Full wwPDB X-ray Structure Validation Report (i)

Mar 9, 2026 – 10:59 AM UTC

PDB ID	:	9D7R / pdb_00009d7r
Title	:	Crystal structure of the wild-type Thermus thermophilus 70S ribosome in complex with Fva1 antimicrobial peptide, mRNA, A-site release factor 1, and deacylated P-site and E-site tRNAphe at 2.70A resolution
Authors	:	Aleksandrova, E.V.; Huang, W.; Baliga, C.; Atkinson, G.C.; Vazquez-Laslop, N.; Mankin, A.S.; Polikanov, Y.S.
Deposited on	:	2024-08-17
Resolution	:	2.70 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:

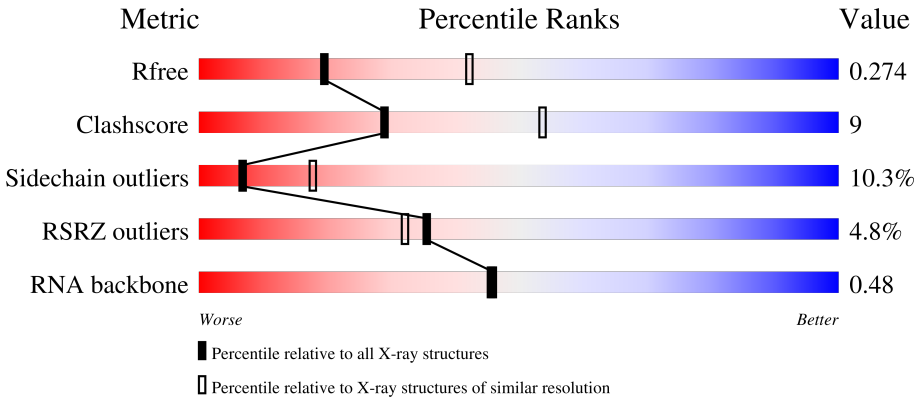
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (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 2.70 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	3538 (2.70-2.70)
Clashscore	190562	3843 (2.70-2.70)
Sidechain outliers	187428	3778 (2.70-2.70)
RSRZ outliers	180081	3538 (2.70-2.70)
RNA backbone	3983	1044 (2.90-2.50)

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% 63% 29% 6%
1	2A	2915	4% 56% 33% 6%
2	1B	121	71% 26%
2	2B	121	3% 62% 34%

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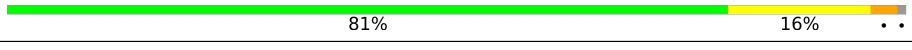
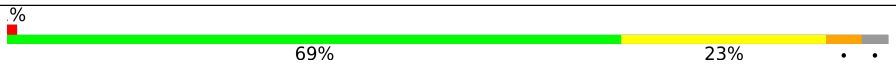
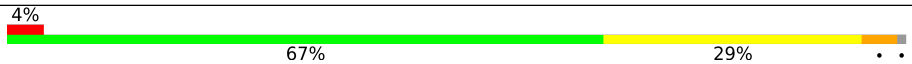
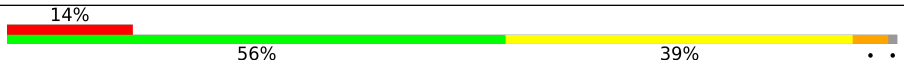
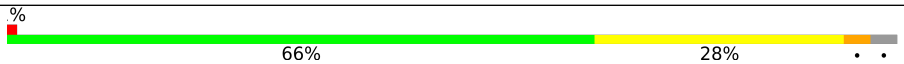
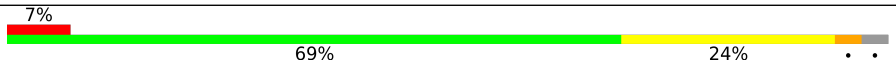
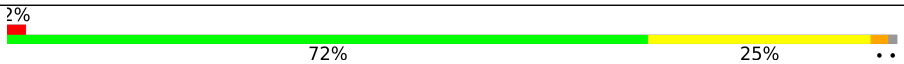
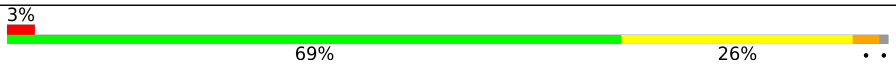
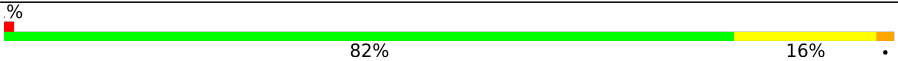
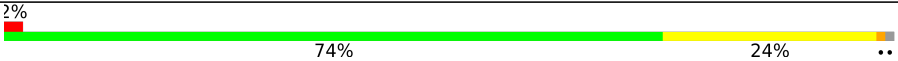
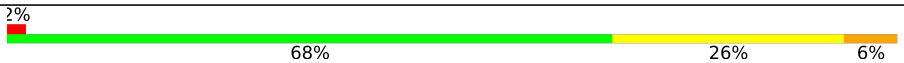
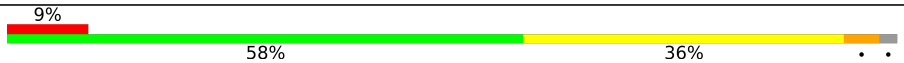
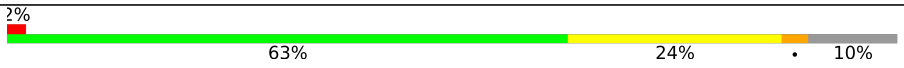
Mol	Chain	Length	Quality of chain
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	112	
14	2S	112	
15	1T	146	

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Mol	Chain	Length	Quality of chain
15	2T	146	67% 20% 10%
16	1U	118	80% 19%
16	2U	118	74% 22%
17	1V	101	80% 19%
17	2V	101	82% 16%
18	1W	113	81% 18%
18	2W	113	82% 16%
19	1X	96	76% 22%
19	2X	96	68% 28%
20	1Y	110	69% 25%
20	2Y	110	7% 73% 24%
21	1Z	206	57% 30% 11%
21	2Z	206	4% 54% 33% 10%
22	10	85	73% 16% 11%
22	20	85	4% 66% 24% 9%
23	11	98	69% 29%
23	21	98	70% 28%
24	12	72	81% 15%
24	22	72	6% 65% 29%
25	13	60	62% 37%
25	23	60	63% 32%
26	14	71	13% 66% 25% 6%
26	24	71	23% 56% 28% 11%
27	15	60	75% 22%
27	25	60	3% 70% 28%

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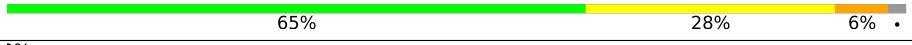
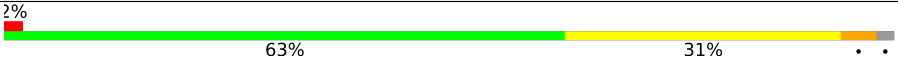
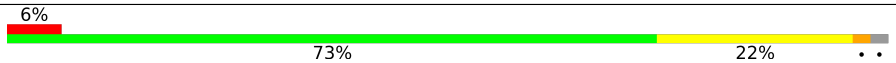
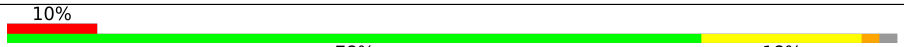
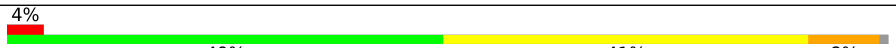
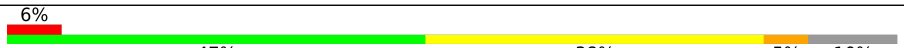
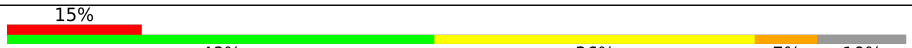
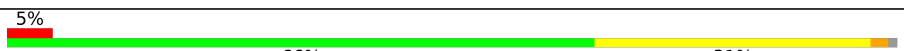
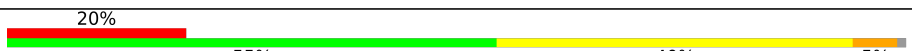
Mol	Chain	Length	Quality of chain
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	
40	1i	128	

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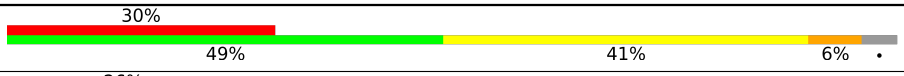
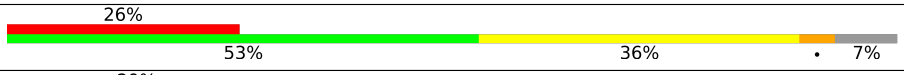
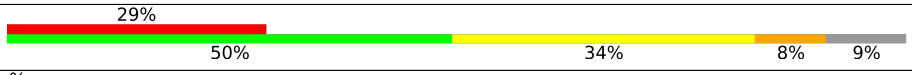
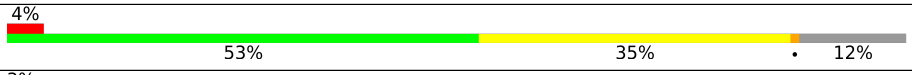
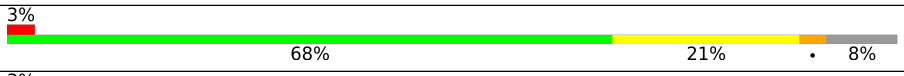
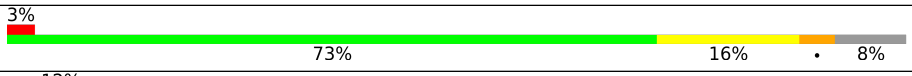
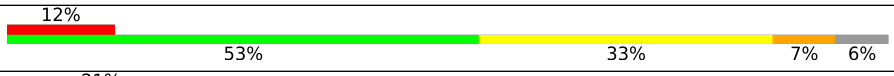
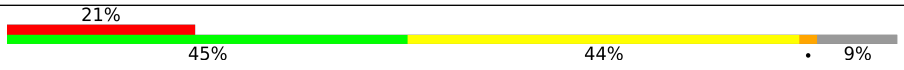
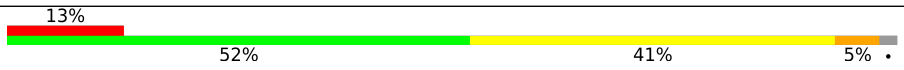
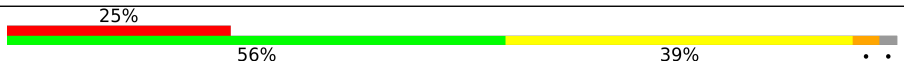
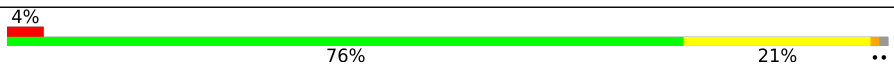
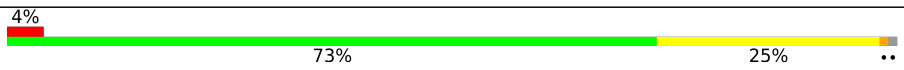
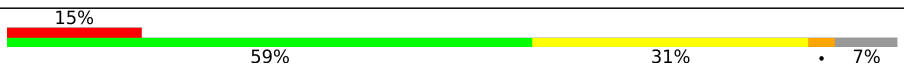
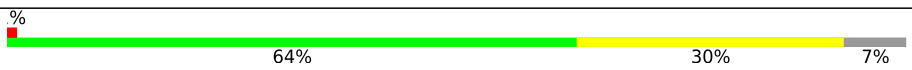
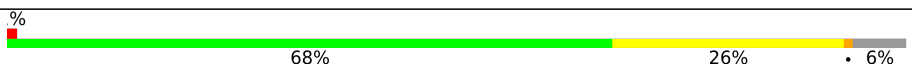
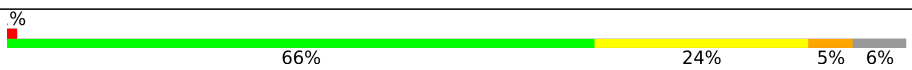
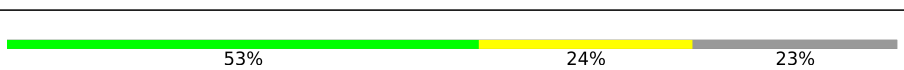
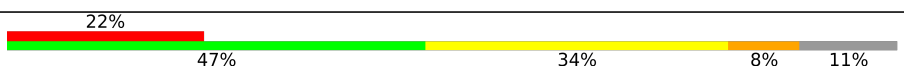
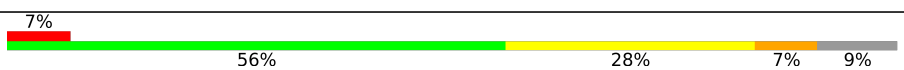
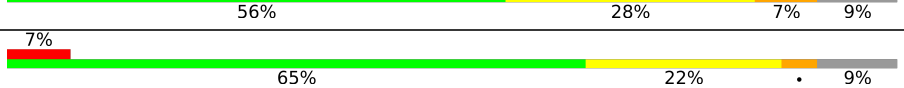
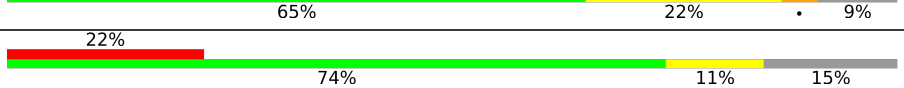
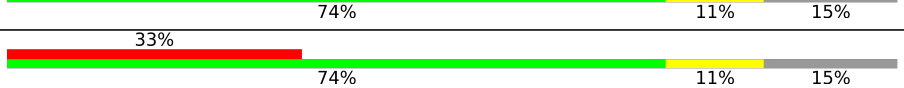
Mol	Chain	Length	Quality of chain
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	132	
43	2l	132	
44	1m	126	
44	2m	126	
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
47	1p	88	
47	2p	88	
48	1q	105	
48	2q	105	
49	1r	88	
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	
52	1u	27	
52	2u	27	

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Mol	Chain	Length	Quality of chain
53	1v	24	33% 17% 46%
53	2v	24	21% 29% 46%
54	1w	354	47% 21% 30%
54	2w	354	44% 25% 29%
55	1x	76	68% 26%
55	1y	76	12% 49% 30% 18%
55	2x	76	62% 30% 7%
55	2y	76	18% 30% 47% 20%
56	1z	20	35% 30% 5% 30%
56	2z	20	5% 45% 15% 10% 30%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	2a	1666	-	-	-	X
59	SF4	1d	302	-	-	X	-
59	SF4	2d	303	-	-	X	-

2 Entry composition (i)

There are 60 unique types of molecules in this entry. The entry contains 299076 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	2871	Total	C	N	O	P	0	0	0
			61852	27531	11572	19878	2871			
1	2A	2800	Total	C	N	O	P	0	0	0
			60322	26848	11284	19390	2800			

- 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
			2576	1146	476	834	120			
2	2B	120	Total	C	N	O	P	0	0	0
			2576	1146	476	834	120			

- 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
			2136	1349	423	361	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
			1425	914	256	251	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1424	911	258	251	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	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	146	Total	C	N	O	S	0	0	0
			1085	693	189	202	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1061	680	186	194	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
			1117	719	207	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 933	C 588	N 171	O 170	S 4	0	0	0

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

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

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

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

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

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

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

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

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

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

- 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
			771	495	140	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
			746	485	134	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
			806	517	152	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	183	Total	C	N	O	S	0	0	0
			1437	919	256	260	2			
21	2Z	186	Total	C	N	O	S	0	0	0
			1451	928	256	265	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	76	Total	C	N	O	S	0	0	0
			604	373	128	102	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
			755	475	148	131	1			
23	21	97	Total	C	N	O	S	0	0	0
			755	475	148	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
			588	365	118	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
			548	347	99	97	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	68	Total	C	N	O	S	0	0	0
			517	330	92	90	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
			455	285	89	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
			511	328	99	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	1503	Total	C	N	O	P	0	0	0
			32327	14396	5990	10438	1503			

- Molecule 33 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	1b	231	Total	C	N	O	S	0	0	0
			1846	1179	331	331	5			
33	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 34 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1c	206	Total	C	N	O	S	0	0	0
			1554	977	302	274	1			
34	2c	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 35 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1d	208	Total	C	N	O	S	0	0	0
			1659	1040	326	286	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1674	1050	333	284	7			

- Molecule 36 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1e	148	Total	C	N	O	S	0	0	0
			1129	714	213	198	4			
36	2e	148	Total	C	N	O	S	0	0	0
			1130	714	214	199	3			

- Molecule 37 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1f	100	Total	C	N	O	S	0	0	0
			810	513	143	151	3			
37	2f	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 38 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1g	155	Total	C	N	O	S	0	0	0
			1231	766	243	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			

- Molecule 39 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			
39	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 40 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	1i	127	Total	C	N	O	0	0	0
			983	623	193	167			
40	2i	123	Total	C	N	O	0	0	0
			940	593	185	162			

- Molecule 41 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	1j	98	Total	C	N	O	0	0	0
			721	449	140	132			
41	2j	96	Total	C	N	O	0	0	0
			714	445	138	131			

- Molecule 42 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	1k	114	Total	C	N	O	S	0	0	0
			829	516	155	155	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	2k	114	Total	C	N	O	S	0	0	0
			833	519	156	155	3			

- Molecule 43 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	1l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			
43	2l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

- Molecule 44 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	118	Total	C	N	O	S	0	0	0
			923	569	191	161	2			
44	2m	115	Total	C	N	O	S	0	0	0
			889	546	183	158	2			

- Molecule 45 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
45	2n	60	Total	C	N	O	S	0	0	0
			486	309	101	72	4			

- Molecule 46 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
46	2o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 47 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
47	2p	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 48 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
48	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 49 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	1r	68	Total	C	N	O	0	0	0
			555	355	108	92			
49	2r	68	Total	C	N	O	0	0	0
			551	353	108	90			

- Molecule 50 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1s	83	Total	C	N	O	S	0	0	0
			652	417	120	113	2			
50	2s	83	Total	C	N	O	S	0	0	0
			646	412	119	113	2			

- Molecule 51 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			728	446	156	124	2			
51	2t	96	Total	C	N	O	S	0	0	0
			727	446	155	124	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
52	1u	23	Total	C	N	O	0	0	0
			199	122	48	29			
52	2u	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 53 is a RNA chain called PHE-Stop mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1v	13	Total	C	N	O	P	0	0	0
			274	124	48	89	13			
53	2v	13	Total	C	N	O	P	0	0	0
			274	124	48	89	13			

- Molecule 54 is a protein called Peptide chain release factor 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	1w	249	Total	C	N	O	S	0	0	0
			1939	1199	360	371	9			
54	2w	253	Total	C	N	O	S	0	0	0
			1954	1208	361	377	8			

- Molecule 55 is a RNA chain called P-site and E-site Deacylated tRNAphe.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
55	1x	75	Total	C	N	O	P	S	0	0	0
			1612	722	288	525	75	2			
55	1y	74	Total	C	N	O	P	S	0	0	0
			1590	712	285	517	74	2			
55	2x	75	Total	C	N	O	P	S	0	0	0
			1612	722	288	525	75	2			
55	2y	74	Total	C	N	O	P	S	0	0	0
			1592	713	285	518	74	2			

- Molecule 56 is a protein called Fva1 Antimicrobial Peptide.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
56	1z	14	Total	C	N	O	0	0	0
			121	79	25	17			
56	2z	14	Total	C	N	O	0	0	0
			121	79	25	17			

- Molecule 57 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1A	795	Total	Mg	0	0
			795	795		
57	1B	20	Total	Mg	0	0
			20	20		
57	1D	8	Total	Mg	0	0
			8	8		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1E	9	Total Mg 9 9	0	0
57	1F	11	Total Mg 11 11	0	0
57	1G	3	Total Mg 3 3	0	0
57	1N	4	Total Mg 4 4	0	0
57	1O	1	Total Mg 1 1	0	0
57	1P	4	Total Mg 4 4	0	0
57	1Q	6	Total Mg 6 6	0	0
57	1R	3	Total Mg 3 3	0	0
57	1U	7	Total Mg 7 7	0	0
57	1V	5	Total Mg 5 5	0	0
57	1W	5	Total Mg 5 5	0	0
57	1X	2	Total Mg 2 2	0	0
57	1Z	1	Total Mg 1 1	0	0
57	10	5	Total Mg 5 5	0	0
57	11	4	Total Mg 4 4	0	0
57	12	2	Total Mg 2 2	0	0
57	13	2	Total Mg 2 2	0	0
57	14	1	Total Mg 1 1	0	0
57	15	4	Total Mg 4 4	0	0
57	16	1	Total Mg 1 1	0	0
57	17	7	Total Mg 7 7	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	18	2	Total Mg 2 2	0	0
57	19	2	Total Mg 2 2	0	0
57	1a	189	Total Mg 189 189	0	0
57	1d	1	Total Mg 1 1	0	0
57	1f	1	Total Mg 1 1	0	0
57	1k	1	Total Mg 1 1	0	0
57	1m	1	Total Mg 1 1	0	0
57	1n	1	Total Mg 1 1	0	0
57	1v	2	Total Mg 2 2	0	0
57	1w	3	Total Mg 3 3	0	0
57	1x	9	Total Mg 9 9	0	0
57	1y	1	Total Mg 1 1	0	0
57	2A	640	Total Mg 640 640	0	0
57	2B	11	Total Mg 11 11	0	0
57	2D	8	Total Mg 8 8	0	0
57	2E	5	Total Mg 5 5	0	0
57	2F	7	Total Mg 7 7	0	0
57	2N	1	Total Mg 1 1	0	0
57	2O	1	Total Mg 1 1	0	0
57	2P	2	Total Mg 2 2	0	0
57	2Q	3	Total Mg 3 3	0	0

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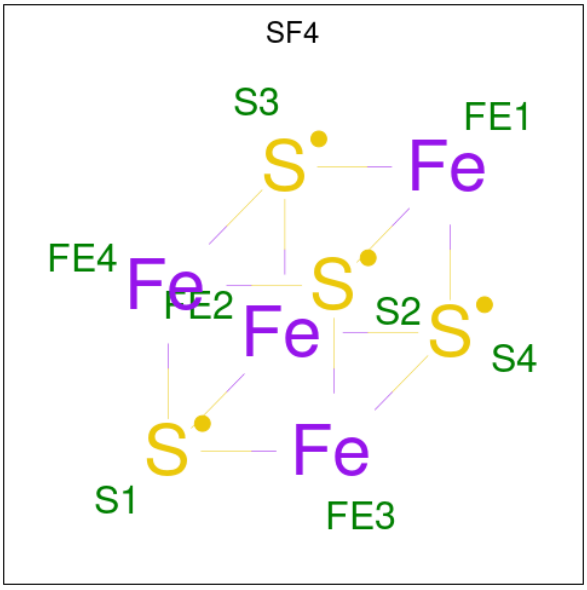
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	2R	3	Total Mg 3 3	0	0
57	2U	1	Total Mg 1 1	0	0
57	2V	2	Total Mg 2 2	0	0
57	2W	1	Total Mg 1 1	0	0
57	2X	3	Total Mg 3 3	0	0
57	2Y	1	Total Mg 1 1	0	0
57	20	2	Total Mg 2 2	0	0
57	23	1	Total Mg 1 1	0	0
57	25	1	Total Mg 1 1	0	0
57	26	1	Total Mg 1 1	0	0
57	28	1	Total Mg 1 1	0	0
57	29	1	Total Mg 1 1	0	0
57	2a	168	Total Mg 168 168	0	0
57	2d	2	Total Mg 2 2	0	0
57	2e	3	Total Mg 3 3	0	0
57	2f	1	Total Mg 1 1	0	0
57	2j	2	Total Mg 2 2	0	0
57	2k	2	Total Mg 2 2	0	0
57	2t	1	Total Mg 1 1	0	0
57	2v	1	Total Mg 1 1	0	0
57	2x	9	Total Mg 9 9	0	0

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1Y	1	Total Zn 1 1	0	0
58	14	1	Total Zn 1 1	0	0
58	15	1	Total Zn 1 1	0	0
58	16	1	Total Zn 1 1	0	0
58	19	1	Total Zn 1 1	0	0
58	1n	1	Total Zn 1 1	0	0
58	2Y	1	Total Zn 1 1	0	0
58	24	1	Total Zn 1 1	0	0
58	25	1	Total Zn 1 1	0	0
58	26	1	Total Zn 1 1	0	0
58	29	1	Total Zn 1 1	0	0
58	2n	1	Total Zn 1 1	0	0

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



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1d	1	Total Fe S 8 4 4	0	0
59	2d	1	Total Fe S 8 4 4	0	0

- Molecule 60 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1A	1395	Total O 1395 1395	0	0
60	1B	27	Total O 27 27	0	0
60	1D	15	Total O 15 15	0	0
60	1E	13	Total O 13 13	0	0
60	1F	8	Total O 8 8	0	0
60	1G	1	Total O 1 1	0	0
60	1N	3	Total O 3 3	0	0
60	1O	3	Total O 3 3	0	0
60	1P	15	Total O 15 15	0	0
60	1Q	6	Total O 6 6	0	0
60	1R	3	Total O 3 3	0	0
60	1T	1	Total O 1 1	0	0
60	1U	4	Total O 4 4	0	0
60	1V	1	Total O 1 1	0	0
60	1W	3	Total O 3 3	0	0
60	1X	3	Total O 3 3	0	0
60	1Z	1	Total O 1 1	0	0
60	10	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	11	3	Total O 3 3	0	0
60	13	2	Total O 2 2	0	0
60	15	3	Total O 3 3	0	0
60	16	1	Total O 1 1	0	0
60	17	2	Total O 2 2	0	0
60	18	7	Total O 7 7	0	0
60	1a	180	Total O 180 180	0	0
60	1d	1	Total O 1 1	0	0
60	1l	1	Total O 1 1	0	0
60	1v	4	Total O 4 4	0	0
60	1w	2	Total O 2 2	0	0
60	1x	24	Total O 24 24	0	0
60	2A	946	Total O 946 946	0	0
60	2B	6	Total O 6 6	0	0
60	2D	18	Total O 18 18	0	0
60	2E	7	Total O 7 7	0	0
60	2F	5	Total O 5 5	0	0
60	2N	1	Total O 1 1	0	0
60	2O	2	Total O 2 2	0	0
60	2P	16	Total O 16 16	0	0
60	2Q	3	Total O 3 3	0	0

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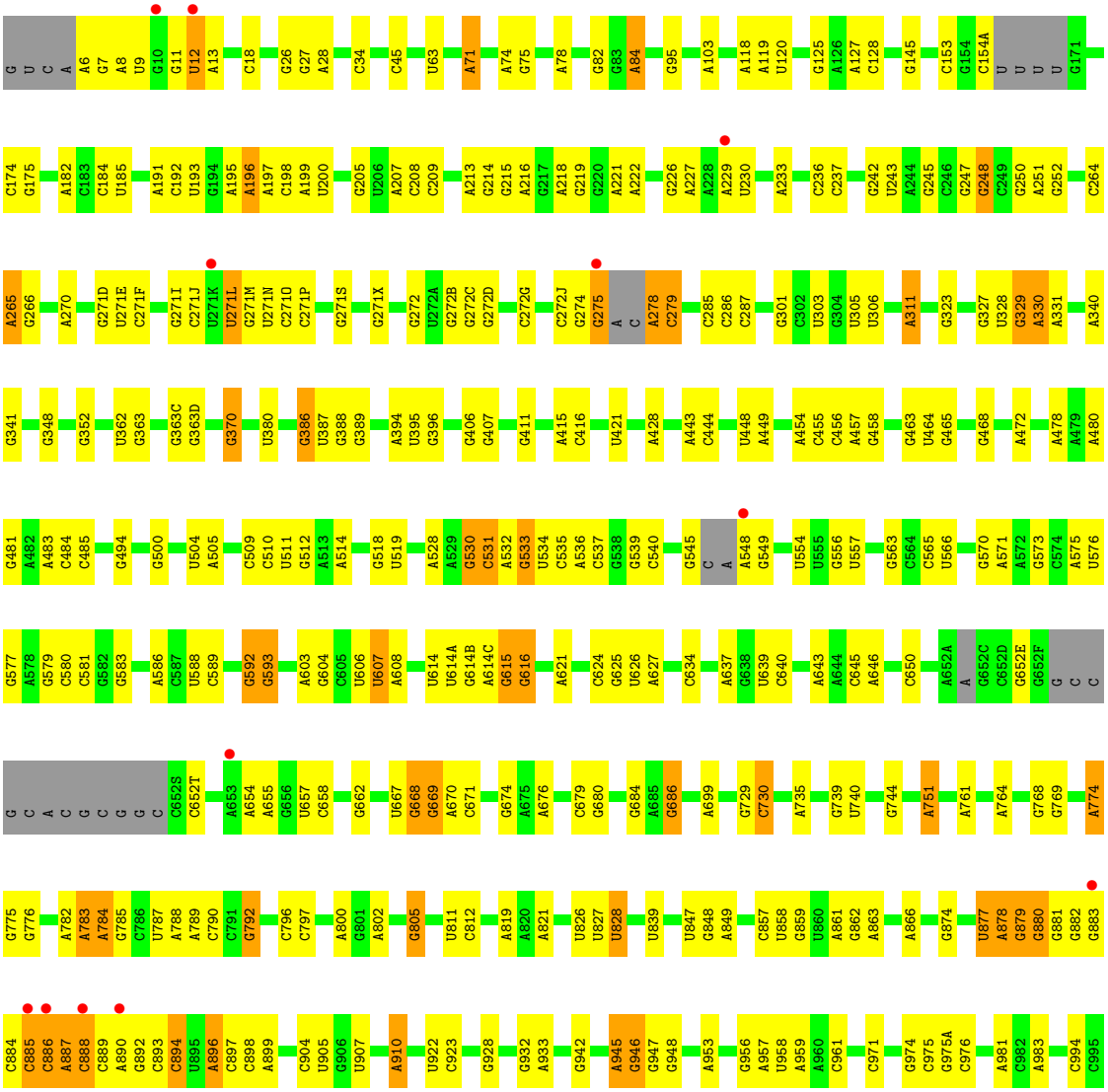
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	2R	2	Total O 2 2	0	0
60	2U	1	Total O 1 1	0	0
60	2X	3	Total O 3 3	0	0
60	2Y	2	Total O 2 2	0	0
60	20	4	Total O 4 4	0	0
60	21	2	Total O 2 2	0	0
60	23	2	Total O 2 2	0	0
60	25	2	Total O 2 2	0	0
60	27	4	Total O 4 4	0	0
60	28	4	Total O 4 4	0	0
60	2a	152	Total O 152 152	0	0
60	2d	1	Total O 1 1	0	0
60	2j	1	Total O 1 1	0	0
60	2q	1	Total O 1 1	0	0
60	2t	1	Total O 1 1	0	0
60	2w	1	Total O 1 1	0	0
60	2x	13	Total O 13 13	0	0
60	2z	2	Total O 2 2	0	0

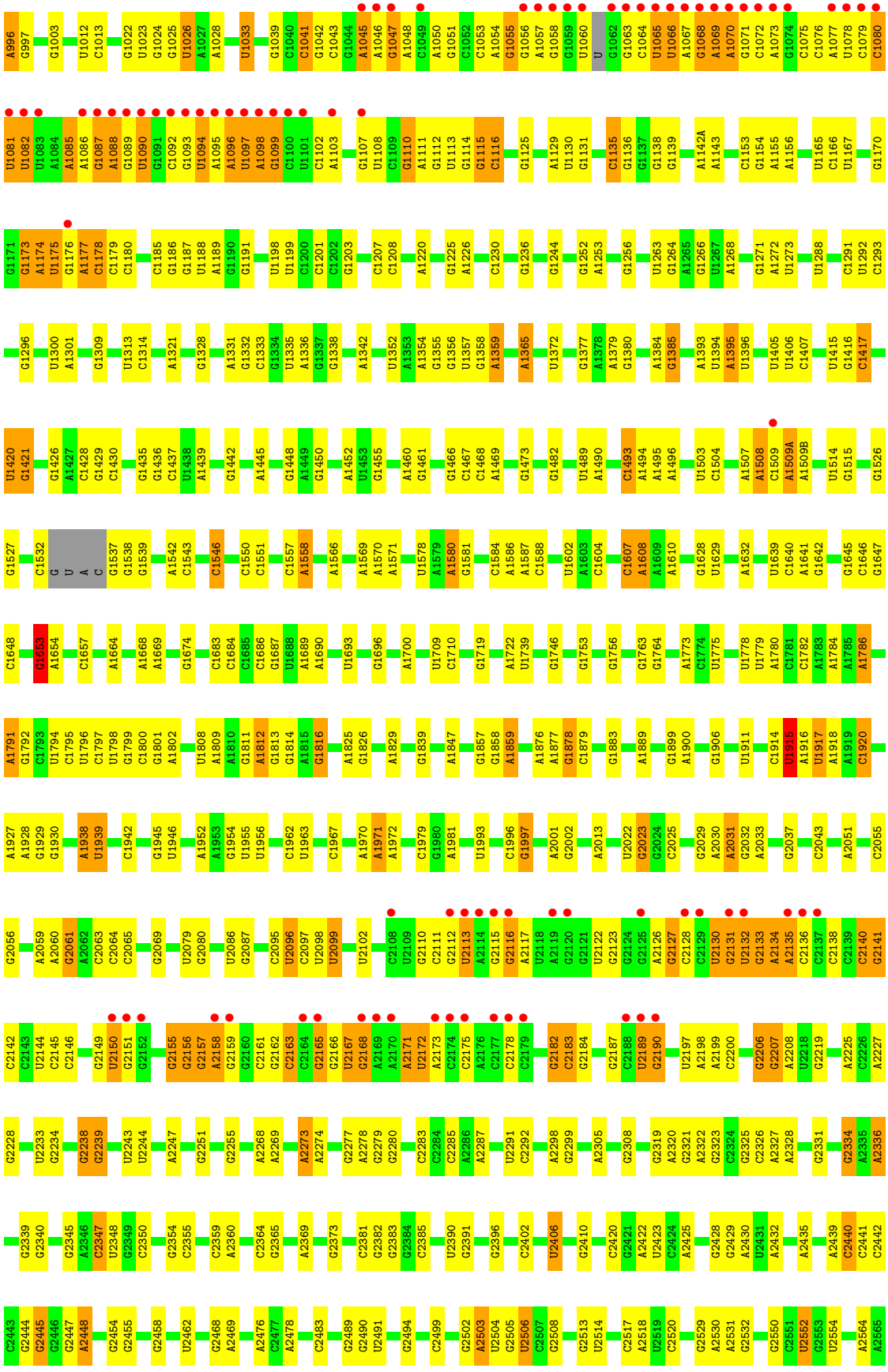
3 Residue-property plots (i)

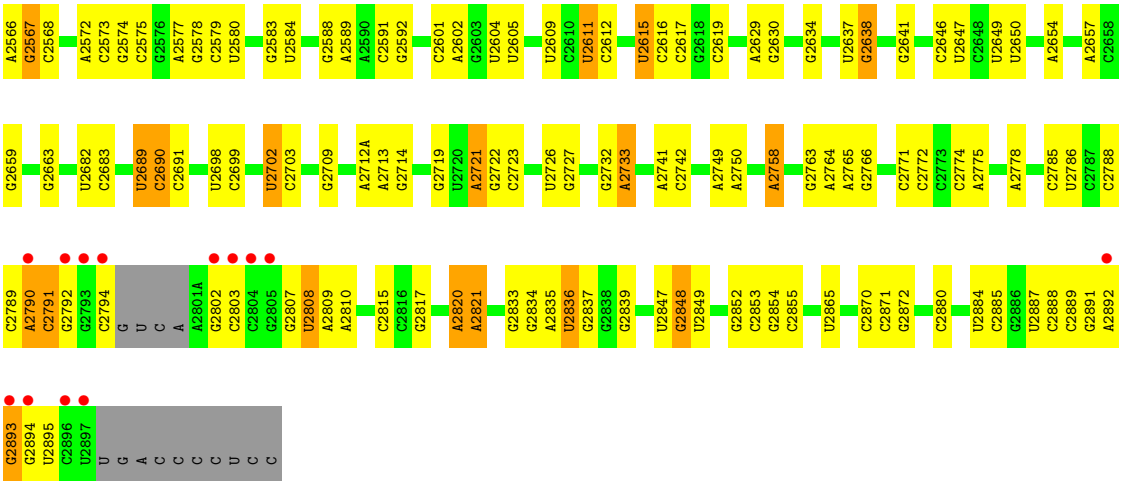
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

- Molecule 1: 23S Ribosomal RNA

Chain 1A:

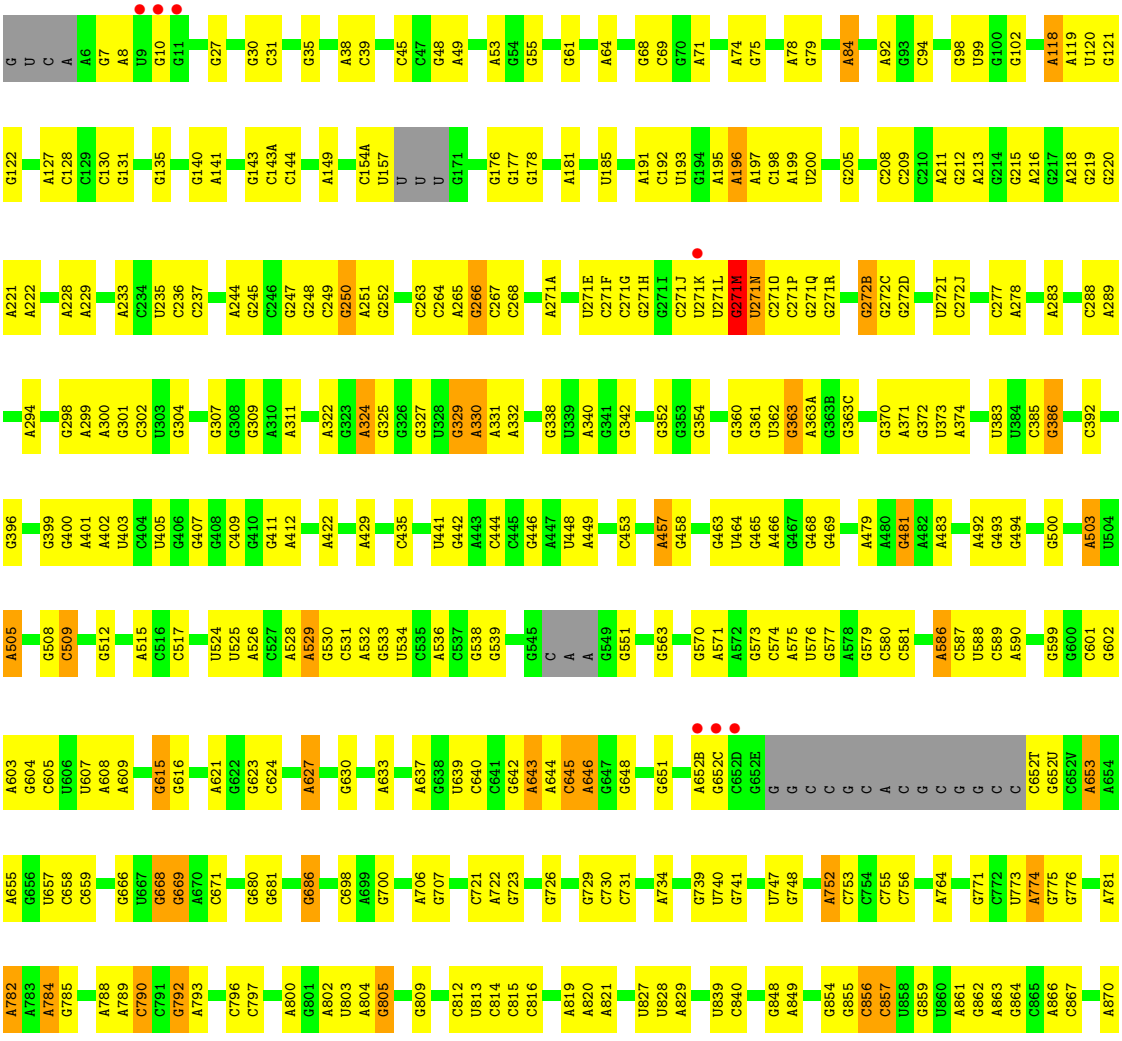


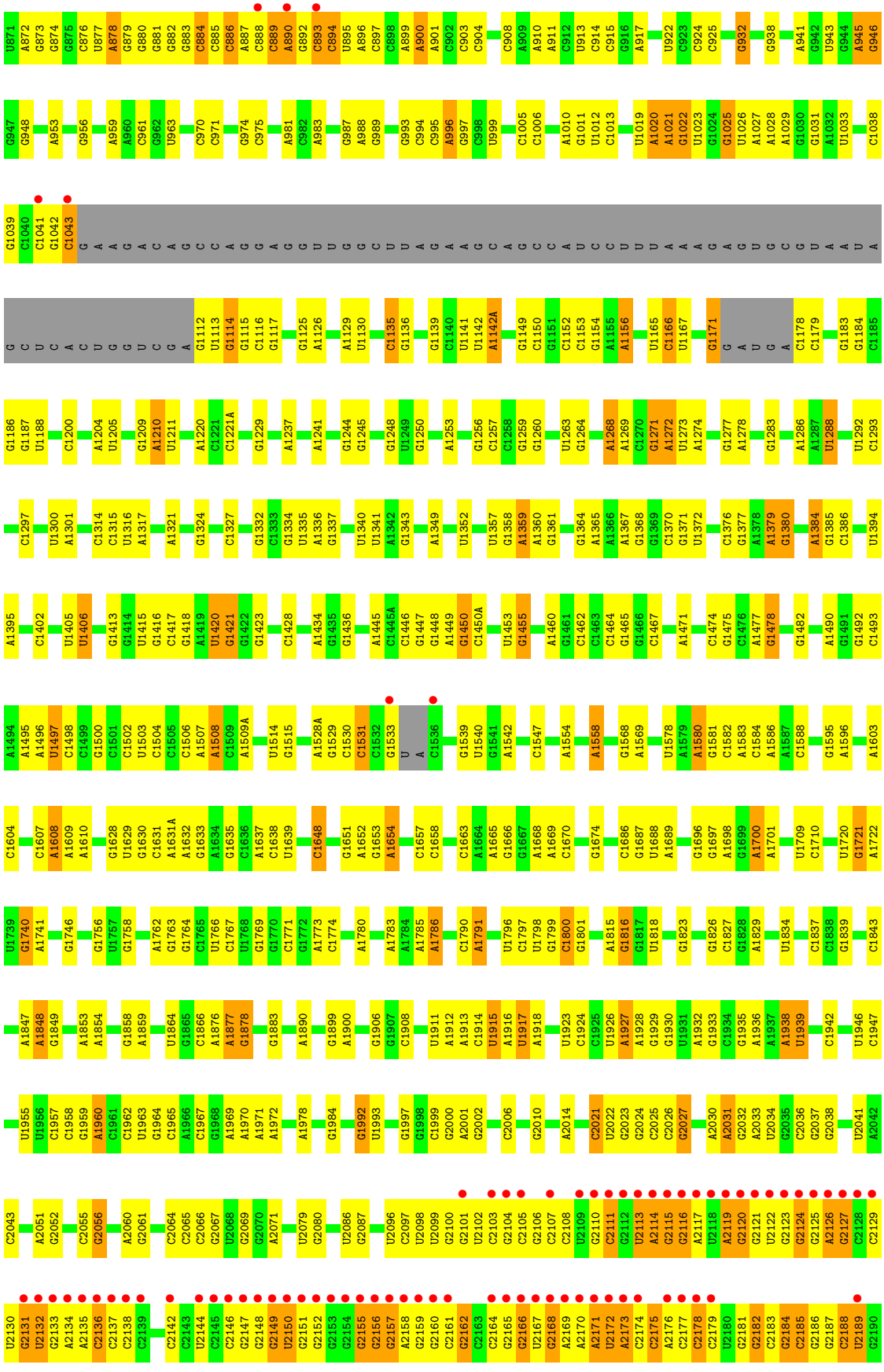


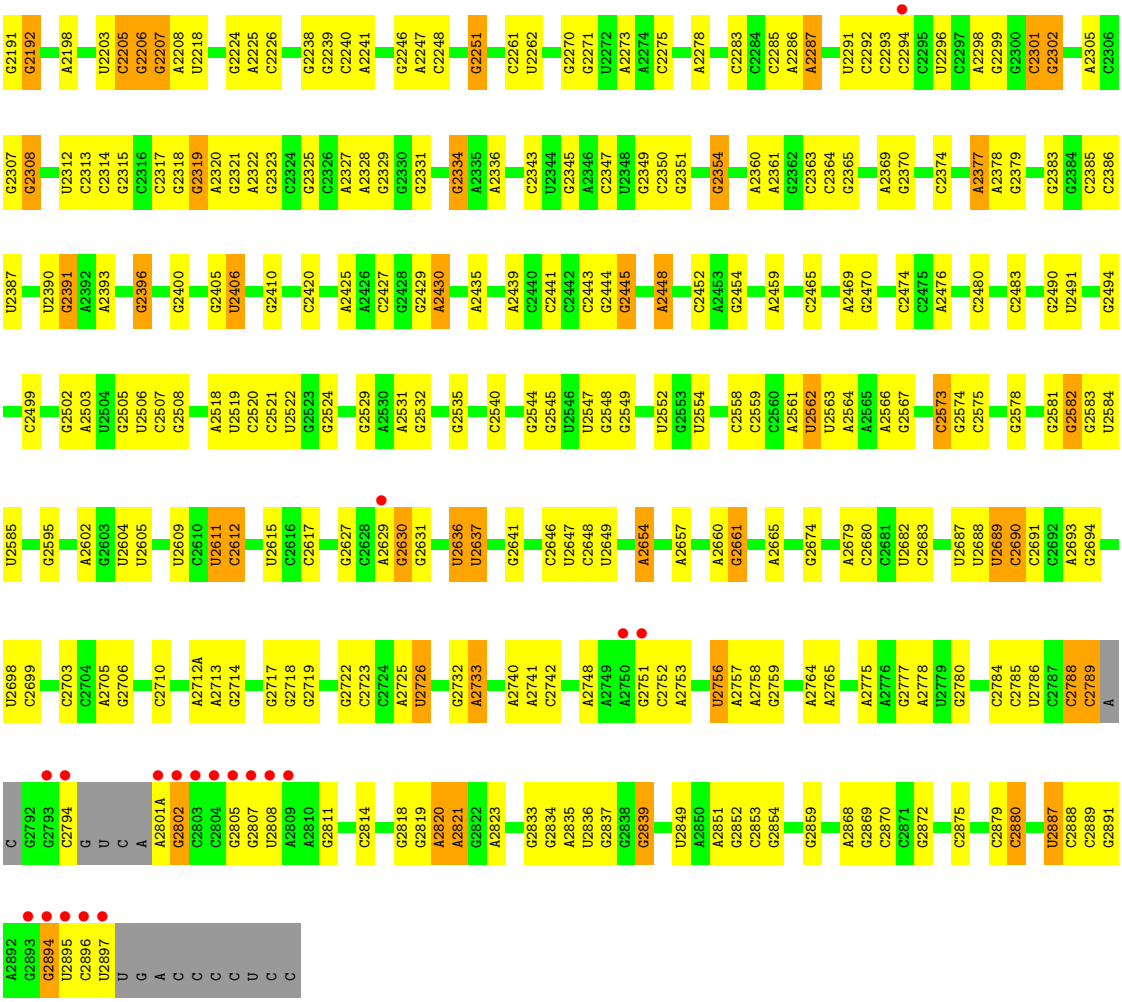


- Molecule 1: 23S Ribosomal RNA

Chain 2A:

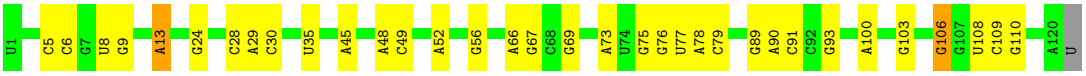






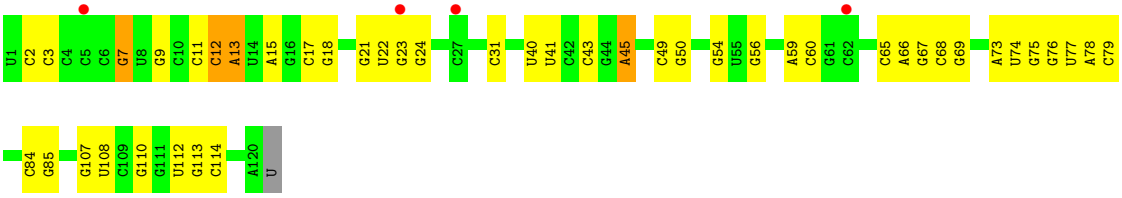
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



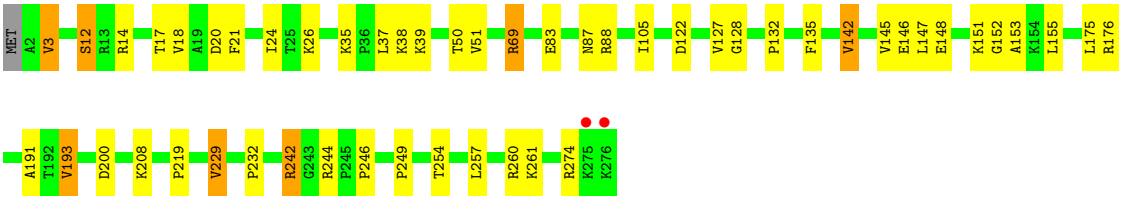
• Molecule 2: 5S Ribosomal RNA

Chain 2B:



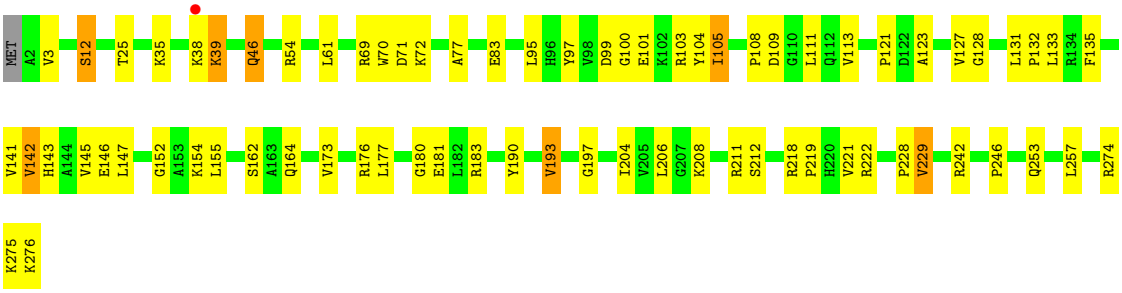
• Molecule 3: 50S ribosomal protein L2

Chain 1D:



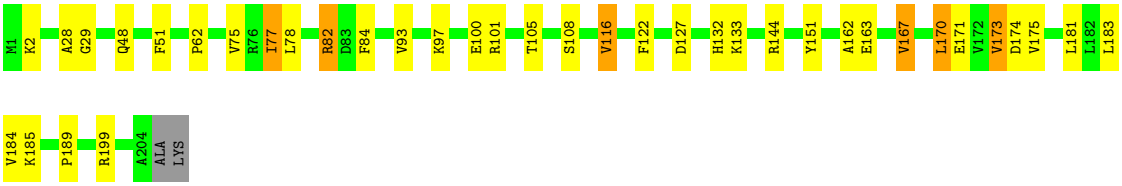
• Molecule 3: 50S ribosomal protein L2

Chain 2D:



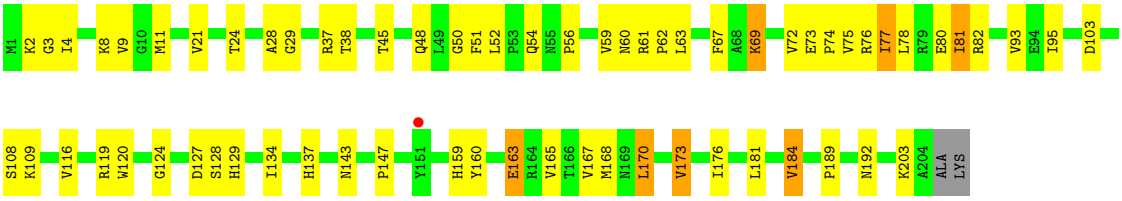
• Molecule 4: 50S ribosomal protein L3

Chain 1E:



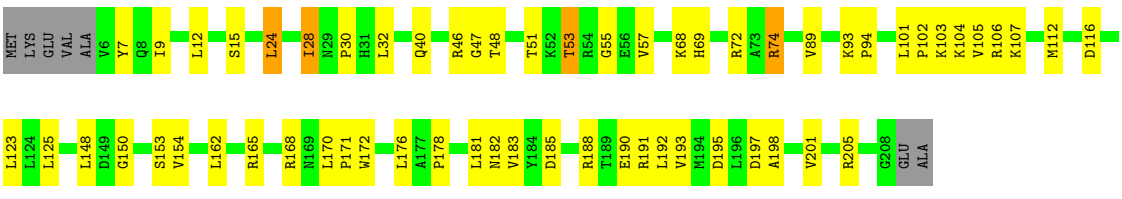
• Molecule 4: 50S ribosomal protein L3

Chain 2E:



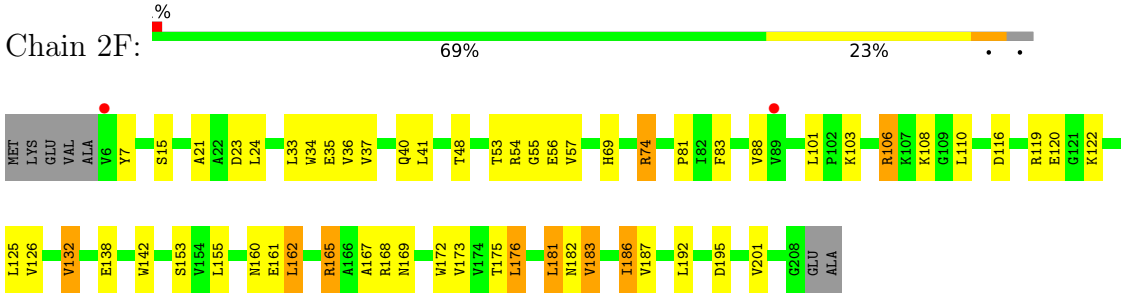
• Molecule 5: 50S ribosomal protein L4

Chain 1F:



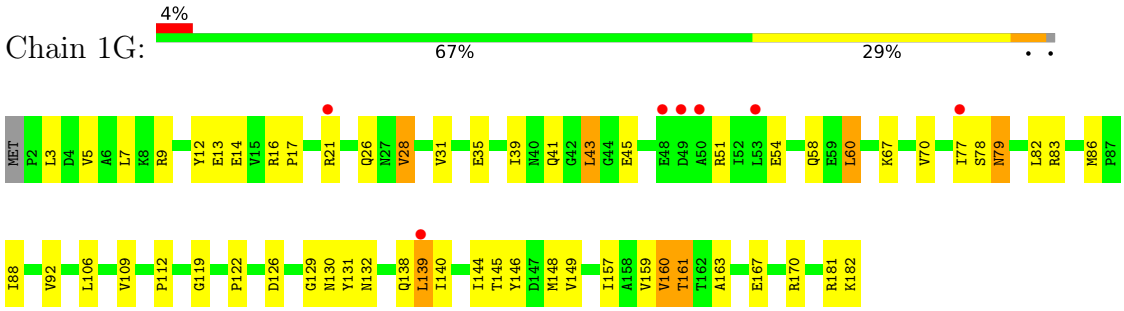
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



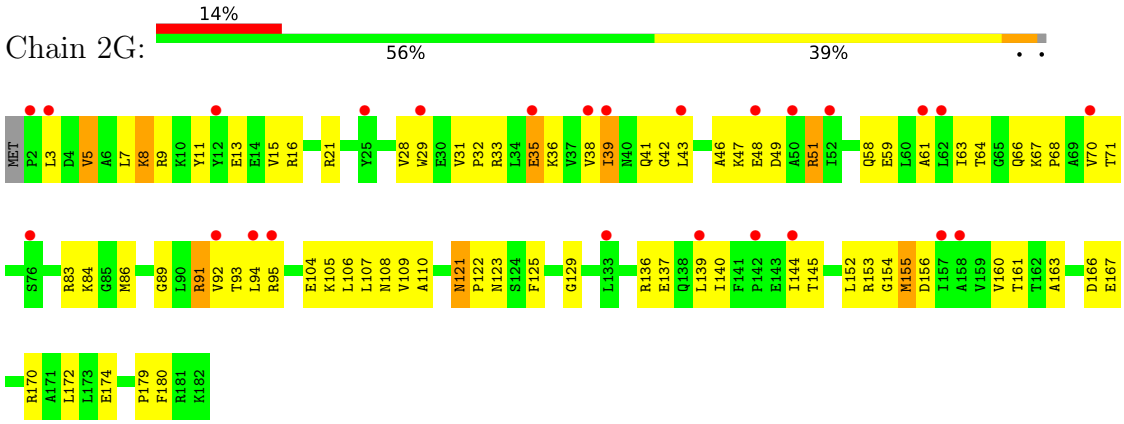
• Molecule 6: 50S ribosomal protein L5

Chain 1G:



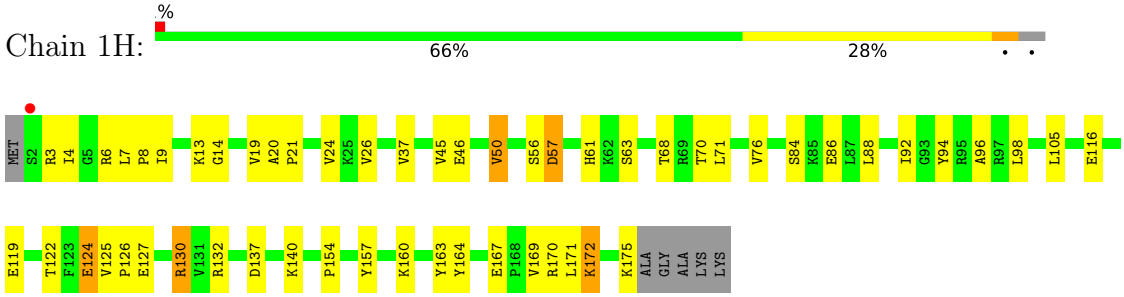
• Molecule 6: 50S ribosomal protein L5

Chain 2G:



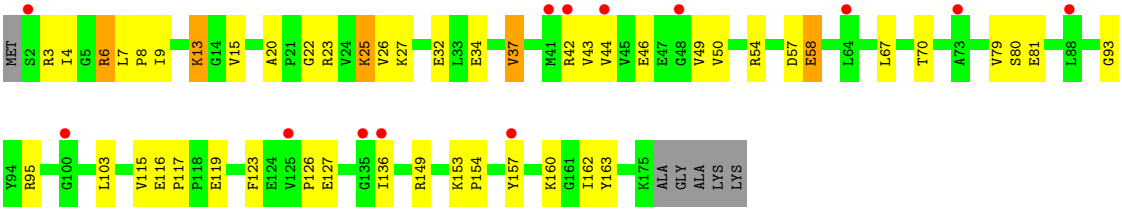
• Molecule 7: 50S ribosomal protein L6

Chain 1H:

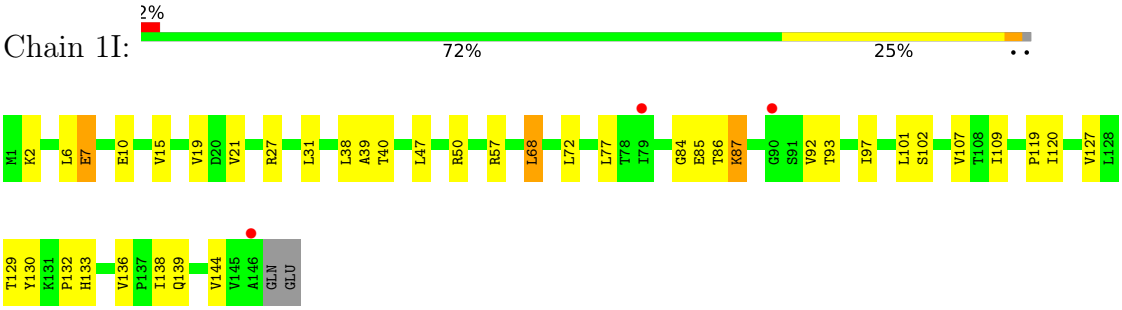


• Molecule 7: 50S ribosomal protein L6

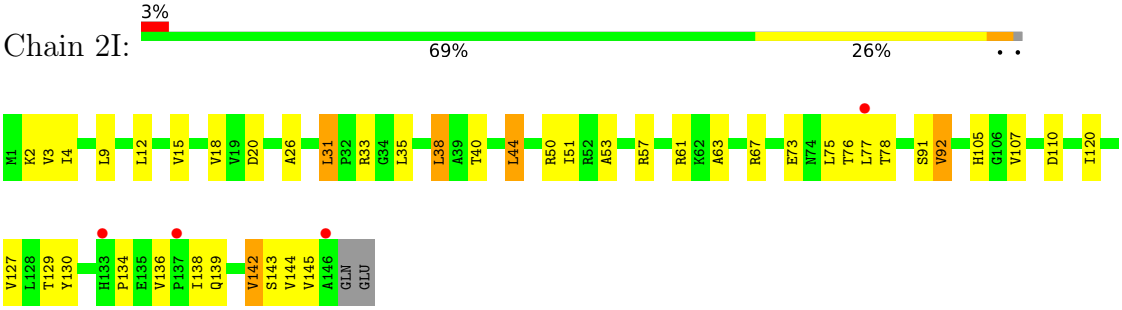
Chain 2H:



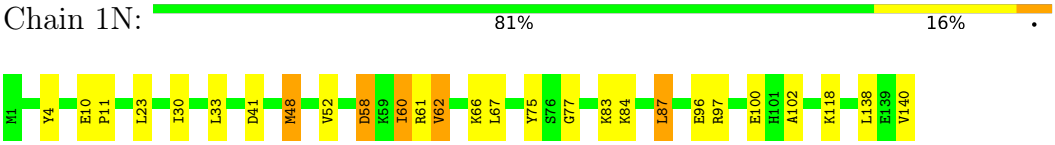
• Molecule 8: 50S ribosomal protein L9



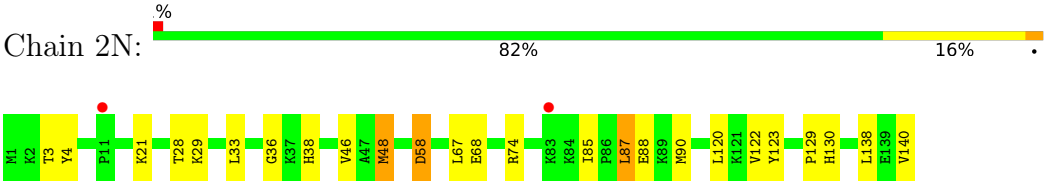
• Molecule 8: 50S ribosomal protein L9



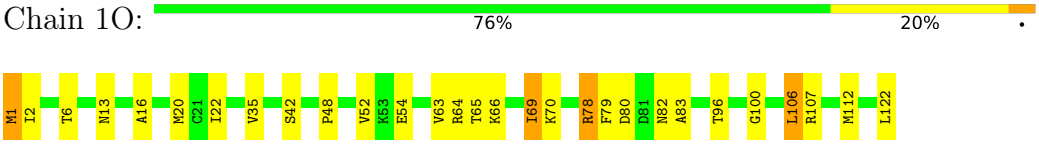
• Molecule 9: 50S ribosomal protein L13



• Molecule 9: 50S ribosomal protein L13

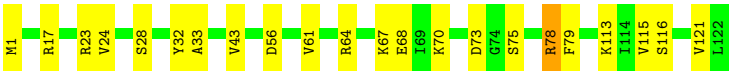


• Molecule 10: 50S ribosomal protein L14



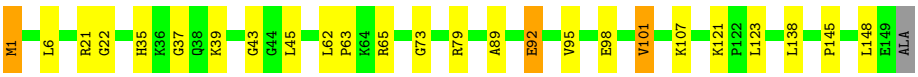
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



• Molecule 11: 50S ribosomal protein L15

Chain 1P:

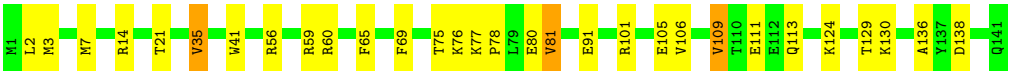


• Molecule 11: 50S ribosomal protein L15

Chain 2P:

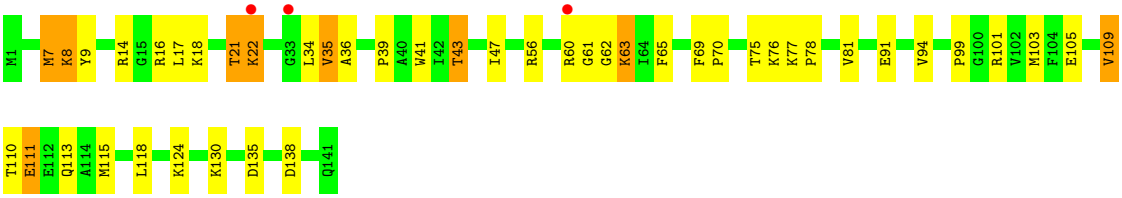
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



• Molecule 12: 50S ribosomal protein L16

Chain 2Q:

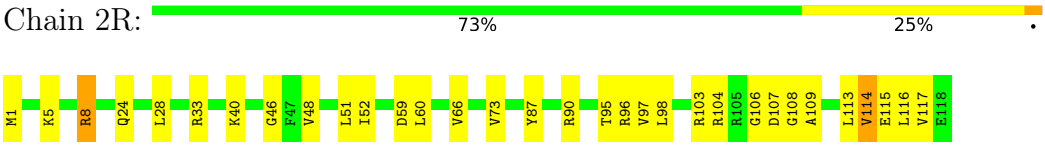


• Molecule 13: 50S ribosomal protein L17

Chain 1R:

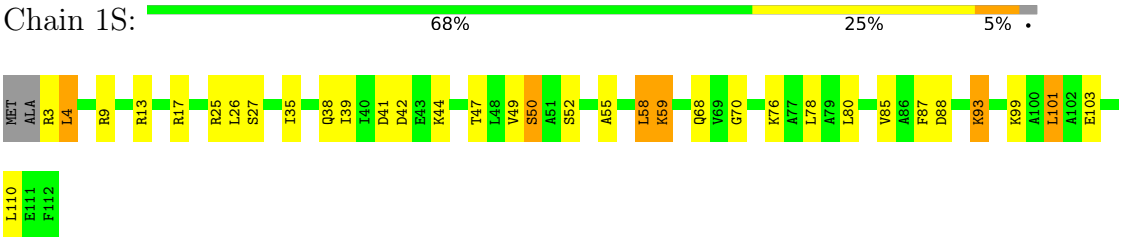
• Molecule 13: 50S ribosomal protein L17

Chain 2R:



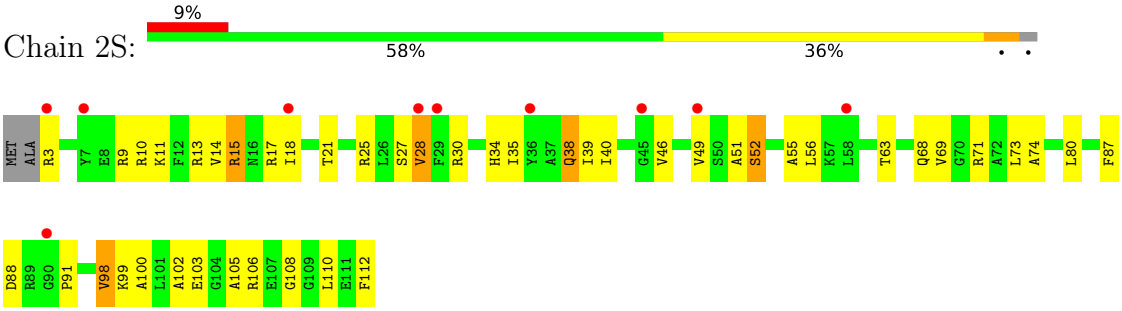
• Molecule 14: 50S ribosomal protein L18

Chain 1S:



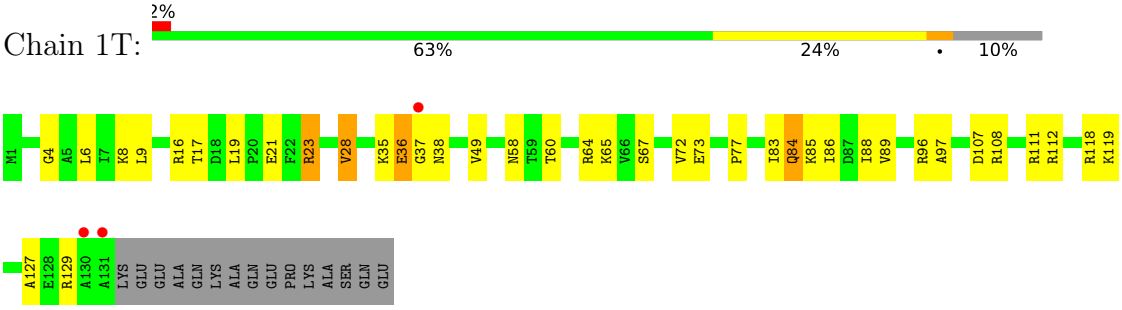
• Molecule 14: 50S ribosomal protein L18

Chain 2S:



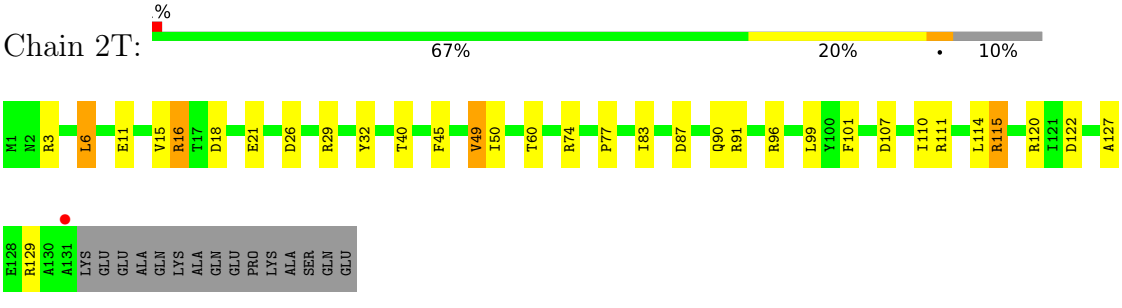
• Molecule 15: 50S ribosomal protein L19

Chain 1T:



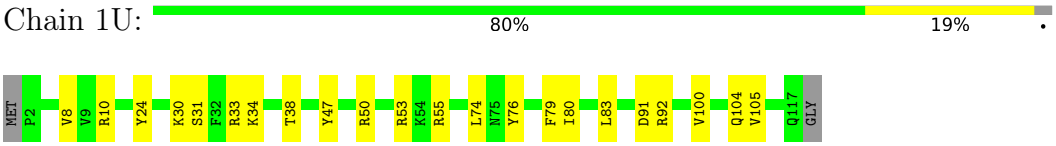
• Molecule 15: 50S ribosomal protein L19

Chain 2T:



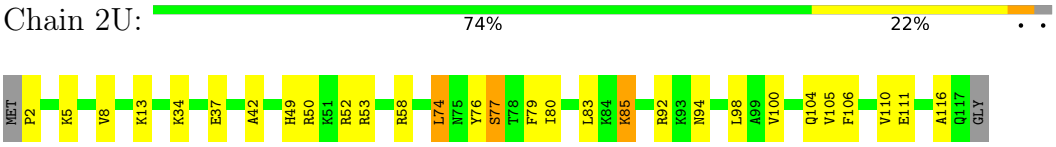
• Molecule 16: 50S ribosomal protein L20

Chain 1U:



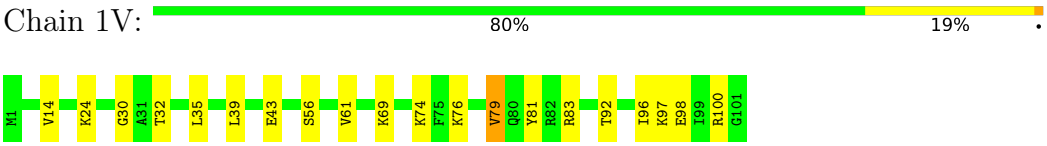
• Molecule 16: 50S ribosomal protein L20

Chain 2U:



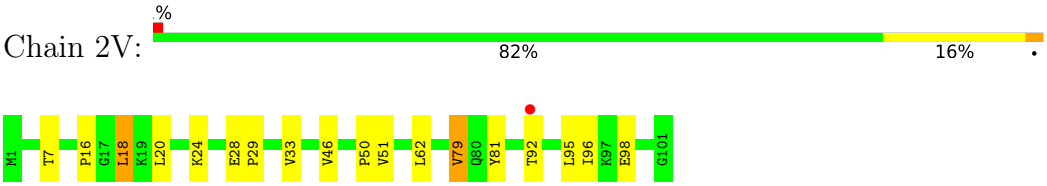
• Molecule 17: 50S ribosomal protein L21

Chain 1V:



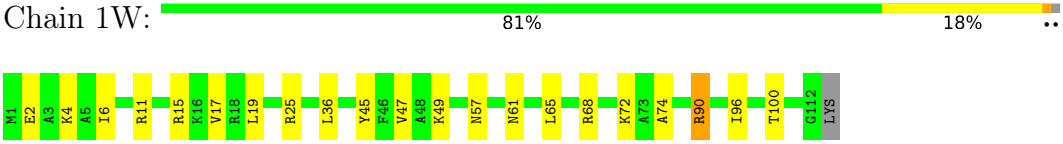
• Molecule 17: 50S ribosomal protein L21

Chain 2V:



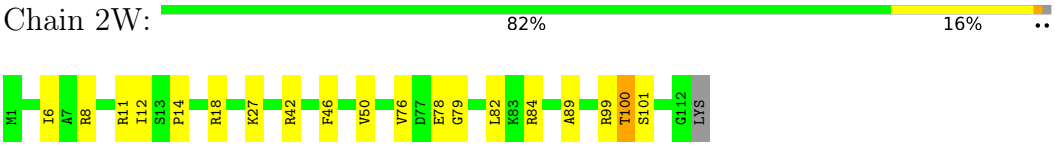
• Molecule 18: 50S ribosomal protein L22

Chain 1W:



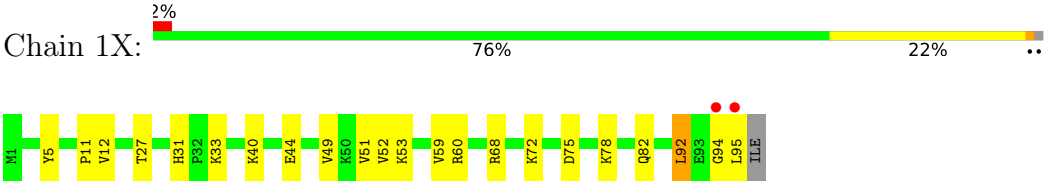
• Molecule 18: 50S ribosomal protein L22

Chain 2W:



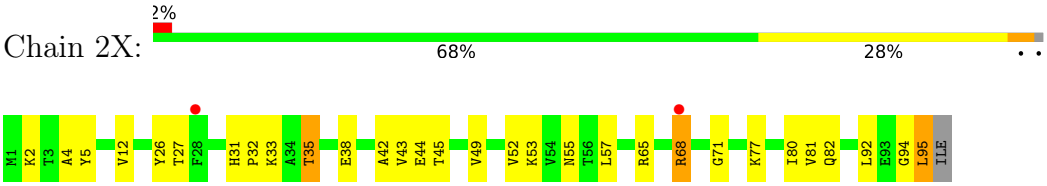
• Molecule 19: 50S ribosomal protein L23

Chain 1X:



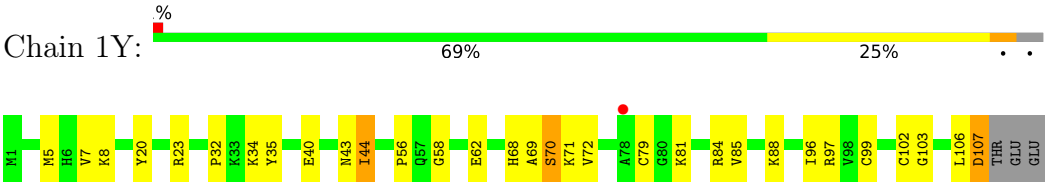
• Molecule 19: 50S ribosomal protein L23

Chain 2X:



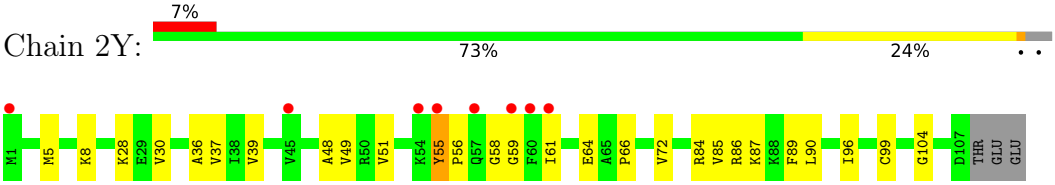
• Molecule 20: 50S ribosomal protein L24

Chain 1Y:



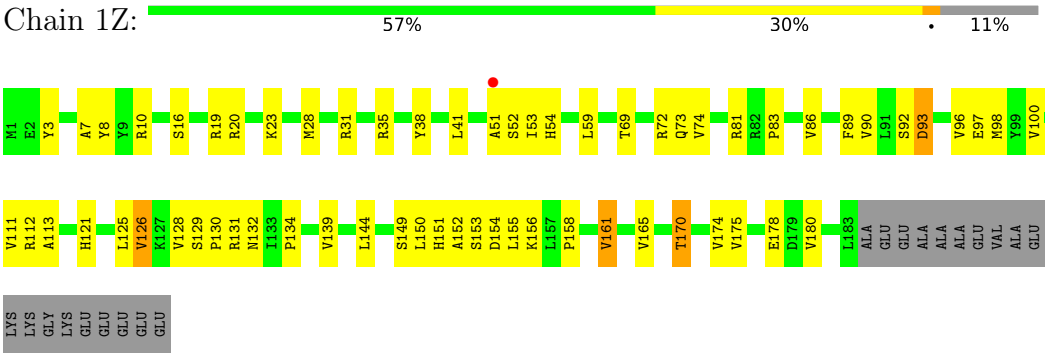
• Molecule 20: 50S ribosomal protein L24

Chain 2Y:



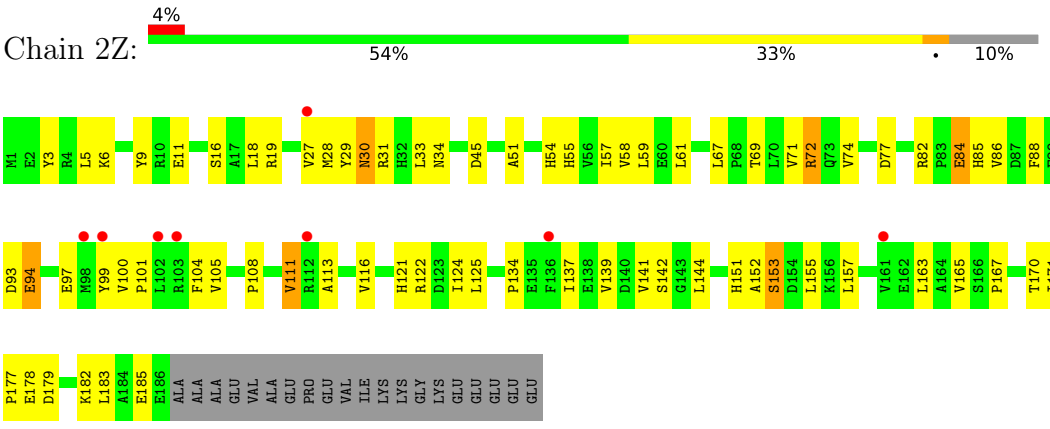
• Molecule 21: 50S ribosomal protein L25

Chain 1Z:



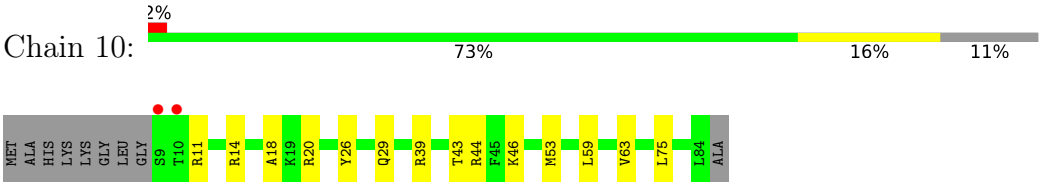
• Molecule 21: 50S ribosomal protein L25

Chain 2Z:



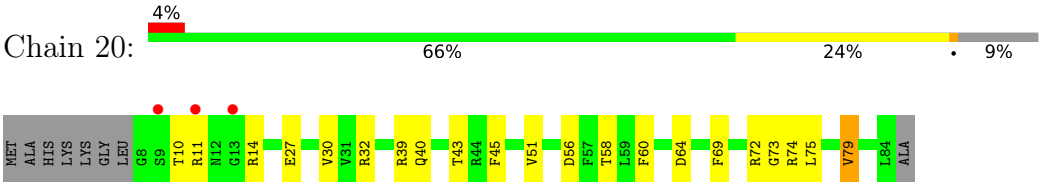
• Molecule 22: 50S ribosomal protein L27

Chain 10:



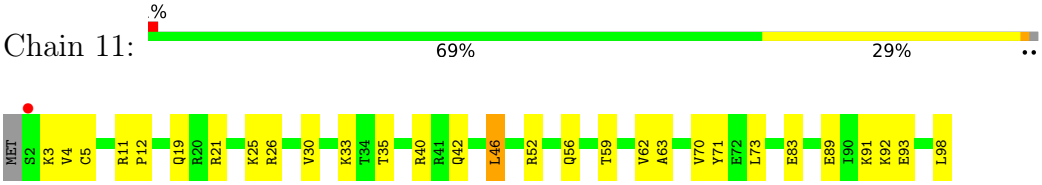
• Molecule 22: 50S ribosomal protein L27

Chain 20:



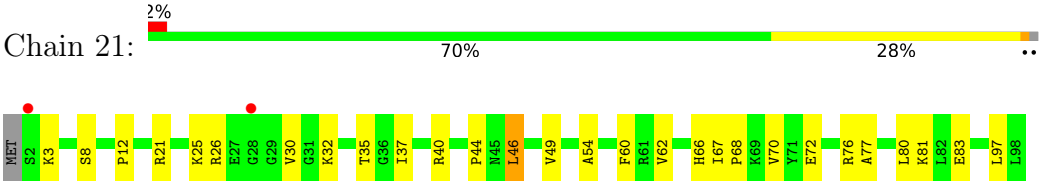
• Molecule 23: 50S ribosomal protein L28

Chain 11:



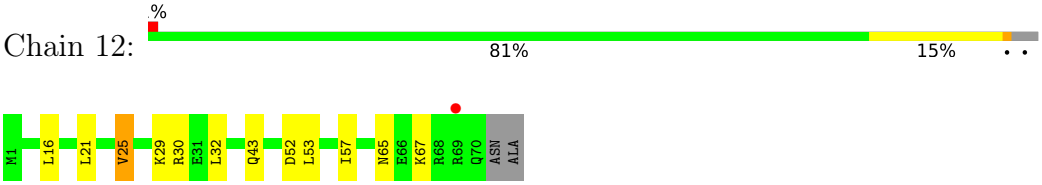
• Molecule 23: 50S ribosomal protein L28

Chain 21:



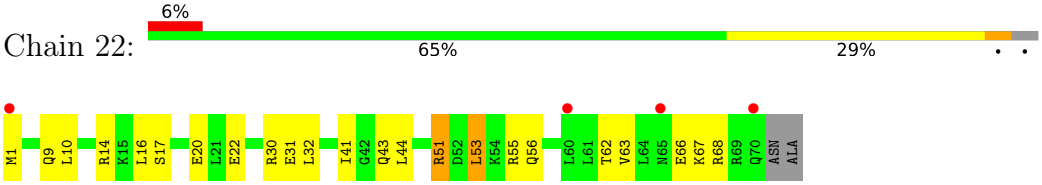
• Molecule 24: 50S ribosomal protein L29

Chain 12:



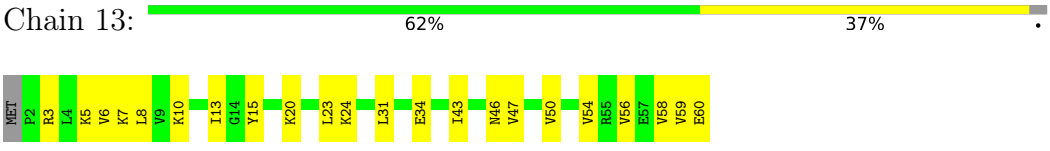
• Molecule 24: 50S ribosomal protein L29

Chain 22:



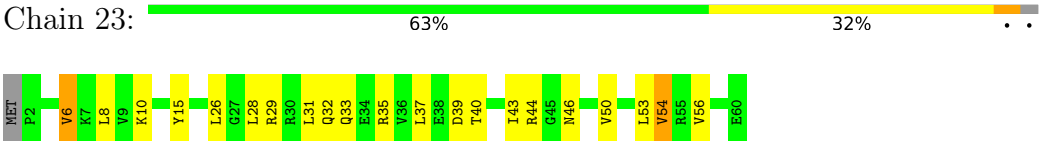
• Molecule 25: 50S ribosomal protein L30

Chain 13:



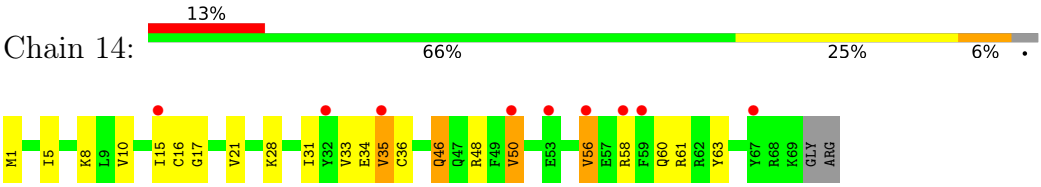
• Molecule 25: 50S ribosomal protein L30

Chain 23:



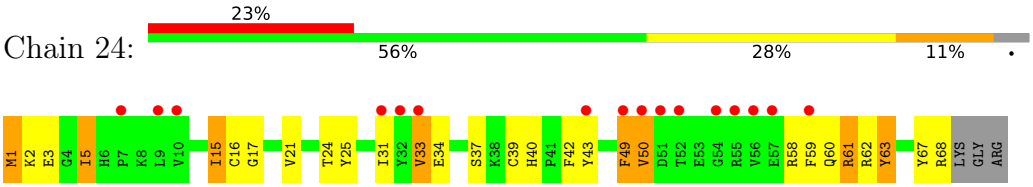
• Molecule 26: 50S ribosomal protein L31

Chain 14:



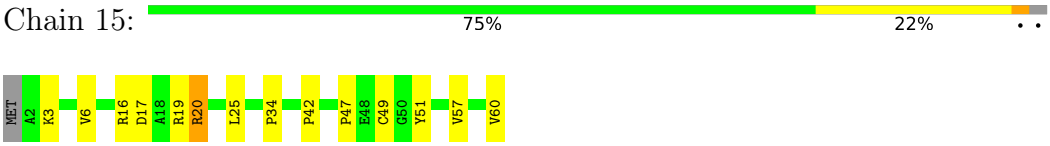
• Molecule 26: 50S ribosomal protein L31

Chain 24:



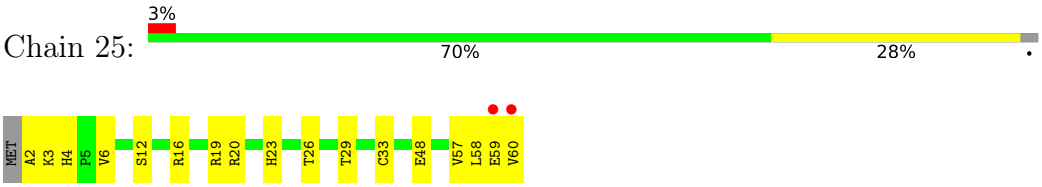
• Molecule 27: 50S ribosomal protein L32

Chain 15:



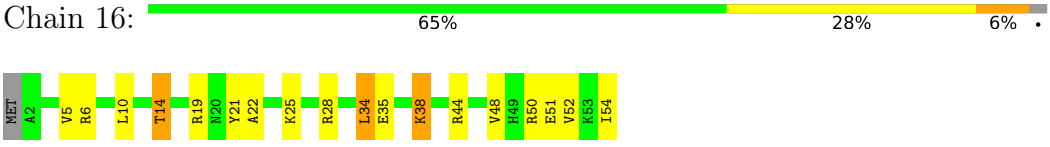
• Molecule 27: 50S ribosomal protein L32

Chain 25:



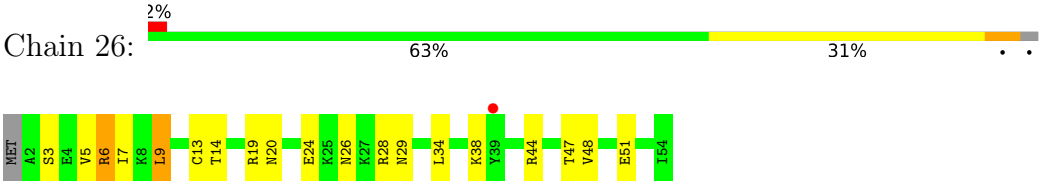
• Molecule 28: 50S ribosomal protein L33

Chain 16:



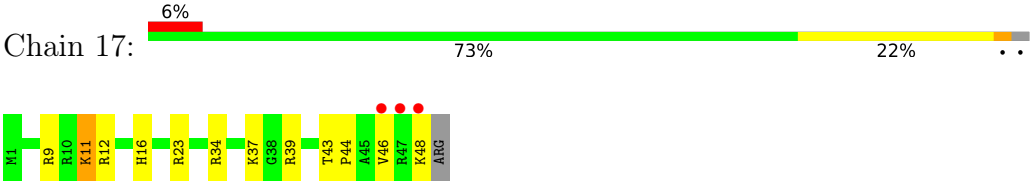
• Molecule 28: 50S ribosomal protein L33

Chain 26:



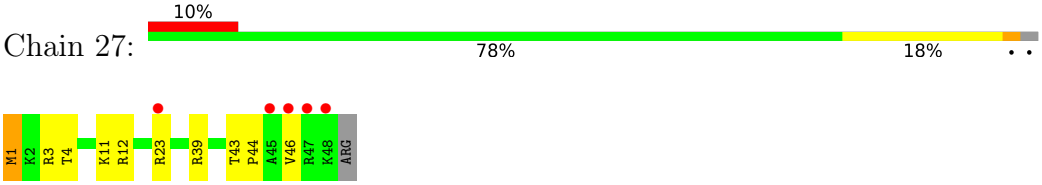
• Molecule 29: 50S ribosomal protein L34

Chain 17:



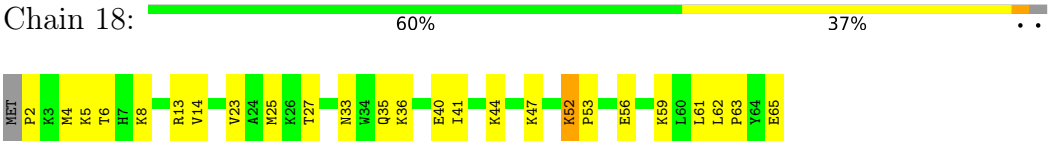
• Molecule 29: 50S ribosomal protein L34

Chain 27:



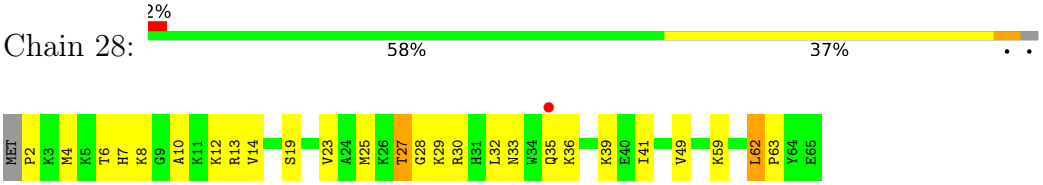
• Molecule 30: 50S ribosomal protein L35

Chain 18:



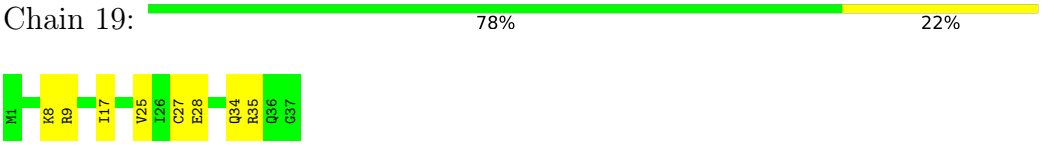
• Molecule 30: 50S ribosomal protein L35

Chain 28:



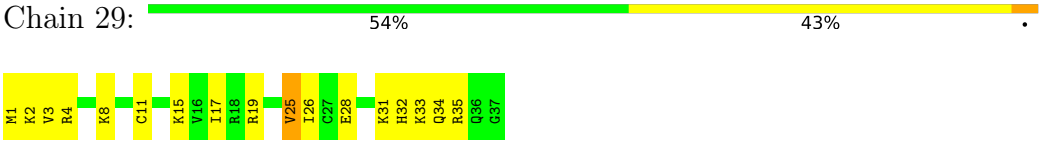
• Molecule 31: 50S ribosomal protein L36

Chain 19:



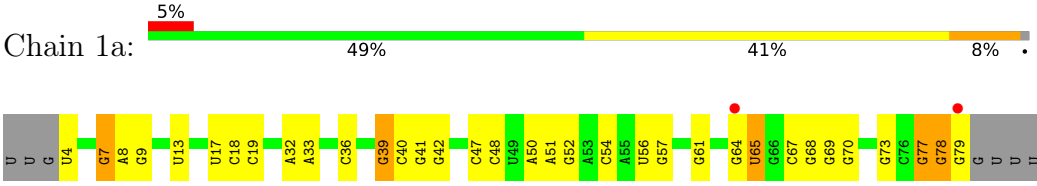
• Molecule 31: 50S ribosomal protein L36

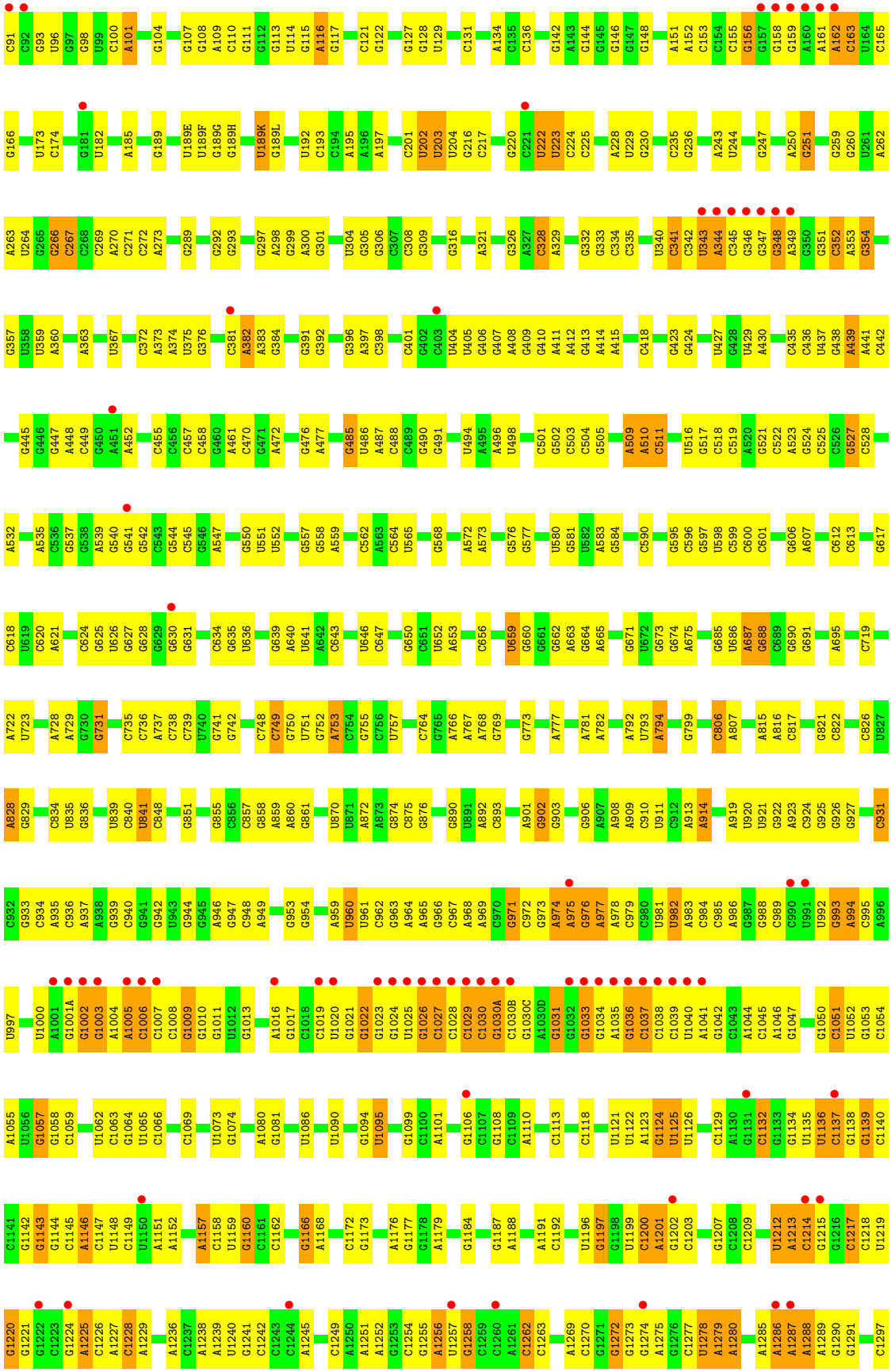
Chain 29:

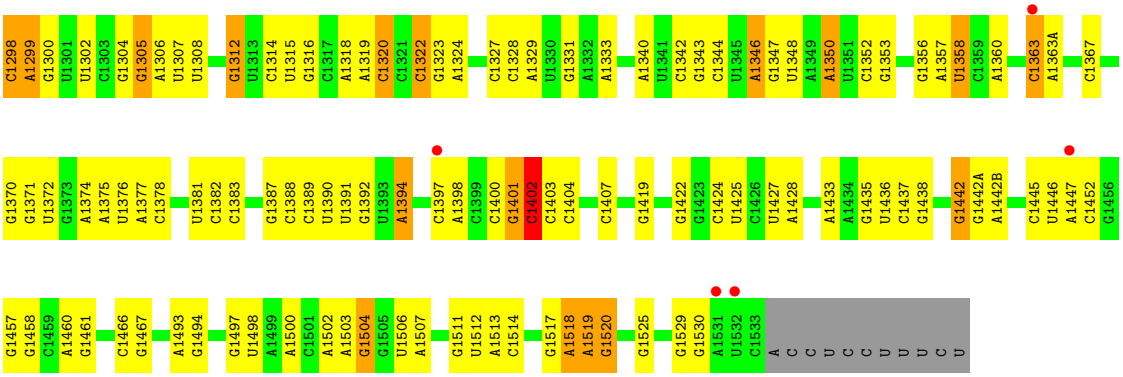


• Molecule 32: 16S Ribosomal RNA

Chain 1a:

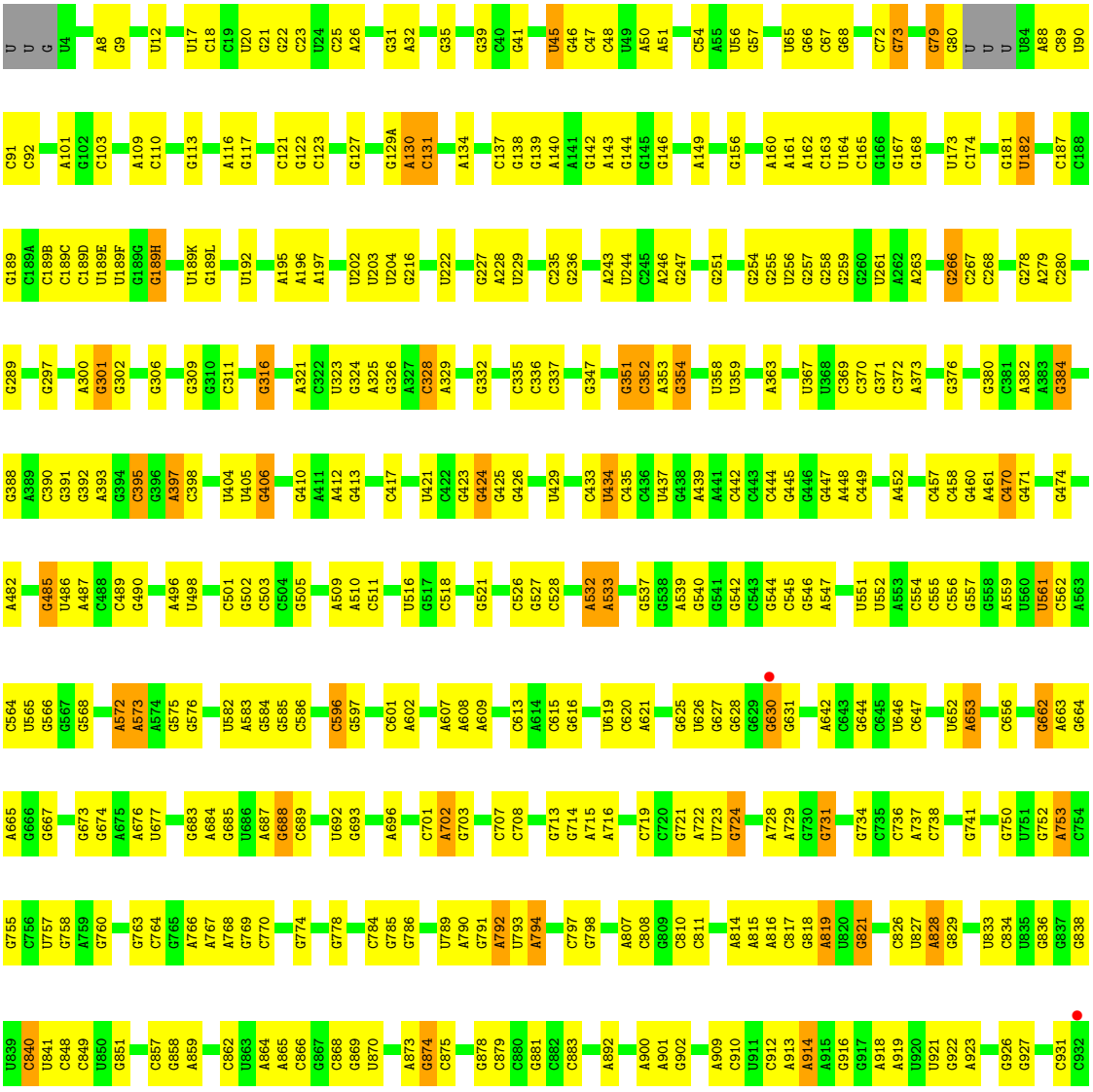


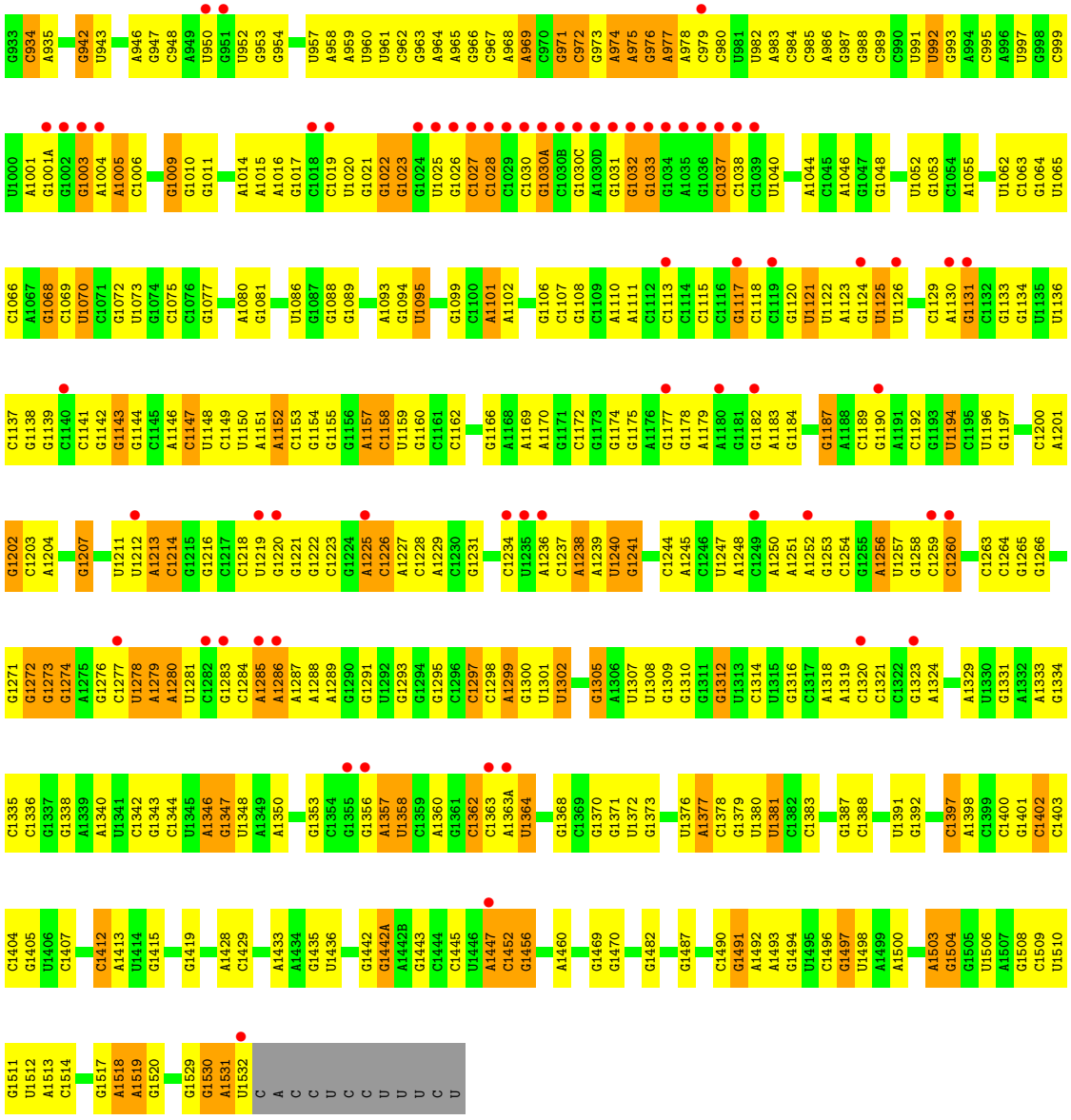




• Molecule 32: 16S Ribosomal RNA

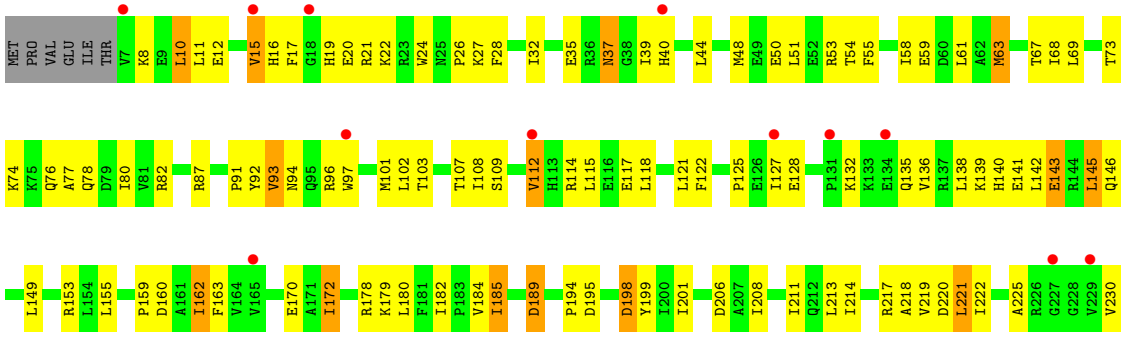
Chain 2a:

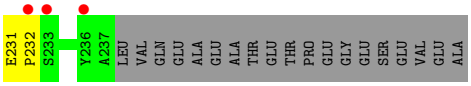




• Molecule 33: 30S ribosomal protein S2

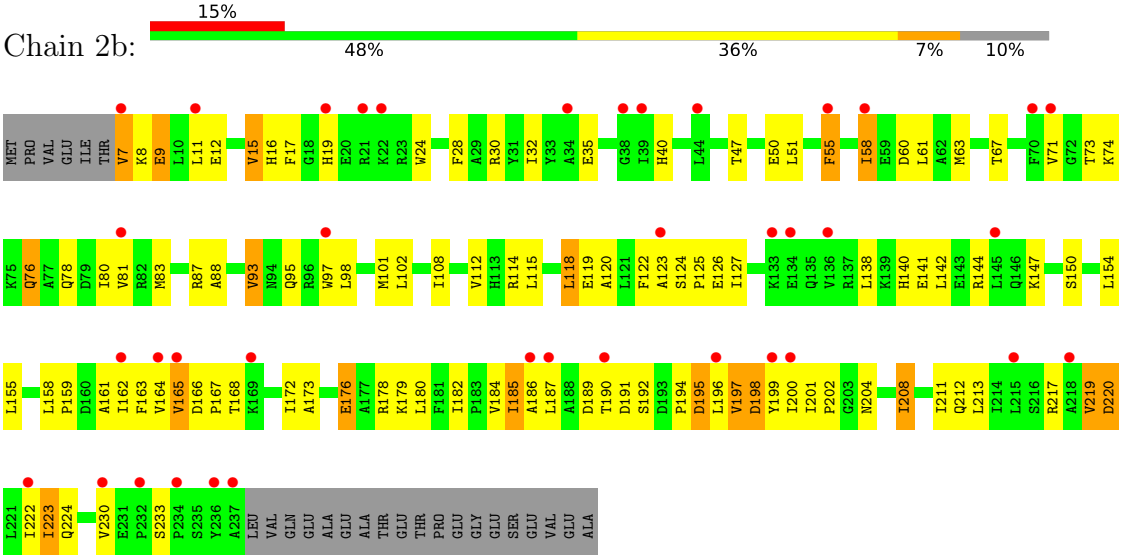
Chain 1b:





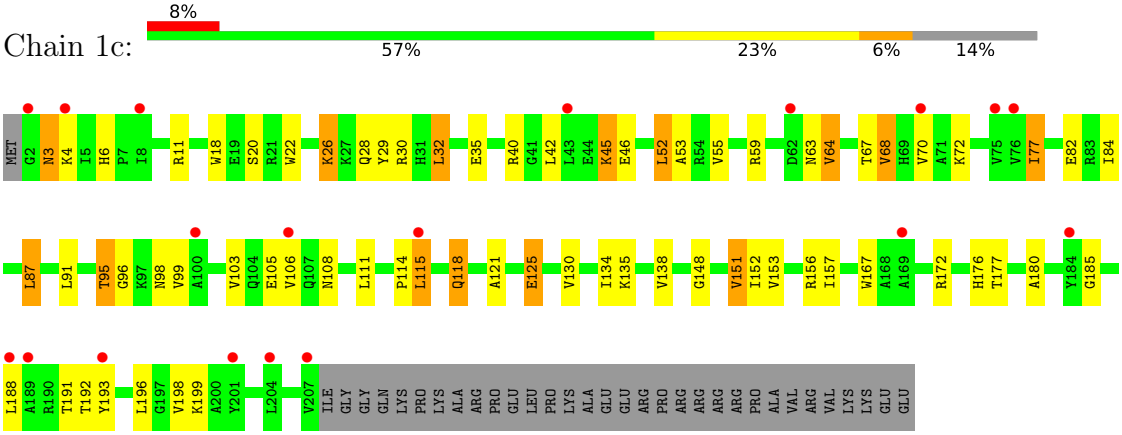
• Molecule 33: 30S ribosomal protein S2

Chain 2b:



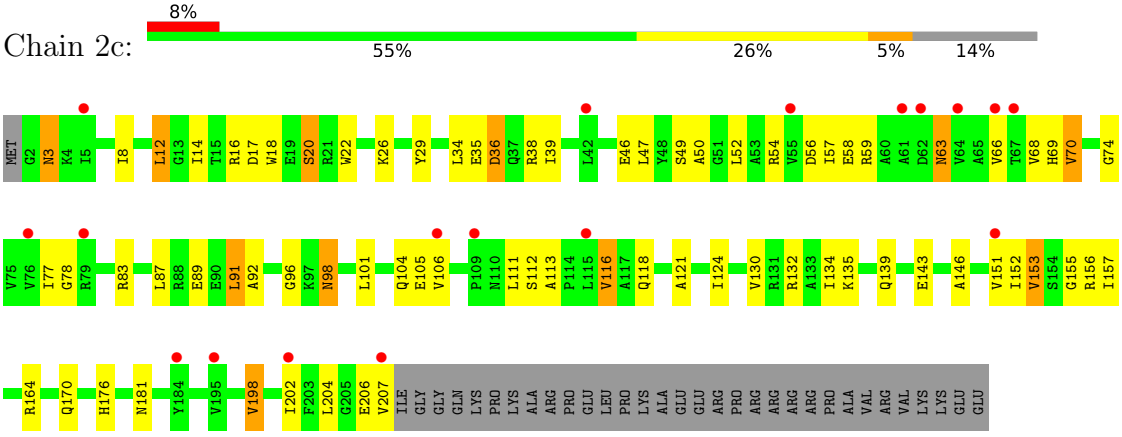
• Molecule 34: 30S ribosomal protein S3

Chain 1c:



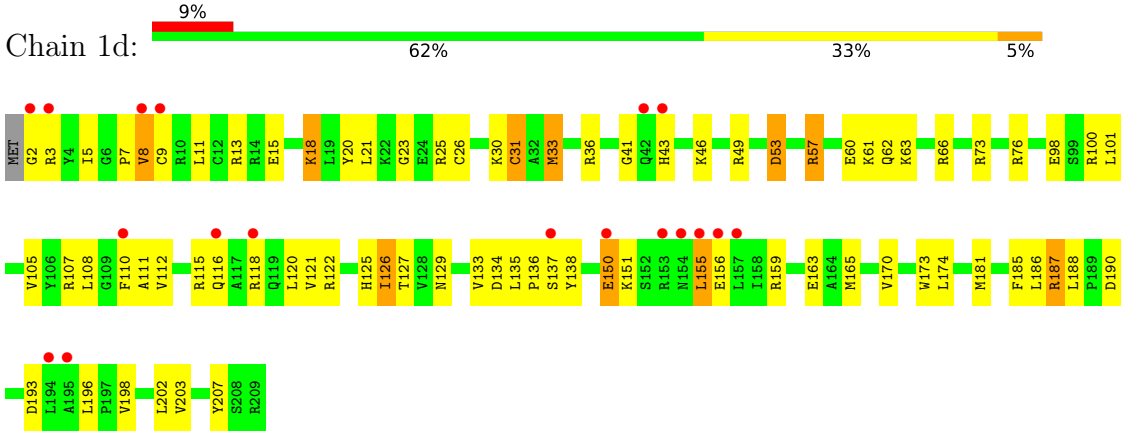
• Molecule 34: 30S ribosomal protein S3

Chain 2c:



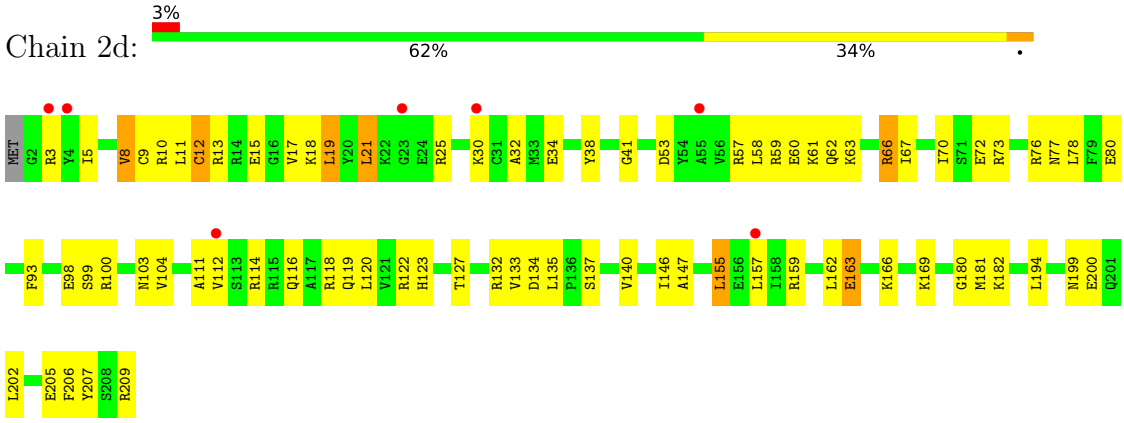
• Molecule 35: 30S ribosomal protein S4

Chain 1d:



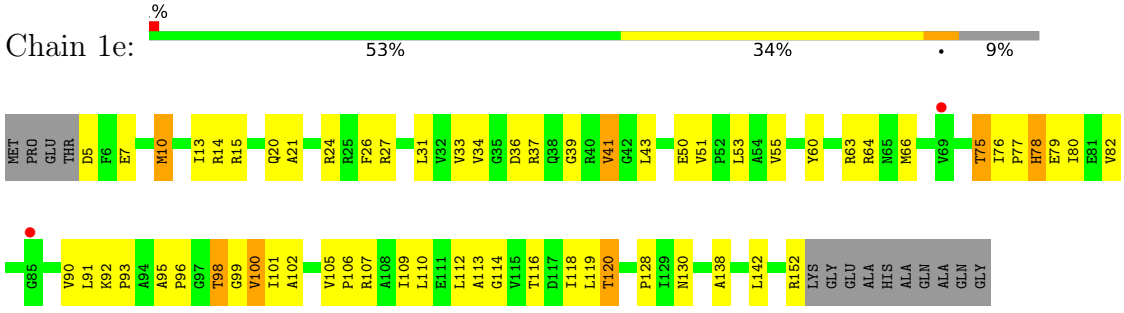
• Molecule 35: 30S ribosomal protein S4

Chain 2d:



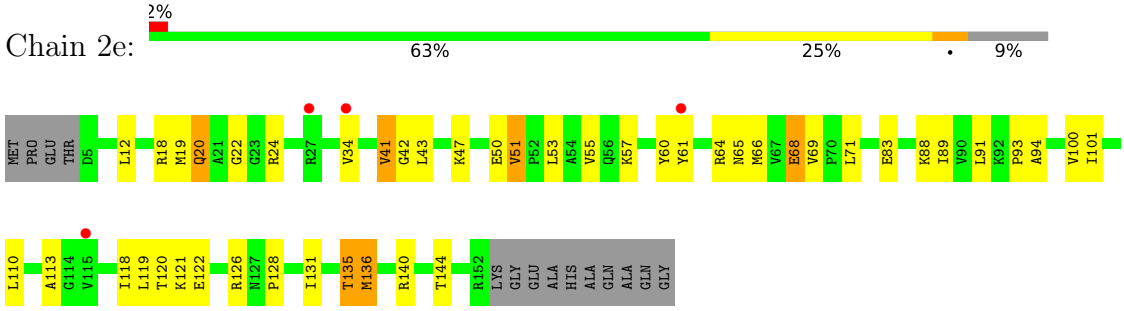
• Molecule 36: 30S ribosomal protein S5

Chain 1e:



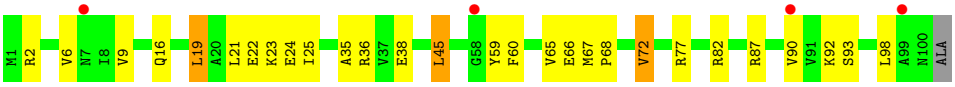
• Molecule 36: 30S ribosomal protein S5

Chain 2e:



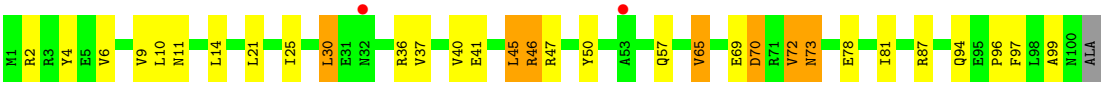
• Molecule 37: 30S ribosomal protein S6

Chain 1f:



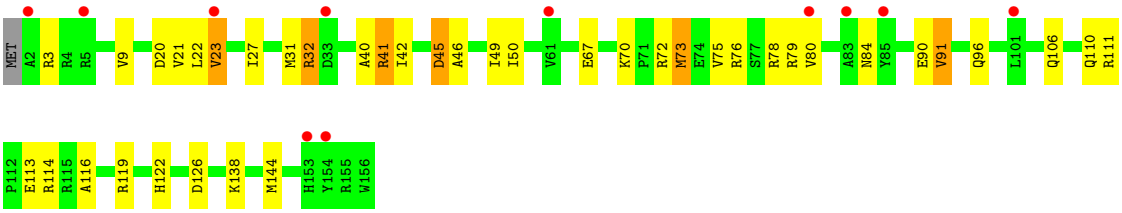
• Molecule 37: 30S ribosomal protein S6

Chain 2f:



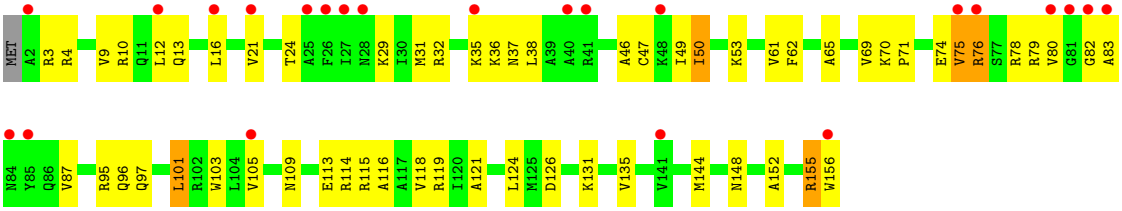
• Molecule 38: 30S ribosomal protein S7

Chain 1g:



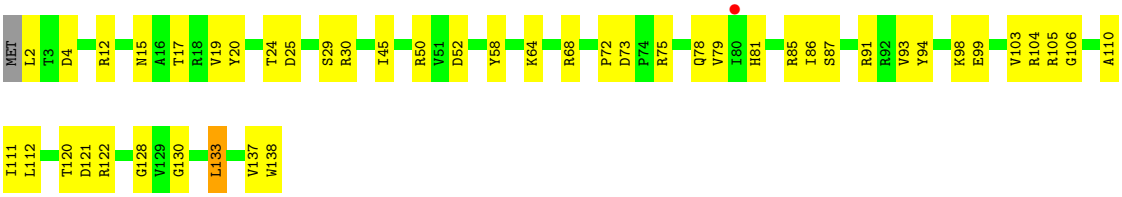
• Molecule 38: 30S ribosomal protein S7

Chain 2g:



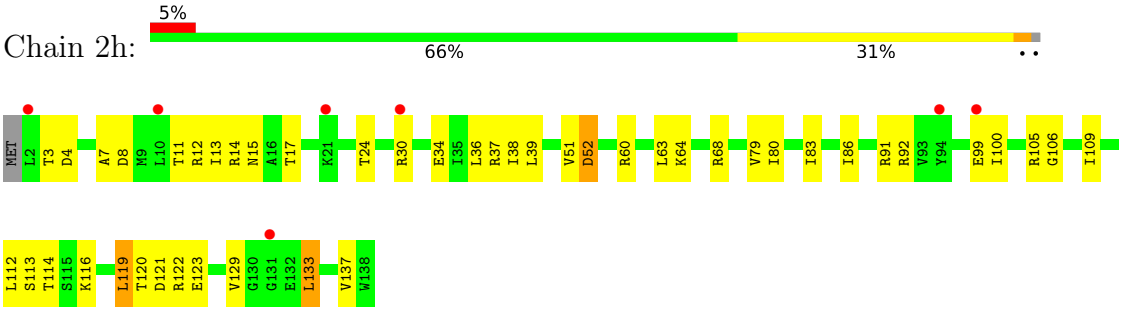
• Molecule 39: 30S ribosomal protein S8

Chain 1h:



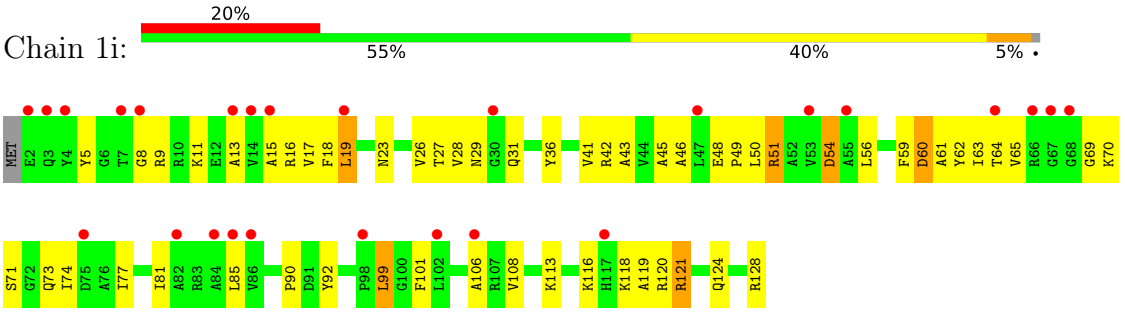
• Molecule 39: 30S ribosomal protein S8

Chain 2h:



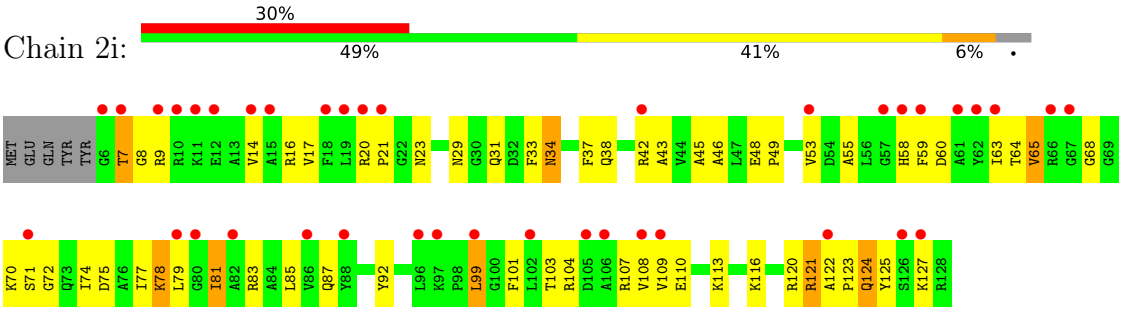
• Molecule 40: 30S ribosomal protein S9

Chain 1i:



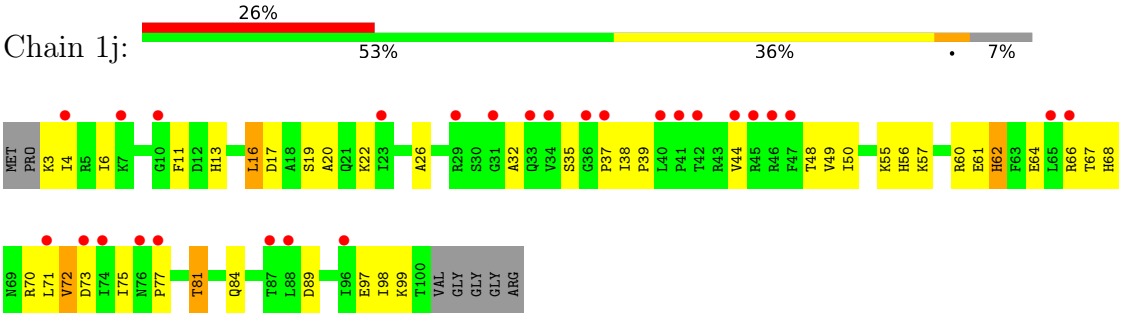
• Molecule 40: 30S ribosomal protein S9

Chain 2i:



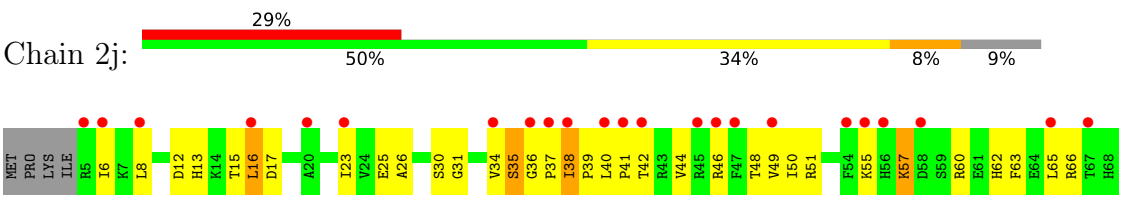
• Molecule 41: 30S ribosomal protein S10

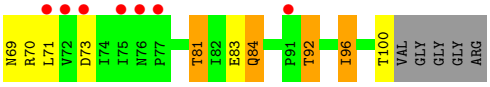
Chain 1j:



• Molecule 41: 30S ribosomal protein S10

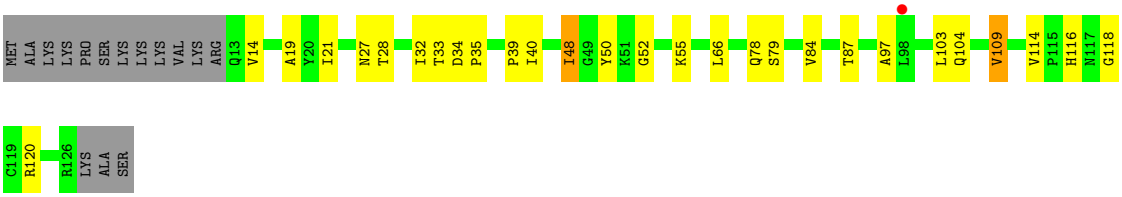
Chain 2j:





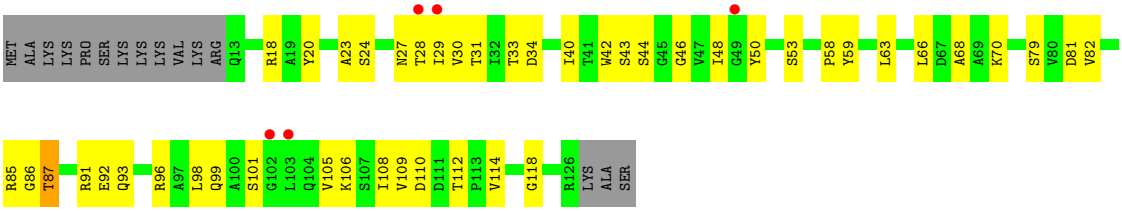
• Molecule 42: 30S ribosomal protein S11

Chain 1k:



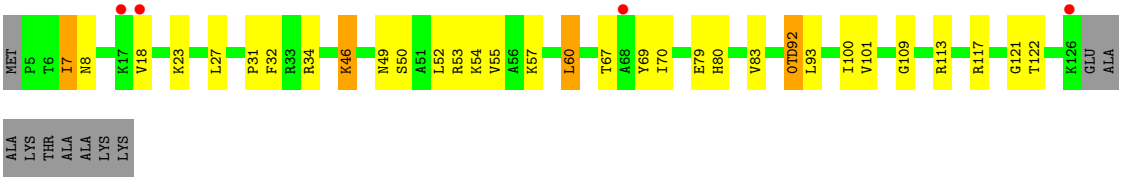
• Molecule 42: 30S ribosomal protein S11

Chain 2k:



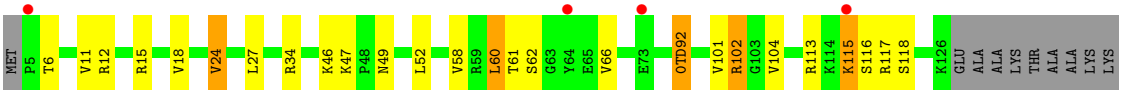
• Molecule 43: 30S ribosomal protein S12

Chain 1l:



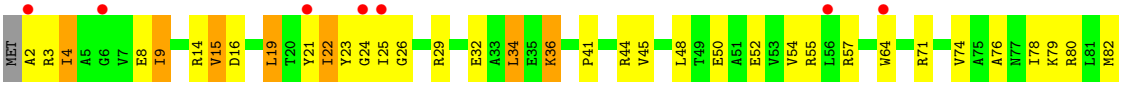
• Molecule 43: 30S ribosomal protein S12

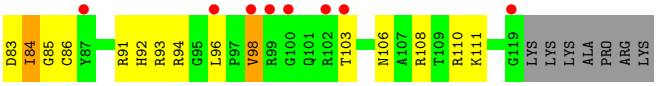
Chain 2l:



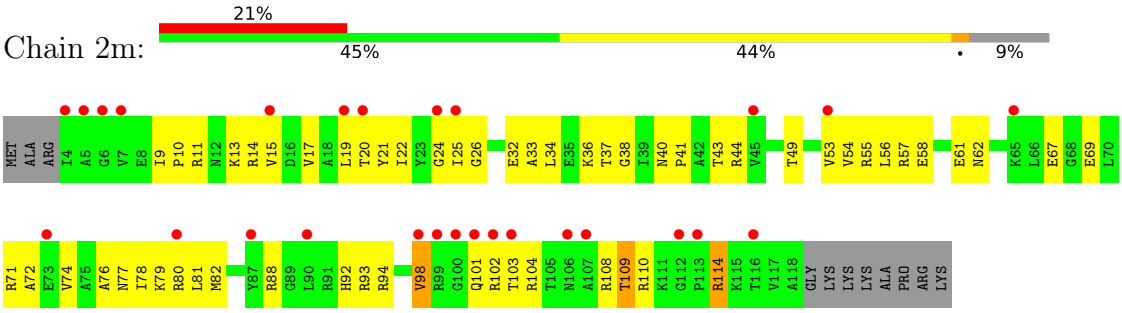
• Molecule 44: 30S ribosomal protein S13

Chain 1m:

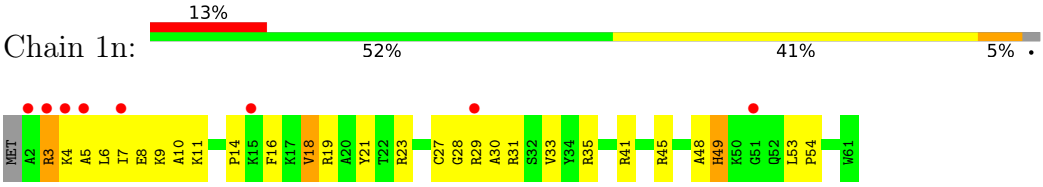




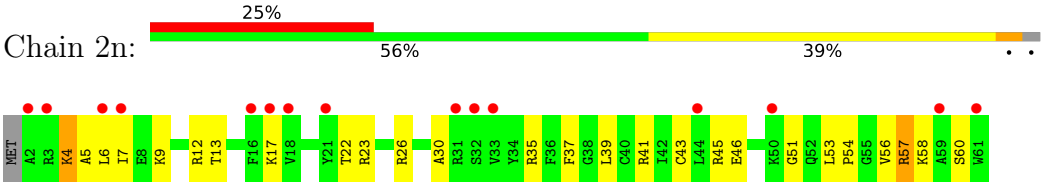
• Molecule 44: 30S ribosomal protein S13



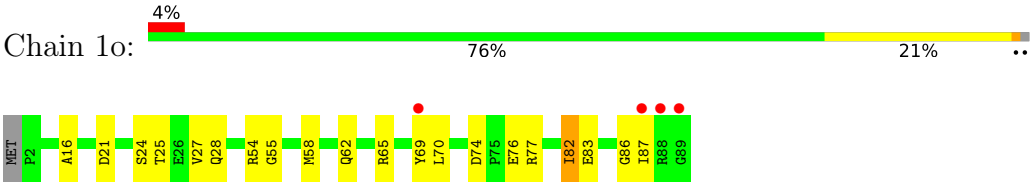
• Molecule 45: 30S ribosomal protein S14 type Z



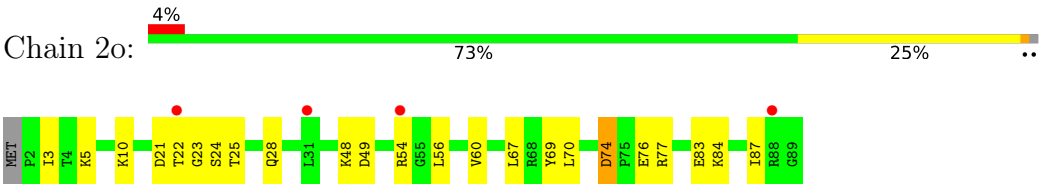
• Molecule 45: 30S ribosomal protein S14 type Z



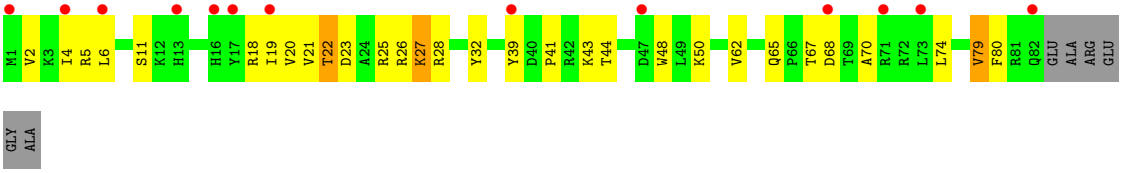
• Molecule 46: 30S ribosomal protein S15



• Molecule 46: 30S ribosomal protein S15



• Molecule 47: 30S ribosomal protein S16

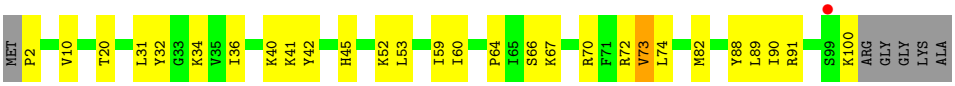


• Molecule 47: 30S ribosomal protein S16

Chain 2p:

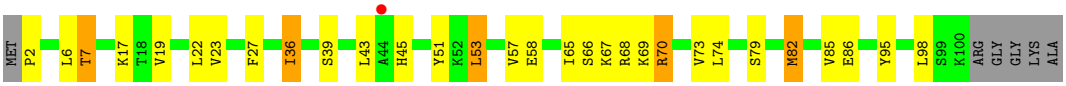
• Molecule 48: 30S ribosomal protein S17

Chain 1q:



• Molecule 48: 30S ribosomal protein S17

Chain 2q:

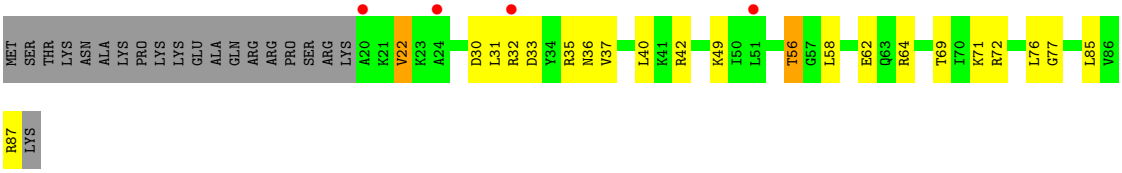


• Molecule 49: 30S ribosomal protein S18

Chain 1r:

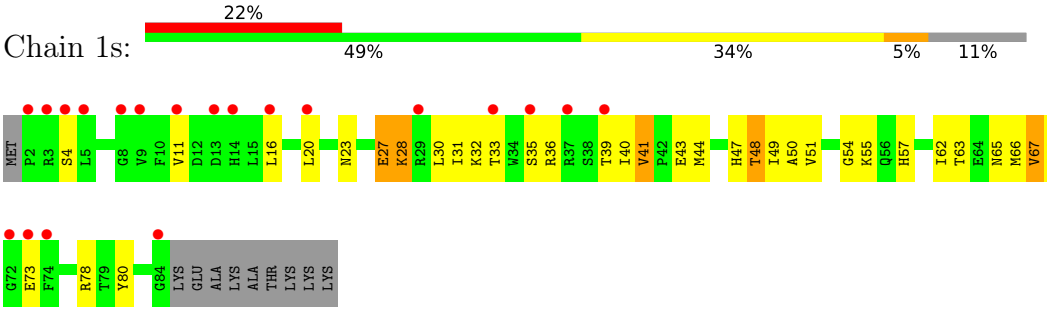
• Molecule 49: 30S ribosomal protein S18

Chain 2r:



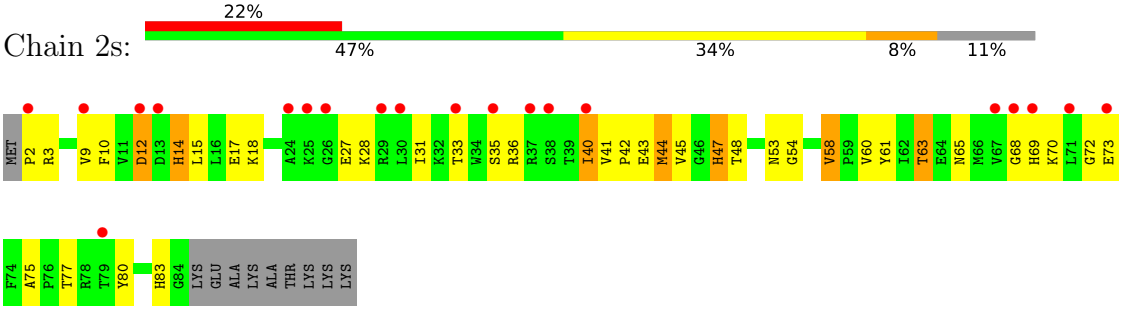
• Molecule 50: 30S ribosomal protein S19

Chain 1s:



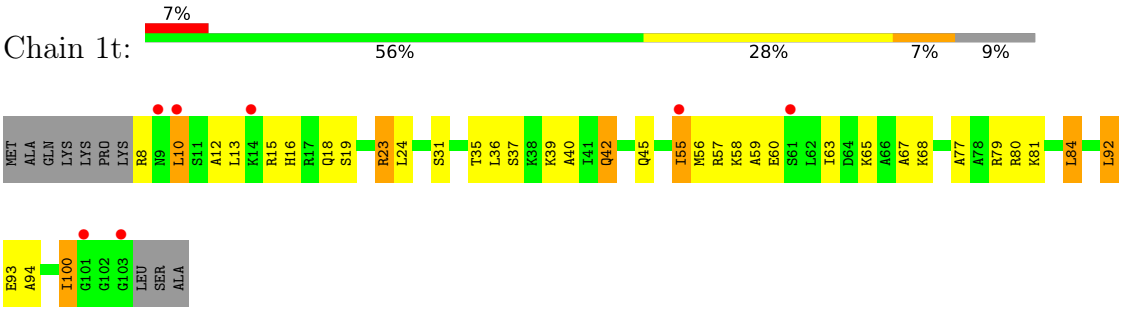
• Molecule 50: 30S ribosomal protein S19

Chain 2s:



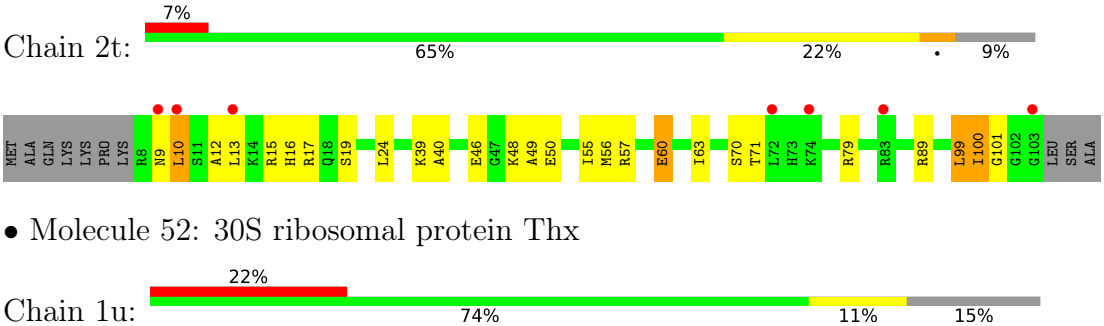
• Molecule 51: 30S ribosomal protein S20

Chain 1t:



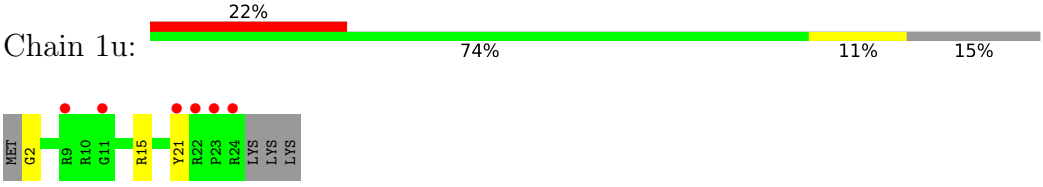
• Molecule 51: 30S ribosomal protein S20

Chain 2t:



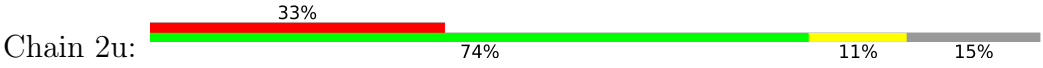
• Molecule 52: 30S ribosomal protein Thx

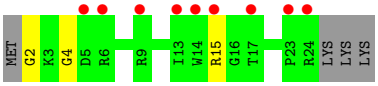
Chain 1u:



• Molecule 52: 30S ribosomal protein Thx

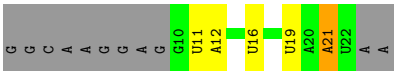
Chain 2u:





• Molecule 53: PHE-Stop mRNA

Chain 1v:

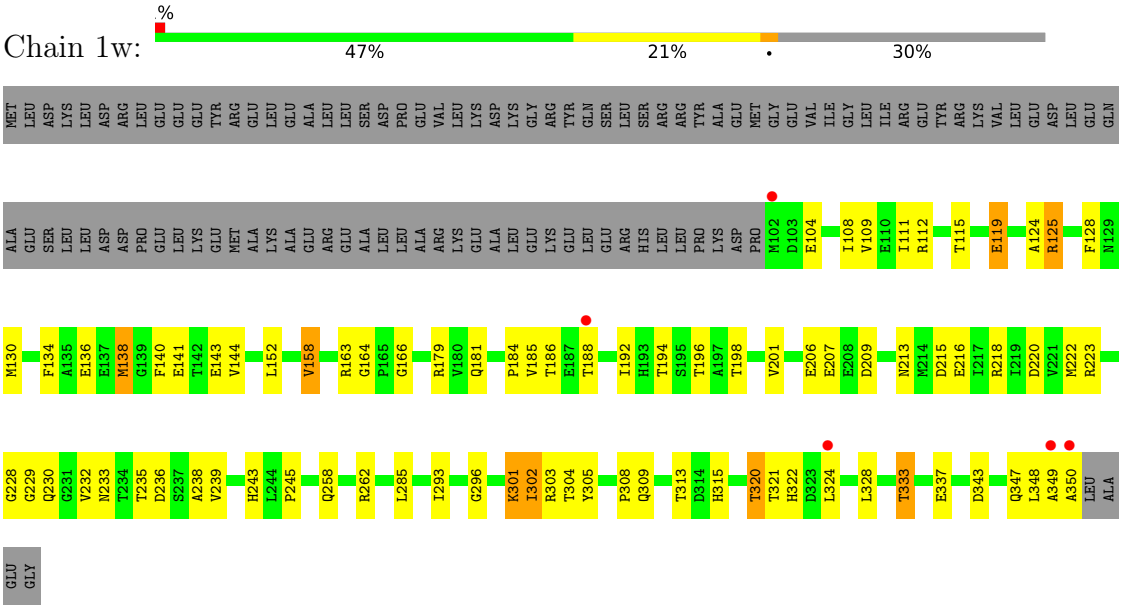


• Molecule 53: PHE-Stop mRNA

Chain 2v:

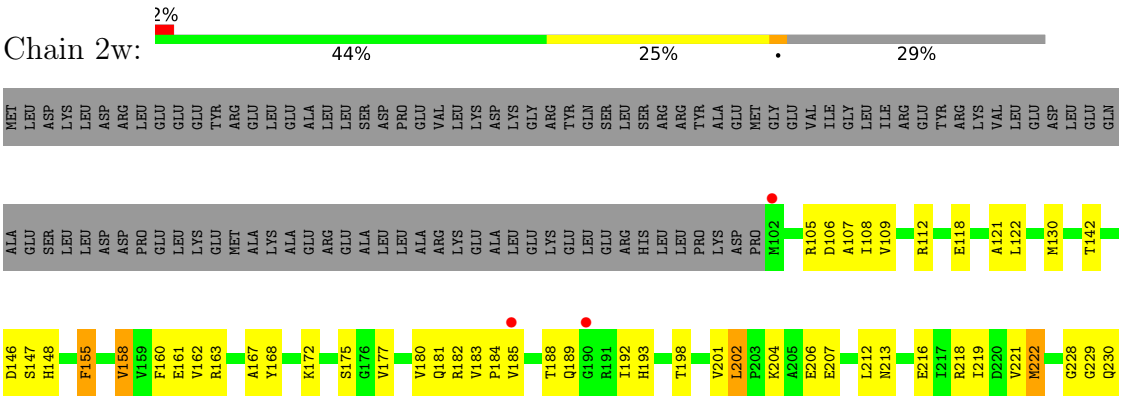
• Molecule 54: Peptide chain release factor 1

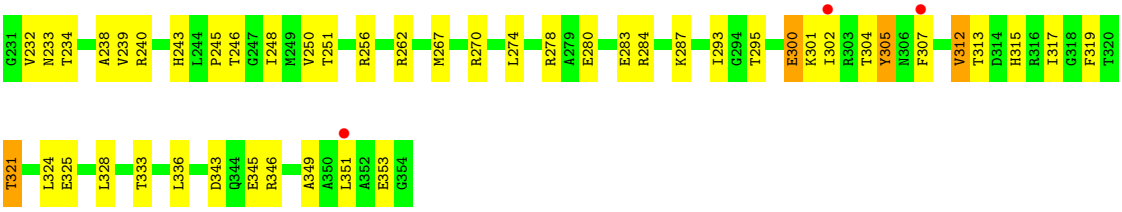
Chain 1w:



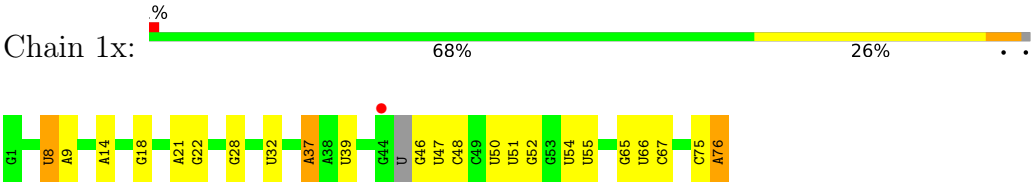
• Molecule 54: Peptide chain release factor 1

Chain 2w:

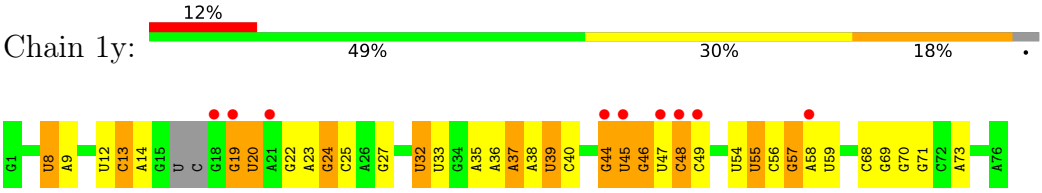




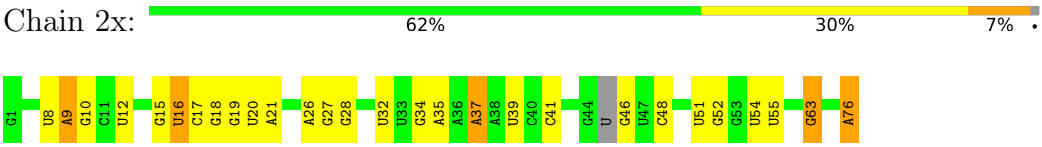
• Molecule 55: P-site and E-site Deacylated tRNAphe



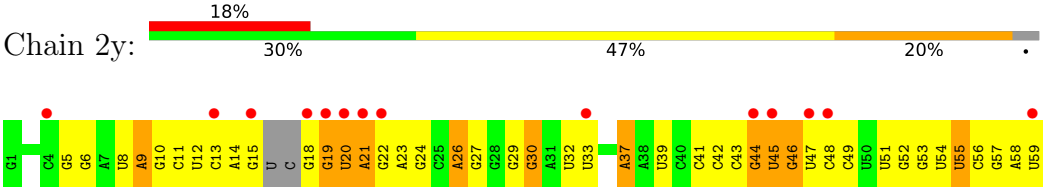
• Molecule 55: P-site and E-site Deacylated tRNAphe



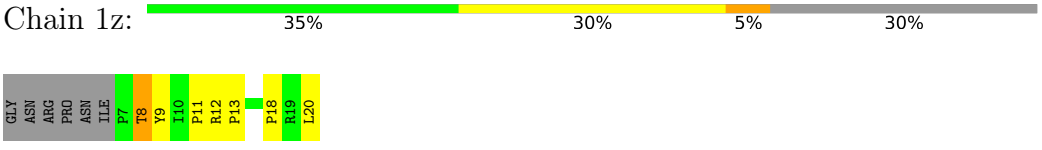
• Molecule 55: P-site and E-site Deacylated tRNAphe



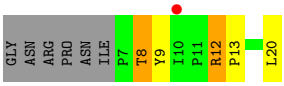
• Molecule 55: P-site and E-site Deacylated tRNAphe



• Molecule 56: Fva1 Antimicrobial Peptide



• Molecule 56: Fva1 Antimicrobial Peptide


GLY
ASN
ARG
PRO
ASN
ILE
P7
T8
Y9
I10
P11
R12
P13
L20

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.39Å 451.41Å 623.94Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	37.02 – 2.70 37.02 – 2.70	Depositor EDS
% Data completeness (in resolution range)	96.7 (37.02-2.70) 96.7 (37.02-2.70)	Depositor EDS
R_{merge}	0.24	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.15 (at 2.69Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.226 , 0.275 0.226 , 0.274	Depositor DCC
R_{free} test set	77897 reflections (4.86%)	wwPDB-VP
Wilson B-factor (Å^2)	48.4	Xtriage
Anisotropy	0.172	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 48.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.41$, $< L^2 > = 0.23$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	299076	wwPDB-VP
Average B, all atoms (Å^2)	51.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.97% 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: MIA, 4OC, OMU, 4SU, 0TD, G7M, 5MU, 2MA, MEQ, UR3, 2MG, MA6, MG, OMG, M2G, 5MC, SF4, ZN, PSU, OMC

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	0.28	0/69011	0.46	1/107720 (0.0%)
1	2A	0.21	1/67295 (0.0%)	0.39	2/105042 (0.0%)
2	1B	0.21	0/2881	0.38	0/4494
2	2B	0.18	0/2881	0.34	0/4494
3	1D	0.26	0/2186	0.49	0/2944
3	2D	0.22	0/2186	0.45	0/2944
4	1E	0.27	0/1592	0.48	0/2149
4	2E	0.21	0/1592	0.43	0/2149
5	1F	0.26	0/1619	0.49	0/2193
5	2F	0.20	0/1615	0.43	0/2188
6	1G	0.21	0/1450	0.42	0/1959
6	2G	0.21	0/1449	0.45	0/1958
7	1H	0.23	0/1356	0.46	0/1834
7	2H	0.19	0/1356	0.38	0/1834
8	1I	0.21	0/1100	0.42	0/1501
8	2I	0.18	0/1076	0.40	0/1471
9	1N	0.26	0/1144	0.44	0/1543
9	2N	0.20	0/1144	0.41	0/1543
10	1O	0.26	0/943	0.44	0/1269
10	2O	0.21	0/943	0.40	0/1269
11	1P	0.26	0/1152	0.52	0/1533
11	2P	0.20	0/1152	0.47	0/1533
12	1Q	0.26	0/1143	0.48	0/1527
12	2Q	0.20	0/1143	0.42	0/1527
13	1R	0.26	0/982	0.51	0/1312
13	2R	0.21	0/982	0.44	0/1312
14	1S	0.21	0/887	0.45	0/1180
14	2S	0.20	0/880	0.44	0/1172
15	1T	0.24	0/1105	0.47	0/1477
15	2T	0.21	0/1097	0.45	0/1468
16	1U	0.31	0/977	0.48	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	2U	0.20	0/977	0.40	0/1301
17	1V	0.28	0/782	0.49	0/1049
17	2V	0.18	0/782	0.41	0/1049
18	1W	0.31	0/897	0.46	0/1205
18	2W	0.21	0/897	0.43	0/1205
19	1X	0.25	0/764	0.45	0/1025
19	2X	0.21	0/760	0.37	0/1021
20	1Y	0.25	0/819	0.59	0/1095
20	2Y	0.21	0/823	0.43	0/1100
21	1Z	0.23	0/1469	0.47	0/1998
21	2Z	0.20	0/1483	0.42	0/2018
22	10	0.27	0/612	0.54	0/816
22	20	0.21	0/616	0.50	0/821
23	11	0.24	0/762	0.47	0/1014
23	21	0.21	0/762	0.39	0/1014
24	12	0.26	0/590	0.45	0/781
24	22	0.21	0/590	0.40	0/781
25	13	0.27	0/474	0.51	0/635
25	23	0.21	0/469	0.43	0/630
26	14	0.22	0/561	0.49	0/756
26	24	0.28	0/530	0.61	0/719
27	15	0.29	0/469	0.51	0/635
27	25	0.23	0/469	0.44	0/635
28	16	0.24	0/460	0.47	0/613
28	26	0.20	0/456	0.43	0/608
29	17	0.31	0/426	0.48	0/561
29	27	0.24	0/426	0.52	0/561
30	18	0.28	0/519	0.44	0/684
30	28	0.19	0/525	0.39	0/691
31	19	0.27	0/310	0.48	0/407
31	29	0.24	0/310	0.47	0/407
32	1a	0.20	0/35795	0.38	0/55864
32	2a	0.20	1/35886 (0.0%)	0.38	0/56005
33	1b	0.23	0/1881	0.49	0/2542
33	2b	0.25	0/1860	0.51	0/2518
34	1c	0.21	0/1578	0.44	0/2133
34	2c	0.20	0/1566	0.44	1/2119 (0.0%)
35	1d	0.20	0/1689	0.43	0/2267
35	2d	0.19	0/1704	0.46	0/2284
36	1e	0.21	0/1145	0.49	1/1543 (0.1%)
36	2e	0.21	0/1146	0.46	0/1545
37	1f	0.21	0/823	0.41	0/1116
37	2f	0.20	0/829	0.43	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1g	0.20	0/1250	0.40	0/1679
38	2g	0.21	0/1254	0.41	0/1683
39	1h	0.20	0/1108	0.42	0/1494
39	2h	0.19	0/1108	0.43	0/1494
40	1i	0.23	0/1002	0.52	1/1346 (0.1%)
40	2i	0.24	0/957	0.46	0/1288
41	1j	0.22	0/734	0.48	0/997
41	2j	0.23	0/727	0.45	0/988
42	1k	0.19	0/844	0.45	1/1145 (0.1%)
42	2k	0.20	0/848	0.44	0/1149
43	1l	0.21	0/937	0.43	0/1260
43	2l	0.20	0/937	0.41	0/1260
44	1m	0.21	0/933	0.49	0/1254
44	2m	0.22	0/899	0.51	0/1212
45	1n	0.21	0/501	0.50	0/664
45	2n	0.20	0/495	0.45	0/657
46	1o	0.19	0/739	0.41	0/985
46	2o	0.18	0/739	0.40	0/985
47	1p	0.20	0/697	0.45	0/939
47	2p	0.20	0/693	0.45	0/935
48	1q	0.19	0/836	0.41	0/1117
48	2q	0.19	0/836	0.40	0/1117
49	1r	0.21	0/560	0.42	0/746
49	2r	0.18	0/556	0.44	0/741
50	1s	0.21	0/667	0.42	0/900
50	2s	0.18	0/661	0.46	0/893
51	1t	0.21	0/730	0.44	0/965
51	2t	0.19	0/729	0.43	0/965
52	1u	0.20	0/203	0.42	0/266
52	2u	0.19	0/203	0.47	0/266
53	1v	0.24	0/306	0.43	0/473
53	2v	0.21	0/306	0.43	0/473
54	1w	0.21	0/1956	0.42	0/2634
54	2w	0.19	0/1971	0.41	0/2654
55	1x	0.27	0/1629	0.42	0/2535
55	1y	0.27	1/1602 (0.1%)	0.40	0/2488
55	2x	0.26	1/1629 (0.1%)	0.35	0/2535
55	2y	0.30	1/1606 (0.1%)	0.39	0/2497
56	1z	0.28	0/128	0.51	0/175
56	2z	0.20	0/128	0.42	0/175
All	All	0.23	5/317654 (0.0%)	0.42	7/474763 (0.0%)

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
11	1P	0	1
11	2P	0	1
14	1S	0	1
All	All	0	3

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2y	46	G7M	O3'-P	5.57	1.61	1.56
55	1y	46	G7M	O3'-P	5.28	1.61	1.56
32	2a	527	G7M	O3'-P	5.20	1.61	1.56
55	2x	46	G7M	O3'-P	5.20	1.61	1.56
1	2A	2552	OMU	O3'-P	5.06	1.61	1.56

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	1k	118	GLY	N-CA-C	6.50	116.13	110.21
34	2c	116	VAL	N-CA-C	-5.86	105.66	112.98
40	1i	51	ARG	N-CA-C	-5.68	108.14	114.62
36	1e	113	ALA	N-CA-C	-5.48	106.57	113.20
1	1A	1653	G	C2'-C3'-O3'	5.09	117.14	109.50
1	2A	271(M)	G	P-O3'-C3'	5.03	125.74	119.70
1	2A	1992	G	C2'-C3'-O3'	5.02	117.03	109.50

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
11	1P	35	HIS	Peptide
14	1S	58	LEU	Peptide
11	2P	35	HIS	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	61852	0	31196	580	0
1	2A	60322	0	30426	658	0
2	1B	2576	0	1305	19	0
2	2B	2576	0	1305	31	0
3	1D	2136	0	2218	38	0
3	2D	2136	0	2218	56	0
4	1E	1559	0	1618	26	0
4	2E	1559	0	1618	40	0
5	1F	1584	0	1625	41	0
5	2F	1580	0	1619	39	0
6	1G	1425	0	1443	32	0
6	2G	1424	0	1434	51	0
7	1H	1330	0	1407	29	0
7	2H	1330	0	1407	28	0
8	1I	1085	0	1114	24	0
8	2I	1061	0	1080	27	0
9	1N	1117	0	1184	13	0
9	2N	1117	0	1184	15	0
10	1O	933	0	996	23	0
10	2O	933	0	996	14	0
11	1P	1135	0	1212	23	0
11	2P	1135	0	1212	31	0
12	1Q	1122	0	1178	18	0
12	2Q	1122	0	1179	30	0
13	1R	968	0	1033	12	0
13	2R	968	0	1033	23	0
14	1S	877	0	938	21	0
14	2S	870	0	923	28	0
15	1T	1091	0	1151	21	0
15	2T	1083	0	1136	21	0
16	1U	959	0	1019	17	0
16	2U	959	0	1019	25	0
17	1V	771	0	830	12	0
17	2V	771	0	829	9	0
18	1W	886	0	940	11	0
18	2W	886	0	940	10	0
19	1X	750	0	814	11	0
19	2X	746	0	803	17	0
20	1Y	806	0	881	17	0
20	2Y	810	0	887	17	0
21	1Z	1437	0	1446	45	0
21	2Z	1451	0	1450	44	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	10	604	0	619	11	0
22	20	608	0	622	15	0
23	11	755	0	825	19	0
23	21	755	0	826	16	0
24	12	588	0	643	4	0
24	22	588	0	643	11	0
25	13	469	0	518	11	0
25	23	464	0	514	14	0
26	14	548	0	529	14	0
26	24	517	0	479	24	0
27	15	455	0	465	11	0
27	25	455	0	465	10	0
28	16	453	0	473	14	0
28	26	449	0	469	11	0
29	17	418	0	466	10	0
29	27	418	0	467	7	0
30	18	511	0	571	21	0
30	28	517	0	582	20	0
31	19	307	0	335	5	0
31	29	307	0	335	11	0
32	1a	32246	0	16295	482	0
32	2a	32327	0	16338	520	0
33	1b	1846	0	1867	76	0
33	2b	1825	0	1828	81	0
34	1c	1554	0	1551	38	0
34	2c	1542	0	1517	56	0
35	1d	1659	0	1676	62	0
35	2d	1674	0	1714	59	0
36	1e	1129	0	1185	44	0
36	2e	1130	0	1184	25	0
37	1f	810	0	797	17	0
37	2f	816	0	808	19	0
38	1g	1231	0	1238	26	0
38	2g	1235	0	1249	36	0
39	1h	1088	0	1126	29	0
39	2h	1088	0	1126	31	0
40	1i	983	0	986	39	0
40	2i	940	0	938	51	0
41	1j	721	0	672	28	0
41	2j	714	0	672	34	0
42	1k	829	0	825	14	0
42	2k	833	0	836	27	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	1l	932	0	979	22	0
43	2l	932	0	979	15	0
44	1m	923	0	962	40	0
44	2m	889	0	901	43	0
45	1n	492	0	529	24	0
45	2n	486	0	518	26	0
46	1o	728	0	760	13	0
46	2o	728	0	760	11	0
47	1p	681	0	697	20	0
47	2p	677	0	686	18	0
48	1q	823	0	891	18	0
48	2q	823	0	891	19	0
49	1r	555	0	618	12	0
49	2r	551	0	614	16	0
50	1s	652	0	662	28	0
50	2s	646	0	644	33	0
51	1t	728	0	798	30	0
51	2t	727	0	796	18	0
52	1u	199	0	208	3	0
52	2u	199	0	208	1	0
53	1v	274	0	139	4	0
53	2v	274	0	139	7	0
54	1w	1939	0	1927	47	0
54	2w	1954	0	1930	50	0
55	1x	1612	0	829	11	0
55	1y	1590	0	815	17	0
55	2x	1612	0	829	10	0
55	2y	1592	0	818	28	0
56	1z	121	0	126	7	0
56	2z	121	0	126	4	0
57	10	5	0	0	0	0
57	11	4	0	0	0	0
57	12	2	0	0	0	0
57	13	2	0	0	0	0
57	14	1	0	0	0	0
57	15	4	0	0	0	0
57	16	1	0	0	0	0
57	17	7	0	0	0	0
57	18	2	0	0	0	0
57	19	2	0	0	0	0
57	1A	795	0	0	0	0
57	1B	20	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	1D	8	0	0	0	0
57	1E	9	0	0	0	0
57	1F	11	0	0	0	0
57	1G	3	0	0	0	0
57	1N	4	0	0	0	0
57	1O	1	0	0	0	0
57	1P	4	0	0	0	0
57	1Q	6	0	0	0	0
57	1R	3	0	0	0	0
57	1U	7	0	0	0	0
57	1V	5	0	0	0	0
57	1W	5	0	0	0	0
57	1X	2	0	0	0	0
57	1Z	1	0	0	0	0
57	1a	189	0	0	0	0
57	1d	1	0	0	0	0
57	1f	1	0	0	0	0
57	1k	1	0	0	0	0
57	1m	1	0	0	0	0
57	1n	1	0	0	0	0
57	1v	2	0	0	0	0
57	1w	3	0	0	0	0
57	1x	9	0	0	0	0
57	1y	1	0	0	0	0
57	20	2	0	0	0	0
57	23	1	0	0	0	0
57	25	1	0	0	0	0
57	26	1	0	0	0	0
57	28	1	0	0	0	0
57	29	1	0	0	0	0
57	2A	640	0	0	0	0
57	2B	11	0	0	0	0
57	2D	8	0	0	0	0
57	2E	5	0	0	0	0
57	2F	7	0	0	0	0
57	2N	1	0	0	0	0
57	2O	1	0	0	0	0
57	2P	2	0	0	0	0
57	2Q	3	0	0	0	0
57	2R	3	0	0	0	0
57	2U	1	0	0	0	0
57	2V	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	2W	1	0	0	0	0
57	2X	3	0	0	0	0
57	2Y	1	0	0	0	0
57	2a	168	0	0	0	0
57	2d	2	0	0	0	0
57	2e	3	0	0	0	0
57	2f	1	0	0	0	0
57	2j	2	0	0	0	0
57	2k	2	0	0	0	0
57	2t	1	0	0	0	0
57	2v	1	0	0	0	0
57	2x	9	0	0	0	0
58	14	1	0	0	0	0
58	15	1	0	0	0	0
58	16	1	0	0	0	0
58	19	1	0	0	0	0
58	1Y	1	0	0	0	0
58	1n	1	0	0	0	0
58	24	1	0	0	0	0
58	25	1	0	0	0	0
58	26	1	0	0	0	0
58	29	1	0	0	0	0
58	2Y	1	0	0	0	0
58	2n	1	0	0	0	0
59	1d	8	0	0	3	0
59	2d	8	0	0	2	0
60	10	2	0	0	0	0
60	11	3	0	0	0	0
60	13	2	0	0	1	0
60	15	3	0	0	0	0
60	16	1	0	0	1	0
60	17	2	0	0	1	0
60	18	7	0	0	0	0
60	1A	1395	0	0	83	0
60	1B	27	0	0	0	0
60	1D	15	0	0	1	0
60	1E	13	0	0	3	0
60	1F	8	0	0	2	0
60	1G	1	0	0	0	0
60	1N	3	0	0	0	0
60	1O	3	0	0	1	0
60	1P	15	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	1Q	6	0	0	0	0
60	1R	3	0	0	0	0
60	1T	1	0	0	0	0
60	1U	4	0	0	0	0
60	1V	1	0	0	0	0
60	1W	3	0	0	0	0
60	1X	3	0	0	0	0
60	1Z	1	0	0	0	0
60	1a	180	0	0	15	0
60	1d	1	0	0	0	0
60	1l	1	0	0	0	0
60	1v	4	0	0	3	0
60	1w	2	0	0	0	0
60	1x	24	0	0	0	0
60	20	4	0	0	1	0
60	21	2	0	0	0	0
60	23	2	0	0	0	0
60	25	2	0	0	0	0
60	27	4	0	0	0	0
60	28	4	0	0	0	0
60	2A	946	0	0	81	0
60	2B	6	0	0	0	0
60	2D	18	0	0	1	0
60	2E	7	0	0	2	0
60	2F	5	0	0	0	0
60	2N	1	0	0	0	0
60	2O	2	0	0	0	0
60	2P	16	0	0	2	0
60	2Q	3	0	0	0	0
60	2R	2	0	0	0	0
60	2U	1	0	0	0	0
60	2X	3	0	0	0	0
60	2Y	2	0	0	0	0
60	2a	152	0	0	12	0
60	2d	1	0	0	0	0
60	2j	1	0	0	0	0
60	2q	1	0	0	0	0
60	2t	1	0	0	0	0
60	2w	1	0	0	0	0
60	2x	13	0	0	0	0
60	2z	2	0	0	0	0
All	All	299076	0	199299	4213	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 9.

