	0.72
33:51:86:GLU:H	33:51:86:GLU:CD	1.93	0.72
1:1G:62:U:O4	59:1G:1808:HOH:O	2.04	0.72
26:14:876:C:H42	26:14:899:A:H62	1.33	0.72
29:19:31:LYS:HZ3	29:19:33:LEU:HB3	1.55	0.72
30:29:54:GLN:NE2	30:29:55:ASN:O	2.23	0.72
26:1H:424:G:N7	59:1H:3773:HOH:O	2.20	0.72
26:1H:1061:U:H4'	26:1H:1070:A:H1'	1.71	0.72
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.22	0.72
26:1H:2210:G:H3'	26:1H:2211:G:C5	2.23	0.72
3:22:152:ILE:HG12	3:22:167:TRP:HB2	1.70	0.72
26:14:1796:U:H2'	26:14:1797:C:C6	2.24	0.72
26:1H:731:C:OP1	59:1H:3684:HOH:O	2.07	0.72
1:1G:8:A:C6	4:32:209:ARG:HB2	2.25	0.72
1:1G:448:A:P	1:1G:485:G:H22	2.13	0.72
4:32:96:LEU:HD13	4:32:139:ARG:HH12	1.55	0.72
8:72:120:THR:HG22	8:72:123:GLU:H	1.54	0.72
12:3A:39:VAL:HG23	12:3A:57:LYS:HD3	1.70	0.72
47:H8:7:ALA:HB2	47:H8:59:LEU:HD22	1.72	0.72
4:32:168:ARG:NH1	4:32:169:LYS:O	2.23	0.72
8:72:12:ARG:HH21	8:72:27:PRO:HD3	1.53	0.72
16:7I:47:ASP:N	16:7I:47:ASP:OD1	2.20	0.72
3:22:18:TRP:H	3:22:18:TRP:HE3	1.37	0.72
26:14:731:C:OP2	59:14:3569:HOH:O	2.07	0.72
32:49:39:ILE:HG12	32:49:157:ILE:HG23	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:27:VAL:HG23	38:45:28:ALA:HA	1.70	0.72
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.71	0.72
26:1H:2879:C:OP2	59:1H:3686:HOH:O	2.07	0.72
32:41:112:PRO:CB	52:M8:37:SER:H	2.02	0.72
24:3L:52:G:H22	28:79:53:ARG:HH12	1.38	0.72
1:13:1003:G:H1	1:13:1037:C:H42	1.38	0.72
1:1G:1345:U:OP2	59:1G:1809:HOH:O	2.06	0.72
2:12:56:ARG:NH1	2:12:56:ARG:O	2.23	0.72
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.71	0.71
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.23	0.71
26:1H:1320:C:O2'	59:1H:3679:HOH:O	2.06	0.71
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.72	0.71
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.71	0.71
26:14:1022:G:O2'	26:14:1023:U:OP2	2.08	0.71
26:14:2572:A:C8	30:29:144:ARG:HD2	2.23	0.71
38:88:109:VAL:HG13	38:88:113:GLN:HB3	1.71	0.71
26:14:2698:U:O4	59:14:3577:HOH:O	2.08	0.71
1:13:976:G:N2	1:13:1362(A):C:OP2	2.21	0.71
26:1H:2061:G:H5'	59:1H:3661:HOH:O	1.89	0.71
41:B8:12:SER:HA	41:B8:14:TYR:H	1.53	0.71
1:1G:557:G:OP1	59:1G:1810:HOH:O	2.06	0.71
26:14:2256:G:N7	59:14:3653:HOH:O	2.22	0.71
2:1E:16:HIS:CE1	2:1E:213:LEU:HD12	2.19	0.71
10:1I:86:MET:SD	10:1I:86:MET:N	2.63	0.71
26:1H:76:C:O2'	50:K8:62:THR:HG21	1.89	0.71
26:14:529:A:H4'	26:14:530:G:H5'	1.71	0.71
29:19:133:LEU:HD13	29:19:173:VAL:HG11	1.72	0.71
33:59:159:GLU:O	33:59:163:TYR:OH	2.09	0.71
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.70	0.71
26:1H:868:U:O4	59:1H:3630:HOH:O	2.08	0.71
1:1G:1095:U:P	1:1G:1108:G:H1	2.12	0.71
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.54	0.71
26:14:2294:C:P	40:65:89:ARG:HH22	2.12	0.71
31:39:24:LEU:HD21	31:39:119:ARG:HB3	1.73	0.71
1:13:129(A):G:H4'	1:13:130:A:H5"	1.71	0.71
11:2I:19:ALA:HA	11:2I:32:ILE:HG22	1.72	0.71
26:1H:275:G:N2	26:1H:276:A:N7	2.38	0.71
26:1H:963:U:OP1	59:1H:3689:HOH:O	2.08	0.71
26:1H:1328:G:N7	59:1H:3785:HOH:O	2.22	0.71
26:1H:2130:U:P	28:71:6:ARG:HH22	2.13	0.71
26:1H:2636:U:P	30:21:79:ARG:HG2	2.31	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2712(A):A:OP2	59:1H:3604:HOH:O	2.08	0.71
26:1H:2751:G:N7	33:51:3:ARG:CZ	2.53	0.71
1:1G:826:C:O2	1:1G:874:G:N2	2.17	0.71
8:72:121:ASP:OD1	8:72:125:ARG:NH2	2.23	0.71
30:29:116:VAL:O	30:29:117:MET:HB3	1.88	0.71
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.23	0.71
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.55	0.71
1:1G:448:A:OP2	1:1G:485:G:N2	2.22	0.71
1:1G:490:G:P	4:32:132:ARG:HH22	2.13	0.71
4:32:15:GLU:OE1	4:32:66:ARG:NH1	2.24	0.71
29:19:273:ARG:O	29:19:273:ARG:HG2	1.91	0.71
13:4I:107:ALA:HB3	13:4I:111:LYS:HD3	1.71	0.71
22:1K:74:C:H42	26:1H:2508:G:H5'	1.56	0.71
35:58:56:ASN:N	35:58:125:GLY:O	2.16	0.71
41:B8:11:GLU:HG2	41:B8:57:PHE:CD2	2.25	0.71
26:1H:1632:A:OP2	59:1H:3688:HOH:O	2.07	0.71
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.25	0.71
45:F8:11:PRO:HB3	45:F8:92:LEU:HD21	1.73	0.71
26:14:761:A:OP2	59:14:3574:HOH:O	2.08	0.71
26:14:1246:A:OP2	59:14:3571:HOH:O	2.07	0.71
26:1H:422:A:OP2	59:1H:3695:HOH:O	2.09	0.71
1:1G:854:G:O6	59:1G:1812:HOH:O	2.08	0.71
23:2L:24:C:H2'	23:2L:25:U:C6	2.25	0.71
26:14:1020:A:N6	26:14:1141:U:O2'	2.22	0.71
26:14:1633:G:O6	59:14:3578:HOH:O	2.09	0.71
32:49:6:ALA:O	32:49:9:ARG:N	2.24	0.71
50:G5:4:SER:H	50:G5:6:VAL:HG13	1.55	0.71
14:5I:23:ARG:HD2	14:5I:28:GLY:O	1.91	0.70
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.24	0.70
26:1H:1332:G:H21	26:1H:1610:A:H8	1.38	0.70
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.72	0.70
26:14:452:G:OP2	59:14:3568:HOH:O	2.07	0.70
26:1H:631:A:OP2	55:Q8:47:LYS:NZ	2.24	0.70
26:1H:1678:G:H22	26:1H:1989:G:N2	1.88	0.70
26:1H:1903:G:OP1	29:11:241:PRO:HB2	1.91	0.70
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.26	0.70
4:32:20:TYR:HD1	4:32:26:CYS:HB3	1.56	0.70
40:65:84:GLN:HG3	40:65:110:LEU:H	1.55	0.70
42:85:50:ARG:HH12	43:95:72:VAL:HG23	1.53	0.70
26:1H:2787:C:O3'	30:21:61:ARG:NH2	2.25	0.70
26:14:1830:C:OP2	59:14:3576:HOH:O	2.08	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.24	0.70
26:1H:141:A:H8	26:1H:1595:G:H21	1.40	0.70
26:1H:2504:U:OP2	59:1H:3690:HOH:O	2.08	0.70
29:11:17:THR:HG22	29:11:205:VAL:H	1.57	0.70
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.23	0.70
40:65:106:ARG:HA	40:65:110:LEU:HD11	1.72	0.70
1:13:200:G:N2	1:13:218:C:N3	2.39	0.70
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.24	0.70
3:2E:40:ARG:O	3:2E:44:GLU:HG2	1.91	0.70
26:1H:568:U:O4	59:1H:3674:HOH:O	2.09	0.70
26:1H:2572:A:C8	30:21:144:ARG:HD3	2.27	0.70
1:1G:186(B):C:O4'	20:BA:89:ARG:NH2	2.24	0.70
24:3L:72:C:H3'	24:3L:73:A:H5"	1.73	0.70
26:14:161:U:H5'	26:14:171:G:H21	1.55	0.70
46:C5:88:LYS:HG3	46:C5:89:PHE:H	1.56	0.70
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	1.91	0.70
26:1H:1493:C:H5"	26:1H:1493:C:H6	1.56	0.70
26:1H:2024:G:O6	59:1H:3691:HOH:O	2.09	0.70
32:41:112:PRO:HB3	52:M8:37:SER:N	2.03	0.70
49:J8:91:LYS:HA	49:J8:91:LYS:NZ	2.04	0.70
8:72:87:SER:HA	8:72:93:VAL:HG23	1.74	0.70
26:14:202:U:OP1	59:14:3582:HOH:O	2.09	0.70
26:14:1019:U:OP1	26:14:1035:U:O2'	2.07	0.70
26:14:2228:G:OP1	29:19:261:LYS:NZ	2.18	0.70
45:B5:11:PRO:HB3	45:B5:92:LEU:HD11	1.73	0.70
1:13:458:C:H42	1:13:474:G:H1	1.39	0.70
20:BI:75:ASN:N	20:BI:75:ASN:OD1	2.24	0.70
26:1H:273:G:O6	26:1H:364:C:N4	2.19	0.70
26:1H:2830:G:N7	59:1H:3793:HOH:O	2.23	0.70
34:61:110:ASP:HB2	34:61:112:LYS:HG2	1.73	0.70
1:1G:353:A:H5'	1:1G:353:A:H8	1.56	0.70
1:1G:1316:G:N2	1:1G:1319:A:O5'	2.25	0.70
29:19:44:ASN:ND2	29:19:48:ARG:O	2.24	0.70
42:85:97:ASP:OD1	42:85:98:LEU:N	2.23	0.70
47:D5:30:ASN:HA	47:D5:89:PHE:HE1	1.57	0.70
2:1E:209:ARG:HH11	2:1E:239:VAL:HG13	1.57	0.70
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.55	0.70
35:58:96:GLU:O	35:58:98:VAL:HG12	1.90	0.70
37:78:100:LEU:HD12	37:78:105:LEU:HD12	1.74	0.70
1:1G:1053:G:O2'	1:1G:1199:U:OP2	2.10	0.70
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.73	0.70
4:32:148:VAL:O	4:32:152:SER:OG	2.09	0.70
26:14:71:A:OP2	26:14:71:A:H3'	1.92	0.70
26:14:588:U:H2'	26:14:589:C:C6	2.26	0.70
26:14:1309:G:N7	59:14:3667:HOH:O	2.25	0.70
26:14:1614:A:H2	59:14:4026:HOH:O	1.73	0.70
41:75:5:ALA:HB1	41:75:8:LYS:HB2	1.73	0.70
26:1H:376:C:OP2	59:1H:3693:HOH:O	2.09	0.70
26:1H:1047:G:O2'	26:1H:1110:G:N2	2.24	0.70
26:1H:1456:G:OP2	59:1H:3700:HOH:O	2.10	0.70
26:1H:1728:G:H8	26:1H:1732:A:H62	1.38	0.70
26:1H:2500:U:O2'	59:1H:3696:HOH:O	2.09	0.70
26:1H:2775:A:N7	59:1H:3791:HOH:O	2.23	0.70
27:16:12:C:N3	48:I8:74:ARG:NH1	2.39	0.70
33:51:56:SER:OG	33:51:57:ASP:N	2.23	0.70
1:1G:971:G:N2	1:1G:1363:A:OP2	2.25	0.70
20:BA:41:ILE:HD13	20:BA:87:LYS:HD2	1.74	0.70
26:14:2313:C:H4'	32:49:91:ARG:HG3	1.73	0.70
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.24	0.70
26:1H:1535:U:H5"	26:1H:1537:C:N4	2.07	0.70
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.06	0.70
34:61:39:ALA:HB1	34:61:44:LEU:HD13	1.74	0.70
38:88:138:ASP:OD1	38:88:138:ASP:N	2.24	0.70
1:1G:1178:G:H5"	9:82:93:ARG:NH2	2.07	0.70
1:1G:1521:G:N3	59:1G:1835:HOH:O	2.23	0.70
26:14:1782:C:OP1	59:14:3581:HOH:O	2.09	0.70
46:C5:17:SER:HB2	46:C5:71:LYS:HE2	1.73	0.70
1:13:1202:G:N2	14:5I:46:GLU:OE1	2.21	0.69
26:1H:869:G:O6	59:1H:3698:HOH:O	2.10	0.69
26:1H:1385:G:HO2'	26:1H:1396:U:H6	1.40	0.69
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.74	0.69
1:1G:258:G:N7	59:1G:1837:HOH:O	2.24	0.69
1:1G:609:A:N7	59:1G:1839:HOH:O	2.25	0.69
1:1G:826:C:H5'	8:72:12:ARG:NH1	2.07	0.69
2:12:19:HIS:HE1	2:12:207:ALA:H	1.39	0.69
26:14:275:G:N2	26:14:276:A:N7	2.40	0.69
26:14:1633:G:O6	59:14:3575:HOH:O	2.08	0.69
26:14:1679:U:O4	59:14:3572:HOH:O	2.07	0.69
31:39:178:PRO:HB2	31:39:201:VAL:HG11	1.72	0.69
36:25:115:VAL:HG13	36:25:121:VAL:HG21	1.73	0.69
53:J5:41:PRO:O	53:J5:44:THR:OG1	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1970:A:O5'	59:1H:3692:HOH:O	2.09	0.69
26:1H:2835:A:N3	59:1H:3809:HOH:O	2.25	0.69
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.25	0.69
7:62:93:PRO:HG2	7:62:94:ARG:HD3	1.74	0.69
26:14:1582:C:HO2'	26:14:1586:A:H8	1.38	0.69
31:39:46:ARG:HG2	31:39:46:ARG:HH11	1.57	0.69
51:H5:39:ASP:O	51:H5:44:ARG:NH1	2.25	0.69
1:13:871:U:OP1	59:13:1820:HOH:O	2.11	0.69
6:5E:26:ILE:O	6:5E:30:LEU:HD12	1.93	0.69
26:1H:273(F):C:H3'	26:1H:274:G:H5"	1.73	0.69
26:1H:548:A:H2'	26:1H:549:G:H5'	1.73	0.69
1:1G:625:G:H2'	1:1G:626:U:H6	1.56	0.69
1:1G:980:C:N3	1:1G:1359:C:N4	2.40	0.69
4:32:148:VAL:HG12	4:32:152:SER:HB2	1.74	0.69
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.72	0.69
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.55	0.69
27:1J:95:U:OP2	47:D5:14:LYS:NZ	2.25	0.69
29:19:30:GLU:HB2	29:19:35:LYS:HE2	1.74	0.69
1:13:1446:A:OP1	1:13:1446:A:H4'	1.91	0.69
26:1H:1380:G:N7	59:1H:3810:HOH:O	2.26	0.69
33:51:6:ARG:HH21	33:51:7:LEU:HD11	1.56	0.69
40:A8:32:LEU:O	40:A8:62:LYS:NZ	2.24	0.69
53:N8:41:PRO:O	53:N8:44:THR:OG1	2.10	0.69
7:62:148:ASN:ND2	7:62:148:ASN:O	2.26	0.69
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.75	0.69
26:14:2269:A:OP1	59:14:3579:HOH:O	2.09	0.69
26:14:2445:G:N7	59:14:3673:HOH:O	2.26	0.69
26:14:2632:A:HO2'	26:14:2811:G:HO2'	1.38	0.69
36:25:7:TYR:CE1	36:25:20:MET:HE3	2.26	0.69
42:85:100:VAL:O	42:85:101:ARG:HG2	1.93	0.69
24:3K:11:C:H42	24:3K:24:G:H1	1.41	0.69
29:11:10:THR:OG1	29:11:13:ARG:HB2	1.92	0.69
31:31:160:ASN:ND2	31:31:163:VAL:HG23	2.07	0.69
36:25:25:LEU:HD12	36:25:38:VAL:HG23	1.72	0.69
40:65:43:GLU:HB2	48:E5:49:LYS:NZ	2.08	0.69
1:13:859:A:H2'	1:13:860:A:H8	1.56	0.69
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.57	0.69
24:3K:33:U:H2'	24:3K:34:U:H2'	1.75	0.69
26:1H:1833:U:OP1	59:1H:3703:HOH:O	2.10	0.69
30:21:77:ILE:O	30:21:79:ARG:N	2.24	0.69
26:14:784:A:OP2	59:19:301:HOH:O	2.09	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1797:C:O2'	29:19:259:THR:OG1	2.10	0.69
26:14:2378:A:H4'	40:65:23:ARG:HH11	1.58	0.69
38:45:57:HIS:NE2	38:45:116:GLU:HG2	2.07	0.69
1:13:262:A:H2'	1:13:263:A:C8	2.28	0.69
1:13:377:G:OP1	16:7I:3:LYS:NZ	2.22	0.69
1:13:1124:G:H5"	10:1I:35:SER:HB2	1.73	0.69
26:1H:1314:C:OP1	59:1H:3708:HOH:O	2.11	0.69
26:1H:2588:G:OP2	59:1H:3699:HOH:O	2.10	0.69
29:11:182:LEU:N	29:11:272:ALA:HB3	2.07	0.69
1:1G:492:G:O6	59:1G:1811:HOH:O	2.06	0.69
1:13:67:C:H2'	1:13:68:G:C8	2.28	0.69
1:13:417:C:H2'	1:13:418:C:H6	1.58	0.69
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.24	0.69
26:1H:1479:G:O6	26:1H:1510:A:N6	2.26	0.69
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.39	0.69
26:1H:1534:G:H21	26:1H:1538:G:N2	1.90	0.69
26:1H:2379:G:O2'	40:A8:17:ARG:NH1	2.26	0.69
31:31:29:ASN:N	31:31:112:MET:HE1	2.01	0.69
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.08	0.69
34:61:73:GLU:HG3	34:61:136:VAL:HG23	1.75	0.69
39:98:78:LYS:O	39:98:83:ILE:HG13	1.92	0.69
50:K8:47:ASN:O	50:K8:49:LYS:N	2.25	0.69
53:N8:40:LYS:HD3	53:N8:46:CYS:HA	1.75	0.69
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.74	0.69
1:1G:1110:A:OP2	59:1G:1813:HOH:O	2.10	0.69
26:14:2273:A:H2'	26:14:2274:A:C8	2.28	0.69
26:14:2592:G:N7	59:14:3670:HOH:O	2.25	0.69
32:49:101:ILE:HB	32:49:105:LYS:HE3	1.75	0.69
39:55:33:ARG:HB2	39:55:115:GLU:HB3	1.75	0.69
49:F5:89:GLU:OE1	49:F5:89:GLU:N	2.26	0.69
1:13:362:G:OP2	59:13:1819:HOH:O	2.10	0.69
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.21	0.69
1:13:1286:A:C8	1:13:1287:A:H4'	2.28	0.69
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.75	0.69
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.57	0.69
1:1G:1288:A:O2'	21:1B:10:ARG:NH2	2.26	0.69
31:39:49:ALA:O	31:39:92:PRO:HB2	1.92	0.69
26:1H:1190:G:N7	59:1H:3812:HOH:O	2.26	0.69
26:1H:2749:A:OP2	33:51:4:ILE:HD11	1.93	0.69
35:58:57:ALA:C	35:58:59:LYS:H	2.01	0.69
37:78:39:LYS:HG3	37:78:45:LEU:HD23	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:58:PHE:O	38:88:61:GLY:N	2.25	0.69
1:1G:842:C:O2'	1:1G:848:C:N3	2.25	0.69
26:14:491:G:H2'	26:14:492:A:C8	2.28	0.69
27:1J:51:G:OP2	40:65:59:LYS:NZ	2.26	0.69
31:39:63:LYS:HZ1	31:39:67:GLN:HB2	1.57	0.69
34:69:81:VAL:H	34:69:143:SER:CB	2.05	0.69
39:55:32:GLY:HA2	39:55:116:LEU:HD12	1.75	0.69
1:13:392:G:H5'	16:7I:12:LYS:HE3	1.75	0.68
22:1L:73:A:H3'	22:1L:73:A:N3	2.08	0.68
2:1E:60:ASP:O	2:1E:64:ARG:NE	2.27	0.68
26:1H:734:A:OP2	59:1H:3711:HOH:O	2.11	0.68
26:1H:1019:U:HO2'	26:1H:1021:A:H2	1.40	0.68
1:1G:983:A:N1	1:1G:1222:G:N2	2.41	0.68
1:1G:1321:C:H41	1:1G:1322:C:N4	1.89	0.68
11:2A:86:GLY:N	11:2A:112:THR:OG1	2.23	0.68
26:14:1957:C:OP1	59:14:3588:HOH:O	2.11	0.68
26:1H:131:G:OP1	59:1H:3697:HOH:O	2.09	0.68
34:69:104:GLN:OE1	34:69:105:HIS:ND1	2.26	0.68
48:E5:32:ARG:O	48:E5:34:GLY:N	2.23	0.68
1:13:1223:C:P	19:AI:78:ARG:HH12	2.16	0.68
13:4I:3:ARG:HD2	52:M8:34:GLU:OE2	1.93	0.68
19:AI:41:VAL:HG11	19:AI:45:VAL:H	1.58	0.68
26:1H:1113:U:OP1	33:51:2:SER:N	2.26	0.68
34:69:59:ALA:HA	34:69:62:LYS:HG2	1.74	0.68
34:69:101:LEU:HB2	34:69:105:HIS:HB2	1.73	0.68
1:13:980:C:O2	59:13:1816:HOH:O	2.08	0.68
26:1H:131:G:OP1	59:1H:3701:HOH:O	2.10	0.68
26:1H:871:U:P	38:88:5:ARG:HE	2.16	0.68
26:1H:952:G:H5"	26:1H:953:A:OP2	1.94	0.68
26:1H:2629:A:OP1	26:1H:2629:A:H4'	1.94	0.68
30:21:9:VAL:HG13	41:B8:3:ARG:HG3	1.76	0.68
52:M8:16:CYS:SG	52:M8:36:CYS:HB3	2.34	0.68
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	1.75	0.68
26:14:275:G:O2'	26:14:276:A:O4'	2.09	0.68
26:14:1056:G:H1'	26:14:1103:A:H61	1.58	0.68
26:14:1533:C:H3'	26:14:1534:G:H4'	1.75	0.68
26:14:2720:U:H3	26:14:2873:A:H2	1.41	0.68
27:1J:52:A:H62	40:65:33:LYS:HG3	1.56	0.68
1:13:1118:C:H1'	1:13:1179:A:C4	2.29	0.68
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.21	0.68
19:AI:40:ILE:HG12	19:AI:41:VAL:CG2	2.19	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1174:A:H1'	26:1H:1178:C:N4	2.08	0.68
26:1H:1535:U:O4	26:1H:1538:G:O2'	2.11	0.68
26:1H:1816:G:OP2	59:1H:3715:HOH:O	2.12	0.68
26:1H:2058:A:OP1	59:1H:3712:HOH:O	2.11	0.68
26:1H:2801:A:H2'	26:1H:2802:G:O4'	1.92	0.68
34:61:72:LEU:HD11	34:61:107:VAL:HG11	1.76	0.68
37:78:13:ASN:O	37:78:15:ARG:N	2.27	0.68
11:2A:67:ASP:OD2	11:2A:71:LYS:NZ	2.26	0.68
12:3A:47:LYS:HG3	12:3A:48:PRO:CD	2.22	0.68
26:14:249:C:OP1	59:14:3584:HOH:O	2.10	0.68
26:14:783:A:OP2	59:14:3587:HOH:O	2.11	0.68
26:14:2588:G:OP2	59:14:3589:HOH:O	2.12	0.68
31:39:133:ASN:HA	31:39:162:LEU:HD23	1.75	0.68
1:13:5:U:H3	4:3E:85:LYS:HB3	1.58	0.68
1:13:524:G:H2'	1:13:525:C:C6	2.28	0.68
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.75	0.68
25:4K:23:A:O2'	25:4K:24:A:N7	2.24	0.68
26:1H:1156:A:OP2	59:1H:3702:HOH:O	2.10	0.68
26:1H:2751:G:H5'	33:51:4:ILE:CD1	2.24	0.68
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.76	0.68
30:29:167:VAL:HG22	30:29:170:LEU:HD11	1.76	0.68
24:3K:9:A:H3'	24:3K:10:G:C8	2.29	0.68
26:1H:1332:G:OP1	59:1H:3708:HOH:O	2.12	0.68
26:1H:2419:U:O4	59:1H:3704:HOH:O	2.10	0.68
42:C8:69:CYS:HG	42:C8:79:PHE:HD2	1.41	0.68
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.22	0.68
22:1L:22:G:OP1	22:1L:48:C:N4	2.26	0.68
26:14:1332:G:C8	26:14:1332:G:H5'	2.29	0.68
26:14:1382:G:N7	59:14:3677:HOH:O	2.26	0.68
26:14:1794:U:H2'	26:14:1795:C:H6	1.59	0.68
26:14:2124:G:H2'	28:79:42:GLU:HG2	1.75	0.68
1:13:624:C:O3'	16:7I:10:GLY:HA2	1.93	0.68
1:13:1263:C:H2'	1:13:1264:C:H6	1.57	0.68
13:4I:82:MET:O	13:4I:84:ILE:N	2.26	0.68
26:1H:674:G:C1'	31:31:74:ARG:HD3	2.24	0.68
26:1H:860:U:H5	26:1H:917:A:C2	2.12	0.68
1:1G:976:G:OP1	14:5A:32:SER:N	2.24	0.68
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.27	0.68
26:14:2370:G:O6	59:14:3573:HOH:O	2.08	0.68
31:39:122:LYS:HD2	31:39:191:ARG:HE	1.58	0.68
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:4K:24:A:H2'	25:4K:25:A:C8	2.28	0.68
26:1H:322:A:H5'	26:1H:340:A:H1'	1.76	0.68
26:1H:587:C:OP2	37:78:21:ARG:NH2	2.27	0.68
27:16:101:A:OP2	59:16:304:HOH:O	2.11	0.68
41:B8:58:ASN:C	41:B8:58:ASN:HD22	2.00	0.68
2:12:121:LEU:HD23	2:12:126:GLU:HG2	1.75	0.68
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.75	0.68
26:14:195:A:N7	59:14:3526:HOH:O	2.26	0.68
26:14:1359:A:N6	26:14:1372:U:H3	1.86	0.68
26:1H:731:C:OP2	59:1H:3639:HOH:O	2.12	0.67
26:1H:1324:G:O6	59:1H:3678:HOH:O	2.06	0.67
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.12	0.67
26:1H:2137:C:O2	26:1H:2155:G:N1	2.27	0.67
26:1H:2548:G:O6	59:1H:3705:HOH:O	2.11	0.67
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.30	0.67
32:41:16:ARG:O	32:41:20:ILE:HG13	1.94	0.67
34:61:110:ASP:HB2	34:61:112:LYS:H	1.57	0.67
35:58:133:GLN:C	35:58:134:ARG:HE	2.02	0.67
38:88:6:ARG:HG3	38:88:7:MET:H	1.59	0.67
10:1A:80:LYS:O	10:1A:84:GLN:NE2	2.27	0.67
26:14:273(F):C:H3'	26:14:274:G:H5"	1.75	0.67
26:14:736:C:OP1	59:14:3586:HOH:O	2.11	0.67
26:14:1412:A:H2'	26:14:1413:G:C8	2.28	0.67
29:19:238:GLY:O	59:19:302:HOH:O	2.10	0.67
30:29:91:VAL:HB	30:29:95:ILE:HD11	1.76	0.67
55:M5:22:VAL:O	55:M5:50:LEU:HB3	1.94	0.67
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.27	0.67
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	1.76	0.67
26:1H:83:G:N7	59:1H:3805:HOH:O	2.25	0.67
26:1H:915:C:O3'	59:1H:3706:HOH:O	2.11	0.67
1:1G:192:U:O4'	20:BA:103:GLY:HA2	1.94	0.67
2:12:178:ARG:HH12	8:72:68:ARG:HH22	1.41	0.67
10:1A:44:VAL:HG13	10:1A:66:ARG:HB3	1.76	0.67
1:13:1149:C:H2'	1:13:1150:U:C6	2.30	0.67
26:1H:848:G:H2'	26:1H:849:A:C8	2.29	0.67
26:1H:1823:G:N7	59:1H:3819:HOH:O	2.27	0.67
26:1H:2469:A:N6	26:1H:2481:G:O2'	2.27	0.67
1:1G:1348:U:H3	1:1G:1374:A:H2	1.38	0.67
4:32:18:LYS:NZ	4:32:31:CYS:HB2	2.08	0.67
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.74	0.67
1:13:737:A:H2'	1:13:738:C:C6	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1813:G:OP1	59:1H:3710:HOH:O	2.11	0.67
26:1H:2070:G:OP1	59:1H:3707:HOH:O	2.11	0.67
10:1A:26:ALA:HB1	10:1A:84:GLN:HG2	1.75	0.67
26:14:1681:G:N3	59:14:3684:HOH:O	2.27	0.67
26:14:2032:G:H21	30:29:146:THR:CG2	2.04	0.67
1:13:1292:U:H2'	1:13:1293:G:C8	2.29	0.67
2:1E:43:ASP:HB3	2:1E:46:LYS:HD2	1.77	0.67
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.11	0.67
24:3K:35:U:H3	25:4K:14:A:N6	1.92	0.67
26:1H:867:C:N4	59:1H:3630:HOH:O	2.16	0.67
35:58:96:GLU:C	35:58:98:VAL:H	2.01	0.67
1:1G:1174:G:H2'	1:1G:1175:G:H8	1.58	0.67
29:19:69:ARG:NH2	29:19:128:GLY:O	2.27	0.67
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.74	0.67
6:5E:89:MET:HE3	18:9I:76:LEU:HD22	1.77	0.67
46:G8:85:VAL:HG23	46:G8:96:ILE:HB	1.77	0.67
1:1G:766:A:OP2	59:1G:1815:HOH:O	2.12	0.67
26:14:486:C:O2'	44:A5:60:ASN:OD1	2.12	0.67
26:14:2238:G:N7	59:14:3679:HOH:O	2.27	0.67
33:59:72:ILE:HA	33:59:75:ALA:HB3	1.77	0.67
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.30	0.67
22:1K:6:G:N2	22:1K:67:C:O2'	2.28	0.67
26:1H:220:G:O6	59:1H:3709:HOH:O	2.11	0.67
26:1H:760:G:OP2	59:1H:3720:HOH:O	2.13	0.67
26:1H:1639:U:O2'	26:1H:1640:C:H5"	1.95	0.67
26:1H:2588:G:OP1	59:1H:3717:HOH:O	2.12	0.67
27:16:75:G:H21	47:H8:85:HIS:CE1	2.13	0.67
37:78:63:PRO:HG2	55:Q8:25:MET:HB2	1.77	0.67
1:1G:617:G:OP2	59:1G:1814:HOH:O	2.11	0.67
28:79:57:ASN:OD1	28:79:165:ASN:ND2	2.28	0.67
46:C5:62:GLU:CD	46:C5:63:LYS:H	2.03	0.67
1:13:163:C:O2'	1:13:164:U:O4'	2.12	0.67
26:1H:1633:G:O6	59:1H:3687:HOH:O	2.07	0.67
37:78:59:LEU:HB2	55:Q8:58:ILE:HD11	1.76	0.67
43:95:5:VAL:HG11	43:95:57:VAL:HG11	1.76	0.67
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.28	0.67
30:21:82:ARG:O	30:21:84:PHE:N	2.27	0.67
7:62:87:VAL:HG23	7:62:148:ASN:HA	1.77	0.67
13:4A:13:LYS:HD3	13:4A:14:ARG:N	2.10	0.67
26:14:2057:A:OP2	59:14:3595:HOH:O	2.13	0.67
26:14:2287:A:C2	26:14:2346:A:H2	2.13	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2444:G:OP2	31:39:68:LYS:NZ	2.21	0.67
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.77	0.67
37:35:105:LEU:O	37:35:106:LEU:HB3	1.95	0.67
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.75	0.67
39:55:81:ASP:O	39:55:82:GLU:HB3	1.93	0.67
26:1H:1569:A:O2'	29:11:37:LEU:HD23	1.95	0.67
39:98:50:HIS:CE1	39:98:54:LEU:HD21	2.30	0.67
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.60	0.67
17:8A:6:LEU:HD22	17:8A:23:VAL:HG11	1.77	0.67
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.77	0.67
46:C5:74:PRO:HG2	46:C5:82:PRO:HG2	1.77	0.67
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.30	0.66
26:1H:1174:A:H1'	26:1H:1178:C:H42	1.60	0.66
31:31:184:TYR:O	31:31:188:ARG:HG3	1.95	0.66
1:13:1290:G:O3'	7:6E:37:ASN:ND2	2.28	0.66
5:4E:91:LEU:HD12	5:4E:120:THR:HG22	1.78	0.66
26:1H:968:G:O6	59:1H:3713:HOH:O	2.11	0.66
26:1H:2131:G:H1'	26:1H:2158:A:C6	2.31	0.66
26:1H:2308:G:N1	26:1H:2311:A:H2	1.91	0.66
32:41:67:LYS:HE2	52:M8:6:HIS:HE1	1.60	0.66
38:88:24:GLY:O	38:88:25:ASP:HB3	1.96	0.66
1:1G:673:G:H2'	1:1G:674:G:C8	2.30	0.66
26:14:2392:A:H2	26:14:2424:C:N4	1.91	0.66
31:39:192:LEU:HD22	31:39:194:MET:HE2	1.77	0.66
4:3E:141:ARG:HB2	4:3E:141:ARG:HH11	1.58	0.66
23:2K:9:G:N2	23:2K:47:G7M:OP2	2.27	0.66
40:A8:38:GLN:HG2	40:A8:47:THR:HG21	1.77	0.66
16:7A:21:VAL:HG22	16:7A:33:ILE:HB	1.77	0.66
26:14:270(Y):G:N7	59:14:3682:HOH:O	2.27	0.66
2:1E:212:GLN:NE2	2:1E:216:SER:OG	2.26	0.66
16:7I:4:ILE:HD12	16:7I:66:PRO:HD3	1.77	0.66
26:1H:320:A:OP1	31:31:135:LYS:NZ	2.29	0.66
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.29	0.66
26:1H:2815:C:H5'	53:N8:29:THR:HG21	1.77	0.66
24:3L:8:U:O2'	24:3L:48:C:O2	2.13	0.66
26:14:953:A:OP2	38:45:16:ARG:HD3	1.96	0.66
26:14:1019:U:H2'	26:14:1020:A:H8	1.60	0.66
1:13:545:C:O2'	1:13:549:C:OP1	2.14	0.66
1:13:870:U:O2'	59:13:1822:HOH:O	2.13	0.66
1:13:1304:G:OP2	59:13:1823:HOH:O	2.14	0.66
26:1H:880:G:H1	26:1H:897:C:H42	1.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1785:A:OP2	59:1H:3721:HOH:O	2.13	0.66
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.19	0.66
1:1G:1028(B):C:H42	1:1G:1032(A):G:H1	1.42	0.66
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.12	0.66
2:12:130:ARG:HG2	2:12:135:GLN:HG3	1.77	0.66
4:32:28:SER:HB2	4:32:29:PRO:HA	1.77	0.66
26:14:2432:A:H2'	26:14:2433:A:C8	2.31	0.66
1:13:411:A:C4	1:13:413:G:H1'	2.29	0.66
1:13:1127:G:H2'	1:13:1128:C:H5'	1.75	0.66
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.26	0.66
26:14:1354:A:OP2	59:14:3594:HOH:O	2.13	0.66
26:14:2409:G:N7	59:14:3683:HOH:O	2.27	0.66
39:55:67:LEU:HG	39:55:76:VAL:HG21	1.76	0.66
39:98:104:ARG:NH1	39:98:107:ASP:OD2	2.29	0.66
47:H8:5:LEU:HD21	47:H8:44:PHE:HA	1.77	0.66
1:1G:1028(B):C:O2	1:1G:1030:C:N4	2.28	0.66
26:14:463:G:OP2	59:14:3599:HOH:O	2.14	0.66
26:14:2474:C:OP1	59:14:3597:HOH:O	2.13	0.66
1:13:1278:U:H5'	1:13:1279:A:O4'	1.95	0.66
1:13:1504:G:OP1	1:13:1507:A:H4'	1.96	0.66
5:4E:137:GLU:OE1	5:4E:141:GLN:NE2	2.28	0.66
14:5I:3:ARG:HA	14:5I:3:ARG:NH1	2.10	0.66
26:1H:270(E):G:N2	26:1H:270(U):C:N3	2.38	0.66
26:1H:527:C:OP1	59:1H:3716:HOH:O	2.12	0.66
26:1H:1982:C:O4'	59:1H:3721:HOH:O	2.13	0.66
29:11:35:LYS:N	29:11:35:LYS:NZ	2.43	0.66
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	1.76	0.66
1:1G:652:U:OP2	59:1G:1818:HOH:O	2.13	0.66
33:59:6:ARG:HH22	33:59:54:ARG:HH12	1.42	0.66
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.29	0.66
1:13:804:U:H5"	1:13:805:C:OP2	1.96	0.66
1:13:1226:C:H4'	19:AI:80:TYR:OH	1.96	0.66
26:1H:1510:A:O2'	26:1H:1511:A:N7	2.27	0.66
36:68:63:VAL:HG12	36:68:106:LEU:HD11	1.76	0.66
42:C8:6:THR:OG1	59:C8:201:HOH:O	2.12	0.66
1:1G:183:G:O5'	1:1G:183:G:H8	1.79	0.66
6:52:23:LYS:O	6:52:27:GLN:HG3	1.95	0.66
26:14:1678:G:H22	26:14:1989:G:N2	1.93	0.66
37:35:71:VAL:HG13	37:35:72:PRO:HD3	1.76	0.66
1:13:793:U:H5'	1:13:794:A:H5"	1.78	0.66
13:4I:49:THR:HB	13:4I:52:GLU:HG2	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:4K:12:A:O2'	25:4K:13:A:O5'	2.05	0.66
42:C8:92:ARG:NH1	42:C8:94:ASN:OD1	2.28	0.66
1:1G:114:U:H2'	1:1G:115:G:C8	2.31	0.66
4:32:70:ILE:HD11	4:32:75:PHE:HD1	1.61	0.66
11:2A:121:PRO:HG2	11:2A:126:ARG:HG3	1.77	0.66
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.60	0.66
26:14:395:U:H2'	26:14:396:G:N7	2.11	0.66
50:G5:32:LEU:HD21	50:G5:54:LYS:HG2	1.78	0.66
3:2E:15:THR:HG21	3:2E:181:ASN:HA	1.77	0.65
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.77	0.65
21:1F:8:THR:HG23	21:1F:11:GLY:H	1.61	0.65
26:1H:1588:C:H2'	26:1H:1589:C:H6	1.60	0.65
26:1H:2441:C:OP1	59:1H:3724:HOH:O	2.13	0.65
33:51:169:VAL:O	33:51:170:ARG:NE	2.16	0.65
34:61:31:LEU:HD21	34:61:38:LEU:HG	1.77	0.65
26:14:1794:U:H2'	26:14:1795:C:C6	2.31	0.65
26:14:1864:U:OP1	26:14:2410:G:O2'	2.14	0.65
29:19:267:SER:HA	29:19:270:ILE:HD12	1.77	0.65
1:13:1366:C:H2'	1:13:1367:C:H6	1.60	0.65
26:1H:1388:G:O2'	26:1H:1389:G:H5'	1.95	0.65
26:1H:1814:G:OP2	59:1H:3653:HOH:O	2.14	0.65
1:1G:247:G:OP2	17:8A:100:LYS:HG3	1.97	0.65
1:1G:864:A:OP2	59:1G:1820:HOH:O	2.14	0.65
14:5A:22:THR:HB	14:5A:33:VAL:HG21	1.78	0.65
23:2L:48:U:O2'	23:2L:49:C:OP2	2.13	0.65
26:14:2270:G:OP2	59:14:3593:HOH:O	2.13	0.65
1:13:266:G:OP2	1:13:267:C:N4	2.24	0.65
26:1H:530:G:N1	59:1H:3647:HOH:O	2.29	0.65
26:1H:1022:G:N7	35:58:66:LYS:NZ	2.44	0.65
26:1H:1981:A:OP1	59:1H:3726:HOH:O	2.14	0.65
40:A8:34:HIS:HB2	40:A8:36:TYR:CE1	2.31	0.65
1:1G:315:A:OP1	59:1G:1821:HOH:O	2.14	0.65
26:14:1420:U:O2'	26:14:1421:G:OP1	2.14	0.65
26:14:2066:C:OP1	59:14:3604:HOH:O	2.14	0.65
26:14:2776:A:OP1	26:14:2776:A:H3'	1.96	0.65
29:19:96:HIS:CE1	29:19:102:LYS:HE2	2.30	0.65
45:B5:49:VAL:HB	45:B5:83:VAL:HG21	1.78	0.65
1:13:934:C:O5'	59:13:1826:HOH:O	2.15	0.65
26:1H:65:C:H2'	26:1H:66:C:H6	1.59	0.65
26:1H:900:A:H3'	26:1H:901:A:H8	1.61	0.65
41:B8:12:SER:HB2	41:B8:15:VAL:H	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:90:ILE:HA	49:J8:93:GLU:OE1	1.97	0.65
6:52:33:TYR:CE1	6:52:78:GLU:HG3	2.32	0.65
10:1A:34:VAL:HG22	10:1A:74:ILE:HG22	1.77	0.65
14:5A:29:ARG:HB3	14:5A:31:ARG:N	2.10	0.65
26:14:1044:G:HO2'	26:14:1047:G:HO2'	1.38	0.65
40:65:88:ASP:O	40:65:89:ARG:HB3	1.97	0.65
1:13:345:C:H4'	1:13:346:G:C5	2.31	0.65
1:13:859:A:H2'	1:13:860:A:C8	2.32	0.65
24:3K:3:G:H1	24:3K:70:C:H42	1.42	0.65
26:1H:2069:G:O3'	59:1H:3718:HOH:O	2.12	0.65
1:1G:345:C:OP2	41:75:39:ARG:NH2	2.30	0.65
4:32:76:ARG:NH2	4:32:80:GLU:OE1	2.27	0.65
13:4A:8:GLU:OE1	32:49:115:ARG:NH2	2.29	0.65
26:14:329:G:H1	46:C5:19:LYS:NZ	1.95	0.65
26:14:1828:G:OP2	59:14:3608:HOH:O	2.15	0.65
26:14:2582:G:OP2	59:14:3603:HOH:O	2.14	0.65
33:59:149:ARG:HA	33:59:162:ILE:HG21	1.77	0.65
1:13:1386:G:N7	59:13:1852:HOH:O	2.29	0.65
3:2E:16:ARG:HH11	3:2E:16:ARG:HB2	1.59	0.65
26:1H:259:G:N2	26:1H:621:A:H8	1.94	0.65
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.31	0.65
26:1H:1644:C:H2'	26:1H:1645:G:H5'	1.79	0.65
26:1H:2573:C:H3'	59:1H:3939:HOH:O	1.96	0.65
26:1H:2751:G:N7	33:51:3:ARG:NE	2.44	0.65
30:21:38:THR:HG23	30:21:40:GLU:HG2	1.78	0.65
44:E8:86:LEU:HD12	44:E8:87:PRO:HD2	1.79	0.65
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.24	0.65
20:BA:25:ARG:O	20:BA:29:LYS:HG3	1.96	0.65
26:14:305:U:H2'	26:14:306:U:C6	2.32	0.65
34:69:99:GLU:O	34:69:103:ARG:NH1	2.30	0.65
49:F5:80:LEU:HD12	49:F5:82:LEU:HD13	1.78	0.65
24:3K:52:G:H2'	24:3K:53:G:H8	1.61	0.65
26:1H:946:G:OP1	59:1H:3727:HOH:O	2.14	0.65
26:1H:1253:A:C8	59:1H:3601:HOH:O	2.45	0.65
31:31:185:ASP:HA	31:31:188:ARG:HD3	1.78	0.65
41:75:2:ASN:CB	41:75:4:GLY:HA2	2.26	0.65
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.45	0.65
26:1H:336:C:OP1	46:G8:83:THR:HG23	1.95	0.65
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.23	0.65
30:21:65:GLY:HA2	30:21:66:HIS:CB	2.27	0.65
40:A8:84:GLN:HA	40:A8:111:GLU:OE2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:9:LYS:HA	46:G8:27:VAL:HG22	1.79	0.65
52:M8:43:TYR:O	52:M8:46:GLN:HA	1.96	0.65
29:19:141:VAL:HG23	29:19:162:SER:HB2	1.79	0.65
31:39:53:THR:HG22	31:39:56:GLU:HG3	1.79	0.65
45:B5:63:LYS:HE3	45:B5:63:LYS:N	2.10	0.65
9:8E:3:GLN:HB3	9:8E:20:ARG:HD3	1.79	0.65
24:3K:34:U:O2'	24:3K:35:U:O5'	2.14	0.65
26:1H:443:A:H1'	26:1H:1201:C:O4'	1.96	0.65
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.36	0.65
1:1G:547:A:OP1	59:1G:1819:HOH:O	2.14	0.65
13:4A:79:LYS:HA	13:4A:82:MET:HG2	1.77	0.65
26:14:198:C:H5'	26:14:2244:U:OP1	1.96	0.65
26:14:1278:A:OP1	39:55:36:THR:HG22	1.96	0.65
26:14:1776:G:OP2	59:14:3606:HOH:O	2.14	0.65
26:14:2302:G:N2	26:14:2314:C:O2	2.28	0.65
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.79	0.65
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.27	0.65
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.30	0.65
20:BI:57:ARG:HH11	20:BI:102:GLY:HA2	1.61	0.65
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.61	0.65
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.32	0.65
26:1H:2593:U:O2'	26:1H:2594:C:H5'	1.97	0.65
29:11:70:TRP:CD1	29:11:70:TRP:C	2.74	0.65
40:A8:26:LEU:HD12	40:A8:39:ILE:HD11	1.79	0.65
1:1G:1502:A:H2	1:1G:1505:G:N1	1.93	0.65
26:14:1537:C:H2'	26:14:1538:G:C8	2.31	0.65
31:39:11:VAL:HG13	31:39:13:SER:HB3	1.78	0.65
26:1H:2375:G:N7	59:1H:3842:HOH:O	2.30	0.64
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.78	0.64
50:K8:15:LYS:H	50:K8:15:LYS:NZ	1.94	0.64
1:1G:758:G:N7	59:1G:1850:HOH:O	2.29	0.64
1:1G:1500:A:OP1	59:1G:1822:HOH:O	2.15	0.64
4:32:33:MET:O	4:32:34:GLU:HB2	1.96	0.64
5:42:104:ALA:HA	5:42:107:ARG:HH21	1.61	0.64
26:14:124:G:N7	59:14:3692:HOH:O	2.29	0.64
26:14:270(M):U:H5"	26:14:270(N):G:OP1	1.97	0.64
1:13:504:C:OP1	59:13:1825:HOH:O	2.15	0.64
1:13:800:G:O6	59:13:1821:HOH:O	2.11	0.64
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.79	0.64
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.30	0.64
17:8I:31:LEU:HD23	17:8I:32:TYR:CZ	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:330:A:HO2'	26:1H:331:A:H8	1.43	0.64
26:1H:1025:G:O2'	59:1H:3627:HOH:O	2.15	0.64
26:1H:2280:G:H2'	26:1H:2281:C:H5'	1.78	0.64
1:1G:920:U:H2'	1:1G:921:U:C6	2.32	0.64
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.29	0.64
26:14:2681:C:H5	26:14:2725:A:H62	1.45	0.64
26:14:2818:G:OP2	39:55:42:LYS:NZ	2.30	0.64
42:85:49:HIS:HA	42:85:52:ARG:HB2	1.79	0.64
1:13:1279:A:O2'	1:13:1281:U:OP2	2.11	0.64
13:4I:108:ARG:HG3	13:4I:108:ARG:HH11	1.61	0.64
26:1H:509:C:O3'	59:1H:3729:HOH:O	2.14	0.64
26:1H:1569:A:N7	59:1H:3847:HOH:O	2.30	0.64
26:1H:2139:C:N4	26:1H:2152:G:H1	1.95	0.64
26:1H:2362:G:OP1	55:Q8:44:LYS:NZ	2.25	0.64
48:I8:53:MET:HG3	48:I8:59:LEU:HD23	1.79	0.64
49:J8:92:LYS:HA	49:J8:95:LEU:HD12	1.79	0.64
10:1A:11:PHE:HE1	10:1A:67:THR:HG22	1.62	0.64
13:4A:91:ARG:NH1	13:4A:97:PRO:O	2.30	0.64
26:14:2317:C:H2'	26:14:2318:G:O4'	1.97	0.64
26:14:2509:G:O6	59:14:3592:HOH:O	2.13	0.64
36:25:63:VAL:HG12	36:25:106:LEU:HD11	1.79	0.64
41:75:24:PRO:HA	41:75:49:VAL:HG23	1.77	0.64
48:E5:27:GLU:HG3	48:E5:68:GLU:HA	1.78	0.64
1:13:659:U:H2'	1:13:660:G:H8	1.62	0.64
26:1H:1063:G:N2	26:1H:1076:C:O2	2.31	0.64
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.29	0.64
30:21:174:ASP:OD1	30:21:175:VAL:N	2.30	0.64
55:Q8:52:LYS:H	55:Q8:53:PRO:HD2	1.63	0.64
1:1G:377:G:OP1	16:7A:3:LYS:NZ	2.27	0.64
1:1G:973:G:H3'	1:1G:974:A:H5"	1.80	0.64
1:1G:991:U:O4	1:1G:1212:U:O2'	2.11	0.64
1:1G:1249:C:O2'	9:82:73:GLN:OE1	2.16	0.64
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.12	0.64
26:14:468:G:N7	54:L5:39:ARG:NH2	2.43	0.64
26:14:1049:C:O2'	26:14:1113:U:O2'	2.15	0.64
34:69:69:LYS:HA	34:69:136:VAL:HG11	1.80	0.64
45:B5:27:THR:HG22	45:B5:80:ILE:HB	1.80	0.64
26:1H:2128:C:H2'	26:1H:2129:C:C6	2.32	0.64
28:71:215:THR:OG1	28:71:219:GLY:O	2.15	0.64
35:58:39:ARG:NH2	35:58:41:ASP:OD2	2.30	0.64
5:42:100:VAL:HG23	5:42:118:ILE:HG22	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:5:C:H2'	24:3L:6:G:C8	2.33	0.64
26:14:1292:U:H2'	26:14:1293:C:C6	2.32	0.64
30:29:110:GLY:O	59:55:201:HOH:O	2.13	0.64
1:13:130:A:O2'	1:13:131:C:O5'	2.14	0.64
1:13:191(F):U:H2'	1:13:191:G:C8	2.31	0.64
6:5E:69:GLU:O	6:5E:72:VAL:HG12	1.97	0.64
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.31	0.64
40:A8:48:LEU:HD23	40:A8:82:ILE:HD11	1.80	0.64
44:E8:1:MET:HE3	44:E8:62:HIS:HB3	1.78	0.64
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.29	0.64
2:12:80:ILE:HD11	2:12:215:LEU:HD12	1.79	0.64
18:9A:30:ASP:OD2	59:9A:101:HOH:O	2.14	0.64
26:14:1331:A:O3'	59:14:3609:HOH:O	2.15	0.64
37:35:55:ARG:HG2	37:35:56:SER:N	2.11	0.64
41:75:4:GLY:N	41:75:5:ALA:C	2.56	0.64
42:85:75:ASN:OD1	42:85:78:THR:OG1	2.16	0.64
1:13:843:U:OP1	1:13:848:C:N4	2.30	0.64
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.30	0.64
9:8E:10:ARG:HG3	9:8E:75:ASP:HB3	1.80	0.64
26:1H:2311:A:H1'	32:41:88:ILE:HD13	1.78	0.64
26:1H:2321:G:H5"	26:1H:2322:A:OP2	1.97	0.64
29:11:35:LYS:HG3	29:11:61:LEU:HB3	1.78	0.64
40:A8:29:PHE:HD1	40:A8:30:ARG:N	1.94	0.64
44:E8:35:ILE:HG23	53:N8:28:PRO:HD2	1.79	0.64
26:14:289:A:H3'	26:14:290:G:H8	1.63	0.64
26:14:528:A:C2	26:14:2042:A:H2'	2.32	0.64
26:14:1266:G:O5'	44:A5:15:ARG:NH2	2.30	0.64
31:39:192:LEU:HD13	31:39:194:MET:HE1	1.79	0.64
38:45:38:GLU:HG3	38:45:127:ILE:HG22	1.80	0.64
42:85:92:ARG:CZ	43:95:11:GLN:H	2.11	0.64
15:6I:47:LYS:HB3	15:6I:47:LYS:NZ	2.11	0.64
26:1H:72:U:OP1	59:1H:3732:HOH:O	2.15	0.64
26:1H:1858:G:O2'	26:1H:1859:A:OP2	2.15	0.64
43:D8:65:GLY:HA3	43:D8:91:TYR:CE2	2.33	0.64
47:H8:4:ARG:HB3	47:H8:58:VAL:HG22	1.78	0.64
1:1G:403:C:N4	59:1G:1819:HOH:O	2.30	0.64
1:1G:1081:G:N7	5:42:47:LYS:NZ	2.45	0.64
26:14:1044:G:O2'	26:14:1047:G:O2'	2.14	0.64
26:14:1048:A:N6	26:14:1112:G:O2'	2.30	0.64
44:A5:68:ARG:NH2	44:A5:111:HIS:O	2.31	0.64
1:13:628:G:H2'	1:13:629:G:C8	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:167:GLY:HA2	29:19:135:PHE:CZ	2.33	0.64
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.24	0.64
26:1H:1078:U:O2'	26:1H:1088:A:OP1	2.15	0.64
29:11:29:PRO:O	29:11:30:GLU:HG3	1.98	0.64
26:14:1598:C:O2	59:14:3590:HOH:O	2.12	0.64
26:14:1774:C:OP1	59:14:3607:HOH:O	2.15	0.64
34:69:76:THR:HG21	34:69:140:LEU:HA	1.80	0.64
51:H5:7:LYS:HG3	51:H5:34:GLU:HG2	1.80	0.64
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.63	0.64
28:71:7:TYR:HA	28:71:10:LEU:HB2	1.80	0.64
30:21:111:ARG:HA	39:98:1:MET:HE3	1.79	0.64
40:A8:106:ARG:HA	40:A8:110:LEU:H	1.63	0.64
43:D8:37:VAL:HG12	43:D8:55:ALA:O	1.98	0.64
26:14:1623:G:O6	59:14:3591:HOH:O	2.12	0.64
26:14:1858:G:O2'	26:14:1884:A:N6	2.31	0.64
26:14:2318:G:H5'	26:14:2319:G:OP2	1.98	0.64
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.31	0.64
49:F5:82:LEU:HB3	49:F5:83:GLU:HB2	1.80	0.64
2:1E:17:PHE:HB3	2:1E:44:LEU:HG	1.79	0.63
4:3E:95:GLY:O	4:3E:99:SER:OG	2.17	0.63
5:4E:100:VAL:HG22	5:4E:118:ILE:HG22	1.80	0.63
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.80	0.63
26:1H:2588:G:H5"	59:1H:3611:HOH:O	1.97	0.63
33:51:169:VAL:HG13	33:51:170:ARG:H	1.63	0.63
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	1.81	0.63
2:12:160:ASP:OD1	2:12:160:ASP:N	2.31	0.63
5:42:51:VAL:HG23	5:42:52:PRO:HD3	1.80	0.63
26:14:1425:G:N2	26:14:1573:G:N7	2.46	0.63
26:14:1534:G:H3'	26:14:1535:U:H5"	1.79	0.63
26:14:2688:U:H1'	26:14:2721:A:N6	2.13	0.63
35:15:96:GLU:H	35:15:96:GLU:CD	2.06	0.63
38:45:135:ASP:HB2	38:45:137:TYR:N	2.13	0.63
1:13:1533:C:O2'	1:13:1534:A:OP1	2.14	0.63
23:2K:62:C:H2'	23:2K:63:C:C6	2.33	0.63
26:1H:1057:A:O2'	26:1H:1058:U:O4'	2.16	0.63
32:41:124:SER:HB2	32:41:131:TYR:CE1	2.33	0.63
1:1G:1129:C:N4	1:1G:1139:G:H22	1.95	0.63
4:32:13:ARG:C	4:32:15:GLU:H	2.06	0.63
4:32:18:LYS:HZ2	4:32:33:MET:HB2	1.63	0.63
26:14:1019:U:H2'	26:14:1020:A:C8	2.33	0.63
26:14:1570:A:H5'	29:19:37:LEU:HG	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:45:PHE:CE2	41:75:74:ARG:HG3	2.33	0.63
26:1H:72:U:OP1	59:1H:3728:HOH:O	2.14	0.63
26:1H:404:C:O2'	26:1H:405:U:OP2	2.16	0.63
26:1H:486:C:O2'	44:E8:60:ASN:ND2	2.31	0.63
26:1H:2329:G:N7	59:1H:3846:HOH:O	2.30	0.63
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.31	0.63
32:41:47:LYS:HD2	32:41:81:LYS:HB2	1.79	0.63
45:F8:57:LEU:CD2	45:F8:78:LYS:HB2	2.28	0.63
46:G8:82:PRO:HG3	46:G8:97:ARG:HD2	1.80	0.63
1:1G:1124:G:HO2'	1:1G:1145:C:N4	1.96	0.63
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.80	0.63
26:14:161:U:H5'	26:14:171:G:N2	2.13	0.63
26:14:1188:U:O2'	26:14:1189:A:H5'	1.98	0.63
26:14:2542:A:N3	26:14:2542:A:H5"	2.14	0.63
26:1H:1681:G:N2	26:1H:1763[B]:G:OP2	2.29	0.63
27:16:44:G:H1'	27:16:47:C:N4	2.13	0.63
33:51:164:TYR:O	33:51:167:GLU:HB3	1.98	0.63
26:14:2019:A:OP2	53:J5:9:LYS:NZ	2.30	0.63
26:14:2245:U:H5"	26:14:2246:G:H5'	1.80	0.63
35:15:42:TRP:O	42:85:64:ARG:NH2	2.31	0.63
43:95:62:LEU:HD23	43:95:93:GLU:HG2	1.81	0.63
45:B5:36:LYS:HG2	45:B5:54:VAL:HB	1.80	0.63
49:F5:84:GLY:HA2	49:F5:85:LEU:HB3	1.80	0.63
50:G5:4:SER:HB3	50:G5:7:ARG:HB2	1.80	0.63
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.32	0.63
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.14	0.63
26:1H:49:A:N7	26:1H:120:U:C5	2.60	0.63
26:1H:582:G:H2'	26:1H:583:G:C8	2.33	0.63
26:1H:847:U:O5'	59:1H:3733:HOH:O	2.15	0.63
26:1H:1009:A:OP2	35:58:37:LYS:NZ	2.31	0.63
26:1H:1081:U:O2'	26:1H:1082:U:OP1	2.15	0.63
26:1H:2287:A:H62	26:1H:2344:U:H3	1.44	0.63
9:82:85:LEU:HD11	9:82:96:LEU:HD22	1.80	0.63
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.29	0.63
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.79	0.63
2:1E:192:SER:OG	2:1E:193:ASP:N	2.25	0.63
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.81	0.63
26:1H:2751:G:OP1	33:51:3:ARG:NH2	2.30	0.63
37:78:114:ILE:HD13	37:78:125:VAL:HG11	1.80	0.63
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.64	0.63
1:1G:376:G:H5"	16:7A:5:ARG:HD2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1157:A:H2	1:1G:1180:A:C6	2.17	0.63
1:1G:1305:G:N2	1:1G:1331:G:O2'	2.32	0.63
4:32:60:GLU:OE2	4:32:199:ASN:N	2.24	0.63
32:49:93:THR:HG21	32:49:95:ARG:HH21	1.63	0.63
3:2E:123:GLN:O	3:2E:128:PHE:HB2	1.98	0.63
6:5E:94:GLN:NE2	18:9I:33:ASP:OD1	2.29	0.63
26:1H:1024:G:OP2	59:1H:3731:HOH:O	2.15	0.63
26:1H:2749:A:P	33:51:4:ILE:HD11	2.38	0.63
30:21:2:LYS:HD2	30:21:95:ILE:HG13	1.81	0.63
30:21:51:PHE:CE2	30:21:52:LEU:HD23	2.33	0.63
38:88:66:ILE:HG13	38:88:67:ARG:H	1.64	0.63
46:G8:28:LYS:NZ	46:G8:64:GLU:OE2	2.29	0.63
26:14:1593:G:H2'	26:14:1594:G:C8	2.33	0.63
30:29:54:GLN:HB2	30:29:72:VAL:HA	1.81	0.63
34:69:76:THR:CG2	34:69:140:LEU:HA	2.29	0.63
1:13:153:C:N4	1:13:168:G:H1	1.97	0.63
2:1E:21:ARG:CZ	2:1E:22:LYS:HB2	2.29	0.63
26:1H:370:G:H4'	26:1H:371:A:OP2	1.97	0.63
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.34	0.63
28:71:166:ASP:OD1	28:71:166:ASP:N	2.31	0.63
29:11:238:GLY:N	59:11:406:HOH:O	2.32	0.63
30:21:128:SER:OG	30:21:129:HIS:N	2.29	0.63
35:58:76:SER:O	35:58:78:TYR:N	2.32	0.63
1:1G:19:C:OP1	5:42:125:SER:OG	2.13	0.63
1:1G:1192:C:OP2	3:22:4:LYS:NZ	2.31	0.63
26:14:2331:G:O3'	48:E5:43:THR:HG22	1.98	0.63
1:13:581:G:O2'	1:13:582:U:H5'	1.99	0.63
1:13:758:G:N7	59:13:1855:HOH:O	2.31	0.63
18:9I:59:SER:OG	18:9I:60:ALA:N	2.31	0.63
19:AI:41:VAL:HG11	19:AI:45:VAL:N	2.14	0.63
26:1H:1162:G:O6	59:1H:3725:HOH:O	2.14	0.63
26:1H:1264:G:H5'	53:N8:11:THR:HG21	1.81	0.63
26:1H:2176:A:OP1	28:71:7:TYR:OH	2.15	0.63
26:1H:2392:A:H2	26:1H:2424:C:N4	1.96	0.63
28:71:57:ASN:OD1	28:71:165:ASN:ND2	2.29	0.63
42:C8:92:ARG:NE	43:D8:11:GLN:H	1.97	0.63
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.28	0.63
4:32:22:LYS:HD2	57:32:302:SF4:S2	2.39	0.63
9:82:118:LYS:HB3	9:82:121:ARG:HB3	1.80	0.63
18:9A:36:ASN:ND2	18:9A:36:ASN:O	2.31	0.63
19:AA:17:GLU:HA	19:AA:20:LEU:HD22	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2275:C:C6	26:14:2275:C:H5'	2.34	0.63
31:39:129:PHE:HA	31:39:142:TRP:CD1	2.34	0.63
2:1E:100:GLY:O	2:1E:104:ASN:N	2.30	0.62
26:1H:270(M):U:OP2	34:61:57:ARG:NH2	2.26	0.62
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.12	0.62
4:32:100:ARG:HB3	4:32:100:ARG:HH11	1.64	0.62
4:32:162:LEU:HD13	4:32:181:MET:HG2	1.81	0.62
9:82:5:TYR:HA	9:82:17:VAL:O	1.98	0.62
26:14:1340:U:H4'	26:14:1394:U:O2'	1.99	0.62
26:14:2306:C:H3'	26:14:2307:G:H5"	1.79	0.62
29:19:30:GLU:HB2	29:19:35:LYS:CE	2.28	0.62
2:1E:60:ASP:HB3	2:1E:64:ARG:HH21	1.64	0.62
26:1H:422:A:P	59:1H:3761:HOH:O	2.56	0.62
26:1H:1042:G:H1	26:1H:1113:U:H3	1.47	0.62
29:11:33:LEU:HG	29:11:34:VAL:HG22	1.81	0.62
13:4A:22:ILE:HB	13:4A:25:ILE:HG12	1.80	0.62
26:14:570:G:H5"	59:14:4114:HOH:O	1.99	0.62
28:79:17:ASN:HB2	28:79:18:LYS:HE3	1.81	0.62
31:39:5:ALA:HB1	31:39:125:LEU:HD21	1.79	0.62
39:55:38:VAL:HG12	39:55:42:LYS:HD2	1.80	0.62
49:F5:29:GLY:O	49:F5:30:VAL:HG22	1.99	0.62
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.32	0.62
1:13:1336:C:H6	1:13:1336:C:H5"	1.64	0.62
3:2E:7:PRO:O	3:2E:11:ARG:HG2	1.99	0.62
6:5E:100:ASN:C	18:9I:28:GLU:HB2	2.24	0.62
10:1I:78:ASN:OD1	10:1I:78:ASN:N	2.31	0.62
26:1H:270(K):C:O2'	26:1H:270(N):G:N2	2.30	0.62
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.15	0.62
26:1H:2402:C:O2	26:1H:2403:C:N4	2.31	0.62
26:1H:2592:G:O2'	59:1H:3735:HOH:O	2.16	0.62
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.61	0.62
36:68:2:ILE:HD12	36:68:6:THR:HG21	1.80	0.62
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.79	0.62
17:8A:81:ARG:HB3	17:8A:84:LEU:HD12	1.82	0.62
19:AA:13:ASP:O	19:AA:16:LEU:N	2.32	0.62
26:14:531:C:OP1	26:14:561:G:N1	2.32	0.62
26:14:1060:U:H4'	26:14:1061:U:H5"	1.79	0.62
26:14:2287:A:H61	26:14:2344:U:H3	1.43	0.62
27:1J:44:G:H1'	27:1J:47:C:H42	1.64	0.62
29:19:44:ASN:HB3	29:19:46:GLN:N	2.15	0.62
32:49:62:LEU:HD13	32:49:143:GLU:HB3	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:286:C:H2'	26:1H:287:C:C6	2.33	0.62
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.65	0.62
38:88:65:PHE:O	38:88:66:ILE:HG13	2.00	0.62
39:98:55:ALA:HA	39:98:80:PHE:CE1	2.34	0.62
47:H8:93:ASP:HB3	47:H8:131:ARG:NH2	2.12	0.62
1:1G:736:C:H2'	1:1G:737:A:C8	2.33	0.62
3:22:7:PRO:O	3:22:11:ARG:NH1	2.32	0.62
8:72:25:ASP:OD1	8:72:25:ASP:N	2.32	0.62
14:5A:26:ARG:HH12	14:5A:47:LEU:HD21	1.64	0.62
26:14:2467:C:H4'	38:45:123:HIS:CD2	2.34	0.62
26:14:2541:A:N7	59:14:3705:HOH:O	2.31	0.62
28:79:166:ASP:OD1	28:79:169:GLY:N	2.32	0.62
41:75:56:GLY:O	41:75:59:THR:HG23	1.98	0.62
4:3E:207:TYR:O	4:3E:209:ARG:HD3	1.99	0.62
26:1H:1542:G:OP2	59:1H:3738:HOH:O	2.16	0.62
28:71:29:VAL:HG11	28:71:185:LEU:HD13	1.82	0.62
30:21:116:VAL:HG11	30:21:138:PRO:HB3	1.80	0.62
1:1G:371:G:O2'	1:1G:373:A:N7	2.32	0.62
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.14	0.62
9:82:26:VAL:HG13	9:82:61:ALA:O	2.00	0.62
10:1A:55:LYS:HZ1	10:1A:57:LYS:HB2	1.63	0.62
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.33	0.62
26:14:250:G:P	37:35:60:MET:HE1	2.40	0.62
26:14:498:G:H21	46:C5:47:LYS:HZ1	1.47	0.62
26:14:1323:U:OP1	44:A5:84:ARG:HD2	1.98	0.62
26:14:1927:A:H2'	26:14:1928:A:C8	2.34	0.62
26:14:2415:G:H4'	37:35:67:MET:N	2.14	0.62
30:29:60:ASN:OD1	30:29:61:ARG:N	2.32	0.62
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.35	0.62
1:1G:280:C:H3'	1:1G:281:G:H5'	1.80	0.62
26:14:850:C:O3'	51:H5:49:LYS:HE2	1.99	0.62
26:14:1971:A:OP1	59:14:3610:HOH:O	2.16	0.62
1:13:393:A:OP2	16:7I:12:LYS:NZ	2.24	0.62
1:13:618:C:H5"	1:13:619:U:H5"	1.82	0.62
1:13:1286:A:H8	1:13:1287:A:H4'	1.64	0.62
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.63	0.62
26:1H:2164:C:OP2	26:1H:2166:G:N2	2.33	0.62
33:51:169:VAL:HG13	33:51:170:ARG:N	2.14	0.62
35:58:73:THR:HB	35:58:82:LEU:HD11	1.81	0.62
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.65	0.62
1:1G:986:A:H1'	19:AA:54:GLY:O	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.33	0.62
24:3K:3:G:N2	24:3K:70:C:N3	2.48	0.62
37:78:59:LEU:O	55:Q8:13:ARG:HD2	2.00	0.62
40:A8:106:ARG:H	40:A8:106:ARG:HE	1.47	0.62
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.81	0.62
36:25:64:ARG:HG3	36:25:83:ALA:HB3	1.82	0.62
39:55:24:GLN:OE1	39:55:36:THR:HG21	2.00	0.62
40:65:34:HIS:CE1	40:65:54:LEU:HD12	2.35	0.62
41:75:5:ALA:HB3	41:75:9:LEU:H	1.65	0.62
42:85:98:LEU:HA	42:85:100:VAL:O	2.00	0.62
1:13:141:A:O2'	1:13:182:U:O2	2.17	0.62
1:13:750:G:N3	15:6I:23:GLY:HA3	2.15	0.62
1:13:1406:U:H2'	1:13:1407:C:H5'	1.81	0.62
27:16:75:G:H21	47:H8:85:HIS:HE1	1.46	0.62
34:61:40:THR:O	34:61:44:LEU:HB2	1.98	0.62
34:61:124:GLY:H	34:61:142:VAL:HG23	1.63	0.62
1:1G:934:C:OP1	59:1G:1823:HOH:O	2.15	0.62
7:62:76:ARG:HD3	7:62:89:MET:HG3	1.82	0.62
14:5A:24:CYS:HB3	14:5A:29:ARG:HH21	1.65	0.62
34:69:72:LEU:HD21	34:69:107:VAL:HG11	1.81	0.62
10:1I:22:LYS:HD2	10:1I:90:LEU:HD22	1.81	0.62
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.35	0.62
26:1H:1689:A:N6	26:1H:1698:A:H2	1.93	0.62
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.35	0.62
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.34	0.62
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.35	0.62
37:78:18:ARG:O	37:78:19:VAL:HB	1.98	0.62
52:M8:12:ALA:HB3	52:M8:24:THR:HB	1.81	0.62
52:M8:24:THR:OG1	52:M8:25:TYR:N	2.32	0.62
26:14:528:A:OP2	35:15:114:ARG:NH1	2.32	0.62
26:14:831:G:H5"	26:14:832:G:OP2	2.00	0.62
26:14:2303:G:O4'	32:49:126:ASP:HB3	1.99	0.62
36:25:98:VAL:HG12	36:25:117:LEU:HB3	1.81	0.62
44:A5:59:VAL:HG12	44:A5:60:ASN:HD22	1.63	0.62
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.33	0.61
1:13:1149:C:H2'	1:13:1150:U:H6	1.65	0.61
10:1I:26:ALA:O	10:1I:30:SER:OG	2.15	0.61
26:1H:376:C:P	59:1H:3693:HOH:O	2.56	0.61
26:1H:631:A:H5"	59:1H:4638:HOH:O	2.00	0.61
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.82	0.61
26:1H:2052:G:H4'	30:21:143:ASN:O	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2383:G:C2'	26:1H:2384:G:H5'	2.30	0.61
34:61:113:ARG:HH21	34:61:132:PRO:HB3	1.65	0.61
37:78:49:ARG:HD2	55:Q8:60:LEU:HB3	1.80	0.61
26:14:1260:G:H2'	26:14:1261:C:C6	2.35	0.61
26:14:1349:A:H8	59:14:3748:HOH:O	1.82	0.61
32:49:60:LEU:HD22	32:49:68:PRO:HB3	1.82	0.61
1:13:184:G:H2'	1:13:185:A:H8	1.65	0.61
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.15	0.61
4:3E:62:GLN:O	4:3E:66:ARG:HB2	2.00	0.61
12:3I:111:LYS:HD3	12:3I:112:ASP:H	1.65	0.61
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.33	0.61
33:51:9:ILE:HD13	33:51:51:ARG:HH21	1.65	0.61
34:61:98:ALA:HB2	34:61:111:PRO:HB3	1.80	0.61
35:58:38:HIS:O	42:C8:67:ALA:HB1	1.99	0.61
47:H8:28:MET:HG3	47:H8:37:VAL:HG11	1.82	0.61
52:M8:39:CYS:H	52:M8:42:PHE:HE2	1.49	0.61
1:1G:572:A:H5'	1:1G:573:A:OP2	2.00	0.61
2:12:71:VAL:HB	2:12:165:VAL:HG22	1.80	0.61
2:12:126:GLU:O	2:12:130:ARG:NH1	2.33	0.61
27:1J:52:A:N6	40:65:33:LYS:HG3	2.15	0.61
29:19:30:GLU:H	29:19:35:LYS:HZ1	1.48	0.61
29:19:145:VAL:HG13	29:19:191:ALA:HB2	1.82	0.61
31:39:170:LEU:HD22	31:39:172:TRP:HE1	1.65	0.61
34:69:65:ALA:O	34:69:69:LYS:N	2.33	0.61
1:13:963:G:H21	10:1I:55:LYS:HZ3	1.45	0.61
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.82	0.61
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.65	0.61
26:1H:737:C:H5"	59:1H:4530:HOH:O	2.01	0.61
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.82	0.61
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.36	0.61
26:1H:2287:A:N1	26:1H:2346:A:H2	1.98	0.61
5:42:93:PRO:HG2	8:72:105:ARG:NE	2.16	0.61
26:14:57:C:H2'	26:14:58:G:O4'	2.01	0.61
34:69:78:THR:C	34:69:80:PRO:HD3	2.25	0.61
38:45:10:ARG:CZ	38:45:10:ARG:HA	2.30	0.61
26:1H:1204:A:H2	26:1H:1241:A:N1	1.97	0.61
42:C8:95:LEU:HD22	43:D8:4:ILE:HD13	1.82	0.61
13:4A:11:ARG:HG3	13:4A:12:ASN:N	2.14	0.61
23:2L:50:G:H1	23:2L:66:C:H42	1.48	0.61
26:14:330:A:H2	26:14:1210:A:O2'	1.82	0.61
26:14:2801:A:H2'	26:14:2802:G:O4'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:114:ILE:HD13	32:49:140:ILE:HG21	1.82	0.61
36:25:122:LEU:HD23	41:75:43:GLN:HE22	1.66	0.61
45:B5:67:GLY:O	45:B5:69:TYR:N	2.32	0.61
1:13:877:C:H5"	8:7E:88:LYS:HD3	1.81	0.61
4:3E:11:LEU:HD12	4:3E:21:LEU:HD13	1.83	0.61
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.33	0.61
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.64	0.61
26:1H:1991:U:H2'	26:1H:1992:G:H5"	1.82	0.61
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.00	0.61
29:11:146:GLU:HG3	29:11:190:TYR:H	1.65	0.61
33:51:7:LEU:H	33:51:7:LEU:HD12	1.64	0.61
37:78:82:GLY:HA2	37:78:113:LYS:O	2.01	0.61
8:72:40:ALA:HA	8:72:45:ILE:HG13	1.83	0.61
9:82:65:VAL:HG21	9:82:73:GLN:HB3	1.83	0.61
59:14:4508:HOH:O	39:55:15:SER:HB3	1.98	0.61
30:29:116:VAL:HG11	30:29:138:PRO:HB3	1.82	0.61
1:13:1145:C:H4'	1:13:1146:A:H5'	1.82	0.61
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.82	0.61
26:1H:754:C:H2'	26:1H:755:C:H6	1.66	0.61
26:1H:1187:G:H5"	43:D8:81:TYR:CE1	2.35	0.61
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.35	0.61
30:21:174:ASP:HB3	30:21:183:LEU:HD13	1.83	0.61
8:72:12:ARG:NH2	8:72:27:PRO:HD3	2.15	0.61
8:72:103:VAL:HG21	8:72:110:ALA:HB2	1.81	0.61
26:14:2128:C:N3	26:14:2160:G:N2	2.49	0.61
27:1J:3:C:H2'	27:1J:4:C:C6	2.36	0.61
32:49:120:LEU:HG	32:49:179:PRO:O	2.00	0.61
33:59:60:ARG:O	33:59:63:SER:OG	2.18	0.61
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.83	0.61
50:G5:4:SER:HA	50:G5:7:ARG:H	1.63	0.61
50:G5:53:LEU:O	50:G5:57:ILE:HG13	1.99	0.61
4:3E:64:LEU:HD22	4:3E:198:VAL:HG11	1.81	0.61
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.82	0.61
22:1K:7:U:O2'	22:1K:49:G:N2	2.28	0.61
26:1H:1113:U:H5'	33:51:2:SER:OG	2.01	0.61
41:B8:108:ARG:HA	41:B8:111:ARG:NE	2.15	0.61
48:I8:72:ARG:HH11	48:I8:75:LEU:HD12	1.66	0.61
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.34	0.61
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.01	0.61
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.64	0.61
26:14:639:U:H2'	26:14:640:C:C6	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:66:ILE:HD12	38:45:67:ARG:H	1.65	0.61
41:75:105:LEU:HD12	41:75:110:ILE:HG12	1.82	0.61
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.82	0.61
48:E5:38:VAL:HG13	48:E5:59:LEU:HB2	1.81	0.61
1:13:143:A:H2	1:13:220:G:H1	1.46	0.61
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.65	0.61
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.66	0.61
1:1G:1187:G:OP1	9:82:113:LYS:NZ	2.33	0.61
26:14:1009:A:OP1	35:15:37:LYS:NZ	2.28	0.61
26:14:2425:A:H5'	26:14:2426:A:H3'	1.81	0.61
34:69:102:SER:O	34:69:106:GLY:N	2.33	0.61
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.33	0.61
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.83	0.61
7:6E:69:VAL:HG12	7:6E:100:ALA:HA	1.81	0.61
19:AI:9:VAL:HB	19:AI:10:PHE:HB2	1.83	0.61
26:1H:573:G:O2'	26:1H:574:C:H3'	2.00	0.61
26:1H:618:G:H2'	26:1H:618(A):C:H6	1.65	0.61
26:1H:646:A:H2'	26:1H:647:G:O4'	2.01	0.61
26:1H:2656:U:N3	26:1H:2665:A:H2	1.95	0.61
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.84	0.61
27:16:7:G:H4'	40:A8:29:PHE:HD2	1.66	0.61
27:16:13:A:N6	27:16:70:C:H5'	2.15	0.61
39:98:72:ASP:O	39:98:76:VAL:HG23	2.00	0.61
40:A8:28:VAL:HG11	40:A8:98:VAL:HG13	1.82	0.61
41:B8:56:GLY:O	41:B8:59:THR:HG23	2.00	0.61
1:1G:576:G:N2	1:1G:759:A:OP1	2.32	0.61
1:1G:1352:C:O3'	21:1B:10:ARG:NH2	2.33	0.61
20:BA:33:ILE:O	20:BA:37:SER:OG	2.11	0.61
31:39:28:ILE:HA	31:39:112:MET:HG2	1.82	0.61
47:D5:101:PRO:CB	47:D5:102:LEU:HB2	2.30	0.61
26:1H:730:C:H3'	59:1H:3770:HOH:O	2.00	0.61
26:1H:2864:G:OP1	41:B8:119:LYS:HD2	2.01	0.61
1:1G:1023:G:C5	1:1G:1024:G:H1'	2.36	0.61
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.36	0.61
7:62:16:LEU:HD12	9:82:42:ARG:HA	1.82	0.61
22:1L:76:A:O2'	26:14:2583:G:N2	2.34	0.61
26:14:7:G:H2'	26:14:8:A:C8	2.35	0.61
26:14:1416:G:H21	26:14:1586:A:H62	1.49	0.61
32:49:75:LYS:HA	32:49:84:LYS:HG3	1.82	0.61
38:45:34:LEU:HB2	38:45:118:LEU:HD13	1.82	0.61
7:6E:68:ASN:O	7:6E:138:LYS:NZ	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2100:G:O6	26:1H:2189:U:N3	2.33	0.60
26:1H:2784:C:O2'	30:21:37:ARG:NH1	2.33	0.60
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.35	0.60
31:31:6:VAL:HG12	31:31:7:TYR:H	1.66	0.60
35:58:130:HIS:C	35:58:134:ARG:HH22	2.09	0.60
44:E8:88:ARG:HB2	44:E8:92:ARG:HB3	1.81	0.60
1:1G:438:G:H4'	4:32:123:HIS:ND1	2.15	0.60
23:2L:16:C:O2'	23:2L:62:C:OP1	2.19	0.60
26:14:1091:G:N2	26:14:1100:C:O2'	2.34	0.60
39:55:87:TYR:HD1	39:55:90:ARG:HD2	1.66	0.60
43:95:67:GLY:O	43:95:88:ARG:HD2	2.01	0.60
1:13:1002:G:O6	1:13:1038:C:N4	2.33	0.60
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.01	0.60
26:1H:783:A:C8	26:1H:783:A:H3'	2.35	0.60
27:16:44:G:H1'	27:16:47:C:H42	1.65	0.60
33:51:2:SER:O	33:51:3:ARG:NE	2.34	0.60
37:78:83:VAL:HG12	37:78:112:LEU:HD21	1.82	0.60
45:F8:57:LEU:HD21	45:F8:78:LYS:HB2	1.83	0.60
1:1G:67:C:H2'	1:1G:68:G:C8	2.36	0.60
1:1G:501:C:H2'	1:1G:502:G:H8	1.66	0.60
1:1G:624:C:H2'	1:1G:625:G:H8	1.65	0.60
1:1G:1497:G:OP2	59:1G:1824:HOH:O	2.16	0.60
24:3L:76:A:H8	26:14:2394:C:N4	1.97	0.60
26:14:29:U:O4	59:14:3598:HOH:O	2.13	0.60
26:14:84:A:N6	26:14:102:G:O2'	2.28	0.60
26:14:833:U:O2	37:35:55:ARG:NH1	2.32	0.60
32:49:122:PRO:HG3	32:49:182:LYS:HA	1.82	0.60
34:69:130:TYR:C	34:69:131:LYS:HD2	2.26	0.60
1:13:417:C:H2'	1:13:418:C:C6	2.35	0.60
1:13:1034:G:N2	1:13:1035:A:N7	2.49	0.60
1:13:1256:A:N6	1:13:1278:U:OP2	2.34	0.60
4:3E:167:GLY:HA2	29:19:135:PHE:CE1	2.35	0.60
6:5E:96:PRO:HB3	18:9I:30:ASP:CG	2.25	0.60
26:1H:671:C:OP1	37:78:42:SER:O	2.18	0.60
26:1H:922:U:O2'	48:I8:29:GLN:NE2	2.34	0.60
26:1H:2636:U:OP1	30:21:79:ARG:HA	2.01	0.60
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.66	0.60
45:F8:3:THR:OG1	45:F8:5:TYR:N	2.25	0.60
47:H8:163:LEU:HB3	47:H8:165:VAL:H	1.67	0.60
51:L8:50:VAL:HG23	51:L8:54:VAL:HB	1.82	0.60
1:1G:957:U:O2'	1:1G:959:A:N7	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1368:G:H5'	9:82:112:LYS:HB3	1.83	0.60
2:12:19:HIS:CE1	2:12:207:ALA:H	2.19	0.60
22:1L:55:PSU:OP1	38:45:55:VAL:HG11	2.01	0.60
26:14:1664:A:OP1	59:14:3616:HOH:O	2.16	0.60
30:29:25:VAL:HG12	30:29:26:ILE:H	1.65	0.60
35:15:111:PRO:HA	35:15:114:ARG:NH1	2.16	0.60
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.83	0.60
46:C5:88:LYS:O	46:C5:89:PHE:HB3	1.99	0.60
55:M5:14:VAL:HG11	55:M5:58:ILE:HD11	1.82	0.60
2:1E:47:THR:HA	2:1E:202:PRO:HG2	1.82	0.60
8:7E:85:ARG:HD3	8:7E:88:LYS:HG2	1.82	0.60
26:1H:243:U:OP1	55:Q8:6:THR:OG1	2.18	0.60
26:1H:1282:U:OP2	59:1H:3736:HOH:O	2.16	0.60
33:51:170:ARG:CA	33:51:171:LEU:HB2	2.29	0.60
37:78:13:ASN:O	37:78:15:ARG:HD3	2.00	0.60
3:22:44:GLU:HG3	3:22:52:LEU:HD11	1.83	0.60
4:32:24:GLU:N	4:32:24:GLU:OE2	2.34	0.60
26:14:1180:C:H2'	26:14:1181:C:C6	2.37	0.60
26:14:2156:G:N7	26:14:2157:G:N2	2.49	0.60
26:14:2165:G:H3'	26:14:2166:G:H5'	1.82	0.60
34:69:76:THR:HG22	34:69:139:GLN:O	2.02	0.60
1:13:1336:C:H5"	1:13:1336:C:C6	2.37	0.60
1:13:1346:A:H5"	9:8E:120:ARG:NH1	2.16	0.60
6:5E:94:GLN:OE1	6:5E:94:GLN:N	2.33	0.60
12:3I:42:THR:HG22	12:3I:54:LYS:HD2	1.83	0.60
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.83	0.60
17:8I:100:LYS:HG2	17:8I:101:ARG:NE	2.11	0.60
26:1H:2032:G:H21	30:21:146:THR:CG2	2.13	0.60
35:58:96:GLU:HB2	35:58:122:VAL:HG12	1.83	0.60
37:78:39:LYS:CG	37:78:45:LEU:HD23	2.31	0.60
46:G8:42:VAL:HG23	46:G8:43:ASN:N	2.17	0.60
49:J8:93:GLU:OE2	49:J8:94:LEU:HG	2.01	0.60
3:22:152:ILE:HB	3:22:199:LYS:HB2	1.84	0.60
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.67	0.60
26:14:1324:G:H4'	26:14:1616:A:C2	2.36	0.60
26:14:1412:A:H2'	26:14:1413:G:H8	1.66	0.60
26:14:1805:U:O2'	26:14:1806:C:H5'	2.02	0.60
26:14:2352:A:OP2	59:14:3617:HOH:O	2.17	0.60
26:14:2404:C:O3'	37:35:77:ARG:NH2	2.34	0.60
33:59:11:VAL:HG13	33:59:69:ARG:HH12	1.65	0.60
1:13:1270:C:OP2	21:1F:24:ARG:NH2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.41	0.60
26:1H:805:G:P	59:1H:3628:HOH:O	2.59	0.60
26:1H:1023:U:OP1	59:1H:3731:HOH:O	2.15	0.60
26:1H:1455:G:O5'	59:1H:3700:HOH:O	2.16	0.60
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.85	0.60
26:1H:1970:A:H4'	26:1H:1971:A:OP1	2.01	0.60
33:51:97:ARG:NH2	33:51:104:GLU:OE2	2.33	0.60
4:32:20:TYR:CD1	4:32:26:CYS:HB3	2.37	0.60
12:3A:71:PRO:O	12:3A:102:ARG:NH1	2.32	0.60
26:14:270(L):U:O2'	26:14:270(N):G:N2	2.34	0.60
26:14:296:C:OP2	46:C5:4:LYS:NZ	2.35	0.60
26:14:528:A:C2	26:14:2043:C:H4'	2.37	0.60
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.35	0.60
1:13:1536:C:N4	25:4K:10:G:O2'	2.35	0.60
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.31	0.60
26:1H:387:U:O4	59:1H:3737:HOH:O	2.16	0.60
26:1H:1385:G:O2'	26:1H:1396:U:H6	1.84	0.60
26:1H:1434:A:H61	26:1H:1558:A:N6	1.98	0.60
26:1H:2016:U:O2	53:N8:7:PRO:HG2	2.02	0.60
27:16:3:C:H2'	27:16:4:C:H6	1.65	0.60
26:14:34:C:H1'	26:14:35:G:OP1	2.02	0.60
26:14:2657:A:O3'	33:59:160:LYS:NZ	2.34	0.60
32:49:11:TYR:OH	32:49:16:ARG:NH2	2.34	0.60
4:3E:165:MET:SD	4:3E:168:ARG:NH1	2.74	0.60
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.01	0.60
24:3K:35:U:H3	25:4K:14:A:H61	1.48	0.60
26:1H:265:A:C8	26:1H:266:G:H1'	2.37	0.60
26:1H:825:C:H5"	59:1H:4490:HOH:O	2.01	0.60
1:1G:324:G:N7	59:1G:1852:HOH:O	2.31	0.60
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.17	0.60
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.37	0.60
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.01	0.60
26:14:780:G:H21	26:14:783:A:N6	1.97	0.60
26:14:1430:C:H2'	26:14:1431:U:C6	2.37	0.60
26:14:2291:U:O4	59:14:3601:HOH:O	2.14	0.60
26:14:2567:G:H2'	26:14:2568:C:C6	2.37	0.60
29:19:44:ASN:HB3	29:19:45:ASN:CA	2.31	0.60
1:13:280:C:O2	17:8I:38:ARG:HG3	2.01	0.60
1:13:813:U:OP2	1:13:816:A:N6	2.34	0.60
7:6E:79:ARG:HH21	24:3K:33:U:H4'	1.67	0.60
9:8E:7:THR:O	9:8E:83:ARG:NH1	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1364:G:OP2	49:J8:2:SER:OG	2.17	0.60
32:41:109:VAL:HG13	52:M8:33:VAL:HG21	1.82	0.60
33:51:158:HIS:O	33:51:171:LEU:HD11	2.02	0.60
46:G8:94:LYS:HE3	46:G8:95:LYS:H	1.66	0.60
52:M8:38:LYS:HA	52:M8:42:PHE:HZ	1.66	0.60
1:1G:991:U:O2	1:1G:993:G:H8	1.84	0.60
26:14:176:G:O2'	26:14:177:G:H5'	2.01	0.60
41:75:5:ALA:HB3	41:75:9:LEU:N	2.16	0.60
1:13:1363:A:H1'	1:13:1365:G:N7	2.17	0.60
22:1K:26:A:H3'	22:1K:27:G:H8	1.67	0.60
26:1H:526:A:OP1	59:1H:3745:HOH:O	2.17	0.60
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.37	0.60
26:1H:2210:G:H3'	26:1H:2211:G:N7	2.16	0.60
32:41:129:GLY:O	32:41:161:THR:HB	2.02	0.60
46:G8:82:PRO:HB3	46:G8:99:CYS:HB2	1.83	0.60
55:Q8:51:ALA:HB1	55:Q8:52:LYS:HA	1.84	0.60
1:1G:222:U:H2'	1:1G:223:U:C6	2.37	0.60
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.67	0.60
7:62:87:VAL:HG22	7:62:88:PRO:O	2.02	0.60
26:14:648:G:O2'	26:14:2351:G:OP1	2.14	0.60
26:14:2475:C:H3'	26:14:2476:A:H5"	1.83	0.60
26:14:2839:G:H5'	39:55:46:GLY:HA2	1.84	0.60
29:19:6:PHE:HE1	29:19:18:VAL:HG23	1.66	0.60
2:1E:15:VAL:HG11	2:1E:210:SER:HB3	1.83	0.59
2:1E:208:ILE:HG22	2:1E:211:ILE:HD11	1.83	0.59
20:BI:33:ILE:HD13	20:BI:63:ILE:HG12	1.83	0.59
24:3K:76:A:H8	26:1H:2394:C:N4	1.97	0.59
26:1H:1315:C:OP2	59:1H:3708:HOH:O	2.16	0.59
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.37	0.59
26:1H:2405:G:OP1	37:78:77:ARG:NH2	2.34	0.59
26:1H:2883:A:H5'	26:1H:2884:U:H5'	1.84	0.59
33:51:83:TYR:HB2	33:51:134:SER:HA	1.83	0.59
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.37	0.59
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.37	0.59
11:2A:100:ALA:O	11:2A:102:GLY:N	2.35	0.59
26:14:731:C:H5"	59:14:3660:HOH:O	2.00	0.59
26:14:1784:A:H4'	26:14:1785:A:O5'	2.02	0.59
26:14:2126:A:N6	26:14:2163:C:O2	2.20	0.59
26:14:2498:C:P	59:14:3628:HOH:O	2.60	0.59
31:39:53:THR:HG23	31:39:55:GLY:H	1.66	0.59
32:49:124:SER:HB2	32:49:131:TYR:CE2	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:59:LEU:O	37:35:59:LEU:HD22	2.02	0.59
42:85:92:ARG:HH22	43:95:10:LYS:HA	1.66	0.59
1:13:963:G:H21	10:1I:55:LYS:NZ	2.00	0.59
2:1E:93:VAL:HG11	2:1E:97:TRP:HD1	1.67	0.59
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	1.84	0.59
17:8I:83:ASP:N	17:8I:83:ASP:OD1	2.32	0.59
22:1K:63:U:H3'	22:1K:64:G:C8	2.37	0.59
26:1H:1777:U:O2'	26:1H:1778:U:H5'	2.02	0.59
30:21:29:GLY:H	30:21:51:PHE:HE1	1.48	0.59
16:7A:22:THR:HA	16:7A:33:ILE:HG13	1.84	0.59
26:14:1581:G:H2'	26:14:1582:C:O4'	2.02	0.59
26:14:2387:U:OP1	48:E5:55:ARG:NH1	2.34	0.59
26:14:2762:G:OP2	59:14:3612:HOH:O	2.16	0.59
30:29:54:GLN:HE21	30:29:57:LYS:HD3	1.67	0.59
32:49:44:GLY:HA2	32:49:88:ILE:HD11	1.83	0.59
55:M5:40:GLU:CA	55:M5:43:GLN:HB3	2.33	0.59
1:13:346:G:OP1	41:B8:41:ARG:NH2	2.36	0.59
1:13:516:U:O4	59:13:1811:HOH:O	2.14	0.59
2:1E:17:PHE:HD1	2:1E:44:LEU:HD11	1.67	0.59
23:2K:24:C:H2'	23:2K:25:U:C6	2.37	0.59
24:3K:51:A:H2'	24:3K:52:G:H8	1.66	0.59
26:1H:270(K):C:H1'	26:1H:270(N):G:H1	1.67	0.59
26:1H:1086:A:H1'	26:1H:1103:A:N1	2.17	0.59
26:1H:1434:A:N6	26:1H:1558:A:H61	1.98	0.59
26:1H:1441:G:O6	59:1H:3734:HOH:O	2.15	0.59
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.38	0.59
26:1H:2401:U:H2'	26:1H:2402:C:O4'	2.02	0.59
35:58:35:ARG:O	35:58:42:TRP:HZ3	1.85	0.59
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.16	0.59
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.01	0.59
18:9A:21:LYS:HZ3	18:9A:22:VAL:H	1.50	0.59
24:3L:50:C:H2'	24:3L:51:A:H8	1.67	0.59
26:14:140:A:H8	26:14:1408:C:HO2'	1.47	0.59
26:14:1297:C:OP1	26:14:2710:C:H4'	2.02	0.59
26:14:1316:U:H2'	26:14:1317:A:C8	2.38	0.59
26:14:2429:G:O6	37:35:61:ARG:NH2	2.34	0.59
26:14:2689:U:OP2	26:14:2719:G:N2	2.35	0.59
27:1J:40:U:O2	27:1J:43:C:H5"	2.01	0.59
42:85:66:ASN:HB2	42:85:76:TYR:HB2	1.84	0.59
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.37	0.59
26:1H:404:C:OP2	59:1H:3744:HOH:O	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1094:U:O2'	26:1H:1096:A:OP1	2.20	0.59
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.66	0.59
43:D8:44:LYS:O	43:D8:46:VAL:N	2.34	0.59
50:K8:47:ASN:C	50:K8:49:LYS:H	2.10	0.59
1:1G:624:C:H2'	1:1G:625:G:C8	2.37	0.59
3:22:119:ARG:NH2	3:22:140:ARG:HD2	2.17	0.59
5:42:75:THR:OG1	5:42:117:ASP:O	2.12	0.59
7:62:37:ASN:HA	7:62:40:ALA:HB3	1.83	0.59
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.83	0.59
29:19:39:LYS:O	29:19:40:THR:HG23	2.01	0.59
32:49:53:LEU:HD13	32:49:90:LEU:HD21	1.84	0.59
38:45:90:VAL:O	38:45:91:GLU:HB2	2.02	0.59
1:13:157:G:H1	1:13:164:U:H3	1.50	0.59
1:13:1412:C:H2'	1:13:1413:A:C8	2.38	0.59
2:1E:111:ARG:HG2	2:1E:111:ARG:NH1	2.15	0.59
26:1H:2484:G:O6	59:1H:3739:HOH:O	2.16	0.59
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.14	0.59
2:12:98:LEU:O	2:12:101:MET:HG2	2.02	0.59
26:14:67:U:H2'	26:14:68:G:H8	1.67	0.59
26:14:996:A:N6	26:14:1160:G:C6	2.71	0.59
26:14:1607:C:H4'	26:14:1608:A:O5'	2.02	0.59
30:29:9:VAL:HA	41:75:3:ARG:HD2	1.83	0.59
31:39:130:ALA:H	31:39:142:TRP:CD1	2.19	0.59
1:13:1269:A:N1	1:13:1312:G:O2'	2.30	0.59
4:3E:65:ARG:NH1	4:3E:70:ILE:O	2.34	0.59
26:1H:860:U:C5	26:1H:917:A:C2	2.89	0.59
26:1H:1517:G:H5"	26:1H:1518:C:OP2	2.02	0.59
26:1H:1603:A:OP1	26:1H:1604:C:OP2	2.20	0.59
26:1H:1681:G:HO2'	26:1H:1762[B]:A:H8	1.46	0.59
26:1H:2636:U:OP2	30:21:79:ARG:HG2	2.03	0.59
30:21:116:VAL:O	30:21:117:MET:HB3	2.01	0.59
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.85	0.59
37:78:63:PRO:HB2	55:Q8:30:ARG:NH2	2.16	0.59
1:1G:547:A:OP2	4:32:2:GLY:N	2.35	0.59
26:14:1342:A:C2	26:14:1397:U:C2	2.90	0.59
26:14:2197:U:H1'	26:14:2198:A:C8	2.38	0.59
26:14:2261:C:O2'	26:14:2262:U:H5'	2.02	0.59
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.18	0.59
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.84	0.59
26:1H:724:U:O4	59:1H:3740:HOH:O	2.16	0.59
1:1G:1396:A:H4'	1:1G:1397:C:H5"	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:3:G:H4'	22:1L:4:U:OP1	2.02	0.59
26:14:197:A:OP1	59:14:3526:HOH:O	2.16	0.59
26:14:1536:A:C8	26:14:1537:C:H1'	2.37	0.59
26:14:2823:A:OP1	30:29:159:HIS:NE2	2.33	0.59
37:35:65:ARG:HB3	59:35:308:HOH:O	2.02	0.59
44:A5:59:VAL:HG12	44:A5:60:ASN:ND2	2.18	0.59
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.50	0.59
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.67	0.59
26:1H:511:U:H5"	26:1H:512:G:OP2	2.02	0.59
26:1H:1332:G:N2	26:1H:1610:A:C8	2.69	0.59
26:1H:2175:C:OP2	28:71:3:HIS:ND1	2.35	0.59
27:16:11:C:H3'	27:16:12:C:H6	1.67	0.59
29:11:84:TYR:HE1	29:11:86:PRO:HB3	1.66	0.59
31:31:199:TRP:NE1	31:31:203:GLN:HE22	1.99	0.59
39:98:86:ARG:HH21	39:98:118:GLU:HG2	1.67	0.59
40:A8:34:HIS:HB2	40:A8:36:TYR:HE1	1.67	0.59
55:Q8:52:LYS:N	55:Q8:53:PRO:HD2	2.17	0.59
2:12:189:ASP:HB3	2:12:203:GLY:O	2.02	0.59
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.50	0.59
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.38	0.59
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.84	0.59
26:14:631:A:O2'	37:35:67:MET:HB3	2.03	0.59
26:14:2126:A:H2	26:14:2162:G:H22	1.49	0.59
27:1J:116:G:H5'	40:65:55:ALA:HB2	1.84	0.59
41:75:5:ALA:N	41:75:6:LEU:HA	2.18	0.59
1:13:611:A:H61	1:13:629:G:H1	1.49	0.59
1:13:1238:A:N3	1:13:1241:G:O2'	2.33	0.59
26:1H:1364:G:N7	49:J8:2:SER:HB3	2.17	0.59
26:1H:2308:G:N1	26:1H:2311:A:C2	2.65	0.59
29:11:38:LYS:C	29:11:38:LYS:HZ3	2.10	0.59
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.85	0.59
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.16	0.59
1:1G:164:U:H2'	1:1G:165:C:C6	2.38	0.59
1:1G:1343:G:H2'	1:1G:1344:C:H6	1.67	0.59
10:1A:37:PRO:HA	10:1A:72:VAL:HG12	1.83	0.59
30:29:1:MET:SD	30:29:200:GLU:HG3	2.43	0.59
31:39:63:LYS:NZ	31:39:67:GLN:HB2	2.17	0.59
42:85:61:TRP:CH2	42:85:94:ASN:HB2	2.37	0.59
1:13:394:G:O6	59:13:1818:HOH:O	2.10	0.59
1:13:1406:U:C2'	1:13:1407:C:H5'	2.32	0.59
3:2E:36:ASP:O	3:2E:40:ARG:HG3	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:11:C:N4	24:3K:24:G:H1	2.01	0.59
26:1H:1087:G:C5	26:1H:1089:G:H1'	2.36	0.59
40:A8:111:GLU:HB2	40:A8:112:PHE:CE2	2.38	0.59
1:1G:142:G:H2'	1:1G:143:A:H8	1.66	0.59
1:1G:538:G:H5"	12:3A:114:LYS:HB2	1.85	0.59
1:1G:957:U:H1'	1:1G:960:U:C5	2.37	0.59
14:5A:7:ILE:HB	14:5A:23:ARG:HD3	1.83	0.59
26:14:620:G:H4'	26:14:621:A:H5"	1.85	0.59
26:14:2572:A:OP1	26:14:2574:G:O2'	2.21	0.59
26:14:2830:G:O6	59:14:3614:HOH:O	2.16	0.59
30:29:51:PHE:CG	30:29:52:LEU:N	2.71	0.59
31:39:116:ASP:OD2	37:35:1:MET:N	2.35	0.59
50:G5:58:ALA:O	50:G5:62:THR:OG1	2.19	0.59
1:13:1031:G:H2'	1:13:1032:A:H5'	1.84	0.58
2:1E:18:GLY:H	2:1E:42:ILE:HB	1.68	0.58
26:1H:445:C:O2'	26:1H:446:G:H5'	2.03	0.58
26:1H:1062:G:N1	26:1H:1076:C:N3	2.48	0.58
26:1H:1520:U:OP2	59:1H:3746:HOH:O	2.17	0.58
26:1H:1762[B]:A:O2'	59:1H:3747:HOH:O	2.17	0.58
26:1H:1970:A:P	59:1H:3692:HOH:O	2.60	0.58
26:1H:2126:A:H1'	26:1H:2162:G:H21	1.67	0.58
27:16:43:C:OP1	32:41:67:LYS:NZ	2.36	0.58
55:Q8:15:LYS:HB2	59:Q8:205:HOH:O	2.02	0.58
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.02	0.58
1:1G:411:A:H62	1:1G:413:G:N2	2.01	0.58
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.68	0.58
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.37	0.58
7:62:97:GLN:HG3	7:62:98:SER:N	2.18	0.58
13:4A:62:ASN:O	13:4A:65:LYS:NZ	2.36	0.58
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.84	0.58
26:14:581:C:H2'	26:14:582:G:H8	1.69	0.58
26:14:1171:G:O2'	26:14:1173:G:OP2	2.19	0.58
26:14:2185:C:H2'	26:14:2186:G:C8	2.38	0.58
26:14:2553:G:H5"	26:14:2554:U:OP2	2.02	0.58
31:39:11:VAL:HG22	31:39:12:LEU:H	1.68	0.58
40:65:43:GLU:HB2	48:E5:49:LYS:HZ3	1.68	0.58
9:8E:40:LEU:HD11	9:8E:70:LYS:HD3	1.85	0.58
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.83	0.58
23:2K:52:C:H2'	23:2K:53:G:O4'	2.03	0.58
26:1H:907:U:OP1	59:1H:3741:HOH:O	2.16	0.58
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2328:A:H4'	59:1H:4243:HOH:O	2.02	0.58
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.36	0.58
38:88:32:TYR:CE1	38:88:133:ARG:HG3	2.38	0.58
18:9A:56:THR:HB	18:9A:58:LEU:HD12	1.85	0.58
26:14:2292:C:P	40:65:17:ARG:HH21	2.26	0.58
26:14:2723:C:O3'	39:55:1:MET:HE3	2.03	0.58
40:65:89:ARG:HG3	40:65:92:TYR:O	2.03	0.58
49:F5:82:LEU:HA	49:F5:83:GLU:HG3	1.85	0.58
26:1H:535:C:O3'	42:C8:53:ARG:NH1	2.35	0.58
26:1H:754:C:H2'	26:1H:755:C:C6	2.39	0.58
26:1H:1103:A:H3'	26:1H:1104:C:C6	2.38	0.58
26:1H:1204:A:C2	26:1H:1241:A:N1	2.71	0.58
26:1H:2061:G:OP2	26:1H:2502:G:H5'	2.03	0.58
28:71:29:VAL:HG13	28:71:30:LYS:HG2	1.85	0.58
35:58:75:TYR:CZ	35:58:77:GLY:HA2	2.38	0.58
35:58:96:GLU:HG2	35:58:97:ARG:N	2.18	0.58
1:1G:535:A:H5"	59:1G:1865:HOH:O	2.03	0.58
2:12:126:GLU:HB3	2:12:130:ARG:HH12	1.68	0.58
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.85	0.58
26:14:71:A:H5'	26:14:71:A:C8	2.38	0.58
26:14:602:G:N2	26:14:655:A:C8	2.70	0.58
26:14:2010:G:O6	59:14:3613:HOH:O	2.16	0.58
34:69:27:ARG:HB2	49:F5:71:TYR:CZ	2.38	0.58
34:69:143:SER:OG	34:69:144:VAL:N	2.36	0.58
39:55:3:HIS:CD2	59:55:203:HOH:O	2.56	0.58
47:D5:97:GLU:HB3	47:D5:125:LEU:HD11	1.85	0.58
1:13:324:G:N1	1:13:327:A:OP2	2.36	0.58
4:3E:162:LEU:HD12	4:3E:181:MET:HE2	1.85	0.58
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.29	0.58
26:1H:125:G:H5'	26:1H:125:G:H8	1.69	0.58
32:41:97:ASP:O	32:41:100:TRP:N	2.37	0.58
32:41:135:LEU:HD13	32:41:140:ILE:HD11	1.86	0.58
48:I8:63:VAL:HG23	48:I8:64:ASP:O	2.03	0.58
17:8A:44:ALA:HB1	17:8A:73:VAL:HG12	1.85	0.58
30:29:52:LEU:O	30:29:74:PRO:HB2	2.04	0.58
41:75:133:GLU:N	41:75:133:GLU:OE2	2.37	0.58
1:13:504:C:OP1	59:13:1829:HOH:O	2.17	0.58
6:5E:75:LEU:HD22	6:5E:79:LEU:HG	1.85	0.58
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.39	0.58
20:BI:57:ARG:NH1	20:BI:102:GLY:HA2	2.19	0.58
24:3K:22:G:N2	24:3K:23:A:N7	2.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:64:LEU:HD21	28:71:188:ASN:ND2	2.17	0.58
29:11:31:LYS:O	29:11:35:LYS:NZ	2.36	0.58
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.03	0.58
46:G8:30:VAL:HG22	46:G8:37:VAL:HG12	1.86	0.58
52:M8:37:SER:O	52:M8:38:LYS:HD2	2.04	0.58
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.03	0.58
1:1G:1106:G:H5"	3:22:172:ARG:HD2	1.86	0.58
26:14:879:G:H2'	26:14:897:C:H41	1.67	0.58
26:14:910:A:H62	38:45:12:GLN:HA	1.69	0.58
26:14:1244:G:O6	59:14:3600:HOH:O	2.14	0.58
26:14:1416:G:H21	26:14:1586:A:N6	2.02	0.58
26:14:1774:C:H5"	59:14:3514:HOH:O	2.03	0.58
26:14:2749:A:H2'	33:59:59:ARG:HH11	1.67	0.58
26:14:2820:A:H4'	59:55:203:HOH:O	2.03	0.58
33:59:6:ARG:HH12	33:59:54:ARG:NH1	2.00	0.58
48:E5:37:LEU:HG	48:E5:60:PHE:HA	1.84	0.58
1:13:1062:U:H2'	1:13:1063:C:C6	2.38	0.58
26:1H:392:C:OP1	59:1H:3671:HOH:O	2.17	0.58
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.04	0.58
26:1H:1776:G:OP2	59:1H:3749:HOH:O	2.17	0.58
33:51:64:LEU:O	33:51:68:THR:OG1	2.18	0.58
1:1G:1052:U:H5"	1:1G:1053:G:OP2	2.03	0.58
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.86	0.58
2:12:210:SER:O	2:12:214:ILE:HG12	2.03	0.58
5:42:60:TYR:HB3	5:42:64:ARG:CZ	2.34	0.58
26:14:491:G:O6	44:A5:49:LYS:HE2	2.03	0.58
26:14:635:C:O2'	26:14:639:U:OP1	2.21	0.58
26:14:796:C:H2'	26:14:797:C:C6	2.39	0.58
26:14:821:A:O2'	26:14:946:G:OP2	2.21	0.58
26:14:853:G:C2'	26:14:854:G:H5'	2.33	0.58
26:14:1464:C:O2'	26:14:1528:A:H8	1.86	0.58
26:14:1665:A:OP2	59:14:3615:HOH:O	2.16	0.58
30:29:111:ARG:HD2	30:29:160:TYR:CE2	2.38	0.58
1:13:686:U:O4	1:13:703:G:H1'	2.04	0.58
1:13:1015:A:H2'	1:13:1016:A:C8	2.38	0.58
7:6E:16:LEU:HD12	9:8E:42:ARG:HA	1.84	0.58
16:7I:21:VAL:O	16:7I:33:ILE:N	2.27	0.58
26:1H:399:G:OP2	59:1H:3748:HOH:O	2.17	0.58
26:1H:818:G:H4'	26:1H:838:C:O3'	2.04	0.58
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.02	0.58
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.37	0.58
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.38	0.58
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.38	0.58
33:51:164:TYR:HB2	33:51:167:GLU:HB2	1.86	0.58
35:58:53:VAL:HG11	35:58:128:HIS:HD2	1.69	0.58
36:68:7:TYR:HE1	36:68:20:MET:HE3	1.67	0.58
48:I8:36:ILE:C	48:I8:36:ILE:HD13	2.29	0.58
26:14:1379:A:H1'	26:14:1380:G:OP1	2.04	0.58
26:14:2147:G:C5	26:14:2148:G:H1'	2.39	0.58
1:13:244:U:H4'	1:13:245:C:O5'	2.02	0.58
1:13:397:A:C6	1:13:548:G:N7	2.72	0.58
1:13:454:C:OP2	1:13:455:C:N4	2.33	0.58
1:13:953:G:H2'	1:13:954:G:O4'	2.02	0.58
1:13:1125:U:HO2'	1:13:1126:U:H6	1.52	0.58
1:13:1171:G:H2'	1:13:1172:C:C6	2.38	0.58
4:3E:98:GLU:HG2	4:3E:189:PRO:HG2	1.84	0.58
5:4E:10:MET:HB3	5:4E:32:VAL:HG22	1.86	0.58
14:5I:3:ARG:HA	14:5I:3:ARG:CZ	2.34	0.58
23:2K:16:C:O2'	23:2K:62:C:OP1	2.22	0.58
24:3K:52:G:H2'	24:3K:53:G:C8	2.39	0.58
26:1H:65:C:H2'	26:1H:66:C:C6	2.38	0.58
26:1H:125:G:H5'	26:1H:125:G:C8	2.39	0.58
26:1H:934:G:H2'	26:1H:935:C:H6	1.68	0.58
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.17	0.58
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.37	0.58
29:11:41:GLY:C	29:11:43:ARG:H	2.11	0.58
29:11:96:HIS:CD2	29:11:102:LYS:HE2	2.39	0.58
50:K8:15:LYS:HZ2	50:K8:67:LYS:HZ3	1.52	0.58
52:M8:42:PHE:CG	52:M8:42:PHE:O	2.57	0.58
1:1G:115:G:H1'	1:1G:116:A:N7	2.19	0.58
3:22:42:LEU:HA	3:22:45:LYS:HD3	1.85	0.58
26:14:77:C:O3'	50:G5:14:ARG:NH2	2.35	0.58
26:14:646:A:H2'	26:14:647:G:O4'	2.03	0.58
26:14:1114:G:H2'	26:14:1115:G:C8	2.39	0.58
26:14:1499:C:H2'	26:14:1500:G:C8	2.38	0.58
26:14:2058:A:N6	59:14:3627:HOH:O	2.19	0.58
26:14:2864:G:OP1	41:75:119:LYS:HD2	2.03	0.58
27:1J:116:G:C5'	40:65:55:ALA:HB2	2.34	0.58
37:35:97:PRO:HG3	37:35:112:LEU:HD12	1.85	0.58
46:C5:76:CYS:SG	46:C5:97:ARG:HG3	2.44	0.58
47:D5:10:ARG:HB3	47:D5:36:LYS:HG3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.85	0.58
26:1H:582:G:H2'	26:1H:583:G:H8	1.69	0.58
26:1H:2726:U:H4'	36:68:1:MET:HE1	1.86	0.58
47:H8:76:LEU:H	47:H8:76:LEU:CD2	2.17	0.58
26:14:1323:U:H2'	26:14:1324:G:H5'	1.86	0.58
26:14:2329:G:H2'	26:14:2330:G:O4'	2.04	0.58
30:29:60:ASN:ND2	30:29:62:PRO:O	2.37	0.58
50:G5:63:VAL:HA	50:G5:66:GLU:HG2	1.86	0.58
1:13:664:G:N2	1:13:741:G:H1	1.98	0.58
1:13:1122:U:O4	1:13:1123:A:N6	2.37	0.58
26:1H:792:G:H5"	26:1H:793:A:H5'	1.86	0.58
27:16:15:A:H3'	27:16:16:G:H5'	1.84	0.58
29:11:239:ARG:N	59:11:406:HOH:O	2.36	0.58
47:H8:154:ASP:OD1	47:H8:154:ASP:N	2.35	0.58
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.39	0.58
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.28	0.58
7:62:65:ALA:HB3	7:62:124:LEU:HD23	1.85	0.58
22:1L:9:A:H3'	22:1L:10:G:C8	2.39	0.58
26:14:67:U:N3	26:14:74:A:H2	1.91	0.58
26:14:71:A:C2	45:B5:31:HIS:NE2	2.68	0.58
26:14:491:G:H2'	26:14:492:A:H8	1.69	0.58
26:14:760:G:OP1	59:14:3618:HOH:O	2.17	0.58
26:14:1639:U:O2'	26:14:1640:C:H5'	2.03	0.58
27:1J:88:C:H1'	27:1J:89:G:OP1	2.04	0.58
31:39:101:LEU:O	31:39:106:ARG:NH1	2.37	0.58
49:F5:84:GLY:CA	49:F5:85:LEU:HB3	2.34	0.58
1:13:342:C:O2	1:13:347:G:N2	2.27	0.57
1:13:1391:U:H2'	1:13:1392:G:H8	1.69	0.57
13:4I:114:ARG:HH11	13:4I:114:ARG:HG3	1.69	0.57
26:1H:274:G:N2	26:1H:276:A:H61	2.01	0.57
32:41:110:ALA:HA	32:41:140:ILE:O	2.04	0.57
33:51:56:SER:HB3	33:51:61:HIS:ND1	2.18	0.57
43:D8:37:VAL:O	43:D8:38:LEU:HG	2.03	0.57
50:K8:42:GLY:C	50:K8:44:LEU:H	2.12	0.57
53:N8:36:CYS:HB2	53:N8:49:CYS:SG	2.44	0.57
2:12:22:LYS:C	2:12:23:ARG:HE	2.12	0.57
4:32:31:CYS:H	4:32:35:ARG:CZ	2.16	0.57
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.68	0.57
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.86	0.57
26:14:1486:A:H2'	26:14:1487:G:C8	2.39	0.57
27:1J:9:G:P	40:65:25:ARG:HH22	2.26	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.86	0.57
40:65:62:LYS:HA	40:65:65:VAL:HG12	1.85	0.57
40:65:93:LYS:HG2	40:65:95:HIS:HB3	1.85	0.57
46:C5:28:LYS:NZ	46:C5:64:GLU:OE2	2.22	0.57
1:13:835:U:H3	1:13:851:G:H1	1.51	0.57
1:13:1497:G:H2'	1:13:1498:U:H5'	1.85	0.57
20:BI:49:ALA:HA	20:BI:92:LEU:HD11	1.85	0.57
26:1H:2503:A:H4'	26:1H:2504:U:OP1	2.03	0.57
28:71:19:ILE:HG12	28:71:223:ARG:HD3	1.86	0.57
29:11:36:PRO:HB2	29:11:37:LEU:HD12	1.86	0.57
31:31:197:ASP:N	31:31:197:ASP:OD1	2.37	0.57
46:G8:85:VAL:O	46:G8:86:ARG:HD3	2.04	0.57
47:H8:10:ARG:HG3	47:H8:36:LYS:HB3	1.86	0.57
1:1G:1213:A:N6	1:1G:1215:G:N3	2.53	0.57
1:1G:1321:C:N4	1:1G:1322:C:H41	2.01	0.57
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.86	0.57
45:B5:51:VAL:HG13	45:B5:81:VAL:HG23	1.84	0.57
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.03	0.57
12:3I:47:LYS:HE3	25:4K:21:G:OP1	2.04	0.57
15:6I:36:ILE:HD12	15:6I:63:ARG:HD3	1.86	0.57
32:41:67:LYS:HE2	32:41:67:LYS:H	1.69	0.57
35:58:132:ALA:O	35:58:134:ARG:NH2	2.38	0.57
38:88:66:ILE:O	38:88:67:ARG:HB2	2.05	0.57
41:B8:24:PRO:CD	41:B8:52:ILE:HD12	2.33	0.57
47:H8:61:LEU:O	47:H8:64:GLY:HA2	2.04	0.57
50:K8:23:LYS:NZ	50:K8:27:GLU:OE2	2.37	0.57
1:1G:45:U:H2'	1:1G:46:G:C8	2.40	0.57
1:1G:520:A:N1	1:1G:536:C:H1'	2.19	0.57
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.86	0.57
6:52:30:LEU:HB3	6:52:35:ALA:HB3	1.85	0.57
26:14:733:G:C5	59:14:3507:HOH:O	2.49	0.57
26:14:861:A:H5"	26:14:862:G:OP2	2.04	0.57
42:85:66:ASN:O	42:85:70:ARG:HB2	2.04	0.57
1:13:976:G:OP1	14:5I:32:SER:N	2.31	0.57
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.39	0.57
26:1H:2580:U:H4'	30:21:130:GLY:HA3	1.87	0.57
27:16:50:G:OP1	40:A8:63:THR:OG1	2.20	0.57
27:16:90:C:P	38:88:16:ARG:HH21	2.28	0.57
32:41:11:TYR:HA	32:41:15:VAL:HB	1.86	0.57
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.68	0.57
46:G8:97:ARG:NH2	46:G8:104:GLY:HA3	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:61:LEU:HD13	2:12:90:MET:HE1	1.86	0.57
2:12:98:LEU:HB2	2:12:101:MET:HE3	1.86	0.57
10:1A:28:ARG:HH21	10:1A:34:VAL:HB	1.69	0.57
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.19	0.57
26:14:247:G:H4'	26:14:386:G:C5	2.39	0.57
26:14:673:C:H5"	31:39:81:PRO:HD2	1.85	0.57
26:14:706:A:H2'	26:14:707:G:O4'	2.05	0.57
26:14:1463:C:H2'	26:14:1464:C:H6	1.69	0.57
26:14:2065:C:H2'	26:14:2066:C:C6	2.38	0.57
32:49:56:ALA:HB2	32:49:153:ARG:CZ	2.35	0.57
41:75:2:ASN:OD1	41:75:4:GLY:N	2.36	0.57
49:F5:92:LYS:O	49:F5:94:LEU:N	2.37	0.57
1:13:491:G:H2'	1:13:492:G:O4'	2.04	0.57
1:13:1064:G:H4'	1:13:1065:U:OP1	2.04	0.57
1:13:1103:C:OP1	59:13:1830:HOH:O	2.17	0.57
17:8I:81:ARG:NH2	17:8I:83:ASP:OD2	2.37	0.57
26:1H:565:C:H4'	59:1H:3996:HOH:O	2.04	0.57
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.69	0.57
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.68	0.57
26:1H:1639:U:OP1	59:1H:3752:HOH:O	2.18	0.57
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.39	0.57
26:1H:2001:A:H2'	26:1H:2002:G:H8	1.70	0.57
38:88:78:PRO:HB2	38:88:81:VAL:HG11	1.86	0.57
39:98:32:GLY:HA2	39:98:116:LEU:HD12	1.86	0.57
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.04	0.57
1:1G:554:C:H2'	1:1G:555:C:C6	2.39	0.57
5:42:33:VAL:HG12	5:42:112:LEU:HD12	1.87	0.57
6:52:7:ASN:HD21	18:9A:34:TYR:HE1	1.52	0.57
19:AA:38:SER:HB2	19:AA:71:LEU:HD23	1.85	0.57
19:AA:66:MET:N	19:AA:67:VAL:HB	2.19	0.57
24:3L:72:C:C3'	24:3L:73:A:H5"	2.35	0.57
26:14:1341:U:OP2	26:14:1394:U:O2'	2.14	0.57
26:14:1444(A):A:O2'	26:14:1445:C:OP1	2.23	0.57
26:14:1833:U:O2'	26:14:1969:A:N1	2.36	0.57
34:69:76:THR:HG21	34:69:140:LEU:CD1	2.35	0.57
37:35:69:GLY:C	37:35:70:GLN:HG3	2.28	0.57
41:75:3:ARG:N	41:75:4:GLY:HA3	2.20	0.57
1:13:736:C:H2'	1:13:737:A:C8	2.39	0.57
2:1E:46:LYS:HA	2:1E:49:GLU:CD	2.29	0.57
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.05	0.57
22:1K:45:G:H2'	22:1K:47:U:OP2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:49:G:H4'	22:1K:50:C:OP2	2.04	0.57
26:1H:1026:U:H4'	26:1H:1027:A:OP1	2.04	0.57
1:1G:364:A:O2'	1:1G:365:U:H5'	2.04	0.57
1:1G:554:C:H2'	1:1G:555:C:H6	1.70	0.57
1:1G:828:A:H2'	1:1G:829:G:O4'	2.04	0.57
1:1G:1072:G:H2'	1:1G:1073:U:O4'	2.05	0.57
1:1G:1157:A:H61	1:1G:1177:G:H1	1.51	0.57
3:22:84:ILE:HG23	3:22:85:ARG:HD2	1.85	0.57
6:52:87:ARG:HG2	6:52:87:ARG:HH11	1.69	0.57
26:14:962:G:H2'	26:14:963:U:C6	2.39	0.57
26:14:1138:G:H21	35:15:106:MET:CE	2.16	0.57
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.37	0.57
26:14:1499:C:H2'	26:14:1500:G:H8	1.70	0.57
26:14:2064:C:H2'	26:14:2065:C:C6	2.39	0.57
40:65:61:ASN:HB3	40:65:64:GLU:HB3	1.86	0.57
45:B5:65:ARG:HB2	45:B5:70:LEU:HB3	1.86	0.57
1:13:67:C:O2'	1:13:171:A:N3	2.28	0.57
1:13:1298:C:H2'	7:6E:114:ARG:HH21	1.69	0.57
5:4E:10:MET:HA	5:4E:32:VAL:HA	1.86	0.57
26:1H:831:G:N2	37:78:53:GLY:O	2.38	0.57
26:1H:1359:A:C2	26:1H:1372:U:O4	2.57	0.57
26:1H:1545(A):A:H2'	26:1H:1546:C:O4'	2.04	0.57
26:1H:2210:G:H4'	26:1H:2211:G:OP2	2.04	0.57
36:25:93:PRO:HD3	36:25:113:LYS:HD3	1.87	0.57
42:85:92:ARG:HD3	42:85:94:ASN:HB3	1.86	0.57
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.20	0.57
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.44	0.57
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.16	0.57
14:5I:15:LYS:HG3	14:5I:16:PHE:CD2	2.39	0.57
26:1H:786:C:C2'	26:1H:787:U:H5'	2.35	0.57
26:1H:1639:U:C2'	26:1H:1640:C:H5"	2.35	0.57
30:21:51:PHE:O	30:21:74:PRO:HB2	2.04	0.57
30:21:52:LEU:HD13	30:21:53:PRO:HD2	1.87	0.57
41:B8:12:SER:CA	41:B8:14:TYR:H	2.18	0.57
44:E8:14:PRO:HG2	44:E8:78:GLU:HB2	1.87	0.57
1:1G:146:G:H2'	1:1G:147:G:H8	1.70	0.57
1:1G:451:A:N6	1:1G:480:U:H2'	2.20	0.57
1:1G:1279:A:O2'	1:1G:1282:C:N4	2.37	0.57
2:12:62:ALA:HB3	2:12:90:MET:HE3	1.87	0.57
10:1A:33:GLN:HB3	10:1A:75:ILE:HD11	1.87	0.57
24:3L:15:G:H22	24:3L:48:C:N4	2.01	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:38:A:H2'	26:14:39:C:C6	2.39	0.57
26:14:821:A:O2'	26:14:946:G:H5"	2.05	0.57
26:14:1942:C:OP2	26:14:1943:U:O2'	2.12	0.57
26:14:2017:U:P	59:14:3790:HOH:O	2.63	0.57
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.05	0.57
38:45:77:LYS:HE3	38:45:84:GLY:HA3	1.86	0.57
39:55:10:LEU:O	39:55:12:ARG:HG3	2.04	0.57
40:65:33:LYS:HB3	40:65:34:HIS:HD2	1.68	0.57
45:B5:5:TYR:CZ	50:G5:30:ARG:HG3	2.39	0.57
50:G5:50:ILE:HD12	50:G5:51:ARG:H	1.69	0.57
1:13:553:A:H5"	12:3I:24:VAL:HG21	1.87	0.57
6:5E:100:ASN:HB2	18:9I:28:GLU:HA	1.87	0.57
11:2I:85:ARG:HG2	11:2I:112:THR:H	1.70	0.57
26:1H:142:G:O2'	45:F8:35:THR:HG21	2.05	0.57
26:1H:319:C:OP1	31:31:137:LYS:NZ	2.23	0.57
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.21	0.57
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.05	0.57
26:1H:1595:G:O6	59:1H:3742:HOH:O	2.17	0.57
41:B8:36:GLU:OE1	41:B8:41:ARG:NH2	2.31	0.57
1:1G:324:G:N1	1:1G:327:A:OP2	2.38	0.57
1:1G:1327:C:OP2	21:1B:12:LYS:NZ	2.37	0.57
1:1G:1435:G:H2'	1:1G:1436:U:C5	2.40	0.57
3:22:37:GLN:O	3:22:41:GLY:N	2.35	0.57
7:62:113:GLU:O	7:62:119:ARG:HD3	2.04	0.57
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.87	0.57
22:1L:9:A:H3'	22:1L:10:G:N7	2.19	0.57
26:14:250:G:OP1	37:35:60:MET:HE1	2.05	0.57
26:14:1819:A:H4'	26:14:1820:U:O5'	2.05	0.57
26:14:2339:G:H2'	26:14:2340:G:H8	1.70	0.57
26:14:2415:G:H4'	37:35:67:MET:H	1.69	0.57
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.39	0.57
40:65:62:LYS:O	40:65:66:ALA:N	2.38	0.57
43:95:21:ARG:HH21	43:95:21:ARG:CG	2.17	0.57
4:3E:97:LEU:O	4:3E:100:ARG:HG3	2.04	0.57
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.40	0.57
26:1H:847:U:C5	26:1H:933:A:N1	2.73	0.57
26:1H:856:C:H5'	48:I8:27:GLU:OE2	2.04	0.57
26:1H:997:G:OP1	42:C8:93:LYS:HD2	2.05	0.57
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.70	0.57
26:1H:2132:U:H3	28:71:5:LYS:HB3	1.68	0.57
26:1H:2139:C:H42	26:1H:2152:G:H1	1.51	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1053:G:H5”	1:1G:1054:C:H3’	1.86	0.57
1:1G:1314:C:H2’	1:1G:1315:U:C6	2.39	0.57
1:1G:1316:G:H4’	14:5A:18:VAL:HG11	1.87	0.57
20:BA:38:LYS:NZ	59:BA:201:HOH:O	2.38	0.57
26:14:1204:A:H2	26:14:1241:A:N1	2.02	0.57
34:69:14:ASP:N	34:69:17:GLN:OE1	2.34	0.57
39:55:97:VAL:HG12	39:55:114:VAL:HG22	1.86	0.57
40:65:106:ARG:NH1	40:65:107:GLU:OE2	2.38	0.57
26:1H:50:U:H3’	26:1H:51:G:H5’	1.87	0.56
26:1H:588:U:O4	26:1H:670:A:H1’	2.05	0.56
26:1H:1188:U:H4’	43:D8:79:VAL:HG22	1.86	0.56
26:1H:1386:C:H2’	26:1H:1387:C:C6	2.38	0.56
28:71:45:ALA:H	28:71:171:ILE:HG22	1.70	0.56
38:88:21:THR:HG21	38:88:25:ASP:HB2	1.87	0.56
1:1G:1015:A:O2’	14:5A:15:LYS:HE2	2.05	0.56
1:1G:1147:C:O2	9:82:16:ARG:NH1	2.38	0.56
26:14:1688:U:O2	26:14:1700:A:H5’	2.05	0.56
26:14:2656:U:H3	26:14:2665:A:H2	1.50	0.56
26:14:2689:U:P	26:14:2719:G:H22	2.28	0.56
29:19:30:GLU:HG3	29:19:63:ARG:NH2	2.20	0.56
31:39:124:LEU:HG	31:39:126:VAL:HG12	1.85	0.56
36:25:64:ARG:NH1	36:25:81:ASP:OD1	2.38	0.56
40:65:11:LYS:HG3	40:65:91:PRO:HD3	1.86	0.56
44:A5:58:ALA:HB1	44:A5:64:MET:HB2	1.86	0.56
47:D5:3:TYR:O	47:D5:58:VAL:N	2.29	0.56
47:D5:102:LEU:HD23	47:D5:103:ARG:H	1.70	0.56
55:M5:8:LYS:HB3	55:M5:12:LYS:HE3	1.86	0.56
1:13:1125:U:O2’	1:13:1126:U:C6	2.58	0.56
2:1E:48:MET:HA	2:1E:51:LEU:HB2	1.85	0.56
26:1H:6:A:H4’	35:58:129:PRO:HB3	1.88	0.56
26:1H:312:G:H5’	26:1H:331:A:O2’	2.04	0.56
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.05	0.56
26:1H:2314:C:H2’	26:1H:2315:G:C8	2.35	0.56
26:1H:2592:G:H4’	59:1H:3612:HOH:O	2.05	0.56
35:58:10:GLU:HG3	35:58:11:PRO:HD2	1.86	0.56
37:78:65:ARG:HB3	59:78:305:HOH:O	2.05	0.56
1:1G:15:G:H2’	1:1G:16:A:H8	1.71	0.56
1:1G:45:U:H2’	1:1G:46:G:H8	1.69	0.56
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.02	0.56
1:1G:362:G:O2’	12:3A:33:ARG:NH2	2.38	0.56
1:1G:376:G:O3’	16:7A:5:ARG:NH1	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:407:G:H2'	1:1G:408:A:C8	2.40	0.56
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.38	0.56
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.38	0.56
8:72:14:ARG:O	8:72:18:ARG:HG2	2.05	0.56
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.68	0.56
26:14:617:G:OP1	31:39:40:GLN:HG3	2.05	0.56
26:14:1063:G:O6	26:14:1075:C:O2'	2.17	0.56
26:14:1871:A:H2'	26:14:1872:A:C8	2.40	0.56
33:59:72:ILE:HG13	33:59:76:VAL:HG23	1.87	0.56
41:75:10:VAL:O	41:75:12:SER:N	2.39	0.56
45:B5:67:GLY:C	45:B5:69:TYR:H	2.13	0.56
1:13:323:U:H2'	1:13:324:G:O4'	2.06	0.56
1:13:1460:A:OP1	20:BI:27:LYS:NZ	2.39	0.56
7:6E:74:GLU:OE1	7:6E:95:ARG:NH2	2.38	0.56
8:7E:9:MET:SD	8:7E:32:LYS:HG2	2.45	0.56
8:7E:25:ASP:OD1	8:7E:60:ARG:HG3	2.06	0.56
15:6I:53:HIS:ND1	15:6I:53:HIS:O	2.38	0.56
16:7I:5:ARG:NE	16:7I:22:THR:HG21	2.21	0.56
16:7I:21:VAL:HG23	16:7I:34:GLU:H	1.69	0.56
19:AI:41:VAL:CG2	19:AI:44:MET:HB2	2.31	0.56
20:BI:50:GLU:HA	20:BI:100:ILE:HG22	1.87	0.56
26:1H:98:G:OP1	50:K8:3:LEU:HA	2.04	0.56
26:1H:365:C:OP2	59:1H:3743:HOH:O	2.17	0.56
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.36	0.56
26:1H:1454:U:OP1	39:98:77:ARG:NH1	2.35	0.56
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.40	0.56
35:58:18:ALA:HA	35:58:21:LYS:HG3	1.86	0.56
39:98:100:LEU:HD11	39:98:113:LEU:HD13	1.88	0.56
47:H8:139:VAL:HG13	47:H8:155:LEU:HD21	1.87	0.56
49:J8:23:LYS:HB3	49:J8:29:GLY:HA3	1.87	0.56
1:1G:841:U:H3'	1:1G:841:U:H6	1.70	0.56
1:1G:1178:G:H5"	9:82:93:ARG:HH22	1.70	0.56
1:1G:1535:C:H42	25:4L:9:G:H22	1.53	0.56
8:72:19:VAL:HG23	8:72:21:LYS:HB3	1.86	0.56
26:14:140:A:C8	26:14:1408:C:O2'	2.57	0.56
26:14:1655:A:OP1	59:14:3619:HOH:O	2.18	0.56
26:14:1952:A:C5	36:25:22:ILE:HD11	2.40	0.56
26:14:2611:U:H6	26:14:2611:U:H5'	1.70	0.56
29:19:182:LEU:N	29:19:272:ALA:HB3	2.15	0.56
30:29:16:ARG:NH2	30:29:171:GLU:OE1	2.33	0.56
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:41:GLN:NE2	32:49:154:GLY:O	2.27	0.56
38:45:138:ASP:N	38:45:139:GLU:CA	2.61	0.56
39:55:106:GLY:O	39:55:107:ASP:HB3	2.05	0.56
41:75:7:ILE:O	41:75:11:GLU:HB2	2.05	0.56
47:D5:94:GLU:HB3	47:D5:96:VAL:HG23	1.87	0.56
53:J5:16:ARG:HH11	53:J5:16:ARG:HG2	1.70	0.56
1:13:554:C:H2'	1:13:555:C:H6	1.70	0.56
1:13:645:C:P	59:13:1848:HOH:O	2.62	0.56
1:13:827:U:C5	1:13:870:U:C4	2.94	0.56
2:1E:111:ARG:HD3	2:1E:145:LEU:HD21	1.86	0.56
6:5E:23:LYS:HD3	6:5E:61:LEU:HD21	1.86	0.56
10:1I:54:PHE:CZ	10:1I:55:LYS:NZ	2.72	0.56
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.87	0.56
16:7I:19:ILE:HD12	16:7I:36:ILE:O	2.06	0.56
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.86	0.56
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.05	0.56
26:1H:330:A:O2'	26:1H:331:A:H8	1.89	0.56
26:1H:625:G:N7	37:78:107:LYS:NZ	2.52	0.56
26:1H:818:G:H5'	26:1H:839:U:OP1	2.05	0.56
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.21	0.56
26:1H:2776:A:H4'	26:1H:2777:G:H5"	1.87	0.56
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.71	0.56
31:31:197:ASP:O	31:31:199:TRP:N	2.38	0.56
34:61:113:ARG:HB3	34:61:131:LYS:HD3	1.88	0.56
9:82:51:ARG:HG2	9:82:56:LEU:HD13	1.87	0.56
10:1A:22:LYS:O	10:1A:26:ALA:N	2.36	0.56
26:14:1035:U:H2'	26:14:1036:G:C8	2.40	0.56
26:14:1437:C:H6	26:14:1437:C:H5"	1.70	0.56
26:14:2065:C:H2'	26:14:2066:C:H6	1.68	0.56
29:19:44:ASN:HB3	29:19:45:ASN:CB	2.35	0.56
39:55:13:HIS:HD2	39:55:15:SER:H	1.53	0.56
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.70	0.56
26:1H:1050:A:H2'	26:1H:1051:G:C8	2.40	0.56
26:1H:2373:G:H1	26:1H:2380:C:H42	1.53	0.56
27:16:15:A:H1'	27:16:109:G:C8	2.41	0.56
40:A8:59:LYS:HG2	40:A8:60:GLY:N	2.19	0.56
5:42:7:GLU:OE1	5:42:37:ARG:NH2	2.38	0.56
26:14:2360:A:H2'	26:14:2361:A:O4'	2.05	0.56
36:25:4:PRO:O	36:25:5:GLN:HB2	2.04	0.56
38:45:38:GLU:HG3	38:45:127:ILE:CG2	2.35	0.56
40:65:48:LEU:HD23	40:65:82:ILE:HD11	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:95:LEU:HD13	43:95:4:ILE:HG23	1.87	0.56
46:C5:17:SER:OG	46:C5:18:GLY:O	2.23	0.56
1:13:1366:C:H2'	1:13:1367:C:C6	2.39	0.56
2:1E:237:ALA:O	2:1E:239:VAL:N	2.39	0.56
4:3E:104:VAL:O	4:3E:107:ARG:N	2.39	0.56
10:1I:81:THR:HA	10:1I:84:GLN:HG2	1.86	0.56
47:H8:4:ARG:HD3	47:H8:60:GLU:OE2	2.04	0.56
1:1G:142:G:H1	1:1G:221:C:H42	1.53	0.56
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.05	0.56
4:32:53:ASP:HB3	4:32:57:ARG:HH12	1.69	0.56
15:6A:26:GLU:OE2	15:6A:77:ARG:NH1	2.38	0.56
26:14:443:A:H1'	26:14:1201:C:O4'	2.05	0.56
26:14:848:G:H2'	26:14:849:A:C8	2.40	0.56
26:14:863:A:H2'	26:14:864:G:C8	2.41	0.56
26:14:1060:U:H5"	26:14:1061:U:C5	2.41	0.56
27:1J:94:C:H2'	27:1J:95:U:C6	2.41	0.56
35:15:34:LEU:HD21	35:15:120:LEU:HD13	1.86	0.56
38:45:66:ILE:HD12	38:45:67:ARG:N	2.21	0.56
1:13:186:C:O4'	20:BI:81:LYS:NZ	2.39	0.56
1:13:1164:G:N2	1:13:1172:C:O2	2.38	0.56
1:13:1234:C:H2'	1:13:1235:U:C6	2.41	0.56
2:1E:7:VAL:HG21	2:1E:217:ARG:HH11	1.70	0.56
18:9I:85:LEU:HD12	18:9I:87:ARG:H	1.70	0.56
20:BI:40:ALA:HB2	20:BI:55:ILE:HG22	1.87	0.56
26:1H:127:A:H5"	26:1H:128:C:C6	2.40	0.56
26:1H:620:G:H4'	26:1H:621:A:C5'	2.26	0.56
26:1H:1155:A:OP1	42:C8:55:ARG:HD3	2.06	0.56
36:68:107:ARG:NH1	41:B8:36:GLU:OE2	2.39	0.56
1:1G:1002:G:H1	1:1G:1038:C:H42	1.54	0.56
4:32:61:LYS:HD2	4:32:206:PHE:CE2	2.41	0.56
6:52:68:PRO:HG2	6:52:71:ARG:HG3	1.87	0.56
6:52:74:ASP:OD1	6:52:74:ASP:N	2.37	0.56
26:14:754:C:H2'	26:14:755:C:C6	2.41	0.56
26:14:2880:C:O2	39:55:93:GLY:N	2.34	0.56
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.86	0.56
38:45:139:GLU:HG3	47:D5:76:LEU:HD21	1.88	0.56
1:13:501:C:H2'	1:13:502:G:H8	1.71	0.56
1:13:1178:G:OP2	9:8E:93:ARG:NH2	2.33	0.56
1:13:1510:U:H2'	1:13:1511:G:C8	2.41	0.56
3:2E:60:ALA:N	3:2E:63:ASN:OD1	2.39	0.56
4:3E:86:LYS:HD3	4:3E:87:GLY:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:26:ASN:O	20:BI:30:LYS:HB2	2.05	0.56
26:1H:33:U:H4'	26:1H:34:C:OP1	2.05	0.56
26:1H:1019:U:O2'	26:1H:1021:A:H2	1.88	0.56
26:1H:2444:G:OP2	31:31:68:LYS:HE3	2.06	0.56
26:1H:2531:A:H5'	33:51:157:TYR:CZ	2.41	0.56
26:1H:2562:U:H1'	36:68:23:ARG:NH1	2.21	0.56
36:68:34:THR:OG1	36:68:35:VAL:N	2.37	0.56
36:68:64:ARG:HB2	36:68:79:PHE:CG	2.41	0.56
1:1G:407:G:HO2'	4:32:116:GLN:HG3	1.71	0.56
1:1G:1262:C:H42	1:1G:1273:G:H1	1.52	0.56
1:1G:1322:C:O2	1:1G:1322:C:H2'	2.06	0.56
3:22:125:GLU:HG2	3:22:190:ARG:O	2.06	0.56
4:32:32:ALA:H	4:32:35:ARG:HD3	1.69	0.56
7:62:146:GLU:OE1	11:2A:54:ARG:NE	2.36	0.56
26:14:718:A:H3'	26:14:719:C:H6	1.70	0.56
26:14:1154:G:OP1	42:85:58:ARG:HD3	2.06	0.56
34:69:93:THR:H	34:69:96:ASP:HB2	1.69	0.56
38:45:75:THR:HG22	38:45:90:VAL:H	1.70	0.56
1:13:224:C:H2'	1:13:225:C:C6	2.41	0.56
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.21	0.56
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.87	0.56
26:1H:1264:G:H5'	53:N8:11:THR:CG2	2.36	0.56
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.36	0.56
33:51:6:ARG:NH1	33:51:54:ARG:HH12	2.04	0.56
33:51:60:ARG:HG2	33:51:60:ARG:HH11	1.71	0.56
42:C8:110:VAL:O	42:C8:113:ALA:HB3	2.06	0.56
44:E8:37:ARG:HD3	44:E8:38:TYR:CE2	2.41	0.56
46:G8:94:LYS:CE	46:G8:95:LYS:H	2.19	0.56
47:H8:132:ASN:H	47:H8:132:ASN:ND2	2.04	0.56
4:32:31:CYS:HB2	4:32:35:ARG:NH1	2.21	0.56
19:AA:56:GLN:HG2	19:AA:57:HIS:H	1.71	0.56
26:14:273(C):C:H42	26:14:363(C):G:H1	1.54	0.56
26:14:323:G:H2'	31:39:169:ASN:ND2	2.21	0.56
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.06	0.56
26:14:2275:C:H5'	26:14:2275:C:H6	1.69	0.56
26:14:2572:A:N7	30:29:144:ARG:HD2	2.20	0.56
36:25:88:ASN:HB3	36:25:94:ARG:HD3	1.88	0.56
36:25:122:LEU:HD23	41:75:43:GLN:NE2	2.20	0.56
42:85:29:SER:C	42:85:30:LYS:HD3	2.31	0.56
42:85:92:ARG:C	42:85:94:ASN:H	2.14	0.56
1:13:186(E):C:H2'	1:13:186(F):C:O4'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.86	0.56
1:13:1190:G:H5"	3:2E:176:HIS:CE1	2.41	0.56
1:13:1263:C:H2'	1:13:1264:C:C6	2.41	0.56
2:1E:215:LEU:O	2:1E:219:VAL:HG23	2.05	0.56
12:3I:111:LYS:HD3	12:3I:112:ASP:N	2.21	0.56
24:3K:5:C:H2'	24:3K:6:G:C8	2.41	0.56
24:3K:9:A:O2'	24:3K:46:G:O4'	2.21	0.56
25:4K:13:A:H61	25:4K:14:A:N6	2.04	0.56
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.21	0.56
32:41:35:GLU:OE1	32:41:36:LYS:N	2.38	0.56
35:58:76:SER:O	35:58:76:SER:OG	2.21	0.56
1:1G:269:C:H2'	1:1G:270:A:H8	1.71	0.56
1:1G:1446:A:OP1	1:1G:1446:A:H4'	2.06	0.56
4:32:65:ARG:HD2	4:32:72:GLU:HA	1.88	0.56
26:14:602:G:OP2	26:14:602:G:H8	1.89	0.56
26:14:637:A:H2'	37:35:117:GLU:OE2	2.05	0.56
26:14:824:A:H1'	26:14:2358:G:N7	2.21	0.56
26:14:959:A:N6	26:14:960:A:N1	2.53	0.56
26:14:2113:U:H3'	26:14:2114:A:H4'	1.88	0.56
29:19:69:ARG:HD3	29:19:105:ILE:HD11	1.87	0.56
33:59:74:ASN:HA	33:59:77:LYS:HB2	1.88	0.56
47:D5:71:VAL:HG12	47:D5:88:PHE:CD1	2.41	0.56
47:D5:157:LEU:HD12	47:D5:161:VAL:HA	1.88	0.56
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.06	0.55
1:13:339:C:OP2	36:68:97:ARG:NH1	2.38	0.55
1:13:475:G:H2'	1:13:476:G:C8	2.40	0.55
2:1E:189:ASP:OD1	2:1E:205:ASP:HB3	2.07	0.55
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.42	0.55
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.05	0.55
21:1F:2:GLY:O	21:1F:4:GLY:N	2.38	0.55
26:1H:7:G:H1	26:1H:2896:C:H42	1.55	0.55
26:1H:860:U:H5	26:1H:917:A:N1	2.03	0.55
26:1H:1349:A:H8	59:1H:3697:HOH:O	1.88	0.55
26:1H:1470:G:H5"	26:1H:1471:A:OP1	2.06	0.55
26:1H:1653:G:N2	59:1H:3928:HOH:O	2.39	0.55
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.41	0.55
29:11:26:LYS:HE3	29:11:83:GLU:OE2	2.06	0.55
33:51:92:ILE:H	33:51:92:ILE:HD12	1.70	0.55
38:88:39:PRO:HA	38:88:97:VAL:O	2.06	0.55
38:88:77:LYS:HE3	38:88:84:GLY:O	2.05	0.55
48:I8:36:ILE:HD13	48:I8:36:ILE:O	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M8:42:PHE:CD1	52:M8:43:TYR:HB3	2.40	0.55
1:1G:1298:C:N4	7:62:114:ARG:HB3	2.21	0.55
6:52:61:LEU:HD23	6:52:63:TYR:OH	2.07	0.55
9:82:48:GLU:HA	9:82:51:ARG:HD2	1.88	0.55
26:14:254:G:O6	55:M5:5:LYS:HG2	2.06	0.55
26:14:2262:U:H4'	26:14:2328:A:C2	2.41	0.55
26:14:2861:G:O2'	26:14:2862:G:H5'	2.06	0.55
30:29:56:PRO:HD2	30:29:58:ARG:NH2	2.21	0.55
31:39:53:THR:HB	31:39:56:GLU:OE2	2.06	0.55
31:39:130:ALA:H	31:39:142:TRP:HD1	1.54	0.55
42:85:91:ASP:C	42:85:93:LYS:H	2.13	0.55
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.39	0.55
3:2E:119:ARG:O	3:2E:123:GLN:HG3	2.06	0.55
20:BI:71:THR:HG22	20:BI:72:LEU:N	2.19	0.55
26:1H:1025:G:O2'	59:1H:3751:HOH:O	2.18	0.55
26:1H:1334:G:OP2	59:1H:3755:HOH:O	2.18	0.55
26:1H:1830:C:C2'	26:1H:1831:G:H5'	2.36	0.55
29:11:39:LYS:HB3	29:11:40:THR:HA	1.88	0.55
29:11:110:GLY:O	29:11:112:GLN:NE2	2.39	0.55
3:22:94:LEU:HD12	3:22:95:THR:HG23	1.88	0.55
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.88	0.55
4:32:61:LYS:HA	4:32:203:VAL:HG22	1.88	0.55
1:13:22:G:H2'	1:13:23:C:C6	2.41	0.55
1:13:1059:C:O3'	14:5I:45:ARG:NH2	2.39	0.55
1:13:1060:C:HO2'	10:1I:56:HIS:HD1	1.50	0.55
1:13:1075:C:OP1	2:1E:179:LYS:NZ	2.31	0.55
2:1E:87:ARG:HH21	2:1E:232:PRO:HB3	1.71	0.55
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.20	0.55
26:1H:2292:C:P	40:A8:17:ARG:HH22	2.29	0.55
47:H8:92:SER:O	47:H8:130:PRO:HG2	2.06	0.55
55:Q8:33:ASN:HA	55:Q8:36:LYS:HD2	1.87	0.55
26:14:919:G:N2	26:14:2269:A:OP2	2.40	0.55
26:14:966:G:O2'	26:14:967:C:H5'	2.07	0.55
37:35:50:ARG:HD3	55:M5:7:HIS:CD2	2.42	0.55
41:75:36:GLU:OE2	41:75:41:ARG:HD3	2.07	0.55
1:13:1129:C:O2'	1:13:1146:A:N1	2.40	0.55
15:6I:82:ILE:O	15:6I:86:GLY:N	2.39	0.55
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.13	0.55
24:3K:15:G:H1	24:3K:48:C:H42	1.54	0.55
26:1H:869:G:C6	59:1H:3698:HOH:O	2.59	0.55
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1394:U:P	59:1H:3971:HOH:O	2.63	0.55
26:1H:1442:G:C2	26:1H:1550:C:O2	2.59	0.55
26:1H:2251:G:OP1	38:88:82:ARG:NH1	2.39	0.55
26:1H:2404:C:O3'	37:78:77:ARG:NH2	2.39	0.55
35:58:120:LEU:HD22	35:58:122:VAL:HG23	1.88	0.55
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.71	0.55
42:C8:68:ALA:O	42:C8:71:GLN:HB2	2.06	0.55
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.41	0.55
10:1A:63:PHE:HD1	14:5A:58:LYS:HA	1.72	0.55
26:14:218:A:H2	26:14:235:U:H4'	1.70	0.55
26:14:1420:U:HO2'	26:14:1421:G:P	2.29	0.55
26:14:2495:G:O6	59:14:3622:HOH:O	2.18	0.55
27:1J:6:C:H2'	27:1J:7:G:H5"	1.87	0.55
27:1J:57:A:H2'	27:1J:58:A:O4'	2.06	0.55
29:19:70:TRP:CD1	29:19:70:TRP:C	2.84	0.55
36:25:10:VAL:HG13	36:25:17:ARG:O	2.06	0.55
46:C5:91:GLU:HG3	46:C5:92:ASN:N	2.22	0.55
13:4I:45:VAL:HA	13:4I:48:LEU:HD22	1.89	0.55
13:4I:82:MET:C	13:4I:84:ILE:H	2.13	0.55
30:21:78:LEU:HD23	30:21:78:LEU:O	2.07	0.55
37:78:83:VAL:CG1	37:78:112:LEU:HD21	2.36	0.55
40:A8:100:ALA:HA	40:A8:103:GLU:HG2	1.89	0.55
3:22:141:VAL:HA	3:22:144:SER:HB3	1.89	0.55
5:42:81:GLU:HB3	5:42:90:VAL:HG13	1.88	0.55
26:14:962:G:H2'	26:14:963:U:H6	1.70	0.55
26:14:1569:A:O2'	29:19:37:LEU:HD23	2.07	0.55
29:19:158:ALA:O	29:19:161:THR:HG23	2.07	0.55
30:29:23:VAL:O	30:29:24:THR:HB	2.05	0.55
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.46	0.55
32:49:15:VAL:HG13	32:49:175:LEU:HB3	1.88	0.55
34:69:76:THR:HG21	34:69:140:LEU:HD12	1.87	0.55
35:15:58:ASP:OD1	35:15:58:ASP:N	2.33	0.55
38:45:19:GLY:O	38:45:99:PRO:HD2	2.06	0.55
1:13:1396:A:H4'	1:13:1397:C:H5"	1.89	0.55
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	1.87	0.55
22:1K:74:C:H2'	22:1K:75:C:H5'	1.88	0.55
26:1H:507:A:H5"	26:1H:508:G:H3'	1.88	0.55
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.72	0.55
26:1H:2324:C:H5"	26:1H:2325:G:H5'	1.89	0.55
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.42	0.55
35:58:67:LEU:HA	35:58:87:LEU:HD12	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:F8:84:ALA:HB3	45:F8:87:GLN:OE1	2.07	0.55
46:G8:29:GLU:HB3	46:G8:38:ILE:HG23	1.89	0.55
50:K8:15:LYS:NZ	50:K8:67:LYS:HZ3	2.05	0.55
52:M8:39:CYS:N	52:M8:42:PHE:HE2	2.04	0.55
1:1G:142:G:H2'	1:1G:143:A:C8	2.42	0.55
1:1G:562:C:H1'	12:3A:15:ARG:HD2	1.88	0.55
1:1G:683:G:O6	59:1G:1826:HOH:O	2.18	0.55
1:1G:1305:G:O2'	1:1G:1306:A:H8	1.90	0.55
18:9A:32:ARG:HD2	18:9A:65:ILE:HD11	1.89	0.55
26:14:1329:U:H5"	26:14:1330:C:H5	1.72	0.55
26:14:1796:U:H2'	26:14:1797:C:H6	1.70	0.55
26:14:2413:G:H21	37:35:70:GLN:HE22	1.55	0.55
27:1J:46:A:H2'	27:1J:47:C:C6	2.42	0.55
1:13:406:G:H5'	4:3E:5:ILE:HD13	1.87	0.55
13:4I:90:LEU:HA	13:4I:93:ARG:HB2	1.89	0.55
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.07	0.55
26:1H:309:G:N3	26:1H:329:G:O2'	2.39	0.55
26:1H:1101:U:H2'	26:1H:1102:C:C6	2.41	0.55
33:51:116:GLU:HG3	33:51:117:PRO:HD2	1.87	0.55
40:A8:36:TYR:N	40:A8:36:TYR:CD1	2.75	0.55
41:B8:2:ASN:OD1	41:B8:3:ARG:N	2.39	0.55
49:J8:53:VAL:HG11	49:J8:90:ILE:HD11	1.86	0.55
49:J8:83:GLU:HG3	49:J8:85:LEU:H	1.72	0.55
1:1G:991:U:C5	1:1G:1212:U:H1'	2.41	0.55
7:62:16:LEU:HD11	9:82:45:ALA:HB2	1.88	0.55
13:4A:14:ARG:HA	13:4A:43:THR:O	2.07	0.55
26:14:259:G:HO2'	26:14:621:A:HO2'	1.54	0.55
26:14:317:G:H1	26:14:334:C:H42	1.55	0.55
26:14:2298:A:H1'	26:14:2321:G:N2	2.21	0.55
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.06	0.55
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.42	0.55
45:B5:88:LYS:HD3	45:B5:93:GLU:HG3	1.88	0.55
48:E5:34:GLY:HA2	48:E5:61:ALA:O	2.07	0.55
1:13:158:G:H2'	1:13:159:G:H8	1.72	0.55
2:1E:11:LEU:HD23	2:1E:213:LEU:HD22	1.89	0.55
11:2I:41:THR:HG21	11:2I:71:LYS:HG3	1.89	0.55
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.88	0.55
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.06	0.55
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.42	0.55
26:1H:2345:G:H4'	26:1H:2346:A:O5'	2.05	0.55
26:1H:2595:G:N7	59:1H:3874:HOH:O	2.33	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2795:G:H2'	26:1H:2798:C:H5"	1.89	0.55
27:16:3:C:H2'	27:16:4:C:C6	2.41	0.55
28:71:214:VAL:HG23	28:71:224:ILE:HG12	1.88	0.55
30:21:120:TRP:CE3	30:21:155:LYS:HD3	2.42	0.55
35:58:75:TYR:CE2	35:58:77:GLY:HA2	2.42	0.55
39:98:1:MET:HE2	39:98:3:HIS:CE1	2.42	0.55
40:A8:105:ALA:O	40:A8:109:GLY:HA3	2.07	0.55
45:F8:80:ILE:O	45:F8:80:ILE:HG12	2.04	0.55
48:I8:14:ARG:NH1	59:I8:201:HOH:O	2.26	0.55
49:J8:91:LYS:O	49:J8:93:GLU:HG2	2.07	0.55
1:1G:407:G:P	4:32:115:ARG:HH21	2.29	0.55
1:1G:620:C:H2'	1:1G:621:A:O4'	2.07	0.55
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.39	0.55
4:32:59:ARG:HH21	4:32:66:ARG:NH1	2.04	0.55
9:82:60:ASP:N	9:82:60:ASP:OD1	2.36	0.55
26:14:1970:A:P	59:14:3538:HOH:O	2.63	0.55
26:14:2016:U:O2	53:J5:7:PRO:HG2	2.06	0.55
26:14:2105:C:H2'	26:14:2106:G:O4'	2.05	0.55
26:14:2468:G:H3'	26:14:2476:A:C2	2.42	0.55
26:14:2823:A:OP1	30:29:113:PHE:HB2	2.07	0.55
39:55:86:ARG:HB3	39:55:118:GLU:OE1	2.05	0.55
46:C5:48:ALA:O	46:C5:59:GLY:HA2	2.06	0.55
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.42	0.55
1:13:1049:U:OP1	14:5I:3:ARG:HB2	2.07	0.55
1:13:1126:U:O4	1:13:1127:G:C6	2.60	0.55
4:3E:157:LEU:HD12	4:3E:161:ASN:ND2	2.22	0.55
10:1I:83:GLU:HA	10:1I:86:MET:HE1	1.89	0.55
12:3I:79:GLU:OE1	12:3I:80:HIS:NE2	2.40	0.55
19:AI:8:GLY:C	19:AI:9:VAL:HG22	2.32	0.55
22:1K:55:PSU:O5'	22:1K:55:PSU:H6	1.90	0.55
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.89	0.55
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.06	0.55
29:11:145:VAL:HG12	29:11:146:GLU:O	2.07	0.55
30:21:102:VAL:HG12	30:21:200:GLU:HA	1.89	0.55
30:21:120:TRP:CD2	30:21:155:LYS:HD3	2.41	0.55
34:61:120:ILE:HG12	34:61:126:TYR:CE2	2.42	0.55
35:58:95:PRO:O	35:58:96:GLU:CD	2.50	0.55
1:1G:1028(A):C:H42	1:1G:1032(B):G:H1	1.55	0.55
1:1G:1281:U:P	1:1G:1282:C:H41	2.30	0.55
12:3A:60:LEU:HD21	12:3A:66:VAL:HG22	1.88	0.55
13:4A:49:THR:HB	13:4A:52:GLU:HG3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:30:GLU:HB3	29:19:83:GLU:OE1	2.07	0.55
35:15:133:GLN:O	35:15:134:ARG:HG3	2.06	0.55
42:85:86:ALA:HB2	42:85:116:ALA:HB2	1.89	0.55
1:13:451:A:N6	1:13:480:U:H2'	2.22	0.55
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.47	0.55
12:3I:77:LEU:HD21	12:3I:107:ALA:HB2	1.87	0.55
24:3K:58:A:O2'	24:3K:60:U:OP2	2.24	0.55
26:1H:142:G:H1'	45:F8:37:THR:CG2	2.35	0.55
26:1H:1110:G:O2'	26:1H:1111:A:H8	1.88	0.55
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.42	0.55
26:1H:1406:U:H2'	26:1H:1407:C:H6	1.69	0.55
26:1H:2395:C:H5"	26:1H:2396:G:OP2	2.07	0.55
30:21:60:ASN:HD22	30:21:60:ASN:C	2.15	0.55
45:F8:36:LYS:HG2	45:F8:54:VAL:HB	1.89	0.55
1:1G:413:G:O2'	1:1G:428:G:N2	2.40	0.55
1:1G:625:G:H2'	1:1G:626:U:C6	2.41	0.55
3:22:175:LEU:H	3:22:175:LEU:HD12	1.71	0.55
17:8A:10:VAL:HG22	17:8A:53:LEU:HA	1.87	0.55
26:14:1041:C:H42	26:14:1114:G:H1	1.55	0.55
26:14:2115:G:N1	26:14:2117:A:N7	2.55	0.55
26:14:2287:A:C2	26:14:2346:A:C2	2.95	0.55
27:1J:104:A:H2'	27:1J:105:G:O4'	2.07	0.55
46:C5:50:ARG:HG2	46:C5:53:PRO:HG2	1.88	0.55
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.32	0.54
26:1H:413:C:OP1	59:1H:3753:HOH:O	2.18	0.54
26:1H:1839:G:H5"	26:1H:1839:G:C8	2.41	0.54
30:21:47:VAL:O	30:21:80:GLU:HA	2.07	0.54
30:21:197:ILE:HD11	30:21:199:ARG:HE	1.72	0.54
41:B8:78:LEU:HD12	41:B8:79:HIS:CD2	2.42	0.54
47:H8:19:ARG:NH1	47:H8:84:GLU:HB2	2.22	0.54
49:J8:64:ALA:HA	49:J8:67:ILE:HG13	1.89	0.54
1:1G:1137:C:H1'	1:1G:1138:G:C2	2.42	0.54
2:12:19:HIS:CE1	2:12:206:ASP:HB2	2.41	0.54
2:12:19:HIS:ND1	2:12:204:ASN:HB3	2.22	0.54
9:82:96:LEU:HG	9:82:101:PHE:HB2	1.89	0.54
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.42	0.54
17:8A:66:SER:OG	17:8A:69:LYS:HB2	2.07	0.54
24:3L:67:C:H2'	24:3L:68:G:C8	2.42	0.54
26:14:6:A:H2'	26:14:6:A:N3	2.21	0.54
26:14:53:A:OP2	59:14:3625:HOH:O	2.18	0.54
26:14:1057:A:H5"	26:14:1086:A:O2'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1486:A:H2'	26:14:1487:G:H8	1.72	0.54
26:14:1901:A:OP2	29:19:255:LYS:HE2	2.06	0.54
30:29:4:ILE:HD13	30:29:28:ALA:HB1	1.88	0.54
30:29:61:ARG:HA	30:29:63:LEU:HD22	1.88	0.54
32:49:76:SER:OG	32:49:84:LYS:N	2.40	0.54
35:15:13:TRP:O	35:15:135:PRO:HD2	2.06	0.54
36:25:98:VAL:HG12	36:25:117:LEU:CB	2.38	0.54
1:13:607:A:C2	16:7I:31:LYS:HE3	2.41	0.54
1:13:924:C:O2'	1:13:1502:A:N6	2.40	0.54
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.42	0.54
26:1H:34:C:O2'	26:1H:35:G:OP2	2.21	0.54
26:1H:214:G:H4'	26:1H:214:G:OP1	2.07	0.54
26:1H:530:G:N3	26:1H:530:G:O4'	2.35	0.54
26:1H:1826:G:H4'	29:11:242:ARG:CZ	2.38	0.54
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.89	0.54
34:61:113:ARG:NH2	34:61:132:PRO:HB3	2.23	0.54
35:58:17:ASP:O	35:58:56:ASN:HB2	2.06	0.54
35:58:42:TRP:HA	35:58:48:MET:HE1	1.88	0.54
39:98:2:ARG:O	39:98:5:LYS:HB2	2.06	0.54
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.89	0.54
40:A8:10:ARG:O	40:A8:14:VAL:HG13	2.07	0.54
1:1G:957:U:H1'	1:1G:960:U:H5	1.71	0.54
1:1G:999:U:H2'	1:1G:1000:A:C8	2.42	0.54
20:BA:37:SER:O	20:BA:41:ILE:HG13	2.08	0.54
24:3L:4:U:H3	24:3L:69:A:H61	1.54	0.54
26:14:171:G:H2'	26:14:172:C:C6	2.42	0.54
26:14:498:G:H21	46:C5:47:LYS:NZ	2.05	0.54
26:14:2129:C:H5"	26:14:2130:U:C5	2.42	0.54
37:35:132:LYS:HE2	37:35:136:GLU:HG3	1.88	0.54
16:7I:17:TYR:HE2	16:7I:41:PRO:HG3	1.72	0.54
26:1H:1478:G:O6	26:1H:1510:A:N6	2.41	0.54
26:1H:1534:G:N1	26:1H:1539:G:N3	2.53	0.54
37:78:121:LYS:O	37:78:123:LEU:N	2.40	0.54
39:98:26:LYS:HE2	39:98:70:LEU:O	2.07	0.54
44:E8:30:GLU:O	44:E8:34:ASN:ND2	2.39	0.54
46:G8:96:ILE:HA	46:G8:102:CYS:O	2.08	0.54
49:J8:92:LYS:O	49:J8:95:LEU:N	2.39	0.54
2:12:73:THR:HG21	2:12:97:TRP:H	1.71	0.54
23:2L:57:C:O2	32:49:78:SER:OG	2.24	0.54
26:14:142:G:H2'	26:14:143:C:C6	2.42	0.54
26:14:993:G:N3	43:95:89:GLN:NE2	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1260:G:H2'	26:14:1261:C:H6	1.72	0.54
26:14:1697:G:OP2	26:14:1698:A:O2'	2.22	0.54
38:45:25:ASP:HA	38:45:102:VAL:HG23	1.90	0.54
42:85:88:ILE:HG23	42:85:90:VAL:HG23	1.89	0.54
47:D5:76:LEU:H	47:D5:76:LEU:HD23	1.72	0.54
1:13:626:U:C2	1:13:627:G:C8	2.95	0.54
1:13:1015:A:H2'	1:13:1016:A:H8	1.72	0.54
1:13:1147:C:O2	9:8E:16:ARG:NH1	2.40	0.54
1:13:1435:G:H2'	1:13:1436:U:C6	2.42	0.54
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.07	0.54
12:3I:8:ASN:HA	12:3I:11:VAL:HG23	1.89	0.54
26:1H:666:G:H1'	55:Q8:4:MET:HE2	1.89	0.54
26:1H:930:U:H4'	26:1H:931:G:O5'	2.08	0.54
26:1H:991:C:H2'	26:1H:992:C:H6	1.72	0.54
26:1H:2177:C:H5"	28:71:213:TYR:HB2	1.89	0.54
26:1H:2619:C:OP1	30:21:152:LYS:HE3	2.07	0.54
37:78:71:VAL:HG12	37:78:72:PRO:HD3	1.88	0.54
41:B8:23:ARG:HG3	41:B8:120:ARG:NH1	2.22	0.54
46:G8:97:ARG:NH2	46:G8:103:GLY:O	2.40	0.54
46:G8:100:ALA:HB1	46:G8:101:LYS:CG	2.36	0.54
4:32:18:LYS:HG3	57:32:302:SF4:S1	2.48	0.54
9:82:119:ALA:O	9:82:120:ARG:HB2	2.07	0.54
26:14:67:U:H2'	26:14:68:G:C8	2.42	0.54
26:14:975:G:OP2	59:14:3624:HOH:O	2.18	0.54
26:14:2176:A:N1	28:79:172:HIS:NE2	2.53	0.54
26:14:2766:G:H5"	26:14:2767:C:OP2	2.06	0.54
31:39:181:LEU:HD23	31:39:186:ILE:HD11	1.89	0.54
32:49:27:ASN:HD22	32:49:28:VAL:H	1.53	0.54
34:69:110:ASP:H	34:69:130:TYR:HH	1.55	0.54
39:55:82:GLU:H	39:55:85:PRO:HG2	1.72	0.54
40:65:15:ARG:HD2	40:65:25:ARG:HH21	1.72	0.54
1:13:353:A:H5'	1:13:353:A:C8	2.40	0.54
1:13:872:A:C4	1:13:874:G:N7	2.76	0.54
7:6E:62:PHE:HA	7:6E:124:LEU:HD22	1.89	0.54
12:3I:60:LEU:HD12	12:3I:62:SER:OG	2.08	0.54
26:1H:139:G:N3	26:1H:141:A:N1	2.55	0.54
26:1H:308:G:H5"	26:1H:309:G:OP2	2.07	0.54
26:1H:618:G:H2'	26:1H:618(A):C:C6	2.43	0.54
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.08	0.54
26:1H:1983:C:O2'	26:1H:1984:G:H5'	2.07	0.54
26:1H:2849:U:H5'	26:1H:2867:G:N2	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:69:LYS:HG3	34:61:136:VAL:HB	1.89	0.54
34:61:77:LEU:CD1	34:61:140:LEU:HB3	2.38	0.54
38:88:48:GLU:HG3	38:88:48:GLU:O	2.07	0.54
40:A8:106:ARG:H	40:A8:106:ARG:NE	2.04	0.54
1:1G:590:C:H2'	1:1G:591:U:H6	1.73	0.54
1:1G:631:G:H1'	1:1G:632:A:C8	2.42	0.54
1:1G:653:A:C8	8:72:56:LYS:HE3	2.42	0.54
1:1G:1229:A:OP1	13:4A:116:THR:HG23	2.08	0.54
1:1G:1418:A:H2	26:14:1948:G:N3	2.05	0.54
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.07	0.54
5:42:102:ALA:HB3	5:42:107:ARG:HB2	1.89	0.54
7:62:115:ARG:O	7:62:118:VAL:HG22	2.07	0.54
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.40	0.54
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.89	0.54
26:14:1251:C:H5	59:14:3908:HOH:O	1.89	0.54
26:14:1644:C:C2'	26:14:1645:G:H5'	2.37	0.54
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.07	0.54
26:14:2319:G:N2	26:14:2334:G:OP1	2.21	0.54
26:14:2749:A:N1	26:14:2750:A:N6	2.56	0.54
28:79:16:PRO:HA	28:79:223:ARG:HG2	1.88	0.54
29:19:242:ARG:N	29:19:242:ARG:HD3	2.22	0.54
31:39:143:ALA:O	31:39:148:LEU:HB2	2.08	0.54
38:45:28:ALA:HB3	38:45:105:GLU:OE2	2.06	0.54
4:3E:156:GLU:O	4:3E:160:GLN:HB3	2.07	0.54
26:1H:323:G:C8	31:31:171:PRO:HG3	2.43	0.54
26:1H:483:A:C8	26:1H:484:C:C5	2.95	0.54
26:1H:1110:G:HO2'	26:1H:1111:A:P	2.29	0.54
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.21	0.54
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.08	0.54
26:1H:2169:A:N7	26:1H:2170:A:N6	2.54	0.54
27:16:55:U:OP2	59:16:305:HOH:O	2.17	0.54
29:11:124:PRO:HG2	29:11:129:ASN:HD21	1.72	0.54
31:31:130:ALA:H	31:31:132:VAL:HG13	1.73	0.54
39:98:38:VAL:HB	39:98:39:PRO:HD3	1.88	0.54
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.42	0.54
1:1G:1025:U:H5'	1:1G:1026:G:H5'	1.89	0.54
1:1G:1326:C:OP1	21:1B:17:THR:OG1	2.24	0.54
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.25	0.54
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.90	0.54
23:2L:21:U:O2	23:2L:21:U:H2'	2.06	0.54
24:3L:21:A:H2'	24:3L:21:A:N3	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:814:A:N7	1:13:816:A:C4	2.75	0.54
1:13:1301:U:O2'	1:13:1302:U:H3'	2.07	0.54
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.43	0.54
13:4I:3:ARG:HH11	13:4I:7:VAL:HG22	1.73	0.54
24:3K:72:C:H2'	24:3K:73:A:H5"	1.90	0.54
26:1H:1588:C:H2'	26:1H:1589:C:C6	2.40	0.54
26:1H:2772:C:H2'	26:1H:2773:C:C6	2.43	0.54
27:16:11:C:H3'	27:16:12:C:C6	2.43	0.54
27:16:73:A:C4	27:16:104:A:C2	2.95	0.54
27:16:78:A:C2	27:16:99:A:C4	2.96	0.54
29:11:38:LYS:HA	29:11:39:LYS:HD2	1.89	0.54
41:B8:77:PRO:HG2	41:B8:80:SER:HB2	1.90	0.54
46:G8:89:PHE:HD1	46:G8:90:LEU:H	1.54	0.54
47:H8:125:LEU:HG	47:H8:164:ALA:HB3	1.90	0.54
1:1G:464:G:H1'	1:1G:468:A:H61	1.71	0.54
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.42	0.54
20:BA:53:LEU:HD12	20:BA:100:ILE:HG22	1.89	0.54
26:14:994:C:OP1	42:85:53:ARG:NH2	2.39	0.54
26:14:1159:U:H2'	26:14:1160:G:H8	1.71	0.54
26:14:1678:G:N3	26:14:1678:G:H2'	2.22	0.54
36:25:59:LYS:HB3	36:25:87:ILE:HG22	1.89	0.54
41:75:50:ILE:HD11	41:75:102:ILE:CD1	2.35	0.54
47:D5:29:TYR:CE1	47:D5:87:ASP:HB3	2.43	0.54
1:13:688:G:H2'	1:13:689:C:H6	1.73	0.54
1:13:953:G:H5'	1:13:965:A:H61	1.73	0.54
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.41	0.54
15:6I:4:THR:OG1	15:6I:7:GLU:HG3	2.08	0.54
26:1H:638:G:C5	26:1H:651:G:C2	2.95	0.54
26:1H:1103:A:H3'	26:1H:1104:C:H6	1.73	0.54
26:1H:1336:A:OP2	45:F8:64:LYS:NZ	2.36	0.54
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.42	0.54
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.43	0.54
33:51:10:PRO:O	33:51:11:VAL:HG13	2.08	0.54
33:51:170:ARG:HA	33:51:171:LEU:CB	2.34	0.54
52:M8:36:CYS:SG	52:M8:38:LYS:N	2.80	0.54
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.08	0.54
1:1G:1320:C:N3	19:AA:36:ARG:NH2	2.55	0.54
2:12:16:HIS:CE1	2:12:213:LEU:HD22	2.43	0.54
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.72	0.54
26:14:142:G:H2'	26:14:143:C:H6	1.71	0.54
26:14:322:A:H3'	31:39:169:ASN:OD1	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:573:G:O2'	26:14:574:C:H3'	2.08	0.54
26:14:839:U:H2'	26:14:840:C:C6	2.43	0.54
26:14:1456:G:OP2	59:14:3621:HOH:O	2.18	0.54
32:49:107:LEU:HD11	32:49:178:PHE:CE1	2.42	0.54
40:65:106:ARG:NH1	40:65:106:ARG:O	2.33	0.54
41:75:6:LEU:O	41:75:10:VAL:HG23	2.08	0.54
41:75:16:ARG:NH2	41:75:19:LEU:HD21	2.23	0.54
1:13:763:G:H2'	1:13:764:C:H6	1.73	0.54
1:13:1244:C:H2'	1:13:1245:A:C8	2.43	0.54
1:13:1497:G:C2'	1:13:1498:U:H5'	2.38	0.54
2:1E:79:ASP:N	2:1E:81:VAL:HG22	2.23	0.54
26:1H:1142(A):A:C4	26:1H:1144:G:C8	2.95	0.54
26:1H:1598:C:O2'	26:1H:1599:C:H5'	2.07	0.54
26:1H:2830:G:H5"	26:1H:2830:G:H8	1.73	0.54
29:11:263:ARG:HH11	29:11:263:ARG:HG3	1.73	0.54
32:41:49:ASP:OD1	32:41:51:ARG:HG3	2.08	0.54
38:88:140:ALA:C	38:88:141:GLN:HG2	2.31	0.54
49:J8:78:LYS:HD3	49:J8:78:LYS:N	2.23	0.54
1:1G:179:A:H2'	1:1G:180:U:C6	2.42	0.54
1:1G:411:A:OP1	4:32:30:LYS:NZ	2.32	0.54
1:1G:539:A:H2'	1:1G:540:G:C8	2.43	0.54
1:1G:1174:G:H2'	1:1G:1175:G:C8	2.41	0.54
1:1G:1259:C:N4	1:1G:1260:C:O2	2.41	0.54
1:1G:1386:G:C2	1:1G:1387:G:C8	2.95	0.54
10:1A:11:PHE:CE1	10:1A:67:THR:HG22	2.42	0.54
13:4A:91:ARG:NH1	13:4A:96:LEU:HB3	2.23	0.54
26:14:871:U:OP1	38:45:5:ARG:HG2	2.08	0.54
26:14:2645:G:H3'	26:14:2646:C:H5'	1.90	0.54
26:14:2859:G:C8	26:14:2859:G:H3'	2.43	0.54
35:15:16:ILE:HB	35:15:54:VAL:HG22	1.88	0.54
38:45:135:ASP:HA	47:D5:81:ARG:HH22	1.72	0.54
1:13:234:C:H2'	1:13:235:C:H6	1.73	0.54
1:13:693:G:C8	25:4K:13:A:H1'	2.43	0.54
1:13:1157:A:N6	1:13:1178:G:H21	2.06	0.54
4:3E:153:ARG:HH11	4:3E:181:MET:HB2	1.72	0.54
26:1H:592:G:O2'	55:Q8:4:MET:HB2	2.08	0.54
26:1H:1598:C:H2'	26:1H:1599:C:H6	1.73	0.54
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.08	0.54
32:41:107:LEU:HD21	32:41:178:PHE:CD1	2.43	0.54
39:98:55:ALA:HB2	39:98:79:LEU:HD13	1.89	0.54
43:D8:76:LYS:HB2	43:D8:81:TYR:HB3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:78:G:H1	1:1G:91:C:N4	1.97	0.54
1:1G:1129:C:N4	1:1G:1142:G:N7	2.56	0.54
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.90	0.54
3:22:85:ARG:C	3:22:87:LEU:H	2.16	0.54
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.89	0.54
23:2L:62:C:H2'	23:2L:63:C:H6	1.73	0.54
25:4L:14:A:O2'	25:4L:15:A:O4'	2.26	0.54
26:14:1708:C:O2'	26:14:1709:U:H5'	2.07	0.54
26:14:1754:C:H2'	26:14:1755:A:C8	2.43	0.54
42:85:76:TYR:CZ	42:85:80:ILE:HG13	2.43	0.54
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.39	0.53
14:5I:4:LYS:HA	14:5I:7:ILE:HG23	1.90	0.53
26:1H:71:A:H2	45:F8:31:HIS:NE2	2.03	0.53
26:1H:536:A:H2'	26:1H:537:C:C6	2.43	0.53
26:1H:607:U:N3	26:1H:621:A:C2	2.71	0.53
26:1H:2128:C:OP1	28:71:37:PHE:HD2	1.90	0.53
26:1H:2334:G:H5'	40:A8:9:ARG:HG2	1.89	0.53
37:78:125:VAL:O	37:78:144:GLU:HB2	2.08	0.53
50:K8:53:LEU:O	50:K8:57:ILE:HG13	2.08	0.53
1:1G:560:U:O2'	1:1G:561:U:OP2	2.23	0.53
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.44	0.53
3:22:45:LYS:O	3:22:48:TYR:HB2	2.07	0.53
13:4A:34:LEU:HD13	13:4A:41:PRO:HB3	1.89	0.53
13:4A:62:ASN:N	13:4A:62:ASN:OD1	2.41	0.53
22:1L:50:C:H42	22:1L:64:G:H1	1.55	0.53
28:79:43:VAL:HG11	28:79:222:VAL:HG11	1.90	0.53
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.89	0.53
40:65:78:LEU:HD11	40:65:107:GLU:HB3	1.90	0.53
46:C5:75:ILE:HA	46:C5:80:GLY:HA2	1.90	0.53
55:M5:52:LYS:N	55:M5:53:PRO:HD2	2.22	0.53
1:13:292:G:N7	1:13:293:G:H1'	2.23	0.53
1:13:363:A:OP1	12:3I:33:ARG:HG3	2.07	0.53
1:13:1110:A:OP2	59:13:1832:HOH:O	2.19	0.53
1:13:1125:U:O2'	1:13:1126:U:H6	1.90	0.53
8:7E:10:LEU:HD23	8:7E:10:LEU:N	2.23	0.53
9:8E:10:ARG:HE	9:8E:105:ASP:CG	2.16	0.53
13:4I:16:ASP:OD1	13:4I:16:ASP:N	2.39	0.53
26:1H:2817:G:OP1	39:98:99:LYS:NZ	2.23	0.53
27:16:42:C:H4'	32:41:67:LYS:HD2	1.90	0.53
31:31:23:ASP:OD1	31:31:24:LEU:N	2.40	0.53
35:58:96:GLU:HB2	35:58:122:VAL:CG1	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:15:LYS:HZ2	50:K8:15:LYS:N	2.05	0.53
50:K8:41:ILE:O	50:K8:41:ILE:HG12	2.08	0.53
1:1G:853:G:H2'	1:1G:854:G:H8	1.73	0.53
4:32:9:CYS:SG	4:32:22:LYS:HE3	2.49	0.53
4:32:18:LYS:NZ	4:32:33:MET:HB2	2.23	0.53
26:14:2468:G:H3'	26:14:2476:A:N1	2.23	0.53
31:39:25:PRO:C	31:39:27:GLU:N	2.66	0.53
32:49:106:LEU:HD12	32:49:110:ALA:HB3	1.90	0.53
39:55:63:ARG:O	39:55:67:LEU:HD12	2.08	0.53
50:G5:47:ASN:C	50:G5:49:LYS:H	2.13	0.53
1:13:114:U:H2'	1:13:115:G:C8	2.44	0.53
1:13:1239:A:H62	1:13:1299:A:N6	2.04	0.53
19:AI:8:GLY:HA3	19:AI:9:VAL:CG1	2.33	0.53
24:3K:45:G:H4'	24:3K:46:G:OP1	2.08	0.53
27:16:102:G:N7	59:16:308:HOH:O	2.33	0.53
40:A8:36:TYR:N	40:A8:36:TYR:HD1	2.06	0.53
41:B8:58:ASN:ND2	41:B8:58:ASN:O	2.40	0.53
1:1G:1028(A):C:N3	1:1G:1032(B):G:N2	2.48	0.53
8:72:97:VAL:HA	8:72:100:ILE:HD11	1.89	0.53
24:3L:50:C:H2'	24:3L:51:A:C8	2.43	0.53
26:14:259:G:N2	26:14:621:A:H8	2.03	0.53
26:14:527:C:H4'	26:14:528:A:O5'	2.08	0.53
26:14:1142(A):A:N7	26:14:1144:G:C6	2.77	0.53
26:14:1417:C:H42	26:14:1581:G:H1	1.55	0.53
26:14:2037:G:H2'	26:14:2038:G:C8	2.43	0.53
26:14:2567:G:H2'	26:14:2568:C:H6	1.71	0.53
26:14:2682:U:C5	30:29:11:MET:HE2	2.43	0.53
30:29:72:VAL:HB	30:29:74:PRO:HG3	1.90	0.53
40:65:23:ARG:NH2	40:65:84:GLN:OE1	2.40	0.53
1:13:592:G:H2'	1:13:593:G:H8	1.73	0.53
1:13:1149:C:OP1	9:8E:9:ARG:NH2	2.41	0.53
2:1E:71:VAL:HG23	2:1E:164:VAL:HA	1.90	0.53
2:1E:166:ASP:HB3	2:1E:169:LYS:HB2	1.90	0.53
15:6I:78:TYR:OH	15:6I:88:ARG:HG3	2.08	0.53
26:1H:287:C:H2'	26:1H:288:C:H6	1.73	0.53
26:1H:1423:G:N7	59:1H:3873:HOH:O	2.33	0.53
26:1H:1433:U:O2	26:1H:1561:G:C2	2.62	0.53
26:1H:1528:A:C2	26:1H:1543:A:N1	2.77	0.53
30:21:101:ARG:CZ	30:21:171:GLU:HB3	2.39	0.53
35:58:1:MET:HE1	42:C8:95:LEU:HD21	1.90	0.53
44:E8:17:VAL:HG13	44:E8:76:VAL:HG11	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:50:GLU:OE1	2:12:50:GLU:N	2.40	0.53
24:3L:62:C:H2'	28:79:53:ARG:HH21	1.72	0.53
26:14:13:A:N1	26:14:525:U:H2'	2.23	0.53
29:19:108:PRO:HB3	29:19:143:HIS:HE1	1.72	0.53
29:19:260:ARG:NH1	29:19:267:SER:HB3	2.22	0.53
39:55:51:LEU:HD22	39:55:66:VAL:HG22	1.91	0.53
44:A5:71:VAL:HA	44:A5:107:LEU:HD12	1.90	0.53
46:C5:17:SER:HB2	46:C5:71:LYS:CE	2.39	0.53
1:13:591:U:H2'	1:13:592:G:C8	2.44	0.53
1:13:843:U:H5"	1:13:848:C:C5	2.43	0.53
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.91	0.53
3:2E:18:TRP:HE3	3:2E:18:TRP:H	1.54	0.53
4:3E:85:LYS:HD2	4:3E:89:THR:N	2.23	0.53
23:2K:62:C:O2'	23:2K:63:C:H5'	2.09	0.53
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.42	0.53
26:1H:1799:G:O2'	26:1H:1800:C:OP2	2.22	0.53
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.23	0.53
27:16:80:U:H2'	27:16:81:G:N2	2.17	0.53
31:31:6:VAL:HG11	31:31:119:ARG:HA	1.90	0.53
38:88:139:GLU:H	47:H8:122:ARG:HH22	1.57	0.53
47:H8:116:VAL:H	47:H8:146:ILE:HD11	1.74	0.53
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.43	0.53
1:1G:1359:C:O2'	1:1G:1361:G:O6	2.22	0.53
26:14:270(E):G:H2'	26:14:270(F):U:C6	2.43	0.53
26:14:1204:A:C2	26:14:1241:A:N1	2.77	0.53
26:14:2646:C:H2'	26:14:2647:U:O4'	2.07	0.53
37:35:85:LEU:HA	37:35:88:LEU:HD13	1.90	0.53
38:45:33:GLY:HA2	38:45:105:GLU:HB2	1.90	0.53
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.23	0.53
1:13:1221:G:O3'	19:AI:77:THR:HG21	2.08	0.53
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.08	0.53
26:1H:2422:A:N7	55:Q8:31:HIS:HE1	2.06	0.53
28:71:5:LYS:HA	28:71:8:ARG:HB3	1.90	0.53
33:51:2:SER:HB2	33:51:3:ARG:CD	2.27	0.53
50:K8:4:SER:CB	50:K8:7:ARG:H	2.21	0.53
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.89	0.53
2:12:165:VAL:HG23	2:12:166:ASP:H	1.73	0.53
22:1L:26:A:H61	22:1L:44:U:H3	1.57	0.53
26:14:244:A:C2	26:14:255:A:C4	2.96	0.53
26:14:910:A:C5	38:45:13:GLN:HG3	2.44	0.53
26:14:1278:A:H2'	26:14:1279:G:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1316:U:H2'	26:14:1317:A:H8	1.73	0.53
26:14:1946:U:H2'	26:14:1947:C:C6	2.44	0.53
36:25:63:VAL:HG23	36:25:64:ARG:HG2	1.90	0.53
46:C5:19:LYS:HD2	46:C5:20:TYR:HE1	1.73	0.53
1:13:813:U:H5'	1:13:903:G:O3'	2.09	0.53
1:13:1228:C:OP1	13:4I:115:LYS:NZ	2.41	0.53
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.09	0.53
24:3K:51:A:H2'	24:3K:52:G:C8	2.44	0.53
26:1H:639:U:H2'	26:1H:640:C:C6	2.43	0.53
26:1H:1046:A:H4'	26:1H:1047:G:OP2	2.09	0.53
26:1H:1580:A:H8	26:1H:1580:A:OP2	1.91	0.53
28:71:14:VAL:HG13	28:71:222:VAL:HG13	1.90	0.53
29:11:228:PRO:O	59:11:404:HOH:O	2.18	0.53
34:61:110:ASP:OD1	34:61:111:PRO:HA	2.08	0.53
53:N8:33:CYS:HB2	53:N8:40:LYS:HD2	1.91	0.53
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.42	0.53
1:1G:457:C:H2'	1:1G:458:C:C6	2.43	0.53
1:1G:1137:C:O2	1:1G:1138:G:N2	2.41	0.53
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.24	0.53
3:22:32:LEU:HD22	3:22:59:ARG:HH22	1.73	0.53
3:22:118:GLN:HG3	3:22:187:ALA:HB2	1.91	0.53
6:52:24:GLU:OE1	6:52:28:ARG:NH1	2.42	0.53
9:82:105:ASP:OD1	9:82:107:ARG:HD3	2.08	0.53
26:14:91:A:C2'	26:14:92:G:H5'	2.39	0.53
26:14:2162:G:O2'	26:14:2173:A:OP1	2.26	0.53
30:29:117:MET:HA	30:29:122:PHE:N	2.24	0.53
1:13:1030:C:H2'	1:13:1031:G:C8	2.44	0.53
1:13:1233:G:H2'	1:13:1234:C:C6	2.43	0.53
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.44	0.53
8:7E:103:VAL:HG21	8:7E:110:ALA:HB2	1.91	0.53
11:2I:66:LEU:HD23	11:2I:101:SER:HB3	1.90	0.53
26:1H:804:A:P	59:1H:3628:HOH:O	2.67	0.53
26:1H:1045:A:H4'	26:1H:1045:A:OP1	2.08	0.53
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.42	0.53
35:58:20:GLY:HA2	35:58:61:ARG:HD3	1.90	0.53
1:1G:390:C:O2'	16:7A:28:ARG:NH1	2.42	0.53
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.73	0.53
1:1G:1048:G:OP1	14:5A:4:LYS:HB2	2.09	0.53
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.44	0.53
1:1G:1324:A:H2'	1:1G:1325:C:H6	1.72	0.53
4:32:17:VAL:HG12	4:32:18:LYS:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:22:LYS:HB2	4:32:26:CYS:SG	2.49	0.53
9:82:42:ARG:NH1	9:82:75:ASP:OD1	2.31	0.53
24:3L:62:C:H2'	28:79:53:ARG:NH2	2.23	0.53
26:14:547:A:H2'	26:14:548:A:C8	2.44	0.53
26:14:2537:U:H2'	26:14:2538:C:C6	2.44	0.53
1:13:8:A:N6	4:3E:205:GLU:O	2.42	0.53
1:13:625:G:H2'	1:13:626:U:H6	1.74	0.53
1:13:636:U:H2'	1:13:637:G:H8	1.74	0.53
1:13:1108:G:O6	59:13:1827:HOH:O	2.16	0.53
22:1K:27:G:N2	22:1K:43:U:O2	2.39	0.53
26:1H:442:G:C4	26:1H:444:C:C5	2.96	0.53
26:1H:657:U:H2'	26:1H:658:C:H6	1.73	0.53
26:1H:779:U:O4	59:1H:3756:HOH:O	2.18	0.53
26:1H:860:U:C5	26:1H:917:A:H2	2.25	0.53
26:1H:1026:U:H1'	26:1H:1027:A:C5'	2.39	0.53
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.44	0.53
30:21:59:VAL:HG13	30:21:60:ASN:H	1.72	0.53
34:61:38:LEU:H	34:61:38:LEU:HD12	1.74	0.53
47:H8:116:VAL:HG22	47:H8:146:ILE:HG12	1.91	0.53
48:I8:51:VAL:N	48:I8:62:LEU:HD12	2.24	0.53
1:1G:778:G:O2'	11:2A:119:CYS:HB2	2.08	0.53
1:1G:947:G:H2'	1:1G:948:C:C6	2.44	0.53
9:82:117:HIS:O	9:82:118:LYS:HB2	2.08	0.53
16:7A:70:ALA:O	16:7A:74:LEU:HB2	2.09	0.53
26:14:142:G:H5"	26:14:1598:C:O2'	2.08	0.53
26:14:800:A:H8	26:14:800:A:OP1	1.91	0.53
26:14:1436:G:O2'	26:14:1477:A:H4'	2.09	0.53
26:14:1786:A:H2	26:14:2606:C:H1'	1.74	0.53
27:1J:8:U:O3'	40:65:25:ARG:NH2	2.37	0.53
33:59:11:VAL:HG11	33:59:69:ARG:HH22	1.74	0.53
39:55:72:ASP:O	39:55:76:VAL:HG23	2.09	0.53
48:E5:53:MET:HG3	48:E5:59:LEU:HD23	1.91	0.53
49:F5:85:LEU:O	49:F5:88:LYS:N	2.25	0.53
1:13:170:U:H2'	1:13:171:A:H8	1.74	0.53
1:13:363:A:N7	12:3I:33:ARG:CZ	2.72	0.53
1:13:807:A:H2'	1:13:808:C:C6	2.44	0.53
4:3E:43:HIS:ND1	4:3E:46:LYS:HE3	2.24	0.53
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.90	0.53
17:8I:65:ILE:HB	17:8I:69:LYS:HB3	1.91	0.53
26:1H:528:A:C2	26:1H:2043:C:H4'	2.44	0.53
26:1H:910:A:N1	26:1H:2277:G:H1'	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.91	0.53
32:41:7:LEU:N	32:41:104:GLU:OE1	2.41	0.53
33:51:94:TYR:HA	33:51:106:THR:O	2.09	0.53
41:B8:60:THR:HG22	41:B8:77:PRO:HA	1.91	0.53
49:J8:15:ALA:O	49:J8:40:ARG:HG2	2.09	0.53
51:L8:31:LEU:O	51:L8:32:GLN:HB2	2.08	0.53
1:1G:164:U:H2'	1:1G:165:C:H6	1.73	0.53
3:22:50:ALA:HB2	3:22:75:VAL:HB	1.90	0.53
3:22:190:ARG:HG2	3:22:190:ARG:HH11	1.74	0.53
4:32:199:ASN:HB3	4:32:202:LEU:HG	1.90	0.53
26:14:273(F):C:H3'	26:14:274:G:C5'	2.39	0.53
26:14:729:G:O5'	29:19:208:LYS:NZ	2.41	0.53
33:59:146:ALA:O	33:59:149:ARG:N	2.31	0.53
35:15:91:LEU:O	35:15:95:PRO:HB3	2.09	0.53
40:65:42:ASP:OD1	40:65:42:ASP:N	2.42	0.53
1:13:919:A:O2'	1:13:920:U:H5'	2.08	0.52
1:13:1534:A:P	1:13:1534:A:H8	2.32	0.52
2:1E:68:ILE:HG13	2:1E:161:ALA:HB3	1.91	0.52
3:2E:32:LEU:HD13	3:2E:59:ARG:HD3	1.91	0.52
10:1I:85:LEU:HA	10:1I:88:LEU:HD23	1.91	0.52
26:1H:518:G:H2'	26:1H:519:U:C6	2.43	0.52
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.44	0.52
26:1H:1063:G:H22	26:1H:1076:C:H1'	1.73	0.52
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.44	0.52
26:1H:2373:G:H1	26:1H:2380:C:N4	2.07	0.52
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.42	0.52
33:51:52:VAL:O	33:51:65:HIS:NE2	2.30	0.52
42:C8:58:ARG:HA	42:C8:61:TRP:CE3	2.44	0.52
44:E8:12:ILE:HD13	44:E8:17:VAL:HB	1.91	0.52
1:1G:235:C:C5'	17:8A:70:ARG:HG2	2.39	0.52
26:14:1780:A:OP1	59:14:3581:HOH:O	2.19	0.52
26:14:2105:C:N4	26:14:2184:G:H1	2.06	0.52
26:14:2882:A:H5'	39:55:96:ARG:HG3	1.92	0.52
27:1J:93:C:H2'	27:1J:94:C:H6	1.74	0.52
36:25:60:ALA:HB1	36:25:84:ALA:HB1	1.91	0.52
41:75:106:SER:HA	41:75:110:ILE:HG13	1.89	0.52
45:B5:40:LYS:HA	45:B5:51:VAL:HG11	1.90	0.52
1:13:187:C:O2	1:13:191(A):G:N1	2.42	0.52
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.42	0.52
3:2E:18:TRP:CD1	14:5I:55:GLY:H	2.26	0.52
16:7I:58:TYR:O	16:7I:62:VAL:HG22	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.09	0.52
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.74	0.52
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.09	0.52
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.44	0.52
26:1H:2275:C:H5'	26:1H:2275:C:C6	2.40	0.52
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.09	0.52
29:11:8:PRO:HB3	29:11:14:ARG:HB2	1.90	0.52
52:M8:42:PHE:HD1	52:M8:43:TYR:HB3	1.74	0.52
1:1G:87:A:H4'	1:1G:88:C:OP1	2.08	0.52
1:1G:458:C:H2'	1:1G:464:G:H8	1.73	0.52
1:1G:1197:G:OP1	59:1G:1807:HOH:O	2.19	0.52
26:14:868:U:C4	26:14:869:G:N7	2.77	0.52
26:14:1224:G:N2	26:14:1227:A:OP2	2.36	0.52
26:14:2836:U:H2'	26:14:2837:G:C8	2.44	0.52
29:19:85:ASP:OD2	29:19:88:ARG:NH1	2.34	0.52
30:29:171:GLU:O	30:29:184:VAL:HA	2.09	0.52
36:25:31:LYS:HB3	36:25:32:TYR:CD2	2.45	0.52
1:13:232:G:H2'	1:13:233:C:H6	1.73	0.52
1:13:413:G:N2	1:13:428:G:H1'	2.25	0.52
1:13:671:G:H2'	1:13:672:U:H6	1.74	0.52
5:4E:147:ASP:N	5:4E:147:ASP:OD1	2.42	0.52
8:7E:39:LEU:HB3	8:7E:45:ILE:HG12	1.91	0.52
8:7E:94:TYR:HE1	8:7E:132:GLU:HB2	1.73	0.52
25:4K:12:A:HO2'	25:4K:13:A:P	2.30	0.52
26:1H:331:A:H1'	59:1H:4721:HOH:O	2.09	0.52
26:1H:508:G:N3	26:1H:508:G:H5"	2.24	0.52
26:1H:600:G:N2	26:1H:605:C:O3'	2.42	0.52
26:1H:637:A:H2'	37:78:117:GLU:OE1	2.09	0.52
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.44	0.52
26:1H:1614:A:P	26:1H:1614:A:H8	2.33	0.52
26:1H:2138:C:O2	26:1H:2154:G:N2	2.43	0.52
27:16:116:G:H2'	27:16:117:G:O4'	2.09	0.52
35:58:12:ARG:HD3	35:58:14:VAL:HG22	1.91	0.52
24:3L:4:U:H2'	24:3L:5:C:O4'	2.08	0.52
26:14:1542:G:O6	26:14:1543:A:N6	2.42	0.52
26:14:2271:G:H5"	48:E5:20:ARG:NE	2.24	0.52
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.40	0.52
41:75:27:THR:OG1	41:75:89:VAL:HG22	2.09	0.52
43:95:1:MET:HB3	43:95:42:GLY:H	1.74	0.52
49:F5:86:SER:HA	49:F5:89:GLU:CD	2.34	0.52
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:448:A:OP2	1:13:485:G:N2	2.22	0.52
1:13:1336:C:H4'	1:13:1337:G:O5'	2.09	0.52
2:1E:21:ARG:NE	2:1E:21:ARG:O	2.42	0.52
24:3K:75:C:HO2'	24:3K:76:A:H2	1.56	0.52
26:1H:574:C:P	59:1H:3613:HOH:O	2.61	0.52
26:1H:719:C:H2'	26:1H:720:C:H6	1.72	0.52
26:1H:1062:G:H1'	26:1H:1088:A:C5	2.44	0.52
26:1H:1420:U:O2'	26:1H:1421:G:OP1	2.25	0.52
26:1H:2751:G:O6	33:51:3:ARG:HD2	2.10	0.52
29:11:34:VAL:O	29:11:64:ILE:HG23	2.09	0.52
31:31:127:GLU:OE2	31:31:127:GLU:HA	2.05	0.52
40:A8:27:SER:HA	40:A8:88:ASP:HB2	1.92	0.52
52:M8:42:PHE:CD1	52:M8:42:PHE:C	2.87	0.52
55:Q8:16:ILE:HD13	55:Q8:59:LYS:HG3	1.91	0.52
1:1G:6:G:H4'	1:1G:298:A:H4'	1.90	0.52
1:1G:560:U:H5'	1:1G:566:G:N2	2.24	0.52
1:1G:596:C:H2'	1:1G:597:G:H8	1.74	0.52
1:1G:1127:G:N2	1:1G:1145:C:N3	2.56	0.52
1:1G:1312:G:H2'	1:1G:1313:U:O4'	2.09	0.52
6:52:67:MET:HB2	6:52:68:PRO:HD2	1.92	0.52
9:82:9:ARG:O	9:82:104:ARG:HD2	2.10	0.52
10:1A:32:ALA:HA	10:1A:76:ASN:HD21	1.74	0.52
13:4A:8:GLU:CG	13:4A:9:ILE:H	2.22	0.52
18:9A:38:GLU:OE2	18:9A:38:GLU:N	2.38	0.52
26:14:792:G:H5"	26:14:793:A:H5'	1.91	0.52
26:14:1963:U:H5"	26:14:1963:U:O2	2.10	0.52
26:14:2068:U:H3	26:14:2430:A:H2	1.51	0.52
26:14:2331:G:H4'	48:E5:43:THR:H	1.75	0.52
29:19:166:GLN:HB3	29:19:174:ILE:HG22	1.92	0.52
39:55:1:MET:HG3	39:55:1:MET:O	2.08	0.52
41:75:22:PHE:CE2	41:75:86:ILE:HD11	2.45	0.52
42:85:91:ASP:O	42:85:93:LYS:N	2.42	0.52
47:D5:62:PRO:O	47:D5:63:ASP:HB3	2.10	0.52
1:13:145:G:H1	1:13:177:C:H42	1.55	0.52
1:13:407:G:H2'	1:13:408:A:C8	2.43	0.52
1:13:1226:C:N4	13:4I:104:ARG:HG3	2.23	0.52
3:2E:177:THR:O	3:2E:180:ALA:HB2	2.09	0.52
26:1H:1105:U:H2'	26:1H:1106:G:C8	2.44	0.52
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.45	0.52
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.09	0.52
26:1H:1729:A:H2'	26:1H:1731:G:N7	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.44	0.52
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.24	0.52
30:21:60:ASN:HD21	30:21:63:LEU:HB2	1.72	0.52
36:68:64:ARG:O	36:68:82:ASN:HA	2.10	0.52
47:H8:98:MET:O	47:H8:125:LEU:HA	2.09	0.52
1:1G:194:C:H2'	1:1G:195:A:H5"	1.91	0.52
26:14:195:A:H4'	26:14:251:A:O2'	2.09	0.52
26:14:495:G:N3	44:A5:61:ASN:ND2	2.55	0.52
26:14:1149:G:H2'	26:14:1150:C:C6	2.44	0.52
26:14:1227:A:OP1	43:95:84:LYS:HE2	2.09	0.52
26:14:1793:C:H2'	26:14:1794:U:C6	2.44	0.52
26:14:2343:C:O2'	26:14:2373:G:O2'	2.28	0.52
26:14:2520:C:H41	26:14:2542:A:N6	2.08	0.52
26:14:2773:C:OP1	30:29:166:THR:OG1	2.22	0.52
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.91	0.52
32:49:37:VAL:HG22	32:49:159:VAL:HB	1.92	0.52
1:13:150:C:H2'	1:13:151:A:H8	1.75	0.52
1:13:725:G:O2'	1:13:726:C:H5'	2.10	0.52
1:13:808:C:OP2	15:6I:48:LYS:HE2	2.10	0.52
4:3E:153:ARG:O	4:3E:181:MET:HE1	2.10	0.52
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.10	0.52
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.09	0.52
19:AI:41:VAL:HG12	19:AI:43:GLU:N	2.23	0.52
20:BI:26:ASN:HB3	20:BI:71:THR:OG1	2.10	0.52
26:1H:934:G:H2'	26:1H:935:C:C6	2.45	0.52
26:1H:1049:C:H1'	26:1H:1113:U:O2'	2.10	0.52
26:1H:1482:U:O4	26:1H:1510:A:H1'	2.09	0.52
26:1H:1785:A:H5'	59:1H:3721:HOH:O	2.09	0.52
31:31:155:LEU:HB2	31:31:189:THR:HG21	1.91	0.52
32:41:6:ALA:H	52:M8:23:GLU:HG3	1.74	0.52
32:41:124:SER:HB3	32:41:132:ASN:O	2.10	0.52
40:A8:87:PHE:CE1	40:A8:102:ALA:HB2	2.44	0.52
47:H8:126:VAL:HG12	47:H8:162:GLU:O	2.10	0.52
1:1G:512:U:H2'	1:1G:513:C:C6	2.45	0.52
4:32:150:GLU:C	4:32:152:SER:H	2.16	0.52
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.09	0.52
24:3L:37:A:H2'	24:3L:38:A:O4'	2.09	0.52
26:14:1000:A:C6	26:14:1001:A:N1	2.78	0.52
26:14:1392:A:N6	26:14:1393:A:N6	2.57	0.52
26:14:1900:A:OP2	59:14:3631:HOH:O	2.19	0.52
26:14:1936:A:C8	26:14:1940:U:O2	2.62	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2058:A:H5”	26:14:2059:A:OP2	2.09	0.52
26:14:2152:G:N3	26:14:2152:G:H2’	2.24	0.52
26:14:2849:U:H4’	26:14:2868:A:C2	2.45	0.52
26:14:2897:U:H3’	26:14:2898:U:C6	2.44	0.52
29:19:49:ILE:CD1	29:19:52:ARG:HA	2.40	0.52
36:25:13:ASN:HD21	36:25:97:ARG:H	1.57	0.52
