Full wwPDB X-ray Structure Validation Report (i)

Aug 4, 2026 – 03:39 PM EDT

PDB ID	:	5HAU / pdb_00005hau
Title	:	Crystal structure of antimicrobial peptide Bac7(1-19) bound to the Thermus thermophilus 70S ribosome
Authors	:	Gagnon, M.G.; Roy, R.N.; Lomakin, I.B.; Florin, T.; Mankin, A.S.; Steitz, T.A.
Deposited on	:	2015-12-30
Resolution	:	3.00 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:

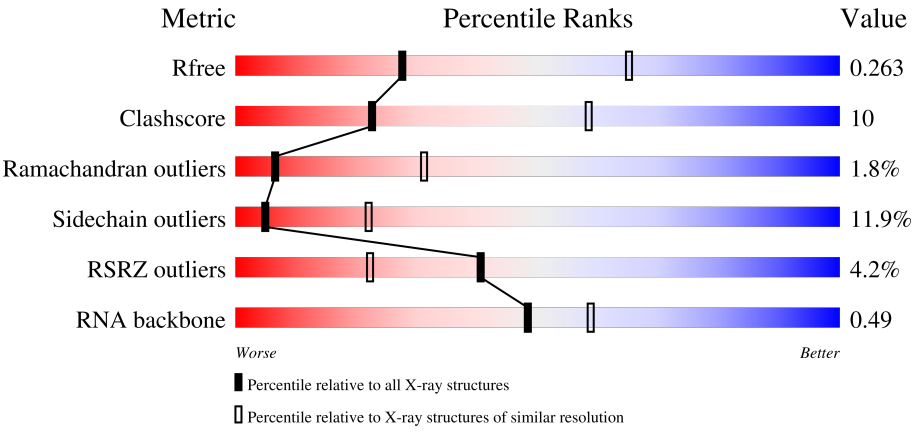
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.00 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	2672 (3.00-3.00)
Clashscore	190562	2977 (3.00-3.00)
Ramachandran outliers	187476	2877 (3.00-3.00)
Sidechain outliers	187428	2880 (3.00-3.00)
RSRZ outliers	180081	2671 (3.00-3.00)
RNA backbone	3983	1109 (3.20-2.80)

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	1A	2915	4% 61% 31% 7%
1	2A	2915	3% 53% 37% 8%
2	1B	121	% 67% 31%

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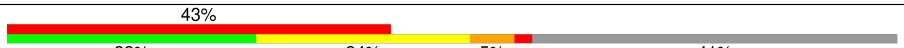
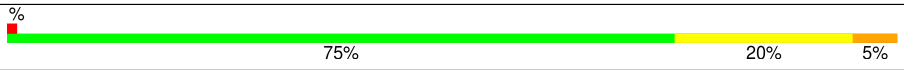
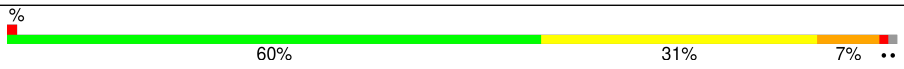
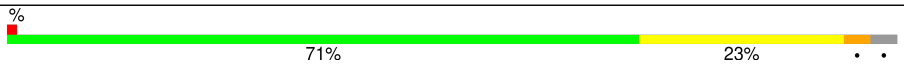
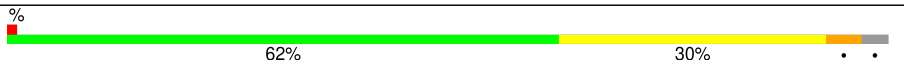
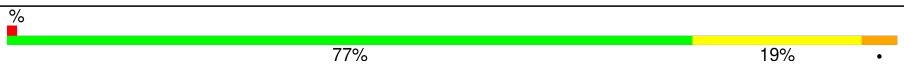
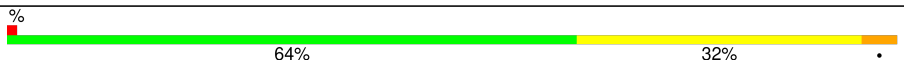
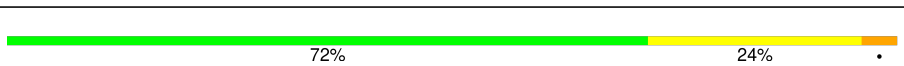
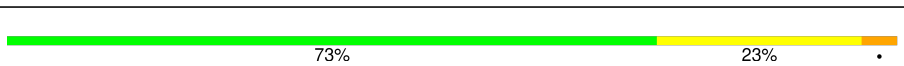
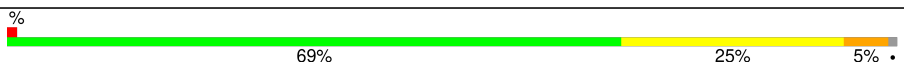
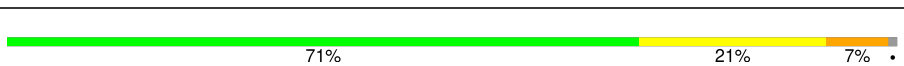
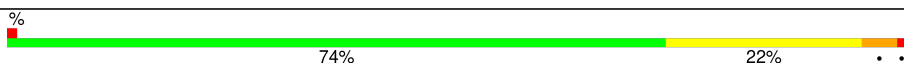
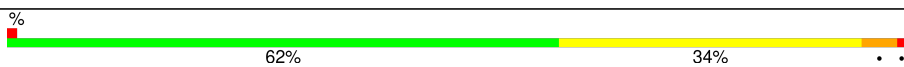
Mol	Chain	Length	Quality of chain
2	2B	121	
3	1C	229	
3	2C	229	
4	1D	276	
4	2D	276	
5	1E	206	
5	2E	206	
6	1F	210	
6	2F	210	
7	1G	182	
7	2G	182	
8	1H	180	
8	2H	180	
9	1J	173	
9	2J	173	
10	1K	147	
10	2K	147	
11	1L	140	
11	2L	140	
12	1M	122	
12	2M	122	
13	1N	150	
13	2N	150	
14	1O	141	
14	2O	141	

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Mol	Chain	Length	Quality of chain
15	1P	118	58% 35% 7%
15	2P	118	59% 33% 8%
16	1Q	112	71% 24%
16	2Q	112	66% 27% 5%
17	1R	146	63% 23% 10%
17	2R	146	55% 30% 5% 10%
18	1S	118	75% 22%
18	2S	118	71% 22% 5%
19	1T	101	78% 18%
19	2T	101	72% 23%
20	1U	113	72% 25%
20	2U	113	79% 17%
21	1V	96	72% 24%
21	2V	96	65% 33%
22	1W	110	65% 28%
22	2W	110	68% 27%
23	1X	206	61% 24% 5% 10%
23	2X	206	53% 27% 11% 10%
24	1Y	85	69% 18% 11%
24	2Y	85	68% 19% 11%
25	1Z	98	64% 30% 5%
25	2Z	98	65% 27% 7%
26	10	72	67% 28%
26	20	72	67% 25% 6%
27	11	60	77% 17% 5%

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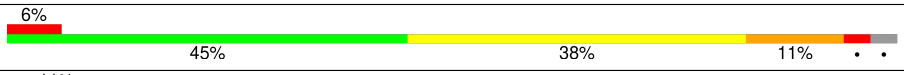
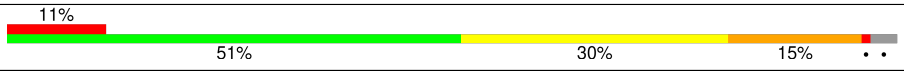
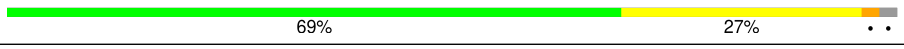
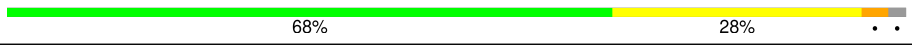
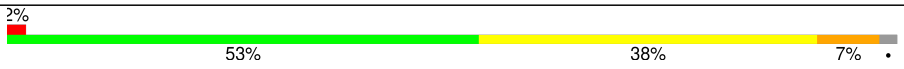
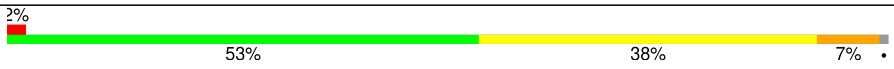
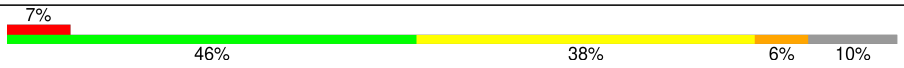
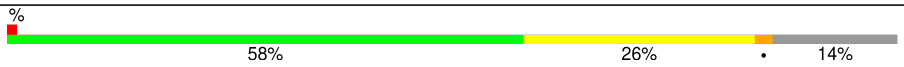
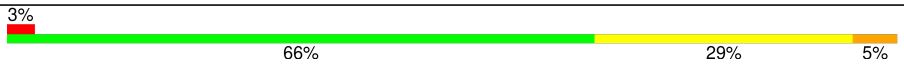
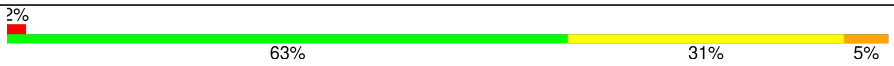
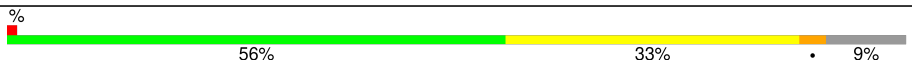
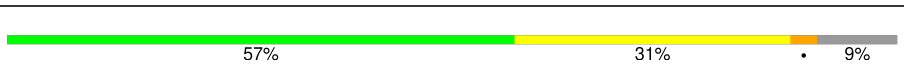
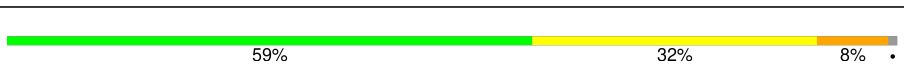
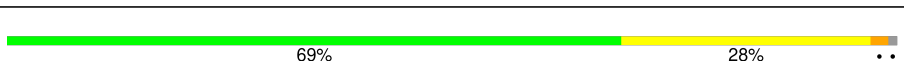
Mol	Chain	Length	Quality of chain
27	21	60	
28	12	71	
28	22	71	
29	13	60	
29	23	60	
30	14	54	
30	24	54	
31	15	49	
31	25	49	
32	16	65	
32	26	65	
33	17	37	
33	27	37	
34	1a	1521	
34	2a	1521	
35	1b	256	
35	2b	256	
36	1c	239	
36	2c	239	
37	1d	209	
37	2d	209	
38	1e	162	
38	2e	162	
39	1f	101	
39	2f	101	

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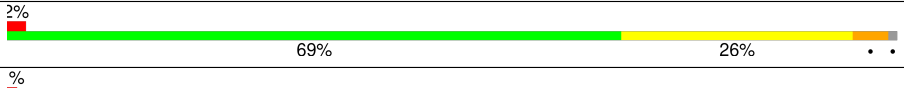
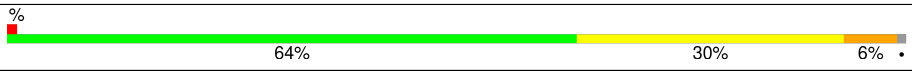
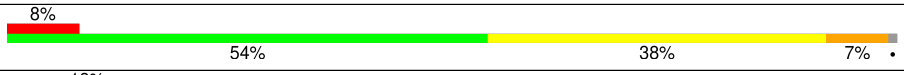
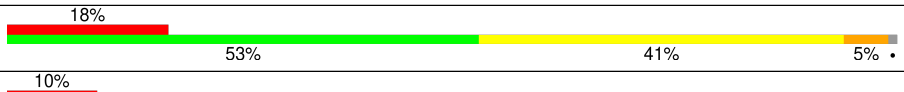
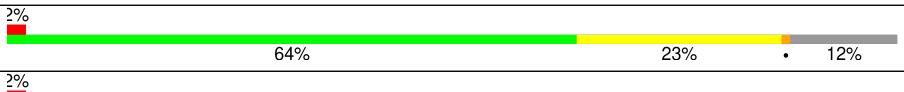
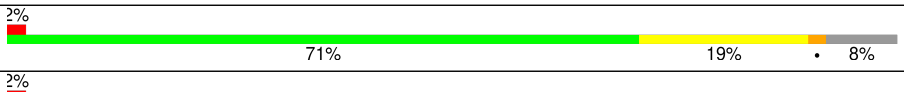
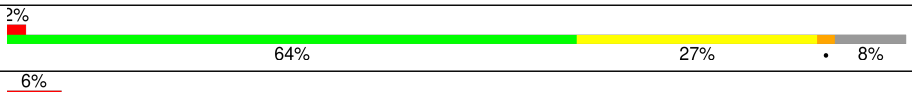
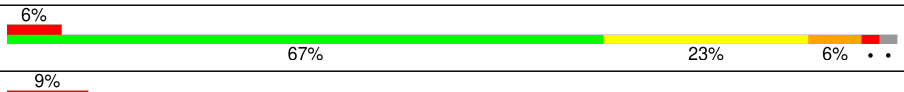
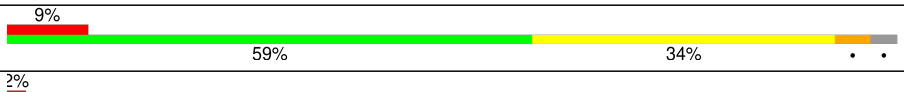
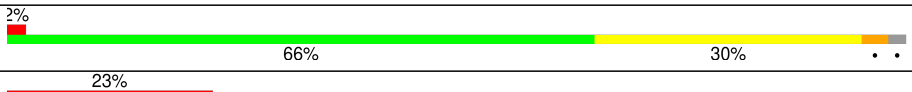
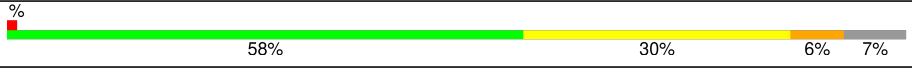
Mol	Chain	Length	Quality of chain
40	1g	156	
40	2g	156	
41	1h	138	
41	2h	138	
42	1i	128	
42	2i	128	
43	1j	105	
43	2j	105	
44	1k	129	
44	2k	129	
45	1l	132	
45	2l	132	
46	1m	126	
46	2m	126	
47	1n	61	
47	2n	61	
48	1o	89	
48	2o	89	
49	1p	88	
49	2p	88	
50	1q	105	
50	2q	105	
51	1r	88	
51	2r	88	
52	1s	93	

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Mol	Chain	Length	Quality of chain
52	2s	93	11% 45% 40% 11%
53	1t	106	5% 58% 25% 7% 9%
53	2t	106	4% 60% 25% 5% 9%
54	1u	27	19% 59% 26% 15%
54	2u	27	15% 63% 15% 7% 15%
55	1z	758	8% 54% 34% 7%
55	2z	758	11% 53% 35% 8%
56	1y	24	8% 17% 8% 75%
56	2y	24	4% 21% 79%
57	1w	77	58% 29% 12%
57	2w	77	51% 39% 9%
58	1x	35	3% 20% 20% 14% 46%
58	2x	35	6% 29% 9% 14% 46%

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
59	MG	1a	1623	-	-	-	X
59	MG	2n	502	-	-	-	X

2 Entry composition (i)

There are 63 unique types of molecules in this entry. The entry contains 306384 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 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1A	2872	Total	C	N	O	P	0	0	0
			61861	27532	11574	19884	2871			
1	2A	2868	Total	C	N	O	P	0	0	0
			61771	27492	11554	19858	2867			

- Molecule 2 is a RNA chain called 5S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			
2	2B	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 3 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	1C	135	Total	C	N	O	S	3	0	0
			1020	641	190	188	1			
3	2C	135	Total	C	N	O	S	3	0	0
			1020	641	190	188	1			

- Molecule 4 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	1D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			
4	2D	275	Total	C	N	O	S	0	0	0
			2142	1352	426	361	3			

- Molecule 5 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	1E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
5	2E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 6 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1F	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
6	2F	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

- Molecule 7 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	1G	181	Total	C	N	O	S	0	0	0
			1425	914	256	251	4			
7	2G	181	Total	C	N	O	S	0	0	0
			1424	911	258	251	4			

- Molecule 8 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
8	2H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			

- Molecule 9 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	1J	130	Total	C	N	O	0	0	0
			641	381	130	130			
9	2J	130	Total	C	N	O	0	0	0
			641	381	130	130			

- Molecule 10 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1K	67	Total	C	N	O	S	0	0	1
			499	310	94	92	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	2K	66	Total	C	N	O	S	0	0	0
			498	310	93	92	3			

- Molecule 11 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1L	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			
11	2L	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 12 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	1M	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
12	2M	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 13 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	1N	149	Total	C	N	O	S	0	0	0
			1139	709	231	196	3			
13	2N	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 14 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	1O	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
14	2O	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 15 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	1P	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
15	2P	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 16 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	1Q	110	Total	C	N	O		0	0	0
			877	553	175	149				
16	2Q	110	Total	C	N	O		0	0	0
			870	549	173	148				

- Molecule 17 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1R	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
17	2R	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 18 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	1S	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
18	2S	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 19 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	1T	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			
19	2T	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 20 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	1U	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			
20	2U	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 21 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1V	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
21	2V	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 22 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	1W	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			
22	2W	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			

- Molecule 23 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	1X	186	Total	C	N	O	S	0	0	0
			1460	932	259	267	2			
23	2X	186	Total	C	N	O	S	0	0	0
			1454	929	256	267	2			

- Molecule 24 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	1Y	76	Total	C	N	O	S	0	0	0
			604	373	128	102	1			
24	2Y	76	Total	C	N	O	S	0	0	0
			602	372	128	101	1			

- Molecule 25 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	1Z	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			
25	2Z	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			

- Molecule 26 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	10	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	20	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

- Molecule 27 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	11	59	Total	C	N	O	0	0	0
			469	298	90	81			
27	21	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 28 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	12	69	Total	C	N	O	S	0	0	0
			558	352	102	99	5			
28	22	69	Total	C	N	O	S	0	0	0
			532	339	97	91	5			

- Molecule 29 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	13	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			
29	23	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 30 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	14	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
30	24	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 31 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	15	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
31	25	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 32 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	16	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
32	26	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 33 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	17	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
33	27	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 34 is a RNA chain called 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1a	1495	Total	C	N	O	P	0	0	0
			32141	14304	5958	10384	1495			
34	2a	1501	Total	C	N	O	P	0	0	0
			32268	14361	5980	10426	1501			

- Molecule 35 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1b	231	Total	C	N	O	S	0	0	0
			1846	1179	331	331	5			
35	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 36 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1c	206	Total	C	N	O	S	0	0	0
			1552	976	302	273	1			
36	2c	206	Total	C	N	O	S	0	0	0
			1544	970	300	273	1			

- Molecule 37 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1d	208	Total	C	N	O	S	0	0	0
			1659	1040	326	286	7			
37	2d	208	Total	C	N	O	S	0	0	0
			1678	1052	333	286	7			

- Molecule 38 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1e	148	Total	C	N	O	S	0	0	0
			1129	714	213	198	4			
38	2e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 39 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1f	100	Total	C	N	O	S	0	0	0
			812	514	146	149	3			
39	2f	100	Total	C	N	O	S	0	0	0
			820	518	147	152	3			

- Molecule 40 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	1g	155	Total	C	N	O	S	0	0	0
			1231	766	243	216	6			
40	2g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			

- Molecule 41 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	1h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			
41	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 42 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	1i	127	Total	C	N	O	0	0	0
			986	626	193	167			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	2i	127	Total 978	C 619	N 190	O 169	0	0	0

- Molecule 43 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
43	1j	97	Total 709	C 440	N 138	O 131	0	0	0
43	2j	96	Total 714	C 445	N 138	O 131	0	0	0

- Molecule 44 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1k	114	Total 833	C 519	N 156	O 155	S 3	0	0	0
44	2k	114	Total 833	C 519	N 156	O 155	S 3	0	0	0

- Molecule 45 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1l	122	Total 930	C 585	N 185	O 159	S 1	0	0	0
45	2l	122	Total 930	C 585	N 185	O 159	S 1	0	0	0

- Molecule 46 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1m	123	Total 966	C 598	N 200	O 166	S 2	0	0	0
46	2m	122	Total 950	C 586	N 197	O 165	S 2	0	0	0

- Molecule 47 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1n	60	Total 492	C 312	N 104	O 72	S 4	0	0	0
47	2n	60	Total 492	C 312	N 104	O 72	S 4	0	0	0

- Molecule 48 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	1o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
48	2o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 49 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
49	2p	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 50 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
50	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 51 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	1r	68	Total	C	N	O	0	0	0
			555	355	108	92			
51	2r	68	Total	C	N	O	0	0	0
			555	355	108	92			

- Molecule 52 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	1s	84	Total	C	N	O	S	0	0	0
			661	423	122	114	2			
52	2s	83	Total	C	N	O	S	0	0	0
			646	412	119	113	2			

- Molecule 53 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1t	96	Total	C	N	O	S	0	0	0
			728	446	156	124	2			
53	2t	96	Total	C	N	O	S	0	0	0
			731	449	156	124	2			

- Molecule 54 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
54	1u	23	Total	C	N	O	0	0	0
			199	122	48	29			
54	2u	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 55 is a protein called Chimera protein of 50S ribosomal protein L9 and Elongation factor G.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	1z	730	Total	C	N	O	S	0	0	0
			5690	3616	980	1075	19			
55	2z	730	Total	C	N	O	S	0	0	0
			5690	3616	980	1075	19			

- Molecule 56 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	1y	6	Total	C	N	O	P	0	0	0
			129	58	24	41	6			
56	2y	5	Total	C	N	O	P	0	0	0
			109	49	22	33	5			

- Molecule 57 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
57	1w	76	Total	C	N	O	P	S	0	0	0
			1625	725	294	529	76	1			
57	2w	76	Total	C	N	O	P	S	0	0	0
			1625	725	294	529	76	1			

- Molecule 58 is a protein called Cathelicidin-3.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
58	1x	19	Total	C	N	O	0	0	0
			168	106	43	19			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
58	2x	19	Total 168	C 106	N 43	O 19	0	0	0

- Molecule 59 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1A	780	Total 780	Mg 780	0	0
59	1B	24	Total 24	Mg 24	0	0
59	1D	4	Total 4	Mg 4	0	0
59	1E	6	Total 6	Mg 6	0	0
59	1F	7	Total 7	Mg 7	0	0
59	1G	2	Total 2	Mg 2	0	0
59	1H	1	Total 1	Mg 1	0	0
59	1L	2	Total 2	Mg 2	0	0
59	1M	1	Total 1	Mg 1	0	0
59	1N	2	Total 2	Mg 2	0	0
59	1O	2	Total 2	Mg 2	0	0
59	1P	2	Total 2	Mg 2	0	0
59	1S	4	Total 4	Mg 4	0	0
59	1T	1	Total 1	Mg 1	0	0
59	1U	3	Total 3	Mg 3	0	0
59	1W	1	Total 1	Mg 1	0	0
59	1X	2	Total 2	Mg 2	0	0
59	1Y	5	Total 5	Mg 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	10	2	Total Mg 2 2	0	0
59	11	1	Total Mg 1 1	0	0
59	13	3	Total Mg 3 3	0	0
59	14	1	Total Mg 1 1	0	0
59	15	2	Total Mg 2 2	0	0
59	16	2	Total Mg 2 2	0	0
59	17	2	Total Mg 2 2	0	0
59	1a	204	Total Mg 204 204	0	0
59	1b	1	Total Mg 1 1	0	0
59	1d	2	Total Mg 2 2	0	0
59	1f	1	Total Mg 1 1	0	0
59	1l	3	Total Mg 3 3	0	0
59	1t	1	Total Mg 1 1	0	0
59	1z	1	Total Mg 1 1	0	0
59	1w	6	Total Mg 6 6	0	0
59	2A	620	Total Mg 620 620	0	0
59	2B	13	Total Mg 13 13	0	0
59	2D	4	Total Mg 4 4	0	0
59	2E	4	Total Mg 4 4	0	0
59	2F	3	Total Mg 3 3	0	0
59	2G	1	Total Mg 1 1	0	0

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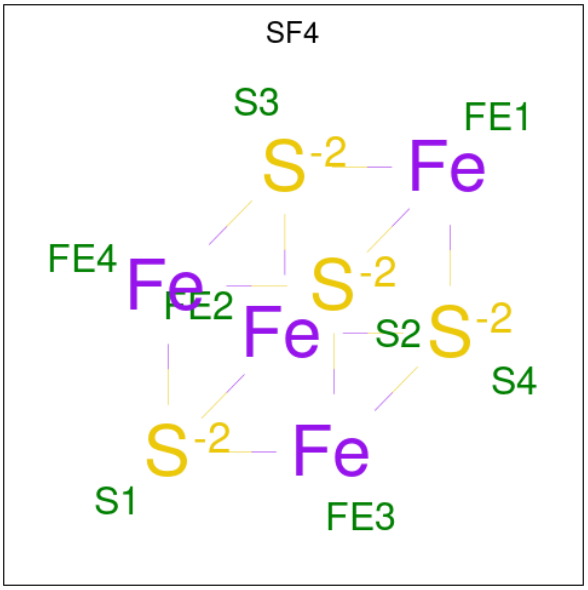
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	2M	2	Total Mg 2 2	0	0
59	2N	1	Total Mg 1 1	0	0
59	2O	2	Total Mg 2 2	0	0
59	2P	1	Total Mg 1 1	0	0
59	2R	1	Total Mg 1 1	0	0
59	2S	2	Total Mg 2 2	0	0
59	2W	1	Total Mg 1 1	0	0
59	2Y	1	Total Mg 1 1	0	0
59	23	1	Total Mg 1 1	0	0
59	26	2	Total Mg 2 2	0	0
59	2a	173	Total Mg 173 173	0	0
59	2d	1	Total Mg 1 1	0	0
59	2f	2	Total Mg 2 2	0	0
59	2j	1	Total Mg 1 1	0	0
59	2l	1	Total Mg 1 1	0	0
59	2n	1	Total Mg 1 1	0	0
59	2q	1	Total Mg 1 1	0	0
59	2t	1	Total Mg 1 1	0	0
59	2z	4	Total Mg 4 4	0	0
59	2w	4	Total Mg 4 4	0	0

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

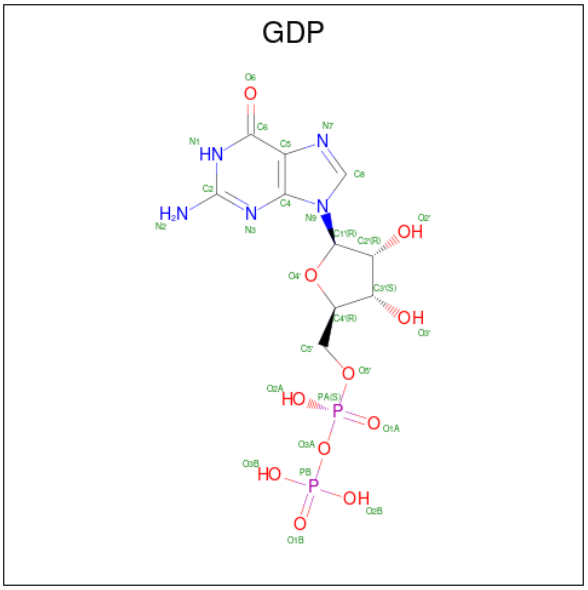
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1W	1	Total Zn 1 1	0	0
60	12	1	Total Zn 1 1	0	0
60	13	1	Total Zn 1 1	0	0
60	14	1	Total Zn 1 1	0	0
60	17	1	Total Zn 1 1	0	0
60	1n	1	Total Zn 1 1	0	0
60	2W	1	Total Zn 1 1	0	0
60	22	1	Total Zn 1 1	0	0
60	23	1	Total Zn 1 1	0	0
60	24	1	Total Zn 1 1	0	0
60	27	1	Total Zn 1 1	0	0
60	2n	1	Total Zn 1 1	0	0

- Molecule 61 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1d	1	Total Fe S 8 4 4	0	0
61	2d	1	Total Fe S 8 4 4	0	0

- Molecule 62 is GUANOSINE-5'-DIPHOSPHATE (CCD ID: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	1z	1	Total C N O P 28 10 5 11 2	0	0
62	2z	1	Total C N O P 28 10 5 11 2	0	0

- Molecule 63 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1A	1299	Total O 1299 1299	0	0
63	1B	39	Total O 39 39	0	0
63	1D	15	Total O 15 15	0	0
63	1E	19	Total O 19 19	0	0
63	1F	12	Total O 12 12	0	0
63	1G	3	Total O 3 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1H	1	Total O 1 1	0	0
63	1M	2	Total O 2 2	0	0
63	1N	12	Total O 12 12	0	0
63	1O	2	Total O 2 2	0	0
63	1P	4	Total O 4 4	0	0
63	1Q	1	Total O 1 1	0	0
63	1R	2	Total O 2 2	0	0
63	1S	4	Total O 4 4	0	0
63	1T	1	Total O 1 1	0	0
63	1U	2	Total O 2 2	0	0
63	1V	3	Total O 3 3	0	0
63	1X	2	Total O 2 2	0	0
63	1Y	4	Total O 4 4	0	0
63	1Z	1	Total O 1 1	0	0
63	11	2	Total O 2 2	0	0
63	15	2	Total O 2 2	0	0
63	16	10	Total O 10 10	0	0
63	17	1	Total O 1 1	0	0
63	1a	155	Total O 155 155	0	0
63	1d	1	Total O 1 1	0	0
63	1j	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	1l	2	Total O 2 2	0	0
63	1o	1	Total O 1 1	0	0
63	1p	2	Total O 2 2	0	0
63	1z	5	Total O 5 5	0	0
63	1w	4	Total O 4 4	0	0
63	1x	1	Total O 1 1	0	0
63	2A	650	Total O 650 650	0	0
63	2B	11	Total O 11 11	0	0
63	2D	8	Total O 8 8	0	0
63	2E	7	Total O 7 7	0	0
63	2F	5	Total O 5 5	0	0
63	2L	1	Total O 1 1	0	0
63	2M	2	Total O 2 2	0	0
63	2N	6	Total O 6 6	0	0
63	2O	3	Total O 3 3	0	0
63	2P	1	Total O 1 1	0	0
63	2R	2	Total O 2 2	0	0
63	2S	2	Total O 2 2	0	0
63	2U	1	Total O 1 1	0	0
63	2V	2	Total O 2 2	0	0
63	2W	1	Total O 1 1	0	0

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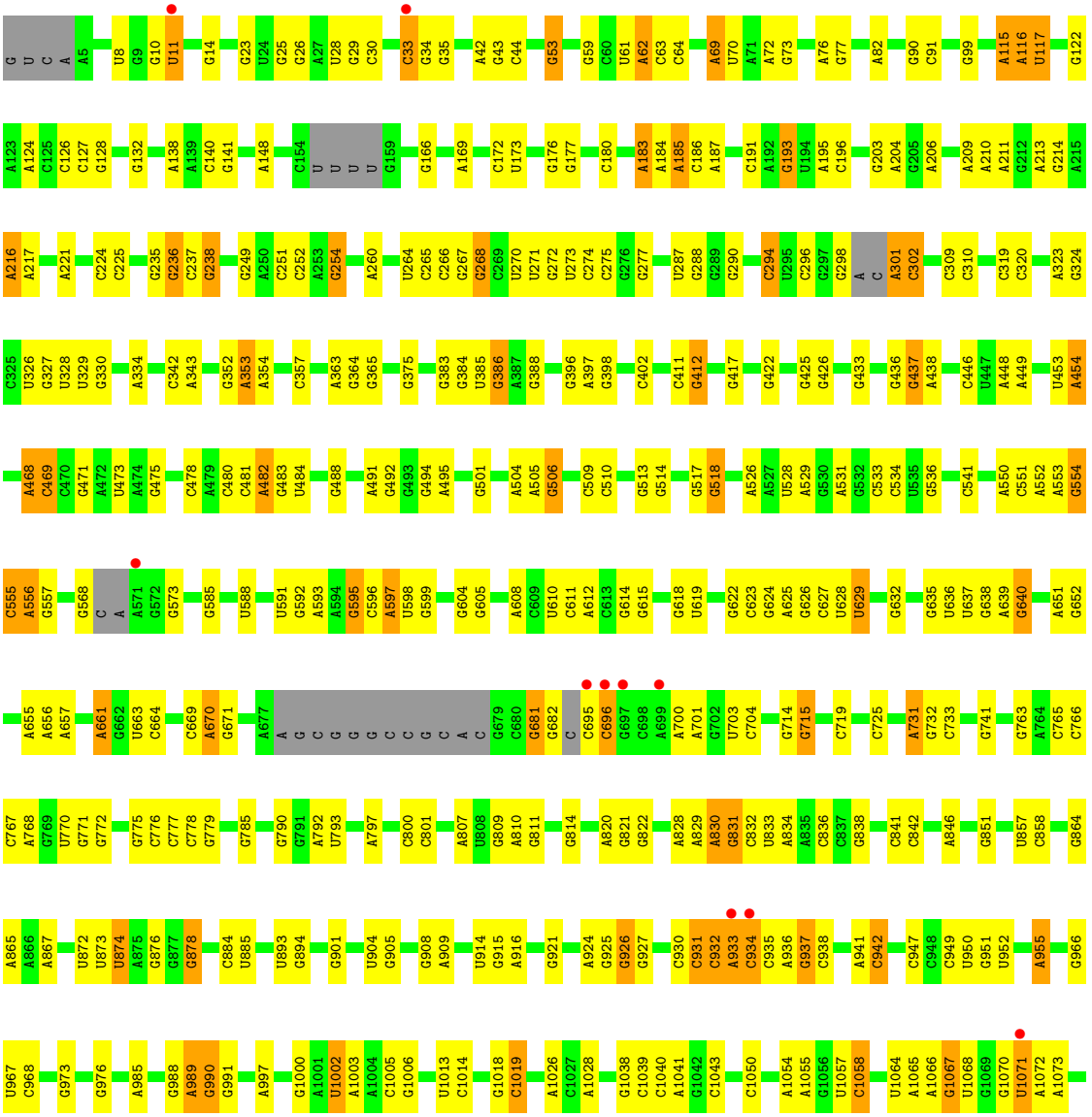
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	2Y	5	Total O 5 5	0	0
63	2Z	2	Total O 2 2	0	0
63	21	2	Total O 2 2	0	0
63	24	1	Total O 1 1	0	0
63	26	3	Total O 3 3	0	0
63	2a	122	Total O 122 122	0	0
63	2f	1	Total O 1 1	0	0
63	2h	1	Total O 1 1	0	0
63	2j	1	Total O 1 1	0	0
63	2n	1	Total O 1 1	0	0
63	2t	1	Total O 1 1	0	0
63	2z	1	Total O 1 1	0	0
63	2y	1	Total O 1 1	0	0
63	2w	2	Total O 2 2	0	0

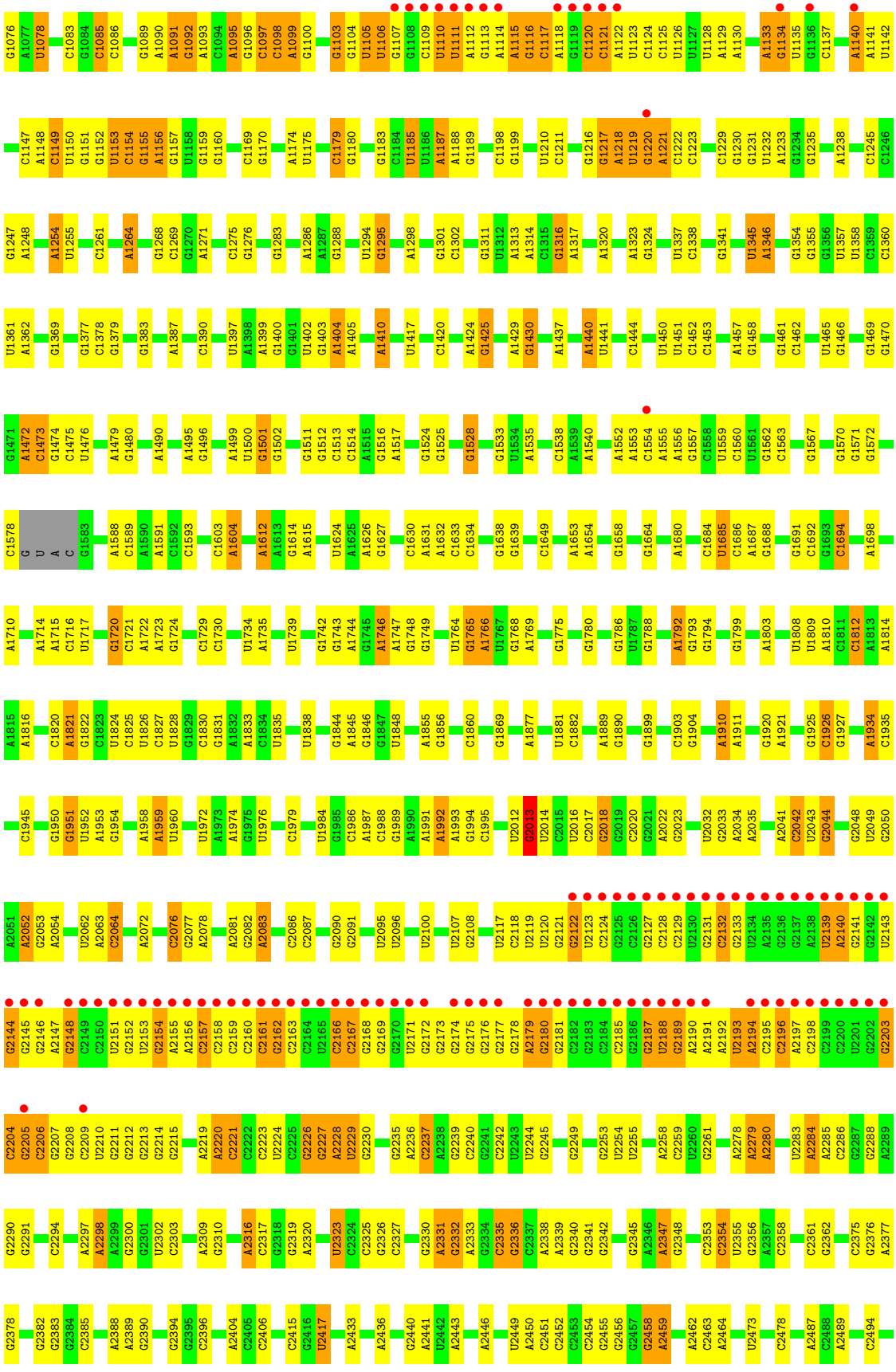
3 Residue-property plots (i)

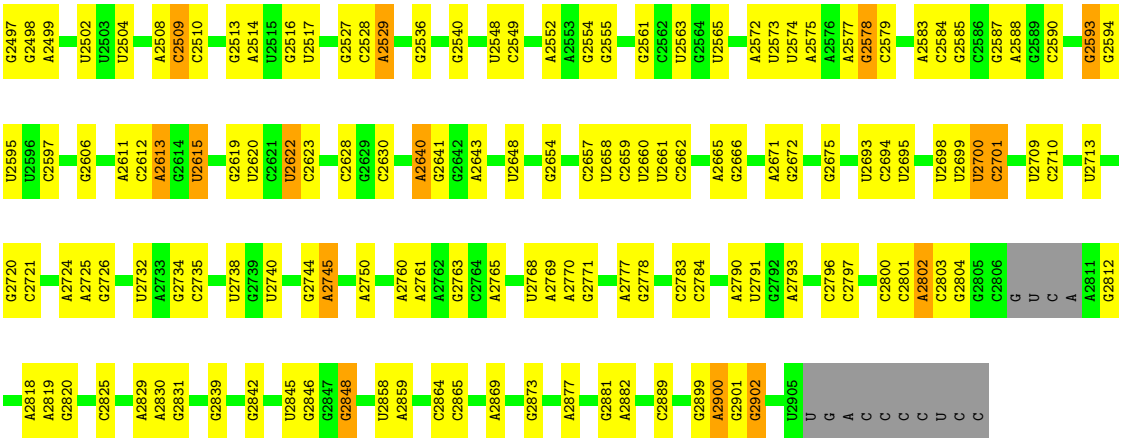
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

- Molecule 1: 23S Ribosomal RNA

Chain 1A:

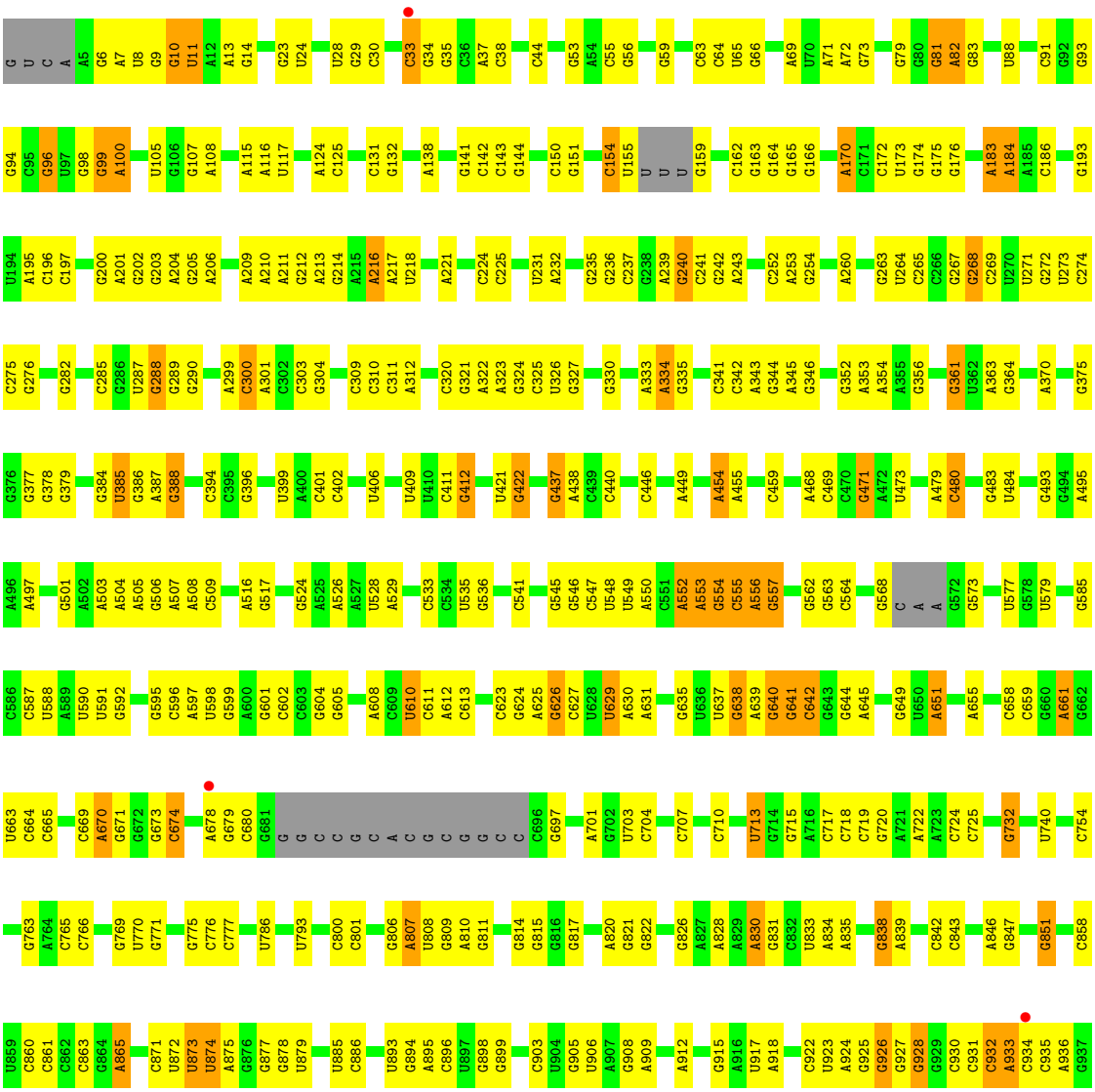


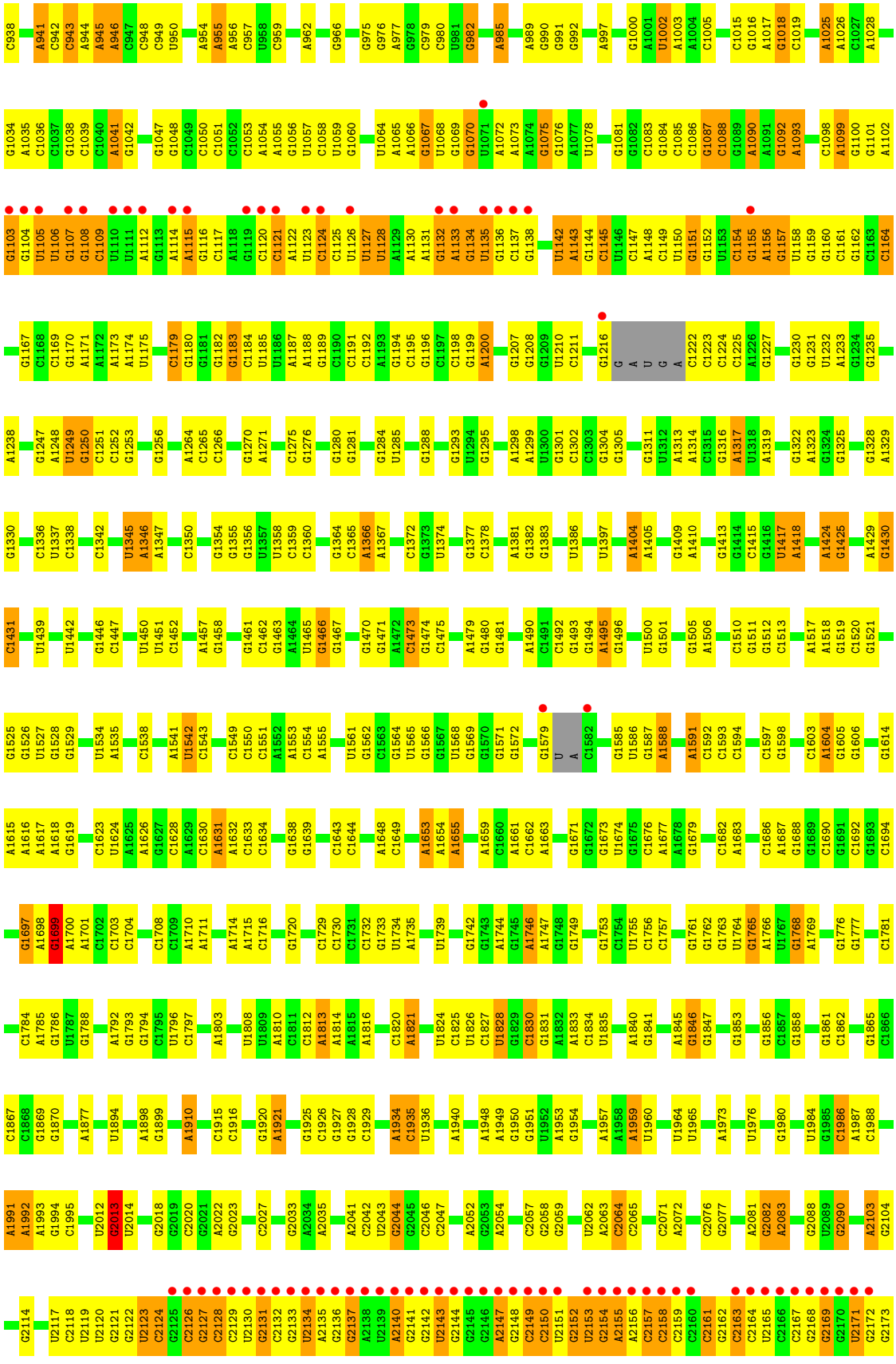


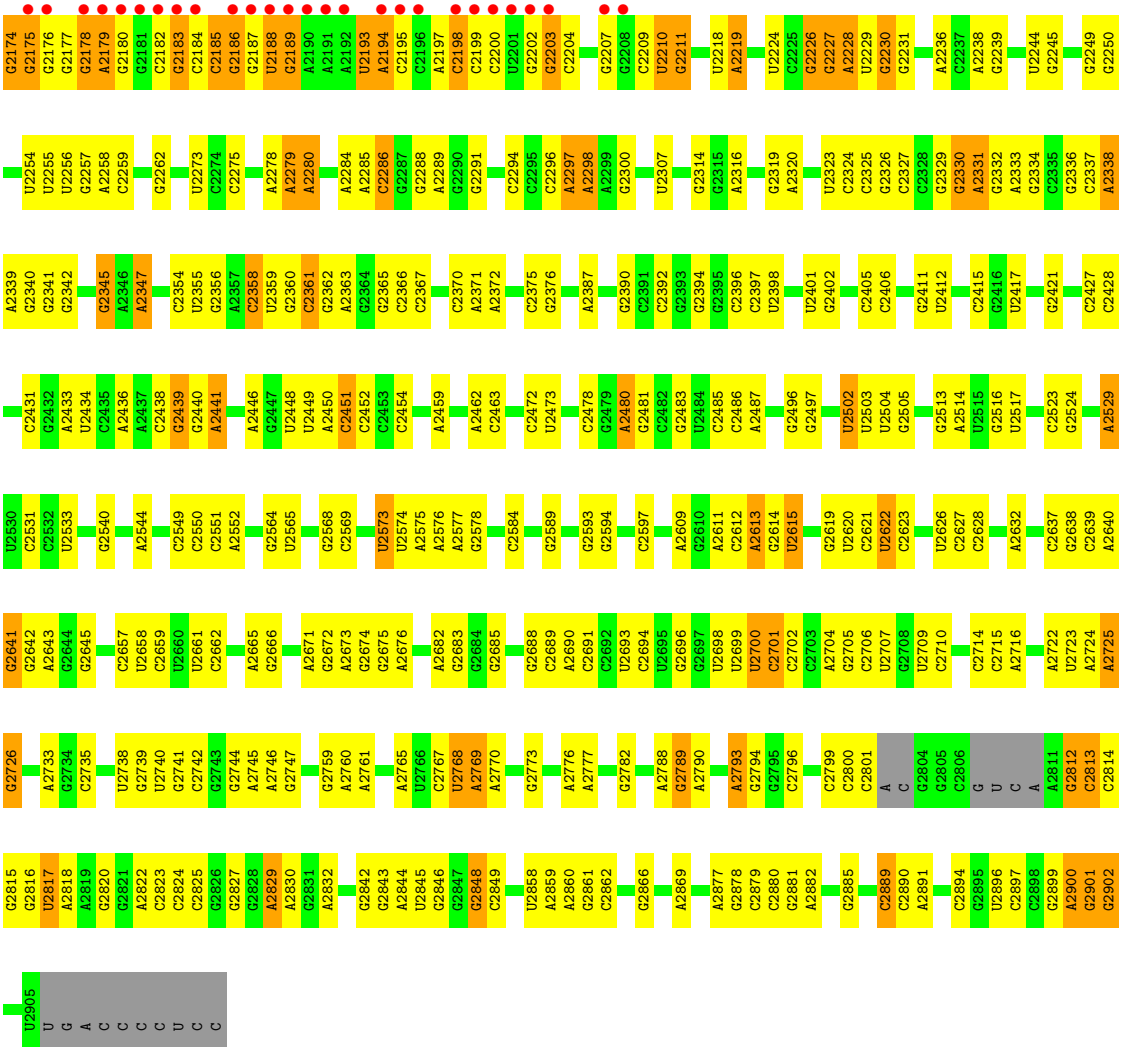


• Molecule 1: 23S Ribosomal RNA

Chain 2A:

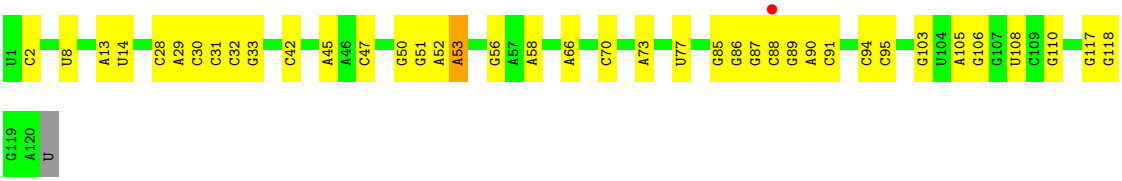






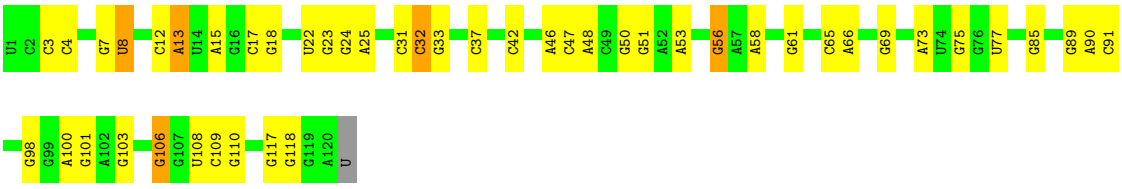
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



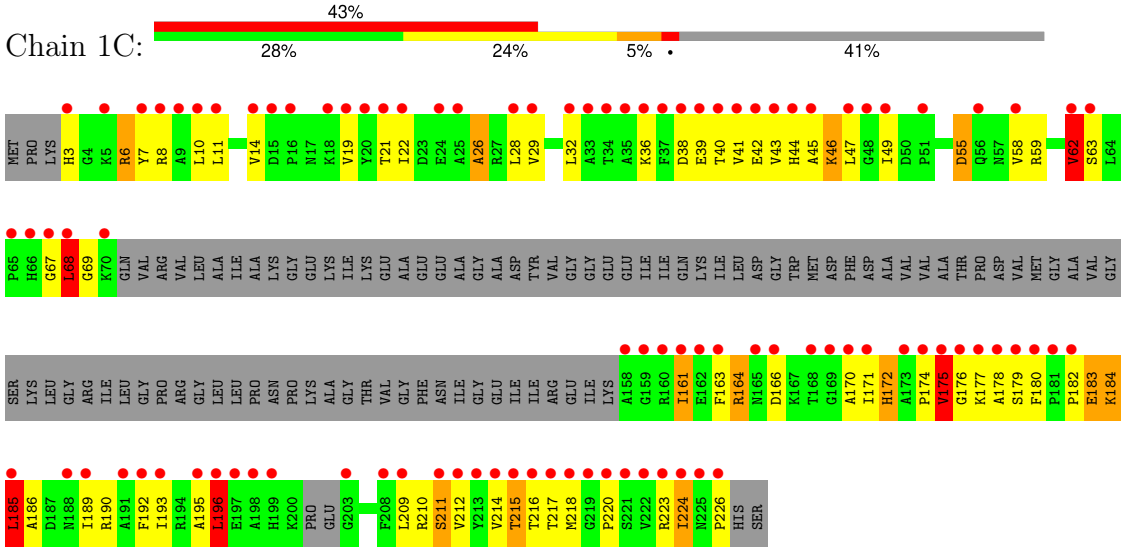
• Molecule 2: 5S Ribosomal RNA

Chain 2B:



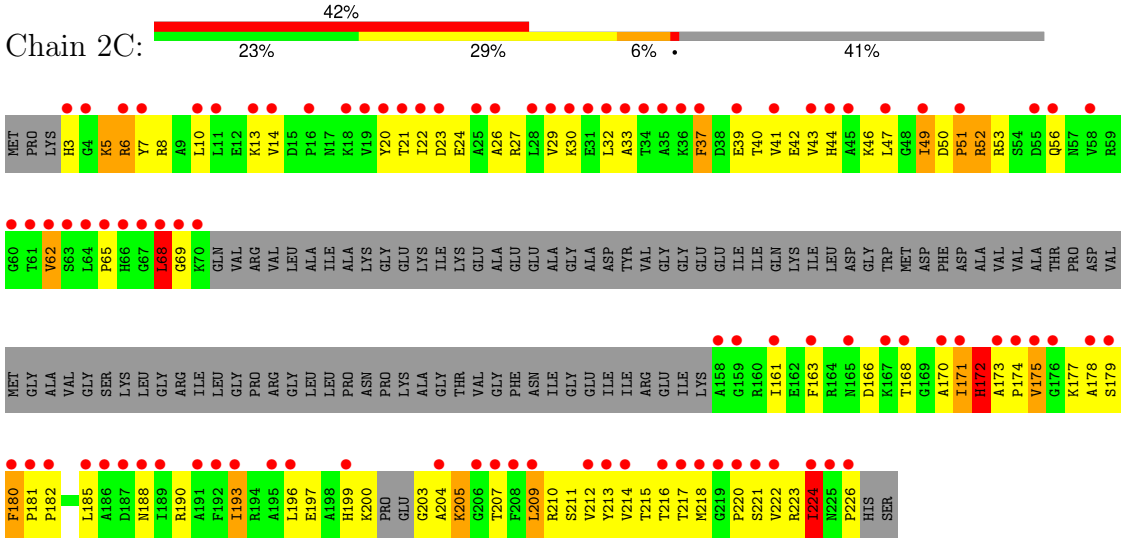
• Molecule 3: 50S ribosomal protein L1

Chain 1C:



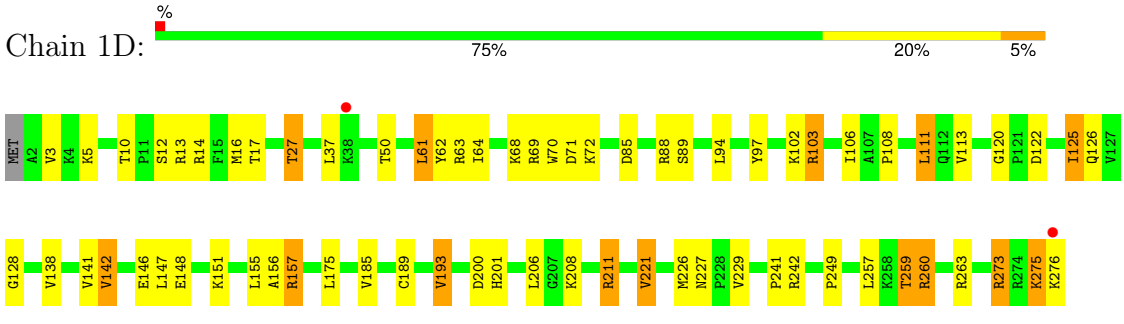
• Molecule 3: 50S ribosomal protein L1

Chain 2C:



• Molecule 4: 50S ribosomal protein L2

Chain 1D:

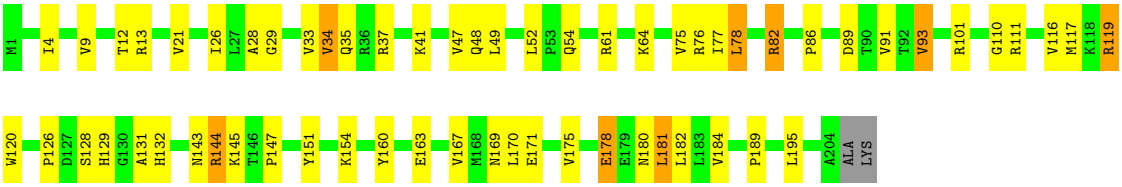


• Molecule 4: 50S ribosomal protein L2

Chain 2D:

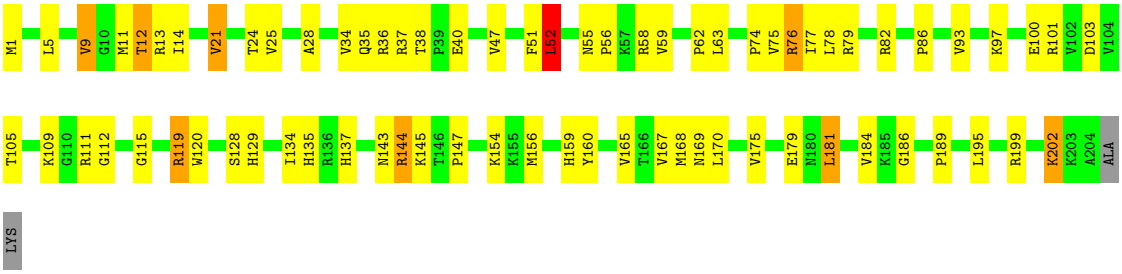
• Molecule 5: 50S ribosomal protein L3

Chain 1E:



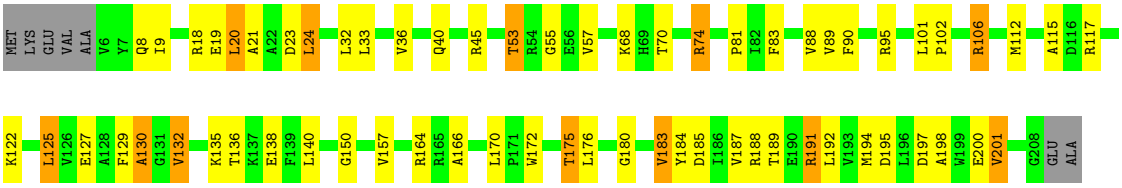
• Molecule 5: 50S ribosomal protein L3

Chain 2E:



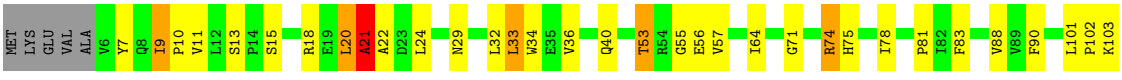
• Molecule 6: 50S ribosomal protein L4

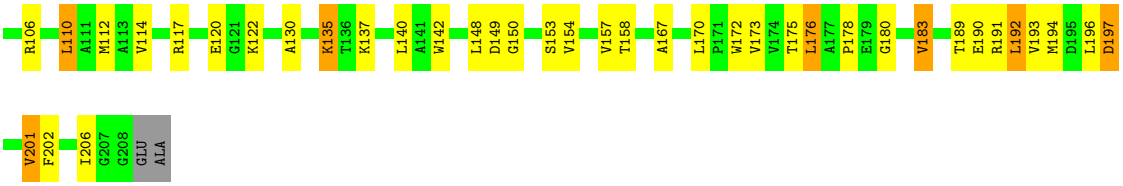
Chain 1F:



• Molecule 6: 50S ribosomal protein L4

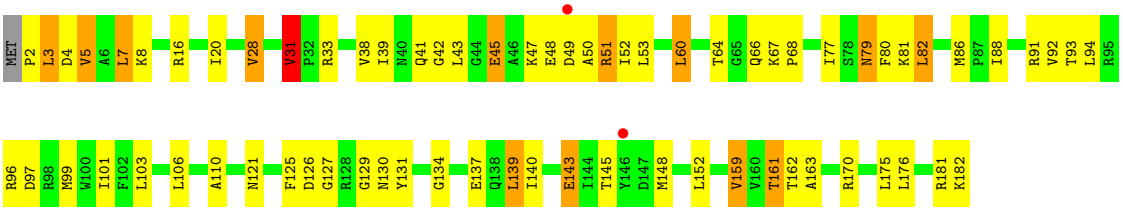
Chain 2F:





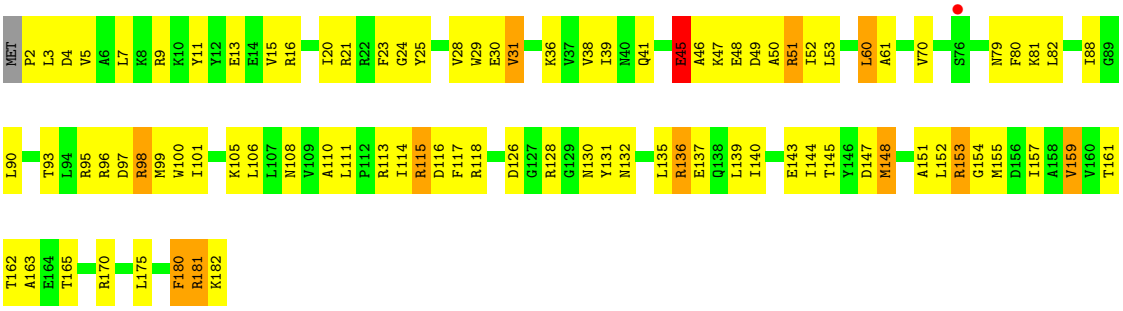
• Molecule 7: 50S ribosomal protein L5

Chain 1G:



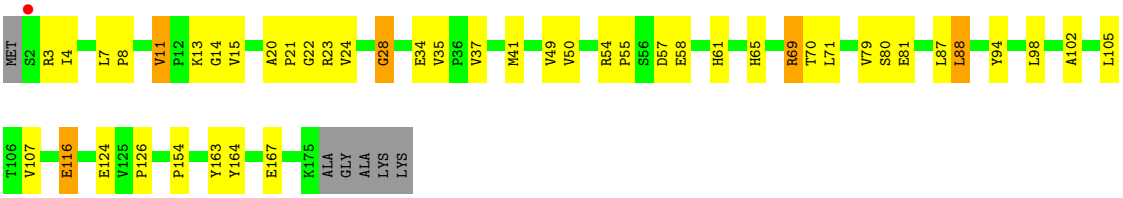
• Molecule 7: 50S ribosomal protein L5

Chain 2G:



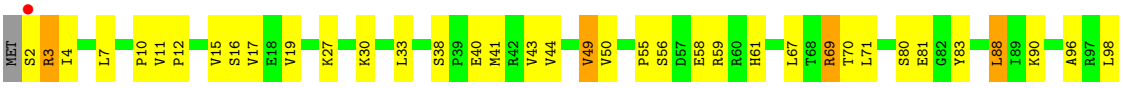
• Molecule 8: 50S ribosomal protein L6

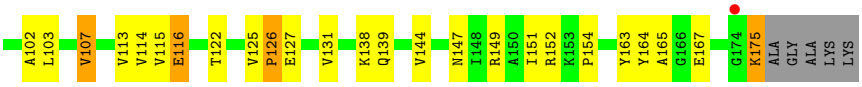
Chain 1H:



• Molecule 8: 50S ribosomal protein L6

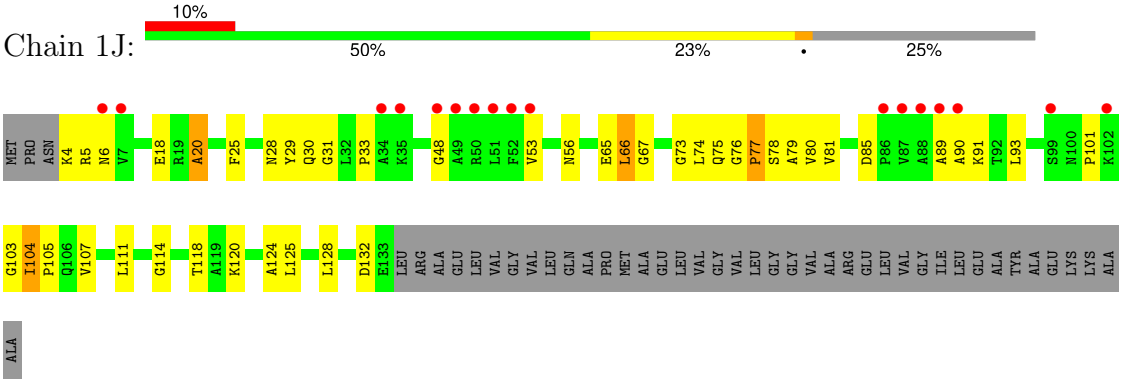
Chain 2H:





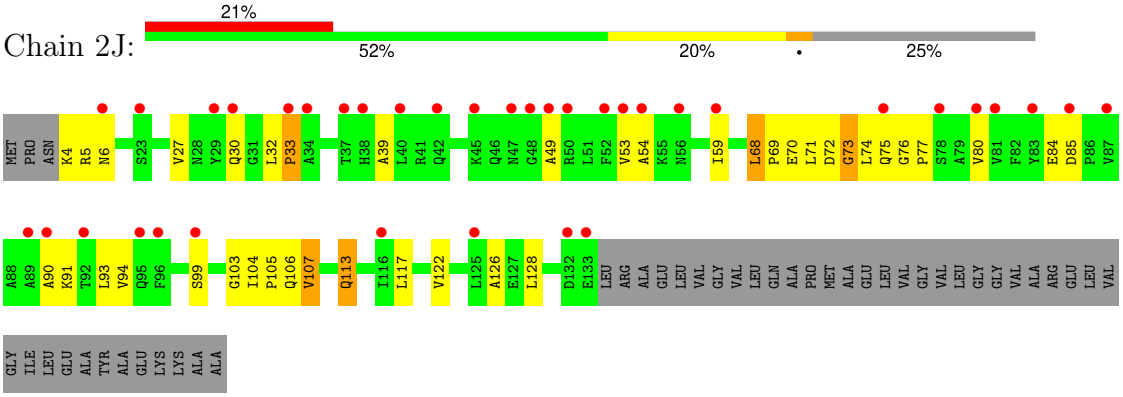
• Molecule 9: 50S ribosomal protein L10

Chain 1J:



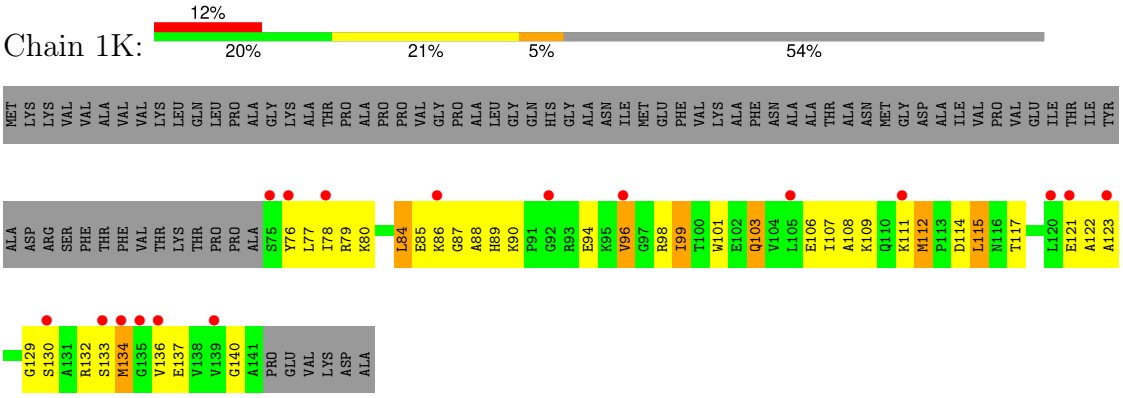
• Molecule 9: 50S ribosomal protein L10

Chain 2J:



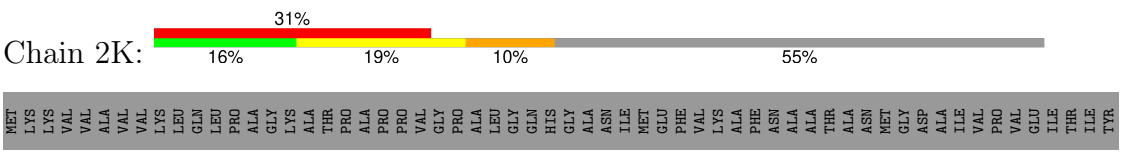
• Molecule 10: 50S ribosomal protein L11

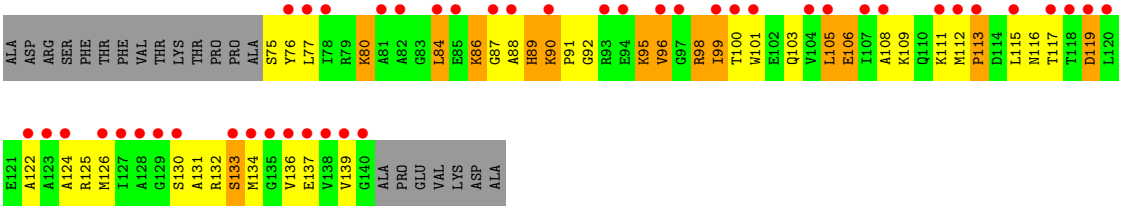
Chain 1K:



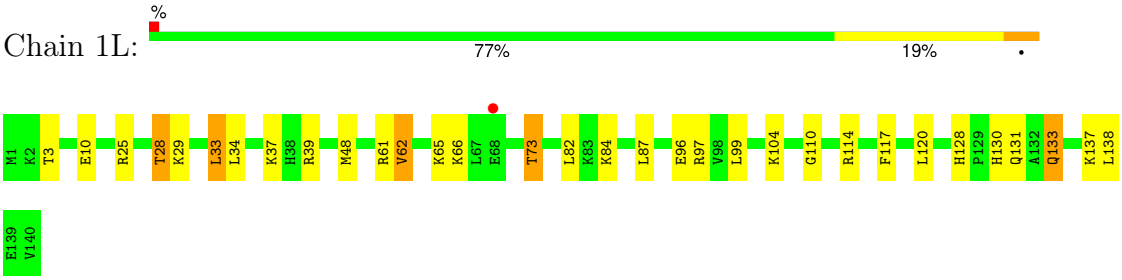
• Molecule 10: 50S ribosomal protein L11

Chain 2K:

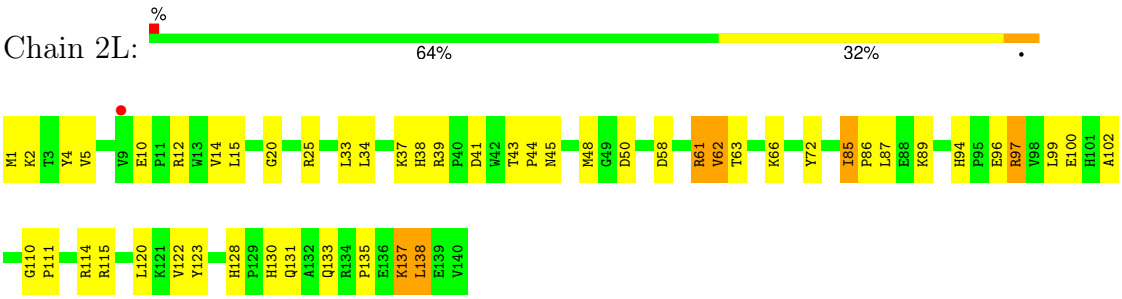




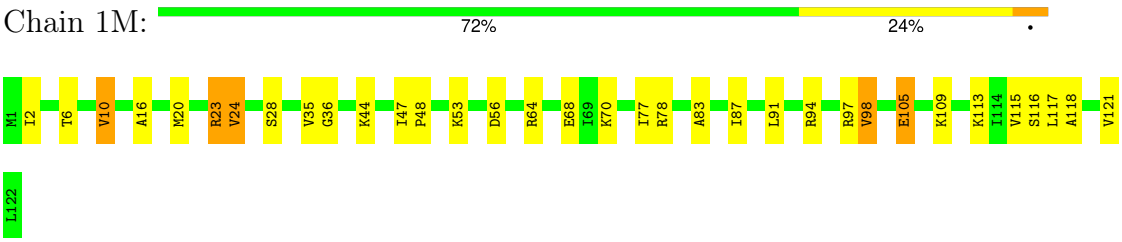
• Molecule 11: 50S ribosomal protein L13



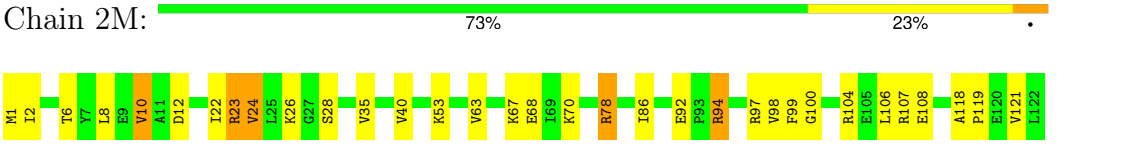
• Molecule 11: 50S ribosomal protein L13



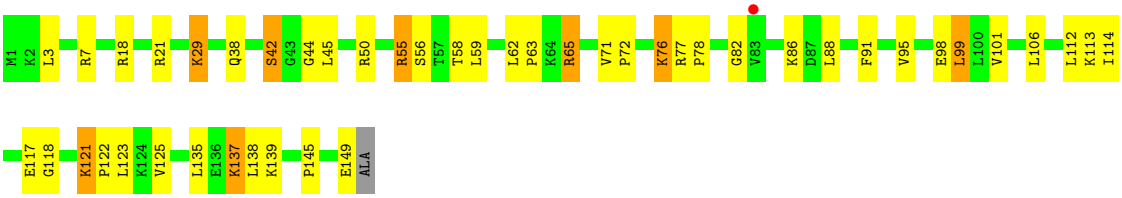
• Molecule 12: 50S ribosomal protein L14



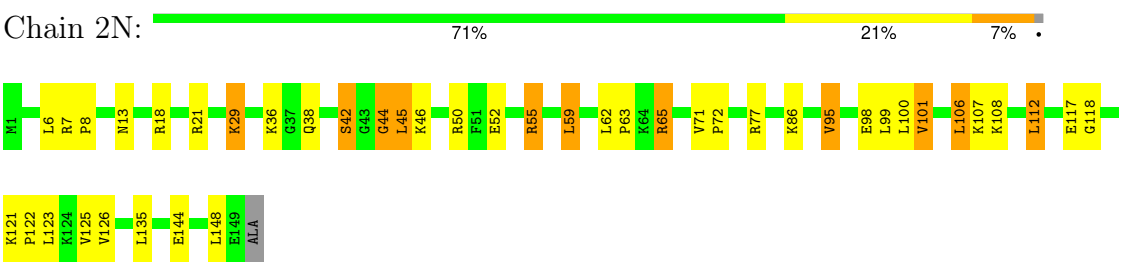
• Molecule 12: 50S ribosomal protein L14



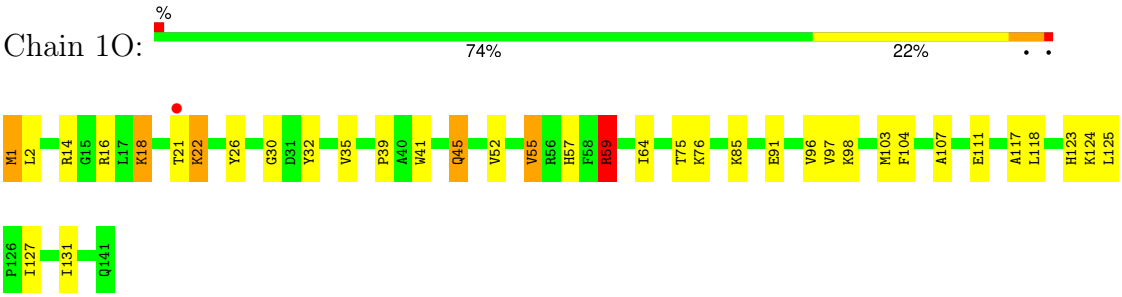
• Molecule 13: 50S ribosomal protein L15



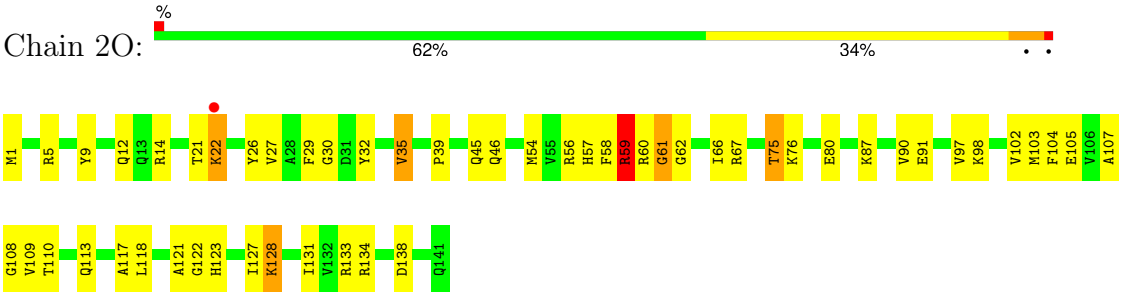
• Molecule 13: 50S ribosomal protein L15



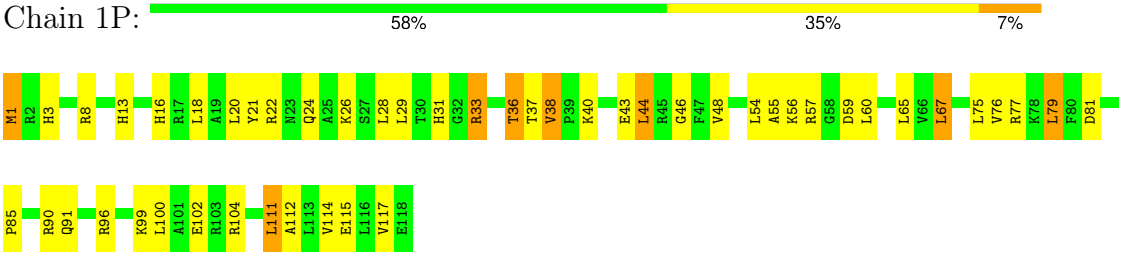
• Molecule 14: 50S ribosomal protein L16



• Molecule 14: 50S ribosomal protein L16

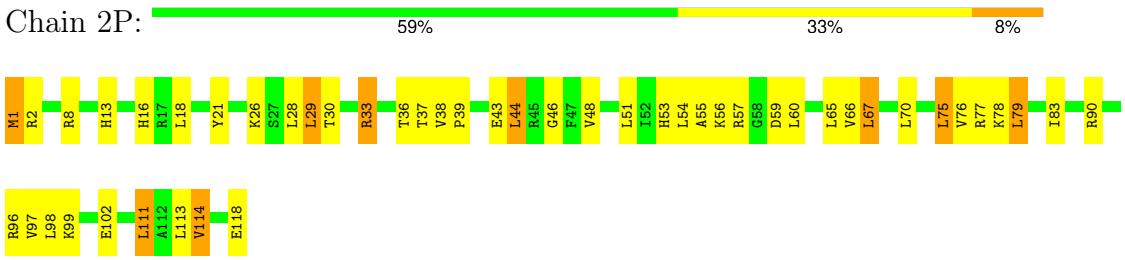


• Molecule 15: 50S ribosomal protein L17



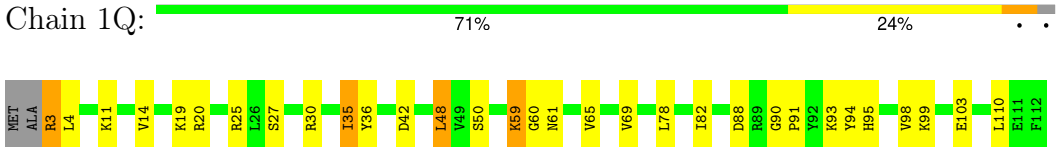
• Molecule 15: 50S ribosomal protein L17

Chain 2P:



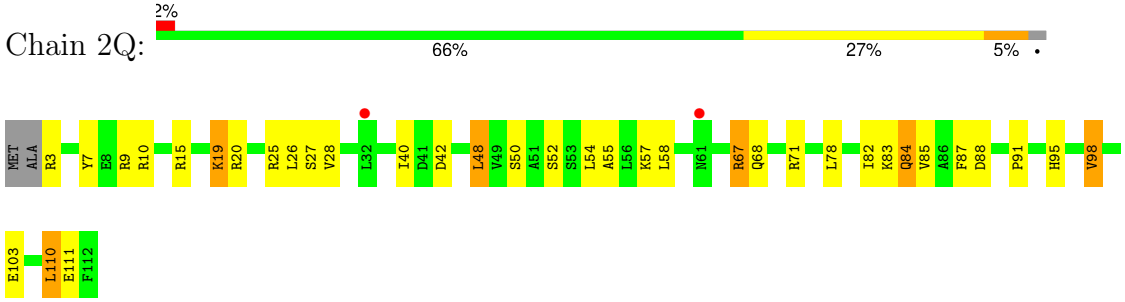
• Molecule 16: 50S ribosomal protein L18

Chain 1Q:



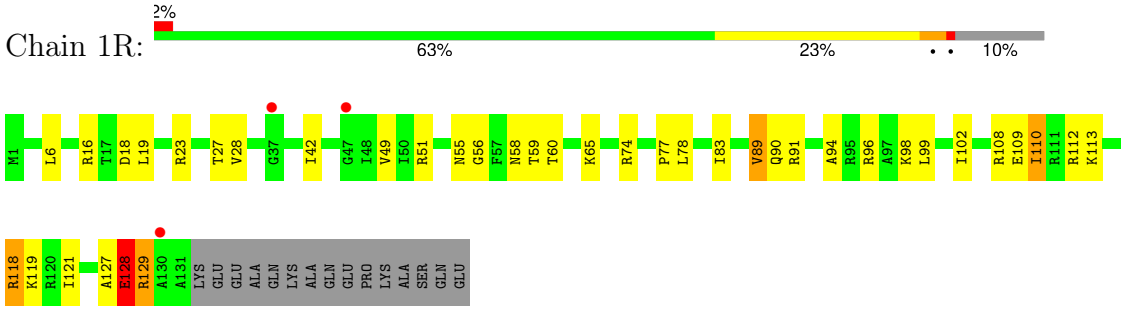
• Molecule 16: 50S ribosomal protein L18

Chain 2Q:



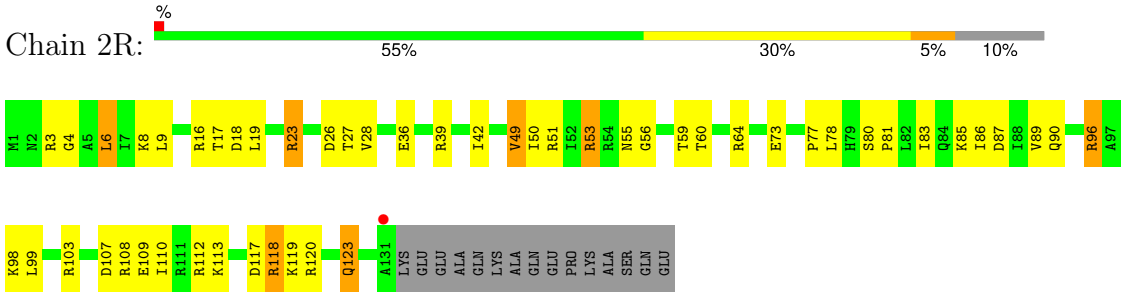
• Molecule 17: 50S ribosomal protein L19

Chain 1R:



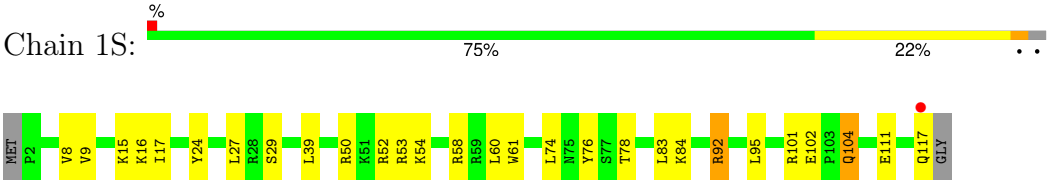
• Molecule 17: 50S ribosomal protein L19

Chain 2R:



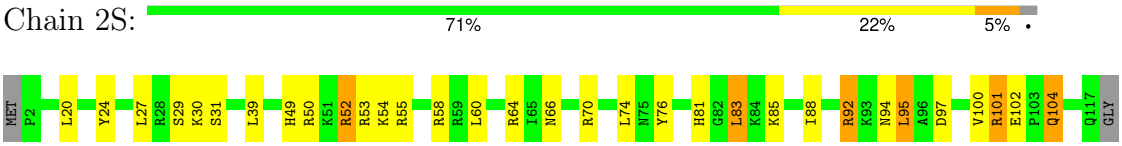
• Molecule 18: 50S ribosomal protein L20

Chain 1S:



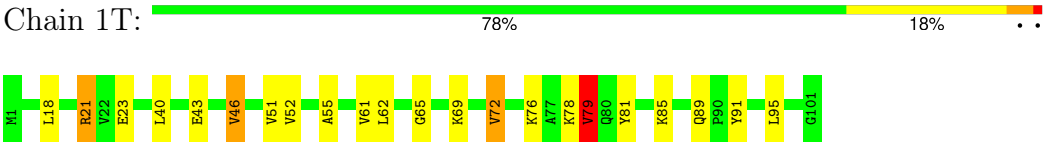
• Molecule 18: 50S ribosomal protein L20

Chain 2S:



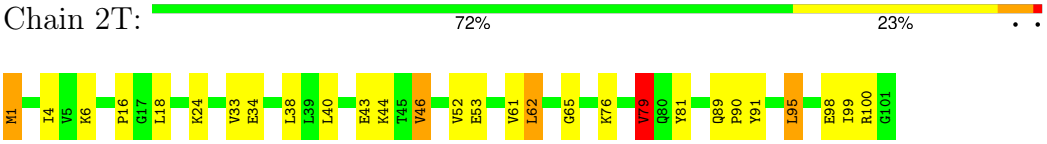
• Molecule 19: 50S ribosomal protein L21

Chain 1T:



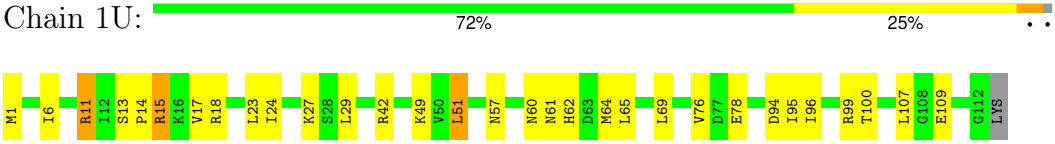
• Molecule 19: 50S ribosomal protein L21

Chain 2T:



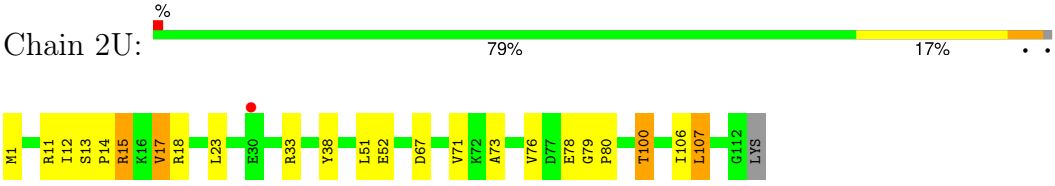
• Molecule 20: 50S ribosomal protein L22

Chain 1U:



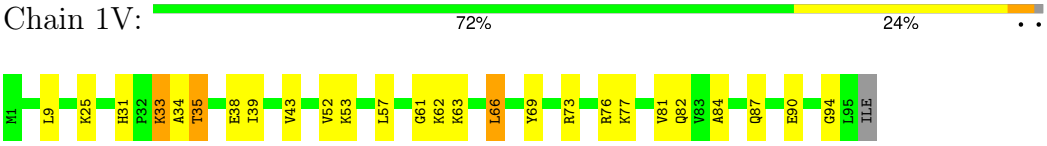
• Molecule 20: 50S ribosomal protein L22

Chain 2U:



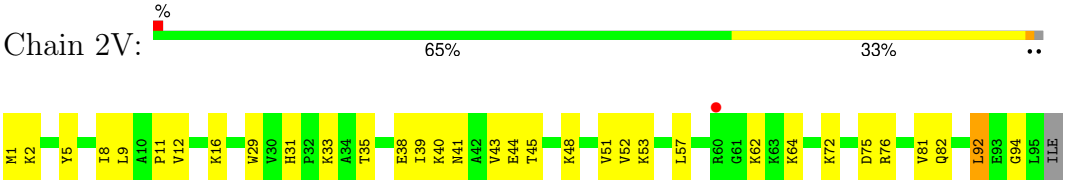
• Molecule 21: 50S ribosomal protein L23

Chain 1V:



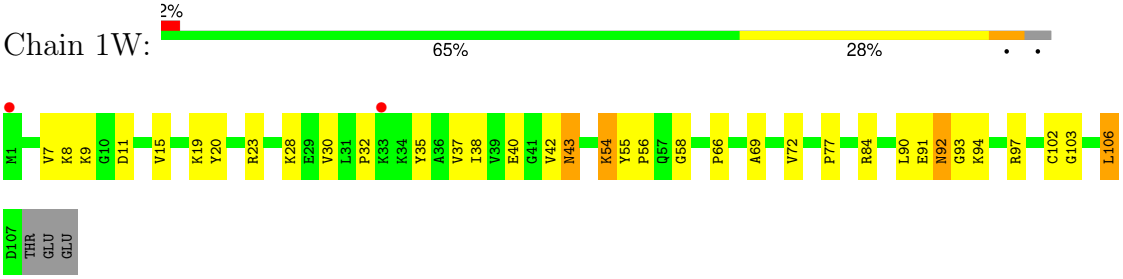
• Molecule 21: 50S ribosomal protein L23

Chain 2V:



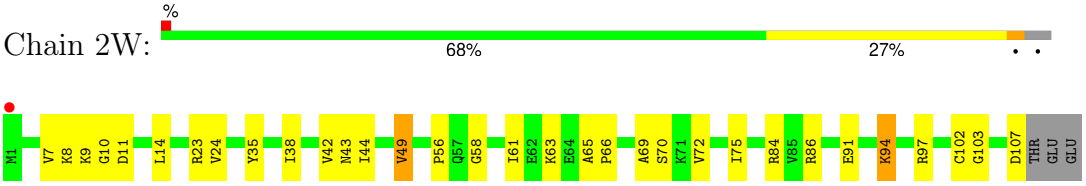
• Molecule 22: 50S ribosomal protein L24

Chain 1W:



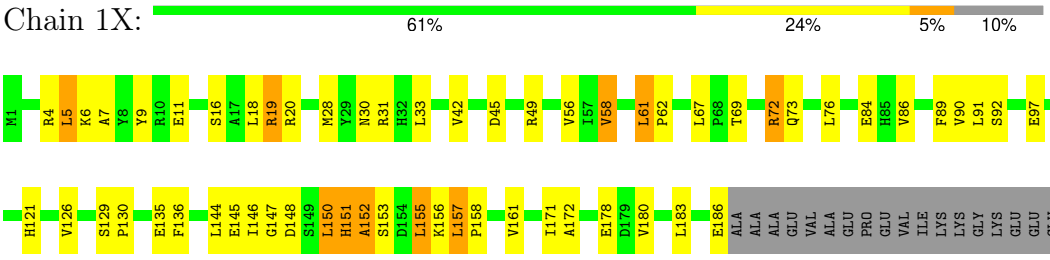
• Molecule 22: 50S ribosomal protein L24

Chain 2W:



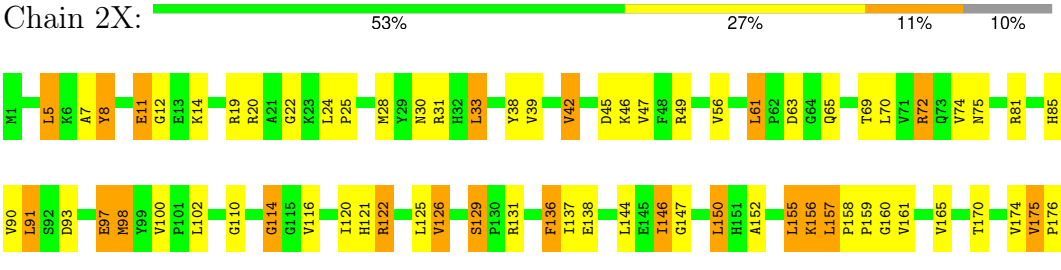
• Molecule 23: 50S ribosomal protein L25

Chain 1X:



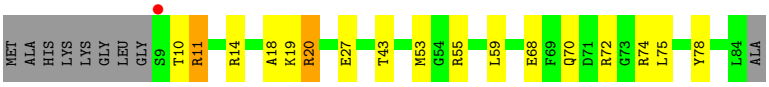
• Molecule 23: 50S ribosomal protein L25

Chain 2X:



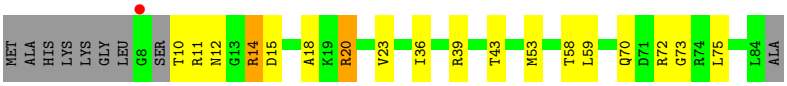
• Molecule 24: 50S ribosomal protein L27

Chain 1Y:



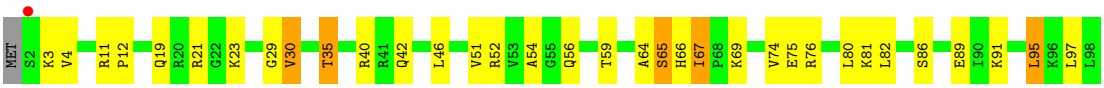
• Molecule 24: 50S ribosomal protein L27

Chain 2Y:



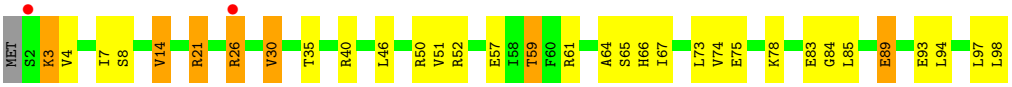
• Molecule 25: 50S ribosomal protein L28

Chain 1Z:



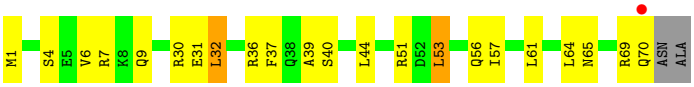
• Molecule 25: 50S ribosomal protein L28

Chain 2Z:



• Molecule 26: 50S ribosomal protein L29

Chain 10:

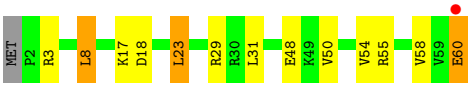


• Molecule 26: 50S ribosomal protein L29

Chain 20:

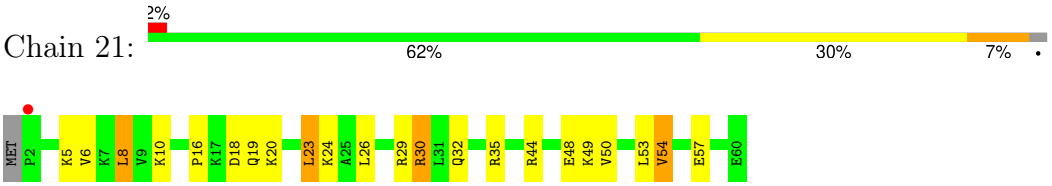
• Molecule 27: 50S ribosomal protein L30

Chain 11:



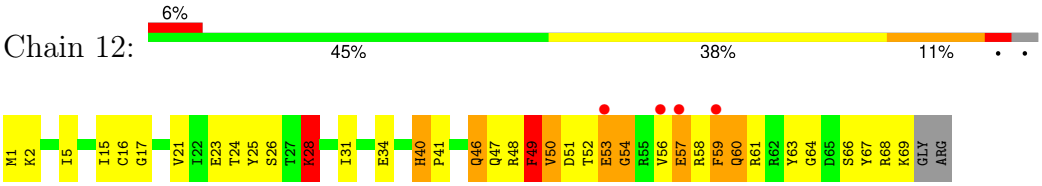
• Molecule 27: 50S ribosomal protein L30

Chain 21:



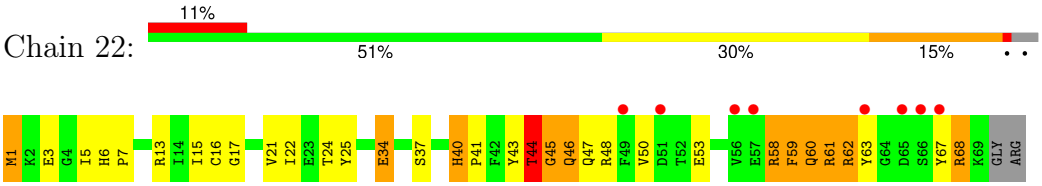
• Molecule 28: 50S ribosomal protein L31

Chain 12:



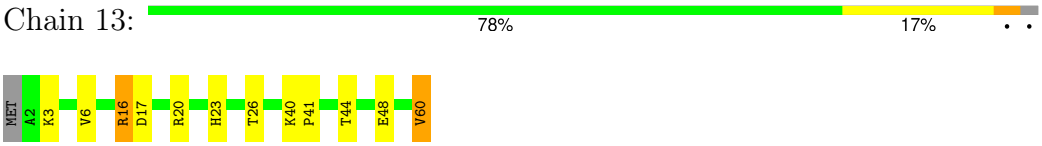
• Molecule 28: 50S ribosomal protein L31

Chain 22:



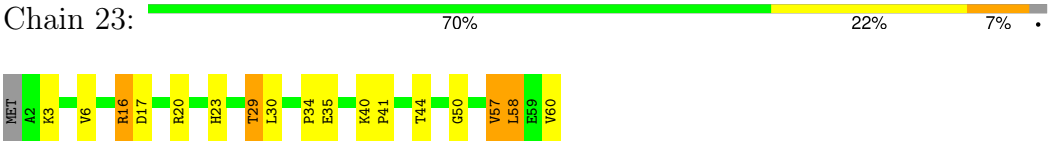
• Molecule 29: 50S ribosomal protein L32

Chain 13:



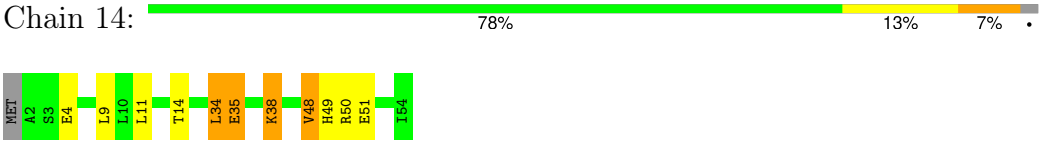
• Molecule 29: 50S ribosomal protein L32

Chain 23:



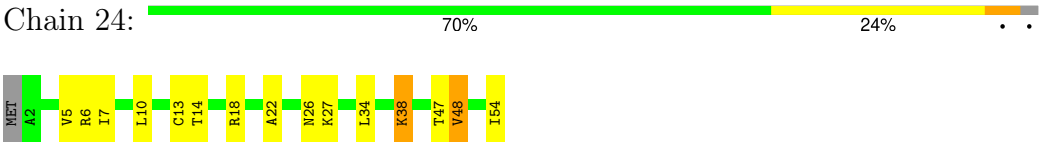
• Molecule 30: 50S ribosomal protein L33

Chain 14:



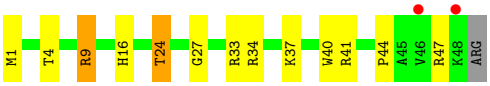
• Molecule 30: 50S ribosomal protein L33

Chain 24:



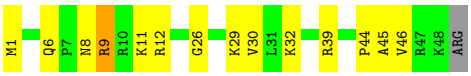
• Molecule 31: 50S ribosomal protein L34

Chain 15:



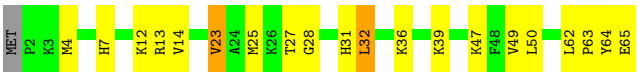
• Molecule 31: 50S ribosomal protein L34

Chain 25:



• Molecule 32: 50S ribosomal protein L35

Chain 16:

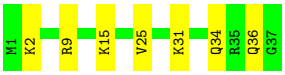


• Molecule 32: 50S ribosomal protein L35

Chain 26:

• Molecule 33: 50S ribosomal protein L36

Chain 17:

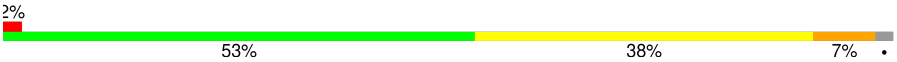


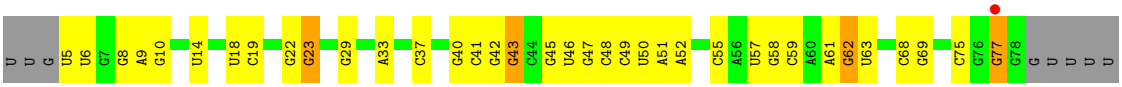
• Molecule 33: 50S ribosomal protein L36

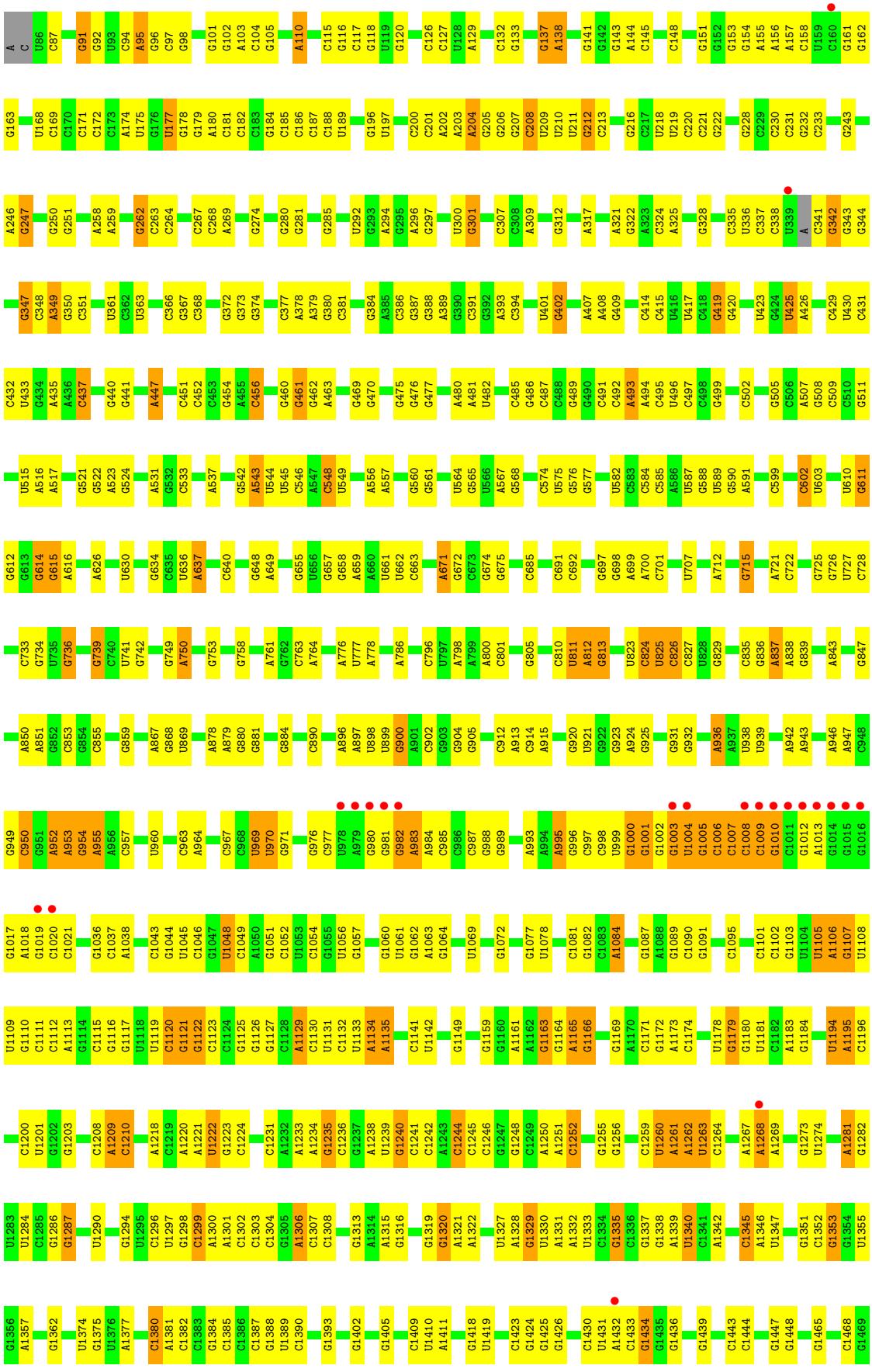
Chain 27:

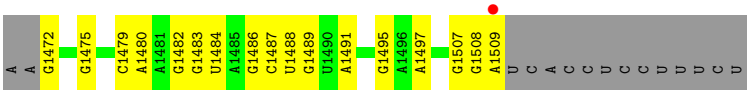
• Molecule 34: 16S Ribosomal RNA

Chain 1a:



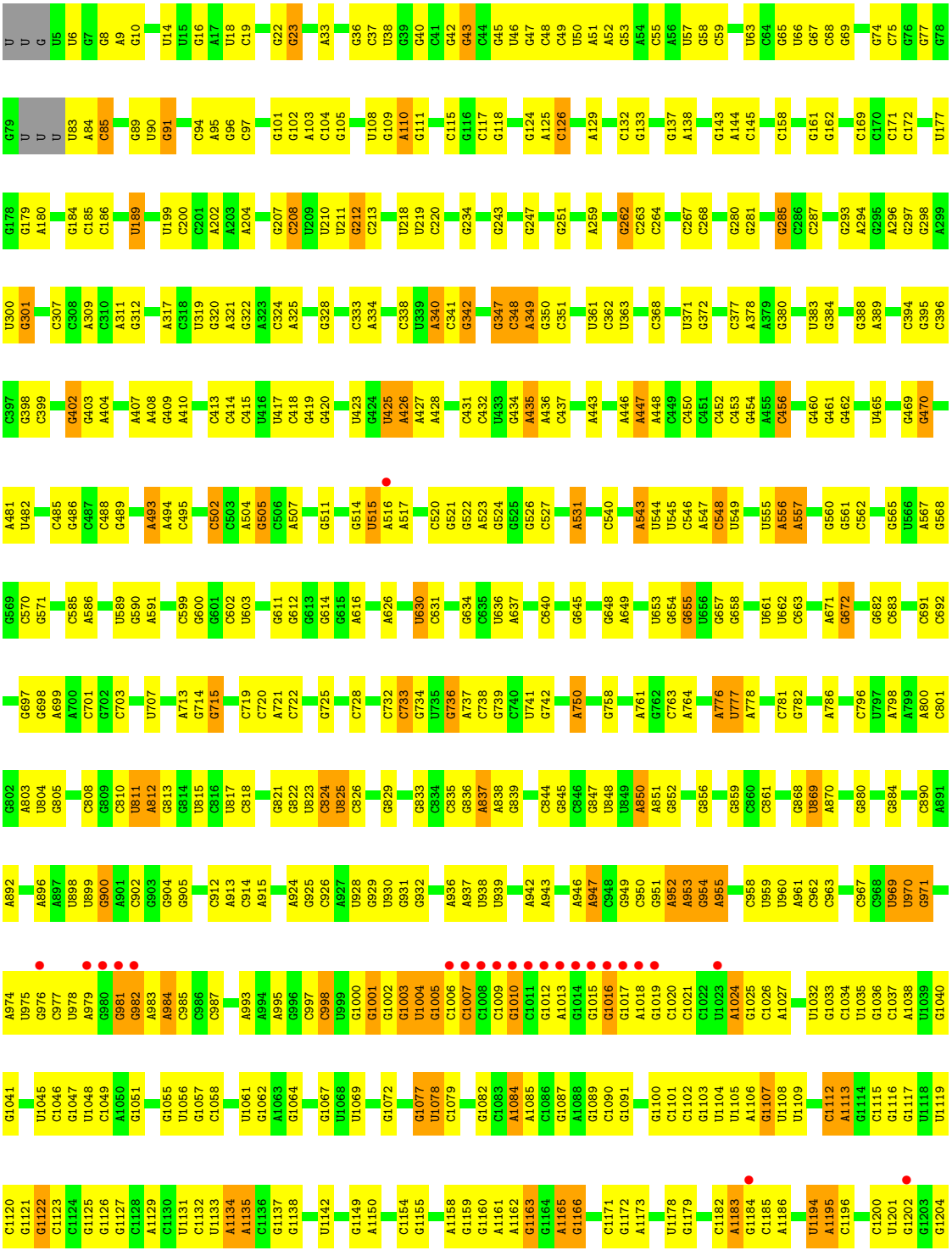


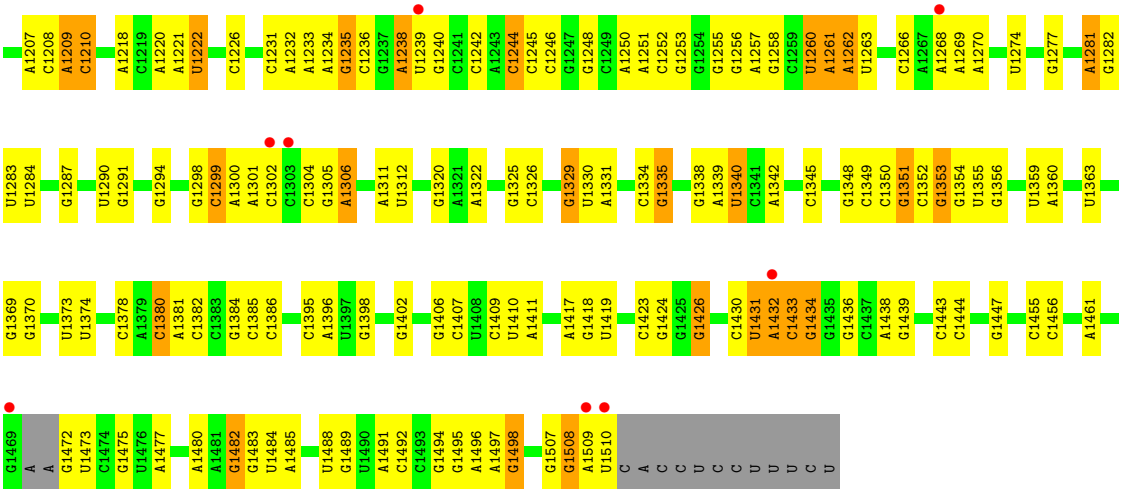

A
C
U86 C87 G91 G92 U93 C94 A95 G96 C97 G98 G101 G102 A103 C104 G105 A110 C115 G116 C117 G118 U119 G120 C126 C127 U128 A129 C132 G133 G137 A138 G141 G142 G143 A144 C145 C148 G151 G152 G153 G154 A155 A156 A157 C158 U159 C160 G161 G162
G163 U168 C169 C170 C171 C172 C173 A174 U175 G176 U177 G178 G179 A180 C181 C182 C183 G184 C185 C186 C187 C188 U189 G196 U197 C200 C201 A202 A203 A204 G205 G206 G207 C208 U209 U210 U211 G212 C213 G216 C217 U218 U219 C220 C221 G222 G228 C229 C230 C231 G232 C233 G243
A246 G247 G250 G251 A258 A259 G262 C263 C264 C267 C268 A269 C274 G280 G281 G285 U292 G293 A294 G295 A296 G297 U300 G301 C307 C308 A309 G312 A317 A321 G322 A323 C324 A325 G328 C335 U336 C337 C338 U339 A C341 G342 G343 G344
G347 C348 A349 G350 C351 U361 G362 U363 C366 G367 C368 G372 G373 G374 C377 A378 A379 G380 C381 G384 A385 C386 G387 G388 A389 G390 C391 G392 A393 C394 U401 G402 A407 A408 G409 C414 C415 U416 U417 C418 G419 G420 U423 G424 U425 A426 C429 U430 C431
C432 U433 G434 A435 A436 C437 G440 G441 A447 C451 C452 C453 G454 A455 C456 G460 G461 G462 A463 G469 G470 G475 G476 G477 A480 A481 U482 C485 G486 C487 G488 G489 G490 C491 C492 A493 A494 C495 U496 C497 C498 G499 C502 G505 C506 A507 G508 C509 C510 G511
U515 A516 A517 G521 G522 A523 G524 A531 G532 C533 A537 G542 A543 U544 U545 C546 A547 C548 U549 A556 A557 G560 G561 U564 G565 U566 A567 G568 C574 U575 G576 G577 U582 C583 C584 C585 A586 U587 G588 U589 G590 A591 C599 C602 U603 U610 G611
G612 G613 G614 G615 A616 A626 U630 G634 C635 U636 A637 C640 G648 A649 G655 U656 G657 G658 A659 A660 U661 U662 C663 A671 G672 G673 G674 G675 C685 C691 C692 G697 G698 A699 A700 C701 U707 A712 G715 A721 C722 G725 G726 U727 C728
C733 G734 U735 G736 G739 C740 U741 G742 G749 A750 G753 G758 A761 G762 C763 A764 A776 U777 A778 A786 C796 U797 A798 A799 A800 C801 G805 C810 U811 A812 G813 U823 C824 U825 C826 C827 U828 G829 C835 C836 A837 A838 G839 A843 G847
A850 A851 G852 C853 G854 C855 C859 A867 C868 U869 A878 A879 G880 C881 G884 C890 A896 A897 U898 U899 G900 A901 C902 G903 G904 G905 C912 A913 C914 A915 G920 U921 G922 G923 A924 G925 G931 G932 A936 A937 U938 U939 A942 A943 A946 A947 C948
G949 C950 G951 A952 A953 G954 A955 A956 C957 U960 C963 A964 C967 C968 U969 U970 G971 G976 C977 U978 A979 G980 G981 G982 A983 A984 C985 C986 C987 G988 G989 A993 A994 A995 G996 C997 C998 U999 G1000 G1001 G1002 G1003 U1004 G1005 C1006 C1007 C1008 C1009 G1010 C1011 G1012 A1013 G1014 G1015 G1016
G1017 A1018 G1019 C1020 C1021 G1036 C1037 A1038 C1043 G1044 U1045 C1046 G1047 U1048 C1049 A1050 G1051 C1052 U1053 C1054 G1055 U1056 G1057 G1060 U1061 G1062 A1063 G1064 U1069 G1072 G1077 U1078 C1081 G1082 C1083 A1084 G1087 A1088 G1089 C1090 G1091 C1095 C1101 C1102 C1103 U1104 U1105 A1106 G1107 U1108
U1109 G1110 C1111 C1112 A1113 G1114 C1115 G1116 G1117 U1118 U1119 C1120 G1121 G1122 C1123 C1124 G1125 G1126 G1127 C1128 A1129 C1130 U1131 C1132 U1133 A1134 A1135 C1141 U1142 G1149 G1159 G1160 A1161 A1162 G1163 G1164 A1165 G1166 G1169 A1170 C1171 G1172 A1173 C1174 U1178 G1179 G1180 U1181 C1182 A1183 G1184 U1194 A1195 C1196
C1200 U1201 G1202 G1203 C1208 A1209 C1210 A1218 C1219 A1220 A1221 U1222 G1223 C1224 C1231 A1232 A1233 A1234 G1235 C1236 G1237 A1238 U1239 G1240 C1241 C1242 A1243 C1244 C1245 C1246 G1247 G1248 C1249 A1250 A1251 C1252 G1255 G1256 C1259 U1260 A1261 A1262 U1263 C1264 A1267 A1268 A1269 G1273 U1274 A1281 G1282
U1283 U1284 C1285 G1286 G1287 U1290 G1294 U1295 C1296 U1297 G1298 C1299 A1300 A1301 C1302 C1303 C1304 G1305 A1306 C1307 C1308 G1313 A1314 A1315 G1316 G1319 G1320 A1321 A1322 U1327 A1328 G1329 U1330 A1331 A1332 U1333 C1334 G1335 C1336 G1337 G1338 A1339 U1340 C1341 A1342 C1345 A1346 U1347 G1351 C1352 G1353 G1354 U1355
G1356 A1357 G1362 U1374 G1375 U1376 A1377 C1380 A1381 C1382 C1383 C1384 C1385 C1386 C1387 G1388 U1389 C1390 G1393 G1402 G1405 C1409 U1410 A1411 G1418 U1419 C1423 G1424 G1425 G1426 C1430 U1431 A1432 C1433 G1434 G1435 G1436 G1439 C1443 C1444 G1447 G1448 G1465 C1468 G1469