All (4213) 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)
32:2a:1006:C:H42	32:2a:1023:G:H1	1.12	0.98
1:1A:1057:A:N6	1:1A:1081:U:H3	1.62	0.96
1:2A:2129:C:N4	1:2A:2159:G:H1	1.65	0.95
1:1A:1057:A:H61	1:1A:1081:U:H3	1.07	0.93
1:1A:510:C:OP1	60:1A:3804:HOH:O	1.88	0.92
1:2A:2101:G:H1	1:2A:2188:C:H42	1.19	0.91
1:2A:993:G:OP1	16:2U:50:ARG:NH2	2.04	0.91
1:1A:511:U:OP2	60:1A:3804:HOH:O	1.90	0.90
1:1A:2499:C:OP1	60:1A:3803:HOH:O	1.87	0.90
7:1H:3:ARG:HG2	7:1H:6:ARG:HG2	1.54	0.89
33:2b:178:ARG:HH22	39:2h:68:ARG:HH22	1.21	0.88
33:2b:101:MET:HA	33:2b:108:ILE:HG13	1.57	0.87
1:1A:2099:U:H3	1:1A:2190:G:H1	1.20	0.87
32:2a:1006:C:N4	32:2a:1023:G:H1	1.71	0.87
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.09	0.86
1:2A:2129:C:H42	1:2A:2159:G:H1	0.91	0.85
1:2A:2575:C:OP2	60:2A:3703:HOH:O	1.94	0.85
26:14:46:GLN:HE21	26:14:48:ARG:H	1.22	0.85
32:2a:664:G:H22	32:2a:741:G:H1	1.24	0.85
55:2y:19:G:H3'	55:2y:20:U:H5'	1.57	0.84
32:1a:975:A:H4'	32:1a:976:G:H5"	1.59	0.84
19:2X:35:THR:HG22	19:2X:38:GLU:H	1.43	0.84
6:2G:5:VAL:HG22	6:2G:8:LYS:H	1.43	0.84
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.10	0.83
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.59	0.83
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.41	0.83
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.25	0.83
26:24:16:CYS:SG	26:24:17:GLY:N	2.47	0.83
32:1a:1030:C:H42	32:1a:1031:G:H1	1.26	0.83
32:1a:1145:C:H4'	32:1a:1146:A:H5'	1.61	0.82
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.12	0.82
32:1a:656:C:O2'	46:1o:28:GLN:NE2	2.11	0.82
32:2a:1338:G:N2	55:2x:41:C:O2	2.13	0.82
1:2A:1827:C:OP2	3:2D:222:ARG:NH1	2.11	0.82
40:1i:16:ARG:HB2	40:1i:64:THR:HB	1.62	0.82
1:2A:2298:A:H62	1:2A:2318:G:H8	1.27	0.82
32:1a:1457:G:OP1	51:1t:39:LYS:NZ	2.13	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:5:MET:HE3	20:1Y:32:PRO:HA	1.61	0.81
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.14	0.81
6:1G:161:THR:HG23	6:1G:163:ALA:H	1.45	0.81
54:1w:181:GLN:HG2	54:1w:194:THR:HG22	1.63	0.81
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.12	0.80
1:2A:1689:A:H62	1:2A:1698:A:H2	1.27	0.80
1:1A:2065:C:OP1	60:1A:3808:HOH:O	2.00	0.79
1:2A:948:G:OP1	60:2A:3704:HOH:O	2.00	0.79
32:2a:1329:A:H5"	44:2m:26:GLY:H	1.47	0.79
1:1A:2136:C:H42	1:1A:2155:G:H1	1.29	0.79
1:1A:662:G:OP1	60:1A:3807:HOH:O	1.99	0.79
1:1A:2719:G:OP2	60:1A:3806:HOH:O	1.99	0.78
39:1h:17:THR:O	39:1h:78:GLN:NE2	2.16	0.78
32:1a:1367:C:H4'	41:1j:48:THR:HG21	1.65	0.78
1:1A:615:G:OP1	5:1F:40:GLN:NE2	2.17	0.78
1:1A:2807:G:N1	1:1A:2893:G:O6	2.13	0.78
39:2h:106:GLY:O	39:2h:122:ARG:NH2	2.17	0.78
1:1A:1664:A:OP1	60:1A:3805:HOH:O	1.99	0.78
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.17	0.78
1:2A:505:A:OP2	60:2A:3705:HOH:O	2.02	0.78
41:2j:38:ILE:HG23	41:2j:71:LEU:HB3	1.67	0.77
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.66	0.77
54:1w:229:GLY:HA3	55:1x:76:A:H3'	1.65	0.77
32:2a:1004:A:N6	32:2a:1037:C:O2	2.18	0.77
32:2a:975:A:H4'	32:2a:976:G:H5"	1.66	0.77
54:2w:207:GLU:HG2	54:2w:278:ARG:HH12	1.50	0.77
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.18	0.76
5:1F:89:VAL:O	60:1F:401:HOH:O	2.02	0.76
32:1a:1027:C:C4	32:1a:1034:G:C2	2.74	0.76
1:1A:592:G:O6	60:1A:3809:HOH:O	2.03	0.76
1:1A:1023:U:OP2	60:1A:3811:HOH:O	2.03	0.76
1:1A:2455:G:OP2	60:1A:3810:HOH:O	2.03	0.76
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.68	0.76
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.32	0.76
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.68	0.75
49:1r:56:THR:HB	49:1r:58:LEU:HD23	1.66	0.75
32:2a:1055:A:N7	32:2a:1200:C:N4	2.34	0.75
54:2w:177:VAL:HG21	54:2w:300:GLU:HB3	1.68	0.75
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.22	0.75
54:1w:119:GLU:HG3	54:1w:184:PRO:HB3	1.67	0.75
25:13:13:ILE:O	60:13:201:HOH:O	2.04	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:53:ASP:OD1	35:1d:53:ASP:N	2.14	0.75
6:2G:46:ALA:HA	6:2G:49:ASP:HB2	1.67	0.75
38:1g:84:ASN:H	55:1y:37:MIA:H161	1.52	0.75
32:2a:1006:C:N3	32:2a:1023:G:N2	2.33	0.75
1:2A:195:A:N7	60:2A:3724:HOH:O	2.19	0.75
1:1A:11:G:H2'	1:1A:12:U:H5"	1.67	0.74
1:2A:805:G:OP1	60:2A:3706:HOH:O	2.04	0.74
21:1Z:52:SER:O	21:1Z:54:HIS:N	2.19	0.74
1:2A:500:G:H22	1:2A:503:A:H5'	1.52	0.74
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.70	0.74
48:2q:95:TYR:HA	48:2q:98:LEU:HD12	1.69	0.74
55:2y:9:A:H1'	55:2y:45:U:H1'	1.68	0.74
1:1A:1342:A:OP2	60:1A:3812:HOH:O	2.05	0.74
7:2H:9:ILE:HB	7:2H:50:VAL:HB	1.67	0.74
13:2R:96:ARG:NH1	13:2R:115:GLU:OE2	2.21	0.74
32:1a:1027:C:N4	32:1a:1034:G:C6	2.56	0.74
1:2A:740:U:OP2	60:2A:3707:HOH:O	2.05	0.74
32:2a:1291:G:OP1	38:2g:37:ASN:ND2	2.20	0.74
12:1Q:14:ARG:HG2	12:1Q:41:TRP:HH2	1.53	0.74
12:1Q:76:LYS:HB3	12:1Q:91:GLU:HG3	1.70	0.73
32:1a:1004:A:H5'	32:1a:1024:G:H1	1.53	0.73
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.68	0.73
1:2A:2499:C:OP2	60:2A:3708:HOH:O	2.05	0.73
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.70	0.73
33:2b:76:GLN:HB3	33:2b:208:ILE:HG12	1.70	0.73
38:2g:70:LYS:HB3	38:2g:96:GLN:HG2	1.70	0.73
1:1A:1602:U:O4	60:1A:3812:HOH:O	2.04	0.73
1:2A:963:U:OP2	60:2A:3704:HOH:O	2.06	0.73
1:2A:2183:C:H2'	1:2A:2184:G:H8	1.53	0.73
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.70	0.73
34:2c:134:ILE:HD11	34:2c:153:VAL:HB	1.71	0.73
44:1m:3:ARG:HG2	44:1m:8:GLU:HG3	1.70	0.73
1:2A:1890:A:OP2	60:2A:3713:HOH:O	2.07	0.73
1:2A:1332:G:OP1	60:2A:3709:HOH:O	2.06	0.73
1:1A:1056:G:H4'	1:1A:1086:A:C8	2.23	0.73
1:1A:958:U:O2	2:1B:90:A:O2'	2.07	0.73
1:1A:1313:U:OP1	60:1A:3813:HOH:O	2.07	0.73
24:12:16:LEU:O	24:12:67:LYS:NZ	2.20	0.73
32:1a:558:G:OP1	60:1a:1801:HOH:O	2.06	0.73
32:1a:953:G:H5'	32:1a:965:A:H61	1.52	0.73
41:1j:50:ILE:HA	41:1j:60:ARG:HG2	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:101:MET:HG2	33:2b:108:ILE:HG21	1.71	0.73
1:1A:1056:G:N2	1:1A:1102:C:OP2	2.22	0.72
30:18:33:ASN:HA	30:18:36:LYS:HD2	1.71	0.72
32:1a:519:C:O5'	54:1w:301:LYS:NZ	2.22	0.72
1:1A:2163:C:OP1	1:1A:2165:G:N2	2.21	0.72
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.21	0.72
41:1j:38:ILE:HB	41:1j:71:LEU:HB3	1.71	0.72
1:2A:1631(A):A:OP1	60:2A:3711:HOH:O	2.06	0.72
32:1a:405:U:O4	35:1d:2:GLY:N	2.22	0.72
32:1a:1256:A:OP1	34:1c:26:LYS:NZ	2.20	0.72
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.21	0.72
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.71	0.72
55:1y:9:A:H1'	55:1y:45:U:H1'	1.71	0.72
32:2a:770:C:OP1	60:2a:1801:HOH:O	2.06	0.72
32:2a:953:G:H5'	32:2a:965:A:H61	1.53	0.72
32:2a:1187:G:H5'	40:2i:113:LYS:HD2	1.70	0.72
1:1A:1314:C:OP1	60:1A:3815:HOH:O	2.08	0.72
10:1O:54:GLU:OE1	60:1O:301:HOH:O	2.08	0.72
1:2A:1025:G:O2'	60:2A:3710:HOH:O	2.06	0.72
1:1A:2589:A:OP1	60:1A:3814:HOH:O	2.08	0.72
36:1e:75:THR:OG1	36:1e:76:ILE:N	2.23	0.72
44:1m:4:ILE:HD13	44:1m:57:ARG:HA	1.71	0.72
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.25	0.72
6:2G:108:ASN:HA	26:24:37:SER:HB2	1.71	0.72
32:2a:266:G:H5"	32:2a:268:C:H41	1.55	0.72
34:1c:42:LEU:HA	34:1c:45:LYS:HE3	1.71	0.72
54:1w:125:ARG:HA	54:1w:128:PHE:HB3	1.72	0.72
32:2a:444:C:H2'	32:2a:445:G:H8	1.54	0.72
1:2A:271(H):G:H5'	23:21:81:LYS:HE2	1.71	0.72
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.72	0.72
32:1a:1436:U:OP1	51:1t:23:ARG:NH2	2.23	0.71
1:2A:1604:C:OP2	60:2A:3714:HOH:O	2.07	0.71
1:1A:463:G:OP2	60:1A:3817:HOH:O	2.08	0.71
15:1T:16:ARG:NH2	15:1T:83:ILE:O	2.22	0.71
32:1a:117:G:OP2	60:1a:1802:HOH:O	2.07	0.71
1:2A:651:G:OP1	30:28:19:SER:OG	2.06	0.71
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.72	0.71
32:1a:192:U:H2'	32:1a:193:C:H6	1.55	0.71
1:2A:2349:G:OP1	60:2A:3717:HOH:O	2.08	0.71
54:2w:172:LYS:HA	54:2w:201:VAL:HG21	1.73	0.71
1:1A:2444:G:OP2	5:1F:68:LYS:NZ	2.18	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:11:59:THR:O	23:11:91:LYS:NZ	2.20	0.71
1:2A:449:A:OP2	60:2A:3712:HOH:O	2.07	0.71
1:2A:1418:G:OP2	60:2A:3718:HOH:O	2.08	0.71
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.72	0.71
33:1b:213:LEU:HD22	33:1b:214:ILE:HD13	1.72	0.71
1:2A:741:G:OP2	60:2A:3716:HOH:O	2.08	0.71
4:2E:127:ASP:OD2	60:2E:401:HOH:O	2.06	0.71
1:1A:947:G:OP2	60:1A:3821:HOH:O	2.09	0.70
1:1A:1047:G:H2'	1:1A:1110:G:H1	1.55	0.70
1:1A:1452:A:OP2	60:1A:3818:HOH:O	2.09	0.70
34:1c:84:ILE:HA	34:1c:87:LEU:HB2	1.73	0.70
1:2A:1315:C:OP2	60:2A:3709:HOH:O	2.09	0.70
1:2A:2116:G:N1	1:2A:2162:G:OP1	2.23	0.70
33:1b:201:ILE:HG21	33:1b:214:ILE:HG21	1.73	0.70
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.72	0.70
1:2A:2129:C:N3	1:2A:2159:G:N2	2.39	0.70
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.73	0.70
1:1A:2131:G:H5"	1:1A:2132:U:H3'	1.74	0.70
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.71	0.70
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.24	0.70
44:2m:37:THR:O	44:2m:55:ARG:NH1	2.25	0.70
37:1f:9:VAL:HB	37:1f:87:ARG:HB2	1.73	0.70
32:2a:794:A:OP1	60:2a:1802:HOH:O	2.10	0.70
26:14:34:GLU:HG2	26:14:35:VAL:HG12	1.73	0.70
32:1a:519:C:OP1	54:1w:179:ARG:NH2	2.25	0.70
1:1A:1045:A:OP1	1:1A:1045:A:H4'	1.89	0.70
1:1A:1981:A:OP1	60:1A:3816:HOH:O	2.08	0.70
1:1A:2552:OMU:OP2	60:1A:3820:HOH:O	2.09	0.70
5:1F:195:ASP:HB2	5:1F:198:ALA:H	1.57	0.70
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.24	0.70
38:1g:111:ARG:NH2	38:1g:126:ASP:OD2	2.25	0.70
32:1a:1027:C:C2	32:1a:1034:G:N2	2.60	0.70
36:1e:34:VAL:HG11	36:1e:63:ARG:HG2	1.74	0.70
1:2A:1327:C:OP2	60:2A:3715:HOH:O	2.07	0.70
12:2Q:14:ARG:HG2	12:2Q:41:TRP:HH2	1.56	0.70
46:1o:16:ALA:HB1	46:1o:21:ASP:HB3	1.73	0.70
1:1A:2763:G:OP2	60:1A:3819:HOH:O	2.09	0.69
1:1A:1332:G:OP1	60:1A:3815:HOH:O	2.10	0.69
1:2A:789:A:N1	60:2A:3776:HOH:O	2.24	0.69
33:2b:124:SER:HA	33:2b:127:ILE:HB	1.73	0.69
34:2c:54:ARG:NH1	34:2c:56:ASP:OD1	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.39	0.69
6:1G:181:ARG:HG3	6:1G:182:LYS:H	1.56	0.69
1:1A:1041:C:H42	1:1A:1114:G:H1	1.38	0.69
32:1a:299:G:O6	60:1a:1801:HOH:O	2.10	0.69
1:2A:1019:U:H3	1:2A:1142(A):A:H62	1.39	0.69
44:2m:40:ASN:HB3	44:2m:43:THR:HG23	1.74	0.69
1:1A:606:U:OP2	5:1F:104:LYS:NZ	2.24	0.69
7:1H:88:LEU:HD23	7:1H:130:ARG:HG3	1.73	0.69
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.75	0.69
32:1a:73:G:H1	32:1a:96:U:H3	1.41	0.69
24:22:16:LEU:O	24:22:67:LYS:NZ	2.24	0.69
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.11	0.69
26:24:2:LYS:HB2	26:24:5:ILE:HD13	1.74	0.69
26:24:61:ARG:HH12	50:2s:41:VAL:HG13	1.56	0.69
32:2a:959:A:HO2'	32:2a:984:C:HO2'	1.41	0.69
38:2g:31:MET:HE2	38:2g:36:LYS:HB2	1.74	0.69
1:1A:671:C:N4	60:1A:3879:HOH:O	2.24	0.69
32:1a:584:G:H5'	48:1q:91:ARG:HH12	1.58	0.69
1:2A:2101:G:H1	1:2A:2188:C:N4	1.89	0.69
21:1Z:72:ARG:NH2	21:1Z:97:GLU:O	2.26	0.69
11:2P:91:PHE:O	11:2P:121:LYS:NZ	2.26	0.69
32:2a:1320:C:O2	50:2s:36:ARG:NH2	2.26	0.69
1:2A:1658:C:OP1	60:2A:3719:HOH:O	2.11	0.69
32:2a:1307:U:OP1	44:2m:101:GLN:NE2	2.26	0.69
34:2c:83:ARG:O	34:2c:87:LEU:N	2.25	0.69
32:2a:1142:G:H2'	32:2a:1143:G:O4'	1.93	0.69
54:2w:219:ILE:HD13	54:2w:262:ARG:HD2	1.75	0.69
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.11	0.68
33:1b:76:GLN:HB3	33:1b:208:ILE:HG13	1.75	0.68
1:2A:53:A:OP2	60:2A:3722:HOH:O	2.11	0.68
1:2A:1783:A:OP1	60:2A:3707:HOH:O	2.10	0.68
16:2U:104:GLN:HE21	16:2U:105:VAL:HG23	1.58	0.68
24:22:31:GLU:HB3	24:22:53:LEU:HD11	1.75	0.68
32:2a:946:A:H2'	32:2a:947:G:C8	2.29	0.68
1:2A:309:G:N3	1:2A:329:G:O2'	2.25	0.68
1:2A:2583:G:OP2	60:2A:3726:HOH:O	2.12	0.68
1:1A:2454:G:OP2	60:1A:3823:HOH:O	2.10	0.68
33:1b:231:GLU:HB3	33:1b:232:PRO:HD2	1.74	0.68
1:2A:2427:C:OP1	60:2A:3725:HOH:O	2.12	0.68
32:2a:979:C:OP1	32:2a:1223:C:N4	2.26	0.68
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2134:A:H62	1:2A:2157:G:H4'	1.58	0.68
40:2i:29:ASN:HD22	40:2i:65:VAL:H	1.39	0.68
1:2A:1648:C:OP1	60:2A:3720:HOH:O	2.11	0.68
51:2t:49:ALA:HB3	51:2t:99:LEU:HD12	1.76	0.68
32:2a:149:A:OP2	60:2a:1803:HOH:O	2.11	0.68
32:2a:1108:G:H5'	34:2c:176:HIS:CD2	2.29	0.68
1:1A:1203:G:O6	60:1A:3822:HOH:O	2.10	0.68
1:1A:2189:U:H2'	1:1A:2190:G:H8	1.57	0.68
1:1A:2691:C:OP2	60:1A:3824:HOH:O	2.11	0.68
1:2A:586:A:N1	1:2A:809:G:O2'	2.26	0.68
1:2A:1771:C:OP1	60:2A:3727:HOH:O	2.12	0.68
50:2s:33:THR:HG22	50:2s:35:SER:H	1.58	0.68
32:1a:1249:C:O2'	40:1i:73:GLN:NE2	2.27	0.68
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.27	0.68
42:2k:86:GLY:H	42:2k:112:THR:HG22	1.59	0.68
1:1A:2758:A:OP2	60:1A:3828:HOH:O	2.12	0.67
1:2A:1241:A:OP2	60:2A:3721:HOH:O	2.11	0.67
37:2f:45:LEU:HD21	37:2f:57:GLN:HE21	1.58	0.67
32:2a:261:U:OP2	51:2t:79:ARG:NH2	2.27	0.67
32:2a:958:A:N6	50:2s:77:THR:O	2.27	0.67
51:2t:10:LEU:HB3	51:2t:12:ALA:H	1.58	0.67
34:1c:30:ARG:NH1	45:1n:35:ARG:O	2.28	0.67
37:2f:9:VAL:HB	37:2f:87:ARG:HB2	1.76	0.67
50:2s:42:PRO:HA	50:2s:45:VAL:HG23	1.75	0.67
1:1A:2530:A:N7	7:1H:172:LYS:NZ	2.42	0.67
2:2B:40:U:O4	26:24:1:MET:N	2.26	0.67
32:2a:1381:U:H1'	38:2g:79:ARG:HG3	1.75	0.67
1:1A:2504:U:OP2	60:1A:3825:HOH:O	2.12	0.67
32:2a:1272:G:N2	32:2a:1273:G:N7	2.43	0.67
1:1A:956:G:OP2	12:1Q:14:ARG:NH2	2.28	0.67
1:1A:2448:A:OP1	60:1A:3803:HOH:O	2.13	0.67
35:1d:187:ARG:NH2	35:1d:193:ASP:OD2	2.27	0.67
1:2A:198:C:OP2	60:2A:3724:HOH:O	2.12	0.67
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.30	0.67
7:2H:25:LYS:HD2	7:2H:27:LYS:HE2	1.76	0.67
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.60	0.67
21:1Z:152:ALA:HA	21:1Z:155:LEU:HG	1.77	0.67
51:1t:39:LYS:HA	51:1t:42:GLN:HB3	1.76	0.67
5:2F:160:ASN:HD21	5:2F:162:LEU:HD12	1.58	0.67
43:2l:113:ARG:HH21	43:2l:116:SER:HB2	1.60	0.67
1:1A:802:A:OP1	60:1A:3827:HOH:O	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:13:U:OP1	60:1a:1803:HOH:O	2.13	0.67
32:1a:67:C:H2'	32:1a:68:G:C8	2.30	0.67
32:1a:1106:G:H5"	34:1c:172:ARG:HG3	1.77	0.67
21:2Z:153:SER:HB3	21:2Z:167:PRO:HB3	1.77	0.67
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.76	0.67
1:2A:2879:C:OP2	60:2A:3723:HOH:O	2.12	0.67
32:2a:572:A:OP1	60:2a:1804:HOH:O	2.13	0.67
32:2a:1086:U:H3	32:2a:1099:G:H22	1.42	0.67
32:2a:1503:A:O2'	53:2v:13:A:N6	2.27	0.67
33:2b:118:LEU:HB3	33:2b:142:LEU:HD12	1.77	0.66
1:1A:650:C:N4	60:1A:3894:HOH:O	2.28	0.66
32:1a:17:U:H2'	32:1a:18:C:C6	2.30	0.66
32:1a:522:C:O2	32:1a:527:G7M:N2	2.24	0.66
21:1Z:52:SER:C	21:1Z:54:HIS:H	2.02	0.66
32:2a:1356:G:H2'	32:2a:1357:A:C8	2.30	0.66
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.23	0.66
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.10	0.66
35:2d:8:VAL:HG22	35:2d:21:LEU:HD13	1.78	0.66
44:2m:82:MET:HE3	44:2m:93:ARG:HG2	1.77	0.66
46:2o:74:ASP:HB3	46:2o:77:ARG:HB2	1.76	0.66
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.76	0.66
1:2A:500:G:N1	1:2A:503:A:OP2	2.29	0.66
32:1a:41:G:H2'	32:1a:42:G:H8	1.61	0.66
2:2B:50:G:OP1	14:2S:63:THR:OG1	2.13	0.66
1:2A:127:A:H5"	1:2A:128:C:C6	2.31	0.66
8:2I:31:LEU:HD11	8:2I:38:LEU:HG	1.78	0.66
32:2a:1360:A:OP2	45:2n:35:ARG:NH2	2.28	0.66
34:2c:35:GLU:OE1	34:2c:59:ARG:NH2	2.29	0.66
1:2A:963:U:OP1	60:2A:3728:HOH:O	2.13	0.66
1:2A:2365:G:N7	30:28:39:LYS:NZ	2.44	0.66
1:2A:2595:G:N7	60:2A:3794:HOH:O	2.27	0.66
11:2P:44:GLY:O	60:2P:301:HOH:O	2.14	0.66
1:1A:2575:C:OP2	60:1A:3826:HOH:O	2.12	0.66
14:1S:38:GLN:HE21	14:1S:47:THR:HG21	1.60	0.66
53:1v:19:U:OP1	60:1v:201:HOH:O	2.13	0.66
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.29	0.66
1:1A:11:G:N7	60:1A:3908:HOH:O	2.29	0.65
32:1a:964:A:OP1	60:1a:1805:HOH:O	2.14	0.65
48:1q:53:LEU:HD23	48:1q:82:MET:HE1	1.79	0.65
1:2A:370:G:OP2	60:2A:3730:HOH:O	2.14	0.65
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:27:ILE:HD12	38:1g:40:ALA:HA	1.77	0.65
56:1z:8:THR:OG1	56:1z:9:TYR:N	2.29	0.65
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.31	0.65
32:2a:811:C:N3	60:2a:1814:HOH:O	2.29	0.65
32:2a:972:C:OP1	60:2a:1805:HOH:O	2.15	0.65
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.31	0.65
32:2a:1291:G:O2'	40:2i:38:GLN:NE2	2.21	0.65
32:1a:664:G:H22	32:1a:741:G:H1	1.45	0.65
33:1b:145:LEU:HD23	33:1b:149:LEU:HD13	1.78	0.65
46:1o:55:GLY:HA2	46:1o:58:MET:HE2	1.79	0.65
3:2D:38:LYS:NZ	3:2D:39:LYS:O	2.24	0.65
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.70	0.65
36:1e:33:VAL:HG21	36:1e:109:ILE:HA	1.77	0.65
3:2D:180:GLY:HA3	3:2D:275:LYS:HG2	1.78	0.65
14:2S:106:ARG:NH2	14:2S:112:PHE:O	2.29	0.65
1:2A:854:G:H2'	1:2A:855:G:H8	1.61	0.65
1:2A:2723:C:OP2	4:2E:109:LYS:NZ	2.30	0.65
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.30	0.65
1:1A:971:C:OP2	60:1A:3836:HOH:O	2.15	0.65
1:1A:1357:U:OP1	29:17:23:ARG:NH2	2.29	0.65
32:1a:737:A:H2'	32:1a:738:C:C6	2.31	0.65
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.27	0.65
34:1c:108:ASN:HB3	34:1c:111:LEU:HD12	1.79	0.65
35:1d:159:ARG:HG2	35:1d:181:MET:HE1	1.79	0.65
32:1a:1203:C:OP1	45:1n:3:ARG:NH2	2.30	0.65
33:1b:28:PHE:HD1	33:1b:194:PRO:HG3	1.62	0.65
1:2A:1022:G:N2	1:2A:1023:U:O4	2.29	0.65
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.32	0.65
15:2T:29:ARG:HB3	15:2T:87:ASP:HB2	1.79	0.65
38:2g:78:ARG:HD3	38:2g:87:VAL:HG21	1.78	0.65
47:2p:74:LEU:HD23	47:2p:79:VAL:HG11	1.79	0.65
32:1a:509:A:OP2	60:1a:1804:HOH:O	2.14	0.65
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.31	0.65
36:1e:102:ALA:HB1	36:1e:106:PRO:HB2	1.78	0.65
40:1i:28:VAL:HA	40:1i:63:ILE:HB	1.79	0.65
1:1A:571:A:OP2	60:1A:3833:HOH:O	2.15	0.65
1:1A:730:C:OP2	60:1A:3830:HOH:O	2.14	0.65
5:2F:116:ASP:OD1	5:2F:119:ARG:NH2	2.30	0.65
32:2a:959:A:O2'	32:2a:984:C:O2'	2.10	0.65
1:1A:1356:G:OP2	60:1A:3829:HOH:O	2.13	0.64
33:1b:178:ARG:HG2	39:1h:72:PRO:HA	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:272(D):G:N7	60:2A:3809:HOH:O	2.29	0.64
30:28:6:THR:HG23	30:28:62:LEU:HA	1.79	0.64
1:1A:981:A:OP1	60:1A:3831:HOH:O	2.14	0.64
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.29	0.64
32:2a:673:G:H2'	32:2a:674:G:C8	2.32	0.64
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.31	0.64
32:1a:192:U:H2'	32:1a:193:C:C6	2.32	0.64
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.30	0.64
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.80	0.64
1:2A:271(R):G:OP1	23:21:76:ARG:NH2	2.31	0.64
1:2A:2115:G:N2	1:2A:2119:A:OP2	2.30	0.64
34:2c:57:ILE:HG12	34:2c:66:VAL:HG12	1.79	0.64
36:1e:36:ASP:OD1	36:1e:39:GLY:N	2.25	0.64
1:2A:999:U:OP2	60:2A:3732:HOH:O	2.15	0.64
48:2q:66:SER:OG	48:2q:67:LYS:N	2.31	0.64
1:1A:2615:U:OP1	60:1A:3837:HOH:O	2.15	0.64
51:1t:16:HIS:O	51:1t:19:SER:OG	2.16	0.64
32:2a:1226:C:OP2	44:2m:103:THR:OG1	2.13	0.64
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.30	0.64
32:1a:946:A:H2'	32:1a:947:G:C8	2.32	0.64
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.32	0.64
45:2n:37:PHE:HB3	45:2n:39:LEU:HD12	1.80	0.64
1:1A:744:G:OP1	60:1A:3835:HOH:O	2.15	0.64
43:1l:53:ARG:HG3	43:1l:93:LEU:HD21	1.80	0.64
54:1w:349:ALA:HB1	54:1w:350:ALA:HB2	1.79	0.64
35:2d:11:LEU:HG	35:2d:66:ARG:HE	1.63	0.64
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.79	0.64
1:2A:648:G:O2'	1:2A:2351:G:OP1	2.11	0.64
1:2A:1334:G:N7	60:2A:3815:HOH:O	2.30	0.64
8:2I:77:LEU:HB3	8:2I:142:VAL:HG22	1.79	0.64
32:2a:532:A:H2	34:2c:156:ARG:HH22	1.46	0.64
32:2a:1397:C:O3'	54:2w:189:GLN:NE2	2.29	0.64
34:2c:47:LEU:HD13	34:2c:68:VAL:HG11	1.80	0.64
38:2g:113:GLU:O	38:2g:119:ARG:NH1	2.28	0.64
40:2i:17:VAL:HG22	40:2i:63:ILE:HG12	1.80	0.64
42:2k:82:VAL:HB	42:2k:108:ILE:HG13	1.80	0.64
1:1A:2447:G:OP2	60:1A:3834:HOH:O	2.15	0.64
40:1i:42:ARG:NH1	40:1i:71:SER:OG	2.31	0.64
55:1y:68:C:H2'	55:1y:69:G:H8	1.63	0.64
41:2j:12:ASP:HB3	41:2j:15:THR:HG22	1.80	0.64
38:2g:46:ALA:HB1	38:2g:121:ALA:HB2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:74:GLU:OE2	38:2g:95:ARG:NE	2.30	0.64
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.32	0.63
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.77	0.63
32:1a:972:C:OP1	60:1a:1806:HOH:O	2.16	0.63
32:1a:1013:G:N2	32:1a:1016:A:OP2	2.29	0.63
9:2N:123:TYR:OH	9:2N:130:HIS:NE2	2.30	0.63
32:2a:1256:A:H61	32:2a:1278:U:H1'	1.62	0.63
1:1A:1045:A:H8	1:1A:1111:A:H62	1.44	0.63
1:1A:1072:C:N4	1:1A:1098:A:OP2	2.30	0.63
32:1a:1427:U:H2'	32:1a:1428:A:C8	2.33	0.63
1:2A:1637:A:OP2	60:2A:3731:HOH:O	2.15	0.63
1:2A:2291:U:O2'	1:2A:2374:C:O2	2.17	0.63
23:21:54:ALA:HB1	23:21:83:GLU:HG3	1.79	0.63
35:2d:76:ARG:NH1	35:2d:80:GLU:OE1	2.32	0.63
1:1A:1093:G:H3'	1:1A:1094:U:H5"	1.80	0.63
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.32	0.63
19:1X:44:GLU:HG3	19:1X:51:VAL:HG23	1.80	0.63
23:11:3:LYS:HG2	23:11:4:VAL:HG23	1.78	0.63
6:2G:121:ASN:HD22	6:2G:123:ASN:H	1.45	0.63
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.78	0.63
15:2T:90:GLN:OE1	15:2T:91:ARG:N	2.29	0.63
32:2a:1279:A:O2'	32:2a:1281:U:OP2	2.11	0.63
1:1A:2682:U:O2'	15:1T:58:ASN:ND2	2.32	0.63
6:1G:126:ASP:OD2	6:1G:130:ASN:ND2	2.23	0.63
50:1s:27:GLU:HB2	50:1s:28:LYS:HG2	1.78	0.63
1:2A:2313:C:H4'	6:2G:91:ARG:HG3	1.80	0.63
32:2a:56:U:H2'	32:2a:57:G:C8	2.33	0.63
40:2i:116:LYS:HD2	40:2i:122:ALA:HA	1.81	0.63
1:1A:2659:G:O2'	7:1H:175:LYS:NZ	2.31	0.63
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.34	0.63
31:29:4:ARG:HD2	31:29:34:GLN:HE21	1.64	0.63
34:2c:29:TYR:OH	45:2n:54:PRO:O	2.15	0.63
55:2x:9:A:O2'	55:2x:10:G:N7	2.30	0.63
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.80	0.63
32:2a:1271:G:N2	32:2a:1272:G:N7	2.46	0.63
55:1y:55:PSU:C2	55:1y:57:G:H5'	2.34	0.63
1:2A:84:A:H5'	20:2Y:8:LYS:HG2	1.81	0.63
15:2T:50:ILE:HA	15:2T:99:LEU:HD12	1.80	0.63
32:2a:1006:C:N4	32:2a:1022:G:O6	2.32	0.63
1:1A:1296:G:OP1	1:1A:2709:G:O2'	2.15	0.63
32:2a:750:G:O2'	46:2o:21:ASP:OD1	2.17	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:976:G:H5'	32:1a:1358:U:O2'	1.99	0.62
40:1i:54:ASP:OD1	40:1i:54:ASP:N	2.30	0.62
30:28:28:GLY:O	30:28:36:LYS:NZ	2.31	0.62
54:2w:106:ASP:HA	54:2w:167:ALA:HB3	1.81	0.62
4:1E:127:ASP:OD2	60:1E:401:HOH:O	2.16	0.62
15:1T:65:LYS:HE2	15:1T:67:SER:HB2	1.81	0.62
32:1a:430:A:OP1	35:1d:9:CYS:HB2	1.98	0.62
32:1a:1027:C:N4	32:1a:1034:G:N1	2.47	0.62
6:2G:105:LYS:NZ	26:24:25:TYR:O	2.31	0.62
1:1A:1354:A:H4'	3:1D:38:LYS:HE2	1.79	0.62
3:1D:38:LYS:NZ	3:1D:39:LYS:O	2.30	0.62
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.23	0.62
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.64	0.62
1:1A:250:G:OP2	30:18:13:ARG:NH2	2.32	0.62
1:1A:1082:U:O4	1:1A:1086:A:N1	2.32	0.62
32:1a:1010:G:H1	32:1a:1019:C:H42	1.47	0.62
1:2A:1271:G:OP2	60:2A:3720:HOH:O	2.16	0.62
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.33	0.62
32:2a:1316:G:H5"	45:2n:17:LYS:HD3	1.80	0.62
50:2s:14:HIS:O	50:2s:18:LYS:NZ	2.32	0.62
3:1D:146:GLU:HA	3:1D:153:ALA:HA	1.81	0.62
32:1a:794:A:OP2	60:1a:1807:HOH:O	2.16	0.62
32:1a:1172:C:H2'	32:1a:1173:G:H8	1.64	0.62
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.81	0.62
1:2A:1800:C:OP2	3:2D:183:ARG:NH2	2.31	0.62
6:2G:51:ARG:H	6:2G:51:ARG:HD2	1.65	0.62
33:2b:178:ARG:HH22	39:2h:68:ARG:NH2	1.95	0.62
46:2o:5:LYS:H	46:2o:5:LYS:HD2	1.65	0.62
32:1a:347:G:H2'	32:1a:348:G:H8	1.63	0.62
32:1a:1255:G:HO2'	32:1a:1258:G:HO2'	1.35	0.62
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.64	0.62
54:1w:109:VAL:HG13	54:1w:201:VAL:HG22	1.81	0.62
1:2A:2038:G:O6	60:2A:3729:HOH:O	2.14	0.62
4:2E:127:ASP:OD2	60:2E:402:HOH:O	2.16	0.62
35:2d:25:ARG:NH1	35:2d:30:LYS:O	2.32	0.62
1:1A:674:G:O2'	5:1F:74:ARG:HD3	1.99	0.62
1:1A:2572:A:C8	4:1E:144:ARG:HD3	2.34	0.62
5:1F:40:GLN:HE22	5:1F:182:ASN:HB2	1.63	0.62
21:1Z:41:LEU:HD11	21:1Z:83:PRO:HG2	1.82	0.62
5:2F:101:LEU:O	5:2F:106:ARG:NH1	2.31	0.62
32:2a:1372:U:H5"	40:2i:71:SER:HB3	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:87:ARG:NH1	33:2b:233:SER:OG	2.33	0.62
34:2c:111:LEU:HD11	34:2c:146:ALA:HB2	1.82	0.62
1:2A:2814:C:HO2'	27:25:29:THR:HG1	1.38	0.62
32:2a:1302:U:OP2	44:2m:21:TYR:OH	2.17	0.62
1:1A:1775:U:OP1	1:1A:1979:C:O2'	2.18	0.62
35:1d:174:LEU:HD23	35:1d:185:PHE:HA	1.81	0.62
1:1A:2167:U:H2'	1:1A:2168:G:H4'	1.80	0.62
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.81	0.62
44:1m:2:ALA:N	44:1m:8:GLU:OE1	2.33	0.62
1:2A:804:A:OP1	60:2A:3706:HOH:O	2.16	0.62
2:2B:13:A:N1	2:2B:69:G:O2'	2.27	0.62
32:2a:1264:C:H42	32:2a:1271:G:H1	1.46	0.62
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.33	0.61
1:1A:1466:G:O2'	1:1A:1546:C:O2'	2.17	0.61
8:1I:85:GLU:HG3	8:1I:86:THR:HG23	1.80	0.61
32:1a:1005:A:H5'	32:1a:1038:C:H1'	1.81	0.61
32:1a:1030:C:N3	32:1a:1031:G:N2	2.47	0.61
33:1b:143:GLU:HA	33:1b:146:GLN:HB2	1.81	0.61
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.32	0.61
28:16:35:GLU:OE2	28:16:50:ARG:NH1	2.31	0.61
33:1b:74:LYS:NZ	33:1b:206:ASP:OD1	2.29	0.61
34:1c:134:ILE:HD11	34:1c:153:VAL:HG12	1.82	0.61
54:1w:111:ILE:HB	54:1w:158:VAL:HG23	1.81	0.61
6:2G:136:ARG:HG3	6:2G:137:GLU:HG3	1.81	0.61
13:2R:104:ARG:HD2	13:2R:109:ALA:HB3	1.81	0.61
2:1B:66:A:H61	2:1B:108:U:H2'	1.64	0.61
39:1h:106:GLY:O	39:1h:122:ARG:NH2	2.33	0.61
1:2A:1798:U:OP2	3:2D:274:ARG:NH2	2.33	0.61
1:2A:2573:C:N4	54:2w:234:THR:O	2.26	0.61
21:2Z:108:PRO:HB3	21:2Z:144:LEU:HB2	1.83	0.61
32:2a:1108:G:H5'	34:2c:176:HIS:HD2	1.65	0.61
1:1A:2135:A:N6	1:1A:2156:G:O2'	2.33	0.61
32:1a:309:G:O2'	32:1a:607:A:N1	2.33	0.61
1:2A:2103:C:H42	1:2A:2186:G:H1	1.47	0.61
10:2O:64:ARG:HB2	10:2O:79:PHE:CD2	2.36	0.61
11:2P:29:LYS:HD3	11:2P:30:THR:HG23	1.82	0.61
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.21	0.61
1:1A:761:A:OP1	60:1A:3830:HOH:O	2.16	0.61
8:1I:31:LEU:HD21	8:1I:38:LEU:HG	1.83	0.61
32:1a:993:G:H2'	32:1a:995:C:H41	1.65	0.61
32:1a:1224:G:O2'	32:1a:1322:C:OP1	2.17	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:67:MET:HG2	37:1f:72:VAL:HG12	1.83	0.61
12:2Q:61:GLY:HA2	21:2Z:177:PRO:HB2	1.81	0.61
30:28:4:MET:HE3	30:28:63:PRO:HG3	1.83	0.61
41:1j:50:ILE:HD11	41:1j:57:LYS:HD2	1.82	0.61
1:2A:855:G:H1	1:2A:922:U:H3	1.48	0.61
1:2A:989:G:O2'	60:2A:3735:HOH:O	2.16	0.61
8:2I:75:LEU:HD11	8:2I:105:HIS:CE1	2.36	0.61
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.36	0.61
32:1a:236:G:OP1	48:1q:40:LYS:NZ	2.32	0.61
32:1a:948:C:H2'	32:1a:949:A:H8	1.66	0.61
32:2a:1052:U:O2'	32:2a:1055:A:OP2	2.14	0.61
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.66	0.61
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.01	0.61
1:2A:2000:G:OP1	13:2R:5:LYS:NZ	2.34	0.61
32:2a:1250:A:H4'	40:2i:68:GLY:H	1.66	0.61
1:1A:1604:C:OP2	60:1A:3838:HOH:O	2.16	0.61
33:1b:163:PHE:HA	33:1b:185:ILE:HG12	1.83	0.61
1:2A:884:C:O2	1:2A:892:G:N2	2.24	0.61
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	1.83	0.61
9:2N:29:LYS:HE3	9:2N:140:VAL:HB	1.83	0.61
32:2a:444:C:H2'	32:2a:445:G:C8	2.34	0.61
32:2a:811:C:O2'	32:2a:901:A:N1	2.33	0.61
55:2y:62:C:H2'	55:2y:63:G:C8	2.36	0.61
1:1A:2136:C:N4	1:1A:2155:G:H1	1.98	0.61
31:19:8:LYS:H	31:19:34:GLN:HE22	1.49	0.61
32:1a:1269:A:N1	32:1a:1312:G:O2'	2.32	0.61
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.82	0.61
33:1b:115:LEU:HD13	33:1b:145:LEU:HB3	1.82	0.61
44:2m:54:VAL:O	44:2m:58:GLU:N	2.29	0.61
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.01	0.60
1:2A:642:G:H21	1:2A:646:A:H2	1.49	0.60
1:2A:1359:A:H61	1:2A:1372:U:H3	1.47	0.60
18:2W:18:ARG:HG2	18:2W:76:VAL:HB	1.83	0.60
35:2d:60:GLU:OE1	35:2d:199:ASN:N	2.30	0.60
33:1b:63:MET:HG2	33:1b:225:ALA:HB1	1.82	0.60
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.83	0.60
1:2A:579:G:H2'	1:2A:580:C:C6	2.36	0.60
1:2A:1959:G:N7	60:2A:3820:HOH:O	2.31	0.60
3:2D:206:LEU:O	3:2D:211:ARG:HD3	2.01	0.60
1:1A:783:A:OP2	60:1A:3814:HOH:O	2.17	0.60
1:2A:1010:A:N7	60:2A:3822:HOH:O	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.01	0.60
36:1e:77:PRO:HD2	36:1e:142:LEU:HD22	1.84	0.60
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.02	0.60
3:2D:72:LYS:NZ	3:2D:99:ASP:OD2	2.30	0.60
6:2G:47:LYS:HG3	6:2G:48:GLU:H	1.67	0.60
32:2a:964:A:N3	32:2a:969:A:O2'	2.33	0.60
35:2d:140:VAL:HG11	35:2d:146:ILE:HD11	1.82	0.60
42:2k:66:LEU:HB3	42:2k:70:LYS:HE2	1.82	0.60
45:2n:4:LYS:HA	45:2n:7:ILE:HG12	1.83	0.60
1:1A:184:C:H2'	1:1A:185:U:C6	2.37	0.60
1:1A:1115:G:H3'	1:1A:1116:C:H5"	1.84	0.60
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.84	0.60
16:2U:85:LYS:HB3	16:2U:116:ALA:HB1	1.83	0.60
32:2a:677:U:H3	32:2a:713:G:H22	1.47	0.60
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.67	0.60
6:2G:7:LEU:HD12	6:2G:104:GLU:HA	1.84	0.60
25:23:8:LEU:HB2	25:23:28:LEU:HD13	1.83	0.60
1:1A:885:C:O2	1:1A:892:G:N1	2.33	0.60
32:1a:960:U:H5	50:1s:78:ARG:HD3	1.65	0.60
1:2A:1568:G:H5"	3:2D:61:LEU:HG	1.82	0.60
11:2P:71:VAL:HG22	11:2P:72:PRO:HA	1.83	0.60
13:2R:87:TYR:HD1	13:2R:90:ARG:HD2	1.67	0.60
32:2a:8:A:H5'	36:2e:101:ILE:HG22	1.84	0.60
32:2a:963:G:H1	32:2a:972:C:H42	1.48	0.60
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.01	0.60
2:1B:106:G:H5'	21:1Z:31:ARG:HG2	1.83	0.60
7:1H:3:ARG:NH1	7:1H:4:ILE:H	1.99	0.60
34:1c:115:LEU:HA	34:1c:118:GLN:HB2	1.82	0.60
41:1j:6:ILE:HA	41:1j:98:ILE:HG12	1.82	0.60
7:2H:54:ARG:NH2	7:2H:57:ASP:OD1	2.33	0.60
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.16	0.60
33:2b:123:ALA:C	33:2b:125:PRO:HD3	2.26	0.60
50:2s:48:THR:HA	50:2s:61:TYR:HA	1.83	0.60
32:1a:1272:G:H2'	32:1a:1273:G:O4'	2.02	0.60
34:1c:77:ILE:O	34:1c:84:ILE:N	2.33	0.60
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	1.82	0.60
1:2A:956:G:OP2	12:2Q:14:ARG:NH2	2.35	0.60
13:2R:33:ARG:NH2	27:25:57:VAL:O	2.35	0.60
20:2Y:5:MET:HE2	20:2Y:30:VAL:HG13	1.82	0.60
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.66	0.60
1:1A:1309:G:OP1	29:17:9:ARG:HG3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.83	0.60
1:2A:1349:A:OP1	60:2A:3737:HOH:O	2.17	0.60
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.19	0.60
1:1A:2255:G:OP2	60:1A:3840:HOH:O	2.17	0.59
44:1m:45:VAL:HA	44:1m:48:LEU:HD12	1.83	0.59
2:2B:107:G:OP1	21:2Z:31:ARG:NH2	2.34	0.59
2:1B:13:A:N1	2:1B:69:G:O2'	2.31	0.59
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.35	0.59
32:1a:316:G:OP2	32:1a:351:G:O2'	2.19	0.59
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.37	0.59
1:2A:1245:G:OP1	11:2P:13:ASN:ND2	2.32	0.59
1:2A:2522:U:O2'	1:2A:2647:U:OP1	2.18	0.59
41:2j:48:THR:OG1	41:2j:62:HIS:ND1	2.33	0.59
1:1A:2189:U:H2'	1:1A:2190:G:C8	2.38	0.59
1:1A:2347:C:HO2'	28:16:21:TYR:HH	1.48	0.59
32:1a:490:G:H2'	32:1a:491:G:H8	1.67	0.59
34:1c:134:ILE:HG23	34:1c:151:VAL:HG13	1.84	0.59
1:2A:144:C:H5'	19:2X:2:LYS:HD2	1.84	0.59
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.37	0.59
32:2a:946:A:H2'	32:2a:947:G:H8	1.65	0.59
32:2a:1271:G:C2	32:2a:1272:G:N7	2.70	0.59
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.19	0.59
1:1A:2659:G:O6	60:1A:3842:HOH:O	2.17	0.59
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.83	0.59
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.17	0.59
49:1r:58:LEU:HD12	49:1r:62:GLU:HB3	1.83	0.59
1:2A:392:C:OP1	60:2A:3736:HOH:O	2.17	0.59
1:2A:2361:A:OP1	30:28:27:THR:OG1	2.19	0.59
5:2F:40:GLN:HE22	5:2F:182:ASN:HB2	1.66	0.59
32:2a:376:G:H5"	47:2p:5:ARG:HB2	1.83	0.59
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.38	0.59
21:1Z:89:PHE:HE2	21:1Z:96:VAL:HG21	1.68	0.59
6:2G:179:PRO:HB2	26:24:42:PHE:HE2	1.68	0.59
41:2j:51:ARG:O	45:2n:45:ARG:NH1	2.36	0.59
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.38	0.59
43:1l:52:LEU:O	43:1l:54:LYS:NZ	2.33	0.59
32:2a:977:A:O2'	32:2a:980:C:N4	2.35	0.59
32:2a:1166:G:N2	32:2a:1170:A:OP2	2.34	0.59
33:2b:9:GLU:O	33:2b:11:LEU:N	2.32	0.59
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.37	0.59
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:16:HIS:CD2	33:1b:17:PHE:H	2.20	0.59
35:1d:122:ARG:NH2	35:1d:134:ASP:O	2.36	0.59
1:2A:752:A:OP1	29:27:3:ARG:NH2	2.32	0.59
4:2E:128:SER:OG	4:2E:129:HIS:N	2.34	0.59
22:20:11:ARG:O	22:20:14:ARG:NH2	2.35	0.59
32:2a:1278:U:H5'	32:2a:1279:A:H5'	1.85	0.59
42:2k:98:LEU:O	42:2k:101:SER:OG	2.19	0.59
50:2s:40:ILE:HG22	50:2s:44:MET:HE1	1.85	0.59
1:1A:739:G:OP1	60:1A:3839:HOH:O	2.17	0.59
1:1A:847:U:OP2	60:1A:3841:HOH:O	2.17	0.59
1:1A:1070:A:N7	1:1A:1096:A:H2'	2.18	0.59
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.33	0.59
1:1A:2508:G:OP1	54:1w:223:ARG:NH2	2.36	0.59
32:1a:134:A:N6	47:1p:25:ARG:HH12	2.00	0.59
1:2A:2240:C:H2'	1:2A:2241:A:H8	1.68	0.59
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.12	0.59
33:2b:58:ILE:HA	33:2b:61:LEU:HB3	1.83	0.59
32:1a:1110:A:OP2	60:1a:1808:HOH:O	2.17	0.59
33:1b:135:GLN:O	33:1b:139:LYS:N	2.35	0.59
40:1i:28:VAL:HG12	40:1i:29:ASN:H	1.67	0.59
46:1o:82:ILE:O	46:1o:86:GLY:N	2.36	0.59
4:2E:119:ARG:HG3	4:2E:160:TYR:HB2	1.85	0.59
21:2Z:151:HIS:O	21:2Z:153:SER:N	2.33	0.59
1:1A:303:U:O4	60:1A:3843:HOH:O	2.17	0.59
9:1N:10:GLU:HG3	9:1N:11:PRO:HD2	1.85	0.59
22:10:11:ARG:O	22:10:14:ARG:NH2	2.36	0.59
32:1a:202:U:H3'	32:1a:203:U:C6	2.38	0.59
32:1a:1137:C:O2'	32:1a:1138:G:N2	2.36	0.59
35:1d:173:TRP:CD1	35:1d:174:LEU:HG	2.38	0.59
47:1p:4:ILE:HG12	47:1p:21:VAL:HG22	1.85	0.59
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.68	0.59
32:2a:1187:G:N2	45:2n:60:SER:OG	2.33	0.59
32:2a:1503:A:H61	53:2v:12:A:H2'	1.67	0.59
1:1A:787:U:H5"	1:1A:788:A:H5'	1.84	0.58
33:1b:155:LEU:HD22	33:1b:159:PRO:HD3	1.85	0.58
7:2H:46:GLU:HB2	7:2H:49:VAL:HB	1.84	0.58
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.38	0.58
32:2a:1239:A:H4'	32:2a:1240:U:H5'	1.83	0.58
34:2c:52:LEU:HD13	34:2c:68:VAL:HG13	1.84	0.58
47:2p:4:ILE:HB	47:2p:66:PRO:HB3	1.84	0.58
1:1A:518:G:H2'	1:1A:519:U:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:127:ALA:C	15:1T:129:ARG:H	2.11	0.58
32:1a:1160:G:H22	32:1a:1176:A:H2	1.50	0.58
1:2A:2719:G:OP2	60:2A:3733:HOH:O	2.16	0.58
4:2E:8:LYS:HG2	4:2E:192:ASN:HA	1.85	0.58
1:1A:1045:A:H8	1:1A:1111:A:N6	2.02	0.58
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.18	0.58
35:1d:53:ASP:O	35:1d:57:ARG:NH1	2.36	0.58
1:2A:2121:G:H1	1:2A:2177:C:H42	1.52	0.58
1:2A:2519:U:OP2	60:2A:3738:HOH:O	2.17	0.58
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD21	1.85	0.58
50:1s:20:LEU:HA	50:1s:23:ASN:HB2	1.83	0.58
1:2A:307:G:H21	1:2A:330:A:H62	1.52	0.58
1:2A:652(T):C:H2'	1:2A:652(U):G:H8	1.68	0.58
1:2A:1603:A:OP1	60:2A:3714:HOH:O	2.17	0.58
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.84	0.58
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.84	0.58
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.38	0.58
43:1l:70:ILE:HG12	43:1l:100:ILE:HD12	1.85	0.58
1:2A:247:G:H4'	1:2A:386:G:C5	2.39	0.58
1:2A:1785:A:OP1	60:2A:3734:HOH:O	2.16	0.58
32:2a:1162:C:H42	32:2a:1174:G:H1	1.51	0.58
32:2a:1179:A:H4'	40:2i:103:THR:HA	1.86	0.58
33:2b:15:VAL:HG12	33:2b:16:HIS:H	1.67	0.58
34:2c:124:ILE:HG22	34:2c:130:VAL:HG22	1.86	0.58
40:2i:70:LYS:O	40:2i:74:ILE:N	2.33	0.58
25:13:8:LEU:HG	25:13:31:LEU:HD23	1.86	0.58
32:1a:159:G:H2'	32:1a:161:A:OP2	2.03	0.58
35:1d:8:VAL:HG22	35:1d:21:LEU:HD13	1.86	0.58
43:1l:8:ASN:OD1	48:1q:34:LYS:NZ	2.37	0.58
6:2G:35:GLU:HB3	6:2G:160:VAL:HB	1.86	0.58
26:24:40:HIS:HB3	26:24:43:TYR:CD2	2.39	0.58
32:2a:470:C:OP2	60:2a:1806:HOH:O	2.17	0.58
35:2d:103:ASN:OD1	35:2d:114:ARG:NH2	2.27	0.58
1:1A:1507:A:H2'	1:1A:1508:A:H8	1.67	0.58
32:1a:671:G:H5'	37:1f:77:ARG:HH22	1.68	0.58
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.04	0.58
42:1k:48:ILE:O	42:1k:50:TYR:N	2.34	0.58
1:2A:7:G:H2'	1:2A:8:A:C8	2.39	0.58
1:2A:1651:G:OP1	13:2R:40:LYS:NZ	2.35	0.58
1:1A:153:C:OP2	23:11:92:LYS:NZ	2.36	0.58
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:49:ASN:ND2	43:1l:92:0TD:SB	2.76	0.58
1:2A:195:A:OP1	11:2P:46:LYS:NZ	2.33	0.58
14:2S:105:ALA:HB1	14:2S:110:LEU:HD12	1.84	0.58
21:1Z:93:ASP:HB3	21:1Z:131:ARG:HH22	1.69	0.58
32:1a:407:G:H5"	35:1d:115:ARG:HB3	1.86	0.58
32:1a:490:G:H2'	32:1a:491:G:C8	2.38	0.58
32:1a:1402:4OC:OP2	60:1v:201:HOH:O	2.17	0.58
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.18	0.58
8:2I:75:LEU:HD21	8:2I:105:HIS:CG	2.38	0.58
32:2a:862:C:H1'	32:2a:874:G:H5"	1.85	0.58
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.03	0.58
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.39	0.58
32:1a:1027:C:N3	32:1a:1034:G:N2	2.51	0.58
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.39	0.58
38:1g:106:GLN:O	38:1g:110:GLN:HG2	2.04	0.58
1:2A:1153:C:OP1	16:2U:92:ARG:NH2	2.31	0.58
1:2A:1171:G:H1	1:2A:1178:C:H42	1.50	0.58
13:2R:28:LEU:HD23	13:2R:48:VAL:HG21	1.85	0.58
32:2a:56:U:H2'	32:2a:57:G:H8	1.68	0.58
32:2a:1346:A:OP1	40:2i:120:ARG:NH1	2.30	0.58
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.37	0.57
12:1Q:65:PHE:HB2	12:1Q:105:GLU:HB2	1.85	0.57
32:1a:100:C:H2'	32:1a:101:A:C8	2.39	0.57
1:2A:509:C:OP1	60:2A:3740:HOH:O	2.17	0.57
9:1N:67:LEU:HD23	9:1N:87:LEU:HD13	1.86	0.57
32:2a:421:U:O2'	32:2a:423:G:N7	2.37	0.57
32:2a:1124:G:N2	32:2a:1125:U:O4	2.36	0.57
35:2d:11:LEU:O	35:2d:15:GLU:HG2	2.04	0.57
42:2k:110:ASP:OD1	42:2k:112:THR:HG23	2.03	0.57
55:2y:62:C:H2'	55:2y:63:G:H8	1.67	0.57
1:1A:1024:G:OP2	60:1A:3811:HOH:O	2.17	0.57
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.39	0.57
1:1A:2336:A:H61	22:10:43:THR:HG21	1.68	0.57
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.85	0.57
32:1a:41:G:H2'	32:1a:42:G:C8	2.38	0.57
32:1a:1108:G:H5'	34:1c:176:HIS:CD2	2.38	0.57
1:2A:2393:A:H5"	11:2P:63:PRO:HB3	1.85	0.57
32:2a:392:G:H2'	32:2a:393:A:C8	2.39	0.57
32:2a:1342:C:O2'	40:2i:124:GLN:NE2	2.37	0.57
45:2n:9:LYS:HA	45:2n:12:ARG:HB3	1.87	0.57
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:92:VAL:HB	8:1I:120:ILE:HB	1.86	0.57
11:1P:121:LYS:O	11:1P:123:LEU:N	2.37	0.57
32:1a:376:G:H5"	47:1p:5:ARG:HB2	1.86	0.57
1:2A:2110:G:H1	1:2A:2179:C:H42	1.52	0.57
15:2T:16:ARG:NH2	15:2T:83:ILE:O	2.36	0.57
24:22:22:GLU:OE2	24:22:68:ARG:NH2	2.37	0.57
32:2a:113:G:H1'	32:2a:354:G:H5'	1.86	0.57
34:2c:12:LEU:HD21	45:2n:51:GLY:HA2	1.85	0.57
1:1A:588:U:H2'	1:1A:589:C:C6	2.38	0.57
26:14:28:LYS:HB2	26:14:31:ILE:HD11	1.86	0.57
35:1d:98:GLU:OE2	35:1d:107:ARG:NH1	2.37	0.57
3:1D:127:VAL:HA	3:1D:193:VAL:HG22	1.86	0.57
32:1a:427:U:OP1	35:1d:13:ARG:NH1	2.30	0.57
32:1a:1086:U:H3	32:1a:1099:G:H22	1.51	0.57
1:2A:1031:G:H5"	31:29:8:LYS:HE3	1.86	0.57
4:2E:4:ILE:HD11	4:2E:29:GLY:HA2	1.87	0.57
11:2P:85:LEU:HA	11:2P:88:LEU:HD12	1.86	0.57
32:2a:716:A:N3	42:2k:118:GLY:HA2	2.18	0.57
1:1A:2849:U:O4	15:1T:23:ARG:NH2	2.34	0.57
6:1G:131:TYR:HB3	6:1G:159:VAL:HB	1.86	0.57
11:1P:39:LYS:HB2	11:1P:45:LEU:HD21	1.86	0.57
32:1a:544:G:OP1	35:1d:62:GLN:NE2	2.37	0.57
32:1a:944:G:OP1	60:1a:1809:HOH:O	2.17	0.57
36:1e:15:ARG:HD2	36:1e:26:PHE:CD1	2.39	0.57
1:2A:2322:A:H2'	1:2A:2323:G:O4'	2.05	0.57
16:2U:49:HIS:HA	16:2U:52:ARG:HB2	1.85	0.57
32:2a:728:A:H2'	32:2a:729:A:C8	2.38	0.57
54:2w:346:ARG:HA	54:2w:349:ALA:HB2	1.86	0.57
5:1F:185:ASP:OD1	5:1F:188:ARG:NH1	2.37	0.57
6:1G:67:LYS:HD3	26:14:5:ILE:HD12	1.87	0.57
1:2A:1153:C:OP1	16:2U:76:TYR:OH	2.21	0.57
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.87	0.57
18:2W:78:GLU:OE2	18:2W:99:ARG:NH1	2.37	0.57
32:2a:1272:G:N2	32:2a:1273:G:C5	2.73	0.57
35:2d:100:ARG:NH1	35:2d:137:SER:OG	2.35	0.57
39:2h:119:LEU:HB3	39:2h:123:GLU:HB2	1.87	0.57
32:1a:1288:A:H2'	32:1a:1289:A:C8	2.39	0.57
38:1g:113:GLU:OE2	38:1g:122:HIS:ND1	2.37	0.57
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.70	0.57
5:2F:132:VAL:HA	5:2F:138:GLU:HB3	1.86	0.57
32:2a:689:C:OP1	42:2k:27:ASN:ND2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:20:SER:OG	34:2c:36:ASP:OD2	2.19	0.57
1:1A:219:G:OP2	60:1A:3846:HOH:O	2.18	0.57
1:1A:1045:A:H2'	1:1A:1045:A:N3	2.19	0.57
1:1A:2469:A:H4'	12:1Q:56:ARG:HG2	1.86	0.57
4:1E:173:VAL:HG12	4:1E:183:LEU:HB3	1.86	0.57
32:1a:673:G:H2'	32:1a:674:G:C8	2.38	0.57
36:1e:60:TYR:HE2	36:1e:64:ARG:HD3	1.69	0.57
44:1m:14:ARG:NH2	44:1m:16:ASP:OD2	2.36	0.57
55:1y:68:C:H2'	55:1y:69:G:C8	2.38	0.57
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.40	0.57
6:2G:64:THR:HB	6:2G:94:LEU:HD11	1.87	0.57
19:2X:94:GLY:H	19:2X:95:LEU:HA	1.70	0.57
24:22:41:ILE:HG13	24:22:43:GLN:HG3	1.85	0.57
28:26:6:ARG:HH12	28:26:26:ASN:HB2	1.69	0.57
32:2a:316:G:OP2	32:2a:351:G:O2'	2.22	0.57
32:2a:573:A:N3	32:2a:883:C:O2'	2.36	0.57
1:1A:271(L):U:H4'	8:1I:50:ARG:NH1	2.19	0.56
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.40	0.56
33:1b:37:ASN:HB2	33:1b:39:ILE:HD12	1.87	0.56
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.38	0.56
1:2A:1908:C:O2	55:2x:12:U:H4'	2.04	0.56
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.87	0.56
25:23:54:VAL:HG12	25:23:56:VAL:HG22	1.86	0.56
32:2a:127:G:HO2'	48:2q:2:PRO:N	2.03	0.56
23:11:19:GLN:O	23:11:35:THR:HG22	2.05	0.56
32:1a:165:C:H2'	32:1a:166:G:C8	2.40	0.56
1:2A:536:A:OP1	16:2U:53:ARG:NH1	2.38	0.56
10:2O:68:GLU:OE1	10:2O:78:ARG:NH1	2.38	0.56
27:25:20:ARG:HG2	27:25:23:HIS:CE1	2.40	0.56
1:1A:668:G:H5'	1:1A:669:G:OP2	2.06	0.56
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	1.87	0.56
32:1a:1288:A:N1	32:1a:1371:G:H1'	2.21	0.56
34:1c:115:LEU:HD23	34:1c:115:LEU:H	1.70	0.56
38:1g:20:ASP:HB3	38:1g:23:VAL:HG12	1.87	0.56
41:1j:13:HIS:HB3	41:1j:68:HIS:CE1	2.40	0.56
45:1n:27:CYS:SG	45:1n:28:GLY:N	2.79	0.56
1:2A:468:G:N7	29:27:39:ARG:NH2	2.48	0.56
1:2A:1877:A:H5'	1:2A:1878:G:OP2	2.05	0.56
1:2A:2859:G:OP1	60:2A:3743:HOH:O	2.18	0.56
6:2G:121:ASN:HD21	6:2G:123:ASN:HD22	1.53	0.56
32:2a:392:G:H2'	32:2a:393:A:H8	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:619:U:N3	35:2d:134:ASP:OD1	2.28	0.56
33:2b:185:ILE:HA	33:2b:199:TYR:O	2.04	0.56
44:2m:34:LEU:O	44:2m:38:GLY:N	2.38	0.56
47:2p:15:PRO:HB2	47:2p:41:PRO:HG3	1.86	0.56
54:2w:222:MET:HG2	54:2w:238:ALA:HB3	1.87	0.56
54:2w:243:HIS:ND1	54:2w:246:THR:OG1	2.29	0.56
1:1A:2810:A:N6	1:1A:2891:G:O2'	2.38	0.56
12:1Q:35:VAL:HG13	12:1Q:130:LYS:HB3	1.88	0.56
32:1a:942:G:H21	40:1i:124:GLN:NE2	2.02	0.56
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.05	0.56
1:2A:752:A:H3'	29:27:1:MET:HE1	1.86	0.56
1:2A:2452:C:H4'	54:2w:234:THR:HG21	1.86	0.56
8:2I:4:ILE:HG12	8:2I:18:VAL:HG22	1.86	0.56
32:2a:701:C:OP1	32:2a:702:A:O2'	2.21	0.56
32:2a:1518:MA6:H93	32:2a:1519:MA6:H92	1.87	0.56
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.87	0.56
1:1A:2336:A:H61	22:10:43:THR:CG2	2.19	0.56
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.71	0.56
32:1a:347:G:H2'	32:1a:348:G:C8	2.40	0.56
1:2A:212:G:H2'	1:2A:213:A:O4'	2.06	0.56
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.40	0.56
47:2p:40:ASP:OD2	47:2p:44:THR:OG1	2.22	0.56
54:2w:229:GLY:HA3	55:2x:76:A:H3'	1.88	0.56
32:1a:107:G:O6	51:1t:15:ARG:NE	2.36	0.56
32:1a:108:G:C6	51:1t:15:ARG:HG2	2.40	0.56
32:2a:1240:U:OP2	38:2g:116:ALA:N	2.38	0.56
34:2c:3:ASN:OD1	34:2c:3:ASN:N	2.38	0.56
1:1A:881:G:H2'	1:1A:882:G:O4'	2.05	0.56
1:1A:1753:G:N1	1:1A:1756:G:OP2	2.36	0.56
1:1A:2227:A:OP2	60:1A:3844:HOH:O	2.18	0.56
32:1a:455:C:H42	32:1a:476:G:H1	1.52	0.56
36:1e:91:LEU:HD23	36:1e:120:THR:HB	1.86	0.56
1:2A:244:A:H4'	11:2P:74:GLU:HB2	1.87	0.56
2:2B:12:C:H2'	22:20:73:GLY:HA3	1.87	0.56
12:2Q:76:LYS:HB3	12:2Q:91:GLU:HG3	1.88	0.56
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.05	0.56
41:1j:61:GLU:OE1	45:1n:45:ARG:NE	2.32	0.56
42:1k:33:THR:HA	42:1k:39:PRO:HA	1.88	0.56
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.38	0.56
32:2a:865:A:N3	32:2a:918:A:O2'	2.32	0.56
43:2l:46:LYS:HE2	43:2l:92:0TD:H4	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:272(G):C:H42	1:1A:363(C):G:H1	1.54	0.56
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.40	0.56
16:1U:47:TYR:HA	16:1U:50:ARG:NH2	2.21	0.56
21:1Z:158:PRO:HG2	21:1Z:161:VAL:HG21	1.88	0.56
32:1a:519:C:OP2	43:1l:50:SER:OG	2.23	0.56
1:2A:1529:G:H1	1:2A:1540:U:H3	1.54	0.56
51:2t:9:ASN:O	51:2t:10:LEU:HB2	2.06	0.56
1:1A:2115:G:H21	1:1A:2171:A:H61	1.54	0.56
18:1W:2:GLU:OE2	18:1W:72:LYS:NZ	2.30	0.56
26:14:16:CYS:SG	26:14:17:GLY:N	2.78	0.56
32:1a:923:A:OP1	36:1e:21:ALA:HB2	2.06	0.56
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.40	0.56
54:1w:228:GLY:HA3	54:1w:232:VAL:HB	1.88	0.56
1:2A:731:C:OP1	60:2A:3742:HOH:O	2.18	0.56
1:2A:883:G:N1	1:2A:893:C:O2'	2.37	0.56
8:2I:9:LEU:HD13	8:2I:12:LEU:HD12	1.88	0.56
9:2N:46:VAL:HG23	9:2N:48:MET:HG2	1.87	0.56
26:24:67:TYR:HE2	50:2s:9:VAL:HB	1.71	0.56
33:2b:115:LEU:O	33:2b:119:GLU:HG2	2.06	0.56
35:2d:15:GLU:HB3	35:2d:63:LYS:HG2	1.87	0.56
1:1A:2098:U:H2'	1:1A:2099:U:C6	2.41	0.55
32:1a:134:A:N1	47:1p:25:ARG:NH1	2.54	0.55
33:1b:115:LEU:HB2	33:1b:145:LEU:HD22	1.88	0.55
37:1f:45:LEU:HD12	37:1f:59:TYR:HD1	1.70	0.55
4:2E:176:ILE:HB	4:2E:181:LEU:HB2	1.88	0.55
32:2a:1123:A:H4'	41:2j:36:GLY:HA3	1.88	0.55
32:2a:1190:G:H5'	34:2c:176:HIS:HE1	1.70	0.55
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.88	0.55
32:1a:343:U:O3'	32:1a:344:A:H2'	2.06	0.55
33:1b:15:VAL:HG21	33:1b:213:LEU:HD12	1.88	0.55
35:1d:108:LEU:HD11	35:1d:174:LEU:HD22	1.89	0.55
36:1e:31:LEU:HD22	36:1e:43:LEU:HD11	1.88	0.55
37:1f:36:ARG:NH2	37:1f:38:GLU:OE2	2.39	0.55
1:2A:630:G:N2	1:2A:633:A:OP2	2.28	0.55
32:2a:942:G:N2	40:2i:124:GLN:OE1	2.38	0.55
32:2a:1216:G:H5"	45:2n:5:ALA:HB2	1.87	0.55
36:2e:121:LYS:NZ	36:2e:122:GLU:O	2.39	0.55
1:1A:1288:U:O4	13:1R:106:GLY:HA3	2.06	0.55
6:1G:139:LEU:HA	6:1G:144:ILE:HB	1.89	0.55
21:1Z:7:ALA:HB2	21:1Z:59:LEU:HD22	1.87	0.55
51:1t:56:MET:HG3	51:1t:84:LEU:HD22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.41	0.55
32:2a:881:G:P	43:2l:12:ARG:HH22	2.30	0.55
32:1a:975:A:N1	41:1j:48:THR:HB	2.21	0.55
33:1b:48:MET:HA	33:1b:51:LEU:HD12	1.88	0.55
32:2a:1030(A):G:N2	32:2a:1030(C):G:H5"	2.22	0.55
32:2a:1456:G:O2'	51:2t:39:LYS:NZ	2.38	0.55
34:2c:68:VAL:HG12	34:2c:70:VAL:HG23	1.89	0.55
42:2k:85:ARG:HA	42:2k:112:THR:HG22	1.87	0.55
54:2w:130:MET:HE1	54:2w:305:TYR:HE1	1.71	0.55
54:2w:212:LEU:HD11	54:2w:270:ARG:HB2	1.89	0.55
1:1A:888:C:O4'	44:1m:93:ARG:HD3	2.06	0.55
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.37	0.55
32:1a:308:C:H2'	32:1a:309:G:C8	2.42	0.55
32:1a:1220:G:N2	50:1s:54:GLY:O	2.38	0.55
32:1a:1401:G:OP1	60:1v:201:HOH:O	2.18	0.55
1:2A:1043:C:N4	1:2A:1112:G:H1	2.04	0.55
1:2A:1395:A:OP1	60:2A:3714:HOH:O	2.18	0.55
32:2a:433:C:H2'	32:2a:434:U:C6	2.42	0.55
32:2a:1263:C:N3	32:2a:1272:G:O6	2.39	0.55
38:2g:32:ARG:NH2	38:2g:109:ASN:OD1	2.38	0.55
32:1a:617:G:N7	60:1a:1826:HOH:O	2.33	0.55
1:2A:10:G:O2'	1:2A:2801(A):A:N7	2.38	0.55
1:2A:399:G:OP2	60:2A:3744:HOH:O	2.18	0.55
1:2A:1288:U:O4	13:2R:106:GLY:HA3	2.06	0.55
1:2A:2036:C:OP1	60:2A:3741:HOH:O	2.18	0.55
2:2B:31:C:H4'	6:2G:29:TRP:CH2	2.42	0.55
3:2D:25:THR:HG21	3:2D:113:VAL:HG21	1.88	0.55
32:2a:1154:G:H2'	32:2a:1155:G:H8	1.72	0.55
35:2d:62:GLN:HB3	35:2d:66:ARG:HH11	1.70	0.55
39:2h:36:LEU:HD23	39:2h:39:LEU:HD12	1.87	0.55
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.29	0.55
47:2p:34:GLU:OE1	47:2p:59:TRP:NE1	2.35	0.55
5:1F:148:LEU:HD11	5:1F:193:VAL:HG21	1.89	0.55
32:1a:503:C:H2'	32:1a:504:C:H6	1.71	0.55
36:1e:78:HIS:HE1	36:1e:142:LEU:HA	1.71	0.55
56:1z:9:TYR:O	56:1z:11:PRO:HD3	2.06	0.55
3:2D:228:PRO:O	60:2D:401:HOH:O	2.18	0.55
4:2E:9:VAL:HG13	15:2T:3:ARG:HG2	1.89	0.55
8:2I:50:ARG:HH12	8:2I:57:ARG:HH22	1.54	0.55
32:2a:23:C:H5	32:2a:561:U:O4	1.90	0.55
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:95:GLN:HG2	33:2b:147:LYS:HE2	1.87	0.55
1:1A:251:A:C5	1:1A:252:G:H1'	2.42	0.55
32:1a:110:C:O2'	47:1p:25:ARG:O	2.23	0.55
32:1a:1135:U:H4'	32:1a:1136:U:H5	1.72	0.55
22:20:14:ARG:NH1	60:20:201:HOH:O	2.32	0.55
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.21	0.55
33:2b:217:ARG:HA	33:2b:220:ASP:HB2	1.89	0.55
41:2j:8:LEU:HD23	41:2j:96:ILE:HG23	1.88	0.55
6:1G:122:PRO:HB3	6:1G:170:ARG:HH12	1.72	0.55
11:1P:138:LEU:HD23	11:1P:145:PRO:HB3	1.88	0.55
25:13:7:LYS:HG3	25:13:34:GLU:HG2	1.89	0.55
32:1a:4:U:C4	39:1h:105:ARG:HD3	2.42	0.55
1:2A:2313:C:H2'	1:2A:2314:C:H6	1.71	0.55
4:2E:54:GLN:NE2	4:2E:76:ARG:HG2	2.21	0.55
28:26:3:SER:HB3	28:26:6:ARG:H	1.72	0.55
1:1A:882:G:H1	1:1A:894:C:H42	1.53	0.55
1:1A:2051:A:OP2	60:1A:3848:HOH:O	2.18	0.55
32:1a:1273:G:C2	32:1a:1274:G:H1'	2.42	0.55
35:1d:121:VAL:HA	35:1d:126:ILE:HG13	1.88	0.55
1:2A:263:C:O2'	1:2A:429:A:N3	2.34	0.55
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.22	0.55
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.71	0.55
9:2N:58:ASP:OD1	9:2N:58:ASP:N	2.39	0.55
34:2c:63:ASN:HA	34:2c:98:ASN:HB3	1.88	0.55
38:2g:144:MET:SD	55:2y:30:G:N2	2.80	0.55
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.88	0.54
19:1X:92:LEU:C	19:1X:94:GLY:H	2.16	0.54
32:1a:933:G:O6	38:1g:3:ARG:NH2	2.40	0.54
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.25	0.54
1:2A:271(M):G:H4'	1:2A:271(N):U:OP1	2.07	0.54
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.07	0.54
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.07	0.54
16:2U:34:LYS:NZ	16:2U:37:GLU:OE1	2.33	0.54
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.43	0.54
44:2m:108:ARG:HD2	44:2m:114:ARG:HG2	1.88	0.54
1:1A:1365:A:OP2	23:11:3:LYS:HG3	2.08	0.54
32:1a:235:C:H5'	48:1q:70:ARG:HG2	1.89	0.54
44:1m:91:ARG:HB2	44:1m:98:VAL:HG13	1.88	0.54
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.38	0.54
9:2N:67:LEU:HD23	9:2N:87:LEU:HD13	1.89	0.54
12:2Q:14:ARG:HG2	12:2Q:41:TRP:CH2	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:434:U:H2'	32:2a:435:C:C6	2.42	0.54
33:2b:165:VAL:HG13	33:2b:166:ASP:H	1.72	0.54
35:2d:127:THR:HG23	35:2d:147:ALA:HB3	1.88	0.54
32:1a:946:A:O2'	32:1a:1333:A:N3	2.34	0.54
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.07	0.54
12:2Q:47:ILE:HD12	12:2Q:70:PRO:HG3	1.89	0.54
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.07	0.54
25:23:8:LEU:HA	25:23:54:VAL:HG22	1.89	0.54
42:2k:58:PRO:HB2	42:2k:93:GLN:HG2	1.88	0.54
32:1a:728:A:N7	46:1o:54:ARG:HD2	2.22	0.54
32:1a:977:A:O2'	32:1a:981:U:N3	2.37	0.54
32:1a:1298:C:OP2	38:1g:114:ARG:NH2	2.40	0.54
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.21	0.54
35:1d:120:LEU:HB3	35:1d:126:ILE:HD11	1.90	0.54
32:2a:1133:G:H2'	32:2a:1134:G:H8	1.72	0.54
32:2a:1250:A:N3	32:2a:1370:G:O2'	2.33	0.54
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.90	0.54
44:2m:81:LEU:HD22	44:2m:88:ARG:HB2	1.89	0.54
1:1A:1799:G:OP1	3:1D:260:ARG:NH1	2.36	0.54
1:1A:2022:U:OP1	60:1A:3850:HOH:O	2.19	0.54
8:1I:84:GLY:HA3	8:1I:87:LYS:HE2	1.90	0.54
33:1b:103:THR:HA	33:1b:180:LEU:HD11	1.88	0.54
1:2A:2105:C:H2'	1:2A:2106:G:C8	2.42	0.54
1:2A:2171:A:H1'	1:2A:2172:U:C6	2.42	0.54
4:2E:3:GLY:HA3	4:2E:81:ILE:HD12	1.88	0.54
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HB2	1.89	0.54
28:26:13:CYS:SG	28:26:47:THR:HG21	2.47	0.54
35:2d:119:GLN:HE21	35:2d:123:HIS:CE1	2.25	0.54
41:2j:40:LEU:HB2	41:2j:69:ASN:HB2	1.88	0.54
54:2w:142:THR:HG22	54:2w:162:VAL:HG22	1.89	0.54
1:1A:1185:C:OP2	60:1A:3845:HOH:O	2.18	0.54
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.42	0.54
1:1A:2134:A:H2'	1:1A:2135:A:H8	1.72	0.54
26:14:46:GLN:NE2	26:14:48:ARG:H	1.96	0.54
32:1a:1004:A:H5'	32:1a:1024:G:N1	2.20	0.54
32:1a:1027:C:N3	32:1a:1034:G:C2	2.76	0.54
5:2F:155:LEU:HD11	5:2F:176:LEU:HD12	1.90	0.54
7:2H:3:ARG:NH1	7:2H:4:ILE:H	2.06	0.54
19:2X:55:ASN:HB2	19:2X:80:ILE:HB	1.90	0.54
32:2a:1133:G:H1	32:2a:1141:C:H42	1.54	0.54
32:2a:1530:G:OP1	60:2a:1807:HOH:O	2.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:44:VAL:HG22	41:2j:66:ARG:HG2	1.90	0.54
1:1A:1798:U:OP2	3:1D:274:ARG:NH2	2.40	0.54
33:1b:122:PHE:HE1	33:1b:139:LYS:HD2	1.72	0.54
50:1s:39:THR:HG22	50:1s:40:ILE:H	1.72	0.54
32:2a:1298:C:C4	38:2g:114:ARG:HD3	2.42	0.54
1:1A:242:G:C8	30:18:5:LYS:HG2	2.43	0.54
1:1A:579:G:H2'	1:1A:580:C:C6	2.43	0.54
1:1A:1056:G:H5'	1:1A:1085:A:N1	2.23	0.54
1:1A:1187:G:H5"	17:1V:81:TYR:CE1	2.43	0.54
4:1E:29:GLY:HA3	60:1E:402:HOH:O	2.07	0.54
32:1a:1035:A:N3	32:1a:1036:G:N2	2.54	0.54
32:1a:1113:C:H42	32:1a:1187:G:H1	1.56	0.54
44:1m:91:ARG:NH1	44:1m:96:LEU:HD13	2.23	0.54
1:2A:479:A:N3	1:2A:481:G:H5"	2.22	0.54
1:2A:2096:U:H2'	1:2A:2097:C:C6	2.43	0.54
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.43	0.54
7:2H:80:SER:OG	7:2H:81:GLU:N	2.41	0.54
8:2I:2:LYS:HA	8:2I:20:ASP:HA	1.89	0.54
24:22:9:GLN:HE22	24:22:56:GLN:HG2	1.72	0.54
32:2a:17:U:H2'	32:2a:18:C:C6	2.43	0.54
32:2a:437:U:H5"	35:2d:155:LEU:HD11	1.90	0.54
32:2a:922:G:H2'	32:2a:923:A:C8	2.43	0.54
1:1A:536:A:H2'	1:1A:537:C:C6	2.43	0.54
1:1A:1252:G:N3	16:1U:33:ARG:HG2	2.22	0.54
6:1G:129:GLY:O	6:1G:161:THR:HG22	2.08	0.54
32:1a:646:U:H2'	32:1a:647:C:C6	2.43	0.54
51:1t:39:LYS:HG3	51:1t:55:ILE:HD13	1.89	0.54
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.08	0.54
2:2B:74:U:H1'	21:2Z:34:ASN:HD21	1.72	0.54
32:2a:663:A:O3'	49:2r:64:ARG:NH2	2.34	0.54
32:2a:950:U:H3	32:2a:1231:G:H1	1.56	0.54
32:2a:1154:G:H2'	32:2a:1155:G:C8	2.43	0.54
34:2c:66:VAL:HG23	34:2c:101:LEU:HA	1.90	0.54
21:1Z:111:VAL:C	21:1Z:113:ALA:H	2.15	0.54
32:1a:1209:C:O2'	32:1a:1214:C:N4	2.36	0.54
3:2D:275:LYS:HG3	3:2D:276:LYS:H	1.73	0.54
6:2G:66:GLN:NE2	6:2G:94:LEU:HA	2.23	0.54
8:2I:92:VAL:HG23	8:2I:120:ILE:HB	1.89	0.54
21:2Z:100:VAL:HG11	21:2Z:134:PRO:HG2	1.90	0.54
32:2a:539:A:H2'	32:2a:540:G:C8	2.43	0.54
32:2a:1298:C:H2'	38:2g:114:ARG:HH12	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:34:LEU:HD11	34:2c:38:ARG:HE	1.73	0.54
1:1A:2112:G:H1'	55:1y:19:G:O2'	2.07	0.53
1:1A:2319:G:N1	14:1S:3:ARG:HA	2.23	0.53
11:1P:62:LEU:O	30:18:13:ARG:HD3	2.08	0.53
32:1a:736:C:H2'	32:1a:737:A:C8	2.43	0.53
32:1a:836:G:OP1	49:1r:61:LYS:NZ	2.29	0.53
32:1a:1382:C:H2'	32:1a:1383:C:H6	1.72	0.53
32:1a:1382:C:H2'	32:1a:1383:C:C6	2.43	0.53
41:1j:32:ALA:HB2	41:1j:81:THR:HG21	1.89	0.53
1:2A:643:A:N1	1:2A:2369:A:O2'	2.38	0.53
1:2A:1799:G:O2'	3:2D:181:GLU:OE2	2.20	0.53
1:2A:2136:C:C4	1:2A:2155:G:N1	2.77	0.53
21:2Z:51:ALA:HA	21:2Z:55:HIS:HD2	1.73	0.53
42:2k:23:ALA:HA	42:2k:28:THR:HG22	1.89	0.53
44:2m:80:ARG:HH12	50:2s:69:HIS:CE1	2.26	0.53
1:1A:236:C:H2'	1:1A:237:C:C6	2.43	0.53
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.43	0.53
1:1A:751:A:H5'	18:1W:90:ARG:HA	1.90	0.53
47:1p:39:TYR:CE2	47:1p:41:PRO:HB3	2.43	0.53
21:2Z:33:LEU:HD21	21:2Z:90:VAL:HG11	1.90	0.53
32:2a:1147:C:O2	40:2i:16:ARG:NH2	2.40	0.53
33:2b:80:ILE:HD13	33:2b:211:ILE:HB	1.90	0.53
40:2i:125:TYR:HE2	40:2i:127:LYS:HB3	1.73	0.53
42:2k:48:ILE:O	42:2k:50:TYR:N	2.42	0.53
1:1A:744:G:OP1	4:1E:132:HIS:ND1	2.40	0.53
1:1A:2127:G:H2'	1:1A:2128:C:C6	2.44	0.53
33:1b:28:PHE:CD1	33:1b:194:PRO:HG3	2.43	0.53
1:2A:570:G:H5"	60:2A:4470:HOH:O	2.08	0.53
1:2A:1364:G:N7	23:21:3:LYS:HE2	2.23	0.53
1:2A:2789:C:O2	1:2A:2894:G:N2	2.42	0.53
35:2d:159:ARG:O	35:2d:163:GLU:N	2.40	0.53
42:2k:43:SER:HB3	42:2k:68:ALA:HB2	1.90	0.53
51:2t:46:GLU:O	51:2t:48:LYS:N	2.35	0.53
1:1A:882:G:H3'	1:1A:883:G:H8	1.72	0.53
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.35	0.53
32:1a:1315:U:O2'	32:1a:1360:A:O2'	2.26	0.53
33:1b:162:ILE:HD11	33:1b:184:VAL:HG22	1.90	0.53
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.26	0.53
1:2A:1709:U:H2'	1:2A:1710:C:C6	2.44	0.53
1:2A:1839:G:C8	1:2A:1927:A:H1'	2.43	0.53
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.44	0.53
32:2a:1228:C:OP2	44:2m:108:ARG:NH2	2.37	0.53
32:2a:1445:C:O2'	32:2a:1447:A:N6	2.38	0.53
35:2d:122:ARG:NH2	35:2d:134:ASP:O	2.41	0.53
44:2m:78:ILE:HA	44:2m:81:LEU:HD12	1.90	0.53
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.44	0.53
30:18:62:LEU:HB3	30:18:65:GLU:HG2	1.91	0.53
32:1a:1201:A:H5'	32:1a:1201:A:H8	1.74	0.53
37:1f:67:MET:HG3	37:1f:68:PRO:HD2	1.90	0.53
40:1i:48:GLU:OE2	40:1i:51:ARG:NH1	2.41	0.53
1:2A:856:C:H2'	1:2A:857:C:C6	2.43	0.53
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.09	0.53
1:2A:2102:U:H2'	1:2A:2103:C:C6	2.43	0.53
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.43	0.53
1:2A:2582:G:OP2	60:2A:3726:HOH:O	2.19	0.53
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.89	0.53
34:2c:22:TRP:HB3	34:2c:59:ARG:HB2	1.91	0.53
40:2i:37:PHE:HD1	40:2i:70:LYS:HD3	1.74	0.53
24:12:29:LYS:HG2	24:12:57:ILE:HD13	1.89	0.53
44:1m:2:ALA:HA	44:1m:8:GLU:HB2	1.90	0.53
1:2A:118:A:N3	1:2A:178:G:H1'	2.24	0.53
1:2A:500:G:N2	1:2A:503:A:H5'	2.22	0.53
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.44	0.53
1:2A:994:C:O2'	1:2A:996:A:OP1	2.22	0.53
32:2a:256:U:OP1	48:2q:17:LYS:NZ	2.37	0.53
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.24	0.53
1:1A:1509(A):A:H3'	1:1A:1509(B):A:H8	1.74	0.53
4:1E:48:GLN:NE2	4:1E:78:LEU:HD13	2.24	0.53
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.43	0.53
32:1a:501:C:H2'	32:1a:502:G:H8	1.74	0.53
32:1a:1291:G:H5"	38:1g:41:ARG:HH22	1.73	0.53
33:1b:97:TRP:HZ2	33:1b:102:LEU:HD13	1.73	0.53
55:1x:51:U:H2'	55:1x:52:G:C8	2.43	0.53
30:28:29:LYS:NZ	30:28:41:ILE:O	2.37	0.53
32:2a:542:G:OP1	35:2d:10:ARG:NH2	2.36	0.53
49:2r:36:ASN:O	49:2r:40:LEU:HG	2.09	0.53
1:1A:1094:U:H1'	1:1A:1097:U:H5	1.74	0.53
1:1A:1439:A:OP1	60:1A:3851:HOH:O	2.19	0.53
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.44	0.53
13:1R:38:VAL:HG22	13:1R:112:ALA:HB2	1.91	0.53
32:1a:243:A:H4'	32:1a:244:U:H5"	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.43	0.53
1:2A:2021:C:OP1	27:25:12:SER:OG	2.21	0.53
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.42	0.53
32:2a:235:C:H2'	32:2a:236:G:H8	1.74	0.53
32:2a:404:U:H2'	32:2a:405:U:C6	2.43	0.53
38:2g:144:MET:HE2	55:2y:41:C:H1'	1.90	0.53
51:2t:16:HIS:O	51:2t:19:SER:OG	2.24	0.53
1:1A:1514:U:H2'	1:1A:1515:G:H8	1.74	0.53
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.21	0.53
32:1a:979:C:O2	45:1n:19:ARG:NE	2.42	0.53
1:2A:793:A:OP2	1:2A:2071:A:O2'	2.25	0.53
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.90	0.53
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.26	0.53
40:2i:9:ARG:HG2	40:2i:14:VAL:HG22	1.91	0.53
1:1A:764:A:H2	3:1D:219:PRO:HG3	1.74	0.53
1:1A:1153:C:OP1	16:1U:76:TYR:OH	2.26	0.53
30:18:40:GLU:O	30:18:44:LYS:HG3	2.09	0.53
32:1a:738:C:OP2	37:1f:92:LYS:NZ	2.37	0.53
33:1b:82:ARG:NE	33:1b:92:TYR:OH	2.42	0.53
41:1j:22:LYS:NZ	41:1j:89:ASP:HB3	2.24	0.53
51:1t:92:LEU:C	51:1t:94:ALA:H	2.17	0.53
15:2T:127:ALA:C	15:2T:129:ARG:H	2.15	0.53
20:2Y:37:VAL:HG21	20:2Y:72:VAL:HG21	1.91	0.53
32:2a:601:C:H2'	32:2a:602:A:C8	2.44	0.53
32:2a:815:A:N7	32:2a:1509:C:O2'	2.35	0.53
33:2b:114:ARG:O	33:2b:118:LEU:HB2	2.09	0.53
34:2c:113:ALA:HB2	34:2c:202:ILE:HG13	1.90	0.53
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	1.91	0.53
48:2q:6:LEU:HD22	48:2q:23:VAL:HG11	1.91	0.53
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.09	0.52
14:1S:59:LYS:HE3	14:1S:68:GLN:HE22	1.75	0.52
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	1.89	0.52
34:1c:148:GLY:HA3	34:1c:172:ARG:H	1.74	0.52
41:1j:3:LYS:HA	41:1j:75:ILE:HA	1.91	0.52
42:1k:34:ASP:HB3	42:1k:40:ILE:HD11	1.92	0.52
1:2A:764:A:H2	3:2D:219:PRO:HG3	1.72	0.52
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.91	0.52
3:2D:77:ALA:HB2	3:2D:97:TYR:CD1	2.44	0.52
21:2Z:105:VAL:N	21:2Z:139:VAL:O	2.40	0.52
32:2a:137:C:H2'	32:2a:138:G:H8	1.74	0.52
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:131:ILE:O	36:2e:135:THR:OG1	2.26	0.52
55:2x:51:U:H3	55:2x:63:G:H1	1.54	0.52
21:1Z:151:HIS:HA	21:1Z:170:THR:HA	1.91	0.52
32:1a:487:A:H2'	32:1a:488:C:O4'	2.10	0.52
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.44	0.52
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.41	0.52
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.45	0.52
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.27	0.52
16:2U:50:ARG:HG2	16:2U:53:ARG:NH2	2.24	0.52
32:2a:738:C:OP1	37:2f:2:ARG:NH1	2.40	0.52
55:2y:67:C:H2'	55:2y:68:C:C6	2.45	0.52
31:19:25:VAL:HB	31:19:34:GLN:HB2	1.91	0.52
1:2A:272(B):G:H2'	1:2A:272(C):G:H8	1.75	0.52
1:2A:900:A:H2'	1:2A:901:A:O4'	2.09	0.52
1:2A:2056:G:N2	27:25:4:HIS:O	2.42	0.52
2:2B:66:A:H61	2:2B:108:U:H2'	1.75	0.52
6:2G:11:TYR:HA	6:2G:15:VAL:HB	1.92	0.52
32:2a:45:U:H2'	32:2a:46:G:C8	2.45	0.52
32:2a:642:A:N3	39:2h:113:SER:OG	2.43	0.52
32:2a:1285:A:H5'	32:2a:1286:A:C6	2.44	0.52
47:2p:45:THR:HG22	47:2p:47:ASP:H	1.74	0.52
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.45	0.52
1:1A:2206:G:H8	1:1A:2207:G:N7	2.07	0.52
5:1F:9:ILE:HD12	5:1F:123:LEU:HD23	1.90	0.52
9:1N:30:ILE:HG23	9:1N:52:VAL:HG11	1.91	0.52
22:10:18:ALA:O	22:10:20:ARG:NH1	2.43	0.52
32:1a:435:C:H2'	32:1a:436:C:H6	1.73	0.52
32:1a:539:A:H2'	32:1a:540:G:C8	2.45	0.52
32:1a:931:C:H1'	32:1a:1387:G:N2	2.24	0.52
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.41	0.52
50:1s:36:ARG:HG2	50:1s:51:VAL:HG13	1.92	0.52
20:2Y:30:VAL:HG22	20:2Y:37:VAL:HG12	1.91	0.52
1:1A:2206:G:H3'	1:1A:2207:G:N7	2.23	0.52
15:1T:19:LEU:HD13	15:1T:86:ILE:HD12	1.91	0.52
32:1a:335:C:O2'	32:1a:1433:A:N3	2.33	0.52
32:1a:352:C:O2'	32:1a:354:G:OP1	2.21	0.52
32:1a:1124:G:N2	32:1a:1125:U:O4	2.37	0.52
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.25	0.52
40:1i:99:LEU:H	40:1i:99:LEU:HD22	1.73	0.52
55:1y:23:A:H2'	55:1y:24:G:C8	2.44	0.52
1:2A:602:G:O2'	1:2A:655:A:N6	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:22:17:SER:N	24:22:20:GLU:OE1	2.37	0.52
32:2a:164:U:H2'	32:2a:165:C:C6	2.44	0.52
32:2a:1226:C:H4'	50:2s:80:TYR:CZ	2.43	0.52
32:1a:8:A:H5'	36:1e:101:ILE:HG22	1.91	0.52
32:1a:1401:G:C2	32:1a:1402:4OC:H1'	2.45	0.52
35:1d:31:CYS:HB2	59:1d:302:SF4:S3	2.49	0.52
1:2A:236:C:H2'	1:2A:237:C:C6	2.45	0.52
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.25	0.52
21:2Z:111:VAL:C	21:2Z:113:ALA:H	2.15	0.52
32:2a:20:U:H2'	32:2a:21:G:O4'	2.09	0.52
32:2a:352:C:H4'	32:2a:354:G:OP1	2.10	0.52
32:2a:370:C:H2'	32:2a:371:G:C8	2.44	0.52
32:2a:1009:G:H22	32:2a:1021:G:H1'	1.74	0.52
32:2a:1221:G:OP1	32:2a:1320:C:N4	2.36	0.52
32:2a:1342:C:H4'	40:2i:125:TYR:O	2.09	0.52
1:1A:1056:G:H1'	1:1A:1103:A:H61	1.73	0.52
1:1A:1825:A:OP1	3:1D:249:PRO:HD3	2.09	0.52
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.91	0.52
18:1W:19:LEU:HD13	27:15:25:LEU:HD21	1.92	0.52
32:1a:381:C:H2'	32:1a:382:A:O4'	2.10	0.52
32:1a:504:C:H2'	32:1a:511:C:H5	1.75	0.52
32:1a:946:A:H2'	32:1a:947:G:H8	1.73	0.52
32:1a:1329:A:H5"	44:1m:26:GLY:H	1.75	0.52
36:1e:10:MET:HB3	36:1e:13:ILE:HD11	1.91	0.52
40:1i:50:LEU:HB3	40:1i:56:LEU:HA	1.92	0.52
54:1w:192:ILE:HD12	54:1w:308:PRO:HG2	1.91	0.52
1:2A:903:C:H2'	1:2A:904:C:H6	1.74	0.52
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.24	0.52
1:2A:2312:U:O2	6:2G:42:GLY:HA3	2.10	0.52
4:2E:67:PHE:CE2	4:2E:74:PRO:HA	2.45	0.52
5:2F:33:LEU:HA	5:2F:36:VAL:HG22	1.92	0.52
32:2a:564:C:O2'	39:2h:91:ARG:NH1	2.34	0.52
32:2a:985:C:H2'	32:2a:986:A:C8	2.44	0.52
3:1D:37:LEU:HD22	3:1D:87:ASN:ND2	2.25	0.52
6:1G:35:GLU:HB3	6:1G:160:VAL:HG12	1.91	0.52
27:15:47:PRO:O	27:15:60:VAL:HG11	2.10	0.52
50:1s:65:ASN:OD1	50:1s:65:ASN:N	2.42	0.52
1:2A:1357:U:H2'	1:2A:1358:G:O4'	2.09	0.52
1:2A:1670:C:OP1	60:2A:3747:HOH:O	2.19	0.52
1:2A:2756:U:OP2	31:29:19:ARG:NE	2.42	0.52
6:2G:41:GLN:HG2	6:2G:154:GLY:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:7:LEU:HD12	7:2H:8:PRO:HD2	1.91	0.52
25:23:37:LEU:HD22	25:23:43:ILE:HD13	1.90	0.52
32:2a:302:G:N3	32:2a:556:C:H4'	2.25	0.52
32:2a:457:C:H2'	32:2a:458:C:H6	1.75	0.52
32:2a:848:C:H2'	32:2a:849:C:C6	2.43	0.52
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.45	0.52
49:2r:30:ASP:HB3	49:2r:33:ASP:HB2	1.92	0.52
1:1A:1053:C:H2'	1:1A:1054:A:H8	1.75	0.52
1:1A:2462:U:H1'	1:1A:2491:U:O4	2.09	0.52
5:1F:46:ARG:HB3	5:1F:48:THR:HG23	1.92	0.52
21:1Z:28:MET:HE2	21:1Z:35:ARG:HB2	1.91	0.52
32:1a:1034:G:N2	32:1a:1035:A:N3	2.58	0.52
34:1c:20:SER:HB3	34:1c:22:TRP:HE1	1.74	0.52
38:1g:91:VAL:HB	38:1g:96:GLN:HG3	1.92	0.52
1:2A:1183:G:H2'	1:2A:1184:G:H8	1.75	0.52
32:2a:280:C:N3	48:2q:39:SER:OG	2.40	0.52
32:2a:1346:A:O2'	38:2g:10:ARG:NH1	2.42	0.52
34:2c:34:LEU:HD21	34:2c:38:ARG:HH21	1.75	0.52
39:2h:37:ARG:HH21	39:2h:38:ILE:HD11	1.75	0.52
48:2q:66:SER:HB3	48:2q:69:LYS:HB2	1.92	0.52
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	1.91	0.52
12:1Q:59:ARG:O	21:1Z:180:VAL:HG23	2.10	0.52
12:1Q:109:VAL:HG13	12:1Q:113:GLN:HB2	1.92	0.52
34:1c:114:PRO:HA	34:1c:185:GLY:HA3	1.92	0.52
2:2B:43:C:O2	6:2G:95:ARG:NE	2.39	0.52
18:2W:79:GLY:HA3	18:2W:100:THR:HG22	1.92	0.52
25:23:39:ASP:OD1	25:23:44:ARG:NH1	2.43	0.52
31:29:1:MET:SD	31:29:33:LYS:HG2	2.49	0.52
32:2a:533:A:OP1	60:2a:1808:HOH:O	2.19	0.52
32:2a:736:C:OP1	49:2r:72:ARG:NH2	2.38	0.52
1:1A:389:G:H8	1:1A:389:G:O5'	1.92	0.51
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.10	0.51
1:1A:2171:A:O2'	1:1A:2172:U:H5"	2.10	0.51
1:1A:2238:G:N3	1:1A:2238:G:H2'	2.25	0.51
32:1a:115:G:H4'	32:1a:116:A:O5'	2.10	0.51
32:1a:636:U:H5'	48:1q:2:PRO:HG3	1.92	0.51
1:2A:576:U:H2'	1:2A:577:G:C8	2.45	0.51
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.45	0.51
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.44	0.51
1:2A:2317:C:H2'	1:2A:2318:G:H5'	1.91	0.51
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.92	0.51
26:24:58:ARG:NH1	50:2s:68:GLY:H	2.07	0.51
26:24:58:ARG:HH12	50:2s:68:GLY:H	1.56	0.51
32:2a:575:G:O2'	32:2a:821:G:H5"	2.10	0.51
32:2a:868:C:H2'	32:2a:869:G:O4'	2.10	0.51
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.74	0.51
33:2b:30:ARG:NH2	33:2b:194:PRO:HB2	2.26	0.51
33:2b:76:GLN:NE2	33:2b:76:GLN:H	2.08	0.51
11:1P:98:GLU:O	11:1P:101:VAL:HG22	2.09	0.51
1:2A:529:A:OP2	60:2A:3745:HOH:O	2.18	0.51
1:2A:686:G:N2	1:2A:788:A:H61	2.07	0.51
1:2A:2123:G:H2'	1:2A:2124:G:C8	2.45	0.51
32:2a:719:C:N4	49:2r:71:LYS:HE2	2.25	0.51
32:2a:892:A:O2'	32:2a:1415:G:H4'	2.10	0.51
32:2a:1005:A:H3'	32:2a:1006:C:C6	2.44	0.51
33:2b:55:PHE:HD1	33:2b:58:ILE:HD11	1.75	0.51
48:2q:27:PHE:CE1	48:2q:36:ILE:HD11	2.45	0.51
48:2q:43:LEU:HD12	48:2q:68:ARG:HB2	1.91	0.51
55:2x:26:A:H2'	55:2x:27:G:O4'	2.09	0.51
1:1A:18:C:O2'	1:1A:554:U:OP1	2.25	0.51
1:1A:2531:A:H5"	7:1H:157:TYR:CZ	2.45	0.51
3:1D:20:ASP:OD1	3:1D:20:ASP:N	2.35	0.51
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.90	0.51
46:1o:70:LEU:HD11	46:1o:77:ARG:HB3	1.90	0.51
53:1v:21:A:N7	54:1w:194:THR:HG23	2.25	0.51
54:1w:223:ARG:HD2	54:1w:233:ASN:O	2.10	0.51
55:1x:65:G:H2'	55:1x:66:U:C6	2.45	0.51
1:2A:515:A:H1'	1:2A:581:C:H1'	1.91	0.51
32:2a:395:C:N4	60:2a:1827:HOH:O	2.44	0.51
32:2a:1075:C:H5"	33:2b:179:LYS:HE3	1.91	0.51
32:2a:1157:A:H5'	32:2a:1158:C:C6	2.46	0.51
32:2a:1316:G:H22	32:2a:1319:A:H5'	1.75	0.51
39:2h:51:VAL:HG11	39:2h:60:ARG:HH12	1.75	0.51
1:1A:271(I):G:N7	1:1A:271(J):C:N4	2.59	0.51
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.76	0.51
1:1A:1971:A:OP1	60:1A:3852:HOH:O	2.19	0.51
1:1A:2817:G:OP1	13:1R:99:LYS:NZ	2.35	0.51
32:1a:598:U:H4'	39:1h:94:TYR:CD2	2.46	0.51
32:1a:659:U:H2'	32:1a:660:G:H8	1.74	0.51
39:1h:86:ILE:HG21	39:1h:133:LEU:HD13	1.91	0.51
44:1m:80:ARG:O	44:1m:84:ILE:HG12	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:698:C:O2'	1:2A:734:A:N6	2.43	0.51
1:2A:813:U:H2'	1:2A:814:C:C6	2.46	0.51
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.11	0.51
2:2B:43:C:OP1	26:24:1:MET:HA	2.11	0.51
20:2Y:51:VAL:HG22	20:2Y:58:GLY:HA3	1.91	0.51
32:2a:254:G:OP1	48:2q:66:SER:OG	2.24	0.51
32:2a:652:U:O4	32:2a:752:G:O2'	2.23	0.51
33:2b:11:LEU:HD11	33:2b:217:ARG:HH22	1.75	0.51
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.75	0.51
16:1U:34:LYS:O	16:1U:38:THR:OG1	2.27	0.51
28:16:5:VAL:HG21	28:16:28:ARG:NH1	2.25	0.51
32:1a:7:G:O2'	36:1e:120:THR:O	2.29	0.51
32:1a:948:C:H2'	32:1a:949:A:C8	2.45	0.51
33:1b:55:PHE:HB3	33:1b:221:LEU:HD22	1.92	0.51
33:1b:170:GLU:HA	33:1b:172:ILE:HD12	1.92	0.51
40:1i:90:PRO:C	40:1i:92:TYR:H	2.19	0.51
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.92	0.51
1:2A:135:G:H1	1:2A:144:C:H42	1.59	0.51
1:2A:854:G:H2'	1:2A:855:G:C8	2.43	0.51
6:2G:16:ARG:NH1	6:2G:31:VAL:HB	2.26	0.51
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.45	0.51
33:2b:55:PHE:CD1	33:2b:58:ILE:HD11	2.45	0.51
38:2g:65:ALA:O	38:2g:69:VAL:HG23	2.10	0.51
1:1A:2131:G:H5'	1:1A:2133:G:C8	2.46	0.51
32:1a:662:G:H2'	32:1a:663:A:C8	2.46	0.51
32:1a:731:G:OP1	32:1a:766:A:H1'	2.11	0.51
35:1d:196:LEU:C	35:1d:198:VAL:H	2.18	0.51
1:2A:529:A:H62	1:2A:2041:U:H3	1.57	0.51
8:2I:9:LEU:HD21	8:2I:35:LEU:HD13	1.92	0.51
24:22:51:ARG:O	24:22:55:ARG:HG2	2.10	0.51
32:2a:953:G:H2'	32:2a:954:G:O4'	2.11	0.51
32:2a:1241:G:OP1	38:2g:35:LYS:NZ	2.43	0.51
33:2b:97:TRP:CH2	33:2b:173:ALA:HA	2.45	0.51
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.75	0.51
54:2w:295:THR:OG1	54:2w:300:GLU:OE1	2.29	0.51
55:2y:64:A:H2'	55:2y:65:G:C8	2.46	0.51
1:1A:1876:A:H2'	1:1A:1877:A:C8	2.45	0.51
26:14:58:ARG:O	26:14:61:ARG:HB2	2.11	0.51
34:1c:152:ILE:HG12	34:1c:167:TRP:HB3	1.93	0.51
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.11	0.51
40:1i:23:ASN:N	40:1i:60:ASP:OD2	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:731:C:OP2	60:2A:3746:HOH:O	2.19	0.51
12:2Q:35:VAL:HG22	12:2Q:130:LYS:HB3	1.93	0.51
19:2X:12:VAL:HG21	19:2X:27:THR:HG22	1.92	0.51
25:23:26:LEU:O	25:23:35:ARG:NE	2.40	0.51
32:2a:328:C:H4'	32:2a:329:A:H5'	1.90	0.51
32:2a:404:U:H2'	32:2a:405:U:H6	1.74	0.51
32:2a:1250:A:H4'	40:2i:68:GLY:N	2.26	0.51
40:2i:53:VAL:HG11	40:2i:85:LEU:HD13	1.91	0.51
50:2s:53:ASN:HB3	50:2s:75:ALA:HB1	1.91	0.51
1:1A:2037:G:O6	60:1A:3847:HOH:O	2.18	0.51
8:1I:27:ARG:HD3	23:11:71:TYR:CE2	2.46	0.51
21:1Z:8:TYR:HB2	21:1Z:38:TYR:CE2	2.46	0.51
28:16:19:ARG:HD2	28:16:19:ARG:H	1.74	0.51
32:1a:435:C:H2'	32:1a:436:C:C6	2.46	0.51
32:1a:1254:C:H2'	32:1a:1255:G:O4'	2.11	0.51
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.92	0.51
1:2A:721:C:H2'	1:2A:722:A:C8	2.46	0.51
5:2F:40:GLN:NE2	5:2F:182:ASN:HB2	2.26	0.51
6:2G:36:LYS:HB3	6:2G:95:ARG:HG2	1.93	0.51
32:2a:714:G:H2'	32:2a:715:A:C8	2.45	0.51
33:2b:30:ARG:HH21	33:2b:194:PRO:HB2	1.75	0.51
33:2b:164:VAL:O	33:2b:186:ALA:HA	2.11	0.51
3:1D:26:LYS:HB3	3:1D:83:GLU:HG2	1.92	0.51
6:1G:16:ARG:HB2	6:1G:17:PRO:HD3	1.93	0.51
10:1O:64:ARG:HD3	10:1O:79:PHE:CD1	2.46	0.51
25:13:15:TYR:O	25:13:20:LYS:NZ	2.34	0.51
30:18:23:VAL:HG11	30:18:47:LYS:HD3	1.93	0.51
32:1a:486:U:H2'	32:1a:487:A:C8	2.44	0.51
1:2A:848:G:H2'	1:2A:849:A:C8	2.46	0.51
1:2A:884:C:N4	1:2A:893:C:O2	2.38	0.51
1:2A:2111:C:N4	1:2A:2144:U:O2'	2.44	0.51
1:2A:2240:C:H2'	1:2A:2241:A:C8	2.45	0.51
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.44	0.51
32:2a:1015:A:N3	32:2a:1218:C:O2'	2.38	0.51
32:2a:1095:U:P	32:2a:1108:G:H1	2.34	0.51
33:2b:93:VAL:HG21	33:2b:97:TRP:HD1	1.75	0.51
33:2b:124:SER:N	33:2b:125:PRO:HD3	2.26	0.51
34:2c:181:ASN:HD21	34:2c:204:LEU:HD12	1.75	0.51
1:1A:1055:G:H5'	1:1A:1056:G:OP2	2.11	0.51
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.46	0.51
1:1A:1507:A:H2'	1:1A:1508:A:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.25	0.51
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.75	0.51
21:1Z:100:VAL:HG11	21:1Z:134:PRO:HG2	1.93	0.51
34:1c:177:THR:HG22	34:1c:180:ALA:H	1.76	0.51
35:1d:18:LYS:NZ	35:1d:26:CYS:O	2.41	0.51
36:1e:93:PRO:HG2	39:1h:105:ARG:NE	2.25	0.51
1:2A:211:A:H2'	1:2A:212:G:O4'	2.11	0.51
25:23:8:LEU:O	25:23:32:GLN:N	2.43	0.51
33:2b:118:LEU:HD21	33:2b:138:LEU:HB3	1.92	0.51
1:1A:576:U:H2'	1:1A:577:G:C8	2.45	0.50
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.46	0.50
1:1A:857:C:N4	1:1A:858:U:O4	2.44	0.50
32:1a:1027:C:C4	32:1a:1034:G:N1	2.79	0.50
56:1z:12:ARG:HG2	56:1z:13:PRO:HD2	1.93	0.50
1:2A:782:A:N7	3:2D:221:VAL:HG21	2.26	0.50
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.11	0.50
32:2a:370:C:H2'	32:2a:371:G:H8	1.74	0.50
32:2a:1151:A:H5"	41:2j:42:THR:H	1.76	0.50
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.26	0.50
42:2k:87:THR:O	42:2k:87:THR:OG1	2.27	0.50
1:1A:71:A:N7	19:1X:31:HIS:HE1	2.09	0.50
1:1A:2638:G:OP1	4:1E:82:ARG:NH2	2.35	0.50
5:1F:150:GLY:HA2	5:1F:172:TRP:CD2	2.47	0.50
11:1P:89:ALA:O	11:1P:121:LYS:NZ	2.44	0.50
35:1d:163:GLU:C	35:1d:165:MET:H	2.19	0.50
36:1e:105:VAL:HG21	36:1e:128:PRO:HB3	1.92	0.50
45:1n:4:LYS:HA	45:1n:7:ILE:HG12	1.93	0.50
55:1x:51:U:H2'	55:1x:52:G:H8	1.77	0.50
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.46	0.50
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.47	0.50
1:2A:1859:A:N6	1:2A:1883:G:O2'	2.45	0.50
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.46	0.50
1:2A:2126:A:N6	1:2A:2162:G:O2'	2.42	0.50
21:2Z:92:SER:OG	21:2Z:93:ASP:N	2.43	0.50
40:2i:46:ALA:O	40:2i:49:PRO:HD2	2.11	0.50
48:2q:53:LEU:HD23	48:2q:82:MET:HE1	1.92	0.50
54:2w:221:VAL:HG12	54:2w:239:VAL:HG22	1.92	0.50
32:1a:222:U:H2'	32:1a:223:U:C6	2.46	0.50
32:1a:308:C:H2'	32:1a:309:G:H8	1.76	0.50
39:1h:87:SER:HA	39:1h:93:VAL:HG23	1.93	0.50
51:1t:55:ILE:O	51:1t:59:ALA:N	2.38	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.37	0.50
3:2D:83:GLU:OE1	3:2D:104:TYR:OH	2.23	0.50
22:20:40:GLN:HE22	22:20:45:PHE:HB2	1.77	0.50
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.26	0.50
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.46	0.50
38:2g:76:ARG:CZ	38:2g:156:TRP:HZ2	2.23	0.50
40:2i:79:LEU:HG	40:2i:83:ARG:HD2	1.92	0.50
1:1A:245:G:O5'	11:1P:73:GLY:HA2	2.11	0.50
1:2A:99:U:O4	20:2Y:8:LYS:NZ	2.38	0.50
1:2A:288:C:H2'	1:2A:289:A:H8	1.75	0.50
1:2A:790:C:N3	56:2z:12:ARG:HG3	2.26	0.50
1:2A:2396:G:OP1	23:21:25:LYS:NZ	2.30	0.50
10:2O:43:VAL:HG23	10:2O:56:ASP:O	2.11	0.50
14:2S:14:VAL:O	14:2S:18:ILE:HD13	2.11	0.50
21:2Z:152:ALA:O	21:2Z:155:LEU:HG	2.11	0.50
28:26:9:LEU:HD13	28:26:51:GLU:HG3	1.93	0.50
41:2j:6:ILE:HD13	41:2j:23:ILE:HD12	1.93	0.50
1:1A:1089:G:H22	1:1A:1102:C:H42	1.60	0.50
1:1A:1359:A:N6	1:1A:1372:U:H3	2.10	0.50
1:1A:2239:G:OP2	60:1A:3853:HOH:O	2.19	0.50
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.46	0.50
6:1G:77:ILE:HB	6:1G:82:LEU:HB3	1.93	0.50
32:1a:457:C:H2'	32:1a:458:C:C6	2.46	0.50
33:1b:74:LYS:O	33:1b:78:GLN:HB2	2.11	0.50
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.93	0.50
42:1k:21:ILE:HB	42:1k:84:VAL:HG23	1.92	0.50
42:1k:52:GLY:H	42:1k:55:LYS:HE2	1.75	0.50
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.40	0.50
1:2A:422:A:OP2	60:2A:3730:HOH:O	2.19	0.50
1:2A:621:A:OP2	11:2P:108:LYS:NZ	2.44	0.50
1:2A:1654:A:OP1	13:2R:1:MET:N	2.40	0.50
1:2A:2126:A:N3	1:2A:2127:G:H1'	2.26	0.50
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.33	0.50
1:2A:2869:G:H2'	1:2A:2870:C:C6	2.46	0.50
5:2F:103:LYS:O	5:2F:106:ARG:HG2	2.12	0.50
6:2G:39:ILE:HG23	6:2G:155:MET:HG3	1.94	0.50
12:2Q:62:GLY:O	21:2Z:178:GLU:HG2	2.12	0.50
14:2S:87:PHE:HB2	14:2S:112:PHE:CE1	2.46	0.50
38:2g:47:CYS:HA	38:2g:50:ILE:HD11	1.94	0.50
47:2p:43:LYS:HG2	47:2p:48:TRP:CE2	2.46	0.50
55:2y:26:A:N6	55:2y:44:G:N1	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:208:C:H2'	1:1A:209:C:C6	2.47	0.50
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.12	0.50
1:1A:2155:G:H2'	1:1A:2155:G:N3	2.27	0.50
6:1G:181:ARG:HG3	6:1G:182:LYS:N	2.27	0.50
32:1a:540:G:H2'	32:1a:541:G:O4'	2.12	0.50
32:1a:1030:C:N3	32:1a:1031:G:C2	2.80	0.50
33:1b:92:TYR:CE1	33:1b:94:ASN:HB2	2.47	0.50
38:1g:113:GLU:HB2	38:1g:119:ARG:HG2	1.93	0.50
43:1l:79:GLU:OE2	43:1l:80:HIS:NE2	2.44	0.50
1:2A:2641:G:OP2	9:2N:74:ARG:NH2	2.37	0.50
7:2H:93:GLY:O	7:2H:95:ARG:NH1	2.45	0.50
16:2U:79:PHE:CE2	16:2U:83:LEU:HD11	2.46	0.50
32:2a:601:C:H2'	32:2a:602:A:H8	1.75	0.50
32:2a:662:G:O2'	32:2a:836:G:OP1	2.26	0.50
32:2a:1123:A:C2	41:2j:39:PRO:HD2	2.47	0.50
54:2w:198:THR:HB	54:2w:293:ILE:HG12	1.94	0.50
1:1A:468:G:N7	29:17:39:ARG:NH2	2.51	0.50
1:1A:2396:G:OP1	23:11:25:LYS:NZ	2.36	0.50
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.92	0.50
16:1U:79:PHE:CE2	16:1U:83:LEU:HD11	2.46	0.50
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.94	0.50
22:10:26:TYR:H	22:10:29:GLN:NE2	2.09	0.50
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.46	0.50
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.47	0.50
33:1b:24:TRP:CE3	33:1b:26:PRO:HA	2.46	0.50
33:1b:195:ASP:O	39:1h:68:ARG:NH2	2.39	0.50
34:1c:40:ARG:NH2	34:1c:55:VAL:O	2.45	0.50
54:1w:218:ARG:NH1	54:1w:220:ASP:OD2	2.45	0.50
1:2A:1263:U:OP1	27:25:16:ARG:NH1	2.40	0.50
18:2W:14:PRO:HG2	18:2W:78:GLU:HG3	1.94	0.50
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.19	0.50
32:2a:1309:G:O2'	44:2m:77:ASN:ND2	2.44	0.50
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.46	0.50
33:2b:184:VAL:N	33:2b:198:ASP:OD2	2.43	0.50
34:2c:118:GLN:HA	34:2c:121:ALA:HB3	1.94	0.50
38:2g:49:ILE:O	38:2g:53:LYS:N	2.44	0.50
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.47	0.50
5:1F:30:PRO:HB3	11:1P:1:MET:HE1	1.94	0.50
8:1I:101:LEU:HD23	8:1I:109:ILE:HG13	1.93	0.50
32:1a:235:C:H2'	32:1a:236:G:H8	1.77	0.50
32:1a:352:C:H42	32:1a:357:G:N2	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:890:G:O2'	32:1a:906:G:O6	2.23	0.50
33:1b:10:LEU:C	33:1b:12:GLU:H	2.20	0.50
33:1b:68:ILE:O	33:1b:91:PRO:HD2	2.11	0.50
35:1d:150:GLU:OE1	35:1d:151:LYS:N	2.27	0.50
43:1l:46:LYS:HG3	43:1l:92:0TD:O	2.11	0.50
1:2A:322:A:OP1	5:2F:168:ARG:HD2	2.12	0.50
1:2A:373:U:H2'	1:2A:374:A:H8	1.77	0.50
14:2S:68:GLN:HG2	14:2S:71:ARG:HH12	1.76	0.50
32:2a:1228:C:OP1	44:2m:108:ARG:NH1	2.41	0.50
32:2a:1238:A:H2	32:2a:1241:G:N3	2.10	0.50
32:2a:1285:A:H5'	32:2a:1286:A:N1	2.27	0.50
42:2k:31:THR:HG22	42:2k:42:TRP:HB2	1.93	0.50
44:2m:92:HIS:HD2	44:2m:110:ARG:HH22	1.58	0.50
35:1d:3:ARG:HD3	35:1d:118:ARG:HE	1.77	0.50
1:2A:2162:G:H4'	1:2A:2172:U:H2'	1.93	0.50
32:2a:546:G:OP1	35:2d:73:ARG:HG2	2.11	0.50
48:2q:82:MET:HA	48:2q:85:VAL:HB	1.93	0.50
56:2z:8:THR:HG23	56:2z:9:TYR:H	1.77	0.50
1:1A:2836:U:H2'	1:1A:2837:G:C8	2.47	0.49
32:1a:155:C:H2'	32:1a:156:G:H8	1.77	0.49
32:1a:162:A:C8	32:1a:163:C:H1'	2.47	0.49
32:1a:749:C:H2'	32:1a:750:G:H8	1.77	0.49
40:1i:8:GLY:O	40:1i:15:ALA:N	2.33	0.49
51:1t:57:ARG:HH22	51:1t:100:ILE:HD12	1.77	0.49
1:2A:722:A:H2'	1:2A:723:G:C8	2.47	0.49
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.46	0.49
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.12	0.49
3:2D:142:VAL:HG23	3:2D:193:VAL:HA	1.93	0.49
8:2I:78:THR:HG22	8:2I:143:SER:OG	2.12	0.49
9:2N:21:LYS:HE3	9:2N:140:VAL:HG23	1.94	0.49
22:20:56:ASP:OD1	22:20:58:THR:OG1	2.26	0.49
32:2a:537:G:H5"	43:2l:113:ARG:NH1	2.27	0.49
32:2a:1511:G:H2'	32:2a:1512:U:O4'	2.11	0.49
38:2g:16:LEU:HD11	40:2i:45:ALA:HB2	1.94	0.49
55:2y:11:C:H2'	55:2y:12:U:H6	1.77	0.49
1:1A:370:G:H8	1:1A:370:G:OP2	1.94	0.49
15:1T:28:VAL:HG23	15:1T:88:ILE:HD13	1.94	0.49
18:1W:57:ASN:HA	18:1W:61:ASN:HD22	1.76	0.49
32:1a:269:C:H2'	32:1a:270:A:C8	2.47	0.49
39:1h:121:ASP:OD1	39:1h:121:ASP:N	2.45	0.49
44:1m:25:ILE:HG23	44:1m:29:ARG:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:1t:55:ILE:HG13	51:1t:56:MET:N	2.26	0.49
1:2A:176:G:O2'	1:2A:177:G:H5'	2.12	0.49
1:2A:2469:A:H2'	1:2A:2470:G:O4'	2.12	0.49
1:2A:2689:U:H4'	1:2A:2690:C:H5'	1.94	0.49
5:2F:53:THR:HG22	5:2F:56:GLU:CD	2.37	0.49
29:27:43:THR:HG22	29:27:44:PRO:O	2.12	0.49
32:2a:134:A:H61	47:2p:25:ARG:NH1	2.11	0.49
50:2s:40:ILE:HD11	50:2s:69:HIS:HB2	1.93	0.49
28:16:34:LEU:HB2	28:16:51:GLU:HB2	1.94	0.49
32:1a:1291:G:OP1	38:1g:41:ARG:NH1	2.41	0.49
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	1.94	0.49
2:2B:77:U:OP1	21:2Z:19:ARG:NH2	2.45	0.49
23:21:77:ALA:HA	23:21:80:LEU:HD12	1.93	0.49
32:2a:857:C:H2'	32:2a:858:G:O4'	2.12	0.49
35:2d:59:ARG:O	35:2d:63:LYS:HG3	2.12	0.49
1:1A:539:G:H2'	1:1A:540:C:C6	2.48	0.49
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.48	0.49
1:1A:1359:A:H61	1:1A:1372:U:H3	1.58	0.49
5:1F:102:PRO:HB2	5:1F:105:VAL:HG23	1.94	0.49
26:14:56:VAL:O	26:14:60:GLN:HB2	2.13	0.49
28:16:10:LEU:HD13	28:16:19:ARG:HG2	1.94	0.49
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.29	0.49
35:1d:13:ARG:NH1	35:1d:36:ARG:HH21	2.10	0.49
1:2A:453:C:O2	1:2A:457:A:O2'	2.28	0.49
1:2A:1178:C:H2'	1:2A:1179:C:H6	1.77	0.49
33:2b:55:PHE:HA	33:2b:58:ILE:HD11	1.93	0.49
5:1F:195:ASP:HB3	5:1F:197:ASP:H	1.78	0.49
32:1a:67:C:H2'	32:1a:68:G:H8	1.74	0.49
32:1a:192:U:O2'	51:1t:60:GLU:OE1	2.27	0.49
32:1a:1005:A:OP2	32:1a:1006:C:N4	2.45	0.49
32:1a:1350:A:N7	40:1i:118:LYS:NZ	2.60	0.49
33:1b:138:LEU:HA	33:1b:141:GLU:HB3	1.95	0.49
54:1w:143:GLU:HB2	54:1w:163:ARG:NH1	2.27	0.49
1:2A:903:C:H2'	1:2A:904:C:C6	2.48	0.49
5:2F:34:TRP:CE3	5:2F:35:GLU:HG2	2.48	0.49
32:2a:797:C:H2'	32:2a:798:G:H8	1.77	0.49
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.34	0.49
10:1O:35:VAL:HG13	10:1O:65:THR:HG23	1.94	0.49
28:16:14:THR:OG1	28:16:48:VAL:O	2.22	0.49
32:1a:551:U:H2'	32:1a:552:U:C6	2.47	0.49
32:1a:1197:G:OP2	60:1a:1810:HOH:O	2.19	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:17:ASP:HA	41:1j:20:ALA:HB3	1.95	0.49
1:2A:800:A:H8	1:2A:800:A:OP1	1.96	0.49
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.47	0.49
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.78	0.49
1:2A:2853:C:H2'	1:2A:2854:G:C8	2.47	0.49
6:2G:106:LEU:O	6:2G:110:ALA:HB3	2.12	0.49
25:23:31:LEU:C	25:23:33:GLN:H	2.21	0.49
32:2a:358:U:H2'	32:2a:359:U:C6	2.47	0.49
32:2a:1297:C:H4'	32:2a:1298:C:H5'	1.94	0.49
41:2j:57:LYS:HE2	41:2j:60:ARG:NH2	2.27	0.49
54:2w:121:ALA:HB1	54:2w:155:PHE:H	1.77	0.49
1:1A:84:A:H5"	20:1Y:8:LYS:HE3	1.95	0.49
1:1A:264:C:O2'	1:1A:265:A:H2'	2.13	0.49
1:1A:2506:U:O4	56:1z:18:PRO:HD2	2.13	0.49
1:1A:2727:G:O2'	10:1O:70:LYS:NZ	2.46	0.49
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.48	0.49
32:1a:344:A:O2'	32:1a:346:G:O6	2.21	0.49
32:1a:976:G:N2	32:1a:1363:C:OP2	2.38	0.49
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.45	0.49
1:2A:483:A:H1'	20:2Y:59:GLY:O	2.13	0.49
1:2A:666:G:N2	30:28:2:PRO:O	2.46	0.49
1:2A:1156:A:OP2	60:2A:3748:HOH:O	2.20	0.49
2:2B:49:C:H2'	2:2B:50:G:C8	2.48	0.49
5:2F:182:ASN:O	5:2F:186:ILE:HD12	2.13	0.49
32:2a:1005:A:H3'	32:2a:1006:C:H6	1.77	0.49
1:1A:1155:A:OP1	16:1U:55:ARG:HD3	2.12	0.49
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.76	0.49
1:1A:2420:C:H5'	28:16:54:ILE:HD11	1.95	0.49
32:1a:1002:G:N2	32:1a:1004:A:O2'	2.46	0.49
32:1a:1073:U:H2'	32:1a:1074:G:H8	1.78	0.49
32:1a:1226:C:O2'	44:1m:111:LYS:NZ	2.46	0.49
32:1a:1346:A:N6	32:1a:1375:A:OP2	2.42	0.49
37:1f:6:VAL:HG13	37:1f:90:VAL:HG22	1.94	0.49
1:2A:686:G:C2	29:27:11:LYS:HE3	2.48	0.49
1:2A:877:U:H2'	1:2A:878:A:H5"	1.94	0.49
1:2A:1204:A:H2	1:2A:1241:A:H62	1.61	0.49
1:2A:1359:A:N6	1:2A:1372:U:H3	2.11	0.49
3:2D:132:PRO:HG3	3:2D:190:TYR:CE2	2.47	0.49
3:2D:133:LEU:HD22	3:2D:173:VAL:HG11	1.93	0.49
8:2I:40:THR:O	8:2I:44:LEU:HB2	2.12	0.49
21:2Z:30:ASN:HD22	21:2Z:33:LEU:HG	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:17:ASP:OD2	34:2c:18:TRP:N	2.45	0.49
36:2e:89:ILE:HG12	36:2e:135:THR:HG23	1.94	0.49
1:1A:125:G:O2'	29:17:48:LYS:HE3	2.13	0.49
1:1A:1095:A:H2'	1:1A:1096:A:O4'	2.13	0.49
1:1A:1814:G:H4'	3:1D:51:VAL:HG21	1.94	0.49
5:1F:69:HIS:HB3	56:1z:13:PRO:HG3	1.95	0.49
7:1H:86:GLU:HG2	7:1H:132:ARG:HG3	1.94	0.49
9:1N:41:ASP:O	9:1N:48:MET:HE1	2.13	0.49
32:1a:737:A:OP1	37:1f:92:LYS:HG3	2.13	0.49
41:1j:48:THR:OG1	41:1j:62:HIS:HE1	1.95	0.49
51:1t:57:ARG:HH12	51:1t:100:ILE:HD12	1.78	0.49
1:2A:38:A:H2'	1:2A:39:C:C6	2.48	0.49
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.48	0.49
2:2B:114:C:H4'	14:2S:46:VAL:HG12	1.95	0.49
6:2G:9:ARG:NH1	6:2G:13:GLU:OE1	2.41	0.49
32:2a:91:C:H2'	32:2a:92:C:C6	2.48	0.49
32:2a:1068:G:H8	32:2a:1068:G:OP2	1.95	0.49
32:2a:1318:A:H5"	50:2s:3:ARG:HH21	1.78	0.49
36:2e:60:TYR:CE1	36:2e:64:ARG:HD2	2.48	0.49
1:1A:1328:G:O6	60:1A:3849:HOH:O	2.18	0.49
32:1a:685:G:O2'	32:1a:686:U:H5'	2.13	0.49
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.47	0.49
36:1e:78:HIS:CE1	36:1e:142:LEU:HA	2.48	0.49
50:1s:41:VAL:O	50:1s:43:GLU:N	2.45	0.49
1:2A:652(C):G:H22	1:2A:653:A:H1'	1.77	0.49
1:2A:861:A:N3	2:2B:79:C:O2'	2.44	0.49
21:2Z:77:ASP:N	21:2Z:82:ARG:O	2.42	0.49
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.94	0.49
32:2a:838:G:H3'	32:2a:840:C:H41	1.77	0.49
34:2c:155:GLY:O	34:2c:157:ILE:N	2.46	0.49
35:2d:53:ASP:O	35:2d:57:ARG:NH1	2.45	0.49
36:2e:50:GLU:HB2	36:2e:53:LEU:HD13	1.95	0.49
37:2f:94:GLN:OE1	49:2r:32:ARG:NH1	2.46	0.49
48:2q:22:LEU:HD11	48:2q:39:SER:HB2	1.94	0.49
54:2w:304:THR:HB	54:2w:315:HIS:HE1	1.78	0.49
1:1A:676:A:O2'	1:1A:2442:C:O2'	2.31	0.48
1:1A:774:A:N3	1:1A:774:A:H2'	2.29	0.48
7:1H:96:ALA:HB2	7:1H:105:LEU:HD13	1.95	0.48
32:1a:985:C:H2'	32:1a:986:A:H8	1.78	0.48
32:1a:1129:C:C5'	40:1i:16:ARG:HH12	2.26	0.48
32:1a:1343:G:O2'	40:1i:121:ARG:HD3	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1445:C:H2'	32:1a:1446:U:O4'	2.13	0.48
33:1b:93:VAL:HG11	33:1b:97:TRP:CD1	2.48	0.48
45:1n:19:ARG:O	45:1n:21:TYR:N	2.45	0.48
48:1q:45:HIS:HB3	48:1q:72:ARG:HB3	1.95	0.48
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.48	0.48
1:2A:1503:U:H2'	1:2A:1504:C:H6	1.78	0.48
1:2A:1826:G:H4'	3:2D:242:ARG:NH1	2.28	0.48
1:2A:2134:A:H2'	1:2A:2134:A:N3	2.26	0.48
6:2G:122:PRO:HA	6:2G:125:PHE:HE2	1.77	0.48
21:2Z:182:LYS:HG3	21:2Z:183:LEU:N	2.28	0.48
26:24:24:THR:OG1	26:24:25:TYR:N	2.44	0.48
32:2a:975:A:H5"	32:2a:1363(A):A:H62	1.78	0.48
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.48	0.48
32:2a:1093:A:H2'	32:2a:1095:U:H5'	1.95	0.48
32:2a:1314:C:N4	50:2s:2:PRO:O	2.45	0.48
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.48	0.48
33:2b:28:PHE:HD1	33:2b:194:PRO:HG3	1.78	0.48
34:2c:139:GLN:HE21	34:2c:143:GLU:HG3	1.79	0.48
55:2x:15:G:H2'	55:2x:16:U:C6	2.48	0.48
1:1A:2134:A:H2'	1:1A:2135:A:C8	2.48	0.48
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.13	0.48
5:1F:168:ARG:O	60:1F:402:HOH:O	2.19	0.48
32:1a:155:C:H2'	32:1a:156:G:C8	2.47	0.48
32:1a:158:G:H2'	32:1a:159:G:C8	2.48	0.48
32:1a:977:A:H1'	32:1a:982:U:O4	2.12	0.48
47:1p:18:ARG:NH1	47:1p:32:TYR:OH	2.46	0.48
1:2A:729:G:C8	3:2D:208:LYS:HD2	2.48	0.48
1:2A:1420:U:O2'	1:2A:1421:G:H8	1.95	0.48
2:2B:78:A:H2'	2:2B:79:C:O4'	2.13	0.48
12:2Q:109:VAL:HG13	12:2Q:113:GLN:HB3	1.95	0.48
33:2b:19:HIS:HB3	33:2b:204:ASN:ND2	2.28	0.48
33:2b:47:THR:HG22	33:2b:202:PRO:HG2	1.95	0.48
33:2b:98:LEU:HB2	33:2b:101:MET:HG3	1.94	0.48
35:2d:57:ARG:HB3	35:2d:206:PHE:HB2	1.94	0.48
45:2n:6:LEU:HB3	45:2n:23:ARG:NH2	2.28	0.48
1:1A:948:G:OP1	60:1A:3857:HOH:O	2.20	0.48
1:1A:1514:U:H2'	1:1A:1515:G:C8	2.48	0.48
1:1A:1668:A:H4'	1:1A:1669:A:O5'	2.13	0.48
1:1A:2722:G:OP2	60:1A:3855:HOH:O	2.20	0.48
1:1A:2871:C:N3	60:1A:3939:HOH:O	2.34	0.48
6:1G:78:SER:HG	6:1G:79:ASN:H	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:101:LEU:HG	8:1I:107:VAL:HB	1.94	0.48
18:1W:4:LYS:HE3	18:1W:6:ILE:HD11	1.96	0.48
23:11:5:CYS:HA	23:11:46:LEU:HD11	1.94	0.48
28:16:22:ALA:O	60:16:201:HOH:O	2.19	0.48
32:1a:523:A:N1	43:1l:92:0TD:H6	2.28	0.48
32:1a:1226:C:H2'	44:1m:103:THR:HB	1.94	0.48
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.93	0.48
40:1i:43:ALA:HA	40:1i:74:ILE:HD13	1.93	0.48
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.47	0.48
1:2A:1420:U:HO2'	1:2A:1421:G:P	2.37	0.48
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.48	0.48
1:2A:2314:C:H2'	1:2A:2315:G:C8	2.48	0.48
8:2I:75:LEU:HD12	8:2I:76:THR:H	1.78	0.48
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.14	0.48
32:2a:137:C:H2'	32:2a:138:G:C8	2.49	0.48
32:2a:1030(A):G:H21	32:2a:1030(C):G:H3'	1.78	0.48
40:2i:20:ARG:O	40:2i:60:ASP:HB2	2.12	0.48
40:2i:34:ASN:N	40:2i:34:ASN:OD1	2.45	0.48
1:1A:1056:G:H5"	1:1A:1057:A:O4'	2.13	0.48
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.48	0.48
6:1G:12:TYR:HA	6:1G:16:ARG:HG3	1.94	0.48
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.48	0.48
12:1Q:21:THR:HG21	12:1Q:101:ARG:HD2	1.94	0.48
12:1Q:78:PRO:O	12:1Q:81:VAL:HG13	2.12	0.48
20:1Y:44:ILE:HD12	20:1Y:62:GLU:HB3	1.95	0.48
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.95	0.48
32:1a:781:A:H5'	32:1a:782:A:OP2	2.13	0.48
35:1d:111:ALA:HA	35:1d:116:GLN:NE2	2.28	0.48
1:2A:267:C:H2'	1:2A:268:C:H6	1.78	0.48
1:2A:644:A:H4'	1:2A:645:C:C5	2.48	0.48
1:2A:885:C:H2'	1:2A:886:C:O4'	2.14	0.48
1:2A:1823:G:OP1	3:2D:54:ARG:NH1	2.46	0.48
19:2X:94:GLY:N	19:2X:95:LEU:HA	2.28	0.48
28:26:26:ASN:HB3	28:26:29:ASN:HB2	1.96	0.48
32:2a:972:C:O3'	41:2j:57:LYS:HD2	2.14	0.48
32:2a:975:A:H5"	32:2a:1363(A):A:N6	2.28	0.48
32:2a:1263:C:C4	32:2a:1272:G:O6	2.67	0.48
37:2f:96:PRO:HB3	49:2r:30:ASP:CG	2.38	0.48
38:2g:31:MET:HE2	38:2g:36:LYS:HE2	1.94	0.48
1:1A:213:A:H2'	1:1A:214:G:O4'	2.13	0.48
1:1A:340:A:H2'	1:1A:341:G:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.27	0.48
1:1A:2637:U:H5"	4:1E:82:ARG:NH1	2.29	0.48
21:1Z:111:VAL:HG12	21:1Z:112:ARG:H	1.79	0.48
32:1a:1389:C:H2'	32:1a:1390:U:O4'	2.13	0.48
35:1d:155:LEU:HD22	35:1d:156:GLU:H	1.78	0.48
3:2D:242:ARG:HH11	3:2D:242:ARG:HG3	1.79	0.48
14:2S:100:ALA:HA	14:2S:103:GLU:HG3	1.96	0.48
21:2Z:179:ASP:O	21:2Z:182:LYS:HG2	2.14	0.48
32:2a:189(B):C:H2'	32:2a:189(C):C:C6	2.49	0.48
32:2a:1212:U:H5"	32:2a:1213:A:C5'	2.43	0.48
33:2b:88:ALA:HB1	33:2b:222:ILE:HD11	1.96	0.48
53:2v:15:A:H8	53:2v:15:A:O5'	1.97	0.48
1:1A:7:G:H2'	1:1A:8:A:O4'	2.13	0.48
1:1A:625:G:N7	11:1P:107:LYS:NZ	2.45	0.48
1:1A:1080:C:H2'	1:1A:1081:U:O4'	2.14	0.48
1:1A:1094:U:H1'	1:1A:1097:U:C5	2.48	0.48
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.14	0.48
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.39	0.48
10:1O:107:ARG:NH1	10:1O:112:MET:HE1	2.29	0.48
32:1a:352:C:OP2	60:1a:1811:HOH:O	2.20	0.48
32:1a:674:G:H2'	32:1a:675:A:H8	1.79	0.48
32:1a:1262:C:H2'	32:1a:1263:C:C6	2.48	0.48
1:2A:236:C:H2'	1:2A:237:C:H6	1.79	0.48
15:2T:26:ASP:O	15:2T:49:VAL:HG12	2.12	0.48
36:2e:65:ASN:OD1	36:2e:140:ARG:NH2	2.47	0.48
55:2y:11:C:H2'	55:2y:12:U:C6	2.48	0.48
1:1A:243:U:OP1	30:18:6:THR:OG1	2.28	0.48
1:1A:588:U:OP2	60:1A:3858:HOH:O	2.20	0.48
1:1A:862:G:H2'	1:1A:863:A:O4'	2.13	0.48
1:1A:1173:G:O2'	1:1A:1174:A:O4'	2.31	0.48
1:1A:2029:G:H2'	1:1A:2031:A:OP1	2.13	0.48
1:1A:2298:A:H2'	1:1A:2299:G:O4'	2.13	0.48
1:1A:2532:G:O2'	1:1A:2657:A:N1	2.41	0.48
7:1H:170:ARG:O	7:1H:171:LEU:HD23	2.14	0.48
8:1I:132:PRO:HD2	8:1I:136:VAL:O	2.14	0.48
9:1N:60:ILE:O	9:1N:61:ARG:HD2	2.13	0.48
20:1Y:85:VAL:HG13	20:1Y:97:ARG:HB3	1.96	0.48
32:1a:306:G:H5'	60:1a:1953:HOH:O	2.13	0.48
32:1a:1090:U:H3	32:1a:1095:U:H3	1.62	0.48
32:1a:1394:A:N1	32:1a:1500:A:O2'	2.41	0.48
54:1w:222:MET:HG2	54:1w:238:ALA:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2363:C:O2	22:20:39:ARG:NH2	2.46	0.48
1:2A:2660:A:H2'	1:2A:2661:G:O4'	2.13	0.48
3:2D:12:SER:HB3	3:2D:208:LYS:HB3	1.96	0.48
4:2E:2:LYS:NZ	4:2E:95:ILE:O	2.42	0.48
5:2F:40:GLN:OE1	5:2F:183:VAL:HG13	2.14	0.48
23:21:49:VAL:HG11	23:21:70:VAL:HG11	1.93	0.48
32:2a:72:C:H2'	32:2a:73:G:O4'	2.13	0.48
32:2a:309:G:H1'	32:2a:608:A:C2	2.48	0.48
32:2a:1123:A:H4'	41:2j:37:PRO:HD2	1.96	0.48
33:2b:167:PRO:HD3	33:2b:187:LEU:O	2.14	0.48
5:1F:32:LEU:HB3	5:1F:112:MET:HE1	1.95	0.48
35:1d:20:TYR:HA	35:1d:26:CYS:SG	2.54	0.48
54:1w:216:GLU:HB2	54:1w:245:PRO:HD3	1.95	0.48
54:1w:303:ARG:HD2	54:1w:305:TYR:OH	2.13	0.48
1:2A:2331:G:O2'	22:20:43:THR:HG22	2.14	0.48
1:2A:2443:C:H2'	1:2A:2444:G:H8	1.78	0.48
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.14	0.48
2:2B:11:C:H3'	2:2B:12:C:C6	2.49	0.48
15:2T:110:ILE:HG23	15:2T:114:LEU:HD12	1.96	0.48
20:2Y:39:VAL:HG21	20:2Y:72:VAL:HG11	1.94	0.48
32:2a:963:G:H1	32:2a:972:C:N4	2.12	0.48
33:2b:172:ILE:O	33:2b:176:GLU:HB2	2.13	0.48
44:2m:57:ARG:O	44:2m:61:GLU:HB2	2.14	0.48
54:2w:146:ASP:OD2	54:2w:148:HIS:NE2	2.46	0.48
1:1A:1175:U:OP1	1:1A:1177:A:N6	2.47	0.48
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.49	0.48
2:1B:89:G:H2'	2:1B:90:A:C8	2.48	0.48
30:18:6:THR:HB	30:18:8:LYS:HE2	1.96	0.48
32:1a:1022:G:H2'	32:1a:1023:G:C8	2.49	0.48
38:1g:73:MET:HG3	38:1g:90:GLU:HA	1.95	0.48
44:1m:32:GLU:O	44:1m:36:LYS:HB2	2.13	0.48
47:1p:43:LYS:HE3	47:1p:43:LYS:HB2	1.66	0.48
50:1s:20:LEU:HD21	50:1s:43:GLU:CD	2.39	0.48
51:1t:92:LEU:C	51:1t:94:ALA:N	2.72	0.48
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.45	0.48
1:2A:1853:A:H2'	1:2A:1854:A:C8	2.49	0.48
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.49	0.48
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	1.96	0.48
32:2a:460:G:N2	32:2a:471:G:OP2	2.41	0.48
32:2a:501:C:H2'	32:2a:502:G:H8	1.79	0.48
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:43:LEU:HB2	36:2e:136:MET:HG3	1.96	0.48
38:2g:75:VAL:HG11	38:2g:148:ASN:HD22	1.79	0.48
50:2s:44:MET:HE3	50:2s:44:MET:HB2	1.65	0.48
1:1A:1493:C:N4	1:1A:2206:G:O2'	2.46	0.48
1:1A:2619:C:H4'	4:1E:151:TYR:O	2.14	0.48
3:1D:3:VAL:HG13	3:1D:17:THR:HB	1.95	0.48
6:1G:78:SER:OG	6:1G:79:ASN:OD1	2.32	0.48
20:1Y:5:MET:HE1	20:1Y:35:TYR:HA	1.96	0.48
23:11:70:VAL:O	23:11:73:LEU:N	2.47	0.48
44:1m:76:ALA:HA	44:1m:79:LYS:HB3	1.95	0.48
1:2A:252:G:P	11:2P:50:ARG:HH22	2.37	0.48
1:2A:1843:C:H5'	3:2D:253:GLN:OE1	2.14	0.48
3:2D:121:PRO:HB3	3:2D:135:PHE:CE2	2.48	0.48
3:2D:141:VAL:HG13	3:2D:162:SER:HB2	1.96	0.48
25:23:37:LEU:HB3	25:23:43:ILE:HG21	1.96	0.48
32:2a:161:A:H2'	32:2a:162:A:C8	2.49	0.48
32:2a:1118:C:OP1	40:2i:9:ARG:HD2	2.14	0.48
33:2b:7:VAL:HG12	33:2b:8:LYS:HG2	1.96	0.48
1:1A:657:U:H2'	1:1A:658:C:C6	2.49	0.47
1:1A:676:A:HO2'	1:1A:2442:C:HO2'	1.62	0.47
1:1A:729:G:C5	3:1D:208:LYS:HB2	2.49	0.47
1:1A:1927:A:H2'	1:1A:1928:A:C8	2.49	0.47
1:1A:2390:U:P	30:18:35:GLN:HE22	2.37	0.47
1:1A:2494:G:O2'	12:1Q:80:GLU:HA	2.13	0.47
14:1S:41:ASP:OD2	14:1S:44:LYS:N	2.39	0.47
19:1X:72:LYS:NZ	19:1X:75:ASP:OD1	2.47	0.47
32:1a:646:U:H2'	32:1a:647:C:H6	1.78	0.47
35:1d:11:LEU:O	35:1d:15:GLU:HG2	2.14	0.47
1:2A:2125:G:H1'	1:2A:2173:A:H61	1.79	0.47
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.20	0.47
14:2S:28:VAL:HG11	14:2S:98:VAL:HG12	1.95	0.47
21:2Z:3:TYR:CD2	21:2Z:51:ALA:HB2	2.48	0.47
26:24:15:ILE:O	26:24:33:VAL:HG23	2.13	0.47
32:2a:551:U:H2'	32:2a:552:U:C6	2.49	0.47
32:2a:1009:G:C2	32:2a:1010:G:C8	3.02	0.47
32:2a:1150:U:O4	32:2a:1151:A:N6	2.47	0.47
32:2a:1512:U:H2'	32:2a:1513:A:H8	1.79	0.47
33:2b:9:GLU:OE1	33:2b:9:GLU:N	2.46	0.47
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.82	0.47
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.49	0.47
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.96	0.47
3:1D:246:PRO:O	3:1D:254:THR:HG22	2.13	0.47
9:1N:96:GLU:OE1	9:1N:96:GLU:N	2.31	0.47
14:1S:70:GLY:HA2	14:1S:101:LEU:HD23	1.96	0.47
21:1Z:52:SER:C	21:1Z:54:HIS:N	2.69	0.47
32:1a:266:G:H3'	48:1q:67:LYS:HB2	1.95	0.47
32:1a:1052:U:O2'	32:1a:1055:A:OP2	2.31	0.47
32:1a:1314:C:OP2	50:1s:4:SER:OG	2.29	0.47
1:2A:251:A:C5	1:2A:252:G:H1'	2.50	0.47
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.13	0.47
1:2A:2386:C:H2'	1:2A:2387:U:C6	2.50	0.47
6:2G:123:ASN:C	6:2G:125:PHE:H	2.22	0.47
9:2N:120:LEU:HD11	9:2N:122:VAL:HG23	1.96	0.47
32:2a:447:G:O6	32:2a:485:G:O2'	2.24	0.47
32:2a:707:C:H2'	32:2a:708:C:C6	2.49	0.47
32:2a:1143:G:H2'	32:2a:1144:G:C8	2.48	0.47
33:2b:155:LEU:HD21	33:2b:159:PRO:HD3	1.96	0.47
35:2d:78:LEU:HB3	35:2d:93:PHE:HE1	1.79	0.47
39:2h:83:ILE:HG13	39:2h:137:VAL:HG22	1.96	0.47
41:2j:6:ILE:HG22	41:2j:8:LEU:HG	1.96	0.47
51:2t:60:GLU:HA	51:2t:63:ILE:HB	1.96	0.47
54:2w:155:PHE:HB3	54:2w:158:VAL:HG22	1.94	0.47
1:1A:784:A:OP1	1:1A:2588:G:H5"	2.14	0.47
1:1A:2390:U:O2'	1:1A:2391:G:H5'	2.14	0.47
6:1G:132:ASN:HA	6:1G:157:ILE:O	2.14	0.47
7:1H:37:VAL:HG22	7:1H:68:THR:HG23	1.96	0.47
8:1I:93:THR:HG22	8:1I:119:PRO:HB3	1.96	0.47
23:11:52:ARG:HA	23:11:56:GLN:O	2.14	0.47
26:14:58:ARG:NH1	50:1s:68:GLY:H	2.12	0.47
32:1a:56:U:H2'	32:1a:57:G:C8	2.49	0.47
32:1a:333:G:H4'	51:1t:16:HIS:CE1	2.50	0.47
32:1a:503:C:H2'	32:1a:504:C:C6	2.49	0.47
34:1c:55:VAL:HG22	34:1c:68:VAL:HG22	1.95	0.47
35:1d:61:LYS:HG3	35:1d:203:VAL:HG13	1.95	0.47
44:1m:34:LEU:HG	44:1m:41:PRO:HB3	1.96	0.47
54:1w:134:PHE:CE1	54:1w:138:MET:HE2	2.49	0.47
1:2A:2185:C:H2'	1:2A:2186:G:O4'	2.14	0.47
1:2A:2334:G:O6	22:20:74:ARG:NH1	2.44	0.47
1:2A:2657:A:O2'	7:2H:160:LYS:NZ	2.46	0.47
1:2A:2725:A:H1'	1:2A:2726:U:H2'	1.96	0.47
1:2A:2851:A:OP2	60:2A:3750:HOH:O	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:38:GLN:HB2	14:2S:40:ILE:HD11	1.95	0.47
32:2a:486:U:H2'	32:2a:487:A:C8	2.49	0.47
32:2a:826:C:H2'	32:2a:827:U:C6	2.49	0.47
32:2a:1254:C:H42	32:2a:1283:G:H1	1.63	0.47
51:2t:50:GLU:HG3	51:2t:100:ILE:HD11	1.97	0.47
1:1A:624:C:O2'	1:1A:657:U:OP1	2.25	0.47
1:1A:1859:A:N6	1:1A:1883:G:O2'	2.48	0.47
1:1A:2321:G:H5"	1:1A:2322:A:OP2	2.15	0.47
6:1G:119:GLY:O	6:1G:181:ARG:NH2	2.47	0.47
7:1H:56:SER:OG	7:1H:57:ASP:N	2.48	0.47
9:1N:23:LEU:HA	9:1N:60:ILE:HD11	1.95	0.47
21:1Z:110:GLY:HA3	21:1Z:174:VAL:HG11	1.96	0.47
22:10:46:LYS:NZ	22:10:75:LEU:O	2.45	0.47
23:11:3:LYS:O	23:11:12:PRO:HD3	2.14	0.47
32:1a:1030:C:N4	32:1a:1031:G:H1	2.02	0.47
34:1c:130:VAL:HB	34:1c:157:ILE:HG23	1.96	0.47
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	1.95	0.47
39:1h:81:HIS:N	39:1h:138:TRP:O	2.47	0.47
43:1l:57:LYS:HG2	43:1l:67:THR:HG22	1.97	0.47
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.50	0.47
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.15	0.47
8:2I:2:LYS:HG2	8:2I:20:ASP:HB2	1.97	0.47
11:2P:55:ARG:HA	60:2P:302:HOH:O	2.12	0.47
32:2a:1016:A:H2'	32:2a:1017:G:O4'	2.14	0.47
40:2i:23:ASN:OD1	40:2i:23:ASN:N	2.45	0.47
1:1A:882:G:H2'	1:1A:883:G:O4'	2.15	0.47
5:1F:101:LEU:O	5:1F:106:ARG:NH1	2.39	0.47
8:1I:72:LEU:HB2	8:1I:138:ILE:HG21	1.96	0.47
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.41	0.47
28:16:25:LYS:NZ	28:16:51:GLU:OE1	2.29	0.47
32:1a:110:C:H2'	32:1a:111:G:O4'	2.15	0.47
32:1a:542:G:H5'	35:1d:41:GLY:HA3	1.95	0.47
32:1a:1126:U:O2	32:1a:1280:A:H2'	2.13	0.47
32:1a:1437:C:H2'	32:1a:1438:G:H8	1.80	0.47
33:1b:122:PHE:CE1	33:1b:139:LYS:HD2	2.49	0.47
36:1e:5:ASP:OD1	36:1e:5:ASP:N	2.47	0.47
53:1v:16:U:C2	55:1x:37:MIA:H112	2.49	0.47
1:2A:192:C:O2'	1:2A:802:A:N3	2.45	0.47
1:2A:2895:U:H2'	1:2A:2896:C:O4'	2.14	0.47
3:2D:77:ALA:HB2	3:2D:97:TYR:CG	2.49	0.47
7:2H:22:GLY:C	7:2H:37:VAL:HG12	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:65:PHE:HB2	12:2Q:105:GLU:HB2	1.96	0.47
19:2X:26:TYR:HB3	19:2X:92:LEU:HD22	1.96	0.47
32:2a:324:G:N7	60:2a:1817:HOH:O	2.35	0.47
32:2a:1052:U:O4	32:2a:1200:C:O2'	2.27	0.47
32:2a:1237:C:H5"	32:2a:1238:A:C8	2.49	0.47
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.50	0.47
34:2c:132:ARG:HA	34:2c:135:LYS:HD3	1.96	0.47
1:1A:789:A:OP1	60:1A:3859:HOH:O	2.20	0.47
1:1A:880:G:C2	1:1A:881:G:C8	3.03	0.47
1:1A:2786:U:O2'	4:1E:62:PRO:O	2.26	0.47
32:1a:93:G:H2'	32:1a:96:U:C6	2.50	0.47
32:1a:292:G:C5	32:1a:293:G:H1'	2.49	0.47
32:1a:690:G:C6	32:1a:691:G:C6	3.02	0.47
32:1a:925:G:H1'	32:1a:1502:A:C4	2.50	0.47
32:1a:1053:G:O2'	32:1a:1199:U:OP2	2.21	0.47
33:1b:179:LYS:HA	39:1h:72:PRO:HG3	1.96	0.47
34:1c:6:HIS:ND1	45:1n:49:HIS:HB3	2.29	0.47
40:1i:65:VAL:HG11	40:1i:73:GLN:HB3	1.96	0.47
40:1i:69:GLY:O	40:1i:73:GLN:HG3	2.15	0.47
1:2A:370:G:OP1	1:2A:403:U:N3	2.24	0.47
1:2A:657:U:H2'	1:2A:658:C:C6	2.49	0.47
1:2A:1200:C:H1'	16:2U:2:PRO:HG3	1.95	0.47
1:2A:2103:C:N4	1:2A:2186:G:H1	2.13	0.47
7:2H:13:LYS:HE2	7:2H:13:LYS:HB2	1.71	0.47
15:2T:26:ASP:OD1	15:2T:120:ARG:NH2	2.45	0.47
32:2a:256:U:H2'	32:2a:257:G:O4'	2.15	0.47
32:2a:1320:C:C2	50:2s:72:GLY:HA3	2.50	0.47
34:2c:92:ALA:HA	34:2c:96:GLY:H	1.79	0.47
1:1A:800:A:H8	1:1A:800:A:OP1	1.98	0.47
1:1A:1098:A:H5"	1:1A:1099:G:C8	2.49	0.47
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.49	0.47
1:1A:1791:A:H3'	1:1A:1792:G:H8	1.80	0.47
1:1A:2161:C:O2'	1:1A:2162:G:H5"	2.14	0.47
1:1A:2228:G:OP1	3:1D:261:LYS:NZ	2.46	0.47
1:1A:2322:A:H2'	1:1A:2323:G:O4'	2.14	0.47