48:E5:12:ASN:HA	48:E5:14:ARG:NH2	2.22	0.52
1:13:626:U:N3	1:13:627:G:N7	2.58	0.52
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.74	0.52
9:8E:114:TYR:HE2	10:1I:59:SER:HA	1.75	0.52
15:6I:27:VAL:O	15:6I:31:LEU:HB2	2.09	0.52
24:3K:49:G:N2	24:3K:65:C:O2’	2.41	0.52
26:1H:606:U:H4’	26:1H:658:C:H4’	1.90	0.52
26:1H:2074:U:H2’	26:1H:2075:U:C6	2.45	0.52
26:1H:2257:U:O2’	26:1H:2258:C:H5’	2.09	0.52
26:1H:2636:U:P	30:21:79:ARG:HA	2.50	0.52
30:21:37:ARG:HA	30:21:42:ASP:OD2	2.09	0.52
51:L8:26:LEU:HB2	51:L8:28:LEU:HD12	1.90	0.52
1:1G:589:C:H42	1:1G:650:G:H1	1.57	0.52
1:1G:1123:A:H4’	10:1A:37:PRO:HD2	1.92	0.52
1:1G:1163:C:N3	1:1G:1174:G:N2	2.58	0.52
1:1G:1320:C:H2’	1:1G:1321:C:C6	2.44	0.52
26:14:270(F):U:H3	26:14:270(T):G:H1	1.57	0.52
26:14:1793:C:H2’	26:14:1794:U:H6	1.75	0.52
26:14:2032:G:N2	30:29:146:THR:HG23	2.06	0.52
26:14:2124:G:N2	28:79:42:GLU:OE2	2.43	0.52
27:1J:13:A:H2’	27:1J:70:C:O2’	2.10	0.52
29:19:273:ARG:O	29:19:275:LYS:N	2.42	0.52
43:95:48:GLY:HA3	43:95:52:VAL:N	2.25	0.52
1:13:501:C:H2’	1:13:502:G:C8	2.45	0.52
1:13:1028:C:H41	1:13:1033:G:H1	1.56	0.52
1:13:1392:G:O2’	1:13:1393:U:H5’	2.09	0.52
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.92	0.52
22:1K:48:C:H4’	22:1K:49:G:O5’	2.10	0.52
26:1H:5:A:N6	26:1H:2898:U:O4	2.42	0.52
26:1H:185:U:H4’	26:1H:218:A:H4’	1.92	0.52
26:1H:302:C:H2’	26:1H:303:U:C6	2.44	0.52
26:1H:531:C:OP2	59:1H:3762:HOH:O	2.19	0.52
26:1H:801:G:OP2	59:1H:3758:HOH:O	2.18	0.52
26:1H:1420:U:HO2’	26:1H:1421:G:P	2.32	0.52
26:1H:1843:C:H5’	29:11:253:GLN:OE1	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:68:THR:O	33:51:72:ILE:HG13	2.10	0.52
41:B8:26:ASP:CB	41:B8:92:GLY:H	2.22	0.52
47:H8:76:LEU:H	47:H8:76:LEU:HD23	1.75	0.52
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.44	0.52
26:14:587:C:OP2	37:35:21:ARG:NH2	2.42	0.52
26:14:634:C:H2'	26:14:635:C:C6	2.45	0.52
26:14:1178:C:H2'	26:14:1179:C:C6	2.45	0.52
26:14:2388:A:C2'	26:14:2389:G:H5'	2.39	0.52
26:14:2494:G:O2'	26:14:2495:G:H5'	2.10	0.52
29:19:30:GLU:CD	29:19:63:ARG:HH21	2.18	0.52
30:29:182:LEU:O	30:29:183:LEU:HD12	2.09	0.52
40:65:10:ARG:O	40:65:14:VAL:HG12	2.09	0.52
1:13:486:U:H2'	1:13:487:A:H8	1.75	0.52
1:13:535:A:H5"	59:13:1898:HOH:O	2.09	0.52
1:13:770:C:OP1	59:13:1831:HOH:O	2.19	0.52
1:13:939:G:H2'	1:13:940:C:C6	2.45	0.52
1:13:1149:C:P	9:8E:9:ARG:HH21	2.33	0.52
2:1E:112:VAL:O	2:1E:115:LEU:HB3	2.09	0.52
16:7I:71:ARG:O	16:7I:75:ARG:N	2.41	0.52
22:1K:17:U:HO2'	22:1K:57:G:H1	1.57	0.52
24:3K:9:A:H3'	24:3K:10:G:H8	1.74	0.52
26:1H:558:G:P	35:58:111:PRO:HD2	2.50	0.52
26:1H:602:G:N2	26:1H:655:A:C8	2.68	0.52
26:1H:900:A:H5'	26:1H:901:A:OP2	2.10	0.52
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.10	0.52
26:1H:1368:G:OP1	54:P8:28:ARG:NH2	2.43	0.52
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.74	0.52
26:1H:1568:G:P	29:11:63:ARG:HH12	2.33	0.52
26:1H:2592:G:C6	26:1H:2593:U:C4	2.98	0.52
26:1H:2751:G:C5	33:51:3:ARG:HG3	2.45	0.52
31:31:127:GLU:HG2	31:31:196:LEU:HD23	1.92	0.52
32:41:96:ARG:O	32:41:97:ASP:HB2	2.09	0.52
33:51:80:SER:C	33:51:81:GLU:HG3	2.35	0.52
35:58:48:MET:SD	35:58:48:MET:O	2.68	0.52
41:B8:12:SER:CB	41:B8:15:VAL:H	2.21	0.52
41:B8:99:LEU:HB3	41:B8:101:PHE:CE1	2.45	0.52
47:H8:152:ALA:HB3	47:H8:167:PRO:O	2.10	0.52
1:1G:15:G:H2'	1:1G:16:A:C8	2.45	0.52
1:1G:160:A:H1'	1:1G:344:A:N7	2.25	0.52
1:1G:518:C:H5"	1:1G:519:C:C6	2.45	0.52
1:1G:607:A:H2'	1:1G:608:A:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:712:A:H2'	1:1G:713:G:C8	2.45	0.52
5:42:51:VAL:O	5:42:55:VAL:HG23	2.09	0.52
10:1A:63:PHE:CD1	14:5A:58:LYS:HA	2.45	0.52
26:14:2378:A:O2'	40:65:21:THR:HG21	2.10	0.52
26:14:2386:C:OP2	59:14:3629:HOH:O	2.19	0.52
31:39:68:LYS:HB3	31:39:69:HIS:CD2	2.45	0.52
40:65:61:ASN:CG	40:65:62:LYS:H	2.18	0.52
46:C5:40:GLU:N	46:C5:40:GLU:OE2	2.43	0.52
49:F5:64:ALA:HA	49:F5:67:ILE:HG12	1.92	0.52
1:13:468:A:H5"	16:7I:80:PHE:HB3	1.92	0.52
1:13:1170:A:H2'	1:13:1171:G:O4'	2.10	0.52
2:1E:234:PRO:HB3	2:1E:236:TYR:CD2	2.45	0.52
4:3E:39:PRO:O	4:3E:44:GLY:HA3	2.10	0.52
13:4I:79:LYS:O	13:4I:83:ASP:HB2	2.10	0.52
19:AI:40:ILE:HG21	19:AI:66:MET:O	2.10	0.52
26:1H:44:A:O2'	26:1H:45:G:H5'	2.09	0.52
26:1H:719:C:H2'	26:1H:720:C:C6	2.45	0.52
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.25	0.52
26:1H:1533:C:C6	26:1H:1534:G:H5"	2.45	0.52
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.74	0.52
26:1H:1833:U:P	59:1H:3703:HOH:O	2.68	0.52
37:78:124:LYS:HA	37:78:143:GLY:O	2.09	0.52
40:A8:85:VAL:H	40:A8:111:GLU:HG2	1.74	0.52
1:1G:837:G:N2	1:1G:850:U:O2	2.43	0.52
1:1G:1240:U:OP2	7:62:116:ALA:N	2.43	0.52
11:2A:81:ASP:N	11:2A:81:ASP:OD1	2.43	0.52
13:4A:78:ILE:HG23	13:4A:92:HIS:ND1	2.24	0.52
23:2L:15:G:H2'	23:2L:60:A:N1	2.25	0.52
23:2L:55:5MU:H2'	23:2L:56:PSU:O4'	2.10	0.52
24:3L:52:G:N2	28:79:53:ARG:HH12	2.06	0.52
26:14:139:G:H5'	26:14:139:G:C8	2.45	0.52
26:14:1056:G:H1'	26:14:1103:A:N6	2.25	0.52
26:14:2134:A:H2'	26:14:2134:A:N3	2.25	0.52
26:14:2298:A:N6	26:14:2318:G:C8	2.77	0.52
29:19:30:GLU:HG3	29:19:35:LYS:HZ3	1.75	0.52
32:49:14:GLU:O	32:49:17:PRO:HG2	2.10	0.52
1:13:342:C:C2	1:13:348:G:C2	2.98	0.51
1:13:626:U:H5"	16:7I:38:TYR:CD2	2.45	0.51
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.92	0.51
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.91	0.51
20:BI:33:ILE:O	20:BI:37:SER:OG	2.22	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:48:U:O2'	23:2K:49:C:OP2	2.27	0.51
26:1H:191:A:H2'	26:1H:192:C:C6	2.45	0.51
26:1H:761:A:OP1	59:1H:3764:HOH:O	2.19	0.51
26:1H:2414:G:H21	37:78:67:MET:HE3	1.75	0.51
31:31:185:ASP:HA	31:31:188:ARG:CD	2.40	0.51
33:51:137:ASP:OD1	33:51:138:LYS:N	2.42	0.51
45:F8:84:ALA:HB1	45:F8:85:PRO:HD2	1.93	0.51
1:1G:260:G:H2'	1:1G:261:U:C6	2.45	0.51
1:1G:371:G:H1	1:1G:390:C:H42	1.57	0.51
1:1G:629:G:H2'	1:1G:630:G:H4'	1.91	0.51
4:32:18:LYS:HZ1	4:32:31:CYS:HB2	1.75	0.51
7:62:88:PRO:O	7:62:89:MET:HG2	2.10	0.51
30:29:50:GLY:HA2	30:29:78:LEU:HB2	1.92	0.51
36:25:3:GLN:HB2	36:25:4:PRO:HD2	1.92	0.51
47:D5:52:SER:O	47:D5:53:ILE:HG12	2.11	0.51
47:D5:60:GLU:HA	47:D5:66:SER:HA	1.91	0.51
47:D5:77:ASP:HB2	47:D5:84:GLU:HG2	1.91	0.51
48:E5:68:GLU:OE1	48:E5:82:ARG:HG3	2.10	0.51
1:13:1126:U:C5	1:13:1127:G:N7	2.78	0.51
1:13:1128:C:O2'	1:13:1129:C:OP1	2.26	0.51
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.24	0.51
19:AI:3:ARG:CD	19:AI:9:VAL:HG21	2.39	0.51
21:1F:2:GLY:C	21:1F:4:GLY:H	2.16	0.51
26:1H:270(K):C:C2'	26:1H:270(N):G:H22	2.23	0.51
26:1H:528:A:N1	26:1H:2042:A:H2'	2.25	0.51
26:1H:860:U:H1'	26:1H:2268:A:H5'	1.91	0.51
26:1H:1491:G:O4'	29:11:99:ASP:HB3	2.10	0.51
26:1H:2127:G:H1'	26:1H:2162:G:H1'	1.92	0.51
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.76	0.51
26:1H:2648:C:H2'	26:1H:2649:U:C6	2.45	0.51
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.45	0.51
29:11:3:VAL:HG13	29:11:17:THR:HG23	1.93	0.51
29:11:228:PRO:HD3	29:11:235:GLY:HA3	1.92	0.51
38:88:110:THR:HG23	38:88:113:GLN:OE1	2.11	0.51
42:C8:49:HIS:HA	42:C8:52:ARG:HG2	1.93	0.51
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.45	0.51
26:14:761:A:H5"	59:14:3532:HOH:O	2.10	0.51
26:14:1425:G:H2'	26:14:1426:G:O4'	2.11	0.51
26:14:1568:G:H5"	29:19:61:LEU:HD22	1.92	0.51
26:14:2127:G:H2'	26:14:2128:C:O4'	2.10	0.51
26:14:2849:U:O4	41:75:23:ARG:NH2	2.37	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:33:ARG:NH2	39:55:115:GLU:OE2	2.43	0.51
40:65:89:ARG:O	40:65:92:TYR:N	2.43	0.51
1:13:145:G:H1	1:13:177:C:N4	2.09	0.51
1:13:696:A:N1	1:13:797:C:O2'	2.35	0.51
1:13:1053:G:O5'	1:13:1054:C:H3'	2.10	0.51
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.41	0.51
1:13:1210:C:C2'	1:13:1211:U:H5'	2.40	0.51
2:1E:11:LEU:HD21	2:1E:209:ARG:HH21	1.75	0.51
2:1E:18:GLY:HA2	2:1E:42:ILE:HG13	1.93	0.51
8:7E:8:ASP:O	8:7E:12:ARG:HB2	2.10	0.51
26:1H:1170:G:N2	26:1H:1180:C:C2	2.79	0.51
26:1H:1831:G:H2'	26:1H:1832:C:H6	1.74	0.51
26:1H:1869:G:H8	26:1H:1869:G:H5"	1.75	0.51
26:1H:2356:C:C5	26:1H:2357:U:C4	2.98	0.51
29:11:26:LYS:C	29:11:29:PRO:HG2	2.35	0.51
42:C8:69:CYS:HB2	42:C8:74:LEU:HD13	1.92	0.51
50:K8:2:LYS:HB3	50:K8:5:GLU:HG3	1.91	0.51
1:1G:690:G:H2'	1:1G:691:G:O4'	2.10	0.51
1:1G:978:A:H5'	1:1G:979:C:OP2	2.10	0.51
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.45	0.51
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.92	0.51
4:32:173:TRP:HZ3	4:32:193:ASP:HB3	1.75	0.51
9:82:16:ARG:O	9:82:63:ILE:HG23	2.09	0.51
12:3A:79:GLU:HG2	12:3A:80:HIS:CD2	2.46	0.51
13:4A:91:ARG:HB2	13:4A:98:VAL:HG12	1.91	0.51
26:14:226:G:H21	26:14:228:A:H62	1.58	0.51
26:14:618:G:H2'	26:14:618(A):C:O4'	2.10	0.51
26:14:770:G:H5"	26:14:771:G:OP2	2.11	0.51
26:14:2497:A:O3'	59:14:3628:HOH:O	2.19	0.51
41:75:91:ARG:HD2	41:75:124:ASP:OD2	2.11	0.51
42:85:50:ARG:NH1	43:95:72:VAL:HG23	2.24	0.51
43:95:34:GLU:OE1	43:95:56:SER:HB2	2.10	0.51
1:13:1:U:O2'	1:13:2:U:H5"	2.11	0.51
1:13:67:C:H2'	1:13:68:G:H8	1.75	0.51
1:13:157:G:H2'	1:13:158:G:C8	2.46	0.51
1:13:631:G:O2'	1:13:632:A:O5'	2.28	0.51
1:13:872:A:C2	1:13:874:G:C6	2.99	0.51
1:13:883:C:C2'	1:13:884:U:H5'	2.41	0.51
26:1H:270(E):G:H1	26:1H:270(U):C:N4	2.04	0.51
26:1H:731:C:P	59:1H:3639:HOH:O	2.68	0.51
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2124:G:N2	26:1H:2175:C:N3	2.53	0.51
26:1H:2127:G:C8	26:1H:2162:G:C4	2.98	0.51
29:11:245:PRO:CG	29:11:253:GLN:HE21	2.23	0.51
30:21:111:ARG:HG3	30:21:160:TYR:CD2	2.46	0.51
33:51:6:ARG:HA	33:51:66:GLY:HA2	1.91	0.51
33:51:20:ALA:HB3	33:51:23:ARG:HG3	1.92	0.51
37:78:38:GLN:O	37:78:41:ARG:HB2	2.10	0.51
40:A8:49:VAL:HG22	40:A8:80:LEU:HD13	1.91	0.51
52:M8:13:ARG:HD2	52:M8:20:ASN:HD22	1.74	0.51
1:1G:309:G:O2'	1:1G:607:A:N1	2.43	0.51
1:1G:804:U:H5"	1:1G:805:C:OP2	2.10	0.51
1:1G:984:C:H2'	1:1G:985:C:H6	1.75	0.51
1:1G:1140:C:H2'	1:1G:1141:C:C6	2.45	0.51
2:12:22:LYS:HE2	2:12:40:HIS:HE1	1.76	0.51
2:12:54:THR:HA	2:12:57:PHE:HB2	1.91	0.51
2:12:145:LEU:O	2:12:149:LEU:HB2	2.11	0.51
5:42:103:GLY:C	5:42:106:PRO:HD2	2.36	0.51
6:52:19:LEU:O	6:52:23:LYS:HG3	2.09	0.51
26:14:19:C:H2'	26:14:20:C:C6	2.46	0.51
26:14:1630:G:N2	26:14:1636:C:O2	2.38	0.51
26:14:2150:U:H2'	26:14:2151:G:H8	1.75	0.51
34:69:90:GLY:O	34:69:121:LYS:HE2	2.10	0.51
43:95:28:GLU:O	43:95:61:VAL:HG11	2.10	0.51
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.40	0.51
1:13:439:A:H3'	1:13:440:A:H8	1.76	0.51
1:13:652:U:O4	1:13:752:G:O2'	2.15	0.51
4:3E:117:ALA:O	4:3E:120:LEU:HB2	2.10	0.51
8:7E:109:ILE:HD11	8:7E:120:THR:HG22	1.92	0.51
19:AI:51:VAL:O	19:AI:58:VAL:N	2.34	0.51
26:1H:910:A:N7	38:88:13:GLN:HG3	2.24	0.51
26:1H:1324:G:C5	26:1H:1328:G:O6	2.64	0.51
26:1H:1604:C:H5"	59:1H:3935:HOH:O	2.10	0.51
26:1H:1633:G:N7	59:1H:3881:HOH:O	2.34	0.51
26:1H:1664:A:OP1	59:1H:3765:HOH:O	2.19	0.51
26:1H:1690:A:H2'	26:1H:1691:C:O4'	2.10	0.51
30:21:63:LEU:O	30:21:64:LYS:HG3	2.10	0.51
31:31:34:TRP:HB2	37:78:6:LEU:HG	1.92	0.51
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.91	0.51
49:J8:7:ILE:HD12	49:J8:62:VAL:HG11	1.92	0.51
1:1G:328:C:H4'	1:1G:329:A:H5"	1.91	0.51
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1429:C:H2'	1:1G:1430:C:H6	1.76	0.51
6:52:99:ALA:HB3	18:9A:29:PHE:CE1	2.44	0.51
19:AA:65:ASN:HB2	19:AA:66:MET:SD	2.51	0.51
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.09	0.51
26:14:307:G:N2	26:14:310:A:O5'	2.34	0.51
26:14:1104:C:H2'	26:14:1105:U:C6	2.46	0.51
26:14:2876:G:H4'	41:75:2:ASN:HD22	1.75	0.51
30:29:199:ARG:HB3	30:29:200:GLU:OE1	2.11	0.51
31:39:11:VAL:CG1	31:39:13:SER:HB3	2.41	0.51
31:39:158:THR:HB	31:39:195:ASP:HB2	1.92	0.51
40:65:27:SER:HA	40:65:88:ASP:HB2	1.93	0.51
41:75:55:ASN:N	41:75:59:THR:HG22	2.25	0.51
43:95:71:LEU:O	43:95:85:LYS:O	2.28	0.51
49:F5:50:ARG:HD2	49:F5:57:GLU:OE1	2.10	0.51
1:13:114:U:O2'	1:13:115:G:H5'	2.10	0.51
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.28	0.51
1:13:1308:U:H5"	13:4I:98:VAL:HG22	1.92	0.51
2:1E:125:PRO:HA	2:1E:127:ILE:HG13	1.93	0.51
5:4E:89:ILE:HG21	5:4E:135:THR:HA	1.93	0.51
23:2K:24:C:H2'	23:2K:25:U:H6	1.74	0.51
26:1H:721:C:H2'	26:1H:722:A:H8	1.75	0.51
26:1H:1323:U:H2'	26:1H:1324:G:H5'	1.91	0.51
26:1H:2123:G:H22	26:1H:2176:A:H2	1.59	0.51
26:1H:2313:C:H4'	32:41:91:ARG:HG3	1.93	0.51
27:16:63:G:H2'	27:16:64:C:C6	2.45	0.51
30:21:38:THR:HG22	30:21:41:LYS:N	2.25	0.51
32:41:76:SER:OG	32:41:84:LYS:N	2.44	0.51
47:H8:60:GLU:O	47:H8:61:LEU:HB3	2.08	0.51
51:L8:28:LEU:HA	51:L8:33:GLN:HE21	1.75	0.51
1:1G:976:G:P	14:5A:32:SER:H	2.30	0.51
1:1G:1014:A:H4'	19:AA:14:HIS:CE1	2.46	0.51
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.75	0.51
2:12:105:PHE:CE1	2:12:109:SER:HB3	2.45	0.51
11:2A:54:ARG:NH2	24:3L:40:C:OP1	2.43	0.51
12:3A:28:LYS:HD2	12:3A:33:ARG:HH12	1.76	0.51
26:14:433:C:C4	26:14:434:U:O4	2.64	0.51
26:14:1759:A:H4'	26:14:2715:C:O4'	2.11	0.51
26:14:1945:G:H2'	26:14:1946:U:C6	2.45	0.51
26:14:2239:G:P	59:14:3822:HOH:O	2.69	0.51
26:14:2340:G:O2'	26:14:2341:G:H5'	2.11	0.51
26:14:2660:A:H8	26:14:2660:A:OP1	1.94	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:46:PHE:O	44:A5:50:VAL:HG12	2.11	0.51
1:13:116:A:H61	1:13:313:A:H1'	1.75	0.51
1:13:1127:G:C2'	1:13:1128:C:H5'	2.39	0.51
1:13:1453:G:OP2	1:13:1453:G:H4'	2.11	0.51
3:2E:58:GLU:H	3:2E:65:ALA:HB3	1.76	0.51
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.41	0.51
4:3E:138:TYR:CD1	4:3E:138:TYR:C	2.87	0.51
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.46	0.51
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.11	0.51
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.11	0.51
26:1H:128:C:H2'	26:1H:129:C:H6	1.76	0.51
26:1H:527:C:OP2	26:1H:2779:U:H5	1.94	0.51
26:1H:558:G:OP1	35:58:111:PRO:HD2	2.09	0.51
26:1H:863:A:H2'	26:1H:864:G:H8	1.74	0.51
27:16:90:C:H5'	38:88:18:LYS:HA	1.91	0.51
31:31:17:ARG:O	31:31:17:ARG:HD3	2.11	0.51
37:78:19:VAL:HA	37:78:27:HIS:HB3	1.92	0.51
38:88:116:GLU:OE2	38:88:119:ARG:NH2	2.36	0.51
39:98:118:GLU:OE1	39:98:118:GLU:HA	2.11	0.51
49:J8:93:GLU:CG	49:J8:94:LEU:N	2.51	0.51
51:L8:43:ILE:O	51:L8:47:VAL:HG23	2.10	0.51
1:1G:17:U:H2'	1:1G:18:C:C6	2.45	0.51
1:1G:826:C:H2'	1:1G:827:U:C6	2.45	0.51
1:1G:920:U:H2'	1:1G:921:U:H6	1.73	0.51
1:1G:1118:C:OP1	9:82:104:ARG:NE	2.35	0.51
2:12:132:LYS:HG3	2:12:136:VAL:HG23	1.93	0.51
26:14:1342:A:H2	26:14:1602:U:H3	1.58	0.51
26:14:2129:C:H5"	26:14:2130:U:H5	1.75	0.51
26:14:2160:G:N2	26:14:2161:C:N3	2.58	0.51
26:14:2324:C:H5"	26:14:2325:G:H5'	1.91	0.51
26:14:2339:G:H2'	26:14:2340:G:C8	2.46	0.51
26:14:2734:A:H2'	26:14:2735:G:O4'	2.09	0.51
29:19:66:ASP:HB3	29:19:105:ILE:CD1	2.41	0.51
29:19:71:ASP:CG	29:19:103:ARG:HH22	2.18	0.51
32:49:120:LEU:HB2	32:49:180:PHE:CD1	2.45	0.51
50:G5:4:SER:CB	50:G5:7:ARG:HB2	2.41	0.51
1:13:321:A:H62	1:13:328:C:H1'	1.76	0.51
1:13:1322:C:H5"	13:4I:100:GLY:HA2	1.93	0.51
3:2E:8:ILE:HG23	3:2E:16:ARG:HG2	1.92	0.51
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.92	0.51
8:7E:49:GLU:HG2	8:7E:62:TYR:HE2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.93	0.51
22:1K:14:A:C5	22:1K:22:G:C2	2.98	0.51
22:1K:21:A:O2'	22:1K:22:G:OP1	2.27	0.51
24:3K:5:C:H1'	24:3K:68:G:H22	1.76	0.51
26:1H:1337:G:C4	26:1H:1338:G:C8	2.99	0.51
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.34	0.51
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.46	0.51
27:16:42:C:HO2'	32:41:67:LYS:HE3	1.76	0.51
29:11:84:TYR:CE1	29:11:86:PRO:HB3	2.46	0.51
31:31:196:LEU:C	31:31:197:ASP:O	2.53	0.51
32:41:173:LEU:HD12	32:41:178:PHE:CD2	2.46	0.51
35:58:12:ARG:HG2	35:58:13:TRP:H	1.76	0.51
41:B8:111:ARG:HD3	41:B8:111:ARG:H	1.76	0.51
45:F8:55:ASN:O	45:F8:79:ALA:HA	2.11	0.51
1:1G:596:C:H2'	1:1G:597:G:C8	2.46	0.51
1:1G:642:A:N3	8:72:113:SER:OG	2.41	0.51
1:1G:689:C:C2'	1:1G:690:G:H5'	2.41	0.51
1:1G:1119:C:OP2	9:82:9:ARG:NH2	2.44	0.51
1:1G:1206:G:C6	1:1G:1207:G:C6	2.98	0.51
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.11	0.51
26:14:125:G:H5"	54:L5:19:ARG:HD3	1.92	0.51
26:14:569:U:C4	26:14:570:G:C6	2.98	0.51
26:14:847:U:H5	26:14:933:A:H62	1.58	0.51
26:14:996:A:C2	26:14:997:G:C8	2.99	0.51
29:19:12:SER:HB2	29:19:208:LYS:HB3	1.91	0.51
31:39:4:VAL:HG13	31:39:19:GLU:OE2	2.10	0.51
32:49:118:ARG:HB2	32:49:181:ARG:HD3	1.93	0.51
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.92	0.51
1:13:1000:A:H2'	1:13:1001:G:C8	2.46	0.51
1:13:1171:G:O2'	1:13:1172:C:H5'	2.11	0.51
1:13:1347:G:C8	9:8E:107:ARG:HB2	2.46	0.51
2:1E:46:LYS:HA	2:1E:49:GLU:OE2	2.11	0.51
26:1H:185:U:H2'	26:1H:186:G:H8	1.76	0.51
26:1H:476:G:N1	26:1H:479:A:OP2	2.43	0.51
26:1H:2577:A:N7	59:1H:3886:HOH:O	2.34	0.51
30:21:2:LYS:HA	30:21:84:PHE:CD1	2.46	0.51
30:21:64:LYS:HB3	30:21:66:HIS:CG	2.45	0.51
33:51:101:ARG:NH2	33:51:122:THR:OG1	2.44	0.51
33:51:168:PRO:HB2	33:51:170:ARG:NH2	2.25	0.51
1:1G:127:G:OP1	1:1G:635:G:H1'	2.10	0.51
1:1G:567:G:H1'	59:1G:1950:HOH:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:827:U:H3	1:1G:872:A:H62	1.58	0.51
1:1G:1157:A:N6	1:1G:1177:G:H1	2.08	0.51
2:12:126:GLU:C	2:12:130:ARG:HH12	2.18	0.51
8:72:20:TYR:CE2	8:72:75:ARG:HB3	2.46	0.51
9:82:19:LEU:HA	9:82:61:ALA:HA	1.93	0.51
23:2L:32:G:C5	23:2L:33:OMC:C5	2.99	0.51
26:14:235:U:H2'	26:14:236:C:C6	2.45	0.51
26:14:1013:C:H2'	26:14:1014:U:C6	2.46	0.51
26:14:2688:U:H5	26:14:2720:U:OP2	1.93	0.51
26:14:2788:C:O2'	26:14:2809:A:N3	2.41	0.51
27:1J:17:C:H2'	27:1J:18:G:O4'	2.11	0.51
30:29:13:ARG:NH2	41:75:77:PRO:HB3	2.26	0.51
30:29:54:GLN:HB2	30:29:72:VAL:CA	2.40	0.51
32:49:42:GLY:O	32:49:43:LEU:HD13	2.11	0.51
33:59:7:LEU:HA	33:59:65:HIS:NE2	2.25	0.51
38:45:36:ALA:HB2	38:45:103:MET:SD	2.51	0.51
38:45:68:ILE:HD13	38:45:103:MET:HB3	1.93	0.51
50:G5:5:GLU:O	50:G5:8:LYS:HB3	2.10	0.51
50:G5:15:LYS:H	50:G5:67:LYS:HZ1	1.59	0.51
1:13:49:U:C2	1:13:361:G:N2	2.79	0.51
1:13:719:C:O2'	18:9I:49:LYS:HB3	2.10	0.51
1:13:963:G:H21	10:1I:55:LYS:CE	2.24	0.51
1:13:1262:C:H2'	1:13:1263:C:C6	2.46	0.51
1:13:1349:A:H2'	1:13:1350:A:C8	2.45	0.51
4:3E:85:LYS:HZ2	4:3E:89:THR:C	2.18	0.51
5:4E:28:PHE:HE2	25:4K:26:A:H4'	1.75	0.51
24:3K:1:G:N3	24:3K:1:G:H2'	2.26	0.51
26:1H:184:C:H2'	26:1H:185:U:C6	2.46	0.51
26:1H:847:U:H5	26:1H:933:A:N1	2.08	0.51
26:1H:1769:G:O2'	26:1H:1958:C:OP1	2.27	0.51
26:1H:1951:U:H5"	26:1H:1952:A:OP2	2.11	0.51
26:1H:2121:G:H4'	28:71:167:LYS:NZ	2.26	0.51
26:1H:2749:A:H4'	33:51:62:LYS:HB3	1.93	0.51
30:21:66:HIS:NE2	30:21:73:GLU:OE1	2.44	0.51
39:98:84:ALA:HB3	39:98:85:PRO:HD3	1.93	0.51
42:C8:91:ASP:O	42:C8:92:ARG:C	2.54	0.51
50:K8:4:SER:OG	50:K8:6:VAL:HB	2.11	0.51
55:Q8:46:ARG:HB2	55:Q8:47:LYS:HB2	1.92	0.51
1:1G:652:U:O2'	1:1G:653:A:N3	2.42	0.51
1:1G:689:C:H3'	1:1G:690:G:H21	1.74	0.51
1:1G:1051:C:H2'	1:1G:1052:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:24:TRP:HE1	2:12:26:PRO:HG3	1.76	0.51
2:12:166:ASP:CG	2:12:169:LYS:HB2	2.36	0.51
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.93	0.51
4:32:148:VAL:HG12	4:32:152:SER:CB	2.40	0.51
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.93	0.51
21:1B:2:GLY:O	21:1B:4:GLY:N	2.43	0.51
22:1L:8:U:H3'	22:1L:13:C:N4	2.25	0.51
26:14:582:G:H2'	26:14:583:G:C8	2.46	0.51
26:14:1040:C:H2'	26:14:1041:C:C6	2.46	0.51
26:14:1786:A:C2	26:14:2606:C:H1'	2.45	0.51
26:14:1812:A:O2'	29:19:45:ASN:HB2	2.11	0.51
26:14:2016:U:H1'	53:J5:6:VAL:HG13	1.93	0.51
26:14:2724:C:OP1	30:29:118:LYS:HE3	2.11	0.51
42:85:92:ARG:NH2	43:95:11:GLN:H	2.09	0.51
53:J5:38:ALA:HB3	53:J5:48:GLU:HG3	1.92	0.51
1:13:396:G:O2'	1:13:398:C:OP1	2.19	0.50
23:2K:17:C:H5'	23:2K:62:C:OP1	2.11	0.50
24:3K:63:U:O4'	28:71:53:ARG:NH2	2.39	0.50
26:1H:1427:A:H4'	26:1H:1428:C:O5'	2.10	0.50
29:11:35:LYS:HB2	29:11:62:TYR:O	2.11	0.50
32:41:111:LEU:HD23	32:41:114:ILE:HD12	1.93	0.50
37:78:78:PRO:HB3	37:78:111:ARG:NH2	2.26	0.50
48:I8:53:MET:HG3	48:I8:59:LEU:CD2	2.41	0.50
49:J8:92:LYS:HA	49:J8:95:LEU:HB2	1.93	0.50
1:1G:979:C:OP1	1:1G:1223:C:N4	2.44	0.50
1:1G:1321:C:O2	19:AA:77:THR:OG1	2.26	0.50
1:1G:1363:A:C8	1:1G:1365:G:C4	3.00	0.50
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	1.92	0.50
26:14:95:G:H4'	50:G5:46:GLN:HB2	1.92	0.50
26:14:1681:G:C4	59:14:3684:HOH:O	2.63	0.50
26:14:1788:C:C2	26:14:1789:A:C8	2.99	0.50
26:14:2296:U:O2'	26:14:2297:C:OP2	2.23	0.50
26:14:2749:A:H2'	33:59:59:ARG:NH1	2.26	0.50
29:19:264:LYS:HE2	29:19:266:SER:HB3	1.93	0.50
31:39:18:ARG:NH1	31:39:20:LEU:HG	2.27	0.50
33:59:56:SER:OG	33:59:57:ASP:N	2.44	0.50
36:25:103:ALA:HB1	36:25:105:GLU:OE1	2.11	0.50
37:35:39:LYS:HD2	37:35:45:LEU:CD2	2.32	0.50
1:13:56:U:H4'	34:69:82:ARG:HH21	1.75	0.50
1:13:407:G:P	4:3E:115:ARG:HH21	2.34	0.50
1:13:1226:C:H2'	13:4I:103:THR:HB	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1369:C:H2'	1:13:1370:G:C8	2.46	0.50
24:3K:58:A:O2'	24:3K:59:A:O5'	2.30	0.50
26:1H:581:C:OP1	42:C8:33:ARG:HG3	2.10	0.50
26:1H:839:U:H2'	26:1H:840:C:C6	2.46	0.50
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.40	0.50
29:11:66:ASP:HB3	29:11:105:ILE:CD1	2.42	0.50
33:51:10:PRO:C	33:51:11:VAL:HG22	2.37	0.50
34:61:29:TYR:HD2	34:61:30:LEU:HD23	1.75	0.50
34:61:95:LYS:O	34:61:98:ALA:HB3	2.10	0.50
41:B8:107:ASP:O	41:B8:110:ILE:HG23	2.12	0.50
44:E8:29:LEU:HD12	44:E8:29:LEU:O	2.12	0.50
45:F8:36:LYS:HA	45:F8:39:ILE:HD12	1.93	0.50
50:K8:47:ASN:O	50:K8:49:LYS:HG3	2.12	0.50
1:1G:269:C:H2'	1:1G:270:A:C8	2.45	0.50
1:1G:1023:G:H5"	1:1G:1024:G:H21	1.74	0.50
1:1G:1274:G:H21	1:1G:1275:A:H62	1.59	0.50
1:1G:1316:G:H22	1:1G:1319:A:P	2.35	0.50
2:12:116:GLU:OE2	2:12:156:LYS:NZ	2.43	0.50
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.93	0.50
7:62:22:LEU:HD23	7:62:62:PHE:HE2	1.76	0.50
7:62:116:ALA:O	7:62:120:ILE:HG12	2.11	0.50
9:82:10:ARG:HA	9:82:104:ARG:NH1	2.26	0.50
26:14:72:U:OP1	59:14:3623:HOH:O	2.18	0.50
26:14:276:A:H5'	26:14:277:C:OP2	2.11	0.50
26:14:522:G:H2'	26:14:523:C:C6	2.45	0.50
26:14:587:C:O2	37:35:33:ARG:NH1	2.44	0.50
26:14:1401:G:H2'	26:14:1402:C:O4'	2.11	0.50
26:14:1448:G:H1'	26:14:1528:A:H62	1.76	0.50
26:14:1816:G:P	29:19:39:LYS:HZ3	2.34	0.50
26:14:2067:G:O2'	26:14:2069:G:H5"	2.10	0.50
26:14:2270:G:OP2	59:14:3632:HOH:O	2.20	0.50
26:14:2273:A:H2'	26:14:2274:A:H8	1.74	0.50
26:14:2394:C:H1'	59:14:4200:HOH:O	2.11	0.50
29:19:159:ALA:HB1	29:19:198:ASN:O	2.11	0.50
30:29:25:VAL:O	30:29:26:ILE:HG12	2.11	0.50
33:59:55:PRO:HG2	33:59:61:HIS:CD2	2.46	0.50
1:13:1417:G:N2	1:13:1482:G:H2'	2.27	0.50
26:1H:479:A:N3	26:1H:481:G:H5"	2.26	0.50
26:1H:871:U:OP2	38:88:5:ARG:NH2	2.42	0.50
26:1H:928:G:N7	59:1H:3888:HOH:O	2.34	0.50
26:1H:2068:U:N3	26:1H:2430:A:C2	2.78	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2262:U:H4'	26:1H:2328:A:H2	1.75	0.50
30:21:38:THR:HG22	30:21:41:LYS:H	1.76	0.50
31:31:165:ARG:HA	31:31:168:ARG:HD3	1.93	0.50
36:68:7:TYR:CE1	36:68:20:MET:HE3	2.47	0.50
1:1G:1356:G:H2'	1:1G:1357:A:O4'	2.11	0.50
1:1G:1503:A:O2'	25:4L:12:A:N6	2.44	0.50
2:12:22:LYS:HE2	2:12:40:HIS:CE1	2.46	0.50
4:32:43:HIS:HA	4:32:46:LYS:HE3	1.93	0.50
26:14:1188:U:C2'	26:14:1189:A:H5'	2.41	0.50
26:14:2400:G:H2'	26:14:2401:U:C6	2.46	0.50
26:14:2563:U:H4'	36:25:28:SER:HA	1.94	0.50
26:14:2791:C:O2'	26:14:2792:G:O5'	2.30	0.50
29:19:44:ASN:HB3	29:19:45:ASN:C	2.36	0.50
29:19:49:ILE:HG13	29:19:51:VAL:O	2.10	0.50
31:39:3:GLU:O	31:39:19:GLU:HB2	2.10	0.50
31:39:41:LEU:O	31:39:44:ARG:HG2	2.12	0.50
38:45:31:ASP:O	38:45:134:ARG:HB2	2.11	0.50
1:13:112:G:OP1	16:7I:27:LYS:HD2	2.11	0.50
1:13:838:G:O6	1:13:848:C:N4	2.44	0.50
1:13:1171:G:H2'	1:13:1172:C:H6	1.76	0.50
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.10	0.50
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.11	0.50
14:5I:27:CYS:SG	14:5I:29:ARG:HB2	2.51	0.50
23:2K:20:G:C2	23:2K:58:A:N3	2.79	0.50
26:1H:271(B):G:H4'	26:1H:271(C):U:O5'	2.11	0.50
26:1H:492:A:H2'	26:1H:493:G:O4'	2.12	0.50
26:1H:747:U:O2	26:1H:2014:A:H1'	2.11	0.50
26:1H:813:U:H2'	26:1H:814:C:C6	2.47	0.50
26:1H:1278:A:OP1	39:98:36:THR:HG22	2.11	0.50
26:1H:2238:G:H4'	26:1H:2239:G:OP1	2.11	0.50
26:1H:2250:G:C5	38:88:83:MET:HB3	2.47	0.50
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.11	0.50
26:1H:2335:A:C8	26:1H:2337:G:C5	2.99	0.50
28:71:208:PHE:HD1	28:71:209:LEU:HD23	1.76	0.50
34:61:79:ILE:O	34:61:142:VAL:HA	2.11	0.50
34:61:123:LEU:HD23	34:61:143:SER:HA	1.92	0.50
35:58:12:ARG:HG2	35:58:13:TRP:N	2.26	0.50
39:98:101:ALA:HA	53:N8:44:THR:HG21	1.93	0.50
1:1G:408:A:H2'	1:1G:409:G:O4'	2.10	0.50
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.46	0.50
9:82:28:VAL:CG2	9:82:63:ILE:HB	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:39:ILE:HG21	13:4A:52:GLU:HB3	1.93	0.50
13:4A:86:CYS:SG	13:4A:88:ARG:HG3	2.52	0.50
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.11	0.50
25:4L:23:A:O2'	25:4L:24:A:H5"	2.12	0.50
26:14:754:C:H2'	26:14:755:C:H6	1.76	0.50
26:14:2126:A:O2'	26:14:2127:G:H5"	2.12	0.50
26:14:2839:G:C5'	39:55:46:GLY:HA2	2.41	0.50
28:79:14:VAL:HG11	28:79:222:VAL:HA	1.94	0.50
32:49:125:PHE:CB	32:49:166:ASP:HB2	2.39	0.50
34:69:130:TYR:HB3	34:69:136:VAL:CG2	2.28	0.50
38:45:35:VAL:HG12	38:45:36:ALA:H	1.77	0.50
40:65:67:ARG:NH1	40:65:67:ARG:HB2	2.26	0.50
1:13:404:U:H5'	4:3E:122:ARG:HD2	1.93	0.50
1:13:591:U:H2'	1:13:592:G:H8	1.77	0.50
1:13:1016:A:H2'	1:13:1017:G:O4'	2.10	0.50
1:13:1130:A:H5'	1:13:1131:G:OP2	2.11	0.50
1:13:1240:U:O2'	7:6E:38:LEU:HG	2.12	0.50
1:13:1438:G:H2'	1:13:1439:C:C6	2.47	0.50
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.12	0.50
24:3K:9:A:O2'	24:3K:46:G:O5'	2.30	0.50
24:3K:48:C:OP2	24:3K:59:A:O2'	2.26	0.50
26:1H:301:G:C4	26:1H:302:C:C5	2.99	0.50
26:1H:796:C:H2'	26:1H:797:C:C6	2.45	0.50
26:1H:817:C:H4'	26:1H:932:G:C5	2.47	0.50
26:1H:1288:U:H4'	26:1H:1289:C:OP2	2.10	0.50
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.77	0.50
26:1H:2062:A:OP1	59:1H:3763:HOH:O	2.19	0.50
26:1H:2209:C:O2	26:1H:2216:G:C2	2.64	0.50
26:1H:2836:U:H2'	26:1H:2837:G:H8	1.74	0.50
37:78:106:LEU:O	37:78:107:LYS:C	2.53	0.50
48:I8:42:GLY:C	48:I8:57:PHE:HD2	2.19	0.50
51:L8:28:LEU:HA	51:L8:33:GLN:NE2	2.27	0.50
54:P8:24:THR:HG23	54:P8:27:GLY:H	1.76	0.50
1:1G:9:G:OP1	5:42:122:GLU:HB2	2.12	0.50
1:1G:41:G:H2'	1:1G:42:G:C8	2.47	0.50
1:1G:652:U:H1'	1:1G:653:A:C2	2.47	0.50
4:32:149:ALA:O	4:32:153:ARG:NE	2.45	0.50
7:62:148:ASN:O	7:62:149:ARG:HD3	2.12	0.50
12:3A:110:VAL:HG23	12:3A:120:TYR:HB3	1.94	0.50
26:14:184:C:H2'	26:14:185:U:C6	2.47	0.50
26:14:198:C:O2'	26:14:199:A:H5'	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.47	0.50
26:14:2014:A:H2'	26:14:2015:A:C8	2.47	0.50
26:14:2659:G:N2	26:14:2662:A:OP2	2.45	0.50
26:14:2839:G:H21	39:55:92:GLY:HA2	1.76	0.50
26:14:2867:G:OP2	41:75:119:LYS:NZ	2.32	0.50
31:39:21:ALA:C	31:39:23:ASP:H	2.19	0.50
31:39:53:THR:CG2	31:39:55:GLY:H	2.25	0.50
35:15:132:ALA:HB1	35:15:133:GLN:HG2	1.94	0.50
40:65:23:ARG:HH22	40:65:84:GLN:CD	2.20	0.50
40:65:67:ARG:HB2	40:65:67:ARG:HH11	1.77	0.50
50:G5:17:SER:N	50:G5:20:GLU:OE2	2.42	0.50
1:13:256:U:H2'	1:13:257:G:C8	2.47	0.50
1:13:530:G:O6	25:4K:21:G:H1'	2.12	0.50
1:13:973:G:H3'	1:13:974:A:H5"	1.94	0.50
4:3E:173:TRP:CE3	4:3E:193:ASP:HB3	2.47	0.50
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.77	0.50
26:1H:300:A:N6	59:1H:3870:HOH:O	2.43	0.50
26:1H:741:G:O2'	26:1H:742:G:H5'	2.12	0.50
26:1H:2524:G:N7	59:1H:3889:HOH:O	2.35	0.50
29:11:17:THR:CG2	29:11:204:ILE:HA	2.42	0.50
32:41:16:ARG:NH1	32:41:31:VAL:HG22	2.27	0.50
46:G8:28:LYS:NZ	46:G8:40:GLU:HG3	2.27	0.50
52:M8:13:ARG:NH1	52:M8:22:ILE:HG23	2.24	0.50
1:1G:1149:C:O2'	1:1G:1280:A:N1	2.39	0.50
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.12	0.50
2:12:33:TYR:HB3	2:12:41:ILE:HG23	1.92	0.50
4:32:126:ILE:HG22	4:32:127:THR:N	2.27	0.50
9:82:27:THR:OG1	9:82:31:GLN:O	2.18	0.50
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.11	0.50
26:14:279:C:H42	26:14:361:G:H1	1.59	0.50
26:14:1570:A:H4'	29:19:37:LEU:HD21	1.94	0.50
26:14:2261:C:H1'	26:14:2388:A:N3	2.27	0.50
27:1J:70:C:H2'	27:1J:71:C:H6	1.77	0.50
29:19:106:ILE:O	29:19:108:PRO:HD3	2.11	0.50
31:39:67:GLN:O	31:39:67:GLN:HG3	2.10	0.50
32:49:27:ASN:ND2	32:49:28:VAL:H	2.09	0.50
37:35:107:LYS:O	37:35:109:GLY:N	2.38	0.50
39:55:97:VAL:HA	39:55:113:LEU:O	2.12	0.50
1:13:165:C:H2'	1:13:166:G:H8	1.76	0.50
1:13:262:A:C6	1:13:263:A:C6	3.00	0.50
1:13:667:G:H4'	15:6I:51:HIS:ND1	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:982:U:H4'	1:13:983:A:O5'	2.12	0.50
7:6E:115:ARG:O	7:6E:118:VAL:HG12	2.12	0.50
12:3I:8:ASN:OD1	17:8I:34:LYS:NZ	2.45	0.50
26:1H:637:A:O5'	37:78:116:GLY:HA3	2.12	0.50
26:1H:744:G:OP1	30:21:132:HIS:ND1	2.42	0.50
26:1H:1429:G:H2'	26:1H:1430:C:H6	1.77	0.50
26:1H:1678:G:N2	26:1H:1989:G:N2	2.59	0.50
26:1H:1805:U:O2	29:11:50:THR:HB	2.12	0.50
26:1H:1971:A:C4	29:11:241:PRO:HD3	2.47	0.50
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.46	0.50
59:1H:3758:HOH:O	31:31:55:GLY:HA2	2.12	0.50
28:71:23:ASP:HB2	28:71:190:ARG:HH22	1.76	0.50
29:11:26:LYS:HD2	29:11:29:PRO:CG	2.26	0.50
34:61:9:LEU:HD21	34:61:35:LEU:HD23	1.94	0.50
37:78:68:GLN:OE1	37:78:68:GLN:HA	2.12	0.50
45:F8:41:ASN:O	45:F8:45:THR:HG23	2.11	0.50
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.46	0.50
7:62:101:LEU:O	7:62:105:VAL:HG23	2.11	0.50
9:82:26:VAL:HG22	9:82:61:ALA:N	2.27	0.50
16:7A:72:ARG:HE	16:7A:73:LEU:HD23	1.77	0.50
26:14:1386:C:H2'	26:14:1387:C:C6	2.47	0.50
26:14:2233:U:H2'	26:14:2234:G:C8	2.46	0.50
26:14:2304:G:H22	26:14:2312:U:H3	1.60	0.50
48:E5:26:TYR:O	48:E5:29:GLN:HB2	2.11	0.50
55:M5:15:LYS:NZ	59:M5:202:HOH:O	2.45	0.50
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.11	0.50
1:13:604:G:H2'	1:13:605:U:O4'	2.12	0.50
1:13:1063:C:H3'	1:13:1064:G:H2'	1.93	0.50
2:1E:178:ARG:HD2	8:7E:71:GLY:O	2.12	0.50
3:2E:121:ALA:O	3:2E:125:GLU:HG3	2.12	0.50
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.94	0.50
21:1F:6:ARG:HH11	21:1F:15:ARG:NE	2.10	0.50
25:4K:13:A:H2'	25:4K:13:A:N3	2.27	0.50
26:1H:302:C:H2'	26:1H:303:U:H6	1.77	0.50
26:1H:306:U:H2'	26:1H:307:G:O4'	2.11	0.50
26:1H:633:A:H2'	26:1H:634:C:H5'	1.94	0.50
26:1H:1816:G:P	59:1H:3715:HOH:O	2.70	0.50
32:41:67:LYS:CE	52:M8:6:HIS:CE1	2.92	0.50
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.46	0.50
40:A8:48:LEU:CD2	40:A8:82:ILE:HD11	2.41	0.50
52:M8:14:ILE:HG23	52:M8:21:VAL:HB	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:373:A:N3	1:1G:374:A:C8	2.80	0.50
1:1G:540:G:H2'	1:1G:541:G:O4'	2.11	0.50
1:1G:606:G:N2	1:1G:631:G:O2'	2.45	0.50
1:1G:1142:G:C5	1:1G:1143:G:H1'	2.46	0.50
1:1G:1279:A:O2'	1:1G:1281:U:OP2	2.19	0.50
1:1G:1533:C:O2'	1:1G:1534:A:OP1	2.29	0.50
5:42:99:GLY:O	5:42:117:ASP:HA	2.12	0.50
8:72:17:THR:HG22	8:72:78:GLN:OE1	2.11	0.50
17:8A:17:LYS:HG2	17:8A:47:PRO:HA	1.93	0.50
26:14:11:G:H2'	26:14:12:U:H5'	1.94	0.50
26:14:198:C:P	59:14:3717:HOH:O	2.70	0.50
26:14:239:U:H2'	26:14:240:G:O4'	2.12	0.50
26:14:265:A:C8	26:14:266:G:H1'	2.47	0.50
26:14:925:C:H2'	26:14:926:A:H8	1.76	0.50
26:14:1109:C:H2'	26:14:1110:G:H1'	1.93	0.50
26:14:1239:G:H5"	59:14:3979:HOH:O	2.11	0.50
26:14:1358:G:N2	26:14:1372:U:C5	2.80	0.50
26:14:1404:C:O2'	26:14:1405:U:H5'	2.11	0.50
26:14:1971:A:P	29:19:242:ARG:HH22	2.35	0.50
26:14:2520:C:H41	26:14:2542:A:H62	1.60	0.50
31:39:89:VAL:HG12	31:39:90:PHE:H	1.77	0.50
49:F5:89:GLU:O	49:F5:93:GLU:HB2	2.11	0.50
1:13:232:G:C5	1:13:233:C:C5	3.00	0.50
1:13:1291:G:H2'	1:13:1292:U:C6	2.46	0.50
1:13:1298:C:P	7:6E:114:ARG:HH22	2.35	0.50
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.93	0.50
22:1K:12:U:OP2	59:1K:201:HOH:O	2.20	0.50
26:1H:770:G:OP1	59:1H:3759:HOH:O	2.19	0.50
26:1H:1585:C:H6	26:1H:1585:C:OP1	1.94	0.50
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.47	0.50
30:21:38:THR:O	30:21:42:ASP:N	2.43	0.50
31:31:12:LEU:O	31:31:127:GLU:N	2.41	0.50
37:78:49:ARG:HG3	37:78:49:ARG:HH11	1.77	0.50
48:I8:72:ARG:HB3	48:I8:75:LEU:HB2	1.94	0.50
1:1G:825:G:O2'	8:72:12:ARG:NH1	2.45	0.50
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.11	0.50
1:1G:1140:C:H2'	1:1G:1141:C:H6	1.76	0.50
22:1L:74:C:H2'	22:1L:75:C:H5'	1.92	0.50
26:14:495:G:H21	44:A5:61:ASN:HD21	1.60	0.50
26:14:955:C:OP1	38:45:87:LYS:HE2	2.12	0.50
26:14:1337:G:H2'	26:14:1338:G:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1443:G:N7	59:14:3732:HOH:O	2.34	0.50
26:14:1827:C:C2'	26:14:1828:G:H5'	2.42	0.50
26:14:2010:G:H5"	44:A5:42:ARG:HB2	1.93	0.50
27:1J:44:G:OP1	32:49:98:ARG:NH2	2.41	0.50
30:29:44:TYR:HE2	30:29:80:GLU:OE1	1.94	0.50
33:59:9:ILE:O	33:59:69:ARG:NH1	2.44	0.50
34:69:143:SER:O	34:69:144:VAL:HG22	2.12	0.50
35:15:41:ASP:O	42:85:64:ARG:NH2	2.44	0.50
1:13:113:G:H2'	1:13:114:U:C6	2.47	0.49
1:13:1125:U:O2'	1:13:1126:U:OP2	2.30	0.49
1:13:1126:U:H2'	1:13:1127:G:O4'	2.12	0.49
1:13:1234:C:O2'	1:13:1235:U:H5'	2.12	0.49
14:5I:13:THR:HG23	14:5I:20:ALA:HB2	1.94	0.49
19:AI:41:VAL:CG1	19:AI:44:MET:N	2.67	0.49
22:1K:34:U8U:HN3	25:4K:21:G:N2	1.99	0.49
26:1H:1381:G:N7	59:1H:3877:HOH:O	2.34	0.49
26:1H:1468:C:O2'	26:1H:1469:A:H5'	2.12	0.49
26:1H:1583:A:OP1	26:1H:1585:C:N4	2.40	0.49
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.47	0.49
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.48	0.49
26:1H:2310:A:N1	32:41:80:PHE:HE1	2.10	0.49
26:1H:2352:A:C4	26:1H:2366:A:C2	3.00	0.49
27:16:15:A:H5'	27:16:16:G:C8	2.47	0.49
27:16:54:G:H2'	27:16:55:U:H6	1.77	0.49
28:71:10:LEU:HD12	28:71:32:LEU:HD12	1.93	0.49
29:11:146:GLU:HG3	29:11:190:TYR:N	2.27	0.49
31:31:130:ALA:C	31:31:132:VAL:H	2.20	0.49
35:58:133:GLN:O	35:58:134:ARG:HB2	2.10	0.49
41:B8:12:SER:HA	41:B8:14:TYR:N	2.23	0.49
47:H8:51:ALA:O	47:H8:54:HIS:HB2	2.12	0.49
48:I8:72:ARG:NH1	48:I8:75:LEU:HD12	2.27	0.49
53:N8:16:ARG:HG3	53:N8:17:ASP:N	2.26	0.49
1:1G:363:A:OP1	12:3A:33:ARG:HG3	2.12	0.49
1:1G:377:G:P	16:7A:5:ARG:HH11	2.35	0.49
1:1G:998:G:H2'	1:1G:998(A):C:C6	2.47	0.49
1:1G:1305:G:HO2'	1:1G:1306:A:H8	1.58	0.49
1:1G:1396:A:H4'	1:1G:1397:C:C5'	2.42	0.49
2:12:219:VAL:HA	2:12:220:ASP:HB3	1.94	0.49
4:32:8:VAL:HA	4:32:11:LEU:HD12	1.93	0.49
4:32:18:LYS:HZ3	4:32:31:CYS:HB2	1.77	0.49
7:62:31:MET:HG3	7:62:36:LYS:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:120:THR:CG2	8:72:123:GLU:H	2.22	0.49
12:3A:27:LEU:HB3	12:3A:33:ARG:HG2	1.94	0.49
26:14:197:A:P	59:14:3526:HOH:O	2.70	0.49
26:14:1444(A):A:H2'	26:14:1444(A):A:N3	2.27	0.49
26:14:2238:G:H2'	26:14:2238:G:N3	2.27	0.49
26:14:2629:A:H2'	26:14:2629:A:N3	2.26	0.49
33:59:149:ARG:NH1	33:59:154:PRO:HB2	2.27	0.49
42:85:92:ARG:NH2	43:95:10:LYS:HA	2.27	0.49
1:13:1:U:C2	1:13:630:G:H1'	2.47	0.49
1:13:1219:U:H2'	1:13:1220:G:O4'	2.11	0.49
2:1E:100:GLY:O	2:1E:102:LEU:N	2.44	0.49
26:1H:2050:C:H2'	26:1H:2051:A:C8	2.47	0.49
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.47	0.49
27:16:87:G:N2	27:16:89(A):A:OP2	2.39	0.49
29:11:65:ILE:HD12	29:11:66:ASP:N	2.27	0.49
30:21:16:ARG:HG3	30:21:16:ARG:O	2.11	0.49
32:41:18:GLU:O	32:41:22:ARG:HB2	2.12	0.49
37:78:130:PHE:HE1	37:78:146:VAL:HG23	1.77	0.49
46:G8:68:HIS:ND1	46:G8:70:SER:HB2	2.27	0.49
1:1G:502:G:O2'	59:1G:1829:HOH:O	2.20	0.49
1:1G:1129:C:H5	1:1G:1141:C:H42	1.60	0.49
2:12:47:THR:HA	2:12:50:GLU:OE2	2.12	0.49
3:22:69:HIS:HA	3:22:104:GLN:HB2	1.94	0.49
5:42:16:THR:HG23	5:42:17:ALA:N	2.26	0.49
8:72:86:ILE:HG13	8:72:133:LEU:HD22	1.93	0.49
19:AA:56:GLN:HG2	19:AA:57:HIS:N	2.26	0.49
26:14:718:A:H3'	26:14:719:C:C6	2.47	0.49
26:14:1430:C:H2'	26:14:1431:U:H6	1.76	0.49
26:14:2207:C:O2'	29:19:151:LYS:NZ	2.45	0.49
26:14:2271:G:O6	59:14:3630:HOH:O	2.19	0.49
26:14:2377:A:H2'	26:14:2378:A:C8	2.48	0.49
26:14:2584:U:H2'	26:14:2585:U:H2'	1.93	0.49
32:49:172:LEU:O	32:49:176:LEU:HB2	2.12	0.49
34:69:45:LYS:HA	34:69:48:GLU:HB3	1.95	0.49
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.76	0.49
1:13:160:A:N1	1:13:343:U:O2'	2.46	0.49
1:13:427:U:H5'	4:3E:41:GLY:HA2	1.95	0.49
1:13:1438:G:H2'	1:13:1439:C:H6	1.77	0.49
8:7E:85:ARG:CD	8:7E:88:LYS:HG2	2.43	0.49
11:2I:21:ILE:HG13	11:2I:30:VAL:HG12	1.94	0.49
26:1H:163:U:H1'	49:J8:82:LEU:HD13	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:315:G:C6	26:1H:316:C:C4	3.00	0.49
26:1H:805:G:H4'	26:1H:806:C:OP2	2.13	0.49
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.78	0.49
26:1H:2751:G:H5'	33:51:4:ILE:HD13	1.93	0.49
29:11:108:PRO:HD2	29:11:111:LEU:HG	1.94	0.49
31:31:136:THR:HG22	31:31:166:ALA:O	2.12	0.49
35:58:130:HIS:HA	35:58:134:ARG:HH12	1.77	0.49
41:B8:108:ARG:HG3	41:B8:109:GLU:N	2.27	0.49
47:H8:132:ASN:HD22	47:H8:132:ASN:N	2.11	0.49
1:1G:176:C:H2'	1:1G:177:C:C6	2.47	0.49
1:1G:555:C:H2'	1:1G:556:C:C6	2.47	0.49
1:1G:1274:G:N2	1:1G:1275:A:H62	2.10	0.49
1:1G:1392:G:N2	1:1G:1502:A:H8	2.10	0.49
2:12:50:GLU:H	2:12:50:GLU:CD	2.19	0.49
4:32:96:LEU:HD22	4:32:139:ARG:NH1	2.27	0.49
26:14:492:A:H2'	26:14:493:G:O4'	2.11	0.49
26:14:819:A:H2'	26:14:820:A:H5'	1.94	0.49
26:14:864:G:C6	26:14:865:C:N4	2.80	0.49
1:13:157:G:N2	1:13:164:U:O2	2.43	0.49
1:13:538:G:OP2	12:3I:115:LYS:HB2	2.11	0.49
1:13:1113:C:H2'	1:13:1114:C:H6	1.77	0.49
1:13:1126:U:H4'	1:13:1281:U:O2	2.11	0.49
6:5E:15:ASP:OD1	6:5E:18:GLN:HG3	2.12	0.49
19:AI:40:ILE:HB	19:AI:69:HIS:O	2.13	0.49
26:1H:855:G:H5"	26:1H:856:C:OP2	2.12	0.49
26:1H:1608:A:O2'	26:1H:1610:A:OP2	2.23	0.49
26:1H:2313:C:C2'	26:1H:2314:C:H5'	2.42	0.49
26:1H:2648:C:H2'	26:1H:2649:U:H6	1.77	0.49
29:11:113:VAL:O	29:11:113:VAL:HG22	2.12	0.49
29:11:221:VAL:HG22	29:11:226:MET:HE2	1.93	0.49
40:A8:106:ARG:HE	40:A8:106:ARG:N	2.10	0.49
43:D8:17:GLY:N	43:D8:96:ILE:O	2.25	0.49
50:K8:3:LEU:HB3	50:K8:4:SER:C	2.38	0.49
1:1G:1441:G:H5"	1:1G:1442:G:H5'	1.94	0.49
3:22:182:ILE:HG23	3:22:203:PHE:HD1	1.78	0.49
26:14:760:G:C2'	26:14:761:A:H5'	2.43	0.49
26:14:1007:C:OP1	35:15:35:ARG:NH1	2.46	0.49
26:14:2542:A:H4'	26:14:2542:A:OP1	2.10	0.49
26:14:2820:A:C6	39:55:4:LEU:HD11	2.46	0.49
31:39:110:LEU:HD21	31:39:181:LEU:HD22	1.94	0.49
31:39:146:ALA:CB	31:39:148:LEU:HG	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:96:GLU:O	35:15:100:GLU:HB2	2.12	0.49
42:85:91:ASP:C	42:85:93:LYS:N	2.69	0.49
42:85:98:LEU:HA	42:85:100:VAL:H	1.78	0.49
44:A5:27:LYS:O	44:A5:71:VAL:HG23	2.11	0.49
2:1E:98:LEU:HB2	2:1E:101:MET:HE3	1.93	0.49
7:6E:94:ARG:O	7:6E:97:GLN:HB3	2.12	0.49
21:1F:5:ASP:HB3	21:1F:8:THR:HG22	1.95	0.49
26:1H:86:C:H4'	26:1H:104:U:H1'	1.94	0.49
26:1H:143:C:H2'	26:1H:144:C:C6	2.48	0.49
26:1H:919:G:H4'	27:16:81:G:H4'	1.94	0.49
26:1H:2118:U:O2	26:1H:2148:G:O2'	2.29	0.49
26:1H:2761:G:N7	59:1H:3887:HOH:O	2.34	0.49
29:11:37:LEU:C	29:11:38:LYS:HG3	2.36	0.49
41:B8:12:SER:OG	41:B8:13:ARG:N	2.44	0.49
3:22:8:ILE:O	3:22:11:ARG:N	2.44	0.49
4:32:3:ARG:HD2	4:32:118:ARG:NE	2.27	0.49
4:32:45:GLN:O	4:32:46:LYS:HG2	2.12	0.49
8:72:84:ARG:O	8:72:135:CYS:HB2	2.12	0.49
11:2A:73:MET:SD	11:2A:103:LEU:HD13	2.52	0.49
26:14:17:G:H4'	42:85:25:TRP:CH2	2.48	0.49
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.47	0.49
26:14:307:G:N2	26:14:309:G:H3'	2.27	0.49
26:14:311:A:C6	26:14:328:U:C4	3.01	0.49
26:14:510:C:H2'	26:14:511:U:O4'	2.12	0.49
26:14:847:U:OP2	59:14:3528:HOH:O	2.18	0.49
26:14:1144:G:C6	26:14:1145:C:N3	2.81	0.49
27:1J:5:C:H42	27:1J:115:G:H1	1.60	0.49
37:35:82:GLY:HA2	37:35:113:LYS:O	2.13	0.49
41:75:106:SER:N	41:75:107:ASP:OD1	2.46	0.49
42:85:61:TRP:CZ3	42:85:94:ASN:HB2	2.47	0.49
1:13:129(A):G:C2	1:13:188:U:O2'	2.66	0.49
1:13:160:A:N3	1:13:160:A:H2'	2.28	0.49
1:13:721:G:C6	1:13:733:A:C2	3.00	0.49
1:13:725:G:H2'	1:13:726:C:H6	1.77	0.49
1:13:1356:G:H2'	1:13:1357:A:C8	2.48	0.49
6:5E:41:GLU:HG3	6:5E:62:TRP:CE3	2.48	0.49
12:3I:66:VAL:HG21	12:3I:98:TYR:HE1	1.77	0.49
13:4I:23:TYR:HE2	13:4I:71:ARG:HG3	1.76	0.49
13:4I:70:LEU:O	13:4I:74:VAL:HG23	2.12	0.49
15:6I:69:TYR:CE1	15:6I:73:GLU:HG3	2.48	0.49
15:6I:74:ASP:OD2	15:6I:77:ARG:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:76:A:H1'	26:1H:2583:G:H21	1.78	0.49
24:3K:48:C:H5	24:3K:59:A:N3	2.11	0.49
26:1H:569:U:C4	26:1H:570:G:C6	3.01	0.49
26:1H:805:G:P	37:78:41:ARG:HG2	2.53	0.49
26:1H:863:A:H2'	26:1H:864:G:C8	2.48	0.49
26:1H:1509:C:H2'	26:1H:1511:A:H8	1.78	0.49
26:1H:1820:U:H4'	26:1H:1821:A:OP2	2.11	0.49
26:1H:1965:C:H3'	26:1H:1966:A:H2'	1.95	0.49
26:1H:2887:U:H2'	26:1H:2888:C:H6	1.77	0.49
27:16:75:G:N2	47:H8:85:HIS:CE1	2.79	0.49
28:71:15:ASP:HB3	28:71:18:LYS:H	1.77	0.49
30:21:69:LYS:HG3	30:21:70:ALA:H	1.77	0.49
35:58:53:VAL:HG11	35:58:128:HIS:CD2	2.47	0.49
35:58:94:HIS:C	35:58:95:PRO:O	2.50	0.49
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.95	0.49
42:C8:79:PHE:CD1	42:C8:79:PHE:C	2.91	0.49
45:F8:57:LEU:N	45:F8:57:LEU:HD23	2.27	0.49
1:1G:468:A:C1'	16:7A:82:GLN:HE22	2.25	0.49
1:1G:999:U:H3	1:1G:1041:A:H61	1.61	0.49
1:1G:1008:C:N4	1:1G:1021:G:H1	2.08	0.49
1:1G:1024:G:H4'	1:1G:1024:G:OP1	2.13	0.49
7:62:20:ASP:HB3	7:62:23:VAL:HB	1.93	0.49
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.95	0.49
13:4A:16:ASP:HB3	13:4A:34:LEU:HD11	1.95	0.49
15:6A:8:LYS:O	15:6A:12:ILE:HG13	2.12	0.49
26:14:557:U:H2'	26:14:558:G:C8	2.48	0.49
26:14:1050:A:C2	26:14:2751:G:H2'	2.47	0.49
26:14:2557:G:H2'	26:14:2558:C:C6	2.48	0.49
26:14:2749:A:O4'	33:59:63:SER:HA	2.13	0.49
26:14:2772:C:H2'	26:14:2773:C:H6	1.77	0.49
34:69:77:LEU:HB3	34:69:78:THR:OG1	2.12	0.49
46:C5:8:LYS:HZ3	46:C5:95:LYS:HD3	1.77	0.49
55:M5:58:ILE:HD12	55:M5:58:ILE:O	2.12	0.49
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.46	0.49
1:13:778:G:H8	1:13:778:G:O5'	1.95	0.49
1:13:1342:C:H4'	9:8E:125:TYR:HB3	1.94	0.49
2:1E:124:SER:O	2:1E:127:ILE:HG12	2.13	0.49
3:2E:3:ASN:N	3:2E:3:ASN:OD1	2.46	0.49
12:3I:43:VAL:HG13	12:3I:55:VAL:HG21	1.94	0.49
13:4I:84:ILE:HA	13:4I:84:ILE:HD12	1.66	0.49
24:3K:48:C:H5	24:3K:59:A:C4	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:6:A:H1'	35:58:131:GLN:HG2	1.93	0.49
26:1H:1158:C:H4'	51:L8:32:GLN:HB2	1.94	0.49
26:1H:2172:U:H5'	26:1H:2173:A:OP2	2.13	0.49
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.48	0.49
33:51:3:ARG:HG2	33:51:3:ARG:O	2.13	0.49
33:51:9:ILE:HG23	33:51:51:ARG:HB3	1.94	0.49
46:G8:63:LYS:NZ	46:G8:64:GLU:HG3	2.28	0.49
50:K8:64:LEU:HD22	50:K8:68:ARG:HD2	1.93	0.49
52:M8:42:PHE:O	52:M8:42:PHE:CD1	2.66	0.49
1:1G:457:C:H2'	1:1G:458:C:H6	1.77	0.49
1:1G:918:A:H2'	1:1G:919:A:O4'	2.12	0.49
1:1G:927:G:N2	1:1G:1391:U:H1'	2.27	0.49
1:1G:1077:G:N1	1:1G:1081:G:C6	2.81	0.49
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.46	0.49
26:14:128:C:H2'	26:14:129:C:O4'	2.13	0.49
26:14:557:U:H2'	26:14:558:G:H8	1.78	0.49
26:14:571:A:H5'	26:14:2030:A:N7	2.27	0.49
26:14:959:A:C6	26:14:960:A:N1	2.80	0.49
26:14:1021:A:H62	26:14:1141:U:H3	1.61	0.49
26:14:1028:A:N6	26:14:1125:G:H2'	2.27	0.49
26:14:1338:G:N3	26:14:1393:A:H2	2.10	0.49
26:14:1359:A:N7	26:14:1372:U:O4	2.45	0.49
26:14:1568:G:P	29:19:63:ARG:HH12	2.35	0.49
26:14:2388:A:H2'	26:14:2389:G:H5'	1.93	0.49
26:14:2766:G:N3	26:14:2766:G:H2'	2.28	0.49
27:1J:88:C:H4'	27:1J:89:G:OP2	2.12	0.49
30:29:111:ARG:HB2	30:29:160:TYR:O	2.12	0.49
37:35:144:GLU:CD	37:35:144:GLU:N	2.71	0.49
47:D5:6:LYS:HG2	47:D5:7:ALA:N	2.28	0.49
1:13:678:U:H2'	1:13:679:C:C6	2.48	0.49
1:13:1098:C:C2	1:13:1099:G:C8	3.00	0.49
2:1E:163:PHE:CD1	2:1E:185:ILE:HG12	2.48	0.49
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.46	0.49
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.48	0.49
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.77	0.49
26:1H:2121:G:H1	26:1H:2177:C:H42	1.61	0.49
26:1H:2749:A:OP1	33:51:4:ILE:HG13	2.13	0.49
28:71:45:ALA:HB2	28:71:212:VAL:HG22	1.95	0.49
32:41:33:ARG:O	32:41:162:THR:HG23	2.13	0.49
46:G8:68:HIS:CE1	46:G8:70:SER:HB2	2.48	0.49
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:15:LYS:NZ	50:K8:15:LYS:N	2.61	0.49
1:1G:518:C:H5"	1:1G:519:C:H6	1.76	0.49
1:1G:1277:C:H1'	1:1G:1282:C:O2	2.12	0.49
7:62:23:VAL:HG13	7:62:43:PHE:CE2	2.33	0.49
8:72:20:TYR:HA	8:72:65:TYR:CE2	2.48	0.49
26:14:303:U:H2'	26:14:304:G:O4'	2.13	0.49
26:14:998:C:OP2	42:85:58:ARG:NH2	2.40	0.49
26:14:1464:C:O2'	26:14:1528:A:C8	2.65	0.49
26:14:2689:U:H5"	26:14:2713:A:C2	2.47	0.49
27:1J:42:C:O2'	32:49:67:LYS:O	2.26	0.49
38:45:19:GLY:O	38:45:98:LYS:HB3	2.13	0.49
1:13:55:A:H2	34:69:82:ARG:HD3	1.77	0.49
1:13:1130:A:C2	1:13:1146:A:C4	3.01	0.49
1:13:1280:A:H3'	1:13:1281:U:H5'	1.94	0.49
1:13:1429:C:H2'	1:13:1430:C:C6	2.47	0.49
24:3K:13:C:N4	24:3K:14:A:H62	2.11	0.49
26:1H:243:U:OP2	55:Q8:8:LYS:NZ	2.44	0.49
26:1H:484:C:H2'	26:1H:485:C:C6	2.48	0.49
26:1H:960:A:C8	26:1H:962:G:C8	2.99	0.49
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.28	0.49
26:1H:1494:A:O2'	26:1H:1495:A:H5'	2.13	0.49
26:1H:2228:G:OP2	29:11:263:ARG:NH2	2.46	0.49
30:21:50:GLY:HA2	30:21:76:ARG:O	2.13	0.49
31:31:101:LEU:HD22	31:31:102:PRO:HD2	1.93	0.49
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.94	0.49
43:D8:43:GLU:HA	43:D8:43:GLU:OE2	2.13	0.49
1:1G:683:G:C6	1:1G:684:A:C6	3.01	0.49
1:1G:1137:C:H4'	1:1G:1138:G:O5'	2.13	0.49
1:1G:1279:A:H5"	1:1G:1280:A:OP2	2.13	0.49
1:1G:1325:C:OP2	21:1B:15:ARG:NH2	2.46	0.49
1:1G:1422:G:OP1	36:25:48:PRO:HA	2.13	0.49
4:32:100:ARG:NH1	4:32:136:PRO:O	2.45	0.49
6:52:15:ASP:O	6:52:19:LEU:HB2	2.13	0.49
6:52:99:ALA:HB3	18:9A:29:PHE:HE1	1.76	0.49
8:72:38:ILE:HD12	8:72:118:VAL:HG12	1.95	0.49
9:82:46:ALA:HB2	9:82:74:ILE:HG23	1.94	0.49
24:3L:44:U:H2'	24:3L:45:G:O4'	2.13	0.49
26:14:863:A:H2'	26:14:864:G:H8	1.76	0.49
26:14:1204:A:N1	26:14:1241:A:C2	2.80	0.49
26:14:1620:G:O4'	54:L5:1:MET:N	2.40	0.49
26:14:2178:C:H4'	28:79:46:LYS:NZ	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2303:G:O2'	26:14:2304:G:H5'	2.12	0.49
26:14:2400:G:H2'	26:14:2401:U:H6	1.77	0.49
32:49:125:PHE:HB3	32:49:166:ASP:CB	2.40	0.49
53:J5:18:ALA:O	53:J5:21:SER:HB3	2.13	0.49
1:13:484:G:O2'	1:13:485:G:OP2	2.29	0.49
1:13:1176:A:H2'	1:13:1177:G:H1'	1.95	0.49
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.48	0.49
8:7E:49:GLU:O	8:7E:51:VAL:HG13	2.12	0.49
26:1H:910:A:C4	38:88:13:GLN:NE2	2.81	0.49
26:1H:1280:G:N2	26:1H:1291:C:C2	2.81	0.49
26:1H:1358:G:N2	26:1H:1372:U:C5	2.81	0.49
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.47	0.49
26:1H:1728:G:C2	26:1H:1730:U:OP2	2.66	0.49
26:1H:2000:G:C2'	26:1H:2001:A:H5'	2.43	0.49
26:1H:2056:G:C2	26:1H:2057:A:C8	3.01	0.49
28:71:218:MET:N	28:71:218:MET:SD	2.86	0.49
31:31:68:LYS:O	31:31:69:HIS:HB2	2.13	0.49
32:41:4:ASP:OD1	32:41:9:ARG:NH1	2.46	0.49
38:88:35:VAL:HG13	38:88:130:LYS:HB3	1.94	0.49
44:E8:9:TYR:HA	44:E8:100:THR:HG23	1.95	0.49
48:I8:23:VAL:HG22	48:I8:38:VAL:HG22	1.94	0.49
1:1G:676:A:H1'	11:2A:115:PRO:HB3	1.95	0.49
1:1G:683:G:N2	1:1G:707:C:O2	2.43	0.49
1:1G:762:C:H2'	1:1G:763:G:H8	1.77	0.49
1:1G:1232:U:OP1	9:82:124:GLN:HG2	2.13	0.49
2:12:159:PRO:HB2	2:12:161:ALA:O	2.12	0.49
2:12:164:VAL:HB	2:12:186:ALA:HB2	1.94	0.49
5:42:43:LEU:HD22	5:42:136:MET:HG3	1.94	0.49
7:62:38:LEU:O	7:62:42:ILE:HG13	2.12	0.49
26:14:9:U:OP2	26:14:9:U:H6	1.95	0.49
26:14:1805:U:O2	29:19:50:THR:HB	2.13	0.49
26:14:2720:U:N3	26:14:2873:A:H2	2.07	0.49
29:19:30:GLU:HB2	29:19:35:LYS:NZ	2.28	0.49
38:45:42:ILE:HD13	38:45:97:VAL:HB	1.95	0.49
38:45:57:HIS:CE1	38:45:116:GLU:HG2	2.48	0.49
47:D5:99:TYR:HB3	47:D5:123:ASP:OD1	2.13	0.49
49:F5:84:GLY:HA3	49:F5:86:SER:N	2.28	0.49
1:13:468:A:H3'	1:13:474:G:H8	1.78	0.48
1:13:539:A:H2'	1:13:540:G:C8	2.48	0.48
1:13:730:G:C5	1:13:731:G:H1'	2.48	0.48
5:4E:36:ASP:OD2	5:4E:40:ARG:NH1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:22:ILE:HB	13:4I:25:ILE:HD12	1.95	0.48
26:1H:588:U:H2'	26:1H:589:C:C6	2.48	0.48
26:1H:1205:U:H4'	26:1H:1206:G:OP2	2.13	0.48
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.48	0.48
26:1H:2272:U:H5"	26:1H:2273:A:OP1	2.13	0.48
26:1H:2319:G:N7	40:A8:3:ARG:HG2	2.27	0.48
27:16:42:C:O3'	32:41:67:LYS:NZ	2.45	0.48
37:78:63:PRO:HD3	55:Q8:27:THR:HG22	1.95	0.48
43:D8:45:THR:O	43:D8:47:VAL:HG23	2.12	0.48
46:G8:35:TYR:CD2	46:G8:69:ALA:HB3	2.48	0.48
1:1G:1055:A:C6	1:1G:1056:U:C6	3.01	0.48
1:1G:1151:A:HO2'	1:1G:1152:A:C5'	2.26	0.48
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.94	0.48
17:8A:10:VAL:CG2	17:8A:53:LEU:HA	2.43	0.48
26:14:590:A:H2'	26:14:591:C:C6	2.48	0.48
26:14:761:A:C8	59:14:3574:HOH:O	2.55	0.48
26:14:819:A:C4	26:14:1189:A:C2	3.00	0.48
26:14:848:G:C4	26:14:933:A:H8	2.31	0.48
26:14:901:A:H2'	26:14:901:A:N3	2.28	0.48
26:14:1406:U:H2'	26:14:1407:C:C6	2.48	0.48
26:14:2054:A:H5"	26:14:2055:C:O5'	2.12	0.48
27:1J:42:C:O2	32:49:93:THR:N	2.34	0.48
27:1J:73:A:C4	27:1J:104:A:C2	3.01	0.48
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.94	0.48
34:69:93:THR:N	34:69:96:ASP:HB2	2.27	0.48
36:25:10:VAL:HG12	36:25:19:ILE:HG12	1.94	0.48
41:75:61:PHE:CE1	41:75:76:PHE:HB2	2.48	0.48
44:A5:20:VAL:HG21	44:A5:44:ALA:H	1.78	0.48
1:13:60:A:H4'	1:13:61:G:H5'	1.95	0.48
1:13:164:U:H2'	1:13:165:C:C6	2.47	0.48
1:13:413:G:H22	1:13:428:G:H1'	1.79	0.48
6:5E:97:PHE:HD1	18:9I:31:LEU:HD11	1.78	0.48
9:8E:50:LEU:HD12	9:8E:51:ARG:N	2.27	0.48
9:8E:86:VAL:HG11	9:8E:93:ARG:HG3	1.94	0.48
12:3I:53:ARG:HH12	12:3I:92:ASP:CG	2.21	0.48
20:BI:45:GLN:HB2	20:BI:91:LEU:HD13	1.95	0.48
22:1K:72:C:H2'	22:1K:73:A:H5"	1.95	0.48
26:1H:1084:A:O2'	26:1H:1085:A:OP1	2.29	0.48
26:1H:2033:A:H4'	26:1H:2034:U:OP1	2.13	0.48
26:1H:2470:G:H5'	38:88:56:ARG:HH12	1.78	0.48
26:1H:2665:A:H2'	26:1H:2666:C:O5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:126:GLN:HG2	29:11:127:VAL:N	2.28	0.48
37:78:19:VAL:HG13	37:78:31:ALA:HB1	1.95	0.48
40:A8:42:ASP:O	40:A8:43:GLU:CB	2.60	0.48
40:A8:89:ARG:HG3	40:A8:92:TYR:O	2.12	0.48
1:1G:198:G:H2'	1:1G:199:G:H8	1.79	0.48
1:1G:1014:A:P	1:1G:1014:A:H8	2.35	0.48
1:1G:1126:U:H1'	1:1G:1127:G:OP1	2.13	0.48
2:12:49:GLU:O	2:12:52:GLU:HG3	2.13	0.48
2:12:223:ILE:HA	2:12:224:GLN:CG	2.41	0.48
7:62:36:LYS:O	7:62:40:ALA:N	2.45	0.48
7:62:141:VAL:O	7:62:143:ARG:HG3	2.13	0.48
12:3A:6:THR:HG23	12:3A:9:GLN:OE1	2.13	0.48
19:AA:66:MET:HB3	19:AA:69:HIS:ND1	2.28	0.48
23:2L:24:C:C2	23:2L:25:U:C5	3.01	0.48
26:14:315:G:H2'	26:14:316:C:C6	2.47	0.48
26:14:481:G:OP2	46:C5:47:LYS:HB2	2.13	0.48
26:14:745:G:H5"	26:14:746:A:OP2	2.13	0.48
26:14:819:A:C2'	26:14:820:A:H5'	2.43	0.48
26:14:1049:C:N4	26:14:2751:G:O6	2.44	0.48
26:14:1784:A:H4'	26:14:1785:A:C5'	2.43	0.48
26:14:2226:C:OP2	59:14:3640:HOH:O	2.20	0.48
26:14:2898:U:H2'	26:14:2899:G:H5"	1.96	0.48
39:55:2:ARG:HB2	39:55:5:LYS:HB2	1.95	0.48
46:C5:23:ARG:NH1	46:C5:23:ARG:HB2	2.28	0.48
51:H5:5:LYS:HD2	51:H5:34:GLU:HB3	1.95	0.48
1:13:192:U:O4'	20:BI:103:GLY:HA2	2.13	0.48
1:13:954:G:H2'	1:13:955:U:C6	2.48	0.48
1:13:1057:G:H4'	3:2E:197:GLY:H	1.78	0.48
1:13:1164:G:C6	1:13:1165:C:C4	3.01	0.48
1:13:1177:G:O6	1:13:1181:G:N7	2.46	0.48
1:13:1317:C:OP2	14:5I:17:LYS:HE2	2.13	0.48
3:2E:43:LEU:HB3	3:2E:47:LEU:HD22	1.96	0.48
15:6I:70:LEU:HD11	15:6I:77:ARG:HG2	1.95	0.48
26:1H:511:U:C5	26:1H:512:G:C5	3.01	0.48
26:1H:1566:A:O2'	26:1H:1567:A:H5'	2.13	0.48
26:1H:1581:G:H2'	26:1H:1582:C:O4'	2.13	0.48
26:1H:2129:C:H5"	28:71:6:ARG:CZ	2.43	0.48
26:1H:2235:G:H2'	26:1H:2236:C:C6	2.48	0.48
26:1H:2533:A:H2'	26:1H:2534:A:O4'	2.12	0.48
29:11:39:LYS:HD2	29:11:39:LYS:HA	1.53	0.48
30:21:46:ALA:HB1	30:21:80:GLU:HB3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:7:LEU:HD11	32:41:176:LEU:HD22	1.95	0.48
33:51:118:PRO:HD2	33:51:121:ILE:HB	1.96	0.48
34:61:42:SER:O	34:61:45:LYS:N	2.45	0.48
38:88:21:THR:HB	38:88:99:PRO:O	2.14	0.48
49:J8:83:GLU:HG3	49:J8:85:LEU:HB2	1.94	0.48
1:1G:974:A:OP2	14:5A:41:ARG:NH1	2.47	0.48
1:1G:1133:G:N2	1:1G:1141:C:O2	2.46	0.48
1:1G:1177:G:H8	1:1G:1177:G:OP2	1.96	0.48
2:12:130:ARG:HE	2:12:135:GLN:HG2	1.78	0.48
2:12:178:ARG:HD2	2:12:196:LEU:O	2.14	0.48
3:22:91:LEU:HD21	3:22:101:LEU:HD21	1.94	0.48
17:8A:21:VAL:HG21	17:8A:59:ILE:HD11	1.95	0.48
22:1L:18:G:OP1	22:1L:60:U:N3	2.41	0.48
23:2L:56:PSU:N3	23:2L:59:A:OP2	2.37	0.48
24:3L:76:A:C8	26:14:2394:C:N4	2.75	0.48
26:14:271(B):G:N7	26:14:421:U:H2'	2.27	0.48
26:14:276:A:H2'	26:14:277:C:C5	2.48	0.48
26:14:921:G:C6	26:14:922:U:C4	3.02	0.48
26:14:1034:G:H2'	26:14:1035:U:O4'	2.13	0.48
26:14:1204:A:N1	26:14:1241:A:H2	2.10	0.48
26:14:1358:G:N1	59:14:3513:HOH:O	2.34	0.48
26:14:1570:A:H2'	26:14:1571:A:C8	2.48	0.48
26:14:2404:C:OP2	59:14:3636:HOH:O	2.20	0.48
26:14:2461:C:H2'	26:14:2462:U:C6	2.49	0.48
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.95	0.48
48:E5:50:ASN:O	48:E5:62:LEU:HB2	2.12	0.48
1:13:474:G:H5"	16:7I:81:ARG:HE	1.79	0.48
1:13:727:G:N2	1:13:730:G:OP2	2.43	0.48
1:13:1409:C:H2'	1:13:1410:G:H8	1.79	0.48
2:1E:206:ASP:O	2:1E:210:SER:OG	2.29	0.48
8:7E:25:ASP:C	8:7E:26:VAL:HG12	2.38	0.48
8:7E:41:ARG:NH1	8:7E:123:GLU:OE1	2.47	0.48
17:8I:56:VAL:HB	17:8I:78:GLU:HB2	1.96	0.48
26:1H:7:G:H2'	26:1H:8:A:O4'	2.12	0.48
26:1H:730:C:OP2	59:1H:3770:HOH:O	2.20	0.48
26:1H:1065:U:H1'	26:1H:1074:G:N2	2.28	0.48
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.48	0.48
26:1H:1784:A:H5"	59:1H:4403:HOH:O	2.13	0.48
26:1H:2138:C:C2	26:1H:2154:G:N2	2.82	0.48
28:71:212:VAL:HG21	28:71:226:PRO:HG3	1.95	0.48
32:41:35:GLU:OE1	32:41:35:GLU:HA	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:42:ILE:HD12	41:B8:42:ILE:H	1.78	0.48
44:E8:57:ASN:O	44:E8:62:HIS:HD2	1.95	0.48
50:K8:24:LEU:O	50:K8:28:LYS:HG3	2.13	0.48
1:1G:1076:C:H42	1:1G:1081:G:H1	1.61	0.48
5:42:143:ARG:HA	5:42:143:ARG:HD3	1.59	0.48
19:AA:48:THR:HG22	19:AA:61:TYR:HA	1.94	0.48
24:3L:13:C:H2'	24:3L:14:A:H8	1.78	0.48
26:14:26:G:OP1	44:A5:80:PRO:HB3	2.13	0.48
26:14:185:U:H4'	26:14:218:A:H4'	1.96	0.48
26:14:527:C:OP2	26:14:2779:U:H5	1.97	0.48
26:14:2337:G:H2'	26:14:2337:G:N3	2.29	0.48
27:1J:33:G:C2	27:1J:50:G:C2	3.02	0.48
27:1J:99:A:H3'	59:1J:303:HOH:O	2.12	0.48
30:29:147:PRO:HB2	30:29:149:ARG:HD3	1.95	0.48
31:39:3:GLU:OE1	31:39:3:GLU:N	2.46	0.48
1:13:377:G:H5'	16:7I:5:ARG:NH1	2.29	0.48
1:13:428:G:C5	1:13:430:A:C6	3.01	0.48
1:13:476:G:N2	1:13:477:G:H1'	2.29	0.48
1:13:636:U:H2'	1:13:637:G:C8	2.47	0.48
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.78	0.48
1:13:1455:G:H8	1:13:1455:G:O5'	1.96	0.48
2:1E:80:ILE:HG21	2:1E:212:GLN:HA	1.95	0.48
6:5E:61:LEU:HD23	6:5E:63:TYR:HE1	1.78	0.48
13:4I:39:ILE:HG12	13:4I:52:GLU:OE2	2.12	0.48
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.48	0.48
23:2K:2:G:H2'	23:2K:2:G:N3	2.28	0.48
26:1H:403:U:H3'	59:1H:4635:HOH:O	2.13	0.48
26:1H:995:C:OP2	42:C8:54:LYS:NZ	2.46	0.48
26:1H:1093:G:H1'	26:1H:1099:G:N2	2.28	0.48
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.14	0.48
26:1H:2432:A:C4	49:J8:33:LYS:HG2	2.48	0.48
27:16:43:C:P	32:41:67:LYS:HZ2	2.36	0.48
29:11:37:LEU:HD12	29:11:37:LEU:N	2.07	0.48
34:61:130:TYR:C	34:61:131:LYS:HD2	2.38	0.48
35:58:38:HIS:NE2	35:58:50:ASP:OD2	2.46	0.48
40:A8:29:PHE:CD1	40:A8:30:ARG:N	2.80	0.48
52:M8:39:CYS:HB3	52:M8:41:PRO:CD	2.43	0.48
1:1G:498:A:H4'	1:1G:500:G:OP1	2.13	0.48
1:1G:509:A:C8	1:1G:509:A:H3'	2.48	0.48
23:2L:10:G:N2	23:2L:27:G:H1'	2.28	0.48
26:14:39:C:O2	31:39:46:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:288:C:H2'	26:14:289:A:C8	2.48	0.48
26:14:853:G:O2'	26:14:854:G:H5'	2.12	0.48
26:14:947:G:O6	59:14:3634:HOH:O	2.20	0.48
26:14:1057:A:H2'	26:14:1058:U:O4'	2.13	0.48
26:14:1388:G:O2'	26:14:1389:G:H5'	2.13	0.48
26:14:2143:C:H42	26:14:2148:G:H1	1.61	0.48
26:14:2432:A:H2	49:F5:35:THR:HG22	1.78	0.48
29:19:218:ARG:HB3	29:19:219:PRO:HD2	1.95	0.48
30:29:81:ILE:HG22	30:29:82:ARG:N	2.19	0.48
32:49:114:ILE:HD11	32:49:140:ILE:HD13	1.95	0.48
38:45:32:TYR:HA	38:45:133:ARG:O	2.13	0.48
40:65:43:GLU:HB2	48:E5:49:LYS:HZ1	1.76	0.48
40:65:87:PHE:CZ	40:65:102:ALA:HB2	2.48	0.48
49:F5:86:SER:HA	49:F5:89:GLU:OE2	2.13	0.48
1:13:329:A:C4	1:13:332:G:C5	3.02	0.48
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.47	0.48
1:13:648:A:N6	1:13:649:G:O6	2.46	0.48
1:13:964:A:N3	1:13:969:A:O2'	2.41	0.48
1:13:1053:G:N7	1:13:1199:U:H3'	2.28	0.48
1:13:1125:U:C6	10:1I:38:ILE:HD12	2.49	0.48
1:13:1277:C:O2'	1:13:1279:A:H8	1.96	0.48
2:1E:100:GLY:N	2:1E:176:GLU:OE2	2.46	0.48
2:1E:168:THR:OG1	2:1E:192:SER:HB2	2.14	0.48
8:7E:114:THR:HG22	8:7E:131:GLY:HA3	1.96	0.48
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.78	0.48
26:1H:324:A:H2'	26:1H:325:G:H5'	1.94	0.48
26:1H:574:C:P	59:1H:3621:HOH:O	2.64	0.48
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.48	0.48
26:1H:2176:A:H1'	28:71:215:THR:HG21	1.94	0.48
26:1H:2503:A:H3'	26:1H:2503:A:OP2	2.13	0.48
28:71:49:ILE:HG22	28:71:204:ALA:HB1	1.95	0.48
29:11:31:LYS:O	29:11:33:LEU:N	2.47	0.48
30:21:38:THR:HG23	30:21:40:GLU:H	1.78	0.48
34:61:57:ARG:O	34:61:61:ARG:HG2	2.13	0.48
41:B8:94:ALA:HB1	41:B8:99:LEU:HD21	1.95	0.48
42:C8:75:ASN:HB3	42:C8:77:SER:N	2.29	0.48
42:C8:75:ASN:HB3	42:C8:77:SER:H	1.79	0.48
47:H8:68:PRO:O	47:H8:91:LEU:HD22	2.14	0.48
1:1G:746:A:H2'	1:1G:747:C:C6	2.49	0.48
1:1G:980:C:H3'	1:1G:981:U:H6	1.78	0.48
1:1G:1179:A:H4'	9:82:103:THR:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.78	0.48
4:32:88:VAL:HG13	5:42:97:GLY:HA2	1.96	0.48
26:14:152:G:H1	26:14:174:C:H42	1.59	0.48
26:14:273(C):C:N4	26:14:363(C):G:H1	2.12	0.48
26:14:860:U:C2	26:14:2268:A:C8	3.02	0.48
26:14:1670:C:O2	30:29:129:HIS:NE2	2.42	0.48
29:19:71:ASP:OD1	29:19:71:ASP:N	2.45	0.48
37:35:120:ALA:O	37:35:121:LYS:HD2	2.13	0.48
39:55:101:ALA:HA	53:J5:44:THR:HG21	1.96	0.48
41:75:124:ASP:O	41:75:128:GLU:HB2	2.13	0.48
49:F5:91:LYS:HB2	49:F5:91:LYS:HZ3	1.74	0.48
50:G5:4:SER:HA	50:G5:5:GLU:C	2.39	0.48
1:13:917:G:H2'	1:13:918:A:C8	2.48	0.48
2:1E:136:VAL:O	2:1E:140:HIS:N	2.37	0.48
13:4I:44:ARG:O	13:4I:47:ASP:N	2.46	0.48
13:4I:98:VAL:HG23	13:4I:99:ARG:HG2	1.95	0.48
15:6I:24:SER:HB3	15:6I:27:VAL:HG23	1.94	0.48
15:6I:39:LEU:HD12	15:6I:59:MET:HE1	1.95	0.48
26:1H:459:U:H2'	26:1H:460:A:C8	2.48	0.48
26:1H:459:U:H2'	26:1H:460:A:H8	1.79	0.48
26:1H:690:G:H2'	26:1H:691:C:C6	2.49	0.48
26:1H:865:C:H1'	59:1H:4072:HOH:O	2.13	0.48
26:1H:1376:C:H2'	26:1H:1377:G:O4'	2.14	0.48
26:1H:1742:C:H2'	26:1H:1743:G:O4'	2.13	0.48
26:1H:2239:G:H5'	29:11:251:GLY:HA3	1.95	0.48
26:1H:2262:U:OP1	26:1H:2387:U:O2'	2.27	0.48
26:1H:2303:G:O2'	32:41:132:ASN:HB2	2.14	0.48
26:1H:2517:C:C2	26:1H:2542:A:N6	2.81	0.48
31:31:181:LEU:O	31:31:205:ARG:NH2	2.43	0.48
32:41:80:PHE:O	32:41:82:LEU:HB2	2.13	0.48
38:88:17:LEU:HD23	38:88:17:LEU:HA	1.55	0.48
50:K8:58:ALA:O	50:K8:62:THR:HG22	2.14	0.48
1:1G:501:C:H2'	1:1G:502:G:C8	2.47	0.48
1:1G:1008:C:H42	1:1G:1021:G:H22	1.62	0.48
5:42:93:PRO:HG2	8:72:105:ARG:HE	1.78	0.48
7:62:22:LEU:HD22	7:62:63:LYS:HE3	1.96	0.48
7:62:72:ARG:HE	7:62:138:LYS:HE3	1.79	0.48
14:5A:24:CYS:HB2	14:5A:33:VAL:HG12	1.95	0.48
20:BA:67:ALA:O	20:BA:73:HIS:CE1	2.67	0.48
23:2L:60:A:H2'	23:2L:61:U:H5'	1.95	0.48
26:14:84:A:H5"	46:C5:8:LYS:HG2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:579:G:H2'	26:14:580:C:C6	2.49	0.48
26:14:670:A:H4'	26:14:671:C:O5'	2.14	0.48
26:14:2311:A:H62	32:49:44:GLY:HA3	1.78	0.48
26:14:2320:A:N6	26:14:2333:A:H2'	2.29	0.48
26:14:2883:A:H5'	26:14:2884:U:H5'	1.96	0.48
29:19:176:ARG:HG2	29:19:176:ARG:HH11	1.78	0.48
34:69:121:LYS:C	34:69:122:GLU:HG2	2.38	0.48
41:75:123:GLN:HA	41:75:126:ALA:HB3	1.96	0.48
46:C5:85:VAL:HG21	46:C5:98:VAL:HG23	1.95	0.48
1:13:13:U:OP1	59:13:1835:HOH:O	2.20	0.48
1:13:692:U:O2'	1:13:694:A:N7	2.36	0.48
1:13:872:A:C5	1:13:874:G:C8	3.02	0.48
1:13:1307:U:OP1	13:4I:101:GLN:NE2	2.46	0.48
1:13:1324:A:O4'	1:13:1362:C:H4'	2.14	0.48
4:3E:138:TYR:C	4:3E:138:TYR:HD1	2.22	0.48
7:6E:6:ARG:HG3	7:6E:6:ARG:O	2.14	0.48
9:8E:10:ARG:NE	9:8E:105:ASP:OD2	2.47	0.48
26:1H:189:G:OP2	49:J8:39:LYS:HE3	2.14	0.48
26:1H:201:C:O2'	26:1H:251:A:N1	2.44	0.48
26:1H:634:C:H2'	26:1H:635:C:C6	2.47	0.48
26:1H:821:A:O2'	26:1H:946:G:OP2	2.31	0.48
26:1H:1255:U:O2	59:1H:3767:HOH:O	2.19	0.48
26:1H:1271:G:N2	26:1H:1617:C:O4'	2.47	0.48
26:1H:1480:G:C6	26:1H:1482:U:N3	2.81	0.48
26:1H:1994:C:O2'	26:1H:1995:U:H5'	2.14	0.48
27:16:6:C:O3'	40:A8:29:PHE:HE2	1.97	0.48
29:11:64:ILE:HD12	29:11:65:ILE:N	2.28	0.48
42:C8:88:ILE:C	42:C8:90:VAL:H	2.22	0.48
46:G8:63:LYS:HZ3	46:G8:64:GLU:HG3	1.78	0.48
52:M8:42:PHE:O	52:M8:43:TYR:C	2.57	0.48
1:1G:162:A:H5"	1:1G:163:C:OP2	2.14	0.48
1:1G:428:G:C5	1:1G:430:A:C6	3.01	0.48
1:1G:843:U:H3'	1:1G:848:C:O4'	2.14	0.48
8:72:36:LEU:HA	8:72:39:LEU:HB2	1.95	0.48
13:4A:92:HIS:NE2	13:4A:98:VAL:HG11	2.28	0.48
18:9A:22:VAL:C	18:9A:24:ALA:H	2.21	0.48
22:1L:39:PSU:H2'	22:1L:40:C:H6	1.78	0.48
26:14:251:A:C5	26:14:252:G:H1'	2.48	0.48
26:14:270(Q):C:H5"	34:69:45:LYS:HE3	1.95	0.48
26:14:990:A:H5'	26:14:990:A:C8	2.34	0.48
26:14:1322:A:O3'	44:A5:84:ARG:NH1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1334:G:OP2	59:14:3641:HOH:O	2.20	0.48
26:14:2387:U:O2'	48:E5:41:ARG:NH1	2.47	0.48
26:14:2615:U:C2	53:J5:7:PRO:HA	2.48	0.48
29:19:11:PRO:O	29:19:12:SER:OG	2.25	0.48
29:19:93:ALA:HB3	29:19:105:ILE:HG22	1.95	0.48
30:29:119:ARG:HD2	30:29:120:TRP:CE2	2.48	0.48
38:45:18:LYS:H	38:45:98:LYS:NZ	2.12	0.48
1:13:452:A:H2'	1:13:453:A:C8	2.49	0.48
2:1E:8:LYS:H	2:1E:8:LYS:NZ	2.12	0.48
5:4E:67:VAL:O	5:4E:69:VAL:HG23	2.14	0.48
5:4E:71:LEU:C	5:4E:72:GLN:HE21	2.21	0.48
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.96	0.48
26:1H:172:C:H2'	26:1H:173:G:C8	2.49	0.48
26:1H:197:A:N6	26:1H:2430:A:H2'	2.29	0.48
26:1H:234:C:H2'	26:1H:235:U:H6	1.79	0.48
26:1H:270(S):G:H5"	49:J8:94:LEU:HD13	1.94	0.48
26:1H:363:G:O2'	26:1H:363(A):A:H5'	2.13	0.48
26:1H:576:U:O2	26:1H:576:U:O5'	2.32	0.48
26:1H:962:G:H2'	26:1H:963:U:C6	2.48	0.48
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.49	0.48
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.49	0.48
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.13	0.48
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.79	0.48
26:1H:2849:U:H1'	26:1H:2866:U:O2	2.13	0.48
31:31:67:GLN:O	31:31:67:GLN:HG3	2.10	0.48
36:68:93:PRO:HG3	36:68:114:ILE:HG12	1.96	0.48
39:98:24:GLN:OE1	39:98:36:THR:HG21	2.13	0.48
39:98:44:LEU:O	39:98:47:PHE:N	2.47	0.48
42:C8:79:PHE:O	42:C8:79:PHE:HD1	1.97	0.48
46:G8:27:VAL:HG21	46:G8:30:VAL:HG23	1.95	0.48
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.12	0.48
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.14	0.48
1:1G:1298:C:O2'	1:1G:1299:A:P	2.72	0.48
2:12:77:ALA:O	2:12:81:VAL:HG23	2.14	0.48
4:32:13:ARG:C	4:32:15:GLU:N	2.72	0.48
4:32:128:VAL:HG12	4:32:129:ASN:ND2	2.29	0.48
4:32:190:ASP:OD1	4:32:192:GLU:HG2	2.14	0.48
9:82:102:LEU:O	9:82:103:THR:OG1	2.27	0.48
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.44	0.48
14:5A:3:ARG:O	14:5A:6:LEU:HD12	2.14	0.48
19:AA:7:LYS:HD2	19:AA:7:LYS:C	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.31	0.48
26:14:97:C:H5"	50:G5:2:LYS:HA	1.94	0.48
26:14:1449(A):G:H2'	26:14:1450:C:H6	1.79	0.48
26:14:1507:A:C2	26:14:1508:A:H1'	2.49	0.48
39:55:21:TYR:OH	39:55:43:GLU:HG2	2.14	0.48
1:13:567:G:H2'	1:13:568:G:O4'	2.14	0.48
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.13	0.48
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.96	0.48
19:AI:36:ARG:HD2	19:AI:52:TYR:O	2.14	0.48
26:1H:32:C:O2'	26:1H:33:U:H5'	2.14	0.48
26:1H:516:C:OP1	53:N8:13:LYS:NZ	2.41	0.48
26:1H:729:G:C6	29:11:208:LYS:HB2	2.49	0.48
26:1H:761:A:OP2	59:1H:3760:HOH:O	2.19	0.48
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.13	0.48
28:71:45:ALA:HA	28:71:211:SER:O	2.14	0.48
30:21:60:ASN:ND2	30:21:63:LEU:H	2.12	0.48
33:51:113:VAL:HG11	33:51:151:ILE:HD13	1.96	0.48
33:51:126:PRO:O	33:51:127:GLU:HB3	2.13	0.48
37:78:50:ARG:NH2	37:78:50:ARG:HG3	2.29	0.48
39:98:103:ARG:NH1	39:98:108:GLY:O	2.47	0.48
41:B8:1:MET:HA	41:B8:2:ASN:OD1	2.14	0.48
52:M8:37:SER:HB3	52:M8:42:PHE:CE1	2.49	0.48
1:1G:162:A:O5'	1:1G:162:A:H8	1.97	0.48
1:1G:619:U:N3	4:32:134:ASP:OD1	2.44	0.48
1:1G:909:A:H2'	1:1G:910:C:O4'	2.12	0.48
1:1G:977:A:H3'	1:1G:977:A:N3	2.29	0.48
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.79	0.48
4:32:32:ALA:H	4:32:35:ARG:CD	2.27	0.48
13:4A:67:GLU:HG3	13:4A:68:GLY:H	1.78	0.48
16:7A:45:THR:O	16:7A:48:TRP:HD1	1.96	0.48
19:AA:69:HIS:HB3	19:AA:73:GLU:OE1	2.13	0.48
22:1L:69:A:H1'	22:1L:70:C:O5'	2.13	0.48
26:14:329:G:H1	46:C5:19:LYS:HZ1	1.60	0.48
26:14:442:G:C6	26:14:444:C:N4	2.82	0.48
26:14:692:C:H4'	29:19:40:THR:OG1	2.14	0.48
26:14:720:C:H2'	26:14:721:C:C6	2.49	0.48
26:14:1666:G:OP1	36:25:66:LYS:HD3	2.14	0.48
26:14:2541:A:H5"	26:14:2542:A:OP2	2.13	0.48
29:19:30:GLU:N	29:19:35:LYS:HZ1	2.10	0.48
29:19:137:PRO:O	29:19:140:THR:OG1	2.29	0.48
30:29:54:GLN:CD	30:29:55:ASN:H	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:35:VAL:HG12	38:45:36:ALA:N	2.29	0.48
46:C5:3:VAL:HG11	46:C5:32:PRO:O	2.14	0.48
47:D5:29:TYR:HE1	47:D5:87:ASP:HB3	1.79	0.48
1:13:163:C:H2'	1:13:164:U:C6	2.49	0.47
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.49	0.47
1:13:717:C:H5"	1:13:717:C:H6	1.79	0.47
1:13:1014:A:H4'	19:AI:14:HIS:CD2	2.49	0.47
1:13:1034:G:H2'	1:13:1034:G:N3	2.29	0.47
1:13:1213:A:C8	1:13:1215:G:C6	3.03	0.47
1:13:1305:G:H21	1:13:1331:G:H2'	1.78	0.47
1:13:1314:C:N4	19:AI:2:PRO:O	2.45	0.47
1:13:1410:G:H2'	1:13:1411:C:C6	2.48	0.47
5:4E:41:VAL:HG22	5:4E:113:ALA:CB	2.44	0.47
8:7E:129:VAL:HG23	8:7E:130:GLY:H	1.79	0.47
16:7I:5:ARG:HE	16:7I:22:THR:HG21	1.79	0.47
16:7I:12:LYS:O	16:7I:13:HIS:HB2	2.12	0.47
24:3K:4:U:H2'	24:3K:5:C:C2	2.48	0.47
26:1H:527:C:H4'	26:1H:528:A:H5'	1.95	0.47
26:1H:552:G:H2'	26:1H:553:U:O4'	2.14	0.47
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.13	0.47
26:1H:1542:G:H2'	26:1H:1543:A:H2	1.79	0.47
26:1H:2135:A:H5'	26:1H:2160:G:H1'	1.96	0.47
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.79	0.47
26:1H:2418:A:OP2	55:Q8:29:LYS:NZ	2.44	0.47
27:16:61:G:C6	27:16:62:C:C4	3.02	0.47
28:71:217:THR:HB	28:71:218:MET:SD	2.53	0.47
30:21:26:ILE:HD11	30:21:198:VAL:HG21	1.96	0.47
30:21:147:PRO:HB2	30:21:149:ARG:HG2	1.95	0.47
30:21:181:LEU:HA	30:21:181:LEU:HD12	1.61	0.47
33:51:74:ASN:HA	33:51:77:LYS:HD3	1.96	0.47
38:88:112:GLU:H	38:88:112:GLU:CD	2.21	0.47
1:1G:192:U:H2'	1:1G:193:C:C6	2.36	0.47
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.14	0.47
17:8A:86:GLU:O	17:8A:90:ILE:HB	2.13	0.47
26:14:270(K):C:H2'	26:14:270(L):U:H2'	1.95	0.47
26:14:273(D):C:H42	26:14:363(B):G:H1	1.60	0.47
26:14:731:C:P	59:14:3501:HOH:O	2.71	0.47
26:14:1142(A):A:N7	26:14:1144:G:C5	2.82	0.47
26:14:1165:U:H2'	26:14:1166:C:C6	2.48	0.47
26:14:1247:A:C2	26:14:1249:U:C6	3.03	0.47
26:14:1485:G:H2'	26:14:1486:A:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1775:U:OP1	59:14:3638:HOH:O	2.20	0.47
36:25:63:VAL:HG11	36:25:85:VAL:HG23	1.94	0.47
38:45:138:ASP:H	38:45:139:GLU:HA	1.70	0.47
43:95:21:ARG:HH21	43:95:21:ARG:HG3	1.78	0.47
44:A5:63:ASP:CG	44:A5:63:ASP:O	2.57	0.47
1:13:434:U:H2'	1:13:435:C:C6	2.49	0.47
1:13:737:A:H2'	1:13:738:C:H6	1.74	0.47
1:13:739:C:O2'	15:6I:42:HIS:ND1	2.43	0.47
1:13:1095:U:OP2	59:13:1827:HOH:O	2.20	0.47
4:3E:108:LEU:HB3	4:3E:110:PHE:HE1	1.79	0.47
9:8E:92:TYR:O	9:8E:96:LEU:HB2	2.14	0.47
11:2I:48:ILE:HD12	11:2I:48:ILE:HA	1.67	0.47
26:1H:1301:A:H2	26:1H:1626:G:H21	1.61	0.47
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.14	0.47
26:1H:2148:G:H8	26:1H:2148:G:O5'	1.97	0.47
27:16:94:C:H2'	27:16:95:U:C6	2.49	0.47
29:11:105:ILE:HA	29:11:105:ILE:HD12	1.44	0.47
36:68:22:ILE:HD13	36:68:22:ILE:HG21	1.48	0.47
37:78:59:LEU:HB2	55:Q8:58:ILE:CD1	2.43	0.47
38:88:58:PHE:O	38:88:60:ARG:N	2.47	0.47
40:A8:103:GLU:HA	40:A8:106:ARG:HD3	1.97	0.47
45:F8:29:TRP:CZ3	45:F8:78:LYS:HG2	2.48	0.47
1:1G:967:C:H2'	1:1G:968:A:N7	2.30	0.47
1:1G:1127:G:O2'	1:1G:1128:C:H5'	2.14	0.47
1:1G:1422:G:H5"	36:25:48:PRO:HB3	1.95	0.47
2:12:168:THR:HA	2:12:171:ALA:HB2	1.95	0.47
3:22:62:ASP:HA	3:22:97:LYS:HE2	1.96	0.47
4:32:170:VAL:HG21	4:32:176:LEU:HD23	1.97	0.47
6:52:81:ILE:HD11	29:19:125:ILE:HG12	1.96	0.47
8:72:17:THR:HB	8:72:18:ARG:NH1	2.29	0.47
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.96	0.47
9:82:18:PHE:C	9:82:19:LEU:HD12	2.39	0.47
13:4A:30:ALA:O	13:4A:34:LEU:HG	2.14	0.47
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.79	0.47
26:14:89:G:H3'	26:14:90:U:C5'	2.41	0.47
26:14:286:C:H2'	26:14:287:C:C6	2.50	0.47
26:14:1161:C:H1'	43:95:8:GLY:O	2.14	0.47
26:14:1520:U:OP2	59:14:3642:HOH:O	2.20	0.47
26:14:2118:U:O2'	26:14:2145:C:O2	2.32	0.47
26:14:2306:C:H2'	26:14:2307:G:H21	1.79	0.47
26:14:2327:A:H2'	26:14:2328:A:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2441:C:O2'	26:14:2442:C:H5'	2.14	0.47
43:95:70:ILE:O	43:95:70:ILE:HG22	2.14	0.47
43:95:72:VAL:O	43:95:72:VAL:HG13	2.14	0.47
44:A5:50:VAL:HG22	44:A5:105:VAL:HG23	1.96	0.47
47:D5:48:PHE:O	47:D5:52:SER:HB3	2.14	0.47
1:13:103:C:OP2	20:BI:14:LYS:HD2	2.13	0.47
1:13:160:A:N6	1:13:343:U:O2'	2.46	0.47
1:13:558:G:H5"	1:13:559:A:OP2	2.14	0.47
1:13:1060:C:P	14:5I:45:ARG:HH22	2.36	0.47
4:3E:9:CYS:O	4:3E:13:ARG:HG3	2.15	0.47
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.14	0.47
22:1K:17:U:HO2'	22:1K:57:G:N2	2.12	0.47
22:1K:53:G:H1	22:1K:61:C:H42	1.61	0.47
26:1H:135:G:N7	59:1H:3893:HOH:O	2.35	0.47
26:1H:270(E):G:C6	26:1H:270(F):U:C4	3.03	0.47
26:1H:524:U:H2'	26:1H:525:U:C6	2.50	0.47
26:1H:803:U:C4	26:1H:804:A:N7	2.82	0.47
26:1H:910:A:C5	38:88:13:GLN:HG3	2.50	0.47
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.13	0.47
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.79	0.47
26:1H:1869:G:H5'	26:1H:1870:C:OP2	2.15	0.47
26:1H:1968:G:H5'	59:1H:4257:HOH:O	2.13	0.47
26:1H:2072:G:H2'	26:1H:2073:C:O4'	2.14	0.47
26:1H:2130:U:H2'	26:1H:2131:G:N7	2.29	0.47
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.48	0.47
26:1H:2830:G:H5"	26:1H:2830:G:C8	2.48	0.47
27:16:60:C:C2	27:16:61:G:C8	3.02	0.47
30:21:59:VAL:HG13	30:21:60:ASN:N	2.29	0.47
44:E8:64:MET:O	44:E8:65:LEU:HB2	2.14	0.47
45:F8:31:HIS:CE1	45:F8:33:LYS:HB2	2.49	0.47
47:H8:103:ARG:HD3	47:H8:136:PHE:CD2	2.49	0.47
1:1G:26:A:N6	1:1G:558:G:O2'	2.45	0.47
1:1G:300:A:H1'	1:1G:565:U:O2	2.14	0.47
1:1G:652:U:H1'	1:1G:653:A:H2	1.79	0.47
1:1G:684:A:N6	59:1G:1872:HOH:O	2.46	0.47
1:1G:922:G:C2	1:1G:923:A:C4	3.02	0.47
1:1G:1227:A:O3'	13:4A:115:LYS:HD2	2.15	0.47
1:1G:1306:A:C6	1:1G:1307:U:C2	3.02	0.47
3:22:56:ASP:O	3:22:57:ILE:HG13	2.14	0.47
26:14:30:G:OP2	42:85:5:LYS:HE2	2.15	0.47
26:14:84:A:H61	26:14:102:G:HO2'	1.56	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:307:G:H21	26:14:330:A:H62	1.61	0.47
26:14:620:G:N3	26:14:620:G:H5'	2.30	0.47
26:14:869:G:N2	26:14:870:A:H1'	2.28	0.47
26:14:1007:C:OP1	35:15:37:LYS:NZ	2.43	0.47
26:14:2740:A:C6	26:14:2764:A:C8	3.02	0.47
29:19:79:VAL:HG12	29:19:113:VAL:HA	1.97	0.47
30:29:54:GLN:CG	30:29:55:ASN:N	2.78	0.47
30:29:58:ARG:HD2	30:29:58:ARG:H	1.79	0.47
45:B5:3:THR:O	45:B5:6:ASP:HB2	2.15	0.47
48:E5:72:ARG:HB3	48:E5:75:LEU:HB2	1.97	0.47
1:13:38:G:C2	1:13:397:A:C2	3.02	0.47
1:13:222:U:H2'	1:13:223:U:C6	2.50	0.47
1:13:763:G:H2'	1:13:764:C:C6	2.49	0.47
1:13:1148:U:H2'	1:13:1149:C:O4'	2.15	0.47
1:13:1269:A:H2	1:13:1312:G:N3	2.12	0.47
1:13:1429:C:H2'	1:13:1430:C:H6	1.80	0.47
2:1E:21:ARG:C	2:1E:23:ARG:H	2.22	0.47
4:3E:111:ALA:HB2	4:3E:120:LEU:HD12	1.96	0.47
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.79	0.47
26:1H:658:C:H2'	26:1H:659:C:C6	2.49	0.47
26:1H:937:U:H2'	26:1H:938:G:O4'	2.15	0.47
26:1H:1568:G:H5"	29:11:61:LEU:CD2	2.45	0.47
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.78	0.47
26:1H:2608:G:H5"	26:1H:2609:U:OP1	2.14	0.47
33:51:11:VAL:HG12	33:51:12:PRO:HD2	1.96	0.47
33:51:130:ARG:HH11	33:51:130:ARG:HB3	1.79	0.47
34:61:33:ARG:HB3	34:61:35:LEU:HD13	1.96	0.47
35:58:120:LEU:CD2	35:58:122:VAL:HG23	2.44	0.47
37:78:96:THR:C	37:78:98:GLU:H	2.23	0.47
37:78:118:GLY:O	37:78:137:LYS:NZ	2.46	0.47
39:98:91:GLN:H	39:98:91:GLN:HG2	1.51	0.47
41:B8:74:ARG:HD3	41:B8:76:PHE:CZ	2.50	0.47
55:Q8:37:SER:O	55:Q8:40:GLU:N	2.46	0.47
1:1G:588:G:H1	1:1G:651:C:H42	1.61	0.47
1:1G:630:G:H3'	1:1G:631:G:H5'	1.96	0.47
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.96	0.47
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.14	0.47
1:1G:1228:C:H2'	1:1G:1229:A:H8	1.78	0.47
3:22:35:GLU:HG3	3:22:95:THR:HG21	1.96	0.47
3:22:151:VAL:HA	3:22:199:LYS:O	2.14	0.47
8:72:44:PHE:HA	8:72:79:VAL:HG11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:70:LYS:O	9:82:74:ILE:HG13	2.13	0.47
13:4A:78:ILE:HG22	13:4A:82:MET:HE2	1.97	0.47
26:14:1653:G:C6	39:55:9:LYS:HB3	2.50	0.47
26:14:1965:C:H3'	26:14:1966:A:H2'	1.96	0.47
26:14:1981:A:P	59:14:3672:HOH:O	2.73	0.47
26:14:2591:C:P	29:19:239:ARG:HG3	2.54	0.47
26:14:2693:A:H2'	26:14:2694:G:H8	1.79	0.47
27:1J:83:G:H5'	51:H5:52:HIS:CE1	2.49	0.47
30:29:52:LEU:HA	30:29:52:LEU:HD12	1.71	0.47
34:69:74:ASN:O	34:69:75:LEU:HB2	2.14	0.47
34:69:109:ILE:HB	34:69:130:TYR:CZ	2.49	0.47
35:15:28:THR:HG22	35:15:29:LYS:HG2	1.96	0.47
37:35:85:LEU:O	37:35:88:LEU:HB2	2.14	0.47
47:D5:3:TYR:O	47:D5:58:VAL:HG23	2.14	0.47
1:13:165:C:H2'	1:13:166:G:C8	2.49	0.47
1:13:1395:C:C4'	1:13:1401:G:H21	2.28	0.47
8:7E:65:TYR:HA	8:7E:79:VAL:HG23	1.95	0.47
10:1I:57:LYS:HD2	10:1I:60:ARG:NH2	2.29	0.47
12:3I:93:LEU:O	12:3I:96:VAL:HG13	2.15	0.47
26:1H:143:C:H2'	26:1H:144:C:H6	1.79	0.47
26:1H:845:G:C2'	26:1H:845:G:N3	2.75	0.47
26:1H:916:G:C2'	26:1H:917:A:H5"	2.45	0.47
26:1H:1465:G:C4	26:1H:1466:G:C8	3.02	0.47
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.15	0.47
26:1H:1903:G:C2'	26:1H:1904:G:H5'	2.45	0.47
26:1H:2801:A:H5'	26:1H:2895:U:O2'	2.14	0.47
30:21:69:LYS:O	30:21:71:GLY:N	2.48	0.47
34:61:50:ARG:HD3	34:61:50:ARG:HA	1.55	0.47
1:1G:8:A:C5	4:32:209:ARG:HB2	2.50	0.47
1:1G:1352:C:H2'	1:1G:1353:G:H8	1.78	0.47
1:1G:1479:C:H2'	1:1G:1480:G:H8	1.79	0.47
13:4A:53:VAL:O	13:4A:57:ARG:N	2.27	0.47
23:2L:48:U:H1'	23:2L:49:C:O5'	2.15	0.47
24:3L:52:G:O6	24:3L:62:C:N4	2.47	0.47
26:14:784:A:H5'	26:14:785:G:OP1	2.15	0.47
26:14:861:A:N3	27:1J:79:C:O2'	2.45	0.47
26:14:1776:G:P	59:14:3749:HOH:O	2.72	0.47
26:14:2074:U:H2'	26:14:2075:U:C6	2.50	0.47
26:14:2259:G:H1'	26:14:2427:C:C2	2.49	0.47
29:19:44:ASN:HB2	29:19:47:GLY:H	1.79	0.47
31:39:57:VAL:HG13	31:39:59:TYR:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:107:LYS:HZ3	31:39:205:ARG:HG3	1.79	0.47
31:39:110:LEU:O	31:39:114:VAL:HG23	2.15	0.47
34:69:101:LEU:HD23	34:69:101:LEU:H	1.79	0.47
37:35:57:THR:O	37:35:61:ARG:HG3	2.15	0.47
38:45:33:GLY:CA	38:45:105:GLU:HB2	2.43	0.47
45:B5:41:ASN:O	45:B5:41:ASN:ND2	2.47	0.47
46:C5:29:GLU:CD	46:C5:30:VAL:H	2.23	0.47
1:13:1125:U:C4	1:13:1126:U:C4	3.03	0.47
3:2E:73:PRO:O	3:2E:77:ILE:HG13	2.13	0.47
5:4E:6:PHE:HD2	5:4E:63:ARG:NH1	2.12	0.47
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.14	0.47
20:BI:87:LYS:HD2	20:BI:87:LYS:HA	1.59	0.47
22:1K:26:A:H5'	22:1K:27:G:OP2	2.15	0.47
26:1H:91:A:H2'	26:1H:92:G:O4'	2.15	0.47
26:1H:298:G:H5"	26:1H:299:A:OP1	2.15	0.47
26:1H:518:G:H2'	26:1H:519:U:H6	1.79	0.47
26:1H:1455:G:P	59:1H:3700:HOH:O	2.73	0.47
26:1H:2383:G:O2'	26:1H:2384:G:H5'	2.14	0.47
32:41:13:GLU:O	32:41:14:GLU:HB3	2.14	0.47
34:61:117:GLU:OE1	34:61:117:GLU:N	2.48	0.47
40:A8:110:LEU:O	40:A8:111:GLU:HB2	2.14	0.47
47:H8:28:MET:HE3	47:H8:35:ARG:HB3	1.96	0.47
47:H8:58:VAL:O	47:H8:60:GLU:N	2.48	0.47
48:I8:10:THR:O	48:I8:11:ARG:CB	2.62	0.47
1:1G:109:A:H2'	1:1G:326:G:N2	2.29	0.47
1:1G:411:A:C5	1:1G:413:G:H1'	2.49	0.47
1:1G:519:C:H2'	1:1G:520:A:O4'	2.15	0.47
7:62:131:LYS:NZ	7:62:131:LYS:HB3	2.30	0.47
14:5A:24:CYS:SG	14:5A:29:ARG:NH2	2.88	0.47
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.14	0.47
26:14:162:U:H4'	26:14:171:G:C4	2.50	0.47
26:14:221:A:N1	26:14:265:A:O2'	2.44	0.47
26:14:1805:U:H2'	26:14:1806:C:H6	1.78	0.47
26:14:1858:G:H2'	26:14:1883:G:H22	1.80	0.47
26:14:2137:C:H2'	26:14:2138:C:C6	2.49	0.47
26:14:2652:C:H2'	26:14:2653:U:O4'	2.15	0.47
26:14:2663:G:C6	26:14:2664:G:C4	3.03	0.47
27:1J:8:U:H5'	40:65:15:ARG:HH12	1.80	0.47
27:1J:51:G:C6	27:1J:52:A:C2	3.03	0.47
29:19:27:THR:HG22	29:19:29:PRO:O	2.14	0.47
41:75:19:LEU:HD22	41:75:86:ILE:CG2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:26:ASP:O	41:75:49:VAL:HG22	2.14	0.47
47:D5:44:PHE:C	47:D5:44:PHE:CD1	2.93	0.47
51:H5:5:LYS:HE3	51:H5:5:LYS:HB3	1.51	0.47
1:13:313:A:H2'	1:13:314:C:C6	2.49	0.47
1:13:519:C:H2'	1:13:520:A:C8	2.49	0.47
1:13:674:G:H2'	1:13:675:A:C8	2.49	0.47
1:13:864:A:H3'	1:13:865:A:C8	2.50	0.47
1:13:887:G:H1	1:13:910:C:H42	1.62	0.47
1:13:1144:G:N2	1:13:1146:A:H62	2.12	0.47
1:13:1191:A:H5"	1:13:1192:C:OP2	2.15	0.47
1:13:1296:C:OP1	13:4I:44:ARG:NH2	2.48	0.47
2:1E:54:THR:HG23	2:1E:199:TYR:HB3	1.95	0.47
8:7E:88:LYS:HB3	8:7E:89:PRO:HD2	1.97	0.47
9:8E:8:GLY:HA3	9:8E:79:LEU:HB3	1.97	0.47
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.44	0.47
11:2I:30:VAL:HG21	11:2I:65:ALA:HA	1.97	0.47
16:7I:49:LEU:HD12	16:7I:50:LYS:N	2.30	0.47
17:8I:81:ARG:HB3	17:8I:83:ASP:OD1	2.15	0.47
26:1H:275:G:N7	26:1H:363:G:C6	2.83	0.47
26:1H:309:G:H4'	46:G8:18:GLY:HA2	1.97	0.47
26:1H:617:G:OP2	31:31:43:LYS:HE3	2.15	0.47
26:1H:654(A):A:H61	26:1H:654(T):A:H61	1.62	0.47
26:1H:657:U:H2'	26:1H:658:C:C6	2.49	0.47
26:1H:1050:A:C8	26:1H:2751:G:C5	3.03	0.47
26:1H:1139:G:O2'	26:1H:1143:A:N1	2.40	0.47
26:1H:1779:U:H2'	59:1H:4153:HOH:O	2.15	0.47
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.80	0.47
26:1H:2208:U:O2'	26:1H:2209:C:H5'	2.15	0.47
26:1H:2298:A:H62	26:1H:2318:G:H8	1.60	0.47
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.30	0.47
26:1H:2542:A:H4'	26:1H:2543:G:H8	1.80	0.47
26:1H:2711:A:P	59:1H:3604:HOH:O	2.62	0.47
30:21:55:ASN:HB3	30:21:58:ARG:H	1.80	0.47
30:21:101:ARG:O	30:21:201:THR:OG1	2.33	0.47
32:41:28:VAL:O	32:41:31:VAL:HG13	2.15	0.47
35:58:10:GLU:HG3	35:58:11:PRO:CD	2.45	0.47
36:68:7:TYR:CZ	36:68:44:LYS:HG3	2.50	0.47
37:78:119:GLU:HA	37:78:119:GLU:OE2	2.13	0.47
40:A8:25:ARG:NH1	40:A8:42:ASP:OD2	2.40	0.47
43:D8:34:GLU:HG2	43:D8:56:SER:OG	2.14	0.47
46:G8:43:ASN:OD1	46:G8:65:ALA:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:81:LYS:HB2	46:G8:99:CYS:SG	2.54	0.47
49:J8:87:PRO:O	49:J8:91:LYS:N	2.48	0.47
52:M8:15:ILE:HG22	52:M8:16:CYS:N	2.29	0.47
53:N8:40:LYS:CG	53:N8:47:PRO:HD2	2.45	0.47
1:1G:486:U:OP2	59:1G:1830:HOH:O	2.20	0.47
1:1G:680:C:H2'	1:1G:681:C:C6	2.50	0.47
1:1G:1367:C:H4'	10:1A:48:THR:HG21	1.97	0.47
2:12:111:ARG:HA	2:12:111:ARG:HH11	1.79	0.47
2:12:150:SER:O	2:12:153:ARG:HG2	2.14	0.47
2:12:178:ARG:HE	2:12:178:ARG:HB3	1.55	0.47
4:32:104:VAL:O	4:32:108:LEU:HB2	2.14	0.47
5:42:152:ARG:O	8:72:64:LYS:NZ	2.46	0.47
7:62:114:ARG:H	7:62:114:ARG:HG2	1.51	0.47
9:82:50:LEU:HB3	9:82:56:LEU:HA	1.97	0.47
18:9A:22:VAL:HG12	18:9A:55:ARG:O	2.14	0.47
20:BA:24:LEU:HD12	20:BA:24:LEU:HA	1.63	0.47
23:2L:20:G:C2	23:2L:58:A:N3	2.83	0.47
26:14:196:A:N3	26:14:196:A:H2'	2.29	0.47
26:14:323:G:HO2'	26:14:1205:U:H3	0.63	0.47
26:14:566:U:OP1	37:35:29:LYS:HD2	2.14	0.47
26:14:666:G:H5"	37:35:47:ASP:O	2.14	0.47
26:14:1011:G:H2'	26:14:1013:C:H5"	1.97	0.47
26:14:1160:G:C6	26:14:1161:C:C4	3.03	0.47
26:14:1399:C:H2'	26:14:1400:G:H8	1.80	0.47
26:14:1533:C:H5'	26:14:1534:G:OP2	2.15	0.47
26:14:1751:C:H2'	26:14:1752:C:C6	2.50	0.47
26:14:2051:A:H4'	30:29:141:ILE:HG12	1.96	0.47
26:14:2250:G:O2'	26:14:2496:C:OP1	2.20	0.47
26:14:2272:U:H5"	26:14:2273:A:OP1	2.14	0.47
26:14:2436:G:C6	26:14:2437:U:C4	3.03	0.47
26:14:2873:A:H8	39:55:6:SER:N	2.11	0.47
29:19:102:LYS:C	29:19:103:ARG:HG2	2.39	0.47
30:29:96:PHE:O	30:29:175:VAL:HG11	2.15	0.47
30:29:116:VAL:O	30:29:117:MET:CB	2.62	0.47
31:39:57:VAL:HG13	31:39:59:TYR:HD2	1.80	0.47
33:59:166:GLY:O	33:59:167:GLU:HG2	2.15	0.47
34:69:29:TYR:C	34:69:32:PRO:HD2	2.40	0.47
35:15:15:LEU:HB3	35:15:136:GLU:HA	1.97	0.47
40:65:26:LEU:HD13	40:65:87:PHE:CD1	2.49	0.47
40:65:89:ARG:O	40:65:90:GLY:C	2.58	0.47
41:75:85:LYS:NZ	41:75:87:ASP:OD2	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:79:VAL:HG23	43:95:81:TYR:H	1.77	0.47
46:C5:89:PHE:O	46:C5:90:LEU:HB3	2.14	0.47
47:D5:69:THR:HG22	47:D5:90:VAL:HG22	1.95	0.47
49:F5:92:LYS:O	49:F5:93:GLU:C	2.57	0.47
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.48	0.47
1:13:1036:G:N7	1:13:1037:C:C4	2.83	0.47
1:13:1449:C:H42	1:13:1454:G:H1	1.63	0.47
11:2I:33:THR:HG22	11:2I:39:PRO:HA	1.97	0.47
19:AI:40:ILE:HG23	19:AI:41:VAL:N	2.30	0.47
20:BI:85:MET:C	20:BI:87:LYS:H	2.23	0.47
22:1K:45:G:O2'	22:1K:47:U:H5'	2.15	0.47
26:1H:11:G:H2'	26:1H:12:U:H5'	1.97	0.47
26:1H:686:G:O5'	54:P8:11:LYS:NZ	2.48	0.47
26:1H:1644:C:C2'	26:1H:1645:G:H5'	2.43	0.47
26:1H:2357:U:O2	59:1H:3769:HOH:O	2.20	0.47
26:1H:2572:A:N7	30:21:145:LYS:HB2	2.30	0.47
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.15	0.47
29:11:85:ASP:OD2	29:11:88:ARG:HD2	2.15	0.47
31:31:7:TYR:O	31:31:21:ALA:HA	2.15	0.47
31:31:134:GLY:HA2	31:31:166:ALA:HB2	1.96	0.47
34:61:5:LEU:HD23	34:61:5:LEU:HA	1.74	0.47
34:61:77:LEU:HD13	34:61:140:LEU:HB3	1.97	0.47
37:78:1:MET:HE1	37:78:6:LEU:HA	1.97	0.47
41:B8:100:TYR:HB3	41:B8:103:ARG:NH1	2.29	0.47
41:B8:105:LEU:O	41:B8:107:ASP:OD1	2.33	0.47
49:J8:92:LYS:O	49:J8:93:GLU:C	2.58	0.47
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.80	0.47
1:1G:841:U:H3'	1:1G:841:U:C6	2.49	0.47
1:1G:922:G:C6	1:1G:923:A:C6	3.03	0.47
1:1G:1224:G:O2'	1:1G:1322:C:OP2	2.30	0.47
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.48	0.47
3:22:32:LEU:HD22	3:22:59:ARG:HH12	1.80	0.47
20:BA:97:ALA:HB1	20:BA:98:PRO:HD2	1.96	0.47
26:14:29:U:H2'	26:14:30:G:C8	2.49	0.47
26:14:184:C:H2'	26:14:185:U:H6	1.79	0.47
26:14:249:C:OP1	59:14:3639:HOH:O	2.20	0.47
26:14:270(Y):G:O6	59:14:3626:HOH:O	2.18	0.47
26:14:662:G:H5"	37:35:16:ARG:HG2	1.97	0.47
26:14:860:U:O4'	26:14:2268:A:H5'	2.14	0.47
26:14:994:C:O2'	26:14:996:A:OP1	2.32	0.47
26:14:1015:G:O2'	26:14:1016:G:H5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1410:G:N2	26:14:1593:G:C4	2.83	0.47
26:14:1921:G:H2'	26:14:1922:G:H8	1.79	0.47
29:19:108:PRO:HG2	29:19:111:LEU:HB2	1.96	0.47
33:59:146:ALA:O	33:59:149:ARG:HB3	2.14	0.47
42:85:58:ARG:HA	42:85:61:TRP:CE3	2.50	0.47
43:95:37:VAL:HG23	43:95:56:SER:HA	1.97	0.47
47:D5:94:GLU:O	47:D5:129:SER:HA	2.14	0.47
48:E5:50:ASN:C	48:E5:62:LEU:HB2	2.40	0.47
1:13:413:G:O2'	1:13:428:G:N2	2.48	0.47
1:13:706:A:H1'	11:2I:29:ILE:HD11	1.95	0.47
1:13:947:G:H2'	1:13:948:C:O4'	2.14	0.47
1:13:1092:A:N3	1:13:1183:A:N6	2.62	0.47
1:13:1092:A:C6	1:13:1093:A:C6	3.03	0.47
1:13:1246:C:H2'	1:13:1247:U:H6	1.79	0.47
2:1E:7:VAL:HB	2:1E:217:ARG:HD2	1.97	0.47
3:2E:16:ARG:HB2	3:2E:16:ARG:NH1	2.28	0.47
3:2E:27:LYS:HA	3:2E:27:LYS:HD2	1.58	0.47
11:2I:91:ARG:O	11:2I:94:ALA:HB3	2.15	0.47
17:8I:66:SER:O	17:8I:70:ARG:NH1	2.48	0.47
22:1K:76:A:O2'	26:1H:2585:U:O4	2.20	0.47
26:1H:666:G:H1'	55:Q8:4:MET:CE	2.44	0.47
26:1H:764:A:H2	29:11:219:PRO:HG3	1.80	0.47
26:1H:1087:G:N7	26:1H:1089:G:H1'	2.30	0.47
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.98	0.47
26:1H:1900:A:N1	26:1H:1970:A:C6	2.83	0.47
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.15	0.47
26:1H:2689:U:H5"	26:1H:2713:A:C2	2.50	0.47
28:71:185:LEU:O	28:71:189:ILE:N	2.48	0.47
30:21:1:MET:HE1	30:21:199:ARG:HB3	1.96	0.47
30:21:39:PRO:HD3	30:21:45:THR:HG22	1.96	0.47
35:58:87:LEU:O	35:58:87:LEU:HD22	2.15	0.47
36:68:25:LEU:HD12	36:68:38:VAL:HG22	1.97	0.47
41:B8:39:ARG:HB2	41:B8:39:ARG:HH11	1.78	0.47
42:C8:25:TRP:O	42:C8:28:ARG:HB2	2.14	0.47
46:G8:87:LYS:CB	46:G8:96:ILE:HD11	2.41	0.47
47:H8:125:LEU:HG	47:H8:164:ALA:CB	2.45	0.47
47:H8:132:ASN:ND2	47:H8:132:ASN:N	2.62	0.47
52:M8:39:CYS:N	52:M8:42:PHE:CE2	2.81	0.47
1:1G:57:G:H2'	1:1G:58:C:C6	2.50	0.47
1:1G:1161:C:O2'	1:1G:1162:C:H5'	2.15	0.47
1:1G:1389:C:H2'	1:1G:1390:U:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.50	0.47
12:3A:113:ARG:HH21	12:3A:116:SER:HB2	1.79	0.47
14:5A:4:LYS:O	14:5A:7:ILE:HG12	2.15	0.47
23:2L:14:A:C4	23:2L:23:G:C2	3.03	0.47
26:14:228:A:H2'	26:14:230:U:O4'	2.14	0.47
26:14:966:G:C2'	26:14:967:C:H5'	2.45	0.47
26:14:1148:A:C6	26:14:1149:G:C6	3.03	0.47
26:14:2168:G:N3	26:14:2168:G:H3'	2.29	0.47
26:14:2287:A:H2	26:14:2346:A:H2	1.59	0.47
27:1J:13:A:H5"	27:1J:15:A:C6	2.50	0.47
30:29:37:ARG:NE	30:29:42:ASP:OD2	2.42	0.47
40:65:106:ARG:O	40:65:106:ARG:HD2	2.15	0.47
43:95:24:LYS:HA	43:95:92:THR:OG1	2.14	0.47
1:13:652:U:HO2'	1:13:653:A:P	2.37	0.47
1:13:1349:A:H2'	1:13:1350:A:H8	1.80	0.47
4:3E:148:VAL:HG12	4:3E:149:ALA:O	2.15	0.47
19:AI:5:LEU:O	19:AI:6:LYS:HB3	2.14	0.47
23:2K:63:C:O2	23:2K:64:G:C8	2.68	0.47
26:1H:614:U:OP2	26:1H:614:U:H6	1.98	0.47
26:1H:638:G:C8	26:1H:651:G:N2	2.83	0.47
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.14	0.47
26:1H:1464:C:HO2'	26:1H:1528:A:H8	1.60	0.47
26:1H:1533:C:H2'	26:1H:1534:G:O4'	2.15	0.47
26:1H:1607:C:C4'	26:1H:1608:A:O5'	2.62	0.47
26:1H:1639:U:H4'	26:1H:2699:C:H4'	1.96	0.47
27:16:31:C:H2'	27:16:32:C:C6	2.50	0.47
33:51:20:ALA:HB1	33:51:21:PRO:HD2	1.95	0.47
37:78:47:ASP:HA	37:78:48:PRO:HD3	1.58	0.47
38:88:18:LYS:HB2	38:88:18:LYS:HE3	1.56	0.47
41:B8:22:PHE:HD2	41:B8:49:VAL:HG11	1.80	0.47
42:C8:79:PHE:C	42:C8:79:PHE:HD1	2.22	0.47
44:E8:84:ARG:HB2	44:E8:96:ILE:HD11	1.97	0.47
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.45	0.47
52:M8:6:HIS:HA	52:M8:7:PRO:HD3	1.80	0.47
55:Q8:29:LYS:O	55:Q8:30:ARG:HB2	2.15	0.47
1:1G:392:G:N7	59:1G:1857:HOH:O	2.35	0.47
1:1G:1004:A:H1'	1:1G:1026:G:N7	2.30	0.47
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.80	0.47
1:1G:1275:A:H2'	1:1G:1276:G:O4'	2.15	0.47
1:1G:1368:G:C5'	9:82:112:LYS:HB3	2.44	0.47
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:76:VAL:C	3:22:84:ILE:HG13	2.40	0.47
5:42:104:ALA:HA	5:42:107:ARG:NH2	2.30	0.47
9:82:42:ARG:HE	9:82:42:ARG:HB2	1.32	0.47
26:14:761:A:OP1	59:14:3501:HOH:O	2.20	0.47
26:14:839:U:H2'	26:14:840:C:H6	1.80	0.47
26:14:848:G:H2'	26:14:849:A:H8	1.80	0.47
26:14:1069:A:H5"	26:14:1070:A:OP1	2.14	0.47
26:14:1176:G:H8	26:14:1177:A:H2	1.63	0.47
26:14:2129:C:H3'	26:14:2130:U:C6	2.50	0.47
27:1J:15:A:C5'	27:1J:16:G:H8	2.27	0.47
29:19:12:SER:O	29:19:16:MET:HB2	2.15	0.47
29:19:236:GLY:O	29:19:237:GLU:O	2.33	0.47
33:59:157:TYR:CD1	33:59:172:LYS:HA	2.49	0.47
35:15:13:TRP:HB2	35:15:133:GLN:HB2	1.97	0.47
38:45:42:ILE:O	38:45:95:ALA:N	2.43	0.47
39:55:86:ARG:NH2	39:55:87:TYR:OH	2.48	0.47
40:65:80:LEU:HD23	40:65:80:LEU:HA	1.75	0.47
46:C5:75:ILE:HG22	46:C5:76:CYS:N	2.29	0.47
1:13:191:G:H1'	20:BI:105:SER:HA	1.97	0.46
1:13:243:A:H4'	1:13:244:U:H5"	1.96	0.46
1:13:381:C:H2'	1:13:382:A:O4'	2.14	0.46
1:13:1216:G:OP1	14:5I:2:ALA:HB1	2.15	0.46
1:13:1410:G:H2'	1:13:1411:C:H6	1.80	0.46
3:2E:134:ILE:HG22	3:2E:168:ALA:HB3	1.97	0.46
9:8E:86:VAL:CG1	9:8E:93:ARG:HG3	2.45	0.46
11:2I:59:TYR:O	11:2I:63:LEU:HD12	2.15	0.46
16:7I:55:ARG:HH21	16:7I:58:TYR:HD2	1.64	0.46
17:8I:9:VAL:HG21	17:8I:84:LEU:HD12	1.97	0.46
17:8I:9:VAL:CG2	17:8I:84:LEU:HD12	2.46	0.46
17:8I:70:ARG:O	17:8I:71:PHE:HD1	1.98	0.46
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.30	0.46
26:1H:2354:G:N2	26:1H:2355:C:C2	2.83	0.46
29:11:122:ASP:CG	29:11:123:ALA:H	2.23	0.46
30:21:1:MET:HE2	30:21:200:GLU:HG2	1.96	0.46
36:68:118:ALA:HA	36:68:119:PRO:HD2	1.81	0.46
39:98:52:ILE:O	39:98:55:ALA:HB3	2.15	0.46
47:H8:124:ILE:HD12	47:H8:125:LEU:H	1.81	0.46
50:K8:28:LYS:HB3	50:K8:53:LEU:CD2	2.45	0.46
1:1G:9:G:H5'	5:42:122:GLU:OE2	2.16	0.46
1:1G:15:G:H4'	5:42:24:ARG:NH1	2.29	0.46
1:1G:147:G:N2	1:1G:148:G:C4	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:262:A:C6	1:1G:263:A:C6	3.03	0.46
1:1G:353:A:H5'	1:1G:353:A:C8	2.45	0.46
1:1G:711:G:O2'	1:1G:712:A:H5'	2.16	0.46
1:1G:919:A:C2'	1:1G:920:U:H5'	2.45	0.46
1:1G:1169:A:C6	1:1G:1170:A:C6	3.03	0.46
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.50	0.46
1:1G:1465:C:OP2	41:75:108:ARG:NH1	2.48	0.46
2:12:167:PRO:HD3	2:12:187:LEU:O	2.15	0.46
4:32:61:LYS:HD2	4:32:206:PHE:CD2	2.50	0.46
26:14:764:A:N1	26:14:1789:A:O2'	2.43	0.46
26:14:998:C:H2'	26:14:999:U:O5'	2.15	0.46
26:14:1022:G:C6	26:14:1140:C:C4	3.02	0.46
26:14:1156:A:O4'	42:85:51:LYS:HE2	2.15	0.46
26:14:1259:G:H2'	26:14:1260:G:C8	2.50	0.46
26:14:1366:A:H2'	26:14:1367:A:O4'	2.15	0.46
26:14:1665:A:H2'	26:14:1666:G:O4'	2.14	0.46
29:19:149:PRO:O	29:19:150:LYS:HB2	2.15	0.46
31:39:107:LYS:HD3	31:39:107:LYS:N	2.31	0.46
38:45:75:THR:OG1	38:45:87:LYS:NZ	2.48	0.46
40:65:36:TYR:HE2	40:65:54:LEU:HD22	1.80	0.46
41:75:5:ALA:HB1	41:75:8:LYS:CB	2.44	0.46
43:95:30:GLY:H	43:95:61:VAL:HG12	1.79	0.46
45:B5:1:MET:HA	45:B5:2:LYS:HA	1.46	0.46
46:C5:88:LYS:CG	46:C5:89:PHE:H	2.25	0.46
55:M5:52:LYS:H	55:M5:53:PRO:HD2	1.80	0.46
1:13:179:A:H2'	1:13:180:U:H6	1.80	0.46
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.37	0.46
1:13:337:C:H2'	1:13:338:A:C8	2.50	0.46
1:13:453:A:C6	1:13:454:C:C4	3.04	0.46
1:13:972:C:OP1	59:13:1838:HOH:O	2.21	0.46
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.49	0.46
5:4E:36:ASP:OD2	5:4E:38:GLN:HB2	2.15	0.46
6:5E:33:TYR:HB2	6:5E:75:LEU:HG	1.98	0.46
17:8I:8:GLY:O	17:8I:21:VAL:HG13	2.15	0.46
17:8I:18:THR:OG1	17:8I:69:LYS:NZ	2.39	0.46
19:AI:15:LEU:O	19:AI:19:VAL:HG23	2.15	0.46
22:1K:63:U:H3'	22:1K:64:G:H8	1.78	0.46
26:1H:34:C:OP2	26:1H:34:C:N1	2.48	0.46
26:1H:301:G:OP1	26:1H:301:G:H4'	2.16	0.46
26:1H:783:A:C8	26:1H:783:A:C3'	2.93	0.46
26:1H:994:C:OP1	42:C8:53:ARG:NH2	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1069:A:O2'	26:1H:1072:C:OP1	2.23	0.46
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.50	0.46
26:1H:1798:U:H5'	29:11:259:THR:OG1	2.15	0.46
26:1H:2364:C:O2'	26:1H:2365:G:H5'	2.15	0.46
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.79	0.46
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.50	0.46
29:11:68:LYS:HB3	29:11:70:TRP:CE3	2.51	0.46
31:31:175:THR:O	31:31:176:LEU:HD12	2.15	0.46
32:41:112:PRO:HB3	52:M8:37:SER:HB2	1.97	0.46
35:58:48:MET:H	35:58:48:MET:HG3	1.53	0.46
1:1G:1077:G:N2	1:1G:1080:A:OP2	2.47	0.46
3:22:18:TRP:HE1	14:5A:56:VAL:H	1.64	0.46
4:32:29:PRO:HA	4:32:35:ARG:HH21	1.80	0.46
4:32:153:ARG:NH1	4:32:181:MET:HB2	2.30	0.46
9:82:77:ILE:O	9:82:81:ILE:HG12	2.15	0.46
15:6A:76:GLU:O	15:6A:80:ALA:N	2.48	0.46
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.54	0.46
20:BA:99:LEU:H	20:BA:99:LEU:HG	1.43	0.46
25:4L:9:G:H2'	25:4L:10:G:C8	2.50	0.46
26:14:329:G:H1	46:C5:19:LYS:HZ3	1.61	0.46
26:14:389:G:N1	37:35:71:VAL:HG12	2.29	0.46
26:14:1074:G:H2'	26:14:1074:G:N3	2.30	0.46
26:14:1268:A:H2'	26:14:1269:A:O4'	2.15	0.46
26:14:1999:C:H4'	26:14:2723:C:O2	2.16	0.46
26:14:2469:A:H8	38:45:56:ARG:HH21	1.63	0.46
26:14:2563:U:O2	26:14:2565:A:H8	1.98	0.46
30:29:54:GLN:HG2	30:29:55:ASN:N	2.29	0.46
31:39:172:TRP:CD1	31:39:172:TRP:H	2.31	0.46
32:49:8:LYS:O	32:49:11:TYR:HB3	2.15	0.46
32:49:145:THR:O	32:49:146:TYR:HB3	2.15	0.46
43:95:1:MET:HG2	43:95:43:GLU:HG2	1.96	0.46
47:D5:76:LEU:HD23	47:D5:76:LEU:N	2.30	0.46
49:F5:49:VAL:CG2	49:F5:67:ILE:HD12	2.46	0.46
49:F5:49:VAL:HG11	49:F5:70:VAL:HG11	1.97	0.46
1:13:109:A:C6	1:13:326:G:C6	3.03	0.46
1:13:160:A:C5	1:13:344:A:H8	2.33	0.46
1:13:429:U:OP2	4:3E:36:ARG:NH2	2.47	0.46
1:13:712:A:O2'	1:13:713:G:H5'	2.16	0.46
1:13:958:A:C6	1:13:959:A:N1	2.83	0.46
1:13:1034:G:O2'	1:13:1035:A:H5'	2.14	0.46
1:13:1399:C:C2	1:13:1401:G:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:234:PRO:C	2:1E:236:TYR:H	2.24	0.46
4:3E:108:LEU:HB3	4:3E:110:PHE:CE1	2.50	0.46
4:3E:166:LYS:HB2	4:3E:178:VAL:HG11	1.97	0.46
22:1K:53:G:H2'	22:1K:54:5MU:H6	1.81	0.46
26:1H:59:U:O2'	26:1H:73:A:H2'	2.15	0.46
26:1H:1466:G:N2	26:1H:1547:C:N3	2.63	0.46
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.46	0.46
26:1H:1942:C:OP2	26:1H:1943:U:O2'	2.28	0.46
26:1H:2692:C:OP1	26:1H:2871:C:H5'	2.15	0.46
29:11:27:THR:O	29:11:29:PRO:N	2.48	0.46
30:21:105:THR:HG21	30:21:164:ARG:NH1	2.29	0.46
36:68:21:CYS:HB2	36:68:39:ILE:HD12	1.98	0.46
45:F8:4:ALA:H	45:F8:7:VAL:HG23	1.81	0.46
45:F8:24:GLY:HA3	45:F8:82:GLN:NE2	2.30	0.46
46:G8:35:TYR:CE2	46:G8:69:ALA:HB3	2.50	0.46
1:1G:596:C:OP2	59:1G:1831:HOH:O	2.20	0.46
1:1G:713:G:H2'	1:1G:714:G:C8	2.51	0.46
1:1G:756:C:H2'	1:1G:757:U:O4'	2.15	0.46
1:1G:829:G:H1	1:1G:857:C:H42	1.62	0.46
1:1G:955:U:H2'	1:1G:956:U:H6	1.80	0.46
1:1G:1063:C:H3'	1:1G:1064:G:H2'	1.97	0.46
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.97	0.46
7:62:26:PHE:CD2	7:62:30:ILE:HD11	2.50	0.46
8:72:44:PHE:HA	8:72:79:VAL:CG1	2.46	0.46
26:14:287:C:H2'	26:14:288:C:H6	1.79	0.46
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.51	0.46
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.46	0.46
26:14:2299:G:C2	26:14:2318:G:H8	2.34	0.46
29:19:2:ALA:HB3	29:19:20:ASP:HB2	1.97	0.46
29:19:260:ARG:NH2	29:19:264:LYS:HD3	2.31	0.46
46:C5:8:LYS:NZ	46:C5:95:LYS:HD3	2.30	0.46
46:C5:50:ARG:HB2	46:C5:58:GLY:O	2.15	0.46
46:C5:87:LYS:HA	46:C5:87:LYS:HD3	1.51	0.46
49:F5:79:GLY:O	49:F5:80:LEU:HD13	2.15	0.46
50:G5:18:PRO:O	50:G5:21:LEU:HB2	2.14	0.46
55:M5:33:ASN:O	55:M5:34:TRP:C	2.58	0.46
1:13:760:G:H2'	1:13:761:G:H5'	1.97	0.46
1:13:1084:G:C5	1:13:1085:U:C4	3.04	0.46
1:13:1271:G:H2'	1:13:1272:G:H5"	1.96	0.46
1:13:1292:U:C2	1:13:1293:G:C8	3.04	0.46
1:13:1455:G:OP1	20:BI:35:THR:OG1	2.12	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:173:VAL:HG12	3:2E:175:LEU:CD1	2.45	0.46
10:1I:48:THR:HG1	10:1I:62:HIS:CE1	2.32	0.46
10:1I:55:LYS:HG3	10:1I:55:LYS:O	2.16	0.46
12:3I:69:TYR:CG	12:3I:90:VAL:HG21	2.50	0.46
22:1K:14:A:C6	22:1K:22:G:C4	3.03	0.46
26:1H:26:G:C6	26:1H:27:G:N1	2.82	0.46
26:1H:265:A:H1'	26:1H:266:G:O4'	2.15	0.46
26:1H:443:A:N7	31:31:45:ARG:HG2	2.30	0.46
26:1H:918:A:N3	27:16:80:U:O2'	2.42	0.46
26:1H:1022:G:H4'	26:1H:1023:U:O5'	2.16	0.46
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.15	0.46
26:1H:1419:A:C8	26:1H:1421:G:C6	3.03	0.46
26:1H:2053:G:OP1	30:21:144:ARG:HG3	2.15	0.46
26:1H:2751:G:C5	33:51:3:ARG:CG	2.99	0.46
30:21:75:VAL:C	30:21:76:ARG:HD2	2.40	0.46
34:61:81:VAL:HG11	34:61:88:ILE:HD12	1.97	0.46
54:P8:8:ASN:OD1	54:P8:8:ASN:C	2.58	0.46
1:1G:407:G:H2'	1:1G:408:A:H8	1.79	0.46
1:1G:604:G:H2'	1:1G:605:U:O4'	2.15	0.46
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.50	0.46
1:1G:1015:A:N6	1:1G:1016:A:C6	2.83	0.46
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.78	0.46
1:1G:1307:U:H2'	1:1G:1308:U:C6	2.51	0.46
2:12:127:ILE:HD13	2:12:130:ARG:HH21	1.79	0.46
2:12:180:LEU:HB2	2:12:182:ILE:HD13	1.97	0.46
4:32:13:ARG:H	4:32:13:ARG:HG2	1.47	0.46
18:9A:45:SER:OG	18:9A:47:THR:OG1	2.30	0.46
23:2L:2:G:H2'	23:2L:3:C:C6	2.50	0.46
26:14:265:A:H1'	26:14:266:G:O4'	2.16	0.46
26:14:1006:C:H1'	35:15:106:MET:HE3	1.97	0.46
26:14:1173:G:C2	26:14:1175:U:H1'	2.51	0.46
26:14:1750:G:O2'	26:14:1751:C:H5'	2.15	0.46
26:14:2352:A:C2	48:E5:33:ALA:O	2.69	0.46
30:29:12:THR:HB	30:29:13:ARG:H	1.63	0.46
30:29:12:THR:HG21	41:75:11:GLU:OE1	2.15	0.46
38:45:78:PRO:O	38:45:81:VAL:HG13	2.16	0.46
38:45:98:LYS:HB3	38:45:99:PRO:HD2	1.98	0.46
38:45:111:GLU:HG3	38:45:115:MET:HE3	1.97	0.46
41:75:5:ALA:N	41:75:6:LEU:CA	2.78	0.46
47:D5:168:GLU:H	47:D5:168:GLU:HG3	1.52	0.46
50:G5:15:LYS:H	50:G5:67:LYS:NZ	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:H5:44:ARG:HH11	51:H5:44:ARG:HB2	1.81	0.46
1:13:375:U:OP1	16:7I:69:THR:HG21	2.16	0.46
1:13:452:A:H2'	1:13:453:A:H8	1.81	0.46
1:13:452:A:O2'	1:13:453:A:O4'	2.32	0.46
1:13:511:C:OP2	4:3E:49:ARG:NH1	2.48	0.46
1:13:1007:C:C2	1:13:1023:G:C2	3.03	0.46
1:13:1206:G:C6	1:13:1207:G:C5	3.04	0.46
1:13:1367:C:C5'	10:1I:60:ARG:HH11	2.22	0.46
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.14	0.46
6:5E:16:GLN:HG2	6:5E:17:SER:N	2.29	0.46
15:6I:55:GLY:HA2	15:6I:58:MET:HG3	1.95	0.46
19:AI:41:VAL:HG22	19:AI:44:MET:CB	2.41	0.46
19:AI:41:VAL:CG1	19:AI:45:VAL:HG23	2.40	0.46
26:1H:433:C:H2'	26:1H:434:U:C6	2.50	0.46
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.51	0.46
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.50	0.46
26:1H:2287:A:C2	26:1H:2289:G:C8	3.03	0.46
27:16:13:A:C6	27:16:70:C:H5'	2.50	0.46
27:16:40:U:H1'	27:16:45:A:N6	2.31	0.46
28:71:64:LEU:HG	28:71:65:PRO:HD2	1.97	0.46
29:11:35:LYS:HB3	29:11:35:LYS:HE3	1.36	0.46
37:78:36:LYS:O	37:78:40:SER:HB3	2.16	0.46
42:C8:85:LYS:HD2	42:C8:85:LYS:HA	1.42	0.46
47:H8:69:THR:HA	47:H8:89:PHE:O	2.15	0.46
47:H8:150:LEU:HD23	47:H8:151:HIS:N	2.30	0.46
48:I8:23:VAL:HG22	48:I8:38:VAL:CG2	2.45	0.46
49:J8:87:PRO:O	49:J8:91:LYS:HB2	2.16	0.46
1:1G:262:A:N6	1:1G:263:A:N6	2.63	0.46
1:1G:360:A:H2'	1:1G:361:G:C8	2.51	0.46
1:1G:428:G:O4'	1:1G:430:A:C8	2.69	0.46
1:1G:800:G:O6	59:1G:1828:HOH:O	2.20	0.46
1:1G:1074:G:O2'	1:1G:1101:A:N1	2.41	0.46
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.51	0.46
1:1G:1472:U:H2'	1:1G:1473:A:O4'	2.16	0.46
3:22:6:HIS:CG	14:5A:49:HIS:HB3	2.51	0.46
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.98	0.46
4:32:53:ASP:HB3	4:32:57:ARG:NH1	2.30	0.46
5:42:8:GLU:HA	5:42:34:VAL:HA	1.98	0.46
13:4A:92:HIS:HE2	13:4A:98:VAL:HG11	1.81	0.46
16:7A:3:LYS:N	16:7A:22:THR:O	2.40	0.46
26:14:309:G:O3'	46:C5:18:GLY:HA3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1167:U:C2	26:14:1183:G:N2	2.83	0.46
26:14:1288:U:C2	26:14:1327:C:O2	2.69	0.46
26:14:2391:G:O6	26:14:2425:A:H8	1.99	0.46
26:14:2807:G:H1	26:14:2892:A:H62	1.63	0.46
28:79:207:THR:O	28:79:210:ARG:NH1	2.48	0.46
29:19:68:LYS:HD3	29:19:70:TRP:CZ2	2.51	0.46
31:39:122:LYS:HB3	31:39:191:ARG:HB2	1.96	0.46
38:45:140:ALA:HB1	47:D5:73:GLN:HB2	1.96	0.46
44:A5:25:ARG:NH2	44:A5:74:ALA:O	2.38	0.46
46:C5:19:LYS:HD2	46:C5:20:TYR:CE1	2.50	0.46
46:C5:81:LYS:HG3	46:C5:99:CYS:SG	2.56	0.46
47:D5:124:ILE:HG13	47:D5:125:LEU:N	2.30	0.46
1:13:51:A:OP2	1:13:52:G:H8	1.98	0.46
1:13:140:A:C6	1:13:141:A:C5	3.04	0.46
1:13:416:G:C6	1:13:417:C:C4	3.03	0.46
1:13:1427:U:H2'	1:13:1428:A:C8	2.51	0.46
2:1E:8:LYS:H	2:1E:8:LYS:HZ2	1.64	0.46
4:3E:25:ARG:NH1	4:3E:30:LYS:HB3	2.29	0.46
6:5E:15:ASP:CG	6:5E:18:GLN:HG3	2.41	0.46
7:6E:15:ASP:HB3	7:6E:20:ASP:N	2.25	0.46
11:2I:31:THR:HG22	11:2I:42:TRP:HB2	1.96	0.46
11:2I:73:MET:HE1	11:2I:102:GLY:HA3	1.97	0.46
17:8I:22:LEU:HD12	17:8I:40:LYS:O	2.15	0.46
19:AI:80:TYR:CZ	19:AI:82:GLY:HA2	2.51	0.46
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.15	0.46
26:1H:547:A:H2'	26:1H:548:A:H8	1.81	0.46
26:1H:848:G:H2'	26:1H:849:A:H8	1.79	0.46
26:1H:950:G:H2'	26:1H:951:C:C6	2.50	0.46
26:1H:1126:A:H8	26:1H:1126:A:O5'	1.98	0.46
26:1H:1204:A:N1	26:1H:1241:A:C2	2.84	0.46
26:1H:1324:G:C4	26:1H:1328:G:O6	2.69	0.46
26:1H:1681:G:O2'	26:1H:1762[B]:A:H8	1.98	0.46
26:1H:2102:U:O2	26:1H:2187:G:N2	2.37	0.46
26:1H:2175:C:O2'	28:71:219:GLY:N	2.48	0.46
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.51	0.46
26:1H:2787:C:O4'	30:21:62:PRO:HA	2.16	0.46
27:16:71:C:C2	27:16:72:G:C8	3.04	0.46
28:71:37:PHE:HB3	28:71:38:ASP:HB2	1.96	0.46
36:68:9:GLU:OE1	36:68:18:LYS:HE3	2.15	0.46
44:E8:48:ALA:O	44:E8:52:GLU:HB2	2.15	0.46
47:H8:6:LYS:HE3	47:H8:8:TYR:OH	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.94	0.46
1:1G:537:G:H2'	1:1G:538:G:C8	2.50	0.46
1:1G:1309:G:OP2	13:4A:99:ARG:NH2	2.41	0.46
5:42:127:ASN:HA	5:42:128:PRO:HD3	1.89	0.46
18:9A:71:LYS:HA	18:9A:74:ARG:HD2	1.97	0.46
26:14:270(T):G:C6	26:14:270(U):C:C4	3.04	0.46
26:14:332:A:O2'	26:14:334:C:OP2	2.30	0.46
26:14:1181:C:H2'	26:14:1182:A:C8	2.51	0.46
26:14:2394:C:OP1	37:35:64:LYS:HB2	2.15	0.46
26:14:2563:U:O2	26:14:2565:A:C8	2.68	0.46
26:14:2682:U:C6	30:29:11:MET:HE2	2.51	0.46
31:39:24:LEU:HB3	31:39:25:PRO:HD3	1.97	0.46
32:49:59:GLU:CD	32:49:153:ARG:HH21	2.23	0.46
33:59:72:ILE:HD12	33:59:75:ALA:HB3	1.97	0.46
44:A5:28:SER:OG	44:A5:31:GLU:HG3	2.15	0.46
46:C5:47:LYS:HG2	46:C5:60:PHE:CZ	2.51	0.46
1:13:266:G:N2	1:13:269:C:C5	2.84	0.46
1:13:658:G:H2'	1:13:659:U:H6	1.81	0.46
2:1E:21:ARG:O	2:1E:23:ARG:N	2.49	0.46
2:1E:61:LEU:HD23	2:1E:68:ILE:HD11	1.97	0.46
3:2E:58:GLU:HB2	3:2E:65:ALA:CB	2.45	0.46
9:8E:50:LEU:HD12	9:8E:51:ARG:H	1.79	0.46
20:BI:53:LEU:O	20:BI:57:ARG:HB2	2.16	0.46
23:2K:57:C:O2'	32:41:78:SER:HB2	2.15	0.46
26:1H:635:C:O2'	26:1H:639:U:OP1	2.32	0.46
26:1H:1168:G:C2	26:1H:1182:A:C2	3.03	0.46
26:1H:1508:A:OP2	26:1H:1508:A:H8	1.99	0.46
26:1H:1705:G:O2'	26:1H:1706:U:H5'	2.16	0.46
26:1H:2280:G:C2'	26:1H:2281:C:H5'	2.43	0.46
38:88:6:ARG:CG	38:88:7:MET:H	2.25	0.46
39:98:87:TYR:CE1	39:98:117:VAL:HG12	2.51	0.46
40:A8:42:ASP:O	40:A8:43:GLU:HB3	2.16	0.46
45:F8:26:TYR:O	45:F8:81:VAL:HG12	2.16	0.46
46:G8:95:LYS:O	46:G8:103:GLY:HA2	2.16	0.46
52:M8:43:TYR:CD1	52:M8:44:THR:N	2.83	0.46
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.51	0.46
1:1G:552:U:O2'	12:3A:86:ARG:O	2.29	0.46
1:1G:798:G:O6	59:1G:1825:HOH:O	2.17	0.46
1:1G:1256:A:OP2	3:22:26:LYS:NZ	2.33	0.46
12:3A:41:ARG:HH11	12:3A:41:ARG:CB	2.21	0.46
20:BA:64:ASP:CG	20:BA:81:LYS:HZ1	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:9:G:O2'	23:2L:10:G:N7	2.33	0.46
23:2L:47:G7M:H3'	23:2L:48:U:C5	2.50	0.46
24:3L:1:G:H2'	24:3L:1:G:N3	2.31	0.46
25:4L:9:G:H2'	25:4L:10:G:H8	1.80	0.46
26:14:31:C:C2'	26:14:32:C:H5'	2.45	0.46
26:14:960:A:C8	26:14:962:G:C8	3.04	0.46
26:14:1142:U:O2	26:14:1142:U:H2'	2.16	0.46
26:14:1257:C:H4'	31:39:83:PHE:CE1	2.51	0.46
26:14:1520:U:H2'	26:14:1521:G:O4'	2.16	0.46
26:14:2716:U:H2'	26:14:2717:G:C8	2.51	0.46
27:1J:65:C:N4	27:1J:108:C:C2	2.83	0.46
28:79:5:LYS:HB3	28:79:5:LYS:HE2	1.80	0.46
34:69:61:ARG:NH1	34:69:64:GLU:HG2	2.30	0.46
34:69:69:LYS:O	34:69:73:GLU:HB2	2.15	0.46
35:15:102:ALA:O	35:15:106:MET:HG3	2.16	0.46
36:25:1:MET:HB3	36:25:32:TYR:HB3	1.98	0.46
37:35:126:VAL:HG12	37:35:147:LEU:HD22	1.98	0.46
46:C5:88:LYS:HG3	46:C5:89:PHE:N	2.29	0.46
48:E5:46:LYS:HA	48:E5:47:PRO:HD3	1.77	0.46
1:13:948:C:O2'	1:13:949:A:H5'	2.16	0.46
2:1E:162:ILE:O	2:1E:185:ILE:HG23	2.16	0.46
2:1E:166:ASP:C	2:1E:168:THR:H	2.24	0.46
4:3E:60:GLU:OE2	4:3E:199:ASN:N	2.32	0.46
6:5E:24:GLU:HG3	6:5E:28:ARG:NE	2.31	0.46
7:6E:102:ARG:HG2	7:6E:106:GLN:OE1	2.16	0.46
20:BI:53:LEU:HG	20:BI:102:GLY:HA3	1.98	0.46
26:1H:524:U:H4'	26:1H:554:U:H4'	1.98	0.46
26:1H:699:A:H2'	26:1H:700:G:O4'	2.16	0.46
27:16:15:A:O2'	27:16:109:G:C8	2.61	0.46
30:21:57:LYS:HG3	30:21:59:VAL:HG12	1.98	0.46
43:D8:62:LEU:HA	43:D8:62:LEU:HD12	1.58	0.46
46:G8:30:VAL:O	46:G8:32:PRO:HD3	2.16	0.46
1:1G:373:A:C2	1:1G:374:A:C8	3.03	0.46
1:1G:685:G:C2	1:1G:686:U:C4	3.04	0.46
26:14:49:A:H4'	26:14:50:U:H5"	1.97	0.46
26:14:1198:U:H5"	26:14:1199:U:OP2	2.16	0.46
29:19:30:GLU:CG	29:19:35:LYS:HZ3	2.28	0.46
33:59:157:TYR:HD1	33:59:172:LYS:HA	1.80	0.46
34:69:76:THR:HG23	34:69:77:LEU:N	2.31	0.46
34:69:92:VAL:HB	34:69:120:ILE:HB	1.97	0.46
40:65:61:ASN:O	40:65:65:VAL:HB	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B5:24:GLY:HA3	45:B5:82:GLN:OE1	2.16	0.46
1:13:547:A:H4'	1:13:548:G:O5'	2.15	0.46
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.29	0.46
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.19	0.46
1:13:1346:A:C4	7:6E:10:ARG:NH2	2.84	0.46
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.98	0.46
12:3I:6:THR:HG1	12:3I:9:GLN:H	1.64	0.46
12:3I:113:ARG:HH21	12:3I:116:SER:HB2	1.80	0.46
19:AI:5:LEU:HD13	19:AI:5:LEU:HA	1.55	0.46
26:1H:248:G:H5'	26:1H:250:G:N7	2.30	0.46
26:1H:822:U:O2'	26:1H:823:G:H5'	2.15	0.46
26:1H:910:A:H62	38:88:12:GLN:HA	1.81	0.46
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.16	0.46
27:16:31:C:H2'	27:16:32:C:H6	1.81	0.46
28:71:194:ARG:NH2	28:71:226:PRO:O	2.39	0.46
29:11:26:LYS:HG3	29:11:81:ALA:CB	2.46	0.46
30:21:48:GLN:OE1	30:21:77:ILE:HD13	2.15	0.46
39:98:27:SER:HB3	39:98:34:ILE:CD1	2.45	0.46
1:1G:324:G:C8	59:1G:1858:HOH:O	2.69	0.46
1:1G:646:U:H2'	1:1G:647:C:C6	2.50	0.46
1:1G:1015:A:C6	1:1G:1016:A:C5	3.04	0.46
1:1G:1122:U:C4	1:1G:1123:A:N7	2.84	0.46
1:1G:1129:C:H5	1:1G:1141:C:N4	2.14	0.46
1:1G:1182:G:H5'	1:1G:1183:A:H5"	1.98	0.46
1:1G:1371:G:OP2	9:82:11:LYS:HG2	2.16	0.46
2:12:54:THR:HA	2:12:57:PHE:CD2	2.51	0.46
3:22:16:ARG:NH2	3:22:181:ASN:HD22	2.14	0.46
4:32:24:GLU:HG2	4:32:25:ARG:H	1.81	0.46
6:52:7:ASN:N	6:52:7:ASN:OD1	2.47	0.46
7:62:27:ILE:HD12	7:62:40:ALA:HA	1.97	0.46
13:4A:8:GLU:OE2	13:4A:10:PRO:HD3	2.16	0.46
17:8A:40:LYS:HD3	17:8A:42:TYR:CZ	2.50	0.46
18:9A:37:VAL:O	18:9A:41:LYS:N	2.31	0.46
26:14:19:C:H2'	26:14:20:C:H6	1.81	0.46
26:14:656:G:H2'	26:14:657:U:O4'	2.16	0.46
26:14:1059:G:H2'	26:14:1060:U:C4	2.51	0.46
27:1J:2:C:H2'	27:1J:3:C:H6	1.81	0.46
29:19:133:LEU:HD13	29:19:173:VAL:CG1	2.44	0.46
31:39:65:TRP:CZ3	31:39:72:ARG:HB3	2.50	0.46
32:49:96:ARG:O	32:49:97:ASP:HB2	2.16	0.46
34:69:93:THR:HB	34:69:96:ASP:H	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:2:LEU:O	38:45:70:PRO:HG2	2.16	0.46
41:75:57:PHE:HA	41:75:79:HIS:CD2	2.51	0.46
1:13:651:C:H2'	1:13:652:U:C6	2.51	0.46
6:5E:61:LEU:HD23	6:5E:63:TYR:CE1	2.50	0.46
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.16	0.46
24:3K:53:G:H1	24:3K:61:C:N4	2.14	0.46
26:1H:329:G:H4'	26:1H:330:A:OP2	2.14	0.46
26:1H:724:U:H2'	26:1H:725:G:O4'	2.16	0.46
26:1H:761:A:P	59:1H:4055:HOH:O	2.74	0.46
26:1H:989:G:OP1	26:1H:1157:G:O2'	2.31	0.46
26:1H:1705:G:C6	26:1H:1706:U:N3	2.84	0.46
26:1H:2056:G:C8	59:1H:3623:HOH:O	2.53	0.46
26:1H:2504:U:P	59:1H:3690:HOH:O	2.74	0.46
37:78:76:LYS:HD2	37:78:76:LYS:HA	1.63	0.46
37:78:84:ASN:ND2	37:78:117:GLU:HB3	2.30	0.46
46:G8:97:ARG:HH22	46:G8:104:GLY:HA3	1.80	0.46
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.51	0.46
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.15	0.46
1:1G:108:G:O6	20:BA:15:ARG:HD2	2.16	0.46
1:1G:131:C:H2'	1:1G:132:C:C6	2.51	0.46
1:1G:601:C:H2'	1:1G:602:A:C8	2.51	0.46
1:1G:996:A:H8	1:1G:996:A:OP2	1.99	0.46
1:1G:1372:U:OP1	9:82:72:GLY:N	2.49	0.46
2:12:56:ARG:NH2	2:12:60:ASP:OD2	2.49	0.46
3:22:61:ALA:C	3:22:63:ASN:H	2.24	0.46
5:42:105:VAL:HG21	5:42:128:PRO:HB3	1.97	0.46
9:82:5:TYR:OH	9:82:16:ARG:HG2	2.16	0.46
13:4A:8:GLU:HG2	13:4A:9:ILE:H	1.80	0.46
14:5A:29:ARG:HE	14:5A:29:ARG:HB2	1.37	0.46
16:7A:14:ASN:OD1	16:7A:42:ARG:NH2	2.49	0.46
22:1L:53:G:O3'	38:45:56:ARG:NH1	2.49	0.46
24:3L:62:C:O4'	28:79:52:ARG:NH2	2.49	0.46
26:14:192:C:O2'	26:14:802:A:N3	2.45	0.46
26:14:255:A:C6	26:14:256:A:C5	3.04	0.46
26:14:483:A:H4'	46:C5:49:VAL:HA	1.97	0.46
26:14:690:G:P	59:14:3524:HOH:O	2.71	0.46
26:14:1098:A:H3'	26:14:1099:G:C8	2.50	0.46
26:14:1644:C:H2'	26:14:1645:G:H5'	1.97	0.46
26:14:1830:C:O5'	26:14:1830:C:H6	1.98	0.46
26:14:2177:C:H4'	28:79:44:HIS:HB2	1.97	0.46
26:14:2346:A:H5'	26:14:2383:G:H1'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:103:U:O2'	47:D5:72:ARG:HG3	2.16	0.46
32:49:91:ARG:HE	32:49:91:ARG:HB3	1.35	0.46
46:C5:82:PRO:HA	46:C5:99:CYS:HB2	1.97	0.46
55:M5:6:THR:HG22	55:M5:64:TYR:HD2	1.81	0.46
1:13:191:G:C6	1:13:192:U:C4	3.03	0.45
1:13:645:C:H2'	1:13:646:U:O4'	2.16	0.45
1:13:724:G:C2	1:13:725:G:C8	3.04	0.45
4:3E:107:ARG:HH22	4:3E:194:LEU:CD2	2.22	0.45
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.15	0.45
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.49	0.45
16:7I:37:GLY:HA3	16:7I:50:LYS:O	2.15	0.45
17:8I:67:LYS:CA	17:8I:70:ARG:HH12	2.18	0.45
21:1F:5:ASP:O	21:1F:8:THR:HG22	2.16	0.45
22:1K:69:A:O2'	22:1K:70:C:O5'	2.27	0.45
26:1H:847:U:P	59:1H:3629:HOH:O	2.70	0.45
26:1H:1093:G:H1'	26:1H:1099:G:H22	1.81	0.45
26:1H:1597:A:H5"	26:1H:1598:C:OP1	2.16	0.45
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.51	0.45
28:71:212:VAL:CG2	28:71:226:PRO:HG3	2.46	0.45
39:98:9:LYS:HA	39:98:17:ARG:NE	2.31	0.45
41:B8:24:PRO:HA	41:B8:49:VAL:HG22	1.97	0.45
42:C8:19:LYS:O	42:C8:22:LYS:HB2	2.17	0.45
44:E8:27:LYS:HB3	44:E8:31:GLU:HG3	1.98	0.45
50:K8:14:ARG:CB	50:K8:15:LYS:HZ3	2.27	0.45
50:K8:64:LEU:HD21	50:K8:68:ARG:NH1	2.31	0.45
52:M8:38:LYS:HA	52:M8:42:PHE:CZ	2.50	0.45
1:1G:231:G:C2	1:1G:232:G:C8	3.03	0.45
1:1G:464:G:C6	1:1G:466:C:H5'	2.50	0.45
1:1G:777:A:C2	11:2A:119:CYS:HB3	2.50	0.45
1:1G:1053:G:C2	1:1G:1199:U:N3	2.84	0.45
2:12:71:VAL:HG23	2:12:165:VAL:HG13	1.98	0.45
2:12:91:PRO:CG	2:12:155:LEU:HG	2.45	0.45
3:22:164:ARG:HB2	25:4L:25:A:C2	2.51	0.45
13:4A:33:ALA:O	13:4A:37:THR:OG1	2.18	0.45
14:5A:23:ARG:HH11	14:5A:28:GLY:HA2	1.82	0.45
14:5A:37:PHE:CE1	14:5A:53:LEU:HD13	2.50	0.45
26:14:92:G:H2'	26:14:93:C:H6	1.81	0.45
26:14:631:A:H5"	26:14:632:A:OP2	2.15	0.45
26:14:911:A:H2'	38:45:9:TYR:OH	2.16	0.45
26:14:942:G:P	59:14:3648:HOH:O	2.74	0.45
26:14:1210:A:H5'	26:14:1210:A:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2121:G:H1	26:14:2177:C:H42	1.65	0.45
26:14:2287:A:H2	26:14:2346:A:C2	2.34	0.45
29:19:85:ASP:HB2	29:19:92:ILE:HD13	1.98	0.45
30:29:1:MET:HG3	30:29:200:GLU:OE2	2.16	0.45
30:29:70:ALA:C	30:29:72:VAL:H	2.23	0.45
32:49:107:LEU:HA	32:49:111:LEU:HD13	1.99	0.45
32:49:125:PHE:CE1	32:49:131:TYR:HB2	2.51	0.45
38:45:21:THR:HG21	38:45:101:ARG:HD3	1.98	0.45
40:65:88:ASP:HB3	40:65:89:ARG:H	1.49	0.45
55:M5:14:VAL:HG13	55:M5:22:VAL:HG13	1.98	0.45
1:13:631:G:O2'	1:13:632:A:H8	1.98	0.45
1:13:838:G:H1	1:13:848:C:N4	2.14	0.45
1:13:1072:G:C5	1:13:1073:U:C4	3.05	0.45
1:13:1499:A:O2'	1:13:1520:G:H5'	2.15	0.45
2:1E:114:ARG:O	2:1E:118:LEU:HB2	2.16	0.45
7:6E:92:SER:O	7:6E:96:GLN:HG3	2.16	0.45
7:6E:149:ARG:HG2	11:2I:59:TYR:CZ	2.51	0.45
14:5I:44:LEU:HD12	14:5I:44:LEU:O	2.16	0.45
26:1H:72:U:P	59:1H:3732:HOH:O	2.72	0.45
26:1H:76:C:O2'	26:1H:77:C:H5'	2.16	0.45
26:1H:111:A:H4'	50:K8:69:ARG:NH2	2.31	0.45
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.52	0.45
26:1H:651:G:OP1	55:Q8:19:SER:OG	2.20	0.45
26:1H:859:G:H5'	26:1H:2268:A:O2'	2.16	0.45
26:1H:928:G:C8	59:1H:3888:HOH:O	2.69	0.45
26:1H:1260:G:C6	26:1H:1261:C:C4	3.05	0.45
26:1H:1493:C:H5"	26:1H:1493:C:C6	2.45	0.45
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.51	0.45
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.51	0.45
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.17	0.45
32:41:83:ARG:H	32:41:86:MET:CE	2.29	0.45
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.46	0.45
41:B8:13:ARG:NH1	41:B8:13:ARG:HB2	2.30	0.45
44:E8:88:ARG:NH1	44:E8:94:ASP:OD2	2.49	0.45
46:G8:42:VAL:HG23	46:G8:43:ASN:H	1.79	0.45
47:H8:105:VAL:O	47:H8:140:ASP:HA	2.16	0.45
47:H8:128:VAL:HG12	47:H8:161:VAL:HB	1.98	0.45
1:1G:114:U:H2'	1:1G:115:G:H8	1.80	0.45
1:1G:1164:G:O6	1:1G:1172:C:N4	2.49	0.45
4:32:31:CYS:O	4:32:32:ALA:HB3	2.16	0.45
6:52:42:GLU:OE1	6:52:59:TYR:OH	2.27	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BA:41:ILE:HG21	20:BA:87:LYS:HD2	1.98	0.45
22:1L:10:G:H8	22:1L:10:G:O5'	1.98	0.45
22:1L:34:U8U:HN3	25:4L:21:G:H22	1.64	0.45
24:3L:58:A:O2'	24:3L:59:A:O5'	2.29	0.45
26:14:94:G:N3	50:G5:47:ASN:ND2	2.65	0.45
26:14:323:G:O2'	26:14:1205:U:N3	2.21	0.45
26:14:817:C:C5	26:14:818:G:N7	2.85	0.45
26:14:1059:G:H2'	26:14:1060:U:C5	2.52	0.45
26:14:1342:A:OP1	45:B5:36:LYS:NZ	2.46	0.45
26:14:2150:U:H2'	26:14:2151:G:C8	2.51	0.45
26:14:2291:U:H5"	26:14:2380:C:O2'	2.17	0.45
26:14:2632:A:O2'	26:14:2811:G:O2'	2.14	0.45
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.51	0.45
30:29:52:LEU:HA	30:29:53:PRO:HD2	1.78	0.45
30:29:64:LYS:C	30:29:66:HIS:N	2.75	0.45
31:39:170:LEU:HD22	31:39:172:TRP:NE1	2.29	0.45
32:49:47:LYS:HD2	32:49:81:LYS:HB2	1.98	0.45
32:49:127:GLY:HA2	32:49:166:ASP:CG	2.41	0.45
32:49:151:ALA:HB3	32:49:153:ARG:NH1	2.31	0.45
38:45:30:GLY:HA2	38:45:107:ALA:HB2	1.97	0.45
41:75:36:GLU:O	41:75:36:GLU:HG2	2.17	0.45
46:C5:104:GLY:HA2	46:C5:105:ALA:HA	1.64	0.45
1:13:105:G:H2'	1:13:106:C:C6	2.51	0.45
1:13:123:C:OP1	1:13:312:C:H5'	2.16	0.45
1:13:438:G:O6	59:13:1836:HOH:O	2.20	0.45
1:13:507:C:OP2	1:13:508:C:O2'	2.20	0.45
1:13:1312:G:H5'	19:AI:5:LEU:HD23	1.97	0.45
1:13:1443:G:N7	41:B8:118:ARG:HG3	2.31	0.45
7:6E:101:LEU:O	7:6E:105:VAL:HG23	2.16	0.45
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.16	0.45
12:3I:123:LYS:H	12:3I:123:LYS:HG2	1.45	0.45
26:1H:155:C:H5'	26:1H:161:U:OP2	2.16	0.45
26:1H:442:G:C6	26:1H:444:C:N4	2.84	0.45
26:1H:744:G:OP1	59:1H:3777:HOH:O	2.21	0.45
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.16	0.45
26:1H:1156:A:C8	42:C8:51:LYS:HG2	2.51	0.45
26:1H:1277:G:O2'	39:98:24:GLN:NE2	2.42	0.45
26:1H:1635:G:N2	59:1H:4023:HOH:O	2.49	0.45
26:1H:2845:G:H5"	41:B8:55:ASN:HA	1.97	0.45
29:11:11:PRO:O	29:11:12:SER:OG	2.31	0.45
29:11:28:GLU:OE1	29:11:28:GLU:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:105:LEU:HD23	33:51:105:LEU:H	1.81	0.45
37:78:80:TYR:CE1	37:78:111:ARG:HD3	2.52	0.45
38:88:21:THR:OG1	38:88:101:ARG:HB2	2.17	0.45
41:B8:11:GLU:OE1	41:B8:57:PHE:HB3	2.17	0.45
46:G8:98:VAL:C	46:G8:100:ALA:HB2	2.41	0.45
47:H8:40:ASP:OD2	47:H8:43:GLU:HG3	2.16	0.45
49:J8:81:LYS:N	49:J8:81:LYS:HD2	2.31	0.45
1:1G:719:C:N4	18:9A:71:LYS:HE2	2.31	0.45
1:1G:1129:C:C4	1:1G:1139:G:N1	2.84	0.45
1:1G:1176:A:C6	1:1G:1177:G:C6	3.04	0.45
1:1G:1198:G:H2'	1:1G:1199:U:H6	1.81	0.45
2:12:190:THR:O	2:12:191:ASP:HB3	2.16	0.45
3:22:94:LEU:H	3:22:94:LEU:HG	1.50	0.45
4:32:117:ALA:O	4:32:121:VAL:HG23	2.15	0.45
5:42:122:GLU:HG2	5:42:131:ILE:HD12	1.97	0.45
22:1L:1:G:H2'	22:1L:1:G:N3	2.32	0.45
24:3L:3:G:H2'	24:3L:4:U:O4'	2.17	0.45
26:14:214:G:H4'	26:14:214:G:OP1	2.16	0.45
26:14:599:G:H8	26:14:599:G:H5"	1.80	0.45
26:14:996:A:N3	26:14:997:G:C8	2.84	0.45
26:14:1021:A:H3'	26:14:1021:A:C8	2.51	0.45
26:14:1021:A:H3'	26:14:1021:A:H8	1.80	0.45
26:14:1181:C:H2'	26:14:1182:A:H8	1.82	0.45
26:14:1259:G:H2'	26:14:1260:G:H8	1.82	0.45
26:14:1593:G:H2'	26:14:1594:G:H8	1.79	0.45
26:14:2115:G:N2	26:14:2116:G:N7	2.64	0.45
26:14:2345:G:N3	26:14:2381:C:H2'	2.31	0.45
26:14:2432:A:C2	49:F5:35:THR:HG22	2.51	0.45
26:14:2787:C:O2'	30:29:61:ARG:O	2.26	0.45
27:1J:29:A:H5"	27:1J:30:C:OP2	2.15	0.45
27:1J:93:C:H2'	27:1J:94:C:C6	2.52	0.45
30:29:50:GLY:HA2	30:29:78:LEU:CB	2.46	0.45
31:39:34:TRP:CZ3	37:35:8:PRO:HB3	2.52	0.45
36:25:31:LYS:HB3	36:25:32:TYR:CE2	2.51	0.45
42:85:98:LEU:C	42:85:100:VAL:H	2.22	0.45
47:D5:69:THR:HB	47:D5:88:PHE:HB3	1.98	0.45
1:13:264:U:O2'	17:8I:64:PRO:HD2	2.17	0.45
1:13:558:G:H2'	1:13:559:A:H2	1.81	0.45
1:13:606:G:H2'	1:13:630:G:O6	2.16	0.45
1:13:749:C:H2'	1:13:750:G:H8	1.82	0.45
1:13:976:G:H5'	1:13:1358:U:O2'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1023:G:H3'	1:13:1024:G:H5"	1.98	0.45
4:3E:124:GLY:HA3	4:3E:132:ARG:CZ	2.47	0.45
8:7E:14:ARG:O	8:7E:18:ARG:HD2	2.15	0.45
26:1H:44:A:C2'	26:1H:45:G:H5'	2.47	0.45
26:1H:139:G:N2	26:1H:141:A:N1	2.63	0.45
26:1H:910:A:H2'	26:1H:911:A:C8	2.51	0.45
26:1H:1066:U:H2'	26:1H:1068:G:OP2	2.16	0.45
26:1H:1380:G:N2	26:1H:1570:A:C2	2.83	0.45
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.81	0.45
26:1H:2292:C:P	40:A8:17:ARG:NH2	2.90	0.45
26:1H:2361:A:O5'	55:Q8:27:THR:OG1	2.35	0.45
26:1H:2432:A:C5	49:J8:33:LYS:HG2	2.51	0.45
26:1H:2751:G:C6	33:51:3:ARG:HD2	2.51	0.45
29:11:26:LYS:HG3	29:11:81:ALA:HB1	1.97	0.45
29:11:28:GLU:N	29:11:29:PRO:HD2	2.31	0.45
34:61:69:LYS:O	34:61:73:GLU:HB2	2.17	0.45
43:D8:6:LYS:O	43:D8:6:LYS:HG3	2.16	0.45
46:G8:28:LYS:HZ1	46:G8:40:GLU:HG3	1.81	0.45
48:I8:10:THR:O	48:I8:11:ARG:HB2	2.16	0.45
53:N8:20:ARG:HG2	53:N8:23:HIS:ND1	2.31	0.45
1:1G:348:G:N2	1:1G:349:A:H1'	2.31	0.45
1:1G:404:U:OP1	4:32:118:ARG:NH1	2.24	0.45
1:1G:1072:G:C6	1:1G:1073:U:N3	2.84	0.45
1:1G:1160:G:H2'	1:1G:1161:C:H6	1.82	0.45
4:32:189:PRO:HB2	4:32:194:LEU:HD21	1.98	0.45
18:9A:36:ASN:HB2	18:9A:38:GLU:OE1	2.16	0.45
19:AA:7:LYS:H	19:AA:7:LYS:HG3	1.55	0.45
26:14:459:U:H5"	54:L5:40:TRP:CG	2.51	0.45
26:14:2147:G:H2'	26:14:2148:G:H4'	1.99	0.45
26:14:2310:A:C8	32:49:77:ILE:HD13	2.51	0.45
29:19:64:ILE:HD13	29:19:64:ILE:HG21	1.75	0.45
31:39:128:ALA:O	31:39:129:PHE:C	2.60	0.45
33:59:68:THR:HA	33:59:71:LEU:HD22	1.98	0.45
36:25:76:ALA:HB3	41:75:75:ILE:HB	1.99	0.45
43:95:4:ILE:O	43:95:37:VAL:O	2.33	0.45
48:E5:17:GLN:O	48:E5:19:LYS:NZ	2.48	0.45
54:L5:19:ARG:HG2	54:L5:19:ARG:HH11	1.81	0.45
55:M5:8:LYS:HD3	55:M5:8:LYS:HA	1.67	0.45
1:13:232:G:H2'	1:13:233:C:C6	2.51	0.45
1:13:418:C:O2'	1:13:540:G:H1'	2.16	0.45
1:13:587:G:H3'	59:13:1805:HOH:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:658:G:H2'	1:13:659:U:C6	2.52	0.45
2:1E:109:SER:HB3	2:1E:156:LYS:NZ	2.32	0.45
2:1E:134:GLU:OE1	2:1E:137:ARG:NH1	2.50	0.45
2:1E:209:ARG:HD2	2:1E:239:VAL:HG13	1.99	0.45
4:3E:162:LEU:O	4:3E:165:MET:N	2.48	0.45
12:3I:60:LEU:HD13	12:3I:61:THR:H	1.82	0.45
17:8I:88:TYR:CD1	17:8I:88:TYR:C	2.93	0.45
26:1H:355:G:H2'	26:1H:356:G:H8	1.82	0.45
26:1H:631:A:N3	26:1H:2415:G:O2'	2.43	0.45
26:1H:644:A:C2	26:1H:646:A:C4	3.05	0.45
26:1H:845:G:N3	26:1H:845:G:H2'	2.31	0.45
26:1H:1006:C:H1'	35:58:106:MET:CE	2.47	0.45
26:1H:1443:G:C2	26:1H:1549:C:N3	2.85	0.45
26:1H:1455:G:OP2	59:1H:3700:HOH:O	2.21	0.45
26:1H:1684:C:N3	26:1H:1705:G:C2	2.85	0.45
26:1H:2473:U:O2'	26:1H:2474:C:H5'	2.16	0.45
30:21:111:ARG:H	30:21:111:ARG:HG2	1.65	0.45
31:31:199:TRP:NE1	31:31:203:GLN:NE2	2.65	0.45
34:61:95:LYS:HA	34:61:111:PRO:HG3	1.97	0.45
40:A8:30:ARG:HG3	40:A8:30:ARG:O	2.16	0.45
41:B8:12:SER:HB2	41:B8:15:VAL:N	2.30	0.45
41:B8:97:ALA:HB1	41:B8:98:LYS:HE2	1.99	0.45
44:E8:57:ASN:O	44:E8:61:ASN:HB2	2.17	0.45
45:F8:5:TYR:O	50:K8:36:ARG:NH2	2.49	0.45
45:F8:41:ASN:N	45:F8:41:ASN:OD1	2.49	0.45
47:H8:109:ALA:H	47:H8:112:ARG:HG3	1.80	0.45
50:K8:32:LEU:HD11	50:K8:54:LYS:HG3	1.99	0.45
55:Q8:51:ALA:HB1	55:Q8:52:LYS:CA	2.46	0.45
1:1G:818:G:O2'	1:1G:819:A:H5'	2.17	0.45
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.52	0.45
1:1G:1191:A:OP1	3:22:4:LYS:NZ	2.39	0.45
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.99	0.45
2:12:127:ILE:HD13	2:12:130:ARG:NH2	2.31	0.45
5:42:48:ALA:HB2	5:42:57:LYS:HD3	1.99	0.45
18:9A:29:PHE:N	18:9A:29:PHE:HD1	2.15	0.45
24:3L:26:A:N6	24:3L:27:G:C6	2.85	0.45
26:14:674:G:O2'	31:39:74:ARG:HG3	2.17	0.45
26:14:2835:A:N7	59:14:3744:HOH:O	2.36	0.45
26:14:2850:A:C2	26:14:2851:A:C4	3.04	0.45
27:1J:3:C:H2'	27:1J:4:C:H6	1.79	0.45
29:19:147:LEU:HD22	29:19:147:LEU:HA	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:244:ARG:HB2	29:19:245:PRO:CD	2.46	0.45
31:39:158:THR:OG1	31:39:159:GLY:N	2.50	0.45
31:39:192:LEU:O	31:39:193:VAL:HG23	2.17	0.45
35:15:30:ILE:HG22	35:15:34:LEU:HD22	1.98	0.45
35:15:127:ASP:HB2	35:15:128:HIS:H	1.49	0.45
39:55:24:GLN:HB3	39:55:44:LEU:HD11	1.99	0.45
49:F5:90:ILE:HA	49:F5:93:GLU:CD	2.41	0.45
1:13:406:G:N2	4:3E:119:GLN:OE1	2.49	0.45
1:13:1030:C:H2'	1:13:1031:G:H8	1.82	0.45
1:13:1189:C:O2	59:13:1839:HOH:O	2.21	0.45
1:13:1203:C:H2'	1:13:1204:A:O4'	2.16	0.45
1:13:1210:C:H2'	1:13:1211:U:H5'	1.99	0.45
3:2E:6:HIS:CD2	14:5I:49:HIS:HB3	2.51	0.45
6:5E:94:GLN:N	6:5E:94:GLN:CD	2.75	0.45
8:7E:75:ARG:HA	8:7E:76:PRO:HD2	1.76	0.45
9:8E:79:LEU:HD21	9:8E:103:THR:O	2.16	0.45
13:4I:4:ILE:HG23	13:4I:57:ARG:HA	1.99	0.45
19:AI:3:ARG:CZ	19:AI:9:VAL:HG11	2.46	0.45
26:1H:311:A:C6	26:1H:328:U:C4	3.05	0.45
26:1H:811:U:O2'	37:78:21:ARG:HG3	2.17	0.45
26:1H:1336:A:H2'	26:1H:1337:G:C8	2.51	0.45
26:1H:1387:C:C2	26:1H:1388:G:C8	3.04	0.45
26:1H:1509:C:HO2'	26:1H:1510:A:P	2.32	0.45
26:1H:2018:G:H2'	26:1H:2019:A:C8	2.51	0.45
26:1H:2060:A:O3'	31:31:68:LYS:NZ	2.49	0.45
26:1H:2122:U:H2'	26:1H:2123:G:C8	2.52	0.45
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.52	0.45
26:1H:2162:G:H2'	26:1H:2163:C:C6	2.52	0.45
26:1H:2862:G:C5	26:1H:2863:C:C5	3.05	0.45
30:21:105:THR:HG22	30:21:106:GLY:N	2.23	0.45
37:78:13:ASN:O	37:78:14:LYS:C	2.59	0.45
1:1G:35:G:C2	1:1G:550:G:N3	2.85	0.45
1:1G:179:A:H2'	1:1G:180:U:H6	1.80	0.45
1:1G:345:C:H4'	1:1G:346:G:O5'	2.16	0.45
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.52	0.45
1:1G:1534:A:H2'	1:1G:1534:A:N3	2.32	0.45
2:12:82:ARG:NE	2:12:92:TYR:OH	2.49	0.45
3:22:39:ILE:HG21	3:22:57:ILE:HD11	1.97	0.45
4:32:173:TRP:HB3	4:32:187:ARG:NH1	2.27	0.45
7:62:108:ALA:O	7:62:111:ARG:HG3	2.16	0.45
8:72:120:THR:HG23	8:72:122:ARG:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:16:ARG:HH21	9:82:64:THR:HG21	1.82	0.45
12:3A:93:LEU:HB3	12:3A:96:VAL:HG21	1.98	0.45
26:14:607:U:OP1	31:39:102:PRO:HA	2.16	0.45
26:14:699:A:H2'	26:14:700:G:O4'	2.16	0.45
26:14:916:G:C2'	26:14:917:A:H5"	2.46	0.45
26:14:1190:G:H2'	26:14:1191:G:H8	1.81	0.45
26:14:1309:G:H4'	54:L5:7:PRO:HB2	1.99	0.45
26:14:2124:G:H2'	26:14:2124:G:N3	2.32	0.45
26:14:2488:A:H2'	26:14:2489:G:O4'	2.16	0.45
26:14:2552:U:O5'	26:14:2552:U:H6	2.00	0.45
26:14:2574:G:O2'	30:29:143:ASN:HB3	2.16	0.45
26:14:2686:G:H5"	59:14:3779:HOH:O	2.16	0.45
29:19:147:LEU:HD23	29:19:155:LEU:HD13	1.99	0.45
30:29:116:VAL:HG23	30:29:156:MET:C	2.42	0.45
35:15:67:LEU:O	35:15:88:GLU:HG3	2.16	0.45
40:65:106:ARG:H	40:65:106:ARG:HG3	1.51	0.45
44:A5:95:ILE:HD12	44:A5:95:ILE:O	2.16	0.45
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.17	0.45
47:D5:40:ASP:OD1	47:D5:43:GLU:N	2.38	0.45
48:E5:47:PRO:HG3	48:E5:53:MET:HB2	1.98	0.45
55:M5:40:GLU:H	55:M5:43:GLN:HB3	1.82	0.45
1:13:13:U:O2	1:13:914:A:H3'	2.17	0.45
1:13:428:G:C8	1:13:430:A:C4	3.04	0.45
1:13:1014:A:H4'	19:AI:14:HIS:NE2	2.32	0.45
1:13:1223:C:OP1	19:AI:78:ARG:NH1	2.49	0.45
2:1E:16:HIS:NE2	2:1E:214:ILE:HD11	2.32	0.45
12:3I:102:ARG:HE	12:3I:102:ARG:HB3	1.46	0.45
13:4I:13:LYS:NZ	13:4I:13:LYS:HA	2.32	0.45
15:6I:53:HIS:HE1	15:6I:57:LEU:HD11	1.82	0.45
22:1K:7:U:H3	22:1K:66:A:H61	1.65	0.45
24:3K:26:A:H2'	24:3K:27:G:H5'	1.98	0.45
26:1H:684:G:OP1	54:P8:16:HIS:ND1	2.45	0.45
26:1H:1045:A:C8	26:1H:1047:G:C2	3.05	0.45
26:1H:1171:G:C5	26:1H:1174:A:N6	2.85	0.45
26:1H:1268:A:C2	26:1H:2013:A:C4	3.04	0.45
26:1H:1568:G:H5"	29:11:61:LEU:HD22	1.96	0.45
26:1H:1570:A:H5'	29:11:37:LEU:HD21	1.99	0.45
26:1H:2079:U:O3'	49:J8:35:THR:HB	2.17	0.45
26:1H:2101:G:H2'	26:1H:2102:U:O4'	2.16	0.45
26:1H:2595:G:H5"	26:1H:2596:U:OP2	2.17	0.45
27:16:15:A:C5'	27:16:16:G:C8	3.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:75:ILE:HD13	29:11:99:ASP:OD2	2.16	0.45
30:21:31:CYS:HA	30:21:32:PRO:HD3	1.59	0.45
32:41:45:GLU:H	32:41:45:GLU:HG2	1.47	0.45
33:51:86:GLU:CD	33:51:86:GLU:N	2.67	0.45
33:51:153:LYS:HB2	33:51:155:SER:N	2.21	0.45
34:61:133:HIS:HB2	34:61:134:PRO:HD2	1.99	0.45
39:98:44:LEU:O	39:98:45:ARG:C	2.59	0.45
40:A8:72:ALA:O	40:A8:76:LYS:HG3	2.16	0.45
41:B8:20:PRO:HG2	41:B8:86:ILE:O	2.16	0.45
41:B8:65:LYS:HE2	41:B8:67:SER:HB2	1.98	0.45
47:H8:45:ASP:OD2	47:H8:49:ARG:NH1	2.33	0.45
1:1G:176:C:O2'	1:1G:177:C:H5'	2.16	0.45
1:1G:560:U:H4'	1:1G:561:U:O5'	2.16	0.45
1:1G:641:U:O3'	1:1G:642:A:H8	1.99	0.45
1:1G:942:G:C2	1:1G:1342:C:C2	3.04	0.45
1:1G:984:C:H2'	1:1G:985:C:C6	2.52	0.45
1:1G:1118:C:P	9:82:104:ARG:HE	2.40	0.45
1:1G:1162:C:N4	1:1G:1174:G:H1	2.08	0.45
1:1G:1304:G:N1	1:1G:1332:A:OP2	2.44	0.45
8:72:68:ARG:NH1	8:72:69:ARG:O	2.47	0.45
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.98	0.45
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	2.16	0.45
26:14:395:U:H2'	26:14:396:G:C8	2.51	0.45
26:14:438:G:H2'	26:14:439:G:H8	1.81	0.45
26:14:602:G:OP2	26:14:602:G:C8	2.70	0.45
26:14:990:A:H8	26:14:990:A:C5'	2.24	0.45
26:14:1048:A:H8	26:14:1110:G:H22	1.65	0.45
26:14:1807:G:N2	26:14:1810:A:OP2	2.45	0.45
26:14:1826:G:H4'	29:19:242:ARG:CZ	2.47	0.45
26:14:2439:A:H5'	26:14:2439:A:C8	2.52	0.45
26:14:2557:G:H2'	26:14:2558:C:H6	1.82	0.45
27:1J:118:G:C5	27:1J:119:A:N7	2.85	0.45
29:19:45:ASN:HB3	29:19:46:GLN:H	1.41	0.45
30:29:12:THR:HG22	41:75:58:ASN:OD1	2.17	0.45
33:59:54:ARG:NE	33:59:56:SER:O	2.47	0.45
35:15:112:LEU:C	35:15:112:LEU:HD23	2.42	0.45
36:25:91:LEU:HD13	36:25:91:LEU:HA	1.78	0.45
1:13:509:A:C8	1:13:509:A:H3'	2.52	0.45
1:13:864:A:H5"	1:13:865:A:OP2	2.16	0.45
1:13:1058:G:C6	1:13:1059:C:N3	2.85	0.45
1:13:1348:U:H2'	1:13:1349:A:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1389:C:H2'	1:13:1390:U:O4'	2.17	0.45
2:1E:11:LEU:C	2:1E:13:ALA:N	2.74	0.45
4:3E:83:SER:HA	4:3E:85:LYS:NZ	2.32	0.45
6:5E:14:LEU:HA	6:5E:14:LEU:HD23	1.75	0.45
11:2I:34:ASP:HB3	11:2I:40:ILE:HD11	1.99	0.45
11:2I:59:TYR:O	11:2I:62:GLN:HB3	2.17	0.45
20:BI:65:LYS:O	20:BI:68:LYS:HB2	2.17	0.45
22:1K:72:C:H6	22:1K:72:C:OP2	2.00	0.45
24:3K:36:U:H3'	24:3K:37:A:C5'	2.46	0.45
26:1H:324:A:C2'	26:1H:325:G:H5'	2.46	0.45
26:1H:957:A:N1	26:1H:2458:G:H4'	2.31	0.45
26:1H:1195:G:O2'	26:1H:1227:A:N1	2.49	0.45
26:1H:1431:U:C2	26:1H:1563:G:N2	2.84	0.45
26:1H:2123:G:H1'	28:71:172:HIS:HB3	1.99	0.45
26:1H:2182:G:H2'	26:1H:2183:C:C6	2.52	0.45
26:1H:2787:C:H1'	30:21:62:PRO:HB3	1.99	0.45
29:11:70:TRP:CE2	29:11:150:LYS:HD2	2.52	0.45
31:31:34:TRP:CH2	37:78:8:PRO:HB3	2.51	0.45
35:58:40:PRO:O	42:C8:64:ARG:HG2	2.17	0.45
35:58:57:ALA:C	35:58:59:LYS:N	2.70	0.45
39:98:18:LEU:HD23	39:98:18:LEU:HA	1.72	0.45
39:98:67:LEU:HD22	39:98:76:VAL:HG21	1.99	0.45
43:D8:35:LEU:HB2	43:D8:57:VAL:HG12	1.99	0.45
1:1G:80:G:O2'	1:1G:81:G:OP1	2.33	0.45
1:1G:532:A:N6	1:1G:1206:G:O2'	2.50	0.45
1:1G:625:G:C4	1:1G:626:U:C5	3.05	0.45
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.50	0.45
1:1G:1022:G:H2'	1:1G:1023:G:O4'	2.17	0.45
1:1G:1300:G:O2'	1:1G:1301:U:P	2.75	0.45
4:32:162:LEU:HD13	4:32:181:MET:HE2	1.98	0.45
4:32:172:PRO:HD2	4:32:173:TRP:CE3	2.50	0.45
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.98	0.45
16:7A:58:TYR:O	16:7A:62:VAL:HG23	2.17	0.45
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.85	0.45
21:1B:5:ASP:O	21:1B:8:THR:HG22	2.17	0.45
26:14:336:C:OP1	46:C5:83:THR:HG23	2.17	0.45
26:14:649:G:C5	26:14:650:C:C4	3.05	0.45
26:14:903:C:H2'	26:14:904:C:C6	2.52	0.45
26:14:941:A:O3'	59:14:3648:HOH:O	2.21	0.45
26:14:1011:G:C2	26:14:1151:G:C2	3.05	0.45
26:14:1939:U:OP1	26:14:2604:U:O2'	2.23	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1945:G:H2'	26:14:1946:U:H6	1.80	0.45
26:14:2600:A:H2'	26:14:2601:C:C6	2.52	0.45
27:1J:23:G:C2	27:1J:24:G:O6	2.69	0.45
29:19:12:SER:O	29:19:16:MET:HE3	2.17	0.45
29:19:272:ALA:HB1	29:19:273:ARG:H	1.43	0.45
30:29:80:GLU:O	30:29:81:ILE:C	2.57	0.45
31:39:7:TYR:O	31:39:15:SER:HA	2.16	0.45
31:39:20:LEU:HD12	31:39:199:TRP:CH2	2.52	0.45
31:39:20:LEU:HB2	31:39:199:TRP:HH2	1.82	0.45
32:49:119:GLY:N	32:49:181:ARG:HB2	2.30	0.45
34:69:79:ILE:HG13	34:69:140:LEU:HD11	1.98	0.45
36:25:87:ILE:HD12	36:25:87:ILE:HA	1.82	0.45
36:25:104:ARG:NH2	41:75:43:GLN:OE1	2.49	0.45
38:45:22:LYS:HB2	38:45:22:LYS:HE2	1.69	0.45
39:55:44:LEU:HD23	39:55:44:LEU:HA	1.78	0.45
45:B5:47:PHE:HB3	45:B5:89:ILE:HG12	1.98	0.45
49:F5:2:SER:O	49:F5:4:VAL:HG13	2.17	0.45
1:13:66:G:C2	1:13:67:C:C6	3.05	0.45
1:13:186(E):C:C2	1:13:191(C):G:N2	2.85	0.45
1:13:201:C:H42	1:13:216:G:H1	1.64	0.45
1:13:209:U:H5"	1:13:210:U:OP2	2.17	0.45
1:13:711:G:O2'	1:13:712:A:H5'	2.17	0.45
1:13:816:A:OP1	1:13:1526:G:O2'	2.31	0.45
1:13:1194:U:H2'	1:13:1195:C:C6	2.52	0.45
1:13:1404:C:H2'	1:13:1405:G:C8	2.52	0.45
2:1E:187:LEU:HD11	2:1E:204:ASN:O	2.17	0.45
5:4E:110:LEU:CD1	5:4E:118:ILE:HD13	2.46	0.45
6:5E:67:MET:SD	6:5E:75:LEU:HD12	2.57	0.45
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.98	0.45
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.17	0.45
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	1.98	0.45
22:1K:21:A:C5	22:1K:47:U:C4	3.04	0.45
22:1K:48:C:H4'	22:1K:49:G:C5'	2.46	0.45
26:1H:155:C:H42	26:1H:171:G:H1	1.62	0.45
26:1H:265:A:C2	26:1H:428:A:C2	3.05	0.45
26:1H:527:C:H4'	26:1H:528:A:C5'	2.47	0.45
26:1H:732:C:OP1	59:1H:3775:HOH:O	2.21	0.45
26:1H:900:A:N3	26:1H:900:A:H2'	2.32	0.45
26:1H:1109:C:O2'	26:1H:1110:G:O4'	2.35	0.45
26:1H:1141:U:H6	35:58:63:THR:OG1	2.00	0.45
26:1H:1263:U:H2'	26:1H:1264:G:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1263:U:O2'	53:N8:11:THR:HG23	2.16	0.45
26:1H:2129:C:H5"	28:71:6:ARG:NH2	2.32	0.45
26:1H:2273:A:H2'	26:1H:2274:A:C8	2.52	0.45
30:21:4:ILE:HD13	30:21:28:ALA:HB1	1.98	0.45
37:78:59:LEU:HA	37:78:62:LEU:HD12	1.98	0.45
39:98:10:LEU:O	39:98:11:ASN:C	2.60	0.45
1:1G:134:A:H61	16:7A:25:ARG:HH12	1.65	0.45
1:1G:458:C:H2'	1:1G:464:G:C8	2.50	0.45
2:12:195:ASP:HB3	8:72:74:PRO:HG3	1.99	0.45
8:72:123:GLU:O	8:72:127:LEU:HB2	2.16	0.45
23:2L:41:C:H2'	23:2L:42:C:H6	1.82	0.45
23:2L:50:G:H1	23:2L:66:C:N4	2.13	0.45
26:14:70:G:H21	26:14:71:A:H62	1.65	0.45
26:14:140:A:H8	26:14:1408:C:O2'	1.96	0.45
26:14:323:G:H5'	31:39:169:ASN:HD21	1.81	0.45
26:14:550:G:O2'	26:14:1220:A:N3	2.43	0.45
26:14:686:G:N2	26:14:788:A:H61	2.15	0.45
26:14:1374:G:H2'	26:14:1375:C:O4'	2.17	0.45
26:14:2065:C:H1'	26:14:2449:U:H3	1.81	0.45
26:14:2652:C:H42	26:14:2668:G:H1	1.64	0.45
26:14:2772:C:H2'	26:14:2773:C:C6	2.52	0.45
29:19:108:PRO:HB3	29:19:143:HIS:CE1	2.52	0.45
31:39:194:MET:HB2	31:39:194:MET:HE3	1.48	0.45
32:49:49:ASP:O	32:49:52:ILE:HG22	2.17	0.45
38:45:4:PRO:HD3	38:45:70:PRO:O	2.16	0.45
39:55:84:ALA:N	39:55:85:PRO:HD2	2.32	0.45
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.52	0.45
47:D5:92:SER:O	47:D5:94:GLU:HB2	2.17	0.45
1:13:104:G:C6	1:13:105:G:N7	2.85	0.45
1:13:128:G:O2'	17:8I:3:LYS:HE2	2.16	0.45
1:13:158:G:C4	1:13:159:G:C8	3.05	0.45
1:13:198:G:N7	1:13:220:G:N2	2.65	0.45
1:13:509:A:H3'	59:13:1912:HOH:O	2.17	0.45
1:13:689:C:OP1	11:2I:44:SER:OG	2.28	0.45
1:13:741:G:H2'	1:13:742:G:O4'	2.17	0.45
1:13:825:G:O4'	8:7E:2:LEU:HD21	2.17	0.45
1:13:1375:A:P	7:6E:28:ASN:HD22	2.40	0.45
2:1E:219:VAL:HA	2:1E:222:ILE:HD11	1.99	0.45
19:AI:3:ARG:HH11	19:AI:9:VAL:HG11	1.82	0.45
26:1H:587:C:H4'	26:1H:588:U:OP2	2.16	0.45
26:1H:1020:A:H4'	26:1H:1021:A:O5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2124:G:H4'	28:71:174:PRO:HG2	1.99	0.45
26:1H:2134:A:H62	26:1H:2157:G:H4'	1.82	0.45
27:16:24:G:N7	27:16:56:G:H2'	2.31	0.45
28:71:43:VAL:HG22	28:71:214:VAL:HA	1.98	0.45
28:71:53:ARG:HD3	28:71:53:ARG:HA	1.79	0.45
29:11:12:SER:HB2	29:11:208:LYS:HB3	1.99	0.45
30:21:28:ALA:O	30:21:93:VAL:HG22	2.17	0.45
32:41:67:LYS:HG3	52:M8:6:HIS:CE1	2.52	0.45
43:D8:48:GLY:O	43:D8:49:THR:O	2.34	0.45
1:1G:191(F):U:N3	20:BA:105:SER:OG	2.48	0.45
2:12:147:LYS:HD2	2:12:148:TYR:CE1	2.52	0.45
2:12:189:ASP:H	2:12:192:SER:HB2	1.82	0.45
4:32:100:ARG:NH1	4:32:102:ASP:OD1	2.50	0.45
4:32:151:LYS:NZ	59:32:401:HOH:O	2.48	0.45
7:62:37:ASN:OD1	7:62:37:ASN:N	2.48	0.45
7:62:102:ARG:O	7:62:106:GLN:HG3	2.16	0.45
9:82:20:ARG:O	9:82:20:ARG:HG3	2.17	0.45
9:82:112:LYS:HE3	9:82:118:LYS:N	2.27	0.45
13:4A:78:ILE:C	13:4A:81:LEU:H	2.24	0.45
16:7A:36:ILE:O	16:7A:36:ILE:HG13	2.17	0.45
19:AA:58:VAL:HG23	19:AA:59:PRO:O	2.16	0.45
23:2L:41:C:H2'	23:2L:42:C:C6	2.52	0.45
24:3L:2:G:H2'	24:3L:3:G:C8	2.52	0.45
26:14:35:G:H2'	26:14:36:G:O4'	2.16	0.45
26:14:191:A:O2'	26:14:678:C:O2'	2.30	0.45
26:14:619:G:H5"	26:14:620:G:OP2	2.17	0.45
26:14:829:A:N7	26:14:2248:C:H5'	2.32	0.45
26:14:858:U:O2	26:14:2268:A:H2'	2.17	0.45
26:14:1054:A:N1	26:14:1104:C:N3	2.65	0.45
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.51	0.45
26:14:1519:G:C6	26:14:1520:U:C4	3.05	0.45
26:14:1851:U:H2'	26:14:1852:C:O4'	2.16	0.45
26:14:2308:G:O2'	26:14:2309:A:OP1	2.30	0.45
26:14:2396:G:H4'	49:F5:30:VAL:H	1.82	0.45
30:29:54:GLN:HG2	30:29:55:ASN:OD1	2.17	0.45
30:29:66:HIS:CG	30:29:67:PHE:N	2.84	0.45
36:25:24:VAL:HB	36:25:33:ALA:HB2	1.98	0.45
37:35:85:LEU:HB3	37:35:114:ILE:CD1	2.47	0.45
38:45:27:VAL:HB	38:45:28:ALA:C	2.42	0.45
40:65:26:LEU:O	40:65:88:ASP:HB2	2.17	0.45
42:85:90:VAL:O	43:95:11:GLN:NE2	2.39	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:102:GLU:HB3	42:85:105:VAL:HG13	1.99	0.45
45:B5:49:VAL:HB	45:B5:83:VAL:CG2	2.45	0.45
49:F5:82:LEU:CB	49:F5:83:GLU:HB2	2.47	0.45
53:J5:47:PRO:HA	53:J5:56:LYS:NZ	2.32	0.45
1:13:360:A:H2'	1:13:361:G:C8	2.52	0.44
1:13:1103:C:H2'	1:13:1104:G:O4'	2.17	0.44
1:13:1402:C:H2'	1:13:1403:C:O4'	2.16	0.44
4:3E:151:LYS:HB3	4:3E:151:LYS:HE2	1.81	0.44
9:8E:114:TYR:CD2	10:1I:60:ARG:HG2	2.52	0.44
11:2I:32:ILE:HD13	11:2I:68:ALA:HB1	1.99	0.44
13:4I:81:LEU:O	13:4I:86:CYS:HB3	2.17	0.44
23:2K:65:G:C2	23:2K:66:C:C2	3.05	0.44
26:1H:37:C:H2'	26:1H:38:A:C8	2.52	0.44
26:1H:527:C:OP2	26:1H:2779:U:C5	2.70	0.44
26:1H:880:G:H8	26:1H:880:G:O5'	1.99	0.44
26:1H:1050:A:N7	26:1H:2751:G:C5	2.85	0.44
26:1H:1311:G:N7	54:P8:9:ARG:NH2	2.57	0.44
31:31:129:PHE:HA	31:31:142:TRP:CD1	2.51	0.44
31:31:178:PRO:O	31:31:181:LEU:HB2	2.18	0.44
33:51:149:ARG:HA	33:51:162:ILE:HG21	1.98	0.44
34:61:1:MET:O	34:61:20:ASP:HA	2.16	0.44
34:61:10:GLU:HG3	34:61:10:GLU:O	2.16	0.44
34:61:64:GLU:HG2	34:61:67:ARG:HH21	1.83	0.44
35:58:104:LYS:HB2	35:58:117:PHE:CE1	2.51	0.44
39:98:21:TYR:OH	39:98:43:GLU:HG2	2.17	0.44
44:E8:24:ILE:HD12	44:E8:24:ILE:O	2.16	0.44
47:H8:52:SER:O	47:H8:52:SER:OG	2.26	0.44
50:K8:59:ARG:O	50:K8:62:THR:HG23	2.16	0.44
1:1G:512:U:H2'	1:1G:513:C:H6	1.82	0.44
1:1G:616:G:C2	1:1G:617:G:C5	3.06	0.44
1:1G:852:G:C6	1:1G:853:G:N7	2.85	0.44
1:1G:872:A:C4	1:1G:874:G:N7	2.85	0.44
1:1G:1357:A:H2'	1:1G:1358:U:H5'	1.99	0.44
1:1G:1375:A:H2'	1:1G:1376:U:O4'	2.17	0.44
2:12:142:LEU:O	2:12:142:LEU:HD23	2.17	0.44
5:42:92:LYS:HB3	5:42:119:LEU:HB2	1.98	0.44
