Full wwPDB X-ray Structure Validation Report (i)

Mar 14, 2026 – 01:15 PM UTC

PDB ID	:	5FDV / pdb_00005fdv
Title	:	Crystal structure of the Pyrrhocoricin antimicrobial peptide bound to the Thermus thermophilus 70S ribosome
Authors	:	Seefeldt, A.C.; Graf, M.; Perebaskine, N.; Nguyen, F.; Arenz, S.; Mardirossian, M.; Scocchi, M.; Wilson, D.N.; Innis, C.A.
Deposited on	:	2015-12-16
Resolution	:	2.80 Å(reported)

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

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

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

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

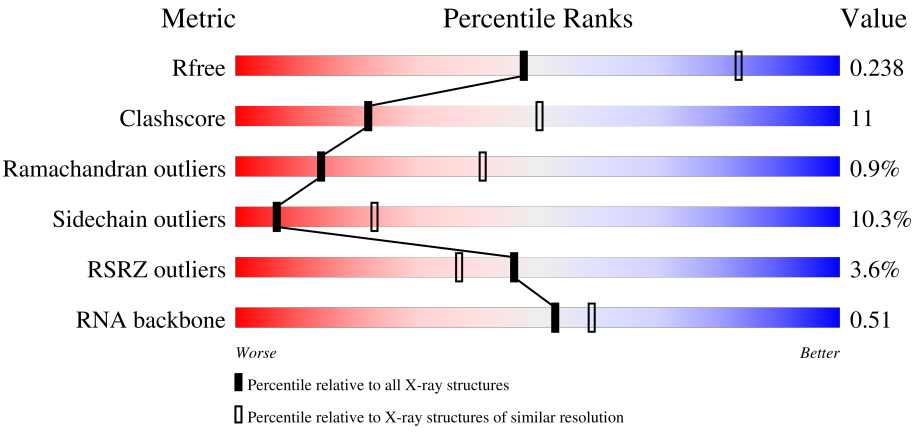
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.80 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	3866 (2.80-2.80)
Clashscore	190562	4276 (2.80-2.80)
Ramachandran outliers	187476	4196 (2.80-2.80)
Sidechain outliers	187428	4198 (2.80-2.80)
RSRZ outliers	180081	3869 (2.80-2.80)
RNA backbone	3983	1114 (3.00-2.60)

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% 66% 27% 5%
1	2A	2915	5% 61% 31% 6%
2	1B	120	78% 20%
2	2B	120	% 66% 32%

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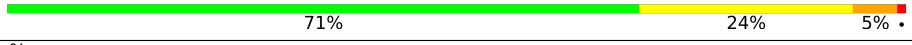
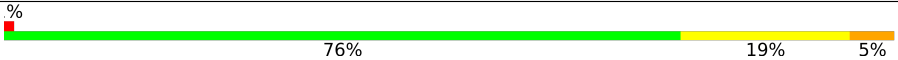
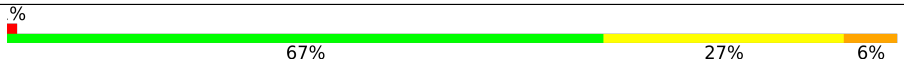
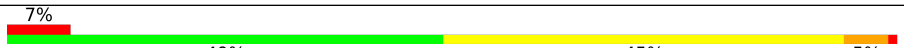
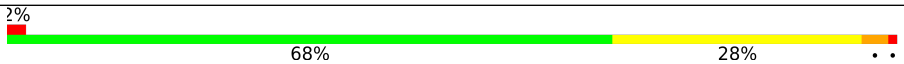
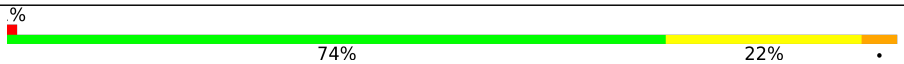
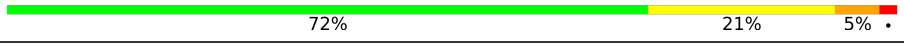
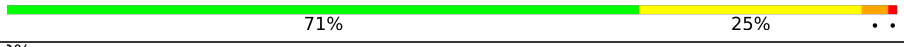
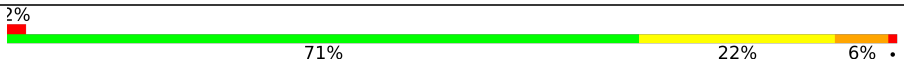
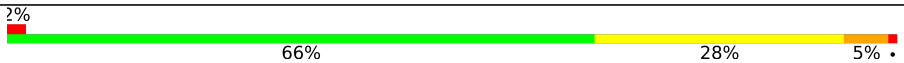
Mol	Chain	Length	Quality of chain
3	1D	275	
3	2D	275	
4	1E	204	
4	2E	204	
5	1F	203	
5	2F	203	
6	1G	181	
6	2G	181	
7	1H	174	
7	2H	174	
8	1I	147	
8	2I	147	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	149	
11	2P	149	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	110	
14	2S	110	
15	1T	131	

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Mol	Chain	Length	Quality of chain
15	2T	131	2% 73% 23% 5%
16	1U	116	2% 72% 25%
16	2U	116	69% 28%
17	1V	101	74% 20% 5%
17	2V	101	65% 30%
18	1W	112	2% 77% 20%
18	2W	112	2% 79% 18%
19	1X	95	2% 76% 21%
19	2X	95	2% 73% 25%
20	1Y	107	2% 79% 16% 5%
20	2Y	107	6% 73% 22% 5%
21	1Z	203	68% 27%
21	2Z	203	58% 34% 7%
22	10	77	79% 14% 6%
22	20	77	3% 75% 19% 5%
23	11	97	2% 73% 22%
23	21	97	2% 69% 27%
24	12	70	2% 70% 26%
24	22	70	3% 84% 14%
25	13	59	2% 78% 20%
25	23	59	3% 73% 25%
26	14	69	9% 51% 38% 9%
26	24	69	20% 45% 42% 12%
27	15	59	2% 66% 27% 5%
27	25	59	66% 25% 7%

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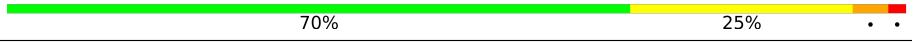
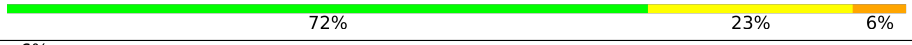
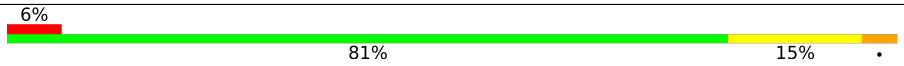
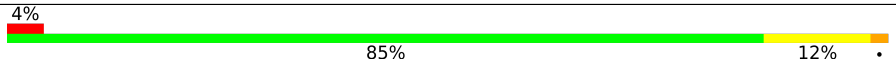
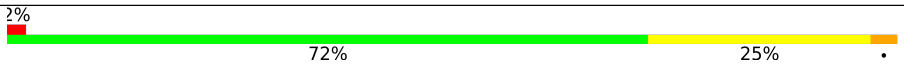
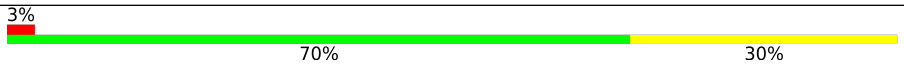
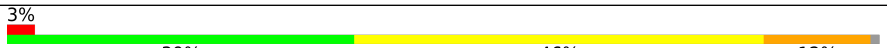
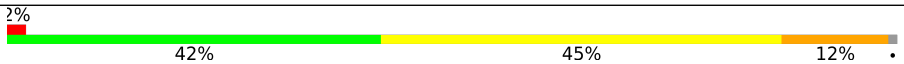
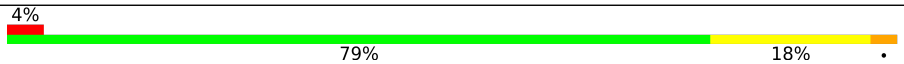
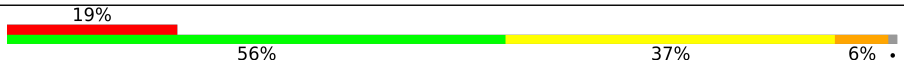
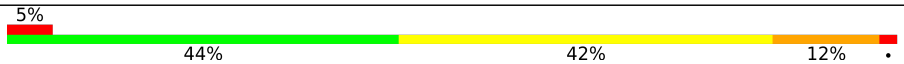
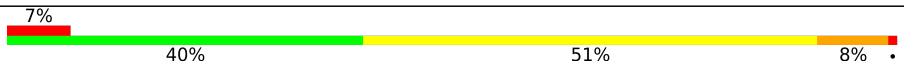
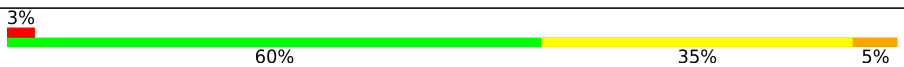
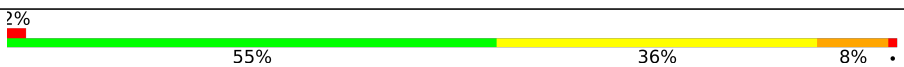
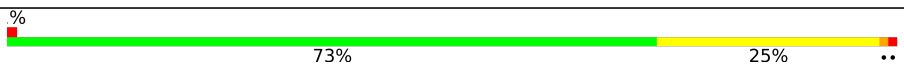
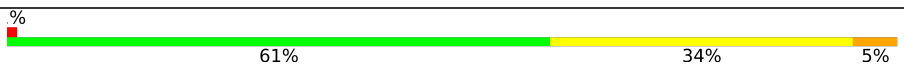
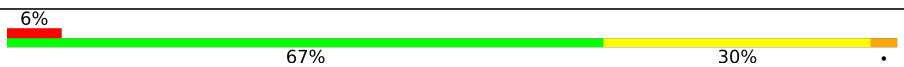
Mol	Chain	Length	Quality of chain
28	16	53	
28	26	53	
29	17	48	
29	27	48	
30	18	64	
30	28	64	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1x	97	
33	2x	97	
34	1b	231	
34	2b	231	
35	1c	206	
35	2c	206	
36	1d	208	
36	2d	208	
37	1e	148	
37	2e	148	
38	1f	100	
38	2f	100	
39	1g	155	
39	2g	155	
40	1h	137	

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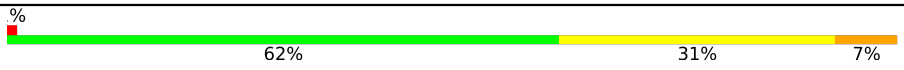
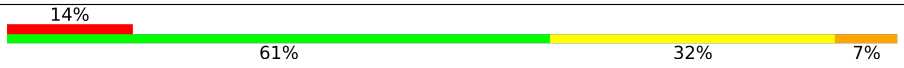
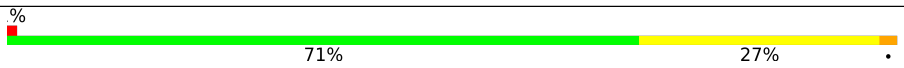
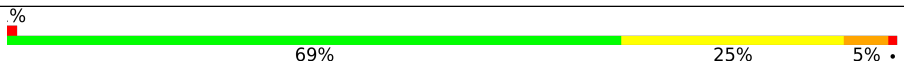
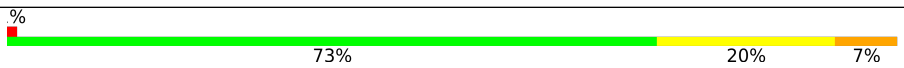
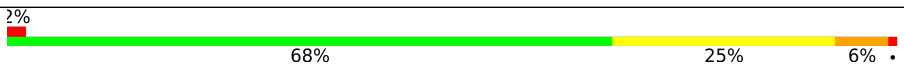
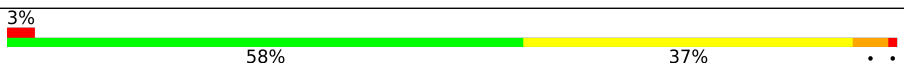
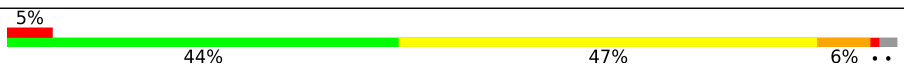
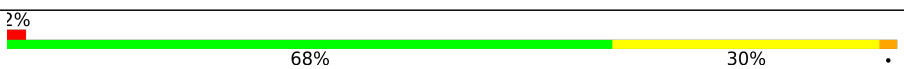
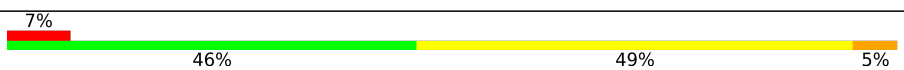
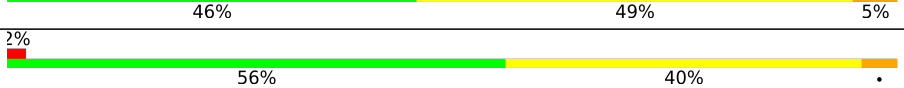
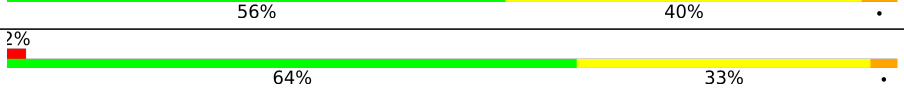
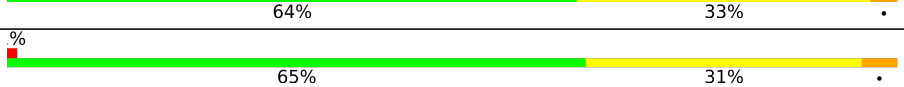
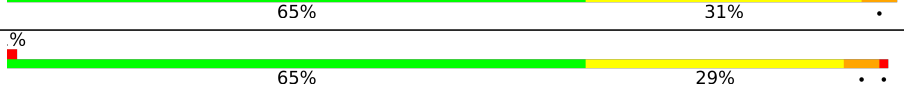
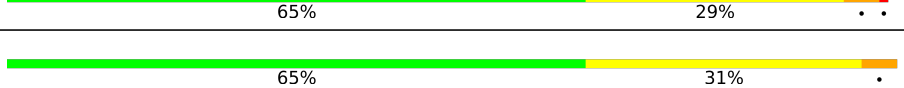
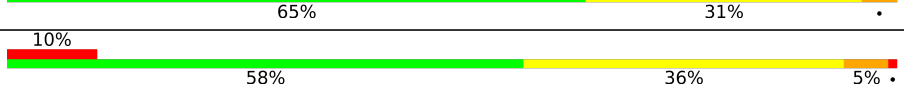
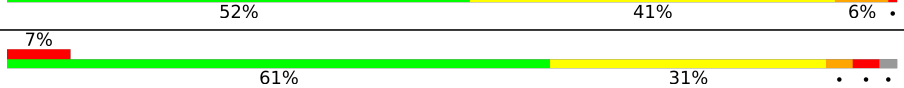
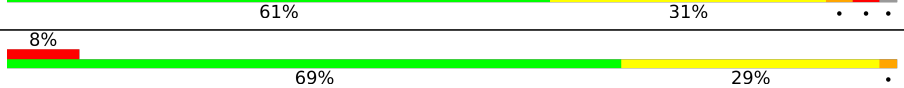
Mol	Chain	Length	Quality of chain
40	2h	137	
41	1i	127	
41	2i	127	
42	1j	97	
42	2j	97	
43	1k	114	
43	2k	114	
44	1l	122	
44	2l	122	
45	1m	116	
45	2m	116	
46	1n	60	
46	2n	60	
47	1o	88	
47	2o	88	
48	1p	82	
48	2p	82	
49	1q	99	
49	2q	99	
50	1r	68	
50	2r	68	
51	1s	83	
51	2s	83	
52	1t	98	
52	2t	98	

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Mol	Chain	Length	Quality of chain
53	1u	23	30% 61% 35%
53	2u	23	39% 65% 35%
54	1y	16	6% 69% 25% 6%
54	2y	16	12% 50% 44% 6%

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
55	MG	1A	3164	-	-	-	X
55	MG	1A	3575	-	-	-	X
55	MG	1D	309	-	-	-	X
55	MG	1a	1650	-	-	-	X
55	MG	1a	1659	-	-	-	X
55	MG	1a	1679	-	-	-	X
55	MG	1a	1762	-	-	-	X
55	MG	2A	3033	-	-	-	X
55	MG	2A	3411	-	-	-	X
55	MG	2A	3454	-	-	-	X
55	MG	2A	3508	-	-	-	X
55	MG	2A	3791	-	-	-	X
55	MG	2D	307	-	-	-	X
55	MG	2a	1614	-	-	-	X

2 Entry composition (i)

There are 59 unique types of molecules in this entry. The entry contains 293583 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
			61862	27535	11569	19886	2872			
1	2A	2867	Total	C	N	O	P	0	0	0
			61751	27486	11547	19852	2866			

- 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
			2575	1145	476	834	120			
2	2B	120	Total	C	N	O	P	0	0	0
			2571	1146	476	831	118			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	1D	275	Total	C	N	O	S	0	0	0
			2131	1346	422	360	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	1E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
4	2E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	1F	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1426	916	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1424	912	259	249	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	1H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
7	2H	173	Total	C	N	O	S	0	0	0
			1324	842	247	234	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	147	Total	C	N	O	S	0	0	0
			1094	699	191	203	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1076	687	186	202	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	1N	140	Total	C	N	O	S	0	0	0
			1121	722	208	187	4			
9	2N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	2O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
11	2P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	1Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	2Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	1R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	2R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total	C	N	O	0	0	0
			877	553	175	149			
14	2S	110	Total	C	N	O	0	0	0
			870	549	173	148			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	1T	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
15	2T	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	1U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
16	2U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			775	498	141	135	1			
17	2V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	1W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			
18	2W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	1X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
19	2X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	1Y	107	Total	C	N	O	S	0	0	0
			810	520	153	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			810	519	153	132	6			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			
21	2Z	201	Total	C	N	O	S	0	0	0
			1557	995	274	286	2			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			
22	20	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	11	97	Total	C	N	O	S	0	0	0
			754	475	148	130	1			
23	21	97	Total	C	N	O	S	0	0	0
			759	478	149	131	1			

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	12	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
24	22	70	Total	C	N	O	S	0	0	0
			592	368	119	103	2			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	13	59	Total	C	N	O	0	0	0
			469	298	90	81			
25	23	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	69	Total	C	N	O	S	0	0	0
			546	346	96	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			536	342	98	91	5			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	15	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
27	25	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	16	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
28	26	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	17	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
29	27	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	18	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
30	28	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 31 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	19	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
31	29	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 32 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	2a	1504	Total	C	N	O	P	0	0	0
			32331	14396	5990	10441	1504			

- Molecule 33 is a protein called Ribosome-associated inhibitor A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	2x	96	Total	C	N	O	S	0	0	0
			749	468	141	137	3			
33	1x	97	Total	C	N	O	S	0	0	0
			764	478	144	139	3			

- Molecule 34 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1b	231	Total	C	N	O	S	0	0	0
			1842	1175	330	332	5			
34	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 35 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1c	206	Total	C	N	O	S	0	0	0
			1558	979	305	273	1			
35	2c	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 36 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1d	208	Total	C	N	O	S	0	0	0
			1665	1043	329	286	7			
36	2d	208	Total	C	N	O	S	0	0	0
			1668	1047	330	284	7			

- Molecule 37 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			
37	2e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 38 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1f	100	Total	C	N	O	S	0	0	0
			814	516	144	151	3			
38	2f	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 39 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			
39	2g	155	Total	C	N	O	S	0	0	0
			1229	766	241	216	6			

- Molecule 40 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	1h	137	Total	C	N	O	S	0	0	0
			1098	694	210	192	2			
40	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 41 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	1i	127	Total	C	N	O	0	0	0
			986	625	193	168			
41	2i	126	Total	C	N	O	0	0	0
			966	613	186	167			

- Molecule 42 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	1j	97	Total	C	N	O	0	0	0
			719	446	142	131			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	2j	96	Total	C	N	O	0	0	0
			710	442	137	131			

- Molecule 43 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	1k	114	Total	C	N	O	S	0	0	0
			834	520	156	155	3			
43	2k	114	Total	C	N	O	S	0	0	0
			833	519	156	155	3			

- Molecule 44 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			
44	2l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

- Molecule 45 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1m	116	Total	C	N	O	S	0	0	0
			914	564	189	159	2			
45	2m	114	Total	C	N	O	S	0	0	0
			895	550	186	157	2			

- Molecule 46 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
46	2n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 47 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
47	2o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 48 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
48	2p	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 49 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
49	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 50 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
50	1r	68	Total	C	N	O	0	0	0
			555	355	108	92			
50	2r	68	Total	C	N	O	0	0	0
			555	355	108	92			

- Molecule 51 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1s	83	Total	C	N	O	S	0	0	0
			648	415	120	111	2			
51	2s	83	Total	C	N	O	S	0	0	0
			645	410	118	115	2			

- Molecule 52 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	1t	96	Total	C	N	O	S	0	0	0
			732	449	157	124	2			
52	2t	98	Total	C	N	O	S	0	0	0
			733	451	154	126	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
53	1u	23	Total 199	C 122	N 48	O 29	0	0	0
53	2u	23	Total 199	C 122	N 48	O 29	0	0	0

- Molecule 54 is a protein called Pyrrhocoricin.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
54	1y	16	Total 120	C 79	N 20	O 21	0	0	0
54	2y	16	Total 120	C 79	N 20	O 21	0	0	0

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	1A	918	Total 918	Mg 918	0	0
55	1B	25	Total 25	Mg 25	0	0
55	1D	20	Total 20	Mg 20	0	0
55	1E	7	Total 7	Mg 7	0	0
55	1F	15	Total 15	Mg 15	0	0
55	1G	3	Total 3	Mg 3	0	0
55	1H	2	Total 2	Mg 2	0	0
55	1N	4	Total 4	Mg 4	0	0
55	1P	3	Total 3	Mg 3	0	0
55	1Q	4	Total 4	Mg 4	0	0
55	1R	5	Total 5	Mg 5	0	0
55	1U	6	Total 6	Mg 6	0	0
55	1V	3	Total 3	Mg 3	0	0
55	1W	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1X	1	Total Mg 1 1	0	0
55	1Y	1	Total Mg 1 1	0	0
55	10	8	Total Mg 8 8	0	0
55	11	4	Total Mg 4 4	0	0
55	13	2	Total Mg 2 2	0	0
55	15	6	Total Mg 6 6	0	0
55	17	5	Total Mg 5 5	0	0
55	18	3	Total Mg 3 3	0	0
55	19	2	Total Mg 2 2	0	0
55	1a	225	Total Mg 225 225	0	0
55	1b	1	Total Mg 1 1	0	0
55	1d	5	Total Mg 5 5	0	0
55	1e	2	Total Mg 2 2	0	0
55	1f	1	Total Mg 1 1	0	0
55	1g	1	Total Mg 1 1	0	0
55	1h	2	Total Mg 2 2	0	0
55	1l	1	Total Mg 1 1	0	0
55	1m	1	Total Mg 1 1	0	0
55	1n	1	Total Mg 1 1	0	0
55	1o	1	Total Mg 1 1	0	0
55	1t	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1y	1	Total Mg 1 1	0	0
55	2A	819	Total Mg 819 819	0	0
55	2B	18	Total Mg 18 18	0	0
55	2D	13	Total Mg 13 13	0	0
55	2E	6	Total Mg 6 6	0	0
55	2F	11	Total Mg 11 11	0	0
55	2G	3	Total Mg 3 3	0	0
55	2H	1	Total Mg 1 1	0	0
55	2N	1	Total Mg 1 1	0	0
55	2P	3	Total Mg 3 3	0	0
55	2Q	7	Total Mg 7 7	0	0
55	2R	2	Total Mg 2 2	0	0
55	2S	1	Total Mg 1 1	0	0
55	2U	4	Total Mg 4 4	0	0
55	2V	5	Total Mg 5 5	0	0
55	2W	1	Total Mg 1 1	0	0
55	2X	3	Total Mg 3 3	0	0
55	20	6	Total Mg 6 6	0	0
55	21	3	Total Mg 3 3	0	0
55	23	1	Total Mg 1 1	0	0
55	25	4	Total Mg 4 4	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	27	3	Total Mg 3 3	0	0
55	28	2	Total Mg 2 2	0	0
55	2a	196	Total Mg 196 196	0	0
55	2b	1	Total Mg 1 1	0	0
55	2d	3	Total Mg 3 3	0	0
55	2e	2	Total Mg 2 2	0	0
55	2f	1	Total Mg 1 1	0	0
55	2g	1	Total Mg 1 1	0	0
55	2h	2	Total Mg 2 2	0	0
55	2l	2	Total Mg 2 2	0	0
55	2m	1	Total Mg 1 1	0	0
55	2n	1	Total Mg 1 1	0	0
55	2o	1	Total Mg 1 1	0	0

- Molecule 56 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1Y	1	Total Zn 1 1	0	0
56	14	1	Total Zn 1 1	0	0
56	15	1	Total Zn 1 1	0	0
56	16	1	Total Zn 1 1	0	0
56	19	1	Total Zn 1 1	0	0
56	1n	1	Total Zn 1 1	0	0

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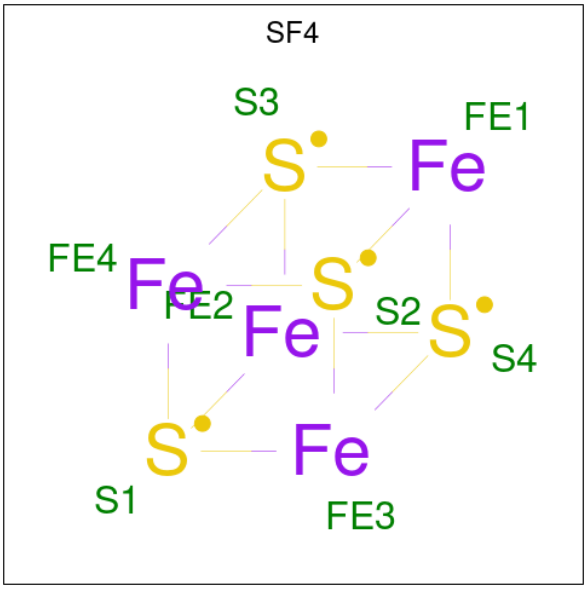
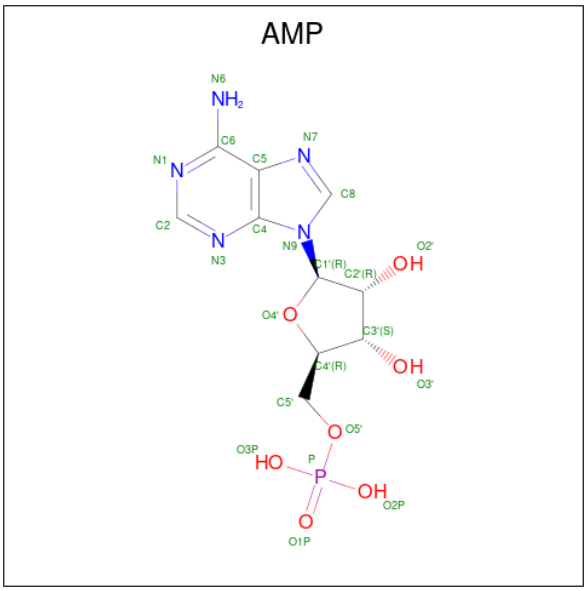
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2Y	1	Total Zn 1 1	0	0
56	24	1	Total Zn 1 1	0	0
56	25	1	Total Zn 1 1	0	0
56	26	1	Total Zn 1 1	0	0
56	29	1	Total Zn 1 1	0	0
56	2n	1	Total Zn 1 1	0	0

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



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1d	1	Total Fe S 8 4 4	0	0
57	2d	1	Total Fe S 8 4 4	0	0

- Molecule 58 is ADENOSINE MONOPHOSPHATE (CCD ID: AMP) (formula: $C_{10}H_{14}N_5O_7P$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	2A	1	Total P 1 1	0	0

- Molecule 59 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1A	1740	Total O 1740 1740	0	0
59	1B	43	Total O 43 43	0	0
59	1D	16	Total O 16 16	0	0
59	1E	17	Total O 17 17	0	0
59	1F	9	Total O 9 9	0	0
59	1G	2	Total O 2 2	0	0
59	1H	3	Total O 3 3	0	0
59	1N	8	Total O 8 8	0	0
59	1P	13	Total O 13 13	0	0
59	1Q	7	Total O 7 7	0	0
59	1R	4	Total O 4 4	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1T	5	Total O 5 5	0	0
59	1U	5	Total O 5 5	0	0
59	1V	3	Total O 3 3	0	0
59	1W	2	Total O 2 2	0	0
59	1X	4	Total O 4 4	0	0
59	1Y	4	Total O 4 4	0	0
59	10	5	Total O 5 5	0	0
59	11	3	Total O 3 3	0	0
59	13	1	Total O 1 1	0	0
59	15	2	Total O 2 2	0	0
59	16	2	Total O 2 2	0	0
59	17	2	Total O 2 2	0	0
59	18	9	Total O 9 9	0	0
59	19	2	Total O 2 2	0	0
59	1a	395	Total O 395 395	0	0
59	1d	10	Total O 10 10	0	0
59	1e	2	Total O 2 2	0	0
59	1f	1	Total O 1 1	0	0
59	1h	1	Total O 1 1	0	0
59	1j	1	Total O 1 1	0	0
59	1l	3	Total O 3 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1m	2	Total O 2 2	0	0
59	1n	1	Total O 1 1	0	0
59	1p	1	Total O 1 1	0	0
59	1q	1	Total O 1 1	0	0
59	1t	1	Total O 1 1	0	0
59	1y	2	Total O 2 2	0	0
59	2A	1667	Total O 1667 1667	0	0
59	2B	35	Total O 35 35	0	0
59	2D	14	Total O 14 14	0	0
59	2E	16	Total O 16 16	0	0
59	2F	11	Total O 11 11	0	0
59	2G	2	Total O 2 2	0	0
59	2H	2	Total O 2 2	0	0
59	2N	2	Total O 2 2	0	0
59	2P	11	Total O 11 11	0	0
59	2Q	4	Total O 4 4	0	0
59	2R	4	Total O 4 4	0	0
59	2T	2	Total O 2 2	0	0
59	2U	2	Total O 2 2	0	0
59	2V	2	Total O 2 2	0	0
59	2W	2	Total O 2 2	0	0

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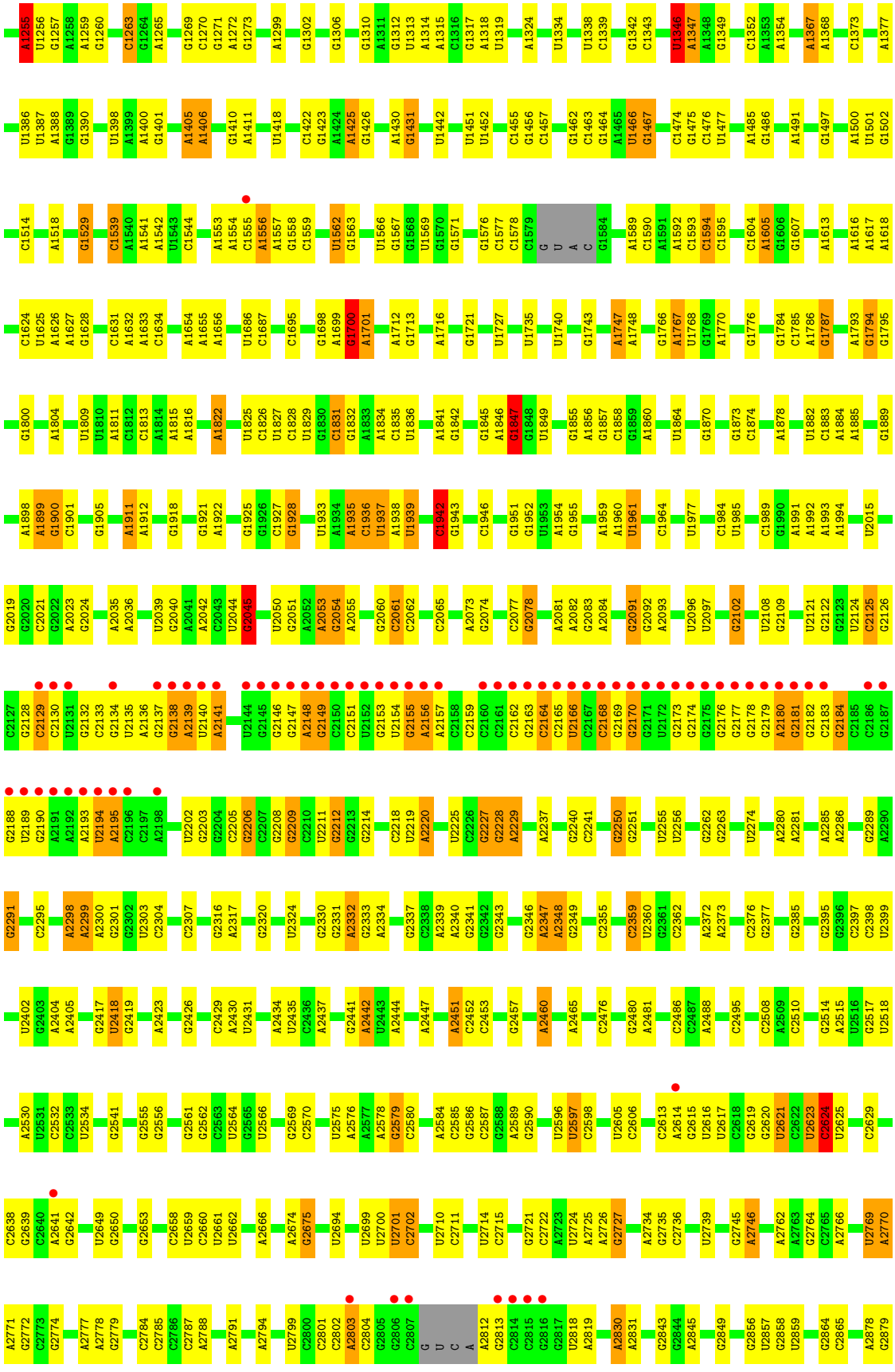
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	2X	5	Total O 5 5	0	0
59	2Y	3	Total O 3 3	0	0
59	20	7	Total O 7 7	0	0
59	21	2	Total O 2 2	0	0
59	23	2	Total O 2 2	0	0
59	25	1	Total O 1 1	0	0
59	26	2	Total O 2 2	0	0
59	27	1	Total O 1 1	0	0
59	28	6	Total O 6 6	0	0
59	2a	387	Total O 387 387	0	0
59	2c	1	Total O 1 1	0	0
59	2d	6	Total O 6 6	0	0
59	2e	4	Total O 4 4	0	0
59	2f	1	Total O 1 1	0	0
59	2h	1	Total O 1 1	0	0
59	2j	1	Total O 1 1	0	0
59	2l	3	Total O 3 3	0	0
59	2m	2	Total O 2 2	0	0
59	2o	1	Total O 1 1	0	0
59	2t	1	Total O 1 1	0	0
59	2y	1	Total O 1 1	0	0

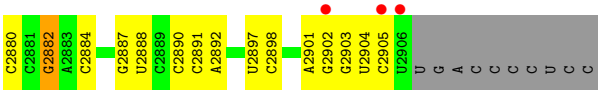
3 Residue-property plots (i)

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

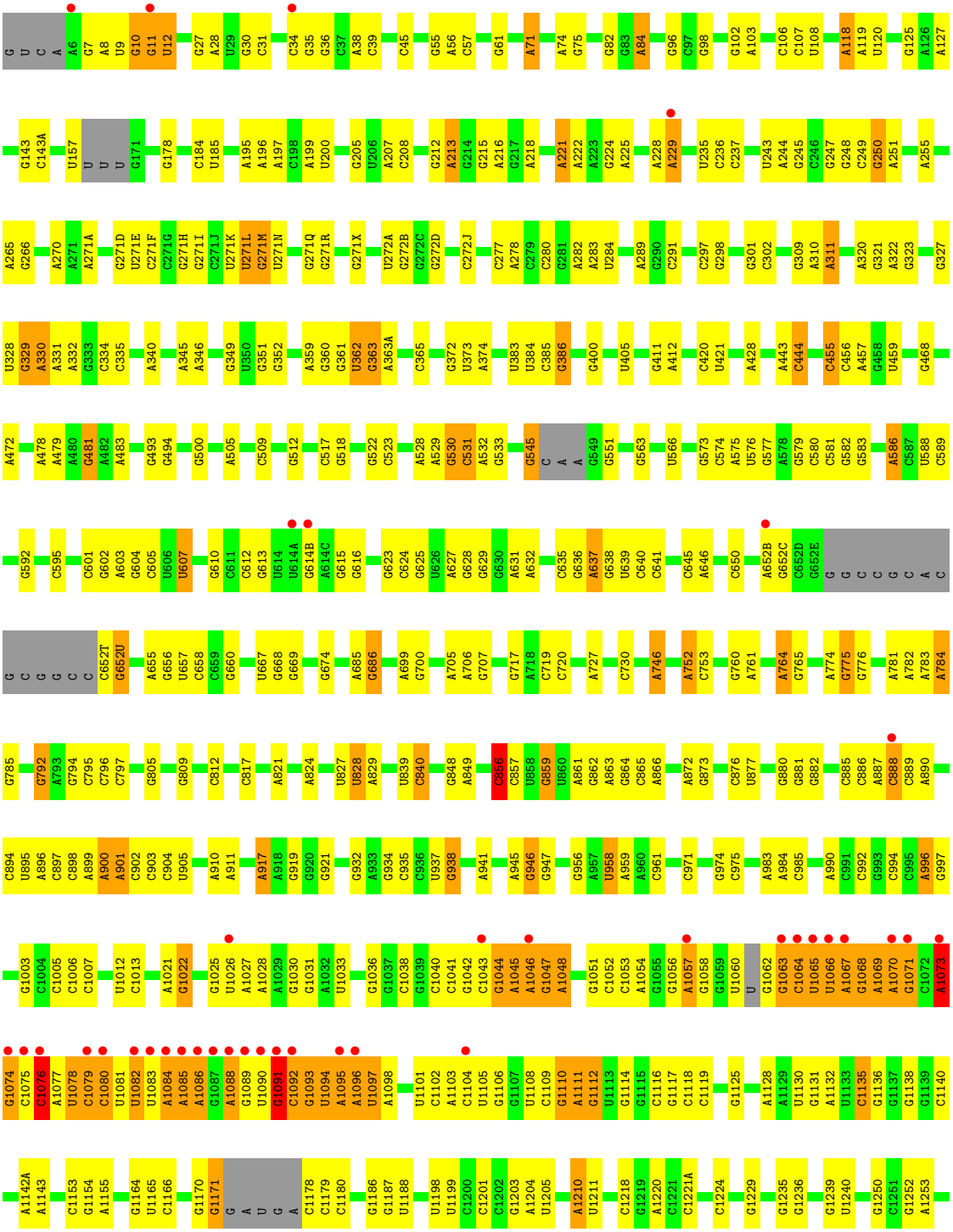
Chain 1A:

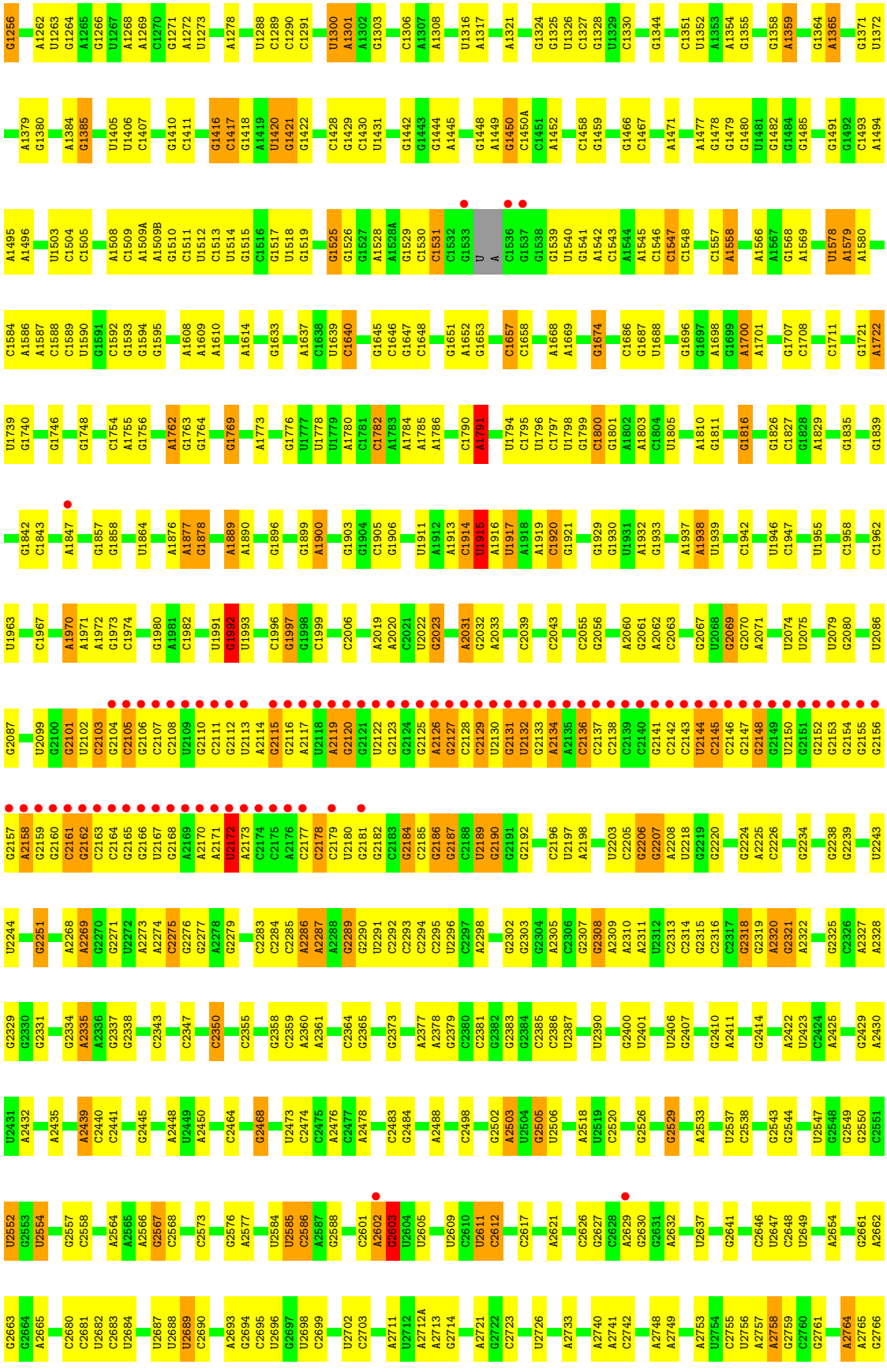

A1255 U1256 G1257 A1258 A1259 G1260 C1263 G1264 A1265 G1269 C1270 G1271 A1272 G1273 A1299 G1302 G1306 G1310 A1311 G1312 U1313 A1314 A1315 C1316 G1317 A1318 U1319 A1324 U1334 U1338 C1339 G1342 C1343 U1346 A1347 A1348 G1349 C1352 A1353 A1354 A1367 A1368 C1373 A1377
U1386 U1387 A1388 G1389 G1390 U1398 A1399 A1400 G1401 A1405 A1406 G1410 A1411 U1418 C1422 G1423 A1424 A1425 G1426 A1430 G1431 U1442 U1451 U1452 C1455 G1456 C1457 G1462 C1463 G1464 A1465 U1466 G1467 C1474 G1475 C1476 U1477 A1485 G1486 A1491 G1497 A1500 U1501 G1502
C1514 A1518 G1529 C1539 A1540 A1541 A1542 U1543 C1544 A1553 A1554 C1555 A1556 A1557 G1558 C1559 U1562 G1563 U1566 G1567 G1568 U1569 G1570 G1571 G1576 C1577 C1578 C1579 G U A C G1584 A1589 C1590 A1591 A1592 C1593 C1594 C1595 C1604 A1605 G1606 G1607 A1613 A1616 A1617 A1618
C1624 U1625 A1626 A1627 G1628 C1631 A1632 A1633 C1634 A1654 A1655 A1656 U1686 C1687 C1695 G1698 A1699 G1700 A1701 A1712 G1713 A1716 G1721 U1727 U1735 U1740 G1743 A1747 A1748 G1766 A1767 U1768 G1769 A1770 G1776 G1784 C1785 A1786 G1787 A1793 G1794 G1795
G1800 A1804 U1809 U1810 A1811 C1812 C1813 A1814 A1815 A1816 A1822 U1825 C1826 U1827 C1828 U1829 G1830 C1831 G1832 A1833 A1834 C1835 U1836 A1841 G1842 G1845 A1846 G1847 G1848 U1849 G1855 A1856 G1857 C1858 G1859 A1860 U1864 G1870 G1873 C1874 A1878 U1882 C1883 A1884 A1885 G1889
A1898 A1899 G1900 C1901 G1905 A1911 A1912 G1918 G1921 A1922 G1925 G1926 C1927 G1928 U1933 A1934 A1935 C1936 U1937 A1938 U1939 C1942 G1943 C1946 G1951 G1952 U1953 A1954 G1955 A1959 A1960 U1961 C1964 U1977 C1984 U1985 G1990 A1991 A1992 A1993 A1994 U2015
G2019 G2020 C2021 G2022 A2023 G2024 A2035 A2036 U2039 C2040 A2041 A2042 C2043 U2044 G2045 U2050 G2051 A2052 A2053 G2054 A2055 C2060 C2061 C2062 C2065 A2073 G2074 C2077 G2078 A2081 A2082 G2083 A2084 G2091 C2092 A2093 U2096 U2097 G2102 U2108 G2109 U2121 G2122 G2123 U2124 C2125 G2126
C2127 G2128 C2129 C2130 U2131 G2132 C2133 G2134 U2135 A2136 G2137 G2138 A2139 U2140 A2141 U2144 G2145 G2146 G2147 A2148 G2149 C2150 C2151 U2152 G2153 U2154 G2155 A2156 A2157 C2158 C2159 C2160 C2161 C2162 G2163 C2164 C2165 U2166 C2167 C2168 G2169 G2170 G2171 U2172 G2173 G2174 G2175 G2176 G2177 G2178 G2179 A2180 G2181 G2182 C2183 G2184 C2185 C2186 G2187
G2188 U2189 G2190 A2191 A2192 A2193 U2194 A2195 C2196 C2197 A2198 U2202 G2203 G2204 C2205 G2206 C2207 G2208 G2209 C2210 U2211 G2212 G2213 G2214 C2218 U2219 A2220 U2225 C2226 G2227 G2228 A2229 A2237 G2240 C2241 G2250 G2251 U2255 U2256 G2262 G2263 U2274 A2280 A2281 A2285 A2286 G2289 A2290
G2291 C2295 A2298 A2299 A2300 G2301 G2302 U2303 C2304 C2307 G2316 A2317 G2320 U2324 G2330 G2331 A2332 G2333 A2334 G2337 C2338 A2339 A2340 G2341 G2342 G2343 G2346 A2347 A2348 G2349 C2355 C2359 U2360 G2361 C2362 A2372 A2373 C2376 G2377 G2385 G2395 G2396 C2397 C2398 U2399
U2402 G2403 A2404 A2405 G2417 U2418 G2419 A2423 G2426 C2429 A2430 U2431 A2434 U2435 C2436 A2437 G2441 A2442 U2443 A2444 A2447 A2451 C2452 C2453 G2457 A2460 A2465 C2476 G2480 A2481 C2486 C2487 A2488 C2495 C2508 A2509 C2510 G2514 A2515 U2516 G2517 U2518
A2530 U2531 C2532 C2533 U2534 G2541 G2555 G2556 G2561 G2562 C2563 U2564 G2565 U2566 G2569 C2570 U2575 A2576 A2577 A2578 G2579 C2580 A2584 C2585 G2586 C2587 G2588 G2590 U2596 U2597 C2598 U2605 C2606 C2613 A2614 G2615 U2616 U2617 C2618 G2619 G2620 U2621 C2622 U2623 C2624 U2625 C2629
C2638 G2639 C2640 A2641 G2642 U2649 G2650 G2653 C2658 U2659 C2660 U2661 U2662 A2666 A2674 G2675 U2694 U2699 U2700 U2701 C2702 U2710 C2711 U2714 C2715 G2721 C2722 A2723 U2724 A2725 A2726 G2727 A2734 G2735 C2736 U2739 G2745 A2746 A2762 A2763 G2764 C2765 A2766 U2769 A2770
A2771 G2772 C2773 G2774 A2777 A2778 G2779 C2784 C2785 C2786 C2787 A2788 A2791 A2794 U2799 C2800 C2801 C2802 A2803 C2804 G2805 G2806 C2807 G U C A A2812 G2813 C2814 C2815 G2816 G2817 U2818 A2819 A2830 A2831 G2843 G2844 A2845 G2849 G2856 U2857 G2858 U2859 G2864 C2865 A2878 G2879

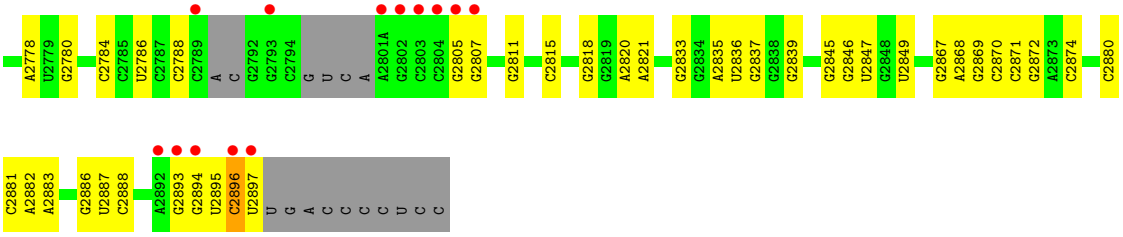


• Molecule 1: 23S ribosomal RNA

Chain 2A:

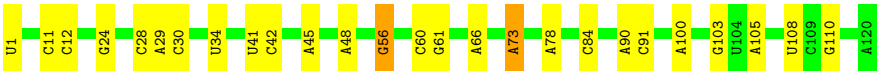






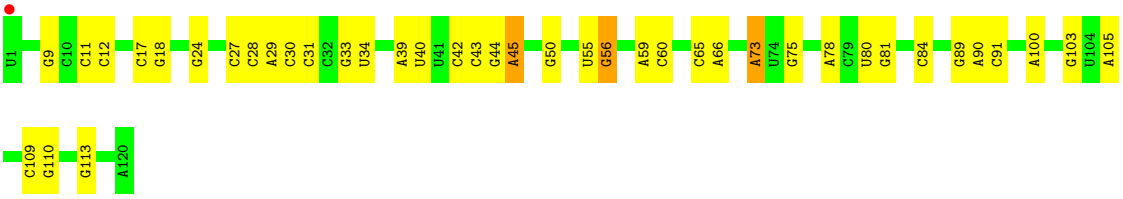
• Molecule 2: 5S ribosomal RNA

Chain 1B:



• Molecule 2: 5S ribosomal RNA

Chain 2B:

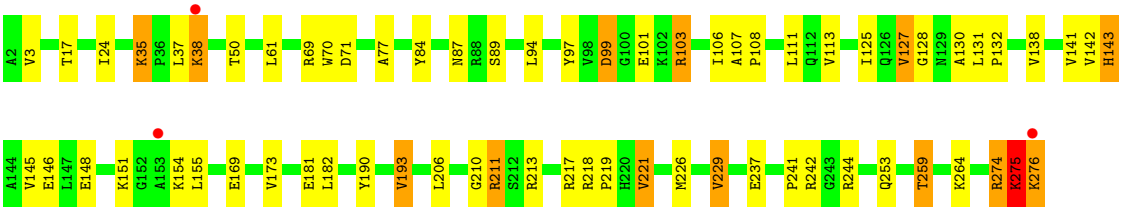


• Molecule 3: 50S ribosomal protein L2

Chain 1D:

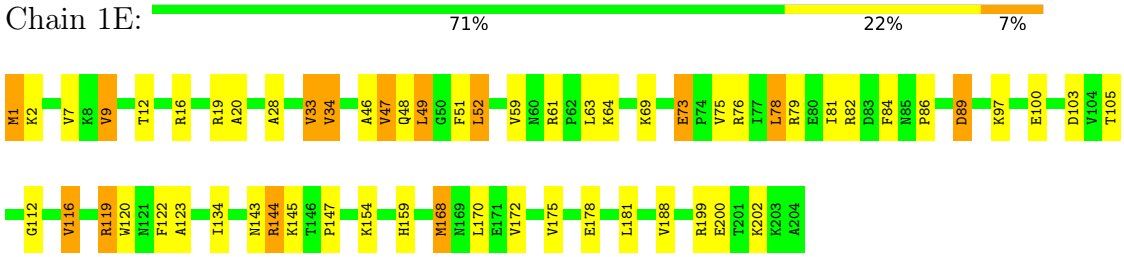
• Molecule 3: 50S ribosomal protein L2

Chain 2D:



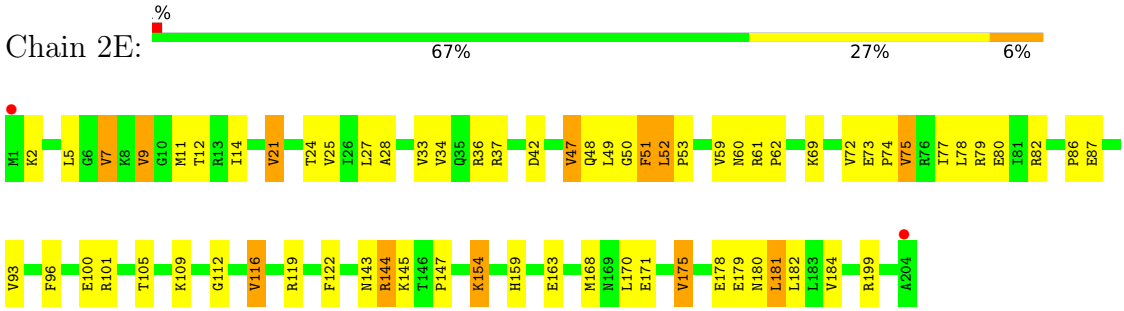
• Molecule 4: 50S ribosomal protein L3

Chain 1E:



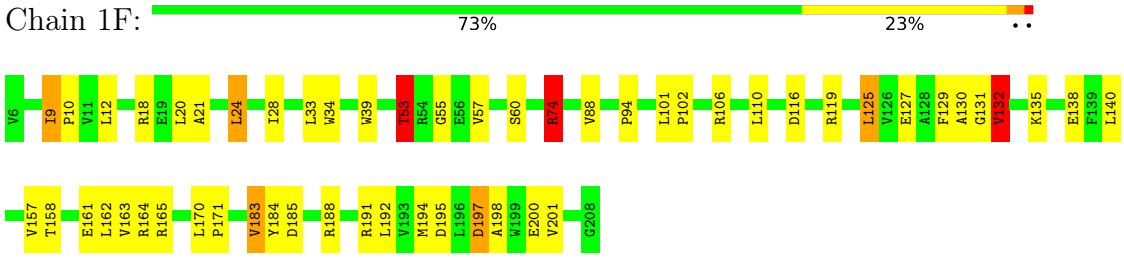
• Molecule 4: 50S ribosomal protein L3

Chain 2E:



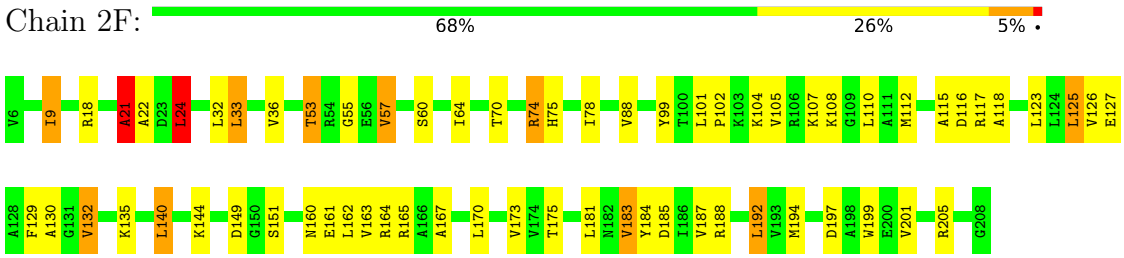
• Molecule 5: 50S ribosomal protein L4

Chain 1F:



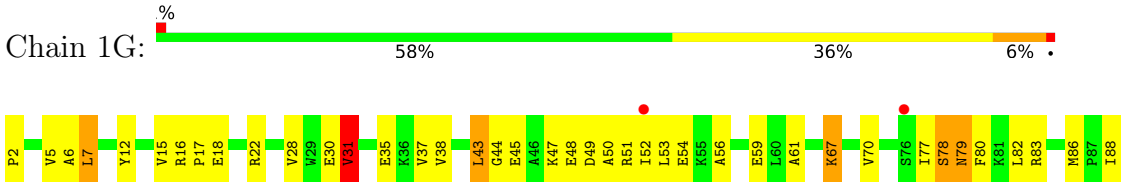
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



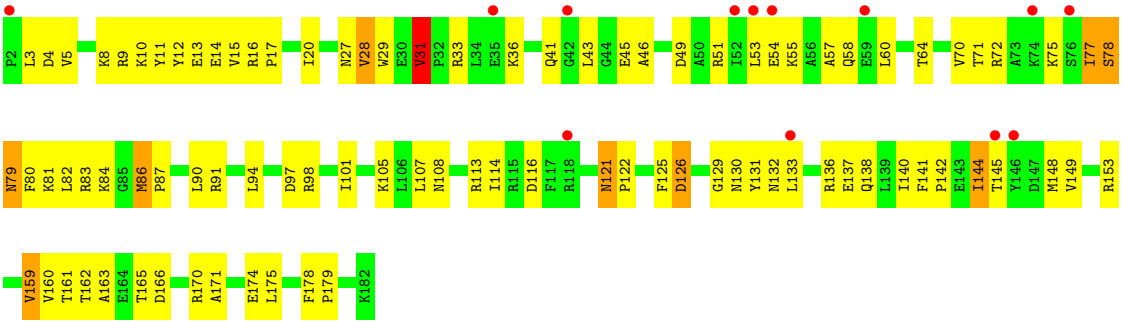
• Molecule 6: 50S ribosomal protein L5

Chain 1G:



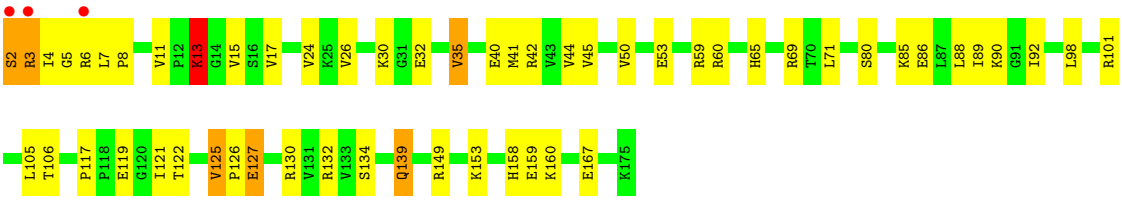
• Molecule 6: 50S ribosomal protein L5

Chain 2G:



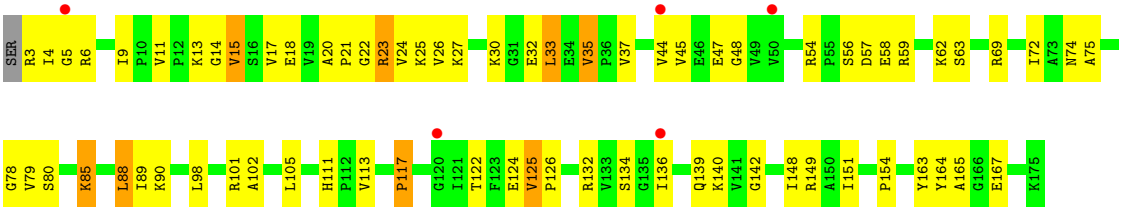
• Molecule 7: 50S ribosomal protein L6

Chain 1H:



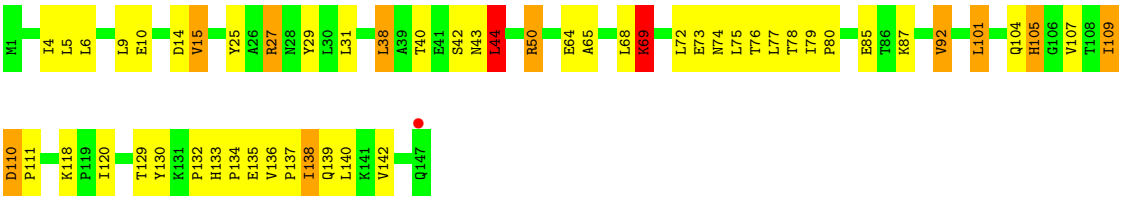
• Molecule 7: 50S ribosomal protein L6

Chain 2H:



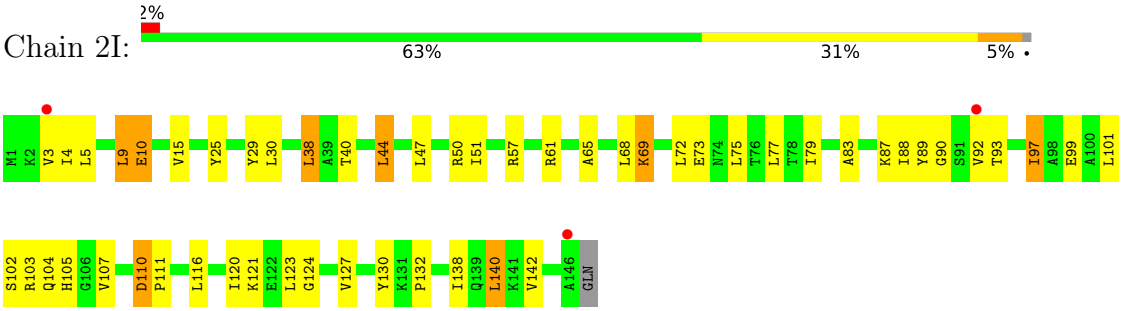
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



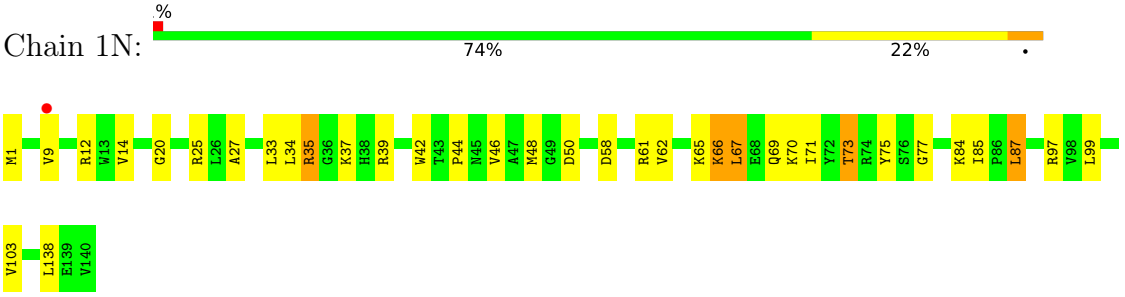
• Molecule 8: 50S ribosomal protein L9

Chain 2I:



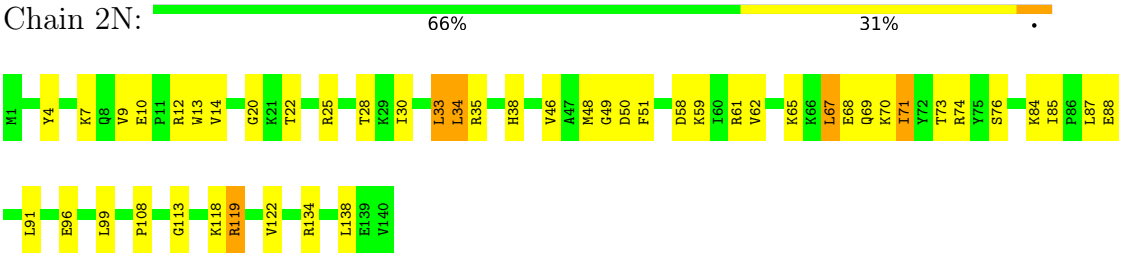
• Molecule 9: 50S ribosomal protein L13

Chain 1N:



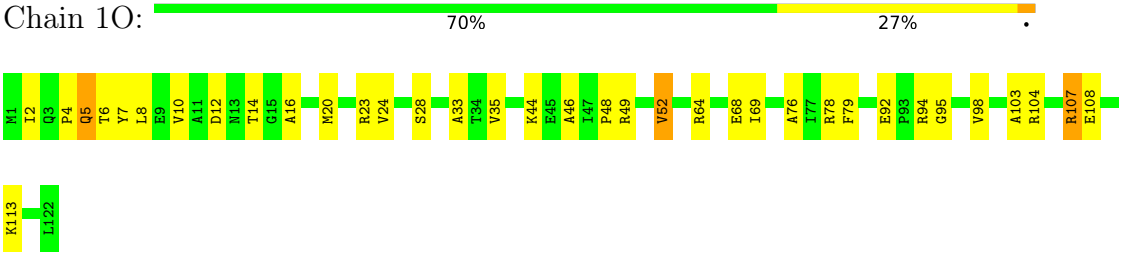
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



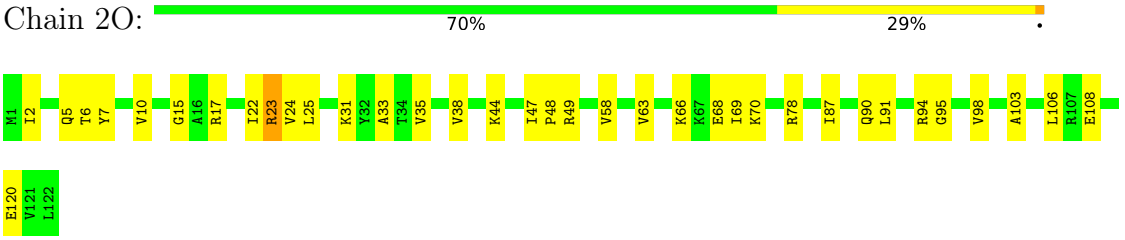
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



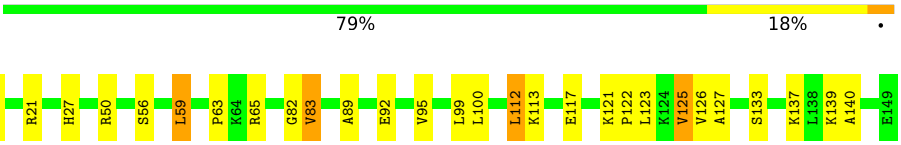
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



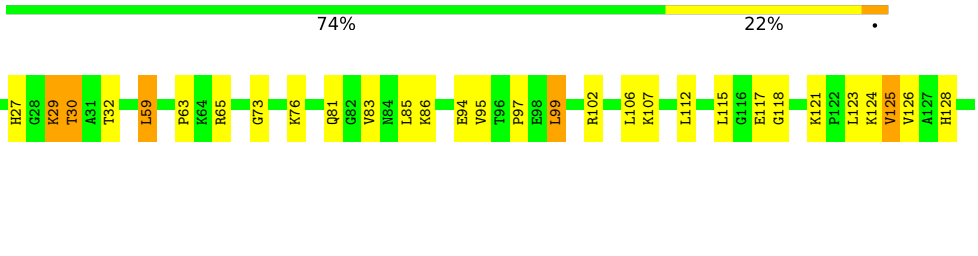
• Molecule 11: 50S ribosomal protein L15

Chain 1P:



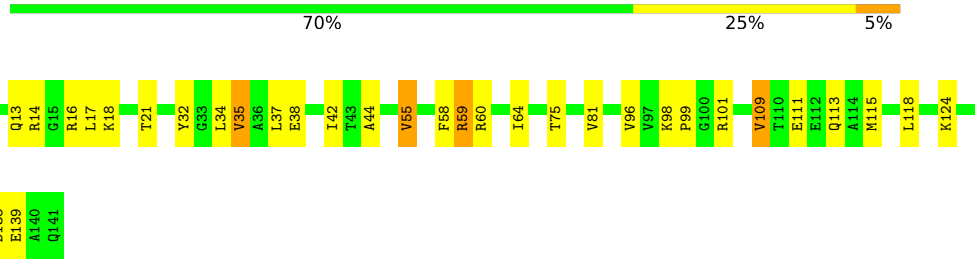
• Molecule 11: 50S ribosomal protein L15

Chain 2P:



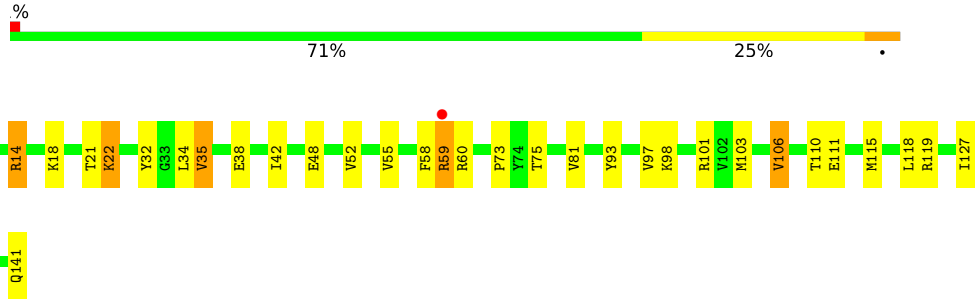
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



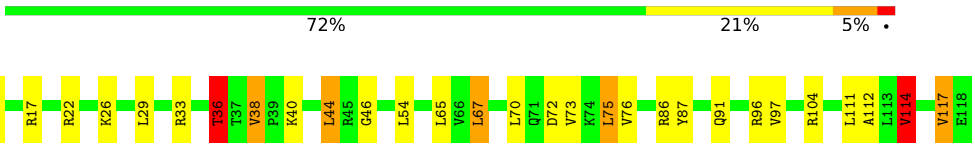
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



• Molecule 13: 50S ribosomal protein L17

Chain 1R:



• Molecule 13: 50S ribosomal protein L17

Chain 2R:

• Molecule 14: 50S ribosomal protein L18

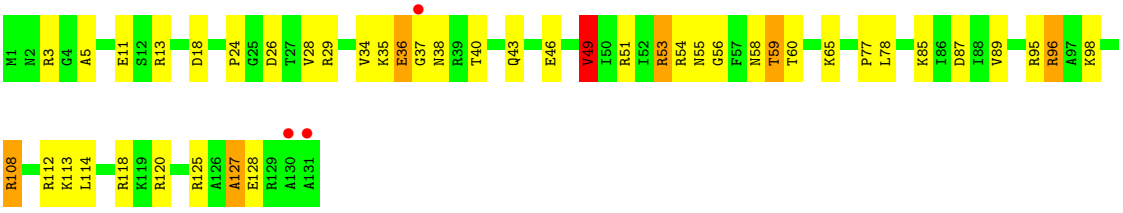
Chain 1S:

• Molecule 14: 50S ribosomal protein L18

Chain 2S:

• Molecule 15: 50S ribosomal protein L19

Chain 1T:

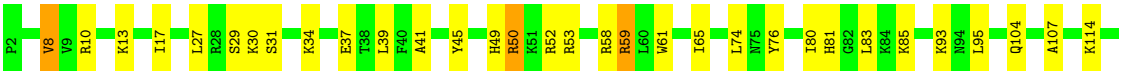


• Molecule 15: 50S ribosomal protein L19

Chain 2T:

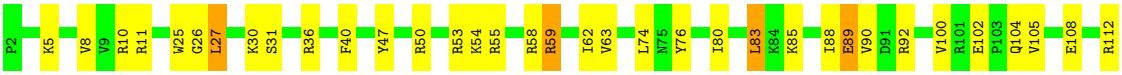
• Molecule 16: 50S ribosomal protein L20

Chain 1U:



• Molecule 16: 50S ribosomal protein L20

Chain 2U:

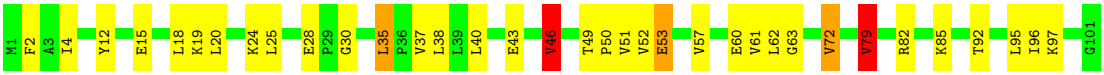


• Molecule 17: 50S ribosomal protein L21

Chain 1V:

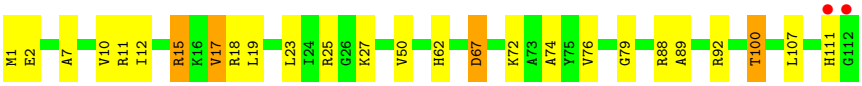
• Molecule 17: 50S ribosomal protein L21

Chain 2V:



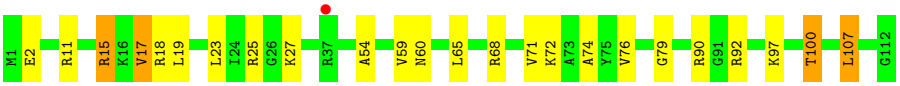
• Molecule 18: 50S ribosomal protein L22

Chain 1W:



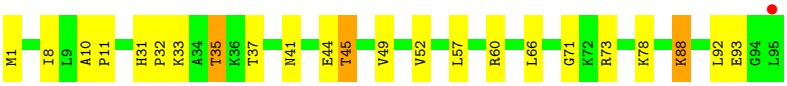
• Molecule 18: 50S ribosomal protein L22

Chain 2W:



• Molecule 19: 50S ribosomal protein L23

Chain 1X:

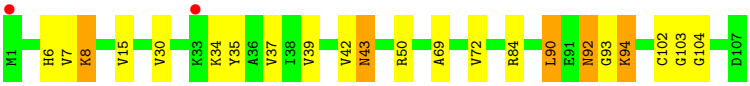


• Molecule 19: 50S ribosomal protein L23

Chain 2X:

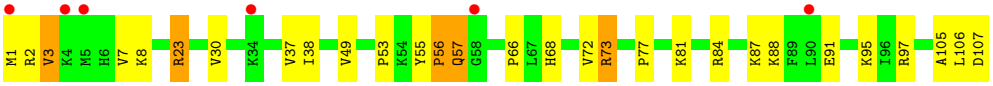
• Molecule 20: 50S ribosomal protein L24

Chain 1Y:



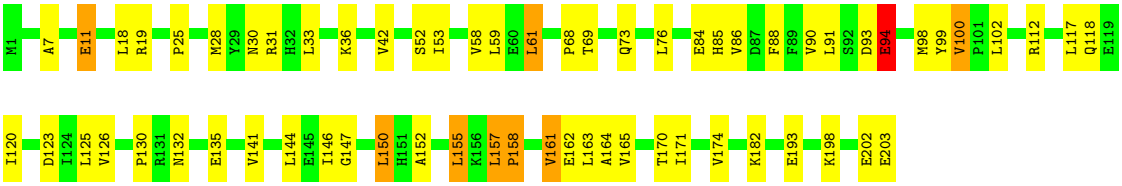
• Molecule 20: 50S ribosomal protein L24

Chain 2Y:



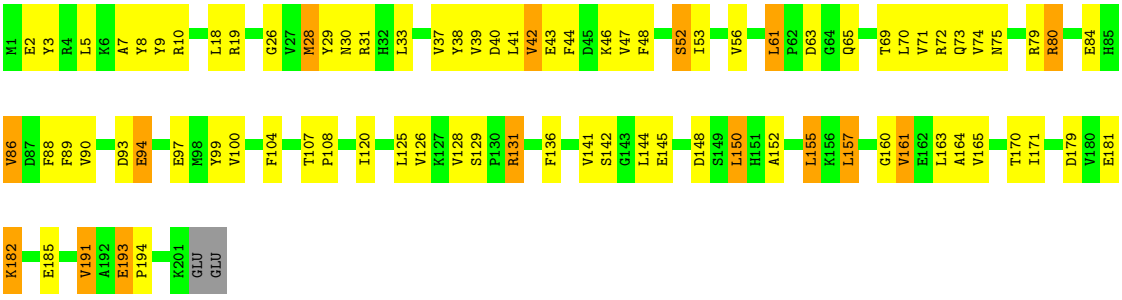
• Molecule 21: 50S ribosomal protein L25

Chain 1Z:



• Molecule 21: 50S ribosomal protein L25

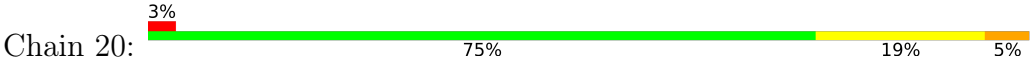
Chain 2Z:

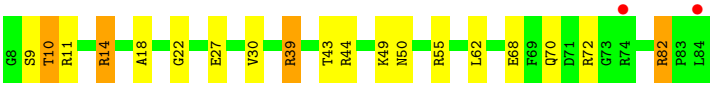


• Molecule 22: 50S ribosomal protein L27

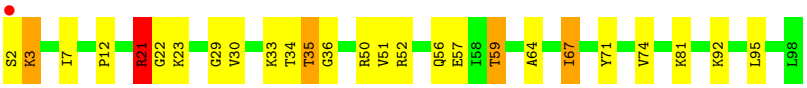
Chain 10:

• Molecule 22: 50S ribosomal protein L27

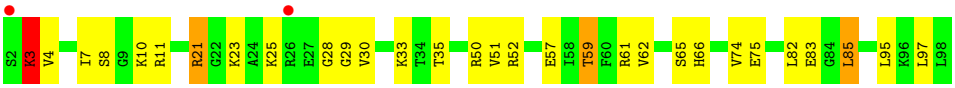




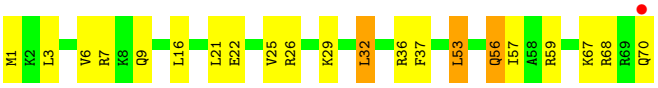
• Molecule 23: 50S ribosomal protein L28



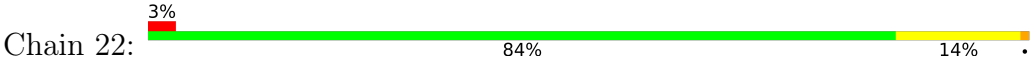
• Molecule 23: 50S ribosomal protein L28

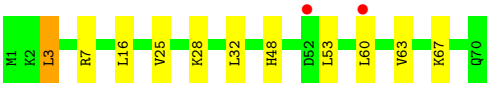


• Molecule 24: 50S ribosomal protein L29

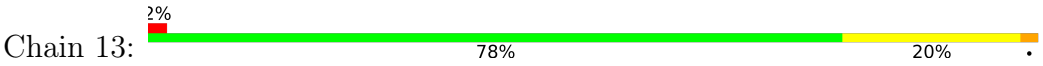


• Molecule 24: 50S ribosomal protein L29



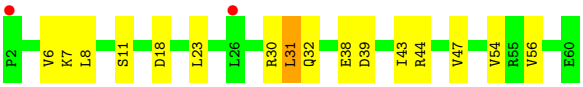


• Molecule 25: 50S ribosomal protein L30



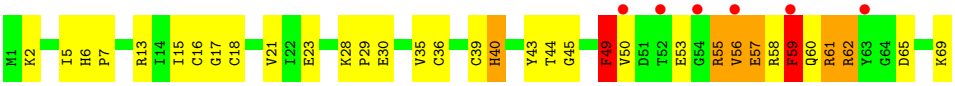
• Molecule 25: 50S ribosomal protein L30

Chain 23:



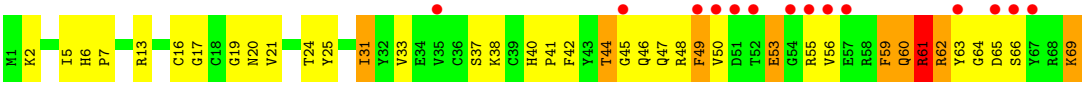
• Molecule 26: 50S ribosomal protein L31

Chain 14:



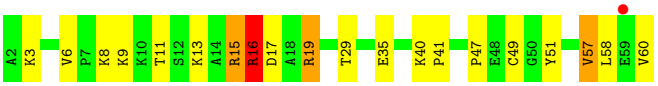
• Molecule 26: 50S ribosomal protein L31

Chain 24:



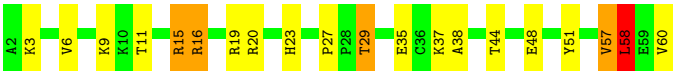
• Molecule 27: 50S ribosomal protein L32

Chain 15:



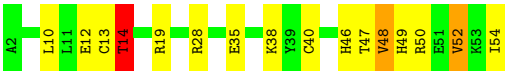
• Molecule 27: 50S ribosomal protein L32

Chain 25:



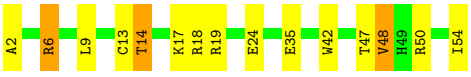
• Molecule 28: 50S ribosomal protein L33

Chain 16:



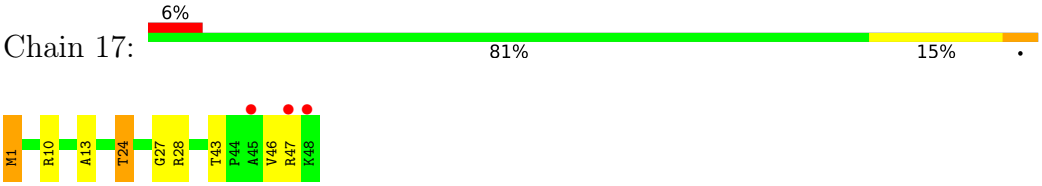
• Molecule 28: 50S ribosomal protein L33

Chain 26:



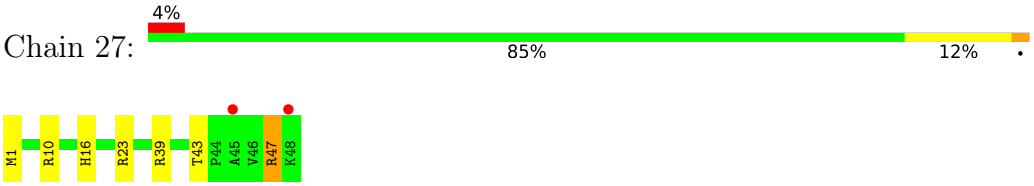
• Molecule 29: 50S ribosomal protein L34

Chain 17:



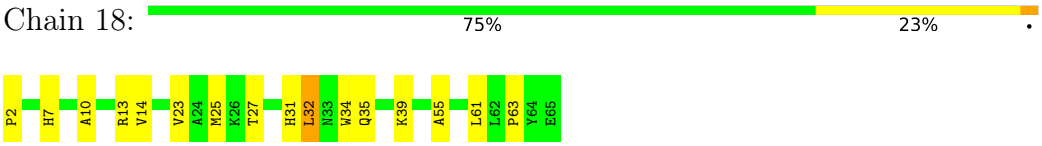
• Molecule 29: 50S ribosomal protein L34

Chain 27:



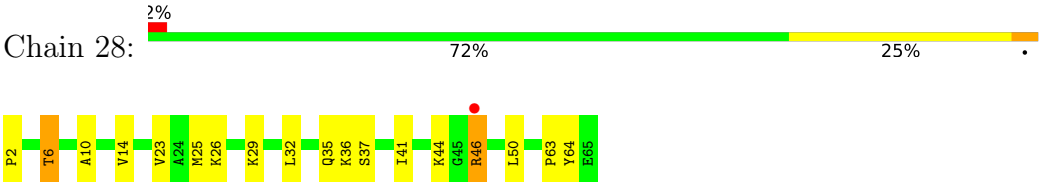
• Molecule 30: 50S ribosomal protein L35

Chain 18:



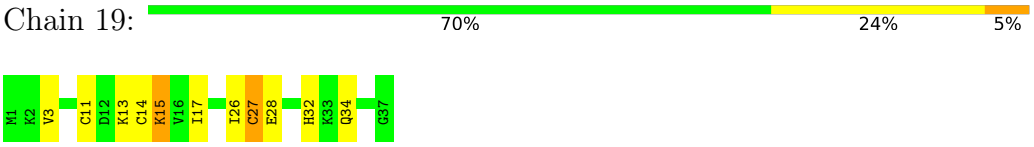
• Molecule 30: 50S ribosomal protein L35

Chain 28:



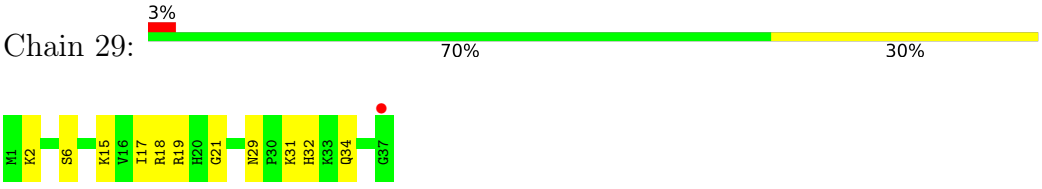
• Molecule 31: 50S ribosomal protein L36

Chain 19:



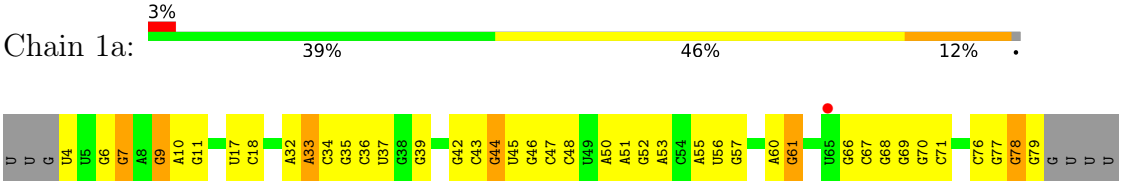
• Molecule 31: 50S ribosomal protein L36

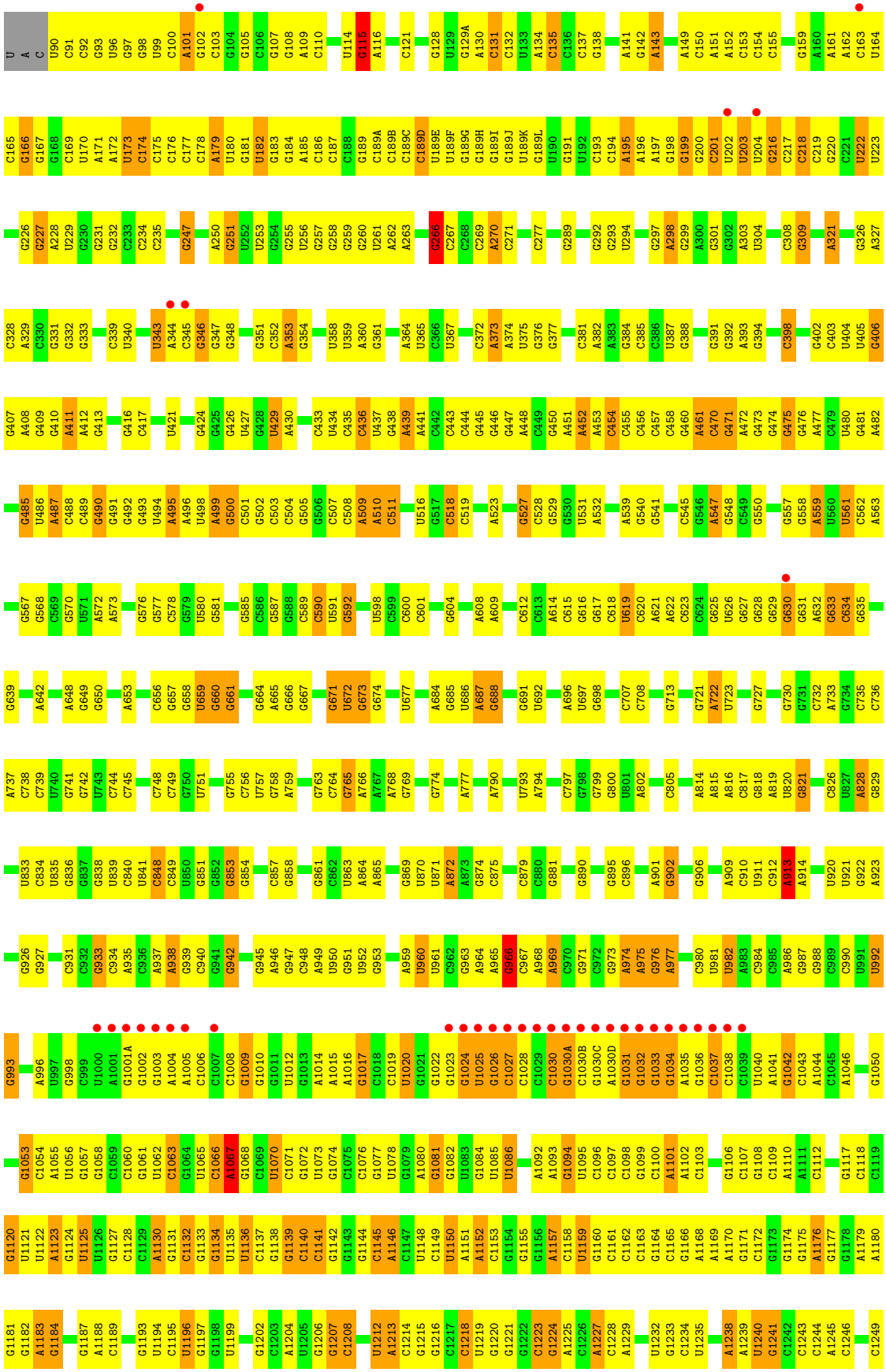
Chain 29:

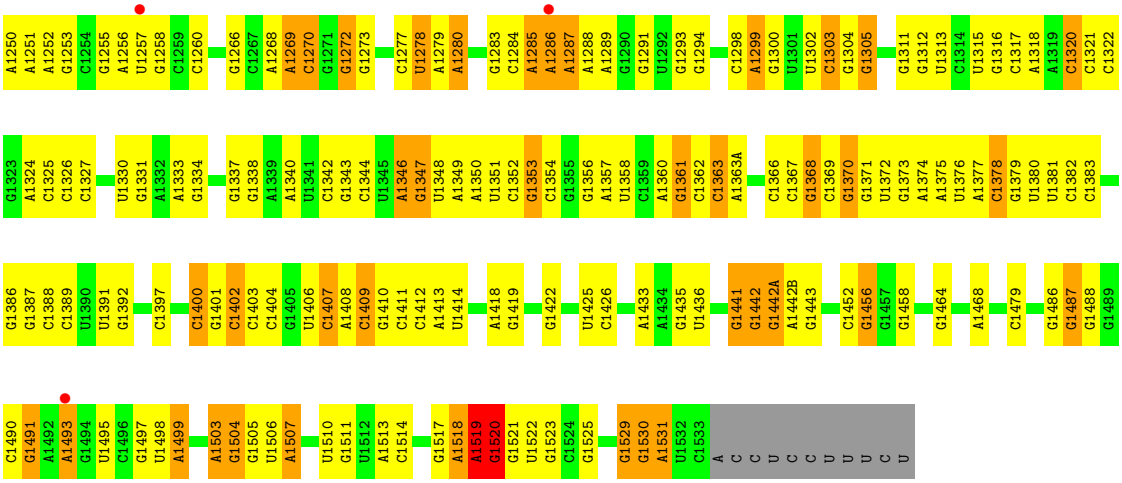


• Molecule 32: 16S ribosomal RNA

Chain 1a:

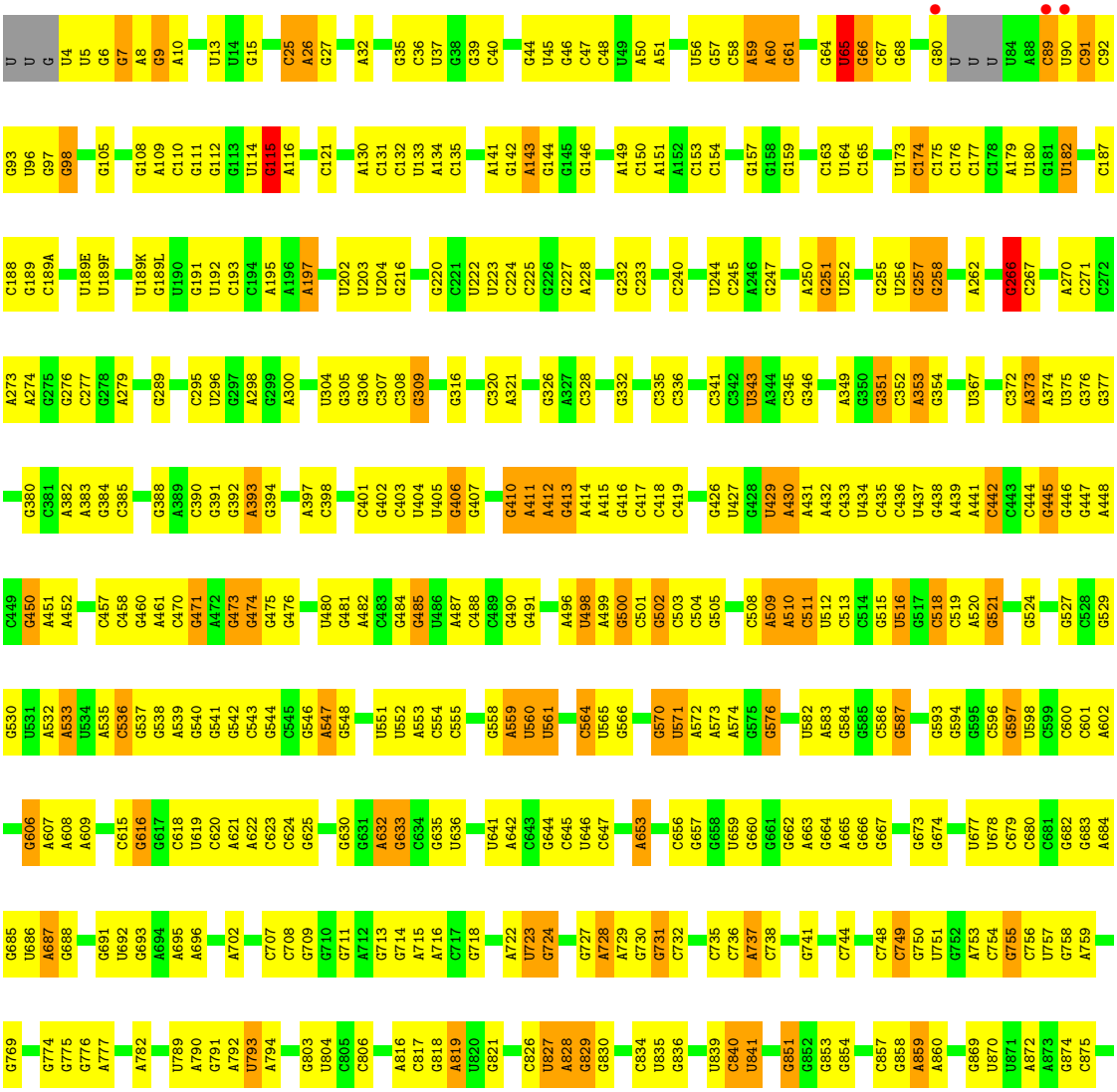


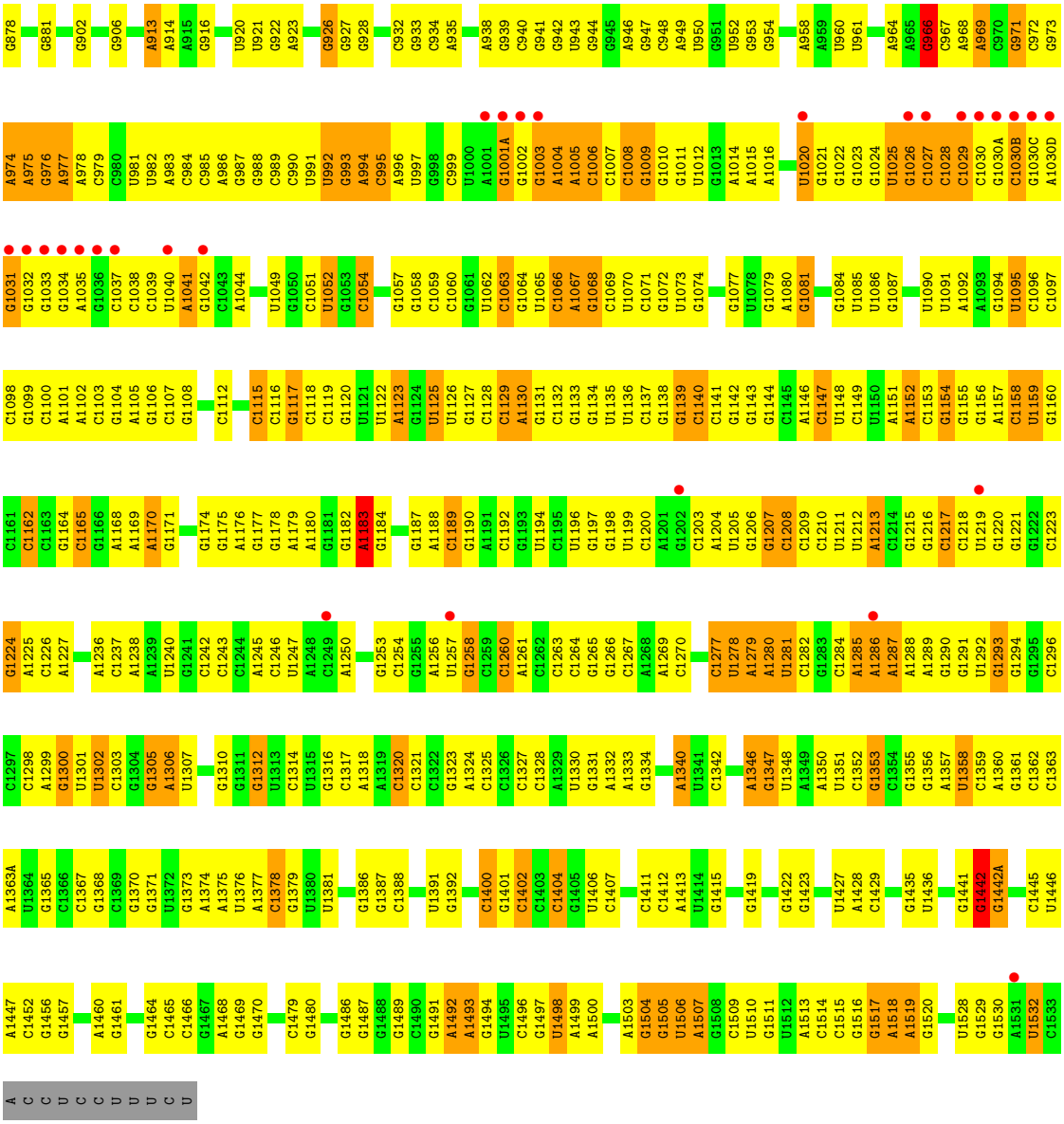




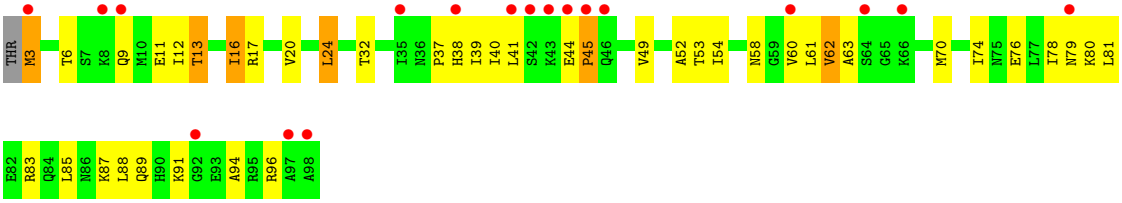
• Molecule 32: 16S ribosomal RNA

Chain 2a:





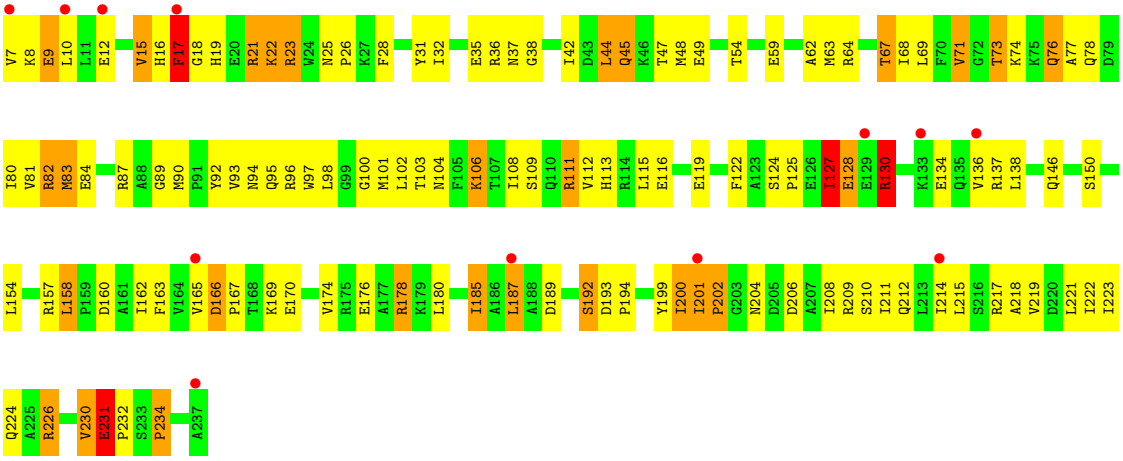
• Molecule 33: Ribosome-associated inhibitor A



• Molecule 33: Ribosome-associated inhibitor A

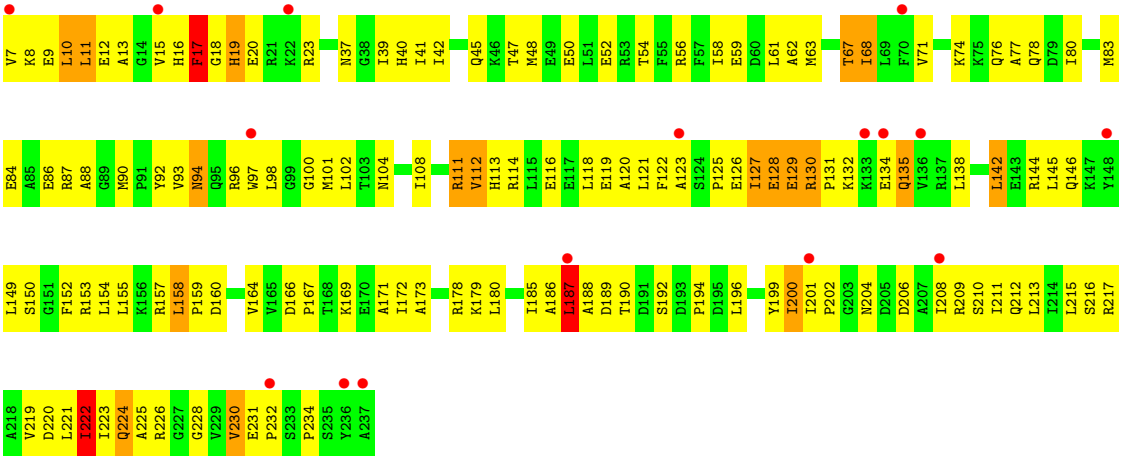
• Molecule 34: 30S ribosomal protein S2

Chain 1b:



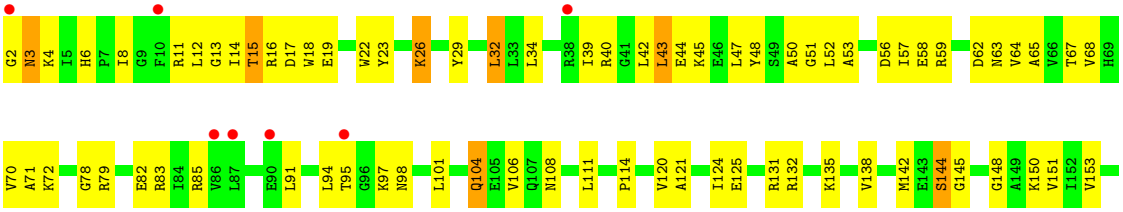
• Molecule 34: 30S ribosomal protein S2

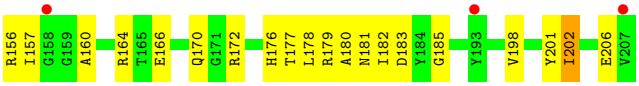
Chain 2b:



• Molecule 35: 30S ribosomal protein S3

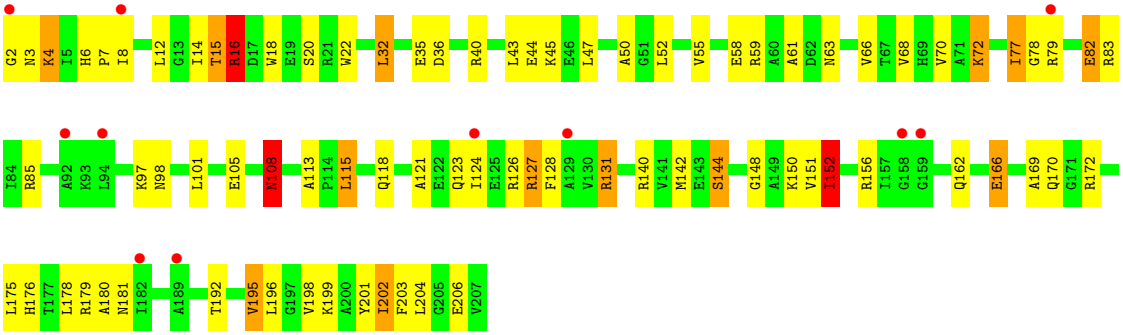
Chain 1c:





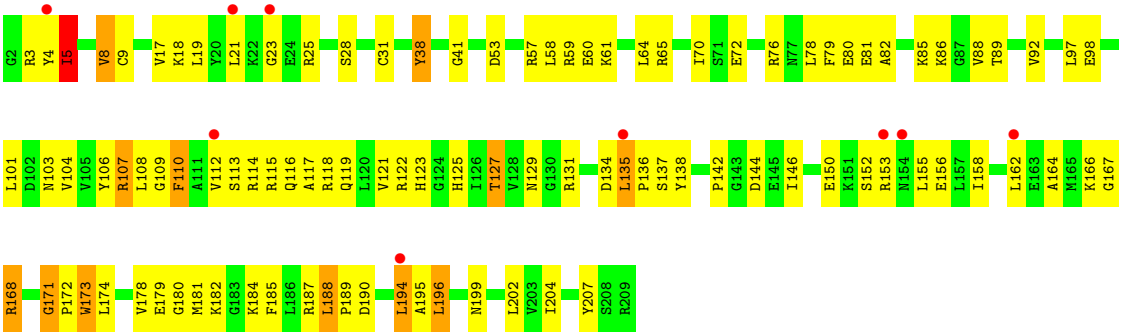
• Molecule 35: 30S ribosomal protein S3

Chain 2c:



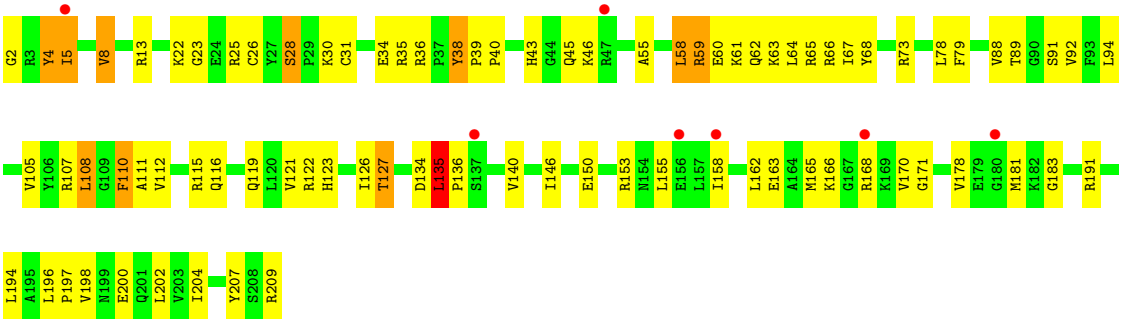
• Molecule 36: 30S ribosomal protein S4

Chain 1d:



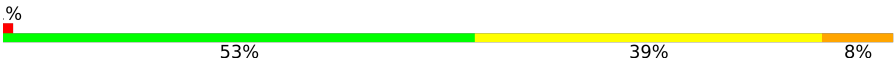
• Molecule 36: 30S ribosomal protein S4

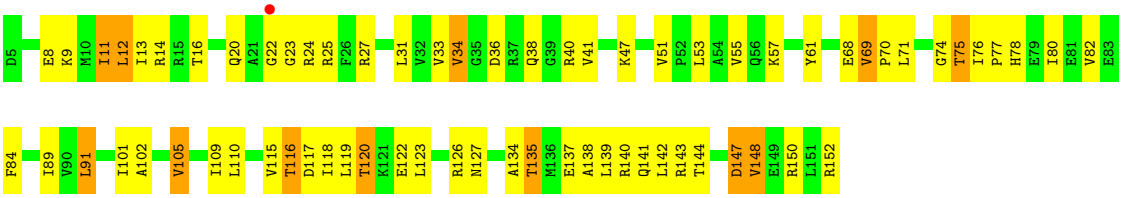
Chain 2d:

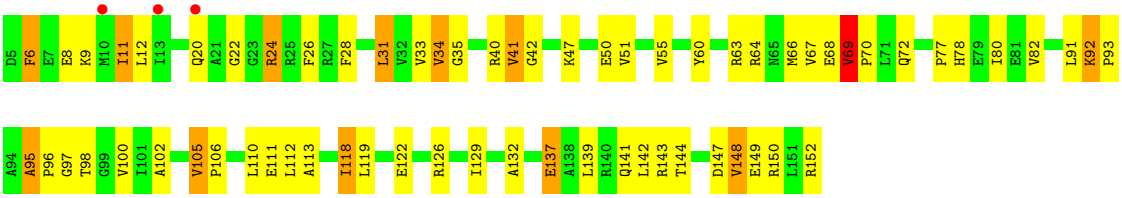


• Molecule 37: 30S ribosomal protein S5

Chain 1e:





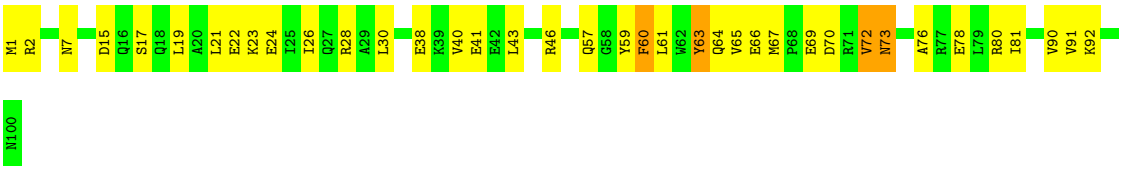


• Molecule 37: 30S ribosomal protein S5

Chain 2e:

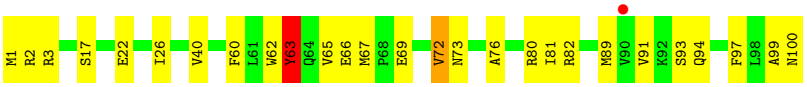
• Molecule 38: 30S ribosomal protein S6

Chain 1f:



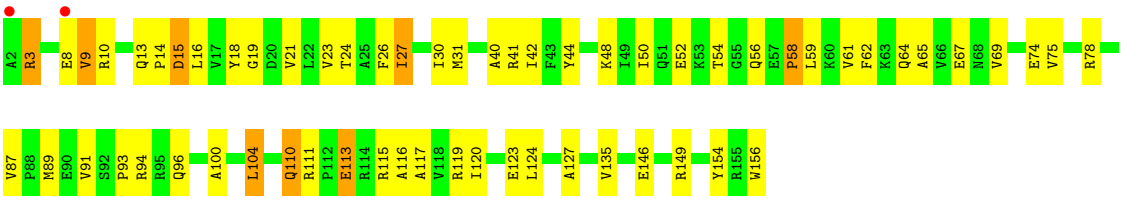
• Molecule 38: 30S ribosomal protein S6

Chain 2f:



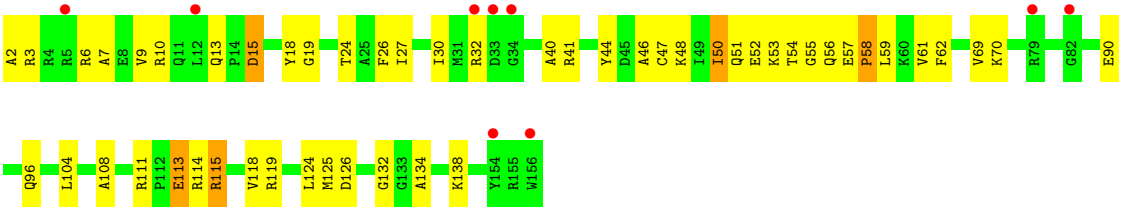
• Molecule 39: 30S ribosomal protein S7

Chain 1g:



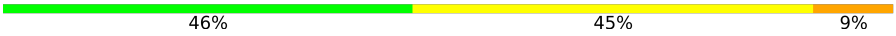
• Molecule 39: 30S ribosomal protein S7

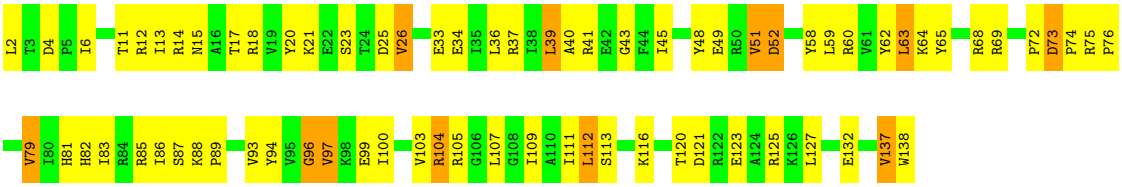
Chain 2g:



• Molecule 40: 30S ribosomal protein S8

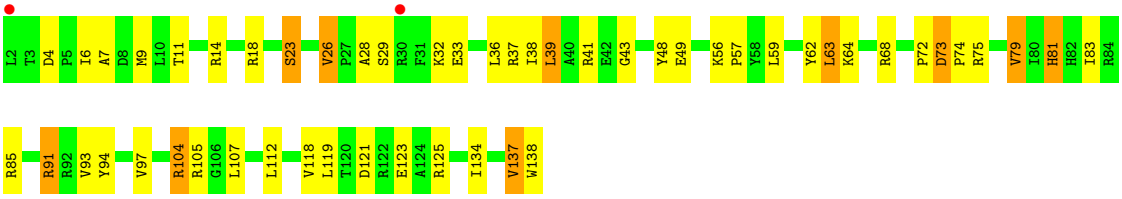
Chain 1h:





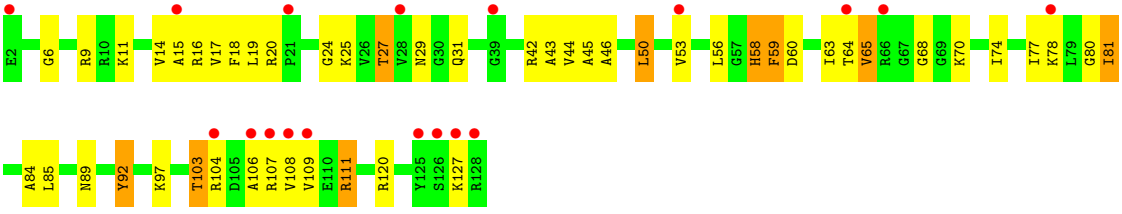
• Molecule 40: 30S ribosomal protein S8

Chain 2h:



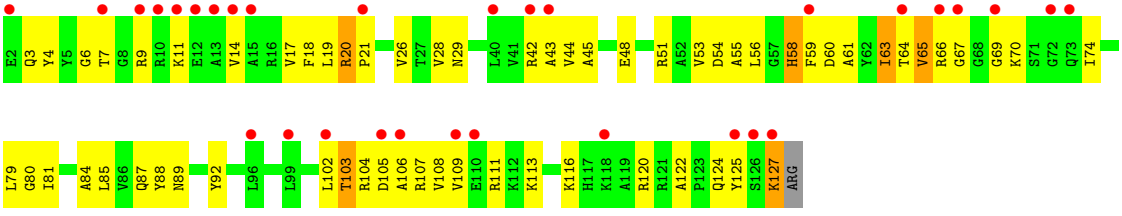
• Molecule 41: 30S ribosomal protein S9

Chain 1i:



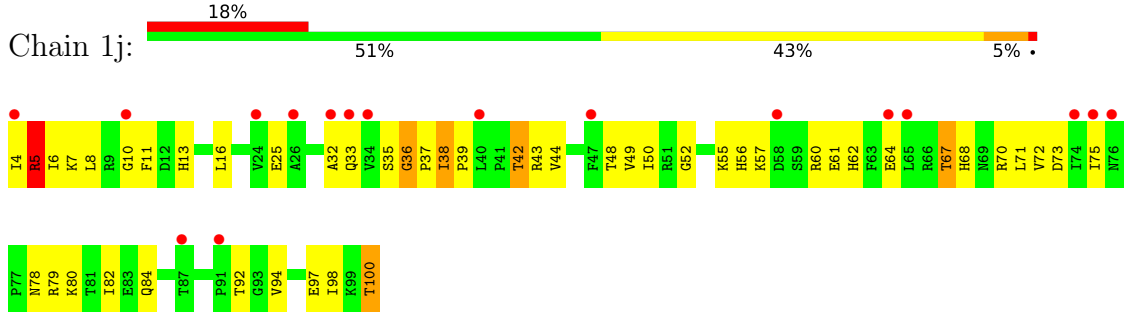
• Molecule 41: 30S ribosomal protein S9

Chain 2i:



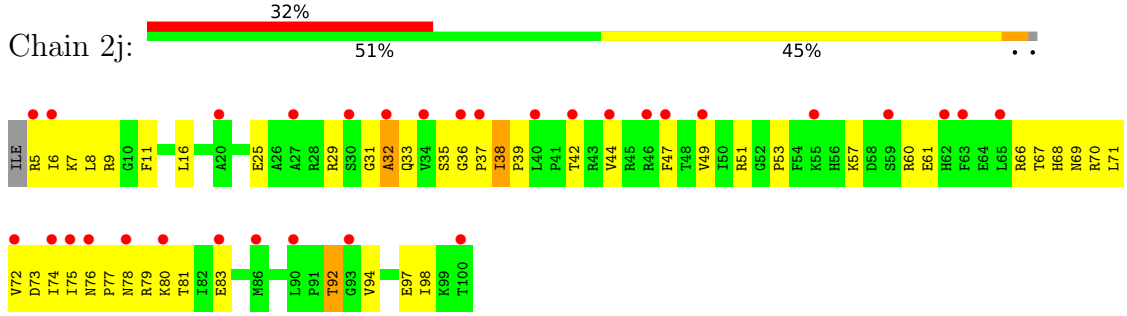
• Molecule 42: 30S ribosomal protein S10

Chain 1j:



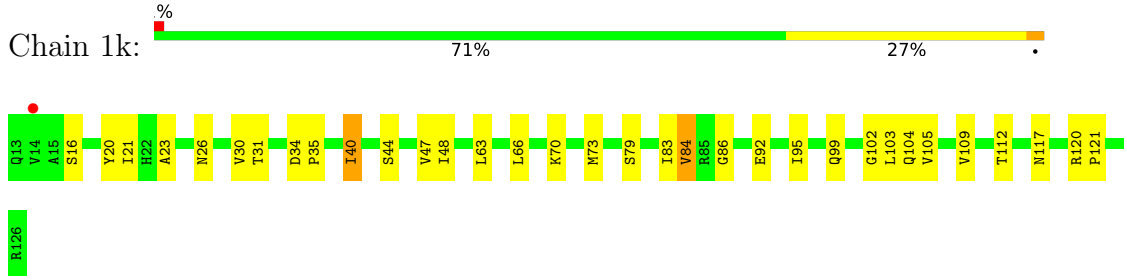
• Molecule 42: 30S ribosomal protein S10

