



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 23, 2026 – 11:27 PM UTC

PDB ID : 9D7T / pdb_00009d7t
Title : Crystal structure of the wild-type *Thermus thermophilus* 70S ribosome in complex with Api137 antimicrobial peptide, mRNA, A-site release factor 1, and deacylated P-site and E-site tRNA^{phe} at 2.70Å resolution
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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 ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	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

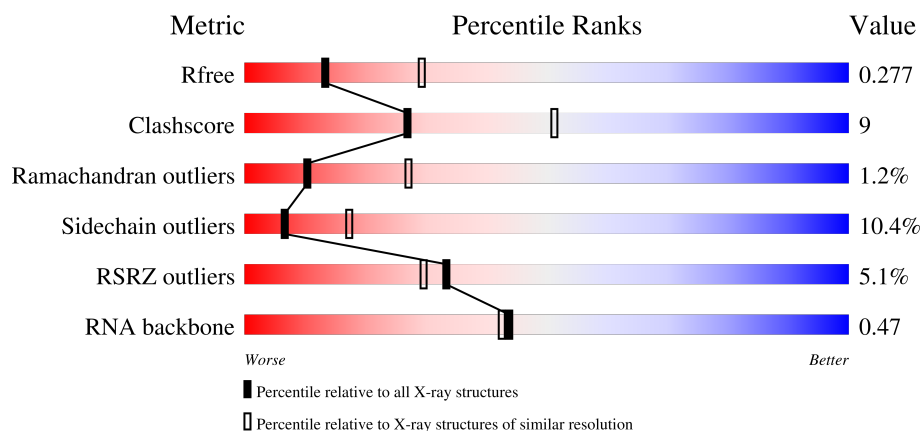
1 Overall quality at a glance

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)
Ramachandran outliers	187476	3778 (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 $\leq 5\%$. 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	
1	2A	2915	
2	1B	121	

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Mol	Chain	Length	Quality of chain
2	2B	121	
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	

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Mol	Chain	Length	Quality of chain
15	1T	146	
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25	23	60	
26	14	71	
26	24	71	
27	15	60	

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Mol	Chain	Length	Quality of chain
27	25	60	
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	

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Mol	Chain	Length	Quality of chain
40	1i	128	
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	

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Mol	Chain	Length	Quality of chain
52	2u	27	
53	1v	24	
53	2v	24	
54	1w	354	
54	2w	354	
55	1x	76	
55	1y	76	
55	2x	76	
55	2y	76	
56	1z	18	
56	2z	18	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	1A	3634	-	-	-	X
57	MG	2A	3116	-	-	-	X
59	SF4	1d	302	-	-	X	-

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 299179 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	C	N	O	S	0	0	0
			933	588	171	170	4			

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			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 Api137 Antimicrobial Peptide.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
56	1z	14	Total	C	N	O	0	0	0
			121	80	25	16			
56	2z	14	Total	C	N	O	0	0	0
			121	80	25	16			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1A	807	Total	Mg	0	0
			807	807		
57	1B	20	Total	Mg	0	0
			20	20		
57	1D	6	Total	Mg	0	0
			6	6		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1E	7	Total 7	Mg 7	0	0
57	1F	8	Total 8	Mg 8	0	0
57	1G	3	Total 3	Mg 3	0	0
57	1N	4	Total 4	Mg 4	0	0
57	1O	2	Total 2	Mg 2	0	0
57	1P	4	Total 4	Mg 4	0	0
57	1Q	5	Total 5	Mg 5	0	0
57	1R	2	Total 2	Mg 2	0	0
57	1T	1	Total 1	Mg 1	0	0
57	1U	6	Total 6	Mg 6	0	0
57	1V	5	Total 5	Mg 5	0	0
57	1W	4	Total 4	Mg 4	0	0
57	1X	3	Total 3	Mg 3	0	0
57	1Z	2	Total 2	Mg 2	0	0
57	10	5	Total 5	Mg 5	0	0
57	11	4	Total 4	Mg 4	0	0
57	12	2	Total 2	Mg 2	0	0
57	13	1	Total 1	Mg 1	0	0
57	14	1	Total 1	Mg 1	0	0
57	15	4	Total 4	Mg 4	0	0
57	16	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	17	7	Total 7	Mg 7	0	0
57	18	2	Total 2	Mg 2	0	0
57	19	1	Total 1	Mg 1	0	0
57	1a	187	Total 187	Mg 187	0	0
57	1c	1	Total 1	Mg 1	0	0
57	1d	1	Total 1	Mg 1	0	0
57	1f	1	Total 1	Mg 1	0	0
57	1k	1	Total 1	Mg 1	0	0
57	1m	1	Total 1	Mg 1	0	0
57	1n	1	Total 1	Mg 1	0	0
57	1v	3	Total 3	Mg 3	0	0
57	1w	4	Total 4	Mg 4	0	0
57	1x	8	Total 8	Mg 8	0	0
57	1y	2	Total 2	Mg 2	0	0
57	2A	665	Total 665	Mg 665	0	0
57	2B	11	Total 11	Mg 11	0	0
57	2D	9	Total 9	Mg 9	0	0
57	2E	5	Total 5	Mg 5	0	0
57	2F	6	Total 6	Mg 6	0	0
57	2N	1	Total 1	Mg 1	0	0
57	2O	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	2Q	3	Total 3	Mg 3	0	0
57	2R	1	Total 1	Mg 1	0	0
57	2U	1	Total 1	Mg 1	0	0
57	2V	2	Total 2	Mg 2	0	0
57	2W	1	Total 1	Mg 1	0	0
57	2X	4	Total 4	Mg 4	0	0
57	2Y	1	Total 1	Mg 1	0	0
57	20	2	Total 2	Mg 2	0	0
57	21	1	Total 1	Mg 1	0	0
57	23	2	Total 2	Mg 2	0	0
57	25	1	Total 1	Mg 1	0	0
57	28	3	Total 3	Mg 3	0	0
57	29	1	Total 1	Mg 1	0	0
57	2a	172	Total 172	Mg 172	0	0
57	2d	1	Total 1	Mg 1	0	0
57	2e	2	Total 2	Mg 2	0	0
57	2f	1	Total 1	Mg 1	0	0
57	2j	1	Total 1	Mg 1	0	0
57	2k	2	Total 2	Mg 2	0	0
57	2t	1	Total 1	Mg 1	0	0
57	2u	1	Total 1	Mg 1	0	0

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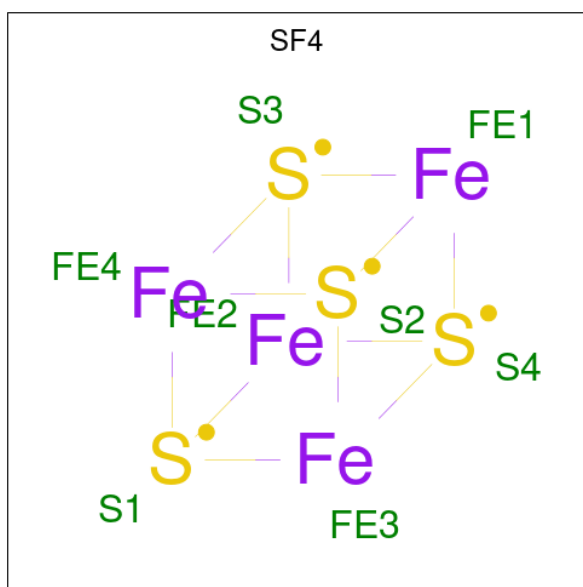
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	2v	2	Total	Mg	0	0
			2	2		
57	2w	2	Total	Mg	0	0
			2	2		
57	2x	9	Total	Mg	0	0
			9	9		

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

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

- Molecule 59 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe₄S₄).



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

- Molecule 60 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1A	1394	Total	O	0	0
			1394	1394		
60	1B	31	Total	O	0	0
			31	31		
60	1D	15	Total	O	0	0
			15	15		
60	1E	12	Total	O	0	0
			12	12		
60	1F	6	Total	O	0	0
			6	6		
60	1G	1	Total	O	0	0
			1	1		
60	1N	3	Total	O	0	0
			3	3		
60	1O	3	Total	O	0	0
			3	3		
60	1P	15	Total	O	0	0
			15	15		
60	1Q	3	Total	O	0	0
			3	3		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1R	2	Total 2	O 2	0	0
60	1T	1	Total 1	O 1	0	0
60	1U	5	Total 5	O 5	0	0
60	1V	1	Total 1	O 1	0	0
60	1W	2	Total 2	O 2	0	0
60	1X	4	Total 4	O 4	0	0
60	10	1	Total 1	O 1	0	0
60	11	3	Total 3	O 3	0	0
60	13	2	Total 2	O 2	0	0
60	15	5	Total 5	O 5	0	0
60	16	1	Total 1	O 1	0	0
60	17	2	Total 2	O 2	0	0
60	18	7	Total 7	O 7	0	0
60	1a	194	Total 194	O 194	0	0
60	1d	1	Total 1	O 1	0	0
60	1l	1	Total 1	O 1	0	0
60	1p	1	Total 1	O 1	0	0
60	1v	3	Total 3	O 3	0	0
60	1w	5	Total 5	O 5	0	0
60	1x	22	Total 22	O 22	0	0
60	1y	1	Total 1	O 1	0	0

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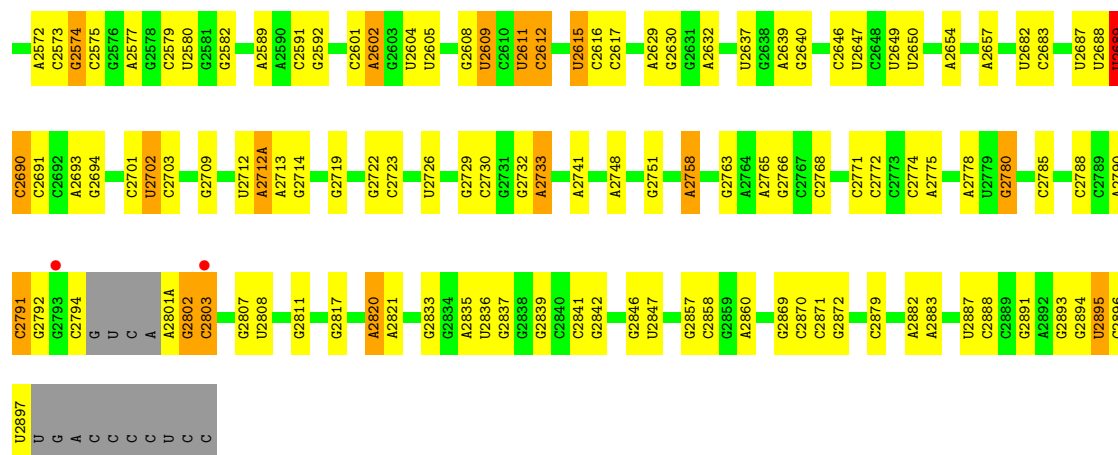
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60	2A	997	Total 997	O 997	0	0
60	2B	7	Total 7	O 7	0	0
60	2D	16	Total 16	O 16	0	0
60	2E	11	Total 11	O 11	0	0
60	2F	5	Total 5	O 5	0	0
60	2N	1	Total 1	O 1	0	0
60	2O	1	Total 1	O 1	0	0
60	2P	12	Total 12	O 12	0	0
60	2Q	1	Total 1	O 1	0	0
60	2R	3	Total 3	O 3	0	0
60	2T	1	Total 1	O 1	0	0
60	2U	2	Total 2	O 2	0	0
60	2W	1	Total 1	O 1	0	0
60	2X	2	Total 2	O 2	0	0
60	2Y	2	Total 2	O 2	0	0
60	20	6	Total 6	O 6	0	0
60	21	2	Total 2	O 2	0	0
60	23	2	Total 2	O 2	0	0
60	25	1	Total 1	O 1	0	0
60	27	3	Total 3	O 3	0	0

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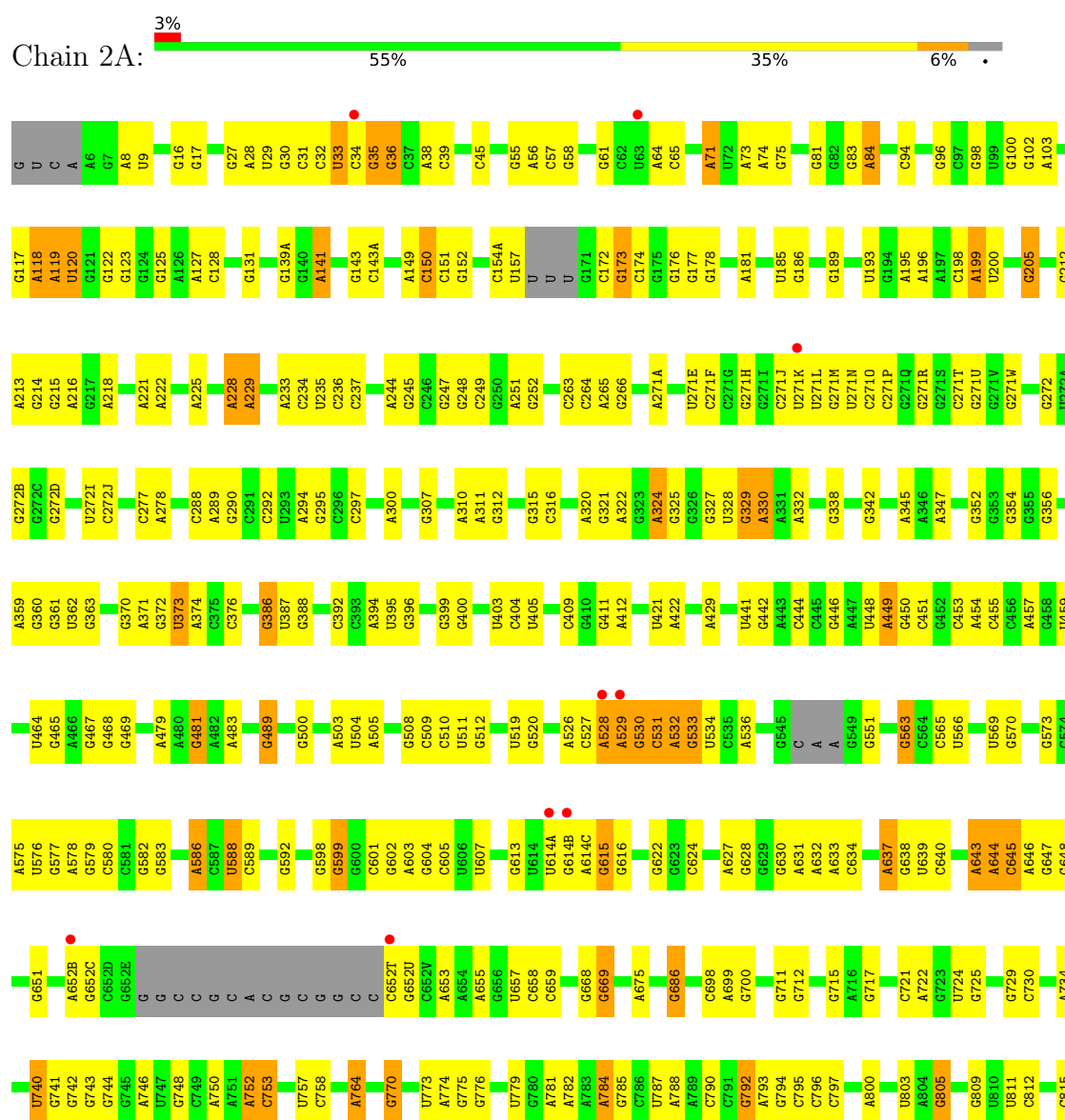
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	28	3	Total 3	O 3	0	0
60	2a	154	Total 154	O 154	0	0
60	2d	1	Total 1	O 1	0	0
60	2j	1	Total 1	O 1	0	0
60	2t	2	Total 2	O 2	0	0
60	2v	2	Total 2	O 2	0	0
60	2w	2	Total 2	O 2	0	0
60	2x	13	Total 13	O 13	0	0