8:72:73:ASP:HB2	8:72:75:ARG:HG3	1.99	0.44
9:82:17:VAL:HG22	9:82:63:ILE:HG12	1.99	0.44
10:1A:21:GLN:O	10:1A:24:VAL:HB	2.17	0.44
26:14:588:U:H1'	31:39:90:PHE:CG	2.52	0.44
26:14:975:G:H1'	26:14:990:A:C2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1005:C:H2'	26:14:1006:C:C6	2.51	0.44
26:14:1342:A:H2	26:14:1602:U:N3	2.15	0.44
26:14:1423:G:OP1	26:14:1492:G:O2'	2.35	0.44
26:14:1510:A:H2'	26:14:1511:A:C8	2.53	0.44
26:14:1681:G:C2	59:14:3684:HOH:O	2.69	0.44
27:1J:78:A:C2	27:1J:99:A:C4	3.05	0.44
29:19:130:ALA:C	29:19:131:LEU:HD12	2.42	0.44
30:29:54:GLN:CG	30:29:55:ASN:H	2.31	0.44
31:39:29:ASN:HA	31:39:30:PRO:HD3	1.67	0.44
46:C5:29:GLU:CG	46:C5:30:VAL:H	2.30	0.44
49:F5:49:VAL:HG21	49:F5:67:ILE:HD12	1.99	0.44
50:G5:43:GLN:HB2	50:G5:45:SER:N	2.32	0.44
1:13:266:G:H5"	1:13:267:C:C5	2.53	0.44
1:13:401:C:OP2	4:3E:73:ARG:HD3	2.16	0.44
3:2E:135:LYS:O	3:2E:138:VAL:HG12	2.17	0.44
8:7E:121:ASP:OD1	8:7E:121:ASP:N	2.49	0.44
19:AI:3:ARG:HD2	19:AI:9:VAL:HG21	1.98	0.44
19:AI:15:LEU:HD12	19:AI:31:ILE:HD11	1.99	0.44
26:1H:365:C:H2'	26:1H:366:C:O4'	2.18	0.44
26:1H:882:G:H1	26:1H:894:C:N4	2.15	0.44
26:1H:1154:G:H8	26:1H:1154:G:O5'	2.01	0.44
26:1H:1163:G:C2	26:1H:1164:G:N7	2.85	0.44
26:1H:1417:C:O3'	26:1H:1588:C:H1'	2.18	0.44
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.52	0.44
26:1H:2142:C:H2'	26:1H:2143:C:C6	2.53	0.44
26:1H:2436:G:C6	26:1H:2437:U:C4	3.05	0.44
33:51:25:LYS:HE3	33:51:34:GLU:OE1	2.17	0.44
33:51:95:ARG:HE	33:51:95:ARG:HB3	1.37	0.44
41:B8:2:ASN:OD1	41:B8:2:ASN:C	2.60	0.44
45:F8:27:THR:HB	45:F8:80:ILE:HB	1.99	0.44
55:Q8:44:LYS:C	55:Q8:45:GLY:O	2.56	0.44
1:1G:149:A:H2'	1:1G:150:C:C6	2.52	0.44
1:1G:437:U:H5"	4:32:155:LEU:HD11	1.99	0.44
1:1G:1291:G:H2'	1:1G:1292:U:H6	1.82	0.44
3:22:122:GLU:HA	3:22:125:GLU:OE1	2.18	0.44
5:42:11:ILE:HG21	5:42:105:VAL:HG22	1.99	0.44
7:62:42:ILE:HG23	7:62:117:ALA:HB2	1.99	0.44
18:9A:74:ARG:NH1	18:9A:81:PHE:HA	2.32	0.44
24:3L:62:C:H4'	28:79:52:ARG:HH12	1.82	0.44
26:14:64:A:C4	45:B5:66:LEU:HD12	2.53	0.44
26:14:90:U:O2'	26:14:91:A:H8	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:464:U:O2'	26:14:465:G:H5'	2.18	0.44
26:14:664:C:H2'	26:14:665:C:H6	1.83	0.44
26:14:779:U:O4	59:14:3637:HOH:O	2.20	0.44
26:14:1019:U:C2	26:14:1144:G:N2	2.85	0.44
26:14:1106:G:C8	26:14:1107:G:C8	3.05	0.44
26:14:1223:C:OP2	43:95:88:ARG:NH2	2.51	0.44
26:14:2392:A:O2'	55:M5:27:THR:HG21	2.17	0.44
26:14:2716:U:O2'	26:14:2717:G:H5'	2.18	0.44
29:19:130:ALA:HA	29:19:192:THR:HA	1.99	0.44
30:29:131:ALA:O	30:29:132:HIS:C	2.60	0.44
31:39:12:LEU:HD23	31:39:13:SER:H	1.82	0.44
32:49:167:GLU:O	32:49:170:ARG:HB3	2.16	0.44
34:69:75:LEU:HG	34:69:76:THR:H	1.82	0.44
37:35:55:ARG:HG2	37:35:56:SER:H	1.79	0.44
39:55:53:HIS:HE1	39:55:91:GLN:HE22	1.64	0.44
1:13:57:G:H2'	1:13:58:C:C6	2.52	0.44
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.32	0.44
1:13:826:C:H2'	1:13:827:U:O2	2.17	0.44
1:13:1235:U:O2'	1:13:1305:G:OP1	2.29	0.44
4:3E:30:LYS:HA	4:3E:35:ARG:HE	1.82	0.44
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.17	0.44
15:6I:66:LEU:HA	15:6I:66:LEU:HD12	1.70	0.44
23:2K:26:C:H2'	23:2K:27:G:O4'	2.18	0.44
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.99	0.44
26:1H:783:A:C8	26:1H:784:A:H4'	2.53	0.44
26:1H:1754:C:H5	41:B8:96:ARG:NH2	2.15	0.44
26:1H:1813:G:O2'	29:11:42:GLY:O	2.35	0.44
26:1H:2588:G:P	59:1H:3717:HOH:O	2.73	0.44
31:31:23:ASP:CG	31:31:24:LEU:H	2.25	0.44
33:51:60:ARG:HG2	33:51:60:ARG:NH1	2.32	0.44
33:51:77:LYS:NZ	33:51:82:GLY:O	2.50	0.44
35:58:4:TYR:CE2	42:C8:100:VAL:HG11	2.53	0.44
40:A8:89:ARG:O	40:A8:90:GLY:C	2.60	0.44
47:H8:30:ASN:ND2	47:H8:90:VAL:HB	2.31	0.44
49:J8:85:LEU:HD13	49:J8:85:LEU:HA	1.61	0.44
1:1G:35:G:N2	1:1G:550:G:H1'	2.32	0.44
1:1G:626:U:C2	1:1G:627:G:C8	3.05	0.44
1:1G:973:G:H5'	10:1A:55:LYS:HD3	1.99	0.44
1:1G:1067:A:H4'	1:1G:1068:G:O5'	2.18	0.44
1:1G:1160:G:H2'	1:1G:1161:C:C6	2.52	0.44
1:1G:1207:G:C6	1:1G:1208:C:C4	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:31:CYS:HB2	4:32:35:ARG:HH12	1.82	0.44
4:32:31:CYS:CB	4:32:35:ARG:NH1	2.80	0.44
4:32:53:ASP:O	4:32:57:ARG:HG3	2.16	0.44
26:14:26:G:C6	26:14:27:G:N1	2.85	0.44
26:14:194:G:H2'	26:14:195:A:O4'	2.17	0.44
26:14:310:A:OP1	46:C5:17:SER:O	2.36	0.44
26:14:478:A:N1	26:14:500:G:H4'	2.32	0.44
26:14:675:A:C4	26:14:804:A:C2	3.05	0.44
26:14:1197:G:H2'	26:14:1198:U:H6	1.82	0.44
26:14:1291:C:H2'	26:14:1292:U:C6	2.53	0.44
26:14:1771:C:H1'	26:14:1786:A:C8	2.52	0.44
26:14:1991:U:H2'	26:14:1992:G:H5"	2.00	0.44
26:14:2290:G:O2'	26:14:2381:C:H1'	2.17	0.44
26:14:2335:A:C8	26:14:2337:G:N7	2.86	0.44
26:14:2366:A:H2'	26:14:2367:G:O4'	2.17	0.44
26:14:2383:G:O2'	26:14:2384:G:H5'	2.18	0.44
26:14:2409:G:H2'	26:14:2410:G:O4'	2.18	0.44
26:14:2649:U:H2'	26:14:2650:U:C6	2.52	0.44
26:14:2862:G:H2'	26:14:2863:C:H6	1.82	0.44
27:1J:60:C:H2'	27:1J:61:G:C8	2.53	0.44
32:49:81:LYS:HB3	32:49:82:LEU:H	1.46	0.44
37:35:93:GLY:O	37:35:123:LEU:HD22	2.17	0.44
38:45:32:TYR:O	38:45:105:GLU:HB2	2.18	0.44
38:45:137:TYR:C	38:45:139:GLU:HA	2.39	0.44
43:95:29:PRO:HA	43:95:61:VAL:HG11	1.99	0.44
44:A5:78:GLU:OE1	44:A5:99:ARG:HD2	2.17	0.44
47:D5:30:ASN:ND2	47:D5:90:VAL:HB	2.23	0.44
47:D5:71:VAL:HG12	47:D5:88:PHE:HD1	1.81	0.44
47:D5:72:ARG:HD3	47:D5:72:ARG:HA	1.68	0.44
55:M5:40:GLU:N	55:M5:43:GLN:HB3	2.33	0.44
1:13:416:G:C5	1:13:417:C:C4	3.05	0.44
1:13:517:G:N3	1:13:531:U:H5'	2.33	0.44
1:13:1134:G:N1	1:13:1135:U:H1'	2.31	0.44
1:13:1446:A:O2'	41:B8:125:ARG:NH2	2.51	0.44
2:1E:35:GLU:OE1	2:1E:38:GLY:HA2	2.17	0.44
8:7E:23:SER:HA	8:7E:63:LEU:HD22	1.98	0.44
15:6I:26:GLU:HB3	15:6I:81:LEU:HD22	2.00	0.44
17:8I:87:LYS:HD2	17:8I:87:LYS:HA	1.75	0.44
19:AI:67:VAL:HG23	19:AI:68:GLY:H	1.83	0.44
20:BI:63:ILE:HG22	20:BI:77:ALA:HB1	1.99	0.44
26:1H:70:G:H21	26:1H:71:A:N6	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:71:A:C8	26:1H:71:A:H5'	2.53	0.44
26:1H:142:G:C1'	45:F8:37:THR:HG21	2.44	0.44
26:1H:155:C:N4	26:1H:171:G:H1	2.15	0.44
26:1H:651:G:H4'	55:Q8:18:ALA:HB3	1.99	0.44
26:1H:907:U:P	59:1H:3741:HOH:O	2.74	0.44
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.18	0.44
26:1H:1528:A:H2	26:1H:1543:A:N1	2.15	0.44
26:1H:2164:C:H5	26:1H:2165:G:C6	2.35	0.44
26:1H:2170:A:OP2	26:1H:2170:A:H3'	2.17	0.44
26:1H:2775:A:N6	59:1H:3791:HOH:O	2.34	0.44
29:11:41:GLY:C	29:11:43:ARG:N	2.76	0.44
29:11:141:VAL:HG12	29:11:164:GLN:HG3	1.99	0.44
29:11:213:ARG:HA	29:11:213:ARG:HD2	1.71	0.44
30:21:66:HIS:CE1	30:21:73:GLU:OE1	2.71	0.44
31:31:136:THR:O	31:31:140:LEU:HB2	2.17	0.44
34:61:77:LEU:H	34:61:77:LEU:HD12	1.82	0.44
39:98:45:ARG:HB3	39:98:46:GLY:H	1.64	0.44
40:A8:108:GLY:O	40:A8:109:GLY:C	2.60	0.44
49:J8:91:LYS:HA	49:J8:91:LYS:CE	2.48	0.44
51:L8:7:LYS:HE2	51:L8:34:GLU:CG	2.47	0.44
54:P8:35:ARG:NH1	54:P8:42:LEU:HD11	2.33	0.44
1:1G:536:C:H2'	1:1G:537:G:C8	2.52	0.44
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.50	0.44
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.17	0.44
9:82:82:ALA:HB1	9:82:96:LEU:HD21	1.99	0.44
13:4A:29:ARG:HD3	13:4A:64:TRP:CE2	2.53	0.44
18:9A:44:LEU:HD21	18:9A:70:ILE:HG21	2.00	0.44
26:14:212:G:H2'	26:14:213:A:O4'	2.17	0.44
26:14:385:C:O2	37:35:71:VAL:HG21	2.18	0.44
26:14:528:A:H2	26:14:2043:C:C5'	2.31	0.44
26:14:1027:A:C2	26:14:2488:A:H5'	2.53	0.44
26:14:1826:G:H4'	29:19:242:ARG:NH1	2.33	0.44
26:14:1935:G:H1'	26:14:1964:G:N2	2.33	0.44
26:14:2081:C:O2'	26:14:2082:A:H5'	2.17	0.44
26:14:2286:A:H8	26:14:2287:A:N6	2.16	0.44
26:14:2345:G:H4'	26:14:2346:A:O5'	2.17	0.44
26:14:2464:C:H2'	26:14:2465:C:O4'	2.18	0.44
26:14:2477:C:O2	26:14:2477:C:H2'	2.17	0.44
26:14:2506:U:C2	26:14:2585:U:O4	2.71	0.44
26:14:2862:G:H2'	26:14:2863:C:C6	2.52	0.44
27:1J:117:G:O5'	27:1J:117:G:H8	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:39:LYS:O	29:19:40:THR:CG2	2.64	0.44
29:19:73:VAL:HG13	29:19:120:GLY:HA3	1.99	0.44
32:49:173:LEU:HB3	32:49:178:PHE:CG	2.53	0.44
39:55:101:ALA:HB2	53:J5:44:THR:HB	1.99	0.44
47:D5:53:ILE:CG2	47:D5:71:VAL:HG23	2.41	0.44
55:M5:60:LEU:C	55:M5:62:LEU:H	2.25	0.44
1:13:64:G:N2	1:13:68:G:O6	2.36	0.44
1:13:241:C:C2	1:13:286:G:C2	3.06	0.44
1:13:329:A:C5	1:13:332:G:C6	3.06	0.44
1:13:430:A:OP2	4:3E:8:VAL:HG23	2.18	0.44
1:13:539:A:N7	12:3I:115:LYS:HE3	2.33	0.44
1:13:952:U:O4	13:4I:104:ARG:HD3	2.17	0.44
1:13:1376:U:H2'	1:13:1377:A:C8	2.52	0.44
1:13:1399:C:C2	1:13:1502:A:N6	2.86	0.44
4:3E:61:LYS:HG3	4:3E:203:VAL:HG13	2.00	0.44
4:3E:107:ARG:HH12	4:3E:194:LEU:HD22	1.83	0.44
24:3K:59:A:H3'	24:3K:60:U:H5'	1.99	0.44
26:1H:249:C:O2'	37:78:64:LYS:HE2	2.17	0.44
26:1H:325:G:H2'	26:1H:326:G:H8	1.82	0.44
26:1H:451:C:N4	26:1H:454:A:OP2	2.32	0.44
26:1H:654(A):A:N1	26:1H:654(T):A:N1	2.65	0.44
26:1H:992:C:H2'	26:1H:993:G:H8	1.83	0.44
26:1H:1359:A:C2	26:1H:1372:U:C4	3.05	0.44
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.82	0.44
26:1H:1931:U:H5	26:1H:1969:A:N7	2.15	0.44
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.32	0.44
26:1H:2130:U:OP2	28:71:6:ARG:NH1	2.38	0.44
29:11:245:PRO:HG2	29:11:253:GLN:HE21	1.83	0.44
30:21:7:VAL:HG13	30:21:51:PHE:HE2	1.82	0.44
37:78:14:LYS:HD3	37:78:14:LYS:HA	1.79	0.44
1:1G:476:G:H2'	1:1G:477:G:O4'	2.18	0.44
1:1G:567:G:C2	1:1G:568:G:H1'	2.52	0.44
1:1G:890:G:O2'	1:1G:906:G:O6	2.24	0.44
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.53	0.44
4:32:10:ARG:HH11	4:32:10:ARG:HG3	1.82	0.44
7:62:120:ILE:HG22	7:62:124:LEU:HD12	1.99	0.44
14:5A:25:VAL:HG12	14:5A:38:GLY:O	2.17	0.44
23:2L:20:G:C2	23:2L:58:A:C2	3.06	0.44
24:3L:65:C:H2'	24:3L:66:A:H8	1.83	0.44
26:14:9:U:C5	26:14:2629:A:N6	2.86	0.44
26:14:151:C:H2'	26:14:152:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:581:C:H2'	26:14:582:G:C8	2.51	0.44
26:14:612:G:O2'	26:14:616:A:N1	2.43	0.44
26:14:848:G:C4	26:14:933:A:C8	3.05	0.44
26:14:1101:U:H2'	26:14:1102:C:O4'	2.18	0.44
26:14:1636:C:H2'	26:14:1637:A:C8	2.52	0.44
26:14:1856:G:H2'	26:14:1857:G:H5'	2.00	0.44
26:14:2092:U:H5	26:14:2226:C:OP2	2.00	0.44
26:14:2168:G:N2	26:14:2170:A:OP2	2.51	0.44
28:79:200:LYS:HD2	28:79:208:PHE:HB2	2.00	0.44
30:29:119:ARG:CG	30:29:160:TYR:HB2	2.48	0.44
37:35:125:VAL:O	37:35:144:GLU:HB3	2.17	0.44
37:35:132:LYS:HA	37:35:132:LYS:HD2	1.77	0.44
43:95:1:MET:HB3	43:95:42:GLY:N	2.32	0.44
43:95:98:GLU:OE2	43:95:100:ARG:NH1	2.49	0.44
51:H5:4:LEU:O	51:H5:36:VAL:HA	2.17	0.44
1:13:143:A:H2	1:13:220:G:N1	2.13	0.44
1:13:256:U:H2'	1:13:257:G:H8	1.81	0.44
1:13:438:G:H4'	4:3E:123:HIS:NE2	2.32	0.44
1:13:1073:U:OP2	5:4E:57:LYS:NZ	2.50	0.44
1:13:1454:G:H8	1:13:1454:G:O5'	2.00	0.44
8:7E:33:GLU:HA	8:7E:36:LEU:HD12	1.99	0.44
10:1I:38:ILE:O	10:1I:38:ILE:HG12	2.17	0.44
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.53	0.44
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.17	0.44
18:9I:38:GLU:CD	18:9I:41:LYS:HZ1	2.20	0.44
23:2K:64:G:H2'	23:2K:65:G:H8	1.82	0.44
26:1H:164:U:H5'	26:1H:165:U:OP2	2.18	0.44
26:1H:527:C:N4	26:1H:2777:G:O2'	2.51	0.44
26:1H:958:U:OP1	38:88:74:TYR:OH	2.19	0.44
26:1H:1076:C:H2'	26:1H:1077:A:H5"	1.99	0.44
26:1H:1357:U:H2'	26:1H:1358:G:O4'	2.18	0.44
26:1H:1609:A:O2'	26:1H:1610:A:H5'	2.17	0.44
26:1H:2092:U:H4'	26:1H:2093:G:O5'	2.18	0.44
26:1H:2119:A:H5"	26:1H:2120:G:OP2	2.18	0.44
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.52	0.44
27:16:101:A:OP2	59:16:306:HOH:O	2.21	0.44
29:11:67:PHE:HB3	29:11:153:ALA:H	1.83	0.44
33:51:15:VAL:HG13	33:51:28:GLY:HA3	1.98	0.44
33:51:84:SER:O	33:51:85:LYS:HB2	2.18	0.44
36:68:113:LYS:O	36:68:116:SER:OG	2.35	0.44
39:98:56:LYS:HE3	39:98:88:ARG:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:120:ARG:HA	41:B8:123:GLN:HG2	1.98	0.44
50:K8:60:LEU:HA	50:K8:60:LEU:HD23	1.73	0.44
55:Q8:49:VAL:O	55:Q8:50:LEU:C	2.61	0.44
1:1G:87:A:O2'	1:1G:88:C:H5"	2.18	0.44
1:1G:411:A:N7	1:1G:413:G:N3	2.65	0.44
1:1G:1250:A:H2'	1:1G:1251:A:C8	2.53	0.44
1:1G:1299:A:C6	1:1G:1301:U:C2	3.05	0.44
5:42:142:LEU:HA	5:42:142:LEU:HD23	1.73	0.44
26:14:539:G:H2'	26:14:540:G:H8	1.83	0.44
26:14:1787:A:O4'	26:14:2589:A:H4'	2.17	0.44
26:14:1889:A:O2'	26:14:2087:G:H5'	2.18	0.44
26:14:2820:A:C5	39:55:4:LEU:HD11	2.53	0.44
30:29:60:ASN:CB	30:29:62:PRO:HD2	2.41	0.44
31:39:130:ALA:O	31:39:132:VAL:HG12	2.17	0.44
34:69:111:PRO:O	34:69:112:LYS:C	2.61	0.44
38:45:16:ARG:HE	38:45:16:ARG:HB3	1.38	0.44
38:45:27:VAL:HG13	38:45:138:ASP:HA	1.99	0.44
38:45:58:PHE:O	38:45:58:PHE:HD1	2.01	0.44
40:65:23:ARG:HB2	40:65:86:ALA:HB2	1.99	0.44
40:65:64:GLU:O	40:65:68:GLN:HG3	2.17	0.44
41:75:58:ASN:HD22	41:75:58:ASN:HA	1.59	0.44
49:F5:95:LEU:HD12	49:F5:95:LEU:HA	1.80	0.44
50:G5:4:SER:HB3	50:G5:7:ARG:HD2	1.99	0.44
1:13:68:G:C2	1:13:69:G:C8	3.06	0.44
1:13:403:C:OP1	4:3E:137:SER:OG	2.22	0.44
1:13:611:A:N6	1:13:629:G:H1	2.14	0.44
1:13:753:A:H4'	1:13:754:C:H5"	2.00	0.44
1:13:929:G:C6	1:13:930:C:C4	3.06	0.44
1:13:953:G:C5'	1:13:965:A:H61	2.30	0.44
4:3E:162:LEU:C	4:3E:165:MET:H	2.25	0.44
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.89	0.44
12:3I:54:LYS:HD3	12:3I:54:LYS:N	2.33	0.44
15:6I:74:ASP:HB3	15:6I:77:ARG:HB3	2.00	0.44
17:8I:24:GLU:HG3	17:8I:25:ARG:N	2.33	0.44
20:BI:30:LYS:HE3	20:BI:80:ARG:HH22	1.83	0.44
26:1H:425:G:H2'	26:1H:426:C:H6	1.83	0.44
26:1H:530:G:C5	26:1H:2022:U:H5"	2.52	0.44
26:1H:852:G:O2'	26:1H:853:G:H5'	2.18	0.44
26:1H:1359:A:O4'	26:1H:1359:A:N3	2.49	0.44
26:1H:1388:G:C2'	26:1H:1389:G:H5'	2.47	0.44
26:1H:1408:C:C2	26:1H:1595:G:N2	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1493:C:N3	26:1H:2210:G:H1'	2.33	0.44
26:1H:1547:C:H2'	26:1H:1548:C:C6	2.53	0.44
26:1H:2811:G:H2'	26:1H:2812:G:O4'	2.18	0.44
27:16:41:U:C5	32:41:70:VAL:HG13	2.53	0.44
29:11:31:LYS:HB3	29:11:34:VAL:CG2	2.32	0.44
40:A8:106:ARG:NH2	40:A8:107:GLU:HG2	2.33	0.44
46:G8:87:LYS:HD3	46:G8:88:LYS:N	2.33	0.44
48:I8:83:PRO:O	48:I8:84:LEU:HB2	2.16	0.44
1:1G:189:U:H6	1:1G:189:U:H5"	1.82	0.44
1:1G:539:A:H2'	1:1G:540:G:H8	1.82	0.44
1:1G:1105:A:H2'	1:1G:1106:G:C8	2.53	0.44
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.53	0.44
2:12:126:GLU:C	2:12:128:GLU:N	2.76	0.44
7:62:46:ALA:O	7:62:50:ILE:HG13	2.17	0.44
7:62:132:GLY:HA3	7:62:135:VAL:HG23	1.99	0.44
10:1A:55:LYS:HZ1	10:1A:57:LYS:CB	2.30	0.44
15:6A:70:LEU:HD21	15:6A:77:ARG:O	2.18	0.44
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.99	0.44
17:8A:99:SER:OG	17:8A:100:LYS:N	2.51	0.44
21:1B:5:ASP:O	21:1B:11:GLY:HA3	2.18	0.44
26:14:495:G:N2	44:A5:61:ASN:HD21	2.16	0.44
26:14:686:G:N7	54:L5:5:TRP:CH2	2.85	0.44
26:14:848:G:C2	26:14:849:A:C5	3.05	0.44
26:14:875:G:H2'	26:14:876:C:H5'	2.00	0.44
26:14:944:G:H5"	26:14:945:A:O5'	2.18	0.44
26:14:1055:G:N3	26:14:1055:G:H2'	2.33	0.44
26:14:1262:A:H2	53:J5:10:LYS:HD2	1.83	0.44
26:14:1369:G:H5"	26:14:1370:C:OP2	2.17	0.44
26:14:1630(A):C:H2'	59:14:3800:HOH:O	2.17	0.44
26:14:1832:C:N4	26:14:1833:U:C4	2.86	0.44
26:14:1849:G:H2'	26:14:1850:G:H8	1.83	0.44
26:14:2023:G:OP2	26:14:2617:C:H4'	2.17	0.44
26:14:2124:G:H1'	26:14:2176:A:H2	1.83	0.44
26:14:2241:A:H2'	26:14:2242:G:C8	2.53	0.44
26:14:2459:A:C5	26:14:2460:U:C5	3.06	0.44
26:14:2722:G:O2'	39:55:3:HIS:HB2	2.18	0.44
27:1J:48:A:H4'	40:65:95:HIS:CD2	2.53	0.44
27:1J:112:G:H21	40:65:45:GLY:C	2.25	0.44
31:39:17:ARG:O	31:39:17:ARG:HG2	2.18	0.44
31:39:78:ILE:C	31:39:80:ALA:H	2.26	0.44
32:49:47:LYS:HD2	32:49:81:LYS:CB	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:8:PRO:HG2	33:59:69:ARG:CZ	2.48	0.44
37:35:101:VAL:HG21	37:35:108:LYS:HB2	2.00	0.44
42:85:91:ASP:CG	42:85:96:ALA:HB2	2.41	0.44
55:M5:16:ILE:CD1	55:M5:22:VAL:HG22	2.47	0.44
1:13:1:U:N3	1:13:630:G:H1'	2.33	0.44
1:13:12:U:O2'	1:13:526:C:H4'	2.18	0.44
1:13:663:A:H5'	1:13:836:G:OP1	2.18	0.44
1:13:1346:A:O3'	1:13:1347:G:H4'	2.18	0.44
5:4E:84:PHE:HB3	5:4E:134:ALA:HB2	1.99	0.44
9:8E:59:PHE:HZ	9:8E:88:TYR:CE1	2.35	0.44
13:4I:32:GLU:OE2	13:4I:33:ALA:N	2.51	0.44
22:1K:9:A:H4'	22:1K:10:G:OP2	2.16	0.44
24:3K:8:U:H5'	24:3K:49:G:OP2	2.17	0.44
24:3K:35:U:N3	25:4K:14:A:N6	2.62	0.44
26:1H:374:A:C2	26:1H:401:A:C4	3.06	0.44
26:1H:527:C:O2	59:1H:3776:HOH:O	2.21	0.44
26:1H:1006:C:O2	35:58:106:MET:HG2	2.17	0.44
26:1H:1121:C:H5"	26:1H:1122:G:OP2	2.18	0.44
26:1H:1257:C:OP1	31:31:75:HIS:HE1	2.00	0.44
26:1H:1300:U:H4'	26:1H:1301:A:H5'	2.00	0.44
26:1H:1576:U:C2	26:1H:1577:C:C5	3.06	0.44
26:1H:2132:U:N3	28:71:5:LYS:HB3	2.33	0.44
26:1H:2310:A:C8	32:41:77:ILE:HD11	2.52	0.44
37:78:45:LEU:HA	37:78:45:LEU:HD13	1.72	0.44
37:78:60:MET:HE2	37:78:60:MET:HB2	1.68	0.44
41:B8:128:GLU:O	41:B8:132:LYS:HB2	2.17	0.44
42:C8:105:VAL:O	42:C8:109:LEU:HD12	2.18	0.44
42:C8:108:GLU:O	42:C8:112:ARG:HG2	2.17	0.44
42:C8:112:ARG:HH12	43:D8:45:THR:HG23	1.83	0.44
45:F8:92:LEU:HA	45:F8:92:LEU:HD23	1.70	0.44
1:1G:4:U:O4	8:72:105:ARG:HD3	2.18	0.44
1:1G:270:A:C6	1:1G:271:C:C4	3.06	0.44
1:1G:683:G:H2'	1:1G:684:A:C8	2.52	0.44
1:1G:949:A:H2'	1:1G:950:U:C6	2.53	0.44
1:1G:1053:G:C6	1:1G:1199:U:H2'	2.52	0.44
1:1G:1158:C:N3	1:1G:1160:G:C8	2.85	0.44
23:2L:8:4SU:O5'	23:2L:8:4SU:H6	2.17	0.44
23:2L:51:U:H2'	23:2L:52:C:C6	2.53	0.44
26:14:28:A:C2	26:14:513:A:C8	3.06	0.44
26:14:71:A:H2	45:B5:31:HIS:NE2	2.01	0.44
26:14:717:G:H2'	26:14:718:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:848:G:N9	26:14:933:A:H8	2.16	0.44
26:14:864:G:C2'	26:14:865:C:H5'	2.47	0.44
26:14:1288:U:H4'	26:14:1289:C:OP2	2.18	0.44
26:14:1434:A:H2'	26:14:1435:G:C8	2.53	0.44
26:14:1582:C:O2'	26:14:1586:A:H8	1.99	0.44
26:14:1805:U:H2'	26:14:1806:C:C6	2.53	0.44
26:14:1971:A:OP2	29:19:242:ARG:NH2	2.51	0.44
26:14:2472:G:C4	26:14:2475:C:N4	2.86	0.44
30:29:120:TRP:CE3	30:29:155:LYS:HD3	2.53	0.44
34:69:109:ILE:H	34:69:109:ILE:HD13	1.82	0.44
36:25:80:ASP:OD2	41:75:71:GLY:HA3	2.18	0.44
40:65:77:ALA:O	40:65:80:LEU:N	2.50	0.44
41:75:4:GLY:O	41:75:6:LEU:HD13	2.18	0.44
42:85:110:VAL:O	42:85:113:ALA:HB3	2.18	0.44
45:B5:66:LEU:HD23	45:B5:66:LEU:HA	1.82	0.44
1:13:186(C):G:C5	1:13:191(E):G:C2	3.06	0.44
1:13:322:C:H41	1:13:328:C:H6	1.64	0.44
1:13:342:C:C2'	1:13:343:U:H5'	2.47	0.44
1:13:1021:G:H8	1:13:1021:G:O5'	2.01	0.44
1:13:1120:G:H2'	1:13:1121:U:H6	1.83	0.44
1:13:1179:A:H4'	9:8E:103:THR:HA	1.99	0.44
1:13:1347:G:N2	1:13:1373:G:H2'	2.33	0.44
4:3E:107:ARG:HD2	4:3E:107:ARG:HA	1.51	0.44
4:3E:153:ARG:HB3	4:3E:181:MET:SD	2.58	0.44
8:7E:94:TYR:CE1	8:7E:132:GLU:HB2	2.52	0.44
13:4I:7:VAL:HB	32:41:115:ARG:HH22	1.82	0.44
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.86	0.44
22:1K:49:G:H1'	22:1K:50:C:OP1	2.17	0.44
25:4K:20:A:H2'	25:4K:21:G:C8	2.52	0.44
26:1H:64:A:N9	45:F8:66:LEU:HD23	2.32	0.44
26:1H:389:G:O5'	26:1H:389:G:H8	2.01	0.44
26:1H:654(D):G:H2'	26:1H:654(D):G:N3	2.33	0.44
26:1H:764:A:N3	29:11:213:ARG:NH1	2.65	0.44
26:1H:844:C:H3'	26:1H:845:G:H8	1.82	0.44
26:1H:1646:C:O3'	59:1H:3778:HOH:O	2.21	0.44
26:1H:1728:G:C6	26:1H:1730:U:H5"	2.53	0.44
26:1H:2058:A:H5"	26:1H:2059:A:OP2	2.18	0.44
26:1H:2577:A:H5"	26:1H:2578:G:H5'	2.00	0.44
27:16:76:G:O3'	47:H8:19:ARG:NH2	2.45	0.44
29:11:73:VAL:HG13	29:11:120:GLY:HA3	1.98	0.44
33:51:75:ALA:O	33:51:79:VAL:HG22	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:4:TYR:OH	35:58:7:LYS:NZ	2.50	0.44
35:58:22:THR:OG1	35:58:23:LEU:N	2.50	0.44
35:58:110:GLY:O	35:58:114:ARG:HB2	2.18	0.44
40:A8:56:LEU:C	40:A8:58:LEU:HD22	2.43	0.44
46:G8:40:GLU:HA	46:G8:41:GLY:HA2	1.73	0.44
47:H8:164:ALA:O	47:H8:165:VAL:HG22	2.18	0.44
50:K8:46:GLN:OE1	50:K8:46:GLN:N	2.51	0.44
1:1G:631:G:H1'	1:1G:632:A:N7	2.32	0.44
1:1G:707:C:H2'	1:1G:708:C:C6	2.53	0.44
1:1G:784:C:H2'	1:1G:785:G:O4'	2.18	0.44
3:22:60:ALA:H	3:22:63:ASN:HD21	1.66	0.44
3:22:84:ILE:C	3:22:87:LEU:HD21	2.43	0.44
9:82:26:VAL:HG22	9:82:61:ALA:H	1.81	0.44
12:3A:26:ALA:HA	12:3A:98:TYR:HE2	1.83	0.44
18:9A:50:ILE:HG13	18:9A:74:ARG:HH21	1.83	0.44
26:14:107:C:H2'	26:14:108:U:H6	1.83	0.44
26:14:270(P):C:O5'	26:14:270(P):C:H6	2.01	0.44
26:14:997:G:C2	26:14:998:C:C6	3.05	0.44
26:14:1021:A:C6	26:14:1023:U:C5	3.06	0.44
26:14:1614:A:N6	44:A5:87:PRO:HA	2.32	0.44
26:14:1716:U:H2'	26:14:1717:G:H8	1.82	0.44
26:14:1894:C:C2'	26:14:1895:C:H5'	2.48	0.44
26:14:2299:G:N1	26:14:2318:G:C8	2.86	0.44
27:1J:15:A:H1'	27:1J:109:G:N7	2.33	0.44
30:29:23:VAL:HA	30:29:184:VAL:O	2.18	0.44
45:B5:25:LYS:HD3	45:B5:80:ILE:HD11	1.99	0.44
1:13:234:C:H2'	1:13:235:C:C6	2.53	0.43
1:13:805:C:C2'	1:13:806:C:H5'	2.48	0.43
1:13:1113:C:H2'	1:13:1114:C:C6	2.53	0.43
5:4E:147:ASP:O	5:4E:151:LEU:HB2	2.18	0.43
6:5E:36:ARG:CZ	6:5E:36:ARG:HB3	2.48	0.43
7:6E:24:THR:O	7:6E:27:ILE:HB	2.18	0.43
11:2I:112:THR:O	11:2I:114:VAL:HG12	2.18	0.43
13:4I:7:VAL:HG12	13:4I:8:GLU:N	2.33	0.43
13:4I:37:THR:HB	13:4I:55:ARG:HD2	2.00	0.43
26:1H:250:G:H5'	37:78:60:MET:SD	2.58	0.43
26:1H:298:G:OP2	46:G8:84:ARG:HD2	2.18	0.43
26:1H:349:G:H2'	26:1H:350:U:O4'	2.18	0.43
26:1H:471:A:P	59:1H:3863:HOH:O	2.76	0.43
26:1H:882:G:N2	26:1H:894:C:N3	2.66	0.43
26:1H:1006:C:H1'	35:58:106:MET:HE2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1500:G:O2'	29:11:100:GLY:O	2.30	0.43
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.33	0.43
26:1H:2115:G:OP1	26:1H:2166:G:O2'	2.31	0.43
26:1H:2129:C:OP1	28:71:6:ARG:NE	2.51	0.43
26:1H:2271:G:N7	59:1H:3779:HOH:O	2.36	0.43
26:1H:2473:U:C2'	26:1H:2474:C:H5'	2.48	0.43
28:71:180:PHE:HA	28:71:181:PRO:HD3	1.62	0.43
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.53	0.43
31:31:32:LEU:C	31:31:32:LEU:HD12	2.43	0.43
33:51:58:GLU:O	33:51:61:HIS:N	2.51	0.43
37:78:61:ARG:H	37:78:61:ARG:HG2	1.59	0.43
39:98:55:ALA:HB1	39:98:84:ALA:HB2	2.00	0.43
41:B8:6:LEU:HA	41:B8:6:LEU:HD12	1.74	0.43
1:1G:631:G:O5'	8:72:98:LYS:NZ	2.47	0.43
1:1G:803:G:C5	1:1G:804:U:C4	3.06	0.43
1:1G:909:A:OP1	12:3A:21:LYS:HE2	2.18	0.43
1:1G:1124:G:H1'	10:1A:38:ILE:HD11	2.00	0.43
1:1G:1216:G:H5"	14:5A:5:ALA:HB3	2.00	0.43
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.99	0.43
2:12:32:ILE:HD11	2:12:40:HIS:CD2	2.52	0.43
2:12:218:ALA:O	2:12:219:VAL:HG22	2.18	0.43
5:42:15:ARG:NH1	25:4L:25:A:H5"	2.33	0.43
6:52:39:LYS:HB2	6:52:64:GLN:HB3	2.00	0.43
7:62:59:LEU:O	7:62:63:LYS:HG3	2.18	0.43
8:72:111:ILE:C	8:72:112:LEU:HD23	2.43	0.43
12:3A:27:LEU:HB3	12:3A:33:ARG:CG	2.48	0.43
12:3A:110:VAL:HA	12:3A:111:LYS:HE2	2.00	0.43
21:1B:9:ARG:HA	21:1B:22:ARG:HB2	1.99	0.43
26:14:412:A:H5"	26:14:413:C:OP2	2.18	0.43
26:14:966:G:O4'	26:14:2267:A:N6	2.51	0.43
26:14:1509:C:H5'	26:14:1510:A:O4'	2.18	0.43
26:14:1757:U:N3	26:14:1762:A:H2	2.04	0.43
26:14:1820:U:C4	29:19:160:GLY:HA3	2.53	0.43
27:1J:21:G:H2'	27:1J:22:U:O4'	2.17	0.43
30:29:173:VAL:N	30:29:183:LEU:O	2.40	0.43
30:29:195:LEU:HD12	30:29:195:LEU:HA	1.83	0.43
31:39:3:GLU:HA	31:39:24:LEU:HD12	1.99	0.43
32:49:6:ALA:O	32:49:8:LYS:N	2.51	0.43
40:65:33:LYS:HB3	40:65:34:HIS:CD2	2.52	0.43
41:75:18:ASP:OD1	41:75:18:ASP:N	2.49	0.43
47:D5:59:LEU:HB3	47:D5:60:GLU:H	1.40	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:29:GLN:O	48:E5:67:VAL:HG23	2.17	0.43
1:13:110:C:H2'	1:13:111:G:O4'	2.17	0.43
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.53	0.43
1:13:300:A:H1'	1:13:565:U:O2	2.18	0.43
1:13:362:G:HO2'	12:3I:33:ARG:NH2	2.09	0.43
1:13:575:G:H4'	1:13:576:G:O5'	2.18	0.43
1:13:1071:C:H2'	1:13:1072:G:C8	2.54	0.43
2:1E:236:TYR:CD1	2:1E:236:TYR:N	2.85	0.43
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.54	0.43
6:5E:86:ARG:O	6:5E:87:ARG:HG2	2.18	0.43
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.65	0.43
10:1I:34:VAL:HG12	10:1I:74:ILE:HG23	2.00	0.43
12:3I:126:LYS:HD3	12:3I:126:LYS:HA	1.78	0.43
13:4I:3:ARG:NH2	13:4I:9:ILE:HD11	2.33	0.43
16:7I:28:ARG:HG3	16:7I:29:ASP:N	2.32	0.43
26:1H:196:A:C8	37:78:46:LYS:HG3	2.54	0.43
26:1H:270(F):U:H2'	26:1H:270(G):C:C6	2.52	0.43
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.53	0.43
26:1H:1684:C:C2	26:1H:1705:G:N2	2.87	0.43
26:1H:1709:U:H1'	26:1H:2860:A:N3	2.33	0.43
26:1H:1756:G:H4'	26:1H:1758:G:O4'	2.18	0.43
26:1H:2286:A:H4'	26:1H:2287:A:O5'	2.18	0.43
27:16:41:U:H5	32:41:70:VAL:O	2.00	0.43
28:71:20:TYR:O	28:71:225:ASN:N	2.51	0.43
31:31:134:GLY:CA	31:31:166:ALA:HB2	2.47	0.43
33:51:149:ARG:HG3	33:51:162:ILE:HG22	1.99	0.43
35:58:57:ALA:O	35:58:59:LYS:N	2.51	0.43
37:78:91:PHE:O	37:78:123:LEU:HD11	2.18	0.43
40:A8:78:LEU:HA	40:A8:82:ILE:O	2.18	0.43
42:C8:91:ASP:OD1	42:C8:95:LEU:O	2.36	0.43
50:K8:8:LYS:HD2	50:K8:8:LYS:HA	1.74	0.43
54:P8:10:ARG:O	54:P8:10:ARG:HG2	2.17	0.43
1:1G:145:G:H2'	1:1G:146:G:O4'	2.19	0.43
1:1G:537:G:H2'	1:1G:538:G:H8	1.83	0.43
1:1G:927:G:H2'	1:1G:928:G:H8	1.83	0.43
1:1G:1056:U:O2	1:1G:1056:U:H2'	2.17	0.43
1:1G:1228:C:H2'	1:1G:1229:A:C8	2.54	0.43
1:1G:1280:A:H5"	10:1A:40:LEU:HG	2.00	0.43
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.18	0.43
3:22:11:ARG:NH2	3:22:177:THR:O	2.48	0.43
6:52:87:ARG:HG2	6:52:87:ARG:NH1	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:21:ILE:HD12	11:2A:95:ILE:HD13	2.00	0.43
26:14:34:C:HO2'	26:14:35:G:H8	1.65	0.43
26:14:96:G:H4'	50:G5:48:HIS:CD2	2.54	0.43
26:14:375:C:H2'	26:14:376:C:C6	2.53	0.43
26:14:547:A:C6	26:14:548:A:N6	2.87	0.43
26:14:959:A:C6	26:14:960:A:C2	3.07	0.43
26:14:1149:G:C6	26:14:1150:C:N4	2.86	0.43
26:14:1200:C:H1'	42:85:2:PRO:HG3	2.00	0.43
26:14:1475:G:C4	26:14:1519:G:N2	2.87	0.43
26:14:2784:C:O2	30:29:37:ARG:NH2	2.51	0.43
29:19:30:GLU:CB	29:19:35:LYS:NZ	2.80	0.43
30:29:13:ARG:HH21	41:75:77:PRO:HB3	1.83	0.43
32:49:61:ALA:O	32:49:65:GLY:N	2.46	0.43
32:49:88:ILE:HD12	32:49:88:ILE:HA	1.78	0.43
37:35:29:LYS:HG2	37:35:30:THR:N	2.33	0.43
38:45:30:GLY:CA	38:45:107:ALA:HB2	2.48	0.43
40:65:26:LEU:HD13	40:65:87:PHE:HD1	1.83	0.43
40:65:54:LEU:O	40:65:56:LEU:N	2.47	0.43
41:75:3:ARG:N	41:75:4:GLY:CA	2.81	0.43
46:C5:59:GLY:O	46:C5:61:ILE:HG12	2.17	0.43
55:M5:33:ASN:HA	55:M5:36:LYS:HD2	2.00	0.43
1:13:243:A:H4'	1:13:244:U:C5'	2.48	0.43
1:13:343:U:H2'	1:13:345:C:O2	2.18	0.43
1:13:410:G:O6	59:13:1833:HOH:O	2.19	0.43
1:13:1125:U:C5	1:13:1126:U:C4	3.07	0.43
2:1E:71:VAL:O	2:1E:165:VAL:HG22	2.18	0.43
4:3E:12:CYS:SG	4:3E:19:LEU:N	2.81	0.43
5:4E:147:ASP:HA	5:4E:150:ARG:HH21	1.83	0.43
12:3I:53:ARG:NH1	12:3I:92:ASP:OD1	2.51	0.43
15:6I:36:ILE:CD1	15:6I:63:ARG:HD3	2.48	0.43
26:1H:120:U:P	59:1H:4056:HOH:O	2.76	0.43
26:1H:1088:A:H3'	26:1H:1088:A:N3	2.34	0.43
26:1H:2461:C:H2'	26:1H:2462:U:C6	2.54	0.43
26:1H:2518:A:H5'	26:1H:2518:A:H8	1.81	0.43
26:1H:2646:C:H2'	26:1H:2647:U:O4'	2.17	0.43
26:1H:2801:A:H8	26:1H:2802:G:C8	2.36	0.43
29:11:30:GLU:CG	29:11:35:LYS:HE2	2.48	0.43
30:21:59:VAL:HG22	30:21:60:ASN:H	1.84	0.43
30:21:117:MET:O	30:21:118:LYS:HB3	2.18	0.43
32:41:16:ARG:N	32:41:17:PRO:HD2	2.32	0.43
32:41:107:LEU:HD11	32:41:178:PHE:CD1	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:47:ASP:OD1	37:78:49:ARG:NH1	2.50	0.43
38:88:21:THR:CG2	38:88:25:ASP:HB2	2.47	0.43
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.86	0.43
47:H8:103:ARG:HE	47:H8:103:ARG:HB3	1.50	0.43
48:I8:10:THR:O	48:I8:12:ASN:N	2.51	0.43
48:I8:49:LYS:O	48:I8:50:ASN:HB2	2.18	0.43
1:1G:109:A:H5'	1:1G:110:C:C5	2.52	0.43
1:1G:129(A):G:C2	1:1G:191(A):G:C8	3.06	0.43
1:1G:736:C:H2'	1:1G:737:A:H8	1.79	0.43
1:1G:1173:G:H2'	1:1G:1174:G:O4'	2.18	0.43
4:32:135:LEU:HA	4:32:136:PRO:HD2	1.91	0.43
6:52:33:TYR:CZ	6:52:78:GLU:HG3	2.53	0.43
6:52:33:TYR:HE1	6:52:78:GLU:HG3	1.80	0.43
7:62:126:ASP:HB3	7:62:131:LYS:O	2.18	0.43
13:4A:22:ILE:HB	13:4A:25:ILE:CG1	2.46	0.43
24:3L:3:G:H8	24:3L:3:G:O5'	2.02	0.43
26:14:932:G:N2	59:14:3686:HOH:O	2.28	0.43
26:14:947:G:H2'	26:14:948:G:C8	2.53	0.43
26:14:1500:G:O2'	29:19:100:GLY:O	2.33	0.43
26:14:1628:G:H2'	26:14:1629:U:C6	2.53	0.43
26:14:2420:C:O2'	26:14:2421:G:H5'	2.19	0.43
29:19:118:VAL:HG22	29:19:119:ALA:H	1.84	0.43
30:29:63:LEU:HD12	30:29:73:GLU:OE2	2.18	0.43
31:39:169:ASN:ND2	31:39:169:ASN:O	2.51	0.43
36:25:22:ILE:HB	36:25:41:ALA:HA	2.00	0.43
38:45:58:PHE:O	38:45:58:PHE:CD1	2.71	0.43
48:E5:36:ILE:HD11	48:E5:39:ARG:HG2	1.99	0.43
49:F5:84:GLY:HA3	49:F5:87:PRO:HD2	1.99	0.43
49:F5:93:GLU:HB3	49:F5:94:LEU:H	1.37	0.43
1:13:50:A:H1'	1:13:52:G:C8	2.54	0.43
1:13:222:U:C2	1:13:223:U:C5	3.06	0.43
1:13:228:A:H2'	1:13:229:U:O4'	2.18	0.43
1:13:417:C:C2	1:13:418:C:C5	3.06	0.43
1:13:544:G:C6	1:13:545:C:C4	3.07	0.43
1:13:828:A:H2'	1:13:829:G:O4'	2.18	0.43
1:13:956:U:O2	1:13:1225:A:C2	2.71	0.43
1:13:972:C:OP1	59:13:1840:HOH:O	2.21	0.43
1:13:1055:A:C5	1:13:1206:G:C2	3.06	0.43
1:13:1251:A:H2'	1:13:1252:A:C8	2.52	0.43
10:1I:31:GLY:HA2	10:1I:78:ASN:CG	2.43	0.43
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.83	0.43
24:3K:75:C:O2'	24:3K:76:A:H2	2.01	0.43
26:1H:270(E):G:C5	26:1H:270(F):U:C4	3.07	0.43
26:1H:548:A:H2'	26:1H:549:G:C5'	2.44	0.43
26:1H:844:C:H3'	26:1H:845:G:C8	2.54	0.43
26:1H:1163:G:C2	26:1H:1164:G:C8	3.07	0.43
26:1H:2370:G:C6	26:1H:2371:G:C6	3.06	0.43
27:16:68:C:C2'	27:16:69:G:H5'	2.49	0.43
29:11:32:SER:C	29:11:35:LYS:HZ3	2.26	0.43
32:41:88:ILE:O	32:41:88:ILE:HG22	2.18	0.43
33:51:6:ARG:HB3	33:51:65:HIS:CG	2.53	0.43
39:98:27:SER:HB3	39:98:34:ILE:HD11	1.99	0.43
42:C8:92:ARG:HH21	43:D8:10:LYS:CB	2.31	0.43
43:D8:77:ALA:C	43:D8:79:VAL:H	2.26	0.43
46:G8:94:LYS:NZ	46:G8:104:GLY:O	2.43	0.43
50:K8:40:SER:C	50:K8:42:GLY:N	2.75	0.43
1:1G:104:G:C2	1:1G:105:G:C8	3.06	0.43
1:1G:109:A:C6	1:1G:326:G:C6	3.06	0.43
1:1G:198:G:C6	1:1G:220:G:C2	3.06	0.43
1:1G:266:G:O3'	17:8A:67:LYS:HB2	2.18	0.43
1:1G:688:G:H2'	1:1G:689:C:H6	1.83	0.43
1:1G:837:G:H2'	1:1G:838:G:O4'	2.19	0.43
1:1G:919:A:H2'	1:1G:920:U:H5'	1.99	0.43
1:1G:951:G:HO2'	1:1G:972:C:H5	1.61	0.43
1:1G:1157:A:N6	1:1G:1181:G:C8	2.87	0.43
1:1G:1315:U:O2'	1:1G:1360:A:N3	2.46	0.43
1:1G:1359:C:H4'	1:1G:1360:A:OP2	2.17	0.43
7:62:111:ARG:HG3	7:62:111:ARG:H	1.60	0.43
11:2A:116:HIS:O	11:2A:117:ASN:HB2	2.18	0.43
15:6A:54:ARG:O	15:6A:58:MET:HG3	2.18	0.43
18:9A:58:LEU:HD22	18:9A:62:GLU:HB3	1.99	0.43
23:2L:38:A:H2'	23:2L:39:A:O4'	2.19	0.43
23:2L:38:A:O2'	23:2L:39:A:H5'	2.18	0.43
26:14:632:A:O2'	26:14:633:A:H5'	2.18	0.43
26:14:996:A:H4'	42:85:92:ARG:CZ	2.48	0.43
26:14:1759:A:C8	26:14:2696:U:O2	2.71	0.43
26:14:1991:U:C2'	26:14:1992:G:H5"	2.49	0.43
26:14:2057:A:P	59:14:3693:HOH:O	2.76	0.43
26:14:2309:A:C6	26:14:2310:A:C6	3.06	0.43
27:1J:109:G:C6	27:1J:110:G:C5	3.06	0.43
30:29:9:VAL:HA	41:75:3:ARG:CD	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:9:ILE:HG12	31:39:14:PRO:HA	2.00	0.43
32:49:39:ILE:HD11	32:49:102:PHE:CZ	2.53	0.43
42:85:39:LEU:HD23	42:85:39:LEU:HA	1.72	0.43
42:85:106:PHE:O	42:85:109:LEU:HB2	2.18	0.43
1:13:7:G:H5'	1:13:298:A:O4'	2.17	0.43
1:13:195:A:C5	1:13:196:A:N1	2.86	0.43
1:13:377:G:P	16:7I:5:ARG:HH11	2.41	0.43
1:13:468:A:H3'	1:13:474:G:C8	2.54	0.43
1:13:475:G:H2'	1:13:476:G:H8	1.83	0.43
1:13:652:U:C4	1:13:752:G:N3	2.86	0.43
1:13:671:G:H2'	1:13:672:U:C6	2.51	0.43
1:13:820:U:H4'	1:13:821:G:OP2	2.18	0.43
1:13:868:C:H2'	1:13:869:G:O4'	2.18	0.43
1:13:1116:C:O2'	9:8E:108:VAL:HG21	2.19	0.43
1:13:1190:G:OP1	3:2E:5:ILE:HG23	2.18	0.43
4:3E:7:PRO:HB2	4:3E:10:ARG:HD2	2.00	0.43
7:6E:113:GLU:HG3	7:6E:119:ARG:HG2	2.00	0.43
11:2I:21:ILE:HG12	11:2I:94:ALA:HB1	2.00	0.43
15:6I:67:LEU:O	15:6I:71:GLN:HB2	2.18	0.43
21:1F:10:ARG:HB3	21:1F:10:ARG:HH11	1.80	0.43
22:1K:76:A:H8	26:1H:2583:G:H21	1.60	0.43
26:1H:869:G:C5	59:1H:3698:HOH:O	2.70	0.43
26:1H:997:G:C2'	26:1H:998:C:H5'	2.48	0.43
26:1H:1142(A):A:C5	26:1H:1144:G:C5	3.07	0.43
26:1H:1491:G:N2	26:1H:1500:G:H1'	2.34	0.43
26:1H:2134:A:N6	26:1H:2157:G:H4'	2.33	0.43
26:1H:2592:G:C6	26:1H:2593:U:N3	2.87	0.43
26:1H:2599:G:N7	29:11:237:GLU:HB2	2.34	0.43
26:1H:2780:G:OP1	35:58:118:LYS:HE3	2.18	0.43
28:71:7:TYR:HA	28:71:10:LEU:HD22	2.00	0.43
28:71:7:TYR:HD1	28:71:10:LEU:HD23	1.83	0.43
30:21:49:LEU:HD12	30:21:49:LEU:HA	1.58	0.43
33:51:83:TYR:HB2	33:51:84:SER:H	1.52	0.43
35:58:7:LYS:HD2	35:58:7:LYS:H	1.83	0.43
38:88:30:GLY:HA2	38:88:107:ALA:HB2	1.99	0.43
46:G8:34:LYS:HD3	46:G8:36:ALA:HB2	1.99	0.43
46:G8:94:LYS:HD2	46:G8:94:LYS:HA	1.49	0.43
49:J8:75:GLU:O	49:J8:77:ALA:N	2.51	0.43
52:M8:6:HIS:HD1	52:M8:7:PRO:HD2	1.82	0.43
54:P8:31:LEU:O	54:P8:35:ARG:HB2	2.19	0.43
55:Q8:45:GLY:O	55:Q8:46:ARG:C	2.60	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:265:G:H5'	17:8A:64:PRO:O	2.18	0.43
1:1G:590:C:H2'	1:1G:591:U:C6	2.52	0.43
1:1G:654:G:C2	1:1G:753:A:C4	3.06	0.43
1:1G:1246:C:H2'	1:1G:1247:U:H6	1.83	0.43
3:22:72:LYS:HG3	3:22:75:VAL:HG23	2.00	0.43
9:82:25:LYS:NZ	9:82:33:PHE:HB3	2.33	0.43
10:1A:55:LYS:HD2	10:1A:55:LYS:HA	1.59	0.43
13:4A:78:ILE:O	13:4A:81:LEU:N	2.50	0.43
23:2L:9:G:N3	23:2L:46:G:H2'	2.34	0.43
24:3L:21:A:H2	24:3L:46:G:H22	1.66	0.43
26:14:270(X):G:OP2	59:14:3645:HOH:O	2.21	0.43
26:14:442:G:C4	26:14:444:C:C5	3.06	0.43
26:14:534:U:O2'	42:85:49:HIS:ND1	2.43	0.43
26:14:1111:A:O3'	26:14:1112:G:H4'	2.19	0.43
26:14:1163:G:H2'	26:14:1164:G:H8	1.84	0.43
26:14:2291:U:O2'	26:14:2374:C:O2	2.36	0.43
26:14:2462:U:H2'	26:14:2463:C:C6	2.53	0.43
26:14:2475:C:H3'	26:14:2476:A:C5'	2.48	0.43
26:14:2774:C:H2'	26:14:2775:A:O4'	2.19	0.43
26:14:2849:U:H1'	26:14:2866:U:O2	2.18	0.43
30:29:181:LEU:HD12	30:29:181:LEU:HA	1.80	0.43
31:39:134:GLY:HA2	31:39:166:ALA:HB2	2.00	0.43
32:49:16:ARG:N	32:49:17:PRO:HD2	2.34	0.43
32:49:120:LEU:HB2	32:49:180:PHE:HD1	1.82	0.43
34:69:44:LEU:HA	34:69:44:LEU:HD23	1.74	0.43
42:85:8:VAL:O	42:85:12:ARG:HG3	2.17	0.43
48:E5:50:ASN:HB3	48:E5:63:VAL:HG22	2.00	0.43
50:G5:47:ASN:OD1	50:G5:47:ASN:N	2.49	0.43
1:13:134:A:H1'	1:13:325:A:C5	2.54	0.43
1:13:390:C:H2'	1:13:391:G:C8	2.54	0.43
1:13:509:A:H5'	4:3E:54:TYR:HD2	1.83	0.43
2:1E:58:ILE:O	2:1E:62:ALA:N	2.41	0.43
3:2E:11:ARG:HE	3:2E:180:ALA:HB3	1.84	0.43
5:4E:76:ILE:HB	5:4E:77:PRO:HD2	2.01	0.43
10:1I:48:THR:OG1	10:1I:62:HIS:CE1	2.71	0.43
13:4I:87:TYR:C	13:4I:89:GLY:N	2.75	0.43
19:AI:41:VAL:HG12	19:AI:42:PRO:HA	1.99	0.43
23:2K:19:G:C2	23:2K:59:A:C5	3.07	0.43
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.19	0.43
26:1H:287:C:H2'	26:1H:288:C:C6	2.53	0.43
26:1H:1142(A):A:C4	26:1H:1144:G:N7	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1270:C:H5”	26:1H:1271:G:O5’	2.18	0.43
26:1H:1310:G:OP2	54:P8:9:ARG:NH1	2.51	0.43
26:1H:2098:U:H2’	26:1H:2099:U:O4’	2.18	0.43
26:1H:2284:C:C2’	26:1H:2285:C:H5’	2.49	0.43
26:1H:2378:A:H4’	40:A8:23:ARG:NH1	2.33	0.43
26:1H:2744:G:C8	26:1H:2755:C:C6	3.06	0.43
26:1H:2751:G:C6	33:51:3:ARG:HG3	2.53	0.43
27:16:7:G:O5’	40:A8:29:PHE:CE2	2.72	0.43
27:16:19:G:H2’	27:16:20:C:O4’	2.19	0.43
28:71:6:ARG:O	28:71:10:LEU:HD13	2.18	0.43
41:B8:16:ARG:HE	41:B8:19:LEU:HD21	1.83	0.43
51:L8:3:ARG:HG3	51:L8:59:VAL:HG13	2.00	0.43
52:M8:14:ILE:HG22	52:M8:24:THR:HG22	1.99	0.43
1:1G:266:G:H2’	1:1G:266:G:N3	2.34	0.43
1:1G:376:G:H5”	16:7A:5:ARG:HB2	2.00	0.43
1:1G:1004:A:H8	1:1G:1026:G:C8	2.36	0.43
1:1G:1286:A:H2’	1:1G:1287:A:H4’	2.00	0.43
3:22:11:ARG:NH2	3:22:182:ILE:HD11	2.33	0.43
3:22:73:PRO:O	3:22:76:VAL:HG22	2.18	0.43
4:32:150:GLU:C	4:32:152:SER:N	2.77	0.43
7:62:121:ALA:O	7:62:125:MET:HG3	2.19	0.43
10:1A:46:ARG:NH2	14:5A:61:TRP:CZ2	2.87	0.43
13:4A:35:GLU:C	13:4A:38:GLY:H	2.27	0.43
15:6A:81:LEU:HD12	15:6A:81:LEU:HA	1.83	0.43
19:AA:17:GLU:O	19:AA:20:LEU:HB2	2.18	0.43
24:3L:61:C:O2’	28:79:52:ARG:NH2	2.52	0.43
26:14:12:U:O2	26:14:12:U:H2’	2.18	0.43
26:14:139:G:H5’	26:14:139:G:H8	1.84	0.43
26:14:246:C:H41	55:M5:8:LYS:HG3	1.83	0.43
26:14:806:C:C2	26:14:807:U:C5	3.05	0.43
26:14:838:C:O2’	26:14:839:U:H5’	2.19	0.43
26:14:879:G:C2’	26:14:897:C:H41	2.31	0.43
26:14:1057:A:H8	26:14:1086:A:O2’	2.01	0.43
26:14:1071:G:O6	26:14:1072:C:N4	2.52	0.43
26:14:1386:C:OP2	26:14:1396:U:H5	2.01	0.43
26:14:1557:C:H5”	26:14:1558:A:OP2	2.19	0.43
26:14:2076:U:H5	26:14:2596:U:O2	2.01	0.43
26:14:2196:C:O2’	26:14:2197:U:H5’	2.18	0.43
26:14:2287:A:N1	26:14:2346:A:H2	2.16	0.43
26:14:2335:A:C8	26:14:2337:G:C5	3.07	0.43
26:14:2579:C:O2’	30:29:134:ILE:HD11	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2647:U:H2'	26:14:2648:C:C6	2.54	0.43
26:14:2854:G:C2	26:14:2864:G:C2	3.07	0.43
41:75:10:VAL:C	41:75:12:SER:H	2.26	0.43
43:95:37:VAL:HG11	43:95:40:LEU:HD23	2.00	0.43
44:A5:6:ILE:HG23	44:A5:104:THR:OG1	2.19	0.43
47:D5:61:LEU:HB3	47:D5:62:PRO:O	2.18	0.43
47:D5:98:MET:O	47:D5:125:LEU:HD12	2.18	0.43
49:F5:92:LYS:CA	49:F5:95:LEU:HB2	2.48	0.43
54:L5:22:MET:HE3	54:L5:22:MET:HB3	1.86	0.43
1:13:20:U:C2'	1:13:21:G:H5'	2.49	0.43
1:13:406:G:H21	4:3E:119:GLN:HE22	1.66	0.43
1:13:953:G:C2	1:13:954:G:H1'	2.54	0.43
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.52	0.43
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.19	0.43
9:8E:115:GLY:HA2	10:1I:58:ASP:OD2	2.19	0.43
11:2I:40:ILE:HG22	11:2I:75:TYR:HD2	1.83	0.43
15:6I:7:GLU:O	15:6I:11:VAL:HG23	2.17	0.43
17:8I:7:THR:OG1	17:8I:58:GLU:HG2	2.18	0.43
19:AI:5:LEU:O	19:AI:6:LYS:CB	2.66	0.43
22:1K:76:A:C1'	26:1H:2583:G:H21	2.32	0.43
26:1H:11:G:C2'	26:1H:12:U:H5'	2.48	0.43
26:1H:90:U:H6	26:1H:90:U:OP1	2.01	0.43
26:1H:95:G:O2'	50:K8:48:HIS:HB3	2.19	0.43
26:1H:172:C:H2'	26:1H:173:G:H8	1.83	0.43
26:1H:827:U:H5'	26:1H:828:U:O5'	2.18	0.43
26:1H:1106:G:H2'	26:1H:1107:G:O4'	2.19	0.43
26:1H:1108:U:O4	26:1H:1109:C:N4	2.52	0.43
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.79	0.43
26:1H:1532:C:H2'	26:1H:1533:C:O4'	2.18	0.43
26:1H:1664:A:N6	26:1H:1665:A:N6	2.67	0.43
26:1H:2292:C:OP2	40:A8:17:ARG:NH2	2.52	0.43
29:11:65:ILE:HD12	29:11:66:ASP:H	1.83	0.43
33:51:38:SER:HA	33:51:39:PRO:HD3	1.89	0.43
36:68:67:LYS:HE3	36:68:68:GLU:OE1	2.18	0.43
38:88:66:ILE:CG1	38:88:67:ARG:H	2.30	0.43
47:H8:59:LEU:HD23	47:H8:59:LEU:HA	1.65	0.43
1:1G:507:C:OP2	1:1G:508:C:O2'	2.28	0.43
1:1G:562:C:H4'	1:1G:563:A:O5'	2.18	0.43
1:1G:949:A:H1'	1:1G:1364:U:O2	2.18	0.43
1:1G:1008:C:C2	1:1G:1022:G:N2	2.87	0.43
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1086:U:O5'	1:1G:1086:U:H6	2.02	0.43
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.19	0.43
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.54	0.43
1:1G:1392:G:H21	1:1G:1502:A:H8	1.67	0.43
2:12:22:LYS:HG3	2:12:22:LYS:O	2.18	0.43
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.99	0.43
3:22:65:ALA:HA	3:22:100:ALA:CB	2.49	0.43
3:22:76:VAL:O	3:22:84:ILE:HA	2.19	0.43
3:22:148:GLY:HA3	3:22:172:ARG:H	1.84	0.43
4:32:25:ARG:NH1	4:32:30:LYS:O	2.51	0.43
7:62:143:ARG:CD	7:62:143:ARG:H	2.32	0.43
19:AA:12:ASP:HB3	19:AA:38:SER:OG	2.18	0.43
19:AA:66:MET:HB3	19:AA:69:HIS:CE1	2.54	0.43
22:1L:9:A:N7	22:1L:45:G:C6	2.87	0.43
26:14:43:G:H2'	26:14:44:A:O4'	2.19	0.43
26:14:278:A:OP2	26:14:278:A:H2'	2.18	0.43
26:14:649:G:H2'	26:14:650:C:C6	2.54	0.43
26:14:873:G:C2	26:14:905:U:O2	2.71	0.43
26:14:987:G:O2'	26:14:1000:A:N3	2.44	0.43
26:14:1005:C:C2	26:14:1143:A:C5	3.07	0.43
26:14:1380:G:N2	26:14:1570:A:C2	2.86	0.43
26:14:1534:G:H3'	26:14:1535:U:C5'	2.46	0.43
26:14:1629:U:H2'	26:14:1630:G:C8	2.54	0.43
26:14:1945:G:C4	26:14:1946:U:C5	3.07	0.43
26:14:2849:U:OP1	41:75:95:ARG:NH1	2.52	0.43
29:19:267:SER:C	29:19:269:PHE:H	2.26	0.43
35:15:35:ARG:HB3	35:15:42:TRP:HZ3	1.84	0.43
35:15:39:ARG:NH1	35:15:41:ASP:HB2	2.33	0.43
42:85:34:LYS:HZ3	42:85:37:GLU:CD	2.25	0.43
45:B5:53:LYS:HB3	45:B5:82:GLN:HB3	1.98	0.43
47:D5:4:ARG:HB3	47:D5:58:VAL:HB	2.00	0.43
51:H5:6:VAL:HG12	51:H5:56:VAL:HB	2.00	0.43
1:13:21:G:OP1	59:13:1841:HOH:O	2.22	0.43
1:13:141:A:C2	1:13:142:G:C5	3.07	0.43
1:13:295:C:H2'	1:13:296:U:O4'	2.18	0.43
1:13:516:U:C4	1:13:517:G:C6	3.07	0.43
1:13:942:G:C2	1:13:1342:C:C2	3.07	0.43
1:13:943:U:C1'	9:8E:124:GLN:HE22	2.32	0.43
1:13:955:U:H1'	1:13:1227:A:N6	2.34	0.43
5:4E:122:GLU:OE1	5:4E:131:ILE:HG13	2.19	0.43
8:7E:82:HIS:O	8:7E:137:VAL:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:92:GLU:O	11:2I:96:ARG:HB2	2.19	0.43
11:2I:122:LYS:O	11:2I:123:LYS:C	2.61	0.43
13:4I:54:VAL:O	13:4I:58:GLU:HG2	2.18	0.43
19:AI:41:VAL:CG1	19:AI:45:VAL:H	2.30	0.43
21:1F:6:ARG:HH11	21:1F:15:ARG:CD	2.32	0.43
22:1K:17:U:O4	22:1K:55:PSU:H1'	2.19	0.43
22:1K:76:A:C8	26:1H:2507:C:H1'	2.54	0.43
26:1H:151:C:H2'	26:1H:152:G:C8	2.54	0.43
26:1H:182:A:H2'	26:1H:183:C:C6	2.53	0.43
26:1H:330:A:O2'	26:1H:331:A:C8	2.66	0.43
26:1H:1506:C:H5'	26:1H:1507:A:OP2	2.19	0.43
26:1H:2597:G:H2'	26:1H:2598:A:C8	2.54	0.43
27:16:32:C:C2	27:16:51:G:N2	2.86	0.43
29:11:85:ASP:OD2	29:11:88:ARG:NH1	2.39	0.43
31:31:53:THR:HG23	31:31:56:GLU:OE2	2.19	0.43
36:68:98:VAL:HG13	36:68:117:LEU:HB3	2.01	0.43
37:78:130:PHE:CE1	37:78:146:VAL:HG23	2.54	0.43
40:A8:67:ARG:NH1	40:A8:67:ARG:HB2	2.34	0.43
46:G8:76:CYS:HB2	46:G8:82:PRO:HD3	2.00	0.43
1:1G:867:G:O2'	1:1G:868:C:H5'	2.19	0.43
1:1G:1148:U:C4	1:1G:1149:C:C2	3.07	0.43
1:1G:1206:G:H8	1:1G:1206:G:O5'	2.02	0.43
1:1G:1224:G:C2	1:1G:1322:C:H4'	2.54	0.43
2:12:101:MET:HA	2:12:101:MET:HE2	2.01	0.43
2:12:201:ILE:HA	2:12:202:PRO:HD2	1.92	0.43
5:42:69:VAL:O	5:42:71:LEU:N	2.51	0.43
22:1L:8:U:H3'	22:1L:13:C:H42	1.84	0.43
24:3L:29:U:H2'	24:3L:30:G:C8	2.54	0.43
24:3L:31:A:H5'	24:3L:32:C:OP2	2.18	0.43
26:14:138:G:C2'	26:14:139:G:H5"	2.49	0.43
26:14:229:A:H2	26:14:418:G:H4'	1.84	0.43
26:14:957:A:N6	26:14:2459:A:C8	2.87	0.43
26:14:1115:G:C6	26:14:1116:C:C4	3.07	0.43
26:14:1260:G:C6	26:14:1261:C:C4	3.06	0.43
26:14:1751:C:O2'	26:14:1752:C:H5'	2.19	0.43
26:14:1932:A:H2'	26:14:1933:G:O4'	2.18	0.43
26:14:2001:A:H2'	26:14:2002:G:C8	2.53	0.43
26:14:2472:G:N2	26:14:2477:C:OP1	2.38	0.43
26:14:2687:U:C4	26:14:2688:U:C5	3.07	0.43
27:1J:2:C:H2'	27:1J:3:C:C6	2.54	0.43
27:1J:60:C:H2'	27:1J:61:G:H8	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:228:PRO:HD3	29:19:235:GLY:HA3	1.99	0.43
39:55:29:LEU:HD12	39:55:29:LEU:HA	1.75	0.43
41:75:21:GLU:N	41:75:21:GLU:OE2	2.51	0.43
41:75:80:SER:OG	41:75:83:ILE:HG13	2.19	0.43
43:95:20:LEU:O	43:95:94:LEU:N	2.49	0.43
44:A5:110:LYS:HG3	44:A5:111:HIS:ND1	2.34	0.43
46:C5:20:TYR:CZ	46:C5:42:VAL:HA	2.53	0.43
47:D5:33:LEU:HD12	47:D5:33:LEU:HA	1.76	0.43
49:F5:91:LYS:O	49:F5:92:LYS:C	2.59	0.43
1:13:37:U:O2'	1:13:500:G:H4'	2.19	0.43
1:13:146:G:N2	1:13:147:G:C4	2.87	0.43
1:13:266:G:H8	1:13:266:G:H2'	1.74	0.43
1:13:332:G:C2	1:13:333:G:C8	3.07	0.43
1:13:703:G:H8	1:13:703:G:O5'	2.01	0.43
1:13:943:U:H1'	9:8E:124:GLN:HE22	1.82	0.43
1:13:1127:G:H2'	1:13:1128:C:C5'	2.46	0.43
1:13:1284:C:H2'	1:13:1285:A:N7	2.34	0.43
1:13:1310:G:H1	1:13:1327:C:H42	1.64	0.43
1:13:1517:G:H1'	26:1H:1919:A:O3'	2.19	0.43
3:2E:113:ALA:N	3:2E:183:ASP:OD2	2.45	0.43
13:4I:30:ALA:O	13:4I:33:ALA:N	2.51	0.43
13:4I:40:ASN:HB3	13:4I:43:THR:HG23	2.01	0.43
18:9I:73:ALA:HB3	18:9I:79:LEU:HD12	2.01	0.43
26:1H:753:C:O2'	26:1H:754:C:H5'	2.19	0.43
26:1H:1110:G:O2'	26:1H:1111:A:C8	2.70	0.43
26:1H:1402:C:N3	26:1H:1403:C:C5	2.86	0.43
26:1H:1705:G:C6	26:1H:1706:U:C4	3.06	0.43
26:1H:1784:A:H4'	26:1H:1785:A:C5'	2.48	0.43
26:1H:2110:G:C5	26:1H:2120:G:C8	3.07	0.43
26:1H:2638:G:P	30:21:82:ARG:NH2	2.92	0.43
29:11:27:THR:OG1	29:11:28:GLU:N	2.51	0.43
29:11:70:TRP:O	29:11:73:VAL:HG23	2.18	0.43
30:21:32:PRO:HD2	30:21:50:GLY:O	2.18	0.43
49:J8:73:LEU:HD23	49:J8:73:LEU:HA	1.80	0.43
1:1G:273:A:C2'	1:1G:274:A:H5'	2.49	0.43
1:1G:570:G:H1'	1:1G:820:U:C4	2.54	0.43
1:1G:616:G:C2	1:1G:617:G:N7	2.86	0.43
1:1G:998(A):C:H2'	1:1G:999:U:H6	1.84	0.43
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.49	0.43
1:1G:1363:A:H1'	1:1G:1365:G:N7	2.34	0.43
1:1G:1459:C:OP1	20:BA:31:SER:OG	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:13:ARG:HB2	4:32:39:PRO:HA	2.00	0.43
13:4A:11:ARG:HG2	13:4A:12:ASN:HB2	2.01	0.43
13:4A:84:ILE:C	13:4A:86:CYS:H	2.27	0.43
17:8A:3:LYS:HD3	17:8A:61:GLU:O	2.19	0.43
20:BA:25:ARG:HG3	20:BA:29:LYS:HE3	1.99	0.43
20:BA:29:LYS:O	20:BA:33:ILE:HG13	2.18	0.43
26:14:380:U:OP1	59:14:3650:HOH:O	2.21	0.43
26:14:669:G:N3	26:14:669:G:H2'	2.33	0.43
26:14:818:G:H5'	26:14:839:U:OP1	2.18	0.43
26:14:867:C:N4	26:14:868:U:O4	2.52	0.43
26:14:1204:A:O2'	26:14:1205:U:OP2	2.36	0.43
26:14:1321:A:H2'	26:14:1322:A:O4'	2.19	0.43
26:14:1519:G:C6	26:14:1520:U:N3	2.87	0.43
26:14:1952:A:C6	36:25:22:ILE:CD1	2.98	0.43
26:14:2262:U:H4'	26:14:2328:A:H2	1.81	0.43
26:14:2269:A:OP1	59:14:3646:HOH:O	2.21	0.43
26:14:2336:A:H61	48:E5:43:THR:HB	1.83	0.43
26:14:2693:A:H2'	26:14:2694:G:C8	2.54	0.43
26:14:2873:A:C8	39:55:6:SER:HB2	2.54	0.43
32:49:113:ARG:HD3	32:49:140:ILE:O	2.19	0.43
34:69:6:LEU:HB2	34:69:36:ALA:HA	2.01	0.43
34:69:84:GLY:O	34:69:85:GLU:HB3	2.18	0.43
36:25:7:TYR:CE1	36:25:20:MET:HB2	2.53	0.43
36:25:106:LEU:HD13	36:25:114:ILE:HG21	2.01	0.43
38:45:3:MET:O	38:45:3:MET:HG3	2.18	0.43
38:45:21:THR:HG21	38:45:101:ARG:CD	2.48	0.43
40:65:7:TYR:CE1	40:65:91:PRO:HG3	2.54	0.43
40:65:21:THR:H	40:65:21:THR:HG22	1.53	0.43
45:B5:35:THR:HG23	45:B5:38:GLU:HB2	2.01	0.43
1:13:113:G:H2'	1:13:114:U:H6	1.84	0.43
1:13:179:A:C4	1:13:180:U:C5	3.07	0.43
1:13:244:U:H4'	1:13:245:C:C5'	2.48	0.43
1:13:258:G:H2'	1:13:259:G:H8	1.83	0.43
1:13:768:A:H2'	1:13:769:G:O4'	2.19	0.43
1:13:984:C:H2'	1:13:985:C:C6	2.54	0.43
1:13:1118:C:P	9:8E:104:ARG:HH11	2.42	0.43
1:13:1125:U:C5	10:1I:38:ILE:HD12	2.54	0.43
1:13:1313:U:OP2	19:AI:5:LEU:HB2	2.18	0.43
1:13:1507:A:OP2	25:4K:12:A:C2	2.72	0.43
6:5E:62:TRP:C	6:5E:63:TYR:CD1	2.97	0.43
8:7E:90:GLY:O	17:8I:34:LYS:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:85:MET:C	20:BI:87:LYS:N	2.76	0.43
26:1H:315:G:C6	26:1H:316:C:N4	2.87	0.43
26:1H:997:G:C2	26:1H:1159:U:C2	3.07	0.43
26:1H:1344:G:C6	26:1H:1385:G:N7	2.86	0.43
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.54	0.43
26:1H:1535:U:H6	26:1H:1538:G:H21	1.67	0.43
26:1H:1830:C:O2'	26:1H:1831:G:H5'	2.19	0.43
26:1H:2154:G:C2	26:1H:2155:G:C5	3.06	0.43
26:1H:2383:G:H2'	26:1H:2384:G:H5'	1.99	0.43
28:71:215:THR:OG1	28:71:220:PRO:O	2.36	0.43
39:98:2:ARG:CZ	39:98:2:ARG:HB3	2.49	0.43
46:G8:40:GLU:HA	46:G8:64:GLU:OE1	2.18	0.43
48:I8:49:LYS:HB2	48:I8:80:HIS:HB3	2.01	0.43
1:1G:51:A:C2	1:1G:353:A:N1	2.87	0.43
1:1G:922:G:N3	1:1G:1398:A:H2	2.17	0.43
1:1G:985:C:H2'	1:1G:986:A:C8	2.54	0.43
1:1G:1371:G:P	9:82:11:LYS:HG2	2.59	0.43
1:1G:1382:C:O2	24:3L:34:U:H5'	2.19	0.43
1:1G:1386:G:N3	1:1G:1387:G:C8	2.87	0.43
1:1G:1497:G:C2'	1:1G:1498:U:H5'	2.41	0.43
2:12:49:GLU:O	2:12:53:ARG:NH1	2.52	0.43
2:12:87:ARG:HH22	2:12:216:SER:HA	1.83	0.43
4:32:177:ASP:OD2	4:32:180:GLY:HA3	2.19	0.43
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.33	0.43
5:42:90:VAL:O	5:42:120:THR:HA	2.19	0.43
5:42:101:ILE:H	5:42:101:ILE:HG12	1.61	0.43
12:3A:27:LEU:HG	12:3A:33:ARG:HG2	2.00	0.43
17:8A:27:PHE:CZ	17:8A:36:ILE:HD11	2.53	0.43
22:1L:68:G:H2'	22:1L:69:A:C8	2.54	0.43
26:14:31:C:O2'	26:14:32:C:H5'	2.19	0.43
26:14:91:A:O2'	26:14:92:G:H5'	2.19	0.43
26:14:560:C:H2'	26:14:561:G:O4'	2.19	0.43
26:14:836:G:C5	26:14:837:C:C4	3.07	0.43
26:14:1003:G:O2'	26:14:1010:A:N1	2.49	0.43
26:14:1374:G:H2'	26:14:1375:C:C6	2.54	0.43
26:14:1810:A:H2'	26:14:1811:G:O4'	2.19	0.43
26:14:1858:G:H8	26:14:1858:G:OP2	2.01	0.43
26:14:2068:U:N3	26:14:2430:A:C2	2.75	0.43
26:14:2212:A:H1'	26:14:2215:G:C5	2.54	0.43
26:14:2327:A:H2'	26:14:2328:A:O4'	2.19	0.43
27:1J:15:A:H1'	27:1J:109:G:C5	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:15:PHE:CD2	41:75:81:PRO:HD3	2.53	0.43
31:39:46:ARG:HG2	31:39:46:ARG:NH1	2.31	0.43
31:39:123:LEU:HA	31:39:192:LEU:C	2.43	0.43
34:69:128:LEU:O	34:69:137:PRO:HA	2.19	0.43
37:35:75:ILE:HD13	37:35:75:ILE:H	1.84	0.43
38:45:10:ARG:HA	38:45:10:ARG:NH1	2.33	0.43
38:45:27:VAL:HB	38:45:28:ALA:O	2.18	0.43
38:45:31:ASP:O	38:45:133:ARG:O	2.36	0.43
40:65:62:LYS:HA	40:65:65:VAL:CG1	2.49	0.43
40:65:107:GLU:H	40:65:110:LEU:HD11	1.84	0.43
42:85:110:VAL:O	42:85:114:LYS:HG2	2.18	0.43
43:95:21:ARG:HG2	43:95:91:TYR:CE2	2.53	0.43
45:B5:5:TYR:CE1	50:G5:30:ARG:HG3	2.54	0.43
1:13:46:G:H2'	1:13:366:C:C5	2.54	0.42
1:13:177:C:OP2	20:BI:65:LYS:NZ	2.52	0.42
1:13:498:A:H4'	1:13:500:G:OP1	2.18	0.42
1:13:691:G:H1'	1:13:696:A:N6	2.34	0.42
1:13:1009:G:C2	1:13:1010:G:C8	3.06	0.42
2:1E:86:GLU:H	2:1E:86:GLU:HG3	1.55	0.42
5:4E:150:ARG:HE	5:4E:150:ARG:HB3	1.69	0.42
19:AI:39:THR:HG22	19:AI:40:ILE:N	2.34	0.42
23:2K:48:U:C6	23:2K:48:U:OP2	2.71	0.42
24:3K:56:C:H2'	24:3K:57:G:O4'	2.19	0.42
25:4K:14:A:H3'	25:4K:14:A:OP2	2.19	0.42
26:1H:118:A:N3	26:1H:178:G:H1'	2.34	0.42
26:1H:128:C:H2'	26:1H:129:C:C6	2.52	0.42
26:1H:515:A:H1'	26:1H:581:C:H1'	2.00	0.42
26:1H:674:G:OP2	59:1H:3774:HOH:O	2.21	0.42
26:1H:805:G:O5'	37:78:41:ARG:HG2	2.19	0.42
26:1H:1021:A:C8	26:1H:1021:A:C3'	3.01	0.42
26:1H:1061:U:H3'	26:1H:1062:G:C5'	2.49	0.42
26:1H:1591:G:O2'	26:1H:1592:C:H5'	2.19	0.42
26:1H:1982:C:H5"	26:1H:1983:C:OP2	2.18	0.42
26:1H:2839:G:H5"	39:98:46:GLY:HA2	1.99	0.42
28:71:9:ALA:O	28:71:13:LYS:HD3	2.18	0.42
30:21:201:THR:HB	30:21:203:LYS:HA	2.01	0.42
32:41:6:ALA:O	32:41:9:ARG:HB3	2.19	0.42
37:78:79:ARG:HD2	37:78:110:TYR:CE1	2.54	0.42
41:B8:108:ARG:HA	41:B8:111:ARG:HE	1.83	0.42
1:1G:278:G:O4'	1:1G:282:A:H1'	2.19	0.42
1:1G:658:G:C6	1:1G:659:U:C4	3.06	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:976:G:N7	1:1G:1358:U:H1'	2.33	0.42
1:1G:1023:G:C6	1:1G:1024:G:H1'	2.54	0.42
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.19	0.42
2:12:127:ILE:HG23	2:12:135:GLN:HE22	1.83	0.42
3:22:37:GLN:O	3:22:40:ARG:N	2.52	0.42
3:22:97:LYS:HE2	3:22:97:LYS:HB3	1.85	0.42
3:22:113:ALA:HA	3:22:202:ILE:HD11	2.01	0.42
12:3A:46:LYS:HD2	12:3A:47:LYS:HB2	2.01	0.42
13:4A:67:GLU:HG3	13:4A:68:GLY:N	2.34	0.42
26:14:199:A:N6	26:14:2434:A:C5	2.87	0.42
26:14:322:A:C5	26:14:340:A:C2	3.06	0.42
26:14:761:A:P	59:14:3532:HOH:O	2.74	0.42
26:14:933:A:C5	26:14:934:G:C8	3.07	0.42
26:14:1187:G:H5"	43:95:81:TYR:CE1	2.54	0.42
26:14:1444(A):A:HO2'	26:14:1445:C:P	2.42	0.42
26:14:2256:G:C5	26:14:2257:U:C5	3.07	0.42
26:14:2784:C:H2'	26:14:2785:C:C6	2.54	0.42
26:14:2819:G:H2'	26:14:2821:A:N7	2.34	0.42
30:29:8:LYS:HB3	30:29:192:ASN:HA	2.00	0.42
30:29:134:ILE:HD12	30:29:134:ILE:O	2.18	0.42
32:49:50:ALA:HA	32:49:53:LEU:HD23	2.01	0.42
37:35:79:ARG:HD3	37:35:110:TYR:CD2	2.53	0.42
37:35:99:LEU:HD12	37:35:102:ARG:HH11	1.82	0.42
37:35:101:VAL:HA	37:35:105:LEU:O	2.19	0.42
38:45:29:PHE:HB3	38:45:65:PHE:CZ	2.54	0.42
38:45:85:LYS:HA	38:45:85:LYS:HD3	1.93	0.42
47:D5:15:PRO:HB2	47:D5:19:ARG:NH2	2.34	0.42
48:E5:49:LYS:HB2	48:E5:82:ARG:NH2	2.35	0.42
1:13:692:U:H2'	1:13:694:A:OP2	2.19	0.42
1:13:858:G:O6	1:13:869:G:H3'	2.19	0.42
1:13:965:A:C2	1:13:969:A:C2	3.07	0.42
1:13:1051:C:H2'	1:13:1052:U:C6	2.54	0.42
1:13:1127:G:N7	1:13:1128:C:C5	2.87	0.42
8:7E:80:ILE:H	8:7E:80:ILE:HG12	1.77	0.42
9:8E:29:ASN:OD1	9:8E:65:VAL:N	2.51	0.42
10:1I:16:LEU:HA	10:1I:16:LEU:HD23	1.78	0.42
10:1I:50:ILE:CG1	10:1I:60:ARG:HH21	2.32	0.42
14:5I:6:LEU:CD1	14:5I:23:ARG:HH22	2.32	0.42
17:8I:31:LEU:HD23	17:8I:32:TYR:CE1	2.53	0.42
18:9I:25:THR:HG21	18:9I:42:ARG:HH21	1.81	0.42
22:1K:76:A:H1'	26:1H:2583:G:N2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:33:OMC:HM23	23:2K:33:OMC:H1'	1.54	0.42
26:1H:799:G:H2'	59:1H:3625:HOH:O	2.19	0.42
26:1H:1063:G:H1'	26:1H:1077:A:N7	2.34	0.42
26:1H:1918:A:N3	26:1H:1919:A:N6	2.65	0.42
26:1H:1950:G:N2	59:1H:3694:HOH:O	2.09	0.42
26:1H:2128:C:O5'	28:71:36:LYS:HE2	2.19	0.42
26:1H:2256:G:O2'	48:I8:10:THR:HB	2.20	0.42
26:1H:2299:G:N2	26:1H:2318:G:H1'	2.34	0.42
26:1H:2447:G:OP2	59:1H:3780:HOH:O	2.21	0.42
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.54	0.42
26:1H:2820:A:O5'	39:98:4:LEU:HD23	2.18	0.42
31:31:34:TRP:CZ3	37:78:8:PRO:HB3	2.54	0.42
31:31:112:MET:HB3	31:31:112:MET:HE3	1.61	0.42
31:31:155:LEU:HD11	31:31:176:LEU:HD13	2.01	0.42
33:51:169:VAL:CG1	33:51:170:ARG:N	2.82	0.42
34:61:40:THR:OG1	34:61:42:SER:N	2.50	0.42
34:61:75:LEU:HD23	34:61:105:HIS:ND1	2.34	0.42
43:D8:37:VAL:HG23	43:D8:51:VAL:HG21	1.99	0.42
43:D8:76:LYS:HD2	43:D8:81:TYR:CD2	2.54	0.42
44:E8:64:MET:HE3	44:E8:69:LEU:HD21	2.01	0.42
46:G8:87:LYS:N	46:G8:96:ILE:HD11	2.34	0.42
50:K8:15:LYS:HZ2	50:K8:67:LYS:NZ	2.17	0.42
1:1G:21:G:H2'	1:1G:22:G:C8	2.53	0.42
1:1G:663:A:H5"	18:9A:61:LYS:HE3	2.02	0.42
1:1G:685:G:N2	1:1G:686:U:C4	2.86	0.42
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.19	0.42
2:12:100:GLY:HA2	2:12:103:THR:OG1	2.19	0.42
3:22:35:GLU:HG2	3:22:39:ILE:HD11	2.01	0.42
4:32:78:LEU:HD23	4:32:78:LEU:HA	1.65	0.42
9:82:14:VAL:O	9:82:65:VAL:HG23	2.19	0.42
16:7A:9:PHE:HB2	16:7A:16:HIS:O	2.19	0.42
18:9A:53:ARG:HG3	18:9A:63:GLN:NE2	2.34	0.42
22:1L:6:G:H1	22:1L:66:A:H61	1.67	0.42
26:14:811:U:H2'	37:35:21:ARG:HA	2.01	0.42
26:14:1392:A:C6	26:14:1393:A:C6	3.08	0.42
26:14:1451:C:H6	26:14:1451:C:C5'	2.32	0.42
26:14:2461:C:H2'	26:14:2462:U:H6	1.83	0.42
27:1J:15:A:H5"	27:1J:16:G:H8	1.84	0.42
29:19:55:GLY:O	29:19:216:GLY:HA2	2.18	0.42
32:49:140:ILE:HG13	32:49:141:PHE:N	2.33	0.42
37:35:6:LEU:HD12	37:35:6:LEU:HA	1.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:21:GLU:O	41:75:91:ARG:NH2	2.52	0.42
45:B5:26:TYR:CD2	45:B5:89:ILE:HD12	2.54	0.42
47:D5:6:LYS:NZ	47:D5:43:GLU:OE1	2.45	0.42
1:13:146:G:C2	1:13:177:C:N3	2.87	0.42
1:13:176:C:OP1	20:BI:29:LYS:HE2	2.18	0.42
1:13:324:G:N2	1:13:326:G:H3'	2.34	0.42
1:13:492:G:C6	1:13:493:G:C4	3.08	0.42
1:13:711:G:H2'	1:13:712:A:H8	1.83	0.42
1:13:1000:A:H2'	1:13:1001:G:H8	1.82	0.42
1:13:1213:A:C8	1:13:1215:G:C5	3.07	0.42
1:13:1325:C:O2'	1:13:1326:C:H5'	2.18	0.42
2:1E:109:SER:O	2:1E:112:VAL:N	2.53	0.42
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.18	0.42
13:4I:25:ILE:HD11	13:4I:66:LEU:HD11	2.00	0.42
13:4I:35:GLU:C	13:4I:38:GLY:H	2.28	0.42
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.53	0.42
26:1H:855:G:C6	26:1H:856:C:C4	3.07	0.42
26:1H:2287:A:C2	26:1H:2346:A:C2	2.95	0.42
26:1H:2439:A:H5'	26:1H:2439:A:C8	2.54	0.42
26:1H:2801:A:C8	26:1H:2802:G:C8	3.07	0.42
27:16:79:C:O5'	27:16:79:C:H6	2.03	0.42
28:71:45:ALA:H	28:71:171:ILE:CG2	2.32	0.42
29:11:146:GLU:HB2	29:11:189:CYS:CB	2.46	0.42
31:31:6:VAL:HG12	31:31:7:TYR:N	2.34	0.42
33:51:4:ILE:HG23	33:51:6:ARG:NH2	2.33	0.42
35:58:128:HIS:HB2	35:58:129:PRO:HD2	2.01	0.42
38:88:37:LEU:HD23	38:88:37:LEU:HA	1.71	0.42
41:B8:110:ILE:O	41:B8:114:LEU:HB2	2.19	0.42
44:E8:18:ARG:HD3	44:E8:76:VAL:HG13	2.01	0.42
45:F8:3:THR:HG21	50:K8:29:LYS:HG3	2.00	0.42
45:F8:57:LEU:HD21	45:F8:78:LYS:NZ	2.34	0.42
49:J8:75:GLU:O	49:J8:76:ARG:C	2.61	0.42
1:1G:11:G:C5	1:1G:12:U:C5	3.07	0.42
1:1G:110:C:H2'	1:1G:111:G:O4'	2.19	0.42
1:1G:160:A:H1'	1:1G:344:A:C5	2.55	0.42
1:1G:324:G:N7	59:1G:1858:HOH:O	2.37	0.42
1:1G:567:G:N2	59:1G:1860:HOH:O	2.37	0.42
1:1G:639:G:O2'	1:1G:640:A:H5'	2.19	0.42
1:1G:674:G:N2	1:1G:717:C:O2	2.53	0.42
1:1G:693:G:H2'	1:1G:694:A:C8	2.54	0.42
1:1G:983:A:H2	1:1G:984:C:C6	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:983:A:H61	1:1G:1222:G:H22	1.67	0.42
1:1G:1258:G:H2'	1:1G:1259:C:H6	1.83	0.42
1:1G:1356:G:N2	1:1G:1367:C:C2	2.87	0.42
2:12:221:LEU:HD22	2:12:221:LEU:HA	1.96	0.42
4:32:27:TYR:O	4:32:28:SER:OG	2.36	0.42
8:72:18:ARG:HA	8:72:18:ARG:HD3	1.87	0.42
26:14:1059:G:C8	26:14:1060:U:C2	3.08	0.42
26:14:1950:G:N2	26:14:1950:G:OP2	2.52	0.42
26:14:2130:U:H1'	26:14:2159:G:O6	2.19	0.42
26:14:2151:G:H2'	26:14:2152:G:O4'	2.20	0.42
26:14:2210:G:H3'	26:14:2211:G:C8	2.55	0.42
26:14:2528:U:O2'	26:14:2530:A:OP1	2.34	0.42
26:14:2637:U:C4	26:14:2638:G:C6	3.07	0.42
29:19:124:PRO:HG2	29:19:129:ASN:HD21	1.84	0.42
32:49:103:LEU:O	32:49:106:LEU:HB3	2.19	0.42
38:45:137:TYR:N	38:45:137:TYR:CD1	2.87	0.42
39:55:34:ILE:HD12	39:55:34:ILE:HA	1.67	0.42
50:G5:25:VAL:HG12	50:G5:60:LEU:HD23	2.00	0.42
1:13:57:G:C5	1:13:58:C:C4	3.07	0.42
1:13:265:G:N2	1:13:267:C:H5'	2.34	0.42
1:13:406:G:H21	4:3E:119:GLN:NE2	2.17	0.42
1:13:495:A:H4'	1:13:496:A:OP1	2.18	0.42
1:13:690:G:H2'	1:13:691:G:O4'	2.19	0.42
1:13:1014:A:H2'	1:13:1015:A:C8	2.55	0.42
2:1E:178:ARG:HA	2:1E:178:ARG:HD3	1.73	0.42
2:1E:209:ARG:HE	2:1E:209:ARG:HB3	1.63	0.42
13:4I:40:ASN:HB3	13:4I:43:THR:CG2	2.50	0.42
26:1H:382:G:H5"	26:1H:383:U:OP2	2.18	0.42
26:1H:671:C:O2'	26:1H:672:C:H5'	2.19	0.42
26:1H:721:C:H2'	26:1H:722:A:C8	2.53	0.42
26:1H:878:A:N1	26:1H:900:A:C8	2.87	0.42
26:1H:1494:A:H2'	26:1H:1495:A:H8	1.84	0.42
26:1H:2145:C:H5	26:1H:2148:G:H21	1.66	0.42
26:1H:2303:G:O2'	26:1H:2304:G:H5'	2.19	0.42
26:1H:2388:A:C2'	26:1H:2389:G:H5'	2.49	0.42
28:71:36:LYS:HB3	28:71:37:PHE:HB2	2.01	0.42
28:71:39:GLU:HG3	28:71:178:ALA:HB2	2.02	0.42
29:11:17:THR:HG22	29:11:204:ILE:HA	2.02	0.42
32:41:109:VAL:O	32:41:113:ARG:HG3	2.19	0.42
33:51:157:TYR:O	33:51:158:HIS:CG	2.71	0.42
35:58:7:LYS:H	35:58:7:LYS:CD	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:5:ARG:CZ	38:88:5:ARG:HB2	2.49	0.42
39:98:117:VAL:O	39:98:118:GLU:HB2	2.19	0.42
40:A8:32:LEU:HD23	40:A8:32:LEU:N	2.34	0.42
47:H8:91:LEU:HD12	47:H8:96:VAL:HG21	2.01	0.42
1:1G:254:G:OP1	17:8A:67:LYS:O	2.37	0.42
1:1G:338:A:H2'	1:1G:339:C:O4'	2.20	0.42
1:1G:468:A:H2'	1:1G:474:G:O4'	2.20	0.42
1:1G:1152:A:H5'	10:1A:13:HIS:ND1	2.34	0.42
1:1G:1278:U:H5'	1:1G:1279:A:H5'	2.01	0.42
1:1G:1293:G:H2'	1:1G:1294:G:C8	2.54	0.42
1:1G:1316:G:H2'	1:1G:1317:C:H5"	2.01	0.42
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.19	0.42
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.19	0.42
15:6A:61:GLY:O	15:6A:65:ARG:HD2	2.19	0.42
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.34	0.42
26:14:226:G:H21	26:14:228:A:N6	2.16	0.42
26:14:273(D):C:N4	26:14:363(B):G:H1	2.17	0.42
26:14:775:G:C4	26:14:794:G:C8	3.07	0.42
26:14:912:C:C2	26:14:913:U:C5	3.08	0.42
26:14:973:A:H5'	26:14:1188:U:H1'	2.02	0.42
26:14:1268:A:C2	26:14:2013:A:C4	3.08	0.42
26:14:1594:G:H2'	26:14:1595:G:H8	1.84	0.42
26:14:1734:C:O5'	26:14:1734:C:H6	2.02	0.42
26:14:2032:G:O6	59:14:3649:HOH:O	2.21	0.42
26:14:2232:U:P	49:F5:40:ARG:HH22	2.42	0.42
26:14:2275:C:O2	38:45:85:LYS:HD3	2.19	0.42
26:14:2420:C:OP2	55:M5:33:ASN:HB2	2.19	0.42
26:14:2795:G:HO2'	26:14:2798:C:H5	1.65	0.42
36:25:106:LEU:HA	36:25:106:LEU:HD23	1.78	0.42
38:45:7:MET:HE2	38:45:7:MET:HB3	1.93	0.42
39:55:33:ARG:HD3	39:55:113:LEU:HG	2.01	0.42
45:B5:18:TYR:C	45:B5:20:GLY:N	2.78	0.42
47:D5:14:LYS:HA	47:D5:15:PRO:HD2	1.82	0.42
1:13:167:G:C6	1:13:168:G:C5	3.07	0.42
1:13:998:G:H2'	1:13:998(A):C:C6	2.55	0.42
1:13:1240:U:C5	7:6E:32:ARG:HD2	2.54	0.42
1:13:1423:G:P	36:68:49:ARG:HH22	2.42	0.42
2:1E:121:LEU:HA	2:1E:124:SER:HB2	2.00	0.42
3:2E:167:TRP:CD1	3:2E:168:ALA:N	2.87	0.42
5:4E:36:ASP:CG	5:4E:38:GLN:HB2	2.44	0.42
7:6E:77:SER:OG	24:3K:32:C:H4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:12:ARG:NH1	8:7E:27:PRO:HD2	2.35	0.42
8:7E:51:VAL:HG11	8:7E:60:ARG:HB2	2.02	0.42
13:4I:37:THR:OG1	13:4I:39:ILE:HD12	2.19	0.42
26:1H:34:C:OP2	26:1H:34:C:C6	2.73	0.42
26:1H:36:G:C5	26:1H:37:C:C5	3.07	0.42
26:1H:207:A:H2'	26:1H:208:C:O4'	2.19	0.42
26:1H:273(F):C:H3'	26:1H:274:G:C5'	2.46	0.42
26:1H:280:C:C2	26:1H:361:G:N2	2.87	0.42
26:1H:320:A:H2'	31:31:136:THR:HG21	2.01	0.42
26:1H:427:U:H5"	26:1H:428:A:OP1	2.19	0.42
26:1H:733:G:P	59:1H:3858:HOH:O	2.76	0.42
26:1H:945:A:C4	26:1H:2448:A:C2	3.07	0.42
26:1H:1060:U:H1'	26:1H:1061:U:OP2	2.19	0.42
26:1H:1163:G:O2'	26:1H:1164:G:H5'	2.19	0.42
26:1H:1416:G:O2'	26:1H:1417:C:OP2	2.26	0.42
26:1H:1676:A:P	59:1H:3633:HOH:O	2.71	0.42
26:1H:1680:U:O2	26:1H:1763[A]:G:H3'	2.19	0.42
26:1H:2436:G:C5	26:1H:2437:U:C5	3.08	0.42
26:1H:2480:C:H5'	26:1H:2481:G:OP2	2.20	0.42
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.19	0.42
26:1H:2702:U:H4'	26:1H:2703:C:OP1	2.19	0.42
26:1H:2749:A:H1'	33:51:63:SER:OG	2.19	0.42
26:1H:2777:G:OP2	26:1H:2781:A:O2'	2.30	0.42
26:1H:2784:C:H1'	30:21:37:ARG:NH1	2.35	0.42
27:16:59:A:H2'	27:16:60:C:H6	1.84	0.42
28:71:182:PRO:HA	28:71:185:LEU:HD12	2.01	0.42
31:31:192:LEU:HD21	31:31:194:MET:HE2	2.00	0.42
32:41:67:LYS:NZ	52:M8:6:HIS:NE2	2.57	0.42
33:51:159:GLU:HG2	33:51:169:VAL:HG21	2.02	0.42
35:58:10:GLU:HA	35:58:11:PRO:HD3	1.83	0.42
36:68:106:LEU:HD23	36:68:106:LEU:HA	1.70	0.42
41:B8:109:GLU:O	41:B8:113:LYS:HB2	2.19	0.42
43:D8:35:LEU:HD23	43:D8:35:LEU:HA	1.83	0.42
45:F8:3:THR:H	45:F8:3:THR:HG23	1.46	0.42
46:G8:55:TYR:N	46:G8:56:PRO:HD3	2.34	0.42
47:H8:109:ALA:N	47:H8:112:ARG:HG3	2.33	0.42
47:H8:133:ILE:HA	47:H8:134:PRO:HD2	1.82	0.42
52:M8:14:ILE:HG12	52:M8:15:ILE:H	1.85	0.42
1:1G:32:A:H2'	1:1G:33:A:C8	2.54	0.42
1:1G:149:A:O2'	1:1G:150:C:H5'	2.20	0.42
1:1G:316:G:N3	1:1G:316:G:H2'	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:746:A:H2'	1:1G:747:C:H6	1.85	0.42
1:1G:1417:G:H8	1:1G:1417:G:O5'	2.02	0.42
1:1G:1432:G:OP1	41:75:107:ASP:HB2	2.19	0.42
2:12:46:LYS:O	2:12:49:GLU:HB2	2.19	0.42
2:12:187:LEU:HD11	2:12:204:ASN:N	2.34	0.42
2:12:189:ASP:OD1	2:12:189:ASP:N	2.53	0.42
9:82:24:GLY:HA2	9:82:59:PHE:C	2.44	0.42
10:1A:46:ARG:NH2	14:5A:61:TRP:HZ2	2.17	0.42
17:8A:48:GLU:O	17:8A:49:GLU:C	2.63	0.42
19:AA:61:TYR:CE2	19:AA:63:THR:HA	2.54	0.42
23:2L:77:A:O2'	26:14:2602:A:N7	2.49	0.42
24:3L:30:G:C4	24:3L:31:A:C8	3.07	0.42
26:14:451:C:H41	26:14:454:A:H5'	1.83	0.42
26:14:470:A:C5'	26:14:470:A:H8	2.32	0.42
26:14:483:A:H5'	46:C5:49:VAL:HG22	2.01	0.42
26:14:631:A:H5'	59:14:4268:HOH:O	2.20	0.42
26:14:654(C):G:H2'	26:14:654(D):G:H5'	2.01	0.42
26:14:803:U:O2'	26:14:804:A:H5'	2.20	0.42
26:14:1475:G:H5'	26:14:1476:C:OP2	2.18	0.42
26:14:2274:A:C5	26:14:2276:G:C8	3.07	0.42
26:14:2319:G:H4'	26:14:2320:A:O4'	2.18	0.42
26:14:2356:C:H4'	48:E5:20:ARG:HG3	2.01	0.42
28:79:14:VAL:HG13	28:79:20:TYR:CE2	2.55	0.42
30:29:36:ARG:NH1	30:29:85:ASN:OD1	2.52	0.42
31:39:83:PHE:O	31:39:84:VAL:HB	2.19	0.42
41:75:29:ARG:HD3	41:75:44:ASP:OD2	2.19	0.42
43:95:38:LEU:O	43:95:39:LEU:HB2	2.19	0.42
47:D5:59:LEU:HD23	47:D5:59:LEU:HA	1.85	0.42
1:13:1318:A:H4'	19:AI:10:PHE:CZ	2.54	0.42
2:1E:209:ARG:NH1	2:1E:239:VAL:HG13	2.29	0.42
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.59	0.42
4:3E:31:CYS:O	4:3E:32:ALA:HB3	2.20	0.42
7:6E:105:VAL:O	7:6E:108:ALA:HB3	2.19	0.42
8:7E:87:SER:HB3	8:7E:133:LEU:O	2.20	0.42
17:8I:89:LEU:HD13	17:8I:89:LEU:HA	1.84	0.42
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.52	0.42
26:1H:185:U:H2'	26:1H:186:G:C8	2.53	0.42
26:1H:620:G:C4'	26:1H:621:A:H5"	2.33	0.42
26:1H:799:G:C2'	59:1H:3625:HOH:O	2.68	0.42
26:1H:1144:G:C6	26:1H:1145:C:N4	2.87	0.42
26:1H:1198:U:H2'	26:1H:1199:U:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1344:G:C2	26:1H:1385:G:C8	3.08	0.42
26:1H:1808:U:H2'	26:1H:1809:A:O4'	2.19	0.42
26:1H:2178:C:C5'	28:71:46:LYS:HD3	2.50	0.42
26:1H:2688:U:H1'	26:1H:2721:A:N6	2.34	0.42
26:1H:2729:G:H2'	26:1H:2730:C:H6	1.85	0.42
27:16:54:G:O2'	27:16:55:U:H5'	2.20	0.42
27:16:66:A:H61	27:16:107:U:H2'	1.84	0.42
28:71:164:ARG:HG2	28:71:165:ASN:N	2.35	0.42
29:11:69:ARG:NH1	29:11:69:ARG:HG3	2.34	0.42
30:21:116:VAL:O	30:21:117:MET:CB	2.67	0.42
37:78:144:GLU:CD	37:78:144:GLU:N	2.77	0.42
39:98:79:LEU:HA	39:98:83:ILE:HD12	2.02	0.42
47:H8:111:VAL:HG11	47:H8:146:ILE:HG13	2.00	0.42
50:K8:2:LYS:HB3	50:K8:5:GLU:CG	2.50	0.42
50:K8:40:SER:C	50:K8:42:GLY:H	2.26	0.42
54:P8:5:TRP:NE1	54:P8:7:PRO:HG3	2.34	0.42
1:1G:176:C:H2'	1:1G:177:C:H6	1.84	0.42
1:1G:243:A:H4'	1:1G:244:U:H5"	2.02	0.42
1:1G:271:C:H2'	1:1G:272:C:H6	1.83	0.42
1:1G:352:C:O2'	1:1G:354:G:OP1	2.32	0.42
1:1G:406:G:C2	1:1G:407:G:C8	3.08	0.42
1:1G:892:A:C2	1:1G:907:A:C4	3.08	0.42
1:1G:1128:C:O2	1:1G:1128:C:H2'	2.19	0.42
1:1G:1179:A:H5'	9:82:102:LEU:HD22	2.01	0.42
6:52:73:ASN:OD1	6:52:73:ASN:N	2.53	0.42
9:82:25:LYS:O	9:82:60:ASP:HB3	2.19	0.42
13:4A:23:TYR:CZ	13:4A:71:ARG:HG3	2.54	0.42
13:4A:66:LEU:O	13:4A:69:GLU:HB3	2.19	0.42
19:AA:53:ASN:HA	19:AA:77:THR:HG22	2.01	0.42
20:BA:43:LEU:HD23	20:BA:43:LEU:HA	1.87	0.42
20:BA:73:HIS:HB3	20:BA:74:LYS:HG2	2.01	0.42
26:14:480:A:N3	26:14:480:A:H2'	2.34	0.42
26:14:1019:U:H3	26:14:1142(A):A:H62	1.68	0.42
26:14:1197:G:H2'	26:14:1198:U:C6	2.55	0.42
26:14:1204:A:H61	26:14:1240:U:H2'	1.85	0.42
26:14:2139:C:C2	26:14:2153:G:N2	2.87	0.42
30:29:31:CYS:O	30:29:90:THR:HA	2.20	0.42
31:39:163:VAL:O	31:39:167:ALA:HB2	2.18	0.42
43:95:71:LEU:O	43:95:72:VAL:HG12	2.19	0.42
45:B5:57:LEU:N	45:B5:57:LEU:HD23	2.34	0.42
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:J5:45:VAL:HG22	53:J5:51:TYR:CD2	2.54	0.42
1:13:397:A:H3'	1:13:397:A:N3	2.35	0.42
1:13:419:C:H5'	1:13:513:C:H1'	2.01	0.42
1:13:524:G:C6	1:13:525:C:N4	2.88	0.42
1:13:615:C:C2	1:13:616:G:C8	3.08	0.42
1:13:619:U:H3	4:3E:134:ASP:HB2	1.85	0.42
1:13:660:G:C2	1:13:746:A:C2	3.07	0.42
1:13:827:U:H6	1:13:859:A:H61	1.68	0.42
1:13:939:G:C2	1:13:940:C:C2	3.08	0.42
1:13:1002:G:H2'	1:13:1003:G:O4'	2.19	0.42
1:13:1290:G:C4	1:13:1291:G:C8	3.07	0.42
5:4E:101:ILE:O	5:4E:120:THR:OG1	2.31	0.42
5:4E:122:GLU:HG2	5:4E:131:ILE:CD1	2.49	0.42
7:6E:51:GLN:HB2	7:6E:58:PRO:HD3	2.01	0.42
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.54	0.42
21:1F:2:GLY:C	21:1F:4:GLY:N	2.73	0.42
24:3K:65:C:H2'	24:3K:66:A:H8	1.85	0.42
26:1H:106:C:H2'	26:1H:107:C:C6	2.55	0.42
26:1H:247:G:H4'	26:1H:386:G:C5	2.55	0.42
26:1H:486:C:H4'	44:E8:60:ASN:HD22	1.85	0.42
26:1H:723:G:H2'	26:1H:724:U:O4'	2.19	0.42
26:1H:1005:C:H5"	26:1H:1006:C:OP2	2.19	0.42
26:1H:1389:G:C2	26:1H:1390:U:C2	3.08	0.42
26:1H:2536:G:C6	26:1H:2537:U:C4	3.08	0.42
26:1H:2591:C:P	29:11:239:ARG:HG3	2.60	0.42
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.20	0.42
26:1H:2847:U:C2'	26:1H:2848:G:H5'	2.49	0.42
28:71:213:TYR:CD2	28:71:221:SER:HB2	2.53	0.42
29:11:145:VAL:HB	29:11:155:LEU:HB2	2.01	0.42
32:41:51:ARG:HG3	32:41:51:ARG:H	1.69	0.42
33:51:12:PRO:HG2	33:51:13:LYS:HG2	2.02	0.42
34:61:102:SER:HA	34:61:107:VAL:O	2.20	0.42
37:78:15:ARG:HA	37:78:15:ARG:HD2	1.75	0.42
47:H8:76:LEU:HA	47:H8:83:PRO:HA	2.02	0.42
52:M8:10:VAL:HG22	52:M8:11:PRO:HD2	2.01	0.42
1:1G:113:G:O4'	1:1G:354:G:H4'	2.19	0.42
1:1G:547:A:H5'	59:1G:1819:HOH:O	2.20	0.42
1:1G:722:A:H5"	1:1G:723:U:OP2	2.19	0.42
1:1G:1148:U:OP1	9:82:7:THR:HG21	2.19	0.42
6:52:15:ASP:OD1	6:52:15:ASP:C	2.62	0.42
6:52:96:PRO:HB3	18:9A:30:ASP:OD2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:41:ARG:HD2	12:3A:42:THR:N	2.32	0.42
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.78	0.42
26:14:25:U:H5'	44:A5:79:GLY:HA2	2.01	0.42
26:14:757:U:H2'	26:14:758:C:O4'	2.20	0.42
26:14:1014:U:N3	26:14:1015:G:N7	2.67	0.42
26:14:1262:A:P	44:A5:99:ARG:HH12	2.43	0.42
26:14:1676:A:P	59:14:3519:HOH:O	2.70	0.42
26:14:2029:G:H2'	26:14:2031:A:OP1	2.19	0.42
26:14:2031:A:C6	26:14:2498:C:H1'	2.54	0.42
26:14:2117:A:C4	26:14:2118:U:H5	2.37	0.42
26:14:2280:G:O2'	26:14:2388:A:N1	2.50	0.42
26:14:2808:U:C2	26:14:2809:A:C8	3.07	0.42
27:1J:41:U:H5	32:49:70:VAL:H	1.67	0.42
33:59:8:PRO:HG2	33:59:69:ARG:NE	2.34	0.42
42:85:61:TRP:O	42:85:65:ILE:HG12	2.20	0.42
49:F5:92:LYS:HA	49:F5:95:LEU:HB2	2.00	0.42
1:13:137:C:O2'	16:7I:61:SER:O	2.38	0.42
1:13:232:G:H1'	1:13:262:A:N1	2.34	0.42
1:13:277:C:P	17:8I:68:ARG:HH12	2.42	0.42
1:13:576:G:P	59:13:1873:HOH:O	2.77	0.42
1:13:619:U:O2	4:3E:135:LEU:HD22	2.20	0.42
1:13:1159:U:O4'	1:13:1182:G:N2	2.53	0.42
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	2.00	0.42
3:2E:124:ILE:HG12	3:2E:130:VAL:HG22	2.02	0.42
3:2E:132:ARG:O	3:2E:136:GLN:HG2	2.19	0.42
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.87	0.42
5:4E:131:ILE:HD13	5:4E:131:ILE:HA	1.89	0.42
8:7E:87:SER:CB	8:7E:93:VAL:H	2.33	0.42
19:AI:37:ARG:H	19:AI:37:ARG:HG3	1.49	0.42
20:BI:30:LYS:CE	20:BI:80:ARG:HH12	2.31	0.42
24:3K:36:U:H3'	24:3K:37:A:H5"	2.02	0.42
26:1H:270(N):G:H4'	26:1H:270(O):U:C4	2.55	0.42
26:1H:991:C:N4	26:1H:992:C:H41	2.18	0.42
26:1H:991:C:C4	26:1H:1185:C:N4	2.88	0.42
26:1H:1218:C:H6	26:1H:1218:C:H5"	1.85	0.42
26:1H:1818:U:O4	29:11:154:LYS:HE3	2.20	0.42
26:1H:2272:U:O4	59:1H:3779:HOH:O	2.21	0.42
26:1H:2303:G:N2	26:1H:2313:C:O2	2.39	0.42
26:1H:2592:G:C5	26:1H:2593:U:C4	3.07	0.42
26:1H:2666:C:H5"	26:1H:2667:C:OP2	2.20	0.42
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.35	0.42
27:16:82:G:H2'	27:16:83:G:O4'	2.19	0.42
31:31:28:ILE:HG12	31:31:119:ARG:HH21	1.85	0.42
31:31:114:VAL:HG21	31:31:202:PHE:CZ	2.55	0.42
32:41:53:LEU:HD12	32:41:53:LEU:HA	1.73	0.42
33:51:58:GLU:O	33:51:60:ARG:N	2.53	0.42
38:88:11:LYS:HE2	38:88:88:GLY:O	2.20	0.42
38:88:52:VAL:O	38:88:56:ARG:HB2	2.20	0.42
39:98:105:ARG:O	39:98:105:ARG:HG3	2.20	0.42
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	2.02	0.42
41:B8:22:PHE:N	41:B8:22:PHE:CD1	2.88	0.42
45:F8:63:LYS:O	45:F8:64:LYS:HG2	2.20	0.42
48:I8:19:LYS:HD3	48:I8:19:LYS:HA	1.66	0.42
49:J8:83:GLU:C	49:J8:85:LEU:N	2.76	0.42
52:M8:13:ARG:HD2	52:M8:20:ASN:ND2	2.35	0.42
53:N8:40:LYS:HD3	53:N8:46:CYS:CA	2.46	0.42
1:1G:677:U:H3	1:1G:713:G:H22	1.66	0.42
1:1G:801:U:H2'	1:1G:802:A:C8	2.54	0.42
1:1G:842:C:O2'	1:1G:848:C:C4	2.73	0.42
1:1G:980:C:H3'	1:1G:981:U:C6	2.54	0.42
1:1G:1028(A):C:N4	1:1G:1032(B):G:H1	2.18	0.42
2:12:42:ILE:H	2:12:42:ILE:HD12	1.85	0.42
4:32:12:CYS:SG	4:32:18:LYS:HA	2.60	0.42
4:32:18:LYS:HE3	4:32:33:MET:HB2	2.02	0.42
9:82:104:ARG:O	9:82:104:ARG:HG3	2.17	0.42
11:2A:85:ARG:HE	11:2A:111:ASP:HB3	1.85	0.42
12:3A:117:ARG:HB3	12:3A:122:THR:HB	2.01	0.42
26:14:615:G:N2	31:39:44:ARG:O	2.50	0.42
26:14:904:C:H2'	26:14:905:U:O4'	2.20	0.42
26:14:910:A:N3	26:14:2264:C:O2'	2.49	0.42
26:14:1399:C:H2'	26:14:1400:G:C8	2.54	0.42
26:14:1838:C:N4	26:14:1898:U:H2'	2.34	0.42
26:14:1900:A:N1	26:14:1970:A:C6	2.88	0.42
26:14:2393:A:H2'	26:14:2394:C:O4'	2.19	0.42
26:14:2543:G:H2'	26:14:2544:G:C8	2.55	0.42
29:19:8:PRO:HB3	29:19:14:ARG:HB2	2.02	0.42
30:29:51:PHE:O	30:29:74:PRO:HB2	2.20	0.42
31:39:120:GLU:HG3	31:39:122:LYS:NZ	2.35	0.42
32:49:4:ASP:C	32:49:5:VAL:HG23	2.44	0.42
32:49:104:GLU:HG3	32:49:105:LYS:N	2.35	0.42
38:45:39:PRO:HA	38:45:97:VAL:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:77:ALA:HA	40:65:80:LEU:HB2	2.02	0.42
40:65:110:LEU:HD13	40:65:112:PHE:CZ	2.55	0.42
41:75:132:LYS:HB3	41:75:133:GLU:OE2	2.20	0.42
43:95:51:VAL:HG12	43:95:52:VAL:O	2.20	0.42
46:C5:4:LYS:H	46:C5:4:LYS:HG2	1.64	0.42
1:13:59:A:N1	59:13:1867:HOH:O	2.37	0.42
1:13:129(A):G:N1	1:13:191(A):G:C4	2.88	0.42
1:13:559:A:H4'	1:13:560:U:H5"	2.01	0.42
1:13:922:G:C6	1:13:923:A:C6	3.07	0.42
1:13:1303:C:H3'	59:13:1808:HOH:O	2.20	0.42
1:13:1442:G:C6	1:13:1446:A:C6	3.08	0.42
2:1E:96:ARG:HB2	2:1E:148:TYR:HE1	1.84	0.42
4:3E:61:LYS:HD2	4:3E:207:TYR:OH	2.20	0.42
4:3E:173:TRP:CD2	4:3E:189:PRO:HG3	2.55	0.42
5:4E:142:LEU:HD23	5:4E:142:LEU:HA	1.92	0.42
7:6E:75:VAL:HG23	7:6E:86:GLN:HB2	2.02	0.42
9:8E:127:LYS:O	9:8E:127:LYS:HG2	2.20	0.42
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.19	0.42
12:3I:60:LEU:HD13	12:3I:61:THR:N	2.35	0.42
14:5I:44:LEU:HD12	14:5I:44:LEU:C	2.45	0.42
16:7I:18:ARG:HH11	16:7I:35:LYS:NZ	2.18	0.42
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	2.00	0.42
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.52	0.42
25:4K:14:A:H3'	25:4K:14:A:P	2.60	0.42
26:1H:548:A:H2	43:D8:21:ARG:NH2	2.18	0.42
26:1H:638:G:H2'	26:1H:639:U:C6	2.54	0.42
26:1H:759:G:OP1	59:1H:3771:HOH:O	2.20	0.42
26:1H:1447:G:N7	59:1H:3904:HOH:O	2.37	0.42
26:1H:1921:G:O2'	26:1H:1922:G:H5'	2.19	0.42
26:1H:2004:G:C6	26:1H:2005:A:C4	3.08	0.42
26:1H:2235:G:H2'	26:1H:2236:C:H6	1.84	0.42
27:16:15:A:C5'	27:16:16:G:H8	2.33	0.42
40:A8:76:LYS:O	40:A8:80:LEU:HD12	2.20	0.42
41:B8:21:GLU:H	41:B8:21:GLU:HG3	1.61	0.42
41:B8:105:LEU:C	41:B8:107:ASP:H	2.28	0.42
41:B8:125:ARG:O	41:B8:129:ARG:N	2.48	0.42
42:C8:90:VAL:O	42:C8:92:ARG:N	2.53	0.42
43:D8:44:LYS:O	43:D8:45:THR:C	2.63	0.42
43:D8:49:THR:O	43:D8:50:PRO:C	2.58	0.42
44:E8:11:ARG:CZ	44:E8:98:LYS:HB3	2.49	0.42
45:F8:57:LEU:HD23	45:F8:78:LYS:HB2	1.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1167:A:C6	1:1G:1169:A:C6	3.08	0.42
1:1G:1177:G:O2'	1:1G:1178:G:O5'	2.38	0.42
1:1G:1239:A:H4'	1:1G:1240:U:H5"	2.02	0.42
1:1G:1347:G:C5	9:82:107:ARG:NH2	2.88	0.42
26:14:34:C:O2'	26:14:35:G:H8	2.03	0.42
26:14:479:A:N3	26:14:481:G:H5"	2.35	0.42
26:14:794:G:H2'	26:14:795:C:C6	2.55	0.42
26:14:928:G:H2'	26:14:929:G:O4'	2.19	0.42
26:14:1051:G:C8	26:14:1052:C:H5	2.37	0.42
26:14:2293:C:H5"	40:65:89:ARG:HH21	1.83	0.42
26:14:2688:U:C5	26:14:2720:U:OP2	2.73	0.42
28:79:171:ILE:HG12	28:79:172:HIS:H	1.85	0.42
34:69:6:LEU:HD13	34:69:37:VAL:HG22	2.02	0.42
37:35:124:LYS:HA	37:35:143:GLY:O	2.20	0.42
43:95:21:ARG:CZ	43:95:91:TYR:HE2	2.33	0.42
43:95:87:HIS:NE2	43:95:89:GLN:HB2	2.35	0.42
45:B5:8:ILE:H	45:B5:8:ILE:HD12	1.85	0.42
45:B5:18:TYR:C	45:B5:20:GLY:H	2.27	0.42
45:B5:44:GLU:OE1	45:B5:50:LYS:O	2.36	0.42
45:B5:63:LYS:H	45:B5:63:LYS:CE	2.18	0.42
45:B5:84:ALA:O	45:B5:87:GLN:HG3	2.19	0.42
47:D5:70:LEU:HD11	47:D5:98:MET:HE3	2.02	0.42
54:L5:8:ASN:C	54:L5:8:ASN:OD1	2.62	0.42
1:13:142:G:H2'	1:13:143:A:C8	2.54	0.42
1:13:453:A:C5	1:13:454:C:C5	3.08	0.42
1:13:515:G:N2	1:13:537:G:C4	2.88	0.42
1:13:652:U:O2'	1:13:653:A:P	2.78	0.42
1:13:725:G:C4	1:13:726:C:C5	3.08	0.42
1:13:941:G:H1	1:13:1342:C:H42	1.68	0.42
1:13:1123:A:O2'	10:1I:38:ILE:HG22	2.20	0.42
2:1E:20:GLU:HG3	2:1E:191:ASP:N	2.35	0.42
2:1E:31:TYR:HA	2:1E:46:LYS:HD3	2.01	0.42
2:1E:115:LEU:HD13	2:1E:145:LEU:HB3	2.00	0.42
3:2E:42:LEU:O	3:2E:46:GLU:HG2	2.19	0.42
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.01	0.42
4:3E:10:ARG:NH1	4:3E:10:ARG:HB2	2.35	0.42
8:7E:41:ARG:CZ	8:7E:123:GLU:OE1	2.65	0.42
12:3I:122:THR:HG22	12:3I:123:LYS:O	2.20	0.42
20:BI:25:ARG:O	20:BI:29:LYS:HG3	2.19	0.42
26:1H:29:U:H2'	26:1H:30:G:C8	2.55	0.42
26:1H:881:G:H3'	26:1H:881:G:N3	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:986:C:C2'	26:1H:987:G:H5'	2.50	0.42
26:1H:1209:G:H21	26:1H:1210:A:H62	1.68	0.42
26:1H:1575:C:H2'	26:1H:1576:U:C6	2.55	0.42
26:1H:1675:C:H2'	26:1H:1676:A:O4'	2.20	0.42
26:1H:1914:C:C2'	26:1H:1915:U:H5'	2.50	0.42
26:1H:2135:A:C6	26:1H:2136:C:C2	3.07	0.42
26:1H:2287:A:N6	26:1H:2344:U:H3	2.13	0.42
29:11:36:PRO:HD3	29:11:64:ILE:HG22	2.01	0.42
29:11:120:GLY:O	29:11:123:ALA:HB2	2.19	0.42
29:11:150:LYS:HA	29:11:150:LYS:HD3	1.83	0.42
34:61:125:GLU:OE1	34:61:141:LYS:HG2	2.19	0.42
37:78:100:LEU:HD13	37:78:100:LEU:HA	1.70	0.42
37:78:113:LYS:HA	37:78:129:ALA:O	2.20	0.42
38:88:79:LEU:HD12	38:88:80:GLU:CG	2.41	0.42
42:C8:39:LEU:HA	42:C8:39:LEU:HD23	1.77	0.42
47:H8:30:ASN:O	47:H8:32:HIS:N	2.53	0.42
47:H8:101:PRO:O	47:H8:102:LEU:HD23	2.20	0.42
48:I8:60:PHE:CD1	48:I8:60:PHE:N	2.88	0.42
1:1G:44:G:H2'	1:1G:45:U:O4'	2.20	0.42
1:1G:103:C:C4	1:1G:104:G:N7	2.88	0.42
1:1G:558:G:C4	1:1G:559:A:C2	3.08	0.42
1:1G:951:G:OP2	13:4A:102:ARG:NH2	2.53	0.42
1:1G:1002:G:H1	1:1G:1038:C:N4	2.17	0.42
1:1G:1191:A:H8	1:1G:1191:A:O5'	2.02	0.42
1:1G:1321:C:C5	1:1G:1322:C:C5	3.08	0.42
1:1G:1406:U:O2	1:1G:1517:G:N2	2.52	0.42
4:32:17:VAL:HG11	4:32:197:PRO:HG3	2.01	0.42
4:32:103:ASN:OD1	4:32:114:ARG:NH2	2.51	0.42
4:32:108:LEU:HD23	4:32:110:PHE:HE1	1.84	0.42
5:42:82:VAL:HG21	5:42:138:ALA:HA	2.02	0.42
6:52:15:ASP:OD1	6:52:17:SER:N	2.53	0.42
6:52:86:ARG:O	6:52:87:ARG:HG2	2.20	0.42
12:3A:98:TYR:N	12:3A:98:TYR:CD1	2.87	0.42
13:4A:37:THR:HG22	13:4A:55:ARG:NE	2.35	0.42
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	2.01	0.42
19:AA:19:VAL:HG11	19:AA:44:MET:HA	2.02	0.42
19:AA:53:ASN:OD1	19:AA:54:GLY:N	2.52	0.42
23:2L:52:C:C2	23:2L:53:G:C8	3.07	0.42
26:14:70:G:H21	26:14:71:A:N6	2.17	0.42
26:14:597:U:H2'	26:14:598:G:C8	2.55	0.42
26:14:801:G:OP2	31:39:55:GLY:HA2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:918:A:O2'	27:1J:96:G:N2	2.49	0.42
26:14:956:G:H5"	26:14:957:A:OP2	2.19	0.42
26:14:1132:A:N6	26:14:2025:C:O2	2.53	0.42
26:14:2056:G:C2	26:14:2057:A:C8	3.07	0.42
26:14:2178:C:H4'	28:79:46:LYS:HZ3	1.85	0.42
26:14:2319:G:C2	26:14:2320:A:N6	2.88	0.42
26:14:2542:A:N7	26:14:2544:G:O6	2.52	0.42
26:14:2558:C:H2'	26:14:2559:C:O4'	2.20	0.42
26:14:2839:G:H21	39:55:92:GLY:CA	2.32	0.42
31:39:182:ASN:O	31:39:186:ILE:HG12	2.19	0.42
35:15:4:TYR:CD1	42:85:100:VAL:HG11	2.55	0.42
38:45:57:HIS:CG	38:45:117:ALA:HB2	2.54	0.42
46:C5:36:ALA:HB1	46:C5:66:PRO:HB3	2.02	0.42
46:C5:40:GLU:HG3	46:C5:64:GLU:OE1	2.20	0.42
46:C5:52:SER:CB	46:C5:56:PRO:HA	2.49	0.42
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.34	0.42
1:13:112:G:P	16:7I:27:LYS:HD2	2.60	0.41
1:13:958:A:C6	1:13:959:A:C6	3.08	0.41
1:13:1010:G:H2'	1:13:1011:G:O4'	2.20	0.41
1:13:1091:U:O2	1:13:1093:A:C8	2.73	0.41
3:2E:84:ILE:HD11	3:2E:101:LEU:HD22	2.02	0.41
4:3E:155:LEU:HD23	4:3E:155:LEU:HA	1.84	0.41
7:6E:50:ILE:HD13	7:6E:125:MET:HG3	2.01	0.41
12:3I:85:ILE:HG23	12:3I:85:ILE:HD12	1.73	0.41
20:BI:50:GLU:HG2	20:BI:100:ILE:HB	2.01	0.41
24:3K:63:U:C5'	28:71:53:ARG:HH22	2.32	0.41
26:1H:668:G:O2'	26:1H:669:G:OP1	2.37	0.41
26:1H:685:A:H1'	26:1H:688:U:O4	2.19	0.41
26:1H:713:G:H2'	26:1H:714:U:C6	2.55	0.41
26:1H:775:G:N2	26:1H:794:G:H5'	2.35	0.41
26:1H:781:A:C8	29:11:219:PRO:HG2	2.55	0.41
26:1H:830:G:H3'	59:1H:4275:HOH:O	2.20	0.41
26:1H:1443:G:N2	26:1H:1549:C:C2	2.88	0.41
26:1H:1444:G:C2	26:1H:1548:C:N3	2.88	0.41
26:1H:1551:C:C2'	26:1H:1552:G:H5'	2.50	0.41
26:1H:2801:A:OP2	26:1H:2895:U:O2'	2.19	0.41
27:16:24:G:C2	27:16:56:G:C2	3.08	0.41
29:11:79:VAL:HG12	29:11:113:VAL:HA	2.01	0.41
34:61:93:THR:O	34:61:97:ILE:HG13	2.20	0.41
41:B8:42:ILE:HG21	41:B8:84:GLN:NE2	2.34	0.41
42:C8:98:LEU:O	42:C8:99:ALA:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:675:A:H1'	11:2A:116:HIS:CG	2.54	0.41
1:1G:964:A:N3	1:1G:969:A:O2'	2.49	0.41
1:1G:1101:A:H4'	1:1G:1102:A:O5'	2.19	0.41
4:32:93:PHE:O	4:32:96:LEU:HB2	2.20	0.41
6:52:24:GLU:HB3	6:52:28:ARG:NH1	2.34	0.41
8:72:120:THR:HG23	8:72:122:ARG:H	1.85	0.41
9:82:79:LEU:HD22	9:82:82:ALA:HB3	2.02	0.41
13:4A:96:LEU:C	13:4A:110:ARG:HG2	2.45	0.41
20:BA:100:ILE:HG23	20:BA:101:GLY:N	2.35	0.41
24:3L:31:A:H61	24:3L:39:U:H3	1.67	0.41
24:3L:51:A:H61	24:3L:63:U:H3	1.67	0.41
26:14:82:G:H5'	26:14:296:C:H5'	2.02	0.41
26:14:300:A:H2'	26:14:334:C:O2'	2.19	0.41
26:14:332:A:C5	26:14:335:C:C4	3.08	0.41
26:14:450:G:O6	59:14:3644:HOH:O	2.21	0.41
26:14:615:G:C8	31:39:44:ARG:NH1	2.88	0.41
26:14:997:G:O2'	26:14:998:C:H5'	2.19	0.41
26:14:1421:G:C2	26:14:1422:G:C8	3.08	0.41
26:14:2271:G:C6	26:14:2272:U:C4	3.08	0.41
26:14:2461:C:C2	26:14:2462:U:C5	3.07	0.41
30:29:107:THR:O	30:29:190:GLY:HA2	2.20	0.41
31:39:93:LYS:O	31:39:94:PRO:C	2.62	0.41
38:45:18:LYS:HA	38:45:18:LYS:HD2	1.83	0.41
41:75:7:ILE:HG13	41:75:8:LYS:N	2.35	0.41
41:75:54:ARG:HG3	41:75:59:THR:HG21	2.02	0.41
46:C5:30:VAL:O	46:C5:36:ALA:O	2.37	0.41
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.85	0.41
1:13:237:C:H5"	17:8I:25:ARG:NH1	2.36	0.41
1:13:345:C:H4'	1:13:346:G:C4	2.55	0.41
1:13:677:U:H3	1:13:713:G:H22	1.67	0.41
1:13:1064:G:H1'	1:13:1190:G:N2	2.35	0.41
1:13:1266:G:N2	1:13:1270:C:C4	2.88	0.41
1:13:1272:G:H2'	1:13:1273:G:O4'	2.20	0.41
2:1E:19:HIS:NE2	2:1E:206:ASP:HB2	2.29	0.41
2:1E:80:ILE:HD13	2:1E:212:GLN:HB2	2.00	0.41
5:4E:71:LEU:H	5:4E:71:LEU:HG	1.74	0.41
5:4E:74:GLY:O	5:4E:115:VAL:HA	2.20	0.41
13:4I:3:ARG:CZ	13:4I:9:ILE:HD11	2.50	0.41
15:6I:82:ILE:HD13	15:6I:88:ARG:HB2	2.01	0.41
24:3K:15:G:C6	24:3K:48:C:N4	2.88	0.41
24:3K:48:C:C5	24:3K:59:A:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:969:U:OP1	51:L8:17:LYS:HG2	2.19	0.41
26:1H:1598:C:H2'	26:1H:1599:C:C6	2.54	0.41
26:1H:1666:G:C2'	26:1H:1667:G:H5'	2.51	0.41
26:1H:1785:A:H2'	26:1H:1787:A:N7	2.34	0.41
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.36	0.41
26:1H:2187:G:C2	26:1H:2188:C:C2	3.08	0.41
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.20	0.41
26:1H:2456:C:O5'	26:1H:2456:C:H6	2.03	0.41
26:1H:2619:C:O2'	26:1H:2620:C:H5'	2.19	0.41
26:1H:2722:G:H2'	26:1H:2723:C:C6	2.54	0.41
27:16:40:U:H1'	27:16:45:A:H61	1.85	0.41
28:71:5:LYS:HA	28:71:8:ARG:CB	2.50	0.41
28:71:42:GLU:O	28:71:215:THR:HG22	2.20	0.41
34:61:44:LEU:HD12	34:61:44:LEU:HA	1.88	0.41
34:61:92:VAL:HG13	34:61:120:ILE:HG23	2.02	0.41
35:58:2:LYS:HA	35:58:2:LYS:HD3	1.75	0.41
35:58:59:LYS:O	35:58:61:ARG:HD2	2.20	0.41
40:A8:88:ASP:C	40:A8:90:GLY:H	2.27	0.41
44:E8:11:ARG:HH21	44:E8:99:ARG:N	2.17	0.41
46:G8:81:LYS:HD2	46:G8:99:CYS:SG	2.60	0.41
47:H8:48:PHE:CZ	47:H8:74:VAL:HG21	2.55	0.41
1:1G:244:U:C6	1:1G:894:G:N2	2.88	0.41
1:1G:509:A:O4'	4:32:58:LEU:HD12	2.20	0.41
1:1G:957:U:H2'	1:1G:959:A:OP2	2.20	0.41
1:1G:1055:A:C5	1:1G:1206:G:C2	3.08	0.41
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.56	0.41
1:1G:1429:C:H2'	1:1G:1430:C:C6	2.54	0.41
4:32:108:LEU:CD2	4:32:183:GLY:HA3	2.50	0.41
4:32:173:TRP:C	4:32:186:LEU:HB2	2.45	0.41
8:72:44:PHE:HD1	8:72:80:ILE:HG12	1.85	0.41
8:72:73:ASP:HA	8:72:74:PRO:HD2	1.69	0.41
13:4A:81:LEU:HA	13:4A:81:LEU:HD13	1.61	0.41
14:5A:32:SER:O	14:5A:32:SER:OG	2.29	0.41
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.49	0.41
22:1L:2:G:N2	22:1L:71:C:O2	2.53	0.41
24:3L:70:C:H2'	24:3L:71:C:C6	2.56	0.41
26:14:71:A:H5'	26:14:71:A:H8	1.84	0.41
26:14:308:G:H5"	26:14:309:G:OP2	2.20	0.41
26:14:513:A:C2	26:14:514:A:C4	3.08	0.41
26:14:605:C:O2	26:14:657:U:O2'	2.37	0.41
26:14:1337:G:H2'	26:14:1338:G:C8	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1585:C:O2	26:14:1585:C:H2'	2.19	0.41
26:14:2130:U:O2'	26:14:2134:A:H1'	2.20	0.41
26:14:2148:G:H2'	26:14:2149:G:C8	2.42	0.41
26:14:2228:G:C6	26:14:2229:C:C4	3.08	0.41
26:14:2780:G:OP1	35:15:118:LYS:HE2	2.21	0.41
30:29:79:ARG:H	30:29:79:ARG:HG2	1.57	0.41
37:35:111:ARG:HG2	37:35:128:HIS:CG	2.55	0.41
38:45:43:THR:HG22	38:45:94:VAL:HG12	2.02	0.41
46:C5:6:HIS:CD2	46:C5:7:VAL:HG13	2.55	0.41
47:D5:28:MET:HG3	47:D5:37:VAL:HG11	2.02	0.41
47:D5:67:LEU:HA	47:D5:68:PRO:HD3	1.87	0.41
1:13:464:G:C6	1:13:466:C:H5'	2.56	0.41
1:13:588:G:H5"	8:7E:5:PRO:HG3	2.01	0.41
1:13:628:G:H2'	1:13:629:G:H8	1.84	0.41
1:13:646:U:H2'	1:13:647:C:C6	2.54	0.41
1:13:657:G:C2	1:13:750:G:C5	3.08	0.41
1:13:684:A:O2'	11:2I:38:ASN:HB3	2.20	0.41
1:13:942:G:C2	1:13:943:U:C6	3.08	0.41
1:13:1176:A:H2'	1:13:1177:G:C1'	2.50	0.41
1:13:1182:G:H4'	1:13:1183:A:H5"	2.01	0.41
1:13:1309:G:C5	1:13:1329:A:C2	3.07	0.41
1:13:1310:G:N2	1:13:1328:C:C2	2.88	0.41
4:3E:177:ASP:OD1	4:3E:177:ASP:C	2.64	0.41
4:3E:192:GLU:CD	4:3E:192:GLU:N	2.78	0.41
5:4E:43:LEU:HD13	5:4E:109:ILE:HD11	2.03	0.41
14:5I:23:ARG:NH1	14:5I:30:ALA:HB2	2.34	0.41
17:8I:52:LYS:O	17:8I:55:ASP:HB2	2.19	0.41
19:AI:8:GLY:CA	19:AI:9:VAL:HG13	2.39	0.41
23:2K:53:G:C6	23:2K:54:G:N7	2.88	0.41
26:1H:322:A:H5'	26:1H:340:A:C1'	2.49	0.41
26:1H:365:C:P	59:1H:3743:HOH:O	2.79	0.41
26:1H:603:A:O4'	26:1H:655:A:N6	2.54	0.41
26:1H:902:C:O2'	26:1H:903:C:H5'	2.20	0.41
26:1H:990:A:H1'	26:1H:1156:A:N3	2.35	0.41
26:1H:2311:A:O2'	32:41:88:ILE:HG21	2.20	0.41
26:1H:2528:U:H2'	26:1H:2530:A:O5'	2.19	0.41
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.55	0.41
26:1H:2710:C:P	59:1H:4014:HOH:O	2.78	0.41
26:1H:2729:G:H2'	26:1H:2730:C:O4'	2.21	0.41
29:11:228:PRO:HD3	29:11:235:GLY:CA	2.50	0.41
31:31:82:ILE:HD13	31:31:82:ILE:HG21	1.80	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:67:LYS:HD2	32:41:67:LYS:O	2.20	0.41
32:41:101:ILE:HD13	32:41:102:PHE:N	2.35	0.41
32:41:115:ARG:NH1	32:41:115:ARG:HB3	2.35	0.41
37:78:108:LYS:C	37:78:110:TYR:H	2.27	0.41
38:88:118:LEU:HD23	38:88:118:LEU:HA	1.81	0.41
41:B8:12:SER:OG	41:B8:15:VAL:HG12	2.19	0.41
42:C8:28:ARG:HD3	42:C8:38:THR:OG1	2.20	0.41
44:E8:28:SER:OG	44:E8:31:GLU:HG2	2.20	0.41
46:G8:96:ILE:HG22	46:G8:101:LYS:HG2	2.02	0.41
47:H8:19:ARG:HH11	47:H8:84:GLU:HB2	1.86	0.41
54:P8:26:GLY:O	54:P8:30:VAL:HG23	2.20	0.41
55:Q8:37:SER:C	55:Q8:39:LYS:N	2.75	0.41
1:1G:664:G:H22	1:1G:741:G:H1	1.69	0.41
1:1G:960:U:O2	1:1G:960:U:O2'	2.27	0.41
1:1G:1095:U:H5"	1:1G:1109:C:O2	2.20	0.41
1:1G:1112:C:C2	3:22:178:LEU:HB2	2.55	0.41
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.84	0.41
1:1G:1145:C:H5"	1:1G:1146:A:OP1	2.20	0.41
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.34	0.41
1:1G:1525:G:OP1	11:2A:120:ARG:NH2	2.54	0.41
2:12:171:ALA:HA	2:12:174:VAL:HG23	2.01	0.41
4:32:33:MET:HE3	4:32:33:MET:HB3	1.80	0.41
8:72:11:THR:HG23	8:72:14:ARG:NH1	2.35	0.41
8:72:75:ARG:HA	8:72:76:PRO:HD2	1.86	0.41
8:72:125:ARG:HE	8:72:125:ARG:HB2	1.57	0.41
10:1A:55:LYS:NZ	10:1A:57:LYS:N	2.69	0.41
11:2A:100:ALA:C	11:2A:102:GLY:H	2.28	0.41
17:8A:31:LEU:HD23	17:8A:32:TYR:CE1	2.55	0.41
20:BA:48:LYS:O	20:BA:50:GLU:N	2.54	0.41
24:3L:22:G:C2	24:3L:23:A:C5	3.08	0.41
26:14:139:G:N3	26:14:141:A:N1	2.67	0.41
26:14:218:A:C2	26:14:235:U:H4'	2.51	0.41
26:14:376:C:OP2	59:14:3647:HOH:O	2.21	0.41
26:14:636:G:O2'	26:14:638:G:O2'	2.25	0.41
26:14:1088:A:N3	26:14:1088:A:H2'	2.35	0.41
26:14:1155:A:H3'	59:14:3742:HOH:O	2.20	0.41
26:14:1317:A:H2'	26:14:1318:C:C6	2.55	0.41
26:14:1451:C:H6	26:14:1451:C:H5"	1.85	0.41
26:14:1664:A:OP1	59:14:3635:HOH:O	2.20	0.41
26:14:2086:U:H2'	26:14:2087:G:C8	2.54	0.41
26:14:2147:G:H2'	26:14:2148:G:C4'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2286:A:H4'	26:14:2287:A:O4'	2.20	0.41
26:14:2500:U:H5"	26:14:2501:C:OP2	2.21	0.41
26:14:2727:G:O2'	36:25:70:LYS:HE2	2.19	0.41
26:14:2821:A:H3'	59:14:3510:HOH:O	2.19	0.41
27:1J:33:G:O2'	27:1J:34:U:H5'	2.20	0.41
30:29:200:GLU:OE1	30:29:200:GLU:N	2.51	0.41
31:39:178:PRO:HB3	31:39:198:ALA:HA	2.03	0.41
32:49:165:THR:OG1	32:49:168:GLU:HG3	2.20	0.41
34:69:132:PRO:C	34:69:134:PRO:HD2	2.45	0.41
38:45:11:LYS:NZ	38:45:88:GLY:O	2.42	0.41
44:A5:110:LYS:HA	44:A5:110:LYS:HD2	1.88	0.41
46:C5:87:LYS:H	46:C5:94:LYS:HG2	1.85	0.41
55:M5:34:TRP:HA	55:M5:34:TRP:CE3	2.54	0.41
1:13:44:G:C2	1:13:45:U:H1'	2.56	0.41
1:13:179:A:O2'	1:13:180:U:H5'	2.20	0.41
1:13:191(F):U:O2	20:BI:105:SER:HB2	2.19	0.41
1:13:199:G:H2'	1:13:200:G:O4'	2.20	0.41
1:13:625:G:H4'	16:7I:16:HIS:CG	2.54	0.41
1:13:663:A:H5"	18:9I:61:LYS:HE2	2.01	0.41
1:13:972:C:O5'	10:1I:57:LYS:HG2	2.20	0.41
1:13:1151:A:C2	1:13:1152:A:C5	3.08	0.41
1:13:1223:C:P	19:AI:78:ARG:NH1	2.90	0.41
1:13:1466:C:H2'	1:13:1467:G:O4'	2.21	0.41
2:1E:194:PRO:C	2:1E:196:LEU:H	2.28	0.41
3:2E:110:ASN:O	3:2E:141:VAL:HG22	2.20	0.41
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	2.02	0.41
5:4E:27:ARG:HE	5:4E:27:ARG:HB2	1.50	0.41
26:1H:106:C:H2'	26:1H:107:C:H6	1.85	0.41
26:1H:205:G:O2'	26:1H:206:U:P	2.78	0.41
26:1H:234:C:H2'	26:1H:235:U:C6	2.55	0.41
26:1H:435:C:C2'	26:1H:436:C:H5'	2.51	0.41
26:1H:709:U:H2'	26:1H:710:G:C8	2.56	0.41
26:1H:1141:U:H4'	26:1H:1142(A):A:O4'	2.20	0.41
26:1H:1206:G:C6	26:1H:1207:C:C4	3.09	0.41
26:1H:1556:C:H2'	26:1H:1557:C:C6	2.55	0.41
26:1H:1963:U:H6	26:1H:1963:U:OP1	2.03	0.41
26:1H:2367:G:H2'	26:1H:2368:C:H6	1.85	0.41
26:1H:2387:U:H1'	48:I8:41:ARG:NH2	2.35	0.41
26:1H:2597:G:O2'	26:1H:2598:A:H5'	2.19	0.41
26:1H:2721:A:OP1	59:1H:3783:HOH:O	2.22	0.41
29:11:36:PRO:CD	29:11:64:ILE:HG22	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:4:ARG:HB3	47:H8:58:VAL:CG2	2.46	0.41
48:I8:70:GLN:OE1	48:I8:72:ARG:HG3	2.19	0.41
48:I8:75:LEU:HD23	48:I8:75:LEU:HA	1.78	0.41
50:K8:48:HIS:CD2	50:K8:48:HIS:C	2.97	0.41
53:N8:40:LYS:HZ2	53:N8:46:CYS:HB3	1.86	0.41
1:1G:146:G:H2'	1:1G:147:G:C8	2.54	0.41
1:1G:719:C:H42	18:9A:71:LYS:HE2	1.85	0.41
1:1G:751:U:H4'	15:6A:24:SER:HA	2.03	0.41
1:1G:1307:U:OP1	13:4A:101:GLN:NE2	2.53	0.41
1:1G:1494:G:C2	1:1G:1495:U:C6	3.09	0.41
3:22:113:ALA:HB3	3:22:114:PRO:HD3	2.02	0.41
4:32:172:PRO:HD2	4:32:173:TRP:CZ3	2.55	0.41
5:42:69:VAL:O	5:42:71:LEU:HG	2.21	0.41
7:62:32:ARG:O	7:62:34:GLY:N	2.53	0.41
25:4L:23:A:H1'	25:4L:24:A:P	2.60	0.41
26:14:228:A:H8	26:14:228:A:H3'	1.86	0.41
26:14:354:G:H2'	26:14:355:G:O4'	2.20	0.41
26:14:975:G:C2	26:14:990:A:C8	3.07	0.41
26:14:1142(A):A:C8	26:14:1142(A):A:H5'	2.56	0.41
26:14:1464:C:C2	26:14:1465:G:C8	3.09	0.41
26:14:1727:U:H3	26:14:1733:G:H1	1.66	0.41
26:14:1967:C:H2'	26:14:1968:G:H5'	2.02	0.41
26:14:2392:A:C8	37:35:61:ARG:HD2	2.56	0.41
26:14:2695:C:H2'	26:14:2696:U:C6	2.55	0.41
30:29:103:ASP:OD1	30:29:201:THR:HG23	2.21	0.41
31:39:7:TYR:HD1	31:39:18:ARG:H	1.69	0.41
31:39:63:LYS:HG2	31:39:65:TRP:O	2.20	0.41
31:39:79:GLY:HA2	31:39:86:GLY:HA2	2.00	0.41
35:15:59:LYS:HE3	35:15:60:ILE:N	2.35	0.41
41:75:99:LEU:O	41:75:100:TYR:C	2.63	0.41
48:E5:11:ARG:O	48:E5:14:ARG:NH2	2.53	0.41
48:E5:50:ASN:C	48:E5:62:LEU:HD12	2.46	0.41
1:13:774:G:H5"	1:13:775:G:OP2	2.21	0.41
1:13:838:G:H1	1:13:848:C:H42	1.67	0.41
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.20	0.41
2:1E:216:SER:H	2:1E:216:SER:HG	1.66	0.41
3:2E:47:LEU:HG	3:2E:76:VAL:HG12	2.03	0.41
3:2E:79:ARG:NH2	11:2A:105:VAL:O	2.54	0.41
4:3E:90:GLY:N	4:3E:204:ILE:HD11	2.36	0.41
8:7E:10:LEU:HD23	8:7E:10:LEU:H	1.85	0.41
26:1H:198:C:H5'	26:1H:2244:U:OP1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:249:C:H4'	26:1H:250:G:O5'	2.20	0.41
26:1H:1665:A:H2'	26:1H:1666:G:O4'	2.20	0.41
26:1H:1791:A:C8	26:1H:1792:G:C8	3.08	0.41
26:1H:1952:A:H5"	26:1H:1953:A:OP2	2.20	0.41
26:1H:2315:G:H2'	26:1H:2316:C:C6	2.55	0.41
26:1H:2483:C:O2	38:88:124:LYS:HE3	2.20	0.41
26:1H:2545:G:H2'	26:1H:2546:U:O4'	2.21	0.41
26:1H:2599:G:O2'	26:1H:2600:A:H5'	2.20	0.41
26:1H:2852:G:H2'	26:1H:2853:C:O4'	2.21	0.41
33:51:33:LEU:HD21	33:51:136:ILE:HG22	2.03	0.41
37:78:81:GLN:OE1	37:78:106:LEU:HA	2.20	0.41
47:H8:141:VAL:O	47:H8:144:LEU:HG	2.20	0.41
49:J8:83:GLU:C	49:J8:85:LEU:H	2.29	0.41
53:N8:48:GLU:O	53:N8:49:CYS:SG	2.79	0.41
1:1G:15:G:C5	1:1G:1396:A:C2	3.09	0.41
1:1G:243:A:H62	1:1G:281:G:H1'	1.86	0.41
1:1G:297:G:N2	1:1G:300:A:OP2	2.51	0.41
1:1G:487:A:H2'	1:1G:488:C:O4'	2.21	0.41
1:1G:500:G:H2'	1:1G:501:C:C6	2.56	0.41
1:1G:930:C:C4	1:1G:931:C:C5	3.08	0.41
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.55	0.41
1:1G:1180:A:OP1	9:82:103:THR:OG1	2.38	0.41
1:1G:1221:G:OP1	1:1G:1321:C:N4	2.51	0.41
1:1G:1328:C:H2'	1:1G:1329:A:O4'	2.20	0.41
1:1G:1374:A:H2'	1:1G:1375:A:H5'	2.03	0.41
2:12:17:PHE:HA	2:12:204:ASN:OD1	2.19	0.41
2:12:24:TRP:C	2:12:24:TRP:CD1	2.98	0.41
2:12:55:PHE:CD1	2:12:221:LEU:HG	2.56	0.41
3:22:47:LEU:HB3	3:22:52:LEU:HD13	2.03	0.41
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.85	0.41
7:62:15:ASP:O	7:62:19:GLY:HA2	2.20	0.41
7:62:144:MET:C	7:62:144:MET:HE3	2.46	0.41
9:82:53:VAL:C	9:82:55:ALA:H	2.28	0.41
12:3A:56:ALA:O	12:3A:67:THR:HA	2.21	0.41
13:4A:19:LEU:HB3	13:4A:25:ILE:HG21	2.02	0.41
23:2L:28:U:O2	23:2L:45:A:C2	2.73	0.41
24:3L:15:G:C4	24:3L:59:A:C2	3.08	0.41
26:14:92:G:H2'	26:14:93:C:C6	2.55	0.41
26:14:603:A:H8	26:14:604:G:H1'	1.85	0.41
26:14:860:U:O2'	26:14:861:A:O5'	2.32	0.41
26:14:994:C:OP2	42:85:54:LYS:NZ	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1346:G:C2'	26:14:1347:G:H5'	2.50	0.41
26:14:1621:U:H3'	59:14:3523:HOH:O	2.20	0.41
26:14:1833:U:H2'	26:14:1834:U:H6	1.83	0.41
26:14:1945:G:O2'	26:14:1946:U:H5'	2.19	0.41
26:14:2274:A:O3'	26:14:2275:C:H3'	2.20	0.41
26:14:2365:G:H4'	48:E5:60:PHE:CZ	2.55	0.41
26:14:2600:A:C6	26:14:2601:C:N4	2.88	0.41
26:14:2795:G:H2'	26:14:2795:G:N3	2.35	0.41
29:19:70:TRP:O	29:19:73:VAL:HG23	2.20	0.41
39:55:59:ASP:OD2	39:55:61:HIS:HB3	2.20	0.41
41:75:60:THR:HG22	41:75:77:PRO:HA	2.03	0.41
42:85:98:LEU:CA	42:85:100:VAL:H	2.34	0.41
43:95:89:GLN:HA	43:95:90:PRO:HD3	1.91	0.41
44:A5:107:LEU:HD12	44:A5:107:LEU:HA	1.81	0.41
47:D5:157:LEU:HA	47:D5:158:PRO:HD3	1.72	0.41
53:J5:36:CYS:SG	53:J5:49:CYS:SG	3.16	0.41
1:13:34:C:H2'	1:13:35:G:C8	2.56	0.41
1:13:450:G:OP1	16:7I:43:LYS:NZ	2.50	0.41
1:13:502:G:C6	1:13:503:C:C4	3.09	0.41
1:13:534:U:H5"	1:13:535:A:OP2	2.21	0.41
1:13:616:G:C2	1:13:617:G:N7	2.89	0.41
1:13:631:G:O2'	1:13:632:A:C8	2.74	0.41
1:13:1072:G:C6	1:13:1073:U:C4	3.09	0.41
1:13:1092:A:N6	1:13:1093:A:N6	2.68	0.41
1:13:1296:C:H4'	1:13:1302:U:C5	2.56	0.41
1:13:1304:G:P	59:13:1808:HOH:O	2.77	0.41
1:13:1401:G:C2	1:13:1402:C:H1'	2.55	0.41
1:13:1409:C:H2'	1:13:1410:G:C8	2.56	0.41
2:1E:48:MET:O	2:1E:51:LEU:N	2.53	0.41
3:2E:164:ARG:HD2	3:2E:166:GLU:OE1	2.20	0.41
4:3E:12:CYS:SG	4:3E:18:LYS:HA	2.61	0.41
4:3E:120:LEU:HD23	4:3E:120:LEU:HA	1.84	0.41
4:3E:126:ILE:HG22	4:3E:127:THR:N	2.35	0.41
9:8E:48:GLU:HB3	9:8E:101:PHE:CZ	2.55	0.41
11:2I:87:THR:HA	11:2I:91:ARG:HD2	2.03	0.41
19:AI:40:ILE:CG1	19:AI:41:VAL:HG23	2.27	0.41
20:BI:74:LYS:HB3	20:BI:75:ASN:OD1	2.20	0.41
24:3K:31:A:H8	24:3K:31:A:OP2	2.04	0.41
24:3K:58:A:H4'	24:3K:59:A:OP1	2.20	0.41
26:1H:184:C:H2'	26:1H:185:U:H6	1.84	0.41
26:1H:780:G:H8	26:1H:780:G:O5'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:794:G:H2'	26:1H:795:C:C6	2.55	0.41
26:1H:806:C:C2	26:1H:807:U:C5	3.08	0.41
26:1H:832:G:H4'	37:78:45:LEU:HD11	2.01	0.41
26:1H:1309:G:H4'	54:P8:7:PRO:HB2	2.02	0.41
26:1H:1444:G:N2	26:1H:1548:C:C2	2.89	0.41
26:1H:1693:U:O2'	29:11:14:ARG:NH2	2.53	0.41
26:1H:1695:G:H2'	26:1H:1696:G:O4'	2.20	0.41
26:1H:1813:G:H1'	29:11:50:THR:OG1	2.20	0.41
26:1H:2287:A:N1	26:1H:2346:A:C2	2.83	0.41
26:1H:2334:G:C2	40:A8:12:PHE:CD1	3.08	0.41
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.55	0.41
28:71:44:HIS:O	28:71:212:VAL:HA	2.21	0.41
29:11:260:ARG:HH11	29:11:260:ARG:HD3	1.57	0.41
32:41:39:ILE:HD11	32:41:102:PHE:CZ	2.56	0.41
32:41:43:LEU:HA	32:41:45:GLU:HG2	2.03	0.41
32:41:114:ILE:HG22	32:41:115:ARG:O	2.20	0.41
39:98:57:ARG:HB3	39:98:59:ASP:OD1	2.20	0.41
41:B8:24:PRO:HA	41:B8:49:VAL:O	2.19	0.41
42:C8:97:ASP:OD1	42:C8:101:ARG:NH1	2.53	0.41
48:I8:84:LEU:HD12	48:I8:84:LEU:HA	1.83	0.41
52:M8:14:ILE:HG12	52:M8:15:ILE:N	2.36	0.41
52:M8:37:SER:HB3	52:M8:42:PHE:CD1	2.55	0.41
54:P8:10:ARG:O	54:P8:14:LYS:HB2	2.20	0.41
1:1G:516:U:C4	1:1G:517:G:C6	3.08	0.41
1:1G:543:C:C2'	1:1G:544:G:H5'	2.51	0.41
1:1G:673:G:H5"	6:52:87:ARG:NH1	2.35	0.41
1:1G:811:C:H4'	1:1G:900:A:N6	2.35	0.41
1:1G:1122:U:O4	1:1G:1123:A:N6	2.52	0.41
1:1G:1151:A:H5'	10:1A:41:PRO:HA	2.02	0.41
1:1G:1256:A:H3'	3:22:27:LYS:NZ	2.35	0.41
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.21	0.41
1:1G:1348:U:N3	1:1G:1374:A:H2	2.12	0.41
3:22:4:LYS:HE2	3:22:4:LYS:HB2	1.83	0.41
3:22:15:THR:OG1	3:22:16:ARG:N	2.47	0.41
6:52:11:ASN:O	6:52:14:LEU:HD22	2.20	0.41
7:62:15:ASP:OD1	7:62:16:LEU:N	2.54	0.41
12:3A:84:LEU:HG	12:3A:105:TYR:HE2	1.85	0.41
16:7A:18:ARG:HA	16:7A:38:TYR:HA	2.02	0.41
17:8A:18:THR:OG1	17:8A:69:LYS:NZ	2.54	0.41
17:8A:48:GLU:C	17:8A:50:LYS:N	2.77	0.41
18:9A:79:LEU:HB3	18:9A:80:PRO:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:176:G:C2'	26:14:177:G:H5'	2.50	0.41
26:14:205:G:P	59:14:3521:HOH:O	2.72	0.41
26:14:374:A:C2	26:14:401:A:C4	3.08	0.41
26:14:673:C:H4'	31:39:82:ILE:CG1	2.50	0.41
26:14:1480:G:C6	26:14:1482:U:C4	3.08	0.41
26:14:1572:A:H2'	26:14:1573:G:O4'	2.21	0.41
26:14:1692:U:H2'	26:14:1694:C:C5	2.56	0.41
26:14:1963:U:O2	26:14:1963:U:H2'	2.21	0.41
26:14:2257:U:O2'	26:14:2258:C:H5'	2.20	0.41
26:14:2401:U:H2'	26:14:2402:C:H6	1.86	0.41
26:14:2642:G:OP1	35:15:76:SER:OG	2.34	0.41
26:14:2872:G:C4	26:14:2873:A:C2	3.09	0.41
27:1J:8:U:O2'	40:65:40:ILE:HD13	2.20	0.41
29:19:6:PHE:CE1	29:19:18:VAL:HG23	2.52	0.41
31:39:6:VAL:HB	31:39:124:LEU:HA	2.02	0.41
32:49:7:LEU:HA	32:49:10:LYS:HB2	2.03	0.41
34:69:113:ARG:HA	34:69:113:ARG:HD3	1.91	0.41
34:69:133:HIS:CE1	34:69:134:PRO:HD3	2.55	0.41
37:35:29:LYS:HG2	37:35:30:THR:HG23	2.03	0.41
49:F5:4:VAL:HG11	49:F5:11:ARG:NH1	2.35	0.41
50:G5:35:LEU:HD13	50:G5:35:LEU:HA	1.89	0.41
1:13:624:C:H4'	16:7I:11:SER:N	2.35	0.41
1:13:1083:U:C5	1:13:1084:G:C6	3.09	0.41
1:13:1233:G:H2'	1:13:1234:C:H6	1.86	0.41
1:13:1326:C:H2'	1:13:1327:C:H6	1.84	0.41
2:1E:17:PHE:CD1	2:1E:44:LEU:HD11	2.53	0.41
3:2E:22:TRP:CD1	3:2E:59:ARG:HD2	2.55	0.41
6:5E:63:TYR:HB3	6:5E:65:VAL:CG1	2.50	0.41
8:7E:58:TYR:O	8:7E:59:LEU:HD23	2.19	0.41
10:1I:31:GLY:HA3	10:1I:81:THR:HG21	2.03	0.41
17:8I:48:GLU:O	17:8I:50:LYS:N	2.53	0.41
24:3K:62:C:H2'	28:71:53:ARG:HH21	1.85	0.41
26:1H:60:G:C8	26:1H:63:U:C5	3.09	0.41
26:1H:340:A:H2'	26:1H:341:G:O4'	2.21	0.41
26:1H:576:U:H2'	26:1H:577:G:C8	2.56	0.41
26:1H:1055:G:H1'	26:1H:1085:A:H2	1.84	0.41
26:1H:1164:G:C4	26:1H:1165:U:C5	3.09	0.41
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.55	0.41
26:1H:1389:G:H2'	26:1H:1390:U:C6	2.55	0.41
26:1H:1478:G:H1'	26:1H:1557:C:O2'	2.19	0.41
26:1H:1680:U:H2'	26:1H:1681:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2154:G:H8	26:1H:2154:G:O5'	2.04	0.41
26:1H:2563:U:H1'	26:1H:2566:A:N6	2.36	0.41
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.37	0.41
28:71:46:LYS:HE3	28:71:210:ARG:HE	1.86	0.41
29:11:30:GLU:HB2	29:11:35:LYS:CE	2.51	0.41
29:11:48:ARG:O	29:11:50:THR:HG23	2.21	0.41
30:21:60:ASN:ND2	30:21:60:ASN:C	2.79	0.41
30:21:116:VAL:HG13	30:21:122:PHE:CG	2.55	0.41
32:41:107:LEU:HD23	32:41:107:LEU:HA	1.86	0.41
32:41:121:ASN:OD1	32:41:123:ASN:N	2.40	0.41
33:51:13:LYS:HA	33:51:13:LYS:HD3	1.78	0.41
35:58:28:THR:HG22	35:58:29:LYS:N	2.35	0.41
38:88:54:MET:HE3	38:88:64:ILE:HG21	2.03	0.41
41:B8:29:ARG:HB2	41:B8:46:GLU:HG3	2.03	0.41
42:C8:57:PHE:O	42:C8:58:ARG:C	2.64	0.41
47:H8:14:LYS:HA	47:H8:15:PRO:HD2	1.72	0.41
1:1G:105:G:N2	1:1G:379:C:O3'	2.54	0.41
1:1G:322:C:H5	1:1G:328:C:H5	1.68	0.41
1:1G:397:A:H3'	1:1G:397:A:N3	2.35	0.41
1:1G:675:A:H2'	1:1G:676:A:O4'	2.21	0.41
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.56	0.41
1:1G:1019:C:H2'	1:1G:1020:U:C6	2.55	0.41
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.20	0.41
2:12:18:GLY:O	2:12:19:HIS:CD2	2.74	0.41
2:12:24:TRP:NE1	2:12:26:PRO:HG3	2.35	0.41
4:32:151:LYS:O	4:32:151:LYS:HD3	2.19	0.41
17:8A:29:HIS:HB3	17:8A:33:GLY:N	2.36	0.41
21:1B:6:ARG:HD3	21:1B:15:ARG:NH1	2.36	0.41
23:2L:73:A:C6	23:2L:74:A:C6	3.09	0.41
26:14:522:G:H2'	26:14:523:C:H6	1.85	0.41
26:14:732:C:H3'	59:14:3531:HOH:O	2.20	0.41
26:14:813:U:C2	26:14:1195:G:N2	2.89	0.41
26:14:1048:A:H5'	26:14:1108:U:O4	2.21	0.41
26:14:2320:A:C6	26:14:2333:A:C8	3.08	0.41
26:14:2432:A:H2'	26:14:2433:A:H8	1.80	0.41
26:14:2569:G:C2	26:14:2570:G:C8	3.09	0.41
27:1J:116:G:H5"	40:65:55:ALA:HB2	2.02	0.41
29:19:29:PRO:C	29:19:30:GLU:HG2	2.39	0.41
31:39:25:PRO:O	31:39:27:GLU:HB2	2.20	0.41
32:49:15:VAL:HG13	32:49:175:LEU:CB	2.49	0.41
32:49:181:ARG:HE	32:49:181:ARG:HB3	1.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:33:GLY:O	38:45:132:VAL:N	2.40	0.41
44:A5:62:HIS:HB2	44:A5:64:MET:HG3	2.02	0.41
45:B5:31:HIS:HA	45:B5:32:PRO:HD3	1.80	0.41
47:D5:39:VAL:HG21	47:D5:44:PHE:HB2	2.02	0.41
1:13:179:A:H2'	1:13:180:U:C6	2.56	0.41
1:13:195:A:H2	1:13:223:U:H1'	1.85	0.41
1:13:254:G:H1'	17:8I:15:MET:HG2	2.03	0.41
1:13:266:G:O2'	17:8I:67:LYS:HD3	2.21	0.41
1:13:509:A:H5'	4:3E:54:TYR:CD2	2.56	0.41
1:13:900:A:H2'	1:13:901:A:O4'	2.21	0.41
1:13:937:A:C5	1:13:938:A:N7	2.88	0.41
1:13:1124:G:N7	1:13:1145:C:O2'	2.53	0.41
2:1E:93:VAL:HG21	2:1E:97:TRP:HB2	2.03	0.41
17:8I:66:SER:OG	17:8I:69:LYS:HB2	2.20	0.41
20:BI:100:ILE:HG12	20:BI:101:GLY:H	1.86	0.41
23:2K:56:PSU:O4	23:2K:58:A:C8	2.74	0.41
24:3K:8:U:C6	24:3K:13:C:H5	2.39	0.41
26:1H:76:C:O3'	50:K8:59:ARG:HD3	2.21	0.41
26:1H:273(E):U:C2'	26:1H:273(F):C:H5'	2.50	0.41
26:1H:330:A:H2	26:1H:1210:A:H2'	1.84	0.41
26:1H:455:C:N3	26:1H:473:G:H5'	2.35	0.41
26:1H:598:G:H5'	37:78:11:GLY:HA3	2.02	0.41
26:1H:860:U:C4	26:1H:917:A:H2	2.38	0.41
26:1H:1062:G:H3'	26:1H:1063:G:C8	2.56	0.41
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.21	0.41
26:1H:1512:G:H2'	26:1H:1513:C:H6	1.86	0.41
26:1H:1630(A):C:H2'	59:1H:3688:HOH:O	2.21	0.41
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.56	0.41
26:1H:2136:C:H2'	26:1H:2137:C:O4'	2.21	0.41
26:1H:2287:A:C4	26:1H:2289:G:C8	3.08	0.41
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.83	0.41
27:16:89(A):A:N7	27:16:90:C:H1'	2.35	0.41
28:71:6:ARG:CZ	28:71:6:ARG:HB3	2.51	0.41
29:11:209:ALA:O	29:11:212:SER:N	2.48	0.41
30:21:105:THR:HG21	30:21:164:ARG:CZ	2.50	0.41
31:31:155:LEU:HD13	31:31:174:VAL:HG22	2.03	0.41
32:41:91:ARG:HD2	32:41:91:ARG:C	2.46	0.41
37:78:91:PHE:O	37:78:121:LYS:NZ	2.52	0.41
39:98:29:LEU:HD12	39:98:29:LEU:HA	1.80	0.41
44:E8:38:TYR:OH	53:N8:47:PRO:HG2	2.19	0.41
47:H8:48:PHE:HE1	47:H8:71:VAL:HG11	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:50:LEU:C	55:Q8:50:LEU:HD13	2.45	0.41
1:1G:60:A:N6	1:1G:110:C:N3	2.64	0.41
1:1G:600:C:H2'	1:1G:601:C:C6	2.56	0.41
1:1G:730:G:C5	1:1G:731:G:H1'	2.56	0.41
1:1G:937:A:C2	1:1G:1379:G:C6	3.09	0.41
1:1G:1058:G:H2'	1:1G:1059:C:O4'	2.20	0.41
1:1G:1191:A:H5"	3:22:4:LYS:HZ2	1.86	0.41
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.51	0.41
1:1G:1350:A:C2	1:1G:1351:U:C2	3.08	0.41
2:12:141:GLU:O	2:12:145:LEU:HB2	2.20	0.41
3:22:180:ALA:O	3:22:181:ASN:HB3	2.21	0.41
4:32:53:ASP:OD2	5:42:107:ARG:NH2	2.54	0.41
7:62:141:VAL:HA	7:62:142:GLU:HB2	2.03	0.41
8:72:34:GLU:HB3	8:72:118:VAL:HG21	2.03	0.41
8:72:64:LYS:HG2	8:72:79:VAL:HG21	2.02	0.41
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.36	0.41
13:4A:81:LEU:HB3	13:4A:89:GLY:HA3	2.02	0.41
26:14:23:G:O2'	26:14:24:G:H5'	2.20	0.41
26:14:99:U:H4'	26:14:102:G:H1'	2.03	0.41
26:14:228:A:H3'	26:14:228:A:C8	2.56	0.41
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.21	0.41
26:14:529:A:H8	26:14:530:G:N1	2.18	0.41
26:14:548:A:H2'	26:14:549:G:H5'	2.03	0.41
26:14:835:A:N6	26:14:836:G:C6	2.89	0.41
26:14:1429:G:C5	26:14:1568:G:C6	3.08	0.41
26:14:1477:A:H2'	26:14:1478:G:O4'	2.21	0.41
26:14:1615:C:C5	26:14:1617:C:C4	3.08	0.41
26:14:2104:G:C6	26:14:2105:C:N4	2.89	0.41
26:14:2469:A:H8	38:45:56:ARG:NH2	2.19	0.41
29:19:124:PRO:HG2	29:19:129:ASN:ND2	2.36	0.41
34:69:29:TYR:HD2	34:69:30:LEU:HD23	1.86	0.41
46:C5:19:LYS:HB3	46:C5:20:TYR:H	1.67	0.41
47:D5:52:SER:C	47:D5:54:HIS:H	2.28	0.41
1:13:22:G:H4'	1:13:885:G:C8	2.56	0.41
1:13:46:G:H2'	1:13:366:C:H5	1.85	0.41
1:13:271:C:H2'	1:13:272:C:H6	1.84	0.41
1:13:277:C:H2'	1:13:278:G:H8	1.85	0.41
1:13:486:U:H2'	1:13:487:A:C8	2.54	0.41
1:13:558:G:C4	1:13:559:A:C2	3.08	0.41
1:13:586:C:O2'	1:13:878:G:H4'	2.19	0.41
1:13:665:A:N3	1:13:732:C:H2'	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:711:G:H2'	1:13:712:A:C8	2.56	0.41
1:13:1372:U:OP1	9:8E:72:GLY:N	2.49	0.41
2:1E:111:ARG:HH11	2:1E:111:ARG:CG	2.23	0.41
2:1E:189:ASP:OD1	2:1E:189:ASP:N	2.46	0.41
3:2E:18:TRP:NE1	14:5I:55:GLY:H	2.19	0.41
5:4E:75:THR:OG1	5:4E:76:ILE:N	2.54	0.41
5:4E:77:PRO:HD2	5:4E:142:LEU:HD13	2.03	0.41
10:1I:55:LYS:O	10:1I:56:HIS:CG	2.74	0.41
12:3I:78:GLN:HG3	12:3I:79:GLU:H	1.86	0.41
14:5I:3:ARG:O	14:5I:6:LEU:HB2	2.20	0.41
15:6I:59:MET:HE2	15:6I:59:MET:HB2	1.89	0.41
16:7I:45:THR:HG1	16:7I:47:ASP:CG	2.26	0.41
16:7I:74:LEU:O	16:7I:79:VAL:HB	2.20	0.41
19:AI:3:ARG:NH1	19:AI:9:VAL:HG11	2.36	0.41
22:1K:5:C:H6	22:1K:5:C:O5'	2.04	0.41
26:1H:53:A:H2'	26:1H:54:G:O4'	2.21	0.41
26:1H:225:A:O2'	26:1H:257:A:H4'	2.21	0.41
26:1H:448:U:C4	26:1H:583:G:H1'	2.56	0.41
26:1H:465:G:H8	26:1H:465:G:O5'	2.04	0.41
26:1H:562:U:C4	26:1H:2036:C:O4'	2.73	0.41
26:1H:588:U:C2	31:31:90:PHE:CE1	3.09	0.41
26:1H:604:G:C5	26:1H:625:G:C2	3.09	0.41
26:1H:732:C:H2'	26:1H:733:G:O4'	2.21	0.41
26:1H:780:G:N2	26:1H:783:A:N6	2.59	0.41
26:1H:828:U:H4'	26:1H:831:G:N1	2.36	0.41
26:1H:975:G:H1'	26:1H:990:A:C2	2.56	0.41
26:1H:1013:C:O2'	26:1H:1014:U:H5'	2.21	0.41
26:1H:1309:G:H3'	54:P8:9:ARG:HH11	1.86	0.41
26:1H:1382:G:H2'	26:1H:1383:C:C6	2.56	0.41
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.55	0.41
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.56	0.41
26:1H:1614:A:H8	26:1H:1614:A:O5'	2.03	0.41
26:1H:1642:G:C2'	26:1H:1643:G:H5'	2.51	0.41
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.16	0.41
26:1H:1858:G:HO2'	26:1H:1859:A:P	2.42	0.41
26:1H:2064:C:H1'	26:1H:2450:A:C2	2.55	0.41
26:1H:2239:G:P	59:1H:3943:HOH:O	2.78	0.41
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.46	0.41
26:1H:2400:G:O2'	26:1H:2401:U:H5'	2.20	0.41
26:1H:2532:G:H2'	26:1H:2533:A:O4'	2.21	0.41
26:1H:2877:G:H2'	26:1H:2878:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:44:G:C2	27:16:48:A:C2	3.08	0.41
28:71:10:LEU:HD12	28:71:10:LEU:HA	1.84	0.41
28:71:171:ILE:HD12	28:71:171:ILE:HA	1.76	0.41
29:11:31:LYS:O	29:11:32:SER:C	2.64	0.41
30:21:64:LYS:HG2	30:21:65:GLY:C	2.46	0.41
30:21:97:LYS:O	30:21:100:GLU:HB2	2.20	0.41
32:41:62:LEU:HD12	32:41:62:LEU:HA	1.69	0.41
32:41:107:LEU:HD11	32:41:178:PHE:CE1	2.55	0.41
32:41:165:THR:OG1	32:41:168:GLU:HG3	2.20	0.41
37:78:18:ARG:HH21	37:78:18:ARG:CG	2.28	0.41
37:78:28:GLY:O	37:78:29:LYS:C	2.64	0.41
37:78:61:ARG:HH11	37:78:61:ARG:HG3	1.85	0.41
40:A8:14:VAL:O	40:A8:18:ILE:HG13	2.20	0.41
40:A8:36:TYR:HB3	40:A8:52:SER:HB3	2.03	0.41
41:B8:3:ARG:HA	41:B8:6:LEU:HB2	2.02	0.41
45:F8:21:PHE:CE1	45:F8:92:LEU:HD13	2.56	0.41
47:H8:7:ALA:HB3	47:H8:61:LEU:HB3	2.03	0.41
47:H8:104:PHE:HA	47:H8:139:VAL:HB	2.02	0.41
52:M8:15:ILE:HG21	52:M8:32:TYR:CE2	2.56	0.41
55:Q8:50:LEU:HA	55:Q8:50:LEU:HD22	1.78	0.41
55:Q8:60:LEU:HD12	55:Q8:60:LEU:HA	1.80	0.41
1:1G:186(A):C:O2	20:BA:105:SER:HB2	2.21	0.41
1:1G:272:C:H2'	1:1G:273:A:H8	1.86	0.41
1:1G:524:G:H2'	1:1G:525:C:C6	2.55	0.41
1:1G:583:A:H2'	1:1G:584:G:O4'	2.21	0.41
1:1G:719:C:C5	1:1G:720:C:C4	3.09	0.41
1:1G:902:G:O2'	1:1G:903:G:H5'	2.21	0.41
1:1G:1008:C:N4	1:1G:1021:G:H22	2.19	0.41
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.54	0.41
1:1G:1232:U:H2'	1:1G:1233:G:O4'	2.20	0.41
1:1G:1254:C:OP1	10:1A:45:ARG:HG3	2.21	0.41
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.56	0.41
1:1G:1276:G:H2'	1:1G:1277:C:H6	1.85	0.41
1:1G:1298:C:H4'	1:1G:1299:A:C4	2.56	0.41
3:22:21:ARG:O	3:22:58:GLU:HA	2.21	0.41
5:42:11:ILE:HD12	5:42:31:LEU:HD12	2.01	0.41
5:42:147:ASP:O	5:42:151:LEU:HD13	2.21	0.41
7:62:149:ARG:HH22	11:2A:58:PRO:HD2	1.86	0.41
9:82:95:LYS:HB3	9:82:95:LYS:NZ	2.36	0.41
10:1A:81:THR:HA	10:1A:84:GLN:NE2	2.36	0.41
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:5:LEU:HA	19:AA:6:LYS:HA	1.74	0.41
23:2L:22:A:N6	23:2L:47:G7M:H2'	2.36	0.41
26:14:55:G:H2'	26:14:56:A:H8	1.86	0.41
26:14:198:C:H4'	26:14:2243:U:O2'	2.20	0.41
26:14:384:U:H2'	26:14:385:C:C6	2.56	0.41
26:14:515:A:N1	26:14:1260:G:O2'	2.40	0.41
26:14:565:C:H4'	26:14:1253:A:C6	2.56	0.41
26:14:723:G:H2'	26:14:724:U:O4'	2.21	0.41
26:14:902:C:H2'	26:14:903:C:C6	2.56	0.41
26:14:908:C:O2'	26:14:909:A:H5'	2.21	0.41
26:14:1000:A:C4	26:14:1155:A:C6	3.09	0.41
26:14:1127:A:N1	26:14:2463:C:O2'	2.51	0.41
26:14:1159:U:H2'	26:14:1160:G:C8	2.55	0.41
26:14:1203:G:H3'	26:14:1204:A:H5"	2.02	0.41
26:14:1411:C:H2'	26:14:1412:A:C8	2.56	0.41
26:14:1463:C:H2'	26:14:1464:C:C6	2.54	0.41
26:14:1678:G:N2	26:14:1989:G:N2	2.67	0.41
26:14:1727:U:H2'	26:14:1728:G:O4'	2.21	0.41
26:14:1790:C:H2'	26:14:1791:A:C5	2.56	0.41
26:14:1914:C:H2'	26:14:1915:U:O4'	2.20	0.41
26:14:2115:G:C6	26:14:2117:A:C8	3.09	0.41
26:14:2441:C:OP2	26:14:2586:C:O2'	2.34	0.41
26:14:2524:G:C2	26:14:2540:C:C2	3.09	0.41
26:14:2599:G:C8	29:19:236:GLY:HA2	2.55	0.41
59:14:3516:HOH:O	37:35:16:ARG:HG3	2.20	0.41
27:1J:55:U:O2'	27:1J:56:G:H5'	2.21	0.41
29:19:16:MET:HE2	29:19:208:LYS:HG2	2.02	0.41
29:19:33:LEU:HD23	29:19:34:VAL:HG13	2.01	0.41
29:19:79:VAL:HG21	29:19:111:LEU:HD11	2.03	0.41
29:19:263:ARG:HE	29:19:263:ARG:HB2	1.38	0.41
32:49:40:ASN:HB2	32:49:91:ARG:HG3	2.03	0.41
32:49:43:LEU:HD12	32:49:45:GLU:OE2	2.21	0.41
32:49:117:PHE:O	32:49:117:PHE:CG	2.72	0.41
32:49:173:LEU:HD22	32:49:178:PHE:CZ	2.55	0.41
37:35:31:ALA:O	37:35:32:THR:OG1	2.37	0.41
37:35:57:THR:HG22	37:35:59:LEU:H	1.86	0.41
37:35:66:GLY:O	37:35:67:MET:HB3	2.20	0.41
37:35:134:ALA:O	37:35:138:LEU:HB2	2.20	0.41
38:45:5:ARG:HG2	38:45:5:ARG:H	1.65	0.41
41:75:45:PHE:CZ	41:75:74:ARG:HG3	2.55	0.41
42:85:76:TYR:CE1	42:85:80:ILE:HG13	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:48:GLY:HA3	43:95:51:VAL:C	2.46	0.41
45:B5:65:ARG:HG3	45:B5:67:GLY:H	1.86	0.41
47:D5:43:GLU:O	47:D5:47:VAL:HG23	2.21	0.41
47:D5:52:SER:O	47:D5:52:SER:OG	2.33	0.41
55:M5:32:LEU:HA	55:M5:32:LEU:HD12	1.62	0.41
1:13:32:A:C2	1:13:33:A:C4	3.09	0.41
1:13:255:G:P	17:8I:69:LYS:HZ3	2.42	0.41
1:13:757:U:H2'	1:13:758:G:O4'	2.20	0.41
1:13:1162:C:O5'	1:13:1162:C:H6	2.03	0.41
1:13:1190:G:H5"	3:2E:176:HIS:NE2	2.36	0.41
1:13:1397:C:H4'	1:13:1398:A:OP2	2.17	0.41
1:13:1434:A:H2'	1:13:1435:G:O4'	2.21	0.41
2:1E:178:ARG:HH11	2:1E:178:ARG:HB2	1.86	0.41
3:2E:27:LYS:O	3:2E:31:HIS:HE1	2.04	0.41
6:5E:44:GLY:O	6:5E:59:TYR:HA	2.20	0.41
7:6E:66:VAL:O	7:6E:70:LYS:HG3	2.20	0.41
8:7E:6:ILE:N	8:7E:6:ILE:HD12	2.36	0.41
18:9I:56:THR:HB	18:9I:58:LEU:HD13	2.02	0.41
22:1K:60:U:H5'	22:1K:61:C:H5	1.85	0.41
26:1H:384:U:H2'	26:1H:385:C:H6	1.85	0.41
26:1H:607:U:O2	26:1H:621:A:N1	2.54	0.41
26:1H:950:G:C6	26:1H:951:C:C4	3.08	0.41
26:1H:1162:G:H1'	43:D8:23:GLU:OE2	2.20	0.41
26:1H:1241:A:N3	26:1H:1241:A:O4'	2.53	0.41
26:1H:1252:G:H5"	59:1H:4507:HOH:O	2.21	0.41
26:1H:1647:G:P	26:1H:1647:G:H3'	2.61	0.41
26:1H:1816:G:H8	29:11:62:TYR:CZ	2.39	0.41
26:1H:1839:G:H5"	26:1H:1839:G:H8	1.85	0.41
26:1H:2084:C:H2'	26:1H:2085:C:H6	1.86	0.41
26:1H:2153:G:C6	26:1H:2154:G:C6	3.08	0.41
26:1H:2331:G:O2'	26:1H:2336:A:N1	2.44	0.41
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.55	0.41
29:11:74:GLY:O	29:11:76:PRO:HD3	2.21	0.41
30:21:8:LYS:NZ	30:21:190:GLY:O	2.47	0.41
31:31:24:LEU:HA	31:31:25:PRO:HD2	1.89	0.41
33:51:84:SER:O	33:51:133:VAL:O	2.39	0.41
35:58:30:ILE:HG22	35:58:34:LEU:HD22	2.03	0.41
35:58:94:HIS:O	35:58:97:ARG:HB2	2.20	0.41
36:68:104:ARG:NH1	41:B8:36:GLU:OE1	2.52	0.41
47:H8:77:ASP:OD2	47:H8:80:ARG:HB2	2.20	0.41
52:M8:43:TYR:HD1	52:M8:44:THR:N	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:195:A:C6	1:1G:196:A:N1	2.89	0.41
1:1G:411:A:H61	1:1G:430:A:H62	1.70	0.41
1:1G:580:U:H2'	1:1G:581:G:C8	2.56	0.41
1:1G:587:G:C2	1:1G:755:G:C5	3.09	0.41
1:1G:1129:C:OP1	1:1G:1130:A:H8	2.04	0.41
3:22:110:ASN:HB3	3:22:141:VAL:HG13	2.03	0.41
4:32:33:MET:C	4:32:35:ARG:NH1	2.77	0.41
4:32:61:LYS:HB2	4:32:203:VAL:HG22	2.02	0.41
4:32:173:TRP:O	4:32:186:LEU:HB2	2.21	0.41
6:52:35:ALA:HA	6:52:67:MET:HB3	2.03	0.41
9:82:103:THR:HG22	9:82:105:ASP:H	1.86	0.41
12:3A:79:GLU:HG2	12:3A:80:HIS:NE2	2.36	0.41
13:4A:36:LYS:HE2	13:4A:36:LYS:HB3	1.88	0.41
18:9A:40:LEU:C	18:9A:42:ARG:N	2.79	0.41
20:BA:64:ASP:OD2	20:BA:81:LYS:NZ	2.42	0.41
26:14:90:U:O2'	26:14:91:A:P	2.78	0.41
26:14:117:G:C6	26:14:119:A:C6	3.09	0.41
26:14:270(S):G:H2'	26:14:270(T):G:H8	1.86	0.41
26:14:620:G:H4'	26:14:621:A:C5'	2.50	0.41
26:14:971:C:H2'	26:14:972:G:O4'	2.21	0.41
26:14:1802:A:N1	26:14:1822:G:H1'	2.36	0.41
26:14:1992:G:N2	26:14:1996:C:O2	2.41	0.41
26:14:2129:C:H3'	26:14:2130:U:H6	1.85	0.41
26:14:2171:A:H8	26:14:2171:A:H3'	1.86	0.41
26:14:2199:A:C8	26:14:2205:C:C5	3.09	0.41
26:14:2784:C:H2'	26:14:2785:C:H6	1.86	0.41
29:19:72:LYS:HD3	29:19:97:TYR:CE2	2.56	0.41
31:39:148:LEU:HD11	31:39:193:VAL:HG21	2.03	0.41
31:39:181:LEU:CD2	31:39:186:ILE:HD11	2.51	0.41
35:15:91:LEU:HD23	35:15:91:LEU:HA	1.88	0.41
36:25:6:THR:HG22	36:25:8:LEU:HD22	2.02	0.41
36:25:7:TYR:CD1	36:25:20:MET:HB2	2.55	0.41
37:35:76:LYS:HE3	37:35:76:LYS:HB3	1.91	0.41
44:A5:96:ILE:O	44:A5:96:ILE:HG13	2.12	0.41
47:D5:31:ARG:HE	47:D5:31:ARG:HB2	1.63	0.41
47:D5:79:ARG:HD2	47:D5:80:ARG:NH1	2.36	0.41
47:D5:127:LYS:HE3	47:D5:162:GLU:HG2	2.02	0.41
49:F5:62:VAL:HB	49:F5:67:ILE:HD13	2.03	0.41
50:G5:50:ILE:O	50:G5:54:LYS:HG3	2.20	0.41
55:M5:54:GLU:OE1	55:M5:54:GLU:HA	2.20	0.41
1:13:17:U:H2'	1:13:18:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:74:C:O2	1:13:74:C:H2'	2.21	0.40
1:13:823:G:C6	1:13:878:G:C6	3.09	0.40
1:13:960:U:C2	1:13:1225:A:N7	2.89	0.40
1:13:1521:G:H2'	1:13:1522:U:C6	2.56	0.40
2:1E:213:LEU:H	2:1E:213:LEU:HG	1.49	0.40
3:2E:39:ILE:O	3:2E:43:LEU:HD12	2.21	0.40
4:3E:52:SER:O	4:3E:55:ALA:HB3	2.21	0.40
4:3E:179:GLU:HA	4:3E:179:GLU:OE1	2.21	0.40
5:4E:41:VAL:HG22	5:4E:113:ALA:HB2	2.03	0.40
5:4E:71:LEU:O	5:4E:72:GLN:NE2	2.43	0.40
8:7E:42:GLU:OE2	8:7E:120:THR:HG21	2.22	0.40
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	2.02	0.40
10:1I:16:LEU:HD12	10:1I:68:HIS:HB2	2.03	0.40
22:1K:18:G:C4	22:1K:57:G:N2	2.89	0.40
26:1H:125:G:C6	54:P8:10:ARG:HG3	2.56	0.40
26:1H:355:G:H2'	26:1H:356:G:C8	2.55	0.40
26:1H:577:G:O2'	26:1H:1254:A:OP1	2.35	0.40
26:1H:762:U:H4'	26:1H:763:G:O5'	2.21	0.40
26:1H:836:G:H5"	26:1H:837:C:OP2	2.20	0.40
26:1H:1056:G:H4'	26:1H:1086:A:N7	2.36	0.40
26:1H:1227:A:OP1	43:D8:84:LYS:HE2	2.21	0.40
26:1H:1288:U:C2	26:1H:1327:C:O2	2.74	0.40
26:1H:1357:U:C4	26:1H:1358:G:C5	3.09	0.40
26:1H:1379:A:H4'	26:1H:1380:G:OP2	2.20	0.40
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.20	0.40
26:1H:1901:A:OP2	29:11:255:LYS:HE2	2.21	0.40
26:1H:1933:G:C6	26:1H:1934:C:C4	3.09	0.40
26:1H:1982:C:OP2	59:1H:3768:HOH:O	2.19	0.40
26:1H:2067:G:O2'	26:1H:2069:G:H5"	2.21	0.40
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.56	0.40
26:1H:2136:C:H41	26:1H:2156:G:H21	1.68	0.40
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.21	0.40
26:1H:2165:G:N7	26:1H:2166:G:N2	2.69	0.40
26:1H:2566:A:H4'	26:1H:2567:G:O5'	2.21	0.40
27:16:29:A:H2'	27:16:30:C:O4'	2.21	0.40
29:11:29:PRO:HA	29:11:30:GLU:OE2	2.21	0.40
30:21:60:ASN:CG	30:21:62:PRO:HD2	2.46	0.40
33:51:6:ARG:HG2	33:51:66:GLY:N	2.36	0.40
33:51:42:ARG:H	33:51:42:ARG:HG2	1.47	0.40
33:51:83:TYR:HB3	33:51:135:GLY:H	1.86	0.40
34:61:3:VAL:HG12	34:61:38:LEU:HA	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:118:LYS:N	34:61:118:LYS:HD2	2.35	0.40
37:78:65:ARG:HD3	55:Q8:25:MET:SD	2.61	0.40
40:A8:65:VAL:O	40:A8:69:VAL:HG12	2.21	0.40
42:C8:58:ARG:O	42:C8:59:ARG:C	2.60	0.40
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	2.04	0.40
53:N8:40:LYS:HZ3	53:N8:47:PRO:N	2.19	0.40
1:1G:689:C:O2'	1:1G:690:G:H5'	2.21	0.40
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.22	0.40
1:1G:942:G:H21	9:82:124:GLN:NE2	2.19	0.40
1:1G:1016:A:H3'	1:1G:1017:G:C8	2.56	0.40
1:1G:1061:G:C4	1:1G:1197:G:N2	2.90	0.40
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.56	0.40
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.37	0.40
1:1G:1260:C:C6	1:1G:1260:C:C3'	3.04	0.40
2:12:80:ILE:HD13	2:12:212:GLN:HA	2.02	0.40
2:12:157:ARG:HG2	2:12:158:LEU:H	1.86	0.40
2:12:219:VAL:HG23	2:12:221:LEU:H	1.86	0.40
4:32:22:LYS:O	4:32:113:SER:HB3	2.21	0.40
5:42:9:LYS:HB2	5:42:112:LEU:HD11	2.03	0.40
8:72:97:VAL:HG22	8:72:129:VAL:C	2.46	0.40
11:2A:59:TYR:CE1	11:2A:63:LEU:HD21	2.56	0.40
24:3L:30:G:H2'	24:3L:31:A:C8	2.56	0.40
26:14:1327:C:O3'	39:55:105:ARG:NH2	2.54	0.40
26:14:1834:U:H4'	26:14:1969:A:C6	2.56	0.40
26:14:2414:G:H21	37:35:67:MET:HE1	1.87	0.40
26:14:2748:A:C6	26:14:2749:A:C5	3.09	0.40
26:14:2836:U:C4	26:14:2883:A:N6	2.89	0.40
28:79:47:LEU:HD22	28:79:49:ILE:HG23	2.02	0.40
35:15:23:LEU:CD1	35:15:99:LEU:HD23	2.52	0.40
35:15:67:LEU:C	35:15:88:GLU:HG3	2.46	0.40
36:25:10:VAL:HG13	36:25:17:ARG:C	2.46	0.40
37:35:96:THR:HG23	37:35:99:LEU:HB2	2.03	0.40
39:55:107:ASP:OD1	39:55:107:ASP:C	2.64	0.40
42:85:69:CYS:HG	42:85:79:PHE:HD2	1.65	0.40
46:C5:43:ASN:OD1	46:C5:43:ASN:N	2.52	0.40
47:D5:24:LEU:HA	47:D5:25:PRO:HD3	1.91	0.40
49:F5:25:LYS:HA	49:F5:29:GLY:HA2	2.03	0.40
54:L5:5:TRP:NE1	54:L5:7:PRO:HG3	2.36	0.40
1:13:160:A:N6	1:13:344:A:H2'	2.36	0.40
1:13:355:C:H2'	1:13:356:A:O4'	2.20	0.40
1:13:376:G:C5'	16:7I:5:ARG:HD2	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:909:A:H2'	1:13:910:C:O4'	2.21	0.40
1:13:1243:C:OP1	21:1F:10:ARG:HG3	2.20	0.40
1:13:1286:A:C2	21:1F:18:TYR:OH	2.74	0.40
2:1E:97:TRP:HH2	2:1E:176:GLU:HG3	1.85	0.40
2:1E:155:LEU:HA	2:1E:155:LEU:HD22	1.78	0.40
2:1E:174:VAL:O	2:1E:178:ARG:HB2	2.21	0.40
4:3E:155:LEU:O	4:3E:157:LEU:N	2.54	0.40
6:5E:5:GLU:HB3	6:5E:62:TRP:NE1	2.36	0.40
8:7E:6:ILE:HD12	8:7E:6:ILE:H	1.86	0.40
8:7E:39:LEU:HB3	8:7E:45:ILE:CG1	2.51	0.40
19:AI:15:LEU:HD13	19:AI:33:THR:HB	2.03	0.40
24:3K:13:C:H42	24:3K:22:G:H1	1.66	0.40
24:3K:61:C:H6	24:3K:61:C:O5'	2.05	0.40
24:3K:69:A:H2'	24:3K:70:C:C6	2.56	0.40
26:1H:16:G:C2	26:1H:17:G:C8	3.09	0.40
26:1H:35:G:H2'	26:1H:36:G:O4'	2.21	0.40
26:1H:450:G:O6	26:1H:453:C:OP1	2.39	0.40
26:1H:468:G:N7	54:P8:39:ARG:NH2	2.68	0.40
26:1H:483:A:O4'	46:G8:48:ALA:HB1	2.21	0.40
26:1H:700:G:H2'	26:1H:701:G:O4'	2.21	0.40
26:1H:1161:C:O2'	43:D8:8:GLY:HA2	2.21	0.40
26:1H:2592:G:N7	59:1H:3820:HOH:O	2.37	0.40
27:16:2:C:H2'	27:16:3:C:C6	2.57	0.40
30:21:119:ARG:HD2	30:21:120:TRP:CE2	2.56	0.40
30:21:143:ASN:HD22	30:21:147:PRO:HD2	1.86	0.40
31:31:39:TRP:CH2	31:31:106:ARG:NE	2.90	0.40
31:31:197:ASP:O	31:31:198:ALA:C	2.64	0.40
32:41:113:ARG:HH21	52:M8:34:GLU:CG	2.34	0.40
32:41:116:ASP:CG	32:41:117:PHE:H	2.29	0.40
35:58:38:HIS:CE1	35:58:50:ASP:OD2	2.74	0.40
35:58:127:ASP:O	35:58:128:HIS:HB3	2.20	0.40
38:88:6:ARG:HG3	38:88:7:MET:N	2.30	0.40
39:98:56:LYS:NZ	39:98:90:ARG:O	2.53	0.40
39:98:63:ARG:HG2	39:98:67:LEU:HD23	2.03	0.40
41:B8:78:LEU:O	41:B8:78:LEU:HD13	2.22	0.40
42:C8:92:ARG:C	42:C8:94:ASN:N	2.74	0.40
52:M8:15:ILE:CG2	52:M8:16:CYS:N	2.85	0.40
1:1G:46:G:O2'	1:1G:365:U:H1'	2.21	0.40
1:1G:433:C:H2'	1:1G:434:U:C6	2.56	0.40
1:1G:772:U:H2'	1:1G:773:G:O4'	2.21	0.40
1:1G:1317:C:H5"	1:1G:1318:A:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.21	0.40
1:1G:1333:A:C8	1:1G:1334:G:C8	3.09	0.40
1:1G:1363:A:C8	1:1G:1365:G:C5	3.09	0.40
1:1G:1477:C:H2'	1:1G:1478:C:O4'	2.20	0.40
2:12:111:ARG:HA	2:12:111:ARG:HD3	1.73	0.40
8:72:21:LYS:HB2	8:72:21:LYS:HE3	1.88	0.40
8:72:78:GLN:H	8:72:78:GLN:HG2	1.37	0.40
8:72:97:VAL:O	8:72:100:ILE:HG13	2.21	0.40
17:8A:4:LYS:H	17:8A:61:GLU:HB3	1.86	0.40
18:9A:74:ARG:HB3	18:9A:81:PHE:CE1	2.57	0.40
19:AA:14:HIS:CE1	19:AA:15:LEU:HD23	2.56	0.40
22:1L:50:C:N4	22:1L:64:G:H1	2.19	0.40
24:3L:59:A:H2'	24:3L:60:U:H5'	2.03	0.40
26:14:34:C:O2'	26:14:35:G:C8	2.72	0.40
26:14:64:A:H2'	26:14:65:C:O4'	2.21	0.40
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.54	0.40
26:14:1405:U:H2'	26:14:1406:U:C6	2.56	0.40
26:14:1831:G:H1	26:14:1974:C:H42	1.68	0.40
26:14:1856:G:N2	26:14:1887:C:C2	2.89	0.40
26:14:1856:G:C2	26:14:1887:C:C2	3.08	0.40
26:14:1952:A:C6	26:14:1953:A:N1	2.89	0.40
29:19:43:ARG:HB3	29:19:49:ILE:HA	2.03	0.40
30:29:31:CYS:HB2	30:29:91:VAL:HG22	2.03	0.40
31:39:27:GLU:O	31:39:28:ILE:HG12	2.21	0.40
32:49:109:VAL:O	32:49:113:ARG:HG3	2.21	0.40
34:69:124:GLY:O	34:69:142:VAL:HG23	2.20	0.40
39:55:70:LEU:O	39:55:72:ASP:N	2.55	0.40
43:95:21:ARG:HG2	43:95:91:TYR:HE2	1.86	0.40
44:A5:23:LEU:HA	44:A5:23:LEU:HD12	1.80	0.40
44:A5:45:TYR:CD1	44:A5:45:TYR:C	2.99	0.40
1:13:130:A:N3	1:13:263:A:O2'	2.43	0.40
1:13:1241:G:H1	1:13:1296:C:H42	1.69	0.40
2:1E:55:PHE:CD1	2:1E:58:ILE:HD12	2.56	0.40
3:2E:23:TYR:CD1	3:2E:23:TYR:C	2.99	0.40
4:3E:165:MET:HA	4:3E:168:ARG:HD3	2.03	0.40
8:7E:87:SER:HA	8:7E:93:VAL:HG23	2.03	0.40
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.51	0.40
20:BI:49:ALA:O	20:BI:52:ALA:N	2.55	0.40
22:1K:27:G:H1	22:1K:43:U:H3	1.68	0.40
26:1H:57:C:H2'	26:1H:58:G:O4'	2.21	0.40
26:1H:412:A:N3	26:1H:412:A:H2'	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:451:C:H4'	31:31:52:LYS:HE3	2.03	0.40
26:1H:1029:A:H2'	26:1H:1030:G:O4'	2.21	0.40
26:1H:1108:U:C4	26:1H:1109:C:N4	2.90	0.40
26:1H:1381:G:O2'	26:1H:1571:A:N1	2.50	0.40
26:1H:1542:G:C8	26:1H:1543:A:C2	3.09	0.40
26:1H:1542:G:C5	26:1H:1543:A:N1	2.89	0.40
26:1H:2402:C:H1'	26:1H:2403:C:C5	2.39	0.40
26:1H:2594:C:C2'	26:1H:2595:G:O5'	2.70	0.40
26:1H:2685:G:P	41:B8:51:ARG:HH22	2.45	0.40
30:21:182:LEU:HD12	30:21:182:LEU:HA	1.67	0.40
31:31:129:PHE:O	31:31:130:ALA:HB3	2.22	0.40
32:41:52:ILE:HD13	32:41:52:ILE:HA	1.85	0.40
32:41:174:GLU:O	32:41:177:GLY:N	2.44	0.40
34:61:134:PRO:HA	34:61:135:GLU:HG3	2.03	0.40
37:78:134:ALA:O	37:78:138:LEU:HB2	2.21	0.40
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	2.02	0.40
46:G8:20:TYR:CE2	46:G8:43:ASN:HA	2.56	0.40
46:G8:34:LYS:O	46:G8:34:LYS:HG2	2.21	0.40
47:H8:63:ASP:O	47:H8:64:GLY:C	2.64	0.40
49:J8:7:ILE:CD1	49:J8:70:VAL:HG23	2.52	0.40
50:K8:5:GLU:H	50:K8:5:GLU:HG2	1.56	0.40
1:1G:339:C:H2'	1:1G:340:U:C6	2.56	0.40
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.87	0.40
1:1G:880:C:OP1	12:3A:8:ASN:ND2	2.50	0.40
1:1G:1015:A:N3	1:1G:1218:C:O2'	2.52	0.40
1:1G:1055:A:H2'	3:22:156:ARG:HD2	2.04	0.40
2:12:219:VAL:CG2	2:12:221:LEU:H	2.35	0.40
3:22:95:THR:C	3:22:97:LYS:H	2.29	0.40
4:32:32:ALA:HA	4:32:35:ARG:HB2	2.02	0.40
4:32:108:LEU:CD1	4:32:174:LEU:HB3	2.52	0.40
4:32:154:ASN:OD1	4:32:154:ASN:N	2.54	0.40
5:42:37:ARG:HG2	5:42:112:LEU:HA	2.02	0.40
9:82:5:TYR:CE1	9:82:16:ARG:HG2	2.56	0.40
9:82:25:LYS:HA	9:82:25:LYS:HD2	1.74	0.40
14:5A:3:ARG:HA	14:5A:4:LYS:HA	1.89	0.40
19:AA:65:ASN:HB2	19:AA:66:MET:HE2	2.03	0.40
20:BA:56:MET:HE2	20:BA:56:MET:HB3	1.82	0.40
20:BA:67:ALA:HA	20:BA:73:HIS:HA	2.03	0.40
26:14:639:U:H2'	26:14:640:C:H6	1.82	0.40
26:14:872:A:C6	26:14:906:G:C2	3.10	0.40
26:14:1151:G:C2	26:14:1152:C:C2	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1384:A:N3	26:14:1405:U:H1'	2.36	0.40
26:14:1649:G:C6	26:14:2009:G:C6	3.09	0.40
27:1J:90:C:P	38:45:16:ARG:HH21	2.44	0.40
29:19:158:ALA:O	29:19:159:ALA:C	2.64	0.40
31:39:117:ARG:HD3	31:39:117:ARG:HA	1.87	0.40
32:49:15:VAL:O	32:49:19:LEU:HD12	2.20	0.40
32:49:161:THR:HG22	32:49:162:THR:N	2.37	0.40
37:35:82:GLY:HA3	37:35:115:LEU:HD11	2.03	0.40
38:45:42:ILE:HG22	38:45:47:ILE:HG13	2.03	0.40
43:95:42:GLY:C	43:95:43:GLU:HG2	2.46	0.40
46:C5:87:LYS:HB2	46:C5:94:LYS:HA	2.03	0.40
49:F5:87:PRO:O	49:F5:90:ILE:HG22	2.22	0.40
1:13:116:A:OP2	1:13:116:A:C8	2.74	0.40
1:13:142:G:C2	1:13:143:A:C4	3.09	0.40
1:13:447:G:C6	1:13:485:G:H1'	2.55	0.40
1:13:487:A:H5"	1:13:488:C:OP2	2.22	0.40
1:13:580:U:P	15:6I:54:ARG:HH21	2.43	0.40
1:13:1054:C:C2	22:1K:34:U8U:H1'	2.56	0.40
1:13:1151:A:O2'	1:13:1152:A:H8	2.04	0.40
3:2E:16:ARG:HD2	3:2E:54:ARG:HH21	1.85	0.40
6:5E:44:GLY:HA2	6:5E:59:TYR:CE1	2.56	0.40
24:3K:2:G:H3'	24:3K:3:G:C8	2.56	0.40
24:3K:22:G:OP2	24:3K:22:G:H8	2.04	0.40
26:1H:18:C:H4'	42:C8:23:GLY:O	2.20	0.40
26:1H:346:A:N3	26:1H:346:A:H2'	2.36	0.40
26:1H:1301:A:C8	26:1H:1303:G:C8	3.09	0.40
26:1H:1484:G:O6	59:1H:3781:HOH:O	2.22	0.40
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.86	0.40
26:1H:2402:C:O2'	26:1H:2403:C:OP2	2.32	0.40
26:1H:2635:C:H5"	30:21:78:LEU:HA	2.03	0.40
26:1H:2837:G:H21	39:98:45:ARG:HH21	1.70	0.40
28:71:57:ASN:HA	28:71:165:ASN:HD21	1.85	0.40
29:11:77:ALA:HB2	29:11:97:TYR:CD2	2.56	0.40
32:41:101:ILE:HG13	52:M8:25:TYR:O	2.22	0.40
33:51:88:LEU:HA	33:51:88:LEU:HD13	1.84	0.40
34:61:133:HIS:O	34:61:134:PRO:C	2.64	0.40
35:58:99:LEU:HD23	35:58:99:LEU:HA	1.90	0.40
37:78:121:LYS:HG2	37:78:122:PRO:HD2	2.03	0.40
42:C8:102:GLU:OE1	43:D8:13:ARG:NH2	2.54	0.40
46:G8:71:LYS:HB3	46:G8:71:LYS:HE3	1.75	0.40
49:J8:53:VAL:HB	49:J8:58:ILE:HD13	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:22:G:H4'	1:1G:885:G:C8	2.56	0.40
1:1G:40:C:H42	1:1G:402:G:H1	1.69	0.40
1:1G:134:A:H1'	1:1G:325:A:C5	2.56	0.40
1:1G:266:G:H5"	1:1G:267:C:C5	2.56	0.40
1:1G:976:G:C8	1:1G:1358:U:H1'	2.57	0.40
1:1G:1003:G:H21	1:1G:1005:A:P	2.42	0.40
1:1G:1068:G:N3	1:1G:1191:A:C2	2.90	0.40
1:1G:1106:G:H4'	3:22:171:GLY:O	2.22	0.40
3:22:20:SER:HB2	3:22:40:ARG:NH2	2.32	0.40
4:32:8:VAL:HG13	4:32:21:LEU:HD23	2.03	0.40
6:52:16:GLN:H	6:52:16:GLN:HG2	1.69	0.40
10:1A:75:ILE:HG13	10:1A:76:ASN:H	1.87	0.40
10:1A:94:VAL:HG12	10:1A:95:GLU:N	2.37	0.40
11:2A:95:ILE:H	11:2A:95:ILE:HG12	1.52	0.40
12:3A:51:ALA:O	12:3A:52:LEU:HD23	2.21	0.40
22:1L:73:A:O2'	22:1L:74:C:O3'	2.40	0.40
23:2L:62:C:H2'	23:2L:63:C:C6	2.55	0.40
26:14:107:C:H2'	26:14:108:U:C6	2.57	0.40
26:14:255:A:N6	26:14:256:A:C6	2.90	0.40
26:14:363(C):G:H2'	26:14:363(D):G:H8	1.85	0.40
26:14:483:A:H3'	26:14:484:C:H6	1.86	0.40
26:14:860:U:H2'	26:14:861:A:H8	1.85	0.40
26:14:940:G:N3	26:14:1191:G:H4'	2.36	0.40
26:14:942:G:H4'	26:14:1190:G:H5'	2.03	0.40
26:14:1122:G:N3	26:14:1122:G:H2'	2.35	0.40
26:14:1131:G:O6	26:14:2040:C:H1'	2.21	0.40
26:14:1491:G:O2'	26:14:1492:G:H5'	2.21	0.40
26:14:1496:A:C8	26:14:1577:C:O2'	2.75	0.40
26:14:2274:A:C6	26:14:2276:G:C8	3.09	0.40
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.55	0.40
26:14:2787:C:O2'	26:14:2810:A:O2'	2.39	0.40
26:14:2876:G:O2'	26:14:2877:G:H5'	2.22	0.40
29:19:37:LEU:HD12	29:19:37:LEU:N	2.28	0.40
29:19:72:LYS:NZ	29:19:99:ASP:OD2	2.50	0.40
31:39:123:LEU:HA	31:39:192:LEU:O	2.22	0.40
32:49:36:LYS:HG2	32:49:38:VAL:HG23	2.02	0.40
37:35:126:VAL:HG13	37:35:145:PRO:HB2	2.04	0.40
38:45:37:LEU:N	38:45:37:LEU:HD23	2.37	0.40
1:13:265:G:H2'	1:13:267:C:H5	1.87	0.40
1:13:267:C:H2'	1:13:268:C:C6	2.56	0.40
1:13:280:C:H4'	1:13:281:G:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:315:A:H4'	1:13:316:G:H5"	2.03	0.40
1:13:1237:C:H3'	1:13:1336:C:N4	2.37	0.40
1:13:1423:G:H2'	1:13:1424:C:O4'	2.22	0.40
1:13:1533:C:O3'	1:13:1534:A:H8	2.05	0.40
2:1E:11:LEU:HD23	2:1E:213:LEU:HD13	2.03	0.40
2:1E:17:PHE:HB3	2:1E:44:LEU:CG	2.49	0.40
2:1E:22:LYS:C	2:1E:24:TRP:H	2.27	0.40
3:2E:77:ILE:HG22	3:2E:81:GLY:HA2	2.03	0.40
6:5E:94:GLN:CD	6:5E:94:GLN:H	2.29	0.40
8:7E:13:ILE:HG22	8:7E:14:ARG:N	2.37	0.40
9:8E:89:ASN:OD1	9:8E:89:ASN:N	2.54	0.40
10:1I:86:MET:HB2	10:1I:86:MET:HE2	1.85	0.40
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.57	0.40
13:4I:82:MET:C	13:4I:84:ILE:N	2.79	0.40
15:6I:53:HIS:HD1	15:6I:53:HIS:C	2.30	0.40
16:7I:3:LYS:HG2	16:7I:24:ALA:HB2	2.03	0.40
24:3K:49:G:H1'	24:3K:66:A:C2	2.57	0.40
26:1H:448:U:O4	26:1H:583:G:H1'	2.20	0.40
26:1H:1319:G:C6	26:1H:1320:C:N4	2.90	0.40
26:1H:1471:A:C5	26:1H:1522:G:C6	3.10	0.40
26:1H:1511:A:H2'	26:1H:1512:G:O4'	2.22	0.40
26:1H:1647:G:H3'	26:1H:1647:G:OP2	2.21	0.40
26:1H:2014:A:H2'	26:1H:2015:A:C8	2.57	0.40
26:1H:2243:U:O2	26:1H:2434:A:C2	2.75	0.40
29:11:217:ARG:H	29:11:217:ARG:HG2	1.57	0.40
31:31:20:LEU:HD12	31:31:21:ALA:N	2.37	0.40
31:31:64:ILE:HG23	31:31:65:TRP:CD1	2.56	0.40
32:41:6:ALA:N	52:M8:23:GLU:HG3	2.36	0.40
32:41:63:ILE:HD12	32:41:141:PHE:CE1	2.56	0.40
32:41:161:THR:HG22	32:41:163:ALA:N	2.19	0.40
33:51:169:VAL:C	33:51:170:ARG:HG3	2.46	0.40
36:68:16:ALA:HB2	36:68:52:VAL:HG21	2.02	0.40
37:78:121:LYS:HE2	37:78:121:LYS:HB3	1.83	0.40
43:D8:36:PRO:C	43:D8:38:LEU:H	2.27	0.40
47:H8:76:LEU:CD2	47:H8:76:LEU:N	2.83	0.40
47:H8:132:ASN:H	47:H8:132:ASN:HD22	1.65	0.40
1:1G:167:G:C2'	1:1G:168:G:H5'	2.52	0.40
1:1G:296:U:H2'	1:1G:297:G:C8	2.56	0.40
1:1G:406:G:H5'	4:32:5:ILE:CG2	2.52	0.40
1:1G:707:C:H2'	1:1G:708:C:H6	1.86	0.40
1:1G:779:C:H2'	1:1G:780:A:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:808:C:OP1	15:6A:48:LYS:HE2	2.21	0.40
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.87	0.40
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.36	0.40
1:1G:1362:C:H2'	1:1G:1362(A):C:H5"	2.04	0.40
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.57	0.40
9:82:17:VAL:HG21	9:82:80:GLY:HA3	2.04	0.40
9:82:112:LYS:CA	9:82:119:ALA:HB2	2.36	0.40
11:2A:120:ARG:HA	11:2A:121:PRO:HD2	1.92	0.40
14:5A:42:ILE:HD12	14:5A:42:ILE:H	1.87	0.40
20:BA:11:SER:HA	20:BA:13:LEU:HD23	2.02	0.40
26:14:30:G:O2'	26:14:1214:A:N3	2.40	0.40
26:14:175:G:N7	59:14:3751:HOH:O	2.37	0.40
26:14:297:C:N4	26:14:298:G:C6	2.90	0.40
26:14:303:U:H2'	26:14:304:G:C8	2.56	0.40
26:14:342:G:C6	26:14:343:C:C4	3.09	0.40
26:14:616:A:C8	31:39:176:LEU:HD11	2.56	0.40
26:14:932:G:H4'	26:14:933:A:O5'	2.21	0.40
26:14:945:A:C5	26:14:2448:A:C4	3.10	0.40
26:14:952:G:C6	26:14:966:G:C6	3.10	0.40
26:14:973:A:O4'	26:14:1188:U:C6	2.75	0.40
26:14:1035:U:H2'	26:14:1036:G:H8	1.85	0.40
26:14:1287:A:C5	26:14:1288:U:C4	3.09	0.40
26:14:1306:C:H1'	26:14:1623:G:N2	2.36	0.40
26:14:1525:G:H2'	26:14:1526:G:C8	2.57	0.40
26:14:1772:G:N2	59:14:3514:HOH:O	2.47	0.40
26:14:2244:U:O5'	26:14:2244:U:H6	2.04	0.40
26:14:2315:G:H2'	26:14:2316:C:C6	2.57	0.40
29:19:72:LYS:HG3	29:19:103:ARG:NH2	2.36	0.40
31:39:25:PRO:HB3	31:39:28:ILE:HG23	2.02	0.40
31:39:27:GLU:HB3	31:39:28:ILE:H	1.72	0.40
53:J5:37:LYS:HD2	53:J5:37:LYS:HA	1.71	0.40
53:J5:48:GLU:H	53:J5:48:GLU:HG2	1.62	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	12	203/256 (79%)	165 (81%)	33 (16%)	5 (2%)	4 13
2	1E	227/256 (89%)	187 (82%)	39 (17%)	1 (0%)	30 53
3	22	191/239 (80%)	165 (86%)	25 (13%)	1 (0%)	24 49
3	2E	203/239 (85%)	183 (90%)	20 (10%)	0	100 100
4	32	206/209 (99%)	181 (88%)	23 (11%)	2 (1%)	12 32
4	3E	205/209 (98%)	191 (93%)	13 (6%)	1 (0%)	24 49
5	42	147/162 (91%)	138 (94%)	9 (6%)	0	100 100
5	4E	147/162 (91%)	138 (94%)	8 (5%)	1 (1%)	18 40
6	52	99/101 (98%)	97 (98%)	2 (2%)	0	100 100
6	5E	98/101 (97%)	92 (94%)	6 (6%)	0	100 100
7	62	136/156 (87%)	123 (90%)	13 (10%)	0	100 100
7	6E	152/156 (97%)	144 (95%)	8 (5%)	0	100 100
8	72	135/138 (98%)	123 (91%)	9 (7%)	3 (2%)	5 15
8	7E	136/138 (99%)	124 (91%)	10 (7%)	2 (2%)	8 23
9	82	119/128 (93%)	110 (92%)	8 (7%)	1 (1%)	16 37
9	8E	124/128 (97%)	106 (86%)	18 (14%)	0	100 100
10	1A	76/105 (72%)	72 (95%)	4 (5%)	0	100 100
10	1I	93/105 (89%)	84 (90%)	9 (10%)	0	100 100
11	2A	111/129 (86%)	101 (91%)	8 (7%)	2 (2%)	6 19
11	2I	109/129 (84%)	98 (90%)	9 (8%)	2 (2%)	6 19
12	3A	120/132 (91%)	102 (85%)	14 (12%)	4 (3%)	3 7
12	3I	120/132 (91%)	106 (88%)	13 (11%)	1 (1%)	16 37
13	4A	109/126 (86%)	91 (84%)	15 (14%)	3 (3%)	4 11
13	4I	117/126 (93%)	97 (83%)	20 (17%)	0	100 100
14	5A	57/61 (93%)	47 (82%)	9 (16%)	1 (2%)	6 19
14	5I	58/61 (95%)	48 (83%)	8 (14%)	2 (3%)	3 7
15	6A	85/89 (96%)	81 (95%)	4 (5%)	0	100 100
15	6I	85/89 (96%)	77 (91%)	8 (9%)	0	100 100
16	7A	82/88 (93%)	74 (90%)	8 (10%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
16	7I	81/88 (92%)	77 (95%)	4 (5%)	0	100 100
17	8A	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
17	8I	98/105 (93%)	92 (94%)	5 (5%)	1 (1%)	12 32
18	9A	65/88 (74%)	64 (98%)	1 (2%)	0	100 100
18	9I	66/88 (75%)	61 (92%)	4 (6%)	1 (2%)	8 23
19	AA	56/93 (60%)	48 (86%)	6 (11%)	2 (4%)	2 6
19	AI	80/93 (86%)	68 (85%)	8 (10%)	4 (5%)	1 3
20	BA	97/106 (92%)	79 (81%)	15 (16%)	3 (3%)	3 8
20	BI	95/106 (90%)	84 (88%)	11 (12%)	0	100 100
21	1B	20/27 (74%)	19 (95%)	1 (5%)	0	100 100
21	1F	21/27 (78%)	20 (95%)	1 (5%)	0	100 100
28	71	129/229 (56%)	122 (95%)	7 (5%)	0	100 100
28	79	45/229 (20%)	43 (96%)	2 (4%)	0	100 100
29	11	271/276 (98%)	237 (88%)	25 (9%)	9 (3%)	3 7
29	19	272/276 (99%)	240 (88%)	25 (9%)	7 (3%)	4 12
30	21	201/206 (98%)	155 (77%)	37 (18%)	9 (4%)	2 4
30	29	202/206 (98%)	152 (75%)	37 (18%)	13 (6%)	1 2
31	31	200/210 (95%)	181 (90%)	19 (10%)	0	100 100
31	39	202/210 (96%)	155 (77%)	40 (20%)	7 (4%)	3 7
32	41	177/182 (97%)	156 (88%)	19 (11%)	2 (1%)	11 29
32	49	179/182 (98%)	155 (87%)	22 (12%)	2 (1%)	11 29
33	51	172/180 (96%)	142 (83%)	20 (12%)	10 (6%)	1 2
33	59	64/180 (36%)	48 (75%)	13 (20%)	3 (5%)	2 4
34	61	144/148 (97%)	116 (81%)	25 (17%)	3 (2%)	5 16
34	69	143/148 (97%)	115 (80%)	24 (17%)	4 (3%)	4 11
35	15	136/140 (97%)	121 (89%)	14 (10%)	1 (1%)	18 40
35	58	135/140 (96%)	115 (85%)	15 (11%)	5 (4%)	2 6
36	25	120/122 (98%)	110 (92%)	9 (8%)	1 (1%)	16 37
36	68	120/122 (98%)	111 (92%)	9 (8%)	0	100 100
37	35	145/150 (97%)	118 (81%)	26 (18%)	1 (1%)	18 40
37	78	145/150 (97%)	114 (79%)	21 (14%)	10 (7%)	1 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
38	45	137/141 (97%)	111 (81%)	23 (17%)	3 (2%)	5 15
38	88	139/141 (99%)	116 (84%)	16 (12%)	7 (5%)	1 3
39	55	116/118 (98%)	110 (95%)	5 (4%)	1 (1%)	14 34
39	98	116/118 (98%)	99 (85%)	15 (13%)	2 (2%)	7 20
40	65	108/112 (96%)	89 (82%)	16 (15%)	3 (3%)	4 11
40	A8	109/112 (97%)	89 (82%)	20 (18%)	0	100 100
41	75	131/146 (90%)	118 (90%)	11 (8%)	2 (2%)	8 23
41	B8	134/146 (92%)	119 (89%)	14 (10%)	1 (1%)	18 40
42	85	114/118 (97%)	102 (90%)	9 (8%)	3 (3%)	4 12
42	C8	113/118 (96%)	102 (90%)	8 (7%)	3 (3%)	4 11
43	95	98/101 (97%)	80 (82%)	15 (15%)	3 (3%)	3 8
43	D8	98/101 (97%)	87 (89%)	8 (8%)	3 (3%)	3 8
44	A5	109/113 (96%)	101 (93%)	7 (6%)	1 (1%)	14 34
44	E8	108/113 (96%)	100 (93%)	7 (6%)	1 (1%)	14 34
45	B5	92/96 (96%)	83 (90%)	6 (6%)	3 (3%)	3 7
45	F8	93/96 (97%)	85 (91%)	8 (9%)	0	100 100
46	C5	102/110 (93%)	75 (74%)	20 (20%)	7 (7%)	1 1
46	G8	101/110 (92%)	82 (81%)	13 (13%)	6 (6%)	1 2
47	D5	127/206 (62%)	98 (77%)	26 (20%)	3 (2%)	4 13
47	H8	168/206 (82%)	136 (81%)	26 (16%)	6 (4%)	2 6
48	E5	74/85 (87%)	65 (88%)	7 (10%)	2 (3%)	4 11
48	I8	75/85 (88%)	67 (89%)	7 (9%)	1 (1%)	9 26
49	F5	92/98 (94%)	78 (85%)	12 (13%)	2 (2%)	5 15
49	J8	92/98 (94%)	86 (94%)	5 (5%)	1 (1%)	11 29
50	G5	67/72 (93%)	61 (91%)	4 (6%)	2 (3%)	3 9
50	K8	66/72 (92%)	60 (91%)	3 (4%)	3 (4%)	2 4
51	H5	56/60 (93%)	52 (93%)	4 (7%)	0	100 100
51	L8	56/60 (93%)	53 (95%)	3 (5%)	0	100 100
52	M8	47/71 (66%)	28 (60%)	17 (36%)	2 (4%)	2 4
53	J5	54/60 (90%)	49 (91%)	5 (9%)	0	100 100
53	N8	46/60 (77%)	44 (96%)	2 (4%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
54	L5	45/49 (92%)	42 (93%)	3 (7%)	0	100 100
54	P8	45/49 (92%)	40 (89%)	4 (9%)	1 (2%)	5 15
55	M5	62/65 (95%)	51 (82%)	10 (16%)	1 (2%)	7 21
55	Q8	62/65 (95%)	53 (86%)	6 (10%)	3 (5%)	2 3
All	All	10980/12333 (89%)	9564 (87%)	1210 (11%)	206 (2%)	6 17