Chain 2j:



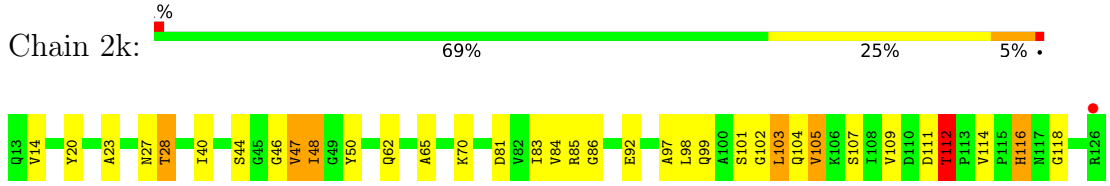
• Molecule 43: 30S ribosomal protein S11

Chain 1k:



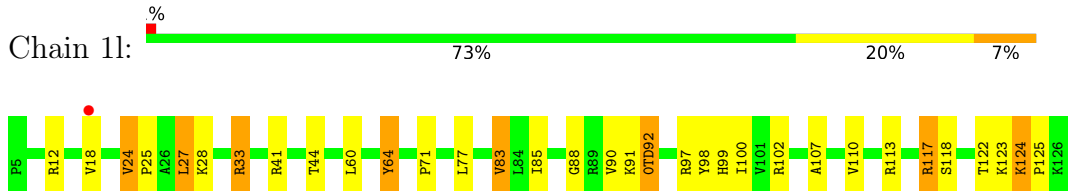
• Molecule 43: 30S ribosomal protein S11

Chain 2k:



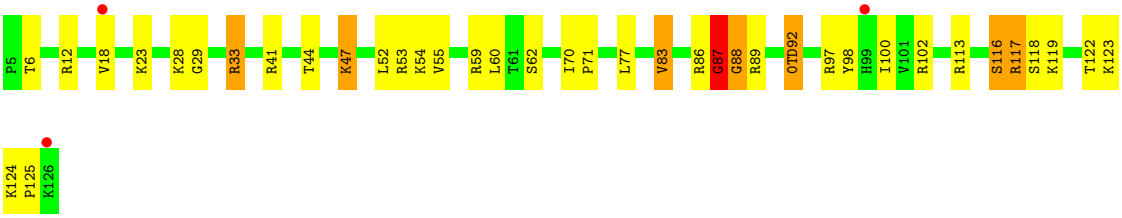
• Molecule 44: 30S ribosomal protein S12

Chain 1l:



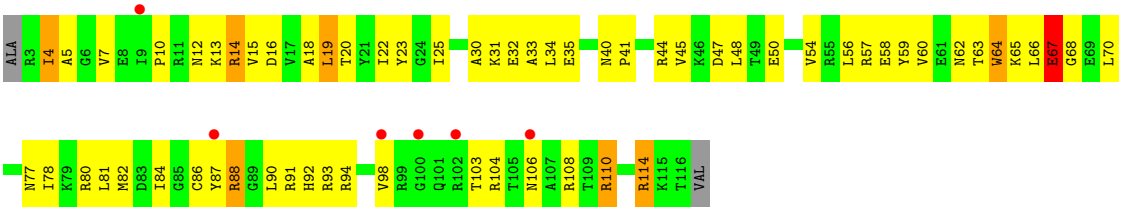
• Molecule 44: 30S ribosomal protein S12

Chain 2l:

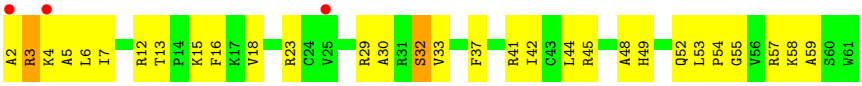


• Molecule 45: 30S ribosomal protein S13

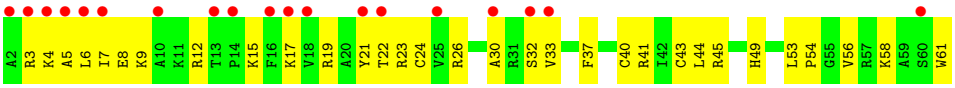
• Molecule 45: 30S ribosomal protein S13



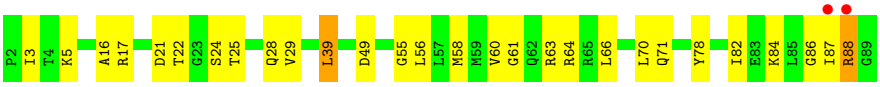
• Molecule 46: 30S ribosomal protein S14 type Z



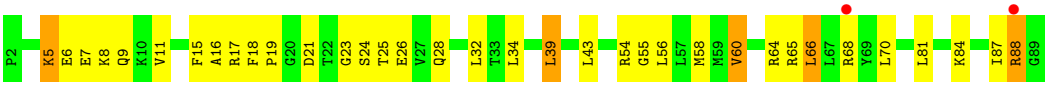
• Molecule 46: 30S ribosomal protein S14 type Z



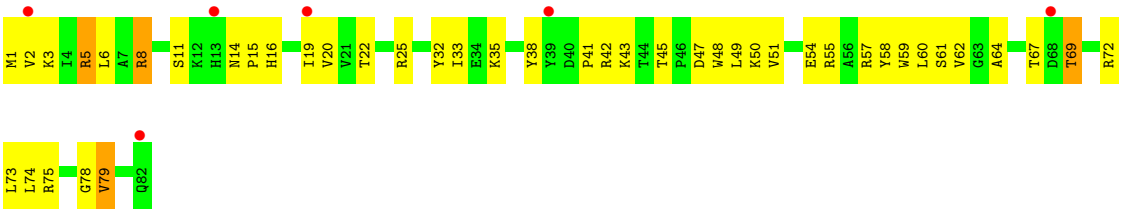
• Molecule 47: 30S ribosomal protein S15



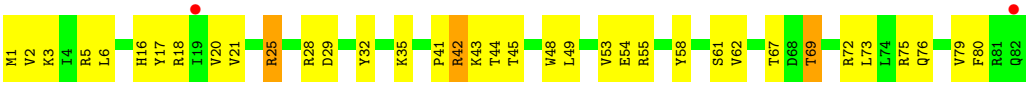
• Molecule 47: 30S ribosomal protein S15



• Molecule 48: 30S ribosomal protein S16



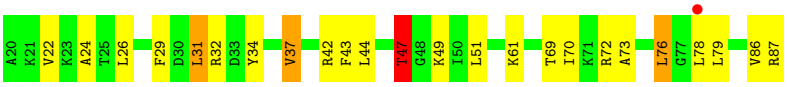
• Molecule 48: 30S ribosomal protein S16



• Molecule 49: 30S ribosomal protein S17

• Molecule 49: 30S ribosomal protein S17

• Molecule 50: 30S ribosomal protein S18

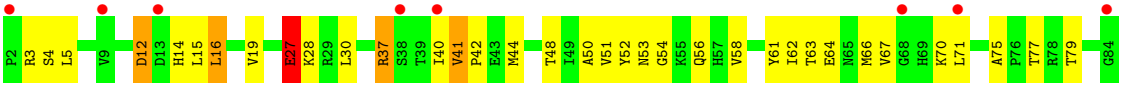


• Molecule 50: 30S ribosomal protein S18

Chain 2r:

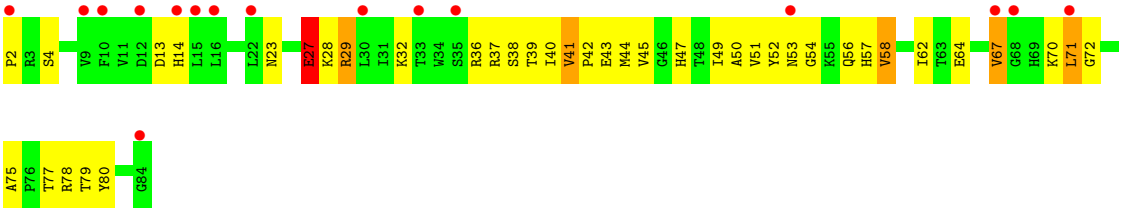
• Molecule 51: 30S ribosomal protein S19

Chain 1s:



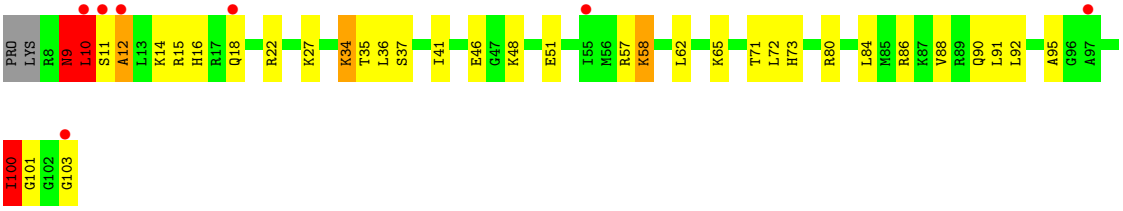
• Molecule 51: 30S ribosomal protein S19

Chain 2s:



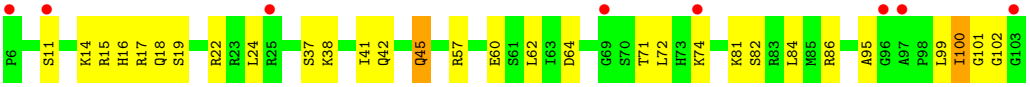
• Molecule 52: 30S ribosomal protein S20

Chain 1t:



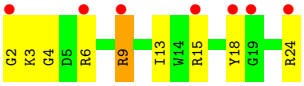
• Molecule 52: 30S ribosomal protein S20

Chain 2t:



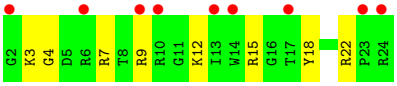
• Molecule 53: 30S ribosomal protein Thx

Chain 1u:



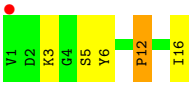
• Molecule 53: 30S ribosomal protein Thx

Chain 2u:



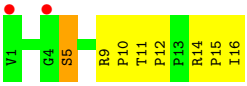
• Molecule 54: Pyrrhocoricin

Chain 1y:



• Molecule 54: Pyrrhocoricin

Chain 2y:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.94Å 450.10Å 622.93Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.81 – 2.80 49.81 – 2.80	Depositor EDS
% Data completeness (in resolution range)	100.0 (49.81-2.80) 100.0 (49.81-2.80)	Depositor EDS
R_{merge}	0.17	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.97 (at 2.58Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.189 , 0.240 0.189 , 0.238	Depositor DCC
R_{free} test set	88568 reflections (4.95%)	wwPDB-VP
Wilson B-factor (Å^2)	69.2	Xtriage
Anisotropy	0.044	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 47.7	EDS
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	293583	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 1.54% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: OMC, OMU, SF4, G7M, M2G, 5MC, 2MG, UR3, 0TD, ZN, PSU, MA6, AMP, OMG, 5MU, 4OC, MG, 2MA

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	0.85	5/69022 (0.0%)	0.91	38/107739 (0.0%)
1	2A	0.65	0/68893	0.81	31/107533 (0.0%)
2	1B	0.62	0/2879	0.86	0/4490
2	2B	0.54	0/2874	0.75	0/4482
3	1D	1.18	2/2181 (0.1%)	1.33	13/2940 (0.4%)
3	2D	0.99	0/2186	1.17	12/2944 (0.4%)
4	1E	1.27	5/1592 (0.3%)	1.29	2/2149 (0.1%)
4	2E	0.99	0/1592	1.25	11/2149 (0.5%)
5	1F	1.17	0/1619	1.24	8/2193 (0.4%)
5	2F	0.91	0/1615	1.21	8/2188 (0.4%)
6	1G	0.84	0/1451	1.26	12/1961 (0.6%)
6	2G	0.92	0/1449	1.27	12/1957 (0.6%)
7	1H	1.04	2/1356 (0.1%)	1.27	7/1834 (0.4%)
7	2H	0.93	0/1350	1.30	11/1826 (0.6%)
8	1I	0.95	0/1109	1.31	9/1512 (0.6%)
8	2I	0.87	0/1091	1.25	8/1490 (0.5%)
9	1N	1.18	3/1148 (0.3%)	1.24	5/1547 (0.3%)
9	2N	0.82	0/1144	1.26	10/1543 (0.6%)
10	1O	1.21	2/943 (0.2%)	1.31	6/1269 (0.5%)
10	2O	0.97	0/943	1.19	4/1269 (0.3%)
11	1P	1.10	1/1152 (0.1%)	1.24	3/1533 (0.2%)
11	2P	0.82	0/1152	1.10	1/1533 (0.1%)
12	1Q	1.18	1/1143 (0.1%)	1.22	3/1527 (0.2%)
12	2Q	0.85	0/1143	1.14	4/1527 (0.3%)
13	1R	1.22	2/982 (0.2%)	1.24	5/1312 (0.4%)
13	2R	0.93	1/982 (0.1%)	1.12	1/1312 (0.1%)
14	1S	0.90	0/887	1.22	5/1180 (0.4%)
14	2S	0.77	0/880	1.10	2/1172 (0.2%)
15	1T	1.14	1/1105 (0.1%)	1.29	6/1477 (0.4%)
15	2T	0.91	0/1097	1.23	3/1468 (0.2%)
16	1U	1.33	3/977 (0.3%)	1.25	3/1301 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	2U	0.88	0/977	1.14	1/1301 (0.1%)
17	1V	1.10	0/786	1.21	0/1053
17	2V	0.84	0/782	1.18	5/1049 (0.5%)
18	1W	1.32	0/897	1.23	2/1205 (0.2%)
18	2W	1.06	0/897	1.12	1/1205 (0.1%)
19	1X	1.20	1/764 (0.1%)	1.24	3/1025 (0.3%)
19	2X	0.92	0/764	1.16	2/1025 (0.2%)
20	1Y	1.05	1/823 (0.1%)	1.27	2/1099 (0.2%)
20	2Y	0.94	1/823 (0.1%)	1.25	4/1100 (0.4%)
21	1Z	0.92	0/1620	1.24	12/2200 (0.5%)
21	2Z	0.86	0/1590	1.29	13/2162 (0.6%)
22	10	1.09	1/616 (0.2%)	1.22	2/821 (0.2%)
22	20	0.82	0/616	1.18	4/821 (0.5%)
23	11	1.23	1/761 (0.1%)	1.25	5/1013 (0.5%)
23	21	0.95	0/766	1.13	1/1018 (0.1%)
24	12	1.09	0/590	1.20	1/781 (0.1%)
24	22	0.82	0/594	1.13	0/785
25	13	1.15	0/474	1.23	0/635
25	23	0.79	0/469	1.12	0/630
26	14	1.03	1/559 (0.2%)	1.34	6/754 (0.8%)
26	24	1.21	1/549 (0.2%)	1.37	5/741 (0.7%)
27	15	1.29	1/473 (0.2%)	1.37	4/639 (0.6%)
27	25	1.02	1/469 (0.2%)	1.13	2/635 (0.3%)
28	16	1.10	2/460 (0.4%)	1.31	2/613 (0.3%)
28	26	0.80	0/456	1.03	0/608
29	17	1.32	1/426 (0.2%)	1.19	0/561
29	27	1.05	0/426	1.17	1/561 (0.2%)
30	18	1.21	1/525 (0.2%)	1.13	0/691
30	28	0.92	0/525	1.07	0/691
31	19	1.18	0/310	1.48	3/407 (0.7%)
31	29	0.77	0/310	1.07	0/407
32	1a	0.61	0/35795	0.80	11/55864 (0.0%)
32	2a	0.59	2/35890 (0.0%)	0.77	19/56012 (0.0%)
33	1x	0.83	0/776	1.15	2/1048 (0.2%)
33	2x	0.96	0/761	1.26	4/1030 (0.4%)
34	1b	0.94	2/1876 (0.1%)	1.36	18/2533 (0.7%)
34	2b	0.94	0/1860	1.27	16/2518 (0.6%)
35	1c	0.89	0/1582	1.19	8/2137 (0.4%)
35	2c	1.01	1/1566 (0.1%)	1.22	10/2119 (0.5%)
36	1d	0.87	0/1695	1.22	12/2274 (0.5%)
36	2d	0.85	0/1698	1.23	7/2277 (0.3%)
37	1e	0.85	0/1149	1.20	4/1548 (0.3%)
37	2e	0.83	0/1149	1.32	19/1548 (1.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1f	0.86	0/827	1.16	3/1120 (0.3%)
38	2f	0.86	0/829	1.16	2/1123 (0.2%)
39	1g	0.77	0/1254	1.15	4/1683 (0.2%)
39	2g	0.83	0/1248	1.15	3/1676 (0.2%)
40	1h	0.82	0/1118	1.17	6/1506 (0.4%)
40	2h	0.76	0/1108	1.21	7/1494 (0.5%)
41	1i	0.93	0/1005	1.19	6/1351 (0.4%)
41	2i	1.05	0/985	1.23	6/1329 (0.5%)
42	1j	1.09	0/732	1.29	8/993 (0.8%)
42	2j	1.10	0/723	1.11	0/984
43	1k	0.93	1/849 (0.1%)	1.23	2/1150 (0.2%)
43	2k	0.82	1/848 (0.1%)	1.20	8/1149 (0.7%)
44	1l	0.83	0/937	1.21	8/1260 (0.6%)
44	2l	0.83	0/937	1.31	10/1260 (0.8%)
45	1m	0.82	0/924	1.22	3/1242 (0.2%)
45	2m	0.94	0/905	1.23	8/1217 (0.7%)
46	1n	0.87	0/501	1.15	3/664 (0.5%)
46	2n	0.84	0/501	1.09	0/664
47	1o	0.84	0/739	1.18	4/985 (0.4%)
47	2o	0.76	0/739	1.10	2/985 (0.2%)
48	1p	0.90	0/697	1.16	0/939
48	2p	0.88	0/693	1.20	1/935 (0.1%)
49	1q	0.83	0/836	1.17	3/1117 (0.3%)
49	2q	0.77	0/836	1.10	1/1117 (0.1%)
50	1r	0.83	0/560	1.13	2/746 (0.3%)
50	2r	0.79	0/560	1.13	2/746 (0.3%)
51	1s	0.89	1/663 (0.2%)	1.24	4/895 (0.4%)
51	2s	1.04	1/660 (0.2%)	1.21	3/893 (0.3%)
52	1t	0.83	0/734	1.25	4/969 (0.4%)
52	2t	0.81	0/736	1.22	2/976 (0.2%)
53	1u	0.79	0/203	1.13	0/266
53	2u	0.86	0/203	1.22	0/266
54	1y	1.02	0/125	1.30	1/173 (0.6%)
54	2y	0.83	0/125	1.24	2/173 (1.2%)
All	All	0.80	50/310171 (0.0%)	0.96	572/463547 (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
19	1X	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
19	2X	0	1
30	18	0	1
44	2l	0	1
All	All	0	4

All (50) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2040	G	P-OP2	-9.56	1.29	1.49
23	11	67	ILE	CA-CB	-8.29	1.49	1.54
1	1A	2040	G	P-OP1	-8.06	1.32	1.49
15	1T	5	ALA	CA-CB	-7.47	1.41	1.53
13	1R	38	VAL	CA-CB	-7.31	1.50	1.54
4	1E	28	ALA	CA-CB	-6.73	1.42	1.53
9	1N	85	ILE	CA-CB	-6.71	1.48	1.54
19	1X	10	ALA	CA-CB	-6.64	1.44	1.54
11	1P	56	SER	C-O	-6.41	1.16	1.23
51	1s	27	GLU	CA-C	6.39	1.61	1.52
9	1N	27	ALA	CA-CB	-6.30	1.43	1.53
16	1U	41	ALA	CA-CB	-6.29	1.43	1.53
22	10	36	ILE	CA-CB	-6.15	1.46	1.54
4	1E	20	ALA	CA-CB	-6.09	1.44	1.53
32	2a	527	G7M	O3'-P	6.06	1.62	1.56
10	1O	76	ALA	CA-CB	-6.03	1.43	1.53
43	2k	105	VAL	CA-CB	6.00	1.62	1.54
26	24	44	THR	CA-CB	6.00	1.60	1.52
27	25	37	LYS	CA-C	5.77	1.60	1.52
1	1A	1313	U	P-OP1	-5.69	1.37	1.49
4	1E	134	ILE	C-O	-5.61	1.17	1.24
12	1Q	44	ALA	CA-CB	-5.60	1.44	1.53
13	2R	38	VAL	CA-CB	-5.59	1.51	1.54
1	1A	2039	U	O3'-P	-5.57	1.52	1.61
26	14	55	ARG	CA-C	5.52	1.60	1.52
30	18	55	ALA	CA-CB	-5.50	1.44	1.53
4	1E	172	VAL	CA-CB	-5.48	1.47	1.54
27	15	41	PRO	C-O	-5.48	1.18	1.24
34	1b	15	VAL	CA-C	5.47	1.57	1.52
35	2c	152	ILE	CA-CB	5.47	1.61	1.54
29	17	13	ALA	CA-CB	-5.45	1.44	1.53
51	2s	45	VAL	CA-CB	5.42	1.60	1.54
10	1O	46	ALA	CA-CB	-5.41	1.43	1.54
9	1N	103	VAL	CA-CB	5.39	1.61	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1k	26	ASN	CA-C	-5.39	1.45	1.52
16	1U	107	ALA	CA-CB	-5.36	1.45	1.53
3	1D	44	ASN	CA-C	-5.36	1.46	1.53
20	2Y	3	VAL	CA-CB	-5.35	1.47	1.54
13	1R	22	ARG	C-O	-5.34	1.17	1.24
7	1H	35	VAL	CA-CB	-5.33	1.48	1.53
7	1H	89	ILE	CA-CB	-5.33	1.47	1.54
1	1A	2564	OMU	O3'-P	5.27	1.61	1.56
32	2a	1498	UR3	O3'-P	5.26	1.61	1.56
28	16	13	CYS	N-CA	5.23	1.52	1.46
3	1D	174	ILE	CA-CB	-5.21	1.47	1.54
20	1Y	39	VAL	CA-CB	-5.19	1.48	1.54
4	1E	123	ALA	CA-CB	-5.16	1.44	1.53
28	16	13	CYS	CB-SG	5.06	1.98	1.81
16	1U	65	ILE	C-O	-5.02	1.18	1.24
34	1b	127	ILE	CA-CB	5.02	1.61	1.54

All (572) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1208	C	O5'-P-OP1	-12.45	70.65	108.00
32	1a	1520	G	OP1-P-OP2	-12.33	82.60	119.60
32	2a	1208	C	OP1-P-OP2	-12.32	82.62	119.60
9	2N	10	GLU	CA-C-N	11.70	131.67	119.85
9	2N	10	GLU	C-N-CA	11.70	131.67	119.85
32	1a	1520	G	O5'-P-OP1	-11.65	73.04	108.00
32	1a	1520	G	O5'-P-OP2	11.39	142.18	108.00
32	2a	1207	2MG	OP2-P-O3'	-10.96	75.14	108.00
1	2A	1992	G	C2'-C3'-O3'	10.50	125.25	109.50
34	1b	231	GLU	CA-C-N	-10.16	109.59	119.85
34	1b	231	GLU	C-N-CA	-10.16	109.59	119.85
34	2b	129	GLU	N-CA-C	-10.02	101.00	113.02
51	1s	67	VAL	N-CA-C	10.00	120.52	110.82
33	2x	44	GLU	CA-C-N	9.92	129.56	119.24
33	2x	44	GLU	C-N-CA	9.92	129.56	119.24
51	2s	67	VAL	N-CA-C	9.48	120.02	110.82
34	1b	130	ARG	N-CA-C	-9.46	98.20	109.93
7	1H	127	GLU	CA-C-N	-9.36	109.93	120.04
7	1H	127	GLU	C-N-CA	-9.36	109.93	120.04
32	2a	266	G	C2'-C3'-O3'	9.30	123.45	109.50
21	2Z	94	GLU	CA-C-N	-9.26	110.50	119.85
21	2Z	94	GLU	C-N-CA	-9.26	110.50	119.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	1b	23	ARG	N-CA-C	-9.18	99.82	112.30
36	2d	58	LEU	N-CA-C	-9.12	101.32	111.07
32	2a	1207	2MG	OP1-P-O3'	9.07	135.22	108.00
1	1A	1700	G	C2'-C3'-O3'	8.93	122.90	109.50
1	1A	1346	U	C4'-C3'-O3'	8.81	122.62	109.40
47	1o	87	ILE	N-CA-C	8.64	118.99	111.56
21	1Z	157	LEU	CA-C-N	8.55	129.19	120.38
21	1Z	157	LEU	C-N-CA	8.55	129.19	120.38
18	1W	111	HIS	N-CA-C	8.53	121.43	109.15
44	1l	124	LYS	CA-C-N	8.53	128.67	120.31
44	1l	124	LYS	C-N-CA	8.53	128.67	120.31
37	2e	98	THR	N-CA-C	8.48	120.14	111.07
36	1d	80	GLU	N-CA-C	-8.42	102.04	111.14
3	2D	275	LYS	N-CA-C	-8.37	92.97	110.80
34	2b	11	LEU	N-CA-C	-8.32	101.25	111.40
1	2A	752	A	C2'-C3'-O3'	8.29	121.94	109.50
1	2A	752	A	P-O3'-C3'	8.29	132.63	120.20
44	2l	119	LYS	N-CA-C	-8.27	99.62	110.53
26	14	53	GLU	N-CA-C	8.24	120.26	111.28
28	16	13	CYS	CA-CB-SG	8.19	133.24	114.40
4	2E	21	VAL	CA-C-N	8.15	128.63	119.83
4	2E	21	VAL	C-N-CA	8.15	128.63	119.83
32	2a	1208	C	O5'-P-OP2	8.04	132.12	108.00
34	1b	166	ASP	CA-C-N	7.98	127.91	119.05
34	1b	166	ASP	C-N-CA	7.98	127.91	119.05
37	1e	105	VAL	CA-C-N	-7.95	111.61	119.87
37	1e	105	VAL	C-N-CA	-7.95	111.61	119.87
3	1D	70	TRP	CA-C-N	7.94	131.71	120.28
3	1D	70	TRP	C-N-CA	7.94	131.71	120.28
6	2G	144	ILE	N-CA-C	7.94	118.12	106.85
40	1h	79	VAL	N-CA-C	-7.94	104.98	111.81
7	2H	54	ARG	CA-C-N	7.88	127.54	119.82
7	2H	54	ARG	C-N-CA	7.88	127.54	119.82
6	2G	141	PHE	CA-C-N	7.87	127.59	119.56
6	2G	141	PHE	C-N-CA	7.87	127.59	119.56
51	1s	58	VAL	N-CA-C	7.85	116.56	107.77
37	2e	69	VAL	N-CA-C	7.78	115.61	107.76
22	20	82	ARG	CA-C-N	7.76	127.80	119.89
22	20	82	ARG	C-N-CA	7.76	127.80	119.89
1	1A	1255	A	C4'-C3'-O3'	7.75	121.03	109.40
6	1G	31	VAL	CA-C-N	7.74	129.51	119.84
6	1G	31	VAL	C-N-CA	7.74	129.51	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	2e	69	VAL	CA-C-N	7.73	129.50	119.84
37	2e	69	VAL	C-N-CA	7.73	129.50	119.84
1	2A	752	A	C4'-C3'-O3'	7.71	120.97	109.40
43	2k	40	ILE	N-CA-C	-7.67	105.69	111.90
38	1f	60	PHE	N-CA-C	7.65	121.20	108.73
34	2b	86	GLU	N-CA-C	-7.61	102.98	111.28
41	2i	20	ARG	CA-C-N	-7.57	112.54	120.03
41	2i	20	ARG	C-N-CA	-7.57	112.54	120.03
6	1G	53	LEU	N-CA-C	-7.53	102.32	112.26
34	2b	23	ARG	N-CA-C	-7.52	101.63	111.71
4	2E	72	VAL	N-CA-C	7.49	118.91	108.12
6	2G	77	ILE	N-CA-C	7.45	118.85	108.12
52	2t	101	GLY	N-CA-C	7.44	124.49	111.46
36	1d	190	ASP	N-CA-C	-7.44	100.71	110.53
45	1m	114	ARG	N-CA-C	7.43	120.51	109.59
39	2g	132	GLY	N-CA-C	7.40	120.58	112.29
33	1x	59	GLY	N-CA-C	7.39	121.03	110.46
34	1b	94	ASN	N-CA-C	-7.37	103.91	113.12
36	1d	38	TYR	CA-C-N	7.34	127.94	120.38
36	1d	38	TYR	C-N-CA	7.34	127.94	120.38
37	2e	6	PHE	N-CA-C	7.31	121.05	109.50
6	1G	54	GLU	N-CA-C	-7.25	103.70	112.54
40	2h	73	ASP	CA-C-N	7.24	128.49	120.45
40	2h	73	ASP	C-N-CA	7.24	128.49	120.45
23	11	7	ILE	CB-CA-C	-7.21	104.59	111.44
5	1F	53	THR	N-CA-CB	-7.21	99.47	110.42
29	27	47	ARG	N-CA-C	7.20	121.52	110.36
7	2H	35	VAL	N-CA-C	7.18	115.81	107.77
6	2G	45	GLU	N-CA-C	-7.14	104.56	113.20
21	2Z	120	ILE	N-CA-C	7.13	118.75	110.62
7	2H	45	VAL	N-CA-C	7.13	117.92	107.37
37	2e	113	ALA	N-CA-C	-7.13	104.32	113.16
5	1F	183	VAL	N-CA-C	7.09	119.96	111.09
44	2l	87	GLY	N-CA-C	7.08	129.96	113.18
3	1D	105	ILE	CA-C-N	-7.08	111.09	121.71
3	1D	105	ILE	C-N-CA	-7.08	111.09	121.71
47	1o	22	THR	N-CA-C	-7.06	98.68	109.41
21	1Z	193	GLU	CA-C-N	7.04	127.09	119.90
21	1Z	193	GLU	C-N-CA	7.04	127.09	119.90
21	2Z	193	GLU	CA-C-N	7.01	127.43	119.93
21	2Z	193	GLU	C-N-CA	7.01	127.43	119.93
6	2G	31	VAL	CA-C-N	6.99	128.57	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	2G	31	VAL	C-N-CA	6.99	128.57	119.84
5	1F	9	ILE	N-CA-C	6.98	115.69	107.73
34	1b	160	ASP	N-CA-C	-6.98	104.76	113.28
19	2X	8	ILE	CB-CA-C	-6.98	101.42	110.98
1	2A	1091	G	O3'-P-O5'	6.97	114.45	104.00
6	1G	67	LYS	CA-C-N	-6.96	113.53	120.21
6	1G	67	LYS	C-N-CA	-6.96	113.53	120.21
43	1k	40	ILE	N-CA-C	-6.96	106.26	111.90
1	2A	1210	A	C4'-C3'-O3'	6.94	119.81	109.40
44	2l	23	LYS	N-CA-C	-6.89	104.07	113.30
6	2G	86	MET	CA-C-N	6.86	128.41	119.84
6	2G	86	MET	C-N-CA	6.86	128.41	119.84
40	2h	134	ILE	N-CA-C	6.84	116.99	110.42
52	2t	99	LEU	N-CA-C	6.84	120.85	112.23
1	1A	1346	U	P-O3'-C3'	6.81	130.41	120.20
26	24	19	GLY	N-CA-C	-6.80	105.84	115.43
7	1H	125	VAL	CA-C-N	6.75	125.99	118.97
7	1H	125	VAL	C-N-CA	6.75	125.99	118.97
26	24	61	ARG	N-CA-C	-6.74	102.46	111.96
9	2N	134	ARG	CA-C-N	6.73	126.49	119.76
9	2N	134	ARG	C-N-CA	6.73	126.49	119.76
51	1s	75	ALA	CA-C-N	6.73	126.71	119.78
51	1s	75	ALA	C-N-CA	6.73	126.71	119.78
13	1R	36	THR	CB-CA-C	-6.72	99.93	114.10
42	1j	52	GLY	CA-C-N	6.70	126.33	119.56
42	1j	52	GLY	C-N-CA	6.70	126.33	119.56
6	2G	141	PHE	N-CA-C	6.70	119.54	110.29
21	2Z	157	LEU	N-CA-C	6.70	118.09	109.65
5	2F	9	ILE	N-CA-C	6.66	118.23	107.71
54	2y	14	ARG	CA-C-N	6.63	128.12	119.84
54	2y	14	ARG	C-N-CA	6.63	128.12	119.84
40	1h	73	ASP	CA-C-N	6.62	127.46	120.12
40	1h	73	ASP	C-N-CA	6.62	127.46	120.12
21	1Z	146	ILE	N-CA-C	-6.60	100.12	108.84
14	1S	59	LYS	N-CA-C	6.60	124.86	110.80
8	1I	43	ASN	N-CA-CB	6.59	120.57	110.61
1	1A	1377	A	OP1-P-O3'	-6.58	88.26	108.00
1	1A	537	G	O4'-C1'-N9	6.58	118.07	108.20
21	1Z	94	GLU	CA-C-N	-6.57	113.21	119.85
21	1Z	94	GLU	C-N-CA	-6.57	113.21	119.85
13	1R	2	ARG	N-CA-C	-6.57	102.42	112.99
22	10	12	ASN	CA-C-O	6.54	121.73	117.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	2D	107	ALA	CA-C-N	-6.54	113.90	120.31
3	2D	107	ALA	C-N-CA	-6.54	113.90	120.31
41	1i	59	PHE	N-CA-C	6.53	120.04	109.40
44	2l	28	LYS	N-CA-C	6.52	120.36	111.17
1	1A	543	G	O5'-P-OP2	-6.51	88.47	108.00
10	2O	58	VAL	N-CA-C	6.50	118.20	108.96
44	2l	44	THR	CA-C-N	6.50	126.45	120.21
44	2l	44	THR	C-N-CA	6.50	126.45	120.21
44	1l	44	THR	CA-C-N	6.50	126.46	120.03
44	1l	44	THR	C-N-CA	6.50	126.46	120.03
18	2W	17	VAL	CB-CA-C	-6.49	103.26	112.22
5	2F	64	ILE	N-CA-C	6.49	117.24	110.62
50	2r	51	LEU	CA-C-N	6.48	126.85	119.92
50	2r	51	LEU	C-N-CA	6.48	126.85	119.92
15	2T	53	ARG	CB-CA-C	-6.46	99.69	110.29
51	2s	58	VAL	N-CA-C	6.45	114.28	107.76
32	1a	1067	A	P-O3'-C3'	6.43	129.85	120.20
41	1i	20	ARG	CA-C-N	-6.42	113.67	120.03
41	1i	20	ARG	C-N-CA	-6.42	113.67	120.03
4	2E	51	PHE	N-CA-C	-6.42	97.13	110.80
32	2a	266	G	P-O3'-C3'	6.41	129.82	120.20
38	2f	63	TYR	CB-CA-C	-6.41	103.48	111.43
26	14	59	PHE	N-CA-C	-6.39	103.44	111.11
35	2c	97	LYS	N-CA-C	6.38	117.54	108.74
36	2d	38	TYR	CA-C-N	6.37	126.94	120.38
36	2d	38	TYR	C-N-CA	6.37	126.94	120.38
8	1I	110	ASP	CA-C-N	6.37	125.87	119.24
8	1I	110	ASP	C-N-CA	6.37	125.87	119.24
15	1T	53	ARG	CB-CA-C	-6.35	99.88	110.29
5	1F	24	LEU	N-CA-C	-6.34	100.39	110.10
20	1Y	8	LYS	N-CA-C	6.32	118.67	109.07
52	1t	11	SER	N-CA-C	-6.31	105.22	113.17
49	1q	67	LYS	N-CA-C	-6.31	101.08	110.23
34	1b	193	ASP	CA-C-N	6.30	127.71	119.84
34	1b	193	ASP	C-N-CA	6.30	127.71	119.84
10	2O	23	ARG	CB-CG-CD	6.30	125.79	111.30
43	2k	116	HIS	CA-C-N	6.30	133.03	121.70
43	2k	116	HIS	C-N-CA	6.30	133.03	121.70
37	2e	105	VAL	CA-C-N	-6.27	113.35	119.87
37	2e	105	VAL	C-N-CA	-6.27	113.35	119.87
6	2G	121	ASN	CA-C-N	6.26	125.82	119.19
6	2G	121	ASN	C-N-CA	6.26	125.82	119.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	2U	50	ARG	N-CA-C	-6.25	104.47	111.28
44	2l	6	THR	N-CA-C	-6.24	102.73	110.41
7	1H	3	ARG	N-CA-C	6.24	124.09	110.80
32	2a	343	U	C2-N1-C1'	-6.24	98.99	117.70
14	1S	111	GLU	N-CA-C	6.23	118.95	107.99
38	1f	63	TYR	CB-CA-C	-6.22	103.72	111.43
31	19	28	GLU	N-CA-C	-6.21	104.41	112.23
1	2A	1210	A	P-O3'-C3'	6.19	129.49	120.20
39	1g	27	ILE	N-CA-C	-6.18	104.48	110.42
4	1E	47	VAL	N-CA-C	6.17	116.76	107.75
12	1Q	98	LYS	CA-C-N	-6.17	113.40	119.76
12	1Q	98	LYS	C-N-CA	-6.17	113.40	119.76
26	14	40	HIS	CA-C-N	6.17	127.56	119.84
26	14	40	HIS	C-N-CA	6.17	127.56	119.84
35	1c	26	LYS	N-CA-C	6.17	119.65	111.75
31	19	27	CYS	N-CA-C	-6.16	99.94	109.24
35	2c	77	ILE	N-CA-C	6.15	116.89	110.62
7	2H	117	PRO	CA-C-N	-6.14	114.29	120.31
7	2H	117	PRO	C-N-CA	-6.14	114.29	120.31
40	1h	88	LYS	CA-C-N	-6.13	112.69	119.19
40	1h	88	LYS	C-N-CA	-6.13	112.69	119.19
13	1R	114	VAL	CB-CA-C	-6.13	101.06	110.50
37	2e	92	LYS	CA-C-N	6.12	126.48	119.93
37	2e	92	LYS	C-N-CA	6.12	126.48	119.93
42	1j	5	ARG	N-CA-C	6.10	118.67	108.73
40	2h	79	VAL	N-CA-C	-6.09	106.57	111.81
35	2c	108	ASN	CA-C-N	6.08	125.70	119.56
35	2c	108	ASN	C-N-CA	6.08	125.70	119.56
33	2x	49	VAL	N-CA-C	6.07	116.86	108.12
5	1F	132	VAL	CB-CA-C	6.07	117.78	111.23
32	2a	913	A	P-O3'-C3'	6.07	129.30	120.20
12	1Q	14	ARG	N-CA-C	6.06	117.97	111.36
9	2N	85	ILE	CB-CA-C	-6.06	103.79	110.52
34	2b	130	ARG	CA-C-N	6.03	125.97	119.76
34	2b	130	ARG	C-N-CA	6.03	125.97	119.76
11	1P	126	VAL	CB-CA-C	-6.01	102.66	110.84
1	1A	354	A	N9-C1'-C2'	-6.01	104.99	114.00
45	1m	6	GLY	N-CA-C	-6.00	106.81	114.37
41	1i	27	THR	N-CA-C	6.00	119.30	108.69
26	24	31	ILE	N-CA-C	5.99	116.75	108.12
15	1T	127	ALA	N-CA-C	-5.99	102.77	110.19
21	1Z	117	LEU	CA-C-N	-5.98	113.62	122.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	1Z	117	LEU	C-N-CA	-5.98	113.62	122.41
27	15	19	ARG	N-CA-C	-5.98	104.89	111.82
10	1O	95	GLY	N-CA-C	-5.97	104.57	112.81
6	1G	121	ASN	CA-C-N	5.97	125.84	119.28
6	1G	121	ASN	C-N-CA	5.97	125.84	119.28
43	2k	102	GLY	N-CA-C	-5.97	106.22	116.01
1	1A	2045	G	O5'-P-OP1	-5.96	90.10	108.00
34	1b	128	GLU	N-CA-C	-5.96	104.85	114.09
45	1m	17	VAL	CB-CA-C	-5.95	104.01	112.22
23	11	67	ILE	CA-C-N	-5.95	113.50	119.56
23	11	67	ILE	C-N-CA	-5.95	113.50	119.56
37	2e	26	PHE	N-CA-C	5.95	119.26	110.46
1	2A	421	U	OP2-P-O3'	-5.93	90.20	108.00
7	1H	92	ILE	N-CA-C	5.93	116.39	110.23
4	2E	11	MET	N-CA-C	5.92	119.36	109.95
1	1A	184	A	P-O3'-C3'	5.90	129.05	120.20
27	15	15	ARG	CA-CB-CG	-5.90	102.29	114.10
50	1r	22	VAL	N-CA-C	5.89	117.34	110.62
6	1G	45	GLU	N-CA-C	-5.89	106.07	113.20
1	2A	2689	U	P-O3'-C3'	5.89	129.03	120.20
5	2F	57	VAL	N-CA-C	-5.89	103.63	110.05
22	20	44	ARG	N-CA-C	-5.89	105.19	112.90
45	2m	108	ARG	N-CA-C	5.88	118.64	111.82
3	1D	98	VAL	CA-C-N	5.88	128.97	120.38
3	1D	98	VAL	C-N-CA	5.88	128.97	120.38
45	2m	114	ARG	N-CA-C	5.87	117.60	109.15
5	2F	21	ALA	CA-C-N	5.86	132.25	121.70
5	2F	21	ALA	C-N-CA	5.86	132.25	121.70
9	2N	50	ASP	N-CA-C	-5.86	101.85	110.52
1	1A	2624	C	O5'-P-OP2	-5.85	90.45	108.00
42	1j	36	GLY	CA-C-N	5.85	127.15	119.84
42	1j	36	GLY	C-N-CA	5.85	127.15	119.84
32	1a	343	U	C2-N1-C1'	-5.84	100.17	117.70
44	1l	24	VAL	CA-C-N	5.84	125.98	119.32
44	1l	24	VAL	C-N-CA	5.84	125.98	119.32
1	1A	1847	G	O5'-P-OP1	-5.84	90.49	108.00
21	1Z	157	LEU	N-CA-C	5.83	117.01	109.72
44	2l	41	ARG	N-CA-C	5.83	115.79	108.45
41	1i	11	LYS	CB-CA-C	-5.82	109.88	116.63
3	1D	229	VAL	CB-CA-C	-5.82	103.14	112.16
1	1A	2091	G	O5'-P-OP2	-5.82	90.54	108.00
1	2A	1835	G	C5'-C4'-C3'	-5.81	107.29	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	2d	135	LEU	CA-C-N	5.80	127.09	119.84
36	2d	135	LEU	C-N-CA	5.80	127.09	119.84
1	1A	455	A	C5'-C4'-C3'	-5.80	107.30	116.00
34	1b	64	ARG	N-CA-C	-5.80	105.53	113.30
1	2A	1091	G	C4'-C3'-O3'	5.80	121.70	113.00
41	2i	26	VAL	N-CA-C	5.80	117.10	108.46
39	1g	3	ARG	N-CA-C	5.78	118.53	111.82
43	2k	112	THR	CA-C-N	5.78	127.34	120.23
43	2k	112	THR	C-N-CA	5.78	127.34	120.23
8	2I	124	GLY	N-CA-C	5.77	118.58	110.38
1	1A	2701	U	C2'-C3'-O3'	5.77	118.15	109.50
19	1X	8	ILE	CB-CA-C	-5.77	103.08	110.98
23	11	22	GLY	N-CA-C	5.77	119.31	112.33
41	1i	111	ARG	N-CA-C	5.76	118.71	110.24
35	1c	145	GLY	N-CA-C	5.76	123.02	115.36
23	21	7	ILE	CB-CA-C	-5.76	104.92	111.55
16	1U	8	VAL	N-CA-C	-5.76	104.93	113.39
3	1D	242	ARG	N-CA-C	5.75	117.55	111.28
1	1A	2701	U	C4'-C3'-O3'	5.75	118.03	109.40
8	1I	138	ILE	N-CA-C	5.75	117.28	108.71
40	2h	23	SER	N-CA-C	5.75	116.67	108.74
19	1X	73	ARG	CA-C-N	-5.74	114.05	119.85
19	1X	73	ARG	C-N-CA	-5.74	114.05	119.85
16	1U	50	ARG	CB-CA-C	5.72	121.66	110.67
8	2I	97	ILE	N-CA-C	5.71	115.90	110.42
32	2a	1183	A	P-O3'-C3'	5.71	128.76	120.20
32	2a	115	G	C2'-C3'-O3'	5.71	118.06	109.50
21	1Z	100	VAL	CA-C-N	5.70	125.72	119.90
21	1Z	100	VAL	C-N-CA	5.70	125.72	119.90
5	2F	24	LEU	CA-C-N	5.70	125.72	119.90
5	2F	24	LEU	C-N-CA	5.70	125.72	119.90
1	1A	991	G	O5'-P-OP1	-5.70	90.91	108.00
34	2b	40	HIS	N-CA-C	5.68	117.94	109.59
27	15	40	LYS	N-CA-C	5.68	113.13	108.07
1	2A	2689	U	C4'-C3'-O3'	5.68	117.92	109.40
20	2Y	56	PRO	N-CA-C	-5.67	102.90	111.41
1	1A	1700	G	P-O3'-C3'	5.67	128.71	120.20
54	1y	12	PRO	O-C-N	5.67	123.92	121.31
1	2A	1791	A	C5'-C4'-C3'	-5.67	107.50	116.00
27	25	27	PRO	O-C-N	5.66	123.92	121.31
36	1d	188	LEU	CA-C-N	5.66	125.99	119.93
36	1d	188	LEU	C-N-CA	5.66	125.99	119.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	786	G	OP2-P-O3'	-5.66	91.03	108.00
1	2A	2689	U	C2'-C3'-O3'	5.66	117.98	109.50
21	2Z	52	SER	CB-CA-C	-5.65	108.43	115.89
38	2f	60	PHE	N-CA-C	5.65	117.94	108.73
1	1A	2596	U	O5'-P-OP2	-5.65	91.05	108.00
1	1A	2653	G	C5'-C4'-C3'	-5.65	107.53	116.00
4	2E	47	VAL	N-CA-C	5.65	116.00	107.75
8	2I	79	ILE	CA-C-N	5.65	125.83	119.90
8	2I	79	ILE	C-N-CA	5.65	125.83	119.90
32	2a	438	G	O5'-P-OP2	-5.64	91.09	108.00
1	2A	2603	G	O5'-P-OP2	-5.63	91.10	108.00
7	2H	59	ARG	N-CA-C	5.63	117.87	111.11
15	2T	92	GLY	CA-C-N	-5.63	115.53	122.84
15	2T	92	GLY	C-N-CA	-5.63	115.53	122.84
1	1A	2404	A	O3'-P-O5'	-5.62	95.56	104.00
34	1b	234	PRO	N-CA-C	5.61	119.67	111.03
1	1A	1006	C	O5'-P-OP2	-5.61	91.17	108.00
45	2m	103	THR	N-CA-C	5.61	120.12	112.88
8	2I	110	ASP	CA-C-N	5.60	125.07	119.24
8	2I	110	ASP	C-N-CA	5.60	125.07	119.24
16	1U	93	LYS	N-CA-C	-5.59	105.18	111.28
45	2m	106	ASN	N-CA-C	5.59	118.91	111.30
34	1b	8	LYS	N-CA-C	5.59	119.27	112.23
52	1t	9	ASN	N-CA-C	5.58	117.72	109.69
10	2O	95	GLY	N-CA-C	-5.58	104.93	112.57
15	1T	96	ARG	CA-CB-CG	5.57	125.25	114.10
12	2Q	98	LYS	CA-C-N	-5.57	114.02	119.76
12	2Q	98	LYS	C-N-CA	-5.57	114.02	119.76
9	1N	66	LYS	N-CA-C	5.57	118.28	111.82
32	1a	115	G	C2'-C3'-O3'	5.57	117.85	109.50
34	1b	192	SER	N-CA-C	5.57	118.15	109.52
32	2a	65	U	P-O3'-C3'	5.56	128.54	120.20
1	1A	1255	A	P-O3'-C3'	5.55	128.53	120.20
43	1k	102	GLY	N-CA-C	-5.55	106.91	116.01
4	1E	168	MET	N-CA-C	5.54	118.77	109.95
39	1g	31	MET	N-CA-C	5.54	117.26	108.67
20	2Y	55	TYR	CA-C-N	-5.54	114.54	120.03
20	2Y	55	TYR	C-N-CA	-5.54	114.54	120.03
9	1N	39	ARG	N-CA-C	5.54	116.94	109.24
35	1c	48	TYR	N-CA-C	-5.53	105.15	111.07
35	2c	140	ARG	N-CA-C	5.53	117.11	111.14
34	1b	32	ILE	N-CA-C	5.52	116.07	108.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	1N	39	ARG	CA-C-N	5.52	125.23	119.82
9	1N	39	ARG	C-N-CA	5.52	125.23	119.82
33	1x	64	SER	N-CA-C	5.52	118.46	108.69
35	2c	72	LYS	CA-C-N	5.52	125.17	119.05
35	2c	72	LYS	C-N-CA	5.52	125.17	119.05
1	2A	271(M)	G	P-O3'-C3'	5.50	126.31	119.70
39	2g	61	VAL	CB-CA-C	-5.50	104.93	111.97
1	2A	221	A	C5'-C4'-C3'	-5.50	106.96	115.20
7	2H	125	VAL	CA-C-N	5.50	124.68	118.97
7	2H	125	VAL	C-N-CA	5.50	124.68	118.97
37	2e	28	PHE	CA-C-N	-5.49	117.91	121.65
37	2e	28	PHE	C-N-CA	-5.49	117.91	121.65
32	1a	913	A	P-O3'-C3'	5.49	128.43	120.20
1	1A	2858	G	O4'-C1'-N9	5.48	116.42	108.20
15	1T	96	ARG	N-CA-CB	-5.48	101.33	111.53
4	2E	52	LEU	CA-C-N	-5.48	114.07	119.99
4	2E	52	LEU	C-N-CA	-5.48	114.07	119.99
32	2a	1067	A	P-O3'-C3'	5.48	128.42	120.20
26	24	59	PHE	CA-C-N	5.48	131.56	121.70
26	24	59	PHE	C-N-CA	5.48	131.56	121.70
35	1c	202	ILE	N-CA-C	5.47	116.00	108.12
45	2m	4	ILE	N-CA-C	5.47	115.87	107.77
48	2p	5	ARG	N-CA-C	5.47	115.46	108.24
21	2Z	80	ARG	N-CA-C	5.47	120.83	113.72
44	2l	88	GLY	N-CA-C	5.47	126.14	113.18
1	2A	856	C	C2'-C3'-O3'	5.46	121.90	113.70
1	1A	2621	U	O5'-C5'-C4'	-5.46	103.52	111.70
14	2S	53	SER	N-CA-C	-5.46	105.33	111.28
1	2A	856	C	P-O3'-C3'	5.46	128.38	120.20
52	1t	27	LYS	N-CA-C	-5.45	105.23	111.07
35	1c	4	LYS	N-CA-C	5.45	117.92	110.24
21	2Z	129	SER	CA-C-N	5.45	124.91	119.24
21	2Z	129	SER	C-N-CA	5.45	124.91	119.24
36	1d	4	TYR	N-CA-C	5.44	116.89	111.07
36	2d	39	PRO	N-CA-C	5.44	117.34	110.70
35	1c	94	LEU	N-CA-C	-5.44	104.99	111.03
9	2N	7	LYS	N-CA-C	-5.43	103.22	110.55
17	2V	15	GLU	CA-C-N	-5.43	114.33	119.76
17	2V	15	GLU	C-N-CA	-5.43	114.33	119.76
41	2i	61	ALA	N-CA-C	5.43	118.25	108.48
32	1a	266	G	C2'-C3'-O3'	5.42	117.63	109.50
1	1A	454	U	O3'-P-O5'	-5.42	95.88	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	1F	131	GLY	CA-C-N	-5.41	114.32	122.01
5	1F	131	GLY	C-N-CA	-5.41	114.32	122.01
35	1c	43	LEU	N-CA-C	5.41	117.18	111.28
45	2m	7	VAL	N-CA-C	5.41	117.36	108.97
46	1n	42	ILE	CB-CA-C	-5.41	104.95	112.04
1	2A	1351	C	OP1-P-O3'	5.41	124.22	108.00
37	2e	148	VAL	N-CA-C	5.41	116.06	110.82
27	15	16	ARG	N-CA-C	-5.40	105.29	111.07
34	2b	19	HIS	N-CA-C	5.40	116.74	108.42
7	1H	13	LYS	N-CA-C	-5.39	102.30	110.28
11	1P	139	LYS	N-CA-C	-5.39	105.30	111.07
14	2S	87	PHE	N-CA-C	5.39	117.03	108.67
32	1a	913	A	C2'-C3'-O3'	5.39	117.58	109.50
1	2A	1992	G	P-O3'-C3'	5.39	128.28	120.20
32	2a	913	A	C4'-C3'-O3'	5.38	117.47	109.40
1	2A	566	U	OP2-P-O3'	5.38	124.12	108.00
3	1D	131	LEU	CA-C-N	-5.37	114.25	119.78
3	1D	131	LEU	C-N-CA	-5.37	114.25	119.78
8	2I	132	PRO	N-CA-C	-5.37	107.18	114.80
43	2k	118	GLY	N-CA-C	5.37	125.90	113.18
15	1T	36	GLU	N-CA-C	5.35	122.20	110.80
24	12	56	GLN	N-CA-C	-5.35	105.53	111.36
37	1e	23	GLY	N-CA-C	5.35	117.83	110.56
10	2O	94	ARG	N-CA-C	-5.34	106.81	113.38
47	2o	60	VAL	N-CA-C	-5.34	105.17	110.62
11	1P	27	HIS	CB-CA-C	-5.33	102.10	110.85
34	2b	142	LEU	N-CA-C	-5.33	105.47	111.28
1	1A	1822	A	C5'-C4'-C3'	-5.33	108.00	116.00
11	2P	73	GLY	N-CA-C	5.33	121.26	112.84
36	2d	4	TYR	N-CA-C	5.33	116.77	111.07
50	1r	47	THR	N-CA-C	-5.33	106.78	113.28
3	1D	220	HIS	CA-C-N	-5.32	116.59	123.19
3	1D	220	HIS	C-N-CA	-5.32	116.59	123.19
34	2b	222	ILE	N-CA-CB	5.32	117.38	110.57
13	2R	114	VAL	CB-CA-C	-5.30	102.33	110.50
14	1S	43	GLU	N-CA-C	-5.30	105.42	111.14
7	2H	111	HIS	N-CA-C	-5.30	102.10	108.25
36	1d	109	GLY	N-CA-C	5.30	122.41	115.47
1	2A	1657	C	OP1-P-O3'	-5.30	92.11	108.00
3	2D	70	TRP	CA-C-N	5.29	127.89	120.28
3	2D	70	TRP	C-N-CA	5.29	127.89	120.28
32	2a	687	A	C2'-C3'-O3'	5.29	117.43	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	2V	46	VAL	N-CA-C	5.28	115.51	108.11
1	2A	2172	U	O4'-C1'-N1	5.28	116.12	108.20
17	2V	63	GLY	N-CA-C	5.28	118.46	110.75
6	1G	31	VAL	N-CA-CB	5.28	115.88	110.23
1	2A	2318	G	O4'-C1'-N9	5.28	116.42	108.50
1	1A	180	A	OP1-P-O3'	-5.28	92.17	108.00
35	2c	195	VAL	N-CA-C	5.28	115.69	107.99
12	2Q	14	ARG	N-CA-C	5.27	117.11	111.36
7	2H	9	ILE	N-CA-C	5.27	112.77	107.55
4	2E	168	MET	N-CA-C	5.27	118.33	109.95
37	2e	118	ILE	N-CA-C	5.27	114.80	108.06
3	2D	143	HIS	N-CA-C	5.27	116.01	108.74
14	1S	3	ARG	NE-CZ-NH1	-5.26	116.24	121.50
44	1l	41	ARG	N-CA-C	5.26	115.07	108.45
41	2i	63	ILE	N-CA-C	5.25	115.83	108.17
32	2a	343	U	C6-N1-C1'	5.25	136.93	121.20
1	1A	1569	U	O5'-P-OP2	5.24	123.72	108.00
1	1A	2173	G	N9-C1'-C2'	-5.24	104.14	112.00
12	2Q	22	LYS	N-CA-C	-5.23	105.66	111.36
20	2Y	91	GLU	N-CA-C	-5.23	105.64	112.23
40	2h	93	VAL	N-CA-C	5.23	115.39	107.75
44	2l	29	GLY	N-CA-C	-5.23	98.13	113.30
31	19	15	LYS	N-CA-C	5.23	116.94	108.41
10	1O	92	GLU	CA-C-N	5.23	125.14	119.76
10	1O	92	GLU	C-N-CA	5.23	125.14	119.76
3	2D	229	VAL	CB-CA-C	-5.22	104.06	112.16
1	2A	1073	A	C4'-C3'-O3'	5.22	120.83	113.00
17	2V	37	VAL	N-CA-C	5.22	116.10	108.53
23	11	21	ARG	N-CA-C	-5.22	101.14	109.23
43	2k	116	HIS	N-CA-C	5.21	121.90	110.80
38	1f	28	ARG	N-CA-C	-5.21	105.68	111.36
26	14	55	ARG	N-CA-C	5.21	121.89	110.80
4	2E	51	PHE	CA-C-N	5.21	131.07	121.70
4	2E	51	PHE	C-N-CA	5.21	131.07	121.70
19	2X	34	ALA	N-CA-C	5.21	118.10	109.46
49	1q	75	ARG	N-CA-C	5.20	116.43	108.42
34	2b	112	VAL	N-CA-C	-5.20	105.47	110.72
34	2b	158	LEU	CA-C-N	5.20	126.34	119.84
34	2b	158	LEU	C-N-CA	5.20	126.34	119.84
36	1d	171	GLY	CA-C-N	5.20	126.34	119.84
36	1d	171	GLY	C-N-CA	5.20	126.34	119.84
36	1d	19	LEU	CA-C-N	-5.19	114.36	122.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	1d	19	LEU	C-N-CA	-5.19	114.36	122.05
10	1O	23	ARG	CA-C-N	-5.19	116.25	122.90
10	1O	23	ARG	C-N-CA	-5.19	116.25	122.90
8	1I	69	LYS	N-CA-C	-5.19	105.70	111.36
44	1l	64	TYR	N-CA-C	5.19	117.82	110.50
8	1I	118	LYS	CA-C-N	5.18	126.32	119.84
8	1I	118	LYS	C-N-CA	5.18	126.32	119.84
34	2b	160	ASP	N-CA-C	-5.18	106.96	113.28
39	2g	24	THR	N-CA-C	-5.17	105.54	111.07
35	2c	16	ARG	N-CA-C	5.16	117.03	109.24
1	1A	1218	G	O4'-C1'-N9	5.16	115.94	108.20
9	1N	35	ARG	CA-CB-CG	5.15	124.41	114.10
37	1e	11	ILE	CB-CA-C	-5.15	105.14	111.94
8	1I	27	ARG	N-CA-C	5.15	116.89	111.28
1	2A	1076	C	N1-C1'-C2'	5.15	121.73	114.00
26	14	62	ARG	N-CA-C	5.15	118.49	111.39
20	1Y	104	GLY	N-CA-C	5.14	117.84	111.93
5	1F	74	ARG	CB-CA-C	-5.14	101.67	109.89
22	10	28	GLY	N-CA-C	-5.14	108.24	114.92
3	1D	71	ASP	N-CA-CB	-5.13	102.31	110.22
1	2A	2554	U	O5'-P-OP1	-5.13	92.60	108.00
34	1b	200	ILE	N-CA-C	5.13	115.30	108.11
3	2D	244	ARG	CA-C-N	-5.12	115.10	120.38
3	2D	244	ARG	C-N-CA	-5.12	115.10	120.38
32	2a	1442	G	P-O3'-C3'	5.12	125.85	119.70
1	2A	1073	A	N9-C1'-C2'	-5.12	104.32	112.00
1	1A	2330	G	N9-C1'-C2'	-5.12	104.32	112.00
40	1h	96	GLY	N-CA-C	-5.12	104.80	112.89
22	20	22	GLY	N-CA-C	5.12	117.99	111.85
42	1j	94	VAL	N-CA-C	5.11	116.02	108.45
10	1O	23	ARG	CB-CG-CD	5.11	123.05	111.30
21	2Z	191	VAL	N-CA-C	5.11	116.32	108.71
15	1T	49	VAL	N-CA-CB	5.11	116.10	110.53
3	2D	35	LYS	CA-C-N	-5.11	114.65	119.76
3	2D	35	LYS	C-N-CA	-5.11	114.65	119.76
1	1A	1700	G	OP2-P-O3'	-5.10	92.69	108.00
9	2N	70	LYS	CA-C-N	-5.10	116.48	123.12
9	2N	70	LYS	C-N-CA	-5.10	116.48	123.12
1	2A	512	G	O4'-C1'-N9	5.10	115.85	108.20
46	1n	13	THR	CA-C-N	5.10	126.35	120.85
46	1n	13	THR	C-N-CA	5.10	126.35	120.85
37	2e	11	ILE	CB-CA-C	-5.09	105.37	112.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2882	G	C4'-C3'-O3'	-5.09	105.37	113.00
33	2x	45	PRO	N-CA-C	5.08	122.01	113.78
35	2c	4	LYS	N-CA-C	5.08	117.41	110.24
39	1g	61	VAL	CB-CA-C	-5.08	105.46	111.81
1	2A	444	C	C5'-C4'-C3'	5.08	123.62	116.00
5	2F	151	SER	N-CA-C	-5.08	107.03	113.18
1	1A	1455	C	OP1-P-O3'	-5.08	92.77	108.00
8	1I	44	LEU	N-CA-C	-5.08	105.83	112.23
9	2N	69	GLN	N-CA-C	5.08	120.32	113.72
35	1c	15	THR	N-CA-C	-5.07	107.77	114.31
51	2s	29	ARG	N-CA-C	5.07	121.60	110.80
47	1o	86	GLY	CA-C-N	-5.06	117.97	123.08
47	1o	86	GLY	C-N-CA	-5.06	117.97	123.08
52	1t	12	ALA	N-CA-C	-5.06	105.89	111.71
1	1A	834	U	O5'-P-OP1	-5.06	92.83	108.00
45	2m	66	LEU	N-CA-C	5.06	121.57	110.80
47	2o	8	LYS	N-CA-C	-5.06	105.66	111.07
49	2q	57	VAL	N-CA-C	5.05	115.98	108.65
37	2e	149	GLU	N-CA-C	5.05	116.48	111.07
41	2i	67	GLY	N-CA-C	5.04	119.21	112.65
21	2Z	86	VAL	N-CA-C	5.04	115.74	108.48
49	1q	48	GLU	N-CA-C	5.03	119.06	113.02
42	1j	44	VAL	N-CA-C	5.03	115.09	107.80
34	2b	187	LEU	N-CA-C	-5.03	102.25	110.20
13	1R	104	ARG	CB-CG-CD	-5.03	99.74	111.30
18	1W	17	VAL	CB-CA-C	-5.03	105.28	112.22
27	25	58	LEU	CA-CB-CG	5.03	133.90	116.30
32	2a	1491	G	C4'-C3'-O3'	5.03	120.54	113.00
1	1A	1562	U	O5'-P-OP2	-5.02	92.93	108.00
8	2I	142	VAL	N-CA-C	5.02	115.27	107.28
6	1G	30	GLU	CA-C-N	-5.02	114.31	121.23
6	1G	30	GLU	C-N-CA	-5.02	114.31	121.23
21	2Z	75	ASN	N-CA-C	5.02	117.79	109.46
45	2m	64	TRP	N-CA-C	5.01	117.23	108.76
13	1R	91	GLN	CA-CB-CG	-5.01	104.08	114.10
40	2h	81	HIS	N-CA-C	-5.01	105.92	112.23
28	16	14	THR	N-CA-C	-5.01	106.68	112.89
32	1a	115	G	P-O3'-C3'	5.01	127.72	120.20
42	1j	8	LEU	N-CA-C	5.01	116.86	107.99
14	1S	34	HIS	N-CA-C	5.01	116.90	109.69
32	1a	1067	A	C2'-C3'-O3'	5.00	117.01	109.50
34	1b	15	VAL	N-CA-C	5.00	116.32	112.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	2D	99	ASP	CB-CA-C	-5.00	100.46	110.42
34	2b	41	ILE	N-CA-C	5.00	115.18	108.17
37	2e	95	ALA	CA-C-N	5.00	126.09	119.84
37	2e	95	ALA	C-N-CA	5.00	126.09	119.84

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
30	18	13	ARG	Peptide
19	1X	93	GLU	Peptide
19	2X	93	GLU	Peptide
44	2l	86	ARG	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	61862	0	31150	590	0
1	2A	61751	0	31143	737	0
2	1B	2575	0	1304	20	0
2	2B	2571	0	1308	33	0
3	1D	2131	0	2207	56	0
3	2D	2136	0	2218	42	0
4	1E	1559	0	1618	38	0
4	2E	1559	0	1618	43	0
5	1F	1584	0	1625	27	0
5	2F	1580	0	1619	48	0
6	1G	1426	0	1445	51	0
6	2G	1424	0	1441	69	0
7	1H	1330	0	1407	33	0
7	2H	1324	0	1402	43	0
8	1I	1094	0	1127	36	0
8	2I	1076	0	1094	33	0
9	1N	1121	0	1195	18	0
9	2N	1117	0	1184	25	0
10	1O	933	0	996	18	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	2O	933	0	996	22	0
11	1P	1135	0	1212	23	0
11	2P	1135	0	1212	24	0
12	1Q	1122	0	1179	27	0
12	2Q	1122	0	1179	32	0
13	1R	968	0	1033	18	0
13	2R	968	0	1033	21	0
14	1S	877	0	938	26	0
14	2S	870	0	923	30	0
15	1T	1091	0	1151	26	0
15	2T	1083	0	1136	27	0
16	1U	959	0	1019	17	0
16	2U	959	0	1019	26	0
17	1V	775	0	841	15	0
17	2V	771	0	830	25	0
18	1W	886	0	940	12	0
18	2W	886	0	940	13	0
19	1X	750	0	814	24	0
19	2X	750	0	814	21	0
20	1Y	810	0	892	20	0
20	2Y	810	0	887	21	0
21	1Z	1587	0	1598	33	0
21	2Z	1557	0	1564	58	0
22	10	608	0	622	12	0
22	20	608	0	622	13	0
23	11	754	0	823	19	0
23	21	759	0	837	19	0
24	12	588	0	643	16	0
24	22	592	0	654	6	0
25	13	469	0	518	7	0
25	23	464	0	514	9	0
26	14	546	0	522	21	0
26	24	536	0	514	27	0
27	15	459	0	476	14	0
27	25	455	0	465	17	0
28	16	453	0	473	6	0
28	26	449	0	469	9	0
29	17	418	0	467	7	0
29	27	418	0	467	6	0
30	18	517	0	582	10	0
30	28	517	0	582	12	0
31	19	307	0	335	6	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	29	307	0	335	8	0
32	1a	32246	0	16295	747	0
32	2a	32331	0	16337	747	0
33	1x	764	0	786	15	0
33	2x	749	0	757	29	0
34	1b	1842	0	1862	104	0
34	2b	1825	0	1828	107	0
35	1c	1558	0	1557	71	0
35	2c	1542	0	1517	59	0
36	1d	1665	0	1687	87	0
36	2d	1668	0	1703	68	0
37	1e	1133	0	1191	48	0
37	2e	1133	0	1191	46	0
38	1f	814	0	808	31	0
38	2f	816	0	808	22	0
39	1g	1235	0	1249	38	0
39	2g	1229	0	1238	32	0
40	1h	1098	0	1143	60	0
40	2h	1088	0	1126	39	0
41	1i	986	0	990	42	0
41	2i	966	0	953	52	0
42	1j	719	0	672	45	0
42	2j	710	0	661	46	0
43	1k	834	0	838	18	0
43	2k	833	0	836	18	0
44	1l	932	0	981	23	0
44	2l	932	0	981	26	0
45	1m	914	0	954	29	0
45	2m	895	0	920	46	0
46	1n	492	0	529	21	0
46	2n	492	0	529	35	0
47	1o	728	0	760	19	0
47	2o	728	0	760	28	0
48	1p	681	0	697	36	0
48	2p	677	0	686	30	0
49	1q	823	0	891	25	0
49	2q	823	0	891	25	0
50	1r	555	0	618	16	0
50	2r	555	0	618	23	0
51	1s	648	0	658	25	0
51	2s	645	0	635	34	0
52	1t	732	0	809	28	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	2t	733	0	795	18	0
53	1u	199	0	208	9	0
53	2u	199	0	208	6	0
54	1y	120	0	124	4	0
54	2y	120	0	124	7	0
55	10	8	0	0	0	0
55	11	4	0	0	0	0
55	13	2	0	0	0	0
55	15	6	0	0	0	0
55	17	5	0	0	0	0
55	18	3	0	0	0	0
55	19	2	0	0	0	0
55	1A	918	0	0	0	0
55	1B	25	0	0	0	0
55	1D	20	0	0	0	0
55	1E	7	0	0	0	0
55	1F	15	0	0	0	0
55	1G	3	0	0	0	0
55	1H	2	0	0	0	0
55	1N	4	0	0	0	0
55	1P	3	0	0	0	0
55	1Q	4	0	0	0	0
55	1R	5	0	0	0	0
55	1U	6	0	0	0	0
55	1V	3	0	0	0	0
55	1W	2	0	0	0	0
55	1X	1	0	0	0	0
55	1Y	1	0	0	0	0
55	1a	225	0	0	0	0
55	1b	1	0	0	0	0
55	1d	5	0	0	0	0
55	1e	2	0	0	0	0
55	1f	1	0	0	0	0
55	1g	1	0	0	0	0
55	1h	2	0	0	0	0
55	1l	1	0	0	0	0
55	1m	1	0	0	0	0
55	1n	1	0	0	0	0
55	1o	1	0	0	0	0
55	1t	1	0	0	0	0
55	1y	1	0	0	0	0
55	20	6	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	21	3	0	0	0	0
55	23	1	0	0	0	0
55	25	4	0	0	0	0
55	27	3	0	0	0	0
55	28	2	0	0	0	0
55	2A	819	0	0	0	0
55	2B	18	0	0	0	0
55	2D	13	0	0	0	0
55	2E	6	0	0	0	0
55	2F	11	0	0	0	0
55	2G	3	0	0	0	0
55	2H	1	0	0	0	0
55	2N	1	0	0	0	0
55	2P	3	0	0	0	0
55	2Q	7	0	0	0	0
55	2R	2	0	0	0	0
55	2S	1	0	0	0	0
55	2U	4	0	0	0	0
55	2V	5	0	0	0	0
55	2W	1	0	0	0	0
55	2X	3	0	0	0	0
55	2a	196	0	0	0	0
55	2b	1	0	0	0	0
55	2d	3	0	0	0	0
55	2e	2	0	0	0	0
55	2f	1	0	0	0	0
55	2g	1	0	0	0	0
55	2h	2	0	0	0	0
55	2l	2	0	0	0	0
55	2m	1	0	0	0	0
55	2n	1	0	0	0	0
55	2o	1	0	0	0	0
56	14	1	0	0	0	0
56	15	1	0	0	0	0
56	16	1	0	0	0	0
56	19	1	0	0	0	0
56	1Y	1	0	0	0	0
56	1n	1	0	0	0	0
56	24	1	0	0	0	0
56	25	1	0	0	0	0
56	26	1	0	0	0	0
56	29	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2Y	1	0	0	0	0
56	2n	1	0	0	0	0
57	1d	8	0	0	0	0
57	2d	8	0	0	0	0
58	2A	1	0	0	0	0
59	10	5	0	0	0	0
59	11	3	0	0	0	0
59	13	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	18	9	0	0	0	0
59	19	2	0	0	0	0
59	1A	1740	0	0	4	0
59	1B	43	0	0	0	0
59	1D	16	0	0	0	0
59	1E	17	0	0	0	0
59	1F	9	0	0	0	0
59	1G	2	0	0	0	0
59	1H	3	0	0	0	0
59	1N	8	0	0	0	0
59	1P	13	0	0	0	0
59	1Q	7	0	0	0	0
59	1R	4	0	0	0	0
59	1T	5	0	0	0	0
59	1U	5	0	0	0	0
59	1V	3	0	0	0	0
59	1W	2	0	0	0	0
59	1X	4	0	0	0	0
59	1Y	4	0	0	0	0
59	1a	395	0	0	3	0
59	1d	10	0	0	0	0
59	1e	2	0	0	0	0
59	1f	1	0	0	0	0
59	1h	1	0	0	0	0
59	1j	1	0	0	0	0
59	1l	3	0	0	0	0
59	1m	2	0	0	0	0
59	1n	1	0	0	0	0
59	1p	1	0	0	0	0
59	1q	1	0	0	0	0
59	1t	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	1y	2	0	0	0	0
59	20	7	0	0	0	0
59	21	2	0	0	0	0
59	23	2	0	0	0	0
59	25	1	0	0	0	0
59	26	2	0	0	0	0
59	27	1	0	0	0	0
59	28	6	0	0	0	0
59	2A	1667	0	0	7	0
59	2B	35	0	0	1	0
59	2D	14	0	0	0	0
59	2E	16	0	0	0	0
59	2F	11	0	0	0	0
59	2G	2	0	0	0	0
59	2H	2	0	0	2	0
59	2N	2	0	0	0	0
59	2P	11	0	0	0	0
59	2Q	4	0	0	0	0
59	2R	4	0	0	0	0
59	2T	2	0	0	0	0
59	2U	2	0	0	1	0
59	2V	2	0	0	0	0
59	2W	2	0	0	0	0
59	2X	5	0	0	0	0
59	2Y	3	0	0	0	0
59	2a	387	0	0	1	0
59	2c	1	0	0	0	0
59	2d	6	0	0	2	0
59	2e	4	0	0	0	0
59	2f	1	0	0	0	0
59	2h	1	0	0	0	0
59	2j	1	0	0	0	0
59	2l	3	0	0	0	0
59	2m	2	0	0	1	0
59	2o	1	0	0	0	0
59	2t	1	0	0	0	0
59	2y	1	0	0	0	0
All	All	293583	0	194580	5113	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 11.