32:1a:359:U:H2'	32:1a:360:A:C8	2.49	0.47
32:1a:857:C:H2'	32:1a:858:G:O4'	2.14	0.47
32:1a:1035:A:H2'	32:1a:1036:G:H21	1.79	0.47
32:1a:1225:A:OP1	44:1m:103:THR:OG1	2.32	0.47
35:1d:100:ARG:NH2	35:1d:136:PRO:O	2.47	0.47
36:1e:7:GLU:OE1	36:1e:37:ARG:NE	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:80:ILE:HD12	36:1e:80:ILE:HA	1.80	0.47
37:1f:60:PHE:CE2	49:1r:78:LEU:HD21	2.50	0.47
39:1h:20:TYR:HE2	39:1h:75:ARG:HD2	1.80	0.47
40:1i:46:ALA:HB1	40:1i:77:ILE:HG22	1.96	0.47
44:1m:74:VAL:O	44:1m:78:ILE:HD12	2.14	0.47
45:1n:6:LEU:HB3	45:1n:23:ARG:NH2	2.30	0.47
52:1u:15:ARG:HH11	52:1u:15:ARG:HB2	1.80	0.47
54:1w:239:VAL:HG11	54:1w:262:ARG:HA	1.96	0.47
1:2A:608:A:H2'	1:2A:609:A:C8	2.49	0.47
1:2A:639:U:H2'	1:2A:640:C:C6	2.49	0.47
1:2A:882:G:H2'	1:2A:883:G:C8	2.50	0.47
1:2A:1038:C:H42	1:2A:1117:G:H1	1.61	0.47
1:2A:1497:U:H5"	1:2A:1498:C:H5	1.80	0.47
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.15	0.47
1:2A:2203:U:O2'	1:2A:2205:C:H5'	2.15	0.47
1:2A:2314:C:H2'	1:2A:2315:G:H8	1.79	0.47
2:2B:2:C:H2'	2:2B:3:C:C6	2.50	0.47
2:2B:112:U:H2'	2:2B:113:G:H8	1.79	0.47
32:2a:376:G:H4'	47:2p:5:ARG:HD3	1.96	0.47
32:2a:875:C:H1'	39:2h:15:ASN:OD1	2.15	0.47
32:2a:1143:G:H2'	32:2a:1144:G:H8	1.78	0.47
32:2a:1372:U:OP1	40:2i:72:GLY:N	2.41	0.47
32:2a:1378:C:O2	38:2g:76:ARG:NH1	2.47	0.47
33:2b:11:LEU:HD11	33:2b:217:ARG:NH2	2.30	0.47
33:2b:208:ILE:HA	33:2b:211:ILE:HD12	1.96	0.47
34:2c:91:LEU:HD21	34:2c:101:LEU:HD22	1.97	0.47
40:2i:99:LEU:HD13	40:2i:101:PHE:CE2	2.50	0.47
42:2k:59:TYR:CZ	42:2k:63:LEU:HD11	2.49	0.47
45:2n:6:LEU:HB3	45:2n:23:ARG:HH21	1.79	0.47
55:2y:5:G:H2'	55:2y:6:G:C8	2.50	0.47
55:2y:22:G:H2'	55:2y:23:A:H8	1.80	0.47
1:1A:247:G:H4'	1:1A:386:G:C5	2.50	0.47
1:1A:616:G:H5'	5:1F:205:ARG:HH11	1.80	0.47
1:1A:1693:U:H1'	3:1D:14:ARG:NH1	2.30	0.47
10:1O:107:ARG:HH11	10:1O:112:MET:HE1	1.80	0.47
32:1a:228:A:H2'	32:1a:229:U:O4'	2.14	0.47
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.44	0.47
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.50	0.47
40:1i:43:ALA:C	40:1i:45:ALA:H	2.21	0.47
40:1i:99:LEU:HB2	40:1i:101:PHE:CE2	2.50	0.47
48:1q:59:ILE:HG22	48:1q:73:VAL:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:331:A:OP1	1:2A:1209:G:N2	2.44	0.47
1:2A:652(C):G:N2	1:2A:653:A:H1'	2.30	0.47
1:2A:1502:C:H2'	1:2A:1503:U:H6	1.80	0.47
1:2A:1720:U:H2'	1:2A:1721:G:O4'	2.15	0.47
5:2F:110:LEU:HD11	5:2F:181:LEU:HD23	1.97	0.47
32:2a:664:G:N2	32:2a:741:G:H1	2.02	0.47
32:2a:757:U:H2'	32:2a:758:G:O4'	2.15	0.47
32:2a:1070:U:P	36:2e:18:ARG:HH22	2.38	0.47
32:2a:1503:A:O2'	32:2a:1504:G:O5'	2.29	0.47
38:2g:80:VAL:C	38:2g:82:GLY:H	2.23	0.47
43:2l:102:ARG:HE	43:2l:102:ARG:HB3	1.51	0.47
54:2w:228:GLY:HA3	54:2w:232:VAL:HB	1.97	0.47
1:1A:534:U:H2'	1:1A:535:C:C6	2.50	0.47
1:1A:2319:G:H1	14:1S:3:ARG:HA	1.79	0.47
8:1I:77:LEU:HD23	8:1I:97:ILE:HG23	1.96	0.47
21:1Z:126:VAL:HG21	21:1Z:161:VAL:HG12	1.96	0.47
31:19:27:CYS:SG	31:19:28:GLU:N	2.88	0.47
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.49	0.47
32:1a:1006:C:H2'	32:1a:1007:C:C6	2.49	0.47
32:1a:1346:A:N1	32:1a:1374:A:H5"	2.30	0.47
54:1w:321:THR:OG1	54:1w:322:HIS:N	2.48	0.47
1:2A:271(Q):G:H2'	1:2A:271(R):G:C8	2.49	0.47
1:2A:392:C:H5"	1:2A:409:C:H5"	1.96	0.47
1:2A:601:C:OP1	5:2F:108:LYS:NZ	2.28	0.47
1:2A:889:C:O2'	1:2A:890:A:OP2	2.24	0.47
13:2R:95:THR:HG22	13:2R:116:LEU:HD23	1.97	0.47
14:2S:11:LYS:O	14:2S:15:ARG:HB2	2.15	0.47
33:2b:83:MET:O	33:2b:87:ARG:HB2	2.14	0.47
33:2b:95:GLN:HG2	33:2b:147:LYS:HG2	1.97	0.47
44:2m:20:THR:C	44:2m:22:ILE:H	2.22	0.47
1:1A:270:A:OP2	1:1A:271(X):G:N1	2.39	0.47
1:1A:1026:U:OP1	60:1A:3811:HOH:O	2.21	0.47
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.29	0.47
1:1A:2112:G:C2	1:1A:2113:U:H1'	2.50	0.47
18:1W:45:TYR:OH	18:1W:49:LYS:NZ	2.45	0.47
32:1a:411:A:OP1	35:1d:30:LYS:NZ	2.41	0.47
34:1c:70:VAL:HG12	34:1c:72:LYS:H	1.80	0.47
37:1f:22:GLU:OE2	37:1f:82:ARG:NH2	2.47	0.47
1:2A:747:U:O2	1:2A:2014:A:H1'	2.15	0.47
1:2A:856:C:H5"	60:2A:4525:HOH:O	2.14	0.47
1:2A:1324:G:N7	60:2A:3846:HOH:O	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2032:G:OP2	1:2A:2454:G:O2'	2.30	0.47
11:2P:63:PRO:HD3	30:28:27:THR:HG23	1.96	0.47
32:2a:1072:G:H2'	32:2a:1073:U:H6	1.80	0.47
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.49	0.47
40:2i:33:PHE:HE2	40:2i:43:ALA:HB1	1.80	0.47
44:2m:22:ILE:HG23	44:2m:67:GLU:HG2	1.97	0.47
1:1A:330:A:HO2'	1:1A:331:A:H8	1.63	0.46
8:1I:72:LEU:HD21	8:1I:107:VAL:HG11	1.97	0.46
32:1a:189:G:C2	32:1a:189(L):G:C2	3.03	0.46
32:1a:436:C:H2'	32:1a:437:U:C6	2.51	0.46
32:1a:748:C:H4'	32:1a:749:C:O5'	2.15	0.46
32:1a:995:C:N3	32:1a:1046:A:O2'	2.46	0.46
32:1a:1144:G:N2	32:1a:1146:A:H62	2.13	0.46
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.50	0.46
36:1e:92:LYS:HB3	36:1e:119:LEU:HB2	1.97	0.46
42:1k:79:SER:HA	42:1k:104:GLN:HB3	1.97	0.46
44:1m:92:HIS:HA	44:1m:110:ARG:HH21	1.79	0.46
54:1w:333:THR:O	54:1w:337:GLU:HG2	2.15	0.46
55:1y:37:MIA:H2'	55:1y:38:A:C8	2.50	0.46
1:2A:193:U:O3'	1:2A:803:U:H4'	2.15	0.46
1:2A:1183:G:H2'	1:2A:1184:G:C8	2.49	0.46
1:2A:1935:G:H1'	1:2A:1964:G:N2	2.30	0.46
1:2A:2887:U:H2'	1:2A:2888:C:C6	2.51	0.46
6:2G:32:PRO:HB2	6:2G:172:LEU:HD22	1.97	0.46
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.98	0.46
12:2Q:78:PRO:HD2	12:2Q:81:VAL:HG21	1.97	0.46
20:2Y:55:TYR:CZ	20:2Y:61:ILE:HG21	2.50	0.46
32:2a:688:G:H5'	42:2k:46:GLY:C	2.41	0.46
32:2a:1141:C:H2'	32:2a:1142:G:H5'	1.96	0.46
32:2a:1144:G:N2	32:2a:1146:A:H62	2.13	0.46
32:2a:1226:C:N4	44:2m:104:ARG:HE	2.12	0.46
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.51	0.46
33:2b:80:ILE:HD12	33:2b:208:ILE:HG22	1.97	0.46
35:2d:19:LEU:HD12	35:2d:21:LEU:HD21	1.97	0.46
35:2d:119:GLN:HE21	35:2d:123:HIS:HE1	1.62	0.46
38:2g:62:PHE:HA	38:2g:124:LEU:HD22	1.96	0.46
1:1A:1047:G:H2'	1:1A:1110:G:N1	2.27	0.46
1:1A:1053:C:H2'	1:1A:1054:A:C8	2.50	0.46
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.29	0.46
1:1A:2339:G:H2'	1:1A:2340:G:C8	2.50	0.46
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2854:G:H2'	1:1A:2855:C:C6	2.49	0.46
5:1F:72:ARG:HE	5:1F:72:ARG:HB3	1.55	0.46
33:1b:8:LYS:HA	33:1b:217:ARG:NH1	2.30	0.46
38:1g:70:LYS:O	38:1g:138:LYS:HD2	2.15	0.46
47:1p:48:TRP:CD1	47:1p:48:TRP:H	2.32	0.46
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.50	0.46
1:2A:1628:G:H2'	1:2A:1629:U:C6	2.50	0.46
1:2A:2156:G:H2'	1:2A:2157:G:C5	2.50	0.46
3:2D:155:LEU:HD23	3:2D:177:LEU:HD22	1.98	0.46
4:2E:48:GLN:HA	4:2E:80:GLU:HA	1.97	0.46
16:2U:50:ARG:HG2	16:2U:53:ARG:HH21	1.78	0.46
32:2a:667:G:O2'	46:2o:49:ASP:OD1	2.28	0.46
32:2a:1278:U:H5'	32:2a:1279:A:C5'	2.44	0.46
33:2b:51:LEU:HD21	33:2b:201:ILE:HG23	1.96	0.46
35:2d:12:CYS:SG	35:2d:19:LEU:HB2	2.55	0.46
38:2g:62:PHE:HD1	38:2g:124:LEU:HD21	1.80	0.46
53:2v:10:G:H2'	53:2v:11:U:H4'	1.97	0.46
55:2y:51:U:H2'	55:2y:52:G:C8	2.51	0.46
1:1A:667:U:O2	30:18:2:PRO:HD2	2.16	0.46
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.51	0.46
1:1A:1657:C:H4'	4:1E:133:LYS:HB3	1.98	0.46
21:1Z:98:MET:HE2	21:1Z:100:VAL:HG22	1.96	0.46
23:11:46:LEU:HA	23:11:63:ALA:HA	1.97	0.46
25:13:3:ARG:HB2	25:13:59:VAL:HG23	1.97	0.46
32:1a:448:A:H2'	32:1a:449:C:C6	2.50	0.46
32:1a:580:U:H2'	32:1a:581:G:O4'	2.15	0.46
32:1a:861:G:HO2'	32:1a:874:G:HO2'	1.60	0.46
32:1a:1262:C:H2'	32:1a:1263:C:H6	1.79	0.46
40:1i:18:PHE:HD2	40:1i:62:TYR:HD2	1.63	0.46
1:2A:1418:G:OP1	1:2A:1588:C:O2'	2.34	0.46
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.49	0.46
31:29:2:LYS:NZ	31:29:31:LYS:O	2.47	0.46
32:2a:130:A:H1'	32:2a:263:A:O2'	2.15	0.46
32:2a:255:G:H2'	32:2a:256:U:C6	2.51	0.46
32:2a:266:G:H2'	32:2a:266:G:N3	2.29	0.46
32:2a:564:C:HO2'	39:2h:91:ARG:HH12	1.62	0.46
32:2a:715:A:H2'	32:2a:716:A:C8	2.51	0.46
32:2a:909:A:H2'	32:2a:910:C:O4'	2.15	0.46
32:2a:985:C:H2'	32:2a:986:A:H8	1.79	0.46
34:2c:134:ILE:HG23	34:2c:151:VAL:HB	1.97	0.46
37:2f:99:ALA:HB2	49:2r:31:LEU:HD11	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:346:G:H3'	32:1a:346:G:N3	2.31	0.46
32:1a:735:C:H2'	32:1a:736:C:C6	2.51	0.46
34:1c:52:LEU:HD23	34:1c:53:ALA:H	1.81	0.46
34:1c:64:VAL:HG13	34:1c:99:VAL:HA	1.97	0.46
48:1q:41:LYS:NZ	48:1q:88:TYR:OH	2.37	0.46
50:1s:33:THR:HG22	50:1s:50:ALA:O	2.15	0.46
53:1v:19:U:O4	54:1w:186:THR:OG1	2.27	0.46
55:1x:75:C:H5"	55:1x:76:A:OP2	2.14	0.46
1:2A:784:A:C8	1:2A:792:G:C5	3.04	0.46
7:2H:27:LYS:NZ	7:2H:32:GLU:OE1	2.32	0.46
27:25:48:GLU:O	27:25:60:VAL:HG11	2.15	0.46
32:2a:696:A:N3	32:2a:786:G:O2'	2.45	0.46
32:2a:1310:G:OP2	44:2m:88:ARG:NH2	2.44	0.46
38:2g:83:ALA:HB1	55:2y:37:MIA:H162	1.97	0.46
39:2h:13:ILE:HG21	39:2h:80:ILE:HD12	1.96	0.46
54:2w:181:GLN:HE21	54:2w:304:THR:HG21	1.81	0.46
1:1A:1394:U:H2'	1:1A:1395:A:O4'	2.15	0.46
1:1A:2116:G:H2'	1:1A:2117:A:C5	2.51	0.46
2:1B:29:A:H2'	2:1B:30:C:C6	2.50	0.46
6:1G:83:ARG:O	6:1G:86:MET:HG3	2.15	0.46
10:1O:64:ARG:NH2	10:1O:100:GLY:HA3	2.30	0.46
32:1a:767:A:H2'	32:1a:768:A:O4'	2.15	0.46
32:1a:1212:U:H5'	32:1a:1213:A:C8	2.49	0.46
54:1w:196:THR:HG21	54:1w:296:GLY:O	2.16	0.46
1:2A:1011:G:OP1	16:2U:77:SER:OG	2.32	0.46
1:2A:1766:U:H2'	1:2A:1767:C:C6	2.50	0.46
1:2A:2105:C:H2'	1:2A:2106:G:H8	1.81	0.46
1:2A:2794:C:N4	1:2A:2802:G:O6	2.49	0.46
2:2B:41:U:H5	6:2G:70:VAL:O	1.99	0.46
3:2D:71:ASP:OD1	3:2D:103:ARG:NH2	2.44	0.46
6:2G:29:TRP:O	6:2G:33:ARG:NH1	2.48	0.46
8:2I:4:ILE:HD11	8:2I:44:LEU:HD12	1.97	0.46
12:2Q:21:THR:HG21	12:2Q:101:ARG:HB2	1.97	0.46
26:24:61:ARG:NH1	50:2s:41:VAL:HG13	2.28	0.46
32:2a:791:G:C6	32:2a:792:A:N7	2.84	0.46
32:2a:1117:G:H5'	32:2a:1118:C:OP2	2.15	0.46
32:2a:1280:A:H5'	41:2j:41:PRO:HD2	1.98	0.46
32:2a:1288:A:H2'	32:2a:1289:A:C8	2.50	0.46
32:2a:1405:G:H21	32:2a:1518:MA6:H1'	1.80	0.46
33:2b:58:ILE:HG22	33:2b:61:LEU:HD23	1.97	0.46
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:910:A:N1	1:1A:2277:G:H1'	2.31	0.46
1:1A:1138:G:O2'	9:1N:102:ALA:O	2.34	0.46
1:1A:1645:G:H5"	1:1A:1646:C:H5'	1.98	0.46
1:1A:2299:G:O6	60:1A:3854:HOH:O	2.19	0.46
1:1A:2339:G:H2'	1:1A:2340:G:H8	1.80	0.46
1:1A:2808:U:H5"	1:1A:2891:G:O6	2.16	0.46
18:1W:65:LEU:HD12	18:1W:68:ARG:NH1	2.30	0.46
32:1a:659:U:H2'	32:1a:660:G:C8	2.50	0.46
32:1a:1030:C:N4	32:1a:1031:G:N1	2.50	0.46
36:1e:27:ARG:HE	36:1e:27:ARG:HB2	1.60	0.46
36:1e:78:HIS:CE1	36:1e:142:LEU:HD23	2.51	0.46
44:1m:78:ILE:HG12	44:1m:92:HIS:CD2	2.51	0.46
47:1p:74:LEU:HD23	47:1p:79:VAL:HG11	1.98	0.46
54:1w:213:ASN:C	54:1w:215:ASP:H	2.24	0.46
1:2A:1029:A:N6	1:2A:1125:G:O2'	2.48	0.46
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.50	0.46
1:2A:1474:C:H2'	1:2A:1475:G:C8	2.51	0.46
1:2A:2120:G:H1	1:2A:2178:C:H42	1.62	0.46
1:2A:2627:G:N2	1:2A:2777:G:OP2	2.49	0.46
6:2G:179:PRO:HG3	26:24:43:TYR:OH	2.15	0.46
32:2a:921:U:O2'	36:2e:19:MET:O	2.19	0.46
32:2a:1032:G:H2'	32:2a:1033:G:C8	2.51	0.46
32:2a:1256:A:OP2	34:2c:26:LYS:NZ	2.48	0.46
36:2e:51:VAL:O	36:2e:55:VAL:HG23	2.15	0.46
54:2w:161:GLU:HG2	54:2w:163:ARG:HG3	1.97	0.46
8:1I:109:ILE:HG23	8:1I:130:TYR:OH	2.16	0.46
13:1R:33:ARG:HD2	13:1R:113:LEU:HD13	1.97	0.46
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.52	0.46
22:10:43:THR:O	22:10:43:THR:HG23	2.16	0.46
23:11:73:LEU:HD11	23:11:98:LEU:HG	1.98	0.46
30:18:52:LYS:HB3	30:18:52:LYS:HE2	1.67	0.46
32:1a:334:C:H2'	32:1a:335:C:C6	2.51	0.46
32:1a:626:U:C2	32:1a:627:G:C8	3.03	0.46
32:1a:875:C:H1'	39:1h:15:ASN:HD21	1.80	0.46
32:1a:1041:A:H2'	32:1a:1042:G:C8	2.50	0.46
1:2A:219:G:C6	1:2A:220:G:C6	3.04	0.46
1:2A:774:A:H2'	1:2A:774:A:N3	2.31	0.46
1:2A:2098:U:H2'	1:2A:2099:U:C6	2.50	0.46
5:2F:103:LYS:HA	5:2F:106:ARG:HD3	1.97	0.46
26:24:33:VAL:HG12	26:24:34:GLU:H	1.81	0.46
32:2a:167:G:H2'	32:2a:168:G:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:934:C:H5	32:2a:1344:C:H2'	1.80	0.46
35:2d:32:ALA:HB3	59:2d:303:SF4:S2	2.56	0.46
46:2o:21:ASP:OD2	46:2o:24:SER:HB2	2.16	0.46
54:2w:312:VAL:HG23	54:2w:321:THR:HG23	1.97	0.46
1:1A:1857:G:C6	1:1A:1858:G:C6	3.03	0.46
5:1F:47:GLY:O	5:1F:94:PRO:HA	2.16	0.46
5:1F:178:PRO:HB2	5:1F:201:VAL:HG11	1.98	0.46
14:1S:3:ARG:HD3	14:1S:4:LEU:N	2.30	0.46
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.49	0.46
32:1a:127:G:H4'	48:1q:2:PRO:HD2	1.97	0.46
32:1a:127:G:C2	32:1a:128:G:C8	3.04	0.46
33:1b:17:PHE:HB2	33:1b:44:LEU:HD21	1.98	0.46
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.48	0.46
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.50	0.46
15:2T:45:PHE:CE1	15:2T:74:ARG:HG3	2.50	0.46
15:2T:115:ARG:H	15:2T:115:ARG:HG3	1.59	0.46
33:2b:141:GLU:O	33:2b:144:ARG:HB3	2.16	0.46
34:2c:39:ILE:HG21	34:2c:57:ILE:HD11	1.98	0.46
44:2m:76:ALA:HA	44:2m:79:LYS:HB3	1.98	0.46
1:1A:311:A:C6	1:1A:328:U:C4	3.04	0.46
1:1A:1526:G:C6	1:1A:1527:G:C2	3.04	0.46
1:1A:1916:A:H2'	1:1A:1917:PSU:H6	1.81	0.46
1:1A:2348:U:O4	1:1A:2382:G:N1	2.49	0.46
32:1a:262:A:H2'	32:1a:263:A:C8	2.50	0.46
32:1a:599:C:H4'	39:1h:130:GLY:C	2.40	0.46
32:1a:1010:G:H1	32:1a:1019:C:N4	2.11	0.46
39:1h:4:ASP:OD2	39:1h:85:ARG:NE	2.37	0.46
42:1k:19:ALA:HA	42:1k:32:ILE:HA	1.97	0.46
50:1s:40:ILE:HB	50:1s:67:VAL:O	2.16	0.46
54:1w:143:GLU:OE1	54:1w:163:ARG:NH2	2.31	0.46
1:2A:363:G:H2'	1:2A:363(A):A:H8	1.80	0.46
1:2A:2491:U:OP2	60:2A:3756:HOH:O	2.21	0.46
5:2F:54:ARG:HD2	5:2F:81:PRO:HD3	1.98	0.46
6:2G:155:MET:HE2	6:2G:155:MET:N	2.31	0.46
26:24:15:ILE:HD13	26:24:21:VAL:HB	1.98	0.46
31:29:3:VAL:HA	31:29:35:ARG:O	2.16	0.46
31:29:11:CYS:HB3	31:29:32:HIS:HE1	1.80	0.46
32:2a:235:C:H5'	48:2q:70:ARG:HG2	1.98	0.46
32:2a:542:G:H5'	35:2d:41:GLY:HA3	1.98	0.46
32:2a:757:U:O2'	32:2a:879:C:O2	2.34	0.46
32:2a:1530:G:O2'	32:2a:1531:A:OP1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:118:ARG:O	35:2d:122:ARG:N	2.39	0.46
36:2e:94:ALA:HB2	36:2e:119:LEU:HG	1.96	0.46
1:1A:614:U:H5'	1:1A:614(C):A:N6	2.31	0.46
21:1Z:3:TYR:CD2	21:1Z:51:ALA:HB2	2.51	0.46
32:1a:136:C:O3'	47:1p:65:GLN:NE2	2.46	0.46
36:1e:98:THR:HG22	36:1e:99:GLY:H	1.81	0.46
47:1p:22:THR:HG23	47:1p:23:ASP:O	2.16	0.46
49:1r:58:LEU:HB3	49:1r:62:GLU:HB2	1.98	0.46
1:2A:579:G:H2'	1:2A:580:C:H6	1.80	0.46
1:2A:784:A:C6	3:2D:229:VAL:HG11	2.51	0.46
1:2A:1272:A:H3'	1:2A:1273:U:H5"	1.98	0.46
1:2A:1394:U:H2'	1:2A:1395:A:O4'	2.16	0.46
1:2A:1528(A):A:H2'	1:2A:1529:G:O4'	2.16	0.46
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.50	0.46
2:2B:45:A:O4'	6:2G:95:ARG:NH1	2.49	0.46
4:2E:69:LYS:O	4:2E:69:LYS:HD3	2.16	0.46
6:2G:129:GLY:HA3	6:2G:163:ALA:HB3	1.98	0.46
8:2I:134:PRO:C	8:2I:136:VAL:H	2.22	0.46
19:2X:5:TYR:CE2	24:22:30:ARG:HB2	2.50	0.46
37:2f:11:ASN:HB3	37:2f:14:LEU:HG	1.97	0.46
43:2l:11:VAL:HG11	48:2q:36:ILE:HG21	1.98	0.46
54:2w:109:VAL:HB	54:2w:160:PHE:CZ	2.51	0.46
1:1A:1460:A:H4'	1:1A:1461:G:OP2	2.16	0.45
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.51	0.45
1:1A:2347:C:O2'	28:16:21:TYR:OH	2.22	0.45
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.31	0.45
32:1a:391:G:OP1	47:1p:28:ARG:NH2	2.34	0.45
32:1a:675:A:H1'	42:1k:116:HIS:CD2	2.50	0.45
33:1b:132:LYS:O	33:1b:136:VAL:HG23	2.17	0.45
35:1d:134:ASP:OD1	35:1d:134:ASP:N	2.45	0.45
37:1f:36:ARG:HB3	37:1f:66:GLU:HB3	1.99	0.45
1:2A:64:A:O3'	19:2X:71:GLY:HA3	2.16	0.45
1:2A:84:A:N1	1:2A:98:G:O2'	2.41	0.45
1:2A:122:G:OP1	1:2A:149:A:O2'	2.30	0.45
1:2A:468:G:H2'	1:2A:469:G:O4'	2.16	0.45
1:2A:995:C:O2	9:2N:3:THR:OG1	2.31	0.45
1:2A:1153:C:H5'	16:2U:76:TYR:CE2	2.51	0.45
1:2A:2175:C:H2'	1:2A:2176:A:C8	2.50	0.45
1:2A:2370:G:H4'	28:26:44:ARG:HH22	1.81	0.45
1:2A:2406:U:C2	11:2P:72:PRO:HG2	2.51	0.45
60:2A:3787:HOH:O	11:2P:37:GLY:HA3	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:63:ALA:O	8:2I:67:ARG:N	2.38	0.45
32:2a:1131:G:H1	32:2a:1143:G:H21	1.62	0.45
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.50	0.45
33:2b:189:ASP:HB2	33:2b:191:ASP:OD1	2.16	0.45
34:2c:8:ILE:HD12	34:2c:16:ARG:HE	1.80	0.45
36:2e:83:GLU:HG2	36:2e:88:LYS:HD2	1.98	0.45
38:2g:16:LEU:HG	40:2i:42:ARG:HA	1.98	0.45
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	1.97	0.45
1:1A:654:A:H2	1:1A:655:A:C2	2.34	0.45
1:1A:686:G:C4	29:17:11:LYS:HG2	2.51	0.45
1:1A:839:U:H1'	1:1A:1191:G:H1'	1.98	0.45
1:1A:1139:G:O2'	1:1A:1143:A:N1	2.39	0.45
1:1A:1954:G:O2'	1:1A:1956:U:O4	2.32	0.45
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.98	0.45
1:1A:2616:C:O2	60:1A:3856:HOH:O	2.20	0.45
32:1a:104:G:OP2	51:1t:18:GLN:NE2	2.49	0.45
32:1a:735:C:H2'	32:1a:736:C:H6	1.82	0.45
32:1a:1010:G:C2	32:1a:1020:U:H1'	2.51	0.45
32:1a:1035:A:H2'	32:1a:1036:G:N2	2.31	0.45
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.98	0.45
33:1b:32:ILE:HD13	33:1b:40:HIS:CD2	2.51	0.45
33:1b:50:GLU:HA	33:1b:53:ARG:HB3	1.99	0.45
34:1c:63:ASN:HA	34:1c:98:ASN:HB3	1.98	0.45
51:1t:36:LEU:HD13	51:1t:58:LYS:HG3	1.98	0.45
1:2A:1171:G:H1	1:2A:1178:C:N4	2.14	0.45
1:2A:1277:G:O2'	13:2R:24:GLN:HG2	2.15	0.45
1:2A:2561:A:H2'	1:2A:2562:U:O4'	2.16	0.45
4:2E:108:SER:HB3	4:2E:165:VAL:HG21	1.98	0.45
32:2a:952:U:H4'	32:2a:964:A:N1	2.31	0.45
32:2a:1117:G:H4'	40:2i:104:ARG:NH1	2.31	0.45
32:2a:1216:G:H5"	45:2n:5:ALA:CB	2.47	0.45
33:2b:159:PRO:HB2	33:2b:161:ALA:O	2.15	0.45
44:2m:9:ILE:O	44:2m:11:ARG:NH1	2.49	0.45
54:2w:118:GLU:O	54:2w:122:LEU:HG	2.16	0.45
54:2w:177:VAL:HB	54:2w:301:LYS:HA	1.97	0.45
1:1A:530:G:N1	1:1A:2023:G:OP1	2.35	0.45
1:1A:1089:G:H22	1:1A:1102:C:N4	2.14	0.45
21:1Z:10:ARG:HD3	21:1Z:38:TYR:HB3	1.98	0.45
21:1Z:125:LEU:HB3	21:1Z:165:VAL:HG13	1.98	0.45
27:15:17:ASP:HA	27:15:20:ARG:HG3	1.98	0.45
32:1a:448:A:H2'	32:1a:449:C:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:448:A:P	32:1a:485:G:H22	2.39	0.45
32:1a:527:G7M:O2'	32:1a:535:A:N1	2.44	0.45
32:1a:634:C:H2'	32:1a:635:G:H8	1.81	0.45
32:1a:719:C:O2'	49:1r:49:LYS:HB3	2.16	0.45
32:1a:1033:G:H3'	32:1a:1034:G:H8	1.81	0.45
32:1a:1437:C:H2'	32:1a:1438:G:C8	2.52	0.45
33:1b:55:PHE:HD1	33:1b:58:ILE:HD12	1.80	0.45
48:1q:31:LEU:HD23	48:1q:32:TYR:CZ	2.51	0.45
1:2A:924:C:H2'	1:2A:925:C:C6	2.51	0.45
1:2A:1502:C:H2'	1:2A:1503:U:C6	2.51	0.45
1:2A:1506:C:H2'	1:2A:1507:A:H5'	1.98	0.45
1:2A:1639:U:H4'	1:2A:2699:C:H4'	1.98	0.45
1:2A:2483:C:N3	12:2Q:124:LYS:NZ	2.60	0.45
6:2G:129:GLY:O	6:2G:161:THR:HB	2.16	0.45
19:2X:32:PRO:HA	19:2X:77:LYS:HD2	1.98	0.45
32:2a:323:U:H2'	32:2a:324:G:O4'	2.15	0.45
32:2a:1001:A:H2'	32:2a:1001(A):G:C8	2.51	0.45
32:2a:1239:A:H62	32:2a:1299:A:N6	2.13	0.45
47:2p:1:MET:SD	47:2p:3:LYS:NZ	2.73	0.45
48:2q:45:HIS:HB2	48:2q:65:ILE:HD13	1.98	0.45
1:1A:996:A:H4'	16:1U:91:ASP:OD2	2.16	0.45
15:1T:127:ALA:C	15:1T:129:ARG:N	2.75	0.45
33:1b:12:GLU:HA	33:1b:15:VAL:HG23	1.98	0.45
34:1c:18:TRP:CD1	45:1n:54:PRO:HA	2.50	0.45
43:1l:60:LEU:HD12	43:1l:60:LEU:HA	1.80	0.45
1:2A:2420:C:P	30:28:33:ASN:H	2.40	0.45
1:2A:2630:G:H2'	1:2A:2631:G:H8	1.81	0.45
2:2B:74:U:H2'	2:2B:75:G:O4'	2.16	0.45
4:2E:50:GLY:HA2	4:2E:78:LEU:HD23	1.98	0.45
32:2a:1190:G:C5'	34:2c:176:HIS:HE1	2.29	0.45
32:2a:1225:A:H2'	32:2a:1225:A:N3	2.31	0.45
32:2a:1443:G:N2	32:2a:1460:A:H1'	2.32	0.45
35:2d:209:ARG:OXT	35:2d:209:ARG:HG2	2.17	0.45
39:2h:17:THR:HG22	39:2h:63:LEU:HD13	1.98	0.45
40:2i:110:GLU:OE2	40:2i:113:LYS:NZ	2.49	0.45
55:2y:9:A:O2'	55:2y:10:G:N7	2.49	0.45
1:1A:484:C:H2'	1:1A:485:C:C6	2.52	0.45
1:1A:1291:C:H2'	1:1A:1292:U:C6	2.52	0.45
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.52	0.45
1:1A:1797:C:H4'	3:1D:257:LEU:O	2.16	0.45
1:1A:1918:A:O2'	1:1A:1920:OMC:N4	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2649:U:H2'	1:1A:2650:U:C6	2.52	0.45
1:1A:2865:U:OP2	15:1T:119:LYS:NZ	2.49	0.45
4:1E:170:LEU:HB3	4:1E:184:VAL:CG2	2.47	0.45
7:1H:19:VAL:HG22	7:1H:24:VAL:HG12	1.97	0.45
9:1N:62:VAL:HG22	9:1N:66:LYS:HD2	1.99	0.45
14:1S:26:LEU:HD13	14:1S:87:PHE:HD1	1.81	0.45
32:1a:624:C:H2'	32:1a:625:G:H8	1.81	0.45
32:1a:806:C:H2'	32:1a:807:A:H8	1.82	0.45
32:1a:902:G:H2'	32:1a:903:G:H8	1.82	0.45
32:1a:1228:C:OP2	44:1m:111:LYS:HD3	2.17	0.45
33:1b:15:VAL:O	33:1b:17:PHE:HD2	1.98	0.45
33:1b:163:PHE:CD1	33:1b:185:ILE:HG13	2.52	0.45
55:1x:76:A:O2'	56:1z:20:LEU:OXT	2.32	0.45
1:2A:781:A:OP1	3:2D:218:ARG:NH2	2.49	0.45
1:2A:805:G:N2	1:2A:829:A:OP1	2.47	0.45
1:2A:1376:C:OP2	60:2A:3757:HOH:O	2.21	0.45
1:2A:1866:C:H2'	1:2A:1876:A:O4'	2.16	0.45
1:2A:2064:C:OP2	60:2A:3752:HOH:O	2.21	0.45
2:2B:2:C:H2'	2:2B:3:C:H6	1.80	0.45
2:2B:68:C:H2'	2:2B:69:G:O4'	2.16	0.45
4:2E:61:ARG:N	4:2E:62:PRO:HD2	2.32	0.45
11:2P:28:GLY:O	11:2P:30:THR:N	2.42	0.45
26:24:63:TYR:N	26:24:63:TYR:CD1	2.85	0.45
32:2a:67:C:H2'	32:2a:68:G:C8	2.51	0.45
32:2a:562:C:H1'	43:2l:15:ARG:HB3	1.99	0.45
32:2a:1122:U:H2'	32:2a:1123:A:C8	2.52	0.45
32:2a:1141:C:N4	32:2a:1142:G:N7	2.65	0.45
33:2b:138:LEU:HA	33:2b:141:GLU:HB3	1.98	0.45
36:2e:93:PRO:HG2	39:2h:105:ARG:CZ	2.46	0.45
42:2k:18:ARG:NH1	42:2k:20:TYR:OH	2.46	0.45
55:2y:26:A:N6	55:2y:44:G:C6	2.84	0.45
1:1A:464:U:H2'	1:1A:465:G:O4'	2.16	0.45
1:1A:1039:G:H1	1:1A:1116:C:H42	1.64	0.45
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.52	0.45
1:1A:2683:C:H5'	15:1T:58:ASN:HD22	1.81	0.45
1:1A:2885:C:O2'	27:15:34:PRO:HG3	2.17	0.45
32:1a:113:G:H2'	32:1a:114:U:C6	2.52	0.45
32:1a:328:C:H4'	32:1a:329:A:H5'	1.98	0.45
32:1a:1063:C:H3'	32:1a:1064:G:H2'	1.98	0.45
32:1a:1424:C:H2'	32:1a:1425:U:O4'	2.16	0.45
33:1b:218:ALA:O	33:1b:222:ILE:HG13	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:75:VAL:O	38:1g:76:ARG:HG3	2.17	0.45
44:1m:44:ARG:HA	44:1m:44:ARG:HD3	1.68	0.45
1:2A:821:A:N1	60:2A:3854:HOH:O	2.36	0.45
1:2A:1020:A:H4'	1:2A:1021:A:O5'	2.17	0.45
1:2A:2107:C:H2'	1:2A:2108:C:O4'	2.17	0.45
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.51	0.45
4:2E:51:PHE:HB3	4:2E:77:ILE:HG22	1.99	0.45
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.35	0.45
6:2G:170:ARG:O	6:2G:174:GLU:HB3	2.17	0.45
11:2P:39:LYS:HB2	11:2P:45:LEU:HD21	1.98	0.45
32:2a:620:C:H2'	32:2a:621:A:O4'	2.17	0.45
32:2a:833:U:H2'	32:2a:834:C:H6	1.80	0.45
32:2a:1320:C:OP1	50:2s:70:LYS:HE3	2.17	0.45
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.51	0.45
32:2a:1518:MA6:H8	32:2a:1518:MA6:O5'	2.17	0.45
33:2b:163:PHE:CD1	33:2b:185:ILE:HB	2.52	0.45
34:2c:104:GLN:HG3	34:2c:105:GLU:O	2.17	0.45
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.51	0.45
44:2m:80:ARG:HH12	50:2s:69:HIS:HE1	1.63	0.45
50:2s:3:ARG:CZ	50:2s:10:PHE:HB2	2.46	0.45
54:2w:307:PHE:CD1	54:2w:324:LEU:HD11	2.52	0.45
1:1A:1056:G:H4'	1:1A:1086:A:H8	1.76	0.45
1:1A:1550:C:H2'	1:1A:1551:C:C6	2.51	0.45
1:1A:1709:U:H2'	1:1A:1710:C:C6	2.51	0.45
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.16	0.45
1:1A:2097:C:H2'	1:1A:2098:U:O4'	2.15	0.45
1:1A:2199:A:H3'	1:1A:2200:C:C6	2.52	0.45
5:1F:28:ILE:O	5:1F:30:PRO:HD3	2.17	0.45
10:1O:35:VAL:HG22	10:1O:69:ILE:HG12	1.99	0.45
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.25	0.45
32:1a:264:U:O2'	48:1q:64:PRO:O	2.33	0.45
32:1a:382:A:H2'	32:1a:383:A:C8	2.51	0.45
32:1a:1187:G:H2'	32:1a:1188:A:H8	1.82	0.45
33:1b:121:LEU:HA	33:1b:125:PRO:O	2.17	0.45
38:1g:46:ALA:O	38:1g:50:ILE:HG23	2.17	0.45
38:1g:144:MET:HE2	38:1g:144:MET:HB3	1.90	0.45
1:2A:130:C:H4'	1:2A:1349:A:H4'	1.98	0.45
1:2A:863:A:P	12:2Q:22:LYS:HG3	2.57	0.45
1:2A:1153:C:OP2	60:2A:3732:HOH:O	2.21	0.45
1:2A:2301:C:H2'	1:2A:2302:G:H8	1.81	0.45
3:2D:97:TYR:HB2	3:2D:101:GLU:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:86:LYS:N	11:2P:117:GLU:O	2.50	0.45
32:2a:1146:A:H2'	32:2a:1147:C:O4'	2.16	0.45
32:2a:1147:C:H1'	40:2i:16:ARG:HH21	1.82	0.45
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.52	0.45
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.17	0.45
34:2c:50:ALA:HB1	34:2c:70:VAL:HG13	1.99	0.45
35:2d:61:LYS:HE3	35:2d:61:LYS:HB3	1.65	0.45
1:1A:579:G:H2'	1:1A:580:C:H6	1.81	0.45
1:1A:796:C:H2'	1:1A:797:C:C6	2.52	0.45
1:1A:896:A:N1	12:1Q:60:ARG:NH2	2.65	0.45
1:1A:1779:U:H2'	60:1A:4203:HOH:O	2.17	0.45
1:1A:2140:C:H2'	1:1A:2141:G:C8	2.51	0.45
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.77	0.45
44:1m:3:ARG:HD2	44:1m:9:ILE:HG12	1.98	0.45
50:1s:51:VAL:HG21	50:1s:71:LEU:O	2.16	0.45
1:2A:30:G:H2'	1:2A:31:C:C6	2.52	0.45
1:2A:526:A:OP1	60:2A:3751:HOH:O	2.20	0.45
1:2A:627:A:N7	11:2P:84:ASN:ND2	2.59	0.45
1:2A:1665:A:H2'	1:2A:1666:G:O4'	2.16	0.45
1:2A:2121:G:H1	1:2A:2177:C:N4	2.15	0.45
5:2F:69:HIS:HB3	56:2z:13:PRO:HG3	1.98	0.45
21:2Z:3:TYR:O	21:2Z:57:ILE:HA	2.17	0.45
32:2a:784:C:H2'	32:2a:785:G:C8	2.51	0.45
35:2d:132:ARG:HH11	35:2d:132:ARG:HB3	1.82	0.45
44:2m:10:PRO:HG2	44:2m:13:LYS:HD2	1.99	0.45
1:1A:1377:G:H2'	60:1A:4306:HOH:O	2.16	0.45
2:1B:28:C:H2'	2:1B:29:A:O4'	2.17	0.45
5:1F:101:LEU:HB3	5:1F:106:ARG:HD2	1.98	0.45
5:1F:148:LEU:HD13	5:1F:154:VAL:HG21	1.99	0.45
5:1F:153:SER:HB2	5:1F:190:GLU:H	1.82	0.45
32:1a:36:C:O2'	43:1l:117:ARG:NH2	2.50	0.45
32:1a:437:U:O2'	35:1d:125:HIS:HE1	2.00	0.45
32:1a:606:G:N2	32:1a:631:G:N7	2.65	0.45
1:2A:298:G:H5"	1:2A:299:A:OP1	2.17	0.45
1:2A:1766:U:H2'	1:2A:1767:C:H6	1.81	0.45
1:2A:2293:C:H2'	1:2A:2294:C:C6	2.52	0.45
23:21:76:ARG:HH11	23:21:97:LEU:HB3	1.81	0.45
32:2a:358:U:H2'	32:2a:359:U:H6	1.79	0.45
33:2b:24:TRP:HB3	33:2b:40:HIS:CE1	2.52	0.45
34:2c:18:TRP:CD1	45:2n:54:PRO:HA	2.52	0.45
35:2d:163:GLU:O	35:2d:166:LYS:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:205:GLU:OE2	36:2e:100:VAL:HG12	2.17	0.45
39:2h:120:THR:HG1	39:2h:123:GLU:HG3	1.82	0.45
42:2k:29:ILE:HG23	42:2k:44:SER:HB3	1.98	0.45
44:2m:22:ILE:O	44:2m:24:GLY:HA2	2.16	0.45
1:1A:1669:A:H5"	1:1A:2550:G:OP1	2.17	0.45
2:1B:90:A:N7	2:1B:91:C:H1'	2.32	0.45
4:1E:28:ALA:HB3	4:1E:93:VAL:CG1	2.47	0.45
12:1Q:2:LEU:HD22	12:1Q:69:PHE:CE1	2.52	0.45
12:1Q:136:ALA:HB1	21:1Z:52:SER:HB2	1.98	0.45
30:18:62:LEU:HB3	30:18:65:GLU:CG	2.47	0.45
32:1a:165:C:H2'	32:1a:166:G:H8	1.80	0.45
32:1a:272:C:H2'	32:1a:273:A:C8	2.52	0.45
32:1a:501:C:H2'	32:1a:502:G:C8	2.50	0.45
32:1a:537:G:H5"	43:1l:113:ARG:NH1	2.32	0.45
32:1a:687:A:H4'	32:1a:688:G:O5'	2.17	0.45
32:1a:1118:C:OP1	40:1i:9:ARG:HD2	2.17	0.45
36:1e:152:ARG:HA	39:1h:64:LYS:NZ	2.32	0.45
41:1j:75:ILE:O	41:1j:77:PRO:HD3	2.17	0.45
42:1k:84:VAL:HG12	42:1k:109:VAL:O	2.17	0.45
45:1n:4:LYS:HA	45:1n:7:ILE:HG23	1.98	0.45
1:2A:839:U:H2'	1:2A:840:C:C6	2.51	0.45
1:2A:1028:A:H2'	1:2A:1029:A:C8	2.52	0.45
1:2A:1340:U:H4'	1:2A:1341:U:OP2	2.17	0.45
1:2A:1423:G:OP1	1:2A:1492:G:O2'	2.35	0.45
1:2A:2166:G:N7	1:2A:2168:G:N2	2.65	0.45
1:2A:2354:G:OP1	22:20:32:ARG:NH2	2.50	0.45
13:2R:33:ARG:HA	13:2R:114:VAL:O	2.17	0.45
32:2a:130:A:O2'	32:2a:131:C:O5'	2.30	0.45
32:2a:160:A:H2'	32:2a:161:A:O4'	2.16	0.45
32:2a:652:U:O2'	32:2a:653:A:OP2	2.34	0.45
32:2a:684:A:H2'	32:2a:685:G:C8	2.51	0.45
32:2a:1237:C:H2'	32:2a:1336:C:C5	2.52	0.45
36:2e:42:GLY:HA2	36:2e:65:ASN:O	2.16	0.45
1:1A:8:A:H2'	1:1A:9:U:C6	2.52	0.44
1:1A:1179:C:H2'	1:1A:1180:C:C6	2.52	0.44
1:1A:1405:U:H2'	1:1A:1406:U:H6	1.79	0.44
1:1A:1632:A:OP2	60:1A:3862:HOH:O	2.21	0.44
6:1G:14:GLU:O	6:1G:17:PRO:HD2	2.17	0.44
19:1X:94:GLY:HA3	19:1X:95:LEU:HA	1.43	0.44
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.53	0.44
36:1e:80:ILE:HD13	39:1h:104:ARG:HH21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1k:27:ASN:OD1	42:1k:28:THR:N	2.49	0.44
55:1y:38:A:H2'	55:1y:39:PSU:O4'	2.17	0.44
1:2A:27:G:C4	1:2A:512:G:N2	2.85	0.44
1:2A:263:C:H2'	1:2A:264:C:O4'	2.17	0.44
1:2A:784:A:N6	3:2D:229:VAL:HG11	2.32	0.44
1:2A:1629:U:H2'	1:2A:1630:G:C8	2.52	0.44
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.52	0.44
1:2A:2733:A:N1	4:2E:203:LYS:HA	2.32	0.44
10:2O:1:MET:HE3	10:2O:32:TYR:CE1	2.52	0.44
19:2X:68:ARG:HE	19:2X:68:ARG:HB3	1.51	0.44
21:2Z:5:LEU:HD23	21:2Z:59:LEU:HD22	1.98	0.44
21:2Z:54:HIS:CG	21:2Z:101:PRO:HG3	2.52	0.44
32:2a:139:G:H2'	32:2a:140:A:C8	2.53	0.44
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.97	0.44
44:2m:54:VAL:HA	44:2m:57:ARG:HB3	1.99	0.44
1:1A:272:G:O2'	1:1A:421:U:OP2	2.31	0.44
1:1A:1054:A:H2'	1:1A:1055:G:O4'	2.17	0.44
1:1A:1664:A:H2	10:1O:1:MET:HE1	1.83	0.44
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.52	0.44
1:1A:2721:A:H2'	1:1A:2722:G:O4'	2.17	0.44
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.52	0.44
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.58	0.44
21:1Z:52:SER:OG	21:1Z:53:ILE:N	2.50	0.44
32:1a:1009:G:N2	32:1a:1021:G:O4'	2.50	0.44
32:1a:1226:C:P	44:1m:91:ARG:HH12	2.40	0.44
35:1d:23:GLY:HA3	35:1d:112:VAL:HG12	2.00	0.44
35:1d:43:HIS:HA	35:1d:46:LYS:HD2	1.99	0.44
54:1w:124:ALA:O	54:1w:128:PHE:N	2.51	0.44
1:2A:200:U:O2	1:2A:386:G:N2	2.50	0.44
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.52	0.44
1:2A:2206:G:H5"	1:2A:2207:G:N7	2.32	0.44
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.52	0.44
8:2I:26:ALA:O	8:2I:31:LEU:HB2	2.17	0.44
9:2N:36:GLY:HA2	9:2N:38:HIS:CE1	2.52	0.44
20:2Y:36:ALA:HB1	20:2Y:66:PRO:HB2	2.00	0.44
32:2a:123:C:OP1	32:2a:311:C:O2'	2.35	0.44
32:2a:596:C:H2'	32:2a:597:G:O4'	2.17	0.44
32:2a:984:C:H42	32:2a:1221:G:H1	1.64	0.44
32:2a:1179:A:O3'	40:2i:103:THR:OG1	2.35	0.44
32:2a:1260:C:OP1	32:2a:1284:C:O2'	2.33	0.44
32:2a:1335:C:H3'	32:2a:1336:C:H5'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1530:G:HO2'	32:2a:1531:A:P	2.40	0.44
41:2j:65:LEU:HD13	45:2n:56:VAL:HG22	1.99	0.44
44:2m:34:LEU:HD13	44:2m:41:PRO:HA	1.98	0.44
51:2t:10:LEU:HD23	51:2t:12:ALA:HB2	1.99	0.44
54:2w:146:ASP:OD1	54:2w:147:SER:N	2.50	0.44
1:1A:270:A:H1'	1:1A:370:G:C2	2.52	0.44
1:1A:415:A:H2'	1:1A:416:C:C6	2.52	0.44
1:1A:877:U:H2'	1:1A:878:A:H5"	2.00	0.44
1:1A:882:G:C2	1:1A:883:G:H1'	2.52	0.44
6:1G:16:ARG:NH2	6:1G:28:VAL:HG22	2.32	0.44
10:1O:80:ASP:OD1	15:1T:64:ARG:NH2	2.51	0.44
17:1V:98:GLU:CD	17:1V:100:ARG:HH11	2.25	0.44
32:1a:64:G:H4'	32:1a:65:U:H5"	1.98	0.44
32:1a:304:U:H2'	32:1a:305:G:C8	2.52	0.44
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.17	0.44
32:1a:1057:G:H2'	32:1a:1058:G:O4'	2.18	0.44
35:1d:8:VAL:HA	35:1d:11:LEU:HD13	1.97	0.44
40:1i:19:LEU:HG	40:1i:59:PHE:HB3	1.98	0.44
55:1x:50:U:H2'	55:1x:51:U:C6	2.53	0.44
1:2A:195:A:H61	1:2A:198:C:H3'	1.82	0.44
1:2A:401:A:H2'	1:2A:402:A:O4'	2.18	0.44
1:2A:773:U:OP1	60:2A:3754:HOH:O	2.21	0.44
1:2A:816:C:O2'	1:2A:932:G:O6	2.34	0.44
1:2A:1152:C:H4'	16:2U:77:SER:HA	1.99	0.44
1:2A:1283:G:H22	1:2A:1286:A:H5'	1.82	0.44
1:2A:1580:A:H8	1:2A:1580:A:OP2	1.99	0.44
1:2A:1959:G:H2'	1:2A:1960:A:O4'	2.17	0.44
1:2A:2100:G:H1	1:2A:2189:U:H3	1.66	0.44
11:2P:59:LEU:HD11	30:28:10:ALA:HA	1.98	0.44
32:2a:900:A:H2'	32:2a:901:A:C8	2.52	0.44
53:2v:16:U:H2'	53:2v:17:U:O4'	2.18	0.44
55:2y:51:U:H2'	55:2y:52:G:H8	1.82	0.44
1:1A:904:C:H2'	1:1A:905:U:C6	2.52	0.44
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.18	0.44
5:1F:7:TYR:CD2	5:1F:24:LEU:HB2	2.51	0.44
6:1G:82:LEU:HD11	6:1G:88:ILE:HD13	1.99	0.44
25:13:43:ILE:O	25:13:47:VAL:HG23	2.18	0.44
32:1a:834:C:H2'	32:1a:835:U:C6	2.52	0.44
32:1a:959:A:O2'	32:1a:984:C:O2'	2.24	0.44
32:1a:1316:G:H4'	45:1n:18:VAL:CG1	2.48	0.44
35:1d:111:ALA:HA	35:1d:116:GLN:HE21	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:35:ALA:HB1	37:1f:65:VAL:HB	2.00	0.44
1:2A:265:A:C8	1:2A:266:G:H1'	2.52	0.44
1:2A:265:A:H1'	1:2A:266:G:O4'	2.17	0.44
1:2A:1364:G:OP2	23:21:3:LYS:HB2	2.18	0.44
1:2A:1834:U:H4'	1:2A:1969:A:C6	2.52	0.44
1:2A:2114:A:N3	1:2A:2168:G:H1'	2.32	0.44
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.82	0.44
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.50	0.44
15:2T:122:ASP:OD2	32:2a:1442(A):G:O2'	2.36	0.44
32:2a:448:A:P	32:2a:485:G:H22	2.40	0.44
32:2a:818:G:O2'	32:2a:819:A:H5'	2.17	0.44
32:2a:1162:C:N4	32:2a:1174:G:H1	2.15	0.44
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.33	0.44
42:2k:91:ARG:HE	42:2k:91:ARG:HB3	1.50	0.44
44:2m:32:GLU:O	44:2m:36:LYS:N	2.33	0.44
47:2p:43:LYS:HG2	47:2p:48:TRP:CD2	2.52	0.44
48:2q:7:THR:HG23	48:2q:58:GLU:HG2	2.00	0.44
54:2w:307:PHE:CZ	54:2w:328:LEU:HD11	2.53	0.44
1:1A:679:C:H2'	1:1A:680:G:H8	1.83	0.44
1:1A:1225:G:OP1	17:1V:69:LYS:NZ	2.42	0.44
7:1H:9:ILE:HD12	7:1H:50:VAL:HG12	2.00	0.44
26:14:50:VAL:HG11	44:1m:64:TRP:C	2.43	0.44
32:1a:472:A:H5"	47:1p:80:PHE:HB3	2.00	0.44
40:1i:70:LYS:O	40:1i:74:ILE:HG13	2.18	0.44
1:2A:271(P):C:H2'	1:2A:271(Q):G:C8	2.52	0.44
1:2A:862:G:OP1	12:2Q:18:LYS:NZ	2.51	0.44
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.53	0.44
1:2A:1769:G:O2'	1:2A:1958:C:OP1	2.28	0.44
1:2A:2103:C:H2'	1:2A:2104:G:O4'	2.18	0.44
4:2E:24:THR:HB	4:2E:184:VAL:HG12	1.98	0.44
16:2U:94:ASN:O	16:2U:98:LEU:HG	2.17	0.44
32:2a:335:C:O2'	32:2a:1433:A:N3	2.45	0.44
32:2a:688:G:H2'	32:2a:689:C:C6	2.53	0.44
32:2a:688:G:H2'	32:2a:689:C:H6	1.83	0.44
32:2a:1003:G:C6	32:2a:1004:A:C6	3.05	0.44
32:2a:1252:A:H2'	32:2a:1253:G:O4'	2.17	0.44
33:2b:71:VAL:HG23	33:2b:164:VAL:HA	1.99	0.44
41:2j:30:SER:HB3	41:2j:81:THR:HB	1.98	0.44
55:2y:18:G:O2'	55:2y:57:G:N2	2.45	0.44
1:1A:828:U:C5	1:1A:2247:A:H4'	2.53	0.44
1:1A:848:G:O6	1:1A:928:G:H2'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1268:A:C2	1:1A:2013:A:C4	3.06	0.44
1:1A:1952:A:N3	10:1O:22:ILE:HD12	2.33	0.44
1:1A:2577:A:H5'	27:15:3:LYS:HE3	1.99	0.44
14:1S:93:LYS:HB3	14:1S:93:LYS:HE3	1.74	0.44
21:1Z:151:HIS:C	21:1Z:153:SER:H	2.26	0.44
23:11:3:LYS:HB3	23:11:4:VAL:H	1.64	0.44
24:12:21:LEU:O	24:12:25:VAL:HG13	2.17	0.44
32:1a:1256:A:N6	32:1a:1278:U:O5'	2.50	0.44
34:1c:32:LEU:HD13	34:1c:59:ARG:HH11	1.83	0.44
39:1h:91:ARG:HB2	43:1l:7:ILE:HG21	1.98	0.44
43:1l:117:ARG:HB3	43:1l:122:THR:HB	2.00	0.44
1:2A:458:G:O2'	1:2A:469:G:O6	2.31	0.44
1:2A:668:G:H5'	1:2A:669:G:OP2	2.18	0.44
1:2A:796:C:H2'	1:2A:797:C:C6	2.52	0.44
1:2A:2106:G:H2'	1:2A:2107:C:C6	2.53	0.44
1:2A:2149:G:C2	1:2A:2150:U:H1'	2.53	0.44
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.80	0.44
4:2E:170:LEU:HB3	4:2E:184:VAL:HG22	1.99	0.44
5:2F:7:TYR:O	5:2F:21:ALA:HA	2.17	0.44
14:2S:51:ALA:HB3	14:2S:73:LEU:HB2	2.00	0.44
32:2a:1218:C:OP2	45:2n:9:LYS:NZ	2.50	0.44
32:2a:1312:G:N7	50:2s:2:PRO:HD2	2.31	0.44
32:2a:1324:A:H4'	32:2a:1362:C:H4'	1.99	0.44
33:2b:16:HIS:CD2	33:2b:204:ASN:HB3	2.53	0.44
35:2d:61:LYS:HD3	35:2d:207:TYR:OH	2.17	0.44
35:2d:111:ALA:HB2	35:2d:120:LEU:HD12	2.00	0.44
1:1A:880:G:N2	1:1A:898:C:C2	2.86	0.44
1:1A:1198:U:H2'	1:1A:1199:U:C6	2.53	0.44
1:1A:1664:A:C2	10:1O:1:MET:HE1	2.52	0.44
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.35	0.44
1:1A:2199:A:H3'	1:1A:2200:C:H6	1.83	0.44
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.18	0.44
1:1A:2820:A:O2'	1:1A:2821:A:OP1	2.31	0.44
3:1D:146:GLU:HG2	3:1D:152:GLY:C	2.43	0.44
3:1D:232:PRO:O	60:1D:401:HOH:O	2.21	0.44
5:1F:107:LYS:HB3	5:1F:107:LYS:HE2	1.70	0.44
6:1G:145:THR:OG1	6:1G:148:MET:HG2	2.18	0.44
8:1I:6:LEU:C	8:1I:7:GLU:HG2	2.43	0.44
26:14:15:ILE:HG13	26:14:21:VAL:HG22	1.99	0.44
32:1a:236:G:H5"	48:1q:42:TYR:OH	2.17	0.44
32:1a:404:U:H2'	32:1a:405:U:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:600:C:H4'	39:1h:128:GLY:O	2.18	0.44
32:1a:1051:C:H2'	32:1a:1052:U:C6	2.53	0.44
33:1b:101:MET:HA	33:1b:108:ILE:HG13	2.00	0.44
33:1b:118:LEU:HD22	33:1b:138:LEU:HD23	2.00	0.44
36:1e:82:VAL:HG21	36:1e:138:ALA:HA	1.99	0.44
47:1p:26:ARG:HG3	47:1p:27:LYS:N	2.33	0.44
1:2A:218:A:C2	1:2A:235:U:H4'	2.53	0.44
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.83	0.44
1:2A:372:G:O2'	1:2A:400:G:O6	2.30	0.44
1:2A:2191:G:H2'	1:2A:2192:G:O4'	2.18	0.44
11:2P:6:LEU:HD23	11:2P:6:LEU:HA	1.81	0.44
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.99	0.44
21:2Z:9:TYR:CE1	21:2Z:61:LEU:HD23	2.52	0.44
32:2a:646:U:H2'	32:2a:647:C:C6	2.53	0.44
32:2a:1048:G:N2	32:2a:1214:C:O2	2.48	0.44
32:2a:1244:C:H2'	32:2a:1245:A:C8	2.52	0.44
32:2a:1291:G:HO2'	40:2i:38:GLN:HE21	1.57	0.44
32:2a:1452:C:O2'	32:2a:1456:G:H5"	2.17	0.44
35:2d:19:LEU:HD22	35:2d:19:LEU:HA	1.83	0.44
35:2d:78:LEU:HA	35:2d:78:LEU:HD23	1.76	0.44
50:2s:61:TYR:CE2	50:2s:63:THR:HG23	2.53	0.44
54:2w:216:GLU:HB2	54:2w:245:PRO:HD3	1.99	0.44
1:1A:207:A:H2'	1:1A:208:C:O4'	2.17	0.44
1:1A:2771:C:H2'	1:1A:2772:C:C6	2.53	0.44
3:1D:145:VAL:HG11	3:1D:175:LEU:HD11	2.00	0.44
10:1O:78:ARG:NE	15:1T:73:GLU:OE1	2.49	0.44
32:1a:502:G:C2	32:1a:503:C:C2	3.06	0.44
32:1a:924:C:H2'	32:1a:925:G:C8	2.53	0.44
32:1a:1239:A:H62	32:1a:1299:A:H61	1.65	0.44
32:1a:1525:G:P	42:1k:120:ARG:HH22	2.41	0.44
35:1d:100:ARG:NH1	35:1d:137:SER:OG	2.51	0.44
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.49	0.44
1:2A:2494:G:OP2	60:2A:3759:HOH:O	2.21	0.44
1:2A:2869:G:H2'	1:2A:2870:C:H6	1.82	0.44
2:2B:22:U:H2'	2:2B:23:G:C8	2.52	0.44
7:2H:15:VAL:HA	7:2H:27:LYS:O	2.18	0.44
9:2N:138:LEU:HD23	9:2N:138:LEU:HA	1.87	0.44
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	2.00	0.44
11:2P:63:PRO:HB2	30:28:30:ARG:NH2	2.33	0.44
14:2S:99:LYS:O	14:2S:102:ALA:N	2.49	0.44
32:2a:608:A:H2'	32:2a:609:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:619:U:O2	35:2d:133:VAL:HA	2.17	0.44
32:2a:1263:C:N4	32:2a:1271:G:O6	2.51	0.44
32:2a:1343:G:H2'	32:2a:1344:C:C6	2.53	0.44
34:2c:36:ASP:OD1	34:2c:59:ARG:NH2	2.31	0.44
37:2f:30:LEU:H	37:2f:30:LEU:HG	1.34	0.44
44:2m:53:VAL:O	44:2m:57:ARG:N	2.44	0.44
1:1A:639:U:H2'	1:1A:640:C:C6	2.53	0.44
1:1A:768:G:O2'	1:1A:1379:A:N1	2.46	0.44
1:1A:878:A:H3'	1:1A:879:G:H8	1.83	0.44
1:1A:1550:C:H2'	1:1A:1551:C:H6	1.82	0.44
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.99	0.44
16:1U:76:TYR:CE2	16:1U:80:ILE:HG13	2.53	0.44
32:1a:250:A:H4'	32:1a:251:G:O5'	2.18	0.44
32:1a:600:C:H2'	32:1a:601:C:H6	1.83	0.44
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.18	0.44
33:1b:82:ARG:HG3	33:1b:92:TYR:CZ	2.52	0.44
35:1d:190:ASP:O	35:1d:193:ASP:HB2	2.18	0.44
40:1i:31:GLN:HG3	40:1i:36:TYR:HB2	2.00	0.44
1:2A:322:A:H5'	1:2A:340:A:H1'	2.00	0.44
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.79	0.44
3:2D:70:TRP:HB3	3:2D:190:TYR:CZ	2.53	0.44
7:2H:117:PRO:HG3	7:2H:123:PHE:CD2	2.53	0.44
8:2I:105:HIS:O	8:2I:107:VAL:N	2.48	0.44
11:2P:52:GLU:OE1	11:2P:55:ARG:NE	2.31	0.44
18:2W:12:ILE:O	18:2W:101:SER:OG	2.30	0.44
21:2Z:151:HIS:HA	21:2Z:170:THR:HA	2.00	0.44
32:2a:255:G:H2'	32:2a:256:U:H6	1.83	0.44
32:2a:664:G:P	49:2r:64:ARG:HH21	2.41	0.44
32:2a:692:U:O4	42:2k:53:SER:HA	2.18	0.44
32:2a:1095:U:OP1	32:2a:1108:G:N1	2.44	0.44
41:2j:31:GLY:O	41:2j:81:THR:HG21	2.17	0.44
51:2t:40:ALA:HB2	51:2t:55:ILE:HG22	2.00	0.44
1:1A:821:A:H2'	1:1A:946:G:H5"	1.99	0.43
1:1A:1420:U:O2'	1:1A:1421:G:OP1	2.32	0.43
17:1V:30:GLY:N	17:1V:61:VAL:O	2.40	0.43
32:1a:33:A:N3	43:1l:32:PHE:HE2	2.16	0.43
32:1a:342:C:H2'	32:1a:347:G:N2	2.33	0.43
32:1a:826:C:H4'	39:1h:12:ARG:HD3	1.99	0.43
32:1a:1146:A:H2'	32:1a:1147:C:O4'	2.17	0.43
32:1a:1168:A:H8	32:1a:1168:A:OP1	2.00	0.43
32:1a:1226:C:H4'	50:1s:80:TYR:CZ	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1387:G:H2'	32:1a:1388:C:C6	2.53	0.43
33:1b:21:ARG:HB2	33:1b:22:LYS:H	1.68	0.43
33:1b:27:LYS:HB2	33:1b:194:PRO:HD2	1.98	0.43
40:1i:5:TYR:HA	40:1i:17:VAL:O	2.17	0.43
43:1l:7:ILE:HA	43:1l:7:ILE:HD13	1.84	0.43
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	2.00	0.43
54:1w:206:GLU:HB3	54:1w:207:GLU:H	1.59	0.43
1:2A:121:G:H5"	1:2A:149:A:O4'	2.18	0.43
1:2A:570:G:H2'	1:2A:2030:A:C5	2.53	0.43
1:2A:589:C:H2'	1:2A:590:A:C8	2.53	0.43
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.53	0.43
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.35	0.43
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.52	0.43
1:2A:2722:G:H2'	1:2A:2723:C:C6	2.53	0.43
2:2B:84:C:OP1	25:23:15:TYR:OH	2.34	0.43
4:2E:52:LEU:HB3	4:2E:76:ARG:HD3	2.00	0.43
6:2G:61:ALA:HB2	6:2G:68:PRO:HD3	2.00	0.43
6:2G:71:THR:OG1	6:2G:89:GLY:HA3	2.18	0.43
8:2I:38:LEU:H	8:2I:38:LEU:HD12	1.83	0.43
21:2Z:54:HIS:ND1	21:2Z:101:PRO:HG3	2.33	0.43
21:2Z:58:VAL:HA	21:2Z:67:LEU:O	2.18	0.43
32:2a:1069:C:O2'	32:2a:1192:C:O2	2.29	0.43
33:2b:73:THR:HG21	33:2b:97:TRP:H	1.83	0.43
39:2h:4:ASP:HB3	39:2h:7:ALA:HB3	1.99	0.43
40:2i:77:ILE:O	40:2i:81:ILE:HG12	2.18	0.43
45:2n:6:LEU:HD23	45:2n:6:LEU:HA	1.87	0.43
50:2s:70:LYS:H	50:2s:73:GLU:HG3	1.83	0.43
51:2t:39:LYS:HB2	51:2t:39:LYS:HE3	1.80	0.43
54:2w:184:PRO:HG2	54:2w:193:HIS:CD2	2.52	0.43
1:1A:1338:G:O2'	1:1A:1393:A:N1	2.44	0.43
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.17	0.43
4:1E:51:PHE:HB3	4:1E:77:ILE:HG22	2.00	0.43
6:1G:39:ILE:HB	6:1G:92:VAL:HG12	2.00	0.43
13:1R:24:GLN:HB3	13:1R:44:LEU:HD22	1.99	0.43
17:1V:24:LYS:HE2	17:1V:24:LYS:HB3	1.83	0.43
32:1a:597:G:OP2	60:1a:1812:HOH:O	2.21	0.43
32:1a:919:A:O2'	32:1a:920:U:H5'	2.18	0.43
34:1c:91:LEU:O	34:1c:95:THR:HG22	2.19	0.43
50:1s:49:ILE:HD13	50:1s:62:ILE:HD13	2.01	0.43
55:1y:36:A:H2'	55:1y:37:MIA:O4'	2.19	0.43
1:2A:288:C:H2'	1:2A:289:A:C8	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:658:C:H2'	1:2A:659:C:C6	2.53	0.43
1:2A:862:G:H2'	1:2A:863:A:O4'	2.18	0.43
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.53	0.43
1:2A:2307:G:H8	1:2A:2307:G:OP1	2.01	0.43
3:2D:164:GLN:CD	3:2D:176:ARG:HH22	2.26	0.43
4:2E:21:VAL:HG11	4:2E:173:VAL:HG21	2.00	0.43
4:2E:56:PRO:HG3	4:2E:74:PRO:HG2	2.00	0.43
10:2O:73:ASP:CG	15:2T:32:TYR:HH	2.25	0.43
17:2V:50:PRO:HG2	17:2V:51:VAL:HG23	1.99	0.43
24:22:63:VAL:O	24:22:66:GLU:HG2	2.18	0.43
32:2a:300:A:H2'	32:2a:301:G:O4'	2.17	0.43
32:2a:1273:G:H5'	32:2a:1274:G:OP2	2.18	0.43
32:2a:1380:U:C4	38:2g:3:ARG:HG2	2.53	0.43
33:2b:47:THR:HA	33:2b:202:PRO:HG2	1.99	0.43
33:2b:186:ALA:HB3	33:2b:197:VAL:HG11	2.00	0.43
36:2e:68:GLU:HG2	36:2e:69:VAL:N	2.33	0.43
37:2f:41:GLU:CD	49:2r:35:ARG:HH22	2.26	0.43
40:2i:37:PHE:CD1	40:2i:70:LYS:HD3	2.52	0.43
40:2i:49:PRO:O	40:2i:53:VAL:HB	2.19	0.43
42:2k:86:GLY:N	42:2k:112:THR:HG22	2.28	0.43
54:2w:213:ASN:HB3	54:2w:216:GLU:HG2	1.99	0.43
1:1A:539:G:H2'	1:1A:540:C:H6	1.82	0.43
1:1A:945:A:N7	60:1A:3952:HOH:O	2.37	0.43
1:1A:1489:U:O2'	1:1A:1490:A:H8	2.01	0.43
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.32	0.43
1:1A:2848:G:C8	15:1T:97:ALA:HB2	2.53	0.43
14:1S:27:SER:HA	14:1S:88:ASP:HB3	2.00	0.43
20:1Y:79:CYS:SG	20:1Y:81:LYS:HG3	2.58	0.43
32:1a:69:G:H2'	32:1a:70:G:H8	1.83	0.43
32:1a:430:A:H4'	35:1d:7:PRO:HG3	1.99	0.43
35:1d:150:GLU:CD	35:1d:151:LYS:H	2.21	0.43
48:1q:90:ILE:HD13	48:1q:90:ILE:HA	1.87	0.43
54:1w:216:GLU:HB2	54:1w:245:PRO:CD	2.48	0.43
55:1y:32:PSU:C2	55:1y:33:U:H5	2.36	0.43
1:2A:945:A:C4	1:2A:2448:A:C2	3.07	0.43
1:2A:1912:A:C8	1:2A:1918:A:C2	3.06	0.43
1:2A:2887:U:H2'	1:2A:2888:C:H6	1.84	0.43
3:2D:109:ASP:HB2	3:2D:197:GLY:HA2	1.98	0.43
5:2F:36:VAL:O	5:2F:40:GLN:HG3	2.18	0.43
15:2T:107:ASP:O	15:2T:111:ARG:HG3	2.18	0.43
17:2V:16:PRO:HA	17:2V:96:ILE:HG22	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:369:C:OP2	32:2a:388:G:N2	2.47	0.43
32:2a:828:A:H2'	32:2a:829:G:O4'	2.19	0.43
45:2n:53:LEU:HD23	45:2n:53:LEU:HA	1.87	0.43
55:2y:55:PSU:N3	55:2y:57:G:H5"	2.32	0.43
1:1A:250:G:P	30:18:13:ARG:HH22	2.41	0.43
1:1A:449:A:N7	60:1A:3910:HOH:O	2.36	0.43
1:1A:643:A:N1	1:1A:2369:A:O2'	2.50	0.43
1:1A:883:G:H21	1:1A:884:C:H41	1.65	0.43
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.19	0.43
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.18	0.43
11:1P:1:MET:HE2	11:1P:6:LEU:HD23	1.99	0.43
11:1P:138:LEU:HD12	11:1P:138:LEU:HA	1.85	0.43
18:1W:36:LEU:HD11	18:1W:47:VAL:HG12	2.00	0.43
19:1X:12:VAL:HG21	19:1X:27:THR:HG22	2.00	0.43
32:1a:438:G:O2'	32:1a:494:U:O4	2.32	0.43
32:1a:455:C:N4	32:1a:476:G:H1	2.15	0.43
32:1a:1029:C:N4	32:1a:1030:C:H41	2.15	0.43
32:1a:1166:G:H5'	32:1a:1168:A:OP2	2.17	0.43
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.34	0.43
32:1a:1329:A:H5"	44:1m:26:GLY:N	2.33	0.43
35:1d:155:LEU:HD13	35:1d:156:GLU:N	2.33	0.43
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.51	0.43
41:1j:37:PRO:HA	41:1j:72:VAL:HG13	1.99	0.43
1:2A:463:G:N2	1:2A:466:A:OP2	2.40	0.43
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.53	0.43
2:2B:112:U:H2'	2:2B:113:G:C8	2.54	0.43
13:2R:52:ILE:HD11	13:2R:116:LEU:HD22	2.00	0.43
32:2a:1316:G:N2	32:2a:1318:A:H3'	2.33	0.43
32:2a:1360:A:H8	32:2a:1360:A:OP1	2.02	0.43
33:2b:93:VAL:HG21	33:2b:97:TRP:CD1	2.53	0.43
33:2b:158:LEU:HD21	33:2b:180:LEU:HD23	2.01	0.43
37:2f:46:ARG:NH1	37:2f:47:ARG:H	2.16	0.43
38:2g:29:LYS:O	38:2g:105:VAL:HG11	2.17	0.43
1:1A:196:A:C4	1:1A:805:G:C6	3.06	0.43
1:1A:2440:C:O2'	60:1A:3861:HOH:O	2.21	0.43
2:1B:48:A:H2'	2:1B:49:C:C6	2.53	0.43
2:1B:77:U:P	21:1Z:19:ARG:HH22	2.41	0.43
7:1H:71:LEU:HD23	7:1H:71:LEU:HA	1.82	0.43
10:1O:122:LEU:HD13	15:1T:72:VAL:HG11	1.99	0.43
14:1S:35:ILE:HG12	14:1S:101:LEU:HD12	2.00	0.43
14:1S:52:SER:HB2	14:1S:55:ALA:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:4:GLY:O	15:1T:8:LYS:HG2	2.19	0.43
32:1a:486:U:H2'	32:1a:487:A:H8	1.83	0.43
32:1a:973:G:H3'	32:1a:974:A:H5"	2.01	0.43
32:1a:1052:U:O4	32:1a:1200:C:O2'	2.23	0.43
32:1a:1304:G:OP1	52:1u:2:GLY:N	2.52	0.43
33:1b:27:LYS:O	33:1b:194:PRO:HG2	2.17	0.43
34:1c:193:TYR:HE1	34:1c:196:LEU:HD11	1.84	0.43
44:1m:23:TYR:HA	44:1m:24:GLY:HA2	1.59	0.43
50:1s:11:VAL:HG11	50:1s:16:LEU:HD13	2.01	0.43
50:1s:27:GLU:HA	50:1s:28:LYS:HA	1.72	0.43
1:2A:755:C:H2'	1:2A:756:C:H6	1.83	0.43
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.19	0.43
4:2E:103:ASP:OD2	4:2E:168:MET:HE3	2.19	0.43
5:2F:34:TRP:NE1	11:2P:8:PRO:HD3	2.33	0.43
12:2Q:21:THR:CG2	12:2Q:101:ARG:HB2	2.49	0.43
12:2Q:111:GLU:O	12:2Q:115:MET:HG3	2.18	0.43
32:2a:544:G:P	35:2d:62:GLN:HE21	2.41	0.43
32:2a:959:A:N3	32:2a:985:C:H1'	2.33	0.43
32:2a:971:G:OP1	32:2a:972:C:H5"	2.18	0.43
32:2a:972:C:OP2	41:2j:57:LYS:HD3	2.18	0.43
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.83	0.43
32:2a:1120:G:H1	32:2a:1153:C:H42	1.66	0.43
32:2a:1120:G:H2'	32:2a:1121:U:C6	2.54	0.43
32:2a:1490:C:O2'	32:2a:1491:G:H5'	2.18	0.43
33:2b:163:PHE:HD1	33:2b:185:ILE:HB	1.83	0.43
35:2d:21:LEU:HD12	59:2d:303:SF4:S4	2.58	0.43
1:1A:583:G:OP2	16:1U:10:ARG:HD2	2.19	0.43
1:1A:1033:U:OP1	31:19:9:ARG:NH2	2.51	0.43
1:1A:2080:G:OP1	23:11:35:THR:HG21	2.18	0.43
60:1A:3981:HOH:O	11:1P:37:GLY:HA3	2.18	0.43
9:1N:97:ARG:HA	9:1N:100:GLU:HB2	2.01	0.43
23:11:89:GLU:O	23:11:93:GLU:HG2	2.19	0.43
30:18:61:LEU:C	30:18:63:PRO:HD3	2.43	0.43
32:1a:524:G:H2'	32:1a:525:C:C6	2.54	0.43
32:1a:828:A:H2'	32:1a:829:G:O4'	2.17	0.43
32:1a:909:A:H2'	32:1a:910:C:O4'	2.19	0.43
32:1a:913:A:H4'	32:1a:914:A:O5'	2.18	0.43
32:1a:920:U:H2'	32:1a:921:U:C6	2.53	0.43
32:1a:1191:A:OP1	34:1c:4:LYS:HG3	2.19	0.43
32:1a:1316:G:H4'	45:1n:18:VAL:HG11	2.01	0.43
36:1e:51:VAL:O	36:1e:55:VAL:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:73:ASP:O	39:1h:75:ARG:N	2.51	0.43
41:1j:26:ALA:HB1	41:1j:84:GLN:NE2	2.34	0.43
54:1w:243:HIS:CE1	54:1w:245:PRO:HD2	2.53	0.43
55:1y:35:A:H2'	55:1y:36:A:C8	2.54	0.43
1:2A:876:C:H2'	1:2A:877:U:O4'	2.19	0.43
1:2A:2307:G:H4'	1:2A:2308:G:O4'	2.18	0.43
1:2A:2705:A:O2'	1:2A:2852:G:OP1	2.24	0.43
2:2B:17:C:H2'	2:2B:18:G:O4'	2.19	0.43
8:2I:50:ARG:NH1	8:2I:57:ARG:HH22	2.17	0.43
12:2Q:43:THR:HG22	12:2Q:94:VAL:HG12	1.99	0.43
32:2a:35:G:O2'	43:2l:118:SER:O	2.33	0.43
32:2a:181:G:H4'	32:2a:182:U:H5'	2.01	0.43
32:2a:1202:G:H22	45:2n:46:GLU:CD	2.27	0.43
32:2a:1260:C:O5'	32:2a:1284:C:H4'	2.19	0.43
33:2b:7:VAL:O	33:2b:217:ARG:HD3	2.18	0.43
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.83	0.43
36:2e:71:LEU:HD11	36:2e:113:ALA:O	2.18	0.43
41:2j:81:THR:C	41:2j:83:GLU:H	2.26	0.43
45:2n:26:ARG:HB3	45:2n:43:CYS:SG	2.58	0.43
49:2r:31:LEU:H	49:2r:31:LEU:HD12	1.83	0.43
54:2w:274:LEU:HD11	54:2w:278:ARG:NH2	2.34	0.43
2:1B:75:G:H22	21:1Z:73:GLN:NE2	2.17	0.43
7:1H:56:SER:HB3	7:1H:61:HIS:ND1	2.33	0.43
11:1P:79:ARG:HD3	11:1P:79:ARG:HA	1.82	0.43
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	2.00	0.43
20:1Y:68:HIS:CE1	20:1Y:70:SER:HB3	2.54	0.43
28:16:44:ARG:HG2	28:16:44:ARG:HH11	1.83	0.43
32:1a:161:A:H8	32:1a:161:A:O5'	2.01	0.43
32:1a:910:C:H2'	32:1a:911:U:O4'	2.19	0.43
33:1b:59:GLU:O	33:1b:63:MET:N	2.42	0.43
33:1b:78:GLN:HE22	33:1b:94:ASN:C	2.26	0.43
36:1e:41:VAL:O	36:1e:66:MET:HA	2.18	0.43
37:1f:6:VAL:HG22	37:1f:90:VAL:HG22	2.01	0.43
44:1m:21:TYR:O	44:1m:22:ILE:HG13	2.18	0.43
49:1r:61:LYS:O	49:1r:65:ILE:HG13	2.18	0.43
54:1w:213:ASN:O	54:1w:216:GLU:HG2	2.18	0.43
1:2A:197:A:H62	1:2A:2430:A:H2'	1.83	0.43
1:2A:1153:C:H5'	16:2U:76:TYR:HE2	1.84	0.43
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.18	0.43
60:2A:3766:HOH:O	54:2w:228:GLY:N	2.51	0.43
6:2G:174:GLU:HB2	6:2G:180:PHE:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:57:ARG:HB2	8:2I:61:ARG:CZ	2.47	0.43
23:21:3:LYS:O	23:21:12:PRO:HD3	2.19	0.43
32:2a:565:U:OP2	32:2a:566:G:O2'	2.32	0.43
32:2a:767:A:H2'	32:2a:768:A:O4'	2.19	0.43
32:2a:1101:A:H4'	32:2a:1102:A:O5'	2.19	0.43
32:2a:1148:U:OP1	40:2i:7:THR:HG21	2.19	0.43
32:2a:1263:C:H1'	32:2a:1273:G:N2	2.34	0.43
34:2c:112:SER:O	34:2c:116:VAL:HG23	2.17	0.43
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	2.01	0.43
40:2i:55:ALA:HA	40:2i:58:HIS:CD2	2.54	0.43
51:2t:100:ILE:HG22	51:2t:101:GLY:H	1.84	0.43
1:1A:1174:A:H1'	1:1A:1175:U:H5"	2.00	0.43
1:1A:1186:G:OP2	60:1A:3860:HOH:O	2.21	0.43
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.53	0.43
5:1F:103:LYS:HA	5:1F:106:ARG:HD3	2.01	0.43
6:1G:41:GLN:HG3	6:1G:60:LEU:HD21	2.01	0.43
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.37	0.43
32:1a:300:A:H1'	32:1a:565:U:O2	2.19	0.43
32:1a:414:A:H2'	32:1a:415:A:O4'	2.18	0.43
32:1a:430:A:O5'	35:1d:7:PRO:HB3	2.18	0.43
32:1a:590:C:OP1	39:1h:30:ARG:N	2.36	0.43
32:1a:757:U:OP1	32:1a:822:C:O2'	2.36	0.43
32:1a:1058:G:OP1	34:1c:199:LYS:HE3	2.19	0.43
44:1m:15:VAL:O	44:1m:19:LEU:HD22	2.19	0.43
55:1y:24:G:C6	55:1y:25:C:C4	3.06	0.43
1:2A:185:U:H4'	1:2A:218:A:H4'	2.00	0.43
1:2A:324:A:H2'	1:2A:325:G:O4'	2.17	0.43
1:2A:814:C:H2'	1:2A:815:C:H6	1.83	0.43
1:2A:1446:C:H2'	1:2A:1447:G:H8	1.82	0.43
1:2A:2164:C:H3'	1:2A:2165:G:H8	1.83	0.43
1:2A:2270:G:H2'	1:2A:2271:G:O4'	2.18	0.43
1:2A:2345:G:OP2	28:26:38:LYS:NZ	2.31	0.43
1:2A:2524:G:C2	1:2A:2540:C:C2	3.07	0.43
4:2E:163:GLU:O	4:2E:165:VAL:HG23	2.19	0.43
8:2I:57:ARG:HB2	8:2I:61:ARG:NH2	2.34	0.43
14:2S:10:ARG:NE	14:2S:91:PRO:O	2.47	0.43
26:24:49:PHE:HB3	26:24:50:VAL:H	1.68	0.43
32:2a:613:C:C2	32:2a:628:G:N2	2.86	0.43
32:2a:1026:G:H5'	32:2a:1027:C:OP2	2.19	0.43
32:2a:1027:C:O2'	32:2a:1028:C:H5'	2.19	0.43
32:2a:1212:U:H5'	32:2a:1213:A:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1251:A:H2'	32:2a:1252:A:C8	2.53	0.43
32:2a:1428:A:H2'	32:2a:1429:C:O4'	2.18	0.43
32:2a:1500:A:H5"	32:2a:1508:G:H5"	2.01	0.43
35:2d:180:GLY:O	35:2d:182:LYS:HG3	2.19	0.43
40:2i:116:LYS:HA	40:2i:123:PRO:HD3	2.00	0.43
54:2w:107:ALA:HB2	54:2w:168:TYR:HA	2.01	0.43
1:1A:848:G:H2'	1:1A:849:A:C8	2.53	0.43
1:1A:933:A:OP1	25:13:24:LYS:NZ	2.51	0.43
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.54	0.43
1:1A:2059:A:O2'	5:1F:69:HIS:HD2	2.02	0.43
2:1B:78:A:C2	2:1B:100:A:C4	3.06	0.43
8:1I:2:LYS:HB3	8:1I:39:ALA:HB3	2.00	0.43
15:1T:108:ARG:NH2	15:1T:112:ARG:HD3	2.34	0.43
32:1a:7:G:H5'	32:1a:298:A:O4'	2.17	0.43
32:1a:39:G:H2'	32:1a:40:C:H6	1.83	0.43
32:1a:1073:U:H2'	32:1a:1074:G:C8	2.52	0.43
34:1c:95:THR:HG23	34:1c:96:GLY:H	1.82	0.43
44:1m:71:ARG:H	44:1m:71:ARG:HG3	1.59	0.43
55:1y:44:G:H3'	55:1y:45:U:C6	2.54	0.43
1:2A:409:C:OP1	60:2A:3736:HOH:O	2.21	0.43
1:2A:820:A:H1'	1:2A:943:U:H1'	2.00	0.43
1:2A:987:G:H2'	1:2A:988:A:O4'	2.19	0.43
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.54	0.43
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.54	0.43
1:2A:2391:G:OP2	30:28:32:LEU:HD23	2.19	0.43
1:2A:2612:C:OP2	27:25:2:ALA:N	2.52	0.43
4:2E:124:GLY:HA2	4:2E:137:HIS:O	2.19	0.43
12:2Q:135:ASP:N	12:2Q:138:ASP:OD2	2.47	0.43
28:26:34:LEU:HD23	28:26:34:LEU:HA	1.92	0.43
32:2a:644:G:H4'	39:2h:92:ARG:HH21	1.84	0.43
32:2a:728:A:H2'	32:2a:729:A:H8	1.80	0.43
32:2a:1088:G:C6	32:2a:1089:G:C5	3.06	0.43
32:2a:1256:A:H61	32:2a:1278:U:C1'	2.31	0.43
33:2b:97:TRP:HZ2	33:2b:102:LEU:HD13	1.83	0.43
34:2c:152:ILE:O	34:2c:198:VAL:HA	2.19	0.43
41:2j:63:PHE:CD1	45:2n:58:LYS:HA	2.54	0.43
47:2p:39:TYR:HD1	47:2p:49:LEU:HD12	1.84	0.43
50:2s:44:MET:O	50:2s:47:HIS:HB2	2.19	0.43
55:2y:51:U:H3	55:2y:63:G:H1	1.66	0.43
1:1A:394:A:C6	1:1A:395:U:C4	3.07	0.43
1:1A:533:G:H5'	16:1U:24:TYR:CE1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:874:G:H5”	21:1Z:175:VAL:HG11	2.00	0.43
1:1A:997:G:OP1	16:1U:92:ARG:HD2	2.19	0.43
1:1A:1090:U:O2	1:1A:1090:U:H2’	2.18	0.43
1:1A:1426:G:O6	60:1A:3863:HOH:O	2.21	0.43
1:1A:2141:G:H2’	1:1A:2142:C:O4’	2.18	0.43
7:1H:126:PRO:HB2	7:1H:127:GLU:H	1.66	0.43
10:1O:64:ARG:HG2	10:1O:83:ALA:HB3	2.00	0.43
14:1S:58:LEU:HD23	14:1S:58:LEU:HA	1.67	0.43
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	2.01	0.43
21:1Z:128:VAL:HG22	21:1Z:129:SER:O	2.17	0.43
21:1Z:139:VAL:HG22	21:1Z:155:LEU:HD22	2.00	0.43
32:1a:109:A:C6	32:1a:326:G:C6	3.07	0.43
32:1a:159:G:H8	32:1a:159:G:O5’	2.01	0.43
32:1a:259:G:H2’	32:1a:260:G:C8	2.54	0.43
32:1a:1002:G:C5	32:1a:1003:G:H1’	2.54	0.43
32:1a:1142:G:H2’	32:1a:1143:G:O4’	2.19	0.43
35:1d:15:GLU:HB3	35:1d:63:LYS:HG2	2.00	0.43
36:1e:92:LYS:N	36:1e:119:LEU:O	2.50	0.43
38:1g:78:ARG:NH1	38:1g:79:ARG:HB3	2.34	0.43
1:2A:360:G:H2’	1:2A:361:G:O4’	2.19	0.43
1:2A:492:A:H2’	1:2A:493:G:O4’	2.18	0.43
1:2A:524:U:H2’	1:2A:525:U:C6	2.54	0.43
1:2A:1361:G:N2	1:2A:1371:G:H1’	2.34	0.43
1:2A:2025:C:H2’	1:2A:2026:C:C6	2.54	0.43
1:2A:2136:C:O2’	1:2A:2137:C:O4’	2.37	0.43
1:2A:2531:A:H5’	7:2H:157:TYR:CE1	2.54	0.43
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.57	0.43
32:2a:1225:A:H5”	32:2a:1226:C:OP2	2.19	0.43
41:2j:63:PHE:HD1	45:2n:58:LYS:HA	1.84	0.43
48:2q:82:MET:HE2	48:2q:82:MET:HB3	1.83	0.43
55:2y:60:U:O2’	55:2y:61:C:H5’	2.18	0.43
1:1A:26:G:H1’	1:1A:514:A:N6	2.33	0.42
1:1A:248:G:OP1	60:1A:3864:HOH:O	2.22	0.42
1:1A:608:A:C4	1:1A:621:A:C6	3.07	0.42
1:1A:811:U:H3’	11:1P:22:GLY:HA2	2.01	0.42
1:1A:1354:A:H2’	1:1A:1355:G:O4’	2.19	0.42
1:1A:1945:G:H2’	1:1A:1946:U:C6	2.54	0.42
1:1A:2095:C:H2’	1:1A:2096:U:O4’	2.19	0.42
1:1A:2130:U:H2’	1:1A:2158:A:N1	2.34	0.42
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.52	0.42
26:14:58:ARG:O	50:1s:67:VAL:HG11	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:437:U:H5'	35:1d:155:LEU:HD11	2.01	0.42
38:1g:67:GLU:HA	38:1g:70:LYS:HD3	2.01	0.42
45:1n:3:ARG:O	45:1n:7:ILE:HG23	2.18	0.42
46:1o:82:ILE:H	46:1o:82:ILE:HG13	1.67	0.42
47:1p:19:ILE:HD11	47:1p:39:TYR:HB2	2.00	0.42
47:1p:39:TYR:O	47:1p:41:PRO:HD3	2.19	0.42
54:1w:223:ARG:HG2	54:1w:235:THR:O	2.18	0.42
54:1w:301:LYS:HG3	54:1w:315:HIS:CE1	2.54	0.42
55:1x:8:4SU:O5'	55:1x:8:4SU:H6	2.19	0.42
1:2A:680:G:H2'	1:2A:681:G:C8	2.53	0.42
1:2A:1434:A:H61	1:2A:1558:A:H62	1.67	0.42
1:2A:1495:A:OP2	60:2A:3755:HOH:O	2.21	0.42
1:2A:2246:G:H2'	1:2A:2247:A:C8	2.54	0.42
1:2A:2448:A:N1	60:2A:3856:HOH:O	2.37	0.42
1:2A:2785:C:H2'	1:2A:2786:U:O4'	2.19	0.42
5:2F:120:GLU:HB3	5:2F:122:LYS:HG2	1.99	0.42
7:2H:26:VAL:O	7:2H:79:VAL:HG11	2.18	0.42
16:2U:74:LEU:HD11	16:2U:110:VAL:HG13	2.01	0.42
18:2W:46:PHE:O	18:2W:50:VAL:HG23	2.18	0.42
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	2.00	0.42
32:2a:325:A:OP2	51:2t:70:SER:OG	2.33	0.42
32:2a:328:C:H4'	32:2a:329:A:C5'	2.49	0.42
32:2a:460:G:C6	32:2a:470:C:H5'	2.53	0.42
32:2a:528:C:H41	43:2l:49:ASN:CG	2.27	0.42
32:2a:586:C:O2'	32:2a:878:G:H4'	2.19	0.42
32:2a:1003:G:H1	32:2a:1027:C:H42	1.66	0.42
32:2a:1110:A:H2'	32:2a:1111:A:C8	2.54	0.42
39:2h:11:THR:HG23	39:2h:14:ARG:HH12	1.84	0.42
50:2s:12:ASP:HB3	50:2s:14:HIS:CE1	2.53	0.42
54:2w:213:ASN:HB3	54:2w:216:GLU:CD	2.44	0.42
1:1A:1503:U:H2'	1:1A:1504:C:C6	2.54	0.42
1:1A:2279:G:N7	22:10:14:ARG:NH1	2.67	0.42
3:1D:21:PHE:HB3	3:1D:24:ILE:HD12	2.02	0.42
7:1H:92:ILE:HD13	7:1H:92:ILE:HA	1.90	0.42
13:1R:8:ARG:HB2	13:1R:43:GLU:CD	2.44	0.42
15:1T:84:GLN:HG2	15:1T:85:LYS:HG2	2.00	0.42
20:1Y:32:PRO:C	20:1Y:34:LYS:H	2.27	0.42
34:1c:35:GLU:HB3	34:1c:59:ARG:HH22	1.84	0.42
35:1d:18:LYS:HG2	59:1d:302:SF4:S1	2.59	0.42
35:1d:31:CYS:SG	35:1d:33:MET:HB2	2.59	0.42
39:1h:25:ASP:HB3	39:1h:58:TYR:CD1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:191:A:H2'	1:2A:192:C:C6	2.54	0.42
1:2A:771:G:O6	60:2A:3739:HOH:O	2.17	0.42
1:2A:2544:G:H2'	1:2A:2545:G:O4'	2.19	0.42
1:2A:2811:G:H5'	4:2E:60:ASN:HD22	1.83	0.42
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	2.01	0.42
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.87	0.42
6:2G:121:ASN:ND2	6:2G:123:ASN:H	2.14	0.42
20:2Y:99:CYS:N	20:2Y:104:GLY:O	2.51	0.42
21:2Z:121:HIS:ND1	21:2Z:171:ILE:HA	2.34	0.42
21:2Z:182:LYS:HE2	21:2Z:183:LEU:HD23	2.01	0.42
26:24:59:PHE:CD1	26:24:60:GLN:HG2	2.54	0.42
32:2a:196:A:N3	32:2a:222:U:H1'	2.35	0.42
32:2a:948:C:OP1	44:2m:109:THR:OG1	2.37	0.42
32:2a:957:U:O2	32:2a:959:A:H8	2.02	0.42
39:2h:11:THR:HG23	39:2h:14:ARG:NH1	2.33	0.42
39:2h:30:ARG:O	39:2h:34:GLU:HG2	2.18	0.42
39:2h:51:VAL:HG11	39:2h:60:ARG:NH1	2.34	0.42
39:2h:51:VAL:HG12	39:2h:52:ASP:H	1.83	0.42
41:2j:50:ILE:HB	45:2n:41:ARG:CZ	2.49	0.42
50:2s:27:GLU:HA	50:2s:28:LYS:HA	1.68	0.42
53:2v:15:A:C2	55:2x:37:MIA:H162	2.54	0.42
54:2w:243:HIS:CD2	54:2w:245:PRO:HD2	2.54	0.42
1:1A:192:C:H2'	1:1A:193:U:H5'	2.01	0.42
1:1A:2345:G:OP2	28:16:38:LYS:HE3	2.19	0.42
3:1D:142:VAL:HG13	3:1D:191:ALA:HB1	2.00	0.42
5:1F:116:ASP:OD2	11:1P:1:MET:N	2.51	0.42
6:1G:9:ARG:O	6:1G:13:GLU:HG2	2.19	0.42
32:1a:439:A:C5	32:1a:441:A:H1'	2.55	0.42
32:1a:600:C:H2'	32:1a:601:C:C6	2.53	0.42
32:1a:639:G:H2'	32:1a:640:A:C8	2.54	0.42
32:1a:738:C:H2'	32:1a:739:C:C6	2.55	0.42
32:1a:1080:A:H5'	36:1e:14:ARG:NH2	2.34	0.42
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.20	0.42
40:1i:118:LYS:HB3	40:1i:119:ALA:H	1.69	0.42
51:1t:63:ILE:HG21	51:1t:81:LYS:HG3	2.01	0.42
55:1x:65:G:H2'	55:1x:66:U:H6	1.83	0.42
1:2A:464:U:H2'	1:2A:465:G:O4'	2.19	0.42
1:2A:1462:C:H4'	1:2A:2703:C:H5'	2.01	0.42
3:2D:127:VAL:HA	3:2D:193:VAL:HG22	2.00	0.42
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.19	0.42
16:2U:76:TYR:CZ	16:2U:80:ILE:HG13	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:28:8:LYS:HB3	30:28:12:LYS:HE3	2.01	0.42
32:2a:164:U:H2'	32:2a:165:C:H6	1.84	0.42
32:2a:227:G:H2'	32:2a:228:A:C8	2.55	0.42
32:2a:390:C:H2'	32:2a:391:G:C8	2.53	0.42
32:2a:1308:U:H5"	44:2m:98:VAL:HG23	2.01	0.42
35:2d:98:GLU:OE2	35:2d:103:ASN:ND2	2.48	0.42
36:2e:41:VAL:O	36:2e:66:MET:HA	2.19	0.42
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.35	0.42
1:1A:2749:A:OP2	1:1A:2750:A:O2'	2.34	0.42
1:1A:2833:G:H4'	1:1A:2834:G:OP2	2.18	0.42
8:1I:129:THR:HG22	8:1I:139:GLN:OE1	2.19	0.42
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.55	0.42
14:1S:39:ILE:HB	14:1S:49:VAL:HG12	2.00	0.42
18:1W:19:LEU:HB3	27:15:25:LEU:HD11	2.01	0.42
32:1a:627:G:H2'	32:1a:628:G:H8	1.83	0.42
32:1a:738:C:OP1	37:1f:2:ARG:NH1	2.52	0.42
41:1j:13:HIS:H	41:1j:13:HIS:CD2	2.37	0.42
44:1m:80:ARG:HH12	50:1s:69:HIS:CE1	2.37	0.42
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.33	0.42
54:1w:141:GLU:HB3	54:1w:163:ARG:HB2	2.00	0.42
1:2A:571:A:N6	1:2A:2499:C:O3'	2.52	0.42
1:2A:1474:C:H2'	1:2A:1475:G:H8	1.85	0.42
1:2A:1630:G:H2'	1:2A:1631:C:C6	2.54	0.42
1:2A:2113:U:H3	1:2A:2170:A:H61	1.68	0.42
3:2D:123:ALA:O	3:2D:131:LEU:HD21	2.19	0.42
14:2S:52:SER:HB2	14:2S:55:ALA:H	1.84	0.42
32:2a:8:A:C6	35:2d:209:ARG:HB2	2.54	0.42
32:2a:913:A:H4'	32:2a:914:A:O5'	2.19	0.42
32:2a:988:G:C6	32:2a:989:C:C4	3.07	0.42
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.54	0.42
34:2c:118:GLN:H	34:2c:118:GLN:HG3	1.66	0.42
37:2f:36:ARG:C	37:2f:65:VAL:HG12	2.44	0.42
38:2g:152:ALA:O	38:2g:155:ARG:NH1	2.51	0.42
1:1A:226:G:C2	1:1A:227:A:C6	3.08	0.42
1:1A:626:U:O4	11:1P:107:LYS:HE2	2.19	0.42
1:1A:1537:G:H2'	1:1A:1538:G:H8	1.84	0.42
1:1A:2063:C:C4	1:1A:2064:C:C4	3.08	0.42
1:1A:2790:A:H5'	1:1A:2893:G:H21	1.84	0.42
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.20	0.42
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.67	0.42
3:1D:147:LEU:HD12	3:1D:147:LEU:HA	1.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:150:GLY:HA2	5:1F:172:TRP:CE3	2.54	0.42
32:1a:418:C:H1'	32:1a:540:G:O2'	2.19	0.42
32:1a:652:U:O4	32:1a:752:G:O2'	2.26	0.42
32:1a:1191:A:H5"	34:1c:4:LYS:NZ	2.33	0.42
33:1b:115:LEU:HD12	33:1b:118:LEU:HD12	2.02	0.42
51:1t:67:ALA:HB2	51:1t:77:ALA:HB2	2.01	0.42
1:2A:872:A:H2'	1:2A:873:G:O4'	2.19	0.42
1:2A:1999:C:H5"	1:2A:2723:C:O2'	2.19	0.42
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.55	0.42
3:2D:147:LEU:HD11	3:2D:183:ARG:NH1	2.33	0.42
8:2I:53:ALA:HB1	8:2I:57:ARG:HH21	1.84	0.42
10:2O:17:ARG:HD3	10:2O:17:ARG:HA	1.67	0.42
15:2T:18:ASP:OD1	15:2T:18:ASP:N	2.53	0.42
32:2a:1372:U:H2'	32:2a:1373:G:O4'	2.19	0.42
33:2b:168:THR:HG21	33:2b:192:SER:HA	2.01	0.42
35:2d:57:ARG:HG2	35:2d:202:LEU:HD22	2.00	0.42
37:2f:97:PHE:HE2	49:2r:62:GLU:HG2	1.84	0.42
39:2h:86:ILE:HG21	39:2h:133:LEU:HD13	2.00	0.42
47:2p:41:PRO:O	47:2p:43:LYS:HE2	2.20	0.42
54:2w:267:MET:HE3	54:2w:267:MET:HB2	1.82	0.42
1:1A:82:G:N1	1:1A:103:A:OP2	2.41	0.42
1:1A:2741:A:H2'	1:1A:2742:C:O4'	2.20	0.42
4:1E:101:ARG:CZ	4:1E:171:GLU:HB2	2.48	0.42
7:1H:98:LEU:HG	7:1H:125:VAL:HG23	2.01	0.42
11:1P:65:ARG:HD2	30:18:25:MET:SD	2.60	0.42
13:1R:88:ARG:HD2	13:1R:89:ASP:OD1	2.19	0.42
20:1Y:107:ASP:OD1	20:1Y:107:ASP:N	2.52	0.42
32:1a:741:G:H2'	32:1a:742:G:O4'	2.20	0.42
32:1a:936:C:H2'	32:1a:937:A:O4'	2.19	0.42
32:1a:1004:A:N6	32:1a:1037:C:C2	2.88	0.42
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.19	0.42
32:1a:1519:MA6:H102	32:1a:1520:G:O2'	2.20	0.42
49:1r:74:ARG:HB3	49:1r:81:PHE:CZ	2.55	0.42
55:1y:8:4SU:H4'	55:1y:48:C:H4'	2.02	0.42
1:2A:755:C:H2'	1:2A:756:C:C6	2.53	0.42
1:2A:2186:G:C2	1:2A:2187:G:C5	3.07	0.42
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.52	0.42
3:2D:95:LEU:HD11	3:2D:105:ILE:HG12	2.01	0.42
5:2F:161:GLU:O	5:2F:165:ARG:HB2	2.19	0.42
7:2H:58:GLU:H	7:2H:58:GLU:HG2	1.67	0.42
12:2Q:8:LYS:HB3	12:2Q:8:LYS:HE2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:60:PHE:HB3	23:21:62:VAL:HG13	2.00	0.42
31:29:17:ILE:HG13	31:29:26:ILE:HD11	2.02	0.42
32:2a:187:C:O2'	51:2t:89:ARG:NH2	2.53	0.42
32:2a:676:A:H2'	32:2a:677:U:H6	1.84	0.42
32:2a:790:A:H2'	32:2a:791:G:C8	2.55	0.42
32:2a:1265:G:C2	32:2a:1271:G:C2	3.08	0.42
32:2a:1492:A:O4'	43:2l:47:LYS:HD2	2.20	0.42
33:2b:24:TRP:CD1	33:2b:24:TRP:H	2.37	0.42
33:2b:58:ILE:H	33:2b:58:ILE:HG13	1.58	0.42
37:2f:21:LEU:O	37:2f:25:ILE:HG12	2.20	0.42
54:2w:230:MEQ:HG2	56:2z:20:LEU:C	2.44	0.42
1:1A:593:G:H4'	30:18:4:MET:HE2	2.01	0.42
1:1A:1087:G:N1	1:1A:1103:A:H1'	2.34	0.42
3:1D:132:PRO:HB2	3:1D:135:PHE:HD2	1.84	0.42
6:1G:146:TYR:O	6:1G:149:VAL:HG12	2.20	0.42
14:1S:76:LYS:O	14:1S:80:LEU:HD13	2.20	0.42
32:1a:860:A:H2'	32:1a:861:G:O4'	2.20	0.42
32:1a:1069:C:O2'	32:1a:1192:C:H1'	2.19	0.42
32:1a:1217:C:H2'	32:1a:1218:C:C6	2.54	0.42
32:1a:1239:A:H4'	32:1a:1240:U:H5"	2.02	0.42
32:1a:1263:C:C2	32:1a:1273:G:N2	2.88	0.42
32:1a:1316:G:N1	32:1a:1319:A:OP2	2.35	0.42
34:1c:121:ALA:O	34:1c:125:GLU:HG2	2.19	0.42
41:1j:35:SER:HB3	41:1j:73:ASP:O	2.19	0.42
41:1j:38:ILE:HD12	41:1j:71:LEU:HD23	2.02	0.42
44:1m:86:CYS:HA	50:1s:73:GLU:O	2.20	0.42
46:1o:58:MET:O	46:1o:62:GLN:N	2.44	0.42
54:1w:198:THR:HG21	54:1w:293:ILE:HG23	2.00	0.42
54:1w:302:ILE:HA	54:1w:302:ILE:HD12	1.84	0.42
1:2A:997:G:OP2	16:2U:58:ARG:NH1	2.52	0.42
1:2A:1019:U:O2'	1:2A:1021:A:H2	2.02	0.42
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.20	0.42
1:2A:2654:A:N1	1:2A:2665:A:H5"	2.34	0.42
1:2A:2740:A:H2'	1:2A:2741:A:C8	2.55	0.42
5:2F:37:VAL:O	5:2F:41:LEU:HG	2.20	0.42
7:2H:13:LYS:HA	7:2H:15:VAL:H	1.84	0.42
32:2a:533:A:OP1	32:2a:533:A:H8	2.03	0.42
32:2a:1004:A:H1'	32:2a:1038:C:H1'	2.02	0.42
32:2a:1118:C:H1'	32:2a:1179:A:C5	2.53	0.42
32:2a:1250:A:H2	32:2a:1370:G:H1'	1.85	0.42
32:2a:1259:C:H42	32:2a:1276:G:H1	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:14:ILE:HD11	45:2n:57:ARG:HE	1.84	0.42
44:2m:33:ALA:HB1	44:2m:56:LEU:HD11	2.02	0.42
1:1A:1065:U:C4	1:1A:1066:U:C4	3.08	0.42
1:1A:1179:C:H2'	1:1A:1180:C:H6	1.84	0.42
4:1E:167:VAL:CG2	4:1E:189:PRO:HD3	2.50	0.42
5:1F:51:THR:O	5:1F:93:LYS:NZ	2.35	0.42
6:1G:54:GLU:O	6:1G:58:GLN:HG2	2.20	0.42
17:1V:97:LYS:HA	17:1V:97:LYS:HD2	1.88	0.42
17:1V:98:GLU:OE2	17:1V:100:ARG:NH1	2.52	0.42
19:1X:5:TYR:CE2	24:12:30:ARG:HB2	2.55	0.42
32:1a:340:U:H2'	32:1a:341:C:O4'	2.20	0.42
32:1a:625:G:H2'	32:1a:626:U:C6	2.55	0.42
32:1a:901:A:C5	32:1a:902:G:H1'	2.54	0.42
32:1a:962:C:H2'	32:1a:963:G:O4'	2.20	0.42
33:1b:214:ILE:H	33:1b:214:ILE:HG12	1.66	0.42
34:1c:135:LYS:HZ1	36:1e:50:GLU:HG3	1.85	0.42
40:1i:49:PRO:C	40:1i:51:ARG:H	2.28	0.42
42:1k:78:GLN:HA	42:1k:103:LEU:HD22	2.00	0.42
45:1n:8:GLU:O	45:1n:10:ALA:N	2.53	0.42
1:2A:1500:G:O2'	3:2D:100:GLY:O	2.31	0.42
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.19	0.42
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.19	0.42
1:2A:2682:U:H5'	4:2E:11:MET:O	2.19	0.42
1:2A:2752:C:OP2	7:2H:4:ILE:HD11	2.19	0.42
1:2A:2819:G:N7	60:2A:3855:HOH:O	2.36	0.42
4:2E:119:ARG:HD3	4:2E:120:TRP:NE1	2.35	0.42
13:2R:59:ASP:OD1	13:2R:59:ASP:N	2.52	0.42
32:2a:336:C:H2'	32:2a:337:C:H6	1.84	0.42
32:2a:626:U:C2	32:2a:627:G:C8	3.08	0.42
34:2c:132:ARG:HA	34:2c:135:LYS:HG2	2.01	0.42
35:2d:104:VAL:HG21	35:2d:140:VAL:HG21	2.02	0.42
40:2i:46:ALA:HA	40:2i:78:LYS:HB2	2.02	0.42
41:2j:8:LEU:CB	41:2j:16:LEU:HD21	2.49	0.42
43:2l:60:LEU:HD12	43:2l:60:LEU:HA	1.85	0.42
44:2m:14:ARG:O	44:2m:17:VAL:HG22	2.20	0.42
1:1A:768:G:C6	1:1A:769:G:C5	3.08	0.42
1:1A:1039:G:H1	1:1A:1116:C:N4	2.18	0.42
1:1A:1068:G:H3'	1:1A:1069:A:H5"	2.02	0.42
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.55	0.42
4:1E:108:SER:O	4:1E:162:ALA:HA	2.19	0.42
8:1I:84:GLY:O	8:1I:85:GLU:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:63:VAL:HA	10:1O:106:LEU:HD11	2.02	0.42
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD11	2.02	0.42
31:19:8:LYS:H	31:19:34:GLN:NE2	2.14	0.42
33:1b:19:HIS:O	33:1b:20:GLU:HG2	2.20	0.42
35:1d:165:MET:HE3	35:1d:165:MET:HB3	1.96	0.42
51:1t:93:GLU:HG3	51:1t:93:GLU:O	2.20	0.42
1:2A:448:U:H5"	60:2A:4382:HOH:O	2.20	0.42
1:2A:536:A:H5'	16:2U:53:ARG:HD3	2.02	0.42
1:2A:882:G:H1	1:2A:894:C:H42	1.68	0.42
1:2A:981:A:N1	1:2A:2027:G:O2'	2.45	0.42
1:2A:1257:C:H4'	5:2F:83:PHE:CD1	2.54	0.42
1:2A:1818:U:O4	3:2D:154:LYS:HD3	2.20	0.42
1:2A:1926:U:O2'	1:2A:1928:A:N7	2.44	0.42
1:2A:2131:G:H4'	1:2A:2132:U:H5'	2.02	0.42
1:2A:2390:U:P	30:28:35:GLN:HE22	2.41	0.42
1:2A:2636:U:H2'	1:2A:2637:U:H6	1.83	0.42
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.55	0.42
5:2F:23:ASP:C	5:2F:24:LEU:HD12	2.45	0.42
5:2F:23:ASP:O	5:2F:24:LEU:HD12	2.20	0.42
18:2W:82:LEU:HD22	18:2W:84:ARG:NH2	2.35	0.42
19:2X:4:ALA:HB1	19:2X:42:ALA:HA	2.02	0.42
30:28:59:LYS:HB2	30:28:59:LYS:HE3	1.65	0.42
32:2a:457:C:H42	32:2a:474:G:H1	1.68	0.42
32:2a:1152:A:H2'	32:2a:1153:C:H6	1.84	0.42
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.48	0.42
32:2a:1496:C:H2'	32:2a:1497:G:O4'	2.20	0.42
49:2r:22:VAL:HG23	49:2r:56:THR:HA	2.02	0.42
1:1A:285:C:H2'	1:1A:286:C:C6	2.55	0.42
1:1A:858:U:O2	1:1A:2268:A:H2'	2.20	0.42
1:1A:1088:A:H4'	1:1A:1089:G:C8	2.54	0.42
1:1A:1094:U:O2	1:1A:1096:A:H5'	2.19	0.42
1:1A:1811:G:H2'	1:1A:1812:A:O4'	2.20	0.42
1:1A:1916:A:H2'	1:1A:1917:PSU:C6	2.55	0.42
1:1A:2785:C:H2'	1:1A:2786:U:O4'	2.19	0.42
2:1B:75:G:H5'	2:1B:76:G:OP2	2.20	0.42
5:1F:40:GLN:NE2	5:1F:182:ASN:HB2	2.34	0.42
5:1F:181:LEU:HD12	5:1F:181:LEU:HA	1.78	0.42
15:1T:107:ASP:O	15:1T:111:ARG:HG3	2.20	0.42
20:1Y:35:TYR:CD2	20:1Y:69:ALA:HB3	2.55	0.42
21:1Z:23:LYS:HA	21:1Z:23:LYS:HD3	1.94	0.42
25:13:46:ASN:O	25:13:50:VAL:HG22	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:8:LYS:HE2	26:14:10:VAL:HG12	2.01	0.42
32:1a:404:U:H2'	32:1a:405:U:H6	1.85	0.42
32:1a:953:G:H2'	32:1a:954:G:O4'	2.20	0.42
32:1a:984:C:H42	32:1a:1221:G:H1	1.68	0.42
32:1a:1029:C:H5	32:1a:1030(A):G:C6	2.38	0.42
32:1a:1157:A:H5'	32:1a:1158:C:C6	2.55	0.42
32:1a:1228:C:H2'	32:1a:1229:A:H8	1.85	0.42
32:1a:1307:U:H2'	32:1a:1308:U:C6	2.55	0.42
32:1a:1342:C:O2'	40:1i:124:GLN:HG3	2.19	0.42
32:1a:1466:C:H2'	32:1a:1467:G:O4'	2.20	0.42
35:1d:3:ARG:HD3	35:1d:118:ARG:NE	2.35	0.42
35:1d:31:CYS:CB	59:1d:302:SF4:S3	3.08	0.42
43:1l:109:GLY:HA3	43:1l:121:GLY:O	2.19	0.42
51:1t:65:LYS:HA	51:1t:68:LYS:HD3	2.01	0.42
54:1w:130:MET:HE2	54:1w:328:LEU:HD12	2.00	0.42
54:1w:236:ASP:O	54:1w:258:GLN:HB2	2.19	0.42
1:2A:208:C:H2'	1:2A:209:C:C6	2.55	0.42
1:2A:483:A:O4'	20:2Y:48:ALA:HB1	2.20	0.42
1:2A:706:A:H2'	1:2A:707:G:O4'	2.20	0.42
2:2B:59:A:H2'	2:2B:60:C:O4'	2.20	0.42
6:2G:61:ALA:HA	6:2G:66:GLN:O	2.19	0.42
6:2G:68:PRO:HA	6:2G:92:VAL:HB	2.02	0.42
9:2N:85:ILE:HG21	9:2N:90:MET:HE2	2.02	0.42
10:2O:68:GLU:HB3	10:2O:78:ARG:HB3	2.01	0.42
13:2R:104:ARG:HD3	13:2R:107:ASP:OD1	2.20	0.42
14:2S:74:ALA:HB3	14:2S:108:GLY:HA3	2.02	0.42
15:2T:127:ALA:C	15:2T:129:ARG:N	2.78	0.42
23:21:44:PRO:O	23:21:46:LEU:N	2.50	0.42
25:23:46:ASN:O	25:23:50:VAL:HG22	2.20	0.42
32:2a:243:A:H4'	32:2a:244:U:H5"	2.02	0.42
32:2a:297:G:H4'	32:2a:557:G:H4'	2.01	0.42
32:2a:501:C:OP1	43:2l:117:ARG:NH2	2.40	0.42
32:2a:1004:A:H1'	32:2a:1038:C:O2	2.20	0.42
35:2d:9:CYS:O	35:2d:13:ARG:HG3	2.20	0.42
39:2h:13:ILE:O	39:2h:17:THR:HG23	2.19	0.42
39:2h:121:ASP:OD1	39:2h:121:ASP:N	2.51	0.42
1:1A:278:A:H8	1:1A:278:A:P	2.43	0.41
1:1A:380:U:OP1	60:1A:3865:HOH:O	2.22	0.41
1:1A:455:C:N3	1:1A:472:A:H2'	2.35	0.41
1:1A:580:C:H2'	1:1A:581:C:C6	2.55	0.41
1:1A:588:U:O4	1:1A:670:A:H1'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:181:LEU:HD23	4:1E:181:LEU:HA	1.87	0.41
8:1I:68:LEU:HD22	8:1I:72:LEU:HG	2.02	0.41
11:1P:21:ARG:HD3	11:1P:21:ARG:HA	1.88	0.41
27:15:49:CYS:SG	27:15:51:TYR:HB2	2.60	0.41
32:1a:363:A:OP1	43:1l:34:ARG:N	2.37	0.41
32:1a:751:U:H4'	46:1o:24:SER:HA	2.02	0.41
32:1a:977:A:H2'	32:1a:978:A:H5"	2.01	0.41
32:1a:988:G:H2'	32:1a:989:C:O4'	2.20	0.41
32:1a:1058:G:H2'	32:1a:1059:C:C6	2.55	0.41
36:1e:60:TYR:CE2	36:1e:64:ARG:HD3	2.54	0.41
38:1g:111:ARG:HB3	38:1g:113:GLU:OE1	2.20	0.41
44:1m:85:GLY:HA2	44:1m:93:ARG:NH2	2.34	0.41
44:1m:92:HIS:CE1	44:1m:98:VAL:HG11	2.55	0.41
1:2A:250:G:C6	1:2A:251:A:C6	3.07	0.41
1:2A:1343:G:O2'	1:2A:1384:A:N1	2.45	0.41
1:2A:1448:G:H4'	1:2A:1542:A:OP1	2.20	0.41
1:2A:2120:G:H2'	1:2A:2121:G:C8	2.55	0.41
1:2A:2369:A:H2'	1:2A:2370:G:C8	2.55	0.41
1:2A:2636:U:O2'	1:2A:2637:U:H5'	2.20	0.41
8:2I:73:GLU:HG2	8:2I:139:GLN:O	2.20	0.41
13:2R:51:LEU:HD23	13:2R:51:LEU:HA	1.80	0.41
17:2V:28:GLU:HG3	17:2V:29:PRO:HD2	2.01	0.41
25:23:10:LYS:HB3	25:23:53:LEU:HA	2.02	0.41
32:2a:397:A:H3'	32:2a:397:A:N3	2.34	0.41
32:2a:582:U:C2	32:2a:760:G:C6	3.08	0.41
32:2a:615:C:H2'	32:2a:616:G:O4'	2.20	0.41
32:2a:1148:U:O3'	40:2i:14:VAL:HG11	2.20	0.41
32:2a:1220:G:N2	50:2s:54:GLY:O	2.45	0.41
32:2a:1237:C:H2'	32:2a:1336:C:H5	1.85	0.41
34:2c:155:GLY:O	34:2c:157:ILE:HG13	2.20	0.41
1:1A:195:A:H61	1:1A:198:C:H3'	1.85	0.41
1:1A:286:C:H2'	1:1A:287:C:C6	2.55	0.41
1:1A:530:G:H4'	1:1A:531:C:OP1	2.19	0.41
1:1A:861:A:N3	2:1B:79:C:O2'	2.51	0.41
1:1A:1580:A:OP2	1:1A:1580:A:H8	2.03	0.41
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.51	0.41
1:1A:2182:G:C6	1:1A:2183:C:C4	3.08	0.41
1:1A:2774:C:H2'	1:1A:2775:A:O4'	2.19	0.41
16:1U:30:LYS:HA	16:1U:30:LYS:HD2	1.90	0.41
32:1a:408:A:C4	32:1a:409:G:C8	3.08	0.41
32:1a:978:A:O2'	32:1a:1322:C:N3	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:102:LEU:HD23	33:1b:182:ILE:HD12	2.01	0.41
41:1j:4:ILE:HG13	41:1j:99:LYS:O	2.20	0.41
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.86	0.41
44:1m:50:GLU:O	44:1m:54:VAL:HG23	2.20	0.41
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.83	0.41
1:2A:2742:C:OP1	31:29:35:ARG:NH1	2.44	0.41
2:2B:75:G:H5'	2:2B:76:G:OP2	2.19	0.41
3:2D:145:VAL:HB	3:2D:155:LEU:HB2	2.01	0.41
17:2V:24:LYS:HE2	17:2V:24:LYS:HB3	1.91	0.41
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.19	0.41
32:2a:625:G:H2'	32:2a:626:U:C6	2.55	0.41
32:2a:991:U:O2'	32:2a:992:U:OP2	2.35	0.41
33:2b:162:ILE:O	33:2b:185:ILE:HG13	2.20	0.41
33:2b:180:LEU:C	33:2b:182:ILE:H	2.28	0.41
44:2m:15:VAL:O	44:2m:19:LEU:HD13	2.21	0.41
53:2v:15:A:H2	55:2x:37:MIA:H162	1.84	0.41
54:2w:240:ARG:HB2	54:2w:251:THR:HG22	2.01	0.41
1:1A:185:U:H4'	1:1A:218:A:H4'	2.01	0.41
1:1A:191:A:H2'	1:1A:192:C:C6	2.55	0.41
1:1A:329:G:OP2	20:1Y:71:LYS:HD2	2.21	0.41
1:1A:478:A:N1	1:1A:500:G:H4'	2.35	0.41
1:1A:1057:A:N6	1:1A:1081:U:N3	2.42	0.41
1:1A:1153:C:H2'	1:1A:1154:G:O4'	2.20	0.41
1:1A:1166:C:H2'	1:1A:1167:U:C6	2.55	0.41
1:1A:2102:U:H3	1:1A:2187:G:H1	1.67	0.41
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.20	0.41
1:1A:2637:U:OP1	4:1E:82:ARG:NH1	2.52	0.41
1:1A:2702:U:H4'	1:1A:2703:C:OP1	2.19	0.41
1:1A:2847:U:C2'	1:1A:2848:G:H5'	2.51	0.41
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.21	0.41
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.49	0.41
4:1E:93:VAL:HG13	60:1E:402:HOH:O	2.20	0.41
12:1Q:138:ASP:CG	21:1Z:81:ARG:HH11	2.28	0.41
32:1a:224:C:H2'	32:1a:225:C:H6	1.85	0.41
32:1a:1051:C:C4	32:1a:1052:U:C4	3.08	0.41
32:1a:1228:C:H5"	44:1m:108:ARG:HH22	1.85	0.41
32:1a:1378:C:N3	38:1g:76:ARG:NH2	2.66	0.41
37:1f:19:LEU:HD21	37:1f:59:TYR:CZ	2.56	0.41
41:1j:48:THR:HG23	41:1j:62:HIS:CE1	2.55	0.41
44:1m:80:ARG:O	44:1m:83:ASP:N	2.53	0.41
47:1p:68:ASP:C	47:1p:70:ALA:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:118:A:H1'	1:2A:178:G:O4'	2.20	0.41
1:2A:1665:A:H4'	10:2O:67:LYS:HB2	2.01	0.41
1:2A:1957:C:H2'	1:2A:1958:C:C6	2.56	0.41
1:2A:2181:G:C2	1:2A:2182:G:C8	3.09	0.41
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.51	0.41
10:2O:75:SER:OG	15:2T:74:ARG:NH2	2.54	0.41
11:2P:63:PRO:HG2	30:28:25:MET:HB2	2.03	0.41
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.20	0.41
20:2Y:28:LYS:NZ	20:2Y:64:GLU:OE1	2.37	0.41
22:20:43:THR:HG23	22:20:43:THR:O	2.20	0.41
26:24:62:ARG:HD3	26:24:62:ARG:HA	1.63	0.41
32:2a:25:C:H2'	32:2a:26:A:C8	2.55	0.41
32:2a:731:G:H5'	32:2a:766:A:H4'	2.02	0.41
32:2a:866:C:H4'	32:2a:919:A:H5'	2.02	0.41
32:2a:1152:A:H5'	41:2j:13:HIS:ND1	2.35	0.41
32:2a:1229:A:OP2	44:2m:114:ARG:HD2	2.20	0.41
32:2a:1305:G:C2	32:2a:1331:G:H1'	2.56	0.41
33:2b:97:TRP:HZ3	33:2b:172:ILE:HG22	1.84	0.41
38:2g:71:PRO:HG3	38:2g:103:TRP:CH2	2.55	0.41
40:2i:21:PRO:HA	40:2i:59:PHE:HA	2.02	0.41
42:2k:92:GLU:O	42:2k:96:ARG:HG2	2.19	0.41
44:2m:20:THR:HA	44:2m:25:ILE:O	2.20	0.41
44:2m:74:VAL:HA	44:2m:77:ASN:HB2	2.02	0.41
47:2p:49:LEU:HD11	47:2p:73:LEU:HB3	2.03	0.41
50:2s:58:VAL:O	50:2s:60:VAL:HG23	2.21	0.41
54:2w:112:ARG:HB2	54:2w:198:THR:OG1	2.19	0.41
54:2w:218:ARG:HE	54:2w:218:ARG:HB3	1.69	0.41
55:2y:29:G:H2'	55:2y:30:G:O4'	2.20	0.41
1:1A:478:A:C6	1:1A:480:A:C6	3.08	0.41
1:1A:826:U:OP1	1:1A:2428:G:H3'	2.20	0.41
1:1A:976:C:H5'	1:1A:1156:A:N6	2.35	0.41
1:1A:1003:G:N2	1:1A:1153:C:C2	2.88	0.41
1:1A:1263:U:OP1	27:15:16:ARG:NH1	2.47	0.41
1:1A:1689:A:H2'	1:1A:1690:A:C8	2.56	0.41
1:1A:1916:A:H2'	1:1A:1917:PSU:O4'	2.20	0.41
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.52	0.41
1:1A:2788:C:H2'	1:1A:2789:C:O4'	2.21	0.41
4:1E:97:LYS:O	4:1E:100:GLU:HG3	2.21	0.41
6:1G:78:SER:HG	6:1G:79:ASN:N	2.18	0.41
7:1H:26:VAL:HG11	7:1H:76:VAL:HA	2.01	0.41
8:1I:109:ILE:HG23	8:1I:130:TYR:CZ	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:19:C:OP1	36:1e:130:ASN:ND2	2.51	0.41
32:1a:985:C:H2'	32:1a:986:A:C8	2.56	0.41
33:1b:114:ARG:HE	33:1b:118:LEU:HD21	1.86	0.41
40:1i:28:VAL:HG22	40:1i:63:ILE:HD12	2.02	0.41
45:1n:14:PRO:HB2	45:1n:16:PHE:O	2.20	0.41
51:1t:39:LYS:HE2	51:1t:39:LYS:HB3	1.91	0.41
1:2A:2006:C:O2'	1:2A:2823:A:N3	2.51	0.41
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.19	0.41
1:2A:2507:C:H2'	1:2A:2508:G:O4'	2.20	0.41
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.20	0.41
12:2Q:69:PHE:HA	12:2Q:70:PRO:HD3	1.95	0.41
15:2T:99:LEU:HD23	15:2T:101:PHE:HE2	1.86	0.41
30:28:32:LEU:O	30:28:36:LYS:HE3	2.20	0.41
32:2a:79:G:H1	32:2a:90:U:H3	1.68	0.41
32:2a:103:C:P	51:2t:17:ARG:HH21	2.43	0.41
32:2a:229:U:H5"	47:2p:33:ILE:HD13	2.01	0.41
32:2a:583:A:H2'	32:2a:584:G:O4'	2.20	0.41
32:2a:630:G:H2'	32:2a:631:G:C8	2.55	0.41
32:2a:1177:G:H2'	32:2a:1178:G:O4'	2.20	0.41
32:2a:1203:C:H2'	32:2a:1204:A:O4'	2.20	0.41
33:2b:93:VAL:HG11	33:2b:97:TRP:HD1	1.86	0.41
33:2b:120:ALA:C	33:2b:122:PHE:H	2.29	0.41
34:2c:74:GLY:HA2	34:2c:77:ILE:HG12	2.02	0.41
38:2g:101:LEU:HD13	38:2g:101:LEU:HA	1.92	0.41
43:2l:113:ARG:NE	43:2l:115:LYS:O	2.51	0.41
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.20	0.41
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.55	0.41
1:1A:2111:C:N4	1:1A:2144:U:O2'	2.52	0.41
1:1A:2820:A:C6	13:1R:4:LEU:HD11	2.55	0.41
12:1Q:60:ARG:HA	21:1Z:178:GLU:O	2.20	0.41
19:1X:59:VAL:HG21	19:1X:78:LYS:HE2	2.03	0.41
21:1Z:28:MET:HE3	21:1Z:28:MET:HB2	1.80	0.41
25:13:5:LYS:NZ	25:13:34:GLU:OE1	2.45	0.41
32:1a:271:C:H2'	32:1a:272:C:C6	2.56	0.41
32:1a:806:C:H2'	32:1a:807:A:C8	2.55	0.41
32:1a:953:G:H5'	32:1a:965:A:N6	2.29	0.41
32:1a:1026:G:H8	32:1a:1027:C:O2	2.03	0.41
41:1j:64:GLU:OE1	41:1j:66:ARG:NH1	2.52	0.41
51:1t:63:ILE:HD13	51:1t:80:ARG:HB3	2.02	0.41
54:1w:313:THR:HG23	54:1w:320:THR:HB	2.03	0.41
54:1w:343:ASP:O	54:1w:347:GLN:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:267:C:H2'	1:2A:268:C:C6	2.54	0.41
1:2A:300:A:P	20:2Y:86:ARG:HH21	2.43	0.41
1:2A:330:A:H2	1:2A:1210:A:O2'	2.03	0.41
1:2A:465:G:OP1	29:27:12:ARG:NH2	2.43	0.41
1:2A:892:G:H2'	1:2A:893:C:H4'	2.01	0.41
1:2A:1259:G:H2'	1:2A:1260:G:C8	2.55	0.41
1:2A:2051:A:H8	1:2A:2051:A:OP2	2.04	0.41
1:2A:2116:G:O2'	1:2A:2117:A:O4'	2.39	0.41
6:2G:167:GLU:OE1	6:2G:170:ARG:HD3	2.20	0.41
12:2Q:77:LYS:HB3	12:2Q:81:VAL:CG2	2.50	0.41
14:2S:30:ARG:HG3	14:2S:35:ILE:HD12	2.02	0.41
15:2T:6:LEU:HD12	15:2T:6:LEU:HA	1.88	0.41
21:2Z:71:VAL:HG22	21:2Z:88:PHE:HE1	1.85	0.41
21:2Z:104:PHE:HB3	21:2Z:141:VAL:HG11	2.01	0.41
25:23:8:LEU:HG	25:23:31:LEU:HD23	2.02	0.41
32:2a:12:U:H4'	32:2a:526:C:O2'	2.20	0.41
32:2a:189(D):C:H2'	32:2a:189(E):U:O4'	2.19	0.41
32:2a:424:G:H2'	32:2a:425:G:H8	1.84	0.41
32:2a:542:G:P	35:2d:10:ARG:HH22	2.43	0.41
32:2a:716:A:H1'	42:2k:118:GLY:O	2.21	0.41
32:2a:1342:C:H2'	32:2a:1343:G:H8	1.85	0.41
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.54	0.41
37:2f:4:TYR:CZ	37:2f:72:VAL:HG11	2.56	0.41
39:2h:114:THR:C	39:2h:116:LYS:H	2.28	0.41
40:2i:33:PHE:CD2	40:2i:37:PHE:HD2	2.38	0.41
41:2j:26:ALA:O	41:2j:84:GLN:NE2	2.52	0.41
41:2j:35:SER:HB3	41:2j:73:ASP:HB2	2.02	0.41
50:2s:15:LEU:HA	50:2s:18:LYS:HE2	2.02	0.41
54:2w:180:VAL:HG22	54:2w:182:ARG:HG2	2.03	0.41
1:1A:174:C:H2'	1:1A:175:G:O4'	2.20	0.41
1:1A:735:A:N7	1:1A:761:A:H2	2.19	0.41
1:1A:1050:A:H2'	1:1A:1051:G:O4'	2.20	0.41
1:1A:1448:G:H4'	1:1A:1542:A:OP1	2.21	0.41
1:1A:2149:G:H5'	1:1A:2150:U:OP2	2.21	0.41
1:1A:2579:C:H2'	1:1A:2580:U:O4'	2.21	0.41
21:1Z:111:VAL:C	21:1Z:113:ALA:N	2.78	0.41
32:1a:77:G:H2'	32:1a:78:G:O4'	2.21	0.41
32:1a:162:A:H8	32:1a:163:C:H1'	1.84	0.41
32:1a:959:A:HO2'	32:1a:984:C:HO2'	1.50	0.41
32:1a:994:A:N1	32:1a:1047:G:H4'	2.36	0.41
32:1a:1005:A:H8	32:1a:1005:A:O5'	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1132:C:H42	32:1a:1142:G:H1	1.68	0.41
33:1b:24:TRP:CD1	33:1b:24:TRP:N	2.89	0.41
33:1b:115:LEU:HD11	33:1b:142:LEU:HD12	2.03	0.41
33:1b:185:ILE:HA	33:1b:199:TYR:O	2.20	0.41
35:1d:101:LEU:HB2	35:1d:138:TYR:HB3	2.03	0.41
44:1m:52:GLU:HG2	44:1m:55:ARG:HH12	1.85	0.41
45:1n:5:ALA:O	45:1n:9:LYS:HG3	2.21	0.41
51:1t:40:ALA:N	51:1t:55:ILE:HD11	2.35	0.41
1:2A:441:U:H2'	1:2A:442:G:C8	2.55	0.41
1:2A:574:C:N4	1:2A:2034:U:OP1	2.45	0.41
1:2A:1507:A:O2'	1:2A:1508:A:O4'	2.37	0.41
1:2A:1607:C:H5"	1:2A:1608:A:H5'	2.01	0.41
7:2H:3:ARG:HH11	7:2H:3:ARG:HA	1.85	0.41
7:2H:149:ARG:HG3	7:2H:162:ILE:O	2.20	0.41
12:2Q:16:ARG:O	12:2Q:17:LEU:HD23	2.21	0.41
21:2Z:5:LEU:HD12	21:2Z:6:LYS:H	1.86	0.41
21:2Z:19:ARG:NH1	21:2Z:84:GLU:HB2	2.36	0.41
26:24:68:ARG:HD3	26:24:68:ARG:HA	1.89	0.41
32:2a:109:A:C6	32:2a:326:G:C6	3.09	0.41
32:2a:554:C:H2'	32:2a:555:C:C6	2.55	0.41
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.20	0.41
32:2a:1228:C:H2'	32:2a:1229:A:C8	2.55	0.41
33:2b:50:GLU:HG3	33:2b:202:PRO:HD3	2.02	0.41
35:2d:112:VAL:HG22	35:2d:116:GLN:OE1	2.20	0.41
42:2k:81:ASP:OD1	42:2k:106:LYS:HB2	2.20	0.41
43:2l:24:VAL:HB	43:2l:27:LEU:HD12	2.03	0.41
55:2y:42:C:H2'	55:2y:43:C:C6	2.56	0.41
1:1A:278:A:H2'	1:1A:279:C:C6	2.55	0.41
1:1A:679:C:H2'	1:1A:680:G:C8	2.55	0.41
1:1A:893:C:O2'	1:1A:894:C:H5'	2.21	0.41
1:1A:1417:C:H3'	60:1A:4106:HOH:O	2.19	0.41
1:1A:2206:G:H5"	1:1A:2207:G:C5	2.56	0.41
1:1A:2432:A:C8	23:11:33:LYS:HD2	2.55	0.41
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.56	0.41
8:1I:130:TYR:CE2	8:1I:132:PRO:HB3	2.55	0.41
10:1O:107:ARG:CZ	15:1T:36:GLU:HG2	2.50	0.41
14:1S:99:LYS:O	14:1S:103:GLU:HG3	2.20	0.41
30:18:61:LEU:O	30:18:63:PRO:HD3	2.21	0.41
32:1a:134:A:H61	47:1p:25:ARG:HH12	1.65	0.41
32:1a:595:G:H22	32:1a:643:C:N4	2.18	0.41
32:1a:769:G:H4'	32:1a:1513:A:H4'	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:892:A:H2'	32:1a:893:C:C6	2.55	0.41
32:1a:908:A:H2'	32:1a:909:A:C8	2.56	0.41
32:1a:1460:A:H2'	32:1a:1461:G:O4'	2.20	0.41
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	2.01	0.41
46:1o:82:ILE:HD12	46:1o:83:GLU:N	2.36	0.41
49:1r:53:ARG:HA	49:1r:56:THR:OG1	2.20	0.41
50:1s:20:LEU:HD23	50:1s:23:ASN:HD22	1.85	0.41
55:1y:12:U:H2'	55:1y:13:C:O4'	2.20	0.41
1:2A:601:C:O2'	1:2A:605:C:H5"	2.21	0.41
1:2A:1357:U:OP1	29:27:23:ARG:NH2	2.54	0.41
1:2A:1638:C:H5"	1:2A:2710:C:O2'	2.21	0.41
1:2A:1797:C:H4'	3:2D:257:LEU:O	2.21	0.41
1:2A:1837:C:OP1	32:2a:784:C:H4'	2.21	0.41
1:2A:1864:U:H3	1:2A:1878:G:H1	1.69	0.41
1:2A:2521:C:O2'	1:2A:2564:A:N3	2.46	0.41
1:2A:2532:G:O2'	1:2A:2657:A:N1	2.49	0.41
1:2A:2717:G:H2'	1:2A:2718:G:O4'	2.20	0.41
3:2D:108:PRO:HG2	3:2D:111:LEU:HB2	2.03	0.41
7:2H:26:VAL:O	7:2H:32:GLU:HA	2.20	0.41
7:2H:126:PRO:HB2	7:2H:127:GLU:H	1.63	0.41
14:2S:15:ARG:HH21	14:2S:88:ASP:CG	2.29	0.41
21:2Z:94:GLU:H	21:2Z:94:GLU:HG3	1.69	0.41
22:20:51:VAL:HG21	22:20:79:VAL:O	2.21	0.41
22:20:72:ARG:O	22:20:75:LEU:N	2.53	0.41
28:26:38:LYS:HB3	28:26:38:LYS:HE3	1.89	0.41
32:2a:110:C:O2'	47:2p:25:ARG:O	2.34	0.41
32:2a:192:U:H4'	51:2t:57:ARG:HD2	2.03	0.41
32:2a:489:C:H2'	32:2a:490:G:C8	2.55	0.41
32:2a:807:A:H2'	32:2a:808:C:C6	2.56	0.41
32:2a:1194:U:H5"	36:2e:22:GLY:O	2.21	0.41
34:2c:139:GLN:NE2	34:2c:143:GLU:HG3	2.36	0.41
35:2d:8:VAL:HG23	35:2d:11:LEU:HD22	2.02	0.41
39:2h:8:ASP:O	39:2h:12:ARG:HG3	2.20	0.41
1:1A:6:A:H2'	1:1A:7:G:O4'	2.21	0.41
1:1A:271(O):C:H2'	1:1A:271(P):C:C6	2.55	0.41
1:1A:483:A:H3'	1:1A:484:C:C6	2.56	0.41
1:1A:1331:A:H2'	1:1A:1333:C:C5	2.56	0.41
1:1A:1527:G:O5'	1:1A:1527:G:H8	2.04	0.41
1:1A:1639:U:O2'	1:1A:1640:C:H5'	2.20	0.41
1:1A:2061:G:H5"	1:1A:2503:2MA:C2	2.51	0.41
7:1H:94:TYR:CE2	7:1H:160:LYS:HG2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:35:VAL:HA	12:1Q:101:ARG:O	2.20	0.41
16:1U:104:GLN:HE21	16:1U:105:VAL:HG23	1.84	0.41
32:1a:69:G:H2'	32:1a:70:G:C8	2.55	0.41
32:1a:297:G:H4'	32:1a:557:G:H4'	2.02	0.41
32:1a:375:U:H5"	47:1p:6:LEU:HD12	2.03	0.41
32:1a:1304:G:C5	32:1a:1305:G:C6	3.08	0.41
38:1g:45:ASP:O	38:1g:49:ILE:HG12	2.20	0.41
38:1g:73:MET:HE3	38:1g:73:MET:HB2	1.90	0.41
40:1i:90:PRO:C	40:1i:92:TYR:N	2.78	0.41
49:1r:51:LEU:O	49:1r:63:GLN:NE2	2.54	0.41
54:1w:104:GLU:HA	54:1w:166:GLY:HA2	2.02	0.41
1:2A:68:G:H2'	1:2A:69:C:O4'	2.21	0.41
1:2A:644:A:H4'	1:2A:645:C:C4	2.55	0.41
1:2A:1420:U:HO2'	1:2A:1421:G:H8	1.69	0.41
1:2A:1790:C:H5"	1:2A:1791:A:OP1	2.20	0.41
6:2G:38:VAL:HG22	6:2G:93:THR:HG22	2.02	0.41
6:2G:144:ILE:HD13	6:2G:144:ILE:HA	1.94	0.41
12:2Q:7:MET:HG3	12:2Q:9:TYR:O	2.21	0.41
13:2R:51:LEU:HD22	13:2R:66:VAL:HG22	2.02	0.41
14:2S:25:ARG:NE	14:2S:88:ASP:OD2	2.51	0.41
14:2S:38:GLN:HE21	14:2S:38:GLN:HB3	1.69	0.41
19:2X:44:GLU:HG2	19:2X:49:VAL:O	2.21	0.41
25:23:6:VAL:HG12	25:23:28:LEU:HD11	2.03	0.41
32:2a:161:A:N1	32:2a:347:G:O2'	2.50	0.41
32:2a:501:C:H2'	32:2a:502:G:C8	2.55	0.41
32:2a:722:A:H2'	32:2a:724:G:C8	2.56	0.41
32:2a:973:G:H3'	32:2a:974:A:H5"	2.03	0.41
32:2a:1106:G:C6	32:2a:1107:C:C4	3.08	0.41
32:2a:1318:A:H4'	50:2s:10:PHE:CZ	2.56	0.41
40:2i:124:GLN:HE21	40:2i:124:GLN:HA	1.86	0.41
55:2y:42:C:H2'	55:2y:43:C:H6	1.85	0.41
1:1A:84:A:H5'	20:1Y:8:LYS:HB3	2.02	0.41
1:1A:274:G:H2'	1:1A:275:G:H8	1.85	0.41
1:1A:305:U:H2'	1:1A:306:U:C6	2.56	0.41
1:1A:458:G:C8	29:17:37:LYS:HG2	2.56	0.41
1:1A:570:G:H2'	1:1A:2030:A:C5	2.56	0.41
1:1A:570:G:H2'	1:1A:2030:A:N7	2.36	0.41
1:1A:684:G:OP1	29:17:16:HIS:ND1	2.54	0.41
1:1A:729:G:O5'	3:1D:208:LYS:NZ	2.52	0.41
1:1A:883:G:H21	1:1A:884:C:N4	2.19	0.41
1:1A:886:C:N3	1:1A:887:A:H8	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1225:G:C6	1:1A:1226:A:C6	3.09	0.41
1:1A:1435:G:H2'	1:1A:1436:G:O4'	2.20	0.41
1:1A:1468:C:H2'	1:1A:1469:A:C8	2.56	0.41
1:1A:1628:G:H2'	1:1A:1629:U:C6	2.56	0.41
1:1A:1808:U:H2'	1:1A:1809:A:O4'	2.21	0.41
1:1A:1813:G:H1'	3:1D:50:THR:OG1	2.21	0.41
1:1A:2373:G:N7	60:1A:3956:HOH:O	2.37	0.41
1:1A:2489:G:C6	1:1A:2490:G:N1	2.89	0.41
1:1A:2583:G:H2'	1:1A:2584:U:O4'	2.20	0.41
1:1A:2646:C:O5'	1:1A:2646:C:H6	2.03	0.41
11:1P:43:GLY:HA3	60:1P:302:HOH:O	2.20	0.41
20:1Y:20:TYR:CE2	20:1Y:43:ASN:HA	2.55	0.41
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.21	0.41
21:1Z:158:PRO:O	21:1Z:161:VAL:HG23	2.20	0.41
22:10:53:MET:HG3	22:10:59:LEU:HD23	2.03	0.41
23:11:12:PRO:HA	23:11:42:GLN:O	2.21	0.41
26:14:16:CYS:SG	26:14:36:CYS:HB3	2.61	0.41
32:1a:39:G:H2'	32:1a:40:C:C6	2.56	0.41
32:1a:224:C:H2'	32:1a:225:C:C6	2.56	0.41
32:1a:411:A:OP2	35:1d:25:ARG:NH2	2.52	0.41
32:1a:583:A:H2'	32:1a:584:G:O4'	2.21	0.41
32:1a:861:G:O2'	32:1a:874:G:O2'	2.35	0.41
32:1a:1129:C:H5"	40:1i:16:ARG:HH12	1.85	0.41
32:1a:1137:C:H4'	32:1a:1138:G:N3	2.35	0.41
32:1a:1304:G:C6	32:1a:1305:G:N1	2.89	0.41
35:1d:9:CYS:O	35:1d:13:ARG:HG3	2.21	0.41
35:1d:110:PHE:CD1	35:1d:110:PHE:N	2.88	0.41
36:1e:90:VAL:O	36:1e:120:THR:HA	2.21	0.41
36:1e:101:ILE:O	36:1e:120:THR:HG23	2.21	0.41
37:1f:21:LEU:O	37:1f:24:GLU:HB3	2.21	0.41
40:1i:106:ALA:O	40:1i:108:VAL:HG13	2.21	0.41
40:1i:116:LYS:HB3	40:1i:121:ARG:O	2.20	0.41
48:1q:41:LYS:HD3	48:1q:88:TYR:CE1	2.56	0.41
51:1t:8:ARG:HA	51:1t:8:ARG:HD3	1.79	0.41
51:1t:55:ILE:HA	51:1t:58:LYS:HB3	2.03	0.41
54:1w:179:ARG:O	54:1w:304:THR:HA	2.21	0.41
54:1w:230:MEQ:HG2	56:1z:20:LEU:O	2.21	0.41
55:1y:19:G:H1'	55:1y:20:U:OP1	2.21	0.41
1:2A:494:G:OP1	18:2W:8:ARG:NH1	2.54	0.41
1:2A:700:G:O2'	1:2A:1632:A:N3	2.43	0.41
1:2A:870:A:C2	1:2A:908:C:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1113:U:H2'	1:2A:1114:G:C8	2.55	0.41
1:2A:1277:G:H2'	1:2A:1278:A:O4'	2.21	0.41
1:2A:1376:C:H2'	1:2A:1377:G:O4'	2.20	0.41
1:2A:1384:A:N3	1:2A:1405:U:H1'	2.36	0.41
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.21	0.41
1:2A:1916:A:H2'	1:2A:1917:PSU:O4'	2.21	0.41
1:2A:1923:U:H2'	1:2A:1924:C:C6	2.55	0.41
1:2A:2558:C:H2'	1:2A:2559:C:O4'	2.21	0.41
2:2B:75:G:O2'	21:2Z:27:VAL:HB	2.20	0.41
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.85	0.41
4:2E:48:GLN:HB2	4:2E:80:GLU:HG2	2.01	0.41
6:2G:59:GLU:O	6:2G:63:ILE:HG12	2.21	0.41
6:2G:67:LYS:HE3	26:24:5:ILE:HD12	2.02	0.41
6:2G:83:ARG:O	6:2G:86:MET:HG3	2.21	0.41
7:2H:20:ALA:HB3	7:2H:23:ARG:HB2	2.03	0.41
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	2.03	0.41
12:2Q:36:ALA:HB2	12:2Q:103:MET:SD	2.61	0.41
19:2X:5:TYR:CZ	24:22:30:ARG:HB2	2.55	0.41
21:2Z:27:VAL:HG13	21:2Z:29:TYR:HE2	1.86	0.41
21:2Z:27:VAL:HG12	21:2Z:85:HIS:CE1	2.56	0.41
32:2a:309:G:O2'	32:2a:607:A:N1	2.48	0.41
32:2a:502:G:H2'	32:2a:503:C:O4'	2.21	0.41
32:2a:683:G:H2'	32:2a:684:A:O4'	2.20	0.41
32:2a:728:A:N7	46:2o:54:ARG:HD2	2.36	0.41
32:2a:878:G:H1'	39:2h:3:THR:HG21	2.02	0.41
32:2a:942:G:C6	32:2a:943:U:C4	3.09	0.41
32:2a:962:C:H2'	32:2a:963:G:C8	2.56	0.41
32:2a:1122:U:H2'	32:2a:1123:A:H8	1.86	0.41
32:2a:1277:C:O2'	32:2a:1279:A:H8	2.04	0.41
32:2a:1350:A:OP1	40:2i:121:ARG:HD3	2.21	0.41
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.84	0.41
33:2b:219:VAL:HA	33:2b:222:ILE:HG12	2.02	0.41
36:2e:12:LEU:HD22	36:2e:128:PRO:HB2	2.02	0.41
44:2m:37:THR:HB	44:2m:55:ARG:HD2	2.02	0.41
45:2n:23:ARG:NH1	45:2n:30:ALA:HB2	2.35	0.41
46:2o:67:LEU:HD23	46:2o:67:LEU:HA	1.93	0.41
54:2w:108:ILE:HB	54:2w:202:LEU:HD12	2.03	0.41
55:2y:19:G:H3'	55:2y:20:U:C5'	2.39	0.41
55:2y:20:U:H1'	55:2y:21:A:H4'	2.03	0.41
1:1A:27:G:O2'	1:1A:28:A:OP2	2.33	0.41
1:1A:387:U:H4'	1:1A:388:G:O5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1358:G:O2'	1:1A:1359:A:H5"	2.21	0.41
1:1A:1557:C:H5"	1:1A:1558:A:OP2	2.21	0.41
2:1B:5:C:H2'	2:1B:6:C:H6	1.85	0.41
6:1G:138:GLN:H	6:1G:138:GLN:HG2	1.67	0.41
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	2.03	0.41
8:1I:6:LEU:C	8:1I:15:VAL:HG23	2.46	0.41
21:1Z:16:SER:OG	21:1Z:20:ARG:NH2	2.54	0.41
32:1a:229:U:H2'	32:1a:230:G:C8	2.56	0.41
32:1a:620:C:H2'	32:1a:621:A:O4'	2.21	0.41
32:1a:753:A:OP1	46:1o:69:TYR:OH	2.35	0.41
32:1a:1285:A:H1'	32:1a:1286:A:OP2	2.21	0.41
32:1a:1306:A:H2'	32:1a:1307:U:O4'	2.21	0.41
32:1a:1323:G:H2'	32:1a:1324:A:C8	2.56	0.41
39:1h:103:VAL:CG2	39:1h:110:ALA:HB2	2.51	0.41
40:1i:11:LYS:C	40:1i:13:ALA:H	2.29	0.41
50:1s:30:LEU:HD12	50:1s:48:THR:HB	2.02	0.41
1:2A:78:A:H2'	1:2A:79:G:C8	2.55	0.41
1:2A:383:U:H2'	1:2A:385:C:H5	1.86	0.41
1:2A:1335:U:OP1	19:2X:65:ARG:NH1	2.53	0.41
1:2A:1697:G:OP2	1:2A:1698:A:O2'	2.36	0.41
1:2A:2114:A:C4	1:2A:2168:G:H1'	2.56	0.41
1:2A:2115:G:OP2	1:2A:2115:G:H8	2.03	0.41
1:2A:2443:C:H2'	1:2A:2444:G:C8	2.55	0.41
1:2A:2680:C:H5'	4:2E:189:PRO:HA	2.02	0.41
1:2A:2698:U:H2'	1:2A:2699:C:H6	1.85	0.41
4:2E:134:ILE:HA	4:2E:137:HIS:CD2	2.56	0.41
23:21:32:LYS:HD3	23:21:32:LYS:HA	1.99	0.41
32:2a:189(D):C:H1'	32:2a:189(H):G:C2	2.56	0.41
32:2a:246:A:N1	32:2a:278:G:O2'	2.39	0.41
32:2a:789:U:O2'	32:2a:791:G:N7	2.52	0.41
32:2a:833:U:H2'	32:2a:834:C:C6	2.55	0.41
32:2a:983:A:H2	32:2a:984:C:C6	2.39	0.41
32:2a:1201:A:H1'	32:2a:1202:G:OP2	2.20	0.41
32:2a:1247:U:H2'	32:2a:1248:A:O4'	2.21	0.41
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.20	0.41
33:2b:16:HIS:CD2	33:2b:204:ASN:H	2.39	0.41
37:2f:45:LEU:HD21	37:2f:57:GLN:NE2	2.33	0.41
41:2j:13:HIS:O	41:2j:17:ASP:HB2	2.21	0.41
41:2j:44:VAL:HG13	41:2j:66:ARG:HG2	2.03	0.41
42:2k:48:ILE:C	42:2k:50:TYR:H	2.29	0.41
1:1A:570:G:H5"	60:1A:4796:HOH:O	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:922:U:H2'	1:1A:923:C:C6	2.56	0.40
1:1A:1207:C:H2'	1:1A:1208:C:C6	2.56	0.40
1:1A:2815:C:O2'	27:15:42:PRO:HG2	2.21	0.40
1:1A:2852:G:H2'	1:1A:2853:C:O4'	2.20	0.40
2:1B:108:U:H2'	2:1B:109:C:H5"	2.03	0.40
7:1H:163:TYR:CE1	7:1H:169:VAL:HG22	2.57	0.40
21:1Z:129:SER:HB3	21:1Z:132:ASN:HB2	2.03	0.40
30:18:53:PRO:O	30:18:56:GLU:HG2	2.21	0.40
32:1a:267:C:OP2	48:1q:67:LYS:HG3	2.21	0.40
32:1a:374:A:C6	32:1a:375:U:C4	3.09	0.40
32:1a:401:C:OP1	35:1d:73:ARG:NH2	2.54	0.40
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.44	0.40
32:1a:625:G:H2'	32:1a:626:U:H6	1.86	0.40
32:1a:685:G:C2	32:1a:686:U:C4	3.09	0.40
32:1a:841:U:O2	32:1a:841:U:H2'	2.22	0.40
33:1b:114:ARG:O	33:1b:118:LEU:HG	2.21	0.40
41:1j:55:LYS:O	41:1j:56:HIS:C	2.64	0.40
45:1n:27:CYS:SG	45:1n:29:ARG:HG3	2.62	0.40
45:1n:29:ARG:HH21	45:1n:31:ARG:HD3	1.86	0.40
50:1s:41:VAL:C	50:1s:43:GLU:H	2.29	0.40
54:1w:140:PHE:CD1	54:1w:164:GLY:HA3	2.56	0.40
1:2A:1204:A:H4'	1:2A:1205:U:O5'	2.21	0.40
1:2A:1633:G:C5	1:2A:1635:G:C5	3.09	0.40
1:2A:2173:A:H2'	1:2A:2174:C:O4'	2.21	0.40
3:2D:46:GLN:H	3:2D:46:GLN:HG3	1.64	0.40
5:2F:116:ASP:O	5:2F:120:GLU:HB2	2.20	0.40
6:2G:9:ARG:O	6:2G:13:GLU:HG2	2.21	0.40
6:2G:29:TRP:HB3	6:2G:33:ARG:HH12	1.86	0.40
6:2G:174:GLU:HB2	6:2G:180:PHE:HE2	1.86	0.40
9:2N:67:LEU:O	9:2N:88:GLU:HG3	2.21	0.40
13:2R:98:LEU:HB2	13:2R:113:LEU:HD11	2.03	0.40
16:2U:106:PHE:O	16:2U:110:VAL:HG23	2.21	0.40
32:2a:167:G:H2'	32:2a:168:G:C8	2.56	0.40
32:2a:380:G:C2	32:2a:384:G:C6	3.09	0.40
32:2a:753:A:OP1	46:2o:69:TYR:OH	2.24	0.40
32:2a:865:A:H2'	32:2a:866:C:O4'	2.21	0.40
32:2a:1014:A:H2	32:2a:1219:U:H1'	1.83	0.40
35:2d:162:LEU:HD13	35:2d:181:MET:HG2	2.02	0.40
38:2g:69:VAL:HG22	38:2g:135:VAL:HG12	2.02	0.40
39:2h:100:ILE:HD11	39:2h:129:VAL:O	2.21	0.40
40:2i:116:LYS:HB3	40:2i:121:ARG:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:69:GLU:HA	44:2m:72:ALA:HB3	2.03	0.40
54:2w:317:ILE:HG13	54:2w:319:PHE:H	1.86	0.40
55:2y:19:G:C3'	55:2y:20:U:H5'	2.41	0.40
1:1A:127:A:H5"	1:1A:128:C:C6	2.56	0.40
1:1A:792:G:O6	60:1A:3832:HOH:O	2.15	0.40
1:1A:811:U:H2'	11:1P:21:ARG:HA	2.04	0.40
1:1A:942:G:O2'	1:1A:1189:A:N3	2.46	0.40
1:1A:1042:G:C6	1:1A:1043:C:C4	3.10	0.40
1:1A:1102:C:H2'	1:1A:1103:A:O4'	2.21	0.40
1:1A:2331:G:O2'	22:10:43:THR:HG22	2.21	0.40
1:1A:2809:A:H2'	1:1A:2810:A:C8	2.56	0.40
10:1O:13:ASN:HD21	10:1O:96:THR:HG1	1.64	0.40
13:1R:12:ARG:HB3	13:1R:16:HIS:HB3	2.02	0.40
16:1U:79:PHE:O	16:1U:83:LEU:HG	2.22	0.40
25:13:3:ARG:HB2	25:13:60:GLU:HB2	2.02	0.40
32:1a:159:G:N2	32:1a:161:A:H3'	2.36	0.40
32:1a:447:G:H1	32:1a:485:G:HO2'	1.67	0.40
32:1a:986:A:H1'	50:1s:55:LYS:HA	2.03	0.40
32:1a:1327:C:H2'	32:1a:1328:C:C6	2.57	0.40
33:1b:109:SER:HA	33:1b:112:VAL:HG13	2.02	0.40
36:1e:93:PRO:HG2	39:1h:105:ARG:HE	1.86	0.40
36:1e:112:LEU:C	36:1e:114:GLY:H	2.28	0.40
38:1g:22:LEU:HD12	38:1g:22:LEU:HA	1.90	0.40
42:1k:34:ASP:HB2	42:1k:35:PRO:CD	2.51	0.40
55:1x:66:U:H2'	55:1x:67:C:C6	2.57	0.40
1:2A:442:G:N3	5:2F:48:THR:OG1	2.51	0.40
1:2A:970:C:H2'	1:2A:971:C:C6	2.55	0.40
1:2A:2115:G:H5'	1:2A:2116:G:OP1	2.22	0.40
1:2A:2365:G:H4'	22:20:60:PHE:CZ	2.57	0.40
5:2F:126:VAL:HG11	5:2F:142:TRP:HH2	1.86	0.40
11:2P:29:LYS:CD	11:2P:30:THR:HG23	2.50	0.40
14:2S:25:ARG:O	14:2S:39:ILE:HA	2.21	0.40
17:2V:18:LEU:HD12	17:2V:20:LEU:HB2	2.02	0.40
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.38	0.40
24:22:10:LEU:HD13	24:22:14:ARG:NH1	2.37	0.40
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.36	0.40
32:2a:417:C:H42	32:2a:426:G:H1	1.70	0.40
32:2a:582:U:H2'	32:2a:583:A:C8	2.57	0.40
32:2a:763:G:H2'	32:2a:764:C:H6	1.87	0.40
32:2a:786:G:C2	32:2a:797:C:C2	3.10	0.40
32:2a:1207:2MG:O6	60:2a:1809:HOH:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1221:G:H5"	32:2a:1321:C:O2	2.22	0.40
32:2a:1347:G:H8	40:2i:107:ARG:HB3	1.86	0.40
52:2u:2:GLY:O	52:2u:4:GLY:N	2.54	0.40
1:1A:272(C):G:H2'	1:1A:272(D):G:O4'	2.21	0.40
1:1A:556:G:H2'	1:1A:557:U:C6	2.56	0.40
1:1A:1335:U:H2'	1:1A:1336:A:O4'	2.21	0.40
1:1A:1915:5MU:OP1	54:1w:112:ARG:NH2	2.53	0.40
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.54	0.40
1:1A:2884:U:H2'	1:1A:2885:C:O4'	2.21	0.40
8:1I:109:ILE:HD12	8:1I:130:TYR:CE2	2.56	0.40
14:1S:49:VAL:HG22	14:1S:50:SER:H	1.85	0.40
29:17:34:ARG:NH2	60:17:201:HOH:O	2.30	0.40
32:1a:113:G:H2'	32:1a:114:U:H6	1.86	0.40
32:1a:509:A:O2'	32:1a:510:A:OP1	2.24	0.40
32:1a:993:G:N2	32:1a:1046:A:H1'	2.37	0.40
33:1b:35:GLU:HB3	33:1b:40:HIS:HA	2.01	0.40
39:1h:104:ARG:HD2	39:1h:138:TRP:CG	2.56	0.40
50:1s:63:THR:HG23	50:1s:66:MET:HE3	2.02	0.40
1:2A:27:G:N2	1:2A:512:G:H1'	2.36	0.40
1:2A:196:A:H2'	1:2A:196:A:N3	2.36	0.40
1:2A:271(A):A:N1	1:2A:272(D):G:O2'	2.46	0.40
1:2A:534:U:H5'	16:2U:42:ALA:HB1	2.03	0.40
1:2A:538:G:H2'	1:2A:539:G:H8	1.86	0.40
1:2A:1010:A:H1'	1:2A:1153:C:H1'	2.03	0.40
1:2A:2405:G:P	11:2P:77:ARG:HH12	2.44	0.40
1:2A:2547:U:H2'	1:2A:2548:G:H8	1.86	0.40
11:2P:63:PRO:HB2	30:28:30:ARG:HH21	1.86	0.40
14:2S:10:ARG:HA	14:2S:13:ARG:HD3	2.04	0.40
32:2a:301:G:H2'	32:2a:302:G:C8	2.56	0.40
33:2b:195:ASP:OD1	33:2b:195:ASP:N	2.54	0.40
34:2c:54:ARG:HB3	34:2c:69:HIS:CD2	2.56	0.40
34:2c:87:LEU:O	34:2c:91:LEU:HD22	2.22	0.40
38:2g:12:LEU:HD13	38:2g:24:THR:HG22	2.02	0.40
54:2w:130:MET:HE1	54:2w:305:TYR:CE1	2.53	0.40
1:1A:208:C:H2'	1:1A:209:C:H6	1.86	0.40
1:1A:565:C:H2'	1:1A:566:U:O4'	2.21	0.40
1:1A:686:G:OP1	29:17:11:LYS:NZ	2.53	0.40
1:1A:957:A:N1	1:1A:2458:G:H4'	2.37	0.40
1:1A:2513:G:H2'	1:1A:2514:U:C6	2.56	0.40
4:1E:2:LYS:HA	4:1E:84:PHE:CD1	2.57	0.40
6:1G:43:LEU:C	6:1G:45:GLU:H	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:101:LEU:HA	8:1I:101:LEU:HD12	1.81	0.40
11:1P:92:GLU:HA	11:1P:123:LEU:HD21	2.03	0.40
32:1a:363:A:C5	43:1l:31:PRO:HD2	2.57	0.40
32:1a:487:A:H8	32:1a:487:A:O5'	2.04	0.40
32:1a:729:A:N1	32:1a:764:C:O2'	2.43	0.40
32:1a:875:C:O2'	39:1h:15:ASN:ND2	2.48	0.40
32:1a:922:G:H4'	36:1e:20:GLN:HA	2.03	0.40
32:1a:939:G:H2'	32:1a:940:C:C6	2.57	0.40
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.57	0.40
32:1a:1240:U:C2	38:1g:32:ARG:HD3	2.55	0.40
41:1j:16:LEU:HD21	41:1j:70:ARG:HG2	2.03	0.40
43:1l:27:LEU:HD23	43:1l:27:LEU:HA	1.97	0.40
54:1w:143:GLU:HB2	54:1w:163:ARG:HH12	1.86	0.40
1:2A:48:G:N2	1:2A:49:A:N1	2.66	0.40
1:2A:140:G:N2	1:2A:1596:A:H4'	2.36	0.40
1:2A:623:G:H2'	1:2A:624:C:C6	2.56	0.40
1:2A:1221(A):C:C2	1:2A:1229:G:N2	2.89	0.40
1:2A:1244:G:H4'	11:2P:8:PRO:HD2	2.02	0.40
1:2A:2110:G:H1	1:2A:2179:C:N4	2.18	0.40
1:2A:2151:G:H2'	1:2A:2152:G:C8	2.56	0.40
1:2A:2507:C:H4'	54:2w:233:ASN:O	2.21	0.40
1:2A:2583:G:H2'	1:2A:2584:U:O4'	2.21	0.40
3:2D:242:ARG:HD2	3:2D:246:PRO:HG3	2.03	0.40
7:2H:6:ARG:H	7:2H:6:ARG:HG2	1.63	0.40
7:2H:103:LEU:HB3	7:2H:115:VAL:HB	2.01	0.40
12:2Q:63:LYS:HG2	12:2Q:65:PHE:CE2	2.57	0.40
16:2U:85:LYS:HG2	16:2U:116:ALA:O	2.22	0.40
22:20:40:GLN:NE2	22:20:45:PHE:HB2	2.36	0.40
32:2a:376:G:H5"	47:2p:5:ARG:HD3	2.02	0.40
32:2a:406:G:O2'	35:2d:3:ARG:NH2	2.54	0.40
32:2a:814:A:N7	32:2a:816:A:C4	2.89	0.40
32:2a:1234:C:H1'	32:2a:1364:U:O2	2.22	0.40
32:2a:1265:G:C6	32:2a:1266:G:C6	3.09	0.40
33:2b:55:PHE:HD1	33:2b:55:PHE:HA	1.72	0.40
33:2b:219:VAL:O	33:2b:223:ILE:HG13	2.22	0.40
34:2c:34:LEU:O	34:2c:38:ARG:HG3	2.22	0.40
35:2d:63:LYS:O	35:2d:67:ILE:HG13	2.21	0.40
55:2x:34:G:C4	55:2x:35:A:C8	3.09	0.40
1:1A:1131:G:H8	1:1A:2025:C:H4'	1.87	0.40
1:1A:1415:U:O2'	1:1A:1417:C:OP1	2.30	0.40
1:1A:2156:G:H2'	1:1A:2157:G:C4	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:20:TYR:HB3	20:1Y:23:ARG:HG3	2.04	0.40
32:1a:263:A:OP1	51:1t:79:ARG:NH1	2.52	0.40
32:1a:612:C:H2'	32:1a:613:C:C6	2.57	0.40
32:1a:1446:U:O2'	32:1a:1447:A:H3'	2.22	0.40
33:1b:24:TRP:H	33:1b:24:TRP:HD1	1.67	0.40
33:1b:178:ARG:NH2	33:1b:198:ASP:OD1	2.53	0.40
35:1d:25:ARG:NH1	35:1d:30:LYS:O	2.54	0.40
42:1k:66:LEU:HG	42:1k:97:ALA:HB1	2.03	0.40
45:1n:3:ARG:HA	45:1n:3:ARG:HD2	1.91	0.40
49:1r:53:ARG:NH1	49:1r:60:ALA:HB2	2.37	0.40
1:2A:587:C:C6	1:2A:671:C:H1'	2.57	0.40
1:2A:814:C:H2'	1:2A:815:C:C6	2.57	0.40
1:2A:821:A:H2'	1:2A:946:G:H5"	2.03	0.40
1:2A:864:G:N2	1:2A:913:U:C2	2.89	0.40
1:2A:1367:A:N7	1:2A:1368:G:H1'	2.36	0.40
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.57	0.40
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.21	0.40
1:2A:1848:A:H2'	1:2A:1849:G:O4'	2.21	0.40
1:2A:2010:G:H5"	18:2W:42:ARG:HB2	2.02	0.40
1:2A:2261:C:O2'	1:2A:2262:U:H5'	2.22	0.40
1:2A:2321:G:H5"	1:2A:2322:A:OP2	2.20	0.40
1:2A:2563:U:H4'	10:2O:28:SER:HA	2.04	0.40
1:2A:2705:A:H2'	1:2A:2706:G:O4'	2.22	0.40
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.36	0.40
3:2D:146:GLU:HG2	3:2D:152:GLY:C	2.46	0.40
9:2N:123:TYR:CZ	9:2N:129:PRO:HD2	2.57	0.40
23:21:67:ILE:N	23:21:68:PRO:HD2	2.37	0.40
32:2a:363:A:OP1	43:2l:34:ARG:HB3	2.22	0.40
32:2a:585:G:O2'	32:2a:879:C:H5"	2.21	0.40
32:2a:1169:A:H2'	32:2a:1170:A:O4'	2.22	0.40
35:2d:112:VAL:HG22	35:2d:116:GLN:CD	2.46	0.40
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	2.03	0.40
37:2f:78:GLU:O	37:2f:81:ILE:HG22	2.22	0.40
41:2j:17:ASP:OD2	41:2j:70:ARG:NH2	2.50	0.40
48:2q:51:TYR:CD1	48:2q:57:VAL:HG11	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