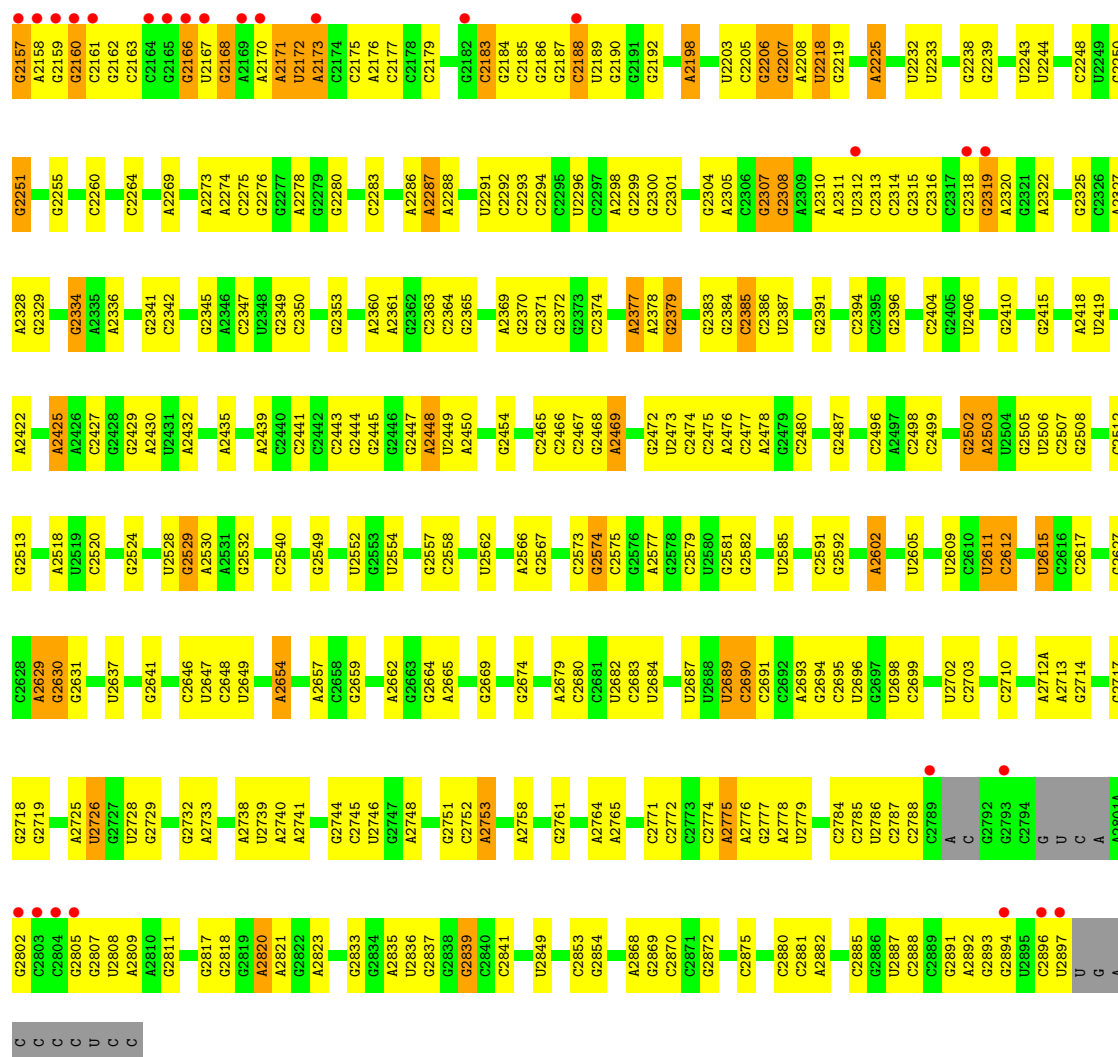
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G2370	G2371	A2378	G2379	C2380	C2381	G2382	C2383	G2384	C2385	C2386	U2387	A2388	G2389	G2390	G2391	C2402	C2403	C2404	G2405	U2406	G2407	G2410	A2422	U2423	C2424	A2425	G2428	G2429	A2430	U2431	A2432	A2435	U2438	A2439	C2440	C2441	G2445	U2448	C2452	G2458	A2459	U2460	U2461	U2462	G2468	A2469	C2470													
G2277	A2278	G2279	G2280	C2281	G2282	C2283	C2284	C2285	A2286	A2287	A2288	G2289	G2290	U2291	C2292	U2296	C2297	A2298	G2299	A2305	G2308	C2313	G2319	A2320	G2325	C2326	A2327	A2328	G2329	G2330	G2331	G2334	A2335	A2336	G2345	A2346	C2347	U2348	G2349	C2350	G2354	C2355	C2356	U2357	C2364	C2365	A2366													
A2171	U2172	A2173	C2174	A2176	C2177	C2178	C2179	U2180	G2181	G2182	C2183	G2184	C2185	U2186	G2187	C2188	U2189	G2190	G2191	G2192	A2198	U2203	C2205	G2206	G2207	A2208	G2224	A2225	C2226	U2233	G2234	G2238	U2243	U2244	A2247	G2251	C2254	C2255	C2256	C2260	U2261	A2266	A2267	A2268	A2269	A2273														
C2111	G2112	U2113	A2114	G2115	G2116	A2117	U2118	A2119	G2120	G2121	U2122	G2123	G2124	A2125	C2126	C2127	C2128	C2129	U2130	G2131	U2132	G2133	G2134	A2135	C2136	C2137	C2138	G2139	C2140	G2141	C2142	C2143	U2144	C2145	C2146	G2147	G2148	U2149	U2150	G2151	G2152	G2153	G2154	G2155	G2156	G2157	A2158	G2159	G2160	C2161	G2162	C2163	C2164	G2165	C2166	U2167	G2168	A2169	C2170	A2171
A2013	A2014	A2015	A2020	G2021	U2022	G2023	U2028	G2029	A2030	A2031	G2032	A2033	G2037	G2038	C2043	G2049	G2052	G2053	A2054	G2055	G2056	A2060	G2061	G2069	G2070	A2071	U2074	U2075	U2076	A2077	C2078	U2079	G2093	G2094	C2095	U2096	C2097	U2098	U2099	G2100	G2101	G2104	C2105	G2106	C2107	C2108	C2109	C2110												
A1889	G1889	A1900	G1906	U1911	C1914	U1915	A1916	U1917	C1920	G1921	G1929	G1930	U1931	A1932	G1933	A1938	U1939	C1942	G1943	U1945	C1958	C1962	U1963	G1964	C1965	A1966	C1967	G1968	A1969	A1970	U1971	A1972	G1973	U1851	C1852	G1857	U1858	C1859	G1862	G1863	C1878	G1879	G1883	A1884	G2002															
G1756	A1762	G1763	G1764	G1769	A1773	U1778	U1779	A1780	A1784	A1785	A1786	C1790	A1791	U1796	C1797	U1798	G1799	C1800	G1801	A1810	G1811	A1812	G1813	G1814	A1815	G1816	G1817	G1826	C1827	G1828	A1847	U1851	C1852	G1857	U1858	C1859	G1862	G1863	C1878	G1879	G1883	A1884	G2002																	
U1590	G1591	C1607	A1608	A1609	A1610	C1611	G1636	A1641	G1642	C1643	C1644	G1647	A1648	G1651	A1652	G1653	A1654	C1663	A1664	G1667	A1668	A1669	G1674	C1683	C1684	G1685	C1686	G1687	U1688	G1696	A1700	G1701	G1702	G1703	U1709	C1710	A1722	U1739	G1740	C1745A	G1746	G1748	A1749	G1750																
G1482	A1490	C1493	A1494	A1495	U1497	C1501	C1504	C1505	A1508	C1509	A1509A	A1509B	G1510	G1517	U1518	G1525	C1532	G	U	A	C	G1537	G1538	G1539	U1540	G1541	A1542	C1543	C1557	A1558	A1566	A1567	G1568	A1569	A1570	A1571	U1578	A1579	A1580	A1583	A1584	A1586	C1587	C1588	C1589															
A1377	A1378	A1379	G1380	A1384	G1385	C1386	G1400	U1405	U1406	C1407	G1416	C1417	G1418	A1419	U1420	G1421	G1422	G1423	G1424	G1425	G1426	A1427	G1428	G1429	C1430	U1431	G1435	G1436	C1437	G1442	A1445	G1448	A1449	G1450	G1455	A1460	G1461	G1465	G1466	C1467	C1468	A1469	A1472	G1478	G1479															
A1274	A1275	A1276	U1288	C1289	C1290	C1291	U1292	C1293	G1296	C1297	U1300	A1301	G1309	U1313	C1314	C1315	U1316	A1317	A1321	A1322	U1323	G1324	U1325	U1326	U1327	G1328	U1329	C1330	A1331	G1332	C1333	U1341	A1342	C1345	A1349	U1352	G1356	U1357	G1358	A1359	A1360	G1364	A1365	A1366	U1372															
G1138	G1139	C1140	C1153	U1165	C1166	G1171	G1173	A1174	U1175	G1176	C1177	U1178	C1180	U1188	G1191	U1198	U1199	G1200	C1201	U1205	G1206	U1209	C1218	G1219	A1220	G1225	A1226	A1241	A1242	G1243	G1244	G1248	A1253	A1254	U1255	G1256	U1263	G1264	U1265	U1267	A1268	A1269	G1270	G1271	A1272	U1273														
C1064	U1065	U1066	A1067	G1068	A1069	A1070	G1071	G1072	A1073	G1074	G1075	C1076	A1077	G1078	G1079	U1080	U1081	U1082	A1083	A1084	A1085	A1086	G1087	A1088	G1089	U1090	U1091	C1092	G1093	U1094	A1095	A1096	U1097	A1098	G1099	C1100	U1101	C1102	A1103	G1106	U1107	U1108	C1109	G1110	A1111	G1112	U1113	G1114	G1115	C1116	G1125	U1130	C1135	A1136	G1137					



• Molecule 1: 23S Ribosomal RNA

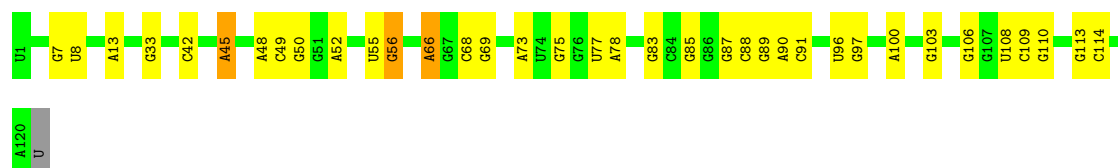


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G2100	G2009	U1911	A1784	G1653	C1548	A1365	G1264	G1149	C	C1008	G907	G818
C2101	G2010	A1912	A1785	A1654	C1549	A1366	A1265	C1150	C	A1009	U908	A819
C2103	A2013	A1913	A1786	G1658	C1550	U1453	G1266	C1153	A	A1010	C909	A824
G2104	A2014	C1914	A1791	C1662	A1554	G1455	U1267	C1154	U	G1011	A910	C825
C2105	C2021	A1915	U1794	C1663	A1558	G1459	A1268	A1155	C	U1012	C915	U826
G2106	U2022	A1916	C1795	A1664	A1566	A1460	A1269	A1156	U	C1013	U827	U828
C2107	G2023	A1917	U1796	G1665	A1566	C1376	C1270	G1169	U	U1019	G916	G832
G2108	G2024	U1918	C1797	A1668	A1569	A1379	A1272	A1170	A	A1020	A917	U839
U2109	C2025	G1922	C1800	A1669	U1578	G1380	U1275	G1171	A	G1022	A918	C838
G2110	C2026	U1923	G1801	C1670	U1578	A1471	A1274	G	A	U1023	G919	U839
C2111	G2027	A1927	G1801	G1674	A1579	A1384	A1274	A	G	G1024	G932	C840
G2112	A2030	U1928	G1801	G1674	A1579	A1384	A1274	A	G	G1025	G938	G848
U2113	A2031	G1929	A1812	U1688	A1580	G1385	A1277	U	U	U1026	U938	A849
C2114	G2032	U1930	A1812	C1688	C1582	G1386	A1278	G	C	A1028	U941	C850
G2115	A2033	G1931	A1815	A1689	C1583	C1387	U1288	A	C	A1029	A945	U851
C2116	U1931	U1932	G1816	G1696	C1584	G1388	U1288	G1178	C	G1030	G946	C856
A2117	G2037	G1933	G1816	G1697	C1584	A1393	U1293	C1179	A	A1031	G947	C857
U2118	G2038	C1934	G1823	A1698	A1586	U1394	C1293	C1180	A	A1032	G948	U858
G2120	C2039	G1935	G1823	G1699	C1588	A1395	U1297	G1183	A	U1033	G956	G859
C2121	C2040	A1936	A1829	A1700	C1588	U1396	G1297	G1184	U	C1038	G957	G862
U2122	U2041	A1937	C1830	A1701	C1588	U1397	U1300	G1187	C	G1039	A958	A863
G2123	A2042	U1938	G1833	C1710	G1592	U1497	U1301	U1188	C	C1040	U959	C867
C2124	C2043	U1939	U1833	C1711	G1593	U1497	A1301	U1188	C	G1041	A960	A872
G2125	G2124	C1942	U1834	C1711	G1595	U1497	U1312	G1192	C	A1042	G962	G873
A2126	A2051	C1942	G1835	U1720	A1603	C1505	U1313	G1193	C	C1043	U963	G874
C2127	C2055	U1946	G1835	G1721	C1604	C1506	C1314	G1203	C	G	G968	C876
G2128	G2056	C1947	G1839	G1722	C1607	C1507	C1315	A1204	U	A	U969	C877
U2130	A2057	U1955	A1847	U1739	A1608	C1508	U1316	U1205	C	A	C970	U877
C2131	C2058	U1956	A1848	G1740	A1609	C1509	U1317	U1206	C	A	G971	G879
U2132	A2059	C1957	G1849	G1741	A1610	G1410	A1321	G1207	C	A	G972	G880
C2133	C2060	C1958	G1850	G1742	A1610	A1509A	U1411	A1220	C	A	G973	G881
A2134	G2061	C1958	U1851	C1743	A1618	A1509B	U1412	G1221A	C	A	G974	G882
C2135	A2062	C1962	C1852	C1745A	G1618	U1514	G1413	C1221A	C	A	G975	G883
G2136	C2063	U1963	C1852	G1746	G1622	G1515	G1414	G1221A	C	A	A980	C884
C2137	G2064	G1964	A1853	G1747	G1622	G1515	U1415	A1210	C	G	A981	C885
U2138	C2065	C1965	A1854	G1748	G1625	U1518	G1416	U1211	C	A	A983	C886
C2139	C2066	A1966	G1858	G1748	G1627	G1519	C1417	G1208	C	A	U987	C888
G2140	G2069	C1967	A1859	G1753	G1628	G1525	G1418	C1208	C	A	A988	C889
C2141	G2070	G1968	A1876	G1753	G1628	G1525	A1419	G1208	C	A	A989	A890
C2142	A2071	A1969	A1876	G1756	U1629	A1528	A1427	G1209	C	A	A990	C892
U2143	G2072	A1970	A1877	G1757	G1630	A1528A	A1428	A1210	C	A	A991	C895
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C2146	U2075	A1972	C1882	G1758	A1632	C1531	U1431	G1229	C	A	A988	A890
U2147	U2076	C1979	G1883	A1762	C1638	C1532	A1349	A1237	C	A	A989	G892
G2148	U2077	U1991	A1889	G1763	C1638	G1533	U1352	A1241	C	A	A990	C893
C2149	A2077	U1991	A1889	G1764	C1640	U	U1352	A1241	C	A	A991	C894
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G2151	U2079	U1993	A1890	C1771	C1646	C1536	A1354	G1243	C	A	C955	A896
C2152	G2080	U1993	G1899	G1772	G1646	G1537	G1355	G1243	C	A	A956	C897
G2153	G2093	C1996	A1900	G1772	G1647	G1538	G1443	G1250	C	A	A957	C898
C2154	U2096	G1997	G1906	C1774	C1648	G1539	U1357	U1141	C	A	U999	A899
G2155				U1775			G1358					A900

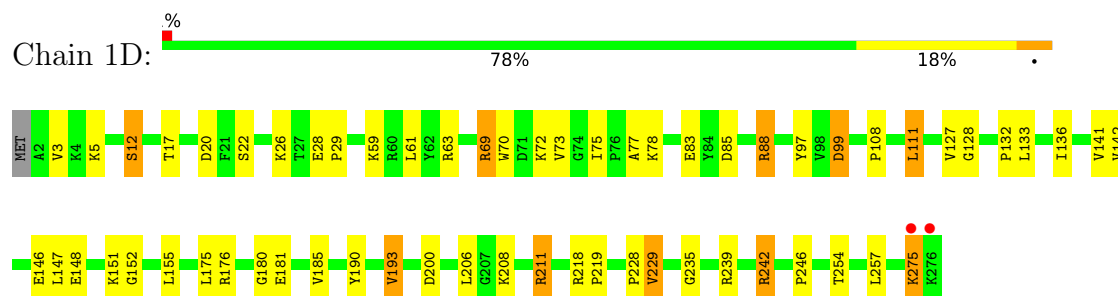


• Molecule 2: 5S Ribosomal RNA

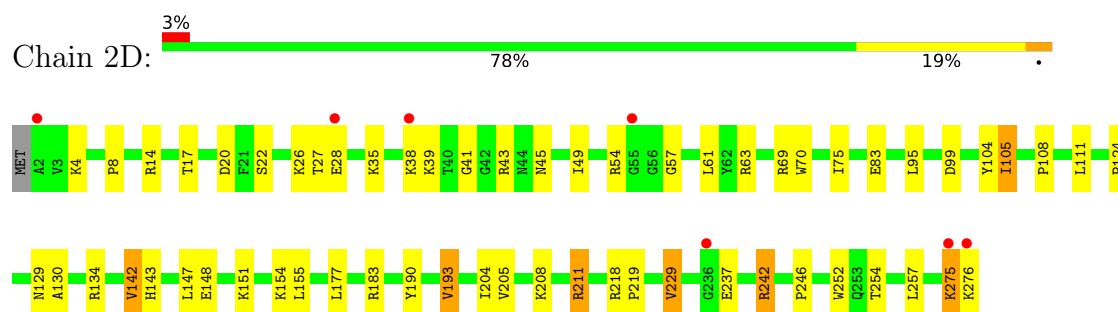
Chain 1B: 69% 27%



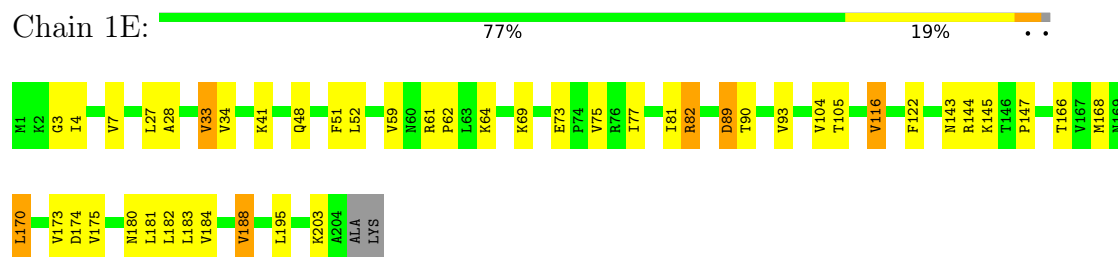
- Molecule 3: 50S ribosomal protein L2



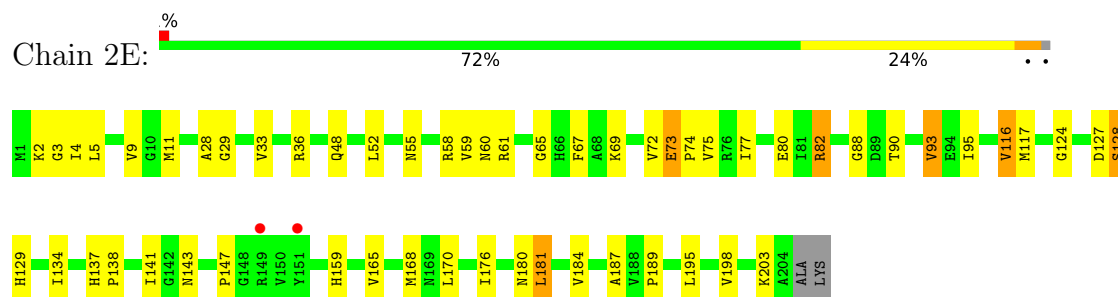
- Molecule 3: 50S ribosomal protein L2



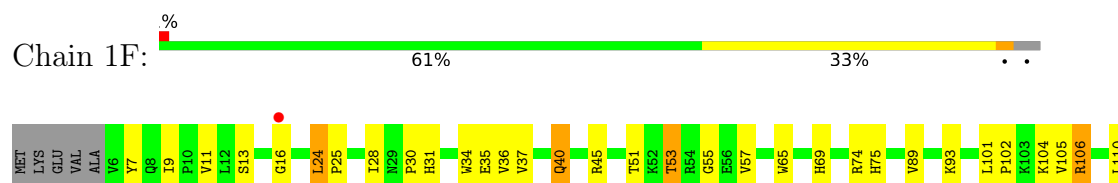
- Molecule 4: 50S ribosomal protein L3

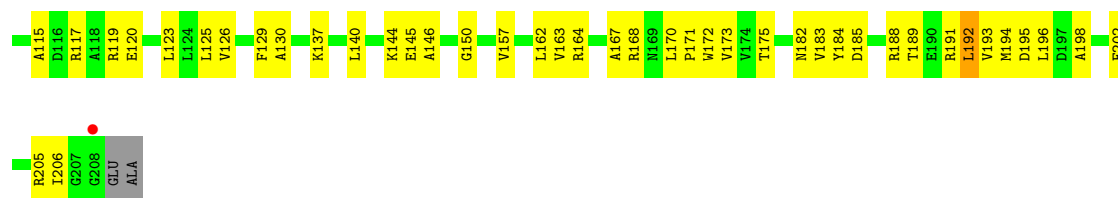


- Molecule 4: 50S ribosomal protein L3



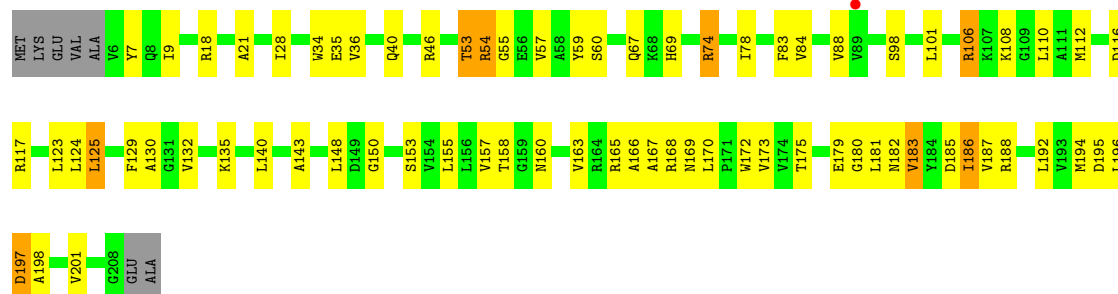
- Molecule 5: 50S ribosomal protein L4





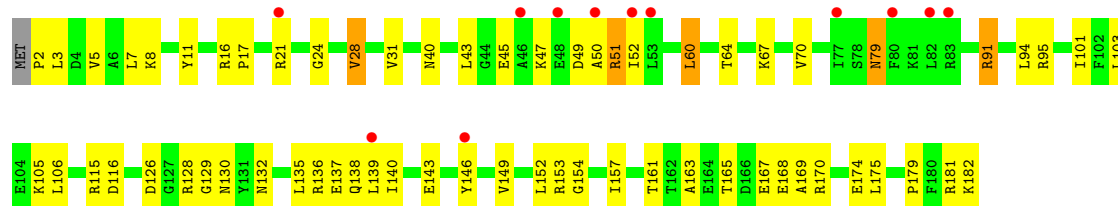
• Molecule 5: 50S ribosomal protein L4

Chain 2F:



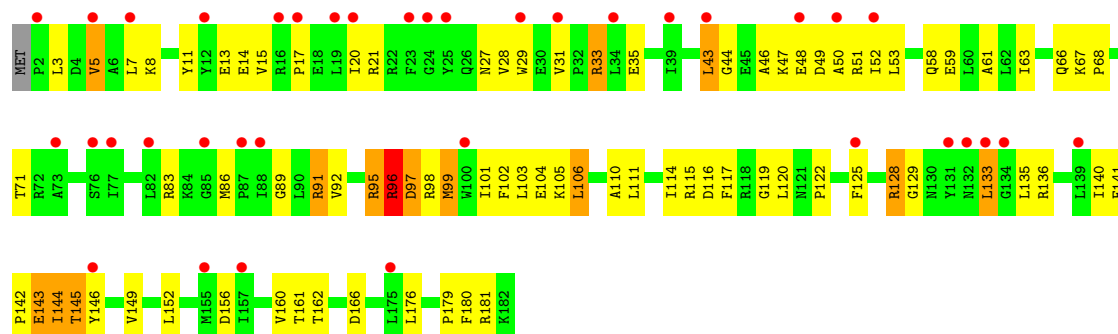
• Molecule 6: 50S ribosomal protein L5

Chain 1G:



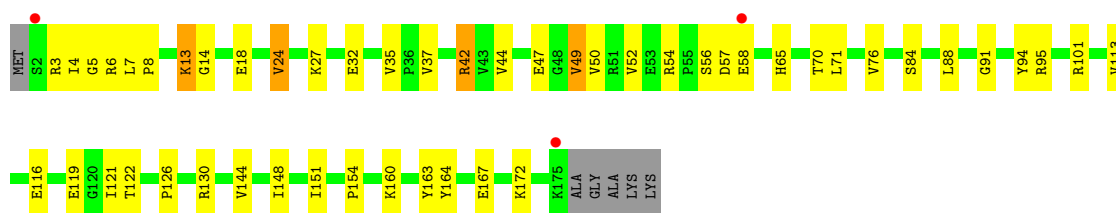
• Molecule 6: 50S ribosomal protein L5

Chain 2G:

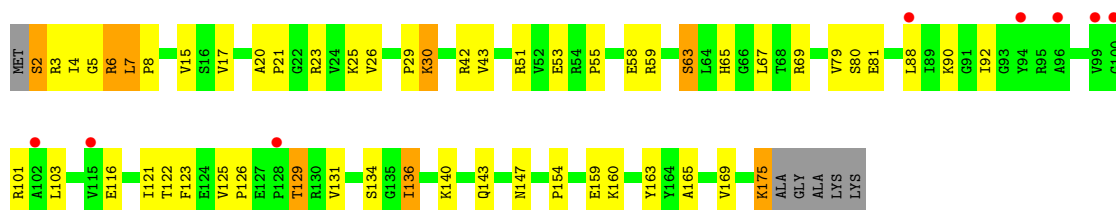


• Molecule 7: 50S ribosomal protein L6

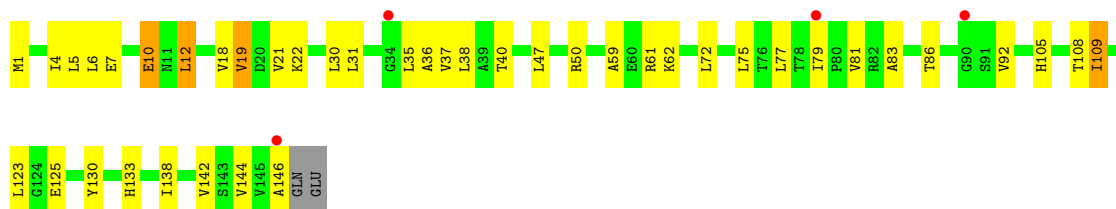
Chain 1H:



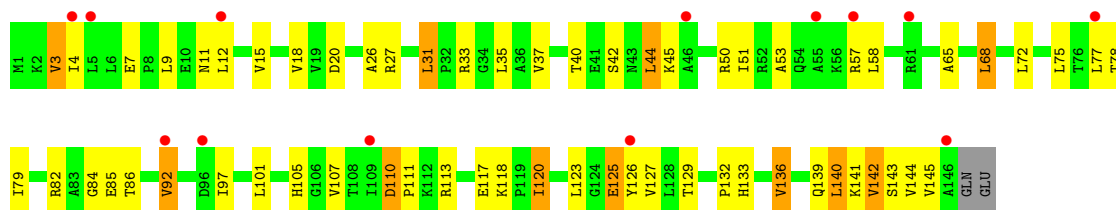
• Molecule 7: 50S ribosomal protein L6



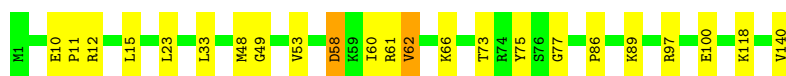
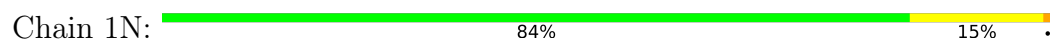
• Molecule 8: 50S ribosomal protein L9



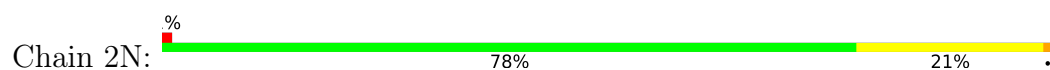
• Molecule 8: 50S ribosomal protein L9

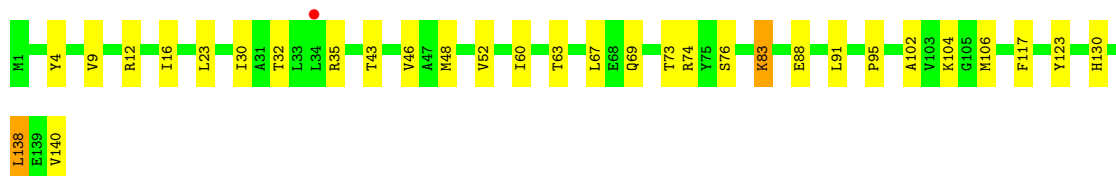


• Molecule 9: 50S ribosomal protein L13

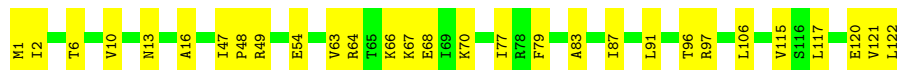
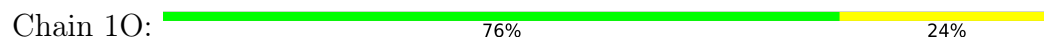


• Molecule 9: 50S ribosomal protein L13





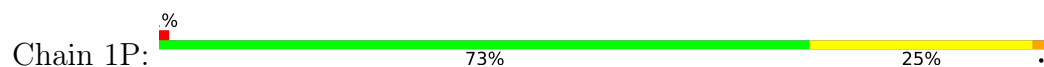
- Molecule 10: 50S ribosomal protein L14



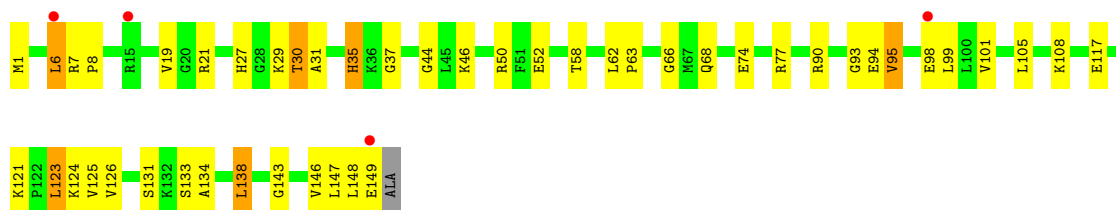
- Molecule 10: 50S ribosomal protein L14



- Molecule 11: 50S ribosomal protein L15

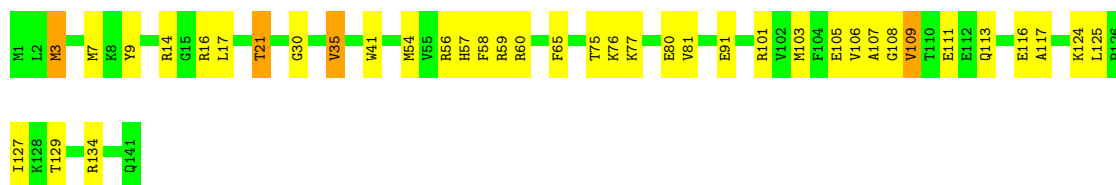


- Molecule 11: 50S ribosomal protein L15

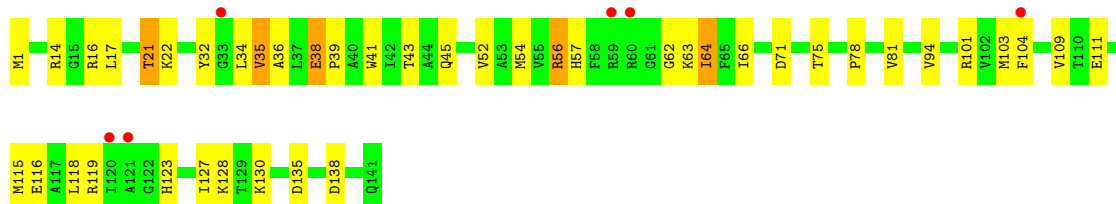


- Molecule 12: 50S ribosomal protein L16

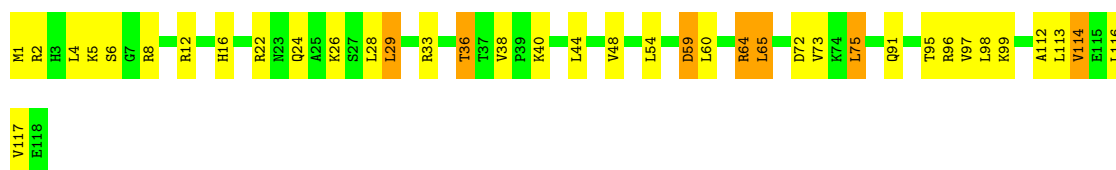




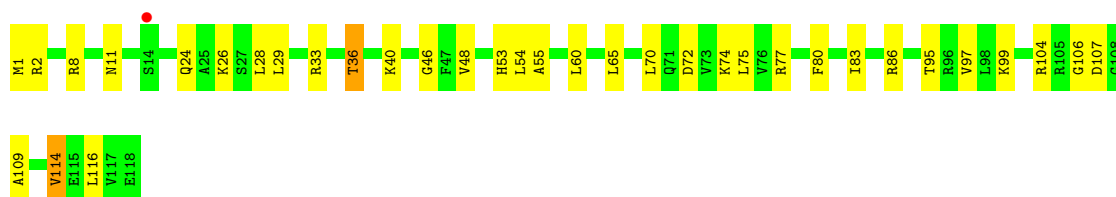
- Molecule 12: 50S ribosomal protein L16



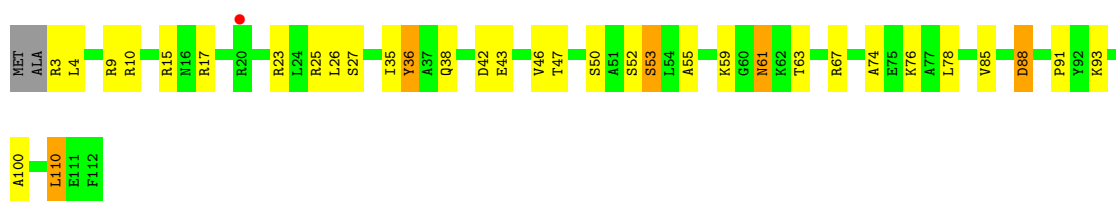
- Molecule 13: 50S ribosomal protein L17



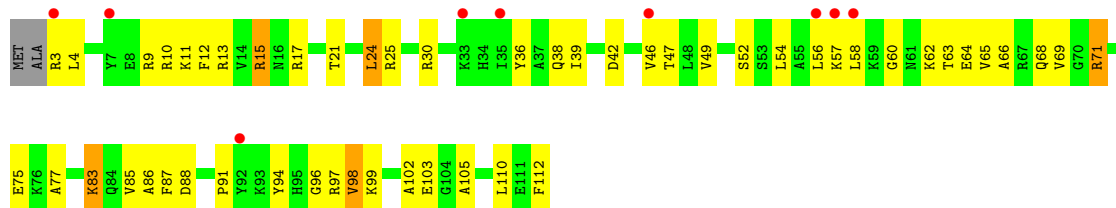
- Molecule 13: 50S ribosomal protein L17



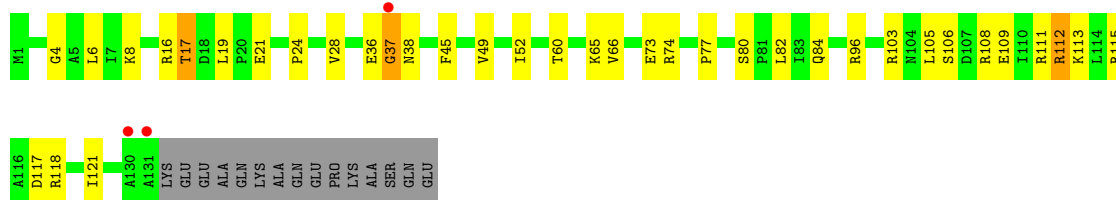
- Molecule 14: 50S ribosomal protein L18



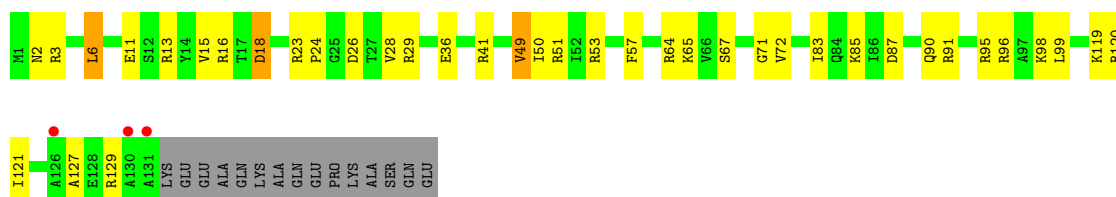
- Molecule 14: 50S ribosomal protein L18



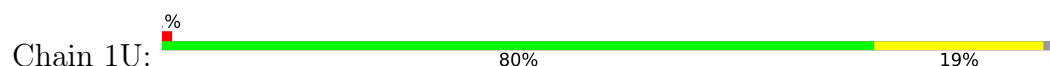
- Molecule 15: 50S ribosomal protein L19



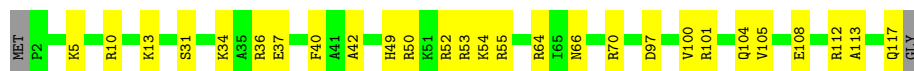
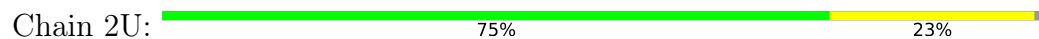
- Molecule 15: 50S ribosomal protein L19



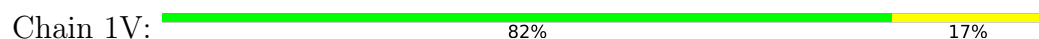
- Molecule 16: 50S ribosomal protein L20



- Molecule 16: 50S ribosomal protein L20



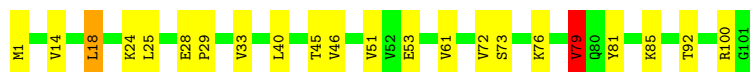
- Molecule 17: 50S ribosomal protein L21





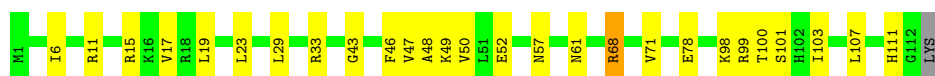
- Molecule 17: 50S ribosomal protein L21

Chain 2V: 78% 20% ..



- Molecule 18: 50S ribosomal protein L22

Chain 1W: 75% 23% ..



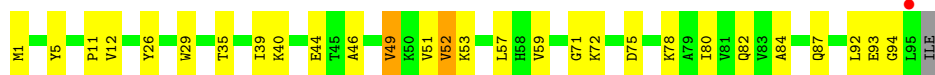
- Molecule 18: 50S ribosomal protein L22

Chain 2W: 75% 24% .



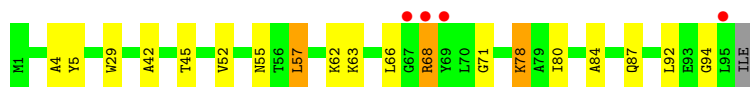
- Molecule 19: 50S ribosomal protein L23

Chain 1X: 70% 27% ..



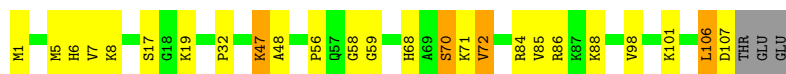
- Molecule 19: 50S ribosomal protein L23

Chain 2X: 79% 17% ..



- Molecule 20: 50S ribosomal protein L24

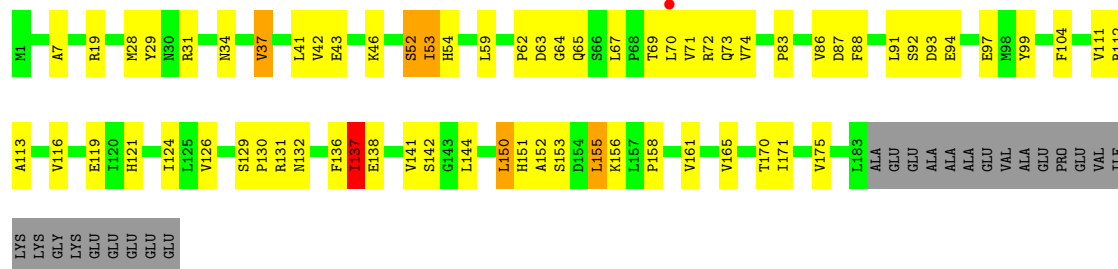
Chain 1Y: 75% 19% .



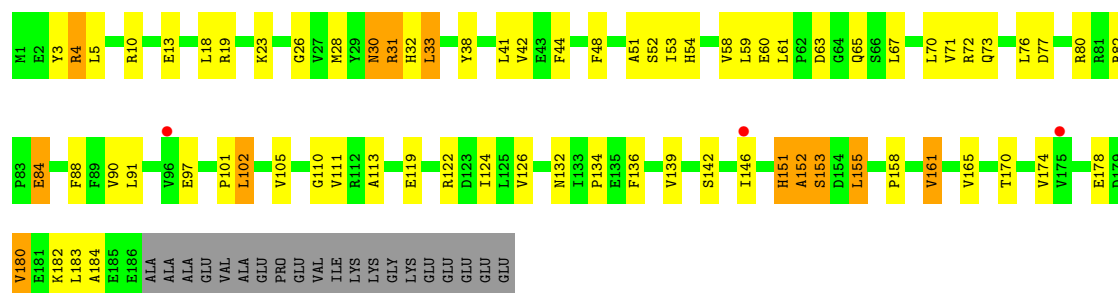
- Molecule 20: 50S ribosomal protein L24

Chain 2Y: 54% 40% .