All (5113) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2552:OMU:C5	1:2A:2552:OMU:C4	1.76	1.57
1:1A:1405:A:N6	1:1A:1418:U:H3	1.32	1.27
34:1b:185:ILE:HG22	34:1b:199:TYR:HB2	1.28	1.12
1:1A:2331:G:H22	14:1S:3:ARG:HD3	1.08	1.11
1:1A:1405:A:N1	1:1A:1418:U:O4	1.89	1.04
1:2A:1064:C:H3'	1:2A:1065:U:H5"	1.42	1.02
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.43	0.98
36:1d:107:ARG:HH11	36:1d:107:ARG:HG3	1.28	0.97
1:1A:11:G:H2'	1:1A:12:U:H5"	1.46	0.97
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	1.96	0.97
32:1a:201:C:H42	32:1a:216:G:H1	1.02	0.97
1:1A:2159:C:H42	1:1A:2176:G:H1	0.99	0.96
32:1a:1158:C:H5	32:1a:1181:G:H1	1.12	0.96
1:2A:11:G:H2'	1:2A:12:U:H5"	1.45	0.96
39:2g:50:ILE:HD11	39:2g:58:PRO:HA	1.45	0.96
34:2b:93:VAL:HG21	34:2b:97:TRP:HD1	1.28	0.96
1:2A:9:U:H3	1:2A:2629:A:H2	1.12	0.95
29:17:24:THR:HG22	29:17:27:GLY:H	1.31	0.95
1:1A:9:U:H3	1:1A:2641:A:H2	1.02	0.94
32:1a:376:G:H5"	48:1p:5:ARG:HD3	1.49	0.93
41:2i:51:ARG:HG2	41:2i:56:LEU:HD21	1.47	0.93
37:2e:137:GLU:OE1	37:2e:141:GLN:NE2	2.02	0.92
1:2A:1038:C:H42	1:2A:1117:G:H1	1.06	0.92
1:1A:1829:U:H5'	3:1D:259:THR:HG22	1.50	0.92
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.34	0.92
32:2a:1151:A:HO2'	32:2a:1152:A:H8	1.17	0.92
1:1A:2772:G:H21	7:1H:139:GLN:HE21	1.15	0.91
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.19	0.91
32:2a:406:G:H21	36:2d:119:GLN:HE22	1.10	0.91
35:2c:179:ARG:NH1	35:2c:206:GLU:OE1	2.03	0.91
15:1T:54:ARG:HA	15:1T:59:THR:HB	1.50	0.91
1:2A:1041:C:H42	1:2A:1114:G:H1	1.11	0.91
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.53	0.90
1:1A:1101:G:N2	1:1A:1150:C:O2	2.04	0.90
34:2b:63:MET:HG3	34:2b:225:ALA:HB1	1.53	0.90
22:10:11:ARG:O	22:10:14:ARG:NH2	2.04	0.90
32:1a:1030(A):G:N2	32:1a:1031:G:O6	2.04	0.90
1:2A:2552:OMU:C4	1:2A:2552:OMU:C6	2.44	0.90
1:1A:9:U:N3	1:1A:2641:A:H2	1.70	0.89
32:2a:1005:A:C5	32:2a:1024:G:N2	2.41	0.89
1:1A:1110:C:H3'	1:1A:1111:U:H5"	1.53	0.89
34:1b:231:GLU:HB3	34:1b:232:PRO:HD3	1.52	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.37	0.89
1:1A:9:U:N3	1:1A:2641:A:C2	2.40	0.89
34:1b:10:LEU:HD12	34:1b:48:MET:HE3	1.53	0.89
1:1A:1138:C:H42	1:1A:1145:G:H1	1.18	0.89
40:1h:64:LYS:HG2	40:1h:79:VAL:HG21	1.54	0.88
38:1f:1:MET:HE3	38:1f:66:GLU:HG2	1.55	0.88
45:1m:37:THR:O	45:1m:55:ARG:NH1	2.06	0.88
1:1A:2188:G:O6	1:1A:2194:U:C5	2.28	0.87
1:2A:1278:A:OP1	13:2R:36:THR:HG23	1.73	0.87
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.56	0.87
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.36	0.87
21:2Z:10:ARG:NH1	21:2Z:26:GLY:O	2.08	0.87
32:2a:390:C:O3'	48:2p:28:ARG:NH2	2.08	0.87
39:1g:50:ILE:HD11	39:1g:58:PRO:HA	1.56	0.87
1:2A:1038:C:N4	1:2A:1117:G:H1	1.73	0.87
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.10	0.86
52:1t:34:LYS:HE3	52:1t:80:ARG:HH12	1.41	0.86
42:1j:49:VAL:HG23	46:1n:41:ARG:HB2	1.57	0.86
52:2t:57:ARG:HH22	52:2t:100:ILE:HD12	1.40	0.86
42:1j:35:SER:HB3	42:1j:73:ASP:HB2	1.55	0.86
41:2i:53:VAL:O	41:2i:55:ALA:N	2.08	0.86
1:2A:2807:G:N1	1:2A:2893:G:O6	2.06	0.85
1:1A:2762:A:OP1	7:1H:3:ARG:NH1	2.09	0.85
32:1a:975:A:H4'	32:1a:976:G:H5"	1.58	0.85
1:1A:2149:G:N2	1:1A:2183:C:O2	2.08	0.85
32:1a:149:A:H61	32:1a:172:A:H62	1.20	0.85
36:1d:194:LEU:HD12	36:1d:195:ALA:H	1.42	0.85
34:2b:19:HIS:CE1	34:2b:206:ASP:HB2	2.12	0.85
1:1A:2331:G:N2	14:1S:3:ARG:HD3	1.90	0.85
1:1A:2159:C:N4	1:1A:2176:G:H1	1.74	0.84
1:2A:2102:U:O2	1:2A:2187:G:O6	1.94	0.84
1:2A:2468:G:OP1	12:2Q:119:ARG:NH2	2.10	0.84
37:2e:122:GLU:O	37:2e:126:ARG:NH1	2.11	0.84
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.40	0.84
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.41	0.84
21:2Z:144:LEU:HD11	21:2Z:150:LEU:HD22	1.59	0.84
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.13	0.84
40:2h:64:LYS:HG2	40:2h:79:VAL:HG21	1.58	0.84
20:1Y:92:ASN:H	20:1Y:92:ASN:HD22	1.24	0.84
35:2c:150:LYS:HG3	35:2c:169:ALA:HB2	1.57	0.84
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.60	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1143:U:H2'	1:1A:1144:A:O4'	1.78	0.83
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.44	0.83
37:2e:144:THR:H	37:2e:147:ASP:HB2	1.42	0.83
36:2d:165:MET:SD	36:2d:168:ARG:NH1	2.50	0.83
1:2A:1359:A:N6	1:2A:1372:U:O4	2.11	0.83
32:2a:673:G:H2'	32:2a:674:G:C8	2.14	0.83
34:2b:93:VAL:HG21	34:2b:97:TRP:CD1	2.13	0.83
34:2b:12:GLU:HA	34:2b:15:VAL:HG22	1.61	0.82
34:2b:119:GLU:HG3	34:2b:153:ARG:HH22	1.43	0.82
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.10	0.82
38:2f:99:ALA:HB1	50:2r:23:LYS:HE3	1.61	0.82
7:2H:98:LEU:HD22	7:2H:125:VAL:HG23	1.62	0.82
32:2a:559:A:OP1	37:2e:126:ARG:NH2	2.11	0.82
1:1A:1766:G:H8	1:1A:1770:A:H62	1.27	0.82
1:2A:1843:C:H5'	3:2D:253:GLN:NE2	1.95	0.82
1:2A:2079:U:OP1	23:21:21:ARG:NH2	2.13	0.82
32:2a:999:C:H42	32:2a:1042:G:H1	1.28	0.82
32:2a:1129:C:H2'	32:2a:1139:G:N7	1.95	0.82
34:2b:178:ARG:HH12	40:2h:68:ARG:HH22	1.27	0.82
1:1A:2188:G:O6	1:1A:2194:U:H5	1.63	0.81
32:2a:1285:A:H4'	32:2a:1286:A:H5'	1.61	0.81
32:2a:1441:G:H5"	32:2a:1442:G:H5'	1.60	0.81
35:2c:52:LEU:HD21	35:2c:55:VAL:HG23	1.61	0.81
3:1D:71:ASP:OD2	3:1D:103:ARG:NH2	2.13	0.81
32:1a:974:A:OP2	46:1n:29:ARG:NH2	2.14	0.81
18:2W:2:GLU:OE2	18:2W:72:LYS:NZ	2.12	0.81
1:1A:2155:G:H3'	1:1A:2179:G:H21	1.45	0.81
35:1c:15:THR:HG21	35:1c:181:ASN:HA	1.63	0.81
36:1d:162:LEU:HD13	36:1d:181:MET:HE2	1.62	0.81
1:2A:2103:C:O2	1:2A:2186:G:N2	2.13	0.81
1:2A:2131:G:H5"	1:2A:2132:U:H5'	1.61	0.81
34:2b:52:GLU:HG2	34:2b:56:ARG:HH21	1.43	0.81
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.43	0.81
34:1b:178:ARG:HH11	34:1b:178:ARG:HG3	1.45	0.81
32:2a:474:G:H2'	32:2a:475:G:H8	1.46	0.80
32:2a:1278:U:H5"	32:2a:1279:A:H5'	1.64	0.80
32:1a:269:C:H2'	32:1a:270:A:H8	1.46	0.80
1:2A:2849:U:O4	15:2T:23:ARG:NH2	2.15	0.80
21:2Z:2:GLU:HG2	21:2Z:56:VAL:HB	1.64	0.80
32:1a:973:G:OP1	42:1j:57:LYS:NZ	2.15	0.79
1:1A:1310:G:OP1	27:15:19:ARG:NH2	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:881:G:P	44:1l:12:ARG:HH22	2.05	0.79
37:1e:78:HIS:HD1	40:1h:104:ARG:HD2	1.45	0.79
41:2i:29:ASN:ND2	41:2i:65:VAL:O	2.14	0.79
42:2j:49:VAL:HG23	46:2n:41:ARG:HB2	1.64	0.79
32:2a:922:G:H4'	37:2e:20:GLN:HA	1.63	0.79
38:2f:89:MET:HE1	50:2r:72:ARG:HB3	1.64	0.79
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.65	0.79
19:1X:60:ARG:HH12	29:17:47:ARG:HH22	1.30	0.79
7:2H:17:VAL:HG22	7:2H:26:VAL:HG22	1.65	0.79
32:2a:1003:G:H2'	32:2a:1004:A:C4'	2.13	0.79
32:1a:169:C:H2'	32:1a:170:U:H6	1.47	0.79
32:2a:1099:G:OP2	34:2b:144:ARG:NH2	2.12	0.79
1:1A:1091:A:H5'	1:1A:1092:A:H5"	1.63	0.78
1:2A:9:U:N3	1:2A:2629:A:H2	1.79	0.78
1:1A:2159:C:N3	1:1A:2176:G:N2	2.31	0.78
34:1b:127:ILE:HD12	34:1b:130:ARG:HH11	1.49	0.78
1:1A:1106:U:H4'	1:1A:1107:U:H5'	1.66	0.78
12:1Q:21:THR:HG21	12:1Q:101:ARG:HB2	1.64	0.78
32:1a:171:A:H2'	32:1a:172:A:C8	2.19	0.78
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.65	0.78
51:2s:49:ILE:HG12	51:2s:62:ILE:HD11	1.64	0.78
1:1A:1102:G:N1	1:1A:1148:C:OP2	2.17	0.78
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.17	0.78
42:1j:37:PRO:HA	42:1j:72:VAL:HG12	1.66	0.77
19:1X:60:ARG:NH1	29:17:47:ARG:HH22	1.81	0.77
21:2Z:7:ALA:HB3	21:2Z:61:LEU:HD12	1.65	0.77
45:1m:78:ILE:HG22	45:1m:82:MET:HE2	1.64	0.77
32:2a:1034:G:H2'	32:2a:1035:A:O4'	1.84	0.77
1:2A:9:U:N3	1:2A:2629:A:C2	2.48	0.77
26:14:16:CYS:SG	26:14:17:GLY:N	2.57	0.77
1:1A:1100:A:H61	1:1A:1151:U:H3	1.33	0.77
32:2a:1125:U:O4	32:2a:1280:A:N7	2.17	0.77
1:1A:2133:C:H42	1:1A:2169:G:H22	1.33	0.76
41:2i:17:VAL:HG23	41:2i:63:ILE:HG12	1.68	0.76
1:1A:1219:A:H1'	1:1A:1220:U:H5'	1.68	0.76
51:1s:12:ASP:OD1	51:1s:37:ARG:NH1	2.18	0.76
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.18	0.76
36:2d:191:ARG:NH2	36:2d:200:GLU:OE1	2.15	0.76
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.18	0.76
27:15:16:ARG:HG2	27:15:16:ARG:HH11	1.50	0.76
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:126:VAL:HG12	11:2P:148:LEU:HD23	1.67	0.76
42:2j:6:ILE:HD13	42:2j:98:ILE:HG12	1.65	0.76
4:1E:12:THR:HG21	15:1T:11:GLU:OE2	1.85	0.76
1:2A:1063:G:N2	1:2A:1076:C:O2'	2.18	0.76
12:2Q:59:ARG:NH1	12:2Q:60:ARG:HE	1.84	0.76
1:1A:2149:G:H21	1:1A:2195:A:H1'	1.50	0.75
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.19	0.75
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.67	0.75
32:1a:191:G:H1'	52:1t:103:GLY:HA3	1.66	0.75
32:1a:67:C:H2'	32:1a:68:G:C8	2.21	0.75
32:2a:4:U:C4	40:2h:105:ARG:HD3	2.22	0.75
1:1A:1093:G:H2'	1:1A:1156:G:H22	1.49	0.75
1:1A:2289:G:OP2	22:10:10:THR:HG21	1.86	0.75
32:2a:564:C:O2'	40:2h:91:ARG:NH2	2.17	0.75
32:2a:999:C:N4	32:2a:1042:G:H1	1.83	0.75
1:2A:2882:A:OP1	13:2R:96:ARG:NH1	2.20	0.75
1:1A:1151:U:H2'	1:1A:1152:G:H8	1.50	0.75
1:1A:2102:G:H5'	23:11:35:THR:HG23	1.67	0.75
32:1a:17:U:H2'	32:1a:18:C:C6	2.22	0.75
32:1a:664:G:H22	32:1a:741:G:H1	1.35	0.75
50:2r:47:THR:HG23	50:2r:49:LYS:HG3	1.67	0.75
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.20	0.74
32:1a:920:U:H2'	32:1a:921:U:C6	2.22	0.74
1:2A:1843:C:H5'	3:2D:253:GLN:HE22	1.52	0.74
32:2a:1492:A:H2'	32:2a:1493:A:O4'	1.88	0.74
12:1Q:32:TYR:OH	12:1Q:111:GLU:HG3	1.88	0.74
1:2A:1071:G:N2	59:2A:3901:HOH:O	2.15	0.74
49:1q:6:LEU:HD23	49:1q:23:VAL:HG11	1.70	0.74
1:1A:1093:G:H2'	1:1A:1156:G:N2	2.03	0.74
34:1b:219:VAL:HA	34:1b:222:ILE:HD12	1.69	0.74
50:1r:29:PHE:HE1	50:1r:31:LEU:HD13	1.52	0.74
1:2A:1041:C:N4	1:2A:1114:G:H1	1.86	0.74
32:2a:406:G:H21	36:2d:119:GLN:NE2	1.84	0.74
32:2a:606:G:H5"	32:2a:607:A:H5'	1.70	0.74
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.21	0.74
28:26:14:THR:OG1	28:26:48:VAL:O	2.05	0.74
1:1A:2304:C:OP1	14:1S:17:ARG:NH2	2.21	0.73
36:1d:53:ASP:HB3	36:1d:57:ARG:HH12	1.53	0.73
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.18	0.73
47:1o:16:ALA:HB1	47:1o:21:ASP:HB3	1.69	0.73
39:2g:111:ARG:NH1	39:2g:113:GLU:OE2	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1036:G:H5"	32:1a:1037:C:C5	2.24	0.73
6:2G:131:TYR:HE2	6:2G:133:LEU:HD23	1.53	0.73
40:1h:14:ARG:NH1	40:1h:83:ILE:O	2.22	0.73
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.70	0.73
44:2l:70:ILE:HG12	44:2l:100:ILE:HD12	1.71	0.73
34:1b:9:GLU:HG3	34:1b:217:ARG:HH12	1.53	0.73
1:2A:1070:A:H2'	1:2A:1071:G:C8	2.24	0.73
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.24	0.73
34:2b:88:ALA:HB2	34:2b:219:VAL:HG13	1.70	0.73
1:1A:2151:C:N3	1:1A:2181:G:O6	2.22	0.73
44:2l:53:ARG:NH2	44:2l:92:0TD:OD1	2.18	0.73
32:1a:473:G:H2'	32:1a:474:G:H8	1.52	0.73
42:1j:38:ILE:HD11	42:1j:71:LEU:HD23	1.70	0.73
7:2H:113:VAL:HG11	7:2H:151:ILE:HD13	1.70	0.73
11:1P:140:ALA:O	25:23:38:GLU:HG2	1.89	0.72
17:1V:21:ARG:HD3	17:1V:91:TYR:CE1	2.24	0.72
45:1m:58:GLU:O	45:1m:62:ASN:ND2	2.19	0.72
21:2Z:40:ASP:HB3	21:2Z:43:GLU:HB2	1.71	0.72
22:20:70:GLN:NE2	22:20:72:ARG:HD2	2.04	0.72
11:2P:99:LEU:HD12	11:2P:102:ARG:HH21	1.54	0.72
45:2m:114:ARG:NH1	59:2m:301:HOH:O	2.21	0.72
1:1A:153:C:OP2	23:11:92:LYS:NZ	2.22	0.72
1:2A:2847:U:OP1	15:2T:98:LYS:NZ	2.22	0.72
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.22	0.72
34:1b:15:VAL:HG22	34:1b:209:ARG:HB3	1.71	0.72
27:25:16:ARG:HG2	27:25:16:ARG:HH11	1.54	0.72
32:2a:975:A:H4'	32:2a:976:G:H5"	1.72	0.72
1:1A:2156:A:H1'	1:1A:2181:G:H1'	1.70	0.72
52:1t:57:ARG:HH12	52:1t:100:ILE:HD12	1.52	0.72
1:1A:354:A:H2	1:1A:1255:A:HO2'	1.38	0.72
1:2A:2125:G:H22	1:2A:2172:U:H5"	1.54	0.72
7:2H:11:VAL:HG13	7:2H:15:VAL:HG22	1.71	0.72
32:2a:1028:C:H2'	32:2a:1033:G:H22	1.54	0.72
35:2c:22:TRP:CH2	35:2c:32:LEU:HB3	2.25	0.72
42:1j:16:LEU:HD23	42:1j:70:ARG:HG2	1.70	0.72
35:2c:121:ALA:HB2	35:2c:198:VAL:HG21	1.72	0.72
40:2h:14:ARG:NH1	40:2h:83:ILE:O	2.23	0.72
44:2l:117:ARG:HG2	44:2l:122:THR:HB	1.71	0.71
32:1a:437:U:H5'	36:1d:155:LEU:HD21	1.71	0.71
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.21	0.71
34:2b:71:VAL:HG12	34:2b:93:VAL:HG22	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1137:C:H4'	32:1a:1138:G:C2	2.25	0.71
16:1U:85:LYS:HE3	16:1U:117:GLN:HA	1.72	0.71
48:1p:20:VAL:HG23	48:1p:35:LYS:HA	1.72	0.71
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.70	0.71
5:2F:161:GLU:O	5:2F:165:ARG:HG3	1.89	0.71
32:1a:193:C:H2'	32:1a:194:C:H6	1.53	0.71
1:2A:1065:U:H3	1:2A:1073:A:H61	1.37	0.71
32:1a:407:G:H5"	36:1d:115:ARG:HG2	1.72	0.71
26:24:16:CYS:SG	26:24:17:GLY:N	2.64	0.71
32:1a:269:C:H2'	32:1a:270:A:C8	2.24	0.71
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.26	0.71
1:2A:1096:A:C5	1:2A:1097:U:H5	2.09	0.71
6:2G:136:ARG:HG3	6:2G:137:GLU:HG3	1.73	0.71
32:2a:406:G:N2	36:2d:119:GLN:HE22	1.87	0.71
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.70	0.70
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.26	0.70
32:2a:1116:C:H2'	32:2a:1117:G:H5"	1.73	0.70
32:2a:1301:U:O2'	32:2a:1302:U:H5'	1.91	0.70
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.07	0.70
8:2I:92:VAL:HG23	8:2I:120:ILE:HB	1.72	0.70
51:2s:38:SER:HB2	51:2s:71:LEU:HD22	1.73	0.70
32:1a:149:A:N6	32:1a:172:A:H62	1.89	0.70
34:2b:59:GLU:HG3	34:2b:221:LEU:HD11	1.73	0.70
44:2l:33:ARG:HD3	44:2l:62:SER:HB3	1.74	0.70
1:2A:1073:A:C2	1:2A:1074:G:C5	2.79	0.70
12:2Q:7:MET:HE1	21:2Z:194:PRO:HB3	1.74	0.70
32:2a:1162:C:H42	32:2a:1174:G:H1	1.39	0.70
37:2e:40:ARG:NH2	37:2e:68:GLU:HB3	2.06	0.70
32:2a:434:U:H2'	32:2a:435:C:C6	2.26	0.70
1:1A:1324:A:OP1	13:1R:36:THR:HG23	1.91	0.70
22:10:10:THR:HG22	22:10:12:ASN:H	1.55	0.70
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.27	0.70
32:1a:1212:U:H5'	32:1a:1213:A:H5'	1.73	0.70
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.20	0.70
1:1A:1219:A:C1'	1:1A:1220:U:H5'	2.22	0.70
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.26	0.70
34:1b:163:PHE:CD1	34:1b:185:ILE:HG13	2.27	0.70
35:1c:29:TYR:OH	46:1n:54:PRO:O	2.10	0.70
19:2X:65:ARG:HB3	19:2X:70:LEU:HD23	1.74	0.70
1:1A:2137:G:H4'	1:1A:2189:U:H4'	1.74	0.70
32:1a:177:C:OP1	52:1t:65:LYS:NZ	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:673:G:H2'	32:1a:674:G:C8	2.26	0.70
34:1b:134:GLU:HG3	34:1b:137:ARG:HH21	1.57	0.70
34:2b:166:ASP:HB3	34:2b:169:LYS:HB3	1.74	0.70
1:1A:1451:U:H2'	1:1A:1452:U:C6	2.26	0.69
7:1H:4:ILE:O	7:1H:69:ARG:HD2	1.92	0.69
32:1a:141:A:H1'	32:1a:182:U:O2	1.92	0.69
37:1e:8:GLU:HG3	37:1e:34:VAL:HG23	1.74	0.69
42:1j:42:THR:HG23	42:1j:68:HIS:HA	1.74	0.69
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.26	0.69
53:1u:9:ARG:HH12	53:1u:13:ILE:HD11	1.57	0.69
35:2c:58:GLU:HB3	42:2j:92:THR:HG21	1.72	0.69
38:2f:22:GLU:OE2	38:2f:82:ARG:NE	2.22	0.69
4:1E:73:GLU:H	4:1E:73:GLU:CD	1.99	0.69
5:1F:101:LEU:HD12	5:1F:102:PRO:HD2	1.74	0.69
47:1o:88:ARG:CZ	47:1o:88:ARG:HB3	2.23	0.69
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.28	0.69
32:1a:186:C:H2'	32:1a:187:C:C6	2.27	0.69
1:2A:2185:C:H5'	1:2A:2186:G:OP2	1.92	0.69
47:2o:25:THR:HG21	47:2o:70:LEU:HB2	1.73	0.69
52:2t:16:HIS:O	52:2t:19:SER:OG	2.09	0.69
21:1Z:198:LYS:HB3	21:1Z:202:GLU:HB3	1.73	0.69
32:1a:1103:C:OP1	34:1b:96:ARG:NH2	2.26	0.69
48:1p:5:ARG:NH1	48:1p:22:THR:HG21	2.07	0.69
20:2Y:30:VAL:HG22	20:2Y:37:VAL:HG12	1.73	0.69
1:1A:100:G:OP1	24:12:7:ARG:NH2	2.25	0.69
33:2x:53:THR:HG22	33:2x:62:VAL:HG12	1.74	0.69
1:2A:1038:C:N3	1:2A:1117:G:N2	2.36	0.69
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.25	0.69
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.74	0.69
34:2b:122:PHE:HD1	34:2b:127:ILE:HG21	1.57	0.69
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.28	0.69
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.73	0.69
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.08	0.69
46:1n:48:ALA:HB2	46:1n:53:LEU:HD12	1.74	0.69
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.75	0.69
32:2a:192:U:H2'	32:2a:193:C:H6	1.57	0.69
32:2a:736:C:H2'	32:2a:737:A:C8	2.28	0.69
43:2k:99:GLN:HG2	43:2k:105:VAL:HG21	1.75	0.69
7:1H:42:ARG:NH1	7:1H:53:GLU:OE1	2.26	0.69
32:1a:992:U:H4'	32:1a:993:G:H5'	1.74	0.69
1:2A:2099:U:H3	1:2A:2190:G:H1	1.39	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:125:ILE:HB	38:2f:81:ILE:HD11	1.73	0.69
34:2b:37:ASN:HB2	34:2b:39:ILE:HD12	1.74	0.69
34:2b:77:ALA:HB2	34:2b:211:ILE:HD13	1.75	0.69
40:2h:37:ARG:HH12	40:2h:41:ARG:HH21	1.40	0.69
8:1I:133:HIS:ND1	8:1I:134:PRO:O	2.24	0.69
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.26	0.69
32:2a:839:U:H3'	32:2a:840:C:C5	2.28	0.68
26:24:46:GLN:O	26:24:48:ARG:N	2.27	0.68
32:2a:677:U:H3	32:2a:713:G:H22	1.41	0.68
36:2d:13:ARG:HB3	36:2d:40:PRO:HD3	1.74	0.68
42:2j:32:ALA:HB1	42:2j:33:GLN:CD	2.19	0.68
32:1a:737:A:H2'	32:1a:738:C:C6	2.29	0.68
1:2A:479:A:N3	1:2A:481:G:H5"	2.08	0.68
11:2P:63:PRO:HG2	30:28:25:MET:HB2	1.75	0.68
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.75	0.68
38:2f:100:ASN:HD21	50:2r:23:LYS:HG2	1.59	0.68
37:1e:77:PRO:HG2	37:1e:78:HIS:HD2	1.57	0.68
6:2G:28:VAL:O	6:2G:31:VAL:HG13	1.93	0.68
1:1A:354:A:HO2'	1:1A:355:A:H8	1.39	0.68
11:1P:1:MET:HE2	11:1P:6:LEU:HD23	1.76	0.68
15:2T:39:ARG:NH2	32:2a:345:C:OP2	2.27	0.68
1:1A:1874:C:H5'	3:1D:253:GLN:NE2	2.07	0.68
1:1A:2102:G:OP1	23:11:35:THR:HG21	1.93	0.68
39:1g:113:GLU:HG2	39:1g:119:ARG:HG2	1.75	0.68
1:2A:641:C:O2'	1:2A:2350:C:OP1	2.10	0.68
1:1A:1189:A:OP1	9:1N:25:ARG:NH2	2.26	0.68
8:1I:69:LYS:HG3	8:1I:138:ILE:HG12	1.76	0.68
32:1a:1158:C:H5	32:1a:1181:G:N1	1.87	0.68
35:1c:179:ARG:NH1	35:1c:206:GLU:OE1	2.27	0.68
32:2a:353:A:H5'	32:2a:353:A:H8	1.59	0.68
9:1N:12:ARG:NH1	9:1N:50:ASP:OD2	2.26	0.68
32:2a:1263:C:H2'	32:2a:1264:C:H6	1.58	0.68
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.42	0.67
6:1G:83:ARG:H	6:1G:86:MET:HE3	1.59	0.67
32:1a:56:U:H2'	32:1a:57:G:C8	2.29	0.67
32:1a:1010:G:H22	32:1a:1020:U:H1'	1.59	0.67
20:1Y:92:ASN:HB2	20:1Y:94:LYS:N	2.08	0.67
35:1c:6:HIS:HD2	35:1c:8:ILE:H	1.42	0.67
32:2a:1223:C:OP2	51:2s:78:ARG:NH2	2.28	0.67
37:2e:8:GLU:HB3	37:2e:34:VAL:HG23	1.76	0.67
49:2q:62:SER:OG	49:2q:72:ARG:HG3	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1798:U:OP2	3:2D:274:ARG:NH2	2.27	0.67
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.29	0.67
6:2G:41:GLN:HB3	6:2G:43:LEU:HD13	1.74	0.67
43:2k:81:ASP:OD1	43:2k:107:SER:OG	2.12	0.67
1:1A:542:C:OP1	27:15:16:ARG:NH2	2.27	0.67
1:1A:2801:C:OP1	4:1E:61:ARG:NH2	2.26	0.67
47:1o:56:LEU:O	47:1o:60:VAL:HG23	1.94	0.67
50:1r:32:ARG:HA	50:1r:69:THR:HG21	1.77	0.67
1:2A:2315:G:OP1	6:2G:36:LYS:NZ	2.25	0.67
6:2G:83:ARG:H	6:2G:86:MET:HE3	1.59	0.67
32:2a:1310:G:H1	32:2a:1327:C:H42	1.42	0.67
35:2c:108:ASN:HD21	35:2c:144:SER:HB3	1.59	0.67
42:2j:11:PHE:HE1	42:2j:67:THR:HG22	1.58	0.67
39:2g:27:ILE:HD12	39:2g:40:ALA:HA	1.75	0.67
1:2A:2206:G:H5"	1:2A:2207:G:N7	2.10	0.67
16:2U:104:GLN:HE21	16:2U:105:VAL:HG23	1.58	0.67
32:2a:624:C:H2'	32:2a:625:G:H8	1.59	0.67
32:1a:659:U:H2'	32:1a:660:G:H8	1.59	0.67
38:1f:38:GLU:OE1	38:1f:64:GLN:NE2	2.28	0.67
32:2a:920:U:H2'	32:2a:921:U:C6	2.30	0.67
35:2c:20:SER:HB2	35:2c:40:ARG:HH21	1.60	0.67
32:1a:134:A:H61	48:1p:25:ARG:HH12	1.43	0.67
34:1b:231:GLU:HB3	34:1b:232:PRO:CD	2.24	0.67
1:2A:1416:G:HO2'	1:2A:1417:C:H5	1.41	0.67
5:2F:21:ALA:CB	5:2F:22:ALA:HA	2.25	0.67
32:2a:141:A:H1'	32:2a:182:U:O2	1.95	0.67
32:2a:448:A:OP2	32:2a:485:G:N2	2.20	0.67
39:2g:115:ARG:HH11	39:2g:118:VAL:HG21	1.59	0.67
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.77	0.66
35:2c:70:VAL:HG22	35:2c:72:LYS:H	1.60	0.66
1:1A:1566:U:H2'	1:1A:1567:G:O4'	1.95	0.66
32:1a:193:C:H2'	32:1a:194:C:C6	2.30	0.66
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.77	0.66
22:20:70:GLN:HE21	22:20:72:ARG:HD2	1.60	0.66
47:2o:16:ALA:HB1	47:2o:21:ASP:HB3	1.76	0.66
1:1A:2155:G:C2	1:1A:2179:G:H2'	2.29	0.66
41:1i:17:VAL:HG21	41:1i:81:ILE:HG22	1.77	0.66
1:2A:1056:G:H5"	1:2A:1057:A:H5'	1.77	0.66
8:2I:4:ILE:HD11	8:2I:44:LEU:HD13	1.77	0.66
34:2b:47:THR:HA	34:2b:202:PRO:HG2	1.76	0.66
1:1A:714:U:O2	30:18:2:PRO:HD2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:179:ASP:O	21:2Z:182:LYS:HG2	1.94	0.66
32:2a:1356:G:H2'	32:2a:1357:A:C8	2.31	0.66
1:1A:1218:G:O2'	1:1A:1219:A:O4'	2.11	0.66
1:1A:1138:C:N4	1:1A:1145:G:H1	1.91	0.66
32:1a:169:C:H2'	32:1a:170:U:C6	2.30	0.66
32:2a:503:C:OP2	44:2l:116:SER:HB3	1.96	0.66
32:2a:552:U:O3'	44:2l:87:GLY:HA2	1.96	0.66
32:1a:343:U:H3	32:1a:346:G:H1	1.42	0.66
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.30	0.66
1:2A:1639:U:H2'	1:2A:1640:C:H5"	1.78	0.66
34:2b:146:GLN:O	34:2b:150:SER:HB3	1.95	0.66
32:1a:262:A:H2'	32:1a:263:A:C8	2.31	0.66
45:1m:17:VAL:O	45:1m:20:THR:OG1	2.11	0.66
32:2a:656:C:O2'	47:2o:28:GLN:NE2	2.29	0.66
51:2s:32:LYS:HA	51:2s:50:ALA:HB3	1.77	0.66
1:2A:1092:C:H2'	1:2A:1092:C:O2	1.95	0.66
7:2H:101:ARG:HG2	7:2H:117:PRO:HG2	1.78	0.66
15:2T:85:LYS:NZ	15:2T:87:ASP:OD2	2.29	0.66
23:21:50:ARG:HG2	23:21:59:THR:HB	1.77	0.66
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.10	0.66
1:1A:2148:A:H4'	1:1A:2149:G:O5'	1.96	0.65
32:1a:175:C:H2'	32:1a:176:C:C6	2.31	0.65
32:1a:201:C:N4	32:1a:216:G:H1	1.85	0.65
32:1a:790:A:C2	33:1x:29:LYS:HD3	2.31	0.65
32:1a:976:G:H5'	32:1a:1358:U:O2'	1.96	0.65
38:1f:69:GLU:O	38:1f:72:VAL:HG12	1.96	0.65
19:2X:11:PRO:HG2	19:2X:13:LEU:HD21	1.77	0.65
24:12:9:GLN:HE22	24:12:56:GLN:HB3	1.61	0.65
32:1a:454:C:OP1	48:1p:75:ARG:NH2	2.29	0.65
11:2P:121:LYS:HD3	11:2P:123:LEU:HD11	1.78	0.65
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.78	0.65
42:2j:37:PRO:HA	42:2j:72:VAL:HG12	1.78	0.65
32:1a:343:U:O2	32:1a:346:G:O6	2.15	0.65
35:1c:11:ARG:NH2	35:1c:177:THR:O	2.26	0.65
41:1i:16:ARG:HD3	41:1i:64:THR:HG21	1.77	0.65
1:2A:1410:G:H1	1:2A:1592:C:H42	1.44	0.65
1:2A:1069:A:C2	1:2A:1073:A:H5'	2.30	0.65
26:24:59:PHE:HA	26:24:61:ARG:N	2.11	0.65
32:1a:528:C:H5'	32:1a:529:G:OP2	1.96	0.65
41:1i:9:ARG:HG2	41:1i:14:VAL:HG13	1.79	0.65
38:2f:91:VAL:HG11	50:2r:72:ARG:NH1	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2i:106:ALA:O	41:2i:108:VAL:HG23	1.96	0.65
6:1G:43:LEU:HD11	6:1G:153:ARG:HD3	1.79	0.65
11:1P:1:MET:HE3	11:1P:5:ASP:HB2	1.78	0.65
39:1g:78:ARG:NH1	39:1g:154:TYR:O	2.28	0.65
32:2a:1103:C:OP1	34:2b:96:ARG:NH2	2.28	0.65
32:2a:1277:C:HO2'	32:2a:1279:A:H8	1.44	0.65
1:1A:1219:A:H4'	1:1A:1220:U:OP1	1.96	0.65
32:1a:130:A:O2'	32:1a:131:C:O5'	2.13	0.65
1:2A:2611:U:H6	1:2A:2611:U:H5'	1.61	0.65
17:2V:40:LEU:HB2	17:2V:46:VAL:HG13	1.79	0.65
1:1A:1539:C:H5	1:1A:2227:G:HO2'	1.44	0.65
32:1a:677:U:H3	32:1a:713:G:H22	1.44	0.65
32:1a:1132:C:H2'	32:1a:1133:G:H8	1.61	0.65
1:1A:1556:A:H2'	1:1A:1557:A:O4'	1.97	0.65
8:1I:31:LEU:HD21	8:1I:38:LEU:HD13	1.79	0.65
32:2a:619:U:N3	36:2d:134:ASP:OD1	2.26	0.65
45:2m:80:ARG:O	45:2m:84:ILE:HG23	1.97	0.65
1:1A:7:G:H2'	1:1A:8:A:O4'	1.97	0.65
32:1a:1123:A:O2'	42:1j:37:PRO:O	2.15	0.65
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.32	0.65
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.77	0.65
32:1a:353:A:H5'	32:1a:353:A:H8	1.61	0.64
32:1a:1040:U:H2'	32:1a:1041:A:H8	1.62	0.64
32:1a:1249:C:O4'	41:1i:70:LYS:HE3	1.97	0.64
37:1e:75:THR:OG1	37:1e:117:ASP:O	2.14	0.64
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HD13	1.79	0.64
32:2a:874:G:H2'	32:2a:875:C:H6	1.62	0.64
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.12	0.64
32:1a:1149:C:H2'	32:1a:1150:U:H6	1.61	0.64
40:1h:51:VAL:HG12	40:1h:52:ASP:H	1.61	0.64
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.26	0.64
45:2m:82:MET:HE3	45:2m:92:HIS:HB3	1.79	0.64
1:1A:2205:C:H2'	1:1A:2206:G:C8	2.33	0.64
14:2S:14:VAL:O	14:2S:18:ILE:HG12	1.97	0.64
17:2V:25:LEU:H	17:2V:92:THR:HG1	1.45	0.64
32:2a:881:G:P	44:2l:12:ARG:HH22	2.21	0.64
37:2e:6:PHE:HB2	37:2e:63:ARG:HH12	1.61	0.64
1:1A:1220:U:H1'	1:1A:1221:G:OP1	1.96	0.64
4:1E:34:VAL:HG22	4:1E:48:GLN:HE21	1.63	0.64
8:1I:77:LEU:HB3	8:1I:142:VAL:HG22	1.78	0.64
10:1O:104:ARG:NH2	15:1T:43:GLN:OE1	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.30	0.64
48:1p:72:ARG:HG2	48:1p:73:LEU:HD23	1.77	0.64
1:2A:2815:C:H5'	27:25:29:THR:HG21	1.79	0.64
1:1A:1093:G:HO2'	1:1A:1094:A:H8	1.45	0.64
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.80	0.64
34:1b:163:PHE:HA	34:1b:185:ILE:HG12	1.80	0.64
36:1d:153:ARG:O	36:1d:158:ILE:HD11	1.98	0.64
1:2A:625:G:N7	11:2P:107:LYS:NZ	2.39	0.64
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.45	0.64
32:2a:1187:G:OP1	41:2i:113:LYS:NZ	2.31	0.64
52:2t:60:GLU:HG3	52:2t:81:LYS:HD2	1.78	0.64
2:2B:75:G:H22	21:2Z:73:GLN:NE2	1.95	0.64
19:2X:60:ARG:HH22	29:27:47:ARG:HH12	1.44	0.64
32:2a:153:C:H2'	32:2a:154:C:H6	1.62	0.64
32:1a:1177:G:OP2	41:1i:97:LYS:NZ	2.30	0.64
32:2a:707:C:H2'	32:2a:708:C:H6	1.62	0.64
32:2a:750:G:N3	47:2o:23:GLY:HA3	2.13	0.64
32:1a:176:C:H2'	32:1a:177:C:C6	2.33	0.64
33:2x:80:LYS:HE2	32:2a:1401:G:OP1	1.96	0.64
1:2A:1518:U:H2'	1:2A:1519:G:O4'	1.97	0.64
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.33	0.64
1:1A:611:U:H2'	1:1A:612:C:C6	2.32	0.64
32:1a:765:G:H5"	32:1a:766:A:OP1	1.98	0.64
32:1a:1036:G:H5"	32:1a:1037:C:H5	1.60	0.64
43:1k:73:MET:HG2	43:1k:103:LEU:HD21	1.80	0.64
10:2O:2:ILE:HB	10:2O:33:ALA:HB3	1.79	0.64
13:2R:55:ALA:HB2	13:2R:79:LEU:HD13	1.79	0.64
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.33	0.64
5:2F:185:ASP:OD1	5:2F:188:ARG:NH1	2.28	0.64
35:2c:131:ARG:NH2	37:2e:50:GLU:HG3	2.13	0.64
21:1Z:52:SER:OG	21:1Z:53:ILE:N	2.31	0.63
7:2H:3:ARG:NH1	7:2H:5:GLY:H	1.96	0.63
32:2a:255:G:OP1	49:2q:69:LYS:NZ	2.28	0.63
32:2a:839:U:H3'	32:2a:840:C:H5	1.61	0.63
32:2a:1205:U:O2'	35:2c:195:VAL:HG23	1.98	0.63
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.33	0.63
1:1A:1102:G:H5'	1:1A:1131:A:N1	2.13	0.63
1:1A:1541:A:O2'	1:1A:1542:A:H5'	1.99	0.63
1:1A:2137:G:N3	1:1A:2139:A:N6	2.44	0.63
32:1a:165:C:H2'	32:1a:166:G:C8	2.33	0.63
32:1a:1409:C:H2'	32:1a:1410:G:C8	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1d:79:PHE:HE1	36:1d:204:ILE:HD13	1.64	0.63
1:2A:588:U:H2'	1:2A:589:C:C6	2.32	0.63
1:2A:1078:U:O2'	1:2A:1079:C:OP2	2.15	0.63
1:2A:2144:U:H2'	1:2A:2147:G:H1	1.62	0.63
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.80	0.63
32:1a:1005:A:C2	32:1a:1025:U:H1'	2.33	0.63
36:1d:61:LYS:NZ	36:1d:72:GLU:OE1	2.25	0.63
1:2A:2318:G:N2	14:2S:3:ARG:HE	1.97	0.63
42:2j:44:VAL:HG22	42:2j:66:ARG:HG2	1.80	0.63
32:1a:217:C:O2'	32:1a:470:C:N4	2.24	0.63
32:1a:373:A:H2'	32:1a:374:A:H8	1.61	0.63
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.34	0.63
40:1h:69:ARG:HD3	40:1h:76:PRO:HA	1.79	0.63
44:2l:87:GLY:O	44:2l:98:TYR:HA	1.99	0.63
50:2r:32:ARG:HA	50:2r:69:THR:HG21	1.78	0.63
1:1A:1091:A:H1'	1:1A:1093:G:N3	2.14	0.63
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.28	0.63
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.33	0.63
36:2d:63:LYS:NZ	36:2d:197:PRO:O	2.32	0.63
47:2o:56:LEU:O	47:2o:60:VAL:HG23	1.98	0.63
6:1G:165:THR:OG1	6:1G:168:GLU:HG3	1.98	0.63
32:1a:881:G:OP2	44:1l:12:ARG:NH2	2.31	0.63
1:1A:325:G:OP2	20:1Y:84:ARG:NH2	2.32	0.63
32:1a:559:A:OP1	37:1e:126:ARG:NH2	2.28	0.63
32:1a:1504:G:OP1	32:1a:1507:A:H4'	1.98	0.63
36:1d:196:LEU:HD12	36:1d:196:LEU:H	1.63	0.63
39:1g:110:GLN:HA	39:1g:110:GLN:HE21	1.64	0.63
1:2A:2584:U:O4	54:2y:9:ARG:NH2	2.32	0.63
47:2o:54:ARG:HG2	47:2o:58:MET:HE2	1.80	0.63
48:2p:58:TYR:O	48:2p:61:SER:OG	2.13	0.63
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.17	0.63
15:1T:55:ASN:H	15:1T:59:THR:HG22	1.63	0.63
34:1b:71:VAL:HG11	34:1b:97:TRP:HE1	1.63	0.63
42:1j:57:LYS:HD2	42:1j:60:ARG:HH21	1.63	0.63
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.32	0.63
5:1F:161:GLU:O	5:1F:165:ARG:HG3	1.99	0.63
7:1H:88:LEU:HD23	7:1H:130:ARG:HG3	1.81	0.63
36:1d:88:VAL:O	36:1d:92:VAL:HG23	1.99	0.63
45:1m:49:THR:HB	45:1m:52:GLU:H	1.63	0.63
1:2A:1803:A:O2'	3:2D:259:THR:HG21	1.99	0.63
32:2a:1192:C:OP2	35:2c:4:LYS:NZ	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2b:111:ARG:HG2	34:2b:111:ARG:HH11	1.64	0.63
1:1A:1873:G:O2'	3:1D:253:GLN:NE2	2.32	0.62
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.32	0.62
41:1i:46:ALA:HB2	41:1i:74:ILE:HG23	1.80	0.62
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.32	0.62
28:26:13:CYS:SG	28:26:47:THR:HG21	2.39	0.62
32:2a:406:G:H5'	36:2d:5:ILE:HD11	1.80	0.62
32:2a:735:C:O2'	32:2a:736:C:H5'	1.99	0.62
34:2b:9:GLU:C	34:2b:11:LEU:H	2.06	0.62
34:2b:11:LEU:HD12	34:2b:217:ARG:HH12	1.63	0.62
1:1A:2451:A:C8	1:1A:2451:A:H5'	2.34	0.62
32:1a:528:C:H6	32:1a:528:C:H5"	1.64	0.62
1:2A:1064:C:H1'	1:2A:1076:C:C4	2.34	0.62
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.32	0.62
26:24:64:GLY:O	26:24:66:SER:N	2.31	0.62
32:2a:1005:A:C6	32:2a:1024:G:N2	2.63	0.62
1:1A:1410:G:OP2	23:11:3:LYS:HD2	1.99	0.62
1:1A:1701:A:OP1	13:1R:1:MET:N	2.28	0.62
1:2A:2184:G:C2	1:2A:2185:C:H1'	2.33	0.62
36:2d:163:GLU:O	36:2d:166:LYS:HG2	1.99	0.62
26:14:61:ARG:HG3	26:14:62:ARG:H	1.64	0.62
35:1c:59:ARG:H	42:1j:92:THR:HG21	1.65	0.62
39:2g:114:ARG:HB2	39:2g:115:ARG:NH2	2.13	0.62
32:1a:135:C:O2	48:1p:1:MET:N	2.33	0.62
34:1b:19:HIS:HE1	34:1b:206:ASP:HB2	1.64	0.62
1:2A:1036:G:H1	1:2A:1119:C:H42	1.46	0.62
34:2b:16:HIS:HB2	34:2b:204:ASN:HB3	1.80	0.62
35:2c:6:HIS:HD2	35:2c:8:ILE:H	1.44	0.62
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.34	0.62
1:2A:2284:C:OP2	28:26:2:ALA:N	2.33	0.62
32:2a:520:A:N1	32:2a:536:C:H1'	2.14	0.62
1:1A:2339:A:H2'	1:1A:2340:A:C8	2.34	0.62
19:1X:60:ARG:HH12	29:17:47:ARG:NH2	1.98	0.62
32:1a:56:U:H2'	32:1a:57:G:H8	1.63	0.62
32:1a:1149:C:P	41:1i:9:ARG:HH21	2.22	0.62
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.35	0.62
15:2T:41:ARG:NH2	32:2a:346:G:OP1	2.30	0.62
25:23:6:VAL:HG13	25:23:56:VAL:HG22	1.81	0.62
32:2a:501:C:H2'	32:2a:502:G:H8	1.64	0.62
32:2a:874:G:H2'	32:2a:875:C:C6	2.34	0.62
32:2a:999:C:N3	32:2a:1042:G:N2	2.44	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1129:C:H1'	32:2a:1130:A:N7	2.14	0.62
36:2d:60:GLU:HG3	36:2d:202:LEU:HD12	1.80	0.62
47:1o:39:LEU:HD13	47:1o:56:LEU:HB2	1.82	0.62
1:2A:309:G:N3	1:2A:329:G:O2'	2.33	0.62
36:2d:88:VAL:O	36:2d:92:VAL:HG23	1.99	0.62
37:2e:77:PRO:HD2	37:2e:142:LEU:HD22	1.81	0.62
4:1E:47:VAL:HG21	4:1E:86:PRO:HD2	1.81	0.62
32:1a:1379:G:H2'	32:1a:1380:U:H6	1.65	0.62
32:2a:134:A:N6	48:2p:25:ARG:HH22	1.98	0.62
35:2c:78:GLY:HA3	35:2c:83:ARG:H	1.64	0.62
1:1A:1140:U:O2'	1:1A:1142:A:N7	2.30	0.62
32:1a:540:G:H2'	32:1a:541:G:O4'	1.99	0.62
34:1b:36:ARG:O	34:1b:38:GLY:N	2.29	0.62
36:1d:107:ARG:HH22	36:1d:194:LEU:HD11	1.65	0.62
42:1j:7:LYS:HB3	42:1j:97:GLU:HB2	1.81	0.62
1:2A:674:G:O2'	5:2F:74:ARG:HD3	1.99	0.62
1:2A:1057:A:N7	1:2A:1086:A:H2'	2.14	0.62
1:1A:2255:U:H2'	1:1A:2256:U:C6	2.34	0.61
32:1a:1268:A:H2'	32:1a:1269:A:C8	2.35	0.61
35:1c:114:PRO:HA	35:1c:185:GLY:HA3	1.80	0.61
40:1h:11:THR:HG23	40:1h:14:ARG:HH21	1.64	0.61
1:2A:1913:A:H2	32:2a:1492:A:N6	1.98	0.61
1:2A:1991:U:H2'	1:2A:1992:G:H5"	1.82	0.61
32:2a:457:C:H2'	32:2a:458:C:H6	1.64	0.61
1:1A:2228:G:O2'	1:1A:2229:A:OP1	2.16	0.61
32:1a:1030(C):G:H2'	32:1a:1030(D):A:N7	2.13	0.61
34:1b:134:GLU:O	34:1b:138:LEU:HG	2.00	0.61
2:2B:44:G:OP1	6:2G:98:ARG:NH2	2.34	0.61
32:2a:1223:C:P	51:2s:78:ARG:HH21	2.22	0.61
24:12:32:LEU:HD22	24:12:36:ARG:HH11	1.65	0.61
32:1a:1406:U:H3'	32:1a:1407:5MC:HM53	1.83	0.61
32:2a:1104:G:H4'	34:2b:111:ARG:NH1	2.15	0.61
48:2p:42:ARG:HB3	48:2p:44:THR:HG23	1.82	0.61
4:1E:1:MET:HE2	4:1E:202:LYS:HE2	1.80	0.61
7:1H:86:GLU:OE2	7:1H:132:ARG:NH2	2.33	0.61
32:1a:1030:C:H3'	32:1a:1030(A):G:H4'	1.80	0.61
32:1a:1346:A:H5"	41:1i:120:ARG:NH1	2.14	0.61
39:1g:111:ARG:NH1	39:1g:113:GLU:OE2	2.32	0.61
4:2E:12:THR:HG21	15:2T:11:GLU:OE2	2.00	0.61
35:2c:131:ARG:HD3	35:2c:166:GLU:HG2	1.82	0.61
1:1A:1100:A:N6	1:1A:1151:U:H3	1.97	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1809:U:H2'	1:1A:1815:A:N6	2.15	0.61
6:1G:59:GLU:OE1	6:1G:153:ARG:NH2	2.33	0.61
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.32	0.61
24:12:32:LEU:HD22	24:12:36:ARG:NH1	2.16	0.61
32:1a:1171:G:H2'	32:1a:1172:C:C6	2.36	0.61
34:1b:76:GLN:HG2	34:1b:206:ASP:O	2.00	0.61
1:2A:323:G:O2'	1:2A:1205:U:N3	2.27	0.61
1:2A:2641:G:P	9:2N:74:ARG:HH21	2.24	0.61
32:2a:1442:G:O2'	32:2a:1442(A):G:O5'	2.15	0.61
35:2c:50:ALA:HB1	35:2c:70:VAL:HG21	1.82	0.61
42:2j:42:THR:HG23	42:2j:68:HIS:HA	1.83	0.61
1:1A:2151:C:O2	1:1A:2181:G:N1	2.20	0.61
1:1A:2623:U:H6	1:1A:2623:U:H5'	1.65	0.61
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.36	0.61
39:1g:15:ASP:O	39:1g:19:GLY:N	2.27	0.61
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.36	0.61
32:2a:736:C:H2'	32:2a:737:A:H8	1.62	0.61
32:2a:973:G:OP1	42:2j:57:LYS:NZ	2.20	0.61
1:1A:173:C:H2'	1:1A:174:U:C6	2.36	0.61
1:1A:2133:C:N4	1:1A:2169:G:H22	1.98	0.61
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.81	0.61
24:12:16:LEU:O	24:12:67:LYS:NZ	2.34	0.61
31:19:32:HIS:O	31:19:34:GLN:HG3	2.00	0.61
1:2A:2134:A:C5	1:2A:2157:G:H4'	2.34	0.61
47:2o:28:GLN:HE21	47:2o:66:LEU:HD21	1.64	0.61
4:1E:103:ASP:OD2	4:1E:168:MET:HE3	2.01	0.61
6:1G:110:ALA:HB1	6:1G:140:ILE:HG23	1.83	0.61
32:1a:1024:G:N2	32:1a:1025:U:O4'	2.32	0.61
32:1a:1066:C:O2'	32:1a:1067:A:H5'	2.00	0.61
1:2A:1067:A:O4'	1:2A:1068:G:N2	2.34	0.61
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.36	0.61
1:2A:1495:A:O2'	1:2A:1496:A:H5'	2.01	0.61
32:2a:653:A:OP1	40:2h:56:LYS:NZ	2.30	0.61
37:2e:122:GLU:HB2	37:2e:126:ARG:HD3	1.82	0.61
1:1A:2304:C:P	14:1S:17:ARG:HH21	2.24	0.61
32:1a:345:C:H4'	32:1a:346:G:H5"	1.83	0.61
32:1a:1409:C:H2'	32:1a:1410:G:H8	1.65	0.61
32:1a:1519:MA6:H8	32:1a:1519:MA6:O5'	2.01	0.61
41:1i:24:GLY:HA2	41:1i:59:PHE:O	2.01	0.61
1:2A:821:A:H2'	1:2A:946:G:H5"	1.83	0.61
32:1a:404:U:OP2	36:1d:118:ARG:NH2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:404:U:O2	32:2a:498:U:C5	2.54	0.61
34:2b:19:HIS:HE1	34:2b:206:ASP:HB2	1.66	0.61
1:1A:1110:C:H3'	1:1A:1111:U:C5'	2.30	0.60
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.36	0.60
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.83	0.60
32:1a:642:A:N3	40:1h:113:SER:OG	2.34	0.60
17:2V:28:GLU:O	17:2V:61:VAL:HG21	2.01	0.60
22:20:11:ARG:O	22:20:14:ARG:NH2	2.34	0.60
32:2a:114:U:O2'	32:2a:115:G:H5'	2.01	0.60
32:2a:828:A:H2'	32:2a:829:G:O4'	2.01	0.60
32:2a:1406:U:O2	32:2a:1517:G:N2	2.33	0.60
36:2d:38:TYR:CE1	36:2d:45:GLN:HG2	2.35	0.60
40:1h:41:ARG:NH1	40:1h:123:GLU:OE2	2.33	0.60
32:2a:153:C:H2'	32:2a:154:C:C6	2.36	0.60
32:1a:266:G:O3'	49:1q:67:LYS:HB2	2.01	0.60
40:1h:20:TYR:CE2	40:1h:75:ARG:HD2	2.36	0.60
52:1t:10:LEU:HD12	52:1t:12:ALA:HB2	1.82	0.60
52:1t:37:SER:O	52:1t:41:ILE:HG13	2.00	0.60
1:2A:2166:G:H22	1:2A:2172:U:H5	1.48	0.60
32:2a:179:A:H2'	32:2a:180:U:C6	2.36	0.60
32:2a:279:A:OP2	49:2q:95:TYR:OH	2.16	0.60
34:1b:166:ASP:HB3	34:1b:169:LYS:HB3	1.83	0.60
35:1c:50:ALA:HB1	35:1c:70:VAL:HG21	1.82	0.60
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.66	0.60
26:24:41:PRO:HG3	26:24:49:PHE:CE2	2.36	0.60
32:2a:410:G:H5"	32:2a:411:A:OP1	2.01	0.60
32:2a:1348:U:H4'	41:2i:120:ARG:HD2	1.82	0.60
36:2d:196:LEU:H	36:2d:196:LEU:HD12	1.65	0.60
46:2n:23:ARG:NH1	46:2n:30:ALA:HB2	2.16	0.60
32:1a:108:G:N1	52:1t:15:ARG:HG2	2.17	0.60
32:1a:1367:C:H5'	42:1j:60:ARG:HH12	1.66	0.60
32:2a:189:G:H2'	32:2a:189(A):C:C6	2.36	0.60
37:2e:9:LYS:NZ	37:2e:111:GLU:OE1	2.32	0.60
1:1A:354:A:H2	1:1A:1255:A:O2'	1.83	0.60
1:1A:2303:U:H2'	1:1A:2304:C:C6	2.36	0.60
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.82	0.60
28:16:35:GLU:OE2	28:16:50:ARG:NH1	2.34	0.60
32:1a:890:G:O2'	32:1a:906:G:O6	2.15	0.60
1:2A:848:G:H2'	1:2A:849:A:C8	2.37	0.60
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.37	0.60
1:2A:2473:U:O2	1:2A:2473:U:H2'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.33	0.60
35:2c:123:GLN:O	35:2c:128:PHE:HB2	2.02	0.60
40:2h:119:LEU:HB3	40:2h:123:GLU:HB2	1.84	0.60
4:1E:9:VAL:HB	15:1T:3:ARG:HG2	1.83	0.60
32:1a:1368:G:OP1	41:1i:111:ARG:NH2	2.35	0.60
34:1b:67:THR:HA	34:1b:90:MET:HE2	1.83	0.60
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.37	0.60
6:1G:50:ALA:O	6:1G:52:ILE:N	2.35	0.60
6:1G:77:ILE:HG21	6:1G:80:PHE:CD2	2.37	0.60
7:1H:98:LEU:HD13	7:1H:125:VAL:HG23	1.83	0.60
17:1V:29:PRO:HA	17:1V:61:VAL:HG22	1.83	0.60
32:1a:656:C:O2'	47:1o:28:GLN:NE2	2.34	0.60
32:1a:1014:A:C2	32:1a:1219:U:H1'	2.37	0.60
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.65	0.60
32:2a:437:U:H5'	36:2d:155:LEU:HD21	1.84	0.60
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.34	0.60
39:2g:54:THR:O	39:2g:56:GLN:N	2.33	0.60
12:1Q:32:TYR:CZ	12:1Q:111:GLU:HG3	2.37	0.60
28:16:12:GLU:OE1	28:16:52:VAL:HG21	2.01	0.60
32:1a:1216:G:H5"	46:1n:5:ALA:HB2	1.83	0.60
35:1c:59:ARG:H	42:1j:92:THR:CG2	2.14	0.60
37:1e:57:LYS:HG2	37:1e:61:TYR:CE2	2.36	0.60
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.02	0.60
26:24:61:ARG:HH21	51:2s:42:PRO:CD	2.15	0.60
42:2j:8:LEU:HB2	42:2j:70:ARG:HB2	1.84	0.60
6:1G:50:ALA:C	6:1G:52:ILE:H	2.10	0.60
32:1a:201:C:N3	32:1a:216:G:N2	2.45	0.60
52:1t:9:ASN:N	52:1t:9:ASN:OD1	2.34	0.60
15:2T:65:LYS:HE2	15:2T:67:SER:HB2	1.84	0.60
32:2a:1027:C:O2'	32:2a:1034:G:C2	2.55	0.60
37:2e:152:ARG:HB2	40:2h:43:GLY:O	2.02	0.60
1:1A:1124:U:H4'	1:1A:1125:C:H5'	1.84	0.59
1:1A:1827:U:H2'	1:1A:1828:C:C6	2.36	0.59
3:1D:89:SER:HB2	3:1D:159:ALA:HB2	1.84	0.59
32:1a:627:G:H2'	32:1a:628:G:H8	1.66	0.59
42:1j:55:LYS:HE3	42:1j:56:HIS:CE1	2.37	0.59
43:1k:99:GLN:HG2	43:1k:105:VAL:HG21	1.84	0.59
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.84	0.59
32:2a:407:G:H5"	36:2d:115:ARG:HG2	1.83	0.59
34:1b:9:GLU:HG3	34:1b:217:ARG:HH22	1.66	0.59
1:2A:2621:A:OP1	4:2E:119:ARG:NH2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2p:20:VAL:HG21	48:2p:32:TYR:CG	2.37	0.59
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.83	0.59
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.85	0.59
32:1a:920:U:H2'	32:1a:921:U:H6	1.67	0.59
7:2H:30:LYS:HG3	7:2H:80:SER:O	2.01	0.59
9:2N:20:GLY:HA2	9:2N:61:ARG:HG3	1.84	0.59
21:2Z:157:LEU:HB3	21:2Z:161:VAL:HG12	1.84	0.59
32:2a:1517:G:H3'	32:2a:1518:MA6:H8	1.84	0.59
1:1A:1431:G:O2'	1:1A:1442:U:O2	2.19	0.59
6:1G:15:VAL:HG13	6:1G:175:LEU:HB3	1.84	0.59
32:1a:203:U:OP2	32:1a:203:U:H2'	2.03	0.59
32:1a:406:G:N2	36:1d:119:GLN:HE22	2.01	0.59
1:2A:1068:G:H3'	1:2A:1096:A:OP2	2.03	0.59
22:20:49:LYS:HG2	22:20:50:ASN:ND2	2.18	0.59
26:24:62:ARG:HH11	26:24:62:ARG:H	1.51	0.59
32:2a:434:U:H2'	32:2a:435:C:H6	1.66	0.59
1:1A:1898:A:H2'	1:1A:1899:A:C8	2.37	0.59
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD22	1.83	0.59
32:1a:630:G:H2'	32:1a:631:G:O4'	2.02	0.59
36:1d:173:TRP:CZ3	36:1d:174:LEU:HD11	2.38	0.59
38:1f:91:VAL:HG11	50:1r:72:ARG:NH1	2.17	0.59
1:2A:2128:C:H3'	1:2A:2129:C:H5"	1.84	0.59
6:2G:4:ASP:OD1	6:2G:9:ARG:NH2	2.35	0.59
25:23:39:ASP:OD1	25:23:44:ARG:HD2	2.03	0.59
32:2a:134:A:N1	48:2p:25:ARG:NH2	2.50	0.59
32:2a:1435:G:H2'	32:2a:1436:U:H6	1.65	0.59
32:1a:179:A:H2'	32:1a:180:U:H6	1.68	0.59
36:1d:79:PHE:CE1	36:1d:204:ILE:HD13	2.37	0.59
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.38	0.59
32:2a:222:U:H2'	32:2a:223:U:C6	2.37	0.59
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.68	0.59
1:1A:1233:U:H4'	17:1V:79:VAL:HG22	1.85	0.59
1:1A:1425:A:H4'	1:1A:1426:G:OP2	2.02	0.59
1:1A:2149:G:N2	1:1A:2195:A:H1'	2.16	0.59
32:1a:672:U:O2'	32:1a:673:G:O5'	2.17	0.59
1:2A:9:U:C4	1:2A:2629:A:H2	2.21	0.59
1:2A:291:C:H42	1:2A:349:G:H1	1.50	0.59
32:2a:164:U:H2'	32:2a:165:C:C6	2.38	0.59
34:2b:80:ILE:HD11	34:2b:212:GLN:HA	1.85	0.59
50:2r:45:SER:OG	50:2r:47:THR:HG22	2.02	0.59
32:1a:198:G:C6	32:1a:220:G:C2	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2147:G:H2'	1:2A:2148:G:O4'	2.03	0.59
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.18	0.59
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.85	0.59
6:2G:170:ARG:NE	6:2G:174:GLU:OE1	2.25	0.59
1:1A:268:G:H5'	23:11:81:LYS:HE3	1.85	0.59
1:1A:1211:U:H2'	1:1A:1212:C:C6	2.38	0.59
1:1A:1834:A:O2'	3:1D:259:THR:HG21	2.03	0.59
31:19:15:LYS:HE2	31:19:17:ILE:HD11	1.84	0.59
32:1a:757:U:H2'	32:1a:758:G:O4'	2.03	0.59
32:1a:986:A:H1'	51:1s:54:GLY:O	2.03	0.59
32:1a:1032:G:H2'	32:1a:1033:G:O4'	2.03	0.59
41:1i:106:ALA:O	41:1i:108:VAL:HG23	2.01	0.59
1:2A:11:G:C2'	1:2A:12:U:H5"	2.29	0.59
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.68	0.59
6:2G:46:ALA:HB2	6:2G:53:LEU:HD12	1.85	0.59
20:2Y:8:LYS:HD3	20:2Y:97:ARG:NH2	2.18	0.59
32:2a:474:G:H2'	32:2a:475:G:C8	2.35	0.59
32:2a:1179:A:H5"	41:2i:102:LEU:HD13	1.85	0.59
1:2A:1557:C:H5"	1:2A:1558:A:OP2	2.03	0.59
1:2A:2155:G:H2'	1:2A:2156:G:O4'	2.03	0.59
34:2b:83:MET:SD	34:2b:234:PRO:HB2	2.42	0.59
36:2d:8:VAL:HG12	36:2d:22:LYS:HE2	1.85	0.59
36:2d:79:PHE:CE1	36:2d:204:ILE:HD13	2.38	0.59
41:2i:17:VAL:HG11	41:2i:80:GLY:C	2.28	0.59
6:1G:161:THR:CG2	6:1G:163:ALA:H	2.15	0.58
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	1.84	0.58
27:15:11:THR:HG23	27:15:15:ARG:HB3	1.85	0.58
32:1a:1132:C:H2'	32:1a:1133:G:C8	2.38	0.58
41:1i:17:VAL:HG11	41:1i:80:GLY:C	2.27	0.58
1:2A:102:G:OP1	24:22:7:ARG:NH2	2.35	0.58
8:2I:29:TYR:HD2	8:2I:30:LEU:HD23	1.67	0.58
32:2a:1289:A:OP1	53:2u:9:ARG:NH2	2.29	0.58
35:2c:148:GLY:HA3	35:2c:172:ARG:O	2.03	0.58
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.03	0.58
32:1a:735:C:H2'	32:1a:736:C:H6	1.67	0.58
1:2A:71:A:N7	19:2X:31:HIS:HE1	2.01	0.58
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.37	0.58
41:2i:4:TYR:CE1	41:2i:88:TYR:HA	2.38	0.58
47:2o:17:ARG:HH11	47:2o:17:ARG:HG3	1.67	0.58
1:1A:2138:G:OP1	1:1A:2188:G:N2	2.36	0.58
32:1a:1109:C:H2'	32:1a:1110:A:O4'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2115:G:H22	1:2A:2119:A:H5'	1.67	0.58
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.36	0.58
26:24:20:ASN:ND2	26:24:38:LYS:HG2	2.17	0.58
32:2a:444:C:H2'	32:2a:445:G:H8	1.68	0.58
47:2o:11:VAL:HG21	47:2o:34:LEU:HD22	1.84	0.58
1:1A:2285:A:H2'	1:1A:2286:A:C8	2.38	0.58
10:1O:64:ARG:HB2	10:1O:79:PHE:CD2	2.38	0.58
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.33	0.58
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.38	0.58
1:2A:2168:G:O2'	1:2A:2170:A:N6	2.36	0.58
10:2O:68:GLU:OE1	10:2O:78:ARG:NH1	2.36	0.58
32:2a:632:A:C8	32:2a:632:A:H5"	2.37	0.58
1:1A:1126:C:H2'	1:1A:1127:U:H6	1.69	0.58
20:1Y:30:VAL:HG22	20:1Y:37:VAL:HG12	1.85	0.58
32:1a:142:G:H2'	32:1a:143:A:H8	1.67	0.58
33:2x:74:ILE:O	33:2x:78:ILE:HG12	2.04	0.58
36:1d:107:ARG:HG3	36:1d:107:ARG:NH1	2.07	0.58
1:2A:602:G:O2'	1:2A:655:A:N6	2.36	0.58
1:2A:1048:A:C2	1:2A:1112:G:N3	2.71	0.58
1:2A:2439:A:H5'	1:2A:2439:A:C8	2.39	0.58
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.04	0.58
6:2G:114:ILE:HA	6:2G:140:ILE:HD12	1.85	0.58
7:2H:18:GLU:HB3	7:2H:25:LYS:HB2	1.84	0.58
32:2a:1058:G:H2'	32:2a:1059:C:O4'	2.04	0.58
32:2a:1210:C:H2'	32:2a:1211:U:H5"	1.85	0.58
37:2e:144:THR:N	37:2e:147:ASP:HB2	2.18	0.58
1:1A:1071:G:C4	1:1A:1180:C:H1'	2.39	0.58
32:1a:474:G:H2'	32:1a:475:G:H8	1.68	0.58
34:1b:19:HIS:CE1	34:1b:206:ASP:HB2	2.38	0.58
36:1d:106:TYR:HD2	36:1d:107:ARG:HD3	1.69	0.58
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.39	0.58
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.37	0.58
7:2H:24:VAL:HG22	7:2H:35:VAL:HB	1.86	0.58
32:2a:632:A:H5'	32:2a:633:G:OP2	2.02	0.58
32:1a:183:G:H5"	32:1a:183:G:H8	1.69	0.58
32:1a:910:C:H5"	44:1l:97:ARG:HH22	1.68	0.58
40:1h:12:ARG:NH1	40:1h:25:ASP:O	2.37	0.58
52:1t:14:LYS:HG2	52:1t:18:GLN:HE21	1.68	0.58
1:2A:2103:C:N3	1:2A:2104:G:N2	2.52	0.58
34:2b:67:THR:HA	34:2b:90:MET:HE2	1.85	0.58
36:2d:62:GLN:OE1	36:2d:65:ARG:NH1	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:2o:5:LYS:N	47:2o:5:LYS:HZ2	2.01	0.58
4:1E:47:VAL:HG23	4:1E:84:PHE:O	2.03	0.58
32:1a:1086:U:H3	32:1a:1099:G:H22	1.52	0.58
34:1b:83:MET:SD	34:1b:234:PRO:HB2	2.44	0.58
36:1d:108:LEU:HB3	36:1d:110:PHE:CE1	2.39	0.58
1:2A:1503:U:H2'	1:2A:1504:C:H6	1.68	0.58
1:2A:1903:G:OP1	3:2D:241:PRO:HB2	2.04	0.58
7:2H:102:ALA:HA	7:2H:117:PRO:HD3	1.86	0.58
14:2S:46:VAL:HG12	14:2S:48:LEU:HD12	1.84	0.58
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.84	0.58
32:2a:57:G:H2'	32:2a:58:C:C6	2.39	0.58
35:1c:17:ASP:OD1	35:1c:18:TRP:N	2.37	0.58
37:1e:36:ASP:OD1	37:1e:38:GLN:N	2.33	0.58
42:1j:16:LEU:HD22	42:1j:68:HIS:HB2	1.85	0.58
44:1l:71:PRO:O	44:1l:102:ARG:HD3	2.04	0.58
45:1m:59:TYR:CE1	45:1m:63:THR:HG21	2.39	0.58
1:2A:2126:A:H4'	1:2A:2127:G:O5'	2.03	0.58
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	1.85	0.58
6:2G:12:TYR:HA	6:2G:16:ARG:CG	2.34	0.58
32:2a:1128:C:O2'	32:2a:1147:C:N3	2.34	0.58
48:2p:75:ARG:HG3	48:2p:80:PHE:HD2	1.68	0.58
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.37	0.58
32:1a:738:C:H2'	32:1a:739:C:H6	1.67	0.58
34:1b:84:GLU:HB3	34:1b:219:VAL:HG21	1.86	0.58
6:2G:80:PHE:O	6:2G:82:LEU:N	2.36	0.58
32:2a:1277:C:O2'	32:2a:1279:A:H8	1.87	0.58
32:2a:1411:C:H2'	32:2a:1412:C:H6	1.68	0.58
32:1a:493:G:N2	32:1a:494:U:O4	2.37	0.57
32:1a:1171:G:H2'	32:1a:1172:C:H6	1.69	0.57
1:2A:30:G:H2'	1:2A:31:C:C6	2.39	0.57
1:2A:478:A:N1	1:2A:500:G:H4'	2.19	0.57
5:2F:110:LEU:HD11	5:2F:181:LEU:HG	1.86	0.57
32:2a:667:G:OP1	32:2a:732:C:O2'	2.11	0.57
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.39	0.57
47:2o:6:GLU:OE1	47:2o:6:GLU:N	2.36	0.57
14:1S:39:ILE:HB	14:1S:49:VAL:HG12	1.86	0.57
32:1a:625:G:H2'	32:1a:626:U:H6	1.68	0.57
32:1a:667:G:OP1	32:1a:732:C:O2'	2.17	0.57
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.39	0.57
1:2A:1589:C:H2'	1:2A:1590:U:H6	1.69	0.57
12:2Q:60:ARG:NH2	21:2Z:181:GLU:HG2	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:87:LYS:HB3	20:2Y:95:LYS:HD2	1.86	0.57
32:2a:943:U:H1'	41:2i:124:GLN:HE22	1.69	0.57
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.39	0.57
45:2m:15:VAL:HA	45:2m:18:ALA:HB3	1.85	0.57
1:1A:1410:G:C8	23:11:3:LYS:HE2	2.39	0.57
32:1a:450:G:OP1	48:1p:43:LYS:NZ	2.37	0.57
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.04	0.57
38:1f:76:ALA:O	38:1f:80:ARG:HG3	2.05	0.57
48:1p:38:TYR:O	48:1p:49:LEU:HD12	2.04	0.57
48:1p:74:LEU:HD23	48:1p:79:VAL:HG21	1.86	0.57
1:2A:1066:U:H2'	1:2A:1067:A:O3'	2.04	0.57
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.85	0.57
32:2a:707:C:H2'	32:2a:708:C:C6	2.40	0.57
32:2a:1003:G:N3	32:2a:1004:A:O4'	2.37	0.57
34:2b:92:TYR:OH	34:2b:150:SER:OG	2.19	0.57
41:2i:3:GLN:NE2	41:2i:20:ARG:HH21	2.01	0.57
1:1A:1151:U:H2'	1:1A:1152:G:C8	2.36	0.57
8:1I:129:THR:HA	8:1I:138:ILE:O	2.03	0.57
25:13:3:ARG:HB2	25:13:59:VAL:HG23	1.86	0.57
32:1a:616:G:O2'	32:1a:617:G:H5'	2.04	0.57
1:2A:1069:A:C5	1:2A:1095:A:H4'	2.39	0.57
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	1.85	0.57
5:2F:36:VAL:HG11	5:2F:183:VAL:HG13	1.86	0.57
15:2T:119:LYS:HB2	32:2a:1442(A):G:N2	2.19	0.57
26:24:59:PHE:CZ	51:2s:64:GLU:HB2	2.39	0.57
27:25:16:ARG:HG2	27:25:16:ARG:NH1	2.16	0.57
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.38	0.57
32:2a:1269:A:N1	32:2a:1312:G:O2'	2.30	0.57
39:2g:115:ARG:HG2	39:2g:118:VAL:HG23	1.86	0.57
1:1A:2569:G:H2'	1:1A:2570:C:C6	2.40	0.57
7:1H:30:LYS:HD2	7:1H:80:SER:O	2.04	0.57
8:1I:38:LEU:HB3	8:1I:40:THR:HG23	1.85	0.57
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.85	0.57
32:1a:134:A:H61	48:1p:25:ARG:NH1	2.02	0.57
32:1a:1195:C:H5"	32:1a:1196:U:H5"	1.86	0.57
34:1b:69:LEU:HB3	34:1b:162:ILE:HG22	1.86	0.57
35:1c:91:LEU:HD22	35:1c:101:LEU:HD13	1.87	0.57
36:1d:3:ARG:HH12	36:1d:5:ILE:HG13	1.70	0.57
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.04	0.57
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.69	0.57
9:2N:30:ILE:HG22	9:2N:34:LEU:HD22	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:265:U:H2'	1:1A:266:C:C6	2.39	0.57
6:1G:139:LEU:HD21	6:1G:149:VAL:HG11	1.85	0.57
36:1d:108:LEU:HB3	36:1d:110:PHE:HE1	1.70	0.57
41:1i:89:ASN:O	41:1i:92:TYR:HB2	2.05	0.57
1:2A:271(L):U:OP1	8:2I:50:ARG:NH1	2.37	0.57
1:2A:984:A:H5"	1:2A:985:C:H5	1.70	0.57
1:2A:2748:A:N3	7:2H:63:SER:OG	2.38	0.57
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.86	0.57
32:2a:1074:G:OP1	37:2e:64:ARG:NH1	2.34	0.57
1:1A:1343:C:OP1	1:1A:2722:C:H4'	2.04	0.57
45:1m:40:ASN:HB3	45:1m:43:THR:HG23	1.87	0.57
1:2A:1025:G:H3'	1:2A:1026:U:H5'	1.86	0.57
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.05	0.57
1:2A:2788:C:P	4:2E:61:ARG:HH21	2.27	0.57
36:2d:25:ARG:HA	36:2d:28:SER:HB3	1.87	0.57
41:2i:21:PRO:HA	41:2i:59:PHE:HD1	1.69	0.57
45:2m:58:GLU:O	45:2m:62:ASN:ND2	2.21	0.57
1:1A:1740:U:H1'	3:1D:14:ARG:NH1	2.20	0.57
32:1a:458:C:H2'	32:1a:460:G:O4'	2.05	0.57
38:1f:91:VAL:HG11	50:1r:72:ARG:HH12	1.68	0.57
1:2A:1289:C:H2'	1:2A:1290:C:H6	1.69	0.57
1:2A:2464:C:O2'	59:2A:3902:HOH:O	2.17	0.57
1:2A:2632:A:O2'	1:2A:2811:G:O2'	2.16	0.57
12:2Q:97:VAL:HG21	12:2Q:103:MET:HE3	1.86	0.57
39:2g:111:ARG:NH2	39:2g:126:ASP:OD2	2.37	0.57
1:1A:9:U:C4	1:1A:2641:A:H2	2.23	0.57
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.37	0.57
32:1a:60:A:H4'	32:1a:61:G:H5'	1.86	0.57
32:1a:721:G:H4'	32:1a:722:A:O4'	2.05	0.57
35:1c:111:LEU:HD21	35:1c:144:SER:O	2.04	0.57
52:1t:14:LYS:O	52:1t:18:GLN:HG3	2.05	0.57
1:2A:635:C:O2'	1:2A:639:U:OP1	2.22	0.57
1:2A:2290:G:O2'	1:2A:2381:C:H1'	2.05	0.57
12:2Q:59:ARG:HH12	12:2Q:60:ARG:HH21	1.52	0.57
32:2a:1125:U:C4	32:2a:1280:A:N7	2.73	0.57
34:2b:76:GLN:HG3	34:2b:206:ASP:O	2.05	0.57
34:2b:92:TYR:HH	34:2b:150:SER:HG	1.49	0.57
40:2h:6:ILE:HB	40:2h:85:ARG:NH1	2.19	0.57
41:2i:88:TYR:CD2	41:2i:89:ASN:HB2	2.40	0.57
1:2A:1097:U:H2'	1:2A:1098:A:O4'	2.05	0.57
26:24:50:VAL:HG11	45:2m:64:TRP:C	2.30	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:542:G:H2'	32:2a:543:C:H6	1.70	0.57
1:1A:2250:G:N3	1:1A:2250:G:H2'	2.19	0.56
8:1I:72:LEU:C	8:1I:74:ASN:H	2.12	0.56
45:1m:19:LEU:O	45:1m:22:ILE:HD12	2.05	0.56
1:2A:1065:U:H3	1:2A:1073:A:N6	2.03	0.56
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.70	0.56
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.69	0.56
6:2G:108:ASN:HA	26:24:37:SER:HB3	1.87	0.56
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.39	0.56
32:1a:152:A:N6	32:1a:170:U:C2	2.73	0.56
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.05	0.56
41:1i:89:ASN:HB3	41:1i:92:TYR:CD2	2.40	0.56
1:2A:861:A:C2	1:2A:917:A:C4	2.94	0.56
10:2O:2:ILE:HD12	10:2O:6:THR:HG21	1.87	0.56
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD21	1.86	0.56
32:2a:570:G:H2'	32:2a:571:U:C6	2.40	0.56
32:2a:1004:A:H5"	32:2a:1025:U:O4	2.05	0.56
36:2d:79:PHE:HE1	36:2d:204:ILE:HD13	1.70	0.56
49:2q:41:LYS:NZ	49:2q:92:ARG:HH21	2.03	0.56
1:1A:272:U:H5'	8:1I:50:ARG:NH1	2.20	0.56
3:1D:108:PRO:HG3	3:1D:143:HIS:CE1	2.40	0.56
32:1a:195:A:C6	32:1a:196:A:N1	2.73	0.56
32:1a:406:G:H21	36:1d:119:GLN:HE22	1.52	0.56
32:1a:434:U:H2'	32:1a:435:C:C6	2.39	0.56
32:1a:1228:C:P	45:1m:108:ARG:HH22	2.29	0.56
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.40	0.56
48:1p:22:THR:HA	48:1p:33:ILE:HG13	1.87	0.56
1:2A:657:U:H2'	1:2A:658:C:C6	2.40	0.56
1:2A:1842:G:O2'	3:2D:253:GLN:NE2	2.38	0.56
1:2A:1913:A:N7	32:2a:1494:G:C8	2.73	0.56
1:2A:1996:C:OP1	10:2O:31:LYS:HE3	2.06	0.56
2:2B:24:G:N7	2:2B:56:G:H2'	2.20	0.56
2:2B:90:A:N7	2:2B:91:C:H1'	2.20	0.56
12:2Q:7:MET:HE1	21:2Z:194:PRO:CB	2.34	0.56
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.37	0.56
19:2X:35:THR:HG22	19:2X:37:THR:N	2.18	0.56
32:2a:516:PSU:HN3	32:2a:533:A:H62	1.51	0.56
32:2a:1346:A:H5"	41:2i:120:ARG:HH12	1.69	0.56
34:2b:16:HIS:HB3	34:2b:210:SER:HB3	1.87	0.56
42:2j:11:PHE:CE1	42:2j:67:THR:HG22	2.40	0.56
1:1A:1072:U:O2	1:1A:1072:U:H2'	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1112:U:C2	1:1A:1113:A:N1	2.74	0.56
32:1a:492:G:H2'	32:1a:493:G:H8	1.71	0.56
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.88	0.56
32:2a:1144:G:N2	32:2a:1146:A:H62	2.04	0.56
40:2h:23:SER:HA	40:2h:63:LEU:HD22	1.88	0.56
1:1A:976:G:O2'	25:13:24:LYS:NZ	2.34	0.56
1:1A:1633:A:H2'	1:1A:1634:C:C6	2.41	0.56
1:1A:2605:U:H2'	1:1A:2606:C:C6	2.41	0.56
32:1a:509:A:O2'	32:1a:510:A:OP1	2.18	0.56
32:1a:600:C:H2'	32:1a:601:C:C6	2.41	0.56
35:1c:106:VAL:HG12	35:1c:108:ASN:H	1.69	0.56
8:2I:77:LEU:HD22	8:2I:101:LEU:HG	1.87	0.56
32:2a:437:U:O2'	36:2d:123:HIS:HD2	1.89	0.56
32:2a:744:C:O2'	32:2a:851:G:N2	2.37	0.56
36:2d:162:LEU:HD13	36:2d:181:MET:HG2	1.87	0.56
39:2g:46:ALA:O	39:2g:50:ILE:HG23	2.06	0.56
32:1a:1080:A:OP1	37:1e:47:LYS:HD3	2.06	0.56
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.41	0.56
34:1b:54:THR:HG21	34:1b:201:ILE:HD11	1.88	0.56
1:2A:2103:C:H42	1:2A:2185:C:H42	1.54	0.56
21:2Z:108:PRO:HA	21:2Z:142:SER:HA	1.88	0.56
1:1A:1899:A:H5'	1:1A:1900:G:OP2	2.06	0.56
32:1a:1277:C:HO2'	32:1a:1279:A:H8	1.50	0.56
40:1h:20:TYR:HE2	40:1h:75:ARG:HD2	1.70	0.56
40:1h:97:VAL:O	40:1h:100:ILE:HG13	2.05	0.56
48:1p:75:ARG:O	48:1p:78:GLY:N	2.31	0.56
1:2A:2164:C:H3'	1:2A:2165:G:C8	2.41	0.56
3:2D:145:VAL:HG12	3:2D:146:GLU:O	2.06	0.56
32:2a:64:G:H4'	32:2a:65:U:H3'	1.86	0.56
32:2a:109:A:H2'	32:2a:326:G:N2	2.20	0.56
1:1A:868:A:H2'	1:1A:991:G:H5"	1.88	0.56
5:1F:197:ASP:OD1	5:1F:197:ASP:N	2.38	0.56
32:1a:171:A:H2'	32:1a:172:A:H8	1.68	0.56
32:1a:1030(D):A:H2'	32:1a:1031:G:H5'	1.88	0.56
34:1b:178:ARG:HH11	34:1b:178:ARG:CG	2.17	0.56
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.21	0.56
36:2d:112:VAL:HG22	36:2d:116:GLN:NE2	2.20	0.56
39:2g:18:TYR:CD1	39:2g:59:LEU:HD13	2.41	0.56
45:2m:15:VAL:HG11	45:2m:48:LEU:HD21	1.87	0.56
1:1A:2146:G:H2'	1:1A:2147:G:H5'	1.87	0.56
1:1A:2219:U:H1'	1:1A:2220:A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:24:PRO:HA	15:1T:49:VAL:HG22	1.86	0.56
18:1W:79:GLY:HA3	18:1W:100:THR:HG22	1.87	0.56
32:1a:1252:A:H2'	32:1a:1253:G:O4'	2.06	0.56
46:1n:23:ARG:NH1	46:1n:30:ALA:HB2	2.21	0.56
51:1s:62:ILE:HA	51:1s:66:MET:SD	2.46	0.56
32:2a:547:A:H4'	32:2a:548:G:O5'	2.06	0.56
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.69	0.56
32:2a:1347:G:O2'	32:2a:1373:G:O6	2.17	0.56
52:2t:57:ARG:NH1	52:2t:100:ILE:HB	2.21	0.56
1:1A:1766:G:H1'	1:1A:1770:A:H61	1.71	0.56
23:11:51:VAL:HG11	23:11:74:VAL:HG21	1.88	0.56
32:1a:437:U:H5"	36:1d:155:LEU:HD11	1.88	0.56
32:1a:1367:C:H5'	42:1j:60:ARG:NH1	2.21	0.56
39:1g:14:PRO:HB3	39:1g:19:GLY:O	2.06	0.56
1:2A:876:C:H2'	1:2A:877:U:O4'	2.06	0.56
1:2A:900:A:H2'	1:2A:901:A:H8	1.70	0.56
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.71	0.56
32:2a:1060:C:H41	35:2c:2:GLY:N	2.04	0.56
37:2e:80:ILE:HD12	40:2h:104:ARG:HH22	1.69	0.56
1:1A:1143:U:H3'	1:1A:1144:A:H8	1.71	0.55
1:1A:1223:C:H2'	1:1A:1224:C:H6	1.70	0.55
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.89	0.55
38:1f:46:ARG:HH21	50:1r:37:VAL:HG13	1.71	0.55
47:1o:25:THR:HG21	47:1o:70:LEU:HB2	1.88	0.55
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.39	0.55
7:2H:149:ARG:NH1	7:2H:167:GLU:OE2	2.39	0.55
32:2a:1157:A:H5'	32:2a:1158:C:C5	2.40	0.55
32:2a:1198:G:H2'	32:2a:1199:U:C6	2.42	0.55
37:2e:139:LEU:HA	37:2e:142:LEU:HD12	1.88	0.55
52:2t:57:ARG:NH2	52:2t:100:ILE:HD12	2.16	0.55
1:1A:2291:G:O6	22:10:14:ARG:HG3	2.05	0.55
1:1A:2429:C:OP1	11:1P:65:ARG:NH2	2.39	0.55
48:1p:74:LEU:O	48:1p:79:VAL:HG13	2.06	0.55
52:1t:86:ARG:O	52:1t:90:GLN:HG3	2.05	0.55
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.42	0.55
32:2a:130:A:H5'	49:2q:63:ARG:HE	1.70	0.55
32:2a:539:A:H2'	32:2a:540:G:C8	2.42	0.55
45:2m:54:VAL:HG12	45:2m:57:ARG:NH1	2.21	0.55
50:2r:52:PRO:O	50:2r:56:THR:HG23	2.06	0.55
33:2x:53:THR:HA	33:2x:61:LEU:O	2.06	0.55
34:1b:59:GLU:HG3	34:1b:221:LEU:HD11	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.40	0.55
1:2A:1365:A:O2'	23:21:11:ARG:NH1	2.40	0.55
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.06	0.55
1:2A:2895:U:H2'	1:2A:2896:C:O4'	2.07	0.55
32:2a:176:C:H2'	32:2a:177:C:H6	1.70	0.55
32:2a:192:U:H2'	32:2a:193:C:C6	2.41	0.55
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.42	0.55
34:2b:178:ARG:NH1	40:2h:68:ARG:HH22	2.02	0.55
1:1A:1456:G:H2'	1:1A:1457:C:C6	2.41	0.55
1:1A:1476:C:H2'	1:1A:1477:U:C6	2.41	0.55
1:1A:2316:G:H22	1:1A:2324:U:H3	1.54	0.55
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.70	0.55
35:1c:3:ASN:OD1	35:1c:3:ASN:N	2.40	0.55
53:1u:6:ARG:HE	53:1u:15:ARG:NH1	2.04	0.55
1:2A:528:A:O2'	1:2A:529:A:H5'	2.07	0.55
21:2Z:10:ARG:NH1	21:2Z:26:GLY:H	2.04	0.55
21:2Z:79:ARG:HD2	21:2Z:80:ARG:NH1	2.22	0.55
32:2a:407:G:N2	32:2a:436:C:C2	2.74	0.55
32:2a:1015:A:H2'	32:2a:1016:A:H8	1.69	0.55
1:1A:2155:G:H3'	1:1A:2179:G:N2	2.20	0.55
17:1V:52:VAL:HG22	17:1V:55:ALA:HB3	1.89	0.55
34:1b:187:LEU:HD11	34:1b:204:ASN:O	2.06	0.55
40:1h:73:ASP:OD1	40:1h:75:ARG:HG3	2.07	0.55
44:1l:117:ARG:HG2	44:1l:122:THR:HB	1.88	0.55
1:2A:2331:G:O2'	22:20:43:THR:HG22	2.06	0.55
13:2R:36:THR:HG22	13:2R:37:THR:H	1.71	0.55
32:2a:45:U:H2'	32:2a:46:G:C8	2.41	0.55
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.41	0.55
35:2c:6:HIS:HB3	46:2n:49:HIS:ND1	2.21	0.55
42:2j:57:LYS:HD2	42:2j:60:ARG:HH21	1.71	0.55
1:1A:2136:A:H1'	1:1A:2190:G:H5'	1.89	0.55
1:1A:2348:A:H61	22:10:43:THR:CG2	2.20	0.55
1:1A:2766:A:N3	31:19:15:LYS:NZ	2.55	0.55
7:1H:17:VAL:HG22	7:1H:26:VAL:HG22	1.87	0.55
34:1b:9:GLU:HG3	34:1b:217:ARG:NH1	2.20	0.55
36:1d:110:PHE:H	36:1d:110:PHE:HD1	1.54	0.55
1:1A:664:U:H2'	1:1A:665:C:C6	2.42	0.55
1:1A:2183:C:H2'	1:1A:2184:G:O4'	2.06	0.55
1:1A:2188:G:O6	1:1A:2194:U:C4	2.59	0.55
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.41	0.55
12:1Q:34:LEU:HD11	12:1Q:129:THR:HB	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:1V:49:THR:HG22	17:1V:49:THR:O	2.07	0.55
32:1a:402:G:O2'	32:1a:620:C:N3	2.35	0.55
32:1a:1243:C:H42	32:1a:1294:G:H1	1.55	0.55
53:1u:6:ARG:HE	53:1u:15:ARG:HH12	1.53	0.55
1:2A:856:C:O4'	22:20:27:GLU:HB3	2.06	0.55
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.22	0.55
6:2G:145:THR:HG22	6:2G:148:MET:SD	2.46	0.55
32:2a:516:PSU:O2	32:2a:533:A:N7	2.40	0.55
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.07	0.55
32:2a:1316:G:H5"	46:2n:17:LYS:NZ	2.22	0.55
51:2s:23:ASN:ND2	51:2s:43:GLU:HB3	2.21	0.55
1:1A:272:U:H5'	8:1I:50:ARG:NH2	2.22	0.55
1:1A:2784:C:H2'	1:1A:2785:C:C6	2.41	0.55
32:1a:185:A:H2'	32:1a:186:C:C6	2.41	0.55
32:1a:727:G:N2	32:1a:730:G:OP2	2.36	0.55
37:1e:110:LEU:HD13	37:1e:118:ILE:HG21	1.88	0.55
1:2A:2102:U:H2'	1:2A:2103:C:C6	2.42	0.55
8:2I:104:GLN:HG2	8:2I:105:HIS:CD2	2.42	0.55
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.88	0.55
22:20:68:GLU:OE1	22:20:82:ARG:HD3	2.06	0.55
32:2a:564:C:HO2'	40:2h:91:ARG:HH22	1.52	0.55
32:2a:1009:G:C2	32:2a:1010:G:C8	2.95	0.55
32:2a:1279:A:H2'	32:2a:1279:A:N3	2.21	0.55
35:2c:58:GLU:HG2	42:2j:92:THR:OG1	2.06	0.55
38:2f:69:GLU:O	38:2f:72:VAL:HG12	2.07	0.55
1:1A:821:A:H2'	1:1A:821:A:N3	2.22	0.55
1:1A:1961:5MU:OP1	1:1A:2616:U:O2'	2.22	0.55
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	1.88	0.55
36:1d:78:LEU:O	36:1d:81:GLU:HB3	2.07	0.55
40:1h:51:VAL:HG21	40:1h:60:ARG:HH11	1.72	0.55
1:2A:1062:G:N7	1:2A:1070:A:H1'	2.22	0.55
32:2a:1305:G:H5'	53:2u:4:GLY:HA3	1.87	0.55
35:2c:108:ASN:ND2	35:2c:144:SER:HB3	2.20	0.55
52:2t:14:LYS:O	52:2t:18:GLN:HG3	2.07	0.55
1:1A:860:U:H2'	1:1A:861:C:C6	2.42	0.55
35:1c:6:HIS:CD2	35:1c:8:ILE:H	2.23	0.55
36:1d:60:GLU:HG3	36:1d:202:LEU:HD12	1.88	0.55
32:2a:501:C:H2'	32:2a:502:G:C8	2.42	0.55
1:1A:70:A:N7	19:1X:31:HIS:HE1	2.05	0.54
1:1A:2136:A:H2'	1:1A:2137:G:O4'	2.07	0.54
1:1A:2343:G:O2'	22:10:43:THR:HG22	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2897:U:H2'	1:1A:2898:C:C6	2.42	0.54
17:1V:98:GLU:OE2	17:1V:100:ARG:NH1	2.40	0.54
32:1a:501:C:OP1	44:1l:117:ARG:NH2	2.41	0.54
32:1a:1124:G:OP1	42:1j:36:GLY:N	2.39	0.54
34:1b:210:SER:O	34:1b:214:ILE:HG12	2.07	0.54
39:1g:27:ILE:HD12	39:1g:40:ALA:HA	1.90	0.54
1:2A:1587:A:H2'	1:2A:1588:C:C6	2.42	0.54
1:2A:2164:C:H3'	1:2A:2165:G:H8	1.72	0.54
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	1.88	0.54
13:2R:100:LEU:HD11	13:2R:113:LEU:HD23	1.88	0.54
16:2U:8:VAL:HG13	16:2U:11:ARG:HH21	1.72	0.54
49:2q:84:LEU:HA	49:2q:87:LYS:HD3	1.90	0.54
1:1A:1132:A:H4'	1:1A:1149:A:C2	2.42	0.54
1:1A:1141:A:H2'	1:1A:1142:A:C8	2.42	0.54
37:1e:122:GLU:O	37:1e:123:LEU:HD23	2.08	0.54
47:1o:29:VAL:HG13	47:1o:63:ARG:HG3	1.89	0.54
1:2A:7:G:H1	1:2A:2896:C:H42	1.55	0.54
1:2A:1359:A:C6	1:2A:1372:U:O4	2.60	0.54
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.43	0.54
1:2A:2111:C:N4	1:2A:2144:U:O2'	2.40	0.54
32:2a:834:C:H2'	32:2a:835:U:H6	1.71	0.54
1:1A:116:A:C8	1:1A:117:A:C8	2.95	0.54
1:1A:1766:G:H1'	1:1A:1770:A:N6	2.23	0.54
6:1G:7:LEU:HD13	6:1G:100:TRP:HE3	1.72	0.54
7:1H:40:GLU:OE2	7:1H:60:ARG:NH1	2.41	0.54
13:1R:38:VAL:HG22	13:1R:112:ALA:HB2	1.88	0.54
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.88	0.54
32:1a:1026:G:H5"	32:1a:1027:C:H5	1.72	0.54
36:1d:194:LEU:HD12	36:1d:195:ALA:N	2.18	0.54
40:1h:49:GLU:HG2	40:1h:62:TYR:HE2	1.71	0.54
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.40	0.54
1:2A:1062:G:C2'	1:2A:1063:G:H5'	2.37	0.54
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.43	0.54
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.42	0.54
5:2F:18:ARG:NH2	5:2F:127:GLU:OE1	2.40	0.54
6:2G:12:TYR:HA	6:2G:16:ARG:HG2	1.89	0.54
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.89	0.54
32:2a:393:A:C2	32:2a:394:G:C8	2.96	0.54
32:2a:755:G:OP2	47:2o:65:ARG:HD2	2.08	0.54
32:2a:976:G:N2	32:2a:1363:C:OP2	2.39	0.54
32:2a:994:A:O2'	46:2n:8:GLU:HG2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1024:G:H2'	32:2a:1024:G:N3	2.22	0.54
32:2a:1291:G:H2'	32:2a:1292:U:C6	2.43	0.54
42:2j:5:ARG:N	42:2j:74:ILE:H	2.05	0.54
42:2j:7:LYS:HB3	42:2j:97:GLU:HB2	1.88	0.54
1:1A:1220:U:O2'	1:1A:1221:G:O5'	2.21	0.54
1:1A:1405:A:N1	1:1A:1418:U:C4	2.71	0.54
1:1A:2149:G:H1'	1:1A:2195:A:C2	2.43	0.54
1:1A:2340:A:H2'	1:1A:2341:G:C8	2.43	0.54
6:1G:16:ARG:HB2	6:1G:17:PRO:HD3	1.89	0.54
18:1W:2:GLU:OE2	18:1W:72:LYS:NZ	2.24	0.54
32:1a:1366:C:H2'	32:1a:1367:C:H6	1.72	0.54
1:2A:1102:C:H2'	1:2A:1103:A:C8	2.42	0.54
1:2A:2167:U:O2	1:2A:2171:A:C8	2.61	0.54
6:2G:107:LEU:HD21	6:2G:178:PHE:CD1	2.42	0.54
32:2a:735:C:H2'	32:2a:736:C:H6	1.72	0.54
32:2a:981:U:H5'	46:2n:21:TYR:CE2	2.43	0.54
34:2b:84:GLU:HB3	34:2b:219:VAL:HG21	1.88	0.54
1:1A:1475:G:H2'	1:1A:1476:C:C6	2.43	0.54
1:1A:1700:G:H3'	13:1R:2:ARG:HD3	1.90	0.54
1:1A:2169:G:H2'	1:1A:2170:G:O4'	2.08	0.54
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.42	0.54
36:1d:8:VAL:HG22	36:1d:21:LEU:HD13	1.90	0.54
50:1r:73:ALA:HB3	50:1r:79:LEU:HD12	1.88	0.54
33:1x:85:LEU:O	33:1x:89:GLN:HG2	2.08	0.54
1:2A:1101:U:H2'	1:2A:1102:C:C6	2.43	0.54
32:2a:1460:A:H2'	32:2a:1461:G:O4'	2.08	0.54
49:2q:83:ASP:N	49:2q:83:ASP:OD1	2.40	0.54
1:1A:1541:A:H2'	1:1A:1542:A:C8	2.43	0.54
1:1A:2901:A:N6	1:1A:2902:G:N1	2.55	0.54
32:1a:545:C:H5'	36:1d:72:GLU:CB	2.37	0.54
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.43	0.54
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.42	0.54
1:2A:1081:U:H2'	1:2A:1082:U:H5"	1.88	0.54
1:2A:2145:C:O2'	1:2A:2147:G:N2	2.41	0.54
17:2V:49:THR:O	17:2V:49:THR:HG22	2.07	0.54
32:2a:404:U:H2'	32:2a:405:U:C6	2.43	0.54
32:2a:947:G:H2'	32:2a:948:C:O4'	2.07	0.54
32:2a:973:G:H3'	32:2a:974:A:H5"	1.89	0.54
35:2c:152:ILE:HG13	35:2c:199:LYS:HB2	1.90	0.54
36:2d:63:LYS:HD2	36:2d:198:VAL:HG22	1.90	0.54
38:2f:3:ARG:HB3	38:2f:93:SER:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:274:U:O5'	1:1A:274:U:H6	1.89	0.54
1:1A:1104:G:C6	1:1A:1105:G:C5	2.95	0.54
1:1A:2163:G:H2'	1:1A:2164:C:C6	2.43	0.54
1:1A:2702:C:OP1	13:1R:17:ARG:NH2	2.37	0.54
32:1a:1269:A:H2	32:1a:1312:G:N3	2.06	0.54
1:2A:1359:A:N1	1:2A:1372:U:O4	2.41	0.54
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.07	0.54
5:2F:21:ALA:HB1	5:2F:22:ALA:HA	1.89	0.54
6:2G:138:GLN:OE1	6:2G:153:ARG:N	2.26	0.54
12:2Q:135:ASP:HB3	12:2Q:137:TYR:H	1.72	0.54
25:23:8:LEU:HG	25:23:31:LEU:HD22	1.88	0.54
34:2b:16:HIS:HB2	34:2b:204:ASN:CB	2.37	0.54
34:2b:16:HIS:CB	34:2b:210:SER:HB3	2.38	0.54
1:1A:63:A:O3'	19:1X:71:GLY:HA3	2.08	0.54
1:1A:2023:A:H2'	1:1A:2024:G:C8	2.43	0.54
19:1X:35:THR:HG22	19:1X:37:THR:H	1.72	0.54
35:1c:79:ARG:H	35:1c:82:GLU:HB3	1.73	0.54
49:1q:45:HIS:NE2	49:1q:47:PRO:HG3	2.22	0.54
1:2A:10:G:H2'	1:2A:11:G:C8	2.43	0.54
1:2A:320:A:H4'	1:2A:322:A:C8	2.42	0.54
1:2A:1493:C:H5'	1:2A:1493:C:O2	2.08	0.54
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.43	0.54
14:2S:36:TYR:N	14:2S:36:TYR:HD1	2.05	0.54
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.26	0.54
32:2a:1162:C:N4	32:2a:1174:G:H1	2.05	0.54
32:2a:1327:C:H2'	32:2a:1328:C:C6	2.42	0.54
34:2b:54:THR:O	34:2b:58:ILE:HG12	2.08	0.54
38:2f:2:ARG:CZ	38:2f:69:GLU:HG2	2.37	0.54
45:2m:32:GLU:HG2	45:2m:64:TRP:CZ2	2.42	0.54
48:2p:6:LEU:HD23	48:2p:17:TYR:CG	2.43	0.54
8:1I:72:LEU:O	8:1I:74:ASN:N	2.33	0.54
14:1S:49:VAL:HG13	14:1S:73:LEU:HD11	1.90	0.54
42:1j:35:SER:N	42:1j:73:ASP:O	2.31	0.54
33:1x:74:ILE:O	33:1x:78:ILE:HG12	2.08	0.54
1:2A:1268:A:H5'	59:2A:5068:HOH:O	2.08	0.54
1:2A:1371:G:HO2'	1:2A:1372:U:H5	1.56	0.54
5:2F:108:LYS:O	5:2F:112:MET:HG3	2.08	0.54
8:2I:110:ASP:N	8:2I:130:TYR:OH	2.26	0.54
9:2N:96:GLU:HB2	9:2N:122:VAL:HG12	1.90	0.54
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.41	0.54
14:2S:36:TYR:N	14:2S:36:TYR:CD1	2.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:73:ARG:HB3	20:2Y:73:ARG:HH11	1.73	0.54
20:2Y:97:ARG:HH21	20:2Y:107:ASP:C	2.16	0.54
22:20:27:GLU:HG3	22:20:68:GLU:HA	1.90	0.54
32:2a:444:C:C2	32:2a:445:G:C8	2.95	0.54
32:2a:620:C:C2	36:2d:135:LEU:HG	2.43	0.54
1:1A:1121:C:OP2	12:1Q:59:ARG:HB3	2.07	0.54
1:1A:1825:U:H2'	1:1A:1826:C:C6	2.43	0.54
1:1A:2291:G:N7	22:10:14:ARG:NH1	2.55	0.54
4:1E:59:VAL:HG12	4:1E:64:LYS:HG3	1.89	0.54
4:1E:97:LYS:O	4:1E:100:GLU:HG3	2.08	0.54
14:1S:17:ARG:HH11	14:1S:17:ARG:HG3	1.73	0.54
32:1a:539:A:H2'	32:1a:540:G:C8	2.43	0.54
34:1b:74:LYS:NZ	34:1b:206:ASP:OD1	2.40	0.54
35:1c:104:GLN:NE2	35:1c:104:GLN:HA	2.21	0.54
49:1q:81:ARG:NH2	49:1q:83:ASP:OD2	2.41	0.54
36:2d:64:LEU:HB2	36:2d:198:VAL:HG11	1.89	0.54
37:2e:12:LEU:HB3	37:2e:31:LEU:HB2	1.88	0.54
1:1A:1716:A:H5"	1:1A:2562:G:OP1	2.07	0.53
1:1A:2465:A:OP1	54:1y:3:LYS:NZ	2.36	0.53
6:1G:161:THR:HG22	6:1G:163:ALA:N	2.19	0.53
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.41	0.53
15:1T:108:ARG:HH22	15:1T:112:ARG:HH11	1.55	0.53
32:1a:129(A):G:C6	32:1a:189(E):U:H4'	2.43	0.53
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.41	0.53
32:1a:1320:C:OP1	51:1s:70:LYS:NZ	2.34	0.53
36:1d:129:ASN:HD21	36:1d:144:ASP:HA	1.72	0.53
1:2A:84:A:H5"	20:2Y:8:LYS:HE3	1.89	0.53
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.41	0.53
1:2A:1040:C:H2'	1:2A:1041:C:O4'	2.08	0.53
23:21:23:LYS:HB3	23:21:29:GLY:HA3	1.90	0.53
26:24:64:GLY:C	26:24:66:SER:H	2.15	0.53
32:2a:255:G:H2'	32:2a:256:U:H6	1.73	0.53
32:2a:1010:G:N2	32:2a:1020:U:H1'	2.23	0.53
32:2a:1296:C:H4'	32:2a:1302:U:H5	1.73	0.53
34:2b:127:ILE:C	34:2b:129:GLU:H	2.16	0.53
37:2e:40:ARG:HH22	37:2e:68:GLU:HB3	1.71	0.53
43:2k:62:GLN:HG3	43:2k:97:ALA:HB2	1.90	0.53
32:1a:377:G:C2	32:1a:387:U:O2	2.62	0.53
32:1a:461:A:O2'	32:1a:470:C:H5'	2.08	0.53
32:1a:834:C:H2'	32:1a:835:U:C6	2.43	0.53
32:1a:977:A:H1'	32:1a:982:U:O4	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1221(A):C:C2	1:2A:1229:G:C2	2.96	0.53
6:2G:129:GLY:O	6:2G:161:THR:HB	2.07	0.53
6:2G:145:THR:O	6:2G:149:VAL:HG12	2.09	0.53
23:21:82:LEU:O	23:21:85:LEU:HD22	2.07	0.53
32:2a:56:U:O2'	32:2a:57:G:H5'	2.08	0.53
32:2a:255:G:H2'	32:2a:256:U:C6	2.43	0.53
1:1A:2674:A:H2'	1:1A:2675:G:O4'	2.07	0.53
21:1Z:198:LYS:HB3	21:1Z:202:GLU:CB	2.38	0.53
32:1a:358:U:H2'	32:1a:359:U:H6	1.72	0.53
32:1a:1004:A:H3'	32:1a:1005:A:O4'	2.09	0.53
32:1a:1005:A:C6	32:1a:1024:G:N2	2.76	0.53
33:2x:61:LEU:HB3	33:2x:81:LEU:HD22	1.90	0.53
34:1b:185:ILE:HA	34:1b:199:TYR:O	2.08	0.53
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.23	0.53
32:2a:509:A:C8	32:2a:509:A:H3'	2.43	0.53
32:2a:1157:A:H5'	32:2a:1158:C:C6	2.43	0.53
32:2a:1162:C:N3	32:2a:1174:G:N2	2.50	0.53
34:2b:192:SER:O	34:2b:194:PRO:HD3	2.08	0.53
1:1A:142:G:H1'	19:1X:37:THR:HG21	1.91	0.53
32:1a:186:C:H2'	32:1a:187:C:H6	1.70	0.53
32:1a:1055:A:H2'	35:1c:156:ARG:HD2	1.90	0.53
36:1d:65:ARG:NH1	36:1d:70:ILE:O	2.42	0.53
1:2A:468:G:N7	29:27:39:ARG:NH2	2.55	0.53
1:2A:2887:U:H2'	1:2A:2888:C:C6	2.43	0.53
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.08	0.53
35:2c:15:THR:O	35:2c:16:ARG:HG3	2.09	0.53
49:2q:66:SER:O	49:2q:70:ARG:NH1	2.41	0.53
19:1X:35:THR:HG22	19:1X:37:THR:N	2.23	0.53
32:1a:872:A:C4	32:1a:874:G:N7	2.77	0.53
32:1a:1008:C:H2'	32:1a:1009:G:O4'	2.09	0.53
34:1b:192:SER:O	34:1b:194:PRO:HD3	2.08	0.53
35:1c:95:THR:O	35:1c:97:LYS:HE3	2.09	0.53
37:1e:40:ARG:HG2	37:1e:68:GLU:OE1	2.08	0.53
38:1f:78:GLU:O	38:1f:81:ILE:HG22	2.08	0.53
1:2A:1913:A:H2	32:2a:1492:A:H62	1.57	0.53
1:2A:2141:G:H1	1:2A:2150:U:H3	1.56	0.53
15:2T:53:ARG:O	15:2T:59:THR:HG23	2.09	0.53
24:22:28:LYS:HD2	24:22:60:LEU:HD11	1.90	0.53
32:2a:543:C:O2'	32:2a:544:G:H5'	2.08	0.53
32:2a:841:U:OP1	32:2a:841:U:H6	1.91	0.53
34:2b:8:LYS:HD2	34:2b:48:MET:HG3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2p:55:ARG:O	48:2p:58:TYR:N	2.42	0.53
1:1A:956:A:N1	1:1A:2289:G:H1'	2.24	0.53
1:1A:2054:G:H1'	4:1E:145:LYS:HD3	1.91	0.53
1:1A:2661:U:H2'	1:1A:2662:U:C6	2.43	0.53
8:1I:75:LEU:HD22	8:1I:105:HIS:CG	2.43	0.53
35:1c:34:LEU:HD12	35:1c:34:LEU:O	2.09	0.53
38:1f:19:LEU:O	38:1f:23:LYS:HD3	2.09	0.53
41:1i:16:ARG:HB2	41:1i:64:THR:HG22	1.91	0.53
1:2A:1170:G:C8	1:2A:1170:G:H5"	2.44	0.53
1:2A:1289:C:H2'	1:2A:1290:C:C6	2.43	0.53
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.72	0.53
1:2A:2134:A:N6	1:2A:2156:G:O2'	2.25	0.53
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.91	0.53
6:2G:131:TYR:CE2	6:2G:133:LEU:HD23	2.39	0.53
32:2a:834:C:H2'	32:2a:835:U:C6	2.43	0.53
32:1a:476:G:H2'	32:1a:477:A:O4'	2.09	0.53
32:1a:1352:C:O2	32:1a:1371:G:C2	2.61	0.53
42:1j:4:ILE:N	42:1j:100:THR:HG22	2.24	0.53
49:1q:22:LEU:HD11	49:1q:39:SER:HB2	1.91	0.53
1:2A:322:A:H5'	1:2A:340:A:H1'	1.91	0.53
1:2A:1589:C:H2'	1:2A:1590:U:C6	2.44	0.53
1:2A:1651:G:OP1	13:2R:40:LYS:NZ	2.38	0.53
1:2A:2887:U:H2'	1:2A:2888:C:H6	1.74	0.53
22:20:50:ASN:C	22:20:62:LEU:HD12	2.34	0.53
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.44	0.53
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.23	0.53
37:2e:102:ALA:HB1	37:2e:106:PRO:HG2	1.89	0.53
39:2g:69:VAL:HG11	39:2g:134:ALA:HB1	1.91	0.53
1:1A:1039:G:OP1	16:1U:50:ARG:NH2	2.41	0.53
1:1A:1040:C:OP1	16:1U:53:ARG:NH2	2.42	0.53
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.31	0.53
32:1a:403:C:OP1	36:1d:137:SER:OG	2.27	0.53
32:1a:1207:2MG:H2'	32:1a:1208:C:H6	1.74	0.53
39:1g:62:PHE:HA	39:1g:124:LEU:HD22	1.90	0.53
49:1q:3:LYS:HB2	49:1q:60:ILE:HD11	1.91	0.53
1:2A:579:G:H2'	1:2A:580:C:C6	2.44	0.53
1:2A:2206:G:H5"	1:2A:2207:G:C8	2.43	0.53
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.44	0.53
6:2G:98:ARG:HA	6:2G:101:ILE:HD12	1.89	0.53
32:2a:164:U:H2'	32:2a:165:C:H6	1.73	0.53
32:2a:189:G:H2'	32:2a:189(A):C:H6	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2j:32:ALA:HB1	42:2j:33:GLN:HA	1.90	0.53
1:1A:1185:C:OP2	9:1N:66:LYS:NZ	2.41	0.53
1:1A:2658:C:H2'	1:1A:2659:U:O4'	2.09	0.53
6:1G:38:VAL:HG22	6:1G:93:THR:HG23	1.91	0.53
32:1a:17:U:H2'	32:1a:18:C:H6	1.73	0.53
32:1a:1369:C:H2'	32:1a:1370:G:C8	2.44	0.53
1:2A:11:G:O5'	1:2A:11:G:H8	1.92	0.53
1:2A:271(A):A:N1	1:2A:272(D):G:O2'	2.39	0.53
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.09	0.53
12:2Q:32:TYR:CZ	12:2Q:111:GLU:HG3	2.44	0.53
14:2S:25:ARG:NH1	14:2S:42:ASP:OD1	2.39	0.53
24:22:16:LEU:O	24:22:67:LYS:NZ	2.42	0.53
34:2b:7:VAL:O	34:2b:217:ARG:NH1	2.42	0.53
36:2d:158:ILE:HG22	36:2d:162:LEU:HD12	1.90	0.53
43:2k:101:SER:OG	43:2k:103:LEU:HB2	2.08	0.53
1:1A:2597:U:H5	54:1y:5:SER:O	1.92	0.53
8:1I:72:LEU:HD12	8:1I:138:ILE:HG21	1.90	0.53
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.91	0.53
32:1a:391:G:O3'	48:1p:8:ARG:NH2	2.42	0.53
32:1a:1238:A:N7	32:1a:1303:C:H1'	2.24	0.53
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.09	0.53
37:1e:77:PRO:HD2	37:1e:142:LEU:HD22	1.90	0.53
1:2A:1420:U:HO2'	1:2A:1421:G:P	2.32	0.53
1:2A:2122:U:H2'	1:2A:2123:G:C8	2.44	0.53
1:2A:2298:A:H1'	1:2A:2321:G:N2	2.23	0.53
16:2U:89:GLU:HG3	17:2V:50:PRO:HB3	1.91	0.53
32:2a:36:C:OP1	44:2l:123:LYS:HE3	2.08	0.53
32:2a:417:C:H2'	32:2a:418:C:H6	1.74	0.53
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.09	0.53
34:2b:111:ARG:HG2	34:2b:111:ARG:NH1	2.24	0.53
46:2n:9:LYS:HA	46:2n:12:ARG:HB3	1.91	0.53
1:1A:1126:C:H2'	1:1A:1127:U:C6	2.44	0.52
32:1a:744:C:O2'	32:1a:851:G:N2	2.42	0.52
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.44	0.52
4:2E:2:LYS:NZ	4:2E:100:GLU:OE1	2.37	0.52
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.10	0.52
47:2o:26:GLU:HG3	47:2o:81:LEU:HD13	1.92	0.52
51:2s:36:ARG:NH1	51:2s:53:ASN:HA	2.25	0.52
1:1A:842:C:H2'	1:1A:843:C:C6	2.45	0.52
32:1a:1019:C:H2'	32:1a:1020:U:O4'	2.10	0.52
32:1a:1072:G:H2'	32:1a:1073:U:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1b:18:GLY:HA3	34:1b:42:ILE:HG13	1.91	0.52
35:1c:6:HIS:HB3	46:1n:49:HIS:ND1	2.25	0.52
39:1g:48:LYS:O	39:1g:52:GLU:HG2	2.09	0.52
51:1s:53:ASN:HD21	51:1s:56:GLN:HB2	1.74	0.52
1:2A:270:A:OP2	1:2A:271(X):G:N1	2.31	0.52
1:2A:1044:G:H21	1:2A:1111:A:H2	1.55	0.52
1:2A:2611:U:H5"	54:2y:12:PRO:HG3	1.92	0.52
6:2G:64:THR:HB	6:2G:94:LEU:HD11	1.92	0.52
32:2a:1008:C:H2'	32:2a:1009:G:H8	1.74	0.52
32:2a:1028:C:H2'	32:2a:1033:G:N2	2.21	0.52
34:2b:87:ARG:NH2	34:2b:220:ASP:OD1	2.41	0.52
39:2g:53:LYS:HD2	39:2g:125:MET:HE1	1.91	0.52
40:2h:81:HIS:ND1	40:2h:138:TRP:OXT	2.38	0.52
1:1A:1117:G:H1'	1:1A:1135:G:H2'	1.91	0.52
1:1A:1539:C:H5	1:1A:2227:G:O2'	1.91	0.52
1:1A:2457:G:OP1	5:1F:74:ARG:NH2	2.43	0.52
1:1A:2623:U:C4	27:15:3:LYS:HG2	2.44	0.52
6:1G:18:GLU:HG3	6:1G:175:LEU:HD21	1.92	0.52
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.45	0.52
15:1T:125:ARG:NH1	32:1a:1443:G:H5'	2.24	0.52
32:1a:1521:G:H2'	32:1a:1522:U:C6	2.44	0.52
32:1a:1529:G:H4'	32:1a:1530:G:OP2	2.10	0.52
34:1b:15:VAL:HG23	34:1b:209:ARG:HD2	1.90	0.52
1:2A:1062:G:C2	1:2A:1063:G:H8	2.28	0.52
6:2G:75:LYS:HA	6:2G:84:LYS:HD2	1.91	0.52
6:2G:126:ASP:HB3	6:2G:130:ASN:H	1.74	0.52
7:2H:113:VAL:HG21	7:2H:151:ILE:HG21	1.90	0.52
15:2T:117:ASP:OD2	15:2T:120:ARG:NE	2.40	0.52
32:2a:859:A:H2'	32:2a:860:A:O4'	2.09	0.52
52:2t:37:SER:O	52:2t:41:ILE:HG12	2.09	0.52
1:1A:1936:C:OP1	1:1A:1936:C:H3'	2.08	0.52
1:1A:2156:A:O2'	1:1A:2181:G:N3	2.42	0.52
32:1a:184:G:H2'	32:1a:185:A:H8	1.74	0.52
32:1a:1137:C:H5"	32:1a:1138:G:C4	2.44	0.52
40:1h:6:ILE:HB	40:1h:85:ARG:NH1	2.25	0.52
40:1h:121:ASP:HB2	40:1h:125:ARG:NH2	2.24	0.52
1:2A:1593:G:H2'	1:2A:1594:G:H8	1.75	0.52
32:2a:416:G:C5	32:2a:417:C:C4	2.98	0.52
32:2a:1310:G:H5'	45:2m:77:ASN:ND2	2.25	0.52
1:1A:2772:G:N2	7:1H:139:GLN:HE21	1.96	0.52
9:1N:69:GLN:O	9:1N:71:ILE:HD12	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1416:G:O2'	1:2A:1417:C:H5	1.92	0.52
1:2A:2275:C:H6	1:2A:2275:C:H5'	1.73	0.52
37:2e:11:ILE:HG21	37:2e:105:VAL:HG22	1.90	0.52
1:1A:1766:G:N2	1:1A:1768:U:OP2	2.42	0.52
26:14:59:PHE:CE1	51:1s:64:GLU:HG3	2.44	0.52
32:1a:922:G:C6	32:1a:923:A:C6	2.98	0.52
37:1e:139:LEU:HA	37:1e:142:LEU:HD12	1.91	0.52
41:1i:43:ALA:O	41:1i:45:ALA:N	2.42	0.52
52:1t:34:LYS:HE3	52:1t:80:ARG:NH1	2.19	0.52
1:2A:1639:U:C2'	1:2A:1640:C:H5"	2.39	0.52
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.44	0.52
3:2D:275:LYS:HD2	3:2D:276:LYS:HA	1.92	0.52
25:23:11:SER:HA	25:23:31:LEU:HD21	1.92	0.52
32:2a:818:G:O2'	32:2a:819:A:H5'	2.09	0.52
36:2d:89:THR:N	59:2d:601:HOH:O	2.36	0.52
41:2i:9:ARG:H	41:2i:79:LEU:HD23	1.75	0.52
12:1Q:37:LEU:HD21	12:1Q:130:LYS:HD2	1.90	0.52
23:11:34:THR:HG22	23:11:36:GLY:H	1.74	0.52
32:1a:142:G:C2'	32:1a:143:A:H8	2.23	0.52
32:1a:408:A:O2'	32:1a:409:G:H5'	2.10	0.52
32:1a:475:G:O2'	32:1a:476:G:H5'	2.10	0.52
32:1a:499:A:H4'	32:1a:500:G:OP1	2.09	0.52
32:1a:1148:U:O4'	41:1i:16:ARG:HD2	2.09	0.52
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.24	0.52
34:1b:80:ILE:HD13	34:1b:211:ILE:HG22	1.91	0.52
34:1b:146:GLN:O	34:1b:150:SER:HB3	2.10	0.52
36:1d:110:PHE:HD1	36:1d:110:PHE:N	2.08	0.52
42:1j:64:GLU:HB3	46:1n:59:ALA:HB2	1.91	0.52
1:2A:2113:U:H2'	1:2A:2114:A:O4'	2.10	0.52
1:2A:2355:C:O2	22:20:39:ARG:NH2	2.42	0.52
6:2G:116:ASP:OD2	45:2m:68:GLY:HA3	2.10	0.52
6:2G:142:PRO:O	26:24:31:ILE:HD13	2.09	0.52
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.90	0.52
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.90	0.52
26:24:46:GLN:HB3	26:24:48:ARG:CZ	2.39	0.52
32:2a:552:U:H4'	44:2l:87:GLY:HA3	1.92	0.52
32:2a:1002:G:C4	32:2a:1003:G:H8	2.28	0.52
32:2a:1327:C:OP2	53:2u:12:LYS:NZ	2.40	0.52
1:1A:630:U:OP1	5:1F:102:PRO:HA	2.10	0.52
3:1D:130:ALA:C	3:1D:131:LEU:HD12	2.34	0.52
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1N:67:LEU:HD12	9:1N:87:LEU:HD13	1.91	0.52
20:1Y:92:ASN:H	20:1Y:92:ASN:ND2	2.00	0.52
32:1a:456:C:H2'	32:1a:457:C:H6	1.75	0.52
49:1q:4:LYS:H	49:1q:61:GLU:HG2	1.75	0.52
1:2A:1430:C:H2'	1:2A:1431:U:H6	1.75	0.52
1:2A:2303:G:O2'	6:2G:132:ASN:HB2	2.10	0.52
9:2N:58:ASP:OD1	9:2N:58:ASP:N	2.37	0.52
12:2Q:34:LEU:HD11	12:2Q:129:THR:HB	1.92	0.52
32:2a:789:U:O2'	32:2a:791:G:N7	2.42	0.52
34:2b:100:GLY:O	34:2b:104:ASN:N	2.39	0.52
40:2h:121:ASP:HB2	40:2h:125:ARG:NH2	2.25	0.52
49:2q:6:LEU:O	49:2q:58:GLU:HA	2.10	0.52
1:1A:1836:U:O2	3:1D:50:THR:HB	2.09	0.52
4:1E:119:ARG:HD2	4:1E:120:TRP:CE2	2.45	0.52
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.23	0.52
38:1f:19:LEU:HD23	38:1f:23:LYS:CD	2.40	0.52
38:1f:63:TYR:O	38:1f:65:VAL:HG13	2.09	0.52
51:1s:48:THR:HG22	51:1s:61:TYR:HA	1.91	0.52
52:1t:46:GLU:HG3	52:1t:48:LYS:HD2	1.91	0.52
1:2A:2784:C:H1'	4:2E:37:ARG:NH1	2.25	0.52
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HG22	1.92	0.52
32:2a:426:G:OP1	36:2d:38:TYR:OH	2.24	0.52
32:2a:1320:C:C2	51:2s:72:GLY:HA3	2.45	0.52
32:2a:1348:U:OP2	32:2a:1373:G:N1	2.30	0.52
43:2k:86:GLY:H	43:2k:112:THR:HG1	1.56	0.52
45:2m:81:LEU:HD21	45:2m:88:ARG:HH21	1.75	0.52
1:1A:272:U:H5'	8:1I:50:ARG:HH12	1.74	0.52
1:1A:935:C:OP1	45:1m:93:ARG:NH1	2.43	0.52
1:1A:2830:A:P	13:1R:2:ARG:HH22	2.32	0.52
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.73	0.52
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.43	0.52
32:1a:435:C:H2'	32:1a:436:C:H6	1.74	0.52
32:1a:960:U:O2'	32:1a:1223:C:H5"	2.10	0.52
32:1a:1162:C:O5'	32:1a:1162:C:H6	1.93	0.52
35:1c:58:GLU:HB2	35:1c:65:ALA:HB3	1.91	0.52
43:1k:84:VAL:HG21	43:1k:95:ILE:HD11	1.92	0.52
1:2A:365:C:H5	59:2A:4990:HOH:O	1.92	0.52
1:2A:1614:A:N6	18:2W:92:ARG:O	2.43	0.52
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.45	0.52
32:2a:4:U:O4	40:2h:105:ARG:HD3	2.10	0.52
32:2a:657:G:H4'	47:2o:28:GLN:HG3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1026:G:N3	32:2a:1026:G:H2'	2.25	0.52
32:2a:1169:A:H2'	32:2a:1170:A:C8	2.45	0.52
41:2i:14:VAL:O	41:2i:65:VAL:HA	2.10	0.52
50:2r:55:ARG:HG2	50:2r:55:ARG:HH11	1.75	0.52
52:2t:18:GLN:O	52:2t:22:ARG:HG3	2.10	0.52
1:1A:831:A:C6	3:1D:229:VAL:HG11	2.45	0.51
1:1A:1100:A:N1	1:1A:1151:U:O2	2.43	0.51
1:1A:1334:U:C2	1:1A:1373:C:O2	2.63	0.51
1:1A:2096:U:H2'	1:1A:2097:U:C6	2.45	0.51
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.35	0.51
5:1F:185:ASP:OD1	5:1F:188:ARG:NH1	2.40	0.51
8:1I:75:LEU:HD22	8:1I:105:HIS:CD2	2.45	0.51
32:1a:664:G:N2	32:1a:741:G:H1	2.04	0.51
32:1a:870:U:H4'	32:1a:871:U:H5"	1.91	0.51
32:1a:1152:A:C6	32:1a:1153:C:C4	2.98	0.51
32:1a:1239:A:H62	32:1a:1299:A:N6	2.08	0.51
33:2x:38:HIS:CD2	33:2x:40:ILE:HD11	2.45	0.51
35:1c:120:VAL:O	35:1c:124:ILE:HG23	2.10	0.51
41:1i:19:LEU:HD12	41:1i:84:ALA:HB3	1.93	0.51
42:1j:50:ILE:HA	42:1j:60:ARG:HD3	1.91	0.51
48:1p:15:PRO:O	48:1p:16:HIS:ND1	2.44	0.51
51:1s:12:ASP:O	51:1s:14:HIS:N	2.42	0.51
1:2A:244:A:C2	1:2A:255:A:C4	2.98	0.51
1:2A:1805:U:O2	3:2D:50:THR:HB	2.10	0.51
5:2F:118:ALA:HA	5:2F:123:LEU:HB3	1.91	0.51
19:2X:31:HIS:HD2	19:2X:33:LYS:H	1.58	0.51
32:2a:353:A:H5'	32:2a:353:A:C8	2.44	0.51
32:2a:664:G:H22	32:2a:741:G:H1	1.58	0.51
32:2a:841:U:H6	32:2a:841:U:P	2.33	0.51
54:2y:9:ARG:HG2	54:2y:10:PRO:HD2	1.91	0.51
12:1Q:109:VAL:HG22	12:1Q:113:GLN:OE1	2.11	0.51
32:1a:392:G:H2'	32:1a:393:A:H8	1.75	0.51
32:1a:445:G:C6	32:1a:490:G:C6	2.99	0.51
32:1a:659:U:H2'	32:1a:660:G:C8	2.42	0.51
34:1b:101:MET:HA	34:1b:108:ILE:HG13	1.93	0.51
35:1c:22:TRP:CH2	35:1c:32:LEU:HB2	2.46	0.51
40:1h:121:ASP:OD1	40:1h:121:ASP:N	2.43	0.51
1:2A:1580:A:H8	1:2A:1580:A:OP2	1.93	0.51
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.45	0.51
21:2Z:145:GLU:HB2	21:2Z:148:ASP:OD2	2.10	0.51
32:2a:458:C:H2'	32:2a:460:G:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:992:U:H4'	32:2a:993:G:O5'	2.10	0.51
32:2a:1026:G:C5	32:2a:1027:C:H1'	2.45	0.51
32:2a:1207:2MG:H2'	32:2a:1208:C:C6	2.46	0.51
34:2b:121:LEU:O	34:2b:127:ILE:HG23	2.09	0.51
41:2i:21:PRO:HA	41:2i:59:PHE:CD1	2.45	0.51
47:2o:5:LYS:N	47:2o:5:LYS:NZ	2.58	0.51
1:1A:2124:U:H2'	1:1A:2125:C:C6	2.46	0.51
1:1A:2812:A:H1'	1:1A:2904:U:H1'	1.92	0.51
7:1H:158:HIS:O	7:1H:160:LYS:N	2.42	0.51
12:1Q:17:LEU:HD21	12:1Q:96:VAL:HG13	1.91	0.51
32:1a:149:A:O2'	32:1a:150:C:H5'	2.10	0.51
32:1a:353:A:H5'	32:1a:353:A:C8	2.44	0.51
32:1a:745:C:H5'	32:1a:851:G:H21	1.75	0.51
32:1a:751:U:H4'	47:1o:24:SER:HA	1.91	0.51
32:1a:1054:C:H41	33:1x:46:GLN:HG3	1.75	0.51
32:1a:1206:G:C6	32:1a:1207:2MG:C5	2.98	0.51
32:1a:1370:G:C2	32:1a:1371:G:C8	2.98	0.51
32:1a:1386:G:H2'	32:1a:1387:G:H8	1.75	0.51
33:2x:24:LEU:HD11	33:2x:39:ILE:HD11	1.91	0.51
50:1r:47:THR:OG1	50:1r:49:LYS:HG3	2.10	0.51
1:2A:1074:G:C5	1:2A:1075:C:C6	2.98	0.51
1:2A:2154:G:H2'	1:2A:2155:G:O4'	2.11	0.51
1:2A:2163:C:OP2	1:2A:2164:C:N4	2.34	0.51
5:2F:192:LEU:HD13	5:2F:194:MET:HE2	1.92	0.51
6:2G:36:LYS:HG2	6:2G:160:VAL:HB	1.93	0.51
6:2G:55:LYS:O	6:2G:58:GLN:HB3	2.10	0.51
16:2U:83:LEU:HD12	16:2U:88:ILE:HD12	1.91	0.51
27:25:15:ARG:HG2	27:25:15:ARG:HH11	1.76	0.51
32:2a:1090:U:H2'	32:2a:1091:U:C6	2.45	0.51
47:2o:5:LYS:O	47:2o:9:GLN:HG2	2.09	0.51
1:1A:742:G:OP1	1:1A:1426:G:O2'	2.24	0.51
1:1A:1864:U:O2'	1:1A:1991:A:N1	2.41	0.51
6:1G:7:LEU:HD13	6:1G:100:TRP:CE3	2.46	0.51
27:15:16:ARG:NH1	27:15:17:ASP:OD1	2.43	0.51
32:1a:818:G:O2'	32:1a:819:A:H5'	2.10	0.51
33:2x:54:ILE:HB	33:2x:61:LEU:HD12	1.91	0.51
1:2A:581:C:H2'	1:2A:582:G:C8	2.46	0.51
1:2A:1754:C:H5	15:2T:96:ARG:NH2	2.09	0.51
8:2I:90:GLY:O	8:2I:121:LYS:NZ	2.31	0.51
32:2a:66:G:H4'	32:2a:173:U:C5	2.45	0.51
32:2a:179:A:H2'	32:2a:180:U:H6	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2j:25:GLU:O	42:2j:29:ARG:HG2	2.09	0.51
1:1A:1954:A:H2'	1:1A:1955:G:O4'	2.11	0.51
2:1B:24:G:N7	2:1B:56:G:H2'	2.26	0.51
32:1a:90:U:H2'	32:1a:91:C:O4'	2.09	0.51
32:1a:430:A:OP1	36:1d:9:CYS:HB2	2.11	0.51
32:1a:1194:U:H4'	37:1e:22:GLY:O	2.11	0.51
32:1a:1255:G:N7	42:1j:43:ARG:NH2	2.59	0.51
42:1j:57:LYS:HD2	42:1j:60:ARG:NH2	2.26	0.51
45:1m:67:GLU:OE1	45:1m:71:ARG:NH2	2.42	0.51
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.11	0.51
26:24:44:THR:O	26:24:46:GLN:N	2.43	0.51
32:2a:382:A:H2'	32:2a:383:A:C8	2.45	0.51
32:2a:487:A:H2'	32:2a:488:C:O4'	2.10	0.51
32:2a:540:G:H2'	32:2a:541:G:O4'	2.10	0.51
45:2m:32:GLU:HG2	45:2m:64:TRP:CH2	2.46	0.51
51:2s:39:THR:HG22	51:2s:40:ILE:O	2.11	0.51
1:1A:218:A:OP1	1:1A:218:A:C8	2.63	0.51
1:1A:2772:G:H21	7:1H:139:GLN:NE2	1.97	0.51
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.91	0.51
32:1a:179:A:C5	32:1a:180:U:C5	2.99	0.51
32:1a:460:G:N2	32:1a:471:G:N7	2.58	0.51
32:1a:1093:A:N3	32:1a:1109:C:O2'	2.39	0.51
32:1a:1194:U:H2'	32:1a:1195:C:C6	2.45	0.51
37:1e:144:THR:H	37:1e:147:ASP:HB2	1.76	0.51
38:1f:41:GLU:HG2	38:1f:43:LEU:CD1	2.40	0.51
42:1j:33:GLN:O	42:1j:75:ILE:N	2.44	0.51
53:1u:9:ARG:HB3	53:1u:9:ARG:HH11	1.74	0.51
1:2A:817:C:O2'	1:2A:839:U:H5"	2.10	0.51
1:2A:2206:G:C3'	1:2A:2207:G:C8	2.90	0.51
1:2A:2684:U:H1'	10:2O:70:LYS:HD2	1.91	0.51
11:2P:94:GLU:HG3	11:2P:124:LYS:HD3	1.93	0.51
19:2X:26:TYR:HB3	19:2X:92:LEU:HD23	1.92	0.51
32:2a:15:G:C4'	37:2e:24:ARG:HH21	2.22	0.51
32:2a:375:U:OP1	48:2p:69:THR:HG21	2.11	0.51
32:2a:416:G:H2'	32:2a:417:C:C6	2.45	0.51
32:2a:1003:G:C5	32:2a:1004:A:N3	2.78	0.51
34:2b:96:ARG:HG2	34:2b:98:LEU:HD23	1.91	0.51
45:2m:22:ILE:HD12	45:2m:25:ILE:HD12	1.93	0.51
52:2t:42:GLN:O	52:2t:45:GLN:HB3	2.10	0.51
1:1A:240:A:C5	1:1A:241:G:H1'	2.45	0.51
1:1A:1232:G:H5'	17:1V:81:TYR:CE1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2734:A:H5"	59:1A:4435:HOH:O	2.11	0.51
1:1A:2764:G:C4	7:1H:2:SER:HA	2.46	0.51
19:1X:57:LEU:CD1	19:1X:78:LYS:HG2	2.40	0.51
32:1a:69:G:H1	32:1a:100:C:H42	1.57	0.51
32:1a:270:A:H2'	32:1a:271:C:C6	2.45	0.51
32:1a:321:A:C2	32:1a:333:G:C2	2.98	0.51
34:1b:134:GLU:HG3	34:1b:137:ARG:NH2	2.24	0.51
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.44	0.51
1:2A:898:C:H2'	1:2A:899:A:O4'	2.10	0.51
1:2A:1048:A:H2	1:2A:1112:G:N3	2.09	0.51
1:2A:2128:C:H2'	1:2A:2129:C:O4'	2.11	0.51
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.92	0.51
32:2a:157:G:C2	32:2a:165:C:C2	2.99	0.51
32:2a:392:G:H2'	32:2a:393:A:H8	1.76	0.51
32:2a:1026:G:N7	32:2a:1027:C:H1'	2.26	0.51
32:2a:1131:G:H2'	32:2a:1132:C:H6	1.76	0.51
32:2a:1504:G:OP1	32:2a:1507:A:H4'	2.10	0.51
41:2i:43:ALA:C	41:2i:45:ALA:H	2.18	0.51
42:2j:78:ASN:O	42:2j:80:LYS:N	2.44	0.51
47:2o:87:ILE:HG22	47:2o:88:ARG:N	2.25	0.51
1:1A:1218:G:O2'	1:1A:1219:A:O5'	2.29	0.51
1:1A:1911:A:H2'	1:1A:1912:A:C8	2.45	0.51
6:1G:6:ALA:HB3	6:1G:104:GLU:OE2	2.11	0.51
15:1T:29:ARG:HG3	15:1T:46:GLU:HB2	1.93	0.51
17:1V:21:ARG:HD3	17:1V:91:TYR:CD1	2.46	0.51
32:1a:741:G:H2'	32:1a:742:G:O4'	2.11	0.51
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.45	0.51
32:1a:1286:A:H2	53:1u:18:TYR:HH	1.52	0.51
35:1c:135:LYS:HE2	37:1e:53:LEU:HD11	1.91	0.51
1:2A:184:C:H2'	1:2A:185:U:C6	2.46	0.51
1:2A:289:A:N6	1:2A:351:G:O2'	2.43	0.51
1:2A:1074:G:C2	1:2A:1075:C:H1'	2.46	0.51
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.11	0.51
1:2A:2585:U:H5	54:2y:5:SER:O	1.94	0.51
1:2A:2886:G:H2'	1:2A:2887:U:H6	1.75	0.51
32:2a:404:U:O2	32:2a:498:U:H5	1.92	0.51
32:2a:1216:G:O2'	32:2a:1217:C:H5'	2.10	0.51
42:2j:61:GLU:OE2	46:2n:58:LYS:NZ	2.41	0.51
44:2l:83:VAL:HG13	44:2l:100:ILE:HG23	1.92	0.51
1:1A:1921:G:N3	1:1A:1921:G:H2'	2.26	0.51
1:1A:2660:C:H2'	1:1A:2661:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:161:GLU:HG2	5:1F:164:ARG:NH2	2.26	0.51
25:13:18:ASP:OD1	25:13:18:ASP:N	2.40	0.51
32:1a:1313:U:P	51:1s:5:LEU:HB2	2.51	0.51
33:2x:87:LYS:HG3	32:2a:926:G:C6	2.46	0.51
1:2A:107:C:H2'	1:2A:108:U:H6	1.76	0.51
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.92	0.51
10:2O:15:GLY:O	10:2O:47:ILE:HG12	2.11	0.51
23:21:50:ARG:HD2	23:21:57:GLU:OE2	2.11	0.51
32:2a:173:U:H5"	32:2a:197:A:O4'	2.10	0.51
32:2a:273:A:N6	32:2a:274:A:N6	2.58	0.51
32:2a:414:A:C5	32:2a:431:A:C2	2.99	0.51
32:2a:715:A:O2'	32:2a:716:A:H5'	2.10	0.51
32:2a:1132:C:H2'	32:2a:1133:G:H8	1.76	0.51
32:2a:1220:G:H1'	51:2s:52:TYR:HD2	1.75	0.51
32:2a:1314:C:N4	51:2s:2:PRO:O	2.41	0.51
34:2b:167:PRO:HG3	34:2b:188:ALA:HB2	1.92	0.51
1:1A:997:G:OP1	12:1Q:16:ARG:NH2	2.44	0.51
29:17:24:THR:O	29:17:28:ARG:HG3	2.10	0.51
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.92	0.51
32:1a:1131:G:O2'	32:1a:1132:C:H5'	2.11	0.51
32:1a:1458:G:OP1	52:1t:35:THR:OG1	2.16	0.51
34:1b:62:ALA:HB1	34:1b:226:ARG:HG3	1.92	0.51
38:1f:70:ASP:OD1	38:1f:70:ASP:N	2.42	0.51
1:2A:1073:A:C2	1:2A:1074:G:N7	2.80	0.51
1:2A:1170:G:H5"	1:2A:1170:G:H8	1.75	0.51
1:2A:1364:G:N7	23:21:3:LYS:HE2	2.26	0.51
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.76	0.51
6:2G:125:PHE:HB3	6:2G:166:ASP:OD1	2.11	0.51
18:2W:90:ARG:NE	54:2y:15:PRO:HG3	2.26	0.51
32:2a:270:A:H2'	32:2a:271:C:C6	2.46	0.51
34:2b:98:LEU:HG	34:2b:101:MET:HE3	1.92	0.51
41:2i:9:ARG:HB3	41:2i:104:ARG:HH21	1.76	0.51
6:1G:110:ALA:HA	6:1G:140:ILE:O	2.12	0.50
16:1U:29:SER:C	16:1U:30:LYS:HD2	2.37	0.50
21:1Z:152:ALA:O	21:1Z:155:LEU:HB2	2.11	0.50
32:1a:77:G:H2'	32:1a:78:G:H5'	1.93	0.50
32:1a:1073:U:O2'	34:1b:104:ASN:OD1	2.29	0.50
32:1a:1285:A:O2'	32:1a:1286:A:OP2	2.26	0.50
34:1b:45:GLN:O	34:1b:49:GLU:HG2	2.10	0.50
35:1c:58:GLU:O	35:1c:59:ARG:HG3	2.11	0.50
1:2A:639:U:H2'	1:2A:640:C:C6	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1450:G:H2'	1:2A:1450(A):C:H6	1.76	0.50
1:2A:1653:G:C4	13:2R:9:LYS:HD2	2.46	0.50
1:2A:1800:C:OP1	3:2D:264:LYS:NZ	2.36	0.50
1:2A:2134:A:C4	1:2A:2157:G:H4'	2.46	0.50
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.46	0.50
28:26:35:GLU:OE2	28:26:50:ARG:NH1	2.43	0.50
32:2a:300:A:O2'	32:2a:564:C:N3	2.43	0.50
36:2d:91:SER:O	36:2d:94:LEU:N	2.44	0.50
41:2i:3:GLN:HE21	41:2i:20:ARG:HH21	1.59	0.50
50:2r:25:THR:O	50:2r:25:THR:OG1	2.22	0.50
1:1A:272:U:H5'	8:1I:50:ARG:HH22	1.76	0.50
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.92	0.50
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.92	0.50
32:1a:45:U:H2'	32:1a:46:G:C8	2.46	0.50
32:1a:67:C:H4'	32:1a:172:A:O4'	2.12	0.50
32:1a:166:G:H2'	32:1a:167:G:H8	1.76	0.50
32:1a:406:G:H21	36:1d:119:GLN:NE2	2.09	0.50
32:1a:1108:G:H5'	35:1c:176:HIS:CD2	2.45	0.50
38:1f:22:GLU:O	38:1f:26:ILE:HG13	2.12	0.50
47:1o:17:ARG:HH11	47:1o:17:ARG:HG3	1.75	0.50
53:1u:2:GLY:O	53:1u:4:GLY:N	2.44	0.50
1:2A:1914:C:H2'	1:2A:1915:5MU:O2	2.10	0.50
32:2a:403:C:O2'	32:2a:404:U:H5'	2.10	0.50
32:2a:411:A:C6	32:2a:429:U:C4	2.99	0.50
34:2b:132:LYS:HA	34:2b:135:GLN:HG3	1.93	0.50
39:2g:113:GLU:CG	39:2g:119:ARG:HG2	2.41	0.50
1:1A:76:C:OP1	24:12:59:ARG:HD3	2.11	0.50
1:1A:1220:U:HO2'	1:1A:1221:G:P	2.34	0.50
1:1A:1829:U:OP2	3:1D:273:ARG:NH2	2.43	0.50
1:1A:2417:G:O2'	1:1A:2418:U:OP1	2.24	0.50
7:1H:125:VAL:HG12	7:1H:127:GLU:O	2.10	0.50
11:1P:89:ALA:O	11:1P:121:LYS:NZ	2.39	0.50
18:1W:18:ARG:NH1	18:1W:76:VAL:O	2.43	0.50
28:16:14:THR:HB	28:16:48:VAL:O	2.11	0.50
32:1a:172:A:H2'	32:1a:174:C:H5	1.76	0.50
32:1a:1097:C:H2'	32:1a:1098:C:C6	2.46	0.50
35:1c:131:ARG:HD3	35:1c:166:GLU:OE2	2.12	0.50
44:1l:77:LEU:HD21	44:1l:107:ALA:HA	1.92	0.50
1:2A:2867:G:OP2	15:2T:119:LYS:NZ	2.44	0.50
3:2D:221:VAL:HG22	3:2D:226:MET:CE	2.42	0.50
14:2S:78:LEU:HD11	14:2S:108:GLY:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:2U:85:LYS:NZ	16:2U:117:GLN:HA	2.26	0.50
18:2W:59:VAL:HG12	18:2W:60:ASN:ND2	2.26	0.50
20:2Y:56:PRO:O	20:2Y:57:GLN:HB2	2.10	0.50
35:2c:115:LEU:O	35:2c:118:GLN:N	2.44	0.50
37:2e:78:HIS:CE1	37:2e:143:ARG:H	2.29	0.50
46:2n:4:LYS:O	46:2n:7:ILE:HG12	2.11	0.50
1:1A:1766:G:H5'	1:1A:1767:A:OP2	2.12	0.50
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	1.93	0.50
32:1a:1136:U:O5'	32:1a:1136:U:H6	1.93	0.50
1:2A:55:G:O2'	1:2A:127:A:N1	2.45	0.50
1:2A:1084:A:H3'	1:2A:1085:A:H4'	1.94	0.50
1:2A:2119:A:H61	1:2A:2168:G:H21	1.59	0.50
1:2A:2576:G:H1'	59:2A:4363:HOH:O	2.12	0.50
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.51	0.50
6:2G:83:ARG:H	6:2G:86:MET:CE	2.24	0.50
14:2S:95:HIS:CG	14:2S:96:GLY:N	2.78	0.50
32:2a:826:C:H2'	32:2a:827:U:C6	2.46	0.50
45:2m:15:VAL:HG12	45:2m:45:VAL:HG22	1.93	0.50
52:2t:57:ARG:HH12	52:2t:100:ILE:HB	1.76	0.50
1:1A:1093:G:O2'	1:1A:1094:A:H8	1.95	0.50
1:1A:1102:G:O2'	1:1A:1149:A:N6	2.43	0.50
1:1A:1273:G:OP1	16:1U:13:LYS:NZ	2.36	0.50
8:1I:4:ILE:HD11	8:1I:44:LEU:HD12	1.94	0.50
26:14:15:ILE:HD12	26:14:21:VAL:HG22	1.94	0.50
32:1a:142:G:H2'	32:1a:143:A:C8	2.45	0.50
32:1a:1102:A:H5"	32:1a:1102:A:H8	1.75	0.50
1:2A:2641:G:OP2	9:2N:74:ARG:NH2	2.43	0.50
19:2X:65:ARG:HD2	19:2X:67:GLY:O	2.12	0.50
32:2a:25:C:H5"	32:2a:524:G:H1'	1.94	0.50
32:2a:1216:G:H5"	46:2n:5:ALA:HB2	1.93	0.50
1:1A:276:C:H4'	8:1I:42:SER:O	2.11	0.50
1:1A:602:G:H2'	1:1A:603:C:C6	2.46	0.50
8:1I:65:ALA:O	8:1I:68:LEU:N	2.45	0.50
32:1a:195:A:C5	32:1a:196:A:N1	2.79	0.50
32:1a:527:G7M:H5"	32:1a:527:G7M:H8	1.94	0.50
33:2x:63:ALA:HA	32:2a:1400:5MC:C2	2.46	0.50
39:1g:78:ARG:HB2	39:1g:156:TRP:HZ3	1.77	0.50
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.46	0.50
1:2A:2111:C:N3	1:2A:2145:C:O2'	2.44	0.50
6:2G:113:ARG:HD2	6:2G:140:ILE:HA	1.94	0.50
20:2Y:38:ILE:HD11	20:2Y:66:PRO:HG3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:104:PHE:HB3	21:2Z:141:VAL:HG11	1.92	0.50
32:2a:1027:C:H2'	32:2a:1028:C:C5	2.46	0.50
32:2a:1378:C:N3	32:2a:1379:G:H1'	2.26	0.50
34:2b:10:LEU:HB3	34:2b:13:ALA:HB2	1.92	0.50
34:2b:74:LYS:HE3	34:2b:166:ASP:HB2	1.93	0.50
36:2d:43:HIS:ND1	36:2d:46:LYS:HD2	2.26	0.50
38:2f:97:PHE:HB2	50:2r:32:ARG:NH1	2.26	0.50
38:2f:97:PHE:O	50:2r:31:LEU:HD12	2.11	0.50
47:2o:87:ILE:HG22	47:2o:88:ARG:H	1.76	0.50
49:2q:4:LYS:H	49:2q:61:GLU:HG2	1.75	0.50
1:1A:1218:G:OP2	1:1A:1218:G:H2'	2.11	0.50
1:1A:1855:G:OP1	3:1D:52:ARG:NH1	2.45	0.50
1:1A:2225:U:O4'	3:1D:151:LYS:HE2	2.12	0.50
18:1W:79:GLY:CA	18:1W:100:THR:HG22	2.42	0.50
32:1a:200:G:N2	32:1a:218:C:C2	2.80	0.50
32:1a:277:C:OP1	49:1q:68:ARG:NH2	2.44	0.50
32:1a:1346:A:H5"	41:1i:120:ARG:HH12	1.76	0.50
32:1a:1349:A:C2	32:1a:1374:A:C4	2.99	0.50
32:1a:1362:C:H2'	32:1a:1363:C:H5"	1.92	0.50
32:1a:1381:U:O2'	32:1a:1382:C:H5'	2.12	0.50
32:1a:1495:U:OP1	33:1x:23:ARG:NH2	2.42	0.50
34:1b:21:ARG:O	34:1b:23:ARG:N	2.43	0.50
36:1d:98:GLU:OE1	36:1d:103:ASN:ND2	2.34	0.50
36:1d:127:THR:HB	36:1d:131:ARG:O	2.12	0.50
37:1e:11:ILE:HG21	37:1e:105:VAL:HG22	1.94	0.50
37:1e:137:GLU:O	37:1e:141:GLN:HG3	2.11	0.50
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.74	0.50
7:2H:26:VAL:O	7:2H:79:VAL:HG11	2.12	0.50
7:2H:57:ASP:O	7:2H:62:LYS:HD2	2.11	0.50
32:2a:391:G:P	48:2p:28:ARG:HH22	2.34	0.50
32:2a:1314:C:OP2	51:2s:4:SER:OG	2.19	0.50
32:2a:1442:G:HO2'	32:2a:1442(A):G:P	2.33	0.50
1:1A:295:C:H6	1:1A:295:C:H5"	1.77	0.50
1:1A:354:A:O2'	1:1A:355:A:H8	1.95	0.50
1:1A:385:G:H2'	1:1A:386:U:H5'	1.94	0.50
1:1A:865:G:H5'	1:1A:886:U:OP1	2.11	0.50
1:1A:1604:C:H5"	1:1A:1605:A:OP2	2.12	0.50
1:1A:2218:C:O2'	1:1A:2219:U:H5'	2.12	0.50
1:1A:2348:A:H61	22:10:43:THR:HG21	1.77	0.50
4:1E:116:VAL:HG13	4:1E:122:PHE:CD2	2.47	0.50
32:1a:834:C:H2'	32:1a:835:U:H6	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1b:109:SER:O	34:1b:112:VAL:N	2.44	0.50
6:2G:77:ILE:HG22	6:2G:80:PHE:H	1.76	0.50
21:2Z:29:TYR:O	21:2Z:89:PHE:HD1	1.95	0.50
32:2a:244:U:O4	32:2a:906:G:H1'	2.12	0.50
32:2a:300:A:H1'	32:2a:565:U:O2	2.12	0.50
32:2a:460:G:N2	32:2a:471:G:N7	2.60	0.50
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.36	0.50
32:2a:1327:C:H2'	32:2a:1328:C:H6	1.76	0.50
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.47	0.50
32:2a:1519:MA6:H8	32:2a:1519:MA6:O5'	2.12	0.50
39:2g:48:LYS:O	39:2g:52:GLU:HG2	2.11	0.50
39:2g:70:LYS:HD3	39:2g:96:GLN:OE1	2.12	0.50
51:2s:23:ASN:HA	51:2s:27:GLU:OE2	2.11	0.50
1:1A:2108:U:H2'	1:1A:2109:G:C8	2.47	0.50
1:1A:2359:C:H2'	1:1A:2360:U:C6	2.47	0.50
1:1A:2699:U:H2'	1:1A:2700:U:O4'	2.11	0.50
3:1D:102:LYS:C	3:1D:103:ARG:HG2	2.37	0.50
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.47	0.50
15:1T:127:ALA:O	15:1T:128:GLU:HB3	2.12	0.50
19:1X:57:LEU:HD11	19:1X:78:LYS:HG2	1.94	0.50
32:1a:426:G:OP1	36:1d:38:TYR:OH	2.28	0.50
32:1a:589:C:C2'	32:1a:590:C:H5'	2.42	0.50
32:1a:1100:C:OP2	34:1b:96:ARG:HD3	2.11	0.50
32:1a:1441:G:H5"	32:1a:1442:G:H5'	1.94	0.50
34:1b:178:ARG:HG2	40:1h:72:PRO:HA	1.94	0.50
35:1c:70:VAL:HG22	35:1c:72:LYS:H	1.77	0.50
38:1f:60:PHE:CE2	50:1r:78:LEU:HD21	2.47	0.50
41:1i:15:ALA:HB2	41:1i:65:VAL:HG23	1.94	0.50
1:2A:796:C:H2'	1:2A:797:C:C6	2.46	0.50
1:2A:1653:G:C6	13:2R:9:LYS:HB2	2.47	0.50
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.12	0.50
1:2A:1916:A:H2'	1:2A:1917:PSU:O4'	2.12	0.50
1:2A:2740:A:C6	1:2A:2764:A:C8	3.00	0.50
11:2P:121:LYS:O	11:2P:123:LEU:N	2.45	0.50
13:2R:67:LEU:HD13	13:2R:76:VAL:HG21	1.93	0.50
32:2a:1330:U:H4'	45:2m:23:TYR:CE1	2.47	0.50
45:2m:31:LYS:O	45:2m:35:GLU:HG2	2.11	0.50
52:2t:64:ASP:OD2	52:2t:81:LYS:NZ	2.44	0.50
1:1A:1141:A:C2	1:1A:1142:A:C5	3.00	0.49
1:1A:2830:A:OP2	13:1R:2:ARG:NH2	2.44	0.49
4:1E:33:VAL:HG13	4:1E:89:ASP:C	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:147:GLY:HA2	21:1Z:174:VAL:O	2.10	0.49
32:1a:333:G:H4'	52:1t:16:HIS:CE1	2.46	0.49
34:1b:12:GLU:OE2	34:1b:48:MET:HE2	2.11	0.49
1:2A:1051:G:C6	1:2A:1052:C:C4	3.00	0.49
1:2A:1530:C:H2'	1:2A:1531:C:H6	1.76	0.49
1:2A:2741:A:H2'	1:2A:2742:C:O4'	2.11	0.49
3:2D:127:VAL:HA	3:2D:193:VAL:HG22	1.94	0.49
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.94	0.49
17:2V:4:ILE:HA	17:2V:12:TYR:O	2.12	0.49
32:2a:108:G:C6	52:2t:15:ARG:HG2	2.47	0.49
32:2a:662:G:H2'	32:2a:663:A:C8	2.46	0.49
32:2a:735:C:H2'	32:2a:736:C:C6	2.46	0.49
32:2a:1139:G:H4'	32:2a:1140:C:OP1	2.10	0.49
6:1G:110:ALA:HB1	6:1G:140:ILE:CG2	2.42	0.49
41:1i:43:ALA:C	41:1i:45:ALA:H	2.20	0.49
44:1l:24:VAL:O	44:1l:27:LEU:HB2	2.12	0.49
51:1s:15:LEU:O	51:1s:19:VAL:HG23	2.12	0.49
52:1t:71:THR:O	52:1t:72:LEU:HD23	2.12	0.49
1:2A:7:G:H2'	1:2A:8:A:O4'	2.12	0.49
1:2A:1485:G:N2	1:2A:1505:C:C2	2.80	0.49
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.26	0.49
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.45	0.49
5:2F:132:VAL:CG2	5:2F:163:VAL:HG22	2.42	0.49
15:2T:16:ARG:HH11	15:2T:19:LEU:HD21	1.77	0.49
21:2Z:128:VAL:HG23	21:2Z:160:GLY:O	2.11	0.49
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.27	0.49
34:2b:178:ARG:HH12	40:2h:68:ARG:NH2	2.01	0.49
47:2o:55:GLY:HA2	47:2o:58:MET:HE3	1.94	0.49
1:1A:692:C:H2'	1:1A:693:G:O4'	2.13	0.49
1:1A:1113:A:H2'	1:1A:1113:A:N3	2.27	0.49
2:1B:66:A:H61	2:1B:108:U:H2'	1.77	0.49
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.93	0.49
14:1S:59:LYS:HD2	14:1S:60:GLY:H	1.77	0.49
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.94	0.49
32:1a:826:C:H4'	40:1h:12:ARG:HG2	1.93	0.49
32:1a:1071:C:H2'	32:1a:1072:G:C8	2.46	0.49
34:1b:12:GLU:O	34:1b:15:VAL:HG12	2.12	0.49
35:1c:63:ASN:HB3	35:1c:98:ASN:HB2	1.94	0.49
40:1h:13:ILE:O	40:1h:17:THR:HG23	2.11	0.49
42:1j:35:SER:HB3	42:1j:73:ASP:CB	2.36	0.49
11:2P:19:VAL:HG12	11:2P:27:HIS:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:224:C:H2'	32:2a:225:C:H6	1.78	0.49
45:2m:91:ARG:HB2	45:2m:98:VAL:HG22	1.95	0.49
1:1A:160:G:O2'	1:1A:161:C:H5'	2.12	0.49
1:1A:910:A:H2'	1:1A:911:G:C8	2.46	0.49
1:1A:1785:C:H2'	1:1A:1786:A:O4'	2.13	0.49
1:1A:1849:U:O4	3:1D:154:LYS:HD3	2.12	0.49
6:1G:77:ILE:O	6:1G:82:LEU:N	2.39	0.49
6:1G:150:ASP:OD1	6:1G:153:ARG:NH1	2.45	0.49
32:1a:226:G:N2	32:1a:227:G:H1'	2.28	0.49
32:1a:292:G:C5	32:1a:293:G:H1'	2.48	0.49
32:1a:833:U:H2'	32:1a:834:C:C6	2.47	0.49
32:1a:1002:G:H2'	32:1a:1003:G:O4'	2.12	0.49
32:1a:1070:U:OP1	37:1e:25:ARG:NH1	2.41	0.49
32:1a:1095:U:OP2	32:1a:1108:G:N1	2.39	0.49
32:1a:1408:A:C2'	32:1a:1409:C:H5'	2.42	0.49
34:1b:158:LEU:HD21	34:1b:180:LEU:HD13	1.94	0.49
36:1d:76:ARG:HD3	36:1d:207:TYR:CE1	2.47	0.49
41:1i:29:ASN:ND2	41:1i:65:VAL:O	2.45	0.49
48:1p:72:ARG:O	48:1p:75:ARG:N	2.45	0.49
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.93	0.49
2:2B:11:C:OP2	2:2B:12:C:N4	2.34	0.49
5:2F:102:PRO:HB2	5:2F:105:VAL:HG23	1.92	0.49
6:2G:144:ILE:HA	6:2G:148:MET:SD	2.53	0.49
7:2H:88:LEU:CD2	7:2H:165:ALA:HA	2.42	0.49
32:2a:473:G:O2'	32:2a:474:G:H5'	2.12	0.49
32:2a:952:U:H4'	32:2a:964:A:N1	2.26	0.49
32:2a:973:G:H8	32:2a:973:G:O5'	1.95	0.49
32:2a:1317:C:O2	51:2s:37:ARG:NH2	2.43	0.49
35:2c:63:ASN:HB2	35:2c:98:ASN:HB2	1.93	0.49
35:2c:142:MET:HE2	35:2c:170:GLN:HG2	1.94	0.49
40:2h:11:THR:HG23	40:2h:14:ARG:HH21	1.78	0.49
46:2n:24:CYS:HB2	46:2n:40:CYS:HB3	1.94	0.49
48:2p:43:LYS:HG2	48:2p:48:TRP:CD2	2.47	0.49
1:1A:721:G:H1'	5:1F:74:ARG:HD3	1.94	0.49
1:1A:2074:G:H4'	4:1E:143:ASN:O	2.12	0.49
14:1S:15:ARG:O	14:1S:19:LYS:HG2	2.13	0.49
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.47	0.49
34:1b:74:LYS:HE3	34:1b:166:ASP:HB2	1.95	0.49
37:1e:116:THR:HG23	37:1e:117:ASP:OD2	2.13	0.49
40:1h:21:LYS:O	40:1h:65:TYR:OH	2.25	0.49
41:1i:17:VAL:HG23	41:1i:63:ILE:HG12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1j:38:ILE:HG12	42:1j:71:LEU:O	2.12	0.49
1:2A:236:C:H2'	1:2A:237:C:H6	1.76	0.49
1:2A:958:U:O2	2:2B:90:A:O2'	2.23	0.49
1:2A:1080:C:H2'	1:2A:1081:U:H6	1.78	0.49
1:2A:2102:U:O2	1:2A:2187:G:C6	2.64	0.49
32:2a:384:G:H2'	32:2a:385:C:C6	2.48	0.49
32:2a:441:A:H3'	32:2a:442:C:H6	1.77	0.49
32:2a:1067:A:H4'	32:2a:1068:G:O5'	2.12	0.49
32:2a:1236:A:OP2	53:2u:3:LYS:HE2	2.12	0.49
34:2b:11:LEU:HD13	34:2b:217:ARG:HH22	1.77	0.49
1:1A:543:G:H2'	1:1A:544:U:C6	2.47	0.49
1:1A:656:A:OP1	11:1P:65:ARG:NH1	2.45	0.49
1:1A:1346:U:H4'	1:1A:1347:A:H5'	1.93	0.49
1:1A:2575:U:O2'	10:1O:28:SER:HB2	2.13	0.49
32:1a:92:C:H2'	32:1a:93:G:C8	2.48	0.49
32:1a:179:A:C4	32:1a:180:U:C5	3.01	0.49
32:1a:1003:G:H2'	32:1a:1004:A:C4'	2.43	0.49
32:1a:1169:A:H2'	32:1a:1170:A:C8	2.48	0.49
33:2x:76:GLU:HA	33:2x:79:ASN:ND2	2.28	0.49
34:1b:223:ILE:HD12	34:1b:224:GLN:N	2.27	0.49
35:1c:148:GLY:HA3	35:1c:172:ARG:O	2.12	0.49
36:1d:98:GLU:OE2	36:1d:194:LEU:HD23	2.12	0.49
42:1j:6:ILE:HA	42:1j:98:ILE:HG12	1.95	0.49
1:2A:1344:G:O2'	1:2A:1385:G:H2'	2.12	0.49
1:2A:2318:G:H22	14:2S:3:ARG:HE	1.60	0.49
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.48	0.49
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.45	0.49
3:2D:132:PRO:HD3	3:2D:190:TYR:CZ	2.47	0.49
3:2D:275:LYS:CE	3:2D:276:LYS:HA	2.43	0.49
6:2G:14:GLU:C	6:2G:17:PRO:HD2	2.37	0.49
32:2a:583:A:H2'	32:2a:584:G:O4'	2.13	0.49
32:2a:600:C:H2'	32:2a:601:C:C6	2.48	0.49
32:2a:775:G:O2'	32:2a:776:G:H5'	2.12	0.49
41:2i:116:LYS:HD2	41:2i:122:ALA:HA	1.95	0.49
42:2j:57:LYS:HD2	42:2j:60:ARG:NH2	2.27	0.49
46:2n:22:THR:HB	46:2n:33:VAL:HG11	1.94	0.49
32:1a:66:G:C6	32:1a:67:C:C5	3.01	0.49
32:1a:185:A:C2	32:1a:186:C:C2	3.00	0.49
37:1e:77:PRO:HG2	37:1e:78:HIS:CD2	2.44	0.49
41:1i:27:THR:HG23	41:1i:31:GLN:O	2.13	0.49
41:1i:77:ILE:O	41:1i:81:ILE:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.46	0.49
1:2A:1698:A:C8	1:2A:1700:A:O4'	2.66	0.49
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.47	0.49
9:2N:33:LEU:HD12	9:2N:38:HIS:CE1	2.48	0.49
21:2Z:10:ARG:HD3	21:2Z:37:VAL:C	2.38	0.49
32:2a:632:A:H5"	32:2a:632:A:H8	1.78	0.49
34:2b:187:LEU:HA	34:2b:201:ILE:HB	1.93	0.49
41:2i:58:HIS:CD2	41:2i:58:HIS:N	2.79	0.49
50:2r:25:THR:O	50:2r:26:LEU:HD12	2.13	0.49
51:2s:44:MET:O	51:2s:47:HIS:HB2	2.13	0.49
1:1A:2044:U:O2'	1:1A:2629:C:H5'	2.12	0.49
1:1A:2262:G:O2'	1:1A:2508:C:OP1	2.27	0.49
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.26	0.49
8:1I:77:LEU:HD22	8:1I:101:LEU:HG	1.94	0.49
15:1T:51:ARG:HG3	15:1T:98:LYS:HD2	1.95	0.49
32:1a:161:A:H8	32:1a:161:A:O5'	1.95	0.49
32:1a:232:G:H1'	32:1a:262:A:N1	2.27	0.49
32:1a:523:A:H61	44:1l:92:0TD:CG	2.26	0.49
32:1a:1141:C:H2'	32:1a:1142:G:H8	1.78	0.49
36:1d:101:LEU:HD23	36:1d:121:VAL:CG1	2.43	0.49
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.12	0.49
1:2A:493:G:H2'	1:2A:494:G:O4'	2.12	0.49
1:2A:1324:G:O2'	1:2A:1326:U:OP2	2.26	0.49
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.48	0.49
1:2A:2205:C:O2	1:2A:2220:G:C2	2.66	0.49
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.42	0.49
1:2A:2602:A:H4'	1:2A:2603:G:OP1	2.09	0.49
2:2B:31:C:H4'	6:2G:29:TRP:CZ2	2.48	0.49
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.43	0.49
9:2N:71:ILE:HG21	9:2N:84:LYS:HB3	1.95	0.49
14:2S:103:GLU:O	14:2S:107:GLU:HG3	2.12	0.49
32:2a:277:C:P	49:2q:68:ARG:HH12	2.35	0.49
32:2a:540:G:C6	32:2a:541:G:C5	3.00	0.49
32:2a:646:U:H2'	32:2a:647:C:C6	2.48	0.49
32:2a:683:G:C6	32:2a:684:A:C5	3.00	0.49
32:2a:946:A:H2'	32:2a:947:G:C8	2.47	0.49
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.47	0.49
32:2a:1245:A:H61	32:2a:1292:U:H3	1.61	0.49
1:1A:1053:C:OP1	9:1N:35:ARG:NH1	2.45	0.49
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.12	0.49
18:1W:1:MET:HE2	18:1W:62:HIS:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:92:ASN:HD22	20:1Y:92:ASN:N	2.03	0.49
21:1Z:58:VAL:HG12	21:1Z:68:PRO:HA	1.94	0.49
32:1a:437:U:O2	36:1d:119:GLN:NE2	2.46	0.49
32:1a:1456:G:N1	52:1t:51:GLU:OE2	2.35	0.49
34:1b:80:ILE:HD11	34:1b:212:GLN:HA	1.94	0.49
36:1d:60:GLU:OE1	36:1d:199:ASN:N	2.46	0.49
36:1d:110:PHE:N	36:1d:110:PHE:CD1	2.80	0.49
36:1d:167:GLY:H	36:1d:168:ARG:CZ	2.26	0.49
38:1f:19:LEU:HD23	38:1f:23:LYS:HD2	1.95	0.49
1:2A:774:A:H2'	1:2A:774:A:N3	2.28	0.49
8:2I:4:ILE:HD11	8:2I:44:LEU:CD1	2.41	0.49
32:2a:189(F):U:C4	49:2q:72:ARG:NH1	2.81	0.49
32:2a:266:G:H3'	49:2q:67:LYS:HB2	1.94	0.49
32:2a:538:G:C2	32:2a:539:A:C4	3.01	0.49
32:2a:1106:G:H2'	32:2a:1107:C:H6	1.78	0.49
42:2j:5:ARG:N	42:2j:74:ILE:HG22	2.28	0.49
45:2m:82:MET:HE2	45:2m:93:ARG:HG2	1.95	0.49
1:1A:1129:U:H1'	1:1A:1132:A:H61	1.76	0.49
1:1A:1223:C:H2'	1:1A:1224:C:C6	2.46	0.49
32:1a:161:A:H2'	32:1a:162:A:C8	2.48	0.49
32:1a:360:A:H2'	32:1a:361:G:O4'	2.13	0.49
34:1b:222:ILE:O	34:1b:226:ARG:HB2	2.12	0.49
37:1e:33:VAL:HG21	37:1e:109:ILE:HA	1.94	0.49
37:1e:122:GLU:HB2	37:1e:126:ARG:HD3	1.95	0.49
7:2H:22:GLY:O	7:2H:23:ARG:NH1	2.46	0.49
32:2a:374:A:C6	32:2a:375:U:C4	3.01	0.49
32:2a:450:G:H5"	48:2p:41:PRO:O	2.13	0.49
32:2a:537:G:OP1	44:2l:113:ARG:NH1	2.36	0.49
32:2a:1008:C:H2'	32:2a:1009:G:C8	2.48	0.49
32:2a:1069:C:O2'	32:2a:1192:C:H1'	2.13	0.49
32:2a:1080:A:OP1	37:2e:47:LYS:HD3	2.13	0.49
34:2b:80:ILE:HD11	34:2b:212:GLN:CA	2.43	0.49
34:2b:127:ILE:O	34:2b:129:GLU:N	2.46	0.49
41:2i:28:VAL:HA	41:2i:63:ILE:O	2.13	0.49
51:2s:36:ARG:NH1	51:2s:52:TYR:O	2.42	0.49
3:1D:3:VAL:HG13	3:1D:17:THR:HB	1.94	0.48
32:1a:177:C:H2'	32:1a:178:C:C6	2.48	0.48
32:1a:198:G:H2'	32:1a:199:G:H8	1.78	0.48
32:1a:377:G:OP1	48:1p:3:LYS:HD3	2.13	0.48
32:1a:691:G:H1'	32:1a:696:A:H61	1.78	0.48
32:1a:1054:C:H4'	32:1a:1055:A:H5"	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1e:89:ILE:HG21	37:1e:135:THR:HA	1.95	0.48
40:1h:11:THR:HG22	40:1h:15:ASN:ND2	2.28	0.48
1:2A:459:U:OP2	29:27:39:ARG:NH1	2.46	0.48
1:2A:530:G:H4'	1:2A:531:C:OP1	2.12	0.48
1:2A:1539:G:H2'	1:2A:1540:U:H6	1.77	0.48
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.48	0.48
1:2A:2186:G:N2	1:2A:2187:G:C4	2.81	0.48
12:2Q:32:TYR:HB2	12:2Q:106:VAL:HG23	1.95	0.48
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.27	0.48
34:2b:71:VAL:HG23	34:2b:164:VAL:HG13	1.93	0.48
35:2c:35:GLU:OE2	35:2c:59:ARG:NH1	2.43	0.48
38:2f:1:MET:HA	38:2f:67:MET:O	2.13	0.48
1:1A:934:A:H2	1:1A:936:C:H2'	1.78	0.48
1:1A:1312:G:O5'	18:1W:15:ARG:NH2	2.46	0.48
1:1A:1699:A:O2'	1:1A:1700:G:H5'	2.13	0.48
1:1A:1834:A:H4'	3:1D:259:THR:HG23	1.95	0.48
7:1H:98:LEU:HD13	7:1H:125:VAL:CG2	2.43	0.48
16:1U:76:TYR:CE2	16:1U:80:ILE:HG13	2.48	0.48
17:1V:60:GLU:OE1	17:1V:97:LYS:NZ	2.39	0.48
32:1a:18:C:OP1	37:1e:127:ASN:ND2	2.42	0.48
32:1a:447:G:H2'	32:1a:485:G:N2	2.28	0.48
32:1a:1003:G:N2	32:1a:1004:A:N3	2.61	0.48
32:1a:1379:G:C4	32:1a:1380:U:C5	3.01	0.48
33:2x:85:LEU:O	33:2x:89:GLN:HG2	2.13	0.48
34:1b:96:ARG:HG2	34:1b:98:LEU:HD23	1.94	0.48
41:1i:58:HIS:N	41:1i:58:HIS:CD2	2.81	0.48
1:2A:784:A:OP1	1:2A:2588:G:H5"	2.13	0.48
1:2A:1062:G:O2'	1:2A:1063:G:H5'	2.14	0.48
11:2P:95:VAL:HG22	11:2P:125:VAL:HB	1.95	0.48
30:28:63:PRO:HG2	30:28:64:TYR:CE2	2.48	0.48
32:2a:542:G:H2'	32:2a:543:C:C6	2.47	0.48
32:2a:1086:U:H3	32:2a:1099:G:H22	1.61	0.48
32:2a:1278:U:C5'	32:2a:1279:A:H5'	2.40	0.48
32:2a:1346:A:H5"	41:2i:120:ARG:NH1	2.27	0.48
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.13	0.48
35:2c:7:PRO:HG3	35:2c:201:TYR:HE1	1.77	0.48
39:2g:47:CYS:O	39:2g:58:PRO:HG3	2.14	0.48
40:2h:38:ILE:HD11	40:2h:118:VAL:O	2.13	0.48
45:2m:20:THR:HA	45:2m:25:ILE:O	2.12	0.48
1:1A:1146:C:H2'	1:1A:1147:U:H6	1.78	0.48
1:1A:2240:G:H2'	1:1A:2241:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2451:A:C8	1:1A:2451:A:C5'	2.97	0.48
9:1N:71:ILE:HG21	9:1N:84:LYS:HB3	1.94	0.48
24:12:29:LYS:HE2	24:12:57:ILE:HG21	1.95	0.48
32:1a:848:C:O5'	32:1a:848:C:H6	1.96	0.48
32:1a:982:U:H5"	46:1n:6:LEU:HD21	1.95	0.48
32:1a:1137:C:H3'	32:1a:1137:C:H6	1.78	0.48
39:1g:14:PRO:HB3	39:1g:19:GLY:C	2.39	0.48
1:2A:601:C:O2'	5:2F:104:LYS:NZ	2.45	0.48
2:2B:11:C:H3'	2:2B:12:C:C6	2.48	0.48
4:2E:154:LYS:HZ3	4:2E:154:LYS:HG3	1.57	0.48
5:2F:24:LEU:HD23	5:2F:115:ALA:HA	1.95	0.48
7:2H:56:SER:OG	7:2H:58:GLU:HG2	2.13	0.48
10:2O:49:ARG:HH12	32:2a:1423:G:P	2.35	0.48
32:2a:89:C:H2'	32:2a:90:U:O4'	2.13	0.48
32:2a:597:G:H5"	32:2a:598:U:OP2	2.13	0.48
32:2a:928:G:H4'	32:2a:1532:U:O2'	2.14	0.48
32:2a:1097:C:H1'	32:2a:1170:A:H1'	1.96	0.48
38:2f:22:GLU:O	38:2f:26:ILE:HG13	2.13	0.48
1:1A:275:C:H2'	1:1A:276:C:C6	2.48	0.48
1:1A:1090:G:H1'	1:1A:1094:A:H1'	1.95	0.48
1:1A:1466:U:O2'	1:1A:1467:G:OP1	2.30	0.48
1:1A:2240:G:OP1	3:1D:261:LYS:NZ	2.33	0.48
6:1G:50:ALA:C	6:1G:52:ILE:N	2.71	0.48
20:1Y:34:LYS:HG2	20:1Y:34:LYS:O	2.12	0.48
32:1a:256:U:H2'	32:1a:257:G:C8	2.48	0.48
32:1a:404:U:P	36:1d:118:ARG:HH21	2.36	0.48
32:1a:472:A:H2'	32:1a:473:G:H5'	1.95	0.48
32:1a:1060:C:O2'	42:1j:56:HIS:HD2	1.97	0.48
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.12	0.48
49:1q:4:LYS:N	49:1q:61:GLU:HG2	2.28	0.48
1:2A:839:U:H2'	1:2A:840:C:C6	2.49	0.48
1:2A:2119:A:O2'	1:2A:2120:G:H5'	2.13	0.48
32:2a:490:G:H2'	32:2a:491:G:H8	1.77	0.48
37:2e:40:ARG:CZ	37:2e:68:GLU:HB3	2.43	0.48
38:2f:1:MET:HE3	38:2f:66:GLU:OE2	2.14	0.48
47:2o:39:LEU:HD13	47:2o:56:LEU:HB2	1.94	0.48
1:1A:264:G:C6	1:1A:265:U:C4	3.01	0.48
18:1W:67:ASP:N	18:1W:67:ASP:OD1	2.46	0.48
32:1a:175:C:H2'	32:1a:176:C:H6	1.78	0.48
32:1a:630:G:C2	32:1a:631:G:H1'	2.48	0.48
32:1a:864:A:H2'	32:1a:865:A:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.61	0.48
32:1a:1229:A:H4'	33:1x:2:THR:OG1	2.13	0.48
38:1f:21:LEU:O	38:1f:24:GLU:HB3	2.13	0.48
39:1g:89:MET:HE2	39:1g:156:TRP:CE2	2.49	0.48
47:1o:88:ARG:HB3	47:1o:88:ARG:NH2	2.27	0.48
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.13	0.48
3:2D:69:ARG:C	3:2D:71:ASP:H	2.21	0.48
4:2E:52:LEU:HB3	4:2E:53:PRO:HD2	1.95	0.48
7:2H:149:ARG:NH1	7:2H:154:PRO:HG2	2.29	0.48
19:2X:35:THR:HG22	19:2X:37:THR:H	1.78	0.48
27:25:48:GLU:O	27:25:60:VAL:HG11	2.14	0.48
32:2a:110:C:O2'	48:2p:25:ARG:O	2.23	0.48
32:2a:727:G:N2	32:2a:730:G:OP2	2.38	0.48
32:2a:1077:G:N1	32:2a:1081:G:C6	2.82	0.48
41:2i:105:ASP:HB2	41:2i:107:ARG:HG3	1.95	0.48
1:1A:2053:A:C6	1:1A:2510:C:H1'	2.49	0.48
1:1A:2331:G:N2	14:1S:3:ARG:HA	2.28	0.48
6:1G:37:VAL:HG21	6:1G:103:LEU:HD11	1.96	0.48
27:15:57:VAL:HG12	27:15:58:LEU:HB2	1.94	0.48
32:1a:198:G:C5	32:1a:220:G:C2	3.02	0.48
32:1a:222:U:H2'	32:1a:223:U:C6	2.49	0.48
32:1a:501:C:H2'	32:1a:502:G:C8	2.48	0.48
32:1a:964:A:N3	32:1a:969:A:O2'	2.40	0.48
32:1a:1002:G:C6	32:1a:1003:G:N3	2.81	0.48
32:1a:1288:A:H2'	32:1a:1289:A:C8	2.48	0.48
32:1a:1347:G:N2	32:1a:1373:G:H2'	2.29	0.48
39:1g:69:VAL:HG12	39:1g:100:ALA:HA	1.95	0.48
40:1h:34:GLU:OE1	40:1h:37:ARG:NH2	2.46	0.48
43:1k:44:SER:OG	43:1k:47:VAL:HG23	2.14	0.48
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.14	0.48
6:2G:16:ARG:HB2	6:2G:17:PRO:HD3	1.96	0.48
6:2G:179:PRO:HB2	26:24:42:PHE:HE2	1.78	0.48
7:2H:124:GLU:OE1	7:2H:132:ARG:HD2	2.13	0.48
10:2O:68:GLU:HB3	10:2O:78:ARG:HB2	1.96	0.48
12:2Q:60:ARG:HH22	21:2Z:181:GLU:HG2	1.78	0.48
16:2U:102:GLU:HG3	17:2V:2:PHE:CZ	2.49	0.48
32:2a:427:U:OP1	36:2d:13:ARG:NH2	2.45	0.48
32:2a:730:G:C5	32:2a:731:G:H1'	2.49	0.48
32:2a:1306:A:H2'	32:2a:1307:U:C6	2.49	0.48
35:2c:131:ARG:HH11	35:2c:166:GLU:HG3	1.78	0.48
45:2m:33:ALA:HA	45:2m:59:TYR:CE2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:154:G:C6	1:1A:155:C:N4	2.82	0.48
1:1A:1067:A:OP2	9:1N:65:LYS:NZ	2.41	0.48
1:1A:2476:C:H1'	59:1A:4873:HOH:O	2.13	0.48
12:1Q:21:THR:HG21	12:1Q:101:ARG:CB	2.41	0.48
32:1a:262:A:C6	32:1a:263:A:C6	3.01	0.48
32:1a:585:G:N3	32:1a:879:C:H4'	2.28	0.48
32:1a:1207:2MG:H2'	32:1a:1208:C:C6	2.49	0.48
34:1b:19:HIS:NE2	34:1b:189:ASP:OD2	2.47	0.48
37:1e:75:THR:HG23	37:1e:76:ILE:O	2.14	0.48
43:1k:21:ILE:HG12	43:1k:30:VAL:HG22	1.95	0.48
43:1k:34:ASP:HB3	43:1k:40:ILE:HD11	1.94	0.48
49:1q:5:VAL:C	49:1q:6:LEU:HD12	2.39	0.48
51:1s:71:LEU:HD23	51:1s:71:LEU:HA	1.75	0.48
1:2A:118:A:H1'	1:2A:178:G:O4'	2.14	0.48
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.48	0.48
1:2A:783:A:H2'	1:2A:783:A:N3	2.28	0.48
14:2S:41:ASP:OD2	14:2S:44:LYS:HB2	2.14	0.48
30:28:32:LEU:O	30:28:36:LYS:HE3	2.13	0.48
32:2a:1026:G:H5'	32:2a:1027:C:O5'	2.12	0.48
32:2a:1225:A:H2'	32:2a:1226:C:C5	2.49	0.48
51:2s:49:ILE:HG12	51:2s:62:ILE:CD1	2.41	0.48
1:1A:360:C:HO2'	20:1Y:35:TYR:HH	1.56	0.48
1:1A:2534:U:O2'	1:1A:2659:U:OP1	2.22	0.48
10:1O:107:ARG:NH2	15:1T:36:GLU:HG2	2.29	0.48
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.62	0.48
26:14:50:VAL:HG11	45:1m:65:LYS:HA	1.96	0.48
32:1a:10:A:O2'	32:1a:11:G:H5'	2.13	0.48
32:1a:184:G:N2	32:1a:194:C:C2	2.81	0.48
32:1a:1304:G:C6	32:1a:1305:G:N1	2.82	0.48
32:1a:1525:G:P	43:1k:120:ARG:HH22	2.37	0.48
34:1b:166:ASP:HA	34:1b:167:PRO:HD3	1.70	0.48
1:2A:2156:G:H2'	1:2A:2157:G:O4'	2.14	0.48
1:2A:2313:C:H4'	6:2G:91:ARG:HD3	1.95	0.48
2:2B:17:C:H2'	2:2B:18:G:O4'	2.14	0.48
6:2G:131:TYR:HB3	6:2G:159:VAL:HG13	1.95	0.48
10:2O:15:GLY:HA2	10:2O:47:ILE:HD11	1.96	0.48
11:2P:133:SER:O	11:2P:137:LYS:HG3	2.14	0.48
21:2Z:30:ASN:HA	21:2Z:89:PHE:HE1	1.77	0.48
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.31	0.48
32:2a:343:U:O2	32:2a:346:G:O6	2.32	0.48
32:2a:598:U:H4'	40:2h:94:TYR:CD2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:601:C:H2'	32:2a:602:A:H8	1.78	0.48
32:2a:737:A:H2'	32:2a:738:C:C6	2.48	0.48
34:2b:211:ILE:O	34:2b:215:LEU:HB2	2.13	0.48
50:2r:58:LEU:HB3	50:2r:62:GLU:HG3	1.94	0.48
2:1B:90:A:N7	2:1B:91:C:H1'	2.29	0.48
15:1T:113:LYS:O	15:1T:114:LEU:HD23	2.14	0.48
32:1a:1112:C:N3	35:1c:178:LEU:HD12	2.28	0.48
34:1b:100:GLY:HA2	34:1b:103:THR:OG1	2.14	0.48
34:1b:215:LEU:O	34:1b:219:VAL:HG23	2.14	0.48
41:1i:6:GLY:O	41:1i:17:VAL:HG12	2.13	0.48
1:2A:82:G:N1	1:2A:103:A:OP2	2.37	0.48
1:2A:212:G:H2'	1:2A:213:A:O4'	2.14	0.48
1:2A:455:C:N3	1:2A:472:A:H2'	2.29	0.48
1:2A:1096:A:N7	1:2A:1097:U:H5	2.12	0.48
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.31	0.48
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.49	0.48
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.13	0.48
16:2U:88:ILE:HG22	16:2U:90:VAL:H	1.78	0.48
17:2V:62:LEU:CD1	17:2V:95:LEU:HB2	2.42	0.48
19:2X:60:ARG:NH2	29:27:47:ARG:HH12	2.11	0.48
32:2a:441:A:H3'	32:2a:442:C:C6	2.48	0.48
32:2a:1040:U:C4	32:2a:1041:A:N7	2.82	0.48
32:2a:1125:U:H5	32:2a:1280:A:C8	2.32	0.48
1:1A:187:C:H5'	1:1A:2256:U:OP1	2.14	0.48
1:1A:1102:G:H1'	1:1A:1149:A:N6	2.28	0.48
2:1B:73:A:C4	2:1B:105:A:C2	3.02	0.48
4:1E:52:LEU:O	4:1E:76:ARG:N	2.42	0.48
32:1a:96:U:H2'	32:1a:97:G:H8	1.79	0.48
32:1a:438:G:O2'	32:1a:493:G:C2	2.67	0.48
32:1a:1278:U:H3'	32:1a:1278:U:C6	2.49	0.48
32:1a:1433:A:C4	32:1a:1468:A:C2	3.02	0.48
35:1c:6:HIS:CD2	35:1c:8:ILE:HB	2.49	0.48
45:1m:20:THR:HA	45:1m:25:ILE:O	2.13	0.48
48:1p:20:VAL:HG21	48:1p:32:TYR:CG	2.48	0.48
1:2A:27:G:O2'	1:2A:28:A:OP2	2.27	0.48
1:2A:1539:G:H2'	1:2A:1540:U:C6	2.49	0.48
4:2E:105:THR:OG1	4:2E:199:ARG:NH2	2.46	0.48
6:2G:70:VAL:HA	6:2G:90:LEU:HD23	1.96	0.48
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.40	0.48
26:24:40:HIS:C	26:24:44:THR:HG22	2.39	0.48
32:2a:1086:U:H2'	32:2a:1087:G:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1203:C:OP1	46:2n:3:ARG:HD3	2.14	0.48
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.24	0.48
34:2b:15:VAL:HB	34:2b:209:ARG:HB3	1.95	0.48
41:2i:89:ASN:O	41:2i:92:TYR:HB2	2.13	0.48
42:2j:16:LEU:HD23	42:2j:16:LEU:HA	1.62	0.48
48:2p:53:VAL:HG13	48:2p:79:VAL:HG22	1.95	0.48
1:1A:1925:G:OP1	3:1D:241:PRO:HB2	2.14	0.47
31:19:11:CYS:SG	31:19:13:LYS:HB2	2.54	0.47
32:1a:974:A:H8	32:1a:974:A:OP1	1.97	0.47
32:1a:1014:A:H4'	51:1s:14:HIS:CE1	2.49	0.47
32:1a:1053:G:O6	32:1a:1199:U:H2'	2.14	0.47
49:1q:4:LYS:HG3	49:1q:6:LEU:HD11	1.96	0.47
49:1q:9:VAL:HG11	49:1q:84:LEU:HB2	1.96	0.47
50:1r:43:PHE:C	50:1r:51:LEU:HD12	2.39	0.47
1:2A:1164:G:H2'	1:2A:1165:U:C6	2.49	0.47
1:2A:1722:A:C5	1:2A:1740:G:C6	3.02	0.47
1:2A:1782:C:H1'	1:2A:2609:U:H5"	1.96	0.47
1:2A:2104:G:H5'	1:2A:2105:C:OP2	2.14	0.47
1:2A:2122:U:H2'	1:2A:2123:G:H8	1.79	0.47
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.37	0.47
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.49	0.47
2:2B:42:C:N3	6:2G:91:ARG:NH1	2.63	0.47
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.15	0.47
26:24:69:LYS:O	26:24:69:LYS:HE3	2.14	0.47
27:25:11:THR:HG23	27:25:15:ARG:HB3	1.95	0.47
32:2a:35:G:O2'	44:2l:118:SER:O	2.32	0.47
32:2a:97:G:H2'	32:2a:98:G:O4'	2.14	0.47
32:2a:515:G:C6	32:2a:516:PSU:C2	3.01	0.47
32:2a:1003:G:C2'	32:2a:1004:A:H4'	2.29	0.47
32:2a:1126:U:O4'	32:2a:1281:U:H1'	2.14	0.47
38:2f:76:ALA:O	38:2f:80:ARG:HG3	2.13	0.47
1:1A:1485:A:H2'	1:1A:1486:G:O4'	2.14	0.47
14:1S:36:TYR:N	14:1S:36:TYR:CD2	2.82	0.47
32:1a:768:A:H2'	32:1a:769:G:O4'	2.14	0.47
34:1b:163:PHE:HA	34:1b:185:ILE:O	2.14	0.47
1:2A:271(D):G:C6	1:2A:271(E):U:C4	3.02	0.47
1:2A:321:G:OP1	5:2F:135:LYS:NZ	2.41	0.47
1:2A:1003:G:N2	1:2A:1153:C:C2	2.82	0.47
1:2A:1105:U:H2'	1:2A:1106:G:H8	1.79	0.47
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.49	0.47
21:2Z:53:ILE:HG22	21:2Z:71:VAL:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:8:A:N6	36:2d:209:ARG:HB2	2.30	0.47
32:2a:412:A:C8	36:2d:35:ARG:NH1	2.82	0.47
32:2a:502:G:C2	32:2a:503:C:C2	3.01	0.47
32:2a:975:A:O2'	46:2n:32:SER:HB2	2.14	0.47
32:2a:1218:C:OP2	46:2n:9:LYS:NZ	2.38	0.47
34:2b:97:TRP:CH2	34:2b:173:ALA:HA	2.48	0.47
59:2d:601:HOH:O	37:2e:97:GLY:HA3	2.12	0.47
1:1A:310:C:H2'	1:1A:311:C:H6	1.79	0.47
1:1A:540:A:H2	1:1A:1306:G:N3	2.12	0.47
1:1A:807:G:H2'	1:1A:808:A:O4'	2.14	0.47
1:1A:1140:U:H1'	1:1A:1143:U:C5	2.50	0.47
1:1A:2298:A:H4'	1:1A:2299:A:O4'	2.14	0.47
11:1P:100:LEU:HD12	11:1P:112:LEU:HD11	1.97	0.47
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.14	0.47
21:1Z:7:ALA:HB2	21:1Z:59:LEU:HD22	1.96	0.47
32:1a:4:U:O4	40:1h:105:ARG:NE	2.47	0.47
32:1a:911:U:H2'	32:1a:912:C:C6	2.49	0.47
32:1a:1085:U:C2	32:1a:1094:G:O6	2.67	0.47
32:1a:1378:C:C5	32:1a:1379:G:C8	3.03	0.47
42:1j:5:ARG:O	42:1j:98:ILE:HA	2.14	0.47
44:1l:110:VAL:HB	44:1l:113:ARG:HG2	1.96	0.47
52:1t:57:ARG:HH12	52:1t:100:ILE:CD1	2.23	0.47
1:2A:311:A:C6	1:2A:328:U:C4	3.03	0.47
1:2A:616:G:H5'	5:2F:205:ARG:HD3	1.96	0.47
1:2A:660:G:H5'	5:2F:99:TYR:CE1	2.48	0.47
1:2A:897:C:H6	1:2A:897:C:O5'	1.95	0.47
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.49	0.47
1:2A:1877:A:H5'	1:2A:1878:G:OP2	2.14	0.47
1:2A:2165:G:H2'	1:2A:2166:G:C8	2.49	0.47
1:2A:2218:U:O4'	23:21:52:ARG:NH2	2.47	0.47
1:2A:2238:G:H2'	1:2A:2238:G:N3	2.29	0.47
1:2A:2386:C:H2'	1:2A:2387:U:C6	2.48	0.47
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.50	0.47
19:2X:35:THR:HG22	19:2X:38:GLU:H	1.79	0.47
32:2a:448:A:C4	32:2a:487:A:C2	3.02	0.47
51:2s:41:VAL:N	51:2s:44:MET:SD	2.86	0.47
1:1A:2377:G:O6	30:18:39:LYS:HE3	2.14	0.47
5:1F:116:ASP:OD2	11:1P:1:MET:HB3	2.14	0.47
6:1G:22:ARG:NH2	6:1G:175:LEU:HD11	2.28	0.47
6:1G:56:ALA:HA	6:1G:59:GLU:OE1	2.15	0.47
15:1T:56:GLY:O	15:1T:59:THR:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:11:23:LYS:HD2	23:11:29:GLY:CA	2.45	0.47
32:1a:604:G:N2	32:1a:635:G:C4	2.83	0.47
32:1a:738:C:H2'	32:1a:739:C:C6	2.49	0.47
32:1a:1076:C:C2	32:1a:1082:G:C2	3.02	0.47
32:1a:1346:A:OP1	41:1i:120:ARG:NH1	2.42	0.47
33:2x:83:ARG:NH1	32:2a:1401:G:N7	2.60	0.47
35:1c:63:ASN:CB	35:1c:98:ASN:HB2	2.44	0.47
1:2A:1449:A:N3	1:2A:1529:G:H1'	2.28	0.47
1:2A:1784:A:H4'	1:2A:1785:A:O5'	2.14	0.47
32:2a:276:G:O3'	49:2q:68:ARG:NH1	2.47	0.47
32:2a:529:G:H5"	32:2a:530:G:OP2	2.14	0.47
32:2a:728:A:H2'	32:2a:729:A:C8	2.49	0.47
32:2a:792:A:H4'	32:2a:793:U:O5'	2.14	0.47
32:2a:971:G:N2	32:2a:1363(A):A:OP2	2.28	0.47
32:2a:1141:C:C2	32:2a:1142:G:C8	3.02	0.47
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.49	0.47
51:2s:36:ARG:NH2	51:2s:75:ALA:O	2.37	0.47
1:1A:218:A:C8	1:1A:218:A:H3'	2.50	0.47
1:1A:1217:G:H8	1:1A:1217:G:OP2	1.98	0.47
1:1A:1228:G:O2'	25:13:29:ARG:NH1	2.47	0.47
1:1A:1592:A:H2'	1:1A:1593:C:O4'	2.15	0.47
1:1A:2859:U:H4'	1:1A:2878:A:C2	2.49	0.47
4:1E:34:VAL:HG22	4:1E:48:GLN:NE2	2.27	0.47
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.37	0.47
32:1a:44:G:C2	32:1a:45:U:H1'	2.49	0.47
32:1a:189:G:C6	32:1a:189(L):G:N1	2.83	0.47
32:1a:619:U:H5"	32:1a:620:C:OP2	2.14	0.47
32:1a:630:G:N2	32:1a:631:G:H1'	2.30	0.47
32:1a:1234:C:H2'	32:1a:1235:U:H6	1.79	0.47
36:1d:61:LYS:HD2	36:1d:207:TYR:OH	2.14	0.47
44:1l:83:VAL:HG13	44:1l:100:ILE:HG23	1.95	0.47
48:1p:58:TYR:O	48:1p:61:SER:OG	2.24	0.47
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.14	0.47
1:2A:2119:A:H61	1:2A:2168:G:N2	2.11	0.47
1:2A:2786:U:OP1	4:2E:69:LYS:HD2	2.13	0.47
4:2E:73:GLU:HG3	4:2E:74:PRO:HD2	1.95	0.47
6:2G:121:ASN:HA	6:2G:122:PRO:HD2	1.72	0.47
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.15	0.47
26:24:53:GLU:H	26:24:53:GLU:CD	2.20	0.47
32:2a:499:A:H4'	32:2a:500:G:H5'	1.97	0.47
32:2a:1287:A:H2'	32:2a:1288:A:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1355:G:O2'	32:2a:1356:G:H5'	2.15	0.47
35:2c:20:SER:OG	35:2c:36:ASP:OD2	2.16	0.47
37:2e:118:ILE:HD12	37:2e:118:ILE:HA	1.68	0.47
39:2g:90:GLU:H	39:2g:90:GLU:CD	2.22	0.47
1:1A:272:U:H5'	8:1I:50:ARG:CZ	2.45	0.47
1:1A:1068:G:N7	9:1N:66:LYS:HE2	2.29	0.47
32:1a:577:G:H2'	32:1a:578:C:H6	1.79	0.47