There are no protein backbone outliers to report in this entry.

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	215/218 (99%)	201 (94%)	14 (6%)	15 37
3	2D	215/218 (99%)	205 (95%)	10 (5%)	23 51
4	1E	164/166 (99%)	155 (94%)	9 (6%)	19 45
4	2E	164/166 (99%)	148 (90%)	16 (10%)	7 19
5	1F	160/166 (96%)	145 (91%)	15 (9%)	8 21
5	2F	159/166 (96%)	141 (89%)	18 (11%)	5 14
6	1G	143/156 (92%)	125 (87%)	18 (13%)	4 11
6	2G	142/156 (91%)	119 (84%)	23 (16%)	2 6
7	1H	144/148 (97%)	131 (91%)	13 (9%)	9 23
7	2H	144/148 (97%)	129 (90%)	15 (10%)	7 17
8	1I	110/124 (89%)	97 (88%)	13 (12%)	5 13
8	2I	104/124 (84%)	90 (86%)	14 (14%)	4 9
9	1N	118/119 (99%)	107 (91%)	11 (9%)	8 21
9	2N	118/119 (99%)	112 (95%)	6 (5%)	21 48
10	1O	100/100 (100%)	92 (92%)	8 (8%)	11 28
10	2O	100/100 (100%)	96 (96%)	4 (4%)	28 56
11	1P	115/116 (99%)	110 (96%)	5 (4%)	26 54
11	2P	115/116 (99%)	106 (92%)	9 (8%)	11 29
12	1Q	111/111 (100%)	101 (91%)	10 (9%)	9 23
12	2Q	111/111 (100%)	99 (89%)	12 (11%)	6 16
13	1R	101/101 (100%)	92 (91%)	9 (9%)	9 23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
13	2R	101/101 (100%)	96 (95%)	5 (5%)	22 48
14	1S	87/88 (99%)	78 (90%)	9 (10%)	7 18
14	2S	85/88 (97%)	74 (87%)	11 (13%)	4 10
15	1T	115/127 (91%)	102 (89%)	13 (11%)	5 14
15	2T	113/127 (89%)	106 (94%)	7 (6%)	16 39
16	1U	93/94 (99%)	90 (97%)	3 (3%)	34 64
16	2U	93/94 (99%)	86 (92%)	7 (8%)	12 31
17	1V	80/82 (98%)	74 (92%)	6 (8%)	12 31
17	2V	80/82 (98%)	74 (92%)	6 (8%)	12 31
18	1W	90/92 (98%)	85 (94%)	5 (6%)	19 44
18	2W	90/92 (98%)	86 (96%)	4 (4%)	25 53
19	1X	77/78 (99%)	71 (92%)	6 (8%)	11 29
19	2X	76/78 (97%)	68 (90%)	8 (10%)	6 17
20	1Y	85/91 (93%)	75 (88%)	10 (12%)	5 13
20	2Y	86/91 (94%)	79 (92%)	7 (8%)	11 27
21	1Z	155/179 (87%)	144 (93%)	11 (7%)	13 33
21	2Z	155/179 (87%)	136 (88%)	19 (12%)	4 12
22	10	61/67 (91%)	59 (97%)	2 (3%)	33 63
22	20	61/67 (91%)	57 (93%)	4 (7%)	15 36
23	11	80/83 (96%)	72 (90%)	8 (10%)	7 19
23	21	80/83 (96%)	73 (91%)	7 (9%)	9 23
24	12	65/67 (97%)	59 (91%)	6 (9%)	8 22
24	22	65/67 (97%)	59 (91%)	6 (9%)	8 22
25	13	51/52 (98%)	46 (90%)	5 (10%)	7 19
25	23	50/52 (96%)	46 (92%)	4 (8%)	11 28
26	14	58/63 (92%)	51 (88%)	7 (12%)	5 12
26	24	51/63 (81%)	40 (78%)	11 (22%)	1 3
27	15	50/52 (96%)	47 (94%)	3 (6%)	17 41
27	25	50/52 (96%)	45 (90%)	5 (10%)	7 19
28	16	51/52 (98%)	47 (92%)	4 (8%)	11 29
28	26	50/52 (96%)	40 (80%)	10 (20%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
29	17	41/42 (98%)	38 (93%)	3 (7%)	13 32
29	27	41/42 (98%)	38 (93%)	3 (7%)	13 32
30	18	53/55 (96%)	49 (92%)	4 (8%)	12 31
30	28	54/55 (98%)	48 (89%)	6 (11%)	6 15
31	19	34/34 (100%)	32 (94%)	2 (6%)	18 42
31	29	34/34 (100%)	32 (94%)	2 (6%)	18 42
33	1b	192/220 (87%)	163 (85%)	29 (15%)	3 7
33	2b	187/220 (85%)	148 (79%)	39 (21%)	1 3
34	1c	144/188 (77%)	116 (81%)	28 (19%)	1 4
34	2c	140/188 (74%)	122 (87%)	18 (13%)	4 10
35	1d	170/181 (94%)	149 (88%)	21 (12%)	4 11
35	2d	173/181 (96%)	153 (88%)	20 (12%)	5 13
36	1e	113/123 (92%)	103 (91%)	10 (9%)	9 23
36	2e	113/123 (92%)	101 (89%)	12 (11%)	6 17
37	1f	84/90 (93%)	76 (90%)	8 (10%)	8 20
37	2f	85/90 (94%)	73 (86%)	12 (14%)	3 9
38	1g	119/127 (94%)	107 (90%)	12 (10%)	7 18
38	2g	120/127 (94%)	104 (87%)	16 (13%)	4 10
39	1h	114/119 (96%)	100 (88%)	14 (12%)	4 12
39	2h	114/119 (96%)	107 (94%)	7 (6%)	17 40
40	1i	90/99 (91%)	79 (88%)	11 (12%)	5 12
40	2i	86/99 (87%)	70 (81%)	16 (19%)	1 4
41	1j	68/92 (74%)	61 (90%)	7 (10%)	7 18
41	2j	69/92 (75%)	56 (81%)	13 (19%)	1 4
42	1k	82/99 (83%)	77 (94%)	5 (6%)	17 40
42	2k	83/99 (84%)	76 (92%)	7 (8%)	10 26
43	1l	96/108 (89%)	88 (92%)	8 (8%)	10 26
43	2l	96/108 (89%)	83 (86%)	13 (14%)	4 9
44	1m	90/101 (89%)	79 (88%)	11 (12%)	5 12
44	2m	85/101 (84%)	78 (92%)	7 (8%)	10 27
45	1n	49/50 (98%)	44 (90%)	5 (10%)	7 18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
45	2n	48/50 (96%)	44 (92%)	4 (8%)	10 26
46	1o	78/80 (98%)	73 (94%)	5 (6%)	16 38
46	2o	78/80 (98%)	67 (86%)	11 (14%)	3 9
47	1p	69/74 (93%)	59 (86%)	10 (14%)	3 8
47	2p	68/74 (92%)	64 (94%)	4 (6%)	18 42
48	1q	94/97 (97%)	85 (90%)	9 (10%)	8 20
48	2q	94/97 (97%)	84 (89%)	10 (11%)	6 17
49	1r	59/77 (77%)	53 (90%)	6 (10%)	7 18
49	2r	58/77 (75%)	50 (86%)	8 (14%)	3 9
50	1s	69/80 (86%)	60 (87%)	9 (13%)	4 10
50	2s	67/80 (84%)	55 (82%)	12 (18%)	2 5
51	1t	70/82 (85%)	58 (83%)	12 (17%)	2 6
51	2t	70/82 (85%)	62 (89%)	8 (11%)	5 14
52	1u	18/22 (82%)	18 (100%)	0	100 100
52	2u	18/22 (82%)	17 (94%)	1 (6%)	19 44
54	1w	203/298 (68%)	183 (90%)	20 (10%)	7 19
54	2w	202/298 (68%)	170 (84%)	32 (16%)	2 7
56	1z	14/19 (74%)	13 (93%)	1 (7%)	13 33
56	2z	14/19 (74%)	12 (86%)	2 (14%)	3 8
All	All	9747/10698 (91%)	8743 (90%)	1004 (10%)	7 18

All (1004) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	12	SER
3	1D	18	VAL
3	1D	69	ARG
3	1D	88	ARG
3	1D	105	ILE
3	1D	122	ASP
3	1D	142	VAL
3	1D	155	LEU
3	1D	176	ARG
3	1D	193	VAL

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Mol	Chain	Res	Type
3	1D	200	ASP
3	1D	229	VAL
3	1D	242	ARG
4	1E	75	VAL
4	1E	77	ILE
4	1E	82	ARG
4	1E	116	VAL
4	1E	163	GLU
4	1E	167	VAL
4	1E	170	LEU
4	1E	173	VAL
4	1E	185	LYS
5	1F	12	LEU
5	1F	15	SER
5	1F	24	LEU
5	1F	28	ILE
5	1F	53	THR
5	1F	57	VAL
5	1F	74	ARG
5	1F	125	LEU
5	1F	162	LEU
5	1F	165	ARG
5	1F	170	LEU
5	1F	176	LEU
5	1F	183	VAL
5	1F	191	ARG
5	1F	192	LEU
6	1G	3	LEU
6	1G	5	VAL
6	1G	7	LEU
6	1G	21	ARG
6	1G	26	GLN
6	1G	28	VAL
6	1G	31	VAL
6	1G	43	LEU
6	1G	51	ARG
6	1G	60	LEU
6	1G	70	VAL
6	1G	79	ASN
6	1G	106	LEU
6	1G	139	LEU
6	1G	140	ILE

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Mol	Chain	Res	Type
6	1G	160	VAL
6	1G	161	THR
6	1G	167	GLU
7	1H	45	VAL
7	1H	46	GLU
7	1H	50	VAL
7	1H	57	ASP
7	1H	63	SER
7	1H	70	THR
7	1H	84	SER
7	1H	116	GLU
7	1H	119	GLU
7	1H	122	THR
7	1H	124	GLU
7	1H	130	ARG
7	1H	172	LYS
8	1I	7	GLU
8	1I	10	GLU
8	1I	19	VAL
8	1I	21	VAL
8	1I	40	THR
8	1I	47	LEU
8	1I	57	ARG
8	1I	68	LEU
8	1I	87	LYS
8	1I	102	SER
8	1I	127	VAL
8	1I	133	HIS
8	1I	144	VAL
9	1N	33	LEU
9	1N	48	MET
9	1N	58	ASP
9	1N	60	ILE
9	1N	62	VAL
9	1N	83	LYS
9	1N	84	LYS
9	1N	87	LEU
9	1N	118	LYS
9	1N	138	LEU
9	1N	140	VAL
10	1O	1	MET
10	1O	20	MET

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Mol	Chain	Res	Type
10	1O	42	SER
10	1O	66	LYS
10	1O	69	ILE
10	1O	78	ARG
10	1O	82	ASN
10	1O	106	LEU
11	1P	1	MET
11	1P	92	GLU
11	1P	95	VAL
11	1P	101	VAL
11	1P	148	LEU
12	1Q	3	MET
12	1Q	7	MET
12	1Q	35	VAL
12	1Q	75	THR
12	1Q	77	LYS
12	1Q	81	VAL
12	1Q	106	VAL
12	1Q	109	VAL
12	1Q	111	GLU
12	1Q	129	THR
13	1R	6	SER
13	1R	8	ARG
13	1R	17	ARG
13	1R	29	LEU
13	1R	30	THR
13	1R	33	ARG
13	1R	73	VAL
13	1R	102	GLU
13	1R	114	VAL
14	1S	4	LEU
14	1S	13	ARG
14	1S	50	SER
14	1S	59	LYS
14	1S	78	LEU
14	1S	85	VAL
14	1S	93	LYS
14	1S	101	LEU
14	1S	110	LEU
15	1T	6	LEU
15	1T	9	LEU
15	1T	17	THR

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Mol	Chain	Res	Type
15	1T	21	GLU
15	1T	23	ARG
15	1T	28	VAL
15	1T	35	LYS
15	1T	36	GLU
15	1T	49	VAL
15	1T	84	GLN
15	1T	89	VAL
15	1T	96	ARG
15	1T	118	ARG
16	1U	8	VAL
16	1U	31	SER
16	1U	74	LEU
17	1V	32	THR
17	1V	35	LEU
17	1V	39	LEU
17	1V	56	SER
17	1V	79	VAL
17	1V	92	THR
18	1W	11	ARG
18	1W	17	VAL
18	1W	90	ARG
18	1W	96	ILE
18	1W	100	THR
19	1X	40	LYS
19	1X	49	VAL
19	1X	52	VAL
19	1X	60	ARG
19	1X	68	ARG
19	1X	92	LEU
20	1Y	7	VAL
20	1Y	40	GLU
20	1Y	44	ILE
20	1Y	70	SER
20	1Y	72	VAL
20	1Y	88	LYS
20	1Y	96	ILE
20	1Y	99	CYS
20	1Y	106	LEU
20	1Y	107	ASP
21	1Z	74	VAL
21	1Z	86	VAL

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Mol	Chain	Res	Type
21	1Z	93	ASP
21	1Z	107	THR
21	1Z	121	HIS
21	1Z	126	VAL
21	1Z	149	SER
21	1Z	154	ASP
21	1Z	156	LYS
21	1Z	161	VAL
21	1Z	170	THR
22	10	44	ARG
22	10	63	VAL
23	11	11	ARG
23	11	21	ARG
23	11	26	ARG
23	11	30	VAL
23	11	40	ARG
23	11	46	LEU
23	11	62	VAL
23	11	83	GLU
24	12	25	VAL
24	12	32	LEU
24	12	43	GLN
24	12	52	ASP
24	12	53	LEU
24	12	65	ASN
25	13	6	VAL
25	13	23	LEU
25	13	54	VAL
25	13	56	VAL
25	13	58	VAL
26	14	1	MET
26	14	33	VAL
26	14	35	VAL
26	14	46	GLN
26	14	50	VAL
26	14	56	VAL
26	14	63	TYR
27	15	6	VAL
27	15	20	ARG
27	15	57	VAL
28	16	14	THR
28	16	34	LEU

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Mol	Chain	Res	Type
28	16	38	LYS
28	16	52	VAL
29	17	11	LYS
29	17	43	THR
29	17	46	VAL
30	18	14	VAL
30	18	41	ILE
30	18	52	LYS
30	18	59	LYS
31	19	17	ILE
31	19	35	ARG
33	1b	10	LEU
33	1b	11	LEU
33	1b	15	VAL
33	1b	37	ASN
33	1b	61	LEU
33	1b	63	MET
33	1b	67	THR
33	1b	73	THR
33	1b	80	ILE
33	1b	93	VAL
33	1b	96	ARG
33	1b	107	THR
33	1b	112	VAL
33	1b	117	GLU
33	1b	127	ILE
33	1b	128	GLU
33	1b	140	HIS
33	1b	143	GLU
33	1b	145	LEU
33	1b	153	ARG
33	1b	160	ASP
33	1b	162	ILE
33	1b	172	ILE
33	1b	185	ILE
33	1b	189	ASP
33	1b	198	ASP
33	1b	219	VAL
33	1b	221	LEU
33	1b	230	VAL
34	1c	3	ASN
34	1c	11	ARG

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Mol	Chain	Res	Type
34	1c	26	LYS
34	1c	28	GLN
34	1c	32	LEU
34	1c	45	LYS
34	1c	46	GLU
34	1c	52	LEU
34	1c	64	VAL
34	1c	67	THR
34	1c	68	VAL
34	1c	77	ILE
34	1c	82	GLU
34	1c	87	LEU
34	1c	95	THR
34	1c	103	VAL
34	1c	105	GLU
34	1c	106	VAL
34	1c	115	LEU
34	1c	118	GLN
34	1c	125	GLU
34	1c	138	VAL
34	1c	151	VAL
34	1c	156	ARG
34	1c	188	LEU
34	1c	191	THR
34	1c	192	THR
34	1c	198	VAL
35	1d	5	ILE
35	1d	8	VAL
35	1d	18	LYS
35	1d	31	CYS
35	1d	33	MET
35	1d	49	ARG
35	1d	53	ASP
35	1d	57	ARG
35	1d	76	ARG
35	1d	105	VAL
35	1d	126	ILE
35	1d	127	THR
35	1d	129	ASN
35	1d	133	VAL
35	1d	135	LEU
35	1d	150	GLU

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Mol	Chain	Res	Type
35	1d	155	LEU
35	1d	170	VAL
35	1d	186	LEU
35	1d	187	ARG
35	1d	188	LEU
36	1e	10	MET
36	1e	24	ARG
36	1e	41	VAL
36	1e	75	THR
36	1e	78	HIS
36	1e	79	GLU
36	1e	98	THR
36	1e	100	VAL
36	1e	116	THR
36	1e	120	THR
37	1f	16	GLN
37	1f	19	LEU
37	1f	23	LYS
37	1f	25	ILE
37	1f	45	LEU
37	1f	72	VAL
37	1f	93	SER
37	1f	98	LEU
38	1g	9	VAL
38	1g	21	VAL
38	1g	23	VAL
38	1g	31	MET
38	1g	32	ARG
38	1g	41	ARG
38	1g	42	ILE
38	1g	45	ASP
38	1g	72	ARG
38	1g	73	MET
38	1g	80	VAL
38	1g	91	VAL
39	1h	2	LEU
39	1h	19	VAL
39	1h	24	THR
39	1h	29	SER
39	1h	45	ILE
39	1h	50	ARG
39	1h	52	ASP

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Mol	Chain	Res	Type
39	1h	98	LYS
39	1h	99	GLU
39	1h	111	ILE
39	1h	112	LEU
39	1h	120	THR
39	1h	133	LEU
39	1h	137	VAL
40	1i	19	LEU
40	1i	27	THR
40	1i	41	VAL
40	1i	54	ASP
40	1i	60	ASP
40	1i	81	ILE
40	1i	85	LEU
40	1i	99	LEU
40	1i	113	LYS
40	1i	121	ARG
40	1i	128	ARG
41	1j	16	LEU
41	1j	19	SER
41	1j	44	VAL
41	1j	62	HIS
41	1j	72	VAL
41	1j	81	THR
41	1j	97	GLU
42	1k	14	VAL
42	1k	48	ILE
42	1k	87	THR
42	1k	109	VAL
42	1k	114	VAL
43	1l	7	ILE
43	1l	18	VAL
43	1l	23	LYS
43	1l	46	LYS
43	1l	55	VAL
43	1l	60	LEU
43	1l	83	VAL
43	1l	101	VAL
44	1m	4	ILE
44	1m	9	ILE
44	1m	15	VAL
44	1m	19	LEU

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Mol	Chain	Res	Type
44	1m	22	ILE
44	1m	34	LEU
44	1m	36	LYS
44	1m	84	ILE
44	1m	94	ARG
44	1m	98	VAL
44	1m	106	ASN
45	1n	3	ARG
45	1n	11	LYS
45	1n	18	VAL
45	1n	33	VAL
45	1n	49	HIS
46	1o	27	VAL
46	1o	65	ARG
46	1o	76	GLU
46	1o	82	ILE
46	1o	87	ILE
47	1p	2	VAL
47	1p	11	SER
47	1p	20	VAL
47	1p	22	THR
47	1p	27	LYS
47	1p	44	THR
47	1p	50	LYS
47	1p	62	VAL
47	1p	67	THR
47	1p	79	VAL
48	1q	10	VAL
48	1q	20	THR
48	1q	36	ILE
48	1q	52	LYS
48	1q	60	ILE
48	1q	73	VAL
48	1q	74	LEU
48	1q	89	LEU
48	1q	100	LYS
49	1r	26	LEU
49	1r	28	GLU
49	1r	37	VAL
49	1r	41	LYS
49	1r	46	GLU
49	1r	85	LEU

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Mol	Chain	Res	Type
50	1s	27	GLU
50	1s	28	LYS
50	1s	31	ILE
50	1s	35	SER
50	1s	41	VAL
50	1s	44	MET
50	1s	47	HIS
50	1s	48	THR
50	1s	67	VAL
51	1t	10	LEU
51	1t	13	LEU
51	1t	23	ARG
51	1t	24	LEU
51	1t	31	SER
51	1t	37	SER
51	1t	42	GLN
51	1t	45	GLN
51	1t	55	ILE
51	1t	84	LEU
51	1t	92	LEU
51	1t	100	ILE
54	1w	108	ILE
54	1w	115	THR
54	1w	119	GLU
54	1w	125	ARG
54	1w	136	GLU
54	1w	138	MET
54	1w	144	VAL
54	1w	152	LEU
54	1w	158	VAL
54	1w	185	VAL
54	1w	188	THR
54	1w	209	ASP
54	1w	285	LEU
54	1w	301	LYS
54	1w	302	ILE
54	1w	309	GLN
54	1w	320	THR
54	1w	324	LEU
54	1w	333	THR
54	1w	348	LEU
56	1z	8	THR

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Mol	Chain	Res	Type
3	2D	3	VAL
3	2D	12	SER
3	2D	39	LYS
3	2D	46	GLN
3	2D	105	ILE
3	2D	142	VAL
3	2D	193	VAL
3	2D	204	ILE
3	2D	212	SER
3	2D	229	VAL
4	2E	38	THR
4	2E	45	THR
4	2E	63	LEU
4	2E	69	LYS
4	2E	72	VAL
4	2E	73	GLU
4	2E	75	VAL
4	2E	77	ILE
4	2E	81	ILE
4	2E	82	ARG
4	2E	116	VAL
4	2E	163	GLU
4	2E	167	VAL
4	2E	170	LEU
4	2E	173	VAL
4	2E	184	VAL
5	2F	15	SER
5	2F	57	VAL
5	2F	74	ARG
5	2F	88	VAL
5	2F	106	ARG
5	2F	125	LEU
5	2F	132	VAL
5	2F	153	SER
5	2F	162	LEU
5	2F	165	ARG
5	2F	175	THR
5	2F	176	LEU
5	2F	181	LEU
5	2F	183	VAL
5	2F	186	ILE
5	2F	192	LEU

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Mol	Chain	Res	Type
5	2F	195	ASP
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	8	LYS
6	2G	21	ARG
6	2G	28	VAL
6	2G	35	GLU
6	2G	39	ILE
6	2G	43	LEU
6	2G	51	ARG
6	2G	58	GLN
6	2G	84	LYS
6	2G	91	ARG
6	2G	107	LEU
6	2G	109	VAL
6	2G	121	ASN
6	2G	139	LEU
6	2G	140	ILE
6	2G	145	THR
6	2G	152	LEU
6	2G	153	ARG
6	2G	155	MET
6	2G	156	ASP
6	2G	166	ASP
7	2H	6	ARG
7	2H	13	LYS
7	2H	25	LYS
7	2H	34	GLU
7	2H	37	VAL
7	2H	42	ARG
7	2H	43	VAL
7	2H	44	VAL
7	2H	58	GLU
7	2H	67	LEU
7	2H	70	THR
7	2H	116	GLU
7	2H	119	GLU
7	2H	136	ILE
7	2H	153	LYS
8	2I	15	VAL
8	2I	31	LEU

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Mol	Chain	Res	Type
8	2I	33	ARG
8	2I	38	LEU
8	2I	44	LEU
8	2I	51	ILE
8	2I	91	SER
8	2I	92	VAL
8	2I	110	ASP
8	2I	127	VAL
8	2I	129	THR
8	2I	142	VAL
8	2I	144	VAL
8	2I	145	VAL
9	2N	28	THR
9	2N	33	LEU
9	2N	48	MET
9	2N	58	ASP
9	2N	68	GLU
9	2N	87	LEU
10	2O	61	VAL
10	2O	78	ARG
10	2O	113	LYS
10	2O	116	SER
11	2P	1	MET
11	2P	30	THR
11	2P	58	THR
11	2P	67	MET
11	2P	71	VAL
11	2P	99	LEU
11	2P	101	VAL
11	2P	123	LEU
11	2P	148	LEU
12	2Q	7	MET
12	2Q	8	LYS
12	2Q	21	THR
12	2Q	22	LYS
12	2Q	35	VAL
12	2Q	43	THR
12	2Q	60	ARG
12	2Q	63	LYS
12	2Q	75	THR
12	2Q	109	VAL
12	2Q	110	THR

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Mol	Chain	Res	Type
12	2Q	111	GLU
13	2R	8	ARG
13	2R	60	LEU
13	2R	73	VAL
13	2R	114	VAL
13	2R	117	VAL
14	2S	15	ARG
14	2S	21	THR
14	2S	28	VAL
14	2S	34	HIS
14	2S	38	GLN
14	2S	49	VAL
14	2S	52	SER
14	2S	56	LEU
14	2S	69	VAL
14	2S	80	LEU
14	2S	98	VAL
15	2T	6	LEU
15	2T	16	ARG
15	2T	21	GLU
15	2T	40	THR
15	2T	49	VAL
15	2T	96	ARG
15	2T	115	ARG
16	2U	5	LYS
16	2U	8	VAL
16	2U	13	LYS
16	2U	74	LEU
16	2U	77	SER
16	2U	85	LYS
16	2U	111	GLU
17	2V	7	THR
17	2V	18	LEU
17	2V	33	VAL
17	2V	46	VAL
17	2V	79	VAL
17	2V	98	GLU
18	2W	6	ILE
18	2W	11	ARG
18	2W	27	LYS
18	2W	100	THR
19	2X	35	THR