• Molecule 34: 16S Ribosomal RNA

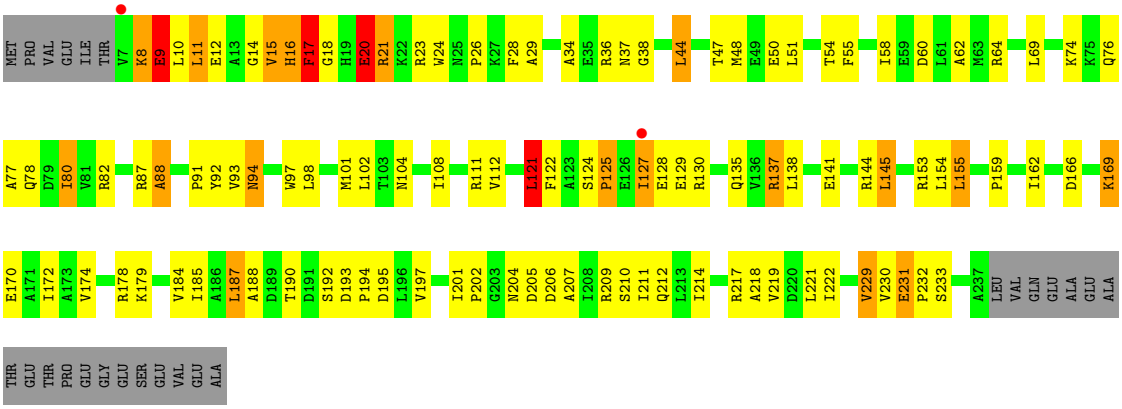
Chain 2a:





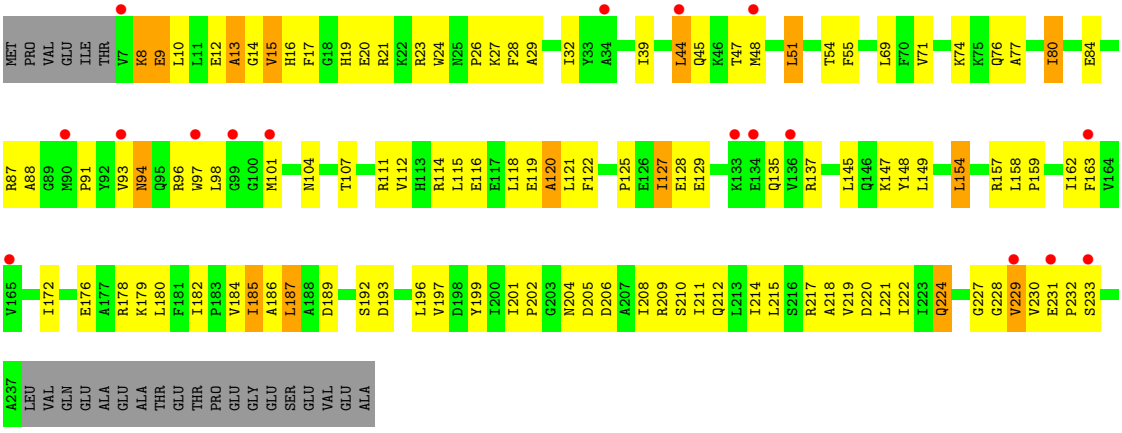
• Molecule 35: 30S ribosomal protein S2

Chain 1b:



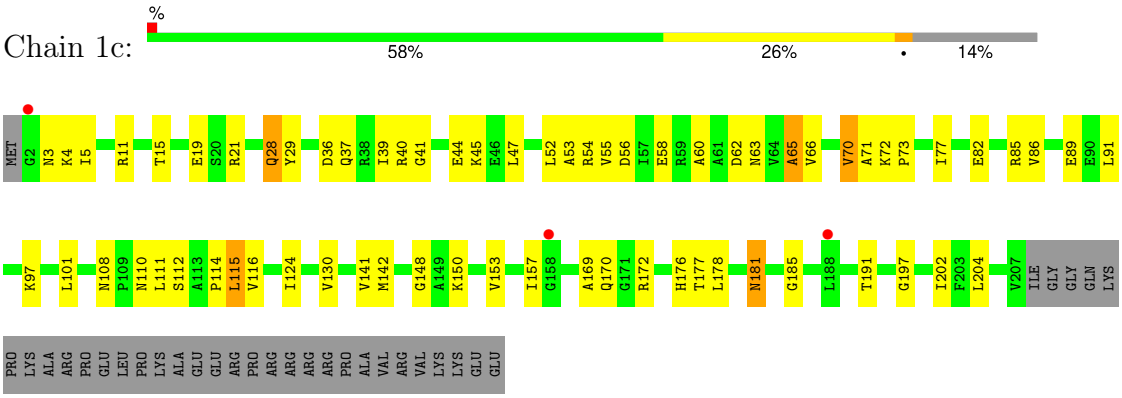
• Molecule 35: 30S ribosomal protein S2

Chain 2b:



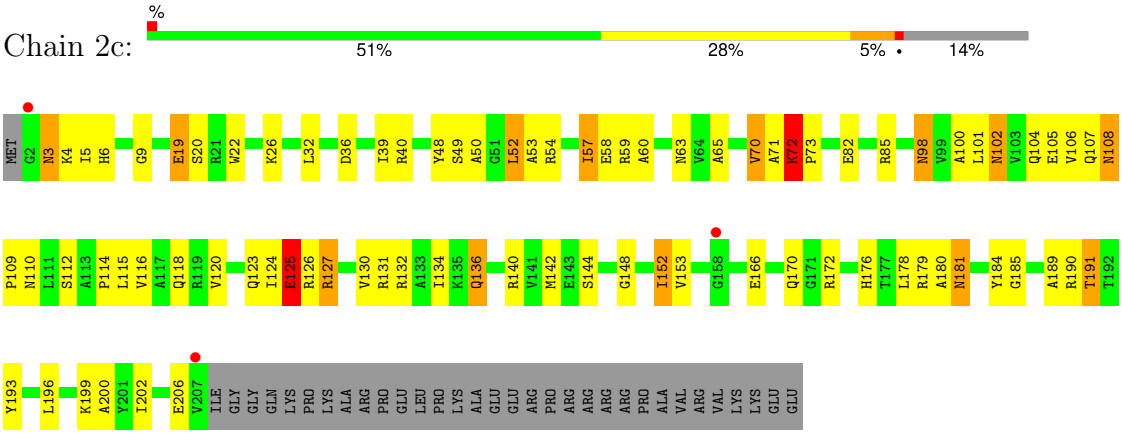
• Molecule 36: 30S ribosomal protein S3

Chain 1c:



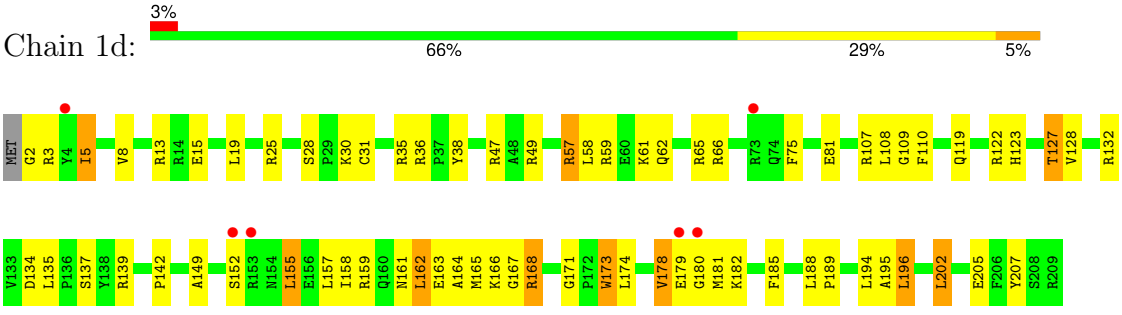
• Molecule 36: 30S ribosomal protein S3

Chain 2c:



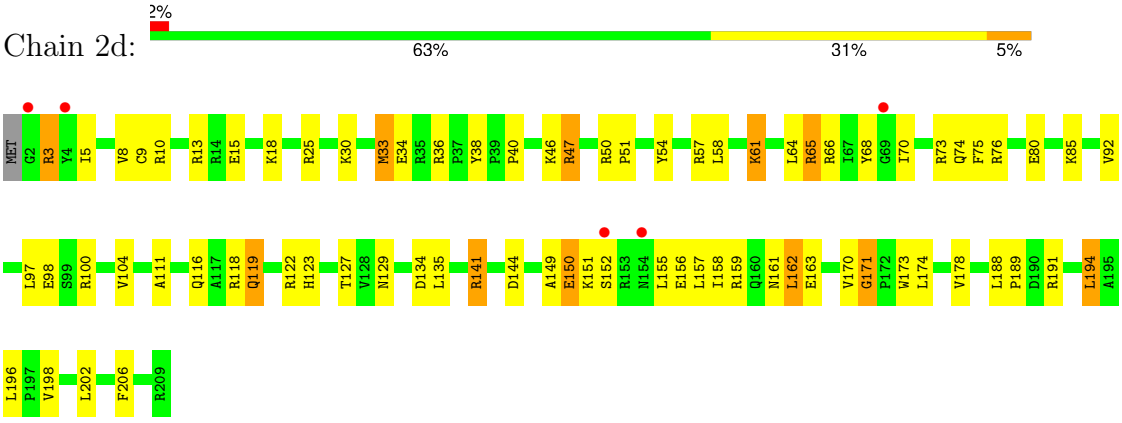
• Molecule 37: 30S ribosomal protein S4

Chain 1d:



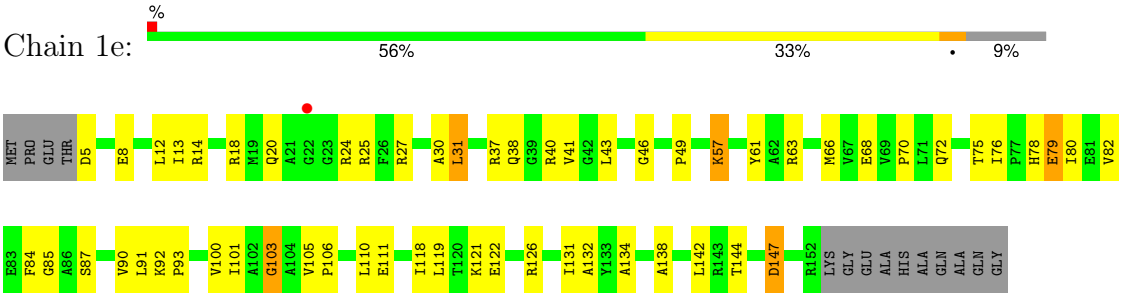
• Molecule 37: 30S ribosomal protein S4

Chain 2d:



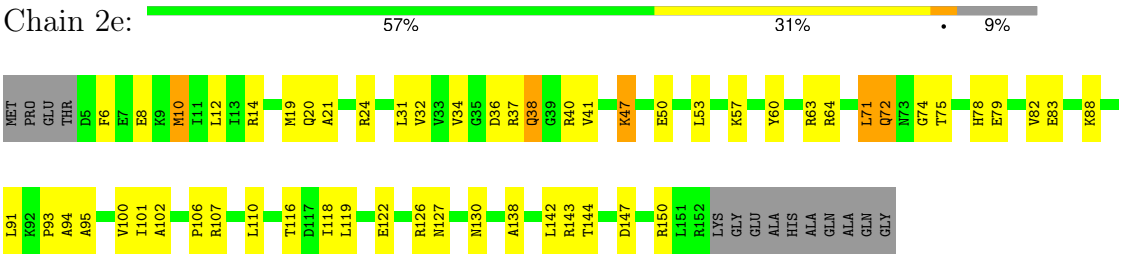
• Molecule 38: 30S ribosomal protein S5

Chain 1e:



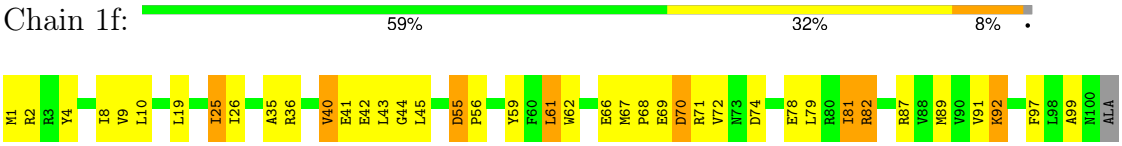
• Molecule 38: 30S ribosomal protein S5

Chain 2e:



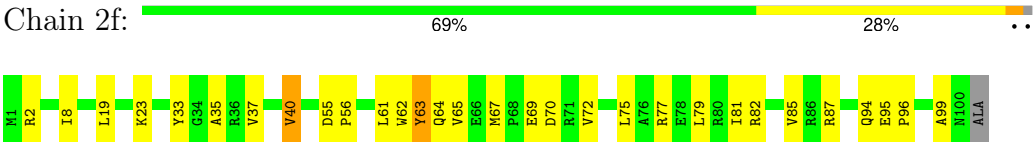
• Molecule 39: 30S ribosomal protein S6

Chain 1f:



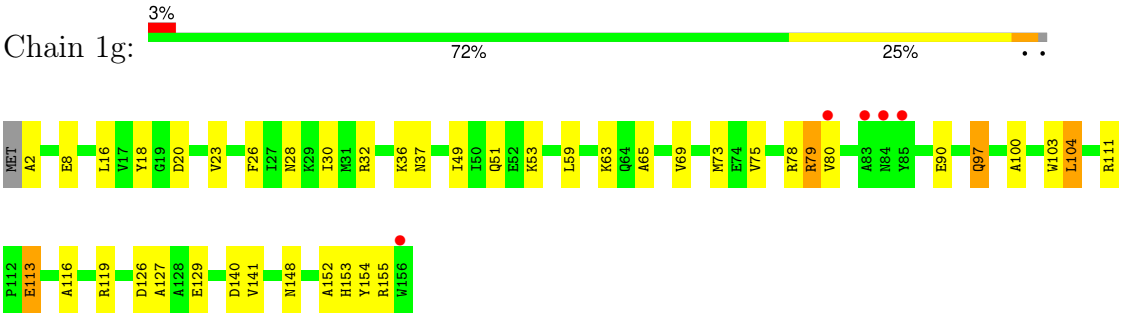
• Molecule 39: 30S ribosomal protein S6

Chain 2f:



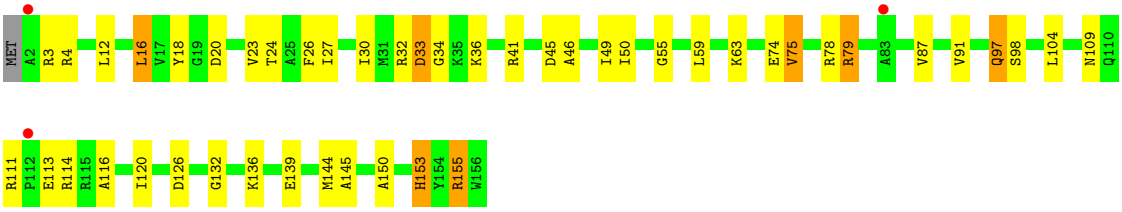
• Molecule 40: 30S ribosomal protein S7

Chain 1g:



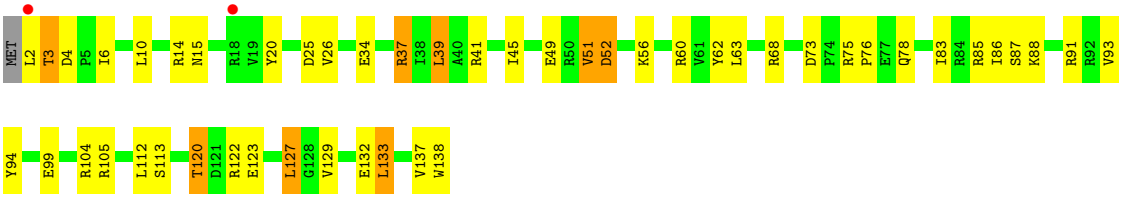
• Molecule 40: 30S ribosomal protein S7

Chain 2g:



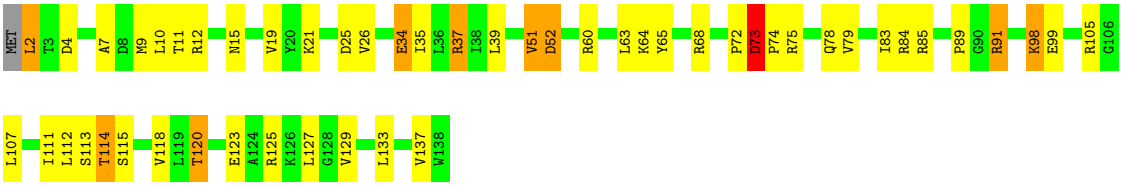
• Molecule 41: 30S ribosomal protein S8

Chain 1h:



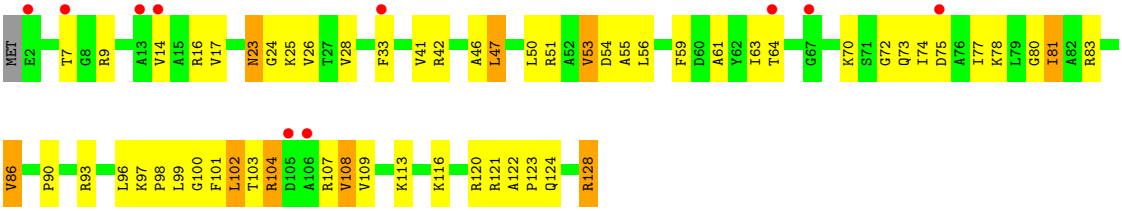
• Molecule 41: 30S ribosomal protein S8

Chain 2h:



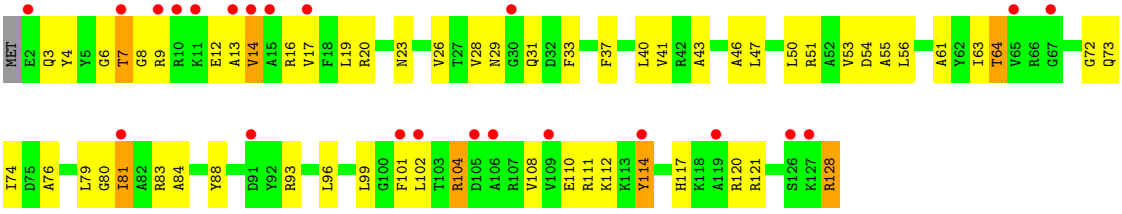
• Molecule 42: 30S ribosomal protein S9

Chain 1i:



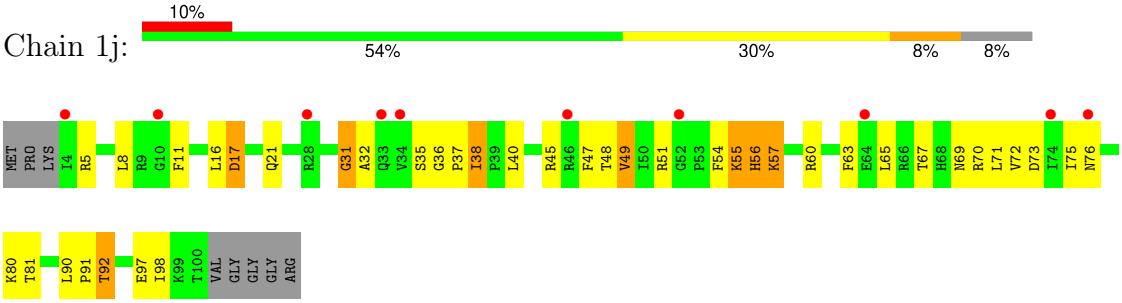
• Molecule 42: 30S ribosomal protein S9

Chain 2i:



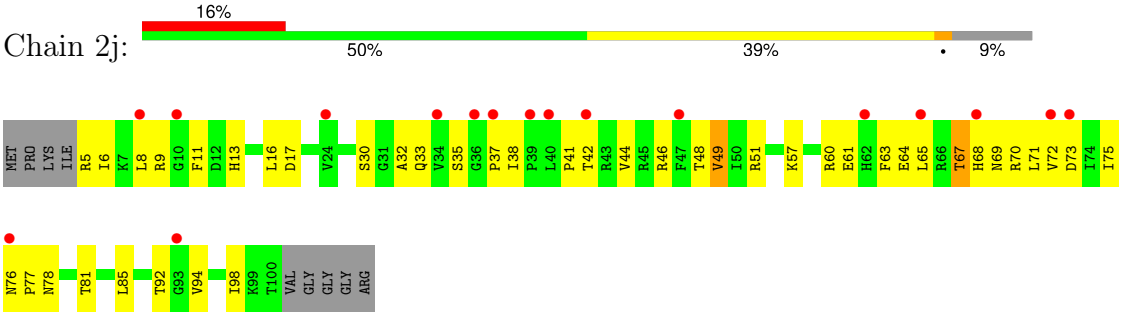
• Molecule 43: 30S ribosomal protein S10

Chain 1j:



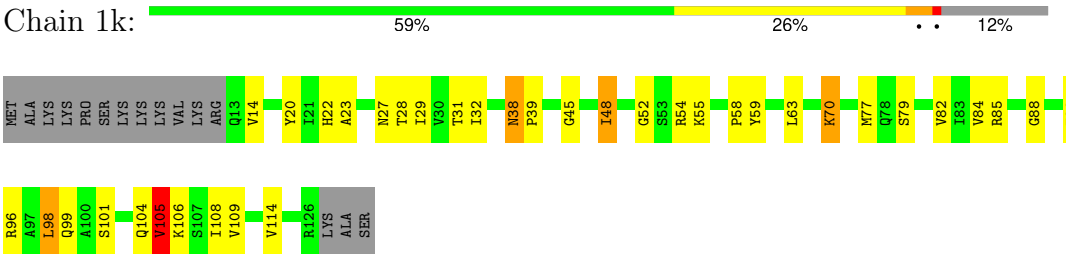
• Molecule 43: 30S ribosomal protein S10

Chain 2j:



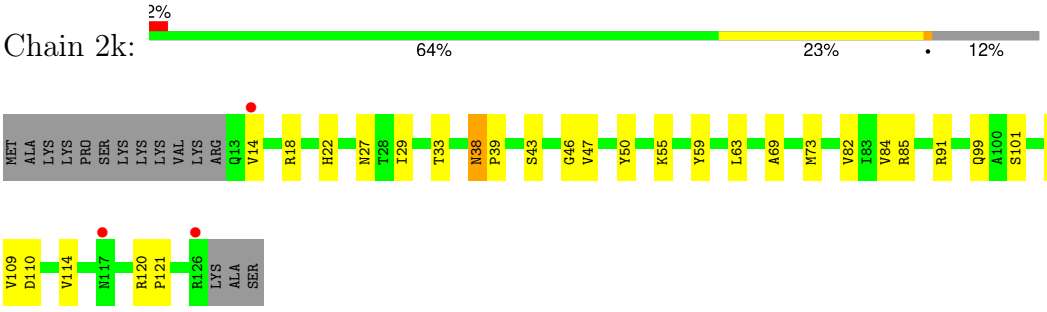
• Molecule 44: 30S ribosomal protein S11

Chain 1k:



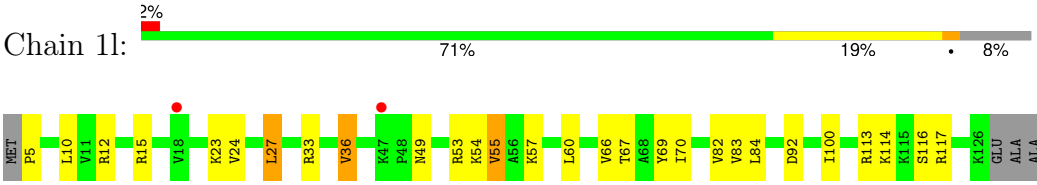
• Molecule 44: 30S ribosomal protein S11

Chain 2k:



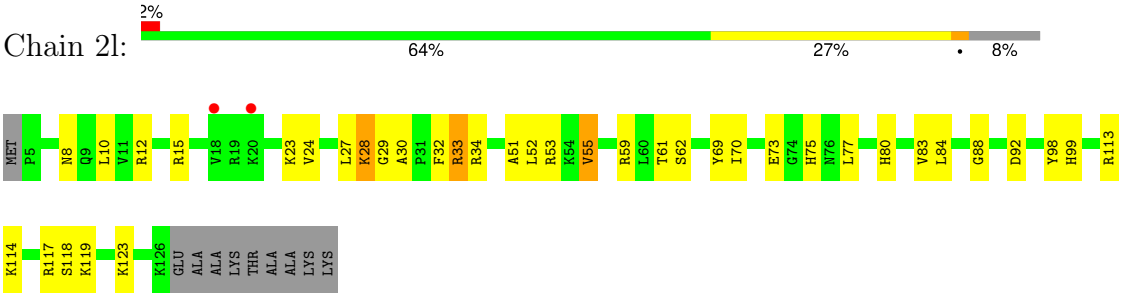
• Molecule 45: 30S ribosomal protein S12

Chain 1l:



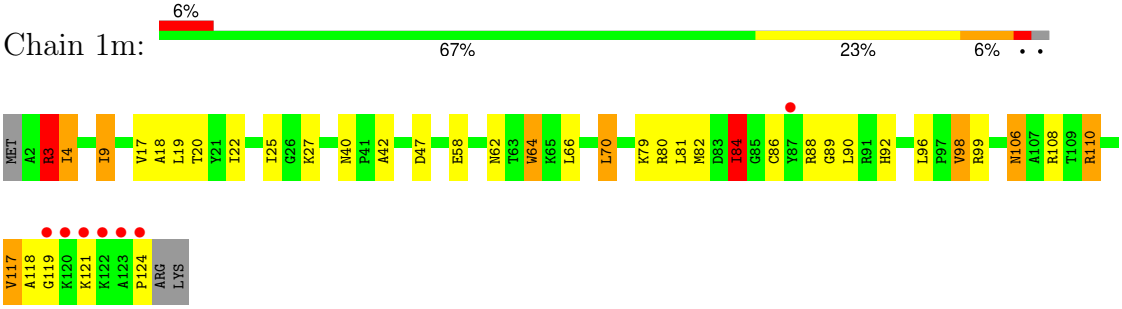
• Molecule 45: 30S ribosomal protein S12

Chain 2l:



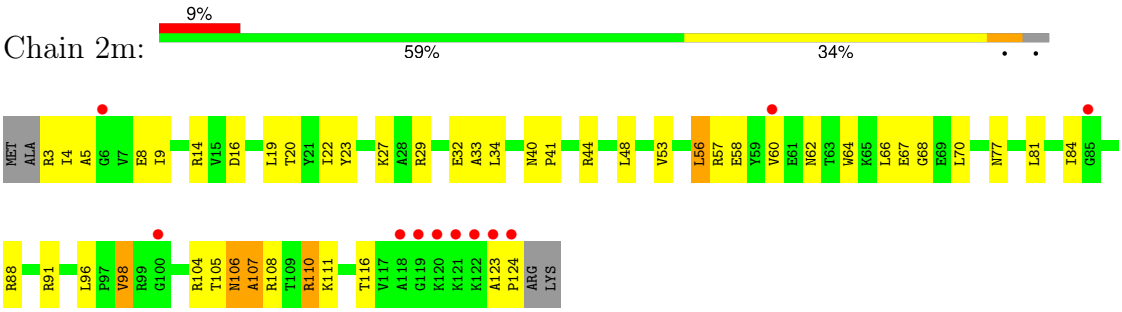
• Molecule 46: 30S ribosomal protein S13

Chain 1m:



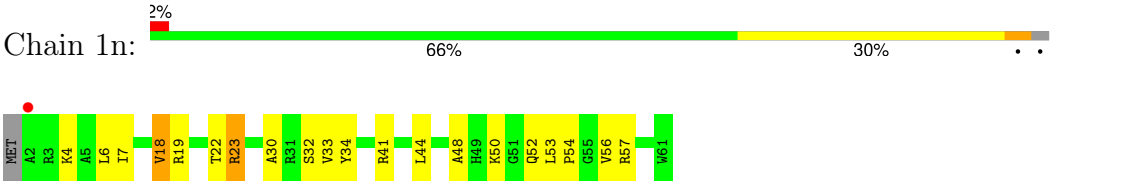
• Molecule 46: 30S ribosomal protein S13

Chain 2m:



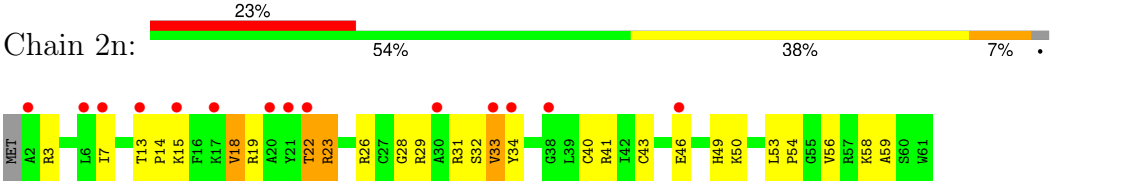
• Molecule 47: 30S ribosomal protein S14 type Z

Chain 1n:



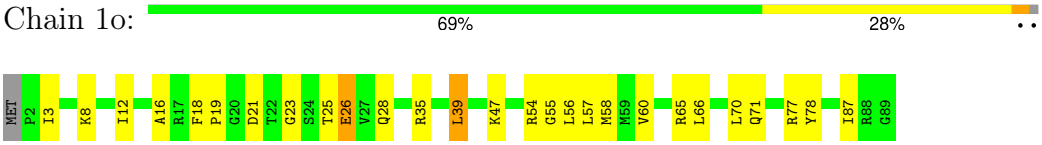
• Molecule 47: 30S ribosomal protein S14 type Z

Chain 2n:



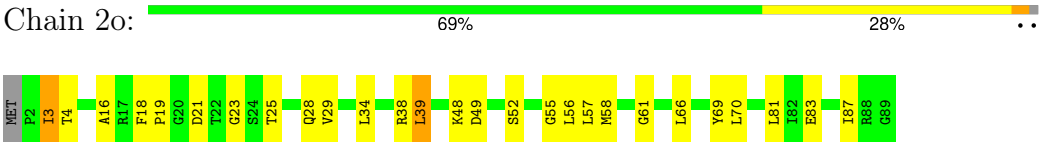
• Molecule 48: 30S ribosomal protein S15

Chain 1o:



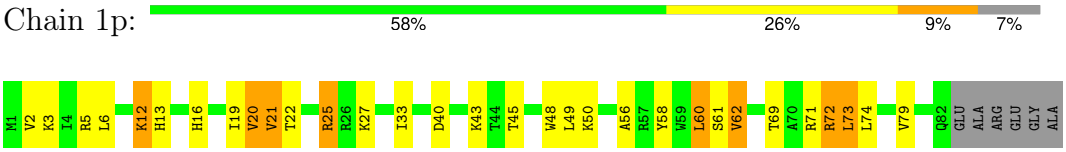
• Molecule 48: 30S ribosomal protein S15

Chain 2o:



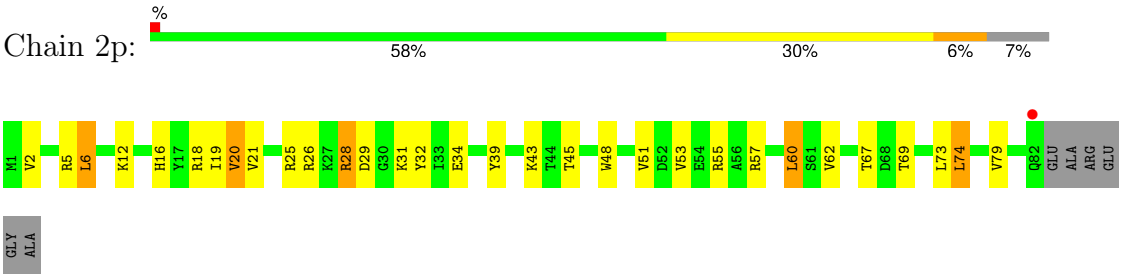
• Molecule 49: 30S ribosomal protein S16

Chain 1p:



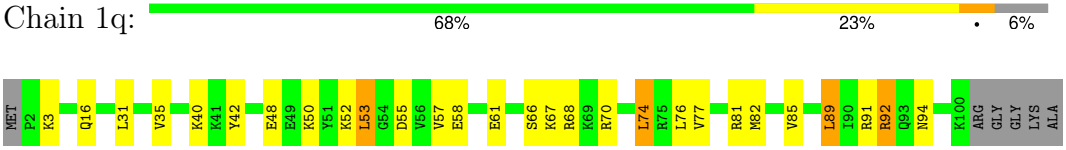
• Molecule 49: 30S ribosomal protein S16

Chain 2p:



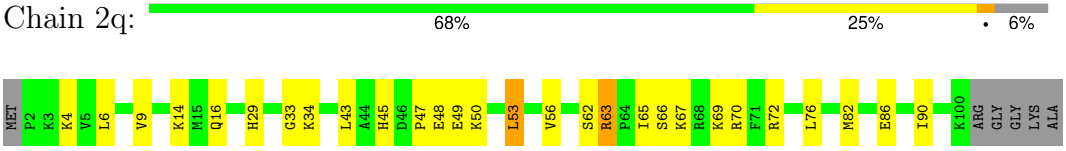
• Molecule 50: 30S ribosomal protein S17

Chain 1q:



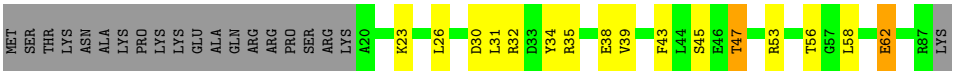
• Molecule 50: 30S ribosomal protein S17

Chain 2q:



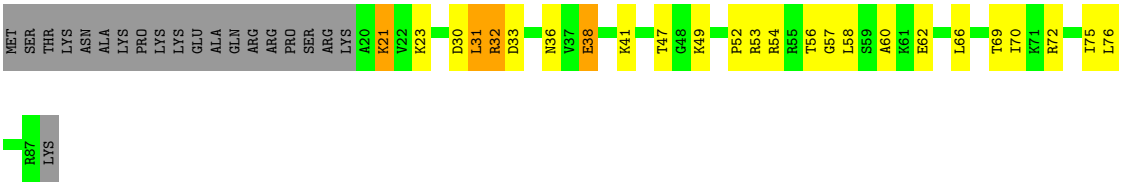
• Molecule 51: 30S ribosomal protein S18

Chain 1r:



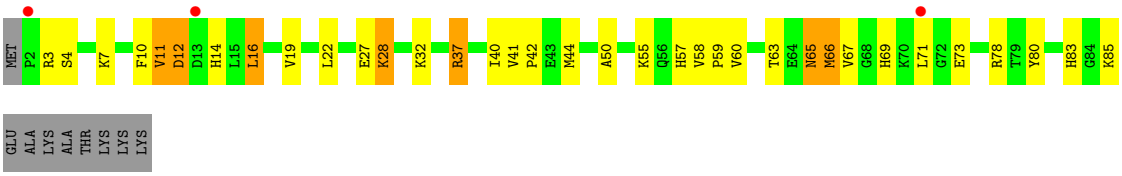
• Molecule 51: 30S ribosomal protein S18

Chain 2r:



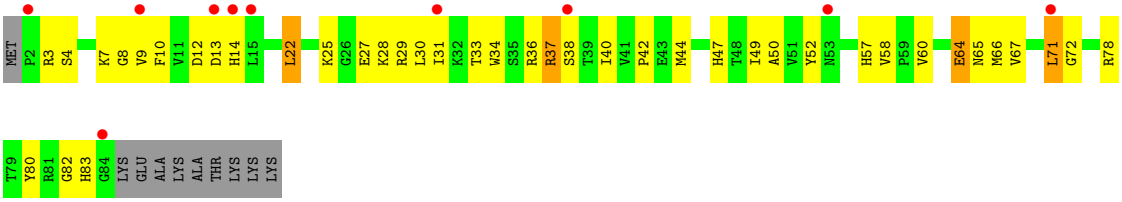
• Molecule 52: 30S ribosomal protein S19

Chain 1s:



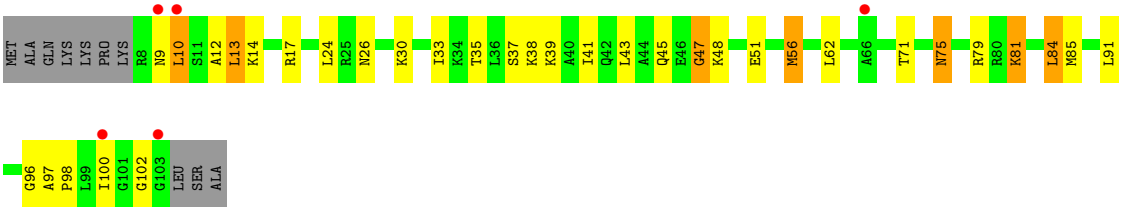
• Molecule 52: 30S ribosomal protein S19

Chain 2s:



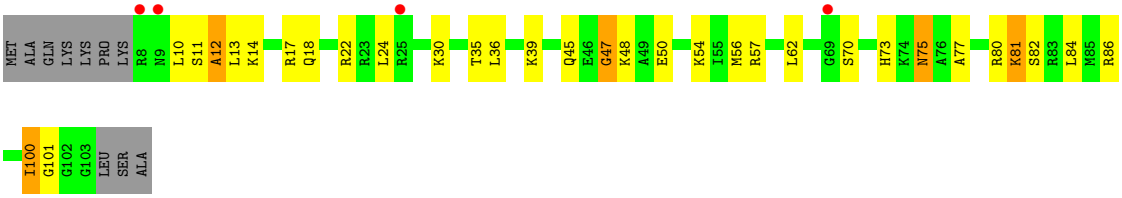
• Molecule 53: 30S ribosomal protein S20

Chain 1t:



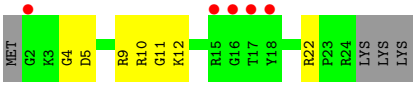
• Molecule 53: 30S ribosomal protein S20

Chain 2t:



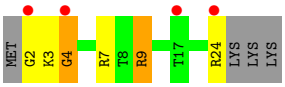
• Molecule 54: 30S ribosomal protein Thx

Chain 1u:



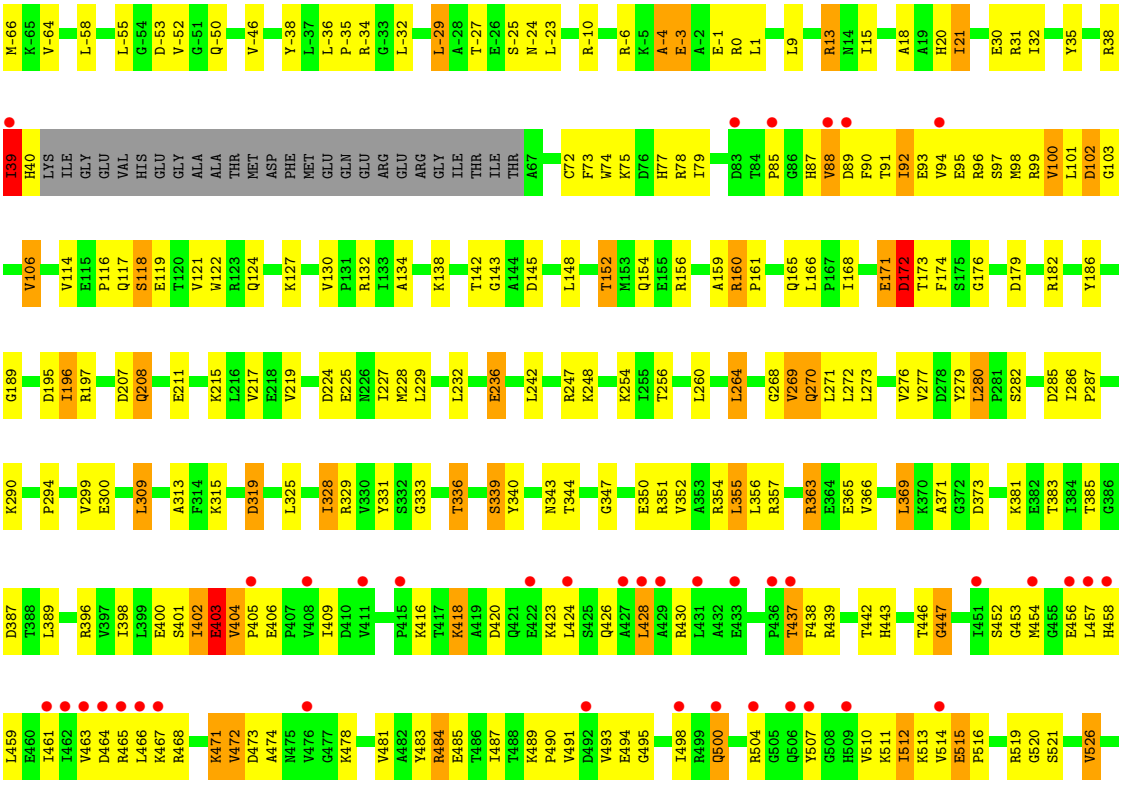
• Molecule 54: 30S ribosomal protein Thx

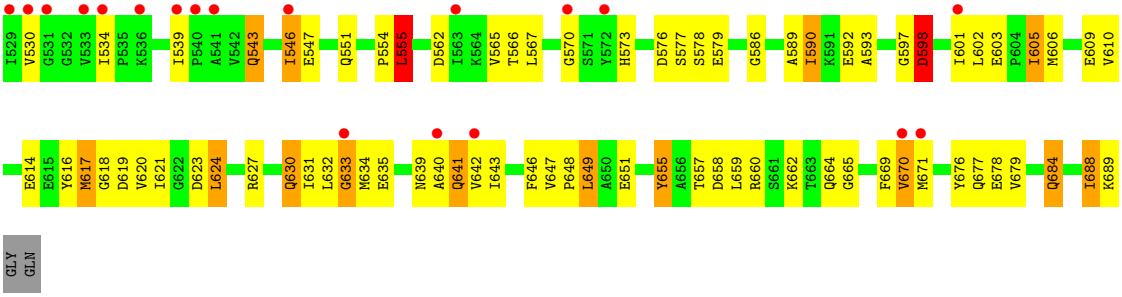
Chain 2u:



• Molecule 55: Chimera protein of 50S ribosomal protein L9 and Elongation factor G

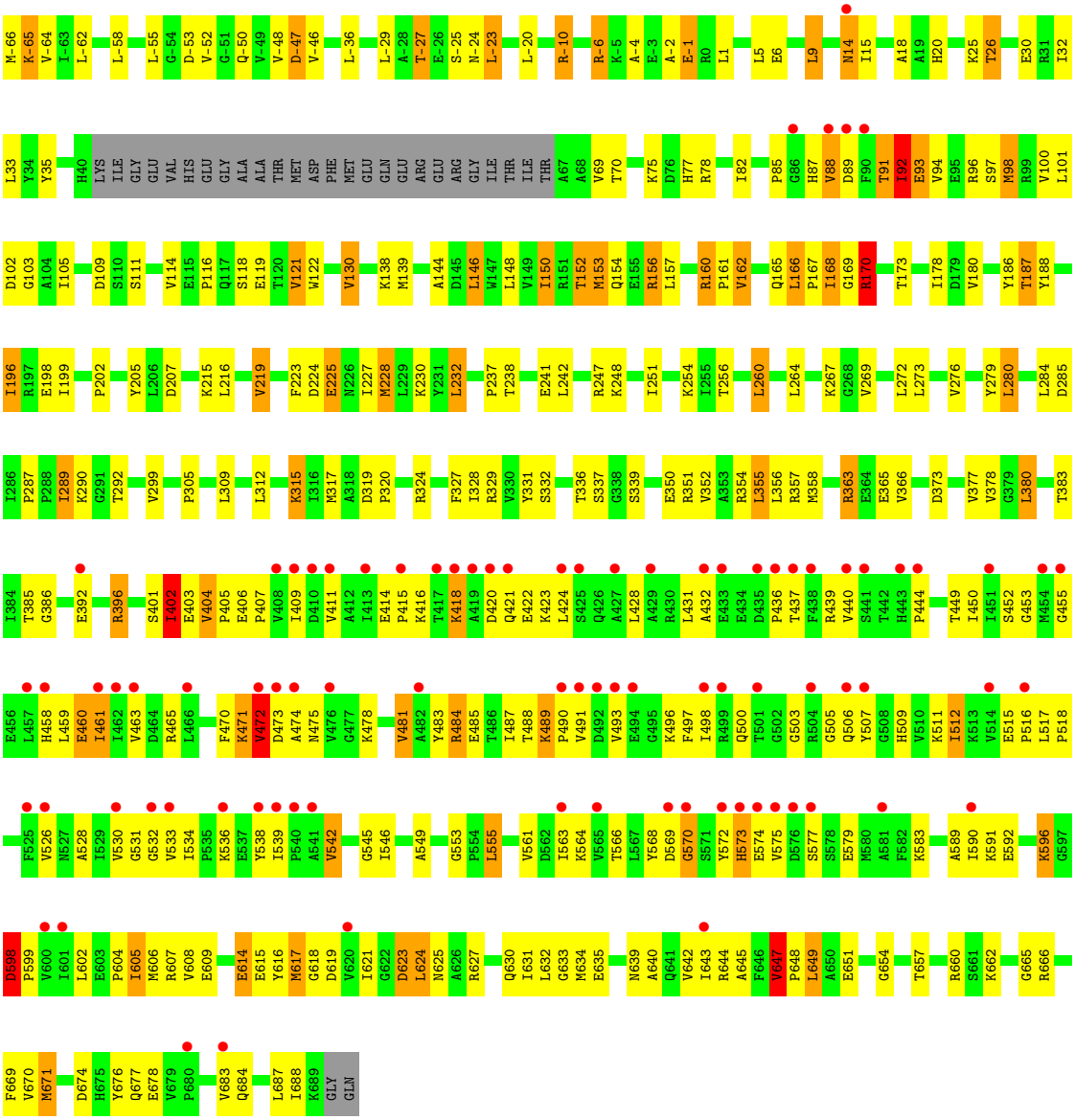
Chain 1z:





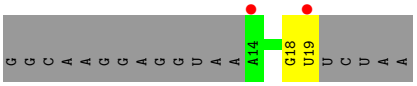
• Molecule 55: Chimera protein of 50S ribosomal protein L9 and Elongation factor G

Chain 2z:



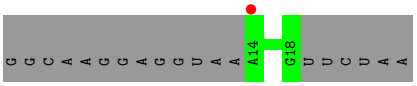
• Molecule 56: mRNA

Chain 1y:



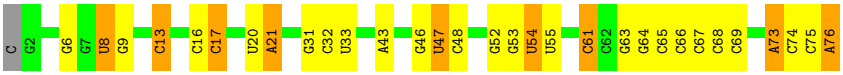
• Molecule 56: mRNA

Chain 2y:



• Molecule 57: P-site tRNA

Chain 1w:

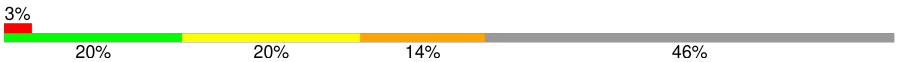


• Molecule 57: P-site tRNA

Chain 2w:

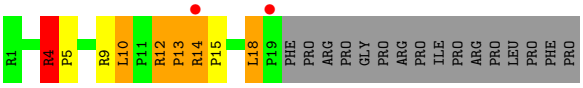
• Molecule 58: Cathelicidin-3

Chain 1x:



• Molecule 58: Cathelicidin-3

Chain 2x:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	208.78Å 449.03Å 619.34Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.48 – 3.00 49.48 – 3.00	Depositor EDS
% Data completeness (in resolution range)	99.3 (49.48-3.00) 99.3 (49.48-3.00)	Depositor EDS
R_{merge}	0.26	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.37 (at 3.01Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.208 , 0.265 0.208 , 0.263	Depositor DCC
R_{free} test set	57205 reflections (4.97%)	wwPDB-VP
Wilson B-factor (Å^2)	55.7	Xtriage
Anisotropy	0.172	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 57.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.44$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	306384	wwPDB-VP
Average B, all atoms (Å^2)	60.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.57% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

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

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	1A	0.32	0/69281	0.45	3/108144 (0.0%)
1	2A	0.25	0/69179	0.43	2/107984 (0.0%)
2	1B	0.27	0/2878	0.48	0/4490
2	2B	0.23	0/2878	0.41	0/4490
3	1C	0.72	1/1038 (0.1%)	1.16	8/1403 (0.6%)
3	2C	0.66	0/1038	1.10	8/1403 (0.6%)
4	1D	0.55	0/2186	0.87	2/2944 (0.1%)
4	2D	0.48	0/2192	0.89	0/2951
5	1E	0.54	0/1592	0.89	2/2149 (0.1%)
5	2E	0.46	0/1592	0.88	0/2149
6	1F	0.51	0/1619	0.85	0/2193
6	2F	0.42	0/1615	0.91	6/2188 (0.3%)
7	1G	0.41	0/1450	0.89	4/1959 (0.2%)
7	2G	0.40	0/1449	0.91	4/1958 (0.2%)
8	1H	0.48	0/1356	0.89	3/1834 (0.2%)
8	2H	0.43	0/1356	0.92	0/1834
9	1J	0.49	0/640	1.41	8/889 (0.9%)
9	2J	0.45	0/640	1.61	13/889 (1.5%)
10	1K	0.47	0/504	1.09	6/675 (0.9%)
10	2K	0.67	0/503	1.09	3/673 (0.4%)
11	1L	0.52	0/1144	0.89	4/1543 (0.3%)
11	2L	0.39	0/1144	0.91	3/1543 (0.2%)
12	1M	0.52	0/943	0.87	0/1269
12	2M	0.45	0/943	0.89	0/1269
13	1N	0.49	0/1156	0.87	0/1537
13	2N	0.41	0/1152	0.89	4/1533 (0.3%)
14	1O	0.52	0/1143	0.82	1/1527 (0.1%)
14	2O	0.43	0/1143	0.86	1/1527 (0.1%)
15	1P	0.54	0/982	0.83	1/1312 (0.1%)
15	2P	0.44	0/982	0.81	0/1312
16	1Q	0.46	0/887	0.89	1/1180 (0.1%)
16	2Q	0.39	0/880	0.90	0/1172

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	1R	0.47	0/1105	0.82	0/1477
17	2R	0.41	0/1097	0.86	0/1468
18	1S	0.54	0/977	0.86	1/1301 (0.1%)
18	2S	0.41	0/977	0.80	2/1301 (0.2%)
19	1T	0.48	0/782	0.86	1/1049 (0.1%)
19	2T	0.39	0/782	0.80	0/1049
20	1U	0.55	0/897	0.82	0/1205
20	2U	0.46	0/897	0.81	0/1205
21	1V	0.49	0/764	0.85	1/1025 (0.1%)
21	2V	0.40	0/764	0.85	0/1025
22	1W	0.48	0/819	0.92	4/1095 (0.4%)
22	2W	0.38	0/819	0.90	1/1095 (0.1%)
23	1X	0.44	0/1492	0.94	5/2029 (0.2%)
23	2X	0.44	0/1486	0.98	7/2022 (0.3%)
24	1Y	0.48	0/612	0.85	0/816
24	2Y	0.39	0/609	0.80	0/810
25	1Z	0.47	0/762	0.81	1/1014 (0.1%)
25	2Z	0.42	0/762	0.81	0/1014
26	10	0.47	0/590	0.81	0/781
26	20	0.38	0/590	0.83	0/781
27	11	0.55	0/474	0.90	0/635
27	21	0.40	0/469	0.87	0/630
28	12	0.42	0/571	1.10	7/768 (0.9%)
28	22	0.48	0/545	1.02	4/737 (0.5%)
29	13	0.57	0/469	0.90	0/635
29	23	0.46	0/469	0.86	0/635
30	14	0.54	0/460	0.75	0/613
30	24	0.44	0/456	0.82	0/608
31	15	0.54	0/426	0.85	1/561 (0.2%)
31	25	0.48	0/426	0.87	2/561 (0.4%)
32	16	0.53	0/525	0.85	0/691
32	26	0.45	0/525	0.81	0/691
33	17	0.54	0/310	0.89	0/407
33	27	0.38	0/310	0.82	0/407
34	1a	0.22	0/35976	0.41	0/56145
34	2a	0.22	0/36119	0.41	0/56370
35	1b	0.40	0/1881	1.00	12/2542 (0.5%)
35	2b	0.42	0/1860	0.93	4/2518 (0.2%)
36	1c	0.38	0/1576	0.85	0/2130
36	2c	0.42	0/1568	0.93	5/2122 (0.2%)
37	1d	0.38	0/1689	0.87	2/2267 (0.1%)
37	2d	0.37	0/1708	0.86	4/2289 (0.2%)
38	1e	0.42	0/1145	0.86	1/1543 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	2e	0.42	0/1149	0.92	4/1548 (0.3%)
39	1f	0.44	0/825	0.83	2/1118 (0.2%)
39	2f	0.39	0/833	0.82	2/1128 (0.2%)
40	1g	0.36	0/1250	0.82	0/1679
40	2g	0.37	0/1254	0.90	1/1683 (0.1%)
41	1h	0.39	0/1108	0.88	1/1494 (0.1%)
41	2h	0.37	0/1108	0.92	3/1494 (0.2%)
42	1i	0.37	0/1005	0.85	0/1350
42	2i	0.42	0/997	0.90	0/1343
43	1j	0.41	0/722	1.04	6/982 (0.6%)
43	2j	0.43	0/727	0.94	2/988 (0.2%)
44	1k	0.46	0/848	0.88	2/1149 (0.2%)
44	2k	0.37	0/848	0.90	2/1149 (0.2%)
45	1l	0.41	0/946	0.77	0/1274
45	2l	0.40	0/946	0.91	3/1274 (0.2%)
46	1m	0.35	0/977	0.93	3/1310 (0.2%)
46	2m	0.37	0/961	0.91	4/1291 (0.3%)
47	1n	0.37	0/501	0.84	0/664
47	2n	0.38	0/501	0.90	0/664
48	1o	0.43	0/739	0.90	2/985 (0.2%)
48	2o	0.39	0/739	0.86	2/985 (0.2%)
49	1p	0.40	0/697	0.81	0/939
49	2p	0.39	0/693	0.80	0/935
50	1q	0.41	0/836	0.83	0/1117
50	2q	0.37	0/836	0.87	4/1117 (0.4%)
51	1r	0.37	0/560	0.87	0/746
51	2r	0.37	0/560	0.82	0/746
52	1s	0.37	0/676	0.87	0/911
52	2s	0.40	0/661	0.94	0/893
53	1t	0.40	0/730	0.92	0/965
53	2t	0.39	0/733	0.86	2/969 (0.2%)
54	1u	0.36	0/203	0.84	0/266
54	2u	0.34	0/203	0.79	0/266
55	1z	0.47	0/5792	0.96	14/7844 (0.2%)
55	2z	0.49	0/5792	0.98	25/7844 (0.3%)
56	1y	0.25	0/144	0.41	0/222
56	2y	0.30	0/122	0.47	0/188
57	1w	0.31	0/1725	0.47	0/2689
57	2w	0.29	0/1725	0.45	0/2689
58	1x	0.58	0/175	1.63	8/238 (3.4%)
58	2x	0.54	0/175	1.49	5/238 (2.1%)
All	All	0.34	1/327047 (0.0%)	0.61	249/487364 (0.1%)

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
28	12	0	1

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	1C	62	VAL	CA-C	5.80	1.60	1.52

All (249) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	2J	76	GLY	CA-C-N	20.43	145.37	119.84
9	2J	76	GLY	C-N-CA	20.43	145.37	119.84
9	2J	104	ILE	CA-C-N	12.03	131.48	118.97
9	2J	104	ILE	C-N-CA	12.03	131.48	118.97
9	1J	76	GLY	CA-C-N	12.02	134.87	119.84
9	1J	76	GLY	C-N-CA	12.02	134.87	119.84
55	2z	553	GLY	CA-C-N	10.67	130.34	119.56
55	2z	553	GLY	C-N-CA	10.67	130.34	119.56
58	1x	6	ARG	CA-C-N	9.96	126.93	119.66
58	1x	6	ARG	C-N-CA	9.96	126.93	119.66
9	1J	104	ILE	CA-C-N	9.68	131.93	119.84
9	1J	104	ILE	C-N-CA	9.68	131.93	119.84
9	1J	128	LEU	CA-C-N	8.96	131.15	120.94
9	1J	128	LEU	C-N-CA	8.96	131.15	120.94
1	1A	1149	C	OP1-P-O3'	-8.95	81.15	108.00
55	2z	-23	LEU	N-CA-C	-8.92	104.45	114.62
55	1z	-23	LEU	N-CA-C	-8.89	104.48	114.62
35	1b	128	GLU	N-CA-C	-8.41	101.48	112.41
46	1m	84	ILE	N-CA-C	8.22	119.00	110.62
36	2c	72	LYS	CA-C-N	7.71	127.34	119.56
36	2c	72	LYS	C-N-CA	7.71	127.34	119.56
55	1z	280	LEU	CA-C-N	7.70	127.75	119.90
55	1z	280	LEU	C-N-CA	7.70	127.75	119.90
23	1X	107	THR	CA-C-N	7.67	128.12	119.83
23	1X	107	THR	C-N-CA	7.67	128.12	119.83
58	2x	12	ARG	CA-C-N	7.59	127.58	119.76
58	2x	12	ARG	C-N-CA	7.59	127.58	119.76
1	1A	1149	C	OP2-P-O3'	-7.53	85.40	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	2J	68	LEU	CA-C-N	7.48	129.19	119.84
9	2J	68	LEU	C-N-CA	7.48	129.19	119.84
7	2G	180	PHE	N-CA-C	7.45	119.92	110.61
28	12	40	HIS	CA-C-N	7.40	129.09	119.84
28	12	40	HIS	C-N-CA	7.40	129.09	119.84
3	2C	173	ALA	CA-C-N	7.24	127.41	120.31
3	2C	173	ALA	C-N-CA	7.24	127.41	120.31
35	2b	13	ALA	N-CA-C	7.19	120.70	112.57
55	1z	319	ASP	CA-C-N	7.09	126.79	119.56
55	1z	319	ASP	C-N-CA	7.09	126.79	119.56
39	1f	55	ASP	CA-C-N	7.04	127.02	119.28
39	1f	55	ASP	C-N-CA	7.04	127.02	119.28
43	1j	81	THR	N-CA-C	-7.00	104.86	113.41
7	1G	31	VAL	CA-C-N	6.99	128.58	119.84
7	1G	31	VAL	C-N-CA	6.99	128.58	119.84
3	1C	62	VAL	CB-CA-C	6.99	122.75	111.29
8	1H	11	VAL	N-CA-C	6.95	113.89	107.56
14	2O	61	GLY	N-CA-C	6.95	123.86	112.89
39	2f	95	GLU	CA-C-N	6.92	128.49	119.84
39	2f	95	GLU	C-N-CA	6.92	128.49	119.84
55	2z	461	ILE	N-CA-C	-6.75	106.92	113.53
28	12	52	THR	N-CA-C	-6.69	105.27	113.50
58	1x	3	ILE	N-CA-C	6.61	117.23	110.82
11	1L	110	GLY	CA-C-N	6.59	126.09	119.24
11	1L	110	GLY	C-N-CA	6.59	126.09	119.24
55	2z	280	LEU	CA-C-N	6.55	126.58	119.90
55	2z	280	LEU	C-N-CA	6.55	126.58	119.90
22	1W	55	TYR	CA-C-N	-6.53	113.94	120.21
22	1W	55	TYR	C-N-CA	-6.53	113.94	120.21
3	2C	180	PHE	CA-C-N	6.50	127.08	120.38
3	2C	180	PHE	C-N-CA	6.50	127.08	120.38
28	12	60	GLN	N-CA-C	-6.46	104.54	112.88
7	1G	45	GLU	N-CA-C	-6.46	105.26	113.01
55	2z	572	TYR	N-CA-C	6.43	116.73	108.24
53	2t	11	SER	N-CA-C	-6.43	103.87	112.94
35	2b	233	SER	CA-C-N	6.40	127.84	119.84
35	2b	233	SER	C-N-CA	6.40	127.84	119.84
9	1J	89	ALA	N-CA-C	-6.38	103.94	112.94
48	1o	18	PHE	CA-C-N	6.32	127.74	119.84
48	1o	18	PHE	C-N-CA	6.32	127.74	119.84
48	2o	18	PHE	CA-C-N	6.29	127.70	119.84
48	2o	18	PHE	C-N-CA	6.29	127.70	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	2g	114	ARG	N-CA-C	6.25	117.76	111.07
9	2J	128	LEU	CA-C-N	6.24	127.37	120.45
9	2J	128	LEU	C-N-CA	6.24	127.37	120.45
55	2z	489	LYS	CA-C-N	6.24	126.20	120.03
55	2z	489	LYS	C-N-CA	6.24	126.20	120.03
46	1m	9	ILE	CA-C-N	6.21	127.60	119.84
46	1m	9	ILE	C-N-CA	6.21	127.60	119.84
31	15	47	ARG	N-CA-C	6.19	121.01	112.90
43	1j	57	LYS	N-CA-C	6.19	119.67	111.75
9	2J	85	ASP	CA-C-N	6.14	127.10	119.98
9	2J	85	ASP	C-N-CA	6.14	127.10	119.98
3	1C	62	VAL	CA-C-N	6.11	132.70	121.70
3	1C	62	VAL	C-N-CA	6.11	132.70	121.70
1	1A	2013	G	C2'-C3'-O3'	6.11	118.66	109.50
46	2m	9	ILE	CA-C-N	6.08	127.44	119.84
46	2m	9	ILE	C-N-CA	6.08	127.44	119.84
10	2K	134	MET	N-CA-C	-6.08	105.69	113.23
35	2b	129	GLU	N-CA-C	-6.07	105.73	113.02
55	2z	150	ILE	N-CA-C	6.06	116.24	110.42
3	2C	30	LYS	N-CA-C	-6.05	106.06	113.50
55	1z	287	PRO	CA-C-N	6.04	126.06	119.90
55	1z	287	PRO	C-N-CA	6.04	126.06	119.90
44	2k	38	ASN	CA-C-N	6.01	126.36	119.93
44	2k	38	ASN	C-N-CA	6.01	126.36	119.93
55	2z	684	GLN	N-CA-C	6.01	117.83	111.28
3	1C	67	GLY	N-CA-C	6.00	118.12	110.20
7	2G	45	GLU	N-CA-C	-5.98	105.24	112.54
41	2h	73	ASP	CA-C-N	5.97	128.12	120.89
41	2h	73	ASP	C-N-CA	5.97	128.12	120.89
22	2W	91	GLU	N-CA-C	-5.93	105.53	112.89
7	2G	31	VAL	CA-C-N	5.93	127.25	119.84
7	2G	31	VAL	C-N-CA	5.93	127.25	119.84
36	2c	125	GLU	N-CA-C	-5.92	105.55	112.89
35	1b	23	ARG	N-CA-C	-5.90	103.33	110.88
38	2e	95	ALA	CA-C-N	5.89	127.20	119.84
38	2e	95	ALA	C-N-CA	5.89	127.20	119.84
55	1z	118	SER	N-CA-C	-5.88	104.78	111.07
11	2L	85	ILE	N-CA-C	5.88	114.60	107.61
13	2N	144	GLU	CA-C-N	5.85	126.05	119.90
13	2N	144	GLU	C-N-CA	5.85	126.05	119.90
35	1b	233	SER	CA-C-N	5.83	125.84	119.90
35	1b	233	SER	C-N-CA	5.83	125.84	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	1b	34	ALA	N-CA-C	5.82	116.23	108.38
11	1L	39	ARG	CA-C-N	5.82	125.49	119.56
11	1L	39	ARG	C-N-CA	5.82	125.49	119.56
28	12	51	ASP	N-CA-C	5.79	118.60	109.39
10	1K	122	ALA	N-CA-C	-5.79	106.86	114.04
10	1K	112	MET	CA-C-N	-5.78	113.86	119.87
10	1K	112	MET	C-N-CA	-5.78	113.86	119.87
35	1b	14	GLY	N-CA-C	-5.78	105.55	115.61
13	2N	44	GLY	CA-C-N	5.78	132.10	121.70
13	2N	44	GLY	C-N-CA	5.78	132.10	121.70
3	2C	13	LYS	N-CA-C	-5.75	105.46	112.88
11	2L	110	GLY	CA-C-N	5.73	125.20	119.24
11	2L	110	GLY	C-N-CA	5.73	125.20	119.24
7	1G	127	GLY	N-CA-C	-5.72	107.77	115.21
19	1T	55	ALA	N-CA-C	5.72	117.68	110.24
10	1K	78	ILE	N-CA-C	-5.71	106.83	111.91
23	1X	151	HIS	N-CA-C	5.71	118.22	110.06
5	1E	34	VAL	N-CA-C	-5.69	107.95	113.53
3	1C	185	LEU	N-CA-C	-5.68	106.69	113.97
55	1z	543	GLN	N-CA-C	-5.68	105.01	111.14
9	1J	6	ASN	N-CA-C	-5.67	106.22	113.02
50	2q	29	HIS	CA-C-N	5.67	126.92	119.84
50	2q	29	HIS	C-N-CA	5.67	126.92	119.84
58	1x	7	PRO	CA-C-N	5.66	125.99	119.93
58	1x	7	PRO	C-N-CA	5.66	125.99	119.93
45	2l	119	LYS	N-CA-C	-5.65	103.24	110.53
55	2z	596	LYS	N-CA-C	-5.65	106.28	112.72
38	1e	103	GLY	N-CA-C	-5.64	106.12	112.33
9	2J	6	ASN	N-CA-C	-5.64	106.61	112.93
6	2F	21	ALA	CA-C-N	5.64	131.85	121.70
6	2F	21	ALA	C-N-CA	5.64	131.85	121.70
38	2e	127	ASN	CA-C-N	5.63	125.10	119.24
38	2e	127	ASN	C-N-CA	5.63	125.10	119.24
25	1Z	67	ILE	CB-CA-C	-5.60	108.38	113.70
41	2h	19	VAL	N-CA-C	-5.60	107.53	112.90
18	1S	9	VAL	N-CA-C	5.59	115.79	110.42
28	22	40	HIS	CA-C-N	5.58	126.82	119.84
28	22	40	HIS	C-N-CA	5.58	126.82	119.84
37	1d	171	GLY	CA-C-N	5.58	125.94	119.47
37	1d	171	GLY	C-N-CA	5.58	125.94	119.47
10	1K	85	GLU	N-CA-C	-5.56	106.62	113.41
37	2d	188	LEU	CA-C-N	5.56	125.56	119.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	2d	188	LEU	C-N-CA	5.56	125.56	119.89
6	2F	9	ILE	N-CA-C	5.55	114.60	108.05
58	2x	4	ARG	CA-C-N	5.54	125.47	119.76
58	2x	4	ARG	C-N-CA	5.54	125.47	119.76
3	1C	184	LYS	N-CA-C	-5.52	105.17	113.89
58	1x	16	ARG	CA-C-N	5.51	125.22	119.82
58	1x	16	ARG	C-N-CA	5.51	125.22	119.82
10	1K	103	GLN	N-CA-C	-5.50	106.52	113.18
22	1W	106	LEU	N-CA-C	-5.50	106.42	114.39
8	1H	28	GLY	CA-C-N	5.47	125.29	119.28
8	1H	28	GLY	C-N-CA	5.47	125.29	119.28
10	2K	98	ARG	N-CA-C	5.47	115.76	108.38
23	2X	14	LYS	CA-C-N	5.44	125.27	119.28
23	2X	14	LYS	C-N-CA	5.44	125.27	119.28
3	2C	62	VAL	CA-C-N	5.41	131.44	121.70
3	2C	62	VAL	C-N-CA	5.41	131.44	121.70
55	1z	633	GLY	N-CA-C	5.40	118.95	110.91
35	1b	17	PHE	N-CA-C	5.39	122.29	110.80
55	2z	570	GLY	N-CA-C	5.38	118.44	110.63
5	1E	89	ASP	N-CA-C	-5.36	106.11	113.30
6	2F	9	ILE	CA-C-N	5.35	125.27	119.76
6	2F	9	ILE	C-N-CA	5.35	125.27	119.76
55	1z	655	TYR	N-CA-C	-5.34	105.62	111.82
23	2X	100	VAL	CA-C-N	5.32	126.49	119.84
23	2X	100	VAL	C-N-CA	5.32	126.49	119.84
3	1C	26	ALA	N-CA-C	-5.31	106.69	114.39
35	1b	9	GLU	N-CA-C	5.31	122.11	110.80
55	1z	403	GLU	N-CA-C	5.30	122.09	110.80
28	22	59	PHE	CA-C-N	5.29	131.22	121.70
28	22	59	PHE	C-N-CA	5.29	131.22	121.70
3	1C	62	VAL	CA-C-O	-5.28	114.18	120.78
55	2z	608	VAL	N-CA-C	5.26	115.47	108.11
35	1b	231	GLU	CA-C-N	-5.25	113.27	119.84
35	1b	231	GLU	C-N-CA	-5.25	113.27	119.84
18	2S	102	GLU	CA-C-N	5.25	124.88	119.05
18	2S	102	GLU	C-N-CA	5.25	124.88	119.05
35	1b	88	ALA	N-CA-C	-5.24	106.79	114.39
41	1h	122	ARG	N-CA-C	-5.24	105.68	111.71
58	1x	7	PRO	N-CA-C	5.24	115.50	110.47
37	2d	171	GLY	CA-C-N	5.24	125.55	119.47
37	2d	171	GLY	C-N-CA	5.24	125.55	119.47
55	2z	598	ASP	CA-C-N	5.23	127.31	120.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2z	598	ASP	C-N-CA	5.23	127.31	120.25
36	2c	202	ILE	N-CA-C	5.23	115.51	107.77
43	1j	76	ASN	CA-C-N	5.22	126.36	119.84
43	1j	76	ASN	C-N-CA	5.22	126.36	119.84
44	1k	38	ASN	CA-C-N	5.21	125.50	119.93
44	1k	38	ASN	C-N-CA	5.21	125.50	119.93
28	12	28	LYS	CA-C-N	5.19	124.64	119.24
28	12	28	LYS	C-N-CA	5.19	124.64	119.24
23	2X	129	SER	CA-C-N	5.19	125.49	119.47
23	2X	129	SER	C-N-CA	5.19	125.49	119.47
1	2A	1699	G	C2'-C3'-O3'	5.19	117.28	109.50
1	2A	2013	G	C2'-C3'-O3'	5.18	117.28	109.50
6	2F	71	GLY	N-CA-C	-5.18	108.17	115.32
55	2z	678	GLU	N-CA-C	5.17	118.38	110.20
15	1P	38	VAL	CB-CA-C	-5.16	108.89	114.35
23	2X	33	LEU	N-CA-C	5.15	117.24	109.41
10	2K	124	ALA	N-CA-C	-5.15	107.17	113.50
55	2z	542	VAL	N-CA-C	-5.15	107.40	113.42
55	2z	121	VAL	N-CA-C	-5.15	105.52	110.72
43	1j	38	ILE	CA-C-N	5.14	126.27	119.84
43	1j	38	ILE	C-N-CA	5.14	126.27	119.84
45	2l	30	ALA	CA-C-N	5.13	124.74	119.05
45	2l	30	ALA	C-N-CA	5.13	124.74	119.05
55	2z	287	PRO	CA-C-N	5.13	125.13	119.90
55	2z	287	PRO	C-N-CA	5.13	125.13	119.90
43	2j	76	ASN	CA-C-N	5.12	126.24	119.84
43	2j	76	ASN	C-N-CA	5.12	126.24	119.84
58	2x	13	PRO	N-CA-C	5.12	119.12	111.14
55	2z	92	ILE	N-CA-C	-5.10	98.74	109.34
36	2c	19	GLU	N-CA-C	-5.09	107.11	113.38
55	2z	647	VAL	CA-C-N	5.09	125.33	119.83
55	2z	647	VAL	C-N-CA	5.09	125.33	119.83
14	1O	22	LYS	N-CA-C	-5.09	105.64	111.14
21	1V	69	TYR	N-CA-C	5.08	116.89	108.20
55	2z	168	ILE	N-CA-C	5.08	115.65	106.61
4	1D	120	GLY	CA-C-N	5.07	124.68	119.56
4	1D	120	GLY	C-N-CA	5.07	124.68	119.56
55	1z	102	ASP	N-CA-C	-5.05	108.14	114.56
23	1X	129	SER	CA-C-N	5.05	125.32	119.47
23	1X	129	SER	C-N-CA	5.05	125.32	119.47
22	1W	92	ASN	N-CA-C	5.04	117.16	111.11
9	2J	32	LEU	CA-C-N	5.04	126.14	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	2J	32	LEU	C-N-CA	5.04	126.14	119.84
46	2m	40	ASN	CA-C-N	5.04	124.65	119.56
46	2m	40	ASN	C-N-CA	5.04	124.65	119.56
55	1z	270	GLN	N-CA-C	-5.02	105.89	111.36
50	2q	63	ARG	CA-C-N	5.01	125.30	119.93
50	2q	63	ARG	C-N-CA	5.01	125.30	119.93
53	2t	12	ALA	N-CA-C	-5.01	106.00	111.82
16	1Q	59	LYS	N-CA-C	5.01	121.47	110.80
35	1b	127	ILE	N-CA-C	5.01	117.21	108.90
31	25	6	GLN	CA-C-N	5.00	125.28	119.93
31	25	6	GLN	C-N-CA	5.00	125.28	119.93

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	12	59	PHE	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	1A	61861	0	31188	760	0
1	2A	61771	0	31145	918	0
2	1B	2573	0	1306	24	0
2	2B	2573	0	1306	24	0
3	1C	1020	0	1013	57	0
3	2C	1020	0	1013	71	0
4	1D	2136	0	2218	48	0
4	2D	2142	0	2229	58	0
5	1E	1559	0	1618	39	0
5	2E	1559	0	1618	49	0
6	1F	1584	0	1625	48	0
6	2F	1580	0	1619	55	0
7	1G	1425	0	1443	42	0
7	2G	1424	0	1434	51	0
8	1H	1330	0	1407	23	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	2H	1330	0	1407	34	0
9	1J	641	0	309	13	0
9	2J	641	0	309	10	0
10	1K	499	0	521	22	0
10	2K	498	0	521	42	0
11	1L	1117	0	1184	16	0
11	2L	1117	0	1184	29	0
12	1M	933	0	996	24	0
12	2M	933	0	996	21	0
13	1N	1139	0	1223	32	0
13	2N	1135	0	1212	40	0
14	1O	1122	0	1179	24	0
14	2O	1122	0	1179	40	0
15	1P	968	0	1033	25	0
15	2P	968	0	1033	35	0
16	1Q	877	0	938	13	0
16	2Q	870	0	923	25	0
17	1R	1091	0	1151	24	0
17	2R	1083	0	1136	34	0
18	1S	959	0	1019	12	0
18	2S	959	0	1019	25	0
19	1T	771	0	830	10	0
19	2T	771	0	830	14	0
20	1U	886	0	940	18	0
20	2U	886	0	940	17	0
21	1V	750	0	814	14	0
21	2V	750	0	814	19	0
22	1W	806	0	881	19	0
22	2W	806	0	881	19	0
23	1X	1460	0	1463	35	0
23	2X	1454	0	1452	53	0
24	1Y	604	0	619	13	0
24	2Y	602	0	616	16	0
25	1Z	755	0	826	21	0
25	2Z	755	0	826	19	0
26	10	588	0	643	12	0
26	20	588	0	643	16	0
27	11	469	0	518	7	0
27	21	464	0	514	14	0
28	12	558	0	544	22	0
28	22	532	0	503	24	0
29	13	455	0	465	7	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	23	455	0	465	14	0
30	14	453	0	473	6	0
30	24	449	0	469	10	0
31	15	418	0	467	11	0
31	25	418	0	467	9	0
32	16	517	0	582	16	0
32	26	517	0	582	23	0
33	17	307	0	335	5	0
33	27	307	0	335	8	0
34	1a	32141	0	16223	454	0
34	2a	32268	0	16287	475	0
35	1b	1846	0	1867	75	0
35	2b	1825	0	1828	83	0
36	1c	1552	0	1546	47	0
36	2c	1544	0	1524	66	0
37	1d	1659	0	1676	48	0
37	2d	1678	0	1718	54	0
38	1e	1129	0	1185	36	0
38	2e	1133	0	1191	36	0
39	1f	812	0	804	25	0
39	2f	820	0	814	18	0
40	1g	1231	0	1238	24	0
40	2g	1235	0	1249	31	0
41	1h	1088	0	1126	35	0
41	2h	1088	0	1126	31	0
42	1i	986	0	995	46	0
42	2i	978	0	966	36	0
43	1j	709	0	650	32	0
43	2j	714	0	672	34	0
44	1k	833	0	836	18	0
44	2k	833	0	836	17	0
45	1l	930	0	980	15	0
45	2l	930	0	980	29	0
46	1m	966	0	1024	25	0
46	2m	950	0	988	38	0
47	1n	492	0	529	15	0
47	2n	492	0	529	23	0
48	1o	728	0	760	17	0
48	2o	728	0	760	14	0
49	1p	681	0	697	22	0
49	2p	677	0	686	18	0
50	1q	823	0	891	23	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
50	2q	823	0	891	16	0
51	1r	555	0	618	12	0
51	2r	555	0	618	18	0
52	1s	661	0	675	30	0
52	2s	646	0	644	28	0
53	1t	728	0	798	24	0
53	2t	731	0	807	20	0
54	1u	199	0	208	5	0
54	2u	199	0	208	5	0
55	1z	5690	0	5783	221	0
55	2z	5690	0	5783	207	0
56	1y	129	0	65	2	0
56	2y	109	0	55	0	0
57	1w	1625	0	829	14	0
57	2w	1625	0	829	19	0
58	1x	168	0	195	17	0
58	2x	168	0	195	13	0
59	10	2	0	0	0	0
59	11	1	0	0	0	0
59	13	3	0	0	0	0
59	14	1	0	0	0	0
59	15	2	0	0	0	0
59	16	2	0	0	0	0
59	17	2	0	0	0	0
59	1A	780	0	0	0	0
59	1B	24	0	0	0	0
59	1D	4	0	0	0	0
59	1E	6	0	0	0	0
59	1F	7	0	0	0	0
59	1G	2	0	0	0	0
59	1H	1	0	0	0	0
59	1L	2	0	0	0	0
59	1M	1	0	0	0	0
59	1N	2	0	0	0	0
59	1O	2	0	0	0	0
59	1P	2	0	0	0	0
59	1S	4	0	0	0	0
59	1T	1	0	0	0	0
59	1U	3	0	0	0	0
59	1W	1	0	0	0	0
59	1X	2	0	0	0	0
59	1Y	5	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	1a	204	0	0	0	0
59	1b	1	0	0	0	0
59	1d	2	0	0	0	0
59	1f	1	0	0	0	0
59	1l	3	0	0	0	0
59	1t	1	0	0	0	0
59	1w	6	0	0	0	0
59	1z	1	0	0	0	0
59	23	1	0	0	0	0
59	26	2	0	0	0	0
59	2A	620	0	0	0	0
59	2B	13	0	0	0	0
59	2D	4	0	0	0	0
59	2E	4	0	0	0	0
59	2F	3	0	0	0	0
59	2G	1	0	0	0	0
59	2M	2	0	0	0	0
59	2N	1	0	0	0	0
59	2O	2	0	0	0	0
59	2P	1	0	0	0	0
59	2R	1	0	0	0	0
59	2S	2	0	0	0	0
59	2W	1	0	0	0	0
59	2Y	1	0	0	0	0
59	2a	173	0	0	0	0
59	2d	1	0	0	0	0
59	2f	2	0	0	0	0
59	2j	1	0	0	0	0
59	2l	1	0	0	0	0
59	2n	1	0	0	0	0
59	2q	1	0	0	0	0
59	2t	1	0	0	0	0
59	2w	4	0	0	0	0
59	2z	4	0	0	0	0
60	12	1	0	0	0	0
60	13	1	0	0	0	0
60	14	1	0	0	0	0
60	17	1	0	0	0	0
60	1W	1	0	0	0	0
60	1n	1	0	0	0	0
60	22	1	0	0	0	0
60	23	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	24	1	0	0	0	0
60	27	1	0	0	0	0
60	2W	1	0	0	0	0
60	2n	1	0	0	0	0
61	1d	8	0	0	0	0
61	2d	8	0	0	0	0
62	1z	28	0	12	3	0
62	2z	28	0	12	5	0
63	11	2	0	0	0	0
63	15	2	0	0	1	0
63	16	10	0	0	0	0
63	17	1	0	0	0	0
63	1A	1299	0	0	118	0
63	1B	39	0	0	1	0
63	1D	15	0	0	1	0
63	1E	19	0	0	4	0
63	1F	12	0	0	2	0
63	1G	3	0	0	1	0
63	1H	1	0	0	0	0
63	1M	2	0	0	0	0
63	1N	12	0	0	1	0
63	1O	2	0	0	0	0
63	1P	4	0	0	0	0
63	1Q	1	0	0	0	0
63	1R	2	0	0	0	0
63	1S	4	0	0	0	0
63	1T	1	0	0	0	0
63	1U	2	0	0	0	0
63	1V	3	0	0	0	0
63	1X	2	0	0	0	0
63	1Y	4	0	0	0	0
63	1Z	1	0	0	0	0
63	1a	155	0	0	10	0
63	1d	1	0	0	0	0
63	1j	1	0	0	0	0
63	1l	2	0	0	0	0
63	1o	1	0	0	0	0
63	1p	2	0	0	2	0
63	1w	4	0	0	3	0
63	1x	1	0	0	1	0
63	1z	5	0	0	0	0
63	21	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	24	1	0	0	1	0
63	26	3	0	0	0	0
63	2A	650	0	0	63	0
63	2B	11	0	0	0	0
63	2D	8	0	0	2	0
63	2E	7	0	0	1	0
63	2F	5	0	0	0	0
63	2L	1	0	0	0	0
63	2M	2	0	0	0	0
63	2N	6	0	0	2	0
63	2O	3	0	0	1	0
63	2P	1	0	0	0	0
63	2R	2	0	0	0	0
63	2S	2	0	0	0	0
63	2U	1	0	0	0	0
63	2V	2	0	0	0	0
63	2W	1	0	0	0	0
63	2Y	5	0	0	0	0
63	2Z	2	0	0	0	0
63	2a	122	0	0	19	0
63	2f	1	0	0	0	0
63	2h	1	0	0	0	0
63	2j	1	0	0	0	0
63	2n	1	0	0	0	0
63	2t	1	0	0	0	0
63	2w	2	0	0	2	0
63	2y	1	0	0	0	0
63	2z	1	0	0	0	0
All	All	306384	0	207797	5155	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 10.