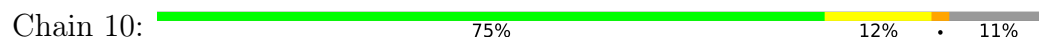
- Molecule 21: 50S ribosomal protein L25



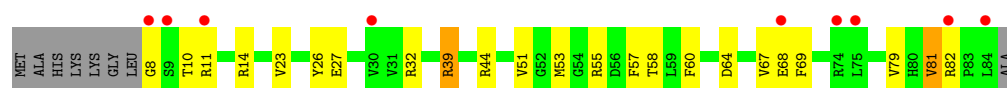
- Molecule 21: 50S ribosomal protein L25



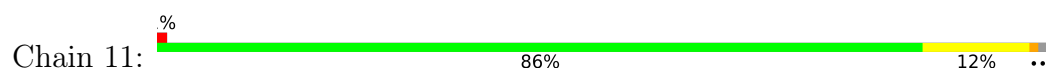
- Molecule 22: 50S ribosomal protein L27



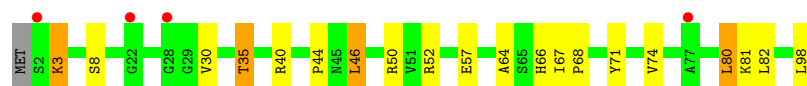
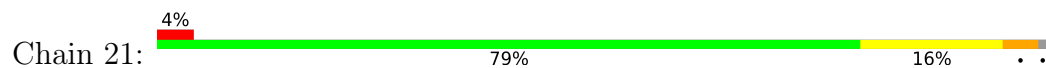
- Molecule 22: 50S ribosomal protein L27



- Molecule 23: 50S ribosomal protein L28



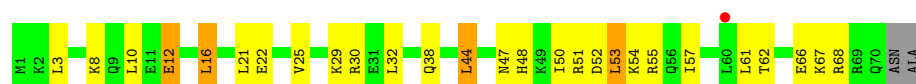
- Molecule 23: 50S ribosomal protein L28



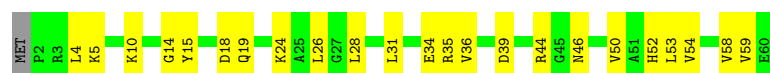
- Molecule 24: 50S ribosomal protein L29



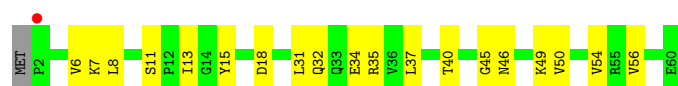
- Molecule 24: 50S ribosomal protein L29



- Molecule 25: 50S ribosomal protein L30



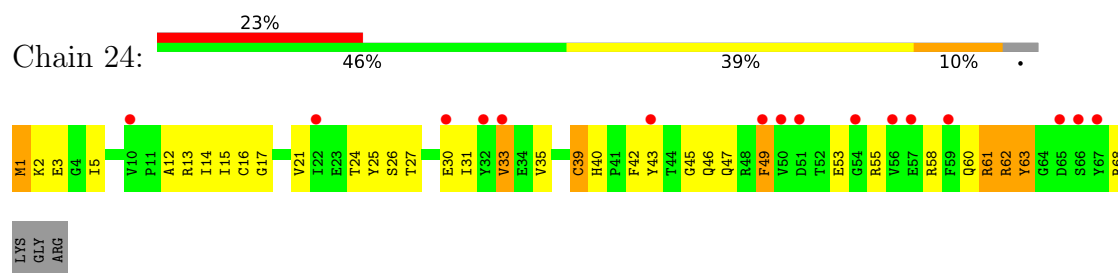
- Molecule 25: 50S ribosomal protein L30



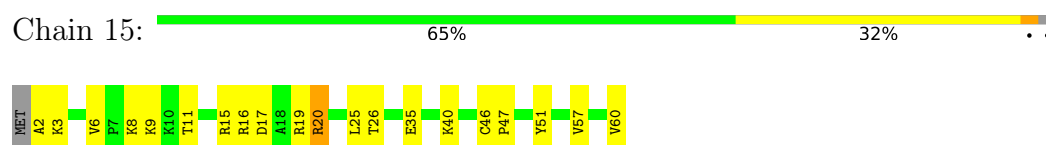
- Molecule 26: 50S ribosomal protein L31



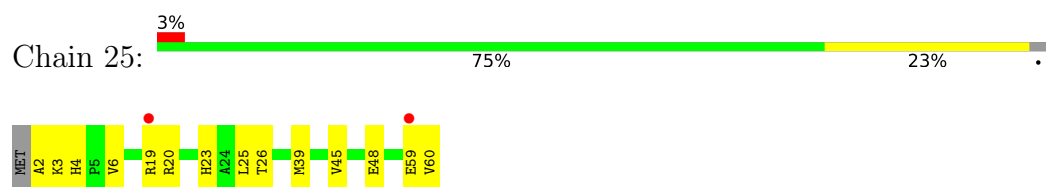
- Molecule 26: 50S ribosomal protein L31



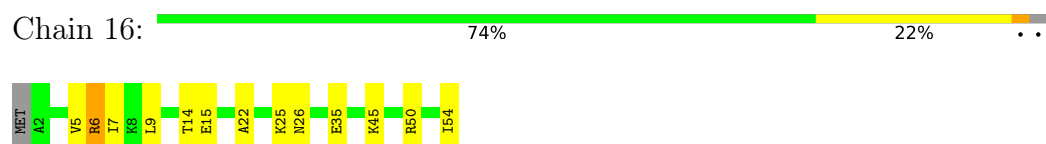
- Molecule 27: 50S ribosomal protein L32



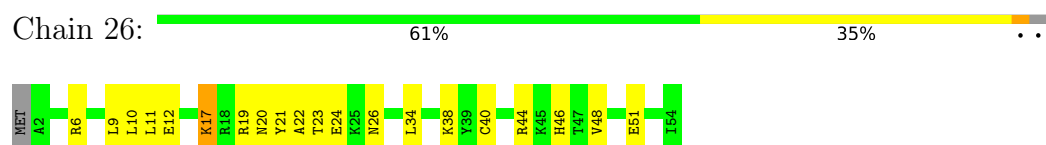
- Molecule 27: 50S ribosomal protein L32



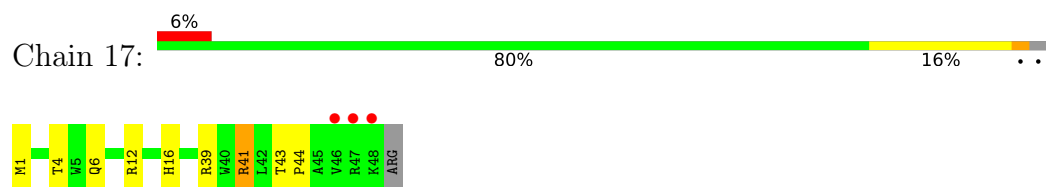
- Molecule 28: 50S ribosomal protein L33



- Molecule 28: 50S ribosomal protein L33

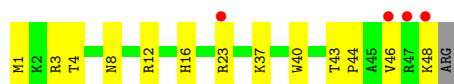


- Molecule 29: 50S ribosomal protein L34



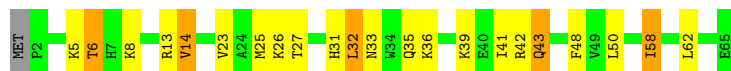
- Molecule 29: 50S ribosomal protein L34





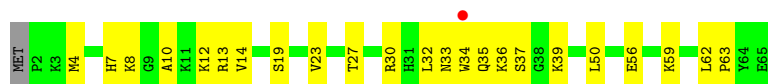
- Molecule 30: 50S ribosomal protein L35

Chain 18: 65% 26% 8% .



- Molecule 30: 50S ribosomal protein L35

Chain 28: 2% 63% 35% .



- Molecule 31: 50S ribosomal protein L36

Chain 19: 76% 24%



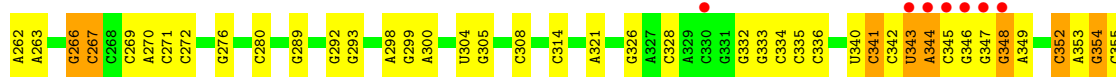
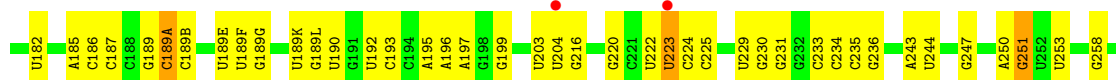
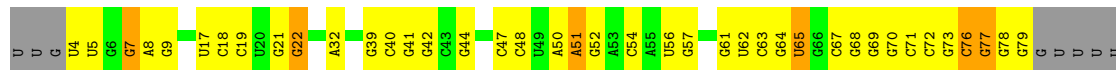
- Molecule 31: 50S ribosomal protein L36

Chain 29: 84% 16%



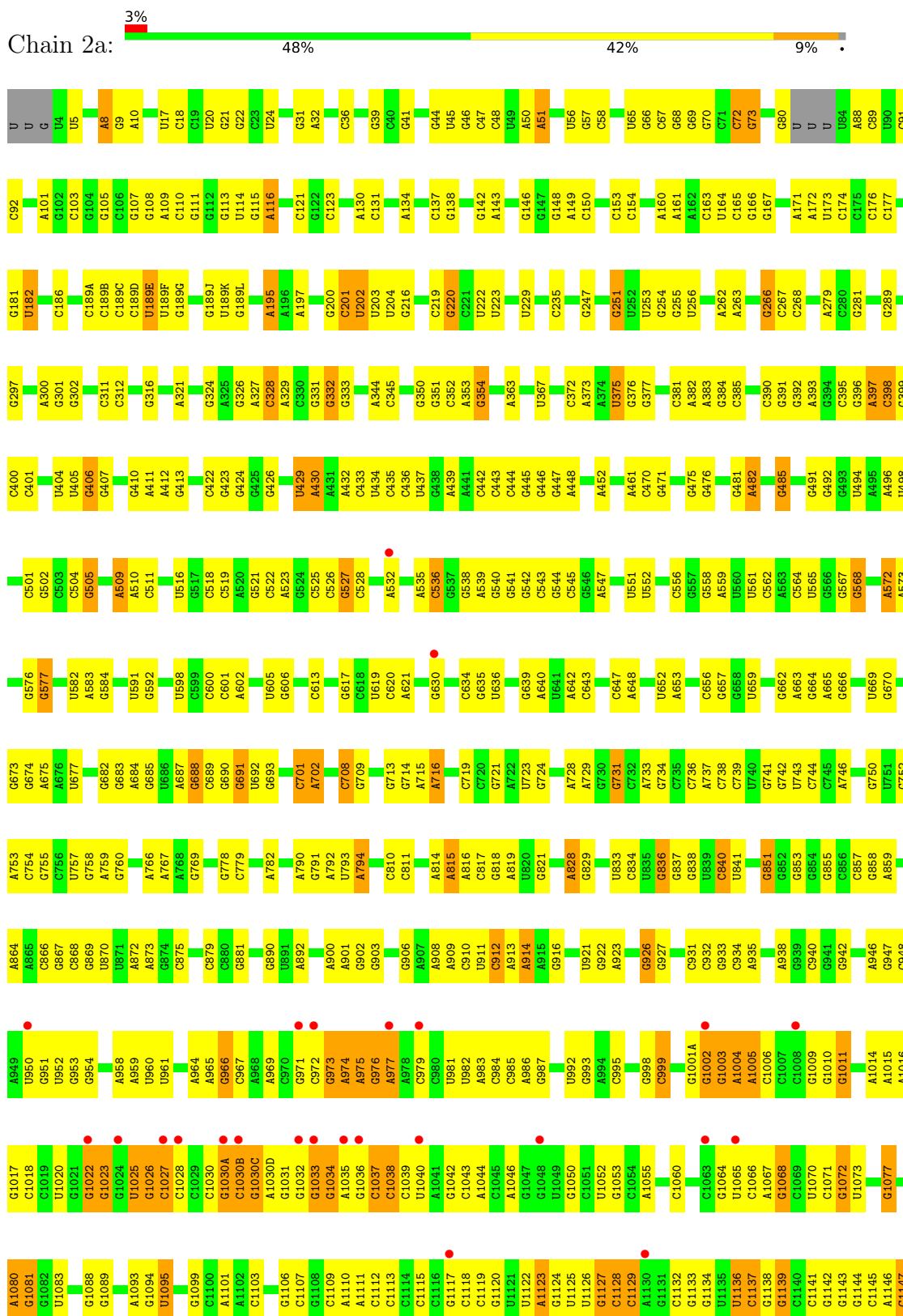
- Molecule 32: 16S Ribosomal RNA

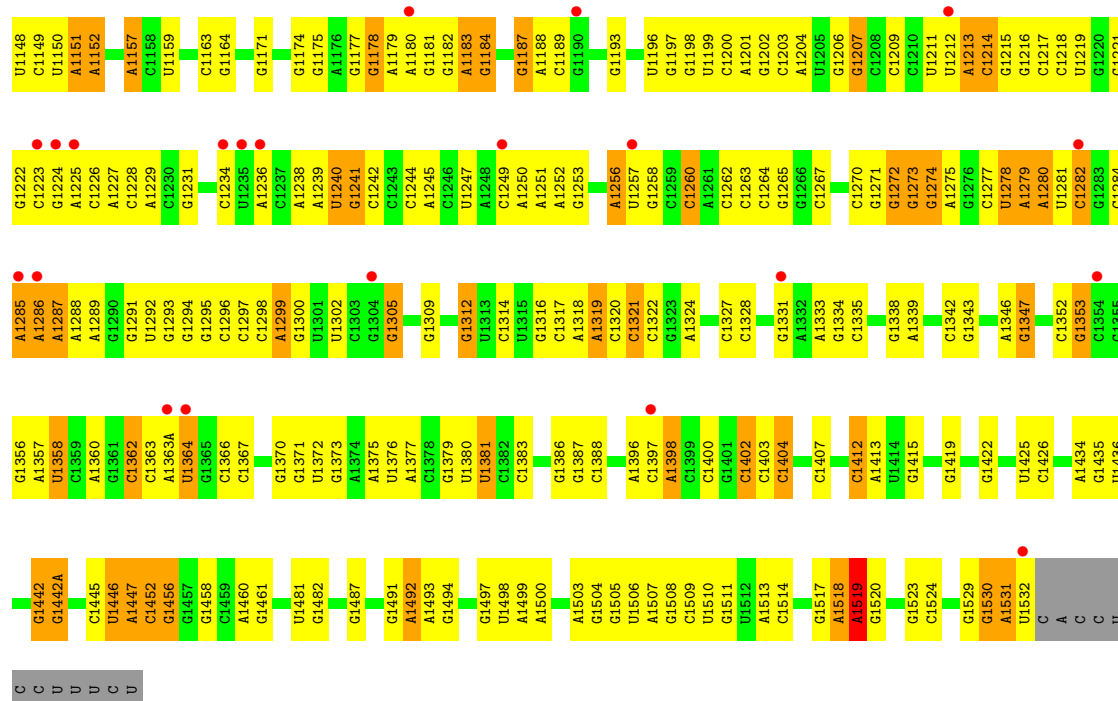
Chain 1a: 4% 48% 42% 8% .



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C	G1442A	G1367	G1290	G1217	G1138	G1053	G993	C924	A816	A716	C618	G537	A439	G357
U	A1442B	G1368	G1291	C1217	G1139	C1053	A994	C925	C817	C717	U619	G538	A441	
U		G1369	G1292	U1219	C1140	C1054	C995	C926	G818	G718	C620	A539	C442	A363
C	C1445	G1370	G1293	G1220	G1141	C1060	A996	G927	A819	U723	G625	G540	G445	U367
U	A1447	G1371	C1298	G1221	G1143	G1061	G998	G928	U820	A728	U626	G541	G446	
	C1452	G1372	A1299	A1225	G1144	U1062	C999	G929	G821			G542		C372
	G1456	G1373	G1300	C1226	C1145	U1063	U1000	C932	A828	G731	U627	G543	A451	A373
	G1457	G1374	U1301	A1227	A1146	U1064	A1001	C933	G736		G628	G544	A452	A374
	G1458	U1302	G1302	C1228	U1147	U1065	G1001A	C934	U835	G737	G629	G545		U375
	C1459	G1303	G1303	A1229	U1148	U1066	G1002	C935	G836	G738	G630	G546	C457	G376
	A1460	U1304	G1304		C1149	A1067	G1003	C936	G837	C739	G631	G547	C458	G377
		A1376	G1305		U1150	G1068	A1004	C937	G838		A632		G460	G378
	C1465	G1378	A1306	A1236	A1151	C1069	A1005	A937	U839	U740		U551	A461	C381
	C1466	G1379	U1307	C1237	A1152	C1070	A1006	A938	U840	G741	U636	U552	C470	A382
			U1308	A1238	G1153	G1074	C1007	G939	C940	G742		A553	A477	A383
	C1478	C1382	G1312	A1239	G1154	G1079	G1009	G942	U841		U641	C554	C479	
	C1479	C1383	G1313	U1240	G1155	A1080	G1010	G945	C843	C743	A642	C555	U480	G388
			U1314	G1241		G1081	G1011	G946	C849	C749		C556	G481	A389
	G1486	G1389	G1315	C1242	U1159	U1086	U1012	A947	U850	G750	U646	G557	G486	G390
	G1487	U1391	G1316	U1247	G1166	U1087	G1013	G947	G851	U751	C647	A559	U487	G391
	A1492	G1392	C1317	A1248		U1090	A1014	U950	G855	G752			G488	G392
	A1493	U1393	C1318	C1249		U1091	A1015	G951	C856		G650	C564	A487	A393
	C1494	A1394	A1319	A1250		G1094	A1016	G952	C857	G755	G651	U565	C488	
			C1320	A1251	G1172	U1095		G953	C858	G756	G652	G566	G489	A397
	G1497	C1397	C1321	A1252	G1173	U1096	U1020	G954	A859	G757	A653	G567	G490	C398
	U1498	C1400	G1322		G1177	G1099	G1022	U955	G860	G758	C656	G568	G491	G399
	A1499	G1401	G1323	G1255	G1178	C1100	G1023	U956	A864	G760	U659	A572	A495	C400
	A1500	C1402	C1324	U1257	A1180	A1101	G1024	U957				A573	A496	C401
		G1403	G1325	G1258	G1181	A1102	U1025	A958	U870	A766	G662	A574	U498	C402
	A1503	C1404	C1326	C1259	G1182	C1103	G1027	A959	U871	A767	A663	G575	A499	C403
	G1504	G1405	C1327	C1260	A1183	C1028	C1028	U960	A872	A768	G664	G576	G500	U404
	U1506	C1407	A1329	A1261	G1184	G1106	C1029	U961		G769	A665	G577	C501	G406
	A1507		U1330	G1262		C1107	G1030	A865	C875	C770		U580	A509	G407
	G1508	C1411	G1331	C1263	G1187	G1108	G1030A	G966	G876	G773	G670	G581	A510	C503
	C1509	A1412	A1332	C1264	A1188	C1109	G1030B	C967		G774	G671	U582	C511	C504
	U1510	U1414	A1333		G1189	A1110	G1030C	A968	C880	A777	G673	A583	U516	G423
					A1191	A1111	A1030D	A969	G881	G778	G674	G584	G517	G424
	A1513	G1419	A1340	A1269	C1192	C1118	G1031	C970	C882	C779		G585	C518	G426
	C1514	G1422	U1341	C1270	U1196	G1119	G1032	G971	G890	A780	U677	C589	G521	U427
		G1423	G1342	G1271	G1197	G1120	G1033	C972		A781		C590	G522	G428
	G1517		G1343	G1272	G1198	U1121	A1034	A974	G902	A782	G683	C596	G523	U429
	A1518		A1346	A1273	G1199	U1122	A1035	A975	G903		G685	G597	G524	A430
	A1519	U1427	G1347	A1274	U1199	A1123	G1036	G976	C906	U789	U686	C598	G525	A431
	G1520	C1429	U1348	C1277	C1200	G1124	C1037	A977		A790	A687	C600	G526	A432
		C1430	A1349	U1278	A1201	U1125	C1038		A909	G791	G688	C601	G527	
	G1525		A1350	A1279	G1202	U1126	C1039	U981	C910	A792	G689	A602	G528	
			U1351	A1280		G1127	U1040	C984	U911	A794	G690	G691		
	G1529	A1433	C1352	U1281	G1207	C1128	G1042	C985	C912		G695		G529	
	G1530	A1434	G1353	C1282	C1208	C1129	A1041	A986	A914	C797	A695		G530	
	A1531	G1435	G1354	G1283	C1209	C1043	C1043	A987	A919	G798	A614		G531	
	U1532	U1436	G1355	G1284	C1210	C1132	A1044	G987		G799	G713		G532	
	C1533	C1437	G1356	A1285	U1211	G1133	C1045	C990	U920		G714		G533	
	A	G1438	A1357	A1286	U1212	G1134		C991					G534	
	C			A1287	A1213	U1135	G1048	U991					G535	
	C					U1136	U1049						G536	
	U	G1441	A1360	A1288	C1214	U1136							G537	