32:1a:1272:G:H2'	32:1a:1273:G:O4'	2.15	0.47
32:1a:1330:U:C2'	32:1a:1331:G:H5'	2.45	0.47
35:1c:62:ASP:O	35:1c:97:LYS:HB2	2.15	0.47
37:1e:110:LEU:CD2	37:1e:139:LEU:HD21	2.44	0.47
44:1l:124:LYS:HA	44:1l:125:PRO:HD3	1.62	0.47
1:2A:1418:G:H8	1:2A:1418:G:O5'	1.98	0.47
1:2A:1913:A:C2	32:2a:1492:A:N6	2.81	0.47
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.49	0.47
6:2G:126:ASP:CG	6:2G:130:ASN:HD22	2.22	0.47
19:2X:40:LYS:HG3	19:2X:51:VAL:HB	1.97	0.47
20:2Y:23:ARG:HG3	20:2Y:23:ARG:HH11	1.79	0.47
32:2a:1371:G:O3'	41:2i:69:GLY:HA3	2.14	0.47
35:2c:12:LEU:O	35:2c:14:ILE:HD12	2.14	0.47
1:1A:1218:G:N3	1:1A:1220:U:H5"	2.29	0.47
21:1Z:182:LYS:HB3	21:1Z:182:LYS:HE2	1.69	0.47
32:1a:35:G:O2'	44:1l:118:SER:O	2.29	0.47
32:1a:98:G:H2'	32:1a:99:U:O4'	2.15	0.47
32:1a:159:G:H2'	32:1a:161:A:OP2	2.15	0.47
32:1a:178:C:O2'	32:1a:179:A:H5'	2.15	0.47
32:1a:235:C:H5"	49:1q:70:ARG:HG3	1.95	0.47
32:1a:490:G:O2'	32:1a:491:G:H5'	2.15	0.47
32:1a:947:G:H2'	32:1a:948:C:O4'	2.15	0.47
32:1a:1061:G:O4'	42:1j:56:HIS:CD2	2.68	0.47
32:1a:1092:A:H8	32:1a:1092:A:O5'	1.98	0.47
32:1a:1125:U:H4'	42:1j:5:ARG:NH2	2.29	0.47
32:1a:1139:G:N2	32:1a:1142:G:O6	2.45	0.47
32:1a:1166:G:C2	32:1a:1171:G:O6	2.68	0.47
32:1a:1486:G:H2'	32:1a:1487:G:O4'	2.14	0.47
35:1c:16:ARG:NH1	35:1c:183:ASP:OD1	2.47	0.47
35:1c:82:GLU:HA	35:1c:85:ARG:NH2	2.30	0.47
39:1g:93:PRO:HA	39:1g:96:GLN:HG3	1.97	0.47
1:2A:38:A:H2'	1:2A:39:C:C6	2.49	0.47
1:2A:207:A:H2'	1:2A:208:C:O4'	2.15	0.47
1:2A:1328:G:H2'	1:2A:1330:C:C5	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.49	0.47
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.49	0.47
2:2B:9:G:C2	2:2B:113:G:C4	3.03	0.47
2:2B:29:A:H2'	2:2B:30:C:C6	2.49	0.47
11:2P:128:HIS:NE2	11:2P:148:LEU:HD11	2.29	0.47
12:2Q:137:TYR:O	12:2Q:141:GLN:HG2	2.15	0.47
13:2R:101:ALA:HA	27:25:44:THR:HG21	1.97	0.47
16:2U:83:LEU:HD12	16:2U:83:LEU:HA	1.76	0.47
19:2X:2:LYS:NZ	19:2X:38:GLU:OE2	2.30	0.47
26:24:62:ARG:HA	26:24:62:ARG:HD3	1.32	0.47
30:28:37:SER:O	30:28:41:ILE:HG12	2.15	0.47
32:2a:392:G:H2'	32:2a:393:A:C8	2.49	0.47
32:2a:853:G:C6	32:2a:854:G:N7	2.83	0.47
32:2a:922:G:C6	32:2a:923:A:C6	3.03	0.47
32:2a:984:C:H2'	32:2a:985:C:C6	2.50	0.47
32:2a:1188:A:H2'	32:2a:1189:C:O4'	2.15	0.47
34:2b:15:VAL:HB	34:2b:209:ARG:HD2	1.97	0.47
34:2b:62:ALA:HB2	34:2b:222:ILE:HG22	1.95	0.47
37:2e:40:ARG:HB3	37:2e:66:MET:CE	2.44	0.47
37:2e:51:VAL:O	37:2e:55:VAL:HG23	2.15	0.47
40:2h:28:ALA:HB3	40:2h:57:PRO:HB2	1.95	0.47
1:1A:196:A:H2'	1:1A:197:C:O4'	2.13	0.47
1:1A:843:C:H2'	1:1A:844:C:C6	2.49	0.47
1:1A:1846:A:H8	1:1A:1846:A:OP1	1.98	0.47
1:1A:2228:G:HO2'	1:1A:2229:A:P	2.36	0.47
1:1A:2332:A:H2'	1:1A:2332:A:N3	2.29	0.47
32:1a:381:C:H2'	32:1a:382:A:O4'	2.14	0.47
32:1a:435:C:H2'	32:1a:436:C:C6	2.49	0.47
36:1d:108:LEU:CD1	36:1d:174:LEU:HD13	2.45	0.47
42:1j:5:ARG:HE	42:1j:73:ASP:CG	2.23	0.47
1:2A:863:A:H2'	1:2A:864:G:C8	2.50	0.47
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.30	0.47
1:2A:1203:G:C6	1:2A:1204:A:N6	2.82	0.47
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.15	0.47
1:2A:2721:A:O2'	1:2A:2874:C:H5'	2.14	0.47
1:2A:2723:C:OP2	4:2E:109:LYS:NZ	2.45	0.47
2:2B:50:G:OP1	14:2S:63:THR:OG1	2.28	0.47
3:2D:71:ASP:CG	3:2D:103:ARG:HH22	2.13	0.47
5:2F:32:LEU:HD22	5:2F:112:MET:HE2	1.97	0.47
8:2I:89:TYR:O	8:2I:121:LYS:NZ	2.48	0.47
32:2a:295:C:H2'	32:2a:296:U:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1014:A:H2'	32:2a:1015:A:C8	2.49	0.47
32:2a:1180:A:OP1	41:2i:103:THR:OG1	2.33	0.47
32:2a:1428:A:H2'	32:2a:1429:C:O4'	2.15	0.47
32:2a:1505:G:H4'	32:2a:1506:U:H5"	1.97	0.47
1:1A:1825:U:H2'	1:1A:1826:C:H6	1.79	0.47
3:1D:69:ARG:C	3:1D:71:ASP:H	2.20	0.47
13:1R:72:ASP:HB3	13:1R:75:LEU:HB2	1.96	0.47
21:1Z:7:ALA:HB3	21:1Z:61:LEU:HD12	1.96	0.47
32:1a:691:G:H1'	32:1a:696:A:N6	2.29	0.47
32:1a:988:G:H1'	32:1a:1014:A:H61	1.79	0.47
32:1a:1003:G:O2'	32:1a:1004:A:H4'	2.14	0.47
32:1a:1015:A:C6	32:1a:1016:A:C6	3.03	0.47
32:1a:1071:C:H2'	32:1a:1072:G:H8	1.78	0.47
38:1f:7:ASN:ND2	50:1r:34:TYR:OH	2.43	0.47
38:1f:69:GLU:H	38:1f:69:GLU:CD	2.22	0.47
1:2A:224:G:N7	1:2A:420:C:H4'	2.29	0.47
1:2A:2006:C:H6	1:2A:2006:C:O5'	1.98	0.47
1:2A:2136:C:N4	1:2A:2155:G:H1	2.13	0.47
2:2B:9:G:P	14:2S:25:ARG:HH22	2.38	0.47
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.14	0.47
9:2N:119:ARG:HH11	9:2N:119:ARG:HG3	1.79	0.47
16:2U:36:ARG:HD3	16:2U:40:PHE:CZ	2.49	0.47
20:2Y:73:ARG:HH11	20:2Y:73:ARG:CG	2.27	0.47
21:2Z:152:ALA:O	21:2Z:155:LEU:HB2	2.15	0.47
31:29:32:HIS:O	31:29:34:GLN:HG3	2.15	0.47
32:2a:6:G:C4	37:2e:119:LEU:HD11	2.50	0.47
32:2a:874:G:O2'	32:2a:875:C:H5'	2.15	0.47
32:2a:986:A:N3	51:2s:52:TYR:OH	2.46	0.47
34:2b:102:LEU:HD12	34:2b:102:LEU:N	2.30	0.47
35:2c:121:ALA:O	35:2c:124:ILE:HG12	2.15	0.47
38:2f:99:ALA:HB2	50:2r:31:LEU:HD11	1.96	0.47
45:2m:94:ARG:NH2	51:2s:80:TYR:O	2.48	0.47
1:1A:331:G:H21	1:1A:354:A:H62	1.62	0.47
1:1A:866:A:C4	1:1A:1234:A:C2	3.02	0.47
1:1A:1095:C:H1'	1:1A:1159:U:H4'	1.96	0.47
1:1A:1594:C:H2'	1:1A:1595:C:C6	2.50	0.47
1:1A:2128:G:H2'	1:1A:2129:C:O4'	2.15	0.47
1:1A:2442:A:P	59:1A:4085:HOH:O	2.73	0.47
32:1a:510:A:H5"	32:1a:511:C:OP2	2.15	0.47
32:1a:1152:A:O3'	42:1j:13:HIS:CE1	2.68	0.47
32:1a:1518:MA6:O5'	32:1a:1518:MA6:H8	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1b:109:SER:C	34:1b:111:ARG:N	2.71	0.47
48:1p:50:LYS:HD2	48:1p:51:VAL:H	1.78	0.47
1:2A:1022:G:C5	1:2A:1140:C:C4	3.03	0.47
1:2A:1578:U:C2'	1:2A:1579:A:H5'	2.44	0.47
1:2A:2335:A:C8	1:2A:2337:G:C5	3.03	0.47
32:2a:1005:A:N6	32:2a:1024:G:H21	2.12	0.47
32:2a:1240:U:O2'	39:2g:32:ARG:HD2	2.15	0.47
32:2a:1350:A:C6	32:2a:1351:U:C4	3.03	0.47
34:2b:121:LEU:HD21	34:2b:130:ARG:HH21	1.80	0.47
36:2d:61:LYS:HD2	36:2d:207:TYR:OH	2.14	0.47
39:2g:113:GLU:HG2	39:2g:119:ARG:HG2	1.97	0.47
40:2h:49:GLU:HG2	40:2h:62:TYR:HE2	1.79	0.47
42:2j:49:VAL:CG2	46:2n:41:ARG:HB2	2.40	0.47
1:1A:142:G:H4'	19:1X:35:THR:HG21	1.96	0.46
1:1A:553:A:O2'	1:1A:554:A:H5'	2.14	0.46
1:1A:645:G:H5'	1:1A:645:G:N3	2.29	0.46
1:1A:1766:G:C2	1:1A:1768:U:OP2	2.68	0.46
1:1A:1856:A:OP1	3:1D:249:PRO:HD3	2.15	0.46
1:1A:1882:U:H2'	1:1A:1883:C:O4'	2.15	0.46
1:1A:2139:A:N6	1:1A:2193:A:C6	2.83	0.46
32:1a:42:G:O2'	32:1a:622:A:N1	2.39	0.46
32:1a:697:U:H2'	32:1a:698:G:H5'	1.97	0.46
32:1a:857:C:H2'	32:1a:858:G:O4'	2.15	0.46
32:1a:1060:C:H41	35:1c:2:GLY:HA3	1.81	0.46
32:1a:1179:A:H2'	32:1a:1180:A:O4'	2.15	0.46
32:1a:1525:G:OP1	43:1k:120:ARG:NH2	2.48	0.46
35:1c:58:GLU:HB3	42:1j:92:THR:HG21	1.95	0.46
36:1d:178:VAL:HG12	36:1d:179:GLU:H	1.80	0.46
43:1k:23:ALA:O	43:1k:86:GLY:HA3	2.14	0.46
49:1q:4:LYS:HG3	49:1q:6:LEU:CD1	2.46	0.46
51:1s:41:VAL:HB	51:1s:44:MET:HE3	1.97	0.46
33:1x:23:ARG:HA	33:1x:23:ARG:HD2	1.52	0.46
1:2A:271(L):U:H5'	8:2I:50:ARG:NH1	2.30	0.46
1:2A:656:G:H2'	1:2A:657:U:O4'	2.14	0.46
4:2E:144:ARG:HB3	4:2E:145:LYS:H	1.32	0.46
32:2a:615:C:H2'	32:2a:616:G:O4'	2.15	0.46
32:2a:714:G:H2'	32:2a:715:A:C8	2.50	0.46
32:2a:1025:U:H2'	32:2a:1027:C:C4	2.50	0.46
52:2t:82:SER:O	52:2t:86:ARG:HG3	2.14	0.46
1:1A:385:G:C2'	1:1A:386:U:H5'	2.45	0.46
1:1A:662:A:H2'	11:1P:117:GLU:OE1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1140:U:H1'	1:1A:1143:U:H5	1.80	0.46
1:1A:1727:U:O2	1:1A:1794:G:H3'	2.15	0.46
1:1A:1841:A:H2'	1:1A:1842:G:O4'	2.15	0.46
1:1A:2724:U:OP1	1:1A:2727:G:H4'	2.14	0.46
14:1S:17:ARG:HH11	14:1S:17:ARG:CG	2.28	0.46
16:1U:81:HIS:CE1	16:1U:85:LYS:HD2	2.51	0.46
26:14:57:GLU:OE2	26:14:58:ARG:HB2	2.15	0.46
30:18:61:LEU:O	30:18:63:PRO:HD3	2.16	0.46
32:1a:293:G:C6	32:1a:294:U:C4	3.03	0.46
32:1a:339:C:H2'	32:1a:340:U:C6	2.49	0.46
32:1a:474:G:H2'	32:1a:475:G:C8	2.47	0.46
32:1a:853:G:O2'	32:1a:854:G:H5'	2.15	0.46
32:1a:1036:G:H5"	32:1a:1037:C:C6	2.50	0.46
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.48	0.46
32:1a:1095:U:H2'	32:1a:1096:C:C6	2.50	0.46
34:1b:9:GLU:HG3	34:1b:217:ARG:NH2	2.29	0.46
34:1b:127:ILE:HD12	34:1b:130:ARG:NH1	2.25	0.46
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.51	0.46
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.79	0.46
21:2Z:8:TYR:HB2	21:2Z:38:TYR:CE2	2.51	0.46
23:21:83:GLU:OE1	23:21:83:GLU:N	2.36	0.46
32:2a:270:A:H2'	32:2a:271:C:H6	1.81	0.46
32:2a:504:C:C2	32:2a:542:G:C2	3.03	0.46
32:2a:664:G:H2'	32:2a:666:G:OP1	2.15	0.46
32:2a:677:U:H3	32:2a:713:G:N2	2.12	0.46
32:2a:953:G:C2	32:2a:954:G:H1'	2.50	0.46
32:2a:1021:G:H2'	32:2a:1022:G:O4'	2.15	0.46
32:2a:1187:G:H5'	41:2i:113:LYS:HE2	1.97	0.46
32:2a:1374:A:H2'	32:2a:1375:A:H5'	1.97	0.46
39:2g:15:ASP:OD1	39:2g:18:TYR:HB2	2.14	0.46
41:2i:3:GLN:HE21	41:2i:20:ARG:NH2	2.11	0.46
1:1A:236:G:H4'	1:1A:413:G:C5	2.50	0.46
1:1A:1147:U:H2'	1:1A:1148:C:H6	1.80	0.46
1:1A:1184:G:OP2	9:1N:70:LYS:NZ	2.43	0.46
1:1A:1698:G:OP1	13:1R:40:LYS:NZ	2.49	0.46
8:1I:77:LEU:HD12	8:1I:77:LEU:HA	1.71	0.46
8:1I:87:LYS:HB2	8:1I:87:LYS:HE3	1.82	0.46
12:1Q:17:LEU:HA	12:1Q:17:LEU:HD23	1.67	0.46
27:15:49:CYS:SG	27:15:51:TYR:HB2	2.55	0.46
32:1a:52:G:O2'	32:1a:53:A:H5'	2.16	0.46
32:1a:134:A:N6	48:1p:25:ARG:NH1	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:151:A:C6	32:1a:171:A:C6	3.03	0.46
32:1a:398:C:O5'	32:1a:398:C:H6	1.98	0.46
32:1a:406:G:H5'	36:1d:5:ILE:HD11	1.97	0.46
32:1a:966:M2G:H1'	33:1x:53:THR:HG21	1.97	0.46
32:1a:1250:A:H4'	41:1i:68:GLY:N	2.30	0.46
32:1a:1414:U:H3	32:1a:1486:G:H1	1.62	0.46
35:1c:70:VAL:HG22	35:1c:71:ALA:N	2.30	0.46
38:1f:19:LEU:HD11	38:1f:59:TYR:CE1	2.49	0.46
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.16	0.46
4:2E:27:LEU:HD12	4:2E:180:ASN:O	2.15	0.46
21:2Z:48:PHE:CE1	21:2Z:52:SER:HA	2.51	0.46
32:2a:983:A:H1'	32:2a:1049:U:O2	2.15	0.46
32:2a:1176:A:H2'	32:2a:1177:G:O4'	2.16	0.46
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.30	0.46
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.15	0.46
38:2f:89:MET:HE2	50:2r:76:LEU:HD22	1.97	0.46
40:2h:33:GLU:HG2	40:2h:48:TYR:CE1	2.51	0.46
43:2k:104:GLN:O	43:2k:105:VAL:HG22	2.15	0.46
1:1A:402:C:H2'	1:1A:403:C:C6	2.50	0.46
1:1A:2787:C:H2'	1:1A:2788:A:O4'	2.14	0.46
1:1A:2802:C:O2'	1:1A:2803:A:H4'	2.16	0.46
1:1A:2856:G:H2'	1:1A:2857:U:O4'	2.16	0.46
12:1Q:7:MET:HE3	12:1Q:7:MET:HB2	1.62	0.46
15:1T:35:LYS:HG3	15:1T:40:THR:HG22	1.98	0.46
32:1a:590:C:O2'	32:1a:591:U:H5'	2.16	0.46
32:1a:838:G:N2	32:1a:849:C:C2	2.84	0.46
32:1a:1255:G:C2	32:1a:1283:G:C2	3.03	0.46
36:1d:107:ARG:HD2	36:1d:107:ARG:HA	1.41	0.46
46:1n:15:LYS:HG2	46:1n:16:PHE:CE2	2.50	0.46
47:1o:39:LEU:HD23	47:1o:39:LEU:HA	1.80	0.46
49:1q:45:HIS:CD2	49:1q:47:PRO:HG3	2.51	0.46
1:2A:1071:G:H4'	1:2A:1089:G:OP2	2.14	0.46
1:2A:2171:A:H1'	1:2A:2172:U:C6	2.49	0.46
1:2A:2780:G:OP1	9:2N:118:LYS:HE2	2.16	0.46
9:2N:138:LEU:HD23	9:2N:138:LEU:HA	1.59	0.46
10:2O:70:LYS:HB3	10:2O:70:LYS:HE2	1.74	0.46
14:2S:26:LEU:HD22	14:2S:87:PHE:CD1	2.50	0.46
32:2a:928:G:O4'	32:2a:1532:U:H4'	2.15	0.46
32:2a:1134:G:H5"	32:2a:1135:U:OP2	2.15	0.46
32:2a:1266:G:N2	32:2a:1269:A:OP2	2.46	0.46
34:2b:101:MET:HA	34:2b:108:ILE:HG13	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2h:39:LEU:HD21	40:2h:137:VAL:HG21	1.98	0.46
42:2j:33:GLN:HB2	42:2j:75:ILE:CB	2.45	0.46
1:1A:2060:G:H2'	1:1A:2061:C:O4'	2.15	0.46
1:1A:2849:G:H5'	13:1R:46:GLY:HA2	1.98	0.46
21:1Z:28:MET:HE1	21:1Z:61:LEU:HD21	1.96	0.46
21:1Z:28:MET:HA	21:1Z:88:PHE:O	2.16	0.46
23:11:50:ARG:HD2	23:11:57:GLU:OE2	2.15	0.46
32:1a:129(A):G:N2	32:1a:189(F):U:H5"	2.31	0.46
32:1a:270:A:H2'	32:1a:271:C:H6	1.80	0.46
32:1a:1293:G:H2'	32:1a:1294:G:C8	2.51	0.46
34:1b:80:ILE:O	34:1b:80:ILE:HG12	2.15	0.46
36:1d:107:ARG:HH12	36:1d:194:LEU:HD21	1.79	0.46
43:1k:20:TYR:CZ	43:1k:83:ILE:HD12	2.51	0.46
50:1r:44:LEU:HD21	50:1r:70:ILE:HD13	1.96	0.46
1:2A:901:A:H2'	1:2A:902:C:C6	2.51	0.46
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.51	0.46
1:2A:1477:A:C2	1:2A:1515:G:C2	3.03	0.46
1:2A:1512:U:H2'	1:2A:1513:C:C6	2.50	0.46
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.50	0.46
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.16	0.46
2:2B:78:A:C2	2:2B:100:A:C4	3.03	0.46
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.97	0.46
4:2E:96:PHE:O	4:2E:175:VAL:HG11	2.15	0.46
21:2Z:70:LEU:HA	21:2Z:70:LEU:HD23	1.65	0.46
32:2a:406:G:H5'	36:2d:5:ILE:CG1	2.46	0.46
32:2a:601:C:H2'	32:2a:602:A:C8	2.51	0.46
32:2a:737:A:H2'	32:2a:738:C:H6	1.80	0.46
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.15	0.46
32:2a:1310:G:H1	32:2a:1327:C:N4	2.10	0.46
32:2a:1317:C:H42	46:2n:19:ARG:HH21	1.63	0.46
35:2c:20:SER:HB2	35:2c:40:ARG:NH2	2.29	0.46
45:2m:110:ARG:HA	45:2m:110:ARG:HD2	1.76	0.46
48:2p:20:VAL:HG23	48:2p:35:LYS:HA	1.96	0.46
51:2s:52:TYR:HB2	51:2s:57:HIS:CE1	2.50	0.46
1:1A:310:C:H2'	1:1A:311:C:C6	2.50	0.46
1:1A:762:G:H2'	1:1A:763:A:O4'	2.14	0.46
1:1A:794:U:O2	1:1A:2036:A:H1'	2.15	0.46
1:1A:1146:C:C4	1:1A:1147:U:C5	3.04	0.46
1:1A:1150:C:H2'	1:1A:1151:U:C5	2.51	0.46
1:1A:1177:G:H21	9:1N:73:THR:CG2	2.28	0.46
1:1A:1831:C:OP1	3:1D:260:ARG:NH2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:131:TYR:HB3	6:1G:159:VAL:CG1	2.46	0.46
32:1a:172:A:O2'	32:1a:173:U:H5'	2.16	0.46
32:1a:503:C:H2'	32:1a:504:C:H6	1.80	0.46
32:1a:633:G:H2'	32:1a:634:C:C6	2.51	0.46
32:1a:996:A:H8	32:1a:996:A:O5'	1.99	0.46
32:1a:1077:G:N1	32:1a:1081:G:C6	2.83	0.46
32:1a:1284:C:H3'	32:1a:1285:A:H8	1.80	0.46
33:2x:38:HIS:O	33:2x:52:ALA:HA	2.15	0.46
34:1b:174:VAL:O	34:1b:178:ARG:HB2	2.15	0.46
34:1b:218:ALA:O	34:1b:222:ILE:HG13	2.15	0.46
35:1c:78:GLY:HA3	35:1c:83:ARG:H	1.80	0.46
39:1g:16:LEU:HD11	41:1i:45:ALA:HB2	1.98	0.46
42:1j:67:THR:O	42:1j:67:THR:OG1	2.29	0.46
44:1l:24:VAL:HB	44:1l:27:LEU:HD22	1.97	0.46
44:1l:88:GLY:O	44:1l:99:HIS:HD2	1.99	0.46
45:1m:3:ARG:HE	45:1m:8:GLU:HG3	1.80	0.46
1:2A:706:A:H2'	1:2A:707:G:O4'	2.16	0.46
1:2A:1045:A:H8	1:2A:1047:G:C2	2.33	0.46
1:2A:1045:A:H8	1:2A:1047:G:N3	2.13	0.46
1:2A:1080:C:C4	1:2A:1088:A:C2	3.03	0.46
6:2G:78:SER:OG	6:2G:79:ASN:N	2.48	0.46
14:2S:88:ASP:C	14:2S:90:GLY:H	2.24	0.46
32:2a:57:G:C5	32:2a:58:C:C4	3.04	0.46
32:2a:380:G:C2	32:2a:384:G:C6	3.03	0.46
32:2a:451:A:N6	32:2a:480:U:H2'	2.30	0.46
32:2a:678:U:H2'	32:2a:679:C:C6	2.51	0.46
32:2a:1325:C:OP1	53:2u:15:ARG:HD2	2.16	0.46
35:2c:150:LYS:HG3	35:2c:169:ALA:CB	2.38	0.46
42:2j:6:ILE:HB	42:2j:72:VAL:HG22	1.97	0.46
1:1A:1146:C:N3	1:1A:1147:U:C5	2.84	0.46
1:1A:2021:C:H4'	1:1A:2736:C:O2	2.16	0.46
1:1A:2138:G:H8	1:1A:2138:G:H2'	1.57	0.46
1:1A:2639:G:O2'	1:1A:2794:A:N1	2.42	0.46
3:1D:8:PRO:HB3	3:1D:14:ARG:HG3	1.98	0.46
7:1H:101:ARG:HG2	7:1H:117:PRO:HG2	1.97	0.46
32:1a:612:C:O2	32:1a:629:G:N2	2.48	0.46
32:1a:912:C:C2'	32:1a:913:A:H5'	2.45	0.46
32:1a:1371:G:C6	32:1a:1372:U:C4	3.04	0.46
33:2x:58:ASN:O	33:2x:88:LEU:HD22	2.15	0.46
34:1b:77:ALA:HB2	34:1b:165:VAL:HG11	1.98	0.46
34:1b:82:ARG:NE	34:1b:92:TYR:OH	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1b:162:ILE:O	34:1b:185:ILE:HG12	2.16	0.46
37:1e:74:GLY:HA3	37:1e:116:THR:HG22	1.98	0.46
1:2A:271(L):U:H5'	8:2I:50:ARG:HH12	1.81	0.46
1:2A:828:U:H2'	1:2A:829:A:C8	2.50	0.46
1:2A:1036:G:H1	1:2A:1119:C:N4	2.13	0.46
1:2A:1104:C:H2'	1:2A:1105:U:C6	2.51	0.46
1:2A:1250:G:H5"	59:2U:302:HOH:O	2.16	0.46
1:2A:2168:G:HO2'	1:2A:2170:A:N6	2.14	0.46
1:2A:2179:C:C2	1:2A:2180:U:C5	3.04	0.46
1:2A:2274:A:C6	1:2A:2276:G:C8	3.03	0.46
9:2N:67:LEU:O	9:2N:88:GLU:HG3	2.15	0.46
21:2Z:28:MET:HA	21:2Z:88:PHE:O	2.16	0.46
32:2a:176:C:H2'	32:2a:177:C:C6	2.49	0.46
32:2a:188:C:O2'	32:2a:189:G:H5'	2.16	0.46
41:2i:58:HIS:CD2	41:2i:58:HIS:H	2.32	0.46
42:2j:47:PHE:CZ	46:2n:37:PHE:HE2	2.34	0.46
44:2l:54:LYS:N	44:2l:54:LYS:HD2	2.31	0.46
1:1A:908:A:C2	1:1A:963:A:C4	3.04	0.46
1:1A:989:G:H5"	1:1A:990:A:O5'	2.16	0.46
5:1F:9:ILE:HG21	5:1F:125:LEU:HD22	1.97	0.46
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.88	0.46
21:1Z:158:PRO:O	21:1Z:161:VAL:HG13	2.15	0.46
32:1a:186:C:H2'	32:1a:187:C:C5	2.50	0.46
35:1c:121:ALA:O	35:1c:124:ILE:HG12	2.16	0.46
35:1c:156:ARG:NE	35:1c:160:ALA:O	2.40	0.46
1:2A:236:C:H2'	1:2A:237:C:C6	2.51	0.46
1:2A:994:C:OP2	16:2U:54:LYS:NZ	2.32	0.46
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.49	0.46
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.51	0.46
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.15	0.46
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.98	0.46
14:2S:62:LYS:O	14:2S:65:VAL:HB	2.16	0.46
18:2W:65:LEU:HD12	18:2W:68:ARG:HE	1.80	0.46
32:2a:623:C:C4	32:2a:624:C:C5	3.04	0.46
32:2a:939:G:C6	32:2a:940:C:N4	2.84	0.46
32:2a:977:A:O2'	32:2a:979:C:OP2	2.30	0.46
32:2a:1030(C):G:H2'	32:2a:1030(D):A:C8	2.51	0.46
32:2a:1063:C:H2'	32:2a:1064:G:C8	2.51	0.46
32:2a:1084:G:C5	32:2a:1085:U:C4	3.04	0.46
32:2a:1258:G:H8	32:2a:1258:G:OP2	1.98	0.46
32:2a:1415:G:C4	32:2a:1486:G:C2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2d:67:ILE:HG22	36:2d:68:TYR:CD2	2.51	0.46
41:2i:9:ARG:HG2	41:2i:14:VAL:HG12	1.98	0.46
49:2q:22:LEU:HD11	49:2q:39:SER:HB2	1.97	0.46
1:1A:1106:U:O2	1:1A:1134:A:C8	2.69	0.46
1:1A:2135:U:C5	1:1A:2136:A:C8	3.03	0.46
1:1A:2812:A:H1'	1:1A:2904:U:C1'	2.45	0.46
4:1E:47:VAL:HG12	4:1E:49:LEU:HD13	1.97	0.46
10:1O:16:ALA:HB2	10:1O:52:VAL:CG2	2.46	0.46
19:1X:60:ARG:HH12	29:17:47:ARG:HH12	1.64	0.46
22:10:38:VAL:HB	22:10:59:LEU:HB2	1.97	0.46
32:1a:9:G:OP1	37:1e:122:GLU:HG3	2.15	0.46
32:1a:625:G:H2'	32:1a:626:U:C6	2.51	0.46
32:1a:973:G:H3'	32:1a:974:A:H5"	1.97	0.46
32:1a:1040:U:H2'	32:1a:1041:A:C8	2.48	0.46
32:1a:1305:G:C2	32:1a:1331:G:N3	2.84	0.46
33:2x:87:LYS:O	33:2x:91:LYS:HB2	2.15	0.46
34:1b:17:PHE:HB3	34:1b:44:LEU:HD21	1.96	0.46
34:1b:98:LEU:O	34:1b:101:MET:HG3	2.16	0.46
36:1d:114:ARG:HA	36:1d:117:ALA:HB3	1.98	0.46
1:2A:1517:G:C6	1:2A:1518:U:C4	3.04	0.46
1:2A:2661:G:H2'	1:2A:2662:A:C8	2.51	0.46
1:2A:2755:C:C4	31:29:19:ARG:NH1	2.84	0.46
59:2A:4930:HOH:O	3:2D:237:GLU:HG2	2.16	0.46
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.97	0.46
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.98	0.46
14:2S:69:VAL:O	14:2S:72:ALA:HB3	2.15	0.46
32:2a:130:A:H5'	49:2q:63:ARG:NE	2.31	0.46
32:2a:380:G:N2	32:2a:384:G:C5	2.84	0.46
32:2a:512:U:H2'	32:2a:513:C:H6	1.81	0.46
32:2a:598:U:H4'	40:2h:94:TYR:CG	2.51	0.46
32:2a:622:A:C8	32:2a:623:C:C5	3.04	0.46
32:2a:1014:A:H4'	51:2s:14:HIS:CE1	2.50	0.46
32:2a:1116:C:C2'	32:2a:1117:G:H5"	2.42	0.46
32:2a:1206:G:C6	32:2a:1207:2MG:C6	3.04	0.46
32:2a:1386:G:C2	32:2a:1387:G:C8	3.04	0.46
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.16	0.46
41:2i:19:LEU:HD12	41:2i:84:ALA:HB3	1.98	0.46
41:2i:125:TYR:C	41:2i:125:TYR:CD1	2.93	0.46
1:1A:2710:U:H2'	1:1A:2711:C:C6	2.51	0.46
6:1G:125:PHE:HB3	6:1G:166:ASP:OD1	2.15	0.46
8:1I:25:TYR:CE1	8:1I:29:TYR:CD2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:109:ILE:HA	8:1I:109:ILE:HD12	1.75	0.46
10:1O:4:PRO:O	10:1O:5:GLN:HB2	2.16	0.46
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD21	1.98	0.46
32:1a:540:G:C6	32:1a:541:G:C5	3.04	0.46
32:1a:1499:A:O2'	32:1a:1520:G:H5'	2.15	0.46
40:1h:39:LEU:HB3	40:1h:45:ILE:HG12	1.97	0.46
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.51	0.46
15:2T:119:LYS:HB2	32:2a:1442(A):G:H22	1.81	0.46
32:2a:625:G:H4'	48:2p:16:HIS:CD2	2.50	0.46
32:2a:933:G:OP2	39:2g:3:ARG:HB2	2.16	0.46
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.51	0.46
35:2c:18:TRP:CD1	46:2n:54:PRO:HA	2.50	0.46
45:2m:67:GLU:HB3	45:2m:68:GLY:H	1.55	0.46
52:2t:11:SER:O	52:2t:15:ARG:HB2	2.16	0.46
52:2t:14:LYS:HA	52:2t:17:ARG:CZ	2.45	0.46
1:1A:540:A:H1'	1:1A:604:C:H1'	1.98	0.45
1:1A:982:U:H2'	1:1A:983:G:O4'	2.16	0.45
1:1A:2156:A:H4'	1:1A:2181:G:H21	1.80	0.45
1:1A:2398:C:H2'	1:1A:2399:U:C6	2.51	0.45
5:1F:20:LEU:HD23	5:1F:21:ALA:N	2.31	0.45
6:1G:16:ARG:NH1	6:1G:31:VAL:HG22	2.32	0.45
15:1T:53:ARG:HB3	15:1T:53:ARG:CZ	2.46	0.45
19:1X:44:GLU:HG2	19:1X:49:VAL:O	2.17	0.45
26:14:35:VAL:HG22	26:14:36:CYS:N	2.31	0.45
27:15:47:PRO:O	27:15:60:VAL:HG21	2.16	0.45
32:1a:736:C:H2'	32:1a:737:A:C8	2.51	0.45
32:1a:1106:G:C6	32:1a:1107:C:C4	3.04	0.45
34:1b:73:THR:HB	34:1b:95:GLN:O	2.16	0.45
40:1h:81:HIS:ND1	40:1h:138:TRP:OXT	2.35	0.45
1:2A:574:C:N3	4:2E:145:LYS:NZ	2.50	0.45
1:2A:581:C:H2'	1:2A:582:G:H8	1.79	0.45
1:2A:864:G:C6	1:2A:865:C:N4	2.84	0.45
1:2A:937:U:H2'	1:2A:938:G:O4'	2.17	0.45
1:2A:1510:G:H2'	1:2A:1511:C:C6	2.51	0.45
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.15	0.45
1:2A:2189:U:H2'	1:2A:2190:G:H8	1.80	0.45
1:2A:2298:A:N3	1:2A:2321:G:C2	2.84	0.45
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.98	0.45
14:2S:61:ASN:O	14:2S:65:VAL:HG23	2.17	0.45
18:2W:54:ALA:CB	18:2W:107:LEU:HD22	2.46	0.45
26:24:59:PHE:CD2	26:24:59:PHE:N	2.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:64:GLY:C	26:24:66:SER:N	2.74	0.45
32:2a:9:G:H2'	32:2a:10:A:H8	1.80	0.45
32:2a:56:U:H2'	32:2a:57:G:C8	2.51	0.45
32:2a:405:U:O4	36:2d:2:GLY:N	2.49	0.45
32:2a:539:A:H2'	32:2a:540:G:H8	1.80	0.45
32:2a:986:A:H2'	32:2a:987:G:C8	2.51	0.45
32:2a:1115:C:H1'	46:2n:61:TRP:O	2.16	0.45
36:2d:122:ARG:HD2	36:2d:122:ARG:HA	1.76	0.45
37:2e:95:ALA:HB1	37:2e:96:PRO:HD2	1.97	0.45
41:2i:20:ARG:HB2	41:2i:60:ASP:OD1	2.17	0.45
1:1A:142:G:H2'	1:1A:143:C:C6	2.51	0.45
1:1A:225:C:H2'	1:1A:226:C:C6	2.52	0.45
1:1A:969:C:H2'	1:1A:970:C:C6	2.51	0.45
1:1A:1576:G:O2'	1:1A:1577:C:H5'	2.15	0.45
1:1A:2121:U:H3	1:1A:2212:G:H1	1.64	0.45
32:1a:131:C:H2'	32:1a:132:C:H6	1.80	0.45
32:1a:234:C:H2'	32:1a:235:C:H6	1.80	0.45
32:1a:343:U:O2'	32:1a:344:A:H2'	2.17	0.45
32:1a:814:A:N7	32:1a:816:A:C4	2.84	0.45
32:1a:872:A:C5	32:1a:874:G:C8	3.04	0.45
32:1a:901:A:C5	32:1a:902:G:H1'	2.51	0.45
34:1b:16:HIS:O	34:1b:18:GLY:N	2.49	0.45
34:1b:80:ILE:CD1	34:1b:212:GLN:HA	2.45	0.45
34:1b:103:THR:HG23	34:1b:176:GLU:OE1	2.17	0.45
35:1c:70:VAL:O	35:1c:106:VAL:N	2.49	0.45
36:1d:155:LEU:HD23	36:1d:156:GLU:N	2.31	0.45
36:1d:167:GLY:H	36:1d:168:ARG:NH1	2.14	0.45
1:2A:583:G:OP2	16:2U:10:ARG:HD2	2.17	0.45
1:2A:636:G:H4'	1:2A:638:G:O3'	2.16	0.45
1:2A:1062:G:C2	1:2A:1063:G:C8	3.04	0.45
1:2A:1153:C:OP1	16:2U:92:ARG:NH2	2.45	0.45
1:2A:2186:G:C2	1:2A:2187:G:C5	3.04	0.45
2:2B:103:G:H21	21:2Z:73:GLN:NE2	2.13	0.45
6:2G:12:TYR:HA	6:2G:16:ARG:HG3	1.97	0.45
14:2S:34:HIS:HB2	14:2S:36:TYR:HE1	1.81	0.45
32:2a:429:U:H1'	32:2a:430:A:H5"	1.97	0.45
32:2a:659:U:C2	32:2a:660:G:C8	3.03	0.45
32:2a:673:G:N2	32:2a:674:G:C2	2.84	0.45
32:2a:1072:G:C5	32:2a:1073:U:C4	3.05	0.45
32:2a:1132:C:H2'	32:2a:1133:G:C8	2.51	0.45
40:2h:26:VAL:HG22	40:2h:59:LEU:HB2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2i:17:VAL:HG21	41:2i:81:ILE:HG12	1.98	0.45
45:2m:16:ASP:HB3	45:2m:34:LEU:HD11	1.99	0.45
1:1A:915:U:C4	1:1A:916:G:N7	2.85	0.45
1:1A:1104:G:O6	1:1A:1126:C:N3	2.49	0.45
1:1A:2179:G:H5"	1:1A:2180:A:OP1	2.15	0.45
1:1A:2589:A:H5'	27:15:3:LYS:HD2	1.98	0.45
1:1A:2649:U:H5"	4:1E:82:ARG:NH1	2.32	0.45
2:1B:91:C:OP1	12:1Q:16:ARG:HD2	2.16	0.45
8:1I:129:THR:HG22	8:1I:139:GLN:OE1	2.16	0.45
15:1T:85:LYS:NZ	15:1T:87:ASP:OD2	2.50	0.45
32:1a:131:C:H2'	32:1a:132:C:C6	2.52	0.45
32:1a:453:A:C6	32:1a:454:C:C4	3.04	0.45
32:1a:938:A:C6	32:1a:939:G:C5	3.04	0.45
32:1a:965:A:OP2	33:1x:8:LYS:NZ	2.48	0.45
32:1a:1530:G:H4'	32:1a:1530:G:OP1	2.16	0.45
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.81	0.45
1:2A:746:A:H2'	1:2A:2612:C:H5"	1.99	0.45
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.30	0.45
1:2A:2846:G:H2'	1:2A:2847:U:O4'	2.17	0.45
5:2F:116:ASP:OD2	5:2F:117:ARG:NH1	2.48	0.45
7:2H:27:LYS:HZ2	7:2H:32:GLU:CG	2.30	0.45
21:2Z:30:ASN:ND2	21:2Z:90:VAL:HB	2.30	0.45
21:2Z:163:LEU:HD12	21:2Z:163:LEU:HA	1.54	0.45
32:2a:1005:A:O5'	32:2a:1005:A:H8	1.99	0.45
32:2a:1006:C:H2'	32:2a:1007:C:C6	2.51	0.45
32:2a:1246:C:H2'	32:2a:1247:U:H6	1.81	0.45
32:2a:1330:U:O4	32:2a:1331:G:N1	2.49	0.45
1:1A:1218:G:C2	1:1A:1220:U:H5"	2.52	0.45
1:1A:2769:U:H1'	1:1A:2770:A:H5"	1.98	0.45
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	1.98	0.45
12:1Q:134:ARG:HA	12:1Q:138:ASP:OD2	2.15	0.45
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.32	0.45
32:1a:67:C:H2'	32:1a:68:G:H8	1.74	0.45
32:1a:186:C:C2	32:1a:187:C:C5	3.04	0.45
32:1a:509:A:C8	32:1a:509:A:H3'	2.51	0.45
32:1a:685:G:C2	32:1a:686:U:C4	3.05	0.45
32:1a:858:G:O6	32:1a:869:G:H3'	2.16	0.45
32:1a:1330:U:H2'	32:1a:1331:G:H5'	1.97	0.45
38:1f:72:VAL:HG23	38:1f:90:VAL:HG11	1.97	0.45
40:1h:51:VAL:HG11	40:1h:60:ARG:NH1	2.31	0.45
42:1j:48:THR:OG1	42:1j:62:HIS:ND1	2.39	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:243:U:OP1	30:28:6:THR:OG1	2.33	0.45
1:2A:244:A:H2'	1:2A:245:G:O4'	2.16	0.45
1:2A:322:A:H5'	1:2A:340:A:C1'	2.46	0.45
1:2A:628:G:H2'	1:2A:629:G:C8	2.51	0.45
1:2A:1065:U:O2'	1:2A:1066:U:P	2.74	0.45
1:2A:1358:G:O2'	1:2A:1359:A:H5"	2.17	0.45
1:2A:1799:G:O2'	3:2D:181:GLU:OE2	2.28	0.45
1:2A:2321:G:N3	1:2A:2321:G:H2'	2.32	0.45
1:2A:2577:A:H5'	27:25:3:LYS:HD2	1.97	0.45
17:2V:18:LEU:CD2	17:2V:20:LEU:HB2	2.47	0.45
32:2a:401:C:O2'	32:2a:621:A:N3	2.45	0.45
32:2a:1062:U:H2'	32:2a:1063:C:C5	2.50	0.45
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.52	0.45
45:2m:40:ASN:HA	45:2m:41:PRO:HD2	1.85	0.45
1:1A:1091:A:H1'	1:1A:1093:G:C2	2.51	0.45
1:1A:2178:G:O6	1:1A:2179:G:N2	2.49	0.45
1:1A:2575:U:H4'	10:1O:28:SER:HA	1.99	0.45
3:1D:242:ARG:HG3	3:1D:242:ARG:NH1	2.22	0.45
4:1E:112:GLY:O	4:1E:159:HIS:HA	2.17	0.45
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.82	0.45
13:1R:44:LEU:HD23	13:1R:44:LEU:HA	1.83	0.45
32:1a:443:C:O2'	32:1a:444:C:H5'	2.16	0.45
32:1a:580:U:H2'	32:1a:581:G:O4'	2.17	0.45
32:1a:1004:A:C5	32:1a:1037:C:C2	3.05	0.45
33:1x:38:HIS:CD2	33:1x:40:ILE:HD11	2.51	0.45
1:2A:384:U:H2'	1:2A:385:C:H6	1.81	0.45
1:2A:1198:U:H2'	1:2A:1199:U:C6	2.52	0.45
1:2A:1857:G:C6	1:2A:1858:G:C6	3.04	0.45
1:2A:2307:G:H4'	1:2A:2308:G:O5'	2.16	0.45
1:2A:2337:G:C2	1:2A:2338:G:C8	3.04	0.45
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.98	0.45
7:2H:17:VAL:HG23	59:2H:301:HOH:O	2.16	0.45
19:2X:57:LEU:HD21	19:2X:78:LYS:HE2	1.97	0.45
21:2Z:31:ARG:HD2	21:2Z:94:GLU:OE1	2.16	0.45
32:2a:1147:C:H5'	32:2a:1148:U:OP2	2.17	0.45
32:2a:1213:A:C6	32:2a:1215:G:H1'	2.52	0.45
34:2b:134:GLU:O	34:2b:138:LEU:HG	2.15	0.45
37:2e:60:TYR:OH	37:2e:64:ARG:HD3	2.17	0.45
39:2g:48:LYS:O	39:2g:51:GLN:HB3	2.17	0.45
39:2g:108:ALA:HA	39:2g:111:ARG:HD2	1.99	0.45
40:2h:29:SER:OG	40:2h:32:LYS:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2m:77:ASN:O	45:2m:81:LEU:HD12	2.16	0.45
1:1A:84:G:OP1	20:1Y:8:LYS:HB2	2.17	0.45
1:1A:213:G:H2'	1:1A:214:A:O4'	2.15	0.45
1:1A:922:G:H2'	1:1A:923:C:O4'	2.17	0.45
8:1I:14:ASP:OD1	8:1I:15:VAL:N	2.50	0.45
9:1N:20:GLY:HA2	9:1N:61:ARG:HG2	1.99	0.45
13:1R:2:ARG:HA	13:1R:5:LYS:HD2	1.97	0.45
21:1Z:99:TYR:HB3	21:1Z:123:ASP:OD1	2.15	0.45
32:1a:189:G:C6	32:1a:189(A):C:C4	3.04	0.45
33:2x:20:VAL:O	33:2x:24:LEU:HB2	2.16	0.45
35:1c:56:ASP:HB2	35:1c:67:THR:HB	1.98	0.45
41:1i:16:ARG:HD3	41:1i:64:THR:CG2	2.47	0.45
47:1o:84:LYS:HA	47:1o:84:LYS:HD2	1.81	0.45
1:2A:719:C:H2'	1:2A:720:C:C6	2.51	0.45
1:2A:794:G:H2'	1:2A:795:C:C6	2.52	0.45
1:2A:885:C:H6	1:2A:885:C:O5'	1.99	0.45
1:2A:1920:OMC:HM22	1:2A:1921:G:O4'	2.17	0.45
2:2B:43:C:H2'	2:2B:45:A:N7	2.31	0.45
3:2D:130:ALA:C	3:2D:131:LEU:HD12	2.41	0.45
6:2G:97:ASP:O	6:2G:101:ILE:HG13	2.17	0.45
8:2I:57:ARG:HD2	8:2I:61:ARG:NH2	2.31	0.45
20:2Y:77:PRO:HD2	20:2Y:106:LEU:CD2	2.47	0.45
22:20:70:GLN:HG2	22:20:72:ARG:HG3	1.99	0.45
23:21:25:LYS:O	23:21:28:GLY:N	2.36	0.45
32:2a:516:PSU:O2'	32:2a:519:C:N3	2.49	0.45
32:2a:635:G:C5	32:2a:636:U:C5	3.05	0.45
32:2a:674:G:H21	43:2k:116:HIS:HB2	1.82	0.45
32:2a:1041:A:C6	32:2a:1042:G:C5	3.04	0.45
32:2a:1151:A:O4'	42:2j:39:PRO:HB2	2.17	0.45
32:2a:1194:U:H4'	37:2e:22:GLY:O	2.17	0.45
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.05	0.45
32:2a:1237:C:O2'	32:2a:1300:G:N2	2.41	0.45
32:2a:1332:A:C2	32:2a:1333:A:C4	3.05	0.45
32:2a:1362:C:O5'	32:2a:1362:C:H6	1.99	0.45
34:2b:127:ILE:HD12	34:2b:128:GLU:HB2	1.99	0.45
36:2d:121:VAL:O	36:2d:134:ASP:HA	2.15	0.45
41:2i:88:TYR:HD2	41:2i:89:ASN:HB2	1.79	0.45
1:1A:659:C:H2'	1:1A:660:C:C6	2.51	0.45
1:1A:1935:A:N3	32:1a:1493:A:H2'	2.31	0.45
1:1A:2638:C:H2'	1:1A:2639:G:O4'	2.17	0.45
4:1E:144:ARG:HB3	4:1E:145:LYS:H	1.33	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:94:GLU:H	21:1Z:94:GLU:HG2	1.30	0.45
32:1a:7:G:H5'	32:1a:298:A:O4'	2.17	0.45
32:1a:43:C:H2'	32:1a:44:G:O4'	2.16	0.45
32:1a:154:C:C2'	32:1a:155:C:H5'	2.46	0.45
32:1a:161:A:N1	32:1a:347:G:O2'	2.48	0.45
32:1a:486:U:H2'	32:1a:487:A:H8	1.82	0.45
32:1a:1024:G:H2'	32:1a:1024:G:N3	2.30	0.45
32:1a:1174:G:H2'	32:1a:1175:G:C8	2.52	0.45
32:1a:1176:A:H2'	32:1a:1177:G:C8	2.52	0.45
32:1a:1388:C:H2'	32:1a:1389:C:C6	2.51	0.45
32:1a:1413:A:C2	32:1a:1488:G:C2	3.05	0.45
33:2x:91:LYS:HG3	32:2a:926:G:C4	2.52	0.45
35:1c:44:GLU:HA	35:1c:52:LEU:HD23	1.97	0.45
37:1e:137:GLU:HA	37:1e:140:ARG:HH11	1.82	0.45
1:2A:301:G:C4	1:2A:302:C:C5	3.05	0.45
1:2A:667:U:O2	30:28:2:PRO:HD2	2.16	0.45
1:2A:1080:C:C4	1:2A:1088:A:H2	2.35	0.45
1:2A:2171:A:N3	1:2A:2172:U:C4	2.85	0.45
1:2A:2308:G:N7	6:2G:80:PHE:CZ	2.85	0.45
1:2A:2533:A:OP1	1:2A:2665:A:O2'	2.31	0.45
1:2A:2886:G:H2'	1:2A:2887:U:C6	2.51	0.45
6:2G:46:ALA:O	6:2G:51:ARG:HA	2.17	0.45
7:2H:90:LYS:HD2	7:2H:163:TYR:CD2	2.52	0.45
12:2Q:48:GLU:O	12:2Q:52:VAL:HG23	2.16	0.45
19:2X:65:ARG:HH21	19:2X:65:ARG:HG3	1.81	0.45
32:2a:37:U:O2'	32:2a:500:G:H4'	2.17	0.45
32:2a:110:C:C2'	32:2a:111:G:H5'	2.47	0.45
32:2a:375:U:C4	32:2a:376:G:N7	2.85	0.45
32:2a:445:G:H5"	32:2a:446:G:OP2	2.17	0.45
32:2a:458:C:C4	32:2a:460:G:C5	3.05	0.45
32:2a:922:G:C2	32:2a:923:A:C4	3.05	0.45
32:2a:938:A:N6	32:2a:939:G:C6	2.85	0.45
32:2a:992:U:H5"	32:2a:993:G:C8	2.52	0.45
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.52	0.45
36:2d:108:LEU:HA	36:2d:108:LEU:HD12	1.73	0.45
41:2i:89:ASN:HB3	41:2i:92:TYR:CD2	2.51	0.45
42:2j:35:SER:HB3	42:2j:73:ASP:HB2	1.99	0.45
49:2q:5:VAL:HA	49:2q:59:ILE:O	2.17	0.45
51:2s:51:VAL:O	51:2s:58:VAL:N	2.36	0.45
1:1A:233:A:C2	1:1A:244:A:C4	3.05	0.45
3:1D:37:LEU:HD13	3:1D:87:ASN:ND2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.47	0.45
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.81	0.45
6:1G:44:GLY:HA2	6:1G:88:ILE:HG22	1.99	0.45
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.99	0.45
8:1I:79:ILE:HA	8:1I:80:PRO:HD2	1.83	0.45
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.99	0.45
15:1T:18:ASP:OD1	15:1T:18:ASP:N	2.42	0.45
32:1a:684:A:C6	32:1a:685:G:C6	3.05	0.45
32:1a:735:C:H2'	32:1a:736:C:C6	2.51	0.45
32:1a:942:G:C2	32:1a:1342:C:C2	3.04	0.45
32:1a:986:A:C2	32:1a:1220:G:C2	3.04	0.45
32:1a:1002:G:N3	32:1a:1003:G:H1'	2.32	0.45
34:1b:166:ASP:O	34:1b:170:GLU:N	2.48	0.45
36:1d:121:VAL:O	36:1d:134:ASP:HA	2.17	0.45
39:1g:18:TYR:CD1	39:1g:59:LEU:HD13	2.52	0.45
47:1o:71:GLN:HG3	47:1o:78:TYR:CD2	2.51	0.45
1:2A:2145:C:H6	1:2A:2145:C:OP1	1.99	0.45
2:2B:66:A:H61	2:2B:109:C:H5'	1.82	0.45
8:2I:69:LYS:HG3	8:2I:73:GLU:OE1	2.17	0.45
8:2I:102:SER:OG	8:2I:103:ARG:N	2.48	0.45
21:2Z:10:ARG:HD3	21:2Z:37:VAL:O	2.16	0.45
32:2a:920:U:H2'	32:2a:921:U:H6	1.80	0.45
32:2a:1162:C:C2	32:2a:1175:G:C2	3.05	0.45
34:2b:10:LEU:HD12	34:2b:48:MET:HE1	1.99	0.45
36:2d:153:ARG:HG2	36:2d:181:MET:SD	2.56	0.45
37:2e:69:VAL:HA	37:2e:70:PRO:HD3	1.50	0.45
48:2p:42:ARG:HB3	48:2p:44:THR:CG2	2.47	0.45
1:1A:2137:G:H2'	1:1A:2139:A:N6	2.32	0.45
1:1A:2619:G:H2'	1:1A:2620:G:O4'	2.17	0.45
6:1G:101:ILE:HG22	6:1G:105:LYS:HE2	1.98	0.45
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.34	0.45
30:18:61:LEU:C	30:18:63:PRO:HD3	2.42	0.45
32:1a:621:A:H2'	32:1a:622:A:O4'	2.17	0.45
32:1a:952:U:O2'	32:1a:953:G:H5'	2.17	0.45
34:1b:25:ASN:HA	34:1b:26:PRO:HD3	1.74	0.45
34:1b:78:GLN:O	34:1b:81:VAL:HG22	2.16	0.45
35:1c:52:LEU:HD12	35:1c:53:ALA:N	2.32	0.45
46:1n:52:GLN:O	46:1n:53:LEU:HD23	2.16	0.45
1:2A:320:A:H4'	1:2A:322:A:N7	2.32	0.45
1:2A:902:C:H2'	1:2A:903:C:H6	1.81	0.45
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.74	0.45
5:2F:140:LEU:HD12	5:2F:140:LEU:HA	1.70	0.45
5:2F:149:ASP:OD1	5:2F:149:ASP:N	2.50	0.45
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.41	0.45
18:2W:79:GLY:HA3	18:2W:100:THR:HG22	1.99	0.45
32:2a:316:G:OP2	32:2a:351:G:O2'	2.35	0.45
32:2a:373:A:C2	32:2a:374:A:C8	3.05	0.45
32:2a:857:C:H2'	32:2a:858:G:O4'	2.16	0.45
32:2a:1118:C:OP1	41:2i:9:ARG:HD2	2.17	0.45
32:2a:1242:C:H2'	32:2a:1243:C:O4'	2.17	0.45
32:2a:1355:G:H2'	32:2a:1356:G:C8	2.52	0.45
32:2a:1493:A:H5'	32:2a:1494:G:OP2	2.17	0.45
34:2b:71:VAL:HG12	34:2b:93:VAL:CG2	2.41	0.45
34:2b:167:PRO:O	34:2b:171:ALA:N	2.50	0.45
42:2j:47:PHE:CZ	46:2n:37:PHE:CE2	3.05	0.45
50:2r:76:LEU:HD12	50:2r:76:LEU:HA	1.60	0.45
1:1A:509:A:H5"	20:1Y:50:ARG:HD3	1.99	0.45
1:1A:555:G:N1	1:1A:2045:G:OP1	2.43	0.45
1:1A:811:A:N3	3:1D:213:ARG:NH1	2.64	0.45
8:1I:107:VAL:HG12	8:1I:109:ILE:HD13	1.98	0.45
21:1Z:141:VAL:HB	21:1Z:144:LEU:HD12	1.99	0.45
32:1a:622:A:H2'	32:1a:623:C:H5'	1.98	0.45
32:1a:950:U:H2'	32:1a:951:G:C8	2.52	0.45
32:1a:1375:A:C6	32:1a:1376:U:N3	2.84	0.45
33:2x:12:ILE:HG23	33:2x:16:ILE:HG23	1.99	0.45
43:1k:16:SER:OG	43:1k:79:SER:HB3	2.17	0.45
1:2A:824:A:H1'	1:2A:2358:G:N7	2.32	0.45
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.16	0.45
1:2A:2836:U:C4	1:2A:2883:A:N6	2.85	0.45
5:2F:126:VAL:HG21	5:2F:129:PHE:CZ	2.51	0.45
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.97	0.45
15:2T:24:PRO:HA	15:2T:49:VAL:HG22	1.99	0.45
32:2a:67:C:H2'	32:2a:68:G:C8	2.52	0.45
32:2a:560:U:H4'	32:2a:561:U:O5'	2.16	0.45
32:2a:622:A:C8	32:2a:623:C:C6	3.05	0.45
32:2a:692:U:H1'	32:2a:695:A:N7	2.31	0.45
32:2a:984:C:H2'	32:2a:985:C:H6	1.81	0.45
32:2a:1220:G:N2	51:2s:54:GLY:O	2.46	0.45
34:2b:219:VAL:HA	34:2b:222:ILE:HG12	1.98	0.45
35:2c:6:HIS:CD2	35:2c:8:ILE:H	2.29	0.45
35:2c:43:LEU:O	35:2c:47:LEU:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2d:55:ALA:O	36:2d:59:ARG:HB2	2.17	0.45
39:2g:57:GLU:HA	39:2g:58:PRO:HD2	1.91	0.45
41:2i:28:VAL:O	41:2i:29:ASN:C	2.59	0.45
49:2q:62:SER:CB	49:2q:72:ARG:HG3	2.46	0.45
1:1A:346:A:H5'	1:1A:364:A:H1'	1.98	0.44
1:1A:943:C:O5'	1:1A:943:C:H6	2.00	0.44
1:1A:1099:C:N3	1:1A:1153:G:C6	2.86	0.44
1:1A:1132:A:H4'	1:1A:1149:A:H2	1.81	0.44
1:1A:1539:C:H5"	1:1A:1539:C:O2	2.16	0.44
1:1A:2136:A:C2	1:1A:2137:G:H1'	2.52	0.44
4:1E:2:LYS:HE3	4:1E:200:GLU:HG3	1.99	0.44
11:1P:1:MET:HE3	11:1P:5:ASP:CB	2.45	0.44
32:1a:114:U:O2'	32:1a:115:G:H5'	2.17	0.44
32:1a:161:A:H2'	32:1a:162:A:H8	1.81	0.44
32:1a:373:A:C2	32:1a:482:A:C6	3.05	0.44
32:1a:501:C:H2'	32:1a:502:G:H8	1.82	0.44
32:1a:1277:C:HO2'	32:1a:1279:A:H1'	1.81	0.44
32:1a:1326:C:H2'	32:1a:1327:C:C6	2.52	0.44
34:1b:178:ARG:CG	34:1b:178:ARG:NH1	2.78	0.44
34:1b:215:LEU:O	34:1b:218:ALA:HB3	2.17	0.44
40:1h:94:TYR:HE1	40:1h:132:GLU:HB2	1.82	0.44
40:1h:103:VAL:HG21	40:1h:109:ILE:C	2.42	0.44
44:1l:97:ARG:HB2	44:1l:98:TYR:CE2	2.52	0.44
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.53	0.44
1:2A:265:A:C2	1:2A:283:A:C6	3.05	0.44
1:2A:699:A:H2'	1:2A:700:G:O4'	2.17	0.44
1:2A:1288:U:O2'	1:2A:1327:C:O2	2.34	0.44
1:2A:2287:A:O2'	1:2A:2289:G:N7	2.40	0.44
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.45	0.44
3:2D:97:TYR:HB2	3:2D:101:GLU:O	2.16	0.44
11:2P:6:LEU:HA	11:2P:6:LEU:HD23	1.59	0.44
19:2X:92:LEU:HD12	19:2X:92:LEU:HA	1.84	0.44
21:2Z:7:ALA:HB3	21:2Z:61:LEU:CD1	2.41	0.44
28:26:18:ARG:HE	28:26:42:TRP:CG	2.35	0.44
32:2a:376:G:H2'	32:2a:377:G:H8	1.82	0.44
32:2a:411:A:O2'	32:2a:413:G:H5'	2.17	0.44
32:2a:437:U:C5'	36:2d:155:LEU:HD11	2.47	0.44
32:2a:544:G:OP2	36:2d:66:ARG:NH2	2.50	0.44
32:2a:994:A:H2'	32:2a:995:C:H6	1.81	0.44
32:2a:1346:A:C4	39:2g:10:ARG:NH2	2.86	0.44
34:2b:50:GLU:OE1	34:2b:200:ILE:HD12	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2c:151:VAL:HA	35:2c:199:LYS:O	2.17	0.44
37:2e:33:VAL:HA	37:2e:42:GLY:O	2.17	0.44
42:2j:38:ILE:HG23	42:2j:71:LEU:O	2.17	0.44
46:2n:37:PHE:HZ	46:2n:56:VAL:HG21	1.81	0.44
53:2u:18:TYR:CD1	53:2u:22:ARG:HD3	2.53	0.44
1:1A:990:A:C4	1:1A:2460:A:C2	3.05	0.44
1:1A:2177:G:H2'	1:1A:2178:G:O4'	2.17	0.44
1:1A:2307:C:OP1	14:1S:10:ARG:NH1	2.50	0.44
1:1A:2495:C:N3	12:1Q:124:LYS:NZ	2.64	0.44
1:1A:2624:C:H2'	1:1A:2625:U:H5'	2.00	0.44
3:1D:108:PRO:HD2	3:1D:111:LEU:HG	1.98	0.44
11:1P:83:VAL:HG13	11:1P:112:LEU:HD21	2.00	0.44
15:1T:125:ARG:O	15:1T:127:ALA:O	2.34	0.44
23:11:21:ARG:CB	23:11:21:ARG:HH11	2.30	0.44
32:1a:406:G:C8	32:1a:495:A:C2	3.06	0.44
32:1a:757:U:O2'	32:1a:879:C:O2	2.28	0.44
32:1a:976:G:OP1	46:1n:32:SER:N	2.49	0.44
32:1a:1145:C:H4'	32:1a:1146:A:H5"	1.99	0.44
32:1a:1164:G:C6	32:1a:1165:C:C4	3.05	0.44
32:1a:1207:2MG:O2'	32:1a:1208:C:H5'	2.17	0.44
35:1c:114:PRO:CA	35:1c:185:GLY:HA3	2.46	0.44
36:1d:107:ARG:HH22	36:1d:194:LEU:HD21	1.82	0.44
36:1d:138:TYR:C	36:1d:138:TYR:CD2	2.95	0.44
43:1k:92:GLU:OE2	50:1r:87:ARG:NH1	2.49	0.44
51:1s:27:GLU:CB	51:1s:28:LYS:HB3	2.46	0.44
33:1x:3:MET:HE2	33:1x:3:MET:HB3	1.59	0.44
1:2A:228:A:H8	1:2A:229:A:H5'	1.82	0.44
1:2A:1105:U:H2'	1:2A:1106:G:C8	2.52	0.44
1:2A:2302:G:C6	1:2A:2315:G:C6	3.05	0.44
1:2A:2343:C:O2'	1:2A:2373:G:O2'	2.32	0.44
8:2I:92:VAL:CG2	8:2I:120:ILE:HB	2.45	0.44
20:2Y:87:LYS:CB	20:2Y:95:LYS:HD2	2.47	0.44
32:2a:406:G:H5'	36:2d:5:ILE:CD1	2.45	0.44
32:2a:437:U:H5"	36:2d:155:LEU:HD11	1.99	0.44
32:2a:546:G:OP1	36:2d:73:ARG:HG2	2.17	0.44
32:2a:938:A:C6	32:2a:939:G:C5	3.05	0.44
34:2b:221:LEU:O	34:2b:221:LEU:HD12	2.18	0.44
36:2d:191:ARG:HH21	36:2d:200:GLU:CD	2.16	0.44
43:2k:23:ALA:O	43:2k:86:GLY:HA3	2.17	0.44
43:2k:27:ASN:OD1	43:2k:28:THR:N	2.50	0.44
44:2l:70:ILE:HD13	44:2l:77:LEU:HD12	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2r:43:PHE:C	50:2r:51:LEU:HD12	2.42	0.44
1:1A:2818:U:O2'	1:1A:2819:A:H5'	2.17	0.44
32:1a:184:G:N1	32:1a:194:C:C4	2.85	0.44
32:1a:1174:G:H2'	32:1a:1175:G:H8	1.83	0.44
32:1a:1250:A:H2'	32:1a:1251:A:C8	2.52	0.44
32:1a:1299:A:N3	32:1a:1299:A:H5"	2.31	0.44
34:1b:119:GLU:OE1	34:1b:119:GLU:HA	2.17	0.44
42:1j:61:GLU:OE2	46:1n:58:LYS:NZ	2.45	0.44
47:1o:55:GLY:HA2	47:1o:58:MET:HE3	2.00	0.44
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.52	0.44
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.48	0.44
1:2A:2080:G:OP1	23:21:35:THR:HG21	2.16	0.44
1:2A:2277:G:OP2	22:20:10:THR:HG21	2.18	0.44
1:2A:2439:A:C8	1:2A:2439:A:C5'	2.99	0.44
17:2V:60:GLU:OE1	17:2V:97:LYS:HE2	2.18	0.44
32:2a:40:C:H42	32:2a:402:G:H1	1.66	0.44
32:2a:565:U:OP2	32:2a:566:G:O2'	2.33	0.44
32:2a:680:C:C2	32:2a:711:G:N2	2.85	0.44
32:2a:1014:A:H4'	51:2s:14:HIS:CD2	2.53	0.44
39:2g:15:ASP:O	39:2g:19:GLY:N	2.41	0.44
41:2i:6:GLY:O	41:2i:17:VAL:HG12	2.16	0.44
1:1A:32:C:O2'	1:1A:33:U:H5'	2.18	0.44
1:1A:606:G:OP2	16:1U:10:ARG:HD2	2.17	0.44
1:1A:642:G:OP2	5:1F:106:ARG:NH1	2.48	0.44
1:1A:864:C:H4'	1:1A:977:G:C5	2.53	0.44
1:1A:1069:U:OP2	59:1A:4001:HOH:O	2.21	0.44
1:1A:1091:A:H2'	1:1A:1091:A:N3	2.32	0.44
1:1A:2897:U:H2'	1:1A:2898:C:H6	1.82	0.44
2:1B:11:C:OP2	2:1B:12:C:H5	2.00	0.44
2:1B:48:A:H4'	14:1S:95:HIS:CD2	2.51	0.44
3:1D:182:LEU:HD23	3:1D:182:LEU:HA	1.79	0.44
7:1H:3:ARG:NH1	7:1H:4:ILE:H	2.16	0.44
21:1Z:11:GLU:O	21:1Z:36:LYS:NZ	2.33	0.44
32:1a:96:U:H2'	32:1a:97:G:C8	2.52	0.44
32:1a:107:G:H2'	32:1a:108:G:O4'	2.17	0.44
32:1a:437:U:C5'	36:1d:155:LEU:HD11	2.48	0.44
32:1a:858:G:N1	32:1a:870:U:OP2	2.46	0.44
32:1a:960:U:O2'	32:1a:1225:A:N7	2.45	0.44
35:1c:138:VAL:HG22	35:1c:151:VAL:HG23	2.00	0.44
36:1d:164:ALA:O	36:1d:168:ARG:NE	2.40	0.44
40:1h:14:ARG:O	40:1h:18:ARG:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.99	0.44
1:2A:1093:G:N7	1:2A:1094:U:C2	2.86	0.44
1:2A:1256:G:O2'	5:2F:75:HIS:HE1	2.00	0.44
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.32	0.44
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.51	0.44
1:2A:1980:G:O2'	1:2A:1982:C:OP2	2.30	0.44
1:2A:2292:C:H2'	1:2A:2293:C:C6	2.53	0.44
2:2B:60:C:N4	59:2B:3103:HOH:O	2.50	0.44
5:2F:107:LYS:HE2	5:2F:107:LYS:HB2	1.76	0.44
7:2H:124:GLU:O	7:2H:126:PRO:HD3	2.17	0.44
20:2Y:105:ALA:O	20:2Y:106:LEU:HD23	2.18	0.44
21:2Z:182:LYS:O	21:2Z:185:GLU:HG2	2.18	0.44
26:24:16:CYS:HA	26:24:33:VAL:HG23	2.00	0.44
32:2a:93:G:H2'	32:2a:96:U:O4'	2.17	0.44
32:2a:1168:A:H2'	32:2a:1169:A:C8	2.52	0.44
32:2a:1216:G:H5"	46:2n:5:ALA:CB	2.47	0.44
34:2b:114:ARG:NH1	34:2b:118:LEU:HD21	2.32	0.44
36:2d:23:GLY:O	36:2d:26:CYS:HB2	2.17	0.44
40:2h:41:ARG:NH2	40:2h:123:GLU:OE2	2.51	0.44
40:2h:73:ASP:HA	40:2h:74:PRO:HD2	1.85	0.44
44:2l:117:ARG:NH2	44:2l:124:LYS:HD2	2.32	0.44
47:2o:43:LEU:HD23	47:2o:43:LEU:HA	1.89	0.44
1:1A:155:C:N3	1:1A:160:G:O6	2.50	0.44
1:1A:804:U:H2'	1:1A:805:C:O4'	2.17	0.44
1:1A:1263:C:H5"	1:1A:1263:C:H6	1.82	0.44
1:1A:1857:G:H2'	1:1A:1858:C:O4'	2.17	0.44
1:1A:2045:G:H5'	1:1A:2629:C:H4'	1.99	0.44
26:14:61:ARG:HH21	51:1s:42:PRO:CD	2.30	0.44
32:1a:510:A:H5"	32:1a:511:C:P	2.57	0.44
32:1a:518:C:H5"	32:1a:519:C:C6	2.52	0.44
32:1a:660:G:H5"	32:1a:661:G:OP2	2.17	0.44
32:1a:1227:A:OP2	45:1m:111:LYS:NZ	2.46	0.44
32:1a:1234:C:O2'	32:1a:1235:U:H5'	2.17	0.44
32:1a:1321:C:OP2	32:1a:1322:C:O2'	2.25	0.44
32:1a:1375:A:C6	32:1a:1376:U:C4	3.05	0.44
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.53	0.44
33:2x:13:THR:HG23	33:2x:16:ILE:CG2	2.47	0.44
34:1b:81:VAL:HG12	34:1b:215:LEU:HD11	1.99	0.44
34:1b:165:VAL:HG13	34:1b:187:LEU:HD23	1.98	0.44
36:1d:17:VAL:HG12	36:1d:18:LYS:O	2.17	0.44
36:1d:173:TRP:CD1	36:1d:173:TRP:H	2.34	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1f:41:GLU:HG2	38:1f:43:LEU:HD11	1.97	0.44
42:1j:11:PHE:HB3	46:1n:55:GLY:HA3	2.00	0.44
46:1n:3:ARG:CB	46:1n:3:ARG:HH11	2.31	0.44
1:2A:250:G:H2'	1:2A:251:A:C8	2.52	0.44
1:2A:522:G:C6	1:2A:523:C:C4	3.06	0.44
1:2A:781:A:H2	1:2A:1776:G:N3	2.15	0.44
1:2A:1073:A:C2	1:2A:1074:G:C6	3.05	0.44
1:2A:1085:A:H2'	1:2A:1086:A:C2	2.52	0.44
1:2A:1300:U:H4'	1:2A:1301:A:H5'	2.00	0.44
1:2A:1540:U:H2'	1:2A:1541:G:O4'	2.18	0.44
1:2A:2157:G:H5"	1:2A:2158:A:C5'	2.47	0.44
1:2A:2157:G:H5"	1:2A:2158:A:H5'	1.99	0.44
1:2A:2313:C:H2'	1:2A:2314:C:H6	1.81	0.44
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.17	0.44
1:2A:2818:G:OP2	13:2R:42:LYS:NZ	2.51	0.44
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	2.00	0.44
4:2E:101:ARG:NH2	4:2E:171:GLU:HB2	2.32	0.44
7:2H:85:LYS:HE2	7:2H:142:GLY:HA2	1.99	0.44
32:2a:335:C:H2'	32:2a:336:C:C6	2.52	0.44
32:2a:1130:A:H5'	41:2i:18:PHE:CE2	2.52	0.44
32:2a:1178:G:N2	32:2a:1180:A:H3'	2.33	0.44
1:1A:569:G:H4'	1:1A:569:G:OP1	2.18	0.44
6:1G:83:ARG:H	6:1G:86:MET:CE	2.27	0.44
32:1a:152:A:C8	32:1a:153:C:C5	3.06	0.44
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.98	0.44
32:1a:980:C:C5	32:1a:981:U:C2	3.06	0.44
32:1a:1080:A:H5'	37:1e:14:ARG:HH21	1.81	0.44
32:1a:1401:G:N7	33:1x:83:ARG:NH1	2.64	0.44
35:1c:79:ARG:O	35:1c:82:GLU:HB2	2.18	0.44
36:1d:107:ARG:HH12	36:1d:194:LEU:CD2	2.31	0.44
40:1h:33:GLU:HG2	40:1h:48:TYR:CE1	2.53	0.44
40:1h:104:ARG:HA	40:1h:104:ARG:HD3	1.61	0.44
40:1h:116:LYS:HD3	40:1h:127:LEU:HD23	1.98	0.44
47:1o:78:TYR:CZ	47:1o:82:ILE:HD13	2.53	0.44
51:1s:63:THR:H	51:1s:66:MET:HG2	1.83	0.44
1:2A:1262:A:OP2	18:2W:97:LYS:NZ	2.42	0.44
1:2A:1422:G:H4'	1:2A:1493:C:OP1	2.17	0.44
1:2A:2576:G:OP1	1:2A:2576:G:H3'	2.17	0.44
32:2a:187:C:H2'	32:2a:188:C:H6	1.81	0.44
32:2a:257:G:H2'	32:2a:258:G:O4'	2.17	0.44
32:2a:304:U:H2'	32:2a:305:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:391:G:C6	32:2a:392:G:C5	3.06	0.44
32:2a:826:C:H2'	32:2a:827:U:H6	1.82	0.44
32:2a:1029:C:N4	32:2a:1030:C:H41	2.16	0.44
32:2a:1153:C:C2	32:2a:1154:G:C8	3.06	0.44
32:2a:1215:G:C6	32:2a:1216:G:C5	3.06	0.44
32:2a:1226:C:H4'	51:2s:80:TYR:CZ	2.52	0.44
35:2c:66:VAL:O	35:2c:101:LEU:HD12	2.17	0.44
35:2c:82:GLU:HA	35:2c:85:ARG:NH2	2.33	0.44
43:2k:46:GLY:HA2	43:2k:50:TYR:O	2.17	0.44
45:2m:16:ASP:HB3	45:2m:34:LEU:CD1	2.48	0.44
1:1A:360:C:O2'	20:1Y:35:TYR:OH	2.30	0.44
1:1A:865:G:H4'	1:1A:885:C:O3'	2.17	0.44
1:1A:949:C:H2'	1:1A:950:C:C6	2.53	0.44
1:1A:1135:G:N2	1:1A:1148:C:N4	2.66	0.44
1:1A:1451:U:H2'	1:1A:1452:U:H6	1.79	0.44
1:1A:1605:A:C2	1:1A:1607:G:C8	3.06	0.44
1:1A:2202:U:H2'	1:1A:2203:G:O4'	2.18	0.44
1:1A:2586:G:H2'	1:1A:2587:C:C6	2.53	0.44
1:1A:2859:U:OP2	15:1T:95:ARG:NH1	2.50	0.44
3:1D:132:PRO:HD3	3:1D:190:TYR:CZ	2.53	0.44
4:1E:49:LEU:HD22	4:1E:81:ILE:HG12	2.00	0.44
4:1E:51:PHE:CD2	4:1E:52:LEU:HG	2.53	0.44
4:1E:73:GLU:CD	4:1E:73:GLU:N	2.72	0.44
5:1F:39:TRP:CH2	5:1F:106:ARG:HD3	2.53	0.44
6:1G:107:LEU:HD11	6:1G:178:PHE:CE1	2.53	0.44
8:1I:6:LEU:HD23	8:1I:6:LEU:HA	1.56	0.44
19:1X:1:MET:HE1	24:12:26:ARG:NH2	2.32	0.44
32:1a:36:C:OP1	44:1l:123:LYS:HE3	2.17	0.44
32:1a:327:A:C4	32:1a:329:A:C8	3.05	0.44
32:1a:909:A:H2'	32:1a:910:C:O4'	2.18	0.44
32:1a:1026:G:C8	32:1a:1027:C:C5	3.06	0.44
32:1a:1106:G:H5"	35:1c:172:ARG:HG2	1.98	0.44
32:1a:1176:A:C6	32:1a:1177:G:C6	3.05	0.44
32:1a:1221:G:H4'	51:1s:53:ASN:O	2.16	0.44
34:1b:109:SER:C	34:1b:111:ARG:H	2.25	0.44
40:1h:26:VAL:C	40:1h:58:TYR:HD1	2.25	0.44
40:1h:51:VAL:HG11	40:1h:60:ARG:HH12	1.82	0.44
52:1t:91:LEU:HA	52:1t:91:LEU:HD23	1.65	0.44
1:2A:1062:G:C8	1:2A:1070:A:O4'	2.71	0.44
1:2A:1410:G:H1	1:2A:1592:C:N4	2.11	0.44
1:2A:2390:U:P	30:28:35:GLN:HE22	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:13:GLU:O	6:2G:17:PRO:HG2	2.18	0.44
7:2H:11:VAL:HB	7:2H:48:GLY:HA2	1.99	0.44
16:2U:89:GLU:HG3	17:2V:50:PRO:CB	2.48	0.44
32:2a:419:C:OP1	32:2a:513:C:O2'	2.28	0.44
32:2a:582:U:OP1	47:2o:68:ARG:NH2	2.51	0.44
32:2a:1004:A:H5"	32:2a:1025:U:C4	2.53	0.44
32:2a:1004:A:H5"	32:2a:1025:U:C5	2.52	0.44
32:2a:1015:A:H1'	32:2a:1219:U:H5'	1.99	0.44
32:2a:1027:C:OP1	32:2a:1027:C:H4'	2.18	0.44
32:2a:1051:C:H2'	32:2a:1052:U:H6	1.83	0.44
32:2a:1189:C:OP1	42:2j:51:ARG:NH2	2.50	0.44
32:2a:1316:G:N2	32:2a:1318:A:H3'	2.33	0.44
35:2c:180:ALA:HB1	35:2c:203:PHE:CE1	2.53	0.44
37:2e:92:LYS:HA	37:2e:93:PRO:HD3	1.88	0.44
46:2n:23:ARG:HH11	46:2n:30:ALA:HB2	1.81	0.44
1:1A:383:A:H2'	1:1A:384:G:O4'	2.17	0.44
1:1A:950:C:H2'	1:1A:951:U:C6	2.51	0.44
1:1A:1270:C:H2'	1:1A:1271:G:O4'	2.18	0.44
23:11:2:SER:O	23:11:3:LYS:HB2	2.18	0.44
32:1a:865:A:H5'	32:1a:1078:U:O4	2.18	0.44
32:1a:1161:C:H2'	32:1a:1162:C:C6	2.52	0.44
32:1a:1213:A:C8	32:1a:1215:G:C5	3.06	0.44
32:1a:1388:C:H2'	32:1a:1389:C:H6	1.81	0.44
33:2x:45:PRO:HG2	32:2a:1054:C:C2	2.53	0.44
34:1b:89:GLY:O	34:1b:154:LEU:HD23	2.18	0.44
43:1k:104:GLN:O	43:1k:105:VAL:HG22	2.18	0.44
45:1m:89:GLY:O	45:1m:93:ARG:HG3	2.18	0.44
46:1n:3:ARG:HH11	46:1n:3:ARG:CG	2.31	0.44
48:1p:57:ARG:NH2	48:1p:79:VAL:O	2.48	0.44
1:2A:271(Q):G:H2'	1:2A:271(R):G:H8	1.82	0.44
1:2A:612:C:H2'	1:2A:613:G:O4'	2.18	0.44
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.53	0.44
1:2A:2155:G:O5'	1:2A:2155:G:H8	2.00	0.44
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.18	0.44
1:2A:2626:C:H2'	1:2A:2627:G:O4'	2.18	0.44
6:2G:86:MET:HA	6:2G:87:PRO:HD3	1.81	0.44
10:2O:120:GLU:HB2	15:2T:68:TYR:HE2	1.83	0.44
15:2T:78:LEU:O	15:2T:78:LEU:HD23	2.17	0.44
16:2U:27:LEU:HA	16:2U:30:LYS:HB2	1.98	0.44
21:2Z:52:SER:HG	21:2Z:53:ILE:H	1.60	0.44
25:23:43:ILE:O	25:23:47:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:28:50:LEU:HD23	30:28:50:LEU:HA	1.77	0.44
32:2a:499:A:C4'	32:2a:500:G:H5'	2.47	0.44
32:2a:624:C:H2'	32:2a:625:G:C8	2.48	0.44
32:2a:1014:A:H2	32:2a:1219:U:H1'	1.82	0.44
34:2b:116:GLU:HA	34:2b:119:GLU:HB2	1.99	0.44
36:2d:4:TYR:HD2	36:2d:115:ARG:HH12	1.66	0.44
49:2q:27:PHE:CZ	49:2q:36:ILE:HD11	2.52	0.44
1:1A:910:A:H2'	1:1A:911:G:H8	1.83	0.44
1:1A:1143:U:H3'	1:1A:1144:A:C8	2.50	0.44
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.53	0.44
6:1G:106:LEU:HA	6:1G:110:ALA:HB3	2.00	0.44
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.18	0.44
7:1H:41:MET:CE	7:1H:65:HIS:HA	2.47	0.44
10:1O:7:TYR:CZ	10:1O:44:LYS:HG3	2.53	0.44
10:1O:12:ASP:CG	10:1O:14:THR:HG23	2.43	0.44
28:16:10:LEU:HG	28:16:54:ILE:HG13	2.00	0.44
32:1a:260:G:H2'	32:1a:261:U:C6	2.52	0.44
32:1a:589:C:H2'	32:1a:590:C:H5'	2.00	0.44
32:1a:820:U:H4'	32:1a:821:G:OP2	2.17	0.44
32:1a:836:G:OP1	50:1r:61:LYS:NZ	2.39	0.44
32:1a:1244:C:OP1	53:1u:9:ARG:HB2	2.18	0.44
35:1c:23:TYR:CD1	42:1j:10:GLY:HA2	2.53	0.44
39:1g:24:THR:O	39:1g:27:ILE:HB	2.18	0.44
40:1h:111:ILE:C	40:1h:112:LEU:HD23	2.42	0.44
52:1t:36:LEU:HA	52:1t:36:LEU:HD23	1.75	0.44
1:2A:1045:A:C8	1:2A:1047:G:C2	3.06	0.44
1:2A:1091:G:H2'	1:2A:1091:G:N3	2.33	0.44
1:2A:2585:U:H4'	1:2A:2586:C:OP1	2.17	0.44
2:2B:73:A:C4	2:2B:105:A:C2	3.05	0.44
4:2E:5:LEU:HD11	4:2E:79:ARG:HB2	1.99	0.44
4:2E:7:VAL:HG13	4:2E:27:LEU:HB3	2.00	0.44
8:2I:83:ALA:HA	8:2I:89:TYR:CD2	2.53	0.44
12:2Q:42:ILE:HD13	12:2Q:97:VAL:HG21	2.00	0.44
16:2U:108:GLU:OE2	16:2U:112:ARG:NH1	2.51	0.44
21:2Z:63:ASP:OD1	21:2Z:65:GLN:HG3	2.18	0.44
27:25:15:ARG:HH11	27:25:15:ARG:CG	2.31	0.44
32:2a:457:C:H2'	32:2a:458:C:C6	2.50	0.44
42:2j:81:THR:C	42:2j:83:GLU:H	2.26	0.44
46:2n:21:TYR:HE1	46:2n:23:ARG:NE	2.16	0.44
1:1A:1131:A:C2	1:1A:1132:A:C8	3.05	0.43
1:1A:1141:A:H2'	1:1A:1142:A:H8	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1857:G:H4'	3:1D:242:ARG:CZ	2.48	0.43
1:1A:1884:A:H2'	1:1A:1885:A:C8	2.52	0.43
1:1A:2442:A:H2'	1:1A:2442:A:N3	2.33	0.43
1:1A:2658:C:O5'	1:1A:2658:C:H6	2.00	0.43
3:1D:223:GLY:HA3	3:1D:231:HIS:CE1	2.53	0.43
5:1F:34:TRP:CH2	11:1P:8:PRO:HB3	2.53	0.43
6:1G:61:ALA:O	26:14:7:PRO:HG2	2.17	0.43
15:1T:108:ARG:NH2	15:1T:112:ARG:HD3	2.33	0.43
21:1Z:30:ASN:ND2	21:1Z:90:VAL:HB	2.33	0.43
32:1a:6:G:C4	37:1e:119:LEU:HD11	2.53	0.43
32:1a:189:G:C4	32:1a:189(L):G:N2	2.86	0.43
32:1a:251:G:N2	32:1a:253:U:C5	2.86	0.43
32:1a:343:U:C2	32:1a:347:G:C2	3.06	0.43
32:1a:375:U:OP1	48:1p:69:THR:HG21	2.18	0.43
32:1a:392:G:H2'	32:1a:393:A:C8	2.52	0.43
32:1a:433:C:H2'	32:1a:434:U:H6	1.83	0.43
32:1a:671:G:C2'	32:1a:672:U:H5'	2.48	0.43
32:1a:1288:A:N1	32:1a:1371:G:H1'	2.32	0.43
37:1e:152:ARG:HB2	40:1h:43:GLY:O	2.18	0.43
40:1h:96:GLY:O	40:1h:99:GLU:HG2	2.18	0.43
45:1m:60:VAL:HG22	45:1m:64:TRP:HZ3	1.81	0.43
48:1p:55:ARG:O	48:1p:58:TYR:HB3	2.18	0.43
1:2A:107:C:H2'	1:2A:108:U:C6	2.53	0.43
1:2A:345:A:N3	1:2A:346:A:N6	2.66	0.43
1:2A:363:G:C2	1:2A:363(A):A:C5	3.06	0.43
1:2A:1117:G:H2'	1:2A:1118:C:C6	2.53	0.43
1:2A:1653:G:C5	13:2R:9:LYS:HD2	2.53	0.43
1:2A:2137:C:C2	1:2A:2154:G:N2	2.86	0.43
1:2A:2168:G:H2'	1:2A:2170:A:OP2	2.18	0.43
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.52	0.43
11:2P:99:LEU:HD12	11:2P:102:ARG:NH2	2.30	0.43
21:2Z:5:LEU:HD13	21:2Z:47:VAL:HG21	1.99	0.43
32:2a:341:C:C2	32:2a:349:A:C2	3.06	0.43
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.18	0.43
38:2f:91:VAL:HG11	50:2r:72:ARG:HH12	1.79	0.43
39:2g:111:ARG:HB3	39:2g:113:GLU:OE2	2.17	0.43
41:2i:70:LYS:O	41:2i:74:ILE:HG13	2.18	0.43
45:2m:78:ILE:HD13	45:2m:92:HIS:CD2	2.52	0.43
49:2q:88:TYR:HE1	49:2q:92:ARG:CZ	2.31	0.43
1:1A:886:U:H2'	1:1A:887:C:C6	2.53	0.43
1:1A:2240:G:P	3:1D:261:LYS:HZ1	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2623:U:O4'	54:1y:12:PRO:HB3	2.18	0.43
2:1B:29:A:H2'	2:1B:30:C:O4'	2.17	0.43
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.18	0.43
25:13:39:ASP:OD2	25:13:44:ARG:NH2	2.50	0.43
26:14:62:ARG:HD3	26:14:62:ARG:HA	1.65	0.43
32:1a:416:G:C6	32:1a:417:C:N3	2.86	0.43
32:1a:561:U:O2'	32:1a:562:C:P	2.76	0.43
32:1a:1245:A:H2'	32:1a:1246:C:C6	2.53	0.43
39:1g:65:ALA:HB1	39:1g:127:ALA:HB3	2.00	0.43
48:1p:59:TRP:HB3	48:1p:64:ALA:HB2	2.01	0.43
51:1s:30:LEU:HD21	51:1s:50:ALA:HB2	2.00	0.43
1:2A:247:G:H4'	1:2A:386:G:C5	2.53	0.43
1:2A:272(J):C:H42	1:2A:363:G:H1	1.66	0.43
1:2A:1444:G:N2	1:2A:1548:C:C2	2.86	0.43
1:2A:1458:C:H4'	1:2A:1459:G:O5'	2.18	0.43
1:2A:1545:A:H2'	1:2A:1546:C:O4'	2.19	0.43
1:2A:2119:A:N7	1:2A:2170:A:C6	2.87	0.43
1:2A:2313:C:O2'	1:2A:2314:C:H5'	2.17	0.43
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.53	0.43
1:2A:2646:C:O5'	1:2A:2646:C:H6	2.01	0.43
5:2F:126:VAL:HG21	5:2F:129:PHE:CE1	2.53	0.43
6:2G:83:ARG:O	6:2G:86:MET:HB2	2.18	0.43
9:2N:91:LEU:HD23	9:2N:91:LEU:HA	1.74	0.43
11:2P:85:LEU:HG	11:2P:115:LEU:O	2.18	0.43
13:2R:10:LEU:HD23	13:2R:10:LEU:HA	1.84	0.43
32:2a:251:G:H4'	32:2a:252:U:O5'	2.17	0.43
32:2a:974:A:H8	32:2a:974:A:OP1	2.01	0.43
32:2a:1030(B):C:N4	32:2a:1030(C):G:C2	2.86	0.43
32:2a:1106:G:H2'	32:2a:1107:C:C6	2.53	0.43
32:2a:1122:U:C4	32:2a:1123:A:N7	2.86	0.43
36:2d:140:VAL:HG11	36:2d:146:ILE:HD11	2.00	0.43
38:2f:69:GLU:CD	38:2f:69:GLU:H	2.26	0.43
42:2j:36:GLY:O	42:2j:38:ILE:HG22	2.18	0.43
44:2l:124:LYS:HA	44:2l:125:PRO:HD3	1.85	0.43
45:2m:50:GLU:O	45:2m:54:VAL:HG22	2.18	0.43
47:2o:18:PHE:HB2	47:2o:19:PRO:HD2	1.99	0.43
50:2r:26:LEU:HD11	50:2r:42:ARG:HD2	1.99	0.43
50:2r:52:PRO:HB2	50:2r:54:ARG:HG2	2.00	0.43
1:1A:1091:A:O2'	1:1A:1093:G:C6	2.69	0.43
1:1A:1186:U:H4'	1:1A:1188:A:O4'	2.18	0.43
1:1A:1815:A:H4'	1:1A:1816:A:O5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:34:U:OP1	6:1G:2:PRO:HD3	2.18	0.43
11:1P:121:LYS:HG2	11:1P:122:PRO:HD2	1.99	0.43
17:1V:16:PRO:HA	17:1V:96:ILE:HG22	1.99	0.43
32:1a:198:G:C5	32:1a:220:G:N2	2.86	0.43
32:1a:1170:A:H8	32:1a:1170:A:O5'	2.01	0.43
32:1a:1277:C:O2'	32:1a:1279:A:H8	2.01	0.43
32:1a:1313:U:OP1	51:1s:5:LEU:HB2	2.18	0.43
33:2x:63:ALA:HA	32:2a:1400:5MC:N3	2.33	0.43
40:1h:40:ALA:HA	40:1h:45:ILE:HG13	1.99	0.43
53:1u:9:ARG:HH12	53:1u:13:ILE:CD1	2.29	0.43
1:2A:1179:C:H2'	1:2A:1180:C:H6	1.83	0.43
1:2A:1325:G:OP1	1:2A:1647:G:O2'	2.21	0.43
1:2A:1668:A:O2'	1:2A:1674:G:N7	2.35	0.43
1:2A:1754:C:H2'	1:2A:1755:A:O4'	2.19	0.43
1:2A:1769:G:O2'	1:2A:1958:C:OP1	2.32	0.43
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.33	0.43
1:2A:2106:G:C2	1:2A:2184:G:C2	3.06	0.43
7:2H:140:LYS:HE3	7:2H:140:LYS:HB2	1.65	0.43
12:2Q:32:TYR:OH	12:2Q:111:GLU:HG3	2.17	0.43
16:2U:89:GLU:CG	17:2V:50:PRO:HB3	2.48	0.43
21:2Z:9:TYR:OH	21:2Z:61:LEU:HD23	2.19	0.43
28:26:6:ARG:NE	28:26:24:GLU:OE2	2.47	0.43
32:2a:616:G:N2	32:2a:625:G:C4	2.86	0.43
32:2a:673:G:C2	32:2a:674:G:C6	3.06	0.43
32:2a:751:U:H4'	47:2o:24:SER:HA	2.00	0.43
32:2a:922:G:H2'	32:2a:923:A:C8	2.53	0.43
32:2a:988:G:H8	32:2a:988:G:O5'	2.02	0.43
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.53	0.43
32:2a:1152:A:C6	32:2a:1153:C:C4	3.06	0.43
32:2a:1153:C:C4	32:2a:1154:G:N7	2.86	0.43
32:2a:1316:G:H2'	32:2a:1318:A:OP2	2.18	0.43
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.33	0.43
45:2m:10:PRO:HG2	45:2m:13:LYS:HD2	2.01	0.43
1:1A:1152:G:H2'	1:1A:1152:G:N3	2.33	0.43
1:1A:1338:U:H2'	1:1A:1339:C:C6	2.54	0.43
1:1A:1889:G:N2	1:1A:1905:G:H2'	2.32	0.43
1:1A:2569:G:H2'	1:1A:2570:C:H6	1.83	0.43
16:1U:85:LYS:CE	16:1U:117:GLN:HA	2.43	0.43
24:12:53:LEU:HD23	24:12:53:LEU:HA	1.85	0.43
32:1a:658:G:C6	32:1a:659:U:C4	3.06	0.43
32:1a:1144:G:N2	32:1a:1146:A:H62	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.53	0.43
32:1a:1400:5MC:N3	33:1x:63:ALA:HA	2.33	0.43
35:1c:62:ASP:HA	35:1c:97:LYS:HD3	2.00	0.43
38:1f:91:VAL:HG12	38:1f:92:LYS:O	2.19	0.43
40:1h:4:ASP:OD2	40:1h:85:ARG:NH1	2.51	0.43
49:1q:27:PHE:CZ	49:1q:36:ILE:HD11	2.53	0.43
49:1q:36:ILE:HG21	49:1q:36:ILE:HD13	1.69	0.43
1:2A:35:G:H2'	1:2A:36:G:O4'	2.18	0.43
1:2A:719:C:H2'	1:2A:720:C:H6	1.83	0.43
1:2A:990:A:C6	1:2A:1186:G:H1'	2.53	0.43
1:2A:1509(B):A:H2'	1:2A:1510:G:C8	2.53	0.43
1:2A:2177:C:O5'	1:2A:2177:C:H6	2.01	0.43
12:2Q:58:PHE:HZ	12:2Q:106:VAL:HG11	1.83	0.43
12:2Q:59:ARG:HH11	12:2Q:60:ARG:HE	1.63	0.43
13:2R:72:ASP:O	13:2R:76:VAL:HG23	2.19	0.43
32:2a:135:C:O2	48:2p:1:MET:HE2	2.19	0.43
32:2a:839:U:H5"	32:2a:840:C:C5	2.53	0.43
32:2a:1001(A):G:C6	32:2a:1002:G:C5	3.07	0.43
32:2a:1464:G:O2'	32:2a:1465:C:H5'	2.19	0.43
32:2a:1468:A:H8	32:2a:1468:A:O5'	2.01	0.43
34:2b:130:ARG:HA	34:2b:131:PRO:HD3	1.88	0.43
35:2c:7:PRO:HG3	35:2c:201:TYR:CE1	2.53	0.43
37:2e:35:GLY:HA3	37:2e:112:LEU:HB3	2.01	0.43
43:2k:85:ARG:HG2	43:2k:111:ASP:O	2.19	0.43
45:2m:90:LEU:O	45:2m:93:ARG:N	2.51	0.43
49:2q:59:ILE:HG22	49:2q:73:VAL:HA	2.00	0.43
51:2s:64:GLU:O	51:2s:67:VAL:HG23	2.18	0.43
1:1A:1388:A:O2'	1:1A:1390:G:OP2	2.31	0.43
1:1A:2190:G:N2	1:1A:2193:A:C8	2.87	0.43
1:1A:2347:A:C8	1:1A:2349:G:C5	3.06	0.43
7:1H:41:MET:HE3	7:1H:41:MET:HB3	1.80	0.43
13:1R:10:LEU:HA	13:1R:10:LEU:HD23	1.77	0.43
32:1a:137:C:O2'	32:1a:138:G:H5'	2.18	0.43
32:1a:179:A:H2'	32:1a:180:U:C6	2.51	0.43
32:1a:657:G:H4'	47:1o:28:GLN:HG3	2.00	0.43
32:1a:1054:C:H41	33:1x:46:GLN:CG	2.31	0.43
32:1a:1291:G:P	39:1g:41:ARG:HH21	2.41	0.43
32:1a:1468:A:H8	32:1a:1468:A:O5'	2.02	0.43
34:1b:44:LEU:HD13	34:1b:44:LEU:HA	1.83	0.43
37:1e:71:LEU:HD21	37:1e:115:VAL:HG22	2.01	0.43
39:1g:26:PHE:O	39:1g:30:ILE:HG13	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1j:39:PRO:HA	42:1j:70:ARG:HD3	1.99	0.43
1:2A:861:A:H2'	1:2A:862:G:O4'	2.19	0.43
1:2A:984:A:H5"	1:2A:985:C:C5	2.52	0.43
1:2A:996:A:C2	1:2A:997:G:C8	3.07	0.43
1:2A:1101:U:H2'	1:2A:1102:C:H6	1.83	0.43
1:2A:1143:A:OP1	9:2N:25:ARG:NH2	2.48	0.43
1:2A:1252:G:O6	16:2U:36:ARG:HD2	2.18	0.43
1:2A:2869:G:H2'	1:2A:2870:C:O4'	2.17	0.43
2:2B:89:G:C6	2:2B:90:A:C6	3.06	0.43
4:2E:112:GLY:O	4:2E:159:HIS:HA	2.18	0.43
8:2I:25:TYR:CE1	8:2I:29:TYR:CD2	3.06	0.43
21:2Z:150:LEU:HB3	21:2Z:171:ILE:HD11	2.00	0.43
30:28:26:LYS:HE3	30:28:46:ARG:HH12	1.84	0.43
32:2a:222:U:C2	32:2a:223:U:C5	3.06	0.43
34:2b:8:LYS:H	34:2b:8:LYS:HG2	1.70	0.43
34:2b:9:GLU:C	34:2b:11:LEU:N	2.74	0.43
35:2c:32:LEU:HD21	35:2c:59:ARG:HD2	2.01	0.43
42:2j:5:ARG:HA	42:2j:73:ASP:HA	2.01	0.43
44:2l:71:PRO:O	44:2l:102:ARG:HD3	2.18	0.43
50:2r:51:LEU:HA	50:2r:52:PRO:HD3	1.79	0.43
1:1A:312:C:H2'	1:1A:313:A:H8	1.83	0.43
1:1A:842:C:H2'	1:1A:843:C:H6	1.83	0.43
1:1A:969:C:H2'	1:1A:970:C:H6	1.84	0.43
1:1A:1018:A:O4'	1:1A:1233:U:C6	2.72	0.43
1:1A:1562:U:H2'	1:1A:1563:G:H8	1.84	0.43
1:1A:2605:U:H2'	1:1A:2606:C:H6	1.83	0.43
1:1A:2735:G:H2'	1:1A:2736:C:C6	2.54	0.43
3:1D:76:PRO:HB2	3:1D:116:GLN:HE21	1.83	0.43
4:1E:116:VAL:HG13	4:1E:122:PHE:CB	2.48	0.43
13:1R:87:TYR:OH	13:1R:117:VAL:O	2.35	0.43
32:1a:55:A:C5	32:1a:56:U:C5	3.06	0.43
32:1a:411:A:C6	32:1a:429:U:C5	3.07	0.43
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.49	0.43
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.34	0.43
32:1a:1244:C:H42	32:1a:1293:G:H1	1.65	0.43
35:1c:13:GLY:HA3	46:1n:57:ARG:NH2	2.34	0.43
36:1d:135:LEU:C	36:1d:137:SER:H	2.26	0.43
45:1m:19:LEU:HD12	45:1m:19:LEU:HA	1.87	0.43
1:2A:332:A:O2'	1:2A:334:C:OP2	2.33	0.43
1:2A:1263:U:C4	1:2A:1264:G:C6	3.07	0.43
1:2A:1485:G:C2	1:2A:1505:C:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1721:G:C2	1:2A:1739:U:OP2	2.71	0.43
1:2A:2181:G:H2'	1:2A:2182:G:O4'	2.18	0.43
1:2A:2274:A:C5	1:2A:2276:G:C8	3.06	0.43
9:2N:71:ILE:CG2	9:2N:84:LYS:HB3	2.49	0.43
26:24:2:LYS:HB2	26:24:5:ILE:HD11	2.01	0.43
32:2a:108:G:N1	52:2t:15:ARG:HG2	2.34	0.43
32:2a:586:C:O2'	32:2a:878:G:H4'	2.18	0.43
32:2a:735:C:C2'	32:2a:736:C:H5'	2.48	0.43
32:2a:977:A:C2	32:2a:1224:G:C5	3.07	0.43
32:2a:1041:A:C2	32:2a:1042:G:C4	3.06	0.43
32:2a:1125:U:H5"	32:2a:1127:G:O6	2.17	0.43
32:2a:1515:C:H2'	32:2a:1516:G:C8	2.54	0.43
36:2d:119:GLN:HG3	36:2d:123:HIS:CD2	2.53	0.43
46:2n:26:ARG:HB3	46:2n:43:CYS:SG	2.58	0.43
1:1A:150:C:H2'	1:1A:151:C:C6	2.54	0.43
1:1A:1146:C:C2	1:1A:1147:U:C5	3.06	0.43
1:1A:1627:A:OP2	1:1A:1627:A:H8	2.01	0.43
1:1A:2205:C:H2'	1:1A:2206:G:H8	1.79	0.43
1:1A:2402:U:P	30:18:35:GLN:HE22	2.42	0.43
2:1B:29:A:H2'	2:1B:30:C:C6	2.54	0.43
7:1H:3:ARG:HH21	7:1H:65:HIS:HB3	1.83	0.43
10:1O:2:ILE:HB	10:1O:33:ALA:HB3	2.00	0.43
12:1Q:35:VAL:HG13	12:1Q:130:LYS:HB3	1.99	0.43
15:1T:26:ASP:OD1	15:1T:120:ARG:NH2	2.41	0.43
18:1W:7:ALA:HB2	18:1W:50:VAL:HG22	2.01	0.43
24:12:21:LEU:HA	24:12:21:LEU:HD23	1.74	0.43
32:1a:76:C:H2'	32:1a:77:G:O4'	2.18	0.43
32:1a:558:G:H8	32:1a:558:G:O5'	2.01	0.43
32:1a:1251:A:O2'	32:1a:1369:C:O2'	2.35	0.43
33:2x:13:THR:HG23	33:2x:16:ILE:HG22	2.01	0.43
36:1d:135:LEU:O	36:1d:137:SER:N	2.52	0.43
39:1g:9:VAL:HG13	39:1g:94:ARG:NE	2.34	0.43
43:1k:105:VAL:HG23	43:1k:105:VAL:O	2.19	0.43
46:1n:4:LYS:O	46:1n:7:ILE:HG12	2.19	0.43
48:1p:15:PRO:HB2	48:1p:41:PRO:HG3	2.00	0.43
1:2A:7:G:H4'	9:2N:13:TRP:CH2	2.54	0.43
1:2A:372:G:O2'	1:2A:400:G:O6	2.36	0.43
1:2A:902:C:H2'	1:2A:903:C:C6	2.53	0.43
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.54	0.43
6:2G:11:TYR:CE2	6:2G:16:ARG:HD3	2.54	0.43
7:2H:4:ILE:O	7:2H:69:ARG:HD2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:70:LEU:O	13:2R:72:ASP:N	2.44	0.43
18:2W:59:VAL:HG12	18:2W:60:ASN:HD22	1.82	0.43
20:2Y:53:PRO:O	20:2Y:56:PRO:HD3	2.18	0.43
32:2a:308:C:H2'	32:2a:309:G:H8	1.83	0.43
32:2a:410:G:C2	32:2a:429:U:C2	3.06	0.43
32:2a:774:G:N2	32:2a:806:C:C2	2.87	0.43
32:2a:1002:G:C2	32:2a:1003:G:C8	3.07	0.43
32:2a:1106:G:O2'	32:2a:1107:C:H5'	2.18	0.43
44:2l:102:ARG:HE	44:2l:102:ARG:HB3	1.71	0.43
46:2n:6:LEU:HB3	46:2n:23:ARG:NH2	2.33	0.43
1:1A:670:C:O2	1:1A:670:C:H2'	2.19	0.43
1:1A:1342:G:OP1	1:1A:2721:G:O2'	2.35	0.43
1:1A:2092:G:H2'	1:1A:2093:A:O4'	2.19	0.43
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.54	0.43
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.18	0.43
12:1Q:111:GLU:O	12:1Q:115:MET:HG2	2.19	0.43
17:1V:28:GLU:HG3	17:1V:29:PRO:HD2	2.00	0.43
19:1X:88:LYS:HB2	19:1X:88:LYS:HE3	1.58	0.43
32:1a:176:C:H2'	32:1a:177:C:H6	1.78	0.43
32:1a:507:C:OP2	32:1a:508:C:O2'	2.29	0.43
32:1a:838:G:C2	32:1a:849:C:C2	3.07	0.43
32:1a:1131:G:C2'	32:1a:1132:C:H5'	2.48	0.43
32:1a:1138:G:C5	32:1a:1140:C:H1'	2.53	0.43
32:1a:1350:A:C5	32:1a:1351:U:C4	3.07	0.43
32:1a:1362:C:C2'	32:1a:1363:C:H5"	2.49	0.43
32:1a:1456:G:H8	32:1a:1456:G:OP1	2.01	0.43
38:1f:61:LEU:HD22	38:1f:63:TYR:OH	2.18	0.43
38:1f:73:ASN:HD22	38:1f:73:ASN:HA	1.63	0.43
39:1g:8:GLU:OE1	39:1g:8:GLU:N	2.41	0.43
52:1t:18:GLN:O	52:1t:22:ARG:HG3	2.19	0.43
1:2A:888:C:O5'	45:2m:93:ARG:HD2	2.18	0.43
1:2A:947:G:N2	1:2A:971:C:C2	2.87	0.43
1:2A:1031:G:H4'	31:29:6:SER:OG	2.18	0.43
1:2A:1669:A:H5"	1:2A:2550:G:OP1	2.19	0.43
1:2A:2165:G:H2'	1:2A:2166:G:O4'	2.17	0.43
1:2A:2184:G:H2'	1:2A:2185:C:O4'	2.19	0.43
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.18	0.43
3:2D:276:LYS:H	3:2D:276:LYS:HG3	1.35	0.43
8:2I:93:THR:O	8:2I:97:ILE:HG13	2.19	0.43
32:2a:250:A:H4'	32:2a:251:G:O5'	2.19	0.43
32:2a:1346:A:C8	32:2a:1348:U:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2h:36:LEU:HD12	40:2h:59:LEU:HD13	2.00	0.43
1:1A:795:G:C8	18:1W:89:ALA:HB1	2.54	0.43
1:1A:1390:G:O2'	1:1A:1431:G:H2'	2.18	0.43
1:1A:1422:C:H2'	1:1A:1423:G:O4'	2.19	0.43
1:1A:2355:C:O2'	1:1A:2385:G:O2'	2.33	0.43
3:1D:107:ALA:HA	3:1D:108:PRO:HD3	1.85	0.43
7:1H:24:VAL:HG22	7:1H:35:VAL:HB	2.01	0.43
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.54	0.43
18:1W:10:VAL:HG12	18:1W:12:ILE:HG22	2.01	0.43
32:1a:165:C:H2'	32:1a:166:G:H8	1.81	0.43
32:1a:297:G:H4'	32:1a:557:G:H4'	2.00	0.43
32:1a:426:G:H2'	32:1a:427:U:H6	1.83	0.43
32:1a:443:C:H2'	32:1a:444:C:C6	2.53	0.43
32:1a:608:A:H2'	32:1a:609:A:O4'	2.19	0.43
32:1a:629:G:H2'	32:1a:630:G:O4'	2.19	0.43
32:1a:1030(D):A:C2'	32:1a:1031:G:H5'	2.48	0.43
32:1a:1034:G:H3'	32:1a:1035:A:C8	2.54	0.43
34:1b:201:ILE:HA	34:1b:202:PRO:HD2	1.89	0.43
36:1d:146:ILE:HD12	36:1d:146:ILE:N	2.34	0.43
37:1e:148:VAL:HG13	37:1e:152:ARG:CZ	2.49	0.43
40:1h:20:TYR:HA	40:1h:65:TYR:CZ	2.54	0.43
43:1k:34:ASP:HB2	43:1k:35:PRO:CD	2.49	0.43
49:1q:26:GLN:HE21	49:1q:37:LYS:HE3	1.84	0.43
1:2A:335:C:H5"	20:2Y:73:ARG:NH2	2.34	0.43
1:2A:2680:C:O2'	1:2A:2681:C:H5'	2.19	0.43
3:2D:37:LEU:HD13	3:2D:87:ASN:ND2	2.33	0.43
4:2E:60:ASN:CG	4:2E:62:PRO:HD2	2.44	0.43
8:2I:47:LEU:O	8:2I:51:ILE:HG13	2.19	0.43
21:2Z:3:TYR:CD2	21:2Z:3:TYR:N	2.86	0.43
23:21:10:LYS:NZ	23:21:65:SER:OG	2.51	0.43
32:2a:552:U:C2'	32:2a:553:A:H5'	2.48	0.43
32:2a:1040:U:H2'	32:2a:1041:A:H5"	2.01	0.43
32:2a:1379:G:O6	39:2g:2:ALA:HB3	2.19	0.43
36:2d:108:LEU:HD21	36:2d:183:GLY:HA3	2.00	0.43
42:2j:51:ARG:NH1	46:2n:45:ARG:HH21	2.17	0.43
46:2n:9:LYS:HA	46:2n:12:ARG:HD3	2.01	0.43
1:1A:504:A:N1	1:1A:525:G:H4'	2.33	0.43
1:1A:1017:G:O5'	1:1A:1017:G:H8	2.02	0.43
1:1A:1185:C:O3'	9:1N:25:ARG:NH1	2.51	0.43
1:1A:1269:G:N2	1:1A:1272:A:OP2	2.48	0.43
1:1A:1405:A:H2'	1:1A:1406:A:H5'	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2879:G:H2'	1:1A:2880:C:O4'	2.19	0.43
3:1D:133:LEU:HB3	3:1D:173:VAL:HG11	2.01	0.43
8:1I:110:ASP:OD1	8:1I:111:PRO:HD2	2.19	0.43
9:1N:14:VAL:HG11	9:1N:138:LEU:HD12	2.01	0.43
21:1Z:118:GLN:O	21:1Z:120:ILE:N	2.52	0.43
32:1a:691:G:O2'	32:1a:797:C:H4'	2.18	0.43
32:1a:1352:C:H2'	32:1a:1353:G:C8	2.54	0.43
32:1a:1490:C:O2'	32:1a:1491:G:H5'	2.17	0.43
33:2x:12:ILE:HG22	33:2x:17:ARG:HG3	2.01	0.43
34:1b:15:VAL:CG2	34:1b:209:ARG:HB3	2.46	0.43
34:1b:21:ARG:HB3	34:1b:38:GLY:O	2.18	0.43
35:1c:19:GLU:O	35:1c:40:ARG:NH2	2.52	0.43
35:1c:121:ALA:O	35:1c:125:GLU:HG3	2.19	0.43
37:1e:27:ARG:HE	37:1e:27:ARG:HB2	1.47	0.43
41:1i:16:ARG:HH11	41:1i:64:THR:CG2	2.32	0.43
1:2A:934:G:H2'	1:2A:935:C:H6	1.84	0.43
1:2A:1512:U:H2'	1:2A:1513:C:H6	1.84	0.43
6:2G:54:GLU:O	6:2G:57:ALA:HB3	2.19	0.43
8:2I:83:ALA:CB	8:2I:88:ILE:HA	2.49	0.43
12:2Q:35:VAL:HA	12:2Q:101:ARG:O	2.19	0.43
25:23:8:LEU:HD23	25:23:30:ARG:O	2.19	0.43
31:29:18:ARG:NH2	31:29:21:GLY:HA2	2.34	0.43
32:2a:59:A:H5"	32:2a:60:A:H5"	2.01	0.43
32:2a:174:C:C4	32:2a:175:C:C5	3.07	0.43
32:2a:224:C:H2'	32:2a:225:C:C6	2.53	0.43
32:2a:593:G:H2'	32:2a:594:G:O4'	2.18	0.43
32:2a:641:U:O3'	32:2a:642:A:H8	2.01	0.43
32:2a:858:G:O6	32:2a:869:G:H3'	2.19	0.43
32:2a:1367:C:H5'	42:2j:60:ARG:NH1	2.34	0.43
32:2a:1479:C:H2'	32:2a:1480:G:H8	1.84	0.43
45:2m:82:MET:HE2	45:2m:93:ARG:HA	2.01	0.43
1:1A:1053:C:OP1	9:1N:37:LYS:NZ	2.52	0.42
1:1A:2745:G:H3'	1:1A:2746:A:O4'	2.19	0.42
1:1A:2891:C:H2'	1:1A:2892:A:O4'	2.19	0.42
2:1B:1:U:O2	2:1B:1:U:H2'	2.19	0.42
10:1O:68:GLU:OE1	10:1O:78:ARG:NH1	2.41	0.42
21:1Z:98:MET:O	21:1Z:125:LEU:HA	2.19	0.42
24:12:1:MET:HE2	24:12:6:VAL:HG22	2.00	0.42
32:1a:427:U:H5'	36:1d:41:GLY:HA2	2.00	0.42
32:1a:756:C:H2'	32:1a:757:U:O4'	2.19	0.42
32:1a:1127:G:H2'	32:1a:1128:C:H6	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1152:A:O3'	42:1j:13:HIS:HE1	2.02	0.42
32:1a:1216:G:OP1	46:1n:2:ALA:HA	2.19	0.42
32:1a:1239:A:C4	32:1a:1298:C:N4	2.87	0.42
35:1c:42:LEU:O	35:1c:45:LYS:HB3	2.19	0.42
35:1c:142:MET:HE2	35:1c:170:GLN:HG2	2.01	0.42
35:1c:177:THR:HG22	35:1c:180:ALA:H	1.84	0.42
39:1g:40:ALA:HB1	39:1g:44:TYR:CE2	2.53	0.42
46:1n:45:ARG:O	46:1n:49:HIS:HD2	2.02	0.42
49:1q:45:HIS:O	49:1q:73:VAL:HG23	2.19	0.42
51:1s:63:THR:H	51:1s:66:MET:CG	2.32	0.42
52:1t:88:VAL:O	52:1t:92:LEU:HG	2.19	0.42
1:2A:1594:G:H2'	1:2A:1595:G:O4'	2.19	0.42
17:2V:61:VAL:HG23	17:2V:61:VAL:O	2.18	0.42
32:2a:26:A:N6	59:2a:1802:HOH:O	2.52	0.42
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.53	0.42
32:2a:391:G:P	48:2p:28:ARG:NH2	2.91	0.42
32:2a:458:C:H3'	32:2a:460:G:H8	1.84	0.42
32:2a:537:G:H5"	44:2l:113:ARG:NH1	2.34	0.42
32:2a:872:A:C4	32:2a:874:G:N7	2.87	0.42
32:2a:964:A:N3	32:2a:969:A:O2'	2.47	0.42
32:2a:1052:U:O4	32:2a:1200:C:C2	2.71	0.42
32:2a:1057:G:C5	32:2a:1204:A:C2	3.07	0.42
32:2a:1208:C:H2'	32:2a:1209:C:H6	1.84	0.42
32:2a:1265:G:H2'	32:2a:1266:G:O4'	2.18	0.42
32:2a:1293:G:C6	32:2a:1294:G:C6	3.07	0.42
32:2a:1468:A:H2'	32:2a:1469:G:O4'	2.18	0.42
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.54	0.42
34:2b:84:GLU:OE1	34:2b:216:SER:HA	2.18	0.42
36:2d:111:ALA:HB1	36:2d:116:GLN:HE21	1.84	0.42
36:2d:204:ILE:H	36:2d:204:ILE:HG12	1.64	0.42
40:2h:4:ASP:OD2	40:2h:7:ALA:HB2	2.19	0.42
42:2j:81:THR:C	42:2j:83:GLU:N	2.76	0.42
48:2p:3:LYS:O	48:2p:21:VAL:HA	2.18	0.42
1:1A:191:U:H2'	1:1A:192:C:O4'	2.19	0.42
1:1A:831:A:C8	1:1A:839:G:C5	3.07	0.42
1:1A:2125:C:H1'	1:1A:2209:G:H22	1.84	0.42
12:1Q:34:LEU:HB2	12:1Q:118:LEU:HD22	2.01	0.42
18:1W:88:ARG:HB2	18:1W:92:ARG:HB3	2.00	0.42
21:1Z:125:LEU:HG	21:1Z:164:ALA:HB3	2.01	0.42
21:1Z:130:PRO:C	21:1Z:132:ASN:H	2.26	0.42
32:1a:66:G:O4'	32:1a:173:U:C4	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:299:G:O5'	32:1a:299:G:H8	2.01	0.42
32:1a:946:A:H2'	32:1a:947:G:C8	2.54	0.42
32:1a:1002:G:N2	32:1a:1004:A:O2'	2.52	0.42
32:1a:1138:G:N7	32:1a:1140:C:H1'	2.34	0.42
33:2x:6:THR:OG1	32:2a:953:G:H4'	2.18	0.42
34:1b:7:VAL:HG21	34:1b:221:LEU:HD23	2.01	0.42
34:1b:116:GLU:O	34:1b:119:GLU:HB2	2.19	0.42
34:1b:230:VAL:HG13	34:1b:231:GLU:N	2.33	0.42
35:1c:95:THR:O	35:1c:97:LYS:HG2	2.19	0.42
36:1d:25:ARG:O	36:1d:25:ARG:HG2	2.18	0.42
37:1e:82:VAL:HG21	37:1e:138:ALA:HA	2.00	0.42
41:1i:50:LEU:HD13	41:1i:56:LEU:HA	2.01	0.42
1:2A:660:G:H5'	5:2F:99:TYR:CD1	2.54	0.42
1:2A:1235:G:C6	1:2A:1236:G:N1	2.87	0.42
1:2A:1826:G:H2'	1:2A:1827:C:O4'	2.20	0.42
2:2B:11:C:O5'	2:2B:12:C:H5	2.01	0.42
3:2D:275:LYS:HZ2	3:2D:276:LYS:HA	1.83	0.42
4:2E:116:VAL:HG13	4:2E:122:PHE:CB	2.47	0.42
6:2G:11:TYR:O	6:2G:16:ARG:HG2	2.19	0.42
6:2G:145:THR:HG23	6:2G:148:MET:H	1.84	0.42
10:2O:25:LEU:HD12	10:2O:38:VAL:HG12	2.01	0.42
32:2a:306:G:O2'	32:2a:307:C:H5'	2.19	0.42
32:2a:1355:G:H2'	32:2a:1356:G:H8	1.83	0.42
34:2b:180:LEU:HD23	34:2b:180:LEU:HA	1.82	0.42
41:2i:4:TYR:CD1	41:2i:88:TYR:HA	2.55	0.42
1:1A:9:U:O2	1:1A:2641:A:N1	2.53	0.42
1:1A:275:C:O5'	1:1A:275:C:H6	2.01	0.42
1:1A:1225:C:H2'	1:1A:1226:C:C6	2.55	0.42
1:1A:1255:A:H5"	1:1A:1257:G:O4'	2.20	0.42
1:1A:2122:G:C6	1:1A:2212:G:C6	3.07	0.42
1:1A:2274:U:OP1	1:1A:2399:U:O2'	2.35	0.42
1:1A:2299:A:O2'	1:1A:2300:A:H3'	2.19	0.42
1:1A:2451:A:C5'	1:1A:2451:A:H8	2.32	0.42
2:1B:41:U:H5	6:1G:70:VAL:O	2.02	0.42
4:1E:46:ALA:HB1	4:1E:81:ILE:O	2.19	0.42
4:1E:63:LEU:HD23	4:1E:63:LEU:HA	1.87	0.42
32:1a:439:A:H2'	32:1a:441:A:O4'	2.19	0.42
32:1a:600:C:H2'	32:1a:601:C:H6	1.83	0.42
32:1a:874:G:H2'	32:1a:875:C:H6	1.84	0.42
32:1a:959:A:H2	32:1a:1221:G:N3	2.17	0.42
32:1a:1223:C:H3'	32:1a:1224:G:H5"	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1410:G:H2'	32:1a:1411:C:H6	1.84	0.42
37:1e:101:ILE:O	37:1e:120:THR:HG23	2.19	0.42
39:1g:111:ARG:HB3	39:1g:113:GLU:OE2	2.19	0.42
45:1m:4:ILE:HA	45:1m:5:ALA:HA	1.73	0.42
1:2A:705:A:C2	1:2A:727:A:H1'	2.54	0.42
1:2A:901:A:H2'	1:2A:902:C:H6	1.84	0.42
1:2A:1065:U:O2'	1:2A:1066:U:O5'	2.34	0.42
1:2A:2158:A:OP2	1:2A:2158:A:C8	2.72	0.42
1:2A:2483:C:H2'	1:2A:2484:G:O4'	2.20	0.42
5:2F:160:ASN:CG	5:2F:163:VAL:HG23	2.44	0.42
6:2G:138:GLN:HB3	6:2G:153:ARG:O	2.19	0.42
12:2Q:3:MET:HE3	21:2Z:191:VAL:HG11	2.00	0.42
26:24:6:HIS:HA	26:24:7:PRO:HD3	1.95	0.42
32:2a:518:C:C2	32:2a:530:G:C2	3.07	0.42
32:2a:587:G:N2	32:2a:754:C:OP2	2.48	0.42
32:2a:659:U:H2'	32:2a:660:G:H8	1.84	0.42
32:2a:685:G:C2	32:2a:686:U:C4	3.08	0.42
32:2a:1220:G:H1'	51:2s:52:TYR:CD2	2.54	0.42
32:2a:1245:A:H2'	32:2a:1246:C:C6	2.55	0.42
32:2a:1260:C:O5'	32:2a:1284:C:H4'	2.20	0.42
35:2c:126:ARG:C	35:2c:127:ARG:HG2	2.45	0.42
45:2m:25:ILE:HD11	45:2m:60:VAL:HG21	2.01	0.42
47:2o:15:PHE:CE1	47:2o:84:LYS:HD3	2.53	0.42
1:1A:831:A:H5'	1:1A:832:G:OP1	2.20	0.42
1:1A:1314:A:C2	1:1A:2035:A:C4	3.08	0.42
1:1A:1558:G:H2'	1:1A:1559:C:C6	2.54	0.42
1:1A:2050:U:H2'	1:1A:2051:G:O4'	2.20	0.42
1:1A:2417:G:O2'	1:1A:2423:A:N6	2.51	0.42
1:1A:2784:C:H2'	1:1A:2785:C:H6	1.83	0.42
2:1B:12:C:H2'	22:10:73:GLY:HA3	2.00	0.42
6:1G:67:LYS:HD3	26:14:5:ILE:HD12	2.02	0.42
15:1T:118:ARG:HG3	32:1a:1442(A):G:C8	2.54	0.42
16:1U:34:LYS:NZ	16:1U:37:GLU:OE1	2.27	0.42
23:11:50:ARG:HG2	23:11:59:THR:HB	2.00	0.42
32:1a:189(C):C:C5	32:1a:189(D):C:C5	3.07	0.42
32:1a:861:G:OP1	40:1h:75:ARG:NH2	2.51	0.42
32:1a:895:G:H2'	32:1a:896:C:C6	2.55	0.42
32:1a:933:G:OP2	39:1g:3:ARG:HB2	2.19	0.42
32:1a:1206:G:C4	32:1a:1207:2MG:C8	3.08	0.42
32:1a:1239:A:H62	32:1a:1299:A:H62	1.68	0.42
32:1a:1346:A:C2'	39:1g:10:ARG:HH22	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1349:A:C2	32:1a:1374:A:C5	3.07	0.42
34:1b:77:ALA:O	34:1b:81:VAL:HG13	2.20	0.42
36:1d:101:LEU:HD23	36:1d:121:VAL:HG11	1.99	0.42
40:1h:94:TYR:CE1	40:1h:132:GLU:HB2	2.54	0.42
1:2A:856:C:H3'	1:2A:856:C:C6	2.55	0.42
1:2A:1448:G:H1'	1:2A:1528:A:N1	2.34	0.42
1:2A:2177:C:C4	1:2A:2178:C:C5	3.07	0.42
1:2A:2478:A:OP2	31:29:2:LYS:NZ	2.31	0.42
4:2E:179:GLU:HG3	15:2T:9:LEU:CD2	2.49	0.42
5:2F:125:LEU:HD21	5:2F:199:TRP:CG	2.55	0.42
11:2P:132:LYS:HE2	11:2P:132:LYS:HB2	1.84	0.42
16:2U:59:ARG:O	16:2U:63:VAL:HG23	2.18	0.42
21:2Z:39:VAL:HG21	21:2Z:44:PHE:HB2	2.00	0.42
32:2a:6:G:O2'	32:2a:7:G:H5'	2.19	0.42
32:2a:458:C:C4	32:2a:474:G:N1	2.88	0.42
32:2a:508:C:OP1	36:2d:209:ARG:NH2	2.52	0.42
32:2a:949:A:H2'	32:2a:950:U:O4'	2.19	0.42
32:2a:1058:G:N2	42:2j:53:PRO:HG3	2.33	0.42
35:2c:180:ALA:HB1	35:2c:203:PHE:HE1	1.84	0.42
36:2d:110:PHE:N	36:2d:110:PHE:CD1	2.86	0.42
41:2i:45:ALA:HA	41:2i:48:GLU:HB2	2.01	0.42
41:2i:85:LEU:O	41:2i:89:ASN:N	2.52	0.42
47:2o:7:GLU:O	47:2o:11:VAL:HG23	2.19	0.42
1:1A:2372:A:H2'	1:1A:2373:A:O4'	2.20	0.42
2:1B:78:A:C2	2:1B:100:A:C4	3.07	0.42
4:1E:16:ARG:O	4:1E:19:ARG:HB2	2.19	0.42
8:1I:132:PRO:HD2	8:1I:136:VAL:O	2.20	0.42
11:1P:121:LYS:O	11:1P:123:LEU:N	2.53	0.42
16:1U:59:ARG:CB	16:1U:59:ARG:HH11	2.32	0.42
26:14:56:VAL:HG23	26:14:60:GLN:HE21	1.83	0.42
32:1a:308:C:H2'	32:1a:309:G:H8	1.85	0.42
32:1a:364:A:H2'	32:1a:365:U:O2	2.19	0.42
32:1a:1127:G:H2'	32:1a:1128:C:C6	2.54	0.42
36:1d:82:ALA:C	36:1d:89:THR:HG23	2.45	0.42
41:1i:43:ALA:C	41:1i:45:ALA:N	2.77	0.42
1:2A:330:A:HO2'	1:2A:331:A:H8	1.62	0.42
1:2A:919:G:N2	1:2A:2269:A:OP2	2.50	0.42
1:2A:1876:A:H2'	1:2A:1877:A:C8	2.54	0.42
1:2A:2119:A:C6	1:2A:2170:A:C5	3.07	0.42
2:2B:28:C:H2'	2:2B:29:A:O4'	2.20	0.42
2:2B:40:U:O2	2:2B:43:C:H3'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:38:LYS:HA	3:2D:38:LYS:HD2	1.95	0.42
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.72	0.42
7:2H:27:LYS:HZ2	7:2H:32:GLU:CB	2.31	0.42
8:2I:69:LYS:HE3	8:2I:73:GLU:OE2	2.19	0.42
32:2a:417:C:C2	32:2a:418:C:C5	3.07	0.42
32:2a:429:U:O2	32:2a:430:A:C8	2.73	0.42
32:2a:451:A:C6	32:2a:481:G:N7	2.88	0.42
32:2a:501:C:OP1	44:2l:117:ARG:NH2	2.50	0.42
32:2a:932:C:H2'	32:2a:933:G:H8	1.85	0.42
32:2a:1077:G:N2	32:2a:1081:G:C4	2.87	0.42
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.83	0.42
32:2a:1187:G:H4'	41:2i:111:ARG:HH11	1.85	0.42
32:2a:1220:G:H2'	32:2a:1221:G:O4'	2.19	0.42
36:2d:36:ARG:HB3	36:2d:38:TYR:CE2	2.54	0.42
40:2h:73:ASP:OD1	40:2h:75:ARG:HG3	2.20	0.42
42:2j:33:GLN:H	42:2j:76:ASN:H	1.67	0.42
1:1A:11:G:C2'	1:1A:12:U:H5"	2.33	0.42
1:1A:354:A:O2'	1:1A:355:A:C8	2.69	0.42
1:1A:705:C:H2'	1:1A:706:C:C6	2.54	0.42
1:1A:1091:A:H1'	1:1A:1093:G:C4	2.54	0.42
1:1A:2073:A:H5'	1:1A:2590:G:O4'	2.19	0.42
1:1A:2138:G:C5	1:1A:2188:G:N2	2.87	0.42
11:1P:112:LEU:HD13	11:1P:127:ALA:HB2	2.02	0.42
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.52	0.42
26:14:18:CYS:HB3	26:14:39:CYS:HB3	2.01	0.42
26:14:40:HIS:O	26:14:44:THR:HG23	2.19	0.42
32:1a:344:A:O5'	32:1a:345:C:H5	2.03	0.42
32:1a:437:U:O2'	36:1d:125:HIS:HE1	2.03	0.42
32:1a:1157:A:H4'	32:1a:1158:C:O4'	2.19	0.42
32:1a:1223:C:H2'	59:1a:3337:HOH:O	2.18	0.42
35:1c:39:ILE:HG21	35:1c:57:ILE:HD11	2.02	0.42
36:1d:122:ARG:HA	36:1d:122:ARG:HD2	1.87	0.42
38:1f:15:ASP:C	38:1f:15:ASP:OD1	2.62	0.42
42:1j:78:ASN:O	42:1j:80:LYS:N	2.52	0.42
1:2A:1069:A:H5'	1:2A:1096:A:H5'	2.01	0.42
1:2A:2130:U:H2'	1:2A:2158:A:N1	2.35	0.42
1:2A:2271:G:OP1	22:20:18:ALA:HB1	2.19	0.42
5:2F:184:TYR:CD2	5:2F:188:ARG:HD2	2.54	0.42
8:2I:29:TYR:CD2	8:2I:30:LEU:HD23	2.51	0.42
9:2N:51:PHE:CZ	9:2N:119:ARG:HD2	2.55	0.42
13:2R:83:ILE:HG22	13:2R:87:TYR:HE2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:2U:58:ARG:O	16:2U:62:ILE:HG13	2.19	0.42
17:2V:53:GLU:H	17:2V:53:GLU:HG2	1.56	0.42
27:25:35:GLU:HG3	27:25:51:TYR:CD1	2.55	0.42
32:2a:435:C:H2'	32:2a:436:C:H6	1.84	0.42
32:2a:554:C:H2'	32:2a:555:C:C6	2.55	0.42
32:2a:682:G:N2	32:2a:709:G:C4	2.88	0.42
32:2a:1133:G:H2'	32:2a:1134:G:O4'	2.20	0.42
32:2a:1190:G:H5'	35:2c:176:HIS:CE1	2.55	0.42
32:2a:1221:G:H5'	51:2s:36:ARG:HD2	2.02	0.42
32:2a:1515:C:H2'	32:2a:1516:G:H8	1.83	0.42
35:2c:79:ARG:O	35:2c:82:GLU:HB2	2.18	0.42
1:1A:957:A:H2'	12:1Q:9:TYR:OH	2.20	0.42
1:1A:2137:G:C4'	1:1A:2189:U:H4'	2.47	0.42
1:1A:2202:U:N3	1:1A:2203:G:C5	2.88	0.42
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.54	0.42
24:12:29:LYS:HG3	24:12:57:ILE:HD13	2.01	0.42
26:14:56:VAL:HG23	26:14:60:GLN:HG2	2.01	0.42
32:1a:70:G:H2'	32:1a:71:C:C6	2.54	0.42
32:1a:358:U:C2	32:1a:359:U:C6	3.07	0.42
32:1a:452:A:H4'	48:1p:72:ARG:NH1	2.35	0.42
32:1a:1014:A:H4'	51:1s:14:HIS:NE2	2.34	0.42
32:1a:1120:G:C6	32:1a:1121:U:C4	3.07	0.42
32:1a:1503:A:H5'	32:1a:1531:A:H1'	2.00	0.42
34:1b:63:MET:HB3	34:1b:63:MET:HE2	1.71	0.42
34:1b:180:LEU:HA	34:1b:180:LEU:HD23	1.62	0.42
35:1c:12:LEU:O	35:1c:14:ILE:HD12	2.20	0.42
35:1c:43:LEU:O	35:1c:47:LEU:HB2	2.20	0.42
37:1e:110:LEU:HB3	37:1e:115:VAL:HB	2.02	0.42
39:1g:23:VAL:O	39:1g:27:ILE:HG12	2.19	0.42
39:1g:75:VAL:HA	39:1g:87:VAL:O	2.19	0.42
41:1i:127:LYS:HB2	41:1i:127:LYS:HE3	1.79	0.42
1:2A:98:G:H5"	24:22:3:LEU:HG	2.00	0.42
1:2A:328:U:H4'	20:2Y:68:HIS:CE1	2.54	0.42
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.28	0.42
1:2A:863:A:H2'	1:2A:864:G:H8	1.84	0.42
1:2A:900:A:C4	1:2A:901:A:C8	3.07	0.42
1:2A:1056:G:O5'	1:2A:1056:G:H8	2.03	0.42
1:2A:1102:C:H2'	1:2A:1103:A:O4'	2.19	0.42
1:2A:1171:G:N2	1:2A:1179:C:C2	2.88	0.42
1:2A:1478:G:N2	1:2A:1514:U:C2	2.88	0.42
1:2A:2161:C:H2'	1:2A:2162:G:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2196:C:O2'	1:2A:2197:U:H5'	2.20	0.42
3:2D:213:ARG:HA	3:2D:213:ARG:HD2	1.81	0.42
13:2R:38:VAL:HG22	13:2R:112:ALA:HB2	2.01	0.42
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.20	0.42
21:2Z:10:ARG:HH11	21:2Z:26:GLY:H	1.67	0.42
32:2a:132:C:H2'	32:2a:133:U:O4'	2.20	0.42
32:2a:415:A:H2'	32:2a:416:G:O4'	2.20	0.42
32:2a:1153:C:N3	32:2a:1154:G:C8	2.87	0.42
34:2b:20:GLU:HB2	34:2b:190:THR:OG1	2.20	0.42
34:2b:215:LEU:HD23	34:2b:215:LEU:HA	1.77	0.42
36:2d:78:LEU:HD23	36:2d:78:LEU:HA	1.81	0.42
37:2e:106:PRO:O	37:2e:110:LEU:HG	2.19	0.42
38:2f:63:TYR:O	38:2f:65:VAL:HG13	2.19	0.42
40:2h:9:MET:SD	40:2h:32:LYS:HB3	2.60	0.42
42:2j:47:PHE:CE1	46:2n:37:PHE:HE2	2.37	0.42
45:2m:44:ARG:HB2	45:2m:47:ASP:OD2	2.19	0.42
1:1A:116:A:H3'	1:1A:117:A:C5'	2.49	0.42
1:1A:595:A:OP2	17:1V:78:LYS:NZ	2.50	0.42
1:1A:1177:G:O6	1:1A:2062:C:H1'	2.20	0.42
1:1A:1766:G:C8	1:1A:1770:A:N6	2.84	0.42
1:1A:1845:G:H4'	3:1D:51:VAL:HG21	2.02	0.42
6:1G:12:TYR:HA	6:1G:16:ARG:HG3	2.02	0.42
6:1G:77:ILE:HB	6:1G:82:LEU:HB2	2.01	0.42
6:1G:120:LEU:HD22	6:1G:133:LEU:HD22	2.00	0.42
8:1I:135:GLU:C	8:1I:137:PRO:HD3	2.44	0.42
10:1O:12:ASP:OD1	10:1O:14:THR:HG23	2.19	0.42
12:1Q:55:VAL:HG12	12:1Q:64:ILE:HD12	2.02	0.42
20:1Y:90:LEU:HD12	20:1Y:90:LEU:HA	1.82	0.42
32:1a:258:G:C2	32:1a:259:G:C8	3.08	0.42
32:1a:262:A:H5'	52:1t:73:HIS:CG	2.55	0.42
32:1a:374:A:C6	32:1a:375:U:C4	3.08	0.42
32:1a:448:A:OP2	32:1a:485:G:N1	2.31	0.42
32:1a:626:U:H5"	48:1p:38:TYR:CD2	2.55	0.42
32:1a:939:G:C5	32:1a:940:C:C5	3.07	0.42
32:1a:1057:G:H2'	32:1a:1058:G:O4'	2.20	0.42
32:1a:1127:G:H5'	32:1a:1280:A:O2'	2.19	0.42
32:1a:1287:A:H2	32:1a:1353:G:N3	2.17	0.42
36:1d:8:VAL:HG22	36:1d:21:LEU:CD1	2.50	0.42
36:1d:204:ILE:H	36:1d:204:ILE:HG12	1.66	0.42
37:1e:51:VAL:O	37:1e:55:VAL:HG23	2.20	0.42
41:1i:46:ALA:HA	41:1i:78:LYS:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1l:24:VAL:N	44:1l:25:PRO:HD3	2.35	0.42
44:1l:28:LYS:HE2	44:1l:64:TYR:HE2	1.84	0.42
44:1l:90:VAL:O	44:1l:92:0TD:N	2.52	0.42
48:1p:47:ASP:C	48:1p:49:LEU:H	2.28	0.42
48:1p:49:LEU:HD12	48:1p:49:LEU:HA	1.77	0.42
50:1r:24:ALA:C	50:1r:26:LEU:H	2.28	0.42
1:2A:1056:G:O2'	1:2A:1086:A:H1'	2.19	0.42
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	2.01	0.42
1:2A:1707:G:H2'	1:2A:1708:C:C6	2.55	0.42
1:2A:1739:U:HO2'	1:2A:1740:G:H8	1.66	0.42
1:2A:2031:A:C6	1:2A:2498:C:H1'	2.55	0.42
1:2A:2163:C:H5'	1:2A:2172:U:OP2	2.20	0.42
1:2A:2307:G:H8	1:2A:2307:G:OP1	2.02	0.42
1:2A:2585:U:C5	54:2y:5:SER:HB2	2.54	0.42
1:2A:2641:G:H5"	9:2N:76:SER:HB3	2.01	0.42
5:2F:33:LEU:HB3	11:2P:6:LEU:HD21	2.02	0.42
6:2G:10:LYS:O	6:2G:15:VAL:HG23	2.19	0.42
10:2O:87:ILE:HD12	10:2O:91:LEU:HA	2.02	0.42
21:2Z:40:ASP:OD2	21:2Z:42:VAL:HG13	2.20	0.42
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.54	0.42
32:2a:942:G:C2	32:2a:1342:C:C2	3.07	0.42
32:2a:1009:G:H2'	32:2a:1010:G:H8	1.84	0.42
32:2a:1253:G:H2'	32:2a:1254:C:C6	2.54	0.42
35:2c:47:LEU:HD13	35:2c:68:VAL:HG11	2.00	0.42
35:2c:77:ILE:O	35:2c:83:ARG:N	2.53	0.42
37:2e:66:MET:HE3	37:2e:66:MET:HB3	1.78	0.42
42:2j:92:THR:C	42:2j:94:VAL:H	2.28	0.42
1:1A:861:C:H4'	1:1A:1270:C:O2	2.20	0.42
2:1B:60:C:C2	2:1B:61:G:C8	3.07	0.42
8:1I:27:ARG:HD3	23:11:71:TYR:CE2	2.55	0.42
21:1Z:163:LEU:HA	21:1Z:163:LEU:HD12	1.80	0.42
30:18:31:HIS:NE2	30:18:32:LEU:HD22	2.35	0.42
32:1a:153:C:H2'	32:1a:154:C:C6	2.54	0.42
32:1a:445:G:C2	32:1a:446:G:C4	3.08	0.42
32:1a:487:A:H2'	32:1a:488:C:O4'	2.19	0.42
35:1c:182:ILE:HA	35:1c:202:ILE:O	2.20	0.42
36:1d:119:GLN:HG3	36:1d:123:HIS:CD2	2.54	0.42
36:1d:172:PRO:HB2	36:1d:187:ARG:NH2	2.35	0.42
44:1l:27:LEU:HA	44:1l:27:LEU:HD12	1.70	0.42
1:2A:11:G:C8	1:2A:11:G:O5'	2.71	0.42
1:2A:1071:G:C8	1:2A:1071:G:H3'	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1154:G:O5'	1:2A:1154:G:H8	2.02	0.42
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.20	0.42
1:2A:2101:G:C2	1:2A:2102:U:H1'	2.55	0.42
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	2.01	0.42
3:2D:221:VAL:HG22	3:2D:226:MET:HE3	2.01	0.42
4:2E:14:ILE:HB	15:2T:14:TYR:CZ	2.54	0.42
7:2H:35:VAL:O	7:2H:37:VAL:HG23	2.20	0.42
9:2N:119:ARG:HG3	9:2N:119:ARG:NH1	2.35	0.42
12:2Q:73:PRO:HB3	12:2Q:93:TYR:CE1	2.55	0.42
15:2T:53:ARG:CZ	15:2T:53:ARG:HB3	2.49	0.42
17:2V:38:LEU:HD23	17:2V:50:PRO:O	2.20	0.42
32:2a:410:G:H2'	32:2a:429:U:C5	2.55	0.42
32:2a:981:U:H5'	46:2n:21:TYR:CZ	2.54	0.42
32:2a:1164:G:C6	32:2a:1165:C:C4	3.07	0.42
32:2a:1215:G:C5	32:2a:1216:G:C8	3.08	0.42
34:2b:209:ARG:HD3	34:2b:209:ARG:HA	1.87	0.42
34:2b:213:LEU:HD23	34:2b:217:ARG:HG3	2.02	0.42
36:2d:165:MET:HB3	36:2d:165:MET:HE3	1.80	0.42
43:2k:20:TYR:CE1	43:2k:83:ILE:HD12	2.54	0.42
1:1A:88:G:OP2	1:1A:89:U:O2'	2.33	0.42
1:1A:858:U:H2'	11:1P:21:ARG:HA	2.02	0.42
1:1A:1149:A:OP2	1:1A:1150:C:H5	2.03	0.42
1:1A:1456:G:H2'	1:1A:1457:C:H6	1.85	0.42
1:1A:1476:C:H2'	1:1A:1477:U:H6	1.83	0.42
1:1A:1529:G:C5	1:1A:1553:A:C2	3.08	0.42
1:1A:2156:A:H62	1:1A:2178:G:H2'	1.84	0.42
1:1A:2764:G:H4'	7:1H:4:ILE:HD11	2.02	0.42
5:1F:184:TYR:O	5:1F:188:ARG:HG3	2.20	0.42
7:1H:90:LYS:NZ	7:1H:159:GLU:OE1	2.42	0.42
27:15:8:LYS:O	27:15:9:LYS:HD2	2.19	0.42
32:1a:193:C:C2	32:1a:194:C:C5	3.08	0.42
32:1a:987:G:H1	32:1a:1218:C:H42	1.68	0.42
32:1a:1160:G:C6	32:1a:1161:C:C5	3.07	0.42
34:1b:47:THR:HA	34:1b:202:PRO:HG2	2.01	0.42
35:1c:153:VAL:HG22	35:1c:198:VAL:HG13	2.02	0.42
37:1e:110:LEU:CD1	37:1e:118:ILE:HG21	2.50	0.42
40:1h:86:ILE:HD12	40:1h:86:ILE:HG23	1.82	0.42
49:1q:62:SER:OG	49:1q:72:ARG:HG3	2.20	0.42
52:1t:100:ILE:HB	52:1t:101:GLY:H	1.68	0.42
1:2A:218:A:C2	1:2A:235:U:H4'	2.55	0.42
1:2A:359:A:H2'	1:2A:360:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:760:G:H2'	1:2A:761:A:O4'	2.19	0.42
1:2A:1102:C:H2'	1:2A:1103:A:H8	1.85	0.42
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.19	0.42
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.38	0.42
1:2A:2203:U:O2'	1:2A:2205:C:H5'	2.19	0.42
4:2E:9:VAL:HB	15:2T:3:ARG:HG2	2.02	0.42
8:2I:9:LEU:O	8:2I:10:GLU:C	2.62	0.42
10:2O:63:VAL:HB	10:2O:106:LEU:HD11	2.02	0.42
32:2a:432:A:C8	32:2a:433:C:C5	3.08	0.42
32:2a:447:G:O6	32:2a:485:G:O2'	2.30	0.42
32:2a:975:A:C8	32:2a:1357:A:H2	2.37	0.42
32:2a:987:G:N2	32:2a:1219:U:O2	2.53	0.42
32:2a:1092:A:C2	32:2a:1183:A:C6	3.07	0.42
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.84	0.42
32:2a:1133:G:C4	32:2a:1134:G:C8	3.08	0.42
37:2e:11:ILE:CG2	37:2e:105:VAL:HG22	2.50	0.42
51:2s:37:ARG:O	51:2s:70:LYS:HD2	2.19	0.42
1:1A:944:C:H2'	1:1A:945:A:O4'	2.20	0.41
1:1A:1138:C:N3	1:1A:1145:G:N2	2.59	0.41
1:1A:1367:A:H2'	1:1A:1368:A:O4'	2.20	0.41
1:1A:1400:A:H2'	1:1A:1401:G:O4'	2.20	0.41
1:1A:2188:G:N7	1:1A:2189:U:C2	2.88	0.41
1:1A:2430:A:H2'	1:1A:2431:U:O4'	2.20	0.41
1:1A:2576:A:C2	1:1A:2659:U:H4'	2.55	0.41
20:1Y:43:ASN:HD22	20:1Y:43:ASN:HA	1.61	0.41
32:1a:101:A:C6	32:1a:102:G:C5	3.08	0.41
32:1a:128:G:O2'	49:1q:3:LYS:HE2	2.19	0.41
32:1a:250:A:H4'	32:1a:251:G:O5'	2.20	0.41
32:1a:266:G:H2'	32:1a:266:G:N3	2.35	0.41
32:1a:673:G:N2	32:1a:674:G:C2	2.88	0.41
32:1a:707:C:H2'	32:1a:708:C:C6	2.54	0.41
32:1a:828:A:H2'	32:1a:829:G:O4'	2.19	0.41
32:1a:1162:C:H2'	32:1a:1163:C:C6	2.55	0.41
32:1a:1206:G:C5	32:1a:1207:2MG:N7	2.88	0.41
32:1a:1260:C:OP1	32:1a:1284:C:O2'	2.27	0.41
32:1a:1286:A:N3	53:1u:18:TYR:OH	2.52	0.41
34:1b:87:ARG:HE	34:1b:87:ARG:HB3	1.68	0.41
34:1b:106:LYS:H	34:1b:106:LYS:NZ	2.18	0.41
36:1d:150:GLU:C	36:1d:152:SER:H	2.28	0.41
38:1f:2:ARG:CZ	38:1f:69:GLU:HG2	2.50	0.41
38:1f:30:LEU:HD23	38:1f:30:LEU:HA	1.75	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1f:76:ALA:HB1	38:1f:80:ARG:NH2	2.35	0.41
45:1m:9:ILE:HG21	45:1m:22:ILE:HD11	2.02	0.41
45:1m:27:LYS:O	45:1m:30:ALA:HB3	2.20	0.41
1:2A:106:C:H1'	20:2Y:1:MET:HG3	2.00	0.41
1:2A:373:U:H2'	1:2A:374:A:H8	1.84	0.41
1:2A:1021:A:OP2	9:2N:65:LYS:NZ	2.53	0.41
1:2A:1131:G:C2	1:2A:1132:A:C4	3.08	0.41
1:2A:1790:C:H2'	1:2A:1791:A:C5	2.55	0.41
1:2A:1919:A:O3'	32:2a:1517:G:H1'	2.19	0.41
1:2A:2103:C:H1'	1:2A:2187:G:H22	1.85	0.41
1:2A:2119:A:C2	1:2A:2170:A:H2'	2.55	0.41
1:2A:2275:C:H5'	1:2A:2275:C:C6	2.54	0.41
2:2B:65:C:N4	2:2B:109:C:C2	2.88	0.41
2:2B:75:G:H22	21:2Z:73:GLN:HE21	1.65	0.41
3:2D:24:ILE:HD13	3:2D:84:TYR:HB2	2.02	0.41
5:2F:161:GLU:HG2	5:2F:164:ARG:NH2	2.35	0.41
10:2O:7:TYR:CZ	10:2O:44:LYS:HG3	2.54	0.41
10:2O:22:ILE:HD13	10:2O:22:ILE:HG21	1.85	0.41
20:2Y:2:ARG:HG2	20:2Y:3:VAL:O	2.20	0.41
20:2Y:73:ARG:HH11	20:2Y:73:ARG:CB	2.33	0.41
21:2Z:131:ARG:HH11	21:2Z:131:ARG:HG3	1.84	0.41
26:24:24:THR:OG1	26:24:25:TYR:N	2.50	0.41
32:2a:173:U:C2	32:2a:197:A:N1	2.88	0.41
32:2a:191:G:C6	32:2a:192:U:C4	3.07	0.41
32:2a:499:A:H4'	32:2a:500:G:OP1	2.19	0.41
32:2a:691:G:H2'	32:2a:692:U:C6	2.55	0.41
32:2a:723:U:H6	32:2a:723:U:H2'	1.70	0.41
32:2a:976:G:C8	32:2a:1358:U:C2	3.07	0.41
32:2a:1067:A:N3	32:2a:1068:G:H1'	2.35	0.41
32:2a:1125:U:C2	42:2j:38:ILE:HD12	2.55	0.41
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.54	0.41
34:2b:78:GLN:NE2	34:2b:94:ASN:O	2.53	0.41
35:2c:124:ILE:HD12	35:2c:196:LEU:HD12	2.01	0.41
45:2m:30:ALA:O	45:2m:34:LEU:HG	2.20	0.41
48:2p:28:ARG:HH11	48:2p:29:ASP:CG	2.27	0.41
1:1A:142:G:H1'	19:1X:37:THR:CG2	2.50	0.41
1:1A:799:A:H3'	29:17:1:MET:HE1	2.02	0.41
7:1H:3:ARG:CZ	7:1H:5:GLY:H	2.33	0.41
10:1O:49:ARG:NH1	32:1a:1422:G:O3'	2.52	0.41
11:1P:133:SER:O	11:1P:137:LYS:HG3	2.20	0.41
27:15:35:GLU:HG2	27:15:51:TYR:CD1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:949:A:C2	32:1a:1233:G:N3	2.88	0.41
32:1a:1180:A:OP1	41:1i:103:THR:HB	2.20	0.41
39:1g:146:GLU:O	39:1g:149:ARG:HB2	2.20	0.41
45:1m:11:ARG:C	45:1m:13:LYS:H	2.28	0.41
1:2A:301:G:H1'	1:2A:302:C:C6	2.54	0.41
1:2A:320:A:N6	5:2F:140:LEU:HD21	2.35	0.41
1:2A:881:G:C2	1:2A:882:G:C4	3.08	0.41
1:2A:2111:C:H2'	1:2A:2145:C:O2	2.20	0.41
1:2A:2298:A:H62	1:2A:2318:G:H8	1.65	0.41
2:2B:59:A:H2'	2:2B:60:C:O4'	2.20	0.41
3:2D:182:LEU:HD23	3:2D:182:LEU:HA	1.91	0.41
4:2E:48:GLN:HA	4:2E:80:GLU:HA	2.03	0.41
7:2H:72:ILE:O	7:2H:75:ALA:N	2.54	0.41
8:2I:121:LYS:HD2	8:2I:121:LYS:HA	1.77	0.41
10:2O:68:GLU:O	10:2O:68:GLU:HG2	2.18	0.41
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.51	0.41
19:2X:31:HIS:HA	19:2X:32:PRO:HD3	1.81	0.41
30:28:29:LYS:HD3	30:28:44:LYS:O	2.20	0.41
32:2a:26:A:H5"	32:2a:27:G:OP2	2.20	0.41
32:2a:227:G:H2'	32:2a:228:A:C8	2.55	0.41
32:2a:255:G:O3'	49:2q:17:LYS:HD2	2.20	0.41
32:2a:510:A:H5"	32:2a:511:C:P	2.60	0.41
32:2a:533:A:O2'	32:2a:535:A:OP2	2.34	0.41
32:2a:748:C:H4'	32:2a:749:C:O5'	2.20	0.41
32:2a:756:C:H2'	32:2a:757:U:O4'	2.20	0.41
32:2a:940:C:O2'	32:2a:941:G:H5'	2.19	0.41
32:2a:1358:U:OP2	32:2a:1359:C:H5	2.04	0.41
35:2c:204:LEU:HA	35:2c:204:LEU:HD23	1.85	0.41
37:2e:137:GLU:O	37:2e:141:GLN:HG3	2.20	0.41
43:2k:65:ALA:HB3	43:2k:97:ALA:HB3	2.02	0.41
44:2l:47:LYS:H	44:2l:47:LYS:HG3	1.64	0.41
48:2p:49:LEU:HD12	48:2p:49:LEU:HA	1.90	0.41
49:2q:10:VAL:HG22	49:2q:21:VAL:HG22	2.02	0.41
1:1A:173:C:H2'	1:1A:174:U:H6	1.83	0.41
1:1A:886:U:H1'	1:1A:1236:G:H1'	2.01	0.41
1:1A:903:C:H5'	22:10:27:GLU:OE2	2.20	0.41
1:1A:1110:C:OP2	1:1A:1111:U:H5'	2.21	0.41
1:1A:1233:U:C4'	17:1V:79:VAL:HG22	2.50	0.41
1:1A:1314:A:H2'	1:1A:1315:A:O4'	2.20	0.41
1:1A:2162:C:C2	1:1A:2174:G:C2	3.08	0.41
2:1B:42:C:OP2	26:14:2:LYS:NZ	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:95:VAL:HG22	11:1P:125:VAL:HB	2.02	0.41
12:1Q:1:MET:HE2	12:1Q:1:MET:HB3	1.85	0.41
16:1U:17:ILE:HG23	16:1U:39:LEU:HD12	2.03	0.41
32:1a:198:G:H2'	32:1a:199:G:C8	2.56	0.41
32:1a:589:C:H42	32:1a:650:G:H1	1.68	0.41
32:1a:620:C:H2'	32:1a:621:A:O4'	2.21	0.41
32:1a:1084:G:C5	32:1a:1085:U:C4	3.09	0.41
32:1a:1240:U:H4'	32:1a:1241:G:OP2	2.20	0.41
32:1a:1311:G:N2	32:1a:1327:C:C2	2.88	0.41
32:1a:1346:A:H2'	39:1g:10:ARG:HH22	1.85	0.41
32:1a:1360:A:C2'	32:1a:1361:G:H5'	2.51	0.41
34:1b:98:LEU:HB2	34:1b:101:MET:HE3	2.02	0.41
36:1d:166:LYS:HB2	36:1d:168:ARG:HH22	1.85	0.41
39:1g:74:GLU:HG2	39:1g:91:VAL:HG22	2.02	0.41
42:1j:37:PRO:CA	42:1j:72:VAL:HG12	2.45	0.41
44:1l:33:ARG:O	44:1l:85:ILE:HG12	2.21	0.41
49:1q:10:VAL:HG22	49:1q:21:VAL:HG22	2.01	0.41
1:2A:361:G:O2'	1:2A:362:U:H5'	2.21	0.41
1:2A:601:C:O2	1:2A:605:C:H4'	2.20	0.41
1:2A:686:G:H1	29:27:16:HIS:CD2	2.36	0.41
1:2A:956:G:OP2	12:2Q:14:ARG:NH2	2.53	0.41
1:2A:1178:C:H2'	1:2A:1179:C:H6	1.84	0.41
1:2A:2206:G:H8	1:2A:2207:G:N7	2.17	0.41
1:2A:2292:C:H2'	1:2A:2293:C:H6	1.85	0.41
2:2B:33:G:O2'	2:2B:34:U:H5'	2.20	0.41
6:2G:41:GLN:HB3	6:2G:43:LEU:CD1	2.46	0.41
7:2H:11:VAL:HG11	59:2H:301:HOH:O	2.20	0.41
12:2Q:118:LEU:HD23	12:2Q:118:LEU:HA	1.73	0.41
13:2R:97:VAL:CG2	13:2R:114:VAL:HG13	2.49	0.41
14:2S:89:ARG:O	14:2S:90:GLY:C	2.63	0.41
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.21	0.41
15:2T:61:PHE:CE2	15:2T:76:PHE:HB2	2.56	0.41
16:2U:76:TYR:CE2	16:2U:80:ILE:HG13	2.55	0.41
17:2V:30:GLY:N	17:2V:61:VAL:HG23	2.35	0.41
32:2a:91:C:H2'	32:2a:92:C:O4'	2.19	0.41
32:2a:142:G:O2'	32:2a:143:A:H5'	2.21	0.41
32:2a:691:G:H1'	32:2a:696:A:N6	2.35	0.41
32:2a:757:U:H2'	32:2a:758:G:O4'	2.20	0.41
32:2a:1133:G:H1	32:2a:1141:C:H42	1.67	0.41
32:2a:1155:G:H2'	32:2a:1156:G:C8	2.55	0.41
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2b:16:HIS:ND1	34:2b:17:PHE:O	2.53	0.41
34:2b:54:THR:HG23	34:2b:199:TYR:HB3	2.01	0.41
34:2b:155:LEU:HD11	34:2b:159:PRO:HG3	2.02	0.41
34:2b:179:LYS:HA	40:2h:72:PRO:HG3	2.02	0.41
43:2k:86:GLY:N	43:2k:112:THR:OG1	2.39	0.41
1:1A:160:G:H2'	1:1A:161:C:C6	2.55	0.41
1:1A:240:A:H2'	1:1A:241:G:O4'	2.21	0.41
1:1A:270:C:O5'	1:1A:270:C:H6	2.03	0.41
1:1A:999:G:H5"	12:1Q:13:GLN:HB3	2.03	0.41
1:1A:1834:A:H2'	1:1A:1835:C:O4'	2.20	0.41
1:1A:2168:C:H1'	1:1A:2169:G:N7	2.36	0.41
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.45	0.41
12:1Q:135:ASP:O	12:1Q:139:GLU:HG3	2.20	0.41
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.21	0.41
19:1X:11:PRO:HD3	24:12:37:PHE:CE2	2.55	0.41
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.55	0.41
28:16:38:LYS:O	28:16:46:HIS:HA	2.20	0.41
32:1a:165:C:H2'	32:1a:166:G:O4'	2.21	0.41
32:1a:684:A:N6	32:1a:685:G:C6	2.88	0.41
32:1a:963:G:H4'	59:1a:3635:HOH:O	2.19	0.41
32:1a:1002:G:O6	32:1a:1003:G:N2	2.54	0.41
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.20	0.41
35:1c:150:LYS:O	35:1c:201:TYR:HB2	2.20	0.41
37:1e:69:VAL:HA	37:1e:70:PRO:HD3	1.68	0.41
45:1m:45:VAL:C	45:1m:47:ASP:H	2.28	0.41
1:2A:56:A:H2'	1:2A:57:C:O4'	2.20	0.41
1:2A:784:A:C8	1:2A:792:G:C5	3.08	0.41
1:2A:872:A:H2'	1:2A:873:G:O4'	2.20	0.41
1:2A:1509(B):A:H2'	1:2A:1510:G:H8	1.84	0.41
1:2A:1525:G:C2	1:2A:1526:G:C4	3.08	0.41
1:2A:1645:G:H5"	1:2A:1646:C:H5'	2.02	0.41
1:2A:1711:C:C2	1:2A:1748:G:C2	3.08	0.41
1:2A:2134:A:OP2	1:2A:2157:G:H1'	2.20	0.41
1:2A:2143:C:H2'	1:2A:2144:U:O4'	2.20	0.41
1:2A:2503:2MA:O2'	1:2A:2505:G:OP2	2.27	0.41
5:2F:9:ILE:CG2	5:2F:125:LEU:HD12	2.50	0.41
9:2N:14:VAL:HG11	9:2N:138:LEU:HD12	2.03	0.41
26:24:59:PHE:HA	26:24:60:GLN:C	2.44	0.41
28:26:9:LEU:HA	28:26:54:ILE:HB	2.01	0.41
32:2a:273:A:N6	32:2a:274:A:C6	2.88	0.41
32:2a:609:A:H5"	48:2p:18:ARG:HH22	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1005:A:H4'	32:2a:1037:C:O2'	2.20	0.41
32:2a:1129:C:C1'	32:2a:1146:A:H61	2.32	0.41
32:2a:1159:U:C5	32:2a:1182:G:C4	3.08	0.41
46:2n:6:LEU:C	46:2n:8:GLU:N	2.76	0.41
1:1A:541:C:OP1	27:15:13:LYS:NZ	2.42	0.41
1:1A:637:U:H2'	1:1A:638:U:O4'	2.21	0.41
1:1A:1501:U:O2'	1:1A:1502:G:N7	2.44	0.41
1:1A:1874:C:H5'	3:1D:253:GLN:HE22	1.82	0.41
1:1A:2887:G:O2'	1:1A:2888:U:H5'	2.20	0.41
3:1D:108:PRO:HG3	3:1D:143:HIS:HE1	1.82	0.41
6:1G:59:GLU:OE2	6:1G:138:GLN:NE2	2.35	0.41
14:1S:41:ASP:O	14:1S:45:GLY:N	2.53	0.41
21:1Z:150:LEU:HB3	21:1Z:171:ILE:HD11	2.02	0.41
32:1a:448:A:C4	32:1a:487:A:C2	3.09	0.41
32:1a:763:G:H2'	32:1a:764:C:C6	2.55	0.41
32:1a:833:U:H2'	32:1a:834:C:H6	1.85	0.41
32:1a:910:C:H5"	44:1l:97:ARG:NH2	2.35	0.41
32:1a:1149:C:H2'	32:1a:1150:U:O4'	2.20	0.41
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.86	0.41
32:1a:1353:G:H2'	32:1a:1354:C:C6	2.55	0.41
32:1a:1402:4OC:H2'	32:1a:1403:C:O4'	2.20	0.41
33:2x:94:ALA:HB1	32:2a:926:G:O2'	2.20	0.41
39:1g:54:THR:O	39:1g:56:GLN:N	2.47	0.41
40:1h:75:ARG:HA	40:1h:76:PRO:HD2	1.91	0.41
40:1h:87:SER:HA	40:1h:93:VAL:HG23	2.02	0.41
51:1s:52:TYR:HA	51:1s:56:GLN:O	2.20	0.41
1:2A:623:G:C6	1:2A:624:C:C4	3.09	0.41
1:2A:637:A:H8	11:2P:117:GLU:HG3	1.86	0.41
1:2A:775:G:C4	1:2A:794:G:C8	3.09	0.41
1:2A:1762:A:H2'	59:2A:5240:HOH:O	2.19	0.41
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	2.02	0.41
7:2H:27:LYS:HG2	7:2H:32:GLU:HB2	2.02	0.41
14:2S:7:TYR:CZ	14:2S:91:PRO:HG3	2.56	0.41
32:2a:9:G:H2'	32:2a:10:A:C8	2.55	0.41
32:2a:722:A:H2'	32:2a:724:G:C8	2.55	0.41
32:2a:966:M2G:H8	32:2a:966:M2G:O5'	2.04	0.41
32:2a:991:U:C5	32:2a:1212:U:C2	3.09	0.41
32:2a:1118:C:O5'	32:2a:1118:C:H6	2.02	0.41
32:2a:1298:C:H4'	32:2a:1299:A:O4'	2.21	0.41
34:2b:149:LEU:HD22	34:2b:152:PHE:CD2	2.55	0.41
34:2b:178:ARG:NH2	40:2h:74:PRO:HB3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2b:223:ILE:HD12	34:2b:224:GLN:N	2.36	0.41
37:2e:129:ILE:O	37:2e:132:ALA:HB3	2.21	0.41
43:2k:44:SER:OG	43:2k:47:VAL:HG23	2.19	0.41
1:1A:1082:G:H2'	1:1A:1083:G:O4'	2.20	0.41
1:1A:1386:U:H4'	1:1A:1387:U:OP2	2.20	0.41
1:1A:1464:G:O5'	1:1A:1464:G:H8	2.04	0.41
1:1A:1935:A:C2	32:1a:1493:A:C8	3.08	0.41
1:1A:2650:G:OP2	4:1E:82:ARG:NH1	2.53	0.41
5:1F:9:ILE:HA	5:1F:10:PRO:HD2	1.94	0.41
6:1G:144:ILE:HG23	6:1G:148:MET:HE2	2.01	0.41
14:1S:25:ARG:O	14:1S:39:ILE:HA	2.21	0.41
19:1X:31:HIS:HA	19:1X:32:PRO:HD3	1.92	0.41
21:1Z:157:LEU:HA	21:1Z:158:PRO:HD2	1.70	0.41
23:11:3:LYS:O	23:11:12:PRO:HD3	2.21	0.41
26:14:59:PHE:CD1	51:1s:64:GLU:HG3	2.55	0.41
31:19:26:ILE:HD13	31:19:26:ILE:HG21	1.86	0.41
32:1a:33:A:H2'	32:1a:34:C:C6	2.56	0.41
32:1a:177:C:P	52:1t:65:LYS:NZ	2.93	0.41
32:1a:489:C:C2'	32:1a:490:G:H5'	2.50	0.41
32:1a:567:G:H2'	32:1a:568:G:O4'	2.20	0.41
32:1a:657:G:C2	32:1a:658:G:C8	3.08	0.41
32:1a:986:A:H2'	32:1a:987:G:O4'	2.21	0.41
32:1a:1245:A:C2	32:1a:1293:G:C2	3.08	0.41
33:2x:70:MET:HB3	33:2x:70:MET:HE2	1.63	0.41
36:1d:178:VAL:C	36:1d:180:GLY:H	2.28	0.41
39:1g:42:ILE:HG23	39:1g:117:ALA:HA	2.03	0.41
41:1i:9:ARG:HB2	41:1i:104:ARG:HE	1.85	0.41
1:2A:323:G:HO2'	1:2A:1205:U:H3	1.61	0.41
1:2A:1466:G:H2'	1:2A:1547:C:N4	2.36	0.41
1:2A:1510:G:H2'	1:2A:1511:C:O4'	2.21	0.41
1:2A:1973:G:H2'	1:2A:1974:C:C6	2.56	0.41
6:2G:171:ALA:O	6:2G:175:LEU:HB2	2.21	0.41
7:2H:58:GLU:HG2	7:2H:58:GLU:H	1.75	0.41
11:2P:81:GLN:HB3	11:2P:106:LEU:HD12	2.00	0.41
21:2Z:125:LEU:HG	21:2Z:164:ALA:HB3	2.03	0.41
27:25:57:VAL:HG12	27:25:58:LEU:HB2	2.01	0.41
32:2a:490:G:H2'	32:2a:491:G:C8	2.55	0.41
32:2a:973:G:N1	32:2a:974:A:N6	2.68	0.41
32:2a:1119:C:OP2	41:2i:9:ARG:NH1	2.49	0.41
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.55	0.41
34:2b:18:GLY:HA2	34:2b:42:ILE:HG13	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2b:112:VAL:HG22	34:2b:149:LEU:HD13	2.02	0.41
36:2d:126:ILE:HG22	36:2d:127:THR:N	2.36	0.41
38:2f:100:ASN:ND2	50:2r:23:LYS:HG2	2.31	0.41
41:2i:127:LYS:H	41:2i:127:LYS:HG3	1.62	0.41
1:1A:504:A:C6	1:1A:506:A:C6	3.08	0.41
1:1A:1119:A:N3	1:1A:1119:A:H3'	2.36	0.41
1:1A:2579:G:H2'	1:1A:2580:C:C6	2.55	0.41
3:1D:73:VAL:HG13	3:1D:120:GLY:HA3	2.03	0.41
3:1D:94:LEU:HD23	3:1D:94:LEU:HA	1.86	0.41
3:1D:146:GLU:HG2	3:1D:152:GLY:C	2.45	0.41
22:10:70:GLN:HG2	22:10:72:ARG:HG3	2.03	0.41
32:1a:189(J):G:C6	32:1a:189(K):U:N3	2.89	0.41
32:1a:228:A:H2'	32:1a:229:U:O4'	2.21	0.41
32:1a:257:G:C6	32:1a:258:G:C5	3.09	0.41
32:1a:491:G:C4	32:1a:492:G:C8	3.09	0.41
32:1a:1001(A):G:C6	32:1a:1002:G:N7	2.89	0.41
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.36	0.41
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.21	0.41
32:1a:1348:U:OP2	32:1a:1373:G:N1	2.47	0.41
34:1b:48:MET:O	34:1b:49:GLU:C	2.63	0.41
36:1d:188:LEU:HA	36:1d:189:PRO:HD3	1.90	0.41
40:1h:73:ASP:HA	40:1h:74:PRO:HD2	1.86	0.41
1:2A:224:G:H2'	1:2A:225:A:O4'	2.20	0.41
1:2A:894:C:H2'	1:2A:895:U:H6	1.85	0.41
1:2A:1006:C:C2	1:2A:1138:G:N2	2.88	0.41
1:2A:1429:G:N3	1:2A:1568:G:C2	2.89	0.41
1:2A:2162:G:H4'	1:2A:2172:U:O2'	2.21	0.41
1:2A:2295:C:OP1	14:2S:10:ARG:NH1	2.54	0.41
4:2E:12:THR:HG22	15:2T:58:ASN:OD1	2.20	0.41
5:2F:104:LYS:O	5:2F:108:LYS:HG3	2.20	0.41
7:2H:74:ASN:O	7:2H:78:GLY:N	2.54	0.41
21:2Z:93:ASP:HB2	21:2Z:131:ARG:HH22	1.85	0.41
25:23:7:LYS:HE3	25:23:32:GLN:HE21	1.84	0.41
32:2a:673:G:H2'	32:2a:674:G:H8	1.78	0.41
32:2a:1009:G:N3	32:2a:1010:G:C8	2.89	0.41
32:2a:1128:C:H4'	32:2a:1148:U:O2	2.21	0.41
32:2a:1142:G:C8	32:2a:1143:G:C8	3.09	0.41
32:2a:1226:C:C5	45:2m:104:ARG:HA	2.56	0.41
32:2a:1347:G:C4	41:2i:107:ARG:NH1	2.86	0.41
32:2a:1363(A):A:H1'	32:2a:1365:G:N7	2.35	0.41
35:2c:18:TRP:NE1	46:2n:53:LEU:O	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2f:62:TRP:C	38:2f:63:TYR:CD2	2.98	0.41
39:2g:26:PHE:O	39:2g:30:ILE:HG13	2.20	0.41
43:2k:48:ILE:HD12	43:2k:48:ILE:HA	1.77	0.41
44:2l:47:LYS:HB2	44:2l:47:LYS:HE3	1.84	0.41
48:2p:28:ARG:NH1	48:2p:29:ASP:OD2	2.54	0.41
1:1A:137:G:O2'	1:1A:138:G:H5'	2.20	0.41
1:1A:347:G:C8	5:1F:171:PRO:HG3	2.56	0.41
1:1A:1143:U:C4	1:1A:1144:A:C4	3.08	0.41
1:1A:1259:A:H2'	1:1A:1260:G:O4'	2.21	0.41
1:1A:1712:A:H2'	1:1A:1713:G:O4'	2.21	0.41
1:1A:2081:A:H5'	54:1y:16:ILE:HD11	2.02	0.41
1:1A:2125:C:H1'	1:1A:2209:G:N2	2.36	0.41
1:1A:2228:G:H2'	1:1A:2229:A:C2	2.56	0.41
1:1A:2444:A:C6	23:11:33:LYS:HB3	2.56	0.41
4:1E:168:MET:HE2	4:1E:168:MET:HB3	1.89	0.41
8:1I:76:THR:O	8:1I:105:HIS:HE1	2.03	0.41
16:1U:114:LYS:O	16:1U:117:GLN:HG3	2.21	0.41
19:1X:11:PRO:HD3	24:12:37:PHE:CD2	2.55	0.41
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	2.03	0.41
26:14:49:PHE:HB3	26:14:50:VAL:H	1.57	0.41
32:1a:587:G:OP1	40:1h:89:PRO:HB3	2.20	0.41
32:1a:748:C:H4'	32:1a:749:C:O5'	2.20	0.41
32:1a:945:G:C2	32:1a:1337:G:C2	3.09	0.41
32:1a:1136:U:H5"	32:1a:1137:C:O4'	2.20	0.41
32:1a:1240:U:OP2	39:1g:116:ALA:N	2.23	0.41
32:1a:1400:5MC:C2	33:1x:63:ALA:HA	2.56	0.41
36:1d:64:LEU:HD11	36:1d:97:LEU:HD13	2.03	0.41
37:1e:78:HIS:ND1	40:1h:104:ARG:HD2	2.25	0.41
39:1g:116:ALA:O	39:1g:120:ILE:HG12	2.21	0.41
45:1m:5:ALA:HB2	45:1m:61:GLU:HG2	2.02	0.41
52:1t:57:ARG:NH1	52:1t:100:ILE:HD12	2.28	0.41
1:2A:27:G:HO2'	1:2A:28:A:P	2.41	0.41
1:2A:297:C:H2'	1:2A:298:G:O4'	2.21	0.41
1:2A:586:A:N1	1:2A:809:G:O2'	2.47	0.41
1:2A:699:A:C2	1:2A:1633:G:N3	2.89	0.41
1:2A:1118:C:H2'	1:2A:1119:C:O4'	2.21	0.41
1:2A:1290:C:H2'	1:2A:1291:C:H6	1.86	0.41
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.56	0.41
1:2A:2134:A:C6	1:2A:2157:G:H5'	2.56	0.41
1:2A:2206:G:OP2	1:2A:2206:G:H4'	2.21	0.41
8:2I:101:LEU:HD11	8:2I:140:LEU:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:35:VAL:HG13	12:2Q:130:LYS:HB3	2.02	0.41
14:2S:49:VAL:HG12	14:2S:73:LEU:HD12	2.01	0.41
27:25:38:ALA:CB	27:25:48:GLU:HG3	2.50	0.41
28:26:14:THR:O	28:26:17:LYS:HE2	2.21	0.41
32:2a:551:U:H2'	32:2a:552:U:C6	2.56	0.41
32:2a:644:G:C5	32:2a:645:C:C5	3.09	0.41
32:2a:1060:C:O2	32:2a:1198:G:C2	2.73	0.41
34:2b:93:VAL:O	34:2b:93:VAL:HG23	2.20	0.41
42:2j:9:ARG:HG2	42:2j:69:ASN:HD21	1.86	0.41
43:2k:105:VAL:HG23	43:2k:105:VAL:O	2.20	0.41
45:2m:20:THR:C	45:2m:22:ILE:H	2.29	0.41
45:2m:54:VAL:HG12	45:2m:57:ARG:HH12	1.85	0.41
45:2m:81:LEU:HD22	45:2m:88:ARG:HB3	2.03	0.41
46:2n:37:PHE:CZ	46:2n:56:VAL:HG21	2.56	0.41
1:1A:201:G:H2'	1:1A:202:A:O4'	2.21	0.41
1:1A:418:G:H1'	1:1A:438:G:O4'	2.20	0.41
1:1A:895:G:H2'	1:1A:896:A:C8	2.55	0.41
1:1A:1686:U:O2'	1:1A:1687:C:H5'	2.21	0.41
1:1A:2183:C:O5'	1:1A:2183:C:H6	2.04	0.41
1:1A:2376:C:H2'	1:1A:2377:G:O4'	2.21	0.41
1:1A:2799:U:OP1	4:1E:69:LYS:HD2	2.20	0.41
1:1A:2864:G:H2'	1:1A:2865:C:C6	2.56	0.41
3:1D:89:SER:HB2	3:1D:159:ALA:CB	2.48	0.41
7:1H:7:LEU:HA	7:1H:8:PRO:HD3	1.73	0.41
7:1H:126:PRO:CB	7:1H:130:ARG:HH21	2.34	0.41
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.56	0.41
14:1S:58:LEU:HD23	14:1S:58:LEU:HA	1.55	0.41
14:1S:95:HIS:CG	14:1S:96:GLY:N	2.88	0.41
16:1U:45:TYR:O	16:1U:49:HIS:N	2.53	0.41
19:1X:57:LEU:HD11	19:1X:78:LYS:HE2	2.03	0.41
21:1Z:25:PRO:O	21:1Z:85:HIS:HA	2.21	0.41
23:11:52:ARG:HA	23:11:56:GLN:O	2.21	0.41
32:1a:102:G:H2'	32:1a:103:C:H6	1.85	0.41
32:1a:189(B):C:C2	32:1a:189(J):G:N2	2.88	0.41
32:1a:255:G:O2'	49:1q:16:GLN:NE2	2.52	0.41
32:1a:303:A:H2'	32:1a:304:U:O4'	2.21	0.41
32:1a:375:U:O3'	48:1p:6:LEU:HB2	2.20	0.41
32:1a:408:A:OP1	36:1d:113:SER:OG	2.38	0.41
32:1a:443:C:H2'	32:1a:444:C:H6	1.84	0.41
32:1a:489:C:C2	32:1a:490:G:C8	3.09	0.41
32:1a:614:A:H2'	32:1a:615:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:648:A:H2'	32:1a:649:G:H8	1.84	0.41
32:1a:1151:A:O4'	42:1j:39:PRO:HB2	2.20	0.41
32:1a:1166:G:C2	32:1a:1171:G:C6	3.09	0.41
32:1a:1250:A:H61	32:1a:1354:C:H1'	1.86	0.41
34:1b:28:PHE:CE1	34:1b:31:TYR:HB2	2.55	0.41
34:1b:102:LEU:HD12	34:1b:102:LEU:N	2.36	0.41
35:1c:15:THR:CG2	35:1c:181:ASN:HA	2.44	0.41
35:1c:59:ARG:N	42:1j:92:THR:HG21	2.33	0.41
36:1d:112:VAL:HG22	36:1d:116:GLN:OE1	2.21	0.41
36:1d:142:PRO:HA	36:1d:185:PHE:O	2.21	0.41
36:1d:178:VAL:O	36:1d:180:GLY:N	2.47	0.41
37:1e:71:LEU:HD23	37:1e:71:LEU:HA	1.69	0.41
39:1g:64:GLN:O	39:1g:67:GLU:N	2.54	0.41
40:1h:33:GLU:O	40:1h:36:LEU:N	2.54	0.41
40:1h:107:LEU:HD23	40:1h:107:LEU:N	2.36	0.41
41:1i:81:ILE:O	41:1i:85:LEU:HG	2.21	0.41
45:1m:14:ARG:HB2	45:1m:17:VAL:HG23	2.02	0.41
45:1m:15:VAL:HG23	45:1m:41:PRO:HA	2.02	0.41
45:1m:40:ASN:HA	45:1m:41:PRO:HD2	1.87	0.41
47:1o:61:GLY:O	47:1o:64:ARG:HB3	2.21	0.41
48:1p:14:ASN:N	48:1p:15:PRO:HD3	2.36	0.41
1:2A:282:A:N6	1:2A:284:U:C2	2.89	0.41
1:2A:764:A:N3	3:2D:213:ARG:NH1	2.67	0.41
1:2A:904:C:H2'	1:2A:905:U:C6	2.56	0.41
1:2A:921:G:H4'	1:2A:2269:A:C5	2.55	0.41
1:2A:1085:A:H2'	1:2A:1086:A:N1	2.36	0.41
1:2A:2067:G:O2'	1:2A:2069:G:H5'	2.21	0.41
1:2A:2309:A:N6	1:2A:2310:A:C6	2.89	0.41
1:2A:2400:G:H2'	1:2A:2401:U:H6	1.85	0.41
1:2A:2410:G:C2	1:2A:2411:A:H1'	2.56	0.41
4:2E:50:GLY:HA2	4:2E:77:ILE:O	2.21	0.41
5:2F:78:ILE:HD13	5:2F:78:ILE:HG21	1.82	0.41
8:2I:110:ASP:HA	8:2I:111:PRO:HD3	1.76	0.41
11:2P:59:LEU:HD21	30:28:10:ALA:HA	2.03	0.41
12:2Q:1:MET:HE2	12:2Q:1:MET:HB3	1.84	0.41
12:2Q:60:ARG:HH22	21:2Z:181:GLU:CG	2.34	0.41
17:2V:35:LEU:HB2	17:2V:57:VAL:HG22	2.03	0.41
23:21:97:LEU:HD23	23:21:97:LEU:HA	1.81	0.41
27:25:20:ARG:HG2	27:25:23:HIS:CE1	2.56	0.41
32:2a:109:A:C6	32:2a:326:G:C6	3.09	0.41
32:2a:547:A:OP2	36:2d:2:GLY:HA2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:576:G:N1	32:2a:759:A:OP1	2.44	0.41
32:2a:803:G:H2'	32:2a:804:U:O4'	2.21	0.41
32:2a:944:G:C2	32:2a:1340:A:C6	3.09	0.41
32:2a:983:A:H3'	32:2a:983:A:N3	2.36	0.41
32:2a:990:C:N3	32:2a:1215:G:O6	2.53	0.41
32:2a:996:A:H2'	32:2a:997:U:C6	2.56	0.41
32:2a:1095:U:H2'	32:2a:1096:C:C6	2.55	0.41
32:2a:1292:U:OP2	39:2g:41:ARG:NH2	2.54	0.41
32:2a:1330:U:O4	32:2a:1331:G:C6	2.74	0.41
32:2a:1360:A:H2'	32:2a:1361:G:O4'	2.20	0.41
32:2a:1496:C:H2'	32:2a:1497:G:O4'	2.20	0.41
34:2b:15:VAL:O	34:2b:16:HIS:CD2	2.73	0.41
34:2b:97:TRP:HZ3	34:2b:172:ILE:HG22	1.86	0.41
34:2b:196:LEU:HD12	34:2b:196:LEU:HA	1.72	0.41
34:2b:230:VAL:HG13	34:2b:231:GLU:O	2.21	0.41
35:2c:131:ARG:HD2	35:2c:131:ARG:O	2.21	0.41
36:2d:30:LYS:HG2	36:2d:35:ARG:HH21	1.85	0.41
36:2d:30:LYS:HG2	36:2d:35:ARG:NH2	2.36	0.41
39:2g:62:PHE:HA	39:2g:124:LEU:HD22	2.01	0.41
40:2h:14:ARG:O	40:2h:18:ARG:HG3	2.20	0.41
43:2k:98:LEU:HD23	43:2k:98:LEU:HA	1.79	0.41
44:2l:117:ARG:HH22	44:2l:124:LYS:HD2	1.85	0.41
44:2l:122:THR:HG22	44:2l:123:LYS:O	2.20	0.41
47:2o:5:LYS:NZ	47:2o:5:LYS:H	2.19	0.41
49:2q:63:ARG:O	49:2q:63:ARG:HG3	2.21	0.41
1:1A:510:C:H2'	1:1A:511:C:C6	2.56	0.41
1:1A:517:A:H2'	1:1A:518:G:O4'	2.20	0.41
1:1A:592:U:C4	1:1A:593:G:C6	3.09	0.41
1:1A:1104:G:N1	1:1A:1126:C:O2	2.39	0.41
1:1A:1617:A:H2'	1:1A:1618:A:C8	2.57	0.41
1:1A:1938:A:H2'	1:1A:1939:PSU:O4'	2.20	0.41
1:1A:2584:A:N7	4:1E:144:ARG:HD2	2.36	0.41
1:1A:2734:A:O2'	1:1A:2884:C:H5'	2.21	0.41
5:1F:132:VAL:CG2	5:1F:163:VAL:HG22	2.51	0.41
6:1G:47:LYS:HG3	6:1G:48:GLU:H	1.86	0.41
7:1H:101:ARG:NH2	7:1H:121:ILE:O	2.53	0.41
12:1Q:21:THR:HG23	12:1Q:99:PRO:O	2.21	0.41
21:1Z:112:ARG:HG2	21:1Z:112:ARG:HH11	1.86	0.41
26:14:28:LYS:HA	26:14:29:PRO:HD3	1.96	0.41
32:1a:4:U:C4	40:1h:105:ARG:NE	2.89	0.41
32:1a:178:C:H2'	32:1a:179:A:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:189(C):C:N3	32:1a:189(I):G:N1	2.70	0.41
32:1a:737:A:H2'	32:1a:738:C:H6	1.83	0.41
32:1a:751:U:C4'	47:1o:24:SER:HA	2.51	0.41
32:1a:1050:G:H2'	32:1a:1050:G:N3	2.36	0.41
32:1a:1379:G:C5	32:1a:1380:U:C5	3.09	0.41
32:1a:1425:U:H2'	32:1a:1426:C:H6	1.85	0.41
33:2x:53:THR:HG21	32:2a:966:M2G:H1'	2.03	0.41
35:1c:51:GLY:O	35:1c:70:VAL:HG23	2.21	0.41
36:1d:23:GLY:HA2	36:1d:112:VAL:O	2.21	0.41
36:1d:155:LEU:O	36:1d:158:ILE:HG13	2.21	0.41
37:1e:84:PHE:HB3	37:1e:134:ALA:HB2	2.03	0.41
38:1f:19:LEU:HD23	38:1f:23:LYS:HD3	2.02	0.41
43:1k:66:LEU:HA	43:1k:66:LEU:HD23	1.85	0.41
52:1t:58:LYS:HD2	52:1t:58:LYS:HA	1.62	0.41
1:2A:125:G:C6	29:27:10:ARG:HG3	2.55	0.41
1:2A:383:U:O2	1:2A:385:C:N4	2.54	0.41
1:2A:576:U:H2'	1:2A:577:G:C8	2.56	0.41
1:2A:631:A:H2'	1:2A:632:A:O4'	2.20	0.41
1:2A:934:G:H2'	1:2A:935:C:C6	2.56	0.41
1:2A:1155:A:OP1	16:2U:55:ARG:HD3	2.21	0.41
1:2A:1288:U:O4	13:2R:106:GLY:HA3	2.21	0.41
1:2A:1466:G:O2'	1:2A:1546:C:O2'	2.19	0.41
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.21	0.41
1:2A:2432:A:C6	23:21:33:LYS:HB3	2.56	0.41
2:2B:39:A:C2	2:2B:40:U:C4	3.09	0.41
4:2E:182:LEU:HA	4:2E:182:LEU:HD12	1.71	0.41
11:2P:86:LYS:HB3	11:2P:118:GLY:HA3	2.03	0.41
32:2a:404:U:O2	32:2a:498:U:C4	2.73	0.41
32:2a:659:U:N3	32:2a:660:G:N7	2.70	0.41
32:2a:790:A:H61	32:2a:1498:UR3:P	2.44	0.41
32:2a:982:U:H4'	32:2a:983:A:O5'	2.21	0.41
32:2a:1097:C:C2	32:2a:1098:C:C5	3.09	0.41
32:2a:1318:A:O2'	51:2s:37:ARG:HD2	2.21	0.41
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.57	0.41
32:2a:1415:G:C6	32:2a:1486:G:C6	3.09	0.41
34:2b:48:MET:HE2	34:2b:48:MET:HB2	1.94	0.41
34:2b:61:LEU:HD23	34:2b:68:ILE:HD11	2.02	0.41
35:2c:175:LEU:H	35:2c:175:LEU:HD12	1.85	0.41
35:2c:181:ASN:ND2	35:2c:204:LEU:HD12	2.36	0.41
40:2h:39:LEU:HD23	40:2h:39:LEU:HA	1.73	0.41
44:2l:59:ARG:HH11	44:2l:59:ARG:HD3	1.71	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2m:19:LEU:HD21	45:2m:56:LEU:HD21	2.03	0.41
49:2q:7:THR:HA	49:2q:57:VAL:O	2.21	0.41
1:1A:968:U:H2'	1:1A:969:C:C6	2.55	0.40
1:1A:1141:A:N1	1:1A:1142:A:C6	2.89	0.40
1:1A:1544:C:O4'	1:1A:1624:C:H4'	2.21	0.40
1:1A:2227:G:OP2	1:1A:2227:G:H4'	2.21	0.40
1:1A:2694:U:O2'	15:1T:58:ASN:ND2	2.54	0.40
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	2.03	0.40
14:1S:46:VAL:HG12	14:1S:48:LEU:HD12	2.03	0.40
27:15:19:ARG:HH11	27:15:19:ARG:HD3	1.76	0.40
28:16:38:LYS:HB2	28:16:49:HIS:CE1	2.55	0.40
32:1a:134:A:N6	48:1p:25:ARG:HH12	2.14	0.40
32:1a:185:A:O2'	32:1a:186:C:H5'	2.21	0.40
32:1a:247:G:OP1	32:1a:247:G:H4'	2.20	0.40
32:1a:489:C:O5'	32:1a:489:C:H6	2.04	0.40
32:1a:547:A:H4'	32:1a:548:G:O5'	2.21	0.40
32:1a:687:A:N3	32:1a:688:G:H1'	2.36	0.40
32:1a:1130:A:H5'	41:1i:18:PHE:CD2	2.56	0.40
32:1a:1324:A:C6	32:1a:1325:C:C4	3.09	0.40
32:1a:1347:G:C5	41:1i:107:ARG:NH1	2.89	0.40
32:1a:1411:C:O2'	32:1a:1412:C:H5'	2.20	0.40
40:1h:23:SER:HA	40:1h:63:LEU:HD22	2.04	0.40
49:1q:87:LYS:HD3	49:1q:87:LYS:HA	1.70	0.40
1:2A:12:U:O2	1:2A:12:U:H2'	2.21	0.40
1:2A:545:G:H4'	1:2A:545:G:OP1	2.22	0.40
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.21	0.40
1:2A:2131:G:C6	1:2A:2158:A:N7	2.90	0.40
1:2A:2145:C:H6	1:2A:2145:C:P	2.44	0.40
1:2A:2294:C:OP1	14:2S:89:ARG:NH1	2.30	0.40
1:2A:2309:A:C6	1:2A:2310:A:C6	3.09	0.40
1:2A:2432:A:C5	23:21:33:LYS:HB3	2.56	0.40
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.55	0.40
1:2A:2694:G:C6	1:2A:2695:C:C4	3.09	0.40
2:2B:80:U:H2'	2:2B:81:G:C8	2.56	0.40
3:2D:77:ALA:HB2	3:2D:97:TYR:CD1	2.56	0.40
4:2E:37:ARG:HA	4:2E:42:ASP:OD2	2.21	0.40
5:2F:53:THR:CG2	5:2F:55:GLY:H	2.33	0.40
6:2G:72:ARG:HG2	6:2G:87:PRO:HA	2.03	0.40
7:2H:27:LYS:HZ2	7:2H:32:GLU:HB2	1.86	0.40
7:2H:33:LEU:HD11	7:2H:75:ALA:HA	2.03	0.40
7:2H:89:ILE:HD12	7:2H:89:ILE:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:17:ARG:HA	10:2O:17:ARG:HD3	1.81	0.40
16:2U:102:GLU:HB3	16:2U:105:VAL:HB	2.04	0.40
32:2a:390:C:H2'	32:2a:391:G:C8	2.56	0.40
32:2a:500:G:C6	32:2a:546:G:C2	3.09	0.40
32:2a:1002:G:N3	32:2a:1003:G:H8	2.20	0.40
32:2a:1004:A:C5	32:2a:1038:C:C4	3.09	0.40
32:2a:1038:C:H2'	32:2a:1039:C:O4'	2.21	0.40
32:2a:1112:C:N3	35:2c:178:LEU:HD12	2.36	0.40
32:2a:1373:G:OP1	41:2i:42:ARG:NH2	2.54	0.40
32:2a:1402:4OC:O2	32:2a:1500:A:N1	2.54	0.40
34:2b:132:LYS:O	34:2b:135:GLN:HB2	2.21	0.40
40:2h:138:TRP:CD1	40:2h:138:TRP:C	2.99	0.40
45:2m:84:ILE:HG13	45:2m:86:CYS:H	1.85	0.40
45:2m:87:TYR:O	45:2m:91:ARG:HG2	2.21	0.40
52:2t:71:THR:O	52:2t:72:LEU:HD23	2.21	0.40
1:1A:1199:C:H2'	1:1A:1200:G:O4'	2.21	0.40
1:1A:1847:G:H8	3:1D:62:TYR:CZ	2.40	0.40
1:1A:2331:G:C8	1:1A:2332:A:C2	3.09	0.40
1:1A:2904:U:H2'	1:1A:2905:C:C6	2.57	0.40
3:1D:26:LYS:NZ	3:1D:83:GLU:OE2	2.46	0.40
5:1F:157:VAL:HB	5:1F:194:MET:HG2	2.02	0.40
32:1a:109:A:H2'	32:1a:326:G:N2	2.36	0.40
32:1a:451:A:C5	32:1a:481:G:C6	3.10	0.40
32:1a:1360:A:OP1	32:1a:1360:A:H8	2.04	0.40
35:1c:26:LYS:HB3	35:1c:26:LYS:HE2	1.45	0.40
37:1e:102:ALA:HB2	37:1e:120:THR:CG2	2.51	0.40
39:1g:104:LEU:HD13	39:1g:123:GLU:HG3	2.03	0.40
40:1h:58:TYR:O	40:1h:59:LEU:HD23	2.22	0.40
43:1k:120:ARG:HA	43:1k:121:PRO:HD3	1.88	0.40
46:1n:37:PHE:CE1	46:1n:53:LEU:HD13	2.55	0.40
48:1p:43:LYS:HA	48:1p:48:TRP:CB	2.50	0.40
50:1r:42:ARG:HA	50:1r:42:ARG:HD3	1.92	0.40
1:2A:361:G:C2'	1:2A:362:U:H5'	2.51	0.40
1:2A:629:G:H5"	1:2A:650:C:O2'	2.21	0.40
1:2A:1066:U:O2	1:2A:1073:A:C2	2.74	0.40
1:2A:1068:G:O4'	1:2A:1068:G:P	2.79	0.40
1:2A:1444:G:O6	1:2A:1466:G:C6	2.74	0.40
1:2A:1479:G:C6	1:2A:1480:G:C5	3.09	0.40
1:2A:1529:G:O2'	1:2A:1530:C:H5'	2.21	0.40
1:2A:1588:C:H2'	1:2A:1589:C:H6	1.86	0.40
1:2A:1889:A:H2'	1:2A:1890:A:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2748:A:C2	1:2A:2749:A:C4	3.09	0.40
1:2A:2845:G:H2'	1:2A:2846:G:C8	2.56	0.40
6:2G:33:ARG:NH2	6:2G:162:THR:HG21	2.36	0.40
11:2P:29:LYS:HG2	11:2P:30:THR:N	2.37	0.40
17:2V:19:LYS:HE2	17:2V:19:LYS:HB2	1.82	0.40
24:22:32:LEU:HA	24:22:32:LEU:HD23	1.88	0.40
32:2a:520:A:H2'	32:2a:521:G:O4'	2.21	0.40
34:2b:11:LEU:CD1	34:2b:217:ARG:HH22	2.34	0.40
39:2g:18:TYR:HE2	39:2g:44:TYR:HE1	1.69	0.40
45:2m:14:ARG:HE	45:2m:14:ARG:HB3	1.50	0.40
48:2p:28:ARG:HG3	48:2p:29:ASP:OD1	2.21	0.40
48:2p:69:THR:O	48:2p:73:LEU:HG	2.22	0.40
1:1A:589:U:H2'	1:1A:590:A:O4'	2.22	0.40
1:1A:1082:G:P	7:1H:59:ARG:HD2	2.61	0.40
1:1A:1900:G:H2'	1:1A:1901:C:C6	2.56	0.40
1:1A:2140:U:O2'	1:1A:2141:A:H5"	2.21	0.40
1:1A:2165:C:H2'	1:1A:2166:U:O4'	2.21	0.40
2:1B:28:C:OP1	14:1S:36:TYR:OH	2.30	0.40
7:1H:13:LYS:HE2	7:1H:13:LYS:HB3	1.84	0.40
20:1Y:94:LYS:HA	20:1Y:94:LYS:HD3	1.76	0.40
32:1a:159:G:C4	32:1a:161:A:OP2	2.73	0.40
32:1a:185:A:H2'	32:1a:186:C:H6	1.85	0.40
32:1a:404:U:H2'	32:1a:405:U:H6	1.86	0.40
32:1a:452:A:C4	32:1a:453:A:C8	3.09	0.40
32:1a:799:G:H2'	32:1a:800:G:H5'	2.03	0.40
32:1a:1092:A:N6	32:1a:1093:A:N6	2.69	0.40
32:1a:1097:C:H2'	32:1a:1098:C:H6	1.85	0.40
32:1a:1122:U:H2'	32:1a:1123:A:O4'	2.22	0.40
32:1a:1266:G:N2	32:1a:1270:C:C2	2.90	0.40
34:1b:178:ARG:NH2	40:1h:68:ARG:NH2	2.69	0.40
37:1e:12:LEU:HG	37:1e:13:ILE:N	2.36	0.40
40:1h:82:HIS:O	40:1h:137:VAL:HA	2.21	0.40
1:2A:1045:A:H5"	1:2A:1046:A:OP1	2.21	0.40
1:2A:2359:C:H2'	1:2A:2360:A:O4'	2.20	0.40
3:2D:210:GLY:O	3:2D:213:ARG:HB2	2.22	0.40
4:2E:60:ASN:OD1	4:2E:62:PRO:HD2	2.22	0.40
7:2H:26:VAL:HG12	7:2H:79:VAL:HG11	2.04	0.40
8:2I:65:ALA:O	8:2I:68:LEU:N	2.55	0.40
9:2N:108:PRO:O	9:2N:113:GLY:HA3	2.21	0.40
17:2V:95:LEU:HD23	17:2V:96:ILE:N	2.36	0.40
18:2W:25:ARG:NH2	18:2W:74:ALA:O	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:473:G:OP2	48:2p:75:ARG:HD3	2.22	0.40
32:2a:1023:G:H8	32:2a:1023:G:O5'	2.05	0.40
32:2a:1025:U:O2'	32:2a:1026:G:H8	2.04	0.40
32:2a:1279:A:OP2	42:2j:9:ARG:NH1	2.53	0.40
34:2b:142:LEU:HD23	34:2b:146:GLN:OE1	2.22	0.40
37:2e:60:TYR:CZ	37:2e:64:ARG:HD3	2.57	0.40
37:2e:100:VAL:HG13	37:2e:118:ILE:HG22	2.02	0.40
1:1A:162:G:C6	1:1A:163:C:C4	3.10	0.40
1:1A:218:A:H3'	1:1A:218:A:H8	1.86	0.40
1:1A:1735:U:O2	1:1A:1747:A:H5'	2.20	0.40
1:1A:1928:G:H1	1:1A:1946:C:H42	1.68	0.40
1:1A:1942:OMC:HM22	1:1A:1943:G:O4'	2.21	0.40
1:1A:2078:G:H2'	1:1A:2078:G:N3	2.37	0.40
1:1A:2157:A:O4'	1:1A:2181:G:O2'	2.40	0.40
1:1A:2555:G:H2'	1:1A:2556:G:C8	2.56	0.40
2:1B:103:G:H21	21:1Z:73:GLN:NE2	2.13	0.40
4:1E:78:LEU:O	4:1E:79:ARG:NH1	2.47	0.40
6:1G:102:PHE:CE1	6:1G:141:PHE:HE1	2.39	0.40
12:1Q:38:GLU:HA	12:1Q:99:PRO:HG3	2.03	0.40
16:1U:39:LEU:HA	16:1U:39:LEU:HD23	1.91	0.40
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.57	0.40
19:1X:1:MET:HE1	24:12:26:ARG:HH21	1.86	0.40
31:19:11:CYS:O	31:19:14:CYS:HB2	2.21	0.40
32:1a:189(D):C:H3'	32:1a:189(E):U:H6	1.85	0.40
32:1a:473:G:H2'	32:1a:474:G:C8	2.43	0.40
32:1a:475:G:C2	32:1a:476:G:C8	3.09	0.40
32:1a:492:G:C4	32:1a:493:G:C8	3.09	0.40
32:1a:499:A:H4'	32:1a:500:G:H5'	2.04	0.40
32:1a:509:A:H3'	59:1a:3334:HOH:O	2.20	0.40
32:1a:591:U:H2'	32:1a:592:G:C8	2.55	0.40
32:1a:667:G:O2'	47:1o:49:ASP:OD1	2.37	0.40
32:1a:1042:G:H2'	32:1a:1043:C:C6	2.57	0.40
32:1a:1125:U:C2	32:1a:1127:G:C8	3.10	0.40
33:2x:3:MET:HB2	33:2x:37:PRO:HG2	2.03	0.40
37:1e:80:ILE:HG22	37:1e:91:LEU:HB2	2.03	0.40
38:1f:65:VAL:HG21	38:1f:67:MET:HE2	2.02	0.40
40:1h:11:THR:HG22	40:1h:15:ASN:HD21	1.86	0.40
41:1i:9:ARG:HB3	41:1i:104:ARG:HH21	1.86	0.40
43:1k:48:ILE:HD13	43:1k:63:LEU:HD12	2.03	0.40
45:1m:15:VAL:O	45:1m:19:LEU:HD22	2.22	0.40
45:1m:59:TYR:HE2	45:1m:64:TRP:CH2	2.39	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1p:74:LEU:HB3	48:1p:79:VAL:CG2	2.51	0.40
52:1t:9:ASN:O	52:1t:10:LEU:HD23	2.20	0.40
1:2A:859:G:N2	1:2A:917:A:OP2	2.50	0.40
1:2A:1900:A:N1	1:2A:1970:A:C6	2.89	0.40
1:2A:2063:C:O2	1:2A:2450:A:N1	2.54	0.40
1:2A:2152:G:O2'	1:2A:2153:G:H5'	2.21	0.40
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.56	0.40
1:2A:2557:G:H2'	1:2A:2558:C:H6	1.86	0.40
1:2A:2758:A:H2'	1:2A:2759:G:O4'	2.21	0.40
4:2E:50:GLY:HA3	4:2E:75:VAL:HG11	2.02	0.40
5:2F:70:THR:O	54:2y:16:ILE:HG23	2.21	0.40
8:2I:38:LEU:HB3	8:2I:40:THR:HG23	2.02	0.40
8:2I:69:LYS:HB2	8:2I:138:ILE:HG12	2.03	0.40
16:2U:25:TRP:O	16:2U:26:GLY:C	2.64	0.40
21:2Z:99:TYR:CE1	21:2Z:125:LEU:HB2	2.57	0.40
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.86	0.40
32:2a:60:A:H4'	32:2a:61:G:O5'	2.21	0.40
32:2a:149:A:H2'	32:2a:150:C:C6	2.56	0.40
32:2a:232:G:H2'	32:2a:233:C:O4'	2.21	0.40
32:2a:1066:C:H2'	32:2a:1067:A:C8	2.57	0.40
32:2a:1100:C:O2'	32:2a:1102:A:OP1	2.38	0.40
32:2a:1100:C:OP2	34:2b:96:ARG:HD3	2.21	0.40
32:2a:1103:C:P	34:2b:96:ARG:HH22	2.44	0.40
32:2a:1107:C:C4	32:2a:1108:G:C8	3.09	0.40
32:2a:1317:C:N4	46:2n:19:ARG:HH21	2.18	0.40
34:2b:164:VAL:HB	34:2b:186:ALA:HB2	2.04	0.40
36:2d:112:VAL:HG22	36:2d:116:GLN:HE22	1.84	0.40
37:2e:41:VAL:HG23	37:2e:67:VAL:HG13	2.03	0.40
42:2j:33:GLN:O	42:2j:74:ILE:HA	2.22	0.40
48:2p:48:TRP:CE3	48:2p:49:LEU:HB2	2.56	0.40
1:1A:501:U:C4	1:1A:507:G:O6	2.74	0.40
1:1A:1766:G:H8	1:1A:1770:A:N6	2.07	0.40
1:1A:1784:G:N1	1:1A:1787:G:OP2	2.53	0.40
1:1A:2331:G:C2	14:1S:3:ARG:HA	2.57	0.40
3:1D:5:LYS:HB3	3:1D:5:LYS:HE3	1.85	0.40
32:1a:36:C:C4	32:1a:37:U:C5	3.10	0.40
32:1a:393:A:C2	32:1a:394:G:C8	3.09	0.40
32:1a:598:U:H4'	40:1h:94:TYR:CD2	2.56	0.40
32:1a:628:G:N2	32:1a:629:G:N3	2.70	0.40
32:1a:1159:U:C2	32:1a:1182:G:C2	3.09	0.40
32:1a:1318:A:H5"	51:1s:3:ARG:NH1	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1b:112:VAL:O	34:1b:115:LEU:N	2.55	0.40
35:1c:157:ILE:CG2	35:1c:164:ARG:HH21	2.34	0.40
40:1h:20:TYR:HA	40:1h:65:TYR:OH	2.22	0.40
49:1q:52:LYS:HG2	49:1q:53:LEU:O	2.21	0.40
50:1r:76:LEU:HD12	50:1r:76:LEU:HA	1.75	0.40
51:1s:16:LEU:O	51:1s:16:LEU:HD12	2.21	0.40
1:2A:992:C:OP1	16:2U:47:TYR:OH	2.36	0.40
1:2A:1221(A):C:C2	1:2A:1229:G:N2	2.90	0.40
1:2A:1224:C:O2'	17:2V:85:LYS:HA	2.21	0.40
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.71	0.40
2:2B:27:C:C4	2:2B:28:C:C4	3.10	0.40
6:2G:16:ARG:HH21	6:2G:28:VAL:HG12	1.87	0.40
21:2Z:72:ARG:HA	21:2Z:72:ARG:HD3	1.85	0.40
25:23:18:ASP:OD1	25:23:18:ASP:N	2.48	0.40
32:2a:44:G:H2'	32:2a:45:U:O4'	2.22	0.40
32:2a:509:A:C8	32:2a:509:A:C3'	3.04	0.40
32:2a:625:G:H4'	48:2p:16:HIS:CG	2.56	0.40
32:2a:1026:G:N7	32:2a:1027:C:O2	2.55	0.40
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.86	0.40
32:2a:1387:G:C4	32:2a:1388:C:C5	3.10	0.40
35:2c:18:TRP:H	35:2c:18:TRP:HE3	1.69	0.40
35:2c:113:ALA:HB2	35:2c:202:ILE:HG13	2.04	0.40
36:2d:59:ARG:HA	36:2d:59:ARG:HD3	1.51	0.40
37:2e:78:HIS:CD2	37:2e:78:HIS:C	2.99	0.40
42:2j:29:ARG:C	42:2j:31:GLY:H	2.29	0.40
45:2m:14:ARG:NH2	45:2m:41:PRO:HB2	2.36	0.40
47:2o:32:LEU:HD23	47:2o:32:LEU:HA	1.95	0.40
52:2t:22:ARG:HH11	52:2t:22:ARG:HD2	1.71	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	1D	273/275 (99%)	262 (96%)	11 (4%)	0	100	100
3	2D	273/275 (99%)	258 (94%)	15 (6%)	0	100	100
4	1E	202/204 (99%)	194 (96%)	7 (4%)	1 (0%)	24	55
4	2E	202/204 (99%)	192 (95%)	9 (4%)	1 (0%)	24	55
5	1F	201/203 (99%)	194 (96%)	6 (3%)	1 (0%)	24	55
5	2F	201/203 (99%)	195 (97%)	4 (2%)	2 (1%)	12	38
6	1G	179/181 (99%)	164 (92%)	12 (7%)	3 (2%)	7	25
6	2G	179/181 (99%)	163 (91%)	14 (8%)	2 (1%)	11	36
7	1H	172/174 (99%)	162 (94%)	10 (6%)	0	100	100
7	2H	171/174 (98%)	160 (94%)	11 (6%)	0	100	100
8	1I	145/147 (99%)	128 (88%)	15 (10%)	2 (1%)	9	30
8	2I	144/147 (98%)	125 (87%)	18 (12%)	1 (1%)	18	47
9	1N	138/140 (99%)	131 (95%)	7 (5%)	0	100	100
9	2N	138/140 (99%)	131 (95%)	7 (5%)	0	100	100
10	1O	120/122 (98%)	113 (94%)	6 (5%)	1 (1%)	16	44
10	2O	120/122 (98%)	112 (93%)	7 (6%)	1 (1%)	16	44
11	1P	147/149 (99%)	140 (95%)	7 (5%)	0	100	100
11	2P	147/149 (99%)	140 (95%)	6 (4%)	1 (1%)	18	47
12	1Q	139/141 (99%)	134 (96%)	4 (3%)	1 (1%)	18	47
12	2Q	139/141 (99%)	133 (96%)	5 (4%)	1 (1%)	18	47
13	1R	116/118 (98%)	109 (94%)	7 (6%)	0	100	100
13	2R	116/118 (98%)	110 (95%)	6 (5%)	0	100	100
14	1S	108/110 (98%)	102 (94%)	5 (5%)	1 (1%)	14	41
14	2S	108/110 (98%)	101 (94%)	6 (6%)	1 (1%)	14	41
15	1T	129/131 (98%)	125 (97%)	4 (3%)	0	100	100
15	2T	129/131 (98%)	126 (98%)	3 (2%)	0	100	100
16	1U	114/116 (98%)	114 (100%)	0	0	100	100
16	2U	114/116 (98%)	112 (98%)	2 (2%)	0	100	100
17	1V	99/101 (98%)	94 (95%)	4 (4%)	1 (1%)	12	38
17	2V	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	12	38
18	1W	110/112 (98%)	109 (99%)	1 (1%)	0	100	100
18	2W	110/112 (98%)	109 (99%)	1 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	1X	93/95 (98%)	90 (97%)	3 (3%)	0	100	100
19	2X	93/95 (98%)	89 (96%)	4 (4%)	0	100	100
20	1Y	105/107 (98%)	97 (92%)	8 (8%)	0	100	100
20	2Y	105/107 (98%)	99 (94%)	6 (6%)	0	100	100
21	1Z	201/203 (99%)	190 (94%)	10 (5%)	1 (0%)	24	55
21	2Z	199/203 (98%)	187 (94%)	12 (6%)	0	100	100
22	10	75/77 (97%)	72 (96%)	3 (4%)	0	100	100
22	20	75/77 (97%)	72 (96%)	3 (4%)	0	100	100
23	11	95/97 (98%)	94 (99%)	0	1 (1%)	11	36
23	21	95/97 (98%)	92 (97%)	2 (2%)	1 (1%)	11	36
24	12	68/70 (97%)	67 (98%)	1 (2%)	0	100	100
24	22	68/70 (97%)	66 (97%)	2 (3%)	0	100	100
25	13	57/59 (97%)	55 (96%)	2 (4%)	0	100	100
25	23	57/59 (97%)	53 (93%)	4 (7%)	0	100	100
26	14	67/69 (97%)	55 (82%)	9 (13%)	3 (4%)	2	7
26	24	67/69 (97%)	54 (81%)	6 (9%)	7 (10%)	0	1
27	15	57/59 (97%)	55 (96%)	2 (4%)	0	100	100
27	25	57/59 (97%)	56 (98%)	1 (2%)	0	100	100
28	16	51/53 (96%)	50 (98%)	1 (2%)	0	100	100
28	26	51/53 (96%)	47 (92%)	4 (8%)	0	100	100
29	17	46/48 (96%)	46 (100%)	0	0	100	100
29	27	46/48 (96%)	45 (98%)	1 (2%)	0	100	100
30	18	62/64 (97%)	61 (98%)	1 (2%)	0	100	100
30	28	62/64 (97%)	61 (98%)	1 (2%)	0	100	100
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	35 (100%)	0	0	100	100
33	1x	95/97 (98%)	93 (98%)	2 (2%)	0	100	100
33	2x	94/97 (97%)	92 (98%)	2 (2%)	0	100	100
34	1b	229/231 (99%)	193 (84%)	27 (12%)	9 (4%)	2	8
34	2b	229/231 (99%)	194 (85%)	28 (12%)	7 (3%)	3	12
35	1c	204/206 (99%)	177 (87%)	26 (13%)	1 (0%)	24	55