All (5155) 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)
34:2a:1238:A:H61	34:2a:1260:U:H1'	1.10	1.10
34:2a:976:G:H1	34:2a:1026:C:H42	1.04	1.02
34:2a:978:U:H3	34:2a:1024:A:N6	1.56	1.01
1:1A:1828:U:H5'	4:1D:259:THR:HG22	1.48	0.95
1:2A:2158:C:H42	1:2A:2175:G:H1	0.98	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:478:C:OP1	63:1A:3801:HOH:O	1.86	0.94
14:2O:62:GLY:HA2	23:2X:116:VAL:HG21	1.49	0.94
55:1z:99:ARG:NH1	55:1z:401:SER:O	2.02	0.93
1:1A:1006:G:OP1	63:1A:3802:HOH:O	1.86	0.93
58:2x:14:ARG:HB3	58:2x:15:PRO:HA	1.50	0.92
1:1A:1355:G:OP2	31:15:9:ARG:NH1	2.04	0.91
34:1a:1141:C:H5	34:1a:1163:G:H1	1.10	0.90
34:2a:975:U:H3	34:2a:1027:A:H61	1.19	0.90
1:1A:2154:G:N3	1:1A:2179:A:N6	2.20	0.90
34:1a:1480:A:H2	34:1a:1483:G:H1	1.16	0.90
1:1A:1064:U:HO2'	1:1A:1066:A:H2	1.05	0.90
1:2A:2158:C:N4	1:2A:2175:G:H1	1.68	0.89
34:2a:978:U:H3	34:2a:1024:A:H61	0.90	0.89
1:1A:1058:C:OP2	63:1A:3803:HOH:O	1.91	0.88
1:1A:1735:A:H62	1:1A:1744:A:H2	1.22	0.88
43:1j:35:SER:HB3	43:1j:73:ASP:HB2	1.54	0.88
1:2A:183:A:N7	63:2A:4903:HOH:O	2.07	0.87
34:2a:661:U:H3	34:2a:697:G:H22	1.23	0.87
35:2b:185:ILE:HG22	35:2b:199:TYR:HB2	1.56	0.87
34:2a:1069:U:H3	34:2a:1082:G:H22	1.19	0.86
1:2A:2155:A:H62	1:2A:2178:G:H4'	1.41	0.86
1:2A:1735:A:H62	1:2A:1744:A:H2	1.23	0.86
1:1A:1054:A:OP2	11:1L:37:LYS:NZ	2.08	0.86
17:1R:55:ASN:H	17:1R:59:THR:HG22	1.40	0.86
1:1A:655:A:OP1	13:1N:65:ARG:NH1	2.09	0.85
1:2A:1649:C:OP2	63:2A:4901:HOH:O	1.94	0.85
57:1w:75:C:OP1	63:1w:3101:HOH:O	1.94	0.85
34:1a:900:G:H4'	38:1e:20:GLN:HA	1.57	0.85
1:1A:681:G:H1	1:1A:696:C:H42	1.24	0.85
1:1A:2144:G:H1	1:1A:2196:C:H42	1.23	0.85
55:1z:127:LYS:HZ1	55:1z:404:VAL:HG21	1.39	0.85
1:1A:2456:G:OP1	6:1F:74:ARG:NH2	2.09	0.85
7:2G:80:PHE:O	7:2G:82:LEU:N	2.10	0.85
34:1a:543:A:OP1	38:1e:126:ARG:NH2	2.09	0.84
1:1A:1038:G:OP1	18:1S:50:ARG:NH2	2.09	0.84
13:2N:36:LYS:O	63:2N:301:HOH:O	1.94	0.84
31:15:24:THR:HG22	31:15:27:GLY:H	1.43	0.84
34:2a:640:C:O2'	48:2o:28:GLN:NE2	2.11	0.84
35:1b:16:HIS:O	35:1b:18:GLY:N	2.10	0.83
57:2w:47:U:H4'	57:2w:48:C:H5'	1.60	0.83
12:1M:97:ARG:NH1	34:1a:335:C:OP2	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:1z:319:ASP:OD1	55:1z:363:ARG:NH2	2.12	0.83
34:1a:372:G:H5"	49:1p:5:ARG:HG2	1.59	0.83
44:1k:52:GLY:H	44:1k:55:LYS:HE3	1.42	0.83
55:2z:-66:MET:N	55:2z:-46:VAL:O	2.12	0.83
55:1z:13:ARG:HH12	55:1z:247:ARG:HH22	1.26	0.82
55:1z:89:ASP:HB3	55:1z:458:HIS:HB2	1.59	0.82
1:1A:1112:A:C8	55:1z:633:GLY:HA2	2.14	0.82
7:2G:180:PHE:O	7:2G:182:LYS:N	2.13	0.82
34:2a:389:A:OP2	49:2p:12:LYS:NZ	2.13	0.82
34:2a:976:G:H1	34:2a:1026:C:N4	1.76	0.82
42:2i:51:ARG:HD3	42:2i:56:LEU:HD21	1.62	0.82
1:2A:1991:A:OP1	63:2A:4902:HOH:O	1.98	0.81
1:1A:1316:G:OP2	63:1A:3805:HOH:O	1.98	0.81
1:1A:2585:G:OP1	63:1A:3806:HOH:O	1.98	0.81
35:2b:16:HIS:CD2	35:2b:17:PHE:H	1.98	0.81
1:1A:2510:C:OP1	63:1A:3804:HOH:O	1.97	0.81
3:1C:41:VAL:HA	3:1C:216:THR:HA	1.63	0.80
39:1f:99:ALA:HB1	51:1r:23:LYS:HE3	1.64	0.80
1:1A:1002:U:OP2	14:1O:14:ARG:NH1	2.14	0.80
19:2T:98:GLU:OE1	19:2T:100:ARG:NH1	2.13	0.80
1:1A:2771:G:OP2	63:1A:3807:HOH:O	1.99	0.80
1:2A:2152:G:H4'	1:2A:2153:U:H3'	1.63	0.80
10:1K:134:MET:HG3	10:1K:136:VAL:HG12	1.63	0.80
55:2z:92:ILE:O	55:2z:94:VAL:N	2.13	0.80
1:1A:682:G:N2	1:1A:695:C:O2	2.15	0.80
63:1E:401:HOH:O	15:1P:3:HIS:NE2	2.14	0.80
55:1z:660:ARG:HG2	55:1z:665:GLY:HA2	1.61	0.80
1:2A:1125:C:N4	1:2A:1133:A:OP2	2.15	0.80
1:2A:2144:G:O2'	3:2C:172:HIS:O	2.00	0.79
57:1w:47:U:H4'	57:1w:48:C:H5'	1.63	0.79
1:2A:2296:C:OP2	30:24:6:ARG:NH1	2.15	0.79
5:2E:11:MET:HG2	5:2E:24:THR:HG22	1.63	0.79
55:2z:160:ARG:H	55:2z:160:ARG:HD3	1.47	0.79
3:2C:26:ALA:HB1	3:2C:185:LEU:HB3	1.65	0.79
1:2A:2127:G:O6	1:2A:2204:C:N3	2.15	0.79
30:24:6:ARG:NH2	63:24:5001:HOH:O	2.11	0.79
42:2i:9:ARG:H	42:2i:79:LEU:HD23	1.46	0.79
1:1A:1698:A:OP1	15:1P:8:ARG:NH1	2.15	0.79
28:22:44:THR:O	28:22:46:GLN:N	2.16	0.79
55:2z:238:THR:HG22	55:2z:241:GLU:OE2	1.83	0.79
1:1A:1715:A:OP2	63:1A:3808:HOH:O	1.99	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:208:C:H42	34:1a:212:G:H1	1.31	0.78
55:1z:627:ARG:NH2	55:1z:658:ASP:OD1	2.16	0.78
2:2B:22:U:H3	2:2B:61:G:H1	1.30	0.78
42:2i:28:VAL:HG22	42:2i:63:ILE:HB	1.65	0.78
2:1B:31:C:O2	2:1B:53:A:N6	2.16	0.78
1:1A:1150:U:H2'	1:1A:1151:G:H8	1.48	0.78
16:1Q:27:SER:HA	16:1Q:88:ASP:HB3	1.65	0.78
55:2z:82:ILE:HD12	55:2z:101:LEU:HB3	1.64	0.78
1:2A:2694:C:OP1	17:2R:53:ARG:NH2	2.17	0.78
1:2A:2817:U:O2	1:2A:2900:A:N6	2.15	0.78
1:1A:2694:C:O2	12:1M:70:LYS:NZ	2.15	0.78
1:2A:1765:G:H8	1:2A:1769:A:H62	1.30	0.78
1:2A:2135:A:N6	1:2A:2140:A:N7	2.31	0.78
50:2q:53:LEU:HD23	50:2q:82:MET:HE1	1.65	0.78
34:2a:1112:C:N4	34:2a:1126:G:H1	1.81	0.78
5:2E:28:ALA:HB3	5:2E:93:VAL:HG12	1.65	0.78
43:2j:38:ILE:HD11	43:2j:71:LEU:HD23	1.65	0.78
22:1W:54:LYS:HA	22:1W:56:PRO:HD3	1.66	0.77
1:2A:186:C:OP2	63:2A:4903:HOH:O	2.00	0.77
1:2A:1064:U:H3	1:2A:1187:A:H62	1.31	0.77
1:1A:2529:A:OP2	63:1A:3810:HOH:O	2.02	0.77
7:1G:161:THR:HG23	7:1G:163:ALA:H	1.49	0.77
1:1A:991:G:OP2	63:1A:3811:HOH:O	2.03	0.77
22:1W:92:ASN:HB2	22:1W:94:LYS:H	1.49	0.77
4:2D:221:VAL:HG22	4:2D:226:MET:HE2	1.67	0.77
34:2a:1480:A:H2	34:2a:1483:G:H1	1.32	0.77
42:2i:26:VAL:HG13	42:2i:61:ALA:HB3	1.64	0.77
34:1a:1112:C:H5"	42:1i:16:ARG:HH12	1.49	0.77
42:1i:17:VAL:HG21	42:1i:81:ILE:HG22	1.66	0.77
1:2A:893:U:O4	1:2A:977:A:N6	2.18	0.77
34:2a:488:C:OP1	63:2a:1801:HOH:O	2.02	0.77
1:2A:1112:A:H1'	55:2z:631:ILE:HG12	1.67	0.77
16:2Q:27:SER:HA	16:2Q:88:ASP:HB3	1.64	0.77
13:2N:59:LEU:HD11	32:26:10:ALA:HB2	1.67	0.77
15:2P:33:ARG:NH2	29:23:57:VAL:O	2.18	0.76
35:2b:120:ALA:O	35:2b:122:PHE:N	2.18	0.76
1:1A:1043:C:OP1	63:1A:3812:HOH:O	2.03	0.76
6:1F:185:ASP:HA	6:1F:188:ARG:HD3	1.67	0.76
34:1a:796:C:N3	63:1a:1906:HOH:O	2.17	0.76
34:1a:953:A:H4'	34:1a:954:G:H5"	1.67	0.76
1:1A:1229:C:OP2	63:1A:3809:HOH:O	2.01	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:238:G:OP2	32:16:13:ARG:NH2	2.17	0.76
1:1A:1404:A:H61	1:1A:1417:U:H3	1.34	0.76
55:1z:93:GLU:HA	55:1z:96:ARG:HH12	1.49	0.76
48:1o:26:GLU:OE2	48:1o:77:ARG:NE	2.19	0.76
1:2A:346:G:HO2'	1:2A:1249:U:H3	1.32	0.76
42:1i:46:ALA:HB2	42:1i:74:ILE:HG23	1.68	0.76
1:2A:2197:A:H5'	3:2C:215:THR:HG21	1.67	0.76
1:2A:2298:A:H62	1:2A:2355:U:H3	1.34	0.76
34:2a:320:G:N7	63:2a:1811:HOH:O	2.18	0.76
52:2s:50:ALA:HB1	52:2s:57:HIS:HB3	1.68	0.76
1:1A:324:G:OP2	22:1W:84:ARG:NH2	2.19	0.76
34:1a:522:G:H5"	45:1l:114:LYS:HB2	1.68	0.76
34:1a:640:C:O2'	48:1o:28:GLN:NE2	2.18	0.76
11:2L:123:TYR:HH	11:2L:130:HIS:HE2	1.25	0.76
34:2a:111:G:OP2	63:2a:1802:HOH:O	2.03	0.76
1:2A:1107:G:O2'	10:2K:133:SER:O	2.04	0.76
17:2R:55:ASN:H	17:2R:59:THR:HG22	1.50	0.75
34:1a:77:G:N2	34:1a:87:C:N3	2.35	0.75
3:2C:32:LEU:HD22	3:2C:220:PRO:HD2	1.67	0.75
1:1A:1516:G:N7	63:1A:3872:HOH:O	2.18	0.75
1:2A:1035:A:OP2	63:2A:4904:HOH:O	2.04	0.75
22:2W:23:ARG:HG2	22:2W:42:VAL:HG22	1.67	0.75
1:1A:1150:U:H2'	1:1A:1151:G:C8	2.21	0.75
43:2j:8:LEU:HB2	43:2j:70:ARG:HB2	1.68	0.75
3:2C:40:THR:HA	3:2C:177:LYS:HA	1.68	0.75
1:1A:10:G:H2'	1:1A:11:U:H5"	1.69	0.75
34:1a:1308:C:OP1	54:1u:12:LYS:NZ	2.20	0.75
28:22:16:CYS:SG	28:22:17:GLY:N	2.59	0.75
15:1P:55:ALA:HB2	15:1P:79:LEU:HD13	1.68	0.75
34:2a:900:G:H4'	38:2e:20:GLN:HA	1.69	0.75
1:2A:550:A:OP1	63:2A:4905:HOH:O	2.04	0.74
10:1K:106:GLU:HA	10:1K:109:LYS:HD3	1.68	0.74
34:2a:648:G:H22	34:2a:725:G:H1	1.31	0.74
1:1A:1019:C:OP1	63:1A:3815:HOH:O	2.05	0.74
1:2A:941:A:H5"	23:2X:147:GLY:HA3	1.69	0.74
28:12:15:ILE:HG23	28:12:21:VAL:HG22	1.69	0.74
36:1c:11:ARG:NH2	36:1c:177:THR:O	2.20	0.74
1:2A:1127:U:H1'	10:2K:116:ASN:HB3	1.69	0.74
1:1A:2100:U:OP1	25:1Z:21:ARG:NH2	2.19	0.74
1:2A:1108:G:H4'	10:2K:87:GLY:HA3	1.68	0.74
1:2A:2162:G:O6	1:2A:2171:U:O2	2.06	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2C:163:PHE:HB2	3:2C:171:ILE:HD11	1.70	0.74
39:2f:99:ALA:HB1	51:2r:23:LYS:HE3	1.68	0.74
43:2j:35:SER:HB3	43:2j:73:ASP:HB2	1.68	0.74
1:1A:2298:A:H62	1:1A:2355:U:H3	1.33	0.74
1:1A:2552:A:N7	63:1A:3878:HOH:O	2.19	0.74
45:1l:70:ILE:HG12	45:1l:100:ILE:HD12	1.68	0.74
1:2A:1036:C:OP2	63:2A:4904:HOH:O	2.05	0.74
1:2A:1404:A:H61	1:2A:1417:U:H3	1.36	0.74
1:1A:1113:G:O6	1:1A:1114:A:N6	2.20	0.74
34:1a:402:G:H5'	37:1d:5:ILE:HD11	1.69	0.74
43:1j:57:LYS:HD2	43:1j:60:ARG:HH21	1.52	0.74
1:2A:2815:G:H2'	1:2A:2816:G:C8	2.23	0.74
16:2Q:48:LEU:HD23	16:2Q:82:ILE:HD11	1.68	0.74
34:1a:1335:G:OP1	54:1u:10:ARG:NH1	2.20	0.74
37:2d:191:ARG:NH1	37:2d:191:ARG:O	2.20	0.74
55:2z:415:PRO:HG2	55:2z:418:LYS:HE2	1.69	0.74
1:2A:2671:A:N7	8:2H:175:LYS:NZ	2.36	0.73
23:2X:5:LEU:HG	23:2X:47:VAL:HG21	1.70	0.73
34:2a:1112:C:H42	34:2a:1126:G:H1	1.36	0.73
1:2A:154:C:H42	1:2A:159:G:H1	1.36	0.73
1:2A:2760:A:H5'	8:2H:4:ILE:HD12	1.70	0.73
35:2b:87:ARG:NH2	35:2b:220:ASP:OD1	2.19	0.73
58:2x:9:ARG:HG2	58:2x:10:LEU:HD13	1.69	0.73
1:1A:830:A:OP2	63:1A:3817:HOH:O	2.06	0.73
51:1r:58:LEU:HB3	51:1r:62:GLU:HG3	1.71	0.73
1:2A:2155:A:O2'	1:2A:2180:G:N3	2.21	0.73
34:2a:383:U:OP1	63:2a:1804:HOH:O	2.06	0.73
41:2h:12:ARG:HD3	41:2h:26:VAL:HG12	1.70	0.73
34:1a:881:G:OP1	63:1a:1901:HOH:O	2.04	0.73
34:2a:1447:G:N7	63:2a:1814:HOH:O	2.21	0.73
1:2A:1136:G:O6	1:2A:1145:C:N4	2.21	0.73
5:2E:77:ILE:HD11	5:2E:79:ARG:HH11	1.54	0.73
34:2a:1298:G:H22	34:2a:1301:A:H5'	1.53	0.73
36:1c:62:ASP:HA	36:1c:97:LYS:HG2	1.71	0.73
3:2C:209:LEU:HB2	3:2C:226:PRO:HG2	1.71	0.73
55:2z:357:ARG:NH1	55:2z:373:ASP:OD1	2.21	0.73
1:1A:1283:G:OP2	63:1A:3819:HOH:O	2.07	0.73
28:22:61:ARG:HG3	52:2s:42:PRO:HG3	1.69	0.73
28:22:34:GLU:HG2	46:2m:3:ARG:HB2	1.71	0.73
34:2a:402:G:H5'	37:2d:5:ILE:HD11	1.71	0.73
23:1X:151:HIS:O	23:1X:153:SER:N	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:1q:66:SER:O	50:1q:70:ARG:NH1	2.21	0.73
34:2a:65:G:H4'	34:2a:66:U:H3'	1.69	0.73
34:2a:348:C:OP2	63:2a:1803:HOH:O	2.06	0.73
35:2b:98:LEU:HD23	35:2b:101:MET:HE3	1.69	0.73
25:1Z:51:VAL:HG11	25:1Z:74:VAL:HG21	1.71	0.73
55:1z:92:ILE:HG12	55:1z:405:PRO:HG2	1.69	0.73
34:2a:1238:A:N6	34:2a:1260:U:H1'	1.95	0.73
4:1D:69:ARG:NH2	4:1D:128:GLY:O	2.22	0.72
34:2a:839:G:OP1	41:2h:75:ARG:NH2	2.22	0.72
34:2a:1015:G:H2'	34:2a:1016:G:C8	2.24	0.72
1:1A:1540:A:OP2	63:1A:3816:HOH:O	2.06	0.72
35:2b:178:ARG:HH22	41:2h:68:ARG:HH22	1.34	0.72
1:2A:2226:G:H3'	1:2A:2227:G:H8	1.54	0.72
34:2a:815:U:H3	34:2a:833:G:H1	1.35	0.72
34:2a:1171:C:OP1	43:2j:51:ARG:NH2	2.21	0.72
55:2z:402:ILE:HG23	55:2z:403:GLU:H	1.53	0.72
55:2z:609:GLU:HG2	55:2z:644:ARG:HG2	1.71	0.72
55:1z:336:THR:O	55:1z:339:SER:OG	2.07	0.72
1:1A:2050:G:OP2	63:1A:3814:HOH:O	2.05	0.72
6:1F:90:PHE:N	63:1F:5001:HOH:O	2.19	0.72
34:2a:953:A:H4'	34:2a:954:G:H5"	1.72	0.72
36:2c:71:ALA:HA	36:2c:106:VAL:H	1.55	0.72
42:1i:28:VAL:HG22	42:1i:63:ILE:HB	1.71	0.72
13:2N:63:PRO:HD3	32:26:27:THR:HG22	1.69	0.72
37:2d:111:ALA:HA	37:2d:161:ASN:HD22	1.55	0.72
55:1z:31:ARG:HA	55:1z:31:ARG:HE	1.55	0.72
34:2a:952:A:OP2	47:2n:29:ARG:NH2	2.17	0.72
1:1A:588:U:H5"	13:1N:29:LYS:HE3	1.72	0.72
1:1A:2417:U:OP1	63:1A:3818:HOH:O	2.06	0.72
40:1g:111:ARG:NH2	40:1g:126:ASP:OD2	2.23	0.72
55:1z:171:GLU:O	55:1z:173:THR:N	2.17	0.72
34:1a:207:G:H1	34:1a:213:C:H42	1.34	0.71
4:2D:24:ILE:HG23	4:2D:83:GLU:HA	1.71	0.71
34:2a:961:A:N1	34:2a:1204:G:N2	2.37	0.71
34:1a:262:G:H5"	34:1a:264:C:H41	1.53	0.71
4:2D:238:GLY:O	63:2D:401:HOH:O	2.08	0.71
6:2F:53:THR:HG23	6:2F:55:GLY:H	1.55	0.71
35:2b:187:LEU:HA	35:2b:201:ILE:HB	1.72	0.71
1:1A:1717:U:OP2	63:1A:3820:HOH:O	2.08	0.71
1:2A:894:G:H2'	1:2A:895:A:C8	2.25	0.71
1:2A:1295:G:N7	13:2N:18:ARG:NH2	2.38	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2F:154:VAL:HG12	6:2F:191:ARG:HB2	1.72	0.71
13:2N:42:SER:O	63:2N:302:HOH:O	2.07	0.71
34:2a:293:G:N2	34:2a:296:A:OP2	2.22	0.71
34:2a:1233:A:HO2'	34:2a:1352:C:HO2'	1.32	0.71
12:2M:86:ILE:HG22	12:2M:94:ARG:HG3	1.71	0.71
1:1A:2378:G:N7	63:1A:3895:HOH:O	2.23	0.71
29:23:40:LYS:NZ	29:23:44:THR:O	2.23	0.71
1:1A:1111:U:N3	1:1A:1113:G:OP2	2.23	0.71
34:1a:77:G:N1	34:1a:87:C:N4	2.39	0.71
1:2A:878:G:OP1	63:2A:4907:HOH:O	2.08	0.71
1:2A:1116:G:H1'	1:2A:1134:G:H2'	1.71	0.71
9:2J:49:ALA:H	9:2J:90:ALA:HB1	1.54	0.71
53:2t:57:ARG:HH22	53:2t:100:ILE:HD12	1.56	0.71
1:1A:534:C:OP1	63:1A:3822:HOH:O	2.08	0.71
28:12:61:ARG:HH21	52:1s:42:PRO:HD2	1.55	0.71
1:1A:807:A:N7	63:1A:3900:HOH:O	2.23	0.71
1:2A:807:A:N7	63:2A:4954:HOH:O	2.23	0.71
55:1z:119:GLU:OE1	55:1z:156:ARG:NH1	2.23	0.71
1:2A:1679:G:OP2	63:2A:4906:HOH:O	2.07	0.71
1:1A:330:G:H21	1:1A:353:A:H62	1.36	0.70
1:2A:1099:A:H61	1:2A:1150:U:H3	1.39	0.70
3:1C:163:PHE:HB2	3:1C:171:ILE:HD11	1.72	0.70
58:2x:14:ARG:HB3	58:2x:15:PRO:CA	2.21	0.70
1:1A:878:G:H5'	13:1N:45:LEU:HD21	1.73	0.70
1:2A:1075:G:OP2	14:2O:128:LYS:NZ	2.25	0.70
1:2A:1858:G:OP1	63:2A:4911:HOH:O	2.09	0.70
52:2s:31:ILE:HD12	52:2s:49:ILE:HG12	1.72	0.70
55:2z:488:THR:HB	55:2z:598:ASP:HB3	1.72	0.70
37:1d:162:LEU:HD13	37:1d:181:MET:HG2	1.73	0.70
1:2A:2704:A:H2'	1:2A:2705:G:H8	1.56	0.70
1:2A:2733:A:OP1	63:2A:4908:HOH:O	2.08	0.70
35:2b:69:LEU:HB3	35:2b:162:ILE:HG22	1.71	0.70
1:1A:2132:C:OP2	1:1A:2166:C:N4	2.24	0.70
1:2A:1847:G:OP1	4:2D:88:ARG:NH2	2.24	0.70
36:2c:36:ASP:HA	36:2c:39:ILE:HD12	1.72	0.70
1:1A:186:C:OP2	63:1A:3823:HOH:O	2.08	0.70
55:1z:93:GLU:HA	55:1z:96:ARG:NH1	2.06	0.70
1:2A:1360:C:OP2	63:2A:4909:HOH:O	2.10	0.70
25:2Z:50:ARG:HG2	25:2Z:59:THR:HB	1.73	0.70
1:1A:536:G:N7	63:1A:3822:HOH:O	2.24	0.70
55:1z:402:ILE:HG23	55:1z:403:GLU:H	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:2z:416:LYS:HB2	55:2z:474:ALA:HA	1.73	0.70
34:1a:950:C:O2'	43:1j:55:LYS:O	2.09	0.70
34:1a:1261:A:H4'	34:1a:1263:U:H5	1.55	0.70
39:1f:1:MET:HE3	39:1f:66:GLU:HG2	1.73	0.70
1:2A:786:U:OP2	63:2A:4912:HOH:O	2.10	0.70
1:2A:2441:A:OP2	63:2A:4910:HOH:O	2.08	0.70
14:2O:60:ARG:HH12	14:2O:113:GLN:HE22	1.39	0.70
34:1a:251:G:H1'	50:1q:16:GLN:HE21	1.56	0.70
34:1a:1194:U:H5'	34:1a:1195:A:H5'	1.72	0.70
45:1l:49:ASN:ND2	45:1l:92:ASP:OD2	2.25	0.70
34:1a:274:G:OP2	50:1q:92:ARG:NH2	2.25	0.69
34:1a:402:G:N3	37:1d:119:GLN:NE2	2.39	0.69
1:2A:1698:A:OP1	15:2P:8:ARG:NH1	2.25	0.69
1:2A:2161:C:N3	1:2A:2172:G:O6	2.25	0.69
1:2A:2693:U:OP2	63:2A:4908:HOH:O	2.09	0.69
1:1A:893:U:OP2	63:1A:3825:HOH:O	2.09	0.69
1:1A:1377:G:OP1	63:1A:3824:HOH:O	2.09	0.69
1:2A:1109:C:H5'	10:2K:89:HIS:HD2	1.57	0.69
1:1A:1099:A:H62	1:1A:1150:U:H3	1.39	0.69
13:1N:63:PRO:HD3	32:16:27:THR:HG22	1.74	0.69
35:1b:69:LEU:HB3	35:1b:162:ILE:HG22	1.75	0.69
43:1j:47:PHE:HB2	43:1j:63:PHE:HB2	1.72	0.69
9:2J:27:VAL:HA	9:2J:113:GLN:HA	1.75	0.69
34:1a:493:A:OP2	63:1a:1902:HOH:O	2.09	0.69
57:1w:73:A:H5"	57:1w:74:C:H5'	1.74	0.69
10:2K:119:ASP:OD2	10:2K:119:ASP:N	2.24	0.69
35:2b:104:ASN:ND2	35:2b:107:THR:OG1	2.25	0.69
1:1A:2458:G:OP2	63:1A:3827:HOH:O	2.10	0.69
18:1S:76:TYR:OH	18:1S:92:ARG:NH1	2.24	0.69
1:2A:1614:G:N7	63:2A:4960:HOH:O	2.24	0.69
35:2b:27:LYS:NZ	35:2b:193:ASP:OD1	2.24	0.69
1:1A:1369:G:O6	63:1A:3829:HOH:O	2.10	0.69
34:1a:143:G:H2'	34:1a:144:A:H8	1.56	0.69
1:2A:655:A:OP1	13:2N:65:ARG:NH1	2.25	0.69
34:2a:521:G:H5"	45:2l:113:ARG:HH12	1.58	0.69
42:1i:26:VAL:HG13	42:1i:61:ALA:HB3	1.74	0.69
1:2A:1377:G:OP1	63:2A:4909:HOH:O	2.08	0.69
34:2a:983:A:H2'	34:2a:1021:C:H1'	1.73	0.69
1:1A:1680:A:OP2	63:1A:3826:HOH:O	2.09	0.69
1:1A:2494:C:N3	14:1O:124:LYS:NZ	2.37	0.69
23:1X:19:ARG:NH1	23:1X:84:GLU:O	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:626:A:N3	41:1h:113:SER:OG	2.25	0.69
34:1a:1222:U:OP2	40:1g:116:ALA:N	2.24	0.69
43:1j:55:LYS:O	43:1j:57:LYS:N	2.26	0.69
55:1z:489:LYS:HG2	55:1z:598:ASP:HB2	1.73	0.69
1:2A:541:C:OP1	29:23:16:ARG:NH2	2.25	0.69
1:2A:1127:U:O2'	10:2K:116:ASN:O	2.08	0.69
11:2L:15:LEU:HD12	11:2L:137:LYS:HG2	1.73	0.69
55:2z:517:LEU:HG	55:2z:518:PRO:HD2	1.75	0.69
1:1A:180:C:OP1	63:1A:3832:HOH:O	2.11	0.69
1:1A:2161:C:O2'	1:1A:2173:G:N2	2.25	0.69
34:1a:1006:C:N3	34:1a:1017:G:C6	2.60	0.69
34:1a:1159:G:OP2	42:1i:97:LYS:NZ	2.24	0.69
9:2J:73:GLY:O	9:2J:75:GLN:N	2.26	0.69
34:2a:645:G:H1	34:2a:728:C:H42	1.39	0.69
26:20:1:MET:SD	26:20:56:GLN:NE2	2.66	0.69
1:1A:831:G:OP2	63:1A:3828:HOH:O	2.10	0.68
1:1A:1516:G:N2	1:1A:1567:G:OP2	2.24	0.68
34:1a:1006:C:O2	34:1a:1017:G:N1	2.26	0.68
1:2A:1870:G:OP2	63:2A:4913:HOH:O	2.10	0.68
1:2A:2657:C:OP2	1:2A:2744:G:O2'	2.11	0.68
1:2A:2739:G:O2'	12:2M:70:LYS:NZ	2.26	0.68
3:2C:20:TYR:HB2	3:2C:224:ILE:HG22	1.75	0.68
1:1A:1220:G:N2	1:1A:1222:C:OP2	2.25	0.68
5:1E:76:ARG:HB2	5:1E:77:ILE:HD12	1.75	0.68
9:1J:48:GLY:HA2	9:1J:90:ALA:HB1	1.74	0.68
1:2A:1068:U:OP2	63:2A:4914:HOH:O	2.11	0.68
18:2S:76:TYR:OH	18:2S:92:ARG:NH1	2.26	0.68
21:2V:2:LYS:NZ	21:2V:38:GLU:OE2	2.25	0.68
1:1A:1086:C:H42	1:1A:1159:G:H1	1.39	0.68
34:1a:1101:C:OP1	42:1i:104:ARG:NH1	2.26	0.68
55:1z:483:TYR:O	55:1z:484:ARG:NE	2.24	0.68
1:1A:1911:A:OP2	63:1A:3831:HOH:O	2.11	0.68
1:2A:2848:G:H5'	15:2P:46:GLY:HA2	1.75	0.68
55:2z:225:GLU:HA	55:2z:228:MET:HE3	1.75	0.68
37:1d:13:ARG:NH1	37:1d:38:TYR:O	2.27	0.68
41:1h:73:ASP:OD2	41:1h:75:ARG:NH1	2.27	0.68
34:2a:262:G:H5"	34:2a:264:C:H41	1.58	0.68
46:2m:124:PRO:HB3	55:2z:500:GLN:HG2	1.75	0.68
50:2q:66:SER:O	50:2q:70:ARG:NH1	2.26	0.68
1:1A:1026:A:OP1	63:1A:3834:HOH:O	2.12	0.68
1:2A:2126:C:H42	1:2A:2204:C:H42	1.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2858:U:O4	17:2R:23:ARG:NH2	2.27	0.68
6:1F:18:ARG:NH2	6:1F:127:GLU:OE1	2.26	0.68
17:1R:51:ARG:HG3	17:1R:98:LYS:HD2	1.76	0.68
42:1i:23:ASN:HD22	42:1i:25:LYS:HG2	1.57	0.68
1:2A:1026:A:OP1	63:2A:4917:HOH:O	2.12	0.68
1:2A:1067:G:H22	1:2A:1187:A:H2	1.39	0.68
25:2Z:51:VAL:HG21	25:2Z:74:VAL:HG21	1.75	0.68
34:2a:1004:U:H3	34:2a:1019:G:H1	1.42	0.68
1:1A:448:A:OP2	63:1A:3837:HOH:O	2.12	0.68
1:1A:991:G:OP1	63:1A:3830:HOH:O	2.11	0.68
1:1A:1684:C:OP2	63:1A:3835:HOH:O	2.12	0.68
1:1A:1739:U:O2'	4:1D:14:ARG:NH2	2.27	0.68
1:2A:2327:C:O2'	7:2G:128:ARG:NH2	2.27	0.68
1:2A:2622:U:C4	29:23:3:LYS:HG2	2.28	0.68
35:2b:16:HIS:HB2	35:2b:204:ASN:HB3	1.75	0.68
55:2z:14:ASN:HD22	55:2z:102:ASP:H	1.40	0.68
7:1G:125:PHE:O	63:1G:3101:HOH:O	2.11	0.68
1:2A:2825:C:O3'	15:2P:99:LYS:NZ	2.27	0.68
2:1B:58:A:OP2	63:1B:301:HOH:O	2.11	0.67
57:2w:21:A:H61	57:2w:46:G:H2'	1.60	0.67
2:1B:105:A:OP1	23:1X:72:ARG:NH1	2.27	0.67
42:1i:9:ARG:HG2	42:1i:14:VAL:HA	1.77	0.67
1:2A:1311:G:O2'	1:2A:2033:G:O6	2.06	0.67
1:1A:777:C:OP2	63:1A:3836:HOH:O	2.12	0.67
1:1A:1109:C:N4	1:1A:1115:A:OP1	2.26	0.67
35:1b:88:ALA:HB2	35:1b:219:VAL:HG13	1.76	0.67
55:1z:127:LYS:NZ	55:1z:404:VAL:HG21	2.10	0.67
1:2A:1081:G:H1	1:2A:1164:C:H42	1.41	0.67
1:2A:2144:G:H1'	3:2C:172:HIS:HB2	1.75	0.67
34:2a:109:G:OP1	63:2a:1805:HOH:O	2.11	0.67
3:1C:55:ASP:N	3:1C:55:ASP:OD1	2.27	0.67
55:1z:159:ALA:HB1	55:1z:160:ARG:NH1	2.10	0.67
1:2A:1104:G:O2'	10:2K:126:MET:O	2.10	0.67
1:2A:2184:C:H3'	1:2A:2185:C:H4'	1.77	0.67
1:2A:2275:C:N4	24:2Y:15:ASP:OD2	2.27	0.67
14:2O:60:ARG:H	14:2O:60:ARG:HD3	1.58	0.67
1:1A:1402:U:OP2	63:1A:3838:HOH:O	2.13	0.67
5:1E:110:GLY:O	63:1E:401:HOH:O	2.11	0.67
27:11:8:LEU:HD13	27:11:31:LEU:HD23	1.75	0.67
17:2R:108:ARG:NH2	34:2a:1443:C:OP2	2.23	0.67
45:2l:24:VAL:HG13	45:2l:98:TYR:HE1	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:99:G:OP1	26:10:7:ARG:NH2	2.27	0.67
1:2A:2594:G:OP2	63:2A:4916:HOH:O	2.12	0.67
3:2C:41:VAL:HG22	3:2C:216:THR:HG22	1.76	0.67
34:2a:526:G:OP1	37:2d:10:ARG:NH1	2.27	0.67
38:2e:100:VAL:O	38:2e:107:ARG:NH2	2.27	0.67
25:1Z:3:LYS:HG2	25:1Z:4:VAL:HG23	1.76	0.67
34:1a:954:G:N2	34:1a:1345:C:OP2	2.26	0.67
28:22:59:PHE:HA	28:22:61:ARG:N	2.09	0.67
34:2a:796:C:N3	63:2a:1821:HOH:O	2.26	0.67
34:2a:902:C:O2'	34:2a:1480:A:N6	2.26	0.67
1:1A:2382:G:O6	63:1A:3821:HOH:O	2.08	0.67
6:1F:157:VAL:HB	6:1F:194:MET:HG2	1.76	0.67
38:1e:8:GLU:OE1	38:1e:63:ARG:NH2	2.21	0.67
55:1z:13:ARG:NH1	55:1z:280:LEU:O	2.25	0.67
1:2A:1108:G:H1	1:2A:1120:C:H42	1.42	0.67
1:2A:1814:A:OP2	63:2A:4912:HOH:O	2.12	0.67
1:1A:1716:C:OP1	63:1A:3833:HOH:O	2.12	0.67
46:2m:34:LEU:HD13	46:2m:41:PRO:HB3	1.75	0.67
1:1A:1071:U:OP1	63:1A:3813:HOH:O	2.12	0.67
55:1z:148:LEU:O	55:1z:152:THR:OG1	2.12	0.67
57:1w:8:4SU:O5'	57:1w:8:4SU:H6	1.95	0.67
16:1Q:11:LYS:HG3	16:1Q:91:PRO:HD3	1.77	0.66
34:1a:987:C:H42	34:1a:1000:G:H1	1.40	0.66
1:2A:777:C:OP2	63:2A:4918:HOH:O	2.12	0.66
34:2a:208:C:H42	34:2a:212:G:H1	1.44	0.66
55:2z:-65:LYS:NZ	55:2z:-47:ASP:OD1	2.28	0.66
1:1A:454:A:OP1	63:1A:3839:HOH:O	2.13	0.66
1:1A:2144:G:H1	1:1A:2196:C:N4	1.92	0.66
1:1A:2157:C:N4	1:1A:2176:G:H1	1.92	0.66
1:1A:2613:A:OP1	63:1w:3101:HOH:O	2.12	0.66
1:2A:833:U:OP1	63:2A:4919:HOH:O	2.13	0.66
1:2A:2134:U:H2'	1:2A:2135:A:H8	1.56	0.66
1:1A:2148:G:H21	1:1A:2194:A:H1'	1.59	0.66
1:2A:826:G:OP1	4:2D:218:ARG:NH2	2.29	0.66
35:2b:16:HIS:CG	35:2b:17:PHE:H	2.13	0.66
21:1V:9:LEU:HA	26:10:36:ARG:HH21	1.60	0.66
39:1f:35:ALA:HB2	39:1f:67:MET:HE2	1.77	0.66
1:2A:1198:C:OP1	18:2S:92:ARG:NH1	2.28	0.66
1:2A:1512:G:HO2'	1:2A:1592:C:HO2'	1.40	0.66
1:1A:777:C:OP1	63:1A:3841:HOH:O	2.13	0.66
34:1a:105:G:H5"	49:1p:27:LYS:HG2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:1165:A:O2'	34:1a:1166:G:OP1	2.11	0.66
14:2O:97:VAL:HG11	14:2O:103:MET:HE3	1.77	0.66
34:2a:556:A:OP1	63:2a:1806:HOH:O	2.13	0.66
38:2e:50:GLU:HB2	38:2e:53:LEU:HD13	1.76	0.66
47:2n:23:ARG:NH1	47:2n:28:GLY:O	2.28	0.66
1:1A:2377:A:OP1	63:1A:3845:HOH:O	2.14	0.66
35:1b:155:LEU:HD21	35:1b:159:PRO:HG3	1.78	0.66
43:1j:49:VAL:HG23	47:1n:41:ARG:HB2	1.78	0.66
1:2A:394:C:OP2	63:2A:4921:HOH:O	2.14	0.66
1:2A:1105:U:H5"	10:2K:75:SER:N	2.10	0.66
2:2B:77:U:OP1	23:2X:19:ARG:NH2	2.29	0.66
35:2b:88:ALA:HB2	35:2b:219:VAL:HG13	1.76	0.66
1:1A:8:U:H3	1:1A:2640:A:H2	1.43	0.66
7:2G:41:GLN:HG3	7:2G:60:LEU:HD21	1.78	0.66
15:1P:33:ARG:NH1	15:1P:115:GLU:OE2	2.23	0.66
42:1i:121:ARG:NH1	42:1i:122:ALA:O	2.29	0.66
1:2A:1109:C:N4	1:2A:1115:A:OP2	2.28	0.66
55:2z:148:LEU:O	55:2z:152:THR:OG1	2.14	0.66
52:1s:50:ALA:HB1	52:1s:57:HIS:HB3	1.77	0.66
55:1z:493:VAL:HG21	55:1z:592:GLU:HB3	1.78	0.66
1:2A:2262:G:OP1	63:2A:4920:HOH:O	2.14	0.66
34:2a:750:A:OP2	63:2a:1808:HOH:O	2.14	0.66
40:2g:111:ARG:NH2	40:2g:126:ASP:OD2	2.29	0.66
54:2u:2:GLY:O	54:2u:4:GLY:N	2.24	0.66
1:1A:1070:G:O2'	63:1A:3813:HOH:O	2.03	0.66
34:1a:1112:C:H42	34:1a:1126:G:H1	1.44	0.66
35:1b:93:VAL:HG21	35:1b:97:TRP:HD1	1.59	0.66
41:1h:86:ILE:HG22	41:1h:93:VAL:HG21	1.77	0.66
1:2A:79:G:N7	63:2A:4971:HOH:O	2.28	0.66
34:2a:1252:C:OP2	54:2u:24:ARG:NH2	2.27	0.66
1:1A:2606:G:N7	63:1A:3925:HOH:O	2.28	0.65
1:2A:873:U:OP1	63:2A:4910:HOH:O	2.13	0.65
7:2G:39:ILE:HG13	7:2G:157:ILE:HG12	1.78	0.65
34:2a:975:U:H3	34:2a:1027:A:N6	1.90	0.65
34:2a:981:G:H1	34:2a:1021:C:H42	1.44	0.65
1:1A:1390:C:OP2	63:1A:3840:HOH:O	2.13	0.65
5:1E:143:ASN:HD22	5:1E:147:PRO:HD3	1.61	0.65
17:1R:56:GLY:O	17:1R:59:THR:HG23	1.96	0.65
17:1R:60:THR:HG22	17:1R:77:PRO:HA	1.78	0.65
55:1z:268:GLY:O	55:1z:270:GLN:N	2.27	0.65
1:2A:241:C:O2'	63:2A:4923:HOH:O	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2F:157:VAL:HB	6:2F:194:MET:HG2	1.77	0.65
55:2z:35:TYR:HE2	55:2z:269:VAL:HB	1.61	0.65
1:1A:1294:U:OP1	63:1A:3846:HOH:O	2.14	0.65
3:1C:19:VAL:HG22	3:1C:223:ARG:HD2	1.77	0.65
34:1a:312:G:OP2	34:1a:347:G:O2'	2.15	0.65
23:2X:72:ARG:HG2	23:2X:89:PHE:HB2	1.77	0.65
1:1A:2594:G:OP1	63:1A:3848:HOH:O	2.15	0.65
57:1w:76:A:OP2	63:1w:3101:HOH:O	2.15	0.65
1:2A:154:C:N4	1:2A:159:G:H1	1.94	0.65
1:2A:1638:G:H2'	1:2A:1639:G:C8	2.30	0.65
1:2A:2197:A:H4'	3:2C:44:HIS:CD2	2.32	0.65
20:2U:18:ARG:HG3	20:2U:76:VAL:HB	1.77	0.65
42:2i:46:ALA:HB2	42:2i:74:ILE:HG23	1.78	0.65
11:2L:128:HIS:O	11:2L:131:GLN:NE2	2.29	0.65
28:22:61:ARG:HH22	52:2s:9:VAL:HG21	1.60	0.65
1:1A:475:G:OP2	63:1A:3847:HOH:O	2.14	0.65
1:1A:1105:U:H4'	1:1A:1106:U:H5'	1.79	0.65
34:1a:954:G:H5'	34:1a:1340:U:O2'	1.96	0.65
47:1n:32:SER:HB3	47:1n:41:ARG:HG2	1.78	0.65
5:2E:179:GLU:HB3	5:2E:181:LEU:HD22	1.79	0.65
1:1A:640:G:OP1	6:1F:40:GLN:NE2	2.27	0.65
1:1A:2595:U:O4	63:1A:3842:HOH:O	2.13	0.65
34:1a:1352:C:H2'	34:1a:1353:G:C8	2.32	0.65
35:1b:93:VAL:HG21	35:1b:97:TRP:CD1	2.32	0.65
1:1A:236:G:OP1	63:1A:3851:HOH:O	2.15	0.65
1:1A:725:C:OP1	63:1A:3844:HOH:O	2.14	0.65
34:1a:1006:C:N3	34:1a:1017:G:O6	2.29	0.65
55:1z:602:LEU:HB3	55:1z:676:TYR:HB3	1.78	0.65
1:2A:2696:G:O6	63:2A:4915:HOH:O	2.11	0.65
27:21:5:LYS:HB3	27:21:57:GLU:HG3	1.79	0.65
55:1z:186:TYR:HB3	55:1z:196:ILE:HD11	1.77	0.65
34:2a:485:C:OP1	45:2l:117:ARG:NH2	2.29	0.65
34:2a:521:G:OP1	45:2l:113:ARG:NH2	2.24	0.65
55:2z:9:LEU:HD21	55:2z:284:LEU:HD11	1.79	0.65
1:1A:132:G:N7	63:1A:3939:HOH:O	2.30	0.65
1:2A:2621:C:C4	58:2x:12:ARG:HD2	2.31	0.65
3:2C:47:LEU:HB2	3:2C:49:ILE:HD12	1.80	0.65
22:2W:49:VAL:HG21	22:2W:61:ILE:HG23	1.79	0.65
1:1A:2831:G:OP2	63:1E:401:HOH:O	2.15	0.64
34:1a:1069:U:H3	34:1a:1082:G:H22	1.45	0.64
41:1h:34:GLU:OE1	41:1h:37:ARG:NH1	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2158:C:N3	1:2A:2175:G:N2	2.41	0.64
22:2W:11:ASP:OD2	22:2W:97:ARG:NH2	2.30	0.64
57:2w:3:C:H42	57:2w:70:G:H1	1.45	0.64
1:1A:550:A:OP1	63:1A:3843:HOH:O	2.14	0.64
34:2a:982:G:N2	34:2a:1004:U:O4	2.30	0.64
40:2g:32:ARG:O	40:2g:34:GLY:N	2.25	0.64
45:2l:24:VAL:HG13	45:2l:98:TYR:CE1	2.32	0.64
1:1A:2043:U:O2'	1:1A:2628:C:H5'	1.97	0.64
34:1a:77:G:H1	34:1a:87:C:N4	1.95	0.64
34:1a:423:U:OP1	37:1d:13:ARG:NH2	2.30	0.64
34:1a:1330:U:H4'	42:1i:120:ARG:HD2	1.78	0.64
55:1z:616:TYR:OH	55:1z:664:GLN:NE2	2.28	0.64
1:2A:324:G:OP2	22:2W:84:ARG:NH2	2.29	0.64
1:2A:1288:G:O2'	13:2N:7:ARG:NH2	2.30	0.64
1:2A:1520:C:H2'	1:2A:1521:G:C8	2.33	0.64
1:1A:191:C:OP2	63:1A:3849:HOH:O	2.15	0.64
4:1D:221:VAL:HG22	4:1D:226:MET:HE2	1.78	0.64
10:1K:77:LEU:HB2	10:1K:107:ILE:HG23	1.78	0.64
34:1a:1286:G:OP2	63:1a:1904:HOH:O	2.15	0.64
37:1d:119:GLN:HG2	37:1d:123:HIS:CD2	2.33	0.64
43:1j:40:LEU:HB2	43:1j:69:ASN:HB3	1.79	0.64
1:2A:640:G:OP1	6:2F:40:GLN:NE2	2.26	0.64
35:2b:24:TRP:CZ3	35:2b:26:PRO:HA	2.33	0.64
2:1B:14:U:OP2	2:1B:70:C:O2'	2.15	0.64
3:1C:180:PHE:HB3	3:1C:185:LEU:HD23	1.79	0.64
1:2A:588:U:H5"	13:2N:29:LYS:HE3	1.80	0.64
1:2A:2057:C:OP1	63:2A:4926:HOH:O	2.15	0.64
6:2F:20:LEU:HD13	6:2F:21:ALA:H	1.62	0.64
42:2i:128:ARG:NH2	57:2w:33:U:OP2	2.28	0.64
55:2z:114:VAL:HG23	55:2z:152:THR:HB	1.78	0.64
1:1A:1103:G:H22	1:1A:1126:U:H1'	1.62	0.64
1:1A:1360:C:OP2	63:1A:3824:HOH:O	2.14	0.64
10:1K:115:LEU:HD13	10:1K:117:THR:HG22	1.80	0.64
14:2O:134:ARG:HD2	23:2X:122:ARG:HH21	1.63	0.64
17:2R:56:GLY:O	17:2R:59:THR:HG23	1.97	0.64
20:2U:18:ARG:NH1	20:2U:76:VAL:O	2.30	0.64
34:2a:36:G:O2'	45:2l:118:SER:O	2.12	0.64
49:2p:74:LEU:HD23	49:2p:79:VAL:HG21	1.78	0.64
3:1C:58:VAL:HG11	3:1C:196:LEU:HD12	1.78	0.64
4:1D:17:THR:O	4:1D:211:ARG:NH2	2.31	0.64
14:1O:97:VAL:HG11	14:1O:103:MET:HE3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:1X:183:LEU:HA	23:1X:186:GLU:HB2	1.80	0.64
10:2K:84:LEU:HD23	10:2K:96:VAL:HB	1.78	0.64
55:2z:26:THR:OG1	62:2z:702:GDP:O1B	2.16	0.64
43:1j:11:PHE:HE1	43:1j:67:THR:HG22	1.61	0.64
1:2A:1761:G:H2'	1:2A:1762:G:H8	1.62	0.64
1:2A:2891:A:OP1	15:2P:96:ARG:NE	2.21	0.64
34:2a:46:U:H2'	34:2a:47:G:C8	2.33	0.64
34:2a:657:G:H2'	34:2a:658:G:C8	2.32	0.64
35:2b:178:ARG:NH1	35:2b:196:LEU:O	2.31	0.64
1:1A:481:C:H4'	63:1A:4651:HOH:O	1.97	0.64
1:1A:1153:U:HO2'	1:1A:1154:C:H6	1.44	0.64
1:1A:2226:G:H3'	1:1A:2227:G:H8	1.62	0.64
19:1T:76:LYS:HB2	19:1T:81:TYR:HB3	1.80	0.64
34:1a:104:C:O2'	49:1p:25:ARG:O	2.16	0.64
34:1a:148:C:H42	34:1a:163:G:H1	1.45	0.64
36:1c:58:GLU:HB3	43:1j:92:THR:HG21	1.80	0.64
1:2A:2134:U:H2'	1:2A:2135:A:C8	2.33	0.64
2:2B:13:A:N1	2:2B:69:G:O2'	2.31	0.64
34:1a:614:G:H2'	34:1a:615:G:H8	1.63	0.63
1:2A:2704:A:H2'	1:2A:2705:G:C8	2.33	0.63
34:2a:869:U:OP2	63:2a:1809:HOH:O	2.15	0.63
46:2m:5:ALA:HB3	46:2m:22:ILE:HD12	1.80	0.63
48:2o:39:LEU:HD13	48:2o:56:LEU:HB2	1.79	0.63
1:1A:2123:U:H2'	1:1A:2124:C:H6	1.63	0.63
23:1X:28:MET:HE1	23:1X:67:LEU:HD13	1.80	0.63
55:1z:357:ARG:NH1	55:1z:373:ASP:OD1	2.22	0.63
1:2A:2131:G:O2'	1:2A:2141:G:OP2	2.15	0.63
7:2G:161:THR:HG22	7:2G:163:ALA:H	1.63	0.63
55:2z:264:LEU:HB2	62:2z:702:GDP:C6	2.33	0.63
1:1A:294:C:H42	1:1A:388:G:H1	1.47	0.63
43:1j:38:ILE:HD11	43:1j:71:LEU:HD23	1.81	0.63
1:2A:1830:C:OP2	4:2D:183:ARG:NH2	2.31	0.63
34:2a:285:G:OP2	63:2a:1802:HOH:O	2.15	0.63
17:1R:16:ARG:NH2	17:1R:83:ILE:O	2.31	0.63
34:1a:259:A:OP1	53:1t:79:ARG:NH1	2.32	0.63
55:1z:546:ILE:HD13	55:1z:590:ILE:HB	1.80	0.63
1:1A:138:A:H8	1:1A:1453:C:HO2'	1.44	0.63
1:1A:2204:C:H2'	1:1A:2205:G:H8	1.64	0.63
3:1C:179:SER:HA	3:1C:180:PHE:C	2.23	0.63
6:1F:32:LEU:HB3	6:1F:112:MET:HE1	1.81	0.63
34:2a:1058:C:OP1	35:2b:179:LYS:NZ	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:1126:G:H2'	34:2a:1127:G:H8	1.64	0.63
34:2a:1238:A:OP2	36:2c:26:LYS:NZ	2.31	0.63
36:2c:19:GLU:HB3	36:2c:40:ARG:HH22	1.63	0.63
1:1A:829:A:OP2	63:1A:3850:HOH:O	2.15	0.63
34:1a:950:C:OP1	63:1a:1905:HOH:O	2.16	0.63
34:1a:1171:C:OP1	43:1j:51:ARG:NH2	2.32	0.63
14:2O:61:GLY:HA3	23:2X:178:GLU:HB2	1.81	0.63
17:2R:51:ARG:HG3	17:2R:98:LYS:HE3	1.81	0.63
34:2a:543:A:OP1	38:2e:126:ARG:NH2	2.32	0.63
34:2a:1015:G:H2'	34:2a:1016:G:H8	1.61	0.63
1:1A:2131:G:OP1	1:1A:2139:U:N3	2.30	0.63
2:1B:8:U:O3'	16:1Q:25:ARG:NH2	2.30	0.63
5:1E:47:VAL:HG11	5:1E:86:PRO:HD2	1.80	0.63
17:1R:55:ASN:N	17:1R:59:THR:HG22	2.13	0.63
34:1a:1057:G:O2'	34:1a:1084:A:N1	2.28	0.63
46:1m:58:GLU:O	46:1m:62:ASN:ND2	2.29	0.63
55:1z:350:GLU:OE2	55:1z:383:THR:OG1	2.12	0.63
1:2A:663:U:H2'	1:2A:664:C:C6	2.34	0.63
34:2a:955:A:O2'	34:2a:959:U:N3	2.25	0.63
55:2z:186:TYR:HB3	55:2z:196:ILE:HD11	1.81	0.63
1:1A:2043:U:OP1	63:1A:3852:HOH:O	2.15	0.63
1:1A:2831:G:N7	63:1A:3942:HOH:O	2.30	0.63
36:1c:70:VAL:HG22	36:1c:72:LYS:H	1.64	0.63
1:2A:2799:C:H1'	5:2E:62:PRO:HG3	1.81	0.63
34:2a:1352:C:H2'	34:2a:1353:G:C8	2.34	0.63
38:2e:74:GLY:HA3	38:2e:116:THR:HG22	1.80	0.63
42:2i:16:ARG:HB2	42:2i:64:THR:HG23	1.79	0.63
53:2t:10:LEU:HB3	53:2t:12:ALA:H	1.63	0.63
55:2z:103:GLY:H	55:2z:130:VAL:HG23	1.64	0.63
1:1A:70:U:OP1	63:1A:3854:HOH:O	2.15	0.63
35:1b:127:ILE:HB	35:1b:129:GLU:H	1.63	0.63
43:2j:30:SER:O	43:2j:81:THR:OG1	2.17	0.63
52:2s:12:ASP:O	52:2s:14:HIS:N	2.31	0.63
1:2A:879:U:O2	13:2N:55:ARG:NH2	2.32	0.62
34:2a:983:A:H5'	34:2a:1003:G:H22	1.63	0.62
1:1A:785:G:OP1	63:1A:3853:HOH:O	2.15	0.62
37:1d:157:LEU:O	37:1d:161:ASN:ND2	2.30	0.62
1:2A:1739:U:O2'	4:2D:14:ARG:NH2	2.31	0.62
1:2A:2198:C:H1'	3:2C:170:ALA:HB2	1.81	0.62
1:2A:2238:A:OP2	63:2A:4925:HOH:O	2.15	0.62
3:2C:6:ARG:NH1	3:2C:218:MET:HB2	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2b:51:LEU:HG	35:2b:55:PHE:HE2	1.64	0.62
55:2z:460:GLU:HA	55:2z:463:VAL:HB	1.81	0.62
57:2w:73:A:H5"	57:2w:74:C:H5'	1.81	0.62
55:1z:145:ASP:OD1	55:1z:148:LEU:N	2.32	0.62
55:2z:92:ILE:HD13	55:2z:93:GLU:H	1.64	0.62
55:2z:355:LEU:HB3	55:2z:366:VAL:HG23	1.81	0.62
23:1X:69:THR:HG22	23:1X:90:VAL:HA	1.79	0.62
34:1a:407:A:OP2	37:1d:25:ARG:NH2	2.33	0.62
36:1c:82:GLU:HA	36:1c:85:ARG:HH21	1.63	0.62
1:2A:10:G:H2'	1:2A:11:U:H5"	1.80	0.62
3:2C:43:VAL:HG11	3:2C:193:ILE:HD11	1.80	0.62
4:2D:275:LYS:HA	4:2D:276:LYS:C	2.23	0.62
58:2x:9:ARG:O	58:2x:10:LEU:HB2	1.99	0.62
1:1A:2648:U:H5"	5:1E:82:ARG:HH21	1.65	0.62
34:1a:425:U:OP2	37:1d:36:ARG:NH2	2.32	0.62
41:1h:4:ASP:OD2	41:1h:85:ARG:NH1	2.33	0.62
1:1A:1067:G:OP2	11:1L:65:LYS:NZ	2.33	0.62
1:1A:1098:C:H2'	1:1A:1099:A:H5"	1.82	0.62
34:1a:1009:C:N3	34:1a:1010:G:O2'	2.31	0.62
37:1d:149:ALA:HB3	37:1d:152:SER:HB2	1.81	0.62
55:1z:621:ILE:HD11	55:1z:643:ILE:HG12	1.80	0.62
1:2A:1144:G:H2'	1:2A:1145:C:O4'	1.99	0.62
6:2F:117:ARG:NH2	6:2F:189:THR:O	2.32	0.62
8:2H:88:LEU:HD22	8:2H:165:ALA:HA	1.82	0.62
1:1A:2229:U:O4'	25:1Z:52:ARG:NH2	2.32	0.62
34:1a:1287:G:H22	34:1a:1313:G:H1'	1.64	0.62
1:2A:1835:U:O2	4:2D:50:THR:HB	2.00	0.62
1:2A:2127:G:N1	1:2A:2204:C:O2	2.25	0.62
34:2a:546:C:H1'	45:2l:15:ARG:HB3	1.82	0.62
1:1A:552:A:C2	1:1A:2063:A:H2'	2.34	0.62
1:1A:1724:G:N7	63:1A:3944:HOH:O	2.30	0.62
1:1A:2157:C:H42	1:1A:2176:G:H1	1.46	0.62
3:1C:14:VAL:HG21	3:1C:220:PRO:HB2	1.82	0.62
34:1a:155:A:H61	34:1a:341:C:P	2.23	0.62
34:1a:1329:G:H5"	42:1i:107:ARG:HB2	1.81	0.62
43:1j:17:ASP:OD1	43:1j:70:ARG:NH1	2.32	0.62
52:1s:3:ARG:HH11	52:1s:10:PHE:HB2	1.64	0.62
55:1z:160:ARG:HD3	55:1z:160:ARG:H	1.64	0.62
38:1e:147:ASP:OD1	38:1e:147:ASP:N	2.22	0.62
40:1g:113:GLU:HG2	40:1g:119:ARG:HG2	1.82	0.62
42:1i:53:VAL:O	42:1i:55:ALA:N	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:493:G:N7	31:25:39:ARG:NH2	2.47	0.62
1:2A:1092:G:O2'	1:2A:1154:C:N4	2.33	0.62
1:2A:2363:A:N6	1:2A:2376:G:O2'	2.33	0.62
7:2G:114:ILE:HG23	7:2G:136:ARG:HH22	1.64	0.62
14:2O:57:HIS:HD2	14:2O:117:ALA:HB2	1.64	0.62
34:2a:636:U:O4	34:2a:736:G:O2'	2.15	0.62
34:2a:1112:C:H2'	34:2a:1122:G:N7	2.15	0.62
1:1A:211:A:O2'	1:1A:446:C:O2	2.15	0.61
28:22:61:ARG:O	28:22:63:TYR:N	2.30	0.61
34:2a:18:U:H2'	34:2a:19:C:C6	2.35	0.61
34:2a:340:A:H4'	34:2a:341:C:OP2	1.99	0.61
3:1C:212:VAL:HG21	3:1C:226:PRO:HB3	1.82	0.61
19:1T:72:VAL:HG13	19:1T:85:LYS:HB3	1.81	0.61
1:2A:2338:A:H2'	1:2A:2339:A:C8	2.35	0.61
1:2A:2685:G:H5"	12:2M:26:LYS:HE3	1.82	0.61
13:2N:38:GLN:HG2	13:2N:45:LEU:H	1.65	0.61
23:2X:69:THR:HG22	23:2X:90:VAL:HA	1.82	0.61
34:2a:1291:G:OP1	46:2m:88:ARG:NH2	2.33	0.61
3:1C:40:THR:HG23	3:1C:175:VAL:HG23	1.82	0.61
3:1C:42:GLU:N	3:1C:215:THR:O	2.33	0.61
13:1N:118:GLY:O	13:1N:137:LYS:NZ	2.33	0.61
34:1a:810:C:O2	41:1h:15:ASN:ND2	2.32	0.61
34:2a:1233:A:H2'	34:2a:1234:A:C8	2.35	0.61
35:2b:80:ILE:HD12	35:2b:211:ILE:HG22	1.82	0.61
37:2d:173:TRP:CD2	37:2d:189:PRO:HG3	2.35	0.61
20:1U:18:ARG:HG3	20:1U:76:VAL:HB	1.83	0.61
34:1a:924:A:O2'	34:1a:1315:A:N3	2.30	0.61
34:1a:1006:C:O2	34:1a:1017:G:C2	2.53	0.61
1:2A:1042:G:OP1	18:2S:92:ARG:HG2	2.00	0.61
1:2A:2254:U:H2'	1:2A:2255:U:C6	2.35	0.61
10:2K:99:ILE:O	10:2K:139:VAL:N	2.25	0.61
19:2T:40:LEU:HB2	19:2T:46:VAL:HG13	1.83	0.61
34:2a:1036:G:N7	34:2a:1182:C:H5"	2.15	0.61
37:2d:18:LYS:HG3	37:2d:33:MET:HE2	1.82	0.61
55:2z:5:LEU:HD13	55:2z:305:PRO:HG2	1.82	0.61
55:2z:635:GLU:OE1	55:2z:644:ARG:NH1	2.33	0.61
1:1A:2144:G:H2'	1:1A:2145:G:C8	2.36	0.61
44:1k:82:VAL:HB	44:1k:108:ILE:HG12	1.82	0.61
50:1q:53:LEU:HD23	50:1q:82:MET:HE1	1.81	0.61
55:2z:623:ASP:OD2	55:2z:627:ARG:NE	2.34	0.61
3:1C:175:VAL:HG13	3:1C:176:GLY:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:154:G:N2	34:1a:157:A:OP2	2.34	0.61
55:1z:512:ILE:HD12	55:1z:589:ALA:HB1	1.82	0.61
23:2X:137:ILE:HD13	23:2X:157:LEU:HD22	1.82	0.61
34:2a:63:U:O4	63:2a:1807:HOH:O	2.14	0.61
34:2a:978:U:O2	34:2a:1024:A:N1	2.34	0.61
1:1A:1217:G:O2'	1:1A:1218:A:O4'	2.19	0.61
34:1a:1101:C:OP1	42:1i:9:ARG:NH1	2.32	0.61
34:1a:1164:G:H4'	34:1a:1165:A:H5'	1.82	0.61
1:2A:30:C:OP1	63:2A:4928:HOH:O	2.16	0.61
1:2A:1867:C:O2'	1:2A:1948:A:N3	2.32	0.61
34:2a:1395:C:H2'	34:2a:1396:A:C8	2.36	0.61
36:1c:142:MET:HG3	36:1c:170:GLN:HB2	1.81	0.61
55:1z:127:LYS:HZ3	55:1z:404:VAL:HG11	1.65	0.61
4:1D:37:LEU:HD13	4:1D:62:TYR:HB2	1.83	0.61
13:1N:65:ARG:HG3	32:16:25:MET:HG3	1.82	0.61
36:1c:19:GLU:HB3	36:1c:40:ARG:HH22	1.65	0.61
1:2A:454:A:H3'	1:2A:455:A:H8	1.65	0.61
1:2A:1768:G:H2'	1:2A:1769:A:H8	1.65	0.61
28:22:24:THR:OG1	28:22:25:TYR:N	2.34	0.61
34:2a:143:G:H2'	34:2a:144:A:H8	1.66	0.61
38:2e:122:GLU:O	38:2e:126:ARG:NH1	2.33	0.61
52:2s:4:SER:HB3	52:2s:7:LYS:HG3	1.83	0.61
55:1z:606:MET:SD	55:1z:649:LEU:HG	2.40	0.61
1:2A:235:G:H4'	1:2A:412:G:C5	2.35	0.61
1:2A:846:A:H8	1:2A:846:A:OP1	1.83	0.61
1:1A:1039:C:OP2	18:1S:54:LYS:NZ	2.34	0.60
1:1A:1694:C:OP1	63:1A:3805:HOH:O	2.16	0.60
1:1A:2162:G:N7	1:1A:2172:G:N2	2.49	0.60
34:1a:1410:U:H2'	34:1a:1411:A:C8	2.36	0.60
1:2A:2360:G:OP1	63:2A:4929:HOH:O	2.16	0.60
1:2A:2700:U:H4'	1:2A:2701:C:H5'	1.83	0.60
23:2X:158:PRO:O	23:2X:161:VAL:HG12	2.01	0.60
34:2a:954:G:H5'	34:2a:1340:U:O2'	2.00	0.60
34:2a:976:G:N2	34:2a:1026:C:N3	2.44	0.60
34:2a:1038:A:N7	34:2a:1182:C:N4	2.48	0.60
34:2a:1165:A:O2'	34:2a:1166:G:OP1	2.18	0.60
55:2z:-6:ARG:O	55:2z:-2:ALA:HB3	2.01	0.60
1:1A:1198:C:OP1	18:1S:92:ARG:NH1	2.31	0.60
1:1A:1524:G:H2'	1:1A:1525:G:H8	1.66	0.60
1:2A:1130:A:O2'	1:2A:1149:C:O2	2.19	0.60
1:2A:2740:U:H5'	12:2M:70:LYS:HZ3	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2m:107:ALA:HB3	46:2m:111:LYS:HD3	1.83	0.60
1:1A:1089:G:O2'	1:1A:1156:A:N6	2.34	0.60
28:12:54:GLY:H	28:12:56:VAL:HG22	1.66	0.60
1:2A:264:U:H2'	1:2A:265:C:C6	2.37	0.60
1:2A:354:A:OP1	1:2A:1253:G:N2	2.26	0.60
1:2A:624:G:HO2'	1:2A:626:G:HO2'	1.50	0.60
1:2A:1135:U:H2'	1:2A:1136:G:C8	2.36	0.60
1:2A:1319:A:N1	1:2A:1690:C:O2'	2.34	0.60
23:2X:45:ASP:OD2	23:2X:49:ARG:NH1	2.35	0.60
34:2a:1003:G:H2'	34:2a:1004:U:H5"	1.83	0.60
34:2a:1434:G:O6	53:2t:54:LYS:NZ	2.21	0.60
1:1A:2261:G:OP1	14:1O:85:LYS:NZ	2.30	0.60
1:1A:2335:C:H5"	1:1A:2336:G:H5'	1.82	0.60
34:1a:1300:A:H1'	52:1s:37:ARG:HH21	1.67	0.60
1:2A:2083:A:H62	58:2x:14:ARG:H	1.47	0.60
1:2A:2815:G:H2'	1:2A:2816:G:H8	1.66	0.60
34:2a:75:C:H42	34:2a:89:G:H1	1.50	0.60
34:2a:977:C:H42	34:2a:1025:G:H1	1.49	0.60
1:1A:172:C:H2'	1:1A:173:U:C6	2.36	0.60
1:2A:1104:G:H1	1:2A:1124:C:H42	1.50	0.60
34:2a:648:G:N2	34:2a:725:G:H1	1.98	0.60
41:2h:120:THR:H	41:2h:123:GLU:HB3	1.66	0.60
1:1A:1424:A:H4'	1:1A:1425:G:OP2	2.02	0.60
39:1f:78:GLU:O	39:1f:81:ILE:HG22	2.02	0.60
55:1z:114:VAL:HG23	55:1z:152:THR:HB	1.83	0.60
55:1z:590:ILE:HD13	55:1z:593:ALA:HB3	1.82	0.60
1:2A:1295:G:OP2	13:2N:21:ARG:NH1	2.35	0.60
6:2F:11:VAL:HB	6:2F:18:ARG:HB2	1.82	0.60
34:2a:1126:G:H2'	34:2a:1127:G:C8	2.37	0.60
46:2m:23:TYR:HB3	46:2m:67:GLU:HA	1.82	0.60
55:2z:407:PRO:HD2	55:2z:439:ARG:NH1	2.16	0.60
1:1A:2354:C:OP1	63:1A:3856:HOH:O	2.16	0.60
1:1A:2800:C:OP1	5:1E:61:ARG:NH2	2.33	0.60
34:1a:637:A:OP1	41:1h:56:LYS:NZ	2.35	0.60
1:2A:1479:A:H61	1:2A:1604:A:N6	1.99	0.60
42:2i:47:LEU:HB3	42:2i:50:LEU:HD12	1.82	0.60
45:2l:51:ALA:HB3	45:2l:53:ARG:HE	1.66	0.60
1:1A:425:G:OP2	63:1A:3858:HOH:O	2.17	0.60
1:1A:793:U:O2	1:1A:2035:A:H1'	2.01	0.60
1:1A:1093:A:OP2	1:1A:1154:C:N4	2.35	0.60
1:1A:1404:A:N6	1:1A:1417:U:H3	1.99	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1G:28:VAL:O	7:1G:31:VAL:HG13	2.01	0.60
23:1X:156:LYS:HG3	23:1X:157:LEU:H	1.65	0.60
34:1a:437:C:H42	34:1a:477:G:H1	1.48	0.60
55:1z:355:LEU:HB3	55:1z:366:VAL:HG23	1.84	0.60
57:1w:21:A:H61	57:1w:46:G:H2'	1.67	0.60
1:2A:1232:U:H4'	19:2T:79:VAL:HG22	1.84	0.60
1:2A:1710:A:OP2	63:2A:4927:HOH:O	2.16	0.60
1:2A:2626:U:H2'	1:2A:2627:C:H6	1.65	0.60
3:2C:217:THR:HG22	3:2C:218:MET:HE3	1.84	0.60
26:20:51:ARG:HH21	26:20:55:ARG:HH11	1.49	0.60
36:2c:110:ASN:OD1	36:2c:140:ARG:NH2	2.35	0.60
55:2z:484:ARG:HB3	55:2z:602:LEU:HB2	1.84	0.60
1:1A:1502:G:OP2	63:1A:3857:HOH:O	2.16	0.60
1:1A:2796:C:H1'	5:1E:37:ARG:HH12	1.67	0.60
15:1P:20:LEU:HD21	15:1P:40:LYS:HD3	1.82	0.60
35:1b:77:ALA:HB2	35:1b:211:ILE:HD13	1.83	0.60
50:1q:91:ARG:HA	50:1q:94:ASN:HD22	1.67	0.60
1:2A:955:A:H62	14:2O:12:GLN:HA	1.66	0.60
1:2A:1126:U:N3	1:2A:1127:U:O4	2.34	0.60
1:2A:2022:A:H2'	1:2A:2023:G:C8	2.37	0.60
55:2z:-53:ASP:H	55:2z:-50:GLN:NE2	1.99	0.60
57:2w:8:4SU:O5'	57:2w:8:4SU:H6	2.01	0.60
1:1A:629:U:OP1	6:1F:102:PRO:HA	2.01	0.60
1:1A:1013:U:OP1	27:11:17:LYS:HG3	2.02	0.60
1:1A:2825:C:O3'	15:1P:99:LYS:NZ	2.35	0.60
5:1E:35:GLN:HB3	5:1E:48:GLN:HB3	1.84	0.60
55:1z:504:ARG:HA	56:1y:18:G:H4'	1.84	0.60
1:2A:231:U:OP1	32:26:6:THR:OG1	2.14	0.60
1:2A:2298:A:N6	1:2A:2355:U:H3	2.00	0.60
1:2A:2845:U:H2'	1:2A:2846:G:C8	2.37	0.60
28:22:45:GLY:O	28:22:47:GLN:N	2.35	0.60
34:2a:251:G:H1'	50:2q:16:GLN:HE21	1.67	0.60
55:1z:-36:LEU:HD21	55:1z:-29:LEU:HD22	1.83	0.59
9:2J:99:SER:O	9:2J:103:GLY:N	2.32	0.59
17:2R:39:ARG:NH2	34:2a:341:C:OP2	2.33	0.59
34:2a:981:G:H1	34:2a:1021:C:N4	2.00	0.59
34:2a:1491:A:H2'	34:2a:1492:C:C6	2.37	0.59
38:2e:78:HIS:HA	41:2h:105:ARG:HG3	1.84	0.59
1:1A:830:A:H5'	1:1A:831:G:OP1	2.02	0.59
4:1D:242:ARG:O	63:1D:401:HOH:O	2.17	0.59
35:1b:187:LEU:HA	35:1b:201:ILE:HB	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1o:16:ALA:HB1	48:1o:21:ASP:HB3	1.83	0.59
1:2A:1090:A:O4'	1:2A:1092:G:H8	1.85	0.59
34:2a:981:G:C4	34:2a:982:G:H8	2.20	0.59
34:2a:984:A:H62	34:2a:1003:G:H1'	1.67	0.59
34:2a:1067:G:H5'	34:2a:1085:A:OP2	2.02	0.59
51:2r:38:GLU:HA	51:2r:41:LYS:HE3	1.84	0.59
4:1D:61:LEU:O	4:1D:63:ARG:NH1	2.35	0.59
34:1a:1131:U:H2'	34:1a:1132:C:O4'	2.03	0.59
34:1a:1210:C:OP2	46:1m:108:ARG:NH2	2.31	0.59
34:1a:1488:U:H2'	34:1a:1489:G:C8	2.37	0.59
1:2A:1386:U:OP1	1:2A:1442:U:N3	2.26	0.59
5:2E:119:ARG:HB3	5:2E:120:TRP:CD1	2.37	0.59
34:2a:982:G:H2'	34:2a:983:A:O4'	2.02	0.59
35:2b:54:THR:HG23	35:2b:199:TYR:HB3	1.84	0.59
1:1A:2763:G:H4'	8:1H:4:ILE:HD11	1.85	0.59
7:1G:5:VAL:HG13	7:1G:8:LYS:HE2	1.84	0.59
34:1a:657:G:H2'	34:1a:658:G:C8	2.38	0.59
34:1a:1112:C:O2'	34:1a:1122:G:N7	2.33	0.59
55:1z:32:ILE:HG23	55:1z:273:LEU:HD21	1.84	0.59
55:1z:168:ILE:HD12	55:1z:176:GLY:HA3	1.85	0.59
11:2L:15:LEU:HB2	11:2L:135:PRO:HB2	1.84	0.59
23:2X:70:LEU:HD11	23:2X:98:MET:HE2	1.85	0.59
34:2a:585:C:H2'	34:2a:586:A:C8	2.38	0.59
11:1L:130:HIS:HB3	11:1L:133:GLN:HE21	1.67	0.59
34:1a:153:G:H2'	34:1a:154:G:H8	1.68	0.59
34:1a:1141:C:H5	34:1a:1163:G:N1	1.92	0.59
55:1z:635:GLU:O	55:1z:642:VAL:N	2.31	0.59
55:2z:420:ASP:HB3	55:2z:472:VAL:HG13	1.84	0.59
1:1A:2083:A:H62	58:1x:14:ARG:H	1.49	0.59
1:1A:2298:A:N6	1:1A:2355:U:H3	2.00	0.59
1:1A:2415:C:O3'	13:1N:77:ARG:NH2	2.35	0.59
46:1m:84:ILE:HG21	52:1s:66:MET:HB3	1.84	0.59
1:2A:401:C:H2'	1:2A:402:C:C6	2.38	0.59
10:2K:95:LYS:NZ	10:2K:137:GLU:OE1	2.30	0.59
17:2R:55:ASN:N	17:2R:59:THR:HG22	2.17	0.59
21:2V:43:VAL:HG21	21:2V:81:VAL:HG11	1.84	0.59
34:2a:655:G:H1	34:2a:719:C:H42	1.51	0.59
46:2m:84:ILE:HB	52:2s:66:MET:HE2	1.84	0.59
1:1A:1430:G:O2'	1:1A:1441:U:O2	2.18	0.59
13:1N:50:ARG:HD3	32:16:7:HIS:CD2	2.37	0.59
1:2A:1233:A:OP2	63:2A:4930:HOH:O	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2230:G:H2'	1:2A:2231:G:H8	1.67	0.59
47:2n:26:ARG:HH12	47:2n:46:GLU:HB2	1.66	0.59
1:1A:2338:A:H2'	1:1A:2339:A:C8	2.37	0.59
31:15:33:ARG:NH2	63:15:5001:HOH:O	2.21	0.59
36:1c:58:GLU:H	36:1c:65:ALA:HB3	1.67	0.59
40:1g:148:ASN:HA	44:1k:54:ARG:HH22	1.68	0.59
55:1z:424:LEU:O	55:1z:428:LEU:HG	2.03	0.59
55:1z:490:PRO:HB3	55:1z:515:GLU:HB3	1.84	0.59
4:2D:10:THR:OG1	4:2D:13:ARG:HG2	2.03	0.59
6:2F:34:TRP:CE2	13:2N:8:PRO:HG3	2.38	0.59
14:2O:57:HIS:O	14:2O:59:ARG:NH1	2.35	0.59
26:20:13:ALA:HA	26:20:16:LEU:HD12	1.83	0.59
37:2d:122:ARG:NH1	37:2d:134:ASP:O	2.36	0.59
55:1z:-53:ASP:H	55:1z:-50:GLN:NE2	2.00	0.59
1:2A:2694:C:O2	12:2M:70:LYS:NZ	2.34	0.59
34:2a:1116:G:H2'	34:2a:1117:G:H8	1.68	0.59
45:2l:70:ILE:HD13	45:2l:77:LEU:HD12	1.85	0.59
34:1a:981:G:O6	34:1a:982:G:N2	2.36	0.59
3:2C:212:VAL:HG21	3:2C:226:PRO:HG3	1.85	0.59
34:2a:1194:U:H5'	34:2a:1195:A:H5'	1.84	0.59
1:1A:513:G:O2'	20:1U:49:LYS:NZ	2.31	0.58
1:1A:703:U:H2'	1:1A:704:C:C6	2.38	0.58
11:1L:73:THR:HG23	11:1L:82:LEU:HD11	1.85	0.58
34:1a:1006:C:C2	34:1a:1017:G:N1	2.71	0.58
34:1a:1009:C:H2'	34:1a:1010:G:H4'	1.83	0.58
1:2A:1649:C:OP1	63:2A:4931:HOH:O	2.17	0.58
41:2h:51:VAL:HG12	41:2h:52:ASP:H	1.68	0.58
55:1z:282:SER:OG	55:1z:285:ASP:OD2	2.19	0.58
55:1z:609:GLU:HB2	55:1z:670:VAL:HG23	1.85	0.58
1:2A:1597:C:H2'	1:2A:1598:G:O4'	2.03	0.58
1:2A:1816:A:H1'	1:2A:1959:A:N6	2.18	0.58
4:2D:148:GLU:HB2	4:2D:151:LYS:HD2	1.85	0.58
15:2P:97:VAL:HG22	15:2P:114:VAL:HG13	1.85	0.58
34:2a:251:G:OP1	50:2q:69:LYS:NZ	2.36	0.58
34:2a:1274:U:P	40:2g:41:ARG:HH22	2.26	0.58
35:2b:47:THR:HA	35:2b:202:PRO:HG2	1.84	0.58
1:1A:2012:U:H2'	1:1A:2013:G:H5"	1.85	0.58
6:1F:184:TYR:CE2	6:1F:188:ARG:HD2	2.37	0.58
13:1N:42:SER:O	63:1N:301:HOH:O	2.17	0.58
34:1a:636:U:O4	34:1a:736:G:O2'	2.20	0.58
40:1g:73:MET:HG3	40:1g:90:GLU:HA	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1102:A:C6	1:2A:1131:A:H2'	2.39	0.58
1:2A:1450:U:H2'	1:2A:1451:U:C6	2.38	0.58
1:2A:2611:A:H2'	1:2A:2612:C:C6	2.38	0.58
9:2J:70:GLU:O	9:2J:72:ASP:N	2.32	0.58
1:1A:260:A:N1	1:1A:290:G:O2'	2.35	0.58
28:12:56:VAL:O	28:12:60:GLN:HG3	2.03	0.58
34:1a:433:U:H5'	37:1d:155:LEU:HD21	1.84	0.58
36:1c:148:GLY:HA3	36:1c:172:ARG:O	2.03	0.58
1:1A:1107:G:OP1	1:1A:1115:A:H4'	2.02	0.58
22:1W:35:TYR:CE2	22:1W:69:ALA:HB3	2.39	0.58
34:1a:18:U:H2'	34:1a:19:C:C6	2.39	0.58
34:1a:823:U:H4'	34:1a:824:C:OP2	2.03	0.58
36:1c:36:ASP:HA	36:1c:39:ILE:HD12	1.85	0.58
49:1p:12:LYS:NZ	63:1p:101:HOH:O	2.28	0.58
55:1z:-64:VAL:HG12	55:1z:-29:LEU:HA	1.86	0.58
55:1z:138:LYS:HG2	62:1z:701:GDP:C6	2.38	0.58
3:2C:14:VAL:HG21	3:2C:32:LEU:HD21	1.85	0.58
35:2b:189:ASP:O	35:2b:192:SER:OG	2.22	0.58
1:1A:1078:U:OP1	33:17:9:ARG:NH2	2.37	0.58
1:1A:2459:A:OP1	63:1A:3860:HOH:O	2.17	0.58
34:1a:602:C:H5'	34:1a:603:U:H5"	1.86	0.58
42:1i:86:VAL:HG12	42:1i:90:PRO:HA	1.85	0.58
44:1k:27:ASN:OD1	44:1k:28:THR:N	2.37	0.58
1:2A:991:G:H2'	1:2A:992:G:H8	1.69	0.58
1:2A:1000:G:OP2	14:2O:14:ARG:NH2	2.35	0.58
1:2A:1265:C:H2'	1:2A:1266:C:H6	1.68	0.58
15:2P:57:ARG:HB3	15:2P:59:ASP:OD1	2.04	0.58
36:2c:189:ALA:HB3	36:2c:196:LEU:HB2	1.86	0.58
38:2e:142:LEU:O	38:2e:143:ARG:NE	2.36	0.58
1:2A:237:C:O2	32:26:12:LYS:NZ	2.28	0.58
1:2A:2168:G:C2	1:2A:2169:G:H1'	2.38	0.58
35:2b:8:LYS:HZ3	35:2b:9:GLU:H	1.50	0.58
1:1A:2148:G:N2	1:1A:2194:A:H1'	2.19	0.58
34:1a:155:A:N6	34:1a:341:C:OP2	2.36	0.58
34:1a:898:U:H2'	34:1a:899:U:C6	2.38	0.58
55:1z:526:VAL:HG22	55:1z:566:THR:HA	1.85	0.58
7:2G:25:TYR:HD2	7:2G:30:GLU:HB3	1.69	0.58
17:2R:118:ARG:HG2	34:2a:1426:G:C8	2.39	0.58
34:2a:1221:A:H4'	34:2a:1222:U:H5"	1.85	0.58
34:2a:1351:G:OP1	42:2i:111:ARG:NH2	2.35	0.58
55:2z:160:ARG:HE	55:2z:254:LYS:C	2.12	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:930:C:H42	1:1A:937:G:H1	1.51	0.58
1:1A:1808:U:OP1	63:1A:3862:HOH:O	2.17	0.58
7:1G:47:LYS:HG3	7:1G:48:GLU:H	1.68	0.58
17:1R:127:ALA:O	17:1R:129:ARG:N	2.35	0.58
34:1a:45:G:OP2	49:1p:12:LYS:NZ	2.37	0.58
55:1z:38:ARG:O	55:1z:40:HIS:N	2.34	0.58
40:2g:26:PHE:CE1	40:2g:30:ILE:HD11	2.39	0.58
1:1A:471:G:OP2	63:1A:3863:HOH:O	2.17	0.58
1:1A:1614:G:P	4:1D:63:ARG:HH22	2.27	0.58
34:1a:1231:C:O2'	42:1i:73:GLN:NE2	2.37	0.58
1:2A:1104:G:H1	1:2A:1124:C:N4	2.01	0.58
34:2a:1477:A:H1'	34:2a:1498:G:H5'	1.84	0.58
1:1A:402:C:OP1	63:1A:3864:HOH:O	2.17	0.57
35:1b:219:VAL:HA	35:1b:222:ILE:HD12	1.86	0.57
38:1e:12:LEU:HB3	38:1e:31:LEU:HB3	1.86	0.57
55:1z:616:TYR:O	55:1z:618:GLY:N	2.37	0.57
1:2A:670:A:H2'	1:2A:671:G:O4'	2.03	0.57
1:2A:777:C:OP1	63:2A:4932:HOH:O	2.17	0.57
5:2E:101:ARG:NH1	5:2E:169:ASN:O	2.37	0.57
34:2a:856:G:H5'	41:2h:89:PRO:HG2	1.86	0.57
34:2a:1329:G:HO2'	34:2a:1356:G:H1	1.52	0.57
35:2b:128:GLU:HG2	35:2b:135:GLN:NE2	2.19	0.57
45:2l:59:ARG:HG2	55:2z:422:GLU:HB2	1.85	0.57
1:1A:635:G:N2	1:1A:639:A:O2'	2.37	0.57
34:1a:141:G:H1	34:1a:171:C:H42	1.52	0.57
34:1a:1338:G:H2'	34:1a:1339:A:C8	2.39	0.57
46:1m:79:LYS:HA	46:1m:82:MET:HE2	1.86	0.57
1:2A:327:G:O6	63:2A:4922:HOH:O	2.14	0.57
1:2A:2709:U:H2'	1:2A:2710:C:C6	2.39	0.57
10:2K:92:GLY:HA2	10:2K:132:ARG:HG2	1.85	0.57
34:2a:104:C:H2'	34:2a:105:G:O4'	2.04	0.57
34:2a:898:U:H2'	34:2a:899:U:C6	2.39	0.57
41:2h:73:ASP:OD2	41:2h:75:ARG:NH1	2.37	0.57
46:2m:58:GLU:O	46:2m:62:ASN:ND2	2.33	0.57
51:2r:33:ASP:OD2	51:2r:36:ASN:HB2	2.03	0.57
1:1A:1383:G:N7	21:1V:62:LYS:NZ	2.44	0.57
3:1C:6:ARG:CZ	3:1C:218:MET:HB3	2.33	0.57
18:1S:78:THR:HG23	18:1S:117:GLN:HE22	1.69	0.57
55:1z:13:ARG:NH1	55:1z:247:ARG:HH22	2.01	0.57
1:2A:2023:G:N7	63:2A:4989:HOH:O	2.33	0.57
1:2A:2593:G:OP2	63:2A:4934:HOH:O	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2D:24:ILE:HD13	4:2D:84:TYR:HB2	1.85	0.57
43:2j:65:LEU:HD13	47:2n:56:VAL:HG22	1.85	0.57
6:1F:9:ILE:HG21	6:1F:125:LEU:HD22	1.86	0.57
25:1Z:23:LYS:HB3	25:1Z:29:GLY:HA3	1.87	0.57
47:1n:48:ALA:HB2	47:1n:53:LEU:HD12	1.85	0.57
55:1z:-53:ASP:OD1	55:1z:-52:VAL:N	2.37	0.57
1:2A:81:G:O2'	1:2A:99:G:N2	2.37	0.57
1:2A:661:A:H8	13:2N:117:GLU:HG3	1.69	0.57
1:2A:943:C:H2'	1:2A:944:A:O4'	2.04	0.57
1:2A:1697:G:H5'	15:2P:39:PRO:HG2	1.85	0.57
28:22:40:HIS:O	28:22:44:THR:N	2.33	0.57
34:2a:407:A:OP2	37:2d:25:ARG:NH2	2.37	0.57
35:2b:84:GLU:HG3	35:2b:87:ARG:HH11	1.69	0.57
1:1A:2750:A:OP2	63:1A:3859:HOH:O	2.17	0.57
1:2A:200:G:H2'	1:2A:201:A:O4'	2.05	0.57
3:2C:41:VAL:HA	3:2C:216:THR:HA	1.85	0.57
6:2F:34:TRP:CZ2	13:2N:8:PRO:HG3	2.39	0.57
19:2T:4:ILE:HG22	19:2T:38:LEU:HD23	1.85	0.57
34:2a:311:A:OP1	63:2a:1810:HOH:O	2.17	0.57
34:2a:1283:U:O2'	34:2a:1284:U:H5'	2.04	0.57
36:2c:6:HIS:HE1	47:2n:50:LYS:HG3	1.70	0.57
39:2f:37:VAL:HA	39:2f:65:VAL:HG12	1.85	0.57
42:2i:53:VAL:O	42:2i:55:ALA:N	2.38	0.57
57:2w:75:C:OP1	63:2w:3101:HOH:O	2.17	0.57
1:1A:1231:G:H5"	19:1T:81:TYR:CE1	2.40	0.57
1:1A:1500:U:OP1	15:1P:77:ARG:NH1	2.31	0.57
11:1L:62:VAL:HG13	11:1L:66:LYS:HD2	1.84	0.57
57:1w:17:C:H5"	57:1w:61:C:H5"	1.86	0.57
1:2A:1002:U:H5"	14:2O:14:ARG:HD3	1.87	0.57
1:2A:1087:G:O2'	1:2A:1088:C:OP1	2.20	0.57
1:2A:2137:G:H22	1:2A:2182:C:H5'	1.68	0.57
34:2a:1299:C:N3	52:2s:37:ARG:NH2	2.52	0.57
36:2c:58:GLU:HB2	36:2c:65:ALA:HB3	1.86	0.57
41:2h:9:MET:HG3	41:2h:26:VAL:HG11	1.86	0.57
42:2i:3:GLN:HG2	42:2i:20:ARG:HE	1.70	0.57
55:2z:315:LYS:HE3	55:2z:317:MET:HG3	1.85	0.57
1:1A:82:A:H3'	22:1W:8:LYS:HG3	1.87	0.57
1:1A:772:G:N7	63:1A:3959:HOH:O	2.32	0.57
48:1o:25:THR:HG21	48:1o:70:LEU:HB2	1.85	0.57
1:2A:1039:C:OP1	18:2S:53:ARG:NH2	2.38	0.57
1:2A:1088:C:O2'	1:2A:1093:A:O2'	2.21	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2150:C:OP2	3:2C:6:ARG:NH1	2.37	0.57
40:2g:75:VAL:HG21	40:2g:144:MET:HE2	1.87	0.57
1:1A:2151:U:H4'	1:1A:2154:G:H5"	1.87	0.57
3:1C:186:ALA:HA	3:1C:189:ILE:HG22	1.87	0.57
34:1a:950:C:OP2	43:1j:57:LYS:NZ	2.35	0.57
34:1a:1012:G:H2'	34:1a:1013:A:C8	2.39	0.57
35:1b:21:ARG:H	35:1b:21:ARG:HH21	1.52	0.57
46:1m:17:VAL:O	46:1m:20:THR:OG1	2.20	0.57
49:1p:71:ARG:HA	49:1p:74:LEU:HB2	1.87	0.57
1:2A:9:G:H2'	1:2A:10:G:C8	2.40	0.57
1:2A:1345:U:H4'	1:2A:1346:A:H5"	1.87	0.57
35:2b:13:ALA:N	35:2b:14:GLY:HA3	2.20	0.57
39:2f:69:GLU:O	39:2f:72:VAL:HG12	2.04	0.57
1:1A:2803:C:H2'	1:1A:2804:G:H8	1.69	0.57
15:1P:36:THR:HG22	15:1P:37:THR:H	1.70	0.57
34:1a:296:A:O2'	34:1a:548:C:N3	2.34	0.57
34:1a:1327:U:OP1	42:1i:120:ARG:NH1	2.37	0.57
55:1z:573:HIS:HB3	55:1z:577:SER:H	1.70	0.57
1:2A:1828:U:H5'	4:2D:259:THR:HG22	1.85	0.57
19:2T:76:LYS:HB2	19:2T:81:TYR:HB3	1.87	0.57
21:2V:8:ILE:O	26:20:36:ARG:NH2	2.37	0.57
38:2e:12:LEU:HB3	38:2e:31:LEU:HB3	1.86	0.57
55:2z:-36:LEU:HD21	55:2z:-29:LEU:HG	1.87	0.57
55:2z:94:VAL:O	55:2z:98:MET:N	2.37	0.57
1:1A:1107:G:N2	1:1A:1121:C:H42	2.03	0.57
1:1A:2143:U:O2'	3:1C:166:ASP:OD2	2.21	0.57
10:1K:99:ILE:HG12	10:1K:103:GLN:NE2	2.20	0.57
28:12:58:ARG:HB3	52:1s:67:VAL:HB	1.87	0.57
48:1o:55:GLY:HA2	48:1o:58:MET:HE3	1.85	0.57
55:1z:313:ALA:HA	55:1z:328:ILE:HG22	1.87	0.57
1:2A:172:C:H2'	1:2A:173:U:C6	2.40	0.57
1:2A:629:U:OP1	6:2F:102:PRO:HA	2.05	0.57
35:2b:12:GLU:C	35:2b:14:GLY:HA3	2.30	0.57
1:1A:1404:A:N1	1:1A:1417:U:O4	2.38	0.56
34:1a:460:G:H2'	34:1a:461:G:H8	1.68	0.56
34:1a:739:G:OP2	48:1o:65:ARG:HD3	2.05	0.56
35:1b:178:ARG:HH22	41:1h:68:ARG:HH12	1.53	0.56
36:1c:40:ARG:NH2	36:1c:55:VAL:O	2.38	0.56
53:1t:75:ASN:N	53:1t:75:ASN:OD1	2.38	0.56
3:2C:188:ASN:ND2	3:2C:188:ASN:O	2.38	0.56
23:2X:28:MET:HE1	23:2X:61:LEU:HD21	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:1221:A:H4'	34:1a:1222:U:H5"	1.87	0.56
55:1z:96:ARG:NH1	55:1z:96:ARG:HB2	2.20	0.56
55:1z:573:HIS:CD2	55:1z:576:ASP:H	2.22	0.56
1:2A:484:U:OP2	31:25:39:ARG:NH1	2.37	0.56
1:2A:2012:U:H2'	1:2A:2013:G:H5"	1.87	0.56
16:2Q:52:SER:HB2	16:2Q:55:ALA:H	1.69	0.56
34:2a:859:G:OP2	45:2l:12:ARG:NH2	2.38	0.56
34:2a:983:A:H8	34:2a:984:A:H4'	1.70	0.56
55:2z:150:ILE:HA	55:2z:153:MET:HB2	1.88	0.56
1:1A:2339:A:H2'	1:1A:2340:G:C8	2.41	0.56
1:1A:2698:U:H2'	1:1A:2699:U:O4'	2.05	0.56
1:1A:2848:G:H5'	15:1P:46:GLY:HA2	1.86	0.56
7:1G:50:ALA:O	7:1G:52:ILE:N	2.39	0.56
34:1a:9:A:H5'	38:1e:101:ILE:HG22	1.87	0.56
42:1i:17:VAL:HG23	42:1i:63:ILE:HG12	1.87	0.56
42:1i:50:LEU:HD13	42:1i:81:ILE:HD12	1.86	0.56
47:1n:6:LEU:HG	47:1n:23:ARG:HH21	1.70	0.56
52:1s:65:ASN:HD22	52:1s:65:ASN:H	1.54	0.56
1:2A:516:A:H2'	1:2A:517:G:O4'	2.06	0.56
1:2A:851:G:OP1	63:2A:4933:HOH:O	2.17	0.56
1:2A:1227:G:O3'	27:21:29:ARG:NH1	2.38	0.56
5:2E:55:ASN:HB3	5:2E:58:ARG:HG2	1.86	0.56
6:2F:7:TYR:O	6:2F:22:ALA:N	2.37	0.56
11:2L:96:GLU:HB2	11:2L:122:VAL:HG12	1.86	0.56
20:2U:38:TYR:HE2	29:23:40:LYS:HA	1.70	0.56
26:20:9:GLN:HE22	26:20:56:GLN:HB3	1.70	0.56
34:2a:603:U:N3	37:2d:134:ASP:OD1	2.21	0.56
35:2b:8:LYS:HZ2	35:2b:8:LYS:H	1.51	0.56
55:2z:187:THR:HB	55:2z:199:ILE:HG12	1.86	0.56
55:2z:415:PRO:HG3	55:2z:421:GLN:HE21	1.69	0.56
57:2w:76:A:OP2	63:2w:3101:HOH:O	2.17	0.56
1:1A:2803:C:H2'	1:1A:2804:G:C8	2.40	0.56
23:1X:144:LEU:HD21	23:1X:150:LEU:HD13	1.87	0.56
34:1a:8:G:H5'	34:1a:294:A:O4'	2.05	0.56
52:1s:63:THR:H	52:1s:66:MET:HE3	1.71	0.56
1:2A:2143:U:O4	1:2A:2197:A:N1	2.39	0.56
5:2E:24:THR:HG23	5:2E:186:GLY:O	2.05	0.56
34:2a:1488:U:H2'	34:2a:1489:G:C8	2.40	0.56
45:2l:34:ARG:O	45:2l:61:THR:HG23	2.05	0.56
1:1A:932:C:H4'	1:1A:932:C:OP1	2.06	0.56
21:1V:31:HIS:CD2	21:1V:33:LYS:H	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:207:G:H1	34:1a:213:C:N4	2.03	0.56
34:1a:1221:A:H62	34:1a:1281:A:N6	2.04	0.56
1:2A:211:A:O2'	1:2A:446:C:O2	2.23	0.56
1:2A:1123:U:H4'	1:2A:1133:A:H2	1.71	0.56
1:2A:1381:A:OP2	21:2V:64:LYS:HE3	2.05	0.56
1:2A:1439:U:O2	21:2V:16:LYS:NZ	2.35	0.56
5:2E:128:SER:OG	5:2E:129:HIS:N	2.34	0.56
23:2X:63:ASP:OD2	23:2X:65:GLN:NE2	2.32	0.56
34:2a:914:C:H2'	34:2a:915:A:O4'	2.05	0.56
35:2b:16:HIS:CG	35:2b:210:SER:HB3	2.39	0.56
7:1G:129:GLY:O	7:1G:161:THR:HG22	2.05	0.56
25:1Z:64:ALA:HA	25:1Z:67:ILE:HG13	1.87	0.56
34:1a:1287:G:N2	34:1a:1313:G:H1'	2.20	0.56
35:1b:204:ASN:OD1	35:1b:205:ASP:N	2.39	0.56
36:1c:150:LYS:HG3	36:1c:169:ALA:HB2	1.88	0.56
55:1z:20:HIS:ND1	55:1z:117:GLN:HB2	2.20	0.56
34:2a:1134:A:O2'	34:2a:1135:A:O5'	2.23	0.56
36:2c:125:GLU:N	36:2c:125:GLU:OE2	2.39	0.56
45:2l:24:VAL:HG11	45:2l:27:LEU:HD22	1.88	0.56
48:2o:25:THR:HG21	48:2o:70:LEU:HB2	1.86	0.56
1:1A:330:G:H21	1:1A:353:A:N6	2.03	0.56
1:1A:931:C:H3'	1:1A:932:C:H5"	1.88	0.56
1:1A:2197:A:H5"	3:1C:215:THR:HG21	1.87	0.56
1:1A:2588:A:H5'	29:13:3:LYS:HD2	1.88	0.56
6:1F:70:THR:HA	58:1x:19:PRO:HG2	1.87	0.56
35:1b:97:TRP:HZ2	35:1b:102:LEU:HD13	1.70	0.56
39:1f:2:ARG:HE	39:1f:69:GLU:HG2	1.70	0.56
1:2A:2187:G:N7	1:2A:2189:G:N2	2.54	0.56
14:2O:118:LEU:HD12	14:2O:131:ILE:HG23	1.88	0.56
42:2i:17:VAL:HG11	42:2i:81:ILE:HA	1.88	0.56
55:2z:-64:VAL:HG12	55:2z:-29:LEU:HA	1.86	0.56
1:1A:1480:G:H21	1:1A:1524:G:H5'	1.70	0.56
7:1G:39:ILE:HG21	7:1G:60:LEU:HD11	1.87	0.56
22:1W:15:VAL:HG21	22:1W:42:VAL:HG11	1.86	0.56
34:1a:42:G:H2'	34:1a:43:G:C8	2.40	0.56
34:1a:1115:C:H2'	34:1a:1116:G:C8	2.40	0.56
55:1z:495:GLY:N	55:1z:510:VAL:O	2.39	0.56
1:2A:2449:U:O2'	1:2A:2451:C:OP1	2.22	0.56
6:2F:101:LEU:O	6:2F:106:ARG:NH1	2.39	0.56
17:2R:27:THR:HB	17:2R:90:GLN:HB3	1.87	0.56
33:27:15:LYS:HD3	33:27:26:ILE:HD11	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:808:C:HO2'	41:2h:2:LEU:N	2.04	0.56
35:2b:184:VAL:HG12	35:2b:197:VAL:HG13	1.88	0.56
55:2z:165:GLN:NE2	55:2z:260:LEU:H	2.03	0.56
22:1W:28:LYS:HD2	22:1W:40:GLU:HG3	1.87	0.56
34:1a:154:G:H2'	34:1a:156:A:OP2	2.05	0.56
34:1a:200:C:H2'	34:1a:201:C:H6	1.71	0.56
36:1c:21:ARG:HH12	36:1c:56:ASP:HB3	1.70	0.56
37:1d:155:LEU:HB3	37:1d:158:ILE:HG12	1.88	0.56
55:1z:116:PRO:O	55:1z:118:SER:N	2.36	0.56
34:2a:1210:C:H4'	46:2m:116:THR:HA	1.87	0.56
43:2j:49:VAL:HG23	47:2n:41:ARG:HB2	1.86	0.56
52:2s:27:GLU:HB3	52:2s:28:LYS:HD3	1.88	0.56
1:1A:2041:A:O2'	1:1A:2042:C:H5'	2.06	0.55
43:1j:37:PRO:HA	43:1j:72:VAL:HG12	1.87	0.55
37:2d:57:ARG:HB3	37:2d:206:PHE:HB2	1.87	0.55
47:2n:22:THR:HB	47:2n:33:VAL:HG21	1.88	0.55
1:1A:741:G:OP1	1:1A:1425:G:O2'	2.18	0.55
1:1A:1479:A:H61	1:1A:1604:A:H62	1.52	0.55
1:1A:1953:A:H2'	1:1A:1954:G:O4'	2.06	0.55
1:1A:2464:A:OP1	58:1x:2:ARG:NH1	2.36	0.55
34:1a:726:G:OP2	48:1o:35:ARG:NH2	2.39	0.55
41:1h:51:VAL:HG11	41:1h:60:ARG:HH11	1.71	0.55
55:1z:152:THR:HG22	55:1z:156:ARG:HG3	1.88	0.55
1:2A:2239:G:OP1	4:2D:261:LYS:NZ	2.38	0.55
3:2C:179:SER:HA	3:2C:180:PHE:O	2.06	0.55
34:2a:672:G:H5'	44:2k:46:GLY:C	2.30	0.55
1:1A:2587:G:OP1	63:1A:3861:HOH:O	2.17	0.55
55:1z:514:VAL:HG22	55:1z:565:VAL:HA	1.88	0.55
1:2A:1833:A:O2'	4:2D:259:THR:HG21	2.06	0.55
4:2D:71:ASP:OD2	4:2D:103:ARG:NH2	2.39	0.55
6:2F:21:ALA:HB3	6:2F:22:ALA:HA	1.89	0.55
23:2X:146:ILE:H	23:2X:146:ILE:HD12	1.72	0.55
34:2a:600:G:OP2	37:2d:141:ARG:NH1	2.40	0.55
5:1E:12:THR:HG22	5:1E:13:ARG:H	1.72	0.55
1:2A:1042:G:OP2	18:2S:58:ARG:NH1	2.36	0.55
1:2A:2226:G:H3'	1:2A:2227:G:C8	2.38	0.55
10:2K:88:ALA:O	10:2K:90:LYS:N	2.39	0.55
34:2a:1154:C:H2'	34:2a:1155:G:H8	1.72	0.55
39:2f:62:TRP:CH2	39:2f:64:GLN:HB2	2.40	0.55
55:2z:18:ALA:HA	55:2z:25:LYS:NZ	2.20	0.55
1:1A:2765:A:N3	33:17:15:LYS:NZ	2.50	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:1O:16:ARG:HE	14:1O:18:LYS:HE3	1.71	0.55
22:1W:19:LYS:HE3	22:1W:20:TYR:CE1	2.41	0.55
25:1Z:65:SER:OG	25:1Z:66:HIS:ND1	2.38	0.55
34:1a:258:A:H2'	34:1a:259:A:C8	2.42	0.55
40:1g:152:ALA:O	40:1g:155:ARG:HB3	2.06	0.55
1:2A:454:A:H3'	1:2A:455:A:C8	2.41	0.55
1:2A:596:C:N3	5:2E:145:LYS:NZ	2.43	0.55
1:2A:1081:G:H1	1:2A:1164:C:N4	2.04	0.55
1:2A:2043:U:O2'	1:2A:2628:C:H5'	2.07	0.55
1:2A:2083:A:N6	58:2x:14:ARG:H	2.05	0.55
1:2A:2187:G:H3'	1:2A:2188:U:H5"	1.89	0.55
34:2a:104:C:O2'	49:2p:25:ARG:O	2.24	0.55
1:1A:33:C:H5"	1:1A:34:G:OP2	2.06	0.55
1:1A:1313:A:H2'	1:1A:1314:A:O4'	2.07	0.55
7:1G:131:TYR:HB3	7:1G:159:VAL:HG13	1.88	0.55
22:1W:92:ASN:N	22:1W:93:GLY:HA2	2.20	0.55
34:1a:1081:C:P	35:1b:144:ARG:HH21	2.30	0.55
55:1z:91:THR:HG22	55:1z:454:MET:HG2	1.88	0.55
55:1z:333:GLY:H	55:1z:371:ALA:HB2	1.71	0.55
55:1z:357:ARG:HH12	55:1z:373:ASP:CG	2.12	0.55
1:2A:2155:A:N6	1:2A:2178:G:H4'	2.17	0.55
1:2A:2401:U:P	32:26:35:GLN:HE22	2.30	0.55
34:2a:1355:U:OP1	42:2i:72:GLY:N	2.39	0.55
38:2e:60:TYR:OH	38:2e:64:ARG:NH1	2.38	0.55
1:1A:117:U:OP2	63:1A:3865:HOH:O	2.18	0.55
1:1A:610:U:H1'	6:1F:90:PHE:HB3	1.89	0.55
1:1A:1799:G:O2'	1:1A:1979:C:OP1	2.21	0.55
4:1D:147:LEU:HD13	4:1D:155:LEU:HD11	1.88	0.55
13:1N:121:LYS:O	13:1N:123:LEU:N	2.40	0.55
39:1f:70:ASP:N	39:1f:70:ASP:OD1	2.36	0.55
40:1g:20:ASP:HB3	40:1g:23:VAL:HG23	1.89	0.55
41:1h:120:THR:H	41:1h:123:GLU:HB3	1.70	0.55
55:1z:329:ARG:HD3	55:1z:331:TYR:CZ	2.42	0.55
1:2A:2859:A:N7	1:2A:2877:A:O2'	2.34	0.55
6:2F:130:ALA:HB3	6:2F:142:TRP:HD1	1.72	0.55
29:23:41:PRO:HG2	29:23:44:THR:HG21	1.88	0.55
35:2b:178:ARG:NH2	41:2h:68:ARG:HH22	2.05	0.55
1:1A:541:C:OP1	29:13:16:ARG:NH2	2.39	0.55
1:1A:925:G:H2'	1:1A:926:G:O4'	2.06	0.55
1:1A:1420:C:N4	63:1A:4002:HOH:O	2.39	0.55
1:1A:1716:C:OP1	63:1A:3820:HOH:O	2.18	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2032:U:OP1	20:1U:42:ARG:NH1	2.39	0.55
1:1A:2131:G:C2	1:1A:2141:G:H1'	2.42	0.55
1:2A:645:A:OP2	13:2N:108:LYS:NZ	2.37	0.55
1:2A:1159:G:H2'	1:2A:1160:G:H8	1.70	0.55
15:2P:67:LEU:HG	15:2P:76:VAL:HG21	1.88	0.55
18:2S:29:SER:OG	18:2S:30:LYS:NZ	2.35	0.55
1:1A:1633:C:H2'	1:1A:1634:C:C6	2.42	0.55
14:1O:59:ARG:HA	23:1X:180:VAL:HG23	1.89	0.55
58:1x:9:ARG:NH2	63:1x:101:HOH:O	2.33	0.55
1:2A:1188:A:OP1	11:2L:25:ARG:NH2	2.40	0.55
38:2e:83:GLU:HG2	38:2e:88:LYS:HD2	1.89	0.55
1:1A:2128:C:H42	1:1A:2203:G:H1	1.54	0.55
1:1A:2415:C:OP2	63:1A:3873:HOH:O	2.18	0.55
38:1e:110:LEU:HD13	38:1e:118:ILE:HG21	1.88	0.55
1:2A:800:C:H2'	1:2A:801:C:C6	2.41	0.55
1:2A:1463:G:N7	63:2A:4990:HOH:O	2.33	0.55
1:2A:1699:G:H3'	15:2P:2:ARG:HD3	1.89	0.55
34:2a:42:G:H2'	34:2a:43:G:C8	2.42	0.55
43:2j:63:PHE:CE1	47:2n:58:LYS:HG2	2.42	0.55
1:1A:596:C:N3	5:1E:145:LYS:NZ	2.52	0.54
1:1A:1765:G:H5'	1:1A:1766:A:OP2	2.07	0.54
3:1C:39:GLU:HG2	3:1C:217:THR:HB	1.87	0.54
5:1E:178:GLU:OE2	5:1E:178:GLU:N	2.37	0.54
8:1H:41:MET:HE2	8:1H:65:HIS:HA	1.90	0.54
9:1J:28:ASN:O	9:1J:30:GLN:N	2.40	0.54
14:1O:104:PHE:HE2	14:1O:125:LEU:HD11	1.72	0.54
25:1Z:80:LEU:HB3	25:1Z:82:LEU:HG	1.89	0.54
34:1a:447:A:OP1	49:1p:43:LYS:NZ	2.37	0.54
34:1a:1434:G:O3'	53:1t:39:LYS:NZ	2.40	0.54
42:1i:78:LYS:HD3	42:1i:101:PHE:HD2	1.72	0.54
55:1z:420:ASP:OD2	55:1z:471:LYS:NZ	2.34	0.54
55:1z:605:ILE:HD13	55:1z:677:GLN:HG2	1.88	0.54
1:2A:894:G:C4	1:2A:977:A:H8	2.25	0.54
34:2a:83:U:H4'	34:2a:85:C:C4	2.42	0.54
36:2c:65:ALA:HA	36:2c:100:ALA:HB3	1.88	0.54
42:2i:9:ARG:O	42:2i:104:ARG:HG2	2.06	0.54
55:2z:169:GLY:O	55:2z:173:THR:OG1	2.22	0.54
1:1A:238:G:P	32:16:13:ARG:HH22	2.30	0.54
1:1A:1994:G:OP1	63:1A:3870:HOH:O	2.18	0.54
1:1A:2583:A:N7	5:1E:144:ARG:HD2	2.22	0.54
3:1C:14:VAL:HG23	3:1C:32:LEU:HD21	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1C:45:ALA:HA	3:1C:211:SER:O	2.07	0.54
28:12:48:ARG:O	28:12:50:VAL:N	2.40	0.54
36:1c:114:PRO:HA	36:1c:185:GLY:HA3	1.87	0.54
55:1z:-66:MET:N	55:1z:-46:VAL:O	2.38	0.54
1:2A:267:G:HO2'	1:2A:268:G:H8	1.55	0.54
6:2F:122:LYS:HE3	6:2F:191:ARG:HG2	1.88	0.54
13:2N:65:ARG:HG3	32:26:25:MET:HG3	1.88	0.54
34:2a:1105:U:C4	34:2a:1106:A:N7	2.75	0.54
55:2z:607:ARG:NH1	55:2z:674:ASP:OD1	2.40	0.54
1:1A:1341:G:OP1	1:1A:2720:G:O2'	2.16	0.54
1:1A:1451:U:H2'	1:1A:1452:C:C6	2.43	0.54
1:1A:1826:U:H2'	1:1A:1827:C:C6	2.42	0.54
1:1A:2463:C:OP1	58:1x:4:ARG:NH2	2.34	0.54
12:1M:36:GLY:HA3	12:1M:109:LYS:HD2	1.90	0.54
31:15:34:ARG:NH1	31:15:41:ARG:O	2.40	0.54
55:1z:97:SER:HA	55:1z:100:VAL:HG23	1.89	0.54
55:1z:122:TRP:HH2	55:1z:256:THR:HG21	1.71	0.54
1:2A:309:C:H2'	1:2A:310:C:C6	2.42	0.54
1:2A:552:A:C2	1:2A:2063:A:H2'	2.42	0.54
1:2A:1457:A:H2'	1:2A:1458:G:C8	2.42	0.54
1:2A:2473:U:H1'	1:2A:2502:U:O4	2.07	0.54
1:2A:2735:C:OP2	5:2E:109:LYS:NZ	2.39	0.54
7:2G:28:VAL:O	7:2G:31:VAL:HG12	2.07	0.54
34:2a:101:G:H2'	34:2a:102:G:O4'	2.08	0.54
34:2a:812:A:N6	34:2a:836:G:O2'	2.40	0.54
34:2a:1359:U:H2'	34:2a:1360:A:C8	2.42	0.54
37:2d:156:GLU:HA	37:2d:159:ARG:HD2	1.89	0.54
39:2f:94:GLN:HE22	51:2r:72:ARG:HH12	1.53	0.54
43:2j:48:THR:O	47:2n:34:TYR:OH	2.23	0.54
1:1A:138:A:C8	1:1A:1453:C:O2'	2.60	0.54
1:1A:1295:G:OP2	13:1N:21:ARG:NH1	2.41	0.54
1:1A:2456:G:N7	63:1A:3969:HOH:O	2.34	0.54
34:1a:485:C:OP1	45:1l:117:ARG:NH2	2.39	0.54
37:1d:168:ARG:NH1	37:1d:168:ARG:H	2.06	0.54
49:1p:43:LYS:HG2	49:1p:48:TRP:CD2	2.43	0.54
1:2A:894:G:N3	1:2A:977:A:H1'	2.22	0.54
1:2A:1106:U:H4'	1:2A:1115:A:H1'	1.89	0.54
2:2B:15:A:OP2	2:2B:69:G:N2	2.38	0.54
8:2H:69:ARG:HG3	8:2H:70:THR:N	2.22	0.54
11:2L:39:ARG:NH2	11:2L:41:ASP:OD2	2.40	0.54
26:20:51:ARG:HH21	26:20:55:ARG:NH1	2.04	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:24:6:ARG:NH1	30:24:26:ASN:HB2	2.21	0.54
34:2a:1226:C:OP2	54:2u:9:ARG:NH2	2.40	0.54
34:2a:1352:C:H2'	34:2a:1353:G:H8	1.70	0.54
55:2z:116:PRO:O	55:2z:118:SER:N	2.36	0.54
1:1A:2709:U:H2'	1:1A:2710:C:C6	2.43	0.54
34:1a:341:C:H4'	34:1a:342:G:C2	2.43	0.54
34:1a:1233:A:H2'	34:1a:1234:A:C8	2.43	0.54
1:2A:599:G:O2'	1:2A:1299:A:OP1	2.24	0.54
1:2A:1093:A:N1	1:2A:1157:G:O2'	2.32	0.54
1:2A:1386:U:OP2	1:2A:1439:U:O2'	2.17	0.54
1:2A:1632:A:H2'	1:2A:1633:C:C6	2.43	0.54
1:2A:1856:G:H4'	4:2D:242:ARG:CZ	2.37	0.54
1:2A:2339:A:H2'	1:2A:2340:G:C8	2.42	0.54
11:2L:4:TYR:CD2	18:2S:100:VAL:HG11	2.43	0.54
19:2T:6:LYS:HB2	19:2T:38:LEU:HD21	1.90	0.54
1:1A:1072:A:C2	1:1A:2499:A:H5'	2.42	0.54
1:1A:1219:U:O3'	1:1A:1220:G:H4'	2.07	0.54
22:1W:11:ASP:OD2	22:1W:97:ARG:NH2	2.40	0.54
34:1a:61:A:H4'	34:1a:62:G:H5'	1.89	0.54
34:1a:920:G:H21	42:1i:124:GLN:NE2	2.06	0.54
43:1j:54:PHE:O	43:1j:56:HIS:N	2.36	0.54
55:1z:172:ASP:OD2	55:1z:173:THR:HG23	2.08	0.54
55:1z:491:VAL:HG11	55:1z:597:GLY:HA2	1.89	0.54
58:1x:4:ARG:O	58:1x:6:ARG:NH1	2.39	0.54
1:2A:82:A:H5"	22:2W:8:LYS:HG2	1.88	0.54
1:2A:82:A:N1	1:2A:96:G:O2'	2.32	0.54
1:2A:1404:A:N1	1:2A:1417:U:O4	2.40	0.54
12:2M:107:ARG:NE	17:2R:36:GLU:HG2	2.23	0.54
43:2j:6:ILE:O	43:2j:71:LEU:HD12	2.07	0.54
1:1A:551:C:C5	1:1A:2791:U:H2'	2.42	0.54
1:1A:1218:A:H1'	1:1A:1219:U:H5"	1.90	0.54
34:1a:1127:G:N2	34:1a:1129:A:H62	2.04	0.54
34:1a:1134:A:O2'	34:1a:1135:A:O5'	2.26	0.54
45:1l:5:PRO:HG2	45:1l:10:LEU:HD21	1.90	0.54
1:2A:860:C:H2'	1:2A:861:C:H6	1.73	0.54
1:2A:1355:G:OP2	31:25:9:ARG:NH1	2.35	0.54
3:2C:51:PRO:O	3:2C:53:ARG:N	2.37	0.54
3:2C:212:VAL:O	3:2C:224:ILE:HG12	2.08	0.54
23:2X:144:LEU:HD21	23:2X:150:LEU:HD13	1.90	0.54
32:26:9:GLY:O	32:26:13:ARG:HG2	2.07	0.54
34:2a:589:U:H2'	34:2a:590:G:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:867:A:O2'	1:1A:990:G:OP2	2.24	0.54
1:1A:1512:G:H2'	1:1A:1593:C:H41	1.73	0.54
25:1Z:91:LYS:HG2	25:1Z:95:LEU:HD22	1.90	0.54
34:1a:485:C:H1'	34:1a:533:C:H1'	1.90	0.54
34:1a:855:C:OP1	41:1h:88:LYS:NZ	2.33	0.54
14:2O:35:VAL:HG12	14:2O:102:VAL:HG22	1.89	0.54
20:2U:79:GLY:HA3	20:2U:100:THR:HG22	1.89	0.54
34:2a:1290:U:H5"	46:2m:98:VAL:HB	1.90	0.54
41:2h:34:GLU:OE1	41:2h:37:ARG:NH1	2.41	0.54
52:2s:22:LEU:HB3	52:2s:27:GLU:HG3	1.89	0.54
1:1A:128:G:OP2	63:1A:3875:HOH:O	2.19	0.54
34:1a:568:G:H5'	50:1q:91:ARG:HH22	1.73	0.54
34:1a:1384:G:C2	34:1a:1385:C:H1'	2.43	0.54
1:2A:1542:U:H5"	1:2A:1543:C:H5	1.73	0.54
7:2G:116:ASP:OD1	46:2m:68:GLY:HA3	2.07	0.54
34:2a:1089:G:H5"	36:2c:172:ARG:HG2	1.90	0.54
34:2a:1418:G:H2'	34:2a:1419:U:C6	2.43	0.54
41:2h:64:LYS:HG2	41:2h:79:VAL:HG21	1.90	0.54
1:1A:1107:G:H1	1:1A:1120:C:N4	2.06	0.54
1:1A:2254:U:H2'	1:1A:2255:U:C6	2.42	0.54
1:1A:2323:U:H5'	7:1G:88:ILE:HD11	1.90	0.54
1:1A:2362:G:O6	32:16:39:LYS:HG3	2.08	0.54
34:1a:614:G:H2'	34:1a:615:G:C8	2.42	0.54
34:1a:1352:C:H2'	34:1a:1353:G:H8	1.71	0.54
2:2B:33:G:H5'	7:2G:2:PRO:HD3	1.90	0.54
34:2a:423:U:OP1	37:2d:13:ARG:NH2	2.41	0.54
35:2b:201:ILE:HG21	35:2b:214:ILE:HG21	1.89	0.54
42:2i:9:ARG:HA	42:2i:13:ALA:O	2.08	0.54
55:2z:406:GLU:OE1	55:2z:439:ARG:NH2	2.33	0.54
1:1A:1103:G:N2	1:1A:1126:U:H1'	2.23	0.53
1:1A:1198:C:H2'	1:1A:1199:G:O4'	2.08	0.53
1:1A:1903:C:H2'	1:1A:1904:G:O4'	2.08	0.53
12:1M:2:ILE:HD12	12:1M:6:THR:HG21	1.89	0.53
34:1a:154:G:H21	34:1a:156:A:H3'	1.73	0.53
44:1k:98:LEU:O	44:1k:101:SER:OG	2.22	0.53
1:2A:713:U:O2	32:26:2:PRO:HD2	2.07	0.53
1:2A:1336:C:H2'	1:2A:1337:U:C6	2.44	0.53
1:2A:1417:U:H2'	1:2A:1418:A:H5'	1.89	0.53
1:2A:2127:G:H3'	1:2A:2128:C:C6	2.43	0.53
34:2a:522:G:H5"	45:2l:114:LYS:HB2	1.90	0.53
36:2c:120:VAL:HA	36:2c:123:GLN:HE21	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:2z:549:ALA:HB1	55:2z:591:LYS:HE3	1.89	0.53
34:1a:153:G:H2'	34:1a:154:G:C8	2.43	0.53
34:1a:162:G:H2'	34:1a:163:G:H8	1.74	0.53
41:1h:10:LEU:HD22	41:1h:83:ILE:HD11	1.90	0.53
1:2A:1109:C:H4'	10:2K:89:HIS:HA	1.90	0.53
1:2A:1155:G:N3	1:2A:1155:G:H2'	2.23	0.53
1:2A:1457:A:H2'	1:2A:1458:G:H8	1.73	0.53
10:2K:77:LEU:HD12	10:2K:111:LYS:HE2	1.90	0.53
34:2a:1257:A:H2'	34:2a:1258:G:O4'	2.09	0.53
35:2b:91:PRO:HB3	35:2b:154:LEU:HB3	1.90	0.53
43:2j:63:PHE:HE1	47:2n:58:LYS:HG2	1.73	0.53
1:1A:1614:G:OP2	4:1D:63:ARG:NH2	2.41	0.53
1:1A:2563:U:OP2	63:1A:3871:HOH:O	2.18	0.53
1:1A:2578:G:H2'	1:1A:2579:C:C6	2.43	0.53
34:1a:42:G:H2'	34:1a:43:G:H8	1.72	0.53
45:1l:27:LEU:HD12	45:1l:33:ARG:HG3	1.90	0.53
53:1t:45:GLN:HG3	53:1t:91:LEU:HD22	1.90	0.53
1:2A:1337:U:H2'	1:2A:1338:C:C6	2.43	0.53
1:2A:2127:G:C6	1:2A:2204:C:N3	2.77	0.53
3:2C:49:ILE:HB	3:2C:56:GLN:HB3	1.91	0.53
17:2R:18:ASP:OD1	17:2R:18:ASP:N	2.34	0.53
34:2a:110:A:H61	34:2a:309:A:H1'	1.73	0.53
52:2s:36:ARG:NH1	52:2s:52:TYR:O	2.35	0.53
1:1A:1097:C:H2'	1:1A:1098:C:H6	1.72	0.53
1:1A:1113:G:N2	1:1A:1140:A:O2'	2.39	0.53
1:1A:2459:A:N6	63:1A:4023:HOH:O	2.42	0.53
6:1F:135:LYS:HB2	6:1F:138:GLU:CD	2.34	0.53
1:2A:1159:G:H2'	1:2A:1160:G:C8	2.43	0.53
1:2A:2149:C:H5'	3:2C:218:MET:HE1	1.89	0.53
23:2X:45:ASP:O	23:2X:49:ARG:HG3	2.08	0.53
34:2a:417:U:H3	36:2c:127:ARG:HE	1.54	0.53
43:2j:17:ASP:OD1	43:2j:70:ARG:NH1	2.38	0.53
12:1M:10:VAL:HG21	12:1M:16:ALA:HB3	1.91	0.53
55:1z:13:ARG:HD2	55:1z:276:VAL:HG12	1.90	0.53
34:2a:171:C:H2'	34:2a:172:C:H6	1.73	0.53
34:2a:1410:U:H2'	34:2a:1411:A:C8	2.43	0.53
53:2t:13:LEU:O	53:2t:17:ARG:HG3	2.09	0.53
1:1A:309:C:H2'	1:1A:310:C:C6	2.44	0.53
1:1A:2858:U:O4	17:1R:23:ARG:NH2	2.42	0.53
29:13:41:PRO:O	29:13:44:THR:OG1	2.21	0.53
34:1a:1052:C:OP2	63:1a:1908:HOH:O	2.19	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1h:51:VAL:HG12	41:1h:52:ASP:H	1.73	0.53
1:2A:170:A:N3	1:2A:459:C:O2'	2.37	0.53
1:2A:1085:C:H2'	1:2A:1086:C:O4'	2.09	0.53
1:2A:1126:U:H5'	10:2K:125:ARG:HD3	1.91	0.53
1:2A:1512:G:N2	1:2A:1593:C:N3	2.56	0.53
26:20:32:LEU:HD13	26:20:36:ARG:HH11	1.73	0.53
34:2a:502:C:O2'	34:2a:514:G:N2	2.41	0.53
1:1A:236:G:H5'	1:1A:238:G:N7	2.24	0.53
1:1A:651:A:H4'	1:1A:652:G:H5'	1.89	0.53
29:13:48:GLU:O	29:13:60:VAL:HG11	2.08	0.53
37:1d:25:ARG:NH1	37:1d:30:LYS:O	2.42	0.53
49:1p:72:ARG:HD2	49:1p:73:LEU:HD22	1.91	0.53
55:1z:106:VAL:HG23	55:1z:134:ALA:HA	1.89	0.53
55:1z:514:VAL:HB	55:1z:593:ALA:HB1	1.89	0.53
1:2A:885:U:H1'	1:2A:1235:G:H1'	1.91	0.53
1:2A:1223:C:H2'	1:2A:1224:C:H6	1.73	0.53
1:2A:2020:C:H5"	1:2A:2735:C:O2'	2.09	0.53
7:2G:50:ALA:O	7:2G:52:ILE:N	2.41	0.53
15:2P:36:THR:HG22	15:2P:37:THR:H	1.73	0.53
39:2f:99:ALA:HB2	51:2r:31:LEU:HD21	1.90	0.53
40:2g:97:GLN:HG3	40:2g:98:SER:N	2.24	0.53
43:2j:37:PRO:HA	43:2j:72:VAL:HG12	1.89	0.53
46:2m:33:ALA:HB2	46:2m:64:TRP:HH2	1.73	0.53
4:1D:85:ASP:OD2	4:1D:88:ARG:NH1	2.41	0.53
7:1G:106:LEU:HD12	7:1G:110:ALA:HB3	1.90	0.53
34:1a:1006:C:H2'	34:1a:1007:C:C5	2.44	0.53
44:1k:22:HIS:HB3	44:1k:29:ILE:HB	1.91	0.53
52:1s:3:ARG:HE	52:1s:7:LYS:HD3	1.74	0.53
52:1s:12:ASP:O	52:1s:14:HIS:N	2.38	0.53
53:1t:30:LYS:HA	53:1t:33:ILE:HD12	1.91	0.53
1:2A:2256:U:H5"	1:2A:2257:G:H5'	1.90	0.53
13:2N:95:VAL:HG23	13:2N:99:LEU:HD11	1.90	0.53
34:2a:868:G:O2'	34:2a:884:G:O6	2.23	0.53
34:2a:969:U:H2'	34:2a:1194:U:N3	2.24	0.53
34:2a:1046:C:H3'	34:2a:1047:G:H2'	1.91	0.53
37:2d:68:TYR:CE1	37:2d:97:LEU:HB3	2.43	0.53
1:1A:1000:G:O6	63:1A:3855:HOH:O	2.16	0.53
12:1M:35:VAL:HG21	12:1M:105:GLU:HG3	1.91	0.53
21:1V:43:VAL:HG21	21:1V:81:VAL:HG11	1.91	0.53
23:1X:152:ALA:H	23:1X:171:ILE:HG12	1.73	0.53
34:1a:1091:G:H5'	36:1c:176:HIS:CD2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1e:80:ILE:HD13	41:1h:104:ARG:HH21	1.73	0.53
55:1z:160:ARG:H	55:1z:160:ARG:CD	2.22	0.53
1:2A:1424:A:H4'	1:2A:1425:G:OP2	2.08	0.53
1:2A:2483:G:H2'	1:2A:2486:C:H42	1.74	0.53
29:23:41:PRO:O	29:23:44:THR:OG1	2.24	0.53
55:2z:538:TYR:CD1	55:2z:579:GLU:HG2	2.43	0.53
3:1C:68:LEU:HD13	3:1C:175:VAL:HG11	1.90	0.53
1:2A:991:G:H2'	1:2A:992:G:C8	2.44	0.53
1:2A:1265:C:H2'	1:2A:1266:C:C6	2.43	0.53
1:2A:1323:A:OP1	15:2P:36:THR:HG23	2.09	0.53
1:2A:1358:U:OP1	63:2A:4938:HOH:O	2.19	0.53
1:2A:2323:U:H5'	7:2G:88:ILE:HD11	1.90	0.53
3:2C:39:GLU:O	3:2C:178:ALA:N	2.42	0.53
40:2g:45:ASP:O	40:2g:49:ILE:HG13	2.09	0.53
55:2z:627:ARG:HA	55:2z:651:GLU:HG2	1.91	0.53
1:1A:492:G:OP1	31:15:33:ARG:NH1	2.40	0.52
1:1A:931:C:H3'	1:1A:932:C:C5'	2.38	0.52
16:1Q:93:LYS:HE2	16:1Q:95:HIS:HB2	1.91	0.52
1:2A:309:C:H2'	1:2A:310:C:H6	1.74	0.52
1:2A:885:U:O2'	1:2A:1235:G:N3	2.42	0.52
1:2A:948:C:H2'	1:2A:949:C:H6	1.74	0.52
1:2A:1070:G:C4	1:2A:1179:C:H1'	2.44	0.52
34:2a:720:C:H2'	34:2a:721:A:C8	2.45	0.52
47:2n:29:ARG:HD3	47:2n:40:CYS:HB2	1.90	0.52
55:2z:632:LEU:O	55:2z:644:ARG:NH2	2.42	0.52
1:1A:1122:A:O2'	10:1K:132:ARG:O	2.20	0.52
1:1A:2146:G:O2'	1:1A:2194:A:N6	2.42	0.52
55:1z:634:MET:HG2	55:1z:643:ILE:HG13	1.91	0.52
1:2A:1067:G:N7	11:2L:66:LYS:HE2	2.24	0.52
1:2A:1138:G:C2'	1:2A:1143:A:H61	2.22	0.52
11:2L:14:VAL:HG13	11:2L:138:LEU:HB2	1.90	0.52
15:2P:33:ARG:HE	15:2P:113:LEU:HD22	1.73	0.52
34:2a:1017:G:H3'	34:2a:1018:A:C8	2.45	0.52
34:2a:1091:G:H5'	36:2c:176:HIS:CD2	2.43	0.52
1:1A:1188:A:OP1	11:1L:25:ARG:NH2	2.43	0.52
1:1A:1691:G:H5"	1:1A:1692:C:H5'	1.91	0.52
12:1M:48:PRO:HB3	34:1a:1405:G:H5'	1.90	0.52
26:10:31:GLU:HB2	26:10:53:LEU:HD11	1.91	0.52
34:1a:46:U:H2'	34:1a:47:G:C8	2.44	0.52
34:1a:162:G:H2'	34:1a:163:G:C8	2.45	0.52
35:1b:101:MET:HA	35:1b:108:ILE:HD12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1t:13:LEU:O	53:1t:17:ARG:HG3	2.10	0.52
1:2A:1480:G:H2'	1:2A:1481:G:O4'	2.10	0.52
8:2H:154:PRO:HB3	8:2H:163:TYR:CZ	2.45	0.52
34:2a:505:G:H4'	45:2l:73:GLU:HG2	1.91	0.52
34:2a:691:C:H2'	34:2a:692:C:C6	2.44	0.52
34:2a:1101:C:H1'	34:2a:1161:A:C4	2.44	0.52
34:2a:1443:C:H2'	34:2a:1444:C:O4'	2.09	0.52
1:1A:138:A:H8	1:1A:1453:C:O2'	1.93	0.52
1:1A:598:U:H2'	1:1A:599:G:C8	2.45	0.52
1:1A:1715:A:H5"	1:1A:2561:G:OP1	2.09	0.52
1:1A:2016:U:OP1	63:1A:3868:HOH:O	2.18	0.52
12:1M:115:VAL:HG13	12:1M:121:VAL:HG21	1.91	0.52
23:1X:152:ALA:O	23:1X:155:LEU:HB2	2.08	0.52
46:1m:106:ASN:N	46:1m:106:ASN:OD1	2.42	0.52
53:1t:56:MET:HE1	53:1t:85:MET:HA	1.91	0.52
1:2A:1184:C:O3'	11:2L:25:ARG:NH1	2.43	0.52
1:2A:2118:C:H2'	1:2A:2119:U:O4'	2.09	0.52
5:2E:11:MET:CG	5:2E:24:THR:HG22	2.37	0.52
13:2N:101:VAL:HA	13:2N:106:LEU:O	2.09	0.52
14:2O:66:ILE:HG12	14:2O:104:PHE:CD1	2.44	0.52
37:2d:150:GLU:OE2	37:2d:151:LYS:N	2.41	0.52
43:2j:11:PHE:HE1	43:2j:67:THR:HB	1.74	0.52
1:1A:437:G:C5	13:1N:72:PRO:HB3	2.45	0.52
1:1A:921:G:H1	1:1A:947:C:H42	1.56	0.52
1:1A:2204:C:H2'	1:1A:2205:G:C8	2.45	0.52
29:13:20:ARG:HG2	29:13:23:HIS:CE1	2.45	0.52
34:1a:101:G:H2'	34:1a:102:G:O4'	2.09	0.52
34:1a:1410:U:H2'	34:1a:1411:A:H8	1.74	0.52
35:1b:44:LEU:H	35:1b:44:LEU:HD22	1.74	0.52
1:2A:955:A:N1	1:2A:2288:G:H1'	2.24	0.52
1:2A:1092:G:O2'	1:2A:1155:G:O6	2.21	0.52
1:2A:2478:C:H4'	14:2O:123:HIS:CD2	2.45	0.52
3:2C:179:SER:HA	3:2C:180:PHE:C	2.35	0.52
3:2C:211:SER:HB3	3:2C:213:TYR:HE2	1.73	0.52
18:2S:27:LEU:HB3	18:2S:31:SER:HB3	1.91	0.52
18:2S:83:LEU:HG	18:2S:88:ILE:HB	1.92	0.52
36:2c:71:ALA:O	36:2c:73:PRO:HD3	2.10	0.52
1:1A:932:C:H2'	1:1A:933:A:H5"	1.92	0.52
1:1A:2622:U:C4	29:13:3:LYS:HG2	2.45	0.52
3:1C:59:ARG:HE	3:1C:164:ARG:HH22	1.57	0.52
34:1a:161:G:H2'	34:1a:162:G:H8	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:205:G:H2'	34:1a:206:G:H8	1.73	0.52
34:1a:232:G:OP1	50:1q:40:LYS:NZ	2.37	0.52
34:1a:750:A:OP2	63:1a:1907:HOH:O	2.19	0.52
42:1i:42:ARG:NH2	42:1i:75:ASP:OD1	2.43	0.52
51:1r:56:THR:HB	51:1r:58:LEU:HD23	1.92	0.52
55:1z:18:ALA:O	55:1z:106:VAL:HA	2.09	0.52
55:1z:621:ILE:HA	55:1z:624:LEU:HB2	1.91	0.52
2:2B:8:U:O2'	16:2Q:40:ILE:HD13	2.10	0.52
34:2a:823:U:H5"	34:2a:824:C:H5	1.75	0.52
46:2m:33:ALA:HB2	46:2m:64:TRP:CH2	2.44	0.52
52:2s:38:SER:HB2	52:2s:71:LEU:HD22	1.91	0.52
1:1A:814:G:O2'	1:1A:1424:A:N1	2.40	0.52
1:1A:1715:A:OP1	63:1A:3867:HOH:O	2.18	0.52
1:1A:1960:U:OP1	1:1A:2615:U:O2'	2.21	0.52
1:1A:2226:G:H3'	1:1A:2227:G:C8	2.44	0.52
9:1J:118:THR:O	9:1J:120:LYS:N	2.42	0.52
13:1N:82:GLY:HA2	13:1N:113:LYS:O	2.10	0.52
34:1a:661:U:H3	34:1a:697:G:H22	1.56	0.52
34:1a:969:U:H4'	34:1a:970:U:OP1	2.08	0.52
53:1t:47:GLY:HA2	53:1t:48:LYS:C	2.35	0.52
55:1z:9:LEU:O	55:1z:282:SER:HB2	2.10	0.52
1:2A:239:A:C5	1:2A:240:G:H1'	2.45	0.52
7:2G:108:ASN:HA	28:22:37:SER:HB2	1.90	0.52
7:2G:115:ARG:NH1	7:2G:115:ARG:HB3	2.24	0.52
8:2H:56:SER:HB3	8:2H:61:HIS:ND1	2.25	0.52
34:2a:1270:A:N1	34:2a:1354:G:H1'	2.24	0.52
35:2b:80:ILE:HD11	35:2b:212:GLN:HA	1.92	0.52
1:1A:1153:U:O2'	1:1A:1154:C:H5"	2.10	0.52
1:1A:1855:A:OP1	4:1D:249:PRO:HD3	2.10	0.52
26:10:32:LEU:HD13	26:10:36:ARG:HH11	1.75	0.52
32:16:28:GLY:O	32:16:36:LYS:NZ	2.36	0.52
34:1a:952:A:H8	34:1a:952:A:OP1	1.93	0.52
35:1b:201:ILE:HG21	35:1b:214:ILE:HG21	1.91	0.52
55:1z:165:GLN:NE2	55:1z:260:LEU:H	2.08	0.52
55:1z:217:VAL:HG13	55:1z:242:LEU:HD21	1.92	0.52
1:2A:590:U:O4	63:2A:4936:HOH:O	2.19	0.52
6:2F:36:VAL:HG11	6:2F:183:VAL:HG11	1.92	0.52
17:2R:50:ILE:HA	17:2R:99:LEU:HD12	1.90	0.52
34:2a:319:U:O3'	53:2t:22:ARG:HD3	2.10	0.52
34:2a:1173:A:OP1	36:2c:3:ASN:ND2	2.42	0.52
37:2d:149:ALA:HB3	37:2d:152:SER:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:2x:12:ARG:HG3	58:2x:13:PRO:HD2	1.92	0.52
1:1A:2462:A:O2'	58:1x:7:PRO:HG2	2.10	0.52
1:1A:2574:U:H4'	12:1M:28:SER:HA	1.92	0.52
7:1G:143:GLU:OE2	28:12:26:SER:OG	2.26	0.52
23:1X:7:ALA:O	23:1X:62:PRO:HD3	2.09	0.52
28:12:53:GLU:HB3	28:12:54:GLY:HA2	1.91	0.52
34:1a:386:C:H2'	34:1a:387:G:C8	2.45	0.52
34:1a:648:G:H22	34:1a:725:G:H1	1.57	0.52
34:1a:1045:U:H2'	34:1a:1046:C:C6	2.45	0.52
34:1a:1418:G:H2'	34:1a:1419:U:C6	2.44	0.52
35:1b:207:ALA:O	35:1b:211:ILE:HG13	2.10	0.52
39:1f:68:PRO:HG2	39:1f:71:ARG:HD2	1.92	0.52
1:2A:639:A:C4	6:2F:180:GLY:HA3	2.45	0.52
1:2A:806:G:OP1	63:2A:4937:HOH:O	2.19	0.52
1:2A:1136:G:H2'	1:2A:1137:C:O4'	2.10	0.52
1:2A:1520:C:H2'	1:2A:1521:G:H8	1.73	0.52
7:2G:145:THR:HG22	7:2G:148:MET:SD	2.50	0.52
34:2a:962:C:H2'	34:2a:963:C:C6	2.45	0.52
34:2a:1311:A:OP2	54:2u:7:ARG:NH1	2.43	0.52
34:2a:1334:C:H2'	34:2a:1335:G:C8	2.44	0.52
55:2z:139:MET:HA	55:2z:144:ALA:HB1	1.92	0.52
55:2z:251:ILE:HG21	55:2z:285:ASP:HB3	1.91	0.52
1:1A:1833:A:O2'	4:1D:259:THR:HG21	2.09	0.52
1:1A:2139:U:OP1	1:1A:2169:G:H4'	2.09	0.52
34:1a:95:A:H2'	34:1a:96:G:H8	1.75	0.52
37:1d:173:TRP:CD1	37:1d:173:TRP:H	2.28	0.52
1:2A:554:G:C5	1:2A:2043:U:H5"	2.44	0.52
1:2A:1561:U:H2'	1:2A:1562:G:H8	1.75	0.52
1:2A:1648:A:OP1	63:2A:4940:HOH:O	2.19	0.52
7:2G:70:VAL:HA	7:2G:90:LEU:HD23	1.92	0.52
17:2R:117:ASP:OD2	17:2R:120:ARG:NE	2.42	0.52
20:2U:38:TYR:CE2	29:23:41:PRO:HD3	2.45	0.52
37:2d:76:ARG:NH2	37:2d:80:GLU:OE1	2.29	0.52
38:2e:34:VAL:HG11	38:2e:63:ARG:HG3	1.92	0.52
49:2p:51:VAL:HG12	49:2p:53:VAL:H	1.74	0.52
55:2z:555:LEU:HD11	55:2z:599:PRO:HB2	1.90	0.52
1:1A:904:U:O2	1:1A:2279:A:H2'	2.10	0.51
1:1A:1085:C:H2'	1:1A:1086:C:O4'	2.11	0.51
1:1A:1116:G:O2'	1:1A:1134:G:H2'	2.10	0.51
1:1A:1345:U:H4'	1:1A:1346:A:H5"	1.92	0.51
3:1C:10:LEU:HD22	3:1C:32:LEU:HA	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1F:150:GLY:HA2	6:1F:172:TRP:CE3	2.45	0.51
9:1J:65:GLU:O	9:1J:67:GLY:N	2.43	0.51
34:1a:168:U:H5"	34:1a:204:A:O4'	2.09	0.51
34:1a:218:U:H2'	34:1a:219:U:C6	2.45	0.51
34:1a:565:G:OP1	48:1o:65:ARG:NH2	2.43	0.51
53:1t:97:ALA:N	53:1t:98:PRO:HD3	2.25	0.51
55:1z:309:LEU:HA	55:1z:333:GLY:HA3	1.90	0.51
55:1z:468:ARG:HB3	55:1z:468:ARG:NH1	2.25	0.51
3:2C:33:ALA:HB2	3:2C:216:THR:HG21	1.92	0.51
4:2D:8:PRO:HB3	4:2D:14:ARG:HB2	1.92	0.51
5:2E:9:VAL:HG13	5:2E:25:VAL:O	2.10	0.51
6:2F:172:TRP:H	6:2F:172:TRP:CD1	2.26	0.51
7:2G:144:ILE:HG23	7:2G:148:MET:HE1	1.91	0.51
10:2K:99:ILE:HG22	10:2K:103:GLN:HB2	1.92	0.51
22:2W:43:ASN:CG	22:2W:65:ALA:HB3	2.35	0.51
34:2a:262:G:O2'	50:2q:67:LYS:HB2	2.10	0.51
34:2a:460:G:H2'	34:2a:461:G:H8	1.75	0.51
34:2a:1077:G:OP1	63:2a:1813:HOH:O	2.19	0.51
34:2a:1349:C:H2'	34:2a:1350:C:C6	2.45	0.51
1:1A:604:G:H2'	1:1A:605:G:C8	2.45	0.51
4:1D:125:ILE:HB	39:1f:81:ILE:HD11	1.91	0.51
7:1G:41:GLN:HB3	7:1G:43:LEU:HD13	1.92	0.51
15:1P:38:VAL:HG22	15:1P:112:ALA:HB2	1.90	0.51
34:1a:692:C:OP1	44:1k:85:ARG:NH2	2.43	0.51
34:1a:1357:A:OP1	40:1g:36:LYS:NZ	2.43	0.51
35:1b:50:GLU:O	35:1b:54:THR:OG1	2.18	0.51
1:2A:141:G:H2'	1:2A:142:C:C6	2.46	0.51
1:2A:212:G:H2'	1:2A:213:A:O4'	2.10	0.51
1:2A:344:G:OP2	6:2F:135:LYS:HE2	2.09	0.51
1:2A:1072:A:C6	1:2A:1171:A:C4	2.99	0.51
1:2A:2129:C:H2'	1:2A:2130:U:C6	2.46	0.51
1:2A:2307:U:OP2	16:2Q:9:ARG:NH2	2.34	0.51
34:2a:431:C:H2'	34:2a:432:C:H6	1.75	0.51
34:2a:1084:A:OP2	35:2b:96:ARG:HD3	2.11	0.51
43:2j:57:LYS:HE2	43:2j:60:ARG:NH2	2.25	0.51
1:1A:1129:A:N3	1:1A:1150:U:O2'	2.41	0.51
1:1A:1402:U:H2'	1:1A:1403:G:O4'	2.10	0.51
1:1A:2666:G:O2'	1:1A:2675:G:O6	2.22	0.51
11:1L:128:HIS:O	11:1L:131:GLN:NE2	2.44	0.51
26:10:9:GLN:HE22	26:10:56:GLN:HB3	1.76	0.51
34:1a:811:U:H5"	34:1a:812:A:OP2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1b:28:PHE:CD2	35:1b:194:PRO:HG3	2.46	0.51
41:1h:2:LEU:HD22	41:1h:3:THR:H	1.76	0.51
55:1z:106:VAL:HG21	55:1z:122:TRP:HZ3	1.75	0.51
1:2A:1199:G:H8	1:2A:1199:G:O5'	1.93	0.51
13:2N:52:GLU:HG2	32:26:57:ARG:HH22	1.75	0.51
23:2X:180:VAL:HA	23:2X:183:LEU:HD22	1.91	0.51
53:2t:57:ARG:HH12	53:2t:100:ILE:HD12	1.75	0.51
55:2z:604:PRO:HG2	55:2z:649:LEU:HB2	1.92	0.51
1:1A:775:G:C8	4:1D:208:LYS:HD2	2.45	0.51
1:1A:1153:U:H6	1:1A:1154:C:C6	2.28	0.51
5:1E:128:SER:OG	5:1E:129:HIS:N	2.42	0.51
6:1F:150:GLY:HA2	6:1F:172:TRP:CD2	2.46	0.51
55:1z:534:ILE:HD11	55:1z:570:GLY:HA3	1.91	0.51
55:1z:555:LEU:HB3	55:1z:688:ILE:HD13	1.92	0.51
1:2A:1765:G:H8	1:2A:1769:A:N6	2.04	0.51
3:2C:42:GLU:HB2	3:2C:44:HIS:NE2	2.26	0.51
5:2E:47:VAL:HG11	5:2E:86:PRO:HD2	1.92	0.51
10:2K:76:TYR:O	10:2K:80:LYS:NZ	2.28	0.51
28:22:59:PHE:N	28:22:60:GLN:HB2	2.26	0.51
34:2a:942:A:N3	34:2a:947:A:O2'	2.43	0.51
34:2a:1185:C:H2'	34:2a:1186:A:C8	2.45	0.51
1:1A:183:A:C8	1:1A:185:A:OP1	2.63	0.51
1:1A:398:G:OP2	25:1Z:69:LYS:HE2	2.11	0.51
1:1A:1109:C:H4'	10:1K:86:LYS:HE3	1.91	0.51
1:1A:1311:G:O5'	20:1U:15:ARG:NH2	2.44	0.51
1:1A:2583:A:C8	5:1E:144:ARG:HD2	2.46	0.51
15:1P:96:ARG:NH1	15:1P:115:GLU:OE1	2.42	0.51
39:1f:69:GLU:O	39:1f:72:VAL:HG12	2.11	0.51
55:1z:224:ASP:OD2	55:1z:227:ILE:HG13	2.10	0.51
1:2A:322:A:N1	1:2A:345:A:O2'	2.34	0.51
5:2E:111:ARG:HG3	5:2E:160:TYR:CD2	2.46	0.51
28:22:40:HIS:HB3	28:22:43:TYR:HB2	1.92	0.51
33:27:2:LYS:HE2	33:27:31:LYS:O	2.11	0.51
34:2a:585:C:H2'	34:2a:586:A:H8	1.74	0.51
34:2a:899:U:O2'	38:2e:19:MET:O	2.22	0.51
34:2a:1137:G:H2'	34:2a:1138:G:H8	1.74	0.51
38:2e:102:ALA:HB1	38:2e:106:PRO:HG2	1.93	0.51
55:2z:87:HIS:O	55:2z:89:ASP:N	2.43	0.51
55:2z:324:ARG:NH2	55:2z:383:THR:O	2.36	0.51
15:1P:67:LEU:HD13	15:1P:76:VAL:HG21	1.91	0.51
34:1a:485:C:H2'	34:1a:486:G:H8	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1b:51:LEU:HD23	35:1b:55:PHE:HE2	1.75	0.51
41:1h:39:LEU:HB3	41:1h:45:ILE:HG12	1.92	0.51
1:2A:471:G:OP2	1:2A:471:G:H8	1.94	0.51
1:2A:1101:G:H5"	1:2A:1102:A:H5'	1.93	0.51
1:2A:1920:G:H2'	1:2A:1920:G:N3	2.26	0.51
12:2M:67:LYS:NZ	12:2M:68:GLU:OE1	2.40	0.51
34:2a:1154:C:H2'	34:2a:1155:G:C8	2.45	0.51
34:2a:1231:C:O2'	42:2i:73:GLN:NE2	2.43	0.51
55:2z:319:ASP:CG	55:2z:363:ARG:HH22	2.19	0.51
55:2z:350:GLU:HB3	55:2z:380:LEU:HD12	1.93	0.51
1:1A:2172:G:H2'	1:1A:2173:G:C8	2.45	0.51
35:1b:24:TRP:CD1	35:1b:24:TRP:H	2.28	0.51
44:1k:45:GLY:O	44:1k:48:ILE:HG12	2.11	0.51
1:2A:1828:U:OP2	4:2D:274:ARG:NH2	2.44	0.51
1:2A:1853:G:OP1	4:2D:54:ARG:NH1	2.44	0.51
18:2S:49:HIS:O	18:2S:53:ARG:N	2.44	0.51
27:21:26:LEU:O	27:21:35:ARG:NE	2.44	0.51
40:2g:18:TYR:CD2	40:2g:59:LEU:HB2	2.45	0.51
41:2h:11:THR:O	41:2h:15:ASN:ND2	2.36	0.51
46:2m:3:ARG:NH1	46:2m:4:ILE:HB	2.25	0.51
48:2o:16:ALA:HB1	48:2o:21:ASP:HB3	1.93	0.51
1:1A:277:G:OP1	25:1Z:76:ARG:NE	2.36	0.51
1:1A:2187:G:N7	1:1A:2189:G:N2	2.59	0.51
6:1F:164:ARG:HD2	6:1F:175:THR:HG23	1.93	0.51
7:1G:33:ARG:O	7:1G:161:THR:OG1	2.22	0.51
19:1T:40:LEU:HB2	19:1T:46:VAL:HG13	1.92	0.51
34:1a:924:A:H2'	34:1a:925:G:C8	2.45	0.51
34:1a:1179:G:OP2	63:1a:1909:HOH:O	2.19	0.51
49:1p:40:ASP:HB3	49:1p:48:TRP:HB2	1.93	0.51
55:1z:75:LYS:O	55:1z:77:HIS:HD2	1.93	0.51
1:2A:719:C:H5"	6:2F:81:PRO:HD2	1.93	0.51
1:2A:2226:G:H5"	1:2A:2227:G:N7	2.26	0.51
1:2A:2688:G:H2'	1:2A:2689:C:C6	2.44	0.51
18:2S:52:ARG:HA	18:2S:55:ARG:HG3	1.92	0.51
34:2a:954:G:OP1	47:2n:32:SER:N	2.41	0.51
35:2b:19:HIS:CE1	35:2b:206:ASP:HB2	2.46	0.51
43:2j:64:GLU:HB3	47:2n:59:ALA:HB2	1.93	0.51
46:2m:53:VAL:O	46:2m:57:ARG:N	2.33	0.51
50:2q:9:VAL:HG22	50:2q:56:VAL:HG22	1.93	0.51
55:2z:122:TRP:HH2	55:2z:256:THR:HG21	1.75	0.51
55:2z:138:LYS:HG2	62:2z:702:GDP:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1076:G:H21	33:17:36:GLN:HE22	1.58	0.51
1:1A:2174:G:H2'	1:1A:2175:G:H8	1.76	0.51
4:1D:27:THR:O	4:1D:27:THR:OG1	2.28	0.51
8:1H:28:GLY:HA3	8:1H:79:VAL:HB	1.93	0.51
10:1K:108:ALA:O	10:1K:112:MET:HE2	2.11	0.51
16:1Q:30:ARG:HG3	16:1Q:35:ILE:HD12	1.93	0.51
20:1U:29:LEU:HD22	20:1U:69:LEU:HD12	1.93	0.51
23:1X:92:SER:O	23:1X:130:PRO:HG2	2.11	0.51
34:1a:63:U:OP1	34:1a:381:C:O2'	2.28	0.51
35:1b:36:ARG:O	35:1b:38:GLY:N	2.38	0.51
40:1g:78:ARG:NH1	40:1g:154:TYR:O	2.42	0.51
47:1n:4:LYS:HA	47:1n:7:ILE:HG23	1.93	0.51
50:1q:67:LYS:O	50:1q:68:ARG:HG2	2.11	0.51
1:2A:195:A:H2'	1:2A:196:C:O4'	2.10	0.51
1:2A:553:A:H62	1:2A:2062:U:H3	1.59	0.51
1:2A:847:G:O6	6:2F:53:THR:OG1	2.29	0.51
1:2A:894:G:N9	1:2A:977:A:H8	2.09	0.51
1:2A:1565:U:H2'	1:2A:1566:G:O4'	2.10	0.51
1:2A:2198:C:H2'	1:2A:2199:C:O4'	2.11	0.51
3:2C:3:HIS:HA	3:2C:7:TYR:HB3	1.93	0.51
34:2a:1115:C:H2'	34:2a:1116:G:C8	2.46	0.51
41:2h:21:LYS:O	41:2h:65:TYR:OH	2.22	0.51
55:2z:97:SER:O	55:2z:101:LEU:HG	2.11	0.51
55:2z:230:LYS:HB2	55:2z:237:PRO:HG3	1.93	0.51
3:1C:43:VAL:HG22	3:1C:214:VAL:HG22	1.92	0.51
10:1K:88:ALA:O	10:1K:90:LYS:N	2.44	0.51
34:1a:251:G:H1'	50:1q:16:GLN:NE2	2.25	0.51
34:1a:1012:G:H2'	34:1a:1013:A:H8	1.76	0.51
35:1b:229:VAL:HG12	35:1b:230:VAL:H	1.76	0.51
38:1e:105:VAL:HB	38:1e:106:PRO:HD3	1.93	0.51
47:1n:23:ARG:NH1	47:1n:30:ALA:HB2	2.26	0.51
55:1z:354:ARG:HG2	55:1z:365:GLU:OE2	2.10	0.51
1:2A:94:G:H4'	26:20:48:HIS:CD2	2.46	0.51
1:2A:1194:G:H2'	1:2A:1195:C:C6	2.46	0.51
7:2G:145:THR:HG23	7:2G:147:ASP:H	1.75	0.51
25:2Z:89:GLU:O	25:2Z:93:GLU:HG2	2.11	0.51
34:2a:567:A:H2'	34:2a:568:G:O4'	2.10	0.51
34:2a:626:A:N3	41:2h:113:SER:OG	2.44	0.51
34:2a:703:C:O2'	51:2r:49:LYS:HB3	2.11	0.51
37:2d:36:ARG:HG3	37:2d:38:TYR:CZ	2.45	0.51
1:1A:552:A:O2'	1:1A:553:A:H5'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:885:U:H1'	1:1A:1235:G:H1'	1.93	0.50
1:1A:1951:G:O2'	1:1A:1989:G:O6	2.20	0.50
1:1A:2063:A:OP1	63:1A:3877:HOH:O	2.19	0.50
1:1A:2123:U:H2'	1:1A:2124:C:C6	2.44	0.50
3:1C:47:LEU:O	3:1C:210:ARG:HD3	2.10	0.50
34:1a:574:C:H2'	34:1a:575:U:C6	2.46	0.50
34:1a:658:G:H2'	34:1a:659:A:H8	1.76	0.50
46:1m:9:ILE:HB	46:1m:18:ALA:HB1	1.93	0.50
55:1z:74:TRP:CD1	55:1z:273:LEU:HB3	2.46	0.50
55:1z:269:VAL:HA	55:1z:272:LEU:HB3	1.93	0.50
1:2A:524:G:N2	1:2A:526:A:H3'	2.26	0.50
1:2A:908:G:H2'	1:2A:909:A:O4'	2.12	0.50
1:2A:1826:U:H2'	1:2A:1827:C:C6	2.46	0.50
1:2A:1994:G:H2'	1:2A:1995:C:C6	2.46	0.50
34:2a:1434:G:O3'	53:2t:39:LYS:NZ	2.42	0.50
36:2c:108:ASN:HD21	36:2c:144:SER:HB3	1.76	0.50
46:2m:124:PRO:HD2	55:2z:507:TYR:HB2	1.93	0.50
1:1A:1295:G:N7	13:1N:18:ARG:NH2	2.59	0.50
1:1A:1729:C:H2'	1:1A:1730:C:C6	2.46	0.50
1:1A:1986:C:H3'	1:1A:1987:A:H2'	1.92	0.50
1:1A:2095:U:OP1	63:1A:3874:HOH:O	2.18	0.50
28:12:63:TYR:N	28:12:64:GLY:HA2	2.24	0.50
34:1a:377:C:H2'	34:1a:378:A:O4'	2.11	0.50
34:1a:1132:C:H2'	34:1a:1133:U:C6	2.46	0.50
37:1d:65:ARG:HG2	37:1d:75:PHE:CD1	2.46	0.50
38:1e:43:LEU:HD21	38:1e:132:ALA:HB1	1.93	0.50
49:1p:13:HIS:ND1	63:1p:102:HOH:O	2.35	0.50
1:2A:1207:G:H2'	1:2A:1208:G:H8	1.77	0.50
1:2A:1354:G:P	31:25:9:ARG:HD3	2.51	0.50
1:2A:1525:G:O2'	1:2A:1604:A:H5'	2.10	0.50
1:2A:2155:A:H3'	1:2A:2156:A:H8	1.76	0.50
1:2A:2176:G:C5	1:2A:2177:G:H1'	2.46	0.50
1:2A:2176:G:H2'	1:2A:2177:G:O4'	2.10	0.50
1:2A:2331:A:N3	1:2A:2331:A:H2'	2.27	0.50
2:2B:90:A:N7	2:2B:91:C:H1'	2.26	0.50
6:2F:53:THR:HG22	6:2F:56:GLU:HG3	1.93	0.50
6:2F:153:SER:N	6:2F:190:GLU:OE2	2.33	0.50
12:2M:2:ILE:HD12	12:2M:6:THR:HG21	1.92	0.50
19:2T:62:LEU:HD11	19:2T:95:LEU:HD12	1.91	0.50
34:2a:22:G:OP1	63:2a:1812:HOH:O	2.19	0.50
34:2a:1329:G:N2	34:2a:1356:G:H2'	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:2z:152:THR:C	55:2z:154:GLN:H	2.19	0.50
1:1A:1218:A:H4'	1:1A:1219:U:OP1	2.10	0.50
1:1A:1357:U:H4'	1:1A:1358:U:O5'	2.11	0.50
1:1A:2018:G:N7	63:1A:3976:HOH:O	2.35	0.50
1:1A:2348:G:OP1	63:1A:3879:HOH:O	2.20	0.50
3:1C:171:ILE:HG23	3:1C:172:HIS:H	1.76	0.50
4:1D:68:LYS:O	4:1D:70:TRP:N	2.39	0.50
8:1H:69:ARG:HG3	8:1H:70:THR:N	2.26	0.50
12:1M:87:ILE:HD12	12:1M:91:LEU:HA	1.93	0.50
34:1a:37:C:O2'	34:1a:485:C:OP1	2.24	0.50
34:1a:1434:G:N1	53:1t:51:GLU:OE1	2.38	0.50
34:1a:1436:G:OP1	53:1t:35:THR:OG1	2.27	0.50
55:1z:443:HIS:HB3	55:1z:447:GLY:HA2	1.93	0.50
1:2A:361:G:O6	63:2A:4935:HOH:O	2.18	0.50
1:2A:1828:U:OP2	4:2D:273:ARG:NH2	2.44	0.50
1:2A:2186:G:H1	1:2A:2193:U:H5	1.58	0.50
5:2E:135:HIS:NE2	63:2E:401:HOH:O	2.34	0.50
6:2F:150:GLY:HA2	6:2F:172:TRP:CE3	2.46	0.50
13:2N:63:PRO:HG2	32:26:25:MET:HB2	1.93	0.50
34:2a:1091:G:H5'	36:2c:176:HIS:HD2	1.74	0.50
37:2d:173:TRP:CD1	37:2d:174:LEU:HG	2.46	0.50
44:2k:22:HIS:HB3	44:2k:29:ILE:HB	1.93	0.50
49:2p:55:ARG:HA	49:2p:55:ARG:HH11	1.77	0.50
55:2z:69:VAL:HG12	55:2z:327:PHE:HD1	1.77	0.50
1:1A:468:A:H5"	1:1A:469:C:OP1	2.12	0.50
1:1A:1845:A:H8	1:1A:1845:A:OP1	1.95	0.50
1:1A:2100:U:O3'	25:1Z:35:THR:OG1	2.28	0.50
1:1A:2235:G:H4'	1:1A:2237:C:C2	2.47	0.50
4:1D:12:SER:HB3	4:1D:208:LYS:HB3	1.92	0.50
19:1T:23:GLU:OE1	19:1T:89:GLN:NE2	2.45	0.50
46:1m:64:TRP:HB2	46:1m:66:LEU:HD21	1.94	0.50
47:1n:4:LYS:O	47:1n:7:ILE:HG12	2.10	0.50
47:1n:50:LYS:HD2	47:1n:52:GLN:NE2	2.27	0.50
50:1q:85:VAL:O	50:1q:89:LEU:HB2	2.11	0.50
55:1z:247:ARG:HG3	55:1z:279:TYR:HA	1.93	0.50
1:2A:724:C:H2'	1:2A:725:C:C6	2.47	0.50
1:2A:2462:A:N1	58:2x:9:ARG:HG3	2.27	0.50
6:2F:167:ALA:HB1	6:2F:173:VAL:HG11	1.93	0.50
10:2K:80:LYS:HE2	10:2K:80:LYS:H	1.76	0.50
34:2a:144:A:H2'	34:2a:145:C:C6	2.47	0.50
34:2a:184:G:H2'	34:2a:185:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:507:A:N6	45:2l:53:ARG:HH12	2.09	0.50
34:2a:1012:G:H2'	34:2a:1013:A:C8	2.46	0.50
34:2a:1125:G:H2'	34:2a:1126:G:O4'	2.11	0.50
35:2b:91:PRO:HD3	35:2b:154:LEU:HD12	1.92	0.50
40:2g:153:HIS:HA	40:2g:155:ARG:HH12	1.77	0.50
55:2z:32:ILE:HG23	55:2z:273:LEU:HD21	1.92	0.50
55:2z:458:HIS:HA	55:2z:461:ILE:HG12	1.94	0.50
55:2z:627:ARG:HB3	55:2z:651:GLU:HB3	1.92	0.50
1:1A:35:G:N3	1:1A:475:G:O2'	2.41	0.50
1:1A:719:C:H5"	6:1F:81:PRO:HD2	1.94	0.50
1:1A:1444:C:OP1	21:1V:25:LYS:NZ	2.44	0.50
23:1X:158:PRO:O	23:1X:161:VAL:HG12	2.12	0.50
35:1b:16:HIS:CG	35:1b:17:PHE:N	2.79	0.50
35:1b:28:PHE:CD1	35:1b:190:THR:HA	2.46	0.50
46:1m:80:ARG:HH21	52:1s:69:HIS:HE1	1.60	0.50
1:2A:1125:C:O2'	10:2K:125:ARG:O	2.24	0.50
1:2A:1224:C:H2'	1:2A:1225:C:C6	2.47	0.50
1:2A:1687:A:H2'	1:2A:1688:G:O4'	2.11	0.50
1:2A:1953:A:H2'	1:2A:1954:G:O4'	2.12	0.50
1:2A:2505:G:H4'	14:2O:80:GLU:HG2	1.93	0.50
5:2E:143:ASN:HD22	5:2E:147:PRO:HD3	1.75	0.50
34:2a:1107:G:N2	34:2a:1108:U:O4	2.39	0.50
36:2c:100:ALA:O	36:2c:102:ASN:N	2.45	0.50
1:1A:235:G:H4'	1:1A:412:G:C5	2.46	0.50
1:1A:1066:A:H2'	1:1A:1068:U:H5'	1.92	0.50
1:1A:1066:A:H62	1:1A:1185:U:H3	1.60	0.50
1:1A:1261:C:OP1	18:1S:15:LYS:NZ	2.37	0.50
1:1A:1816:A:H1'	1:1A:1959:A:N6	2.26	0.50
1:1A:2144:G:OP1	3:1C:164:ARG:HD3	2.12	0.50
1:1A:2244:U:H2'	1:1A:2245:G:C8	2.47	0.50
1:1A:2548:U:H2'	1:1A:2549:C:C6	2.46	0.50
2:1B:45:A:OP2	7:1G:96:ARG:NH2	2.43	0.50
7:1G:137:GLU:HG2	7:1G:152:LEU:HD13	1.93	0.50
15:1P:57:ARG:HB3	15:1P:59:ASP:OD1	2.11	0.50
20:1U:18:ARG:NH1	20:1U:76:VAL:O	2.45	0.50
26:10:53:LEU:O	26:10:57:ILE:HG13	2.11	0.50
37:1d:108:LEU:HB3	37:1d:110:PHE:HE1	1.76	0.50
37:1d:205:GLU:OE1	38:1e:100:VAL:HB	2.12	0.50
1:2A:1824:U:H2'	1:2A:1825:C:C6	2.47	0.50
1:2A:2142:G:N2	3:2C:168:THR:OG1	2.45	0.50
1:2A:2156:A:C6	1:2A:2157:C:N4	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2427:C:H2'	1:2A:2428:C:H6	1.77	0.50
23:2X:93:ASP:HA	23:2X:131:ARG:NH2	2.26	0.50
34:2a:110:A:OP1	63:2a:1802:HOH:O	2.20	0.50
34:2a:446:A:N6	34:2a:465:U:H2'	2.27	0.50
34:2a:555:U:O2	34:2a:896:A:H5'	2.10	0.50
34:2a:653:U:H2'	34:2a:654:G:C8	2.46	0.50
39:2f:8:ILE:HD11	39:2f:79:LEU:HD13	1.93	0.50
42:2i:4:TYR:CE2	42:2i:88:TYR:HA	2.47	0.50
49:2p:53:VAL:HG22	49:2p:79:VAL:HG22	1.92	0.50
55:2z:496:LYS:HZ2	55:2z:498:ILE:HD13	1.77	0.50
1:1A:302:C:H42	1:1A:384:G:H1	1.59	0.50
1:1A:554:G:C5	1:1A:2043:U:H5"	2.47	0.50
24:1Y:53:MET:HG3	24:1Y:59:LEU:HD23	1.94	0.50
34:1a:1290:U:H5"	46:1m:98:VAL:HB	1.94	0.50
45:1l:60:LEU:HD21	45:1l:66:VAL:HG22	1.94	0.50
1:2A:1603:C:OP2	1:2A:1604:A:O2'	2.24	0.50
3:2C:22:ILE:HG21	3:2C:190:ARG:HG3	1.92	0.50
18:2S:97:ASP:OD1	18:2S:101:ARG:HD2	2.12	0.50
34:2a:1171:C:OP1	47:2n:58:LYS:NZ	2.45	0.50
44:2k:59:TYR:CE2	44:2k:63:LEU:HD11	2.47	0.50
44:2k:84:VAL:CG1	44:2k:91:ARG:HD2	2.41	0.50
46:2m:123:ALA:HA	55:2z:507:TYR:CD2	2.46	0.50
55:2z:105:ILE:HD12	55:2z:272:LEU:HD21	1.94	0.50
1:1A:1664:G:N7	63:1A:3974:HOH:O	2.34	0.50
1:1A:2406:C:O2'	25:1Z:30:VAL:HG13	2.12	0.50
1:1A:2464:A:H5"	58:1x:2:ARG:HH12	1.76	0.50
55:1z:438:PHE:HA	55:1z:452:SER:O	2.11	0.50
1:2A:174:G:H2'	1:2A:175:G:H8	1.75	0.50
1:2A:2173:G:H2'	1:2A:2174:G:O4'	2.12	0.50
1:2A:2356:G:N3	1:2A:2392:C:H2'	2.27	0.50
1:2A:2544:A:OP1	1:2A:2676:A:O2'	2.25	0.50
1:2A:2698:U:H2'	1:2A:2699:U:O4'	2.12	0.50
2:2B:46:A:H2'	2:2B:47:C:C6	2.47	0.50
5:2E:170:LEU:HB3	5:2E:184:VAL:HG22	1.93	0.50
6:2F:101:LEU:HD12	6:2F:102:PRO:HD2	1.93	0.50
21:2V:12:VAL:HG22	21:2V:29:TRP:CE2	2.46	0.50
22:2W:56:PRO:C	22:2W:58:GLY:H	2.19	0.50
24:2Y:11:ARG:O	24:2Y:14:ARG:NH2	2.44	0.50
34:2a:16:G:H1'	38:2e:19:MET:HE2	1.94	0.50
34:2a:143:G:H2'	34:2a:144:A:C8	2.45	0.50
34:2a:199:U:H2'	34:2a:200:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:810:C:H2'	34:2a:811:U:C6	2.47	0.50
34:2a:1185:C:H2'	34:2a:1186:A:H8	1.76	0.50
35:2b:97:TRP:CH2	35:2b:101:MET:HB2	2.47	0.50
36:2c:82:GLU:O	36:2c:85:ARG:HG3	2.12	0.50
40:2g:16:LEU:H	40:2g:16:LEU:HD22	1.77	0.50
40:2g:20:ASP:HB3	40:2g:23:VAL:HG23	1.93	0.50
1:1A:833:U:H5"	1:1A:834:A:H5'	1.94	0.50
1:1A:1065:A:N1	1:1A:1185:U:O2'	2.34	0.50
1:1A:2167:C:O2	1:1A:2168:G:N1	2.45	0.50
1:1A:2227:G:O2'	1:1A:2228:A:OP1	2.30	0.50
35:1b:17:PHE:HB2	35:1b:44:LEU:HD11	1.94	0.50
1:2A:37:A:H2'	1:2A:38:C:C6	2.47	0.50
1:2A:2371:A:H2'	1:2A:2372:A:O4'	2.11	0.50
4:2D:208:LYS:HG3	4:2D:211:ARG:H	1.76	0.50
17:2R:16:ARG:HD2	17:2R:19:LEU:HG	1.94	0.50
34:2a:1019:G:H3'	34:2a:1020:C:C6	2.47	0.50
34:2a:1131:U:H2'	34:2a:1132:C:O4'	2.12	0.50
37:2d:13:ARG:NH1	37:2d:38:TYR:O	2.45	0.50
40:2g:32:ARG:C	40:2g:34:GLY:H	2.16	0.50
43:2j:16:LEU:HD23	43:2j:94:VAL:HG22	1.93	0.50
46:2m:123:ALA:HB3	55:2z:573:HIS:CD2	2.47	0.50
55:2z:-53:ASP:OD1	55:2z:-52:VAL:N	2.43	0.50
1:1A:237:C:O2	32:16:12:LYS:NZ	2.39	0.49
1:1A:1514:C:OP1	63:1A:3881:HOH:O	2.20	0.49
1:1A:1792:A:H2'	63:1A:4565:HOH:O	2.12	0.49
1:1A:2659:C:H2'	1:1A:2660:U:H6	1.76	0.49
28:12:59:PHE:HB3	52:1s:67:VAL:HG21	1.94	0.49
34:1a:148:C:N4	34:1a:163:G:H1	2.10	0.49
34:1a:658:G:H2'	34:1a:659:A:C8	2.46	0.49
43:1j:38:ILE:HG13	43:1j:71:LEU:HB3	1.94	0.49
55:1z:87:HIS:O	55:1z:89:ASP:N	2.45	0.49
1:2A:1223:C:H2'	1:2A:1224:C:C6	2.47	0.49
1:2A:1586:U:H2'	1:2A:1587:G:O4'	2.12	0.49
1:2A:1735:A:N6	1:2A:1744:A:H2	2.02	0.49
1:2A:2573:U:H1'	12:2M:23:ARG:HH11	1.76	0.49
6:2F:120:GLU:HB2	6:2F:122:LYS:HG2	1.93	0.49
23:2X:24:LEU:HD12	23:2X:25:PRO:HD2	1.93	0.49
34:2a:1298:G:N2	34:2a:1301:A:H5'	2.24	0.49
35:2b:44:LEU:HD22	35:2b:44:LEU:H	1.76	0.49
41:2h:4:ASP:OD1	41:2h:7:ALA:N	2.28	0.49
43:2j:13:HIS:HB3	43:2j:68:HIS:HE1	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1066:A:C8	1:1A:1066:A:H3'	2.47	0.49
1:1A:1140:A:H2'	1:1A:1141:A:C8	2.47	0.49
2:1B:28:C:OP1	16:1Q:36:TYR:OH	2.28	0.49
10:1K:98:ARG:HB3	10:1K:137:GLU:HG3	1.94	0.49
12:1M:23:ARG:HG3	12:1M:24:VAL:N	2.27	0.49
15:1P:104:ARG:HG3	15:1P:111:LEU:HD21	1.94	0.49
18:1S:58:ARG:HA	18:1S:61:TRP:CE3	2.48	0.49
27:11:18:ASP:OD1	27:11:18:ASP:N	2.44	0.49
37:1d:107:ARG:HG3	37:1d:173:TRP:HH2	1.76	0.49
37:1d:109:GLY:HA3	37:1d:165:MET:HG3	1.94	0.49
37:1d:159:ARG:O	37:1d:163:GLU:N	2.40	0.49
40:1g:26:PHE:CE2	40:1g:30:ILE:HD11	2.46	0.49
43:1j:17:ASP:CG	43:1j:70:ARG:HH12	2.19	0.49
51:1r:26:LEU:HD21	51:1r:39:VAL:HG13	1.93	0.49
1:2A:1103:G:N2	1:2A:1126:U:O2'	2.45	0.49
1:2A:1210:U:H2'	1:2A:1211:C:C6	2.47	0.49
1:2A:1280:G:OP1	63:2A:4941:HOH:O	2.20	0.49
1:2A:2472:C:H2'	1:2A:2473:U:C6	2.47	0.49
1:2A:2503:U:H2'	1:2A:2504:U:C6	2.48	0.49
8:2H:96:ALA:HB1	8:2H:103:LEU:HD11	1.94	0.49
43:2j:6:ILE:HA	43:2j:98:ILE:HG12	1.93	0.49
1:1A:518:G:H4'	20:1U:6:ILE:HB	1.95	0.49
6:1F:172:TRP:CD1	6:1F:172:TRP:H	2.30	0.49
34:1a:1235:G:H2'	34:1a:1236:C:C6	2.47	0.49
34:1a:1260:U:H5'	34:1a:1261:A:O4'	2.11	0.49
43:1j:57:LYS:HD2	43:1j:60:ARG:NH2	2.24	0.49
49:1p:49:LEU:HD22	49:1p:73:LEU:HD12	1.94	0.49
55:1z:-38:TYR:O	55:1z:-35:PRO:HD2	2.12	0.49
55:1z:160:ARG:HE	55:1z:254:LYS:C	2.20	0.49
55:1z:546:ILE:HD12	55:1z:565:VAL:HG11	1.94	0.49
1:2A:1250:G:H2'	1:2A:1251:C:C6	2.46	0.49
1:2A:1473:C:N4	1:2A:1616:A:OP2	2.44	0.49
1:2A:1753:G:H1	1:2A:1781:C:H42	1.60	0.49
1:2A:2356:G:OP2	30:24:38:LYS:HG3	2.12	0.49
34:2a:1002:G:C5	34:2a:1003:G:C8	3.00	0.49
34:2a:1330:U:H2'	34:2a:1331:A:H8	1.77	0.49
42:2i:76:ALA:O	42:2i:80:GLY:N	2.36	0.49
46:2m:29:ARG:HD3	46:2m:64:TRP:CD2	2.47	0.49
55:2z:276:VAL:O	55:2z:280:LEU:HB2	2.11	0.49
1:1A:224:C:H2'	1:1A:225:C:C6	2.47	0.49
1:1A:2657:C:OP2	1:1A:2744:G:O2'	2.24	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1D:71:ASP:OD2	4:1D:103:ARG:NH2	2.45	0.49
9:1J:73:GLY:O	9:1J:75:GLN:N	2.45	0.49
20:1U:1:MET:HE2	20:1U:62:HIS:HB3	1.94	0.49
34:1a:68:C:H2'	34:1a:69:G:C8	2.48	0.49
35:1b:54:THR:O	35:1b:58:ILE:HG13	2.13	0.49
14:2O:29:PHE:HB2	14:2O:105:GLU:OE2	2.12	0.49
35:2b:219:VAL:O	35:2b:222:ILE:HG12	2.12	0.49
45:2l:33:ARG:HH11	45:2l:62:SER:HB3	1.76	0.49
1:1A:2174:G:H2'	1:1A:2175:G:C8	2.48	0.49
34:1a:29:G:O2'	34:1a:292:U:H5"	2.12	0.49
34:1a:1111:C:O2'	34:1a:1130:C:N3	2.38	0.49
34:1a:1240:G:H2'	34:1a:1241:C:C6	2.47	0.49
34:1a:1337:G:H2'	34:1a:1338:G:C8	2.47	0.49
41:1h:49:GLU:HG2	41:1h:62:TYR:HE1	1.78	0.49
55:1z:15:ILE:HG21	55:1z:280:LEU:HD13	1.95	0.49
1:2A:1404:A:N3	1:2A:1404:A:H5'	2.27	0.49
1:2A:1500:U:OP1	15:2P:77:ARG:NH1	2.43	0.49
1:2A:1561:U:H2'	1:2A:1562:G:C8	2.48	0.49
8:2H:30:LYS:NZ	8:2H:81:GLU:O	2.27	0.49
11:2L:111:PRO:HA	11:2L:114:ARG:NH1	2.27	0.49
24:2Y:36:ILE:HD12	24:2Y:58:THR:HG21	1.95	0.49
25:2Z:21:ARG:HD3	25:2Z:35:THR:HG21	1.95	0.49
34:2a:59:C:O2'	34:2a:384:G:N7	2.32	0.49
34:2a:732:C:H4'	34:2a:733:C:O5'	2.12	0.49
34:2a:1356:G:H5"	40:2g:36:LYS:HB2	1.94	0.49
55:2z:109:ASP:OD2	55:2z:138:LYS:HD2	2.12	0.49
1:1A:624:G:O2'	1:1A:701:A:N6	2.45	0.49
1:1A:1633:C:H2'	1:1A:1634:C:H6	1.76	0.49
1:1A:2449:U:O2'	1:1A:2451:C:OP1	2.30	0.49
3:1C:6:ARG:NE	3:1C:218:MET:O	2.45	0.49
14:1O:64:ILE:HG13	23:1X:178:GLU:HG3	1.93	0.49
23:1X:4:ARG:HG2	23:1X:58:VAL:HG13	1.95	0.49
34:1a:181:C:O4'	53:1t:81:LYS:NZ	2.45	0.49
34:1a:296:A:H1'	34:1a:549:U:O2	2.13	0.49
37:1d:142:PRO:HA	37:1d:185:PHE:HD1	1.78	0.49
55:1z:92:ILE:HG23	55:1z:96:ARG:NH2	2.27	0.49
55:1z:127:LYS:NZ	55:1z:404:VAL:HG11	2.27	0.49
1:2A:945:A:O2'	1:2A:946:A:OP1	2.26	0.49
4:2D:153:ALA:O	4:2D:157:ARG:NH1	2.45	0.49
7:2G:7:LEU:HD23	7:2G:100:TRP:HE3	1.78	0.49
7:2G:101:ILE:HG22	7:2G:105:LYS:HE2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2J:49:ALA:N	9:2J:90:ALA:HB1	2.27	0.49
29:23:29:THR:O	29:23:30:LEU:HD23	2.13	0.49
34:2a:1378:C:O2'	34:2a:1384:G:O2'	2.23	0.49
41:2h:114:THR:OG1	41:2h:115:SER:N	2.46	0.49
1:1A:846:A:H8	1:1A:846:A:OP1	1.95	0.49
3:1C:26:ALA:HA	3:1C:29:VAL:HG22	1.93	0.49
34:1a:267:C:H2'	34:1a:268:C:H6	1.76	0.49
34:1a:401:U:OP2	37:1d:3:ARG:NH2	2.45	0.49
34:1a:402:G:OP1	37:1d:5:ILE:HD11	2.13	0.49
34:1a:582:U:H4'	41:1h:94:TYR:CD2	2.47	0.49
34:1a:980:G:H2'	34:1a:981:G:O4'	2.12	0.49
36:1c:37:GLN:O	36:1c:41:GLY:N	2.46	0.49
55:1z:138:LYS:HG2	62:1z:701:GDP:C5	2.47	0.49
55:1z:639:ASN:HA	55:1z:640:ALA:O	2.12	0.49
1:2A:1183:G:O2'	1:2A:1188:A:N1	2.38	0.49
1:2A:2503:U:H2'	1:2A:2504:U:H6	1.77	0.49
7:2G:38:VAL:HG22	7:2G:93:THR:HG23	1.94	0.49
8:2H:7:LEU:HD23	8:2H:69:ARG:CZ	2.43	0.49
15:2P:55:ALA:HB2	15:2P:79:LEU:HD13	1.94	0.49
17:2R:107:ASP:HA	17:2R:110:ILE:HD12	1.94	0.49
34:2a:414:C:H2'	34:2a:415:C:C6	2.47	0.49
36:2c:98:ASN:N	36:2c:98:ASN:OD1	2.45	0.49
39:2f:35:ALA:HB2	39:2f:67:MET:HE2	1.95	0.49
42:2i:96:LEU:HA	42:2i:99:LEU:HB2	1.94	0.49
55:2z:415:PRO:HG3	55:2z:421:GLN:NE2	2.27	0.49
1:1A:955:A:N1	1:1A:2288:G:H1'	2.28	0.49
1:1A:1153:U:O2'	1:1A:1154:C:H6	1.94	0.49
1:1A:1222:C:H2'	1:1A:1223:C:C6	2.48	0.49
1:1A:1357:U:OP2	21:1V:63:LYS:HD2	2.13	0.49
1:1A:1404:A:H5'	1:1A:1404:A:N3	2.28	0.49
1:1A:1848:U:H2'	4:1D:157:ARG:HG3	1.94	0.49
7:1G:145:THR:H	7:1G:148:MET:HE2	1.78	0.49
8:1H:20:ALA:HB1	8:1H:21:PRO:HD2	1.94	0.49
25:1Z:19:GLN:HB3	25:1Z:35:THR:HG23	1.95	0.49
32:16:23:VAL:HG11	32:16:47:LYS:HD3	1.94	0.49
34:1a:132:C:H2'	34:1a:133:G:H8	1.77	0.49
36:1c:29:TYR:CZ	47:1n:54:PRO:HG2	2.48	0.49
1:2A:346:G:O2'	1:2A:1249:U:N3	2.26	0.49
1:2A:2330:G:N2	16:2Q:3:ARG:HA	2.27	0.49
1:2A:2813:C:H2'	1:2A:2814:C:H6	1.76	0.49
2:2B:37:C:O2	16:2Q:95:HIS:NE2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2D:143:HIS:HD1	4:2D:194:GLY:C	2.21	0.49
5:2E:34:VAL:HG21	5:2E:78:LEU:HD11	1.95	0.49
21:2V:40:LYS:HG3	21:2V:51:VAL:HB	1.95	0.49
34:2a:312:G:OP2	34:2a:347:G:O2'	2.28	0.49
34:2a:571:G:N2	34:2a:738:C:OP2	2.45	0.49
37:2d:46:LYS:O	37:2d:47:ARG:HB3	2.13	0.49
1:1A:670:A:H2'	1:1A:671:G:O4'	2.12	0.49
1:1A:908:G:H2'	1:1A:909:A:O4'	2.13	0.49
1:1A:1450:U:H2'	1:1A:1451:U:C6	2.48	0.49
22:1W:77:PRO:HD3	22:1W:106:LEU:HD23	1.94	0.49
28:12:24:THR:OG1	28:12:25:TYR:N	2.46	0.49
34:1a:1287:G:H5"	54:1u:4:GLY:HA3	1.95	0.49
34:1a:1296:C:OP2	52:1s:4:SER:OG	2.28	0.49
35:1b:87:ARG:NH1	35:1b:230:VAL:HG11	2.28	0.49
55:1z:77:HIS:CE1	55:1z:277:VAL:HG13	2.48	0.49
1:2A:33:C:H5"	1:2A:34:G:OP2	2.13	0.49
1:2A:1150:U:H2'	1:2A:1151:G:C8	2.47	0.49
1:2A:2284:A:O2'	1:2A:2285:A:H5'	2.13	0.49
1:2A:2286:C:H6	1:2A:2286:C:H5'	1.78	0.49
20:2U:12:ILE:HD13	20:2U:17:VAL:HG13	1.95	0.49
23:2X:110:GLY:HA3	23:2X:174:VAL:HG11	1.94	0.49
28:22:59:PHE:HA	28:22:61:ARG:H	1.75	0.49
34:2a:1480:A:H5'	34:2a:1482:G:N7	2.28	0.49
35:2b:16:HIS:CG	35:2b:17:PHE:N	2.79	0.49
55:2z:621:ILE:HA	55:2z:624:LEU:HD22	1.95	0.49
1:1A:1337:U:H2'	1:1A:1338:C:C6	2.47	0.49
1:1A:1809:U:H2'	63:1A:4171:HOH:O	2.12	0.49
1:1A:2464:A:H5"	58:1x:2:ARG:NH1	2.28	0.49
1:1A:2740:U:H5'	12:1M:70:LYS:HZ1	1.78	0.49
34:1a:1169:G:H5'	42:1i:113:LYS:HE3	1.94	0.49
34:1a:1375:G:H21	34:1a:1480:A:H8	1.61	0.49
35:1b:124:SER:HB3	35:1b:125:PRO:HA	1.94	0.49
48:1o:39:LEU:HD13	48:1o:56:LEU:HB2	1.95	0.49
1:2A:2661:U:H2'	1:2A:2662:C:C6	2.48	0.49
4:2D:106:ILE:O	4:2D:108:PRO:HD3	2.13	0.49
4:2D:108:PRO:HD2	4:2D:111:LEU:HG	1.95	0.49
34:2a:125:A:O2'	34:2a:126:C:O5'	2.29	0.49
34:2a:431:C:H2'	34:2a:432:C:C6	2.48	0.49
35:2b:51:LEU:HD11	35:2b:201:ILE:HG23	1.94	0.49
41:2h:35:ILE:O	41:2h:39:LEU:HD23	2.13	0.49
55:2z:228:MET:O	55:2z:232:LEU:HD22	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:2z:470:PHE:HB3	55:2z:472:VAL:HG23	1.94	0.49
1:1A:1559:U:H2'	1:1A:1560:C:C6	2.47	0.48
4:1D:72:LYS:HD3	4:1D:97:TYR:CE2	2.48	0.48
6:1F:185:ASP:OD1	6:1F:188:ARG:NH1	2.39	0.48
14:1O:57:HIS:HD2	14:1O:117:ALA:HB2	1.77	0.48
34:1a:699:A:H2'	34:1a:700:A:C8	2.48	0.48
37:1d:158:ILE:O	37:1d:162:LEU:HD12	2.13	0.48
55:1z:73:PHE:CE2	55:1z:78:ARG:HB2	2.48	0.48
55:1z:472:VAL:O	55:1z:474:ALA:N	2.47	0.48
1:2A:552:A:OP2	11:2L:114:ARG:NH1	2.46	0.48
1:2A:906:U:C2	1:2A:2279:A:C8	3.01	0.48
3:2C:211:SER:HB3	3:2C:213:TYR:CE2	2.48	0.48
13:2N:50:ARG:HD3	32:26:7:HIS:CD2	2.48	0.48
13:2N:62:LEU:HD11	32:26:50:LEU:HD11	1.95	0.48
17:2R:77:PRO:HB2	17:2R:80:SER:HB2	1.94	0.48
18:2S:92:ARG:HA	18:2S:95:LEU:HB2	1.95	0.48
34:2a:1103:G:C6	34:2a:1104:U:C4	3.01	0.48
37:2d:3:ARG:HD3	37:2d:118:ARG:CD	2.42	0.48
37:2d:57:ARG:HG2	37:2d:202:LEU:O	2.12	0.48
38:2e:110:LEU:HD13	38:2e:118:ILE:HG21	1.95	0.48
1:1A:1000:G:OP2	14:1O:14:ARG:NH2	2.46	0.48
1:1A:1070:G:C4	1:1A:1179:C:H1'	2.49	0.48
1:1A:2122:G:H2'	1:1A:2123:U:O4'	2.13	0.48
1:1A:2443:A:OP2	63:1A:3883:HOH:O	2.20	0.48
22:1W:102:CYS:SG	22:1W:103:GLY:N	2.86	0.48
34:1a:721:A:H2'	34:1a:722:C:C6	2.48	0.48
55:1z:467:LYS:O	55:1z:471:LYS:HA	2.14	0.48
1:2A:172:C:H2'	1:2A:173:U:H6	1.78	0.48
1:2A:224:C:H2'	1:2A:225:C:H6	1.78	0.48
1:2A:665:C:O2'	1:2A:2361:C:OP1	2.25	0.48
1:2A:775:G:C8	4:2D:208:LYS:HD3	2.48	0.48
1:2A:1808:U:H2'	1:2A:1814:A:N6	2.27	0.48
17:2R:19:LEU:HD13	17:2R:86:ILE:HD12	1.95	0.48
29:23:20:ARG:HA	29:23:23:HIS:CD2	2.48	0.48
36:2c:58:GLU:HB3	43:2j:92:THR:HG21	1.94	0.48
38:2e:8:GLU:OE2	38:2e:63:ARG:NH2	2.31	0.48
42:2i:8:GLY:HA3	42:2i:76:ALA:O	2.13	0.48
44:2k:82:VAL:HB	44:2k:108:ILE:HG12	1.96	0.48
55:2z:414:GLU:HG2	55:2z:475:ASN:O	2.13	0.48
1:1A:267:G:HO2'	1:1A:268:G:H8	1.60	0.48
1:1A:2700:U:H4'	1:1A:2701:C:H5'	1.93	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1C:166:ASP:OD1	3:1C:170:ALA:HB3	2.13	0.48
7:1G:3:LEU:HD13	7:1G:5:VAL:HG12	1.95	0.48
32:16:31:HIS:ND1	32:16:32:LEU:HD13	2.28	0.48
34:1a:1355:U:OP1	42:1i:72:GLY:N	2.45	0.48
55:1z:127:LYS:HZ3	55:1z:404:VAL:CG1	2.26	0.48
1:2A:263:G:C6	1:2A:264:U:C4	3.01	0.48
1:2A:800:C:H2'	1:2A:801:C:H6	1.77	0.48
1:2A:927:G:H2'	1:2A:928:G:O4'	2.14	0.48
1:2A:1018:G:C6	1:2A:1230:G:C6	3.01	0.48
8:2H:90:LYS:HD2	8:2H:163:TYR:CD1	2.49	0.48
16:2Q:15:ARG:HB3	16:2Q:19:LYS:NZ	2.27	0.48
34:2a:179:G:H2'	34:2a:180:A:C8	2.48	0.48
34:2a:983:A:H5"	34:2a:1004:U:H5	1.78	0.48
34:2a:1410:U:H2'	34:2a:1411:A:H8	1.78	0.48
43:2j:11:PHE:CE1	43:2j:67:THR:HB	2.48	0.48
50:2q:45:HIS:CD2	50:2q:47:PRO:HD3	2.49	0.48
50:2q:45:HIS:ND1	50:2q:65:ILE:HG21	2.28	0.48
52:2s:28:LYS:HB3	52:2s:29:ARG:HA	1.96	0.48
55:2z:555:LEU:HD21	55:2z:599:PRO:HG2	1.95	0.48
1:1A:790:G:OP1	5:1E:132:HIS:ND1	2.47	0.48
1:1A:1113:G:O2'	1:1A:1141:A:O2'	2.12	0.48
21:1V:35:THR:HG23	21:1V:38:GLU:HB2	1.95	0.48
24:1Y:18:ALA:HB3	24:1Y:20:ARG:HH21	1.78	0.48
34:1a:22:G:H2'	34:1a:23:G:C8	2.49	0.48
34:1a:91:G:O2'	34:1a:92:G:H8	1.96	0.48
34:1a:1107:G:N2	34:1a:1108:U:O4	2.44	0.48
34:1a:1346:A:H4'	34:1a:1347:U:H2'	1.94	0.48
36:1c:116:VAL:HG21	36:1c:202:ILE:HD11	1.95	0.48
1:2A:1107:G:H4'	10:2K:133:SER:HB3	1.94	0.48
1:2A:2529:A:OP2	63:2A:4942:HOH:O	2.20	0.48
4:2D:96:HIS:CD2	4:2D:102:LYS:HG2	2.47	0.48
6:2F:21:ALA:CB	6:2F:22:ALA:HA	2.44	0.48
15:2P:56:LYS:NZ	15:2P:90:ARG:O	2.47	0.48
23:2X:152:ALA:O	23:2X:155:LEU:HB2	2.13	0.48
34:2a:371:U:O3'	49:2p:6:LEU:HB2	2.13	0.48
34:2a:507:A:H61	45:2l:92:ASP:HB2	1.79	0.48
34:2a:1277:G:O2'	46:2m:14:ARG:NH1	2.46	0.48
36:2c:53:ALA:HB2	36:2c:115:LEU:HD13	1.95	0.48
55:2z:78:ARG:NH1	55:2z:357:ARG:CZ	2.76	0.48
55:2z:162:VAL:HG21	55:2z:219:VAL:HG11	1.94	0.48
55:2z:604:PRO:HA	55:2z:676:TYR:CD2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1743:G:OP2	1:1A:1744:A:O2'	2.28	0.48
52:1s:65:ASN:H	52:1s:65:ASN:ND2	2.11	0.48
55:1z:39:ILE:HG13	55:1z:40:HIS:N	2.27	0.48
55:1z:96:ARG:HB2	55:1z:96:ARG:HH11	1.78	0.48
55:1z:453:GLY:HA3	55:1z:459:LEU:HG	1.94	0.48
1:2A:587:C:H2'	1:2A:588:U:O4'	2.13	0.48
1:2A:1038:G:OP1	18:2S:50:ARG:NH2	2.46	0.48
1:2A:1048:G:O2'	1:2A:1055:A:N1	2.33	0.48
1:2A:1336:C:H2'	1:2A:1337:U:H6	1.77	0.48
3:2C:68:LEU:HA	3:2C:175:VAL:HG11	1.94	0.48
17:2R:83:ILE:HD13	17:2R:86:ILE:HD11	1.95	0.48
17:2R:109:GLU:HG2	17:2R:112:ARG:HH22	1.77	0.48
21:2V:53:LYS:HB3	21:2V:82:GLN:HB3	1.96	0.48
34:2a:952:A:OP1	47:2n:31:ARG:HD3	2.13	0.48
1:1A:1638:G:H2'	1:1A:1639:G:C8	2.47	0.48
1:1A:2189:G:O6	1:1A:2192:A:H2'	2.14	0.48
2:1B:77:U:OP1	23:1X:19:ARG:NH2	2.45	0.48
4:1D:175:LEU:HD12	4:1D:185:VAL:HG21	1.96	0.48
14:1O:30:GLY:HA2	14:1O:107:ALA:HB2	1.95	0.48
32:16:23:VAL:CG1	32:16:47:LYS:HD3	2.43	0.48
34:1a:460:G:H2'	34:1a:461:G:C8	2.48	0.48
34:1a:838:A:H3'	34:1a:839:G:H8	1.79	0.48
34:1a:1060:G:N2	34:1a:1063:A:OP2	2.37	0.48
55:1z:464:ASP:OD1	55:1z:468:ARG:HB2	2.13	0.48
1:2A:1128:U:O2'	1:2A:1130:A:N7	2.42	0.48
1:2A:1494:G:H4'	1:2A:1588:A:OP1	2.14	0.48
1:2A:2151:U:H1'	1:2A:2179:A:N1	2.29	0.48
1:2A:2427:C:H2'	1:2A:2428:C:C6	2.49	0.48
6:2F:148:LEU:HD11	6:2F:193:VAL:HG21	1.95	0.48
27:21:23:LEU:HD13	27:21:50:VAL:HG11	1.96	0.48
40:2g:32:ARG:HH22	40:2g:109:ASN:ND2	2.11	0.48
52:2s:3:ARG:HH21	52:2s:10:PHE:HB2	1.79	0.48
55:2z:489:LYS:HG2	55:2z:598:ASP:HB2	1.96	0.48
1:1A:663:U:H2'	1:1A:664:C:C6	2.49	0.48
1:1A:2224:U:O4'	4:1D:151:LYS:HE2	2.14	0.48
6:1F:183:VAL:O	6:1F:187:VAL:HG23	2.12	0.48
7:1G:97:ASP:O	7:1G:101:ILE:HG13	2.14	0.48
7:1G:126:ASP:HB2	7:1G:130:ASN:HB2	1.95	0.48
35:1b:36:ARG:C	35:1b:38:GLY:H	2.21	0.48
46:1m:88:ARG:HG3	46:1m:98:VAL:HG13	1.96	0.48
55:1z:424:LEU:HD13	55:1z:472:VAL:HG11	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:1z:437:THR:HB	55:1z:458:HIS:CE1	2.48	0.48
55:1z:639:ASN:N	55:1z:640:ALA:HB3	2.28	0.48
1:2A:637:U:H4'	1:2A:638:G:H5"	1.96	0.48
1:2A:1039:C:O2'	1:2A:1041:A:OP1	2.17	0.48
1:2A:1494:G:H2'	1:2A:1495:A:C8	2.49	0.48
1:2A:1768:G:H2'	1:2A:1769:A:C8	2.46	0.48
1:2A:2141:G:O6	1:2A:2199:C:N3	2.47	0.48
6:2F:192:LEU:HD13	6:2F:194:MET:HE2	1.94	0.48
8:2H:102:ALA:HB2	8:2H:116:GLU:HG3	1.95	0.48
30:24:14:THR:OG1	30:24:48:VAL:HG13	2.14	0.48
34:2a:171:C:H2'	34:2a:172:C:C6	2.48	0.48
34:2a:974:A:H2'	34:2a:975:U:O4'	2.13	0.48
36:2c:136:GLN:O	36:2c:140:ARG:N	2.38	0.48
46:2m:96:LEU:C	46:2m:110:ARG:HG2	2.39	0.48
55:2z:167:PRO:HG2	55:2z:170:ARG:NH2	2.28	0.48
55:2z:247:ARG:HG3	55:2z:279:TYR:HA	1.94	0.48
55:2z:633:GLY:HA3	55:2z:644:ARG:HH22	1.79	0.48
1:1A:53:G:O2'	1:1A:124:A:N1	2.44	0.48
1:1A:2139:U:H5	1:1A:2169:G:N3	2.11	0.48
1:1A:2554:G:H2'	1:1A:2555:G:C8	2.48	0.48
3:1C:62:VAL:HG11	3:1C:192:PHE:HD1	1.79	0.48
6:1F:32:LEU:HD22	6:1F:112:MET:HE2	1.96	0.48
7:1G:77:ILE:HG22	7:1G:80:PHE:H	1.77	0.48
23:1X:9:TYR:OH	23:1X:61:LEU:HD23	2.14	0.48
34:1a:185:C:H2'	34:1a:186:C:C6	2.48	0.48
34:1a:1010:G:H2'	34:1a:1012:G:OP2	2.12	0.48
34:1a:1200:C:H2'	34:1a:1201:U:C6	2.49	0.48
38:1e:92:LYS:HB3	38:1e:119:LEU:HB2	1.95	0.48
55:1z:-38:TYR:O	55:1z:-34:ARG:HG2	2.13	0.48
55:1z:655:TYR:CE2	55:1z:659:LEU:HD12	2.48	0.48
1:2A:1073:A:N6	1:2A:1170:G:H2'	2.28	0.48
1:2A:1104:G:H3'	1:2A:1105:U:H2'	1.95	0.48
1:2A:1106:U:C5	10:2K:75:SER:HB2	2.48	0.48
1:2A:2159:C:H42	1:2A:2174:G:H1	1.62	0.48
3:2C:213:TYR:HA	3:2C:222:VAL:O	2.13	0.48
14:2O:122:GLY:O	63:2O:3101:HOH:O	2.20	0.48
25:2Z:83:GLU:OE1	25:2Z:83:GLU:N	2.42	0.48
34:2a:68:C:H2'	34:2a:69:G:C8	2.48	0.48
34:2a:199:U:H2'	34:2a:200:C:H6	1.79	0.48
36:2c:6:HIS:HB3	47:2n:49:HIS:ND1	2.29	0.48
55:2z:573:HIS:HE1	57:2w:35:A:O2'	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1248:A:H2	1:1A:1286:A:H62	1.60	0.48
1:1A:2298:A:C4	1:1A:2300:G:C8	3.02	0.48
6:1F:125:LEU:HD12	6:1F:194:MET:HB2	1.96	0.48
34:1a:373:G:H2'	34:1a:374:G:C8	2.49	0.48
34:1a:1112:C:N4	34:1a:1126:G:H1	2.09	0.48
37:1d:108:LEU:HD11	37:1d:174:LEU:HD22	1.95	0.48
38:1e:85:GLY:C	38:1e:87:SER:H	2.22	0.48
55:1z:-3:GLU:HG3	55:1z:0:ARG:HH12	1.79	0.48
1:2A:206:A:OP2	63:2A:4939:HOH:O	2.19	0.48
1:2A:658:C:H2'	1:2A:659:C:C6	2.48	0.48
1:2A:863:C:O2'	1:2A:885:U:H5"	2.14	0.48
1:2A:1653:A:H1'	1:2A:1655:A:OP2	2.14	0.48
1:2A:2480:A:H2'	1:2A:2481:G:O4'	2.14	0.48
5:2E:103:ASP:OD2	5:2E:168:MET:HE2	2.14	0.48
17:2R:4:GLY:O	17:2R:8:LYS:HG3	2.14	0.48
24:2Y:70:GLN:HG2	24:2Y:72:ARG:HG3	1.96	0.48
34:2a:1040:G:H2'	34:2a:1041:G:O4'	2.14	0.48
34:2a:1112:C:H1'	34:2a:1113:A:N7	2.29	0.48
34:2a:1417:A:H2'	34:2a:1418:G:O4'	2.14	0.48
55:2z:484:ARG:HG2	55:2z:561:VAL:HG22	1.96	0.48
1:1A:115:A:N3	1:1A:166:G:H1'	2.28	0.48
1:1A:1107:G:H22	1:1A:1121:C:H42	1.62	0.48
1:1A:2119:U:H3	1:1A:2212:G:H1	1.62	0.48
1:1A:2473:U:H1'	1:1A:2502:U:O4	2.14	0.48
1:1A:2858:U:H4'	1:1A:2877:A:C2	2.48	0.48
1:1A:2859:A:N7	1:1A:2877:A:O2'	2.38	0.48
34:1a:177:U:C4	34:1a:178:G:H1'	2.49	0.48
34:1a:402:G:N2	37:1d:119:GLN:HE22	2.12	0.48
34:1a:1208:C:H4'	52:1s:80:TYR:CZ	2.48	0.48
40:1g:79:ARG:HH21	40:1g:80:VAL:HG23	1.79	0.48
42:1i:51:ARG:HB2	42:1i:56:LEU:HD21	1.95	0.48
55:1z:228:MET:O	55:1z:232:LEU:HG	2.14	0.48
1:2A:793:U:O2	1:2A:2035:A:H1'	2.14	0.48
1:2A:922:C:H2'	1:2A:923:U:O4'	2.14	0.48
1:2A:956:A:H2'	14:2O:9:TYR:OH	2.13	0.48
1:2A:1054:A:OP2	11:2L:37:LYS:NZ	2.42	0.48
1:2A:1103:G:H21	10:2K:126:MET:HG2	1.79	0.48
1:2A:1109:C:OP1	10:2K:86:LYS:HE3	2.13	0.48
1:2A:1948:A:H2'	1:2A:1949:A:C8	2.48	0.48
1:2A:2742:C:H4'	5:2E:168:MET:O	2.14	0.48
2:2B:24:G:N7	2:2B:56:G:H2'	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2C:22:ILE:HG21	3:2C:190:ARG:HB2	1.95	0.48
3:2C:50:ASP:HB3	3:2C:56:GLN:CD	2.39	0.48
7:2G:47:LYS:HE2	7:2G:47:LYS:HB3	1.59	0.48
8:2H:38:SER:HB3	8:2H:41:MET:HG2	1.96	0.48
10:2K:106:GLU:HA	10:2K:109:LYS:HD3	1.96	0.48
34:2a:251:G:H1'	50:2q:16:GLN:NE2	2.27	0.48
34:2a:715:G:H5'	34:2a:750:A:H4'	1.96	0.48
34:2a:981:G:H2'	34:2a:982:G:O4'	2.14	0.48
36:2c:130:VAL:O	36:2c:134:ILE:HG12	2.13	0.48
55:2z:683:VAL:O	55:2z:687:LEU:HG	2.14	0.48
1:1A:1820:C:H5"	1:1A:1821:A:OP1	2.13	0.47
6:1F:53:THR:HG23	6:1F:55:GLY:H	1.78	0.47
14:1O:118:LEU:HD12	14:1O:131:ILE:HG23	1.96	0.47
15:1P:13:HIS:CE1	15:1P:16:HIS:HB2	2.49	0.47
33:17:2:LYS:HE2	33:17:31:LYS:O	2.14	0.47
34:1a:127:C:OP1	53:1t:75:ASN:ND2	2.47	0.47
34:1a:931:G:H5'	34:1a:943:A:H61	1.78	0.47
34:1a:936:A:N3	34:1a:963:C:O2'	2.45	0.47
34:1a:955:A:H1'	34:1a:960:U:O4	2.14	0.47
34:1a:1106:A:O2'	43:1j:37:PRO:O	2.31	0.47
38:1e:79:GLU:HG3	38:1e:93:PRO:HD2	1.96	0.47
1:2A:2375:C:H2'	1:2A:2376:G:O4'	2.14	0.47
4:2D:76:PRO:HB2	4:2D:116:GLN:HE21	1.77	0.47
7:2G:136:ARG:HD2	7:2G:137:GLU:N	2.29	0.47
15:2P:26:LYS:HE2	15:2P:70:LEU:O	2.13	0.47
23:2X:8:TYR:HB2	23:2X:38:TYR:CE2	2.49	0.47
23:2X:93:ASP:HA	23:2X:131:ARG:HH22	1.77	0.47
34:2a:417:U:OP2	34:2a:418:C:N4	2.41	0.47
34:2a:655:G:H5'	39:2f:77:ARG:HH22	1.79	0.47
34:2a:698:G:H2'	34:2a:699:A:C8	2.48	0.47
34:2a:953:A:N1	43:2j:48:THR:HB	2.29	0.47
45:2l:75:HIS:CD2	45:2l:77:LEU:H	2.32	0.47
1:1A:573:G:O2'	1:1A:1264:A:N3	2.39	0.47
1:1A:2197:A:H2'	1:1A:2198:C:C6	2.49	0.47
1:1A:2278:A:H5"	1:1A:2279:A:H5'	1.96	0.47
1:1A:2330:G:H22	16:1Q:3:ARG:CZ	2.27	0.47
1:1A:2801:C:O2'	1:1A:2802:A:H4'	2.14	0.47
5:1E:29:GLY:HA3	63:1E:408:HOH:O	2.14	0.47
34:1a:50:U:O4	34:1a:361:U:H5	1.96	0.47
34:1a:57:U:H2'	34:1a:58:G:C8	2.49	0.47
34:1a:462:G:H2'	34:1a:463:A:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1f:19:LEU:HD11	39:1f:59:TYR:CE2	2.49	0.47
44:1k:104:GLN:O	44:1k:105:VAL:HG22	2.14	0.47
52:1s:3:ARG:NH1	52:1s:10:PHE:HB2	2.27	0.47
55:1z:102:ASP:OD2	55:1z:329:ARG:NH2	2.46	0.47
1:2A:176:G:H5'	25:2Z:14:VAL:HG21	1.96	0.47
1:2A:945:A:HO2'	1:2A:946:A:P	2.36	0.47
1:2A:2741:G:N3	63:2A:4997:HOH:O	2.35	0.47
23:2X:138:GLU:H	23:2X:156:LYS:NZ	2.13	0.47
34:2a:485:C:H2'	34:2a:486:G:H8	1.79	0.47
34:2a:570:C:O2'	34:2a:856:G:H4'	2.13	0.47
34:2a:645:G:H1	34:2a:728:C:N4	2.11	0.47
34:2a:691:C:H2'	34:2a:692:C:H6	1.78	0.47
34:2a:1210:C:OP2	46:2m:108:ARG:NH2	2.40	0.47
55:2z:532:GLY:HA2	55:2z:536:LYS:NZ	2.29	0.47
57:2w:61:C:H2'	57:2w:62:C:H6	1.79	0.47
1:1A:504:A:N3	1:1A:506:G:H5"	2.29	0.47
1:1A:618:G:H2'	1:1A:619:U:O4'	2.14	0.47
23:1X:45:ASP:O	23:1X:49:ARG:HG3	2.13	0.47
35:1b:54:THR:HG21	35:1b:201:ILE:HD11	1.96	0.47
35:1b:137:ARG:HH12	35:1b:138:LEU:HD23	1.79	0.47
55:1z:168:ILE:O	55:1z:174:PHE:HA	2.14	0.47
1:2A:285:C:O2	1:2A:288:G:N2	2.44	0.47
1:2A:311:C:H2'	1:2A:312:A:H8	1.80	0.47
1:2A:535:U:O4	1:2A:536:G:N1	2.47	0.47
1:2A:1182:G:O2'	11:2L:102:ALA:O	2.32	0.47
1:2A:1470:G:H2'	1:2A:1471:G:C8	2.49	0.47
1:2A:1682:C:H2'	1:2A:1683:A:C8	2.50	0.47
1:2A:1755:U:H2'	1:2A:1756:C:C6	2.50	0.47
1:2A:2575:A:C2	1:2A:2658:U:H4'	2.50	0.47
1:2A:2593:G:C2	1:2A:2594:G:C8	3.02	0.47
1:2A:2723:U:OP1	1:2A:2726:G:H4'	2.14	0.47
1:2A:2733:A:H1'	1:2A:2882:A:O2'	2.15	0.47
3:2C:10:LEU:O	3:2C:220:PRO:HG2	2.15	0.47
12:2M:63:VAL:HG12	12:2M:106:LEU:HD11	1.96	0.47
23:2X:157:LEU:HB3	23:2X:161:VAL:HG13	1.96	0.47
34:2a:1222:U:OP2	40:2g:116:ALA:N	2.43	0.47
34:2a:1261:A:H5"	34:2a:1262:A:OP1	2.13	0.47
41:2h:51:VAL:HG11	41:2h:60:ARG:HH11	1.79	0.47
51:2r:56:THR:HB	51:2r:58:LEU:HD23	1.96	0.47
52:2s:3:ARG:NH2	52:2s:10:PHE:HB2	2.29	0.47
55:2z:-58:LEU:HG	55:2z:-55:LEU:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:2z:92:ILE:HG21	55:2z:437:THR:HB	1.97	0.47
55:2z:169:GLY:H	55:2z:170:ARG:NH1	2.11	0.47
1:1A:90:G:H2'	1:1A:91:C:H6	1.79	0.47
1:1A:661:A:H8	13:1N:117:GLU:HG3	1.80	0.47
1:1A:1091:A:H3'	1:1A:1092:G:H5'	1.96	0.47
1:1A:1313:A:OP1	63:1A:3884:HOH:O	2.20	0.47
1:1A:2761:A:P	8:1H:3:ARG:HH21	2.37	0.47
1:1A:2796:C:H1'	5:1E:37:ARG:NH1	2.28	0.47
9:1J:25:PHE:O	9:1J:85:ASP:N	2.46	0.47
34:1a:184:G:H2'	34:1a:185:C:C6	2.49	0.47
34:1a:603:U:N3	37:1d:134:ASP:OD2	2.44	0.47
35:1b:28:PHE:HD2	35:1b:194:PRO:HG3	1.79	0.47
37:1d:81:GLU:OE2	37:1d:139:ARG:NH2	2.45	0.47
49:1p:58:TYR:O	49:1p:62:VAL:HG23	2.14	0.47
1:2A:330:G:N7	63:2A:5000:HOH:O	2.36	0.47
1:2A:933:A:OP1	1:2A:934:C:N4	2.41	0.47
1:2A:1076:G:H21	33:27:36:GLN:HE22	1.61	0.47
1:2A:2339:A:H2'	1:2A:2340:G:H8	1.79	0.47
13:2N:126:VAL:HG12	13:2N:148:LEU:HD22	1.96	0.47
34:2a:395:G:H2'	34:2a:396:C:C6	2.50	0.47
42:2i:33:PHE:HE1	42:2i:43:ALA:HB1	1.80	0.47
1:1A:26:G:N2	1:1A:536:G:H1'	2.30	0.47
1:1A:595:G:O2'	1:1A:596:C:H3'	2.14	0.47
1:1A:1090:A:C8	1:1A:1092:G:C2	3.02	0.47
1:1A:2223:C:H2'	1:1A:2224:U:O4'	2.14	0.47
3:1C:3:HIS:HA	3:1C:7:TYR:CD2	2.50	0.47
3:1C:10:LEU:HB3	3:1C:32:LEU:HD22	1.95	0.47
5:1E:101:ARG:CZ	5:1E:171:GLU:HB2	2.44	0.47
10:1K:76:TYR:HD2	10:1K:77:LEU:HD23	1.80	0.47
17:1R:91:ARG:HB2	17:1R:121:ILE:HG13	1.96	0.47
34:1a:671:A:H2'	34:1a:685:C:H41	1.80	0.47
34:1a:1244:C:H2'	34:1a:1245:C:C6	2.50	0.47
36:1c:141:VAL:HG11	36:1c:202:ILE:HG12	1.95	0.47
39:1f:9:VAL:HB	39:1f:87:ARG:HB2	1.95	0.47
55:1z:490:PRO:HG3	55:1z:516:PRO:HD2	1.97	0.47
1:2A:1734:U:O2	1:2A:1746:A:H5'	2.14	0.47
1:2A:1820:C:H5"	1:2A:1821:A:OP1	2.14	0.47
1:2A:1824:U:H2'	1:2A:1825:C:H6	1.79	0.47
1:2A:2072:A:OP1	5:2E:137:HIS:ND1	2.39	0.47
1:2A:2154:G:O2'	1:2A:2178:G:N2	2.48	0.47
1:2A:2866:G:N2	1:2A:2869:A:OP2	2.34	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:100:A:H3'	2:2B:101:G:H8	1.79	0.47
7:2G:23:PHE:HB2	7:2G:25:TYR:CE1	2.49	0.47
7:2G:61:ALA:O	28:22:7:PRO:HG2	2.14	0.47
27:21:16:PRO:HB2	27:21:18:ASP:OD1	2.14	0.47
34:2a:692:C:OP1	44:2k:85:ARG:NH2	2.43	0.47
34:2a:1252:C:H2'	34:2a:1253:G:H8	1.80	0.47
34:2a:1436:G:OP1	53:2t:35:THR:OG1	2.27	0.47
37:2d:158:ILE:HG22	37:2d:162:LEU:HD12	1.95	0.47
38:2e:36:ASP:C	38:2e:38:GLN:H	2.23	0.47
38:2e:94:ALA:HB2	38:2e:119:LEU:HG	1.96	0.47
53:2t:47:GLY:HA2	53:2t:48:LYS:C	2.39	0.47
1:1A:1219:U:OP1	1:1A:1221:A:N6	2.47	0.47
1:1A:2283:U:H5"	1:1A:2284:A:OP1	2.15	0.47
2:1B:33:G:H5'	7:1G:2:PRO:HD3	1.97	0.47
2:1B:42:C:OP2	28:12:2:LYS:NZ	2.35	0.47
5:1E:28:ALA:HB3	5:1E:93:VAL:HG22	1.96	0.47
30:14:35:GLU:OE1	30:14:50:ARG:NH2	2.48	0.47
34:1a:542:G:OP1	63:1a:1903:HOH:O	2.20	0.47
35:1b:24:TRP:CZ3	35:1b:26:PRO:HA	2.50	0.47
35:1b:97:TRP:CZ2	35:1b:102:LEU:HD13	2.48	0.47
55:1z:578:SER:HB3	56:1y:19:U:H3	1.80	0.47
1:2A:196:C:H2'	1:2A:197:C:C6	2.49	0.47
1:2A:1161:C:H2'	1:2A:1162:G:H8	1.80	0.47
1:2A:1409:G:P	25:2Z:3:LYS:HG3	2.55	0.47
1:2A:1915:C:H2'	1:2A:1916:C:H6	1.79	0.47
1:2A:2347:A:H61	24:2Y:43:THR:CG2	2.27	0.47
1:2A:2842:G:H4'	1:2A:2843:G:OP2	2.14	0.47
3:2C:37:PHE:HD1	3:2C:37:PHE:H	1.63	0.47
7:2G:115:ARG:HB3	7:2G:115:ARG:HH11	1.80	0.47
8:2H:164:TYR:HB2	8:2H:167:GLU:HB2	1.95	0.47
23:2X:97:GLU:HA	23:2X:126:VAL:O	2.13	0.47
34:2a:924:A:H2'	34:2a:925:G:C8	2.49	0.47
34:2a:958:C:H1'	47:2n:19:ARG:HA	1.96	0.47
34:2a:1018:A:H2'	34:2a:1019:G:C8	2.49	0.47
37:2d:129:ASN:HD21	37:2d:144:ASP:HA	1.78	0.47
1:1A:140:C:H2'	1:1A:141:G:O4'	2.14	0.47
1:1A:264:U:H2'	1:1A:265:C:C6	2.49	0.47
1:1A:301:A:H4'	1:1A:302:C:OP1	2.15	0.47
1:1A:770:U:H2'	1:1A:771:G:O4'	2.15	0.47
1:1A:949:C:H2'	1:1A:950:U:C6	2.50	0.47
1:1A:1013:U:H2'	1:1A:1014:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1499:A:OP2	63:1A:3880:HOH:O	2.20	0.47
1:1A:1925:G:H2'	1:1A:1926:C:O4'	2.15	0.47
1:1A:2052:A:C6	1:1A:2509:C:H1'	2.49	0.47
1:1A:2161:C:O2	1:1A:2161:C:H2'	2.13	0.47
1:1A:2671:A:C2	55:1z:660:ARG:HD2	2.50	0.47
7:1G:121:ASN:ND2	7:1G:181:ARG:HH12	2.13	0.47
24:1Y:18:ALA:HB3	24:1Y:20:ARG:NH2	2.30	0.47
34:1a:258:A:C6	34:1a:259:A:C6	3.02	0.47
34:1a:508:G:H2'	34:1a:509:C:C6	2.50	0.47
34:1a:546:C:H1'	45:1l:15:ARG:HB3	1.97	0.47
34:1a:836:G:O6	34:1a:847:G:H3'	2.14	0.47
34:1a:983:A:C5'	34:1a:1003:G:H22	2.28	0.47
34:1a:1089:G:H2'	34:1a:1090:C:C6	2.50	0.47
34:1a:1259:C:O2'	34:1a:1261:A:H1'	2.14	0.47
35:1b:122:PHE:CZ	35:1b:135:GLN:HG3	2.50	0.47
41:1h:73:ASP:OD1	41:1h:75:ARG:HD3	2.15	0.47
46:1m:86:CYS:HB2	52:1s:73:GLU:HB3	1.96	0.47
51:1r:45:SER:OG	51:1r:47:THR:HG23	2.15	0.47
53:1t:10:LEU:HB3	53:1t:12:ALA:H	1.80	0.47
55:1z:154:GLN:HB3	55:1z:161:PRO:HG3	1.97	0.47
55:1z:519:ARG:HD3	55:1z:677:GLN:HA	1.96	0.47
1:2A:224:C:H2'	1:2A:225:C:C6	2.50	0.47
1:2A:421:U:O2'	1:2A:422:G:N7	2.46	0.47
1:2A:547:C:H4'	1:2A:564:C:O2	2.14	0.47
1:2A:1127:U:H5'	10:2K:122:ALA:HB1	1.96	0.47
1:2A:1525:G:C6	1:2A:1526:G:C5	3.02	0.47
1:2A:1659:A:P	1:2A:1659:A:H8	2.38	0.47
1:2A:1764:U:H2'	1:2A:1765:G:O4'	2.14	0.47
1:2A:1856:G:H4'	4:2D:242:ARG:NH1	2.29	0.47
1:2A:2124:C:N3	1:2A:2207:G:O6	2.48	0.47
1:2A:2788:A:H4'	1:2A:2789:G:H5"	1.97	0.47
5:2E:105:THR:OG1	5:2E:199:ARG:NH2	2.45	0.47
6:2F:150:GLY:HA2	6:2F:172:TRP:CD2	2.50	0.47
16:2Q:67:ARG:O	16:2Q:71:ARG:HG2	2.15	0.47
20:2U:80:PRO:O	20:2U:100:THR:HB	2.15	0.47
33:27:22:ARG:HB2	33:27:24:TYR:CE1	2.49	0.47
34:2a:9:A:H5'	38:2e:101:ILE:HG22	1.97	0.47
34:2a:75:C:N4	34:2a:89:G:H1	2.11	0.47
34:2a:1036:G:H4'	34:2a:1037:C:H5'	1.95	0.47
34:2a:1298:G:H4'	47:2n:18:VAL:HG13	1.97	0.47