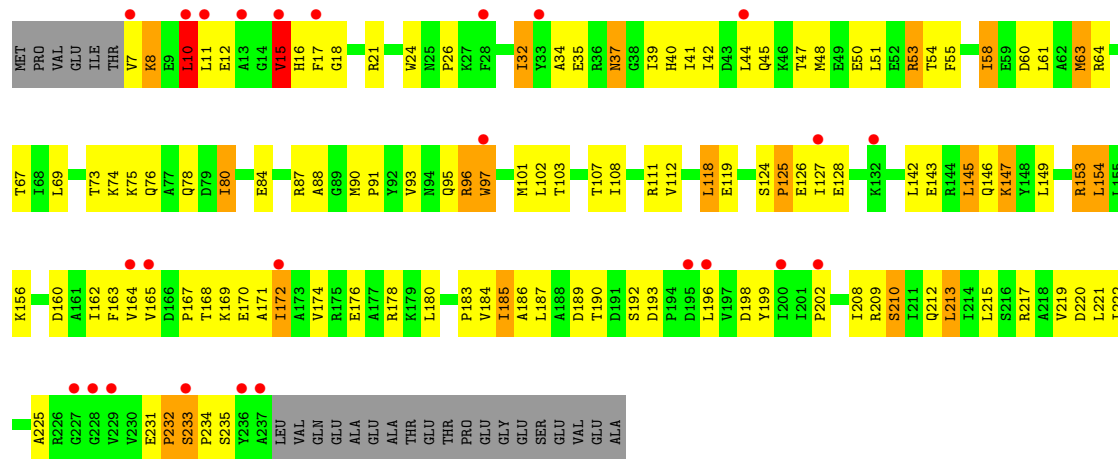
● Molecule 32: 16S Ribosomal RNA





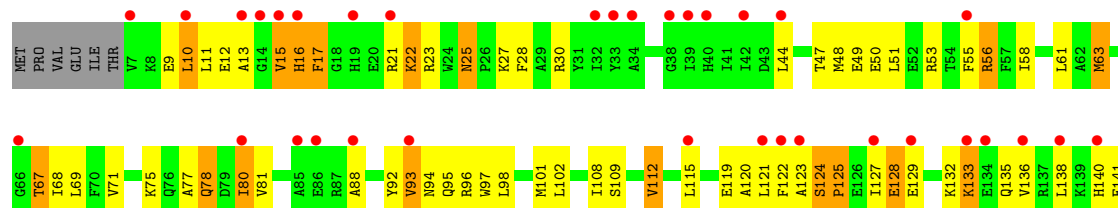
• Molecule 33: 30S ribosomal protein S2

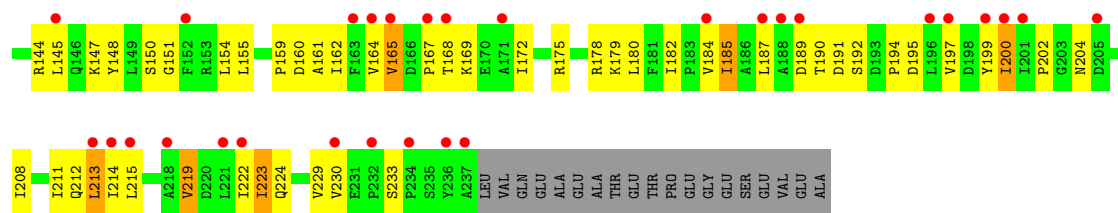
Chain 1b: 44% 38% 8% 10%



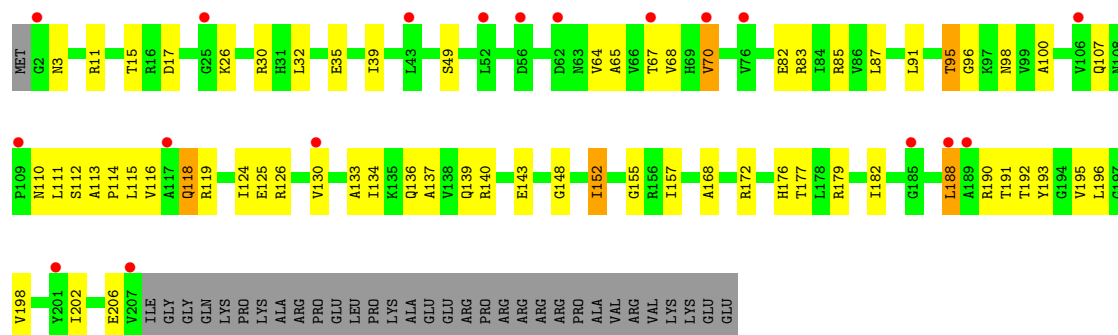
• Molecule 33: 30S ribosomal protein S2

Chain 2b: 45% 37% 9% 10%

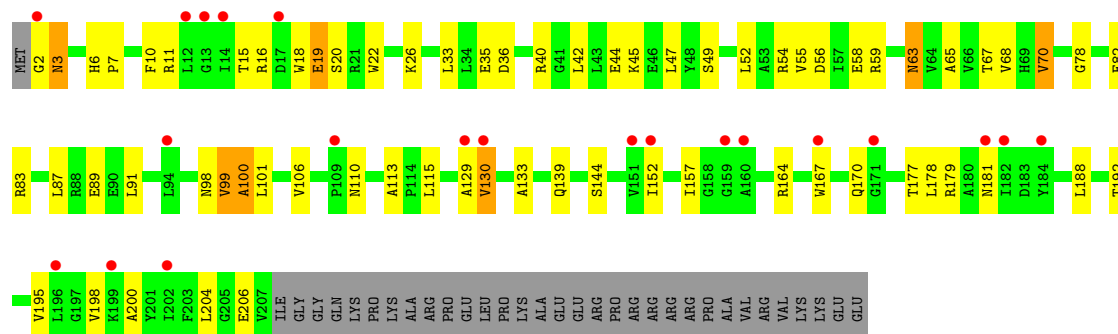




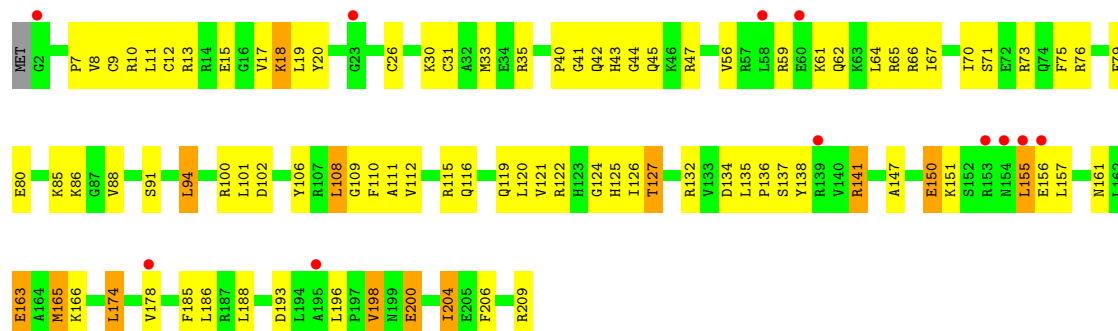
• Molecule 34: 30S ribosomal protein S3



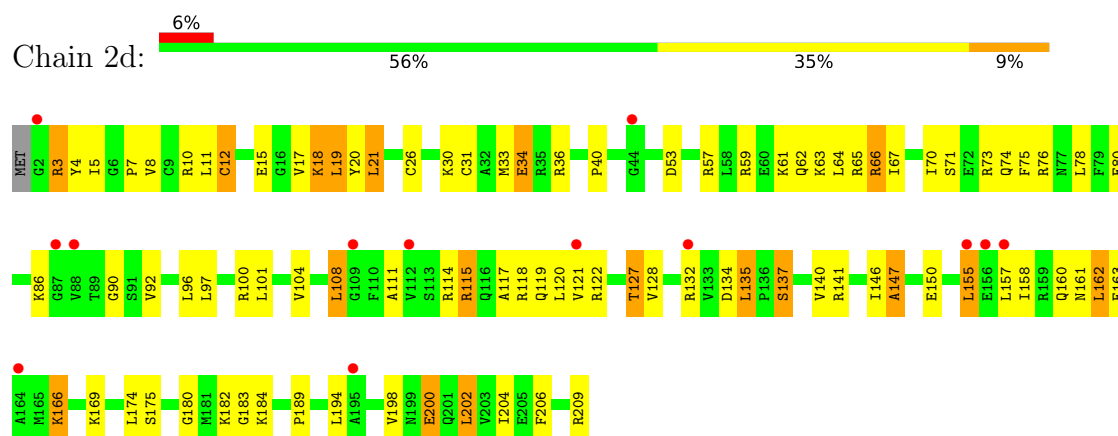
• Molecule 34: 30S ribosomal protein S3



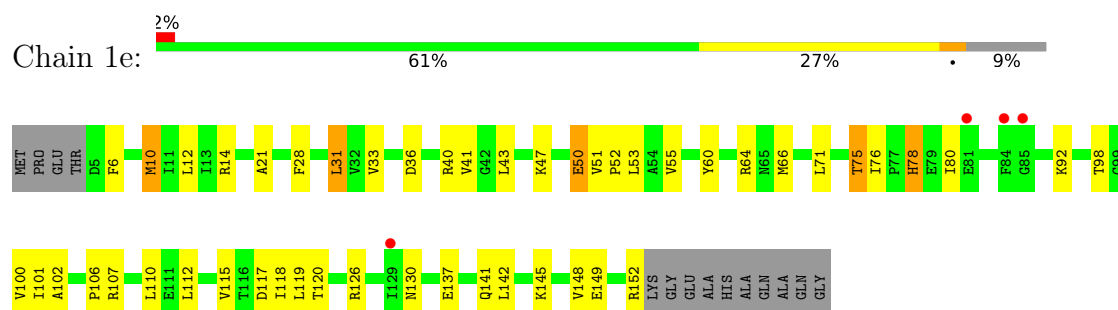
• Molecule 35: 30S ribosomal protein S4



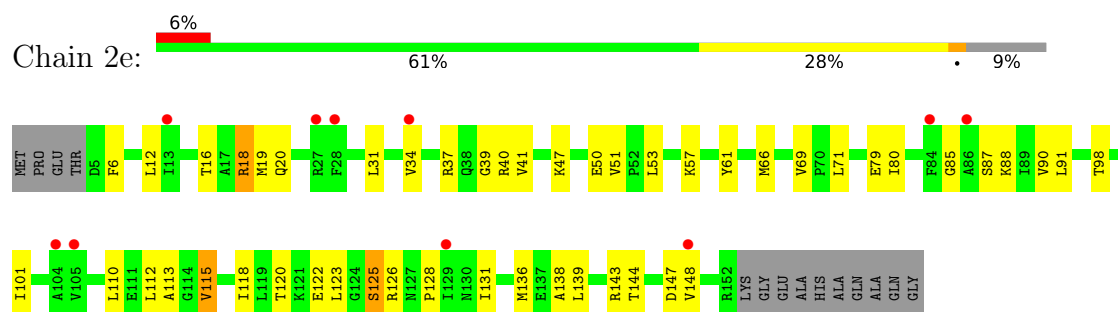
- Molecule 35: 30S ribosomal protein S4



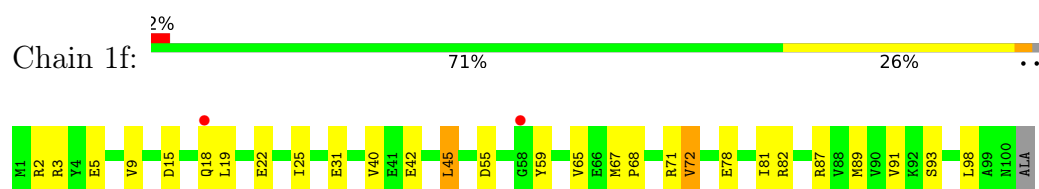
- Molecule 36: 30S ribosomal protein S5



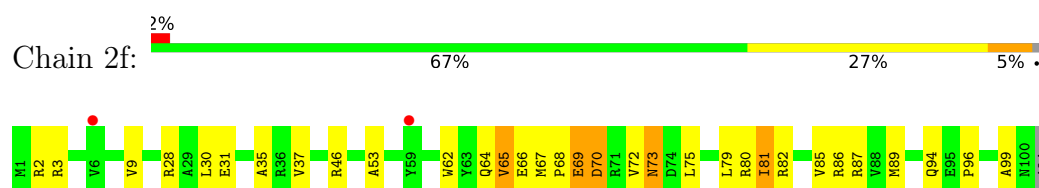
- Molecule 36: 30S ribosomal protein S5



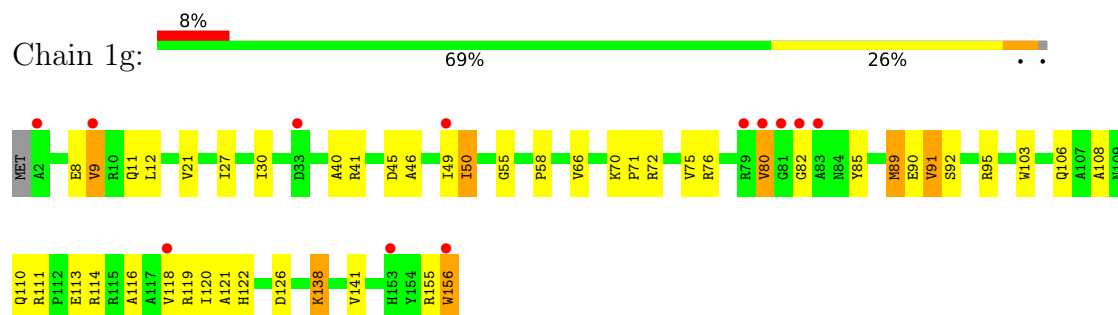
- Molecule 37: 30S ribosomal protein S6



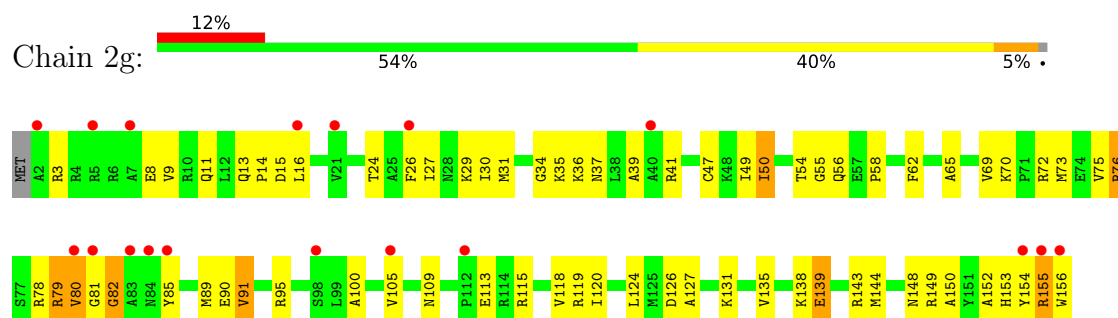
- Molecule 37: 30S ribosomal protein S6



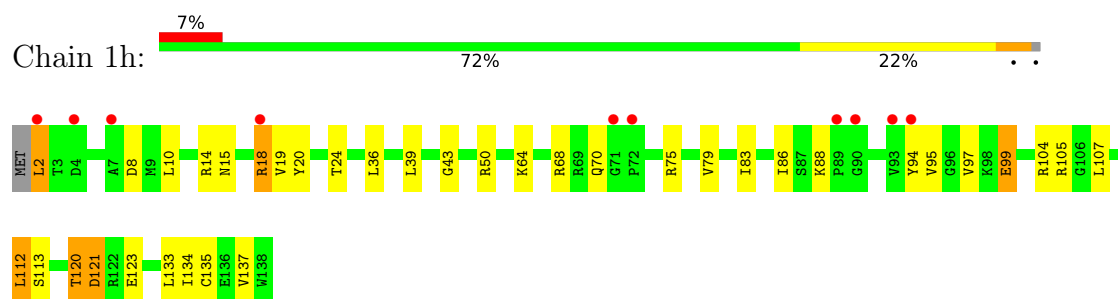
- Molecule 38: 30S ribosomal protein S7



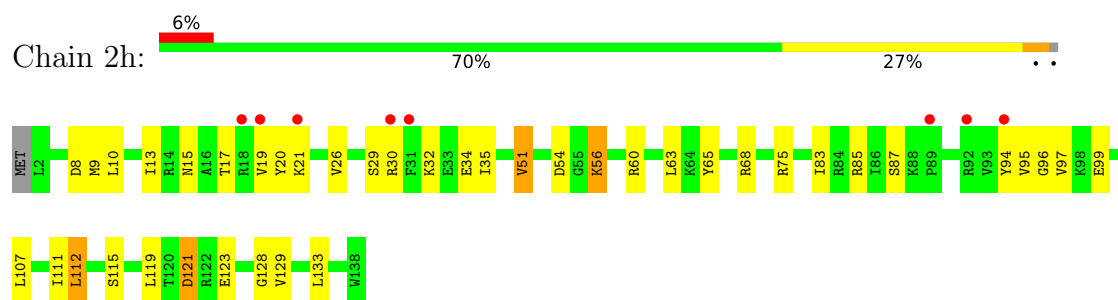
- Molecule 38: 30S ribosomal protein S7



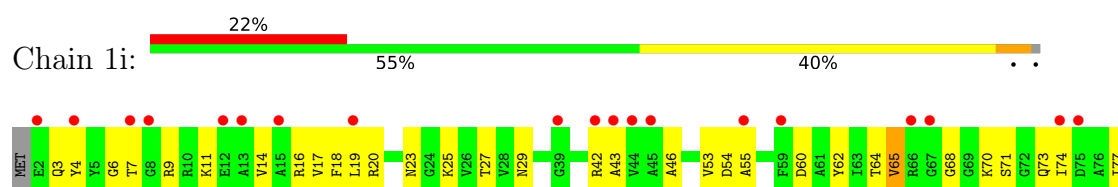
- Molecule 39: 30S ribosomal protein S8

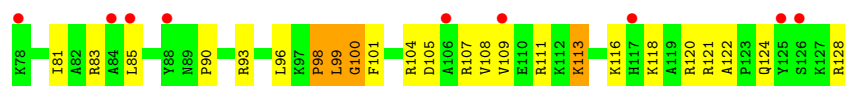


- Molecule 39: 30S ribosomal protein S8

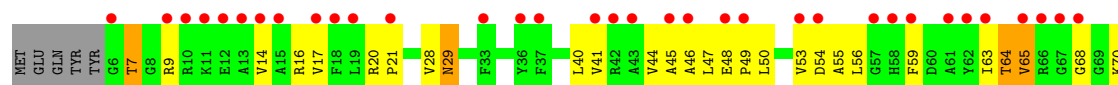


- Molecule 40: 30S ribosomal protein S9

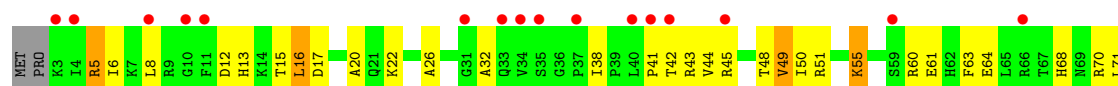




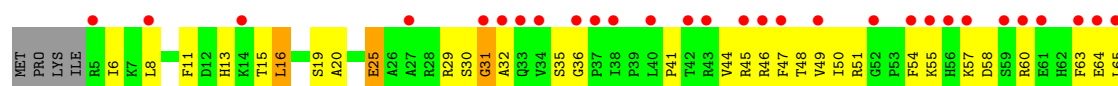
• Molecule 40: 30S ribosomal protein S9



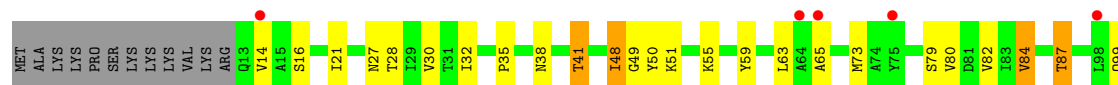
• Molecule 41: 30S ribosomal protein S10



• Molecule 41: 30S ribosomal protein S10



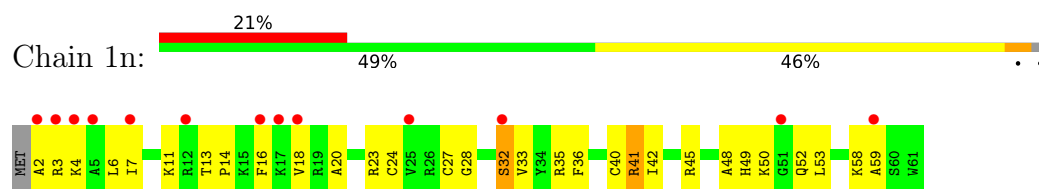
• Molecule 42: 30S ribosomal protein S11