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
35	2c	204/206 (99%)	177 (87%)	23 (11%)	4 (2%)	6 21
36	1d	206/208 (99%)	187 (91%)	16 (8%)	3 (2%)	8 28
36	2d	206/208 (99%)	187 (91%)	16 (8%)	3 (2%)	8 28
37	1e	146/148 (99%)	136 (93%)	9 (6%)	1 (1%)	18 47
37	2e	146/148 (99%)	135 (92%)	11 (8%)	0	100 100
38	1f	98/100 (98%)	87 (89%)	11 (11%)	0	100 100
38	2f	98/100 (98%)	90 (92%)	8 (8%)	0	100 100
39	1g	153/155 (99%)	146 (95%)	7 (5%)	0	100 100
39	2g	153/155 (99%)	146 (95%)	4 (3%)	3 (2%)	6 21
40	1h	135/137 (98%)	127 (94%)	8 (6%)	0	100 100
40	2h	135/137 (98%)	129 (96%)	6 (4%)	0	100 100
41	1i	125/127 (98%)	109 (87%)	14 (11%)	2 (2%)	7 27
41	2i	124/127 (98%)	106 (86%)	14 (11%)	4 (3%)	3 11
42	1j	95/97 (98%)	79 (83%)	13 (14%)	3 (3%)	3 11
42	2j	94/97 (97%)	79 (84%)	12 (13%)	3 (3%)	3 11
43	1k	112/114 (98%)	103 (92%)	8 (7%)	1 (1%)	14 41
43	2k	112/114 (98%)	102 (91%)	10 (9%)	0	100 100
44	1l	119/122 (98%)	112 (94%)	6 (5%)	1 (1%)	16 44
44	2l	119/122 (98%)	108 (91%)	9 (8%)	2 (2%)	7 25
45	1m	114/116 (98%)	103 (90%)	9 (8%)	2 (2%)	6 23
45	2m	112/116 (97%)	102 (91%)	8 (7%)	2 (2%)	6 23
46	1n	58/60 (97%)	56 (97%)	2 (3%)	0	100 100
46	2n	58/60 (97%)	54 (93%)	4 (7%)	0	100 100
47	1o	86/88 (98%)	83 (96%)	3 (4%)	0	100 100
47	2o	86/88 (98%)	80 (93%)	5 (6%)	1 (1%)	10 34
48	1p	80/82 (98%)	72 (90%)	8 (10%)	0	100 100
48	2p	80/82 (98%)	72 (90%)	8 (10%)	0	100 100
49	1q	97/99 (98%)	92 (95%)	4 (4%)	1 (1%)	12 38
49	2q	97/99 (98%)	93 (96%)	4 (4%)	0	100 100
50	1r	66/68 (97%)	64 (97%)	2 (3%)	0	100 100
50	2r	66/68 (97%)	64 (97%)	2 (3%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
51	1s	81/83 (98%)	71 (88%)	8 (10%)	2 (2%)	4 16
51	2s	81/83 (98%)	72 (89%)	6 (7%)	3 (4%)	2 9
52	1t	94/98 (96%)	88 (94%)	3 (3%)	3 (3%)	3 11
52	2t	96/98 (98%)	87 (91%)	6 (6%)	3 (3%)	3 12
53	1u	21/23 (91%)	19 (90%)	1 (5%)	1 (5%)	2 6
53	2u	21/23 (91%)	19 (90%)	1 (5%)	1 (5%)	2 6
54	1y	14/16 (88%)	14 (100%)	0	0	100 100
54	2y	14/16 (88%)	14 (100%)	0	0	100 100
All	All	11657/11874 (98%)	10874 (93%)	682 (6%)	101 (1%)	14 41