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Mol	Chain	Res	Type
19	2X	43	VAL
19	2X	45	THR
19	2X	52	VAL
19	2X	57	LEU
19	2X	68	ARG
19	2X	81	VAL
19	2X	95	LEU
20	2Y	49	VAL
20	2Y	55	TYR
20	2Y	85	VAL
20	2Y	87	LYS
20	2Y	89	PHE
20	2Y	90	LEU
20	2Y	96	ILE
21	2Z	11	GLU
21	2Z	16	SER
21	2Z	18	LEU
21	2Z	30	ASN
21	2Z	45	ASP
21	2Z	72	ARG
21	2Z	74	VAL
21	2Z	84	GLU
21	2Z	86	VAL
21	2Z	94	GLU
21	2Z	111	VAL
21	2Z	116	VAL
21	2Z	122	ARG
21	2Z	125	LEU
21	2Z	137	ILE
21	2Z	142	SER
21	2Z	153	SER
21	2Z	165	VAL
21	2Z	185	GLU
22	20	10	THR
22	20	30	VAL
22	20	64	ASP
22	20	79	VAL
23	21	21	ARG
23	21	26	ARG
23	21	30	VAL
23	21	37	ILE
23	21	40	ARG

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Mol	Chain	Res	Type
23	21	46	LEU
23	21	72	GLU
24	22	1	MET
24	22	32	LEU
24	22	44	LEU
24	22	51	ARG
24	22	53	LEU
24	22	62	THR
25	23	6	VAL
25	23	29	ARG
25	23	40	THR
25	23	54	VAL
26	24	1	MET
26	24	3	GLU
26	24	5	ILE
26	24	15	ILE
26	24	31	ILE
26	24	33	VAL
26	24	39	CYS
26	24	49	PHE
26	24	50	VAL
26	24	61	ARG
26	24	63	TYR
27	25	6	VAL
27	25	26	THR
27	25	33	CYS
27	25	58	LEU
27	25	59	GLU
28	26	5	VAL
28	26	6	ARG
28	26	7	ILE
28	26	9	LEU
28	26	14	THR
28	26	19	ARG
28	26	20	ASN
28	26	24	GLU
28	26	28	ARG
28	26	48	VAL
29	27	1	MET
29	27	4	THR
29	27	46	VAL
30	28	13	ARG

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Mol	Chain	Res	Type
30	28	14	VAL
30	28	23	VAL
30	28	27	THR
30	28	49	VAL
30	28	62	LEU
31	29	25	VAL
31	29	28	GLU
33	2b	7	VAL
33	2b	9	GLU
33	2b	12	GLU
33	2b	15	VAL
33	2b	32	ILE
33	2b	35	GLU
33	2b	55	PHE
33	2b	58	ILE
33	2b	60	ASP
33	2b	63	MET
33	2b	67	THR
33	2b	74	LYS
33	2b	76	GLN
33	2b	78	GLN
33	2b	81	VAL
33	2b	93	VAL
33	2b	112	VAL
33	2b	118	LEU
33	2b	126	GLU
33	2b	140	HIS
33	2b	150	SER
33	2b	154	LEU
33	2b	165	VAL
33	2b	176	GLU
33	2b	185	ILE
33	2b	190	THR
33	2b	195	ASP
33	2b	196	LEU
33	2b	197	VAL
33	2b	198	ASP
33	2b	200	ILE
33	2b	208	ILE
33	2b	212	GLN
33	2b	213	LEU
33	2b	219	VAL

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Mol	Chain	Res	Type
33	2b	220	ASP
33	2b	223	ILE
33	2b	224	GLN
33	2b	230	VAL
34	2c	3	ASN
34	2c	12	LEU
34	2c	20	SER
34	2c	36	ASP
34	2c	46	GLU
34	2c	49	SER
34	2c	63	ASN
34	2c	70	VAL
34	2c	89	GLU
34	2c	91	LEU
34	2c	98	ASN
34	2c	106	VAL
34	2c	153	VAL
34	2c	164	ARG
34	2c	170	GLN
34	2c	198	VAL
34	2c	206	GLU
34	2c	207	VAL
35	2d	5	ILE
35	2d	8	VAL
35	2d	12	CYS
35	2d	17	VAL
35	2d	18	LYS
35	2d	19	LEU
35	2d	21	LEU
35	2d	34	GLU
35	2d	58	LEU
35	2d	66	ARG
35	2d	70	ILE
35	2d	77	ASN
35	2d	99	SER
35	2d	135	LEU
35	2d	155	LEU
35	2d	157	LEU
35	2d	163	GLU
35	2d	169	LYS
35	2d	194	LEU
35	2d	200	GLU

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Mol	Chain	Res	Type
36	2e	20	GLN
36	2e	24	ARG
36	2e	34	VAL
36	2e	41	VAL
36	2e	47	LYS
36	2e	51	VAL
36	2e	68	GLU
36	2e	91	LEU
36	2e	120	THR
36	2e	135	THR
36	2e	136	MET
36	2e	144	THR
37	2f	6	VAL
37	2f	10	LEU
37	2f	30	LEU
37	2f	37	VAL
37	2f	40	VAL
37	2f	45	LEU
37	2f	46	ARG
37	2f	65	VAL
37	2f	69	GLU
37	2f	70	ASP
37	2f	72	VAL
37	2f	73	ASN
38	2g	4	ARG
38	2g	9	VAL
38	2g	13	GLN
38	2g	21	VAL
38	2g	38	LEU
38	2g	50	ILE
38	2g	61	VAL
38	2g	75	VAL
38	2g	76	ARG
38	2g	97	GLN
38	2g	101	LEU
38	2g	115	ARG
38	2g	118	VAL
38	2g	126	ASP
38	2g	131	LYS
38	2g	155	ARG
39	2h	24	THR
39	2h	52	ASP

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Mol	Chain	Res	Type
39	2h	99	GLU
39	2h	109	ILE
39	2h	112	LEU
39	2h	119	LEU
39	2h	133	LEU
40	2i	7	THR
40	2i	31	GLN
40	2i	34	ASN
40	2i	48	GLU
40	2i	64	THR
40	2i	65	VAL
40	2i	75	ASP
40	2i	78	LYS
40	2i	81	ILE
40	2i	87	GLN
40	2i	92	TYR
40	2i	99	LEU
40	2i	108	VAL
40	2i	109	VAL
40	2i	121	ARG
40	2i	124	GLN
41	2j	16	LEU
41	2j	25	GLU
41	2j	34	VAL
41	2j	35	SER
41	2j	38	ILE
41	2j	46	ARG
41	2j	55	LYS
41	2j	57	LYS
41	2j	81	THR
41	2j	84	GLN
41	2j	92	THR
41	2j	96	ILE
41	2j	100	THR
42	2k	24	SER
42	2k	30	VAL
42	2k	33	THR
42	2k	79	SER
42	2k	87	THR
42	2k	109	VAL
42	2k	114	VAL
43	2l	6	THR

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Mol	Chain	Res	Type
43	2l	18	VAL
43	2l	24	VAL
43	2l	52	LEU
43	2l	58	VAL
43	2l	60	LEU
43	2l	61	THR
43	2l	62	SER
43	2l	66	VAL
43	2l	101	VAL
43	2l	102	ARG
43	2l	104	VAL
43	2l	115	LYS
44	2m	49	THR
44	2m	71	ARG
44	2m	94	ARG
44	2m	98	VAL
44	2m	102	ARG
44	2m	109	THR
44	2m	114	ARG
45	2n	4	LYS
45	2n	13	THR
45	2n	22	THR
45	2n	57	ARG
46	2o	3	ILE
46	2o	10	LYS
46	2o	22	THR
46	2o	48	LYS
46	2o	56	LEU
46	2o	60	VAL
46	2o	74	ASP
46	2o	76	GLU
46	2o	83	GLU
46	2o	84	LYS
46	2o	87	ILE
47	2p	2	VAL
47	2p	16	HIS
47	2p	20	VAL
47	2p	69	THR
48	2q	7	THR
48	2q	19	VAL
48	2q	36	ILE
48	2q	53	LEU

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Mol	Chain	Res	Type
48	2q	70	ARG
48	2q	73	VAL
48	2q	74	LEU
48	2q	79	SER
48	2q	82	MET
48	2q	86	GLU
49	2r	22	VAL
49	2r	37	VAL
49	2r	42	ARG
49	2r	56	THR
49	2r	58	LEU
49	2r	76	LEU
49	2r	85	LEU
49	2r	87	ARG
50	2s	12	ASP
50	2s	14	HIS
50	2s	17	GLU
50	2s	31	ILE
50	2s	40	ILE
50	2s	43	GLU
50	2s	44	MET
50	2s	47	HIS
50	2s	58	VAL
50	2s	63	THR
50	2s	65	ASN
50	2s	83	HIS
51	2t	10	LEU
51	2t	15	ARG
51	2t	24	LEU
51	2t	56	MET
51	2t	60	GLU
51	2t	71	THR
51	2t	99	LEU
51	2t	100	ILE
52	2u	15	ARG
54	2w	105	ARG
54	2w	155	PHE
54	2w	158	VAL
54	2w	175	SER
54	2w	183	VAL
54	2w	185	VAL
54	2w	188	THR

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Mol	Chain	Res	Type
54	2w	192	ILE
54	2w	202	LEU
54	2w	204	LYS
54	2w	206	GLU
54	2w	222	MET
54	2w	248	ILE
54	2w	250	VAL
54	2w	256	ARG
54	2w	280	GLU
54	2w	283	GLU
54	2w	284	ARG
54	2w	287	LYS
54	2w	300	GLU
54	2w	302	ILE
54	2w	305	TYR
54	2w	312	VAL
54	2w	313	THR
54	2w	321	THR
54	2w	325	GLU
54	2w	333	THR
54	2w	336	LEU
54	2w	343	ASP
54	2w	345	GLU
54	2w	351	LEU
54	2w	353	GLU
56	2z	8	THR
56	2z	12	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (158) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	143	HIS
4	1E	48	GLN
5	1F	69	HIS
5	1F	204	ASN
6	1G	26	GLN
6	1G	66	GLN
8	1I	43	ASN
8	1I	133	HIS
9	1N	131	GLN
10	1O	89	ASN
11	1P	27	HIS

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Mol	Chain	Res	Type
11	1P	81	GLN
12	1Q	12	GLN
12	1Q	113	GLN
13	1R	11	ASN
13	1R	24	GLN
13	1R	71	GLN
14	1S	38	GLN
15	1T	58	ASN
16	1U	72	HIS
16	1U	81	HIS
16	1U	94	ASN
18	1W	111	HIS
19	1X	31	HIS
19	1X	82	GLN
21	1Z	50	GLN
21	1Z	73	GLN
21	1Z	121	HIS
24	12	38	GLN
24	12	43	GLN
26	14	46	GLN
30	18	35	GLN
31	19	34	GLN
33	1b	16	HIS
33	1b	40	HIS
33	1b	95	GLN
33	1b	135	GLN
33	1b	212	GLN
34	1c	37	GLN
35	1d	74	GLN
35	1d	116	GLN
35	1d	125	HIS
35	1d	160	GLN
35	1d	161	ASN
37	1f	7	ASN
37	1f	16	GLN
37	1f	32	ASN
37	1f	100	ASN
38	1g	13	GLN
38	1g	51	GLN
38	1g	96	GLN
38	1g	148	ASN
39	1h	15	ASN

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Mol	Chain	Res	Type
40	1i	31	GLN
40	1i	73	GLN
40	1i	89	ASN
40	1i	124	GLN
41	1j	13	HIS
41	1j	56	HIS
41	1j	62	HIS
41	1j	68	HIS
42	1k	38	ASN
42	1k	62	GLN
43	1l	99	HIS
45	1n	49	HIS
46	1o	28	GLN
47	1p	13	HIS
47	1p	14	ASN
47	1p	16	HIS
48	1q	26	GLN
50	1s	23	ASN
50	1s	83	HIS
51	1t	16	HIS
54	1w	189	GLN
54	1w	292	GLN
56	1z	17	HIS
3	2D	87	ASN
3	2D	112	GLN
3	2D	164	GLN
4	2E	48	GLN
4	2E	54	GLN
5	2F	69	HIS
5	2F	75	HIS
5	2F	203	GLN
6	2G	27	ASN
6	2G	66	GLN
6	2G	79	ASN
6	2G	108	ASN
6	2G	121	ASN
8	2I	104	GLN
9	2N	131	GLN
10	2O	5	GLN
12	2Q	12	GLN
12	2Q	89	ASN
12	2Q	123	HIS

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Mol	Chain	Res	Type
13	2R	13	HIS
13	2R	50	HIS
13	2R	71	GLN
14	2S	38	GLN
14	2S	95	HIS
15	2T	84	GLN
16	2U	104	GLN
18	2W	60	ASN
19	2X	31	HIS
19	2X	41	ASN
21	2Z	30	ASN
21	2Z	50	GLN
21	2Z	55	HIS
24	22	9	GLN
24	22	38	GLN
24	22	43	GLN
24	22	46	GLN
24	22	56	GLN
27	25	23	HIS
30	28	35	GLN
31	29	34	GLN
33	2b	16	HIS
33	2b	76	GLN
33	2b	146	GLN
33	2b	204	ASN
33	2b	212	GLN
34	2c	37	GLN
34	2c	63	ASN
34	2c	69	HIS
34	2c	104	GLN
34	2c	108	ASN
34	2c	123	GLN
34	2c	139	GLN
34	2c	176	HIS
34	2c	181	ASN
35	2d	77	ASN
35	2d	119	GLN
37	2f	13	ASN
37	2f	57	GLN
37	2f	73	ASN
38	2g	28	ASN
38	2g	64	GLN

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Mol	Chain	Res	Type
38	2g	110	GLN
38	2g	148	ASN
40	2i	29	ASN
40	2i	58	HIS
40	2i	87	GLN
40	2i	124	GLN
41	2j	68	HIS
41	2j	69	ASN
42	2k	93	GLN
42	2k	104	GLN
44	2m	77	ASN
45	2n	52	GLN
46	2o	28	GLN
50	2s	23	ASN
50	2s	56	GLN
50	2s	57	HIS
50	2s	69	HIS
51	2t	9	ASN
54	2w	181	GLN
54	2w	258	GLN
54	2w	315	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2864/2915 (98%)	443 (15%)	26 (0%)
1	2A	2791/2915 (95%)	480 (17%)	22 (0%)
2	1B	119/121 (98%)	12 (10%)	0
2	2B	119/121 (98%)	15 (12%)	0
32	1a	1497/1521 (98%)	307 (20%)	0
32	2a	1501/1521 (98%)	297 (19%)	0
53	1v	10/24 (41%)	3 (30%)	0
53	2v	10/24 (41%)	2 (20%)	0
55	1x	73/76 (96%)	9 (12%)	0
55	1y	71/76 (93%)	21 (29%)	0
55	2x	73/76 (96%)	12 (16%)	0
55	2y	72/76 (94%)	26 (36%)	0
All	All	9200/9466 (97%)	1627 (17%)	48 (0%)

All (1627) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	13	A
1	1A	34	C
1	1A	45	C
1	1A	63	U
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	78	A
1	1A	84	A
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	145	G
1	1A	154(A)	C
1	1A	182	A
1	1A	196	A
1	1A	197	A
1	1A	199	A
1	1A	200	U
1	1A	205	G
1	1A	215	G
1	1A	216	A
1	1A	221	A
1	1A	222	A
1	1A	229	A
1	1A	230	U
1	1A	233	A
1	1A	248	G
1	1A	265	A
1	1A	266	G
1	1A	271(D)	G
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(S)	G
1	1A	272(B)	G
1	1A	272(J)	C
1	1A	275	G
1	1A	279	C
1	1A	311	A
1	1A	327	G

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Mol	Chain	Res	Type
1	1A	329	G
1	1A	330	A
1	1A	352	G
1	1A	362	U
1	1A	363	G
1	1A	363(D)	G
1	1A	370	G
1	1A	386	G
1	1A	396	G
1	1A	406	G
1	1A	407	G
1	1A	411	G
1	1A	428	A
1	1A	444	C
1	1A	448	U
1	1A	454	A
1	1A	456	C
1	1A	457	A
1	1A	481	G
1	1A	494	G
1	1A	504	U
1	1A	505	A
1	1A	509	C
1	1A	512	G
1	1A	528	A
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	586	A
1	1A	592	G
1	1A	593	G
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(A)	U
1	1A	614(B)	G

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Mol	Chain	Res	Type
1	1A	615	G
1	1A	616	G
1	1A	627	A
1	1A	634	C
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(E)	G
1	1A	652(T)	C
1	1A	668	G
1	1A	669	G
1	1A	686	G
1	1A	699	A
1	1A	730	C
1	1A	740	U
1	1A	751	A
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	783	A
1	1A	784	A
1	1A	785	G
1	1A	790	C
1	1A	792	G
1	1A	805	G
1	1A	812	C
1	1A	819	A
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	877	U
1	1A	878	A
1	1A	879	G
1	1A	880	G
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	894	C

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Mol	Chain	Res	Type
1	1A	896	A
1	1A	897	C
1	1A	899	A
1	1A	907	U
1	1A	910	A
1	1A	932	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	975(A)	G
1	1A	983	A
1	1A	996	A
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1026	U
1	1A	1033	U
1	1A	1041	C
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1055	G
1	1A	1058	G
1	1A	1060	U
1	1A	1063	G
1	1A	1064	C
1	1A	1066	U
1	1A	1067	A
1	1A	1068	G
1	1A	1069	A
1	1A	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1075	C
1	1A	1076	C
1	1A	1077	A
1	1A	1078	U

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Mol	Chain	Res	Type
1	1A	1079	C
1	1A	1080	C
1	1A	1081	U
1	1A	1082	U
1	1A	1085	A
1	1A	1087	G
1	1A	1088	A
1	1A	1090	U
1	1A	1092	C
1	1A	1094	U
1	1A	1096	A
1	1A	1097	U
1	1A	1098	A
1	1A	1099	G
1	1A	1108	U
1	1A	1110	G
1	1A	1112	G
1	1A	1115	G
1	1A	1116	C
1	1A	1129	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1170	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1220	A
1	1A	1230	C
1	1A	1236	G
1	1A	1244	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1300	U
1	1A	1301	A
1	1A	1321	A

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Mol	Chain	Res	Type
1	1A	1352	U
1	1A	1359	A
1	1A	1365	A
1	1A	1384	A
1	1A	1385	G
1	1A	1395	A
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1437	C
1	1A	1445	A
1	1A	1450	G
1	1A	1455	G
1	1A	1467	C
1	1A	1473	G
1	1A	1482	G
1	1A	1493	C
1	1A	1494	A
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1532	C
1	1A	1539	G
1	1A	1543	C
1	1A	1546	C
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1580	A
1	1A	1581	G
1	1A	1584	C
1	1A	1586	A
1	1A	1607	C
1	1A	1608	A
1	1A	1610	A
1	1A	1647	G
1	1A	1648	C
1	1A	1654	A
1	1A	1674	G

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Mol	Chain	Res	Type
1	1A	1696	G
1	1A	1700	A
1	1A	1719	G
1	1A	1722	A
1	1A	1739	U
1	1A	1746	G
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1786	A
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1802	A
1	1A	1812	A
1	1A	1816	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1859	A
1	1A	1878	G
1	1A	1889	A
1	1A	1900	A
1	1A	1906	G
1	1A	1914	C
1	1A	1915	5MU
1	1A	1929	G
1	1A	1930	G
1	1A	1938	A
1	1A	1955	U
1	1A	1963	U
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1993	U
1	1A	1997	G
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G

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Mol	Chain	Res	Type
1	1A	2033	A
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2069	G
1	1A	2096	U
1	1A	2099	U
1	1A	2110	G
1	1A	2113	U
1	1A	2116	G
1	1A	2122	U
1	1A	2123	G
1	1A	2126	A
1	1A	2127	G
1	1A	2130	U
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2138	C
1	1A	2140	C
1	1A	2141	G
1	1A	2145	C
1	1A	2146	C
1	1A	2150	U
1	1A	2151	G
1	1A	2155	G
1	1A	2156	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2163	C
1	1A	2165	G
1	1A	2166	G
1	1A	2167	U
1	1A	2168	G
1	1A	2171	A
1	1A	2172	U
1	1A	2173	A

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Mol	Chain	Res	Type
1	1A	2175	C
1	1A	2178	C
1	1A	2182	G
1	1A	2184	G
1	1A	2189	U
1	1A	2190	G
1	1A	2197	U
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2219	G
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2269	A
1	1A	2273	A
1	1A	2278	A
1	1A	2280	G
1	1A	2283	C
1	1A	2287	A
1	1A	2305	A
1	1A	2308	G
1	1A	2320	A
1	1A	2325	G
1	1A	2326	C
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2383	G
1	1A	2385	C
1	1A	2402	C
1	1A	2406	U
1	1A	2410	G
1	1A	2422	A
1	1A	2423	U
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2435	A

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Mol	Chain	Res	Type
1	1A	2439	A
1	1A	2440	C
1	1A	2441	C
1	1A	2445	G
1	1A	2448	A
1	1A	2468	G
1	1A	2476	A
1	1A	2478	A
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2517	C
1	1A	2518	A
1	1A	2520	C
1	1A	2529	G
1	1A	2554	U
1	1A	2564	A
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2574	G
1	1A	2602	A
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2615	U
1	1A	2629	A
1	1A	2630	G
1	1A	2634	G
1	1A	2638	G
1	1A	2641	G
1	1A	2654	A
1	1A	2663	G
1	1A	2689	U
1	1A	2690	C
1	1A	2702	U
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2721	A
1	1A	2726	U
1	1A	2733	A

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Mol	Chain	Res	Type
1	1A	2758	A
1	1A	2764	A
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2790	A
1	1A	2791	C
1	1A	2794	C
1	1A	2802	G
1	1A	2803	C
1	1A	2808	U
1	1A	2820	A
1	1A	2821	A
1	1A	2835	A
1	1A	2836	U
1	1A	2848	G
1	1A	2872	G
1	1A	2880	C
1	1A	2892	A
1	1A	2893	G
1	1A	2894	G
1	1A	2895	U
2	1B	9	G
2	1B	13	A
2	1B	24	G
2	1B	35	U
2	1B	45	A
2	1B	52	A
2	1B	56	G
2	1B	67	G
2	1B	73	A
2	1B	93	G
2	1B	106	G
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	50	A
32	1a	51	A

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Mol	Chain	Res	Type
32	1a	52	G
32	1a	54	C
32	1a	61	G
32	1a	65	U
32	1a	77	G
32	1a	78	G
32	1a	79	G
32	1a	91	C
32	1a	98	G
32	1a	101	A
32	1a	116	A
32	1a	121	C
32	1a	122	G
32	1a	129	U
32	1a	131	C
32	1a	142	G
32	1a	144	G
32	1a	146	G
32	1a	148	G
32	1a	151	A
32	1a	152	A
32	1a	153	C
32	1a	156	G
32	1a	162	A
32	1a	163	C
32	1a	173	U
32	1a	174	C
32	1a	182	U
32	1a	185	A
32	1a	189(E)	U
32	1a	189(F)	U
32	1a	189(G)	G
32	1a	189(H)	G
32	1a	189(K)	U
32	1a	195	A
32	1a	197	A
32	1a	201	C
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	217	C

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Mol	Chain	Res	Type
32	1a	220	G
32	1a	222	U
32	1a	223	U
32	1a	247	G
32	1a	251	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	301	G
32	1a	321	A
32	1a	328	C
32	1a	332	G
32	1a	341	C
32	1a	343	U
32	1a	344	A
32	1a	345	C
32	1a	348	G
32	1a	349	A
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	382	A
32	1a	384	G
32	1a	392	G
32	1a	396	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	439	A
32	1a	442	C
32	1a	445	G
32	1a	452	A
32	1a	461	A
32	1a	470	C

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Mol	Chain	Res	Type
32	1a	477	A
32	1a	485	G
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	517	G
32	1a	518	C
32	1a	521	G
32	1a	528	C
32	1a	532	A
32	1a	545	C
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	562	C
32	1a	564	C
32	1a	568	G
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	618	C
32	1a	630	G
32	1a	641	U
32	1a	650	G
32	1a	653	A
32	1a	659	U
32	1a	665	A
32	1a	687	A
32	1a	688	G
32	1a	695	A
32	1a	722	A
32	1a	723	U
32	1a	731	G
32	1a	749	C
32	1a	753	A
32	1a	755	G
32	1a	773	G

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Mol	Chain	Res	Type
32	1a	777	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	799	G
32	1a	806	C
32	1a	815	A
32	1a	816	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	851	G
32	1a	855	G
32	1a	859	A
32	1a	870	U
32	1a	872	A
32	1a	876	G
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	931	C
32	1a	934	C
32	1a	935	A
32	1a	960	U
32	1a	961	U
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	983	A
32	1a	992	U
32	1a	993	G
32	1a	994	A

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Mol	Chain	Res	Type
32	1a	997	U
32	1a	1000	U
32	1a	1001(A)	G
32	1a	1002	G
32	1a	1003	G
32	1a	1005	A
32	1a	1006	C
32	1a	1008	C
32	1a	1009	G
32	1a	1011	G
32	1a	1022	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(B)	C
32	1a	1030(C)	G
32	1a	1031	G
32	1a	1033	G
32	1a	1036	G
32	1a	1037	C
32	1a	1039	C
32	1a	1040	U
32	1a	1044	A
32	1a	1045	C
32	1a	1050	G
32	1a	1051	C
32	1a	1054	C
32	1a	1057	G
32	1a	1065	U
32	1a	1066	C
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1121	U
32	1a	1122	U
32	1a	1123	A
32	1a	1124	G

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Mol	Chain	Res	Type
32	1a	1125	U
32	1a	1132	C
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1139	G
32	1a	1140	C
32	1a	1143	G
32	1a	1146	A
32	1a	1151	A
32	1a	1152	A
32	1a	1157	A
32	1a	1159	U
32	1a	1160	G
32	1a	1162	C
32	1a	1166	G
32	1a	1177	G
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1200	C
32	1a	1201	A
32	1a	1202	G
32	1a	1212	U
32	1a	1213	A
32	1a	1214	C
32	1a	1215	G
32	1a	1217	C
32	1a	1220	G
32	1a	1225	A
32	1a	1227	A
32	1a	1228	C
32	1a	1236	A
32	1a	1238	A
32	1a	1245	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1262	C
32	1a	1270	C
32	1a	1272	G
32	1a	1275	A

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Mol	Chain	Res	Type
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1288	A
32	1a	1290	G
32	1a	1297	C
32	1a	1298	C
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1305	G
32	1a	1312	G
32	1a	1320	C
32	1a	1322	C
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1350	A
32	1a	1352	C
32	1a	1353	G
32	1a	1358	U
32	1a	1363	C
32	1a	1370	G
32	1a	1372	U
32	1a	1381	U
32	1a	1394	A
32	1a	1397	C
32	1a	1398	A
32	1a	1401	G
32	1a	1402	4OC
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1452	C
32	1a	1493	A
32	1a	1494	G
32	1a	1497	G
32	1a	1503	A
32	1a	1504	G

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Mol	Chain	Res	Type
32	1a	1506	U
32	1a	1517	G
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
53	1v	11	U
53	1v	12	A
53	1v	21	A
55	1x	9	A
55	1x	14	A
55	1x	18	G
55	1x	21	A
55	1x	22	G
55	1x	28	G
55	1x	47	U
55	1x	48	C
55	1x	76	A
55	1y	13	C
55	1y	14	A
55	1y	19	G
55	1y	20	U
55	1y	22	G
55	1y	24	G
55	1y	27	G
55	1y	40	C
55	1y	44	G
55	1y	45	U
55	1y	46	G7M
55	1y	47	U
55	1y	48	C
55	1y	49	C
55	1y	56	C
55	1y	57	G
55	1y	58	A
55	1y	59	U
55	1y	70	G
55	1y	71	G
55	1y	73	A
1	2A	35	G
1	2A	45	C
1	2A	55	G
1	2A	61	G

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Mol	Chain	Res	Type
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	92	A
1	2A	94	C
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	131	G
1	2A	141	A
1	2A	154(A)	C
1	2A	157	U
1	2A	181	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	228	A
1	2A	229	A
1	2A	233	A
1	2A	245	G
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	266	G
1	2A	271(J)	C
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(B)	G
1	2A	272(I)	U
1	2A	272(J)	C
1	2A	277	C
1	2A	278	A
1	2A	283	A

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Mol	Chain	Res	Type
1	2A	294	A
1	2A	302	C
1	2A	304	G
1	2A	311	A
1	2A	324	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	332	A
1	2A	338	G
1	2A	342	G
1	2A	352	G
1	2A	354	G
1	2A	362	U
1	2A	363	G
1	2A	363(C)	G
1	2A	371	A
1	2A	386	G
1	2A	396	G
1	2A	405	U
1	2A	407	G
1	2A	411	G
1	2A	412	A
1	2A	435	C
1	2A	444	C
1	2A	446	G
1	2A	457	A
1	2A	481	G
1	2A	503	A
1	2A	505	A
1	2A	508	G
1	2A	509	C
1	2A	517	C
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	551	G
1	2A	563	G
1	2A	573	G
1	2A	575	A

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Mol	Chain	Res	Type
1	2A	586	A
1	2A	588	U
1	2A	599	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	637	A
1	2A	643	A
1	2A	645	C
1	2A	646	A
1	2A	652(B)	A
1	2A	653	A
1	2A	668	G
1	2A	669	G
1	2A	686	G
1	2A	726	G
1	2A	730	C
1	2A	739	G
1	2A	752	A
1	2A	753	C
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	819	A
1	2A	827	U
1	2A	828	U
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	867	C
1	2A	874	G
1	2A	878	A
1	2A	879	G

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Mol	Chain	Res	Type
1	2A	880	G
1	2A	881	G
1	2A	884	C
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	894	C
1	2A	895	U
1	2A	896	A
1	2A	897	C
1	2A	899	A
1	2A	900	A
1	2A	910	A
1	2A	914	C
1	2A	915	C
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	953	A
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	1012	U
1	2A	1013	C
1	2A	1020	A
1	2A	1021	A
1	2A	1022	G
1	2A	1025	G
1	2A	1027	A
1	2A	1033	U
1	2A	1039	G
1	2A	1041	C
1	2A	1042	G

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Mol	Chain	Res	Type
1	2A	1043	C
1	2A	1114	G
1	2A	1115	G
1	2A	1116	C
1	2A	1126	A
1	2A	1129	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1139	G
1	2A	1141	U
1	2A	1142	U
1	2A	1142(A)	A
1	2A	1156	A
1	2A	1166	C
1	2A	1167	U
1	2A	1171	G
1	2A	1186	G
1	2A	1210	A
1	2A	1211	U
1	2A	1220	A
1	2A	1237	A
1	2A	1248	G
1	2A	1250	G
1	2A	1253	A
1	2A	1256	G
1	2A	1268	A
1	2A	1271	G
1	2A	1272	A
1	2A	1288	U
1	2A	1300	U
1	2A	1301	A
1	2A	1314	C
1	2A	1321	A
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1370	C
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G

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Mol	Chain	Res	Type
1	2A	1386	C
1	2A	1402	C
1	2A	1406	U
1	2A	1413	G
1	2A	1415	U
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C
1	2A	1436	G
1	2A	1445	A
1	2A	1449	A
1	2A	1450	G
1	2A	1455	G
1	2A	1460	A
1	2A	1467	C
1	2A	1471	A
1	2A	1478	G
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1496	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509(A)	A
1	2A	1531	C
1	2A	1533	G
1	2A	1539	G
1	2A	1547	C
1	2A	1554	A
1	2A	1558	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1583	A
1	2A	1584	C
1	2A	1586	A
1	2A	1595	G
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A

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Mol	Chain	Res	Type
1	2A	1648	C
1	2A	1654	A
1	2A	1663	C
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1721	G
1	2A	1722	A
1	2A	1740	G
1	2A	1741	A
1	2A	1746	G
1	2A	1756	G
1	2A	1758	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1774	C
1	2A	1780	A
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1829	A
1	2A	1847	A
1	2A	1848	A
1	2A	1858	G
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
1	2A	1913	A
1	2A	1914	C
1	2A	1927	A
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1938	A
1	2A	1955	U
1	2A	1960	A

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Mol	Chain	Res	Type
1	2A	1963	U
1	2A	1965	C
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1978	A
1	2A	1984	G
1	2A	1992	G
1	2A	1993	U
1	2A	1997	G
1	2A	2021	C
1	2A	2023	G
1	2A	2024	G
1	2A	2027	G
1	2A	2031	A
1	2A	2033	A
1	2A	2043	C
1	2A	2052	G
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2067	G
1	2A	2069	G
1	2A	2080	G
1	2A	2111	C
1	2A	2113	U
1	2A	2114	A
1	2A	2115	G
1	2A	2116	G
1	2A	2119	A
1	2A	2120	G
1	2A	2122	U
1	2A	2124	G
1	2A	2126	A
1	2A	2127	G
1	2A	2130	U
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2135	A

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Mol	Chain	Res	Type
1	2A	2136	C
1	2A	2138	C
1	2A	2142	C
1	2A	2146	C
1	2A	2147	G
1	2A	2149	G
1	2A	2150	U
1	2A	2155	G
1	2A	2156	G
1	2A	2157	G
1	2A	2158	A
1	2A	2160	G
1	2A	2161	C
1	2A	2162	G
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2169	A
1	2A	2171	A
1	2A	2172	U
1	2A	2173	A
1	2A	2175	C
1	2A	2178	C
1	2A	2182	G
1	2A	2184	G
1	2A	2185	C
1	2A	2188	C
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2205	C
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2238	G
1	2A	2239	G
1	2A	2248	C
1	2A	2273	A
1	2A	2275	C
1	2A	2278	A

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Mol	Chain	Res	Type
1	2A	2283	C
1	2A	2287	A
1	2A	2301	C
1	2A	2302	G
1	2A	2305	A
1	2A	2308	G
1	2A	2319	G
1	2A	2320	A
1	2A	2325	G
1	2A	2334	G
1	2A	2336	A
1	2A	2343	C
1	2A	2347	C
1	2A	2350	C
1	2A	2354	G
1	2A	2377	A
1	2A	2383	G
1	2A	2385	C
1	2A	2391	G
1	2A	2396	G
1	2A	2400	G
1	2A	2406	U
1	2A	2410	G
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2445	G
1	2A	2448	A
1	2A	2459	A
1	2A	2465	C
1	2A	2474	C
1	2A	2476	A
1	2A	2480	C
1	2A	2490	G
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2520	C

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Mol	Chain	Res	Type
1	2A	2529	G
1	2A	2535	G
1	2A	2549	G
1	2A	2554	U
1	2A	2562	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2574	G
1	2A	2582	G
1	2A	2585	U
1	2A	2602	A
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2629	A
1	2A	2630	G
1	2A	2636	U
1	2A	2637	U
1	2A	2654	A
1	2A	2661	G
1	2A	2674	G
1	2A	2679	A
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2751	G
1	2A	2757	A
1	2A	2764	A
1	2A	2765	A
1	2A	2775	A
1	2A	2778	A
1	2A	2780	G
1	2A	2788	C
1	2A	2789	C
1	2A	2802	G

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Mol	Chain	Res	Type
1	2A	2808	U
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2834	G
1	2A	2835	A
1	2A	2839	G
1	2A	2872	G
1	2A	2875	C
1	2A	2880	C
1	2A	2887	U
1	2A	2894	G
1	2A	2897	U
2	2B	7	G
2	2B	9	G
2	2B	12	C
2	2B	13	A
2	2B	15	A
2	2B	21	G
2	2B	24	G
2	2B	45	A
2	2B	54	G
2	2B	56	G
2	2B	65	C
2	2B	67	G
2	2B	73	A
2	2B	85	G
2	2B	110	G
32	2a	9	G
32	2a	22	G
32	2a	31	G
32	2a	32	A
32	2a	39	G
32	2a	41	G
32	2a	45	U
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	54	C
32	2a	65	U

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Mol	Chain	Res	Type
32	2a	66	G
32	2a	73	G
32	2a	79	G
32	2a	80	G
32	2a	88	A
32	2a	89	C
32	2a	101	A
32	2a	116	A
32	2a	117	G
32	2a	121	C
32	2a	122	G
32	2a	129(A)	G
32	2a	130	A
32	2a	131	C
32	2a	142	G
32	2a	143	A
32	2a	144	G
32	2a	146	G
32	2a	156	G
32	2a	163	C
32	2a	173	U
32	2a	174	C
32	2a	182	U
32	2a	189	G
32	2a	189(F)	U
32	2a	189(H)	G
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	247	G
32	2a	251	G
32	2a	258	G
32	2a	259	G
32	2a	266	G
32	2a	267	C
32	2a	279	A
32	2a	289	G
32	2a	301	G
32	2a	306	G

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Mol	Chain	Res	Type
32	2a	316	G
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	382	A
32	2a	384	G
32	2a	395	C
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	424	G
32	2a	429	U
32	2a	434	U
32	2a	439	A
32	2a	442	C
32	2a	449	C
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	482	A
32	2a	485	G
32	2a	496	A
32	2a	498	U
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	547	A
32	2a	559	A

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Mol	Chain	Res	Type
32	2a	561	U
32	2a	568	G
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	596	C
32	2a	630	G
32	2a	653	A
32	2a	662	G
32	2a	665	A
32	2a	687	A
32	2a	688	G
32	2a	693	G
32	2a	702	A
32	2a	703	G
32	2a	721	G
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	734	G
32	2a	753	A
32	2a	755	G
32	2a	774	G
32	2a	778	G
32	2a	792	A
32	2a	793	U
32	2a	794	A
32	2a	810	C
32	2a	817	C
32	2a	819	A
32	2a	821	G
32	2a	828	A
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	859	A
32	2a	864	A
32	2a	870	U
32	2a	873	A
32	2a	874	G
32	2a	902	G
32	2a	912	C

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Mol	Chain	Res	Type
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	934	C
32	2a	935	A
32	2a	942	G
32	2a	960	U
32	2a	961	U
32	2a	968	A
32	2a	969	A
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	982	U
32	2a	987	G
32	2a	992	U
32	2a	993	G
32	2a	995	C
32	2a	997	U
32	2a	999	C
32	2a	1003	G
32	2a	1005	A
32	2a	1009	G
32	2a	1019	C
32	2a	1020	U
32	2a	1022	G
32	2a	1023	G
32	2a	1025	U
32	2a	1027	C
32	2a	1028	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1031	G
32	2a	1032	G
32	2a	1033	G
32	2a	1037	C

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Mol	Chain	Res	Type
32	2a	1040	U
32	2a	1044	A
32	2a	1046	A
32	2a	1053	G
32	2a	1064	G
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1070	U
32	2a	1077	G
32	2a	1080	A
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1113	C
32	2a	1115	C
32	2a	1117	G
32	2a	1121	U
32	2a	1125	U
32	2a	1126	U
32	2a	1129	C
32	2a	1130	A
32	2a	1131	G
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1143	G
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1158	C
32	2a	1159	U
32	2a	1160	G
32	2a	1172	C
32	2a	1175	G
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1187	G
32	2a	1194	U

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Mol	Chain	Res	Type
32	2a	1196	U
32	2a	1197	G
32	2a	1202	G
32	2a	1211	U
32	2a	1213	A
32	2a	1214	C
32	2a	1222	G
32	2a	1225	A
32	2a	1226	C
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1272	G
32	2a	1273	G
32	2a	1274	G
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1285	A
32	2a	1286	A
32	2a	1287	A
32	2a	1293	G
32	2a	1295	G
32	2a	1297	C
32	2a	1299	A
32	2a	1300	G
32	2a	1301	U
32	2a	1302	U
32	2a	1305	G
32	2a	1312	G
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1357	A
32	2a	1358	U

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Mol	Chain	Res	Type
32	2a	1362	C
32	2a	1363	C
32	2a	1364	U
32	2a	1368	G
32	2a	1377	A
32	2a	1379	G
32	2a	1381	U
32	2a	1383	C
32	2a	1397	C
32	2a	1398	A
32	2a	1412	C
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1482	G
32	2a	1487	G
32	2a	1491	G
32	2a	1493	A
32	2a	1494	G
32	2a	1497	G
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1517	G
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A
32	2a	1532	U
53	2v	11	U
53	2v	14	A
55	2x	9	A
55	2x	16	U
55	2x	17	C
55	2x	18	G
55	2x	19	G
55	2x	20	U
55	2x	21	A
55	2x	28	G

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Mol	Chain	Res	Type
55	2x	48	C
55	2x	52	G
55	2x	63	G
55	2x	76	A
55	2y	9	A
55	2y	13	C
55	2y	14	A
55	2y	15	G
55	2y	19	G
55	2y	20	U
55	2y	21	A
55	2y	24	G
55	2y	26	A
55	2y	27	G
55	2y	30	G
55	2y	33	U
55	2y	44	G
55	2y	45	U
55	2y	46	G7M
55	2y	47	U
55	2y	48	C
55	2y	49	C
55	2y	53	G
55	2y	56	C
55	2y	58	A
55	2y	59	U
55	2y	60	U
55	2y	61	C
55	2y	65	G
55	2y	68	C

All (48) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	196	A
1	1A	278	A
1	1A	348	G
1	1A	548	A
1	1A	774	A
1	1A	887	A
1	1A	974	G
1	1A	1065	U

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Mol	Chain	Res	Type
1	1A	1107	G
1	1A	1142(A)	A
1	1A	1174	A
1	1A	1176	G
1	1A	1442	G
1	1A	1508	A
1	1A	1608	A
1	1A	1653	G
1	1A	2126	A
1	1A	2131	G
1	1A	2134	A
1	1A	2183	C
1	1A	2308	G
1	1A	2406	U
1	1A	2422	A
1	1A	2439	A
1	1A	2601	C
1	1A	2689	U
1	2A	196	A
1	2A	228	A
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	528	A
1	2A	752	A
1	2A	774	A
1	2A	856	C
1	2A	888	C
1	2A	1026	U
1	2A	1210	A
1	2A	1379	A
1	2A	1420	U
1	2A	1653	G
1	2A	1913	A
1	2A	1992	G
1	2A	2126	A
1	2A	2406	U
1	2A	2581	G
1	2A	2689	U
1	2A	2756	U

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

78 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	$\#\|Z\| > 2$
55	4SU	2y	8	55	18,21,22	1.74	4 (22%)	25,30,33	2.00	4 (16%)
32	UR3	2a	1498	32	19,22,23	0.94	1 (5%)	26,32,35	1.73	3 (11%)
55	MIA	1y	37	55	28,31,32	2.24	7 (25%)	38,44,47	2.82	13 (34%)
1	OMC	2A	1920	1,57	19,22,23	0.80	0	25,31,34	0.88	0
32	2MG	1a	1207	57,32	23,26,27	1.25	4 (17%)	33,38,41	2.17	8 (24%)
55	5MU	2x	54	55	19,22,23	1.38	5 (26%)	27,32,35	1.91	6 (22%)
55	PSU	1y	32	55	18,21,22	1.39	2 (11%)	21,30,33	1.95	3 (14%)
55	PSU	2x	55	55	18,21,22	1.38	2 (11%)	21,30,33	2.03	3 (14%)
1	5MU	1A	1915	1,57	19,22,23	1.44	5 (26%)	27,32,35	2.10	5 (18%)
1	OMG	1A	2251	1,55,57	23,26,27	1.24	3 (13%)	32,38,41	2.07	7 (21%)
32	PSU	2a	516	57,32	18,21,22	1.38	2 (11%)	21,30,33	1.98	5 (23%)
55	4SU	1y	8	55	18,21,22	1.79	4 (22%)	25,30,33	2.01	5 (20%)
1	PSU	2A	1917	1	18,21,22	1.42	3 (16%)	21,30,33	2.05	4 (19%)
1	OMU	2A	2552	1,57	19,22,23	1.27	3 (15%)	25,31,34	1.86	5 (20%)
1	5MU	2A	1939	1	19,22,23	1.48	6 (31%)	27,32,35	2.25	7 (25%)
55	MIA	1x	37	55	28,31,32	2.48	7 (25%)	38,44,47	2.58	14 (36%)
1	5MU	2A	1915	1	19,22,23	1.45	5 (26%)	27,32,35	2.12	5 (18%)
55	G7M	1y	46	55	23,26,27	1.53	4 (17%)	34,39,42	1.83	5 (14%)
1	2MA	1A	2503	1,57	22,25,26	1.47	4 (18%)	32,37,40	2.32	9 (28%)
55	PSU	1x	32	55	18,21,22	1.36	2 (11%)	21,30,33	1.99	3 (14%)
32	5MC	2a	967	57,32	19,22,23	1.67	3 (15%)	26,32,35	1.14	3 (11%)
1	5MU	1A	1939	1,57	19,22,23	1.39	5 (26%)	27,32,35	2.39	6 (22%)
55	4SU	1x	8	55	18,21,22	1.78	4 (22%)	25,30,33	1.91	4 (16%)
32	5MC	1a	1407	32	19,22,23	1.44	3 (15%)	26,32,35	1.03	2 (7%)
1	OMC	1A	1920	1	19,22,23	0.81	0	25,31,34	0.96	1 (4%)
55	PSU	2y	39	55	18,21,22	1.36	2 (11%)	21,30,33	1.87	3 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	5MC	2A	1942	1	19,22,23	1.66	3 (15%)	26,32,35	1.22	3 (11%)
55	PSU	1y	55	55	18,21,22	1.36	2 (11%)	21,30,33	2.00	3 (14%)
54	MEQ	1w	230	54	8,9,10	0.98	0	5,10,12	0.69	0
32	5MC	2a	1400	32	19,22,23	1.67	3 (15%)	26,32,35	1.12	2 (7%)
43	0TD	2l	92	43	8,9,10	4.48	2 (25%)	6,11,13	4.62	3 (50%)
32	M2G	2a	966	32	24,27,28	1.27	4 (16%)	33,40,43	1.92	5 (15%)
32	MA6	1a	1518	32	23,26,27	0.42	0	33,38,41	2.04	9 (27%)
43	0TD	1l	92	43	8,9,10	4.21	2 (25%)	6,11,13	9.98	3 (50%)
32	4OC	2a	1402	57,32	20,23,24	0.78	0	25,32,35	0.96	1 (4%)
55	MIA	2x	37	55	28,31,32	2.40	6 (21%)	38,44,47	2.80	14 (36%)
32	G7M	2a	527	32	23,26,27	1.50	3 (13%)	34,39,42	1.78	5 (14%)
55	PSU	1x	39	55	18,21,22	1.39	2 (11%)	21,30,33	1.90	3 (14%)
32	PSU	1a	516	57,32	18,21,22	1.40	2 (11%)	21,30,33	2.03	5 (23%)
55	PSU	2x	32	55	18,21,22	1.36	2 (11%)	21,30,33	2.01	4 (19%)
32	5MC	1a	1404	32	19,22,23	1.69	3 (15%)	26,32,35	1.11	3 (11%)
55	PSU	1x	55	55	18,21,22	1.39	2 (11%)	21,30,33	2.01	4 (19%)
1	PSU	2A	1911	1	18,21,22	1.41	2 (11%)	21,30,33	2.11	6 (28%)
32	UR3	1a	1498	32	19,22,23	1.04	2 (10%)	26,32,35	1.70	5 (19%)
1	PSU	2A	2605	1	18,21,22	1.28	2 (11%)	21,30,33	2.08	4 (19%)
1	5MC	2A	1962	1,57	19,22,23	1.52	3 (15%)	26,32,35	1.03	2 (7%)
1	5MC	1A	1942	1	19,22,23	1.60	3 (15%)	26,32,35	1.24	3 (11%)
55	G7M	2x	46	55	23,26,27	1.53	3 (13%)	34,39,42	1.70	5 (14%)
32	MA6	1a	1519	32	23,26,27	0.44	0	33,38,41	2.08	9 (27%)
55	5MU	2y	54	55	19,22,23	1.47	5 (26%)	27,32,35	2.41	8 (29%)
1	PSU	1A	2605	1,57	18,21,22	1.41	3 (16%)	21,30,33	2.02	4 (19%)
32	5MC	1a	1400	32	19,22,23	1.69	3 (15%)	26,32,35	1.21	3 (11%)
32	G7M	1a	527	32	23,26,27	1.56	3 (13%)	34,39,42	1.81	5 (14%)
55	PSU	1y	39	55	18,21,22	1.45	3 (16%)	21,30,33	1.73	3 (14%)
55	G7M	1x	46	55	23,26,27	1.56	3 (13%)	34,39,42	1.75	5 (14%)
32	MA6	2a	1519	32	23,26,27	0.42	0	33,38,41	2.13	9 (27%)
32	5MC	2a	1407	32	19,22,23	1.58	3 (15%)	26,32,35	1.07	2 (7%)
32	5MC	1a	967	32	19,22,23	1.77	3 (15%)	26,32,35	1.17	2 (7%)
54	MEQ	2w	230	54	8,9,10	0.92	0	5,10,12	0.46	0
32	4OC	1a	1402	57,32	20,23,24	0.79	0	25,32,35	1.05	3 (12%)
32	MA6	2a	1518	32	23,26,27	0.42	0	33,38,41	2.07	8 (24%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	2MG	2a	1207	32	23,26,27	1.25	3 (13%)	33,38,41	2.14	8 (24%)
1	5MC	1A	1962	1,57	19,22,23	1.62	3 (15%)	26,32,35	1.08	1 (3%)
1	OMU	1A	2552	1,57	19,22,23	1.33	4 (21%)	25,31,34	2.01	5 (20%)
1	OMG	2A	2251	1,55,57	23,26,27	1.22	3 (13%)	32,38,41	1.95	6 (18%)
55	G7M	2y	46	55	23,26,27	1.54	4 (17%)	34,39,42	1.79	5 (14%)
1	PSU	1A	1911	1	18,21,22	1.37	2 (11%)	21,30,33	2.06	4 (19%)
55	4SU	2x	8	57,55	18,21,22	1.88	4 (22%)	25,30,33	1.69	4 (16%)
32	M2G	1a	966	32	24,27,28	1.32	3 (12%)	33,40,43	1.94	6 (18%)
55	5MU	1x	54	55	19,22,23	1.44	3 (15%)	27,32,35	1.76	6 (22%)
55	PSU	2x	39	55	18,21,22	1.40	3 (16%)	21,30,33	1.82	4 (19%)
1	PSU	1A	1917	1	18,21,22	1.43	2 (11%)	21,30,33	1.99	3 (14%)
55	MIA	2y	37	55	28,31,32	2.36	6 (21%)	38,44,47	2.91	14 (36%)
1	2MA	2A	2503	1,57	22,25,26	1.47	4 (18%)	32,37,40	2.32	8 (25%)
55	PSU	2y	55	55	18,21,22	1.39	2 (11%)	21,30,33	1.97	4 (19%)
55	5MU	1y	54	55	19,22,23	1.42	5 (26%)	27,32,35	1.77	6 (22%)
32	5MC	2a	1404	32	19,22,23	1.68	3 (15%)	26,32,35	1.25	2 (7%)
55	PSU	2y	32	55	18,21,22	1.35	2 (11%)	21,30,33	1.94	3 (14%)

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
55	4SU	2y	8	55	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
55	MIA	1y	37	55	-	3/15/33/34	0/3/3/3
1	OMC	2A	1920	1,57	-	2/9/27/28	0/2/2/2
32	2MG	1a	1207	57,32	-	0/9/27/28	0/3/3/3
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
55	PSU	1y	32	55	-	0/7/25/26	0/2/2/2
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1,57	-	2/7/25/26	0/2/2/2
1	OMG	1A	2251	1,55,57	-	1/9/27/28	0/3/3/3
32	PSU	2a	516	57,32	-	0/7/25/26	0/2/2/2
55	4SU	1y	8	55	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	OMU	2A	2552	1,57	-	0/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
55	MIA	1x	37	55	-	7/15/33/34	0/3/3/3
1	5MU	2A	1915	1	-	0/7/25/26	0/2/2/2
55	G7M	1y	46	55	-	4/7/25/26	0/3/3/3
1	2MA	1A	2503	1,57	-	2/7/25/26	0/3/3/3
55	PSU	1x	32	55	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	57,32	-	0/7/25/26	0/2/2/2
1	5MU	1A	1939	1,57	-	0/7/25/26	0/2/2/2
55	4SU	1x	8	55	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	OMC	1A	1920	1	-	1/9/27/28	0/2/2/2
55	PSU	2y	39	55	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
55	PSU	1y	55	55	-	2/7/25/26	0/2/2/2
54	MEQ	1w	230	54	-	3/8/9/11	-
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	5/7/12/14	-
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
43	0TD	1l	92	43	-	6/7/12/14	-
32	4OC	2a	1402	57,32	-	2/9/29/30	0/2/2/2
55	MIA	2x	37	55	-	6/15/33/34	0/3/3/3
32	G7M	2a	527	32	-	0/7/25/26	0/3/3/3
55	PSU	1x	39	55	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	57,32	-	0/7/25/26	0/2/2/2
55	PSU	2x	32	55	-	1/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
55	PSU	1x	55	55	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1,57	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
55	G7M	2x	46	55	-	3/7/25/26	0/3/3/3
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
55	5MU	2y	54	55	-	0/7/25/26	0/2/2/2
1	PSU	1A	2605	1,57	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
32	G7M	1a	527	32	-	1/7/25/26	0/3/3/3
55	PSU	1y	39	55	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	G7M	1x	46	55	-	3/7/25/26	0/3/3/3
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
54	MEQ	2w	230	54	-	1/8/9/11	-
32	4OC	1a	1402	57,32	-	2/9/29/30	0/2/2/2
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
1	5MC	1A	1962	1,57	-	0/7/25/26	0/2/2/2
1	OMU	1A	2552	1,57	-	0/9/27/28	0/2/2/2
1	OMG	2A	2251	1,55,57	-	0/9/27/28	0/3/3/3
55	G7M	2y	46	55	-	3/7/25/26	0/3/3/3
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
55	4SU	2x	8	57,55	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
55	5MU	1x	54	55	-	0/7/25/26	0/2/2/2
55	PSU	2x	39	55	-	0/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
55	MIA	2y	37	55	-	2/15/33/34	0/3/3/3
1	2MA	2A	2503	1,57	-	3/7/25/26	0/3/3/3
55	PSU	2y	55	55	-	0/7/25/26	0/2/2/2
55	5MU	1y	54	55	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
55	PSU	2y	32	55	-	0/7/25/26	0/2/2/2

All (223) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.03	1.70	1.82
43	1l	92	0TD	CB-SB	-11.42	1.70	1.82
55	1x	37	MIA	C2-S10	-7.91	1.69	1.75
55	2x	37	MIA	C2-S10	-7.23	1.69	1.75
55	1x	37	MIA	C13-C14	7.14	1.53	1.32
55	2x	37	MIA	C13-C14	6.99	1.53	1.32
55	2y	37	MIA	C2-S10	-6.96	1.70	1.75
55	2y	37	MIA	C13-C14	6.90	1.53	1.32
55	1y	37	MIA	C13-C14	6.80	1.52	1.32
32	1a	967	5MC	C5-C4	6.58	1.49	1.44
32	2a	1400	5MC	C5-C4	6.13	1.48	1.44
32	1a	1404	5MC	C5-C4	6.12	1.48	1.44
32	1a	1400	5MC	C5-C4	6.10	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1942	5MC	C5-C4	5.99	1.48	1.44
32	2a	967	5MC	C5-C4	5.99	1.48	1.44
32	2a	1404	5MC	C5-C4	5.85	1.48	1.44
1	1A	1962	5MC	C5-C4	5.75	1.48	1.44
55	1y	37	MIA	C2-S10	-5.70	1.71	1.75
1	1A	1942	5MC	C5-C4	5.50	1.48	1.44
32	2a	1407	5MC	C5-C4	5.49	1.48	1.44
1	2A	1962	5MC	C5-C4	5.25	1.48	1.44
55	1x	46	G7M	C5-N7	-5.12	1.33	1.39
32	1a	527	G7M	C5-N7	-4.98	1.33	1.39
55	2x	37	MIA	C5-C4	4.91	1.47	1.39
55	1y	37	MIA	C5-C4	4.88	1.47	1.39
55	2x	8	4SU	C4-S4	-4.84	1.60	1.68
55	2y	37	MIA	C5-C4	4.82	1.47	1.39
55	2x	46	G7M	C5-N7	-4.81	1.33	1.39
55	1x	37	MIA	C5-C4	4.75	1.47	1.39
55	1y	8	4SU	C4-S4	-4.73	1.60	1.68
32	1a	1407	5MC	C5-C4	4.70	1.47	1.44
55	1x	8	4SU	C4-S4	-4.61	1.60	1.68
55	2y	8	4SU	C4-S4	-4.61	1.60	1.68
55	2y	46	G7M	C5-N7	-4.60	1.33	1.39
55	1y	46	G7M	C5-N7	-4.58	1.33	1.39
32	2a	527	G7M	C5-N7	-4.56	1.33	1.39
1	2A	2503	2MA	C5-C4	4.47	1.47	1.39
1	1A	2503	2MA	C5-C4	4.31	1.46	1.39
55	1y	32	PSU	C6-C5	4.08	1.39	1.35
55	2x	55	PSU	C6-C5	3.82	1.39	1.35
55	1y	55	PSU	C6-C5	3.81	1.39	1.35
55	1y	39	PSU	C6-C5	3.80	1.39	1.35
1	2A	1911	PSU	C6-C5	3.80	1.39	1.35
55	2y	32	PSU	C6-C5	3.78	1.39	1.35
55	2y	55	PSU	C6-C5	3.78	1.39	1.35
1	1A	1911	PSU	C6-C5	3.76	1.39	1.35
32	1a	516	PSU	C6-C5	3.73	1.39	1.35
55	2y	39	PSU	C6-C5	3.70	1.39	1.35
55	1x	39	PSU	C6-C5	3.68	1.39	1.35
55	2x	8	4SU	C4-N3	-3.67	1.33	1.37
55	2x	32	PSU	C6-C5	3.63	1.39	1.35
55	1x	55	PSU	C6-C5	3.60	1.39	1.35
55	2x	39	PSU	C6-C5	3.56	1.39	1.35
1	1A	1917	PSU	C6-C5	3.55	1.39	1.35
55	2y	46	G7M	C5-C4	3.54	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	516	PSU	C6-C5	3.52	1.39	1.35
55	1x	8	4SU	C4-N3	-3.52	1.34	1.37
55	1y	46	G7M	C5-C4	3.48	1.47	1.38
1	1A	2605	PSU	C6-C5	3.45	1.39	1.35
55	1x	32	PSU	C6-C5	3.35	1.39	1.35
55	2x	46	G7M	C5-C4	3.33	1.46	1.38
32	1a	527	G7M	C5-C4	3.32	1.46	1.38
1	2A	1917	PSU	C6-C5	3.28	1.38	1.35
32	2a	527	G7M	C5-C4	3.25	1.46	1.38
55	1x	46	G7M	C5-C4	3.25	1.46	1.38
32	2a	1404	5MC	C6-C5	3.24	1.39	1.34
55	2y	8	4SU	C4-N3	-3.23	1.34	1.37
32	2a	1207	2MG	C5-C4	3.17	1.47	1.38
32	1a	1207	2MG	C5-C4	3.15	1.47	1.38
55	1x	54	5MU	C6-C5	3.13	1.39	1.34
1	1A	2251	OMG	C5-C4	3.13	1.47	1.38
32	1a	966	M2G	C5-C4	3.12	1.47	1.38
32	2a	966	M2G	C5-C4	3.10	1.47	1.38
1	1A	1942	5MC	C6-C5	3.07	1.39	1.34
1	2A	2251	OMG	C5-C4	3.04	1.47	1.38
55	2y	54	5MU	C4-C5	3.03	1.49	1.44
1	1A	2552	OMU	C4-N3	-3.02	1.33	1.38
55	2x	37	MIA	C5-C6	3.02	1.49	1.41
32	2a	967	5MC	C6-C5	3.01	1.39	1.34
1	2A	1939	5MU	C4-N3	-3.00	1.33	1.38
32	1a	1407	5MC	C6-C5	2.99	1.39	1.34
55	2y	54	5MU	C2-N1	2.99	1.43	1.38
1	1A	1915	5MU	C4-N3	-2.97	1.33	1.38
55	2y	54	5MU	C6-C5	2.96	1.39	1.34
1	2A	1939	5MU	C6-C5	2.94	1.39	1.34
32	2a	1407	5MC	C6-C5	2.92	1.39	1.34
1	1A	2251	OMG	C6-N1	-2.91	1.33	1.38
1	2A	1915	5MU	C6-C5	2.91	1.39	1.34
55	1x	37	MIA	C5-C6	2.91	1.48	1.41
32	1a	1404	5MC	C6-C5	2.90	1.39	1.34
1	2A	2552	OMU	C4-N3	-2.90	1.33	1.38
1	2A	1962	5MC	C6-C5	2.86	1.39	1.34
55	2y	37	MIA	C5-C6	2.85	1.48	1.41
55	1y	39	PSU	C4-N3	-2.85	1.33	1.38
32	1a	966	M2G	C2-N2	2.84	1.40	1.35
43	2l	92	0TD	CB-CA	2.83	1.55	1.54
55	2x	8	4SU	C5-C4	-2.83	1.39	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	1y	8	4SU	C4-N3	-2.80	1.34	1.37
55	1y	54	5MU	C6-C5	2.80	1.39	1.34
55	1x	54	5MU	C4-N3	-2.79	1.33	1.38
1	2A	2605	PSU	C6-C5	2.78	1.38	1.35
1	2A	1915	5MU	C4-N3	-2.77	1.33	1.38
55	1y	8	4SU	C5-C4	-2.76	1.39	1.42
55	1x	55	PSU	C4-N3	-2.76	1.33	1.38
32	1a	967	5MC	C6-C5	2.76	1.39	1.34
55	1y	37	MIA	C5-C6	2.76	1.48	1.41
1	2A	1917	PSU	C4-N3	-2.74	1.33	1.38
32	1a	1400	5MC	C6-C5	2.74	1.39	1.34
1	2A	1915	5MU	C2-N1	2.73	1.42	1.38
1	1A	2605	PSU	C4-N3	-2.72	1.33	1.38
1	1A	2503	2MA	C5-C6	2.70	1.48	1.41
1	2A	2251	OMG	C6-N1	-2.68	1.33	1.38
1	2A	1942	5MC	C6-C5	2.68	1.39	1.34
1	1A	1917	PSU	C4-N3	-2.67	1.33	1.38
1	1A	1962	5MC	C6-C5	2.65	1.38	1.34
1	1A	1939	5MU	C6-N1	-2.64	1.33	1.38
32	2a	1400	5MC	C6-C5	2.64	1.38	1.34
55	2x	54	5MU	C4-N3	-2.63	1.33	1.38
1	1A	2552	OMU	C2-N3	-2.62	1.33	1.38
32	2a	966	M2G	C6-N1	-2.62	1.34	1.38
32	2a	966	M2G	C2-N2	2.62	1.39	1.35
1	2A	1911	PSU	C4-N3	-2.61	1.34	1.38
1	2A	2605	PSU	C4-N3	-2.61	1.34	1.38
55	2x	54	5MU	C6-C5	2.60	1.38	1.34
32	2a	516	PSU	C4-N3	-2.59	1.34	1.38
55	1x	39	PSU	C4-N3	-2.58	1.34	1.38
1	1A	1915	5MU	C6-C5	2.58	1.38	1.34
55	2y	55	PSU	C4-N3	-2.58	1.34	1.38
55	1y	54	5MU	C4-N3	-2.57	1.34	1.38
55	1y	54	5MU	C4-C5	2.56	1.49	1.44
55	1x	32	PSU	C4-N3	-2.54	1.34	1.38
55	2y	39	PSU	C4-N3	-2.52	1.34	1.38
32	1a	516	PSU	C4-N3	-2.51	1.34	1.38
1	1A	1915	5MU	C2-N1	2.51	1.42	1.38
1	1A	1939	5MU	C4-N3	-2.51	1.34	1.38
32	1a	966	M2G	C6-N1	-2.49	1.34	1.38
55	1x	8	4SU	C2-N3	-2.48	1.33	1.38
1	1A	2503	2MA	C5-N7	-2.48	1.34	1.39
55	1y	8	4SU	C2-N1	2.48	1.42	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1962	5MC	C6-N1	-2.47	1.33	1.38
32	1a	527	G7M	C6-N1	-2.45	1.34	1.38
55	2x	37	MIA	C8-N7	2.45	1.36	1.31
1	2A	2503	2MA	C5-C6	2.45	1.47	1.41
1	1A	1939	5MU	C6-C5	2.44	1.38	1.34
55	2x	8	4SU	C2-N3	-2.44	1.33	1.38
1	2A	1939	5MU	C2-N1	2.43	1.42	1.38
55	1x	54	5MU	C4-C5	2.43	1.48	1.44
55	2y	32	PSU	C4-N3	-2.43	1.34	1.38
32	1a	1207	2MG	C6-N1	-2.42	1.34	1.38
55	2x	39	PSU	C4-N3	-2.42	1.34	1.38
1	2A	2503	2MA	C5-N7	-2.41	1.34	1.39
55	1x	8	4SU	C5-C4	-2.41	1.39	1.42
32	2a	1207	2MG	C6-N1	-2.41	1.34	1.38
55	1y	37	MIA	C8-N7	2.40	1.36	1.31
1	1A	1911	PSU	C4-N3	-2.39	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.37	1.34	1.38
55	2x	32	PSU	C4-N3	-2.37	1.34	1.38
55	1x	46	G7M	C6-N1	-2.37	1.34	1.38
55	2x	55	PSU	C4-N3	-2.36	1.34	1.38
55	2y	8	4SU	C5-C4	-2.35	1.39	1.42
55	1y	32	PSU	C4-N3	-2.35	1.34	1.38
1	2A	1939	5MU	C6-N1	-2.35	1.34	1.38
1	1A	1915	5MU	C6-N1	-2.32	1.34	1.38
55	2x	54	5MU	C4-C5	2.32	1.48	1.44
55	2y	37	MIA	C8-N7	2.31	1.36	1.31
1	2A	2552	OMU	C5-C4	-2.31	1.38	1.43
1	2A	2251	OMG	C5-N7	-2.31	1.34	1.39
55	1x	37	MIA	C5-N7	-2.29	1.34	1.39
55	1x	37	MIA	C8-N7	2.29	1.36	1.31
1	2A	1939	5MU	C2-N3	-2.29	1.34	1.38
55	2x	54	5MU	C6-N1	-2.27	1.34	1.38
55	2y	8	4SU	C2-N3	-2.26	1.34	1.38
55	1y	54	5MU	C2-N3	-2.25	1.34	1.38
32	1a	967	5MC	C6-N1	-2.25	1.34	1.38
32	2a	527	G7M	C6-N1	-2.25	1.34	1.38
55	1y	55	PSU	C4-N3	-2.25	1.34	1.38
1	1A	1939	5MU	C4-C5	2.24	1.48	1.44
1	2A	2503	2MA	C8-N7	2.24	1.36	1.31
1	2A	1917	PSU	C2-N3	-2.24	1.33	1.37
32	1a	1404	5MC	C6-N1	-2.23	1.34	1.38
55	1y	46	G7M	C6-N1	-2.23	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1404	5MC	C6-N1	-2.22	1.34	1.38
55	2x	46	G7M	C6-N1	-2.22	1.34	1.38
43	1l	92	0TD	CB-CG	2.21	1.55	1.52
32	1a	1400	5MC	C6-N1	-2.20	1.34	1.38
1	2A	2552	OMU	C2-N3	-2.20	1.34	1.38
55	1y	54	5MU	C2-N1	2.20	1.41	1.38
1	1A	1942	5MC	C6-N1	-2.19	1.34	1.38
1	1A	2552	OMU	C2-N1	2.19	1.41	1.38
55	1y	37	MIA	C5-N7	-2.19	1.35	1.39
1	1A	1939	5MU	C2-N3	-2.19	1.34	1.38
1	2A	1939	5MU	C4-C5	2.19	1.48	1.44
32	1a	1498	UR3	C2-N1	2.16	1.41	1.38
32	2a	1400	5MC	C6-N1	-2.16	1.34	1.38
55	2y	37	MIA	C5-N7	-2.16	1.35	1.39
55	1y	46	G7M	C5-C6	2.15	1.49	1.43
1	1A	1915	5MU	C2-N3	-2.15	1.34	1.38
1	2A	1915	5MU	C2-N3	-2.14	1.34	1.38
1	1A	2552	OMU	C5-C4	-2.14	1.39	1.43
1	1A	2605	PSU	C2-N3	-2.14	1.34	1.37
55	2y	46	G7M	C5-C6	2.14	1.49	1.43
1	2A	1962	5MC	C6-N1	-2.13	1.34	1.38
32	1a	1407	5MC	C6-N1	-2.13	1.34	1.38
32	2a	1407	5MC	C6-N1	-2.12	1.34	1.38
1	2A	1915	5MU	C4-C5	2.12	1.48	1.44
55	1y	39	PSU	C2-N3	-2.11	1.34	1.37
55	1x	37	MIA	C4-N9	-2.11	1.33	1.37
55	2x	54	5MU	C2-N3	-2.11	1.34	1.38
55	1y	37	MIA	C2-N1	2.09	1.37	1.34
55	2y	54	5MU	C6-N1	-2.09	1.34	1.38
32	2a	1207	2MG	C5-N7	-2.08	1.34	1.39
55	2y	54	5MU	C4-N3	-2.08	1.35	1.38
55	2y	46	G7M	C6-N1	-2.07	1.35	1.38
32	2a	967	5MC	C6-N1	-2.06	1.34	1.38
32	2a	966	M2G	C5-N7	-2.06	1.34	1.39
32	2a	1498	UR3	C6-C5	2.06	1.39	1.35
1	1A	2251	OMG	C5-N7	-2.06	1.34	1.39
1	1A	2503	2MA	C4-N9	-2.04	1.33	1.37
32	1a	1207	2MG	C2-N3	2.04	1.35	1.32
32	1a	1207	2MG	C5-N7	-2.03	1.35	1.39
55	2x	39	PSU	C2-N3	-2.01	1.34	1.37
32	1a	1498	UR3	C5-C4	-2.00	1.38	1.43
55	2x	37	MIA	C5-N7	-2.00	1.35	1.39

All (375) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	1l	92	0TD	CSB-SB-CB	23.93	145.39	102.36
43	2l	92	0TD	CSB-SB-CB	10.13	120.57	102.36
55	2y	37	MIA	C12-C13-C14	-9.50	109.96	127.01
55	1y	37	MIA	C12-C13-C14	-9.26	110.38	127.01
55	2x	37	MIA	C12-C13-C14	-8.67	111.45	127.01
1	2A	2503	2MA	C5-C4-N3	-8.39	118.34	127.18
55	2x	37	MIA	C5-C4-N3	-8.33	118.41	127.18
1	1A	2503	2MA	C5-C4-N3	-8.02	118.73	127.18
55	1y	37	MIA	C5-C4-N3	-7.86	118.90	127.18
55	2y	37	MIA	C5-C4-N3	-7.60	119.17	127.18
55	1x	37	MIA	C5-C4-N3	-7.42	119.37	127.18
32	2a	1498	UR3	C4-N3-C2	-7.03	118.92	124.58
55	1x	37	MIA	C12-C13-C14	-7.00	114.45	127.01
32	1a	1207	2MG	C2-N3-C4	6.80	120.50	112.00
32	2a	1207	2MG	C2-N3-C4	6.75	120.45	112.00
1	2A	1911	PSU	N1-C2-N3	6.67	122.21	115.17
1	2A	2503	2MA	N3-C4-N9	6.58	135.34	126.99
1	2A	1917	PSU	N1-C2-N3	6.50	122.02	115.17
32	1a	1498	UR3	C4-N3-C2	-6.48	119.36	124.58
1	1A	2251	OMG	C5-C4-N3	-6.48	118.08	128.39
1	1A	2503	2MA	N3-C4-N9	6.41	135.13	126.99
55	2x	37	MIA	N3-C4-N9	6.41	135.13	126.99
55	1y	37	MIA	N3-C4-N9	6.40	135.12	126.99
32	2a	966	M2G	C5-C4-N3	-6.39	118.21	128.39
1	1A	1917	PSU	N1-C2-N3	6.36	121.88	115.17
1	2A	2251	OMG	C5-C4-N3	-6.27	118.41	128.39
55	2x	55	PSU	N1-C2-N3	6.26	121.77	115.17
55	2x	32	PSU	N1-C2-N3	6.26	121.77	115.17
1	2A	2605	PSU	N1-C2-N3	6.25	121.76	115.17
55	2y	37	MIA	N3-C4-N9	6.21	134.87	126.99
55	2y	54	5MU	C4-N3-C2	-6.20	119.21	127.34
1	1A	1911	PSU	N1-C2-N3	6.19	121.70	115.17
32	1a	516	PSU	N1-C2-N3	6.19	121.70	115.17
55	1y	55	PSU	N1-C2-N3	6.18	121.68	115.17
32	2a	516	PSU	N1-C2-N3	6.17	121.68	115.17
1	1A	2605	PSU	N1-C2-N3	6.15	121.65	115.17
32	1a	966	M2G	C5-C4-N3	-6.08	118.72	128.39
55	1x	32	PSU	N1-C2-N3	6.05	121.56	115.17
55	1y	32	PSU	N1-C2-N3	6.04	121.54	115.17
55	1x	55	PSU	N1-C2-N3	6.00	121.50	115.17
55	2y	55	PSU	N1-C2-N3	5.99	121.49	115.17
55	2y	32	PSU	N1-C2-N3	5.97	121.47	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	1x	39	PSU	N1-C2-N3	5.94	121.43	115.17
32	1a	1207	2MG	C5-C4-N3	-5.93	118.95	128.39
55	1y	46	G7M	N9-C4-N3	5.91	137.76	125.95
55	2y	8	4SU	C4-N3-C2	-5.88	121.68	127.31
55	1y	46	G7M	C5-C4-N3	-5.86	117.07	128.15
55	2y	54	5MU	N3-C2-N1	5.83	122.48	114.89
55	2y	39	PSU	N1-C2-N3	5.83	121.31	115.17
32	1a	527	G7M	N9-C4-N3	5.81	137.56	125.95
32	2a	1207	2MG	C5-C4-N3	-5.71	119.31	128.39
32	1a	527	G7M	C5-C4-N3	-5.70	117.38	128.15
1	1A	1939	5MU	C4-N3-C2	-5.69	119.88	127.34
55	2y	46	G7M	C5-C4-N3	-5.66	117.46	128.15
1	2A	1939	5MU	N3-C2-N1	5.60	122.19	114.89
1	2A	1939	5MU	C4-N3-C2	-5.57	120.04	127.34
55	1x	8	4SU	C4-N3-C2	-5.56	121.99	127.31
55	2y	46	G7M	N9-C4-N3	5.55	137.06	125.95
55	1x	37	MIA	N3-C4-N9	5.53	134.01	126.99
1	1A	2552	OMU	C4-N3-C2	-5.52	119.76	126.61
1	1A	1939	5MU	C5-C4-N3	5.52	120.12	115.32
55	1x	46	G7M	C5-C4-N3	-5.51	117.73	128.15
55	1y	39	PSU	N1-C2-N3	5.51	120.98	115.17
55	1x	46	G7M	N9-C4-N3	5.50	136.94	125.95
55	2x	39	PSU	N1-C2-N3	5.48	120.95	115.17
32	2a	527	G7M	N9-C4-N3	5.38	136.72	125.95
32	2a	527	G7M	C5-C4-N3	-5.36	118.01	128.15
55	2y	37	MIA	C11-S10-C2	-5.31	98.27	102.25
55	1y	8	4SU	C5-C4-N3	5.29	119.67	114.75
55	2x	46	G7M	N9-C4-N3	5.26	136.48	125.95
1	2A	1915	5MU	N3-C2-N1	5.26	121.74	114.89
1	1A	2251	OMG	C2-N3-C4	5.26	121.35	112.30
55	1y	8	4SU	C4-N3-C2	-5.24	122.29	127.31
55	2y	8	4SU	C5-C4-N3	5.21	119.60	114.75
55	2x	46	G7M	C5-C4-N3	-5.20	118.33	128.15
32	2a	1518	MA6	N1-C2-N3	-5.14	120.80	128.58
1	2A	1915	5MU	C4-N3-C2	-5.13	120.62	127.34
1	1A	1915	5MU	C4-N3-C2	-5.12	120.63	127.34
1	2A	2552	OMU	C4-N3-C2	-5.07	120.32	126.61
1	1A	1939	5MU	O4-C4-C5	-5.06	119.13	124.92
55	1x	8	4SU	C5-C4-N3	4.97	119.37	114.75
55	1y	46	G7M	C2-N3-C4	4.96	120.84	112.30
32	1a	1518	MA6	N1-C2-N3	-4.92	121.14	128.58
55	2x	8	4SU	C5-C4-N3	4.89	119.30	114.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1915	5MU	N3-C2-N1	4.88	121.25	114.89
32	2a	527	G7M	C2-N3-C4	4.87	120.69	112.30
1	1A	1939	5MU	C5-C6-N1	-4.85	118.05	123.31
1	2A	2251	OMG	C2-N3-C4	4.84	120.63	112.30
55	2y	46	G7M	C2-N3-C4	4.83	120.62	112.30
1	1A	1915	5MU	C5-C4-N3	4.79	119.48	115.32
32	2a	1519	MA6	C5-C4-N3	-4.79	120.13	126.72
55	2y	54	5MU	C5-C4-N3	4.77	119.47	115.32
55	1x	46	G7M	C2-N3-C4	4.77	120.51	112.30
32	1a	527	G7M	C2-N3-C4	4.74	120.46	112.30
1	1A	2251	OMG	N9-C4-N3	4.74	135.42	125.95
55	1x	54	5MU	N3-C2-N1	4.73	121.05	114.89
1	2A	1939	5MU	C5-C4-N3	4.73	119.43	115.32
32	1a	1519	MA6	N1-C2-N3	-4.69	121.48	128.58
32	2a	966	M2G	N9-C4-N3	4.68	135.31	125.95
32	2a	1519	MA6	N1-C2-N3	-4.67	121.51	128.58
32	1a	966	M2G	N9-C4-N3	4.67	135.29	125.95
32	2a	966	M2G	C2-N3-C4	4.66	121.13	112.51
1	1A	2552	OMU	C5-C4-N3	4.62	121.28	114.80
1	2A	1915	5MU	C5-C4-N3	4.60	119.32	115.32
55	2x	46	G7M	C2-N3-C4	4.54	120.11	112.30
1	2A	2251	OMG	N9-C4-N3	4.50	134.96	125.95
1	2A	2605	PSU	C4-N3-C2	-4.50	120.17	126.37
55	2x	54	5MU	N3-C2-N1	4.42	120.64	114.89
55	2x	54	5MU	C4-N3-C2	-4.41	121.55	127.34
1	2A	1911	PSU	C4-N3-C2	-4.40	120.31	126.37
32	1a	966	M2G	C2-N3-C4	4.38	120.61	112.51
55	2x	8	4SU	C4-N3-C2	-4.33	123.16	127.31
1	2A	1939	5MU	O4-C4-C5	-4.33	119.96	124.92
1	1A	2552	OMU	N3-C2-N1	4.32	120.52	114.89
1	2A	1915	5MU	O4-C4-C5	-4.31	119.99	124.92
32	2a	1518	MA6	C5-C4-N3	-4.29	120.81	126.72
1	1A	1911	PSU	C4-N3-C2	-4.27	120.49	126.37
55	1x	55	PSU	C4-N3-C2	-4.26	120.51	126.37
32	1a	1518	MA6	C5-C4-N3	-4.26	120.86	126.72
1	1A	2605	PSU	C4-N3-C2	-4.24	120.53	126.37
1	1A	1939	5MU	N3-C2-N1	4.23	120.40	114.89
55	1y	54	5MU	N3-C2-N1	4.18	120.33	114.89
1	2A	2552	OMU	C5-C4-N3	4.16	120.63	114.80
1	1A	1915	5MU	O4-C4-C5	-4.16	120.16	124.92
55	1y	8	4SU	C5-C4-S4	-4.15	119.57	124.31
32	1a	1519	MA6	C5-N7-C8	4.14	109.96	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1519	MA6	C4-C5-N7	-4.14	105.85	110.58
32	1a	1519	MA6	C2-N1-C6	4.13	121.92	111.83
55	2y	54	5MU	O4-C4-C5	-4.12	120.21	124.92
1	2A	1917	PSU	C4-N3-C2	-4.10	120.73	126.37
55	1y	37	MIA	C15-C14-C13	-4.09	110.37	122.66
32	1a	516	PSU	C4-N3-C2	-4.09	120.73	126.37
1	2A	2552	OMU	N3-C2-N1	4.08	120.21	114.89
55	2y	55	PSU	C4-N3-C2	-4.08	120.75	126.37
55	1x	32	PSU	C4-N3-C2	-4.06	120.77	126.37
32	2a	1519	MA6	C4-C5-N7	-4.06	105.94	110.58
55	2x	55	PSU	C4-N3-C2	-4.05	120.79	126.37
32	1a	1207	2MG	N9-C4-N3	4.05	134.05	125.95
55	1x	8	4SU	N3-C2-N1	4.04	120.15	114.89
32	2a	1519	MA6	C5-N7-C8	4.02	109.77	103.45
55	1x	37	MIA	C11-S10-C2	-4.02	99.24	102.25
32	2a	516	PSU	C4-N3-C2	-4.01	120.84	126.37
1	2A	1939	5MU	C5-C6-N1	-3.99	118.98	123.31
32	1a	1519	MA6	C5-C4-N3	-3.99	121.23	126.72
32	2a	1518	MA6	C2-N1-C6	3.97	121.53	111.83
55	1x	54	5MU	C4-N3-C2	-3.96	122.14	127.34
55	1y	55	PSU	C4-N3-C2	-3.94	120.94	126.37
32	1a	1518	MA6	C2-N1-C6	3.92	121.41	111.83
55	2y	32	PSU	C4-N3-C2	-3.92	120.97	126.37
55	2y	37	MIA	C15-C14-C13	-3.90	110.94	122.66
55	2x	32	PSU	C4-N3-C2	-3.90	121.00	126.37
32	2a	1518	MA6	C5-N7-C8	3.90	109.57	103.45
55	1y	37	MIA	C16-C14-C13	-3.88	111.00	122.66
55	1x	37	MIA	C16-C14-C13	-3.88	111.02	122.66
32	1a	1518	MA6	C5-N7-C8	3.86	109.52	103.45
1	1A	1917	PSU	C4-N3-C2	-3.86	121.05	126.37
55	1x	39	PSU	C4-N3-C2	-3.85	121.07	126.37
55	1y	32	PSU	C4-N3-C2	-3.84	121.08	126.37
55	2y	8	4SU	N3-C2-N1	3.83	119.88	114.89
55	1y	55	PSU	O2-C2-N1	-3.82	118.84	122.79
55	1y	54	5MU	C4-N3-C2	-3.81	122.34	127.34
43	1l	92	0TD	OD2-CG-CB	3.81	121.37	113.15
55	2y	37	MIA	C16-C14-C13	-3.78	111.30	122.66
43	2l	92	0TD	OD2-CG-CB	3.78	121.31	113.15
32	2a	1518	MA6	C4-C5-N7	-3.77	106.27	110.58
55	2x	37	MIA	C16-C14-C13	-3.76	111.36	122.66
55	2x	55	PSU	O2-C2-N1	-3.76	118.91	122.79
55	2x	37	MIA	C15-C14-C13	-3.73	111.46	122.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2x	54	5MU	O4-C4-C5	-3.72	120.67	124.92
55	1x	37	MIA	C4-C5-N7	-3.71	106.34	110.58
32	2a	1519	MA6	C2-N1-C6	3.70	120.88	111.83
32	2a	1400	5MC	C5-C6-N1	-3.69	119.30	123.31
55	2x	37	MIA	C4-C5-N7	-3.69	106.36	110.58
1	1A	1911	PSU	O2-C2-N1	-3.68	119.00	122.79
55	1y	54	5MU	C5-C4-N3	3.67	118.51	115.32
55	2x	54	5MU	C5-C4-N3	3.66	118.51	115.32
32	2a	1207	2MG	N9-C4-N3	3.65	133.26	125.95
32	1a	1519	MA6	N9-C8-N7	-3.65	108.76	113.94
32	1a	1518	MA6	N9-C8-N7	-3.63	108.78	113.94
1	2A	1942	5MC	C5-C6-N1	-3.63	119.38	123.31
32	2a	1404	5MC	C5-C6-N1	-3.61	119.39	123.31
55	2y	39	PSU	C4-N3-C2	-3.61	121.40	126.37
1	1A	2503	2MA	C4-C5-N7	-3.60	106.47	110.58
1	1A	1942	5MC	C5-C6-N1	-3.59	119.41	123.31
32	1a	1518	MA6	C4-C5-N7	-3.59	106.48	110.58
32	2a	1207	2MG	C6-C5-N7	3.56	136.78	130.29
32	2a	1518	MA6	C2-N3-C4	3.54	120.48	111.83
32	2a	1519	MA6	C2-N3-C4	3.53	120.45	111.83
55	2x	54	5MU	C5-C6-N1	-3.53	119.48	123.31
32	2a	1518	MA6	N9-C8-N7	-3.53	108.93	113.94
32	2a	1519	MA6	N9-C8-N7	-3.51	108.95	113.94
55	1x	37	MIA	C6-C5-N7	3.50	136.24	132.43
55	2y	54	5MU	C5-C6-N1	-3.49	119.52	123.31
1	2A	2503	2MA	C4-C5-N7	-3.49	106.59	110.58
32	1a	1207	2MG	C6-C5-N7	3.49	136.64	130.29
55	1y	37	MIA	N6-C6-N1	3.48	122.99	118.33
55	1y	37	MIA	C2-N3-C4	3.47	121.37	112.29
32	1a	1404	5MC	C5-C6-N1	-3.46	119.56	123.31
55	2x	32	PSU	O2-C2-N1	-3.46	119.22	122.79
1	1A	1915	5MU	C5-C6-N1	-3.45	119.57	123.31
1	1A	2251	OMG	C6-C5-N7	3.44	136.55	130.29
32	1a	966	M2G	C6-C5-N7	3.43	136.53	130.29
32	1a	1518	MA6	C2-N3-C4	3.43	120.20	111.83
1	1A	2552	OMU	O4-C4-C5	-3.42	119.26	125.16
55	2y	54	5MU	O2-C2-N1	-3.40	118.36	122.80
1	1A	1962	5MC	C5-C6-N1	-3.39	119.63	123.31
55	2x	37	MIA	C2-N3-C4	3.37	121.13	112.29
32	1a	516	PSU	O2-C2-N1	-3.36	119.32	122.79
1	2A	1915	5MU	C5-C6-N1	-3.36	119.66	123.31
1	2A	1962	5MC	C5-C6-N1	-3.35	119.67	123.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2x	39	PSU	C4-N3-C2	-3.35	121.75	126.37
55	1x	32	PSU	O2-C2-N1	-3.35	119.34	122.79
55	1x	37	MIA	C2-N3-C4	3.30	120.94	112.29
1	1A	1917	PSU	O2-C2-N1	-3.27	119.42	122.79
32	1a	1400	5MC	C5-C6-N1	-3.27	119.77	123.31
32	2a	1404	5MC	C5-C4-N3	-3.26	118.41	121.75
1	2A	2552	OMU	O4-C4-C5	-3.26	119.54	125.16
55	2y	8	4SU	C5-C4-S4	-3.24	120.60	124.31
1	2A	1917	PSU	O2-C2-N1	-3.24	119.45	122.79
32	2a	1498	UR3	C5-C4-N3	3.22	119.29	115.04
55	1y	54	5MU	O4-C4-C5	-3.21	121.24	124.92
55	2y	37	MIA	C2-N3-C4	3.21	120.70	112.29
55	1y	32	PSU	O2-C2-N1	-3.21	119.48	122.79
55	2y	32	PSU	O2-C2-N1	-3.20	119.49	122.79
32	2a	1207	2MG	N1-C2-N2	3.18	119.81	116.56
55	1x	54	5MU	C5-C4-N3	3.17	118.08	115.32
32	1a	1498	UR3	C5-C4-N3	3.17	119.22	115.04
55	2y	37	MIA	N6-C6-N1	3.17	122.58	118.33
1	2A	2503	2MA	N6-C6-N1	3.16	121.30	117.03
32	2a	966	M2G	C6-C5-N7	3.15	136.03	130.29
55	2x	37	MIA	C6-C5-N7	3.15	135.86	132.43
55	2y	37	MIA	C4-C5-N7	-3.15	106.98	110.58
55	1x	37	MIA	C15-C14-C13	-3.14	113.24	122.66
55	2x	39	PSU	O2-C2-N1	-3.14	119.56	122.79
55	1y	39	PSU	C4-N3-C2	-3.13	122.06	126.37
32	2a	967	5MC	C5-C6-N1	-3.13	119.92	123.31
32	1a	1519	MA6	C2-N3-C4	3.12	119.45	111.83
55	1x	54	5MU	O4-C4-C5	-3.12	121.35	124.92
1	2A	2605	PSU	O2-C2-N1	-3.11	119.58	122.79
32	1a	967	5MC	C5-C6-N1	-3.10	119.94	123.31
1	1A	1942	5MC	C5-C4-N3	-3.10	118.58	121.75
55	1y	37	MIA	C4-C5-N7	-3.09	107.05	110.58
32	1a	967	5MC	C5-C4-N3	-3.07	118.61	121.75
1	2A	2251	OMG	C6-C5-N7	3.06	135.86	130.29
55	2x	8	4SU	C5-C4-S4	-3.05	120.82	124.31
32	1a	1407	5MC	C5-C4-N3	-3.04	118.64	121.75
55	2y	39	PSU	O2-C2-N1	-3.03	119.67	122.79
55	1y	8	4SU	C1'-N1-C2	3.02	123.02	117.59
55	1x	55	PSU	O2-C2-N1	-3.02	119.67	122.79
55	1y	8	4SU	N3-C2-N1	3.01	118.82	114.89
1	1A	2605	PSU	O2-C2-N1	-3.00	119.69	122.79
1	1A	2503	2MA	N6-C6-N1	2.99	121.06	117.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1207	2MG	C4-C5-N7	-2.98	105.95	110.67
55	1x	54	5MU	C5-C6-N1	-2.95	120.11	123.31
55	2x	37	MIA	C11-S10-C2	-2.95	100.04	102.25
32	1a	966	M2G	C4-C5-N7	-2.94	106.00	110.67
32	2a	516	PSU	O2-C2-N1	-2.94	119.76	122.79
32	2a	1207	2MG	C4-C5-N7	-2.92	106.04	110.67
32	2a	967	5MC	C5-C4-N3	-2.91	118.78	121.75
1	1A	2503	2MA	C4-N9-C8	2.88	108.76	105.74
55	2y	37	MIA	C4-N9-C8	2.88	108.76	105.74
32	1a	1400	5MC	C5-C4-N3	-2.87	118.81	121.75
1	2A	1911	PSU	O2-C2-N1	-2.87	119.83	122.79
32	2a	1519	MA6	N3-C4-N9	2.86	132.03	127.17
43	2l	92	0TD	OD1-CG-CB	-2.84	116.49	122.44
32	2a	1407	5MC	C5-C6-N1	-2.83	120.24	123.31
1	1A	2251	OMG	C4-C5-N7	-2.82	106.19	110.67
55	2y	55	PSU	O2-C2-N1	-2.82	119.88	122.79
32	2a	1407	5MC	C5-C4-N3	-2.81	118.88	121.75
32	1a	1518	MA6	N3-C4-N9	2.81	131.94	127.17
1	1A	1939	5MU	O2-C2-N1	-2.78	119.18	122.80
55	2x	8	4SU	N3-C2-N1	2.77	118.50	114.89
55	1y	37	MIA	C6-C5-N7	2.76	135.44	132.43
55	2y	37	MIA	C6-C5-N7	2.76	135.44	132.43
1	1A	2503	2MA	C5-N7-C8	2.73	107.74	103.45
1	1A	2503	2MA	C2-N1-C6	2.71	122.27	118.10
1	2A	1942	5MC	C5-C4-N3	-2.71	118.97	121.75
55	1y	37	MIA	C4-N9-C8	2.71	108.58	105.74
55	2x	37	MIA	C5-N7-C8	2.70	107.69	103.45
32	2a	1207	2MG	N2-C2-N3	-2.70	117.08	120.51
55	1y	54	5MU	C5-C6-N1	-2.68	120.40	123.31
1	2A	2251	OMG	C4-C5-N7	-2.68	106.42	110.67
32	2a	966	M2G	C4-C5-N7	-2.66	106.46	110.67
55	1y	54	5MU	C5M-C5-C4	2.65	121.61	118.78
1	2A	2503	2MA	C4-N9-C8	2.64	108.51	105.74
32	1a	527	G7M	O6-C6-C5	-2.62	122.17	128.01
1	2A	2503	2MA	C5-N7-C8	2.61	107.56	103.45
32	2a	1518	MA6	N3-C4-N9	2.61	131.61	127.17
55	1x	54	5MU	O2-C2-N1	-2.60	119.41	122.80
55	1x	39	PSU	O2-C2-N1	-2.59	120.12	122.79
1	2A	1962	5MC	C5-C4-N3	-2.59	119.10	121.75
43	1l	92	0TD	OD1-CG-CB	-2.57	117.05	122.44
55	2x	46	G7M	O6-C6-C5	-2.57	122.27	128.01
55	1y	37	MIA	N3-C2-N1	-2.57	122.31	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	527	G7M	O6-C6-C5	-2.56	122.31	128.01
55	2x	54	5MU	O2-C2-N1	-2.55	119.48	122.80
55	1x	37	MIA	C5-N7-C8	2.50	107.38	103.45
55	1x	37	MIA	C4-N9-C8	2.48	108.35	105.74
32	1a	1404	5MC	C5-C4-N3	-2.48	119.22	121.75
55	2x	37	MIA	C4-N9-C8	2.47	108.33	105.74
55	1x	55	PSU	C5-C6-N1	-2.47	118.71	122.14
55	1x	46	G7M	O6-C6-C5	-2.47	122.51	128.01
32	1a	1207	2MG	N1-C2-N2	2.46	119.08	116.56
55	1x	37	MIA	C2-N1-C6	2.45	122.20	117.54
55	2y	46	G7M	O6-C6-C5	-2.43	122.58	128.01
1	2A	2605	PSU	C5-C6-N1	-2.43	118.77	122.14
55	2x	39	PSU	C6-C5-C4	-2.41	116.55	118.17
32	2a	1519	MA6	C4-C5-C6	2.40	118.39	115.91
32	1a	1400	5MC	O2-C2-N3	-2.40	118.55	122.33
32	1a	1207	2MG	N2-C2-N3	-2.39	117.47	120.51
55	1x	8	4SU	C5-C4-S4	-2.37	121.59	124.31
32	2a	1498	UR3	C3U-N3-C4	2.37	121.16	117.87
32	1a	1402	4OC	C6-C5-C4	2.35	119.83	117.00
55	1y	37	MIA	C2-N1-C6	2.34	121.98	117.54
55	2y	37	MIA	C5-N7-C8	2.33	107.12	103.45
32	1a	527	G7M	C5-C6-N1	2.33	116.66	111.84
55	2y	37	MIA	C2-N1-C6	2.31	121.94	117.54
55	1y	46	G7M	O6-C6-C5	-2.31	122.85	128.01
55	1y	37	MIA	C5-N7-C8	2.30	107.07	103.45
32	2a	1400	5MC	C5-C4-N3	-2.30	119.39	121.75
32	1a	516	PSU	O4'-C1'-C2'	2.28	108.31	105.15
1	2A	1942	5MC	O2-C2-N3	-2.28	118.74	122.33
32	1a	1407	5MC	C5-C6-N1	-2.27	120.85	123.31
32	2a	967	5MC	O2-C2-N3	-2.27	118.75	122.33
32	1a	1519	MA6	C4-C5-C6	2.27	118.25	115.91
32	2a	1402	4OC	CM4-N4-C4	-2.26	118.03	122.45
1	2A	2503	2MA	C2-N1-C6	2.26	121.57	118.10
32	1a	1519	MA6	N3-C4-N9	2.26	131.00	127.17
32	1a	966	M2G	C8-N7-C5	2.25	108.26	104.26
32	2a	527	G7M	C5-C6-N1	2.22	116.43	111.84
1	1A	2503	2MA	C6-C5-N7	2.20	136.33	132.09
1	2A	1911	PSU	O2-C2-N3	-2.19	117.96	121.86
32	1a	516	PSU	C5-C6-N1	-2.19	119.10	122.14
55	1x	37	MIA	N3-C2-N1	-2.19	123.01	127.00
55	2y	54	5MU	C5M-C5-C6	-2.18	119.89	122.85
55	1y	46	G7M	C5-C6-N1	2.18	116.36	111.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2y	37	MIA	N3-C2-N1	-2.18	123.03	127.00
55	2x	37	MIA	C2-N1-C6	2.17	121.66	117.54
32	1a	1498	UR3	C1'-N1-C2	2.17	120.59	117.04
32	1a	1518	MA6	C4-N9-C8	2.16	108.01	105.74
1	1A	2251	OMG	C8-N7-C5	2.16	108.11	104.26
55	2y	55	PSU	C5-C6-N1	-2.16	119.14	122.14
32	2a	516	PSU	O4'-C1'-C2'	2.15	108.13	105.15
1	1A	2503	2MA	N9-C8-N7	-2.15	110.89	113.94
1	2A	1911	PSU	C5-C6-N1	-2.14	119.16	122.14
55	1x	37	MIA	N6-C6-N1	2.14	121.20	118.33
55	1x	46	G7M	C5-C6-N1	2.14	116.26	111.84
32	1a	1498	UR3	C6-N1-C2	-2.14	120.05	121.80
1	1A	1911	PSU	C5-C6-N1	-2.13	119.19	122.14
1	2A	1917	PSU	C5-C6-N1	-2.13	119.19	122.14
55	2y	54	5MU	C5M-C5-C4	2.12	121.05	118.78
1	1A	2552	OMU	C1'-N1-C2	2.12	121.40	117.59
32	1a	1404	5MC	O2-C2-N3	-2.10	119.02	122.33
55	2y	46	G7M	C5-C6-N1	2.10	116.17	111.84
1	1A	1942	5MC	O2-C2-N3	-2.09	119.03	122.33
1	2A	1939	5MU	O2-C2-N1	-2.09	120.08	122.80
55	2x	37	MIA	N3-C2-N1	-2.08	123.20	127.00
1	1A	2605	PSU	C5-C6-N1	-2.07	119.26	122.14
32	2a	1207	2MG	CM2-N2-C2	-2.07	119.21	123.65
1	1A	1920	OMC	O2-C2-N3	-2.06	119.08	122.33
32	1a	1402	4OC	O2-C2-N3	-2.05	119.09	122.33
1	2A	2552	OMU	O2-C2-N1	-2.05	120.12	122.80
1	2A	2503	2MA	N9-C8-N7	-2.05	111.03	113.94
55	2x	37	MIA	N6-C6-N1	2.05	121.08	118.33
32	2a	516	PSU	C5-C6-N1	-2.05	119.30	122.14
1	2A	1911	PSU	O4'-C1'-C2'	2.04	107.98	105.15
32	1a	1498	UR3	C3U-N3-C2	2.04	120.89	117.33
1	1A	2251	OMG	C5-C6-N1	2.04	118.44	113.25
1	2A	1939	5MU	O2-C2-N3	-2.03	117.74	121.49
32	1a	1402	4OC	CM4-N4-C4	-2.03	118.48	122.45
1	2A	2251	OMG	O6-C6-C5	-2.03	121.17	126.53
55	2x	32	PSU	C6-C5-C4	-2.03	116.81	118.17
55	2x	46	G7M	C5-C6-N1	2.03	116.03	111.84
55	1y	39	PSU	O2-C2-N3	-2.02	118.28	121.86
32	1a	1207	2MG	C8-N7-C5	2.01	107.83	104.26

There are no chirality outliers.

All (71) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	2251	OMG	C1'-C2'-O2'-CM2
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
43	1l	92	0TD	CA-CB-SB-CSB
55	1x	37	MIA	C12-C13-C14-C15
55	1x	37	MIA	C12-C13-C14-C16
55	1y	37	MIA	C12-C13-C14-C15
55	1y	37	MIA	C12-C13-C14-C16
55	1y	46	G7M	C4'-C5'-O5'-P
43	2l	92	0TD	CA-CB-SB-CSB
54	2w	230	MEQ	O-C-CA-CB
55	2x	37	MIA	N1-C2-S10-C11
55	2x	37	MIA	N3-C2-S10-C11
55	2x	37	MIA	C12-C13-C14-C15
55	2x	37	MIA	C12-C13-C14-C16
55	2y	37	MIA	C12-C13-C14-C15
55	2y	37	MIA	C12-C13-C14-C16
55	2y	46	G7M	O4'-C4'-C5'-O5'
55	2y	46	G7M	C3'-C4'-C5'-O5'
1	1A	1915	5MU	C3'-C4'-C5'-O5'
1	1A	1915	5MU	O4'-C4'-C5'-O5'
55	1x	46	G7M	C3'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
55	2x	46	G7M	C3'-C4'-C5'-O5'
55	1x	46	G7M	C4'-C5'-O5'-P
55	1x	46	G7M	O4'-C4'-C5'-O5'
55	1y	46	G7M	O4'-C4'-C5'-O5'
55	2x	46	G7M	O4'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
55	1y	46	G7M	C3'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
1	2A	1920	OMC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
55	1x	37	MIA	C5-C6-N6-C12
1	2A	2503	2MA	O4'-C4'-C5'-O5'
55	2x	46	G7M	C4'-C5'-O5'-P
1	2A	2503	2MA	C3'-C4'-C5'-O5'
54	1w	230	MEQ	OE1-CD-CG-CB
43	1l	92	0TD	CA-CB-CG-OD2
43	1l	92	0TD	CA-CB-CG-OD1
43	2l	92	0TD	CA-CB-CG-OD2
43	2l	92	0TD	CA-CB-CG-OD1

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Mol	Chain	Res	Type	Atoms
54	1w	230	MEQ	C-CA-CB-CG
55	1x	37	MIA	N1-C6-N6-C12
54	1w	230	MEQ	NE2-CD-CG-CB
43	1l	92	0TD	SB-CB-CG-OD1
55	2y	46	G7M	C4'-C5'-O5'-P
55	2x	37	MIA	C5-C6-N6-C12
55	1y	55	PSU	O4'-C1'-C5-C4
55	1x	37	MIA	N6-C12-C13-C14
1	2A	2503	2MA	C4'-C5'-O5'-P
32	2a	1402	4OC	C3'-C4'-C5'-O5'
55	1x	37	MIA	N1-C2-S10-C11
43	1l	92	0TD	SB-CB-CG-OD2
43	2l	92	0TD	SB-CB-CG-OD2
55	1y	55	PSU	O4'-C1'-C5-C6
55	1x	37	MIA	N3-C2-S10-C11
32	2a	1519	MA6	C4'-C5'-O5'-P
55	2x	32	PSU	C3'-C4'-C5'-O5'
55	1y	46	G7M	C2'-C1'-N9-C8
32	1a	527	G7M	C3'-C4'-C5'-O5'
55	1y	37	MIA	C3'-C4'-C5'-O5'
55	2x	37	MIA	N1-C6-N6-C12
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
1	1A	2503	2MA	O4'-C4'-C5'-O5'
1	1A	2503	2MA	C4'-C5'-O5'-P
1	1A	1920	OMC	C2'-C1'-N1-C2
1	2A	1920	OMC	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C4'-C5'-O5'-P

There are no ring outliers.

32 monomers are involved in 44 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	1y	37	MIA	3	0
55	1y	32	PSU	1	0
1	1A	1915	5MU	1	0
55	1y	8	4SU	1	0
1	2A	1917	PSU	1	0
1	2A	1939	5MU	1	0
55	1x	37	MIA	1	0
1	2A	1915	5MU	1	0
1	1A	2503	2MA	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	1A	1939	5MU	1	0
55	1x	8	4SU	1	0
1	1A	1920	OMC	1	0
55	1y	55	PSU	1	0
54	1w	230	MEQ	1	0
43	2l	92	0TD	1	0
32	1a	1518	MA6	1	0
43	1l	92	0TD	3	0
32	2a	1402	4OC	2	0
55	2x	37	MIA	2	0
32	1a	1519	MA6	2	0
32	1a	527	G7M	2	0
55	1y	39	PSU	1	0
32	2a	1519	MA6	1	0
54	2w	230	MEQ	1	0
32	1a	1402	4OC	3	0
32	2a	1518	MA6	3	0
32	2a	1207	2MG	1	0
1	1A	2552	OMU	1	0
1	2A	2251	OMG	1	0
1	1A	1917	PSU	3	0
55	2y	37	MIA	1	0
55	2y	55	PSU	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2022 ligands modelled in this entry, 2020 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
59	SF4	1d	302	35	0,12,12	-	-	-		
59	SF4	2d	303	35	0,12,12	-	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
59	SF4	1d	302	35	-	-	0/6/5/5
59	SF4	2d	303	35	-	-	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.