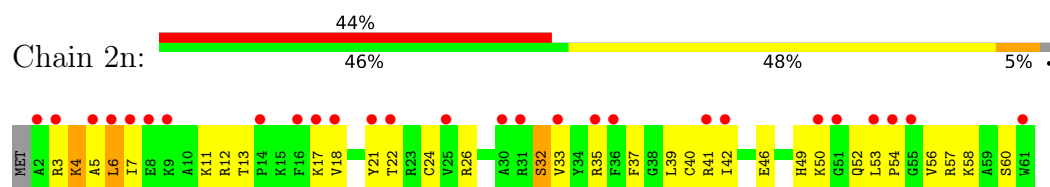
• Molecule 42: 30S ribosomal protein S11



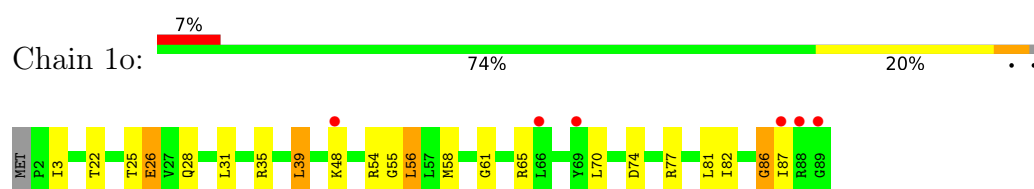
- Molecule 45: 30S ribosomal protein S14 type Z



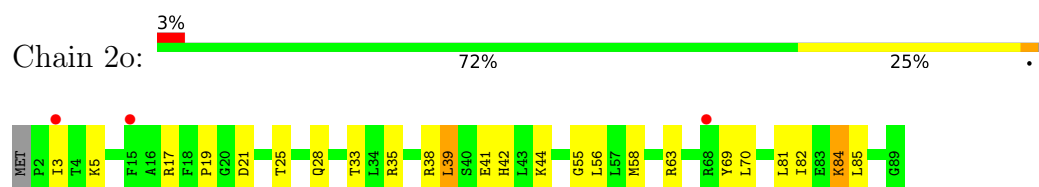
- Molecule 45: 30S ribosomal protein S14 type Z



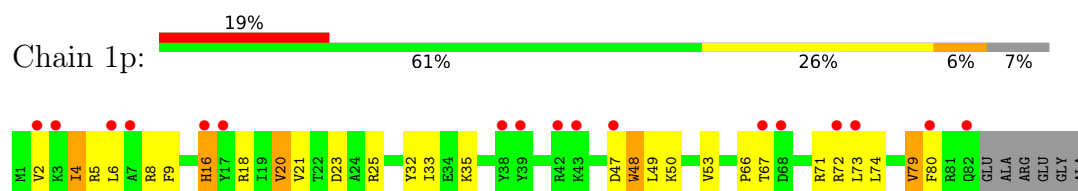
- Molecule 46: 30S ribosomal protein S15



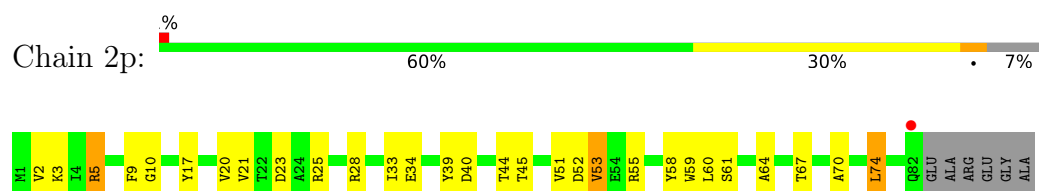
- Molecule 46: 30S ribosomal protein S15



- Molecule 47: 30S ribosomal protein S16

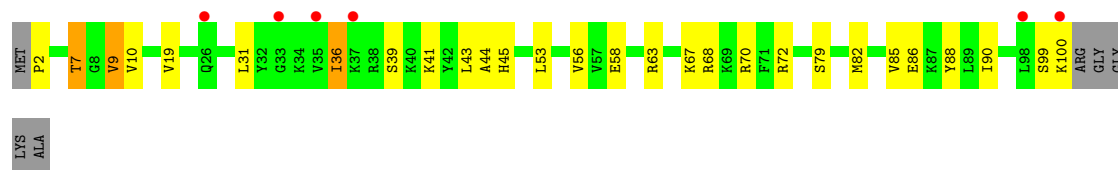


- Molecule 47: 30S ribosomal protein S16

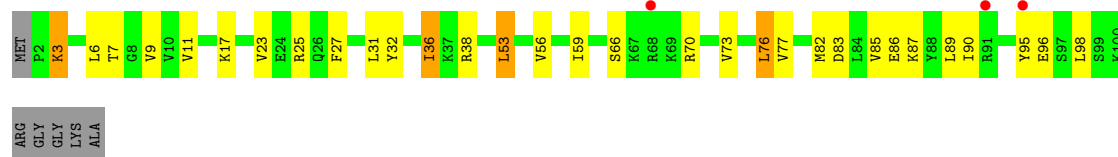


- Molecule 48: 30S ribosomal protein S17

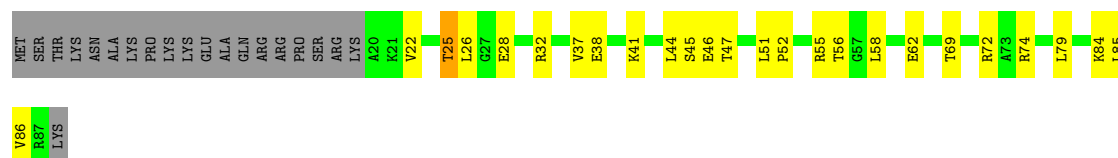




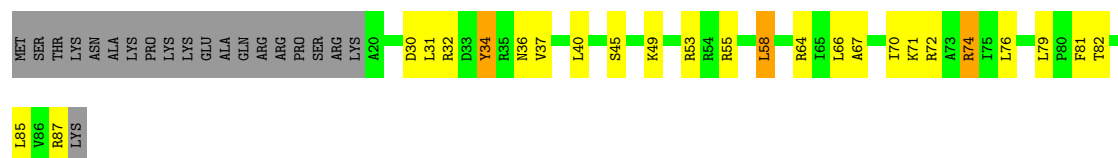
- Molecule 48: 30S ribosomal protein S17



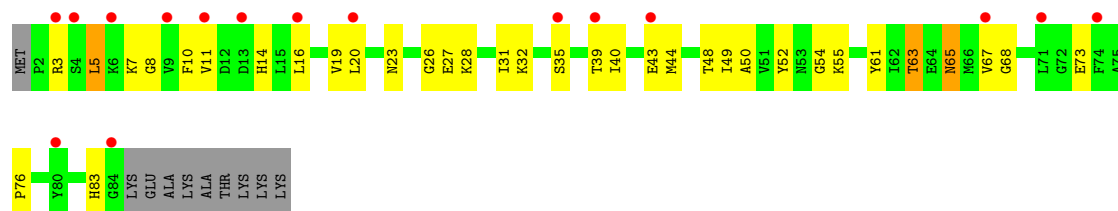
- Molecule 49: 30S ribosomal protein S18



- Molecule 49: 30S ribosomal protein S18

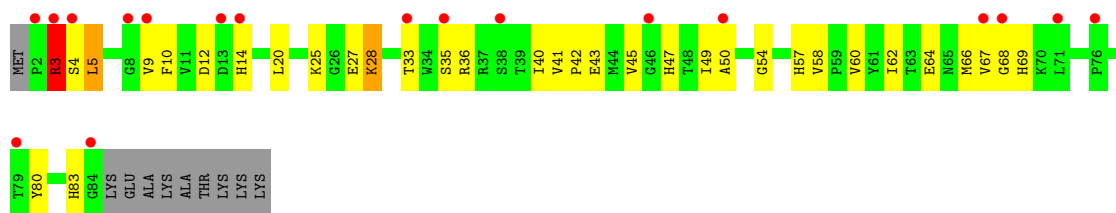


- Molecule 50: 30S ribosomal protein S19

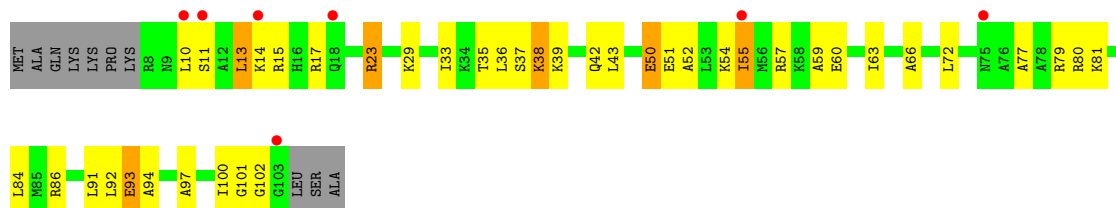


- Molecule 50: 30S ribosomal protein S19

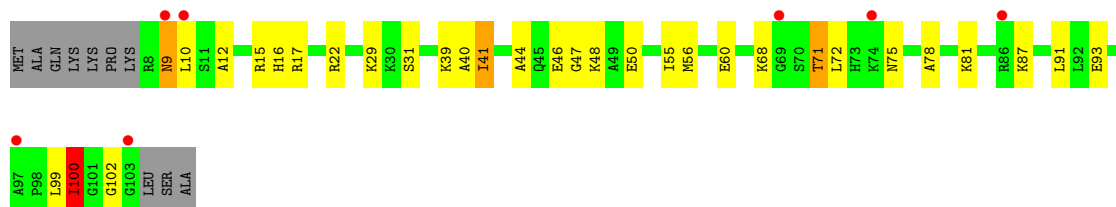




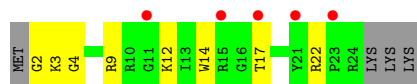
• Molecule 51: 30S ribosomal protein S20



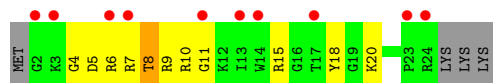
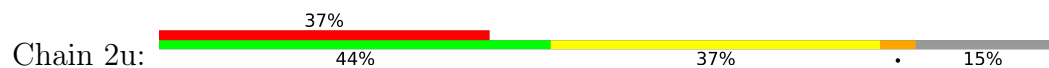
• Molecule 51: 30S ribosomal protein S20



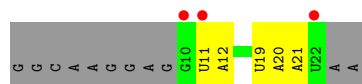
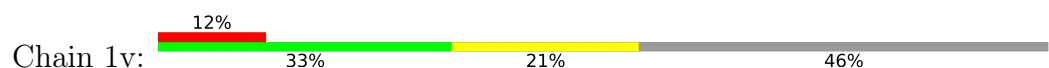
• Molecule 52: 30S ribosomal protein Thx



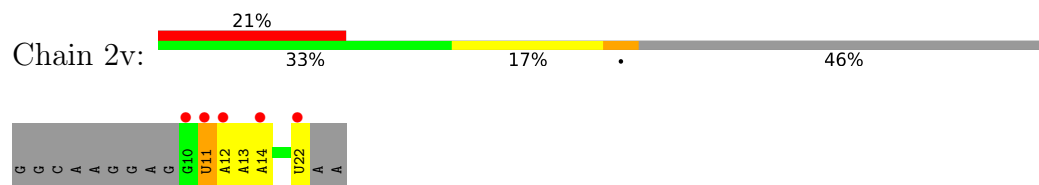
• Molecule 52: 30S ribosomal protein Thx



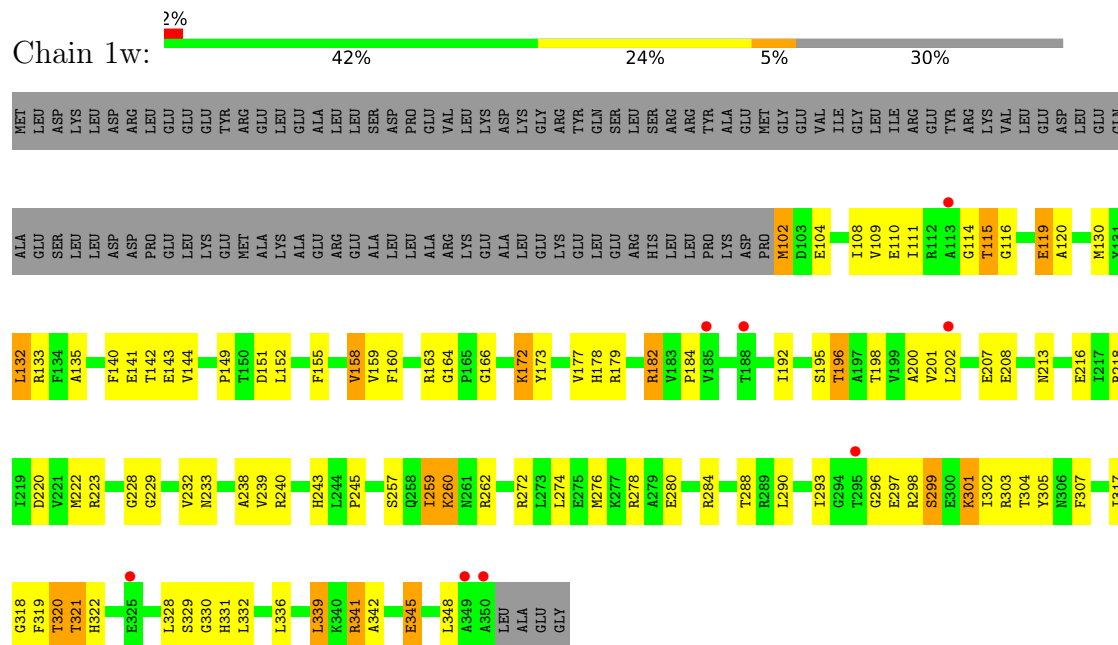
• Molecule 53: PHE-Stop mRNA



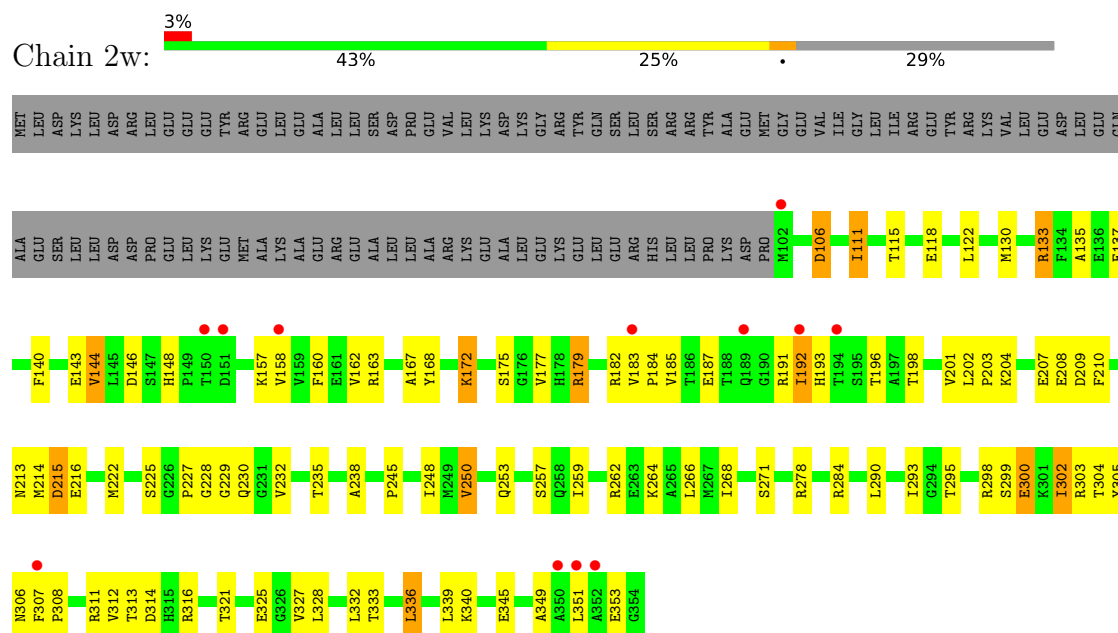
- Molecule 53: PHE-Stop mRNA



- Molecule 54: Peptide chain release factor 1

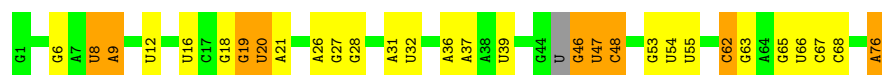


- Molecule 54: Peptide chain release factor 1



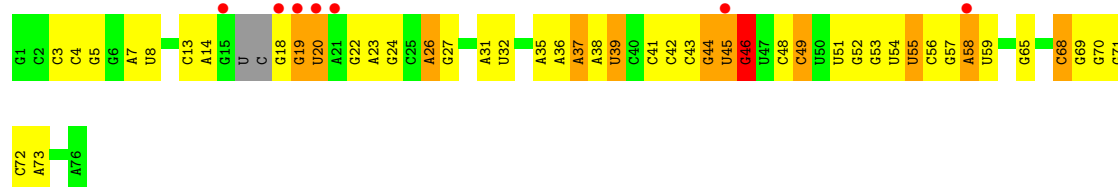
- Molecule 55: P-site and E-site Deacylated tRNAPhe

Chain 1x: 



- Molecule 55: P-site and E-site Deacylated tRNA^{phe}

Chain 1y: 



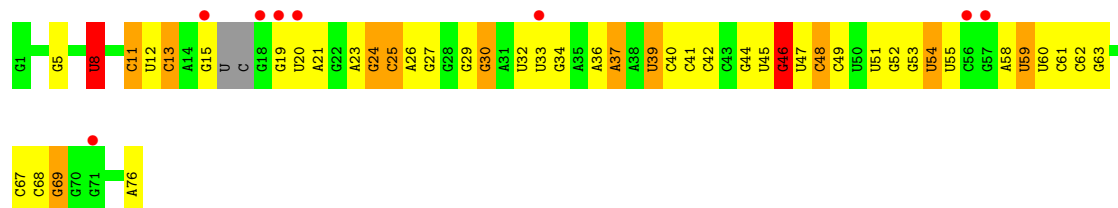
- Molecule 55: P-site and E-site Deacylated tRNA^{phe}

Chain 2x: 



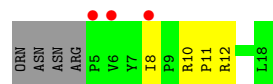
- Molecule 55: P-site and E-site Deacylated tRNA^{phe}

Chain 2y: 



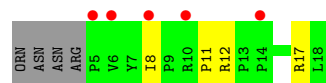
- Molecule 56: Api137 Antimicrobial Peptide

Chain 1z: 



- Molecule 56: Api137 Antimicrobial Peptide

Chain 2z: 



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.60Å 450.81Å 624.08Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	152.87 – 2.70 152.87 – 2.70	Depositor EDS
% Data completeness (in resolution range)	99.0 (152.87-2.70) 99.1 (152.87-2.70)	Depositor EDS
R_{merge}	0.20	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.16 (at 2.69Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.227 , 0.278 0.229 , 0.277	Depositor DCC
R_{free} test set	79249 reflections (4.97%)	wwPDB-VP
Wilson B-factor (Å ²)	56.7	Xtriage
Anisotropy	0.066	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 51.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.38$, $\langle L^2 \rangle = 0.20$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	299179	wwPDB-VP
Average B, all atoms (Å ²)	58.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.69% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ 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, UR3, MEQ, 0TD, 2MA, SF4, OMU, M2G, MG, ZN, 5MU, PSU, 4SU, 2MG, OMG, OMC, 5MC, G7M, MA6