All (206) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
12	3I	48	PRO
14	5I	13	THR
19	AI	9	VAL
19	AI	41	VAL
29	11	28	GLU
29	11	29	PRO
30	21	59	VAL
30	21	83	ASP
37	78	37	GLY
42	C8	89	GLU
47	H8	165	VAL
48	I8	10	THR
50	K8	48	HIS
2	12	219	VAL
9	82	118	LYS
20	BA	73	HIS
29	19	237	GLU
30	29	25	VAL
30	29	54	GLN
31	39	28	ILE
39	55	107	ASP
41	75	10	VAL
41	75	11	GLU
47	D5	53	ILE
47	D5	165	VAL
48	E5	33	ALA
49	F5	30	VAL
50	G5	48	HIS
18	9I	22	VAL
19	AI	67	VAL
29	11	273	ARG
30	21	60	ASN

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Mol	Chain	Res	Type
30	21	78	LEU
33	51	10	PRO
33	51	157	TYR
35	58	77	GLY
35	58	97	ARG
37	78	25	SER
38	88	59	ARG
38	88	66	ILE
38	88	134	ARG
42	C8	93	LYS
43	D8	38	LEU
43	D8	49	THR
46	G8	81	LYS
47	H8	6	LYS
47	H8	60	GLU
55	Q8	50	LEU
11	2A	48	ILE
11	2A	101	SER
12	3A	18	VAL
12	3A	26	ALA
19	AA	9	VAL
20	BA	49	ALA
29	19	273	ARG
30	29	9	VAL
30	29	51	PHE
30	29	59	VAL
30	29	81	ILE
31	39	25	PRO
31	39	84	VAL
32	49	5	VAL
34	69	113	ARG
40	65	87	PHE
40	65	89	ARG
46	C5	29	GLU
46	C5	92	ASN
48	E5	44	ARG
17	8I	79	SER
29	11	30	GLU
30	21	21	VAL
30	21	79	ARG
30	21	118	LYS
32	41	97	ASP