2 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	1d	302	SF4	3	0
59	2d	303	SF4	2	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	1A	2860/2915 (98%)	-0.61	109 (3%) 44 40	10, 27, 82, 98	0
1	2A	2789/2915 (95%)	-0.13	103 (3%) 45 41	25, 49, 84, 97	0
2	1B	120/121 (99%)	-0.39	0 100 100	23, 45, 58, 73	0
2	2B	120/121 (99%)	0.71	4 (3%) 49 45	55, 73, 84, 84	0
3	1D	275/276 (99%)	-0.39	2 (0%) 84 83	12, 27, 44, 70	0
3	2D	275/276 (99%)	0.05	1 (0%) 88 87	21, 43, 56, 67	0
4	1E	204/206 (99%)	-0.41	0 100 100	11, 28, 48, 74	0
4	2E	204/206 (99%)	0.09	1 (0%) 87 86	27, 47, 60, 75	0
5	1F	203/210 (96%)	-0.24	0 100 100	12, 33, 55, 70	0
5	2F	203/210 (96%)	0.37	2 (0%) 79 78	27, 55, 70, 77	0
6	1G	181/182 (99%)	0.42	7 (3%) 43 39	36, 52, 69, 80	0
6	2G	181/182 (99%)	1.23	25 (13%) 6 5	61, 72, 78, 85	0
7	1H	174/180 (96%)	-0.03	1 (0%) 85 85	29, 43, 55, 60	0
7	2H	174/180 (96%)	0.91	13 (7%) 20 17	54, 69, 78, 85	0
8	1I	146/148 (98%)	0.47	3 (2%) 63 61	37, 60, 70, 74	0
8	2I	146/148 (98%)	0.61	4 (2%) 56 53	46, 65, 72, 76	0
9	1N	140/140 (100%)	-0.42	0 100 100	17, 27, 52, 61	0
9	2N	140/140 (100%)	0.27	2 (1%) 73 72	37, 54, 68, 71	0
10	1O	122/122 (100%)	-0.35	0 100 100	18, 30, 49, 55	0
10	2O	122/122 (100%)	-0.16	0 100 100	32, 42, 56, 61	0
11	1P	149/150 (99%)	-0.16	0 100 100	12, 36, 56, 63	0
11	2P	149/150 (99%)	0.51	3 (2%) 65 62	29, 57, 71, 79	0
12	1Q	141/141 (100%)	-0.30	0 100 100	19, 32, 45, 59	0
12	2Q	141/141 (100%)	0.41	3 (2%) 63 61	39, 54, 63, 76	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.45	0 100 100	16, 27, 40, 53	0
13	2R	118/118 (100%)	0.10	0 100 100	31, 46, 55, 64	0
14	1S	110/112 (98%)	-0.02	0 100 100	34, 45, 55, 57	0
14	2S	110/112 (98%)	0.94	10 (9%) 15 12	58, 67, 73, 75	0
15	1T	131/146 (89%)	-0.17	3 (2%) 61 58	24, 36, 62, 75	0
15	2T	131/146 (89%)	0.12	1 (0%) 82 81	34, 48, 65, 74	0
16	1U	116/118 (98%)	-0.49	0 100 100	12, 21, 36, 53	0
16	2U	116/118 (98%)	0.18	0 100 100	35, 50, 61, 67	0
17	1V	101/101 (100%)	-0.50	0 100 100	12, 28, 43, 49	0
17	2V	101/101 (100%)	0.42	1 (0%) 79 78	33, 60, 69, 74	0
18	1W	112/113 (99%)	-0.54	0 100 100	10, 21, 38, 69	0
18	2W	112/113 (99%)	-0.09	0 100 100	32, 42, 61, 82	0
19	1X	95/96 (98%)	-0.26	2 (2%) 63 61	20, 30, 48, 64	0
19	2X	95/96 (98%)	0.55	2 (2%) 63 61	44, 56, 67, 78	0
20	1Y	107/110 (97%)	-0.06	1 (0%) 81 80	26, 39, 59, 70	0
20	2Y	107/110 (97%)	0.75	8 (7%) 20 17	48, 61, 72, 79	0
21	1Z	183/206 (88%)	0.23	1 (0%) 87 86	33, 49, 61, 72	0
21	2Z	186/206 (90%)	0.84	9 (4%) 35 32	54, 67, 74, 80	0
22	10	76/85 (89%)	-0.25	2 (2%) 57 54	20, 30, 49, 61	0
22	20	77/85 (90%)	0.48	3 (3%) 43 39	46, 54, 64, 71	0
23	11	97/98 (98%)	-0.11	1 (1%) 79 78	19, 33, 58, 66	0
23	21	97/98 (98%)	0.30	2 (2%) 63 61	34, 49, 66, 73	0
24	12	70/72 (97%)	0.02	1 (1%) 73 72	27, 39, 51, 68	0
24	22	70/72 (97%)	0.64	4 (5%) 29 26	53, 62, 69, 77	0
25	13	59/60 (98%)	-0.38	0 100 100	17, 26, 48, 60	0
25	23	59/60 (98%)	0.18	0 100 100	41, 53, 64, 68	0
26	14	69/71 (97%)	0.85	9 (13%) 7 6	50, 69, 80, 83	0
26	24	68/71 (95%)	1.48	16 (23%) 2 1	67, 78, 86, 88	0
27	15	59/60 (98%)	-0.58	0 100 100	10, 26, 41, 48	0
27	25	59/60 (98%)	0.04	2 (3%) 48 44	26, 45, 60, 69	0
28	16	53/54 (98%)	-0.26	0 100 100	27, 37, 49, 54	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.33	1 (1%) 66 63	49, 56, 64, 69	0
29	17	48/49 (97%)	-0.23	3 (6%) 26 23	13, 20, 48, 68	0
29	27	48/49 (97%)	0.27	5 (10%) 11 10	26, 36, 60, 66	0
30	18	64/65 (98%)	-0.45	0 100 100	18, 25, 33, 38	0
30	28	64/65 (98%)	0.26	1 (1%) 70 68	35, 46, 52, 63	0
31	19	37/37 (100%)	-0.30	0 100 100	22, 30, 40, 47	0
31	29	37/37 (100%)	0.64	0 100 100	46, 57, 65, 70	0
32	1a	1488/1521 (97%)	0.52	78 (5%) 33 29	23, 64, 86, 97	0
32	2a	1491/1521 (98%)	0.52	67 (4%) 38 34	35, 66, 85, 97	0
33	1b	231/256 (90%)	0.95	15 (6%) 25 22	54, 69, 78, 83	0
33	2b	231/256 (90%)	1.26	38 (16%) 4 4	61, 73, 80, 89	0
34	1c	206/239 (86%)	1.01	19 (9%) 14 12	58, 70, 76, 78	0
34	2c	206/239 (86%)	0.98	18 (8%) 16 13	62, 71, 76, 79	0
35	1d	208/209 (99%)	0.90	18 (8%) 16 13	45, 65, 74, 79	0
35	2d	208/209 (99%)	0.63	7 (3%) 48 44	46, 59, 67, 71	0
36	1e	148/162 (91%)	0.52	2 (1%) 73 72	42, 56, 67, 70	0
36	2e	148/162 (91%)	0.69	4 (2%) 56 53	48, 60, 69, 81	0
37	1f	100/101 (99%)	0.57	4 (4%) 42 38	49, 60, 67, 71	0
37	2f	100/101 (99%)	0.62	2 (2%) 65 62	55, 64, 72, 77	0
38	1g	155/156 (99%)	0.88	11 (7%) 22 19	57, 66, 74, 77	0
38	2g	155/156 (99%)	1.16	23 (14%) 5 4	61, 71, 78, 81	0
39	1h	137/138 (99%)	0.50	1 (0%) 84 83	48, 57, 65, 69	0
39	2h	137/138 (99%)	0.62	7 (5%) 33 29	49, 62, 68, 72	0
40	1i	127/128 (99%)	1.37	26 (20%) 2 2	55, 70, 77, 81	0
40	2i	123/128 (96%)	1.63	39 (31%) 1 1	66, 75, 82, 87	0
41	1j	98/105 (93%)	1.59	27 (27%) 1 1	59, 72, 78, 80	0
41	2j	96/105 (91%)	1.72	30 (31%) 1 1	66, 77, 82, 84	0
42	1k	114/129 (88%)	0.52	1 (0%) 81 80	38, 57, 68, 74	0
42	2k	114/129 (88%)	0.83	5 (4%) 39 35	53, 66, 73, 82	0
43	1l	121/132 (91%)	0.44	4 (3%) 49 45	38, 51, 62, 66	0
43	2l	121/132 (91%)	0.36	4 (3%) 49 45	40, 52, 59, 69	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	118/126 (93%)	1.16	15 (12%) 8 7	55, 68, 76, 78	0
44	2m	115/126 (91%)	1.43	27 (23%) 2 1	63, 73, 79, 82	0
45	1n	60/61 (98%)	1.29	8 (13%) 7 6	58, 68, 75, 78	0
45	2n	60/61 (98%)	1.52	15 (25%) 2 1	63, 72, 77, 78	0
46	1o	88/89 (98%)	0.40	4 (4%) 38 34	39, 56, 67, 72	0
46	2o	88/89 (98%)	0.60	4 (4%) 38 34	50, 61, 71, 75	0
47	1p	82/88 (93%)	1.15	13 (15%) 5 4	53, 64, 72, 76	0
47	2p	82/88 (93%)	0.69	1 (1%) 76 75	47, 57, 65, 73	0
48	1q	99/105 (94%)	0.50	1 (1%) 79 78	44, 56, 66, 72	0
48	2q	99/105 (94%)	0.54	1 (1%) 79 78	48, 58, 65, 76	0
49	1r	68/88 (77%)	0.57	0 100 100	44, 55, 69, 76	0
49	2r	68/88 (77%)	0.83	4 (5%) 28 25	54, 64, 72, 76	0
50	1s	83/93 (89%)	1.48	20 (24%) 2 1	63, 74, 78, 84	0
50	2s	83/93 (89%)	1.46	20 (24%) 2 1	62, 75, 82, 83	0
51	1t	96/106 (90%)	0.76	7 (7%) 21 18	50, 60, 71, 73	0
51	2t	96/106 (90%)	0.80	7 (7%) 21 18	46, 62, 70, 72	0
52	1u	23/27 (85%)	1.54	6 (26%) 1 1	60, 65, 70, 73	0
52	2u	23/27 (85%)	1.69	9 (39%) 1 0	66, 72, 75, 78	0
53	1v	13/24 (54%)	0.32	0 100 100	42, 52, 82, 86	0
53	2v	13/24 (54%)	0.81	0 100 100	56, 65, 85, 88	0
54	1w	248/354 (70%)	0.32	5 (2%) 65 62	25, 58, 72, 80	0
54	2w	252/354 (71%)	0.45	6 (2%) 59 56	40, 64, 76, 82	0
55	1x	68/76 (89%)	-0.10	1 (1%) 72 70	20, 51, 64, 84	0
55	1y	67/76 (88%)	0.96	9 (13%) 7 6	32, 79, 87, 93	0
55	2x	68/76 (89%)	0.20	0 100 100	37, 65, 74, 84	0
55	2y	67/76 (88%)	1.39	14 (20%) 2 2	50, 88, 93, 96	0
56	1z	14/20 (70%)	0.37	0 100 100	25, 35, 61, 67	0
56	2z	14/20 (70%)	0.99	1 (7%) 22 19	43, 58, 70, 73	0
All	All	21290/22342 (95%)	0.24	1019 (4%) 35 32	10, 55, 79, 98	0

All (1019) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1088	A	7.7
32	1a	1026	G	6.5
38	1g	80	VAL	6.5
1	1A	1068	G	6.4
44	1m	2	ALA	6.2
1	1A	1057	A	6.1
1	1A	1063	G	5.9
22	20	9	SER	5.8
32	1a	345	C	5.5
32	1a	1034	G	5.3
44	2m	100	GLY	5.3
32	1a	344	A	5.2
45	2n	2	ALA	5.2
32	2a	1002	G	5.0
38	2g	81	GLY	5.0
1	2A	652(B)	A	5.0
1	1A	1094	U	4.9
32	1a	346	G	4.9
32	2a	1030(B)	C	4.8
32	2a	1286	A	4.8
7	1H	2	SER	4.8
1	1A	1064	C	4.7
45	1n	2	ALA	4.7
12	2Q	60	ARG	4.6
1	2A	2803	C	4.6
1	1A	1058	G	4.6
41	1j	40	LEU	4.6
32	1a	1029	C	4.5
29	17	47	ARG	4.5
1	1A	1093	G	4.5
35	2d	157	LEU	4.5
1	2A	1536	C	4.5
1	2A	2804	C	4.5
1	1A	2189	U	4.5
44	1m	102	ARG	4.4
1	2A	2115	G	4.4
33	2b	222	ILE	4.4
1	2A	2116	G	4.4
32	1a	1002	G	4.4
32	2a	1131	G	4.4
1	1A	1067	A	4.3
1	2A	2134	A	4.3
1	1A	1071	G	4.3

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Mol	Chain	Res	Type	RSRZ
1	2A	2897	U	4.3
32	2a	1236	A	4.3
44	1m	6	GLY	4.3
1	1A	1066	U	4.3
1	1A	1082	U	4.3
1	1A	1060	U	4.2
1	1A	1100	C	4.2
32	1a	1030(B)	C	4.2
1	1A	1087	G	4.2
32	1a	1035	A	4.2
48	2q	44	ALA	4.2
1	1A	1059	G	4.2
41	1j	76	ASN	4.1
44	2m	4	ILE	4.1
32	1a	1033	G	4.1
1	2A	2131	G	4.0
1	2A	2793	G	4.0
1	1A	1069	A	4.0
40	2i	6	GLY	4.0
40	2i	102	LEU	4.0
1	1A	1065	U	4.0
1	2A	2173	A	3.9
32	1a	343	U	3.9
41	2j	45	ARG	3.9
1	1A	1062	G	3.9
32	1a	348	G	3.9
32	1a	630	G	3.9
40	1i	15	ALA	3.9
40	2i	106	ALA	3.9
45	2n	3	ARG	3.9
26	24	56	VAL	3.9
41	2j	37	PRO	3.8
41	2j	54	PHE	3.8
33	2b	215	LEU	3.8
1	2A	2147	G	3.8
1	2A	2802	G	3.8
32	1a	158	G	3.8
32	1a	347	G	3.8
55	1y	18	G	3.8
1	2A	2176	A	3.7
1	1A	2894	G	3.7
35	1d	8	VAL	3.7

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Mol	Chain	Res	Type	RSRZ
1	1A	1070	A	3.7
32	2a	1130	A	3.7
6	2G	158	ALA	3.7
32	1a	159	G	3.7
55	1y	44	G	3.7
40	2i	14	VAL	3.7
1	2A	2896	C	3.7
50	1s	74	PHE	3.7
44	2m	101	GLN	3.7
32	1a	157	G	3.7
32	1a	1036	G	3.7
45	2n	6	LEU	3.7
1	2A	2164	C	3.7
32	1a	1028	C	3.7
20	2Y	59	GLY	3.7
33	2b	187	LEU	3.6
38	2g	12	LEU	3.6
1	1A	2120	G	3.6
1	2A	2133	G	3.6
32	1a	1032	G	3.6
32	2a	1024	G	3.6
1	1A	1092	C	3.6
51	1t	10	LEU	3.6
1	1A	2150	U	3.6
1	2A	271(K)	U	3.6
1	2A	2169	A	3.6
32	1a	1286	A	3.6
1	1A	2125	G	3.6
1	2A	2138	C	3.6
32	1a	1027	C	3.6
33	2b	165	VAL	3.6
40	2i	86	VAL	3.6
40	1i	19	LEU	3.6
33	2b	237	ALA	3.6
40	1i	2	GLU	3.6
35	1d	157	LEU	3.6
1	1A	2792	G	3.6
41	1j	4	ILE	3.6
1	2A	2135	A	3.6
34	2c	64	VAL	3.6
1	1A	2151	G	3.5
1	1A	2152	G	3.5

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Mol	Chain	Res	Type	RSRZ
32	2a	1036	G	3.5
50	1s	2	PRO	3.5
33	2b	199	TYR	3.5
23	21	2	SER	3.5
44	1m	100	GLY	3.5
1	2A	2155	G	3.5
40	1i	13	ALA	3.5
44	2m	65	LYS	3.5
1	2A	2166	G	3.5
32	1a	1001(A)	G	3.5
1	1A	1086	A	3.5
1	2A	2114	A	3.5
32	1a	160	A	3.5
51	2t	103	GLY	3.5
34	2c	195	VAL	3.5
23	11	2	SER	3.4
50	1s	39	THR	3.4
1	1A	271(K)	U	3.4
26	24	54	GLY	3.4
41	1j	10	GLY	3.4
1	2A	2126	A	3.4
50	2s	40	ILE	3.4
15	2T	131	ALA	3.4
32	2a	1034	G	3.4
40	1i	4	TYR	3.4
40	2i	67	GLY	3.4
41	2j	5	ARG	3.4
1	1A	2174	C	3.4
1	2A	2137	C	3.4
45	2n	18	VAL	3.4
1	1A	1078	U	3.4
32	1a	1025	U	3.4
1	2A	2160	G	3.4
32	2a	1030(A)	G	3.4
1	2A	2117	A	3.4
33	1b	18	GLY	3.4
40	1i	8	GLY	3.4
40	2i	15	ALA	3.4
40	2i	19	LEU	3.3
32	2a	1180	A	3.3
1	1A	1056	G	3.3
1	2A	2893	G	3.3

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Mol	Chain	Res	Type	RSRZ
55	2y	15	G	3.3
38	2g	26	PHE	3.3
50	2s	13	ASP	3.3
21	2Z	99	TYR	3.3
50	2s	35	SER	3.3
32	1a	1037	C	3.3
32	1a	1397	C	3.3
7	2H	100	GLY	3.3
41	2j	55	LYS	3.3
41	2j	76	ASN	3.3
41	1j	34	VAL	3.3
41	2j	72	VAL	3.3
1	1A	2892	A	3.3
32	1a	1024	G	3.3
41	2j	71	LEU	3.3
38	2g	25	ALA	3.3
29	17	48	LYS	3.3
1	1A	2896	C	3.3
40	2i	53	VAL	3.3
51	2t	9	ASN	3.3
1	1A	1098	A	3.3
32	1a	1005	A	3.3
32	2a	1035	A	3.3
44	2m	102	ARG	3.3
1	2A	2123	G	3.3
1	2A	2894	G	3.3
44	2m	73	GLU	3.3
38	1g	2	ALA	3.3
1	1A	1080	C	3.2
33	1b	233	SER	3.2
40	2i	88	TYR	3.2
1	2A	2174	C	3.2
1	2A	2794	C	3.2
38	2g	83	ALA	3.2
26	24	49	PHE	3.2
1	2A	2159	G	3.2
1	2A	2113	U	3.2
15	1T	37	GLY	3.2
1	1A	1096	A	3.2
55	1y	58	A	3.2
33	2b	134	GLU	3.2
1	2A	2157	G	3.2

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Mol	Chain	Res	Type	RSRZ
44	1m	24	GLY	3.2
1	2A	2105	C	3.1
1	2A	2158	A	3.1
19	1X	94	GLY	3.1
32	2a	1025	U	3.1
33	2b	34	ALA	3.1
8	1I	79	ILE	3.1
38	2g	80	VAL	3.1
1	2A	2127	G	3.1
32	2a	1003	G	3.1
1	1A	1072	C	3.1
1	1A	2119	A	3.1
45	1n	5	ALA	3.1
32	2a	1219	U	3.1
50	2s	25	LYS	3.1
41	2j	8	LEU	3.1
32	1a	1030(A)	G	3.1
6	2G	2	PRO	3.1
1	2A	2136	C	3.1
32	1a	1030	C	3.1
38	2g	2	ALA	3.1
6	2G	95	ARG	3.1
26	14	56	VAL	3.1
40	2i	10	ARG	3.1
1	1A	1090	U	3.1
1	1A	1101	U	3.1
1	2A	2122	U	3.1
6	2G	62	LEU	3.1
55	2y	20	U	3.1
1	1A	1089	G	3.1
1	2A	11	G	3.1
1	2A	2805	G	3.1
32	2a	1033	G	3.1
34	1c	189	ALA	3.1
1	1A	1509	C	3.1
40	2i	18	PHE	3.1
40	2i	62	TYR	3.0
44	2m	90	LEU	3.0
39	2h	99	GLU	3.0
3	1D	276	LYS	3.0
34	2c	61	ALA	3.0
36	2e	34	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
38	2g	156	TRP	3.0
41	2j	47	PHE	3.0
1	1A	2115	G	3.0
1	2A	1533	G	3.0
7	2H	64	LEU	3.0
34	1c	188	LEU	3.0
1	1A	2897	U	3.0
1	2A	2118	U	3.0
40	2i	21	PRO	3.0
46	1o	69	TYR	3.0
47	1p	17	TYR	3.0
1	1A	2793	G	3.0
1	2A	2151	G	3.0
1	1A	2803	C	3.0
33	2b	200	ILE	3.0
50	2s	24	ALA	3.0
32	1a	1020	U	3.0
54	2w	351	LEU	3.0
26	24	57	GLU	3.0
40	2i	126	SER	3.0
52	2u	6	ARG	3.0
1	1A	2175	C	3.0
1	1A	2804	C	3.0
1	2A	2178	C	3.0
32	2a	1037	C	3.0
1	1A	2113	U	2.9
6	2G	48	GLU	2.9
40	2i	97	LYS	2.9
34	2c	62	ASP	2.9
44	2m	7	VAL	2.9
50	2s	9	VAL	2.9
1	1A	1079	C	2.9
1	2A	2165	G	2.9
20	2Y	54	LYS	2.9
32	2a	951	G	2.9
32	2a	1027	C	2.9
32	2a	1032	G	2.9
32	2a	1285	A	2.9
35	1d	153	ARG	2.9
44	1m	25	ILE	2.9
38	1g	83	ALA	2.9
41	1j	47	PHE	2.9

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Mol	Chain	Res	Type	RSRZ
6	2G	35	GLU	2.9
1	2A	2294	C	2.9
32	2a	1234	C	2.9
1	1A	1091	G	2.9
1	2A	652(C)	G	2.9
1	2A	2120	G	2.9
32	1a	1003	G	2.9
44	2m	112	GLY	2.9
22	10	10	THR	2.9
8	1I	146	ALA	2.9
33	2b	136	VAL	2.9
3	2D	38	LYS	2.9
38	2g	35	LYS	2.9
47	1p	13	HIS	2.9
1	1A	886	C	2.9
1	1A	2179	C	2.9
19	1X	95	LEU	2.9
51	2t	72	LEU	2.9
50	2s	29	ARG	2.8
22	10	9	SER	2.8
14	2S	7	TYR	2.8
38	2g	48	LYS	2.8
47	1p	39	TYR	2.8
41	1j	88	LEU	2.8
1	1A	653	A	2.8
1	2A	9	U	2.8
1	2A	2895	U	2.8
26	24	10	VAL	2.8
50	1s	9	VAL	2.8
1	1A	1074	G	2.8
1	2A	2148	G	2.8
32	2a	1356	G	2.8
35	1d	137	SER	2.8
51	1t	103	GLY	2.8
38	2g	16	LEU	2.8
40	1i	102	LEU	2.8
41	1j	42	THR	2.8
44	1m	87	TYR	2.8
44	2m	5	ALA	2.8
33	1b	165	VAL	2.8
52	1u	23	PRO	2.8
52	2u	24	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
1	1A	1073	A	2.8
32	1a	1531	A	2.8
55	1y	49	C	2.8
32	1a	1224	G	2.8
32	2a	1220	G	2.8
6	2G	139	LEU	2.8
26	24	51	ASP	2.8
47	1p	68	ASP	2.8
50	1s	13	ASP	2.8
40	1i	7	THR	2.8
41	2j	42	THR	2.8
35	2d	3	ARG	2.8
45	1n	29	ARG	2.8
1	1A	1081	U	2.8
32	1a	991	U	2.8
32	1a	1040	U	2.8
32	1a	1150	U	2.8
32	2a	1126	U	2.8
1	2A	2119	A	2.8
1	2A	2111	C	2.8
32	1a	1363	C	2.8
23	21	28	GLY	2.8
26	24	9	LEU	2.8
6	1G	48	GLU	2.8
40	2i	109	VAL	2.8
50	1s	73	GLU	2.8
52	2u	17	THR	2.8
1	1A	2159	G	2.8
1	2A	2149	G	2.8
26	24	32	TYR	2.8
12	2Q	22	LYS	2.7
35	2d	30	LYS	2.7
6	2G	43	LEU	2.7
51	2t	10	LEU	2.7
1	1A	548	A	2.7
32	1a	1001	A	2.7
39	2h	131	GLY	2.7
44	2m	6	GLY	2.7
41	2j	56	HIS	2.7
1	1A	2128	C	2.7
1	1A	2794	C	2.7
1	2A	2146	C	2.7

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Mol	Chain	Res	Type	RSRZ
6	1G	50	ALA	2.7
38	2g	41	ARG	2.7
55	2y	48	C	2.7
41	1j	33	GLN	2.7
24	22	65	ASN	2.7
40	1i	106	ALA	2.7
40	2i	61	ALA	2.7
50	2s	12	ASP	2.7
6	2G	142	PRO	2.7
26	24	7	PRO	2.7
52	2u	23	PRO	2.7
41	1j	7	LYS	2.7
43	2l	115	LYS	2.7
32	2a	1363	C	2.7
6	2G	39	ILE	2.7
45	2n	7	ILE	2.7
1	2A	2125	G	2.7
34	1c	2	GLY	2.7
35	1d	43	HIS	2.7
51	2t	83	ARG	2.7
33	1b	15	VAL	2.7
1	1A	1095	A	2.7
34	1c	115	LEU	2.7
37	2f	32	ASN	2.7
21	2Z	27	VAL	2.7
33	2b	230	VAL	2.7
49	2r	20	ALA	2.7
51	1t	14	LYS	2.7
33	1b	131	PRO	2.7
38	1g	33	ASP	2.7
1	2A	2110	G	2.6
32	2a	1283	G	2.6
55	1x	44	G	2.6
34	1c	193	TYR	2.6
41	1j	96	ILE	2.6
56	2z	10	ILE	2.6
1	1A	1077	A	2.6
50	1s	20	LEU	2.6
26	24	55	ARG	2.6
33	1b	227	GLY	2.6
43	2l	73	GLU	2.6
50	2s	68	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
1	2A	893	C	2.6
32	1a	1137	C	2.6
19	2X	28	PHE	2.6
21	2Z	161	VAL	2.6
33	2b	123	ALA	2.6
50	2s	79	THR	2.6
6	2G	12	TYR	2.6
1	2A	2156	G	2.6
32	1a	181	G	2.6
33	2b	44	LEU	2.6
44	2m	19	LEU	2.6
50	1s	14	HIS	2.6
40	1i	64	THR	2.6
40	2i	7	THR	2.6
6	2G	3	LEU	2.6
6	2G	133	LEU	2.6
14	2S	58	LEU	2.6
35	2d	4	TYR	2.6
50	1s	16	LEU	2.6
40	2i	57	GLY	2.6
42	2k	49	GLY	2.6
50	1s	84	GLY	2.6
21	2Z	175	VAL	2.6
33	2b	218	ALA	2.6
54	1w	350	ALA	2.6
1	2A	2128	C	2.6
39	2h	2	LEU	2.6
44	2m	99	ARG	2.6
14	2S	90	GLY	2.6
36	1e	85	GLY	2.6
1	1A	1083	U	2.6
1	2A	2132	U	2.6
32	1a	1532	U	2.6
32	2a	950	U	2.6
32	2a	1532	U	2.6
44	2m	98	VAL	2.6
55	2y	45	U	2.6
33	2b	97	TRP	2.5
1	1A	1099	G	2.5
1	2A	2751	G	2.5
41	2j	38	ILE	2.5
45	1n	7	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
1	1A	1046	A	2.5
6	2G	94	LEU	2.5
39	2h	10	LEU	2.5
40	2i	96	LEU	2.5
44	1m	56	LEU	2.5
45	2n	21	TYR	2.5
1	1A	2129	C	2.5
32	1a	403	C	2.5
32	2a	1029	C	2.5
6	2G	92	VAL	2.5
7	2H	44	VAL	2.5
34	2c	66	VAL	2.5
38	2g	75	VAL	2.5
41	2j	20	ALA	2.5
49	2r	24	ALA	2.5
38	2g	28	ASN	2.5
46	2o	22	THR	2.5
32	1a	90	U	2.5
40	2i	71	SER	2.5
55	2y	33	U	2.5
7	2H	136	ILE	2.5
3	1D	275	LYS	2.5
34	1c	4	LYS	2.5
35	1d	194	LEU	2.5
36	2e	27	ARG	2.5
45	2n	17	LYS	2.5
1	1A	2135	A	2.5
1	1A	2170	A	2.5
41	1j	31	GLY	2.5
35	2d	112	VAL	2.5
41	1j	44	VAL	2.5
35	2d	55	ALA	2.5
40	1i	3	GLN	2.5
45	2n	59	ALA	2.5
1	2A	2139	C	2.5
32	1a	1019	C	2.5
32	2a	979	C	2.5
55	2y	4	C	2.5
33	2b	190	THR	2.5
50	1s	35	SER	2.5
51	2t	74	LYS	2.5
52	2u	14	TRP	2.5

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Mol	Chain	Res	Type	RSRZ
42	2k	103	LEU	2.5
45	2n	31	ARG	2.5
46	2o	54	ARG	2.5
50	1s	3	ARG	2.5
20	2Y	55	TYR	2.5
33	2b	236	TYR	2.5
14	2S	45	GLY	2.5
41	1j	36	GLY	2.5
51	1t	101	GLY	2.5
1	1A	2805	G	2.5
32	2a	1031	G	2.5
34	2c	151	VAL	2.5
38	1g	61	VAL	2.5
55	2y	18	G	2.5
15	1T	130	ALA	2.5
37	1f	99	ALA	2.5
45	2n	50	LYS	2.5
38	2g	27	ILE	2.5
40	2i	42	ARG	2.5
46	1o	87	ILE	2.5
50	2s	37	ARG	2.5
1	1A	2178	C	2.5
1	1A	12	U	2.5
1	2A	2808	U	2.5
55	1y	47	U	2.5
47	1p	82	GLN	2.5
26	24	52	THR	2.4
44	2m	103	THR	2.4
21	2Z	103	ARG	2.4
21	2Z	112	ARG	2.4
6	1G	53	LEU	2.4
26	24	31	ILE	2.4
34	2c	202	ILE	2.4
41	2j	75	ILE	2.4
1	2A	2153	G	2.4
32	2a	630	G	2.4
45	2n	32	SER	2.4
50	2s	38	SER	2.4
55	2y	19	G	2.4
1	1A	2177	C	2.4
32	2a	1282	C	2.4
33	2b	38	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
33	2b	7	VAL	2.4
34	1c	70	VAL	2.4
45	1n	4	LYS	2.4
40	2i	122	ALA	2.4
41	1j	45	ARG	2.4
45	1n	3	ARG	2.4
41	2j	23	ILE	2.4
38	1g	153	HIS	2.4
47	1p	16	HIS	2.4
1	1A	2173	A	2.4
1	2A	2171	A	2.4
32	1a	162	A	2.4
32	1a	349	A	2.4
32	1a	1016	A	2.4
32	2a	1004	A	2.4
33	1b	97	TRP	2.4
32	2a	1026	G	2.4
32	2a	1182	G	2.4
24	22	1	MET	2.4
1	2A	2161	C	2.4
14	2S	28	VAL	2.4
26	14	50	VAL	2.4
28	26	39	TYR	2.4
32	1a	1038	C	2.4
1	1A	1097	U	2.4
8	2I	146	ALA	2.4
33	2b	70	PHE	2.4
40	1i	66	ARG	2.4
41	1j	46	ARG	2.4
47	1p	71	ARG	2.4
6	2G	144	ILE	2.4
7	2H	88	LEU	2.4
8	2I	77	LEU	2.4
34	2c	5	ILE	2.4
40	1i	117	HIS	2.4
40	1i	75	ASP	2.4
1	1A	2790	A	2.4
1	2A	2170	A	2.4
1	2A	2629	A	2.4
32	2a	1363(A)	A	2.4
12	2Q	33	GLY	2.4
33	2b	232	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
35	1d	116	GLN	2.4
34	1c	76	VAL	2.4
34	1c	207	VAL	2.4
37	1f	90	VAL	2.4
1	1A	2893	G	2.4
1	2A	2104	G	2.4
1	2A	2154	G	2.4
29	27	47	ARG	2.4
32	1a	64	G	2.4
32	1a	1202	G	2.4
32	2a	1001(A)	G	2.4
40	1i	55	ALA	2.4
46	2o	88	ARG	2.4
50	1s	37	ARG	2.4
40	1i	47	LEU	2.4
41	1j	71	LEU	2.4
1	2A	2129	C	2.4
1	2A	2150	U	2.4
17	2V	92	THR	2.4
32	1a	1007	C	2.4
32	2a	1212	U	2.4
32	2a	1235	U	2.4
32	2a	1249	C	2.4
35	1d	154	ASN	2.4
7	2H	2	SER	2.4
6	2G	29	TRP	2.4
21	2Z	98	MET	2.4
42	2k	102	GLY	2.4
30	28	35	GLN	2.4
33	1b	7	VAL	2.4
38	2g	76	ARG	2.4
43	1l	18	VAL	2.4
52	1u	24	ARG	2.4
1	1A	890	A	2.4
32	1a	451	A	2.4
15	1T	131	ALA	2.4
6	2G	25	TYR	2.3
36	2e	61	TYR	2.3
41	2j	65	LEU	2.3
44	1m	96	LEU	2.3
6	1G	77	ILE	2.3
32	1a	79	G	2.3

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Mol	Chain	Res	Type	RSRZ
32	2a	1030(C)	G	2.3
32	2a	1323	G	2.3
55	2y	22	G	2.3
27	25	59	GLU	2.3
32	1a	91	C	2.3
32	1a	92	C	2.3
32	1a	990	C	2.3
32	2a	1038	C	2.3
39	2h	21	LYS	2.3
37	1f	58	GLY	2.3
44	2m	24	GLY	2.3
40	2i	9	ARG	2.3
26	24	50	VAL	2.3
29	27	46	VAL	2.3
44	1m	98	VAL	2.3
44	2m	45	VAL	2.3
29	27	45	ALA	2.3
49	2r	51	LEU	2.3
44	2m	25	ILE	2.3
1	1A	1103	A	2.3
1	1A	2169	A	2.3
8	2I	133	HIS	2.3
32	1a	1287	A	2.3
33	1b	40	HIS	2.3
50	2s	33	THR	2.3
38	2g	84	ASN	2.3
33	2b	22	LYS	2.3
50	2s	73	GLU	2.3
1	2A	2189	U	2.3
34	1c	62	ASP	2.3
41	2j	58	ASP	2.3
55	1y	45	U	2.3
1	1A	2116	G	2.3
1	2A	10	G	2.3
1	2A	2121	G	2.3
1	2A	2152	G	2.3
50	2s	2	PRO	2.3
2	2B	62	C	2.3
29	27	23	ARG	2.3
34	2c	79	ARG	2.3
50	1s	8	GLY	2.3
50	1s	29	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
52	1u	11	GLY	2.3
34	2c	55	VAL	2.3
6	1G	139	LEU	2.3
14	2S	29	PHE	2.3
24	22	60	LEU	2.3
34	2c	115	LEU	2.3
40	1i	84	ALA	2.3
6	2G	157	ILE	2.3
41	1j	23	ILE	2.3
47	1p	19	ILE	2.3
7	2H	157	TYR	2.3
38	1g	85	TYR	2.3
38	2g	85	TYR	2.3
50	1s	33	THR	2.3
33	2b	169	LYS	2.3
1	1A	2114	A	2.3
32	1a	161	A	2.3
55	1y	21	A	2.3
26	14	58	ARG	2.3
40	1i	98	PRO	2.3
49	2r	32	ARG	2.3
8	1I	90	GLY	2.3
46	1o	89	GLY	2.3
6	2G	61	ALA	2.3
1	1A	883	G	2.3
1	1A	2108	C	2.3
1	1A	2131	G	2.3
1	2A	888	C	2.3
1	2A	2112	G	2.3
1	2A	2124	G	2.3
32	1a	381	C	2.3
32	1a	1039	C	2.3
32	2a	1190	G	2.3
32	2a	1260	C	2.3
41	2j	67	THR	2.3
43	2l	64	TYR	2.3
26	14	53	GLU	2.3
41	2j	73	ASP	2.3
44	2m	113	PRO	2.3
51	1t	61	SER	2.3
1	2A	2801(A)	A	2.3
41	2j	36	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
44	1m	64	TRP	2.3
44	1m	119	GLY	2.3
35	1d	155	LEU	2.3
36	2e	115	VAL	2.3
40	1i	85	LEU	2.3
41	2j	16	LEU	2.3
47	1p	6	LEU	2.3
50	1s	5	LEU	2.3
50	2s	30	LEU	2.3
50	2s	67	VAL	2.3
33	2b	55	PHE	2.3
32	1a	1257	U	2.2
33	2b	162	ILE	2.2
34	1c	8	ILE	2.2
40	1i	82	ALA	2.2
44	2m	107	ALA	2.2
7	2H	41	MET	2.2
44	1m	103	THR	2.2
40	2i	12	GLU	2.2
34	2c	184	TYR	2.2
32	2a	1019	C	2.2
32	2a	1030	C	2.2
1	1A	2112	G	2.2
1	1A	2190	G	2.2
1	1A	2802	G	2.2
32	1a	1274	G	2.2
32	2a	1177	G	2.2
6	1G	21	ARG	2.2
35	1d	118	ARG	2.2
41	2j	46	ARG	2.2
44	1m	99	ARG	2.2
47	1p	47	ASP	2.2
7	2H	48	GLY	2.2
54	2w	190	GLY	2.2
14	2S	49	VAL	2.2
20	2Y	45	VAL	2.2
26	24	33	VAL	2.2
33	1b	112	VAL	2.2
33	2b	11	LEU	2.2
34	1c	43	LEU	2.2
34	2c	207	VAL	2.2
50	1s	11	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
1	1A	229	A	2.2
32	1a	1447	A	2.2
33	2b	39	ILE	2.2
33	2b	133	LYS	2.2
33	2b	186	ALA	2.2
40	2i	63	ILE	2.2
40	2i	127	LYS	2.2
47	1p	4	ILE	2.2
54	2w	307	PHE	2.2
34	2c	67	THR	2.2
26	14	32	TYR	2.2
34	1c	184	TYR	2.2
33	2b	234	PRO	2.2
34	2c	109	PRO	2.2
41	1j	37	PRO	2.2
41	2j	41	PRO	2.2
1	2A	1041	C	2.2
1	2A	2179	C	2.2
2	2B	27	C	2.2
20	2Y	57	GLN	2.2
1	1A	275	G	2.2
1	2A	2101	G	2.2
32	1a	1131	G	2.2
32	1a	1215	G	2.2
33	1b	229	VAL	2.2
44	2m	53	VAL	2.2
41	1j	74	ILE	2.2
41	2j	6	ILE	2.2
50	2s	69	HIS	2.2
54	1w	102	MET	2.2
54	2w	302	ILE	2.2
32	2a	1252	A	2.2
32	2a	1447	A	2.2
1	2A	2167	U	2.2
22	20	11	ARG	2.2
51	1t	9	ASN	2.2
33	2b	145	LEU	2.2
40	2i	105	ASP	2.2
48	1q	99	SER	2.2
51	2t	13	LEU	2.2
5	2F	6	VAL	2.2
6	2G	70	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
38	2g	105	VAL	2.2
38	2g	141	VAL	2.2
40	1i	53	VAL	2.2
41	2j	34	VAL	2.2
41	2j	49	VAL	2.2
1	2A	2177	C	2.2
20	2Y	60	PHE	2.2
21	2Z	136	PHE	2.2
32	2a	1277	C	2.2
33	2b	19	HIS	2.2
33	2b	58	ILE	2.2
43	1l	68	ALA	2.2
1	1A	1107	G	2.2
1	1A	1176	G	2.2
1	1A	2168	G	2.2
35	1d	156	GLU	2.2
42	2k	28	THR	2.2
1	2A	890	A	2.2
1	2A	2750	A	2.2
38	1g	154	TYR	2.2
39	2h	94	TYR	2.2
41	1j	41	PRO	2.2
1	2A	2144	U	2.2
1	2A	2172	U	2.2
9	2N	83	LYS	2.2
43	1l	17	LYS	2.2
55	2y	47	U	2.2
21	2Z	102	LEU	2.2
22	20	13	GLY	2.2
38	1g	101	LEU	2.2
41	2j	40	LEU	2.2
42	1k	98	LEU	2.2
45	2n	44	LEU	2.2
52	2u	5	ASP	2.2
7	2H	125	VAL	2.2
33	2b	71	VAL	2.2
33	2b	164	VAL	2.2
45	2n	33	VAL	2.2
33	1b	134	GLU	2.1
1	1A	2136	C	2.1
1	2A	2107	C	2.1
1	2A	2142	C	2.1