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	0.29	0/69011	0.47	2/107720 (0.0%)
1	2A	0.22	0/67295	0.40	1/105042 (0.0%)
2	1B	0.23	0/2881	0.40	0/4494
2	2B	0.19	0/2881	0.35	0/4494
3	1D	0.27	0/2186	0.50	0/2944
3	2D	0.22	0/2186	0.45	0/2944
4	1E	0.30	0/1592	0.54	1/2149 (0.0%)
4	2E	0.20	0/1592	0.43	0/2149
5	1F	0.27	0/1619	0.49	0/2193
5	2F	0.26	1/1615 (0.1%)	0.44	0/2188
6	1G	0.22	0/1450	0.47	0/1959
6	2G	0.21	0/1449	0.45	0/1958
7	1H	0.23	0/1356	0.43	0/1834
7	2H	0.19	0/1356	0.41	0/1834
8	1I	0.21	0/1100	0.43	0/1501
8	2I	0.19	0/1076	0.43	0/1471
9	1N	0.27	0/1144	0.45	0/1543
9	2N	0.19	0/1144	0.40	0/1543
10	1O	0.27	0/943	0.50	0/1269
10	2O	0.21	0/943	0.44	0/1269
11	1P	0.28	0/1152	0.55	0/1533
11	2P	0.22	0/1152	0.47	0/1533
12	1Q	0.28	0/1143	0.51	0/1527
12	2Q	0.20	0/1143	0.41	0/1527
13	1R	0.29	0/982	0.52	0/1312
13	2R	0.21	0/982	0.44	0/1312
14	1S	0.22	0/887	0.52	0/1180
14	2S	0.21	0/880	0.47	0/1172
15	1T	0.26	0/1105	0.49	0/1477
15	2T	0.22	0/1097	0.44	0/1468
16	1U	0.32	0/977	0.48	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.20	0/977	0.39	0/1301
17	1V	0.32	0/782	0.48	0/1049
17	2V	0.19	0/782	0.41	0/1049
18	1W	0.31	0/897	0.50	0/1205
18	2W	0.21	0/897	0.43	0/1205
19	1X	0.28	0/764	0.54	1/1025 (0.1%)
19	2X	0.20	0/760	0.35	0/1021
20	1Y	0.26	0/819	0.50	0/1095
20	2Y	0.21	0/823	0.46	0/1100
21	1Z	0.22	0/1469	0.48	0/1998
21	2Z	0.20	0/1483	0.47	0/2018
22	10	0.28	0/612	0.53	0/816
22	20	0.22	0/616	0.51	0/821
23	11	0.26	0/762	0.45	0/1014
23	21	0.22	0/762	0.44	0/1014
24	12	0.24	0/590	0.44	0/781
24	22	0.19	0/590	0.43	0/781
25	13	0.27	0/474	0.47	0/635
25	23	0.21	0/469	0.38	0/630
26	14	0.24	0/561	0.52	0/756
26	24	0.30	0/530	0.58	0/719
27	15	0.31	0/469	0.54	0/635
27	25	0.23	0/469	0.48	0/635
28	16	0.27	0/460	0.49	0/613
28	26	0.21	0/456	0.45	0/608
29	17	0.32	0/426	0.48	0/561
29	27	0.25	0/426	0.46	0/561
30	18	0.30	0/519	0.48	0/684
30	28	0.21	0/525	0.42	0/691
31	19	0.27	0/310	0.66	1/407 (0.2%)
31	29	0.22	0/310	0.49	0/407
32	1a	0.20	1/35795 (0.0%)	0.38	1/55864 (0.0%)
32	2a	0.20	2/35886 (0.0%)	0.38	0/56005
33	1b	0.23	0/1881	0.50	0/2542
33	2b	0.30	0/1860	0.54	0/2518
34	1c	0.20	0/1578	0.39	0/2133
34	2c	0.21	0/1566	0.44	0/2119
35	1d	0.20	0/1689	0.49	0/2267
35	2d	0.21	0/1704	0.46	0/2284
36	1e	0.21	0/1145	0.48	0/1543
36	2e	0.20	0/1146	0.45	0/1545
37	1f	0.21	0/823	0.43	0/1116
37	2f	0.18	0/829	0.41	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.21	0/1250	0.42	0/1679
38	2g	0.21	0/1254	0.43	0/1683
39	1h	0.20	0/1108	0.44	0/1494
39	2h	0.22	0/1108	0.50	1/1494 (0.1%)
40	1i	0.22	0/1002	0.49	0/1346
40	2i	0.26	0/957	0.50	1/1288 (0.1%)
41	1j	0.21	0/734	0.42	0/997
41	2j	0.24	0/727	0.46	0/988
42	1k	0.19	0/844	0.39	0/1145
42	2k	0.20	0/848	0.43	0/1149
43	1l	0.21	0/937	0.43	0/1260
43	2l	0.20	0/937	0.42	0/1260
44	1m	0.22	0/933	0.48	0/1254
44	2m	0.23	0/899	0.51	0/1212
45	1n	0.19	0/501	0.47	0/664
45	2n	0.20	0/495	0.45	0/657
46	1o	0.22	0/739	0.40	0/985
46	2o	0.18	0/739	0.39	0/985
47	1p	0.22	0/697	0.51	0/939
47	2p	0.21	0/693	0.48	0/935
48	1q	0.19	0/836	0.40	0/1117
48	2q	0.22	0/836	0.45	0/1117
49	1r	0.21	0/560	0.43	0/746
49	2r	0.20	0/556	0.44	0/741
50	1s	0.32	1/667 (0.1%)	0.48	0/900
50	2s	0.19	0/661	0.42	0/893
51	1t	0.21	0/730	0.46	0/965
51	2t	0.19	0/729	0.42	0/965
52	1u	0.20	0/203	0.42	0/266
52	2u	0.19	0/203	0.46	0/266
53	1v	0.23	0/306	0.42	0/473
53	2v	0.21	0/306	0.40	0/473
54	1w	0.20	0/1956	0.40	0/2634
54	2w	0.21	0/1971	0.44	1/2654 (0.0%)
55	1x	0.28	1/1629 (0.1%)	0.41	0/2535
55	1y	0.30	2/1602 (0.1%)	0.42	0/2488
55	2x	0.25	0/1629	0.36	0/2535
55	2y	0.31	1/1606 (0.1%)	0.36	0/2497
56	1z	0.27	0/128	0.49	0/175
56	2z	0.20	0/128	0.44	0/175
All	All	0.24	9/317654 (0.0%)	0.43	10/474763 (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	2P	0	1

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2y	46	G7M	O3'-P	5.99	1.62	1.56
50	1s	65	ASN	CA-C	5.90	1.60	1.52
32	1a	527	G7M	O3'-P	5.39	1.61	1.56
32	2a	527	G7M	O3'-P	5.29	1.61	1.56
55	1y	46	G7M	O3'-P	5.14	1.61	1.56
55	1x	8	4SU	O3'-P	5.13	1.61	1.56
5	2F	54	ARG	CA-C	5.11	1.59	1.52
55	1y	8	4SU	O3'-P	5.03	1.61	1.56
32	2a	1498	UR3	O3'-P	5.01	1.61	1.56

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	345	GLU	N-CA-C	-9.54	103.75	114.62
39	2h	19	VAL	N-CA-C	-8.59	104.22	112.29
31	19	10	ILE	N-CA-C	-6.55	106.41	112.96
1	2A	1992	G	C2'-C3'-O3'	5.88	118.33	109.50
1	1A	2689	U	C4'-C3'-O3'	5.55	117.72	109.40
4	1E	69	LYS	N-CA-C	-5.54	106.60	113.19
40	2i	44	VAL	N-CA-C	-5.41	106.58	112.80
1	1A	1653	G	C2'-C3'-O3'	5.30	117.45	109.50
19	1X	52	VAL	N-CA-C	-5.05	107.91	112.96
32	1a	266	G	C2'-C3'-O3'	5.02	117.03	109.50

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
11	2P	35	HIS	Peptide

5.2 Too-close contacts

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	31195	627	1
1	2A	60322	0	30426	720	0
2	1B	2576	0	1305	24	0
2	2B	2576	0	1305	37	0
3	1D	2136	0	2218	45	0
3	2D	2136	0	2218	40	0
4	1E	1559	0	1618	25	0
4	2E	1559	0	1618	37	0
5	1F	1584	0	1625	51	0
5	2F	1580	0	1619	51	0
6	1G	1425	0	1443	31	1
6	2G	1424	0	1434	61	0
7	1H	1330	0	1407	29	0
7	2H	1330	0	1407	30	0
8	1I	1085	0	1114	25	0
8	2I	1061	0	1080	33	0
9	1N	1117	0	1184	12	0
9	2N	1117	0	1184	18	0
10	1O	933	0	996	19	0
10	2O	933	0	996	26	0
11	1P	1135	0	1212	33	0
11	2P	1135	0	1212	32	0
12	1Q	1122	0	1178	23	0
12	2Q	1122	0	1179	30	0
13	1R	968	0	1033	23	0
13	2R	968	0	1033	28	0
14	1S	877	0	938	22	0
14	2S	870	0	923	36	0
15	1T	1091	0	1151	17	0
15	2T	1083	0	1136	24	0
16	1U	959	0	1019	10	0
16	2U	959	0	1019	18	0
17	1V	771	0	829	10	0
17	2V	771	0	829	11	0
18	1W	886	0	940	15	0
18	2W	886	0	940	16	0
19	1X	750	0	814	19	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	2X	746	0	803	13	0
20	1Y	806	0	881	14	0
20	2Y	810	0	887	31	0
21	1Z	1437	0	1446	43	0
21	2Z	1451	0	1450	47	0
22	10	604	0	619	8	0
22	20	608	0	622	20	0
23	11	755	0	825	9	0
23	21	755	0	826	14	0
24	12	588	0	643	14	0
24	22	588	0	643	19	0
25	13	469	0	518	14	0
25	23	464	0	514	11	0
26	14	548	0	529	16	0
26	24	517	0	479	27	0
27	15	455	0	465	16	0
27	25	455	0	465	10	0
28	16	453	0	472	7	0
28	26	449	0	469	13	0
29	17	418	0	467	7	0
29	27	418	0	467	9	0
30	18	511	0	571	16	0
30	28	517	0	582	16	0
31	19	307	0	335	4	0
31	29	307	0	335	3	0
32	1a	32246	0	16295	488	0
32	2a	32327	0	16338	508	0
33	1b	1846	0	1867	77	0
33	2b	1825	0	1828	76	0
34	1c	1554	0	1551	38	0
34	2c	1542	0	1517	42	0
35	1d	1659	0	1676	63	0
35	2d	1674	0	1714	70	0
36	1e	1129	0	1185	41	0
36	2e	1130	0	1184	26	0
37	1f	810	0	797	15	0
37	2f	816	0	808	21	0
38	1g	1231	0	1238	22	0
38	2g	1235	0	1249	45	0
39	1h	1088	0	1126	28	0
39	2h	1088	0	1126	23	0
40	1i	983	0	986	42	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	2i	940	0	938	39	0
41	1j	721	0	672	33	0
41	2j	714	0	672	30	0
42	1k	829	0	825	23	0
42	2k	833	0	836	32	0
43	1l	932	0	979	32	0
43	2l	932	0	980	26	0
44	1m	923	0	962	41	0
44	2m	889	0	901	41	0
45	1n	492	0	529	22	0
45	2n	486	0	518	28	0
46	1o	728	0	760	16	0
46	2o	728	0	760	16	0
47	1p	681	0	697	21	0
47	2p	677	0	686	22	0
48	1q	823	0	891	16	0
48	2q	823	0	891	14	0
49	1r	555	0	618	12	0
49	2r	551	0	614	17	0
50	1s	652	0	662	29	0
50	2s	646	0	644	23	0
51	1t	728	0	798	25	0
51	2t	727	0	796	21	0
52	1u	199	0	208	9	0
52	2u	199	0	208	8	0
53	1v	274	0	139	2	0
53	2v	274	0	139	4	0
54	1w	1939	0	1925	60	0
54	2w	1954	0	1930	54	0
55	1x	1612	0	829	13	0
55	1y	1590	0	815	25	0
55	2x	1612	0	829	15	0
55	2y	1592	0	818	27	0
56	1z	121	0	128	2	0
56	2z	121	0	128	2	0
57	10	5	0	0	0	0
57	11	4	0	0	0	0
57	12	2	0	0	0	0
57	13	1	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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	17	7	0	0	0	0
57	18	2	0	0	0	0
57	19	1	0	0	0	0
57	1A	807	0	0	0	0
57	1B	20	0	0	0	0
57	1D	6	0	0	0	0
57	1E	7	0	0	0	0
57	1F	8	0	0	0	0
57	1G	3	0	0	0	0
57	1N	4	0	0	0	0
57	1O	2	0	0	0	0
57	1P	4	0	0	0	0
57	1Q	5	0	0	0	0
57	1R	2	0	0	0	0
57	1T	1	0	0	0	0
57	1U	6	0	0	0	0
57	1V	5	0	0	0	0
57	1W	4	0	0	0	0
57	1X	3	0	0	0	0
57	1Z	2	0	0	0	0
57	1a	187	0	0	0	0
57	1c	1	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	3	0	0	0	0
57	1w	4	0	0	0	0
57	1x	8	0	0	0	0
57	1y	2	0	0	0	0
57	20	2	0	0	0	0
57	21	1	0	0	0	0
57	23	2	0	0	0	0
57	25	1	0	0	0	0
57	28	3	0	0	0	0
57	29	1	0	0	0	0
57	2A	665	0	0	0	0
57	2B	11	0	0	0	0
57	2D	9	0	0	0	0
57	2E	5	0	0	0	0
57	2F	6	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	2N	1	0	0	0	0
57	2O	1	0	0	0	0
57	2Q	3	0	0	0	0
57	2R	1	0	0	0	0
57	2U	1	0	0	0	0
57	2V	2	0	0	0	0
57	2W	1	0	0	0	0
57	2X	4	0	0	0	0
57	2Y	1	0	0	0	0
57	2a	172	0	0	0	0
57	2d	1	0	0	0	0
57	2e	2	0	0	0	0
57	2f	1	0	0	0	0
57	2j	1	0	0	0	0
57	2k	2	0	0	0	0
57	2t	1	0	0	0	0
57	2u	1	0	0	0	0
57	2v	2	0	0	0	0
57	2w	2	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	2	0
59	2d	8	0	0	1	0
60	10	1	0	0	0	0
60	11	3	0	0	0	0
60	13	2	0	0	0	0
60	15	5	0	0	0	0
60	16	1	0	0	1	0
60	17	2	0	0	0	0
60	18	7	0	0	1	0
60	1A	1394	0	0	75	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	1B	31	0	0	1	0
60	1D	15	0	0	1	0
60	1E	12	0	0	0	0
60	1F	6	0	0	2	0
60	1G	1	0	0	0	0
60	1N	3	0	0	1	0
60	1O	3	0	0	1	0
60	1P	15	0	0	1	0
60	1Q	3	0	0	0	0
60	1R	2	0	0	0	0
60	1T	1	0	0	0	0
60	1U	5	0	0	0	0
60	1V	1	0	0	0	0
60	1W	2	0	0	0	0
60	1X	4	0	0	0	0
60	1a	194	0	0	23	0
60	1d	1	0	0	0	0
60	1l	1	0	0	0	0
60	1p	1	0	0	0	0
60	1v	3	0	0	1	0
60	1w	5	0	0	0	0
60	1x	22	0	0	2	0
60	1y	1	0	0	1	0
60	1z	4	0	0	0	0
60	20	6	0	0	0	0
60	21	2	0	0	0	0
60	23	2	0	0	1	0
60	25	1	0	0	0	0
60	27	3	0	0	0	0
60	28	3	0	0	0	0
60	2A	997	0	0	97	0
60	2B	7	0	0	0	0
60	2D	16	0	0	0	0
60	2E	11	0	0	2	0
60	2F	5	0	0	0	0
60	2N	1	0	0	0	0
60	2O	1	0	0	0	0
60	2P	12	0	0	1	0
60	2Q	1	0	0	0	0
60	2R	3	0	0	1	0
60	2T	1	0	0	0	0
60	2U	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	2W	1	0	0	0	0
60	2X	2	0	0	0	0
60	2Y	2	0	0	0	0
60	2a	154	0	0	12	0
60	2d	1	0	0	0	0
60	2j	1	0	0	0	0
60	2t	2	0	0	0	0
60	2v	2	0	0	0	0
60	2w	2	0	0	1	0
60	2x	13	0	0	1	0
All	All	299179	0	199300	4441	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 9.