36:2c:54:ARG:NH1	36:2c:54:ARG:HB3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2d:85:LYS:HG2	37:2d:92:VAL:HG11	1.96	0.47
46:2m:105:THR:OG1	46:2m:106:ASN:N	2.41	0.47
55:2z:33:LEU:HD21	55:2z:70:THR:HG21	1.96	0.47
55:2z:616:TYR:O	55:2z:618:GLY:N	2.47	0.47
1:1A:1247:G:OP2	1:1A:1248:A:O2'	2.25	0.47
1:1A:2121:G:H1'	1:1A:2211:G:N2	2.30	0.47
2:1B:87:G:N2	2:1B:90:A:OP2	2.34	0.47
10:1K:101:TRP:CE2	10:1K:140:GLY:HA3	2.50	0.47
17:1R:127:ALA:C	17:1R:129:ARG:H	2.21	0.47
34:1a:983:A:N6	34:1a:1019:G:C5	2.83	0.47
34:1a:1056:U:O2'	35:1b:104:ASN:OD1	2.25	0.47
38:1e:57:LYS:HD3	38:1e:61:TYR:HE2	1.79	0.47
39:1f:4:TYR:HD1	39:1f:92:LYS:HA	1.80	0.47
1:2A:562:G:H2'	1:2A:563:G:H8	1.79	0.47
1:2A:1109:C:P	10:2K:86:LYS:HE3	2.55	0.47
1:2A:1311:G:O5'	20:2U:15:ARG:NH2	2.48	0.47
1:2A:2163:C:H2'	1:2A:2164:C:C6	2.50	0.47
5:2E:77:ILE:HD11	5:2E:79:ARG:NH1	2.23	0.47
8:2H:80:SER:OG	8:2H:81:GLU:N	2.48	0.47
34:2a:825:U:H6	34:2a:825:U:OP2	1.97	0.47
34:2a:1373:U:H2'	34:2a:1374:U:C6	2.50	0.47
36:2c:36:ASP:O	36:2c:40:ARG:HG3	2.15	0.47
55:2z:423:LYS:HE2	55:2z:471:LYS:HB3	1.96	0.47
1:1A:216:A:OP1	13:1N:76:LYS:NZ	2.48	0.47
1:1A:1972:U:O4	63:1A:3885:HOH:O	2.21	0.47
3:1C:171:ILE:HG23	3:1C:172:HIS:N	2.30	0.47
3:1C:182:PRO:C	3:1C:184:LYS:H	2.22	0.47
3:1C:212:VAL:O	3:1C:224:ILE:HG12	2.15	0.47
10:1K:111:LYS:HG2	10:1K:114:ASP:OD2	2.14	0.47
24:1Y:70:GLN:HG2	24:1Y:72:ARG:HG3	1.97	0.47
34:1a:401:U:O4	37:1d:2:GLY:N	2.48	0.47
34:1a:485:C:H2'	34:1a:486:G:C8	2.50	0.47
35:1b:55:PHE:HE1	35:1b:218:ALA:HA	1.80	0.47
35:1b:98:LEU:HD12	35:1b:101:MET:HE3	1.97	0.47
55:1z:498:ILE:HG22	55:1z:507:TYR:CE1	2.50	0.47
1:2A:214:G:H21	1:2A:216:A:H62	1.63	0.47
1:2A:437:G:C5	13:2N:72:PRO:HB3	2.50	0.47
1:2A:2203:G:H2'	1:2A:2204:C:C6	2.49	0.47
1:2A:2278:A:H5"	1:2A:2279:A:H5'	1.97	0.47
3:2C:23:ASP:HB2	3:2C:190:ARG:HH22	1.80	0.47
15:2P:78:LYS:HE2	15:2P:83:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:450:C:H42	34:2a:462:G:H1	1.62	0.47
34:2a:763:C:H2'	34:2a:764:A:O4'	2.15	0.47
34:2a:810:C:H4'	41:2h:12:ARG:HG2	1.97	0.47
34:2a:1078:U:H2'	34:2a:1079:C:O4'	2.15	0.47
34:2a:1260:U:H5'	34:2a:1261:A:O4'	2.14	0.47
49:2p:60:LEU:HD13	49:2p:60:LEU:HA	1.81	0.47
51:2r:58:LEU:HD12	51:2r:62:GLU:HB3	1.97	0.47
55:2z:358:MET:HE1	55:2z:363:ARG:HG2	1.96	0.47
55:2z:416:LYS:HG3	55:2z:475:ASN:OD1	2.15	0.47
55:2z:539:ILE:O	55:2z:542:VAL:HG12	2.15	0.47
1:1A:363:A:H2'	1:1A:364:G:O4'	2.15	0.47
1:1A:448:A:H2'	1:1A:449:A:C8	2.49	0.47
1:1A:610:U:H2'	1:1A:611:C:C6	2.50	0.47
1:1A:1066:A:H3'	1:1A:1066:A:H8	1.80	0.47
1:1A:1399:A:H2'	1:1A:1400:G:O4'	2.15	0.47
1:1A:2083:A:N6	58:1x:14:ARG:H	2.12	0.47
27:11:3:ARG:HH11	27:11:60:GLU:CD	2.22	0.47
34:1a:932:G:H21	34:1a:1209:A:H62	1.63	0.47
34:1a:1089:G:H2'	34:1a:1090:C:H6	1.79	0.47
34:1a:1102:C:H2'	34:1a:1103:G:C8	2.49	0.47
34:1a:1267:A:H4'	34:1a:1268:A:O5'	2.15	0.47
34:1a:1375:G:N2	34:1a:1480:A:H8	2.13	0.47
40:1g:28:ASN:HD21	40:1g:36:LYS:NZ	2.13	0.47
48:1o:8:LYS:O	48:1o:12:ILE:HG13	2.15	0.47
55:1z:416:LYS:O	55:1z:418:LYS:HG2	2.14	0.47
55:1z:601:ILE:HD12	55:1z:684:GLN:HB2	1.96	0.47
8:2H:12:PRO:O	8:2H:15:VAL:HG12	2.15	0.47
15:2P:29:LEU:HB3	15:2P:75:LEU:HD21	1.97	0.47
18:2S:49:HIS:HA	18:2S:52:ARG:HG2	1.97	0.47
34:2a:1385:C:H2'	34:2a:1386:C:O4'	2.15	0.47
35:2b:24:TRP:HZ3	35:2b:29:ALA:HB2	1.79	0.47
36:2c:152:ILE:HG23	36:2c:199:LYS:HB2	1.96	0.47
37:2d:25:ARG:NH1	37:2d:30:LYS:HB3	2.29	0.47
37:2d:159:ARG:O	37:2d:163:GLU:N	2.43	0.47
43:2j:5:ARG:N	43:2j:73:ASP:HA	2.30	0.47
52:2s:40:ILE:HB	52:2s:67:VAL:O	2.14	0.47
53:2t:73:HIS:ND1	53:2t:75:ASN:OD1	2.47	0.47
55:2z:481:VAL:HG22	55:2z:483:TYR:CE2	2.50	0.47
1:1A:1159:G:H2'	1:1A:1160:G:C8	2.50	0.46
1:1A:1313:A:C2	1:1A:2034:A:C4	3.03	0.46
1:1A:1685:U:O2'	1:1A:1686:C:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1J:103:GLY:HA2	9:1J:111:LEU:H	1.80	0.46
34:1a:987:C:N4	34:1a:1000:G:H1	2.09	0.46
44:1k:59:TYR:CZ	44:1k:63:LEU:HD11	2.50	0.46
55:1z:20:HIS:CG	55:1z:21:ILE:H	2.33	0.46
55:1z:343:ASN:O	55:1z:347:GLY:N	2.45	0.46
55:1z:437:THR:HB	55:1z:458:HIS:HE1	1.80	0.46
1:2A:1066:A:H62	1:2A:1185:U:H3	1.61	0.46
1:2A:1404:A:N6	1:2A:1417:U:H3	2.09	0.46
1:2A:2157:C:N4	1:2A:2176:G:H1	2.13	0.46
4:2D:69:ARG:NH2	4:2D:128:GLY:O	2.48	0.46
7:2G:106:LEU:O	7:2G:110:ALA:HB3	2.16	0.46
34:2a:296:A:H1'	34:2a:549:U:O2	2.16	0.46
35:2b:24:TRP:CD1	35:2b:24:TRP:H	2.34	0.46
36:2c:125:GLU:HG3	36:2c:190:ARG:O	2.15	0.46
38:2e:71:LEU:C	38:2e:72:GLN:HE21	2.22	0.46
53:2t:10:LEU:HD12	53:2t:10:LEU:HA	1.75	0.46
55:2z:424:LEU:O	55:2z:428:LEU:HD13	2.15	0.46
55:2z:498:ILE:HG22	55:2z:507:TYR:CE2	2.50	0.46
55:2z:614:GLU:HA	55:2z:617:MET:HB2	1.97	0.46
1:1A:214:G:H21	1:1A:216:A:H62	1.63	0.46
1:1A:411:C:O2	13:1N:71:VAL:HG21	2.15	0.46
1:1A:2160:C:H2'	1:1A:2161:C:H4'	1.96	0.46
3:1C:32:LEU:HD22	3:1C:220:PRO:HD2	1.98	0.46
34:1a:1110:G:H5'	34:1a:1262:A:O2'	2.15	0.46
35:1b:137:ARG:HB3	35:1b:137:ARG:CZ	2.43	0.46
36:1c:28:GLN:HE21	36:1c:28:GLN:HB2	1.56	0.46
42:1i:77:ILE:O	42:1i:81:ILE:HG23	2.15	0.46
47:1n:6:LEU:HG	47:1n:23:ARG:NH2	2.31	0.46
55:1z:159:ALA:HB1	55:1z:160:ARG:HH11	1.80	0.46
1:2A:323:A:HO2'	1:2A:341:C:HO2'	1.64	0.46
1:2A:401:C:H2'	1:2A:402:C:H6	1.78	0.46
1:2A:1381:A:H2'	1:2A:1382:G:C8	2.50	0.46
1:2A:1980:G:N3	34:2a:1461:A:H2	2.13	0.46
1:2A:1992:A:C4	4:2D:241:PRO:HD3	2.50	0.46
1:2A:2324:C:H2'	1:2A:2325:C:H6	1.80	0.46
1:2A:2533:U:O2'	1:2A:2658:U:OP1	2.28	0.46
1:2A:2701:C:N4	1:2A:2725:A:H1'	2.30	0.46
5:2E:5:LEU:HD12	5:2E:51:PHE:HB2	1.97	0.46
11:2L:62:VAL:HG11	11:2L:66:LYS:HB2	1.96	0.46
14:2O:76:LYS:HB3	14:2O:91:GLU:HG3	1.97	0.46
15:2P:21:TYR:OH	15:2P:43:GLU:HG2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2T:1:MET:HE3	19:2T:43:GLU:OE2	2.16	0.46
34:2a:8:G:H5'	34:2a:294:A:O4'	2.15	0.46
38:2e:93:PRO:HG2	41:2h:105:ARG:NE	2.31	0.46
40:2g:74:GLU:HG2	40:2g:91:VAL:HG22	1.96	0.46
53:2t:50:GLU:O	53:2t:100:ILE:HD11	2.15	0.46
55:2z:35:TYR:CE2	55:2z:269:VAL:HB	2.46	0.46
55:2z:237:PRO:HB2	55:2z:242:LEU:HG	1.97	0.46
1:1A:468:A:H1'	1:1A:1245:C:O4'	2.16	0.46
1:1A:1992:A:C4	4:1D:241:PRO:HD3	2.49	0.46
1:1A:2049:U:H2'	1:1A:2050:G:O4'	2.16	0.46
4:1D:106:ILE:O	4:1D:108:PRO:HD3	2.16	0.46
5:1E:111:ARG:HB3	15:1P:1:MET:HE2	1.98	0.46
8:1H:54:ARG:NH2	8:1H:57:ASP:OD1	2.34	0.46
14:1O:32:TYR:OH	14:1O:111:GLU:OE1	2.18	0.46
17:1R:102:ILE:HB	17:1R:110:ILE:HD13	1.97	0.46
34:1a:753:G:H4'	34:1a:1491:A:H4'	1.97	0.46
34:1a:1173:A:OP2	36:1c:3:ASN:ND2	2.48	0.46
34:1a:1298:G:H4'	47:1n:18:VAL:HG13	1.97	0.46
35:1b:60:ASP:CG	35:1b:64:ARG:HH21	2.24	0.46
36:1c:44:GLU:HA	36:1c:52:LEU:HD13	1.96	0.46
36:1c:70:VAL:HG22	36:1c:72:LYS:N	2.28	0.46
39:1f:10:LEU:HD11	39:1f:26:ILE:HD11	1.96	0.46
42:1i:33:PHE:CZ	42:1i:47:LEU:HD11	2.50	0.46
42:1i:97:LYS:HB3	42:1i:98:PRO:HD3	1.97	0.46
46:1m:40:ASN:HD21	46:1m:42:ALA:HB3	1.80	0.46
1:2A:720:G:O2'	6:2F:74:ARG:HD3	2.16	0.46
1:2A:948:C:H2'	1:2A:949:C:C6	2.49	0.46
1:2A:1107:G:H2'	1:2A:1108:G:C8	2.49	0.46
1:2A:1430:G:H4'	1:2A:1431:C:OP1	2.15	0.46
1:2A:1585:G:H2'	1:2A:1586:U:O4'	2.15	0.46
1:2A:2117:U:H2'	1:2A:2118:C:C6	2.50	0.46
1:2A:2370:C:H2'	1:2A:2371:A:O4'	2.14	0.46
1:2A:2746:A:H2'	1:2A:2747:G:O4'	2.15	0.46
4:2D:102:LYS:C	4:2D:103:ARG:HG2	2.41	0.46
12:2M:78:ARG:HG2	17:2R:73:GLU:HB2	1.97	0.46
34:2a:811:U:H5"	34:2a:812:A:OP2	2.14	0.46
34:2a:836:G:H1	34:2a:848:U:P	2.38	0.46
34:2a:997:C:H2'	34:2a:998:C:O4'	2.15	0.46
34:2a:1173:A:OP1	36:2c:4:LYS:HG3	2.15	0.46
34:2a:1423:C:H2'	34:2a:1424:G:O4'	2.15	0.46
36:2c:109:PRO:HB3	36:2c:115:LEU:HD23	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2m:16:ASP:OD1	46:2m:16:ASP:N	2.46	0.46
55:2z:188:TYR:CE1	55:2z:196:ILE:HD13	2.50	0.46
55:2z:420:ASP:OD2	55:2z:423:LYS:HD2	2.15	0.46
1:1A:1323:A:OP1	15:1P:36:THR:HG23	2.16	0.46
1:1A:1768:G:H2'	1:1A:1769:A:C8	2.51	0.46
1:1A:1824:U:H2'	1:1A:1825:C:H6	1.80	0.46
1:1A:1844:G:O6	63:1A:3869:HOH:O	2.18	0.46
1:1A:2239:G:OP2	4:1D:263:ARG:NH1	2.40	0.46
1:1A:2462:A:N1	58:1x:9:ARG:HG3	2.30	0.46
2:1B:86:G:H1	2:1B:91:C:H42	1.62	0.46
7:1G:82:LEU:HD21	7:1G:88:ILE:HG21	1.97	0.46
8:1H:13:LYS:HA	8:1H:14:GLY:HA2	1.63	0.46
13:1N:86:LYS:HB3	13:1N:118:GLY:HA3	1.98	0.46
22:1W:92:ASN:HB2	22:1W:94:LYS:N	2.25	0.46
34:1a:567:A:H2'	34:1a:568:G:O4'	2.16	0.46
42:1i:42:ARG:HE	42:1i:42:ARG:HB3	1.44	0.46
44:1k:92:GLU:OE2	44:1k:96:ARG:NH2	2.49	0.46
52:1s:40:ILE:HA	52:1s:44:MET:SD	2.55	0.46
57:1w:21:A:N6	57:1w:46:G:H2'	2.30	0.46
1:2A:56:G:O2'	1:2A:71:A:N1	2.46	0.46
1:2A:105:U:H4'	1:2A:370:A:H2	1.81	0.46
1:2A:775:G:O2'	1:2A:809:G:H4'	2.16	0.46
1:2A:894:G:OP1	63:2A:4944:HOH:O	2.21	0.46
1:2A:1025:A:N3	1:2A:2058:G:O2'	2.49	0.46
1:2A:1928:G:H2'	1:2A:1929:C:C6	2.50	0.46
1:2A:2027:C:O2'	1:2A:2832:A:N3	2.48	0.46
1:2A:2551:C:H2'	1:2A:2552:A:O4'	2.16	0.46
1:2A:2879:C:H2'	1:2A:2880:C:O4'	2.16	0.46
8:2H:17:VAL:HG11	8:2H:50:VAL:HG21	1.96	0.46
13:2N:86:LYS:HB3	13:2N:118:GLY:HA3	1.97	0.46
27:21:19:GLN:O	27:21:23:LEU:HD22	2.16	0.46
31:25:12:ARG:NH2	31:25:44:PRO:HB3	2.31	0.46
34:2a:983:A:C8	34:2a:984:A:H4'	2.49	0.46
34:2a:1204:G:H5"	52:2s:78:ARG:NH2	2.29	0.46
34:2a:1208:C:OP2	46:2m:91:ARG:NH1	2.43	0.46
35:2b:178:ARG:HH21	41:2h:74:PRO:HB3	1.81	0.46
57:2w:46:G:H5"	57:2w:47:U:OP2	2.16	0.46
1:1A:301:A:H2'	1:1A:302:C:C6	2.50	0.46
1:1A:383:G:H2'	1:1A:384:G:O4'	2.16	0.46
1:1A:482:A:H5"	63:1A:4651:HOH:O	2.16	0.46
1:1A:593:A:O2'	19:1T:78:LYS:HE2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1822:G:O2'	1:1A:1860:C:OP1	2.29	0.46
1:1A:2017:C:H4'	1:1A:2018:G:OP1	2.15	0.46
1:1A:2107:U:H2'	1:1A:2108:G:C8	2.51	0.46
1:1A:2622:U:H5'	1:1A:2622:U:H6	1.80	0.46
1:1A:2657:C:H2'	1:1A:2658:U:O4'	2.15	0.46
3:1C:62:VAL:HG11	3:1C:192:PHE:CD1	2.50	0.46
20:1U:57:ASN:O	20:1U:61:ASN:HB2	2.15	0.46
23:1X:151:HIS:C	23:1X:153:SER:H	2.19	0.46
24:1Y:19:LYS:HA	24:1Y:19:LYS:HD2	1.71	0.46
34:1a:129:A:H1'	34:1a:321:A:C5	2.50	0.46
34:1a:372:G:O3'	49:1p:5:ARG:HD2	2.15	0.46
34:1a:589:U:H2'	34:1a:590:G:O4'	2.16	0.46
35:1b:195:ASP:O	41:1h:68:ARG:NH2	2.48	0.46
39:1f:92:LYS:HE3	39:1f:92:LYS:HB2	1.58	0.46
41:1h:41:ARG:NH2	41:1h:123:GLU:OE2	2.48	0.46
46:1m:3:ARG:HD2	46:1m:9:ILE:HG12	1.97	0.46
1:2A:342:C:H2'	1:2A:343:A:O4'	2.15	0.46
1:2A:1833:A:H4'	4:2D:259:THR:HG23	1.98	0.46
12:2M:10:VAL:HG23	12:2M:12:ASP:OD1	2.16	0.46
17:2R:64:ARG:NH1	17:2R:103:ARG:HA	2.31	0.46
34:2a:117:C:OP1	34:2a:307:C:O2'	2.26	0.46
34:2a:118:G:H4'	34:2a:287:C:O2'	2.15	0.46
34:2a:507:A:H61	45:2l:53:ARG:HH12	1.63	0.46
36:2c:71:ALA:C	36:2c:72:LYS:HD2	2.40	0.46
46:2m:44:ARG:O	46:2m:48:LEU:HG	2.15	0.46
55:2z:14:ASN:ND2	55:2z:102:ASP:H	2.11	0.46
55:2z:160:ARG:O	55:2z:256:THR:N	2.49	0.46
1:1A:555:C:H4'	1:1A:556:A:H5"	1.96	0.46
1:1A:924:A:H2'	1:1A:925:G:H5'	1.97	0.46
1:1A:1152:G:N2	1:1A:1153:U:H3	2.13	0.46
1:1A:1288:G:O2'	13:1N:7:ARG:NH2	2.49	0.46
1:1A:1649:C:H5'	63:1A:4182:HOH:O	2.16	0.46
1:1A:2454:C:OP1	6:1F:68:LYS:HD3	2.15	0.46
1:1A:2659:C:H2'	1:1A:2660:U:C6	2.50	0.46
3:1C:38:ASP:OD2	3:1C:177:LYS:HD3	2.16	0.46
4:1D:10:THR:OG1	4:1D:13:ARG:HG2	2.15	0.46
6:1F:101:LEU:O	6:1F:106:ARG:HD3	2.16	0.46
12:1M:53:LYS:HG3	12:1M:56:ASP:OD2	2.16	0.46
30:14:14:THR:HG21	30:14:48:VAL:HG13	1.98	0.46
34:1a:110:A:H61	34:1a:309:A:H1'	1.81	0.46
34:1a:221:C:H2'	34:1a:222:G:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:763:C:H2'	34:1a:764:A:O4'	2.15	0.46
34:1a:1172:G:OP1	36:1c:5:ILE:N	2.42	0.46
35:1b:80:ILE:HD11	35:1b:212:GLN:HA	1.98	0.46
40:1g:18:TYR:CE2	40:1g:59:LEU:HB2	2.50	0.46
49:1p:56:ALA:O	49:1p:60:LEU:HB2	2.15	0.46
57:1w:63:G:H2'	57:1w:64:G:H8	1.80	0.46
1:2A:363:A:H2'	1:2A:364:G:O4'	2.15	0.46
1:2A:1115:A:N1	1:2A:1142:U:O2'	2.48	0.46
1:2A:1313:A:H2'	1:2A:1314:A:O4'	2.16	0.46
1:2A:1708:C:O2'	1:2A:2698:U:OP1	2.33	0.46
1:2A:2147:A:N6	1:2A:2184:C:H5'	2.31	0.46
1:2A:2759:G:O6	1:2A:2767:C:H5"	2.15	0.46
17:2R:60:THR:HG22	17:2R:77:PRO:HA	1.98	0.46
34:2a:557:A:N3	34:2a:861:C:O2'	2.44	0.46
34:2a:930:U:H4'	34:2a:942:A:N1	2.30	0.46
34:2a:977:C:N4	34:2a:1025:G:H1	2.13	0.46
55:2z:329:ARG:HD3	55:2z:331:TYR:CZ	2.50	0.46
55:2z:354:ARG:HG2	55:2z:365:GLU:OE2	2.16	0.46
55:2z:660:ARG:O	55:2z:665:GLY:N	2.46	0.46
1:1A:484:U:H5"	31:15:40:TRP:CD2	2.50	0.46
1:1A:695:C:N3	1:1A:696:C:N4	2.64	0.46
1:1A:1112:A:N7	55:1z:633:GLY:HA2	2.28	0.46
1:1A:2086:C:H2'	1:1A:2087:C:C6	2.50	0.46
1:1A:2156:A:N6	1:1A:2177:G:O2'	2.48	0.46
1:1A:2575:A:C2	1:1A:2658:U:H4'	2.50	0.46
1:1A:2693:U:O2'	17:1R:58:ASN:ND2	2.49	0.46
22:1W:43:ASN:HD22	22:1W:43:ASN:HA	1.53	0.46
24:1Y:11:ARG:H	24:1Y:11:ARG:HD2	1.81	0.46
34:1a:41:C:H2'	34:1a:42:G:H8	1.80	0.46
34:1a:440:G:H2'	34:1a:441:G:C8	2.51	0.46
34:1a:1017:G:H3'	34:1a:1018:A:C8	2.50	0.46
34:1a:1380:C:OP2	38:1e:24:ARG:NH2	2.48	0.46
35:1b:15:VAL:O	35:1b:17:PHE:N	2.43	0.46
42:1i:128:ARG:NH2	57:1w:33:U:OP2	2.47	0.46
46:1m:124:PRO:CB	55:1z:500:GLN:HB3	2.45	0.46
1:2A:1101:G:H4'	1:2A:1131:A:N7	2.31	0.46
1:2A:1643:C:H2'	1:2A:1644:C:H6	1.80	0.46
1:2A:1761:G:H2'	1:2A:1762:G:C8	2.48	0.46
1:2A:2161:C:O2	1:2A:2172:G:N1	2.34	0.46
1:2A:2657:C:H2'	1:2A:2658:U:O4'	2.15	0.46
1:2A:2715:C:H2'	1:2A:2716:A:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2L:72:TYR:N	11:2L:85:ILE:O	2.48	0.46
15:2P:13:HIS:CE1	15:2P:16:HIS:HB2	2.50	0.46
34:2a:22:G:H2'	34:2a:23:G:C8	2.51	0.46
34:2a:937:A:HO2'	34:2a:962:C:HO2'	1.58	0.46
34:2a:1161:A:H2'	34:2a:1162:A:O4'	2.16	0.46
34:2a:1235:G:H1	34:2a:1266:C:H42	1.64	0.46
43:2j:32:ALA:HB1	43:2j:33:GLN:HG2	1.98	0.46
43:2j:42:THR:HG23	43:2j:68:HIS:HD2	1.80	0.46
55:2z:96:ARG:HH21	55:2z:386:GLY:HA3	1.81	0.46
55:2z:119:GLU:OE1	55:2z:666:ARG:NE	2.35	0.46
1:1A:807:A:OP1	63:1A:3836:HOH:O	2.20	0.46
1:1A:1524:G:O2'	1:1A:1604:A:H2	1.99	0.46
2:1B:117:G:H2'	2:1B:118:G:O4'	2.15	0.46
7:1G:51:ARG:HH12	7:1G:86:MET:HE2	1.79	0.46
33:17:25:VAL:HB	33:17:34:GLN:HB2	1.98	0.46
34:1a:983:A:H5'	34:1a:1003:G:H22	1.81	0.46
34:1a:1004:U:O2'	34:1a:1005:G:O4'	2.31	0.46
34:1a:1036:G:N2	63:1a:1933:HOH:O	2.49	0.46
34:1a:1062:G:O3'	38:1e:14:ARG:NH2	2.49	0.46
41:1h:104:ARG:HD2	41:1h:138:TRP:CG	2.50	0.46
43:1j:48:THR:O	47:1n:34:TYR:OH	2.32	0.46
46:1m:96:LEU:C	46:1m:110:ARG:HG2	2.41	0.46
1:2A:143:C:H2'	1:2A:144:G:H8	1.81	0.46
1:2A:253:A:N6	1:2A:454:A:H1'	2.31	0.46
20:2U:67:ASP:OD2	20:2U:67:ASP:N	2.49	0.46
34:2a:817:U:H2'	34:2a:818:C:H6	1.81	0.46
34:2a:1330:U:H4'	42:2i:120:ARG:HD3	1.97	0.46
35:2b:218:ALA:O	35:2b:222:ILE:HG23	2.16	0.46
44:2k:69:ALA:O	44:2k:73:MET:HG2	2.16	0.46
46:2m:123:ALA:HB3	55:2z:573:HIS:CG	2.51	0.46
51:2r:21:LYS:HD2	51:2r:57:GLY:HA3	1.96	0.46
52:2s:3:ARG:NH2	52:2s:8:GLY:O	2.49	0.46
53:2t:77:ALA:O	53:2t:81:LYS:HG3	2.16	0.46
55:2z:465:ARG:O	55:2z:470:PHE:HD2	1.99	0.46
57:2w:21:A:N6	57:2w:46:G:H2'	2.27	0.46
1:1A:417:G:O2'	1:1A:436:G:OP1	2.26	0.46
1:1A:894:G:O6	1:1A:973:G:H2'	2.15	0.46
1:1A:1120:C:H5'	1:1A:1121:C:OP2	2.16	0.46
1:1A:1734:U:O2	1:1A:1746:A:H5'	2.16	0.46
4:1D:102:LYS:C	4:1D:103:ARG:HG2	2.41	0.46
34:1a:104:C:H2'	34:1a:105:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:1248:G:N2	34:1a:1252:C:N3	2.64	0.46
34:1a:1306:A:H2'	34:1a:1307:C:C6	2.51	0.46
34:1a:1447:G:H2'	34:1a:1448:G:H8	1.79	0.46
39:1f:44:GLY:HA2	39:1f:59:TYR:CZ	2.51	0.46
55:1z:610:VAL:HG11	55:1z:620:VAL:HG11	1.97	0.46
1:2A:2273:U:H4'	1:2A:2339:A:C2	2.51	0.46
1:2A:2405:C:H1'	63:2A:5138:HOH:O	2.16	0.46
1:2A:2613:A:OP2	1:2A:2614:G:H5"	2.16	0.46
7:2G:15:VAL:HG22	7:2G:175:LEU:HB3	1.98	0.46
8:2H:144:VAL:HA	8:2H:147:ASN:ND2	2.31	0.46
18:2S:104:GLN:CD	18:2S:104:GLN:H	2.24	0.46
21:2V:44:GLU:O	21:2V:48:LYS:N	2.49	0.46
23:2X:11:GLU:HB3	23:2X:12:GLY:H	1.61	0.46
34:2a:38:U:O2'	34:2a:531:A:N1	2.45	0.46
34:2a:485:C:H2'	34:2a:486:G:C8	2.51	0.46
49:2p:26:ARG:HD2	49:2p:31:LYS:O	2.15	0.46
55:2z:154:GLN:HB3	55:2z:161:PRO:HG3	1.98	0.46
55:2z:621:ILE:HG13	55:2z:643:ILE:HD13	1.98	0.46
1:1A:2192:A:H1'	1:1A:2193:U:C6	2.50	0.46
3:1C:40:THR:N	3:1C:217:THR:OG1	2.49	0.46
5:1E:143:ASN:HB2	5:1E:147:PRO:HD2	1.98	0.46
5:1E:144:ARG:HB3	5:1E:145:LYS:H	1.48	0.46
13:1N:58:THR:O	13:1N:62:LEU:HG	2.16	0.46
34:1a:1223:G:H2'	34:1a:1224:C:C6	2.50	0.46
46:1m:66:LEU:C	46:1m:70:LEU:HB2	2.40	0.46
1:2A:1055:A:H1'	1:2A:1198:C:H1'	1.98	0.46
1:2A:1108:G:H1'	10:2K:91:PRO:CG	2.46	0.46
1:2A:2699:U:O2'	1:2A:2733:A:N6	2.49	0.46
5:2E:35:GLN:HG3	5:2E:36:ARG:N	2.31	0.46
19:2T:1:MET:HE3	19:2T:43:GLU:H	1.80	0.46
21:2V:72:LYS:NZ	21:2V:75:ASP:OD1	2.40	0.46
36:2c:114:PRO:HA	36:2c:185:GLY:HA3	1.98	0.46
1:1A:326:U:H2'	1:1A:327:G:C8	2.50	0.45
1:1A:494:G:O6	31:15:37:LYS:HE2	2.16	0.45
1:1A:1457:A:H2'	1:1A:1458:G:C8	2.51	0.45
1:1A:2187:G:H5'	1:1A:2188:U:OP2	2.17	0.45
32:16:62:LEU:HB3	32:16:65:GLU:HG2	1.98	0.45
34:1a:41:C:H2'	34:1a:42:G:C8	2.51	0.45
34:1a:143:G:H2'	34:1a:144:A:C8	2.43	0.45
34:1a:267:C:H2'	34:1a:268:C:C6	2.51	0.45
34:1a:521:G:H5"	45:1l:113:ARG:NH1	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:1273:G:OP1	40:1g:37:ASN:ND2	2.49	0.45
48:1o:47:LYS:HB3	48:1o:47:LYS:HE2	1.85	0.45
53:1t:37:SER:O	53:1t:41:ILE:HG13	2.16	0.45
1:2A:260:A:N7	1:2A:282:G:N2	2.58	0.45
1:2A:1302:C:H4'	6:2F:83:PHE:CD1	2.51	0.45
1:2A:1587:G:OP2	1:2A:1588:A:O2'	2.34	0.45
1:2A:1633:C:H2'	1:2A:1634:C:C6	2.51	0.45
1:2A:2203:G:H2'	1:2A:2204:C:H6	1.81	0.45
16:2Q:15:ARG:C	16:2Q:19:LYS:HE2	2.41	0.45
32:26:7:HIS:HB3	32:26:61:LEU:HB3	1.98	0.45
34:2a:37:C:OP1	45:2l:123:LYS:NZ	2.48	0.45
35:2b:229:VAL:HG12	35:2b:230:VAL:H	1.80	0.45
37:2d:3:ARG:HD3	37:2d:118:ARG:HD3	1.98	0.45
37:2d:116:GLN:OE1	37:2d:161:ASN:ND2	2.49	0.45
38:2e:36:ASP:OD2	38:2e:40:ARG:HB2	2.16	0.45
38:2e:122:GLU:HB2	38:2e:126:ARG:HH11	1.80	0.45
40:2g:87:VAL:HG11	40:2g:155:ARG:HA	1.98	0.45
41:2h:91:ARG:NH1	50:2q:33:GLY:HA3	2.31	0.45
55:2z:428:LEU:O	55:2z:432:ALA:HB2	2.16	0.45
1:1A:254:G:N2	1:1A:453:U:H1'	2.31	0.45
1:1A:328:U:H2'	1:1A:329:U:C6	2.52	0.45
1:1A:656:A:H2'	1:1A:657:A:C8	2.52	0.45
1:1A:1147:C:H2'	1:1A:1148:A:C8	2.51	0.45
2:1B:32:C:C2	2:1B:51:G:N2	2.84	0.45
3:1C:179:SER:HA	3:1C:180:PHE:O	2.16	0.45
15:1P:24:GLN:HE21	15:1P:44:LEU:HG	1.81	0.45
34:1a:349:A:H5'	34:1a:349:A:H8	1.80	0.45
37:1d:108:LEU:HB3	37:1d:110:PHE:CE1	2.51	0.45
46:1m:3:ARG:HG3	46:1m:4:ILE:H	1.81	0.45
1:2A:610:U:H1'	6:2F:90:PHE:HB3	1.98	0.45
1:2A:1081:G:OP2	8:2H:59:ARG:NH1	2.49	0.45
1:2A:1107:G:H4'	10:2K:133:SER:CB	2.46	0.45
1:2A:1138:G:H2'	1:2A:1143:A:H61	1.80	0.45
1:2A:1200:A:OP1	18:2S:55:ARG:HD3	2.16	0.45
1:2A:1628:C:O2'	1:2A:1631:A:N3	2.45	0.45
1:2A:2082:G:H5"	1:2A:2514:A:C2	2.51	0.45
1:2A:2151:U:OP1	3:2C:5:LYS:N	2.37	0.45
1:2A:2342:G:O2'	24:2Y:43:THR:HG22	2.17	0.45
1:2A:2768:U:H4'	1:2A:2769:A:OP1	2.14	0.45
1:2A:2890:C:H2'	1:2A:2891:A:O4'	2.15	0.45
2:2B:48:A:H4'	16:2Q:95:HIS:CD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2C:200:LYS:HG2	3:2C:203:GLY:N	2.32	0.45
7:2G:47:LYS:HG2	7:2G:48:GLU:N	2.31	0.45
10:2K:98:ARG:C	10:2K:99:ILE:HG12	2.41	0.45
16:2Q:54:LEU:O	16:2Q:57:LYS:HG3	2.16	0.45
24:2Y:53:MET:HA	24:2Y:58:THR:O	2.16	0.45
28:22:59:PHE:CE1	52:2s:64:GLU:HB2	2.51	0.45
33:27:1:MET:HE2	33:27:1:MET:HB2	1.84	0.45
37:2d:10:ARG:HB2	37:2d:40:PRO:HG3	1.98	0.45
37:2d:15:GLU:OE2	37:2d:66:ARG:NH1	2.49	0.45
49:2p:53:VAL:O	49:2p:57:ARG:HB2	2.16	0.45
1:1A:552:A:C2	1:1A:2064:C:H4'	2.51	0.45
1:1A:1109:C:H2'	1:1A:1110:U:O4'	2.17	0.45
1:1A:1571:G:C6	1:1A:1572:G:C2	3.04	0.45
1:1A:2630:C:H4'	5:1E:151:TYR:O	2.16	0.45
1:1A:2654:G:O6	63:1A:3876:HOH:O	2.19	0.45
1:1A:2801:C:O2	1:1A:2902:G:N2	2.38	0.45
3:1C:46:LYS:O	3:1C:210:ARG:HB2	2.16	0.45
9:1J:66:LEU:O	9:1J:73:GLY:HA2	2.16	0.45
17:1R:118:ARG:HD2	17:1R:118:ARG:HA	1.60	0.45
31:15:24:THR:HG22	31:15:27:GLY:N	2.22	0.45
34:1a:57:U:H2'	34:1a:58:G:H8	1.80	0.45
34:1a:454:G:N1	34:1a:456:C:H5'	2.32	0.45
46:1m:117:VAL:O	46:1m:119:GLY:N	2.43	0.45
50:1q:58:GLU:O	50:1q:74:LEU:N	2.43	0.45
55:1z:619:ASP:O	55:1z:623:ASP:N	2.38	0.45
1:2A:1051:C:C2	1:2A:1182:G:N2	2.84	0.45
1:2A:1474:G:H2'	1:2A:1475:C:C6	2.50	0.45
1:2A:1568:U:H2'	1:2A:1569:G:H8	1.80	0.45
1:2A:1732:C:H2'	1:2A:1733:G:O4'	2.16	0.45
1:2A:2431:C:P	32:26:33:ASN:H	2.39	0.45
1:2A:2824:C:H5'	29:23:29:THR:HG21	1.98	0.45
30:24:10:LEU:HD23	30:24:22:ALA:HB2	1.97	0.45
32:26:4:MET:HE3	32:26:63:PRO:HG3	1.97	0.45
34:2a:103:A:C6	34:2a:322:G:C6	3.04	0.45
34:2a:219:U:H2'	34:2a:220:C:H6	1.82	0.45
51:2r:52:PRO:HB2	51:2r:54:ARG:HG2	1.98	0.45
1:1A:468:A:C5	6:1F:45:ARG:HD2	2.52	0.45
1:1A:622:G:N2	1:1A:627:C:O3'	2.50	0.45
1:1A:1524:G:H2'	1:1A:1525:G:C8	2.47	0.45
1:1A:2139:U:H6	1:1A:2169:G:O2'	2.00	0.45
1:1A:2144:G:H2'	1:1A:2145:G:H8	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1N:138:LEU:HD23	13:1N:145:PRO:HG3	1.98	0.45
17:1R:27:THR:O	17:1R:89:VAL:HG22	2.15	0.45
19:1T:65:GLY:HA3	19:1T:91:TYR:CZ	2.52	0.45
28:12:58:ARG:HG3	52:1s:65:ASN:C	2.41	0.45
34:1a:250:G:OP1	50:1q:66:SER:OG	2.34	0.45
34:1a:402:G:H21	37:1d:119:GLN:HE22	1.63	0.45
34:1a:440:G:C2	34:1a:441:G:C4	3.04	0.45
34:1a:964:A:H4'	52:1s:55:LYS:HG3	1.98	0.45
34:1a:996:G:H2'	34:1a:997:C:C6	2.51	0.45
34:1a:1165:A:HO2'	34:1a:1166:G:P	2.39	0.45
36:1c:181:ASN:C	36:1c:181:ASN:HD22	2.24	0.45
38:1e:82:VAL:HG21	38:1e:138:ALA:HA	1.97	0.45
43:1j:31:GLY:HA2	43:1j:32:ALA:HA	1.66	0.45
53:1t:56:MET:HE3	53:1t:56:MET:HB2	1.83	0.45
55:1z:-58:LEU:HB3	55:1z:-55:LEU:HD13	1.99	0.45
1:2A:1099:A:N6	1:2A:1150:U:H3	2.09	0.45
1:2A:1137:C:H2'	1:2A:1138:G:O4'	2.16	0.45
1:2A:2574:U:O2	1:2A:2576:A:H8	1.99	0.45
1:2A:2800:C:O2'	1:2A:2818:A:N3	2.46	0.45
7:2G:96:ARG:N	7:2G:99:MET:HE2	2.31	0.45
7:2G:98:ARG:H	7:2G:98:ARG:HG2	1.39	0.45
22:2W:44:ILE:HA	22:2W:63:LYS:O	2.15	0.45
27:21:20:LYS:HE3	27:21:20:LYS:HB2	1.81	0.45
34:2a:959:U:H2'	34:2a:960:U:C5	2.51	0.45
34:2a:1200:C:H2'	34:2a:1201:U:C6	2.52	0.45
36:2c:70:VAL:HG22	36:2c:72:LYS:H	1.82	0.45
38:2e:20:GLN:NE2	38:2e:21:ALA:O	2.50	0.45
42:2i:99:LEU:HB3	42:2i:101:PHE:CE1	2.51	0.45
55:2z:146:LEU:HG	55:2z:260:LEU:HD23	1.98	0.45
55:2z:276:VAL:HG13	55:2z:280:LEU:HD12	1.97	0.45
55:2z:545:GLY:HA2	55:2z:583:LYS:HG3	1.99	0.45
1:1A:267:G:O2'	1:1A:268:G:H8	2.00	0.45
1:1A:951:G:OP1	14:1O:26:TYR:OH	2.32	0.45
1:1A:1187:A:C4	1:1A:1189:G:C8	3.04	0.45
1:1A:2302:U:H2'	1:1A:2303:C:C6	2.52	0.45
5:1E:119:ARG:HB3	5:1E:120:TRP:CD1	2.52	0.45
6:1F:132:VAL:HA	6:1F:138:GLU:HB3	1.98	0.45
26:10:37:PHE:O	26:10:40:SER:OG	2.30	0.45
34:1a:205:G:H2'	34:1a:206:G:C8	2.51	0.45
34:1a:964:A:H1'	52:1s:55:LYS:HA	1.99	0.45
34:1a:993:A:H4'	52:1s:14:HIS:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:1102:C:H2'	34:1a:1103:G:H8	1.81	0.45
35:1b:16:HIS:HB3	35:1b:210:SER:CB	2.46	0.45
35:1b:127:ILE:HD11	35:1b:130:ARG:HE	1.82	0.45
38:1e:18:ARG:HG2	38:1e:25:ARG:O	2.16	0.45
55:1z:420:ASP:CG	55:1z:423:LYS:HE3	2.41	0.45
1:2A:503:A:N1	1:2A:524:G:H4'	2.32	0.45
1:2A:765:C:H2'	1:2A:766:C:C6	2.52	0.45
1:2A:1039:C:H3'	18:2S:54:LYS:HE3	1.98	0.45
1:2A:1317:A:N7	1:2A:1663:A:H1'	2.32	0.45
1:2A:1616:A:H2'	1:2A:1617:A:C8	2.51	0.45
1:2A:2071:C:H2'	1:2A:2072:A:O4'	2.17	0.45
1:2A:2741:G:H2'	1:2A:2742:C:C6	2.51	0.45
2:2B:17:C:H2'	2:2B:18:G:O4'	2.17	0.45
6:2F:20:LEU:HD22	6:2F:20:LEU:HA	1.66	0.45
26:20:53:LEU:O	26:20:57:ILE:HG13	2.15	0.45
28:22:58:ARG:C	28:22:60:GLN:HB2	2.42	0.45
34:2a:74:G:C6	34:2a:75:C:C4	3.05	0.45
34:2a:74:G:C6	34:2a:91:G:C6	3.04	0.45
34:2a:1172:G:OP1	36:2c:5:ILE:N	2.46	0.45
36:2c:184:TYR:HA	36:2c:200:ALA:O	2.16	0.45
55:2z:152:THR:HG22	55:2z:156:ARG:HG3	1.99	0.45
1:1A:23:G:O2'	20:1U:78:GLU:O	2.30	0.45
1:1A:501:G:H4'	1:1A:526:A:N1	2.32	0.45
1:1A:509:C:H2'	1:1A:510:C:C6	2.52	0.45
1:1A:1054:A:N3	1:1A:1198:C:O2'	2.50	0.45
1:1A:1100:G:H1	1:1A:1149:C:H42	1.63	0.45
1:1A:1684:C:OP1	1:1A:2721:C:O2'	2.35	0.45
1:1A:2356:G:OP2	30:14:38:LYS:HG3	2.16	0.45
3:1C:26:ALA:HB3	3:1C:186:ALA:HB2	1.99	0.45
5:1E:167:VAL:HG22	5:1E:189:PRO:HD3	1.98	0.45
7:1G:106:LEU:HA	7:1G:110:ALA:HB3	1.98	0.45
18:1S:24:TYR:HB2	18:1S:29:SER:HB3	1.99	0.45
23:1X:144:LEU:HD11	23:1X:150:LEU:HD22	1.98	0.45
34:1a:437:C:N4	34:1a:477:G:H1	2.14	0.45
34:1a:1180:G:H2'	34:1a:1181:U:C6	2.52	0.45
55:1z:179:ASP:OD2	55:1z:182:ARG:HD2	2.16	0.45
55:1z:404:VAL:H	55:1z:405:PRO:HD3	1.82	0.45
1:2A:707:C:H4'	13:2N:13:ASN:OD1	2.17	0.45
1:2A:875:A:N7	1:2A:2259:C:H5'	2.32	0.45
1:2A:1284:G:H2'	1:2A:1285:U:O4'	2.16	0.45
1:2A:1356:G:O6	31:25:9:ARG:NH2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2183:G:O3'	1:2A:2193:U:H2'	2.16	0.45
1:2A:2735:C:O3'	15:2P:1:MET:HE2	2.16	0.45
1:2A:2829:A:OP1	15:2P:2:ARG:NH2	2.48	0.45
5:2E:52:LEU:O	5:2E:76:ARG:N	2.41	0.45
6:2F:197:ASP:O	6:2F:201:VAL:HG13	2.16	0.45
6:2F:202:PHE:CZ	6:2F:206:ILE:HD13	2.52	0.45
7:2G:135:LEU:HB2	7:2G:155:MET:HG2	1.98	0.45
10:2K:103:GLN:HA	10:2K:106:GLU:CD	2.42	0.45
19:2T:1:MET:HE1	19:2T:44:LYS:H	1.82	0.45
27:21:10:LYS:HB3	27:21:53:LEU:HA	1.99	0.45
34:2a:42:G:H2'	34:2a:43:G:H8	1.81	0.45
34:2a:267:C:H2'	34:2a:268:C:H6	1.81	0.45
34:2a:443:A:OP2	34:2a:470:G:N2	2.27	0.45
36:2c:179:ARG:NH1	36:2c:206:GLU:OE1	2.50	0.45
38:2e:82:VAL:HG21	38:2e:138:ALA:HA	1.97	0.45
51:2r:53:ARG:HH11	51:2r:60:ALA:N	2.14	0.45
55:2z:487:ILE:HD11	55:2z:516:PRO:HA	1.97	0.45
55:2z:616:TYR:O	55:2z:619:ASP:N	2.50	0.45
1:1A:90:G:H2'	1:1A:91:C:C6	2.51	0.45
1:1A:1026:A:N1	1:1A:2048:G:O2'	2.49	0.45
8:1H:164:TYR:HB2	8:1H:167:GLU:HB2	1.98	0.45
34:1a:378:A:H2'	34:1a:379:A:C8	2.52	0.45
34:1a:475:G:OP2	37:1d:132:ARG:NH2	2.46	0.45
34:1a:1048:U:H5"	34:1a:1172:G:N2	2.32	0.45
34:1a:1054:C:H5"	38:1e:49:PRO:HG2	1.99	0.45
42:1i:16:ARG:HB2	42:1i:64:THR:HB	1.98	0.45
1:2A:323:A:OP1	22:2W:86:ARG:NH2	2.50	0.45
1:2A:504:A:H4'	1:2A:505:A:OP1	2.15	0.45
1:2A:703:U:H2'	1:2A:704:C:C6	2.51	0.45
1:2A:732:G:H21	1:2A:834:A:H61	1.64	0.45
1:2A:896:C:O3'	27:21:49:LYS:HE2	2.16	0.45
1:2A:1716:C:OP1	63:2A:4943:HOH:O	2.21	0.45
1:2A:2151:U:P	3:2C:5:LYS:H	2.40	0.45
1:2A:2244:U:H2'	1:2A:2245:G:C8	2.52	0.45
1:2A:2273:U:H4'	1:2A:2339:A:H2	1.81	0.45
1:2A:2626:U:H2'	1:2A:2627:C:C6	2.50	0.45
1:2A:2894:C:O2'	29:23:34:PRO:HG3	2.16	0.45
2:2B:65:C:N4	2:2B:109:C:C2	2.85	0.45
6:2F:135:LYS:HG2	6:2F:137:LYS:HG2	1.99	0.45
14:2O:103:MET:HE1	14:2O:127:ILE:HD11	1.97	0.45
23:2X:110:GLY:O	23:2X:114:GLY:N	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:296:A:O2'	34:2a:548:C:N3	2.46	0.45
34:2a:1431:U:OP1	34:2a:1432:A:N6	2.50	0.45
35:2b:147:LYS:HD3	35:2b:148:TYR:CE1	2.52	0.45
43:2j:13:HIS:HB3	43:2j:68:HIS:CE1	2.51	0.45
44:2k:27:ASN:OD1	44:2k:55:LYS:HB3	2.16	0.45
46:2m:123:ALA:O	55:2z:573:HIS:NE2	2.50	0.45
52:2s:80:TYR:O	52:2s:82:GLY:N	2.44	0.45
53:2t:57:ARG:NH2	53:2t:100:ILE:HD12	2.28	0.45
55:2z:223:PHE:HB3	55:2z:248:LYS:HD2	1.98	0.45
55:2z:409:ILE:HG22	55:2z:453:GLY:C	2.41	0.45
1:1A:1835:U:O2	4:1D:50:THR:HB	2.16	0.45
1:1A:2197:A:H2'	1:1A:2198:C:C5	2.51	0.45
1:1A:2330:G:O6	16:1Q:4:LEU:HD13	2.17	0.45
7:1G:79:ASN:OD1	7:1G:79:ASN:N	2.49	0.45
25:1Z:76:ARG:HB2	25:1Z:97:LEU:HD13	1.99	0.45
34:1a:741:U:H2'	34:1a:742:G:O4'	2.17	0.45
34:1a:1005:G:H2'	34:1a:1005:G:N3	2.32	0.45
34:1a:1165:A:H3'	34:1a:1166:G:H5"	1.99	0.45
34:1a:1315:A:H2'	34:1a:1316:G:O4'	2.16	0.45
55:1z:623:ASP:HB2	55:1z:662:LYS:HE2	1.98	0.45
1:2A:671:G:H8	1:2A:671:G:O5'	2.00	0.45
1:2A:1633:C:H2'	1:2A:1634:C:H6	1.82	0.45
1:2A:2126:C:N4	1:2A:2204:C:H42	2.11	0.45
1:2A:2314:G:H1'	7:2G:132:ASN:HD22	1.81	0.45
7:2G:97:ASP:O	7:2G:101:ILE:HG13	2.16	0.45
8:2H:98:LEU:HD22	8:2H:125:VAL:HG23	1.99	0.45
9:2J:4:LYS:HA	9:2J:5:ARG:HA	1.70	0.45
10:2K:112:MET:HB2	10:2K:113:PRO:HD3	1.99	0.45
25:2Z:73:LEU:HD23	25:2Z:73:LEU:HA	1.78	0.45
28:22:13:ARG:HA	28:22:22:ILE:O	2.17	0.45
34:2a:179:G:H2'	34:2a:180:A:H8	1.81	0.45
34:2a:776:A:H4'	34:2a:777:U:O5'	2.17	0.45
34:2a:1087:G:H4'	35:2b:111:ARG:NH1	2.31	0.45
34:2a:1150:A:H8	34:2a:1150:A:OP1	2.00	0.45
35:2b:179:LYS:HA	41:2h:72:PRO:HG3	1.97	0.45
55:2z:411:VAL:O	55:2z:450:ILE:HA	2.16	0.45
55:2z:431:LEU:HD21	55:2z:465:ARG:HD3	1.99	0.45
1:1A:2508:A:H5"	63:1A:4191:HOH:O	2.16	0.45
5:1E:78:LEU:HD12	5:1E:78:LEU:HA	1.80	0.45
5:1E:117:MET:HE2	5:1E:117:MET:HB3	1.84	0.45
10:1K:129:GLY:HA2	10:1K:132:ARG:HH22	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1M:64:ARG:HB2	12:1M:83:ALA:HB3	1.99	0.45
20:1U:64:MET:HE3	20:1U:109:GLU:HG3	1.98	0.45
34:1a:1095:C:C2	36:1c:178:LEU:HB2	2.52	0.45
42:1i:78:LYS:HD3	42:1i:101:PHE:CD2	2.51	0.45
42:1i:96:LEU:HB3	42:1i:102:LEU:HD23	1.98	0.45
46:1m:92:HIS:CE1	46:1m:98:VAL:HG21	2.52	0.45
53:1t:13:LEU:HD12	53:1t:14:LYS:H	1.82	0.45
55:1z:406:GLU:HG3	55:1z:439:ARG:HH22	1.82	0.45
55:1z:513:LYS:H	55:1z:566:THR:HB	1.82	0.45
55:1z:543:GLN:O	55:1z:547:GLU:HB2	2.17	0.45
1:2A:330:G:H22	1:2A:333:A:H5"	1.81	0.45
1:2A:579:U:O2	11:2L:45:ASN:HB2	2.16	0.45
1:2A:770:U:H2'	1:2A:771:G:O4'	2.17	0.45
1:2A:2071:C:H1'	5:2E:156:MET:HE2	1.98	0.45
3:2C:171:ILE:HG23	3:2C:172:HIS:N	2.32	0.45
6:2F:176:LEU:HA	6:2F:176:LEU:HD23	1.71	0.45
12:2M:23:ARG:HG3	12:2M:24:VAL:N	2.31	0.45
14:2O:138:ASP:OD2	23:2X:81:ARG:NH1	2.50	0.45
34:2a:102:G:P	34:2a:322:G:H22	2.40	0.45
34:2a:218:U:H2'	34:2a:219:U:C6	2.51	0.45
34:2a:267:C:H2'	34:2a:268:C:C6	2.52	0.45
1:1A:195:A:H2'	1:1A:196:C:O4'	2.16	0.45
1:1A:552:A:N1	1:1A:2063:A:H2'	2.31	0.45
1:1A:612:A:OP1	6:1F:95:ARG:NH1	2.47	0.45
1:1A:1210:U:H2'	1:1A:1211:C:C6	2.52	0.45
1:1A:1232:U:H4'	19:1T:79:VAL:HG22	1.99	0.45
1:1A:2347:A:H61	24:1Y:43:THR:CG2	2.29	0.45
3:1C:59:ARG:NE	3:1C:164:ARG:HH22	2.15	0.45
5:1E:26:ILE:O	5:1E:182:LEU:N	2.44	0.45
6:1F:136:THR:HA	6:1F:166:ALA:O	2.17	0.45
7:1G:16:ARG:O	7:1G:20:ILE:HG13	2.16	0.45
12:1M:98:VAL:HG22	12:1M:118:ALA:HA	1.99	0.45
18:1S:102:GLU:HB3	18:1S:104:GLN:HE22	1.82	0.45
34:1a:691:C:H2'	34:1a:692:C:C6	2.51	0.45
35:1b:24:TRP:H	35:1b:24:TRP:HD1	1.64	0.45
35:1b:193:ASP:HA	35:1b:194:PRO:HD3	1.84	0.45
36:1c:36:ASP:O	36:1c:40:ARG:HG3	2.16	0.45
37:1d:61:LYS:HD2	37:1d:207:TYR:OH	2.17	0.45
1:2A:396:G:N7	63:2A:5003:HOH:O	2.36	0.45
1:2A:1304:G:H2'	1:2A:1305:G:C8	2.52	0.45
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2072:A:H5'	1:2A:2589:G:O4'	2.17	0.45
1:2A:2672:G:H2'	1:2A:2673:A:O4'	2.16	0.45
3:2C:44:HIS:O	3:2C:212:VAL:HG13	2.17	0.45
14:2O:75:THR:HG21	14:2O:87:LYS:NZ	2.32	0.45
20:2U:71:VAL:HA	20:2U:107:LEU:HD12	1.99	0.45
22:2W:9:LYS:HA	22:2W:10:GLY:HA2	1.59	0.45
28:22:15:ILE:HG23	28:22:21:VAL:HG22	1.99	0.45
34:2a:212:G:H2'	34:2a:213:C:C6	2.52	0.45
34:2a:280:G:H2'	34:2a:281:G:H8	1.82	0.45
34:2a:981:G:C5	34:2a:982:G:H8	2.35	0.45
35:2b:93:VAL:HG21	35:2b:97:TRP:CD1	2.52	0.45
36:2c:20:SER:HB3	36:2c:22:TRP:HE1	1.82	0.45
37:2d:54:TYR:CE1	37:2d:58:LEU:HD12	2.51	0.45
39:2f:55:ASP:HA	39:2f:56:PRO:HD3	1.85	0.45
48:2o:55:GLY:HA2	48:2o:58:MET:HE3	1.98	0.45
55:2z:631:ILE:HA	55:2z:645:ALA:CB	2.46	0.45
55:2z:639:ASN:HA	55:2z:640:ALA:C	2.42	0.45
1:1A:914:U:C4	1:1A:915:G:N7	2.85	0.44
1:1A:1632:A:H2'	1:1A:1633:C:C6	2.52	0.44
17:1R:113:LYS:HD3	17:1R:113:LYS:HA	1.76	0.44
32:16:50:LEU:HD23	32:16:50:LEU:HA	1.83	0.44
34:1a:268:C:H2'	34:1a:269:A:C8	2.52	0.44
34:1a:537:A:H5"	45:1l:24:VAL:HG21	1.98	0.44
34:1a:982:G:O6	34:1a:1018:A:N6	2.51	0.44
34:1a:1043:C:H2'	34:1a:1044:G:H8	1.81	0.44
36:1c:53:ALA:HB2	36:1c:115:LEU:HD13	1.98	0.44
37:1d:167:GLY:H	37:1d:168:ARG:HH12	1.64	0.44
38:1e:68:GLU:HG2	38:1e:70:PRO:HD3	1.99	0.44
49:1p:27:LYS:HB2	49:1p:27:LYS:HE3	1.76	0.44
49:1p:58:TYR:O	49:1p:61:SER:OG	2.28	0.44
55:1z:95:GLU:HG3	55:1z:405:PRO:HG3	1.97	0.44
1:2A:63:C:H2'	1:2A:64:C:C6	2.53	0.44
1:2A:598:U:H2'	1:2A:599:G:C8	2.52	0.44
1:2A:1529:G:C2	1:2A:1551:C:C2	3.05	0.44
1:2A:1587:G:H3'	1:2A:1588:A:H2'	2.00	0.44
1:2A:1845:A:OP2	4:2D:54:ARG:NH2	2.50	0.44
1:2A:2151:U:H1'	1:2A:2179:A:C2	2.52	0.44
1:2A:2726:G:OP2	63:2A:4946:HOH:O	2.21	0.44
3:2C:171:ILE:HG23	3:2C:172:HIS:H	1.83	0.44
4:2D:264:LYS:HA	4:2D:265:PRO:HD3	1.89	0.44
6:2F:33:LEU:HD22	6:2F:112:MET:HE3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2H:10:PRO:O	8:2H:12:PRO:HD3	2.17	0.44
11:2L:58:ASP:OD1	11:2L:58:ASP:N	2.50	0.44
22:2W:102:CYS:SG	22:2W:103:GLY:N	2.90	0.44
23:2X:136:PHE:HD1	23:2X:136:PHE:HA	1.74	0.44
34:2a:835:C:H2'	34:2a:836:G:O4'	2.17	0.44
36:2c:54:ARG:HB3	36:2c:54:ARG:HH11	1.81	0.44
40:2g:78:ARG:HG2	40:2g:79:ARG:H	1.82	0.44
42:2i:19:LEU:HD12	42:2i:84:ALA:HB3	1.98	0.44
43:2j:9:ARG:HG2	43:2j:69:ASN:OD1	2.18	0.44
1:1A:115:A:C8	1:1A:116:A:C8	3.05	0.44
1:1A:326:U:H2'	1:1A:327:G:H8	1.83	0.44
1:1A:1129:A:N6	1:1A:1130:A:C6	2.85	0.44
1:1A:1217:G:O2'	1:1A:1218:A:O5'	2.35	0.44
1:1A:1271:A:OP1	18:1S:16:LYS:NZ	2.51	0.44
5:1E:12:THR:HG22	5:1E:13:ARG:N	2.32	0.44
8:1H:7:LEU:HA	8:1H:8:PRO:HD3	1.79	0.44
11:1L:62:VAL:CG1	11:1L:66:LYS:HB2	2.46	0.44
12:1M:68:GLU:HB3	12:1M:78:ARG:HB2	1.98	0.44
13:1N:91:PHE:CE1	13:1N:99:LEU:HD12	2.52	0.44
21:1V:34:ALA:O	21:1V:77:LYS:NZ	2.41	0.44
23:1X:5:LEU:HD22	23:1X:6:LYS:N	2.32	0.44
28:12:16:CYS:SG	28:12:17:GLY:N	2.90	0.44
34:1a:415:C:OP1	34:1a:497:C:O2'	2.27	0.44
34:1a:983:A:C5	34:1a:1020:C:C2	3.04	0.44
34:1a:989:G:N2	34:1a:999:U:H1'	2.32	0.44
40:1g:103:TRP:CH2	40:1g:141:VAL:HG21	2.53	0.44
42:1i:100:GLY:O	42:1i:103:THR:HG22	2.17	0.44
55:1z:426:GLN:O	55:1z:430:ARG:HG3	2.17	0.44
1:2A:131:C:H2'	1:2A:132:G:O4'	2.16	0.44
1:2A:289:G:H2'	1:2A:290:G:O4'	2.17	0.44
1:2A:1018:G:C4	1:2A:1034:G:C2	3.05	0.44
1:2A:1108:G:C6	1:2A:1109:C:C2	3.05	0.44
2:2B:12:C:H2'	24:2Y:73:GLY:HA3	1.99	0.44
6:2F:178:PRO:HB2	6:2F:201:VAL:HG21	2.00	0.44
14:2O:26:TYR:O	14:2O:67:ARG:NH1	2.43	0.44
19:2T:16:PRO:HD3	19:2T:99:ILE:HD11	1.99	0.44
28:22:58:ARG:N	28:22:60:GLN:OE1	2.50	0.44
34:2a:403:G:C6	34:2a:404:A:C6	3.05	0.44
34:2a:713:A:H2'	34:2a:714:G:H8	1.81	0.44
34:2a:741:U:H2'	34:2a:742:G:O4'	2.17	0.44
34:2a:1325:G:H2'	34:2a:1326:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2g:111:ARG:NH1	40:2g:113:GLU:OE1	2.51	0.44
55:2z:289:ILE:HG12	55:2z:290:LYS:H	1.82	0.44
1:1A:63:C:H2'	1:1A:64:C:H6	1.83	0.44
1:1A:1055:A:N3	1:1A:1198:C:H1'	2.32	0.44
1:1A:1994:G:H2'	1:1A:1995:C:C6	2.52	0.44
1:1A:2578:G:H2'	1:1A:2579:C:H6	1.81	0.44
7:1G:7:LEU:HD13	7:1G:176:LEU:HD22	1.99	0.44
16:1Q:25:ARG:NH1	16:1Q:42:ASP:OD1	2.49	0.44
23:1X:109:ALA:HB3	23:1X:145:GLU:HG3	1.98	0.44
34:1a:184:G:C6	34:1a:196:G:N1	2.85	0.44
34:1a:336:U:H2'	34:1a:337:C:O4'	2.18	0.44
34:1a:378:A:H2'	34:1a:379:A:H8	1.82	0.44
34:1a:749:G:N1	34:1a:796:C:O2'	2.40	0.44
34:1a:1250:A:C6	34:1a:1251:A:C6	3.05	0.44
34:1a:1273:G:H2'	34:1a:1274:U:C6	2.51	0.44
35:1b:16:HIS:HB3	35:1b:210:SER:HB2	1.99	0.44
35:1b:62:ALA:HB2	35:1b:222:ILE:HG23	2.00	0.44
40:1g:97:GLN:HE21	40:1g:97:GLN:HB2	1.59	0.44
1:2A:55:C:H2'	1:2A:56:G:O4'	2.18	0.44
1:2A:321:G:O2'	1:2A:345:A:N1	2.48	0.44
1:2A:1102:A:N6	1:2A:1132:G:OP2	2.33	0.44
1:2A:1910:A:N1	1:2A:2245:G:H1'	2.33	0.44
1:2A:1928:G:H2'	1:2A:1929:C:H6	1.83	0.44
1:2A:2367:C:O3'	24:2Y:20:ARG:HD3	2.17	0.44
1:2A:2438:C:H5"	1:2A:2439:G:OP1	2.17	0.44
8:2H:107:VAL:O	8:2H:152:ARG:NH2	2.50	0.44
14:2O:58:PHE:HB3	14:2O:61:GLY:HA2	1.99	0.44
17:2R:119:LYS:HB2	34:2a:1426:G:N2	2.32	0.44
23:2X:175:VAL:HG12	23:2X:176:PRO:O	2.17	0.44
34:2a:102:G:OP1	34:2a:322:G:N2	2.41	0.44
34:2a:298:G:O2'	34:2a:540:C:H5"	2.17	0.44
34:2a:1125:G:H3'	34:2a:1126:G:H8	1.83	0.44
34:2a:1244:C:H2'	34:2a:1245:C:C6	2.52	0.44
34:2a:1330:U:H4'	42:2i:120:ARG:CD	2.47	0.44
35:2b:84:GLU:HG3	35:2b:87:ARG:NH1	2.30	0.44
46:2m:108:ARG:HD3	46:2m:108:ARG:HA	1.78	0.44
50:2q:62:SER:CB	50:2q:72:ARG:HD3	2.47	0.44
1:1A:909:A:P	14:1O:22:LYS:HG3	2.58	0.44
1:1A:1378:C:H2'	1:1A:1379:G:H8	1.81	0.44
1:1A:2331:A:H2'	1:1A:2331:A:N3	2.31	0.44
2:1B:30:C:H2'	2:1B:31:C:H5'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:14:9:LEU:HD13	30:14:51:GLU:HG3	1.99	0.44
34:1a:1296:C:H2'	34:1a:1297:U:C6	2.53	0.44
35:1b:16:HIS:HB3	35:1b:210:SER:OG	2.18	0.44
1:2A:399:U:H1'	1:2A:449:A:C2	2.53	0.44
1:2A:409:U:H2'	1:2A:411:C:H5	1.83	0.44
1:2A:555:C:H4'	1:2A:556:A:H5"	1.99	0.44
1:2A:649:G:O6	13:2N:107:LYS:NZ	2.50	0.44
1:2A:1100:G:H3'	1:2A:1101:G:C8	2.53	0.44
1:2A:1714:A:H4'	1:2A:1715:A:O5'	2.18	0.44
1:2A:1921:A:OP2	63:2A:4947:HOH:O	2.21	0.44
1:2A:2044:G:H5'	1:2A:2628:C:H4'	1.98	0.44
1:2A:2122:G:C4	1:2A:2123:U:H1'	2.52	0.44
1:2A:2197:A:OP1	3:2C:221:SER:HB3	2.17	0.44
1:2A:2574:U:H4'	12:2M:28:SER:HA	1.99	0.44
12:2M:22:ILE:HD11	12:2M:40:VAL:HG12	1.99	0.44
13:2N:44:GLY:CA	13:2N:45:LEU:HB2	2.48	0.44
34:2a:377:C:H2'	34:2a:378:A:O4'	2.17	0.44
34:2a:983:A:C2	34:2a:1021:C:C4	3.06	0.44
34:2a:987:C:C2	34:2a:1001:G:C2	3.05	0.44
34:2a:1034:C:H2'	34:2a:1035:U:C6	2.53	0.44
35:2b:97:TRP:HZ3	35:2b:176:GLU:OE2	2.01	0.44
53:2t:14:LYS:O	53:2t:18:GLN:HG3	2.18	0.44
55:2z:625:ASN:C	55:2z:627:ARG:H	2.25	0.44
1:1A:62:A:C5	21:1V:66:LEU:HD12	2.53	0.44
1:1A:274:C:H2'	1:1A:275:C:C6	2.53	0.44
1:1A:488:G:N1	1:1A:491:A:OP2	2.47	0.44
3:1C:21:THR:HG22	3:1C:22:ILE:H	1.81	0.44
13:1N:77:ARG:HB2	13:1N:78:PRO:HD2	1.98	0.44
22:1W:30:VAL:HG22	22:1W:37:VAL:HG12	2.00	0.44
23:1X:72:ARG:NH2	23:1X:97:GLU:O	2.45	0.44
34:1a:230:C:H2'	34:1a:231:C:C6	2.53	0.44
34:1a:523:A:H2'	34:1a:524:G:C8	2.53	0.44
34:1a:584:C:H2'	34:1a:585:C:C6	2.51	0.44
36:1c:54:ARG:NH1	36:1c:56:ASP:OD2	2.41	0.44
44:1k:20:TYR:HB2	44:1k:31:THR:HG23	1.98	0.44
1:2A:326:U:H2'	1:2A:327:G:H8	1.83	0.44
1:2A:473:U:O4	1:2A:605:G:H1'	2.17	0.44
1:2A:1059:U:H2'	1:2A:1060:G:H8	1.83	0.44
1:2A:1638:G:H2'	1:2A:1639:G:H8	1.81	0.44
1:2A:1861:G:H2'	1:2A:1862:C:C6	2.52	0.44
1:2A:2149:C:H5'	1:2A:2194:A:C2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2326:G:H2'	1:2A:2327:C:C6	2.53	0.44
1:2A:2361:C:H2'	1:2A:2362:G:O4'	2.18	0.44
1:2A:2682:A:H2'	1:2A:2683:G:O4'	2.18	0.44
8:2H:83:TYR:CE2	8:2H:138:LYS:HB2	2.53	0.44
13:2N:52:GLU:HB3	13:2N:55:ARG:HH11	1.82	0.44
14:2O:58:PHE:HB3	14:2O:61:GLY:CA	2.47	0.44
14:2O:128:LYS:NZ	14:2O:128:LYS:HB3	2.32	0.44
18:2S:66:ASN:O	18:2S:70:ARG:HG3	2.18	0.44
21:2V:31:HIS:CD2	21:2V:33:LYS:H	2.35	0.44
25:2Z:83:GLU:HA	25:2Z:84:GLY:HA2	1.67	0.44
34:2a:1209:A:OP1	52:2s:80:TYR:OH	2.29	0.44
35:2b:16:HIS:CB	35:2b:210:SER:HB3	2.48	0.44
35:2b:94:ASN:HD22	35:2b:94:ASN:HA	1.55	0.44
36:2c:142:MET:HG3	36:2c:170:GLN:HB2	1.99	0.44
38:2e:10:MET:HA	38:2e:32:VAL:HG22	2.00	0.44
41:2h:73:ASP:OD1	41:2h:75:ARG:HD3	2.17	0.44
52:2s:44:MET:HA	52:2s:47:HIS:HD1	1.82	0.44
53:2t:100:ILE:HB	53:2t:101:GLY:H	1.67	0.44
1:1A:206:A:OP2	63:1A:3887:HOH:O	2.21	0.44
1:1A:1230:G:H2'	1:1A:1231:G:O4'	2.18	0.44
1:1A:2044:G:H5'	1:1A:2628:C:H4'	1.98	0.44
1:1A:2131:G:P	1:1A:2139:U:H3	2.37	0.44
15:1P:81:ASP:O	15:1P:85:PRO:HG2	2.17	0.44
34:1a:388:G:H2'	34:1a:389:A:H8	1.83	0.44
34:1a:981:G:C4	34:1a:982:G:H1'	2.52	0.44
34:1a:1387:C:H2'	34:1a:1388:G:C8	2.53	0.44
35:1b:122:PHE:HZ	35:1b:135:GLN:HG3	1.81	0.44
36:1c:112:SER:O	36:1c:116:VAL:HG23	2.18	0.44
38:1e:30:ALA:N	38:1e:46:GLY:O	2.47	0.44
55:1z:127:LYS:HE2	55:1z:404:VAL:HG11	2.00	0.44
55:1z:639:ASN:HA	55:1z:640:ALA:C	2.42	0.44
1:2A:440:C:H1'	1:2A:1894:U:H1'	1.99	0.44
1:2A:601:G:H2'	1:2A:602:C:C6	2.52	0.44
1:2A:875:A:N7	1:2A:2258:A:O2'	2.47	0.44
1:2A:1105:U:H4'	1:2A:1106:U:H5"	2.00	0.44
1:2A:1451:U:H2'	1:2A:1452:C:C6	2.53	0.44
1:2A:2397:C:H2'	1:2A:2398:U:C6	2.53	0.44
1:2A:2411:G:H4'	30:24:18:ARG:HG2	2.00	0.44
1:2A:2889:C:O3'	15:2P:90:ARG:NH1	2.51	0.44
13:2N:121:LYS:O	13:2N:123:LEU:HD12	2.18	0.44
16:2Q:26:LEU:HD22	16:2Q:87:PHE:CD1	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:2S:85:LYS:HD3	18:2S:85:LYS:HA	1.82	0.44
19:2T:43:GLU:OE2	19:2T:43:GLU:N	2.50	0.44
19:2T:65:GLY:HA3	19:2T:91:TYR:CZ	2.53	0.44
23:2X:42:VAL:O	23:2X:46:LYS:HG3	2.17	0.44
33:27:2:LYS:HD3	33:27:4:ARG:NH2	2.33	0.44
34:2a:899:U:O2	38:2e:19:MET:HB2	2.17	0.44
34:2a:1007:C:N3	34:2a:1016:G:O6	2.50	0.44
35:2b:180:LEU:HB2	35:2b:182:ILE:HD13	1.99	0.44
35:2b:224:GLN:HA	35:2b:228:GLY:O	2.17	0.44
36:2c:50:ALA:HB1	36:2c:70:VAL:HG21	1.98	0.44
37:2d:64:LEU:HB2	37:2d:198:VAL:HG11	1.98	0.44
41:2h:4:ASP:OD2	41:2h:85:ARG:NH1	2.49	0.44
55:2z:168:ILE:HG23	55:2z:205:TYR:CE2	2.52	0.44
55:2z:401:SER:OG	55:2z:402:ILE:N	2.51	0.44
57:2w:3:C:N4	57:2w:70:G:H1	2.11	0.44
1:1A:385:U:O2'	1:1A:386:G:H5"	2.18	0.44
1:1A:2478:C:H4'	14:1O:123:HIS:CD2	2.51	0.44
6:1F:20:LEU:HD22	6:1F:21:ALA:H	1.82	0.44
7:1G:103:LEU:HD23	7:1G:106:LEU:HD23	2.00	0.44
12:1M:47:ILE:HB	12:1M:48:PRO:HD2	2.00	0.44
25:1Z:86:SER:OG	25:1Z:89:GLU:HG2	2.18	0.44
34:1a:429:C:H2'	34:1a:430:U:H6	1.81	0.44
34:1a:674:G:C6	34:1a:675:G:C6	3.05	0.44
34:1a:1105:U:H2'	34:1a:1106:A:O4'	2.17	0.44
34:1a:1203:G:OP1	34:1a:1302:C:N4	2.31	0.44
38:1e:84:PHE:HB3	38:1e:134:ALA:HB2	2.00	0.44
44:1k:70:LYS:HE2	44:1k:70:LYS:HB2	1.76	0.44
55:1z:-4:ALA:HA	55:1z:-1:GLU:HB3	2.00	0.44
55:1z:165:GLN:HE21	55:1z:260:LEU:H	1.65	0.44
55:1z:466:LEU:O	55:1z:472:VAL:HG22	2.18	0.44
55:1z:605:ILE:HG13	55:1z:648:PRO:HA	2.00	0.44
1:2A:345:A:H5'	1:2A:363:A:H1'	1.99	0.44
1:2A:1784:C:OP1	17:2R:96:ARG:NH1	2.39	0.44
1:2A:2123:U:H2'	1:2A:2124:C:C6	2.52	0.44
1:2A:2218:U:H1'	1:2A:2219:A:C8	2.52	0.44
1:2A:2448:U:H2'	1:2A:2449:U:C6	2.53	0.44
1:2A:2575:A:OP1	1:2A:2659:C:O2'	2.31	0.44
1:2A:2901:G:H5"	1:2A:2902:G:O4'	2.17	0.44
23:2X:91:LEU:HD12	23:2X:91:LEU:HA	1.80	0.44
28:22:46:GLN:C	28:22:48:ARG:H	2.25	0.44
40:2g:59:LEU:O	40:2g:63:LYS:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:731:A:H5'	1:1A:820:A:H61	1.81	0.44
1:1A:1440:A:H1'	63:1A:3989:HOH:O	2.18	0.44
1:1A:2783:C:H2'	1:1A:2784:C:C6	2.53	0.44
4:1D:108:PRO:HD2	4:1D:111:LEU:HG	2.00	0.44
16:1Q:14:VAL:HG21	16:1Q:90:GLY:O	2.17	0.44
22:1W:8:LYS:HG2	22:1W:9:LYS:O	2.18	0.44
26:10:39:ALA:HB2	26:10:44:LEU:HD23	1.99	0.44
34:1a:475:G:H2'	34:1a:476:G:C8	2.53	0.44
34:1a:914:C:H2'	34:1a:915:A:O4'	2.16	0.44
34:1a:1235:G:H2'	34:1a:1236:C:H6	1.83	0.44
35:1b:74:LYS:HG3	35:1b:169:LYS:NZ	2.32	0.44
36:1c:86:VAL:O	36:1c:89:GLU:HG2	2.18	0.44
44:1k:84:VAL:HG21	44:1k:95:ILE:HD11	2.00	0.44
50:1q:76:LEU:HD12	50:1q:77:VAL:H	1.81	0.44
55:1z:485:GLU:HG2	55:1z:555:LEU:HD12	1.99	0.44
1:2A:610:U:H2'	1:2A:611:C:C6	2.52	0.44
1:2A:1155:G:O2'	1:2A:1156:A:H8	2.00	0.44
1:2A:1187:A:C4	1:2A:1189:G:C8	3.06	0.44
1:2A:1366:A:H2'	1:2A:1367:A:O4'	2.18	0.44
1:2A:1417:U:C2'	1:2A:1418:A:H5'	2.48	0.44
1:2A:1549:C:H2'	1:2A:1550:C:C6	2.52	0.44
1:2A:2643:A:O2'	1:2A:2820:G:O2'	2.32	0.44
8:2H:113:VAL:HG11	8:2H:151:ILE:HD13	1.99	0.44
15:2P:30:THR:O	15:2P:78:LYS:NZ	2.51	0.44
15:2P:38:VAL:HB	15:2P:39:PRO:HD3	2.00	0.44
23:2X:75:ASN:HB2	23:2X:85:HIS:HB3	2.00	0.44
34:2a:447:A:O2'	34:2a:448:A:OP2	2.23	0.44
34:2a:630:U:H2'	34:2a:631:C:C6	2.52	0.44
34:2a:781:C:H2'	34:2a:782:G:C8	2.53	0.44
34:2a:1035:U:O4	34:2a:1182:C:O2'	2.33	0.44
34:2a:1160:G:N2	34:2a:1163:G:OP2	2.50	0.44
34:2a:1209:A:N3	52:2s:83:HIS:HB3	2.33	0.44
34:2a:1508:G:OP1	34:2a:1508:G:H4'	2.18	0.44
55:2z:224:ASP:OD1	55:2z:227:ILE:HG12	2.18	0.44
55:2z:409:ILE:HG21	55:2z:455:GLY:O	2.18	0.44
55:2z:418:LYS:C	55:2z:420:ASP:H	2.24	0.44
55:2z:489:LYS:HA	55:2z:490:PRO:HD3	1.89	0.44
1:1A:398:G:O2'	1:1A:426:G:O6	2.33	0.44
1:1A:608:A:H5'	6:1F:89:VAL:HG21	2.00	0.44
1:1A:714:G:H5'	1:1A:715:G:OP2	2.17	0.44
1:1A:1556:A:H2'	1:1A:1557:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1881:U:H2'	1:1A:1882:C:O4'	2.17	0.44
8:1H:55:PRO:HG2	8:1H:61:HIS:CE1	2.53	0.44
11:1L:96:GLU:CD	11:1L:96:GLU:H	2.25	0.44
12:1M:77:ILE:HB	17:1R:74:ARG:HD3	1.99	0.44
34:1a:59:C:O2'	34:1a:384:G:N7	2.47	0.44
34:1a:154:G:N2	34:1a:156:A:H3'	2.32	0.44
34:1a:185:C:H2'	34:1a:186:C:H6	1.83	0.44
34:1a:187:C:H2'	34:1a:188:C:O4'	2.18	0.44
39:1f:55:ASP:HA	39:1f:56:PRO:HD3	1.75	0.44
40:1g:69:VAL:HG12	40:1g:100:ALA:HA	2.00	0.44
52:1s:27:GLU:HA	52:1s:28:LYS:HA	1.83	0.44
55:1z:519:ARG:HA	55:1z:562:ASP:OD1	2.18	0.44
1:2A:548:U:H2'	1:2A:549:U:C6	2.53	0.44
1:2A:1383:G:N7	21:2V:62:LYS:NZ	2.53	0.44
1:2A:1549:C:H2'	1:2A:1550:C:H6	1.83	0.44
1:2A:2613:A:N7	57:2w:76:A:O3'	2.51	0.44
1:2A:2706:C:H2'	1:2A:2707:U:C6	2.53	0.44
4:2D:146:GLU:HB2	4:2D:189:CYS:HB3	1.99	0.44
6:2F:114:VAL:HG21	6:2F:202:PHE:CZ	2.53	0.44
8:2H:154:PRO:HB3	8:2H:163:TYR:CE2	2.52	0.44
21:2V:35:THR:O	21:2V:39:ILE:HG13	2.17	0.44
25:2Z:7:ILE:HD12	25:2Z:98:LEU:HD21	2.00	0.44
34:2a:565:G:OP1	48:2o:61:GLY:HA3	2.18	0.44
34:2a:737:A:OP1	48:2o:69:TYR:OH	2.28	0.44
34:2a:969:U:H2'	34:2a:1194:U:C4	2.53	0.44
34:2a:1395:C:H2'	34:2a:1396:A:H8	1.81	0.44
34:2a:1406:G:H2'	34:2a:1407:C:C6	2.53	0.44
36:2c:114:PRO:O	36:2c:118:GLN:HG3	2.18	0.44
37:2d:173:TRP:CE2	37:2d:189:PRO:HG3	2.52	0.44
41:2h:10:LEU:HD22	41:2h:83:ILE:HD11	2.00	0.44
49:2p:39:TYR:CD2	49:2p:73:LEU:HD11	2.52	0.44
51:2r:66:LEU:O	51:2r:70:ILE:HG13	2.18	0.44
55:2z:69:VAL:HG12	55:2z:327:PHE:CD1	2.52	0.44
55:2z:88:VAL:O	55:2z:91:THR:HG22	2.17	0.44
55:2z:188:TYR:HB2	55:2z:267:LYS:HE3	2.00	0.44
55:2z:202:PRO:HG2	55:2z:205:TYR:HD2	1.83	0.44
55:2z:272:LEU:O	55:2z:276:VAL:HG23	2.18	0.44
55:2z:409:ILE:HD11	55:2z:654:GLY:HA2	1.99	0.44
55:2z:493:VAL:HG21	55:2z:592:GLU:HB2	1.98	0.44
55:2z:496:LYS:HD3	55:2z:498:ILE:HG12	1.99	0.44
1:1A:353:A:H2	1:1A:1254:A:H2'	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:614:G:O2'	32:16:4:MET:HG3	2.18	0.43
1:1A:1111:U:O2	1:1A:1111:U:H2'	2.17	0.43
1:1A:1562:G:H2'	1:1A:1563:C:C6	2.52	0.43
1:1A:1612:A:OP1	4:1D:211:ARG:NH1	2.51	0.43
1:1A:1934:A:N7	34:1a:1472:G:H4'	2.32	0.43
1:1A:1994:G:H2'	1:1A:1995:C:H6	1.83	0.43
1:1A:2388:A:H2'	1:1A:2389:A:C8	2.53	0.43
1:1A:2695:U:O2'	12:1M:68:GLU:OE1	2.23	0.43
5:1E:54:GLN:HE21	5:1E:76:ARG:HG2	1.83	0.43
14:1O:103:MET:HE1	14:1O:127:ILE:HD11	2.00	0.43
34:1a:548:C:C6	50:1q:31:LEU:HD21	2.53	0.43
35:1b:78:GLN:HG3	35:1b:94:ASN:ND2	2.33	0.43
37:1d:155:LEU:HD13	37:1d:158:ILE:HD11	1.99	0.43
41:1h:6:ILE:O	41:1h:10:LEU:HG	2.18	0.43
53:1t:38:LYS:HA	53:1t:41:ILE:HD12	2.00	0.43
55:1z:641:GLN:HE21	55:1z:641:GLN:HB2	1.62	0.43
1:2A:321:G:H5"	1:2A:322:A:OP1	2.18	0.43
1:2A:508:A:O2'	22:2W:49:VAL:O	2.23	0.43
1:2A:1056:G:C6	1:2A:1196:G:C6	3.06	0.43
1:2A:1064:U:O2'	1:2A:1066:A:H2	2.00	0.43
1:2A:1116:G:H1	1:2A:1145:C:H41	1.66	0.43
1:2A:1319:A:N3	1:2A:1342:C:H1'	2.32	0.43
1:2A:2341:G:H2'	1:2A:2342:G:O4'	2.17	0.43
4:2D:245:PRO:HA	4:2D:246:PRO:HD3	1.86	0.43
5:2E:144:ARG:HB3	5:2E:145:LYS:H	1.44	0.43
21:2V:1:MET:O	21:2V:2:LYS:HB3	2.18	0.43
22:2W:38:ILE:HD13	22:2W:66:PRO:HA	2.00	0.43
34:2a:1131:U:OP1	42:2i:7:THR:HG21	2.17	0.43
34:2a:1482:G:OP1	34:2a:1485:A:H4'	2.18	0.43
37:2d:191:ARG:HA	37:2d:191:ARG:HD2	1.78	0.43
50:2q:86:GLU:O	50:2q:90:ILE:HG13	2.17	0.43
55:2z:439:ARG:O	55:2z:452:SER:N	2.41	0.43
1:1A:1111:U:H1'	1:1A:1113:G:N7	2.33	0.43
1:1A:1275:C:H2'	1:1A:1276:G:C8	2.52	0.43
1:1A:2171:U:H2'	1:1A:2172:G:C8	2.54	0.43
3:1C:42:GLU:HB2	3:1C:44:HIS:HE2	1.83	0.43
28:12:41:PRO:HG3	28:12:49:PHE:CE2	2.53	0.43
28:12:68:ARG:HH21	28:12:68:ARG:HA	1.81	0.43
30:14:11:LEU:HB3	30:14:49:HIS:HB3	2.01	0.43
40:1g:18:TYR:CD2	40:1g:59:LEU:HB2	2.53	0.43
43:1j:65:LEU:HD13	47:1n:56:VAL:HG22	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1m:124:PRO:HB3	55:1z:500:GLN:NE2	2.34	0.43
53:1t:26:ASN:ND2	53:1t:71:THR:OG1	2.50	0.43
55:1z:276:VAL:HG13	55:1z:280:LEU:HD12	2.00	0.43
55:1z:343:ASN:OD1	55:1z:387:ASP:HB3	2.17	0.43
55:1z:483:TYR:HE1	55:1z:603:GLU:HG3	1.83	0.43
1:2A:13:A:N6	1:2A:14:G:C2	2.86	0.43
1:2A:982:G:OP1	32:26:52:LYS:HD2	2.18	0.43
1:2A:1194:G:H2'	1:2A:1195:C:H6	1.83	0.43
1:2A:2143:U:O2'	3:2C:166:ASP:OD2	2.30	0.43
1:2A:2197:A:H2'	1:2A:2198:C:C6	2.53	0.43
1:2A:2861:G:H2'	1:2A:2862:C:C6	2.54	0.43
2:2B:106:G:H5'	23:2X:31:ARG:HG2	2.01	0.43
2:2B:117:G:H2'	2:2B:118:G:O4'	2.18	0.43
7:2G:118:ARG:O	7:2G:181:ARG:HB2	2.17	0.43
13:2N:100:LEU:HD12	13:2N:112:LEU:HD11	2.00	0.43
34:2a:1101:C:OP1	42:2i:9:ARG:HD2	2.18	0.43
35:2b:172:ILE:O	35:2b:176:GLU:HG3	2.18	0.43
36:2c:57:ILE:HA	36:2c:65:ALA:O	2.19	0.43
37:2d:65:ARG:HG2	37:2d:75:PHE:CD1	2.53	0.43
39:2f:63:TYR:N	39:2f:63:TYR:CD1	2.85	0.43
45:2l:80:HIS:HE2	55:2z:449:THR:HG1	1.38	0.43
1:1A:319:C:H2'	1:1A:320:C:H6	1.83	0.43
1:1A:437:G:H3'	63:1A:4696:HOH:O	2.19	0.43
1:1A:1050:C:O2'	11:1L:28:THR:HG21	2.18	0.43
1:1A:1714:A:O2'	1:1A:1720:G:N7	2.45	0.43
1:1A:1786:G:H4'	1:1A:1788:G:O4'	2.18	0.43
1:1A:2203:G:H2'	1:1A:2204:C:C6	2.52	0.43
1:1A:2206:C:H2'	1:1A:2207:G:H8	1.83	0.43
1:1A:2317:C:N4	7:1G:42:GLY:HA3	2.34	0.43
7:1G:64:THR:HB	7:1G:94:LEU:HD21	2.00	0.43
8:1H:11:VAL:HG21	8:1H:50:VAL:HG23	2.00	0.43
10:1K:106:GLU:H	10:1K:106:GLU:HG3	1.67	0.43
34:1a:181:C:H2'	34:1a:182:C:C6	2.53	0.43
34:1a:859:G:P	45:1l:12:ARG:HH22	2.40	0.43
34:1a:1362:G:N7	40:1g:2:ALA:HB3	2.33	0.43
34:1a:1447:G:H2'	34:1a:1448:G:C8	2.53	0.43
40:1g:59:LEU:HD11	40:1g:63:LYS:HE3	1.99	0.43
55:1z:333:GLY:N	55:1z:371:ALA:HB2	2.32	0.43
55:1z:344:THR:OG1	55:1z:398:ILE:HG12	2.19	0.43
1:2A:53:G:O2'	1:2A:124:A:N1	2.48	0.43
1:2A:1207:G:C4	1:2A:1208:G:C8	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1925:G:N2	1:2A:1926:C:H1'	2.33	0.43
1:2A:2155:A:H2	1:2A:2180:G:H4'	1.84	0.43
1:2A:2224:U:O4'	4:2D:151:LYS:HE2	2.18	0.43
1:2A:2406:C:O2'	25:2Z:30:VAL:HG13	2.17	0.43
4:2D:170:GLY:C	4:2D:172:TYR:H	2.25	0.43
12:2M:97:ARG:HD3	12:2M:99:PHE:CE2	2.53	0.43
16:2Q:7:TYR:CZ	16:2Q:91:PRO:HG3	2.53	0.43
17:2R:73:GLU:OE2	17:2R:103:ARG:NH2	2.51	0.43
23:2X:156:LYS:HE3	23:2X:158:PRO:HD3	1.99	0.43
34:2a:129:A:H61	49:2p:25:ARG:NH1	2.17	0.43
34:2a:349:A:H5'	34:2a:349:A:H8	1.82	0.43
34:2a:388:G:H2'	34:2a:389:A:H8	1.84	0.43
35:2b:98:LEU:HD22	35:2b:98:LEU:H	1.83	0.43
55:2z:635:GLU:O	55:2z:642:VAL:HB	2.19	0.43
1:1A:29:G:H2'	1:1A:30:C:C6	2.53	0.43
1:1A:483:G:O2'	1:1A:494:G:O6	2.29	0.43
1:1A:488:G:N2	1:1A:491:A:OP2	2.48	0.43
1:1A:504:A:H4'	1:1A:505:A:OP1	2.19	0.43
1:1A:553:A:OP2	11:1L:114:ARG:NH2	2.50	0.43
1:1A:967:U:H2'	1:1A:968:C:C6	2.53	0.43
1:1A:2180:G:H2'	1:1A:2181:G:O4'	2.19	0.43
1:1A:2404:A:H5'	13:1N:63:PRO:HB3	1.99	0.43
1:1A:2864:C:H2'	1:1A:2865:C:H6	1.84	0.43
3:1C:46:LYS:HD3	3:1C:210:ARG:HG2	2.01	0.43
7:1G:139:LEU:H	7:1G:139:LEU:HD12	1.84	0.43
34:1a:200:C:H2'	34:1a:201:C:C6	2.52	0.43
34:1a:221:C:H2'	34:1a:222:G:C8	2.53	0.43
34:1a:228:G:H1'	34:1a:258:A:N1	2.33	0.43
34:1a:749:G:H5"	34:1a:750:A:OP1	2.18	0.43
34:1a:1245:C:H2'	34:1a:1246:C:C6	2.53	0.43
35:1b:204:ASN:OD1	35:1b:206:ASP:N	2.48	0.43
37:1d:57:ARG:HE	37:1d:202:LEU:HD13	1.84	0.43
55:1z:457:LEU:O	55:1z:461:ILE:HG12	2.18	0.43
57:1w:46:G:H5"	57:1w:47:U:OP2	2.19	0.43
1:2A:323:A:P	22:2W:86:ARG:HH21	2.41	0.43
1:2A:710:C:H4'	1:2A:985:A:OP1	2.18	0.43
1:2A:1115:A:O2'	1:2A:1116:G:OP1	2.26	0.43
1:2A:1446:G:H2'	1:2A:1447:C:C6	2.54	0.43
1:2A:1519:G:H2'	1:2A:1520:C:O4'	2.18	0.43
1:2A:1614:G:H5"	4:2D:61:LEU:HD22	2.01	0.43
1:2A:2176:G:C6	1:2A:2177:G:H1'	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2666:G:O2'	1:2A:2675:G:O6	2.31	0.43
1:2A:2812:G:H2'	1:2A:2813:C:O4'	2.19	0.43
3:2C:44:HIS:ND1	3:2C:172:HIS:HA	2.33	0.43
4:2D:37:LEU:HD12	4:2D:37:LEU:HA	1.85	0.43
16:2Q:87:PHE:CZ	16:2Q:98:VAL:HG12	2.52	0.43
20:2U:1:MET:HA	20:2U:1:MET:HE3	2.00	0.43
23:2X:102:LEU:N	23:2X:122:ARG:O	2.47	0.43
23:2X:156:LYS:HB3	23:2X:156:LYS:HE2	1.78	0.43
25:2Z:8:SER:HB3	25:2Z:66:HIS:CD2	2.54	0.43
34:2a:407:A:OP1	37:2d:30:LYS:NZ	2.25	0.43
34:2a:493:A:N3	34:2a:527:C:O2'	2.45	0.43
34:2a:523:A:H2'	34:2a:524:G:C8	2.53	0.43
34:2a:837:A:H2'	34:2a:838:A:O4'	2.17	0.43
34:2a:951:G:H3'	34:2a:952:A:H5"	2.00	0.43
34:2a:1089:G:H2'	34:2a:1090:C:C6	2.52	0.43
34:2a:1248:G:N2	34:2a:1250:A:H3'	2.32	0.43
34:2a:1338:G:H2'	34:2a:1339:A:C8	2.53	0.43
38:2e:147:ASP:HA	38:2e:150:ARG:HE	1.82	0.43
55:2z:487:ILE:HD13	55:2z:563:ILE:HG22	1.99	0.43
1:1A:514:G:H8	1:1A:514:G:OP1	2.01	0.43
1:1A:1808:U:H2'	1:1A:1814:A:N6	2.33	0.43
1:1A:2375:C:H2'	1:1A:2376:G:O4'	2.19	0.43
1:1A:2643:A:O2'	1:1A:2820:G:O2'	2.29	0.43
4:1D:146:GLU:HB2	4:1D:189:CYS:HB3	2.01	0.43
5:1E:111:ARG:HG3	5:1E:160:TYR:CD2	2.53	0.43
7:1G:66:GLN:NE2	7:1G:93:THR:O	2.46	0.43
10:1K:84:LEU:HD11	10:1K:96:VAL:HB	2.00	0.43
11:1L:28:THR:HG22	11:1L:29:LYS:N	2.32	0.43
21:1V:53:LYS:HB3	21:1V:82:GLN:HB3	2.01	0.43
28:12:56:VAL:HG23	28:12:57:GLU:H	1.82	0.43
34:1a:137:G:H2'	34:1a:138:A:C8	2.53	0.43
34:1a:246:A:H4'	34:1a:247:G:O5'	2.18	0.43
34:1a:1320:G:H2'	34:1a:1321:A:C8	2.53	0.43
34:1a:1423:C:H2'	34:1a:1424:G:O4'	2.18	0.43
40:1g:153:HIS:CE1	44:1k:58:PRO:HD2	2.53	0.43
50:1q:52:LYS:N	50:1q:55:ASP:OD2	2.39	0.43
55:1z:-38:TYR:C	55:1z:-35:PRO:HD2	2.43	0.43
55:1z:512:ILE:HG22	55:1z:567:LEU:HA	2.01	0.43
1:2A:1018:G:OP1	1:2A:1231:G:O2'	2.23	0.43
1:2A:1960:U:OP1	1:2A:2615:U:O2'	2.29	0.43
1:2A:2088:G:O2'	1:2A:2090:G:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2C:29:VAL:HB	3:2C:41:VAL:HG21	2.01	0.43
5:2E:9:VAL:HB	17:2R:3:ARG:HG2	2.00	0.43
23:2X:30:ASN:HA	23:2X:89:PHE:HE1	1.84	0.43
34:2a:50:U:O4	34:2a:361:U:H5	2.01	0.43
34:2a:398:G:C6	34:2a:399:C:C4	3.06	0.43
34:2a:870:A:O2'	34:2a:1398:G:H4'	2.18	0.43
34:2a:1235:G:H2'	34:2a:1236:C:C6	2.54	0.43
34:2a:1363:U:C4	40:2g:3:ARG:HG2	2.53	0.43
35:2b:158:LEU:HA	35:2b:159:PRO:HD3	1.87	0.43
35:2b:215:LEU:O	35:2b:219:VAL:HG23	2.18	0.43
43:2j:5:ARG:O	43:2j:98:ILE:HG23	2.18	0.43
48:2o:39:LEU:HB3	48:2o:56:LEU:HD13	2.00	0.43
49:2p:20:VAL:HG22	49:2p:34:GLU:O	2.18	0.43
55:2z:409:ILE:HG23	55:2z:459:LEU:HD12	1.99	0.43
55:2z:459:LEU:HD23	55:2z:459:LEU:HA	1.71	0.43
1:1A:353:A:H2	1:1A:1254:A:O2'	2.00	0.43
1:1A:639:A:C4	6:1F:180:GLY:HA3	2.54	0.43
1:1A:778:C:N4	1:1A:779:G:C6	2.87	0.43
1:1A:1403:G:OP2	63:1A:3889:HOH:O	2.21	0.43
1:1A:1475:C:H2'	1:1A:1476:U:C6	2.52	0.43
1:1A:2206:C:H2'	1:1A:2207:G:C8	2.53	0.43
3:1C:11:LEU:HD12	3:1C:11:LEU:HA	1.86	0.43
10:1K:80:LYS:HB3	10:1K:80:LYS:HE2	1.79	0.43
17:1R:94:ALA:HB1	17:1R:99:LEU:HD21	2.00	0.43
22:1W:30:VAL:O	22:1W:32:PRO:HD3	2.19	0.43
28:12:28:LYS:HB2	28:12:31:ILE:HD11	2.01	0.43
34:1a:923:G:C2	34:1a:1319:G:C2	3.07	0.43
36:1c:73:PRO:O	36:1c:77:ILE:HG12	2.18	0.43
55:1z:264:LEU:HB2	62:1z:701:GDP:C6	2.53	0.43
55:1z:424:LEU:HD13	55:1z:472:VAL:HG21	2.00	0.43
1:2A:2151:U:H4'	1:2A:2154:G:H4'	2.01	0.43
1:2A:2366:C:H1'	24:2Y:39:ARG:HH21	1.83	0.43
5:2E:56:PRO:HG3	5:2E:74:PRO:HG2	1.99	0.43
5:2E:199:ARG:NH1	5:2E:202:LYS:HE3	2.33	0.43
8:2H:10:PRO:HA	8:2H:49:VAL:HG22	2.00	0.43
12:2M:100:GLY:O	12:2M:119:PRO:HD2	2.19	0.43
15:2P:44:LEU:HD22	15:2P:48:VAL:HG23	2.01	0.43
23:2X:155:LEU:HD23	23:2X:157:LEU:HD21	2.01	0.43
34:2a:410:A:N6	34:2a:427:A:N3	2.66	0.43
34:2a:978:U:O4	34:2a:979:A:N6	2.49	0.43
34:2a:1232:A:C2	34:2a:1353:G:H1'	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2b:51:LEU:HG	35:2b:55:PHE:CE2	2.49	0.43
35:2b:163:PHE:HA	35:2b:185:ILE:HG12	2.01	0.43
36:2c:180:ALA:O	36:2c:181:ASN:C	2.62	0.43
46:2m:56:LEU:HD23	46:2m:57:ARG:N	2.34	0.43
1:1A:857:U:H2'	13:1N:21:ARG:HA	2.01	0.43
1:1A:1500:U:O2'	1:1A:1501:G:N7	2.42	0.43
1:1A:2151:U:H4'	1:1A:2154:G:C5'	2.49	0.43
4:1D:68:LYS:HD3	4:1D:70:TRP:CZ2	2.54	0.43
8:1H:23:ARG:HD2	8:1H:34:GLU:OE2	2.18	0.43
14:1O:41:TRP:CD1	14:1O:96:VAL:HG22	2.54	0.43
20:1U:94:ASP:O	20:1U:95:ILE:HD13	2.19	0.43
21:1V:84:ALA:O	21:1V:87:GLN:HB2	2.19	0.43
34:1a:137:G:O2'	34:1a:203:A:N1	2.51	0.43
34:1a:179:G:H2'	34:1a:180:A:H8	1.83	0.43
34:1a:1434:G:H22	53:1t:43:LEU:HD11	1.83	0.43
36:1c:181:ASN:ND2	36:1c:204:LEU:HD12	2.34	0.43
37:1d:127:THR:OG1	37:1d:128:VAL:N	2.50	0.43
38:1e:66:MET:HE3	38:1e:66:MET:HB3	1.91	0.43
39:1f:8:ILE:HD11	39:1f:79:LEU:HD13	2.01	0.43
39:1f:97:PHE:N	51:1r:30:ASP:OD1	2.51	0.43
51:1r:43:PHE:CE1	51:1r:58:LEU:HD21	2.54	0.43
55:1z:487:ILE:HG13	55:1z:516:PRO:HB3	2.01	0.43
1:2A:903:C:H4'	24:2Y:23:VAL:HG21	2.01	0.43
1:2A:1138:G:H1'	1:2A:1144:G:N2	2.34	0.43
1:2A:1409:G:OP2	25:2Z:3:LYS:HG3	2.18	0.43
1:2A:2333:A:H2'	1:2A:2334:G:O4'	2.19	0.43
1:2A:2358:C:H2'	1:2A:2359:U:C6	2.54	0.43
2:2B:3:C:H2'	2:2B:4:C:C6	2.53	0.43
10:2K:131:ALA:HB1	10:2K:137:GLU:HA	2.01	0.43
11:2L:4:TYR:O	18:2S:64:ARG:NH2	2.38	0.43
13:2N:101:VAL:HG23	13:2N:106:LEU:HB3	2.01	0.43
19:2T:89:GLN:HA	19:2T:90:PRO:HD3	1.93	0.43
28:22:44:THR:C	28:22:46:GLN:N	2.76	0.43
34:2a:300:U:H2'	34:2a:301:G:C8	2.53	0.43
34:2a:798:A:N7	34:2a:800:A:C4	2.87	0.43
34:2a:825:U:H6	34:2a:825:U:P	2.41	0.43
34:2a:836:G:O6	34:2a:847:G:H3'	2.18	0.43
34:2a:1369:G:C2	34:2a:1370:G:C8	3.06	0.43
35:2b:127:ILE:HG12	35:2b:128:GLU:N	2.33	0.43
44:2k:43:SER:HA	44:2k:47:VAL:HG21	2.01	0.43
48:2o:34:LEU:HD11	48:2o:38:ARG:HH11	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:2z:670:VAL:HG23	55:2z:671:MET:H	1.83	0.43
1:1A:915:G:C4	1:1A:916:A:C8	3.07	0.43
1:1A:933:A:OP1	1:1A:934:C:N4	2.47	0.43
1:1A:2284:A:H2'	1:1A:2285:A:C8	2.53	0.43
1:1A:2818:A:C6	1:1A:2900:A:C8	3.07	0.43
3:1C:62:VAL:HG22	3:1C:63:SER:O	2.18	0.43
4:1D:97:TYR:CE1	4:1D:103:ARG:HG3	2.54	0.43
17:1R:18:ASP:OD2	17:1R:18:ASP:N	2.30	0.43
17:1R:108:ARG:NH2	17:1R:112:ARG:HH21	2.16	0.43
34:1a:610:U:H2'	34:1a:611:G:H8	1.84	0.43
34:1a:1008:C:N4	34:1a:1009:C:H41	2.17	0.43
36:1c:130:VAL:HG21	36:1c:157:ILE:HG23	2.00	0.43
41:1h:20:TYR:CE2	41:1h:76:PRO:HG2	2.54	0.43
45:1l:55:VAL:HG12	45:1l:69:TYR:HA	2.01	0.43
50:1q:48:GLU:HB2	50:1q:50:LYS:HG2	2.00	0.43
55:1z:208:GLN:O	55:1z:211:GLU:HB3	2.19	0.43
55:1z:510:VAL:HG13	55:1z:567:LEU:HD13	2.00	0.43
55:1z:546:ILE:HG12	55:1z:586:GLY:O	2.18	0.43
1:2A:931:C:H2'	1:2A:932:C:H4'	2.01	0.43
1:2A:1017:A:OP2	63:2A:4936:HOH:O	2.21	0.43
1:2A:1479:A:H61	1:2A:1604:A:H62	1.65	0.43
1:2A:1840:A:H2'	1:2A:1841:G:O4'	2.19	0.43
1:2A:2133:G:N7	1:2A:2134:U:H1'	2.34	0.43
1:2A:2227:G:H3'	1:2A:2228:A:H5"	2.01	0.43
1:2A:2796:C:H1'	5:2E:37:ARG:HH12	1.83	0.43
1:2A:2817:U:H5'	1:2A:2899:G:O6	2.18	0.43
3:2C:26:ALA:O	3:2C:185:LEU:HD13	2.19	0.43
3:2C:200:LYS:HG3	3:2C:204:ALA:HB3	2.01	0.43
3:2C:205:LYS:HE2	3:2C:205:LYS:HB3	1.90	0.43
4:2D:70:TRP:CE2	4:2D:150:LYS:HD3	2.53	0.43
6:2F:78:ILE:HA	6:2F:83:PHE:CD2	2.53	0.43
16:2Q:15:ARG:NE	16:2Q:88:ASP:OD2	2.46	0.43
34:2a:108:U:H1'	34:2a:349:A:H1'	2.01	0.43
34:2a:1062:G:O3'	38:2e:14:ARG:NH2	2.52	0.43
36:2c:72:LYS:HD2	36:2c:72:LYS:N	2.34	0.43
36:2c:148:GLY:HA3	36:2c:172:ARG:O	2.18	0.43
37:2d:170:VAL:HG22	37:2d:171:GLY:H	1.84	0.43
37:2d:173:TRP:CG	37:2d:189:PRO:HG3	2.53	0.43
46:2m:4:ILE:HD12	46:2m:4:ILE:HA	1.80	0.43
55:2z:439:ARG:HB2	55:2z:452:SER:HB2	2.00	0.43
1:1A:11:U:O2	1:1A:11:U:H2'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:42:A:O2'	1:1A:43:G:H5'	2.19	0.43
1:1A:1856:G:H4'	4:1D:242:ARG:CZ	2.48	0.43
1:1A:2417:U:H2'	1:1A:2417:U:OP2	2.19	0.43
1:1A:2573:U:O2'	12:1M:23:ARG:HD3	2.19	0.43
1:1A:2661:U:H2'	1:1A:2662:C:H6	1.84	0.43
2:1B:29:A:H2'	2:1B:30:C:C6	2.54	0.43
3:1C:19:VAL:HG22	3:1C:223:ARG:CD	2.47	0.43
6:1F:129:PHE:HB3	6:1F:132:VAL:HG11	2.00	0.43
8:1H:24:VAL:HG22	8:1H:35:VAL:HB	2.00	0.43
8:1H:80:SER:OG	8:1H:81:GLU:N	2.52	0.43
10:1K:112:MET:HE1	10:1K:123:ALA:HB3	2.01	0.43
28:12:46:GLN:O	28:12:48:ARG:HG2	2.19	0.43
34:1a:154:G:N2	34:1a:156:A:O5'	2.51	0.43
34:1a:205:G:C6	34:1a:216:G:C2	3.07	0.43
34:1a:837:A:H2'	34:1a:838:A:O4'	2.19	0.43
34:1a:1125:G:H2'	34:1a:1126:G:O4'	2.19	0.43
34:1a:1328:A:OP1	42:1i:120:ARG:NH1	2.38	0.43
35:1b:15:VAL:HG12	35:1b:209:ARG:HD3	2.00	0.43
43:1j:36:GLY:O	43:1j:38:ILE:HG23	2.18	0.43
55:1z:340:TYR:CE1	55:1z:351:ARG:HD3	2.53	0.43
1:2A:274:C:H2'	1:2A:275:C:C6	2.54	0.43
1:2A:926:G:C2	1:2A:927:G:C8	3.06	0.43
1:2A:1108:G:H1'	10:2K:91:PRO:HG3	2.01	0.43
1:2A:1275:C:H2'	1:2A:1276:G:C8	2.54	0.43
1:2A:1439:U:H4'	1:2A:1648:A:H4'	2.00	0.43
1:2A:2058:G:H2'	1:2A:2059:G:C8	2.54	0.43
6:2F:29:ASN:OD1	6:2F:32:LEU:N	2.39	0.43
8:2H:40:GLU:O	8:2H:55:PRO:HG2	2.19	0.43
13:2N:50:ARG:O	13:2N:52:GLU:HG3	2.19	0.43
32:26:11:LYS:HE3	32:26:65:GLU:OE2	2.19	0.43
34:2a:1255:G:H3'	34:2a:1256:G:H8	1.84	0.43
34:2a:1477:A:C1'	34:2a:1498:G:H5'	2.48	0.43
35:2b:28:PHE:O	35:2b:32:ILE:HG13	2.19	0.43
35:2b:77:ALA:HB2	35:2b:211:ILE:HD13	2.00	0.43
43:2j:61:GLU:CD	47:2n:49:HIS:HE2	2.27	0.43
52:2s:28:LYS:HD2	52:2s:47:HIS:HA	2.01	0.43
55:2z:138:LYS:HG2	62:2z:702:GDP:C5	2.54	0.43
55:2z:168:ILE:HD11	55:2z:178:ILE:HG13	2.00	0.43
1:1A:309:C:H2'	1:1A:310:C:H6	1.83	0.43
1:1A:628:U:H4'	1:1A:704:C:H4'	2.00	0.43
1:1A:767:C:H2'	1:1A:768:A:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:930:C:N4	1:1A:937:G:H1	2.15	0.43
1:1A:1073:A:N3	1:1A:2497:G:O2'	2.48	0.43
1:1A:1324:G:H4'	15:1P:31:HIS:CD2	2.54	0.43
1:1A:1512:G:H2'	1:1A:1593:C:N4	2.34	0.43
2:1B:86:G:H1	2:1B:91:C:N4	2.16	0.43
3:1C:8:ARG:HA	3:1C:11:LEU:HB2	2.00	0.43
4:1D:148:GLU:HB2	4:1D:151:LYS:HD2	1.99	0.43
6:1F:197:ASP:O	6:1F:201:VAL:HG12	2.19	0.43
8:1H:4:ILE:O	8:1H:69:ARG:HG2	2.19	0.43
34:1a:826:C:H2'	34:1a:827:C:C6	2.54	0.43
34:1a:896:A:H2'	34:1a:897:A:C8	2.54	0.43
34:1a:921:U:H1'	42:1i:124:GLN:HE22	1.84	0.43
34:1a:1131:U:O2'	42:1i:14:VAL:HG11	2.19	0.43
36:1c:110:ASN:O	36:1c:141:VAL:HG22	2.18	0.43
38:1e:78:HIS:HA	41:1h:105:ARG:HG3	2.01	0.43
38:1e:90:VAL:HB	38:1e:121:LYS:HB3	2.01	0.43
41:1h:94:TYR:HE1	41:1h:132:GLU:HB2	1.84	0.43
43:1j:8:LEU:HB2	43:1j:70:ARG:HB2	2.00	0.43
46:1m:108:ARG:HD3	46:1m:108:ARG:HA	1.79	0.43
55:1z:35:TYR:CD2	55:1z:270:GLN:HG3	2.54	0.43
1:2A:124:A:H5"	1:2A:125:C:O4'	2.19	0.43
1:2A:267:G:O2'	1:2A:268:G:H8	2.01	0.43
1:2A:303:C:H2'	1:2A:304:G:O4'	2.19	0.43
1:2A:591:U:C4	1:2A:592:G:C6	3.07	0.43
1:2A:872:U:H2'	1:2A:874:U:O4'	2.18	0.43
1:2A:1073:A:N3	1:2A:2497:G:O2'	2.47	0.43
1:2A:1138:G:H21	1:2A:1143:A:H62	1.67	0.43
1:2A:1492:C:H42	1:2A:1511:G:H1	1.66	0.43
1:2A:1564:G:H2'	1:2A:1565:U:O4'	2.18	0.43
1:2A:1618:A:H2'	1:2A:1619:G:O4'	2.18	0.43
1:2A:1763:G:C6	1:2A:1764:U:C4	3.06	0.43
1:2A:1934:A:N6	34:2a:1472:G:OP1	2.51	0.43
1:2A:2176:G:H3'	1:2A:2177:G:C8	2.54	0.43
1:2A:2637:C:H2'	1:2A:2638:G:C8	2.54	0.43
5:2E:12:THR:HG22	5:2E:13:ARG:H	1.84	0.43
5:2E:59:VAL:HG21	5:2E:74:PRO:HB3	2.01	0.43
7:2G:131:TYR:HB3	7:2G:159:VAL:HG13	2.00	0.43
34:2a:859:G:P	45:2l:12:ARG:HH22	2.42	0.43
34:2a:953:A:H8	34:2a:953:A:H5'	1.83	0.43
34:2a:1312:U:H4'	46:2m:23:TYR:CE1	2.54	0.43
34:2a:1380:C:OP2	38:2e:24:ARG:NH2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:1438:A:H2'	34:2a:1439:G:O4'	2.19	0.43
34:2a:1455:C:H2'	34:2a:1456:C:C6	2.54	0.43
34:2a:1480:A:H2	34:2a:1483:G:N1	2.09	0.43
63:2a:1842:HOH:O	53:2t:70:SER:HB3	2.19	0.43
35:2b:122:PHE:HA	35:2b:127:ILE:HD12	2.01	0.43
36:2c:134:ILE:HD11	36:2c:153:VAL:HG23	2.00	0.43
48:2o:3:ILE:HG21	48:2o:34:LEU:HD21	2.00	0.43
52:2s:27:GLU:HG2	52:2s:47:HIS:NE2	2.34	0.43
55:2z:216:LEU:O	55:2z:219:VAL:HG12	2.19	0.43
57:2w:63:G:H2'	57:2w:64:G:H8	1.84	0.43
1:1A:1064:U:O2'	1:1A:1066:A:H2	1.83	0.42
1:1A:1472:A:H4'	1:1A:1473:C:O4'	2.19	0.42
1:1A:2020:C:H5"	1:1A:2735:C:O2'	2.19	0.42
1:1A:2220:A:H3'	1:1A:2221:C:H6	1.83	0.42
2:1B:33:G:C2	2:1B:50:G:C2	3.07	0.42
4:1D:5:LYS:HE3	4:1D:5:LYS:HB3	1.82	0.42
22:1W:38:ILE:HD11	22:1W:66:PRO:HG3	2.01	0.42
26:10:61:LEU:HD23	26:10:61:LEU:HA	1.85	0.42
34:1a:47:G:H1	34:1a:391:C:H42	1.66	0.42
34:1a:451:C:H2'	34:1a:452:C:C6	2.54	0.42
34:1a:715:G:H5'	34:1a:750:A:H4'	2.01	0.42
34:1a:942:A:O2'	43:1j:55:LYS:HD3	2.19	0.42
34:1a:1101:C:H1'	34:1a:1161:A:C4	2.53	0.42
34:1a:1382:C:C2	34:1a:1480:A:N6	2.86	0.42
34:1a:1443:C:H2'	34:1a:1444:C:O4'	2.19	0.42
48:1o:39:LEU:HA	48:1o:39:LEU:HD23	1.78	0.42
1:2A:624:G:O2'	1:2A:701:A:N6	2.51	0.42
1:2A:909:A:P	14:2O:22:LYS:HG3	2.59	0.42
1:2A:1107:G:OP1	1:2A:1115:A:H4'	2.19	0.42
1:2A:1247:G:H2'	1:2A:1248:A:C2	2.54	0.42
1:2A:1518:A:H2'	1:2A:1519:G:O4'	2.19	0.42
1:2A:1716:C:O2	5:2E:129:HIS:NE2	2.42	0.42
1:2A:2121:G:H2'	1:2A:2122:G:C8	2.54	0.42
1:2A:2187:G:H3'	1:2A:2188:U:C5'	2.47	0.42
1:2A:2345:G:C6	24:2Y:75:LEU:HD21	2.54	0.42
6:2F:110:LEU:HD22	6:2F:183:VAL:HG12	1.99	0.42
8:2H:149:ARG:NH1	8:2H:167:GLU:OE2	2.52	0.42
11:2L:96:GLU:O	11:2L:100:GLU:HB2	2.18	0.42
27:21:18:ASP:OD1	27:21:18:ASP:N	2.43	0.42
28:22:1:MET:HG3	28:22:6:HIS:CD2	2.54	0.42
30:24:7:ILE:CG2	30:24:27:LYS:HD3	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:562:C:OP1	63:2a:1815:HOH:O	2.21	0.42
34:2a:1299:C:H5"	34:2a:1300:A:OP2	2.18	0.42
36:2c:60:ALA:HB3	36:2c:63:ASN:OD1	2.18	0.42
37:2d:156:GLU:HA	37:2d:159:ARG:HB2	2.00	0.42
38:2e:72:GLN:O	38:2e:75:THR:HG22	2.19	0.42
39:2f:2:ARG:CZ	39:2f:69:GLU:HG2	2.49	0.42
46:2m:32:GLU:C	46:2m:34:LEU:H	2.27	0.42
49:2p:18:ARG:NH1	49:2p:32:TYR:OH	2.52	0.42
51:2r:53:ARG:HA	51:2r:56:THR:OG1	2.19	0.42
1:1A:765:C:H2'	1:1A:766:C:C6	2.55	0.42
1:1A:767:C:H2'	1:1A:768:A:H8	1.84	0.42
1:1A:830:A:O4'	4:1D:227:ASN:ND2	2.52	0.42
1:1A:1039:C:OP1	18:1S:53:ARG:NH2	2.51	0.42
1:1A:1107:G:N3	1:1A:1107:G:H2'	2.35	0.42
1:1A:1116:G:C6	1:1A:1117:C:N4	2.87	0.42
1:1A:1311:G:O2'	1:1A:2033:G:O6	2.30	0.42
1:1A:2342:G:O2'	24:1Y:43:THR:HG22	2.18	0.42
1:1A:2514:A:OP1	63:1A:3888:HOH:O	2.21	0.42
1:1A:2672:G:OP1	63:1A:3890:HOH:O	2.22	0.42
1:1A:2839:G:N7	63:1A:3991:HOH:O	2.37	0.42
8:1H:3:ARG:NE	8:1H:3:ARG:HA	2.33	0.42
17:1R:16:ARG:NH1	17:1R:19:LEU:HD21	2.34	0.42
26:10:1:MET:HE2	26:10:6:VAL:HG22	2.01	0.42
28:12:57:GLU:HA	28:12:58:ARG:HA	1.70	0.42
34:1a:91:G:O2'	34:1a:92:G:H5"	2.19	0.42
34:1a:97:C:OP2	53:1t:14:LYS:NZ	2.38	0.42
34:1a:120:G:OP1	34:1a:589:U:O2'	2.22	0.42
34:1a:401:U:H5"	34:1a:480:A:H2	1.84	0.42
34:1a:734:G:O2'	48:1o:21:ASP:OD2	2.36	0.42
34:1a:1330:U:H2'	34:1a:1331:A:H8	1.84	0.42
36:1c:91:LEU:HD22	36:1c:101:LEU:HD22	2.01	0.42
38:1e:27:ARG:HE	38:1e:27:ARG:HB2	1.52	0.42
39:1f:97:PHE:O	51:1r:31:LEU:HD23	2.20	0.42
54:1u:9:ARG:HA	54:1u:22:ARG:HB2	2.01	0.42
55:1z:276:VAL:O	55:1z:280:LEU:HB2	2.19	0.42
55:1z:357:ARG:NH1	55:1z:373:ASP:CG	2.75	0.42
55:1z:456:GLU:HB2	55:1z:657:THR:CG2	2.49	0.42
1:2A:232:A:C2	1:2A:243:A:C4	3.07	0.42
1:2A:830:A:C8	1:2A:838:G:C5	3.07	0.42
1:2A:1280:G:C6	1:2A:1281:G:N1	2.87	0.42
1:2A:1342:C:O2'	1:2A:1347:A:N1	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1493:G:H1'	1:2A:1591:A:H1'	2.00	0.42
1:2A:1940:A:N1	34:2a:1473:U:O2'	2.35	0.42
1:2A:2198:C:O2'	3:2C:46:LYS:HG3	2.20	0.42
1:2A:2549:C:H2'	1:2A:2550:C:H6	1.84	0.42
3:2C:20:TYR:CD1	3:2C:222:VAL:HG13	2.53	0.42
9:2J:117:LEU:HA	9:2J:122:VAL:HA	2.01	0.42
13:2N:95:VAL:HA	13:2N:99:LEU:HD21	2.01	0.42
26:20:2:LYS:H	26:20:2:LYS:HG2	1.48	0.42
32:26:6:THR:HG22	32:26:63:PRO:HD2	2.01	0.42
34:2a:333:C:H2'	34:2a:334:A:C8	2.54	0.42
34:2a:1056:U:C2	34:2a:1057:G:C8	3.06	0.42
34:2a:1302:C:C2	52:2s:72:GLY:HA3	2.54	0.42
35:2b:47:THR:O	35:2b:51:LEU:HD13	2.19	0.42
35:2b:84:GLU:HB3	35:2b:219:VAL:HG21	2.00	0.42
36:2c:123:GLN:O	36:2c:126:ARG:HB2	2.19	0.42
43:2j:16:LEU:HD12	43:2j:68:HIS:HB2	2.01	0.42
55:2z:511:LYS:HE3	55:2z:511:LYS:HB2	1.86	0.42
58:2x:18:LEU:HD12	58:2x:18:LEU:H	1.84	0.42
1:1A:385:U:H6	1:1A:385:U:H2'	1.52	0.42
1:1A:872:U:H2'	1:1A:874:U:O4'	2.19	0.42
1:1A:1112:A:C2	55:1z:634:MET:HB2	2.54	0.42
1:1A:1122:A:H2'	1:1A:1123:U:O4'	2.19	0.42
1:1A:2220:A:H3'	1:1A:2221:C:C6	2.54	0.42
14:1O:76:LYS:HB3	14:1O:91:GLU:HG3	2.01	0.42
23:1X:152:ALA:HA	23:1X:155:LEU:HD13	2.00	0.42
34:1a:103:A:C6	34:1a:322:G:C6	3.07	0.42
34:1a:219:U:H2'	34:1a:220:C:H6	1.85	0.42
34:1a:280:G:H2'	34:1a:281:G:H8	1.85	0.42
34:1a:568:G:H5'	50:1q:91:ARG:NH2	2.35	0.42
34:1a:878:A:H2'	34:1a:879:A:C8	2.54	0.42
37:1d:164:ALA:O	37:1d:168:ARG:NH1	2.51	0.42
37:1d:194:LEU:HG	37:1d:196:LEU:HG	2.02	0.42
40:1g:65:ALA:HB1	40:1g:127:ALA:HB3	2.01	0.42
41:1h:127:LEU:HD12	41:1h:127:LEU:HA	1.81	0.42
42:1i:99:LEU:HB3	42:1i:101:PHE:CE1	2.53	0.42
43:1j:11:PHE:CE1	43:1j:67:THR:HG22	2.49	0.42
44:1k:38:ASN:HA	44:1k:39:PRO:HD3	1.89	0.42
49:1p:73:LEU:HD13	49:1p:73:LEU:HA	1.77	0.42
51:1r:62:GLU:H	51:1r:62:GLU:HG2	1.61	0.42
53:1t:48:LYS:HD3	53:1t:48:LYS:HA	1.82	0.42
1:2A:378:G:H2'	1:2A:379:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:387:A:H2'	1:2A:388:G:O4'	2.19	0.42
1:2A:630:A:H2'	1:2A:631:A:C8	2.54	0.42
1:2A:838:G:H5"	1:2A:839:A:H5'	2.01	0.42
1:2A:1683:A:H4'	1:2A:2722:A:O2'	2.19	0.42
1:2A:1711:A:H1'	12:2M:1:MET:HG3	2.02	0.42
1:2A:2609:A:OP1	63:2A:4948:HOH:O	2.21	0.42
5:2E:181:LEU:HD21	17:2R:6:LEU:HD12	2.01	0.42
11:2L:94:HIS:HB3	11:2L:97:ARG:HD3	2.02	0.42
17:2R:80:SER:HA	17:2R:81:PRO:HD2	1.85	0.42
27:21:29:ARG:HB3	27:21:30:ARG:NH1	2.35	0.42
33:27:25:VAL:HB	33:27:34:GLN:HB2	2.00	0.42
34:2a:982:G:H2'	34:2a:983:A:C1'	2.50	0.42
34:2a:1112:C:N3	34:2a:1126:G:N2	2.51	0.42
35:2b:112:VAL:HG22	35:2b:149:LEU:HD13	2.02	0.42
35:2b:230:VAL:HG13	35:2b:231:GLU:O	2.19	0.42
36:2c:20:SER:HB3	36:2c:22:TRP:NE1	2.34	0.42
39:2f:94:GLN:HE22	51:2r:72:ARG:HH22	1.67	0.42
40:2g:32:ARG:HB3	40:2g:33:ASP:H	1.46	0.42
48:2o:29:VAL:HB	48:2o:81:LEU:HD21	2.01	0.42
49:2p:43:LYS:HG2	49:2p:48:TRP:CD2	2.54	0.42
50:2q:48:GLU:HB2	50:2q:50:LYS:HG2	2.01	0.42
1:1A:126:C:H2'	1:1A:127:C:H6	1.85	0.42
1:1A:1469:G:H2'	1:1A:1470:G:O4'	2.19	0.42
1:1A:1748:G:H2'	1:1A:1749:G:O4'	2.20	0.42
1:1A:2095:U:H2'	1:1A:2096:U:C6	2.54	0.42
1:1A:2290:G:O6	24:1Y:14:ARG:HD2	2.19	0.42
1:1A:2309:A:H2'	1:1A:2310:G:O4'	2.19	0.42
4:1D:142:VAL:HG23	4:1D:193:VAL:HA	2.01	0.42
5:1E:93:VAL:HG21	5:1E:180:ASN:HA	2.02	0.42
6:1F:89:VAL:O	63:1F:5002:HOH:O	2.21	0.42
18:1S:17:ILE:HG23	18:1S:39:LEU:HD12	2.01	0.42
34:1a:300:U:H2'	34:1a:301:G:C8	2.55	0.42
34:1a:1261:A:H5"	34:1a:1262:A:OP1	2.19	0.42
34:1a:1302:C:H2'	34:1a:1303:C:O4'	2.19	0.42
39:1f:41:GLU:H	39:1f:62:TRP:HE3	1.66	0.42
42:1i:108:VAL:HG12	42:1i:109:VAL:H	1.85	0.42
44:1k:99:GLN:HG2	44:1k:105:VAL:HG21	2.01	0.42
55:1z:325:LEU:HD23	55:1z:325:LEU:HA	1.91	0.42
1:2A:23:G:O2'	20:2U:78:GLU:O	2.36	0.42
1:2A:842:C:H2'	1:2A:843:C:C6	2.54	0.42
1:2A:885:U:H2'	1:2A:886:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1322:G:H2'	1:2A:1323:A:O4'	2.19	0.42
1:2A:1729:C:H2'	1:2A:1730:C:C6	2.54	0.42
1:2A:2288:G:P	24:2Y:12:ASN:HD22	2.42	0.42
1:2A:2768:U:H1'	1:2A:2769:A:H5"	2.00	0.42
4:2D:121:PRO:HB3	4:2D:135:PHE:CE2	2.54	0.42
6:2F:149:ASP:OD1	6:2F:149:ASP:N	2.46	0.42
18:2S:20:LEU:O	18:2S:39:LEU:HD21	2.20	0.42
23:2X:179:ASP:O	23:2X:182:LYS:HB3	2.19	0.42
32:26:62:LEU:HB3	32:26:65:GLU:HG2	2.02	0.42
34:2a:185:C:H2'	34:2a:186:C:C6	2.54	0.42
34:2a:714:G:O2'	34:2a:750:A:H5'	2.19	0.42
34:2a:970:U:H1'	34:2a:971:G:OP2	2.19	0.42
35:2b:8:LYS:H	35:2b:8:LYS:NZ	2.17	0.42
36:2c:22:TRP:CH2	36:2c:32:LEU:HB3	2.53	0.42
40:2g:18:TYR:CE2	40:2g:59:LEU:HB2	2.54	0.42
40:2g:30:ILE:HD13	40:2g:120:ILE:HD13	2.00	0.42
44:2k:91:ARG:NH1	44:2k:110:ASP:OD2	2.52	0.42
55:2z:-65:LYS:HA	55:2z:-48:VAL:O	2.18	0.42
55:2z:404:VAL:H	55:2z:405:PRO:CD	2.32	0.42
58:2x:4:ARG:HA	58:2x:5:PRO:HD3	1.82	0.42
1:1A:353:A:HO2'	1:1A:354:A:H8	1.64	0.42
1:1A:2584:C:C2	58:1x:2:ARG:HB2	2.54	0.42
1:1A:2593:G:C2	1:1A:2594:G:C8	3.08	0.42
1:1A:2734:G:H2'	1:1A:2735:C:C6	2.55	0.42
2:1B:42:C:OP1	7:1G:67:LYS:NZ	2.53	0.42
5:1E:181:LEU:HA	5:1E:181:LEU:HD12	1.82	0.42
6:1F:18:ARG:HG2	6:1F:19:GLU:H	1.83	0.42
6:1F:117:ARG:NH2	6:1F:189:THR:O	2.51	0.42
9:1J:77:PRO:O	9:1J:79:ALA:N	2.52	0.42
15:1P:44:LEU:HD22	15:1P:48:VAL:HG23	2.01	0.42
23:1X:145:GLU:O	23:1X:148:ASP:N	2.52	0.42
34:1a:496:U:H2'	34:1a:497:C:C6	2.54	0.42
34:1a:1374:U:H2'	34:1a:1375:G:C8	2.54	0.42
34:1a:1393:G:H1	34:1a:1468:C:H42	1.68	0.42
35:1b:20:GLU:HB3	35:1b:190:THR:OG1	2.19	0.42
35:1b:188:ALA:HB1	35:1b:192:SER:OG	2.19	0.42
37:1d:31:CYS:O	37:1d:35:ARG:HG3	2.19	0.42
52:1s:11:VAL:HG21	52:1s:16:LEU:HD22	2.02	0.42
1:2A:65:U:H2'	1:2A:66:G:C8	2.54	0.42
1:2A:164:G:O2'	1:2A:165:G:H5'	2.20	0.42
1:2A:172:C:H1'	1:2A:205:G:H1'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:241:C:H2'	1:2A:242:G:O4'	2.19	0.42
1:2A:557:G:H5'	18:2S:24:TYR:CE1	2.54	0.42
1:2A:966:G:H4'	1:2A:2280:A:C5	2.54	0.42
1:2A:1107:G:H1	1:2A:1121:C:H42	1.68	0.42
1:2A:1191:C:H2'	1:2A:1192:C:C6	2.54	0.42
1:2A:2463:C:C2	58:2x:9:ARG:HD3	2.54	0.42
1:2A:2638:G:O2'	1:2A:2793:A:N1	2.45	0.42
1:2A:2858:U:H4'	1:2A:2877:A:C2	2.54	0.42
7:2G:41:GLN:NE2	7:2G:154:GLY:O	2.36	0.42
15:2P:57:ARG:NE	15:2P:59:ASP:OD1	2.52	0.42
16:2Q:10:ARG:HG2	16:2Q:91:PRO:HA	2.01	0.42
27:21:6:VAL:HG13	27:21:54:VAL:CG1	2.49	0.42
34:2a:57:U:H2'	34:2a:58:G:C8	2.55	0.42
34:2a:721:A:H2'	34:2a:722:C:C6	2.55	0.42
34:2a:983:A:H8	34:2a:984:A:C4'	2.31	0.42
34:2a:1005:G:N3	34:2a:1005:G:H2'	2.34	0.42
40:2g:26:PHE:O	40:2g:30:ILE:HG13	2.19	0.42
42:2i:112:LYS:HE2	42:2i:117:HIS:O	2.20	0.42
55:2z:606:MET:N	55:2z:647:VAL:O	2.40	0.42
1:1A:63:C:H2'	1:1A:64:C:C6	2.55	0.42
1:1A:172:C:H2'	1:1A:173:U:H6	1.84	0.42
1:1A:173:U:H4'	1:1A:206:A:H4'	2.02	0.42
1:1A:552:A:H2	1:1A:2064:C:H5'	1.84	0.42
1:1A:1140:A:C1'	55:1z:617:MET:HG2	2.50	0.42
1:1A:1361:U:H2'	1:1A:1362:A:C8	2.55	0.42
1:1A:1410:A:OP2	25:1Z:3:LYS:HG3	2.20	0.42
1:1A:1828:U:H5"	4:1D:260:ARG:HB3	2.00	0.42
1:1A:1910:A:O2'	1:1A:2108:G:H5'	2.20	0.42
1:1A:2214:G:H2'	1:1A:2215:G:C8	2.55	0.42
1:1A:2611:A:H2'	1:1A:2612:C:C6	2.55	0.42
2:1B:66:A:H61	2:1B:108:U:H2'	1.85	0.42
6:1F:53:THR:CG2	6:1F:55:GLY:H	2.33	0.42
9:1J:4:LYS:HA	9:1J:5:ARG:HA	1.83	0.42
11:1L:33:LEU:HD12	11:1L:33:LEU:HA	1.91	0.42
11:1L:104:LYS:HG3	11:1L:117:PHE:CD1	2.54	0.42
12:1M:105:GLU:H	12:1M:105:GLU:HG2	1.48	0.42
15:1P:36:THR:HG22	15:1P:37:THR:N	2.34	0.42
15:1P:56:LYS:NZ	15:1P:90:ARG:O	2.53	0.42
17:1R:127:ALA:C	17:1R:129:ARG:N	2.77	0.42
20:1U:51:LEU:HD23	20:1U:51:LEU:HA	1.88	0.42
32:16:63:PRO:HG2	32:16:64:TYR:CE2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:171:C:H2'	34:1a:172:C:C6	2.55	0.42
34:1a:838:A:H3'	34:1a:839:G:C8	2.55	0.42
34:1a:1389:U:H2'	34:1a:1390:C:O4'	2.19	0.42
35:1b:8:LYS:HG2	35:1b:9:GLU:N	2.35	0.42
36:1c:71:ALA:O	36:1c:73:PRO:HD3	2.19	0.42
43:1j:55:LYS:HE2	43:1j:55:LYS:HB3	1.87	0.42
55:1z:-3:GLU:HG3	55:1z:0:ARG:NH1	2.35	0.42
55:1z:355:LEU:HG	55:1z:369:LEU:HD23	2.02	0.42
55:1z:404:VAL:H	55:1z:405:PRO:CD	2.32	0.42
55:1z:459:LEU:O	55:1z:463:VAL:HG23	2.20	0.42
55:1z:512:ILE:HA	55:1z:566:THR:O	2.18	0.42
55:1z:610:VAL:HG11	55:1z:620:VAL:CG1	2.50	0.42
1:2A:107:G:C2	1:2A:108:A:C8	3.08	0.42
1:2A:186:C:H5'	1:2A:2255:U:OP1	2.19	0.42
1:2A:320:C:H2'	1:2A:321:G:O4'	2.20	0.42
1:2A:612:A:H2'	1:2A:613:C:C6	2.55	0.42
1:2A:2128:C:H2'	1:2A:2129:C:O4'	2.20	0.42
1:2A:2183:G:H4'	1:2A:2193:U:O2'	2.20	0.42
1:2A:2210:U:H2'	1:2A:2211:G:H8	1.83	0.42
3:2C:29:VAL:HG11	3:2C:214:VAL:HG12	2.02	0.42
3:2C:223:ARG:NH1	3:2C:223:ARG:HB2	2.35	0.42
6:2F:178:PRO:HB2	6:2F:201:VAL:CG2	2.49	0.42
8:2H:2:SER:O	8:2H:3:ARG:HG2	2.19	0.42
15:2P:98:LEU:HB2	15:2P:113:LEU:HD11	2.02	0.42
16:2Q:19:LYS:H	16:2Q:19:LYS:HG2	1.59	0.42
16:2Q:84:GLN:HA	16:2Q:111:GLU:O	2.19	0.42
21:2V:41:ASN:O	21:2V:45:THR:HG23	2.19	0.42
30:24:13:CYS:SG	30:24:47:THR:HG21	2.60	0.42
34:2a:132:C:H2'	34:2a:133:G:H8	1.84	0.42
34:2a:435:A:C5	34:2a:436:A:H1'	2.55	0.42
34:2a:446:A:C6	34:2a:465:U:H2'	2.55	0.42
34:2a:925:G:C6	34:2a:926:C:C4	3.08	0.42
34:2a:1010:G:N3	34:2a:1012:G:C8	2.87	0.42
34:2a:1045:U:H2'	34:2a:1046:C:C6	2.54	0.42
37:2d:98:GLU:OE2	37:2d:194:LEU:HD23	2.19	0.42
37:2d:194:LEU:HD12	37:2d:194:LEU:N	2.34	0.42
1:1A:396:G:H4'	1:1A:397:A:OP2	2.19	0.42
9:1J:53:VAL:O	9:1J:85:ASP:HA	2.20	0.42
23:1X:151:HIS:C	23:1X:153:SER:N	2.78	0.42
34:1a:179:G:H2'	34:1a:180:A:C8	2.55	0.42
34:1a:826:C:H2'	34:1a:827:C:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:843:A:H5'	34:1a:1061:U:O4	2.19	0.42
34:1a:1006:C:C2	34:1a:1017:G:C6	3.06	0.42
34:1a:1087:G:H4'	35:1b:111:ARG:NH1	2.34	0.42
35:1b:91:PRO:HG3	35:1b:154:LEU:HB3	2.01	0.42
36:1c:52:LEU:HD23	36:1c:53:ALA:N	2.35	0.42
42:1i:116:LYS:HA	42:1i:123:PRO:HD3	2.01	0.42
55:1z:87:HIS:HB3	55:1z:90:PHE:CD1	2.55	0.42
55:1z:101:LEU:HD23	55:1z:101:LEU:HA	1.84	0.42
55:1z:439:ARG:HB2	55:1z:452:SER:HB2	2.02	0.42
55:1z:632:LEU:HD11	55:1z:646:PHE:CD1	2.55	0.42
1:2A:333:A:H1'	1:2A:334:A:H2'	2.02	0.42
1:2A:673:G:C4'	32:26:46:ARG:HH12	2.32	0.42
1:2A:1270:G:C2	1:2A:1271:A:C2	3.08	0.42
1:2A:1346:A:H2	1:2A:1671:G:N3	2.17	0.42
1:2A:1494:G:H5"	1:2A:1588:A:OP2	2.19	0.42
1:2A:1701:A:H4'	5:2E:115:GLY:N	2.35	0.42
1:2A:1816:A:C4	1:2A:1959:A:C6	3.08	0.42
1:2A:1834:C:O5'	1:2A:1834:C:H6	2.03	0.42
1:2A:2415:C:O3'	13:2N:77:ARG:NH2	2.52	0.42
4:2D:13:ARG:HA	4:2D:13:ARG:HD2	1.88	0.42
5:2E:112:GLY:O	5:2E:159:HIS:HA	2.19	0.42
9:2J:105:PRO:O	9:2J:107:VAL:N	2.53	0.42
10:2K:84:LEU:H	10:2K:84:LEU:HG	1.72	0.42
16:2Q:25:ARG:NH1	16:2Q:42:ASP:OD1	2.53	0.42
20:2U:13:SER:HA	20:2U:14:PRO:HD3	1.89	0.42
23:2X:159:PRO:HA	23:2X:160:GLY:HA2	1.60	0.42
34:2a:413:C:H2'	34:2a:414:C:C6	2.54	0.42
34:2a:546:C:H4'	34:2a:547:A:O5'	2.20	0.42
34:2a:962:C:H2'	34:2a:963:C:H6	1.83	0.42
34:2a:1222:U:C2	40:2g:32:ARG:HD3	2.55	0.42
34:2a:1409:C:H2'	34:2a:1410:U:C6	2.55	0.42
36:2c:26:LYS:HE3	36:2c:26:LYS:HB3	1.87	0.42
37:2d:141:ARG:H	37:2d:141:ARG:HG3	1.69	0.42
38:2e:47:LYS:HE2	38:2e:47:LYS:HB2	1.73	0.42
39:2f:82:ARG:HB2	39:2f:85:VAL:HG23	2.02	0.42
39:2f:96:PRO:HB3	51:2r:30:ASP:CG	2.44	0.42
45:2l:32:PHE:HB3	45:2l:84:LEU:HD11	2.02	0.42
55:2z:109:ASP:OD1	55:2z:111:SER:OG	2.29	0.42
55:2z:309:LEU:HA	55:2z:332:SER:O	2.18	0.42
55:2z:319:ASP:HA	55:2z:320:PRO:HD3	1.85	0.42
55:2z:503:GLY:C	55:2z:505:GLY:H	2.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:2z:647:VAL:HA	55:2z:648:PRO:HD3	1.83	0.42
57:2w:21:A:H5'	57:2w:22:G:OP1	2.20	0.42
1:1A:265:C:H2'	1:1A:266:C:C6	2.55	0.42
1:1A:1889:A:N6	1:1A:1904:G:O2'	2.49	0.42
1:1A:2151:U:O2'	1:1A:2152:G:H5"	2.20	0.42
1:1A:2332:G:H5"	1:1A:2333:A:OP2	2.20	0.42
1:1A:2613:A:N7	57:1w:76:A:O3'	2.53	0.42
6:1F:101:LEU:HD12	6:1F:102:PRO:HD2	2.01	0.42
6:1F:106:ARG:H	6:1F:106:ARG:HG2	1.53	0.42
13:1N:38:GLN:O	13:1N:44:GLY:HA2	2.19	0.42
20:1U:14:PRO:HG2	20:1U:78:GLU:CD	2.45	0.42
21:1V:61:GLY:HA3	21:1V:73:ARG:O	2.19	0.42
27:11:23:LEU:HD13	27:11:50:VAL:HG11	2.02	0.42
34:1a:117:C:OP1	34:1a:307:C:O2'	2.29	0.42
34:1a:219:U:H2'	34:1a:220:C:C6	2.55	0.42
34:1a:1171:C:OP1	36:1c:5:ILE:HD12	2.19	0.42
35:1b:48:MET:HA	35:1b:51:LEU:HD12	2.00	0.42
35:1b:82:ARG:NE	35:1b:92:TYR:OH	2.53	0.42
37:1d:15:GLU:OE2	37:1d:66:ARG:NH1	2.53	0.42
43:1j:90:LEU:HA	43:1j:91:PRO:HD3	1.90	0.42
51:1r:26:LEU:HD12	51:1r:26:LEU:HA	1.84	0.42
55:1z:127:LYS:CE	55:1z:404:VAL:HG11	2.50	0.42
55:1z:456:GLU:HB2	55:1z:657:THR:HG21	2.01	0.42
1:2A:396:G:OP2	63:2A:4945:HOH:O	2.21	0.42
1:2A:895:A:H3'	1:2A:896:C:C6	2.55	0.42
1:2A:1104:G:C6	1:2A:1105:U:C4	3.07	0.42
1:2A:1526:G:C6	1:2A:1527:U:C4	3.08	0.42
1:2A:1776:G:H2'	1:2A:1777:G:H8	1.85	0.42
1:2A:2185:C:C5	1:2A:2186:G:H1'	2.55	0.42
3:2C:46:LYS:HE2	3:2C:210:ARG:CZ	2.49	0.42
3:2C:180:PHE:HA	3:2C:181:PRO:HD2	1.72	0.42
10:2K:95:LYS:HG2	10:2K:137:GLU:CD	2.44	0.42
13:2N:6:LEU:HD23	13:2N:6:LEU:HA	1.84	0.42
16:2Q:110:LEU:HD12	16:2Q:110:LEU:HA	1.86	0.42
20:2U:73:ALA:HB3	20:2U:106:ILE:HD12	2.02	0.42
22:2W:23:ARG:HG3	22:2W:24:VAL:N	2.35	0.42
22:2W:35:TYR:CE2	22:2W:69:ALA:HB3	2.55	0.42
23:2X:122:ARG:H	23:2X:122:ARG:HG2	1.77	0.42
26:20:53:LEU:HA	26:20:53:LEU:HD23	1.81	0.42
31:25:26:GLY:O	31:25:30:VAL:HG23	2.20	0.42
34:2a:161:G:H2'	34:2a:162:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:425:U:H1'	34:2a:426:A:H5"	2.02	0.42
34:2a:452:C:H2'	34:2a:453:C:H6	1.84	0.42
34:2a:844:C:C4	34:2a:845:G:H1'	2.54	0.42
34:2a:1331:A:H5"	42:2i:121:ARG:HB2	2.02	0.42
39:2f:33:TYR:CD1	39:2f:75:LEU:HD23	2.55	0.42
43:2j:44:VAL:HG11	43:2j:46:ARG:HH21	1.84	0.42
50:2q:43:LEU:O	50:2q:69:LYS:HG2	2.18	0.42
55:2z:532:GLY:O	55:2z:534:ILE:N	2.45	0.42
1:1A:1109:C:H4'	10:1K:86:LYS:HB2	2.00	0.42
1:1A:1440:A:N3	63:1A:3989:HOH:O	2.36	0.42
5:1E:126:PRO:HB2	5:1E:131:ALA:HB2	2.02	0.42
13:1N:135:LEU:HD23	13:1N:135:LEU:HA	1.75	0.42
14:1O:45:GLN:CD	14:1O:45:GLN:H	2.27	0.42
16:1Q:61:ASN:O	16:1Q:65:VAL:HG23	2.19	0.42
21:1V:35:THR:O	21:1V:39:ILE:HG13	2.20	0.42
25:1Z:54:ALA:C	25:1Z:56:GLN:H	2.28	0.42
34:1a:97:C:C4	34:1a:98:G:N7	2.88	0.42
34:1a:174:A:H2'	34:1a:175:U:H6	1.84	0.42
34:1a:486:G:C2	34:1a:487:C:C2	3.08	0.42
36:1c:153:VAL:HA	36:1c:197:GLY:O	2.20	0.42
37:1d:158:ILE:HG22	37:1d:162:LEU:HD12	2.01	0.42
46:1m:82:MET:HE3	46:1m:82:MET:HB2	1.91	0.42
55:1z:172:ASP:OD2	55:1z:173:THR:N	2.53	0.42
55:1z:290:LYS:HA	55:1z:300:GLU:HA	2.02	0.42
55:1z:459:LEU:HD23	55:1z:459:LEU:HA	1.85	0.42
55:1z:494:GLU:HG2	55:1z:511:LYS:HD3	2.01	0.42
1:2A:24:U:H5'	20:2U:78:GLU:O	2.20	0.42
1:2A:28:U:H2'	1:2A:29:G:C8	2.55	0.42
1:2A:740:U:OP1	4:2D:59:LYS:NZ	2.39	0.42
1:2A:1364:G:C6	1:2A:1365:C:N4	2.87	0.42
1:2A:1364:G:H1	1:2A:1378:C:H42	1.68	0.42
3:2C:23:ASP:HB2	3:2C:190:ARG:NH2	2.35	0.42
6:2F:9:ILE:HA	6:2F:10:PRO:HD3	1.85	0.42
7:2G:36:LYS:HD3	7:2G:95:ARG:NH2	2.34	0.42
34:2a:720:C:H5"	51:2r:72:ARG:HE	1.85	0.42
34:2a:937:A:O2'	34:2a:962:C:O2'	2.31	0.42
34:2a:1382:C:C2	34:2a:1480:A:N6	2.88	0.42
35:2b:21:ARG:HA	35:2b:39:ILE:HA	2.02	0.42
36:2c:48:TYR:HA	36:2c:52:LEU:HD12	2.02	0.42
36:2c:114:PRO:CA	36:2c:185:GLY:HA3	2.49	0.42
37:2d:50:ARG:HA	37:2d:51:PRO:HD3	1.89	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2m:56:LEU:O	46:2m:60:VAL:HG12	2.20	0.42
46:2m:124:PRO:HD3	55:2z:507:TYR:HD2	1.85	0.42
47:2n:26:ARG:HD3	47:2n:43:CYS:SG	2.60	0.42
55:2z:166:LEU:HD13	55:2z:180:VAL:HG11	2.02	0.42
55:2z:526:VAL:HG21	55:2z:564:LYS:HE2	2.02	0.42
55:2z:528:ALA:O	55:2z:568:TYR:HA	2.20	0.42
1:1A:59:G:P	26:10:51:ARG:HH21	2.43	0.42
1:1A:126:C:H2'	1:1A:127:C:C6	2.54	0.42
1:1A:177:G:O6	1:1A:193:G:O2'	2.34	0.42
1:1A:2239:G:C6	1:1A:2240:C:C4	3.08	0.42
1:1A:2341:G:H2'	1:1A:2342:G:O4'	2.20	0.42
3:1C:6:ARG:O	3:1C:10:LEU:HG	2.19	0.42
5:1E:101:ARG:NH2	5:1E:171:GLU:HB2	2.35	0.42
6:1F:8:GLN:HE22	6:1F:21:ALA:HB2	1.85	0.42
6:1F:130:ALA:C	6:1F:132:VAL:H	2.28	0.42
8:1H:22:GLY:HA2	8:1H:37:VAL:O	2.20	0.42
8:1H:87:LEU:HD23	8:1H:87:LEU:HA	1.87	0.42
10:1K:98:ARG:HD2	10:1K:137:GLU:OE2	2.19	0.42
12:1M:20:MET:HE3	12:1M:44:LYS:HE3	2.02	0.42
12:1M:116:SER:OG	12:1M:117:LEU:N	2.53	0.42
28:12:61:ARG:NH2	52:1s:42:PRO:HD2	2.30	0.42
32:16:4:MET:HB3	32:16:4:MET:HE2	1.79	0.42
34:1a:564:U:H2'	34:1a:565:G:O4'	2.20	0.42
35:1b:47:THR:HA	35:1b:202:PRO:HG2	2.02	0.42
49:1p:3:LYS:O	49:1p:21:VAL:HA	2.20	0.42
52:1s:32:LYS:HA	52:1s:50:ALA:HB3	2.02	0.42
55:1z:498:ILE:HG22	55:1z:507:TYR:CD1	2.54	0.42
1:2A:554:G:C6	1:2A:2043:U:H5"	2.55	0.42
1:2A:623:C:O2'	1:2A:627:C:OP1	2.35	0.42
1:2A:732:G:N2	1:2A:834:A:H61	2.18	0.42
1:2A:1100:G:H5'	9:2J:33:PRO:HA	2.02	0.42
1:2A:1147:C:H2'	1:2A:1148:A:H8	1.85	0.42
1:2A:1571:G:C6	1:2A:1572:G:C2	3.07	0.42
1:2A:2641:G:H2'	1:2A:2642:G:C8	2.54	0.42
1:2A:2645:G:H4'	5:2E:63:LEU:HD21	2.02	0.42
7:2G:45:GLU:H	7:2G:45:GLU:HG2	1.45	0.42
11:2L:12:ARG:NH1	11:2L:50:ASP:OD2	2.53	0.42
11:2L:20:GLY:HA2	11:2L:61:ARG:HD3	2.01	0.42
15:2P:36:THR:HG22	15:2P:37:THR:N	2.34	0.42
20:2U:33:ARG:NH2	20:2U:52:GLU:OE1	2.47	0.42
23:2X:125:LEU:HB3	23:2X:165:VAL:HG13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:434:G:H4'	37:2d:123:HIS:ND1	2.35	0.42
34:2a:856:G:C5'	41:2h:89:PRO:HG2	2.49	0.42
35:2b:186:ALA:HB3	35:2b:197:VAL:HG11	2.02	0.42
38:2e:6:PHE:HB3	38:2e:34:VAL:HG22	2.01	0.42
44:2k:38:ASN:HA	44:2k:39:PRO:HD3	1.84	0.42
55:2z:92:ILE:HD11	55:2z:436:PRO:HG2	2.02	0.42
1:1A:865:A:C4	1:1A:1233:A:C2	3.08	0.41
1:1A:1152:G:H4'	9:1J:81:VAL:HA	2.01	0.41
1:1A:1268:G:O6	19:1T:69:LYS:NZ	2.51	0.41
1:1A:1360:C:O2'	1:1A:1437:A:N3	2.51	0.41
1:1A:1474:G:H2'	1:1A:1475:C:C6	2.55	0.41
1:1A:1528:G:C6	1:1A:1552:A:C6	3.08	0.41
1:1A:2022:A:H2'	1:1A:2023:G:C8	2.54	0.41
1:1A:2819:A:N6	1:1A:2899:G:O2'	2.39	0.41
3:1C:22:ILE:HG21	3:1C:190:ARG:HG3	2.01	0.41
6:1F:122:LYS:O	6:1F:191:ARG:HG3	2.20	0.41
7:1G:181:ARG:HG3	7:1G:182:LYS:N	2.35	0.41
23:1X:146:ILE:HA	23:1X:147:GLY:HA2	1.65	0.41
27:11:31:LEU:HD23	27:11:31:LEU:HA	1.77	0.41
34:1a:196:G:H2'	34:1a:197:U:C6	2.55	0.41
34:1a:798:A:N7	34:1a:800:A:C4	2.88	0.41
34:1a:1108:U:H4'	43:1j:5:ARG:NH2	2.35	0.41
34:1a:1120:C:H4'	34:1a:1121:G:C2	2.55	0.41
38:1e:72:GLN:O	38:1e:75:THR:HG22	2.20	0.41
38:1e:122:GLU:O	38:1e:126:ARG:NH1	2.53	0.41
43:1j:45:ARG:HB3	43:1j:65:LEU:HB3	2.01	0.41
49:1p:5:ARG:O	49:1p:20:VAL:N	2.52	0.41
50:1q:89:LEU:HD22	50:1q:89:LEU:HA	1.82	0.41
52:1s:58:VAL:HA	52:1s:59:PRO:HD2	1.94	0.41
54:1u:5:ASP:O	54:1u:11:GLY:HA3	2.20	0.41
1:2A:1510:C:H2'	1:2A:1511:G:C8	2.55	0.41
1:2A:2431:C:H5'	30:24:54:ILE:HD11	2.02	0.41
1:2A:2540:G:O6	33:27:31:LYS:NZ	2.53	0.41
1:2A:2622:U:H3'	1:2A:2622:U:OP2	2.20	0.41
1:2A:2691:C:H5'	5:2E:189:PRO:HA	2.02	0.41
4:2D:54:ARG:C	4:2D:218:ARG:HD3	2.45	0.41
5:2E:97:LYS:N	5:2E:100:GLU:OE1	2.34	0.41
13:2N:46:LYS:HE3	13:2N:46:LYS:HB3	1.87	0.41
15:2P:37:THR:HA	15:2P:111:LEU:HD12	2.02	0.41
23:2X:45:ASP:OD1	23:2X:49:ARG:HD2	2.19	0.41
24:2Y:53:MET:HG3	24:2Y:59:LEU:HD23	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:21:8:LEU:O	27:21:32:GLN:N	2.46	0.41
34:2a:117:C:H42	34:2a:234:G:H1	1.66	0.41
34:2a:504:A:N1	34:2a:520:C:H1'	2.35	0.41
34:2a:850:A:C8	34:2a:852:G:C8	3.08	0.41
34:2a:1040:G:C4	34:2a:1186:A:C2	3.08	0.41
34:2a:1233:A:O2'	34:2a:1352:C:O2'	2.07	0.41
34:2a:1305:G:H2'	34:2a:1306:A:C8	2.55	0.41
36:2c:178:LEU:HD13	36:2c:178:LEU:HA	1.90	0.41
40:2g:46:ALA:O	40:2g:50:ILE:HG23	2.20	0.41
55:2z:96:ARG:O	55:2z:100:VAL:HG23	2.19	0.41
55:2z:507:TYR:O	55:2z:577:SER:OG	2.36	0.41
55:2z:649:LEU:HD23	55:2z:649:LEU:HA	1.89	0.41
1:1A:342:C:H2'	1:1A:343:A:O4'	2.19	0.41
1:1A:1040:C:O2	11:1L:3:THR:OG1	2.37	0.41
1:1A:1092:G:HO2'	1:1A:1155:G:H1	1.67	0.41
1:1A:1117:C:H42	1:1A:1137:C:N4	2.18	0.41
1:1A:1140:A:H5"	1:1A:1141:A:OP2	2.20	0.41
1:1A:2459:A:OP1	63:1A:3804:HOH:O	2.22	0.41
2:1B:29:A:H2'	2:1B:30:C:O4'	2.20	0.41
3:1C:3:HIS:HA	3:1C:7:TYR:HD2	1.86	0.41
4:1D:273:ARG:HB3	4:1D:273:ARG:NH1	2.34	0.41
34:1a:954:G:OP2	34:1a:1340:U:O2'	2.32	0.41
35:1b:170:GLU:O	35:1b:174:VAL:HG23	2.21	0.41
38:1e:5:ASP:OD1	38:1e:5:ASP:N	2.52	0.41
39:1f:25:ILE:HG21	39:1f:82:ARG:HD2	2.03	0.41
40:1g:49:ILE:O	40:1g:53:LYS:HB3	2.20	0.41
41:1h:94:TYR:HD1	41:1h:132:GLU:HA	1.84	0.41
42:1i:70:LYS:O	42:1i:74:ILE:HG13	2.20	0.41
49:1p:22:THR:HA	49:1p:33:ILE:HG13	2.02	0.41
55:1z:660:ARG:O	55:1z:665:GLY:N	2.50	0.41
1:2A:717:C:H2'	1:2A:718:C:C6	2.55	0.41
1:2A:954:A:C6	1:2A:957:C:C2	3.08	0.41
1:2A:1127:U:OP1	10:2K:125:ARG:HD2	2.20	0.41
1:2A:1510:C:H2'	1:2A:1511:G:H8	1.85	0.41
1:2A:1673:G:H2'	1:2A:1674:U:C6	2.55	0.41
1:2A:1986:C:H2'	1:2A:1987:A:C8	2.55	0.41
1:2A:2813:C:H2'	1:2A:2814:C:C6	2.54	0.41
2:2B:32:C:H42	2:2B:50:G:H1	1.68	0.41
3:2C:21:THR:HG22	3:2C:22:ILE:H	1.85	0.41
3:2C:163:PHE:CD2	3:2C:196:LEU:HD21	2.55	0.41
4:2D:4:LYS:HB3	4:2D:4:LYS:HE2	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2E:115:GLY:O	5:2E:119:ARG:HB2	2.20	0.41
6:2F:29:ASN:HB3	6:2F:112:MET:HE1	2.01	0.41
7:2G:11:TYR:HA	7:2G:15:VAL:HB	2.02	0.41
16:2Q:68:GLN:HE21	16:2Q:68:GLN:HB3	1.71	0.41
23:2X:8:TYR:N	23:2X:8:TYR:CD2	2.87	0.41
25:2Z:64:ALA:HA	25:2Z:67:ILE:HG13	2.02	0.41
25:2Z:94:LEU:O	25:2Z:97:LEU:HB2	2.19	0.41
34:2a:993:A:H1'	52:2s:34:TRP:HB2	2.02	0.41
45:2l:55:VAL:HG23	45:2l:69:TYR:HA	2.01	0.41
55:2z:493:VAL:O	55:2z:511:LYS:HG3	2.21	0.41
1:1A:1113:G:H21	1:1A:1140:A:HO2'	1.63	0.41
1:1A:1992:A:OP1	63:1A:3886:HOH:O	2.21	0.41
1:1A:2339:A:H2'	1:1A:2340:G:H8	1.82	0.41
1:1A:2504:U:OP2	58:1x:6:ARG:NH2	2.52	0.41
1:1A:2744:G:H3'	1:1A:2745:A:O4'	2.21	0.41
3:1C:195:ALA:O	3:1C:196:LEU:HB3	2.19	0.41
14:1O:85:LYS:N	14:1O:85:LYS:HD2	2.35	0.41
23:1X:180:VAL:O	23:1X:183:LEU:HB2	2.20	0.41
23:1X:183:LEU:HA	23:1X:183:LEU:HD23	1.85	0.41
31:15:16:HIS:HB2	31:15:44:PRO:HG2	2.01	0.41
34:1a:268:C:H2'	34:1a:269:A:H8	1.84	0.41
41:1h:87:SER:HA	41:1h:93:VAL:HG23	2.03	0.41
42:1i:24:GLY:HA2	42:1i:59:PHE:O	2.20	0.41
53:1t:56:MET:HE3	53:1t:84:LEU:HD22	2.02	0.41
55:1z:547:GLU:O	55:1z:551:GLN:NE2	2.54	0.41
1:2A:275:C:H2'	1:2A:276:G:O4'	2.20	0.41
1:2A:480:C:N3	1:2A:497:A:H2'	2.35	0.41
1:2A:651:A:C6	1:2A:661:A:C8	3.09	0.41
1:2A:1756:C:H2'	1:2A:1757:C:H6	1.84	0.41
1:2A:1846:G:O6	4:2D:35:LYS:NZ	2.46	0.41
1:2A:2187:G:O6	1:2A:2189:G:N2	2.52	0.41
2:2B:31:C:H4'	7:2G:29:TRP:CZ2	2.55	0.41
2:2B:66:A:H61	2:2B:108:U:H2'	1.85	0.41
7:2G:96:ARG:HB3	7:2G:97:ASP:H	1.49	0.41
10:2K:100:THR:HB	10:2K:101:TRP:H	1.63	0.41
12:2M:104:ARG:NH2	12:2M:121:VAL:O	2.54	0.41
13:2N:52:GLU:CG	32:26:57:ARG:HH22	2.32	0.41
13:2N:62:LEU:O	32:26:13:ARG:NH1	2.53	0.41
13:2N:135:LEU:HD23	13:2N:135:LEU:HA	1.75	0.41
14:2O:66:ILE:HG12	14:2O:104:PHE:CE1	2.56	0.41
20:2U:73:ALA:HB3	20:2U:106:ILE:HB	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:22:40:HIS:HA	28:22:41:PRO:HD2	1.73	0.41
34:2a:734:G:O2'	48:2o:21:ASP:OD1	2.38	0.41
34:2a:1137:G:H2'	34:2a:1138:G:C8	2.54	0.41
34:2a:1432:A:H5"	34:2a:1433:C:OP2	2.21	0.41
35:2b:115:LEU:HD13	35:2b:145:LEU:HB3	2.03	0.41
35:2b:204:ASN:OD1	35:2b:205:ASP:N	2.53	0.41
37:2d:61:LYS:HD2	37:2d:206:PHE:CE2	2.55	0.41
40:2g:24:THR:HA	40:2g:27:ILE:HD12	2.02	0.41
40:2g:75:VAL:HG13	40:2g:145:ALA:HA	2.01	0.41
42:2i:9:ARG:HG2	42:2i:14:VAL:HG13	2.02	0.41
42:2i:37:PHE:HA	42:2i:40:LEU:HD23	2.01	0.41
44:2k:55:LYS:HE3	44:2k:55:LYS:HB2	1.80	0.41
47:2n:13:THR:HA	47:2n:14:PRO:HD3	1.88	0.41
55:2z:509:HIS:O	55:2z:570:GLY:HA2	2.20	0.41
1:1A:353:A:H2	1:1A:1254:A:C2'	2.33	0.41
1:1A:597:A:OP2	1:1A:2076:C:N4	2.46	0.41
1:1A:1099:A:H2'	1:1A:1100:G:O4'	2.21	0.41
1:1A:1169:C:H2'	1:1A:1170:G:O4'	2.20	0.41
1:1A:1222:C:H2'	1:1A:1223:C:H6	1.85	0.41
1:1A:1302:C:H4'	6:1F:83:PHE:CD1	2.56	0.41
1:1A:1533:G:OP2	63:1A:3892:HOH:O	2.22	0.41
1:1A:1910:A:N1	1:1A:2245:G:H1'	2.35	0.41
1:1A:2033:G:OP1	20:1U:11:ARG:NH2	2.53	0.41
4:1D:68:LYS:HD3	4:1D:70:TRP:CH2	2.56	0.41
34:1a:953:A:N1	43:1j:48:THR:HB	2.35	0.41
34:1a:1021:C:O5'	34:1a:1021:C:H6	2.04	0.41
34:1a:1332:A:H2'	34:1a:1333:U:O4'	2.19	0.41
35:1b:24:TRP:HZ3	35:1b:29:ALA:HB2	1.85	0.41
39:1f:61:LEU:HD13	39:1f:61:LEU:HA	1.83	0.41
39:1f:89:MET:HG2	39:1f:91:VAL:HG23	2.02	0.41
51:1r:53:ARG:HA	51:1r:56:THR:OG1	2.20	0.41
52:1s:58:VAL:O	52:1s:60:VAL:HG23	2.20	0.41
1:2A:399:U:H1'	1:2A:449:A:N3	2.35	0.41
1:2A:754:C:H42	1:2A:769:G:H1	1.66	0.41
1:2A:979:C:H2'	1:2A:980:C:H6	1.86	0.41
1:2A:1107:G:P	1:2A:1115:A:H4'	2.61	0.41
1:2A:1252:C:C4	1:2A:1253:G:N7	2.88	0.41
1:2A:1541:A:N3	1:2A:1623:C:O2'	2.42	0.41
1:2A:2701:C:H6	1:2A:2701:C:OP2	2.03	0.41
2:2B:46:A:H2'	2:2B:47:C:H6	1.83	0.41
4:2D:88:ARG:NH1	63:2D:405:HOH:O	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2D:124:PRO:O	4:2D:126:GLN:N	2.53	0.41
16:2Q:83:LYS:O	16:2Q:84:GLN:HB2	2.21	0.41
34:2a:45:G:OP2	49:2p:12:LYS:HD3	2.19	0.41
34:2a:108:U:O2'	34:2a:109:G:H5'	2.20	0.41
34:2a:653:U:H2'	34:2a:654:G:H8	1.86	0.41
34:2a:803:A:H4'	34:2a:804:U:OP2	2.20	0.41
34:2a:931:G:H5'	34:2a:943:A:H61	1.84	0.41
34:2a:1032:U:C5	34:2a:1183:A:H5'	2.54	0.41
37:2d:25:ARG:NH1	37:2d:30:LYS:O	2.53	0.41
39:2f:67:MET:HE1	39:2f:75:LEU:HG	2.02	0.41
1:1A:25:G:C6	1:1A:26:G:N1	2.88	0.41
1:1A:69:A:N7	21:1V:31:HIS:HE1	2.19	0.41
1:1A:251:C:H2'	1:1A:252:C:O4'	2.20	0.41
1:1A:323:A:C5	1:1A:357:C:H4'	2.56	0.41
1:1A:1153:U:H1'	1:1A:1154:C:OP1	2.20	0.41
1:1A:2161:C:H2'	1:1A:2172:G:H22	1.86	0.41
1:1A:2198:C:H5'	3:1C:44:HIS:HB2	2.03	0.41
1:1A:2527:G:O2'	1:1A:2528:C:H5'	2.20	0.41
1:1A:2583:A:N7	5:1E:145:LYS:HB2	2.35	0.41
6:1F:129:PHE:HB3	6:1F:132:VAL:CG1	2.51	0.41
8:1H:154:PRO:HB3	8:1H:163:TYR:CZ	2.55	0.41
9:1J:18:GLU:O	9:1J:20:ALA:N	2.52	0.41
16:1Q:94:TYR:CZ	16:1Q:99:LYS:HG3	2.55	0.41
34:1a:431:C:H2'	34:1a:432:C:H6	1.84	0.41
34:1a:1001:G:H4'	34:1a:1001:G:OP1	2.21	0.41
35:1b:166:ASP:OD2	35:1b:169:LYS:HB2	2.21	0.41
38:1e:131:ILE:HD13	38:1e:131:ILE:HA	1.85	0.41
41:1h:51:VAL:HG21	41:1h:60:ARG:HG3	2.02	0.41
41:1h:86:ILE:HG21	41:1h:133:LEU:HD13	2.03	0.41
42:1i:17:VAL:HG11	42:1i:80:GLY:C	2.46	0.41
46:1m:22:ILE:HB	46:1m:25:ILE:HD12	2.01	0.41
48:1o:39:LEU:HB3	48:1o:56:LEU:HD13	2.02	0.41
53:1t:45:GLN:HE21	53:1t:45:GLN:HB3	1.63	0.41
55:1z:189:GLY:HA3	55:1z:195:ASP:OD2	2.21	0.41
55:1z:630:GLN:H	55:1z:630:GLN:HG2	1.59	0.41
1:2A:13:A:N1	1:2A:2065:C:O2'	2.46	0.41
1:2A:673:G:H4'	32:26:46:ARG:HH12	1.85	0.41
1:2A:865:A:C4	1:2A:1233:A:C2	3.08	0.41
1:2A:917:U:OP1	14:2O:5:ARG:HD2	2.19	0.41
1:2A:949:C:H2'	1:2A:950:U:C6	2.55	0.41
1:2A:1065:A:N1	1:2A:1185:U:O2'	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1466:G:C2	1:2A:1467:G:C8	3.09	0.41
1:2A:1525:G:H5"	1:2A:1606:G:H4'	2.03	0.41
1:2A:1614:G:H5'	4:2D:60:ARG:HA	2.03	0.41
3:2C:196:LEU:HD23	3:2C:196:LEU:HA	1.85	0.41
7:2G:111:LEU:HD23	7:2G:117:PHE:CZ	2.56	0.41
23:2X:24:LEU:HA	23:2X:25:PRO:HD3	1.95	0.41
24:2Y:14:ARG:HE	24:2Y:14:ARG:HB2	1.26	0.41
26:20:29:LYS:HG2	26:20:57:ILE:HD13	2.03	0.41
29:23:50:GLY:HA2	29:23:58:LEU:HD23	2.02	0.41
31:25:8:ASN:HB3	31:25:11:LYS:HB3	2.03	0.41
34:2a:427:A:H2'	34:2a:428:A:O4'	2.20	0.41
34:2a:1019:G:OP2	34:2a:1020:C:N4	2.46	0.41
34:2a:1251:A:N1	34:2a:1294:G:O2'	2.46	0.41
40:2g:132:GLY:O	40:2g:136:LYS:HG2	2.20	0.41
45:2l:8:ASN:OD1	50:2q:34:LYS:HE2	2.21	0.41
55:2z:-10:ARG:HE	55:2z:-10:ARG:HB3	1.54	0.41
55:2z:339:SER:O	55:2z:351:ARG:HD2	2.20	0.41
55:2z:491:VAL:HG11	55:2z:596:LYS:O	2.21	0.41
55:2z:605:ILE:CD1	55:2z:677:GLN:HG2	2.50	0.41
1:1A:966:G:H4'	1:1A:2280:A:C5	2.56	0.41
7:1G:96:ARG:O	7:1G:99:MET:HB3	2.21	0.41
10:1K:99:ILE:HG12	10:1K:103:GLN:HE21	1.84	0.41
13:1N:21:ARG:HA	13:1N:21:ARG:HD3	1.92	0.41
24:1Y:75:LEU:O	24:1Y:78:TYR:HE1	2.03	0.41
34:1a:230:C:H2'	34:1a:231:C:H6	1.85	0.41
34:1a:727:U:H2'	34:1a:728:C:C6	2.56	0.41
34:1a:835:C:H2'	34:1a:836:G:O4'	2.20	0.41
34:1a:1017:G:C2	34:1a:1018:A:H1'	2.56	0.41
34:1a:1091:G:H5'	36:1c:176:HIS:HD2	1.84	0.41
34:1a:1260:U:H3'	34:1a:1260:U:H6	1.85	0.41
35:1b:184:VAL:HG12	35:1b:197:VAL:HG13	2.01	0.41
38:1e:37:ARG:HH12	38:1e:111:GLU:HG2	1.85	0.41
38:1e:40:ARG:NH2	38:1e:68:GLU:HA	2.35	0.41
46:1m:81:LEU:O	46:1m:89:GLY:HA3	2.21	0.41
50:1q:3:LYS:HD2	50:1q:61:GLU:O	2.20	0.41
55:1z:236:GLU:H	55:1z:236:GLU:HG3	1.61	0.41
1:2A:641:G:C2	1:2A:642:C:C2	3.09	0.41
1:2A:2523:C:H2'	1:2A:2524:G:O4'	2.21	0.41
1:2A:2822:A:C6	1:2A:2823:C:C4	3.08	0.41
5:2E:78:LEU:C	5:2E:79:ARG:HG2	2.45	0.41
21:2V:11:PRO:HB3	21:2V:92:LEU:HD21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:2W:94:LYS:HA	22:2W:94:LYS:NZ	2.35	0.41
25:2Z:26:ARG:HE	25:2Z:26:ARG:HB3	1.67	0.41
34:2a:207:G:H1	34:2a:213:C:H42	1.69	0.41
34:2a:821:G:H2'	34:2a:822:G:C8	2.56	0.41
35:2b:211:ILE:O	35:2b:215:LEU:HB2	2.20	0.41
42:2i:111:ARG:NE	42:2i:112:LYS:O	2.54	0.41
47:2n:53:LEU:HA	47:2n:54:PRO:HD2	1.88	0.41
49:2p:28:ARG:NH1	49:2p:29:ASP:OD2	2.54	0.41
55:2z:91:THR:O	55:2z:92:ILE:HB	2.21	0.41
55:2z:392:GLU:O	55:2z:396:ARG:NH2	2.53	0.41
1:1A:26:G:O2'	1:1A:536:G:N2	2.53	0.41
1:1A:554:G:O4'	1:1A:554:G:N3	2.54	0.41
1:1A:733:C:H1'	31:15:4:THR:HG22	2.03	0.41
1:1A:927:G:C2	1:1A:942:C:C2	3.09	0.41
1:1A:1559:U:H2'	1:1A:1560:C:H6	1.85	0.41
1:1A:1828:U:H5'	4:1D:259:THR:CG2	2.35	0.41
1:1A:2127:G:C2	1:1A:2128:C:C2	3.09	0.41
1:1A:2258:A:H2'	1:1A:2259:C:C6	2.56	0.41
1:1A:2297:A:C6	30:14:34:LEU:HD11	2.55	0.41
1:1A:2316:A:H5"	7:1G:134:GLY:HA3	2.02	0.41
20:1U:13:SER:HA	20:1U:14:PRO:HD3	1.89	0.41
24:1Y:11:ARG:O	24:1Y:14:ARG:NH2	2.54	0.41
27:11:17:LYS:HE3	27:11:17:LYS:HB2	1.95	0.41
34:1a:156:A:H2	34:1a:343:G:H21	1.68	0.41
34:1a:1174:C:OP2	36:1c:4:LYS:NZ	2.53	0.41
34:1a:1255:G:C2	34:1a:1256:G:H1'	2.56	0.41
36:1c:47:LEU:HD23	36:1c:47:LEU:HA	1.84	0.41
42:1i:42:ARG:HH22	42:1i:75:ASP:CG	2.27	0.41
43:1j:70:ARG:HD3	43:1j:70:ARG:HA	1.79	0.41
50:1q:68:ARG:H	50:1q:70:ARG:NH1	2.19	0.41
51:1r:34:TYR:CE1	51:1r:35:ARG:HG3	2.56	0.41
55:1z:15:ILE:HA	55:1z:103:GLY:O	2.20	0.41
1:2A:638:G:H5"	1:2A:639:A:OP1	2.19	0.41
1:2A:1144:G:C6	1:2A:1145:C:C5	3.09	0.41
1:2A:1198:C:H2'	1:2A:1199:G:C8	2.56	0.41
1:2A:2127:G:N1	1:2A:2204:C:C2	2.86	0.41
1:2A:2760:A:C6	1:2A:2761:A:C5	3.08	0.41
1:2A:2859:A:H2'	1:2A:2860:A:C8	2.55	0.41
3:2C:8:ARG:HE	3:2C:8:ARG:HB2	1.65	0.41
4:2D:75:ILE:HA	4:2D:76:PRO:HD3	1.78	0.41
6:2F:32:LEU:O	6:2F:36:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2G:46:ALA:HB2	7:2G:53:LEU:HD12	2.02	0.41
11:2L:62:VAL:CG1	11:2L:66:LYS:HB2	2.51	0.41
14:2O:32:TYR:CE1	14:2O:133:ARG:HG3	2.56	0.41
15:2P:1:MET:HB2	15:2P:2:ARG:H	1.70	0.41
26:20:8:LYS:HA	26:20:8:LYS:HD2	1.82	0.41
34:2a:47:G:H2'	34:2a:362:C:C5	2.55	0.41
34:2a:125:A:H1'	34:2a:259:A:O2'	2.20	0.41
44:2k:84:VAL:HG11	44:2k:91:ARG:HD2	2.02	0.41
1:1A:553:A:H62	1:1A:2062:U:H3	1.68	0.41
1:1A:1920:G:N3	1:1A:1920:G:H2'	2.36	0.41
1:1A:2239:G:C5	1:1A:2240:C:C4	3.08	0.41
1:1A:2326:G:H2'	1:1A:2327:C:C6	2.56	0.41
3:1C:68:LEU:HB3	3:1C:69:GLY:H	1.59	0.41
4:1D:16:MET:HG3	4:1D:206:LEU:O	2.21	0.41
4:1D:275:LYS:HB3	4:1D:276:LYS:H	1.46	0.41
5:1E:101:ARG:NH1	5:1E:169:ASN:O	2.52	0.41
7:1G:53:LEU:HA	7:1G:53:LEU:HD23	1.81	0.41
13:1N:3:LEU:HD12	13:1N:3:LEU:HA	1.81	0.41
13:1N:55:ARG:HG2	13:1N:56:SER:N	2.35	0.41
14:1O:1:MET:HB2	14:1O:2:LEU:H	1.66	0.41
15:1P:22:ARG:O	15:1P:26:LYS:HG3	2.20	0.41
24:1Y:27:GLU:HG3	24:1Y:68:GLU:HA	2.03	0.41
29:13:16:ARG:NH1	29:13:17:ASP:OD1	2.46	0.41
34:1a:232:G:H2'	34:1a:233:C:C6	2.55	0.41
34:1a:431:C:H2'	34:1a:432:C:C6	2.55	0.41
34:1a:454:G:C6	34:1a:456:C:H5'	2.55	0.41
34:1a:698:G:H2'	34:1a:699:A:C8	2.56	0.41
34:1a:1298:G:H22	34:1a:1301:A:H5'	1.83	0.41
34:1a:1425:G:H1	34:1a:1439:G:H21	1.68	0.41
38:1e:12:LEU:HB3	38:1e:31:LEU:CB	2.50	0.41
52:1s:40:ILE:HB	52:1s:67:VAL:O	2.21	0.41
1:2A:165:G:H3'	1:2A:166:G:C8	2.55	0.41
1:2A:323:A:H8	22:2W:84:ARG:NH1	2.17	0.41
1:2A:473:U:C4	1:2A:605:G:H1'	2.56	0.41
1:2A:483:G:O2'	31:25:39:ARG:HD3	2.20	0.41
1:2A:548:U:H4'	1:2A:577:U:H4'	2.03	0.41
1:2A:552:A:H2	1:2A:2064:C:C5'	2.34	0.41
1:2A:1132:G:C6	1:2A:1134:G:C2	3.09	0.41
1:2A:2197:A:H4'	3:2C:44:HIS:CG	2.56	0.41
1:2A:2706:C:H2'	1:2A:2707:U:H6	1.84	0.41
4:2D:249:PRO:HD2	4:2D:250:TRP:CZ3	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2F:32:LEU:HB3	6:2F:112:MET:HE1	2.02	0.41
8:2H:103:LEU:HB3	8:2H:115:VAL:HG23	2.03	0.41
12:2M:118:ALA:HA	12:2M:119:PRO:HD3	1.95	0.41
14:2O:128:LYS:H	14:2O:128:LYS:HG2	1.73	0.41
16:2Q:28:VAL:HG11	16:2Q:98:VAL:HG13	2.02	0.41
23:2X:7:ALA:HA	23:2X:39:VAL:HG12	2.03	0.41
34:2a:781:C:H2'	34:2a:782:G:H8	1.86	0.41
34:2a:1103:G:C5	34:2a:1137:G:N2	2.89	0.41
34:2a:1245:C:H2'	34:2a:1246:C:C6	2.55	0.41
34:2a:1348:G:H2'	34:2a:1349:C:O4'	2.20	0.41
34:2a:1434:G:H1'	53:2t:39:LYS:HZ2	1.85	0.41
35:2b:15:VAL:HB	35:2b:209:ARG:HB3	2.03	0.41
36:2c:131:ARG:NH1	38:2e:50:GLU:HG3	2.36	0.41
40:2g:150:ALA:HB2	44:2k:50:TYR:OH	2.20	0.41
42:2i:3:GLN:HG2	42:2i:20:ARG:NE	2.34	0.41
48:2o:49:ASP:OD2	48:2o:52:SER:OG	2.34	0.41
1:1A:506:G:C4	1:1A:531:A:C2	3.09	0.41
1:1A:836:C:O2	58:1x:17:PRO:HG2	2.21	0.41
1:1A:1095:A:H2'	1:1A:1096:G:C8	2.56	0.41
1:1A:1354:G:P	31:15:9:ARG:HD3	2.61	0.41
1:1A:1764:U:H2'	1:1A:1765:G:O4'	2.21	0.41
1:1A:1824:U:H2'	1:1A:1825:C:C6	2.55	0.41
1:1A:2258:A:H2'	1:1A:2259:C:H6	1.85	0.41
1:1A:2325:C:H2'	1:1A:2326:G:C8	2.55	0.41
1:1A:2353:C:O2'	1:1A:2385:C:H5"	2.20	0.41
1:1A:2661:U:H2'	1:1A:2662:C:C6	2.56	0.41
1:1A:2797:C:OP1	5:1E:41:LYS:HE3	2.21	0.41
1:1A:2864:C:H2'	1:1A:2865:C:C6	2.55	0.41
2:1B:103:G:O2'	23:1X:73:GLN:NE2	2.53	0.41
6:1F:195:ASP:HB3	6:1F:198:ALA:H	1.85	0.41
14:1O:39:PRO:HA	14:1O:97:VAL:O	2.20	0.41
15:1P:21:TYR:OH	15:1P:43:GLU:HG2	2.21	0.41
23:1X:30:ASN:HA	23:1X:89:PHE:HE1	1.85	0.41
34:1a:117:C:H2'	34:1a:118:G:C8	2.56	0.41
34:1a:144:A:H2'	34:1a:145:C:C6	2.55	0.41
34:1a:232:G:H5"	50:1q:42:TYR:OH	2.21	0.41
34:1a:366:C:H2'	34:1a:367:G:C8	2.55	0.41
34:1a:417:U:O2'	34:1a:419:G:N7	2.53	0.41
34:1a:587:U:H2'	34:1a:588:G:C8	2.56	0.41
34:1a:662:U:H2'	34:1a:663:C:C6	2.56	0.41
34:1a:868:G:O2'	34:1a:884:G:O6	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1a:954:G:OP1	47:1n:32:SER:N	2.52	0.41
34:1a:957:C:O2	47:1n:19:ARG:NE	2.50	0.41
34:1a:1089:G:H5"	36:1c:172:ARG:HG2	2.02	0.41
34:1a:1377:A:N6	34:1a:1479:C:H5'	2.36	0.41
35:1b:94:ASN:HD22	35:1b:94:ASN:HA	1.64	0.41
35:1b:121:LEU:HD22	35:1b:121:LEU:HA	1.95	0.41
35:1b:141:GLU:O	35:1b:145:LEU:HD22	2.20	0.41
37:1d:59:ARG:NH2	37:1d:62:GLN:HG3	2.36	0.41
37:1d:188:LEU:HA	37:1d:189:PRO:HD3	1.94	0.41
39:1f:36:ARG:NH2	39:1f:66:GLU:OE1	2.53	0.41
42:1i:7:THR:O	42:1i:83:ARG:HD2	2.20	0.41
44:1k:23:ALA:HB1	44:1k:88:GLY:HA3	2.01	0.41
48:1o:71:GLN:HA	48:1o:78:TYR:HB2	2.03	0.41
52:1s:63:THR:HG23	52:1s:66:MET:HE3	2.03	0.41
55:1z:31:ARG:HA	55:1z:31:ARG:NE	2.30	0.41
55:1z:72:CYS:SG	55:1z:79:ILE:HB	2.61	0.41
55:1z:143:GLY:H	55:1z:171:GLU:CD	2.29	0.41
58:1x:6:ARG:HA	58:1x:7:PRO:HD2	1.82	0.41
1:2A:7:A:H2'	1:2A:8:U:O4'	2.21	0.41
1:2A:150:C:H2'	1:2A:151:G:C8	2.55	0.41
1:2A:299:A:H8	1:2A:299:A:O5'	2.04	0.41
1:2A:604:G:H2'	1:2A:605:G:C8	2.56	0.41
1:2A:673:G:C5	1:2A:674:C:C4	3.09	0.41
1:2A:722:A:H1'	1:2A:2454:C:H1'	2.03	0.41
1:2A:871:C:H2'	1:2A:872:U:O4'	2.21	0.41
1:2A:898:G:H2'	1:2A:899:G:H8	1.86	0.41
1:2A:924:A:OP1	1:2A:924:A:H4'	2.21	0.41
1:2A:977:A:OP1	27:21:24:LYS:NZ	2.45	0.41
1:2A:1015:C:H2'	1:2A:1016:G:O4'	2.21	0.41
1:2A:1185:U:OP2	11:2L:63:THR:OG1	2.36	0.41
1:2A:1187:A:C5	1:2A:1189:G:C5	3.09	0.41
1:2A:1328:G:N2	1:2A:1330:G:H3'	2.36	0.41
1:2A:1934:A:H4'	1:2A:1935:C:O5'	2.20	0.41
1:2A:1935:C:H2'	1:2A:1936:U:C6	2.56	0.41
1:2A:2496:G:H5"	14:2O:46:GLN:HE21	1.86	0.41
1:2A:2564:G:C2	1:2A:2594:G:H1'	2.56	0.41
1:2A:2639:C:H1'	1:2A:2793:A:H2'	2.03	0.41
1:2A:2690:A:H4'	5:2E:165:VAL:HG11	2.03	0.41
1:2A:2845:U:H2'	1:2A:2846:G:H8	1.84	0.41
1:2A:2848:G:H5'	15:2P:46:GLY:CA	2.47	0.41
1:2A:2849:C:O3'	15:2P:53:HIS:NE2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2878:G:H2'	1:2A:2879:C:O4'	2.21	0.41
3:2C:68:LEU:HB3	3:2C:69:GLY:H	1.58	0.41
5:2E:78:LEU:O	5:2E:79:ARG:HG2	2.21	0.41
7:2G:151:ALA:HB3	7:2G:153:ARG:NH1	2.36	0.41
8:2H:40:GLU:OE1	8:2H:61:HIS:NE2	2.53	0.41
14:2O:30:GLY:HA2	14:2O:107:ALA:HB2	2.03	0.41
17:2R:26:ASP:O	17:2R:49:VAL:HG12	2.21	0.41
17:2R:119:LYS:HB2	34:2a:1426:G:C2	2.55	0.41
25:2Z:75:GLU:O	25:2Z:78:LYS:HB2	2.21	0.41
34:2a:96:G:H2'	34:2a:97:C:H6	1.85	0.41
34:2a:129:A:H1'	34:2a:321:A:C5	2.56	0.41
34:2a:932:G:H21	34:2a:1209:A:H62	1.67	0.41
34:2a:1057:G:C6	34:2a:1058:C:C4	3.08	0.41
34:2a:1158:A:H2'	34:2a:1159:G:C8	2.56	0.41
35:2b:55:PHE:CD1	35:2b:221:LEU:HD12	2.56	0.41
35:2b:116:GLU:HA	35:2b:119:GLU:HB2	2.03	0.41
36:2c:9:GLY:N	47:2n:49:HIS:O	2.53	0.41
36:2c:22:TRP:CE2	36:2c:59:ARG:HD2	2.55	0.41
37:2d:100:ARG:O	37:2d:104:VAL:HG23	2.21	0.41
37:2d:156:GLU:O	37:2d:159:ARG:HB2	2.21	0.41
42:2i:114:TYR:HD1	43:2j:60:ARG:HB2	1.85	0.41
45:2l:88:GLY:O	45:2l:99:HIS:HD2	2.04	0.41
46:2m:81:LEU:HD11	46:2m:88:ARG:HH21	1.85	0.41
55:2z:20:HIS:HB2	55:2z:118:SER:OG	2.21	0.41
55:2z:264:LEU:HD12	62:2z:702:GDP:C4	2.56	0.41
55:2z:329:ARG:HD3	55:2z:331:TYR:CE2	2.55	0.41
55:2z:423:LYS:HE3	55:2z:423:LYS:HB3	1.87	0.41
55:2z:512:ILE:HD12	55:2z:589:ALA:HB1	2.02	0.41
55:2z:538:TYR:CE1	55:2z:579:GLU:HG2	2.56	0.41
1:1A:517:G:H2'	1:1A:518:G:O4'	2.20	0.41
1:1A:831:G:C6	1:1A:832:C:C4	3.09	0.41
1:1A:864:G:H4'	1:1A:884:C:O3'	2.20	0.41
1:1A:1450:U:H2'	1:1A:1451:U:H6	1.85	0.41
1:1A:1722:A:H2'	1:1A:1723:A:O4'	2.21	0.41
1:1A:1812:C:O2	1:1A:2619:G:O2'	2.37	0.41
1:1A:1934:A:H4'	1:1A:1935:C:H5"	2.02	0.41
1:1A:1945:C:H4'	57:1w:13:C:O2'	2.21	0.41
1:1A:2214:G:H2'	1:1A:2215:G:H8	1.86	0.41
1:1A:2242:C:OP1	25:1Z:42:GLN:HA	2.20	0.41
1:1A:2347:A:H61	24:1Y:43:THR:HG22	1.86	0.41
1:1A:2573:U:H1'	12:1M:23:ARG:HH11	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:1O:52:VAL:HA	14:1O:55:VAL:HG13	2.03	0.41
16:1Q:48:LEU:HD23	16:1Q:82:ILE:HD11	2.02	0.41
17:1R:27:THR:HB	17:1R:90:GLN:HB3	2.03	0.41
17:1R:128:GLU:HG2	17:1R:129:ARG:N	2.36	0.41
34:1a:414:C:H2'	34:1a:415:C:C6	2.56	0.41
34:1a:674:G:H2'	34:1a:675:G:O4'	2.21	0.41
37:1d:166:LYS:NZ	37:1d:179:GLU:OE2	2.31	0.41
41:1h:51:VAL:HG11	41:1h:60:ARG:NH1	2.35	0.41
42:1i:83:ARG:O	42:1i:86:VAL:HG23	2.20	0.41
45:1l:36:VAL:HG13	45:1l:82:VAL:HG22	2.02	0.41
50:1q:81:ARG:HA	50:1q:81:ARG:HD2	1.90	0.41
55:1z:94:VAL:HB	55:1z:124:GLN:HE22	1.86	0.41
1:2A:162:C:H2'	1:2A:163:G:O4'	2.21	0.41
1:2A:2046:C:H2'	1:2A:2047:C:C6	2.56	0.41
1:2A:2121:G:C2	1:2A:2211:G:C5	3.09	0.41
1:2A:2122:G:C6	1:2A:2123:U:C2	3.09	0.41
1:2A:2200:C:O5'	1:2A:2200:C:H6	2.03	0.41
1:2A:2314:G:O2'	7:2G:132:ASN:HB2	2.21	0.41
1:2A:2896:U:H2'	1:2A:2897:C:H6	1.86	0.41
3:2C:27:ARG:HG2	3:2C:182:PRO:HB3	2.03	0.41
7:2G:9:ARG:NH1	7:2G:13:GLU:OE1	2.54	0.41
7:2G:126:ASP:HB2	7:2G:130:ASN:O	2.21	0.41
8:2H:125:VAL:HG22	8:2H:131:VAL:HG22	2.03	0.41
11:2L:1:MET:HE1	18:2S:94:ASN:ND2	2.36	0.41
14:2O:66:ILE:HG12	14:2O:104:PHE:HD1	1.84	0.41
34:2a:682:G:C6	34:2a:683:C:C4	3.09	0.41
34:2a:931:G:N7	46:2m:104:ARG:NH2	2.69	0.41
35:2b:24:TRP:CE3	35:2b:26:PRO:HA	2.56	0.41
36:2c:3:ASN:HD22	36:2c:3:ASN:C	2.29	0.41
48:2o:57:LEU:HD23	48:2o:57:LEU:HA	1.91	0.41
55:2z:615:GLU:CD	55:2z:615:GLU:H	2.29	0.41
1:1A:319:C:H2'	1:1A:320:C:C6	2.56	0.40
1:1A:809:G:O2'	1:1A:811:G:H5'	2.21	0.40
1:1A:1133:A:H61	10:1K:130:SER:HA	1.87	0.40
1:1A:1687:A:H2'	1:1A:1688:G:O4'	2.20	0.40
1:1A:1972:U:O2	1:1A:1974:A:H8	2.03	0.40
6:1F:24:LEU:HB3	6:1F:115:ALA:HB2	2.03	0.40
7:1G:68:PRO:HB3	7:1G:92:VAL:HB	2.03	0.40
8:1H:88:LEU:HD13	8:1H:88:LEU:HA	1.83	0.40
11:1L:62:VAL:HG11	11:1L:66:LYS:HB2	2.03	0.40
13:1N:88:LEU:HD11	13:1N:114:ILE:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:1T:21:ARG:HD2	19:1T:91:TYR:CE1	2.55	0.40
22:1W:56:PRO:C	22:1W:58:GLY:H	2.29	0.40
26:10:32:LEU:O	26:10:36:ARG:HG3	2.21	0.40
28:12:40:HIS:HA	28:12:41:PRO:HD2	1.66	0.40
34:1a:280:G:H2'	34:1a:281:G:C8	2.56	0.40
34:1a:983:A:H5'	34:1a:1003:G:H1	1.86	0.40
35:1b:10:LEU:HB3	35:1b:11:LEU:H	1.57	0.40
36:1c:181:ASN:ND2	36:1c:204:LEU:HB2	2.36	0.40
37:1d:178:VAL:O	37:1d:180:GLY:N	2.50	0.40
55:1z:-34:ARG:HG3	55:1z:-32:LEU:HG	2.03	0.40
55:1z:20:HIS:CG	55:1z:21:ILE:N	2.89	0.40
55:1z:461:ILE:O	55:1z:465:ARG:HG3	2.20	0.40
1:2A:1098:C:C4	1:2A:1099:A:C8	3.09	0.40
1:2A:1325:G:N2	1:2A:1336:C:C2	2.89	0.40
1:2A:1934:A:H4'	1:2A:1935:C:C5'	2.52	0.40
1:2A:2155:A:H3'	1:2A:2156:A:C8	2.55	0.40
3:2C:22:ILE:HG21	3:2C:190:ARG:CG	2.51	0.40
4:2D:108:PRO:HB3	4:2D:143:HIS:HE1	1.85	0.40
4:2D:118:VAL:N	4:2D:129:ASN:OD1	2.45	0.40
6:2F:64:ILE:HD11	6:2F:75:HIS:HB2	2.02	0.40
16:2Q:87:PHE:HZ	16:2Q:98:VAL:HG12	1.86	0.40
17:2R:6:LEU:HD13	17:2R:6:LEU:HA	1.98	0.40
21:2V:5:TYR:HD1	26:20:33:MET:SD	2.43	0.40
25:2Z:3:LYS:HB2	25:2Z:61:ARG:NH1	2.35	0.40
26:20:63:VAL:HA	26:20:66:GLU:HB3	2.02	0.40
34:2a:90:U:C2'	34:2a:91:G:H5'	2.51	0.40
34:2a:454:G:C6	34:2a:456:C:H5'	2.56	0.40
34:2a:969:U:H4'	34:2a:970:U:OP1	2.21	0.40
34:2a:1102:C:H2'	34:2a:1103:G:H8	1.87	0.40
35:2b:71:VAL:HG12	35:2b:93:VAL:HG22	2.02	0.40
35:2b:114:ARG:NH1	35:2b:118:LEU:HD21	2.37	0.40
36:2c:131:ARG:HB2	36:2c:166:GLU:OE2	2.21	0.40
36:2c:191:THR:HG21	36:2c:193:TYR:CZ	2.56	0.40
42:2i:6:GLY:HA2	42:2i:83:ARG:HB3	2.03	0.40
43:2j:8:LEU:HB3	43:2j:16:LEU:HD22	2.02	0.40
44:2k:33:THR:HG22	44:2k:39:PRO:HA	2.02	0.40
44:2k:99:GLN:C	44:2k:101:SER:H	2.28	0.40
44:2k:120:ARG:HA	44:2k:121:PRO:HD3	1.85	0.40
45:2l:24:VAL:HG12	45:2l:27:LEU:HB2	2.02	0.40
51:2r:47:THR:HG23	51:2r:49:LYS:HG3	2.03	0.40
57:2w:19:G:H5"	57:2w:60:U:O4	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:76:A:H2'	1:1A:77:G:C8	2.56	0.40
1:1A:1111:U:O2'	1:1A:1112:A:N7	2.48	0.40
1:1A:1714:A:H4'	1:1A:1715:A:O5'	2.20	0.40
1:1A:2845:U:H2'	1:1A:2846:G:C8	2.56	0.40
5:1E:4:ILE:HD12	5:1E:91:VAL:HG12	2.03	0.40
8:1H:94:TYR:CD1	8:1H:94:TYR:N	2.89	0.40
8:1H:102:ALA:HB2	8:1H:116:GLU:HG3	2.03	0.40
13:1N:71:VAL:HG22	13:1N:72:PRO:HA	2.03	0.40
20:1U:78:GLU:OE2	20:1U:99:ARG:NH1	2.54	0.40
34:1a:5:U:O4	41:1h:105:ARG:HD3	2.22	0.40
34:1a:95:A:H2'	34:1a:96:G:C8	2.55	0.40
34:1a:491:C:OP2	34:1a:492:C:O2'	2.30	0.40
34:1a:499:G:N2	34:1a:521:G:C4	2.90	0.40
34:1a:507:A:H61	45:1l:53:ARG:NH1	2.20	0.40
34:1a:576:G:C2	34:1a:577:G:C8	3.09	0.40
34:1a:902:C:O2'	34:1a:1480:A:N6	2.54	0.40
34:1a:1116:G:H2'	34:1a:1117:G:H8	1.84	0.40
36:1c:60:ALA:HB3	36:1c:63:ASN:OD1	2.22	0.40
36:1c:108:ASN:HB3	36:1c:111:LEU:HB2	2.02	0.40
55:1z:500:GLN:HB3	55:1z:500:GLN:HE21	1.65	0.40
1:2A:83:G:O2'	1:2A:100:A:N1	2.49	0.40
1:2A:174:G:H2'	1:2A:175:G:C8	2.56	0.40
1:2A:299:A:H5"	1:2A:300:C:H5'	2.03	0.40
1:2A:501:G:N1	1:2A:504:A:OP2	2.49	0.40
1:2A:545:G:H2'	1:2A:546:G:C8	2.56	0.40
1:2A:765:C:H2'	1:2A:766:C:H6	1.86	0.40
1:2A:1050:C:H2'	1:2A:1051:C:C6	2.57	0.40
1:2A:1107:G:N2	1:2A:1122:A:H1'	2.36	0.40
1:2A:1185:U:H4'	1:2A:1187:A:O4'	2.21	0.40
1:2A:1196:G:H4'	18:2S:81:HIS:CG	2.57	0.40
1:2A:2769:A:N1	8:2H:67:LEU:HD22	2.36	0.40
2:2B:33:G:C2	2:2B:50:G:C2	3.09	0.40
2:2B:75:G:N1	2:2B:103:G:N2	2.69	0.40
5:2E:1:MET:HE1	5:2E:199:ARG:HB3	2.02	0.40
22:2W:14:LEU:HB2	22:2W:75:ILE:HD11	2.02	0.40
23:2X:72:ARG:HA	23:2X:72:ARG:HD3	1.63	0.40
25:2Z:52:ARG:NH2	25:2Z:57:GLU:HB2	2.36	0.40
34:2a:341:C:H4'	34:2a:342:G:C4	2.55	0.40
34:2a:372:G:H5"	49:2p:5:ARG:HB2	2.02	0.40
34:2a:1046:C:H2'	34:2a:1047:G:C8	2.56	0.40
34:2a:1055:G:C5	34:2a:1056:U:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2a:1231:C:H4'	42:2i:73:GLN:HE22	1.86	0.40
39:2f:19:LEU:HD23	39:2f:23:LYS:HD2	2.03	0.40
41:2h:98:LYS:HE3	41:2h:98:LYS:HB2	1.98	0.40
45:2l:28:LYS:HA	45:2l:29:GLY:HA2	1.89	0.40
52:2s:58:VAL:O	52:2s:60:VAL:HG23	2.21	0.40
55:2z:431:LEU:HD11	55:2z:465:ARG:CZ	2.50	0.40
55:2z:639:ASN:N	55:2z:640:ALA:HB3	2.36	0.40
57:2w:52:G:C4	57:2w:53:G:C8	3.09	0.40
1:1A:1780:G:O2'	1:1A:2869:A:N1	2.47	0.40
1:1A:2297:A:H4'	1:1A:2298:A:O4'	2.22	0.40
1:1A:2454:C:H2'	1:1A:2455:G:H8	1.86	0.40
1:1A:2572:A:H2'	1:1A:2573:U:O4'	2.21	0.40
1:1A:2873:G:OP1	17:1R:119:LYS:HD2	2.21	0.40
3:1C:161:ILE:HD12	3:1C:174:PRO:O	2.21	0.40
34:1a:825:U:C5	34:1a:826:C:H1'	2.57	0.40
34:1a:1299:C:H5"	34:1a:1300:A:OP2	2.21	0.40
34:1a:1409:C:H2'	34:1a:1410:U:C6	2.57	0.40
48:1o:56:LEU:O	48:1o:60:VAL:HG23	2.21	0.40
55:1z:272:LEU:O	55:1z:276:VAL:HG23	2.20	0.40
55:1z:294:PRO:HG3	55:1z:396:ARG:O	2.21	0.40
55:1z:539:ILE:HD13	55:1z:539:ILE:HA	1.92	0.40
58:1x:16:ARG:HA	58:1x:17:PRO:HD3	1.91	0.40
1:2A:384:G:O2'	1:2A:385:U:H5'	2.20	0.40
1:2A:894:G:C4	1:2A:977:A:C8	3.07	0.40
1:2A:1109:C:H5'	10:2K:89:HIS:CD2	2.47	0.40
1:2A:1169:C:H2'	1:2A:1170:G:O4'	2.21	0.40
1:2A:1222:C:H2'	1:2A:1223:C:C6	2.57	0.40
1:2A:1784:C:H2'	1:2A:1785:A:O4'	2.21	0.40
1:2A:1813:A:H5"	1:2A:2619:G:H4'	2.02	0.40
1:2A:2082:G:N1	58:2x:10:LEU:HD12	2.37	0.40
1:2A:2568:G:H2'	1:2A:2569:C:C6	2.56	0.40
4:2D:96:HIS:HD2	4:2D:102:LYS:HG2	1.85	0.40
6:2F:13:SER:OG	6:2F:18:ARG:HG3	2.21	0.40
7:2G:20:ILE:O	7:2G:24:GLY:N	2.51	0.40
8:2H:126:PRO:HB2	8:2H:127:GLU:OE2	2.21	0.40
10:2K:105:LEU:O	10:2K:108:ALA:HB3	2.21	0.40
10:2K:117:THR:HB	10:2K:126:MET:SD	2.61	0.40
11:2L:43:THR:HA	11:2L:44:PRO:HD3	1.93	0.40
11:2L:86:PRO:HG2	11:2L:89:LYS:HB2	2.03	0.40
12:2M:2:ILE:HG13	12:2M:8:LEU:HD11	2.03	0.40
14:2O:39:PRO:HA	14:2O:97:VAL:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2O:108:GLY:HA3	23:2X:116:VAL:HG13	2.03	0.40
21:2V:9:LEU:HA	26:20:36:ARG:HH21	1.87	0.40
29:23:16:ARG:NH1	29:23:17:ASP:OD1	2.51	0.40
34:2a:1133:U:H4'	43:2j:41:PRO:HG3	2.03	0.40
35:2b:88:ALA:HB1	35:2b:222:ILE:HD11	2.04	0.40
37:2d:70:ILE:HD11	37:2d:74:GLN:HB3	2.03	0.40
50:2q:45:HIS:CE1	50:2q:65:ILE:HG21	2.56	0.40
55:2z:-29:LEU:HB3	55:2z:-27:THR:HG22	2.04	0.40
55:2z:404:VAL:H	55:2z:405:PRO:HD3	1.87	0.40
55:2z:532:GLY:HA2	55:2z:536:LYS:HZ3	1.87	0.40
1:1A:568:G:H8	1:1A:568:G:O5'	2.05	0.40
1:1A:622:G:H2'	1:1A:623:C:O4'	2.22	0.40
1:1A:800:C:H2'	1:1A:801:C:C6	2.57	0.40
1:1A:841:C:H2'	1:1A:842:C:C6	2.57	0.40
1:1A:988:G:H5"	1:1A:989:A:O5'	2.21	0.40
1:1A:1511:G:O2'	1:1A:1591:A:N1	2.53	0.40
1:1A:1603:C:H5"	1:1A:1604:A:OP2	2.21	0.40
1:1A:2117:U:H2'	1:1A:2118:C:C6	2.56	0.40
1:1A:2139:U:H4'	1:1A:2140:A:OP1	2.21	0.40
2:1B:88:C:H2'	2:1B:89:G:O4'	2.20	0.40
2:1B:94:C:H2'	2:1B:95:C:H6	1.86	0.40
4:1D:111:LEU:HD23	4:1D:111:LEU:HA	1.85	0.40
6:1F:32:LEU:O	6:1F:36:VAL:HG23	2.22	0.40
23:1X:16:SER:O	23:1X:20:ARG:HG3	2.22	0.40
23:1X:30:ASN:HD22	23:1X:90:VAL:HB	1.86	0.40
23:1X:180:VAL:HG13	23:1X:183:LEU:HD12	2.03	0.40
25:1Z:3:LYS:O	25:1Z:12:PRO:HD3	2.22	0.40
25:1Z:35:THR:OG1	25:1Z:35:THR:O	2.40	0.40
34:1a:812:A:H2'	34:1a:813:G:O4'	2.21	0.40
34:1a:853:C:O2'	41:1h:14:ARG:HD2	2.21	0.40
34:1a:867:A:H4'	34:1a:868:G:OP1	2.22	0.40
34:1a:953:A:H4'	34:1a:954:G:C5'	2.46	0.40
34:1a:995:A:H2'	34:1a:996:G:O4'	2.21	0.40
38:1e:76:ILE:HD12	38:1e:142:LEU:HD21	2.02	0.40
40:1g:104:LEU:HA	40:1g:104:LEU:HD13	1.79	0.40
49:1p:74:LEU:O	49:1p:79:VAL:HG22	2.22	0.40
50:1q:55:ASP:O	50:1q:57:VAL:HG13	2.21	0.40
55:1z:13:ARG:HH21	55:1z:77:HIS:CE1	2.39	0.40
57:1w:68:C:H2'	57:1w:69:C:C6	2.56	0.40
58:1x:7:PRO:HA	58:1x:8:PRO:HD3	1.89	0.40
1:2A:508:A:H3'	1:2A:509:C:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1703:C:H2'	1:2A:1704:C:C6	2.56	0.40
1:2A:2044:G:H4'	1:2A:2628:C:O3'	2.21	0.40
4:2D:75:ILE:HG21	4:2D:99:ASP:HB3	2.04	0.40
6:2F:196:LEU:HA	6:2F:196:LEU:HD23	1.78	0.40
7:2G:148:MET:H	7:2G:148:MET:HG3	1.40	0.40
14:2O:59:ARG:HA	23:2X:180:VAL:HG23	2.03	0.40
17:2R:120:ARG:HA	17:2R:123:GLN:HG3	2.04	0.40
23:2X:20:ARG:C	23:2X:22:GLY:H	2.30	0.40
34:2a:124:G:C6	34:2a:189:U:H4'	2.56	0.40
34:2a:514:G:O2'	34:2a:515:U:OP1	2.33	0.40
34:2a:662:U:H2'	34:2a:663:C:C6	2.57	0.40
34:2a:1007:C:C2	34:2a:1016:G:N1	2.89	0.40
34:2a:1061:U:H1'	38:2e:130:ASN:HD21	1.86	0.40
34:2a:1252:C:H2'	34:2a:1253:G:C8	2.56	0.40
34:2a:1494:G:H2'	34:2a:1496:A:OP2	2.21	0.40
36:2c:22:TRP:CB	36:2c:59:ARG:HB2	2.51	0.40
36:2c:72:LYS:HA	36:2c:73:PRO:HD3	1.82	0.40
36:2c:112:SER:O	36:2c:116:VAL:HG23	2.22	0.40
37:2d:119:GLN:HG3	37:2d:123:HIS:CD2	2.56	0.40
54:2u:9:ARG:CZ	54:2u:9:ARG:HB3	2.51	0.40
55:2z:-27:THR:O	55:2z:-23:LEU:HB2	2.21	0.40
55:2z:497:PHE:HD1	55:2z:497:PHE:HA	1.81	0.40
57:2w:73:A:O5'	57:2w:73:A:H8	2.04	0.40
1:1A:591:U:C4	1:1A:592:G:C6	3.10	0.40
1:1A:636:U:H4'	1:1A:639:A:C6	2.56	0.40
4:1D:89:SER:HB2	4:1D:201:HIS:CD2	2.57	0.40
7:1G:38:VAL:HG22	7:1G:93:THR:HG23	2.03	0.40
7:1G:39:ILE:HB	7:1G:92:VAL:HG12	2.02	0.40
20:1U:24:ILE:HA	20:1U:27:LYS:HG3	2.03	0.40
34:1a:712:A:C5	48:1o:54:ARG:HD2	2.56	0.40
34:1a:1486:G:H2'	34:1a:1487:C:C6	2.56	0.40
35:1b:12:GLU:O	35:1b:15:VAL:HG22	2.21	0.40
37:1d:194:LEU:HD12	37:1d:195:ALA:H	1.86	0.40
38:1e:103:GLY:O	38:1e:106:PRO:HD2	2.21	0.40
39:1f:42:GLU:OE1	39:1f:59:TYR:OH	2.25	0.40
41:1h:75:ARG:HA	41:1h:76:PRO:HD2	1.90	0.40
45:1l:54:LYS:N	45:1l:54:LYS:HD2	2.36	0.40
55:1z:186:TYR:CD2	55:1z:271:LEU:HD21	2.57	0.40
55:1z:620:VAL:HG12	55:1z:621:ILE:HD12	2.03	0.40
1:2A:6:G:H2'	1:2A:7:A:C8	2.56	0.40
1:2A:184:A:H2'	1:2A:184:A:N3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:377:G:H2'	1:2A:378:G:O4'	2.21	0.40
1:2A:629:U:OP1	6:2F:103:LYS:HG3	2.21	0.40
1:2A:814:G:C6	1:2A:815:G:C5	3.10	0.40
1:2A:1069:G:C6	1:2A:1070:G:C6	3.10	0.40
1:2A:1104:G:H2'	10:2K:130:SER:HB2	2.04	0.40
1:2A:2103:A:H3'	1:2A:2104:G:H8	1.85	0.40
1:2A:2297:A:H4'	1:2A:2298:A:O4'	2.21	0.40
3:2C:174:PRO:HA	3:2C:175:VAL:HA	1.95	0.40
5:2E:14:ILE:HG13	5:2E:21:VAL:HG13	2.03	0.40
8:2H:11:VAL:HG21	8:2H:50:VAL:HG23	2.04	0.40
14:2O:54:MET:HG3	14:2O:121:ALA:HB2	2.04	0.40
15:2P:51:LEU:HD22	15:2P:66:VAL:HG13	2.03	0.40
21:2V:31:HIS:CD2	21:2V:33:LYS:HB2	2.56	0.40
24:2Y:18:ALA:HB3	24:2Y:20:ARG:NH2	2.37	0.40
34:2a:425:U:H3'	37:2d:9:CYS:SG	2.61	0.40
34:2a:928:U:H2'	34:2a:929:G:H8	1.86	0.40
34:2a:1018:A:H2'	34:2a:1019:G:H8	1.86	0.40
34:2a:1281:A:C5	34:2a:1283:U:C2	3.09	0.40
36:2c:132:ARG:O	36:2c:136:GLN:HG2	2.21	0.40
37:2d:47:ARG:HB3	37:2d:47:ARG:HE	1.68	0.40
41:2h:34:GLU:HB3	41:2h:118:VAL:HG21	2.04	0.40
51:2r:32:ARG:HA	51:2r:69:THR:HG21	2.02	0.40
53:2t:10:LEU:HD23	53:2t:12:ALA:HB2	2.02	0.40
53:2t:82:SER:O	53:2t:86:ARG:HG3	2.22	0.40
55:2z:75:LYS:O	55:2z:77:HIS:HD2	2.05	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
3	1C	129/229 (56%)	96 (74%)	25 (19%)	8 (6%)	1 6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	2C	129/229 (56%)	96 (74%)	26 (20%)	7 (5%)	1 9
4	1D	273/276 (99%)	258 (94%)	12 (4%)	3 (1%)	11 43
4	2D	273/276 (99%)	253 (93%)	16 (6%)	4 (2%)	8 35
5	1E	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	24 60
5	2E	202/206 (98%)	193 (96%)	8 (4%)	1 (0%)	24 60
6	1F	201/210 (96%)	192 (96%)	8 (4%)	1 (0%)	24 60
6	2F	201/210 (96%)	195 (97%)	5 (2%)	1 (0%)	24 60
7	1G	179/182 (98%)	162 (90%)	16 (9%)	1 (1%)	21 56
7	2G	179/182 (98%)	160 (89%)	16 (9%)	3 (2%)	7 32
8	1H	172/180 (96%)	159 (92%)	12 (7%)	1 (1%)	21 56
8	2H	172/180 (96%)	159 (92%)	12 (7%)	1 (1%)	21 56
9	1J	128/173 (74%)	71 (56%)	37 (29%)	20 (16%)	0 0
9	2J	128/173 (74%)	81 (63%)	26 (20%)	21 (16%)	0 0
10	1K	65/147 (44%)	52 (80%)	11 (17%)	2 (3%)	3 19
10	2K	64/147 (44%)	45 (70%)	17 (27%)	2 (3%)	3 19
11	1L	138/140 (99%)	135 (98%)	3 (2%)	0	100 100
11	2L	138/140 (99%)	134 (97%)	3 (2%)	1 (1%)	18 53
12	1M	120/122 (98%)	114 (95%)	6 (5%)	0	100 100
12	2M	120/122 (98%)	113 (94%)	7 (6%)	0	100 100
13	1N	147/150 (98%)	139 (95%)	6 (4%)	2 (1%)	9 36
13	2N	147/150 (98%)	139 (95%)	5 (3%)	3 (2%)	6 28
14	1O	139/141 (99%)	129 (93%)	9 (6%)	1 (1%)	18 53
14	2O	139/141 (99%)	126 (91%)	11 (8%)	2 (1%)	9 36
15	1P	116/118 (98%)	109 (94%)	7 (6%)	0	100 100
15	2P	116/118 (98%)	110 (95%)	6 (5%)	0	100 100
16	1Q	108/112 (96%)	97 (90%)	9 (8%)	2 (2%)	6 30
16	2Q	108/112 (96%)	98 (91%)	8 (7%)	2 (2%)	6 30
17	1R	129/146 (88%)	118 (92%)	9 (7%)	2 (2%)	7 34
17	2R	129/146 (88%)	123 (95%)	6 (5%)	0	100 100
18	1S	114/118 (97%)	113 (99%)	1 (1%)	0	100 100
18	2S	114/118 (97%)	113 (99%)	1 (1%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
19	1T	99/101 (98%)	94 (95%)	4 (4%)	1 (1%)	12 45
19	2T	99/101 (98%)	91 (92%)	6 (6%)	2 (2%)	6 28
20	1U	110/113 (97%)	108 (98%)	2 (2%)	0	100 100
20	2U	110/113 (97%)	109 (99%)	1 (1%)	0	100 100
21	1V	93/96 (97%)	91 (98%)	1 (1%)	1 (1%)	11 43
21	2V	93/96 (97%)	90 (97%)	2 (2%)	1 (1%)	11 43
22	1W	105/110 (96%)	92 (88%)	12 (11%)	1 (1%)	12 45
22	2W	105/110 (96%)	95 (90%)	10 (10%)	0	100 100
23	1X	184/206 (89%)	164 (89%)	17 (9%)	3 (2%)	7 34
23	2X	184/206 (89%)	161 (88%)	20 (11%)	3 (2%)	7 34
24	1Y	74/85 (87%)	72 (97%)	2 (3%)	0	100 100
24	2Y	73/85 (86%)	70 (96%)	3 (4%)	0	100 100
25	1Z	95/98 (97%)	90 (95%)	4 (4%)	1 (1%)	11 43
25	2Z	95/98 (97%)	89 (94%)	5 (5%)	1 (1%)	11 43
26	10	68/72 (94%)	64 (94%)	3 (4%)	1 (2%)	8 35
26	20	68/72 (94%)	66 (97%)	2 (3%)	0	100 100
27	11	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
27	21	57/60 (95%)	52 (91%)	5 (9%)	0	100 100
28	12	67/71 (94%)	51 (76%)	13 (19%)	3 (4%)	2 12
28	22	67/71 (94%)	49 (73%)	12 (18%)	6 (9%)	0 3
29	13	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
29	23	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
30	14	51/54 (94%)	50 (98%)	1 (2%)	0	100 100
30	24	51/54 (94%)	50 (98%)	1 (2%)	0	100 100
31	15	46/49 (94%)	45 (98%)	1 (2%)	0	100 100
31	25	46/49 (94%)	44 (96%)	0	2 (4%)	2 12
32	16	62/65 (95%)	60 (97%)	2 (3%)	0	100 100
32	26	62/65 (95%)	60 (97%)	2 (3%)	0	100 100
33	17	35/37 (95%)	34 (97%)	1 (3%)	0	100 100
33	27	35/37 (95%)	34 (97%)	1 (3%)	0	100 100
35	1b	229/256 (90%)	193 (84%)	27 (12%)	9 (4%)	2 14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
35	2b	229/256 (90%)	193 (84%)	28 (12%)	8 (4%)	3 16
36	1c	204/239 (85%)	181 (89%)	20 (10%)	3 (2%)	8 35
36	2c	204/239 (85%)	185 (91%)	14 (7%)	5 (2%)	4 23
37	1d	206/209 (99%)	184 (89%)	22 (11%)	0	100 100
37	2d	206/209 (99%)	182 (88%)	24 (12%)	0	100 100
38	1e	146/162 (90%)	133 (91%)	13 (9%)	0	100 100
38	2e	146/162 (90%)	134 (92%)	11 (8%)	1 (1%)	18 53
39	1f	98/101 (97%)	92 (94%)	5 (5%)	1 (1%)	12 45
39	2f	98/101 (97%)	92 (94%)	5 (5%)	1 (1%)	12 45
40	1g	153/156 (98%)	139 (91%)	13 (8%)	1 (1%)	18 53
40	2g	153/156 (98%)	140 (92%)	9 (6%)	4 (3%)	4 23
41	1h	135/138 (98%)	128 (95%)	7 (5%)	0	100 100
41	2h	135/138 (98%)	126 (93%)	8 (6%)	1 (1%)	18 53
42	1i	125/128 (98%)	109 (87%)	15 (12%)	1 (1%)	16 50
42	2i	125/128 (98%)	109 (87%)	15 (12%)	1 (1%)	16 50
43	1j	95/105 (90%)	81 (85%)	9 (10%)	5 (5%)	1 9
43	2j	94/105 (90%)	83 (88%)	8 (8%)	3 (3%)	3 18
44	1k	112/129 (87%)	101 (90%)	10 (9%)	1 (1%)	14 48
44	2k	112/129 (87%)	102 (91%)	9 (8%)	1 (1%)	14 48
45	1l	120/132 (91%)	114 (95%)	6 (5%)	0	100 100
45	2l	120/132 (91%)	112 (93%)	7 (6%)	1 (1%)	16 50
46	1m	121/126 (96%)	107 (88%)	12 (10%)	2 (2%)	7 32
46	2m	120/126 (95%)	106 (88%)	13 (11%)	1 (1%)	16 50
47	1n	58/61 (95%)	54 (93%)	4 (7%)	0	100 100
47	2n	58/61 (95%)	54 (93%)	4 (7%)	0	100 100
48	1o	86/89 (97%)	80 (93%)	4 (5%)	2 (2%)	5 25
48	2o	86/89 (97%)	79 (92%)	5 (6%)	2 (2%)	5 25
49	1p	80/88 (91%)	75 (94%)	5 (6%)	0	100 100
49	2p	80/88 (91%)	75 (94%)	5 (6%)	0	100 100
50	1q	97/105 (92%)	89 (92%)	8 (8%)	0	100 100
50	2q	97/105 (92%)	90 (93%)	7 (7%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
51	1r	66/88 (75%)	65 (98%)	1 (2%)	0	100 100
51	2r	66/88 (75%)	64 (97%)	2 (3%)	0	100 100
52	1s	82/93 (88%)	70 (85%)	12 (15%)	0	100 100
52	2s	81/93 (87%)	70 (86%)	8 (10%)	3 (4%)	2 15
53	1t	94/106 (89%)	85 (90%)	5 (5%)	4 (4%)	2 12
53	2t	94/106 (89%)	87 (93%)	5 (5%)	2 (2%)	5 27
54	1u	21/27 (78%)	18 (86%)	3 (14%)	0	100 100
54	2u	21/27 (78%)	17 (81%)	2 (10%)	2 (10%)	0 2
55	1z	726/758 (96%)	610 (84%)	92 (13%)	24 (3%)	3 17
55	2z	726/758 (96%)	609 (84%)	95 (13%)	22 (3%)	3 19
58	1x	17/35 (49%)	16 (94%)	0	1 (6%)	1 7
58	2x	17/35 (49%)	13 (76%)	1 (6%)	3 (18%)	0 0
All	All	13263/14516 (91%)	11963 (90%)	1067 (8%)	233 (2%)	6 31