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Mol	Chain	Res	Type	RSRZ
1	2A	2145	C	2.1
14	2S	3	ARG	2.1
32	1a	221	C	2.1
32	1a	1006	C	2.1
32	2a	1028	C	2.1
32	2a	1039	C	2.1
32	2a	1140	C	2.1
33	2b	21	ARG	2.1
40	2i	20	ARG	2.1
52	1u	9	ARG	2.1
54	1w	188	THR	2.1
55	1y	48	C	2.1
1	1A	10	G	2.1
1	2A	2168	G	2.1
1	2A	2807	G	2.1
32	1a	541	G	2.1
32	2a	1117	G	2.1
32	2a	1355	G	2.1
43	2l	5	PRO	2.1
55	1y	19	G	2.1
24	22	70	GLN	2.1
37	1f	7	ASN	2.1
26	24	43	TYR	2.1
33	1b	236	TYR	2.1
43	1l	126	LYS	2.1
33	2b	196	LEU	2.1
41	1j	65	LEU	2.1
50	2s	71	LEU	2.1
54	1w	324	LEU	2.1
1	1A	1045	A	2.1
32	1a	1041	A	2.1
32	2a	1030(D)	A	2.1
32	2a	1225	A	2.1
50	1s	72	GLY	2.1
50	2s	26	GLY	2.1
1	1A	2132	U	2.1
6	1G	49	ASP	2.1
20	2Y	61	ILE	2.1
29	17	46	VAL	2.1
33	1b	127	ILE	2.1
26	14	59	PHE	2.1
34	1c	169	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
37	2f	53	ALA	2.1
38	2g	40	ALA	2.1
54	1w	349	ALA	2.1
35	1d	150	GLU	2.1
19	2X	68	ARG	2.1
35	1d	3	ARG	2.1
1	1A	885	C	2.1
1	1A	2137	C	2.1
1	1A	2164	C	2.1
1	2A	1043	C	2.1
1	2A	2103	C	2.1
32	2a	932	C	2.1
32	2a	1119	C	2.1
40	2i	79	LEU	2.1
47	1p	1	MET	2.1
14	2S	36	TYR	2.1
35	2d	23	GLY	2.1
40	1i	67	GLY	2.1
40	1i	68	GLY	2.1
1	1A	1047	G	2.1
1	1A	2165	G	2.1
2	2B	23	G	2.1
5	2F	89	VAL	2.1
6	2G	38	VAL	2.1
32	1a	1222	G	2.1
32	2a	1124	G	2.1
34	1c	106	VAL	2.1
34	2c	76	VAL	2.1
38	2g	21	VAL	2.1
6	2G	50	ALA	2.1
21	1Z	51	ALA	2.1
55	2y	21	A	2.1
55	2y	59	U	2.1
41	1j	66	ARG	2.1
52	1u	22	ARG	2.1
52	2u	15	ARG	2.1
29	27	48	LYS	2.1
8	2I	137	PRO	2.1
41	2j	91	PRO	2.1
54	2w	102	MET	2.1
35	1d	9	CYS	2.1
38	2g	82	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
40	2i	58	HIS	2.1
44	1m	21	TYR	2.1
1	1A	2188	C	2.1
6	2G	52	ILE	2.1
32	1a	1214	C	2.1
32	1a	1260	C	2.1
32	2a	1113	C	2.1
40	2i	108	VAL	2.1
51	1t	55	ILE	2.1
54	2w	185	VAL	2.1
26	24	59	PHE	2.1
35	1d	110	PHE	2.1
40	2i	59	PHE	2.1
41	1j	73	ASP	2.1
6	2G	76	SER	2.1
20	1Y	78	ALA	2.1
34	1c	100	ALA	2.1
50	1s	4	SER	2.1
38	1g	5	ARG	2.1
46	1o	88	ARG	2.1
55	2y	44	G	2.1
1	1A	2158	A	2.1
1	2A	2809	A	2.1
32	1a	975	A	2.1
41	1j	87	THR	2.1
44	2m	20	THR	2.1
11	2P	105	LEU	2.1
34	2c	42	LEU	2.1
46	2o	31	LEU	2.1
47	1p	73	LEU	2.1
44	2m	106	ASN	2.1
40	1i	30	GLY	2.1
45	1n	51	GLY	2.1
42	2k	29	ILE	2.1
52	2u	13	ILE	2.1
26	14	35	VAL	2.1
34	1c	75	VAL	2.1
34	2c	106	VAL	2.1
45	2n	16	PHE	2.1
7	2H	42	ARG	2.0
39	2h	30	ARG	2.0
41	1j	29	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
35	1d	195	ALA	2.0
1	1A	888	C	2.0
1	1A	1049	C	2.0
1	2A	652(D)	C	2.0
2	2B	5	C	2.0
32	2a	1259	C	2.0
32	2a	1320	C	2.0
55	2y	13	C	2.0
45	2n	61	TRP	2.0
44	2m	116	THR	2.0
20	2Y	1	MET	2.0
33	1b	232	PRO	2.0
41	1j	77	PRO	2.0
41	2j	77	PRO	2.0
1	2A	2109	U	2.0
34	1c	204	LEU	2.0
35	1d	42	GLN	2.0
47	2p	76	GLN	2.0
32	1a	1023	G	2.0
32	1a	1106	G	2.0
7	2H	135	GLY	2.0
4	2E	151	TYR	2.0
26	14	67	TYR	2.0
27	25	60	VAL	2.0
36	1e	69	VAL	2.0
38	1g	23	VAL	2.0
40	1i	86	VAL	2.0
11	2P	15	ARG	2.0
44	2m	80	ARG	2.0
52	2u	9	ARG	2.0
7	2H	73	ALA	2.0
40	2i	11	LYS	2.0
40	2i	82	ALA	2.0
45	1n	15	LYS	2.0
9	2N	11	PRO	2.0
32	1a	1244	C	2.0
32	2a	1018	C	2.0
40	2i	99	LEU	2.0
11	2P	104	GLY	2.0
14	2S	18	ILE	2.0
26	14	15	ILE	2.0
35	1d	2	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
39	1h	80	ILE	2.0
40	2i	80	GLY	2.0
24	12	69	ARG	2.0
33	2b	81	VAL	2.0
40	1i	14	VAL	2.0
40	2i	66	ARG	2.0
44	2m	15	VAL	2.0
34	1c	201	TYR	2.0
44	2m	87	TYR	2.0
52	1u	21	TYR	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
55	5MU	2y	54	21/22	0.57	0.17	82,91,101,116	0
55	G7M	2y	46	24/25	0.58	0.18	81,91,99,115	0
55	4SU	2y	8	20/21	0.68	0.13	83,87,95,108	0
55	PSU	2y	55	20/21	0.68	0.14	82,90,97,106	0
43	0TD	1l	92	10/11	0.71	0.15	40,51,63,71	0
55	G7M	1y	46	24/25	0.71	0.15	74,84,96,109	0
55	PSU	1y	55	20/21	0.75	0.14	71,81,91,98	0
55	5MU	1y	54	21/22	0.77	0.14	71,81,92,108	0
55	PSU	2y	32	20/21	0.80	0.15	70,80,83,90	0
55	PSU	2y	39	20/21	0.81	0.12	71,80,87,89	0
55	4SU	1y	8	20/21	0.81	0.12	74,80,87,90	0
55	PSU	1y	39	20/21	0.82	0.12	58,75,78,79	0
32	2MG	1a	1207	24/25	0.83	0.14	70,75,81,86	0
55	PSU	1y	32	20/21	0.83	0.11	60,70,75,76	0
32	2MG	2a	1207	24/25	0.83	0.12	60,75,81,87	0
55	MIA	2y	37	29/30	0.84	0.14	68,75,84,94	0
55	G7M	2x	46	24/25	0.85	0.13	62,68,74,93	0
43	0TD	2l	92	10/11	0.86	0.14	53,58,65,74	0
55	MIA	1y	37	29/30	0.87	0.12	58,68,71,82	0
55	PSU	2x	55	20/21	0.87	0.10	55,67,73,78	0
55	PSU	2x	32	20/21	0.87	0.12	61,68,76,77	0
32	M2G	1a	966	25/26	0.88	0.13	42,53,64,65	0
1	5MU	2A	1915	21/22	0.88	0.11	52,57,68,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	PSU	2x	39	20/21	0.91	0.11	46,64,69,74	0
32	5MC	2a	967	21/22	0.91	0.11	59,63,70,80	0
1	PSU	2A	1911	20/21	0.91	0.09	47,52,58,59	0
55	G7M	1x	46	24/25	0.91	0.09	40,47,62,79	0
32	PSU	2a	516	20/21	0.91	0.11	57,65,72,73	0
32	M2G	2a	966	25/26	0.92	0.11	54,62,72,75	0
55	5MU	2x	54	21/22	0.92	0.09	60,65,69,74	0
55	4SU	2x	8	20/21	0.92	0.12	58,65,70,72	0
32	PSU	1a	516	20/21	0.92	0.10	50,58,68,69	0
32	G7M	2a	527	24/25	0.92	0.11	54,62,65,68	0
32	5MC	2a	1400	21/22	0.93	0.10	55,62,66,67	0
32	G7M	1a	527	24/25	0.93	0.10	43,56,63,63	0
55	5MU	1x	54	21/22	0.93	0.11	48,55,60,64	0
1	OMC	2A	1920	21/22	0.93	0.09	44,50,54,55	0
55	PSU	1x	39	20/21	0.93	0.10	35,51,57,59	0
32	MA6	2a	1518	24/25	0.94	0.10	41,51,57,59	0
1	PSU	2A	1917	20/21	0.94	0.07	44,50,57,59	0
32	5MC	1a	967	21/22	0.94	0.10	46,53,63,67	0
32	4OC	2a	1402	22/23	0.94	0.09	46,50,54,59	0
32	5MC	2a	1404	21/22	0.94	0.11	30,44,48,50	0
1	PSU	1A	1911	20/21	0.95	0.10	35,46,53,54	0
54	MEQ	2w	230	10/11	0.95	0.12	42,44,50,51	0
1	5MU	1A	1915	21/22	0.95	0.08	42,48,54,61	0
55	PSU	1x	32	20/21	0.95	0.09	42,51,58,67	0
55	MIA	2x	37	29/30	0.95	0.11	54,62,67,68	0
32	UR3	2a	1498	21/22	0.95	0.10	42,49,55,58	0
55	PSU	1x	55	20/21	0.95	0.09	50,53,60,61	0
32	MA6	2a	1519	24/25	0.95	0.10	41,49,54,57	0
32	5MC	2a	1407	21/22	0.96	0.08	36,42,50,57	0
1	OMC	1A	1920	21/22	0.96	0.09	33,41,45,48	0
55	4SU	1x	8	20/21	0.96	0.07	32,40,47,52	0
1	PSU	1A	1917	20/21	0.96	0.07	34,42,52,54	0
55	MIA	1x	37	29/30	0.96	0.08	37,47,56,58	0
32	5MC	1a	1400	21/22	0.96	0.10	39,47,57,59	0
32	4OC	1a	1402	22/23	0.96	0.09	35,40,44,50	0
32	5MC	1a	1404	21/22	0.96	0.08	30,35,41,48	0
32	MA6	1a	1518	24/25	0.96	0.10	23,35,43,47	0
32	MA6	1a	1519	24/25	0.96	0.09	31,34,38,42	0
54	MEQ	1w	230	10/11	0.97	0.09	20,25,27,29	0
1	5MC	1A	1942	21/22	0.97	0.07	21,28,32,37	0
1	5MC	1A	1962	21/22	0.97	0.07	18,26,29,34	0
1	5MU	2A	1939	21/22	0.97	0.07	28,31,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	5MC	2A	1942	21/22	0.97	0.06	32,38,44,46	0
1	5MC	2A	1962	21/22	0.97	0.08	25,32,36,48	0
1	OMG	2A	2251	24/25	0.97	0.08	25,34,37,45	0
1	2MA	2A	2503	23/24	0.97	0.07	24,29,32,34	0
32	5MC	1a	1407	21/22	0.97	0.07	27,35,39,43	0
1	5MU	1A	1939	21/22	0.98	0.07	13,20,24,27	0
1	OMG	1A	2251	24/25	0.98	0.06	10,15,18,24	0
1	OMU	2A	2552	21/22	0.98	0.06	22,27,31,35	0
1	PSU	2A	2605	20/21	0.98	0.07	21,28,33,37	0
1	2MA	1A	2503	23/24	0.98	0.06	10,14,17,17	0
1	OMU	1A	2552	21/22	0.98	0.06	12,17,20,23	0
32	UR3	1a	1498	21/22	0.98	0.07	29,34,37,39	0
1	PSU	1A	2605	20/21	0.98	0.07	13,18,22,29	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
57	MG	1A	3716	1/1	0.43	0.17	42,42,42,42	0
57	MG	1A	3631	1/1	0.44	0.22	65,65,65,65	0
57	MG	2a	1766	1/1	0.46	0.20	64,64,64,64	0
57	MG	2a	1763	1/1	0.51	0.25	82,82,82,82	0
57	MG	1a	1770	1/1	0.60	0.20	73,73,73,73	0
57	MG	2j	202	1/1	0.60	0.24	77,77,77,77	0
57	MG	1a	1738	1/1	0.62	0.28	55,55,55,55	0
57	MG	2A	3024	1/1	0.63	0.21	64,64,64,64	0
57	MG	2A	3585	1/1	0.66	0.17	49,49,49,49	0
57	MG	1A	3751	1/1	0.67	0.24	56,56,56,56	0
57	MG	1A	3549	1/1	0.69	0.16	10,10,10,10	0
57	MG	2A	3046	1/1	0.69	0.20	59,59,59,59	0
57	MG	2a	1749	1/1	0.70	0.29	65,65,65,65	0
57	MG	2A	3625	1/1	0.71	0.15	62,62,62,62	0
57	MG	2A	3634	1/1	0.71	0.14	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1751	1/1	0.71	0.22	63,63,63,63	0
57	MG	1A	3352	1/1	0.72	0.17	46,46,46,46	0
57	MG	2A	3068	1/1	0.72	0.22	64,64,64,64	0
57	MG	2a	1666	1/1	0.72	0.41	58,58,58,58	0
57	MG	2A	3446	1/1	0.72	0.13	55,55,55,55	0
57	MG	2a	1759	1/1	0.72	0.31	69,69,69,69	0
57	MG	2a	1760	1/1	0.72	0.12	52,52,52,52	0
57	MG	2A	3504	1/1	0.72	0.18	60,60,60,60	0
57	MG	14	502	1/1	0.72	0.12	70,70,70,70	0
57	MG	2A	3621	1/1	0.72	0.12	66,66,66,66	0
57	MG	1A	3760	1/1	0.73	0.16	54,54,54,54	0
57	MG	2A	3340	1/1	0.73	0.19	60,60,60,60	0
57	MG	1A	3793	1/1	0.73	0.14	48,48,48,48	0
57	MG	2A	3478	1/1	0.73	0.23	57,57,57,57	0
57	MG	1a	1747	1/1	0.74	0.18	57,57,57,57	0
57	MG	2a	1669	1/1	0.74	0.29	65,65,65,65	0
57	MG	1A	3333	1/1	0.75	0.13	24,24,24,24	0
57	MG	2A	3087	1/1	0.75	0.29	65,65,65,65	0
57	MG	2A	3524	1/1	0.75	0.20	70,70,70,70	0
57	MG	2A	3531	1/1	0.75	0.14	68,68,68,68	0
57	MG	2a	1753	1/1	0.75	0.16	63,63,63,63	0
57	MG	1A	3365	1/1	0.75	0.11	8,8,8,8	0
57	MG	2A	3607	1/1	0.75	0.18	61,61,61,61	0
57	MG	2A	3614	1/1	0.75	0.21	66,66,66,66	0
57	MG	2A	3402	1/1	0.75	0.17	65,65,65,65	0
57	MG	1A	3759	1/1	0.75	0.14	53,53,53,53	0
57	MG	1a	1765	1/1	0.76	0.14	52,52,52,52	0
57	MG	2A	3545	1/1	0.76	0.13	63,63,63,63	0
57	MG	10	103	1/1	0.76	0.18	57,57,57,57	0
57	MG	2D	308	1/1	0.76	0.15	48,48,48,48	0
57	MG	1A	3487	1/1	0.76	0.32	60,60,60,60	0
57	MG	2a	1667	1/1	0.76	0.36	69,69,69,69	0
57	MG	1a	1646	1/1	0.76	0.31	56,56,56,56	0
57	MG	2A	3326	1/1	0.77	0.11	27,27,27,27	0
57	MG	2a	1689	1/1	0.77	0.19	48,48,48,48	0
57	MG	1a	1769	1/1	0.77	0.13	62,62,62,62	0
57	MG	2A	3509	1/1	0.77	0.21	48,48,48,48	0
57	MG	2A	3392	1/1	0.77	0.24	63,63,63,63	0
57	MG	1A	3361	1/1	0.77	0.15	21,21,21,21	0
57	MG	1a	1701	1/1	0.77	0.23	70,70,70,70	0
57	MG	2A	3469	1/1	0.77	0.20	74,74,74,74	0
57	MG	2A	3599	1/1	0.77	0.18	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1627	1/1	0.78	0.17	62,62,62,62	0
57	MG	1a	1658	1/1	0.78	0.30	52,52,52,52	0
57	MG	2A	3275	1/1	0.78	0.15	30,30,30,30	0
57	MG	2A	3399	1/1	0.78	0.14	53,53,53,53	0
57	MG	2A	3037	1/1	0.78	0.16	54,54,54,54	0
57	MG	2a	1764	1/1	0.78	0.22	62,62,62,62	0
57	MG	2a	1725	1/1	0.78	0.14	58,58,58,58	0
57	MG	2a	1736	1/1	0.78	0.35	73,73,73,73	0
57	MG	2k	201	1/1	0.78	0.33	67,67,67,67	0
57	MG	1E	309	1/1	0.79	0.14	30,30,30,30	0
57	MG	1A	3648	1/1	0.79	0.17	46,46,46,46	0
57	MG	1A	3607	1/1	0.79	0.10	38,38,38,38	0
57	MG	2A	3140	1/1	0.79	0.21	62,62,62,62	0
57	MG	1a	1605	1/1	0.79	0.16	61,61,61,61	0
57	MG	1A	3368	1/1	0.79	0.14	46,46,46,46	0
57	MG	2x	108	1/1	0.79	0.29	65,65,65,65	0
57	MG	2A	3393	1/1	0.80	0.16	67,67,67,67	0
57	MG	1a	1601	1/1	0.80	0.23	62,62,62,62	0
57	MG	1a	1732	1/1	0.80	0.19	58,58,58,58	0
57	MG	2a	1756	1/1	0.80	0.24	63,63,63,63	0
57	MG	2N	201	1/1	0.80	0.07	61,61,61,61	0
57	MG	2A	3578	1/1	0.80	0.19	59,59,59,59	0
57	MG	1A	3485	1/1	0.80	0.21	52,52,52,52	0
57	MG	1a	1632	1/1	0.80	0.26	52,52,52,52	0
57	MG	1A	3764	1/1	0.80	0.13	31,31,31,31	0
57	MG	2a	1670	1/1	0.80	0.22	72,72,72,72	0
57	MG	2A	3360	1/1	0.80	0.19	68,68,68,68	0
57	MG	1A	3730	1/1	0.80	0.22	65,65,65,65	0
57	MG	1a	1784	1/1	0.81	0.15	62,62,62,62	0
57	MG	1a	1618	1/1	0.81	0.22	56,56,56,56	0
57	MG	2a	1673	1/1	0.81	0.26	61,61,61,61	0
57	MG	2A	3026	1/1	0.81	0.51	49,49,49,49	0
57	MG	2a	1697	1/1	0.81	0.15	60,60,60,60	0
57	MG	1A	3683	1/1	0.81	0.20	60,60,60,60	0
57	MG	1A	3474	1/1	0.81	0.14	30,30,30,30	0
57	MG	1a	1761	1/1	0.81	0.17	42,42,42,42	0
57	MG	1A	3724	1/1	0.81	0.46	48,48,48,48	0
57	MG	2A	3414	1/1	0.81	0.19	33,33,33,33	0
57	MG	1A	3626	1/1	0.81	0.13	36,36,36,36	0
57	MG	2A	3452	1/1	0.81	0.19	55,55,55,55	0
57	MG	2A	3145	1/1	0.81	0.20	56,56,56,56	0
57	MG	2A	3167	1/1	0.81	0.33	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2X	103	1/1	0.81	0.14	71,71,71,71	0
57	MG	2A	3272	1/1	0.81	0.13	49,49,49,49	0
57	MG	1A	3741	1/1	0.81	0.12	36,36,36,36	0
57	MG	2A	3277	1/1	0.81	0.18	67,67,67,67	0
57	MG	2A	3415	1/1	0.82	0.17	55,55,55,55	0
57	MG	2A	3436	1/1	0.82	0.14	60,60,60,60	0
57	MG	1A	3707	1/1	0.82	0.12	47,47,47,47	0
57	MG	2A	3162	1/1	0.82	0.17	48,48,48,48	0
57	MG	1A	3562	1/1	0.82	0.10	26,26,26,26	0
57	MG	1A	3723	1/1	0.82	0.24	25,25,25,25	0
57	MG	1a	1787	1/1	0.82	0.25	49,49,49,49	0
57	MG	1a	1704	1/1	0.82	0.13	64,64,64,64	0
57	MG	2A	3293	1/1	0.82	0.15	56,56,56,56	0
57	MG	2A	3296	1/1	0.82	0.12	36,36,36,36	0
57	MG	2a	1698	1/1	0.82	0.16	68,68,68,68	0
57	MG	2A	3543	1/1	0.82	0.19	51,51,51,51	0
57	MG	2a	1729	1/1	0.82	0.16	68,68,68,68	0
57	MG	2a	1734	1/1	0.82	0.28	65,65,65,65	0
57	MG	1A	3374	1/1	0.82	0.11	26,26,26,26	0
57	MG	2A	3562	1/1	0.82	0.14	61,61,61,61	0
57	MG	1A	3331	1/1	0.82	0.12	24,24,24,24	0
57	MG	2A	3358	1/1	0.82	0.21	62,62,62,62	0
57	MG	2A	3596	1/1	0.82	0.17	58,58,58,58	0
57	MG	1A	3018	1/1	0.82	0.20	37,37,37,37	0
57	MG	2A	3051	1/1	0.82	0.13	50,50,50,50	0
57	MG	1A	3638	1/1	0.82	0.09	26,26,26,26	0
57	MG	2A	3398	1/1	0.82	0.13	47,47,47,47	0
57	MG	1A	3019	1/1	0.82	0.15	47,47,47,47	0
57	MG	2A	3117	1/1	0.82	0.21	65,65,65,65	0
57	MG	1A	3372	1/1	0.82	0.13	32,32,32,32	0
57	MG	2A	3239	1/1	0.83	0.13	30,30,30,30	0
57	MG	2a	1711	1/1	0.83	0.20	57,57,57,57	0
57	MG	2A	3480	1/1	0.83	0.17	65,65,65,65	0
57	MG	2A	3252	1/1	0.83	0.13	53,53,53,53	0
57	MG	1x	108	1/1	0.83	0.10	42,42,42,42	0
57	MG	2a	1735	1/1	0.83	0.15	62,62,62,62	0
57	MG	1A	3398	1/1	0.83	0.15	48,48,48,48	0
57	MG	1A	3664	1/1	0.83	0.12	39,39,39,39	0
57	MG	2A	3290	1/1	0.83	0.21	44,44,44,44	0
57	MG	2a	1755	1/1	0.83	0.13	64,64,64,64	0
57	MG	1A	3127	1/1	0.83	0.24	71,71,71,71	0
57	MG	1A	3385	1/1	0.83	0.14	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3574	1/1	0.83	0.15	68,68,68,68	0
57	MG	1A	3588	1/1	0.83	0.16	14,14,14,14	0
57	MG	2A	3054	1/1	0.83	0.25	53,53,53,53	0
57	MG	2A	3346	1/1	0.83	0.10	50,50,50,50	0
57	MG	2a	1680	1/1	0.83	0.25	59,59,59,59	0
57	MG	2A	3461	1/1	0.83	0.16	33,33,33,33	0
57	MG	2x	106	1/1	0.83	0.26	72,72,72,72	0
57	MG	2A	3183	1/1	0.83	0.35	56,56,56,56	0
57	MG	2A	3077	1/1	0.84	0.18	56,56,56,56	0
57	MG	2A	3520	1/1	0.84	0.17	63,63,63,63	0
57	MG	1a	1640	1/1	0.84	0.21	69,69,69,69	0
57	MG	1E	305	1/1	0.84	0.24	57,57,57,57	0
57	MG	1a	1781	1/1	0.84	0.14	53,53,53,53	0
57	MG	1a	1647	1/1	0.84	0.24	47,47,47,47	0
57	MG	2A	3546	1/1	0.84	0.24	60,60,60,60	0
57	MG	2A	3556	1/1	0.84	0.12	45,45,45,45	0
57	MG	1A	3027	1/1	0.84	0.12	44,44,44,44	0
57	MG	2a	1713	1/1	0.84	0.22	60,60,60,60	0
57	MG	1v	101	1/1	0.84	0.13	65,65,65,65	0
57	MG	2a	1726	1/1	0.84	0.21	69,69,69,69	0
57	MG	1w	403	1/1	0.84	0.17	54,54,54,54	0
57	MG	2A	3209	1/1	0.84	0.23	47,47,47,47	0
57	MG	1A	3591	1/1	0.84	0.09	29,29,29,29	0
57	MG	2A	3597	1/1	0.84	0.10	56,56,56,56	0
57	MG	1A	3519	1/1	0.84	0.11	39,39,39,39	0
57	MG	2A	3258	1/1	0.84	0.16	42,42,42,42	0
57	MG	2A	3444	1/1	0.84	0.24	59,59,59,59	0
57	MG	1A	3109	1/1	0.84	0.19	50,50,50,50	0
57	MG	1A	3768	1/1	0.84	0.13	33,33,33,33	0
57	MG	1a	1614	1/1	0.84	0.20	71,71,71,71	0
57	MG	1a	1616	1/1	0.84	0.29	58,58,58,58	0
57	MG	2A	3472	1/1	0.84	0.10	39,39,39,39	0
57	MG	1A	3390	1/1	0.84	0.17	50,50,50,50	0
57	MG	2a	1618	1/1	0.84	0.20	61,61,61,61	0
57	MG	2a	1626	1/1	0.84	0.26	48,48,48,48	0
57	MG	2A	3057	1/1	0.84	0.24	58,58,58,58	0
57	MG	1B	202	1/1	0.84	0.20	43,43,43,43	0
57	MG	2A	3537	1/1	0.85	0.18	53,53,53,53	0
57	MG	1a	1721	1/1	0.85	0.18	63,63,63,63	0
57	MG	2A	3193	1/1	0.85	0.20	57,57,57,57	0
57	MG	2A	3002	1/1	0.85	0.12	52,52,52,52	0
57	MG	2A	3550	1/1	0.85	0.18	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1B	209	1/1	0.85	0.22	51,51,51,51	0
57	MG	1A	3601	1/1	0.85	0.09	18,18,18,18	0
57	MG	1a	1625	1/1	0.85	0.14	56,56,56,56	0
57	MG	2A	3432	1/1	0.85	0.18	60,60,60,60	0
57	MG	2A	3581	1/1	0.85	0.08	69,69,69,69	0
57	MG	2A	3264	1/1	0.85	0.10	28,28,28,28	0
57	MG	1A	3577	1/1	0.85	0.09	30,30,30,30	0
57	MG	1a	1638	1/1	0.85	0.21	54,54,54,54	0
57	MG	1U	204	1/1	0.85	0.17	37,37,37,37	0
57	MG	1a	1768	1/1	0.85	0.33	71,71,71,71	0
57	MG	2A	3466	1/1	0.85	0.22	58,58,58,58	0
57	MG	1A	3262	1/1	0.85	0.17	40,40,40,40	0
57	MG	1A	3735	1/1	0.85	0.10	12,12,12,12	0
57	MG	1a	1648	1/1	0.85	0.27	60,60,60,60	0
57	MG	2D	306	1/1	0.85	0.10	55,55,55,55	0
57	MG	1a	1782	1/1	0.85	0.15	74,74,74,74	0
57	MG	2A	3499	1/1	0.85	0.15	56,56,56,56	0
57	MG	1A	3785	1/1	0.85	0.30	58,58,58,58	0
57	MG	2A	3507	1/1	0.85	0.17	37,37,37,37	0
57	MG	2f	201	1/1	0.85	0.14	64,64,64,64	0
57	MG	1a	1688	1/1	0.85	0.25	55,55,55,55	0
57	MG	1A	3358	1/1	0.85	0.12	38,38,38,38	0
57	MG	2A	3383	1/1	0.85	0.28	54,54,54,54	0
57	MG	1A	3600	1/1	0.85	0.12	29,29,29,29	0
57	MG	2A	3113	1/1	0.86	0.22	64,64,64,64	0
57	MG	1A	3595	1/1	0.86	0.10	38,38,38,38	0
57	MG	1A	3111	1/1	0.86	0.17	54,54,54,54	0
57	MG	2A	3390	1/1	0.86	0.15	43,43,43,43	0
57	MG	1A	3276	1/1	0.86	0.09	52,52,52,52	0
57	MG	1A	3336	1/1	0.86	0.10	32,32,32,32	0
57	MG	2A	3395	1/1	0.86	0.14	48,48,48,48	0
57	MG	1A	3448	1/1	0.86	0.13	54,54,54,54	0
57	MG	1a	1706	1/1	0.86	0.14	45,45,45,45	0
57	MG	1a	1717	1/1	0.86	0.08	69,69,69,69	0
57	MG	1A	3729	1/1	0.86	0.13	22,22,22,22	0
57	MG	2A	3230	1/1	0.86	0.15	48,48,48,48	0
57	MG	1A	3281	1/1	0.86	0.18	49,49,49,49	0
57	MG	1a	1735	1/1	0.86	0.16	54,54,54,54	0
57	MG	2A	3590	1/1	0.86	0.09	48,48,48,48	0
57	MG	1B	206	1/1	0.86	0.15	34,34,34,34	0
57	MG	1a	1627	1/1	0.86	0.17	67,67,67,67	0
57	MG	2A	3270	1/1	0.86	0.14	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3050	1/1	0.86	0.24	60,60,60,60	0
57	MG	1A	3475	1/1	0.86	0.14	39,39,39,39	0
57	MG	1a	1634	1/1	0.86	0.33	60,60,60,60	0
57	MG	1A	3737	1/1	0.86	0.14	32,32,32,32	0
57	MG	2A	3633	1/1	0.86	0.14	73,73,73,73	0
57	MG	2A	3477	1/1	0.86	0.19	46,46,46,46	0
57	MG	2A	3640	1/1	0.86	0.12	49,49,49,49	0
57	MG	1A	3589	1/1	0.86	0.11	16,16,16,16	0
57	MG	2A	3073	1/1	0.86	0.25	61,61,61,61	0
57	MG	2A	3319	1/1	0.86	0.10	49,49,49,49	0
57	MG	2P	202	1/1	0.86	0.19	72,72,72,72	0
57	MG	1Q	205	1/1	0.86	0.12	48,48,48,48	0
57	MG	1A	3311	1/1	0.86	0.11	24,24,24,24	0
57	MG	2A	3112	1/1	0.86	0.20	55,55,55,55	0
57	MG	2x	109	1/1	0.86	0.17	51,51,51,51	0
57	MG	2A	3426	1/1	0.87	0.11	58,58,58,58	0
57	MG	2A	3228	1/1	0.87	0.16	51,51,51,51	0
57	MG	1B	203	1/1	0.87	0.13	54,54,54,54	0
57	MG	2A	3638	1/1	0.87	0.15	45,45,45,45	0
57	MG	2A	3236	1/1	0.87	0.15	68,68,68,68	0
57	MG	2B	208	1/1	0.87	0.19	54,54,54,54	0
57	MG	1A	3415	1/1	0.87	0.08	26,26,26,26	0
57	MG	1a	1719	1/1	0.87	0.13	54,54,54,54	0
57	MG	1A	3320	1/1	0.87	0.08	41,41,41,41	0
57	MG	1A	3377	1/1	0.87	0.12	40,40,40,40	0
57	MG	2A	3043	1/1	0.87	0.15	50,50,50,50	0
57	MG	2a	1602	1/1	0.87	0.14	64,64,64,64	0
57	MG	2a	1603	1/1	0.87	0.18	62,62,62,62	0
57	MG	1A	3568	1/1	0.87	0.09	30,30,30,30	0
57	MG	2a	1625	1/1	0.87	0.19	49,49,49,49	0
57	MG	1F	309	1/1	0.87	0.32	38,38,38,38	0
57	MG	1N	204	1/1	0.87	0.12	33,33,33,33	0
57	MG	2a	1630	1/1	0.87	0.09	56,56,56,56	0
57	MG	2a	1644	1/1	0.87	0.23	66,66,66,66	0
57	MG	2a	1655	1/1	0.87	0.17	68,68,68,68	0
57	MG	2a	1664	1/1	0.87	0.26	50,50,50,50	0
57	MG	2A	3278	1/1	0.87	0.08	49,49,49,49	0
57	MG	2A	3487	1/1	0.87	0.12	66,66,66,66	0
57	MG	2A	3490	1/1	0.87	0.13	44,44,44,44	0
57	MG	2A	3493	1/1	0.87	0.18	69,69,69,69	0
57	MG	1a	1749	1/1	0.87	0.09	51,51,51,51	0
57	MG	1A	3720	1/1	0.87	0.17	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1752	1/1	0.87	0.18	60,60,60,60	0
57	MG	2A	3307	1/1	0.87	0.12	47,47,47,47	0
57	MG	2A	3515	1/1	0.87	0.16	52,52,52,52	0
57	MG	2A	3313	1/1	0.87	0.19	41,41,41,41	0
57	MG	1A	3263	1/1	0.87	0.09	48,48,48,48	0
57	MG	2a	1716	1/1	0.87	0.16	61,61,61,61	0
57	MG	2a	1719	1/1	0.87	0.21	53,53,53,53	0
57	MG	1A	3477	1/1	0.87	0.12	44,44,44,44	0
57	MG	1A	3784	1/1	0.87	0.21	50,50,50,50	0
57	MG	1a	1651	1/1	0.87	0.09	66,66,66,66	0
57	MG	2a	1730	1/1	0.87	0.09	54,54,54,54	0
57	MG	18	101	1/1	0.87	0.18	38,38,38,38	0
57	MG	1a	1771	1/1	0.87	0.13	67,67,67,67	0
57	MG	2A	3547	1/1	0.87	0.10	41,41,41,41	0
57	MG	2a	1739	1/1	0.87	0.26	61,61,61,61	0
57	MG	2A	3368	1/1	0.87	0.15	57,57,57,57	0
57	MG	2A	3132	1/1	0.87	0.10	45,45,45,45	0
57	MG	1a	1660	1/1	0.87	0.25	64,64,64,64	0
57	MG	1a	1679	1/1	0.87	0.33	67,67,67,67	0
57	MG	1a	1686	1/1	0.87	0.18	48,48,48,48	0
57	MG	1A	3354	1/1	0.87	0.12	22,22,22,22	0
57	MG	2A	3583	1/1	0.87	0.11	40,40,40,40	0
57	MG	2A	3169	1/1	0.87	0.24	47,47,47,47	0
57	MG	1A	3235	1/1	0.87	0.23	49,49,49,49	0
57	MG	1A	3659	1/1	0.87	0.15	39,39,39,39	0
57	MG	2A	3405	1/1	0.87	0.16	42,42,42,42	0
57	MG	2A	3408	1/1	0.87	0.12	27,27,27,27	0
57	MG	2A	3206	1/1	0.87	0.07	61,61,61,61	0
57	MG	1x	106	1/1	0.87	0.12	52,52,52,52	0
57	MG	2A	3416	1/1	0.87	0.11	33,33,33,33	0
57	MG	1A	3620	1/1	0.88	0.14	51,51,51,51	0
57	MG	1a	1693	1/1	0.88	0.20	60,60,60,60	0
57	MG	2A	3418	1/1	0.88	0.20	61,61,61,61	0
57	MG	1a	1698	1/1	0.88	0.21	53,53,53,53	0
57	MG	2B	204	1/1	0.88	0.26	51,51,51,51	0
57	MG	1A	3408	1/1	0.88	0.09	29,29,29,29	0
57	MG	2B	209	1/1	0.88	0.21	45,45,45,45	0
57	MG	2A	3012	1/1	0.88	0.09	52,52,52,52	0
57	MG	1A	3515	1/1	0.88	0.13	31,31,31,31	0
57	MG	2F	305	1/1	0.88	0.25	45,45,45,45	0
57	MG	2A	3253	1/1	0.88	0.15	58,58,58,58	0
57	MG	1A	3286	1/1	0.88	0.15	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3454	1/1	0.88	0.34	43,43,43,43	0
57	MG	26	101	1/1	0.88	0.10	62,62,62,62	0
57	MG	1a	1712	1/1	0.88	0.16	65,65,65,65	0
57	MG	2A	3465	1/1	0.88	0.17	49,49,49,49	0
57	MG	2a	1617	1/1	0.88	0.27	56,56,56,56	0
57	MG	2A	3269	1/1	0.88	0.11	39,39,39,39	0
57	MG	1A	3426	1/1	0.88	0.09	21,21,21,21	0
57	MG	1A	3432	1/1	0.88	0.14	54,54,54,54	0
57	MG	1A	3446	1/1	0.88	0.10	52,52,52,52	0
57	MG	1A	3680	1/1	0.88	0.09	41,41,41,41	0
57	MG	2a	1635	1/1	0.88	0.15	58,58,58,58	0
57	MG	1A	3795	1/1	0.88	0.11	47,47,47,47	0
57	MG	2a	1646	1/1	0.88	0.29	59,59,59,59	0
57	MG	2A	3286	1/1	0.88	0.12	61,61,61,61	0
57	MG	2a	1661	1/1	0.88	0.17	39,39,39,39	0
57	MG	1A	3359	1/1	0.88	0.09	34,34,34,34	0
57	MG	2A	3064	1/1	0.88	0.25	50,50,50,50	0
57	MG	1a	1744	1/1	0.88	0.12	55,55,55,55	0
57	MG	2A	3297	1/1	0.88	0.11	47,47,47,47	0
57	MG	2A	3300	1/1	0.88	0.07	34,34,34,34	0
57	MG	1A	3582	1/1	0.88	0.10	33,33,33,33	0
57	MG	2A	3513	1/1	0.88	0.07	36,36,36,36	0
57	MG	2A	3074	1/1	0.88	0.08	54,54,54,54	0
57	MG	2a	1692	1/1	0.88	0.13	27,27,27,27	0
57	MG	1A	3586	1/1	0.88	0.08	16,16,16,16	0
57	MG	1A	3587	1/1	0.88	0.10	27,27,27,27	0
57	MG	2a	1702	1/1	0.88	0.15	61,61,61,61	0
57	MG	1a	1641	1/1	0.88	0.26	63,63,63,63	0
57	MG	2A	3344	1/1	0.88	0.13	37,37,37,37	0
57	MG	2A	3345	1/1	0.88	0.07	67,67,67,67	0
57	MG	2a	1717	1/1	0.88	0.11	40,40,40,40	0
57	MG	1A	3452	1/1	0.88	0.13	19,19,19,19	0
57	MG	1A	3460	1/1	0.88	0.12	29,29,29,29	0
57	MG	2A	3127	1/1	0.88	0.14	45,45,45,45	0
57	MG	2a	1728	1/1	0.88	0.18	64,64,64,64	0
57	MG	2A	3361	1/1	0.88	0.08	52,52,52,52	0
57	MG	2A	3551	1/1	0.88	0.13	25,25,25,25	0
57	MG	1A	3471	1/1	0.88	0.10	57,57,57,57	0
57	MG	2A	3558	1/1	0.88	0.18	60,60,60,60	0
57	MG	1A	3224	1/1	0.88	0.11	59,59,59,59	0
57	MG	2A	3568	1/1	0.88	0.09	66,66,66,66	0
57	MG	2A	3386	1/1	0.88	0.10	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3387	1/1	0.88	0.14	54,54,54,54	0
57	MG	2a	1754	1/1	0.88	0.18	58,58,58,58	0
57	MG	1a	1653	1/1	0.88	0.14	63,63,63,63	0
57	MG	2A	3391	1/1	0.88	0.10	22,22,22,22	0
57	MG	2A	3158	1/1	0.88	0.18	60,60,60,60	0
57	MG	1A	3124	1/1	0.88	0.18	51,51,51,51	0
57	MG	2A	3592	1/1	0.88	0.16	51,51,51,51	0
57	MG	1R	203	1/1	0.88	0.17	42,42,42,42	0
57	MG	1a	1678	1/1	0.88	0.34	56,56,56,56	0
57	MG	2A	3171	1/1	0.88	0.32	59,59,59,59	0
57	MG	2A	3178	1/1	0.88	0.16	52,52,52,52	0
57	MG	2A	3610	1/1	0.88	0.13	51,51,51,51	0
57	MG	1A	3367	1/1	0.88	0.17	54,54,54,54	0
57	MG	1a	1680	1/1	0.88	0.22	61,61,61,61	0
57	MG	1A	3050	1/1	0.88	0.12	40,40,40,40	0
58	ZN	14	501	1/1	0.88	0.17	124,124,124,124	0
57	MG	1a	1731	1/1	0.89	0.10	39,39,39,39	0
57	MG	1A	3583	1/1	0.89	0.10	55,55,55,55	0
57	MG	1A	3643	1/1	0.89	0.07	22,22,22,22	0
57	MG	2a	1632	1/1	0.89	0.25	56,56,56,56	0
57	MG	1A	3247	1/1	0.89	0.08	40,40,40,40	0
57	MG	1a	1742	1/1	0.89	0.16	48,48,48,48	0
57	MG	1A	3191	1/1	0.89	0.06	48,48,48,48	0
57	MG	1a	1746	1/1	0.89	0.10	49,49,49,49	0
57	MG	2a	1659	1/1	0.89	0.28	53,53,53,53	0
57	MG	2a	1660	1/1	0.89	0.17	45,45,45,45	0
57	MG	1A	3755	1/1	0.89	0.17	25,25,25,25	0
57	MG	2a	1662	1/1	0.89	0.12	50,50,50,50	0
57	MG	2A	3053	1/1	0.89	0.20	58,58,58,58	0
57	MG	1A	3429	1/1	0.89	0.15	54,54,54,54	0
57	MG	1A	3674	1/1	0.89	0.12	41,41,41,41	0
57	MG	2a	1668	1/1	0.89	0.12	52,52,52,52	0
57	MG	2A	3265	1/1	0.89	0.07	25,25,25,25	0
57	MG	2A	3410	1/1	0.89	0.18	53,53,53,53	0
57	MG	1A	3323	1/1	0.89	0.16	39,39,39,39	0
57	MG	2a	1677	1/1	0.89	0.18	50,50,50,50	0
57	MG	2A	3066	1/1	0.89	0.10	46,46,46,46	0
57	MG	2A	3067	1/1	0.89	0.27	58,58,58,58	0
57	MG	1A	3765	1/1	0.89	0.25	50,50,50,50	0
57	MG	2A	3423	1/1	0.89	0.09	43,43,43,43	0
57	MG	1A	3509	1/1	0.89	0.08	14,14,14,14	0
57	MG	1a	1603	1/1	0.89	0.18	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1708	1/1	0.89	0.17	57,57,57,57	0
57	MG	2A	3593	1/1	0.89	0.11	54,54,54,54	0
57	MG	2A	3284	1/1	0.89	0.14	66,66,66,66	0
57	MG	2A	3437	1/1	0.89	0.09	36,36,36,36	0
57	MG	1A	3782	1/1	0.89	0.10	39,39,39,39	0
57	MG	1A	3688	1/1	0.89	0.15	25,25,25,25	0
57	MG	1A	3201	1/1	0.89	0.33	33,33,33,33	0
57	MG	2A	3612	1/1	0.89	0.16	49,49,49,49	0
57	MG	1a	1773	1/1	0.89	0.30	62,62,62,62	0
57	MG	1a	1774	1/1	0.89	0.20	82,82,82,82	0
57	MG	2A	3464	1/1	0.89	0.12	58,58,58,58	0
57	MG	2A	3122	1/1	0.89	0.33	59,59,59,59	0
57	MG	1A	3715	1/1	0.89	0.15	35,35,35,35	0
57	MG	2A	3312	1/1	0.89	0.12	30,30,30,30	0
57	MG	2a	1738	1/1	0.89	0.15	59,59,59,59	0
57	MG	1a	1621	1/1	0.89	0.20	57,57,57,57	0
57	MG	2A	3137	1/1	0.89	0.14	61,61,61,61	0
57	MG	1A	3219	1/1	0.89	0.18	50,50,50,50	0
57	MG	1A	3392	1/1	0.89	0.12	24,24,24,24	0
57	MG	2A	3155	1/1	0.89	0.63	44,44,44,44	0
57	MG	1n	101	1/1	0.89	0.11	63,63,63,63	0
57	MG	1A	3454	1/1	0.89	0.12	36,36,36,36	0
57	MG	1w	401	1/1	0.89	0.22	51,51,51,51	0
57	MG	2A	3503	1/1	0.89	0.16	61,61,61,61	0
57	MG	1A	3396	1/1	0.89	0.11	35,35,35,35	0
57	MG	2a	1765	1/1	0.89	0.17	53,53,53,53	0
57	MG	20	101	1/1	0.89	0.10	49,49,49,49	0
57	MG	1A	3114	1/1	0.89	0.17	42,42,42,42	0
57	MG	2A	3508	1/1	0.89	0.11	49,49,49,49	0
57	MG	1A	3161	1/1	0.89	0.11	24,24,24,24	0
57	MG	2a	1612	1/1	0.89	0.18	58,58,58,58	0
57	MG	2A	3382	1/1	0.89	0.11	65,65,65,65	0
57	MG	1a	1727	1/1	0.89	0.11	58,58,58,58	0
57	MG	2A	3384	1/1	0.89	0.12	49,49,49,49	0
57	MG	1A	3315	1/1	0.90	0.11	17,17,17,17	0
57	MG	2R	203	1/1	0.90	0.09	45,45,45,45	0
57	MG	1A	3316	1/1	0.90	0.11	40,40,40,40	0
57	MG	1A	3205	1/1	0.90	0.24	39,39,39,39	0
57	MG	2A	3279	1/1	0.90	0.15	51,51,51,51	0
57	MG	1P	204	1/1	0.90	0.09	32,32,32,32	0
57	MG	1A	3404	1/1	0.90	0.08	17,17,17,17	0
57	MG	1a	1755	1/1	0.90	0.20	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1615	1/1	0.90	0.18	52,52,52,52	0
57	MG	2A	3083	1/1	0.90	0.27	48,48,48,48	0
57	MG	2A	3483	1/1	0.90	0.22	46,46,46,46	0
57	MG	1a	1656	1/1	0.90	0.13	55,55,55,55	0
57	MG	2A	3095	1/1	0.90	0.36	61,61,61,61	0
57	MG	2A	3492	1/1	0.90	0.17	58,58,58,58	0
57	MG	2A	3102	1/1	0.90	0.11	50,50,50,50	0
57	MG	2A	3496	1/1	0.90	0.12	47,47,47,47	0
57	MG	2A	3497	1/1	0.90	0.14	50,50,50,50	0
57	MG	2a	1637	1/1	0.90	0.16	43,43,43,43	0
57	MG	2A	3103	1/1	0.90	0.20	59,59,59,59	0
57	MG	1A	3322	1/1	0.90	0.18	48,48,48,48	0
57	MG	2a	1648	1/1	0.90	0.19	49,49,49,49	0
57	MG	2a	1651	1/1	0.90	0.10	46,46,46,46	0
57	MG	2a	1654	1/1	0.90	0.28	63,63,63,63	0
57	MG	1A	3758	1/1	0.90	0.20	28,28,28,28	0
57	MG	2A	3114	1/1	0.90	0.14	42,42,42,42	0
57	MG	1a	1668	1/1	0.90	0.13	55,55,55,55	0
57	MG	2A	3327	1/1	0.90	0.14	53,53,53,53	0
57	MG	1a	1671	1/1	0.90	0.19	50,50,50,50	0
57	MG	1A	3149	1/1	0.90	0.11	29,29,29,29	0
57	MG	11	103	1/1	0.90	0.27	48,48,48,48	0
57	MG	12	101	1/1	0.90	0.10	32,32,32,32	0
57	MG	2A	3525	1/1	0.90	0.14	65,65,65,65	0
57	MG	1A	3326	1/1	0.90	0.12	16,16,16,16	0
57	MG	2A	3533	1/1	0.90	0.12	63,63,63,63	0
57	MG	1a	1687	1/1	0.90	0.37	64,64,64,64	0
57	MG	2a	1674	1/1	0.90	0.32	63,63,63,63	0
57	MG	2a	1676	1/1	0.90	0.22	61,61,61,61	0
57	MG	2A	3539	1/1	0.90	0.20	56,56,56,56	0
57	MG	15	104	1/1	0.90	0.28	35,35,35,35	0
57	MG	2a	1685	1/1	0.90	0.22	52,52,52,52	0
57	MG	2a	1686	1/1	0.90	0.23	49,49,49,49	0
57	MG	2A	3366	1/1	0.90	0.15	51,51,51,51	0
57	MG	1A	3020	1/1	0.90	0.19	56,56,56,56	0
57	MG	2A	3373	1/1	0.90	0.13	56,56,56,56	0
57	MG	2A	3159	1/1	0.90	0.31	58,58,58,58	0
57	MG	1a	1789	1/1	0.90	0.15	58,58,58,58	0
57	MG	1a	1694	1/1	0.90	0.16	61,61,61,61	0
57	MG	1A	3513	1/1	0.90	0.20	48,48,48,48	0
57	MG	1A	3599	1/1	0.90	0.10	52,52,52,52	0
57	MG	2A	3172	1/1	0.90	0.09	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3174	1/1	0.90	0.22	63,63,63,63	0
57	MG	1a	1703	1/1	0.90	0.18	55,55,55,55	0
57	MG	1x	103	1/1	0.90	0.18	60,60,60,60	0
57	MG	2A	3394	1/1	0.90	0.13	22,22,22,22	0
57	MG	1A	3776	1/1	0.90	0.06	7,7,7,7	0
57	MG	2A	3199	1/1	0.90	0.31	59,59,59,59	0
57	MG	2A	3200	1/1	0.90	0.28	62,62,62,62	0
57	MG	2a	1733	1/1	0.90	0.22	46,46,46,46	0
57	MG	1A	3699	1/1	0.90	0.07	42,42,42,42	0
57	MG	1A	3029	1/1	0.90	0.10	56,56,56,56	0
57	MG	2A	3212	1/1	0.90	0.21	45,45,45,45	0
57	MG	2A	3216	1/1	0.90	0.25	57,57,57,57	0
57	MG	2A	3413	1/1	0.90	0.13	58,58,58,58	0
57	MG	1A	3711	1/1	0.90	0.08	33,33,33,33	0
57	MG	1A	3786	1/1	0.90	0.08	49,49,49,49	0
57	MG	2A	3613	1/1	0.90	0.15	41,41,41,41	0
57	MG	2A	3235	1/1	0.90	0.12	51,51,51,51	0
57	MG	1A	3246	1/1	0.90	0.06	28,28,28,28	0
57	MG	1A	3383	1/1	0.90	0.10	23,23,23,23	0
57	MG	2A	3247	1/1	0.90	0.17	40,40,40,40	0
57	MG	1a	1728	1/1	0.90	0.14	46,46,46,46	0
57	MG	2A	3636	1/1	0.90	0.12	46,46,46,46	0
57	MG	2A	3434	1/1	0.90	0.08	31,31,31,31	0
57	MG	1A	3618	1/1	0.90	0.11	38,38,38,38	0
57	MG	1A	3292	1/1	0.90	0.09	37,37,37,37	0
57	MG	1a	1635	1/1	0.90	0.32	56,56,56,56	0
57	MG	1A	3045	1/1	0.90	0.09	47,47,47,47	0
57	MG	2x	102	1/1	0.90	0.22	55,55,55,55	0
57	MG	2A	3451	1/1	0.90	0.21	47,47,47,47	0
57	MG	1A	3628	1/1	0.90	0.12	38,38,38,38	0
57	MG	1A	3630	1/1	0.90	0.11	54,54,54,54	0
57	MG	1a	1745	1/1	0.90	0.25	59,59,59,59	0
57	MG	1A	3511	1/1	0.91	0.10	30,30,30,30	0
57	MG	1E	304	1/1	0.91	0.13	44,44,44,44	0
57	MG	2A	3329	1/1	0.91	0.08	29,29,29,29	0
57	MG	1A	3220	1/1	0.91	0.20	37,37,37,37	0
57	MG	1A	3661	1/1	0.91	0.06	34,34,34,34	0
57	MG	1A	3121	1/1	0.91	0.07	15,15,15,15	0
57	MG	1N	203	1/1	0.91	0.10	26,26,26,26	0
57	MG	2A	3079	1/1	0.91	0.11	50,50,50,50	0
57	MG	2A	3600	1/1	0.91	0.14	56,56,56,56	0
57	MG	2A	3601	1/1	0.91	0.12	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3606	1/1	0.91	0.12	50,50,50,50	0
57	MG	1A	3665	1/1	0.91	0.06	31,31,31,31	0
57	MG	2A	3609	1/1	0.91	0.09	31,31,31,31	0
57	MG	2A	3086	1/1	0.91	0.11	47,47,47,47	0
57	MG	1A	3666	1/1	0.91	0.24	38,38,38,38	0
57	MG	2A	3094	1/1	0.91	0.07	58,58,58,58	0
57	MG	1a	1720	1/1	0.91	0.13	59,59,59,59	0
57	MG	2A	3619	1/1	0.91	0.08	45,45,45,45	0
57	MG	2A	3101	1/1	0.91	0.40	45,45,45,45	0
57	MG	2A	3623	1/1	0.91	0.10	46,46,46,46	0
57	MG	1A	3410	1/1	0.91	0.10	14,14,14,14	0
57	MG	2A	3631	1/1	0.91	0.29	58,58,58,58	0
57	MG	1A	3520	1/1	0.91	0.18	48,48,48,48	0
57	MG	2A	3104	1/1	0.91	0.23	49,49,49,49	0
57	MG	1A	3534	1/1	0.91	0.12	10,10,10,10	0
57	MG	1a	1730	1/1	0.91	0.17	59,59,59,59	0
57	MG	1W	201	1/1	0.91	0.22	47,47,47,47	0
57	MG	2B	202	1/1	0.91	0.12	55,55,55,55	0
57	MG	1A	3539	1/1	0.91	0.09	16,16,16,16	0
57	MG	2B	206	1/1	0.91	0.23	55,55,55,55	0
57	MG	2B	207	1/1	0.91	0.37	57,57,57,57	0
57	MG	2A	3121	1/1	0.91	0.16	39,39,39,39	0
57	MG	1A	3693	1/1	0.91	0.15	47,47,47,47	0
57	MG	1a	1737	1/1	0.91	0.13	44,44,44,44	0
57	MG	2A	3130	1/1	0.91	0.18	54,54,54,54	0
57	MG	2E	304	1/1	0.91	0.12	24,24,24,24	0
57	MG	1A	3540	1/1	0.91	0.07	12,12,12,12	0
57	MG	1a	1740	1/1	0.91	0.13	43,43,43,43	0
57	MG	2A	3403	1/1	0.91	0.12	61,61,61,61	0
57	MG	2R	202	1/1	0.91	0.33	44,44,44,44	0
57	MG	2A	3404	1/1	0.91	0.17	34,34,34,34	0
57	MG	2A	3138	1/1	0.91	0.06	50,50,50,50	0
57	MG	2A	3407	1/1	0.91	0.12	38,38,38,38	0
57	MG	13	102	1/1	0.91	0.07	13,13,13,13	0
57	MG	2A	3409	1/1	0.91	0.07	34,34,34,34	0
57	MG	2A	3143	1/1	0.91	0.29	54,54,54,54	0
57	MG	2A	3412	1/1	0.91	0.21	35,35,35,35	0
57	MG	2a	1614	1/1	0.91	0.13	53,53,53,53	0
57	MG	1A	3703	1/1	0.91	0.10	22,22,22,22	0
57	MG	2A	3151	1/1	0.91	0.06	45,45,45,45	0
57	MG	1A	3543	1/1	0.91	0.10	36,36,36,36	0
57	MG	1A	3546	1/1	0.91	0.09	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3225	1/1	0.91	0.26	47,47,47,47	0
57	MG	1A	3561	1/1	0.91	0.07	12,12,12,12	0
57	MG	2A	3163	1/1	0.91	0.14	36,36,36,36	0
57	MG	2A	3429	1/1	0.91	0.19	45,45,45,45	0
57	MG	2A	3430	1/1	0.91	0.10	25,25,25,25	0
57	MG	1A	3420	1/1	0.91	0.06	11,11,11,11	0
57	MG	2a	1642	1/1	0.91	0.10	37,37,37,37	0
57	MG	1a	1612	1/1	0.91	0.16	50,50,50,50	0
57	MG	1A	3234	1/1	0.91	0.11	40,40,40,40	0
57	MG	1A	3428	1/1	0.91	0.09	15,15,15,15	0
57	MG	2a	1649	1/1	0.91	0.20	60,60,60,60	0
57	MG	2A	3443	1/1	0.91	0.09	37,37,37,37	0
57	MG	1a	1763	1/1	0.91	0.12	67,67,67,67	0
57	MG	1A	3168	1/1	0.91	0.09	19,19,19,19	0
57	MG	2A	3182	1/1	0.91	0.09	48,48,48,48	0
57	MG	1A	3431	1/1	0.91	0.12	17,17,17,17	0
57	MG	2A	3186	1/1	0.91	0.08	57,57,57,57	0
57	MG	2A	3455	1/1	0.91	0.24	55,55,55,55	0
57	MG	1A	3186	1/1	0.91	0.11	33,33,33,33	0
57	MG	2A	3463	1/1	0.91	0.15	37,37,37,37	0
57	MG	1A	3190	1/1	0.91	0.20	22,22,22,22	0
57	MG	1A	3091	1/1	0.91	0.09	42,42,42,42	0
57	MG	2A	3203	1/1	0.91	0.14	48,48,48,48	0
57	MG	1A	3742	1/1	0.91	0.07	43,43,43,43	0
57	MG	2A	3207	1/1	0.91	0.19	66,66,66,66	0
57	MG	2A	3475	1/1	0.91	0.14	46,46,46,46	0
57	MG	1A	3329	1/1	0.91	0.14	6,6,6,6	0
57	MG	1A	3752	1/1	0.91	0.08	33,33,33,33	0
57	MG	1A	3590	1/1	0.91	0.14	34,34,34,34	0
57	MG	2a	1684	1/1	0.91	0.09	55,55,55,55	0
57	MG	1A	3198	1/1	0.91	0.13	39,39,39,39	0
57	MG	1A	3456	1/1	0.91	0.11	40,40,40,40	0
57	MG	1a	1788	1/1	0.91	0.11	66,66,66,66	0
57	MG	1A	3384	1/1	0.91	0.08	53,53,53,53	0
57	MG	1d	301	1/1	0.91	0.20	34,34,34,34	0
57	MG	1A	3462	1/1	0.91	0.12	44,44,44,44	0
57	MG	2a	1701	1/1	0.91	0.14	65,65,65,65	0
57	MG	2A	3251	1/1	0.91	0.13	58,58,58,58	0
57	MG	2a	1703	1/1	0.91	0.19	39,39,39,39	0
57	MG	1A	3464	1/1	0.91	0.10	16,16,16,16	0
57	MG	1A	3767	1/1	0.91	0.12	35,35,35,35	0
57	MG	1A	3469	1/1	0.91	0.08	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1714	1/1	0.91	0.14	34,34,34,34	0
57	MG	1x	102	1/1	0.91	0.11	33,33,33,33	0
57	MG	1A	3613	1/1	0.91	0.11	45,45,45,45	0
57	MG	2A	3268	1/1	0.91	0.12	67,67,67,67	0
57	MG	2a	1723	1/1	0.91	0.24	62,62,62,62	0
57	MG	1a	1659	1/1	0.91	0.25	35,35,35,35	0
57	MG	2A	3514	1/1	0.91	0.08	57,57,57,57	0
57	MG	1A	3067	1/1	0.91	0.15	30,30,30,30	0
57	MG	1A	3783	1/1	0.91	0.09	27,27,27,27	0
57	MG	2A	3008	1/1	0.91	0.15	46,46,46,46	0
57	MG	1A	3130	1/1	0.91	0.05	15,15,15,15	0
57	MG	2A	3527	1/1	0.91	0.15	39,39,39,39	0
57	MG	2A	3528	1/1	0.91	0.10	42,42,42,42	0
57	MG	2A	3529	1/1	0.91	0.12	52,52,52,52	0
57	MG	1a	1676	1/1	0.91	0.35	54,54,54,54	0
57	MG	1A	3338	1/1	0.91	0.09	33,33,33,33	0
57	MG	2A	3534	1/1	0.91	0.12	71,71,71,71	0
57	MG	2a	1752	1/1	0.91	0.21	48,48,48,48	0
57	MG	2A	3535	1/1	0.91	0.10	47,47,47,47	0
57	MG	2A	3281	1/1	0.91	0.13	36,36,36,36	0
57	MG	1A	3117	1/1	0.91	0.07	24,24,24,24	0
57	MG	1A	3288	1/1	0.91	0.23	30,30,30,30	0
57	MG	1a	1682	1/1	0.91	0.14	44,44,44,44	0
57	MG	1a	1685	1/1	0.91	0.11	35,35,35,35	0
57	MG	1A	3399	1/1	0.91	0.09	14,14,14,14	0
57	MG	2A	3052	1/1	0.91	0.27	65,65,65,65	0
57	MG	1B	201	1/1	0.91	0.09	43,43,43,43	0
57	MG	1A	3635	1/1	0.91	0.43	19,19,19,19	0
57	MG	2e	201	1/1	0.91	0.12	56,56,56,56	0
57	MG	1A	3499	1/1	0.91	0.10	52,52,52,52	0
57	MG	2A	3559	1/1	0.91	0.11	57,57,57,57	0
57	MG	2A	3058	1/1	0.91	0.15	50,50,50,50	0
57	MG	2x	101	1/1	0.91	0.15	54,54,54,54	0
57	MG	2A	3314	1/1	0.91	0.08	28,28,28,28	0
57	MG	2x	105	1/1	0.91	0.14	36,36,36,36	0
57	MG	1A	3403	1/1	0.91	0.06	15,15,15,15	0
57	MG	2A	3577	1/1	0.91	0.08	61,61,61,61	0
57	MG	2A	3320	1/1	0.91	0.09	29,29,29,29	0
57	MG	2A	3325	1/1	0.91	0.09	39,39,39,39	0
57	MG	1a	1626	1/1	0.92	0.07	45,45,45,45	0
57	MG	2A	3238	1/1	0.92	0.11	56,56,56,56	0
57	MG	2B	205	1/1	0.92	0.11	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3378	1/1	0.92	0.06	38,38,38,38	0
57	MG	1A	3177	1/1	0.92	0.17	35,35,35,35	0
57	MG	2A	3442	1/1	0.92	0.13	41,41,41,41	0
57	MG	1a	1633	1/1	0.92	0.15	50,50,50,50	0
57	MG	2B	211	1/1	0.92	0.08	56,56,56,56	0
57	MG	2D	304	1/1	0.92	0.69	41,41,41,41	0
57	MG	1a	1734	1/1	0.92	0.18	65,65,65,65	0
57	MG	1A	3439	1/1	0.92	0.07	39,39,39,39	0
57	MG	2A	3254	1/1	0.92	0.10	52,52,52,52	0
57	MG	1a	1736	1/1	0.92	0.10	61,61,61,61	0
57	MG	1A	3710	1/1	0.92	0.08	17,17,17,17	0
57	MG	1A	3603	1/1	0.92	0.07	36,36,36,36	0
57	MG	2Q	201	1/1	0.92	0.08	45,45,45,45	0
57	MG	1a	1739	1/1	0.92	0.19	45,45,45,45	0
57	MG	1A	3714	1/1	0.92	0.14	13,13,13,13	0
57	MG	1A	3223	1/1	0.92	0.24	44,44,44,44	0
57	MG	1A	3059	1/1	0.92	0.11	30,30,30,30	0
57	MG	1B	210	1/1	0.92	0.15	48,48,48,48	0
57	MG	1A	3387	1/1	0.92	0.12	36,36,36,36	0
57	MG	2A	3470	1/1	0.92	0.10	59,59,59,59	0
57	MG	2A	3471	1/1	0.92	0.16	43,43,43,43	0
57	MG	1a	1650	1/1	0.92	0.16	32,32,32,32	0
57	MG	2A	3473	1/1	0.92	0.08	31,31,31,31	0
57	MG	1A	3721	1/1	0.92	0.14	24,24,24,24	0
57	MG	1A	3343	1/1	0.92	0.09	30,30,30,30	0
57	MG	2a	1624	1/1	0.92	0.10	41,41,41,41	0
57	MG	1a	1655	1/1	0.92	0.18	40,40,40,40	0
57	MG	2A	3285	1/1	0.92	0.16	38,38,38,38	0
57	MG	1A	3350	1/1	0.92	0.07	25,25,25,25	0
57	MG	1a	1758	1/1	0.92	0.22	49,49,49,49	0
57	MG	1A	3728	1/1	0.92	0.09	27,27,27,27	0
57	MG	2a	1634	1/1	0.92	0.15	50,50,50,50	0
57	MG	2A	3491	1/1	0.92	0.15	55,55,55,55	0
57	MG	2a	1636	1/1	0.92	0.23	48,48,48,48	0
57	MG	2A	3295	1/1	0.92	0.09	37,37,37,37	0
57	MG	1A	3627	1/1	0.92	0.09	39,39,39,39	0
57	MG	1a	1764	1/1	0.92	0.12	53,53,53,53	0
57	MG	1A	3542	1/1	0.92	0.08	21,21,21,21	0
57	MG	2A	3305	1/1	0.92	0.10	44,44,44,44	0
57	MG	1a	1767	1/1	0.92	0.07	71,71,71,71	0
57	MG	2A	3310	1/1	0.92	0.10	39,39,39,39	0
57	MG	2A	3116	1/1	0.92	0.17	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1661	1/1	0.92	0.15	43,43,43,43	0
57	MG	1a	1662	1/1	0.92	0.22	34,34,34,34	0
57	MG	2A	3510	1/1	0.92	0.10	41,41,41,41	0
57	MG	1A	3030	1/1	0.92	0.24	49,49,49,49	0
57	MG	1Q	206	1/1	0.92	0.12	32,32,32,32	0
57	MG	1a	1674	1/1	0.92	0.15	48,48,48,48	0
57	MG	1A	3300	1/1	0.92	0.21	31,31,31,31	0
57	MG	1a	1775	1/1	0.92	0.20	58,58,58,58	0
57	MG	1a	1776	1/1	0.92	0.20	49,49,49,49	0
57	MG	2A	3330	1/1	0.92	0.12	51,51,51,51	0
57	MG	2A	3333	1/1	0.92	0.16	55,55,55,55	0
57	MG	1A	3632	1/1	0.92	0.14	49,49,49,49	0
57	MG	1A	3357	1/1	0.92	0.10	43,43,43,43	0
57	MG	2A	3532	1/1	0.92	0.14	57,57,57,57	0
57	MG	1A	3113	1/1	0.92	0.27	57,57,57,57	0
57	MG	2A	3147	1/1	0.92	0.12	46,46,46,46	0
57	MG	2a	1682	1/1	0.92	0.13	52,52,52,52	0
57	MG	2A	3348	1/1	0.92	0.09	60,60,60,60	0
57	MG	2A	3353	1/1	0.92	0.12	38,38,38,38	0
57	MG	2A	3538	1/1	0.92	0.12	28,28,28,28	0
57	MG	2A	3356	1/1	0.92	0.13	45,45,45,45	0
57	MG	2a	1691	1/1	0.92	0.17	44,44,44,44	0
57	MG	1a	1681	1/1	0.92	0.08	44,44,44,44	0
57	MG	1A	3196	1/1	0.92	0.12	29,29,29,29	0
57	MG	1A	3086	1/1	0.92	0.08	23,23,23,23	0
57	MG	1A	3756	1/1	0.92	0.09	14,14,14,14	0
57	MG	1k	201	1/1	0.92	0.12	52,52,52,52	0
57	MG	1A	3156	1/1	0.92	0.18	50,50,50,50	0
57	MG	2A	3374	1/1	0.92	0.07	26,26,26,26	0
57	MG	2A	3381	1/1	0.92	0.07	55,55,55,55	0
57	MG	1A	3250	1/1	0.92	0.15	49,49,49,49	0
57	MG	1v	102	1/1	0.92	0.13	44,44,44,44	0
57	MG	2A	3563	1/1	0.92	0.17	54,54,54,54	0
57	MG	17	106	1/1	0.92	0.15	38,38,38,38	0
57	MG	2A	3570	1/1	0.92	0.10	62,62,62,62	0
57	MG	1A	3482	1/1	0.92	0.14	37,37,37,37	0
57	MG	2A	3173	1/1	0.92	0.23	49,49,49,49	0
57	MG	1A	3051	1/1	0.92	0.09	29,29,29,29	0
57	MG	1A	3212	1/1	0.92	0.23	28,28,28,28	0
57	MG	2A	3180	1/1	0.92	0.26	51,51,51,51	0
57	MG	1A	3673	1/1	0.92	0.08	46,46,46,46	0
57	MG	2a	1732	1/1	0.92	0.12	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3589	1/1	0.92	0.16	46,46,46,46	0
57	MG	1a	1611	1/1	0.92	0.14	46,46,46,46	0
57	MG	1y	101	1/1	0.92	0.15	55,55,55,55	0
57	MG	2A	3187	1/1	0.92	0.10	44,44,44,44	0
57	MG	1A	3493	1/1	0.92	0.14	31,31,31,31	0
57	MG	2A	3401	1/1	0.92	0.08	52,52,52,52	0
57	MG	2a	1743	1/1	0.92	0.15	64,64,64,64	0
57	MG	2a	1745	1/1	0.92	0.14	47,47,47,47	0
57	MG	2a	1747	1/1	0.92	0.17	62,62,62,62	0
57	MG	2A	3194	1/1	0.92	0.12	29,29,29,29	0
57	MG	2A	3197	1/1	0.92	0.10	52,52,52,52	0
57	MG	1A	3678	1/1	0.92	0.14	50,50,50,50	0
57	MG	1a	1716	1/1	0.92	0.19	48,48,48,48	0
57	MG	1A	3270	1/1	0.92	0.15	26,26,26,26	0
57	MG	2A	3204	1/1	0.92	0.09	46,46,46,46	0
57	MG	1a	1718	1/1	0.92	0.09	59,59,59,59	0
57	MG	2A	3611	1/1	0.92	0.10	46,46,46,46	0
57	MG	2a	1761	1/1	0.92	0.18	57,57,57,57	0
57	MG	2A	3032	1/1	0.92	0.17	47,47,47,47	0
57	MG	2A	3411	1/1	0.92	0.11	40,40,40,40	0
57	MG	2A	3034	1/1	0.92	0.11	55,55,55,55	0
57	MG	1A	3500	1/1	0.92	0.08	44,44,44,44	0
57	MG	2a	1767	1/1	0.92	0.12	62,62,62,62	0
57	MG	2d	301	1/1	0.92	0.33	56,56,56,56	0
57	MG	1a	1620	1/1	0.92	0.06	55,55,55,55	0
57	MG	2A	3221	1/1	0.92	0.18	34,34,34,34	0
57	MG	2A	3624	1/1	0.92	0.21	37,37,37,37	0
57	MG	2A	3222	1/1	0.92	0.38	50,50,50,50	0
57	MG	2v	101	1/1	0.92	0.11	59,59,59,59	0
57	MG	2A	3626	1/1	0.92	0.12	67,67,67,67	0
57	MG	2A	3417	1/1	0.92	0.09	40,40,40,40	0
57	MG	2x	103	1/1	0.92	0.16	46,46,46,46	0
57	MG	2x	104	1/1	0.92	0.18	48,48,48,48	0
57	MG	2A	3227	1/1	0.92	0.26	45,45,45,45	0
57	MG	1A	3506	1/1	0.92	0.11	57,57,57,57	0
57	MG	2A	3049	1/1	0.92	0.18	58,58,58,58	0
57	MG	2A	3231	1/1	0.92	0.11	47,47,47,47	0
57	MG	1A	3101	1/1	0.92	0.17	28,28,28,28	0
57	MG	1A	3445	1/1	0.93	0.08	13,13,13,13	0
57	MG	2A	3195	1/1	0.93	0.20	47,47,47,47	0
57	MG	1A	3169	1/1	0.93	0.15	33,33,33,33	0
57	MG	2A	3630	1/1	0.93	0.07	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3198	1/1	0.93	0.34	53,53,53,53	0
57	MG	1A	3173	1/1	0.93	0.10	29,29,29,29	0
57	MG	1F	310	1/1	0.93	0.07	39,39,39,39	0
57	MG	1a	1684	1/1	0.93	0.20	59,59,59,59	0
57	MG	1x	104	1/1	0.93	0.12	34,34,34,34	0
57	MG	2A	3639	1/1	0.93	0.10	24,24,24,24	0
57	MG	2A	3205	1/1	0.93	0.17	51,51,51,51	0
57	MG	2B	201	1/1	0.93	0.14	59,59,59,59	0
57	MG	1G	201	1/1	0.93	0.10	55,55,55,55	0
57	MG	1N	202	1/1	0.93	0.05	31,31,31,31	0
57	MG	2A	3208	1/1	0.93	0.24	48,48,48,48	0
57	MG	1A	3449	1/1	0.93	0.11	24,24,24,24	0
57	MG	1A	3559	1/1	0.93	0.08	25,25,25,25	0
57	MG	1a	1690	1/1	0.93	0.17	45,45,45,45	0
57	MG	2A	3419	1/1	0.93	0.07	44,44,44,44	0
57	MG	2A	3420	1/1	0.93	0.06	35,35,35,35	0
57	MG	2A	3219	1/1	0.93	0.21	48,48,48,48	0
57	MG	1A	3230	1/1	0.93	0.10	35,35,35,35	0
57	MG	2A	3018	1/1	0.93	0.15	43,43,43,43	0
57	MG	2A	3020	1/1	0.93	0.11	49,49,49,49	0
57	MG	1Q	201	1/1	0.93	0.31	38,38,38,38	0
57	MG	1a	1696	1/1	0.93	0.22	41,41,41,41	0
57	MG	1A	3453	1/1	0.93	0.07	21,21,21,21	0
57	MG	2A	3232	1/1	0.93	0.10	44,44,44,44	0
57	MG	2A	3438	1/1	0.93	0.09	48,48,48,48	0
57	MG	2A	3440	1/1	0.93	0.13	53,53,53,53	0
57	MG	1a	1699	1/1	0.93	0.25	70,70,70,70	0
57	MG	1A	3706	1/1	0.93	0.08	25,25,25,25	0
57	MG	20	102	1/1	0.93	0.11	57,57,57,57	0
57	MG	1a	1702	1/1	0.93	0.17	49,49,49,49	0
57	MG	1A	3032	1/1	0.93	0.06	23,23,23,23	0
57	MG	2A	3244	1/1	0.93	0.10	36,36,36,36	0
57	MG	2a	1608	1/1	0.93	0.17	55,55,55,55	0
57	MG	1A	3007	1/1	0.93	0.08	31,31,31,31	0
57	MG	2A	3249	1/1	0.93	0.21	52,52,52,52	0
57	MG	2A	3250	1/1	0.93	0.08	38,38,38,38	0
57	MG	2a	1616	1/1	0.93	0.18	41,41,41,41	0
57	MG	1A	3579	1/1	0.93	0.14	43,43,43,43	0
57	MG	1a	1707	1/1	0.93	0.13	36,36,36,36	0
57	MG	1W	202	1/1	0.93	0.07	22,22,22,22	0
57	MG	1A	3580	1/1	0.93	0.10	18,18,18,18	0
57	MG	1A	3240	1/1	0.93	0.07	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3093	1/1	0.93	0.12	34,34,34,34	0
57	MG	1A	3327	1/1	0.93	0.12	41,41,41,41	0
57	MG	2A	3059	1/1	0.93	0.16	56,56,56,56	0
57	MG	2a	1633	1/1	0.93	0.16	51,51,51,51	0
57	MG	1A	3466	1/1	0.93	0.11	25,25,25,25	0
57	MG	15	101	1/1	0.93	0.27	26,26,26,26	0
57	MG	2A	3271	1/1	0.93	0.11	52,52,52,52	0
57	MG	2A	3476	1/1	0.93	0.18	55,55,55,55	0
57	MG	1A	3126	1/1	0.93	0.09	30,30,30,30	0
57	MG	2A	3273	1/1	0.93	0.12	43,43,43,43	0
57	MG	2a	1645	1/1	0.93	0.11	45,45,45,45	0
57	MG	1A	3015	1/1	0.93	0.24	36,36,36,36	0
57	MG	2A	3070	1/1	0.93	0.11	34,34,34,34	0
57	MG	17	107	1/1	0.93	0.13	58,58,58,58	0
57	MG	2A	3489	1/1	0.93	0.10	45,45,45,45	0
57	MG	2a	1653	1/1	0.93	0.33	47,47,47,47	0
57	MG	1A	3391	1/1	0.93	0.11	38,38,38,38	0
57	MG	1A	3255	1/1	0.93	0.09	67,67,67,67	0
57	MG	2a	1656	1/1	0.93	0.19	55,55,55,55	0
57	MG	1A	3593	1/1	0.93	0.14	61,61,61,61	0
57	MG	1A	3197	1/1	0.93	0.23	41,41,41,41	0
57	MG	2A	3494	1/1	0.93	0.10	47,47,47,47	0
57	MG	2A	3495	1/1	0.93	0.07	35,35,35,35	0
57	MG	2a	1663	1/1	0.93	0.11	52,52,52,52	0
57	MG	2A	3084	1/1	0.93	0.17	45,45,45,45	0
57	MG	1A	3480	1/1	0.93	0.10	37,37,37,37	0
57	MG	2A	3292	1/1	0.93	0.10	19,19,19,19	0
57	MG	1A	3738	1/1	0.93	0.25	27,27,27,27	0
57	MG	1A	3001	1/1	0.93	0.10	20,20,20,20	0
57	MG	1A	3269	1/1	0.93	0.31	50,50,50,50	0
57	MG	1A	3486	1/1	0.93	0.08	26,26,26,26	0
57	MG	2A	3299	1/1	0.93	0.12	39,39,39,39	0
57	MG	1A	3133	1/1	0.93	0.07	42,42,42,42	0
57	MG	2A	3301	1/1	0.93	0.11	25,25,25,25	0
57	MG	1A	3491	1/1	0.93	0.09	45,45,45,45	0
57	MG	1A	3006	1/1	0.93	0.08	41,41,41,41	0
57	MG	2A	3517	1/1	0.93	0.07	35,35,35,35	0
57	MG	2A	3308	1/1	0.93	0.13	22,22,22,22	0
57	MG	2A	3521	1/1	0.93	0.22	62,62,62,62	0
57	MG	1A	3206	1/1	0.93	0.18	44,44,44,44	0
57	MG	2A	3311	1/1	0.93	0.07	26,26,26,26	0
57	MG	1A	3355	1/1	0.93	0.13	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2a	1695	1/1	0.93	0.15	41,41,41,41	0
57	MG	1a	1629	1/1	0.93	0.11	51,51,51,51	0
57	MG	1A	3031	1/1	0.93	0.09	20,20,20,20	0
57	MG	2A	3315	1/1	0.93	0.10	27,27,27,27	0
57	MG	1A	3761	1/1	0.93	0.07	49,49,49,49	0
57	MG	2A	3118	1/1	0.93	0.16	56,56,56,56	0
57	MG	2a	1705	1/1	0.93	0.12	54,54,54,54	0
57	MG	1A	3763	1/1	0.93	0.07	35,35,35,35	0
57	MG	2a	1710	1/1	0.93	0.10	47,47,47,47	0
57	MG	1a	1756	1/1	0.93	0.19	65,65,65,65	0
57	MG	2A	3123	1/1	0.93	0.23	44,44,44,44	0
57	MG	2A	3126	1/1	0.93	0.18	45,45,45,45	0
57	MG	2a	1715	1/1	0.93	0.10	63,63,63,63	0
57	MG	1A	3287	1/1	0.93	0.09	31,31,31,31	0
57	MG	2A	3540	1/1	0.93	0.16	75,75,75,75	0
57	MG	1A	3421	1/1	0.93	0.10	16,16,16,16	0
57	MG	2A	3334	1/1	0.93	0.08	24,24,24,24	0
57	MG	2A	3339	1/1	0.93	0.09	26,26,26,26	0
57	MG	1a	1762	1/1	0.93	0.17	62,62,62,62	0
57	MG	2a	1727	1/1	0.93	0.25	40,40,40,40	0
57	MG	1A	3159	1/1	0.93	0.09	55,55,55,55	0
57	MG	1A	3073	1/1	0.93	0.27	53,53,53,53	0
57	MG	2A	3555	1/1	0.93	0.15	54,54,54,54	0
57	MG	1A	3769	1/1	0.93	0.09	49,49,49,49	0
57	MG	1A	3364	1/1	0.93	0.07	33,33,33,33	0
57	MG	1A	3115	1/1	0.93	0.09	28,28,28,28	0
57	MG	2A	3146	1/1	0.93	0.15	40,40,40,40	0
57	MG	2A	3357	1/1	0.93	0.15	60,60,60,60	0
57	MG	2a	1737	1/1	0.93	0.16	43,43,43,43	0
57	MG	2A	3566	1/1	0.93	0.10	60,60,60,60	0
57	MG	1A	3639	1/1	0.93	0.08	10,10,10,10	0
57	MG	2a	1741	1/1	0.93	0.20	58,58,58,58	0
57	MG	2A	3150	1/1	0.93	0.26	51,51,51,51	0
57	MG	2A	3572	1/1	0.93	0.10	42,42,42,42	0
57	MG	2a	1746	1/1	0.93	0.12	56,56,56,56	0
57	MG	2A	3573	1/1	0.93	0.15	61,61,61,61	0
57	MG	1A	3521	1/1	0.93	0.06	34,34,34,34	0
57	MG	2a	1750	1/1	0.93	0.17	57,57,57,57	0
57	MG	2a	1751	1/1	0.93	0.15	43,43,43,43	0
57	MG	2A	3575	1/1	0.93	0.12	47,47,47,47	0
57	MG	1A	3646	1/1	0.93	0.27	42,42,42,42	0
57	MG	2A	3156	1/1	0.93	0.19	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3370	1/1	0.93	0.09	47,47,47,47	0
57	MG	2A	3372	1/1	0.93	0.10	53,53,53,53	0
57	MG	2a	1758	1/1	0.93	0.15	62,62,62,62	0
57	MG	1a	1772	1/1	0.93	0.12	62,62,62,62	0
57	MG	1A	3522	1/1	0.93	0.06	29,29,29,29	0
57	MG	1A	3526	1/1	0.93	0.10	26,26,26,26	0
57	MG	2A	3591	1/1	0.93	0.13	46,46,46,46	0
57	MG	1A	3528	1/1	0.93	0.12	33,33,33,33	0
57	MG	1A	3366	1/1	0.93	0.12	7,7,7,7	0
57	MG	1A	3538	1/1	0.93	0.09	25,25,25,25	0
57	MG	1A	3438	1/1	0.93	0.10	20,20,20,20	0
57	MG	1A	3670	1/1	0.93	0.06	67,67,67,67	0
57	MG	2A	3388	1/1	0.93	0.18	59,59,59,59	0
57	MG	1a	1786	1/1	0.93	0.08	47,47,47,47	0
57	MG	1a	1664	1/1	0.93	0.24	46,46,46,46	0
57	MG	1A	3672	1/1	0.93	0.08	39,39,39,39	0
57	MG	2k	202	1/1	0.93	0.07	60,60,60,60	0
57	MG	1A	3309	1/1	0.93	0.10	30,30,30,30	0
57	MG	1B	213	1/1	0.93	0.11	47,47,47,47	0
57	MG	1E	303	1/1	0.93	0.08	9,9,9,9	0
57	MG	2A	3396	1/1	0.93	0.14	29,29,29,29	0
57	MG	1m	3001	1/1	0.93	0.10	58,58,58,58	0
57	MG	1a	1677	1/1	0.93	0.19	41,41,41,41	0
57	MG	2A	3618	1/1	0.93	0.05	45,45,45,45	0
57	MG	2A	3400	1/1	0.93	0.15	28,28,28,28	0
57	MG	2A	3191	1/1	0.93	0.23	54,54,54,54	0
57	MG	1A	3541	1/1	0.93	0.09	29,29,29,29	0
57	MG	1A	3268	1/1	0.94	0.13	29,29,29,29	0
57	MG	1A	3679	1/1	0.94	0.09	8,8,8,8	0
57	MG	2A	3129	1/1	0.94	0.39	53,53,53,53	0
57	MG	1A	3096	1/1	0.94	0.33	29,29,29,29	0
57	MG	1A	3682	1/1	0.94	0.10	38,38,38,38	0
57	MG	2A	3376	1/1	0.94	0.17	45,45,45,45	0
57	MG	2A	3134	1/1	0.94	0.06	45,45,45,45	0
57	MG	1A	3192	1/1	0.94	0.09	20,20,20,20	0
57	MG	1A	3684	1/1	0.94	0.09	37,37,37,37	0
57	MG	1W	205	1/1	0.94	0.07	26,26,26,26	0
57	MG	1X	101	1/1	0.94	0.07	39,39,39,39	0
57	MG	2A	3144	1/1	0.94	0.06	67,67,67,67	0
57	MG	10	102	1/1	0.94	0.11	38,38,38,38	0
57	MG	1A	3062	1/1	0.94	0.09	36,36,36,36	0
57	MG	11	102	1/1	0.94	0.17	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3104	1/1	0.94	0.08	32,32,32,32	0
57	MG	1A	3129	1/1	0.94	0.14	28,28,28,28	0
57	MG	1A	3550	1/1	0.94	0.09	18,18,18,18	0
57	MG	1A	3704	1/1	0.94	0.07	37,37,37,37	0
57	MG	1A	3558	1/1	0.94	0.08	51,51,51,51	0
57	MG	1A	3450	1/1	0.94	0.07	39,39,39,39	0
57	MG	2A	3161	1/1	0.94	0.18	58,58,58,58	0
57	MG	1A	3708	1/1	0.94	0.26	52,52,52,52	0
57	MG	1A	3107	1/1	0.94	0.21	51,51,51,51	0
57	MG	2A	3164	1/1	0.94	0.16	29,29,29,29	0
57	MG	1A	3204	1/1	0.94	0.17	43,43,43,43	0
57	MG	1A	3563	1/1	0.94	0.08	42,42,42,42	0
57	MG	1a	1759	1/1	0.94	0.22	40,40,40,40	0
57	MG	2A	3406	1/1	0.94	0.11	51,51,51,51	0
57	MG	1a	1602	1/1	0.94	0.12	51,51,51,51	0
57	MG	1A	3290	1/1	0.94	0.07	11,11,11,11	0
57	MG	1a	1604	1/1	0.94	0.16	43,43,43,43	0
57	MG	2A	3175	1/1	0.94	0.14	29,29,29,29	0
57	MG	2E	301	1/1	0.94	0.18	35,35,35,35	0
57	MG	2E	303	1/1	0.94	0.08	51,51,51,51	0
57	MG	1A	3576	1/1	0.94	0.09	39,39,39,39	0
57	MG	2F	303	1/1	0.94	0.11	49,49,49,49	0
57	MG	1A	3455	1/1	0.94	0.06	16,16,16,16	0
57	MG	2F	307	1/1	0.94	0.06	31,31,31,31	0
57	MG	1A	3132	1/1	0.94	0.09	15,15,15,15	0
57	MG	1A	3457	1/1	0.94	0.07	16,16,16,16	0
57	MG	1A	3298	1/1	0.94	0.08	45,45,45,45	0
57	MG	1A	3064	1/1	0.94	0.06	19,19,19,19	0
57	MG	1A	3584	1/1	0.94	0.06	10,10,10,10	0
57	MG	1A	3463	1/1	0.94	0.07	13,13,13,13	0
57	MG	1A	3308	1/1	0.94	0.08	36,36,36,36	0
57	MG	1A	3134	1/1	0.94	0.31	28,28,28,28	0
57	MG	1A	3467	1/1	0.94	0.08	42,42,42,42	0
57	MG	1A	3739	1/1	0.94	0.07	31,31,31,31	0
57	MG	1a	1630	1/1	0.94	0.13	38,38,38,38	0
57	MG	2a	1605	1/1	0.94	0.10	52,52,52,52	0
57	MG	2a	1607	1/1	0.94	0.27	42,42,42,42	0
57	MG	1A	3382	1/1	0.94	0.10	35,35,35,35	0
57	MG	2a	1609	1/1	0.94	0.13	54,54,54,54	0
57	MG	2a	1610	1/1	0.94	0.24	53,53,53,53	0
57	MG	2A	3202	1/1	0.94	0.16	45,45,45,45	0
57	MG	2a	1613	1/1	0.94	0.20	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3310	1/1	0.94	0.08	13,13,13,13	0
57	MG	1A	3744	1/1	0.94	0.11	26,26,26,26	0
57	MG	1A	3745	1/1	0.94	0.10	38,38,38,38	0
57	MG	1A	3748	1/1	0.94	0.06	12,12,12,12	0
57	MG	1A	3750	1/1	0.94	0.08	15,15,15,15	0
57	MG	2a	1620	1/1	0.94	0.18	52,52,52,52	0
57	MG	2a	1621	1/1	0.94	0.07	43,43,43,43	0
57	MG	2a	1622	1/1	0.94	0.09	46,46,46,46	0
57	MG	2a	1623	1/1	0.94	0.33	54,54,54,54	0
57	MG	1A	3472	1/1	0.94	0.16	43,43,43,43	0
57	MG	1f	201	1/1	0.94	0.06	34,34,34,34	0
57	MG	1A	3218	1/1	0.94	0.12	26,26,26,26	0
57	MG	2A	3445	1/1	0.94	0.13	35,35,35,35	0
57	MG	2a	1629	1/1	0.94	0.19	54,54,54,54	0
57	MG	1A	3597	1/1	0.94	0.10	22,22,22,22	0
57	MG	2A	3448	1/1	0.94	0.13	46,46,46,46	0
57	MG	2A	3218	1/1	0.94	0.06	27,27,27,27	0
57	MG	1A	3598	1/1	0.94	0.05	40,40,40,40	0
57	MG	1A	3312	1/1	0.94	0.12	32,32,32,32	0
57	MG	1A	3476	1/1	0.94	0.10	19,19,19,19	0
57	MG	2A	3458	1/1	0.94	0.13	52,52,52,52	0
57	MG	2A	3223	1/1	0.94	0.18	35,35,35,35	0
57	MG	2a	1643	1/1	0.94	0.20	40,40,40,40	0
57	MG	2A	3225	1/1	0.94	0.16	42,42,42,42	0
57	MG	1a	1652	1/1	0.94	0.23	51,51,51,51	0
57	MG	1A	3314	1/1	0.94	0.15	42,42,42,42	0
57	MG	1a	1654	1/1	0.94	0.13	45,45,45,45	0
57	MG	2A	3468	1/1	0.94	0.07	51,51,51,51	0
57	MG	2a	1650	1/1	0.94	0.13	53,53,53,53	0
57	MG	1A	3046	1/1	0.94	0.07	18,18,18,18	0
57	MG	1A	3150	1/1	0.94	0.06	31,31,31,31	0
57	MG	1a	1657	1/1	0.94	0.10	48,48,48,48	0
57	MG	1A	3112	1/1	0.94	0.08	28,28,28,28	0
57	MG	2A	3237	1/1	0.94	0.11	29,29,29,29	0
57	MG	1A	3614	1/1	0.94	0.09	21,21,21,21	0
57	MG	1A	3615	1/1	0.94	0.17	50,50,50,50	0
57	MG	2A	3241	1/1	0.94	0.13	48,48,48,48	0
57	MG	2A	3004	1/1	0.94	0.22	58,58,58,58	0
57	MG	2A	3479	1/1	0.94	0.11	35,35,35,35	0
57	MG	2A	3246	1/1	0.94	0.17	50,50,50,50	0
57	MG	2A	3482	1/1	0.94	0.09	35,35,35,35	0
57	MG	1A	3394	1/1	0.94	0.11	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3486	1/1	0.94	0.29	34,34,34,34	0
57	MG	1A	3071	1/1	0.94	0.06	39,39,39,39	0
57	MG	2A	3014	1/1	0.94	0.14	33,33,33,33	0
57	MG	1a	1663	1/1	0.94	0.31	47,47,47,47	0
57	MG	1A	3489	1/1	0.94	0.15	57,57,57,57	0
57	MG	2A	3021	1/1	0.94	0.07	17,17,17,17	0
57	MG	2A	3023	1/1	0.94	0.26	47,47,47,47	0
57	MG	2a	1679	1/1	0.94	0.34	52,52,52,52	0
57	MG	2A	3256	1/1	0.94	0.13	54,54,54,54	0
57	MG	1A	3777	1/1	0.94	0.09	16,16,16,16	0
57	MG	2a	1683	1/1	0.94	0.10	57,57,57,57	0
57	MG	1a	1669	1/1	0.94	0.19	50,50,50,50	0
57	MG	1A	3780	1/1	0.94	0.09	14,14,14,14	0
57	MG	2A	3033	1/1	0.94	0.09	63,63,63,63	0
57	MG	2A	3500	1/1	0.94	0.12	47,47,47,47	0
57	MG	1A	3002	1/1	0.94	0.09	42,42,42,42	0
57	MG	2A	3035	1/1	0.94	0.12	31,31,31,31	0
57	MG	2A	3505	1/1	0.94	0.08	36,36,36,36	0
57	MG	1A	3226	1/1	0.94	0.08	24,24,24,24	0
57	MG	2A	3039	1/1	0.94	0.17	22,22,22,22	0
57	MG	2a	1699	1/1	0.94	0.16	41,41,41,41	0
57	MG	2a	1700	1/1	0.94	0.10	48,48,48,48	0
57	MG	1A	3400	1/1	0.94	0.07	13,13,13,13	0
57	MG	1A	3401	1/1	0.94	0.09	24,24,24,24	0
57	MG	2A	3511	1/1	0.94	0.12	58,58,58,58	0
57	MG	2A	3048	1/1	0.94	0.20	54,54,54,54	0
57	MG	1A	3011	1/1	0.94	0.08	31,31,31,31	0
57	MG	1A	3791	1/1	0.94	0.07	48,48,48,48	0
57	MG	1A	3116	1/1	0.94	0.28	42,42,42,42	0
57	MG	2A	3282	1/1	0.94	0.10	42,42,42,42	0
57	MG	1A	3021	1/1	0.94	0.07	24,24,24,24	0
57	MG	1A	3174	1/1	0.94	0.20	41,41,41,41	0
57	MG	1A	3640	1/1	0.94	0.06	25,25,25,25	0
57	MG	2A	3289	1/1	0.94	0.07	32,32,32,32	0
57	MG	1A	3641	1/1	0.94	0.15	26,26,26,26	0
57	MG	2a	1721	1/1	0.94	0.14	45,45,45,45	0
57	MG	1B	205	1/1	0.94	0.10	47,47,47,47	0
57	MG	1A	3514	1/1	0.94	0.11	32,32,32,32	0
57	MG	2A	3062	1/1	0.94	0.13	38,38,38,38	0
57	MG	1A	3645	1/1	0.94	0.11	35,35,35,35	0
57	MG	1a	1692	1/1	0.94	0.24	46,46,46,46	0
57	MG	1A	3411	1/1	0.94	0.06	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3176	1/1	0.94	0.13	33,33,33,33	0
57	MG	2A	3069	1/1	0.94	0.14	44,44,44,44	0
57	MG	1a	1695	1/1	0.94	0.33	49,49,49,49	0
57	MG	2A	3072	1/1	0.94	0.09	48,48,48,48	0
57	MG	2A	3541	1/1	0.94	0.12	53,53,53,53	0
57	MG	1B	215	1/1	0.94	0.08	29,29,29,29	0
57	MG	2A	3544	1/1	0.94	0.17	51,51,51,51	0
57	MG	1D	304	1/1	0.94	0.21	25,25,25,25	0
57	MG	2A	3076	1/1	0.94	0.14	48,48,48,48	0
57	MG	2a	1740	1/1	0.94	0.14	46,46,46,46	0
57	MG	1A	3653	1/1	0.94	0.15	34,34,34,34	0
57	MG	1a	1700	1/1	0.94	0.14	47,47,47,47	0
57	MG	2A	3081	1/1	0.94	0.10	39,39,39,39	0
57	MG	2A	3553	1/1	0.94	0.08	25,25,25,25	0
57	MG	2A	3082	1/1	0.94	0.12	37,37,37,37	0
57	MG	1A	3655	1/1	0.94	0.09	47,47,47,47	0
57	MG	1A	3060	1/1	0.94	0.06	23,23,23,23	0
57	MG	2A	3321	1/1	0.94	0.17	50,50,50,50	0
57	MG	1A	3185	1/1	0.94	0.13	25,25,25,25	0
57	MG	1F	301	1/1	0.94	0.09	34,34,34,34	0
57	MG	2A	3091	1/1	0.94	0.06	40,40,40,40	0
57	MG	1F	302	1/1	0.94	0.10	21,21,21,21	0
57	MG	2A	3569	1/1	0.94	0.10	38,38,38,38	0
57	MG	2a	1757	1/1	0.94	0.16	49,49,49,49	0
57	MG	1A	3425	1/1	0.94	0.13	22,22,22,22	0
57	MG	2A	3331	1/1	0.94	0.10	30,30,30,30	0
57	MG	1a	1710	1/1	0.94	0.20	48,48,48,48	0
57	MG	1A	3349	1/1	0.94	0.08	10,10,10,10	0
57	MG	2A	3335	1/1	0.94	0.09	54,54,54,54	0
57	MG	2A	3338	1/1	0.94	0.09	34,34,34,34	0
57	MG	1A	3122	1/1	0.94	0.15	33,33,33,33	0
57	MG	2A	3580	1/1	0.94	0.13	46,46,46,46	0
57	MG	1G	203	1/1	0.94	0.07	51,51,51,51	0
57	MG	2a	1768	1/1	0.94	0.07	46,46,46,46	0
57	MG	2A	3342	1/1	0.94	0.07	27,27,27,27	0
57	MG	2d	302	1/1	0.94	0.17	48,48,48,48	0
57	MG	2A	3110	1/1	0.94	0.13	72,72,72,72	0
57	MG	2e	203	1/1	0.94	0.16	43,43,43,43	0
57	MG	2A	3586	1/1	0.94	0.06	59,59,59,59	0
57	MG	2j	201	1/1	0.94	0.14	53,53,53,53	0
57	MG	2A	3111	1/1	0.94	0.15	34,34,34,34	0
57	MG	1A	3529	1/1	0.94	0.09	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3351	1/1	0.94	0.04	10,10,10,10	0
57	MG	2A	3351	1/1	0.94	0.08	47,47,47,47	0
57	MG	1A	3188	1/1	0.94	0.07	33,33,33,33	0
57	MG	1A	3123	1/1	0.94	0.09	45,45,45,45	0
57	MG	1a	1723	1/1	0.94	0.16	24,24,24,24	0
57	MG	1a	1725	1/1	0.94	0.13	58,58,58,58	0
57	MG	1a	1726	1/1	0.94	0.23	55,55,55,55	0
57	MG	1A	3677	1/1	0.94	0.12	22,22,22,22	0
57	MG	2A	3362	1/1	0.94	0.19	50,50,50,50	0
57	MG	1Q	204	1/1	0.94	0.07	31,31,31,31	0
57	MG	2A	3608	1/1	0.94	0.08	43,43,43,43	0
58	ZN	24	501	1/1	0.94	0.18	137,137,137,137	0
57	MG	1A	3128	1/1	0.95	0.05	26,26,26,26	0
57	MG	1A	3048	1/1	0.95	0.29	36,36,36,36	0
57	MG	1A	3033	1/1	0.95	0.14	16,16,16,16	0
57	MG	2A	3168	1/1	0.95	0.12	40,40,40,40	0
57	MG	1A	3733	1/1	0.95	0.06	33,33,33,33	0
57	MG	1A	3318	1/1	0.95	0.06	8,8,8,8	0
57	MG	1A	3319	1/1	0.95	0.11	29,29,29,29	0
57	MG	1a	1624	1/1	0.95	0.21	56,56,56,56	0
57	MG	2B	203	1/1	0.95	0.07	39,39,39,39	0
57	MG	1A	3393	1/1	0.95	0.15	42,42,42,42	0
57	MG	1A	3478	1/1	0.95	0.08	32,32,32,32	0
57	MG	2A	3177	1/1	0.95	0.17	40,40,40,40	0
57	MG	1a	1778	1/1	0.95	0.18	45,45,45,45	0
57	MG	1a	1779	1/1	0.95	0.07	39,39,39,39	0
57	MG	1A	3479	1/1	0.95	0.10	35,35,35,35	0
57	MG	2B	210	1/1	0.95	0.23	52,52,52,52	0
57	MG	1A	3596	1/1	0.95	0.07	24,24,24,24	0
57	MG	2A	3185	1/1	0.95	0.23	43,43,43,43	0
57	MG	1A	3229	1/1	0.95	0.09	38,38,38,38	0
57	MG	1A	3481	1/1	0.95	0.09	18,18,18,18	0
57	MG	2A	3190	1/1	0.95	0.19	34,34,34,34	0
57	MG	1A	3746	1/1	0.95	0.07	37,37,37,37	0
57	MG	2A	3192	1/1	0.95	0.09	24,24,24,24	0
57	MG	2F	302	1/1	0.95	0.04	26,26,26,26	0
57	MG	1A	3321	1/1	0.95	0.07	19,19,19,19	0
57	MG	1A	3026	1/1	0.95	0.16	27,27,27,27	0
57	MG	1A	3179	1/1	0.95	0.12	37,37,37,37	0
57	MG	1a	1639	1/1	0.95	0.15	34,34,34,34	0
57	MG	1A	3602	1/1	0.95	0.08	19,19,19,19	0
57	MG	1A	3325	1/1	0.95	0.09	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2Q	203	1/1	0.95	0.18	44,44,44,44	0
57	MG	1a	1642	1/1	0.95	0.20	55,55,55,55	0
57	MG	1A	3488	1/1	0.95	0.12	33,33,33,33	0
57	MG	2V	202	1/1	0.95	0.23	45,45,45,45	0
57	MG	2X	101	1/1	0.95	0.10	42,42,42,42	0
57	MG	2A	3424	1/1	0.95	0.08	42,42,42,42	0
57	MG	1A	3610	1/1	0.95	0.40	21,21,21,21	0
57	MG	2A	3427	1/1	0.95	0.10	30,30,30,30	0
57	MG	2A	3428	1/1	0.95	0.16	51,51,51,51	0
57	MG	1A	3182	1/1	0.95	0.29	35,35,35,35	0
57	MG	1A	3239	1/1	0.95	0.20	24,24,24,24	0
57	MG	1A	3184	1/1	0.95	0.07	27,27,27,27	0
57	MG	1A	3762	1/1	0.95	0.11	33,33,33,33	0
57	MG	2A	3435	1/1	0.95	0.12	37,37,37,37	0
57	MG	1A	3405	1/1	0.95	0.07	33,33,33,33	0
57	MG	1A	3406	1/1	0.95	0.07	26,26,26,26	0
57	MG	1A	3623	1/1	0.95	0.14	23,23,23,23	0
57	MG	2A	3215	1/1	0.95	0.07	43,43,43,43	0
57	MG	1A	3625	1/1	0.95	0.07	32,32,32,32	0
57	MG	2A	3217	1/1	0.95	0.06	35,35,35,35	0
57	MG	2A	3001	1/1	0.95	0.13	48,48,48,48	0
57	MG	1A	3501	1/1	0.95	0.05	25,25,25,25	0
57	MG	2A	3220	1/1	0.95	0.10	42,42,42,42	0
57	MG	2a	1619	1/1	0.95	0.09	32,32,32,32	0
57	MG	1A	3502	1/1	0.95	0.08	44,44,44,44	0
57	MG	2A	3005	1/1	0.95	0.20	40,40,40,40	0
57	MG	1A	3775	1/1	0.95	0.09	34,34,34,34	0
57	MG	2A	3009	1/1	0.95	0.09	42,42,42,42	0
57	MG	2A	3010	1/1	0.95	0.13	31,31,31,31	0
57	MG	1A	3068	1/1	0.95	0.21	41,41,41,41	0
57	MG	2A	3459	1/1	0.95	0.06	66,66,66,66	0
57	MG	2A	3460	1/1	0.95	0.17	60,60,60,60	0
57	MG	1A	3508	1/1	0.95	0.10	20,20,20,20	0
57	MG	1A	3778	1/1	0.95	0.07	57,57,57,57	0
57	MG	1A	3332	1/1	0.95	0.10	37,37,37,37	0
57	MG	2A	3234	1/1	0.95	0.11	45,45,45,45	0
57	MG	1A	3103	1/1	0.95	0.07	34,34,34,34	0
57	MG	1a	1665	1/1	0.95	0.15	41,41,41,41	0
57	MG	1A	3634	1/1	0.95	0.08	49,49,49,49	0
57	MG	1A	3248	1/1	0.95	0.07	24,24,24,24	0
57	MG	2a	1638	1/1	0.95	0.17	48,48,48,48	0
57	MG	1A	3249	1/1	0.95	0.05	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1a	1672	1/1	0.95	0.10	36,36,36,36	0
57	MG	1a	1673	1/1	0.95	0.10	52,52,52,52	0
57	MG	1A	3136	1/1	0.95	0.12	27,27,27,27	0
57	MG	2A	3036	1/1	0.95	0.14	47,47,47,47	0
57	MG	2a	1647	1/1	0.95	0.28	44,44,44,44	0
57	MG	2A	3248	1/1	0.95	0.14	40,40,40,40	0
57	MG	1A	3344	1/1	0.95	0.07	36,36,36,36	0
57	MG	1A	3347	1/1	0.95	0.12	51,51,51,51	0
57	MG	1A	3642	1/1	0.95	0.10	30,30,30,30	0
57	MG	2a	1652	1/1	0.95	0.19	50,50,50,50	0
57	MG	2A	3481	1/1	0.95	0.08	40,40,40,40	0
57	MG	1A	3254	1/1	0.95	0.06	21,21,21,21	0
57	MG	2A	3047	1/1	0.95	0.15	57,57,57,57	0
57	MG	1A	3644	1/1	0.95	0.07	41,41,41,41	0
57	MG	2a	1658	1/1	0.95	0.34	53,53,53,53	0
57	MG	1A	3139	1/1	0.95	0.16	22,22,22,22	0
57	MG	2A	3257	1/1	0.95	0.05	40,40,40,40	0
57	MG	1A	3523	1/1	0.95	0.07	37,37,37,37	0
57	MG	2A	3259	1/1	0.95	0.09	48,48,48,48	0
57	MG	1a	1683	1/1	0.95	0.18	45,45,45,45	0
57	MG	1A	3140	1/1	0.95	0.09	32,32,32,32	0
57	MG	1B	207	1/1	0.95	0.07	22,22,22,22	0
57	MG	1A	3651	1/1	0.95	0.08	32,32,32,32	0
57	MG	2A	3056	1/1	0.95	0.13	26,26,26,26	0
57	MG	1A	3141	1/1	0.95	0.06	23,23,23,23	0
57	MG	1A	3654	1/1	0.95	0.10	44,44,44,44	0
57	MG	2a	1671	1/1	0.95	0.28	49,49,49,49	0
57	MG	2a	1672	1/1	0.95	0.11	43,43,43,43	0
57	MG	1A	3436	1/1	0.95	0.12	42,42,42,42	0
57	MG	2A	3501	1/1	0.95	0.08	53,53,53,53	0
57	MG	2A	3061	1/1	0.95	0.10	56,56,56,56	0
57	MG	1A	3658	1/1	0.95	0.12	34,34,34,34	0
57	MG	1D	306	1/1	0.95	0.08	23,23,23,23	0
57	MG	2A	3506	1/1	0.95	0.12	44,44,44,44	0
57	MG	2a	1681	1/1	0.95	0.21	49,49,49,49	0
57	MG	1D	307	1/1	0.95	0.14	31,31,31,31	0
57	MG	1A	3530	1/1	0.95	0.09	12,12,12,12	0
57	MG	1A	3533	1/1	0.95	0.14	30,30,30,30	0
57	MG	1a	1697	1/1	0.95	0.05	36,36,36,36	0
57	MG	1A	3195	1/1	0.95	0.13	33,33,33,33	0
57	MG	2a	1687	1/1	0.95	0.23	44,44,44,44	0
57	MG	2A	3512	1/1	0.95	0.10	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3148	1/1	0.95	0.38	34,34,34,34	0
57	MG	2A	3288	1/1	0.95	0.10	42,42,42,42	0
57	MG	2a	1693	1/1	0.95	0.08	38,38,38,38	0
57	MG	1A	3440	1/1	0.95	0.05	23,23,23,23	0
57	MG	2a	1696	1/1	0.95	0.21	42,42,42,42	0
57	MG	1A	3668	1/1	0.95	0.06	23,23,23,23	0
57	MG	1A	3669	1/1	0.95	0.13	41,41,41,41	0
57	MG	1A	3052	1/1	0.95	0.12	20,20,20,20	0
57	MG	2A	3522	1/1	0.95	0.06	49,49,49,49	0
57	MG	2A	3078	1/1	0.95	0.13	51,51,51,51	0
57	MG	1A	3106	1/1	0.95	0.19	31,31,31,31	0
57	MG	2A	3080	1/1	0.95	0.12	33,33,33,33	0
57	MG	2A	3298	1/1	0.95	0.14	52,52,52,52	0
57	MG	2a	1706	1/1	0.95	0.19	59,59,59,59	0
57	MG	1A	3152	1/1	0.95	0.22	27,27,27,27	0
57	MG	1N	201	1/1	0.95	0.16	25,25,25,25	0
57	MG	1A	3154	1/1	0.95	0.08	26,26,26,26	0
57	MG	2a	1712	1/1	0.95	0.17	54,54,54,54	0
57	MG	2A	3303	1/1	0.95	0.11	20,20,20,20	0
57	MG	1A	3675	1/1	0.95	0.05	24,24,24,24	0
57	MG	2A	3085	1/1	0.95	0.07	36,36,36,36	0
57	MG	1A	3072	1/1	0.95	0.18	40,40,40,40	0
57	MG	1O	201	1/1	0.95	0.10	31,31,31,31	0
57	MG	2A	3088	1/1	0.95	0.14	38,38,38,38	0
57	MG	2a	1720	1/1	0.95	0.13	40,40,40,40	0
57	MG	2A	3089	1/1	0.95	0.12	54,54,54,54	0
57	MG	1P	203	1/1	0.95	0.13	27,27,27,27	0
57	MG	2a	1724	1/1	0.95	0.10	44,44,44,44	0
57	MG	2A	3093	1/1	0.95	0.06	43,43,43,43	0
57	MG	1A	3451	1/1	0.95	0.06	34,34,34,34	0
57	MG	2A	3317	1/1	0.95	0.11	35,35,35,35	0
57	MG	1A	3004	1/1	0.95	0.08	14,14,14,14	0
57	MG	1A	3551	1/1	0.95	0.08	47,47,47,47	0
57	MG	1A	3681	1/1	0.95	0.18	40,40,40,40	0
57	MG	2A	3323	1/1	0.95	0.08	48,48,48,48	0
57	MG	1A	3557	1/1	0.95	0.04	24,24,24,24	0
57	MG	1A	3208	1/1	0.95	0.10	25,25,25,25	0
57	MG	2A	3105	1/1	0.95	0.28	60,60,60,60	0
57	MG	2A	3328	1/1	0.95	0.17	42,42,42,42	0
57	MG	2A	3109	1/1	0.95	0.12	38,38,38,38	0
57	MG	1U	202	1/1	0.95	0.23	32,32,32,32	0
57	MG	1A	3160	1/1	0.95	0.10	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3332	1/1	0.95	0.11	30,30,30,30	0
57	MG	1U	205	1/1	0.95	0.16	39,39,39,39	0
57	MG	1V	205	1/1	0.95	0.05	37,37,37,37	0
57	MG	1A	3560	1/1	0.95	0.07	17,17,17,17	0
57	MG	1A	3689	1/1	0.95	0.12	20,20,20,20	0
57	MG	1A	3692	1/1	0.95	0.08	35,35,35,35	0
57	MG	1A	3213	1/1	0.95	0.10	28,28,28,28	0
57	MG	1Z	301	1/1	0.95	0.08	34,34,34,34	0
57	MG	1A	3697	1/1	0.95	0.10	24,24,24,24	0
57	MG	1A	3217	1/1	0.95	0.13	44,44,44,44	0
57	MG	2A	3124	1/1	0.95	0.22	53,53,53,53	0
57	MG	1A	3700	1/1	0.95	0.05	38,38,38,38	0
57	MG	2A	3350	1/1	0.95	0.16	48,48,48,48	0
57	MG	2A	3584	1/1	0.95	0.09	67,67,67,67	0
57	MG	1A	3306	1/1	0.95	0.06	24,24,24,24	0
57	MG	2A	3352	1/1	0.95	0.13	53,53,53,53	0
57	MG	1A	3565	1/1	0.95	0.07	12,12,12,12	0
57	MG	1A	3566	1/1	0.95	0.07	64,64,64,64	0
57	MG	1A	3375	1/1	0.95	0.05	12,12,12,12	0
57	MG	1A	3572	1/1	0.95	0.14	37,37,37,37	0
57	MG	1A	3461	1/1	0.95	0.06	33,33,33,33	0
57	MG	17	103	1/1	0.95	0.20	24,24,24,24	0
57	MG	2A	3139	1/1	0.95	0.15	43,43,43,43	0
57	MG	1A	3125	1/1	0.95	0.12	27,27,27,27	0
57	MG	2A	3367	1/1	0.95	0.14	30,30,30,30	0
57	MG	2A	3142	1/1	0.95	0.31	42,42,42,42	0
57	MG	1a	1753	1/1	0.95	0.14	54,54,54,54	0
57	MG	2A	3371	1/1	0.95	0.07	58,58,58,58	0
57	MG	2e	202	1/1	0.95	0.06	54,54,54,54	0
57	MG	1a	1754	1/1	0.95	0.14	64,64,64,64	0
57	MG	1A	3578	1/1	0.95	0.06	14,14,14,14	0
57	MG	1A	3079	1/1	0.95	0.08	38,38,38,38	0
57	MG	2A	3375	1/1	0.95	0.12	47,47,47,47	0
57	MG	1a	1757	1/1	0.95	0.15	42,42,42,42	0
57	MG	2A	3380	1/1	0.95	0.12	50,50,50,50	0
57	MG	2t	201	1/1	0.95	0.12	48,48,48,48	0
57	MG	19	102	1/1	0.95	0.09	44,44,44,44	0
57	MG	2A	3616	1/1	0.95	0.06	50,50,50,50	0
57	MG	1A	3381	1/1	0.95	0.08	19,19,19,19	0
57	MG	1A	3719	1/1	0.95	0.07	44,44,44,44	0
57	MG	1A	3581	1/1	0.95	0.08	46,46,46,46	0
57	MG	1A	3047	1/1	0.95	0.07	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3222	1/1	0.95	0.11	44,44,44,44	0
57	MG	2A	3160	1/1	0.95	0.23	44,44,44,44	0
57	MG	2A	3389	1/1	0.95	0.09	36,36,36,36	0
57	MG	1a	1609	1/1	0.95	0.15	50,50,50,50	0
57	MG	1A	3170	1/1	0.95	0.07	39,39,39,39	0
57	MG	1A	3100	1/1	0.96	0.15	19,19,19,19	0
57	MG	2A	3128	1/1	0.96	0.48	58,58,58,58	0
57	MG	1A	3686	1/1	0.96	0.14	11,11,11,11	0
57	MG	1A	3567	1/1	0.96	0.08	32,32,32,32	0
57	MG	2A	3617	1/1	0.96	0.07	38,38,38,38	0
57	MG	2A	3131	1/1	0.96	0.23	49,49,49,49	0
57	MG	1A	3069	1/1	0.96	0.21	48,48,48,48	0
57	MG	2A	3620	1/1	0.96	0.23	42,42,42,42	0
57	MG	1A	3690	1/1	0.96	0.11	46,46,46,46	0
57	MG	2A	3622	1/1	0.96	0.06	39,39,39,39	0
57	MG	2A	3136	1/1	0.96	0.10	46,46,46,46	0
57	MG	1A	3691	1/1	0.96	0.11	22,22,22,22	0
57	MG	1A	3459	1/1	0.96	0.07	5,5,5,5	0
57	MG	1A	3014	1/1	0.96	0.08	17,17,17,17	0
57	MG	2A	3627	1/1	0.96	0.15	51,51,51,51	0
57	MG	2A	3628	1/1	0.96	0.09	41,41,41,41	0
57	MG	2A	3629	1/1	0.96	0.04	43,43,43,43	0
57	MG	1V	202	1/1	0.96	0.06	33,33,33,33	0
57	MG	1a	1741	1/1	0.96	0.06	42,42,42,42	0
57	MG	2A	3378	1/1	0.96	0.09	31,31,31,31	0
57	MG	1A	3694	1/1	0.96	0.06	38,38,38,38	0
57	MG	1A	3696	1/1	0.96	0.05	34,34,34,34	0
57	MG	2A	3637	1/1	0.96	0.15	61,61,61,61	0
57	MG	1A	3369	1/1	0.96	0.08	44,44,44,44	0
57	MG	1A	3698	1/1	0.96	0.08	33,33,33,33	0
57	MG	1A	3371	1/1	0.96	0.05	33,33,33,33	0
57	MG	2A	3149	1/1	0.96	0.05	36,36,36,36	0
57	MG	1a	1748	1/1	0.96	0.05	57,57,57,57	0
57	MG	1X	102	1/1	0.96	0.07	18,18,18,18	0
57	MG	2A	3152	1/1	0.96	0.23	43,43,43,43	0
57	MG	1a	1750	1/1	0.96	0.05	29,29,29,29	0
57	MG	1A	3039	1/1	0.96	0.22	24,24,24,24	0
57	MG	10	101	1/1	0.96	0.07	36,36,36,36	0
57	MG	1A	3105	1/1	0.96	0.07	36,36,36,36	0
57	MG	1A	3465	1/1	0.96	0.06	45,45,45,45	0
57	MG	11	101	1/1	0.96	0.18	32,32,32,32	0
57	MG	1A	3042	1/1	0.96	0.08	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2D	301	1/1	0.96	0.11	45,45,45,45	0
57	MG	1A	3074	1/1	0.96	0.18	34,34,34,34	0
57	MG	11	104	1/1	0.96	0.09	32,32,32,32	0
57	MG	2D	307	1/1	0.96	0.08	54,54,54,54	0
57	MG	1A	3468	1/1	0.96	0.07	39,39,39,39	0
57	MG	12	102	1/1	0.96	0.04	29,29,29,29	0
57	MG	1A	3709	1/1	0.96	0.07	47,47,47,47	0
57	MG	1A	3227	1/1	0.96	0.07	21,21,21,21	0
57	MG	2E	305	1/1	0.96	0.08	33,33,33,33	0
57	MG	1A	3380	1/1	0.96	0.05	28,28,28,28	0
57	MG	1A	3713	1/1	0.96	0.12	41,41,41,41	0
57	MG	16	101	1/1	0.96	0.10	38,38,38,38	0
57	MG	1A	3108	1/1	0.96	0.14	16,16,16,16	0
57	MG	2A	3176	1/1	0.96	0.13	48,48,48,48	0
57	MG	2O	201	1/1	0.96	0.11	40,40,40,40	0
57	MG	2P	201	1/1	0.96	0.09	46,46,46,46	0
57	MG	1A	3077	1/1	0.96	0.09	41,41,41,41	0
57	MG	1A	3028	1/1	0.96	0.25	31,31,31,31	0
57	MG	2Q	202	1/1	0.96	0.12	45,45,45,45	0
57	MG	1A	3718	1/1	0.96	0.07	43,43,43,43	0
57	MG	1A	3081	1/1	0.96	0.13	22,22,22,22	0
57	MG	1A	3592	1/1	0.96	0.03	27,27,27,27	0
57	MG	2U	201	1/1	0.96	0.22	48,48,48,48	0
57	MG	2A	3184	1/1	0.96	0.07	36,36,36,36	0
57	MG	1A	3313	1/1	0.96	0.07	45,45,45,45	0
57	MG	1A	3594	1/1	0.96	0.12	14,14,14,14	0
57	MG	2Y	201	1/1	0.96	0.07	58,58,58,58	0
57	MG	1A	3386	1/1	0.96	0.10	22,22,22,22	0
57	MG	1A	3727	1/1	0.96	0.11	43,43,43,43	0
57	MG	1a	1607	1/1	0.96	0.11	15,15,15,15	0
57	MG	29	101	1/1	0.96	0.14	52,52,52,52	0
57	MG	1a	1780	1/1	0.96	0.06	55,55,55,55	0
57	MG	1A	3238	1/1	0.96	0.29	25,25,25,25	0
57	MG	2a	1604	1/1	0.96	0.15	43,43,43,43	0
57	MG	1a	1610	1/1	0.96	0.13	30,30,30,30	0
57	MG	2a	1606	1/1	0.96	0.16	38,38,38,38	0
57	MG	2A	3425	1/1	0.96	0.08	28,28,28,28	0
57	MG	1A	3083	1/1	0.96	0.28	33,33,33,33	0
57	MG	1a	1785	1/1	0.96	0.07	58,58,58,58	0
57	MG	1A	3146	1/1	0.96	0.11	31,31,31,31	0
57	MG	2a	1611	1/1	0.96	0.14	55,55,55,55	0
57	MG	1a	1613	1/1	0.96	0.12	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3731	1/1	0.96	0.06	26,26,26,26	0
57	MG	1a	1615	1/1	0.96	0.04	44,44,44,44	0
57	MG	2A	3433	1/1	0.96	0.10	37,37,37,37	0
57	MG	1A	3317	1/1	0.96	0.08	41,41,41,41	0
57	MG	1a	1617	1/1	0.96	0.10	36,36,36,36	0
57	MG	1A	3241	1/1	0.96	0.04	26,26,26,26	0
57	MG	1a	1619	1/1	0.96	0.14	37,37,37,37	0
57	MG	1A	3242	1/1	0.96	0.16	22,22,22,22	0
57	MG	2A	3439	1/1	0.96	0.05	28,28,28,28	0
57	MG	1A	3243	1/1	0.96	0.07	27,27,27,27	0
57	MG	2A	3441	1/1	0.96	0.07	46,46,46,46	0
57	MG	1A	3397	1/1	0.96	0.07	15,15,15,15	0
57	MG	2A	3210	1/1	0.96	0.10	33,33,33,33	0
57	MG	1A	3740	1/1	0.96	0.11	46,46,46,46	0
57	MG	2A	3213	1/1	0.96	0.12	25,25,25,25	0
57	MG	2a	1628	1/1	0.96	0.05	34,34,34,34	0
57	MG	2A	3214	1/1	0.96	0.05	39,39,39,39	0
57	MG	1A	3604	1/1	0.96	0.10	15,15,15,15	0
57	MG	2A	3449	1/1	0.96	0.15	44,44,44,44	0
57	MG	1x	101	1/1	0.96	0.10	36,36,36,36	0
57	MG	1A	3605	1/1	0.96	0.06	33,33,33,33	0
57	MG	1A	3743	1/1	0.96	0.14	13,13,13,13	0
57	MG	1A	3245	1/1	0.96	0.05	21,21,21,21	0
57	MG	2A	3456	1/1	0.96	0.06	42,42,42,42	0
57	MG	1A	3608	1/1	0.96	0.09	38,38,38,38	0
57	MG	2a	1639	1/1	0.96	0.22	49,49,49,49	0
57	MG	2a	1640	1/1	0.96	0.14	37,37,37,37	0
57	MG	2a	1641	1/1	0.96	0.13	60,60,60,60	0
57	MG	1A	3085	1/1	0.96	0.07	7,7,7,7	0
57	MG	1A	3611	1/1	0.96	0.17	48,48,48,48	0
57	MG	1A	3749	1/1	0.96	0.13	58,58,58,58	0
57	MG	2A	3462	1/1	0.96	0.17	51,51,51,51	0
57	MG	1a	1636	1/1	0.96	0.14	25,25,25,25	0
57	MG	1A	3612	1/1	0.96	0.15	36,36,36,36	0
57	MG	1A	3492	1/1	0.96	0.10	34,34,34,34	0
57	MG	2A	3229	1/1	0.96	0.12	35,35,35,35	0
57	MG	2A	3467	1/1	0.96	0.19	39,39,39,39	0
57	MG	1A	3010	1/1	0.96	0.06	26,26,26,26	0
57	MG	1A	3754	1/1	0.96	0.07	29,29,29,29	0
57	MG	1A	3495	1/1	0.96	0.04	23,23,23,23	0
57	MG	2A	3011	1/1	0.96	0.05	34,34,34,34	0
57	MG	1a	1643	1/1	0.96	0.09	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3013	1/1	0.96	0.05	40,40,40,40	0
57	MG	2A	3474	1/1	0.96	0.10	51,51,51,51	0
57	MG	1a	1645	1/1	0.96	0.07	61,61,61,61	0
57	MG	2A	3016	1/1	0.96	0.11	45,45,45,45	0
57	MG	1A	3617	1/1	0.96	0.08	16,16,16,16	0
57	MG	2A	3240	1/1	0.96	0.16	40,40,40,40	0
57	MG	2A	3019	1/1	0.96	0.07	32,32,32,32	0
57	MG	2A	3242	1/1	0.96	0.08	34,34,34,34	0
57	MG	2a	1665	1/1	0.96	0.23	53,53,53,53	0
57	MG	1A	3087	1/1	0.96	0.24	39,39,39,39	0
57	MG	1A	3619	1/1	0.96	0.14	33,33,33,33	0
57	MG	1A	3151	1/1	0.96	0.17	16,16,16,16	0
57	MG	2A	3485	1/1	0.96	0.11	45,45,45,45	0
57	MG	1A	3621	1/1	0.96	0.12	33,33,33,33	0
57	MG	1A	3622	1/1	0.96	0.12	26,26,26,26	0
57	MG	2A	3027	1/1	0.96	0.17	34,34,34,34	0
57	MG	2A	3028	1/1	0.96	0.12	36,36,36,36	0
57	MG	2A	3031	1/1	0.96	0.11	39,39,39,39	0
57	MG	1A	3088	1/1	0.96	0.05	20,20,20,20	0
57	MG	1A	3328	1/1	0.96	0.07	23,23,23,23	0
57	MG	2a	1678	1/1	0.96	0.09	43,43,43,43	0
57	MG	1A	3505	1/1	0.96	0.06	26,26,26,26	0
57	MG	1A	3253	1/1	0.96	0.07	23,23,23,23	0
57	MG	1A	3507	1/1	0.96	0.06	49,49,49,49	0
57	MG	1A	3407	1/1	0.96	0.15	51,51,51,51	0
57	MG	2A	3262	1/1	0.96	0.06	36,36,36,36	0
57	MG	1A	3770	1/1	0.96	0.07	29,29,29,29	0
57	MG	1A	3771	1/1	0.96	0.07	40,40,40,40	0
57	MG	2A	3266	1/1	0.96	0.15	30,30,30,30	0
57	MG	2A	3267	1/1	0.96	0.08	30,30,30,30	0
57	MG	2A	3044	1/1	0.96	0.11	56,56,56,56	0
57	MG	2A	3045	1/1	0.96	0.24	48,48,48,48	0
57	MG	1A	3774	1/1	0.96	0.07	24,24,24,24	0
57	MG	1A	3118	1/1	0.96	0.15	33,33,33,33	0
57	MG	1A	3090	1/1	0.96	0.07	15,15,15,15	0
57	MG	1A	3259	1/1	0.96	0.13	36,36,36,36	0
57	MG	1A	3413	1/1	0.96	0.05	15,15,15,15	0
57	MG	1a	1666	1/1	0.96	0.08	49,49,49,49	0
57	MG	1a	1667	1/1	0.96	0.14	50,50,50,50	0
57	MG	1A	3260	1/1	0.96	0.12	23,23,23,23	0
57	MG	1A	3418	1/1	0.96	0.07	13,13,13,13	0
57	MG	2A	3055	1/1	0.96	0.19	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3518	1/1	0.96	0.07	45,45,45,45	0
57	MG	2a	1704	1/1	0.96	0.15	48,48,48,48	0
57	MG	2A	3519	1/1	0.96	0.06	54,54,54,54	0
57	MG	2A	3283	1/1	0.96	0.07	43,43,43,43	0
57	MG	2a	1707	1/1	0.96	0.14	47,47,47,47	0
57	MG	1A	3419	1/1	0.96	0.07	28,28,28,28	0
57	MG	2a	1709	1/1	0.96	0.06	36,36,36,36	0
57	MG	1A	3157	1/1	0.96	0.07	36,36,36,36	0
57	MG	2A	3523	1/1	0.96	0.11	35,35,35,35	0
57	MG	1A	3341	1/1	0.96	0.11	39,39,39,39	0
57	MG	1A	3342	1/1	0.96	0.06	12,12,12,12	0
57	MG	2A	3526	1/1	0.96	0.11	68,68,68,68	0
57	MG	1a	1675	1/1	0.96	0.09	29,29,29,29	0
57	MG	1A	3789	1/1	0.96	0.12	39,39,39,39	0
57	MG	2A	3291	1/1	0.96	0.05	41,41,41,41	0
57	MG	2A	3530	1/1	0.96	0.07	50,50,50,50	0
57	MG	2A	3063	1/1	0.96	0.07	49,49,49,49	0
57	MG	1A	3790	1/1	0.96	0.11	43,43,43,43	0
57	MG	2a	1722	1/1	0.96	0.10	58,58,58,58	0
57	MG	2A	3065	1/1	0.96	0.12	50,50,50,50	0
57	MG	1A	3158	1/1	0.96	0.12	20,20,20,20	0
57	MG	1A	3792	1/1	0.96	0.10	11,11,11,11	0
57	MG	1A	3265	1/1	0.96	0.18	34,34,34,34	0
57	MG	1A	3345	1/1	0.96	0.05	13,13,13,13	0
57	MG	1A	3647	1/1	0.96	0.05	31,31,31,31	0
57	MG	1A	3430	1/1	0.96	0.14	37,37,37,37	0
57	MG	1A	3649	1/1	0.96	0.13	35,35,35,35	0
57	MG	2a	1731	1/1	0.96	0.10	49,49,49,49	0
57	MG	2A	3542	1/1	0.96	0.22	51,51,51,51	0
57	MG	2A	3304	1/1	0.96	0.07	37,37,37,37	0
57	MG	1B	204	1/1	0.96	0.10	28,28,28,28	0
57	MG	2A	3075	1/1	0.96	0.09	35,35,35,35	0
57	MG	1A	3266	1/1	0.96	0.08	25,25,25,25	0
57	MG	1A	3348	1/1	0.96	0.04	30,30,30,30	0
57	MG	2A	3549	1/1	0.96	0.07	45,45,45,45	0
57	MG	1A	3537	1/1	0.96	0.07	13,13,13,13	0
57	MG	1A	3267	1/1	0.96	0.16	14,14,14,14	0
57	MG	1A	3017	1/1	0.96	0.05	20,20,20,20	0
57	MG	2a	1742	1/1	0.96	0.12	48,48,48,48	0
57	MG	1B	211	1/1	0.96	0.09	46,46,46,46	0
57	MG	1A	3025	1/1	0.96	0.20	30,30,30,30	0
57	MG	2A	3316	1/1	0.96	0.10	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3094	1/1	0.96	0.10	18,18,18,18	0
57	MG	2A	3560	1/1	0.96	0.08	45,45,45,45	0
57	MG	2A	3318	1/1	0.96	0.07	39,39,39,39	0
57	MG	1B	216	1/1	0.96	0.10	35,35,35,35	0
57	MG	2A	3564	1/1	0.96	0.10	44,44,44,44	0
57	MG	2A	3565	1/1	0.96	0.12	59,59,59,59	0
57	MG	1B	219	1/1	0.96	0.10	40,40,40,40	0
57	MG	2A	3567	1/1	0.96	0.08	29,29,29,29	0
57	MG	1A	3662	1/1	0.96	0.07	49,49,49,49	0
57	MG	1A	3663	1/1	0.96	0.09	36,36,36,36	0
57	MG	1A	3441	1/1	0.96	0.06	24,24,24,24	0
57	MG	1A	3442	1/1	0.96	0.04	7,7,7,7	0
57	MG	1A	3444	1/1	0.96	0.12	12,12,12,12	0
57	MG	1A	3548	1/1	0.96	0.12	17,17,17,17	0
57	MG	1E	306	1/1	0.96	0.08	15,15,15,15	0
57	MG	1E	307	1/1	0.96	0.05	42,42,42,42	0
57	MG	1E	308	1/1	0.96	0.08	23,23,23,23	0
57	MG	1a	1708	1/1	0.96	0.07	33,33,33,33	0
57	MG	1A	3272	1/1	0.96	0.05	48,48,48,48	0
57	MG	2A	3582	1/1	0.96	0.05	42,42,42,42	0
57	MG	1a	1711	1/1	0.96	0.08	43,43,43,43	0
57	MG	1A	3166	1/1	0.96	0.05	25,25,25,25	0
57	MG	2A	3337	1/1	0.96	0.08	47,47,47,47	0
57	MG	2A	3108	1/1	0.96	0.26	42,42,42,42	0
57	MG	1a	1713	1/1	0.96	0.07	52,52,52,52	0
57	MG	1A	3671	1/1	0.96	0.07	38,38,38,38	0
57	MG	1A	3447	1/1	0.96	0.07	22,22,22,22	0
57	MG	2A	3343	1/1	0.96	0.04	20,20,20,20	0
57	MG	1A	3552	1/1	0.96	0.07	39,39,39,39	0
57	MG	2A	3594	1/1	0.96	0.06	50,50,50,50	0
57	MG	1A	3556	1/1	0.96	0.06	14,14,14,14	0
57	MG	1A	3356	1/1	0.96	0.06	27,27,27,27	0
57	MG	2A	3598	1/1	0.96	0.10	34,34,34,34	0
57	MG	2A	3347	1/1	0.96	0.11	21,21,21,21	0
57	MG	1A	3277	1/1	0.96	0.15	21,21,21,21	0
57	MG	1a	1722	1/1	0.96	0.10	28,28,28,28	0
57	MG	1A	3280	1/1	0.96	0.15	25,25,25,25	0
57	MG	1A	3167	1/1	0.96	0.08	20,20,20,20	0
57	MG	1A	3284	1/1	0.96	0.06	16,16,16,16	0
57	MG	1A	3362	1/1	0.96	0.11	29,29,29,29	0
57	MG	1A	3285	1/1	0.96	0.06	26,26,26,26	0
58	ZN	2Y	202	1/1	0.96	0.06	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3008	1/1	0.96	0.13	17,17,17,17	0
58	ZN	2n	501	1/1	0.96	0.06	94,94,94,94	0
57	MG	2A	3255	1/1	0.97	0.07	34,34,34,34	0
57	MG	2A	3457	1/1	0.97	0.13	31,31,31,31	0
57	MG	1A	3422	1/1	0.97	0.04	16,16,16,16	0
57	MG	1A	3512	1/1	0.97	0.05	11,11,11,11	0
57	MG	1a	1709	1/1	0.97	0.06	29,29,29,29	0
57	MG	1U	206	1/1	0.97	0.11	24,24,24,24	0
57	MG	1A	3725	1/1	0.97	0.25	18,18,18,18	0
57	MG	2A	3263	1/1	0.97	0.08	24,24,24,24	0
57	MG	2R	201	1/1	0.97	0.13	26,26,26,26	0
57	MG	1V	203	1/1	0.97	0.10	22,22,22,22	0
57	MG	2A	3071	1/1	0.97	0.09	38,38,38,38	0
57	MG	1A	3726	1/1	0.97	0.15	25,25,25,25	0
57	MG	2V	201	1/1	0.97	0.11	55,55,55,55	0
57	MG	1a	1714	1/1	0.97	0.09	37,37,37,37	0
57	MG	2W	201	1/1	0.97	0.13	54,54,54,54	0
57	MG	1a	1715	1/1	0.97	0.05	41,41,41,41	0
57	MG	1A	3616	1/1	0.97	0.07	44,44,44,44	0
57	MG	1A	3423	1/1	0.97	0.08	15,15,15,15	0
57	MG	1W	204	1/1	0.97	0.06	17,17,17,17	0
57	MG	1A	3279	1/1	0.97	0.22	31,31,31,31	0
57	MG	23	101	1/1	0.97	0.11	42,42,42,42	0
57	MG	1A	3089	1/1	0.97	0.11	30,30,30,30	0
57	MG	28	101	1/1	0.97	0.14	55,55,55,55	0
57	MG	1A	3516	1/1	0.97	0.14	26,26,26,26	0
57	MG	2A	3276	1/1	0.97	0.05	25,25,25,25	0
57	MG	1A	3732	1/1	0.97	0.12	37,37,37,37	0
57	MG	1A	3187	1/1	0.97	0.08	25,25,25,25	0
57	MG	1A	3282	1/1	0.97	0.18	29,29,29,29	0
57	MG	1A	3283	1/1	0.97	0.17	35,35,35,35	0
57	MG	10	104	1/1	0.97	0.07	42,42,42,42	0
57	MG	10	105	1/1	0.97	0.05	35,35,35,35	0
57	MG	1A	3119	1/1	0.97	0.13	15,15,15,15	0
57	MG	1A	3189	1/1	0.97	0.18	14,14,14,14	0
57	MG	2A	3484	1/1	0.97	0.06	39,39,39,39	0
57	MG	1A	3434	1/1	0.97	0.04	8,8,8,8	0
57	MG	1A	3527	1/1	0.97	0.08	36,36,36,36	0
57	MG	1A	3233	1/1	0.97	0.23	30,30,30,30	0
57	MG	1A	3120	1/1	0.97	0.06	9,9,9,9	0
57	MG	1A	3137	1/1	0.97	0.16	22,22,22,22	0
57	MG	2A	3096	1/1	0.97	0.06	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3097	1/1	0.97	0.06	44,44,44,44	0
57	MG	2A	3294	1/1	0.97	0.04	39,39,39,39	0
57	MG	2A	3100	1/1	0.97	0.12	25,25,25,25	0
57	MG	1A	3633	1/1	0.97	0.22	25,25,25,25	0
57	MG	1A	3236	1/1	0.97	0.12	16,16,16,16	0
57	MG	1A	3360	1/1	0.97	0.04	7,7,7,7	0
57	MG	1A	3636	1/1	0.97	0.08	35,35,35,35	0
57	MG	1A	3535	1/1	0.97	0.11	29,29,29,29	0
57	MG	1a	1743	1/1	0.97	0.06	30,30,30,30	0
57	MG	2A	3502	1/1	0.97	0.04	50,50,50,50	0
57	MG	2A	3302	1/1	0.97	0.06	49,49,49,49	0
57	MG	17	105	1/1	0.97	0.16	31,31,31,31	0
57	MG	1A	3536	1/1	0.97	0.05	30,30,30,30	0
57	MG	2a	1631	1/1	0.97	0.21	42,42,42,42	0
57	MG	1A	3237	1/1	0.97	0.20	24,24,24,24	0
57	MG	1A	3293	1/1	0.97	0.15	34,34,34,34	0
57	MG	19	101	1/1	0.97	0.15	34,34,34,34	0
57	MG	2A	3309	1/1	0.97	0.12	26,26,26,26	0
57	MG	1A	3363	1/1	0.97	0.08	38,38,38,38	0
57	MG	1A	3138	1/1	0.97	0.04	15,15,15,15	0
57	MG	1A	3193	1/1	0.97	0.05	21,21,21,21	0
57	MG	1A	3301	1/1	0.97	0.07	36,36,36,36	0
57	MG	1A	3302	1/1	0.97	0.48	21,21,21,21	0
57	MG	1A	3544	1/1	0.97	0.08	14,14,14,14	0
57	MG	1A	3545	1/1	0.97	0.10	14,14,14,14	0
57	MG	1A	3303	1/1	0.97	0.05	14,14,14,14	0
57	MG	1A	3650	1/1	0.97	0.06	44,44,44,44	0
57	MG	1A	3305	1/1	0.97	0.07	33,33,33,33	0
57	MG	1A	3766	1/1	0.97	0.04	29,29,29,29	0
57	MG	1a	1760	1/1	0.97	0.08	22,22,22,22	0
57	MG	1A	3652	1/1	0.97	0.11	40,40,40,40	0
57	MG	2A	3324	1/1	0.97	0.12	56,56,56,56	0
57	MG	1A	3370	1/1	0.97	0.11	17,17,17,17	0
57	MG	1A	3162	1/1	0.97	0.08	51,51,51,51	0
57	MG	1A	3307	1/1	0.97	0.06	33,33,33,33	0
57	MG	2A	3135	1/1	0.97	0.15	42,42,42,42	0
57	MG	1A	3656	1/1	0.97	0.08	20,20,20,20	0
57	MG	1A	3773	1/1	0.97	0.08	11,11,11,11	0
57	MG	1A	3657	1/1	0.97	0.06	21,21,21,21	0
57	MG	2a	1657	1/1	0.97	0.15	45,45,45,45	0
57	MG	1A	3373	1/1	0.97	0.06	18,18,18,18	0
57	MG	1A	3553	1/1	0.97	0.10	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3141	1/1	0.97	0.10	25,25,25,25	0
57	MG	1a	1622	1/1	0.97	0.04	42,42,42,42	0
57	MG	2A	3336	1/1	0.97	0.05	37,37,37,37	0
57	MG	1a	1623	1/1	0.97	0.24	41,41,41,41	0
57	MG	1A	3660	1/1	0.97	0.04	29,29,29,29	0
57	MG	1A	3163	1/1	0.97	0.10	32,32,32,32	0
57	MG	1A	3779	1/1	0.97	0.06	29,29,29,29	0
57	MG	1A	3165	1/1	0.97	0.10	24,24,24,24	0
57	MG	1a	1628	1/1	0.97	0.29	49,49,49,49	0
57	MG	1A	3781	1/1	0.97	0.06	32,32,32,32	0
57	MG	1A	3376	1/1	0.97	0.05	13,13,13,13	0
57	MG	1A	3063	1/1	0.97	0.13	31,31,31,31	0
57	MG	2A	3154	1/1	0.97	0.05	36,36,36,36	0
57	MG	1A	3244	1/1	0.97	0.05	28,28,28,28	0
57	MG	1a	1783	1/1	0.97	0.05	30,30,30,30	0
57	MG	1A	3199	1/1	0.97	0.12	17,17,17,17	0
57	MG	2A	3552	1/1	0.97	0.18	23,23,23,23	0
57	MG	1A	3076	1/1	0.97	0.07	40,40,40,40	0
57	MG	2A	3554	1/1	0.97	0.07	38,38,38,38	0
57	MG	1A	3787	1/1	0.97	0.15	29,29,29,29	0
57	MG	2A	3354	1/1	0.97	0.12	35,35,35,35	0
57	MG	1a	1637	1/1	0.97	0.08	34,34,34,34	0
57	MG	1A	3788	1/1	0.97	0.07	16,16,16,16	0
57	MG	1A	3202	1/1	0.97	0.12	28,28,28,28	0
57	MG	1A	3564	1/1	0.97	0.07	33,33,33,33	0
57	MG	1A	3203	1/1	0.97	0.17	40,40,40,40	0
57	MG	1A	3037	1/1	0.97	0.16	20,20,20,20	0
57	MG	2a	1688	1/1	0.97	0.17	50,50,50,50	0
57	MG	2A	3363	1/1	0.97	0.05	35,35,35,35	0
57	MG	2a	1690	1/1	0.97	0.19	57,57,57,57	0
57	MG	1A	3142	1/1	0.97	0.10	36,36,36,36	0
57	MG	2A	3170	1/1	0.97	0.11	52,52,52,52	0
57	MG	1a	1644	1/1	0.97	0.29	59,59,59,59	0
57	MG	2A	3369	1/1	0.97	0.08	50,50,50,50	0
57	MG	1A	3252	1/1	0.97	0.05	28,28,28,28	0
57	MG	2A	3571	1/1	0.97	0.04	40,40,40,40	0
57	MG	1A	3570	1/1	0.97	0.05	41,41,41,41	0
57	MG	1A	3676	1/1	0.97	0.09	45,45,45,45	0
57	MG	1A	3145	1/1	0.97	0.21	27,27,27,27	0
57	MG	1a	1649	1/1	0.97	0.20	41,41,41,41	0
57	MG	2A	3576	1/1	0.97	0.10	32,32,32,32	0
57	MG	1A	3388	1/1	0.97	0.10	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3389	1/1	0.97	0.09	26,26,26,26	0
57	MG	2A	3579	1/1	0.97	0.10	49,49,49,49	0
57	MG	2A	3377	1/1	0.97	0.10	35,35,35,35	0
57	MG	1A	3207	1/1	0.97	0.04	30,30,30,30	0
57	MG	2A	3379	1/1	0.97	0.10	51,51,51,51	0
57	MG	2A	3181	1/1	0.97	0.17	41,41,41,41	0
57	MG	1x	105	1/1	0.97	0.06	49,49,49,49	0
57	MG	1A	3171	1/1	0.97	0.12	19,19,19,19	0
57	MG	1x	107	1/1	0.97	0.05	49,49,49,49	0
57	MG	2A	3588	1/1	0.97	0.09	42,42,42,42	0
57	MG	1A	3256	1/1	0.97	0.07	21,21,21,21	0
57	MG	1x	109	1/1	0.97	0.10	34,34,34,34	0
57	MG	1A	3257	1/1	0.97	0.07	27,27,27,27	0
57	MG	2A	3188	1/1	0.97	0.10	34,34,34,34	0
57	MG	2a	1718	1/1	0.97	0.06	55,55,55,55	0
57	MG	1A	3324	1/1	0.97	0.05	42,42,42,42	0
57	MG	1B	212	1/1	0.97	0.06	44,44,44,44	0
57	MG	1A	3395	1/1	0.97	0.07	47,47,47,47	0
57	MG	1B	214	1/1	0.97	0.05	29,29,29,29	0
57	MG	2A	3006	1/1	0.97	0.12	48,48,48,48	0
57	MG	1A	3687	1/1	0.97	0.11	33,33,33,33	0
57	MG	1A	3258	1/1	0.97	0.12	32,32,32,32	0
57	MG	1B	218	1/1	0.97	0.04	42,42,42,42	0
57	MG	2A	3602	1/1	0.97	0.08	28,28,28,28	0
57	MG	2A	3604	1/1	0.97	0.24	34,34,34,34	0
57	MG	2A	3605	1/1	0.97	0.06	46,46,46,46	0
57	MG	2A	3397	1/1	0.97	0.08	58,58,58,58	0
57	MG	1A	3209	1/1	0.97	0.19	24,24,24,24	0
57	MG	1B	220	1/1	0.97	0.07	26,26,26,26	0
57	MG	2A	3201	1/1	0.97	0.09	39,39,39,39	0
57	MG	1D	302	1/1	0.97	0.19	33,33,33,33	0
57	MG	1D	303	1/1	0.97	0.05	15,15,15,15	0
57	MG	2A	3015	1/1	0.97	0.10	45,45,45,45	0
57	MG	1A	3211	1/1	0.97	0.06	22,22,22,22	0
57	MG	2A	3017	1/1	0.97	0.14	38,38,38,38	0
57	MG	2A	3615	1/1	0.97	0.08	54,54,54,54	0
57	MG	1A	3483	1/1	0.97	0.06	43,43,43,43	0
57	MG	1A	3110	1/1	0.97	0.11	33,33,33,33	0
57	MG	1a	1670	1/1	0.97	0.19	35,35,35,35	0
57	MG	1A	3066	1/1	0.97	0.13	18,18,18,18	0
57	MG	2a	1744	1/1	0.97	0.10	65,65,65,65	0
57	MG	1A	3264	1/1	0.97	0.30	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3215	1/1	0.97	0.17	22,22,22,22	0
57	MG	2A	3025	1/1	0.97	0.14	49,49,49,49	0
57	MG	2a	1748	1/1	0.97	0.11	39,39,39,39	0
57	MG	1A	3175	1/1	0.97	0.09	28,28,28,28	0
57	MG	1A	3334	1/1	0.97	0.06	32,32,32,32	0
57	MG	1A	3053	1/1	0.97	0.04	21,21,21,21	0
57	MG	2A	3030	1/1	0.97	0.06	29,29,29,29	0
57	MG	1A	3054	1/1	0.97	0.06	30,30,30,30	0
57	MG	1A	3702	1/1	0.97	0.13	37,37,37,37	0
57	MG	1A	3494	1/1	0.97	0.09	38,38,38,38	0
57	MG	1F	303	1/1	0.97	0.27	33,33,33,33	0
57	MG	2A	3421	1/1	0.97	0.09	27,27,27,27	0
57	MG	2A	3632	1/1	0.97	0.10	26,26,26,26	0
57	MG	1F	305	1/1	0.97	0.06	33,33,33,33	0
57	MG	2A	3224	1/1	0.97	0.12	38,38,38,38	0
57	MG	1A	3339	1/1	0.97	0.07	28,28,28,28	0
57	MG	1A	3496	1/1	0.97	0.06	20,20,20,20	0
57	MG	1A	3497	1/1	0.97	0.03	10,10,10,10	0
57	MG	2A	3040	1/1	0.97	0.23	40,40,40,40	0
57	MG	2A	3042	1/1	0.97	0.15	32,32,32,32	0
57	MG	1G	202	1/1	0.97	0.07	31,31,31,31	0
57	MG	1A	3340	1/1	0.97	0.09	37,37,37,37	0
57	MG	1A	3056	1/1	0.97	0.08	29,29,29,29	0
57	MG	1A	3044	1/1	0.97	0.13	17,17,17,17	0
57	MG	1a	1689	1/1	0.97	0.04	29,29,29,29	0
57	MG	1A	3414	1/1	0.97	0.06	14,14,14,14	0
57	MG	1a	1691	1/1	0.97	0.20	49,49,49,49	0
57	MG	1A	3504	1/1	0.97	0.04	29,29,29,29	0
57	MG	1A	3606	1/1	0.97	0.04	18,18,18,18	0
57	MG	1P	201	1/1	0.97	0.07	17,17,17,17	0
57	MG	1A	3271	1/1	0.97	0.09	17,17,17,17	0
57	MG	1A	3183	1/1	0.97	0.31	23,23,23,23	0
57	MG	2D	303	1/1	0.97	0.10	38,38,38,38	0
57	MG	2A	3245	1/1	0.97	0.12	20,20,20,20	0
57	MG	1A	3717	1/1	0.97	0.13	22,22,22,22	0
57	MG	1A	3009	1/1	0.97	0.05	7,7,7,7	0
57	MG	1A	3346	1/1	0.97	0.05	21,21,21,21	0
57	MG	1A	3040	1/1	0.97	0.05	36,36,36,36	0
57	MG	1R	201	1/1	0.97	0.12	44,44,44,44	0
57	MG	1R	202	1/1	0.97	0.21	33,33,33,33	0
57	MG	2x	107	1/1	0.97	0.06	68,68,68,68	0
57	MG	1A	3510	1/1	0.97	0.20	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	2A	3453	1/1	0.97	0.11	25,25,25,25	0
57	MG	1U	201	1/1	0.97	0.13	27,27,27,27	0
57	MG	2F	304	1/1	0.97	0.06	30,30,30,30	0
57	MG	1A	3722	1/1	0.97	0.19	21,21,21,21	0
57	MG	2F	306	1/1	0.97	0.14	38,38,38,38	0
57	MG	1A	3424	1/1	0.98	0.03	14,14,14,14	0
57	MG	1A	3261	1/1	0.98	0.05	39,39,39,39	0
57	MG	1A	3097	1/1	0.98	0.15	29,29,29,29	0
57	MG	2A	3587	1/1	0.98	0.05	43,43,43,43	0
57	MG	2A	3038	1/1	0.98	0.04	39,39,39,39	0
57	MG	1A	3427	1/1	0.98	0.04	15,15,15,15	0
57	MG	1A	3569	1/1	0.98	0.07	52,52,52,52	0
57	MG	2A	3041	1/1	0.98	0.06	34,34,34,34	0
57	MG	2A	3166	1/1	0.98	0.17	39,39,39,39	0
57	MG	1A	3734	1/1	0.98	0.05	28,28,28,28	0
57	MG	1A	3023	1/1	0.98	0.09	34,34,34,34	0
57	MG	2A	3595	1/1	0.98	0.12	65,65,65,65	0
57	MG	2A	3447	1/1	0.98	0.14	59,59,59,59	0
57	MG	1A	3571	1/1	0.98	0.06	32,32,32,32	0
57	MG	1A	3221	1/1	0.98	0.07	27,27,27,27	0
57	MG	2A	3450	1/1	0.98	0.07	39,39,39,39	0
57	MG	1F	304	1/1	0.98	0.21	18,18,18,18	0
57	MG	2A	3306	1/1	0.98	0.15	33,33,33,33	0
57	MG	1A	3573	1/1	0.98	0.06	35,35,35,35	0
57	MG	1A	3574	1/1	0.98	0.05	31,31,31,31	0
57	MG	1A	3575	1/1	0.98	0.03	35,35,35,35	0
57	MG	1A	3012	1/1	0.98	0.04	16,16,16,16	0
57	MG	1A	3102	1/1	0.98	0.16	28,28,28,28	0
57	MG	1A	3013	1/1	0.98	0.09	17,17,17,17	0
57	MG	1A	3153	1/1	0.98	0.15	21,21,21,21	0
57	MG	1A	3435	1/1	0.98	0.03	21,21,21,21	0
57	MG	1A	3747	1/1	0.98	0.07	17,17,17,17	0
57	MG	1A	3503	1/1	0.98	0.07	31,31,31,31	0
57	MG	1A	3080	1/1	0.98	0.08	16,16,16,16	0
57	MG	1A	3155	1/1	0.98	0.27	28,28,28,28	0
57	MG	1P	202	1/1	0.98	0.17	16,16,16,16	0
57	MG	2A	3060	1/1	0.98	0.07	48,48,48,48	0
57	MG	1A	3035	1/1	0.98	0.13	19,19,19,19	0
57	MG	1A	3585	1/1	0.98	0.05	8,8,8,8	0
57	MG	2A	3189	1/1	0.98	0.14	60,60,60,60	0
57	MG	1A	3753	1/1	0.98	0.10	48,48,48,48	0
57	MG	1Q	202	1/1	0.98	0.11	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1Q	203	1/1	0.98	0.09	18,18,18,18	0
57	MG	1A	3082	1/1	0.98	0.11	9,9,9,9	0
57	MG	1A	3667	1/1	0.98	0.04	27,27,27,27	0
57	MG	1A	3379	1/1	0.98	0.09	45,45,45,45	0
57	MG	2A	3196	1/1	0.98	0.10	34,34,34,34	0
57	MG	1A	3274	1/1	0.98	0.18	25,25,25,25	0
57	MG	1A	3443	1/1	0.98	0.10	14,14,14,14	0
57	MG	1a	1766	1/1	0.98	0.12	42,42,42,42	0
57	MG	1A	3275	1/1	0.98	0.14	26,26,26,26	0
57	MG	1A	3231	1/1	0.98	0.07	25,25,25,25	0
57	MG	1A	3003	1/1	0.98	0.07	16,16,16,16	0
57	MG	1A	3278	1/1	0.98	0.11	22,22,22,22	0
57	MG	1A	3084	1/1	0.98	0.14	17,17,17,17	0
57	MG	2A	3635	1/1	0.98	0.06	32,32,32,32	0
57	MG	1A	3194	1/1	0.98	0.10	25,25,25,25	0
57	MG	2a	1694	1/1	0.98	0.06	31,31,31,31	0
57	MG	2A	3341	1/1	0.98	0.12	24,24,24,24	0
57	MG	1U	207	1/1	0.98	0.12	22,22,22,22	0
57	MG	1A	3517	1/1	0.98	0.05	21,21,21,21	0
57	MG	1A	3518	1/1	0.98	0.06	26,26,26,26	0
57	MG	1A	3131	1/1	0.98	0.07	19,19,19,19	0
57	MG	1A	3065	1/1	0.98	0.11	27,27,27,27	0
57	MG	2A	3211	1/1	0.98	0.21	29,29,29,29	0
57	MG	1A	3335	1/1	0.98	0.06	17,17,17,17	0
57	MG	2A	3349	1/1	0.98	0.11	39,39,39,39	0
57	MG	1W	203	1/1	0.98	0.21	27,27,27,27	0
57	MG	1A	3038	1/1	0.98	0.18	19,19,19,19	0
57	MG	2A	3498	1/1	0.98	0.03	32,32,32,32	0
57	MG	1A	3772	1/1	0.98	0.03	15,15,15,15	0
57	MG	1A	3005	1/1	0.98	0.07	34,34,34,34	0
57	MG	1A	3135	1/1	0.98	0.18	18,18,18,18	0
57	MG	1A	3685	1/1	0.98	0.04	37,37,37,37	0
57	MG	2A	3090	1/1	0.98	0.17	32,32,32,32	0
57	MG	1A	3200	1/1	0.98	0.07	17,17,17,17	0
57	MG	2D	305	1/1	0.98	0.08	32,32,32,32	0
57	MG	2A	3092	1/1	0.98	0.07	54,54,54,54	0
57	MG	1A	3016	1/1	0.98	0.06	31,31,31,31	0
57	MG	1A	3458	1/1	0.98	0.07	17,17,17,17	0
57	MG	1A	3041	1/1	0.98	0.07	23,23,23,23	0
57	MG	2E	302	1/1	0.98	0.14	37,37,37,37	0
57	MG	1A	3531	1/1	0.98	0.07	32,32,32,32	0
57	MG	2A	3226	1/1	0.98	0.08	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3532	1/1	0.98	0.07	31,31,31,31	0
57	MG	2F	301	1/1	0.98	0.07	33,33,33,33	0
57	MG	2A	3098	1/1	0.98	0.06	36,36,36,36	0
57	MG	2A	3099	1/1	0.98	0.08	53,53,53,53	0
57	MG	1A	3289	1/1	0.98	0.16	7,7,7,7	0
57	MG	1A	3022	1/1	0.98	0.05	14,14,14,14	0
57	MG	1A	3291	1/1	0.98	0.09	22,22,22,22	0
57	MG	2A	3233	1/1	0.98	0.05	50,50,50,50	0
57	MG	1A	3695	1/1	0.98	0.05	43,43,43,43	0
57	MG	1A	3055	1/1	0.98	0.06	14,14,14,14	0
57	MG	1A	3092	1/1	0.98	0.13	35,35,35,35	0
57	MG	2A	3106	1/1	0.98	0.08	40,40,40,40	0
57	MG	2A	3107	1/1	0.98	0.15	38,38,38,38	0
57	MG	1w	402	1/1	0.98	0.19	34,34,34,34	0
57	MG	1A	3294	1/1	0.98	0.09	37,37,37,37	0
57	MG	1A	3402	1/1	0.98	0.10	22,22,22,22	0
57	MG	15	102	1/1	0.98	0.14	33,33,33,33	0
57	MG	2A	3243	1/1	0.98	0.06	23,23,23,23	0
57	MG	1A	3296	1/1	0.98	0.08	24,24,24,24	0
57	MG	1A	3701	1/1	0.98	0.09	30,30,30,30	0
57	MG	17	102	1/1	0.98	0.22	24,24,24,24	0
57	MG	1A	3297	1/1	0.98	0.07	26,26,26,26	0
57	MG	1A	3043	1/1	0.98	0.07	23,23,23,23	0
57	MG	2X	102	1/1	0.98	0.04	36,36,36,36	0
57	MG	1A	3470	1/1	0.98	0.10	25,25,25,25	0
57	MG	2A	3119	1/1	0.98	0.14	19,19,19,19	0
57	MG	2A	3120	1/1	0.98	0.08	46,46,46,46	0
57	MG	1A	3705	1/1	0.98	0.05	26,26,26,26	0
57	MG	1A	3299	1/1	0.98	0.06	33,33,33,33	0
57	MG	18	102	1/1	0.98	0.12	22,22,22,22	0
57	MG	1A	3057	1/1	0.98	0.07	9,9,9,9	0
57	MG	1A	3624	1/1	0.98	0.04	32,32,32,32	0
57	MG	2a	1601	1/1	0.98	0.16	35,35,35,35	0
57	MG	1A	3143	1/1	0.98	0.14	32,32,32,32	0
57	MG	1A	3547	1/1	0.98	0.05	16,16,16,16	0
57	MG	1A	3409	1/1	0.98	0.08	20,20,20,20	0
57	MG	2A	3260	1/1	0.98	0.04	20,20,20,20	0
57	MG	2A	3261	1/1	0.98	0.07	41,41,41,41	0
57	MG	1B	208	1/1	0.98	0.03	38,38,38,38	0
57	MG	1A	3712	1/1	0.98	0.04	29,29,29,29	0
57	MG	1a	1606	1/1	0.98	0.20	34,34,34,34	0
57	MG	2A	3133	1/1	0.98	0.10	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1A	3144	1/1	0.98	0.19	17,17,17,17	0
57	MG	1a	1608	1/1	0.98	0.12	49,49,49,49	0
57	MG	1A	3629	1/1	0.98	0.06	61,61,61,61	0
57	MG	1A	3210	1/1	0.98	0.13	14,14,14,14	0
57	MG	1A	3304	1/1	0.98	0.12	29,29,29,29	0
57	MG	1A	3095	1/1	0.98	0.17	23,23,23,23	0
57	MG	1A	3075	1/1	0.98	0.12	22,22,22,22	0
57	MG	2A	3561	1/1	0.98	0.13	31,31,31,31	0
57	MG	1A	3554	1/1	0.98	0.08	11,11,11,11	0
57	MG	2A	3274	1/1	0.98	0.09	26,26,26,26	0
57	MG	1A	3416	1/1	0.98	0.07	19,19,19,19	0
57	MG	1A	3417	1/1	0.98	0.06	12,12,12,12	0
57	MG	1A	3178	1/1	0.98	0.25	24,24,24,24	0
57	MG	1A	3214	1/1	0.98	0.04	23,23,23,23	0
57	MG	1A	3147	1/1	0.98	0.11	19,19,19,19	0
57	MG	2A	3422	1/1	0.98	0.10	49,49,49,49	0
57	MG	2A	3280	1/1	0.98	0.14	31,31,31,31	0
57	MG	1a	1724	1/1	0.98	0.06	25,25,25,25	0
57	MG	2A	3148	1/1	0.98	0.06	27,27,27,27	0
57	MG	1A	3216	1/1	0.98	0.04	26,26,26,26	0
57	MG	1A	3180	1/1	0.98	0.13	15,15,15,15	0
57	MG	1A	3181	1/1	0.98	0.03	19,19,19,19	0
57	MG	1D	308	1/1	0.98	0.06	24,24,24,24	0
57	MG	2A	3287	1/1	0.98	0.08	35,35,35,35	0
57	MG	2A	3431	1/1	0.98	0.05	43,43,43,43	0
57	MG	2A	3153	1/1	0.98	0.11	29,29,29,29	0
57	MG	1a	1729	1/1	0.98	0.15	53,53,53,53	0
58	ZN	1n	102	1/1	0.98	0.04	85,85,85,85	0
57	MG	1E	301	1/1	0.98	0.26	25,25,25,25	0
57	MG	1A	3490	1/1	0.98	0.06	33,33,33,33	0
57	MG	2A	3157	1/1	0.98	0.08	22,22,22,22	0
59	SF4	1d	302	8/8	0.98	0.04	52,61,71,77	0
59	SF4	2d	303	8/8	0.98	0.04	49,56,67,71	0
57	MG	1A	3555	1/1	0.99	0.08	25,25,25,25	0
57	MG	1A	3232	1/1	0.99	0.13	22,22,22,22	0
57	MG	1A	3609	1/1	0.99	0.04	13,13,13,13	0
57	MG	1A	3637	1/1	0.99	0.10	23,23,23,23	0
57	MG	1B	217	1/1	0.99	0.04	41,41,41,41	0
57	MG	2A	3179	1/1	0.99	0.03	28,28,28,28	0
57	MG	2A	3355	1/1	0.99	0.10	26,26,26,26	0
57	MG	1A	3164	1/1	0.99	0.04	24,24,24,24	0
57	MG	1A	3078	1/1	0.99	0.07	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	101	1/1	0.99	0.12	20,20,20,20	0
57	MG	2A	3359	1/1	0.99	0.11	50,50,50,50	0
57	MG	2A	3125	1/1	0.99	0.04	34,34,34,34	0
57	MG	2A	3488	1/1	0.99	0.04	39,39,39,39	0
57	MG	25	101	1/1	0.99	0.04	49,49,49,49	0
57	MG	1A	3058	1/1	0.99	0.07	16,16,16,16	0
57	MG	2A	3557	1/1	0.99	0.03	45,45,45,45	0
57	MG	1D	301	1/1	0.99	0.04	26,26,26,26	0
57	MG	1a	1631	1/1	0.99	0.09	41,41,41,41	0
57	MG	2A	3364	1/1	0.99	0.07	34,34,34,34	0
57	MG	1A	3034	1/1	0.99	0.14	8,8,8,8	0
57	MG	1a	1777	1/1	0.99	0.06	50,50,50,50	0
57	MG	2a	1675	1/1	0.99	0.11	32,32,32,32	0
57	MG	1A	3024	1/1	0.99	0.04	14,14,14,14	0
57	MG	2A	3022	1/1	0.99	0.04	34,34,34,34	0
57	MG	15	103	1/1	0.99	0.15	19,19,19,19	0
57	MG	1A	3295	1/1	0.99	0.16	31,31,31,31	0
57	MG	1D	305	1/1	0.99	0.03	17,17,17,17	0
57	MG	17	101	1/1	0.99	0.03	23,23,23,23	0
57	MG	1a	1733	1/1	0.99	0.10	25,25,25,25	0
57	MG	1A	3757	1/1	0.99	0.13	29,29,29,29	0
57	MG	2A	3029	1/1	0.99	0.05	29,29,29,29	0
57	MG	1A	3251	1/1	0.99	0.05	25,25,25,25	0
57	MG	17	104	1/1	0.99	0.07	20,20,20,20	0
57	MG	1A	3098	1/1	0.99	0.04	21,21,21,21	0
57	MG	1A	3330	1/1	0.99	0.03	21,21,21,21	0
57	MG	1E	302	1/1	0.99	0.10	22,22,22,22	0
57	MG	1A	3099	1/1	0.99	0.09	21,21,21,21	0
57	MG	2a	1762	1/1	0.99	0.10	36,36,36,36	0
57	MG	1A	3061	1/1	0.99	0.09	32,32,32,32	0
57	MG	1U	203	1/1	0.99	0.04	21,21,21,21	0
57	MG	2A	3385	1/1	0.99	0.03	47,47,47,47	0
57	MG	2A	3322	1/1	0.99	0.07	19,19,19,19	0
57	MG	1A	3228	1/1	0.99	0.07	32,32,32,32	0
57	MG	1A	3794	1/1	0.99	0.05	15,15,15,15	0
57	MG	2A	3516	1/1	0.99	0.04	55,55,55,55	0
57	MG	2D	302	1/1	0.99	0.09	20,20,20,20	0
57	MG	1A	3036	1/1	0.99	0.15	21,21,21,21	0
57	MG	1A	3473	1/1	0.99	0.04	11,11,11,11	0
57	MG	1V	201	1/1	0.99	0.13	17,17,17,17	0
57	MG	1A	3736	1/1	0.99	0.05	14,14,14,14	0
57	MG	1A	3353	1/1	0.99	0.08	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1V	204	1/1	0.99	0.08	17,17,17,17	0
57	MG	1A	3498	1/1	0.99	0.06	8,8,8,8	0
57	MG	1A	3049	1/1	0.99	0.08	20,20,20,20	0
57	MG	1A	3412	1/1	0.99	0.07	8,8,8,8	0
57	MG	1a	1705	1/1	0.99	0.12	42,42,42,42	0
57	MG	1A	3524	1/1	0.99	0.02	28,28,28,28	0
57	MG	1F	306	1/1	0.99	0.08	19,19,19,19	0
57	MG	1F	307	1/1	0.99	0.09	17,17,17,17	0
57	MG	1F	308	1/1	0.99	0.10	17,17,17,17	0
57	MG	1A	3525	1/1	0.99	0.05	12,12,12,12	0
57	MG	2A	3165	1/1	0.99	0.15	28,28,28,28	0
57	MG	1A	3070	1/1	0.99	0.03	28,28,28,28	0
57	MG	1F	311	1/1	0.99	0.03	21,21,21,21	0
57	MG	2A	3603	1/1	0.99	0.05	29,29,29,29	0
58	ZN	1Y	501	1/1	0.99	0.03	51,51,51,51	0
57	MG	2A	3003	1/1	0.99	0.11	17,17,17,17	0
58	ZN	16	102	1/1	0.99	0.02	38,38,38,38	0
58	ZN	19	103	1/1	0.99	0.04	38,38,38,38	0
57	MG	2A	3536	1/1	0.99	0.04	52,52,52,52	0
57	MG	1A	3337	1/1	0.99	0.04	27,27,27,27	0
57	MG	1A	3273	1/1	0.99	0.24	24,24,24,24	0
58	ZN	26	102	1/1	0.99	0.03	56,56,56,56	0
58	ZN	29	102	1/1	0.99	0.03	58,58,58,58	0
57	MG	1A	3437	1/1	0.99	0.07	16,16,16,16	0
57	MG	2A	3115	1/1	0.99	0.04	32,32,32,32	0
57	MG	2A	3007	1/1	0.99	0.02	33,33,33,33	0
57	MG	1A	3484	1/1	1.00	0.03	10,10,10,10	0
58	ZN	25	102	1/1	1.00	0.04	51,51,51,51	0
58	ZN	15	105	1/1	1.00	0.03	24,24,24,24	0
57	MG	2A	3548	1/1	1.00	0.03	16,16,16,16	0
57	MG	1A	3172	1/1	1.00	0.05	9,9,9,9	0
57	MG	2A	3365	1/1	1.00	0.05	37,37,37,37	0
57	MG	1A	3433	1/1	1.00	0.04	27,27,27,27	0

6.5 Other polymers (i)

There are no such residues in this entry.