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Mol	Chain	Res	Type
33	51	84	SER
33	51	138	LYS
33	51	169	VAL
35	58	128	HIS
37	78	6	LEU
37	78	35	HIS
38	88	7	MET
42	C8	90	VAL
46	G8	94	LYS
50	K8	43	GLN
52	M8	42	PHE
55	Q8	35	GLN
2	12	220	ASP
13	4A	95	GLY
14	5A	29	ARG
20	BA	13	LEU
29	19	39	LYS
29	19	45	ASN
30	29	55	ASN
30	29	89	ASP
30	29	90	THR
31	39	124	LEU
31	39	167	ALA
32	49	7	LEU
33	59	170	ARG
38	45	90	VAL
44	A5	44	ALA
46	C5	17	SER
46	C5	63	LYS
47	D5	161	VAL
50	G5	47	ASN
4	3E	155	LEU
8	7E	86	ILE
8	7E	87	SER
14	5I	14	PRO
29	11	239	ARG
33	51	83	TYR
33	51	154	PRO
34	61	133	HIS
34	61	145	VAL
37	78	14	LYS
39	98	45	ARG

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Mol	Chain	Res	Type
46	G8	54	LYS
49	J8	76	ARG
55	Q8	47	LYS
29	19	274	ARG
30	29	26	ILE
30	29	187	ALA
38	45	27	VAL
38	45	79	LEU
40	65	111	GLU
45	B5	68	ARG
46	C5	89	PHE
46	C5	99	CYS
55	M5	34	TRP
11	2I	108	ILE
29	11	122	ASP
29	11	240	ALA
30	21	56	PRO
32	41	5	VAL
33	51	12	PRO
33	51	40	GLU
33	51	85	LYS
34	61	12	LEU
35	58	22	THR
35	58	127	ASP
37	78	19	VAL
37	78	42	SER
38	88	6	ARG
39	98	3	HIS
44	E8	66	GLU
50	K8	47	ASN
54	P8	46	VAL
2	12	45	GLN
3	22	86	VAL
8	72	22	GLU
8	72	73	ASP
12	3A	47	LYS
30	29	77	ILE
34	69	112	LYS
35	15	128	HIS
36	25	12	ASP
37	35	108	LYS
42	85	92	ARG