All (233) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	1C	175	VAL
3	1C	224	ILE
6	1F	130	ALA
7	1G	51	ARG
8	1H	126	PRO
9	1J	29	TYR
9	1J	74	LEU
9	1J	77	PRO
9	1J	80	VAL
9	1J	104	ILE
9	1J	105	PRO
9	1J	125	LEU
10	1K	87	GLY
10	1K	89	HIS
16	1Q	59	LYS
28	12	49	PHE
28	12	53	GLU
35	1b	9	GLU
35	1b	16	HIS
35	1b	17	PHE
35	1b	125	PRO

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Mol	Chain	Res	Type
35	1b	231	GLU
35	1b	232	PRO
42	1i	54	ASP
43	1j	55	LYS
43	1j	56	HIS
46	1m	3	ARG
55	1z	-25	SER
55	1z	172	ASP
55	1z	400	GLU
55	1z	402	ILE
55	1z	404	VAL
55	1z	472	VAL
55	1z	473	ASP
55	1z	617	MET
3	2C	51	PRO
3	2C	52	ARG
3	2C	224	ILE
4	2D	275	LYS
6	2F	21	ALA
7	2G	51	ARG
7	2G	81	LYS
7	2G	181	ARG
8	2H	126	PRO
9	2J	33	PRO
9	2J	39	ALA
9	2J	53	VAL
9	2J	71	LEU
9	2J	74	LEU
9	2J	77	PRO
9	2J	106	GLN
10	2K	89	HIS
28	22	46	GLN
28	22	62	ARG
31	25	46	VAL
35	2b	121	LEU
35	2b	125	PRO
36	2c	101	LEU
40	2g	4	ARG
40	2g	33	ASP
40	2g	79	ARG
42	2i	54	ASP
44	2k	106	LYS