All (101) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	1E	52	LEU
6	1G	49	ASP
6	1G	51	ARG
8	1I	73	GLU
14	1S	59	LYS
17	1V	79	VAL
23	11	3	LYS
34	1b	17	PHE
34	1b	22	LYS
34	1b	125	PRO
34	1b	231	GLU
42	1j	79	ARG
51	1s	12	ASP
52	1t	95	ALA
5	2F	21	ALA
5	2F	130	ALA
6	2G	81	LYS
8	2I	10	GLU
23	21	3	LYS
26	24	45	GLY
26	24	47	GLN
26	24	60	GLN
26	24	65	ASP
41	2i	44	VAL
41	2i	54	ASP
42	2j	79	ARG

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Mol	Chain	Res	Type
45	2m	67	GLU
51	2s	28	LYS
52	2t	95	ALA
5	1F	130	ALA
26	14	45	GLY
26	14	49	PHE
34	1b	37	ASN
34	1b	127	ILE
36	1d	171	GLY
41	1i	44	VAL
42	1j	32	ALA
53	1u	3	LYS
6	2G	78	SER
10	2O	5	GLN
17	2V	79	VAL
34	2b	17	PHE
34	2b	123	ALA
34	2b	125	PRO
34	2b	127	ILE
34	2b	228	GLY
35	2c	61	ALA
36	2d	171	GLY
41	2i	11	LYS
44	2l	87	GLY
44	2l	88	GLY
8	1I	105	HIS
10	1O	5	GLN
12	1Q	59	ARG
26	14	55	ARG
4	2E	51	PHE
12	2Q	59	ARG
26	24	49	PHE
26	24	62	ARG
34	2b	232	PRO
39	2g	6	ARG
39	2g	7	ALA
45	2m	5	ALA
52	2t	100	ILE
52	2t	102	GLY
6	1G	78	SER
43	1k	117	ASN
45	1m	67	GLU

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Mol	Chain	Res	Type
51	1s	27	GLU
42	2j	32	ALA
51	2s	27	GLU
53	2u	7	ARG
34	1b	83	MET
35	1c	144	SER
41	1i	109	VAL
45	1m	46	LYS
49	1q	49	GLU
52	1t	10	LEU
11	2P	29	LYS
14	2S	89	ARG
34	2b	120	ALA
35	2c	108	ASN
35	2c	144	SER
35	2c	156	ARG
47	2o	88	ARG
51	2s	29	ARG
36	1d	136	PRO
37	1e	147	ASP
44	1l	91	LYS
26	24	55	ARG
36	2d	136	PRO
41	2i	109	VAL
52	1t	100	ILE
36	1d	5	ILE
42	1j	82	ILE
42	2j	77	PRO
21	1Z	158	PRO
34	1b	202	PRO
36	2d	5	ILE
39	2g	55	GLY
34	1b	124	SER

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	214/217 (99%)	189 (88%)	25 (12%)	5 18
3	2D	215/217 (99%)	187 (87%)	28 (13%)	4 14
4	1E	164/165 (99%)	145 (88%)	19 (12%)	5 18
4	2E	164/165 (99%)	145 (88%)	19 (12%)	5 18
5	1F	160/161 (99%)	135 (84%)	25 (16%)	2 9
5	2F	159/161 (99%)	141 (89%)	18 (11%)	5 19
6	1G	144/155 (93%)	130 (90%)	14 (10%)	8 25
6	2G	142/155 (92%)	130 (92%)	12 (8%)	10 31
7	1H	144/145 (99%)	128 (89%)	16 (11%)	6 20
7	2H	143/145 (99%)	129 (90%)	14 (10%)	7 25
8	1I	111/123 (90%)	95 (86%)	16 (14%)	3 11
8	2I	108/123 (88%)	95 (88%)	13 (12%)	5 17
9	1N	119/119 (100%)	107 (90%)	12 (10%)	7 23
9	2N	118/119 (99%)	101 (86%)	17 (14%)	3 11
10	1O	100/100 (100%)	89 (89%)	11 (11%)	6 20
10	2O	100/100 (100%)	93 (93%)	7 (7%)	14 40
11	1P	115/116 (99%)	107 (93%)	8 (7%)	14 40
11	2P	115/116 (99%)	105 (91%)	10 (9%)	9 30
12	1Q	111/111 (100%)	99 (89%)	12 (11%)	6 21
12	2Q	111/111 (100%)	100 (90%)	11 (10%)	7 24
13	1R	101/101 (100%)	87 (86%)	14 (14%)	3 12
13	2R	101/101 (100%)	87 (86%)	14 (14%)	3 12
14	1S	87/87 (100%)	75 (86%)	12 (14%)	3 12
14	2S	85/87 (98%)	75 (88%)	10 (12%)	5 17
15	1T	115/115 (100%)	105 (91%)	10 (9%)	9 30
15	2T	113/115 (98%)	103 (91%)	10 (9%)	9 29
16	1U	93/93 (100%)	83 (89%)	10 (11%)	6 21
16	2U	93/93 (100%)	86 (92%)	7 (8%)	12 37
17	1V	81/82 (99%)	69 (85%)	12 (15%)	3 10
17	2V	80/82 (98%)	72 (90%)	8 (10%)	7 24
18	1W	90/91 (99%)	81 (90%)	9 (10%)	7 24
18	2W	90/91 (99%)	82 (91%)	8 (9%)	9 29

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
19	1X	77/77 (100%)	71 (92%)	6 (8%)	11 35
19	2X	77/77 (100%)	73 (95%)	4 (5%)	21 53
20	1Y	86/88 (98%)	80 (93%)	6 (7%)	14 40
20	2Y	86/88 (98%)	79 (92%)	7 (8%)	11 33
21	1Z	169/176 (96%)	147 (87%)	22 (13%)	4 14
21	2Z	165/176 (94%)	144 (87%)	21 (13%)	4 15
22	10	61/62 (98%)	54 (88%)	7 (12%)	5 18
22	20	61/62 (98%)	55 (90%)	6 (10%)	7 25
23	11	79/82 (96%)	74 (94%)	5 (6%)	16 45
23	21	81/82 (99%)	72 (89%)	9 (11%)	6 20
24	12	65/66 (98%)	60 (92%)	5 (8%)	12 36
24	22	66/66 (100%)	62 (94%)	4 (6%)	17 46
25	13	51/51 (100%)	47 (92%)	4 (8%)	11 35
25	23	50/51 (98%)	47 (94%)	3 (6%)	17 47
26	14	58/62 (94%)	48 (83%)	10 (17%)	2 7
26	24	54/62 (87%)	47 (87%)	7 (13%)	4 14
27	15	51/51 (100%)	47 (92%)	4 (8%)	11 35
27	25	50/51 (98%)	44 (88%)	6 (12%)	5 17
28	16	51/51 (100%)	44 (86%)	7 (14%)	3 13
28	26	50/51 (98%)	46 (92%)	4 (8%)	11 34
29	17	41/41 (100%)	36 (88%)	5 (12%)	5 16
29	27	41/41 (100%)	38 (93%)	3 (7%)	13 38
30	18	54/54 (100%)	50 (93%)	4 (7%)	13 37
30	28	54/54 (100%)	50 (93%)	4 (7%)	13 37
31	19	34/34 (100%)	32 (94%)	2 (6%)	18 48
31	29	34/34 (100%)	33 (97%)	1 (3%)	37 73
33	1x	82/83 (99%)	76 (93%)	6 (7%)	13 38
33	2x	79/83 (95%)	68 (86%)	11 (14%)	3 12
34	1b	191/199 (96%)	159 (83%)	32 (17%)	2 8
34	2b	187/199 (94%)	163 (87%)	24 (13%)	4 15
35	1c	144/160 (90%)	138 (96%)	6 (4%)	26 61

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
35	2c	140/160 (88%)	124 (89%)	16 (11%)	5 19
36	1d	171/180 (95%)	152 (89%)	19 (11%)	6 20
36	2d	172/180 (96%)	156 (91%)	16 (9%)	8 27
37	1e	114/114 (100%)	97 (85%)	17 (15%)	3 10
37	2e	114/114 (100%)	103 (90%)	11 (10%)	8 26
38	1f	85/90 (94%)	80 (94%)	5 (6%)	18 48
38	2f	85/90 (94%)	79 (93%)	6 (7%)	13 39
39	1g	120/126 (95%)	110 (92%)	10 (8%)	10 32
39	2g	119/126 (94%)	110 (92%)	9 (8%)	12 36
40	1h	116/118 (98%)	105 (90%)	11 (10%)	8 26
40	2h	114/118 (97%)	105 (92%)	9 (8%)	11 35
41	1i	91/98 (93%)	81 (89%)	10 (11%)	6 20
41	2i	88/98 (90%)	80 (91%)	8 (9%)	9 28
42	1j	68/87 (78%)	61 (90%)	7 (10%)	7 23
42	2j	68/87 (78%)	66 (97%)	2 (3%)	37 73
43	1k	83/86 (96%)	78 (94%)	5 (6%)	17 47
43	2k	83/86 (96%)	72 (87%)	11 (13%)	4 14
44	1l	96/102 (94%)	90 (94%)	6 (6%)	16 45
44	2l	96/102 (94%)	85 (88%)	11 (12%)	5 18
45	1m	90/94 (96%)	80 (89%)	10 (11%)	6 20
45	2m	87/94 (93%)	77 (88%)	10 (12%)	5 18
46	1n	49/49 (100%)	43 (88%)	6 (12%)	5 16
46	2n	49/49 (100%)	47 (96%)	2 (4%)	27 62
47	1o	78/79 (99%)	73 (94%)	5 (6%)	16 44
47	2o	78/79 (99%)	74 (95%)	4 (5%)	21 54
48	1p	69/71 (97%)	56 (81%)	13 (19%)	1 5
48	2p	68/71 (96%)	58 (85%)	10 (15%)	3 10
49	1q	94/94 (100%)	90 (96%)	4 (4%)	26 60
49	2q	94/94 (100%)	87 (93%)	7 (7%)	13 37
50	1r	59/59 (100%)	54 (92%)	5 (8%)	10 31
50	2r	59/59 (100%)	53 (90%)	6 (10%)	7 23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
51	1s	68/72 (94%)	60 (88%)	8 (12%)	5 17
51	2s	67/72 (93%)	60 (90%)	7 (10%)	7 22
52	1t	71/76 (93%)	64 (90%)	7 (10%)	7 24
52	2t	70/76 (92%)	64 (91%)	6 (9%)	10 31
53	1u	18/18 (100%)	16 (89%)	2 (11%)	6 20
53	2u	18/18 (100%)	18 (100%)	0	100 100
54	1y	14/15 (93%)	13 (93%)	1 (7%)	13 39
54	2y	14/15 (93%)	12 (86%)	2 (14%)	3 11
All	All	9552/9892 (97%)	8572 (90%)	980 (10%)	7 23

All (980) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	13	ARG
3	1D	37	LEU
3	1D	39	LYS
3	1D	61	LEU
3	1D	69	ARG
3	1D	89	SER
3	1D	94	LEU
3	1D	99	ASP
3	1D	103	ARG
3	1D	106	ILE
3	1D	111	LEU
3	1D	113	VAL
3	1D	127	VAL
3	1D	141	VAL
3	1D	142	VAL
3	1D	155	LEU
3	1D	173	VAL
3	1D	193	VAL
3	1D	211	ARG
3	1D	217	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	259	THR
4	1E	1	MET

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Mol	Chain	Res	Type
4	1E	7	VAL
4	1E	9	VAL
4	1E	33	VAL
4	1E	34	VAL
4	1E	49	LEU
4	1E	73	GLU
4	1E	75	VAL
4	1E	78	LEU
4	1E	89	ASP
4	1E	116	VAL
4	1E	119	ARG
4	1E	144	ARG
4	1E	154	LYS
4	1E	170	LEU
4	1E	175	VAL
4	1E	178	GLU
4	1E	181	LEU
4	1E	188	VAL
5	1F	12	LEU
5	1F	18	ARG
5	1F	24	LEU
5	1F	28	ILE
5	1F	33	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	60	SER
5	1F	74	ARG
5	1F	88	VAL
5	1F	94	PRO
5	1F	110	LEU
5	1F	125	LEU
5	1F	127	GLU
5	1F	132	VAL
5	1F	140	LEU
5	1F	158	THR
5	1F	162	LEU
5	1F	170	LEU
5	1F	183	VAL
5	1F	191	ARG
5	1F	192	LEU
5	1F	197	ASP
5	1F	200	GLU

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Mol	Chain	Res	Type
5	1F	201	VAL
6	1G	5	VAL
6	1G	7	LEU
6	1G	28	VAL
6	1G	31	VAL
6	1G	35	GLU
6	1G	43	LEU
6	1G	78	SER
6	1G	79	ASN
6	1G	126	ASP
6	1G	140	ILE
6	1G	148	MET
6	1G	153	ARG
6	1G	161	THR
6	1G	165	THR
7	1H	2	SER
7	1H	6	ARG
7	1H	13	LYS
7	1H	15	VAL
7	1H	32	GLU
7	1H	44	VAL
7	1H	45	VAL
7	1H	71	LEU
7	1H	85	LYS
7	1H	105	LEU
7	1H	106	THR
7	1H	119	GLU
7	1H	122	THR
7	1H	134	SER
7	1H	139	GLN
7	1H	153	LYS
8	1I	5	LEU
8	1I	9	LEU
8	1I	10	GLU
8	1I	15	VAL
8	1I	38	LEU
8	1I	44	LEU
8	1I	50	ARG
8	1I	64	GLU
8	1I	69	LYS
8	1I	78	THR
8	1I	85	GLU

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Mol	Chain	Res	Type
8	1I	92	VAL
8	1I	101	LEU
8	1I	104	GLN
8	1I	109	ILE
8	1I	140	LEU
9	1N	1	MET
9	1N	9	VAL
9	1N	33	LEU
9	1N	34	LEU
9	1N	46	VAL
9	1N	48	MET
9	1N	62	VAL
9	1N	67	LEU
9	1N	73	THR
9	1N	87	LEU
9	1N	97	ARG
9	1N	99	LEU
10	1O	8	LEU
10	1O	10	VAL
10	1O	20	MET
10	1O	24	VAL
10	1O	52	VAL
10	1O	69	ILE
10	1O	94	ARG
10	1O	98	VAL
10	1O	107	ARG
10	1O	108	GLU
10	1O	113	LYS
11	1P	1	MET
11	1P	3	LEU
11	1P	59	LEU
11	1P	83	VAL
11	1P	92	GLU
11	1P	99	LEU
11	1P	112	LEU
11	1P	125	VAL
12	1Q	2	LEU
12	1Q	6	ARG
12	1Q	7	MET
12	1Q	18	LYS
12	1Q	35	VAL
12	1Q	42	ILE

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Mol	Chain	Res	Type
12	1Q	55	VAL
12	1Q	75	THR
12	1Q	81	VAL
12	1Q	109	VAL
12	1Q	130	LYS
12	1Q	133	ARG
13	1R	29	LEU
13	1R	33	ARG
13	1R	36	THR
13	1R	44	LEU
13	1R	54	LEU
13	1R	65	LEU
13	1R	67	LEU
13	1R	73	VAL
13	1R	75	LEU
13	1R	86	ARG
13	1R	96	ARG
13	1R	111	LEU
13	1R	114	VAL
13	1R	117	VAL
14	1S	14	VAL
14	1S	17	ARG
14	1S	21	THR
14	1S	25	ARG
14	1S	36	TYR
14	1S	46	VAL
14	1S	49	VAL
14	1S	50	SER
14	1S	52	SER
14	1S	59	LYS
14	1S	68	GLN
14	1S	69	VAL
15	1T	13	ARG
15	1T	28	VAL
15	1T	34	VAL
15	1T	49	VAL
15	1T	59	THR
15	1T	65	LYS
15	1T	78	LEU
15	1T	89	VAL
15	1T	96	ARG
15	1T	108	ARG

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Mol	Chain	Res	Type
16	1U	8	VAL
16	1U	27	LEU
16	1U	31	SER
16	1U	52	ARG
16	1U	59	ARG
16	1U	74	LEU
16	1U	83	LEU
16	1U	95	LEU
16	1U	104	GLN
16	1U	117	GLN
17	1V	28	GLU
17	1V	35	LEU
17	1V	46	VAL
17	1V	51	VAL
17	1V	52	VAL
17	1V	61	VAL
17	1V	62	LEU
17	1V	72	VAL
17	1V	73	SER
17	1V	79	VAL
17	1V	82	ARG
17	1V	100	ARG
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	23	LEU
18	1W	27	LYS
18	1W	67	ASP
18	1W	100	THR
18	1W	107	LEU
19	1X	35	THR
19	1X	45	THR
19	1X	52	VAL
19	1X	66	LEU
19	1X	88	LYS
19	1X	92	LEU
20	1Y	7	VAL
20	1Y	43	ASN
20	1Y	72	VAL
20	1Y	90	LEU
20	1Y	92	ASN

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Mol	Chain	Res	Type
20	1Y	94	LYS
21	1Z	11	GLU
21	1Z	18	LEU
21	1Z	31	ARG
21	1Z	33	LEU
21	1Z	42	VAL
21	1Z	61	LEU
21	1Z	76	LEU
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	93	ASP
21	1Z	94	GLU
21	1Z	100	VAL
21	1Z	102	LEU
21	1Z	126	VAL
21	1Z	135	GLU
21	1Z	150	LEU
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	162	GLU
21	1Z	165	VAL
21	1Z	170	THR
21	1Z	203	GLU
22	10	10	THR
22	10	11	ARG
22	10	14	ARG
22	10	39	ARG
22	10	55	ARG
22	10	59	LEU
22	10	82	ARG
23	11	21	ARG
23	11	30	VAL
23	11	35	THR
23	11	59	THR
23	11	95	LEU
24	12	3	LEU
24	12	25	VAL
24	12	32	LEU
24	12	53	LEU
24	12	70	GLN
25	13	8	LEU
25	13	23	LEU

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Mol	Chain	Res	Type
25	13	54	VAL
25	13	55	ARG
26	14	13	ARG
26	14	23	GLU
26	14	30	GLU
26	14	49	PHE
26	14	56	VAL
26	14	57	GLU
26	14	59	PHE
26	14	61	ARG
26	14	65	ASP
26	14	69	LYS
27	15	6	VAL
27	15	16	ARG
27	15	29	THR
27	15	57	VAL
28	16	14	THR
28	16	19	ARG
28	16	28	ARG
28	16	40	CYS
28	16	47	THR
28	16	48	VAL
28	16	52	VAL
29	17	1	MET
29	17	10	ARG
29	17	24	THR
29	17	43	THR
29	17	46	VAL
30	18	14	VAL
30	18	23	VAL
30	18	32	LEU
30	18	34	TRP
31	19	3	VAL
31	19	27	CYS
33	2x	3	MET
33	2x	9	GLN
33	2x	11	GLU
33	2x	13	THR
33	2x	16	ILE
33	2x	24	LEU
33	2x	32	THR
33	2x	41	LEU

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Mol	Chain	Res	Type
33	2x	60	VAL
33	2x	62	VAL
33	2x	96	ARG
34	1b	9	GLU
34	1b	17	PHE
34	1b	21	ARG
34	1b	22	LYS
34	1b	35	GLU
34	1b	44	LEU
34	1b	45	GLN
34	1b	67	THR
34	1b	68	ILE
34	1b	71	VAL
34	1b	73	THR
34	1b	76	GLN
34	1b	82	ARG
34	1b	93	VAL
34	1b	106	LYS
34	1b	111	ARG
34	1b	113	HIS
34	1b	122	PHE
34	1b	128	GLU
34	1b	130	ARG
34	1b	136	VAL
34	1b	157	ARG
34	1b	158	LEU
34	1b	178	ARG
34	1b	185	ILE
34	1b	187	LEU
34	1b	200	ILE
34	1b	201	ILE
34	1b	208	ILE
34	1b	226	ARG
34	1b	230	VAL
34	1b	231	GLU
35	1c	3	ASN
35	1c	32	LEU
35	1c	64	VAL
35	1c	68	VAL
35	1c	104	GLN
35	1c	132	ARG
36	1d	5	ILE

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Mol	Chain	Res	Type
36	1d	8	VAL
36	1d	28	SER
36	1d	31	CYS
36	1d	58	LEU
36	1d	59	ARG
36	1d	85	LYS
36	1d	86	LYS
36	1d	104	VAL
36	1d	107	ARG
36	1d	110	PHE
36	1d	127	THR
36	1d	135	LEU
36	1d	168	ARG
36	1d	173	TRP
36	1d	182	LYS
36	1d	184	LYS
36	1d	194	LEU
36	1d	196	LEU
37	1e	9	LYS
37	1e	12	LEU
37	1e	16	THR
37	1e	20	GLN
37	1e	24	ARG
37	1e	31	LEU
37	1e	34	VAL
37	1e	41	VAL
37	1e	69	VAL
37	1e	75	THR
37	1e	91	LEU
37	1e	116	THR
37	1e	120	THR
37	1e	135	THR
37	1e	143	ARG
37	1e	148	VAL
37	1e	150	ARG
38	1f	17	SER
38	1f	40	VAL
38	1f	57	GLN
38	1f	72	VAL
38	1f	73	ASN
39	1g	9	VAL
39	1g	13	GLN

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Mol	Chain	Res	Type
39	1g	15	ASP
39	1g	21	VAL
39	1g	58	PRO
39	1g	104	LEU
39	1g	110	GLN
39	1g	113	GLU
39	1g	115	ARG
39	1g	135	VAL
40	1h	2	LEU
40	1h	26	VAL
40	1h	39	LEU
40	1h	51	VAL
40	1h	52	ASP
40	1h	63	LEU
40	1h	97	VAL
40	1h	104	ARG
40	1h	112	LEU
40	1h	120	THR
40	1h	137	VAL
41	1i	25	LYS
41	1i	42	ARG
41	1i	50	LEU
41	1i	53	VAL
41	1i	58	HIS
41	1i	60	ASP
41	1i	65	VAL
41	1i	81	ILE
41	1i	92	TYR
41	1i	103	THR
42	1j	5	ARG
42	1j	25	GLU
42	1j	38	ILE
42	1j	42	THR
42	1j	67	THR
42	1j	84	GLN
42	1j	100	THR
43	1k	31	THR
43	1k	70	LYS
43	1k	84	VAL
43	1k	109	VAL
43	1k	112	THR
44	1l	18	VAL

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Mol	Chain	Res	Type
44	1l	27	LEU
44	1l	33	ARG
44	1l	60	LEU
44	1l	83	VAL
44	1l	117	ARG
45	1m	4	ILE
45	1m	8	GLU
45	1m	12	ASN
45	1m	17	VAL
45	1m	19	LEU
45	1m	49	THR
45	1m	56	LEU
45	1m	70	LEU
45	1m	81	LEU
45	1m	102	ARG
46	1n	3	ARG
46	1n	12	ARG
46	1n	18	VAL
46	1n	32	SER
46	1n	33	VAL
46	1n	44	LEU
47	1o	3	ILE
47	1o	5	LYS
47	1o	39	LEU
47	1o	66	LEU
47	1o	88	ARG
48	1p	2	VAL
48	1p	5	ARG
48	1p	8	ARG
48	1p	11	SER
48	1p	19	ILE
48	1p	42	ARG
48	1p	45	THR
48	1p	54	GLU
48	1p	60	LEU
48	1p	62	VAL
48	1p	67	THR
48	1p	69	THR
48	1p	79	VAL
49	1q	9	VAL
49	1q	63	ARG
49	1q	70	ARG

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Mol	Chain	Res	Type
49	1q	98	LEU
50	1r	31	LEU
50	1r	37	VAL
50	1r	47	THR
50	1r	76	LEU
50	1r	86	VAL
51	1s	4	SER
51	1s	16	LEU
51	1s	37	ARG
51	1s	40	ILE
51	1s	41	VAL
51	1s	51	VAL
51	1s	77	THR
51	1s	79	THR
52	1t	9	ASN
52	1t	10	LEU
52	1t	34	LYS
52	1t	58	LYS
52	1t	62	LEU
52	1t	84	LEU
52	1t	100	ILE
53	1u	9	ARG
53	1u	24	ARG
33	1x	3	MET
33	1x	23	ARG
33	1x	24	LEU
33	1x	42	SER
33	1x	46	GLN
33	1x	87	LYS
54	1y	6	TYR
3	2D	3	VAL
3	2D	38	LYS
3	2D	61	LEU
3	2D	89	SER
3	2D	94	LEU
3	2D	99	ASP
3	2D	103	ARG
3	2D	106	ILE
3	2D	111	LEU
3	2D	113	VAL
3	2D	127	VAL
3	2D	138	VAL

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Mol	Chain	Res	Type
3	2D	141	VAL
3	2D	142	VAL
3	2D	154	LYS
3	2D	155	LEU
3	2D	169	GLU
3	2D	173	VAL
3	2D	193	VAL
3	2D	211	ARG
3	2D	217	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	259	THR
3	2D	274	ARG
3	2D	275	LYS
3	2D	276	LYS
4	2E	7	VAL
4	2E	9	VAL
4	2E	21	VAL
4	2E	24	THR
4	2E	33	VAL
4	2E	34	VAL
4	2E	49	LEU
4	2E	75	VAL
4	2E	78	LEU
4	2E	87	GLU
4	2E	116	VAL
4	2E	144	ARG
4	2E	154	LYS
4	2E	163	GLU
4	2E	170	LEU
4	2E	175	VAL
4	2E	178	GLU
4	2E	181	LEU
4	2E	184	VAL
5	2F	24	LEU
5	2F	33	LEU
5	2F	53	THR
5	2F	57	VAL
5	2F	60	SER
5	2F	74	ARG
5	2F	88	VAL

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Mol	Chain	Res	Type
5	2F	125	LEU
5	2F	132	VAL
5	2F	140	LEU
5	2F	144	LYS
5	2F	162	LEU
5	2F	170	LEU
5	2F	175	THR
5	2F	183	VAL
5	2F	192	LEU
5	2F	197	ASP
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	8	LYS
6	2G	28	VAL
6	2G	31	VAL
6	2G	49	ASP
6	2G	60	LEU
6	2G	71	THR
6	2G	79	ASN
6	2G	126	ASP
6	2G	159	VAL
6	2G	165	THR
7	2H	6	ARG
7	2H	15	VAL
7	2H	23	ARG
7	2H	33	LEU
7	2H	44	VAL
7	2H	47	GLU
7	2H	85	LYS
7	2H	88	LEU
7	2H	105	LEU
7	2H	122	THR
7	2H	134	SER
7	2H	136	ILE
7	2H	139	GLN
7	2H	148	ILE
8	2I	5	LEU
8	2I	9	LEU
8	2I	15	VAL
8	2I	38	LEU
8	2I	44	LEU

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Mol	Chain	Res	Type
8	2I	69	LYS
8	2I	75	LEU
8	2I	87	LYS
8	2I	99	GLU
8	2I	116	LEU
8	2I	123	LEU
8	2I	127	VAL
8	2I	140	LEU
9	2N	9	VAL
9	2N	12	ARG
9	2N	22	THR
9	2N	28	THR
9	2N	33	LEU
9	2N	34	LEU
9	2N	46	VAL
9	2N	48	MET
9	2N	59	LYS
9	2N	62	VAL
9	2N	67	LEU
9	2N	68	GLU
9	2N	71	ILE
9	2N	73	THR
9	2N	87	LEU
9	2N	99	LEU
9	2N	119	ARG
10	2O	10	VAL
10	2O	24	VAL
10	2O	66	LYS
10	2O	69	ILE
10	2O	90	GLN
10	2O	98	VAL
10	2O	108	GLU
11	2P	2	LYS
11	2P	3	LEU
11	2P	30	THR
11	2P	32	THR
11	2P	59	LEU
11	2P	76	LYS
11	2P	83	VAL
11	2P	99	LEU
11	2P	112	LEU
11	2P	125	VAL

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Mol	Chain	Res	Type
12	2Q	2	LEU
12	2Q	7	MET
12	2Q	18	LYS
12	2Q	21	THR
12	2Q	22	LYS
12	2Q	35	VAL
12	2Q	55	VAL
12	2Q	75	THR
12	2Q	81	VAL
12	2Q	106	VAL
12	2Q	110	THR
13	2R	18	LEU
13	2R	29	LEU
13	2R	36	THR
13	2R	44	LEU
13	2R	54	LEU
13	2R	65	LEU
13	2R	73	VAL
13	2R	75	LEU
13	2R	79	LEU
13	2R	86	ARG
13	2R	100	LEU
13	2R	111	LEU
13	2R	114	VAL
13	2R	117	VAL
14	2S	14	VAL
14	2S	21	THR
14	2S	23	ARG
14	2S	36	TYR
14	2S	50	SER
14	2S	52	SER
14	2S	68	GLN
14	2S	75	GLU
14	2S	83	LYS
14	2S	85	VAL
15	2T	23	ARG
15	2T	28	VAL
15	2T	34	VAL
15	2T	39	ARG
15	2T	42	ILE
15	2T	49	VAL
15	2T	65	LYS

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Mol	Chain	Res	Type
15	2T	74	ARG
15	2T	89	VAL
15	2T	96	ARG
16	2U	5	LYS
16	2U	27	LEU
16	2U	31	SER
16	2U	59	ARG
16	2U	74	LEU
16	2U	83	LEU
16	2U	89	GLU
17	2V	35	LEU
17	2V	46	VAL
17	2V	51	VAL
17	2V	52	VAL
17	2V	53	GLU
17	2V	72	VAL
17	2V	79	VAL
17	2V	82	ARG
18	2W	11	ARG
18	2W	15	ARG
18	2W	17	VAL
18	2W	19	LEU
18	2W	23	LEU
18	2W	27	LYS
18	2W	100	THR
18	2W	107	LEU
19	2X	57	LEU
19	2X	66	LEU
19	2X	88	LYS
19	2X	92	LEU
20	2Y	7	VAL
20	2Y	23	ARG
20	2Y	57	GLN
20	2Y	72	VAL
20	2Y	73	ARG
20	2Y	81	LYS
20	2Y	88	LYS
21	2Z	18	LEU
21	2Z	28	MET
21	2Z	33	LEU
21	2Z	41	LEU
21	2Z	42	VAL

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Mol	Chain	Res	Type
21	2Z	46	LYS
21	2Z	61	LEU
21	2Z	74	VAL
21	2Z	86	VAL
21	2Z	100	VAL
21	2Z	107	THR
21	2Z	126	VAL
21	2Z	131	ARG
21	2Z	136	PHE
21	2Z	150	LEU
21	2Z	155	LEU
21	2Z	161	VAL
21	2Z	165	VAL
21	2Z	170	THR
21	2Z	182	LYS
21	2Z	193	GLU
22	20	9	SER
22	20	10	THR
22	20	14	ARG
22	20	30	VAL
22	20	39	ARG
22	20	55	ARG
23	21	3	LYS
23	21	4	VAL
23	21	21	ARG
23	21	30	VAL
23	21	59	THR
23	21	62	VAL
23	21	75	GLU
23	21	85	LEU
23	21	95	LEU
24	22	3	LEU
24	22	25	VAL
24	22	53	LEU
24	22	63	VAL
25	23	23	LEU
25	23	31	LEU
25	23	54	VAL
26	24	13	ARG
26	24	21	VAL
26	24	53	GLU
26	24	56	VAL

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Mol	Chain	Res	Type
26	24	61	ARG
26	24	63	TYR
26	24	69	LYS
27	25	6	VAL
27	25	15	ARG
27	25	16	ARG
27	25	29	THR
27	25	57	VAL
27	25	58	LEU
28	26	6	ARG
28	26	14	THR
28	26	19	ARG
28	26	48	VAL
29	27	1	MET
29	27	23	ARG
29	27	43	THR
30	28	6	THR
30	28	14	VAL
30	28	23	VAL
30	28	46	ARG
31	29	17	ILE
34	2b	10	LEU
34	2b	17	PHE
34	2b	45	GLN
34	2b	67	THR
34	2b	68	ILE
34	2b	94	ASN
34	2b	111	ARG
34	2b	113	HIS
34	2b	126	GLU
34	2b	128	GLU
34	2b	135	GLN
34	2b	145	LEU
34	2b	154	LEU
34	2b	157	ARG
34	2b	158	LEU
34	2b	185	ILE
34	2b	187	LEU
34	2b	189	ASP
34	2b	200	ILE
34	2b	208	ILE
34	2b	222	ILE

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Mol	Chain	Res	Type
34	2b	224	GLN
34	2b	226	ARG
34	2b	230	VAL
35	2c	3	ASN
35	2c	15	THR
35	2c	16	ARG
35	2c	32	LEU
35	2c	44	GLU
35	2c	45	LYS
35	2c	82	GLU
35	2c	105	GLU
35	2c	115	LEU
35	2c	127	ARG
35	2c	131	ARG
35	2c	152	ILE
35	2c	162	GLN
35	2c	166	GLU
35	2c	192	THR
35	2c	202	ILE
36	2d	8	VAL
36	2d	28	SER
36	2d	31	CYS
36	2d	34	GLU
36	2d	58	LEU
36	2d	59	ARG
36	2d	105	VAL
36	2d	107	ARG
36	2d	108	LEU
36	2d	110	PHE
36	2d	127	THR
36	2d	135	LEU
36	2d	150	GLU
36	2d	170	VAL
36	2d	178	VAL
36	2d	194	LEU
37	2e	24	ARG
37	2e	31	LEU
37	2e	34	VAL
37	2e	41	VAL
37	2e	69	VAL
37	2e	72	GLN
37	2e	82	VAL

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Mol	Chain	Res	Type
37	2e	91	LEU
37	2e	137	GLU
37	2e	148	VAL
37	2e	150	ARG
38	2f	17	SER
38	2f	40	VAL
38	2f	63	TYR
38	2f	72	VAL
38	2f	73	ASN
38	2f	94	GLN
39	2g	9	VAL
39	2g	13	GLN
39	2g	15	ASP
39	2g	50	ILE
39	2g	58	PRO
39	2g	104	LEU
39	2g	113	GLU
39	2g	115	ARG
39	2g	138	LYS
40	2h	26	VAL
40	2h	39	LEU
40	2h	63	LEU
40	2h	91	ARG
40	2h	97	VAL
40	2h	104	ARG
40	2h	107	LEU
40	2h	112	LEU
40	2h	137	VAL
41	2i	7	THR
41	2i	58	HIS
41	2i	64	THR
41	2i	65	VAL
41	2i	66	ARG
41	2i	87	GLN
41	2i	103	THR
41	2i	127	LYS
42	2j	38	ILE
42	2j	92	THR
43	2k	14	VAL
43	2k	28	THR
43	2k	47	VAL
43	2k	48	ILE

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Mol	Chain	Res	Type
43	2k	70	LYS
43	2k	84	VAL
43	2k	92	GLU
43	2k	103	LEU
43	2k	109	VAL
43	2k	112	THR
43	2k	114	VAL
44	2l	18	VAL
44	2l	33	ARG
44	2l	47	LYS
44	2l	52	LEU
44	2l	55	VAL
44	2l	60	LEU
44	2l	83	VAL
44	2l	89	ARG
44	2l	97	ARG
44	2l	116	SER
44	2l	117	ARG
45	2m	4	ILE
45	2m	12	ASN
45	2m	14	ARG
45	2m	19	LEU
45	2m	63	THR
45	2m	65	LYS
45	2m	67	GLU
45	2m	70	LEU
45	2m	88	ARG
45	2m	110	ARG
46	2n	15	LYS
46	2n	44	LEU
47	2o	5	LYS
47	2o	39	LEU
47	2o	64	ARG
47	2o	66	LEU
48	2p	2	VAL
48	2p	25	ARG
48	2p	42	ARG
48	2p	45	THR
48	2p	54	GLU
48	2p	62	VAL
48	2p	67	THR
48	2p	69	THR

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Mol	Chain	Res	Type
48	2p	72	ARG
48	2p	76	GLN
49	2q	6	LEU
49	2q	9	VAL
49	2q	16	GLN
49	2q	60	ILE
49	2q	63	ARG
49	2q	74	LEU
49	2q	87	LYS
50	2r	25	THR
50	2r	37	VAL
50	2r	61	LYS
50	2r	76	LEU
50	2r	85	LEU
50	2r	86	VAL
51	2s	13	ASP
51	2s	27	GLU
51	2s	41	VAL
51	2s	56	GLN
51	2s	71	LEU
51	2s	77	THR
51	2s	79	THR
52	2t	24	LEU
52	2t	38	LYS
52	2t	45	GLN
52	2t	62	LEU
52	2t	74	LYS
52	2t	84	LEU
54	2y	5	SER
54	2y	11	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (134) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	116	GLN
3	1D	253	GLN
4	1E	48	GLN
4	1E	55	ASN
4	1E	143	ASN
5	1F	8	GLN
5	1F	69	HIS

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Mol	Chain	Res	Type
5	1F	75	HIS
5	1F	203	GLN
6	1G	108	ASN
7	1H	139	GLN
8	1I	105	HIS
9	1N	133	GLN
10	1O	5	GLN
13	1R	71	GLN
14	1S	95	HIS
15	1T	58	ASN
16	1U	94	ASN
19	1X	31	HIS
19	1X	82	GLN
20	1Y	6	HIS
20	1Y	43	ASN
20	1Y	92	ASN
21	1Z	73	GLN
21	1Z	151	HIS
24	12	9	GLN
24	12	70	GLN
25	13	32	GLN
26	14	60	GLN
30	18	35	GLN
33	2x	33	HIS
33	2x	46	GLN
33	2x	79	ASN
34	1b	212	GLN
35	1c	6	HIS
35	1c	98	ASN
35	1c	102	ASN
35	1c	104	GLN
35	1c	110	ASN
35	1c	123	GLN
35	1c	181	ASN
36	1d	77	ASN
36	1d	119	GLN
36	1d	123	HIS
36	1d	125	HIS
36	1d	129	ASN
38	1f	73	ASN
38	1f	100	ASN
39	1g	28	ASN

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Mol	Chain	Res	Type
39	1g	86	GLN
39	1g	110	GLN
40	1h	82	HIS
41	1i	3	GLN
41	1i	58	HIS
41	1i	73	GLN
42	1j	56	HIS
43	1k	93	GLN
44	1l	99	HIS
47	1o	28	GLN
48	1p	13	HIS
48	1p	16	HIS
49	1q	16	GLN
49	1q	26	GLN
51	1s	14	HIS
52	1t	18	GLN
33	1x	36	ASN
33	1x	38	HIS
3	2D	87	ASN
3	2D	126	GLN
3	2D	253	GLN
4	2E	143	ASN
4	2E	180	ASN
5	2F	69	HIS
5	2F	75	HIS
5	2F	203	GLN
7	2H	74	ASN
7	2H	111	HIS
8	2I	43	ASN
9	2N	8	GLN
9	2N	94	HIS
9	2N	133	GLN
10	2O	5	GLN
12	2Q	12	GLN
12	2Q	123	HIS
13	2R	50	HIS
15	2T	58	ASN
16	2U	71	GLN
16	2U	94	ASN
16	2U	104	GLN
17	2V	64	HIS
18	2W	60	ASN

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Mol	Chain	Res	Type
19	2X	31	HIS
19	2X	82	GLN
20	2Y	92	ASN
21	2Z	73	GLN
22	20	50	ASN
22	20	70	GLN
25	23	32	GLN
26	24	46	GLN
34	2b	19	HIS
34	2b	45	GLN
34	2b	78	GLN
34	2b	94	ASN
35	2c	31	HIS
35	2c	136	GLN
35	2c	162	GLN
36	2d	77	ASN
36	2d	116	GLN
36	2d	119	GLN
36	2d	123	HIS
36	2d	125	HIS
36	2d	161	ASN
36	2d	201	GLN
37	2e	72	GLN
38	2f	73	ASN
38	2f	94	GLN
38	2f	100	ASN
39	2g	13	GLN
39	2g	28	ASN
41	2i	3	GLN
41	2i	31	GLN
41	2i	58	HIS
41	2i	117	HIS
42	2j	69	ASN
43	2k	93	GLN
43	2k	117	ASN
44	2l	99	HIS
47	2o	28	GLN
48	2p	16	HIS
49	2q	26	GLN
51	2s	14	HIS
51	2s	65	ASN
52	2t	16	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2866/2915 (98%)	405 (14%)	51 (1%)
1	2A	2857/2915 (98%)	422 (14%)	49 (1%)
2	1B	119/120 (99%)	5 (4%)	0
2	2B	118/120 (98%)	5 (4%)	0
32	1a	1497/1521 (98%)	322 (21%)	0
32	2a	1501/1521 (98%)	307 (20%)	0
All	All	8958/9112 (98%)	1466 (16%)	100 (1%)

All (1466) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	34	C
1	1A	45	C
1	1A	60	G
1	1A	70	A
1	1A	73	A
1	1A	74	G
1	1A	116	A
1	1A	117	A
1	1A	118	U
1	1A	185	A
1	1A	186	A
1	1A	188	A
1	1A	189	U
1	1A	194	G
1	1A	202	A
1	1A	204	G
1	1A	205	A
1	1A	211	A
1	1A	218	A
1	1A	222	A
1	1A	237	G
1	1A	255	G
1	1A	271	U
1	1A	272	U
1	1A	273	G
1	1A	274	U
1	1A	288	U
1	1A	289	G
1	1A	303	C

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Mol	Chain	Res	Type
1	1A	304	C
1	1A	335	A
1	1A	354	A
1	1A	376	G
1	1A	386	U
1	1A	387	G
1	1A	413	G
1	1A	432	U
1	1A	438	G
1	1A	439	A
1	1A	455	A
1	1A	474	U
1	1A	480	A
1	1A	482	C
1	1A	483	A
1	1A	507	G
1	1A	530	A
1	1A	534	C
1	1A	543	G
1	1A	555	G
1	1A	556	C
1	1A	557	A
1	1A	558	G
1	1A	569	G
1	1A	573	G
1	1A	574	G
1	1A	586	G
1	1A	596	G
1	1A	598	A
1	1A	609	A
1	1A	615	G
1	1A	618	C
1	1A	626	A
1	1A	627	G
1	1A	630	U
1	1A	633	G
1	1A	639	G
1	1A	641	G
1	1A	652	A
1	1A	662	A
1	1A	670	C
1	1A	671	A

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Mol	Chain	Res	Type
1	1A	693	G
1	1A	697	C
1	1A	698	G
1	1A	715	G
1	1A	716	G
1	1A	732	A
1	1A	733	G
1	1A	764	G
1	1A	777	C
1	1A	793	A
1	1A	794	U
1	1A	811	A
1	1A	812	G
1	1A	822	G
1	1A	823	G
1	1A	824	A
1	1A	829	A
1	1A	831	A
1	1A	832	G
1	1A	836	A
1	1A	839	G
1	1A	852	G
1	1A	859	C
1	1A	874	U
1	1A	875	U
1	1A	906	G
1	1A	913	A
1	1A	927	G
1	1A	934	A
1	1A	936	C
1	1A	937	A
1	1A	938	G
1	1A	942	A
1	1A	956	A
1	1A	977	G
1	1A	983	G
1	1A	990	A
1	1A	991	G
1	1A	1003	U
1	1A	1004	A
1	1A	1006	C
1	1A	1019	G

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Mol	Chain	Res	Type
1	1A	1020	C
1	1A	1029	A
1	1A	1042	A
1	1A	1051	C
1	1A	1058	U
1	1A	1059	C
1	1A	1068	G
1	1A	1072	U
1	1A	1079	U
1	1A	1089	C
1	1A	1090	G
1	1A	1092	A
1	1A	1093	G
1	1A	1094	A
1	1A	1100	A
1	1A	1106	U
1	1A	1107	U
1	1A	1108	G
1	1A	1109	G
1	1A	1111	U
1	1A	1113	A
1	1A	1114	G
1	1A	1115	A
1	1A	1116	A
1	1A	1117	G
1	1A	1119	A
1	1A	1121	C
1	1A	1122	C
1	1A	1123	A
1	1A	1124	U
1	1A	1125	C
1	1A	1129	U
1	1A	1131	A
1	1A	1134	A
1	1A	1136	U
1	1A	1137	G
1	1A	1139	G
1	1A	1142	A
1	1A	1143	U
1	1A	1154	U
1	1A	1155	C
1	1A	1156	G

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Mol	Chain	Res	Type
1	1A	1157	A
1	1A	1158	G
1	1A	1162	C
1	1A	1174	A
1	1A	1180	C
1	1A	1181	G
1	1A	1217	G
1	1A	1218	G
1	1A	1219	A
1	1A	1220	U
1	1A	1221	G
1	1A	1222	A
1	1A	1232	G
1	1A	1256	U
1	1A	1263	C
1	1A	1265	A
1	1A	1299	A
1	1A	1302	G
1	1A	1317	G
1	1A	1318	A
1	1A	1319	U
1	1A	1346	U
1	1A	1347	A
1	1A	1349	G
1	1A	1352	C
1	1A	1354	A
1	1A	1367	A
1	1A	1398	U
1	1A	1405	A
1	1A	1406	A
1	1A	1411	A
1	1A	1430	A
1	1A	1431	G
1	1A	1462	G
1	1A	1463	C
1	1A	1466	U
1	1A	1467	G
1	1A	1474	C
1	1A	1491	A
1	1A	1497	G
1	1A	1500	A
1	1A	1514	C

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Mol	Chain	Res	Type
1	1A	1518	A
1	1A	1529	G
1	1A	1539	C
1	1A	1554	A
1	1A	1555	C
1	1A	1556	A
1	1A	1571	G
1	1A	1578	C
1	1A	1589	A
1	1A	1590	C
1	1A	1594	C
1	1A	1605	A
1	1A	1613	A
1	1A	1616	A
1	1A	1625	U
1	1A	1626	A
1	1A	1628	G
1	1A	1631	C
1	1A	1632	A
1	1A	1654	A
1	1A	1655	A
1	1A	1656	A
1	1A	1695	C
1	1A	1700	G
1	1A	1701	A
1	1A	1721	G
1	1A	1743	G
1	1A	1747	A
1	1A	1748	A
1	1A	1767	A
1	1A	1776	G
1	1A	1787	G
1	1A	1793	A
1	1A	1794	G
1	1A	1795	G
1	1A	1800	G
1	1A	1804	A
1	1A	1811	A
1	1A	1813	C
1	1A	1822	A
1	1A	1831	C
1	1A	1832	G

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Mol	Chain	Res	Type
1	1A	1847	G
1	1A	1860	A
1	1A	1870	G
1	1A	1878	A
1	1A	1899	A
1	1A	1900	G
1	1A	1911	A
1	1A	1918	G
1	1A	1922	A
1	1A	1927	C
1	1A	1928	G
1	1A	1935	A
1	1A	1936	C
1	1A	1937	5MU
1	1A	1942	OMC
1	1A	1951	G
1	1A	1952	G
1	1A	1959	A
1	1A	1960	A
1	1A	1977	U
1	1A	1985	U
1	1A	1989	C
1	1A	1992	A
1	1A	1993	A
1	1A	1994	A
1	1A	2015	U
1	1A	2019	G
1	1A	2042	A
1	1A	2045	G
1	1A	2053	A
1	1A	2054	G
1	1A	2055	A
1	1A	2061	C
1	1A	2065	C
1	1A	2077	C
1	1A	2078	G
1	1A	2082	A
1	1A	2083	G
1	1A	2084	A
1	1A	2091	G
1	1A	2102	G
1	1A	2125	C

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Mol	Chain	Res	Type
1	1A	2126	G
1	1A	2129	C
1	1A	2130	C
1	1A	2132	G
1	1A	2134	G
1	1A	2138	G
1	1A	2139	A
1	1A	2141	A
1	1A	2148	A
1	1A	2149	G
1	1A	2153	G
1	1A	2154	U
1	1A	2155	G
1	1A	2156	A
1	1A	2164	C
1	1A	2166	U
1	1A	2168	C
1	1A	2170	G
1	1A	2180	A
1	1A	2181	G
1	1A	2182	G
1	1A	2184	G
1	1A	2194	U
1	1A	2195	A
1	1A	2206	G
1	1A	2208	G
1	1A	2209	G
1	1A	2211	U
1	1A	2212	G
1	1A	2214	G
1	1A	2220	A
1	1A	2227	G
1	1A	2228	G
1	1A	2229	A
1	1A	2237	A
1	1A	2250	G
1	1A	2251	G
1	1A	2280	A
1	1A	2281	A
1	1A	2291	G
1	1A	2295	C
1	1A	2298	A

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Mol	Chain	Res	Type
1	1A	2299	A
1	1A	2301	G
1	1A	2317	A
1	1A	2320	G
1	1A	2332	A
1	1A	2333	G
1	1A	2334	A
1	1A	2337	G
1	1A	2346	G
1	1A	2347	A
1	1A	2348	A
1	1A	2359	C
1	1A	2362	C
1	1A	2395	G
1	1A	2397	C
1	1A	2405	A
1	1A	2418	U
1	1A	2419	G
1	1A	2426	G
1	1A	2434	A
1	1A	2435	U
1	1A	2437	A
1	1A	2441	G
1	1A	2442	A
1	1A	2447	A
1	1A	2451	A
1	1A	2452	C
1	1A	2453	C
1	1A	2460	A
1	1A	2480	G
1	1A	2481	A
1	1A	2486	C
1	1A	2488	A
1	1A	2514	G
1	1A	2517	G
1	1A	2518	U
1	1A	2530	A
1	1A	2532	C
1	1A	2541	G
1	1A	2561	G
1	1A	2566	U
1	1A	2578	A

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Mol	Chain	Res	Type
1	1A	2579	G
1	1A	2585	C
1	1A	2597	U
1	1A	2598	C
1	1A	2613	C
1	1A	2614	A
1	1A	2615	G
1	1A	2621	U
1	1A	2623	U
1	1A	2624	C
1	1A	2642	G
1	1A	2666	A
1	1A	2675	G
1	1A	2701	U
1	1A	2702	C
1	1A	2714	U
1	1A	2715	C
1	1A	2725	A
1	1A	2726	A
1	1A	2727	G
1	1A	2739	U
1	1A	2746	A
1	1A	2770	A
1	1A	2771	A
1	1A	2774	G
1	1A	2777	A
1	1A	2778	A
1	1A	2779	G
1	1A	2791	A
1	1A	2803	A
1	1A	2804	C
1	1A	2813	G
1	1A	2830	A
1	1A	2831	A
1	1A	2843	G
1	1A	2845	A
1	1A	2882	G
1	1A	2890	C
1	1A	2903	G
2	1B	45	A
2	1B	56	G
2	1B	73	A

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Mol	Chain	Res	Type
2	1B	84	C
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	32	A
32	1a	33	A
32	1a	39	G
32	1a	44	G
32	1a	47	C
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	61	G
32	1a	78	G
32	1a	79	G
32	1a	101	A
32	1a	105	G
32	1a	110	C
32	1a	115	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	135	C
32	1a	143	A
32	1a	163	C
32	1a	164	U
32	1a	166	G
32	1a	173	U
32	1a	174	C
32	1a	179	A
32	1a	181	G
32	1a	182	U
32	1a	189(D)	C
32	1a	189(G)	G
32	1a	189(H)	G
32	1a	195	A
32	1a	197	A
32	1a	199	G
32	1a	201	C
32	1a	202	U
32	1a	203	U
32	1a	204	U

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Mol	Chain	Res	Type
32	1a	216	G
32	1a	218	C
32	1a	219	C
32	1a	222	U
32	1a	227	G
32	1a	231	G
32	1a	247	G
32	1a	251	G
32	1a	266	G
32	1a	267	C
32	1a	270	A
32	1a	289	G
32	1a	298	A
32	1a	301	G
32	1a	309	G
32	1a	321	A
32	1a	328	C
32	1a	331	G
32	1a	332	G
32	1a	346	G
32	1a	348	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	384	G
32	1a	385	C
32	1a	388	G
32	1a	398	C
32	1a	406	G
32	1a	410	G
32	1a	411	A
32	1a	412	A
32	1a	413	G
32	1a	421	U
32	1a	424	G
32	1a	429	U
32	1a	436	C
32	1a	439	A

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Mol	Chain	Res	Type
32	1a	452	A
32	1a	454	C
32	1a	455	C
32	1a	461	A
32	1a	470	C
32	1a	471	G
32	1a	475	G
32	1a	480	U
32	1a	485	G
32	1a	487	A
32	1a	490	G
32	1a	495	A
32	1a	496	A
32	1a	498	U
32	1a	499	A
32	1a	500	G
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	531	U
32	1a	532	A
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	561	U
32	1a	563	A
32	1a	570	G
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	590	C
32	1a	592	G
32	1a	618	C
32	1a	619	U
32	1a	630	G
32	1a	632	A
32	1a	633	G
32	1a	634	C
32	1a	639	G
32	1a	653	A

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Mol	Chain	Res	Type
32	1a	659	U
32	1a	660	G
32	1a	661	G
32	1a	665	A
32	1a	666	G
32	1a	671	G
32	1a	672	U
32	1a	673	G
32	1a	687	A
32	1a	688	G
32	1a	692	U
32	1a	722	A
32	1a	723	U
32	1a	733	A
32	1a	755	G
32	1a	759	A
32	1a	765	G
32	1a	774	G
32	1a	777	A
32	1a	793	U
32	1a	794	A
32	1a	802	A
32	1a	805	C
32	1a	815	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	853	G
32	1a	863	U
32	1a	872	A
32	1a	902	G
32	1a	913	A
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	931	C
32	1a	933	G
32	1a	934	C

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Mol	Chain	Res	Type
32	1a	935	A
32	1a	937	A
32	1a	938	A
32	1a	942	G
32	1a	960	U
32	1a	961	U
32	1a	966	M2G
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	982	U
32	1a	984	C
32	1a	990	C
32	1a	992	U
32	1a	993	G
32	1a	998	G
32	1a	1006	C
32	1a	1009	G
32	1a	1012	U
32	1a	1017	G
32	1a	1020	U
32	1a	1022	G
32	1a	1023	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(B)	C
32	1a	1031	G
32	1a	1032	G
32	1a	1033	G
32	1a	1034	G
32	1a	1037	C
32	1a	1042	G
32	1a	1044	A

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Mol	Chain	Res	Type
32	1a	1046	A
32	1a	1053	G
32	1a	1056	U
32	1a	1063	C
32	1a	1065	U
32	1a	1066	C
32	1a	1067	A
32	1a	1068	G
32	1a	1070	U
32	1a	1081	G
32	1a	1086	U
32	1a	1094	G
32	1a	1101	A
32	1a	1117	G
32	1a	1120	G
32	1a	1123	A
32	1a	1125	U
32	1a	1130	A
32	1a	1132	C
32	1a	1134	G
32	1a	1135	U
32	1a	1136	U
32	1a	1139	G
32	1a	1140	C
32	1a	1141	C
32	1a	1145	C
32	1a	1146	A
32	1a	1150	U
32	1a	1152	A
32	1a	1155	G
32	1a	1157	A
32	1a	1159	U
32	1a	1168	A
32	1a	1176	A
32	1a	1183	A
32	1a	1184	G
32	1a	1189	C
32	1a	1193	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1204	A

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Mol	Chain	Res	Type
32	1a	1208	C
32	1a	1212	U
32	1a	1213	A
32	1a	1214	C
32	1a	1218	C
32	1a	1223	C
32	1a	1224	G
32	1a	1227	A
32	1a	1232	U
32	1a	1238	A
32	1a	1240	U
32	1a	1241	G
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1269	A
32	1a	1270	C
32	1a	1272	G
32	1a	1278	U
32	1a	1280	A
32	1a	1285	A
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1303	C
32	1a	1305	G
32	1a	1317	C
32	1a	1320	C
32	1a	1338	G
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1361	G
32	1a	1363	C
32	1a	1363(A)	A
32	1a	1368	G
32	1a	1370	G
32	1a	1377	A
32	1a	1378	C

Continued on next page...

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Mol	Chain	Res	Type
32	1a	1383	C
32	1a	1397	C
32	1a	1409	C
32	1a	1418	A
32	1a	1419	G
32	1a	1441	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1452	C
32	1a	1456	G
32	1a	1464	G
32	1a	1479	C
32	1a	1487	G
32	1a	1491	G
32	1a	1493	A
32	1a	1497	G
32	1a	1499	A
32	1a	1503	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1507	A
32	1a	1517	G
32	1a	1519	MA6
32	1a	1520	G
32	1a	1523	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
1	2A	10	G
1	2A	11	G
1	2A	12	U
1	2A	34	C
1	2A	45	C
1	2A	61	G
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	118	A
1	2A	119	A

Continued on next page...

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Mol	Chain	Res	Type
1	2A	120	U
1	2A	157	U
1	2A	196	A
1	2A	197	A
1	2A	199	A
1	2A	200	U
1	2A	205	G
1	2A	213	A
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	229	A
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	280	C
1	2A	310	A
1	2A	311	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	386	G
1	2A	405	U
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	444	C
1	2A	455	C
1	2A	456	C
1	2A	457	A

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Mol	Chain	Res	Type
1	2A	481	G
1	2A	505	A
1	2A	509	C
1	2A	518	G
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	551	G
1	2A	563	G
1	2A	573	G
1	2A	575	A
1	2A	586	A
1	2A	592	G
1	2A	595	C
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	610	G
1	2A	614(B)	G
1	2A	615	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(U)	G
1	2A	668	G
1	2A	669	G
1	2A	686	G
1	2A	717	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	764	A
1	2A	765	G
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A

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Mol	Chain	Res	Type
1	2A	785	G
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	827	U
1	2A	828	U
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	880	G
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	896	A
1	2A	900	A
1	2A	901	A
1	2A	910	A
1	2A	917	A
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	958	U
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1005	C
1	2A	1012	U
1	2A	1013	C
1	2A	1022	G
1	2A	1033	U
1	2A	1042	G
1	2A	1043	C
1	2A	1044	G
1	2A	1045	A
1	2A	1046	A

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Mol	Chain	Res	Type
1	2A	1047	G
1	2A	1048	A
1	2A	1054	A
1	2A	1058	G
1	2A	1060	U
1	2A	1063	G
1	2A	1064	C
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1069	A
1	2A	1070	A
1	2A	1071	G
1	2A	1073	A
1	2A	1074	G
1	2A	1076	C
1	2A	1077	A
1	2A	1078	U
1	2A	1079	C
1	2A	1080	C
1	2A	1082	U
1	2A	1083	U
1	2A	1084	A
1	2A	1085	A
1	2A	1086	A
1	2A	1088	A
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1093	G
1	2A	1094	U
1	2A	1095	A
1	2A	1096	A
1	2A	1097	U
1	2A	1108	U
1	2A	1109	C
1	2A	1110	G
1	2A	1111	A
1	2A	1112	G
1	2A	1116	C
1	2A	1128	A

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Mol	Chain	Res	Type
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1171	G
1	2A	1187	G
1	2A	1211	U
1	2A	1218	C
1	2A	1220	A
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1306	C
1	2A	1308	A
1	2A	1321	A
1	2A	1352	U
1	2A	1359	A
1	2A	1365	A
1	2A	1384	A
1	2A	1385	G
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C
1	2A	1445	A
1	2A	1450	G
1	2A	1452	A
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1494	A
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1525	G
1	2A	1531	C
1	2A	1542	A

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Mol	Chain	Res	Type
1	2A	1543	C
1	2A	1547	C
1	2A	1558	A
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1579	A
1	2A	1584	C
1	2A	1586	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1640	C
1	2A	1648	C
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1722	A
1	2A	1746	G
1	2A	1756	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1769	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1829	A
1	2A	1839	G
1	2A	1847	A
1	2A	1877	A
1	2A	1878	G
1	2A	1889	A
1	2A	1896	G
1	2A	1900	A
1	2A	1905	C
1	2A	1906	G

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Mol	Chain	Res	Type
1	2A	1914	C
1	2A	1915	5MU
1	2A	1929	G
1	2A	1930	G
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1992	G
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2039	C
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2101	G
1	2A	2103	C
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2110	G
1	2A	2112	G
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2119	A
1	2A	2120	G
1	2A	2126	A
1	2A	2127	G

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Mol	Chain	Res	Type
1	2A	2129	C
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2136	C
1	2A	2138	C
1	2A	2142	C
1	2A	2144	U
1	2A	2145	C
1	2A	2146	C
1	2A	2148	G
1	2A	2158	A
1	2A	2159	G
1	2A	2160	G
1	2A	2161	C
1	2A	2162	G
1	2A	2172	U
1	2A	2173	A
1	2A	2178	C
1	2A	2184	G
1	2A	2186	G
1	2A	2187	G
1	2A	2189	U
1	2A	2190	G
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2225	A
1	2A	2239	G
1	2A	2268	A
1	2A	2269	A
1	2A	2275	C
1	2A	2279	G
1	2A	2283	C
1	2A	2286	A
1	2A	2287	A
1	2A	2289	G
1	2A	2305	A
1	2A	2308	G

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Mol	Chain	Res	Type
1	2A	2311	A
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A
1	2A	2325	G
1	2A	2334	G
1	2A	2335	A
1	2A	2347	C
1	2A	2350	C
1	2A	2383	G
1	2A	2385	C
1	2A	2406	U
1	2A	2407	G
1	2A	2414	G
1	2A	2422	A
1	2A	2423	U
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2440	C
1	2A	2441	C
1	2A	2448	A
1	2A	2468	G
1	2A	2474	C
1	2A	2476	A
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2520	C
1	2A	2529	G
1	2A	2549	G
1	2A	2554	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2585	U
1	2A	2586	C
1	2A	2601	C
1	2A	2602	A

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Mol	Chain	Res	Type
1	2A	2603	G
1	2A	2611	U
1	2A	2612	C
1	2A	2630	G
1	2A	2654	A
1	2A	2663	G
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2757	A
1	2A	2758	A
1	2A	2761	G
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2872	G
1	2A	2880	C
1	2A	2894	G
1	2A	2896	C
1	2A	2897	U
2	2B	45	A
2	2B	56	G
2	2B	73	A
2	2B	84	C
2	2B	110	G
32	2a	5	U
32	2a	7	G
32	2a	9	G
32	2a	13	U
32	2a	25	C

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Mol	Chain	Res	Type
32	2a	26	A
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	59	A
32	2a	60	A
32	2a	61	G
32	2a	65	U
32	2a	66	G
32	2a	80	G
32	2a	89	C
32	2a	91	C
32	2a	98	G
32	2a	105	G
32	2a	112	G
32	2a	115	G
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	143	A
32	2a	144	G
32	2a	146	G
32	2a	151	A
32	2a	159	G
32	2a	163	C
32	2a	174	C
32	2a	182	U
32	2a	189(E)	U
32	2a	195	A
32	2a	197	A
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	220	G
32	2a	240	C
32	2a	245	C
32	2a	247	G
32	2a	251	G

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Mol	Chain	Res	Type
32	2a	257	G
32	2a	258	G
32	2a	262	A
32	2a	266	G
32	2a	267	C
32	2a	289	G
32	2a	298	A
32	2a	309	G
32	2a	320	C
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	388	G
32	2a	393	A
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	410	G
32	2a	411	A
32	2a	412	A
32	2a	413	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	442	C
32	2a	445	G
32	2a	450	G
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	471	G
32	2a	473	G
32	2a	474	G
32	2a	476	G
32	2a	482	A

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Mol	Chain	Res	Type
32	2a	484	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	500	G
32	2a	502	G
32	2a	505	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	521	G
32	2a	532	A
32	2a	533	A
32	2a	536	C
32	2a	547	A
32	2a	558	G
32	2a	559	A
32	2a	560	U
32	2a	561	U
32	2a	564	C
32	2a	570	G
32	2a	571	U
32	2a	572	A
32	2a	573	A
32	2a	574	A
32	2a	576	G
32	2a	587	G
32	2a	596	C
32	2a	597	G
32	2a	606	G
32	2a	608	A
32	2a	616	G
32	2a	618	C
32	2a	630	G
32	2a	632	A
32	2a	633	G
32	2a	653	A
32	2a	665	A
32	2a	687	A
32	2a	688	G
32	2a	693	G

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Mol	Chain	Res	Type
32	2a	702	A
32	2a	718	G
32	2a	723	U
32	2a	724	G
32	2a	728	A
32	2a	731	G
32	2a	737	A
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	777	A
32	2a	782	A
32	2a	793	U
32	2a	794	A
32	2a	816	A
32	2a	817	C
32	2a	819	A
32	2a	821	G
32	2a	827	U
32	2a	828	A
32	2a	829	G
32	2a	830	G
32	2a	836	G
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	859	A
32	2a	870	U
32	2a	902	G
32	2a	913	A
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	934	C
32	2a	935	A
32	2a	958	A
32	2a	960	U
32	2a	961	U
32	2a	966	M2G
32	2a	968	A
32	2a	969	A

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Mol	Chain	Res	Type
32	2a	971	G
32	2a	972	C
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	978	A
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	995	C
32	2a	1001(A)	G
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1008	C
32	2a	1009	G
32	2a	1011	G
32	2a	1012	U
32	2a	1020	U
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1029	C
32	2a	1030(A)	G
32	2a	1030(B)	C
32	2a	1031	G
32	2a	1041	A
32	2a	1044	A
32	2a	1052	U
32	2a	1054	C
32	2a	1063	C
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1079	G
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U

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Mol	Chain	Res	Type
32	2a	1101	A
32	2a	1115	C
32	2a	1117	G
32	2a	1123	A
32	2a	1125	U
32	2a	1129	C
32	2a	1130	A
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1140	C
32	2a	1147	C
32	2a	1152	A
32	2a	1154	G
32	2a	1158	C
32	2a	1159	U
32	2a	1160	G
32	2a	1162	C
32	2a	1165	C
32	2a	1170	A
32	2a	1171	G
32	2a	1183	A
32	2a	1184	G
32	2a	1189	C
32	2a	1196	U
32	2a	1197	G
32	2a	1213	A
32	2a	1217	C
32	2a	1224	G
32	2a	1227	A
32	2a	1238	A
32	2a	1250	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1261	A
32	2a	1267	C
32	2a	1270	C
32	2a	1277	C
32	2a	1278	U

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Mol	Chain	Res	Type
32	2a	1279	A
32	2a	1280	A
32	2a	1281	U
32	2a	1282	C
32	2a	1285	A
32	2a	1286	A
32	2a	1287	A
32	2a	1290	G
32	2a	1293	G
32	2a	1300	G
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1306	A
32	2a	1312	G
32	2a	1320	C
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1358	U
32	2a	1368	G
32	2a	1370	G
32	2a	1378	C
32	2a	1381	U
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1445	C
32	2a	1446	U
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1457	G
32	2a	1487	G
32	2a	1489	G
32	2a	1492	A
32	2a	1493	A
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1505	G

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Mol	Chain	Res	Type
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1520	G
32	2a	1528	U
32	2a	1529	G
32	2a	1530	G
32	2a	1532	U

All (100) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	115	G
1	1A	184	A
1	1A	185	A
1	1A	188	A
1	1A	238	C
1	1A	302	A
1	1A	334	A
1	1A	509	A
1	1A	572	A
1	1A	596	G
1	1A	732	A
1	1A	793	A
1	1A	811	A
1	1A	823	G
1	1A	874	U
1	1A	913	A
1	1A	934	A
1	1A	935	C
1	1A	1019	G
1	1A	1065	U
1	1A	1067	A
1	1A	1093	G
1	1A	1099	C
1	1A	1115	A
1	1A	1116	A
1	1A	1157	A
1	1A	1188	A
1	1A	1201	A
1	1A	1219	A
1	1A	1220	U

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Mol	Chain	Res	Type
1	1A	1221	G
1	1A	1255	A
1	1A	1346	U
1	1A	1425	A
1	1A	1466	U
1	1A	1654	A
1	1A	1655	A
1	1A	1700	G
1	1A	1793	A
1	1A	2148	A
1	1A	2194	U
1	1A	2227	G
1	1A	2347	A
1	1A	2418	U
1	1A	2434	A
1	1A	2442	A
1	1A	2451	A
1	1A	2613	C
1	1A	2623	U
1	1A	2701	U
1	1A	2769	U
1	2A	195	A
1	2A	196	A
1	2A	199	A
1	2A	249	C
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	310	A
1	2A	573	G
1	2A	685	A
1	2A	746	A
1	2A	752	A
1	2A	764	A
1	2A	776	G
1	2A	827	U
1	2A	840	C
1	2A	856	C
1	2A	900	A
1	2A	974	G
1	2A	1047	G
1	2A	1053	C

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Mol	Chain	Res	Type
1	2A	1057	A
1	2A	1063	G
1	2A	1065	U
1	2A	1067	A
1	2A	1071	G
1	2A	1073	A
1	2A	1076	C
1	2A	1111	A
1	2A	1142(A)	A
1	2A	1210	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
1	2A	1608	A
1	2A	1992	G
1	2A	1997	G
1	2A	2126	A
1	2A	2158	A
1	2A	2172	U
1	2A	2308	G
1	2A	2335	A
1	2A	2406	U
1	2A	2422	A
1	2A	2439	A
1	2A	2601	C
1	2A	2611	U
1	2A	2689	U
1	2A	2756	U

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

48 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	$\#\|Z\|>2$
44	0TD	1l	92	44	8,9,10	4.02	3 (37%)	6,11,13	4.23	4 (66%)
1	PSU	2A	2605	1	18,21,22	1.34	2 (11%)	21,30,33	1.84	5 (23%)
32	G7M	1a	527	32,55	23,26,27	2.47	5 (21%)	34,39,42	1.45	7 (20%)
1	2MA	1A	2515	1,55	22,25,26	2.54	8 (36%)	32,37,40	2.93	10 (31%)
32	2MG	1a	1207	32,55	23,26,27	2.12	4 (17%)	33,38,41	2.85	18 (54%)
32	5MC	1a	1407	32	19,22,23	1.37	1 (5%)	26,32,35	1.56	5 (19%)
1	5MU	1A	1937	1	19,22,23	1.44	2 (10%)	27,32,35	1.62	6 (22%)
1	PSU	1A	2617	1	18,21,22	1.63	4 (22%)	21,30,33	1.90	6 (28%)
1	OMC	1A	1942	1,55	19,22,23	2.18	7 (36%)	25,31,34	1.05	3 (12%)
32	4OC	1a	1402	32	20,23,24	2.40	8 (40%)	25,32,35	0.80	0
1	OMC	2A	1920	1	19,22,23	2.42	7 (36%)	25,31,34	1.04	2 (8%)
32	5MC	2a	1400	32	19,22,23	0.90	0	26,32,35	1.37	5 (19%)
32	UR3	1a	1498	32	19,22,23	1.89	5 (26%)	26,32,35	1.75	4 (15%)
32	UR3	2a	1498	32	19,22,23	1.89	4 (21%)	26,32,35	1.70	6 (23%)
1	OMG	1A	2263	1,55	23,26,27	1.69	7 (30%)	32,38,41	1.89	12 (37%)
32	MA6	2a	1519	32	23,26,27	1.16	2 (8%)	33,38,41	4.43	15 (45%)
1	OMG	2A	2251	1,55	23,26,27	1.59	3 (13%)	32,38,41	2.25	13 (40%)
32	MA6	1a	1519	32	23,26,27	1.25	4 (17%)	33,38,41	4.12	14 (42%)
1	OMU	2A	2552	1,55	19,22,23	6.80	10 (52%)	25,31,34	2.87	8 (32%)
32	MA6	2a	1518	32	23,26,27	1.16	1 (4%)	33,38,41	4.22	13 (39%)
1	5MU	2A	1939	1,55	19,22,23	0.89	1 (5%)	27,32,35	1.37	4 (14%)
32	M2G	1a	966	32	24,27,28	1.98	5 (20%)	33,40,43	1.51	5 (15%)
1	PSU	2A	1917	1	18,21,22	1.41	2 (11%)	21,30,33	1.82	5 (23%)
44	0TD	2l	92	44	8,9,10	2.75	3 (37%)	6,11,13	3.04	4 (66%)
32	G7M	2a	527	32	23,26,27	2.80	8 (34%)	34,39,42	1.61	8 (23%)
32	PSU	1a	516	32	18,21,22	1.45	3 (16%)	21,30,33	2.21	6 (28%)
1	5MC	2A	1962	1,55	19,22,23	1.17	4 (21%)	26,32,35	1.48	5 (19%)
32	2MG	2a	1207	32	23,26,27	2.31	5 (21%)	33,38,41	2.07	8 (24%)
32	PSU	2a	516	32	18,21,22	1.88	3 (16%)	21,30,33	2.17	6 (28%)
32	5MC	1a	1400	32	19,22,23	1.00	1 (5%)	26,32,35	1.67	7 (26%)
32	4OC	2a	1402	32	20,23,24	2.60	7 (35%)	25,32,35	1.15	2 (8%)
1	PSU	2A	1911	1	18,21,22	1.44	3 (16%)	21,30,33	1.47	5 (23%)
32	5MC	1a	967	32	19,22,23	1.12	3 (15%)	26,32,35	1.33	4 (15%)
32	5MC	2a	967	32	19,22,23	1.55	2 (10%)	26,32,35	1.65	4 (15%)
32	5MC	2a	1407	32	19,22,23	1.40	2 (10%)	26,32,35	1.40	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	5MU	1A	1961	1,55	19,22,23	0.99	2 (10%)	27,32,35	1.48	4 (14%)
1	5MU	2A	1915	1	19,22,23	1.77	3 (15%)	27,32,35	1.62	5 (18%)
32	5MC	2a	1404	32	19,22,23	1.05	2 (10%)	26,32,35	1.45	4 (15%)
1	PSU	1A	1933	1	18,21,22	1.43	3 (16%)	21,30,33	1.57	4 (19%)
32	MA6	1a	1518	32	23,26,27	1.20	3 (13%)	33,38,41	4.02	13 (39%)
1	5MC	1A	1984	1,55	19,22,23	1.11	1 (5%)	26,32,35	1.69	5 (19%)
32	M2G	2a	966	32	24,27,28	2.07	5 (20%)	33,40,43	1.48	5 (15%)
32	5MC	1a	1404	32	19,22,23	1.21	3 (15%)	26,32,35	1.39	3 (11%)
1	5MC	1A	1964	1	19,22,23	0.99	1 (5%)	26,32,35	1.17	3 (11%)
1	OMU	1A	2564	1,55	19,22,23	6.53	9 (47%)	25,31,34	3.05	11 (44%)
1	2MA	2A	2503	1,55	22,25,26	2.34	8 (36%)	32,37,40	2.91	8 (25%)
1	5MC	2A	1942	1	19,22,23	1.68	2 (10%)	26,32,35	1.13	3 (11%)
1	PSU	1A	1939	1,55	18,21,22	1.36	2 (11%)	21,30,33	1.87	5 (23%)

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
44	0TD	1l	92	44	-	5/7/12/14	-
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	G7M	1a	527	32,55	-	1/7/25/26	0/3/3/3
1	2MA	1A	2515	1,55	-	0/7/25/26	0/3/3/3
32	2MG	1a	1207	32,55	-	0/9/27/28	0/3/3/3
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	5MU	1A	1937	1	-	4/7/25/26	0/2/2/2
1	PSU	1A	2617	1	-	0/7/25/26	0/2/2/2
1	OMC	1A	1942	1,55	-	3/9/27/28	0/2/2/2
32	4OC	1a	1402	32	-	1/9/29/30	0/2/2/2
1	OMC	2A	1920	1	-	1/9/27/28	0/2/2/2
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
1	OMG	1A	2263	1,55	-	0/9/27/28	0/3/3/3
32	MA6	2a	1519	32	-	2/11/29/30	0/3/3/3
1	OMG	2A	2251	1,55	-	0/9/27/28	0/3/3/3
32	MA6	1a	1519	32	-	5/11/29/30	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	OMU	2A	2552	1,55	-	0/9/27/28	0/2/2/2
32	MA6	2a	1518	32	-	3/11/29/30	0/3/3/3
1	5MU	2A	1939	1,55	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
44	0TD	2l	92	44	-	2/7/12/14	-
32	G7M	2a	527	32	-	1/7/25/26	0/3/3/3
32	PSU	1a	516	32	-	1/7/25/26	0/2/2/2
1	5MC	2A	1962	1,55	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
32	PSU	2a	516	32	-	2/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	1/7/25/26	0/2/2/2
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	2/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
1	5MU	1A	1961	1,55	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
1	PSU	1A	1933	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
1	5MC	1A	1984	1,55	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
1	5MC	1A	1964	1	-	0/7/25/26	0/2/2/2
1	OMU	1A	2564	1,55	-	0/9/27/28	0/2/2/2
1	2MA	2A	2503	1,55	-	0/7/25/26	0/3/3/3
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1939	1,55	-	0/7/25/26	0/2/2/2

All (183) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2552	OMU	C4-N3	-15.81	1.11	1.38
1	1A	2564	OMU	C4-N3	-15.68	1.11	1.38
1	2A	2552	OMU	C5-C4	15.18	1.76	1.43
1	1A	2564	OMU	C5-C4	13.89	1.73	1.43
1	1A	2564	OMU	C6-C5	-11.23	1.09	1.35
1	2A	2552	OMU	C6-C5	-10.58	1.10	1.35
44	1l	92	0TD	CB-CA	-9.89	1.51	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	527	G7M	C8-N7	8.73	1.48	1.33
1	2A	2552	OMU	C3'-C2'	-8.69	1.34	1.53
1	2A	2552	OMU	C6-N1	8.11	1.57	1.38
32	1a	527	G7M	C8-N7	7.81	1.46	1.33
1	1A	2564	OMU	C3'-C2'	-7.56	1.36	1.53
1	1A	2564	OMU	C6-N1	7.51	1.56	1.38
1	2A	2552	OMU	O4'-C4'	-6.81	1.29	1.45
1	1A	2564	OMU	O4'-C4'	-6.37	1.30	1.45
1	2A	2552	OMU	O4'-C1'	6.29	1.56	1.42
32	2a	1207	2MG	C2-N3	6.23	1.43	1.32
1	1A	2564	OMU	O4'-C1'	6.20	1.56	1.42
32	2a	516	PSU	C2-N1	6.06	1.44	1.36
1	2A	2503	2MA	C4-N3	6.04	1.42	1.34
1	2A	1942	5MC	C5-C4	-5.90	1.39	1.44
1	1A	2515	2MA	C4-N3	5.90	1.41	1.34
1	2A	1915	5MU	C2-N1	5.88	1.47	1.38
32	2a	1402	4OC	C4-N4	5.84	1.48	1.36
1	1A	2564	OMU	C1'-N1	-5.83	1.31	1.47
32	1a	1402	4OC	C4-N4	5.69	1.47	1.36
1	1A	2515	2MA	C2-N1	5.64	1.43	1.34
1	2A	1920	OMC	C4-N4	5.53	1.47	1.33
1	2A	2552	OMU	C1'-N1	-5.48	1.32	1.47
32	2a	967	5MC	C5-C4	5.38	1.48	1.44
32	2a	1498	UR3	C6-C5	5.12	1.46	1.35
32	2a	966	M2G	C2-N2	5.11	1.44	1.35
32	2a	1402	4OC	C2-N3	5.10	1.46	1.36
1	1A	1942	OMC	C4-N4	5.05	1.46	1.33
32	2a	527	G7M	C8-N9	5.00	1.49	1.35
32	2a	1207	2MG	C4-N3	4.99	1.45	1.34
44	2l	92	0TD	CB-CA	-4.93	1.53	1.54
1	1A	1937	5MU	C2-N1	4.93	1.46	1.38
32	1a	527	G7M	C8-N9	4.88	1.48	1.35
32	1a	966	M2G	C4-N3	4.87	1.45	1.34
44	2l	92	0TD	CB-SB	-4.82	1.77	1.82
32	1a	1207	2MG	C2-N2	4.78	1.43	1.33
32	1a	1207	2MG	C2-N1	4.76	1.44	1.36
1	2A	1920	OMC	C6-C5	4.75	1.46	1.35
32	1a	1207	2MG	C2-N3	4.74	1.41	1.32
32	1a	1498	UR3	C6-C5	4.74	1.46	1.35
32	2a	966	M2G	C4-N3	4.73	1.45	1.34
32	1a	1407	5MC	C2-N1	4.72	1.50	1.40
32	2a	1207	2MG	C2-N1	4.70	1.44	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1402	4OC	C6-C5	4.65	1.45	1.35
32	2a	1207	2MG	C2-N2	4.63	1.43	1.33
32	1a	966	M2G	C2-N2	4.63	1.43	1.35
1	2A	2503	2MA	C2-N1	4.63	1.42	1.34
32	1a	1207	2MG	C4-N3	4.61	1.44	1.34
32	2a	966	M2G	C2-N3	4.60	1.43	1.32
32	2a	527	G7M	C4-N3	4.58	1.44	1.34
1	1A	2515	2MA	C6-N1	4.55	1.41	1.35
32	1a	966	M2G	C2-N3	4.52	1.43	1.32
1	2A	1917	PSU	C2-N1	4.51	1.42	1.36
1	2A	1920	OMC	C2-N3	4.51	1.45	1.36
32	1a	527	G7M	C4-N3	4.44	1.44	1.34
32	2a	527	G7M	C2-N3	4.38	1.43	1.33
32	1a	1498	UR3	C2-N1	4.27	1.44	1.38
32	2a	1402	4OC	C4-N3	4.21	1.39	1.32
44	1l	92	0TD	CB-SB	-4.17	1.78	1.82
1	1A	2263	OMG	C4-N3	4.16	1.43	1.34
32	1a	1402	4OC	C4-N3	4.16	1.39	1.32
1	1A	1942	OMC	C6-C5	4.14	1.44	1.35
32	2a	1498	UR3	C2-N3	3.99	1.46	1.39
1	1A	1942	OMC	C2-N3	3.98	1.44	1.36
1	2A	1911	PSU	C2-N1	3.96	1.41	1.36
1	2A	2251	OMG	C2-N3	3.95	1.42	1.33
1	1A	1939	PSU	C2-N1	3.94	1.41	1.36
32	2a	1407	5MC	C2-N1	3.88	1.48	1.40
1	2A	2552	OMU	C3'-C4'	3.82	1.62	1.53
32	1a	527	G7M	C2-N3	3.81	1.42	1.33
32	1a	1402	4OC	C6-C5	3.79	1.43	1.35
1	2A	1920	OMC	C2-N1	3.70	1.47	1.40
1	1A	2515	2MA	C8-N7	3.69	1.38	1.31
32	1a	1402	4OC	C2-N3	3.69	1.43	1.36
1	2A	2503	2MA	C4-N9	-3.67	1.30	1.37
32	2a	1518	MA6	C6-N6	3.66	1.46	1.36
32	1a	1402	4OC	O2-C2	-3.65	1.16	1.23
1	1A	2515	2MA	C4-N9	-3.65	1.30	1.37
1	2A	2251	OMG	C4-N3	3.64	1.42	1.34
32	1a	1498	UR3	C2-N3	3.62	1.46	1.39
1	1A	2564	OMU	C3'-C4'	3.57	1.62	1.53
1	1A	1933	PSU	C4-N3	3.53	1.45	1.38
32	1a	516	PSU	C2-N1	3.52	1.41	1.36
32	2a	527	G7M	C2-N2	3.52	1.42	1.34
1	1A	2263	OMG	C2-N3	3.49	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	516	PSU	C6-N1	3.43	1.41	1.36
32	1a	1402	4OC	C5-C4	3.41	1.48	1.41
32	2a	1402	4OC	C5-C4	3.39	1.48	1.41
32	1a	516	PSU	C6-N1	3.36	1.41	1.36
1	1A	1942	OMC	C2-N1	3.36	1.47	1.40
1	1A	2617	PSU	C6-C5	-3.33	1.31	1.35
1	2A	2605	PSU	C2-N1	3.32	1.41	1.36
1	1A	1933	PSU	C2-N1	3.31	1.41	1.36
32	2a	1402	4OC	O2-C2	-3.31	1.17	1.23
32	2a	966	M2G	C2-N1	3.21	1.44	1.36
1	2A	1915	5MU	C2-N3	3.16	1.43	1.38
32	2a	1519	MA6	C6-N6	3.16	1.45	1.36
32	2a	1407	5MC	C5-C4	-3.13	1.41	1.44
32	1a	1519	MA6	C5-C6	-3.13	1.33	1.41
1	2A	1920	OMC	O2-C2	-3.11	1.17	1.23
1	2A	2503	2MA	C2-N3	3.10	1.39	1.34
1	1A	2617	PSU	C1'-C5	-3.08	1.43	1.50
32	1a	1400	5MC	C2-N1	3.01	1.46	1.40
32	1a	1518	MA6	C5-C6	-3.01	1.34	1.41
1	1A	1942	OMC	O2-C2	-2.99	1.18	1.23
32	1a	1518	MA6	C5-C4	-2.93	1.33	1.39
32	1a	1404	5MC	CM5-C5	-2.90	1.43	1.50
1	1A	2617	PSU	C6-N1	2.89	1.41	1.36
32	2a	1402	4OC	C2-N1	2.88	1.46	1.40
32	1a	966	M2G	C2-N1	2.87	1.43	1.36
32	2a	1519	MA6	C5-C4	-2.83	1.34	1.39
32	2a	516	PSU	O4'-C1'	-2.82	1.39	1.43
1	1A	1937	5MU	C2-N3	2.82	1.42	1.38
32	2a	527	G7M	C5-N7	2.76	1.42	1.39
1	2A	2503	2MA	C6-N1	2.75	1.38	1.35
32	2a	1404	5MC	C6-C5	2.74	1.39	1.34
1	2A	2503	2MA	C5-C6	2.67	1.48	1.41
32	2a	527	G7M	C2-N1	2.65	1.44	1.37
1	2A	1911	PSU	C6-N1	2.65	1.40	1.36
1	1A	2515	2MA	C5-C6	2.63	1.48	1.41
1	2A	1920	OMC	C5-C4	2.62	1.49	1.42
1	2A	2605	PSU	C6-N1	2.57	1.40	1.36
1	2A	1911	PSU	C4-N3	2.55	1.43	1.38
1	2A	1962	5MC	CM5-C5	-2.54	1.44	1.50
32	1a	1519	MA6	C6-N6	2.53	1.43	1.36
1	1A	1964	5MC	C6-C5	2.53	1.38	1.34
1	1A	1961	5MU	C4-C5	-2.51	1.40	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1498	UR3	C3U-N3	-2.49	1.42	1.47
32	1a	967	5MC	C6-C5	2.49	1.38	1.34
32	2a	527	G7M	C5-C6	2.49	1.50	1.43
32	1a	1518	MA6	C6-N6	2.47	1.43	1.36
32	2a	1207	2MG	CM2-N2	-2.47	1.41	1.45
32	2a	1498	UR3	C2-N1	2.45	1.41	1.38
32	1a	967	5MC	C2-N3	2.45	1.41	1.36
1	2A	1962	5MC	C4-N4	2.45	1.40	1.34
1	2A	2503	2MA	C5-C4	-2.42	1.34	1.39
1	1A	2263	OMG	C2-N2	2.41	1.39	1.34
1	2A	1917	PSU	C6-N1	2.40	1.40	1.36
1	1A	2515	2MA	C2-N3	2.40	1.38	1.34
1	1A	1939	PSU	C6-N1	2.40	1.40	1.36
32	2a	967	5MC	C6-C5	2.40	1.38	1.34
1	1A	2617	PSU	O3'-C3'	-2.38	1.37	1.43
32	1a	1404	5MC	C4-N4	2.38	1.40	1.34
32	1a	1519	MA6	C5-C4	-2.36	1.34	1.39
32	1a	1402	4OC	CM4-N4	-2.36	1.41	1.45
1	2A	1939	5MU	C5M-C5	-2.34	1.45	1.50
1	1A	1984	5MC	CM5-C5	-2.30	1.45	1.50
1	2A	1942	5MC	C2-N3	2.30	1.40	1.36
1	2A	2552	OMU	O2'-C2'	2.28	1.48	1.42
1	2A	1915	5MU	C6-C5	2.27	1.38	1.34
44	1l	92	0TD	CA-N	-2.26	1.41	1.47
32	1a	516	PSU	O4'-C1'	-2.26	1.40	1.43
32	2a	966	M2G	C5-C6	2.24	1.52	1.44
1	2A	1962	5MC	C2-N3	2.22	1.40	1.36
1	1A	1961	5MU	C5M-C5	-2.20	1.45	1.50
1	2A	1920	OMC	C4-N3	2.20	1.39	1.34
32	1a	1404	5MC	C2-N3	2.20	1.40	1.36
1	1A	1942	OMC	C5-C4	2.17	1.48	1.42
32	2a	1404	5MC	CM5-C5	-2.16	1.45	1.50
32	1a	967	5MC	C5-C4	-2.16	1.42	1.44
32	1a	527	G7M	C5-C6	2.16	1.49	1.43
1	1A	2263	OMG	C8-N7	2.16	1.38	1.32
1	1A	2263	OMG	C2-N1	2.12	1.42	1.37
1	2A	1962	5MC	O2-C2	-2.09	1.19	1.23
44	2l	92	0TD	CA-N	-2.07	1.41	1.47
32	1a	966	M2G	C5-N7	-2.06	1.34	1.39
32	1a	1519	MA6	C5-N7	-2.05	1.35	1.39
1	2A	2503	2MA	C6-N6	-2.05	1.29	1.34
1	1A	1933	PSU	C6-N1	2.05	1.39	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1498	UR3	C3U-N3	-2.05	1.43	1.47
1	1A	2515	2MA	O2'-C2'	-2.04	1.37	1.43
1	1A	2263	OMG	O6-C6	-2.03	1.19	1.23
1	1A	2263	OMG	C8-N9	-2.02	1.33	1.37
1	1A	1942	OMC	C4-N3	2.02	1.38	1.34
1	2A	2251	OMG	C8-N7	2.01	1.38	1.32
32	1a	1402	4OC	C2-N1	2.01	1.44	1.40
32	1a	1498	UR3	O2-C2	-2.00	1.18	1.22

All (305) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1519	MA6	N1-C6-N6	-16.63	96.59	116.86
32	2a	1518	MA6	N1-C6-N6	-16.26	97.05	116.86
32	1a	1518	MA6	N1-C6-N6	-15.45	98.03	116.86
32	1a	1519	MA6	N1-C6-N6	-15.07	98.49	116.86
32	2a	1518	MA6	C5-C6-N6	12.45	145.04	125.33
32	2a	1519	MA6	C5-C6-N6	11.50	143.53	125.33
32	1a	1519	MA6	C5-C6-N6	10.98	142.70	125.33
32	1a	1518	MA6	C5-C6-N6	10.69	142.26	125.33
1	2A	2503	2MA	C1'-N9-C8	-10.32	104.19	127.09
1	1A	2515	2MA	C1'-N9-C8	-8.04	109.26	127.09
1	2A	2552	OMU	C5-C4-N3	7.74	125.65	114.80
1	1A	2515	2MA	CM2-C2-N1	7.53	128.40	117.13
1	2A	2503	2MA	C4-N9-C1'	7.48	144.12	126.63
32	1a	1207	2MG	C2-N3-C4	7.39	121.25	112.00
44	1l	92	0TD	CSB-SB-CB	7.26	115.42	102.36
1	1A	2515	2MA	C4-N9-C1'	7.11	143.25	126.63
32	2a	516	PSU	C6-C5-C4	7.10	122.96	118.17
1	1A	2564	OMU	C5-C4-N3	7.07	124.70	114.80
32	1a	516	PSU	C6-C5-C4	7.02	122.91	118.17
32	1a	1519	MA6	C4-C5-C6	6.89	123.03	115.91
1	2A	2552	OMU	C4-N3-C2	-6.53	118.51	126.61
32	2a	1519	MA6	C5-C4-N3	-6.52	117.74	126.72
32	1a	1207	2MG	N1-C2-N2	6.26	122.95	116.56
32	1a	1498	UR3	C4-N3-C2	-6.19	119.60	124.58
32	2a	1519	MA6	C4-C5-C6	6.02	122.14	115.91
1	1A	2564	OMU	O4-C4-C5	-5.90	114.98	125.16
32	1a	1519	MA6	C5-C4-N3	-5.78	118.76	126.72
32	2a	1518	MA6	C4-C5-C6	5.69	121.79	115.91
1	1A	2617	PSU	C6-C5-C4	5.68	122.01	118.17
1	2A	2503	2MA	C4-N9-C8	5.66	111.68	105.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	1l	92	0TD	CB-CA-N	-5.66	97.63	109.10
1	1A	2564	OMU	O2'-C2'-C1'	-5.65	98.25	108.99
1	2A	2503	2MA	N9-C8-N7	-5.62	105.97	113.94
32	1a	1207	2MG	C5-C4-N3	-5.57	119.52	128.39
32	2a	1207	2MG	C2-N3-C4	5.57	118.97	112.00
1	1A	1939	PSU	C6-C5-C4	5.45	121.85	118.17
32	2a	1207	2MG	C5-C4-N3	-5.30	119.96	128.39
32	1a	1518	MA6	N1-C2-N3	-5.29	120.57	128.58
32	2a	1519	MA6	N1-C2-N3	-5.22	120.68	128.58
1	2A	2605	PSU	C6-C5-C4	5.20	121.68	118.17
1	2A	2251	OMG	C1'-N9-C8	-5.10	112.24	126.73
32	2a	1498	UR3	C4-N3-C2	-5.05	120.52	124.58
1	1A	2515	2MA	CM2-C2-N3	-5.00	109.63	117.13
32	1a	1519	MA6	N1-C2-N3	-4.98	121.04	128.58
1	2A	1917	PSU	C6-C5-C4	4.98	121.53	118.17
1	2A	2552	OMU	O2-C2-N1	-4.95	116.36	122.80
44	2l	92	0TD	CSB-SB-CB	4.91	111.20	102.36
1	1A	2564	OMU	C4-N3-C2	-4.91	120.52	126.61
32	2a	967	5MC	C5-C6-N1	-4.84	118.05	123.31
32	2a	1519	MA6	N3-C4-N9	4.75	135.25	127.17
32	2a	1518	MA6	C5-C4-N3	-4.74	120.19	126.72
1	2A	2552	OMU	N3-C2-N1	4.74	121.06	114.89
32	1a	1519	MA6	N3-C4-N9	4.73	135.22	127.17
32	2a	1519	MA6	N9-C8-N7	-4.71	107.25	113.94
32	1a	1518	MA6	C4-C5-C6	4.58	120.64	115.91
1	1A	2263	OMG	N9-C8-N7	-4.57	104.93	113.40
1	2A	2251	OMG	C2-N3-C4	4.53	120.09	112.30
32	1a	1518	MA6	C4-N9-C1'	-4.51	116.09	126.63
1	1A	1984	5MC	C5-C6-N1	-4.45	118.48	123.31
32	2a	1518	MA6	N1-C2-N3	-4.30	122.07	128.58
32	2a	1518	MA6	C4-N9-C1'	-4.29	116.60	126.63
32	1a	1518	MA6	C5-C4-N3	-4.29	120.81	126.72
32	2a	1518	MA6	C1'-N9-C8	4.28	136.60	127.09
1	2A	2251	OMG	C5-C4-N3	-4.26	121.61	128.39
1	2A	2251	OMG	N9-C8-N7	-4.21	105.60	113.40
32	1a	1207	2MG	C1'-N9-C4	-4.20	114.09	126.49
32	1a	1498	UR3	C5-C4-N3	4.18	120.55	115.04
32	1a	966	M2G	C5-C4-N3	-4.17	121.76	128.39
32	1a	1404	5MC	C5-C6-N1	-4.12	118.84	123.31
1	1A	2564	OMU	C6-C5-C4	-4.05	114.36	119.53
32	1a	516	PSU	C6-N1-C2	-4.05	118.94	122.69
1	1A	1984	5MC	C4-N3-C2	-4.03	115.21	120.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1407	5MC	C5-C4-N3	4.03	125.89	121.75
1	1A	1933	PSU	C6-C5-C4	4.02	120.88	118.17
32	2a	527	G7M	C2-N3-C4	4.00	119.19	112.30
32	1a	1207	2MG	C1'-N9-C8	3.99	138.08	126.73
1	1A	1961	5MU	C4-N3-C2	-3.97	122.14	127.34
32	1a	1518	MA6	N3-C4-N9	3.95	133.89	127.17
1	1A	2515	2MA	C5-C4-N9	3.95	110.11	105.81
1	2A	1962	5MC	C4-N3-C2	-3.95	115.33	120.81
1	1A	1984	5MC	C5-C4-N3	3.90	125.75	121.75
32	1a	1519	MA6	N9-C8-N7	-3.89	108.42	113.94
32	1a	967	5MC	C5-C4-N3	3.88	125.73	121.75
32	2a	1407	5MC	C5-C4-N3	3.88	125.73	121.75
32	2a	1207	2MG	N9-C4-N3	3.87	133.69	125.95
1	2A	1962	5MC	C5-C6-N1	-3.81	119.17	123.31
32	2a	527	G7M	C5-C6-N1	3.80	119.70	111.84
1	2A	1911	PSU	C6-C5-C4	3.78	120.72	118.17
32	2a	966	M2G	C5-C4-N3	-3.78	122.38	128.39
32	1a	1519	MA6	C6-C5-N7	-3.77	127.41	133.43
32	2a	1404	5MC	C5-C6-N1	-3.77	119.22	123.31
44	1l	92	0TD	OD2-CG-CB	3.76	121.27	113.15
1	1A	2515	2MA	N6-C6-N1	3.75	122.09	117.03
32	1a	1518	MA6	N9-C8-N7	-3.73	108.64	113.94
1	1A	2263	OMG	C1'-N9-C8	-3.71	116.19	126.73
32	2a	1402	4OC	C6-C5-C4	3.71	121.46	117.00
32	2a	1519	MA6	C4-N9-C1'	-3.68	118.03	126.63
32	2a	1519	MA6	C5-N7-C8	3.67	109.22	103.45
32	1a	527	G7M	C5-C6-N1	3.67	119.42	111.84
1	2A	2251	OMG	C1'-N9-C4	3.67	137.32	126.49
1	1A	1961	5MU	C5-C4-N3	3.67	118.51	115.32
32	1a	1404	5MC	C4-N3-C2	-3.65	115.74	120.81
32	1a	1400	5MC	C5-C4-N3	3.63	125.48	121.75
1	2A	2552	OMU	O4-C4-C5	-3.63	118.91	125.16
32	2a	1519	MA6	C2-N3-C4	3.61	120.65	111.83
32	2a	1498	UR3	O2-C2-N1	-3.61	114.73	122.78
44	2l	92	0TD	OD2-CG-CB	3.57	120.86	113.15
32	1a	1518	MA6	C4-N9-C8	3.55	109.47	105.74
32	2a	966	M2G	N9-C8-N7	-3.49	106.93	113.40
32	1a	1207	2MG	C2-N1-C6	-3.49	120.33	124.55
32	2a	1518	MA6	C2-N1-C6	3.48	120.33	111.83
32	2a	967	5MC	C4-N3-C2	-3.48	115.98	120.81
32	1a	1400	5MC	C1'-N1-C6	-3.47	115.43	121.15
32	2a	1207	2MG	N2-C2-N3	3.47	124.92	120.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1939	5MU	C4-N3-C2	-3.44	122.83	127.34
1	1A	2564	OMU	C2'-C1'-N1	-3.41	107.76	114.24
32	1a	1518	MA6	C2-N1-C6	3.40	120.12	111.83
1	1A	2515	2MA	N9-C8-N7	-3.38	109.14	113.94
32	1a	967	5MC	C5-C6-N1	-3.37	119.65	123.31
1	1A	2564	OMU	N3-C2-N1	3.37	119.28	114.89
32	1a	1207	2MG	N9-C8-N7	-3.37	107.16	113.40
1	2A	2552	OMU	C6-C5-C4	-3.36	115.23	119.53
32	1a	1519	MA6	C2-N1-C6	3.36	120.04	111.83
44	2l	92	0TD	CB-CA-N	-3.36	102.30	109.10
32	2a	966	M2G	C2-N3-C4	3.35	118.70	112.51
1	2A	1917	PSU	O2-C2-N1	-3.34	119.34	122.79
32	2a	1400	5MC	C5-C6-N1	-3.34	119.69	123.31
1	1A	2564	OMU	C1'-N1-C2	3.32	123.55	117.59
32	1a	516	PSU	N1-C2-N3	3.31	118.66	115.17
1	1A	1939	PSU	O2-C2-N1	-3.31	119.38	122.79
32	1a	1518	MA6	C1'-N9-C8	3.29	134.41	127.09
32	2a	1404	5MC	C4-N3-C2	-3.29	116.24	120.81
1	2A	2503	2MA	N6-C6-N1	3.29	121.46	117.03
1	2A	2251	OMG	C2-N1-C6	-3.28	119.16	125.11
32	2a	527	G7M	C5-C4-N3	-3.27	121.97	128.15
1	2A	1939	5MU	C6-C5-C4	3.25	120.70	118.02
1	1A	1937	5MU	C4-N3-C2	-3.21	123.13	127.34
32	2a	967	5MC	C5-C4-N3	3.20	125.03	121.75
1	2A	1915	5MU	C1'-N1-C2	3.19	123.32	117.59
1	1A	1937	5MU	C6-C5-C4	3.18	120.64	118.02
32	1a	966	M2G	C2-N3-C4	3.18	118.39	112.51
32	1a	527	G7M	O6-C6-C5	-3.16	120.95	128.01
1	1A	2564	OMU	O2-C2-N1	-3.16	118.68	122.80
32	2a	1400	5MC	C5-C4-N3	3.16	125.00	121.75
1	1A	2564	OMU	C3'-C2'-C1'	3.15	108.84	102.81
32	2a	1404	5MC	C5-C4-N3	3.14	124.97	121.75
1	1A	1937	5MU	C1'-N1-C2	3.13	123.22	117.59
32	1a	1518	MA6	C6-C5-N7	-3.08	128.51	133.43
1	2A	1915	5MU	C6-C5-C4	3.07	120.55	118.02
32	1a	1207	2MG	C8-N7-C5	3.05	109.70	104.26
32	1a	1519	MA6	C4-N9-C1'	-3.05	119.51	126.63
1	1A	2263	OMG	C6-C5-N7	3.03	135.80	130.29
1	1A	1933	PSU	O2-C2-N1	-3.01	119.69	122.79
1	1A	2263	OMG	C8-N7-C5	3.00	109.61	104.26
32	1a	966	M2G	N9-C8-N7	-3.00	107.83	113.40
32	2a	1518	MA6	N9-C8-N7	-2.98	109.70	113.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	527	G7M	O6-C6-C5	-2.98	121.36	128.01
32	2a	1519	MA6	C4-N9-C8	2.98	108.87	105.74
1	2A	1939	5MU	C5-C6-N1	-2.97	120.08	123.31
32	2a	1407	5MC	C5-C6-N1	-2.94	120.12	123.31
1	2A	1942	5MC	C5-C4-N3	2.93	124.76	121.75
32	2a	527	G7M	N9-C8-N7	-2.92	105.39	112.48
32	2a	1519	MA6	C2-N1-C6	2.91	118.93	111.83
32	1a	1400	5MC	CM5-C5-C6	-2.90	118.93	122.85
32	2a	1207	2MG	N9-C8-N7	-2.87	108.09	113.40
32	1a	1407	5MC	N4-C4-N3	-2.85	113.35	118.51
32	1a	1207	2MG	C4-C5-N7	-2.85	106.16	110.67
1	1A	2617	PSU	O4-C4-N3	-2.85	114.76	120.11
32	1a	1207	2MG	O3'-C3'-C4'	2.83	119.20	111.08
32	2a	967	5MC	N4-C4-N3	-2.82	113.40	118.51
32	1a	527	G7M	C2-N3-C4	2.81	117.14	112.30
1	2A	1920	OMC	O2-C2-N3	-2.80	117.91	122.33
32	1a	967	5MC	C4-N3-C2	-2.80	116.93	120.81
32	1a	527	G7M	C5-C4-N3	-2.78	122.89	128.15
1	1A	1961	5MU	C6-C5-C4	2.78	120.31	118.02
32	2a	516	PSU	C6-N1-C2	-2.78	120.11	122.69
32	2a	1407	5MC	C4-N3-C2	-2.77	116.97	120.81
32	1a	527	G7M	N9-C8-N7	-2.77	105.76	112.48
1	1A	2263	OMG	C4-C5-N7	-2.77	106.28	110.67
1	1A	2263	OMG	C2-N3-C4	2.76	117.06	112.30
32	2a	516	PSU	N1-C2-N3	2.76	118.07	115.17
1	1A	1942	OMC	C2'-C1'-N1	-2.74	109.05	114.24
32	2a	1518	MA6	N3-C4-N9	2.73	131.82	127.17
1	2A	2605	PSU	N1-C2-N3	2.73	118.05	115.17
1	1A	1964	5MC	C5-C6-N1	-2.73	120.35	123.31
1	2A	1915	5MU	C4-N3-C2	-2.73	123.76	127.34
1	1A	1984	5MC	CM5-C5-C6	-2.73	119.16	122.85
1	1A	2564	OMU	O4'-C1'-C2'	-2.72	101.91	106.59
32	2a	1400	5MC	C4-N3-C2	-2.70	117.05	120.81
32	1a	1400	5MC	C4-N3-C2	-2.70	117.06	120.81
32	1a	1407	5MC	C4-N3-C2	-2.69	117.07	120.81
32	1a	1519	MA6	C5-N7-C8	2.69	107.67	103.45
1	2A	2251	OMG	C8-N7-C5	2.68	109.03	104.26
32	2a	1498	UR3	C5-C4-N3	2.68	118.56	115.04
32	1a	1519	MA6	C2-N3-C4	2.67	118.36	111.83
32	1a	1400	5MC	C5-C6-N1	-2.67	120.42	123.31
1	1A	1942	OMC	O2-C2-N3	-2.66	118.14	122.33
1	1A	2263	OMG	N2-C2-N1	2.66	122.37	116.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1961	5MU	C5-C6-N1	-2.66	120.43	123.31
32	2a	1207	2MG	C2-N1-C6	-2.65	121.34	124.55
1	2A	2552	OMU	O4-C4-N3	-2.64	115.44	119.27
44	1l	92	0TD	OD2-CG-OD1	-2.64	118.10	124.08
1	1A	2617	PSU	C6-N1-C2	-2.63	120.25	122.69
1	2A	2552	OMU	O2'-C2'-C1'	-2.63	103.99	108.99
1	1A	1937	5MU	C1'-N1-C6	-2.63	116.83	121.15
32	2a	1498	UR3	O2-C2-N3	2.62	124.96	121.33
1	2A	1942	5MC	C5-C6-N1	-2.62	120.47	123.31
1	1A	1964	5MC	C4-N3-C2	-2.60	117.20	120.81
32	1a	1407	5MC	CM5-C5-C6	-2.60	119.33	122.85
32	1a	1518	MA6	C2-N3-C4	2.60	118.17	111.83
1	2A	2251	OMG	C4-C5-N7	-2.59	106.56	110.67
1	2A	2503	2MA	C5-C4-N3	-2.59	124.45	127.18
1	1A	2515	2MA	C5-C6-N6	-2.59	116.88	123.29
32	2a	1519	MA6	C4-C5-N7	-2.58	107.63	110.58
1	1A	1939	PSU	N1-C2-N3	2.57	117.88	115.17
32	2a	1519	MA6	C1'-N9-C8	2.57	132.81	127.09
32	1a	516	PSU	O4'-C1'-C2'	2.55	108.68	105.15
32	2a	1498	UR3	C3U-N3-C4	2.55	121.41	117.87
32	1a	1207	2MG	O3'-C3'-C2'	2.55	119.98	111.82
1	2A	2251	OMG	C5-C6-N1	2.55	119.73	113.25
1	1A	1984	5MC	N4-C4-N3	-2.54	113.92	118.51
32	1a	1498	UR3	C3U-N3-C2	2.54	121.75	117.33
32	1a	1207	2MG	N9-C4-N3	2.53	131.01	125.95
32	1a	1207	2MG	N1-C2-N3	-2.52	119.43	123.68
1	2A	2605	PSU	O4-C4-N3	-2.51	115.39	120.11
1	1A	2617	PSU	O4-C4-C5	2.51	130.25	124.01
32	2a	1207	2MG	C1'-N9-C4	-2.51	119.08	126.49
32	2a	516	PSU	O4'-C1'-C2'	2.51	108.62	105.15
1	1A	1937	5MU	C5M-C5-C6	-2.49	119.48	122.85
1	1A	1964	5MC	C5-C4-N3	2.48	124.30	121.75
1	2A	1915	5MU	C1'-N1-C6	-2.48	117.07	121.15
32	1a	966	M2G	C5-C6-N1	2.47	119.55	113.25
32	1a	1519	MA6	C4-N9-C8	2.47	108.33	105.74
32	2a	1400	5MC	CM5-C5-C6	-2.45	119.53	122.85
32	1a	527	G7M	C2-N1-C6	-2.45	120.67	125.11
1	2A	1939	5MU	C5-C4-N3	2.45	117.45	115.32
1	2A	1911	PSU	O4-C4-N3	-2.43	115.54	120.11
32	2a	1518	MA6	C2-N3-C4	2.43	117.76	111.83
32	2a	1402	4OC	C5-C4-N3	-2.43	118.81	122.60
1	2A	1962	5MC	CM5-C5-C6	-2.42	119.58	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2263	OMG	C8-N9-C4	2.41	110.55	106.03
1	1A	2617	PSU	O2'-C2'-C1'	-2.41	105.50	111.21
32	2a	1404	5MC	N4-C4-N3	-2.40	114.16	118.51
32	2a	1518	MA6	C6-C5-N7	-2.40	129.61	133.43
32	1a	1400	5MC	CM5-C5-C4	2.40	124.45	120.51
1	1A	2515	2MA	C5-C4-N3	-2.39	124.66	127.18
1	2A	1917	PSU	O4-C4-N3	-2.38	115.64	120.11
1	2A	1917	PSU	N1-C2-N3	2.36	117.66	115.17
32	2a	1400	5MC	N4-C4-N3	-2.36	114.24	118.51
32	1a	1207	2MG	C5-C6-N1	2.36	119.25	113.25
1	2A	2251	OMG	C8-N9-C4	2.35	110.44	106.03
32	1a	966	M2G	O6-C6-C5	-2.35	120.33	126.53
32	1a	1498	UR3	C5-C6-N1	-2.30	118.10	121.84
32	1a	1400	5MC	N4-C4-N3	-2.29	114.35	118.51
1	1A	2263	OMG	C1'-N9-C4	2.29	133.25	126.49
1	1A	1942	OMC	CM2-O2'-C2'	-2.29	108.61	114.47
1	2A	2503	2MA	CM2-C2-N1	2.29	120.55	117.13
32	1a	967	5MC	N4-C4-N3	-2.28	114.37	118.51
32	1a	1207	2MG	N2-C2-N3	-2.27	117.62	120.51
44	2l	92	0TD	OD2-CG-OD1	-2.26	118.94	124.08
32	1a	1519	MA6	C1'-N9-C8	2.25	132.09	127.09
32	2a	1498	UR3	O4-C4-N3	2.24	122.39	119.66
32	2a	516	PSU	O4-C4-N3	-2.24	115.90	120.11
1	2A	1917	PSU	C4-N3-C2	-2.24	123.29	126.37
1	2A	2605	PSU	C4-N3-C2	-2.24	123.29	126.37
32	2a	1518	MA6	C5-N7-C8	2.22	106.94	103.45
1	2A	2605	PSU	O2-C2-N1	-2.20	120.52	122.79
32	1a	1404	5MC	C5-C4-N3	2.19	124.00	121.75
1	1A	1933	PSU	C4-N3-C2	-2.19	123.36	126.37
1	1A	1939	PSU	C4-N3-C2	-2.19	123.36	126.37
1	2A	2251	OMG	C6-C5-N7	2.18	134.25	130.29
1	2A	2503	2MA	C5-N7-C8	2.16	106.84	103.45
1	1A	2515	2MA	N3-C2-N1	-2.16	121.97	125.77
32	1a	1407	5MC	O2-C2-N3	-2.13	118.97	122.33
32	2a	527	G7M	C2-N1-C6	-2.13	121.26	125.11
1	2A	1911	PSU	O2-C2-N1	-2.12	120.60	122.79
32	1a	1207	2MG	C5-C4-N9	2.12	109.45	105.66
1	2A	1962	5MC	C5-C4-N3	2.12	123.92	121.75
32	2a	1207	2MG	C8-N7-C5	2.11	108.03	104.26
1	1A	1937	5MU	C5-C4-N3	2.11	117.16	115.32
1	2A	1962	5MC	O2-C2-N1	-2.11	114.77	118.90
1	2A	1920	OMC	C2'-C1'-N1	-2.10	110.26	114.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2251	OMG	CM2-O2'-C2'	-2.09	109.11	114.47
32	2a	966	M2G	C8-N7-C5	2.08	107.97	104.26
1	1A	1933	PSU	N1-C2-N3	2.08	117.36	115.17
1	1A	2263	OMG	C5-C4-N3	-2.08	125.08	128.39
1	1A	2263	OMG	C5-C6-N1	2.08	118.54	113.25
1	2A	1911	PSU	O4-C4-C5	2.07	129.15	124.01
1	1A	1939	PSU	O4-C4-N3	-2.07	116.23	120.11
32	2a	966	M2G	O6-C6-C5	-2.06	121.08	126.53
1	1A	2617	PSU	N1-C2-N3	2.06	117.34	115.17
1	2A	1942	5MC	C4-N3-C2	-2.06	117.95	120.81
1	1A	2263	OMG	N1-C2-N3	-2.05	119.57	123.32
32	1a	1207	2MG	O6-C6-C5	-2.05	121.12	126.53
32	2a	527	G7M	C5-C4-N9	2.05	110.25	105.88
32	2a	527	G7M	N1-C2-N3	-2.05	119.58	123.32
32	2a	516	PSU	C5-C6-N1	-2.04	119.31	122.14
32	1a	516	PSU	C5-C6-N1	-2.04	119.31	122.14
1	2A	2251	OMG	N9-C4-N3	2.04	130.03	125.95
1	2A	1911	PSU	O4'-C1'-C2'	2.03	107.96	105.15
32	1a	527	G7M	C4-C5-N7	2.02	110.97	107.67
1	2A	1915	5MU	O4'-C1'-N1	2.02	112.94	108.36
32	1a	516	PSU	O4-C4-N3	-2.01	116.34	120.11
32	2a	1519	MA6	C6-C5-N7	-2.00	130.23	133.43
32	1a	1207	2MG	C2'-C1'-N9	-2.00	107.68	113.25

There are no chirality outliers.