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Mol	Chain	Res	Type
43	95	71	LEU
45	B5	40	LYS
49	F5	83	GLU
11	2I	82	VAL
29	11	3	VAL
30	21	55	ASN
37	78	34	GLY
37	78	95	VAL
38	88	79	LEU
41	B8	106	SER
46	G8	42	VAL
46	G8	53	PRO
47	H8	59	LEU
4	32	28	SER
13	4A	32	GLU
29	19	240	ALA
30	29	62	PRO
31	39	24	LEU
42	85	93	LYS
46	G8	76	CYS
47	H8	61	LEU
29	19	3	VAL
33	59	169	VAL
42	85	65	ILE
2	1E	127	ILE
5	4E	115	VAL
52	M8	41	PRO
2	12	39	ILE
4	32	17	VAL
13	4A	84	ILE
19	AA	67	VAL
45	B5	51	VAL
46	C5	3	VAL
37	78	7	ARG
43	D8	47	VAL
47	H8	53	ILE
2	12	223	ILE
8	72	100	ILE
12	3A	96	VAL
31	39	132	VAL
34	69	111	PRO
43	95	72	VAL

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Mol	Chain	Res	Type
43	95	99	ILE
29	11	123	ALA
38	88	27	VAL
34	69	144	VAL
19	AI	40	ILE
33	59	167	GLU

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	12	179/220 (81%)	148 (83%)	31 (17%)	2	5
2	1E	200/220 (91%)	151 (76%)	49 (24%)	1	1
3	22	154/188 (82%)	120 (78%)	34 (22%)	1	2
3	2E	159/188 (85%)	111 (70%)	48 (30%)	0	0
4	32	180/181 (99%)	139 (77%)	41 (23%)	1	2
4	3E	180/181 (99%)	139 (77%)	41 (23%)	1	2
5	42	114/123 (93%)	86 (75%)	28 (25%)	1	1
5	4E	115/123 (94%)	92 (80%)	23 (20%)	1	3
6	52	90/90 (100%)	68 (76%)	22 (24%)	1	1
6	5E	90/90 (100%)	71 (79%)	19 (21%)	1	2
7	62	114/127 (90%)	89 (78%)	25 (22%)	1	2
7	6E	125/127 (98%)	106 (85%)	19 (15%)	3	8
8	72	118/119 (99%)	92 (78%)	26 (22%)	1	2
8	7E	119/119 (100%)	89 (75%)	30 (25%)	0	1
9	82	92/99 (93%)	71 (77%)	21 (23%)	1	2
9	8E	97/99 (98%)	74 (76%)	23 (24%)	1	1
10	1A	71/92 (77%)	52 (73%)	19 (27%)	0	0
10	1I	81/92 (88%)	65 (80%)	16 (20%)	1	3
11	2A	85/99 (86%)	69 (81%)	16 (19%)	1	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	2I	84/99 (85%)	65 (77%)	19 (23%)	1	2
12	3A	103/109 (94%)	76 (74%)	27 (26%)	0	1
12	3I	103/109 (94%)	82 (80%)	21 (20%)	1	3
13	4A	91/101 (90%)	62 (68%)	29 (32%)	0	0
13	4I	94/101 (93%)	69 (73%)	25 (27%)	0	1
14	5A	49/50 (98%)	39 (80%)	10 (20%)	1	3
14	5I	49/50 (98%)	39 (80%)	10 (20%)	1	3
15	6A	79/80 (99%)	65 (82%)	14 (18%)	2	4
15	6I	79/80 (99%)	65 (82%)	14 (18%)	2	4
16	7A	72/74 (97%)	53 (74%)	19 (26%)	0	1
16	7I	72/74 (97%)	55 (76%)	17 (24%)	1	1
17	8A	94/97 (97%)	78 (83%)	16 (17%)	2	5
17	8I	95/97 (98%)	75 (79%)	20 (21%)	1	2
18	9A	58/77 (75%)	44 (76%)	14 (24%)	1	1
18	9I	58/77 (75%)	48 (83%)	10 (17%)	2	5
19	AA	52/80 (65%)	40 (77%)	12 (23%)	1	2
19	AI	72/80 (90%)	57 (79%)	15 (21%)	1	3
20	BA	76/82 (93%)	61 (80%)	15 (20%)	1	3
20	BI	75/82 (92%)	59 (79%)	16 (21%)	1	2
21	1B	17/22 (77%)	16 (94%)	1 (6%)	18	41
21	1F	18/22 (82%)	14 (78%)	4 (22%)	1	2
28	71	109/181 (60%)	85 (78%)	24 (22%)	1	2
28	79	48/181 (26%)	36 (75%)	12 (25%)	0	1
29	11	214/218 (98%)	162 (76%)	52 (24%)	1	1
29	19	214/218 (98%)	165 (77%)	49 (23%)	1	2
30	21	165/166 (99%)	122 (74%)	43 (26%)	0	1
30	29	165/166 (99%)	122 (74%)	43 (26%)	0	1
31	31	161/166 (97%)	123 (76%)	38 (24%)	1	1
31	39	163/166 (98%)	120 (74%)	43 (26%)	0	1
32	41	153/156 (98%)	114 (74%)	39 (26%)	0	1
32	49	153/156 (98%)	118 (77%)	35 (23%)	1	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
33	51	143/148 (97%)	100 (70%)	43 (30%)	0	0
33	59	56/148 (38%)	44 (79%)	12 (21%)	1	2
34	61	122/124 (98%)	86 (70%)	36 (30%)	0	0
34	69	122/124 (98%)	89 (73%)	33 (27%)	0	0
35	15	117/119 (98%)	85 (73%)	32 (27%)	0	0
35	58	116/119 (98%)	87 (75%)	29 (25%)	0	1
36	25	100/100 (100%)	77 (77%)	23 (23%)	1	2
36	68	100/100 (100%)	79 (79%)	21 (21%)	1	2
37	35	114/116 (98%)	81 (71%)	33 (29%)	0	0
37	78	114/116 (98%)	69 (60%)	45 (40%)	0	0
38	45	109/111 (98%)	75 (69%)	34 (31%)	0	0
38	88	110/111 (99%)	84 (76%)	26 (24%)	1	1
39	55	101/101 (100%)	73 (72%)	28 (28%)	0	0
39	98	101/101 (100%)	72 (71%)	29 (29%)	0	0
40	65	87/88 (99%)	57 (66%)	30 (34%)	0	0
40	A8	87/88 (99%)	61 (70%)	26 (30%)	0	0
41	75	117/127 (92%)	83 (71%)	34 (29%)	0	0
41	B8	117/127 (92%)	83 (71%)	34 (29%)	0	0
42	85	93/94 (99%)	72 (77%)	21 (23%)	1	2
42	C8	92/94 (98%)	76 (83%)	16 (17%)	2	5
43	95	81/82 (99%)	55 (68%)	26 (32%)	0	0
43	D8	82/82 (100%)	55 (67%)	27 (33%)	0	0
44	A5	91/92 (99%)	68 (75%)	23 (25%)	0	1
44	E8	90/92 (98%)	71 (79%)	19 (21%)	1	2
45	B5	74/78 (95%)	55 (74%)	19 (26%)	0	1
45	F8	75/78 (96%)	55 (73%)	20 (27%)	0	0
46	C5	85/91 (93%)	57 (67%)	28 (33%)	0	0
46	G8	84/91 (92%)	56 (67%)	28 (33%)	0	0
47	D5	118/179 (66%)	90 (76%)	28 (24%)	1	1
47	H8	151/179 (84%)	114 (76%)	37 (24%)	1	1
48	E5	61/67 (91%)	55 (90%)	6 (10%)	7	21

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
48	I8	62/67 (92%)	47 (76%)	15 (24%)	1 1
49	F5	79/83 (95%)	59 (75%)	20 (25%)	0 1
49	J8	79/83 (95%)	63 (80%)	16 (20%)	1 3
50	G5	63/67 (94%)	39 (62%)	24 (38%)	0 0
50	K8	64/67 (96%)	41 (64%)	23 (36%)	0 0
51	H5	50/52 (96%)	36 (72%)	14 (28%)	0 0
51	L8	50/52 (96%)	35 (70%)	15 (30%)	0 0
52	M8	42/63 (67%)	31 (74%)	11 (26%)	0 1
53	J5	48/52 (92%)	38 (79%)	10 (21%)	1 3
53	N8	43/52 (83%)	31 (72%)	12 (28%)	0 0
54	L5	38/42 (90%)	31 (82%)	7 (18%)	1 4
54	P8	38/42 (90%)	30 (79%)	8 (21%)	1 2
55	M5	54/55 (98%)	36 (67%)	18 (33%)	0 0
55	Q8	54/55 (98%)	44 (82%)	10 (18%)	1 4
All	All	9272/10193 (91%)	6986 (75%)	2286 (25%)	1 1

All (2286) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	8	LYS
2	1E	10	LEU
2	1E	15	VAL
2	1E	21	ARG
2	1E	32	ILE
2	1E	37	ASN
2	1E	45	GLN
2	1E	48	MET
2	1E	49	GLU
2	1E	59	GLU
2	1E	67	THR
2	1E	69	LEU
2	1E	71	VAL
2	1E	83	MET
2	1E	86	GLU
2	1E	87	ARG
2	1E	93	VAL
2	1E	95	GLN

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Mol	Chain	Res	Type
2	1E	96	ARG
2	1E	108	ILE
2	1E	109	SER
2	1E	111	ARG
2	1E	117	GLU
2	1E	118	LEU
2	1E	121	LEU
2	1E	127	ILE
2	1E	134	GLU
2	1E	144	ARG
2	1E	155	LEU
2	1E	164	VAL
2	1E	168	THR
2	1E	172	ILE
2	1E	178	ARG
2	1E	184	VAL
2	1E	185	ILE
2	1E	189	ASP
2	1E	190	THR
2	1E	198	ASP
2	1E	200	ILE
2	1E	205	ASP
2	1E	210	SER
2	1E	211	ILE
2	1E	217	ARG
2	1E	222	ILE
2	1E	223	ILE
2	1E	224	GLN
2	1E	230	VAL
2	1E	236	TYR
2	1E	238	LEU
3	2E	3	ASN
3	2E	5	ILE
3	2E	8	ILE
3	2E	14	ILE
3	2E	16	ARG
3	2E	17	ASP
3	2E	21	ARG
3	2E	26	LYS
3	2E	27	LYS
3	2E	31	HIS
3	2E	32	LEU

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Mol	Chain	Res	Type
3	2E	34	LEU
3	2E	38	ARG
3	2E	42	LEU
3	2E	47	LEU
3	2E	52	LEU
3	2E	56	ASP
3	2E	58	GLU
3	2E	63	ASN
3	2E	64	VAL
3	2E	68	VAL
3	2E	70	VAL
3	2E	72	LYS
3	2E	75	VAL
3	2E	88	ARG
3	2E	93	LYS
3	2E	94	LEU
3	2E	98	ASN
3	2E	105	GLU
3	2E	107	GLN
3	2E	111	LEU
3	2E	116	VAL
3	2E	118	GLN
3	2E	131	ARG
3	2E	132	ARG
3	2E	138	VAL
3	2E	144	SER
3	2E	166	GLU
3	2E	167	TRP
3	2E	170	GLN
3	2E	178	LEU
3	2E	179	ARG
3	2E	188	LEU
3	2E	190	ARG
3	2E	195	VAL
3	2E	196	LEU
3	2E	202	ILE
3	2E	206	GLU
4	3E	3	ARG
4	3E	7	PRO
4	3E	8	VAL
4	3E	10	ARG
4	3E	11	LEU

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Mol	Chain	Res	Type
4	3E	12	CYS
4	3E	15	GLU
4	3E	19	LEU
4	3E	21	LEU
4	3E	30	LYS
4	3E	31	CYS
4	3E	46	LYS
4	3E	47	ARG
4	3E	49	ARG
4	3E	58	LEU
4	3E	66	ARG
4	3E	70	ILE
4	3E	84	LYS
4	3E	85	LYS
4	3E	86	LYS
4	3E	88	VAL
4	3E	89	THR
4	3E	96	LEU
4	3E	104	VAL
4	3E	106	TYR
4	3E	108	LEU
4	3E	115	ARG
4	3E	122	ARG
4	3E	127	THR
4	3E	135	LEU
4	3E	138	TYR
4	3E	151	LYS
4	3E	154	ASN
4	3E	168	ARG
4	3E	170	VAL
4	3E	188	LEU
4	3E	190	ASP
4	3E	193	ASP
4	3E	200	GLU
4	3E	201	GLN
4	3E	209	ARG
5	4E	11	ILE
5	4E	12	LEU
5	4E	13	ILE
5	4E	16	THR
5	4E	31	LEU
5	4E	33	VAL

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Mol	Chain	Res	Type
5	4E	41	VAL
5	4E	64	ARG
5	4E	67	VAL
5	4E	68	GLU
5	4E	71	LEU
5	4E	72	GLN
5	4E	79	GLU
5	4E	87	SER
5	4E	91	LEU
5	4E	112	LEU
5	4E	116	THR
5	4E	126	ARG
5	4E	131	ILE
5	4E	144	THR
5	4E	147	ASP
5	4E	151	LEU
5	4E	153	LYS
6	5E	16	GLN
6	5E	21	LEU
6	5E	23	LYS
6	5E	25	ILE
6	5E	31	GLU
6	5E	36	ARG
6	5E	40	VAL
6	5E	43	LEU
6	5E	55	ASP
6	5E	64	GLN
6	5E	65	VAL
6	5E	74	ASP
6	5E	75	LEU
6	5E	77	ARG
6	5E	78	GLU
6	5E	91	VAL
6	5E	94	GLN
6	5E	95	GLU
6	5E	96	PRO
7	6E	8	GLU
7	6E	12	LEU
7	6E	32	ARG
7	6E	36	LYS
7	6E	38	LEU
7	6E	54	THR

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Mol	Chain	Res	Type
7	6E	59	LEU
7	6E	63	LYS
7	6E	73	MET
7	6E	75	VAL
7	6E	90	GLU
7	6E	98	SER
7	6E	104	LEU
7	6E	113	GLU
7	6E	120	ILE
7	6E	131	LYS
7	6E	137	LYS
7	6E	138	LYS
7	6E	146	GLU
8	7E	1	MET
8	7E	2	LEU
8	7E	10	LEU
8	7E	13	ILE
8	7E	19	VAL
8	7E	26	VAL
8	7E	32	LYS
8	7E	36	LEU
8	7E	37	ARG
8	7E	38	ILE
8	7E	39	LEU
8	7E	45	ILE
8	7E	50	ARG
8	7E	52	ASP
8	7E	63	LEU
8	7E	68	ARG
8	7E	75	ARG
8	7E	80	ILE
8	7E	85	ARG
8	7E	91	ARG
8	7E	95	VAL
8	7E	102	ARG
8	7E	104	ARG
8	7E	107	LEU
8	7E	109	ILE
8	7E	112	LEU
8	7E	122	ARG
8	7E	123	GLU
8	7E	127	LEU

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Mol	Chain	Res	Type
8	7E	137	VAL
9	8E	9	ARG
9	8E	10	ARG
9	8E	27	THR
9	8E	35	GLU
9	8E	38	GLN
9	8E	42	ARG
9	8E	44	VAL
9	8E	47	LEU
9	8E	50	LEU
9	8E	51	ARG
9	8E	70	LYS
9	8E	75	ASP
9	8E	79	LEU
9	8E	83	ARG
9	8E	88	TYR
9	8E	89	ASN
9	8E	91	ASP
9	8E	96	LEU
9	8E	97	LYS
9	8E	99	LEU
9	8E	108	VAL
9	8E	113	LYS
9	8E	128	ARG
10	1I	7	LYS
10	1I	16	LEU
10	1I	24	VAL
10	1I	25	GLU
10	1I	34	VAL
10	1I	38	ILE
10	1I	55	LYS
10	1I	58	ASP
10	1I	70	ARG
10	1I	75	ILE
10	1I	78	ASN
10	1I	86	MET
10	1I	88	LEU
10	1I	89	ASP
10	1I	95	GLU
10	1I	96	ILE
11	2I	18	ARG
11	2I	29	ILE

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Mol	Chain	Res	Type
11	2I	32	ILE
11	2I	48	ILE
11	2I	53	SER
11	2I	54	ARG
11	2I	71	LYS
11	2I	84	VAL
11	2I	87	THR
11	2I	96	ARG
11	2I	99	GLN
11	2I	103	LEU
11	2I	105	VAL
11	2I	106	LYS
11	2I	108	ILE
11	2I	109	VAL
11	2I	114	VAL
11	2I	116	HIS
11	2I	124	LYS
12	3I	11	VAL
12	3I	20	LYS
12	3I	21	LYS
12	3I	33	ARG
12	3I	50	SER
12	3I	60	LEU
12	3I	62	SER
12	3I	65	GLU
12	3I	67	THR
12	3I	79	GLU
12	3I	83	VAL
12	3I	85	ILE
12	3I	96	VAL
12	3I	100	ILE
12	3I	102	ARG
12	3I	111	LYS
12	3I	114	LYS
12	3I	115	LYS
12	3I	116	SER
12	3I	123	LYS
12	3I	126	LYS
13	4I	4	ILE
13	4I	7	VAL
13	4I	8	GLU
13	4I	9	ILE

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Mol	Chain	Res	Type
13	4I	13	LYS
13	4I	14	ARG
13	4I	16	ASP
13	4I	31	LYS
13	4I	44	ARG
13	4I	45	VAL
13	4I	48	LEU
13	4I	50	GLU
13	4I	54	VAL
13	4I	56	LEU
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU
13	4I	78	ILE
13	4I	83	ASP
13	4I	84	ILE
13	4I	99	ARG
13	4I	102	ARG
13	4I	106	ASN
13	4I	108	ARG
13	4I	111	LYS
14	5I	3	ARG
14	5I	4	LYS
14	5I	6	LEU
14	5I	7	ILE
14	5I	8	GLU
14	5I	18	VAL
14	5I	33	VAL
14	5I	41	ARG
14	5I	44	LEU
14	5I	50	LYS
15	6I	10	LYS
15	6I	25	THR
15	6I	26	GLU
15	6I	31	LEU
15	6I	38	ARG
15	6I	39	LEU
15	6I	41	GLU
15	6I	44	LYS
15	6I	47	LYS
15	6I	59	MET
15	6I	66	LEU

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Mol	Chain	Res	Type
15	6I	71	GLN
15	6I	79	ARG
15	6I	84	LYS
16	7I	8	ARG
16	7I	11	SER
16	7I	18	ARG
16	7I	19	ILE
16	7I	20	VAL
16	7I	27	LYS
16	7I	47	ASP
16	7I	50	LYS
16	7I	55	ARG
16	7I	67	THR
16	7I	69	THR
16	7I	71	ARG
16	7I	72	ARG
16	7I	75	ARG
16	7I	76	GLN
16	7I	82	GLN
16	7I	83	GLU
17	8I	12	SER
17	8I	14	LYS
17	8I	19	VAL
17	8I	23	VAL
17	8I	24	GLU
17	8I	25	ARG
17	8I	38	ARG
17	8I	52	LYS
17	8I	60	ILE
17	8I	62	SER
17	8I	63	ARG
17	8I	68	ARG
17	8I	69	LYS
17	8I	74	LEU
17	8I	84	LEU
17	8I	85	VAL
17	8I	87	LYS
17	8I	89	LEU
17	8I	100	LYS
17	8I	101	ARG
18	9I	26	LEU
18	9I	28	GLU

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Mol	Chain	Res	Type
18	9I	31	LEU
18	9I	32	ARG
18	9I	33	ASP
18	9I	45	SER
18	9I	54	ARG
18	9I	76	LEU
18	9I	85	LEU
18	9I	86	VAL
19	AI	3	ARG
19	AI	5	LEU
19	AI	9	VAL
19	AI	21	GLU
19	AI	22	LEU
19	AI	27	GLU
19	AI	31	ILE
19	AI	36	ARG
19	AI	37	ARG
19	AI	41	VAL
19	AI	43	GLU
19	AI	55	LYS
19	AI	67	VAL
19	AI	71	LEU
19	AI	77	THR
20	BI	9	ASN
20	BI	10	LEU
20	BI	13	LEU
20	BI	19	SER
20	BI	24	LEU
20	BI	26	ASN
20	BI	30	LYS
20	BI	36	LEU
20	BI	37	SER
20	BI	53	LEU
20	BI	56	MET
20	BI	72	LEU
20	BI	73	HIS
20	BI	75	ASN
20	BI	90	GLN
20	BI	100	ILE
21	1F	9	ARG
21	1F	10	ARG
21	1F	12	LYS

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Mol	Chain	Res	Type
21	1F	15	ARG
28	71	3	HIS
28	71	6	ARG
28	71	10	LEU
28	71	14	VAL
28	71	30	LYS
28	71	32	LEU
28	71	34	THR
28	71	37	PHE
28	71	52	ARG
28	71	55	ASP
28	71	59	ARG
28	71	64	LEU
28	71	66	HIS
28	71	166	ASP
28	71	167	LYS
28	71	168	THR
28	71	171	ILE
28	71	179	SER
28	71	180	PHE
28	71	193	ILE
28	71	205	LYS
28	71	215	THR
28	71	222	VAL
28	71	224	ILE
29	11	4	LYS
29	11	13	ARG
29	11	16	MET
29	11	17	THR
29	11	23	GLU
29	11	26	LYS
29	11	28	GLU
29	11	30	GLU
29	11	31	LYS
29	11	33	LEU
29	11	34	VAL
29	11	35	LYS
29	11	37	LEU
29	11	38	LYS
29	11	39	LYS
29	11	40	THR
29	11	43	ARG

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Mol	Chain	Res	Type
29	11	61	LEU
29	11	64	ILE
29	11	65	ILE
29	11	78	LYS
29	11	82	ILE
29	11	83	GLU
29	11	88	ARG
29	11	94	LEU
29	11	103	ARG
29	11	105	ILE
29	11	106	ILE
29	11	111	LEU
29	11	113	VAL
29	11	116	GLN
29	11	126	GLN
29	11	141	VAL
29	11	142	VAL
29	11	154	LYS
29	11	157	ARG
29	11	165	ILE
29	11	173	VAL
29	11	183	ARG
29	11	192	THR
29	11	193	VAL
29	11	200	ASP
29	11	217	ARG
29	11	221	VAL
29	11	229	VAL
29	11	233	HIS
29	11	242	ARG
29	11	254	THR
29	11	255	LYS
29	11	257	LEU
29	11	271	ILE
29	11	273	ARG
30	21	5	LEU
30	21	14	ILE
30	21	21	VAL
30	21	23	VAL
30	21	25	VAL
30	21	26	ILE
30	21	33	VAL

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Mol	Chain	Res	Type
30	21	34	VAL
30	21	38	THR
30	21	40	GLU
30	21	49	LEU
30	21	52	LEU
30	21	54	GLN
30	21	55	ASN
30	21	57	LYS
30	21	60	ASN
30	21	63	LEU
30	21	64	LYS
30	21	77	ILE
30	21	82	ARG
30	21	87	GLU
30	21	91	VAL
30	21	93	VAL
30	21	101	ARG
30	21	111	ARG
30	21	116	VAL
30	21	118	LYS
30	21	119	ARG
30	21	132	HIS
30	21	138	PRO
30	21	146	THR
30	21	171	GLU
30	21	175	VAL
30	21	179	GLU
30	21	181	LEU
30	21	188	VAL
30	21	189	PRO
30	21	195	LEU
30	21	196	VAL
30	21	197	ILE
30	21	201	THR
30	21	202	LYS
30	21	203	LYS
31	31	7	TYR
31	31	15	SER
31	31	17	ARG
31	31	18	ARG
31	31	24	LEU
31	31	28	ILE

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Mol	Chain	Res	Type
31	31	32	LEU
31	31	33	LEU
31	31	43	LYS
31	31	52	LYS
31	31	57	VAL
31	31	64	ILE
31	31	67	GLN
31	31	74	ARG
31	31	88	VAL
31	31	101	LEU
31	31	106	ARG
31	31	112	MET
31	31	116	ASP
31	31	117	ARG
31	31	119	ARG
31	31	124	LEU
31	31	127	GLU
31	31	158	THR
31	31	164	ARG
31	31	170	LEU
31	31	174	VAL
31	31	175	THR
31	31	181	LEU
31	31	183	VAL
31	31	188	ARG
31	31	191	ARG
31	31	192	LEU
31	31	196	LEU
31	31	197	ASP
31	31	200	GLU
31	31	201	VAL
31	31	203	GLN
32	41	3	LEU
32	41	5	VAL
32	41	14	GLU
32	41	28	VAL
32	41	31	VAL
32	41	32	PRO
32	41	33	ARG
32	41	35	GLU
32	41	43	LEU
32	41	45	GLU

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Mol	Chain	Res	Type
32	41	48	GLU
32	41	51	ARG
32	41	52	ILE
32	41	53	LEU
32	41	54	GLU
32	41	58	GLN
32	41	60	LEU
32	41	62	LEU
32	41	63	ILE
32	41	66	GLN
32	41	67	LYS
32	41	70	VAL
32	41	77	ILE
32	41	79	ASN
32	41	80	PHE
32	41	82	LEU
32	41	90	LEU
32	41	94	LEU
32	41	101	ILE
32	41	103	LEU
32	41	105	LYS
32	41	118	ARG
32	41	133	LEU
32	41	139	LEU
32	41	145	THR
32	41	149	VAL
32	41	162	THR
32	41	165	THR
32	41	168	GLU
33	51	2	SER
33	51	3	ARG
33	51	7	LEU
33	51	9	ILE
33	51	11	VAL
33	51	15	VAL
33	51	24	VAL
33	51	26	VAL
33	51	37	VAL
33	51	40	GLU
33	51	41	MET
33	51	42	ARG
33	51	43	VAL

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Mol	Chain	Res	Type
33	51	45	VAL
33	51	50	VAL
33	51	53	GLU
33	51	71	LEU
33	51	77	LYS
33	51	80	SER
33	51	81	GLU
33	51	83	TYR
33	51	86	GLU
33	51	88	LEU
33	51	95	ARG
33	51	97	ARG
33	51	98	LEU
33	51	104	GLU
33	51	105	LEU
33	51	107	VAL
33	51	116	GLU
33	51	122	THR
33	51	127	GLU
33	51	129	THR
33	51	130	ARG
33	51	131	VAL
33	51	134	SER
33	51	136	ILE
33	51	139	GLN
33	51	141	VAL
33	51	160	LYS
33	51	167	GLU
33	51	169	VAL
33	51	170	ARG
34	61	2	LYS
34	61	9	LEU
34	61	12	LEU
34	61	15	VAL
34	61	20	ASP
34	61	35	LEU
34	61	38	LEU
34	61	47	LEU
34	61	50	ARG
34	61	60	GLU
34	61	70	GLU
34	61	71	ILE

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Mol	Chain	Res	Type
34	61	77	LEU
34	61	78	THR
34	61	81	VAL
34	61	82	ARG
34	61	85	GLU
34	61	86	THR
34	61	88	ILE
34	61	92	VAL
34	61	101	LEU
34	61	102	SER
34	61	108	THR
34	61	110	ASP
34	61	111	PRO
34	61	113	ARG
34	61	117	GLU
34	61	122	GLU
34	61	131	LYS
34	61	135	GLU
34	61	136	VAL
34	61	138	ILE
34	61	140	LEU
34	61	142	VAL
34	61	144	VAL
34	61	145	VAL
35	58	2	LYS
35	58	5	VAL
35	58	7	LYS
35	58	10	GLU
35	58	12	ARG
35	58	15	LEU
35	58	28	THR
35	58	32	THR
35	58	33	LEU
35	58	34	LEU
35	58	43	THR
35	58	48	MET
35	58	58	ASP
35	58	60	ILE
35	58	62	VAL
35	58	65	LYS
35	58	67	LEU
35	58	79	PRO

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Mol	Chain	Res	Type
35	58	87	LEU
35	58	90	MET
35	58	96	GLU
35	58	97	ARG
35	58	99	LEU
35	58	120	LEU
35	58	127	ASP
35	58	128	HIS
35	58	130	HIS
35	58	134	ARG
35	58	137	LYS
36	68	3	GLN
36	68	8	LEU
36	68	23	ARG
36	68	24	VAL
36	68	28	SER
36	68	31	LYS
36	68	35	VAL
36	68	38	VAL
36	68	47	ILE
36	68	53	LYS
36	68	66	LYS
36	68	68	GLU
36	68	75	SER
36	68	78	ARG
36	68	94	ARG
36	68	96	THR
36	68	97	ARG
36	68	98	VAL
36	68	112	MET
36	68	113	LYS
36	68	115	VAL
37	78	1	MET
37	78	5	ASP
37	78	6	LEU
37	78	7	ARG
37	78	10	PRO
37	78	14	LYS
37	78	15	ARG
37	78	17	LYS
37	78	18	ARG
37	78	19	VAL

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Mol	Chain	Res	Type
37	78	21	ARG
37	78	25	SER
37	78	29	LYS
37	78	39	LYS
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	68	GLN
37	78	71	VAL
37	78	75	ILE
37	78	76	LYS
37	78	77	ARG
37	78	83	VAL
37	78	88	LEU
37	78	90	ARG
37	78	96	THR
37	78	98	GLU
37	78	99	LEU
37	78	100	LEU
37	78	101	VAL
37	78	105	LEU
37	78	106	LEU
37	78	112	LEU
37	78	115	LEU
37	78	126	VAL
37	78	132	LYS
37	78	135	LEU
37	78	138	LEU
37	78	144	GLU
37	78	146	VAL
38	88	5	ARG
38	88	7	MET
38	88	11	LYS
38	88	16	ARG
38	88	18	LYS
38	88	25	ASP
38	88	27	VAL

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Mol	Chain	Res	Type
38	88	35	VAL
38	88	42	ILE
38	88	43	THR
38	88	45	GLN
38	88	55	VAL
38	88	56	ARG
38	88	64	ILE
38	88	66	ILE
38	88	78	PRO
38	88	79	LEU
38	88	81	VAL
38	88	83	MET
38	88	90	VAL
38	88	91	GLU
38	88	109	VAL
38	88	110	THR
38	88	112	GLU
38	88	129	THR
38	88	138	ASP
39	98	1	MET
39	98	2	ARG
39	98	9	LYS
39	98	10	LEU
39	98	18	LEU
39	98	27	SER
39	98	28	LEU
39	98	29	LEU
39	98	30	THR
39	98	34	ILE
39	98	36	THR
39	98	44	LEU
39	98	45	ARG
39	98	48	VAL
39	98	54	LEU
39	98	57	ARG
39	98	59	ASP
39	98	65	LEU
39	98	67	LEU
39	98	79	LEU
39	98	91	GLN
39	98	98	LEU
39	98	100	LEU

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Mol	Chain	Res	Type
39	98	105	ARG
39	98	107	ASP
39	98	111	LEU
39	98	113	LEU
39	98	117	VAL
39	98	118	GLU
40	A8	8	GLU
40	A8	14	VAL
40	A8	17	ARG
40	A8	19	LYS
40	A8	21	THR
40	A8	24	LEU
40	A8	30	ARG
40	A8	32	LEU
40	A8	33	LYS
40	A8	36	TYR
40	A8	46	VAL
40	A8	50	SER
40	A8	54	LEU
40	A8	56	LEU
40	A8	58	LEU
40	A8	69	VAL
40	A8	73	LEU
40	A8	78	LEU
40	A8	83	LYS
40	A8	89	ARG
40	A8	97	ARG
40	A8	101	LEU
40	A8	106	ARG
40	A8	107	GLU
40	A8	110	LEU
40	A8	111	GLU
41	B8	3	ARG
41	B8	9	LEU
41	B8	10	VAL
41	B8	16	ARG
41	B8	17	THR
41	B8	19	LEU
41	B8	21	GLU
41	B8	23	ARG
41	B8	27	THR
41	B8	30	VAL

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Mol	Chain	Res	Type
41	B8	33	LYS
41	B8	39	ARG
41	B8	42	ILE
41	B8	49	VAL
41	B8	50	ILE
41	B8	55	ASN
41	B8	58	ASN
41	B8	62	THR
41	B8	64	ARG
41	B8	82	LEU
41	B8	86	ILE
41	B8	88	ILE
41	B8	89	VAL
41	B8	98	LYS
41	B8	99	LEU
41	B8	106	SER
41	B8	109	GLU
41	B8	110	ILE
41	B8	112	ARG
41	B8	114	LEU
41	B8	115	ARG
41	B8	118	ARG
41	B8	128	GLU
41	B8	132	LYS
42	C8	5	LYS
42	C8	13	LYS
42	C8	17	ILE
42	C8	22	LYS
42	C8	27	LEU
42	C8	30	LYS
42	C8	59	ARG
42	C8	64	ARG
42	C8	69	CYS
42	C8	74	LEU
42	C8	77	SER
42	C8	79	PHE
42	C8	85	LYS
42	C8	89	GLU
42	C8	108	GLU
42	C8	112	ARG
43	D8	6	LYS
43	D8	7	THR

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Mol	Chain	Res	Type
43	D8	12	TYR
43	D8	15	GLU
43	D8	18	LEU
43	D8	19	LYS
43	D8	20	LEU
43	D8	21	ARG
43	D8	22	VAL
43	D8	25	LEU
43	D8	33	VAL
43	D8	37	VAL
43	D8	40	LEU
43	D8	45	THR
43	D8	46	VAL
43	D8	49	THR
43	D8	51	VAL
43	D8	52	VAL
43	D8	57	VAL
43	D8	58	VAL
43	D8	62	LEU
43	D8	73	SER
43	D8	78	LYS
43	D8	79	VAL
43	D8	85	LYS
43	D8	88	ARG
43	D8	98	GLU
44	E8	11	ARG
44	E8	12	ILE
44	E8	13	SER
44	E8	19	LEU
44	E8	20	VAL
44	E8	21	VAL
44	E8	23	LEU
44	E8	24	ILE
44	E8	39	THR
44	E8	41	LYS
44	E8	51	LEU
44	E8	64	MET
44	E8	65	LEU
44	E8	66	GLU
44	E8	76	VAL
44	E8	78	GLU
44	E8	96	ILE

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Mol	Chain	Res	Type
44	E8	98	LYS
44	E8	107	LEU
45	F8	3	THR
45	F8	12	VAL
45	F8	23	GLU
45	F8	33	LYS
45	F8	35	THR
45	F8	45	THR
45	F8	49	VAL
45	F8	52	VAL
45	F8	53	LYS
45	F8	54	VAL
45	F8	59	VAL
45	F8	65	ARG
45	F8	66	LEU
45	F8	68	ARG
45	F8	70	LEU
45	F8	72	LYS
45	F8	76	ARG
45	F8	80	ILE
45	F8	87	GLN
45	F8	89	ILE
46	G8	3	VAL
46	G8	4	LYS
46	G8	6	HIS
46	G8	7	VAL
46	G8	21	LYS
46	G8	23	ARG
46	G8	24	VAL
46	G8	27	VAL
46	G8	30	VAL
46	G8	31	LEU
46	G8	33	LYS
46	G8	38	ILE
46	G8	44	ILE
46	G8	50	ARG
46	G8	52	SER
46	G8	54	LYS
46	G8	57	GLN
46	G8	64	GLU
46	G8	67	LEU
46	G8	70	SER

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Mol	Chain	Res	Type
46	G8	75	ILE
46	G8	82	PRO
46	G8	84	ARG
46	G8	85	VAL
46	G8	86	ARG
46	G8	90	LEU
46	G8	94	LYS
46	G8	96	ILE
47	H8	1	MET
47	H8	5	LEU
47	H8	11	GLU
47	H8	35	ARG
47	H8	37	VAL
47	H8	46	LYS
47	H8	53	ILE
47	H8	58	VAL
47	H8	61	LEU
47	H8	71	VAL
47	H8	72	ARG
47	H8	73	GLN
47	H8	74	VAL
47	H8	76	LEU
47	H8	77	ASP
47	H8	80	ARG
47	H8	82	ARG
47	H8	86	VAL
47	H8	90	VAL
47	H8	91	LEU
47	H8	94	GLU
47	H8	96	VAL
47	H8	103	ARG
47	H8	105	VAL
47	H8	112	ARG
47	H8	120	ILE
47	H8	121	HIS
47	H8	126	VAL
47	H8	128	VAL
47	H8	129	SER
47	H8	132	ASN
47	H8	135	GLU
47	H8	145	GLU
47	H8	154	ASP

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Mol	Chain	Res	Type
47	H8	161	VAL
47	H8	169	GLU
47	H8	170	THR
48	I8	9	SER
48	I8	31	VAL
48	I8	36	ILE
48	I8	38	VAL
48	I8	41	ARG
48	I8	44	ARG
48	I8	46	LYS
48	I8	49	LYS
48	I8	51	VAL
48	I8	55	ARG
48	I8	66	VAL
48	I8	67	VAL
48	I8	68	GLU
48	I8	74	ARG
48	I8	82	ARG
49	J8	4	VAL
49	J8	19	GLN
49	J8	21	ARG
49	J8	25	LYS
49	J8	41	ARG
49	J8	61	ARG
49	J8	68	PRO
49	J8	70	VAL
49	J8	74	VAL
49	J8	78	LYS
49	J8	80	LEU
49	J8	81	LYS
49	J8	82	LEU
49	J8	86	SER
49	J8	90	ILE
49	J8	91	LYS
50	K8	3	LEU
50	K8	4	SER
50	K8	10	LEU
50	K8	15	LYS
50	K8	16	LEU
50	K8	17	SER
50	K8	19	VAL
50	K8	23	LYS

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Mol	Chain	Res	Type
50	K8	24	LEU
50	K8	28	LYS
50	K8	30	ARG
50	K8	32	LEU
50	K8	40	SER
50	K8	41	ILE
50	K8	47	ASN
50	K8	48	HIS
50	K8	53	LEU
50	K8	55	ARG
50	K8	57	ILE
50	K8	59	ARG
50	K8	62	THR
50	K8	64	LEU
50	K8	67	LYS
51	L8	3	ARG
51	L8	4	LEU
51	L8	6	VAL
51	L8	8	LEU
51	L8	9	VAL
51	L8	11	SER
51	L8	31	LEU
51	L8	32	GLN
51	L8	37	LEU
51	L8	40	THR
51	L8	44	ARG
51	L8	54	VAL
51	L8	55	ARG
51	L8	56	VAL
51	L8	59	VAL
52	M8	6	HIS
52	M8	14	ILE
52	M8	31	ILE
52	M8	33	VAL
52	M8	34	GLU
52	M8	35	VAL
52	M8	36	CYS
52	M8	37	SER
52	M8	39	CYS
52	M8	42	PHE
52	M8	47	GLN
53	N8	3	LYS

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Mol	Chain	Res	Type
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	34	PRO
53	N8	37	LYS
53	N8	40	LYS
53	N8	44	THR
53	N8	46	CYS
54	P8	4	THR
54	P8	8	ASN
54	P8	14	LYS
54	P8	19	ARG
54	P8	22	MET
54	P8	32	LYS
54	P8	41	ARG
54	P8	43	THR
55	Q8	4	MET
55	Q8	6	THR
55	Q8	8	LYS
55	Q8	14	VAL
55	Q8	26	LYS
55	Q8	35	GLN
55	Q8	49	VAL
55	Q8	58	ILE
55	Q8	59	LYS
55	Q8	60	LEU
2	12	23	ARG
2	12	31	TYR
2	12	32	ILE
2	12	36	ARG
2	12	40	HIS
2	12	52	GLU
2	12	53	ARG
2	12	61	LEU
2	12	80	ILE
2	12	87	ARG
2	12	96	ARG
2	12	107	THR
2	12	108	ILE

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Mol	Chain	Res	Type
2	12	111	ARG
2	12	129	GLU
2	12	145	LEU
2	12	155	LEU
2	12	160	ASP
2	12	165	VAL
2	12	172	ILE
2	12	178	ARG
2	12	184	VAL
2	12	185	ILE
2	12	191	ASP
2	12	193	ASP
2	12	196	LEU
2	12	200	ILE
2	12	212	GLN
2	12	220	ASP
2	12	221	LEU
2	12	222	ILE
3	22	4	LYS
3	22	11	ARG
3	22	16	ARG
3	22	18	TRP
3	22	34	LEU
3	22	40	ARG
3	22	43	LEU
3	22	45	LYS
3	22	47	LEU
3	22	55	VAL
3	22	57	ILE
3	22	58	GLU
3	22	76	VAL
3	22	84	ILE
3	22	86	VAL
3	22	89	GLU
3	22	90	GLU
3	22	91	LEU
3	22	94	LEU
3	22	97	LYS
3	22	120	VAL
3	22	124	ILE
3	22	131	ARG
3	22	166	GLU

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Mol	Chain	Res	Type
3	22	167	TRP
3	22	172	ARG
3	22	178	LEU
3	22	182	ILE
3	22	192	THR
3	22	193	TYR
3	22	196	LEU
3	22	198	VAL
3	22	202	ILE
3	22	204	LEU
4	32	3	ARG
4	32	5	ILE
4	32	12	CYS
4	32	13	ARG
4	32	21	LEU
4	32	25	ARG
4	32	31	CYS
4	32	34	GLU
4	32	35	ARG
4	32	36	ARG
4	32	58	LEU
4	32	61	LYS
4	32	66	ARG
4	32	73	ARG
4	32	85	LYS
4	32	89	THR
4	32	96	LEU
4	32	100	ARG
4	32	105	VAL
4	32	108	LEU
4	32	115	ARG
4	32	119	GLN
4	32	120	LEU
4	32	122	ARG
4	32	134	ASP
4	32	135	LEU
4	32	137	SER
4	32	152	SER
4	32	155	LEU
4	32	157	LEU
4	32	159	ARG
4	32	162	LEU

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Mol	Chain	Res	Type
4	32	170	VAL
4	32	176	LEU
4	32	184	LYS
4	32	186	LEU
4	32	187	ARG
4	32	191	ARG
4	32	196	LEU
4	32	200	GLU
4	32	204	ILE
5	42	6	PHE
5	42	10	MET
5	42	12	LEU
5	42	13	ILE
5	42	14	ARG
5	42	16	THR
5	42	26	PHE
5	42	33	VAL
5	42	40	ARG
5	42	43	LEU
5	42	47	LYS
5	42	51	VAL
5	42	60	TYR
5	42	61	TYR
5	42	64	ARG
5	42	75	THR
5	42	79	GLU
5	42	80	ILE
5	42	83	GLU
5	42	87	SER
5	42	101	ILE
5	42	110	LEU
5	42	115	VAL
5	42	118	ILE
5	42	123	LEU
5	42	126	ARG
5	42	143	ARG
5	42	148	VAL
6	52	7	ASN
6	52	14	LEU
6	52	16	GLN
6	52	19	LEU
6	52	21	LEU

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Mol	Chain	Res	Type
6	52	24	GLU
6	52	28	ARG
6	52	36	ARG
6	52	39	LYS
6	52	46	ARG
6	52	54	LYS
6	52	57	GLN
6	52	63	TYR
6	52	71	ARG
6	52	72	VAL
6	52	74	ASP
6	52	77	ARG
6	52	80	ARG
6	52	81	ILE
6	52	87	ARG
6	52	91	VAL
6	52	93	SER
7	62	9	VAL
7	62	11	GLN
7	62	12	LEU
7	62	13	GLN
7	62	22	LEU
7	62	32	ARG
7	62	36	LYS
7	62	38	LEU
7	62	45	ASP
7	62	52	GLU
7	62	57	GLU
7	62	61	VAL
7	62	66	VAL
7	62	70	LYS
7	62	94	ARG
7	62	97	GLN
7	62	98	SER
7	62	104	LEU
7	62	114	ARG
7	62	131	LYS
7	62	137	LYS
7	62	138	LYS
7	62	142	GLU
7	62	143	ARG
7	62	144	MET

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Mol	Chain	Res	Type
8	72	12	ARG
8	72	25	ASP
8	72	26	VAL
8	72	30	ARG
8	72	33	GLU
8	72	35	ILE
8	72	41	ARG
8	72	63	LEU
8	72	65	TYR
8	72	73	ASP
8	72	78	GLN
8	72	80	ILE
8	72	82	HIS
8	72	83	ILE
8	72	84	ARG
8	72	91	ARG
8	72	93	VAL
8	72	97	VAL
8	72	99	GLU
8	72	100	ILE
8	72	102	ARG
8	72	112	LEU
8	72	119	LEU
8	72	120	THR
8	72	125	ARG
8	72	127	LEU
9	82	7	THR
9	82	18	PHE
9	82	20	ARG
9	82	27	THR
9	82	29	ASN
9	82	33	PHE
9	82	40	LEU
9	82	42	ARG
9	82	44	VAL
9	82	48	GLU
9	82	60	ASP
9	82	66	ARG
9	82	79	LEU
9	82	95	LYS
9	82	99	LEU
9	82	102	LEU

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Mol	Chain	Res	Type
9	82	104	ARG
9	82	109	VAL
9	82	113	LYS
9	82	117	HIS
9	82	124	GLN
10	1A	13	HIS
10	1A	17	ASP
10	1A	21	GLN
10	1A	38	ILE
10	1A	40	LEU
10	1A	44	VAL
10	1A	48	THR
10	1A	55	LYS
10	1A	57	LYS
10	1A	58	ASP
10	1A	59	SER
10	1A	62	HIS
10	1A	65	LEU
10	1A	70	ARG
10	1A	74	ILE
10	1A	79	ARG
10	1A	84	GLN
10	1A	85	LEU
10	1A	92	THR
11	2A	18	ARG
11	2A	29	ILE
11	2A	30	VAL
11	2A	31	THR
11	2A	54	ARG
11	2A	75	TYR
11	2A	78	GLN
11	2A	81	ASP
11	2A	93	GLN
11	2A	95	ILE
11	2A	99	GLN
11	2A	103	LEU
11	2A	105	VAL
11	2A	109	VAL
11	2A	119	CYS
11	2A	126	ARG
12	3A	10	LEU
12	3A	24	VAL

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Mol	Chain	Res	Type
12	3A	27	LEU
12	3A	28	LYS
12	3A	33	ARG
12	3A	39	VAL
12	3A	41	ARG
12	3A	42	THR
12	3A	43	VAL
12	3A	54	LYS
12	3A	57	LYS
12	3A	60	LEU
12	3A	64	TYR
12	3A	67	THR
12	3A	70	ILE
12	3A	78	GLN
12	3A	79	GLU
12	3A	83	VAL
12	3A	84	LEU
12	3A	85	ILE
12	3A	89	ARG
12	3A	96	VAL
12	3A	100	ILE
12	3A	102	ARG
12	3A	104	VAL
12	3A	111	LYS
12	3A	117	ARG
13	4A	12	ASN
13	4A	13	LYS
13	4A	14	ARG
13	4A	20	THR
13	4A	31	LYS
13	4A	32	GLU
13	4A	35	GLU
13	4A	37	THR
13	4A	39	ILE
13	4A	47	ASP
13	4A	48	LEU
13	4A	56	LEU
13	4A	57	ARG
13	4A	58	GLU
13	4A	62	ASN
13	4A	64	TRP
13	4A	65	LYS

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Mol	Chain	Res	Type
13	4A	66	LEU
13	4A	78	ILE
13	4A	81	LEU
13	4A	86	CYS
13	4A	88	ARG
13	4A	96	LEU
13	4A	101	GLN
13	4A	103	THR
13	4A	108	ARG
13	4A	114	ARG
13	4A	115	LYS
13	4A	117	VAL
14	5A	7	ILE
14	5A	8	GLU
14	5A	16	PHE
14	5A	17	LYS
14	5A	22	THR
14	5A	24	CYS
14	5A	26	ARG
14	5A	29	ARG
14	5A	33	VAL
14	5A	58	LYS
15	6A	3	ILE
15	6A	10	LYS
15	6A	22	THR
15	6A	31	LEU
15	6A	39	LEU
15	6A	40	SER
15	6A	41	GLU
15	6A	47	LYS
15	6A	57	LEU
15	6A	65	ARG
15	6A	66	LEU
15	6A	84	LYS
15	6A	87	ILE
15	6A	88	ARG
16	7A	2	VAL
16	7A	6	LEU
16	7A	8	ARG
16	7A	21	VAL
16	7A	27	LYS
16	7A	29	ASP

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Mol	Chain	Res	Type
16	7A	33	ILE
16	7A	35	LYS
16	7A	43	LYS
16	7A	49	LEU
16	7A	55	ARG
16	7A	57	ARG
16	7A	62	VAL
16	7A	65	GLN
16	7A	67	THR
16	7A	74	LEU
16	7A	81	ARG
16	7A	82	GLN
16	7A	83	GLU
17	8A	10	VAL
17	8A	16	GLN
17	8A	24	GLU
17	8A	25	ARG
17	8A	26	GLN
17	8A	35	VAL
17	8A	38	ARG
17	8A	48	GLU
17	8A	60	ILE
17	8A	62	SER
17	8A	63	ARG
17	8A	68	ARG
17	8A	73	VAL
17	8A	74	LEU
17	8A	89	LEU
17	8A	90	ILE
18	9A	26	LEU
18	9A	29	PHE
18	9A	32	ARG
18	9A	36	ASN
18	9A	42	ARG
18	9A	45	SER
18	9A	47	THR
18	9A	53	ARG
18	9A	69	THR
18	9A	72	ARG
18	9A	82	THR
18	9A	83	GLU
18	9A	84	LYS

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Mol	Chain	Res	Type
18	9A	86	VAL
19	AA	7	LYS
19	AA	12	ASP
19	AA	13	ASP
19	AA	15	LEU
19	AA	20	LEU
19	AA	21	GLU
19	AA	23	ASN
19	AA	33	THR
19	AA	35	SER
19	AA	58	VAL
19	AA	60	VAL
19	AA	66	MET
20	BA	8	ARG
20	BA	11	SER
20	BA	13	LEU
20	BA	19	SER
20	BA	24	LEU
20	BA	31	SER
20	BA	42	GLN
20	BA	58	LYS
20	BA	73	HIS
20	BA	75	ASN
20	BA	84	LEU
20	BA	88	VAL
20	BA	99	LEU
20	BA	100	ILE
20	BA	105	SER
21	1B	10	ARG
28	79	15	ASP
28	79	42	GLU
28	79	47	LEU
28	79	49	ILE
28	79	50	ASP
28	79	168	THR
28	79	171	ILE
28	79	172	HIS
28	79	202	GLU
28	79	210	ARG
28	79	221	SER
28	79	223	ARG
29	19	13	ARG

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Mol	Chain	Res	Type
29	19	23	GLU
29	19	24	ILE
29	19	27	THR
29	19	28	GLU
29	19	30	GLU
29	19	31	LYS
29	19	33	LEU
29	19	34	VAL
29	19	37	LEU
29	19	39	LYS
29	19	43	ARG
29	19	48	ARG
29	19	49	ILE
29	19	61	LEU
29	19	64	ILE
29	19	69	ARG
29	19	72	LYS
29	19	89	SER
29	19	94	LEU
29	19	99	ASP
29	19	103	ARG
29	19	105	ILE
29	19	117	VAL
29	19	138	VAL
29	19	140	THR
29	19	141	VAL
29	19	145	VAL
29	19	147	LEU
29	19	155	LEU
29	19	169	GLU
29	19	174	ILE
29	19	182	LEU
29	19	185	VAL
29	19	192	THR
29	19	193	VAL
29	19	204	ILE
29	19	211	ARG
29	19	217	ARG
29	19	237	GLU
29	19	242	ARG
29	19	244	ARG
29	19	257	LEU