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Mol	Chain	Res	Type
46	2m	107	ALA
52	2s	30	LEU
54	2u	3	LYS
55	2z	92	ILE
55	2z	153	MET
55	2z	402	ILE
55	2z	472	VAL
55	2z	617	MET
3	1C	196	LEU
9	1J	20	ALA
9	1J	31	GLY
9	1J	33	PRO
9	1J	66	LEU
9	1J	78	SER
9	1J	91	LYS
9	1J	93	LEU
9	1J	101	PRO
9	1J	107	VAL
9	1J	132	ASP
14	1O	59	ARG
21	1V	94	GLY
23	1X	152	ALA
23	1X	172	ALA
35	1b	37	ASN
39	1f	40	VAL
40	1g	79	ARG
43	1j	31	GLY
43	1j	75	ILE
43	1j	80	LYS
46	1m	118	ALA
53	1t	47	GLY
53	1t	96	GLY
53	1t	100	ILE
55	1z	88	VAL
55	1z	269	VAL
55	1z	446	THR
55	1z	447	GLY
55	1z	555	LEU
3	2C	68	LEU
4	2D	3	VAL
4	2D	239	ARG
9	2J	69	PRO

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Mol	Chain	Res	Type
9	2J	80	VAL
9	2J	84	GLU
9	2J	93	LEU
9	2J	94	VAL
9	2J	107	VAL
9	2J	113	GLN
19	2T	79	VAL
21	2V	94	GLY
23	2X	175	VAL
28	22	45	GLY
35	2b	9	GLU
35	2b	10	LEU
36	2c	107	GLN
36	2c	181	ASN
43	2j	78	ASN
45	2l	28	LYS
48	2o	19	PRO
53	2t	47	GLY
55	2z	-25	SER
55	2z	88	VAL
55	2z	93	GLU
55	2z	380	LEU
55	2z	671	MET
58	2x	14	ARG
3	1C	68	LEU
3	1C	172	HIS
3	1C	183	GLU
9	1J	56	ASN
13	1N	122	PRO
36	1c	65	ALA
48	1o	19	PRO
55	1z	-4	ALA
55	1z	39	ILE
55	1z	85	PRO
55	1z	171	GLU
55	1z	554	PRO
55	1z	671	MET
9	2J	91	LYS
9	2J	126	ALA
10	2K	113	PRO
13	2N	29	LYS
16	2Q	84	GLN

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Mol	Chain	Res	Type
19	2T	53	GLU
23	2X	114	GLY
25	2Z	3	LYS
28	22	60	GLN
31	25	45	ALA
38	2e	37	ARG
43	2j	75	ILE
48	2o	23	GLY
54	2u	4	GLY
55	2z	-1	GLU
55	2z	85	PRO
55	2z	170	ARG
55	2z	404	VAL
4	1D	275	LYS
5	1E	52	LEU
9	1J	124	ALA
13	1N	29	LYS
17	1R	128	GLU
19	1T	79	VAL
23	1X	157	LEU
48	1o	23	GLY
53	1t	102	GLY
55	1z	521	SER
58	1x	18	LEU
3	2C	172	HIS
5	2E	52	LEU
9	2J	30	GLN
13	2N	122	PRO
14	2O	27	VAL
14	2O	59	ARG
35	2b	20	GLU
36	2c	70	VAL
36	2c	108	ASN
52	2s	25	LYS
55	2z	-65	LYS
55	2z	460	GLU
58	2x	4	ARG
3	1C	178	ALA
9	1J	114	GLY
16	1Q	60	GLY
22	1W	54	LYS
26	10	69	ARG

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Mol	Chain	Res	Type
35	1b	121	LEU
36	1c	66	VAL
55	1z	403	GLU
55	1z	471	LYS
9	2J	54	ALA
9	2J	68	LEU
11	2L	2	LYS
13	2N	45	LEU
23	2X	157	LEU
28	22	44	THR
28	22	68	ARG
35	2b	120	ALA
39	2f	40	VAL
41	2h	73	ASP
52	2s	13	ASP
55	2z	-4	ALA
3	1C	62	VAL
4	1D	125	ILE
4	1D	156	ALA
17	1R	129	ARG
25	1Z	81	LYS
35	1b	20	GLU
55	1z	520	GLY
55	1z	598	ASP
35	2b	232	PRO
53	2t	100	ILE
55	2z	506	GLN
55	2z	531	GLY
44	1k	105	VAL
3	2C	171	ILE
4	2D	125	ILE
9	2J	59	ILE
35	2b	227	GLY
55	2z	533	VAL
16	2Q	85	VAL
9	2J	73	GLY
55	2z	444	PRO
55	2z	598	ASP
58	2x	10	LEU
28	12	54	GLY
36	1c	70	VAL
40	2g	55	GLY

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Mol	Chain	Res	Type
43	2j	77	PRO
3	2C	65	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1C	103/181 (57%)	86 (84%)	17 (16%)	2 12
3	2C	103/181 (57%)	85 (82%)	18 (18%)	2 10
4	1D	215/218 (99%)	192 (89%)	23 (11%)	6 26
4	2D	216/218 (99%)	195 (90%)	21 (10%)	8 30
5	1E	164/166 (99%)	143 (87%)	21 (13%)	4 19
5	2E	164/166 (99%)	146 (89%)	18 (11%)	6 25
6	1F	160/166 (96%)	140 (88%)	20 (12%)	4 20
6	2F	159/166 (96%)	140 (88%)	19 (12%)	5 22
7	1G	143/156 (92%)	122 (85%)	21 (15%)	3 15
7	2G	142/156 (91%)	118 (83%)	24 (17%)	2 11
8	1H	144/148 (97%)	133 (92%)	11 (8%)	12 41
8	2H	144/148 (97%)	126 (88%)	18 (12%)	4 20
10	1K	50/111 (45%)	41 (82%)	9 (18%)	2 10
10	2K	50/111 (45%)	37 (74%)	13 (26%)	0 3
11	1L	118/119 (99%)	102 (86%)	16 (14%)	3 17
11	2L	118/119 (99%)	102 (86%)	16 (14%)	3 17
12	1M	100/100 (100%)	93 (93%)	7 (7%)	14 44
12	2M	100/100 (100%)	90 (90%)	10 (10%)	7 29
13	1N	116/116 (100%)	100 (86%)	16 (14%)	3 17
13	2N	115/116 (99%)	104 (90%)	11 (10%)	8 31
14	1O	111/111 (100%)	102 (92%)	9 (8%)	11 38
14	2O	111/111 (100%)	98 (88%)	13 (12%)	5 23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
15	1P	101/101 (100%)	82 (81%)	19 (19%)	1 9
15	2P	101/101 (100%)	85 (84%)	16 (16%)	2 13
16	1Q	87/88 (99%)	76 (87%)	11 (13%)	4 20
16	2Q	85/88 (97%)	75 (88%)	10 (12%)	5 22
17	1R	115/127 (91%)	103 (90%)	12 (10%)	7 28
17	2R	113/127 (89%)	97 (86%)	16 (14%)	3 16
18	1S	93/94 (99%)	81 (87%)	12 (13%)	4 19
18	2S	93/94 (99%)	85 (91%)	8 (9%)	10 36
19	1T	80/82 (98%)	69 (86%)	11 (14%)	3 17
19	2T	80/82 (98%)	69 (86%)	11 (14%)	3 17
20	1U	90/92 (98%)	80 (89%)	10 (11%)	6 25
20	2U	90/92 (98%)	83 (92%)	7 (8%)	11 39
21	1V	77/78 (99%)	70 (91%)	7 (9%)	9 33
21	2V	77/78 (99%)	73 (95%)	4 (5%)	21 55
22	1W	85/91 (93%)	79 (93%)	6 (7%)	13 43
22	2W	85/91 (93%)	79 (93%)	6 (7%)	13 43
23	1X	157/179 (88%)	136 (87%)	21 (13%)	4 18
23	2X	156/179 (87%)	131 (84%)	25 (16%)	2 12
24	1Y	61/67 (91%)	56 (92%)	5 (8%)	10 37
24	2Y	60/67 (90%)	57 (95%)	3 (5%)	22 56
25	1Z	80/83 (96%)	71 (89%)	9 (11%)	5 24
25	2Z	80/83 (96%)	69 (86%)	11 (14%)	3 17
26	10	65/67 (97%)	58 (89%)	7 (11%)	6 26
26	20	65/67 (97%)	57 (88%)	8 (12%)	4 21
27	11	51/52 (98%)	43 (84%)	8 (16%)	2 13
27	21	50/52 (96%)	44 (88%)	6 (12%)	5 22
28	12	60/63 (95%)	47 (78%)	13 (22%)	1 6
28	22	53/63 (84%)	41 (77%)	12 (23%)	1 5
29	13	50/52 (96%)	45 (90%)	5 (10%)	7 29
29	23	50/52 (96%)	43 (86%)	7 (14%)	3 16
30	14	51/52 (98%)	46 (90%)	5 (10%)	7 30

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
30	24	50/52 (96%)	46 (92%)	4 (8%)	11 38
31	15	41/42 (98%)	38 (93%)	3 (7%)	13 42
31	25	41/42 (98%)	37 (90%)	4 (10%)	7 30
32	16	54/55 (98%)	50 (93%)	4 (7%)	13 42
32	26	54/55 (98%)	47 (87%)	7 (13%)	4 19
33	17	34/34 (100%)	34 (100%)	0	100 100
33	27	34/34 (100%)	33 (97%)	1 (3%)	37 70
35	1b	192/220 (87%)	168 (88%)	24 (12%)	4 20
35	2b	187/220 (85%)	166 (89%)	21 (11%)	6 24
36	1c	143/188 (76%)	136 (95%)	7 (5%)	22 56
36	2c	141/188 (75%)	126 (89%)	15 (11%)	6 27
37	1d	170/181 (94%)	150 (88%)	20 (12%)	5 22
37	2d	174/181 (96%)	155 (89%)	19 (11%)	6 26
38	1e	113/123 (92%)	104 (92%)	9 (8%)	11 38
38	2e	114/123 (93%)	104 (91%)	10 (9%)	9 35
39	1f	84/90 (93%)	74 (88%)	10 (12%)	5 22
39	2f	86/90 (96%)	80 (93%)	6 (7%)	14 44
40	1g	119/127 (94%)	109 (92%)	10 (8%)	10 37
40	2g	120/127 (94%)	112 (93%)	8 (7%)	15 46
41	1h	114/119 (96%)	97 (85%)	17 (15%)	3 15
41	2h	114/119 (96%)	92 (81%)	22 (19%)	1 8
42	1i	91/99 (92%)	80 (88%)	11 (12%)	5 21
42	2i	89/99 (90%)	73 (82%)	16 (18%)	2 10
43	1j	66/92 (72%)	59 (89%)	7 (11%)	6 27
43	2j	69/92 (75%)	66 (96%)	3 (4%)	26 60
44	1k	83/99 (84%)	72 (87%)	11 (13%)	4 18
44	2k	83/99 (84%)	78 (94%)	5 (6%)	17 50
45	1l	97/109 (89%)	88 (91%)	9 (9%)	8 32
45	2l	97/109 (89%)	91 (94%)	6 (6%)	16 49
46	1m	95/101 (94%)	80 (84%)	15 (16%)	2 13
46	2m	92/101 (91%)	81 (88%)	11 (12%)	5 22

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
47	1n	49/50 (98%)	43 (88%)	6 (12%)	5 21
47	2n	49/50 (98%)	42 (86%)	7 (14%)	3 16
48	1o	78/80 (98%)	72 (92%)	6 (8%)	12 40
48	2o	78/80 (98%)	71 (91%)	7 (9%)	9 34
49	1p	69/74 (93%)	54 (78%)	15 (22%)	1 6
49	2p	68/74 (92%)	55 (81%)	13 (19%)	1 8
50	1q	94/97 (97%)	89 (95%)	5 (5%)	20 54
50	2q	94/97 (97%)	87 (93%)	7 (7%)	13 42
51	1r	59/77 (77%)	55 (93%)	4 (7%)	14 45
51	2r	59/77 (77%)	53 (90%)	6 (10%)	7 29
52	1s	70/80 (88%)	56 (80%)	14 (20%)	1 7
52	2s	67/80 (84%)	61 (91%)	6 (9%)	9 34
53	1t	70/82 (85%)	61 (87%)	9 (13%)	4 19
53	2t	71/82 (87%)	61 (86%)	10 (14%)	3 16
54	1u	18/22 (82%)	18 (100%)	0	100 100
54	2u	18/22 (82%)	17 (94%)	1 (6%)	19 52
55	1z	609/636 (96%)	525 (86%)	84 (14%)	3 17
55	2z	609/636 (96%)	521 (86%)	88 (14%)	3 15
58	1x	19/34 (56%)	17 (90%)	2 (10%)	6 27
58	2x	19/34 (56%)	18 (95%)	1 (5%)	20 54
All	All	10695/11742 (91%)	9427 (88%)	1268 (12%)	5 22

All (1268) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1C	6	ARG
3	1C	28	LEU
3	1C	36	LYS
3	1C	46	LYS
3	1C	49	ILE
3	1C	55	ASP
3	1C	68	LEU
3	1C	161	ILE
3	1C	164	ARG
3	1C	175	VAL

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Mol	Chain	Res	Type
3	1C	183	GLU
3	1C	185	LEU
3	1C	193	ILE
3	1C	196	LEU
3	1C	209	LEU
3	1C	211	SER
3	1C	215	THR
4	1D	3	VAL
4	1D	27	THR
4	1D	61	LEU
4	1D	64	ILE
4	1D	94	LEU
4	1D	103	ARG
4	1D	111	LEU
4	1D	113	VAL
4	1D	122	ASP
4	1D	126	GLN
4	1D	138	VAL
4	1D	141	VAL
4	1D	142	VAL
4	1D	157	ARG
4	1D	193	VAL
4	1D	200	ASP
4	1D	211	ARG
4	1D	221	VAL
4	1D	229	VAL
4	1D	257	LEU
4	1D	259	THR
4	1D	260	ARG
4	1D	273	ARG
5	1E	9	VAL
5	1E	21	VAL
5	1E	33	VAL
5	1E	34	VAL
5	1E	49	LEU
5	1E	64	LYS
5	1E	75	VAL
5	1E	78	LEU
5	1E	82	ARG
5	1E	93	VAL
5	1E	116	VAL
5	1E	119	ARG

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Mol	Chain	Res	Type
5	1E	144	ARG
5	1E	154	LYS
5	1E	163	GLU
5	1E	170	LEU
5	1E	175	VAL
5	1E	178	GLU
5	1E	181	LEU
5	1E	184	VAL
5	1E	195	LEU
6	1F	20	LEU
6	1F	23	ASP
6	1F	24	LEU
6	1F	33	LEU
6	1F	53	THR
6	1F	57	VAL
6	1F	74	ARG
6	1F	88	VAL
6	1F	106	ARG
6	1F	125	LEU
6	1F	132	VAL
6	1F	140	LEU
6	1F	170	LEU
6	1F	175	THR
6	1F	176	LEU
6	1F	183	VAL
6	1F	191	ARG
6	1F	192	LEU
6	1F	200	GLU
6	1F	201	VAL
7	1G	3	LEU
7	1G	4	ASP
7	1G	5	VAL
7	1G	7	LEU
7	1G	28	VAL
7	1G	31	VAL
7	1G	45	GLU
7	1G	49	ASP
7	1G	60	LEU
7	1G	79	ASN
7	1G	81	LYS
7	1G	82	LEU
7	1G	91	ARG

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Mol	Chain	Res	Type
7	1G	139	LEU
7	1G	140	ILE
7	1G	143	GLU
7	1G	159	VAL
7	1G	161	THR
7	1G	162	THR
7	1G	170	ARG
7	1G	175	LEU
8	1H	15	VAL
8	1H	49	VAL
8	1H	58	GLU
8	1H	69	ARG
8	1H	71	LEU
8	1H	88	LEU
8	1H	98	LEU
8	1H	105	LEU
8	1H	107	VAL
8	1H	116	GLU
8	1H	124	GLU
10	1K	79	ARG
10	1K	84	LEU
10	1K	94	GLU
10	1K	96	VAL
10	1K	99	ILE
10	1K	115	LEU
10	1K	121	GLU
10	1K	133	SER
10	1K	134	MET
11	1L	10	GLU
11	1L	28	THR
11	1L	33	LEU
11	1L	34	LEU
11	1L	48	MET
11	1L	61	ARG
11	1L	62	VAL
11	1L	73	THR
11	1L	84	LYS
11	1L	87	LEU
11	1L	97	ARG
11	1L	99	LEU
11	1L	120	LEU
11	1L	133	GLN

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Mol	Chain	Res	Type
11	1L	137	LYS
11	1L	138	LEU
12	1M	10	VAL
12	1M	23	ARG
12	1M	24	VAL
12	1M	94	ARG
12	1M	98	VAL
12	1M	105	GLU
12	1M	113	LYS
13	1N	42	SER
13	1N	55	ARG
13	1N	59	LEU
13	1N	65	ARG
13	1N	76	LYS
13	1N	95	VAL
13	1N	98	GLU
13	1N	99	LEU
13	1N	101	VAL
13	1N	106	LEU
13	1N	112	LEU
13	1N	121	LYS
13	1N	125	VAL
13	1N	137	LYS
13	1N	139	LYS
13	1N	149	GLU
14	1O	1	MET
14	1O	18	LYS
14	1O	21	THR
14	1O	35	VAL
14	1O	45	GLN
14	1O	55	VAL
14	1O	59	ARG
14	1O	75	THR
14	1O	98	LYS
15	1P	1	MET
15	1P	18	LEU
15	1P	28	LEU
15	1P	29	LEU
15	1P	33	ARG
15	1P	36	THR
15	1P	44	LEU
15	1P	54	LEU

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Mol	Chain	Res	Type
15	1P	60	LEU
15	1P	65	LEU
15	1P	67	LEU
15	1P	75	LEU
15	1P	79	LEU
15	1P	91	GLN
15	1P	100	LEU
15	1P	102	GLU
15	1P	111	LEU
15	1P	114	VAL
15	1P	117	VAL
16	1Q	3	ARG
16	1Q	19	LYS
16	1Q	20	ARG
16	1Q	35	ILE
16	1Q	48	LEU
16	1Q	50	SER
16	1Q	69	VAL
16	1Q	78	LEU
16	1Q	98	VAL
16	1Q	103	GLU
16	1Q	110	LEU
17	1R	6	LEU
17	1R	28	VAL
17	1R	42	ILE
17	1R	49	VAL
17	1R	65	LYS
17	1R	78	LEU
17	1R	89	VAL
17	1R	96	ARG
17	1R	109	GLU
17	1R	110	ILE
17	1R	118	ARG
17	1R	128	GLU
18	1S	8	VAL
18	1S	27	LEU
18	1S	52	ARG
18	1S	60	LEU
18	1S	74	LEU
18	1S	83	LEU
18	1S	84	LYS
18	1S	92	ARG

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Mol	Chain	Res	Type
18	1S	95	LEU
18	1S	101	ARG
18	1S	104	GLN
18	1S	111	GLU
19	1T	18	LEU
19	1T	21	ARG
19	1T	43	GLU
19	1T	46	VAL
19	1T	51	VAL
19	1T	52	VAL
19	1T	61	VAL
19	1T	62	LEU
19	1T	72	VAL
19	1T	79	VAL
19	1T	95	LEU
20	1U	11	ARG
20	1U	15	ARG
20	1U	17	VAL
20	1U	23	LEU
20	1U	51	LEU
20	1U	60	ASN
20	1U	65	LEU
20	1U	96	ILE
20	1U	100	THR
20	1U	107	LEU
21	1V	33	LYS
21	1V	35	THR
21	1V	52	VAL
21	1V	57	LEU
21	1V	66	LEU
21	1V	76	ARG
21	1V	90	GLU
22	1W	7	VAL
22	1W	23	ARG
22	1W	43	ASN
22	1W	72	VAL
22	1W	90	LEU
22	1W	91	GLU
23	1X	5	LEU
23	1X	11	GLU
23	1X	18	LEU
23	1X	19	ARG

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Mol	Chain	Res	Type
23	1X	31	ARG
23	1X	33	LEU
23	1X	42	VAL
23	1X	56	VAL
23	1X	58	VAL
23	1X	61	LEU
23	1X	72	ARG
23	1X	76	LEU
23	1X	86	VAL
23	1X	91	LEU
23	1X	107	THR
23	1X	121	HIS
23	1X	126	VAL
23	1X	135	GLU
23	1X	136	PHE
23	1X	150	LEU
23	1X	155	LEU
24	1Y	10	THR
24	1Y	11	ARG
24	1Y	20	ARG
24	1Y	55	ARG
24	1Y	74	ARG
25	1Z	11	ARG
25	1Z	30	VAL
25	1Z	35	THR
25	1Z	40	ARG
25	1Z	46	LEU
25	1Z	59	THR
25	1Z	65	SER
25	1Z	75	GLU
25	1Z	95	LEU
26	10	4	SER
26	10	30	ARG
26	10	32	LEU
26	10	53	LEU
26	10	64	LEU
26	10	65	ASN
26	10	70	GLN
27	11	8	LEU
27	11	23	LEU
27	11	29	ARG
27	11	48	GLU

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Mol	Chain	Res	Type
27	11	54	VAL
27	11	55	ARG
27	11	58	VAL
27	11	60	GLU
28	12	1	MET
28	12	5	ILE
28	12	23	GLU
28	12	28	LYS
28	12	34	GLU
28	12	46	GLN
28	12	47	GLN
28	12	49	PHE
28	12	50	VAL
28	12	57	GLU
28	12	66	SER
28	12	67	TYR
28	12	69	LYS
29	13	6	VAL
29	13	16	ARG
29	13	26	THR
29	13	40	LYS
29	13	60	VAL
30	14	4	GLU
30	14	34	LEU
30	14	35	GLU
30	14	38	LYS
30	14	48	VAL
31	15	1	MET
31	15	9	ARG
31	15	24	THR
32	16	14	VAL
32	16	23	VAL
32	16	32	LEU
32	16	49	VAL
35	1b	8	LYS
35	1b	11	LEU
35	1b	15	VAL
35	1b	17	PHE
35	1b	20	GLU
35	1b	21	ARG
35	1b	44	LEU
35	1b	76	GLN

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Mol	Chain	Res	Type
35	1b	80	ILE
35	1b	94	ASN
35	1b	112	VAL
35	1b	121	LEU
35	1b	137	ARG
35	1b	145	LEU
35	1b	153	ARG
35	1b	155	LEU
35	1b	169	LYS
35	1b	172	ILE
35	1b	179	LYS
35	1b	185	ILE
35	1b	187	LEU
35	1b	217	ARG
35	1b	221	LEU
35	1b	229	VAL
36	1c	15	THR
36	1c	28	GLN
36	1c	45	LYS
36	1c	115	LEU
36	1c	124	ILE
36	1c	181	ASN
36	1c	191	THR
37	1d	5	ILE
37	1d	8	VAL
37	1d	19	LEU
37	1d	28	SER
37	1d	47	ARG
37	1d	49	ARG
37	1d	57	ARG
37	1d	58	LEU
37	1d	122	ARG
37	1d	127	THR
37	1d	135	LEU
37	1d	137	SER
37	1d	155	LEU
37	1d	162	LEU
37	1d	168	ARG
37	1d	173	TRP
37	1d	178	VAL
37	1d	182	LYS
37	1d	196	LEU

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Mol	Chain	Res	Type
37	1d	202	LEU
38	1e	13	ILE
38	1e	31	LEU
38	1e	38	GLN
38	1e	41	VAL
38	1e	57	LYS
38	1e	79	GLU
38	1e	91	LEU
38	1e	144	THR
38	1e	147	ASP
39	1f	25	ILE
39	1f	40	VAL
39	1f	43	LEU
39	1f	45	LEU
39	1f	61	LEU
39	1f	70	ASP
39	1f	74	ASP
39	1f	81	ILE
39	1f	82	ARG
39	1f	92	LYS
40	1g	8	GLU
40	1g	16	LEU
40	1g	32	ARG
40	1g	51	GLN
40	1g	75	VAL
40	1g	97	GLN
40	1g	104	LEU
40	1g	113	GLU
40	1g	129	GLU
40	1g	140	ASP
41	1h	3	THR
41	1h	25	ASP
41	1h	26	VAL
41	1h	37	ARG
41	1h	39	LEU
41	1h	51	VAL
41	1h	52	ASP
41	1h	63	LEU
41	1h	78	GLN
41	1h	91	ARG
41	1h	99	GLU
41	1h	112	LEU

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Mol	Chain	Res	Type
41	1h	120	THR
41	1h	127	LEU
41	1h	129	VAL
41	1h	133	LEU
41	1h	137	VAL
42	1i	23	ASN
42	1i	41	VAL
42	1i	47	LEU
42	1i	53	VAL
42	1i	81	ILE
42	1i	86	VAL
42	1i	93	ARG
42	1i	102	LEU
42	1i	104	ARG
42	1i	108	VAL
42	1i	128	ARG
43	1j	16	LEU
43	1j	17	ASP
43	1j	21	GLN
43	1j	49	VAL
43	1j	92	THR
43	1j	97	GLU
43	1j	98	ILE
44	1k	14	VAL
44	1k	32	ILE
44	1k	48	ILE
44	1k	70	LYS
44	1k	77	MET
44	1k	79	SER
44	1k	98	LEU
44	1k	105	VAL
44	1k	106	LYS
44	1k	109	VAL
44	1k	114	VAL
45	1l	23	LYS
45	1l	27	LEU
45	1l	36	VAL
45	1l	55	VAL
45	1l	57	LYS
45	1l	67	THR
45	1l	83	VAL
45	1l	84	LEU

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Mol	Chain	Res	Type
45	1l	116	SER
46	1m	3	ARG
46	1m	4	ILE
46	1m	19	LEU
46	1m	27	LYS
46	1m	47	ASP
46	1m	64	TRP
46	1m	70	LEU
46	1m	84	ILE
46	1m	90	LEU
46	1m	98	VAL
46	1m	99	ARG
46	1m	106	ASN
46	1m	110	ARG
46	1m	117	VAL
46	1m	121	LYS
47	1n	18	VAL
47	1n	22	THR
47	1n	23	ARG
47	1n	33	VAL
47	1n	44	LEU
47	1n	57	ARG
48	1o	3	ILE
48	1o	26	GLU
48	1o	39	LEU
48	1o	57	LEU
48	1o	66	LEU
48	1o	87	ILE
49	1p	2	VAL
49	1p	6	LEU
49	1p	12	LYS
49	1p	16	HIS
49	1p	19	ILE
49	1p	20	VAL
49	1p	21	VAL
49	1p	25	ARG
49	1p	45	THR
49	1p	50	LYS
49	1p	60	LEU
49	1p	62	VAL
49	1p	69	THR
49	1p	72	ARG

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Mol	Chain	Res	Type
49	1p	73	LEU
50	1q	35	VAL
50	1q	53	LEU
50	1q	74	LEU
50	1q	89	LEU
50	1q	92	ARG
51	1r	32	ARG
51	1r	38	GLU
51	1r	47	THR
51	1r	62	GLU
52	1s	11	VAL
52	1s	12	ASP
52	1s	16	LEU
52	1s	19	VAL
52	1s	22	LEU
52	1s	28	LYS
52	1s	37	ARG
52	1s	41	VAL
52	1s	65	ASN
52	1s	66	MET
52	1s	71	LEU
52	1s	78	ARG
52	1s	83	HIS
52	1s	85	LYS
53	1t	9	ASN
53	1t	10	LEU
53	1t	13	LEU
53	1t	24	LEU
53	1t	56	MET
53	1t	62	LEU
53	1t	75	ASN
53	1t	81	LYS
53	1t	84	LEU
55	1z	-29	LEU
55	1z	-27	THR
55	1z	-24	ASN
55	1z	-10	ARG
55	1z	-6	ARG
55	1z	-3	GLU
55	1z	1	LEU
55	1z	13	ARG
55	1z	21	ILE

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Mol	Chain	Res	Type
55	1z	30	GLU
55	1z	39	ILE
55	1z	88	VAL
55	1z	92	ILE
55	1z	98	MET
55	1z	100	VAL
55	1z	106	VAL
55	1z	121	VAL
55	1z	130	VAL
55	1z	132	ARG
55	1z	142	THR
55	1z	152	THR
55	1z	160	ARG
55	1z	166	LEU
55	1z	172	ASP
55	1z	196	ILE
55	1z	197	ARG
55	1z	207	ASP
55	1z	208	GLN
55	1z	215	LYS
55	1z	219	VAL
55	1z	225	GLU
55	1z	229	LEU
55	1z	236	GLU
55	1z	248	LYS
55	1z	264	LEU
55	1z	286	ILE
55	1z	299	VAL
55	1z	309	LEU
55	1z	315	LYS
55	1z	328	ILE
55	1z	336	THR
55	1z	339	SER
55	1z	352	VAL
55	1z	355	LEU
55	1z	356	LEU
55	1z	363	ARG
55	1z	369	LEU
55	1z	381	LYS
55	1z	385	THR
55	1z	389	LEU
55	1z	409	ILE

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Mol	Chain	Res	Type
55	1z	418	LYS
55	1z	428	LEU
55	1z	437	THR
55	1z	442	THR
55	1z	478	LYS
55	1z	481	VAL
55	1z	484	ARG
55	1z	500	GLN
55	1z	512	ILE
55	1z	515	GLU
55	1z	526	VAL
55	1z	530	VAL
55	1z	546	ILE
55	1z	555	LEU
55	1z	579	GLU
55	1z	590	ILE
55	1z	598	ASP
55	1z	605	ILE
55	1z	614	GLU
55	1z	624	LEU
55	1z	630	GLN
55	1z	631	ILE
55	1z	641	GLN
55	1z	647	VAL
55	1z	649	LEU
55	1z	651	GLU
55	1z	669	PHE
55	1z	670	VAL
55	1z	678	GLU
55	1z	679	VAL
55	1z	684	GLN
55	1z	688	ILE
55	1z	689	LYS
58	1x	9	ARG
58	1x	18	LEU
3	2C	5	LYS
3	2C	6	ARG
3	2C	24	GLU
3	2C	37	PHE
3	2C	49	ILE
3	2C	52	ARG
3	2C	62	VAL

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Mol	Chain	Res	Type
3	2C	68	LEU
3	2C	161	ILE
3	2C	172	HIS
3	2C	175	VAL
3	2C	193	ILE
3	2C	197	GLU
3	2C	199	HIS
3	2C	205	LYS
3	2C	207	THR
3	2C	209	LEU
3	2C	224	ILE
4	2D	3	VAL
4	2D	61	LEU
4	2D	64	ILE
4	2D	94	LEU
4	2D	99	ASP
4	2D	103	ARG
4	2D	111	LEU
4	2D	113	VAL
4	2D	134	ARG
4	2D	138	VAL
4	2D	141	VAL
4	2D	142	VAL
4	2D	157	ARG
4	2D	173	VAL
4	2D	193	VAL
4	2D	211	ARG
4	2D	221	VAL
4	2D	229	VAL
4	2D	257	LEU
4	2D	259	THR
4	2D	260	ARG
5	2E	9	VAL
5	2E	12	THR
5	2E	21	VAL
5	2E	38	THR
5	2E	40	GLU
5	2E	52	LEU
5	2E	75	VAL
5	2E	76	ARG
5	2E	82	ARG
5	2E	119	ARG

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Mol	Chain	Res	Type
5	2E	134	ILE
5	2E	144	ARG
5	2E	154	LYS
5	2E	167	VAL
5	2E	175	VAL
5	2E	181	LEU
5	2E	195	LEU
5	2E	202	LYS
6	2F	15	SER
6	2F	20	LEU
6	2F	24	LEU
6	2F	33	LEU
6	2F	53	THR
6	2F	57	VAL
6	2F	74	ARG
6	2F	88	VAL
6	2F	110	LEU
6	2F	135	LYS
6	2F	140	LEU
6	2F	158	THR
6	2F	170	LEU
6	2F	175	THR
6	2F	176	LEU
6	2F	183	VAL
6	2F	192	LEU
6	2F	197	ASP
6	2F	201	VAL
7	2G	3	LEU
7	2G	4	ASP
7	2G	5	VAL
7	2G	16	ARG
7	2G	21	ARG
7	2G	45	GLU
7	2G	49	ASP
7	2G	51	ARG
7	2G	60	LEU
7	2G	79	ASN
7	2G	98	ARG
7	2G	113	ARG
7	2G	115	ARG
7	2G	136	ARG
7	2G	139	LEU

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Mol	Chain	Res	Type
7	2G	140	ILE
7	2G	143	GLU
7	2G	148	MET
7	2G	152	LEU
7	2G	153	ARG
7	2G	159	VAL
7	2G	162	THR
7	2G	165	THR
7	2G	170	ARG
8	2H	3	ARG
8	2H	16	SER
8	2H	19	VAL
8	2H	27	LYS
8	2H	33	LEU
8	2H	43	VAL
8	2H	44	VAL
8	2H	49	VAL
8	2H	58	GLU
8	2H	69	ARG
8	2H	71	LEU
8	2H	88	LEU
8	2H	107	VAL
8	2H	114	VAL
8	2H	116	GLU
8	2H	122	THR
8	2H	139	GLN
8	2H	175	LYS
10	2K	80	LYS
10	2K	84	LEU
10	2K	86	LYS
10	2K	90	LYS
10	2K	95	LYS
10	2K	96	VAL
10	2K	99	ILE
10	2K	105	LEU
10	2K	106	GLU
10	2K	115	LEU
10	2K	119	ASP
10	2K	133	SER
10	2K	136	VAL
11	2L	5	VAL
11	2L	10	GLU

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Mol	Chain	Res	Type
11	2L	33	LEU
11	2L	34	LEU
11	2L	38	HIS
11	2L	48	MET
11	2L	61	ARG
11	2L	62	VAL
11	2L	87	LEU
11	2L	97	ARG
11	2L	99	LEU
11	2L	115	ARG
11	2L	120	LEU
11	2L	133	GLN
11	2L	137	LYS
11	2L	138	LEU
12	2M	10	VAL
12	2M	23	ARG
12	2M	24	VAL
12	2M	35	VAL
12	2M	53	LYS
12	2M	78	ARG
12	2M	92	GLU
12	2M	94	ARG
12	2M	98	VAL
12	2M	108	GLU
13	2N	42	SER
13	2N	55	ARG
13	2N	59	LEU
13	2N	65	ARG
13	2N	71	VAL
13	2N	95	VAL
13	2N	98	GLU
13	2N	101	VAL
13	2N	106	LEU
13	2N	112	LEU
13	2N	125	VAL
14	2O	1	MET
14	2O	21	THR
14	2O	22	LYS
14	2O	35	VAL
14	2O	45	GLN
14	2O	56	ARG
14	2O	59	ARG

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Mol	Chain	Res	Type
14	2O	75	THR
14	2O	90	VAL
14	2O	98	LYS
14	2O	109	VAL
14	2O	110	THR
14	2O	128	LYS
15	2P	1	MET
15	2P	18	LEU
15	2P	28	LEU
15	2P	29	LEU
15	2P	33	ARG
15	2P	44	LEU
15	2P	54	LEU
15	2P	60	LEU
15	2P	65	LEU
15	2P	67	LEU
15	2P	75	LEU
15	2P	79	LEU
15	2P	102	GLU
15	2P	111	LEU
15	2P	114	VAL
15	2P	118	GLU
16	2Q	19	LYS
16	2Q	20	ARG
16	2Q	48	LEU
16	2Q	50	SER
16	2Q	58	LEU
16	2Q	67	ARG
16	2Q	78	LEU
16	2Q	98	VAL
16	2Q	103	GLU
16	2Q	110	LEU
17	2R	6	LEU
17	2R	9	LEU
17	2R	17	THR
17	2R	23	ARG
17	2R	28	VAL
17	2R	42	ILE
17	2R	49	VAL
17	2R	53	ARG
17	2R	78	LEU
17	2R	85	LYS

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Mol	Chain	Res	Type
17	2R	87	ASP
17	2R	89	VAL
17	2R	96	ARG
17	2R	113	LYS
17	2R	118	ARG
17	2R	123	GLN
18	2S	52	ARG
18	2S	60	LEU
18	2S	74	LEU
18	2S	83	LEU
18	2S	92	ARG
18	2S	95	LEU
18	2S	101	ARG
18	2S	104	GLN
19	2T	1	MET
19	2T	18	LEU
19	2T	24	LYS
19	2T	33	VAL
19	2T	34	GLU
19	2T	46	VAL
19	2T	52	VAL
19	2T	61	VAL
19	2T	62	LEU
19	2T	79	VAL
19	2T	95	LEU
20	2U	11	ARG
20	2U	15	ARG
20	2U	17	VAL
20	2U	23	LEU
20	2U	51	LEU
20	2U	100	THR
20	2U	107	LEU
21	2V	52	VAL
21	2V	57	LEU
21	2V	76	ARG
21	2V	92	LEU
22	2W	7	VAL
22	2W	49	VAL
22	2W	70	SER
22	2W	72	VAL
22	2W	94	LYS
22	2W	107	ASP

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Mol	Chain	Res	Type
23	2X	5	LEU
23	2X	8	TYR
23	2X	11	GLU
23	2X	33	LEU
23	2X	42	VAL
23	2X	56	VAL
23	2X	61	LEU
23	2X	72	ARG
23	2X	74	VAL
23	2X	86	VAL
23	2X	91	LEU
23	2X	97	GLU
23	2X	98	MET
23	2X	120	ILE
23	2X	121	HIS
23	2X	122	ARG
23	2X	126	VAL
23	2X	129	SER
23	2X	136	PHE
23	2X	146	ILE
23	2X	150	LEU
23	2X	155	LEU
23	2X	156	LYS
23	2X	170	THR
23	2X	183	LEU
24	2Y	10	THR
24	2Y	14	ARG
24	2Y	20	ARG
25	2Z	4	VAL
25	2Z	14	VAL
25	2Z	21	ARG
25	2Z	26	ARG
25	2Z	30	VAL
25	2Z	40	ARG
25	2Z	46	LEU
25	2Z	59	THR
25	2Z	65	SER
25	2Z	85	LEU
25	2Z	89	GLU
26	20	2	LYS
26	20	19	VAL
26	20	32	LEU

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Mol	Chain	Res	Type
26	20	41	ILE
26	20	45	SER
26	20	51	ARG
26	20	53	LEU
26	20	65	ASN
27	21	8	LEU
27	21	23	LEU
27	21	30	ARG
27	21	44	ARG
27	21	48	GLU
27	21	54	VAL
28	22	1	MET
28	22	3	GLU
28	22	5	ILE
28	22	34	GLU
28	22	44	THR
28	22	50	VAL
28	22	53	GLU
28	22	58	ARG
28	22	61	ARG
28	22	62	ARG
28	22	67	TYR
28	22	68	ARG
29	23	6	VAL
29	23	16	ARG
29	23	29	THR
29	23	35	GLU
29	23	57	VAL
29	23	58	LEU
29	23	60	VAL
30	24	5	VAL
30	24	34	LEU
30	24	38	LYS
30	24	48	VAL
31	25	1	MET
31	25	9	ARG
31	25	29	LYS
31	25	32	LYS
32	26	6	THR
32	26	14	VAL
32	26	26	LYS
32	26	30	ARG

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Mol	Chain	Res	Type
32	26	32	LEU
32	26	43	GLN
32	26	49	VAL
33	27	8	LYS
35	2b	8	LYS
35	2b	15	VAL
35	2b	23	ARG
35	2b	44	LEU
35	2b	45	GLN
35	2b	48	MET
35	2b	51	LEU
35	2b	74	LYS
35	2b	76	GLN
35	2b	80	ILE
35	2b	94	ASN
35	2b	127	ILE
35	2b	137	ARG
35	2b	154	LEU
35	2b	157	ARG
35	2b	185	ILE
35	2b	187	LEU
35	2b	208	ILE
35	2b	217	ARG
35	2b	224	GLN
35	2b	229	VAL
36	2c	3	ASN
36	2c	49	SER
36	2c	52	LEU
36	2c	57	ILE
36	2c	72	LYS
36	2c	98	ASN
36	2c	102	ASN
36	2c	104	GLN
36	2c	105	GLU
36	2c	124	ILE
36	2c	125	GLU
36	2c	127	ARG
36	2c	136	GLN
36	2c	152	ILE
36	2c	191	THR
37	2d	3	ARG
37	2d	8	VAL

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Mol	Chain	Res	Type
37	2d	33	MET
37	2d	34	GLU
37	2d	47	ARG
37	2d	61	LYS
37	2d	65	ARG
37	2d	73	ARG
37	2d	119	GLN
37	2d	127	THR
37	2d	135	LEU
37	2d	141	ARG
37	2d	150	GLU
37	2d	155	LEU
37	2d	157	LEU
37	2d	162	LEU
37	2d	178	VAL
37	2d	194	LEU
37	2d	196	LEU
38	2e	10	MET
38	2e	38	GLN
38	2e	41	VAL
38	2e	47	LYS
38	2e	57	LYS
38	2e	71	LEU
38	2e	72	GLN
38	2e	79	GLU
38	2e	91	LEU
38	2e	144	THR
39	2f	40	VAL
39	2f	61	LEU
39	2f	63	TYR
39	2f	70	ASP
39	2f	81	ILE
39	2f	87	ARG
40	2g	12	LEU
40	2g	16	LEU
40	2g	75	VAL
40	2g	97	GLN
40	2g	104	LEU
40	2g	139	GLU
40	2g	153	HIS
40	2g	155	ARG
41	2h	2	LEU

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Mol	Chain	Res	Type
41	2h	25	ASP
41	2h	34	GLU
41	2h	37	ARG
41	2h	51	VAL
41	2h	52	ASP
41	2h	63	LEU
41	2h	78	GLN
41	2h	84	ARG
41	2h	91	ARG
41	2h	98	LYS
41	2h	99	GLU
41	2h	107	LEU
41	2h	111	ILE
41	2h	112	LEU
41	2h	114	THR
41	2h	120	THR
41	2h	125	ARG
41	2h	127	LEU
41	2h	129	VAL
41	2h	133	LEU
41	2h	137	VAL
42	2i	7	THR
42	2i	12	GLU
42	2i	14	VAL
42	2i	23	ASN
42	2i	29	ASN
42	2i	31	GLN
42	2i	41	VAL
42	2i	64	THR
42	2i	81	ILE
42	2i	93	ARG
42	2i	102	LEU
42	2i	104	ARG
42	2i	108	VAL
42	2i	110	GLU
42	2i	114	TYR
42	2i	128	ARG
43	2j	49	VAL
43	2j	67	THR
43	2j	85	LEU
44	2k	14	VAL
44	2k	18	ARG

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Mol	Chain	Res	Type
44	2k	105	VAL
44	2k	109	VAL
44	2k	114	VAL
45	2l	10	LEU
45	2l	23	LYS
45	2l	33	ARG
45	2l	52	LEU
45	2l	55	VAL
45	2l	83	VAL
46	2m	8	GLU
46	2m	19	LEU
46	2m	20	THR
46	2m	27	LYS
46	2m	56	LEU
46	2m	66	LEU
46	2m	70	LEU
46	2m	77	ASN
46	2m	98	VAL
46	2m	106	ASN
46	2m	110	ARG
47	2n	3	ARG
47	2n	7	ILE
47	2n	15	LYS
47	2n	18	VAL
47	2n	22	THR
47	2n	23	ARG
47	2n	33	VAL
48	2o	3	ILE
48	2o	4	THR
48	2o	39	LEU
48	2o	48	LYS
48	2o	66	LEU
48	2o	83	GLU
48	2o	87	ILE
49	2p	2	VAL
49	2p	6	LEU
49	2p	16	HIS
49	2p	19	ILE
49	2p	20	VAL
49	2p	21	VAL
49	2p	28	ARG
49	2p	45	THR

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Mol	Chain	Res	Type
49	2p	60	LEU
49	2p	62	VAL
49	2p	67	THR
49	2p	69	THR
49	2p	74	LEU
50	2q	4	LYS
50	2q	6	LEU
50	2q	14	LYS
50	2q	49	GLU
50	2q	53	LEU
50	2q	63	ARG
50	2q	76	LEU
51	2r	21	LYS
51	2r	31	LEU
51	2r	32	ARG
51	2r	38	GLU
51	2r	75	ILE
51	2r	76	LEU
52	2s	22	LEU
52	2s	33	THR
52	2s	37	ARG
52	2s	64	GLU
52	2s	65	ASN
52	2s	71	LEU
53	2t	24	LEU
53	2t	30	LYS
53	2t	36	LEU
53	2t	45	GLN
53	2t	56	MET
53	2t	62	LEU
53	2t	75	ASN
53	2t	80	ARG
53	2t	81	LYS
53	2t	84	LEU
54	2u	9	ARG
55	2z	-62	LEU
55	2z	-47	ASP
55	2z	-27	THR
55	2z	-24	ASN
55	2z	-20	LEU
55	2z	-10	ARG
55	2z	-6	ARG

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Mol	Chain	Res	Type
55	2z	-1	GLU
55	2z	1	LEU
55	2z	6	GLU
55	2z	9	LEU
55	2z	14	ASN
55	2z	15	ILE
55	2z	26	THR
55	2z	30	GLU
55	2z	91	THR
55	2z	92	ILE
55	2z	98	MET
55	2z	121	VAL
55	2z	130	VAL
55	2z	146	LEU
55	2z	152	THR
55	2z	156	ARG
55	2z	157	LEU
55	2z	160	ARG
55	2z	162	VAL
55	2z	166	LEU
55	2z	170	ARG
55	2z	187	THR
55	2z	196	ILE
55	2z	198	GLU
55	2z	207	ASP
55	2z	215	LYS
55	2z	219	VAL
55	2z	225	GLU
55	2z	228	MET
55	2z	232	LEU
55	2z	260	LEU
55	2z	289	ILE
55	2z	292	THR
55	2z	299	VAL
55	2z	312	LEU
55	2z	315	LYS
55	2z	328	ILE
55	2z	336	THR
55	2z	337	SER
55	2z	352	VAL
55	2z	355	LEU
55	2z	356	LEU

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Mol	Chain	Res	Type
55	2z	363	ARG
55	2z	377	VAL
55	2z	378	VAL
55	2z	385	THR
55	2z	396	ARG
55	2z	402	ILE
55	2z	418	LYS
55	2z	440	VAL
55	2z	471	LYS
55	2z	472	VAL
55	2z	473	ASP
55	2z	478	LYS
55	2z	481	VAL
55	2z	484	ARG
55	2z	485	GLU
55	2z	512	ILE
55	2z	515	GLU
55	2z	530	VAL
55	2z	546	ILE
55	2z	555	LEU
55	2z	566	THR
55	2z	569	ASP
55	2z	573	HIS
55	2z	574	GLU
55	2z	575	VAL
55	2z	590	ILE
55	2z	598	ASP
55	2z	605	ILE
55	2z	614	GLU
55	2z	623	ASP
55	2z	624	LEU
55	2z	630	GLN
55	2z	634	MET
55	2z	647	VAL
55	2z	649	LEU
55	2z	657	THR
55	2z	662	LYS
55	2z	669	PHE
55	2z	688	ILE
58	2x	18	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (196) such sidechains are listed below:

Mol	Chain	Res	Type
3	1C	172	HIS
4	1D	87	ASN
4	1D	201	HIS
4	1D	253	GLN
5	1E	85	ASN
6	1F	29	ASN
6	1F	169	ASN
6	1F	203	GLN
7	1G	26	GLN
7	1G	40	ASN
10	1K	103	GLN
11	1L	69	GLN
11	1L	133	GLN
12	1M	3	GLN
13	1N	27	HIS
14	1O	123	HIS
15	1P	31	HIS
15	1P	50	HIS
17	1R	123	GLN
18	1S	104	GLN
18	1S	117	GLN
19	1T	80	GLN
21	1V	31	HIS
21	1V	82	GLN
22	1W	6	HIS
22	1W	43	ASN
22	1W	92	ASN
23	1X	55	HIS
23	1X	73	GLN
23	1X	151	HIS
24	1Y	50	ASN
26	10	9	GLN
26	10	70	GLN
28	12	46	GLN
28	12	47	GLN
29	13	23	HIS
33	17	36	GLN
35	1b	19	HIS
35	1b	94	ASN
35	1b	95	GLN
36	1c	28	GLN
36	1c	69	HIS
36	1c	123	GLN

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Mol	Chain	Res	Type
36	1c	136	GLN
36	1c	162	GLN
36	1c	181	ASN
37	1d	45	GLN
37	1d	77	ASN
37	1d	201	GLN
38	1e	38	GLN
38	1e	56	GLN
38	1e	73	ASN
38	1e	141	GLN
39	1f	7	ASN
39	1f	73	ASN
40	1g	28	ASN
40	1g	51	GLN
40	1g	56	GLN
40	1g	64	GLN
40	1g	86	GLN
40	1g	96	GLN
40	1g	97	GLN
40	1g	148	ASN
42	1i	23	ASN
42	1i	34	ASN
42	1i	73	GLN
42	1i	89	ASN
42	1i	124	GLN
43	1j	56	HIS
43	1j	62	HIS
44	1k	22	HIS
44	1k	104	GLN
45	1l	78	GLN
48	1o	28	GLN
49	1p	13	HIS
50	1q	16	GLN
50	1q	45	HIS
50	1q	94	ASN
52	1s	65	ASN
52	1s	69	HIS
53	1t	26	ASN
53	1t	45	GLN
55	1z	-56	ASN
55	1z	-50	GLN
55	1z	-24	ASN

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Mol	Chain	Res	Type
55	1z	-13	GLN
55	1z	7	ASN
55	1z	77	HIS
55	1z	87	HIS
55	1z	124	GLN
55	1z	154	GLN
55	1z	165	GLN
55	1z	226	ASN
55	1z	359	HIS
55	1z	421	GLN
55	1z	426	GLN
55	1z	458	HIS
55	1z	480	GLN
55	1z	500	GLN
55	1z	543	GLN
55	1z	573	HIS
55	1z	630	GLN
55	1z	664	GLN
55	1z	684	GLN
4	2D	116	GLN
4	2D	253	GLN
6	2F	75	HIS
6	2F	169	ASN
6	2F	203	GLN
7	2G	26	GLN
7	2G	132	ASN
8	2H	139	GLN
8	2H	147	ASN
10	2K	89	HIS
10	2K	103	GLN
10	2K	116	ASN
11	2L	8	GLN
11	2L	69	GLN
11	2L	94	HIS
11	2L	133	GLN
13	2N	35	HIS
14	2O	45	GLN
14	2O	57	HIS
14	2O	89	ASN
15	2P	13	HIS
16	2Q	68	GLN
18	2S	94	ASN

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Mol	Chain	Res	Type
18	2S	104	GLN
20	2U	60	ASN
21	2V	31	HIS
21	2V	82	GLN
22	2W	43	ASN
23	2X	34	ASN
23	2X	55	HIS
23	2X	121	HIS
24	2Y	12	ASN
26	20	9	GLN
26	20	38	GLN
29	23	23	HIS
32	26	35	GLN
33	27	20	HIS
33	27	36	GLN
35	2b	16	HIS
35	2b	40	HIS
35	2b	45	GLN
35	2b	94	ASN
35	2b	95	GLN
35	2b	224	GLN
36	2c	3	ASN
36	2c	6	HIS
36	2c	37	GLN
36	2c	108	ASN
36	2c	118	GLN
36	2c	123	GLN
37	2d	45	GLN
37	2d	77	ASN
37	2d	160	GLN
37	2d	161	ASN
37	2d	201	GLN
38	2e	72	GLN
38	2e	130	ASN
39	2f	27	GLN
39	2f	94	GLN
39	2f	100	ASN
40	2g	28	ASN
40	2g	51	GLN
40	2g	110	GLN
41	2h	82	HIS
42	2i	73	GLN

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Mol	Chain	Res	Type
43	2j	62	HIS
43	2j	68	HIS
43	2j	84	GLN
44	2k	99	GLN
45	2l	49	ASN
45	2l	75	HIS
45	2l	78	GLN
45	2l	99	HIS
48	2o	28	GLN
50	2q	16	GLN
52	2s	83	HIS
53	2t	16	HIS
55	2z	-50	GLN
55	2z	-24	ASN
55	2z	14	ASN
55	2z	77	HIS
55	2z	165	GLN
55	2z	421	GLN
55	2z	426	GLN
55	2z	509	HIS
55	2z	543	GLN
55	2z	573	HIS
55	2z	595	GLN
55	2z	625	ASN
55	2z	641	GLN
55	2z	675	HIS
55	2z	684	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	434 (15%)	24 (0%)
1	2A	2860/2915 (98%)	515 (18%)	22 (0%)
2	1B	119/121 (98%)	10 (8%)	1 (0%)
2	2B	119/121 (98%)	17 (14%)	0
34	1a	1491/1521 (98%)	267 (17%)	0
34	2a	1498/1521 (98%)	259 (17%)	0
56	1y	5/24 (20%)	0	0
56	2y	4/24 (16%)	0	0
57	1w	75/77 (97%)	19 (25%)	0
57	2w	75/77 (97%)	18 (24%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
All	All	9111/9316 (97%)	1539 (16%)	47 (0%)

All (1539) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	11	U
1	1A	14	G
1	1A	28	U
1	1A	33	C
1	1A	44	C
1	1A	53	G
1	1A	61	U
1	1A	62	A
1	1A	69	A
1	1A	72	A
1	1A	73	G
1	1A	115	A
1	1A	116	A
1	1A	117	U
1	1A	122	G
1	1A	148	A
1	1A	169	A
1	1A	176	G
1	1A	184	A
1	1A	185	A
1	1A	187	A
1	1A	193	G
1	1A	203	G
1	1A	204	A
1	1A	209	A
1	1A	210	A
1	1A	213	A
1	1A	216	A
1	1A	217	A
1	1A	221	A
1	1A	236	G
1	1A	238	G
1	1A	249	G
1	1A	254	G
1	1A	268	G
1	1A	270	U
1	1A	271	U

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Mol	Chain	Res	Type
1	1A	272	G
1	1A	273	U
1	1A	287	U
1	1A	288	G
1	1A	294	C
1	1A	296	C
1	1A	298	G
1	1A	302	C
1	1A	334	A
1	1A	352	G
1	1A	353	A
1	1A	365	G
1	1A	375	G
1	1A	386	G
1	1A	412	G
1	1A	422	G
1	1A	433	G
1	1A	437	G
1	1A	438	A
1	1A	454	A
1	1A	468	A
1	1A	469	C
1	1A	473	U
1	1A	480	C
1	1A	482	A
1	1A	495	A
1	1A	506	G
1	1A	518	G
1	1A	528	U
1	1A	529	A
1	1A	533	C
1	1A	554	G
1	1A	555	C
1	1A	556	A
1	1A	557	G
1	1A	585	G
1	1A	595	G
1	1A	597	A
1	1A	615	G
1	1A	625	A
1	1A	626	G
1	1A	629	U

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Mol	Chain	Res	Type
1	1A	632	G
1	1A	637	U
1	1A	638	G
1	1A	640	G
1	1A	661	A
1	1A	669	C
1	1A	670	A
1	1A	681	G
1	1A	696	C
1	1A	700	A
1	1A	715	G
1	1A	731	A
1	1A	732	G
1	1A	763	G
1	1A	776	C
1	1A	797	A
1	1A	810	A
1	1A	821	G
1	1A	822	G
1	1A	828	A
1	1A	830	A
1	1A	831	G
1	1A	838	G
1	1A	851	G
1	1A	858	C
1	1A	873	U
1	1A	874	U
1	1A	876	G
1	1A	878	G
1	1A	901	G
1	1A	905	G
1	1A	926	G
1	1A	931	C
1	1A	932	C
1	1A	933	A
1	1A	934	C
1	1A	935	C
1	1A	936	A
1	1A	937	G
1	1A	938	C
1	1A	941	A
1	1A	942	C

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Mol	Chain	Res	Type
1	1A	952	U
1	1A	955	A
1	1A	976	G
1	1A	985	A
1	1A	989	A
1	1A	990	G
1	1A	997	A
1	1A	1002	U
1	1A	1003	A
1	1A	1005	C
1	1A	1018	G
1	1A	1019	C
1	1A	1028	A
1	1A	1041	A
1	1A	1057	U
1	1A	1058	C
1	1A	1067	G
1	1A	1071	U
1	1A	1078	U
1	1A	1083	C
1	1A	1085	C
1	1A	1091	A
1	1A	1092	G
1	1A	1095	A
1	1A	1098	C
1	1A	1099	A
1	1A	1103	G
1	1A	1104	G
1	1A	1105	U
1	1A	1106	U
1	1A	1110	U
1	1A	1111	U
1	1A	1115	A
1	1A	1116	G
1	1A	1117	C
1	1A	1118	A
1	1A	1120	C
1	1A	1121	C
1	1A	1124	C
1	1A	1125	C
1	1A	1128	U
1	1A	1133	A

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Mol	Chain	Res	Type
1	1A	1135	U
1	1A	1140	A
1	1A	1142	U
1	1A	1153	U
1	1A	1154	C
1	1A	1155	G
1	1A	1156	A
1	1A	1157	G
1	1A	1174	A
1	1A	1175	U
1	1A	1179	C
1	1A	1180	G
1	1A	1183	G
1	1A	1185	U
1	1A	1216	G
1	1A	1217	G
1	1A	1218	A
1	1A	1219	U
1	1A	1220	G
1	1A	1221	A
1	1A	1254	A
1	1A	1255	U
1	1A	1264	A
1	1A	1269	C
1	1A	1295	G
1	1A	1298	A
1	1A	1301	G
1	1A	1316	G
1	1A	1317	A
1	1A	1320	A
1	1A	1345	U
1	1A	1346	A
1	1A	1387	A
1	1A	1397	U
1	1A	1404	A
1	1A	1405	A
1	1A	1410	A
1	1A	1425	G
1	1A	1429	A
1	1A	1430	G
1	1A	1440	A
1	1A	1461	G

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Mol	Chain	Res	Type
1	1A	1462	C
1	1A	1465	U
1	1A	1466	G
1	1A	1472	A
1	1A	1473	C
1	1A	1490	A
1	1A	1495	A
1	1A	1496	G
1	1A	1501	G
1	1A	1513	C
1	1A	1517	A
1	1A	1528	G
1	1A	1535	A
1	1A	1538	C
1	1A	1553	A
1	1A	1554	C
1	1A	1555	A
1	1A	1570	G
1	1A	1578	C
1	1A	1588	A
1	1A	1589	C
1	1A	1604	A
1	1A	1612	A
1	1A	1615	A
1	1A	1624	U
1	1A	1626	A
1	1A	1627	G
1	1A	1630	C
1	1A	1631	A
1	1A	1653	A
1	1A	1654	A
1	1A	1658	G
1	1A	1685	U
1	1A	1694	C
1	1A	1710	A
1	1A	1720	G
1	1A	1721	C
1	1A	1742	G
1	1A	1746	A
1	1A	1747	A
1	1A	1765	G
1	1A	1766	A

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Mol	Chain	Res	Type
1	1A	1775	G
1	1A	1792	A
1	1A	1793	G
1	1A	1794	G
1	1A	1803	A
1	1A	1810	A
1	1A	1812	C
1	1A	1821	A
1	1A	1830	C
1	1A	1831	G
1	1A	1838	U
1	1A	1846	G
1	1A	1869	G
1	1A	1877	A
1	1A	1890	G
1	1A	1899	G
1	1A	1910	A
1	1A	1921	A
1	1A	1926	C
1	1A	1927	G
1	1A	1934	A
1	1A	1950	G
1	1A	1951	G
1	1A	1952	U
1	1A	1958	A
1	1A	1959	A
1	1A	1976	U
1	1A	1984	U
1	1A	1988	C
1	1A	1991	A
1	1A	1992	A
1	1A	1993	A
1	1A	2014	U
1	1A	2018	G
1	1A	2042	C
1	1A	2044	G
1	1A	2052	A
1	1A	2053	G
1	1A	2054	A
1	1A	2064	C
1	1A	2072	A
1	1A	2076	C

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Mol	Chain	Res	Type
1	1A	2077	G
1	1A	2078	A
1	1A	2081	A
1	1A	2082	G
1	1A	2083	A
1	1A	2090	G
1	1A	2091	G
1	1A	2120	U
1	1A	2122	G
1	1A	2129	C
1	1A	2132	C
1	1A	2133	G
1	1A	2139	U
1	1A	2140	A
1	1A	2144	G
1	1A	2147	A
1	1A	2148	G
1	1A	2153	U
1	1A	2154	G
1	1A	2155	A
1	1A	2157	C
1	1A	2158	C
1	1A	2159	C
1	1A	2161	C
1	1A	2162	G
1	1A	2163	C
1	1A	2166	C
1	1A	2167	C
1	1A	2178	G
1	1A	2179	A
1	1A	2180	G
1	1A	2185	C
1	1A	2187	G
1	1A	2188	U
1	1A	2189	G
1	1A	2190	A
1	1A	2191	A
1	1A	2193	U
1	1A	2194	A
1	1A	2195	C
1	1A	2196	C
1	1A	2203	G

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Mol	Chain	Res	Type
1	1A	2204	C
1	1A	2205	G
1	1A	2206	C
1	1A	2209	C
1	1A	2210	U
1	1A	2213	G
1	1A	2219	A
1	1A	2220	A
1	1A	2221	C
1	1A	2226	G
1	1A	2227	G
1	1A	2228	A
1	1A	2229	U
1	1A	2230	G
1	1A	2236	A
1	1A	2237	C
1	1A	2249	G
1	1A	2253	G
1	1A	2279	A
1	1A	2280	A
1	1A	2284	A
1	1A	2286	C
1	1A	2291	G
1	1A	2294	C
1	1A	2298	A
1	1A	2316	A
1	1A	2319	G
1	1A	2320	A
1	1A	2323	U
1	1A	2331	A
1	1A	2332	G
1	1A	2335	C
1	1A	2336	G
1	1A	2345	G
1	1A	2347	A
1	1A	2354	C
1	1A	2358	C
1	1A	2361	C
1	1A	2383	G
1	1A	2390	G
1	1A	2394	G
1	1A	2396	C

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Mol	Chain	Res	Type
1	1A	2417	U
1	1A	2433	A
1	1A	2436	A
1	1A	2440	G
1	1A	2441	A
1	1A	2446	A
1	1A	2450	A
1	1A	2452	C
1	1A	2458	G
1	1A	2459	A
1	1A	2487	A
1	1A	2489	A
1	1A	2498	G
1	1A	2509	C
1	1A	2513	G
1	1A	2516	G
1	1A	2517	U
1	1A	2529	A
1	1A	2536	G
1	1A	2540	G
1	1A	2565	U
1	1A	2577	A
1	1A	2578	G
1	1A	2590	C
1	1A	2593	G
1	1A	2597	C
1	1A	2613	A
1	1A	2615	U
1	1A	2620	U
1	1A	2622	U
1	1A	2623	C
1	1A	2640	A
1	1A	2641	G
1	1A	2665	A
1	1A	2700	U
1	1A	2701	C
1	1A	2713	U
1	1A	2724	A
1	1A	2725	A
1	1A	2726	G
1	1A	2732	U
1	1A	2738	U

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Mol	Chain	Res	Type
1	1A	2745	A
1	1A	2760	A
1	1A	2769	A
1	1A	2770	A
1	1A	2777	A
1	1A	2778	G
1	1A	2790	A
1	1A	2793	A
1	1A	2802	A
1	1A	2812	G
1	1A	2829	A
1	1A	2830	A
1	1A	2842	G
1	1A	2848	G
1	1A	2881	G
1	1A	2882	A
1	1A	2889	C
1	1A	2900	A
1	1A	2902	G
2	1B	2	C
2	1B	13	A
2	1B	47	C
2	1B	52	A
2	1B	53	A
2	1B	56	G
2	1B	73	A
2	1B	85	G
2	1B	106	G
2	1B	110	G
34	1a	6	U
34	1a	10	G
34	1a	14	U
34	1a	23	G
34	1a	33	A
34	1a	40	G
34	1a	43	G
34	1a	48	C
34	1a	49	C
34	1a	51	A
34	1a	52	A
34	1a	55	C
34	1a	62	G

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Mol	Chain	Res	Type
34	1a	75	C
34	1a	77	G
34	1a	91	G
34	1a	94	C
34	1a	95	A
34	1a	110	A
34	1a	115	C
34	1a	116	G
34	1a	126	C
34	1a	137	G
34	1a	138	A
34	1a	151	G
34	1a	158	C
34	1a	169	C
34	1a	177	U
34	1a	189	U
34	1a	202	A
34	1a	204	A
34	1a	208	C
34	1a	209	U
34	1a	210	U
34	1a	211	U
34	1a	212	G
34	1a	243	G
34	1a	247	G
34	1a	262	G
34	1a	263	C
34	1a	285	G
34	1a	297	G
34	1a	301	G
34	1a	317	A
34	1a	324	C
34	1a	325	A
34	1a	328	G
34	1a	338	C
34	1a	342	G
34	1a	344	G
34	1a	347	G
34	1a	348	C
34	1a	349	A
34	1a	350	G
34	1a	351	C