All (38) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1937	5MU	O4'-C1'-N1-C2
1	1A	1937	5MU	O4'-C1'-N1-C6
1	1A	1937	5MU	C3'-C4'-C5'-O5'
1	1A	1937	5MU	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C5-C6-N6-C9
44	1l	92	0TD	CA-CB-SB-CSB
44	1l	92	0TD	SB-CB-CG-OD2
44	1l	92	0TD	SB-CB-CG-OD1
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
32	2a	516	PSU	C2'-C1'-C5-C4
32	2a	1518	MA6	C5-C6-N6-C9
32	1a	967	5MC	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	N1-C6-N6-C9
32	2a	1518	MA6	N1-C6-N6-C9
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	1a	967	5MC	C3'-C4'-C5'-O5'
44	2l	92	0TD	CG-CB-SB-CSB
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	516	PSU	O4'-C1'-C5-C4
32	2a	516	PSU	O4'-C1'-C5-C4
1	1A	1942	OMC	C3'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
1	1A	1942	OMC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C5-C6-N6-C10
32	2a	1518	MA6	C5-C6-N6-C10
44	1l	92	0TD	CA-CB-CG-OD2
44	2l	92	0TD	CA-CB-CG-OD2
44	1l	92	0TD	CG-CB-SB-CSB
32	1a	527	G7M	C3'-C4'-C5'-O5'
32	1a	1400	5MC	O4'-C4'-C5'-O5'
1	1A	1942	OMC	C2'-C1'-N1-C2
1	2A	1920	OMC	C2'-C1'-N1-C2

There are no ring outliers.

28 monomers are involved in 44 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
44	1l	92	0TD	2	0
32	1a	527	G7M	1	0
32	1a	1207	2MG	6	0
32	1a	1407	5MC	1	0
1	1A	1942	OMC	1	0
32	1a	1402	4OC	1	0
1	2A	1920	OMC	1	0
32	2a	1400	5MC	2	0
32	2a	1498	UR3	1	0
32	2a	1519	MA6	2	0
1	2A	2251	OMG	1	0
32	1a	1519	MA6	1	0
1	2A	2552	OMU	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1518	MA6	1	0
32	1a	966	M2G	1	0
1	2A	1917	PSU	1	0
44	2l	92	0TD	1	0
32	2a	1207	2MG	3	0
32	2a	516	PSU	4	0
32	1a	1400	5MC	2	0
32	2a	1402	4OC	2	0
1	1A	1961	5MU	1	0
1	2A	1915	5MU	1	0
32	2a	1404	5MC	1	0
32	1a	1518	MA6	1	0
32	2a	966	M2G	2	0
1	2A	2503	2MA	1	0
1	1A	1939	PSU	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2435 ligands modelled in this entry, 2432 are monoatomic and 1 is modelled with single atom - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
57	SF4	2d	501	36	0,12,12	-	-	-		
57	SF4	1d	501	36	0,12,12	-	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	SF4	2d	501	36	-	-	0/6/5/5
57	SF4	1d	501	36	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	2A	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	2A	2801(A):A	O3'	2802:G	P	3.56

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	2861/2915 (98%)	-0.70	131 (4%) 37 29	18, 37, 90, 99	0
1	2A	2856/2915 (97%)	-0.36	133 (4%) 36 29	33, 58, 91, 100	0
2	1B	120/120 (100%)	-0.67	0 100 100	33, 56, 67, 89	0
2	2B	120/120 (100%)	-0.09	1 (0%) 82 75	63, 76, 81, 86	0
3	1D	275/275 (100%)	-0.50	1 (0%) 88 84	17, 38, 53, 70	0
3	2D	275/275 (100%)	-0.21	3 (1%) 78 70	32, 52, 64, 74	0
4	1E	204/204 (100%)	-0.51	0 100 100	19, 41, 61, 70	0
4	2E	204/204 (100%)	-0.07	2 (0%) 79 72	34, 57, 70, 78	0
5	1F	203/203 (100%)	-0.41	0 100 100	17, 44, 70, 86	0
5	2F	203/203 (100%)	-0.03	0 100 100	38, 64, 78, 84	0
6	1G	181/181 (100%)	0.06	2 (1%) 78 70	52, 68, 78, 88	0
6	2G	181/181 (100%)	0.85	13 (7%) 21 16	74, 80, 86, 91	0
7	1H	174/174 (100%)	-0.19	3 (1%) 69 60	39, 55, 66, 70	0
7	2H	173/174 (99%)	0.68	5 (2%) 53 43	65, 79, 85, 87	0
8	1I	147/147 (100%)	0.16	1 (0%) 84 77	41, 70, 78, 81	0
8	2I	146/147 (99%)	0.34	3 (2%) 63 54	53, 74, 82, 87	0
9	1N	140/140 (100%)	-0.46	1 (0%) 84 77	23, 39, 62, 75	0
9	2N	140/140 (100%)	-0.08	0 100 100	48, 63, 73, 82	0
10	1O	122/122 (100%)	-0.44	0 100 100	30, 43, 59, 64	0
10	2O	122/122 (100%)	-0.15	0 100 100	44, 55, 67, 73	0
11	1P	149/149 (100%)	-0.43	0 100 100	19, 46, 65, 78	0
11	2P	149/149 (100%)	0.04	0 100 100	42, 66, 79, 82	0
12	1Q	141/141 (100%)	-0.32	0 100 100	28, 43, 56, 69	0
12	2Q	141/141 (100%)	0.03	1 (0%) 84 77	47, 63, 74, 77	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.42	0 100 100	26, 38, 55, 63	0
13	2R	118/118 (100%)	-0.12	0 100 100	40, 54, 64, 70	0
14	1S	110/110 (100%)	-0.22	2 (1%) 67 58	44, 55, 67, 71	0
14	2S	110/110 (100%)	0.63	5 (4%) 38 30	64, 72, 78, 82	0
15	1T	131/131 (100%)	-0.26	3 (2%) 61 51	34, 47, 70, 79	0
15	2T	131/131 (100%)	-0.04	2 (1%) 72 63	50, 60, 75, 83	0
16	1U	116/116 (100%)	-0.63	1 (0%) 81 74	22, 32, 48, 64	0
16	2U	116/116 (100%)	0.03	0 100 100	45, 60, 72, 81	0
17	1V	101/101 (100%)	-0.61	0 100 100	22, 41, 60, 71	0
17	2V	101/101 (100%)	-0.07	0 100 100	42, 68, 76, 83	0
18	1W	112/112 (100%)	-0.58	2 (1%) 67 58	22, 32, 54, 85	0
18	2W	112/112 (100%)	-0.15	1 (0%) 81 74	39, 52, 66, 81	0
19	1X	95/95 (100%)	-0.35	1 (1%) 78 70	28, 42, 64, 72	0
19	2X	95/95 (100%)	0.19	1 (1%) 78 70	48, 62, 72, 76	0
20	1Y	107/107 (100%)	-0.10	2 (1%) 66 57	38, 51, 67, 75	0
20	2Y	107/107 (100%)	0.43	6 (5%) 30 23	53, 68, 79, 86	0
21	1Z	203/203 (100%)	-0.05	0 100 100	45, 62, 74, 82	0
21	2Z	201/203 (99%)	0.38	0 100 100	65, 75, 82, 87	0
22	10	77/77 (100%)	-0.43	0 100 100	29, 41, 58, 63	0
22	20	77/77 (100%)	0.28	2 (2%) 57 47	52, 63, 71, 75	0
23	11	97/97 (100%)	-0.22	1 (1%) 79 72	27, 45, 68, 77	0
23	21	97/97 (100%)	-0.01	2 (2%) 63 54	46, 59, 75, 79	0
24	12	70/70 (100%)	-0.09	1 (1%) 73 64	40, 51, 63, 77	0
24	22	70/70 (100%)	0.32	2 (2%) 53 43	60, 69, 77, 79	0
25	13	59/59 (100%)	-0.35	1 (1%) 69 60	28, 40, 62, 77	0
25	23	59/59 (100%)	-0.03	2 (3%) 48 39	54, 63, 74, 79	0
26	14	69/69 (100%)	0.51	6 (8%) 16 11	64, 79, 87, 91	0
26	24	69/69 (100%)	1.31	14 (20%) 3 2	76, 85, 89, 94	0
27	15	59/59 (100%)	-0.56	1 (1%) 69 60	18, 38, 57, 66	0
27	25	59/59 (100%)	-0.24	0 100 100	38, 55, 71, 75	0
28	16	53/53 (100%)	-0.36	0 100 100	38, 48, 60, 63	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/53 (100%)	-0.07	0 100 100	56, 64, 71, 77	0
29	17	48/48 (100%)	-0.42	3 (6%) 26 19	20, 27, 58, 68	0
29	27	48/48 (100%)	-0.09	2 (4%) 40 32	34, 44, 67, 78	0
30	18	64/64 (100%)	-0.53	0 100 100	28, 35, 46, 59	0
30	28	64/64 (100%)	0.13	1 (1%) 70 61	46, 58, 65, 70	0
31	19	37/37 (100%)	-0.13	0 100 100	35, 46, 63, 70	0
31	29	37/37 (100%)	0.57	1 (2%) 56 46	63, 69, 75, 75	0
32	1a	1488/1521 (97%)	-0.01	40 (2%) 56 46	35, 72, 91, 100	0
32	2a	1492/1521 (98%)	-0.01	31 (2%) 63 54	44, 74, 91, 97	0
33	1x	97/97 (100%)	0.29	4 (4%) 41 33	55, 67, 76, 80	0
33	2x	96/97 (98%)	1.10	18 (18%) 3 2	70, 78, 87, 89	0
34	1b	231/231 (100%)	0.72	12 (5%) 33 25	65, 77, 84, 90	0
34	2b	231/231 (100%)	0.74	16 (6%) 23 16	66, 79, 85, 89	0
35	1c	206/206 (100%)	0.63	10 (4%) 35 27	67, 78, 84, 90	0
35	2c	206/206 (100%)	0.94	11 (5%) 32 24	72, 81, 86, 90	0
36	1d	208/208 (100%)	0.61	9 (4%) 40 31	59, 73, 80, 87	0
36	2d	208/208 (100%)	0.59	7 (3%) 48 39	58, 71, 80, 84	0
37	1e	148/148 (100%)	0.14	1 (0%) 84 77	45, 68, 75, 89	0
37	2e	148/148 (100%)	0.22	3 (2%) 65 56	57, 70, 77, 82	0
38	1f	100/100 (100%)	0.24	0 100 100	54, 72, 77, 80	0
38	2f	100/100 (100%)	0.09	1 (1%) 79 72	59, 68, 78, 80	0
39	1g	155/155 (100%)	0.38	2 (1%) 75 66	66, 74, 82, 85	0
39	2g	155/155 (100%)	0.52	9 (5%) 29 22	69, 77, 82, 87	0
40	1h	137/137 (100%)	0.22	0 100 100	58, 68, 74, 82	0
40	2h	137/137 (100%)	0.17	2 (1%) 72 63	62, 69, 76, 80	0
41	1i	127/127 (100%)	1.18	18 (14%) 6 5	67, 80, 86, 89	0
41	2i	126/127 (99%)	1.50	31 (24%) 2 1	72, 81, 86, 89	0
42	1j	97/97 (100%)	1.32	17 (17%) 4 3	68, 81, 87, 90	0
42	2j	96/97 (98%)	1.56	31 (32%) 1 1	73, 82, 87, 89	0
43	1k	114/114 (100%)	-0.01	1 (0%) 81 74	44, 64, 75, 81	0
43	2k	114/114 (100%)	0.04	1 (0%) 81 74	54, 69, 80, 82	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1l	121/122 (99%)	0.20	1 (0%) 82 75	51, 64, 72, 79	0
44	2l	121/122 (99%)	0.28	3 (2%) 58 48	56, 66, 74, 77	0
45	1m	116/116 (100%)	0.51	4 (3%) 48 39	69, 77, 82, 83	0
45	2m	114/116 (98%)	0.91	6 (5%) 32 24	75, 81, 85, 88	0
46	1n	60/60 (100%)	1.03	3 (5%) 34 26	69, 77, 81, 83	0
46	2n	60/60 (100%)	1.72	19 (31%) 1 1	73, 81, 84, 88	0
47	1o	88/88 (100%)	0.17	2 (2%) 61 51	52, 66, 76, 82	0
47	2o	88/88 (100%)	0.09	2 (2%) 61 51	54, 69, 78, 81	0
48	1p	82/82 (100%)	0.88	6 (7%) 21 15	63, 74, 80, 87	0
48	2p	82/82 (100%)	0.55	2 (2%) 59 49	58, 69, 76, 84	0
49	1q	99/99 (100%)	0.40	2 (2%) 65 56	54, 68, 77, 79	0
49	2q	99/99 (100%)	0.13	1 (1%) 79 72	57, 68, 76, 78	0
50	1r	68/68 (100%)	0.11	1 (1%) 72 63	57, 67, 75, 80	0
50	2r	68/68 (100%)	-0.02	0 100 100	62, 69, 77, 79	0
51	1s	83/83 (100%)	1.06	8 (9%) 13 10	73, 79, 84, 85	0
51	2s	83/83 (100%)	1.37	16 (19%) 3 2	77, 83, 88, 90	0
52	1t	96/98 (97%)	0.73	7 (7%) 21 15	63, 72, 81, 83	0
52	2t	98/98 (100%)	0.53	8 (8%) 17 13	59, 69, 78, 80	0
53	1u	23/23 (100%)	1.43	7 (30%) 1 1	72, 75, 78, 81	0
53	2u	23/23 (100%)	1.79	9 (39%) 1 0	76, 79, 82, 84	0
54	1y	16/16 (100%)	0.30	1 (6%) 26 19	36, 50, 60, 61	0
54	2y	16/16 (100%)	0.92	2 (12%) 8 6	53, 59, 69, 72	0
All	All	20798/20986 (99%)	-0.04	750 (3%) 46 37	17, 64, 85, 100	0

All (750) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1133	G	17.2
1	1A	1137	G	13.2
1	1A	1135	G	12.9
1	1A	1118	C	11.9
1	1A	1134	A	10.0
1	1A	1123	A	9.9
1	1A	1127	U	9.8

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Mol	Chain	Res	Type	RSRZ
1	1A	1149	A	9.8
1	1A	1132	A	9.4
1	1A	1138	C	9.2
1	1A	1136	U	9.2
1	1A	1117	G	8.7
1	1A	1121	C	8.6
1	1A	1139	G	8.5
1	1A	1126	C	8.2
1	1A	1109	G	7.9
1	1A	1150	C	7.7
1	1A	1120	G	7.6
1	1A	1125	C	7.4
1	1A	1124	U	7.2
1	1A	1148	C	7.1
1	1A	1122	C	6.8
1	1A	1128	U	6.8
1	1A	1129	U	6.7
1	2A	2125	G	6.4
1	1A	1103	A	6.4
1	1A	1112	U	6.3
46	2n	2	ALA	6.1
1	1A	1113	A	6.1
1	1A	1110	C	6.0
32	2a	1030(A)	G	6.0
1	2A	2123	G	5.8
1	2A	2147	G	5.7
32	2a	1030(B)	C	5.7
1	1A	1119	A	5.6
1	2A	2124	G	5.5
1	2A	2174	C	5.4
1	2A	2802	G	5.3
1	1A	2139	A	5.1
23	11	2	SER	5.1
1	2A	2173	A	5.1
23	21	2	SER	5.1
1	2A	2126	A	5.1
33	2x	98	ALA	4.9
1	2A	1064	C	4.9
1	2A	2162	G	4.9
41	2i	126	SER	4.8
33	1x	98	ALA	4.8
32	1a	1036	G	4.8

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Mol	Chain	Res	Type	RSRZ
1	2A	2118	U	4.8
15	1T	131	ALA	4.8
1	1A	1131	A	4.7
41	1i	106	ALA	4.7
1	2A	2169	A	4.6
32	1a	1286	A	4.6
35	1c	2	GLY	4.6
1	1A	1130	A	4.5
52	2t	6	PRO	4.5
41	2i	102	LEU	4.5
1	2A	2803	C	4.5
1	2A	1085	A	4.5
15	1T	130	ALA	4.4
1	2A	2148	G	4.4
1	1A	2195	A	4.4
46	1n	2	ALA	4.4
1	2A	1536	C	4.4
46	2n	7	ILE	4.4
1	2A	2168	G	4.4
1	1A	1108	G	4.3
52	1t	103	GLY	4.3
32	1a	1030(B)	C	4.2
41	2i	127	LYS	4.2
52	1t	10	LEU	4.2
1	1A	1104	G	4.2
1	2A	2128	C	4.1
1	1A	2145	G	4.1
26	24	49	PHE	4.1
1	2A	1076	C	4.1
1	1A	1114	G	4.1
7	1H	2	SER	4.1
1	1A	2166	U	4.1
1	1A	2194	U	4.1
20	1Y	1	MET	4.1
29	27	48	LYS	4.1
26	14	52	THR	4.1
1	2A	2139	C	4.1
1	2A	1082	U	4.1
1	2A	1046	A	4.0
32	1a	1031	G	4.0
1	1A	2816	G	4.0
1	2A	2133	G	4.0

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Mol	Chain	Res	Type	RSRZ
26	24	56	VAL	4.0
46	2n	30	ALA	4.0
1	1A	2161	C	4.0
1	2A	1067	A	4.0
1	1A	2141	A	3.9
1	2A	2127	G	3.9
26	24	67	TYR	3.9
24	12	70	GLN	3.9
1	2A	2119	A	3.9
35	2c	2	GLY	3.9
1	1A	2138	G	3.9
1	2A	2155	G	3.9
45	2m	102	ARG	3.9
1	1A	2151	C	3.9
1	2A	614(B)	G	3.8
1	1A	1111	U	3.8
1	2A	1095	A	3.8
1	2A	2602	A	3.8
1	1A	2806	G	3.7
32	1a	1034	G	3.7
1	2A	1075	C	3.7
1	2A	2107	C	3.7
1	2A	2145	C	3.7
1	2A	2154	G	3.7
32	2a	1001(A)	G	3.7
26	14	59	PHE	3.7
1	2A	2896	C	3.7
32	1a	1030(A)	G	3.7
35	1c	207	VAL	3.7
1	1A	2130	C	3.6
41	2i	11	LYS	3.6
26	14	56	VAL	3.6
1	1A	935	C	3.6
1	1A	1146	C	3.6
46	2n	17	LYS	3.6
41	2i	7	THR	3.6
1	1A	1147	U	3.6
1	2A	2179	C	3.6
1	2A	229	A	3.6
1	2A	1079	C	3.6
1	2A	2111	C	3.6
1	2A	2138	C	3.6

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Mol	Chain	Res	Type	RSRZ
42	2j	75	ILE	3.5
51	1s	40	ILE	3.5
1	1A	2165	C	3.5
1	2A	34	C	3.5
1	2A	2146	C	3.5
1	2A	1083	U	3.5
1	1A	2134	G	3.5
1	2A	2120	G	3.5
32	2a	1027	C	3.5
42	2j	74	ILE	3.5
1	2A	2144	U	3.5
29	17	48	LYS	3.5
48	2p	82	GLN	3.5
42	1j	74	ILE	3.5
45	1m	2	ALA	3.5
1	1A	2137	G	3.4
51	2s	71	LEU	3.4
1	2A	2176	A	3.4
1	1A	2160	C	3.4
41	1i	127	LYS	3.4
19	1X	95	LEU	3.4
1	1A	2175	G	3.4
1	2A	2141	G	3.4
1	2A	2172	U	3.4
33	2x	64	SER	3.4
46	2n	18	VAL	3.4
1	1A	2182	G	3.4
1	2A	2110	G	3.4
1	2A	2117	A	3.4
1	2A	2140	C	3.4
32	1a	1030	C	3.4
32	1a	1037	C	3.4
42	1j	33	GLN	3.4
44	2l	18	VAL	3.4
52	2t	103	GLY	3.4
1	2A	1084	A	3.4
1	1A	2169	G	3.3
1	2A	2165	G	3.3
51	2s	9	VAL	3.3
1	1A	2183	C	3.3
12	2Q	59	ARG	3.3
51	2s	2	PRO	3.3

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Mol	Chain	Res	Type	RSRZ
42	1j	32	ALA	3.3
34	2b	97	TRP	3.3
6	2G	146	TYR	3.3
32	1a	1001	A	3.3
1	2A	2142	C	3.3
1	2A	2143	C	3.3
1	2A	2175	C	3.3
32	1a	1002	G	3.3
41	2i	14	VAL	3.3
41	2i	42	ARG	3.3
32	2a	1001	A	3.3
1	2A	2137	C	3.3
15	2T	131	ALA	3.3
1	1A	2190	G	3.3
1	2A	2131	G	3.3
32	1a	1003	G	3.3
34	2b	70	PHE	3.3
26	24	52	THR	3.3
51	1s	9	VAL	3.3
53	2u	6	ARG	3.3
39	2g	156	TRP	3.3
1	2A	2122	U	3.3
46	2n	14	PRO	3.3
32	1a	1035	A	3.3
1	2A	2116	G	3.3
1	2A	2153	G	3.3
32	1a	1030(C)	G	3.3
39	2g	33	ASP	3.2
41	2i	2	GLU	3.2
1	1A	2188	G	3.2
1	2A	2106	G	3.2
1	2A	2109	U	3.2
1	2A	2121	G	3.2
1	2A	2151	G	3.2
51	2s	16	LEU	3.2
33	2x	9	GLN	3.2
26	24	63	TYR	3.2
42	1j	4	ILE	3.2
1	2A	614(A)	U	3.2
1	2A	2157	G	3.2
32	1a	1001(A)	G	3.2
1	1A	1141	A	3.2

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Mol	Chain	Res	Type	RSRZ
32	1a	1029	C	3.2
1	2A	2159	G	3.2
32	1a	1032	G	3.2
1	1A	2193	A	3.1
8	1I	147	GLN	3.1
1	1A	2814	C	3.1
20	2Y	1	MET	3.1
46	2n	13	THR	3.1
14	2S	17	ARG	3.1
33	2x	8	LYS	3.1
45	1m	87	TYR	3.1
1	2A	2166	G	3.1
1	2A	2171	A	3.1
42	1j	75	ILE	3.1
30	28	46	ARG	3.1
15	2T	130	ALA	3.1
51	1s	13	ASP	3.1
1	1A	1101	G	3.1
1	1A	2171	G	3.1
1	2A	1088	A	3.1
1	2A	2170	A	3.1
32	1a	1026	G	3.1
53	2u	24	ARG	3.1
1	2A	1104	C	3.1
34	1b	237	ALA	3.0
41	2i	15	ALA	3.0
42	1j	76	ASN	3.0
1	1A	2129	C	3.0
52	1t	11	SER	3.0
42	1j	10	GLY	3.0
6	2G	2	PRO	3.0
1	2A	2149	G	3.0
35	1c	193	TYR	3.0
1	1A	34	C	3.0
1	1A	2815	C	3.0
14	2S	20	ARG	3.0
34	1b	214	ILE	3.0
52	1t	18	GLN	3.0
46	2n	22	THR	3.0
1	1A	2189	U	3.0
34	2b	136	VAL	3.0
41	2i	109	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
14	1S	13	ARG	3.0
34	2b	236	TYR	3.0
26	24	54	GLY	3.0
39	2g	34	GLY	3.0
1	1A	1102	G	3.0
1	1A	2147	G	3.0
1	1A	2149	G	3.0
1	2A	1089	G	3.0
1	2A	2112	G	3.0
32	2a	1033	G	3.0
32	1a	1027	C	3.0
36	2d	158	ILE	2.9
53	1u	19	GLY	2.9
1	2A	2152	G	2.9
1	2A	2136	C	2.9
1	1A	1140	U	2.9
1	1A	1143	U	2.9
1	2A	2150	U	2.9
51	2s	30	LEU	2.9
41	2i	72	GLY	2.9
1	2A	2134	A	2.9
36	1d	112	VAL	2.9
44	1l	18	VAL	2.9
46	2n	25	VAL	2.9
1	1A	2164	C	2.9
1	1A	2196	C	2.9
1	2A	2804	C	2.9
32	2a	1036	G	2.9
46	2n	21	TYR	2.9
42	2j	37	PRO	2.9
51	2s	12	ASP	2.9
33	2x	42	SER	2.9
42	2j	32	ALA	2.9
34	1b	187	LEU	2.9
1	2A	2897	U	2.9
1	1A	2163	G	2.9
32	1a	1033	G	2.9
32	2a	1202	G	2.9
41	2i	21	PRO	2.9
26	24	65	ASP	2.9
42	2j	44	VAL	2.9
1	1A	2148	A	2.9

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Mol	Chain	Res	Type	RSRZ
1	1A	2180	A	2.9
26	24	45	GLY	2.8
1	2A	1090	U	2.8
1	2A	2129	C	2.8
1	2A	2163	C	2.8
32	1a	1028	C	2.8
1	1A	2181	G	2.8
34	1b	7	VAL	2.8
42	1j	34	VAL	2.8
41	2i	10	ARG	2.8
42	2j	6	ILE	2.8
1	1A	1151	U	2.8
1	1A	2154	U	2.8
32	2a	1257	U	2.8
1	1A	2168	C	2.8
41	2i	13	ALA	2.8
53	2u	9	ARG	2.8
32	2a	1034	G	2.8
1	1A	1099	C	2.8
32	2a	1029	C	2.8
42	2j	55	LYS	2.8
1	2A	1091	G	2.8
1	2A	2130	U	2.8
36	1d	135	LEU	2.8
41	2i	118	LYS	2.8
1	2A	2164	C	2.8
1	2A	1533	G	2.7
32	2a	1030(C)	G	2.7
34	1b	10	LEU	2.7
35	1c	87	LEU	2.7
42	2j	30	SER	2.7
1	1A	2807	C	2.7
26	24	50	VAL	2.7
39	1g	2	ALA	2.7
41	1i	15	ALA	2.7
39	2g	154	TYR	2.7
1	1A	1145	G	2.7
32	2a	1031	G	2.7
32	2a	1040	U	2.7
42	2j	76	ASN	2.7
41	1i	107	ARG	2.7
42	2j	46	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
53	1u	24	ARG	2.7
54	2y	1	VAL	2.7
1	2A	2108	C	2.7
1	1A	1116	A	2.7
1	2A	1065	U	2.7
41	1i	64	THR	2.7
51	2s	68	GLY	2.7
1	1A	1221	G	2.7
41	1i	78	LYS	2.7
1	1A	2167	C	2.7
1	2A	1080	C	2.7
32	2a	1030	C	2.7
26	24	55	ARG	2.7
39	2g	32	ARG	2.7
7	2H	120	GLY	2.7
33	2x	45	PRO	2.7
1	1A	1115	A	2.7
1	2A	2801(A)	A	2.7
1	2A	2892	A	2.7
42	2j	34	VAL	2.7
34	2b	201	ILE	2.6
46	2n	32	SER	2.7
32	1a	630	G	2.6
53	2u	14	TRP	2.6
1	2A	2177	C	2.6
42	1j	40	LEU	2.6
32	2a	1030(D)	A	2.6
6	2G	76	SER	2.6
35	2c	189	ALA	2.6
44	2l	99	HIS	2.6
1	1A	2155	G	2.6
1	1A	2170	G	2.6
1	2A	1087	G	2.6
1	2A	2793	G	2.6
53	2u	2	GLY	2.6
32	1a	163	C	2.6
41	1i	109	VAL	2.6
48	1p	82	GLN	2.6
1	1A	1144	A	2.6
32	1a	1030(D)	A	2.6
51	1s	84	GLY	2.6
20	2Y	34	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
8	2I	3	VAL	2.6
32	2a	1032	G	2.6
42	2j	40	LEU	2.6
50	1r	78	LEU	2.6
41	2i	106	ALA	2.6
1	2A	888	C	2.6
32	1a	1038	C	2.6
48	1p	68	ASP	2.6
1	1A	2152	U	2.6
1	2A	2132	U	2.6
29	17	47	ARG	2.6
39	2g	5	ARG	2.6
47	2o	68	ARG	2.6
53	1u	9	ARG	2.6
1	1A	2191	A	2.6
1	2A	652(B)	A	2.6
32	2a	1286	A	2.6
42	2j	36	GLY	2.6
26	14	50	VAL	2.6
47	1o	87	ILE	2.6
35	1c	90	GLU	2.6
29	17	45	ALA	2.6
46	2n	10	ALA	2.6
24	22	52	ASP	2.6
3	1D	276	LYS	2.5
1	1A	2156	A	2.5
1	2A	1086	A	2.5
51	2s	84	GLY	2.5
48	1p	19	ILE	2.5
4	2E	204	ALA	2.5
1	1A	2131	U	2.5
1	1A	2177	G	2.5
1	1A	2187	G	2.5
1	2A	2894	G	2.5
1	1A	1555	C	2.5
41	2i	67	GLY	2.5
45	2m	100	GLY	2.5
7	2H	44	VAL	2.5
26	24	57	GLU	2.5
41	2i	12	GLU	2.5
42	2j	47	PHE	2.5
46	2n	16	PHE	2.5

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Mol	Chain	Res	Type	RSRZ
51	2s	33	THR	2.5
34	2b	237	ALA	2.5
42	2j	27	ALA	2.5
46	2n	5	ALA	2.5
45	1m	102	ARG	2.5
6	2G	53	LEU	2.5
36	1d	21	LEU	2.5
51	2s	15	LEU	2.5
53	1u	2	GLY	2.5
1	2A	2805	G	2.5
1	1A	2198	A	2.5
1	2A	2158	A	2.5
32	1a	1005	A	2.5
32	1a	1493	A	2.5
22	20	84	LEU	2.5
41	2i	96	LEU	2.5
42	2j	65	LEU	2.5
52	2t	11	SER	2.5
53	2u	23	PRO	2.5
1	2A	2167	U	2.5
7	2H	136	ILE	2.5
6	2G	35	GLU	2.5
26	14	63	TYR	2.5
41	1i	128	ARG	2.5
1	1A	2178	G	2.5
32	2a	1035	A	2.5
53	2u	13	ILE	2.4
34	2b	7	VAL	2.4
14	2S	3	ARG	2.4
19	2X	68	ARG	2.4
33	1x	95	ARG	2.4
8	2I	146	ALA	2.4
41	2i	125	TYR	2.4
52	1t	97	ALA	2.4
52	2t	97	ALA	2.4
1	1A	2614	A	2.4
1	2A	1057	A	2.4
1	1A	2174	G	2.4
1	1A	2179	G	2.4
1	2A	2160	G	2.4
1	2A	2893	G	2.4
6	2G	52	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
37	2e	13	ILE	2.4
3	2D	38	LYS	2.4
32	1a	202	U	2.4
34	1b	17	PHE	2.4
34	1b	133	LYS	2.4
34	2b	133	LYS	2.4
41	2i	64	THR	2.4
49	1q	7	THR	2.4
46	2n	6	LEU	2.4
1	1A	2150	C	2.4
15	1T	37	GLY	2.4
39	2g	82	GLY	2.4
46	2n	33	VAL	2.4
1	2A	1070	A	2.4
41	2i	66	ARG	2.4
1	2A	1066	U	2.4
43	2k	126	ARG	2.4
1	2A	2161	C	2.4
33	2x	97	ALA	2.4
33	2x	46	GLN	2.4
37	2e	20	GLN	2.4
1	1A	2176	G	2.4
32	1a	1024	G	2.4
33	2x	3	MET	2.4
42	2j	100	THR	2.4
41	2i	99	LEU	2.4
34	1b	136	VAL	2.3
45	2m	106	ASN	2.3
51	1s	68	GLY	2.3
35	1c	10	PHE	2.3
42	1j	47	PHE	2.3
42	1j	58	ASP	2.3
33	2x	44	GLU	2.3
1	2A	2105	C	2.3
36	2d	137	SER	2.3
51	2s	35	SER	2.3
25	23	26	LEU	2.3
42	1j	65	LEU	2.3
48	1p	39	TYR	2.3
51	2s	14	HIS	2.3
53	1u	18	TYR	2.3
1	1A	2172	U	2.3

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Mol	Chain	Res	Type	RSRZ
2	2B	1	U	2.3
44	2l	126	LYS	2.3
1	2A	2807	G	2.3
35	1c	158	GLY	2.3
34	1b	129	GLU	2.3
42	2j	59	SER	2.3
46	2n	60	SER	2.3
1	1A	2162	C	2.3
1	1A	2905	C	2.3
32	2a	1037	C	2.3
41	1i	125	TYR	2.3
45	2m	87	TYR	2.3
1	1A	2140	U	2.3
7	1H	6	ARG	2.3
36	2d	168	ARG	2.3
9	1N	9	VAL	2.3
42	1j	24	VAL	2.3
46	1n	25	VAL	2.3
54	1y	1	VAL	2.3
37	1e	22	GLY	2.3
42	2j	78	ASN	2.3
42	2j	63	PHE	2.3
1	1A	2146	G	2.3
1	2A	1071	G	2.3
1	2A	1074	G	2.3
1	2A	2156	G	2.3
33	2x	41	LEU	2.3
26	24	66	SER	2.3
34	1b	201	ILE	2.3
35	2c	182	ILE	2.3
46	2n	4	LYS	2.3
41	1i	66	ARG	2.3
1	2A	2789	C	2.3
32	1a	1039	C	2.3
1	1A	638	U	2.3
1	1A	2157	A	2.3
32	1a	1257	U	2.3
32	2a	90	U	2.3
35	2c	158	GLY	2.3
41	2i	69	GLY	2.3
33	1x	97	ALA	2.3
34	2b	134	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
36	1d	194	LEU	2.3
33	2x	38	HIS	2.3
42	2j	42	THR	2.3
53	1u	15	ARG	2.3
41	1i	28	VAL	2.3
35	2c	159	GLY	2.3
41	1i	39	GLY	2.3
32	1a	1007	C	2.2
32	2a	1249	C	2.2
36	2d	156	GLU	2.2
42	2j	80	LYS	2.2
22	20	74	ARG	2.2
40	2h	30	ARG	2.2
41	2i	9	ARG	2.2
46	2n	3	ARG	2.2
32	1a	1023	G	2.2
6	2G	42	GLY	2.2
20	2Y	58	GLY	2.2
52	2t	69	GLY	2.2
4	2E	1	MET	2.2
1	2A	1026	U	2.2
29	27	45	ALA	2.2
1	1A	2192	A	2.2
3	2D	276	LYS	2.2
24	22	60	LEU	2.2
35	2c	94	LEU	2.2
39	2g	12	LEU	2.2
40	2h	2	LEU	2.2
51	2s	22	LEU	2.2
51	2s	53	ASN	2.2
18	2W	37	ARG	2.2
48	1p	13	HIS	2.2
8	2I	92	VAL	2.2
42	1j	87	THR	2.2
42	2j	86	MET	2.2
1	1A	1105	G	2.2
1	2A	1063	G	2.2
6	2G	133	LEU	2.2
20	1Y	33	LYS	2.2
52	1t	12	ALA	2.2
1	2A	2113	U	2.2
32	1a	65	U	2.2

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Mol	Chain	Res	Type	RSRZ
32	2a	1020	U	2.2
14	2S	35	ILE	2.2
1	2A	6	A	2.2
1	2A	1096	A	2.2
32	2a	1531	A	2.2
1	2A	1092	C	2.2
32	2a	89	C	2.2
7	2H	50	VAL	2.2
20	2Y	5	MET	2.2
34	2b	148	TYR	2.2
42	2j	93	GLY	2.2
1	1A	2906	U	2.2
7	1H	3	ARG	2.2
23	21	26	ARG	2.2
36	2d	47	ARG	2.2
39	2g	79	ARG	2.2
16	1U	117	GLN	2.2
18	1W	111	HIS	2.2
32	2a	1003	G	2.2
25	13	2	PRO	2.2
25	23	2	PRO	2.2
41	1i	108	VAL	2.2
42	1j	91	PRO	2.2
42	2j	49	VAL	2.2
51	2s	10	PHE	2.2
34	2b	187	LEU	2.2
41	2i	43	ALA	2.2
36	2d	5	ILE	2.1
34	2b	15	VAL	2.1
51	1s	2	PRO	2.1
41	2i	105	ASP	2.1
6	2G	74	LYS	2.1
33	2x	66	LYS	2.1
1	1A	6	A	2.1
1	1A	572	A	2.1
1	1A	934	A	2.1
1	1A	2641	A	2.1
1	1A	2813	G	2.1
1	2A	11	G	2.1
1	2A	2115	G	2.1
32	1a	102	G	2.1
32	1a	1004	A	2.1