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Mol	Chain	Res	Type
29	19	259	THR
29	19	260	ARG
29	19	263	ARG
29	19	268	ARG
29	19	271	ILE
29	19	273	ARG
30	29	1	MET
30	29	5	LEU
30	29	7	VAL
30	29	23	VAL
30	29	25	VAL
30	29	27	LEU
30	29	40	GLU
30	29	44	TYR
30	29	45	THR
30	29	47	VAL
30	29	48	GLN
30	29	49	LEU
30	29	54	GLN
30	29	63	LEU
30	29	72	VAL
30	29	73	GLU
30	29	75	VAL
30	29	76	ARG
30	29	77	ILE
30	29	78	LEU
30	29	79	ARG
30	29	89	ASP
30	29	90	THR
30	29	100	GLU
30	29	111	ARG
30	29	116	VAL
30	29	117	MET
30	29	119	ARG
30	29	121	ASN
30	29	134	ILE
30	29	144	ARG
30	29	145	LYS
30	29	146	THR
30	29	149	ARG
30	29	154	LYS
30	29	175	VAL

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Mol	Chain	Res	Type
30	29	178	GLU
30	29	181	LEU
30	29	182	LEU
30	29	185	LYS
30	29	188	VAL
30	29	197	ILE
30	29	201	THR
31	39	6	VAL
31	39	7	TYR
31	39	8	GLN
31	39	18	ARG
31	39	24	LEU
31	39	28	ILE
31	39	29	ASN
31	39	33	LEU
31	39	38	ARG
31	39	53	THR
31	39	57	VAL
31	39	66	PRO
31	39	68	LYS
31	39	72	ARG
31	39	82	ILE
31	39	88	VAL
31	39	98	SER
31	39	105	VAL
31	39	107	LYS
31	39	110	LEU
31	39	112	MET
31	39	114	VAL
31	39	123	LEU
31	39	125	LEU
31	39	127	GLU
31	39	135	LYS
31	39	140	LEU
31	39	145	GLU
31	39	152	GLU
31	39	153	SER
31	39	158	THR
31	39	161	GLU
31	39	165	ARG
31	39	169	ASN
31	39	181	LEU

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Mol	Chain	Res	Type
31	39	190	GLU
31	39	191	ARG
31	39	193	VAL
31	39	194	MET
31	39	196	LEU
31	39	197	ASP
31	39	201	VAL
31	39	205	ARG
32	49	5	VAL
32	49	9	ARG
32	49	13	GLU
32	49	19	LEU
32	49	20	ILE
32	49	26	GLN
32	49	27	ASN
32	49	28	VAL
32	49	31	VAL
32	49	35	GLU
32	49	40	ASN
32	49	48	GLU
32	49	49	ASP
32	49	51	ARG
32	49	58	GLN
32	49	63	ILE
32	49	71	THR
32	49	76	SER
32	49	80	PHE
32	49	82	LEU
32	49	88	ILE
32	49	91	ARG
32	49	95	ARG
32	49	97	ASP
32	49	109	VAL
32	49	130	ASN
32	49	136	ARG
32	49	152	LEU
32	49	153	ARG
32	49	157	ILE
32	49	159	VAL
32	49	162	THR
32	49	165	THR
32	49	176	LEU

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Mol	Chain	Res	Type
32	49	181	ARG
33	59	7	LEU
33	59	9	ILE
33	59	50	VAL
33	59	53	GLU
33	59	68	THR
33	59	71	LEU
33	59	76	VAL
33	59	77	LYS
33	59	148	ILE
33	59	157	TYR
33	59	164	TYR
33	59	171	LEU
34	69	2	LYS
34	69	7	GLU
34	69	9	LEU
34	69	37	VAL
34	69	47	LEU
34	69	54	GLN
34	69	56	LYS
34	69	61	ARG
34	69	62	LYS
34	69	68	LEU
34	69	69	LYS
34	69	73	GLU
34	69	77	LEU
34	69	78	THR
34	69	86	THR
34	69	93	THR
34	69	103	ARG
34	69	105	HIS
34	69	108	THR
34	69	109	ILE
34	69	114	LEU
34	69	117	GLU
34	69	120	ILE
34	69	125	GLU
34	69	127	VAL
34	69	131	LYS
34	69	135	GLU
34	69	136	VAL
34	69	138	ILE

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Mol	Chain	Res	Type
34	69	141	LYS
34	69	142	VAL
34	69	144	VAL
34	69	145	VAL
35	15	4	TYR
35	15	5	VAL
35	15	9	VAL
35	15	12	ARG
35	15	15	LEU
35	15	23	LEU
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	42	TRP
35	15	43	THR
35	15	48	MET
35	15	58	ASP
35	15	59	LYS
35	15	61	ARG
35	15	63	THR
35	15	68	GLU
35	15	74	ARG
35	15	76	SER
35	15	85	ILE
35	15	87	LEU
35	15	90	MET
35	15	93	THR
35	15	94	HIS
35	15	99	LEU
35	15	104	LYS
35	15	127	ASP
35	15	130	HIS
35	15	134	ARG
36	25	1	MET
36	25	5	GLN
36	25	8	LEU
36	25	9	GLU
36	25	10	VAL
36	25	14	THR

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Mol	Chain	Res	Type
36	25	22	ILE
36	25	24	VAL
36	25	26	LYS
36	25	28	SER
36	25	31	LYS
36	25	49	ARG
36	25	52	VAL
36	25	64	ARG
36	25	70	LYS
36	25	78	ARG
36	25	86	ILE
36	25	87	ILE
36	25	94	ARG
36	25	97	ARG
36	25	107	ARG
36	25	113	LYS
36	25	117	LEU
37	35	6	LEU
37	35	7	ARG
37	35	19	VAL
37	35	21	ARG
37	35	41	ARG
37	35	45	LEU
37	35	55	ARG
37	35	58	THR
37	35	59	LEU
37	35	64	LYS
37	35	67	MET
37	35	70	GLN
37	35	71	VAL
37	35	75	ILE
37	35	76	LYS
37	35	81	GLN
37	35	83	VAL
37	35	85	LEU
37	35	98	GLU
37	35	105	LEU
37	35	110	TYR
37	35	111	ARG
37	35	112	LEU
37	35	114	ILE
37	35	121	LYS

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Mol	Chain	Res	Type
37	35	124	LYS
37	35	125	VAL
37	35	133	SER
37	35	135	LEU
37	35	138	LEU
37	35	144	GLU
37	35	146	VAL
37	35	147	LEU
38	45	2	LEU
38	45	5	ARG
38	45	7	MET
38	45	8	LYS
38	45	10	ARG
38	45	11	LYS
38	45	14	ARG
38	45	16	ARG
38	45	18	LYS
38	45	21	THR
38	45	22	LYS
38	45	27	VAL
38	45	37	LEU
38	45	38	GLU
38	45	45	GLN
38	45	51	ARG
38	45	56	ARG
38	45	59	ARG
38	45	75	THR
38	45	77	LYS
38	45	83	MET
38	45	96	VAL
38	45	103	MET
38	45	110	THR
38	45	115	MET
38	45	118	LEU
38	45	125	LEU
38	45	127	ILE
38	45	132	VAL
38	45	134	ARG
38	45	135	ASP
38	45	137	TYR
38	45	138	ASP
38	45	139	GLU

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Mol	Chain	Res	Type
39	55	2	ARG
39	55	5	LYS
39	55	6	SER
39	55	9	LYS
39	55	18	LEU
39	55	28	LEU
39	55	29	LEU
39	55	33	ARG
39	55	34	ILE
39	55	40	LYS
39	55	44	LEU
39	55	54	LEU
39	55	57	ARG
39	55	63	ARG
39	55	64	ARG
39	55	65	LEU
39	55	66	VAL
39	55	67	LEU
39	55	71	GLN
39	55	74	LYS
39	55	75	LEU
39	55	78	LYS
39	55	79	LEU
39	55	81	ASP
39	55	88	ARG
39	55	105	ARG
39	55	107	ASP
39	55	117	VAL
40	65	3	ARG
40	65	8	GLU
40	65	12	PHE
40	65	13	ARG
40	65	17	ARG
40	65	19	LYS
40	65	20	ARG
40	65	21	THR
40	65	30	ARG
40	65	36	TYR
40	65	39	ILE
40	65	42	ASP
40	65	43	GLU
40	65	46	VAL

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Mol	Chain	Res	Type
40	65	50	SER
40	65	52	SER
40	65	54	LEU
40	65	56	LEU
40	65	59	LYS
40	65	65	VAL
40	65	69	VAL
40	65	78	LEU
40	65	88	ASP
40	65	89	ARG
40	65	95	HIS
40	65	98	VAL
40	65	101	LEU
40	65	106	ARG
40	65	107	GLU
40	65	111	GLU
41	75	6	LEU
41	75	8	LYS
41	75	13	ARG
41	75	15	VAL
41	75	17	THR
41	75	23	ARG
41	75	27	THR
41	75	28	VAL
41	75	30	VAL
41	75	34	VAL
41	75	36	GLU
41	75	40	THR
41	75	50	ILE
41	75	58	ASN
41	75	59	THR
41	75	62	THR
41	75	64	ARG
41	75	65	LYS
41	75	66	VAL
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

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Mol	Chain	Res	Type
41	75	106	SER
41	75	107	ASP
41	75	110	ILE
41	75	115	ARG
41	75	118	ARG
41	75	128	GLU
41	75	129	ARG
41	75	133	GLU
42	85	5	LYS
42	85	15	LYS
42	85	17	ILE
42	85	20	LEU
42	85	27	LEU
42	85	34	LYS
42	85	52	ARG
42	85	55	ARG
42	85	64	ARG
42	85	71	GLN
42	85	74	LEU
42	85	78	THR
42	85	85	LYS
42	85	92	ARG
42	85	93	LYS
42	85	94	ASN
42	85	95	LEU
42	85	105	VAL
42	85	109	LEU
42	85	112	ARG
42	85	114	LYS
43	95	5	VAL
43	95	7	THR
43	95	13	ARG
43	95	21	ARG
43	95	22	VAL
43	95	25	LEU
43	95	28	GLU
43	95	33	VAL
43	95	35	LEU
43	95	43	GLU
43	95	44	LYS
43	95	47	VAL
43	95	49	THR

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Mol	Chain	Res	Type
43	95	53	GLU
43	95	61	VAL
43	95	62	LEU
43	95	66	ARG
43	95	71	LEU
43	95	74	LYS
43	95	78	LYS
43	95	82	ARG
43	95	84	LYS
43	95	88	ARG
43	95	91	TYR
43	95	93	GLU
43	95	95	LEU
44	A5	6	ILE
44	A5	11	ARG
44	A5	15	ARG
44	A5	18	ARG
44	A5	20	VAL
44	A5	24	ILE
44	A5	39	THR
44	A5	41	LYS
44	A5	50	VAL
44	A5	51	LEU
44	A5	59	VAL
44	A5	63	ASP
44	A5	65	LEU
44	A5	72	LYS
44	A5	76	VAL
44	A5	84	ARG
44	A5	92	ARG
44	A5	96	ILE
44	A5	100	THR
44	A5	106	ILE
44	A5	107	LEU
44	A5	110	LYS
44	A5	111	HIS
45	B5	12	VAL
45	B5	23	GLU
45	B5	27	THR
45	B5	30	VAL
45	B5	36	LYS
45	B5	43	VAL

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Mol	Chain	Res	Type
45	B5	52	VAL
45	B5	54	VAL
45	B5	56	THR
45	B5	63	LYS
45	B5	65	ARG
45	B5	69	TYR
45	B5	70	LEU
45	B5	76	ARG
45	B5	80	ILE
45	B5	81	VAL
45	B5	82	GLN
45	B5	89	ILE
45	B5	90	GLU
46	C5	3	VAL
46	C5	4	LYS
46	C5	24	VAL
46	C5	29	GLU
46	C5	31	LEU
46	C5	38	ILE
46	C5	40	GLU
46	C5	43	ASN
46	C5	61	ILE
46	C5	62	GLU
46	C5	63	LYS
46	C5	67	LEU
46	C5	71	LYS
46	C5	72	VAL
46	C5	73	ARG
46	C5	75	ILE
46	C5	76	CYS
46	C5	79	CYS
46	C5	84	ARG
46	C5	85	VAL
46	C5	86	ARG
46	C5	87	LYS
46	C5	89	PHE
46	C5	90	LEU
46	C5	94	LYS
46	C5	97	ARG
46	C5	98	VAL
46	C5	101	LYS
47	D5	5	LEU

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Mol	Chain	Res	Type
47	D5	6	LYS
47	D5	16	SER
47	D5	18	LEU
47	D5	19	ARG
47	D5	24	LEU
47	D5	27	VAL
47	D5	33	LEU
47	D5	37	VAL
47	D5	53	ILE
47	D5	56	VAL
47	D5	59	LEU
47	D5	60	GLU
47	D5	70	LEU
47	D5	72	ARG
47	D5	73	GLN
47	D5	74	VAL
47	D5	76	LEU
47	D5	84	GLU
47	D5	87	ASP
47	D5	93	ASP
47	D5	102	LEU
47	D5	128	VAL
47	D5	129	SER
47	D5	161	VAL
47	D5	162	GLU
47	D5	165	VAL
47	D5	168	GLU
48	E5	12	ASN
48	E5	36	ILE
48	E5	38	VAL
48	E5	43	THR
48	E5	46	LYS
48	E5	70	GLN
49	F5	3	LYS
49	F5	4	VAL
49	F5	11	ARG
49	F5	17	SER
49	F5	27	GLU
49	F5	37	ILE
49	F5	38	SER
49	F5	40	ARG
49	F5	41	ARG

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Mol	Chain	Res	Type
49	F5	42	GLN
49	F5	56	GLN
49	F5	57	GLU
49	F5	62	VAL
49	F5	72	GLU
49	F5	74	VAL
49	F5	76	ARG
49	F5	78	LYS
49	F5	90	ILE
49	F5	91	LYS
49	F5	95	LEU
50	G5	5	GLU
50	G5	6	VAL
50	G5	10	LEU
50	G5	15	LYS
50	G5	16	LEU
50	G5	17	SER
50	G5	19	VAL
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	44	LEU
50	G5	46	GLN
50	G5	47	ASN
50	G5	48	HIS
50	G5	50	ILE
50	G5	53	LEU
50	G5	60	LEU
50	G5	62	THR
50	G5	64	LEU
50	G5	65	ASN
50	G5	68	ARG
51	H5	5	LYS
51	H5	8	LEU
51	H5	16	PRO
51	H5	17	LYS
51	H5	18	ASP
51	H5	24	LYS
51	H5	30	ARG

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Mol	Chain	Res	Type
51	H5	35	ARG
51	H5	37	LEU
51	H5	38	GLU
51	H5	44	ARG
51	H5	48	GLU
51	H5	54	VAL
51	H5	55	ARG
53	J5	6	VAL
53	J5	9	LYS
53	J5	16	ARG
53	J5	21	SER
53	J5	25	LEU
53	J5	26	THR
53	J5	29	THR
53	J5	35	GLU
53	J5	44	THR
53	J5	55	ARG
54	L5	1	MET
54	L5	4	THR
54	L5	8	ASN
54	L5	29	LYS
54	L5	36	GLN
54	L5	42	LEU
54	L5	43	THR
55	M5	13	ARG
55	M5	15	LYS
55	M5	21	LYS
55	M5	23	VAL
55	M5	26	LYS
55	M5	29	LYS
55	M5	32	LEU
55	M5	37	SER
55	M5	40	GLU
55	M5	41	ILE
55	M5	49	VAL
55	M5	50	LEU
55	M5	52	LYS
55	M5	57	ARG
55	M5	58	ILE
55	M5	59	LYS
55	M5	60	LEU
55	M5	62	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (87) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	16	HIS
2	1E	45	GLN
2	1E	212	GLN
3	2E	6	HIS
4	3E	45	GLN
5	4E	38	GLN
5	4E	56	GLN
5	4E	141	GLN
6	5E	16	GLN
6	5E	73	ASN
7	6E	37	ASN
8	7E	81	HIS
9	8E	3	GLN
11	2I	22	HIS
11	2I	116	HIS
13	4I	106	ASN
16	7I	13	HIS
28	71	188	ASN
29	11	112	GLN
29	11	116	GLN
29	11	164	GLN
29	11	253	GLN
30	21	60	ASN
30	21	121	ASN
30	21	159	HIS
31	31	67	GLN
31	31	160	ASN
31	31	203	GLN
32	41	40	ASN
32	41	79	ASN
32	41	123	ASN
34	61	104	GLN
35	58	128	HIS
38	88	13	GLN
38	88	45	GLN
39	98	50	HIS
39	98	61	HIS
39	98	71	GLN
40	A8	61	ASN
42	C8	81	HIS
43	D8	11	GLN

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Mol	Chain	Res	Type
44	E8	60	ASN
46	G8	6	HIS
47	H8	85	HIS
47	H8	132	ASN
50	K8	9	GLN
52	M8	20	ASN
52	M8	47	GLN
2	12	19	HIS
2	12	40	HIS
2	12	95	GLN
3	22	3	ASN
4	32	123	HIS
9	82	124	GLN
10	1A	69	ASN
10	1A	84	GLN
11	2A	38	ASN
11	2A	99	GLN
13	4A	101	GLN
15	6A	9	GLN
15	6A	13	GLN
15	6A	53	HIS
18	9A	63	GLN
19	AA	23	ASN
29	19	44	ASN
29	19	96	HIS
29	19	164	GLN
30	29	54	GLN
31	39	8	GLN
32	49	26	GLN
32	49	27	ASN
33	59	74	ASN
34	69	54	GLN
35	15	94	HIS
35	15	133	GLN
36	25	5	GLN
36	25	90	GLN
38	45	12	GLN
42	85	94	ASN
43	95	80	GLN
45	B5	41	ASN
46	C5	6	HIS
47	D5	55	HIS

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Mol	Chain	Res	Type
49	F5	56	GLN
50	G5	9	GLN
50	G5	47	ASN
50	G5	56	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1519 (98%)	376 (25%)	38 (2%)
1	1G	1505/1519 (99%)	350 (23%)	37 (2%)
22	1K	69/76 (90%)	30 (43%)	5 (7%)
22	1L	65/76 (85%)	22 (33%)	4 (6%)
23	2K	76/77 (98%)	29 (38%)	1 (1%)
23	2L	76/77 (98%)	18 (23%)	2 (2%)
24	3K	67/76 (88%)	39 (58%)	4 (5%)
24	3L	69/76 (90%)	31 (44%)	2 (2%)
25	4K	20/27 (74%)	12 (60%)	2 (10%)
25	4L	18/27 (66%)	8 (44%)	2 (11%)
26	14	2847/2917 (97%)	770 (27%)	53 (1%)
26	1H	2878/2917 (98%)	715 (24%)	57 (1%)
27	16	121/122 (99%)	28 (23%)	2 (1%)
27	1J	121/122 (99%)	34 (28%)	2 (1%)
All	All	9425/9628 (97%)	2462 (26%)	211 (2%)

All (2462) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	5	U
1	13	6	G
1	13	9	G
1	13	15	G
1	13	16	A
1	13	21	G
1	13	28	G
1	13	32	A
1	13	39	G
1	13	44	G
1	13	48	C
1	13	49	U
1	13	50	A

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Mol	Chain	Res	Type
1	13	51	A
1	13	54	C
1	13	61	G
1	13	65	U
1	13	66	G
1	13	74	C
1	13	75	C
1	13	76	G
1	13	95	G
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	115	G
1	13	116	A
1	13	117	G
1	13	121	C
1	13	122	G
1	13	131	C
1	13	142	G
1	13	143	A
1	13	144	G
1	13	147	G
1	13	150	C
1	13	151	A
1	13	153	C
1	13	160	A
1	13	162	A
1	13	163	C
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	186(F)	C
1	13	189	U
1	13	191(A)	G
1	13	191(E)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U

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Mol	Chain	Res	Type
1	13	209	U
1	13	210	U
1	13	217	C
1	13	222	U
1	13	227	G
1	13	233	C
1	13	243	A
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	262	A
1	13	266	G
1	13	267	C
1	13	273	A
1	13	274	A
1	13	288	A
1	13	289	G
1	13	304	U
1	13	316	G
1	13	317	G
1	13	321	A
1	13	328	C
1	13	330	C
1	13	332	G
1	13	343	U
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	351	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	357	G
1	13	367	U
1	13	372	C
1	13	383	A
1	13	388	G
1	13	390	C
1	13	396	G
1	13	397	A

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Mol	Chain	Res	Type
1	13	398	C
1	13	406	G
1	13	410	G
1	13	411	A
1	13	412	A
1	13	414	A
1	13	417	C
1	13	418	C
1	13	421	U
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	438	G
1	13	451	A
1	13	466	C
1	13	467	G
1	13	484	G
1	13	485	G
1	13	487	A
1	13	496	A
1	13	497	U
1	13	505	G
1	13	509	A
1	13	510	A
1	13	511	C
1	13	513	C
1	13	518	C
1	13	521	G
1	13	524	G
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	534	U
1	13	536	C
1	13	547	A
1	13	559	A
1	13	561	U
1	13	562	C
1	13	564	C
1	13	572	A

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Mol	Chain	Res	Type
1	13	573	A
1	13	576	G
1	13	577	G
1	13	582	U
1	13	596	C
1	13	607	A
1	13	618	C
1	13	619	U
1	13	620	C
1	13	630	G
1	13	631	G
1	13	632	A
1	13	633	G
1	13	639	G
1	13	653	A
1	13	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	728	A
1	13	734	G
1	13	749	C
1	13	750	G
1	13	753	A
1	13	755	G
1	13	774	G
1	13	777	A
1	13	787	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	796	C
1	13	806	C
1	13	812	C
1	13	813	U
1	13	815	A
1	13	817	C
1	13	821	G
1	13	828	A

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Mol	Chain	Res	Type
1	13	836	G
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	859	A
1	13	864	A
1	13	870	U
1	13	871	U
1	13	872	A
1	13	874	G
1	13	876	G
1	13	877	C
1	13	884	U
1	13	885	G
1	13	888	G
1	13	902	G
1	13	913	A
1	13	914	A
1	13	916	G
1	13	922	G
1	13	926	G
1	13	927	G
1	13	934	C
1	13	935	A
1	13	936	C
1	13	960	U
1	13	965	A
1	13	968	A
1	13	969	A
1	13	971	G
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	979	C
1	13	983	A
1	13	993	G
1	13	998	G
1	13	999	U
1	13	1004	A
1	13	1006	C

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Mol	Chain	Res	Type
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1012	U
1	13	1016	A
1	13	1017	G
1	13	1021	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(A)	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1031	G
1	13	1032	A
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1033	G
1	13	1035	A
1	13	1037	C
1	13	1039	C
1	13	1040	U
1	13	1042	G
1	13	1046	A
1	13	1051	C
1	13	1053	G
1	13	1054	C
1	13	1055	A
1	13	1058	G
1	13	1061	G
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1089	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1113	C
1	13	1120	G
1	13	1125	U

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Mol	Chain	Res	Type
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	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1146	A
1	13	1151	A
1	13	1152	A
1	13	1154	G
1	13	1155	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1160	G
1	13	1171	G
1	13	1177	G
1	13	1181	G
1	13	1182	G
1	13	1184	G
1	13	1188	A
1	13	1189	C
1	13	1190	G
1	13	1191	A
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1202	G
1	13	1211	U
1	13	1212	U
1	13	1213	A
1	13	1225	A
1	13	1227	A
1	13	1230	C
1	13	1236	A
1	13	1238	A
1	13	1239	A
1	13	1240	U

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Mol	Chain	Res	Type
1	13	1241	G
1	13	1250	A
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1272	G
1	13	1275	A
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1285	A
1	13	1286	A
1	13	1287	A
1	13	1288	A
1	13	1290	G
1	13	1292	U
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1302	U
1	13	1303	C
1	13	1307	U
1	13	1320	C
1	13	1323	G
1	13	1331	G
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1362(A)	C
1	13	1363	A
1	13	1368	G
1	13	1370	G
1	13	1377	A
1	13	1378	C
1	13	1397	C

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Mol	Chain	Res	Type
1	13	1398	A
1	13	1401	G
1	13	1406	U
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1450	U
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1498	U
1	13	1499	A
1	13	1502	A
1	13	1503	A
1	13	1504	G
1	13	1505	G
1	13	1506	U
1	13	1507	A
1	13	1517	G
1	13	1529	G
1	13	1530	G
1	13	1534	A
22	1K	4	U
22	1K	6	G
22	1K	7	U
22	1K	9	A
22	1K	11	C
22	1K	13	C
22	1K	14	A
22	1K	15	G
22	1K	18	G
22	1K	22	G
22	1K	26	A
22	1K	29	U
22	1K	45	G
22	1K	48	C
22	1K	49	G
22	1K	50	C

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Mol	Chain	Res	Type
22	1K	51	A
22	1K	56	C
22	1K	60	U
22	1K	61	C
22	1K	63	U
22	1K	68	G
22	1K	69	A
22	1K	70	C
22	1K	71	C
22	1K	72	C
22	1K	73	A
22	1K	74	C
22	1K	75	C
22	1K	76	A
23	2K	2	G
23	2K	6	G
23	2K	9	G
23	2K	13	C
23	2K	14	A
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	23	G
23	2K	30	G
23	2K	31	G
23	2K	32	G
23	2K	38	A
23	2K	44	A
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	51	U
23	2K	53	G
23	2K	55	5MU
23	2K	57	C
23	2K	61	U
23	2K	62	C
23	2K	73	A

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Mol	Chain	Res	Type
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	4	U
24	3K	5	C
24	3K	7	U
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	14	A
24	3K	15	G
24	3K	23	A
24	3K	24	G
24	3K	26	A
24	3K	27	G
24	3K	34	U
24	3K	35	U
24	3K	37	A
24	3K	39	U
24	3K	40	C
24	3K	44	U
24	3K	45	G
24	3K	46	G
24	3K	49	G
24	3K	51	A
24	3K	52	G
24	3K	55	U
24	3K	56	C
24	3K	57	G
24	3K	59	A
24	3K	60	U
24	3K	62	C
24	3K	65	C
24	3K	66	A
24	3K	67	C
24	3K	71	C
24	3K	72	C
24	3K	73	A
24	3K	76	A
25	4K	7	G
25	4K	8	A

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Mol	Chain	Res	Type
25	4K	9	G
25	4K	10	G
25	4K	12	A
25	4K	13	A
25	4K	14	A
25	4K	15	A
25	4K	23	A
25	4K	24	A
25	4K	25	A
25	4K	26	A
26	1H	9	U
26	1H	11	G
26	1H	12	U
26	1H	14	A
26	1H	15	G
26	1H	34	C
26	1H	35	G
26	1H	36	G
26	1H	43	G
26	1H	46	C
26	1H	51	G
26	1H	63	U
26	1H	66	C
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	125	G
26	1H	126	A
26	1H	138	G
26	1H	140	A
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	174	C
26	1H	181	A
26	1H	188	G

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Mol	Chain	Res	Type
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	201	C
26	1H	213	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	217	G
26	1H	221	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	248	G
26	1H	249	C
26	1H	250	G
26	1H	252	G
26	1H	266	G
26	1H	269	U
26	1H	270(E)	G
26	1H	270(K)	C
26	1H	270(L)	U
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	270(R)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	295	G
26	1H	299	A
26	1H	308	G
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	326	G

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Mol	Chain	Res	Type
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	335	C
26	1H	340	A
26	1H	346	A
26	1H	352	G
26	1H	353	G
26	1H	357	A
26	1H	363	G
26	1H	363(A)	A
26	1H	370	G
26	1H	372	G
26	1H	375	C
26	1H	380	U
26	1H	382	G
26	1H	386	G
26	1H	389	G
26	1H	396	G
26	1H	405	U
26	1H	407	G
26	1H	411	G
26	1H	418	G
26	1H	427	U
26	1H	428	A
26	1H	436	C
26	1H	443	A
26	1H	444	C
26	1H	448	U
26	1H	455	C
26	1H	470	A
26	1H	471	A
26	1H	481	G
26	1H	482	A
26	1H	485	C
26	1H	489	G
26	1H	494	G
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	529	A

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Mol	Chain	Res	Type
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	546	C
26	1H	548	A
26	1H	549	G
26	1H	563	G
26	1H	567	A
26	1H	573	G
26	1H	575	A
26	1H	587	C
26	1H	588	U
26	1H	603	A
26	1H	604	G
26	1H	607	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	632	A
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(D)	G
26	1H	654(O)	G
26	1H	654(Q)	C
26	1H	654(R)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	654(V)	A
26	1H	664	C
26	1H	669	G
26	1H	677	A
26	1H	678	C
26	1H	685	A
26	1H	686	G

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Mol	Chain	Res	Type
26	1H	689	A
26	1H	695	G
26	1H	699	A
26	1H	717	G
26	1H	730	C
26	1H	731	C
26	1H	745	G
26	1H	762	U
26	1H	764	A
26	1H	765	G
26	1H	776	G
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	787	U
26	1H	790	C
26	1H	792	G
26	1H	800	A
26	1H	805	G
26	1H	812	C
26	1H	824	A
26	1H	827	U
26	1H	828	U
26	1H	830	G
26	1H	832	G
26	1H	836	G
26	1H	845	G
26	1H	846	C
26	1H	847	U
26	1H	853	G
26	1H	855	G
26	1H	858	U
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	879	G
26	1H	882	G
26	1H	894	C
26	1H	898	C
26	1H	899	A
26	1H	900	A
26	1H	901	A

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Mol	Chain	Res	Type
26	1H	902	C
26	1H	904	C
26	1H	906	G
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	925	C
26	1H	932	G
26	1H	938	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	947	G
26	1H	952	G
26	1H	953	A
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	968	G
26	1H	974	G
26	1H	974(A)	C
26	1H	980	A
26	1H	983	A
26	1H	995	C
26	1H	996	A
26	1H	997	G
26	1H	998	C
26	1H	1003	G
26	1H	1005	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1018	C
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1032	A
26	1H	1033	U

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Mol	Chain	Res	Type
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1054	A
26	1H	1057	A
26	1H	1058	U
26	1H	1060	U
26	1H	1061	U
26	1H	1062	G
26	1H	1066	U
26	1H	1067	A
26	1H	1068	G
26	1H	1070	A
26	1H	1071	G
26	1H	1072	C
26	1H	1076	C
26	1H	1077	A
26	1H	1082	U
26	1H	1085	A
26	1H	1087	G
26	1H	1088	A
26	1H	1090	U
26	1H	1095	A
26	1H	1096	A
26	1H	1097	U
26	1H	1098	A
26	1H	1104	C
26	1H	1106	G
26	1H	1111	A
26	1H	1112	G
26	1H	1117	G
26	1H	1121	C
26	1H	1122	G
26	1H	1126	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1149	G

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Mol	Chain	Res	Type
26	1H	1171	G
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1195	G
26	1H	1198	U
26	1H	1204	A
26	1H	1205	U
26	1H	1206	G
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1225	C
26	1H	1237	A
26	1H	1244	G
26	1H	1250	G
26	1H	1253	A
26	1H	1254	A
26	1H	1256	G
26	1H	1268	A
26	1H	1271	G
26	1H	1272	A
26	1H	1274	A
26	1H	1277	G
26	1H	1280	G
26	1H	1292	U
26	1H	1297	C
26	1H	1300	U
26	1H	1301	A
26	1H	1305	C
26	1H	1310	G
26	1H	1329	U
26	1H	1332	G
26	1H	1338	G
26	1H	1342	A
26	1H	1344	G
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1359	A

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Mol	Chain	Res	Type
26	1H	1360	A
26	1H	1365	A
26	1H	1369	G
26	1H	1370	C
26	1H	1378	A
26	1H	1379	A
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1388	G
26	1H	1389	G
26	1H	1390	U
26	1H	1391	U
26	1H	1396	U
26	1H	1397	U
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	1428	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1453	A
26	1H	1454	U
26	1H	1456	G
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1469	A
26	1H	1470	G
26	1H	1471	A
26	1H	1472	A
26	1H	1483	G
26	1H	1486	A
26	1H	1490	A
26	1H	1492	G
26	1H	1493	C

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Mol	Chain	Res	Type
26	1H	1494	A
26	1H	1497	U
26	1H	1500	G
26	1H	1506	C
26	1H	1507	A
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1517	G
26	1H	1520	U
26	1H	1526	G
26	1H	1534	G
26	1H	1535	U
26	1H	1536	A
26	1H	1537	C
26	1H	1538	G
26	1H	1539	G
26	1H	1540	G
26	1H	1543	A
26	1H	1545	A
26	1H	1547	C
26	1H	1548	C
26	1H	1552	G
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1566	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1587	A
26	1H	1594	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1639	U
26	1H	1640	C

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Mol	Chain	Res	Type
26	1H	1641	A
26	1H	1645	G
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1658	C
26	1H	1664	A
26	1H	1674	G
26	1H	1679	U
26	1H	1684	C
26	1H	1685	C
26	1H	1699	G
26	1H	1706	U
26	1H	1707	G
26	1H	1726	G
26	1H	1728	G
26	1H	1730	U
26	1H	1731	G
26	1H	1733	G
26	1H	1756	G
26	1H	1758	G
26	1H	1760	A
26	1H	1764	G
26	1H	1773	A
26	1H	1779	U
26	1H	1782	C
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1816	G
26	1H	1819	A
26	1H	1828	G
26	1H	1829	A
26	1H	1831	G
26	1H	1835	G
26	1H	1836	C
26	1H	1840	G
26	1H	1847	A
26	1H	1858	G
26	1H	1859	A

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Mol	Chain	Res	Type
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1887	C
26	1H	1889	A
26	1H	1899	G
26	1H	1900	A
26	1H	1901	A
26	1H	1904	G
26	1H	1906	G
26	1H	1910	G
26	1H	1913	A
26	1H	1914	C
26	1H	1918	A
26	1H	1919	A
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1938	A
26	1H	1951	U
26	1H	1952	A
26	1H	1955	U
26	1H	1963	U
26	1H	1965	C
26	1H	1967	C
26	1H	1968	G
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1986	A
26	1H	1992	G
26	1H	1993	U
26	1H	2001	A
26	1H	2016	U
26	1H	2020	A
26	1H	2021	C
26	1H	2023	G
26	1H	2031	A
26	1H	2033	A

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Mol	Chain	Res	Type
26	1H	2035	G
26	1H	2043	C
26	1H	2047	U
26	1H	2048	G
26	1H	2049	G
26	1H	2054	A
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2066	C
26	1H	2069	G
26	1H	2072	G
26	1H	2077	A
26	1H	2078	C
26	1H	2099	U
26	1H	2108	C
26	1H	2111	C
26	1H	2113	U
26	1H	2114	A
26	1H	2116	G
26	1H	2117	A
26	1H	2119	A
26	1H	2124	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2138	C
26	1H	2139	C
26	1H	2144	U
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2156	G
26	1H	2157	G

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Mol	Chain	Res	Type
26	1H	2158	A
26	1H	2161	C
26	1H	2162	G
26	1H	2165	G
26	1H	2166	G
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2173	A
26	1H	2175	C
26	1H	2176	A
26	1H	2177	C
26	1H	2181	G
26	1H	2189	U
26	1H	2190	G
26	1H	2192	G
26	1H	2198	A
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2236	C
26	1H	2238	G
26	1H	2239	G
26	1H	2240	C
26	1H	2267	A
26	1H	2273	A
26	1H	2275	C
26	1H	2280	G
26	1H	2281	C
26	1H	2283	C
26	1H	2285	C
26	1H	2286	A
26	1H	2287	A
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2314	C
26	1H	2315	G
26	1H	2320	A

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Mol	Chain	Res	Type
26	1H	2321	G
26	1H	2324	C
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2335	A
26	1H	2336	A
26	1H	2343	C
26	1H	2346	A
26	1H	2347	C
26	1H	2348	U
26	1H	2350	C
26	1H	2360	A
26	1H	2372	G
26	1H	2376	A
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2388	A
26	1H	2389	G
26	1H	2395	C
26	1H	2402	C
26	1H	2405	G
26	1H	2406	U
26	1H	2408	U
26	1H	2410	G
26	1H	2414	G
26	1H	2418	A
26	1H	2422	A
26	1H	2423	U
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2434	A
26	1H	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2448	A
26	1H	2449	U

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Mol	Chain	Res	Type
26	1H	2464	C
26	1H	2468	G
26	1H	2469	A
26	1H	2476	A
26	1H	2477	C
26	1H	2478	A
26	1H	2482	G
26	1H	2484	G
26	1H	2496	C
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2518	A
26	1H	2525	G
26	1H	2529	G
26	1H	2531	A
26	1H	2553	G
26	1H	2554	U
26	1H	2563	U
26	1H	2566	A
26	1H	2567	G
26	1H	2582	G
26	1H	2593	U
26	1H	2594	C
26	1H	2595	G
26	1H	2600	A
26	1H	2602	A
26	1H	2608	G
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2629	A
26	1H	2632	A
26	1H	2636	U
26	1H	2641	G
26	1H	2654	A
26	1H	2660	A
26	1H	2663	G
26	1H	2665	A
26	1H	2666	C
26	1H	2673	G
26	1H	2679	A

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Mol	Chain	Res	Type
26	1H	2689	U
26	1H	2702	U
26	1H	2703	C
26	1H	2705	A
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2719	G
26	1H	2721	A
26	1H	2726	U
26	1H	2733	A
26	1H	2742	C
26	1H	2744	G
26	1H	2749	A
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2777	G
26	1H	2778	A
26	1H	2779	U
26	1H	2780	G
26	1H	2781	A
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2793	G
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
26	1H	2801	A
26	1H	2803	C
26	1H	2808	U
26	1H	2813	A
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A

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Mol	Chain	Res	Type
26	1H	2848	G
26	1H	2849	U
26	1H	2872	G
26	1H	2875	C
26	1H	2884	U
26	1H	2885	C
26	1H	2886	G
26	1H	2891	G
26	1H	2892	A
26	1H	2894	G
26	1H	2895	U
27	16	0	A
27	16	3	C
27	16	5	C
27	16	7	G
27	16	12	C
27	16	13	A
27	16	15	A
27	16	16	G
27	16	25	A
27	16	33	G
27	16	38	C
27	16	42	C
27	16	44	G
27	16	45	A
27	16	47	C
27	16	48	A
27	16	56	G
27	16	65	C
27	16	70	C
27	16	73	A
27	16	74	U
27	16	75	G
27	16	88	C
27	16	98	G
27	16	105	G
27	16	109	G
27	16	116	G
27	16	118	G
1	1G	5	U
1	1G	7	G
1	1G	9	G

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Mol	Chain	Res	Type
1	1G	16	A
1	1G	26	A
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	44	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	65	U
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	90	C
1	1G	91	C
1	1G	96	G
1	1G	101	A
1	1G	105	G
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	131	C
1	1G	162	A
1	1G	163	C
1	1G	174	C
1	1G	180	U
1	1G	182	U
1	1G	185	A
1	1G	186(F)	C
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	195	A
1	1G	197	A
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	227	G
1	1G	231	G
1	1G	240	C

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Mol	Chain	Res	Type
1	1G	247	G
1	1G	251	G
1	1G	252	U
1	1G	266	G
1	1G	267	C
1	1G	274	A
1	1G	280	C
1	1G	281	G
1	1G	289	G
1	1G	298	A
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	356	A
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	388	G
1	1G	396	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	419	C
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	439	A
1	1G	442	C
1	1G	452	A

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Mol	Chain	Res	Type
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	482	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	498	A
1	1G	500	G
1	1G	505	G
1	1G	509	A
1	1G	510	A
1	1G	511	C
1	1G	518	C
1	1G	521	G
1	1G	527	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	536	C
1	1G	537	G
1	1G	544	G
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	562	C
1	1G	564	C
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	581	G
1	1G	587	G
1	1G	597	G
1	1G	607	A
1	1G	608	A
1	1G	614	A
1	1G	615	C
1	1G	630	G

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Mol	Chain	Res	Type
1	1G	631	G
1	1G	632	A
1	1G	633	G
1	1G	653	A
1	1G	654	G
1	1G	665	A
1	1G	666	G
1	1G	687	A
1	1G	688	G
1	1G	723	U
1	1G	724	G
1	1G	728	A
1	1G	731	G
1	1G	746	A
1	1G	749	C
1	1G	750	G
1	1G	769	G
1	1G	770	C
1	1G	777	A
1	1G	778	G
1	1G	780	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	816	A
1	1G	817	C
1	1G	821	G
1	1G	828	A
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	855	G
1	1G	857	C
1	1G	858	G
1	1G	859	A
1	1G	870	U
1	1G	873	A
1	1G	885	G
1	1G	913	A
1	1G	914	A
1	1G	916	G
1	1G	920	U

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Mol	Chain	Res	Type
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	940	C
1	1G	941	G
1	1G	942	G
1	1G	953	G
1	1G	954	G
1	1G	960	U
1	1G	961	U
1	1G	964	A
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	982	U
1	1G	984	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	996	A
1	1G	1002	G
1	1G	1004	A
1	1G	1006	C
1	1G	1008	C
1	1G	1009	G
1	1G	1010	G
1	1G	1021	G
1	1G	1024	G
1	1G	1026	G
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1030	C

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Mol	Chain	Res	Type
1	1G	1031	G
1	1G	1032	A
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1037	C
1	1G	1040	U
1	1G	1046	A
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1056	U
1	1G	1063	C
1	1G	1064	G
1	1G	1066	C
1	1G	1081	G
1	1G	1084	G
1	1G	1086	U
1	1G	1088	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1101	A
1	1G	1108	G
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	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1140	C
1	1G	1144	G
1	1G	1146	A
1	1G	1147	C
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G

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Mol	Chain	Res	Type
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1183	A
1	1G	1184	G
1	1G	1185	G
1	1G	1188	A
1	1G	1189	C
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1201	A
1	1G	1202	G
1	1G	1203	C
1	1G	1204	A
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1225	A
1	1G	1227	A
1	1G	1232	U
1	1G	1235	U
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1255	G
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1274	G
1	1G	1275	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1286	A
1	1G	1287	A
1	1G	1289	A
1	1G	1291	G
1	1G	1297	C
1	1G	1299	A
1	1G	1301	U

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Mol	Chain	Res	Type
1	1G	1305	G
1	1G	1313	U
1	1G	1317	C
1	1G	1319	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1338	G
1	1G	1340	A
1	1G	1346	A
1	1G	1347	G
1	1G	1352	C
1	1G	1353	G
1	1G	1358	U
1	1G	1359	C
1	1G	1360	A
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1366	C
1	1G	1368	G
1	1G	1370	G
1	1G	1379	G
1	1G	1388	C
1	1G	1398	A
1	1G	1399	C
1	1G	1401	G
1	1G	1406	U
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1447	G
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1492	A
1	1G	1497	G
1	1G	1498	U
1	1G	1499	A

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Mol	Chain	Res	Type
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1507	A
1	1G	1517	G
1	1G	1520	G
1	1G	1525	G
1	1G	1529	G
1	1G	1530	G
1	1G	1533	C
1	1G	1534	A
22	1L	2	G
22	1L	3	G
22	1L	4	U
22	1L	7	U
22	1L	9	A
22	1L	10	G
22	1L	18	G
22	1L	23	A
22	1L	24	G
22	1L	26	A
22	1L	27	G
22	1L	30	G
22	1L	34	U8U
22	1L	45	G
22	1L	49	G
22	1L	55	PSU
22	1L	63	U
22	1L	64	G
22	1L	67	C
22	1L	70	C
22	1L	73	A
22	1L	74	C
23	2L	2	G
23	2L	6	G
23	2L	8	4SU
23	2L	9	G
23	2L	13	C
23	2L	15	G
23	2L	16	C
23	2L	18	C
23	2L	19	G

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Mol	Chain	Res	Type
23	2L	21	U
23	2L	22	A
23	2L	32	G
23	2L	39	A
23	2L	48	U
23	2L	49	C
23	2L	56	PSU
23	2L	69	C
23	2L	77	A
24	3L	2	G
24	3L	5	C
24	3L	7	U
24	3L	8	U
24	3L	9	A
24	3L	13	C
24	3L	15	G
24	3L	22	G
24	3L	24	G
24	3L	26	A
24	3L	31	A
24	3L	33	U
24	3L	34	U
24	3L	35	U
24	3L	37	A
24	3L	39	U
24	3L	44	U
24	3L	46	G
24	3L	47	U
24	3L	48	C
24	3L	53	G
24	3L	55	U
24	3L	56	C
24	3L	57	G
24	3L	58	A
24	3L	59	A
24	3L	61	C
24	3L	62	C
24	3L	63	U
24	3L	65	C
24	3L	73	A
25	4L	8	A
25	4L	11	U

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Mol	Chain	Res	Type
25	4L	12	A
25	4L	13	A
25	4L	14	A
25	4L	23	A
25	4L	24	A
25	4L	25	A
26	14	7	G
26	14	9	U
26	14	11	G
26	14	13	A
26	14	31	C
26	14	33	U
26	14	34	C
26	14	35	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	55	G
26	14	58	G
26	14	61	G
26	14	70	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	82	G
26	14	84	A
26	14	90	U
26	14	91	A
26	14	92	G
26	14	93	C
26	14	95	G
26	14	101	G
26	14	102	G
26	14	118	A
26	14	119	A
26	14	120	U
26	14	125	G
26	14	129	C
26	14	131	G
26	14	138	G
26	14	139	G

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Mol	Chain	Res	Type
26	14	140	A
26	14	153	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	171	G
26	14	173	G
26	14	174	C
26	14	175	G
26	14	181	A
26	14	188	G
26	14	196	A
26	14	197	A
26	14	199	A
26	14	200	U
26	14	205	G
26	14	212	G
26	14	214	G
26	14	215	G
26	14	216	A
26	14	217	G
26	14	221	A
26	14	222	A
26	14	229	A
26	14	232	G
26	14	233	A
26	14	234	C
26	14	248	G
26	14	249	C
26	14	250	G
26	14	252	G
26	14	268	C
26	14	269	U
26	14	270(K)	C
26	14	270(L)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	271(B)	G
26	14	271(C)	U
26	14	271	G
26	14	273(C)	C

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Mol	Chain	Res	Type
26	14	273(D)	C
26	14	273(F)	C
26	14	274	G
26	14	275	G
26	14	276	A
26	14	277	C
26	14	278	A
26	14	279	C
26	14	283	A
26	14	289	A
26	14	290	G
26	14	308	G
26	14	311	A
26	14	319	C
26	14	325	G
26	14	329	G
26	14	330	A
26	14	331	A
26	14	342	G
26	14	352	G
26	14	354	G
26	14	362	U
26	14	363	G
26	14	363(E)	U
26	14	380	U
26	14	386	G
26	14	395	U
26	14	396	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A
26	14	415	A
26	14	428	A
26	14	443	A
26	14	444	C
26	14	447	A
26	14	454	A
26	14	455	C
26	14	456	C
26	14	457	A
26	14	459	U

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Mol	Chain	Res	Type
26	14	460	A
26	14	463	G
26	14	470	A
26	14	471	A
26	14	481	G
26	14	493	G
26	14	496	G
26	14	504	U
26	14	505	A
26	14	509	C
26	14	528	A
26	14	529	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	543	C
26	14	549	G
26	14	556	G
26	14	563	G
26	14	564	C
26	14	573	G
26	14	575	A
26	14	599	G
26	14	603	A
26	14	607	U
26	14	615	G
26	14	617	G
26	14	619	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	631	A
26	14	636	G
26	14	637	A
26	14	645	C
26	14	646	A
26	14	649	G
26	14	650	C
26	14	651	G
26	14	654	A

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Mol	Chain	Res	Type
26	14	654(A)	A
26	14	654(B)	C
26	14	654(C)	G
26	14	654(D)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	656	G
26	14	669	G
26	14	685	A
26	14	686	G
26	14	690	G
26	14	701	G
26	14	717	G
26	14	722	A
26	14	730	C
26	14	731	C
26	14	738	G
26	14	745	G
26	14	748	G
26	14	749	C
26	14	750	A
26	14	752	A
26	14	753	C
26	14	764	A
26	14	770	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	782	A
26	14	784	A
26	14	785	G
26	14	791	C
26	14	792	G
26	14	798	G
26	14	805	G
26	14	812	C
26	14	816	C
26	14	819	A
26	14	820	A
26	14	822	U
26	14	827	U

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Mol	Chain	Res	Type
26	14	828	U
26	14	830	G
26	14	831	G
26	14	832	G
26	14	833	U
26	14	840	C
26	14	845	G
26	14	846	C
26	14	854	G
26	14	859	G
26	14	860	U
26	14	861	A
26	14	863	A
26	14	866	A
26	14	875	G
26	14	878	A
26	14	879	G
26	14	897	C
26	14	899	A
26	14	901	A
26	14	904	C
26	14	907	U
26	14	910	A
26	14	911	A
26	14	917	A
26	14	918	A
26	14	925	C
26	14	926	A
26	14	932	G
26	14	934	G
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	957	A
26	14	958	U
26	14	959	A
26	14	961	C
26	14	967	C
26	14	974	G
26	14	974(A)	C
26	14	978	G

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Mol	Chain	Res	Type
26	14	980	A
26	14	983	A
26	14	990	A
26	14	991	C
26	14	996	A
26	14	999	U
26	14	1005	C
26	14	1010	A
26	14	1012	U
26	14	1013	C
26	14	1015	G
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1029	A
26	14	1034	G
26	14	1037	G
26	14	1041	C
26	14	1044	G
26	14	1048	A
26	14	1050	A
26	14	1054	A
26	14	1055	G
26	14	1056	G
26	14	1057	A
26	14	1060	U
26	14	1061	U
26	14	1062	G
26	14	1063	G
26	14	1070	A
26	14	1071	G
26	14	1072	C
26	14	1073	A
26	14	1074	G
26	14	1075	C
26	14	1088	A
26	14	1089	G
26	14	1090	U
26	14	1091	G
26	14	1099	G
26	14	1101	U

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Mol	Chain	Res	Type
26	14	1102	C
26	14	1105	U
26	14	1106	G
26	14	1107	G
26	14	1110	G
26	14	1111	A
26	14	1112	G
26	14	1113	U
26	14	1114	G
26	14	1118	C
26	14	1122	G
26	14	1128	A
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1138	G
26	14	1139	G
26	14	1142	U
26	14	1143	A
26	14	1151	G
26	14	1157	G
26	14	1170	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1176	G
26	14	1177	A
26	14	1178	C
26	14	1188	U
26	14	1198	U
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1213	A
26	14	1220	A
26	14	1236	G
26	14	1253	A
26	14	1256	G
26	14	1269	A
26	14	1271	G
26	14	1272	A

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Mol	Chain	Res	Type
26	14	1273	U
26	14	1274	A
26	14	1275	A
26	14	1297	C
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1325	G
26	14	1329	U
26	14	1332	G
26	14	1338	G
26	14	1342	A
26	14	1343	G
26	14	1345	C
26	14	1347	G
26	14	1348	G
26	14	1349	A
26	14	1352	U
26	14	1359	A
26	14	1365	A
26	14	1368	G
26	14	1369	G
26	14	1370	C
26	14	1379	A
26	14	1380	G
26	14	1385	G
26	14	1386	C
26	14	1390	U
26	14	1391	U
26	14	1395	A
26	14	1396	U
26	14	1397	U
26	14	1404	C
26	14	1407	C
26	14	1411	C
26	14	1416	G
26	14	1418	G
26	14	1419	A
26	14	1421	G
26	14	1422	G
26	14	1424	G
26	14	1425	G

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Mol	Chain	Res	Type
26	14	1427	A
26	14	1428	C
26	14	1436	G
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1453	A
26	14	1455	G
26	14	1460	A
26	14	1467	C
26	14	1471	A
26	14	1475	G
26	14	1483	G
26	14	1493	C
26	14	1495	A
26	14	1505	C
26	14	1506	C
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1515	C
26	14	1516	U
26	14	1522	G
26	14	1523	U
26	14	1526	G
26	14	1528	A
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1543	A
26	14	1544	C
26	14	1547	C
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1566	A
26	14	1569	A
26	14	1578	U
26	14	1580	A
26	14	1582	C

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Mol	Chain	Res	Type
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1589	C
26	14	1593	G
26	14	1598	C
26	14	1600	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1617	C
26	14	1622	G
26	14	1625	C
26	14	1647	G
26	14	1648	C
26	14	1653	G
26	14	1669	A
26	14	1672	C
26	14	1674	G
26	14	1675	C
26	14	1678	G
26	14	1682	G
26	14	1697	G
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1725	G
26	14	1726	G
26	14	1728	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1742	C
26	14	1743	G
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1780	A
26	14	1782	C

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Mol	Chain	Res	Type
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1811	G
26	14	1812	A
26	14	1816	G
26	14	1819	A
26	14	1820	U
26	14	1828	G
26	14	1829	A
26	14	1836	C
26	14	1837	C
26	14	1839	G
26	14	1847	A
26	14	1848	A
26	14	1858	G
26	14	1878	G
26	14	1885	A
26	14	1886	C
26	14	1888	G
26	14	1889	A
26	14	1891	G
26	14	1895	C
26	14	1899	G
26	14	1900	A
26	14	1906	G
26	14	1909	C
26	14	1913	A
26	14	1927	A
26	14	1929	G
26	14	1930	G
26	14	1934	C
26	14	1936	A
26	14	1937	A
26	14	1938	A
26	14	1946	U
26	14	1947	C
26	14	1952	A
26	14	1955	U
26	14	1960	A
26	14	1963	U
26	14	1964	G

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Mol	Chain	Res	Type
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1987	G
26	14	1992	G
26	14	1993	U
26	14	2018	G
26	14	2020	A
26	14	2023	G
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2036	C
26	14	2039	C
26	14	2043	C
26	14	2048	G
26	14	2049	G
26	14	2055	C
26	14	2056	G
26	14	2058	A
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2066	C
26	14	2069	G
26	14	2082	A
26	14	2083	G
26	14	2100	G
26	14	2108	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

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Mol	Chain	Res	Type
26	14	2129	C
26	14	2130	U
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2137	C
26	14	2139	C
26	14	2140	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2153	G
26	14	2157	G
26	14	2158	A
26	14	2161	C
26	14	2162	G
26	14	2164	C
26	14	2165	G
26	14	2166	G
26	14	2168	G
26	14	2171	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2175	C
26	14	2189	U
26	14	2190	G
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	2238	G

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Mol	Chain	Res	Type
26	14	2240	C
26	14	2245	U
26	14	2251	G
26	14	2253	G
26	14	2259	G
26	14	2267	A
26	14	2268	A
26	14	2269	A
26	14	2275	C
26	14	2276	G
26	14	2280	G
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2294	C
26	14	2297	C
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2309	A
26	14	2310	A
26	14	2311	A
26	14	2312	U
26	14	2318	G
26	14	2319	G
26	14	2320	A
26	14	2321	G
26	14	2325	G
26	14	2326	C
26	14	2336	A
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2353	G
26	14	2354	G
26	14	2360	A
26	14	2372	G
26	14	2383	G
26	14	2385	C
26	14	2389	G
26	14	2391	G

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Mol	Chain	Res	Type
26	14	2392	A
26	14	2396	G
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2407	G
26	14	2410	G
26	14	2414	G
26	14	2419	U
26	14	2422	A
26	14	2423	U
26	14	2425	A
26	14	2426	A
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2432	A
26	14	2433	A
26	14	2435	A
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2448	A
26	14	2449	U
26	14	2468	G
26	14	2469	A
26	14	2470	G
26	14	2475	C
26	14	2476	A
26	14	2477	C
26	14	2483	C
26	14	2487	G
26	14	2496	C
26	14	2497	A
26	14	2498	C
26	14	2501	C
26	14	2502	G
26	14	2505	G
26	14	2506	U
26	14	2507	C
26	14	2518	A
26	14	2519	U

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Mol	Chain	Res	Type
26	14	2525	G
26	14	2529	G
26	14	2542	A
26	14	2543	G
26	14	2549	G
26	14	2553	G
26	14	2554	U
26	14	2563	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2578	G
26	14	2579	C
26	14	2581	G
26	14	2582	G
26	14	2585	U
26	14	2586	C
26	14	2589	A
26	14	2599	G
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	2631	G
26	14	2634	G
26	14	2636	U
26	14	2646	C
26	14	2654	A
26	14	2665	A
26	14	2667	C
26	14	2682	U
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

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Mol	Chain	Res	Type
26	14	2713	A
26	14	2714	G
26	14	2717	G
26	14	2726	U
26	14	2733	A
26	14	2742	C
26	14	2744	G
26	14	2747	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2757	A
26	14	2758	A
26	14	2762	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2769	C
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2780	G
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	2808	U
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2823	A
26	14	2833	G
26	14	2834	G

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Mol	Chain	Res	Type
26	14	2835	A
26	14	2838	G
26	14	2848	G
26	14	2849	U
26	14	2860	A
26	14	2872	G
26	14	2873	A
26	14	2877	G
26	14	2880	C
26	14	2884	U
26	14	2885	C
26	14	2886	G
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2895	U
26	14	2896	C
26	14	2897	U
26	14	2899	G
26	14	2900	A
27	1J	0	A
27	1J	7	G
27	1J	8	U
27	1J	9	G
27	1J	12	C
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	25	A
27	1J	26	A
27	1J	27	C
27	1J	28	C
27	1J	29	A
27	1J	30	C
27	1J	33	G
27	1J	42	C
27	1J	44	G
27	1J	45	A
27	1J	53	A
27	1J	58	A
27	1J	59	A
27	1J	71	C

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Mol	Chain	Res	Type
27	1J	73	A
27	1J	74	U
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	98	G
27	1J	108	C
27	1J	109	G
27	1J	115	G
27	1J	119	A

All (211) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	31	G
1	13	49	U
1	13	50	A
1	13	115	G
1	13	119	A
1	13	163	C
1	13	190	G
1	13	244	U
1	13	266	G
1	13	422	C
1	13	428	G
1	13	429	U
1	13	465	A
1	13	484	G
1	13	495	A
1	13	509	A
1	13	560	U
1	13	652	U
1	13	687	A
1	13	703	G
1	13	748	C
1	13	793	U
1	13	871	U
1	13	913	A
1	13	1054	C

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Mol	Chain	Res	Type
1	13	1064	G
1	13	1065	U
1	13	1128	C
1	13	1256	A
1	13	1285	A
1	13	1300	G
1	13	1301	U
1	13	1336	C
1	13	1397	C
1	13	1498	U
1	13	1503	A
1	13	1533	C
22	1K	6	G
22	1K	21	A
22	1K	48	C
22	1K	49	G
22	1K	69	A
23	2K	48	U
24	3K	2	G
24	3K	34	U
24	3K	45	G
24	3K	58	A
25	4K	13	A
25	4K	24	A
26	1H	34	C
26	1H	125	G
26	1H	196	A
26	1H	222	A
26	1H	242	G
26	1H	249	C
26	1H	271(B)	G
26	1H	404	C
26	1H	503	A
26	1H	508	G
26	1H	530	G
26	1H	587	C
26	1H	668	G
26	1H	685	A
26	1H	746	A
26	1H	764	A
26	1H	845	G
26	1H	859	G

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Mol	Chain	Res	Type
26	1H	974	G
26	1H	1022	G
26	1H	1026	U
26	1H	1060	U
26	1H	1081	U
26	1H	1084	A
26	1H	1110	G
26	1H	1178	C
26	1H	1210	A
26	1H	1301	A
26	1H	1378	A
26	1H	1396	U
26	1H	1420	U
26	1H	1493	C
26	1H	1497	U
26	1H	1508	A
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1730	U
26	1H	1757	U
26	1H	1799	G
26	1H	1800	C
26	1H	1858	G
26	1H	1899	G
26	1H	1900	A
26	1H	1992	G
26	1H	2035	G
26	1H	2060	A
26	1H	2172	U
26	1H	2210	G
26	1H	2225	A
26	1H	2346	A
26	1H	2422	A
26	1H	2439	A
26	1H	2566	A
26	1H	2756	U
26	1H	2884	U
27	16	44	G
27	16	108	C
1	1G	64	G

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Mol	Chain	Res	Type
1	1G	80	G
1	1G	87	A
1	1G	89	U
1	1G	115	G
1	1G	250	A
1	1G	251	G
1	1G	266	G
1	1G	327	A
1	1G	345	C
1	1G	412	A
1	1G	429	U
1	1G	485	G
1	1G	509	A
1	1G	528	C
1	1G	560	U
1	1G	631	G
1	1G	687	A
1	1G	748	C
1	1G	793	U
1	1G	913	A
1	1G	972	C
1	1G	992	U
1	1G	1053	G
1	1G	1064	G
1	1G	1126	U
1	1G	1137	C
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1298	C
1	1G	1300	G
1	1G	1346	A
1	1G	1359	C
1	1G	1442	G
1	1G	1498	U
1	1G	1533	C
22	1L	3	G
22	1L	6	G
22	1L	9	A
22	1L	69	A
23	2L	21	U
23	2L	48	U

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Mol	Chain	Res	Type
24	3L	36	U
24	3L	58	A
25	4L	22	A
25	4L	23	A
26	14	34	C
26	14	49	A
26	14	71	A
26	14	90	U
26	14	101	G
26	14	128	C
26	14	139	G
26	14	197	A
26	14	278	A
26	14	310	A
26	14	685	A
26	14	752	A
26	14	764	A
26	14	774	A
26	14	974	G
26	14	990	A
26	14	998	C
26	14	1022	G
26	14	1069	A
26	14	1142(A)	A
26	14	1156	A
26	14	1342	A
26	14	1379	A
26	14	1396	U
26	14	1418	G
26	14	1420	U
26	14	1444(A)	A
26	14	1494	A
26	14	1534	G
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1819	A
26	14	1963	U
26	14	1980	G
26	14	1992	G
26	14	2212	A
26	14	2275	C

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Mol	Chain	Res	Type
26	14	2308	G
26	14	2319	G
26	14	2402	C
26	14	2406	U
26	14	2425	A
26	14	2432	A
26	14	2439	A
26	14	2448	A
26	14	2518	A
26	14	2629	A
26	14	2689	U
26	14	2756	U
26	14	2776	A
26	14	2791	C
26	14	2859	G
27	1J	88	C
27	1J	89	G

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
23	G7M	2K	47	23	23,26,27	4.60	7 (30%)	34,39,42	3.23	14 (41%)
23	4SU	2L	8	23	18,21,22	2.01	3 (16%)	25,30,33	2.75	5 (20%)
23	PSU	2K	56	23	18,21,22	1.36	2 (11%)	21,30,33	2.37	6 (28%)
23	OMC	2L	33	23	19,22,23	1.58	3 (15%)	25,31,34	1.13	1 (4%)
23	OMC	2K	33	23	19,22,23	1.57	3 (15%)	25,31,34	1.07	3 (12%)
23	G7M	2L	47	23	23,26,27	4.71	8 (34%)	34,39,42	3.31	14 (41%)
22	PSU	1K	39	22	18,21,22	1.03	2 (11%)	21,30,33	1.61	4 (19%)
22	T6A	1K	37	22	31,34,35	2.04	9 (29%)	43,49,52	2.17	16 (37%)
22	PSU	1K	55	22	18,21,22	1.31	1 (5%)	21,30,33	1.77	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	5MU	2K	55	23	19,22,23	3.97	5 (26%)	27,32,35	3.35	7 (25%)
22	PSU	1L	55	22	18,21,22	1.23	2 (11%)	21,30,33	1.61	4 (19%)
22	PSU	1L	39	22	18,21,22	1.12	1 (5%)	21,30,33	1.53	3 (14%)
23	PSU	2L	56	23	18,21,22	1.24	2 (11%)	21,30,33	1.65	2 (9%)
23	5MU	2L	55	23	19,22,23	3.88	5 (26%)	27,32,35	3.45	10 (37%)
22	5MU	1K	54	22	19,22,23	3.89	5 (26%)	27,32,35	2.80	8 (29%)
22	T6A	1L	37	22	31,34,35	1.95	7 (22%)	43,49,52	2.26	12 (27%)
22	U8U	1L	34	25,22	20,24,25	2.39	6 (30%)	22,34,37	1.10	3 (13%)
22	U8U	1K	34	25,22	20,24,25	2.20	6 (30%)	22,34,37	1.09	3 (13%)
23	4SU	2K	8	23	18,21,22	2.03	3 (16%)	25,30,33	2.69	5 (20%)
22	5MU	1L	54	22	19,22,23	3.98	5 (26%)	27,32,35	3.36	8 (29%)

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	G7M	2K	47	23	-	0/7/25/26	0/3/3/3
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2
23	PSU	2K	56	23	-	1/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	1/9/27/28	0/2/2/2
23	OMC	2K	33	23	-	1/9/27/28	0/2/2/2
23	G7M	2L	47	23	-	2/7/25/26	0/3/3/3
22	PSU	1K	39	22	-	0/7/25/26	0/2/2/2
22	T6A	1K	37	22	-	2/23/41/42	0/3/3/3
22	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
23	5MU	2K	55	23	-	0/7/25/26	0/2/2/2
22	PSU	1L	55	22	-	1/7/25/26	0/2/2/2
22	PSU	1L	39	22	-	2/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	1/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
22	5MU	1K	54	22	-	0/7/25/26	0/2/2/2
22	T6A	1L	37	22	-	1/23/41/42	0/3/3/3
22	U8U	1L	34	25,22	-	4/10/28/29	0/2/2/2
22	U8U	1K	34	25,22	-	1/10/28/29	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
22	5MU	1L	54	22	-	0/7/25/26	0/2/2/2

All (85) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	47	G7M	C8-N7	18.92	1.65	1.33
23	2K	47	G7M	C8-N7	18.47	1.64	1.33
22	1L	54	5MU	C2-N1	13.21	1.59	1.38
23	2K	55	5MU	C2-N1	13.03	1.58	1.38
22	1K	54	5MU	C2-N1	12.60	1.58	1.38
23	2L	55	5MU	C2-N1	12.59	1.58	1.38
23	2K	55	5MU	C2-N3	6.56	1.49	1.38
22	1K	54	5MU	C2-N3	6.43	1.49	1.38
23	2K	8	4SU	C5-C4	6.42	1.50	1.42
23	2L	47	G7M	C4-N3	6.28	1.48	1.34
23	2K	47	G7M	C4-N3	6.28	1.48	1.34
22	1L	54	5MU	C4-N3	-6.20	1.27	1.38
23	2L	55	5MU	C4-N3	-6.15	1.27	1.38
23	2L	8	4SU	C5-C4	6.05	1.49	1.42
23	2K	47	G7M	C5-C4	-5.93	1.23	1.38
22	1L	54	5MU	C2-N3	5.85	1.48	1.38
22	1L	54	5MU	C6-N1	5.79	1.47	1.38
23	2L	47	G7M	C5-N7	5.76	1.45	1.39
23	2L	47	G7M	C5-C4	-5.76	1.23	1.38
23	2L	55	5MU	C2-N3	5.69	1.47	1.38
22	1K	54	5MU	C6-N1	5.66	1.47	1.38
23	2K	55	5MU	C4-N3	-5.58	1.28	1.38
22	1K	37	T6A	C10-N6	5.46	1.49	1.37
23	2K	55	5MU	C6-N1	5.37	1.47	1.38
22	1K	54	5MU	C4-N3	-5.35	1.28	1.38
23	2L	55	5MU	C6-N1	5.26	1.47	1.38
22	1L	37	T6A	C10-N6	5.18	1.48	1.37
22	1L	34	U8U	C6-C5	5.14	1.49	1.35
22	1L	37	T6A	C10-N11	5.13	1.49	1.35
23	2L	55	5MU	C4-C5	5.12	1.53	1.44
22	1L	34	U8U	C2-N3	4.99	1.50	1.38
22	1K	54	5MU	C4-C5	4.91	1.52	1.44
22	1K	37	T6A	C10-N11	4.86	1.48	1.35
23	2K	55	5MU	C4-C5	4.82	1.52	1.44
22	1L	37	T6A	C6-N6	4.81	1.49	1.39
22	1K	34	U8U	C6-C5	4.67	1.48	1.35
22	1L	34	U8U	C6-N1	4.60	1.45	1.38
23	2K	47	G7M	C5-N7	4.56	1.44	1.39
23	2L	33	OMC	C2-N3	4.50	1.45	1.36
22	1K	55	PSU	C6-C5	4.46	1.40	1.35
23	2K	33	OMC	C2-N3	4.36	1.45	1.36
22	1K	34	U8U	C2-N3	4.31	1.48	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	8	4SU	C2-N1	4.27	1.45	1.38
23	2L	47	G7M	C8-N9	4.23	1.47	1.35
22	1K	34	U8U	C6-N1	4.21	1.45	1.38
23	2L	56	PSU	C6-C5	4.19	1.39	1.35
22	1K	37	T6A	C6-N6	4.14	1.48	1.39
22	1L	54	5MU	C4-C5	4.10	1.51	1.44
22	1L	34	U8U	C2-S2	-3.98	1.61	1.67
22	1L	55	PSU	C6-C5	3.96	1.39	1.35
23	2K	56	PSU	C6-C5	3.94	1.39	1.35
22	1L	34	U8U	C4-N3	3.93	1.46	1.38
22	1K	34	U8U	C2-S2	-3.93	1.61	1.67
23	2K	47	G7M	C8-N9	3.88	1.46	1.35
23	2L	8	4SU	C2-N1	3.87	1.44	1.38
22	1L	39	PSU	C6-C5	3.75	1.39	1.35
23	2K	33	OMC	C4-N4	3.71	1.42	1.33
23	2K	47	G7M	C2-N2	3.70	1.42	1.34
23	2L	33	OMC	C4-N4	3.58	1.42	1.33
23	2K	47	G7M	C4-N9	-3.50	1.29	1.38
23	2L	47	G7M	C4-N9	-3.46	1.29	1.38
22	1K	34	U8U	C4-N3	3.23	1.44	1.38
22	1K	37	T6A	C5-C4	-3.18	1.33	1.39
23	2L	8	4SU	C6-N1	3.07	1.45	1.38
22	1K	37	T6A	C6-N1	-3.01	1.30	1.35
23	2L	47	G7M	C2-N2	2.92	1.41	1.34
23	2K	56	PSU	C4-C5	-2.87	1.36	1.44
22	1K	37	T6A	C5-N7	-2.86	1.33	1.39
22	1K	39	PSU	C6-C5	2.86	1.38	1.35
23	2K	33	OMC	C5-C4	2.82	1.49	1.42
23	2L	33	OMC	C5-C4	2.80	1.49	1.42
22	1L	37	T6A	ODB-C13	-2.47	1.22	1.30
22	1K	37	T6A	C4-N9	-2.45	1.32	1.37
23	2K	8	4SU	C6-N1	2.43	1.43	1.38
22	1K	37	T6A	ODB-C13	-2.40	1.23	1.30
22	1L	37	T6A	C5-C4	-2.36	1.34	1.39
22	1L	55	PSU	C2-N1	2.34	1.39	1.36
22	1L	37	T6A	C5-N7	-2.32	1.34	1.39
22	1L	37	T6A	C4-N9	-2.30	1.32	1.37
22	1L	34	U8U	O4-C4	-2.27	1.19	1.23
22	1K	39	PSU	C4-C5	-2.09	1.38	1.44
22	1K	34	U8U	O4-C4	-2.09	1.19	1.23
22	1K	37	T6A	ODA-C13	2.08	1.28	1.22
23	2L	56	PSU	C2-N1	2.07	1.39	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	47	G7M	C5-C6	2.05	1.48	1.43

All (132) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	47	G7M	CN7-N7-C5	11.62	141.28	126.80
22	1L	54	5MU	C5-C4-N3	11.15	125.02	115.32
23	2K	47	G7M	CN7-N7-C5	10.77	140.23	126.80
23	2L	55	5MU	C5-C4-N3	10.60	124.54	115.32
23	2K	55	5MU	C5-C4-N3	10.27	124.25	115.32
22	1K	54	5MU	C5-C4-N3	9.09	123.22	115.32
23	2K	8	4SU	C4-N3-C2	-9.04	118.65	127.31
23	2L	8	4SU	C4-N3-C2	-8.74	118.94	127.31
23	2L	8	4SU	C5-C4-N3	7.76	121.97	114.75
23	2K	8	4SU	C5-C4-N3	7.02	121.28	114.75
23	2L	55	5MU	C4-N3-C2	-6.84	118.37	127.34
23	2L	55	5MU	C5-C6-N1	-6.76	115.97	123.31
22	1L	54	5MU	O4-C4-C5	-6.57	117.41	124.92
23	2L	55	5MU	C6-C5-C4	6.50	123.38	118.02
23	2K	55	5MU	C6-C5-C4	6.30	123.22	118.02
23	2L	47	G7M	C8-N7-C5	-6.29	99.92	107.78
23	2K	55	5MU	C4-N3-C2	-6.27	119.12	127.34
23	2K	47	G7M	C6-C5-N7	-6.23	124.37	132.17
22	1L	54	5MU	C4-N3-C2	-6.22	119.19	127.34
23	2K	47	G7M	C8-N7-C5	-6.18	100.06	107.78
22	1L	37	T6A	N3-C2-N1	-5.99	119.52	128.58
23	2K	55	5MU	C5-C6-N1	-5.97	116.83	123.31
23	2K	55	5MU	O4-C4-C5	-5.95	118.12	124.92
23	2K	47	G7M	N9-C8-N7	-5.88	98.19	112.48
23	2K	56	PSU	N1-C2-N3	5.88	121.37	115.17
22	1L	37	T6A	C12-N11-C10	5.85	131.72	121.99
23	2L	47	G7M	N9-C8-N7	-5.80	98.40	112.48
22	1L	54	5MU	C6-C5-C4	5.45	122.51	118.02
22	1K	37	T6A	N3-C2-N1	-5.41	120.40	128.58
23	2K	56	PSU	C4-N3-C2	-5.35	119.00	126.37
22	1L	54	5MU	C5-C6-N1	-5.24	117.62	123.31
23	2L	47	G7M	C6-C5-N7	-5.13	125.74	132.17
22	1K	54	5MU	O4-C4-C5	-5.06	119.13	124.92
23	2L	55	5MU	O4-C4-C5	-5.02	119.17	124.92
23	2L	8	4SU	C5-C4-S4	-4.96	118.64	124.31
23	2K	55	5MU	C5M-C5-C6	-4.95	116.16	122.85
22	1K	37	T6A	C5-C4-N3	-4.88	119.99	126.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	37	T6A	C4-C5-C6	4.81	120.78	116.78
23	2K	56	PSU	C6-N1-C2	-4.73	118.31	122.69
22	1K	54	5MU	C6-C5-C4	4.71	121.90	118.02
22	1K	39	PSU	C4-N3-C2	-4.63	119.99	126.37
22	1K	54	5MU	C4-N3-C2	-4.59	121.32	127.34
22	1K	37	T6A	N6-C10-N11	4.52	119.98	113.77
22	1K	54	5MU	C5-C6-N1	-4.51	118.41	123.31
22	1L	37	T6A	C5-C4-N3	-4.50	120.53	126.72
23	2K	8	4SU	C5-C4-S4	-4.45	119.23	124.31
22	1L	55	PSU	C4-N3-C2	-4.43	120.26	126.37
23	2K	47	G7M	C4-C5-N7	4.40	114.86	107.67
22	1K	37	T6A	N9-C8-N7	-4.38	107.72	113.94
22	1K	54	5MU	C5M-C5-C6	-4.34	116.98	122.85
23	2L	56	PSU	C4-N3-C2	-4.31	120.44	126.37
22	1K	55	PSU	N1-C2-N3	4.23	119.63	115.17
23	2L	55	5MU	C5M-C5-C6	-4.21	117.15	122.85
23	2L	47	G7M	C4-C5-N7	4.14	114.43	107.67
23	2L	47	G7M	C2-N3-C4	4.05	119.28	112.30
22	1K	55	PSU	C4-N3-C2	-4.03	120.83	126.37
22	1L	39	PSU	C4-N3-C2	-4.02	120.83	126.37
23	2L	47	G7M	CN7-N7-C8	-3.96	118.80	124.79
23	2K	47	G7M	O6-C6-C5	-3.95	119.19	128.01
22	1L	37	T6A	C4-C5-C6	3.92	120.04	116.78
23	2L	47	G7M	O6-C6-C5	-3.89	119.32	128.01
22	1L	37	T6A	N6-C10-N11	3.84	119.05	113.77
23	2K	47	G7M	C2-N3-C4	3.78	118.81	112.30
23	2L	47	G7M	C5-C4-N9	3.77	113.92	105.88
22	1L	37	T6A	N9-C8-N7	-3.75	108.61	113.94
23	2L	47	G7M	C5-C6-N1	3.74	119.58	111.84
23	2K	47	G7M	C5-C4-N3	-3.73	121.10	128.15
23	2L	56	PSU	N1-C2-N3	3.66	119.03	115.17
23	2L	47	G7M	C5-C4-N3	-3.66	121.23	128.15
22	1L	37	T6A	O10-C10-N6	-3.58	117.27	123.64
23	2K	8	4SU	N3-C2-N1	3.58	119.56	114.89
22	1L	37	T6A	C13-C12-N11	-3.55	102.38	110.17
23	2L	8	4SU	N3-C2-N1	3.54	119.50	114.89
22	1L	54	5MU	C5M-C5-C6	-3.45	118.18	122.85
23	2K	47	G7M	C5-C4-N9	3.43	113.20	105.88
23	2K	47	G7M	C5-C6-N1	3.41	118.89	111.84
23	2K	47	G7M	CN7-N7-C8	-3.35	119.71	124.79
22	1L	37	T6A	C2-N3-C4	3.25	119.78	111.83
22	1K	55	PSU	C6-N1-C2	-3.24	119.69	122.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	34	U8U	C1'-N1-C6	-3.20	115.88	121.15
22	1L	39	PSU	N1-C2-N3	3.20	118.54	115.17
22	1K	39	PSU	N1-C2-N3	3.18	118.53	115.17
22	1L	54	5MU	C6-N1-C2	-3.17	118.14	121.30
22	1K	37	T6A	C2-N3-C4	3.12	119.45	111.83
22	1L	55	PSU	N1-C2-N3	3.11	118.44	115.17
22	1K	55	PSU	O2-C2-N1	-3.09	119.60	122.79
23	2L	47	G7M	C2-N1-C6	-3.09	119.51	125.11
22	1K	37	T6A	C5-N7-C8	2.93	108.06	103.45
22	1K	34	U8U	C5-C4-N3	2.78	119.45	115.21
22	1K	37	T6A	C14-C12-N11	-2.77	104.33	111.70
23	2L	55	5MU	N3-C2-N1	2.77	118.50	114.89
22	1K	37	T6A	N3-C4-N9	2.76	131.87	127.17
22	1K	37	T6A	O10-C10-N6	-2.67	118.90	123.64
22	1L	37	T6A	N3-C4-N9	2.66	131.69	127.17
23	2K	47	G7M	C8-N9-C4	2.65	113.65	107.09
23	2K	47	G7M	C2-N1-C6	-2.62	120.36	125.11
23	2K	56	PSU	O2-C2-N1	-2.60	120.11	122.79
22	1L	37	T6A	C5-N7-C8	2.56	107.48	103.45
22	1L	34	U8U	O4-C4-C5	-2.54	120.44	124.71
23	2L	47	G7M	C8-N9-C4	2.52	113.33	107.09
23	2K	8	4SU	C5-C6-N1	-2.38	117.97	121.84
22	1L	39	PSU	O2-C2-N1	-2.38	120.33	122.79
23	2K	33	OMC	C1'-N1-C6	-2.38	115.70	120.78
22	1L	34	U8U	C5-C4-N3	2.36	118.81	115.21
23	2L	33	OMC	C1'-N1-C6	-2.35	115.75	120.78
22	1K	37	T6A	ODB-C13-ODA	-2.35	118.75	124.08
23	2K	56	PSU	O4-C4-C5	-2.35	118.18	124.01
23	2K	55	5MU	O2-C2-N1	-2.27	119.84	122.80
23	2L	47	G7M	C1'-N9-C4	-2.26	119.80	126.49
22	1K	37	T6A	C13-C12-N11	2.23	115.07	110.17
22	1K	39	PSU	C5-C4-N3	2.22	121.43	116.55
22	1K	54	5MU	C6-N1-C2	-2.21	119.11	121.30
22	1K	54	5MU	C5M-C5-C4	2.19	121.12	118.78
23	2L	55	5MU	O2-C2-N1	-2.18	119.96	122.80
22	1K	37	T6A	C5-C4-N9	2.14	108.14	105.81
22	1L	37	T6A	C14-C12-C13	2.14	113.76	110.03
23	2L	8	4SU	C1'-N1-C2	2.12	121.41	117.59
23	2K	56	PSU	C6-C5-C4	2.11	119.60	118.17
23	2K	33	OMC	C1'-N1-C2	2.11	123.09	118.44
22	1K	34	U8U	C-C5-C6	-2.10	118.06	121.21
22	1K	37	T6A	C4-C5-N7	-2.10	108.19	110.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	55	PSU	O4-C4-C5	-2.09	118.81	124.01
22	1L	55	PSU	O4'-C1'-C2'	2.09	108.04	105.15
23	2L	55	5MU	C6-N1-C2	-2.08	119.23	121.30
23	2K	33	OMC	N4-C4-N3	2.07	121.60	117.91
22	1K	37	T6A	C15-C14-C12	-2.06	108.22	112.29
22	1K	39	PSU	O4-C4-C5	-2.06	118.90	124.01
23	2L	55	5MU	O4-C4-N3	-2.04	116.29	120.11
23	2K	47	G7M	C1'-N9-C4	-2.03	120.50	126.49
22	1K	37	T6A	C4-N9-C8	2.02	107.86	105.74
22	1L	54	5MU	N3-C2-N1	2.02	117.52	114.89
22	1K	34	U8U	C1'-N1-C6	-2.01	117.84	121.15

There are no chirality outliers.

All (17) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1L	37	T6A	C14-C12-N11-C10
22	1K	34	U8U	C5-C-N-CA
22	1L	34	U8U	N-C-C5-C4
22	1L	34	U8U	O4'-C4'-C5'-O5'
23	2K	33	OMC	C1'-C2'-O2'-CM2
23	2L	47	G7M	O4'-C4'-C5'-O5'
22	1L	34	U8U	C3'-C4'-C5'-O5'
22	1K	37	T6A	C3'-C4'-C5'-O5'
22	1K	37	T6A	O4'-C4'-C5'-O5'
22	1L	55	PSU	C4'-C5'-O5'-P
23	2L	56	PSU	C4'-C5'-O5'-P
22	1L	39	PSU	O4'-C1'-C5-C4
23	2L	47	G7M	C3'-C4'-C5'-O5'
22	1L	39	PSU	O4'-C1'-C5-C6
22	1L	34	U8U	N-C-C5-C6
23	2K	56	PSU	O4'-C4'-C5'-O5'
23	2L	33	OMC	C2'-C1'-N1-C2

There are no ring outliers.

15 monomers are involved in 20 short contacts:

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

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2L	33	OMC	1	0
23	2K	33	OMC	1	0
23	2L	47	G7M	2	0
22	1K	55	PSU	2	0
23	2K	55	5MU	2	0
22	1L	55	PSU	1	0
22	1L	39	PSU	1	0
23	2L	56	PSU	2	0
23	2L	55	5MU	1	0
22	1K	54	5MU	1	0
22	1L	34	U8U	1	0
22	1K	34	U8U	3	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1409 ligands modelled in this entry, 1407 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
57	SF4	3E	301	4	0,12,12	-	-	-		
57	SF4	32	302	4	0,12,12	-	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	SF4	3E	301	4	-	-	0/6/5/5
57	SF4	32	302	4	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 3 short contacts:

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

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
25	4K	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4K	25:A	O3'	26:A	P	3.07

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	1496/1519 (98%)	-0.12	32 (2%) 63 55	52, 95, 168, 235	0
1	1G	1506/1519 (99%)	-0.10	32 (2%) 63 55	67, 112, 176, 243	0
2	12	207/256 (80%)	0.85	24 (11%) 9 8	128, 159, 178, 183	0
2	1E	231/256 (90%)	0.85	24 (10%) 11 10	108, 138, 168, 172	0
3	22	195/239 (81%)	0.56	10 (5%) 33 28	119, 140, 163, 172	0
3	2E	205/239 (85%)	0.36	5 (2%) 59 51	82, 105, 135, 142	0
4	32	208/209 (99%)	0.63	13 (6%) 26 22	92, 113, 135, 140	0
4	3E	207/209 (99%)	0.58	11 (5%) 32 27	77, 104, 125, 136	0
5	42	149/162 (91%)	0.63	11 (7%) 20 18	97, 118, 134, 142	0
5	4E	149/162 (91%)	0.56	9 (6%) 27 23	76, 96, 115, 122	0
6	52	101/101 (100%)	0.54	4 (3%) 42 35	81, 99, 115, 130	0
6	5E	100/101 (99%)	0.50	5 (5%) 34 28	76, 97, 116, 122	0
7	62	140/156 (89%)	0.48	12 (8%) 16 14	108, 126, 138, 140	0
7	6E	154/156 (98%)	0.28	7 (4%) 38 31	96, 114, 144, 165	0
8	72	137/138 (99%)	0.65	11 (8%) 18 16	95, 123, 136, 143	0
8	7E	138/138 (100%)	0.56	8 (5%) 29 24	84, 104, 116, 127	0
9	82	121/128 (94%)	0.96	19 (15%) 5 5	109, 156, 170, 181	0
9	8E	126/128 (98%)	0.78	15 (11%) 9 8	80, 133, 153, 158	0
10	1A	80/105 (76%)	1.68	24 (30%) 1 1	114, 151, 163, 163	0
10	1I	95/105 (90%)	0.63	5 (5%) 32 27	76, 120, 160, 164	0
11	2A	113/129 (87%)	0.63	9 (7%) 18 16	78, 106, 120, 129	0
11	2I	111/129 (86%)	0.40	6 (5%) 31 26	69, 102, 117, 129	0
12	3A	122/132 (92%)	0.89	19 (15%) 5 5	80, 96, 120, 140	0
12	3I	122/132 (92%)	0.38	11 (9%) 15 13	61, 72, 100, 126	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	111/126 (88%)	0.91	24 (21%) 2 2	112, 142, 159, 167	0
13	4I	119/126 (94%)	0.59	13 (10%) 10 9	81, 108, 129, 137	0
14	5A	59/61 (96%)	0.94	9 (15%) 5 5	124, 137, 150, 154	0
14	5I	60/61 (98%)	0.39	3 (5%) 34 28	77, 93, 107, 120	0
15	6A	87/89 (97%)	-0.01	2 (2%) 61 53	78, 106, 118, 120	0
15	6I	87/89 (97%)	0.09	2 (2%) 61 53	73, 92, 109, 116	0
16	7A	84/88 (95%)	0.78	9 (10%) 11 10	88, 101, 121, 145	0
16	7I	83/88 (94%)	0.96	8 (9%) 13 12	93, 106, 134, 154	0
17	8A	99/105 (94%)	0.29	6 (6%) 27 22	90, 105, 120, 124	0
17	8I	100/105 (95%)	0.36	4 (4%) 42 35	85, 101, 110, 115	0
18	9A	67/88 (76%)	0.70	7 (10%) 11 10	89, 107, 126, 130	0
18	9I	68/88 (77%)	0.54	4 (5%) 28 23	83, 102, 124, 127	0
19	AA	62/93 (66%)	1.18	13 (20%) 2 2	132, 153, 166, 171	0
19	AI	82/93 (88%)	0.37	4 (4%) 35 29	83, 106, 127, 139	0
20	BA	99/106 (93%)	0.21	4 (4%) 42 35	84, 104, 131, 142	0
20	BI	97/106 (91%)	0.45	6 (6%) 26 22	98, 116, 141, 150	0
21	1B	22/27 (81%)	0.77	3 (13%) 7 6	118, 127, 133, 141	0
21	1F	23/27 (85%)	0.00	0 100 100	84, 95, 101, 111	0
22	1K	67/76 (88%)	1.46	14 (20%) 2 2	76, 147, 198, 203	0
22	1L	64/76 (84%)	2.05	21 (32%) 1 1	108, 196, 215, 219	0
23	2K	72/77 (93%)	0.10	1 (1%) 73 67	64, 86, 118, 128	0
23	2L	72/77 (93%)	0.55	6 (8%) 17 15	73, 105, 137, 148	0
24	3K	70/76 (92%)	1.38	14 (20%) 3 3	71, 198, 240, 244	0
24	3L	72/76 (94%)	1.29	17 (23%) 2 2	77, 194, 224, 230	0
25	4K	21/27 (77%)	1.12	7 (33%) 1 1	67, 124, 208, 209	0
25	4L	19/27 (70%)	1.12	6 (31%) 1 1	86, 143, 217, 218	0
26	14	2855/2917 (97%)	-0.32	39 (1%) 73 67	45, 78, 200, 265	0
26	1H	2885/2917 (98%)	-0.50	21 (0%) 84 80	31, 66, 193, 330	3 (0%)
27	16	122/122 (100%)	-0.63	0 100 100	57, 82, 103, 188	0
27	1J	122/122 (100%)	-0.09	2 (1%) 70 63	78, 110, 130, 191	0
28	71	133/229 (58%)	1.08	21 (15%) 5 4	146, 216, 237, 244	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	79	57/229 (24%)	1.67	16 (28%) 1 1	146, 199, 221, 227	0
29	11	273/276 (98%)	-0.01	4 (1%) 72 65	37, 59, 76, 92	0
29	19	274/276 (99%)	0.33	12 (4%) 39 32	46, 69, 87, 106	0
30	21	203/206 (98%)	0.39	9 (4%) 39 32	46, 80, 123, 134	0
30	29	204/206 (99%)	0.39	11 (5%) 31 26	53, 88, 124, 134	0
31	31	202/210 (96%)	-0.08	2 (0%) 79 74	43, 72, 107, 128	0
31	39	204/210 (97%)	0.34	12 (5%) 28 23	51, 98, 144, 167	0
32	41	179/182 (98%)	0.14	3 (1%) 69 62	72, 93, 130, 142	0
32	49	181/182 (99%)	0.53	11 (6%) 27 22	106, 125, 148, 166	0
33	51	174/180 (96%)	0.50	11 (6%) 26 22	75, 98, 112, 124	0
33	59	70/180 (38%)	1.84	23 (32%) 1 1	136, 156, 178, 182	0
34	61	146/148 (98%)	0.42	6 (4%) 41 34	73, 123, 144, 151	0
34	69	145/148 (97%)	0.68	18 (12%) 8 8	83, 118, 146, 155	0
35	15	138/140 (98%)	1.03	20 (14%) 6 5	73, 99, 128, 143	0
35	58	137/140 (97%)	0.54	7 (5%) 33 28	61, 83, 118, 132	0
36	25	122/122 (100%)	0.07	5 (4%) 41 34	64, 81, 99, 111	0
36	68	122/122 (100%)	-0.07	1 (0%) 82 78	53, 68, 85, 93	0
37	35	147/150 (98%)	0.36	6 (4%) 41 34	52, 95, 126, 140	0
37	78	147/150 (98%)	-0.13	1 (0%) 84 80	42, 74, 98, 107	0
38	45	139/141 (98%)	0.57	9 (6%) 25 21	64, 95, 114, 130	0
38	88	141/141 (100%)	-0.11	1 (0%) 84 80	49, 70, 92, 112	0
39	55	118/118 (100%)	-0.07	1 (0%) 82 78	59, 74, 88, 106	0
39	98	118/118 (100%)	0.07	1 (0%) 82 78	58, 76, 93, 107	0
40	65	110/112 (98%)	0.60	9 (8%) 17 15	82, 104, 124, 131	0
40	A8	111/112 (99%)	-0.05	2 (1%) 67 59	66, 82, 103, 110	0
41	75	133/146 (91%)	0.34	7 (5%) 32 27	77, 91, 124, 144	0
41	B8	136/146 (93%)	0.51	17 (12%) 8 7	64, 83, 122, 132	0
42	85	116/118 (98%)	0.61	7 (6%) 27 23	60, 87, 118, 120	0
42	C8	115/118 (97%)	0.29	3 (2%) 57 49	50, 73, 102, 109	0
43	95	100/101 (99%)	0.69	6 (6%) 27 23	58, 109, 127, 135	0
43	D8	100/101 (99%)	0.63	4 (4%) 42 35	52, 96, 116, 127	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	A5	111/113 (98%)	0.11	3 (2%) 56 48	55, 70, 94, 135	0
44	E8	110/113 (97%)	-0.04	3 (2%) 56 48	51, 67, 91, 104	0
45	B5	94/96 (97%)	0.17	2 (2%) 63 55	62, 78, 98, 110	0
45	F8	95/96 (98%)	-0.03	1 (1%) 78 73	47, 63, 90, 97	0
46	C5	104/110 (94%)	1.41	28 (26%) 1 1	85, 113, 147, 155	0
46	G8	103/110 (93%)	0.81	10 (9%) 13 12	66, 88, 118, 129	0
47	D5	133/206 (64%)	0.51	7 (5%) 32 27	102, 130, 153, 163	0
47	H8	170/206 (82%)	0.19	4 (2%) 59 51	76, 111, 188, 193	0
48	E5	76/85 (89%)	0.24	2 (2%) 57 49	56, 83, 96, 104	0
48	I8	77/85 (90%)	-0.13	3 (3%) 43 35	45, 65, 78, 93	0
49	F5	94/98 (95%)	0.46	7 (7%) 20 18	59, 76, 106, 129	0
49	J8	94/98 (95%)	0.43	8 (8%) 16 15	46, 67, 110, 116	0
50	G5	69/72 (95%)	0.30	3 (4%) 40 32	77, 96, 116, 124	0
50	K8	68/72 (94%)	0.16	3 (4%) 39 32	54, 72, 92, 114	0
51	H5	58/60 (96%)	0.19	0 100 100	70, 90, 116, 124	0
51	L8	58/60 (96%)	-0.08	0 100 100	55, 74, 99, 111	0
52	M8	49/71 (69%)	0.84	6 (12%) 8 8	94, 136, 150, 166	0
53	J5	56/60 (93%)	0.27	1 (1%) 67 59	52, 77, 126, 137	0
53	N8	48/60 (80%)	-0.09	1 (2%) 63 55	44, 77, 124, 127	0
54	L5	47/49 (95%)	-0.37	1 (2%) 63 55	44, 55, 77, 97	0
54	P8	47/49 (95%)	-0.42	2 (4%) 40 32	40, 46, 68, 76	0
55	M5	64/65 (98%)	0.20	3 (4%) 36 30	62, 73, 88, 112	0
55	Q8	64/65 (98%)	-0.24	0 100 100	47, 60, 76, 88	0
All	All	20647/21961 (94%)	0.13	959 (4%) 37 31	31, 93, 171, 330	3 (0%)

All (959) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
22	1L	76	A	13.1
22	1K	76	A	9.5
43	D8	37	VAL	8.9
33	59	170	ARG	8.0
9	82	115	GLY	7.8
22	1L	75	C	7.7

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Mol	Chain	Res	Type	RSRZ
28	79	209	LEU	7.7
41	B8	104	ASN	7.7
22	1L	71	C	7.6
33	59	169	VAL	7.6
10	1A	47	PHE	7.2
34	69	20	ASP	7.1
13	4A	95	GLY	7.1
10	1A	62	HIS	6.7
24	3L	34	U	6.7
24	3L	35	U	6.5
13	4A	102	ARG	6.5
40	65	20	ARG	6.5
13	4A	117	VAL	6.4
33	59	168	PRO	6.4
28	71	193	ILE	6.4
22	1L	74	C	6.3
41	B8	106	SER	6.1
12	3A	28	LYS	6.0
33	59	171	LEU	5.9
9	8E	126	SER	5.9
12	3A	27	LEU	5.7
26	14	880	G	5.6
10	1A	58	ASP	5.5
46	C5	49	VAL	5.5
13	4I	120	LYS	5.5
29	19	262	ARG	5.5
29	19	27	THR	5.5
22	1K	74	C	5.5
22	1L	72	C	5.4
9	8E	127	LYS	5.4
35	15	84	LYS	5.4
33	59	162	ILE	5.3
10	1A	49	VAL	5.3
10	1A	59	SER	5.2
2	1E	29	ALA	5.2
22	1K	75	C	5.1
46	C5	59	GLY	5.1
2	1E	81	VAL	5.1
34	69	1	MET	5.0
41	75	106	SER	5.0
20	BI	12	ALA	5.0
12	3A	64	TYR	5.0

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Mol	Chain	Res	Type	RSRZ
48	E5	8	GLY	5.0
46	G8	104	GLY	4.9
50	G5	44	LEU	4.9
33	51	9	ILE	4.9
10	1A	85	LEU	4.9
38	45	2	LEU	4.9
14	5I	2	ALA	4.9
24	3K	34	U	4.9
24	3K	36	U	4.9
54	L5	47	ARG	4.9
20	BA	9	ASN	4.9
12	3A	20	LYS	4.9
22	1L	1	G	4.8
46	C5	29	GLU	4.8
28	79	47	LEU	4.8
13	4I	102	ARG	4.7
22	1K	73	A	4.7
42	C8	116	ALA	4.7
27	1J	88	C	4.7
34	69	3	VAL	4.7
34	61	116	LEU	4.7
12	3I	17	LYS	4.7
12	3A	21	LYS	4.7
25	4K	13	A	4.6
46	C5	47	LYS	4.6
4	3E	96	LEU	4.6
13	4I	118	ALA	4.6
46	C5	105	ALA	4.6
2	12	102	LEU	4.5
12	3A	26	ALA	4.5
10	1A	57	LYS	4.5
22	1K	31	A	4.5
26	14	2902	C	4.5
10	1A	46	ARG	4.5
12	3A	19	ARG	4.5
35	15	9	VAL	4.5
22	1L	73	A	4.5
30	29	116	VAL	4.4
26	14	229	A	4.4
10	1A	56	HIS	4.4
10	1A	63	PHE	4.4
46	C5	63	LYS	4.4

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Mol	Chain	Res	Type	RSRZ
13	4I	96	LEU	4.3
26	14	2901	C	4.3
46	C5	58	GLY	4.3
47	D5	171	ILE	4.3
10	1A	65	LEU	4.3
13	4A	111	LYS	4.3
46	G8	89	PHE	4.3
35	15	92	ALA	4.3
33	59	155	SER	4.2
23	2L	1	C	4.2
55	M5	40	GLU	4.2
41	75	104	ASN	4.2
22	1L	40	C	4.2
24	3K	70	C	4.2
55	M5	34	TRP	4.2
46	C5	46	LYS	4.2
12	3I	28	LYS	4.2
3	22	39	ILE	4.2
7	62	37	ASN	4.1
2	12	70	PHE	4.1
17	8I	29	HIS	4.1
28	79	171	ILE	4.1
37	35	110	TYR	4.1
13	4A	100	GLY	4.1
12	3I	19	ARG	4.1
22	1K	72	C	4.1
41	B8	109	GLU	4.1
13	4A	118	ALA	4.0
13	4A	104	ARG	4.0
13	4A	107	ALA	4.0
33	51	170	ARG	4.0
44	E8	92	ARG	4.0
1	1G	1202	G	4.0
7	62	85	TYR	4.0
46	C5	44	ILE	3.9
10	1A	54	PHE	3.9
35	15	132	ALA	3.9
9	8E	115	GLY	3.9
22	1L	14	A	3.9
40	A8	110	LEU	3.9
26	1H	893	C	3.9
8	72	91	ARG	3.9

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Mol	Chain	Res	Type	RSRZ
35	58	72	TYR	3.9
46	C5	45	VAL	3.9
24	3K	71	C	3.9
29	19	5	LYS	3.8
14	5A	39	LEU	3.8
40	65	60	GLY	3.8
9	82	109	VAL	3.8
26	14	1026	U	3.8
8	72	86	ILE	3.8
3	2E	193	TYR	3.8
35	15	129	PRO	3.8
24	3L	1	G	3.8
5	42	5	ASP	3.8
1	1G	883	C	3.8
2	12	13	ALA	3.8
19	AA	58	VAL	3.7
19	AA	76	PRO	3.7
30	21	195	LEU	3.7
43	95	74	LYS	3.7
11	2A	89	ALA	3.7
31	39	72	ARG	3.7
26	14	896	A	3.7
33	59	165	ALA	3.7
45	B5	69	TYR	3.7
49	J8	92	LYS	3.7
26	1H	1762[A]	A	3.6
43	95	81	TYR	3.6
33	59	76	VAL	3.6
22	1K	32	C	3.6
9	8E	121	ARG	3.6
46	G8	98	VAL	3.6
44	A5	111	HIS	3.6
5	4E	88	LYS	3.6
5	4E	81	GLU	3.6
33	59	79	VAL	3.6
32	49	34	LEU	3.6
9	8E	117	HIS	3.6
2	12	163	PHE	3.6
28	71	202	GLU	3.6
9	82	47	LEU	3.6
35	58	137	LYS	3.5
18	9I	20	ALA	3.5

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Mol	Chain	Res	Type	RSRZ
49	J8	77	ALA	3.5
33	59	148	ILE	3.5
45	B5	94	GLY	3.5
11	2A	25	TYR	3.5
18	9A	84	LYS	3.5
22	1L	69	A	3.5
13	4A	93	ARG	3.5
5	42	153	LYS	3.5
13	4I	114	ARG	3.5
41	B8	112	ARG	3.5
28	71	208	PHE	3.5
11	2I	25	TYR	3.5
1	13	230	G	3.5
12	3I	11	VAL	3.5
24	3L	70	C	3.5
24	3L	72	C	3.5
42	85	25	TRP	3.5
12	3I	7	ILE	3.4
38	88	104	PHE	3.4
28	71	175	VAL	3.4
29	19	26	LYS	3.4
34	69	18	VAL	3.4
10	1A	61	GLU	3.4
12	3I	16	GLU	3.4
1	1G	975	A	3.4
37	35	47	ASP	3.4
16	7A	84	ALA	3.4
35	15	85	ILE	3.4
15	6I	60	VAL	3.4
46	C5	51	VAL	3.4
35	58	129	PRO	3.4
2	1E	80	ILE	3.4
30	21	72	VAL	3.4
41	B8	108	ARG	3.4
1	13	76	G	3.4
18	9A	20	ALA	3.4
26	14	2900	A	3.4
19	AA	56	GLN	3.4
55	M5	35	GLN	3.4
2	1E	33	TYR	3.4
22	1L	31	A	3.4
49	J8	94	LEU	3.3

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Mol	Chain	Res	Type	RSRZ
1	1G	966	G	3.3
22	1L	3	G	3.3
2	1E	13	ALA	3.3
13	4A	116	THR	3.3
3	2E	94	LEU	3.3
14	5A	44	LEU	3.3
38	45	93	TYR	3.3
28	79	165	ASN	3.3
34	69	11	ASN	3.3
30	29	77	ILE	3.3
26	14	614	U	3.3
48	I8	9	SER	3.3
13	4A	114	ARG	3.3
49	F5	91	LYS	3.3
2	1E	208	ILE	3.3
47	D5	57	ILE	3.3
25	4L	7	G	3.3
26	1H	254	G	3.3
32	41	3	LEU	3.3
34	69	12	LEU	3.3
13	4A	103	THR	3.3
2	1E	14	GLY	3.3
9	82	125	TYR	3.3
24	3L	33	U	3.3
24	3L	37	A	3.3
25	4K	14	A	3.3
28	79	198	ALA	3.3
9	8E	128	ARG	3.3
30	29	76	ARG	3.3
4	32	23	GLY	3.3
22	1L	2	G	3.3
46	G8	93	GLY	3.3
9	8E	125	TYR	3.2
13	4A	87	TYR	3.2
28	79	202	GLU	3.2
10	1A	91	PRO	3.2
8	72	9	MET	3.2
1	1G	915	A	3.2
26	1H	529	A	3.2
52	M8	49	PHE	3.2
14	5A	38	GLY	3.2
10	1A	64	GLU	3.2

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Mol	Chain	Res	Type	RSRZ
16	7A	29	ASP	3.2
20	BI	72	LEU	3.2
31	39	12	LEU	3.2
29	19	35	LYS	3.2
23	2L	40	C	3.2
10	1A	74	ILE	3.2
6	5E	46	ARG	3.2
19	AA	75	ALA	3.2
22	1L	18	G	3.2
40	65	112	PHE	3.2
19	AA	60	VAL	3.2
30	21	203	LYS	3.2
3	22	155	GLY	3.2
1	1G	974	A	3.2
33	59	159	GLU	3.2
31	39	65	TRP	3.2
9	8E	114	TYR	3.2
16	7A	32	TYR	3.2
22	1K	40	C	3.2
28	71	43	VAL	3.2
30	21	64	LYS	3.2
1	1G	887	G	3.2
26	14	2899	G	3.2
10	1A	48	THR	3.2
38	45	105	GLU	3.2
1	1G	968	A	3.1
41	B8	115	ARG	3.1
2	12	218	ALA	3.1
5	4E	21	ALA	3.1
17	8A	33	GLY	3.1
35	15	73	THR	3.1
46	C5	61	ILE	3.1
30	29	151	TYR	3.1
46	G8	92	ASN	3.1
19	AI	67	VAL	3.1
13	4I	100	GLY	3.1
3	2E	91	LEU	3.1
7	62	32	ARG	3.1
33	59	144	VAL	3.1
1	13	1531	A	3.1
3	22	158	GLY	3.1
7	6E	81	GLY	3.1

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Mol	Chain	Res	Type	RSRZ
16	7I	83	GLU	3.1
17	8I	36	ILE	3.1
1	13	307	C	3.1
1	1G	1367	C	3.1
11	2A	126	ARG	3.1
46	C5	60	PHE	3.1
11	2A	36	ASP	3.1
49	F5	8	SER	3.1
33	59	151	ILE	3.1
3	22	91	LEU	3.1
9	8E	118	LYS	3.1
34	69	38	LEU	3.1
10	1I	92	THR	3.1
41	75	101	PHE	3.0
13	4A	108	ARG	3.0
46	G8	86	ARG	3.0
47	D5	138	GLU	3.0
1	1G	815	A	3.0
26	14	1088	A	3.0
26	1H	615	G	3.0
7	6E	83	ALA	3.0
5	42	6	PHE	3.0
28	79	43	VAL	3.0
22	1K	71	C	3.0
22	1L	70	C	3.0
41	B8	111	ARG	3.0
41	75	103	ARG	3.0
2	12	215	LEU	3.0
29	19	40	THR	3.0
32	49	50	ALA	3.0
24	3K	27	G	3.0
2	1E	211	ILE	3.0
3	22	84	ILE	3.0
16	7I	28	ARG	3.0
34	69	75	LEU	3.0
11	2I	125	PHE	3.0
1	1G	969	A	3.0
1	1G	1227	A	3.0
26	14	1073	A	3.0
12	3A	16	GLU	3.0
26	14	1076	C	3.0
47	D5	170	THR	3.0

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Mol	Chain	Res	Type	RSRZ
31	39	11	VAL	3.0
34	69	21	VAL	3.0
28	79	199	HIS	3.0
10	1A	55	LYS	2.9
40	65	19	LYS	2.9
10	1A	60	ARG	2.9
22	1L	41	A	2.9
34	69	4	ILE	2.9
2	12	14	GLY	2.9
28	71	209	LEU	2.9
42	C8	95	LEU	2.9
13	4A	101	GLN	2.9
26	14	879	G	2.9
1	1G	1226	C	2.9
1	1G	1535	C	2.9
9	82	106	ALA	2.9
26	1H	34	C	2.9
10	1I	55	LYS	2.9
33	59	153	LYS	2.9
26	1H	614	U	2.9
44	A5	92	ARG	2.9
35	15	138	LEU	2.9
12	3I	64	TYR	2.9
33	51	86	GLU	2.9
26	14	1063	G	2.9
33	59	166	GLY	2.9
30	29	64	LYS	2.9
32	41	23	PHE	2.9
10	1I	60	ARG	2.9
46	C5	53	PRO	2.9
17	8A	100	LYS	2.9
30	21	89	ASP	2.9
46	C5	42	VAL	2.9
26	14	878	A	2.9
28	71	52	ARG	2.9
34	61	109	ILE	2.9
49	J8	85	LEU	2.9
1	1G	973	G	2.8
2	12	34	ALA	2.8
26	1H	882	G	2.8
14	5A	37	PHE	2.8
4	3E	89	THR	2.8

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Mol	Chain	Res	Type	RSRZ
14	5I	13	THR	2.8
38	45	103	MET	2.8
4	3E	172	PRO	2.8
14	5A	34	TYR	2.8
24	3K	35	U	2.8
1	13	311	C	2.8
1	13	1536	C	2.8
24	3K	5	C	2.8
39	55	101	ALA	2.8
10	1A	50	ILE	2.8
24	3K	1	G	2.8
2	1E	26	PRO	2.8
52	M8	41	PRO	2.8
24	3K	33	U	2.8
6	5E	55	ASP	2.8
24	3K	72	C	2.8
33	51	16	SER	2.8
31	31	131	GLY	2.8
1	13	1508	G	2.8
12	3A	5	PRO	2.8
33	51	39	PRO	2.8
47	D5	103	ARG	2.8
47	H8	116	VAL	2.8
9	8E	119	ALA	2.8
13	4A	90	LEU	2.8
18	9A	44	LEU	2.8
6	5E	54	LYS	2.8
37	35	46	LYS	2.8
12	3A	62	SER	2.8
50	K8	69	ARG	2.7
28	71	58	VAL	2.7
1	13	965	A	2.7
7	62	147	ALA	2.7
32	41	80	PHE	2.7
17	8A	32	TYR	2.7
35	15	90	MET	2.7
6	5E	11	ASN	2.7
12	3A	29	GLY	2.7
30	29	65	GLY	2.7
13	4A	94	ARG	2.7
54	P8	47	ARG	2.7
22	1K	70	C	2.7

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Mol	Chain	Res	Type	RSRZ
26	1H	856	C	2.7
38	45	102	VAL	2.7
2	1E	41	ILE	2.7
28	71	19	ILE	2.7
35	15	75	TYR	2.7
1	1G	1225	A	2.7
1	1G	630	G	2.7
22	1L	45	G	2.7
11	2I	126	ARG	2.7
43	95	73	SER	2.7
34	69	19	VAL	2.7
28	79	45	ALA	2.7
37	78	141	ALA	2.7
16	7I	32	TYR	2.7
36	25	1	MET	2.7
11	2A	87	THR	2.7
9	82	123	PRO	2.7
25	4K	10	G	2.7
28	71	197	GLU	2.7
3	22	157	ILE	2.7
13	4I	56	LEU	2.7
18	9I	78	LEU	2.7
28	79	224	ILE	2.7
42	85	40	PHE	2.7
8	7E	102	ARG	2.7
29	19	36	PRO	2.7
34	61	134	PRO	2.7
35	58	73	THR	2.7
40	65	109	GLY	2.7
1	1G	82	U	2.7
1	1G	884	U	2.7
24	3L	36	U	2.7
26	1H	1026	U	2.7
26	1H	2062	A	2.7
26	14	2797	U	2.7
33	59	167	GLU	2.7
5	42	131	ILE	2.6
14	5A	6	LEU	2.7
12	3A	23	LYS	2.6
43	95	77	ALA	2.6
24	3L	32	C	2.6
21	1B	2	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
28	71	203	GLY	2.6
5	4E	67	VAL	2.6
9	8E	116	LYS	2.6
20	BI	13	LEU	2.6
34	69	35	LEU	2.6
22	1K	15	G	2.6
28	79	48	GLY	2.6
9	82	116	LYS	2.6
4	3E	176	LEU	2.6
7	6E	84	ASN	2.6
24	3L	71	C	2.6
29	19	275	LYS	2.6
33	51	175	LYS	2.6
33	51	7	LEU	2.6
33	59	50	VAL	2.6
34	69	145	VAL	2.6
35	15	46	VAL	2.6
31	39	96	ASP	2.6
49	F5	77	ALA	2.6
24	3K	37	A	2.6
2	12	26	PRO	2.6
49	J8	79	GLY	2.6
11	2A	124	LYS	2.6
12	3A	61	THR	2.6
26	14	530	G	2.6
28	71	47	LEU	2.6
28	71	196	LEU	2.6
30	29	150	VAL	2.6
39	98	114	VAL	2.6
40	65	98	VAL	2.6
19	AA	24	ALA	2.6
22	1L	48	C	2.6
23	2K	1	C	2.6
26	14	2611	U	2.6
10	1A	51	ARG	2.6
10	1A	66	ARG	2.6
1	13	815	A	2.6
21	1B	14	TRP	2.6
33	59	172	LYS	2.6
5	42	90	VAL	2.6
13	4A	54	VAL	2.6
1	13	1516	G	2.5

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Mol	Chain	Res	Type	RSRZ
26	14	2506	U	2.5
49	J8	91	LYS	2.5
25	4L	8	A	2.5
35	15	86	PRO	2.5
32	49	82	LEU	2.5
41	75	105	LEU	2.5
2	12	42	ILE	2.5
17	8A	23	VAL	2.5
28	71	49	ILE	2.5
36	25	96	THR	2.5
2	1E	96	ARG	2.5
8	7E	84	ARG	2.5
36	25	80	ASP	2.5
22	1L	17	U	2.5
1	1G	1365	G	2.5
23	2L	35	C	2.5
3	22	7	PRO	2.5
33	51	5	GLY	2.5
33	59	142	GLY	2.5
38	45	79	LEU	2.5
40	65	110	LEU	2.5
28	79	49	ILE	2.5
37	35	71	VAL	2.5
4	3E	195	ALA	2.5
7	6E	2	ALA	2.5
46	C5	65	ALA	2.5
46	C5	50	ARG	2.5
30	29	132	HIS	2.5
9	82	75	ASP	2.5
19	AA	32	LYS	2.5
35	58	84	LYS	2.5
1	13	93	U	2.5
4	32	157	LEU	2.5
16	7I	6	LEU	2.5
34	69	77	LEU	2.5
28	79	22	ILE	2.5
31	39	9	ILE	2.5
44	E8	91	GLY	2.5
48	I8	8	GLY	2.5
2	12	219	VAL	2.5
1	13	1461	G	2.5
23	2L	71	G	2.5

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Mol	Chain	Res	Type	RSRZ
25	4K	6	G	2.5
2	1E	17	PHE	2.5
41	B8	101	PHE	2.5
4	32	169	LYS	2.5
19	AA	53	ASN	2.5
8	7E	72	PRO	2.5
19	AA	59	PRO	2.5
31	31	66	PRO	2.5
2	12	39	ILE	2.5
12	3I	29	GLY	2.5
28	71	171	ILE	2.5
30	21	88	GLY	2.5
3	2E	184	TYR	2.5
7	62	39	ALA	2.5
8	7E	88	LYS	2.5
12	3I	13	LYS	2.5
26	1H	591	C	2.5
26	1H	881	G	2.5
26	14	1131	G	2.5
1	13	1394	A	2.5
25	4K	15	A	2.5
46	G8	99	CYS	2.5
2	12	44	LEU	2.4
5	42	12	LEU	2.4
16	7I	29	ASP	2.4
17	8I	31	LEU	2.4
41	B8	110	ILE	2.4
53	N8	50	GLY	2.4
8	72	87	SER	2.4
14	5A	3	ARG	2.4
28	71	192	PHE	2.4
35	15	72	TYR	2.4
30	21	90	THR	2.4
18	9I	76	LEU	2.4
22	1K	41	A	2.4
22	1K	69	A	2.4
25	4K	26	A	2.4
26	14	2015	A	2.4
1	1G	886	G	2.4
16	7I	66	PRO	2.4
52	M8	22	ILE	2.4
8	72	93	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
12	3A	18	VAL	2.4
14	5I	25	VAL	2.4
4	32	73	ARG	2.4
8	72	84	ARG	2.4
24	3K	28	U	2.4
18	9I	24	ALA	2.4
7	62	31	MET	2.4
32	49	133	LEU	2.4
34	61	140	LEU	2.4
45	F8	95	LEU	2.4
4	32	5	ILE	2.4
6	52	56	PRO	2.4
10	1I	75	ILE	2.4
12	3I	5	PRO	2.4
12	3A	85	ILE	2.4
30	29	75	VAL	2.4
36	25	81	ASP	2.4
1	1G	1531	A	2.4
25	4L	15	A	2.4
20	BI	70	SER	2.4
25	4L	9	G	2.4
30	21	51	PHE	2.4
34	61	117	GLU	2.4
1	13	1159	U	2.4
2	1E	31	TYR	2.4
35	15	130	HIS	2.4
30	21	78	LEU	2.4
41	B8	105	LEU	2.4
49	F5	80	LEU	2.4
5	42	109	ILE	2.4
29	19	270	ILE	2.4
9	8E	123	PRO	2.4
34	61	111	PRO	2.4
16	7A	50	LYS	2.4
33	59	5	GLY	2.4
28	79	55	ASP	2.4
33	51	51	ARG	2.4
49	J8	78	LYS	2.4
1	13	328	C	2.4
1	1G	412	A	2.4
24	3L	69	A	2.4
24	3L	73	A	2.4