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Mol	Chain	Res	Type
34	1a	363	U
34	1a	368	C
34	1a	380	G
34	1a	393	A
34	1a	394	C
34	1a	402	G
34	1a	408	A
34	1a	409	G
34	1a	419	G
34	1a	420	G
34	1a	425	U
34	1a	426	A
34	1a	435	A
34	1a	437	C
34	1a	447	A
34	1a	456	C
34	1a	461	G
34	1a	469	G
34	1a	470	G
34	1a	481	A
34	1a	482	U
34	1a	489	G
34	1a	493	A
34	1a	494	A
34	1a	495	C
34	1a	502	C
34	1a	505	G
34	1a	511	G
34	1a	515	U
34	1a	516	A
34	1a	517	A
34	1a	531	A
34	1a	543	A
34	1a	544	U
34	1a	545	U
34	1a	548	C
34	1a	556	A
34	1a	557	A
34	1a	560	G
34	1a	561	G
34	1a	591	A
34	1a	599	C

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Mol	Chain	Res	Type
34	1a	602	C
34	1a	611	G
34	1a	612	G
34	1a	614	G
34	1a	615	G
34	1a	616	A
34	1a	630	U
34	1a	634	G
34	1a	637	A
34	1a	649	A
34	1a	655	G
34	1a	671	A
34	1a	672	G
34	1a	701	C
34	1a	707	U
34	1a	715	G
34	1a	733	C
34	1a	736	G
34	1a	739	G
34	1a	750	A
34	1a	758	G
34	1a	761	A
34	1a	776	A
34	1a	777	U
34	1a	778	A
34	1a	786	A
34	1a	801	C
34	1a	805	G
34	1a	811	U
34	1a	812	A
34	1a	813	G
34	1a	824	C
34	1a	825	U
34	1a	826	C
34	1a	829	G
34	1a	837	A
34	1a	850	A
34	1a	851	A
34	1a	869	U
34	1a	880	G
34	1a	890	C
34	1a	900	G

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Mol	Chain	Res	Type
34	1a	904	G
34	1a	905	G
34	1a	912	C
34	1a	913	A
34	1a	936	A
34	1a	938	U
34	1a	939	U
34	1a	946	A
34	1a	947	A
34	1a	949	G
34	1a	950	C
34	1a	952	A
34	1a	953	A
34	1a	954	G
34	1a	955	A
34	1a	967	C
34	1a	969	U
34	1a	970	U
34	1a	971	G
34	1a	976	G
34	1a	977	C
34	1a	982	G
34	1a	983	A
34	1a	984	A
34	1a	985	C
34	1a	988	G
34	1a	995	A
34	1a	998	C
34	1a	1000	G
34	1a	1001	G
34	1a	1002	G
34	1a	1003	G
34	1a	1004	U
34	1a	1005	G
34	1a	1006	C
34	1a	1007	C
34	1a	1008	C
34	1a	1009	C
34	1a	1010	G
34	1a	1037	C
34	1a	1038	A
34	1a	1048	U

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Mol	Chain	Res	Type
34	1a	1049	C
34	1a	1051	G
34	1a	1064	G
34	1a	1072	G
34	1a	1077	G
34	1a	1078	U
34	1a	1084	A
34	1a	1105	U
34	1a	1106	A
34	1a	1107	G
34	1a	1109	U
34	1a	1113	A
34	1a	1119	U
34	1a	1120	C
34	1a	1121	G
34	1a	1122	G
34	1a	1123	C
34	1a	1129	A
34	1a	1134	A
34	1a	1135	A
34	1a	1142	U
34	1a	1149	G
34	1a	1163	G
34	1a	1165	A
34	1a	1166	G
34	1a	1178	U
34	1a	1179	G
34	1a	1183	A
34	1a	1184	G
34	1a	1194	U
34	1a	1195	A
34	1a	1196	C
34	1a	1209	A
34	1a	1210	C
34	1a	1218	A
34	1a	1220	A
34	1a	1222	U
34	1a	1235	G
34	1a	1238	A
34	1a	1239	U
34	1a	1240	G
34	1a	1242	C

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Mol	Chain	Res	Type
34	1a	1244	C
34	1a	1252	C
34	1a	1260	U
34	1a	1261	A
34	1a	1262	A
34	1a	1263	U
34	1a	1264	C
34	1a	1268	A
34	1a	1269	A
34	1a	1281	A
34	1a	1282	G
34	1a	1284	U
34	1a	1287	G
34	1a	1294	G
34	1a	1299	C
34	1a	1304	C
34	1a	1306	A
34	1a	1320	G
34	1a	1322	A
34	1a	1329	G
34	1a	1335	G
34	1a	1340	U
34	1a	1342	A
34	1a	1345	C
34	1a	1351	G
34	1a	1353	G
34	1a	1380	C
34	1a	1381	A
34	1a	1402	G
34	1a	1426	G
34	1a	1430	C
34	1a	1431	U
34	1a	1432	A
34	1a	1433	C
34	1a	1434	G
34	1a	1465	G
34	1a	1475	G
34	1a	1482	G
34	1a	1484	U
34	1a	1495	G
34	1a	1497	A
34	1a	1507	G

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Mol	Chain	Res	Type
34	1a	1508	G
34	1a	1509	A
57	1w	6	G
57	1w	9	G
57	1w	13	C
57	1w	16	C
57	1w	17	C
57	1w	20	U
57	1w	21	A
57	1w	31	G
57	1w	43	A
57	1w	47	U
57	1w	52	G
57	1w	53	G
57	1w	54	5MU
57	1w	61	C
57	1w	65	C
57	1w	66	C
57	1w	67	C
57	1w	73	A
57	1w	76	A
1	2A	10	G
1	2A	11	U
1	2A	33	C
1	2A	35	G
1	2A	44	C
1	2A	59	G
1	2A	69	A
1	2A	72	A
1	2A	73	G
1	2A	81	G
1	2A	82	A
1	2A	88	U
1	2A	91	C
1	2A	93	G
1	2A	96	G
1	2A	98	G
1	2A	99	G
1	2A	100	A
1	2A	115	A
1	2A	116	A
1	2A	117	U

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Mol	Chain	Res	Type
1	2A	138	A
1	2A	154	C
1	2A	155	U
1	2A	170	A
1	2A	184	A
1	2A	193	G
1	2A	202	G
1	2A	203	G
1	2A	204	A
1	2A	209	A
1	2A	210	A
1	2A	216	A
1	2A	217	A
1	2A	218	U
1	2A	221	A
1	2A	236	G
1	2A	240	G
1	2A	252	C
1	2A	254	G
1	2A	268	G
1	2A	269	C
1	2A	271	U
1	2A	272	G
1	2A	273	U
1	2A	287	U
1	2A	288	G
1	2A	300	C
1	2A	301	A
1	2A	325	C
1	2A	334	A
1	2A	335	G
1	2A	352	G
1	2A	353	A
1	2A	356	G
1	2A	361	G
1	2A	375	G
1	2A	385	U
1	2A	386	G
1	2A	388	G
1	2A	406	U
1	2A	412	G
1	2A	422	G

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Mol	Chain	Res	Type
1	2A	437	G
1	2A	438	A
1	2A	454	A
1	2A	468	A
1	2A	469	C
1	2A	471	G
1	2A	479	A
1	2A	480	C
1	2A	495	A
1	2A	506	G
1	2A	507	A
1	2A	528	U
1	2A	529	A
1	2A	533	C
1	2A	552	A
1	2A	553	A
1	2A	554	G
1	2A	555	C
1	2A	556	A
1	2A	557	G
1	2A	568	G
1	2A	573	G
1	2A	585	G
1	2A	595	G
1	2A	597	A
1	2A	608	A
1	2A	610	U
1	2A	625	A
1	2A	626	G
1	2A	629	U
1	2A	635	G
1	2A	638	G
1	2A	640	G
1	2A	641	G
1	2A	642	C
1	2A	644	G
1	2A	651	A
1	2A	661	A
1	2A	669	C
1	2A	670	A
1	2A	674	C
1	2A	678	A

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Mol	Chain	Res	Type
1	2A	679	G
1	2A	680	C
1	2A	697	G
1	2A	713	U
1	2A	715	G
1	2A	732	G
1	2A	763	G
1	2A	776	C
1	2A	807	A
1	2A	808	U
1	2A	810	A
1	2A	811	G
1	2A	817	G
1	2A	820	A
1	2A	821	G
1	2A	822	G
1	2A	828	A
1	2A	830	A
1	2A	831	G
1	2A	835	A
1	2A	838	G
1	2A	851	G
1	2A	858	C
1	2A	865	A
1	2A	873	U
1	2A	874	U
1	2A	877	G
1	2A	905	G
1	2A	912	A
1	2A	915	G
1	2A	918	A
1	2A	925	G
1	2A	926	G
1	2A	928	G
1	2A	930	C
1	2A	932	C
1	2A	933	A
1	2A	935	C
1	2A	936	A
1	2A	938	C
1	2A	941	A
1	2A	942	C

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Mol	Chain	Res	Type
1	2A	943	C
1	2A	945	A
1	2A	946	A
1	2A	955	A
1	2A	959	C
1	2A	962	A
1	2A	975	G
1	2A	976	G
1	2A	982	G
1	2A	985	A
1	2A	989	A
1	2A	990	G
1	2A	997	A
1	2A	1002	U
1	2A	1003	A
1	2A	1005	C
1	2A	1018	G
1	2A	1019	C
1	2A	1025	A
1	2A	1028	A
1	2A	1041	A
1	2A	1053	C
1	2A	1057	U
1	2A	1058	C
1	2A	1067	G
1	2A	1070	G
1	2A	1075	G
1	2A	1078	U
1	2A	1083	C
1	2A	1084	G
1	2A	1087	G
1	2A	1088	C
1	2A	1090	A
1	2A	1092	G
1	2A	1093	A
1	2A	1099	A
1	2A	1103	G
1	2A	1105	U
1	2A	1106	U
1	2A	1107	G
1	2A	1108	G
1	2A	1109	C

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Mol	Chain	Res	Type
1	2A	1114	A
1	2A	1115	A
1	2A	1117	C
1	2A	1121	C
1	2A	1124	C
1	2A	1127	U
1	2A	1128	U
1	2A	1132	G
1	2A	1133	A
1	2A	1134	G
1	2A	1135	U
1	2A	1142	U
1	2A	1143	A
1	2A	1145	C
1	2A	1151	G
1	2A	1152	G
1	2A	1154	C
1	2A	1155	G
1	2A	1156	A
1	2A	1157	G
1	2A	1158	U
1	2A	1164	C
1	2A	1167	G
1	2A	1173	A
1	2A	1174	A
1	2A	1175	U
1	2A	1179	C
1	2A	1180	G
1	2A	1183	G
1	2A	1200	A
1	2A	1216	G
1	2A	1249	U
1	2A	1250	G
1	2A	1256	G
1	2A	1264	A
1	2A	1293	G
1	2A	1298	A
1	2A	1301	G
1	2A	1316	G
1	2A	1317	A
1	2A	1329	A
1	2A	1345	U

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Mol	Chain	Res	Type
1	2A	1346	A
1	2A	1350	C
1	2A	1359	C
1	2A	1366	A
1	2A	1372	C
1	2A	1374	U
1	2A	1397	U
1	2A	1404	A
1	2A	1405	A
1	2A	1410	A
1	2A	1413	G
1	2A	1415	C
1	2A	1417	U
1	2A	1418	A
1	2A	1425	G
1	2A	1429	A
1	2A	1430	G
1	2A	1431	C
1	2A	1461	G
1	2A	1462	C
1	2A	1465	U
1	2A	1466	G
1	2A	1473	C
1	2A	1490	A
1	2A	1495	A
1	2A	1496	G
1	2A	1501	G
1	2A	1505	G
1	2A	1506	A
1	2A	1513	C
1	2A	1517	A
1	2A	1528	G
1	2A	1534	U
1	2A	1535	A
1	2A	1538	C
1	2A	1542	U
1	2A	1553	A
1	2A	1554	C
1	2A	1555	A
1	2A	1579	G
1	2A	1588	A
1	2A	1591	A

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Mol	Chain	Res	Type
1	2A	1594	C
1	2A	1604	A
1	2A	1605	G
1	2A	1615	A
1	2A	1624	U
1	2A	1626	A
1	2A	1630	C
1	2A	1631	A
1	2A	1653	A
1	2A	1654	A
1	2A	1655	A
1	2A	1661	A
1	2A	1662	C
1	2A	1676	C
1	2A	1677	A
1	2A	1686	C
1	2A	1692	C
1	2A	1694	C
1	2A	1697	G
1	2A	1700	A
1	2A	1720	G
1	2A	1742	G
1	2A	1746	A
1	2A	1747	A
1	2A	1749	G
1	2A	1765	G
1	2A	1766	A
1	2A	1768	G
1	2A	1786	G
1	2A	1788	G
1	2A	1792	A
1	2A	1793	G
1	2A	1794	G
1	2A	1803	A
1	2A	1810	A
1	2A	1812	C
1	2A	1813	A
1	2A	1821	A
1	2A	1828	U
1	2A	1830	C
1	2A	1831	G
1	2A	1846	G

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Mol	Chain	Res	Type
1	2A	1865	G
1	2A	1869	G
1	2A	1877	A
1	2A	1898	A
1	2A	1899	G
1	2A	1910	A
1	2A	1921	A
1	2A	1927	G
1	2A	1934	A
1	2A	1935	C
1	2A	1950	G
1	2A	1951	G
1	2A	1957	A
1	2A	1959	A
1	2A	1965	U
1	2A	1973	A
1	2A	1976	U
1	2A	1984	U
1	2A	1986	C
1	2A	1988	C
1	2A	1991	A
1	2A	1992	A
1	2A	1993	A
1	2A	2013	G
1	2A	2014	U
1	2A	2018	G
1	2A	2041	A
1	2A	2042	C
1	2A	2044	G
1	2A	2052	A
1	2A	2054	A
1	2A	2064	C
1	2A	2076	C
1	2A	2077	G
1	2A	2081	A
1	2A	2082	G
1	2A	2083	A
1	2A	2090	G
1	2A	2103	A
1	2A	2114	G
1	2A	2120	U
1	2A	2123	U

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Mol	Chain	Res	Type
1	2A	2124	C
1	2A	2126	C
1	2A	2127	G
1	2A	2128	C
1	2A	2131	G
1	2A	2132	C
1	2A	2134	U
1	2A	2136	G
1	2A	2137	G
1	2A	2140	A
1	2A	2143	U
1	2A	2147	A
1	2A	2148	G
1	2A	2149	C
1	2A	2150	C
1	2A	2152	G
1	2A	2153	U
1	2A	2154	G
1	2A	2155	A
1	2A	2157	C
1	2A	2158	C
1	2A	2161	C
1	2A	2163	C
1	2A	2165	U
1	2A	2167	C
1	2A	2169	G
1	2A	2171	U
1	2A	2174	G
1	2A	2175	G
1	2A	2178	G
1	2A	2179	A
1	2A	2183	G
1	2A	2185	C
1	2A	2186	G
1	2A	2188	U
1	2A	2189	G
1	2A	2193	U
1	2A	2194	A
1	2A	2195	C
1	2A	2198	C
1	2A	2202	G
1	2A	2203	G

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Mol	Chain	Res	Type
1	2A	2209	C
1	2A	2210	U
1	2A	2211	G
1	2A	2219	A
1	2A	2226	G
1	2A	2227	G
1	2A	2228	A
1	2A	2229	U
1	2A	2230	G
1	2A	2236	A
1	2A	2249	G
1	2A	2250	G
1	2A	2279	A
1	2A	2280	A
1	2A	2286	C
1	2A	2289	A
1	2A	2291	G
1	2A	2294	C
1	2A	2297	A
1	2A	2298	A
1	2A	2300	G
1	2A	2316	A
1	2A	2319	G
1	2A	2320	A
1	2A	2329	G
1	2A	2330	G
1	2A	2331	A
1	2A	2332	G
1	2A	2336	G
1	2A	2337	C
1	2A	2338	A
1	2A	2345	G
1	2A	2347	A
1	2A	2354	C
1	2A	2358	C
1	2A	2361	C
1	2A	2365	G
1	2A	2387	A
1	2A	2390	G
1	2A	2394	G
1	2A	2396	C
1	2A	2402	G

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Mol	Chain	Res	Type
1	2A	2412	U
1	2A	2417	U
1	2A	2421	G
1	2A	2433	A
1	2A	2434	U
1	2A	2436	A
1	2A	2439	G
1	2A	2440	G
1	2A	2441	A
1	2A	2446	A
1	2A	2450	A
1	2A	2451	C
1	2A	2452	C
1	2A	2459	A
1	2A	2480	A
1	2A	2485	C
1	2A	2487	A
1	2A	2502	U
1	2A	2513	G
1	2A	2516	G
1	2A	2517	U
1	2A	2529	A
1	2A	2531	C
1	2A	2565	U
1	2A	2573	U
1	2A	2577	A
1	2A	2578	G
1	2A	2584	C
1	2A	2597	C
1	2A	2613	A
1	2A	2615	U
1	2A	2620	U
1	2A	2622	U
1	2A	2623	C
1	2A	2632	A
1	2A	2640	A
1	2A	2641	G
1	2A	2665	A
1	2A	2674	G
1	2A	2700	U
1	2A	2701	C
1	2A	2702	C

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Mol	Chain	Res	Type
1	2A	2714	C
1	2A	2724	A
1	2A	2725	A
1	2A	2726	G
1	2A	2738	U
1	2A	2745	A
1	2A	2765	A
1	2A	2769	A
1	2A	2770	A
1	2A	2773	G
1	2A	2776	A
1	2A	2777	A
1	2A	2782	G
1	2A	2789	G
1	2A	2790	A
1	2A	2793	A
1	2A	2794	G
1	2A	2801	C
1	2A	2812	G
1	2A	2813	C
1	2A	2817	U
1	2A	2827	G
1	2A	2829	A
1	2A	2830	A
1	2A	2844	A
1	2A	2848	G
1	2A	2881	G
1	2A	2885	G
1	2A	2889	C
1	2A	2900	A
1	2A	2901	G
1	2A	2902	G
2	2B	7	G
2	2B	8	U
2	2B	13	A
2	2B	23	G
2	2B	25	A
2	2B	32	C
2	2B	42	C
2	2B	51	G
2	2B	53	A
2	2B	56	G

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Mol	Chain	Res	Type
2	2B	58	A
2	2B	73	A
2	2B	85	G
2	2B	89	G
2	2B	98	G
2	2B	106	G
2	2B	110	G
34	2a	6	U
34	2a	10	G
34	2a	14	U
34	2a	23	G
34	2a	33	A
34	2a	40	G
34	2a	43	G
34	2a	48	C
34	2a	49	C
34	2a	51	A
34	2a	52	A
34	2a	53	G
34	2a	55	C
34	2a	67	G
34	2a	77	G
34	2a	84	A
34	2a	85	C
34	2a	91	G
34	2a	94	C
34	2a	95	A
34	2a	110	A
34	2a	115	C
34	2a	126	C
34	2a	137	G
34	2a	138	A
34	2a	158	C
34	2a	169	C
34	2a	177	U
34	2a	189	U
34	2a	202	A
34	2a	204	A
34	2a	208	C
34	2a	210	U
34	2a	211	U
34	2a	212	G

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Mol	Chain	Res	Type
34	2a	243	G
34	2a	247	G
34	2a	262	G
34	2a	263	C
34	2a	285	G
34	2a	297	G
34	2a	301	G
34	2a	317	A
34	2a	324	C
34	2a	325	A
34	2a	328	G
34	2a	338	C
34	2a	340	A
34	2a	342	G
34	2a	347	G
34	2a	348	C
34	2a	349	A
34	2a	350	G
34	2a	351	C
34	2a	363	U
34	2a	368	C
34	2a	380	G
34	2a	394	C
34	2a	402	G
34	2a	408	A
34	2a	409	G
34	2a	419	G
34	2a	420	G
34	2a	425	U
34	2a	426	A
34	2a	435	A
34	2a	437	C
34	2a	447	A
34	2a	456	C
34	2a	469	G
34	2a	470	G
34	2a	481	A
34	2a	482	U
34	2a	489	G
34	2a	493	A
34	2a	494	A
34	2a	495	C

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Mol	Chain	Res	Type
34	2a	502	C
34	2a	505	G
34	2a	511	G
34	2a	515	U
34	2a	516	A
34	2a	517	A
34	2a	531	A
34	2a	543	A
34	2a	544	U
34	2a	545	U
34	2a	548	C
34	2a	556	A
34	2a	557	A
34	2a	560	G
34	2a	561	G
34	2a	591	A
34	2a	599	C
34	2a	602	C
34	2a	611	G
34	2a	612	G
34	2a	614	G
34	2a	616	A
34	2a	630	U
34	2a	634	G
34	2a	637	A
34	2a	649	A
34	2a	655	G
34	2a	671	A
34	2a	672	G
34	2a	701	C
34	2a	707	U
34	2a	715	G
34	2a	733	C
34	2a	736	G
34	2a	739	G
34	2a	750	A
34	2a	758	G
34	2a	761	A
34	2a	776	A
34	2a	777	U
34	2a	778	A
34	2a	786	A

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Mol	Chain	Res	Type
34	2a	801	C
34	2a	805	G
34	2a	811	U
34	2a	812	A
34	2a	813	G
34	2a	824	C
34	2a	825	U
34	2a	826	C
34	2a	829	G
34	2a	837	A
34	2a	850	A
34	2a	851	A
34	2a	869	U
34	2a	880	G
34	2a	890	C
34	2a	892	A
34	2a	900	G
34	2a	904	G
34	2a	905	G
34	2a	912	C
34	2a	913	A
34	2a	936	A
34	2a	938	U
34	2a	939	U
34	2a	946	A
34	2a	947	A
34	2a	949	G
34	2a	950	C
34	2a	952	A
34	2a	953	A
34	2a	954	G
34	2a	955	A
34	2a	967	C
34	2a	969	U
34	2a	970	U
34	2a	971	G
34	2a	981	G
34	2a	982	G
34	2a	984	A
34	2a	985	C
34	2a	995	A
34	2a	998	C

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Mol	Chain	Res	Type
34	2a	1000	G
34	2a	1001	G
34	2a	1003	G
34	2a	1004	U
34	2a	1005	G
34	2a	1006	C
34	2a	1007	C
34	2a	1009	C
34	2a	1010	G
34	2a	1016	G
34	2a	1024	A
34	2a	1033	G
34	2a	1048	U
34	2a	1049	C
34	2a	1051	G
34	2a	1064	G
34	2a	1072	G
34	2a	1077	G
34	2a	1078	U
34	2a	1084	A
34	2a	1100	G
34	2a	1107	G
34	2a	1109	U
34	2a	1112	C
34	2a	1113	A
34	2a	1119	U
34	2a	1120	C
34	2a	1121	G
34	2a	1122	G
34	2a	1123	C
34	2a	1129	A
34	2a	1134	A
34	2a	1135	A
34	2a	1142	U
34	2a	1149	G
34	2a	1163	G
34	2a	1165	A
34	2a	1166	G
34	2a	1178	U
34	2a	1179	G
34	2a	1183	A
34	2a	1184	G

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Mol	Chain	Res	Type
34	2a	1194	U
34	2a	1195	A
34	2a	1196	C
34	2a	1202	G
34	2a	1207	A
34	2a	1209	A
34	2a	1210	C
34	2a	1218	A
34	2a	1220	A
34	2a	1222	U
34	2a	1235	G
34	2a	1238	A
34	2a	1239	U
34	2a	1240	G
34	2a	1242	C
34	2a	1244	C
34	2a	1260	U
34	2a	1261	A
34	2a	1262	A
34	2a	1263	U
34	2a	1268	A
34	2a	1269	A
34	2a	1281	A
34	2a	1282	G
34	2a	1287	G
34	2a	1299	C
34	2a	1304	C
34	2a	1306	A
34	2a	1320	G
34	2a	1322	A
34	2a	1329	G
34	2a	1335	G
34	2a	1340	U
34	2a	1342	A
34	2a	1345	C
34	2a	1351	G
34	2a	1353	G
34	2a	1380	C
34	2a	1381	A
34	2a	1402	G
34	2a	1426	G
34	2a	1430	C

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Mol	Chain	Res	Type
34	2a	1431	U
34	2a	1432	A
34	2a	1433	C
34	2a	1434	G
34	2a	1475	G
34	2a	1482	G
34	2a	1484	U
34	2a	1495	G
34	2a	1497	A
34	2a	1498	G
34	2a	1507	G
34	2a	1508	G
34	2a	1509	A
34	2a	1510	U
57	2w	6	G
57	2w	9	G
57	2w	13	C
57	2w	16	C
57	2w	17	C
57	2w	20	U
57	2w	21	A
57	2w	31	G
57	2w	43	A
57	2w	47	U
57	2w	50	U
57	2w	52	G
57	2w	61	C
57	2w	65	C
57	2w	66	C
57	2w	67	C
57	2w	73	A
57	2w	76	A

All (47) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	183	A
1	1A	184	A
1	1A	270	U
1	1A	301	A
1	1A	792	A
1	1A	1097	C

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Mol	Chain	Res	Type
1	1A	1134	G
1	1A	1153	U
1	1A	1187	A
1	1A	1218	A
1	1A	1219	U
1	1A	1220	G
1	1A	1238	A
1	1A	1254	A
1	1A	1425	G
1	1A	1653	A
1	1A	2013	G
1	1A	2204	C
1	1A	2208	G
1	1A	2433	A
1	1A	2450	A
1	1A	2700	U
1	1A	2768	U
1	1A	2901	G
2	1B	52	A
1	2A	183	A
1	2A	272	G
1	2A	300	C
1	2A	552	A
1	2A	810	A
1	2A	945	A
1	2A	1047	G
1	2A	1087	G
1	2A	1238	A
1	2A	1424	A
1	2A	1425	G
1	2A	1604	A
1	2A	1699	G
1	2A	1934	A
1	2A	1964	U
1	2A	2013	G
1	2A	2131	G
1	2A	2329	G
1	2A	2417	U
1	2A	2433	A
1	2A	2700	U
1	2A	2768	U

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
57	5MC	1w	32	57	19,22,23	1.78	3 (15%)	26,32,35	1.17	2 (7%)
57	5MU	1w	54	57	19,22,23	1.46	5 (26%)	27,32,35	1.89	6 (22%)
57	4SU	1w	8	57	18,21,22	2.13	4 (22%)	25,30,33	1.45	6 (24%)
57	4SU	2w	8	57	18,21,22	2.05	4 (22%)	25,30,33	1.23	4 (16%)
57	5MU	2w	54	57	19,22,23	1.40	4 (21%)	27,32,35	2.18	6 (22%)
57	PSU	2w	55	57	18,21,22	1.43	2 (11%)	21,30,33	2.18	5 (23%)
57	5MC	2w	32	57	19,22,23	1.88	3 (15%)	26,32,35	1.27	3 (11%)
57	PSU	1w	55	57	18,21,22	1.33	2 (11%)	21,30,33	1.97	4 (19%)

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	5MC	1w	32	57	-	0/7/25/26	0/2/2/2
57	5MU	1w	54	57	-	2/7/25/26	0/2/2/2
57	4SU	1w	8	57	-	0/7/25/26	0/2/2/2
57	4SU	2w	8	57	-	0/7/25/26	0/2/2/2
57	5MU	2w	54	57	-	0/7/25/26	0/2/2/2
57	PSU	2w	55	57	-	0/7/25/26	0/2/2/2
57	5MC	2w	32	57	-	0/7/25/26	0/2/2/2
57	PSU	1w	55	57	-	0/7/25/26	0/2/2/2

All (27) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	2w	32	5MC	C5-C4	6.96	1.49	1.44
57	1w	32	5MC	C5-C4	6.51	1.49	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	2w	8	4SU	C4-N3	-5.08	1.32	1.37
57	1w	8	4SU	C4-N3	-4.99	1.32	1.37
57	1w	8	4SU	C4-S4	-4.52	1.60	1.68
57	2w	8	4SU	C4-S4	-4.29	1.61	1.68
57	1w	8	4SU	C2-N3	-3.74	1.31	1.38
57	2w	55	PSU	C6-C5	3.67	1.39	1.35
57	1w	55	PSU	C6-C5	3.50	1.39	1.35
57	1w	8	4SU	C5-C4	-3.37	1.38	1.42
57	2w	8	4SU	C2-N3	-3.20	1.32	1.38
57	2w	8	4SU	C5-C4	-3.10	1.38	1.42
57	2w	32	5MC	C6-C5	3.04	1.39	1.34
57	2w	54	5MU	C6-C5	3.02	1.39	1.34
57	1w	54	5MU	C6-C5	2.86	1.39	1.34
57	1w	32	5MC	C6-C5	2.85	1.39	1.34
57	1w	54	5MU	C4-N3	-2.71	1.33	1.38
57	2w	55	PSU	C4-N3	-2.65	1.33	1.38
57	1w	55	PSU	C4-N3	-2.58	1.34	1.38
57	2w	54	5MU	C4-N3	-2.56	1.34	1.38
57	2w	54	5MU	C4-C5	2.53	1.48	1.44
57	1w	54	5MU	C2-N1	2.52	1.42	1.38
57	1w	32	5MC	C6-N1	-2.38	1.34	1.38
57	1w	54	5MU	C4-C5	2.35	1.48	1.44
57	2w	54	5MU	C6-N1	-2.15	1.34	1.38
57	1w	54	5MU	C6-N1	-2.08	1.34	1.38
57	2w	32	5MC	C6-N1	-2.05	1.34	1.38

All (36) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	2w	55	PSU	N1-C2-N3	6.81	122.35	115.17
57	1w	55	PSU	N1-C2-N3	5.91	121.40	115.17
57	2w	54	5MU	C4-N3-C2	-5.42	120.24	127.34
57	2w	54	5MU	N3-C2-N1	5.21	121.67	114.89
57	1w	54	5MU	N3-C2-N1	4.72	121.03	114.89
57	2w	54	5MU	C5-C4-N3	4.60	119.32	115.32
57	2w	55	PSU	C4-N3-C2	-4.36	120.36	126.37
57	1w	54	5MU	C4-N3-C2	-4.28	121.73	127.34
57	1w	55	PSU	C4-N3-C2	-4.10	120.72	126.37
57	2w	54	5MU	O4-C4-C5	-3.91	120.44	124.92
57	2w	54	5MU	C5-C6-N1	-3.89	119.09	123.31
57	1w	8	4SU	C6-C5-C4	-3.77	116.69	119.95
57	2w	54	5MU	O2-C2-N1	-3.73	117.94	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	1w	32	5MC	C5-C6-N1	-3.55	119.46	123.31
57	2w	32	5MC	C5-C6-N1	-3.53	119.48	123.31
57	1w	54	5MU	C5-C4-N3	3.43	118.30	115.32
57	1w	54	5MU	O4-C4-C5	-3.37	121.06	124.92
57	2w	55	PSU	O2-C2-N1	-3.15	119.54	122.79
57	1w	54	5MU	C5-C6-N1	-3.14	119.90	123.31
57	1w	32	5MC	C5-C4-N3	-3.10	118.58	121.75
57	1w	8	4SU	C5-C4-N3	3.07	117.60	114.75
57	2w	8	4SU	C6-C5-C4	-3.05	117.31	119.95
57	2w	32	5MC	O2-C2-N3	-3.03	117.55	122.33
57	2w	32	5MC	C5-C4-N3	-2.86	118.82	121.75
57	1w	55	PSU	O2-C2-N1	-2.84	119.86	122.79
57	2w	55	PSU	C5-C6-N1	-2.83	118.21	122.14
57	1w	8	4SU	O2-C2-N1	2.64	126.23	122.80
57	2w	8	4SU	C1'-N1-C2	2.56	122.20	117.59
57	1w	55	PSU	C5-C6-N1	-2.53	118.63	122.14
57	1w	8	4SU	C1'-N1-C2	2.53	122.13	117.59
57	2w	8	4SU	C5-C4-N3	2.50	117.07	114.75
57	2w	55	PSU	O2-C2-N3	-2.11	118.11	121.86
57	2w	8	4SU	C6-N1-C2	-2.09	118.45	121.00
57	1w	54	5MU	C1'-N1-C2	2.07	121.30	117.59
57	1w	8	4SU	C6-N1-C2	-2.05	118.50	121.00
57	1w	8	4SU	O2-C2-N3	-2.01	117.77	121.49

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	1w	54	5MU	O4'-C4'-C5'-O5'
57	1w	54	5MU	C3'-C4'-C5'-O5'

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	1w	8	4SU	1	0
57	2w	8	4SU	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1945 ligands modelled in this entry, 1941 are monoatomic - leaving 4 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
61	SF4	2d	501	37	0,12,12	-	-	-		
61	SF4	1d	501	37	0,12,12	-	-	-		
62	GDP	1z	701	59	29,30,30	1.14	3 (10%)	45,47,47	1.78	6 (13%)
62	GDP	2z	702	59	29,30,30	1.14	3 (10%)	45,47,47	1.69	7 (15%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
61	SF4	2d	501	37	-	-	0/6/5/5
61	SF4	1d	501	37	-	-	0/6/5/5
62	GDP	1z	701	59	-	0/16/32/32	0/3/3/3
62	GDP	2z	702	59	-	2/16/32/32	0/3/3/3

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	2z	702	GDP	C5-C4	3.13	1.47	1.38
62	1z	701	GDP	C5-C4	3.11	1.47	1.38
62	1z	701	GDP	C6-N1	-2.49	1.34	1.38
62	1z	701	GDP	C5-N7	-2.34	1.34	1.39
62	2z	702	GDP	C6-N1	-2.33	1.34	1.38
62	2z	702	GDP	C5-N7	-2.27	1.34	1.39

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	1z	701	GDP	C5-C4-N3	-6.36	118.27	128.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	2z	702	GDP	C5-C4-N3	-5.86	119.07	128.39
62	1z	701	GDP	C2-N3-C4	5.01	120.93	112.30
62	2z	702	GDP	C2-N3-C4	4.80	120.56	112.30
62	1z	701	GDP	N9-C4-N3	4.68	135.31	125.95
62	2z	702	GDP	N9-C4-N3	4.42	134.80	125.95
62	1z	701	GDP	C6-C5-N7	3.08	135.89	130.29
62	2z	702	GDP	C6-C5-N7	3.03	135.81	130.29
62	1z	701	GDP	C4-C5-N7	-2.62	106.53	110.67
62	2z	702	GDP	C4-C5-N7	-2.46	106.77	110.67
62	1z	701	GDP	O6-C6-C5	-2.15	120.85	126.53
62	2z	702	GDP	O6-C6-C5	-2.07	121.06	126.53
62	2z	702	GDP	O4'-C1'-N9	2.01	112.92	108.36

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
62	2z	702	GDP	O4'-C4'-C5'-O5'
62	2z	702	GDP	C3'-C4'-C5'-O5'

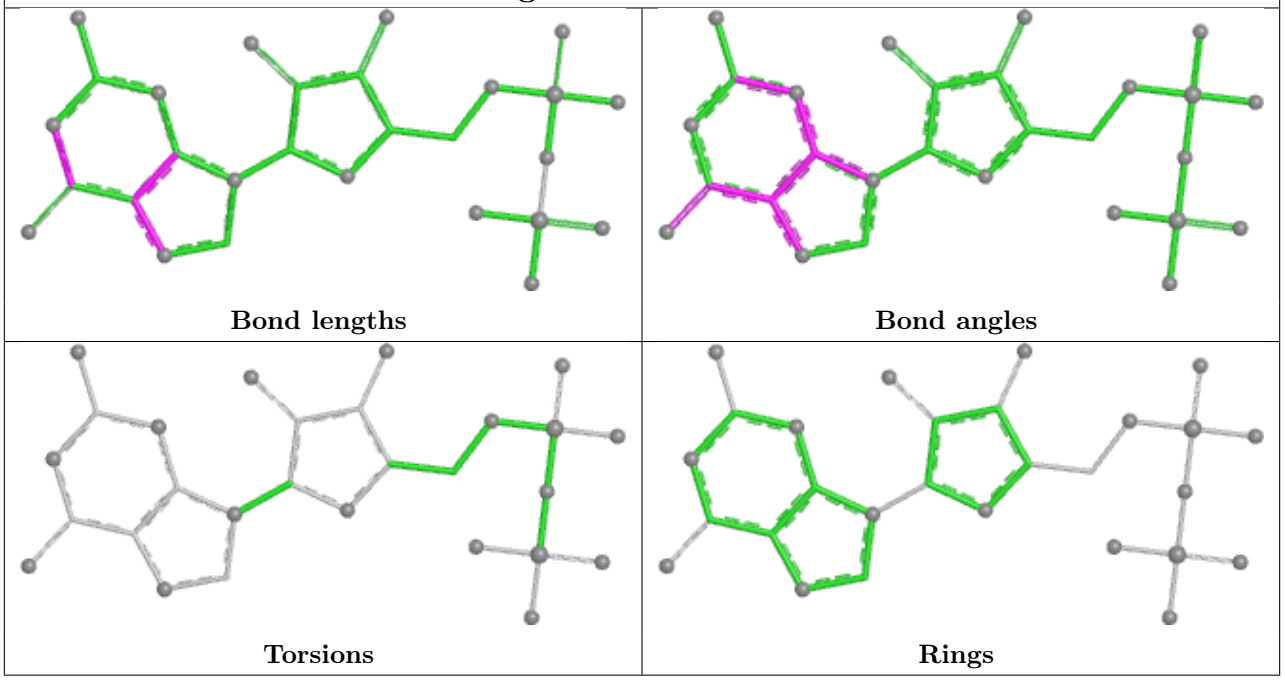
There are no ring outliers.

2 monomers are involved in 8 short contacts:

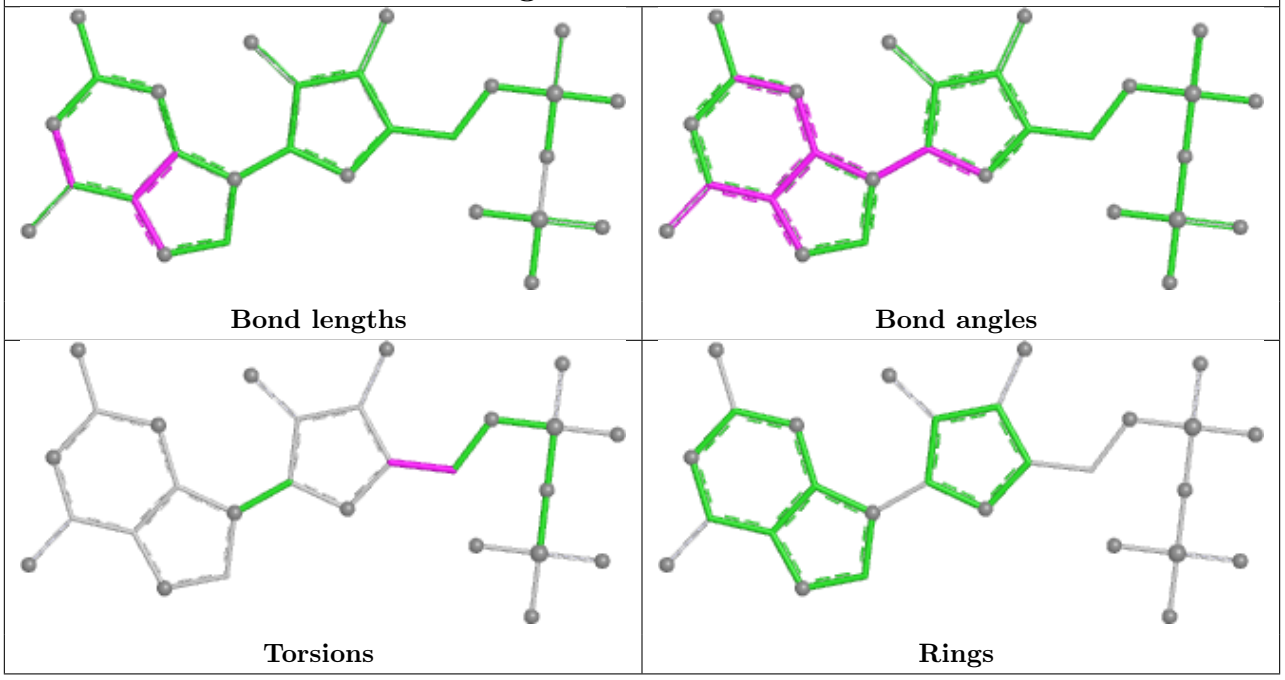
Mol	Chain	Res	Type	Clashes	Symm-Clashes
62	1z	701	GDP	3	0
62	2z	702	GDP	5	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand GDP 1z 701



Ligand GDP 2z 702



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	1A	2872/2915 (98%)	-0.35	107 (3%) 45 25	20, 43, 93, 111	0
1	2A	2868/2915 (98%)	-0.38	102 (3%) 46 26	22, 46, 97, 112	0
2	1B	120/121 (99%)	-0.17	1 (0%) 82 64	37, 57, 71, 82	0
2	2B	120/121 (99%)	-0.07	0 100 100	43, 62, 74, 83	0
3	1C	135/229 (58%)	2.59	98 (72%) 0 0	64, 99, 105, 108	2 (1%)
3	2C	135/229 (58%)	2.73	96 (71%) 0 0	65, 100, 104, 108	2 (1%)
4	1D	275/276 (99%)	-0.25	2 (0%) 84 66	23, 41, 57, 85	0
4	2D	275/276 (99%)	-0.31	0 100 100	24, 42, 58, 84	0
5	1E	204/206 (99%)	-0.17	0 100 100	23, 44, 63, 75	0
5	2E	204/206 (99%)	-0.23	0 100 100	22, 48, 65, 77	0
6	1F	203/210 (96%)	-0.01	0 100 100	22, 51, 72, 89	0
6	2F	203/210 (96%)	-0.09	0 100 100	25, 54, 73, 88	0
7	1G	181/182 (99%)	0.23	2 (1%) 78 57	50, 66, 81, 88	0
7	2G	181/182 (99%)	0.44	1 (0%) 85 69	55, 69, 82, 90	0
8	1H	174/180 (96%)	0.29	1 (0%) 85 69	45, 62, 75, 81	0
8	2H	174/180 (96%)	0.45	2 (1%) 78 57	50, 66, 78, 83	0
9	1J	130/173 (75%)	1.00	17 (13%) 7 4	65, 82, 95, 100	0
9	2J	130/173 (75%)	1.44	37 (28%) 1 1	70, 88, 100, 104	0
10	1K	67/147 (45%)	1.56	17 (25%) 1 1	79, 94, 100, 102	0
10	2K	66/147 (44%)	2.58	45 (68%) 0 0	87, 95, 101, 104	0
11	1L	140/140 (100%)	-0.07	1 (0%) 84 66	31, 44, 65, 82	0
11	2L	140/140 (100%)	-0.14	1 (0%) 84 66	33, 49, 67, 81	0
12	1M	122/122 (100%)	-0.27	0 100 100	27, 46, 64, 71	0
12	2M	122/122 (100%)	-0.31	0 100 100	30, 47, 66, 73	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1N	149/150 (99%)	0.03	1 (0%) 84 66	24, 53, 76, 84	0
13	2N	149/150 (99%)	0.04	0 100 100	27, 56, 77, 88	0
14	1O	141/141 (100%)	0.02	1 (0%) 84 66	32, 48, 61, 74	0
14	2O	141/141 (100%)	-0.06	1 (0%) 84 66	35, 51, 65, 76	0
15	1P	118/118 (100%)	-0.11	0 100 100	27, 40, 54, 66	0
15	2P	118/118 (100%)	-0.18	0 100 100	29, 43, 58, 68	0
16	1Q	110/112 (98%)	0.07	0 100 100	44, 56, 71, 76	0
16	2Q	110/112 (98%)	0.34	2 (1%) 67 44	47, 60, 73, 78	0
17	1R	131/146 (89%)	0.02	3 (2%) 61 38	33, 50, 72, 84	0
17	2R	131/146 (89%)	-0.06	1 (0%) 82 64	34, 52, 73, 82	0
18	1S	116/118 (98%)	-0.54	1 (0%) 81 61	15, 31, 47, 71	0
18	2S	116/118 (98%)	-0.01	0 100 100	37, 56, 70, 74	0
19	1T	101/101 (100%)	-0.63	0 100 100	21, 35, 57, 72	0
19	2T	101/101 (100%)	-0.04	0 100 100	33, 65, 78, 83	0
20	1U	112/113 (99%)	-0.57	0 100 100	19, 32, 54, 85	0
20	2U	112/113 (99%)	-0.16	1 (0%) 81 61	35, 49, 65, 82	0
21	1V	95/96 (98%)	-0.34	0 100 100	23, 39, 60, 84	0
21	2V	95/96 (98%)	0.22	1 (1%) 78 57	40, 59, 76, 84	0
22	1W	107/110 (97%)	0.21	2 (1%) 66 43	39, 57, 74, 81	0
22	2W	107/110 (97%)	0.38	1 (0%) 81 61	44, 61, 76, 85	0
23	1X	186/206 (90%)	0.21	0 100 100	44, 65, 77, 85	0
23	2X	186/206 (90%)	0.35	0 100 100	50, 68, 80, 88	0
24	1Y	76/85 (89%)	-0.33	1 (1%) 75 53	20, 36, 58, 67	0
24	2Y	76/85 (89%)	0.24	1 (1%) 75 53	38, 56, 69, 79	0
25	1Z	97/98 (98%)	-0.19	1 (1%) 79 59	24, 44, 67, 75	0
25	2Z	97/98 (98%)	0.09	2 (2%) 63 40	31, 56, 77, 81	0
26	10	70/72 (97%)	0.22	1 (1%) 73 51	44, 57, 69, 81	0
26	20	70/72 (97%)	0.15	0 100 100	46, 60, 70, 81	0
27	11	59/60 (98%)	0.13	1 (1%) 69 45	30, 45, 63, 76	0
27	21	59/60 (98%)	-0.04	1 (1%) 69 45	34, 49, 68, 79	0
28	12	69/71 (97%)	0.51	4 (5%) 29 15	61, 81, 93, 98	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	22	69/71 (97%)	0.70	8 (11%) 9 5	66, 82, 95, 99	0
29	13	59/60 (98%)	-0.14	0 100 100	24, 40, 57, 63	0
29	23	59/60 (98%)	-0.35	0 100 100	27, 42, 62, 68	0
30	14	53/54 (98%)	-0.24	0 100 100	37, 47, 59, 64	0
30	24	53/54 (98%)	-0.32	0 100 100	40, 49, 61, 65	0
31	15	48/49 (97%)	-0.27	2 (4%) 40 22	23, 29, 58, 72	0
31	25	48/49 (97%)	-0.26	0 100 100	30, 40, 66, 78	0
32	16	64/65 (98%)	-0.48	0 100 100	20, 33, 44, 61	0
32	26	64/65 (98%)	0.06	0 100 100	37, 50, 60, 72	0
33	17	37/37 (100%)	0.14	0 100 100	36, 49, 59, 65	0
33	27	37/37 (100%)	0.07	0 100 100	39, 53, 63, 68	0
34	1a	1495/1521 (98%)	0.05	24 (1%) 70 47	40, 72, 96, 109	0
34	2a	1501/1521 (98%)	0.11	31 (2%) 63 40	42, 73, 96, 109	0
35	1b	231/256 (90%)	0.58	2 (0%) 81 61	67, 82, 91, 100	0
35	2b	231/256 (90%)	0.79	17 (7%) 20 10	68, 83, 93, 103	0
36	1c	206/239 (86%)	0.43	3 (1%) 72 49	68, 80, 90, 95	0
36	2c	206/239 (86%)	0.64	3 (1%) 72 49	71, 81, 90, 95	0
37	1d	208/209 (99%)	0.52	6 (2%) 53 31	56, 73, 83, 92	0
37	2d	208/209 (99%)	0.45	5 (2%) 59 36	58, 73, 82, 92	0
38	1e	148/162 (91%)	0.10	1 (0%) 84 66	54, 68, 77, 83	0
38	2e	148/162 (91%)	0.22	0 100 100	56, 70, 78, 85	0
39	1f	100/101 (99%)	0.15	0 100 100	54, 70, 79, 85	0
39	2f	100/101 (99%)	0.16	0 100 100	56, 71, 81, 84	0
40	1g	155/156 (99%)	0.42	5 (3%) 50 29	70, 78, 89, 94	0
40	2g	155/156 (99%)	0.49	3 (1%) 66 43	69, 79, 91, 96	0
41	1h	137/138 (99%)	0.42	2 (1%) 72 49	58, 70, 79, 85	0
41	2h	137/138 (99%)	0.39	0 100 100	60, 71, 78, 85	0
42	1i	127/128 (99%)	0.84	10 (7%) 18 10	62, 82, 89, 94	0
42	2i	127/128 (99%)	1.27	23 (18%) 3 2	66, 83, 90, 94	0
43	1j	97/105 (92%)	0.99	10 (10%) 12 6	66, 84, 92, 94	0
43	2j	96/105 (91%)	1.33	17 (17%) 4 2	68, 85, 93, 96	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1k	114/129 (88%)	0.14	0 100 100	53, 69, 80, 84	0
44	2k	114/129 (88%)	0.17	3 (2%) 57 34	54, 71, 82, 85	0
45	1l	122/132 (92%)	0.15	2 (1%) 70 47	50, 60, 70, 75	0
45	2l	122/132 (92%)	0.20	2 (1%) 70 47	49, 61, 70, 75	0
46	1m	123/126 (97%)	0.63	7 (5%) 29 15	65, 78, 90, 105	0
46	2m	122/126 (96%)	1.09	11 (9%) 15 8	70, 83, 94, 105	0
47	1n	60/61 (98%)	0.73	1 (1%) 69 45	69, 79, 84, 86	0
47	2n	60/61 (98%)	1.38	14 (23%) 2 1	70, 81, 85, 89	0
48	1o	88/89 (98%)	0.22	0 100 100	52, 67, 79, 87	0
48	2o	88/89 (98%)	0.33	0 100 100	51, 68, 78, 87	0
49	1p	82/88 (93%)	0.56	0 100 100	54, 69, 79, 85	0
49	2p	82/88 (93%)	0.62	1 (1%) 76 55	54, 69, 79, 84	0
50	1q	99/105 (94%)	0.23	0 100 100	54, 67, 76, 83	0
50	2q	99/105 (94%)	0.31	0 100 100	55, 67, 77, 85	0
51	1r	68/88 (77%)	0.13	0 100 100	57, 69, 82, 90	0
51	2r	68/88 (77%)	0.20	0 100 100	60, 70, 81, 90	0
52	1s	84/93 (90%)	0.96	3 (3%) 46 26	76, 84, 92, 95	0
52	2s	83/93 (89%)	1.15	10 (12%) 9 5	75, 85, 92, 94	0
53	1t	96/106 (90%)	0.70	5 (5%) 33 17	60, 70, 80, 85	0
53	2t	96/106 (90%)	0.59	4 (4%) 40 22	59, 70, 81, 84	0
54	1u	23/27 (85%)	1.20	5 (21%) 2 1	70, 77, 81, 82	0
54	2u	23/27 (85%)	1.38	4 (17%) 4 3	70, 78, 82, 84	0
55	1z	730/758 (96%)	0.70	59 (8%) 18 9	52, 79, 96, 105	0
55	2z	730/758 (96%)	0.84	86 (11%) 9 5	47, 81, 99, 108	0
56	1y	6/24 (25%)	0.89	2 (33%) 1 1	61, 67, 93, 95	0
56	2y	5/24 (20%)	0.98	1 (20%) 3 2	64, 66, 89, 96	0
57	1w	72/77 (93%)	-0.24	0 100 100	32, 64, 78, 97	0
57	2w	72/77 (93%)	-0.23	0 100 100	33, 66, 79, 98	0
58	1x	19/35 (54%)	0.10	1 (5%) 32 16	35, 42, 64, 65	0
58	2x	19/35 (54%)	0.51	2 (10%) 11 6	36, 45, 65, 65	0
All	All	22619/23832 (94%)	0.13	952 (4%) 40 22	15, 63, 94, 112	4 (0%)

All (952) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
46	1m	123	ALA	8.4
1	1A	2136	G	8.1
46	2m	123	ALA	8.0
46	2m	124	PRO	7.9
1	1A	2138	A	7.8
55	2z	89	ASP	7.8
55	2z	575	VAL	7.2
1	1A	2200	C	7.1
1	1A	2134	U	6.6
1	2A	2144	G	6.5
1	1A	2162	G	6.3
1	1A	2195	C	6.3
1	2A	2145	G	6.3
46	2m	119	GLY	6.3
8	1H	2	SER	6.2
1	1A	2166	C	6.1
1	1A	2151	U	6.0
24	2Y	8	GLY	6.0
46	2m	122	LYS	6.0
3	2C	214	VAL	6.0
1	1A	1113	G	5.9
3	2C	11	LEU	5.9
1	1A	2144	G	5.8
3	2C	25	ALA	5.8
1	1A	2150	C	5.8
1	1A	2142	G	5.7
1	1A	2164	C	5.6
1	1A	2141	G	5.6
1	1A	2167	C	5.6
1	1A	2132	C	5.5
3	2C	58	VAL	5.5
10	2K	136	VAL	5.4
1	1A	2165	U	5.4
47	2n	2	ALA	5.4
1	1A	2180	G	5.4
1	2A	1110	U	5.4
55	2z	576	ASP	5.4
3	1C	220	PRO	5.3
1	1A	2199	C	5.3
55	1z	530	VAL	5.3
10	1K	133	SER	5.3
46	2m	6	GLY	5.3

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Mol	Chain	Res	Type	RSRZ
1	1A	2131	G	5.3
1	1A	2181	G	5.3
1	1A	2168	G	5.2
1	1A	2135	A	5.2
55	2z	463	VAL	5.1
1	1A	2202	G	5.1
1	2A	2136	G	5.0
3	2C	43	VAL	5.0
3	1C	58	VAL	5.0
1	1A	2133	G	4.9
1	2A	2132	C	4.9
3	1C	56	GLN	4.9
3	2C	174	PRO	4.9
3	1C	68	LEU	4.9
1	2A	2195	C	4.9
1	1A	2170	G	4.9
1	1A	1112	A	4.9
1	1A	2143	U	4.9
55	2z	532	GLY	4.8
1	1A	2129	C	4.8
1	1A	2188	U	4.8
1	1A	2140	A	4.8
1	1A	2190	A	4.8
3	1C	29	VAL	4.8
1	2A	2131	G	4.8
10	2K	123	ALA	4.8
3	2C	32	LEU	4.7
1	2A	1111	U	4.7
55	2z	530	VAL	4.7
10	2K	126	MET	4.7
1	2A	2137	G	4.7
1	2A	2146	G	4.7
3	1C	221	SER	4.7
3	2C	189	ILE	4.6
55	1z	89	ASP	4.6
1	1A	2153	U	4.6
1	1A	2187	G	4.6
1	2A	2138	A	4.6
34	2a	981	G	4.6
3	1C	32	LEU	4.6
55	1z	457	LEU	4.6
1	1A	2172	G	4.6

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Mol	Chain	Res	Type	RSRZ
46	2m	121	LYS	4.5
10	2K	99	ILE	4.5
3	2C	29	VAL	4.5
10	2K	124	ALA	4.5
1	1A	2137	G	4.5
1	1A	2189	G	4.5
1	1A	2157	C	4.5
9	1J	88	ALA	4.5
3	2C	22	ILE	4.5
1	2A	1103	G	4.4
46	1m	119	GLY	4.4
1	2A	2141	G	4.4
3	2C	34	THR	4.4
3	2C	220	PRO	4.4
3	1C	222	VAL	4.4
3	2C	191	ALA	4.3
1	1A	2130	U	4.3
46	2m	100	GLY	4.3
1	1A	2196	C	4.3
1	2A	2143	U	4.3
3	1C	226	PRO	4.3
1	1A	2198	C	4.3
1	2A	1121	C	4.3
3	2C	226	PRO	4.3
55	1z	462	ILE	4.3
1	1A	1220	G	4.2
1	2A	2142	G	4.2
3	1C	193	ILE	4.2
3	2C	193	ILE	4.2
55	1z	411	VAL	4.2
46	1m	124	PRO	4.2
1	1A	2182	C	4.2
28	12	57	GLU	4.2
55	2z	573	HIS	4.2
1	2A	2149	C	4.2
3	2C	196	LEU	4.2
1	1A	2175	G	4.2
34	2a	1239	U	4.2
1	2A	2200	C	4.2
3	2C	10	LEU	4.1
1	2A	2167	C	4.1
1	1A	2183	G	4.1

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Mol	Chain	Res	Type	RSRZ
1	1A	2171	U	4.1
3	1C	25	ALA	4.1
55	2z	569	ASP	4.1
3	2C	224	ILE	4.1
3	1C	33	ALA	4.1
53	1t	9	ASN	4.0
55	1z	533	VAL	4.0
3	2C	217	THR	4.0
3	2C	28	LEU	4.0
1	2A	2187	G	4.0
10	2K	129	GLY	4.0
1	1A	934	C	4.0
1	2A	2166	C	4.0
3	1C	16	PRO	4.0
10	2K	113	PRO	4.0
1	2A	2180	G	4.0
3	2C	180	PHE	4.0
3	2C	49	ILE	3.9
10	2K	127	ILE	3.9
55	1z	500	GLN	3.9
1	2A	1123	U	3.9
3	2C	45	ALA	3.9
55	2z	572	TYR	3.9
55	2z	501	THR	3.9
3	2C	222	VAL	3.9
25	2Z	2	SER	3.9
1	2A	2168	G	3.9
55	2z	419	ALA	3.9
3	1C	168	THR	3.9
1	2A	2134	U	3.9
3	1C	174	PRO	3.9
55	2z	410	ASP	3.9
3	2C	36	LYS	3.8
3	1C	178	ALA	3.8
3	2C	204	ALA	3.8
46	1m	122	LYS	3.8
1	2A	2190	A	3.8
9	1J	89	ALA	3.8
1	2A	2199	C	3.8
3	2C	212	VAL	3.8
3	2C	209	LEU	3.8
25	1Z	2	SER	3.8

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Mol	Chain	Res	Type	RSRZ
55	2z	411	VAL	3.8
1	1A	2145	G	3.8
3	2C	186	ALA	3.8
42	1i	13	ALA	3.8
3	1C	176	GLY	3.8
10	2K	84	LEU	3.8
1	2A	2150	C	3.7
1	2A	2133	G	3.7
1	2A	2154	G	3.7
9	1J	50	ARG	3.7
3	1C	51	PRO	3.7
3	2C	182	PRO	3.7
55	1z	415	PRO	3.7
10	2K	111	LYS	3.7
1	2A	2165	U	3.7
42	2i	14	VAL	3.7
1	1A	2155	A	3.7
1	1A	2191	A	3.7
34	2a	979	A	3.7
10	2K	107	ILE	3.7
3	1C	197	GLU	3.7
3	1C	36	LYS	3.7
1	2A	2127	G	3.7
3	1C	217	THR	3.7
3	2C	195	ALA	3.7
52	1s	13	ASP	3.7
1	1A	2128	C	3.7
1	1A	2161	C	3.7
1	2A	2164	C	3.7
42	2i	11	LYS	3.7
3	1C	214	VAL	3.7
1	1A	2186	G	3.7
3	1C	28	LEU	3.7
34	2a	1016	G	3.7
1	1A	2149	C	3.7
34	1a	1011	C	3.7
3	1C	163	PHE	3.7
3	2C	63	SER	3.6
1	1A	2169	G	3.6
3	1C	43	VAL	3.6
1	2A	2135	A	3.6
1	2A	2182	C	3.6

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Mol	Chain	Res	Type	RSRZ
3	1C	196	LEU	3.6
10	2K	77	LEU	3.6
55	2z	408	VAL	3.6
10	2K	115	LEU	3.6
55	2z	415	PRO	3.6
10	2K	96	VAL	3.6
3	1C	11	LEU	3.6
55	2z	507	TYR	3.6
1	2A	2198	C	3.5
3	1C	19	VAL	3.5
42	1i	106	ALA	3.5
3	1C	198	ALA	3.5
9	2J	89	ALA	3.5
55	2z	461	ILE	3.5
3	1C	165	ASN	3.5
55	2z	425	SER	3.5
55	1z	458	HIS	3.5
3	1C	212	VAL	3.5
3	2C	33	ALA	3.5
55	2z	444	PRO	3.5
55	1z	546	ILE	3.5
3	1C	39	GLU	3.5
46	1m	87	TYR	3.5
1	2A	2181	G	3.5
3	1C	40	THR	3.5
9	1J	49	ALA	3.5
55	1z	466	LEU	3.5
1	1A	2201	U	3.5
3	2C	14	VAL	3.5
10	2K	128	ALA	3.5
1	1A	2163	C	3.5
3	2C	16	PRO	3.5
55	2z	436	PRO	3.5
1	1A	1134	G	3.5
1	1A	2203	G	3.5
1	2A	2201	U	3.5
3	1C	159	GLY	3.4
1	1A	1109	C	3.4
1	2A	1582	C	3.4
1	1A	2123	U	3.4
1	2A	1107	G	3.4
55	2z	462	ILE	3.4

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Mol	Chain	Res	Type	RSRZ
34	1a	1509	A	3.4
9	1J	87	VAL	3.4
9	2J	90	ALA	3.4
3	1C	21	THR	3.4
22	2W	1	MET	3.4
1	1A	2125	G	3.4
1	1A	2146	G	3.4
3	1C	14	VAL	3.4
3	1C	173	ALA	3.4
3	2C	165	ASN	3.4
1	2A	2157	C	3.4
1	1A	2139	U	3.4
55	2z	476	VAL	3.4
55	2z	533	VAL	3.4
1	2A	2189	G	3.4
46	1m	121	LYS	3.4
1	1A	2194	A	3.3
35	2b	99	GLY	3.3
55	2z	86	GLY	3.3
3	2C	3	HIS	3.3
55	1z	437	THR	3.3
1	1A	2152	G	3.3
3	2C	167	LYS	3.3
10	1K	111	LYS	3.3
9	2J	49	ALA	3.3
10	2K	130	SER	3.3
34	1a	1008	C	3.3
3	1C	41	VAL	3.3
55	1z	463	VAL	3.3
55	1z	461	ILE	3.3
34	1a	980	G	3.3
55	1z	428	LEU	3.3
1	1A	1114	A	3.3
34	2a	1509	A	3.3
3	1C	171	ILE	3.3
55	1z	456	GLU	3.3
10	1K	75	SER	3.2
10	1K	136	VAL	3.2
10	2K	104	VAL	3.2
43	2j	72	VAL	3.2
47	2n	33	VAL	3.2
55	2z	565	VAL	3.2

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Mol	Chain	Res	Type	RSRZ
22	1W	1	MET	3.2
40	1g	84	ASN	3.2
1	1A	2148	G	3.2
1	1A	2154	G	3.2
34	1a	1019	G	3.2
55	2z	455	GLY	3.2
1	2A	1133	A	3.2
1	2A	2140	A	3.2
3	1C	180	PHE	3.2
3	2C	207	THR	3.2
47	2n	13	THR	3.2
55	1z	433	GLU	3.2
34	2a	1510	U	3.2
1	2A	1112	A	3.2
1	2A	1136	G	3.2
1	2A	2175	G	3.2
3	2C	179	SER	3.2
46	2m	118	ALA	3.2
10	2K	139	VAL	3.2
55	2z	90	PHE	3.2
1	2A	2130	U	3.2
1	1A	2122	G	3.2
3	1C	169	GLY	3.2
34	1a	982	G	3.2
3	2C	7	TYR	3.2
10	2K	138	VAL	3.2
55	2z	427	ALA	3.2
3	1C	10	LEU	3.1
9	2J	87	VAL	3.1
42	2i	109	VAL	3.1
55	1z	514	VAL	3.1
55	1z	642	VAL	3.1
3	2C	185	LEU	3.1
3	2C	19	VAL	3.1
40	2g	83	ALA	3.1
55	2z	482	ALA	3.1
3	1C	215	THR	3.1
1	2A	2203	G	3.1
10	1K	135	GLY	3.1
34	2a	980	G	3.1
34	2a	1017	G	3.1
3	1C	208	PHE	3.1

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Mol	Chain	Res	Type	RSRZ
55	2z	514	VAL	3.1
9	2J	50	ARG	3.1
3	2C	181	PRO	3.1
3	1C	213	TYR	3.1
3	2C	4	GLY	3.1
1	1A	2209	C	3.1
3	2C	51	PRO	3.1
10	2K	78	ILE	3.1
34	2a	1019	G	3.1
55	2z	454	MET	3.1
43	1j	76	ASN	3.1
3	1C	34	THR	3.1
58	2x	14	ARG	3.1
9	1J	53	VAL	3.1
42	2i	126	SER	3.1
3	1C	166	ASP	3.1
47	2n	7	ILE	3.1
3	1C	7	TYR	3.1
9	2J	125	LEU	3.0
10	2K	122	ALA	3.0
47	1n	2	ALA	3.0
55	1z	431	LEU	3.0
55	2z	424	LEU	3.0
3	1C	3	HIS	3.0
1	2A	1138	G	3.0
55	2z	441	SER	3.0
1	1A	2156	A	3.0
40	1g	83	ALA	3.0
55	1z	427	ALA	3.0
1	1A	2158	C	3.0
1	1A	2185	C	3.0
9	2J	99	SER	3.0
1	1A	2176	G	3.0
1	2A	2169	G	3.0
3	2C	41	VAL	3.0
55	2z	437	THR	3.0
55	1z	534	ILE	3.0
55	2z	466	LEU	3.0
37	1d	153	ARG	3.0
55	1z	492	ASP	3.0
3	1C	177	LYS	3.0
1	2A	2183	G	3.0

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Mol	Chain	Res	Type	RSRZ
1	2A	2186	G	3.0
3	2C	208	PHE	3.0
35	2b	97	TRP	3.0
1	2A	2163	C	3.0
55	2z	536	LYS	3.0
55	1z	408	VAL	3.0
55	2z	88	VAL	3.0
26	10	70	GLN	3.0
10	2K	117	THR	3.0
3	2C	68	LEU	2.9
43	2j	37	PRO	2.9
52	2s	2	PRO	2.9
55	2z	494	GLU	2.9
3	2C	30	LYS	2.9
55	2z	538	TYR	2.9
42	2i	30	GLY	2.9
34	2a	1011	C	2.9
40	2g	2	ALA	2.9
55	1z	531	GLY	2.9
43	2j	73	ASP	2.9
55	2z	421	GLN	2.9
1	1A	33	C	2.9
1	1A	2124	C	2.9
1	2A	2196	C	2.9
47	2n	21	TYR	2.9
10	2K	135	GLY	2.9
43	2j	10	GLY	2.9
43	2j	36	GLY	2.9
3	1C	38	ASP	2.9
55	2z	435	ASP	2.9
3	1C	181	PRO	2.9
9	2J	6	ASN	2.9
34	1a	981	G	2.9
55	2z	574	GLU	2.9
34	1a	1268	A	2.9
34	1a	1009	C	2.9
3	2C	163	PHE	2.9
9	2J	96	PHE	2.9
3	1C	22	ILE	2.9
55	2z	577	SER	2.9
3	2C	173	ALA	2.9
10	2K	108	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
28	22	49	PHE	2.9
3	2C	47	LEU	2.9
10	2K	112	MET	2.9
3	2C	221	SER	2.8
10	1K	130	SER	2.8
1	1A	2159	C	2.8
1	2A	2159	C	2.8
55	1z	476	VAL	2.8
46	2m	120	LYS	2.8
9	2J	83	TYR	2.8
43	2j	40	LEU	2.8
55	1z	498	ILE	2.8
3	1C	65	PRO	2.8
9	2J	132	ASP	2.8
10	2K	119	ASP	2.8
28	12	56	VAL	2.8
42	1i	2	GLU	2.8
4	1D	276	LYS	2.8
3	2C	161	ILE	2.8
37	2d	2	GLY	2.8
55	2z	458	HIS	2.8
55	1z	506	GLN	2.8
55	1z	85	PRO	2.8
1	2A	2179	A	2.8
34	1a	1013	A	2.8
40	1g	156	TRP	2.8
3	2C	219	GLY	2.8
55	1z	451	ILE	2.8
55	2z	643	ILE	2.8
10	2K	76	TYR	2.8
3	1C	158	ALA	2.8
3	1C	170	ALA	2.8
10	2K	118	THR	2.8
3	2C	192	PHE	2.8
28	12	59	PHE	2.8
55	2z	451	ILE	2.8
3	2C	67	GLY	2.8
3	2C	66	HIS	2.8
1	2A	2126	C	2.8
46	1m	120	LYS	2.8
1	1A	1108	G	2.8
1	2A	2148	G	2.8

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Mol	Chain	Res	Type	RSRZ
1	2A	2178	G	2.8
1	2A	2202	G	2.8
55	2z	457	LEU	2.8
3	1C	216	THR	2.8
3	2C	216	THR	2.8
20	2U	30	GLU	2.8
42	2i	10	ARG	2.7
1	1A	2179	A	2.7
1	2A	2191	A	2.7
3	2C	56	GLN	2.7
1	1A	2126	C	2.7
7	2G	76	SER	2.7
3	2C	21	THR	2.7
27	11	60	GLU	2.7
34	2a	1302	C	2.7
35	2b	231	GLU	2.7
1	2A	2125	G	2.7
34	2a	1010	G	2.7
55	1z	467	LYS	2.7
55	1z	536	LYS	2.7
3	1C	45	ALA	2.7
3	2C	178	ALA	2.7
1	2A	1126	U	2.7
47	2n	38	GLY	2.7
52	2s	13	ASP	2.7
52	1s	2	PRO	2.7
25	2Z	26	ARG	2.7
36	1c	2	GLY	2.7
43	2j	93	GLY	2.7
3	1C	179	SER	2.7
24	1Y	9	SER	2.7
34	1a	1004	U	2.7
55	2z	429	ALA	2.7
55	1z	424	LEU	2.7
1	2A	1120	C	2.7
55	1z	405	PRO	2.7
10	2K	140	GLY	2.7
28	22	57	GLU	2.7
37	1d	179	GLU	2.7
1	1A	2127	G	2.7
3	1C	175	VAL	2.7
34	2a	1023	U	2.7

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Mol	Chain	Res	Type	RSRZ
56	1y	19	U	2.7
3	1C	161	ILE	2.6
34	1a	1432	A	2.6
55	2z	413	ILE	2.6
10	2K	97	GLY	2.6
34	2a	1006	C	2.6
3	2C	61	THR	2.6
55	2z	440	VAL	2.6
28	22	67	TYR	2.6
43	2j	68	HIS	2.6
1	1A	697	G	2.6
1	2A	2176	G	2.6
42	2i	105	ASP	2.6
3	1C	223	ARG	2.6
1	2A	2139	U	2.6
3	1C	5	LYS	2.6
3	1C	37	PHE	2.6
42	2i	9	ARG	2.6
43	1j	33	GLN	2.6
34	2a	1013	A	2.6
3	2C	168	THR	2.6
10	1K	96	VAL	2.6
10	2K	105	LEU	2.6
42	2i	102	LEU	2.6
52	2s	38	SER	2.6
3	2C	37	PHE	2.6
43	2j	39	PRO	2.6
18	1S	117	GLN	2.6
28	22	65	ASP	2.6
42	2i	67	GLY	2.6
3	1C	24	GLU	2.6
1	2A	1132	G	2.6
1	2A	1216	G	2.6
34	1a	1016	G	2.6
3	1C	35	ALA	2.6
9	1J	90	ALA	2.6
9	2J	37	THR	2.6
52	2s	15	LEU	2.6
42	1i	14	VAL	2.6
55	2z	472	VAL	2.6
55	2z	581	ALA	2.6
1	2A	2155	A	2.6

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Mol	Chain	Res	Type	RSRZ
45	1l	47	LYS	2.6
40	1g	85	TYR	2.6
55	2z	539	ILE	2.6
9	1J	52	PHE	2.6
1	2A	2160	C	2.6
3	2C	188	ASN	2.6
43	1j	10	GLY	2.6
9	2J	81	VAL	2.6
1	2A	1105	U	2.6
10	2K	101	TRP	2.6
43	1j	74	ILE	2.6
1	2A	1119	G	2.6
1	2A	2172	G	2.6
7	1G	49	ASP	2.6
28	22	51	ASP	2.6
1	2A	33	C	2.6
1	2A	1137	C	2.6
3	2C	31	GLU	2.6
34	2a	1009	C	2.6
3	1C	9	ALA	2.6
42	2i	106	ALA	2.6
55	2z	504	ARG	2.6
55	2z	563	ILE	2.5
1	1A	1071	U	2.5
1	2A	2151	U	2.5
3	2C	60	GLY	2.5
55	1z	570	GLY	2.5
1	1A	2177	G	2.5
9	1J	6	ASN	2.5
35	1b	7	VAL	2.5
42	2i	17	VAL	2.5
1	2A	2147	A	2.5
55	1z	422	GLU	2.5
3	1C	189	ILE	2.5
14	1O	21	THR	2.5
54	1u	17	THR	2.5
55	1z	529	ILE	2.5
3	1C	185	LEU	2.5
44	2k	14	VAL	2.5
10	2K	137	GLU	2.5
55	2z	492	ASP	2.5
3	2C	218	MET	2.5

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Mol	Chain	Res	Type	RSRZ
34	2a	1012	G	2.5
34	2a	1015	G	2.5
55	2z	443	HIS	2.5
1	2A	2171	U	2.5
3	2C	171	ILE	2.5
55	2z	601	ILE	2.5
3	2C	6	ARG	2.5
3	2C	20	TYR	2.5
3	2C	64	LEU	2.5
34	1a	1015	G	2.5
35	2b	233	SER	2.5
11	1L	68	GLU	2.5
35	1b	127	ILE	2.5
42	2i	81	ILE	2.5
55	2z	473	ASP	2.5
10	1K	86	LYS	2.5
3	1C	209	LEU	2.5
10	2K	120	LEU	2.5
10	1K	76	TYR	2.5
9	2J	78	SER	2.4
1	2A	2194	A	2.4
55	1z	464	ASP	2.4
55	2z	420	ASP	2.4
1	2A	1579	G	2.4
9	1J	51	LEU	2.4
34	1a	1010	G	2.4
34	2a	982	G	2.4
3	2C	65	PRO	2.4
9	2J	38	HIS	2.4
34	1a	339	U	2.4
3	2C	159	GLY	2.4
9	2J	42	GLN	2.4
55	1z	563	ILE	2.4
8	2H	2	SER	2.4
9	2J	47	ASN	2.4
1	2A	2156	A	2.4
9	2J	92	THR	2.4
44	2k	117	ASN	2.4
52	2s	53	ASN	2.4
55	1z	83	ASP	2.4
55	2z	516	PRO	2.4
7	1G	146	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
36	2c	207	VAL	2.4
53	1t	103	GLY	2.4
54	1u	16	GLY	2.4
1	1A	2160	C	2.4
10	2K	81	ALA	2.4
1	2A	2188	U	2.4
34	1a	77	G	2.4
10	2K	134	MET	2.4
47	2n	46	GLU	2.4
43	2j	76	ASN	2.4
9	2J	85	ASP	2.4
55	2z	600	VAL	2.4
1	1A	699	A	2.4
1	1A	1140	A	2.4
1	2A	2192	A	2.4
3	1C	224	ILE	2.4
56	2y	14	A	2.4
3	2C	13	LYS	2.4
49	2p	82	GLN	2.4
54	2u	24	ARG	2.4
35	2b	44	LEU	2.4
10	2K	133	SER	2.4
34	2a	1184	G	2.4
42	1i	7	THR	2.4
3	1C	67	GLY	2.4
3	1C	199	HIS	2.4
55	2z	570	GLY	2.4
55	1z	541	ALA	2.4
35	2b	133	LYS	2.4
55	2z	418	LYS	2.4
55	1z	454	MET	2.4
55	2z	499	ARG	2.4
55	2z	525	PHE	2.4
53	1t	10	LEU	2.4
1	1A	933	A	2.4
34	2a	1432	A	2.4
9	1J	99	SER	2.4
28	22	66	SER	2.4
1	2A	2153	U	2.4
3	2C	175	VAL	2.4
52	2s	9	VAL	2.4
58	2x	19	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
1	1A	1554	C	2.3
34	2a	1008	C	2.3
3	2C	206	GLY	2.3
17	2R	131	ALA	2.3
41	1h	18	ARG	2.3
47	2n	20	ALA	2.3
3	1C	15	ASP	2.3
9	2J	133	GLU	2.3
3	2C	69	GLY	2.3
54	1u	15	ARG	2.3
55	2z	432	ALA	2.3
3	1C	20	TYR	2.3
3	1C	188	ASN	2.3
3	2C	225	ASN	2.3
9	2J	56	ASN	2.3
1	2A	1124	C	2.3
34	1a	160	C	2.3
31	15	46	VAL	2.3
10	2K	90	LYS	2.3
3	1C	160	ARG	2.3
53	2t	8	ARG	2.3
55	2z	540	PRO	2.3
3	1C	63	SER	2.3
9	2J	116	ILE	2.3
17	1R	130	ALA	2.3
37	1d	152	SER	2.3
55	2z	498	ILE	2.3
42	1i	64	THR	2.3
42	2i	15	ALA	2.3
3	1C	218	MET	2.3
55	1z	572	TYR	2.3
41	1h	2	LEU	2.3
52	2s	71	LEU	2.3
1	1A	2197	A	2.3
55	2z	506	GLN	2.3
28	22	56	VAL	2.3
35	2b	7	VAL	2.3
55	1z	504	ARG	2.3
54	2u	2	GLY	2.3
3	2C	35	ALA	2.3
35	2b	48	MET	2.3
37	2d	152	SER	2.3

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Mol	Chain	Res	Type	RSRZ
43	2j	42	THR	2.3
54	2u	17	THR	2.3
1	1A	2205	G	2.3
1	2A	1104	G	2.3
1	2A	2207	G	2.3
34	2a	1202	G	2.3
3	1C	225	ASN	2.3
1	1A	571	A	2.3
1	1A	1122	A	2.3
34	1a	979	A	2.3
45	1l	18	VAL	2.3
55	1z	88	VAL	2.3
1	2A	1071	U	2.3
3	2C	158	ALA	2.3
9	1J	34	ALA	2.3
34	2a	1303	C	2.3
10	2K	100	THR	2.3
21	2V	60	ARG	2.3
44	2k	126	ARG	2.3
9	2J	53	VAL	2.3
11	2L	9	VAL	2.3
35	2b	136	VAL	2.3
43	2j	34	VAL	2.3
1	1A	2174	G	2.2
55	1z	39	ILE	2.2
10	2K	87	GLY	2.2
55	1z	540	PRO	2.2
3	1C	195	ALA	2.2
1	2A	678	A	2.2
56	1y	14	A	2.2
42	2i	7	THR	2.2
52	2s	14	HIS	2.2
3	1C	211	SER	2.2
1	2A	2128	C	2.2
34	1a	1020	C	2.2
9	2J	95	GLN	2.2
3	2C	55	ASP	2.2
42	1i	75	ASP	2.2
43	1j	4	ILE	2.2
52	2s	84	GLY	2.2
55	1z	429	ALA	2.2
55	2z	541	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
1	1A	1119	G	2.2
47	2n	15	LYS	2.2
3	2C	213	TYR	2.2
54	1u	18	TYR	2.2
35	2b	165	VAL	2.2
40	1g	80	VAL	2.2
55	2z	493	VAL	2.2
10	1K	121	GLU	2.2
43	1j	64	GLU	2.2
53	1t	100	ILE	2.2
9	2J	34	ALA	2.2
10	2K	82	ALA	2.2
36	2c	2	GLY	2.2
38	1e	22	GLY	2.2
3	2C	70	LYS	2.2
45	2l	20	LYS	2.2
55	2z	438	PHE	2.2
3	1C	62	VAL	2.2
1	1A	1110	U	2.2
10	1K	78	ILE	2.2
1	2A	1114	A	2.2
34	1a	1003	G	2.2
34	2a	1014	G	2.2
34	2a	1268	A	2.2
40	2g	112	PRO	2.2
54	1u	2	GLY	2.2
9	1J	35	LYS	2.2
9	1J	102	LYS	2.2
10	2K	93	ARG	2.2
43	2j	24	VAL	2.2
55	2z	409	ILE	2.2
9	2J	40	LEU	2.2
43	2j	8	LEU	2.2
47	2n	6	LEU	2.2
42	2i	13	ALA	2.2
27	21	2	PRO	2.2
31	15	48	LYS	2.2
42	2i	127	LYS	2.2
53	2t	9	ASN	2.2
1	1A	11	U	2.2
53	2t	69	GLY	2.2
3	1C	8	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
37	1d	73	ARG	2.2
55	1z	465	ARG	2.2
3	2C	23	ASP	2.2
3	2C	187	ASP	2.2
35	2b	163	PHE	2.2
1	1A	1136	G	2.2
1	2A	2170	G	2.2
34	2a	976	G	2.2
3	1C	44	HIS	2.2
3	1C	66	HIS	2.2
45	2l	18	VAL	2.1
37	1d	4	TYR	2.1
47	2n	34	TYR	2.1
10	1K	120	LEU	2.1
3	1C	70	LYS	2.1
3	1C	162	GLU	2.1
3	2C	26	ALA	2.1
3	2C	39	GLU	2.1
55	2z	392	GLU	2.1
8	2H	174	GLY	2.1
16	2Q	61	ASN	2.1
35	2b	229	VAL	2.1
46	2m	60	VAL	2.1
55	1z	509	HIS	2.1
55	1z	670	VAL	2.1
55	2z	491	VAL	2.1
34	2a	516	A	2.1
1	1A	1107	G	2.1
1	2A	2208	G	2.1
34	1a	1012	G	2.1
55	1z	671	MET	2.1
3	1C	219	GLY	2.1
9	1J	48	GLY	2.1
10	2K	85	GLU	2.1
35	2b	134	GLU	2.1
37	1d	180	GLY	2.1
37	2d	69	GLY	2.1
42	2i	2	GLU	2.1
1	1A	695	C	2.1
1	1A	2184	C	2.1
1	2A	2129	C	2.1
1	2A	2184	C	2.1