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Mol	Chain	Res	Type	RSRZ
32	2a	1026	G	2.1
35	1c	95	THR	2.1
52	2t	74	LYS	2.1
52	2t	96	GLY	2.1
20	2Y	90	LEU	2.1
36	1d	4	TYR	2.1
6	2G	118	ARG	2.1
52	1t	55	ILE	2.1
32	1a	1025	U	2.1
34	1b	165	VAL	2.1
34	2b	232	PRO	2.1
43	1k	14	VAL	2.1
26	14	54	GLY	2.1
36	2d	180	GLY	2.1
42	2j	90	LEU	2.1
1	2A	1847	A	2.1
3	2D	153	ALA	2.1
35	1c	38	ARG	2.1
35	2c	92	ALA	2.1
47	2o	88	ARG	2.1
1	2A	1537	G	2.1
1	2A	2104	G	2.1
6	2G	59	GLU	2.1
35	2c	8	ILE	2.1
35	2c	124	ILE	2.1
1	1A	2186	C	2.1
26	24	35	VAL	2.1
37	2e	10	MET	2.1
1	1A	1072	U	2.1
52	2t	25	ARG	2.1
34	2b	123	ALA	2.1
41	1i	2	GLU	2.1
45	2m	9	ILE	2.1
1	2A	2135	A	2.1
49	1q	93	GLN	2.1
1	1A	299	G	2.1
1	1A	2173	G	2.1
20	2Y	4	LYS	2.1
32	2a	1002	G	2.1
35	1c	86	VAL	2.1
45	2m	98	VAL	2.1
41	1i	21	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
33	2x	79	ASN	2.1
14	2S	58	LEU	2.1
41	2i	40	LEU	2.1
18	1W	112	GLY	2.1
31	29	37	GLY	2.1
32	1a	204	U	2.1
32	1a	1000	U	2.1
32	2a	1219	U	2.1
33	2x	92	GLY	2.1
54	2y	4	GLY	2.1
6	2G	145	THR	2.1
26	24	51	ASP	2.1
36	1d	153	ARG	2.1
47	1o	88	ARG	2.1
33	2x	35	ILE	2.1
34	2b	208	ILE	2.1
35	2c	129	ALA	2.1
42	1j	26	ALA	2.1
48	2p	19	ILE	2.1
6	2G	54	GLU	2.1
41	2i	110	GLU	2.1
42	2j	83	GLU	2.1
33	2x	43	LYS	2.0
41	1i	126	SER	2.0
42	2j	62	HIS	2.0
1	2A	1073	A	2.0
32	1a	344	A	2.0
33	2x	60	VAL	2.0
38	2f	90	VAL	2.0
41	1i	53	VAL	2.0
42	2j	72	VAL	2.0
48	1p	2	VAL	2.0
1	2A	1043	C	2.0
36	1d	154	ASN	2.0
36	1d	162	LEU	2.0
1	1A	2902	G	2.0
1	2A	2181	G	2.0
7	2H	5	GLY	2.0
36	1d	23	GLY	2.0
41	1i	104	ARG	2.0
45	1m	100	GLY	2.0
53	1u	6	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
53	2u	10	ARG	2.0
6	1G	52	ILE	2.0
33	1x	2	THR	2.0
42	2j	20	ALA	2.0
27	15	59	GLU	2.0
34	1b	12	GLU	2.0
46	1n	4	LYS	2.0
49	2q	100	LYS	2.0
6	1G	76	SER	2.0
41	2i	73	GLN	2.0
51	1s	38	SER	2.0
1	1A	554	A	2.0
1	1A	2803	A	2.0
1	2A	2629	A	2.0
51	1s	71	LEU	2.0
14	1S	3	ARG	2.0
35	2c	79	ARG	2.0
42	2j	5	ARG	2.0
41	2i	59	PHE	2.0
32	1a	345	C	2.0
53	2u	17	THR	2.0
1	1A	2144	U	2.0
1	1A	2153	G	2.0
32	2a	80	G	2.0
32	2a	1042	G	2.0
34	2b	22	LYS	2.0
39	1g	8	GLU	2.0
42	1j	64	GLU	2.0
51	2s	67	VAL	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	5MU	1A	1937	21/22	0.86	0.11	73,79,94,111	0
32	2MG	2a	1207	24/25	0.86	0.10	76,85,87,93	0
32	PSU	2a	516	20/21	0.87	0.10	70,80,85,85	0
1	5MU	2A	1915	21/22	0.88	0.09	76,82,87,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	PSU	1A	1939	20/21	0.89	0.11	60,73,87,88	0
32	5MC	2a	967	21/22	0.91	0.11	67,70,79,85	0
32	PSU	1a	516	20/21	0.91	0.09	62,72,77,77	0
1	PSU	2A	1911	20/21	0.92	0.08	68,72,78,81	0
32	M2G	2a	966	25/26	0.92	0.11	64,71,79,91	0
32	2MG	1a	1207	24/25	0.92	0.08	71,78,82,84	0
1	PSU	2A	1917	20/21	0.92	0.07	67,76,84,95	0
32	G7M	2a	527	24/25	0.93	0.11	64,71,75,80	0
1	PSU	1A	1933	20/21	0.93	0.08	62,68,71,72	0
44	0TD	2l	92	10/11	0.93	0.10	68,70,74,84	0
32	5MC	1a	967	21/22	0.95	0.09	62,67,74,77	0
32	G7M	1a	527	24/25	0.95	0.09	50,60,66,69	0
32	5MC	1a	1407	21/22	0.95	0.10	42,55,59,61	0
32	5MC	2a	1404	21/22	0.95	0.08	51,55,61,66	0
32	UR3	2a	1498	21/22	0.95	0.08	50,60,64,67	0
32	M2G	1a	966	25/26	0.95	0.09	58,63,73,75	0
32	UR3	1a	1498	21/22	0.96	0.09	48,53,58,64	0
1	OMC	2A	1920	21/22	0.96	0.07	59,65,69,74	0
32	5MC	2a	1400	21/22	0.96	0.09	61,70,74,75	0
32	4OC	2a	1402	22/23	0.96	0.07	54,61,66,70	0
44	0TD	1l	92	10/11	0.96	0.08	64,65,70,78	0
32	5MC	2a	1407	21/22	0.96	0.08	51,59,66,69	0
32	5MC	1a	1404	21/22	0.96	0.08	45,50,54,55	0
32	5MC	1a	1400	21/22	0.96	0.09	57,61,66,67	0
32	MA6	1a	1518	24/25	0.97	0.08	42,51,58,62	0
32	MA6	1a	1519	24/25	0.97	0.08	46,53,58,61	0
1	5MC	2A	1942	21/22	0.97	0.06	47,52,55,56	0
1	5MC	2A	1962	21/22	0.97	0.07	38,46,53,61	0
1	2MA	2A	2503	23/24	0.97	0.09	33,38,41,42	0
1	OMC	1A	1942	21/22	0.97	0.08	51,61,63,67	0
1	5MC	1A	1984	21/22	0.97	0.07	31,37,39,44	0
32	MA6	2a	1518	24/25	0.97	0.08	54,63,68,69	0
32	4OC	1a	1402	22/23	0.97	0.07	50,53,57,60	0
1	OMU	1A	2564	21/22	0.98	0.06	23,29,31,33	0
1	PSU	2A	2605	20/21	0.98	0.08	34,38,44,44	0
1	5MC	1A	1964	21/22	0.98	0.06	29,37,42,45	0
1	5MU	2A	1939	21/22	0.98	0.05	36,39,45,46	0
1	5MU	1A	1961	21/22	0.98	0.06	24,28,32,32	0
1	2MA	1A	2515	23/24	0.98	0.06	16,20,24,24	0
32	MA6	2a	1519	24/25	0.98	0.08	51,61,65,68	0
1	OMG	2A	2251	24/25	0.98	0.07	37,44,46,51	0
1	OMU	2A	2552	21/22	0.99	0.05	32,43,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	OMG	1A	2263	24/25	0.99	0.05	19,25,27,30	0
1	PSU	1A	2617	20/21	0.99	0.07	23,27,33,34	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1717	1/1	0.28	0.21	88,88,88,88	0
55	MG	2A	3768	1/1	0.40	0.20	94,94,94,94	0
55	MG	2A	3411	1/1	0.45	0.50	88,88,88,88	0
55	MG	1a	1801	1/1	0.51	0.20	87,87,87,87	0
55	MG	1a	1659	1/1	0.54	0.47	81,81,81,81	0
55	MG	2A	3562	1/1	0.55	0.30	81,81,81,81	0
55	MG	2n	502	1/1	0.55	0.27	77,77,77,77	0
55	MG	2A	3255	1/1	0.57	0.31	67,67,67,67	0
55	MG	2A	3791	1/1	0.57	0.50	73,73,73,73	0
55	MG	2A	3254	1/1	0.59	0.24	87,87,87,87	0
55	MG	1A	3514	1/1	0.59	0.30	38,38,38,38	0
55	MG	1a	1744	1/1	0.59	0.19	82,82,82,82	0
55	MG	1A	3723	1/1	0.59	0.23	77,77,77,77	0
55	MG	2A	3179	1/1	0.60	0.32	63,63,63,63	0
55	MG	2A	3510	1/1	0.60	0.14	82,82,82,82	0
55	MG	2A	3329	1/1	0.60	0.22	72,72,72,72	0
55	MG	2A	3712	1/1	0.60	0.16	69,69,69,69	0
55	MG	2A	3456	1/1	0.61	0.30	91,91,91,91	0
55	MG	1a	1650	1/1	0.62	0.49	78,78,78,78	0
55	MG	2A	3454	1/1	0.62	0.53	67,67,67,67	0
55	MG	1B	215	1/1	0.63	0.19	74,74,74,74	0
55	MG	1A	3246	1/1	0.63	0.16	87,87,87,87	0
55	MG	2A	3180	1/1	0.63	0.24	72,72,72,72	0
55	MG	2N	201	1/1	0.63	0.14	90,90,90,90	0
55	MG	2a	1632	1/1	0.63	0.31	75,75,75,75	0
55	MG	2a	1641	1/1	0.63	0.26	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1703	1/1	0.63	0.24	76,76,76,76	0
55	MG	2A	3194	1/1	0.63	0.28	83,83,83,83	0
55	MG	2a	1718	1/1	0.63	0.20	75,75,75,75	0
55	MG	2A	3634	1/1	0.63	0.14	81,81,81,81	0
58	AMP	2A	3816	1/23	0.63	0.19	85,85,85,85	0
55	MG	1A	3575	1/1	0.64	0.44	45,45,45,45	0
55	MG	2A	3593	1/1	0.65	0.29	72,72,72,72	0
55	MG	2A	3801	1/1	0.65	0.24	86,86,86,86	0
55	MG	2A	3487	1/1	0.65	0.32	75,75,75,75	0
55	MG	2a	1790	1/1	0.65	0.23	102,102,102,102	0
55	MG	2l	202	1/1	0.65	0.15	69,69,69,69	0
55	MG	1A	3454	1/1	0.65	0.14	61,61,61,61	0
55	MG	1A	3357	1/1	0.65	0.18	75,75,75,75	0
55	MG	1A	3444	1/1	0.66	0.21	57,57,57,57	0
55	MG	1A	3887	1/1	0.66	0.21	58,58,58,58	0
55	MG	2A	3509	1/1	0.66	0.14	99,99,99,99	0
55	MG	2A	3653	1/1	0.66	0.18	70,70,70,70	0
55	MG	1a	1785	1/1	0.66	0.20	82,82,82,82	0
55	MG	2A	3534	1/1	0.66	0.26	82,82,82,82	0
55	MG	1F	312	1/1	0.67	0.17	59,59,59,59	0
55	MG	2a	1734	1/1	0.67	0.25	74,74,74,74	0
55	MG	2A	3752	1/1	0.67	0.27	77,77,77,77	0
55	MG	2A	3642	1/1	0.67	0.17	80,80,80,80	0
55	MG	2A	3288	1/1	0.67	0.28	67,67,67,67	0
55	MG	2A	3671	1/1	0.67	0.25	76,76,76,76	0
55	MG	2A	3455	1/1	0.68	0.28	68,68,68,68	0
55	MG	2A	3797	1/1	0.68	0.31	88,88,88,88	0
55	MG	1a	1764	1/1	0.68	0.32	79,79,79,79	0
55	MG	2a	1788	1/1	0.68	0.27	82,82,82,82	0
55	MG	2A	3457	1/1	0.68	0.13	77,77,77,77	0
55	MG	2A	3585	1/1	0.68	0.19	75,75,75,75	0
55	MG	2A	3422	1/1	0.68	0.17	71,71,71,71	0
55	MG	1A	3774	1/1	0.68	0.23	79,79,79,79	0
55	MG	2a	1649	1/1	0.69	0.23	84,84,84,84	0
55	MG	2A	3610	1/1	0.69	0.13	82,82,82,82	0
55	MG	1a	1776	1/1	0.69	0.31	87,87,87,87	0
55	MG	1a	1679	1/1	0.69	0.56	84,84,84,84	0
55	MG	1a	1720	1/1	0.69	0.21	78,78,78,78	0
55	MG	2B	3011	1/1	0.69	0.19	88,88,88,88	0
55	MG	2A	3090	1/1	0.69	0.26	78,78,78,78	0
55	MG	2P	203	1/1	0.69	0.19	74,74,74,74	0
55	MG	1A	3600	1/1	0.69	0.20	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1612	1/1	0.69	0.25	74,74,74,74	0
55	MG	2A	3343	1/1	0.70	0.17	79,79,79,79	0
55	MG	2a	1636	1/1	0.70	0.30	87,87,87,87	0
55	MG	2A	3672	1/1	0.70	0.23	67,67,67,67	0
55	MG	1A	3312	1/1	0.70	0.22	61,61,61,61	0
55	MG	1a	1693	1/1	0.70	0.14	86,86,86,86	0
55	MG	1a	1770	1/1	0.70	0.19	90,90,90,90	0
55	MG	2A	3128	1/1	0.70	0.29	83,83,83,83	0
55	MG	2A	3606	1/1	0.70	0.21	69,69,69,69	0
55	MG	2A	3260	1/1	0.70	0.20	74,74,74,74	0
55	MG	2A	3169	1/1	0.70	0.18	73,73,73,73	0
55	MG	2l	201	1/1	0.70	0.25	106,106,106,106	0
55	MG	2G	3002	1/1	0.70	0.11	79,79,79,79	0
55	MG	1a	1678	1/1	0.70	0.22	68,68,68,68	0
55	MG	2A	3340	1/1	0.70	0.32	72,72,72,72	0
55	MG	1a	1718	1/1	0.71	0.24	71,71,71,71	0
55	MG	1B	225	1/1	0.71	0.16	72,72,72,72	0
55	MG	2a	1705	1/1	0.71	0.24	90,90,90,90	0
55	MG	2A	3250	1/1	0.72	0.21	68,68,68,68	0
55	MG	2A	3178	1/1	0.72	0.38	73,73,73,73	0
55	MG	2B	3015	1/1	0.72	0.16	79,79,79,79	0
55	MG	1A	3602	1/1	0.72	0.17	56,56,56,56	0
55	MG	2A	3161	1/1	0.72	0.22	83,83,83,83	0
55	MG	2A	3477	1/1	0.72	0.20	81,81,81,81	0
55	MG	1A	3190	1/1	0.72	0.26	72,72,72,72	0
55	MG	2A	3033	1/1	0.73	0.42	66,66,66,66	0
55	MG	2a	1725	1/1	0.73	0.10	73,73,73,73	0
55	MG	1B	205	1/1	0.73	0.20	66,66,66,66	0
55	MG	2A	3582	1/1	0.73	0.22	67,67,67,67	0
55	MG	2A	3777	1/1	0.73	0.19	83,83,83,83	0
55	MG	1a	1655	1/1	0.73	0.22	79,79,79,79	0
55	MG	2A	3678	1/1	0.73	0.10	91,91,91,91	0
55	MG	2a	1710	1/1	0.73	0.32	82,82,82,82	0
55	MG	2U	203	1/1	0.73	0.17	66,66,66,66	0
55	MG	1a	1663	1/1	0.74	0.27	81,81,81,81	0
55	MG	1a	1755	1/1	0.74	0.20	90,90,90,90	0
55	MG	2E	301	1/1	0.74	0.34	65,65,65,65	0
55	MG	2a	1647	1/1	0.74	0.26	82,82,82,82	0
55	MG	1D	309	1/1	0.74	0.45	48,48,48,48	0
55	MG	2G	3003	1/1	0.74	0.17	83,83,83,83	0
55	MG	2A	3183	1/1	0.74	0.28	79,79,79,79	0
55	MG	2A	3542	1/1	0.74	0.26	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3172	1/1	0.74	0.16	64,64,64,64	0
55	MG	2A	3599	1/1	0.75	0.20	78,78,78,78	0
55	MG	2A	3105	1/1	0.75	0.24	83,83,83,83	0
55	MG	2a	1670	1/1	0.75	0.11	80,80,80,80	0
55	MG	1A	3498	1/1	0.75	0.28	67,67,67,67	0
55	MG	2A	3631	1/1	0.75	0.16	80,80,80,80	0
55	MG	1a	1762	1/1	0.75	0.48	67,67,67,67	0
55	MG	1A	3793	1/1	0.75	0.19	60,60,60,60	0
55	MG	1H	8001	1/1	0.75	0.27	91,91,91,91	0
55	MG	1A	3684	1/1	0.75	0.23	59,59,59,59	0
55	MG	2a	1726	1/1	0.75	0.21	92,92,92,92	0
55	MG	1A	3034	1/1	0.75	0.20	60,60,60,60	0
55	MG	2a	1745	1/1	0.75	0.35	89,89,89,89	0
55	MG	2a	1784	1/1	0.75	0.22	83,83,83,83	0
55	MG	1a	1794	1/1	0.75	0.22	75,75,75,75	0
55	MG	1A	3729	1/1	0.75	0.14	68,68,68,68	0
55	MG	2a	1621	1/1	0.75	0.32	61,61,61,61	0
55	MG	2A	3433	1/1	0.75	0.28	81,81,81,81	0
55	MG	1a	1725	1/1	0.75	0.27	88,88,88,88	0
55	MG	1A	3757	1/1	0.75	0.28	59,59,59,59	0
55	MG	1A	3918	1/1	0.76	0.20	51,51,51,51	0
55	MG	1A	3730	1/1	0.76	0.11	75,75,75,75	0
55	MG	2A	3537	1/1	0.76	0.35	65,65,65,65	0
55	MG	28	101	1/1	0.76	0.25	67,67,67,67	0
55	MG	1A	3735	1/1	0.76	0.30	79,79,79,79	0
55	MG	2a	1629	1/1	0.76	0.20	83,83,83,83	0
55	MG	18	3301	1/1	0.76	0.35	64,64,64,64	0
55	MG	2A	3574	1/1	0.76	0.15	99,99,99,99	0
55	MG	2A	3668	1/1	0.76	0.17	72,72,72,72	0
55	MG	2a	1642	1/1	0.76	0.26	78,78,78,78	0
55	MG	2a	1644	1/1	0.76	0.19	64,64,64,64	0
55	MG	2A	3475	1/1	0.76	0.23	66,66,66,66	0
55	MG	18	3302	1/1	0.76	0.33	43,43,43,43	0
55	MG	1A	3628	1/1	0.76	0.15	66,66,66,66	0
55	MG	1a	1621	1/1	0.76	0.20	71,71,71,71	0
55	MG	1a	1753	1/1	0.77	0.25	90,90,90,90	0
55	MG	2A	3674	1/1	0.77	0.14	75,75,75,75	0
55	MG	1a	1667	1/1	0.77	0.31	75,75,75,75	0
55	MG	1a	1675	1/1	0.77	0.34	70,70,70,70	0
55	MG	1A	3531	1/1	0.77	0.26	68,68,68,68	0
55	MG	2A	3541	1/1	0.77	0.28	85,85,85,85	0
55	MG	1A	3665	1/1	0.77	0.19	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3397	1/1	0.77	0.12	83,83,83,83	0
55	MG	1A	3404	1/1	0.77	0.11	62,62,62,62	0
55	MG	1a	1714	1/1	0.77	0.27	65,65,65,65	0
55	MG	2A	3808	1/1	0.77	0.20	73,73,73,73	0
55	MG	2A	3425	1/1	0.77	0.26	67,67,67,67	0
55	MG	1A	3576	1/1	0.77	0.15	77,77,77,77	0
55	MG	1A	3839	1/1	0.77	0.13	68,68,68,68	0
55	MG	2A	3193	1/1	0.77	0.30	80,80,80,80	0
55	MG	1n	101	1/1	0.77	0.18	74,74,74,74	0
55	MG	1A	3515	1/1	0.77	0.30	63,63,63,63	0
55	MG	2a	1770	1/1	0.77	0.08	83,83,83,83	0
55	MG	2A	3470	1/1	0.77	0.11	75,75,75,75	0
55	MG	2A	3042	1/1	0.77	0.39	59,59,59,59	0
55	MG	2X	101	1/1	0.77	0.24	77,77,77,77	0
55	MG	1A	3530	1/1	0.77	0.15	63,63,63,63	0
55	MG	2A	3256	1/1	0.77	0.18	61,61,61,61	0
55	MG	2a	1622	1/1	0.77	0.37	60,60,60,60	0
55	MG	2A	3508	1/1	0.77	0.77	52,52,52,52	0
55	MG	2A	3781	1/1	0.78	0.17	83,83,83,83	0
55	MG	2H	201	1/1	0.78	0.23	95,95,95,95	0
55	MG	1a	1736	1/1	0.78	0.29	77,77,77,77	0
55	MG	1A	3829	1/1	0.78	0.24	67,67,67,67	0
55	MG	1A	3721	1/1	0.78	0.19	71,71,71,71	0
55	MG	1a	1823	1/1	0.78	0.30	72,72,72,72	0
55	MG	25	105	1/1	0.78	0.12	83,83,83,83	0
55	MG	1h	3002	1/1	0.78	0.16	73,73,73,73	0
55	MG	2A	3349	1/1	0.78	0.15	80,80,80,80	0
55	MG	2D	307	1/1	0.78	0.48	58,58,58,58	0
55	MG	2A	3385	1/1	0.78	0.14	86,86,86,86	0
55	MG	1A	3669	1/1	0.78	0.28	62,62,62,62	0
55	MG	1a	1665	1/1	0.79	0.27	82,82,82,82	0
55	MG	1a	1816	1/1	0.79	0.32	74,74,74,74	0
55	MG	2a	1709	1/1	0.79	0.22	84,84,84,84	0
55	MG	2A	3290	1/1	0.79	0.21	71,71,71,71	0
55	MG	2X	102	1/1	0.79	0.19	82,82,82,82	0
55	MG	1A	3164	1/1	0.79	0.47	78,78,78,78	0
55	MG	1a	1771	1/1	0.79	0.12	80,80,80,80	0
55	MG	1A	3863	1/1	0.79	0.22	68,68,68,68	0
55	MG	2A	3028	1/1	0.79	0.26	61,61,61,61	0
55	MG	2A	3814	1/1	0.79	0.16	76,76,76,76	0
55	MG	2A	3545	1/1	0.79	0.11	84,84,84,84	0
55	MG	2A	3549	1/1	0.79	0.34	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1661	1/1	0.79	0.21	74,74,74,74	0
55	MG	2A	3395	1/1	0.79	0.16	76,76,76,76	0
55	MG	2d	504	1/1	0.79	0.16	93,93,93,93	0
55	MG	1A	3213	1/1	0.79	0.28	56,56,56,56	0
55	MG	2A	3707	1/1	0.79	0.19	73,73,73,73	0
55	MG	2A	3258	1/1	0.79	0.22	84,84,84,84	0
55	MG	2A	3502	1/1	0.79	0.35	69,69,69,69	0
55	MG	2A	3409	1/1	0.80	0.25	88,88,88,88	0
55	MG	1a	1639	1/1	0.80	0.53	78,78,78,78	0
55	MG	2A	3065	1/1	0.80	0.23	70,70,70,70	0
55	MG	1A	3384	1/1	0.80	0.18	70,70,70,70	0
55	MG	2F	311	1/1	0.80	0.16	72,72,72,72	0
55	MG	2a	1682	1/1	0.80	0.18	79,79,79,79	0
55	MG	1A	3608	1/1	0.80	0.18	76,76,76,76	0
55	MG	1A	3620	1/1	0.80	0.17	71,71,71,71	0
55	MG	2A	3144	1/1	0.80	0.19	78,78,78,78	0
55	MG	1a	1722	1/1	0.80	0.37	72,72,72,72	0
55	MG	1A	3881	1/1	0.80	0.18	51,51,51,51	0
55	MG	1A	3346	1/1	0.80	0.25	69,69,69,69	0
55	MG	2A	3473	1/1	0.80	0.11	71,71,71,71	0
55	MG	1A	3786	1/1	0.80	0.19	58,58,58,58	0
55	MG	2A	3598	1/1	0.80	0.24	70,70,70,70	0
55	MG	2A	3788	1/1	0.80	0.16	66,66,66,66	0
55	MG	2a	1767	1/1	0.80	0.20	74,74,74,74	0
55	MG	2a	1614	1/1	0.80	0.55	78,78,78,78	0
55	MG	2a	1620	1/1	0.80	0.18	80,80,80,80	0
55	MG	1e	202	1/1	0.80	0.30	61,61,61,61	0
55	MG	1A	3789	1/1	0.80	0.15	89,89,89,89	0
55	MG	2b	3001	1/1	0.80	0.23	79,79,79,79	0
55	MG	1a	1618	1/1	0.80	0.21	75,75,75,75	0
55	MG	2A	3802	1/1	0.80	0.46	75,75,75,75	0
55	MG	2a	1634	1/1	0.80	0.32	81,81,81,81	0
55	MG	1A	3013	1/1	0.80	0.20	62,62,62,62	0
55	MG	1a	1631	1/1	0.80	0.37	75,75,75,75	0
55	MG	1A	3208	1/1	0.81	0.10	70,70,70,70	0
55	MG	2a	1623	1/1	0.81	0.19	78,78,78,78	0
55	MG	1A	3185	1/1	0.81	0.34	74,74,74,74	0
55	MG	2A	3214	1/1	0.81	0.25	76,76,76,76	0
55	MG	1a	1758	1/1	0.81	0.10	75,75,75,75	0
55	MG	1a	1717	1/1	0.81	0.36	80,80,80,80	0
55	MG	2A	3436	1/1	0.81	0.24	82,82,82,82	0
55	MG	2A	3453	1/1	0.81	0.18	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3469	1/1	0.81	0.17	62,62,62,62	0
55	MG	1a	1766	1/1	0.81	0.37	74,74,74,74	0
55	MG	1a	1767	1/1	0.81	0.19	70,70,70,70	0
55	MG	1A	3130	1/1	0.81	0.25	65,65,65,65	0
55	MG	2A	3604	1/1	0.81	0.18	77,77,77,77	0
55	MG	2A	3605	1/1	0.81	0.29	68,68,68,68	0
55	MG	2A	3265	1/1	0.81	0.28	69,69,69,69	0
55	MG	1A	3855	1/1	0.81	0.18	51,51,51,51	0
55	MG	1A	3577	1/1	0.81	0.30	68,68,68,68	0
55	MG	1a	1728	1/1	0.81	0.19	52,52,52,52	0
55	MG	1a	1790	1/1	0.81	0.09	81,81,81,81	0
55	MG	2A	3644	1/1	0.81	0.21	66,66,66,66	0
55	MG	1a	1730	1/1	0.81	0.16	83,83,83,83	0
55	MG	2a	1731	1/1	0.81	0.16	83,83,83,83	0
55	MG	2a	1732	1/1	0.81	0.35	66,66,66,66	0
55	MG	2A	3655	1/1	0.81	0.17	60,60,60,60	0
55	MG	2a	1743	1/1	0.81	0.29	69,69,69,69	0
55	MG	2R	8001	1/1	0.81	0.30	77,77,77,77	0
55	MG	2a	1754	1/1	0.81	0.12	66,66,66,66	0
55	MG	1A	3394	1/1	0.81	0.51	75,75,75,75	0
55	MG	1a	1737	1/1	0.81	0.21	82,82,82,82	0
55	MG	1A	3195	1/1	0.81	0.14	46,46,46,46	0
55	MG	25	102	1/1	0.81	0.23	58,58,58,58	0
55	MG	2A	3532	1/1	0.81	0.14	87,87,87,87	0
55	MG	2a	1791	1/1	0.81	0.29	74,74,74,74	0
55	MG	2A	3533	1/1	0.81	0.41	79,79,79,79	0
55	MG	2a	1602	1/1	0.81	0.35	65,65,65,65	0
55	MG	2a	1606	1/1	0.81	0.45	73,73,73,73	0
55	MG	2A	3693	1/1	0.81	0.12	78,78,78,78	0
55	MG	1a	1745	1/1	0.81	0.34	74,74,74,74	0
55	MG	2A	3407	1/1	0.81	0.17	70,70,70,70	0
55	MG	1A	3877	1/1	0.82	0.12	69,69,69,69	0
55	MG	2A	3719	1/1	0.82	0.11	67,67,67,67	0
55	MG	1a	1608	1/1	0.82	0.13	71,71,71,71	0
55	MG	2A	3753	1/1	0.82	0.12	74,74,74,74	0
55	MG	2A	3131	1/1	0.82	0.21	71,71,71,71	0
55	MG	1a	1611	1/1	0.82	0.24	60,60,60,60	0
55	MG	1a	1710	1/1	0.82	0.25	60,60,60,60	0
55	MG	1A	3878	1/1	0.82	0.13	36,36,36,36	0
55	MG	1A	3396	1/1	0.82	0.18	40,40,40,40	0
55	MG	1A	3235	1/1	0.82	0.15	72,72,72,72	0
55	MG	1A	3163	1/1	0.82	0.24	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1634	1/1	0.82	0.14	56,56,56,56	0
55	MG	2A	3419	1/1	0.82	0.11	58,58,58,58	0
55	MG	1A	3253	1/1	0.82	0.21	63,63,63,63	0
55	MG	1a	1641	1/1	0.82	0.24	73,73,73,73	0
55	MG	2A	3589	1/1	0.82	0.16	80,80,80,80	0
55	MG	1B	207	1/1	0.82	0.27	68,68,68,68	0
55	MG	2A	3203	1/1	0.82	0.60	58,58,58,58	0
55	MG	2F	305	1/1	0.82	0.17	57,57,57,57	0
55	MG	2A	3441	1/1	0.82	0.18	88,88,88,88	0
55	MG	2A	3445	1/1	0.82	0.23	61,61,61,61	0
55	MG	2A	3208	1/1	0.82	0.18	80,80,80,80	0
55	MG	1A	3189	1/1	0.82	0.22	69,69,69,69	0
55	MG	2A	3231	1/1	0.82	0.15	74,74,74,74	0
55	MG	2A	3612	1/1	0.82	0.13	41,41,41,41	0
55	MG	1A	3724	1/1	0.82	0.28	40,40,40,40	0
55	MG	2a	1763	1/1	0.82	0.21	70,70,70,70	0
55	MG	1A	3566	1/1	0.82	0.14	70,70,70,70	0
55	MG	2A	3461	1/1	0.82	0.19	72,72,72,72	0
55	MG	2A	3464	1/1	0.82	0.26	83,83,83,83	0
55	MG	1A	3477	1/1	0.82	0.14	40,40,40,40	0
55	MG	1a	1664	1/1	0.82	0.32	65,65,65,65	0
55	MG	2A	3040	1/1	0.82	0.17	53,53,53,53	0
55	MG	1G	3002	1/1	0.82	0.16	67,67,67,67	0
55	MG	1A	3638	1/1	0.82	0.17	35,35,35,35	0
55	MG	2A	3496	1/1	0.82	0.19	85,85,85,85	0
55	MG	2A	3086	1/1	0.82	0.33	60,60,60,60	0
55	MG	1A	3870	1/1	0.82	0.21	54,54,54,54	0
55	MG	2A	3318	1/1	0.82	0.18	77,77,77,77	0
55	MG	1A	3079	1/1	0.83	0.30	45,45,45,45	0
55	MG	21	103	1/1	0.83	0.16	66,66,66,66	0
55	MG	1a	1628	1/1	0.83	0.35	75,75,75,75	0
55	MG	1a	1787	1/1	0.83	0.23	69,69,69,69	0
55	MG	2A	3641	1/1	0.83	0.23	72,72,72,72	0
55	MG	1A	3155	1/1	0.83	0.44	60,60,60,60	0
55	MG	2A	3181	1/1	0.83	0.24	67,67,67,67	0
55	MG	1B	219	1/1	0.83	0.17	57,57,57,57	0
55	MG	1B	224	1/1	0.83	0.25	68,68,68,68	0
55	MG	2A	3658	1/1	0.83	0.20	76,76,76,76	0
55	MG	1A	3484	1/1	0.83	0.20	69,69,69,69	0
55	MG	1a	1649	1/1	0.83	0.34	75,75,75,75	0
55	MG	2A	3463	1/1	0.83	0.18	77,77,77,77	0
55	MG	1d	503	1/1	0.83	0.25	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3657	1/1	0.83	0.23	45,45,45,45	0
55	MG	1h	3001	1/1	0.83	0.30	52,52,52,52	0
55	MG	2A	3700	1/1	0.83	0.16	79,79,79,79	0
55	MG	1a	1654	1/1	0.83	0.24	76,76,76,76	0
55	MG	1l	201	1/1	0.83	0.10	71,71,71,71	0
55	MG	1F	305	1/1	0.83	0.22	37,37,37,37	0
55	MG	2A	3729	1/1	0.83	0.28	72,72,72,72	0
55	MG	2a	1656	1/1	0.83	0.35	64,64,64,64	0
55	MG	2A	3009	1/1	0.83	0.33	64,64,64,64	0
55	MG	1A	3497	1/1	0.83	0.24	70,70,70,70	0
55	MG	2A	3756	1/1	0.83	0.34	86,86,86,86	0
55	MG	2A	3505	1/1	0.83	0.27	44,44,44,44	0
55	MG	2a	1707	1/1	0.83	0.16	89,89,89,89	0
55	MG	1A	3609	1/1	0.83	0.19	63,63,63,63	0
55	MG	1A	3683	1/1	0.83	0.11	50,50,50,50	0
55	MG	1A	3612	1/1	0.83	0.18	77,77,77,77	0
55	MG	1A	3706	1/1	0.83	0.21	70,70,70,70	0
55	MG	2A	3293	1/1	0.83	0.18	72,72,72,72	0
55	MG	1a	1666	1/1	0.83	0.41	67,67,67,67	0
55	MG	2A	3326	1/1	0.83	0.25	69,69,69,69	0
55	MG	1A	3616	1/1	0.83	0.14	63,63,63,63	0
55	MG	2A	3103	1/1	0.83	0.12	64,64,64,64	0
55	MG	2a	1738	1/1	0.83	0.14	81,81,81,81	0
55	MG	2A	3342	1/1	0.83	0.11	49,49,49,49	0
55	MG	1B	201	1/1	0.83	0.23	60,60,60,60	0
55	MG	2A	3112	1/1	0.83	0.24	68,68,68,68	0
55	MG	2A	3113	1/1	0.83	0.28	66,66,66,66	0
55	MG	2A	3126	1/1	0.83	0.20	62,62,62,62	0
55	MG	2a	1768	1/1	0.83	0.09	83,83,83,83	0
55	MG	2A	3127	1/1	0.83	0.39	76,76,76,76	0
55	MG	2G	3001	1/1	0.83	0.08	82,82,82,82	0
55	MG	2A	3406	1/1	0.83	0.41	81,81,81,81	0
55	MG	1A	3814	1/1	0.83	0.16	46,46,46,46	0
55	MG	1B	206	1/1	0.83	0.23	60,60,60,60	0
55	MG	1a	1684	1/1	0.83	0.24	66,66,66,66	0
55	MG	2P	202	1/1	0.83	0.15	67,67,67,67	0
55	MG	2A	3148	1/1	0.83	0.17	72,72,72,72	0
55	MG	1a	1685	1/1	0.83	0.19	58,58,58,58	0
55	MG	1a	1686	1/1	0.83	0.28	66,66,66,66	0
55	MG	2A	3170	1/1	0.83	0.14	71,71,71,71	0
55	MG	2A	3032	1/1	0.84	0.36	63,63,63,63	0
55	MG	2A	3813	1/1	0.84	0.27	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3177	1/1	0.84	0.52	50,50,50,50	0
55	MG	1A	3517	1/1	0.84	0.12	51,51,51,51	0
55	MG	1A	3722	1/1	0.84	0.10	50,50,50,50	0
55	MG	2B	3016	1/1	0.84	0.20	81,81,81,81	0
55	MG	1A	3265	1/1	0.84	0.23	81,81,81,81	0
55	MG	2a	1663	1/1	0.84	0.27	68,68,68,68	0
55	MG	1A	3834	1/1	0.84	0.12	73,73,73,73	0
55	MG	2F	302	1/1	0.84	0.35	60,60,60,60	0
55	MG	1A	3642	1/1	0.84	0.23	28,28,28,28	0
55	MG	1A	3351	1/1	0.84	0.17	66,66,66,66	0
55	MG	1a	1731	1/1	0.84	0.26	75,75,75,75	0
55	MG	1A	3536	1/1	0.84	0.19	56,56,56,56	0
55	MG	2A	3108	1/1	0.84	0.22	65,65,65,65	0
55	MG	1a	1811	1/1	0.84	0.14	76,76,76,76	0
55	MG	1a	1632	1/1	0.84	0.21	71,71,71,71	0
55	MG	2A	3412	1/1	0.84	0.15	72,72,72,72	0
55	MG	2A	3413	1/1	0.84	0.20	70,70,70,70	0
55	MG	2Q	206	1/1	0.84	0.30	69,69,69,69	0
55	MG	2A	3416	1/1	0.84	0.44	50,50,50,50	0
55	MG	1A	3732	1/1	0.84	0.32	34,34,34,34	0
55	MG	1D	319	1/1	0.84	0.12	54,54,54,54	0
55	MG	2a	1740	1/1	0.84	0.19	91,91,91,91	0
55	MG	2A	3424	1/1	0.84	0.25	76,76,76,76	0
55	MG	1A	3505	1/1	0.84	0.24	50,50,50,50	0
55	MG	2A	3130	1/1	0.84	0.38	66,66,66,66	0
55	MG	2A	3434	1/1	0.84	0.13	78,78,78,78	0
55	MG	27	103	1/1	0.84	0.20	72,72,72,72	0
55	MG	1A	3752	1/1	0.84	0.11	65,65,65,65	0
55	MG	2A	3136	1/1	0.84	0.25	59,59,59,59	0
55	MG	2A	3757	1/1	0.84	0.15	64,64,64,64	0
55	MG	1A	3571	1/1	0.84	0.47	33,33,33,33	0
55	MG	2a	1617	1/1	0.84	0.38	66,66,66,66	0
55	MG	2A	3452	1/1	0.84	0.14	63,63,63,63	0
55	MG	1A	3482	1/1	0.84	0.25	64,64,64,64	0
55	MG	1A	3701	1/1	0.84	0.25	44,44,44,44	0
55	MG	2e	201	1/1	0.84	0.21	71,71,71,71	0
55	MG	2h	3002	1/1	0.84	0.09	77,77,77,77	0
55	MG	1a	1715	1/1	0.84	0.11	79,79,79,79	0
55	MG	2A	3301	1/1	0.84	0.15	85,85,85,85	0
55	MG	2A	3303	1/1	0.84	0.11	73,73,73,73	0
55	MG	1A	3162	1/1	0.84	0.12	62,62,62,62	0
55	MG	2A	3027	1/1	0.85	0.40	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3649	1/1	0.85	0.20	52,52,52,52	0
55	MG	1A	3180	1/1	0.85	0.19	64,64,64,64	0
55	MG	2A	3228	1/1	0.85	0.15	84,84,84,84	0
55	MG	1A	3869	1/1	0.85	0.10	40,40,40,40	0
55	MG	1A	3670	1/1	0.85	0.24	51,51,51,51	0
55	MG	1a	1746	1/1	0.85	0.18	79,79,79,79	0
55	MG	1a	1749	1/1	0.85	0.11	88,88,88,88	0
55	MG	2A	3458	1/1	0.85	0.17	74,74,74,74	0
55	MG	1a	1751	1/1	0.85	0.10	94,94,94,94	0
55	MG	2A	3076	1/1	0.85	0.14	50,50,50,50	0
55	MG	2A	3083	1/1	0.85	0.35	60,60,60,60	0
55	MG	1A	3267	1/1	0.85	0.14	77,77,77,77	0
55	MG	2A	3267	1/1	0.85	0.11	50,50,50,50	0
55	MG	1P	201	1/1	0.85	0.48	40,40,40,40	0
55	MG	2A	3727	1/1	0.85	0.22	64,64,64,64	0
55	MG	10	105	1/1	0.85	0.18	73,73,73,73	0
55	MG	2A	3748	1/1	0.85	0.14	66,66,66,66	0
55	MG	1a	1760	1/1	0.85	0.15	79,79,79,79	0
55	MG	2A	3493	1/1	0.85	0.12	75,75,75,75	0
55	MG	2a	1654	1/1	0.85	0.31	70,70,70,70	0
55	MG	11	103	1/1	0.85	0.14	56,56,56,56	0
55	MG	1a	1674	1/1	0.85	0.26	75,75,75,75	0
55	MG	1A	3501	1/1	0.85	0.21	58,58,58,58	0
55	MG	2A	3320	1/1	0.85	0.17	71,71,71,71	0
55	MG	1A	3772	1/1	0.85	0.11	48,48,48,48	0
55	MG	1A	3114	1/1	0.85	0.14	59,59,59,59	0
55	MG	2A	3520	1/1	0.85	0.18	70,70,70,70	0
55	MG	2A	3338	1/1	0.85	0.12	55,55,55,55	0
55	MG	1A	3904	1/1	0.85	0.27	53,53,53,53	0
55	MG	2a	1713	1/1	0.85	0.26	73,73,73,73	0
55	MG	1A	3777	1/1	0.85	0.15	73,73,73,73	0
55	MG	2A	3804	1/1	0.85	0.12	75,75,75,75	0
55	MG	2a	1721	1/1	0.85	0.10	77,77,77,77	0
55	MG	2a	1724	1/1	0.85	0.11	89,89,89,89	0
55	MG	2A	3536	1/1	0.85	0.12	62,62,62,62	0
55	MG	1A	3228	1/1	0.85	0.34	76,76,76,76	0
55	MG	2A	3133	1/1	0.85	0.16	64,64,64,64	0
55	MG	2A	3380	1/1	0.85	0.12	83,83,83,83	0
55	MG	1A	3711	1/1	0.85	0.12	63,63,63,63	0
55	MG	1A	3636	1/1	0.85	0.31	27,27,27,27	0
55	MG	2B	3018	1/1	0.85	0.15	74,74,74,74	0
55	MG	1a	1629	1/1	0.85	0.30	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3154	1/1	0.85	0.50	53,53,53,53	0
55	MG	1A	3059	1/1	0.85	0.21	58,58,58,58	0
55	MG	1a	1809	1/1	0.85	0.21	70,70,70,70	0
55	MG	1A	3816	1/1	0.85	0.34	72,72,72,72	0
55	MG	1A	3039	1/1	0.85	0.25	55,55,55,55	0
55	MG	1A	3655	1/1	0.85	0.20	72,72,72,72	0
55	MG	1A	3174	1/1	0.85	0.27	60,60,60,60	0
55	MG	1a	1642	1/1	0.85	0.24	76,76,76,76	0
55	MG	1A	3845	1/1	0.85	0.11	47,47,47,47	0
55	MG	1D	317	1/1	0.85	0.13	61,61,61,61	0
55	MG	1A	3260	1/1	0.85	0.18	75,75,75,75	0
55	MG	2A	3185	1/1	0.85	0.19	65,65,65,65	0
55	MG	2A	3627	1/1	0.85	0.14	67,67,67,67	0
55	MG	1a	1735	1/1	0.85	0.21	73,73,73,73	0
55	MG	2A	3435	1/1	0.85	0.11	71,71,71,71	0
55	MG	2A	3008	1/1	0.85	0.26	68,68,68,68	0
55	MG	1F	302	1/1	0.85	0.26	44,44,44,44	0
55	MG	2A	3643	1/1	0.85	0.33	56,56,56,56	0
55	MG	2A	3539	1/1	0.86	0.16	64,64,64,64	0
55	MG	1A	3305	1/1	0.86	0.15	68,68,68,68	0
55	MG	1a	1606	1/1	0.86	0.27	67,67,67,67	0
55	MG	2A	3762	1/1	0.86	0.33	57,57,57,57	0
55	MG	2A	3544	1/1	0.86	0.09	89,89,89,89	0
55	MG	2A	3426	1/1	0.86	0.17	62,62,62,62	0
55	MG	2A	3430	1/1	0.86	0.22	54,54,54,54	0
55	MG	2A	3785	1/1	0.86	0.11	53,53,53,53	0
55	MG	1A	3398	1/1	0.86	0.34	66,66,66,66	0
55	MG	1B	218	1/1	0.86	0.14	47,47,47,47	0
55	MG	2A	3262	1/1	0.86	0.21	71,71,71,71	0
55	MG	1A	3311	1/1	0.86	0.21	52,52,52,52	0
55	MG	1A	3426	1/1	0.86	0.14	72,72,72,72	0
55	MG	1A	3740	1/1	0.86	0.09	63,63,63,63	0
55	MG	2A	3141	1/1	0.86	0.16	51,51,51,51	0
55	MG	1A	3442	1/1	0.86	0.20	80,80,80,80	0
55	MG	1D	316	1/1	0.86	0.17	68,68,68,68	0
55	MG	2B	3006	1/1	0.86	0.20	80,80,80,80	0
55	MG	2B	3007	1/1	0.86	0.21	79,79,79,79	0
55	MG	2B	3008	1/1	0.86	0.12	84,84,84,84	0
55	MG	1A	3688	1/1	0.86	0.21	76,76,76,76	0
55	MG	1A	3135	1/1	0.86	0.19	71,71,71,71	0
55	MG	2a	1712	1/1	0.86	0.13	68,68,68,68	0
55	MG	1D	320	1/1	0.86	0.25	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3031	1/1	0.86	0.22	64,64,64,64	0
55	MG	1a	1638	1/1	0.86	0.22	70,70,70,70	0
55	MG	2A	3337	1/1	0.86	0.07	74,74,74,74	0
55	MG	2A	3173	1/1	0.86	0.24	72,72,72,72	0
55	MG	1A	3702	1/1	0.86	0.21	31,31,31,31	0
55	MG	2A	3471	1/1	0.86	0.17	72,72,72,72	0
55	MG	1A	3375	1/1	0.86	0.26	69,69,69,69	0
55	MG	2A	3474	1/1	0.86	0.11	78,78,78,78	0
55	MG	1A	3709	1/1	0.86	0.11	50,50,50,50	0
55	MG	2a	1736	1/1	0.86	0.38	87,87,87,87	0
55	MG	2a	1737	1/1	0.86	0.15	77,77,77,77	0
55	MG	2A	3053	1/1	0.86	0.34	60,60,60,60	0
55	MG	2A	3481	1/1	0.86	0.33	57,57,57,57	0
55	MG	2A	3369	1/1	0.86	0.18	81,81,81,81	0
55	MG	1a	1716	1/1	0.86	0.27	71,71,71,71	0
55	MG	2a	1753	1/1	0.86	0.43	78,78,78,78	0
55	MG	1A	3316	1/1	0.86	0.22	69,69,69,69	0
55	MG	2A	3499	1/1	0.86	0.23	51,51,51,51	0
55	MG	2A	3077	1/1	0.86	0.29	58,58,58,58	0
55	MG	2V	204	1/1	0.86	0.10	70,70,70,70	0
55	MG	2A	3675	1/1	0.86	0.09	75,75,75,75	0
55	MG	1A	3907	1/1	0.86	0.23	58,58,58,58	0
55	MG	1a	1653	1/1	0.86	0.30	59,59,59,59	0
55	MG	1A	3343	1/1	0.86	0.18	54,54,54,54	0
55	MG	1A	3648	1/1	0.86	0.12	33,33,33,33	0
55	MG	1A	3521	1/1	0.86	0.21	66,66,66,66	0
55	MG	2A	3224	1/1	0.86	0.12	55,55,55,55	0
55	MG	1a	1729	1/1	0.86	0.20	75,75,75,75	0
55	MG	2e	202	1/1	0.86	0.35	73,73,73,73	0
55	MG	1a	1660	1/1	0.86	0.15	78,78,78,78	0
55	MG	1A	3606	1/1	0.86	0.11	62,62,62,62	0
55	MG	2A	3751	1/1	0.86	0.12	67,67,67,67	0
55	MG	2a	1619	1/1	0.86	0.38	76,76,76,76	0
55	MG	2A	3115	1/1	0.86	0.30	65,65,65,65	0
55	MG	1A	3058	1/1	0.87	0.13	50,50,50,50	0
55	MG	1a	1814	1/1	0.87	0.08	67,67,67,67	0
55	MG	1A	3474	1/1	0.87	0.11	50,50,50,50	0
55	MG	2A	3485	1/1	0.87	0.55	57,57,57,57	0
55	MG	2a	1609	1/1	0.87	0.34	70,70,70,70	0
55	MG	2A	3690	1/1	0.87	0.12	82,82,82,82	0
55	MG	1a	1658	1/1	0.87	0.41	89,89,89,89	0
55	MG	2a	1618	1/1	0.87	0.20	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1824	1/1	0.87	0.22	65,65,65,65	0
55	MG	1A	3243	1/1	0.87	0.12	62,62,62,62	0
55	MG	1a	1604	1/1	0.87	0.17	81,81,81,81	0
55	MG	2A	3500	1/1	0.87	0.18	78,78,78,78	0
55	MG	2A	3501	1/1	0.87	0.10	57,57,57,57	0
55	MG	1A	3112	1/1	0.87	0.30	50,50,50,50	0
55	MG	2A	3503	1/1	0.87	0.13	58,58,58,58	0
55	MG	1A	3359	1/1	0.87	0.11	80,80,80,80	0
55	MG	1A	3532	1/1	0.87	0.14	56,56,56,56	0
55	MG	1A	3862	1/1	0.87	0.21	55,55,55,55	0
55	MG	1A	3145	1/1	0.87	0.23	60,60,60,60	0
55	MG	1A	3550	1/1	0.87	0.29	47,47,47,47	0
55	MG	2A	3022	1/1	0.87	0.22	72,72,72,72	0
55	MG	2a	1648	1/1	0.87	0.16	71,71,71,71	0
55	MG	1a	1622	1/1	0.87	0.19	68,68,68,68	0
55	MG	2a	1653	1/1	0.87	0.39	79,79,79,79	0
55	MG	1A	3761	1/1	0.87	0.32	43,43,43,43	0
55	MG	2A	3029	1/1	0.87	0.32	72,72,72,72	0
55	MG	1a	1677	1/1	0.87	0.21	69,69,69,69	0
55	MG	2a	1664	1/1	0.87	0.16	65,65,65,65	0
55	MG	2a	1667	1/1	0.87	0.19	63,63,63,63	0
55	MG	1A	3222	1/1	0.87	0.10	46,46,46,46	0
55	MG	2a	1673	1/1	0.87	0.22	71,71,71,71	0
55	MG	2a	1677	1/1	0.87	0.21	75,75,75,75	0
55	MG	2A	3192	1/1	0.87	0.19	64,64,64,64	0
55	MG	1A	3632	1/1	0.87	0.17	53,53,53,53	0
55	MG	1A	3450	1/1	0.87	0.14	71,71,71,71	0
55	MG	1A	3886	1/1	0.87	0.14	39,39,39,39	0
55	MG	2A	3043	1/1	0.87	0.27	68,68,68,68	0
55	MG	2A	3555	1/1	0.87	0.21	70,70,70,70	0
55	MG	2A	3811	1/1	0.87	0.22	57,57,57,57	0
55	MG	2A	3812	1/1	0.87	0.16	68,68,68,68	0
55	MG	2A	3558	1/1	0.87	0.15	67,67,67,67	0
55	MG	2A	3046	1/1	0.87	0.13	72,72,72,72	0
55	MG	2A	3815	1/1	0.87	0.13	79,79,79,79	0
55	MG	2B	3001	1/1	0.87	0.17	64,64,64,64	0
55	MG	2B	3005	1/1	0.87	0.20	71,71,71,71	0
55	MG	2A	3563	1/1	0.87	0.20	61,61,61,61	0
55	MG	1a	1635	1/1	0.87	0.28	74,74,74,74	0
55	MG	2A	3427	1/1	0.87	0.28	81,81,81,81	0
55	MG	2A	3584	1/1	0.87	0.12	65,65,65,65	0
55	MG	2B	3014	1/1	0.87	0.09	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3059	1/1	0.87	0.41	55,55,55,55	0
55	MG	1a	1765	1/1	0.87	0.13	68,68,68,68	0
55	MG	1A	3572	1/1	0.87	0.22	67,67,67,67	0
55	MG	2A	3253	1/1	0.87	0.14	66,66,66,66	0
55	MG	1A	3037	1/1	0.87	0.12	51,51,51,51	0
55	MG	2A	3439	1/1	0.87	0.14	73,73,73,73	0
55	MG	1a	1640	1/1	0.87	0.28	68,68,68,68	0
55	MG	1A	3507	1/1	0.87	0.14	32,32,32,32	0
55	MG	2A	3448	1/1	0.87	0.10	80,80,80,80	0
55	MG	1a	1774	1/1	0.87	0.14	68,68,68,68	0
55	MG	1a	1775	1/1	0.87	0.17	70,70,70,70	0
55	MG	1A	3806	1/1	0.87	0.11	59,59,59,59	0
55	MG	1a	1783	1/1	0.87	0.43	76,76,76,76	0
55	MG	2A	3640	1/1	0.87	0.19	76,76,76,76	0
55	MG	2A	3266	1/1	0.87	0.14	66,66,66,66	0
55	MG	1a	1643	1/1	0.87	0.23	63,63,63,63	0
55	MG	1a	1786	1/1	0.87	0.24	69,69,69,69	0
55	MG	1A	3468	1/1	0.87	0.13	30,30,30,30	0
55	MG	1P	203	1/1	0.87	0.07	85,85,85,85	0
55	MG	2A	3297	1/1	0.87	0.10	68,68,68,68	0
55	MG	1B	203	1/1	0.87	0.26	72,72,72,72	0
55	MG	1a	1723	1/1	0.87	0.26	67,67,67,67	0
55	MG	2A	3313	1/1	0.87	0.14	65,65,65,65	0
55	MG	1a	1724	1/1	0.87	0.12	79,79,79,79	0
55	MG	1A	3318	1/1	0.88	0.17	70,70,70,70	0
55	MG	1A	3689	1/1	0.88	0.17	62,62,62,62	0
55	MG	2A	3618	1/1	0.88	0.18	68,68,68,68	0
55	MG	2A	3623	1/1	0.88	0.10	71,71,71,71	0
55	MG	2A	3624	1/1	0.88	0.25	55,55,55,55	0
55	MG	1a	1657	1/1	0.88	0.23	74,74,74,74	0
55	MG	2A	3629	1/1	0.88	0.12	73,73,73,73	0
55	MG	20	103	1/1	0.88	0.10	63,63,63,63	0
55	MG	2A	3209	1/1	0.88	0.13	89,89,89,89	0
55	MG	2A	3633	1/1	0.88	0.22	80,80,80,80	0
55	MG	1a	1747	1/1	0.88	0.08	71,71,71,71	0
55	MG	2A	3639	1/1	0.88	0.14	79,79,79,79	0
55	MG	1A	3700	1/1	0.88	0.23	47,47,47,47	0
55	MG	1a	1750	1/1	0.88	0.13	97,97,97,97	0
55	MG	1A	3322	1/1	0.88	0.14	49,49,49,49	0
55	MG	2A	3242	1/1	0.88	0.09	75,75,75,75	0
55	MG	2a	1613	1/1	0.88	0.31	61,61,61,61	0
55	MG	2A	3244	1/1	0.88	0.08	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3647	1/1	0.88	0.11	77,77,77,77	0
55	MG	1A	3095	1/1	0.88	0.14	58,58,58,58	0
55	MG	1A	3229	1/1	0.88	0.20	41,41,41,41	0
55	MG	2A	3049	1/1	0.88	0.62	76,76,76,76	0
55	MG	1A	3349	1/1	0.88	0.28	62,62,62,62	0
55	MG	1A	3232	1/1	0.88	0.41	68,68,68,68	0
55	MG	1A	3099	1/1	0.88	0.10	62,62,62,62	0
55	MG	2a	1625	1/1	0.88	0.27	68,68,68,68	0
55	MG	2A	3466	1/1	0.88	0.18	69,69,69,69	0
55	MG	2A	3673	1/1	0.88	0.17	70,70,70,70	0
55	MG	2A	3069	1/1	0.88	0.12	54,54,54,54	0
55	MG	2a	1635	1/1	0.88	0.17	67,67,67,67	0
55	MG	1A	3148	1/1	0.88	0.30	48,48,48,48	0
55	MG	2A	3676	1/1	0.88	0.17	76,76,76,76	0
55	MG	1A	3369	1/1	0.88	0.19	70,70,70,70	0
55	MG	2a	1643	1/1	0.88	0.41	71,71,71,71	0
55	MG	1a	1671	1/1	0.88	0.20	60,60,60,60	0
55	MG	2a	1645	1/1	0.88	0.21	62,62,62,62	0
55	MG	2A	3085	1/1	0.88	0.24	67,67,67,67	0
55	MG	1a	1602	1/1	0.88	0.18	73,73,73,73	0
55	MG	1A	3882	1/1	0.88	0.20	67,67,67,67	0
55	MG	2a	1652	1/1	0.88	0.23	76,76,76,76	0
55	MG	1a	1605	1/1	0.88	0.23	67,67,67,67	0
55	MG	1A	3885	1/1	0.88	0.13	33,33,33,33	0
55	MG	2A	3488	1/1	0.88	0.11	75,75,75,75	0
55	MG	2a	1658	1/1	0.88	0.09	76,76,76,76	0
55	MG	1A	3373	1/1	0.88	0.18	53,53,53,53	0
55	MG	1A	3026	1/1	0.88	0.25	59,59,59,59	0
55	MG	1A	3156	1/1	0.88	0.19	53,53,53,53	0
55	MG	1a	1614	1/1	0.88	0.14	79,79,79,79	0
55	MG	1a	1688	1/1	0.88	0.10	63,63,63,63	0
55	MG	2A	3321	1/1	0.88	0.17	65,65,65,65	0
55	MG	1A	3035	1/1	0.88	0.10	42,42,42,42	0
55	MG	2a	1688	1/1	0.88	0.17	63,63,63,63	0
55	MG	2a	1689	1/1	0.88	0.20	83,83,83,83	0
55	MG	1A	3629	1/1	0.88	0.11	63,63,63,63	0
55	MG	2a	1704	1/1	0.88	0.09	75,75,75,75	0
55	MG	2A	3506	1/1	0.88	0.40	72,72,72,72	0
55	MG	2a	1706	1/1	0.88	0.09	82,82,82,82	0
55	MG	2A	3335	1/1	0.88	0.09	70,70,70,70	0
55	MG	2A	3336	1/1	0.88	0.56	76,76,76,76	0
55	MG	2A	3782	1/1	0.88	0.13	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1713	1/1	0.88	0.29	85,85,85,85	0
55	MG	2A	3513	1/1	0.88	0.31	62,62,62,62	0
55	MG	1A	3207	1/1	0.88	0.12	35,35,35,35	0
55	MG	2A	3525	1/1	0.88	0.19	77,77,77,77	0
55	MG	1A	3041	1/1	0.88	0.25	63,63,63,63	0
55	MG	2A	3134	1/1	0.88	0.41	70,70,70,70	0
55	MG	1A	3527	1/1	0.88	0.17	56,56,56,56	0
55	MG	1A	3133	1/1	0.88	0.14	62,62,62,62	0
55	MG	2a	1729	1/1	0.88	0.09	84,84,84,84	0
55	MG	2a	1730	1/1	0.88	0.12	88,88,88,88	0
55	MG	1A	3306	1/1	0.88	0.14	43,43,43,43	0
55	MG	2A	3147	1/1	0.88	0.13	81,81,81,81	0
55	MG	1A	3773	1/1	0.88	0.19	53,53,53,53	0
55	MG	2A	3150	1/1	0.88	0.11	50,50,50,50	0
55	MG	1A	3310	1/1	0.88	0.17	64,64,64,64	0
55	MG	2A	3819	1/1	0.88	0.26	52,52,52,52	0
55	MG	2A	3158	1/1	0.88	0.31	56,56,56,56	0
55	MG	1A	3443	1/1	0.88	0.11	59,59,59,59	0
55	MG	2A	3552	1/1	0.88	0.34	57,57,57,57	0
55	MG	2a	1749	1/1	0.88	0.14	103,103,103,103	0
55	MG	2a	1752	1/1	0.88	0.21	84,84,84,84	0
55	MG	2A	3162	1/1	0.88	0.51	79,79,79,79	0
55	MG	1A	3547	1/1	0.88	0.23	29,29,29,29	0
55	MG	2a	1755	1/1	0.88	0.20	76,76,76,76	0
55	MG	2a	1757	1/1	0.88	0.27	74,74,74,74	0
55	MG	2a	1760	1/1	0.88	0.11	68,68,68,68	0
55	MG	1A	3215	1/1	0.88	0.15	51,51,51,51	0
55	MG	1D	305	1/1	0.88	0.25	40,40,40,40	0
55	MG	2A	3568	1/1	0.88	0.33	46,46,46,46	0
55	MG	1A	3558	1/1	0.88	0.10	72,72,72,72	0
55	MG	2a	1779	1/1	0.88	0.23	73,73,73,73	0
55	MG	2A	3576	1/1	0.88	0.18	57,57,57,57	0
55	MG	2A	3579	1/1	0.88	0.12	61,61,61,61	0
55	MG	2A	3417	1/1	0.88	0.10	52,52,52,52	0
55	MG	1A	3682	1/1	0.88	0.21	61,61,61,61	0
55	MG	1t	3001	1/1	0.88	0.15	64,64,64,64	0
55	MG	2d	503	1/1	0.88	0.11	72,72,72,72	0
55	MG	2F	307	1/1	0.88	0.16	51,51,51,51	0
55	MG	1a	1644	1/1	0.88	0.34	66,66,66,66	0
55	MG	1A	3220	1/1	0.88	0.23	61,61,61,61	0
55	MG	2f	8001	1/1	0.88	0.11	56,56,56,56	0
55	MG	2A	3014	1/1	0.88	0.51	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3019	1/1	0.88	0.13	43,43,43,43	0
55	MG	1A	3172	1/1	0.88	0.18	58,58,58,58	0
55	MG	2A	3025	1/1	0.88	0.13	53,53,53,53	0
55	MG	1A	3686	1/1	0.88	0.14	55,55,55,55	0
55	MG	1g	3001	1/1	0.89	0.40	79,79,79,79	0
55	MG	2A	3772	1/1	0.89	0.12	68,68,68,68	0
55	MG	2a	1640	1/1	0.89	0.47	65,65,65,65	0
55	MG	2A	3438	1/1	0.89	0.16	66,66,66,66	0
55	MG	2A	3263	1/1	0.89	0.12	65,65,65,65	0
55	MG	2A	3570	1/1	0.89	0.29	54,54,54,54	0
55	MG	1A	3663	1/1	0.89	0.14	68,68,68,68	0
55	MG	1A	3841	1/1	0.89	0.17	68,68,68,68	0
55	MG	1A	3011	1/1	0.89	0.29	48,48,48,48	0
55	MG	1A	3476	1/1	0.89	0.08	33,33,33,33	0
55	MG	1a	1752	1/1	0.89	0.11	81,81,81,81	0
55	MG	2a	1650	1/1	0.89	0.40	61,61,61,61	0
55	MG	1Q	203	1/1	0.89	0.12	49,49,49,49	0
55	MG	2A	3588	1/1	0.89	0.12	66,66,66,66	0
55	MG	1R	204	1/1	0.89	0.19	48,48,48,48	0
55	MG	1A	3856	1/1	0.89	0.14	53,53,53,53	0
55	MG	1a	1698	1/1	0.89	0.16	58,58,58,58	0
55	MG	2A	3307	1/1	0.89	0.15	63,63,63,63	0
55	MG	1A	3859	1/1	0.89	0.09	81,81,81,81	0
55	MG	2A	3462	1/1	0.89	0.16	62,62,62,62	0
55	MG	1a	1645	1/1	0.89	0.22	62,62,62,62	0
55	MG	1A	3270	1/1	0.89	0.26	60,60,60,60	0
55	MG	2B	3002	1/1	0.89	0.21	67,67,67,67	0
55	MG	2a	1678	1/1	0.89	0.28	64,64,64,64	0
55	MG	1A	3587	1/1	0.89	0.09	35,35,35,35	0
55	MG	1B	213	1/1	0.89	0.09	50,50,50,50	0
55	MG	2A	3622	1/1	0.89	0.12	52,52,52,52	0
55	MG	1A	3590	1/1	0.89	0.16	77,77,77,77	0
55	MG	1A	3257	1/1	0.89	0.28	44,44,44,44	0
55	MG	2A	3626	1/1	0.89	0.12	68,68,68,68	0
55	MG	1a	1656	1/1	0.89	0.20	44,44,44,44	0
55	MG	1A	3874	1/1	0.89	0.13	67,67,67,67	0
55	MG	2B	3017	1/1	0.89	0.18	91,91,91,91	0
55	MG	1A	3725	1/1	0.89	0.16	33,33,33,33	0
55	MG	2A	3478	1/1	0.89	0.12	55,55,55,55	0
55	MG	1A	3064	1/1	0.89	0.23	59,59,59,59	0
55	MG	1A	3152	1/1	0.89	0.12	46,46,46,46	0
55	MG	1a	1726	1/1	0.89	0.19	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1720	1/1	0.89	0.07	86,86,86,86	0
55	MG	2A	3346	1/1	0.89	0.09	77,77,77,77	0
55	MG	1a	1727	1/1	0.89	0.17	74,74,74,74	0
55	MG	2A	3350	1/1	0.89	0.12	54,54,54,54	0
55	MG	2A	3365	1/1	0.89	0.07	81,81,81,81	0
55	MG	1A	3523	1/1	0.89	0.16	70,70,70,70	0
55	MG	2A	3374	1/1	0.89	0.33	60,60,60,60	0
55	MG	2A	3062	1/1	0.89	0.09	56,56,56,56	0
55	MG	1A	3386	1/1	0.89	0.18	49,49,49,49	0
55	MG	2A	3066	1/1	0.89	0.31	64,64,64,64	0
55	MG	2Q	202	1/1	0.89	0.14	60,60,60,60	0
55	MG	1a	1798	1/1	0.89	0.13	78,78,78,78	0
55	MG	1a	1800	1/1	0.89	0.14	71,71,71,71	0
55	MG	2A	3196	1/1	0.89	0.11	75,75,75,75	0
55	MG	1A	3473	1/1	0.89	0.58	32,32,32,32	0
55	MG	2A	3511	1/1	0.89	0.11	54,54,54,54	0
55	MG	1A	3659	1/1	0.89	0.13	61,61,61,61	0
55	MG	2a	1751	1/1	0.89	0.32	69,69,69,69	0
55	MG	20	101	1/1	0.89	0.28	68,68,68,68	0
55	MG	1a	1623	1/1	0.89	0.47	66,66,66,66	0
55	MG	20	104	1/1	0.89	0.08	77,77,77,77	0
55	MG	1a	1812	1/1	0.89	0.23	65,65,65,65	0
55	MG	2A	3689	1/1	0.89	0.11	66,66,66,66	0
55	MG	25	103	1/1	0.89	0.14	63,63,63,63	0
55	MG	2A	3526	1/1	0.89	0.17	64,64,64,64	0
55	MG	2A	3415	1/1	0.89	0.21	69,69,69,69	0
55	MG	2A	3694	1/1	0.89	0.08	61,61,61,61	0
55	MG	1A	3888	1/1	0.89	0.16	54,54,54,54	0
55	MG	2A	3091	1/1	0.89	0.12	52,52,52,52	0
55	MG	1E	305	1/1	0.89	0.15	64,64,64,64	0
55	MG	2a	1610	1/1	0.89	0.09	76,76,76,76	0
55	MG	2A	3420	1/1	0.89	0.17	58,58,58,58	0
55	MG	2A	3720	1/1	0.89	0.20	58,58,58,58	0
55	MG	2A	3721	1/1	0.89	0.13	50,50,50,50	0
55	MG	1a	1822	1/1	0.89	0.21	79,79,79,79	0
55	MG	1a	1741	1/1	0.89	0.15	82,82,82,82	0
55	MG	1A	3890	1/1	0.89	0.12	45,45,45,45	0
55	MG	1A	3898	1/1	0.89	0.15	53,53,53,53	0
55	MG	2A	3114	1/1	0.89	0.18	62,62,62,62	0
55	MG	2g	3001	1/1	0.89	0.30	75,75,75,75	0
55	MG	1d	504	1/1	0.89	0.16	77,77,77,77	0
55	MG	2A	3118	1/1	0.89	0.27	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3124	1/1	0.89	0.45	53,53,53,53	0
55	MG	1A	3900	1/1	0.89	0.17	57,57,57,57	0
55	MG	2A	3764	1/1	0.89	0.09	80,80,80,80	0
55	MG	1A	3873	1/1	0.90	0.12	59,59,59,59	0
55	MG	1H	8002	1/1	0.90	0.13	58,58,58,58	0
55	MG	1N	8003	1/1	0.90	0.09	61,61,61,61	0
55	MG	1A	3401	1/1	0.90	0.11	43,43,43,43	0
55	MG	1A	3017	1/1	0.90	0.16	31,31,31,31	0
55	MG	1A	3406	1/1	0.90	0.12	37,37,37,37	0
55	MG	1A	3561	1/1	0.90	0.10	55,55,55,55	0
55	MG	2A	3717	1/1	0.90	0.16	89,89,89,89	0
55	MG	1A	3111	1/1	0.90	0.23	55,55,55,55	0
55	MG	1A	3567	1/1	0.90	0.17	51,51,51,51	0
55	MG	17	103	1/1	0.90	0.32	47,47,47,47	0
55	MG	1A	3747	1/1	0.90	0.12	66,66,66,66	0
55	MG	1A	3568	1/1	0.90	0.18	53,53,53,53	0
55	MG	2A	3742	1/1	0.90	0.14	61,61,61,61	0
55	MG	2A	3400	1/1	0.90	0.15	77,77,77,77	0
55	MG	2a	1637	1/1	0.90	0.41	70,70,70,70	0
55	MG	2A	3405	1/1	0.90	0.27	60,60,60,60	0
55	MG	1A	3499	1/1	0.90	0.13	62,62,62,62	0
55	MG	2A	3041	1/1	0.90	0.30	62,62,62,62	0
55	MG	1A	3759	1/1	0.90	0.09	61,61,61,61	0
55	MG	1A	3891	1/1	0.90	0.14	84,84,84,84	0
55	MG	2A	3186	1/1	0.90	0.17	72,72,72,72	0
55	MG	2A	3190	1/1	0.90	0.17	66,66,66,66	0
55	MG	2A	3191	1/1	0.90	0.16	64,64,64,64	0
55	MG	1A	3500	1/1	0.90	0.17	67,67,67,67	0
55	MG	1a	1607	1/1	0.90	0.08	72,72,72,72	0
55	MG	2A	3050	1/1	0.90	0.09	63,63,63,63	0
55	MG	2A	3195	1/1	0.90	0.25	60,60,60,60	0
55	MG	2A	3052	1/1	0.90	0.13	59,59,59,59	0
55	MG	1A	3209	1/1	0.90	0.25	49,49,49,49	0
55	MG	1A	3666	1/1	0.90	0.20	53,53,53,53	0
55	MG	1A	3032	1/1	0.90	0.29	53,53,53,53	0
55	MG	2A	3575	1/1	0.90	0.12	52,52,52,52	0
55	MG	2a	1665	1/1	0.90	0.11	74,74,74,74	0
55	MG	2a	1666	1/1	0.90	0.10	75,75,75,75	0
55	MG	1a	1781	1/1	0.90	0.11	97,97,97,97	0
55	MG	2A	3803	1/1	0.90	0.12	47,47,47,47	0
55	MG	1A	3372	1/1	0.90	0.17	68,68,68,68	0
55	MG	2a	1675	1/1	0.90	0.19	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3580	1/1	0.90	0.12	71,71,71,71	0
55	MG	2A	3431	1/1	0.90	0.14	74,74,74,74	0
55	MG	1A	3782	1/1	0.90	0.09	59,59,59,59	0
55	MG	2a	1683	1/1	0.90	0.23	64,64,64,64	0
55	MG	2a	1686	1/1	0.90	0.20	58,58,58,58	0
55	MG	2A	3072	1/1	0.90	0.29	64,64,64,64	0
55	MG	2A	3075	1/1	0.90	0.11	49,49,49,49	0
55	MG	1A	3676	1/1	0.90	0.15	57,57,57,57	0
55	MG	2A	3249	1/1	0.90	0.13	68,68,68,68	0
55	MG	2A	3820	1/1	0.90	0.08	59,59,59,59	0
55	MG	2A	3594	1/1	0.90	0.11	55,55,55,55	0
55	MG	1A	3583	1/1	0.90	0.12	59,59,59,59	0
55	MG	2A	3440	1/1	0.90	0.14	78,78,78,78	0
55	MG	2A	3602	1/1	0.90	0.09	73,73,73,73	0
55	MG	1A	3791	1/1	0.90	0.13	58,58,58,58	0
55	MG	1A	3513	1/1	0.90	0.15	53,53,53,53	0
55	MG	2a	1716	1/1	0.90	0.10	71,71,71,71	0
55	MG	1A	3143	1/1	0.90	0.21	69,69,69,69	0
55	MG	2A	3450	1/1	0.90	0.24	62,62,62,62	0
55	MG	2A	3611	1/1	0.90	0.12	79,79,79,79	0
55	MG	1a	1630	1/1	0.90	0.18	55,55,55,55	0
55	MG	2a	1723	1/1	0.90	0.14	92,92,92,92	0
55	MG	1A	3595	1/1	0.90	0.29	35,35,35,35	0
55	MG	2A	3621	1/1	0.90	0.20	64,64,64,64	0
55	MG	1A	3596	1/1	0.90	0.13	83,83,83,83	0
55	MG	1A	3219	1/1	0.90	0.38	76,76,76,76	0
55	MG	2E	306	1/1	0.90	0.18	71,71,71,71	0
55	MG	1B	220	1/1	0.90	0.14	79,79,79,79	0
55	MG	2A	3264	1/1	0.90	0.11	61,61,61,61	0
55	MG	2A	3111	1/1	0.90	0.27	57,57,57,57	0
55	MG	2a	1735	1/1	0.90	0.23	74,74,74,74	0
55	MG	1A	3457	1/1	0.90	0.26	70,70,70,70	0
55	MG	2A	3630	1/1	0.90	0.23	56,56,56,56	0
55	MG	1A	3463	1/1	0.90	0.21	60,60,60,60	0
55	MG	1a	1819	1/1	0.90	0.16	82,82,82,82	0
55	MG	1A	3187	1/1	0.90	0.29	35,35,35,35	0
55	MG	2A	3117	1/1	0.90	0.21	56,56,56,56	0
55	MG	2A	3295	1/1	0.90	0.11	78,78,78,78	0
55	MG	1A	3098	1/1	0.90	0.11	37,37,37,37	0
55	MG	1A	3854	1/1	0.90	0.11	74,74,74,74	0
55	MG	2Q	204	1/1	0.90	0.09	65,65,65,65	0
55	MG	1b	3001	1/1	0.90	0.08	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3529	1/1	0.90	0.12	45,45,45,45	0
55	MG	2A	3646	1/1	0.90	0.09	57,57,57,57	0
55	MG	2V	203	1/1	0.90	0.26	54,54,54,54	0
55	MG	2A	3312	1/1	0.90	0.15	62,62,62,62	0
55	MG	2V	205	1/1	0.90	0.11	73,73,73,73	0
55	MG	1A	3387	1/1	0.90	0.10	47,47,47,47	0
55	MG	1A	3713	1/1	0.90	0.19	75,75,75,75	0
55	MG	1A	3115	1/1	0.90	0.18	69,69,69,69	0
55	MG	20	102	1/1	0.90	0.16	84,84,84,84	0
55	MG	2a	1785	1/1	0.90	0.13	72,72,72,72	0
55	MG	1A	3622	1/1	0.90	0.40	71,71,71,71	0
55	MG	2a	1789	1/1	0.90	0.12	72,72,72,72	0
55	MG	2A	3660	1/1	0.90	0.09	80,80,80,80	0
55	MG	21	101	1/1	0.90	0.18	65,65,65,65	0
55	MG	2a	1794	1/1	0.90	0.24	80,80,80,80	0
55	MG	2A	3664	1/1	0.90	0.09	81,81,81,81	0
55	MG	1A	3865	1/1	0.90	0.13	82,82,82,82	0
55	MG	2A	3327	1/1	0.90	0.06	88,88,88,88	0
55	MG	1A	3171	1/1	0.90	0.16	48,48,48,48	0
55	MG	27	101	1/1	0.90	0.18	54,54,54,54	0
55	MG	1F	314	1/1	0.90	0.13	67,67,67,67	0
55	MG	1A	3287	1/1	0.90	0.12	58,58,58,58	0
55	MG	2h	3001	1/1	0.90	0.21	64,64,64,64	0
55	MG	2A	3146	1/1	0.90	0.28	57,57,57,57	0
55	MG	2A	3005	1/1	0.90	0.15	47,47,47,47	0
55	MG	2a	1607	1/1	0.90	0.18	57,57,57,57	0
55	MG	2A	3007	1/1	0.90	0.17	61,61,61,61	0
55	MG	2A	3688	1/1	0.90	0.14	73,73,73,73	0
55	MG	2A	3132	1/1	0.91	0.24	68,68,68,68	0
55	MG	2a	1616	1/1	0.91	0.24	67,67,67,67	0
55	MG	1m	201	1/1	0.91	0.13	74,74,74,74	0
55	MG	1E	302	1/1	0.91	0.49	43,43,43,43	0
55	MG	1a	1732	1/1	0.91	0.09	70,70,70,70	0
55	MG	2A	3140	1/1	0.91	0.18	56,56,56,56	0
55	MG	2A	3512	1/1	0.91	0.19	59,59,59,59	0
55	MG	1A	3866	1/1	0.91	0.12	62,62,62,62	0
55	MG	2A	3142	1/1	0.91	0.28	57,57,57,57	0
55	MG	1A	3177	1/1	0.91	0.28	54,54,54,54	0
55	MG	2a	1627	1/1	0.91	0.16	80,80,80,80	0
55	MG	2a	1628	1/1	0.91	0.31	61,61,61,61	0
55	MG	2A	3732	1/1	0.91	0.26	60,60,60,60	0
55	MG	1F	303	1/1	0.91	0.17	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1646	1/1	0.91	0.27	63,63,63,63	0
55	MG	1a	1648	1/1	0.91	0.14	64,64,64,64	0
55	MG	1A	3319	1/1	0.91	0.11	64,64,64,64	0
55	MG	1A	3147	1/1	0.91	0.17	62,62,62,62	0
55	MG	2A	3157	1/1	0.91	0.14	63,63,63,63	0
55	MG	2A	3023	1/1	0.91	0.28	47,47,47,47	0
55	MG	2A	3758	1/1	0.91	0.09	78,78,78,78	0
55	MG	2A	3373	1/1	0.91	0.13	76,76,76,76	0
55	MG	2A	3763	1/1	0.91	0.09	41,41,41,41	0
55	MG	1F	313	1/1	0.91	0.25	43,43,43,43	0
55	MG	2A	3378	1/1	0.91	0.11	58,58,58,58	0
55	MG	1A	3182	1/1	0.91	0.24	38,38,38,38	0
55	MG	2A	3163	1/1	0.91	0.09	60,60,60,60	0
55	MG	2A	3165	1/1	0.91	0.15	58,58,58,58	0
55	MG	2A	3554	1/1	0.91	0.19	62,62,62,62	0
55	MG	2A	3167	1/1	0.91	0.21	56,56,56,56	0
55	MG	2A	3787	1/1	0.91	0.07	84,84,84,84	0
55	MG	1A	3754	1/1	0.91	0.10	71,71,71,71	0
55	MG	1A	3594	1/1	0.91	0.18	59,59,59,59	0
55	MG	2a	1662	1/1	0.91	0.18	64,64,64,64	0
55	MG	2A	3795	1/1	0.91	0.28	61,61,61,61	0
55	MG	2A	3030	1/1	0.91	0.17	66,66,66,66	0
55	MG	2A	3566	1/1	0.91	0.31	55,55,55,55	0
55	MG	1A	3014	1/1	0.91	0.16	41,41,41,41	0
55	MG	1A	3186	1/1	0.91	0.12	58,58,58,58	0
55	MG	1A	3671	1/1	0.91	0.10	46,46,46,46	0
55	MG	1A	3495	1/1	0.91	0.18	66,66,66,66	0
55	MG	1A	3149	1/1	0.91	0.18	49,49,49,49	0
55	MG	1a	1662	1/1	0.91	0.10	66,66,66,66	0
55	MG	1A	3603	1/1	0.91	0.21	46,46,46,46	0
55	MG	2A	3045	1/1	0.91	0.06	75,75,75,75	0
55	MG	1U	201	1/1	0.91	0.20	35,35,35,35	0
55	MG	1W	3001	1/1	0.91	0.26	44,44,44,44	0
55	MG	2A	3421	1/1	0.91	0.13	52,52,52,52	0
55	MG	10	102	1/1	0.91	0.10	51,51,51,51	0
55	MG	2a	1693	1/1	0.91	0.21	77,77,77,77	0
55	MG	2a	1699	1/1	0.91	0.15	68,68,68,68	0
55	MG	2A	3423	1/1	0.91	0.19	51,51,51,51	0
55	MG	2B	3003	1/1	0.91	0.08	71,71,71,71	0
55	MG	1A	3780	1/1	0.91	0.37	34,34,34,34	0
55	MG	1A	3277	1/1	0.91	0.13	56,56,56,56	0
55	MG	1A	3607	1/1	0.91	0.10	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3061	1/1	0.91	0.42	71,71,71,71	0
55	MG	1A	3225	1/1	0.91	0.19	32,32,32,32	0
55	MG	2A	3197	1/1	0.91	0.24	53,53,53,53	0
55	MG	2A	3199	1/1	0.91	0.32	54,54,54,54	0
55	MG	2A	3607	1/1	0.91	0.10	74,74,74,74	0
55	MG	1A	3552	1/1	0.91	0.20	64,64,64,64	0
55	MG	1A	3167	1/1	0.91	0.11	54,54,54,54	0
55	MG	2D	303	1/1	0.91	0.11	54,54,54,54	0
55	MG	2D	304	1/1	0.91	0.39	49,49,49,49	0
55	MG	2A	3067	1/1	0.91	0.20	61,61,61,61	0
55	MG	1A	3913	1/1	0.91	0.40	64,64,64,64	0
55	MG	2E	303	1/1	0.91	0.13	47,47,47,47	0
55	MG	1A	3917	1/1	0.91	0.37	48,48,48,48	0
55	MG	2a	1728	1/1	0.91	0.13	68,68,68,68	0
55	MG	2A	3073	1/1	0.91	0.23	52,52,52,52	0
55	MG	1A	3371	1/1	0.91	0.09	62,62,62,62	0
55	MG	2A	3444	1/1	0.91	0.10	57,57,57,57	0
55	MG	2A	3234	1/1	0.91	0.11	71,71,71,71	0
55	MG	1A	3562	1/1	0.91	0.12	52,52,52,52	0
55	MG	1A	3621	1/1	0.91	0.16	58,58,58,58	0
55	MG	2A	3080	1/1	0.91	0.14	66,66,66,66	0
55	MG	1A	3827	1/1	0.91	0.10	69,69,69,69	0
55	MG	1a	1696	1/1	0.91	0.26	63,63,63,63	0
55	MG	2P	201	1/1	0.91	0.29	58,58,58,58	0
55	MG	1A	3828	1/1	0.91	0.15	70,70,70,70	0
55	MG	2A	3089	1/1	0.91	0.12	58,58,58,58	0
55	MG	1a	1708	1/1	0.91	0.14	67,67,67,67	0
55	MG	2a	1750	1/1	0.91	0.09	77,77,77,77	0
55	MG	1A	3565	1/1	0.91	0.16	26,26,26,26	0
55	MG	2A	3096	1/1	0.91	0.21	48,48,48,48	0
55	MG	2A	3101	1/1	0.91	0.30	66,66,66,66	0
55	MG	2S	201	1/1	0.91	0.24	70,70,70,70	0
55	MG	2U	201	1/1	0.91	0.23	65,65,65,65	0
55	MG	2A	3102	1/1	0.91	0.18	55,55,55,55	0
55	MG	2a	1759	1/1	0.91	0.23	71,71,71,71	0
55	MG	1B	208	1/1	0.91	0.14	59,59,59,59	0
55	MG	1A	3627	1/1	0.91	0.12	49,49,49,49	0
55	MG	1A	3838	1/1	0.91	0.11	46,46,46,46	0
55	MG	2A	3650	1/1	0.91	0.13	57,57,57,57	0
55	MG	2A	3109	1/1	0.91	0.17	63,63,63,63	0
55	MG	2a	1771	1/1	0.91	0.08	81,81,81,81	0
55	MG	2A	3271	1/1	0.91	0.09	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1781	1/1	0.91	0.12	75,75,75,75	0
55	MG	2A	3657	1/1	0.91	0.09	55,55,55,55	0
55	MG	1A	3021	1/1	0.91	0.08	50,50,50,50	0
55	MG	1A	3840	1/1	0.91	0.20	64,64,64,64	0
55	MG	20	106	1/1	0.91	0.11	80,80,80,80	0
55	MG	1A	3717	1/1	0.91	0.17	69,69,69,69	0
55	MG	1A	3191	1/1	0.91	0.17	39,39,39,39	0
55	MG	1A	3117	1/1	0.91	0.21	61,61,61,61	0
55	MG	1D	304	1/1	0.91	0.27	45,45,45,45	0
55	MG	1A	3173	1/1	0.91	0.12	45,45,45,45	0
55	MG	1A	3385	1/1	0.91	0.12	69,69,69,69	0
55	MG	2A	3308	1/1	0.91	0.18	58,58,58,58	0
55	MG	1a	1637	1/1	0.91	0.16	50,50,50,50	0
55	MG	2a	1601	1/1	0.91	0.15	76,76,76,76	0
55	MG	1A	3574	1/1	0.91	0.24	49,49,49,49	0
55	MG	2a	1605	1/1	0.91	0.39	57,57,57,57	0
55	MG	2A	3315	1/1	0.91	0.12	68,68,68,68	0
55	MG	1A	3647	1/1	0.91	0.07	85,85,85,85	0
55	MG	1A	3036	1/1	0.91	0.12	40,40,40,40	0
55	MG	1A	3519	1/1	0.91	0.10	52,52,52,52	0
55	MG	2o	3001	1/1	0.91	0.12	57,57,57,57	0
55	MG	2A	3322	1/1	0.91	0.20	69,69,69,69	0
55	MG	1A	3392	1/1	0.92	0.17	57,57,57,57	0
55	MG	1A	3393	1/1	0.92	0.08	48,48,48,48	0
55	MG	1A	3077	1/1	0.92	0.13	48,48,48,48	0
55	MG	1A	3846	1/1	0.92	0.17	53,53,53,53	0
55	MG	1A	3853	1/1	0.92	0.06	22,22,22,22	0
55	MG	1A	3166	1/1	0.92	0.08	54,54,54,54	0
55	MG	1A	3598	1/1	0.92	0.08	76,76,76,76	0
55	MG	2A	3479	1/1	0.92	0.09	73,73,73,73	0
55	MG	2A	3681	1/1	0.92	0.08	65,65,65,65	0
55	MG	2A	3686	1/1	0.92	0.09	93,93,93,93	0
55	MG	2a	1615	1/1	0.92	0.12	55,55,55,55	0
55	MG	2A	3092	1/1	0.92	0.34	49,49,49,49	0
55	MG	2A	3482	1/1	0.92	0.34	56,56,56,56	0
55	MG	2A	3095	1/1	0.92	0.27	58,58,58,58	0
55	MG	2A	3486	1/1	0.92	0.12	57,57,57,57	0
55	MG	1F	306	1/1	0.92	0.13	44,44,44,44	0
55	MG	2A	3697	1/1	0.92	0.07	53,53,53,53	0
55	MG	2A	3097	1/1	0.92	0.15	39,39,39,39	0
55	MG	2A	3705	1/1	0.92	0.11	65,65,65,65	0
55	MG	1A	3307	1/1	0.92	0.09	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1784	1/1	0.92	0.12	82,82,82,82	0
55	MG	1A	3119	1/1	0.92	0.25	35,35,35,35	0
55	MG	1A	3860	1/1	0.92	0.13	56,56,56,56	0
55	MG	2a	1631	1/1	0.92	0.33	73,73,73,73	0
55	MG	2A	3107	1/1	0.92	0.20	58,58,58,58	0
55	MG	1G	3001	1/1	0.92	0.06	74,74,74,74	0
55	MG	1A	3861	1/1	0.92	0.09	75,75,75,75	0
55	MG	1A	3168	1/1	0.92	0.28	56,56,56,56	0
55	MG	1a	1795	1/1	0.92	0.10	80,80,80,80	0
55	MG	2A	3507	1/1	0.92	0.38	62,62,62,62	0
55	MG	1A	3518	1/1	0.92	0.14	71,71,71,71	0
55	MG	1N	8001	1/1	0.92	0.18	49,49,49,49	0
55	MG	1A	3110	1/1	0.92	0.12	41,41,41,41	0
55	MG	1A	3231	1/1	0.92	0.46	25,25,25,25	0
55	MG	1A	3192	1/1	0.92	0.12	51,51,51,51	0
55	MG	2A	3119	1/1	0.92	0.11	47,47,47,47	0
55	MG	2A	3517	1/1	0.92	0.08	80,80,80,80	0
55	MG	2A	3518	1/1	0.92	0.08	60,60,60,60	0
55	MG	2A	3519	1/1	0.92	0.26	68,68,68,68	0
55	MG	2A	3325	1/1	0.92	0.31	68,68,68,68	0
55	MG	2A	3120	1/1	0.92	0.12	75,75,75,75	0
55	MG	2A	3121	1/1	0.92	0.20	46,46,46,46	0
55	MG	2a	1655	1/1	0.92	0.06	78,78,78,78	0
55	MG	2A	3774	1/1	0.92	0.14	81,81,81,81	0
55	MG	2A	3530	1/1	0.92	0.09	71,71,71,71	0
55	MG	1A	3151	1/1	0.92	0.23	48,48,48,48	0
55	MG	2A	3332	1/1	0.92	0.15	63,63,63,63	0
55	MG	1A	3242	1/1	0.92	0.32	46,46,46,46	0
55	MG	1A	3617	1/1	0.92	0.19	47,47,47,47	0
55	MG	1V	203	1/1	0.92	0.10	67,67,67,67	0
55	MG	1a	1681	1/1	0.92	0.11	67,67,67,67	0
55	MG	1A	3197	1/1	0.92	0.34	31,31,31,31	0
55	MG	1A	3245	1/1	0.92	0.10	74,74,74,74	0
55	MG	1A	3348	1/1	0.92	0.09	42,42,42,42	0
55	MG	1d	502	1/1	0.92	0.16	71,71,71,71	0
55	MG	10	108	1/1	0.92	0.29	46,46,46,46	0
55	MG	2a	1681	1/1	0.92	0.09	78,78,78,78	0
55	MG	2A	3551	1/1	0.92	0.10	62,62,62,62	0
55	MG	2A	3806	1/1	0.92	0.10	47,47,47,47	0
55	MG	1A	3733	1/1	0.92	0.14	42,42,42,42	0
55	MG	11	104	1/1	0.92	0.10	50,50,50,50	0
55	MG	1f	8001	1/1	0.92	0.13	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3556	1/1	0.92	0.10	63,63,63,63	0
55	MG	2a	1694	1/1	0.92	0.22	65,65,65,65	0
55	MG	2a	1696	1/1	0.92	0.08	79,79,79,79	0
55	MG	15	101	1/1	0.92	0.43	39,39,39,39	0
55	MG	1a	1701	1/1	0.92	0.32	62,62,62,62	0
55	MG	2A	3818	1/1	0.92	0.35	69,69,69,69	0
55	MG	1a	1704	1/1	0.92	0.10	77,77,77,77	0
55	MG	2A	3565	1/1	0.92	0.36	70,70,70,70	0
55	MG	15	102	1/1	0.92	0.14	40,40,40,40	0
55	MG	1A	3199	1/1	0.92	0.28	41,41,41,41	0
55	MG	2A	3387	1/1	0.92	0.07	58,58,58,58	0
55	MG	2A	3393	1/1	0.92	0.09	67,67,67,67	0
55	MG	1a	1712	1/1	0.92	0.14	55,55,55,55	0
55	MG	1o	3001	1/1	0.92	0.25	62,62,62,62	0
55	MG	1A	3737	1/1	0.92	0.18	38,38,38,38	0
55	MG	1A	3539	1/1	0.92	0.32	35,35,35,35	0
55	MG	2a	1719	1/1	0.92	0.14	66,66,66,66	0
55	MG	2B	3012	1/1	0.92	0.07	80,80,80,80	0
55	MG	1A	3741	1/1	0.92	0.19	56,56,56,56	0
55	MG	1A	3546	1/1	0.92	0.10	40,40,40,40	0
55	MG	1A	3203	1/1	0.92	0.46	38,38,38,38	0
55	MG	2A	3010	1/1	0.92	0.19	62,62,62,62	0
55	MG	1A	3633	1/1	0.92	0.14	48,48,48,48	0
55	MG	2D	301	1/1	0.92	0.36	51,51,51,51	0
55	MG	2D	302	1/1	0.92	0.18	51,51,51,51	0
55	MG	1A	3899	1/1	0.92	0.07	52,52,52,52	0
55	MG	1A	3549	1/1	0.92	0.09	52,52,52,52	0
55	MG	2D	305	1/1	0.92	0.32	67,67,67,67	0
55	MG	1a	1609	1/1	0.92	0.07	76,76,76,76	0
55	MG	2A	3175	1/1	0.92	0.12	50,50,50,50	0
55	MG	1a	1610	1/1	0.92	0.29	62,62,62,62	0
55	MG	2A	3026	1/1	0.92	0.10	37,37,37,37	0
55	MG	2F	301	1/1	0.92	0.22	55,55,55,55	0
55	MG	1A	3758	1/1	0.92	0.14	60,60,60,60	0
55	MG	2F	304	1/1	0.92	0.25	58,58,58,58	0
55	MG	1A	3254	1/1	0.92	0.33	59,59,59,59	0
55	MG	1A	3472	1/1	0.92	0.17	64,64,64,64	0
55	MG	2A	3608	1/1	0.92	0.11	63,63,63,63	0
55	MG	2A	3182	1/1	0.92	0.17	80,80,80,80	0
55	MG	1a	1615	1/1	0.92	0.17	67,67,67,67	0
55	MG	1a	1617	1/1	0.92	0.12	77,77,77,77	0
55	MG	1A	3763	1/1	0.92	0.12	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3188	1/1	0.92	0.17	57,57,57,57	0
55	MG	1A	3256	1/1	0.92	0.16	47,47,47,47	0
55	MG	1A	3078	1/1	0.92	0.18	50,50,50,50	0
55	MG	1A	3258	1/1	0.92	0.12	53,53,53,53	0
55	MG	2Q	201	1/1	0.92	0.28	65,65,65,65	0
55	MG	1A	3259	1/1	0.92	0.19	36,36,36,36	0
55	MG	1A	3480	1/1	0.92	0.14	47,47,47,47	0
55	MG	2Q	205	1/1	0.92	0.21	55,55,55,55	0
55	MG	1a	1738	1/1	0.92	0.18	63,63,63,63	0
55	MG	1a	1739	1/1	0.92	0.16	66,66,66,66	0
55	MG	1A	3055	1/1	0.92	0.11	48,48,48,48	0
55	MG	1A	3664	1/1	0.92	0.16	48,48,48,48	0
55	MG	1B	209	1/1	0.92	0.10	60,60,60,60	0
55	MG	2V	201	1/1	0.92	0.34	55,55,55,55	0
55	MG	1A	3483	1/1	0.92	0.25	56,56,56,56	0
55	MG	1A	3137	1/1	0.92	0.20	43,43,43,43	0
55	MG	1A	3489	1/1	0.92	0.13	46,46,46,46	0
55	MG	1A	3492	1/1	0.92	0.25	68,68,68,68	0
55	MG	1A	3382	1/1	0.92	0.27	58,58,58,58	0
55	MG	1B	223	1/1	0.92	0.14	55,55,55,55	0
55	MG	1A	3674	1/1	0.92	0.30	51,51,51,51	0
55	MG	1A	3159	1/1	0.92	0.48	40,40,40,40	0
55	MG	2A	3070	1/1	0.92	0.38	52,52,52,52	0
55	MG	2A	3248	1/1	0.92	0.06	28,28,28,28	0
55	MG	1A	3063	1/1	0.92	0.16	45,45,45,45	0
55	MG	2A	3654	1/1	0.92	0.08	34,34,34,34	0
55	MG	1A	3579	1/1	0.92	0.24	41,41,41,41	0
55	MG	1A	3216	1/1	0.92	0.17	50,50,50,50	0
55	MG	1A	3685	1/1	0.92	0.10	31,31,31,31	0
55	MG	1A	3052	1/1	0.92	0.27	24,24,24,24	0
55	MG	27	102	1/1	0.92	0.19	57,57,57,57	0
55	MG	2A	3469	1/1	0.92	0.14	62,62,62,62	0
55	MG	2A	3068	1/1	0.93	0.14	65,65,65,65	0
55	MG	1A	3644	1/1	0.93	0.17	51,51,51,51	0
55	MG	1a	1651	1/1	0.93	0.11	54,54,54,54	0
55	MG	1a	1652	1/1	0.93	0.21	59,59,59,59	0
55	MG	1A	3504	1/1	0.93	0.09	66,66,66,66	0
55	MG	1A	3150	1/1	0.93	0.30	62,62,62,62	0
55	MG	2a	1603	1/1	0.93	0.10	61,61,61,61	0
55	MG	1a	1769	1/1	0.93	0.08	75,75,75,75	0
55	MG	2A	3682	1/1	0.93	0.09	68,68,68,68	0
55	MG	2A	3683	1/1	0.93	0.06	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3875	1/1	0.93	0.10	52,52,52,52	0
55	MG	1A	3742	1/1	0.93	0.08	55,55,55,55	0
55	MG	2A	3082	1/1	0.93	0.13	60,60,60,60	0
55	MG	2A	3259	1/1	0.93	0.10	89,89,89,89	0
55	MG	2A	3484	1/1	0.93	0.14	62,62,62,62	0
55	MG	1A	3652	1/1	0.93	0.09	67,67,67,67	0
55	MG	1A	3364	1/1	0.93	0.14	26,26,26,26	0
55	MG	1A	3301	1/1	0.93	0.07	12,12,12,12	0
55	MG	2A	3088	1/1	0.93	0.13	73,73,73,73	0
55	MG	1A	3071	1/1	0.93	0.20	32,32,32,32	0
55	MG	1a	1782	1/1	0.93	0.07	76,76,76,76	0
55	MG	1A	3100	1/1	0.93	0.21	31,31,31,31	0
55	MG	1U	204	1/1	0.93	0.19	56,56,56,56	0
55	MG	1A	3455	1/1	0.93	0.06	21,21,21,21	0
55	MG	1A	3760	1/1	0.93	0.12	60,60,60,60	0
55	MG	2A	3291	1/1	0.93	0.06	40,40,40,40	0
55	MG	2A	3292	1/1	0.93	0.10	55,55,55,55	0
55	MG	10	101	1/1	0.93	0.12	55,55,55,55	0
55	MG	2A	3735	1/1	0.93	0.13	55,55,55,55	0
55	MG	2A	3100	1/1	0.93	0.08	61,61,61,61	0
55	MG	1A	3580	1/1	0.93	0.11	70,70,70,70	0
55	MG	10	104	1/1	0.93	0.09	51,51,51,51	0
55	MG	1A	3142	1/1	0.93	0.24	43,43,43,43	0
55	MG	10	107	1/1	0.93	0.12	73,73,73,73	0
55	MG	1A	3766	1/1	0.93	0.07	58,58,58,58	0
55	MG	11	101	1/1	0.93	0.44	52,52,52,52	0
55	MG	1a	1806	1/1	0.93	0.06	78,78,78,78	0
55	MG	2A	3110	1/1	0.93	0.16	58,58,58,58	0
55	MG	2A	3316	1/1	0.93	0.20	69,69,69,69	0
55	MG	1A	3668	1/1	0.93	0.25	63,63,63,63	0
55	MG	1A	3462	1/1	0.93	0.50	33,33,33,33	0
55	MG	2A	3771	1/1	0.93	0.10	65,65,65,65	0
55	MG	1A	3116	1/1	0.93	0.11	49,49,49,49	0
55	MG	2a	1651	1/1	0.93	0.09	65,65,65,65	0
55	MG	2A	3773	1/1	0.93	0.10	81,81,81,81	0
55	MG	1a	1682	1/1	0.93	0.19	76,76,76,76	0
55	MG	2A	3775	1/1	0.93	0.08	63,63,63,63	0
55	MG	2A	3776	1/1	0.93	0.08	44,44,44,44	0
55	MG	1a	1683	1/1	0.93	0.19	58,58,58,58	0
55	MG	2A	3778	1/1	0.93	0.13	51,51,51,51	0
55	MG	2a	1660	1/1	0.93	0.16	74,74,74,74	0
55	MG	1a	1818	1/1	0.93	0.14	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3158	1/1	0.93	0.18	31,31,31,31	0
55	MG	15	103	1/1	0.93	0.08	54,54,54,54	0
55	MG	15	105	1/1	0.93	0.21	45,45,45,45	0
55	MG	2A	3333	1/1	0.93	0.07	69,69,69,69	0
55	MG	15	107	1/1	0.93	0.09	62,62,62,62	0
55	MG	1A	3102	1/1	0.93	0.20	34,34,34,34	0
55	MG	2A	3125	1/1	0.93	0.14	66,66,66,66	0
55	MG	2a	1674	1/1	0.93	0.06	83,83,83,83	0
55	MG	17	104	1/1	0.93	0.20	64,64,64,64	0
55	MG	2a	1676	1/1	0.93	0.10	61,61,61,61	0
55	MG	1A	3675	1/1	0.93	0.22	65,65,65,65	0
55	MG	1A	3470	1/1	0.93	0.14	52,52,52,52	0
55	MG	1a	1601	1/1	0.93	0.17	56,56,56,56	0
55	MG	2A	3553	1/1	0.93	0.16	66,66,66,66	0
55	MG	2A	3344	1/1	0.93	0.07	78,78,78,78	0
55	MG	2a	1684	1/1	0.93	0.07	77,77,77,77	0
55	MG	1A	3175	1/1	0.93	0.10	47,47,47,47	0
55	MG	1A	3198	1/1	0.93	0.19	30,30,30,30	0
55	MG	1A	3080	1/1	0.93	0.10	45,45,45,45	0
55	MG	2a	1691	1/1	0.93	0.11	82,82,82,82	0
55	MG	2A	3560	1/1	0.93	0.06	66,66,66,66	0
55	MG	1A	3794	1/1	0.93	0.25	46,46,46,46	0
55	MG	1A	3535	1/1	0.93	0.20	38,38,38,38	0
55	MG	1A	3320	1/1	0.93	0.16	52,52,52,52	0
55	MG	1A	3262	1/1	0.93	0.10	41,41,41,41	0
55	MG	2A	3567	1/1	0.93	0.19	72,72,72,72	0
55	MG	1A	3819	1/1	0.93	0.28	45,45,45,45	0
55	MG	1A	3540	1/1	0.93	0.06	80,80,80,80	0
55	MG	2B	3004	1/1	0.93	0.06	78,78,78,78	0
55	MG	2A	3145	1/1	0.93	0.07	75,75,75,75	0
55	MG	2A	3386	1/1	0.93	0.07	63,63,63,63	0
55	MG	2a	1711	1/1	0.93	0.27	68,68,68,68	0
55	MG	2A	3001	1/1	0.93	0.12	50,50,50,50	0
55	MG	2A	3002	1/1	0.93	0.27	68,68,68,68	0
55	MG	2a	1715	1/1	0.93	0.19	75,75,75,75	0
55	MG	1A	3697	1/1	0.93	0.13	64,64,64,64	0
55	MG	2A	3006	1/1	0.93	0.08	40,40,40,40	0
55	MG	2A	3583	1/1	0.93	0.14	72,72,72,72	0
55	MG	2A	3151	1/1	0.93	0.52	50,50,50,50	0
55	MG	1a	1721	1/1	0.93	0.08	65,65,65,65	0
55	MG	1A	3541	1/1	0.93	0.16	55,55,55,55	0
55	MG	1A	3545	1/1	0.93	0.23	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3590	1/1	0.93	0.24	63,63,63,63	0
55	MG	2A	3408	1/1	0.93	0.13	48,48,48,48	0
55	MG	1a	1616	1/1	0.93	0.17	71,71,71,71	0
55	MG	2A	3013	1/1	0.93	0.33	65,65,65,65	0
55	MG	1A	3201	1/1	0.93	0.19	61,61,61,61	0
55	MG	2A	3600	1/1	0.93	0.25	53,53,53,53	0
55	MG	2D	309	1/1	0.93	0.31	64,64,64,64	0
55	MG	2D	310	1/1	0.93	0.19	60,60,60,60	0
55	MG	2D	312	1/1	0.93	0.14	57,57,57,57	0
55	MG	2A	3018	1/1	0.93	0.46	48,48,48,48	0
55	MG	2E	302	1/1	0.93	0.29	53,53,53,53	0
55	MG	1A	3006	1/1	0.93	0.06	26,26,26,26	0
55	MG	1a	1620	1/1	0.93	0.08	67,67,67,67	0
55	MG	1A	3708	1/1	0.93	0.15	51,51,51,51	0
55	MG	2a	1742	1/1	0.93	0.09	65,65,65,65	0
55	MG	2A	3024	1/1	0.93	0.26	60,60,60,60	0
55	MG	1A	3347	1/1	0.93	0.07	28,28,28,28	0
55	MG	1A	3843	1/1	0.93	0.09	47,47,47,47	0
55	MG	1a	1627	1/1	0.93	0.36	64,64,64,64	0
55	MG	1A	3044	1/1	0.93	0.18	26,26,26,26	0
55	MG	1A	3276	1/1	0.93	0.18	35,35,35,35	0
55	MG	1A	3848	1/1	0.93	0.14	60,60,60,60	0
55	MG	1D	318	1/1	0.93	0.14	65,65,65,65	0
55	MG	1A	3623	1/1	0.93	0.19	43,43,43,43	0
55	MG	2A	3429	1/1	0.93	0.18	76,76,76,76	0
55	MG	1A	3165	1/1	0.93	0.22	41,41,41,41	0
55	MG	1a	1740	1/1	0.93	0.25	67,67,67,67	0
55	MG	1A	3285	1/1	0.93	0.10	49,49,49,49	0
55	MG	2a	1764	1/1	0.93	0.07	88,88,88,88	0
55	MG	1A	3430	1/1	0.93	0.08	54,54,54,54	0
55	MG	1E	307	1/1	0.93	0.21	57,57,57,57	0
55	MG	2A	3632	1/1	0.93	0.17	94,94,94,94	0
55	MG	1A	3630	1/1	0.93	0.10	60,60,60,60	0
55	MG	1A	3631	1/1	0.93	0.19	81,81,81,81	0
55	MG	2A	3635	1/1	0.93	0.10	97,97,97,97	0
55	MG	2A	3047	1/1	0.93	0.24	45,45,45,45	0
55	MG	2A	3048	1/1	0.93	0.08	46,46,46,46	0
55	MG	1A	3726	1/1	0.93	0.11	39,39,39,39	0
55	MG	1A	3433	1/1	0.93	0.06	81,81,81,81	0
55	MG	2A	3051	1/1	0.93	0.24	53,53,53,53	0
55	MG	1F	307	1/1	0.93	0.35	41,41,41,41	0
55	MG	2A	3200	1/1	0.93	0.33	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1796	1/1	0.93	0.24	63,63,63,63	0
55	MG	1F	310	1/1	0.93	0.23	34,34,34,34	0
55	MG	2A	3058	1/1	0.93	0.07	60,60,60,60	0
55	MG	1A	3435	1/1	0.93	0.08	44,44,44,44	0
55	MG	1a	1754	1/1	0.93	0.09	66,66,66,66	0
55	MG	2A	3221	1/1	0.93	0.37	68,68,68,68	0
55	MG	1A	3436	1/1	0.93	0.11	58,58,58,58	0
55	MG	2A	3227	1/1	0.93	0.15	50,50,50,50	0
55	MG	1A	3437	1/1	0.93	0.12	66,66,66,66	0
55	MG	21	102	1/1	0.93	0.11	66,66,66,66	0
55	MG	2A	3229	1/1	0.93	0.26	64,64,64,64	0
55	MG	25	101	1/1	0.93	0.38	53,53,53,53	0
55	MG	1A	3570	1/1	0.93	0.20	46,46,46,46	0
55	MG	1a	1761	1/1	0.93	0.18	67,67,67,67	0
55	MG	2A	3241	1/1	0.93	0.17	44,44,44,44	0
55	MG	2A	3476	1/1	0.94	0.20	67,67,67,67	0
55	MG	2A	3098	1/1	0.94	0.20	60,60,60,60	0
55	MG	1a	1673	1/1	0.94	0.09	59,59,59,59	0
55	MG	1A	3537	1/1	0.94	0.17	63,63,63,63	0
55	MG	10	103	1/1	0.94	0.20	69,69,69,69	0
55	MG	1A	3038	1/1	0.94	0.11	50,50,50,50	0
55	MG	2A	3278	1/1	0.94	0.09	53,53,53,53	0
55	MG	2A	3279	1/1	0.94	0.06	58,58,58,58	0
55	MG	2A	3104	1/1	0.94	0.16	57,57,57,57	0
55	MG	1A	3087	1/1	0.94	0.29	34,34,34,34	0
55	MG	1A	3247	1/1	0.94	0.25	47,47,47,47	0
55	MG	1A	3088	1/1	0.94	0.40	34,34,34,34	0
55	MG	1A	3755	1/1	0.94	0.14	44,44,44,44	0
55	MG	2a	1611	1/1	0.94	0.10	54,54,54,54	0
55	MG	1A	3466	1/1	0.94	0.12	53,53,53,53	0
55	MG	2A	3706	1/1	0.94	0.07	93,93,93,93	0
55	MG	1A	3892	1/1	0.94	0.15	59,59,59,59	0
55	MG	2A	3708	1/1	0.94	0.14	69,69,69,69	0
55	MG	2A	3299	1/1	0.94	0.08	46,46,46,46	0
55	MG	1a	1825	1/1	0.94	0.20	50,50,50,50	0
55	MG	2A	3302	1/1	0.94	0.07	47,47,47,47	0
55	MG	1A	3895	1/1	0.94	0.18	45,45,45,45	0
55	MG	1A	3467	1/1	0.94	0.16	59,59,59,59	0
55	MG	1A	3193	1/1	0.94	0.23	29,29,29,29	0
55	MG	2A	3311	1/1	0.94	0.06	48,48,48,48	0
55	MG	1A	3160	1/1	0.94	0.25	52,52,52,52	0
55	MG	1e	201	1/1	0.94	0.12	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3738	1/1	0.94	0.07	62,62,62,62	0
55	MG	2A	3739	1/1	0.94	0.07	60,60,60,60	0
55	MG	1A	3363	1/1	0.94	0.14	39,39,39,39	0
55	MG	17	101	1/1	0.94	0.14	32,32,32,32	0
55	MG	2a	1633	1/1	0.94	0.23	73,73,73,73	0
55	MG	2A	3750	1/1	0.94	0.09	60,60,60,60	0
55	MG	2A	3317	1/1	0.94	0.05	79,79,79,79	0
55	MG	2A	3514	1/1	0.94	0.11	50,50,50,50	0
55	MG	1A	3906	1/1	0.94	0.14	40,40,40,40	0
55	MG	2a	1638	1/1	0.94	0.09	74,74,74,74	0
55	MG	2A	3319	1/1	0.94	0.06	30,30,30,30	0
55	MG	2A	3122	1/1	0.94	0.10	46,46,46,46	0
55	MG	1A	3161	1/1	0.94	0.34	38,38,38,38	0
55	MG	2A	3759	1/1	0.94	0.09	84,84,84,84	0
55	MG	2A	3522	1/1	0.94	0.08	67,67,67,67	0
55	MG	1A	3908	1/1	0.94	0.15	40,40,40,40	0
55	MG	1a	1709	1/1	0.94	0.06	75,75,75,75	0
55	MG	2A	3765	1/1	0.94	0.23	60,60,60,60	0
55	MG	2A	3529	1/1	0.94	0.28	48,48,48,48	0
55	MG	2A	3769	1/1	0.94	0.11	66,66,66,66	0
55	MG	1A	3909	1/1	0.94	0.16	38,38,38,38	0
55	MG	19	101	1/1	0.94	0.24	52,52,52,52	0
55	MG	2A	3129	1/1	0.94	0.12	64,64,64,64	0
55	MG	19	103	1/1	0.94	0.11	63,63,63,63	0
55	MG	1A	3910	1/1	0.94	0.20	36,36,36,36	0
55	MG	2A	3334	1/1	0.94	0.09	71,71,71,71	0
55	MG	1A	3912	1/1	0.94	0.10	52,52,52,52	0
55	MG	1A	3366	1/1	0.94	0.07	31,31,31,31	0
55	MG	2A	3004	1/1	0.94	0.07	52,52,52,52	0
55	MG	1A	3915	1/1	0.94	0.18	64,64,64,64	0
55	MG	1A	3123	1/1	0.94	0.18	61,61,61,61	0
55	MG	1A	3126	1/1	0.94	0.17	23,23,23,23	0
55	MG	1A	3090	1/1	0.94	0.11	41,41,41,41	0
55	MG	1A	3479	1/1	0.94	0.07	31,31,31,31	0
55	MG	2A	3793	1/1	0.94	0.07	53,53,53,53	0
55	MG	1A	3778	1/1	0.94	0.06	25,25,25,25	0
55	MG	2A	3011	1/1	0.94	0.31	57,57,57,57	0
55	MG	2A	3799	1/1	0.94	0.13	97,97,97,97	0
55	MG	1A	3131	1/1	0.94	0.14	44,44,44,44	0
55	MG	2A	3357	1/1	0.94	0.08	53,53,53,53	0
55	MG	2A	3359	1/1	0.94	0.07	64,64,64,64	0
55	MG	1A	3667	1/1	0.94	0.07	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3805	1/1	0.94	0.14	68,68,68,68	0
55	MG	2A	3561	1/1	0.94	0.12	82,82,82,82	0
55	MG	2A	3017	1/1	0.94	0.14	65,65,65,65	0
55	MG	2A	3810	1/1	0.94	0.07	68,68,68,68	0
55	MG	1A	3569	1/1	0.94	0.11	48,48,48,48	0
55	MG	1A	3374	1/1	0.94	0.08	74,74,74,74	0
55	MG	1A	3263	1/1	0.94	0.11	48,48,48,48	0
55	MG	1A	3378	1/1	0.94	0.08	47,47,47,47	0
55	MG	1B	216	1/1	0.94	0.06	57,57,57,57	0
55	MG	1a	1619	1/1	0.94	0.12	66,66,66,66	0
55	MG	2a	1697	1/1	0.94	0.34	61,61,61,61	0
55	MG	1A	3379	1/1	0.94	0.18	67,67,67,67	0
55	MG	1A	3799	1/1	0.94	0.06	57,57,57,57	0
55	MG	1A	3264	1/1	0.94	0.16	73,73,73,73	0
55	MG	2A	3168	1/1	0.94	0.08	72,72,72,72	0
55	MG	2A	3399	1/1	0.94	0.08	51,51,51,51	0
55	MG	1B	222	1/1	0.94	0.17	61,61,61,61	0
55	MG	2a	1708	1/1	0.94	0.13	87,87,87,87	0
55	MG	1A	3132	1/1	0.94	0.34	34,34,34,34	0
55	MG	1A	3681	1/1	0.94	0.12	57,57,57,57	0
55	MG	1A	3065	1/1	0.94	0.22	33,33,33,33	0
55	MG	2A	3586	1/1	0.94	0.12	89,89,89,89	0
55	MG	2B	3009	1/1	0.94	0.09	79,79,79,79	0
55	MG	2A	3174	1/1	0.94	0.21	47,47,47,47	0
55	MG	1A	3578	1/1	0.94	0.14	68,68,68,68	0
55	MG	1a	1742	1/1	0.94	0.15	78,78,78,78	0
55	MG	2A	3592	1/1	0.94	0.06	80,80,80,80	0
55	MG	1A	3067	1/1	0.94	0.42	47,47,47,47	0
55	MG	1A	3136	1/1	0.94	0.39	42,42,42,42	0
55	MG	1a	1633	1/1	0.94	0.10	39,39,39,39	0
55	MG	1A	3010	1/1	0.94	0.27	46,46,46,46	0
55	MG	1A	3835	1/1	0.94	0.07	51,51,51,51	0
55	MG	1a	1636	1/1	0.94	0.53	69,69,69,69	0
55	MG	2A	3603	1/1	0.94	0.06	70,70,70,70	0
55	MG	1A	3836	1/1	0.94	0.12	54,54,54,54	0
55	MG	1A	3283	1/1	0.94	0.20	40,40,40,40	0
55	MG	1A	3072	1/1	0.94	0.22	42,42,42,42	0
55	MG	1A	3690	1/1	0.94	0.07	21,21,21,21	0
55	MG	1A	3217	1/1	0.94	0.21	35,35,35,35	0
55	MG	1A	3291	1/1	0.94	0.10	72,72,72,72	0
55	MG	2A	3057	1/1	0.94	0.20	48,48,48,48	0
55	MG	1F	301	1/1	0.94	0.13	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3615	1/1	0.94	0.14	59,59,59,59	0
55	MG	1A	3508	1/1	0.94	0.07	72,72,72,72	0
55	MG	2A	3619	1/1	0.94	0.08	57,57,57,57	0
55	MG	1A	3510	1/1	0.94	0.25	44,44,44,44	0
55	MG	1A	3847	1/1	0.94	0.10	61,61,61,61	0
55	MG	2F	306	1/1	0.94	0.10	62,62,62,62	0
55	MG	2A	3063	1/1	0.94	0.14	65,65,65,65	0
55	MG	2F	309	1/1	0.94	0.23	58,58,58,58	0
55	MG	1A	3705	1/1	0.94	0.11	53,53,53,53	0
55	MG	1A	3512	1/1	0.94	0.11	37,37,37,37	0
55	MG	1A	3400	1/1	0.94	0.10	44,44,44,44	0
55	MG	1A	3101	1/1	0.94	0.34	55,55,55,55	0
55	MG	2A	3211	1/1	0.94	0.09	64,64,64,64	0
55	MG	1A	3073	1/1	0.94	0.07	44,44,44,44	0
55	MG	1A	3104	1/1	0.94	0.07	42,42,42,42	0
55	MG	1A	3109	1/1	0.94	0.25	41,41,41,41	0
55	MG	1A	3226	1/1	0.94	0.19	31,31,31,31	0
55	MG	2A	3447	1/1	0.94	0.09	47,47,47,47	0
55	MG	2A	3074	1/1	0.94	0.16	51,51,51,51	0
55	MG	1A	3227	1/1	0.94	0.19	27,27,27,27	0
55	MG	1A	3522	1/1	0.94	0.14	57,57,57,57	0
55	MG	1A	3864	1/1	0.94	0.11	53,53,53,53	0
55	MG	2a	1778	1/1	0.94	0.14	85,85,85,85	0
55	MG	2A	3235	1/1	0.94	0.11	77,77,77,77	0
55	MG	2A	3079	1/1	0.94	0.13	60,60,60,60	0
55	MG	1A	3074	1/1	0.94	0.26	39,39,39,39	0
55	MG	2U	202	1/1	0.94	0.40	52,52,52,52	0
55	MG	1A	3619	1/1	0.94	0.17	44,44,44,44	0
55	MG	1A	3184	1/1	0.94	0.46	38,38,38,38	0
55	MG	2A	3459	1/1	0.94	0.08	64,64,64,64	0
55	MG	2A	3652	1/1	0.94	0.11	58,58,58,58	0
55	MG	2A	3460	1/1	0.94	0.09	44,44,44,44	0
55	MG	2W	3001	1/1	0.94	0.21	57,57,57,57	0
55	MG	2A	3084	1/1	0.94	0.10	49,49,49,49	0
55	MG	1A	3075	1/1	0.94	0.28	33,33,33,33	0
55	MG	1A	3033	1/1	0.94	0.10	52,52,52,52	0
55	MG	1A	3019	1/1	0.94	0.24	43,43,43,43	0
55	MG	1a	1793	1/1	0.94	0.08	64,64,64,64	0
55	MG	2A	3661	1/1	0.94	0.07	88,88,88,88	0
55	MG	2A	3467	1/1	0.94	0.12	76,76,76,76	0
55	MG	1A	3240	1/1	0.94	0.16	42,42,42,42	0
55	MG	1A	3534	1/1	0.94	0.06	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3188	1/1	0.94	0.13	44,44,44,44	0
55	MG	23	101	1/1	0.94	0.16	61,61,61,61	0
55	MG	1a	1668	1/1	0.94	0.15	66,66,66,66	0
55	MG	1a	1669	1/1	0.94	0.10	71,71,71,71	0
55	MG	1A	3051	1/1	0.94	0.16	35,35,35,35	0
55	MG	1A	3526	1/1	0.95	0.10	52,52,52,52	0
55	MG	1A	3284	1/1	0.95	0.12	64,64,64,64	0
55	MG	2A	3116	1/1	0.95	0.23	56,56,56,56	0
55	MG	1A	3093	1/1	0.95	0.17	41,41,41,41	0
55	MG	2A	3703	1/1	0.95	0.08	91,91,91,91	0
55	MG	1A	3464	1/1	0.95	0.12	61,61,61,61	0
55	MG	1A	3183	1/1	0.95	0.12	44,44,44,44	0
55	MG	1A	3103	1/1	0.95	0.39	41,41,41,41	0
55	MG	1y	101	1/1	0.95	0.20	50,50,50,50	0
55	MG	1A	3294	1/1	0.95	0.06	25,25,25,25	0
55	MG	1A	3712	1/1	0.95	0.11	96,96,96,96	0
55	MG	1A	3297	1/1	0.95	0.14	26,26,26,26	0
55	MG	1A	3299	1/1	0.95	0.08	37,37,37,37	0
55	MG	1D	306	1/1	0.95	0.15	39,39,39,39	0
55	MG	1A	3094	1/1	0.95	0.39	34,34,34,34	0
55	MG	1D	312	1/1	0.95	0.10	45,45,45,45	0
55	MG	1A	3304	1/1	0.95	0.07	14,14,14,14	0
55	MG	1A	3624	1/1	0.95	0.10	53,53,53,53	0
55	MG	1A	3625	1/1	0.95	0.23	44,44,44,44	0
55	MG	1A	3212	1/1	0.95	0.40	39,39,39,39	0
55	MG	2A	3740	1/1	0.95	0.11	78,78,78,78	0
55	MG	1A	3054	1/1	0.95	0.09	41,41,41,41	0
55	MG	2A	3135	1/1	0.95	0.20	71,71,71,71	0
55	MG	2A	3015	1/1	0.95	0.23	46,46,46,46	0
55	MG	2A	3527	1/1	0.95	0.09	37,37,37,37	0
55	MG	2A	3328	1/1	0.95	0.12	63,63,63,63	0
55	MG	2A	3137	1/1	0.95	0.22	58,58,58,58	0
55	MG	1A	3728	1/1	0.95	0.07	53,53,53,53	0
55	MG	2a	1630	1/1	0.95	0.31	52,52,52,52	0
55	MG	1a	1624	1/1	0.95	0.23	53,53,53,53	0
55	MG	1E	303	1/1	0.95	0.23	40,40,40,40	0
55	MG	2A	3535	1/1	0.95	0.08	67,67,67,67	0
55	MG	2A	3760	1/1	0.95	0.07	42,42,42,42	0
55	MG	2A	3021	1/1	0.95	0.09	50,50,50,50	0
55	MG	1A	3250	1/1	0.95	0.18	43,43,43,43	0
55	MG	1a	1733	1/1	0.95	0.07	71,71,71,71	0
55	MG	1A	3309	1/1	0.95	0.06	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3120	1/1	0.95	0.16	54,54,54,54	0
55	MG	2A	3149	1/1	0.95	0.08	58,58,58,58	0
55	MG	1A	3548	1/1	0.95	0.08	47,47,47,47	0
55	MG	2A	3546	1/1	0.95	0.11	43,43,43,43	0
55	MG	1A	3734	1/1	0.95	0.19	29,29,29,29	0
55	MG	2A	3550	1/1	0.95	0.07	75,75,75,75	0
55	MG	2a	1646	1/1	0.95	0.30	60,60,60,60	0
55	MG	2A	3152	1/1	0.95	0.10	66,66,66,66	0
55	MG	1A	3169	1/1	0.95	0.28	37,37,37,37	0
55	MG	1A	3736	1/1	0.95	0.08	20,20,20,20	0
55	MG	2A	3351	1/1	0.95	0.06	69,69,69,69	0
55	MG	2A	3355	1/1	0.95	0.09	58,58,58,58	0
55	MG	1A	3867	1/1	0.95	0.30	45,45,45,45	0
55	MG	2A	3783	1/1	0.95	0.15	93,93,93,93	0
55	MG	2A	3159	1/1	0.95	0.20	53,53,53,53	0
55	MG	2A	3786	1/1	0.95	0.08	66,66,66,66	0
55	MG	2A	3559	1/1	0.95	0.10	51,51,51,51	0
55	MG	2A	3160	1/1	0.95	0.23	52,52,52,52	0
55	MG	2a	1659	1/1	0.95	0.11	74,74,74,74	0
55	MG	1A	3138	1/1	0.95	0.26	57,57,57,57	0
55	MG	1A	3313	1/1	0.95	0.10	39,39,39,39	0
55	MG	1A	3486	1/1	0.95	0.28	43,43,43,43	0
55	MG	2A	3035	1/1	0.95	0.11	53,53,53,53	0
55	MG	2A	3798	1/1	0.95	0.10	81,81,81,81	0
55	MG	2A	3166	1/1	0.95	0.21	54,54,54,54	0
55	MG	2A	3800	1/1	0.95	0.12	27,27,27,27	0
55	MG	2A	3382	1/1	0.95	0.12	61,61,61,61	0
55	MG	2a	1672	1/1	0.95	0.07	59,59,59,59	0
55	MG	2A	3036	1/1	0.95	0.21	38,38,38,38	0
55	MG	2A	3569	1/1	0.95	0.07	56,56,56,56	0
55	MG	1A	3488	1/1	0.95	0.18	64,64,64,64	0
55	MG	2A	3573	1/1	0.95	0.09	73,73,73,73	0
55	MG	1F	315	1/1	0.95	0.06	47,47,47,47	0
55	MG	2A	3807	1/1	0.95	0.30	57,57,57,57	0
55	MG	1A	3646	1/1	0.95	0.07	49,49,49,49	0
55	MG	1A	3750	1/1	0.95	0.09	55,55,55,55	0
55	MG	2A	3577	1/1	0.95	0.09	51,51,51,51	0
55	MG	2A	3578	1/1	0.95	0.07	61,61,61,61	0
55	MG	2a	1685	1/1	0.95	0.14	61,61,61,61	0
55	MG	1A	3314	1/1	0.95	0.09	53,53,53,53	0
55	MG	1A	3880	1/1	0.95	0.07	73,73,73,73	0
55	MG	1A	3490	1/1	0.95	0.20	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1690	1/1	0.95	0.20	64,64,64,64	0
55	MG	2A	3176	1/1	0.95	0.41	43,43,43,43	0
55	MG	1N	8002	1/1	0.95	0.10	61,61,61,61	0
55	MG	1a	1647	1/1	0.95	0.23	50,50,50,50	0
55	MG	1A	3650	1/1	0.95	0.12	45,45,45,45	0
55	MG	1A	3756	1/1	0.95	0.10	38,38,38,38	0
55	MG	2a	1698	1/1	0.95	0.06	67,67,67,67	0
55	MG	2A	3410	1/1	0.95	0.10	59,59,59,59	0
55	MG	2a	1701	1/1	0.95	0.09	72,72,72,72	0
55	MG	2a	1702	1/1	0.95	0.07	60,60,60,60	0
55	MG	1A	3218	1/1	0.95	0.12	53,53,53,53	0
55	MG	1A	3317	1/1	0.95	0.08	38,38,38,38	0
55	MG	2A	3054	1/1	0.95	0.23	54,54,54,54	0
55	MG	2A	3184	1/1	0.95	0.35	57,57,57,57	0
55	MG	2A	3595	1/1	0.95	0.08	52,52,52,52	0
55	MG	2A	3055	1/1	0.95	0.17	56,56,56,56	0
55	MG	1Q	204	1/1	0.95	0.11	51,51,51,51	0
55	MG	2A	3418	1/1	0.95	0.06	44,44,44,44	0
55	MG	2B	3013	1/1	0.95	0.06	77,77,77,77	0
55	MG	1R	201	1/1	0.95	0.09	25,25,25,25	0
55	MG	1R	202	1/1	0.95	0.13	59,59,59,59	0
55	MG	2A	3060	1/1	0.95	0.22	48,48,48,48	0
55	MG	1R	203	1/1	0.95	0.17	51,51,51,51	0
55	MG	1A	3121	1/1	0.95	0.26	31,31,31,31	0
55	MG	1A	3083	1/1	0.95	0.14	50,50,50,50	0
55	MG	2A	3064	1/1	0.95	0.39	54,54,54,54	0
55	MG	1U	202	1/1	0.95	0.24	31,31,31,31	0
55	MG	1A	3022	1/1	0.95	0.20	28,28,28,28	0
55	MG	2a	1722	1/1	0.95	0.10	98,98,98,98	0
55	MG	1U	205	1/1	0.95	0.20	34,34,34,34	0
55	MG	1V	201	1/1	0.95	0.12	30,30,30,30	0
55	MG	2D	308	1/1	0.95	0.07	73,73,73,73	0
55	MG	1A	3415	1/1	0.95	0.06	26,26,26,26	0
55	MG	2A	3206	1/1	0.95	0.07	64,64,64,64	0
55	MG	2A	3207	1/1	0.95	0.12	65,65,65,65	0
55	MG	1A	3146	1/1	0.95	0.07	39,39,39,39	0
55	MG	1W	3002	1/1	0.95	0.15	51,51,51,51	0
55	MG	1A	3176	1/1	0.95	0.17	45,45,45,45	0
55	MG	1A	3431	1/1	0.95	0.30	53,53,53,53	0
55	MG	2A	3216	1/1	0.95	0.06	37,37,37,37	0
55	MG	2A	3628	1/1	0.95	0.13	57,57,57,57	0
55	MG	2F	303	1/1	0.95	0.27	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3344	1/1	0.95	0.16	54,54,54,54	0
55	MG	1A	3015	1/1	0.95	0.24	30,30,30,30	0
55	MG	1A	3178	1/1	0.95	0.26	37,37,37,37	0
55	MG	2A	3446	1/1	0.95	0.09	78,78,78,78	0
55	MG	1a	1670	1/1	0.95	0.32	65,65,65,65	0
55	MG	2F	310	1/1	0.95	0.15	57,57,57,57	0
55	MG	1A	3179	1/1	0.95	0.13	44,44,44,44	0
55	MG	1a	1672	1/1	0.95	0.24	56,56,56,56	0
55	MG	2A	3638	1/1	0.95	0.12	85,85,85,85	0
55	MG	2A	3232	1/1	0.95	0.08	70,70,70,70	0
55	MG	1A	3438	1/1	0.95	0.13	61,61,61,61	0
55	MG	1A	3200	1/1	0.95	0.26	37,37,37,37	0
55	MG	2a	1756	1/1	0.95	0.18	66,66,66,66	0
55	MG	1A	3030	1/1	0.95	0.12	39,39,39,39	0
55	MG	1A	3516	1/1	0.95	0.16	77,77,77,77	0
55	MG	2A	3087	1/1	0.95	0.09	61,61,61,61	0
55	MG	2a	1762	1/1	0.95	0.07	55,55,55,55	0
55	MG	2A	3245	1/1	0.95	0.10	35,35,35,35	0
55	MG	2A	3246	1/1	0.95	0.07	71,71,71,71	0
55	MG	1A	3353	1/1	0.95	0.08	62,62,62,62	0
55	MG	1A	3234	1/1	0.95	0.17	43,43,43,43	0
55	MG	1A	3452	1/1	0.95	0.06	55,55,55,55	0
55	MG	2A	3252	1/1	0.95	0.17	54,54,54,54	0
55	MG	2a	1774	1/1	0.95	0.07	74,74,74,74	0
55	MG	1A	3520	1/1	0.95	0.07	33,33,33,33	0
55	MG	1A	3279	1/1	0.95	0.07	55,55,55,55	0
55	MG	2A	3093	1/1	0.95	0.18	56,56,56,56	0
55	MG	1B	202	1/1	0.95	0.33	66,66,66,66	0
55	MG	2U	204	1/1	0.95	0.30	60,60,60,60	0
55	MG	1A	3601	1/1	0.95	0.09	38,38,38,38	0
55	MG	1a	1820	1/1	0.95	0.12	68,68,68,68	0
55	MG	1A	3280	1/1	0.95	0.09	33,33,33,33	0
55	MG	1a	1687	1/1	0.95	0.18	64,64,64,64	0
55	MG	1A	3820	1/1	0.95	0.12	45,45,45,45	0
55	MG	2a	1795	1/1	0.95	0.10	58,58,58,58	0
55	MG	1A	3823	1/1	0.95	0.11	32,32,32,32	0
55	MG	1A	3824	1/1	0.95	0.14	57,57,57,57	0
55	MG	1a	1697	1/1	0.95	0.07	81,81,81,81	0
55	MG	1A	3202	1/1	0.95	0.18	49,49,49,49	0
55	MG	2A	3268	1/1	0.95	0.07	54,54,54,54	0
55	MG	2A	3106	1/1	0.95	0.12	67,67,67,67	0
55	MG	2A	3679	1/1	0.95	0.08	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1700	1/1	0.95	0.16	64,64,64,64	0
55	MG	1d	505	1/1	0.95	0.06	76,76,76,76	0
55	MG	1A	3605	1/1	0.95	0.06	63,63,63,63	0
55	MG	1A	3524	1/1	0.95	0.14	55,55,55,55	0
55	MG	1a	1705	1/1	0.95	0.13	80,80,80,80	0
55	MG	2m	201	1/1	0.95	0.07	75,75,75,75	0
55	MG	1a	1706	1/1	0.95	0.13	54,54,54,54	0
55	MG	1a	1603	1/1	0.95	0.12	44,44,44,44	0
56	ZN	24	501	1/1	0.95	0.13	132,132,132,132	0
55	MG	2A	3691	1/1	0.95	0.06	75,75,75,75	0
55	MG	1A	3544	1/1	0.96	0.26	30,30,30,30	0
55	MG	1A	3481	1/1	0.96	0.10	35,35,35,35	0
55	MG	1A	3106	1/1	0.96	0.20	34,34,34,34	0
55	MG	2A	3746	1/1	0.96	0.12	73,73,73,73	0
55	MG	1A	3274	1/1	0.96	0.16	8,8,8,8	0
55	MG	2A	3749	1/1	0.96	0.06	81,81,81,81	0
55	MG	1a	1756	1/1	0.96	0.04	76,76,76,76	0
55	MG	2A	3348	1/1	0.96	0.06	59,59,59,59	0
55	MG	1a	1757	1/1	0.96	0.08	70,70,70,70	0
55	MG	2A	3540	1/1	0.96	0.13	70,70,70,70	0
55	MG	2A	3755	1/1	0.96	0.06	63,63,63,63	0
55	MG	1A	3868	1/1	0.96	0.05	27,27,27,27	0
55	MG	1A	3321	1/1	0.96	0.16	49,49,49,49	0
55	MG	2A	3354	1/1	0.96	0.08	41,41,41,41	0
55	MG	2a	1624	1/1	0.96	0.17	49,49,49,49	0
55	MG	1G	3003	1/1	0.96	0.10	49,49,49,49	0
55	MG	1A	3402	1/1	0.96	0.08	62,62,62,62	0
55	MG	2A	3358	1/1	0.96	0.06	59,59,59,59	0
55	MG	1A	3001	1/1	0.96	0.09	38,38,38,38	0
55	MG	2A	3363	1/1	0.96	0.11	43,43,43,43	0
55	MG	1A	3637	1/1	0.96	0.08	45,45,45,45	0
55	MG	1A	3327	1/1	0.96	0.07	43,43,43,43	0
55	MG	1A	3876	1/1	0.96	0.07	61,61,61,61	0
55	MG	1A	3553	1/1	0.96	0.10	47,47,47,47	0
55	MG	2A	3376	1/1	0.96	0.07	89,89,89,89	0
55	MG	1A	3407	1/1	0.96	0.09	58,58,58,58	0
55	MG	1Q	201	1/1	0.96	0.06	51,51,51,51	0
55	MG	1a	1773	1/1	0.96	0.09	75,75,75,75	0
55	MG	2a	1639	1/1	0.96	0.30	50,50,50,50	0
55	MG	1Q	202	1/1	0.96	0.15	51,51,51,51	0
55	MG	1A	3645	1/1	0.96	0.13	35,35,35,35	0
55	MG	1A	3746	1/1	0.96	0.06	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3564	1/1	0.96	0.06	58,58,58,58	0
55	MG	2A	3390	1/1	0.96	0.05	48,48,48,48	0
55	MG	2A	3391	1/1	0.96	0.12	38,38,38,38	0
55	MG	2A	3784	1/1	0.96	0.07	64,64,64,64	0
55	MG	2A	3187	1/1	0.96	0.08	41,41,41,41	0
55	MG	2A	3394	1/1	0.96	0.07	49,49,49,49	0
55	MG	1a	1779	1/1	0.96	0.07	70,70,70,70	0
55	MG	1A	3408	1/1	0.96	0.13	43,43,43,43	0
55	MG	2A	3790	1/1	0.96	0.07	39,39,39,39	0
55	MG	1A	3883	1/1	0.96	0.05	58,58,58,58	0
55	MG	2A	3792	1/1	0.96	0.10	77,77,77,77	0
55	MG	1A	3493	1/1	0.96	0.06	46,46,46,46	0
55	MG	1A	3409	1/1	0.96	0.10	48,48,48,48	0
55	MG	1A	3649	1/1	0.96	0.18	52,52,52,52	0
55	MG	1A	3496	1/1	0.96	0.06	73,73,73,73	0
55	MG	1A	3651	1/1	0.96	0.13	34,34,34,34	0
55	MG	1a	1789	1/1	0.96	0.21	65,65,65,65	0
55	MG	1A	3236	1/1	0.96	0.08	53,53,53,53	0
55	MG	1U	206	1/1	0.96	0.10	51,51,51,51	0
55	MG	2A	3201	1/1	0.96	0.18	50,50,50,50	0
55	MG	1A	3421	1/1	0.96	0.05	23,23,23,23	0
55	MG	2A	3414	1/1	0.96	0.05	77,77,77,77	0
55	MG	2A	3204	1/1	0.96	0.18	58,58,58,58	0
55	MG	2A	3587	1/1	0.96	0.06	63,63,63,63	0
55	MG	1A	3893	1/1	0.96	0.14	66,66,66,66	0
55	MG	2A	3809	1/1	0.96	0.12	45,45,45,45	0
55	MG	1A	3656	1/1	0.96	0.11	57,57,57,57	0
55	MG	1A	3422	1/1	0.96	0.06	68,68,68,68	0
55	MG	2A	3591	1/1	0.96	0.16	56,56,56,56	0
55	MG	1A	3425	1/1	0.96	0.06	46,46,46,46	0
55	MG	1A	3660	1/1	0.96	0.06	35,35,35,35	0
55	MG	1A	3902	1/1	0.96	0.17	25,25,25,25	0
55	MG	2A	3215	1/1	0.96	0.08	42,42,42,42	0
55	MG	2A	3596	1/1	0.96	0.07	63,63,63,63	0
55	MG	1A	3237	1/1	0.96	0.23	42,42,42,42	0
55	MG	2A	3220	1/1	0.96	0.31	49,49,49,49	0
55	MG	1a	1676	1/1	0.96	0.18	57,57,57,57	0
55	MG	2A	3222	1/1	0.96	0.16	56,56,56,56	0
55	MG	2A	3223	1/1	0.96	0.07	68,68,68,68	0
55	MG	2A	3428	1/1	0.96	0.06	68,68,68,68	0
55	MG	1A	3239	1/1	0.96	0.17	50,50,50,50	0
55	MG	10	106	1/1	0.96	0.08	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3046	1/1	0.96	0.09	13,13,13,13	0
55	MG	2A	3094	1/1	0.96	0.45	58,58,58,58	0
55	MG	1A	3066	1/1	0.96	0.12	39,39,39,39	0
55	MG	1A	3089	1/1	0.96	0.09	48,48,48,48	0
55	MG	11	102	1/1	0.96	0.08	57,57,57,57	0
55	MG	2a	1700	1/1	0.96	0.10	85,85,85,85	0
55	MG	1A	3509	1/1	0.96	0.06	31,31,31,31	0
55	MG	2A	3099	1/1	0.96	0.06	52,52,52,52	0
55	MG	1A	3141	1/1	0.96	0.34	35,35,35,35	0
55	MG	2A	3243	1/1	0.96	0.30	55,55,55,55	0
55	MG	2A	3442	1/1	0.96	0.14	62,62,62,62	0
55	MG	1A	3289	1/1	0.96	0.09	33,33,33,33	0
55	MG	1A	3290	1/1	0.96	0.10	52,52,52,52	0
55	MG	1A	3788	1/1	0.96	0.05	28,28,28,28	0
55	MG	1a	1689	1/1	0.96	0.15	61,61,61,61	0
55	MG	1A	3047	1/1	0.96	0.25	45,45,45,45	0
55	MG	2D	306	1/1	0.96	0.12	54,54,54,54	0
55	MG	1A	3068	1/1	0.96	0.23	41,41,41,41	0
55	MG	1A	3024	1/1	0.96	0.20	34,34,34,34	0
55	MG	17	102	1/1	0.96	0.17	37,37,37,37	0
55	MG	1A	3679	1/1	0.96	0.06	46,46,46,46	0
55	MG	2D	311	1/1	0.96	0.09	28,28,28,28	0
55	MG	1A	3591	1/1	0.96	0.06	26,26,26,26	0
55	MG	2D	313	1/1	0.96	0.09	61,61,61,61	0
55	MG	1A	3805	1/1	0.96	0.10	72,72,72,72	0
55	MG	1A	3448	1/1	0.96	0.08	19,19,19,19	0
55	MG	1A	3251	1/1	0.96	0.15	34,34,34,34	0
55	MG	1A	3252	1/1	0.96	0.42	38,38,38,38	0
55	MG	1A	3302	1/1	0.96	0.07	51,51,51,51	0
55	MG	1B	214	1/1	0.96	0.15	50,50,50,50	0
55	MG	1A	3599	1/1	0.96	0.28	46,46,46,46	0
55	MG	1A	3025	1/1	0.96	0.29	32,32,32,32	0
55	MG	1A	3097	1/1	0.96	0.20	42,42,42,42	0
55	MG	1A	3255	1/1	0.96	0.14	41,41,41,41	0
55	MG	1A	3693	1/1	0.96	0.05	38,38,38,38	0
55	MG	2F	308	1/1	0.96	0.19	47,47,47,47	0
55	MG	1A	3694	1/1	0.96	0.08	46,46,46,46	0
55	MG	1A	3170	1/1	0.96	0.17	40,40,40,40	0
55	MG	1A	3698	1/1	0.96	0.07	48,48,48,48	0
55	MG	2A	3472	1/1	0.96	0.08	55,55,55,55	0
55	MG	2A	3283	1/1	0.96	0.07	47,47,47,47	0
55	MG	2a	1739	1/1	0.96	0.06	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3285	1/1	0.96	0.06	46,46,46,46	0
55	MG	2A	3287	1/1	0.96	0.15	57,57,57,57	0
55	MG	1A	3376	1/1	0.96	0.04	13,13,13,13	0
55	MG	2a	1744	1/1	0.96	0.11	77,77,77,77	0
55	MG	2A	3659	1/1	0.96	0.09	73,73,73,73	0
55	MG	1D	303	1/1	0.96	0.32	33,33,33,33	0
55	MG	1A	3308	1/1	0.96	0.09	38,38,38,38	0
55	MG	1A	3528	1/1	0.96	0.08	61,61,61,61	0
55	MG	2A	3480	1/1	0.96	0.07	65,65,65,65	0
55	MG	1A	3704	1/1	0.96	0.09	57,57,57,57	0
55	MG	1D	307	1/1	0.96	0.22	54,54,54,54	0
55	MG	1A	3018	1/1	0.96	0.23	30,30,30,30	0
55	MG	1A	3028	1/1	0.96	0.25	37,37,37,37	0
55	MG	2R	8002	1/1	0.96	0.11	45,45,45,45	0
55	MG	1A	3383	1/1	0.96	0.08	53,53,53,53	0
55	MG	1A	3194	1/1	0.96	0.11	54,54,54,54	0
55	MG	1A	3533	1/1	0.96	0.06	41,41,41,41	0
55	MG	2A	3305	1/1	0.96	0.07	52,52,52,52	0
55	MG	1A	3618	1/1	0.96	0.06	51,51,51,51	0
55	MG	2a	1766	1/1	0.96	0.06	74,74,74,74	0
55	MG	2A	3138	1/1	0.96	0.23	53,53,53,53	0
55	MG	2V	202	1/1	0.96	0.06	57,57,57,57	0
55	MG	2A	3139	1/1	0.96	0.16	51,51,51,51	0
55	MG	2A	3684	1/1	0.96	0.07	61,61,61,61	0
55	MG	2A	3685	1/1	0.96	0.14	55,55,55,55	0
55	MG	2a	1775	1/1	0.96	0.06	74,74,74,74	0
55	MG	2a	1776	1/1	0.96	0.07	85,85,85,85	0
55	MG	1A	3849	1/1	0.96	0.18	86,86,86,86	0
55	MG	1a	1734	1/1	0.96	0.09	77,77,77,77	0
55	MG	1a	1625	1/1	0.96	0.16	61,61,61,61	0
55	MG	2A	3504	1/1	0.96	0.23	58,58,58,58	0
55	MG	1A	3056	1/1	0.96	0.19	47,47,47,47	0
55	MG	1A	3002	1/1	0.96	0.07	55,55,55,55	0
55	MG	1A	3720	1/1	0.96	0.14	64,64,64,64	0
55	MG	1E	306	1/1	0.96	0.13	35,35,35,35	0
55	MG	1A	3128	1/1	0.96	0.08	33,33,33,33	0
55	MG	1A	3857	1/1	0.96	0.13	67,67,67,67	0
55	MG	2A	3704	1/1	0.96	0.10	57,57,57,57	0
55	MG	1A	3858	1/1	0.96	0.08	60,60,60,60	0
55	MG	2A	3323	1/1	0.96	0.09	59,59,59,59	0
55	MG	1a	1743	1/1	0.96	0.07	86,86,86,86	0
55	MG	2A	3034	1/1	0.96	0.21	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3315	1/1	0.96	0.12	74,74,74,74	0
55	MG	2A	3155	1/1	0.96	0.29	42,42,42,42	0
55	MG	2A	3156	1/1	0.96	0.15	58,58,58,58	0
55	MG	1A	3031	1/1	0.96	0.16	27,27,27,27	0
55	MG	2A	3037	1/1	0.96	0.29	48,48,48,48	0
55	MG	28	102	1/1	0.96	0.11	73,73,73,73	0
55	MG	2A	3725	1/1	0.96	0.09	58,58,58,58	0
55	MG	1A	3062	1/1	0.96	0.33	49,49,49,49	0
55	MG	1A	3004	1/1	0.96	0.07	50,50,50,50	0
55	MG	1F	309	1/1	0.96	0.10	25,25,25,25	0
55	MG	1A	3543	1/1	0.96	0.32	39,39,39,39	0
56	ZN	16	101	1/1	0.96	0.07	62,62,62,62	0
56	ZN	19	102	1/1	0.96	0.07	68,68,68,68	0
55	MG	1F	311	1/1	0.96	0.31	62,62,62,62	0
55	MG	2a	1608	1/1	0.96	0.15	46,46,46,46	0
55	MG	2A	3449	1/1	0.97	0.07	34,34,34,34	0
55	MG	1A	3076	1/1	0.97	0.30	43,43,43,43	0
55	MG	1A	3124	1/1	0.97	0.09	35,35,35,35	0
55	MG	1A	3485	1/1	0.97	0.21	56,56,56,56	0
55	MG	1a	1759	1/1	0.97	0.05	78,78,78,78	0
55	MG	2A	3236	1/1	0.97	0.09	65,65,65,65	0
55	MG	2A	3666	1/1	0.97	0.07	63,63,63,63	0
55	MG	2A	3240	1/1	0.97	0.05	50,50,50,50	0
55	MG	1B	221	1/1	0.97	0.13	78,78,78,78	0
55	MG	2A	3078	1/1	0.97	0.07	50,50,50,50	0
55	MG	1A	3792	1/1	0.97	0.11	63,63,63,63	0
55	MG	1a	1626	1/1	0.97	0.06	51,51,51,51	0
55	MG	2A	3081	1/1	0.97	0.12	39,39,39,39	0
55	MG	1A	3061	1/1	0.97	0.07	36,36,36,36	0
55	MG	1A	3261	1/1	0.97	0.05	17,17,17,17	0
55	MG	1A	3127	1/1	0.97	0.09	36,36,36,36	0
55	MG	1D	301	1/1	0.97	0.34	38,38,38,38	0
55	MG	1a	1768	1/1	0.97	0.06	79,79,79,79	0
55	MG	1D	302	1/1	0.97	0.13	28,28,28,28	0
55	MG	1A	3800	1/1	0.97	0.05	65,65,65,65	0
55	MG	1A	3804	1/1	0.97	0.08	71,71,71,71	0
55	MG	1A	3399	1/1	0.97	0.06	65,65,65,65	0
55	MG	2A	3257	1/1	0.97	0.06	49,49,49,49	0
55	MG	1A	3491	1/1	0.97	0.06	42,42,42,42	0
55	MG	1A	3807	1/1	0.97	0.08	17,17,17,17	0
55	MG	1D	308	1/1	0.97	0.18	44,44,44,44	0
55	MG	2A	3692	1/1	0.97	0.04	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1777	1/1	0.97	0.10	91,91,91,91	0
55	MG	1A	3573	1/1	0.97	0.24	21,21,21,21	0
55	MG	1a	1780	1/1	0.97	0.04	73,73,73,73	0
55	MG	1A	3221	1/1	0.97	0.38	32,32,32,32	0
55	MG	2A	3702	1/1	0.97	0.08	38,38,38,38	0
55	MG	1D	313	1/1	0.97	0.16	22,22,22,22	0
55	MG	1D	314	1/1	0.97	0.08	46,46,46,46	0
55	MG	1D	315	1/1	0.97	0.11	31,31,31,31	0
55	MG	1A	3016	1/1	0.97	0.25	18,18,18,18	0
55	MG	1A	3494	1/1	0.97	0.04	48,48,48,48	0
55	MG	1A	3677	1/1	0.97	0.09	38,38,38,38	0
55	MG	1A	3223	1/1	0.97	0.04	72,72,72,72	0
55	MG	2A	3716	1/1	0.97	0.16	85,85,85,85	0
55	MG	2A	3492	1/1	0.97	0.12	46,46,46,46	0
55	MG	1A	3048	1/1	0.97	0.12	29,29,29,29	0
55	MG	1A	3268	1/1	0.97	0.06	22,22,22,22	0
55	MG	2a	1626	1/1	0.97	0.07	54,54,54,54	0
55	MG	1A	3049	1/1	0.97	0.34	36,36,36,36	0
55	MG	1A	3831	1/1	0.97	0.08	43,43,43,43	0
55	MG	2A	3726	1/1	0.97	0.05	38,38,38,38	0
55	MG	1a	1797	1/1	0.97	0.06	82,82,82,82	0
55	MG	1A	3832	1/1	0.97	0.07	72,72,72,72	0
55	MG	2A	3731	1/1	0.97	0.11	65,65,65,65	0
55	MG	1A	3833	1/1	0.97	0.10	70,70,70,70	0
55	MG	1A	3581	1/1	0.97	0.12	39,39,39,39	0
55	MG	2A	3736	1/1	0.97	0.10	88,88,88,88	0
55	MG	1A	3324	1/1	0.97	0.04	24,24,24,24	0
55	MG	1A	3586	1/1	0.97	0.20	60,60,60,60	0
55	MG	1A	3082	1/1	0.97	0.46	47,47,47,47	0
55	MG	1A	3329	1/1	0.97	0.05	30,30,30,30	0
55	MG	2A	3744	1/1	0.97	0.20	72,72,72,72	0
55	MG	1A	3418	1/1	0.97	0.06	34,34,34,34	0
55	MG	2A	3747	1/1	0.97	0.08	78,78,78,78	0
55	MG	2A	3304	1/1	0.97	0.10	41,41,41,41	0
55	MG	1F	308	1/1	0.97	0.08	35,35,35,35	0
55	MG	2A	3306	1/1	0.97	0.17	62,62,62,62	0
55	MG	1A	3334	1/1	0.97	0.04	27,27,27,27	0
55	MG	1A	3506	1/1	0.97	0.09	51,51,51,51	0
55	MG	2A	3515	1/1	0.97	0.06	50,50,50,50	0
55	MG	2A	3754	1/1	0.97	0.12	85,85,85,85	0
55	MG	2A	3516	1/1	0.97	0.06	59,59,59,59	0
55	MG	2A	3310	1/1	0.97	0.07	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3844	1/1	0.97	0.05	25,25,25,25	0
55	MG	1A	3275	1/1	0.97	0.08	38,38,38,38	0
55	MG	2A	3123	1/1	0.97	0.11	52,52,52,52	0
55	MG	2A	3314	1/1	0.97	0.07	40,40,40,40	0
55	MG	2A	3523	1/1	0.97	0.11	65,65,65,65	0
55	MG	2a	1657	1/1	0.97	0.12	58,58,58,58	0
55	MG	1A	3423	1/1	0.97	0.09	23,23,23,23	0
55	MG	1A	3012	1/1	0.97	0.15	30,30,30,30	0
55	MG	1A	3084	1/1	0.97	0.11	43,43,43,43	0
55	MG	2A	3766	1/1	0.97	0.12	78,78,78,78	0
55	MG	2A	3767	1/1	0.97	0.05	69,69,69,69	0
55	MG	2A	3528	1/1	0.97	0.06	67,67,67,67	0
55	MG	1A	3429	1/1	0.97	0.06	41,41,41,41	0
55	MG	2A	3770	1/1	0.97	0.05	74,74,74,74	0
55	MG	1A	3852	1/1	0.97	0.23	22,22,22,22	0
55	MG	2A	3531	1/1	0.97	0.05	78,78,78,78	0
55	MG	2a	1671	1/1	0.97	0.05	75,75,75,75	0
55	MG	1A	3703	1/1	0.97	0.13	42,42,42,42	0
55	MG	1A	3278	1/1	0.97	0.07	33,33,33,33	0
55	MG	1A	3107	1/1	0.97	0.11	25,25,25,25	0
55	MG	1d	506	1/1	0.97	0.08	86,86,86,86	0
55	MG	1A	3108	1/1	0.97	0.05	32,32,32,32	0
55	MG	1A	3434	1/1	0.97	0.06	46,46,46,46	0
55	MG	2A	3538	1/1	0.97	0.09	73,73,73,73	0
55	MG	1A	3233	1/1	0.97	0.06	49,49,49,49	0
55	MG	1N	8004	1/1	0.97	0.14	71,71,71,71	0
55	MG	1A	3086	1/1	0.97	0.11	55,55,55,55	0
55	MG	1A	3355	1/1	0.97	0.08	22,22,22,22	0
55	MG	1A	3611	1/1	0.97	0.05	81,81,81,81	0
55	MG	1A	3715	1/1	0.97	0.07	51,51,51,51	0
55	MG	2a	1687	1/1	0.97	0.05	58,58,58,58	0
55	MG	1a	1680	1/1	0.97	0.10	54,54,54,54	0
55	MG	2A	3789	1/1	0.97	0.05	68,68,68,68	0
55	MG	1A	3139	1/1	0.97	0.06	38,38,38,38	0
55	MG	2A	3143	1/1	0.97	0.11	59,59,59,59	0
55	MG	1A	3718	1/1	0.97	0.08	46,46,46,46	0
55	MG	1A	3719	1/1	0.97	0.06	70,70,70,70	0
55	MG	2a	1695	1/1	0.97	0.05	78,78,78,78	0
55	MG	2A	3794	1/1	0.97	0.09	70,70,70,70	0
55	MG	2A	3341	1/1	0.97	0.04	75,75,75,75	0
55	MG	1A	3615	1/1	0.97	0.06	50,50,50,50	0
55	MG	1A	3439	1/1	0.97	0.07	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3003	1/1	0.97	0.04	35,35,35,35	0
55	MG	1A	3358	1/1	0.97	0.04	24,24,24,24	0
55	MG	1R	205	1/1	0.97	0.34	46,46,46,46	0
55	MG	1A	3140	1/1	0.97	0.15	38,38,38,38	0
55	MG	1A	3362	1/1	0.97	0.16	42,42,42,42	0
55	MG	1a	1690	1/1	0.97	0.09	52,52,52,52	0
55	MG	1A	3525	1/1	0.97	0.07	27,27,27,27	0
55	MG	1A	3008	1/1	0.97	0.15	48,48,48,48	0
55	MG	1A	3727	1/1	0.97	0.08	48,48,48,48	0
55	MG	2A	3012	1/1	0.97	0.07	42,42,42,42	0
55	MG	1A	3003	1/1	0.97	0.03	20,20,20,20	0
55	MG	2A	3360	1/1	0.97	0.11	58,58,58,58	0
55	MG	1a	1699	1/1	0.97	0.13	59,59,59,59	0
55	MG	1A	3042	1/1	0.97	0.15	32,32,32,32	0
55	MG	2A	3571	1/1	0.97	0.04	47,47,47,47	0
55	MG	2A	3572	1/1	0.97	0.08	51,51,51,51	0
55	MG	2A	3016	1/1	0.97	0.29	50,50,50,50	0
55	MG	2A	3817	1/1	0.97	0.46	56,56,56,56	0
55	MG	2A	3372	1/1	0.97	0.06	54,54,54,54	0
55	MG	1A	3020	1/1	0.97	0.23	38,38,38,38	0
55	MG	1A	3370	1/1	0.97	0.09	26,26,26,26	0
55	MG	1A	3456	1/1	0.97	0.09	49,49,49,49	0
55	MG	2A	3020	1/1	0.97	0.04	42,42,42,42	0
55	MG	2A	3379	1/1	0.97	0.06	76,76,76,76	0
55	MG	1A	3092	1/1	0.97	0.18	33,33,33,33	0
55	MG	2A	3581	1/1	0.97	0.08	73,73,73,73	0
55	MG	2a	1727	1/1	0.97	0.07	81,81,81,81	0
55	MG	1A	3458	1/1	0.97	0.08	20,20,20,20	0
55	MG	1A	3298	1/1	0.97	0.07	49,49,49,49	0
55	MG	2A	3171	1/1	0.97	0.24	45,45,45,45	0
55	MG	1A	3204	1/1	0.97	0.15	43,43,43,43	0
55	MG	2A	3388	1/1	0.97	0.05	47,47,47,47	0
55	MG	1A	3739	1/1	0.97	0.06	19,19,19,19	0
55	MG	1A	3300	1/1	0.97	0.05	43,43,43,43	0
55	MG	1A	3465	1/1	0.97	0.09	28,28,28,28	0
55	MG	1A	3205	1/1	0.97	0.19	34,34,34,34	0
55	MG	1A	3745	1/1	0.97	0.12	30,30,30,30	0
55	MG	1A	3206	1/1	0.97	0.11	42,42,42,42	0
55	MG	1A	3377	1/1	0.97	0.07	47,47,47,47	0
55	MG	2a	1741	1/1	0.97	0.09	61,61,61,61	0
55	MG	13	102	1/1	0.97	0.17	42,42,42,42	0
55	MG	2A	3401	1/1	0.97	0.06	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3402	1/1	0.97	0.05	80,80,80,80	0
55	MG	2A	3597	1/1	0.97	0.05	47,47,47,47	0
55	MG	2a	1746	1/1	0.97	0.10	84,84,84,84	0
55	MG	2a	1747	1/1	0.97	0.06	85,85,85,85	0
55	MG	2A	3404	1/1	0.97	0.05	47,47,47,47	0
55	MG	1A	3896	1/1	0.97	0.23	38,38,38,38	0
55	MG	1A	3749	1/1	0.97	0.06	50,50,50,50	0
55	MG	1A	3639	1/1	0.97	0.18	30,30,30,30	0
55	MG	15	104	1/1	0.97	0.10	39,39,39,39	0
55	MG	1A	3640	1/1	0.97	0.24	37,37,37,37	0
55	MG	2A	3038	1/1	0.97	0.11	54,54,54,54	0
55	MG	1A	3641	1/1	0.97	0.05	41,41,41,41	0
55	MG	1A	3057	1/1	0.97	0.10	26,26,26,26	0
55	MG	2a	1758	1/1	0.97	0.05	86,86,86,86	0
55	MG	1A	3045	1/1	0.97	0.13	37,37,37,37	0
55	MG	1A	3471	1/1	0.97	0.06	67,67,67,67	0
55	MG	2a	1761	1/1	0.97	0.06	60,60,60,60	0
55	MG	1A	3380	1/1	0.97	0.12	49,49,49,49	0
55	MG	2E	305	1/1	0.97	0.10	52,52,52,52	0
55	MG	1A	3381	1/1	0.97	0.04	23,23,23,23	0
55	MG	1A	3118	1/1	0.97	0.12	39,39,39,39	0
55	MG	1A	3911	1/1	0.97	0.20	33,33,33,33	0
55	MG	1A	3210	1/1	0.97	0.38	42,42,42,42	0
55	MG	2A	3620	1/1	0.97	0.06	40,40,40,40	0
55	MG	1A	3762	1/1	0.97	0.07	19,19,19,19	0
55	MG	2a	1772	1/1	0.97	0.07	91,91,91,91	0
55	MG	2A	3198	1/1	0.97	0.10	19,19,19,19	0
55	MG	1A	3914	1/1	0.97	0.10	68,68,68,68	0
55	MG	1A	3007	1/1	0.97	0.05	38,38,38,38	0
55	MG	1A	3916	1/1	0.97	0.38	49,49,49,49	0
55	MG	1A	3764	1/1	0.97	0.06	41,41,41,41	0
55	MG	1A	3765	1/1	0.97	0.12	46,46,46,46	0
55	MG	1A	3551	1/1	0.97	0.08	36,36,36,36	0
55	MG	1A	3768	1/1	0.97	0.05	58,58,58,58	0
55	MG	1A	3478	1/1	0.97	0.08	33,33,33,33	0
55	MG	1A	3653	1/1	0.97	0.05	42,42,42,42	0
55	MG	1A	3096	1/1	0.97	0.32	33,33,33,33	0
55	MG	2A	3432	1/1	0.97	0.05	58,58,58,58	0
55	MG	2a	1793	1/1	0.97	0.08	74,74,74,74	0
55	MG	2A	3212	1/1	0.97	0.05	36,36,36,36	0
55	MG	2A	3636	1/1	0.97	0.05	67,67,67,67	0
55	MG	2A	3637	1/1	0.97	0.05	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3213	1/1	0.97	0.06	36,36,36,36	0
55	MG	1A	3775	1/1	0.97	0.04	47,47,47,47	0
55	MG	1a	1613	1/1	0.97	0.13	28,28,28,28	0
55	MG	2A	3437	1/1	0.97	0.06	75,75,75,75	0
55	MG	2Q	207	1/1	0.97	0.12	57,57,57,57	0
55	MG	1a	1748	1/1	0.97	0.04	73,73,73,73	0
55	MG	2A	3218	1/1	0.97	0.19	23,23,23,23	0
55	MG	1A	3554	1/1	0.97	0.06	15,15,15,15	0
55	MG	2A	3645	1/1	0.97	0.07	64,64,64,64	0
55	MG	1A	3181	1/1	0.97	0.26	43,43,43,43	0
55	MG	1B	210	1/1	0.97	0.04	59,59,59,59	0
55	MG	2A	3443	1/1	0.97	0.06	33,33,33,33	0
55	MG	1A	3060	1/1	0.97	0.16	38,38,38,38	0
55	MG	2A	3651	1/1	0.97	0.14	56,56,56,56	0
55	MG	1A	3390	1/1	0.97	0.07	45,45,45,45	0
55	MG	1A	3783	1/1	0.97	0.04	44,44,44,44	0
55	MG	2A	3071	1/1	0.97	0.11	38,38,38,38	0
56	ZN	2n	501	1/1	0.97	0.07	94,94,94,94	0
55	MG	1A	3661	1/1	0.97	0.10	55,55,55,55	0
55	MG	1B	204	1/1	0.98	0.07	54,54,54,54	0
55	MG	2A	3276	1/1	0.98	0.04	61,61,61,61	0
55	MG	2A	3277	1/1	0.98	0.06	54,54,54,54	0
55	MG	1A	3342	1/1	0.98	0.05	29,29,29,29	0
55	MG	2A	3039	1/1	0.98	0.05	25,25,25,25	0
55	MG	1A	3830	1/1	0.98	0.05	51,51,51,51	0
55	MG	1A	3453	1/1	0.98	0.08	51,51,51,51	0
55	MG	1A	3391	1/1	0.98	0.05	62,62,62,62	0
55	MG	1A	3113	1/1	0.98	0.12	26,26,26,26	0
55	MG	2A	3044	1/1	0.98	0.15	38,38,38,38	0
55	MG	1a	1772	1/1	0.98	0.09	54,54,54,54	0
55	MG	2A	3153	1/1	0.98	0.04	51,51,51,51	0
55	MG	1A	3511	1/1	0.98	0.08	25,25,25,25	0
55	MG	1A	3129	1/1	0.98	0.11	33,33,33,33	0
55	MG	2A	3296	1/1	0.98	0.05	60,60,60,60	0
55	MG	1A	3069	1/1	0.98	0.21	34,34,34,34	0
55	MG	2A	3298	1/1	0.98	0.04	37,37,37,37	0
55	MG	1A	3837	1/1	0.98	0.08	78,78,78,78	0
55	MG	1A	3395	1/1	0.98	0.04	68,68,68,68	0
55	MG	2A	3451	1/1	0.98	0.06	55,55,55,55	0
55	MG	1B	217	1/1	0.98	0.05	49,49,49,49	0
55	MG	13	101	1/1	0.98	0.20	35,35,35,35	0
55	MG	2A	3796	1/1	0.98	0.05	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3459	1/1	0.98	0.08	65,65,65,65	0
55	MG	1A	3070	1/1	0.98	0.06	37,37,37,37	0
55	MG	1A	3211	1/1	0.98	0.16	41,41,41,41	0
55	MG	2A	3609	1/1	0.98	0.05	36,36,36,36	0
55	MG	2A	3164	1/1	0.98	0.24	41,41,41,41	0
55	MG	2A	3056	1/1	0.98	0.13	47,47,47,47	0
55	MG	1A	3009	1/1	0.98	0.09	32,32,32,32	0
55	MG	1A	3303	1/1	0.98	0.04	16,16,16,16	0
55	MG	2A	3616	1/1	0.98	0.06	57,57,57,57	0
55	MG	2A	3617	1/1	0.98	0.04	35,35,35,35	0
55	MG	2a	1661	1/1	0.98	0.19	61,61,61,61	0
55	MG	1A	3582	1/1	0.98	0.12	40,40,40,40	0
55	MG	1A	3654	1/1	0.98	0.11	40,40,40,40	0
55	MG	1A	3081	1/1	0.98	0.22	41,41,41,41	0
55	MG	1A	3584	1/1	0.98	0.06	48,48,48,48	0
55	MG	2A	3465	1/1	0.98	0.09	34,34,34,34	0
55	MG	1a	1791	1/1	0.98	0.06	73,73,73,73	0
55	MG	2a	1669	1/1	0.98	0.05	49,49,49,49	0
55	MG	1A	3266	1/1	0.98	0.08	34,34,34,34	0
55	MG	2A	3468	1/1	0.98	0.04	64,64,64,64	0
55	MG	1A	3850	1/1	0.98	0.07	23,23,23,23	0
55	MG	17	105	1/1	0.98	0.05	55,55,55,55	0
55	MG	1A	3238	1/1	0.98	0.07	37,37,37,37	0
55	MG	1A	3588	1/1	0.98	0.11	41,41,41,41	0
55	MG	1a	1799	1/1	0.98	0.04	57,57,57,57	0
55	MG	1A	3589	1/1	0.98	0.05	28,28,28,28	0
55	MG	1a	1694	1/1	0.98	0.04	68,68,68,68	0
55	MG	2a	1679	1/1	0.98	0.04	63,63,63,63	0
55	MG	1a	1802	1/1	0.98	0.09	80,80,80,80	0
55	MG	1a	1695	1/1	0.98	0.04	47,47,47,47	0
55	MG	1a	1808	1/1	0.98	0.08	77,77,77,77	0
55	MG	1A	3405	1/1	0.98	0.05	59,59,59,59	0
55	MG	1a	1810	1/1	0.98	0.07	56,56,56,56	0
55	MG	1A	3214	1/1	0.98	0.30	33,33,33,33	0
55	MG	1A	3592	1/1	0.98	0.06	27,27,27,27	0
55	MG	2A	3483	1/1	0.98	0.24	44,44,44,44	0
55	MG	1a	1813	1/1	0.98	0.04	56,56,56,56	0
55	MG	2A	3189	1/1	0.98	0.10	53,53,53,53	0
55	MG	1D	311	1/1	0.98	0.13	42,42,42,42	0
55	MG	2a	1692	1/1	0.98	0.11	60,60,60,60	0
55	MG	1A	3269	1/1	0.98	0.04	26,26,26,26	0
55	MG	2A	3339	1/1	0.98	0.06	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3490	1/1	0.98	0.06	56,56,56,56	0
55	MG	2A	3648	1/1	0.98	0.04	39,39,39,39	0
55	MG	1a	1817	1/1	0.98	0.08	96,96,96,96	0
55	MG	1A	3105	1/1	0.98	0.10	35,35,35,35	0
55	MG	2A	3495	1/1	0.98	0.04	51,51,51,51	0
55	MG	1a	1702	1/1	0.98	0.04	46,46,46,46	0
55	MG	2A	3498	1/1	0.98	0.05	68,68,68,68	0
55	MG	1A	3153	1/1	0.98	0.31	36,36,36,36	0
55	MG	1A	3154	1/1	0.98	0.29	31,31,31,31	0
55	MG	2A	3345	1/1	0.98	0.05	78,78,78,78	0
55	MG	1A	3475	1/1	0.98	0.10	25,25,25,25	0
55	MG	1A	3416	1/1	0.98	0.05	31,31,31,31	0
55	MG	1A	3673	1/1	0.98	0.04	29,29,29,29	0
55	MG	1A	3417	1/1	0.98	0.06	37,37,37,37	0
55	MG	2A	3663	1/1	0.98	0.07	53,53,53,53	0
55	MG	1a	1711	1/1	0.98	0.06	54,54,54,54	0
55	MG	2A	3202	1/1	0.98	0.07	59,59,59,59	0
55	MG	2A	3667	1/1	0.98	0.06	64,64,64,64	0
55	MG	1A	3244	1/1	0.98	0.09	49,49,49,49	0
55	MG	2a	1714	1/1	0.98	0.13	81,81,81,81	0
55	MG	1E	301	1/1	0.98	0.04	17,17,17,17	0
55	MG	1A	3368	1/1	0.98	0.06	47,47,47,47	0
55	MG	1A	3604	1/1	0.98	0.04	59,59,59,59	0
55	MG	1A	3029	1/1	0.98	0.04	39,39,39,39	0
55	MG	2A	3361	1/1	0.98	0.09	53,53,53,53	0
55	MG	1A	3043	1/1	0.98	0.12	13,13,13,13	0
55	MG	2A	3677	1/1	0.98	0.10	48,48,48,48	0
55	MG	2A	3210	1/1	0.98	0.07	44,44,44,44	0
55	MG	2A	3366	1/1	0.98	0.09	35,35,35,35	0
55	MG	2A	3680	1/1	0.98	0.07	63,63,63,63	0
55	MG	2A	3368	1/1	0.98	0.07	63,63,63,63	0
55	MG	1A	3157	1/1	0.98	0.06	33,33,33,33	0
55	MG	1A	3050	1/1	0.98	0.15	37,37,37,37	0
55	MG	1A	3538	1/1	0.98	0.09	22,22,22,22	0
55	MG	2A	3521	1/1	0.98	0.12	74,74,74,74	0
55	MG	1A	3122	1/1	0.98	0.39	27,27,27,27	0
55	MG	2A	3375	1/1	0.98	0.04	31,31,31,31	0
55	MG	2A	3524	1/1	0.98	0.05	47,47,47,47	0
55	MG	2a	1733	1/1	0.98	0.05	73,73,73,73	0
55	MG	1A	3770	1/1	0.98	0.08	64,64,64,64	0
55	MG	2A	3377	1/1	0.98	0.06	54,54,54,54	0
55	MG	1A	3085	1/1	0.98	0.17	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3005	1/1	0.98	0.12	22,22,22,22	0
55	MG	2Q	203	1/1	0.98	0.10	77,77,77,77	0
55	MG	1A	3542	1/1	0.98	0.18	37,37,37,37	0
55	MG	2A	3381	1/1	0.98	0.06	66,66,66,66	0
55	MG	2A	3699	1/1	0.98	0.05	37,37,37,37	0
55	MG	1A	3487	1/1	0.98	0.04	32,32,32,32	0
55	MG	2A	3384	1/1	0.98	0.05	37,37,37,37	0
55	MG	1A	3692	1/1	0.98	0.04	40,40,40,40	0
55	MG	1A	3432	1/1	0.98	0.07	14,14,14,14	0
55	MG	1A	3125	1/1	0.98	0.10	30,30,30,30	0
55	MG	1A	3695	1/1	0.98	0.07	33,33,33,33	0
55	MG	2a	1748	1/1	0.98	0.06	72,72,72,72	0
55	MG	1A	3288	1/1	0.98	0.06	62,62,62,62	0
55	MG	1A	3889	1/1	0.98	0.09	55,55,55,55	0
55	MG	2A	3392	1/1	0.98	0.05	55,55,55,55	0
55	MG	1A	3023	1/1	0.98	0.09	21,21,21,21	0
55	MG	1A	3699	1/1	0.98	0.06	27,27,27,27	0
55	MG	2A	3718	1/1	0.98	0.09	78,78,78,78	0
55	MG	2A	3233	1/1	0.98	0.09	48,48,48,48	0
55	MG	2A	3543	1/1	0.98	0.05	85,85,85,85	0
55	MG	2A	3396	1/1	0.98	0.06	64,64,64,64	0
55	MG	2A	3722	1/1	0.98	0.04	69,69,69,69	0
55	MG	2X	103	1/1	0.98	0.08	58,58,58,58	0
55	MG	2A	3723	1/1	0.98	0.07	70,70,70,70	0
55	MG	1A	3323	1/1	0.98	0.07	29,29,29,29	0
55	MG	2A	3398	1/1	0.98	0.05	45,45,45,45	0
55	MG	2A	3547	1/1	0.98	0.06	67,67,67,67	0
55	MG	20	105	1/1	0.98	0.06	68,68,68,68	0
55	MG	2a	1765	1/1	0.98	0.18	77,77,77,77	0
55	MG	2A	3548	1/1	0.98	0.04	72,72,72,72	0
55	MG	1A	3790	1/1	0.98	0.12	38,38,38,38	0
55	MG	1A	3144	1/1	0.98	0.09	33,33,33,33	0
55	MG	2A	3733	1/1	0.98	0.08	65,65,65,65	0
55	MG	2A	3239	1/1	0.98	0.05	38,38,38,38	0
55	MG	1A	3325	1/1	0.98	0.04	22,22,22,22	0
55	MG	2a	1773	1/1	0.98	0.06	65,65,65,65	0
55	MG	2A	3737	1/1	0.98	0.10	79,79,79,79	0
55	MG	2A	3403	1/1	0.98	0.05	67,67,67,67	0
55	MG	1A	3326	1/1	0.98	0.04	28,28,28,28	0
55	MG	1A	3440	1/1	0.98	0.05	54,54,54,54	0
55	MG	1A	3795	1/1	0.98	0.09	48,48,48,48	0
55	MG	2A	3743	1/1	0.98	0.05	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1782	1/1	0.98	0.06	59,59,59,59	0
55	MG	2a	1783	1/1	0.98	0.07	87,87,87,87	0
55	MG	2A	3557	1/1	0.98	0.04	55,55,55,55	0
55	MG	1A	3901	1/1	0.98	0.32	35,35,35,35	0
55	MG	2a	1787	1/1	0.98	0.10	83,83,83,83	0
55	MG	1P	202	1/1	0.98	0.21	30,30,30,30	0
55	MG	1A	3441	1/1	0.98	0.04	21,21,21,21	0
55	MG	2A	3247	1/1	0.98	0.08	38,38,38,38	0
55	MG	2a	1604	1/1	0.98	0.05	53,53,53,53	0
55	MG	2a	1792	1/1	0.98	0.10	56,56,56,56	0
55	MG	1A	3903	1/1	0.98	0.04	34,34,34,34	0
55	MG	1A	3040	1/1	0.98	0.15	40,40,40,40	0
55	MG	1A	3803	1/1	0.98	0.16	78,78,78,78	0
55	MG	2A	3251	1/1	0.98	0.06	52,52,52,52	0
55	MG	1A	3707	1/1	0.98	0.07	55,55,55,55	0
55	MG	2d	502	1/1	0.98	0.07	70,70,70,70	0
55	MG	1A	3328	1/1	0.98	0.04	40,40,40,40	0
55	MG	1A	3293	1/1	0.98	0.03	19,19,19,19	0
55	MG	2a	1612	1/1	0.98	0.08	50,50,50,50	0
55	MG	1A	3710	1/1	0.98	0.12	35,35,35,35	0
55	MG	1A	3809	1/1	0.98	0.04	35,35,35,35	0
55	MG	1A	3812	1/1	0.98	0.05	32,32,32,32	0
55	MG	1A	3447	1/1	0.98	0.06	24,24,24,24	0
55	MG	2A	3761	1/1	0.98	0.06	38,38,38,38	0
55	MG	1A	3503	1/1	0.98	0.06	42,42,42,42	0
55	MG	1U	203	1/1	0.98	0.15	28,28,28,28	0
55	MG	2A	3261	1/1	0.98	0.08	52,52,52,52	0
55	MG	1A	3634	1/1	0.98	0.04	44,44,44,44	0
55	MG	1A	3714	1/1	0.98	0.04	80,80,80,80	0
56	ZN	14	501	1/1	0.98	0.06	149,149,149,149	0
55	MG	1A	3635	1/1	0.98	0.16	29,29,29,29	0
55	MG	1A	3230	1/1	0.98	0.53	35,35,35,35	0
56	ZN	1n	102	1/1	0.98	0.04	85,85,85,85	0
56	ZN	2Y	501	1/1	0.98	0.04	91,91,91,91	0
55	MG	1A	3825	1/1	0.98	0.08	67,67,67,67	0
56	ZN	29	501	1/1	0.98	0.03	77,77,77,77	0
55	MG	1A	3449	1/1	0.98	0.04	41,41,41,41	0
57	SF4	1d	501	8/8	0.98	0.06	65,73,78,86	0
57	SF4	2d	501	8/8	0.98	0.04	67,72,87,89	0
55	MG	1A	3338	1/1	0.98	0.04	24,24,24,24	0
55	MG	1A	3785	1/1	0.99	0.03	24,24,24,24	0
55	MG	2A	3284	1/1	0.99	0.03	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3249	1/1	0.99	0.13	10,10,10,10	0
55	MG	2A	3286	1/1	0.99	0.02	37,37,37,37	0
55	MG	1A	3884	1/1	0.99	0.03	22,22,22,22	0
55	MG	2A	3779	1/1	0.99	0.06	36,36,36,36	0
55	MG	2A	3780	1/1	0.99	0.03	54,54,54,54	0
55	MG	1A	3787	1/1	0.99	0.04	48,48,48,48	0
55	MG	2A	3289	1/1	0.99	0.05	40,40,40,40	0
55	MG	1A	3350	1/1	0.99	0.04	26,26,26,26	0
55	MG	2A	3601	1/1	0.99	0.03	59,59,59,59	0
55	MG	1A	3027	1/1	0.99	0.12	31,31,31,31	0
55	MG	1A	3352	1/1	0.99	0.03	34,34,34,34	0
55	MG	1A	3292	1/1	0.99	0.03	34,34,34,34	0
55	MG	1A	3091	1/1	0.99	0.16	17,17,17,17	0
55	MG	1A	3643	1/1	0.99	0.03	22,22,22,22	0
55	MG	1A	3356	1/1	0.99	0.04	23,23,23,23	0
55	MG	1A	3585	1/1	0.99	0.04	49,49,49,49	0
55	MG	1A	3894	1/1	0.99	0.05	87,87,87,87	0
55	MG	2A	3300	1/1	0.99	0.06	42,42,42,42	0
55	MG	1A	3797	1/1	0.99	0.03	50,50,50,50	0
55	MG	1a	1763	1/1	0.99	0.04	72,72,72,72	0
55	MG	2A	3613	1/1	0.99	0.03	57,57,57,57	0
55	MG	2A	3614	1/1	0.99	0.03	56,56,56,56	0
55	MG	1A	3798	1/1	0.99	0.03	46,46,46,46	0
55	MG	1A	3897	1/1	0.99	0.10	11,11,11,11	0
55	MG	1A	3134	1/1	0.99	0.04	40,40,40,40	0
55	MG	1A	3295	1/1	0.99	0.03	11,11,11,11	0
55	MG	1A	3296	1/1	0.99	0.04	31,31,31,31	0
55	MG	1A	3716	1/1	0.99	0.03	31,31,31,31	0
55	MG	2A	3309	1/1	0.99	0.03	44,44,44,44	0
55	MG	2a	1668	1/1	0.99	0.04	49,49,49,49	0
55	MG	1A	3360	1/1	0.99	0.05	25,25,25,25	0
55	MG	1A	3361	1/1	0.99	0.03	28,28,28,28	0
55	MG	1A	3397	1/1	0.99	0.05	17,17,17,17	0
55	MG	2A	3625	1/1	0.99	0.05	67,67,67,67	0
55	MG	1A	3905	1/1	0.99	0.04	58,58,58,58	0
55	MG	1A	3808	1/1	0.99	0.07	19,19,19,19	0
55	MG	1A	3224	1/1	0.99	0.04	35,35,35,35	0
55	MG	1A	3810	1/1	0.99	0.05	63,63,63,63	0
55	MG	1A	3811	1/1	0.99	0.05	35,35,35,35	0
55	MG	1a	1778	1/1	0.99	0.02	75,75,75,75	0
55	MG	1A	3593	1/1	0.99	0.06	63,63,63,63	0
55	MG	2a	1680	1/1	0.99	0.04	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3813	1/1	0.99	0.02	22,22,22,22	0
55	MG	1A	3330	1/1	0.99	0.02	31,31,31,31	0
55	MG	1V	202	1/1	0.99	0.08	27,27,27,27	0
55	MG	1A	3815	1/1	0.99	0.07	25,25,25,25	0
55	MG	2A	3324	1/1	0.99	0.04	37,37,37,37	0
55	MG	1A	3445	1/1	0.99	0.04	24,24,24,24	0
55	MG	1A	3817	1/1	0.99	0.09	21,21,21,21	0
55	MG	1X	8001	1/1	0.99	0.04	27,27,27,27	0
55	MG	1Y	502	1/1	0.99	0.09	68,68,68,68	0
55	MG	1a	1788	1/1	0.99	0.04	82,82,82,82	0
55	MG	2A	3330	1/1	0.99	0.02	45,45,45,45	0
55	MG	1A	3818	1/1	0.99	0.09	52,52,52,52	0
55	MG	1A	3331	1/1	0.99	0.03	23,23,23,23	0
55	MG	2B	3010	1/1	0.99	0.05	73,73,73,73	0
55	MG	1A	3365	1/1	0.99	0.04	30,30,30,30	0
55	MG	1a	1792	1/1	0.99	0.05	49,49,49,49	0
55	MG	2A	3489	1/1	0.99	0.12	38,38,38,38	0
55	MG	1A	3821	1/1	0.99	0.11	64,64,64,64	0
55	MG	2A	3491	1/1	0.99	0.04	49,49,49,49	0
55	MG	1A	3822	1/1	0.99	0.15	54,54,54,54	0
55	MG	1A	3658	1/1	0.99	0.09	50,50,50,50	0
55	MG	2A	3494	1/1	0.99	0.05	59,59,59,59	0
55	MG	1a	1796	1/1	0.99	0.12	68,68,68,68	0
55	MG	1A	3332	1/1	0.99	0.04	23,23,23,23	0
55	MG	2A	3497	1/1	0.99	0.02	39,39,39,39	0
55	MG	1A	3403	1/1	0.99	0.05	48,48,48,48	0
55	MG	1A	3367	1/1	0.99	0.04	14,14,14,14	0
55	MG	1A	3662	1/1	0.99	0.02	22,22,22,22	0
55	MG	1A	3731	1/1	0.99	0.03	25,25,25,25	0
55	MG	2A	3662	1/1	0.99	0.03	65,65,65,65	0
55	MG	1A	3333	1/1	0.99	0.08	29,29,29,29	0
55	MG	1a	1803	1/1	0.99	0.05	53,53,53,53	0
55	MG	2A	3665	1/1	0.99	0.03	54,54,54,54	0
55	MG	2A	3347	1/1	0.99	0.05	72,72,72,72	0
55	MG	1a	1804	1/1	0.99	0.03	64,64,64,64	0
55	MG	1a	1805	1/1	0.99	0.05	70,70,70,70	0
55	MG	2A	3670	1/1	0.99	0.04	76,76,76,76	0
55	MG	1A	3281	1/1	0.99	0.04	31,31,31,31	0
55	MG	2E	304	1/1	0.99	0.04	39,39,39,39	0
55	MG	1a	1807	1/1	0.99	0.03	74,74,74,74	0
55	MG	2A	3352	1/1	0.99	0.05	29,29,29,29	0
55	MG	2A	3353	1/1	0.99	0.03	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3205	1/1	0.99	0.04	44,44,44,44	0
55	MG	1B	211	1/1	0.99	0.08	56,56,56,56	0
55	MG	2A	3356	1/1	0.99	0.04	51,51,51,51	0
55	MG	1B	212	1/1	0.99	0.03	54,54,54,54	0
55	MG	1a	1691	1/1	0.99	0.04	39,39,39,39	0
55	MG	1a	1692	1/1	0.99	0.05	40,40,40,40	0
55	MG	1A	3502	1/1	0.99	0.04	16,16,16,16	0
55	MG	1A	3335	1/1	0.99	0.04	42,42,42,42	0
55	MG	1A	3336	1/1	0.99	0.05	19,19,19,19	0
55	MG	2A	3364	1/1	0.99	0.03	34,34,34,34	0
55	MG	1a	1815	1/1	0.99	0.03	73,73,73,73	0
55	MG	1A	3053	1/1	0.99	0.16	32,32,32,32	0
55	MG	2A	3687	1/1	0.99	0.03	46,46,46,46	0
55	MG	2A	3367	1/1	0.99	0.03	46,46,46,46	0
55	MG	1A	3410	1/1	0.99	0.03	8,8,8,8	0
55	MG	1A	3412	1/1	0.99	0.04	22,22,22,22	0
55	MG	2A	3370	1/1	0.99	0.05	36,36,36,36	0
55	MG	2A	3371	1/1	0.99	0.04	43,43,43,43	0
55	MG	2A	3217	1/1	0.99	0.04	57,57,57,57	0
55	MG	1A	3610	1/1	0.99	0.11	68,68,68,68	0
55	MG	2A	3695	1/1	0.99	0.08	82,82,82,82	0
55	MG	2A	3696	1/1	0.99	0.04	61,61,61,61	0
55	MG	2A	3219	1/1	0.99	0.05	64,64,64,64	0
55	MG	2A	3698	1/1	0.99	0.05	40,40,40,40	0
55	MG	1A	3672	1/1	0.99	0.04	35,35,35,35	0
55	MG	1a	1821	1/1	0.99	0.05	60,60,60,60	0
55	MG	1A	3744	1/1	0.99	0.10	55,55,55,55	0
55	MG	1A	3413	1/1	0.99	0.04	28,28,28,28	0
55	MG	1a	1703	1/1	0.99	0.03	48,48,48,48	0
55	MG	2A	3225	1/1	0.99	0.05	52,52,52,52	0
55	MG	2A	3226	1/1	0.99	0.04	70,70,70,70	0
55	MG	1A	3842	1/1	0.99	0.06	68,68,68,68	0
55	MG	2A	3383	1/1	0.99	0.05	66,66,66,66	0
55	MG	2A	3710	1/1	0.99	0.03	62,62,62,62	0
55	MG	2A	3711	1/1	0.99	0.03	67,67,67,67	0
55	MG	1A	3555	1/1	0.99	0.04	28,28,28,28	0
55	MG	2A	3713	1/1	0.99	0.04	79,79,79,79	0
55	MG	2A	3714	1/1	0.99	0.03	52,52,52,52	0
55	MG	2A	3715	1/1	0.99	0.04	63,63,63,63	0
55	MG	18	3303	1/1	0.99	0.06	63,63,63,63	0
55	MG	2A	3230	1/1	0.99	0.08	44,44,44,44	0
55	MG	1a	1707	1/1	0.99	0.03	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3613	1/1	0.99	0.06	23,23,23,23	0
55	MG	1A	3614	1/1	0.99	0.07	50,50,50,50	0
55	MG	1A	3557	1/1	0.99	0.07	29,29,29,29	0
55	MG	1A	3678	1/1	0.99	0.04	40,40,40,40	0
55	MG	2a	1769	1/1	0.99	0.03	61,61,61,61	0
55	MG	1A	3753	1/1	0.99	0.08	50,50,50,50	0
55	MG	2A	3724	1/1	0.99	0.05	46,46,46,46	0
55	MG	2A	3237	1/1	0.99	0.03	45,45,45,45	0
55	MG	2A	3238	1/1	0.99	0.03	46,46,46,46	0
55	MG	1A	3414	1/1	0.99	0.03	31,31,31,31	0
55	MG	1A	3680	1/1	0.99	0.03	53,53,53,53	0
55	MG	2A	3730	1/1	0.99	0.06	51,51,51,51	0
55	MG	2a	1777	1/1	0.99	0.03	64,64,64,64	0
55	MG	1A	3851	1/1	0.99	0.04	29,29,29,29	0
55	MG	1A	3559	1/1	0.99	0.11	56,56,56,56	0
55	MG	2a	1780	1/1	0.99	0.05	51,51,51,51	0
55	MG	1A	3560	1/1	0.99	0.09	24,24,24,24	0
55	MG	2A	3734	1/1	0.99	0.07	67,67,67,67	0
55	MG	1D	310	1/1	0.99	0.06	56,56,56,56	0
55	MG	1A	3339	1/1	0.99	0.04	23,23,23,23	0
55	MG	1A	3340	1/1	0.99	0.03	25,25,25,25	0
55	MG	2a	1786	1/1	0.99	0.04	78,78,78,78	0
55	MG	1A	3563	1/1	0.99	0.05	29,29,29,29	0
55	MG	1A	3564	1/1	0.99	0.03	28,28,28,28	0
55	MG	1A	3341	1/1	0.99	0.04	31,31,31,31	0
55	MG	2A	3741	1/1	0.99	0.03	70,70,70,70	0
55	MG	1A	3271	1/1	0.99	0.04	21,21,21,21	0
55	MG	1A	3419	1/1	0.99	0.06	28,28,28,28	0
55	MG	1A	3691	1/1	0.99	0.04	42,42,42,42	0
55	MG	2A	3745	1/1	0.99	0.08	65,65,65,65	0
55	MG	1A	3626	1/1	0.99	0.04	42,42,42,42	0
55	MG	1A	3767	1/1	0.99	0.09	52,52,52,52	0
55	MG	1A	3420	1/1	0.99	0.03	37,37,37,37	0
55	MG	1A	3769	1/1	0.99	0.06	31,31,31,31	0
55	MG	1A	3272	1/1	0.99	0.04	23,23,23,23	0
55	MG	1E	304	1/1	0.99	0.06	26,26,26,26	0
55	MG	1A	3771	1/1	0.99	0.03	38,38,38,38	0
55	MG	1A	3286	1/1	0.99	0.04	25,25,25,25	0
55	MG	1A	3696	1/1	0.99	0.04	25,25,25,25	0
55	MG	1A	3345	1/1	0.99	0.03	24,24,24,24	0
55	MG	1A	3872	1/1	0.99	0.03	32,32,32,32	0
55	MG	1A	3424	1/1	0.99	0.03	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1F	304	1/1	0.99	0.06	32,32,32,32	0
55	MG	1A	3776	1/1	0.99	0.05	43,43,43,43	0
55	MG	1A	3273	1/1	0.99	0.02	35,35,35,35	0
55	MG	1A	3241	1/1	0.99	0.12	32,32,32,32	0
55	MG	2A	3269	1/1	0.99	0.03	38,38,38,38	0
56	ZN	1Y	501	1/1	0.99	0.03	61,61,61,61	0
55	MG	2A	3270	1/1	0.99	0.04	45,45,45,45	0
56	ZN	15	106	1/1	0.99	0.03	53,53,53,53	0
55	MG	1A	3779	1/1	0.99	0.08	57,57,57,57	0
55	MG	2A	3272	1/1	0.99	0.03	60,60,60,60	0
55	MG	2A	3273	1/1	0.99	0.04	44,44,44,44	0
55	MG	2A	3274	1/1	0.99	0.04	51,51,51,51	0
55	MG	2A	3275	1/1	0.99	0.07	35,35,35,35	0
56	ZN	25	104	1/1	0.99	0.02	64,64,64,64	0
55	MG	1A	3427	1/1	0.99	0.02	27,27,27,27	0
55	MG	1A	3879	1/1	0.99	0.06	47,47,47,47	0
55	MG	1A	3428	1/1	0.99	0.03	18,18,18,18	0
55	MG	1A	3248	1/1	0.99	0.12	21,21,21,21	0
55	MG	2A	3282	1/1	0.99	0.03	42,42,42,42	0
55	MG	1A	3751	1/1	1.00	0.05	24,24,24,24	0
55	MG	1A	3337	1/1	1.00	0.06	18,18,18,18	0
55	MG	2A	3701	1/1	1.00	0.02	59,59,59,59	0
55	MG	1A	3196	1/1	1.00	0.04	32,32,32,32	0
55	MG	1A	3354	1/1	1.00	0.02	26,26,26,26	0
55	MG	2A	3669	1/1	1.00	0.02	45,45,45,45	0
55	MG	1A	3446	1/1	1.00	0.01	24,24,24,24	0
55	MG	1A	3738	1/1	1.00	0.03	23,23,23,23	0
55	MG	1A	3411	1/1	1.00	0.02	48,48,48,48	0
55	MG	1A	3796	1/1	1.00	0.04	33,33,33,33	0
55	MG	2A	3709	1/1	1.00	0.03	49,49,49,49	0
55	MG	2A	3294	1/1	1.00	0.03	45,45,45,45	0
55	MG	1a	1719	1/1	1.00	0.02	68,68,68,68	0
55	MG	1A	3556	1/1	1.00	0.01	32,32,32,32	0
55	MG	1A	3282	1/1	1.00	0.07	50,50,50,50	0
55	MG	1A	3388	1/1	1.00	0.03	26,26,26,26	0
55	MG	2A	3389	1/1	1.00	0.03	51,51,51,51	0
55	MG	1A	3871	1/1	1.00	0.03	16,16,16,16	0
55	MG	1A	3743	1/1	1.00	0.02	58,58,58,58	0
55	MG	1A	3801	1/1	1.00	0.02	32,32,32,32	0
55	MG	2A	3331	1/1	1.00	0.03	45,45,45,45	0
55	MG	2A	3362	1/1	1.00	0.02	56,56,56,56	0
55	MG	1A	3802	1/1	1.00	0.04	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3826	1/1	1.00	0.10	65,65,65,65	0
55	MG	1A	3389	1/1	1.00	0.01	21,21,21,21	0
55	MG	1A	3781	1/1	1.00	0.03	36,36,36,36	0
55	MG	1A	3687	1/1	1.00	0.03	25,25,25,25	0
55	MG	2A	3656	1/1	1.00	0.03	45,45,45,45	0
55	MG	1A	3460	1/1	1.00	0.04	47,47,47,47	0
55	MG	2A	3728	1/1	1.00	0.06	46,46,46,46	0
55	MG	1A	3784	1/1	1.00	0.02	32,32,32,32	0
55	MG	2A	3280	1/1	1.00	0.04	35,35,35,35	0
56	ZN	26	101	1/1	1.00	0.03	66,66,66,66	0
55	MG	2A	3281	1/1	1.00	0.06	39,39,39,39	0
55	MG	1A	3597	1/1	1.00	0.02	49,49,49,49	0
55	MG	1A	3748	1/1	1.00	0.04	39,39,39,39	0
55	MG	1A	3461	1/1	1.00	0.02	27,27,27,27	0
55	MG	1A	3451	1/1	1.00	0.06	23,23,23,23	0

6.5 Other polymers (i)

There are no such residues in this entry.