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Mol	Chain	Res	Type	RSRZ
41	B8	94	ALA	2.4
1	13	108	G	2.4
2	1E	73	THR	2.4
17	8I	32	TYR	2.4
26	14	615	G	2.4
26	14	2024	G	2.4
35	15	63	THR	2.4
9	82	19	LEU	2.4
15	6A	57	LEU	2.4
46	C5	90	LEU	2.4
2	1E	71	VAL	2.3
7	6E	5	ARG	2.3
31	39	93	LYS	2.3
43	95	72	VAL	2.3
13	4A	85	GLY	2.3
43	95	75	PHE	2.3
9	82	52	ALA	2.3
23	2L	72	C	2.3
35	15	131	GLN	2.3
26	1H	590	A	2.3
2	1E	196	LEU	2.3
2	12	61	LEU	2.3
35	58	22	THR	2.3
46	G8	90	LEU	2.3
29	11	274	ARG	2.3
49	J8	21	ARG	2.3
16	7I	30	GLY	2.3
53	J5	50	GLY	2.3
16	7A	80	PHE	2.3
42	85	97	ASP	2.3
19	AI	75	ALA	2.3
38	45	7	MET	2.3
31	39	13	SER	2.3
23	2L	17	C	2.3
24	3L	5	C	2.3
25	4K	12	A	2.3
31	39	97	TYR	2.3
46	G8	83	THR	2.3
46	C5	55	TYR	2.3
18	9A	41	LYS	2.3
1	1G	1062	U	2.3
4	3E	29	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
13	4A	113	PRO	2.3
46	C5	77	PRO	2.3
2	12	164	VAL	2.3
7	62	141	VAL	2.3
28	71	62	VAL	2.3
33	51	44	VAL	2.3
38	45	90	VAL	2.3
32	49	177	GLY	2.3
13	4A	106	ASN	2.3
32	49	178	PHE	2.3
1	1G	1061	G	2.3
7	62	2	ALA	2.3
26	14	2023	G	2.3
42	85	48	ALA	2.3
2	12	22	LYS	2.3
9	82	71	SER	2.3
12	3A	13	LYS	2.3
48	E5	16	SER	2.3
9	8E	120	ARG	2.3
2	1E	45	GLN	2.3
6	52	83	ASP	2.3
16	7A	76	GLN	2.3
50	G5	43	GLN	2.3
2	1E	74	LYS	2.3
34	69	2	LYS	2.3
1	13	966	G	2.3
1	1G	631	G	2.3
24	3K	6	G	2.3
26	1H	592	G	2.3
41	75	50	ILE	2.3
13	4I	104	ARG	2.3
19	AA	33	THR	2.3
47	D5	79	ARG	2.3
4	32	68	TYR	2.3
13	4I	87	TYR	2.3
43	D8	81	TYR	2.3
4	32	170	VAL	2.3
11	2A	105	VAL	2.3
12	3A	39	VAL	2.3
12	3A	43	VAL	2.3
18	9A	86	VAL	2.3
8	72	131	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
26	14	958	U	2.3
1	13	1437	C	2.2
4	32	79	PHE	2.2
22	1L	32	C	2.2
5	4E	68	GLU	2.2
7	62	16	LEU	2.2
8	72	133	LEU	2.2
2	12	214	ILE	2.2
4	32	168	ARG	2.2
37	35	35	HIS	2.2
32	49	25	TYR	2.2
1	13	346	G	2.2
26	1H	669	G	2.2
15	6A	86	GLY	2.2
42	85	99	ALA	2.2
10	1I	85	LEU	2.2
13	4A	115	LYS	2.2
25	4L	13	A	2.2
26	14	2619	C	2.2
32	49	39	ILE	2.2
47	H8	146	ILE	2.2
28	79	210	ARG	2.2
44	A5	90	ARG	2.2
46	C5	2	ARG	2.2
4	3E	178	VAL	2.2
13	4A	105	THR	2.2
14	5A	18	VAL	2.2
16	7I	59	TRP	2.2
36	25	50	GLY	2.2
47	D5	12	GLY	2.2
12	3A	68	ALA	2.2
16	7A	64	ALA	2.2
29	11	39	LYS	2.2
35	15	104	LYS	2.2
41	B8	114	LEU	2.2
48	I8	84	LEU	2.2
50	K8	15	LYS	2.2
26	14	382	G	2.2
5	42	130	ASN	2.2
41	B8	2	ASN	2.2
20	BA	17	ARG	2.2
20	BA	23	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
30	29	134	ILE	2.2
44	E8	96	ILE	2.2
46	C5	57	GLN	2.2
54	P8	36	GLN	2.2
1	13	389	A	2.2
1	1G	553	A	2.2
26	14	2062	A	2.2
1	13	562	C	2.2
17	8A	11	VAL	2.2
52	M8	21	VAL	2.2
13	4I	103	THR	2.2
4	3E	23	GLY	2.2
29	19	67	PHE	2.2
32	49	23	PHE	2.2
49	F5	60	PHE	2.2
2	12	196	LEU	2.2
9	82	50	LEU	2.2
8	7E	105	ARG	2.2
10	1A	23	ILE	2.2
13	4I	4	ILE	2.2
13	4I	108	ARG	2.2
15	6I	3	ILE	2.2
37	35	50	ARG	2.2
46	C5	97	ARG	2.2
22	1L	68	G	2.2
24	3L	15	G	2.2
8	7E	93	VAL	2.2
19	AI	76	PRO	2.2
36	68	81	ASP	2.2
1	13	308	C	2.2
26	1H	2612	C	2.2
26	14	1075	C	2.2
20	BI	74	LYS	2.2
49	F5	28	GLY	2.2
3	22	23	TYR	2.2
5	42	123	LEU	2.2
8	7E	119	LEU	2.2
8	72	112	LEU	2.2
34	69	36	ALA	2.2
14	5A	41	ARG	2.1
3	22	3	ASN	2.1
19	AA	57	HIS	2.1

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Mol	Chain	Res	Type	RSRZ
26	1H	895	U	2.1
4	3E	203	VAL	2.1
11	2I	82	VAL	2.1
32	49	160	VAL	2.1
46	C5	98	VAL	2.1
5	4E	5	ASP	2.1
1	13	968	A	2.1
1	13	1182	G	2.1
8	72	88	LYS	2.1
11	2A	86	GLY	2.1
25	4L	25	A	2.1
29	11	40	THR	2.1
41	75	4	GLY	2.1
1	13	1514	C	2.1
1	1G	1509	C	2.1
2	12	152	PHE	2.1
5	42	45	PHE	2.1
22	1K	5	C	2.1
26	14	2896	C	2.1
30	29	63	LEU	2.1
31	39	83	PHE	2.1
35	15	82	LEU	2.1
43	D8	38	LEU	2.1
33	59	80	SER	2.1
33	59	156	ALA	2.1
3	2E	166	GLU	2.1
8	7E	91	ARG	2.1
16	7A	26	ARG	2.1
29	19	273	ARG	2.1
46	C5	62	GLU	2.1
7	62	42	ILE	2.1
19	AI	56	GLN	2.1
41	B8	136	GLN	2.1
32	49	108	ASN	2.1
5	4E	128	PRO	2.1
26	14	2897	U	2.1
35	15	98	VAL	2.1
47	H8	165	VAL	2.1
2	1E	46	LYS	2.1
2	12	43	ASP	2.1
19	AA	77	THR	2.1
49	F5	79	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
2	1E	121	LEU	2.1
18	9A	43	PHE	2.1
1	13	792	A	2.1
1	1G	1349	A	2.1
5	4E	152	ARG	2.1
27	1J	1(M)	A	2.1
28	71	164	ARG	2.1
42	85	101	ARG	2.1
1	13	377	G	2.1
4	32	34	GLU	2.1
21	1B	13	ILE	2.1
26	1H	530	G	2.1
26	14	897	C	2.1
3	22	198	VAL	2.1
7	62	17	VAL	2.1
8	72	89	PRO	2.1
13	4I	111	LYS	2.1
33	51	11	VAL	2.1
46	C5	54	LYS	2.1
1	13	4	U	2.1
26	1H	2506	U	2.1
40	A8	109	GLY	2.1
2	1E	122	PHE	2.1
5	4E	24	ARG	2.1
7	6E	79	ARG	2.1
33	59	152	ARG	2.1
11	2A	75	TYR	2.1
31	39	82	ILE	2.1
52	M8	37	SER	2.1
1	1G	466	C	2.1
20	BA	16	HIS	2.1
1	1G	888	G	2.1
24	3K	25	C	2.1
24	3L	74	C	2.1
9	8E	44	VAL	2.1
9	82	26	VAL	2.1
26	14	214	G	2.1
34	69	37	VAL	2.1
42	85	44	ASN	2.1
2	12	118	LEU	2.1
2	12	187	LEU	2.1
6	52	45	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
17	8A	22	LEU	2.1
28	71	28	LEU	2.1
28	71	64	LEU	2.1
29	19	37	LEU	2.1
31	39	20	LEU	2.1
4	32	87	GLY	2.1
16	7A	10	GLY	2.1
41	B8	25	GLY	2.1
4	3E	50	ARG	2.1
35	58	74	ARG	2.1
7	62	40	ALA	2.1
9	82	45	ALA	2.1
9	82	74	ILE	2.1
41	B8	48	ILE	2.1
50	G5	41	ILE	2.1
29	11	30	GLU	2.1
9	82	62	TYR	2.1
12	3I	62	SER	2.0
1	13	134	A	2.0
13	4A	98	VAL	2.0
26	14	899	A	2.0
42	C8	90	VAL	2.0
10	1A	37	PRO	2.0
6	5E	21	LEU	2.0
11	2I	98	LEU	2.0
26	14	574	C	2.0
26	14	654(R)	C	2.0
43	D8	35	LEU	2.0
50	K8	3	LEU	2.0
1	13	266	G	2.0
4	3E	110	PHE	2.0
34	69	16	GLY	2.0
46	C5	89	PHE	2.0
40	65	21	THR	2.0
2	1E	43	ASP	2.0
28	71	45	ALA	2.0
7	6E	85	TYR	2.0
40	65	57	LYS	2.0
46	G8	94	LYS	2.0
47	H8	38	TYR	2.0
19	AA	44	MET	2.0
2	1E	165	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
2	12	165	VAL	2.0
4	32	178	VAL	2.0
41	B8	70	VAL	2.0
1	13	969	A	2.0
9	82	79	LEU	2.0
20	BI	10	LEU	2.0
26	14	6	A	2.0
26	14	1536	A	2.0
28	79	52	ARG	2.0
38	45	10	ARG	2.0
2	12	17	PHE	2.0
5	42	84	PHE	2.0
9	8E	8	GLY	2.0
35	15	80	GLY	2.0
1	13	269	C	2.0
24	3L	61	C	2.0
26	1H	897	C	2.0
2	1E	188	ALA	2.0
1	1G	4	U	2.0
6	52	54	LYS	2.0
11	2I	123	LYS	2.0
18	9A	46	GLU	2.0
24	3L	6	G	2.0
26	14	561	G	2.0
4	32	207	TYR	2.0
9	82	114	TYR	2.0
52	M8	25	TYR	2.0
9	82	41	VAL	2.0
46	C5	30	VAL	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
22	PSU	1L	55	20/21	0.78	0.09	113,126,140,141	0
22	5MU	1L	54	21/22	0.84	0.09	113,125,134,142	0
22	PSU	1K	55	20/21	0.84	0.10	95,109,120,124	0
22	U8U	1L	34	23/24	0.88	0.17	102,117,122,124	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
23	5MU	2L	55	21/22	0.88	0.09	99,108,115,124	0
23	PSU	2L	56	20/21	0.89	0.08	98,105,111,115	0
23	G7M	2L	47	24/25	0.90	0.11	110,117,123,127	0
23	5MU	2K	55	21/22	0.90	0.08	89,95,100,103	0
22	5MU	1K	54	21/22	0.90	0.08	93,106,119,128	0
23	4SU	2L	8	20/21	0.90	0.13	94,104,108,112	0
23	PSU	2K	56	20/21	0.91	0.07	86,90,100,104	0
23	G7M	2K	47	24/25	0.92	0.08	86,95,107,113	0
22	T6A	1L	37	32/33	0.92	0.17	91,110,116,118	0
22	PSU	1L	39	20/21	0.94	0.18	88,116,127,129	0
22	U8U	1K	34	23/24	0.94	0.11	76,81,86,100	0
23	OMC	2K	33	21/22	0.95	0.17	67,74,78,82	0
23	OMC	2L	33	21/22	0.95	0.11	88,93,99,103	0
23	4SU	2K	8	20/21	0.95	0.11	75,83,88,90	0
22	PSU	1K	39	20/21	0.95	0.15	74,91,100,100	0
22	T6A	1K	37	32/33	0.96	0.13	58,79,98,99	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
56	MG	1G	1661	1/1	0.44	0.39	92,92,92,92	0
56	MG	1H	3263	1/1	0.48	0.37	91,91,91,91	0
56	MG	1H	3231	1/1	0.49	0.26	106,106,106,106	0
56	MG	1G	1631	1/1	0.53	0.34	99,99,99,99	0
56	MG	1H	3011	1/1	0.56	0.25	119,119,119,119	0
56	MG	1H	3208	1/1	0.57	0.22	141,141,141,141	0
56	MG	14	3151	1/1	0.58	0.34	107,107,107,107	0
56	MG	1H	3219	1/1	0.61	0.16	79,79,79,79	0
56	MG	1G	1632	1/1	0.61	0.35	92,92,92,92	0
56	MG	13	1640	1/1	0.62	0.33	99,99,99,99	0
56	MG	42	201	1/1	0.62	0.32	111,111,111,111	0
56	MG	1G	1635	1/1	0.62	0.22	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1645	1/1	0.63	0.25	113,113,113,113	0
56	MG	2K	101	1/1	0.63	0.27	91,91,91,91	0
56	MG	1G	1643	1/1	0.64	0.29	106,106,106,106	0
56	MG	14	3178	1/1	0.64	0.30	114,114,114,114	0
56	MG	1H	3177	1/1	0.65	0.39	75,75,75,75	0
56	MG	1H	3015	1/1	0.65	0.41	82,82,82,82	0
56	MG	13	1628	1/1	0.66	0.27	89,89,89,89	0
56	MG	4K	101	1/1	0.66	0.36	96,96,96,96	0
56	MG	14	3209	1/1	0.66	0.30	90,90,90,90	0
56	MG	13	1658	1/1	0.67	0.13	116,116,116,116	0
56	MG	1H	3286	1/1	0.67	0.22	119,119,119,119	0
56	MG	1G	1637	1/1	0.68	0.35	89,89,89,89	0
56	MG	13	1653	1/1	0.68	0.34	80,80,80,80	0
56	MG	1J	207	1/1	0.68	0.16	88,88,88,88	0
56	MG	1H	3158	1/1	0.69	0.24	72,72,72,72	0
56	MG	1G	1656	1/1	0.70	0.43	89,89,89,89	0
56	MG	1H	3210	1/1	0.70	0.32	75,75,75,75	0
56	MG	1G	1668	1/1	0.70	0.28	96,96,96,96	0
56	MG	1H	3144	1/1	0.70	0.31	86,86,86,86	0
56	MG	1H	3455	1/1	0.70	0.12	76,76,76,76	0
56	MG	14	3166	1/1	0.70	0.31	85,85,85,85	0
56	MG	1G	1619	1/1	0.70	0.34	103,103,103,103	0
56	MG	13	1679	1/1	0.70	0.27	81,81,81,81	0
56	MG	14	3212	1/1	0.70	0.41	82,82,82,82	0
56	MG	1G	1655	1/1	0.70	0.27	106,106,106,106	0
56	MG	13	1668	1/1	0.71	0.26	105,105,105,105	0
56	MG	13	1662	1/1	0.71	0.25	114,114,114,114	0
56	MG	1H	3096	1/1	0.71	0.28	77,77,77,77	0
56	MG	14	3214	1/1	0.71	0.31	113,113,113,113	0
56	MG	1H	3143	1/1	0.71	0.37	84,84,84,84	0
56	MG	14	3180	1/1	0.72	0.31	74,74,74,74	0
56	MG	1H	3228	1/1	0.72	0.29	79,79,79,79	0
56	MG	1G	1638	1/1	0.72	0.35	92,92,92,92	0
56	MG	1H	3207	1/1	0.72	0.22	119,119,119,119	0
56	MG	1H	3194	1/1	0.72	0.33	83,83,83,83	0
56	MG	1H	3169	1/1	0.73	0.26	111,111,111,111	0
56	MG	14	3158	1/1	0.73	0.37	91,91,91,91	0
56	MG	1H	3258	1/1	0.73	0.48	97,97,97,97	0
56	MG	1G	1604	1/1	0.73	0.30	102,102,102,102	0
56	MG	13	1655	1/1	0.73	0.43	99,99,99,99	0
56	MG	14	3192	1/1	0.73	0.26	81,81,81,81	0
56	MG	1G	1642	1/1	0.73	0.21	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3276	1/1	0.73	0.26	78,78,78,78	0
56	MG	14	3118	1/1	0.73	0.30	89,89,89,89	0
56	MG	14	3148	1/1	0.73	0.20	78,78,78,78	0
56	MG	1H	3077	1/1	0.74	0.15	70,70,70,70	0
56	MG	14	3179	1/1	0.74	0.24	92,92,92,92	0
56	MG	13	1627	1/1	0.74	0.33	82,82,82,82	0
56	MG	14	3183	1/1	0.74	0.26	87,87,87,87	0
56	MG	1H	3270	1/1	0.74	0.34	78,78,78,78	0
56	MG	14	3205	1/1	0.74	0.29	87,87,87,87	0
56	MG	1G	1614	1/1	0.74	0.29	91,91,91,91	0
56	MG	1H	3256	1/1	0.74	0.30	100,100,100,100	0
56	MG	14	3161	1/1	0.74	0.34	86,86,86,86	0
56	MG	1G	1624	1/1	0.74	0.23	87,87,87,87	0
56	MG	39	302	1/1	0.74	0.14	73,73,73,73	0
56	MG	13	1676	1/1	0.75	0.15	92,92,92,92	0
56	MG	14	3124	1/1	0.75	0.12	62,62,62,62	0
56	MG	14	3190	1/1	0.75	0.17	81,81,81,81	0
56	MG	1H	3203	1/1	0.75	0.23	68,68,68,68	0
56	MG	13	1601	1/1	0.75	0.29	102,102,102,102	0
56	MG	1H	3153	1/1	0.75	0.33	88,88,88,88	0
56	MG	13	1685	1/1	0.75	0.31	100,100,100,100	0
56	MG	13	1688	1/1	0.75	0.24	92,92,92,92	0
56	MG	1J	202	1/1	0.75	0.20	91,91,91,91	0
56	MG	13	1661	1/1	0.75	0.31	73,73,73,73	0
56	MG	1H	3181	1/1	0.75	0.24	88,88,88,88	0
56	MG	14	3116	1/1	0.76	0.28	89,89,89,89	0
56	MG	13	1673	1/1	0.76	0.31	93,93,93,93	0
56	MG	1H	3195	1/1	0.76	0.15	69,69,69,69	0
56	MG	1H	3217	1/1	0.76	0.10	61,61,61,61	0
56	MG	1J	206	1/1	0.76	0.21	86,86,86,86	0
56	MG	14	3177	1/1	0.76	0.26	91,91,91,91	0
56	MG	14	3149	1/1	0.76	0.41	89,89,89,89	0
56	MG	1H	3234	1/1	0.77	0.30	90,90,90,90	0
56	MG	13	1672	1/1	0.77	0.22	79,79,79,79	0
56	MG	1H	3161	1/1	0.77	0.18	82,82,82,82	0
56	MG	13	1687	1/1	0.77	0.26	82,82,82,82	0
56	MG	1H	3170	1/1	0.77	0.22	115,115,115,115	0
56	MG	13	1624	1/1	0.77	0.29	80,80,80,80	0
56	MG	13	1663	1/1	0.77	0.29	90,90,90,90	0
56	MG	42	202	1/1	0.77	0.22	110,110,110,110	0
56	MG	14	3081	1/1	0.77	0.30	89,89,89,89	0
56	MG	13	1677	1/1	0.77	0.21	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1643	1/1	0.77	0.31	69,69,69,69	0
56	MG	1G	1641	1/1	0.78	0.46	91,91,91,91	0
56	MG	1H	3230	1/1	0.78	0.31	89,89,89,89	0
56	MG	13	1667	1/1	0.78	0.17	105,105,105,105	0
56	MG	14	3027	1/1	0.78	0.23	86,86,86,86	0
56	MG	14	3028	1/1	0.78	0.43	83,83,83,83	0
56	MG	16	203	1/1	0.78	0.20	78,78,78,78	0
56	MG	14	3175	1/1	0.78	0.15	74,74,74,74	0
56	MG	1H	3264	1/1	0.78	0.20	80,80,80,80	0
56	MG	1H	3209	1/1	0.78	0.17	65,65,65,65	0
56	MG	1H	3079	1/1	0.78	0.32	88,88,88,88	0
56	MG	14	3141	1/1	0.78	0.32	86,86,86,86	0
56	MG	1G	1660	1/1	0.79	0.23	92,92,92,92	0
56	MG	13	1629	1/1	0.79	0.17	85,85,85,85	0
56	MG	14	3140	1/1	0.79	0.24	78,78,78,78	0
56	MG	1G	1667	1/1	0.79	0.28	97,97,97,97	0
56	MG	1G	1639	1/1	0.79	0.23	87,87,87,87	0
56	MG	1H	3204	1/1	0.79	0.32	74,74,74,74	0
56	MG	13	1602	1/1	0.79	0.27	61,61,61,61	0
56	MG	1H	3227	1/1	0.79	0.15	79,79,79,79	0
56	MG	16	202	1/1	0.79	0.16	66,66,66,66	0
56	MG	14	3049	1/1	0.79	0.34	79,79,79,79	0
56	MG	14	3050	1/1	0.79	0.28	76,76,76,76	0
56	MG	1H	3105	1/1	0.79	0.39	72,72,72,72	0
56	MG	1H	3156	1/1	0.79	0.08	55,55,55,55	0
56	MG	1H	3107	1/1	0.80	0.27	73,73,73,73	0
56	MG	1H	3180	1/1	0.80	0.28	87,87,87,87	0
56	MG	14	3186	1/1	0.80	0.29	80,80,80,80	0
56	MG	1H	3089	1/1	0.80	0.28	82,82,82,82	0
56	MG	13	1730	1/1	0.80	0.12	102,102,102,102	0
56	MG	14	3199	1/1	0.80	0.32	89,89,89,89	0
56	MG	1G	1607	1/1	0.80	0.18	120,120,120,120	0
56	MG	1H	3145	1/1	0.80	0.32	82,82,82,82	0
56	MG	14	3163	1/1	0.80	0.31	76,76,76,76	0
56	MG	14	3213	1/1	0.80	0.33	78,78,78,78	0
56	MG	1H	3082	1/1	0.80	0.16	55,55,55,55	0
56	MG	14	3244	1/1	0.80	0.27	71,71,71,71	0
56	MG	1G	1620	1/1	0.80	0.28	85,85,85,85	0
56	MG	14	3129	1/1	0.80	0.16	62,62,62,62	0
56	MG	14	3131	1/1	0.80	0.17	62,62,62,62	0
56	MG	1J	209	1/1	0.80	0.22	93,93,93,93	0
56	MG	1H	3254	1/1	0.80	0.20	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	16	201	1/1	0.81	0.27	84,84,84,84	0
56	MG	1G	1617	1/1	0.81	0.37	86,86,86,86	0
56	MG	14	3197	1/1	0.81	0.13	44,44,44,44	0
56	MG	1H	3186	1/1	0.81	0.28	76,76,76,76	0
56	MG	1H	3281	1/1	0.81	0.14	82,82,82,82	0
56	MG	88	201	1/1	0.81	0.30	73,73,73,73	0
56	MG	14	3127	1/1	0.81	0.16	85,85,85,85	0
56	MG	1G	1602	1/1	0.81	0.28	87,87,87,87	0
56	MG	14	3130	1/1	0.81	0.15	75,75,75,75	0
56	MG	14	3221	1/1	0.81	0.32	86,86,86,86	0
56	MG	1H	3213	1/1	0.81	0.30	96,96,96,96	0
56	MG	14	3432	1/1	0.81	0.16	92,92,92,92	0
56	MG	1G	1651	1/1	0.81	0.16	84,84,84,84	0
56	MG	1G	1654	1/1	0.81	0.25	99,99,99,99	0
56	MG	14	3143	1/1	0.81	0.33	86,86,86,86	0
56	MG	1J	208	1/1	0.81	0.25	90,90,90,90	0
56	MG	1H	3059	1/1	0.81	0.32	73,73,73,73	0
56	MG	14	3187	1/1	0.81	0.44	81,81,81,81	0
56	MG	13	1654	1/1	0.82	0.18	91,91,91,91	0
56	MG	14	3075	1/1	0.82	0.22	78,78,78,78	0
56	MG	5I	101	1/1	0.82	0.16	77,77,77,77	0
56	MG	16	206	1/1	0.82	0.19	81,81,81,81	0
56	MG	13	1678	1/1	0.82	0.36	83,83,83,83	0
56	MG	1H	3251	1/1	0.82	0.28	80,80,80,80	0
56	MG	1H	3157	1/1	0.82	0.15	96,96,96,96	0
56	MG	13	1671	1/1	0.82	0.22	79,79,79,79	0
56	MG	1G	1608	1/1	0.82	0.33	96,96,96,96	0
56	MG	1G	1613	1/1	0.82	0.16	85,85,85,85	0
56	MG	13	1644	1/1	0.82	0.23	94,94,94,94	0
56	MG	13	1657	1/1	0.82	0.27	89,89,89,89	0
56	MG	1H	3040	1/1	0.82	0.27	71,71,71,71	0
56	MG	1H	3211	1/1	0.82	0.16	90,90,90,90	0
56	MG	1H	3128	1/1	0.82	0.28	76,76,76,76	0
56	MG	1G	1630	1/1	0.82	0.28	97,97,97,97	0
56	MG	14	3225	1/1	0.82	0.32	84,84,84,84	0
56	MG	14	3231	1/1	0.82	0.28	69,69,69,69	0
56	MG	14	3236	1/1	0.82	0.17	94,94,94,94	0
56	MG	14	3238	1/1	0.82	0.29	83,83,83,83	0
56	MG	14	3157	1/1	0.82	0.20	76,76,76,76	0
56	MG	1H	3132	1/1	0.82	0.19	58,58,58,58	0
56	MG	14	3019	1/1	0.82	0.19	48,48,48,48	0
56	MG	1J	204	1/1	0.82	0.29	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3041	1/1	0.82	0.18	86,86,86,86	0
56	MG	13	1622	1/1	0.82	0.26	104,104,104,104	0
56	MG	14	3173	1/1	0.82	0.28	93,93,93,93	0
56	MG	14	3045	1/1	0.82	0.14	67,67,67,67	0
56	MG	1H	3193	1/1	0.82	0.19	78,78,78,78	0
56	MG	25	201	1/1	0.82	0.23	93,93,93,93	0
56	MG	14	3224	1/1	0.83	0.31	82,82,82,82	0
56	MG	14	3109	1/1	0.83	0.22	86,86,86,86	0
56	MG	1G	1644	1/1	0.83	0.22	92,92,92,92	0
56	MG	13	1681	1/1	0.83	0.21	83,83,83,83	0
56	MG	14	3152	1/1	0.83	0.20	85,85,85,85	0
56	MG	1G	1646	1/1	0.83	0.15	119,119,119,119	0
56	MG	1H	3094	1/1	0.83	0.24	61,61,61,61	0
56	MG	13	1617	1/1	0.83	0.11	53,53,53,53	0
56	MG	14	3058	1/1	0.83	0.23	93,93,93,93	0
56	MG	13	1674	1/1	0.83	0.24	67,67,67,67	0
56	MG	14	3137	1/1	0.83	0.25	61,61,61,61	0
56	MG	14	3138	1/1	0.83	0.15	71,71,71,71	0
56	MG	14	3079	1/1	0.83	0.20	75,75,75,75	0
56	MG	13	1648	1/1	0.83	0.17	105,105,105,105	0
56	MG	14	3103	1/1	0.83	0.23	81,81,81,81	0
56	MG	13	1631	1/1	0.84	0.22	89,89,89,89	0
56	MG	14	3215	1/1	0.84	0.10	79,79,79,79	0
56	MG	14	3048	1/1	0.84	0.15	68,68,68,68	0
56	MG	1H	3172	1/1	0.84	0.33	70,70,70,70	0
56	MG	2K	103	1/1	0.84	0.20	56,56,56,56	0
56	MG	1G	1659	1/1	0.84	0.24	85,85,85,85	0
56	MG	14	3234	1/1	0.84	0.20	71,71,71,71	0
56	MG	14	3064	1/1	0.84	0.26	62,62,62,62	0
56	MG	1H	3127	1/1	0.84	0.18	44,44,44,44	0
56	MG	14	3240	1/1	0.84	0.21	83,83,83,83	0
56	MG	13	1639	1/1	0.84	0.31	91,91,91,91	0
56	MG	14	3298	1/1	0.84	0.13	105,105,105,105	0
56	MG	14	3328	1/1	0.84	0.16	83,83,83,83	0
56	MG	1H	3050	1/1	0.84	0.13	49,49,49,49	0
56	MG	1H	3241	1/1	0.84	0.40	81,81,81,81	0
56	MG	1H	3247	1/1	0.84	0.27	62,62,62,62	0
56	MG	1J	205	1/1	0.84	0.25	90,90,90,90	0
56	MG	13	1626	1/1	0.84	0.18	60,60,60,60	0
56	MG	1H	3162	1/1	0.84	0.20	66,66,66,66	0
56	MG	1H	3215	1/1	0.84	0.27	83,83,83,83	0
56	MG	1H	3066	1/1	0.84	0.23	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3029	1/1	0.84	0.20	68,68,68,68	0
56	MG	14	3171	1/1	0.84	0.27	84,84,84,84	0
56	MG	1G	1664	1/1	0.85	0.17	126,126,126,126	0
56	MG	1H	3431	1/1	0.85	0.18	74,74,74,74	0
56	MG	14	3128	1/1	0.85	0.12	49,49,49,49	0
56	MG	14	3193	1/1	0.85	0.16	74,74,74,74	0
56	MG	1H	3115	1/1	0.85	0.28	59,59,59,59	0
56	MG	14	3198	1/1	0.85	0.37	84,84,84,84	0
56	MG	1H	3238	1/1	0.85	0.13	76,76,76,76	0
56	MG	14	3200	1/1	0.85	0.29	94,94,94,94	0
56	MG	13	1636	1/1	0.85	0.29	70,70,70,70	0
56	MG	14	3206	1/1	0.85	0.25	72,72,72,72	0
56	MG	14	3208	1/1	0.85	0.31	77,77,77,77	0
56	MG	14	3134	1/1	0.85	0.31	88,88,88,88	0
56	MG	14	3211	1/1	0.85	0.25	70,70,70,70	0
56	MG	14	3136	1/1	0.85	0.12	83,83,83,83	0
56	MG	14	3005	1/1	0.85	0.20	73,73,73,73	0
56	MG	1G	1636	1/1	0.85	0.20	91,91,91,91	0
56	MG	1H	3084	1/1	0.85	0.22	58,58,58,58	0
56	MG	14	3217	1/1	0.85	0.35	94,94,94,94	0
56	MG	13	1642	1/1	0.85	0.22	78,78,78,78	0
56	MG	1H	3212	1/1	0.85	0.21	90,90,90,90	0
56	MG	1H	3012	1/1	0.85	0.24	78,78,78,78	0
56	MG	1H	3164	1/1	0.85	0.08	53,53,53,53	0
56	MG	1H	3260	1/1	0.85	0.25	74,74,74,74	0
56	MG	1H	3013	1/1	0.85	0.25	69,69,69,69	0
56	MG	14	3154	1/1	0.85	0.13	60,60,60,60	0
56	MG	14	3239	1/1	0.85	0.36	82,82,82,82	0
56	MG	14	3056	1/1	0.85	0.47	69,69,69,69	0
56	MG	14	3241	1/1	0.85	0.15	77,77,77,77	0
56	MG	1G	1612	1/1	0.85	0.36	76,76,76,76	0
56	MG	14	3062	1/1	0.85	0.22	80,80,80,80	0
56	MG	14	3311	1/1	0.85	0.15	73,73,73,73	0
56	MG	1H	3201	1/1	0.85	0.39	82,82,82,82	0
56	MG	13	1633	1/1	0.85	0.10	80,80,80,80	0
56	MG	1H	3171	1/1	0.85	0.37	67,67,67,67	0
56	MG	1G	1618	1/1	0.85	0.27	88,88,88,88	0
56	MG	14	3095	1/1	0.85	0.30	76,76,76,76	0
56	MG	1H	3205	1/1	0.85	0.29	73,73,73,73	0
56	MG	13	1669	1/1	0.85	0.27	95,95,95,95	0
56	MG	14	3110	1/1	0.85	0.22	51,51,51,51	0
56	MG	14	3112	1/1	0.85	0.20	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3287	1/1	0.85	0.20	121,121,121,121	0
56	MG	1G	1629	1/1	0.85	0.26	69,69,69,69	0
56	MG	14	3119	1/1	0.86	0.21	67,67,67,67	0
56	MG	14	3169	1/1	0.86	0.37	81,81,81,81	0
56	MG	14	3033	1/1	0.86	0.22	63,63,63,63	0
56	MG	1G	1648	1/1	0.86	0.16	94,94,94,94	0
56	MG	13	1646	1/1	0.86	0.18	89,89,89,89	0
56	MG	1H	3027	1/1	0.86	0.21	68,68,68,68	0
56	MG	1H	3199	1/1	0.86	0.22	74,74,74,74	0
56	MG	1H	3232	1/1	0.86	0.32	77,77,77,77	0
56	MG	14	3133	1/1	0.86	0.26	72,72,72,72	0
56	MG	16	205	1/1	0.86	0.20	83,83,83,83	0
56	MG	14	3184	1/1	0.86	0.17	70,70,70,70	0
56	MG	1H	3102	1/1	0.86	0.23	63,63,63,63	0
56	MG	1H	3014	1/1	0.86	0.23	75,75,75,75	0
56	MG	1H	3165	1/1	0.86	0.22	63,63,63,63	0
56	MG	14	3078	1/1	0.86	0.22	80,80,80,80	0
56	MG	1H	3278	1/1	0.86	0.24	76,76,76,76	0
56	MG	1H	3106	1/1	0.86	0.26	55,55,55,55	0
56	MG	14	3084	1/1	0.86	0.28	77,77,77,77	0
56	MG	1H	3284	1/1	0.86	0.29	44,44,44,44	0
56	MG	1H	3190	1/1	0.86	0.09	60,60,60,60	0
56	MG	1H	3252	1/1	0.86	0.37	75,75,75,75	0
56	MG	14	3153	1/1	0.86	0.38	74,74,74,74	0
56	MG	1H	3363	1/1	0.86	0.15	78,78,78,78	0
56	MG	14	3111	1/1	0.86	0.25	73,73,73,73	0
56	MG	1H	3407	1/1	0.86	0.14	89,89,89,89	0
56	MG	1H	3133	1/1	0.86	0.26	64,64,64,64	0
56	MG	1H	3444	1/1	0.86	0.14	82,82,82,82	0
56	MG	1H	3220	1/1	0.87	0.36	71,71,71,71	0
56	MG	14	3189	1/1	0.87	0.11	60,60,60,60	0
56	MG	1H	3479	1/1	0.87	0.13	99,99,99,99	0
56	MG	1H	3495	1/1	0.87	0.08	100,100,100,100	0
56	MG	14	3004	1/1	0.87	0.28	58,58,58,58	0
56	MG	1H	3540	1/1	0.87	0.08	78,78,78,78	0
56	MG	14	3013	1/1	0.87	0.20	60,60,60,60	0
56	MG	14	3016	1/1	0.87	0.26	55,55,55,55	0
56	MG	1H	3257	1/1	0.87	0.22	83,83,83,83	0
56	MG	14	3201	1/1	0.87	0.08	84,84,84,84	0
56	MG	14	3024	1/1	0.87	0.21	65,65,65,65	0
56	MG	13	1686	1/1	0.87	0.14	98,98,98,98	0
56	MG	1H	3191	1/1	0.87	0.12	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3137	1/1	0.87	0.20	70,70,70,70	0
56	MG	1H	3138	1/1	0.87	0.18	59,59,59,59	0
56	MG	1G	1640	1/1	0.87	0.20	95,95,95,95	0
56	MG	11	302	1/1	0.87	0.14	55,55,55,55	0
56	MG	1H	3160	1/1	0.87	0.21	70,70,70,70	0
56	MG	1H	3123	1/1	0.87	0.24	65,65,65,65	0
56	MG	14	3052	1/1	0.87	0.35	71,71,71,71	0
56	MG	14	3219	1/1	0.87	0.30	86,86,86,86	0
56	MG	14	3053	1/1	0.87	0.25	53,53,53,53	0
56	MG	1H	3236	1/1	0.87	0.29	78,78,78,78	0
56	MG	1G	1605	1/1	0.87	0.22	76,76,76,76	0
56	MG	1H	3019	1/1	0.87	0.22	39,39,39,39	0
56	MG	14	3063	1/1	0.87	0.21	82,82,82,82	0
56	MG	1H	3240	1/1	0.87	0.15	75,75,75,75	0
56	MG	14	3072	1/1	0.87	0.27	67,67,67,67	0
56	MG	14	3160	1/1	0.87	0.39	78,78,78,78	0
56	MG	1G	1650	1/1	0.87	0.15	89,89,89,89	0
56	MG	14	3076	1/1	0.87	0.27	68,68,68,68	0
56	MG	1H	3285	1/1	0.87	0.28	50,50,50,50	0
56	MG	14	3167	1/1	0.87	0.09	54,54,54,54	0
56	MG	1H	3214	1/1	0.87	0.37	83,83,83,83	0
56	MG	13	1635	1/1	0.87	0.18	72,72,72,72	0
56	MG	14	3400	1/1	0.87	0.12	90,90,90,90	0
56	MG	1H	3345	1/1	0.87	0.11	91,91,91,91	0
56	MG	14	3463	1/1	0.87	0.19	97,97,97,97	0
56	MG	14	3470	1/1	0.87	0.16	79,79,79,79	0
56	MG	14	3093	1/1	0.87	0.13	71,71,71,71	0
56	MG	1G	1658	1/1	0.87	0.17	79,79,79,79	0
56	MG	14	3097	1/1	0.87	0.25	70,70,70,70	0
56	MG	1H	3034	1/1	0.87	0.24	63,63,63,63	0
56	MG	1H	3218	1/1	0.87	0.19	65,65,65,65	0
56	MG	14	3181	1/1	0.87	0.23	76,76,76,76	0
56	MG	1H	3253	1/1	0.87	0.16	62,62,62,62	0
56	MG	1H	3187	1/1	0.87	0.29	77,77,77,77	0
56	MG	1G	1627	1/1	0.87	0.09	139,139,139,139	0
56	MG	35	201	1/1	0.87	0.12	74,74,74,74	0
56	MG	E5	103	1/1	0.87	0.32	80,80,80,80	0
56	MG	13	1734	1/1	0.88	0.08	105,105,105,105	0
56	MG	13	1747	1/1	0.88	0.08	107,107,107,107	0
56	MG	98	201	1/1	0.88	0.31	67,67,67,67	0
56	MG	14	3185	1/1	0.88	0.24	71,71,71,71	0
56	MG	1H	3048	1/1	0.88	0.15	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3237	1/1	0.88	0.15	88,88,88,88	0
56	MG	13	1613	1/1	0.88	0.26	86,86,86,86	0
56	MG	1H	3147	1/1	0.88	0.13	43,43,43,43	0
56	MG	14	3150	1/1	0.88	0.39	84,84,84,84	0
56	MG	1H	3151	1/1	0.88	0.13	52,52,52,52	0
56	MG	1H	3245	1/1	0.88	0.10	58,58,58,58	0
56	MG	1H	3246	1/1	0.88	0.22	71,71,71,71	0
56	MG	14	3308	1/1	0.88	0.13	90,90,90,90	0
56	MG	13	1620	1/1	0.88	0.35	74,74,74,74	0
56	MG	1H	3065	1/1	0.88	0.18	61,61,61,61	0
56	MG	13	1614	1/1	0.88	0.31	73,73,73,73	0
56	MG	1H	3016	1/1	0.88	0.22	72,72,72,72	0
56	MG	14	3435	1/1	0.88	0.15	93,93,93,93	0
56	MG	13	1638	1/1	0.88	0.20	71,71,71,71	0
56	MG	1H	3473	1/1	0.88	0.15	88,88,88,88	0
56	MG	1H	3124	1/1	0.88	0.24	70,70,70,70	0
56	MG	1G	1625	1/1	0.88	0.17	81,81,81,81	0
56	MG	1H	3080	1/1	0.88	0.23	74,74,74,74	0
56	MG	1H	3005	1/1	0.88	0.32	83,83,83,83	0
56	MG	1H	3083	1/1	0.88	0.18	81,81,81,81	0
56	MG	1H	3229	1/1	0.88	0.10	59,59,59,59	0
56	MG	1H	3008	1/1	0.88	0.23	61,61,61,61	0
56	MG	1H	3087	1/1	0.88	0.20	66,66,66,66	0
56	MG	1G	1695	1/1	0.88	0.10	99,99,99,99	0
56	MG	14	3220	1/1	0.88	0.21	74,74,74,74	0
56	MG	1H	3271	1/1	0.88	0.18	63,63,63,63	0
56	MG	13	1607	1/1	0.89	0.09	74,74,74,74	0
56	MG	1H	3196	1/1	0.89	0.19	62,62,62,62	0
56	MG	14	3203	1/1	0.89	0.19	69,69,69,69	0
56	MG	1H	3267	1/1	0.89	0.39	90,90,90,90	0
56	MG	1H	3141	1/1	0.89	0.12	53,53,53,53	0
56	MG	14	3038	1/1	0.89	0.20	81,81,81,81	0
56	MG	1H	3167	1/1	0.89	0.13	45,45,45,45	0
56	MG	1H	3275	1/1	0.89	0.20	68,68,68,68	0
56	MG	41	202	1/1	0.89	0.17	75,75,75,75	0
56	MG	1H	3168	1/1	0.89	0.36	75,75,75,75	0
56	MG	1H	3277	1/1	0.89	0.34	81,81,81,81	0
56	MG	P8	101	1/1	0.89	0.24	66,66,66,66	0
56	MG	1H	3023	1/1	0.89	0.22	56,56,56,56	0
56	MG	1H	3279	1/1	0.89	0.11	67,67,67,67	0
56	MG	1H	3049	1/1	0.89	0.11	50,50,50,50	0
56	MG	1H	3009	1/1	0.89	0.23	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1653	1/1	0.89	0.24	82,82,82,82	0
56	MG	14	3067	1/1	0.89	0.22	85,85,85,85	0
56	MG	1H	3146	1/1	0.89	0.39	90,90,90,90	0
56	MG	14	3232	1/1	0.89	0.15	88,88,88,88	0
56	MG	14	3074	1/1	0.89	0.26	76,76,76,76	0
56	MG	14	3235	1/1	0.89	0.23	83,83,83,83	0
56	MG	1H	3176	1/1	0.89	0.27	51,51,51,51	0
56	MG	1H	3118	1/1	0.89	0.26	52,52,52,52	0
56	MG	14	3164	1/1	0.89	0.32	64,64,64,64	0
56	MG	1H	3311	1/1	0.89	0.17	56,56,56,56	0
56	MG	1H	3032	1/1	0.89	0.28	68,68,68,68	0
56	MG	14	3168	1/1	0.89	0.21	52,52,52,52	0
56	MG	1H	3064	1/1	0.89	0.32	76,76,76,76	0
56	MG	1H	3369	1/1	0.89	0.11	57,57,57,57	0
56	MG	14	3087	1/1	0.89	0.20	73,73,73,73	0
56	MG	1H	3183	1/1	0.89	0.23	74,74,74,74	0
56	MG	14	3319	1/1	0.89	0.15	84,84,84,84	0
56	MG	1G	1665	1/1	0.89	0.10	104,104,104,104	0
56	MG	13	1649	1/1	0.89	0.33	87,87,87,87	0
56	MG	1H	3039	1/1	0.89	0.24	74,74,74,74	0
56	MG	1G	1626	1/1	0.89	0.18	78,78,78,78	0
56	MG	14	3447	1/1	0.89	0.11	116,116,116,116	0
56	MG	1G	1702	1/1	0.89	0.15	100,100,100,100	0
56	MG	1H	3068	1/1	0.89	0.19	50,50,50,50	0
56	MG	1G	1628	1/1	0.89	0.24	77,77,77,77	0
56	MG	2L	103	1/1	0.89	0.26	70,70,70,70	0
56	MG	14	3002	1/1	0.89	0.15	61,61,61,61	0
56	MG	13	1682	1/1	0.89	0.09	91,91,91,91	0
56	MG	14	3122	1/1	0.89	0.24	53,53,53,53	0
56	MG	1H	3192	1/1	0.89	0.31	61,61,61,61	0
56	MG	14	3125	1/1	0.89	0.25	76,76,76,76	0
56	MG	1H	3135	1/1	0.89	0.23	54,54,54,54	0
56	MG	1H	3104	1/1	0.89	0.16	65,65,65,65	0
56	MG	1G	1634	1/1	0.89	0.16	91,91,91,91	0
56	MG	35	203	1/1	0.89	0.18	83,83,83,83	0
56	MG	1H	3551	1/1	0.89	0.11	105,105,105,105	0
56	MG	1H	3556	1/1	0.90	0.09	101,101,101,101	0
56	MG	1H	3557	1/1	0.90	0.10	84,84,84,84	0
56	MG	1H	3283	1/1	0.90	0.10	58,58,58,58	0
56	MG	1G	1621	1/1	0.90	0.20	76,76,76,76	0
56	MG	13	1659	1/1	0.90	0.24	57,57,57,57	0
56	MG	14	3018	1/1	0.90	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
56	MG	1H	3090	1/1	0.90	0.21	50,50,50,50	0
56	MG	14	3144	1/1	0.90	0.25	60,60,60,60	0
56	MG	14	3085	1/1	0.90	0.20	64,64,64,64	0
56	MG	14	3191	1/1	0.90	0.14	66,66,66,66	0
56	MG	14	3242	1/1	0.90	0.24	83,83,83,83	0
56	MG	1H	3018	1/1	0.90	0.29	51,51,51,51	0
56	MG	14	3245	1/1	0.90	0.12	61,61,61,61	0
56	MG	14	3089	1/1	0.90	0.12	53,53,53,53	0
56	MG	14	3025	1/1	0.90	0.19	59,59,59,59	0
56	MG	1H	3233	1/1	0.90	0.21	57,57,57,57	0
56	MG	14	3316	1/1	0.90	0.12	79,79,79,79	0
56	MG	1H	3173	1/1	0.90	0.16	67,67,67,67	0
56	MG	1H	3262	1/1	0.90	0.39	86,86,86,86	0
56	MG	14	3155	1/1	0.90	0.21	73,73,73,73	0
56	MG	14	3032	1/1	0.90	0.27	50,50,50,50	0
56	MG	1H	3159	1/1	0.90	0.08	69,69,69,69	0
56	MG	88	203	1/1	0.90	0.22	87,87,87,87	0
56	MG	13	1645	1/1	0.90	0.27	84,84,84,84	0
56	MG	1H	3239	1/1	0.90	0.34	69,69,69,69	0
56	MG	1H	3125	1/1	0.90	0.17	50,50,50,50	0
56	MG	1H	3020	1/1	0.90	0.19	56,56,56,56	0
56	MG	13	1612	1/1	0.90	0.13	78,78,78,78	0
56	MG	1H	3470	1/1	0.90	0.14	82,82,82,82	0
56	MG	1H	3047	1/1	0.90	0.30	76,76,76,76	0
56	MG	1H	3224	1/1	0.90	0.15	74,74,74,74	0
56	MG	1G	1726	1/1	0.90	0.20	92,92,92,92	0
56	MG	1H	3085	1/1	0.90	0.19	85,85,85,85	0
56	MG	13	1625	1/1	0.90	0.22	78,78,78,78	0
56	MG	14	3222	1/1	0.90	0.20	88,88,88,88	0
56	MG	2L	101	1/1	0.90	0.27	71,71,71,71	0
56	MG	45	201	1/1	0.90	0.19	87,87,87,87	0
56	MG	1H	3155	1/1	0.90	0.20	80,80,80,80	0
56	MG	1H	3273	1/1	0.91	0.21	76,76,76,76	0
56	MG	1H	3108	1/1	0.91	0.20	34,34,34,34	0
56	MG	16	211	1/1	0.91	0.15	92,92,92,92	0
56	MG	14	3204	1/1	0.91	0.20	63,63,63,63	0
56	MG	1H	3112	1/1	0.91	0.10	53,53,53,53	0
56	MG	14	3037	1/1	0.91	0.22	61,61,61,61	0
56	MG	13	1632	1/1	0.91	0.17	69,69,69,69	0
56	MG	1H	3117	1/1	0.91	0.12	61,61,61,61	0
56	MG	1H	3081	1/1	0.91	0.36	76,76,76,76	0
56	MG	14	3139	1/1	0.91	0.28	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3121	1/1	0.91	0.39	64,64,64,64	0
56	MG	13	1605	1/1	0.91	0.16	79,79,79,79	0
56	MG	13	1683	1/1	0.91	0.19	92,92,92,92	0
56	MG	14	3216	1/1	0.91	0.30	79,79,79,79	0
56	MG	1G	1652	1/1	0.91	0.29	76,76,76,76	0
56	MG	14	3145	1/1	0.91	0.20	75,75,75,75	0
56	MG	14	3146	1/1	0.91	0.21	72,72,72,72	0
56	MG	13	1684	1/1	0.91	0.23	71,71,71,71	0
56	MG	13	1650	1/1	0.91	0.15	121,121,121,121	0
56	MG	14	3059	1/1	0.91	0.16	53,53,53,53	0
56	MG	1H	3054	1/1	0.91	0.45	70,70,70,70	0
56	MG	14	3227	1/1	0.91	0.23	70,70,70,70	0
56	MG	1H	3001	1/1	0.91	0.12	61,61,61,61	0
56	MG	13	1675	1/1	0.91	0.11	65,65,65,65	0
56	MG	1H	3134	1/1	0.91	0.16	74,74,74,74	0
56	MG	13	1651	1/1	0.91	0.29	82,82,82,82	0
56	MG	1G	1615	1/1	0.91	0.12	93,93,93,93	0
56	MG	13	1652	1/1	0.91	0.34	91,91,91,91	0
56	MG	1H	3421	1/1	0.91	0.09	98,98,98,98	0
56	MG	1H	3100	1/1	0.91	0.25	59,59,59,59	0
56	MG	1H	3101	1/1	0.91	0.15	79,79,79,79	0
56	MG	1H	3142	1/1	0.91	0.11	74,74,74,74	0
56	MG	14	3083	1/1	0.91	0.15	74,74,74,74	0
56	MG	14	3243	1/1	0.91	0.29	60,60,60,60	0
56	MG	1G	1622	1/1	0.91	0.24	73,73,73,73	0
56	MG	13	1712	1/1	0.91	0.14	96,96,96,96	0
56	MG	14	3284	1/1	0.91	0.21	87,87,87,87	0
56	MG	1H	3471	1/1	0.91	0.08	91,91,91,91	0
56	MG	14	3170	1/1	0.91	0.10	63,63,63,63	0
56	MG	1H	3069	1/1	0.91	0.21	45,45,45,45	0
56	MG	14	3313	1/1	0.91	0.10	53,53,53,53	0
56	MG	14	3172	1/1	0.91	0.28	82,82,82,82	0
56	MG	14	3091	1/1	0.91	0.16	44,44,44,44	0
56	MG	1H	3178	1/1	0.91	0.32	69,69,69,69	0
56	MG	14	3176	1/1	0.91	0.22	72,72,72,72	0
56	MG	1H	3216	1/1	0.91	0.18	71,71,71,71	0
56	MG	1H	3498	1/1	0.91	0.12	85,85,85,85	0
56	MG	13	1670	1/1	0.91	0.27	80,80,80,80	0
56	MG	14	3455	1/1	0.91	0.20	87,87,87,87	0
56	MG	14	3462	1/1	0.91	0.12	99,99,99,99	0
56	MG	14	3106	1/1	0.91	0.31	75,75,75,75	0
56	MG	1H	3549	1/1	0.91	0.14	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3006	1/1	0.91	0.22	67,67,67,67	0
56	MG	1H	3078	1/1	0.91	0.24	70,70,70,70	0
56	MG	14	3015	1/1	0.91	0.18	80,80,80,80	0
56	MG	14	3113	1/1	0.91	0.10	67,67,67,67	0
56	MG	14	3115	1/1	0.91	0.23	64,64,64,64	0
56	MG	13	1606	1/1	0.91	0.19	71,71,71,71	0
56	MG	1H	3184	1/1	0.91	0.12	57,57,57,57	0
56	MG	1H	3222	1/1	0.91	0.13	72,72,72,72	0
56	MG	14	3020	1/1	0.91	0.21	73,73,73,73	0
56	MG	1H	3223	1/1	0.91	0.23	76,76,76,76	0
56	MG	1H	3149	1/1	0.91	0.13	54,54,54,54	0
56	MG	14	3026	1/1	0.91	0.24	70,70,70,70	0
56	MG	E5	101	1/1	0.91	0.36	74,74,74,74	0
56	MG	E5	102	1/1	0.91	0.34	72,72,72,72	0
56	MG	16	204	1/1	0.91	0.12	57,57,57,57	0
58	ZN	G8	201	1/1	0.91	0.16	143,143,143,143	0
56	MG	14	3223	1/1	0.92	0.20	78,78,78,78	0
56	MG	1H	3445	1/1	0.92	0.08	90,90,90,90	0
56	MG	1H	3221	1/1	0.92	0.12	65,65,65,65	0
56	MG	13	1758	1/1	0.92	0.09	137,137,137,137	0
56	MG	14	3230	1/1	0.92	0.17	74,74,74,74	0
56	MG	1H	3166	1/1	0.92	0.07	52,52,52,52	0
56	MG	13	1761	1/1	0.92	0.18	75,75,75,75	0
56	MG	1H	3225	1/1	0.92	0.11	60,60,60,60	0
56	MG	1H	3198	1/1	0.92	0.19	65,65,65,65	0
56	MG	14	3034	1/1	0.92	0.32	72,72,72,72	0
56	MG	14	3117	1/1	0.92	0.22	79,79,79,79	0
56	MG	13	1630	1/1	0.92	0.39	81,81,81,81	0
56	MG	1H	3504	1/1	0.92	0.07	86,86,86,86	0
56	MG	14	3120	1/1	0.92	0.14	72,72,72,72	0
56	MG	1H	3519	1/1	0.92	0.13	78,78,78,78	0
56	MG	1H	3530	1/1	0.92	0.24	81,81,81,81	0
56	MG	1H	3533	1/1	0.92	0.15	86,86,86,86	0
56	MG	1G	1663	1/1	0.92	0.10	85,85,85,85	0
56	MG	1H	3200	1/1	0.92	0.27	70,70,70,70	0
56	MG	13	1615	1/1	0.92	0.16	94,94,94,94	0
56	MG	1H	3202	1/1	0.92	0.21	63,63,63,63	0
56	MG	14	3305	1/1	0.92	0.09	96,96,96,96	0
56	MG	13	1623	1/1	0.92	0.25	62,62,62,62	0
56	MG	1G	1694	1/1	0.92	0.12	103,103,103,103	0
56	MG	1H	3053	1/1	0.92	0.19	40,40,40,40	0
56	MG	13	1637	1/1	0.92	0.09	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1723	1/1	0.92	0.10	106,106,106,106	0
56	MG	1H	3086	1/1	0.92	0.17	65,65,65,65	0
56	MG	14	3360	1/1	0.92	0.09	88,88,88,88	0
56	MG	14	3196	1/1	0.92	0.07	77,77,77,77	0
56	MG	14	3071	1/1	0.92	0.24	52,52,52,52	0
56	MG	13	1664	1/1	0.92	0.34	69,69,69,69	0
56	MG	14	3437	1/1	0.92	0.06	115,115,115,115	0
56	MG	1H	3122	1/1	0.92	0.17	58,58,58,58	0
56	MG	13	1665	1/1	0.92	0.31	76,76,76,76	0
56	MG	13	1666	1/1	0.92	0.29	79,79,79,79	0
56	MG	1H	3030	1/1	0.92	0.17	49,49,49,49	0
56	MG	14	3465	1/1	0.92	0.14	85,85,85,85	0
56	MG	14	3468	1/1	0.92	0.20	58,58,58,58	0
56	MG	1H	3095	1/1	0.92	0.23	66,66,66,66	0
56	MG	21	301	1/1	0.92	0.21	62,62,62,62	0
56	MG	13	1647	1/1	0.92	0.12	73,73,73,73	0
56	MG	14	3207	1/1	0.92	0.23	63,63,63,63	0
56	MG	14	3012	1/1	0.92	0.20	56,56,56,56	0
56	MG	1H	3129	1/1	0.92	0.20	66,66,66,66	0
56	MG	14	3086	1/1	0.92	0.14	61,61,61,61	0
56	MG	1H	3131	1/1	0.92	0.11	54,54,54,54	0
56	MG	39	301	1/1	0.92	0.15	92,92,92,92	0
56	MG	1H	3010	1/1	0.92	0.12	53,53,53,53	0
56	MG	14	3017	1/1	0.92	0.25	54,54,54,54	0
56	MG	1H	3070	1/1	0.92	0.27	54,54,54,54	0
56	MG	35	202	1/1	0.92	0.20	78,78,78,78	0
56	MG	14	3094	1/1	0.92	0.21	73,73,73,73	0
56	MG	14	3159	1/1	0.92	0.15	70,70,70,70	0
56	MG	1H	3255	1/1	0.92	0.09	75,75,75,75	0
56	MG	13	1750	1/1	0.92	0.12	101,101,101,101	0
56	MG	13	1752	1/1	0.92	0.08	108,108,108,108	0
56	MG	14	3104	1/1	0.92	0.45	74,74,74,74	0
56	MG	1H	3033	1/1	0.93	0.24	67,67,67,67	0
56	MG	1H	3348	1/1	0.93	0.16	78,78,78,78	0
56	MG	1H	3002	1/1	0.93	0.15	59,59,59,59	0
56	MG	14	3080	1/1	0.93	0.15	53,53,53,53	0
56	MG	1G	1633	1/1	0.93	0.14	92,92,92,92	0
56	MG	14	3229	1/1	0.93	0.13	66,66,66,66	0
56	MG	1H	3057	1/1	0.93	0.21	63,63,63,63	0
56	MG	14	3003	1/1	0.93	0.15	43,43,43,43	0
56	MG	1H	3405	1/1	0.93	0.08	91,91,91,91	0
56	MG	14	3233	1/1	0.93	0.09	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	16	210	1/1	0.93	0.10	89,89,89,89	0
56	MG	1H	3103	1/1	0.93	0.16	62,62,62,62	0
56	MG	14	3008	1/1	0.93	0.17	84,84,84,84	0
56	MG	14	3090	1/1	0.93	0.22	55,55,55,55	0
56	MG	1H	3419	1/1	0.93	0.08	78,78,78,78	0
56	MG	1H	3058	1/1	0.93	0.18	69,69,69,69	0
56	MG	21	302	1/1	0.93	0.25	75,75,75,75	0
56	MG	13	1723	1/1	0.93	0.11	75,75,75,75	0
56	MG	1H	3060	1/1	0.93	0.08	54,54,54,54	0
56	MG	14	3100	1/1	0.93	0.14	77,77,77,77	0
56	MG	14	3102	1/1	0.93	0.18	60,60,60,60	0
56	MG	88	202	1/1	0.93	0.22	67,67,67,67	0
56	MG	13	1689	1/1	0.93	0.08	65,65,65,65	0
56	MG	1H	3136	1/1	0.93	0.51	76,76,76,76	0
56	MG	14	3302	1/1	0.93	0.09	96,96,96,96	0
56	MG	14	3021	1/1	0.93	0.18	36,36,36,36	0
56	MG	F8	101	1/1	0.93	0.11	63,63,63,63	0
56	MG	1G	1647	1/1	0.93	0.14	82,82,82,82	0
56	MG	1H	3461	1/1	0.93	0.07	90,90,90,90	0
56	MG	1H	3163	1/1	0.93	0.38	83,83,83,83	0
56	MG	14	3114	1/1	0.93	0.17	68,68,68,68	0
56	MG	14	3327	1/1	0.93	0.09	60,60,60,60	0
56	MG	1H	3272	1/1	0.93	0.51	67,67,67,67	0
56	MG	14	3331	1/1	0.93	0.15	65,65,65,65	0
56	MG	14	3346	1/1	0.93	0.10	74,74,74,74	0
56	MG	1H	3026	1/1	0.93	0.18	71,71,71,71	0
56	MG	1H	3110	1/1	0.93	0.18	44,44,44,44	0
56	MG	1H	3482	1/1	0.93	0.09	85,85,85,85	0
56	MG	1H	3043	1/1	0.93	0.14	47,47,47,47	0
56	MG	14	3035	1/1	0.93	0.23	67,67,67,67	0
56	MG	13	1616	1/1	0.93	0.29	77,77,77,77	0
56	MG	14	3449	1/1	0.93	0.10	88,88,88,88	0
56	MG	14	3454	1/1	0.93	0.20	78,78,78,78	0
56	MG	1H	3088	1/1	0.93	0.37	74,74,74,74	0
56	MG	14	3457	1/1	0.93	0.07	92,92,92,92	0
56	MG	14	3459	1/1	0.93	0.06	97,97,97,97	0
56	MG	1H	3509	1/1	0.93	0.16	46,46,46,46	0
56	MG	13	1719	1/1	0.93	0.13	89,89,89,89	0
56	MG	1H	3524	1/1	0.93	0.08	96,96,96,96	0
56	MG	1G	1662	1/1	0.93	0.19	94,94,94,94	0
56	MG	1H	3280	1/1	0.93	0.21	76,76,76,76	0
56	MG	1H	3248	1/1	0.93	0.19	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3132	1/1	0.93	0.35	56,56,56,56	0
56	MG	14	3054	1/1	0.93	0.17	55,55,55,55	0
56	MG	1H	3249	1/1	0.93	0.33	67,67,67,67	0
56	MG	14	3057	1/1	0.93	0.21	61,61,61,61	0
56	MG	1H	3031	1/1	0.93	0.21	74,74,74,74	0
56	MG	1H	3092	1/1	0.93	0.23	55,55,55,55	0
56	MG	1G	1672	1/1	0.93	0.07	109,109,109,109	0
56	MG	1H	3554	1/1	0.93	0.13	100,100,100,100	0
56	MG	1H	3075	1/1	0.93	0.23	80,80,80,80	0
56	MG	14	3066	1/1	0.93	0.15	49,49,49,49	0
56	MG	1G	1700	1/1	0.93	0.08	87,87,87,87	0
56	MG	14	3068	1/1	0.93	0.18	59,59,59,59	0
56	MG	1H	3076	1/1	0.93	0.24	60,60,60,60	0
56	MG	1G	1713	1/1	0.93	0.07	112,112,112,112	0
56	MG	14	3073	1/1	0.93	0.25	65,65,65,65	0
56	MG	1H	3563	1/1	0.93	0.19	75,75,75,75	0
56	MG	5E	201	1/1	0.93	0.13	71,71,71,71	0
56	MG	14	3105	1/1	0.94	0.09	72,72,72,72	0
56	MG	1H	3061	1/1	0.94	0.20	41,41,41,41	0
56	MG	1H	3097	1/1	0.94	0.22	53,53,53,53	0
56	MG	1G	1616	1/1	0.94	0.26	71,71,71,71	0
56	MG	14	3036	1/1	0.94	0.18	39,39,39,39	0
56	MG	1H	3098	1/1	0.94	0.13	58,58,58,58	0
56	MG	13	1610	1/1	0.94	0.13	77,77,77,77	0
56	MG	14	3043	1/1	0.94	0.17	68,68,68,68	0
56	MG	13	1756	1/1	0.94	0.05	120,120,120,120	0
56	MG	14	3046	1/1	0.94	0.14	52,52,52,52	0
56	MG	1H	3226	1/1	0.94	0.19	78,78,78,78	0
56	MG	14	3254	1/1	0.94	0.07	92,92,92,92	0
56	MG	1H	3331	1/1	0.94	0.08	49,49,49,49	0
56	MG	14	3296	1/1	0.94	0.12	70,70,70,70	0
56	MG	13	1634	1/1	0.94	0.07	68,68,68,68	0
56	MG	14	3051	1/1	0.94	0.19	62,62,62,62	0
56	MG	1G	1623	1/1	0.94	0.12	77,77,77,77	0
56	MG	1H	3067	1/1	0.94	0.27	75,75,75,75	0
56	MG	1G	1691	1/1	0.94	0.07	110,110,110,110	0
56	MG	1H	3179	1/1	0.94	0.15	47,47,47,47	0
56	MG	13	1611	1/1	0.94	0.20	64,64,64,64	0
56	MG	1G	1697	1/1	0.94	0.11	94,94,94,94	0
56	MG	14	3324	1/1	0.94	0.12	70,70,70,70	0
56	MG	1H	3390	1/1	0.94	0.07	102,102,102,102	0
56	MG	1H	3401	1/1	0.94	0.10	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3261	1/1	0.94	0.24	65,65,65,65	0
56	MG	14	3342	1/1	0.94	0.10	75,75,75,75	0
56	MG	1G	1719	1/1	0.94	0.07	100,100,100,100	0
56	MG	14	3349	1/1	0.94	0.10	65,65,65,65	0
56	MG	14	3357	1/1	0.94	0.10	79,79,79,79	0
56	MG	1H	3051	1/1	0.94	0.17	46,46,46,46	0
56	MG	14	3368	1/1	0.94	0.07	75,75,75,75	0
56	MG	14	3390	1/1	0.94	0.12	72,72,72,72	0
56	MG	14	3395	1/1	0.94	0.07	69,69,69,69	0
56	MG	14	3396	1/1	0.94	0.06	102,102,102,102	0
56	MG	1H	3411	1/1	0.94	0.11	65,65,65,65	0
56	MG	14	3405	1/1	0.94	0.05	106,106,106,106	0
56	MG	14	3417	1/1	0.94	0.09	116,116,116,116	0
56	MG	1H	3182	1/1	0.94	0.18	56,56,56,56	0
56	MG	14	3202	1/1	0.94	0.11	65,65,65,65	0
56	MG	1H	3037	1/1	0.94	0.32	63,63,63,63	0
56	MG	1H	3265	1/1	0.94	0.07	69,69,69,69	0
56	MG	1H	3438	1/1	0.94	0.07	71,71,71,71	0
56	MG	1H	3440	1/1	0.94	0.08	72,72,72,72	0
56	MG	14	3142	1/1	0.94	0.14	83,83,83,83	0
56	MG	1H	3074	1/1	0.94	0.05	52,52,52,52	0
56	MG	1H	3235	1/1	0.94	0.25	65,65,65,65	0
56	MG	14	3210	1/1	0.94	0.26	74,74,74,74	0
56	MG	78	201	1/1	0.94	0.20	70,70,70,70	0
56	MG	14	3464	1/1	0.94	0.09	105,105,105,105	0
56	MG	1H	3451	1/1	0.94	0.09	78,78,78,78	0
56	MG	1H	3452	1/1	0.94	0.07	72,72,72,72	0
56	MG	1H	3025	1/1	0.94	0.17	32,32,32,32	0
56	MG	13	1604	1/1	0.94	0.14	66,66,66,66	0
56	MG	1H	3111	1/1	0.94	0.17	57,57,57,57	0
56	MG	L8	101	1/1	0.94	0.19	80,80,80,80	0
56	MG	1H	3274	1/1	0.94	0.19	48,48,48,48	0
56	MG	1H	3091	1/1	0.94	0.12	65,65,65,65	0
56	MG	13	1603	1/1	0.94	0.15	72,72,72,72	0
56	MG	1G	1649	1/1	0.94	0.11	83,83,83,83	0
56	MG	1H	3243	1/1	0.94	0.14	54,54,54,54	0
56	MG	14	3022	1/1	0.94	0.21	73,73,73,73	0
56	MG	1G	1606	1/1	0.94	0.09	80,80,80,80	0
56	MG	14	3226	1/1	0.94	0.12	51,51,51,51	0
56	MG	1H	3093	1/1	0.94	0.15	60,60,60,60	0
56	MG	13	1608	1/1	0.94	0.17	71,71,71,71	0
56	MG	1G	1611	1/1	0.94	0.13	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	B5	101	1/1	0.94	0.08	76,76,76,76	0
56	MG	14	3101	1/1	0.94	0.18	70,70,70,70	0
56	MG	1H	3120	1/1	0.94	0.07	39,39,39,39	0
56	MG	1H	3046	1/1	0.94	0.15	59,59,59,59	0
56	MG	1G	1657	1/1	0.94	0.24	77,77,77,77	0
56	MG	1H	3435	1/1	0.95	0.06	55,55,55,55	0
56	MG	14	3253	1/1	0.95	0.06	57,57,57,57	0
56	MG	1H	3035	1/1	0.95	0.09	64,64,64,64	0
56	MG	14	3263	1/1	0.95	0.07	64,64,64,64	0
56	MG	14	3269	1/1	0.95	0.09	60,60,60,60	0
56	MG	1H	3439	1/1	0.95	0.07	55,55,55,55	0
56	MG	13	1744	1/1	0.95	0.06	111,111,111,111	0
56	MG	1H	3442	1/1	0.95	0.15	64,64,64,64	0
56	MG	13	1746	1/1	0.95	0.06	102,102,102,102	0
56	MG	1H	3126	1/1	0.95	0.16	64,64,64,64	0
56	MG	14	3188	1/1	0.95	0.09	61,61,61,61	0
56	MG	1G	1709	1/1	0.95	0.10	99,99,99,99	0
56	MG	1G	1710	1/1	0.95	0.06	95,95,95,95	0
56	MG	14	3314	1/1	0.95	0.10	46,46,46,46	0
56	MG	1H	3188	1/1	0.95	0.22	69,69,69,69	0
56	MG	11	301	1/1	0.95	0.08	77,77,77,77	0
56	MG	1G	1722	1/1	0.95	0.06	102,102,102,102	0
56	MG	14	3195	1/1	0.95	0.18	71,71,71,71	0
56	MG	13	1680	1/1	0.95	0.29	73,73,73,73	0
56	MG	1H	3454	1/1	0.95	0.17	67,67,67,67	0
56	MG	14	3335	1/1	0.95	0.12	78,78,78,78	0
56	MG	14	3341	1/1	0.95	0.10	76,76,76,76	0
56	MG	1H	3017	1/1	0.95	0.26	55,55,55,55	0
56	MG	14	3345	1/1	0.95	0.07	66,66,66,66	0
56	MG	1H	3148	1/1	0.95	0.08	56,56,56,56	0
56	MG	14	3065	1/1	0.95	0.16	58,58,58,58	0
56	MG	14	3354	1/1	0.95	0.07	63,63,63,63	0
56	MG	1H	3468	1/1	0.95	0.09	68,68,68,68	0
56	MG	1H	3073	1/1	0.95	0.14	39,39,39,39	0
56	MG	14	3363	1/1	0.95	0.06	54,54,54,54	0
56	MG	1H	3150	1/1	0.95	0.18	51,51,51,51	0
56	MG	13	1618	1/1	0.95	0.10	45,45,45,45	0
56	MG	1H	3114	1/1	0.95	0.15	66,66,66,66	0
56	MG	1H	3341	1/1	0.95	0.09	43,43,43,43	0
56	MG	1H	3491	1/1	0.95	0.19	73,73,73,73	0
56	MG	1H	3154	1/1	0.95	0.21	60,60,60,60	0
56	MG	14	3407	1/1	0.95	0.12	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3010	1/1	0.95	0.18	50,50,50,50	0
56	MG	14	3077	1/1	0.95	0.19	45,45,45,45	0
56	MG	1H	3099	1/1	0.95	0.32	80,80,80,80	0
56	MG	1G	1603	1/1	0.95	0.13	85,85,85,85	0
56	MG	1H	3242	1/1	0.95	0.20	70,70,70,70	0
56	MG	1H	3268	1/1	0.95	0.16	78,78,78,78	0
56	MG	1H	3386	1/1	0.95	0.06	88,88,88,88	0
56	MG	1H	3520	1/1	0.95	0.16	98,98,98,98	0
56	MG	1H	3269	1/1	0.95	0.17	61,61,61,61	0
56	MG	14	3218	1/1	0.95	0.10	74,74,74,74	0
56	MG	1G	1609	1/1	0.95	0.13	70,70,70,70	0
56	MG	1H	3526	1/1	0.95	0.10	73,73,73,73	0
56	MG	1H	3044	1/1	0.95	0.14	39,39,39,39	0
56	MG	14	3156	1/1	0.95	0.40	86,86,86,86	0
56	MG	14	3467	1/1	0.95	0.20	71,71,71,71	0
56	MG	14	3023	1/1	0.95	0.14	69,69,69,69	0
56	MG	1H	3244	1/1	0.95	0.10	67,67,67,67	0
56	MG	14	3471	1/1	0.95	0.10	68,68,68,68	0
56	MG	1J	201	1/1	0.95	0.05	70,70,70,70	0
56	MG	13	1656	1/1	0.95	0.10	60,60,60,60	0
56	MG	1J	203	1/1	0.95	0.18	70,70,70,70	0
56	MG	1H	3546	1/1	0.95	0.07	93,93,93,93	0
56	MG	1H	3119	1/1	0.95	0.10	46,46,46,46	0
56	MG	14	3096	1/1	0.95	0.12	48,48,48,48	0
56	MG	1H	3415	1/1	0.95	0.13	73,73,73,73	0
56	MG	14	3165	1/1	0.95	0.18	67,67,67,67	0
56	MG	14	3098	1/1	0.95	0.17	68,68,68,68	0
56	MG	29	301	1/1	0.95	0.16	49,49,49,49	0
56	MG	1K	101	1/1	0.95	0.08	119,119,119,119	0
56	MG	14	3030	1/1	0.95	0.16	38,38,38,38	0
56	MG	1H	3021	1/1	0.95	0.17	43,43,43,43	0
56	MG	1H	3426	1/1	0.95	0.12	77,77,77,77	0
56	MG	1H	3562	1/1	0.95	0.15	69,69,69,69	0
56	MG	1H	3022	1/1	0.95	0.16	45,45,45,45	0
56	MG	1G	1666	1/1	0.95	0.07	100,100,100,100	0
56	MG	1H	3568	1/1	0.95	0.14	94,94,94,94	0
56	MG	1H	3572	1/1	0.95	0.18	54,54,54,54	0
56	MG	14	3042	1/1	0.95	0.20	85,85,85,85	0
56	MG	1G	1669	1/1	0.95	0.08	81,81,81,81	0
56	MG	14	3044	1/1	0.95	0.30	78,78,78,78	0
56	MG	1H	3062	1/1	0.96	0.06	29,29,29,29	0
56	MG	13	1749	1/1	0.96	0.06	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3522	1/1	0.96	0.05	98,98,98,98	0
56	MG	14	3174	1/1	0.96	0.16	64,64,64,64	0
56	MG	1H	3045	1/1	0.96	0.14	42,42,42,42	0
56	MG	1G	1610	1/1	0.96	0.08	70,70,70,70	0
56	MG	14	3299	1/1	0.96	0.05	99,99,99,99	0
56	MG	14	3301	1/1	0.96	0.10	111,111,111,111	0
56	MG	1H	3424	1/1	0.96	0.08	44,44,44,44	0
56	MG	1H	3028	1/1	0.96	0.11	49,49,49,49	0
56	MG	14	3031	1/1	0.96	0.20	48,48,48,48	0
56	MG	1H	3427	1/1	0.96	0.10	60,60,60,60	0
56	MG	1H	3534	1/1	0.96	0.06	85,85,85,85	0
56	MG	14	3107	1/1	0.96	0.08	61,61,61,61	0
56	MG	14	3315	1/1	0.96	0.07	56,56,56,56	0
56	MG	14	3108	1/1	0.96	0.04	67,67,67,67	0
56	MG	14	3318	1/1	0.96	0.06	65,65,65,65	0
56	MG	1H	3536	1/1	0.96	0.07	98,98,98,98	0
56	MG	14	3321	1/1	0.96	0.06	88,88,88,88	0
56	MG	14	3322	1/1	0.96	0.13	77,77,77,77	0
56	MG	1H	3538	1/1	0.96	0.20	78,78,78,78	0
56	MG	1H	3428	1/1	0.96	0.06	64,64,64,64	0
56	MG	1H	3029	1/1	0.96	0.10	48,48,48,48	0
56	MG	1H	3432	1/1	0.96	0.05	44,44,44,44	0
56	MG	14	3333	1/1	0.96	0.10	64,64,64,64	0
56	MG	14	3334	1/1	0.96	0.09	69,69,69,69	0
56	MG	14	3040	1/1	0.96	0.12	58,58,58,58	0
56	MG	1H	3282	1/1	0.96	0.14	66,66,66,66	0
56	MG	1G	1682	1/1	0.96	0.16	117,117,117,117	0
56	MG	1G	1688	1/1	0.96	0.08	81,81,81,81	0
56	MG	14	3194	1/1	0.96	0.31	79,79,79,79	0
56	MG	14	3347	1/1	0.96	0.10	74,74,74,74	0
56	MG	1H	3189	1/1	0.96	0.13	53,53,53,53	0
56	MG	1H	3555	1/1	0.96	0.21	70,70,70,70	0
56	MG	13	1641	1/1	0.96	0.10	78,78,78,78	0
56	MG	14	3121	1/1	0.96	0.15	45,45,45,45	0
56	MG	1G	1696	1/1	0.96	0.07	107,107,107,107	0
56	MG	14	3123	1/1	0.96	0.08	60,60,60,60	0
56	MG	14	3376	1/1	0.96	0.11	91,91,91,91	0
56	MG	14	3383	1/1	0.96	0.05	102,102,102,102	0
56	MG	14	3384	1/1	0.96	0.09	79,79,79,79	0
56	MG	14	3385	1/1	0.96	0.07	80,80,80,80	0
56	MG	13	1733	1/1	0.96	0.10	102,102,102,102	0
56	MG	14	3392	1/1	0.96	0.06	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1698	1/1	0.96	0.06	102,102,102,102	0
56	MG	1H	3560	1/1	0.96	0.11	85,85,85,85	0
56	MG	13	1754	1/1	0.96	0.07	80,80,80,80	0
56	MG	1G	1703	1/1	0.96	0.13	85,85,85,85	0
56	MG	14	3055	1/1	0.96	0.19	50,50,50,50	0
56	MG	14	3413	1/1	0.96	0.12	64,64,64,64	0
56	MG	1H	3071	1/1	0.96	0.10	57,57,57,57	0
56	MG	14	3424	1/1	0.96	0.05	81,81,81,81	0
56	MG	14	3429	1/1	0.96	0.10	68,68,68,68	0
56	MG	1H	3293	1/1	0.96	0.06	41,41,41,41	0
56	MG	1G	1712	1/1	0.96	0.05	122,122,122,122	0
56	MG	14	3436	1/1	0.96	0.08	98,98,98,98	0
56	MG	1H	3447	1/1	0.96	0.07	59,59,59,59	0
56	MG	14	3061	1/1	0.96	0.18	47,47,47,47	0
56	MG	1G	1717	1/1	0.96	0.06	118,118,118,118	0
56	MG	14	3451	1/1	0.96	0.07	88,88,88,88	0
56	MG	1H	3449	1/1	0.96	0.12	53,53,53,53	0
56	MG	1H	3130	1/1	0.96	0.09	54,54,54,54	0
56	MG	1H	3326	1/1	0.96	0.09	56,56,56,56	0
56	MG	13	1713	1/1	0.96	0.17	82,82,82,82	0
56	MG	14	3461	1/1	0.96	0.11	80,80,80,80	0
56	MG	1H	3266	1/1	0.96	0.11	61,61,61,61	0
56	MG	1H	3456	1/1	0.96	0.12	102,102,102,102	0
56	MG	52	201	1/1	0.96	0.05	109,109,109,109	0
56	MG	1H	3006	1/1	0.96	0.20	43,43,43,43	0
56	MG	14	3466	1/1	0.96	0.10	92,92,92,92	0
56	MG	1H	3463	1/1	0.96	0.07	78,78,78,78	0
56	MG	14	3147	1/1	0.96	0.11	66,66,66,66	0
56	MG	1H	3467	1/1	0.96	0.06	95,95,95,95	0
56	MG	1H	3197	1/1	0.96	0.13	69,69,69,69	0
56	MG	1H	3469	1/1	0.96	0.05	79,79,79,79	0
56	MG	1H	3174	1/1	0.96	0.17	50,50,50,50	0
56	MG	13	1740	1/1	0.96	0.06	96,96,96,96	0
56	MG	1H	3372	1/1	0.96	0.06	54,54,54,54	0
56	MG	1H	3379	1/1	0.96	0.05	86,86,86,86	0
56	MG	14	3011	1/1	0.96	0.20	50,50,50,50	0
56	MG	14	3082	1/1	0.96	0.10	73,73,73,73	0
56	MG	1H	3055	1/1	0.96	0.14	43,43,43,43	0
56	MG	1H	3484	1/1	0.96	0.06	88,88,88,88	0
56	MG	1J	210	1/1	0.96	0.08	91,91,91,91	0
56	MG	13	1741	1/1	0.96	0.06	110,110,110,110	0
56	MG	13	1621	1/1	0.96	0.14	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1609	1/1	0.96	0.19	64,64,64,64	0
56	MG	14	3162	1/1	0.96	0.06	50,50,50,50	0
56	MG	14	3088	1/1	0.96	0.07	105,105,105,105	0
56	MG	1H	3501	1/1	0.96	0.06	76,76,76,76	0
56	MG	Q8	101	1/1	0.96	0.15	71,71,71,71	0
56	MG	13	1724	1/1	0.96	0.06	94,94,94,94	0
56	MG	14	3092	1/1	0.96	0.14	43,43,43,43	0
56	MG	1H	3505	1/1	0.96	0.18	82,82,82,82	0
56	MG	13	1748	1/1	0.96	0.12	102,102,102,102	0
56	MG	14	3252	1/1	0.96	0.06	52,52,52,52	0
56	MG	M5	101	1/1	0.96	0.14	81,81,81,81	0
56	MG	1H	3518	1/1	0.96	0.11	76,76,76,76	0
58	ZN	C5	201	1/1	0.96	0.05	156,156,156,156	0
56	MG	1H	3332	1/1	0.97	0.05	50,50,50,50	0
56	MG	14	3268	1/1	0.97	0.06	64,64,64,64	0
56	MG	1G	1675	1/1	0.97	0.09	101,101,101,101	0
56	MG	14	3270	1/1	0.97	0.05	80,80,80,80	0
56	MG	14	3272	1/1	0.97	0.05	68,68,68,68	0
56	MG	1G	1677	1/1	0.97	0.06	93,93,93,93	0
56	MG	14	3290	1/1	0.97	0.06	67,67,67,67	0
56	MG	14	3291	1/1	0.97	0.10	82,82,82,82	0
56	MG	1G	1678	1/1	0.97	0.10	93,93,93,93	0
56	MG	14	3297	1/1	0.97	0.06	91,91,91,91	0
56	MG	1G	1681	1/1	0.97	0.05	99,99,99,99	0
56	MG	1H	3340	1/1	0.97	0.10	65,65,65,65	0
56	MG	14	3300	1/1	0.97	0.04	76,76,76,76	0
56	MG	1G	1684	1/1	0.97	0.05	98,98,98,98	0
56	MG	1G	1687	1/1	0.97	0.06	75,75,75,75	0
56	MG	1H	3152	1/1	0.97	0.14	87,87,87,87	0
56	MG	1G	1689	1/1	0.97	0.06	79,79,79,79	0
56	MG	14	3310	1/1	0.97	0.08	98,98,98,98	0
56	MG	13	1736	1/1	0.97	0.12	99,99,99,99	0
56	MG	13	1710	1/1	0.97	0.09	85,85,85,85	0
56	MG	1H	3477	1/1	0.97	0.04	91,91,91,91	0
56	MG	1G	1601	1/1	0.97	0.09	78,78,78,78	0
56	MG	1H	3353	1/1	0.97	0.05	68,68,68,68	0
56	MG	1H	3360	1/1	0.97	0.06	59,59,59,59	0
56	MG	1H	3362	1/1	0.97	0.06	55,55,55,55	0
56	MG	1H	3485	1/1	0.97	0.05	97,97,97,97	0
56	MG	1H	3488	1/1	0.97	0.07	85,85,85,85	0
56	MG	1G	1705	1/1	0.97	0.06	116,116,116,116	0
56	MG	14	3326	1/1	0.97	0.04	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1708	1/1	0.97	0.10	84,84,84,84	0
56	MG	1H	3490	1/1	0.97	0.07	95,95,95,95	0
56	MG	14	3330	1/1	0.97	0.04	77,77,77,77	0
56	MG	13	1660	1/1	0.97	0.14	55,55,55,55	0
56	MG	1H	3366	1/1	0.97	0.12	67,67,67,67	0
56	MG	1H	3496	1/1	0.97	0.15	76,76,76,76	0
56	MG	1H	3497	1/1	0.97	0.07	75,75,75,75	0
56	MG	14	3336	1/1	0.97	0.06	75,75,75,75	0
56	MG	13	1742	1/1	0.97	0.05	105,105,105,105	0
56	MG	1G	1720	1/1	0.97	0.10	129,129,129,129	0
56	MG	14	3182	1/1	0.97	0.04	66,66,66,66	0
56	MG	1H	3499	1/1	0.97	0.17	82,82,82,82	0
56	MG	13	1743	1/1	0.97	0.06	102,102,102,102	0
56	MG	14	3348	1/1	0.97	0.05	51,51,51,51	0
56	MG	1G	1724	1/1	0.97	0.09	102,102,102,102	0
56	MG	14	3350	1/1	0.97	0.06	44,44,44,44	0
56	MG	14	3353	1/1	0.97	0.05	91,91,91,91	0
56	MG	1G	1725	1/1	0.97	0.06	95,95,95,95	0
56	MG	14	3356	1/1	0.97	0.05	60,60,60,60	0
56	MG	1H	3503	1/1	0.97	0.10	75,75,75,75	0
56	MG	1H	3375	1/1	0.97	0.06	85,85,85,85	0
56	MG	1H	3377	1/1	0.97	0.04	49,49,49,49	0
56	MG	13	1619	1/1	0.97	0.07	51,51,51,51	0
56	MG	14	3373	1/1	0.97	0.07	58,58,58,58	0
56	MG	1H	3513	1/1	0.97	0.15	64,64,64,64	0
56	MG	14	3379	1/1	0.97	0.04	94,94,94,94	0
56	MG	1H	3185	1/1	0.97	0.22	54,54,54,54	0
56	MG	1H	3388	1/1	0.97	0.05	97,97,97,97	0
56	MG	14	3099	1/1	0.97	0.21	51,51,51,51	0
56	MG	14	3387	1/1	0.97	0.05	87,87,87,87	0
56	MG	14	3388	1/1	0.97	0.04	90,90,90,90	0
56	MG	1H	3063	1/1	0.97	0.10	43,43,43,43	0
56	MG	14	3391	1/1	0.97	0.06	73,73,73,73	0
56	MG	1H	3397	1/1	0.97	0.06	46,46,46,46	0
56	MG	14	3393	1/1	0.97	0.05	98,98,98,98	0
56	MG	1H	3398	1/1	0.97	0.06	55,55,55,55	0
56	MG	1H	3042	1/1	0.97	0.06	43,43,43,43	0
56	MG	14	3398	1/1	0.97	0.06	84,84,84,84	0
56	MG	13	1716	1/1	0.97	0.04	108,108,108,108	0
56	MG	14	3009	1/1	0.97	0.10	41,41,41,41	0
56	MG	1H	3532	1/1	0.97	0.05	96,96,96,96	0
56	MG	14	3408	1/1	0.97	0.05	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3410	1/1	0.97	0.09	83,83,83,83	0
56	MG	14	3412	1/1	0.97	0.06	76,76,76,76	0
56	MG	13	1718	1/1	0.97	0.08	54,54,54,54	0
56	MG	1H	3409	1/1	0.97	0.09	65,65,65,65	0
56	MG	14	3422	1/1	0.97	0.14	70,70,70,70	0
56	MG	1H	3113	1/1	0.97	0.05	37,37,37,37	0
56	MG	14	3425	1/1	0.97	0.09	96,96,96,96	0
56	MG	1H	3537	1/1	0.97	0.08	79,79,79,79	0
56	MG	14	3431	1/1	0.97	0.06	84,84,84,84	0
56	MG	1H	3003	1/1	0.97	0.14	44,44,44,44	0
56	MG	14	3433	1/1	0.97	0.10	143,143,143,143	0
56	MG	1H	3417	1/1	0.97	0.07	71,71,71,71	0
56	MG	1H	3543	1/1	0.97	0.11	81,81,81,81	0
56	MG	1H	3544	1/1	0.97	0.07	81,81,81,81	0
56	MG	14	3438	1/1	0.97	0.05	115,115,115,115	0
56	MG	14	3440	1/1	0.97	0.05	95,95,95,95	0
56	MG	14	3442	1/1	0.97	0.07	96,96,96,96	0
56	MG	14	3443	1/1	0.97	0.06	91,91,91,91	0
56	MG	14	3444	1/1	0.97	0.09	90,90,90,90	0
56	MG	14	3446	1/1	0.97	0.07	98,98,98,98	0
56	MG	1H	3545	1/1	0.97	0.08	88,88,88,88	0
56	MG	1H	3418	1/1	0.97	0.16	68,68,68,68	0
56	MG	1H	3547	1/1	0.97	0.11	91,91,91,91	0
56	MG	1H	3140	1/1	0.97	0.16	50,50,50,50	0
56	MG	1H	3420	1/1	0.97	0.11	55,55,55,55	0
56	MG	13	1691	1/1	0.97	0.06	76,76,76,76	0
56	MG	1H	3250	1/1	0.97	0.13	64,64,64,64	0
56	MG	14	3460	1/1	0.97	0.09	93,93,93,93	0
56	MG	13	1695	1/1	0.97	0.07	78,78,78,78	0
56	MG	13	1701	1/1	0.97	0.08	100,100,100,100	0
56	MG	1H	3559	1/1	0.97	0.07	73,73,73,73	0
56	MG	13	1704	1/1	0.97	0.14	73,73,73,73	0
56	MG	14	3126	1/1	0.97	0.04	55,55,55,55	0
56	MG	13	1732	1/1	0.97	0.05	113,113,113,113	0
56	MG	13	1706	1/1	0.97	0.04	92,92,92,92	0
56	MG	1H	3565	1/1	0.97	0.14	60,60,60,60	0
56	MG	14	3469	1/1	0.97	0.05	55,55,55,55	0
56	MG	1H	3052	1/1	0.97	0.08	59,59,59,59	0
56	MG	1H	3570	1/1	0.97	0.07	48,48,48,48	0
56	MG	13	1707	1/1	0.97	0.05	63,63,63,63	0
56	MG	14	3228	1/1	0.97	0.20	63,63,63,63	0
56	MG	13	1759	1/1	0.97	0.04	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3288	1/1	0.97	0.05	38,38,38,38	0
56	MG	14	3039	1/1	0.97	0.08	63,63,63,63	0
56	MG	1H	3292	1/1	0.97	0.05	38,38,38,38	0
56	MG	14	3041	1/1	0.97	0.11	44,44,44,44	0
56	MG	1H	3259	1/1	0.97	0.11	58,58,58,58	0
56	MG	1H	3294	1/1	0.97	0.06	43,43,43,43	0
56	MG	1H	3296	1/1	0.97	0.06	43,43,43,43	0
56	MG	16	208	1/1	0.97	0.18	80,80,80,80	0
56	MG	1H	3448	1/1	0.97	0.08	74,74,74,74	0
56	MG	14	3047	1/1	0.97	0.13	46,46,46,46	0
56	MG	1H	3305	1/1	0.97	0.05	48,48,48,48	0
56	MG	1H	3175	1/1	0.97	0.10	55,55,55,55	0
56	MG	1H	3312	1/1	0.97	0.09	49,49,49,49	0
56	MG	1H	3315	1/1	0.97	0.05	85,85,85,85	0
56	MG	1H	3316	1/1	0.97	0.06	60,60,60,60	0
56	MG	1H	3320	1/1	0.97	0.08	43,43,43,43	0
56	MG	14	3247	1/1	0.97	0.06	58,58,58,58	0
56	MG	14	3251	1/1	0.97	0.05	48,48,48,48	0
56	MG	13	1735	1/1	0.97	0.04	109,109,109,109	0
56	MG	1H	3327	1/1	0.97	0.09	68,68,68,68	0
56	MG	1H	3056	1/1	0.97	0.14	28,28,28,28	0
56	MG	14	3259	1/1	0.97	0.06	57,57,57,57	0
56	MG	13	1757	1/1	0.98	0.12	84,84,84,84	0
56	MG	14	3303	1/1	0.98	0.04	68,68,68,68	0
56	MG	1H	3465	1/1	0.98	0.04	58,58,58,58	0
56	MG	14	3306	1/1	0.98	0.17	76,76,76,76	0
56	MG	1H	3373	1/1	0.98	0.12	100,100,100,100	0
56	MG	14	3309	1/1	0.98	0.04	76,76,76,76	0
56	MG	13	1692	1/1	0.98	0.04	79,79,79,79	0
56	MG	1H	3376	1/1	0.98	0.05	50,50,50,50	0
56	MG	14	3312	1/1	0.98	0.08	47,47,47,47	0
56	MG	13	1726	1/1	0.98	0.04	64,64,64,64	0
56	MG	1H	3378	1/1	0.98	0.06	83,83,83,83	0
56	MG	16	207	1/1	0.98	0.04	60,60,60,60	0
56	MG	1H	3472	1/1	0.98	0.04	82,82,82,82	0
56	MG	14	3317	1/1	0.98	0.11	119,119,119,119	0
56	MG	16	209	1/1	0.98	0.04	67,67,67,67	0
56	MG	1G	1671	1/1	0.98	0.05	82,82,82,82	0
56	MG	13	1760	1/1	0.98	0.04	113,113,113,113	0
56	MG	1G	1673	1/1	0.98	0.08	86,86,86,86	0
56	MG	14	3323	1/1	0.98	0.04	57,57,57,57	0
56	MG	1H	3291	1/1	0.98	0.06	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1676	1/1	0.98	0.12	97,97,97,97	0
56	MG	14	3060	1/1	0.98	0.06	47,47,47,47	0
56	MG	16	212	1/1	0.98	0.07	68,68,68,68	0
56	MG	14	3329	1/1	0.98	0.07	54,54,54,54	0
56	MG	16	213	1/1	0.98	0.08	87,87,87,87	0
56	MG	1G	1679	1/1	0.98	0.04	70,70,70,70	0
56	MG	1H	3387	1/1	0.98	0.04	96,96,96,96	0
56	MG	1H	3206	1/1	0.98	0.07	53,53,53,53	0
56	MG	13	1727	1/1	0.98	0.07	87,87,87,87	0
56	MG	1G	1685	1/1	0.98	0.06	63,63,63,63	0
56	MG	14	3337	1/1	0.98	0.07	70,70,70,70	0
56	MG	1H	3391	1/1	0.98	0.04	56,56,56,56	0
56	MG	14	3070	1/1	0.98	0.10	49,49,49,49	0
56	MG	41	201	1/1	0.98	0.06	62,62,62,62	0
56	MG	1H	3486	1/1	0.98	0.09	95,95,95,95	0
56	MG	1H	3487	1/1	0.98	0.10	71,71,71,71	0
56	MG	1G	1693	1/1	0.98	0.05	114,114,114,114	0
56	MG	78	202	1/1	0.98	0.08	63,63,63,63	0
56	MG	1H	3395	1/1	0.98	0.04	47,47,47,47	0
56	MG	14	3352	1/1	0.98	0.04	66,66,66,66	0
56	MG	1H	3036	1/1	0.98	0.11	45,45,45,45	0
56	MG	1H	3295	1/1	0.98	0.05	55,55,55,55	0
56	MG	1H	3493	1/1	0.98	0.06	87,87,87,87	0
56	MG	1H	3400	1/1	0.98	0.06	48,48,48,48	0
56	MG	14	3359	1/1	0.98	0.09	57,57,57,57	0
56	MG	13	1729	1/1	0.98	0.10	88,88,88,88	0
56	MG	14	3362	1/1	0.98	0.08	65,65,65,65	0
56	MG	1H	3402	1/1	0.98	0.05	40,40,40,40	0
56	MG	14	3364	1/1	0.98	0.07	83,83,83,83	0
56	MG	14	3366	1/1	0.98	0.05	65,65,65,65	0
56	MG	1H	3303	1/1	0.98	0.11	57,57,57,57	0
56	MG	14	3372	1/1	0.98	0.04	45,45,45,45	0
56	MG	1G	1707	1/1	0.98	0.08	114,114,114,114	0
56	MG	14	3374	1/1	0.98	0.04	68,68,68,68	0
56	MG	14	3375	1/1	0.98	0.07	87,87,87,87	0
56	MG	1H	3237	1/1	0.98	0.04	41,41,41,41	0
56	MG	14	3377	1/1	0.98	0.05	77,77,77,77	0
56	MG	14	3378	1/1	0.98	0.04	96,96,96,96	0
56	MG	1H	3500	1/1	0.98	0.04	103,103,103,103	0
56	MG	14	3381	1/1	0.98	0.06	101,101,101,101	0
56	MG	1H	3408	1/1	0.98	0.06	42,42,42,42	0
56	MG	1G	1711	1/1	0.98	0.04	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3502	1/1	0.98	0.04	87,87,87,87	0
56	MG	1H	3310	1/1	0.98	0.05	43,43,43,43	0
56	MG	1G	1714	1/1	0.98	0.04	101,101,101,101	0
56	MG	1G	1715	1/1	0.98	0.05	116,116,116,116	0
56	MG	1H	3410	1/1	0.98	0.05	57,57,57,57	0
56	MG	1G	1718	1/1	0.98	0.05	89,89,89,89	0
56	MG	1H	3038	1/1	0.98	0.04	70,70,70,70	0
56	MG	1H	3508	1/1	0.98	0.06	37,37,37,37	0
56	MG	1G	1721	1/1	0.98	0.09	84,84,84,84	0
56	MG	14	3397	1/1	0.98	0.04	95,95,95,95	0
56	MG	1H	3412	1/1	0.98	0.05	39,39,39,39	0
56	MG	14	3399	1/1	0.98	0.04	82,82,82,82	0
56	MG	13	1703	1/1	0.98	0.04	75,75,75,75	0
56	MG	14	3401	1/1	0.98	0.04	75,75,75,75	0
56	MG	14	3402	1/1	0.98	0.04	94,94,94,94	0
56	MG	1H	3516	1/1	0.98	0.06	81,81,81,81	0
56	MG	14	3406	1/1	0.98	0.16	86,86,86,86	0
56	MG	1H	3517	1/1	0.98	0.07	84,84,84,84	0
56	MG	1H	3416	1/1	0.98	0.05	70,70,70,70	0
56	MG	32	301	1/1	0.98	0.06	112,112,112,112	0
56	MG	14	3411	1/1	0.98	0.05	101,101,101,101	0
56	MG	13	1745	1/1	0.98	0.03	99,99,99,99	0
56	MG	1H	3109	1/1	0.98	0.17	34,34,34,34	0
56	MG	14	3414	1/1	0.98	0.04	78,78,78,78	0
56	MG	1H	3317	1/1	0.98	0.07	63,63,63,63	0
56	MG	14	3419	1/1	0.98	0.07	97,97,97,97	0
56	MG	14	3420	1/1	0.98	0.08	66,66,66,66	0
56	MG	14	3421	1/1	0.98	0.04	84,84,84,84	0
56	MG	2A	201	1/1	0.98	0.09	103,103,103,103	0
56	MG	14	3423	1/1	0.98	0.06	52,52,52,52	0
56	MG	1H	3523	1/1	0.98	0.13	76,76,76,76	0
56	MG	2L	102	1/1	0.98	0.06	88,88,88,88	0
56	MG	1H	3319	1/1	0.98	0.05	51,51,51,51	0
56	MG	14	3430	1/1	0.98	0.07	86,86,86,86	0
56	MG	14	3001	1/1	0.98	0.05	51,51,51,51	0
56	MG	1H	3525	1/1	0.98	0.16	71,71,71,71	0
56	MG	13	1731	1/1	0.98	0.08	83,83,83,83	0
56	MG	14	3434	1/1	0.98	0.05	77,77,77,77	0
56	MG	1H	3527	1/1	0.98	0.04	86,86,86,86	0
56	MG	1H	3529	1/1	0.98	0.04	102,102,102,102	0
56	MG	1H	3325	1/1	0.98	0.10	56,56,56,56	0
56	MG	14	3007	1/1	0.98	0.04	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	2K	102	1/1	0.98	0.08	83,83,83,83	0
56	MG	14	3441	1/1	0.98	0.04	95,95,95,95	0
56	MG	13	1717	1/1	0.98	0.06	51,51,51,51	0
56	MG	13	1699	1/1	0.98	0.05	75,75,75,75	0
56	MG	1H	3430	1/1	0.98	0.04	46,46,46,46	0
56	MG	14	3445	1/1	0.98	0.09	89,89,89,89	0
56	MG	1H	3139	1/1	0.98	0.10	52,52,52,52	0
56	MG	1H	3333	1/1	0.98	0.05	53,53,53,53	0
56	MG	14	3448	1/1	0.98	0.17	72,72,72,72	0
56	MG	14	3014	1/1	0.98	0.11	64,64,64,64	0
56	MG	14	3450	1/1	0.98	0.04	100,100,100,100	0
56	MG	1H	3434	1/1	0.98	0.06	47,47,47,47	0
56	MG	14	3453	1/1	0.98	0.04	102,102,102,102	0
56	MG	1H	3541	1/1	0.98	0.04	85,85,85,85	0
56	MG	1H	3542	1/1	0.98	0.05	81,81,81,81	0
56	MG	14	3456	1/1	0.98	0.07	99,99,99,99	0
56	MG	1H	3334	1/1	0.98	0.06	59,59,59,59	0
56	MG	14	3458	1/1	0.98	0.12	91,91,91,91	0
56	MG	1H	3335	1/1	0.98	0.04	77,77,77,77	0
56	MG	1H	3336	1/1	0.98	0.08	86,86,86,86	0
56	MG	1H	3339	1/1	0.98	0.04	41,41,41,41	0
56	MG	1H	3441	1/1	0.98	0.08	76,76,76,76	0
56	MG	1H	3548	1/1	0.98	0.07	98,98,98,98	0
56	MG	13	1711	1/1	0.98	0.08	101,101,101,101	0
56	MG	14	3135	1/1	0.98	0.04	59,59,59,59	0
56	MG	14	3246	1/1	0.98	0.11	57,57,57,57	0
56	MG	1H	3550	1/1	0.98	0.14	125,125,125,125	0
56	MG	14	3249	1/1	0.98	0.04	64,64,64,64	0
56	MG	13	1722	1/1	0.98	0.04	78,78,78,78	0
56	MG	1H	3552	1/1	0.98	0.15	73,73,73,73	0
56	MG	1H	3116	1/1	0.98	0.03	64,64,64,64	0
56	MG	1H	3446	1/1	0.98	0.06	64,64,64,64	0
56	MG	14	3258	1/1	0.98	0.07	52,52,52,52	0
56	MG	13	1751	1/1	0.98	0.09	76,76,76,76	0
56	MG	14	3260	1/1	0.98	0.04	52,52,52,52	0
56	MG	14	3261	1/1	0.98	0.04	57,57,57,57	0
56	MG	13	1705	1/1	0.98	0.04	102,102,102,102	0
56	MG	14	3267	1/1	0.98	0.04	50,50,50,50	0
56	MG	1H	3558	1/1	0.98	0.03	99,99,99,99	0
56	MG	1H	3355	1/1	0.98	0.04	40,40,40,40	0
56	MG	1H	3356	1/1	0.98	0.09	64,64,64,64	0
56	MG	14	3271	1/1	0.98	0.05	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3561	1/1	0.98	0.05	87,87,87,87	0
56	MG	14	3275	1/1	0.98	0.05	47,47,47,47	0
56	MG	14	3282	1/1	0.98	0.04	92,92,92,92	0
56	MG	25	202	1/1	0.98	0.05	108,108,108,108	0
56	MG	13	1737	1/1	0.98	0.04	83,83,83,83	0
56	MG	1H	3072	1/1	0.98	0.13	33,33,33,33	0
56	MG	1H	3564	1/1	0.98	0.04	95,95,95,95	0
56	MG	14	3293	1/1	0.98	0.07	94,94,94,94	0
56	MG	14	3294	1/1	0.98	0.05	59,59,59,59	0
56	MG	1H	3007	1/1	0.98	0.11	60,60,60,60	0
56	MG	1H	3566	1/1	0.98	0.04	105,105,105,105	0
56	MG	1H	3567	1/1	0.98	0.05	42,42,42,42	0
56	MG	13	1755	1/1	0.98	0.04	101,101,101,101	0
57	SF4	3E	301	8/8	0.98	0.03	75,82,92,93	0
56	MG	1H	3569	1/1	0.98	0.07	85,85,85,85	0
56	MG	13	1738	1/1	0.98	0.07	71,71,71,71	0
56	MG	14	3325	1/1	0.99	0.05	66,66,66,66	0
56	MG	1H	3462	1/1	0.99	0.03	66,66,66,66	0
56	MG	1H	3380	1/1	0.99	0.04	69,69,69,69	0
56	MG	1G	1674	1/1	0.99	0.05	97,97,97,97	0
56	MG	1H	3464	1/1	0.99	0.04	40,40,40,40	0
56	MG	1H	3381	1/1	0.99	0.02	74,74,74,74	0
56	MG	1H	3571	1/1	0.99	0.03	39,39,39,39	0
56	MG	14	3332	1/1	0.99	0.06	70,70,70,70	0
56	MG	1H	3466	1/1	0.99	0.08	74,74,74,74	0
56	MG	1H	3382	1/1	0.99	0.05	70,70,70,70	0
56	MG	1G	1680	1/1	0.99	0.07	68,68,68,68	0
56	MG	1H	3383	1/1	0.99	0.03	61,61,61,61	0
56	MG	1H	3384	1/1	0.99	0.05	77,77,77,77	0
56	MG	14	3338	1/1	0.99	0.05	83,83,83,83	0
56	MG	14	3339	1/1	0.99	0.04	73,73,73,73	0
56	MG	1G	1683	1/1	0.99	0.03	89,89,89,89	0
56	MG	14	3069	1/1	0.99	0.02	47,47,47,47	0
56	MG	14	3343	1/1	0.99	0.02	42,42,42,42	0
56	MG	14	3344	1/1	0.99	0.04	56,56,56,56	0
56	MG	1H	3385	1/1	0.99	0.03	74,74,74,74	0
56	MG	1H	3321	1/1	0.99	0.04	59,59,59,59	0
56	MG	1G	1686	1/1	0.99	0.03	90,90,90,90	0
56	MG	1H	3322	1/1	0.99	0.11	67,67,67,67	0
56	MG	1H	3324	1/1	0.99	0.04	70,70,70,70	0
56	MG	1H	3474	1/1	0.99	0.07	79,79,79,79	0
56	MG	14	3351	1/1	0.99	0.05	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1690	1/1	0.99	0.03	90,90,90,90	0
56	MG	1H	3475	1/1	0.99	0.07	73,73,73,73	0
56	MG	1G	1692	1/1	0.99	0.03	106,106,106,106	0
56	MG	1H	3476	1/1	0.99	0.04	91,91,91,91	0
56	MG	1H	3389	1/1	0.99	0.06	46,46,46,46	0
56	MG	14	3358	1/1	0.99	0.05	76,76,76,76	0
56	MG	1H	3478	1/1	0.99	0.05	78,78,78,78	0
56	MG	13	1690	1/1	0.99	0.05	56,56,56,56	0
56	MG	14	3361	1/1	0.99	0.03	41,41,41,41	0
56	MG	1H	3480	1/1	0.99	0.07	66,66,66,66	0
56	MG	1H	3481	1/1	0.99	0.03	59,59,59,59	0
56	MG	1G	1699	1/1	0.99	0.04	86,86,86,86	0
56	MG	14	3365	1/1	0.99	0.03	44,44,44,44	0
56	MG	11	303	1/1	0.99	0.03	49,49,49,49	0
56	MG	14	3367	1/1	0.99	0.04	75,75,75,75	0
56	MG	1G	1701	1/1	0.99	0.06	106,106,106,106	0
56	MG	14	3369	1/1	0.99	0.05	93,93,93,93	0
56	MG	14	3370	1/1	0.99	0.09	83,83,83,83	0
56	MG	14	3371	1/1	0.99	0.09	75,75,75,75	0
56	MG	13	1753	1/1	0.99	0.05	64,64,64,64	0
56	MG	1H	3483	1/1	0.99	0.12	76,76,76,76	0
56	MG	1G	1704	1/1	0.99	0.06	99,99,99,99	0
56	MG	1H	3392	1/1	0.99	0.03	63,63,63,63	0
56	MG	1G	1706	1/1	0.99	0.07	82,82,82,82	0
56	MG	1H	3393	1/1	0.99	0.08	61,61,61,61	0
56	MG	1H	3394	1/1	0.99	0.04	40,40,40,40	0
56	MG	1H	3289	1/1	0.99	0.05	48,48,48,48	0
56	MG	14	3380	1/1	0.99	0.05	95,95,95,95	0
56	MG	1H	3396	1/1	0.99	0.03	41,41,41,41	0
56	MG	14	3382	1/1	0.99	0.04	47,47,47,47	0
56	MG	1H	3489	1/1	0.99	0.07	87,87,87,87	0
56	MG	1H	3328	1/1	0.99	0.10	48,48,48,48	0
56	MG	1H	3329	1/1	0.99	0.03	41,41,41,41	0
56	MG	14	3386	1/1	0.99	0.07	81,81,81,81	0
56	MG	1H	3492	1/1	0.99	0.07	74,74,74,74	0
56	MG	I8	101	1/1	0.99	0.08	55,55,55,55	0
56	MG	14	3389	1/1	0.99	0.04	82,82,82,82	0
56	MG	1G	1716	1/1	0.99	0.06	88,88,88,88	0
56	MG	1H	3330	1/1	0.99	0.02	46,46,46,46	0
56	MG	1H	3494	1/1	0.99	0.03	53,53,53,53	0
56	MG	1H	3290	1/1	0.99	0.07	40,40,40,40	0
56	MG	14	3394	1/1	0.99	0.09	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1697	1/1	0.99	0.03	91,91,91,91	0
56	MG	1H	3403	1/1	0.99	0.04	71,71,71,71	0
56	MG	13	1739	1/1	0.99	0.04	79,79,79,79	0
56	MG	1H	3406	1/1	0.99	0.13	52,52,52,52	0
56	MG	1H	3004	1/1	0.99	0.07	46,46,46,46	0
56	MG	13	1725	1/1	0.99	0.10	65,65,65,65	0
56	MG	13	1698	1/1	0.99	0.08	98,98,98,98	0
56	MG	1H	3338	1/1	0.99	0.06	45,45,45,45	0
56	MG	14	3403	1/1	0.99	0.11	80,80,80,80	0
56	MG	14	3404	1/1	0.99	0.03	77,77,77,77	0
56	MG	1H	3024	1/1	0.99	0.06	47,47,47,47	0
56	MG	1H	3297	1/1	0.99	0.04	52,52,52,52	0
56	MG	1H	3506	1/1	0.99	0.02	58,58,58,58	0
56	MG	1H	3507	1/1	0.99	0.05	84,84,84,84	0
56	MG	1H	3413	1/1	0.99	0.03	59,59,59,59	0
56	MG	1H	3414	1/1	0.99	0.08	68,68,68,68	0
56	MG	1H	3510	1/1	0.99	0.06	92,92,92,92	0
56	MG	1H	3511	1/1	0.99	0.04	78,78,78,78	0
56	MG	1H	3512	1/1	0.99	0.04	60,60,60,60	0
56	MG	14	3415	1/1	0.99	0.03	78,78,78,78	0
56	MG	14	3416	1/1	0.99	0.05	80,80,80,80	0
56	MG	1H	3299	1/1	0.99	0.06	35,35,35,35	0
56	MG	14	3418	1/1	0.99	0.11	75,75,75,75	0
56	MG	1H	3514	1/1	0.99	0.04	69,69,69,69	0
56	MG	1H	3515	1/1	0.99	0.14	57,57,57,57	0
56	MG	1H	3343	1/1	0.99	0.07	39,39,39,39	0
56	MG	1H	3344	1/1	0.99	0.02	42,42,42,42	0
56	MG	14	3248	1/1	0.99	0.06	47,47,47,47	0
56	MG	1H	3301	1/1	0.99	0.03	42,42,42,42	0
56	MG	14	3250	1/1	0.99	0.04	55,55,55,55	0
56	MG	14	3427	1/1	0.99	0.12	69,69,69,69	0
56	MG	14	3428	1/1	0.99	0.11	59,59,59,59	0
56	MG	1H	3347	1/1	0.99	0.05	72,72,72,72	0
56	MG	1H	3302	1/1	0.99	0.06	52,52,52,52	0
56	MG	1H	3350	1/1	0.99	0.02	43,43,43,43	0
56	MG	1H	3422	1/1	0.99	0.04	42,42,42,42	0
56	MG	14	3256	1/1	0.99	0.03	65,65,65,65	0
56	MG	14	3257	1/1	0.99	0.03	42,42,42,42	0
56	MG	1H	3423	1/1	0.99	0.07	33,33,33,33	0
56	MG	1H	3351	1/1	0.99	0.03	50,50,50,50	0
56	MG	1H	3425	1/1	0.99	0.03	39,39,39,39	0
56	MG	1H	3352	1/1	0.99	0.03	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3439	1/1	0.99	0.10	86,86,86,86	0
56	MG	14	3262	1/1	0.99	0.04	54,54,54,54	0
56	MG	1H	3528	1/1	0.99	0.09	72,72,72,72	0
56	MG	14	3264	1/1	0.99	0.04	59,59,59,59	0
56	MG	13	1714	1/1	0.99	0.03	59,59,59,59	0
56	MG	1H	3354	1/1	0.99	0.04	45,45,45,45	0
56	MG	1H	3531	1/1	0.99	0.14	56,56,56,56	0
56	MG	1H	3429	1/1	0.99	0.04	49,49,49,49	0
56	MG	13	1728	1/1	0.99	0.04	77,77,77,77	0
56	MG	1H	3306	1/1	0.99	0.03	38,38,38,38	0
56	MG	14	3273	1/1	0.99	0.06	55,55,55,55	0
56	MG	14	3274	1/1	0.99	0.06	50,50,50,50	0
56	MG	1H	3535	1/1	0.99	0.04	70,70,70,70	0
56	MG	14	3452	1/1	0.99	0.03	90,90,90,90	0
56	MG	14	3276	1/1	0.99	0.03	56,56,56,56	0
56	MG	14	3278	1/1	0.99	0.04	50,50,50,50	0
56	MG	14	3279	1/1	0.99	0.10	45,45,45,45	0
56	MG	14	3280	1/1	0.99	0.04	47,47,47,47	0
56	MG	1H	3357	1/1	0.99	0.02	66,66,66,66	0
56	MG	14	3283	1/1	0.99	0.05	79,79,79,79	0
56	MG	1H	3433	1/1	0.99	0.04	37,37,37,37	0
56	MG	14	3285	1/1	0.99	0.02	55,55,55,55	0
56	MG	14	3286	1/1	0.99	0.03	68,68,68,68	0
56	MG	14	3287	1/1	0.99	0.10	71,71,71,71	0
56	MG	14	3288	1/1	0.99	0.05	76,76,76,76	0
56	MG	14	3289	1/1	0.99	0.07	64,64,64,64	0
56	MG	1H	3359	1/1	0.99	0.06	59,59,59,59	0
56	MG	1H	3539	1/1	0.99	0.05	90,90,90,90	0
56	MG	14	3292	1/1	0.99	0.10	63,63,63,63	0
56	MG	1H	3307	1/1	0.99	0.03	50,50,50,50	0
56	MG	1H	3436	1/1	0.99	0.06	64,64,64,64	0
56	MG	14	3295	1/1	0.99	0.03	73,73,73,73	0
56	MG	1H	3437	1/1	0.99	0.03	62,62,62,62	0
56	MG	1H	3308	1/1	0.99	0.08	49,49,49,49	0
56	MG	13	1715	1/1	0.99	0.04	94,94,94,94	0
56	MG	1H	3364	1/1	0.99	0.04	51,51,51,51	0
56	MG	1H	3365	1/1	0.99	0.07	50,50,50,50	0
56	MG	13	1693	1/1	0.99	0.02	80,80,80,80	0
56	MG	1H	3443	1/1	0.99	0.04	72,72,72,72	0
56	MG	1H	3368	1/1	0.99	0.03	49,49,49,49	0
56	MG	13	1700	1/1	0.99	0.04	64,64,64,64	0
56	MG	1H	3370	1/1	0.99	0.03	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3307	1/1	0.99	0.16	60,60,60,60	0
56	MG	1J	211	1/1	0.99	0.03	85,85,85,85	0
56	MG	1H	3371	1/1	0.99	0.07	64,64,64,64	0
56	MG	1H	3553	1/1	0.99	0.05	78,78,78,78	0
56	MG	1H	3314	1/1	0.99	0.06	74,74,74,74	0
56	MG	13	1708	1/1	0.99	0.04	80,80,80,80	0
56	MG	1H	3374	1/1	0.99	0.08	68,68,68,68	0
56	MG	13	1709	1/1	0.99	0.07	68,68,68,68	0
56	MG	1H	3453	1/1	0.99	0.05	81,81,81,81	0
56	MG	13	1720	1/1	0.99	0.08	66,66,66,66	0
56	MG	1H	3318	1/1	0.99	0.03	72,72,72,72	0
56	MG	45	202	1/1	0.99	0.11	66,66,66,66	0
56	MG	13	1721	1/1	0.99	0.02	82,82,82,82	0
56	MG	1H	3457	1/1	0.99	0.02	78,78,78,78	0
56	MG	1H	3458	1/1	0.99	0.06	56,56,56,56	0
56	MG	14	3320	1/1	0.99	0.06	79,79,79,79	0
56	MG	1H	3459	1/1	0.99	0.05	69,69,69,69	0
56	MG	1H	3460	1/1	0.99	0.07	75,75,75,75	0
57	SF4	32	302	8/8	0.99	0.04	99,104,114,118	0
58	ZN	5I	102	1/1	0.99	0.02	87,87,87,87	0
56	MG	1G	1670	1/1	0.99	0.06	71,71,71,71	0
58	ZN	5A	101	1/1	0.99	0.04	130,130,130,130	0
56	MG	13	1694	1/1	0.99	0.06	79,79,79,79	0
56	MG	1H	3337	1/1	1.00	0.03	41,41,41,41	0
56	MG	14	3304	1/1	1.00	0.04	64,64,64,64	0
56	MG	14	3255	1/1	1.00	0.03	42,42,42,42	0
56	MG	1H	3349	1/1	1.00	0.02	42,42,42,42	0
56	MG	14	3281	1/1	1.00	0.04	69,69,69,69	0
56	MG	1H	3298	1/1	1.00	0.03	46,46,46,46	0
56	MG	13	1702	1/1	1.00	0.04	64,64,64,64	0
56	MG	1H	3323	1/1	1.00	0.03	64,64,64,64	0
56	MG	1H	3367	1/1	1.00	0.03	40,40,40,40	0
56	MG	1H	3521	1/1	1.00	0.07	79,79,79,79	0
56	MG	1H	3309	1/1	1.00	0.03	47,47,47,47	0
56	MG	14	3340	1/1	1.00	0.02	54,54,54,54	0
56	MG	14	3426	1/1	1.00	0.06	75,75,75,75	0
56	MG	1H	3450	1/1	1.00	0.08	45,45,45,45	0
56	MG	1H	3399	1/1	1.00	0.02	52,52,52,52	0
56	MG	14	3265	1/1	1.00	0.04	51,51,51,51	0
56	MG	14	3266	1/1	1.00	0.07	43,43,43,43	0
56	MG	1H	3342	1/1	1.00	0.01	44,44,44,44	0
56	MG	1H	3304	1/1	1.00	0.03	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3300	1/1	1.00	0.03	41,41,41,41	0
56	MG	13	1696	1/1	1.00	0.07	72,72,72,72	0
56	MG	1H	3404	1/1	1.00	0.03	45,45,45,45	0
56	MG	1H	3358	1/1	1.00	0.06	78,78,78,78	0
56	MG	1H	3346	1/1	1.00	0.07	60,60,60,60	0
56	MG	1H	3313	1/1	1.00	0.10	58,58,58,58	0
56	MG	14	3409	1/1	1.00	0.03	73,73,73,73	0
56	MG	1H	3361	1/1	1.00	0.08	56,56,56,56	0
56	MG	21	303	1/1	1.00	0.02	42,42,42,42	0
56	MG	14	3355	1/1	1.00	0.07	52,52,52,52	0
56	MG	14	3277	1/1	1.00	0.02	57,57,57,57	0

6.5 Other polymers (i)

There are no such residues in this entry.