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Mol	Chain	Res	Type	RSRZ
3	1C	192	PHE	2.1
9	2J	52	PHE	2.1
37	2d	154	ASN	2.1
35	2b	93	VAL	2.1
55	2z	620	VAL	2.1
3	2C	44	HIS	2.1
3	1C	47	LEU	2.1
9	2J	59	ILE	2.1
16	2Q	32	LEU	2.1
34	1a	978	U	2.1
47	2n	17	LYS	2.1
55	2z	590	ILE	2.1
55	1z	507	TYR	2.1
55	1z	640	ALA	2.1
55	2z	474	ALA	2.1
1	2A	1115	A	2.1
9	2J	48	GLY	2.1
42	1i	67	GLY	2.1
46	2m	85	GLY	2.1
55	2z	490	PRO	2.1
13	1N	83	VAL	2.1
34	2a	1469	G	2.1
1	2A	934	C	2.1
10	1K	105	LEU	2.1
36	1c	188	LEU	2.1
52	1s	71	LEU	2.1
52	2s	31	ILE	2.1
43	1j	28	ARG	2.1
10	1K	134	MET	2.1
3	1C	191	ALA	2.1
3	2C	170	ALA	2.1
9	2J	54	ALA	2.1
1	1A	1111	U	2.1
10	1K	92	GLY	2.1
17	1R	47	GLY	2.1
36	2c	158	GLY	2.1
3	1C	42	GLU	2.1
28	12	53	GLU	2.1
58	1x	17	PRO	2.1
3	2C	62	VAL	2.1
42	2i	65	VAL	2.1
43	1j	34	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
1	1A	1118	A	2.1
3	1C	18	LYS	2.1
3	1C	49	ILE	2.1
55	1z	539	ILE	2.1
55	1z	601	ILE	2.1
43	2j	62	HIS	2.1
42	2i	114	TYR	2.1
1	2A	1108	G	2.1
1	2A	1155	G	2.1
34	1a	1014	G	2.1
47	2n	30	ALA	2.1
53	1t	66	ALA	2.1
9	2J	75	GLN	2.1
17	1R	37	GLY	2.1
43	1j	52	GLY	2.1
54	2u	4	GLY	2.1
3	1C	182	PRO	2.1
9	2J	33	PRO	2.1
1	2A	1135	U	2.0
9	1J	7	VAL	2.0
9	2J	45	LYS	2.0
10	1K	139	VAL	2.0
55	2z	683	VAL	2.0
9	2J	23	SER	2.0
55	2z	14	ASN	2.0
35	2b	90	MET	2.0
35	2b	101	MET	2.0
9	2J	29	TYR	2.0
10	1K	123	ALA	2.0
10	2K	88	ALA	2.0
28	22	63	TYR	2.0
34	2a	1018	A	2.0
35	2b	34	ALA	2.0
42	2i	91	ASP	2.0
42	2i	119	ALA	2.0
47	2n	22	THR	2.0
3	1C	203	GLY	2.0
9	2J	30	GLN	2.0
36	1c	158	GLY	2.0
42	2i	101	PHE	2.0
43	2j	47	PHE	2.0
55	1z	633	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
1	1A	1120	C	2.0
3	2C	18	LYS	2.0
4	1D	38	LYS	2.0
55	1z	94	VAL	2.0
55	2z	526	VAL	2.0
53	2t	25	ARG	2.0
3	2C	199	HIS	2.0
37	2d	4	TYR	2.0
55	2z	417	THR	2.0
42	1i	105	ASP	2.0
3	1C	48	GLY	2.0
3	2C	176	GLY	2.0
42	1i	33	PHE	2.0
9	1J	86	PRO	2.0
14	2O	22	LYS	2.0
22	1W	33	LYS	2.0
55	1z	436	PRO	2.0
55	2z	680	PRO	2.0
9	2J	80	VAL	2.0
10	2K	94	GLU	2.0
55	2z	433	GLU	2.0
43	1j	46	ARG	2.0
43	2j	65	LEU	2.0
1	1A	696	C	2.0
1	1A	1121	C	2.0
1	2A	2158	C	2.0
2	1B	88	C	2.0
34	2a	1007	C	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	5MU	2w	54	21/22	0.87	0.12	61,67,79,97	0
57	PSU	2w	55	20/21	0.89	0.11	53,63,80,86	0
57	PSU	1w	55	20/21	0.90	0.09	53,63,72,82	0
57	4SU	2w	8	20/21	0.91	0.10	51,68,81,83	0
57	5MC	2w	32	21/22	0.93	0.12	52,75,83,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	4SU	1w	8	20/21	0.94	0.09	43,61,72,73	0
57	5MU	1w	54	21/22	0.95	0.07	22,55,66,75	0
57	5MC	1w	32	21/22	0.95	0.12	48,64,75,79	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, 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
59	MG	2a	1762	1/1	0.57	0.21	65,65,65,65	0
59	MG	1a	1771	1/1	0.60	0.26	94,94,94,94	0
59	MG	2a	1765	1/1	0.63	0.18	79,79,79,79	0
59	MG	2A	3326	1/1	0.64	0.16	49,49,49,49	0
59	MG	1a	1741	1/1	0.65	0.26	71,71,71,71	0
59	MG	2w	3003	1/1	0.66	0.35	80,80,80,80	0
59	MG	1a	1764	1/1	0.67	0.14	67,67,67,67	0
59	MG	1a	1766	1/1	0.68	0.19	67,67,67,67	0
59	MG	1A	3717	1/1	0.68	0.23	89,89,89,89	0
59	MG	1A	3576	1/1	0.69	0.20	51,51,51,51	0
59	MG	1a	1630	1/1	0.70	0.21	69,69,69,69	0
59	MG	1A	3638	1/1	0.70	0.27	89,89,89,89	0
59	MG	2A	3350	1/1	0.70	0.14	71,71,71,71	0
59	MG	1a	1797	1/1	0.71	0.27	66,66,66,66	0
59	MG	2A	3072	1/1	0.71	0.20	65,65,65,65	0
59	MG	2z	705	1/1	0.71	0.21	67,67,67,67	0
59	MG	2a	1630	1/1	0.71	0.28	55,55,55,55	0
59	MG	1a	1616	1/1	0.72	0.17	55,55,55,55	0
59	MG	2a	1711	1/1	0.72	0.23	76,76,76,76	0
59	MG	2A	3170	1/1	0.72	0.18	54,54,54,54	0
59	MG	1a	1647	1/1	0.73	0.24	73,73,73,73	0
59	MG	1A	3673	1/1	0.73	0.14	70,70,70,70	0
59	MG	2a	1661	1/1	0.73	0.21	67,67,67,67	0
59	MG	1A	3083	1/1	0.73	0.31	55,55,55,55	0
59	MG	1a	1686	1/1	0.74	0.21	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3301	1/1	0.74	0.18	65,65,65,65	0
59	MG	2n	502	1/1	0.74	0.43	76,76,76,76	0
59	MG	2A	3259	1/1	0.74	0.35	72,72,72,72	0
59	MG	1A	3139	1/1	0.74	0.15	67,67,67,67	0
59	MG	1a	1653	1/1	0.75	0.33	60,60,60,60	0
59	MG	1a	1757	1/1	0.75	0.14	56,56,56,56	0
59	MG	2A	3032	1/1	0.75	0.23	57,57,57,57	0
59	MG	2A	3036	1/1	0.75	0.22	53,53,53,53	0
59	MG	2a	1725	1/1	0.75	0.17	64,64,64,64	0
59	MG	2A	3277	1/1	0.76	0.19	69,69,69,69	0
59	MG	2a	1651	1/1	0.76	0.24	67,67,67,67	0
59	MG	2A	3300	1/1	0.76	0.14	48,48,48,48	0
59	MG	2A	3306	1/1	0.76	0.14	45,45,45,45	0
59	MG	1a	1688	1/1	0.76	0.20	60,60,60,60	0
59	MG	2a	1754	1/1	0.76	0.25	61,61,61,61	0
59	MG	2A	3334	1/1	0.76	0.13	54,54,54,54	0
59	MG	2A	3349	1/1	0.76	0.18	56,56,56,56	0
59	MG	1A	3665	1/1	0.76	0.16	70,70,70,70	0
59	MG	2z	701	1/1	0.76	0.28	76,76,76,76	0
59	MG	2A	3572	1/1	0.76	0.12	61,61,61,61	0
59	MG	2a	1621	1/1	0.76	0.29	66,66,66,66	0
59	MG	2a	1737	1/1	0.77	0.20	63,63,63,63	0
59	MG	2a	1603	1/1	0.77	0.39	65,65,65,65	0
59	MG	2a	1649	1/1	0.77	0.21	69,69,69,69	0
59	MG	1A	3612	1/1	0.77	0.18	48,48,48,48	0
59	MG	2A	3485	1/1	0.78	0.15	38,38,38,38	0
59	MG	1A	3568	1/1	0.78	0.23	54,54,54,54	0
59	MG	2A	3592	1/1	0.78	0.10	63,63,63,63	0
59	MG	2B	206	1/1	0.78	0.26	67,67,67,67	0
59	MG	1a	1701	1/1	0.78	0.23	65,65,65,65	0
59	MG	1A	3737	1/1	0.78	0.14	65,65,65,65	0
59	MG	1A	3745	1/1	0.78	0.18	87,87,87,87	0
59	MG	1a	1762	1/1	0.78	0.33	62,62,62,62	0
59	MG	1a	1658	1/1	0.78	0.16	64,64,64,64	0
59	MG	1A	3121	1/1	0.78	0.20	49,49,49,49	0
59	MG	1A	3732	1/1	0.79	0.25	75,75,75,75	0
59	MG	2a	1758	1/1	0.79	0.20	65,65,65,65	0
59	MG	2a	1657	1/1	0.79	0.27	66,66,66,66	0
59	MG	2a	1620	1/1	0.79	0.22	63,63,63,63	0
59	MG	2a	1708	1/1	0.79	0.16	64,64,64,64	0
59	MG	1A	3750	1/1	0.79	0.15	53,53,53,53	0
59	MG	2A	3145	1/1	0.79	0.17	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2A	3414	1/1	0.79	0.11	42,42,42,42	0
59	MG	2A	3087	1/1	0.80	0.15	56,56,56,56	0
59	MG	2A	3452	1/1	0.80	0.23	52,52,52,52	0
59	MG	2A	3460	1/1	0.80	0.13	59,59,59,59	0
59	MG	1B	219	1/1	0.80	0.16	71,71,71,71	0
59	MG	2A	3564	1/1	0.80	0.11	72,72,72,72	0
59	MG	1A	3736	1/1	0.80	0.23	69,69,69,69	0
59	MG	2a	1742	1/1	0.80	0.21	82,82,82,82	0
59	MG	1a	1623	1/1	0.80	0.43	65,65,65,65	0
59	MG	1A	3567	1/1	0.80	0.12	63,63,63,63	0
59	MG	1a	1794	1/1	0.80	0.20	71,71,71,71	0
59	MG	1A	3440	1/1	0.80	0.17	50,50,50,50	0
59	MG	1a	1800	1/1	0.80	0.25	68,68,68,68	0
59	MG	1a	1748	1/1	0.80	0.38	82,82,82,82	0
59	MG	1A	3553	1/1	0.80	0.19	47,47,47,47	0
59	MG	1a	1760	1/1	0.80	0.11	65,65,65,65	0
59	MG	1a	1712	1/1	0.81	0.23	69,69,69,69	0
59	MG	2A	3263	1/1	0.81	0.31	69,69,69,69	0
59	MG	1a	1657	1/1	0.81	0.30	48,48,48,48	0
59	MG	2A	3426	1/1	0.81	0.28	58,58,58,58	0
59	MG	1A	3425	1/1	0.81	0.13	68,68,68,68	0
59	MG	1A	3300	1/1	0.81	0.14	47,47,47,47	0
59	MG	1A	3710	1/1	0.81	0.23	60,60,60,60	0
59	MG	1a	1654	1/1	0.81	0.11	42,42,42,42	0
59	MG	1Y	103	1/1	0.82	0.30	73,73,73,73	0
59	MG	1A	3111	1/1	0.82	0.26	39,39,39,39	0
59	MG	2a	1640	1/1	0.82	0.21	65,65,65,65	0
59	MG	1A	3738	1/1	0.82	0.39	88,88,88,88	0
59	MG	1A	3168	1/1	0.82	0.12	60,60,60,60	0
59	MG	2A	3171	1/1	0.82	0.14	54,54,54,54	0
59	MG	2A	3429	1/1	0.82	0.15	56,56,56,56	0
59	MG	2A	3197	1/1	0.82	0.30	55,55,55,55	0
59	MG	2A	3220	1/1	0.82	0.43	60,60,60,60	0
59	MG	2A	3224	1/1	0.82	0.25	62,62,62,62	0
59	MG	2A	3492	1/1	0.82	0.14	48,48,48,48	0
59	MG	2A	3524	1/1	0.82	0.33	78,78,78,78	0
59	MG	2a	1744	1/1	0.82	0.19	65,65,65,65	0
59	MG	1a	1706	1/1	0.82	0.24	57,57,57,57	0
59	MG	1A	3748	1/1	0.82	0.26	67,67,67,67	0
59	MG	1A	3408	1/1	0.82	0.22	55,55,55,55	0
59	MG	2A	3596	1/1	0.82	0.15	64,64,64,64	0
59	MG	1A	3770	1/1	0.82	0.16	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2B	213	1/1	0.82	0.13	64,64,64,64	0
59	MG	1a	1751	1/1	0.82	0.30	48,48,48,48	0
59	MG	1A	3580	1/1	0.82	0.20	54,54,54,54	0
59	MG	2A	3156	1/1	0.83	0.16	53,53,53,53	0
59	MG	2A	3409	1/1	0.83	0.09	48,48,48,48	0
59	MG	1A	3401	1/1	0.83	0.13	44,44,44,44	0
59	MG	1A	3133	1/1	0.83	0.16	44,44,44,44	0
59	MG	1a	1799	1/1	0.83	0.22	80,80,80,80	0
59	MG	1a	1759	1/1	0.83	0.19	65,65,65,65	0
59	MG	2a	1690	1/1	0.83	0.22	63,63,63,63	0
59	MG	1t	3001	1/1	0.83	0.21	54,54,54,54	0
59	MG	2A	3252	1/1	0.83	0.14	55,55,55,55	0
59	MG	2A	3013	1/1	0.83	0.14	55,55,55,55	0
59	MG	1A	3230	1/1	0.83	0.19	56,56,56,56	0
59	MG	2A	3268	1/1	0.83	0.16	56,56,56,56	0
59	MG	2A	3569	1/1	0.83	0.17	60,60,60,60	0
59	MG	2A	3270	1/1	0.83	0.12	52,52,52,52	0
59	MG	1A	3668	1/1	0.83	0.15	48,48,48,48	0
59	MG	2a	1760	1/1	0.83	0.18	44,44,44,44	0
59	MG	2A	3052	1/1	0.83	0.13	47,47,47,47	0
59	MG	2A	3305	1/1	0.83	0.10	46,46,46,46	0
59	MG	1D	304	1/1	0.83	0.13	40,40,40,40	0
59	MG	1A	3303	1/1	0.83	0.17	48,48,48,48	0
59	MG	2A	3121	1/1	0.83	0.18	57,57,57,57	0
59	MG	1A	3508	1/1	0.83	0.14	47,47,47,47	0
59	MG	2A	3388	1/1	0.84	0.12	55,55,55,55	0
59	MG	2A	3393	1/1	0.84	0.15	45,45,45,45	0
59	MG	1a	1796	1/1	0.84	0.22	55,55,55,55	0
59	MG	1a	1722	1/1	0.84	0.15	78,78,78,78	0
59	MG	1a	1734	1/1	0.84	0.10	36,36,36,36	0
59	MG	1A	3023	1/1	0.84	0.33	37,37,37,37	0
59	MG	2A	3225	1/1	0.84	0.07	45,45,45,45	0
59	MG	1A	3124	1/1	0.84	0.13	46,46,46,46	0
59	MG	2A	3471	1/1	0.84	0.12	56,56,56,56	0
59	MG	1A	3599	1/1	0.84	0.22	51,51,51,51	0
59	MG	1A	3603	1/1	0.84	0.14	65,65,65,65	0
59	MG	2A	3500	1/1	0.84	0.10	56,56,56,56	0
59	MG	2A	3520	1/1	0.84	0.16	54,54,54,54	0
59	MG	1A	3212	1/1	0.84	0.11	40,40,40,40	0
59	MG	1A	3335	1/1	0.84	0.13	46,46,46,46	0
59	MG	1a	1603	1/1	0.84	0.18	69,69,69,69	0
59	MG	1a	1763	1/1	0.84	0.18	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2A	3101	1/1	0.84	0.27	50,50,50,50	0
59	MG	2A	3109	1/1	0.84	0.15	47,47,47,47	0
59	MG	1a	1612	1/1	0.84	0.13	41,41,41,41	0
59	MG	1A	3081	1/1	0.84	0.23	56,56,56,56	0
59	MG	1A	3249	1/1	0.84	0.11	40,40,40,40	0
59	MG	1a	1626	1/1	0.84	0.26	54,54,54,54	0
59	MG	2A	3293	1/1	0.85	0.20	44,44,44,44	0
59	MG	1a	1774	1/1	0.85	0.16	68,68,68,68	0
59	MG	1a	1787	1/1	0.85	0.23	70,70,70,70	0
59	MG	1A	3696	1/1	0.85	0.19	70,70,70,70	0
59	MG	2A	3600	1/1	0.85	0.17	47,47,47,47	0
59	MG	2A	3323	1/1	0.85	0.11	50,50,50,50	0
59	MG	1G	3002	1/1	0.85	0.10	64,64,64,64	0
59	MG	2O	3002	1/1	0.85	0.14	59,59,59,59	0
59	MG	2A	3140	1/1	0.85	0.27	39,39,39,39	0
59	MG	2A	3141	1/1	0.85	0.22	49,49,49,49	0
59	MG	1A	3636	1/1	0.85	0.26	56,56,56,56	0
59	MG	2a	1624	1/1	0.85	0.21	56,56,56,56	0
59	MG	1A	3316	1/1	0.85	0.11	48,48,48,48	0
59	MG	1A	3255	1/1	0.85	0.21	63,63,63,63	0
59	MG	2a	1647	1/1	0.85	0.17	61,61,61,61	0
59	MG	1d	503	1/1	0.85	0.18	80,80,80,80	0
59	MG	1A	3758	1/1	0.85	0.26	34,34,34,34	0
59	MG	1w	3005	1/1	0.85	0.13	78,78,78,78	0
59	MG	2a	1659	1/1	0.85	0.10	46,46,46,46	0
59	MG	1A	3389	1/1	0.85	0.14	37,37,37,37	0
59	MG	1B	205	1/1	0.85	0.40	72,72,72,72	0
59	MG	2a	1706	1/1	0.85	0.21	87,87,87,87	0
59	MG	1B	218	1/1	0.85	0.13	65,65,65,65	0
59	MG	2A	3469	1/1	0.85	0.17	60,60,60,60	0
59	MG	2A	3256	1/1	0.85	0.14	48,48,48,48	0
59	MG	2a	1727	1/1	0.85	0.23	63,63,63,63	0
59	MG	2A	3482	1/1	0.85	0.16	53,53,53,53	0
59	MG	2A	3258	1/1	0.85	0.23	55,55,55,55	0
59	MG	2A	3039	1/1	0.85	0.19	43,43,43,43	0
59	MG	1a	1639	1/1	0.85	0.13	67,67,67,67	0
59	MG	2A	3505	1/1	0.85	0.13	46,46,46,46	0
59	MG	2A	3517	1/1	0.85	0.15	50,50,50,50	0
59	MG	2A	3069	1/1	0.85	0.14	50,50,50,50	0
59	MG	1A	3179	1/1	0.85	0.17	51,51,51,51	0
59	MG	2A	3531	1/1	0.85	0.24	38,38,38,38	0
59	MG	2A	3544	1/1	0.85	0.23	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2A	3550	1/1	0.85	0.23	50,50,50,50	0
59	MG	2A	3085	1/1	0.85	0.25	58,58,58,58	0
59	MG	1A	3658	1/1	0.86	0.47	38,38,38,38	0
59	MG	1A	3024	1/1	0.86	0.21	47,47,47,47	0
59	MG	2A	3280	1/1	0.86	0.21	68,68,68,68	0
59	MG	2A	3593	1/1	0.86	0.10	73,73,73,73	0
59	MG	1A	3112	1/1	0.86	0.16	44,44,44,44	0
59	MG	2A	3089	1/1	0.86	0.15	51,51,51,51	0
59	MG	1A	3213	1/1	0.86	0.12	47,47,47,47	0
59	MG	2A	3108	1/1	0.86	0.18	44,44,44,44	0
59	MG	2A	3318	1/1	0.86	0.12	42,42,42,42	0
59	MG	2S	201	1/1	0.86	0.18	52,52,52,52	0
59	MG	1A	3120	1/1	0.86	0.10	31,31,31,31	0
59	MG	2a	1612	1/1	0.86	0.22	48,48,48,48	0
59	MG	1A	3584	1/1	0.86	0.23	62,62,62,62	0
59	MG	2A	3132	1/1	0.86	0.15	46,46,46,46	0
59	MG	2A	3136	1/1	0.86	0.21	52,52,52,52	0
59	MG	2A	3138	1/1	0.86	0.46	58,58,58,58	0
59	MG	2A	3354	1/1	0.86	0.13	33,33,33,33	0
59	MG	1a	1687	1/1	0.86	0.30	55,55,55,55	0
59	MG	2a	1648	1/1	0.86	0.20	61,61,61,61	0
59	MG	1A	3712	1/1	0.86	0.12	80,80,80,80	0
59	MG	2A	3144	1/1	0.86	0.19	50,50,50,50	0
59	MG	1A	3716	1/1	0.86	0.09	56,56,56,56	0
59	MG	1A	3505	1/1	0.86	0.11	55,55,55,55	0
59	MG	2A	3163	1/1	0.86	0.16	47,47,47,47	0
59	MG	2a	1662	1/1	0.86	0.21	62,62,62,62	0
59	MG	2a	1667	1/1	0.86	0.22	65,65,65,65	0
59	MG	2a	1685	1/1	0.86	0.23	51,51,51,51	0
59	MG	1A	3154	1/1	0.86	0.12	64,64,64,64	0
59	MG	1A	3542	1/1	0.86	0.28	67,67,67,67	0
59	MG	2A	3193	1/1	0.86	0.12	51,51,51,51	0
59	MG	1a	1615	1/1	0.86	0.22	54,54,54,54	0
59	MG	2a	1717	1/1	0.86	0.15	52,52,52,52	0
59	MG	2A	3207	1/1	0.86	0.30	51,51,51,51	0
59	MG	1A	3548	1/1	0.86	0.11	61,61,61,61	0
59	MG	1a	1619	1/1	0.86	0.15	51,51,51,51	0
59	MG	2A	3495	1/1	0.86	0.13	56,56,56,56	0
59	MG	1a	1750	1/1	0.86	0.16	86,86,86,86	0
59	MG	2A	3238	1/1	0.86	0.25	60,60,60,60	0
59	MG	2a	1755	1/1	0.86	0.23	77,77,77,77	0
59	MG	1A	3034	1/1	0.86	0.15	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2a	1759	1/1	0.86	0.14	62,62,62,62	0
59	MG	1A	3645	1/1	0.86	0.19	40,40,40,40	0
59	MG	1a	1758	1/1	0.86	0.14	79,79,79,79	0
59	MG	2a	1763	1/1	0.86	0.29	71,71,71,71	0
59	MG	1A	3646	1/1	0.86	0.23	48,48,48,48	0
59	MG	2A	3262	1/1	0.86	0.17	51,51,51,51	0
59	MG	2A	3063	1/1	0.86	0.13	52,52,52,52	0
59	MG	2A	3551	1/1	0.86	0.21	58,58,58,58	0
59	MG	1A	3749	1/1	0.86	0.18	54,54,54,54	0
59	MG	1A	3010	1/1	0.87	0.24	45,45,45,45	0
59	MG	1A	3586	1/1	0.87	0.12	56,56,56,56	0
59	MG	1A	3690	1/1	0.87	0.13	56,56,56,56	0
59	MG	1a	1655	1/1	0.87	0.24	53,53,53,53	0
59	MG	2A	3310	1/1	0.87	0.15	55,55,55,55	0
59	MG	2A	3606	1/1	0.87	0.13	29,29,29,29	0
59	MG	2A	3311	1/1	0.87	0.07	63,63,63,63	0
59	MG	2A	3135	1/1	0.87	0.13	45,45,45,45	0
59	MG	2E	304	1/1	0.87	0.37	56,56,56,56	0
59	MG	1A	3596	1/1	0.87	0.10	52,52,52,52	0
59	MG	1A	3707	1/1	0.87	0.19	51,51,51,51	0
59	MG	2A	3328	1/1	0.87	0.09	30,30,30,30	0
59	MG	1a	1671	1/1	0.87	0.19	53,53,53,53	0
59	MG	2a	1617	1/1	0.87	0.17	65,65,65,65	0
59	MG	2A	3346	1/1	0.87	0.17	64,64,64,64	0
59	MG	1A	3046	1/1	0.87	0.15	57,57,57,57	0
59	MG	1B	220	1/1	0.87	0.08	38,38,38,38	0
59	MG	1A	3017	1/1	0.87	0.14	50,50,50,50	0
59	MG	2A	3358	1/1	0.87	0.12	56,56,56,56	0
59	MG	1a	1693	1/1	0.87	0.18	57,57,57,57	0
59	MG	2A	3391	1/1	0.87	0.08	47,47,47,47	0
59	MG	2A	3159	1/1	0.87	0.29	49,49,49,49	0
59	MG	2A	3397	1/1	0.87	0.11	46,46,46,46	0
59	MG	2A	3401	1/1	0.87	0.12	25,25,25,25	0
59	MG	1A	3714	1/1	0.87	0.29	72,72,72,72	0
59	MG	1A	3125	1/1	0.87	0.19	39,39,39,39	0
59	MG	10	101	1/1	0.87	0.10	38,38,38,38	0
59	MG	2a	1663	1/1	0.87	0.16	51,51,51,51	0
59	MG	2a	1664	1/1	0.87	0.23	59,59,59,59	0
59	MG	1a	1720	1/1	0.87	0.20	54,54,54,54	0
59	MG	2a	1673	1/1	0.87	0.23	55,55,55,55	0
59	MG	2a	1679	1/1	0.87	0.15	50,50,50,50	0
59	MG	2a	1680	1/1	0.87	0.20	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2a	1682	1/1	0.87	0.16	42,42,42,42	0
59	MG	2A	3432	1/1	0.87	0.09	55,55,55,55	0
59	MG	2A	3447	1/1	0.87	0.11	41,41,41,41	0
59	MG	1A	3330	1/1	0.87	0.14	41,41,41,41	0
59	MG	2A	3012	1/1	0.87	0.12	39,39,39,39	0
59	MG	1a	1726	1/1	0.87	0.17	60,60,60,60	0
59	MG	1a	1733	1/1	0.87	0.11	61,61,61,61	0
59	MG	1A	3637	1/1	0.87	0.17	59,59,59,59	0
59	MG	1a	1739	1/1	0.87	0.12	44,44,44,44	0
59	MG	2A	3489	1/1	0.87	0.11	47,47,47,47	0
59	MG	2a	1738	1/1	0.87	0.17	52,52,52,52	0
59	MG	2A	3249	1/1	0.87	0.09	39,39,39,39	0
59	MG	2A	3250	1/1	0.87	0.10	45,45,45,45	0
59	MG	2a	1751	1/1	0.87	0.17	104,104,104,104	0
59	MG	2a	1752	1/1	0.87	0.26	64,64,64,64	0
59	MG	1A	3461	1/1	0.87	0.15	31,31,31,31	0
59	MG	1A	3570	1/1	0.87	0.24	54,54,54,54	0
59	MG	2a	1757	1/1	0.87	0.17	64,64,64,64	0
59	MG	2A	3507	1/1	0.87	0.10	39,39,39,39	0
59	MG	1A	3574	1/1	0.87	0.15	47,47,47,47	0
59	MG	1A	3742	1/1	0.87	0.17	47,47,47,47	0
59	MG	2A	3261	1/1	0.87	0.11	27,27,27,27	0
59	MG	2A	3081	1/1	0.87	0.23	63,63,63,63	0
59	MG	1a	1756	1/1	0.87	0.29	67,67,67,67	0
59	MG	2a	1771	1/1	0.87	0.18	72,72,72,72	0
59	MG	1A	3651	1/1	0.87	0.11	28,28,28,28	0
59	MG	1A	3483	1/1	0.87	0.12	40,40,40,40	0
59	MG	2A	3094	1/1	0.87	0.23	53,53,53,53	0
59	MG	1A	3130	1/1	0.87	0.22	34,34,34,34	0
60	ZN	13	103	1/1	0.87	0.33	278,278,278,278	0
59	MG	2A	3407	1/1	0.88	0.21	32,32,32,32	0
59	MG	2A	3088	1/1	0.88	0.17	41,41,41,41	0
59	MG	1A	3735	1/1	0.88	0.12	32,32,32,32	0
59	MG	2a	1623	1/1	0.88	0.09	37,37,37,37	0
59	MG	1a	1699	1/1	0.88	0.06	60,60,60,60	0
59	MG	2A	3097	1/1	0.88	0.08	56,56,56,56	0
59	MG	1A	3396	1/1	0.88	0.14	51,51,51,51	0
59	MG	2A	3440	1/1	0.88	0.13	51,51,51,51	0
59	MG	1A	3211	1/1	0.88	0.13	59,59,59,59	0
59	MG	1A	3137	1/1	0.88	0.10	55,55,55,55	0
59	MG	2A	3110	1/1	0.88	0.11	38,38,38,38	0
59	MG	2a	1655	1/1	0.88	0.14	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2a	1656	1/1	0.88	0.24	61,61,61,61	0
59	MG	2A	3115	1/1	0.88	0.23	42,42,42,42	0
59	MG	1A	3104	1/1	0.88	0.12	52,52,52,52	0
59	MG	2A	3477	1/1	0.88	0.13	54,54,54,54	0
59	MG	1A	3680	1/1	0.88	0.14	46,46,46,46	0
59	MG	1A	3746	1/1	0.88	0.16	53,53,53,53	0
59	MG	1A	3684	1/1	0.88	0.16	57,57,57,57	0
59	MG	2A	3284	1/1	0.88	0.24	53,53,53,53	0
59	MG	1a	1803	1/1	0.88	0.17	53,53,53,53	0
59	MG	1A	3686	1/1	0.88	0.14	62,62,62,62	0
59	MG	1a	1636	1/1	0.88	0.24	62,62,62,62	0
59	MG	1A	3434	1/1	0.88	0.25	48,48,48,48	0
59	MG	2A	3514	1/1	0.88	0.09	58,58,58,58	0
59	MG	2a	1686	1/1	0.88	0.17	40,40,40,40	0
59	MG	2A	3515	1/1	0.88	0.15	48,48,48,48	0
59	MG	2a	1697	1/1	0.88	0.23	55,55,55,55	0
59	MG	2a	1705	1/1	0.88	0.15	52,52,52,52	0
59	MG	1a	1746	1/1	0.88	0.10	76,76,76,76	0
59	MG	2A	3154	1/1	0.88	0.17	59,59,59,59	0
59	MG	1A	3226	1/1	0.88	0.16	50,50,50,50	0
59	MG	1a	1648	1/1	0.88	0.20	60,60,60,60	0
59	MG	2a	1720	1/1	0.88	0.21	63,63,63,63	0
59	MG	2a	1722	1/1	0.88	0.18	45,45,45,45	0
59	MG	2A	3538	1/1	0.88	0.12	28,28,28,28	0
59	MG	1A	3040	1/1	0.88	0.18	31,31,31,31	0
59	MG	2a	1734	1/1	0.88	0.15	70,70,70,70	0
59	MG	1A	3775	1/1	0.88	0.13	41,41,41,41	0
59	MG	1A	3132	1/1	0.88	0.13	36,36,36,36	0
59	MG	2A	3185	1/1	0.88	0.12	33,33,33,33	0
59	MG	1A	3575	1/1	0.88	0.08	52,52,52,52	0
59	MG	1A	3501	1/1	0.88	0.12	49,49,49,49	0
59	MG	2A	3202	1/1	0.88	0.22	35,35,35,35	0
59	MG	1A	3072	1/1	0.88	0.33	61,61,61,61	0
59	MG	2A	3363	1/1	0.88	0.11	53,53,53,53	0
59	MG	2A	3368	1/1	0.88	0.14	56,56,56,56	0
59	MG	2A	3074	1/1	0.88	0.07	39,39,39,39	0
59	MG	2A	3609	1/1	0.88	0.11	51,51,51,51	0
59	MG	2B	204	1/1	0.88	0.14	45,45,45,45	0
59	MG	1A	3581	1/1	0.88	0.12	61,61,61,61	0
59	MG	1A	3719	1/1	0.88	0.12	68,68,68,68	0
59	MG	2A	3396	1/1	0.88	0.13	24,24,24,24	0
59	MG	2M	202	1/1	0.88	0.19	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3652	1/1	0.88	0.13	39,39,39,39	0
59	MG	2A	3398	1/1	0.88	0.09	32,32,32,32	0
59	MG	2A	3246	1/1	0.88	0.13	47,47,47,47	0
59	MG	2a	1611	1/1	0.88	0.25	70,70,70,70	0
59	MG	2A	3403	1/1	0.88	0.12	28,28,28,28	0
59	MG	1A	3324	1/1	0.89	0.12	51,51,51,51	0
59	MG	2F	301	1/1	0.89	0.16	58,58,58,58	0
59	MG	1A	3659	1/1	0.89	0.23	31,31,31,31	0
59	MG	1A	3660	1/1	0.89	0.18	55,55,55,55	0
59	MG	1A	3577	1/1	0.89	0.12	60,60,60,60	0
59	MG	1a	1777	1/1	0.89	0.14	53,53,53,53	0
59	MG	1a	1656	1/1	0.89	0.29	51,51,51,51	0
59	MG	1A	3579	1/1	0.89	0.13	44,44,44,44	0
59	MG	1A	3669	1/1	0.89	0.11	52,52,52,52	0
59	MG	1a	1659	1/1	0.89	0.19	63,63,63,63	0
59	MG	2A	3160	1/1	0.89	0.09	41,41,41,41	0
59	MG	1a	1798	1/1	0.89	0.24	55,55,55,55	0
59	MG	2A	3166	1/1	0.89	0.12	43,43,43,43	0
59	MG	2A	3169	1/1	0.89	0.28	54,54,54,54	0
59	MG	2a	1631	1/1	0.89	0.09	48,48,48,48	0
59	MG	2a	1638	1/1	0.89	0.23	54,54,54,54	0
59	MG	2A	3406	1/1	0.89	0.11	43,43,43,43	0
59	MG	1A	3759	1/1	0.89	0.19	46,46,46,46	0
59	MG	1a	1680	1/1	0.89	0.14	65,65,65,65	0
59	MG	1A	3670	1/1	0.89	0.22	60,60,60,60	0
59	MG	2A	3188	1/1	0.89	0.09	41,41,41,41	0
59	MG	1A	3234	1/1	0.89	0.16	50,50,50,50	0
59	MG	1A	3674	1/1	0.89	0.10	48,48,48,48	0
59	MG	2A	3436	1/1	0.89	0.12	50,50,50,50	0
59	MG	1A	3236	1/1	0.89	0.22	52,52,52,52	0
59	MG	2A	3205	1/1	0.89	0.16	58,58,58,58	0
59	MG	2A	3004	1/1	0.89	0.14	53,53,53,53	0
59	MG	1A	3346	1/1	0.89	0.09	26,26,26,26	0
59	MG	1A	3585	1/1	0.89	0.14	52,52,52,52	0
59	MG	1a	1702	1/1	0.89	0.17	51,51,51,51	0
59	MG	2A	3474	1/1	0.89	0.12	41,41,41,41	0
59	MG	2a	1674	1/1	0.89	0.23	60,60,60,60	0
59	MG	2A	3231	1/1	0.89	0.14	56,56,56,56	0
59	MG	2A	3236	1/1	0.89	0.24	48,48,48,48	0
59	MG	2A	3034	1/1	0.89	0.20	47,47,47,47	0
59	MG	2A	3035	1/1	0.89	0.12	45,45,45,45	0
59	MG	1A	3207	1/1	0.89	0.23	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2A	3038	1/1	0.89	0.16	43,43,43,43	0
59	MG	1a	1710	1/1	0.89	0.23	42,42,42,42	0
59	MG	2a	1702	1/1	0.89	0.20	53,53,53,53	0
59	MG	2A	3046	1/1	0.89	0.16	51,51,51,51	0
59	MG	1A	3515	1/1	0.89	0.08	48,48,48,48	0
59	MG	2a	1707	1/1	0.89	0.19	49,49,49,49	0
59	MG	1A	3536	1/1	0.89	0.18	31,31,31,31	0
59	MG	2a	1709	1/1	0.89	0.13	68,68,68,68	0
59	MG	1A	3390	1/1	0.89	0.15	53,53,53,53	0
59	MG	13	104	1/1	0.89	0.24	48,48,48,48	0
59	MG	1a	1728	1/1	0.89	0.10	44,44,44,44	0
59	MG	2a	1721	1/1	0.89	0.25	62,62,62,62	0
59	MG	1A	3605	1/1	0.89	0.15	67,67,67,67	0
59	MG	2a	1723	1/1	0.89	0.17	65,65,65,65	0
59	MG	1a	1604	1/1	0.89	0.17	51,51,51,51	0
59	MG	1a	1608	1/1	0.89	0.07	65,65,65,65	0
59	MG	1a	1611	1/1	0.89	0.06	84,84,84,84	0
59	MG	1A	3606	1/1	0.89	0.17	60,60,60,60	0
59	MG	2A	3090	1/1	0.89	0.10	40,40,40,40	0
59	MG	2A	3092	1/1	0.89	0.17	40,40,40,40	0
59	MG	2a	1743	1/1	0.89	0.12	68,68,68,68	0
59	MG	2A	3566	1/1	0.89	0.15	54,54,54,54	0
59	MG	2A	3568	1/1	0.89	0.15	72,72,72,72	0
59	MG	1A	3608	1/1	0.89	0.12	59,59,59,59	0
59	MG	1A	3544	1/1	0.89	0.20	43,43,43,43	0
59	MG	2A	3574	1/1	0.89	0.24	62,62,62,62	0
59	MG	2A	3578	1/1	0.89	0.12	46,46,46,46	0
59	MG	2A	3586	1/1	0.89	0.18	45,45,45,45	0
59	MG	2A	3099	1/1	0.89	0.17	58,58,58,58	0
59	MG	1A	3119	1/1	0.89	0.19	41,41,41,41	0
59	MG	1A	3286	1/1	0.89	0.16	71,71,71,71	0
59	MG	1A	3146	1/1	0.89	0.21	56,56,56,56	0
59	MG	2A	3604	1/1	0.89	0.16	40,40,40,40	0
59	MG	1A	3169	1/1	0.89	0.24	55,55,55,55	0
59	MG	2a	1772	1/1	0.89	0.33	64,64,64,64	0
59	MG	1A	3152	1/1	0.89	0.07	24,24,24,24	0
59	MG	2A	3612	1/1	0.89	0.13	46,46,46,46	0
59	MG	1A	3199	1/1	0.89	0.14	34,34,34,34	0
59	MG	1a	1643	1/1	0.89	0.08	50,50,50,50	0
59	MG	2w	3004	1/1	0.89	0.25	52,52,52,52	0
59	MG	1A	3452	1/1	0.89	0.17	46,46,46,46	0
59	MG	1B	223	1/1	0.90	0.16	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3333	1/1	0.90	0.15	45,45,45,45	0
59	MG	1A	3598	1/1	0.90	0.21	48,48,48,48	0
59	MG	1N	202	1/1	0.90	0.22	29,29,29,29	0
59	MG	1a	1713	1/1	0.90	0.17	62,62,62,62	0
59	MG	1a	1716	1/1	0.90	0.17	63,63,63,63	0
59	MG	2A	3617	1/1	0.90	0.18	62,62,62,62	0
59	MG	1S	3002	1/1	0.90	0.20	32,32,32,32	0
59	MG	2A	3312	1/1	0.90	0.18	60,60,60,60	0
59	MG	2B	210	1/1	0.90	0.12	55,55,55,55	0
59	MG	1A	3509	1/1	0.90	0.11	50,50,50,50	0
59	MG	2D	301	1/1	0.90	0.19	48,48,48,48	0
59	MG	1A	3097	1/1	0.90	0.13	55,55,55,55	0
59	MG	1A	3192	1/1	0.90	0.20	47,47,47,47	0
59	MG	1A	3538	1/1	0.90	0.10	63,63,63,63	0
59	MG	1A	3713	1/1	0.90	0.39	42,42,42,42	0
59	MG	2A	3343	1/1	0.90	0.14	43,43,43,43	0
59	MG	2S	202	1/1	0.90	0.07	58,58,58,58	0
59	MG	2a	1602	1/1	0.90	0.11	47,47,47,47	0
59	MG	1a	1606	1/1	0.90	0.15	63,63,63,63	0
59	MG	2A	3104	1/1	0.90	0.11	53,53,53,53	0
59	MG	1A	3243	1/1	0.90	0.15	51,51,51,51	0
59	MG	2a	1613	1/1	0.90	0.13	43,43,43,43	0
59	MG	2A	3351	1/1	0.90	0.09	43,43,43,43	0
59	MG	1A	3198	1/1	0.90	0.13	60,60,60,60	0
59	MG	2A	3356	1/1	0.90	0.15	58,58,58,58	0
59	MG	1A	3620	1/1	0.90	0.08	26,26,26,26	0
59	MG	1a	1613	1/1	0.90	0.08	66,66,66,66	0
59	MG	2a	1628	1/1	0.90	0.19	62,62,62,62	0
59	MG	2A	3116	1/1	0.90	0.14	34,34,34,34	0
59	MG	2A	3370	1/1	0.90	0.09	46,46,46,46	0
59	MG	2A	3373	1/1	0.90	0.14	47,47,47,47	0
59	MG	1A	3630	1/1	0.90	0.12	51,51,51,51	0
59	MG	1a	1753	1/1	0.90	0.17	65,65,65,65	0
59	MG	1A	3729	1/1	0.90	0.23	54,54,54,54	0
59	MG	1A	3391	1/1	0.90	0.21	55,55,55,55	0
59	MG	1A	3036	1/1	0.90	0.16	38,38,38,38	0
59	MG	1a	1625	1/1	0.90	0.13	53,53,53,53	0
59	MG	2A	3399	1/1	0.90	0.14	39,39,39,39	0
59	MG	1A	3557	1/1	0.90	0.13	44,44,44,44	0
59	MG	2a	1658	1/1	0.90	0.27	58,58,58,58	0
59	MG	1A	3259	1/1	0.90	0.10	45,45,45,45	0
59	MG	1a	1633	1/1	0.90	0.18	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3280	1/1	0.90	0.10	40,40,40,40	0
59	MG	1A	3416	1/1	0.90	0.12	49,49,49,49	0
59	MG	1A	3572	1/1	0.90	0.15	43,43,43,43	0
59	MG	2A	3425	1/1	0.90	0.16	50,50,50,50	0
59	MG	1A	3064	1/1	0.90	0.21	52,52,52,52	0
59	MG	1A	3747	1/1	0.90	0.13	42,42,42,42	0
59	MG	1a	1652	1/1	0.90	0.12	48,48,48,48	0
59	MG	1A	3291	1/1	0.90	0.14	60,60,60,60	0
59	MG	1A	3438	1/1	0.90	0.14	49,49,49,49	0
59	MG	1A	3122	1/1	0.90	0.24	60,60,60,60	0
59	MG	2A	3174	1/1	0.90	0.13	34,34,34,34	0
59	MG	2a	1687	1/1	0.90	0.22	48,48,48,48	0
59	MG	2a	1689	1/1	0.90	0.10	69,69,69,69	0
59	MG	2A	3178	1/1	0.90	0.10	50,50,50,50	0
59	MG	2a	1695	1/1	0.90	0.25	61,61,61,61	0
59	MG	2A	3179	1/1	0.90	0.22	50,50,50,50	0
59	MG	2A	3180	1/1	0.90	0.08	56,56,56,56	0
59	MG	1A	3752	1/1	0.90	0.08	42,42,42,42	0
59	MG	2A	3476	1/1	0.90	0.29	61,61,61,61	0
59	MG	1A	3167	1/1	0.90	0.26	50,50,50,50	0
59	MG	1A	3134	1/1	0.90	0.18	54,54,54,54	0
59	MG	2A	3194	1/1	0.90	0.13	35,35,35,35	0
59	MG	2A	3488	1/1	0.90	0.23	51,51,51,51	0
59	MG	1A	3763	1/1	0.90	0.16	38,38,38,38	0
59	MG	1a	1663	1/1	0.90	0.24	79,79,79,79	0
59	MG	1a	1666	1/1	0.90	0.14	49,49,49,49	0
59	MG	1w	3002	1/1	0.90	0.14	51,51,51,51	0
59	MG	2A	3501	1/1	0.90	0.18	50,50,50,50	0
59	MG	1A	3768	1/1	0.90	0.16	50,50,50,50	0
59	MG	1a	1674	1/1	0.90	0.22	54,54,54,54	0
59	MG	2A	3510	1/1	0.90	0.17	35,35,35,35	0
59	MG	2A	3011	1/1	0.90	0.14	40,40,40,40	0
59	MG	1a	1679	1/1	0.90	0.22	60,60,60,60	0
59	MG	2A	3516	1/1	0.90	0.08	78,78,78,78	0
59	MG	1A	3223	1/1	0.90	0.13	59,59,59,59	0
59	MG	2A	3018	1/1	0.90	0.11	39,39,39,39	0
59	MG	2A	3521	1/1	0.90	0.09	69,69,69,69	0
59	MG	2A	3245	1/1	0.90	0.17	51,51,51,51	0
59	MG	2A	3031	1/1	0.90	0.13	52,52,52,52	0
59	MG	1a	1681	1/1	0.90	0.15	60,60,60,60	0
59	MG	1a	1683	1/1	0.90	0.06	75,75,75,75	0
59	MG	2A	3546	1/1	0.90	0.29	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3488	1/1	0.90	0.14	45,45,45,45	0
59	MG	1A	3067	1/1	0.90	0.14	43,43,43,43	0
59	MG	1B	209	1/1	0.90	0.13	45,45,45,45	0
59	MG	1a	1690	1/1	0.90	0.24	58,58,58,58	0
59	MG	1A	3172	1/1	0.90	0.15	53,53,53,53	0
59	MG	2A	3049	1/1	0.90	0.15	38,38,38,38	0
59	MG	1A	3589	1/1	0.90	0.14	29,29,29,29	0
59	MG	2A	3057	1/1	0.90	0.07	41,41,41,41	0
59	MG	2A	3575	1/1	0.90	0.17	36,36,36,36	0
59	MG	2A	3061	1/1	0.90	0.10	31,31,31,31	0
59	MG	2A	3273	1/1	0.90	0.11	63,63,63,63	0
59	MG	1a	1700	1/1	0.90	0.19	50,50,50,50	0
59	MG	1A	3685	1/1	0.90	0.22	60,60,60,60	0
59	MG	1A	3694	1/1	0.91	0.17	47,47,47,47	0
59	MG	2A	3055	1/1	0.91	0.10	41,41,41,41	0
59	MG	2A	3264	1/1	0.91	0.10	49,49,49,49	0
59	MG	2A	3265	1/1	0.91	0.32	62,62,62,62	0
59	MG	1A	3328	1/1	0.91	0.15	50,50,50,50	0
59	MG	1A	3704	1/1	0.91	0.17	71,71,71,71	0
59	MG	1a	1705	1/1	0.91	0.26	64,64,64,64	0
59	MG	2A	3065	1/1	0.91	0.23	51,51,51,51	0
59	MG	2A	3066	1/1	0.91	0.14	45,45,45,45	0
59	MG	1A	3594	1/1	0.91	0.10	22,22,22,22	0
59	MG	2A	3287	1/1	0.91	0.22	55,55,55,55	0
59	MG	1a	1707	1/1	0.91	0.24	60,60,60,60	0
59	MG	2A	3296	1/1	0.91	0.16	45,45,45,45	0
59	MG	1A	3244	1/1	0.91	0.17	41,41,41,41	0
59	MG	1a	1711	1/1	0.91	0.18	52,52,52,52	0
59	MG	2A	3611	1/1	0.91	0.09	59,59,59,59	0
59	MG	2A	3082	1/1	0.91	0.23	45,45,45,45	0
59	MG	1A	3597	1/1	0.91	0.10	50,50,50,50	0
59	MG	1A	3248	1/1	0.91	0.10	36,36,36,36	0
59	MG	1A	3506	1/1	0.91	0.17	33,33,33,33	0
59	MG	2B	209	1/1	0.91	0.24	71,71,71,71	0
59	MG	1A	3600	1/1	0.91	0.12	33,33,33,33	0
59	MG	2A	3319	1/1	0.91	0.12	29,29,29,29	0
59	MG	1a	1610	1/1	0.91	0.08	50,50,50,50	0
59	MG	2E	301	1/1	0.91	0.13	20,20,20,20	0
59	MG	1A	3106	1/1	0.91	0.12	48,48,48,48	0
59	MG	2A	3327	1/1	0.91	0.19	59,59,59,59	0
59	MG	1A	3338	1/1	0.91	0.14	38,38,38,38	0
59	MG	1a	1731	1/1	0.91	0.11	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2R	8001	1/1	0.91	0.07	41,41,41,41	0
59	MG	1A	3513	1/1	0.91	0.09	43,43,43,43	0
59	MG	1A	3341	1/1	0.91	0.08	29,29,29,29	0
59	MG	2a	1601	1/1	0.91	0.14	68,68,68,68	0
59	MG	2A	3347	1/1	0.91	0.09	51,51,51,51	0
59	MG	1A	3525	1/1	0.91	0.58	61,61,61,61	0
59	MG	2a	1607	1/1	0.91	0.09	68,68,68,68	0
59	MG	1a	1617	1/1	0.91	0.12	72,72,72,72	0
59	MG	1a	1742	1/1	0.91	0.14	43,43,43,43	0
59	MG	1A	3529	1/1	0.91	0.12	53,53,53,53	0
59	MG	2A	3114	1/1	0.91	0.21	37,37,37,37	0
59	MG	1a	1621	1/1	0.91	0.17	66,66,66,66	0
59	MG	1A	3532	1/1	0.91	0.08	25,25,25,25	0
59	MG	1A	3250	1/1	0.91	0.10	51,51,51,51	0
59	MG	1a	1752	1/1	0.91	0.16	75,75,75,75	0
59	MG	1A	3741	1/1	0.91	0.19	50,50,50,50	0
59	MG	2a	1629	1/1	0.91	0.21	57,57,57,57	0
59	MG	2A	3386	1/1	0.91	0.18	43,43,43,43	0
59	MG	1A	3366	1/1	0.91	0.12	51,51,51,51	0
59	MG	2a	1632	1/1	0.91	0.15	45,45,45,45	0
59	MG	2A	3390	1/1	0.91	0.18	36,36,36,36	0
59	MG	2a	1639	1/1	0.91	0.23	43,43,43,43	0
59	MG	2A	3137	1/1	0.91	0.20	40,40,40,40	0
59	MG	1A	3196	1/1	0.91	0.19	49,49,49,49	0
59	MG	1a	1634	1/1	0.91	0.08	48,48,48,48	0
59	MG	1A	3225	1/1	0.91	0.11	39,39,39,39	0
59	MG	1A	3260	1/1	0.91	0.14	48,48,48,48	0
59	MG	1A	3393	1/1	0.91	0.10	28,28,28,28	0
59	MG	2A	3400	1/1	0.91	0.09	46,46,46,46	0
59	MG	2A	3153	1/1	0.91	0.09	43,43,43,43	0
59	MG	2A	3402	1/1	0.91	0.10	45,45,45,45	0
59	MG	1a	1645	1/1	0.91	0.20	45,45,45,45	0
59	MG	1A	3108	1/1	0.91	0.19	38,38,38,38	0
59	MG	1A	3653	1/1	0.91	0.11	62,62,62,62	0
59	MG	1a	1768	1/1	0.91	0.13	56,56,56,56	0
59	MG	2A	3161	1/1	0.91	0.23	47,47,47,47	0
59	MG	2A	3415	1/1	0.91	0.14	34,34,34,34	0
59	MG	2a	1672	1/1	0.91	0.13	57,57,57,57	0
59	MG	1a	1769	1/1	0.91	0.16	68,68,68,68	0
59	MG	1a	1650	1/1	0.91	0.13	48,48,48,48	0
59	MG	1a	1651	1/1	0.91	0.20	54,54,54,54	0
59	MG	1A	3018	1/1	0.91	0.30	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3753	1/1	0.91	0.15	54,54,54,54	0
59	MG	2a	1683	1/1	0.91	0.32	59,59,59,59	0
59	MG	1A	3405	1/1	0.91	0.07	55,55,55,55	0
59	MG	1A	3077	1/1	0.91	0.14	38,38,38,38	0
59	MG	1A	3299	1/1	0.91	0.13	44,44,44,44	0
59	MG	2A	3458	1/1	0.91	0.12	52,52,52,52	0
59	MG	1A	3235	1/1	0.91	0.09	49,49,49,49	0
59	MG	2a	1694	1/1	0.91	0.11	41,41,41,41	0
59	MG	2A	3182	1/1	0.91	0.13	41,41,41,41	0
59	MG	1A	3430	1/1	0.91	0.14	63,63,63,63	0
59	MG	2A	3473	1/1	0.91	0.17	29,29,29,29	0
59	MG	1A	3771	1/1	0.91	0.12	68,68,68,68	0
59	MG	1A	3118	1/1	0.91	0.19	42,42,42,42	0
59	MG	1B	203	1/1	0.91	0.14	43,43,43,43	0
59	MG	2A	3196	1/1	0.91	0.06	51,51,51,51	0
59	MG	1a	1667	1/1	0.91	0.17	67,67,67,67	0
59	MG	1a	1669	1/1	0.91	0.17	44,44,44,44	0
59	MG	2a	1715	1/1	0.91	0.11	68,68,68,68	0
59	MG	1a	1670	1/1	0.91	0.18	54,54,54,54	0
59	MG	2A	3003	1/1	0.91	0.17	40,40,40,40	0
59	MG	2A	3211	1/1	0.91	0.22	48,48,48,48	0
59	MG	2A	3496	1/1	0.91	0.19	41,41,41,41	0
59	MG	2A	3214	1/1	0.91	0.14	41,41,41,41	0
59	MG	2A	3218	1/1	0.91	0.22	50,50,50,50	0
59	MG	2a	1726	1/1	0.91	0.17	62,62,62,62	0
59	MG	1A	3237	1/1	0.91	0.22	55,55,55,55	0
59	MG	1A	3242	1/1	0.91	0.29	51,51,51,51	0
59	MG	1A	3321	1/1	0.91	0.13	74,74,74,74	0
59	MG	1A	3682	1/1	0.91	0.08	97,97,97,97	0
59	MG	1A	3186	1/1	0.91	0.11	45,45,45,45	0
59	MG	2A	3028	1/1	0.91	0.18	40,40,40,40	0
59	MG	2A	3241	1/1	0.91	0.12	52,52,52,52	0
59	MG	1B	221	1/1	0.91	0.08	42,42,42,42	0
59	MG	1a	1684	1/1	0.91	0.11	78,78,78,78	0
59	MG	2A	3522	1/1	0.91	0.10	38,38,38,38	0
59	MG	2A	3248	1/1	0.91	0.18	49,49,49,49	0
59	MG	2a	1756	1/1	0.91	0.18	73,73,73,73	0
59	MG	2A	3526	1/1	0.91	0.28	56,56,56,56	0
59	MG	2A	3527	1/1	0.91	0.17	32,32,32,32	0
59	MG	1B	222	1/1	0.91	0.11	41,41,41,41	0
59	MG	2A	3537	1/1	0.91	0.16	38,38,38,38	0
59	MG	1A	3464	1/1	0.91	0.08	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2A	3539	1/1	0.91	0.14	41,41,41,41	0
59	MG	1A	3475	1/1	0.91	0.16	50,50,50,50	0
59	MG	1F	306	1/1	0.91	0.09	46,46,46,46	0
59	MG	1a	1691	1/1	0.91	0.16	54,54,54,54	0
59	MG	2j	8001	1/1	0.91	0.10	65,65,65,65	0
59	MG	1A	3325	1/1	0.91	0.27	64,64,64,64	0
59	MG	2A	3555	1/1	0.91	0.21	42,42,42,42	0
59	MG	2A	3559	1/1	0.91	0.25	48,48,48,48	0
59	MG	2A	3561	1/1	0.91	0.24	46,46,46,46	0
59	MG	2A	3563	1/1	0.91	0.19	41,41,41,41	0
59	MG	1H	3001	1/1	0.91	0.17	51,51,51,51	0
59	MG	1A	3615	1/1	0.92	0.18	59,59,59,59	0
59	MG	1a	1642	1/1	0.92	0.14	43,43,43,43	0
59	MG	2A	3594	1/1	0.92	0.19	56,56,56,56	0
59	MG	1A	3042	1/1	0.92	0.17	19,19,19,19	0
59	MG	1A	3178	1/1	0.92	0.26	46,46,46,46	0
59	MG	1A	3533	1/1	0.92	0.09	53,53,53,53	0
59	MG	2A	3331	1/1	0.92	0.10	39,39,39,39	0
59	MG	1A	3535	1/1	0.92	0.12	54,54,54,54	0
59	MG	2A	3126	1/1	0.92	0.10	45,45,45,45	0
59	MG	2A	3128	1/1	0.92	0.18	29,29,29,29	0
59	MG	1A	3392	1/1	0.92	0.10	31,31,31,31	0
59	MG	2A	3620	1/1	0.92	0.14	58,58,58,58	0
59	MG	2B	201	1/1	0.92	0.30	62,62,62,62	0
59	MG	2A	3133	1/1	0.92	0.23	52,52,52,52	0
59	MG	1A	3643	1/1	0.92	0.07	23,23,23,23	0
59	MG	2B	208	1/1	0.92	0.26	58,58,58,58	0
59	MG	1A	3298	1/1	0.92	0.10	43,43,43,43	0
59	MG	1A	3539	1/1	0.92	0.11	31,31,31,31	0
59	MG	1A	3760	1/1	0.92	0.16	44,44,44,44	0
59	MG	1A	3395	1/1	0.92	0.20	42,42,42,42	0
59	MG	2A	3362	1/1	0.92	0.07	35,35,35,35	0
59	MG	1A	3764	1/1	0.92	0.11	33,33,33,33	0
59	MG	2A	3365	1/1	0.92	0.08	22,22,22,22	0
59	MG	2A	3142	1/1	0.92	0.14	48,48,48,48	0
59	MG	1A	3107	1/1	0.92	0.13	37,37,37,37	0
59	MG	1A	3399	1/1	0.92	0.22	55,55,55,55	0
59	MG	2A	3379	1/1	0.92	0.06	48,48,48,48	0
59	MG	1A	3184	1/1	0.92	0.14	39,39,39,39	0
59	MG	1a	1792	1/1	0.92	0.16	55,55,55,55	0
59	MG	1A	3555	1/1	0.92	0.10	56,56,56,56	0
59	MG	2A	3157	1/1	0.92	0.20	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2a	1604	1/1	0.92	0.21	51,51,51,51	0
59	MG	1a	1664	1/1	0.92	0.08	48,48,48,48	0
59	MG	1A	3776	1/1	0.92	0.12	46,46,46,46	0
59	MG	1A	3403	1/1	0.92	0.13	57,57,57,57	0
59	MG	1A	3560	1/1	0.92	0.13	56,56,56,56	0
59	MG	2a	1616	1/1	0.92	0.20	57,57,57,57	0
59	MG	2A	3165	1/1	0.92	0.20	44,44,44,44	0
59	MG	1A	3563	1/1	0.92	0.14	53,53,53,53	0
59	MG	1A	3001	1/1	0.92	0.08	30,30,30,30	0
59	MG	1b	3001	1/1	0.92	0.15	70,70,70,70	0
59	MG	1a	1672	1/1	0.92	0.23	43,43,43,43	0
59	MG	2a	1625	1/1	0.92	0.32	60,60,60,60	0
59	MG	2A	3404	1/1	0.92	0.11	30,30,30,30	0
59	MG	1A	3187	1/1	0.92	0.12	48,48,48,48	0
59	MG	1A	3311	1/1	0.92	0.10	40,40,40,40	0
59	MG	1A	3313	1/1	0.92	0.09	43,43,43,43	0
59	MG	2A	3411	1/1	0.92	0.17	43,43,43,43	0
59	MG	2a	1637	1/1	0.92	0.15	54,54,54,54	0
59	MG	2A	3001	1/1	0.92	0.21	29,29,29,29	0
59	MG	1A	3145	1/1	0.92	0.17	47,47,47,47	0
59	MG	2A	3416	1/1	0.92	0.12	50,50,50,50	0
59	MG	2a	1645	1/1	0.92	0.21	58,58,58,58	0
59	MG	1A	3087	1/1	0.92	0.41	48,48,48,48	0
59	MG	2A	3186	1/1	0.92	0.06	38,38,38,38	0
59	MG	2A	3187	1/1	0.92	0.14	55,55,55,55	0
59	MG	2A	3009	1/1	0.92	0.13	50,50,50,50	0
59	MG	2A	3434	1/1	0.92	0.22	54,54,54,54	0
59	MG	2A	3192	1/1	0.92	0.07	47,47,47,47	0
59	MG	1B	224	1/1	0.92	0.11	56,56,56,56	0
59	MG	1A	3435	1/1	0.92	0.14	45,45,45,45	0
59	MG	2A	3450	1/1	0.92	0.10	45,45,45,45	0
59	MG	1A	3091	1/1	0.92	0.10	54,54,54,54	0
59	MG	2A	3456	1/1	0.92	0.08	65,65,65,65	0
59	MG	1A	3578	1/1	0.92	0.11	40,40,40,40	0
59	MG	1a	1689	1/1	0.92	0.11	22,22,22,22	0
59	MG	2A	3465	1/1	0.92	0.11	22,22,22,22	0
59	MG	2a	1668	1/1	0.92	0.16	43,43,43,43	0
59	MG	1A	3114	1/1	0.92	0.11	43,43,43,43	0
59	MG	1A	3156	1/1	0.92	0.06	54,54,54,54	0
59	MG	1P	201	1/1	0.92	0.20	52,52,52,52	0
59	MG	1A	3161	1/1	0.92	0.14	54,54,54,54	0
59	MG	2A	3215	1/1	0.92	0.17	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1U	203	1/1	0.92	0.19	39,39,39,39	0
59	MG	1A	3332	1/1	0.92	0.07	44,44,44,44	0
59	MG	1A	3470	1/1	0.92	0.13	28,28,28,28	0
59	MG	2A	3044	1/1	0.92	0.13	47,47,47,47	0
59	MG	2A	3229	1/1	0.92	0.17	44,44,44,44	0
59	MG	2A	3045	1/1	0.92	0.24	56,56,56,56	0
59	MG	1a	1703	1/1	0.92	0.12	52,52,52,52	0
59	MG	2a	1691	1/1	0.92	0.27	64,64,64,64	0
59	MG	2a	1693	1/1	0.92	0.15	51,51,51,51	0
59	MG	1A	3708	1/1	0.92	0.16	51,51,51,51	0
59	MG	2A	3499	1/1	0.92	0.11	53,53,53,53	0
59	MG	1A	3709	1/1	0.92	0.14	41,41,41,41	0
59	MG	2a	1699	1/1	0.92	0.12	47,47,47,47	0
59	MG	2A	3053	1/1	0.92	0.08	44,44,44,44	0
59	MG	2a	1703	1/1	0.92	0.10	50,50,50,50	0
59	MG	1A	3474	1/1	0.92	0.07	42,42,42,42	0
59	MG	2A	3506	1/1	0.92	0.13	56,56,56,56	0
59	MG	1A	3131	1/1	0.92	0.17	47,47,47,47	0
59	MG	2A	3509	1/1	0.92	0.09	49,49,49,49	0
59	MG	1a	1607	1/1	0.92	0.09	69,69,69,69	0
59	MG	2A	3062	1/1	0.92	0.08	41,41,41,41	0
59	MG	1A	3074	1/1	0.92	0.21	28,28,28,28	0
59	MG	2a	1716	1/1	0.92	0.21	62,62,62,62	0
59	MG	2A	3255	1/1	0.92	0.11	37,37,37,37	0
59	MG	1A	3214	1/1	0.92	0.27	61,61,61,61	0
59	MG	1A	3498	1/1	0.92	0.09	70,70,70,70	0
59	MG	1A	3215	1/1	0.92	0.12	37,37,37,37	0
59	MG	1A	3263	1/1	0.92	0.11	33,33,33,33	0
59	MG	1A	3726	1/1	0.92	0.18	34,34,34,34	0
59	MG	2A	3076	1/1	0.92	0.12	45,45,45,45	0
59	MG	2A	3078	1/1	0.92	0.25	47,47,47,47	0
59	MG	2a	1728	1/1	0.92	0.11	60,60,60,60	0
59	MG	1A	3727	1/1	0.92	0.12	38,38,38,38	0
59	MG	1a	1730	1/1	0.92	0.14	49,49,49,49	0
59	MG	1A	3350	1/1	0.92	0.20	29,29,29,29	0
59	MG	1a	1618	1/1	0.92	0.21	42,42,42,42	0
59	MG	2A	3274	1/1	0.92	0.13	56,56,56,56	0
59	MG	2A	3545	1/1	0.92	0.12	38,38,38,38	0
59	MG	2A	3276	1/1	0.92	0.19	61,61,61,61	0
59	MG	1A	3730	1/1	0.92	0.18	25,25,25,25	0
59	MG	1A	3362	1/1	0.92	0.18	40,40,40,40	0
59	MG	2A	3552	1/1	0.92	0.18	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2A	3554	1/1	0.92	0.17	47,47,47,47	0
59	MG	1a	1740	1/1	0.92	0.23	39,39,39,39	0
59	MG	2A	3091	1/1	0.92	0.22	60,60,60,60	0
59	MG	1A	3276	1/1	0.92	0.12	18,18,18,18	0
59	MG	1A	3380	1/1	0.92	0.11	44,44,44,44	0
59	MG	2A	3096	1/1	0.92	0.12	55,55,55,55	0
59	MG	2A	3303	1/1	0.92	0.08	43,43,43,43	0
59	MG	2a	1764	1/1	0.92	0.19	61,61,61,61	0
59	MG	1A	3383	1/1	0.92	0.10	47,47,47,47	0
59	MG	1A	3609	1/1	0.92	0.13	26,26,26,26	0
59	MG	2A	3570	1/1	0.92	0.20	48,48,48,48	0
59	MG	2f	3002	1/1	0.92	0.09	69,69,69,69	0
59	MG	2A	3307	1/1	0.92	0.06	27,27,27,27	0
59	MG	1A	3611	1/1	0.92	0.07	46,46,46,46	0
59	MG	1A	3002	1/1	0.92	0.12	44,44,44,44	0
59	MG	2z	704	1/1	0.92	0.08	55,55,55,55	0
59	MG	2A	3107	1/1	0.92	0.19	38,38,38,38	0
59	MG	2w	3001	1/1	0.92	0.18	64,64,64,64	0
59	MG	2A	3581	1/1	0.92	0.24	71,71,71,71	0
59	MG	1A	3613	1/1	0.92	0.11	53,53,53,53	0
59	MG	2A	3590	1/1	0.92	0.10	38,38,38,38	0
59	MG	2A	3576	1/1	0.93	0.06	40,40,40,40	0
59	MG	1a	1736	1/1	0.93	0.08	32,32,32,32	0
59	MG	1a	1738	1/1	0.93	0.14	66,66,66,66	0
59	MG	1a	1620	1/1	0.93	0.11	40,40,40,40	0
59	MG	2A	3589	1/1	0.93	0.21	50,50,50,50	0
59	MG	1A	3550	1/1	0.93	0.09	36,36,36,36	0
59	MG	1A	3744	1/1	0.93	0.14	45,45,45,45	0
59	MG	2A	3309	1/1	0.93	0.10	27,27,27,27	0
59	MG	1A	3436	1/1	0.93	0.07	46,46,46,46	0
59	MG	1A	3344	1/1	0.93	0.08	42,42,42,42	0
59	MG	2A	3102	1/1	0.93	0.13	48,48,48,48	0
59	MG	2A	3602	1/1	0.93	0.15	62,62,62,62	0
59	MG	2A	3314	1/1	0.93	0.10	54,54,54,54	0
59	MG	1A	3556	1/1	0.93	0.11	57,57,57,57	0
59	MG	1a	1749	1/1	0.93	0.07	68,68,68,68	0
59	MG	1a	1632	1/1	0.93	0.24	63,63,63,63	0
59	MG	1A	3284	1/1	0.93	0.13	48,48,48,48	0
59	MG	1A	3113	1/1	0.93	0.10	27,27,27,27	0
59	MG	1A	3019	1/1	0.93	0.17	50,50,50,50	0
59	MG	1A	3656	1/1	0.93	0.11	45,45,45,45	0
59	MG	2B	202	1/1	0.93	0.12	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3463	1/1	0.93	0.12	26,26,26,26	0
59	MG	2A	3337	1/1	0.93	0.12	41,41,41,41	0
59	MG	2A	3339	1/1	0.93	0.12	46,46,46,46	0
59	MG	2A	3119	1/1	0.93	0.14	39,39,39,39	0
59	MG	2A	3120	1/1	0.93	0.19	53,53,53,53	0
59	MG	1A	3297	1/1	0.93	0.07	45,45,45,45	0
59	MG	1A	3467	1/1	0.93	0.09	27,27,27,27	0
59	MG	1A	3663	1/1	0.93	0.09	32,32,32,32	0
59	MG	2E	302	1/1	0.93	0.13	27,27,27,27	0
59	MG	2A	3130	1/1	0.93	0.15	34,34,34,34	0
59	MG	1A	3377	1/1	0.93	0.08	27,27,27,27	0
59	MG	2G	3001	1/1	0.93	0.12	34,34,34,34	0
59	MG	2M	201	1/1	0.93	0.14	54,54,54,54	0
59	MG	1A	3378	1/1	0.93	0.12	24,24,24,24	0
59	MG	1A	3140	1/1	0.93	0.18	42,42,42,42	0
59	MG	1A	3476	1/1	0.93	0.13	29,29,29,29	0
59	MG	1a	1767	1/1	0.93	0.19	60,60,60,60	0
59	MG	1A	3008	1/1	0.93	0.06	31,31,31,31	0
59	MG	2W	502	1/1	0.93	0.14	45,45,45,45	0
59	MG	26	102	1/1	0.93	0.17	47,47,47,47	0
59	MG	2A	3367	1/1	0.93	0.08	45,45,45,45	0
59	MG	1A	3014	1/1	0.93	0.18	41,41,41,41	0
59	MG	1A	3497	1/1	0.93	0.11	30,30,30,30	0
59	MG	2A	3372	1/1	0.93	0.08	36,36,36,36	0
59	MG	1a	1773	1/1	0.93	0.19	55,55,55,55	0
59	MG	2a	1609	1/1	0.93	0.33	53,53,53,53	0
59	MG	1A	3777	1/1	0.93	0.16	45,45,45,45	0
59	MG	1A	3092	1/1	0.93	0.11	48,48,48,48	0
59	MG	1a	1779	1/1	0.93	0.20	54,54,54,54	0
59	MG	2a	1614	1/1	0.93	0.13	49,49,49,49	0
59	MG	1A	3030	1/1	0.93	0.07	50,50,50,50	0
59	MG	1B	208	1/1	0.93	0.14	38,38,38,38	0
59	MG	2a	1619	1/1	0.93	0.27	46,46,46,46	0
59	MG	1a	1662	1/1	0.93	0.08	58,58,58,58	0
59	MG	2A	3394	1/1	0.93	0.09	34,34,34,34	0
59	MG	2a	1622	1/1	0.93	0.17	33,33,33,33	0
59	MG	1A	3306	1/1	0.93	0.11	23,23,23,23	0
59	MG	1B	213	1/1	0.93	0.09	39,39,39,39	0
59	MG	1A	3098	1/1	0.93	0.17	49,49,49,49	0
59	MG	2A	3162	1/1	0.93	0.17	30,30,30,30	0
59	MG	1A	3247	1/1	0.93	0.19	35,35,35,35	0
59	MG	1a	1668	1/1	0.93	0.15	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3075	1/1	0.93	0.20	44,44,44,44	0
59	MG	1A	3511	1/1	0.93	0.06	37,37,37,37	0
59	MG	2a	1633	1/1	0.93	0.13	36,36,36,36	0
59	MG	2a	1636	1/1	0.93	0.12	42,42,42,42	0
59	MG	1A	3700	1/1	0.93	0.09	66,66,66,66	0
59	MG	1l	201	1/1	0.93	0.11	50,50,50,50	0
59	MG	2A	3173	1/1	0.93	0.18	52,52,52,52	0
59	MG	1A	3076	1/1	0.93	0.19	50,50,50,50	0
59	MG	2a	1641	1/1	0.93	0.10	51,51,51,51	0
59	MG	2a	1643	1/1	0.93	0.19	39,39,39,39	0
59	MG	2a	1644	1/1	0.93	0.24	50,50,50,50	0
59	MG	1w	3001	1/1	0.93	0.17	55,55,55,55	0
59	MG	2A	3412	1/1	0.93	0.13	39,39,39,39	0
59	MG	1A	3705	1/1	0.93	0.29	56,56,56,56	0
59	MG	1a	1675	1/1	0.93	0.09	38,38,38,38	0
59	MG	1w	3006	1/1	0.93	0.12	72,72,72,72	0
59	MG	2A	3417	1/1	0.93	0.12	53,53,53,53	0
59	MG	2A	3421	1/1	0.93	0.13	48,48,48,48	0
59	MG	1a	1677	1/1	0.93	0.17	36,36,36,36	0
59	MG	2A	3002	1/1	0.93	0.14	40,40,40,40	0
59	MG	1D	303	1/1	0.93	0.09	33,33,33,33	0
59	MG	1A	3706	1/1	0.93	0.08	46,46,46,46	0
59	MG	2A	3190	1/1	0.93	0.23	34,34,34,34	0
59	MG	2A	3191	1/1	0.93	0.19	44,44,44,44	0
59	MG	2A	3438	1/1	0.93	0.18	54,54,54,54	0
59	MG	1F	302	1/1	0.93	0.19	40,40,40,40	0
59	MG	1A	3032	1/1	0.93	0.21	46,46,46,46	0
59	MG	2a	1669	1/1	0.93	0.29	55,55,55,55	0
59	MG	2a	1670	1/1	0.93	0.12	51,51,51,51	0
59	MG	1A	3078	1/1	0.93	0.29	45,45,45,45	0
59	MG	2A	3451	1/1	0.93	0.17	56,56,56,56	0
59	MG	2A	3195	1/1	0.93	0.19	53,53,53,53	0
59	MG	2a	1676	1/1	0.93	0.12	47,47,47,47	0
59	MG	2a	1678	1/1	0.93	0.17	51,51,51,51	0
59	MG	1a	1685	1/1	0.93	0.20	51,51,51,51	0
59	MG	1A	3527	1/1	0.93	0.09	38,38,38,38	0
59	MG	2A	3198	1/1	0.93	0.20	20,20,20,20	0
59	MG	2A	3461	1/1	0.93	0.06	54,54,54,54	0
59	MG	2A	3199	1/1	0.93	0.28	41,41,41,41	0
59	MG	2A	3026	1/1	0.93	0.22	44,44,44,44	0
59	MG	2A	3027	1/1	0.93	0.20	44,44,44,44	0
59	MG	2A	3206	1/1	0.93	0.07	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3171	1/1	0.93	0.17	50,50,50,50	0
59	MG	2A	3210	1/1	0.93	0.14	45,45,45,45	0
59	MG	2A	3029	1/1	0.93	0.21	24,24,24,24	0
59	MG	2A	3478	1/1	0.93	0.08	58,58,58,58	0
59	MG	2A	3480	1/1	0.93	0.13	59,59,59,59	0
59	MG	2a	1696	1/1	0.93	0.23	40,40,40,40	0
59	MG	1O	3001	1/1	0.93	0.18	35,35,35,35	0
59	MG	2A	3483	1/1	0.93	0.15	47,47,47,47	0
59	MG	1A	3530	1/1	0.93	0.15	34,34,34,34	0
59	MG	1P	202	1/1	0.93	0.10	36,36,36,36	0
59	MG	1A	3110	1/1	0.93	0.16	61,61,61,61	0
59	MG	1A	3054	1/1	0.93	0.22	43,43,43,43	0
59	MG	1a	1696	1/1	0.93	0.07	54,54,54,54	0
59	MG	1Y	101	1/1	0.93	0.09	51,51,51,51	0
59	MG	2A	3230	1/1	0.93	0.12	54,54,54,54	0
59	MG	2A	3040	1/1	0.93	0.13	45,45,45,45	0
59	MG	2A	3232	1/1	0.93	0.11	52,52,52,52	0
59	MG	2A	3503	1/1	0.93	0.10	32,32,32,32	0
59	MG	2A	3235	1/1	0.93	0.18	39,39,39,39	0
59	MG	2A	3043	1/1	0.93	0.08	43,43,43,43	0
59	MG	2A	3237	1/1	0.93	0.11	54,54,54,54	0
59	MG	1A	3715	1/1	0.93	0.17	42,42,42,42	0
59	MG	2A	3240	1/1	0.93	0.08	42,42,42,42	0
59	MG	2a	1724	1/1	0.93	0.21	52,52,52,52	0
59	MG	2A	3513	1/1	0.93	0.15	54,54,54,54	0
59	MG	1Y	105	1/1	0.93	0.18	57,57,57,57	0
59	MG	1A	3418	1/1	0.93	0.10	37,37,37,37	0
59	MG	1A	3419	1/1	0.93	0.11	46,46,46,46	0
59	MG	2a	1732	1/1	0.93	0.12	55,55,55,55	0
59	MG	1a	1601	1/1	0.93	0.11	30,30,30,30	0
59	MG	2a	1735	1/1	0.93	0.10	50,50,50,50	0
59	MG	1A	3610	1/1	0.93	0.13	46,46,46,46	0
59	MG	1A	3720	1/1	0.93	0.12	64,64,64,64	0
59	MG	1a	1605	1/1	0.93	0.13	40,40,40,40	0
59	MG	2A	3254	1/1	0.93	0.17	35,35,35,35	0
59	MG	1A	3725	1/1	0.93	0.09	43,43,43,43	0
59	MG	2a	1745	1/1	0.93	0.18	60,60,60,60	0
59	MG	1A	3537	1/1	0.93	0.17	46,46,46,46	0
59	MG	1A	3264	1/1	0.93	0.06	47,47,47,47	0
59	MG	2a	1753	1/1	0.93	0.12	39,39,39,39	0
59	MG	2A	3532	1/1	0.93	0.21	35,35,35,35	0
59	MG	1A	3082	1/1	0.93	0.22	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1a	1717	1/1	0.93	0.16	56,56,56,56	0
59	MG	1a	1719	1/1	0.93	0.13	59,59,59,59	0
59	MG	1A	3432	1/1	0.93	0.20	47,47,47,47	0
59	MG	1a	1721	1/1	0.93	0.14	46,46,46,46	0
59	MG	1A	3731	1/1	0.93	0.13	16,16,16,16	0
59	MG	2A	3077	1/1	0.93	0.11	40,40,40,40	0
59	MG	2A	3269	1/1	0.93	0.18	48,48,48,48	0
59	MG	1A	3619	1/1	0.93	0.11	49,49,49,49	0
59	MG	2A	3271	1/1	0.93	0.18	58,58,58,58	0
59	MG	2a	1768	1/1	0.93	0.18	64,64,64,64	0
59	MG	2A	3272	1/1	0.93	0.18	51,51,51,51	0
59	MG	1A	3278	1/1	0.93	0.10	37,37,37,37	0
59	MG	1a	1729	1/1	0.93	0.07	83,83,83,83	0
59	MG	2A	3275	1/1	0.93	0.10	58,58,58,58	0
59	MG	2A	3083	1/1	0.93	0.15	55,55,55,55	0
59	MG	2q	201	1/1	0.93	0.08	52,52,52,52	0
59	MG	2A	3084	1/1	0.93	0.09	33,33,33,33	0
59	MG	1A	3546	1/1	0.93	0.13	54,54,54,54	0
59	MG	1A	3631	1/1	0.93	0.08	48,48,48,48	0
59	MG	1A	3547	1/1	0.93	0.08	42,42,42,42	0
59	MG	2A	3290	1/1	0.93	0.12	25,25,25,25	0
59	MG	1A	3229	1/1	0.93	0.21	51,51,51,51	0
59	MG	1a	1735	1/1	0.93	0.10	69,69,69,69	0
59	MG	2B	203	1/1	0.94	0.13	62,62,62,62	0
59	MG	1A	3490	1/1	0.94	0.10	64,64,64,64	0
59	MG	2B	205	1/1	0.94	0.29	56,56,56,56	0
59	MG	1z	702	1/1	0.94	0.17	39,39,39,39	0
59	MG	1A	3290	1/1	0.94	0.13	34,34,34,34	0
59	MG	1A	3701	1/1	0.94	0.11	47,47,47,47	0
59	MG	1D	301	1/1	0.94	0.26	32,32,32,32	0
59	MG	2B	211	1/1	0.94	0.22	56,56,56,56	0
59	MG	2B	212	1/1	0.94	0.14	47,47,47,47	0
59	MG	1A	3702	1/1	0.94	0.17	51,51,51,51	0
59	MG	1a	1678	1/1	0.94	0.14	48,48,48,48	0
59	MG	1A	3703	1/1	0.94	0.13	42,42,42,42	0
59	MG	2A	3175	1/1	0.94	0.13	44,44,44,44	0
59	MG	2A	3392	1/1	0.94	0.09	39,39,39,39	0
59	MG	1E	306	1/1	0.94	0.11	39,39,39,39	0
59	MG	1A	3382	1/1	0.94	0.15	46,46,46,46	0
59	MG	2A	3395	1/1	0.94	0.09	53,53,53,53	0
59	MG	1A	3057	1/1	0.94	0.08	38,38,38,38	0
59	MG	2N	201	1/1	0.94	0.15	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2O	3001	1/1	0.94	0.19	42,42,42,42	0
59	MG	1A	3591	1/1	0.94	0.12	47,47,47,47	0
59	MG	1A	3592	1/1	0.94	0.09	44,44,44,44	0
59	MG	1M	201	1/1	0.94	0.16	48,48,48,48	0
59	MG	2A	3016	1/1	0.94	0.09	48,48,48,48	0
59	MG	1A	3504	1/1	0.94	0.09	21,21,21,21	0
59	MG	26	101	1/1	0.94	0.14	33,33,33,33	0
59	MG	2A	3019	1/1	0.94	0.11	41,41,41,41	0
59	MG	2A	3025	1/1	0.94	0.12	42,42,42,42	0
59	MG	1A	3016	1/1	0.94	0.13	37,37,37,37	0
59	MG	1A	3015	1/1	0.94	0.22	45,45,45,45	0
59	MG	1A	3711	1/1	0.94	0.11	41,41,41,41	0
59	MG	1A	3191	1/1	0.94	0.21	31,31,31,31	0
59	MG	1a	1692	1/1	0.94	0.30	57,57,57,57	0
59	MG	2a	1610	1/1	0.94	0.21	52,52,52,52	0
59	MG	1A	3069	1/1	0.94	0.09	39,39,39,39	0
59	MG	1X	3001	1/1	0.94	0.09	55,55,55,55	0
59	MG	1a	1697	1/1	0.94	0.14	61,61,61,61	0
59	MG	2A	3200	1/1	0.94	0.16	34,34,34,34	0
59	MG	2A	3201	1/1	0.94	0.24	38,38,38,38	0
59	MG	1A	3193	1/1	0.94	0.20	47,47,47,47	0
59	MG	2A	3424	1/1	0.94	0.10	23,23,23,23	0
59	MG	2A	3037	1/1	0.94	0.05	37,37,37,37	0
59	MG	1A	3239	1/1	0.94	0.14	49,49,49,49	0
59	MG	1A	3305	1/1	0.94	0.12	42,42,42,42	0
59	MG	1A	3241	1/1	0.94	0.20	40,40,40,40	0
59	MG	2A	3042	1/1	0.94	0.11	39,39,39,39	0
59	MG	10	102	1/1	0.94	0.07	44,44,44,44	0
59	MG	2a	1627	1/1	0.94	0.14	44,44,44,44	0
59	MG	1a	1704	1/1	0.94	0.10	54,54,54,54	0
59	MG	2A	3439	1/1	0.94	0.09	52,52,52,52	0
59	MG	2A	3217	1/1	0.94	0.07	45,45,45,45	0
59	MG	2A	3441	1/1	0.94	0.15	45,45,45,45	0
59	MG	2A	3442	1/1	0.94	0.12	49,49,49,49	0
59	MG	13	101	1/1	0.94	0.10	38,38,38,38	0
59	MG	1A	3607	1/1	0.94	0.18	27,27,27,27	0
59	MG	2A	3047	1/1	0.94	0.20	48,48,48,48	0
59	MG	15	101	1/1	0.94	0.14	54,54,54,54	0
59	MG	2A	3454	1/1	0.94	0.10	66,66,66,66	0
59	MG	2A	3051	1/1	0.94	0.07	35,35,35,35	0
59	MG	1A	3400	1/1	0.94	0.08	66,66,66,66	0
59	MG	1A	3086	1/1	0.94	0.08	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3025	1/1	0.94	0.07	42,42,42,42	0
59	MG	2A	3462	1/1	0.94	0.16	40,40,40,40	0
59	MG	2A	3463	1/1	0.94	0.14	45,45,45,45	0
59	MG	2A	3233	1/1	0.94	0.14	41,41,41,41	0
59	MG	1A	3163	1/1	0.94	0.09	43,43,43,43	0
59	MG	2A	3058	1/1	0.94	0.07	48,48,48,48	0
59	MG	2a	1652	1/1	0.94	0.15	36,36,36,36	0
59	MG	2a	1653	1/1	0.94	0.17	43,43,43,43	0
59	MG	2A	3059	1/1	0.94	0.09	49,49,49,49	0
59	MG	1A	3406	1/1	0.94	0.24	56,56,56,56	0
59	MG	1A	3534	1/1	0.94	0.13	38,38,38,38	0
59	MG	1A	3205	1/1	0.94	0.24	56,56,56,56	0
59	MG	2A	3242	1/1	0.94	0.22	38,38,38,38	0
59	MG	2a	1660	1/1	0.94	0.18	36,36,36,36	0
59	MG	2A	3479	1/1	0.94	0.07	34,34,34,34	0
59	MG	1A	3616	1/1	0.94	0.07	63,63,63,63	0
59	MG	1A	3734	1/1	0.94	0.14	45,45,45,45	0
59	MG	2A	3068	1/1	0.94	0.07	43,43,43,43	0
59	MG	2a	1666	1/1	0.94	0.22	48,48,48,48	0
59	MG	1A	3410	1/1	0.94	0.07	52,52,52,52	0
59	MG	1A	3413	1/1	0.94	0.12	47,47,47,47	0
59	MG	2A	3251	1/1	0.94	0.24	28,28,28,28	0
59	MG	1A	3322	1/1	0.94	0.15	42,42,42,42	0
59	MG	2A	3075	1/1	0.94	0.05	46,46,46,46	0
59	MG	1A	3206	1/1	0.94	0.15	34,34,34,34	0
59	MG	2A	3498	1/1	0.94	0.12	36,36,36,36	0
59	MG	1A	3635	1/1	0.94	0.13	72,72,72,72	0
59	MG	2A	3257	1/1	0.94	0.10	49,49,49,49	0
59	MG	1A	3089	1/1	0.94	0.07	42,42,42,42	0
59	MG	2A	3079	1/1	0.94	0.07	33,33,33,33	0
59	MG	2a	1681	1/1	0.94	0.38	58,58,58,58	0
59	MG	1A	3052	1/1	0.94	0.15	40,40,40,40	0
59	MG	1A	3426	1/1	0.94	0.08	57,57,57,57	0
59	MG	1A	3641	1/1	0.94	0.19	49,49,49,49	0
59	MG	2A	3508	1/1	0.94	0.14	32,32,32,32	0
59	MG	1a	1622	1/1	0.94	0.21	64,64,64,64	0
59	MG	1A	3053	1/1	0.94	0.25	46,46,46,46	0
59	MG	2A	3266	1/1	0.94	0.09	38,38,38,38	0
59	MG	1a	1624	1/1	0.94	0.11	38,38,38,38	0
59	MG	2a	1692	1/1	0.94	0.25	45,45,45,45	0
59	MG	1A	3096	1/1	0.94	0.18	47,47,47,47	0
59	MG	1A	3026	1/1	0.94	0.20	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1a	1627	1/1	0.94	0.08	50,50,50,50	0
59	MG	1a	1628	1/1	0.94	0.09	53,53,53,53	0
59	MG	1a	1629	1/1	0.94	0.23	45,45,45,45	0
59	MG	1A	3551	1/1	0.94	0.09	48,48,48,48	0
59	MG	2a	1700	1/1	0.94	0.20	45,45,45,45	0
59	MG	2a	1701	1/1	0.94	0.12	63,63,63,63	0
59	MG	1A	3751	1/1	0.94	0.06	43,43,43,43	0
59	MG	2A	3525	1/1	0.94	0.13	41,41,41,41	0
59	MG	1A	3552	1/1	0.94	0.10	47,47,47,47	0
59	MG	1A	3262	1/1	0.94	0.13	53,53,53,53	0
59	MG	2A	3528	1/1	0.94	0.16	30,30,30,30	0
59	MG	1a	1635	1/1	0.94	0.14	55,55,55,55	0
59	MG	1A	3755	1/1	0.94	0.19	53,53,53,53	0
59	MG	2A	3535	1/1	0.94	0.13	55,55,55,55	0
59	MG	2A	3536	1/1	0.94	0.15	50,50,50,50	0
59	MG	2A	3285	1/1	0.94	0.06	53,53,53,53	0
59	MG	1a	1637	1/1	0.94	0.17	42,42,42,42	0
59	MG	2a	1719	1/1	0.94	0.17	56,56,56,56	0
59	MG	1A	3055	1/1	0.94	0.16	49,49,49,49	0
59	MG	2A	3541	1/1	0.94	0.18	49,49,49,49	0
59	MG	1A	3220	1/1	0.94	0.07	33,33,33,33	0
59	MG	1A	3271	1/1	0.94	0.10	40,40,40,40	0
59	MG	1A	3448	1/1	0.94	0.07	41,41,41,41	0
59	MG	2A	3302	1/1	0.94	0.13	35,35,35,35	0
59	MG	1A	3451	1/1	0.94	0.16	51,51,51,51	0
59	MG	1A	3275	1/1	0.94	0.14	51,51,51,51	0
59	MG	1a	1649	1/1	0.94	0.23	52,52,52,52	0
59	MG	1A	3347	1/1	0.94	0.08	27,27,27,27	0
59	MG	2a	1733	1/1	0.94	0.24	62,62,62,62	0
59	MG	1A	3141	1/1	0.94	0.13	46,46,46,46	0
59	MG	1A	3571	1/1	0.94	0.07	45,45,45,45	0
59	MG	2A	3122	1/1	0.94	0.10	42,42,42,42	0
59	MG	1A	3355	1/1	0.94	0.13	27,27,27,27	0
59	MG	2a	1739	1/1	0.94	0.10	51,51,51,51	0
59	MG	2a	1740	1/1	0.94	0.25	53,53,53,53	0
59	MG	1a	1772	1/1	0.94	0.15	59,59,59,59	0
59	MG	2A	3129	1/1	0.94	0.13	39,39,39,39	0
59	MG	1A	3360	1/1	0.94	0.14	36,36,36,36	0
59	MG	2A	3320	1/1	0.94	0.07	40,40,40,40	0
59	MG	2A	3131	1/1	0.94	0.15	40,40,40,40	0
59	MG	1A	3779	1/1	0.94	0.15	39,39,39,39	0
59	MG	1a	1776	1/1	0.94	0.13	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1B	201	1/1	0.94	0.09	54,54,54,54	0
59	MG	1A	3675	1/1	0.94	0.09	32,32,32,32	0
59	MG	2A	3333	1/1	0.94	0.14	35,35,35,35	0
59	MG	2A	3584	1/1	0.94	0.15	40,40,40,40	0
59	MG	1a	1780	1/1	0.94	0.17	33,33,33,33	0
59	MG	2A	3588	1/1	0.94	0.18	32,32,32,32	0
59	MG	1a	1782	1/1	0.94	0.13	48,48,48,48	0
59	MG	2A	3139	1/1	0.94	0.11	42,42,42,42	0
59	MG	1B	204	1/1	0.94	0.14	51,51,51,51	0
59	MG	1a	1790	1/1	0.94	0.19	51,51,51,51	0
59	MG	1A	3676	1/1	0.94	0.13	51,51,51,51	0
59	MG	1a	1660	1/1	0.94	0.26	59,59,59,59	0
59	MG	1A	3361	1/1	0.94	0.11	30,30,30,30	0
59	MG	1A	3182	1/1	0.94	0.16	37,37,37,37	0
59	MG	2a	1773	1/1	0.94	0.08	50,50,50,50	0
59	MG	2A	3352	1/1	0.94	0.08	31,31,31,31	0
59	MG	1A	3363	1/1	0.94	0.09	45,45,45,45	0
59	MG	2A	3608	1/1	0.94	0.08	35,35,35,35	0
59	MG	2A	3355	1/1	0.94	0.14	27,27,27,27	0
59	MG	1a	1665	1/1	0.94	0.19	41,41,41,41	0
59	MG	1B	217	1/1	0.94	0.10	24,24,24,24	0
59	MG	1A	3183	1/1	0.94	0.16	33,33,33,33	0
59	MG	2A	3619	1/1	0.94	0.07	43,43,43,43	0
59	MG	1A	3481	1/1	0.94	0.08	27,27,27,27	0
59	MG	1A	3227	1/1	0.94	0.20	45,45,45,45	0
59	MG	1A	3228	1/1	0.94	0.09	44,44,44,44	0
59	MG	1A	3256	1/1	0.95	0.07	49,49,49,49	0
59	MG	1A	3433	1/1	0.95	0.10	34,34,34,34	0
59	MG	2A	3147	1/1	0.95	0.17	33,33,33,33	0
59	MG	2A	3149	1/1	0.95	0.09	46,46,46,46	0
59	MG	2A	3150	1/1	0.95	0.13	37,37,37,37	0
59	MG	2A	3152	1/1	0.95	0.07	27,27,27,27	0
59	MG	2A	3614	1/1	0.95	0.12	53,53,53,53	0
59	MG	2A	3616	1/1	0.95	0.20	51,51,51,51	0
59	MG	1B	216	1/1	0.95	0.08	34,34,34,34	0
59	MG	1A	3331	1/1	0.95	0.20	53,53,53,53	0
59	MG	1A	3257	1/1	0.95	0.06	34,34,34,34	0
59	MG	2A	3357	1/1	0.95	0.10	27,27,27,27	0
59	MG	1A	3672	1/1	0.95	0.12	47,47,47,47	0
59	MG	2A	3361	1/1	0.95	0.08	26,26,26,26	0
59	MG	2A	3158	1/1	0.95	0.06	33,33,33,33	0
59	MG	1A	3085	1/1	0.95	0.17	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3558	1/1	0.95	0.18	42,42,42,42	0
59	MG	2B	207	1/1	0.95	0.14	40,40,40,40	0
59	MG	1A	3027	1/1	0.95	0.40	34,34,34,34	0
59	MG	1A	3439	1/1	0.95	0.11	26,26,26,26	0
59	MG	2A	3369	1/1	0.95	0.16	29,29,29,29	0
59	MG	1A	3677	1/1	0.95	0.17	58,58,58,58	0
59	MG	2A	3164	1/1	0.95	0.14	48,48,48,48	0
59	MG	1A	3679	1/1	0.95	0.15	55,55,55,55	0
59	MG	2A	3376	1/1	0.95	0.10	41,41,41,41	0
59	MG	2D	302	1/1	0.95	0.10	62,62,62,62	0
59	MG	2D	304	1/1	0.95	0.29	51,51,51,51	0
59	MG	1A	3337	1/1	0.95	0.10	30,30,30,30	0
59	MG	1A	3049	1/1	0.95	0.22	41,41,41,41	0
59	MG	1E	303	1/1	0.95	0.14	41,41,41,41	0
59	MG	1E	304	1/1	0.95	0.11	58,58,58,58	0
59	MG	2F	302	1/1	0.95	0.18	46,46,46,46	0
59	MG	1A	3028	1/1	0.95	0.29	40,40,40,40	0
59	MG	2A	3008	1/1	0.95	0.10	33,33,33,33	0
59	MG	1A	3217	1/1	0.95	0.10	45,45,45,45	0
59	MG	2A	3176	1/1	0.95	0.07	38,38,38,38	0
59	MG	1A	3453	1/1	0.95	0.10	36,36,36,36	0
59	MG	1A	3689	1/1	0.95	0.14	57,57,57,57	0
59	MG	1A	3268	1/1	0.95	0.08	48,48,48,48	0
59	MG	2A	3181	1/1	0.95	0.07	37,37,37,37	0
59	MG	1A	3462	1/1	0.95	0.20	42,42,42,42	0
59	MG	2A	3183	1/1	0.95	0.24	45,45,45,45	0
59	MG	23	502	1/1	0.95	0.29	49,49,49,49	0
59	MG	1N	201	1/1	0.95	0.11	40,40,40,40	0
59	MG	1A	3695	1/1	0.95	0.11	38,38,38,38	0
59	MG	2A	3020	1/1	0.95	0.24	37,37,37,37	0
59	MG	2A	3023	1/1	0.95	0.19	34,34,34,34	0
59	MG	2A	3405	1/1	0.95	0.10	45,45,45,45	0
59	MG	1A	3269	1/1	0.95	0.10	21,21,21,21	0
59	MG	2a	1605	1/1	0.95	0.14	40,40,40,40	0
59	MG	1A	3697	1/1	0.95	0.15	43,43,43,43	0
59	MG	2a	1608	1/1	0.95	0.07	56,56,56,56	0
59	MG	1A	3173	1/1	0.95	0.08	48,48,48,48	0
59	MG	1a	1695	1/1	0.95	0.16	49,49,49,49	0
59	MG	1A	3222	1/1	0.95	0.10	49,49,49,49	0
59	MG	1U	201	1/1	0.95	0.16	48,48,48,48	0
59	MG	1a	1698	1/1	0.95	0.19	45,45,45,45	0
59	MG	2A	3033	1/1	0.95	0.13	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2a	1615	1/1	0.95	0.18	43,43,43,43	0
59	MG	1A	3177	1/1	0.95	0.09	21,21,21,21	0
59	MG	2A	3420	1/1	0.95	0.11	36,36,36,36	0
59	MG	2a	1618	1/1	0.95	0.08	47,47,47,47	0
59	MG	1A	3472	1/1	0.95	0.10	47,47,47,47	0
59	MG	2A	3422	1/1	0.95	0.07	37,37,37,37	0
59	MG	1A	3038	1/1	0.95	0.10	40,40,40,40	0
59	MG	1A	3138	1/1	0.95	0.13	43,43,43,43	0
59	MG	1Y	104	1/1	0.95	0.11	50,50,50,50	0
59	MG	1A	3282	1/1	0.95	0.06	21,21,21,21	0
59	MG	1A	3478	1/1	0.95	0.16	28,28,28,28	0
59	MG	2a	1626	1/1	0.95	0.25	57,57,57,57	0
59	MG	2A	3433	1/1	0.95	0.08	35,35,35,35	0
59	MG	2A	3041	1/1	0.95	0.08	22,22,22,22	0
59	MG	2A	3435	1/1	0.95	0.15	38,38,38,38	0
59	MG	1A	3587	1/1	0.95	0.07	18,18,18,18	0
59	MG	11	8001	1/1	0.95	0.24	44,44,44,44	0
59	MG	2A	3212	1/1	0.95	0.10	46,46,46,46	0
59	MG	2A	3213	1/1	0.95	0.19	48,48,48,48	0
59	MG	2a	1634	1/1	0.95	0.18	52,52,52,52	0
59	MG	1a	1709	1/1	0.95	0.30	50,50,50,50	0
59	MG	1A	3588	1/1	0.95	0.10	51,51,51,51	0
59	MG	2A	3443	1/1	0.95	0.10	52,52,52,52	0
59	MG	2A	3216	1/1	0.95	0.21	42,42,42,42	0
59	MG	1A	3039	1/1	0.95	0.07	36,36,36,36	0
59	MG	14	101	1/1	0.95	0.13	46,46,46,46	0
59	MG	1A	3590	1/1	0.95	0.12	44,44,44,44	0
59	MG	1a	1715	1/1	0.95	0.09	28,28,28,28	0
59	MG	1A	3376	1/1	0.95	0.10	45,45,45,45	0
59	MG	2A	3226	1/1	0.95	0.20	34,34,34,34	0
59	MG	1a	1602	1/1	0.95	0.12	49,49,49,49	0
59	MG	1A	3486	1/1	0.95	0.09	65,65,65,65	0
59	MG	1A	3094	1/1	0.95	0.16	43,43,43,43	0
59	MG	1A	3004	1/1	0.95	0.08	30,30,30,30	0
59	MG	1A	3185	1/1	0.95	0.07	60,60,60,60	0
59	MG	2a	1654	1/1	0.95	0.20	29,29,29,29	0
59	MG	2A	3467	1/1	0.95	0.05	35,35,35,35	0
59	MG	2A	3468	1/1	0.95	0.13	55,55,55,55	0
59	MG	1a	1725	1/1	0.95	0.17	50,50,50,50	0
59	MG	1A	3292	1/1	0.95	0.08	39,39,39,39	0
59	MG	1A	3500	1/1	0.95	0.09	63,63,63,63	0
59	MG	1A	3293	1/1	0.95	0.06	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3722	1/1	0.95	0.09	27,27,27,27	0
59	MG	1A	3724	1/1	0.95	0.11	47,47,47,47	0
59	MG	1a	1732	1/1	0.95	0.09	54,54,54,54	0
59	MG	2A	3244	1/1	0.95	0.28	49,49,49,49	0
59	MG	2A	3070	1/1	0.95	0.22	36,36,36,36	0
59	MG	1A	3601	1/1	0.95	0.08	33,33,33,33	0
59	MG	2A	3247	1/1	0.95	0.06	45,45,45,45	0
59	MG	1A	3384	1/1	0.95	0.10	25,25,25,25	0
59	MG	2A	3486	1/1	0.95	0.05	49,49,49,49	0
59	MG	2a	1671	1/1	0.95	0.12	38,38,38,38	0
59	MG	2A	3487	1/1	0.95	0.07	41,41,41,41	0
59	MG	1A	3231	1/1	0.95	0.36	45,45,45,45	0
59	MG	1A	3041	1/1	0.95	0.14	52,52,52,52	0
59	MG	2A	3490	1/1	0.95	0.09	32,32,32,32	0
59	MG	2a	1677	1/1	0.95	0.28	52,52,52,52	0
59	MG	1A	3060	1/1	0.95	0.07	45,45,45,45	0
59	MG	2A	3493	1/1	0.95	0.07	23,23,23,23	0
59	MG	1A	3147	1/1	0.95	0.08	32,32,32,32	0
59	MG	2A	3253	1/1	0.95	0.11	53,53,53,53	0
59	MG	1A	3148	1/1	0.95	0.13	30,30,30,30	0
59	MG	1A	3394	1/1	0.95	0.14	50,50,50,50	0
59	MG	1A	3099	1/1	0.95	0.04	63,63,63,63	0
59	MG	1a	1744	1/1	0.95	0.14	64,64,64,64	0
59	MG	1A	3517	1/1	0.95	0.14	27,27,27,27	0
59	MG	1A	3518	1/1	0.95	0.13	59,59,59,59	0
59	MG	2A	3260	1/1	0.95	0.17	49,49,49,49	0
59	MG	1A	3520	1/1	0.95	0.09	70,70,70,70	0
59	MG	1A	3740	1/1	0.95	0.09	45,45,45,45	0
59	MG	1A	3304	1/1	0.95	0.10	39,39,39,39	0
59	MG	1A	3618	1/1	0.95	0.08	33,33,33,33	0
59	MG	2A	3512	1/1	0.95	0.11	63,63,63,63	0
59	MG	1A	3526	1/1	0.95	0.06	47,47,47,47	0
59	MG	1a	1754	1/1	0.95	0.11	42,42,42,42	0
59	MG	2A	3093	1/1	0.95	0.10	28,28,28,28	0
59	MG	1A	3123	1/1	0.95	0.15	38,38,38,38	0
59	MG	2A	3095	1/1	0.95	0.07	37,37,37,37	0
59	MG	1A	3621	1/1	0.95	0.08	21,21,21,21	0
59	MG	1A	3624	1/1	0.95	0.15	48,48,48,48	0
59	MG	2a	1704	1/1	0.95	0.10	39,39,39,39	0
59	MG	1A	3625	1/1	0.95	0.10	58,58,58,58	0
59	MG	2A	3100	1/1	0.95	0.11	32,32,32,32	0
59	MG	1A	3528	1/1	0.95	0.23	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3155	1/1	0.95	0.08	31,31,31,31	0
59	MG	2A	3103	1/1	0.95	0.14	46,46,46,46	0
59	MG	2a	1710	1/1	0.95	0.09	46,46,46,46	0
59	MG	1A	3061	1/1	0.95	0.17	21,21,21,21	0
59	MG	2a	1713	1/1	0.95	0.11	43,43,43,43	0
59	MG	2a	1714	1/1	0.95	0.21	60,60,60,60	0
59	MG	2A	3529	1/1	0.95	0.09	28,28,28,28	0
59	MG	1A	3402	1/1	0.95	0.07	22,22,22,22	0
59	MG	1a	1765	1/1	0.95	0.05	44,44,44,44	0
59	MG	2A	3534	1/1	0.95	0.17	58,58,58,58	0
59	MG	2A	3286	1/1	0.95	0.11	30,30,30,30	0
59	MG	1A	3200	1/1	0.95	0.09	40,40,40,40	0
59	MG	2A	3288	1/1	0.95	0.15	34,34,34,34	0
59	MG	1A	3315	1/1	0.95	0.06	34,34,34,34	0
59	MG	2A	3112	1/1	0.95	0.13	20,20,20,20	0
59	MG	2A	3540	1/1	0.95	0.25	31,31,31,31	0
59	MG	1A	3245	1/1	0.95	0.14	31,31,31,31	0
59	MG	2A	3542	1/1	0.95	0.19	36,36,36,36	0
59	MG	2A	3299	1/1	0.95	0.07	38,38,38,38	0
59	MG	2a	1729	1/1	0.95	0.20	54,54,54,54	0
59	MG	2a	1731	1/1	0.95	0.18	48,48,48,48	0
59	MG	1A	3407	1/1	0.95	0.12	32,32,32,32	0
59	MG	2A	3301	1/1	0.95	0.07	30,30,30,30	0
59	MG	2A	3549	1/1	0.95	0.20	31,31,31,31	0
59	MG	1a	1770	1/1	0.95	0.07	67,67,67,67	0
59	MG	2a	1736	1/1	0.95	0.08	42,42,42,42	0
59	MG	2A	3118	1/1	0.95	0.15	35,35,35,35	0
59	MG	1A	3319	1/1	0.95	0.17	42,42,42,42	0
59	MG	1A	3320	1/1	0.95	0.11	35,35,35,35	0
59	MG	1A	3647	1/1	0.95	0.07	39,39,39,39	0
59	MG	2a	1741	1/1	0.95	0.10	43,43,43,43	0
59	MG	1A	3649	1/1	0.95	0.09	35,35,35,35	0
59	MG	2A	3123	1/1	0.95	0.19	39,39,39,39	0
59	MG	2A	3124	1/1	0.95	0.18	44,44,44,44	0
59	MG	1A	3650	1/1	0.95	0.10	49,49,49,49	0
59	MG	2a	1747	1/1	0.95	0.18	39,39,39,39	0
59	MG	2a	1749	1/1	0.95	0.09	59,59,59,59	0
59	MG	2A	3313	1/1	0.95	0.10	30,30,30,30	0
59	MG	1A	3157	1/1	0.95	0.08	34,34,34,34	0
59	MG	2A	3316	1/1	0.95	0.08	65,65,65,65	0
59	MG	1A	3414	1/1	0.95	0.12	53,53,53,53	0
59	MG	1A	3006	1/1	0.95	0.06	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2A	3573	1/1	0.95	0.16	43,43,43,43	0
59	MG	1a	1781	1/1	0.95	0.13	48,48,48,48	0
59	MG	1A	3654	1/1	0.95	0.14	54,54,54,54	0
59	MG	1a	1785	1/1	0.95	0.18	41,41,41,41	0
59	MG	2A	3577	1/1	0.95	0.08	56,56,56,56	0
59	MG	1A	3323	1/1	0.95	0.11	33,33,33,33	0
59	MG	2A	3579	1/1	0.95	0.14	42,42,42,42	0
59	MG	2A	3580	1/1	0.95	0.05	53,53,53,53	0
59	MG	1a	1788	1/1	0.95	0.16	45,45,45,45	0
59	MG	2A	3582	1/1	0.95	0.13	62,62,62,62	0
59	MG	2a	1770	1/1	0.95	0.10	59,59,59,59	0
59	MG	2A	3329	1/1	0.95	0.07	46,46,46,46	0
59	MG	2A	3330	1/1	0.95	0.09	28,28,28,28	0
59	MG	1A	3657	1/1	0.95	0.07	43,43,43,43	0
59	MG	1A	3128	1/1	0.95	0.14	28,28,28,28	0
59	MG	1a	1793	1/1	0.95	0.15	53,53,53,53	0
59	MG	2l	201	1/1	0.95	0.08	64,64,64,64	0
59	MG	1A	3210	1/1	0.95	0.23	38,38,38,38	0
59	MG	1A	3065	1/1	0.95	0.07	36,36,36,36	0
59	MG	2A	3340	1/1	0.95	0.15	44,44,44,44	0
59	MG	2z	703	1/1	0.95	0.08	41,41,41,41	0
59	MG	2A	3595	1/1	0.95	0.14	51,51,51,51	0
59	MG	2A	3342	1/1	0.95	0.12	48,48,48,48	0
59	MG	2A	3597	1/1	0.95	0.13	43,43,43,43	0
59	MG	2w	3002	1/1	0.95	0.09	52,52,52,52	0
59	MG	2A	3598	1/1	0.95	0.19	46,46,46,46	0
59	MG	1A	3329	1/1	0.95	0.13	33,33,33,33	0
59	MG	2A	3344	1/1	0.95	0.09	49,49,49,49	0
62	GDP	2z	702	28/28	0.95	0.07	50,62,73,81	0
59	MG	2A	3227	1/1	0.96	0.15	49,49,49,49	0
59	MG	2E	303	1/1	0.96	0.11	31,31,31,31	0
59	MG	2A	3228	1/1	0.96	0.15	46,46,46,46	0
59	MG	1a	1737	1/1	0.96	0.07	40,40,40,40	0
59	MG	1A	3105	1/1	0.96	0.14	22,22,22,22	0
59	MG	2A	3427	1/1	0.96	0.15	44,44,44,44	0
59	MG	1A	3540	1/1	0.96	0.08	47,47,47,47	0
59	MG	2A	3430	1/1	0.96	0.20	40,40,40,40	0
59	MG	2A	3431	1/1	0.96	0.15	46,46,46,46	0
59	MG	2A	3071	1/1	0.96	0.07	35,35,35,35	0
59	MG	1A	3541	1/1	0.96	0.10	53,53,53,53	0
59	MG	2A	3234	1/1	0.96	0.08	56,56,56,56	0
59	MG	1A	3088	1/1	0.96	0.21	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3437	1/1	0.96	0.06	49,49,49,49	0
59	MG	1A	3180	1/1	0.96	0.30	50,50,50,50	0
59	MG	2Y	8001	1/1	0.96	0.11	59,59,59,59	0
59	MG	1A	3279	1/1	0.96	0.06	45,45,45,45	0
59	MG	1A	3353	1/1	0.96	0.09	26,26,26,26	0
59	MG	1A	3442	1/1	0.96	0.07	50,50,50,50	0
59	MG	1A	3444	1/1	0.96	0.05	35,35,35,35	0
59	MG	1A	3012	1/1	0.96	0.09	40,40,40,40	0
59	MG	2A	3445	1/1	0.96	0.08	52,52,52,52	0
59	MG	1A	3756	1/1	0.96	0.16	30,30,30,30	0
59	MG	2A	3449	1/1	0.96	0.05	27,27,27,27	0
59	MG	1A	3281	1/1	0.96	0.10	42,42,42,42	0
59	MG	1A	3554	1/1	0.96	0.07	43,43,43,43	0
59	MG	1a	1631	1/1	0.96	0.09	41,41,41,41	0
59	MG	1A	3126	1/1	0.96	0.18	34,34,34,34	0
59	MG	1A	3761	1/1	0.96	0.23	27,27,27,27	0
59	MG	1A	3150	1/1	0.96	0.05	31,31,31,31	0
59	MG	1A	3455	1/1	0.96	0.14	50,50,50,50	0
59	MG	1a	1761	1/1	0.96	0.14	41,41,41,41	0
59	MG	1A	3767	1/1	0.96	0.09	44,44,44,44	0
59	MG	1A	3458	1/1	0.96	0.08	47,47,47,47	0
59	MG	2A	3464	1/1	0.96	0.12	60,60,60,60	0
59	MG	1a	1638	1/1	0.96	0.15	46,46,46,46	0
59	MG	1A	3559	1/1	0.96	0.15	44,44,44,44	0
59	MG	1a	1640	1/1	0.96	0.05	44,44,44,44	0
59	MG	1a	1641	1/1	0.96	0.14	49,49,49,49	0
59	MG	1A	3460	1/1	0.96	0.08	47,47,47,47	0
59	MG	2A	3472	1/1	0.96	0.13	21,21,21,21	0
59	MG	1A	3774	1/1	0.96	0.22	49,49,49,49	0
59	MG	1A	3666	1/1	0.96	0.10	32,32,32,32	0
59	MG	2A	3475	1/1	0.96	0.07	51,51,51,51	0
59	MG	1A	3667	1/1	0.96	0.13	52,52,52,52	0
59	MG	1A	3561	1/1	0.96	0.10	35,35,35,35	0
59	MG	1A	3778	1/1	0.96	0.10	33,33,33,33	0
59	MG	1A	3285	1/1	0.96	0.21	51,51,51,51	0
59	MG	1a	1775	1/1	0.96	0.14	46,46,46,46	0
59	MG	2A	3481	1/1	0.96	0.11	51,51,51,51	0
59	MG	1A	3365	1/1	0.96	0.10	39,39,39,39	0
59	MG	2A	3111	1/1	0.96	0.22	47,47,47,47	0
59	MG	1B	202	1/1	0.96	0.24	59,59,59,59	0
59	MG	2A	3113	1/1	0.96	0.16	33,33,33,33	0
59	MG	1A	3151	1/1	0.96	0.05	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3369	1/1	0.96	0.08	53,53,53,53	0
59	MG	1A	3288	1/1	0.96	0.09	45,45,45,45	0
59	MG	1B	206	1/1	0.96	0.07	33,33,33,33	0
59	MG	2A	3491	1/1	0.96	0.18	42,42,42,42	0
59	MG	1a	1783	1/1	0.96	0.13	44,44,44,44	0
59	MG	1A	3468	1/1	0.96	0.14	37,37,37,37	0
59	MG	2A	3494	1/1	0.96	0.07	44,44,44,44	0
59	MG	2A	3281	1/1	0.96	0.10	43,43,43,43	0
59	MG	1A	3573	1/1	0.96	0.10	50,50,50,50	0
59	MG	2a	1650	1/1	0.96	0.18	43,43,43,43	0
59	MG	1B	210	1/1	0.96	0.17	49,49,49,49	0
59	MG	1B	211	1/1	0.96	0.04	32,32,32,32	0
59	MG	1a	1661	1/1	0.96	0.14	47,47,47,47	0
59	MG	1A	3469	1/1	0.96	0.15	36,36,36,36	0
59	MG	2A	3502	1/1	0.96	0.10	47,47,47,47	0
59	MG	1A	3127	1/1	0.96	0.19	31,31,31,31	0
59	MG	1a	1795	1/1	0.96	0.16	45,45,45,45	0
59	MG	1A	3048	1/1	0.96	0.16	32,32,32,32	0
59	MG	1A	3681	1/1	0.96	0.07	30,30,30,30	0
59	MG	1A	3473	1/1	0.96	0.15	46,46,46,46	0
59	MG	1A	3233	1/1	0.96	0.12	51,51,51,51	0
59	MG	2A	3134	1/1	0.96	0.07	36,36,36,36	0
59	MG	2A	3511	1/1	0.96	0.12	39,39,39,39	0
59	MG	1A	3190	1/1	0.96	0.17	28,28,28,28	0
59	MG	2a	1665	1/1	0.96	0.09	65,65,65,65	0
59	MG	1a	1801	1/1	0.96	0.09	55,55,55,55	0
59	MG	1A	3080	1/1	0.96	0.09	43,43,43,43	0
59	MG	1a	1804	1/1	0.96	0.08	60,60,60,60	0
59	MG	1A	3477	1/1	0.96	0.09	18,18,18,18	0
59	MG	1A	3583	1/1	0.96	0.22	39,39,39,39	0
59	MG	1f	3001	1/1	0.96	0.18	39,39,39,39	0
59	MG	1A	3093	1/1	0.96	0.09	41,41,41,41	0
59	MG	2A	3143	1/1	0.96	0.24	47,47,47,47	0
59	MG	2A	3523	1/1	0.96	0.07	38,38,38,38	0
59	MG	1l	203	1/1	0.96	0.06	56,56,56,56	0
59	MG	2A	3315	1/1	0.96	0.06	38,38,38,38	0
59	MG	1A	3479	1/1	0.96	0.09	50,50,50,50	0
59	MG	1A	3388	1/1	0.96	0.09	21,21,21,21	0
59	MG	1E	302	1/1	0.96	0.14	51,51,51,51	0
59	MG	1A	3068	1/1	0.96	0.21	33,33,33,33	0
59	MG	2A	3530	1/1	0.96	0.05	40,40,40,40	0
59	MG	2A	3321	1/1	0.96	0.06	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2A	3322	1/1	0.96	0.10	28,28,28,28	0
59	MG	2A	3533	1/1	0.96	0.19	23,23,23,23	0
59	MG	1w	3003	1/1	0.96	0.12	54,54,54,54	0
59	MG	2a	1688	1/1	0.96	0.10	35,35,35,35	0
59	MG	1w	3004	1/1	0.96	0.19	49,49,49,49	0
59	MG	1A	3698	1/1	0.96	0.12	33,33,33,33	0
59	MG	1A	3484	1/1	0.96	0.10	42,42,42,42	0
59	MG	1A	3158	1/1	0.96	0.23	29,29,29,29	0
59	MG	1F	303	1/1	0.96	0.07	45,45,45,45	0
59	MG	1F	304	1/1	0.96	0.17	33,33,33,33	0
59	MG	1F	305	1/1	0.96	0.09	36,36,36,36	0
59	MG	2A	3007	1/1	0.96	0.07	28,28,28,28	0
59	MG	2A	3336	1/1	0.96	0.08	30,30,30,30	0
59	MG	1A	3197	1/1	0.96	0.14	41,41,41,41	0
59	MG	1A	3159	1/1	0.96	0.21	53,53,53,53	0
59	MG	1A	3493	1/1	0.96	0.11	41,41,41,41	0
59	MG	1A	3095	1/1	0.96	0.17	40,40,40,40	0
59	MG	1A	3033	1/1	0.96	0.20	49,49,49,49	0
59	MG	2A	3168	1/1	0.96	0.26	45,45,45,45	0
59	MG	2A	3553	1/1	0.96	0.20	40,40,40,40	0
59	MG	1A	3203	1/1	0.96	0.17	36,36,36,36	0
59	MG	1A	3164	1/1	0.96	0.18	46,46,46,46	0
59	MG	2A	3556	1/1	0.96	0.09	37,37,37,37	0
59	MG	2A	3558	1/1	0.96	0.17	30,30,30,30	0
59	MG	1O	3002	1/1	0.96	0.13	27,27,27,27	0
59	MG	1A	3165	1/1	0.96	0.10	40,40,40,40	0
59	MG	2A	3022	1/1	0.96	0.08	54,54,54,54	0
59	MG	1A	3135	1/1	0.96	0.16	36,36,36,36	0
59	MG	2A	3565	1/1	0.96	0.17	25,25,25,25	0
59	MG	2A	3353	1/1	0.96	0.13	44,44,44,44	0
59	MG	2A	3567	1/1	0.96	0.09	45,45,45,45	0
59	MG	2a	1718	1/1	0.96	0.08	50,50,50,50	0
59	MG	2A	3024	1/1	0.96	0.12	45,45,45,45	0
59	MG	1A	3208	1/1	0.96	0.18	33,33,33,33	0
59	MG	1A	3253	1/1	0.96	0.14	40,40,40,40	0
59	MG	2A	3571	1/1	0.96	0.18	36,36,36,36	0
59	MG	1A	3254	1/1	0.96	0.13	43,43,43,43	0
59	MG	1W	201	1/1	0.96	0.10	32,32,32,32	0
59	MG	2A	3360	1/1	0.96	0.11	34,34,34,34	0
59	MG	1A	3209	1/1	0.96	0.26	41,41,41,41	0
59	MG	1X	3002	1/1	0.96	0.13	53,53,53,53	0
59	MG	2A	3184	1/1	0.96	0.29	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3058	1/1	0.96	0.17	34,34,34,34	0
59	MG	2a	1730	1/1	0.96	0.08	47,47,47,47	0
59	MG	1Y	102	1/1	0.96	0.05	31,31,31,31	0
59	MG	1A	3050	1/1	0.96	0.19	42,42,42,42	0
59	MG	1A	3170	1/1	0.96	0.26	61,61,61,61	0
59	MG	2A	3189	1/1	0.96	0.17	29,29,29,29	0
59	MG	2A	3583	1/1	0.96	0.09	38,38,38,38	0
59	MG	1A	3007	1/1	0.96	0.12	18,18,18,18	0
59	MG	1A	3519	1/1	0.96	0.13	21,21,21,21	0
59	MG	1A	3101	1/1	0.96	0.06	38,38,38,38	0
59	MG	2A	3377	1/1	0.96	0.12	44,44,44,44	0
59	MG	1A	3522	1/1	0.96	0.06	42,42,42,42	0
59	MG	2A	3380	1/1	0.96	0.14	36,36,36,36	0
59	MG	2A	3382	1/1	0.96	0.12	34,34,34,34	0
59	MG	2A	3383	1/1	0.96	0.09	39,39,39,39	0
59	MG	2A	3384	1/1	0.96	0.05	25,25,25,25	0
59	MG	1A	3614	1/1	0.96	0.28	43,43,43,43	0
59	MG	2a	1746	1/1	0.96	0.20	43,43,43,43	0
59	MG	2A	3387	1/1	0.96	0.11	46,46,46,46	0
59	MG	2a	1748	1/1	0.96	0.09	39,39,39,39	0
59	MG	1A	3043	1/1	0.96	0.18	23,23,23,23	0
59	MG	2a	1750	1/1	0.96	0.10	49,49,49,49	0
59	MG	2A	3599	1/1	0.96	0.12	46,46,46,46	0
59	MG	2A	3389	1/1	0.96	0.11	39,39,39,39	0
59	MG	2A	3601	1/1	0.96	0.19	53,53,53,53	0
59	MG	1A	3415	1/1	0.96	0.10	42,42,42,42	0
59	MG	1A	3175	1/1	0.96	0.19	46,46,46,46	0
59	MG	2A	3605	1/1	0.96	0.09	35,35,35,35	0
59	MG	16	101	1/1	0.96	0.07	24,24,24,24	0
59	MG	2A	3607	1/1	0.96	0.10	32,32,32,32	0
59	MG	1A	3265	1/1	0.96	0.09	36,36,36,36	0
59	MG	1A	3267	1/1	0.96	0.07	45,45,45,45	0
59	MG	1A	3421	1/1	0.96	0.08	41,41,41,41	0
59	MG	2A	3048	1/1	0.96	0.13	40,40,40,40	0
59	MG	2A	3204	1/1	0.96	0.09	26,26,26,26	0
59	MG	1A	3733	1/1	0.96	0.14	59,59,59,59	0
59	MG	1a	1723	1/1	0.96	0.18	43,43,43,43	0
59	MG	2a	1769	1/1	0.96	0.13	54,54,54,54	0
59	MG	1A	3219	1/1	0.96	0.28	55,55,55,55	0
59	MG	2A	3209	1/1	0.96	0.06	46,46,46,46	0
59	MG	1A	3334	1/1	0.96	0.07	29,29,29,29	0
59	MG	2A	3054	1/1	0.96	0.18	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3629	1/1	0.96	0.07	27,27,27,27	0
59	MG	2A	3056	1/1	0.96	0.09	27,27,27,27	0
59	MG	1A	3429	1/1	0.96	0.05	44,44,44,44	0
59	MG	1a	1609	1/1	0.96	0.15	37,37,37,37	0
59	MG	1A	3142	1/1	0.96	0.10	55,55,55,55	0
59	MG	2t	3001	1/1	0.96	0.23	45,45,45,45	0
59	MG	2A	3410	1/1	0.96	0.07	27,27,27,27	0
59	MG	1A	3739	1/1	0.96	0.18	50,50,50,50	0
59	MG	1A	3270	1/1	0.96	0.17	47,47,47,47	0
59	MG	1A	3221	1/1	0.96	0.15	38,38,38,38	0
59	MG	2A	3221	1/1	0.96	0.11	41,41,41,41	0
59	MG	2A	3223	1/1	0.96	0.07	39,39,39,39	0
59	MG	1A	3274	1/1	0.96	0.10	25,25,25,25	0
59	MG	2A	3419	1/1	0.96	0.09	30,30,30,30	0
59	MG	1A	3743	1/1	0.96	0.10	53,53,53,53	0
60	ZN	2n	501	1/1	0.96	0.05	102,102,102,102	0
62	GDP	1z	701	28/28	0.96	0.07	30,50,64,75	0
59	MG	2A	3067	1/1	0.96	0.07	42,42,42,42	0
59	MG	2A	3146	1/1	0.97	0.16	60,60,60,60	0
59	MG	1A	3312	1/1	0.97	0.05	30,30,30,30	0
59	MG	2A	3148	1/1	0.97	0.08	40,40,40,40	0
59	MG	1A	3381	1/1	0.97	0.09	23,23,23,23	0
59	MG	2A	3308	1/1	0.97	0.10	29,29,29,29	0
59	MG	1A	3266	1/1	0.97	0.09	28,28,28,28	0
59	MG	2A	3151	1/1	0.97	0.14	29,29,29,29	0
59	MG	2A	3010	1/1	0.97	0.05	34,34,34,34	0
59	MG	1A	3031	1/1	0.97	0.08	28,28,28,28	0
59	MG	1A	3456	1/1	0.97	0.11	32,32,32,32	0
59	MG	2A	3155	1/1	0.97	0.13	27,27,27,27	0
59	MG	1A	3201	1/1	0.97	0.10	36,36,36,36	0
59	MG	2A	3014	1/1	0.97	0.13	34,34,34,34	0
59	MG	2A	3317	1/1	0.97	0.14	37,37,37,37	0
59	MG	2A	3497	1/1	0.97	0.06	41,41,41,41	0
59	MG	2A	3015	1/1	0.97	0.11	36,36,36,36	0
59	MG	1A	3628	1/1	0.97	0.10	13,13,13,13	0
59	MG	1A	3385	1/1	0.97	0.06	43,43,43,43	0
59	MG	1A	3317	1/1	0.97	0.09	33,33,33,33	0
59	MG	1A	3174	1/1	0.97	0.05	38,38,38,38	0
59	MG	1A	3204	1/1	0.97	0.08	42,42,42,42	0
59	MG	2A	3504	1/1	0.97	0.06	33,33,33,33	0
59	MG	2A	3325	1/1	0.97	0.09	30,30,30,30	0
59	MG	1A	3013	1/1	0.97	0.10	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3465	1/1	0.97	0.10	33,33,33,33	0
59	MG	13	102	1/1	0.97	0.11	34,34,34,34	0
59	MG	1A	3549	1/1	0.97	0.06	27,27,27,27	0
59	MG	1A	3639	1/1	0.97	0.08	54,54,54,54	0
59	MG	1A	3640	1/1	0.97	0.07	41,41,41,41	0
59	MG	1A	3153	1/1	0.97	0.12	33,33,33,33	0
59	MG	2A	3172	1/1	0.97	0.12	49,49,49,49	0
59	MG	2A	3335	1/1	0.97	0.16	25,25,25,25	0
59	MG	2A	3030	1/1	0.97	0.06	37,37,37,37	0
59	MG	1a	1714	1/1	0.97	0.08	48,48,48,48	0
59	MG	16	102	1/1	0.97	0.15	47,47,47,47	0
59	MG	17	103	1/1	0.97	0.10	34,34,34,34	0
59	MG	2A	3341	1/1	0.97	0.08	24,24,24,24	0
59	MG	2a	1646	1/1	0.97	0.10	55,55,55,55	0
59	MG	1A	3642	1/1	0.97	0.19	45,45,45,45	0
59	MG	1A	3070	1/1	0.97	0.17	37,37,37,37	0
59	MG	1A	3644	1/1	0.97	0.05	26,26,26,26	0
59	MG	1A	3071	1/1	0.97	0.15	31,31,31,31	0
59	MG	1A	3021	1/1	0.97	0.06	40,40,40,40	0
59	MG	1A	3327	1/1	0.97	0.11	36,36,36,36	0
59	MG	1a	1724	1/1	0.97	0.10	18,18,18,18	0
59	MG	1A	3648	1/1	0.97	0.05	40,40,40,40	0
59	MG	1A	3397	1/1	0.97	0.07	49,49,49,49	0
59	MG	1A	3181	1/1	0.97	0.24	52,52,52,52	0
59	MG	1A	3136	1/1	0.97	0.16	41,41,41,41	0
59	MG	1A	3100	1/1	0.97	0.09	38,38,38,38	0
59	MG	1A	3029	1/1	0.97	0.31	40,40,40,40	0
59	MG	1A	3754	1/1	0.97	0.07	28,28,28,28	0
59	MG	1a	1614	1/1	0.97	0.12	53,53,53,53	0
59	MG	2A	3359	1/1	0.97	0.09	33,33,33,33	0
59	MG	1A	3283	1/1	0.97	0.08	33,33,33,33	0
59	MG	2A	3050	1/1	0.97	0.14	42,42,42,42	0
59	MG	1A	3404	1/1	0.97	0.07	40,40,40,40	0
59	MG	1A	3562	1/1	0.97	0.06	38,38,38,38	0
59	MG	1A	3102	1/1	0.97	0.18	43,43,43,43	0
59	MG	2A	3366	1/1	0.97	0.18	40,40,40,40	0
59	MG	1A	3566	1/1	0.97	0.10	49,49,49,49	0
59	MG	1A	3482	1/1	0.97	0.06	27,27,27,27	0
59	MG	2A	3547	1/1	0.97	0.19	42,42,42,42	0
59	MG	2A	3548	1/1	0.97	0.15	32,32,32,32	0
59	MG	1A	3162	1/1	0.97	0.12	46,46,46,46	0
59	MG	1A	3569	1/1	0.97	0.15	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2a	1675	1/1	0.97	0.20	43,43,43,43	0
59	MG	1A	3765	1/1	0.97	0.08	58,58,58,58	0
59	MG	1a	1743	1/1	0.97	0.14	64,64,64,64	0
59	MG	2A	3060	1/1	0.97	0.08	36,36,36,36	0
59	MG	1A	3766	1/1	0.97	0.06	28,28,28,28	0
59	MG	1a	1745	1/1	0.97	0.15	47,47,47,47	0
59	MG	1A	3051	1/1	0.97	0.09	35,35,35,35	0
59	MG	2A	3557	1/1	0.97	0.19	60,60,60,60	0
59	MG	2A	3064	1/1	0.97	0.15	28,28,28,28	0
59	MG	2a	1684	1/1	0.97	0.29	55,55,55,55	0
59	MG	1a	1747	1/1	0.97	0.14	47,47,47,47	0
59	MG	2A	3560	1/1	0.97	0.25	32,32,32,32	0
59	MG	1A	3287	1/1	0.97	0.08	22,22,22,22	0
59	MG	2A	3562	1/1	0.97	0.03	34,34,34,34	0
59	MG	2A	3385	1/1	0.97	0.05	45,45,45,45	0
59	MG	1A	3769	1/1	0.97	0.13	35,35,35,35	0
59	MG	1A	3251	1/1	0.97	0.10	48,48,48,48	0
59	MG	1A	3412	1/1	0.97	0.08	54,54,54,54	0
59	MG	1A	3492	1/1	0.97	0.12	48,48,48,48	0
59	MG	1A	3671	1/1	0.97	0.09	36,36,36,36	0
59	MG	1A	3289	1/1	0.97	0.08	46,46,46,46	0
59	MG	2A	3219	1/1	0.97	0.14	43,43,43,43	0
59	MG	2A	3073	1/1	0.97	0.06	28,28,28,28	0
59	MG	1A	3495	1/1	0.97	0.16	53,53,53,53	0
59	MG	2A	3222	1/1	0.97	0.09	40,40,40,40	0
59	MG	1A	3496	1/1	0.97	0.05	36,36,36,36	0
59	MG	1A	3342	1/1	0.97	0.08	48,48,48,48	0
59	MG	1A	3343	1/1	0.97	0.14	46,46,46,46	0
59	MG	1A	3499	1/1	0.97	0.16	39,39,39,39	0
59	MG	1A	3252	1/1	0.97	0.12	45,45,45,45	0
59	MG	1A	3417	1/1	0.97	0.05	51,51,51,51	0
59	MG	1A	3502	1/1	0.97	0.09	20,20,20,20	0
59	MG	1A	3189	1/1	0.97	0.11	44,44,44,44	0
59	MG	1B	207	1/1	0.97	0.05	50,50,50,50	0
59	MG	1A	3683	1/1	0.97	0.06	62,62,62,62	0
59	MG	1a	1644	1/1	0.97	0.09	33,33,33,33	0
59	MG	2a	1712	1/1	0.97	0.17	62,62,62,62	0
59	MG	1A	3063	1/1	0.97	0.15	47,47,47,47	0
59	MG	2A	3587	1/1	0.97	0.18	29,29,29,29	0
59	MG	1A	3420	1/1	0.97	0.07	38,38,38,38	0
59	MG	1A	3507	1/1	0.97	0.11	21,21,21,21	0
59	MG	1B	212	1/1	0.97	0.04	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	2A	3591	1/1	0.97	0.11	31,31,31,31	0
59	MG	1A	3090	1/1	0.97	0.10	35,35,35,35	0
59	MG	2A	3413	1/1	0.97	0.06	30,30,30,30	0
59	MG	2A	3239	1/1	0.97	0.34	50,50,50,50	0
59	MG	1B	214	1/1	0.97	0.08	41,41,41,41	0
59	MG	1A	3351	1/1	0.97	0.04	29,29,29,29	0
59	MG	1A	3691	1/1	0.97	0.06	53,53,53,53	0
59	MG	2A	3243	1/1	0.97	0.14	39,39,39,39	0
59	MG	1A	3692	1/1	0.97	0.14	45,45,45,45	0
59	MG	1A	3693	1/1	0.97	0.07	48,48,48,48	0
59	MG	2A	3098	1/1	0.97	0.28	50,50,50,50	0
59	MG	2A	3423	1/1	0.97	0.12	34,34,34,34	0
59	MG	1A	3510	1/1	0.97	0.05	42,42,42,42	0
59	MG	1A	3294	1/1	0.97	0.07	18,18,18,18	0
59	MG	1A	3593	1/1	0.97	0.09	53,53,53,53	0
59	MG	1A	3512	1/1	0.97	0.10	19,19,19,19	0
59	MG	2A	3428	1/1	0.97	0.08	28,28,28,28	0
59	MG	1A	3595	1/1	0.97	0.10	49,49,49,49	0
59	MG	2A	3610	1/1	0.97	0.10	52,52,52,52	0
59	MG	1a	1784	1/1	0.97	0.19	37,37,37,37	0
59	MG	1A	3699	1/1	0.97	0.17	51,51,51,51	0
59	MG	1a	1786	1/1	0.97	0.07	48,48,48,48	0
59	MG	2A	3615	1/1	0.97	0.08	53,53,53,53	0
59	MG	1A	3144	1/1	0.97	0.17	44,44,44,44	0
59	MG	1A	3514	1/1	0.97	0.05	43,43,43,43	0
59	MG	2A	3618	1/1	0.97	0.23	43,43,43,43	0
59	MG	1A	3357	1/1	0.97	0.09	22,22,22,22	0
59	MG	1a	1791	1/1	0.97	0.12	52,52,52,52	0
59	MG	2A	3437	1/1	0.97	0.05	37,37,37,37	0
59	MG	1A	3005	1/1	0.97	0.12	52,52,52,52	0
59	MG	1A	3258	1/1	0.97	0.05	24,24,24,24	0
59	MG	1E	305	1/1	0.97	0.07	30,30,30,30	0
59	MG	1A	3194	1/1	0.97	0.17	43,43,43,43	0
59	MG	2A	3117	1/1	0.97	0.18	35,35,35,35	0
59	MG	1F	301	1/1	0.97	0.15	27,27,27,27	0
59	MG	2A	3444	1/1	0.97	0.10	45,45,45,45	0
59	MG	1A	3602	1/1	0.97	0.06	53,53,53,53	0
59	MG	2A	3446	1/1	0.97	0.07	45,45,45,45	0
59	MG	1A	3195	1/1	0.97	0.14	21,21,21,21	0
59	MG	2A	3448	1/1	0.97	0.08	37,37,37,37	0
59	MG	1A	3604	1/1	0.97	0.05	52,52,52,52	0
59	MG	1A	3364	1/1	0.97	0.08	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3523	1/1	0.97	0.09	35,35,35,35	0
59	MG	1a	1676	1/1	0.97	0.09	42,42,42,42	0
59	MG	1F	307	1/1	0.97	0.04	19,19,19,19	0
59	MG	2A	3127	1/1	0.97	0.21	38,38,38,38	0
59	MG	1A	3261	1/1	0.97	0.04	34,34,34,34	0
59	MG	2a	1766	1/1	0.97	0.12	61,61,61,61	0
59	MG	2a	1767	1/1	0.97	0.10	45,45,45,45	0
59	MG	2A	3459	1/1	0.97	0.12	48,48,48,48	0
59	MG	1A	3037	1/1	0.97	0.10	41,41,41,41	0
59	MG	1A	3079	1/1	0.97	0.14	22,22,22,22	0
59	MG	1A	3371	1/1	0.97	0.10	30,30,30,30	0
59	MG	1a	1682	1/1	0.97	0.05	55,55,55,55	0
59	MG	1A	3129	1/1	0.97	0.05	29,29,29,29	0
59	MG	2d	502	1/1	0.97	0.14	35,35,35,35	0
59	MG	2f	3001	1/1	0.97	0.04	40,40,40,40	0
59	MG	2A	3282	1/1	0.97	0.05	26,26,26,26	0
59	MG	2A	3466	1/1	0.97	0.07	51,51,51,51	0
59	MG	1A	3307	1/1	0.97	0.09	18,18,18,18	0
59	MG	2P	8001	1/1	0.97	0.05	30,30,30,30	0
59	MG	1A	3531	1/1	0.97	0.11	61,61,61,61	0
59	MG	1A	3718	1/1	0.97	0.08	53,53,53,53	0
59	MG	1A	3446	1/1	0.97	0.04	31,31,31,31	0
59	MG	1S	3001	1/1	0.97	0.18	40,40,40,40	0
59	MG	2A	3289	1/1	0.97	0.09	45,45,45,45	0
59	MG	1A	3045	1/1	0.97	0.08	44,44,44,44	0
59	MG	2A	3292	1/1	0.97	0.09	46,46,46,46	0
59	MG	1S	3003	1/1	0.97	0.18	57,57,57,57	0
59	MG	1T	201	1/1	0.97	0.22	40,40,40,40	0
59	MG	1A	3450	1/1	0.97	0.11	53,53,53,53	0
59	MG	1U	202	1/1	0.97	0.14	37,37,37,37	0
60	ZN	22	501	1/1	0.97	0.06	118,118,118,118	0
59	MG	1a	1694	1/1	0.97	0.14	39,39,39,39	0
59	MG	2A	3006	1/1	0.97	0.04	29,29,29,29	0
59	MG	2a	1606	1/1	0.97	0.16	24,24,24,24	0
59	MG	1A	3762	1/1	0.98	0.22	25,25,25,25	0
59	MG	1A	3688	1/1	0.98	0.05	89,89,89,89	0
59	MG	1A	3485	1/1	0.98	0.05	29,29,29,29	0
59	MG	1A	3062	1/1	0.98	0.07	17,17,17,17	0
59	MG	1A	3487	1/1	0.98	0.07	47,47,47,47	0
59	MG	1A	3428	1/1	0.98	0.04	64,64,64,64	0
59	MG	1A	3035	1/1	0.98	0.06	38,38,38,38	0
59	MG	1A	3617	1/1	0.98	0.06	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3379	1/1	0.98	0.10	38,38,38,38	0
59	MG	1A	3246	1/1	0.98	0.10	39,39,39,39	0
59	MG	2A	3484	1/1	0.98	0.06	38,38,38,38	0
59	MG	1A	3494	1/1	0.98	0.15	46,46,46,46	0
59	MG	15	102	1/1	0.98	0.07	40,40,40,40	0
59	MG	1A	3047	1/1	0.98	0.09	37,37,37,37	0
59	MG	2A	3364	1/1	0.98	0.06	30,30,30,30	0
59	MG	1A	3623	1/1	0.98	0.07	16,16,16,16	0
59	MG	17	101	1/1	0.98	0.07	45,45,45,45	0
59	MG	1A	3224	1/1	0.98	0.26	35,35,35,35	0
59	MG	1A	3011	1/1	0.98	0.08	28,28,28,28	0
59	MG	1A	3626	1/1	0.98	0.09	31,31,31,31	0
59	MG	1A	3780	1/1	0.98	0.20	31,31,31,31	0
59	MG	2A	3371	1/1	0.98	0.08	26,26,26,26	0
59	MG	1A	3336	1/1	0.98	0.09	20,20,20,20	0
59	MG	1a	1778	1/1	0.98	0.05	81,81,81,81	0
59	MG	2A	3374	1/1	0.98	0.08	26,26,26,26	0
59	MG	2A	3375	1/1	0.98	0.06	28,28,28,28	0
59	MG	1A	3188	1/1	0.98	0.07	56,56,56,56	0
59	MG	1A	3386	1/1	0.98	0.05	32,32,32,32	0
59	MG	1A	3387	1/1	0.98	0.12	17,17,17,17	0
59	MG	1A	3633	1/1	0.98	0.06	23,23,23,23	0
59	MG	2A	3381	1/1	0.98	0.06	42,42,42,42	0
59	MG	2a	1698	1/1	0.98	0.10	29,29,29,29	0
59	MG	1A	3565	1/1	0.98	0.07	46,46,46,46	0
59	MG	1A	3066	1/1	0.98	0.27	43,43,43,43	0
59	MG	1A	3339	1/1	0.98	0.07	30,30,30,30	0
59	MG	1A	3443	1/1	0.98	0.13	49,49,49,49	0
59	MG	1A	3115	1/1	0.98	0.06	36,36,36,36	0
59	MG	1A	3056	1/1	0.98	0.11	30,30,30,30	0
59	MG	1A	3308	1/1	0.98	0.12	52,52,52,52	0
59	MG	1A	3449	1/1	0.98	0.12	47,47,47,47	0
59	MG	2A	3267	1/1	0.98	0.14	23,23,23,23	0
59	MG	1A	3309	1/1	0.98	0.04	37,37,37,37	0
59	MG	1B	215	1/1	0.98	0.06	37,37,37,37	0
59	MG	2A	3167	1/1	0.98	0.22	52,52,52,52	0
59	MG	1A	3310	1/1	0.98	0.03	39,39,39,39	0
59	MG	2F	303	1/1	0.98	0.04	40,40,40,40	0
59	MG	2A	3518	1/1	0.98	0.15	40,40,40,40	0
59	MG	2A	3519	1/1	0.98	0.04	31,31,31,31	0
59	MG	1A	3160	1/1	0.98	0.12	36,36,36,36	0
59	MG	1A	3348	1/1	0.98	0.06	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3454	1/1	0.98	0.06	52,52,52,52	0
59	MG	1a	1708	1/1	0.98	0.20	37,37,37,37	0
59	MG	1A	3721	1/1	0.98	0.04	31,31,31,31	0
59	MG	1A	3176	1/1	0.98	0.05	33,33,33,33	0
59	MG	2A	3278	1/1	0.98	0.26	44,44,44,44	0
59	MG	2A	3279	1/1	0.98	0.22	37,37,37,37	0
59	MG	1A	3723	1/1	0.98	0.13	36,36,36,36	0
59	MG	1a	1802	1/1	0.98	0.15	45,45,45,45	0
59	MG	2A	3177	1/1	0.98	0.13	15,15,15,15	0
59	MG	2A	3283	1/1	0.98	0.04	32,32,32,32	0
59	MG	1A	3516	1/1	0.98	0.05	27,27,27,27	0
59	MG	1A	3398	1/1	0.98	0.09	26,26,26,26	0
59	MG	2A	3080	1/1	0.98	0.17	36,36,36,36	0
59	MG	1A	3457	1/1	0.98	0.08	47,47,47,47	0
59	MG	1d	502	1/1	0.98	0.22	39,39,39,39	0
59	MG	1D	302	1/1	0.98	0.20	39,39,39,39	0
59	MG	1A	3582	1/1	0.98	0.07	17,17,17,17	0
59	MG	2A	3291	1/1	0.98	0.04	34,34,34,34	0
59	MG	1A	3728	1/1	0.98	0.10	35,35,35,35	0
59	MG	2A	3086	1/1	0.98	0.11	25,25,25,25	0
59	MG	2A	3418	1/1	0.98	0.07	46,46,46,46	0
59	MG	2A	3543	1/1	0.98	0.15	28,28,28,28	0
59	MG	2A	3294	1/1	0.98	0.04	21,21,21,21	0
59	MG	2A	3295	1/1	0.98	0.12	52,52,52,52	0
59	MG	1l	202	1/1	0.98	0.08	47,47,47,47	0
59	MG	1a	1718	1/1	0.98	0.10	39,39,39,39	0
59	MG	1A	3232	1/1	0.98	0.08	47,47,47,47	0
59	MG	1A	3459	1/1	0.98	0.07	30,30,30,30	0
59	MG	1A	3521	1/1	0.98	0.06	45,45,45,45	0
59	MG	1A	3103	1/1	0.98	0.05	40,40,40,40	0
59	MG	2A	3304	1/1	0.98	0.15	38,38,38,38	0
59	MG	1A	3354	1/1	0.98	0.10	31,31,31,31	0
59	MG	1A	3020	1/1	0.98	0.11	25,25,25,25	0
59	MG	1A	3356	1/1	0.98	0.08	26,26,26,26	0
59	MG	1A	3661	1/1	0.98	0.04	40,40,40,40	0
59	MG	1a	1727	1/1	0.98	0.08	39,39,39,39	0
59	MG	1A	3003	1/1	0.98	0.04	29,29,29,29	0
59	MG	1A	3664	1/1	0.98	0.06	39,39,39,39	0
59	MG	1A	3359	1/1	0.98	0.08	22,22,22,22	0
59	MG	1A	3466	1/1	0.98	0.13	26,26,26,26	0
59	MG	1G	3001	1/1	0.98	0.09	31,31,31,31	0
59	MG	2A	3203	1/1	0.98	0.22	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3059	1/1	0.98	0.05	36,36,36,36	0
59	MG	1a	1646	1/1	0.98	0.23	43,43,43,43	0
59	MG	2A	3105	1/1	0.98	0.09	33,33,33,33	0
59	MG	2a	1635	1/1	0.98	0.12	40,40,40,40	0
59	MG	2A	3106	1/1	0.98	0.04	39,39,39,39	0
59	MG	2A	3208	1/1	0.98	0.25	47,47,47,47	0
59	MG	1A	3216	1/1	0.98	0.28	47,47,47,47	0
59	MG	1L	3002	1/1	0.98	0.07	29,29,29,29	0
59	MG	1A	3238	1/1	0.98	0.17	29,29,29,29	0
59	MG	1A	3044	1/1	0.98	0.09	33,33,33,33	0
59	MG	2a	1642	1/1	0.98	0.13	29,29,29,29	0
59	MG	1A	3471	1/1	0.98	0.10	23,23,23,23	0
59	MG	1A	3240	1/1	0.98	0.24	37,37,37,37	0
59	MG	1A	3218	1/1	0.98	0.07	58,58,58,58	0
59	MG	2A	3017	1/1	0.98	0.07	47,47,47,47	0
59	MG	1A	3166	1/1	0.98	0.15	45,45,45,45	0
59	MG	1A	3367	1/1	0.98	0.10	49,49,49,49	0
59	MG	2A	3455	1/1	0.98	0.06	47,47,47,47	0
59	MG	1A	3368	1/1	0.98	0.08	26,26,26,26	0
59	MG	2A	3021	1/1	0.98	0.09	25,25,25,25	0
59	MG	1A	3022	1/1	0.98	0.05	36,36,36,36	0
59	MG	1A	3295	1/1	0.98	0.09	36,36,36,36	0
59	MG	1S	3004	1/1	0.98	0.10	36,36,36,36	0
59	MG	2A	3585	1/1	0.98	0.07	49,49,49,49	0
59	MG	2A	3338	1/1	0.98	0.11	31,31,31,31	0
59	MG	1A	3373	1/1	0.98	0.05	37,37,37,37	0
59	MG	1A	3543	1/1	0.98	0.06	61,61,61,61	0
59	MG	1A	3374	1/1	0.98	0.08	35,35,35,35	0
59	MG	2A	3125	1/1	0.98	0.12	30,30,30,30	0
59	MG	1A	3545	1/1	0.98	0.10	46,46,46,46	0
60	ZN	12	501	1/1	0.98	0.04	100,100,100,100	0
59	MG	1A	3757	1/1	0.98	0.08	26,26,26,26	0
60	ZN	17	102	1/1	0.98	0.22	120,120,120,120	0
59	MG	1A	3375	1/1	0.98	0.10	12,12,12,12	0
59	MG	1A	3424	1/1	0.98	0.13	34,34,34,34	0
59	MG	1A	3296	1/1	0.98	0.08	17,17,17,17	0
59	MG	1A	3687	1/1	0.98	0.08	69,69,69,69	0
59	MG	1A	3149	1/1	0.99	0.06	36,36,36,36	0
59	MG	2A	3457	1/1	0.99	0.03	48,48,48,48	0
59	MG	1A	3358	1/1	0.99	0.08	30,30,30,30	0
59	MG	1A	3427	1/1	0.99	0.05	30,30,30,30	0
59	MG	1A	3084	1/1	0.99	0.14	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3143	1/1	0.99	0.08	46,46,46,46	0
59	MG	2A	3408	1/1	0.99	0.10	33,33,33,33	0
59	MG	1A	3340	1/1	0.99	0.06	19,19,19,19	0
59	MG	1A	3431	1/1	0.99	0.04	44,44,44,44	0
59	MG	1A	3272	1/1	0.99	0.04	33,33,33,33	0
59	MG	1A	3273	1/1	0.99	0.12	37,37,37,37	0
59	MG	1A	3491	1/1	0.99	0.06	41,41,41,41	0
59	MG	1A	3326	1/1	0.99	0.09	34,34,34,34	0
59	MG	2D	303	1/1	0.99	0.09	24,24,24,24	0
59	MG	1A	3109	1/1	0.99	0.03	36,36,36,36	0
59	MG	2A	3470	1/1	0.99	0.04	26,26,26,26	0
59	MG	1A	3524	1/1	0.99	0.07	30,30,30,30	0
59	MG	2A	3005	1/1	0.99	0.03	27,27,27,27	0
59	MG	1A	3409	1/1	0.99	0.04	29,29,29,29	0
59	MG	1A	3345	1/1	0.99	0.07	38,38,38,38	0
59	MG	1A	3009	1/1	0.99	0.03	20,20,20,20	0
59	MG	1A	3655	1/1	0.99	0.10	31,31,31,31	0
59	MG	1A	3202	1/1	0.99	0.14	38,38,38,38	0
59	MG	2a	1761	1/1	0.99	0.08	39,39,39,39	0
59	MG	1A	3314	1/1	0.99	0.07	36,36,36,36	0
59	MG	1A	3622	1/1	0.99	0.03	21,21,21,21	0
59	MG	1A	3441	1/1	0.99	0.06	34,34,34,34	0
59	MG	2A	3324	1/1	0.99	0.05	43,43,43,43	0
59	MG	1a	1789	1/1	0.99	0.16	43,43,43,43	0
59	MG	1A	3349	1/1	0.99	0.10	18,18,18,18	0
59	MG	1A	3372	1/1	0.99	0.04	19,19,19,19	0
59	MG	2A	3378	1/1	0.99	0.10	35,35,35,35	0
59	MG	1E	301	1/1	0.99	0.05	18,18,18,18	0
59	MG	1A	3662	1/1	0.99	0.03	31,31,31,31	0
59	MG	1A	3772	1/1	0.99	0.07	20,20,20,20	0
59	MG	1A	3773	1/1	0.99	0.08	25,25,25,25	0
59	MG	2A	3332	1/1	0.99	0.09	25,25,25,25	0
59	MG	1A	3277	1/1	0.99	0.05	36,36,36,36	0
59	MG	1A	3564	1/1	0.99	0.03	30,30,30,30	0
59	MG	2A	3603	1/1	0.99	0.07	50,50,50,50	0
59	MG	1a	1755	1/1	0.99	0.07	42,42,42,42	0
59	MG	1a	1673	1/1	0.99	0.10	43,43,43,43	0
59	MG	1A	3445	1/1	0.99	0.05	46,46,46,46	0
59	MG	1A	3302	1/1	0.99	0.07	29,29,29,29	0
59	MG	1A	3073	1/1	0.99	0.03	35,35,35,35	0
59	MG	1A	3632	1/1	0.99	0.04	14,14,14,14	0
59	MG	1A	3318	1/1	0.99	0.07	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
59	MG	1A	3634	1/1	0.99	0.02	20,20,20,20	0
59	MG	1A	3116	1/1	0.99	0.05	40,40,40,40	0
59	MG	2A	3613	1/1	0.99	0.06	21,21,21,21	0
59	MG	1A	3422	1/1	0.99	0.04	21,21,21,21	0
59	MG	2A	3345	1/1	0.99	0.05	25,25,25,25	0
60	ZN	1W	202	1/1	0.99	0.04	68,68,68,68	0
59	MG	2A	3297	1/1	0.99	0.04	29,29,29,29	0
59	MG	2A	3298	1/1	0.99	0.12	42,42,42,42	0
59	MG	2A	3348	1/1	0.99	0.06	36,36,36,36	0
60	ZN	1n	501	1/1	0.99	0.03	77,77,77,77	0
60	ZN	2W	501	1/1	0.99	0.03	79,79,79,79	0
59	MG	1A	3117	1/1	0.99	0.12	38,38,38,38	0
60	ZN	23	501	1/1	0.99	0.10	85,85,85,85	0
60	ZN	24	501	1/1	0.99	0.10	72,72,72,72	0
60	ZN	27	101	1/1	0.99	0.05	68,68,68,68	0
59	MG	2A	3453	1/1	0.99	0.07	21,21,21,21	0
61	SF4	1d	501	8/8	0.99	0.04	61,67,75,78	0
61	SF4	2d	501	8/8	0.99	0.04	63,67,88,88	0
59	MG	1A	3480	1/1	0.99	0.04	26,26,26,26	0
59	MG	1L	3001	1/1	0.99	0.03	38,38,38,38	0
59	MG	1A	3627	1/1	1.00	0.05	34,34,34,34	0
59	MG	1A	3489	1/1	1.00	0.02	48,48,48,48	0
59	MG	1A	3411	1/1	1.00	0.08	21,21,21,21	0
59	MG	1A	3678	1/1	1.00	0.02	16,16,16,16	0
59	MG	1A	3503	1/1	1.00	0.10	19,19,19,19	0
59	MG	1A	3352	1/1	1.00	0.07	33,33,33,33	0
59	MG	1A	3370	1/1	1.00	0.03	21,21,21,21	0
60	ZN	14	102	1/1	1.00	0.05	48,48,48,48	0
59	MG	1A	3447	1/1	1.00	0.02	30,30,30,30	0
59	MG	1A	3423	1/1	1.00	0.05	17,17,17,17	0

6.5 Other polymers (i)

There are no such residues in this entry.