All (4441) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2124:G:H1	1:1A:2174:C:H42	1.01	0.97
1:2A:2129:C:N4	1:2A:2159:G:H1	1.66	0.94
1:1A:1057:A:N6	1:1A:1081:U:H3	1.66	0.94
1:1A:2124:G:H1	1:1A:2174:C:N4	1.68	0.91
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.36	0.91
1:2A:2129:C:H42	1:2A:2159:G:H1	0.92	0.91
1:1A:1093:G:H3'	1:1A:1094:U:H5''	1.52	0.91
1:1A:2499:C:OP1	60:1A:3903:HOH:O	1.90	0.90
42:2k:86:GLY:H	42:2k:112:THR:HG22	1.37	0.90
32:2a:519:C:OP1	54:2w:179:ARG:NH2	2.05	0.89
1:1A:453:C:OP1	60:1A:3904:HOH:O	1.92	0.88
1:1A:1057:A:H61	1:1A:1081:U:H3	0.93	0.87
32:2a:664:G:H22	32:2a:741:G:H1	1.18	0.86
1:2A:1359:A:H61	1:2A:1372:U:H3	1.23	0.85
34:2c:52:LEU:HD21	34:2c:55:VAL:HG23	1.57	0.85
1:1A:792:G:O6	60:1A:3905:HOH:O	1.94	0.85
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.09	0.85
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.23	0.85
1:1A:956:G:OP2	12:1Q:14:ARG:NH2	2.10	0.85
32:2a:1256:A:H61	32:2a:1278:U:H1'	1.42	0.84
41:1j:6:ILE:HA	41:1j:98:ILE:HG12	1.60	0.84
35:2d:76:ARG:NH1	35:2d:80:GLU:OE1	2.11	0.83
32:1a:656:C:O2'	46:1o:28:GLN:NE2	2.10	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:50:GLU:HG3	51:2t:100:ILE:HD11	1.61	0.83
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.12	0.82
1:1A:2365:G:N7	30:18:39:LYS:NZ	2.27	0.82
1:2A:450:G:O6	60:2A:3706:HOH:O	1.98	0.81
54:2w:175:SER:HB3	54:2w:201:VAL:HG22	1.62	0.81
1:1A:1342:A:OP2	60:1A:3906:HOH:O	1.98	0.80
1:1A:489:G:N7	18:1W:49:LYS:NZ	2.28	0.80
1:2A:2427:C:OP1	60:2A:3707:HOH:O	1.98	0.80
40:1i:99:LEU:O	40:1i:101:PHE:N	2.15	0.80
1:2A:805:G:OP1	60:2A:3708:HOH:O	1.99	0.80
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.64	0.80
11:2P:44:GLY:O	60:2P:201:HOH:O	1.99	0.80
1:1A:1069:A:H1'	1:1A:1096:A:H4'	1.63	0.79
1:2A:370:G:OP2	60:2A:3709:HOH:O	2.00	0.79
32:1a:263:A:OP1	51:1t:79:ARG:NH1	2.16	0.79
41:2j:8:LEU:HB3	41:2j:16:LEU:HD21	1.64	0.79
33:2b:124:SER:HA	33:2b:127:ILE:HB	1.63	0.79
1:1A:2768:C:O2'	9:1N:89:LYS:NZ	2.14	0.79
32:2a:1055:A:N7	32:2a:1200:C:N4	2.30	0.79
32:1a:558:G:OP1	60:1a:1801:HOH:O	1.99	0.79
32:2a:1381:U:H1'	38:2g:79:ARG:HG3	1.65	0.79
6:2G:13:GLU:HG3	6:2G:14:GLU:HG3	1.64	0.78
32:1a:1027:C:C4	32:1a:1034:G:C2	2.72	0.78
1:1A:2807:G:N1	1:1A:2893:G:O6	2.12	0.78
1:2A:752:A:H3'	29:27:1:MET:HE1	1.65	0.78
1:1A:1267:U:OP1	60:1A:3908:HOH:O	2.02	0.78
1:2A:2103:C:H42	1:2A:2186:G:H1	1.29	0.78
10:2O:1:MET:HE3	10:2O:67:LYS:HG2	1.66	0.78
1:1A:194:G:OP2	60:1A:3907:HOH:O	2.00	0.78
1:2A:1009:A:OP2	60:2A:3710:HOH:O	2.01	0.78
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.17	0.77
3:2D:275:LYS:HD2	3:2D:276:LYS:H	1.47	0.77
1:2A:422:A:OP2	60:2A:3709:HOH:O	2.02	0.77
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.18	0.77
32:2a:619:U:N3	35:2d:134:ASP:OD1	2.13	0.77
1:1A:243:U:OP1	30:18:6:THR:OG1	2.02	0.77
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.30	0.77
5:1F:168:ARG:HG2	5:1F:175:THR:HG21	1.66	0.77
40:2i:128:ARG:NH1	55:2x:33:U:OP2	2.17	0.77
1:1A:1023:U:OP2	60:1A:3910:HOH:O	2.03	0.77
1:2A:962:G:OP1	60:2A:3711:HOH:O	2.02	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1664:A:OP1	60:1A:3909:HOH:O	2.02	0.76
1:2A:1327:C:OP2	60:2A:3713:HOH:O	2.03	0.76
37:1f:9:VAL:HB	37:1f:87:ARG:HB2	1.67	0.76
1:2A:956:G:OP2	12:2Q:14:ARG:NH2	2.17	0.76
32:2a:1030(A):G:H2'	32:2a:1030(B):C:H3'	1.65	0.76
32:1a:1004:A:H5''	32:1a:1024:G:H1	1.50	0.76
1:2A:2133:G:O2'	1:2A:2157:G:N2	2.17	0.76
1:2A:2582:G:OP2	60:2A:3714:HOH:O	2.04	0.76
1:1A:2407:G:OP1	60:1A:3911:HOH:O	2.03	0.76
32:2a:251:G:N7	60:2a:1807:HOH:O	2.19	0.76
36:2e:136:MET:HA	36:2e:139:LEU:HD12	1.66	0.76
32:1a:117:G:OP2	60:1a:1802:HOH:O	2.03	0.76
32:1a:299:G:O6	60:1a:1801:HOH:O	2.03	0.76
4:2E:181:LEU:HD11	15:2T:6:LEU:HD12	1.67	0.76
33:2b:30:ARG:HH21	33:2b:194:PRO:HB2	1.51	0.76
32:1a:1027:C:C2	32:1a:1034:G:N2	2.54	0.76
1:2A:2575:C:OP2	60:2A:3712:HOH:O	2.03	0.75
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.66	0.75
32:2a:953:G:H5'	32:2a:965:A:H61	1.51	0.75
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.19	0.75
1:1A:2719:G:OP2	60:1A:3912:HOH:O	2.04	0.75
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.52	0.75
1:2A:948:G:OP1	60:2A:3711:HOH:O	2.03	0.75
1:2A:1271:G:OP2	60:2A:3715:HOH:O	2.04	0.75
1:2A:2298:A:H62	1:2A:2318:G:H8	1.31	0.75
32:2a:8:A:H5'	36:2e:101:ILE:HG22	1.67	0.75
32:1a:1006:C:H42	32:1a:1023:G:H1	1.34	0.75
32:2a:975:A:H4'	32:2a:976:G:H5''	1.68	0.75
32:1a:1401:G:OP1	60:1a:1803:HOH:O	2.04	0.74
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.22	0.74
4:1E:181:LEU:HD21	15:1T:6:LEU:HD23	1.68	0.74
32:2a:1128:C:O2	32:2a:1147:C:N4	2.20	0.74
40:2i:16:ARG:H	40:2i:64:THR:HG22	1.52	0.74
54:2w:228:GLY:HA3	54:2w:232:VAL:HB	1.69	0.74
14:1S:52:SER:HB2	14:1S:55:ALA:H	1.52	0.74
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.21	0.74
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.69	0.74
32:1a:1378:C:O2	38:1g:76:ARG:NH1	2.20	0.74
40:1i:42:ARG:NH1	40:1i:71:SER:OG	2.21	0.74
1:2A:1689:A:H62	1:2A:1698:A:H2	1.36	0.74
1:2A:2218:U:O2	23:21:52:ARG:NH1	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:23:6:VAL:HG22	25:23:56:VAL:HG22	1.69	0.74
1:2A:963:U:OP2	60:2A:3711:HOH:O	2.04	0.74
1:2A:2159:G:H2'	1:2A:2160:G:H8	1.53	0.74
1:2A:1395:A:OP1	60:2A:3716:HOH:O	2.05	0.74
18:1W:68:ARG:HH21	18:1W:111:HIS:CE1	2.06	0.73
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.21	0.73
21:1Z:72:ARG:NH2	21:1Z:97:GLU:O	2.22	0.73
33:1b:63:MET:HG2	33:1b:225:ALA:HB1	1.70	0.73
16:2U:49:HIS:HA	16:2U:52:ARG:HB2	1.69	0.73
1:2A:1313:U:OP1	60:2A:3719:HOH:O	2.06	0.73
32:2a:538:G:H5''	43:2l:114:LYS:HB2	1.70	0.73
1:1A:2131:G:H5''	1:1A:2132:U:H3'	1.70	0.73
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.21	0.73
6:2G:122:PRO:HG3	6:2G:180:PHE:HB3	1.69	0.73
32:2a:1006:C:N4	32:2a:1022:G:O6	2.22	0.73
41:2j:6:ILE:HG23	41:2j:98:ILE:HG12	1.70	0.73
33:1b:76:GLN:HB3	33:1b:208:ILE:HG13	1.70	0.73
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.71	0.73
32:2a:1316:G:H22	32:2a:1319:A:H5''	1.53	0.73
32:1a:1145:C:H4'	32:1a:1146:A:H5'	1.69	0.73
1:2A:1828:G:OP1	60:2A:3718:HOH:O	2.06	0.73
32:2a:1123:A:H4'	41:2j:36:GLY:HA3	1.69	0.73
32:2a:1346:A:OP1	40:2i:120:ARG:NH1	2.22	0.73
1:1A:963:U:OP2	60:1A:3914:HOH:O	2.07	0.73
1:1A:2508:G:OP1	54:1w:223:ARG:NH2	2.20	0.73
14:2S:24:LEU:HB2	14:2S:85:VAL:HG23	1.70	0.73
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.21	0.73
38:1g:89:MET:HE3	38:1g:155:ARG:HB2	1.69	0.72
33:2b:93:VAL:HG21	33:2b:97:TRP:HD1	1.54	0.72
1:1A:958:U:O2	2:1B:90:A:O2'	2.07	0.72
1:2A:526:A:OP1	60:2A:3717:HOH:O	2.06	0.72
32:2a:1119:C:OP1	40:2i:83:ARG:NH2	2.21	0.72
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.71	0.72
32:2a:701:C:OP1	32:2a:702:A:O2'	2.06	0.72
32:2a:794:A:OP1	60:2a:1801:HOH:O	2.06	0.72
35:2d:100:ARG:HH21	35:2d:118:ARG:HH12	1.37	0.72
32:1a:508:C:OP1	35:1d:209:ARG:NH2	2.21	0.72
1:2A:1418:G:OP2	60:2A:3722:HOH:O	2.07	0.72
32:1a:683:G:H21	42:1k:38:ASN:HD22	1.38	0.72
1:2A:744:G:N7	60:2A:3781:HOH:O	2.22	0.72
1:2A:1670:C:OP1	60:2A:3721:HOH:O	2.07	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:674:G:N3	5:1F:74:ARG:NH1	2.36	0.72
54:1w:280:GLU:OE1	54:1w:284:ARG:NH1	2.23	0.72
1:2A:2811:G:H5'	4:2E:60:ASN:HD22	1.54	0.72
6:2G:46:ALA:HA	6:2G:49:ASP:HB2	1.72	0.72
19:1X:44:GLU:HG3	19:1X:51:VAL:HG23	1.71	0.72
21:1Z:43:GLU:HA	21:1Z:46:LYS:HE2	1.70	0.72
2:2B:84:C:OP1	25:23:15:TYR:OH	2.08	0.72
1:2A:297:C:OP1	20:2Y:87:LYS:NZ	2.23	0.71
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.07	0.71
32:1a:903:G:OP1	60:1a:1804:HOH:O	2.06	0.71
1:2A:2113:U:H3	1:2A:2170:A:H61	1.37	0.71
1:1A:1056:G:H4'	1:1A:1086:A:C8	2.25	0.71
1:1A:2758:A:OP2	60:1A:3913:HOH:O	2.07	0.71
40:1i:16:ARG:HB2	40:1i:64:THR:HB	1.71	0.71
33:2b:178:ARG:HH22	39:2h:68:ARG:HH22	1.36	0.71
1:1A:674:G:H1'	5:1F:74:ARG:HH11	1.56	0.71
1:2A:387:U:OP1	60:2A:3720:HOH:O	2.07	0.71
1:2A:1658:C:OP1	60:2E:401:HOH:O	2.07	0.71
1:2A:1890:A:OP2	60:2A:3726:HOH:O	2.09	0.71
32:2a:266:G:H5''	32:2a:268:C:H41	1.55	0.71
37:2f:82:ARG:HB2	37:2f:85:VAL:HG12	1.72	0.71
1:2A:2499:C:OP2	60:2A:3723:HOH:O	2.08	0.71
1:1A:818:G:OP2	60:1A:3916:HOH:O	2.08	0.71
1:1A:883:G:H21	1:1A:884:C:H41	1.37	0.71
2:1B:45:A:O4'	6:1G:95:ARG:NH1	2.24	0.71
7:1H:113:VAL:HG11	7:1H:151:ILE:HD13	1.73	0.71
34:1c:125:GLU:HA	34:1c:191:THR:HG22	1.73	0.71
53:1v:20:A:OP2	60:1v:201:HOH:O	2.08	0.71
32:2a:979:C:OP1	32:2a:1223:C:N4	2.23	0.71
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.26	0.70
41:2j:32:ALA:HB1	41:2j:74:ILE:HD11	1.73	0.70
6:1G:143:GLU:O	26:14:28:LYS:NZ	2.21	0.70
32:1a:937:A:OP2	60:1a:1805:HOH:O	2.09	0.70
21:2Z:10:ARG:NH2	21:2Z:26:GLY:O	2.24	0.70
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.25	0.70
1:1A:2552:OMU:OP2	60:1A:3915:HOH:O	2.08	0.70
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.24	0.70
4:2E:128:SER:OG	4:2E:129:HIS:N	2.22	0.70
32:2a:406:G:H4'	35:2d:5:ILE:HD11	1.73	0.70
32:1a:1499:A:OP2	60:1a:1806:HOH:O	2.09	0.70
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.24	0.70
32:1a:1027:C:N4	32:1a:1034:G:C6	2.60	0.70
1:2A:1315:C:OP2	60:2A:3724:HOH:O	2.08	0.70
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.55	0.70
14:2S:105:ALA:HB1	14:2S:110:LEU:HD12	1.72	0.70
1:2A:271(W):G:O6	60:2A:3725:HOH:O	2.08	0.70
32:2a:256:U:OP1	48:2q:17:LYS:NZ	2.21	0.70
1:1A:2189:U:H2'	1:1A:2190:G:C8	2.27	0.70
32:1a:1035:A:N3	32:1a:1036:G:N2	2.40	0.70
55:2x:9:A:O2'	55:2x:10:G:N7	2.25	0.70
1:2A:1025:G:O2'	60:2A:3727:HOH:O	2.10	0.70
1:2A:1332:G:OP1	60:2A:3724:HOH:O	2.09	0.70
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.40	0.70
1:2A:1651:G:OP1	13:2R:40:LYS:NZ	2.25	0.70
6:2G:63:ILE:HD12	6:2G:141:PHE:HB3	1.74	0.70
32:2a:1320:C:O2	50:2s:36:ARG:NH2	2.25	0.70
32:1a:1436:U:OP1	51:1t:23:ARG:NH2	2.23	0.70
34:2c:3:ASN:N	34:2c:3:ASN:OD1	2.25	0.70
1:2A:1647:G:OP1	60:2A:3715:HOH:O	2.10	0.69
1:1A:380:U:OP1	60:1A:3917:HOH:O	2.09	0.69
35:1d:19:LEU:HD23	35:1d:67:ILE:HG13	1.74	0.69
54:1w:229:GLY:HA3	55:1x:76:A:H3'	1.74	0.69
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.74	0.69
32:1a:975:A:H4'	32:1a:976:G:H5''	1.72	0.69
43:1l:57:LYS:HG2	43:1l:67:THR:HG22	1.75	0.69
51:1t:100:ILE:HG22	51:1t:101:GLY:H	1.57	0.69
1:2A:83:G:H1	1:2A:102:G:HO2'	1.41	0.69
1:2A:2058:A:N7	60:2A:3805:HOH:O	2.25	0.69
1:2A:2574:G:OP1	60:2A:3712:HOH:O	2.10	0.69
40:2i:28:VAL:HG22	40:2i:63:ILE:HD12	1.75	0.69
1:1A:956:G:H5''	12:1Q:77:LYS:HD2	1.73	0.69
21:2Z:151:HIS:O	21:2Z:153:SER:N	2.26	0.69
33:2b:48:MET:HA	33:2b:51:LEU:HD12	1.73	0.69
17:2V:76:LYS:HB2	17:2V:81:TYR:HB3	1.74	0.69
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.73	0.69
1:1A:2615:U:OP1	60:1A:3920:HOH:O	2.11	0.69
1:2A:792:G:O6	60:2A:3728:HOH:O	2.10	0.69
1:2A:2129:C:N3	1:2A:2159:G:N2	2.41	0.69
32:1a:1402:4OC:OP2	60:1a:1803:HOH:O	2.10	0.69
1:2A:1800:C:OP2	3:2D:183:ARG:NH2	2.25	0.69
32:2a:972:C:OP1	60:2a:1802:HOH:O	2.11	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1445:C:O2'	32:2a:1447:A:N6	2.26	0.69
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.24	0.69
32:2a:1278:U:H5'	32:2a:1279:A:H5'	1.75	0.69
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.74	0.69
25:13:39:ASP:OD2	25:13:44:ARG:NH2	2.26	0.69
1:2A:826:U:OP1	60:2A:3707:HOH:O	2.09	0.69
1:1A:731:C:OP2	60:1A:3919:HOH:O	2.10	0.68
1:2A:2454:G:O6	60:2A:3731:HOH:O	2.11	0.68
6:2G:67:LYS:HD3	26:24:5:ILE:HB	1.75	0.68
32:2a:921:U:O2'	36:2e:19:MET:O	2.08	0.68
33:2b:127:ILE:HG12	33:2b:128:GLU:HG2	1.73	0.68
1:1A:272(D):G:N7	60:1A:3980:HOH:O	2.25	0.68
32:1a:1172:C:H2'	32:1a:1173:G:H8	1.56	0.68
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.58	0.68
1:2A:1631(A):A:OP1	60:2A:3732:HOH:O	2.11	0.68
38:2g:139:GLU:O	38:2g:143:ARG:N	2.19	0.68
1:2A:409:C:OP1	60:2A:3730:HOH:O	2.10	0.68
1:2A:1023:U:OP2	60:2A:3727:HOH:O	2.11	0.68
32:2a:297:G:N2	32:2a:300:A:OP2	2.26	0.68
54:2w:130:MET:HE1	54:2w:305:TYR:HE1	1.57	0.68
1:1A:1349:A:OP1	60:1A:3923:HOH:O	2.12	0.68
32:1a:677:U:H3	32:1a:713:G:H22	1.42	0.68
1:1A:981:A:OP1	60:1A:3922:HOH:O	2.11	0.68
32:2a:946:A:H2'	32:2a:947:G:H8	1.58	0.68
1:1A:1986:A:OP1	60:1A:3918:HOH:O	2.10	0.68
1:2A:1859:A:N6	1:2A:1883:G:O2'	2.27	0.68
1:2A:2198:A:OP1	8:2I:33:ARG:NH2	2.27	0.68
1:2A:2820:A:OP1	13:2R:2:ARG:NH2	2.27	0.68
11:2P:63:PRO:HB2	30:28:30:ARG:HH21	1.59	0.68
54:2w:177:VAL:HG21	54:2w:300:GLU:HB3	1.74	0.68
12:1Q:21:THR:HG21	12:1Q:101:ARG:HD3	1.74	0.68
54:1w:317:ILE:HD13	54:1w:339:LEU:HG	1.76	0.68
1:2A:139(A):G:N7	60:2A:3814:HOH:O	2.27	0.68
1:1A:744:G:OP1	60:1A:3926:HOH:O	2.12	0.68
21:1Z:73:GLN:HB3	21:1Z:87:ASP:HB2	1.75	0.68
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.94	0.68
1:1A:1981:A:OP1	60:1A:3921:HOH:O	2.11	0.67
32:1a:1505:G:OP2	60:1a:1806:HOH:O	2.12	0.67
55:2y:11:C:H42	55:2y:24:G:H1	1.42	0.67
38:1g:111:ARG:NH2	38:1g:126:ASP:OD2	2.27	0.67
1:2A:307:G:H21	1:2A:330:A:H62	1.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.09	0.67
32:2a:1142:G:H2'	32:2a:1143:G:O4'	1.94	0.67
51:2t:10:LEU:HG	51:2t:12:ALA:H	1.60	0.67
1:1A:530:G:N1	1:1A:2023:G:OP1	2.24	0.67
32:2a:1129:C:H4'	40:2i:16:ARG:HH22	1.60	0.67
1:2A:1349:A:OP1	60:2A:3734:HOH:O	2.12	0.67
7:2H:101:ARG:NH2	7:2H:121:ILE:O	2.26	0.67
32:2a:1250:A:H4'	40:2i:68:GLY:H	1.60	0.67
35:2d:8:VAL:HG22	35:2d:21:LEU:HD13	1.74	0.67
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.43	0.67
1:2A:586:A:N1	1:2A:809:G:O2'	2.24	0.67
24:22:8:LYS:HE3	24:22:12:GLU:HG2	1.75	0.67
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.43	0.67
32:2a:1272:G:N2	32:2a:1273:G:N7	2.42	0.67
37:2f:2:ARG:HE	37:2f:69:GLU:HG2	1.59	0.67
10:1O:49:ARG:NH2	32:1a:1423:G:OP1	2.20	0.67
35:1d:101:LEU:HB2	35:1d:138:TYR:HB3	1.77	0.67
42:1k:79:SER:HA	42:1k:104:GLN:HB3	1.76	0.67
35:2d:15:GLU:HB3	35:2d:63:LYS:HG2	1.76	0.67
38:2g:70:LYS:HG3	38:2g:100:ALA:HB2	1.77	0.67
44:2m:10:PRO:HG2	44:2m:13:LYS:HG3	1.76	0.67
41:1j:17:ASP:HA	41:1j:20:ALA:HB3	1.76	0.67
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.29	0.67
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.27	0.67
1:1A:1313:U:OP1	60:1A:3925:HOH:O	2.12	0.67
1:1A:2448:A:OP1	60:1A:3903:HOH:O	2.12	0.67
32:2a:1178:G:N2	32:2a:1181:G:OP2	2.22	0.67
45:1n:4:LYS:HD2	45:1n:7:ILE:HD12	1.76	0.67
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.29	0.67
32:2a:1006:C:N3	32:2a:1023:G:N2	2.43	0.67
32:1a:1182:G:H4'	32:1a:1183:A:H5''	1.77	0.66
1:2A:372:G:O2'	1:2A:400:G:O6	2.13	0.66
1:1A:72:U:OP1	60:1A:3929:HOH:O	2.13	0.66
32:2a:1224:G:OP1	60:2a:1803:HOH:O	2.12	0.66
32:2a:1492:A:N6	43:2l:48:PRO:O	2.27	0.66
33:2b:58:ILE:HA	33:2b:61:LEU:HB3	1.76	0.66
1:1A:1379:A:H4'	1:1A:1380:G:OP2	1.94	0.66
32:1a:1216:G:OP1	45:1n:2:ALA:N	2.28	0.66
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.30	0.66
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.77	0.66
42:1k:87:THR:OG1	42:1k:87:THR:O	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2097:C:H42	1:1A:2192:G:H1	1.41	0.66
1:2A:2060:A:N3	60:2A:3816:HOH:O	2.27	0.66
54:2w:130:MET:HE2	54:2w:328:LEU:HA	1.78	0.66
1:1A:463:G:OP2	60:1A:3928:HOH:O	2.12	0.66
1:1A:1056:G:H5'	1:1A:1085:A:N1	2.11	0.66
1:2A:981:A:OP1	60:2A:3735:HOH:O	2.12	0.66
1:2A:2134:A:H62	1:2A:2157:G:H4'	1.60	0.66
2:2B:60:C:H2'	2:2B:61:G:H8	1.59	0.66
32:2a:1212:U:H5'	32:2a:1213:A:C8	2.31	0.66
49:2r:34:TYR:H	49:2r:34:TYR:HD2	1.44	0.66
51:2t:46:GLU:O	51:2t:48:LYS:N	2.27	0.66
1:1A:2763:G:OP2	60:1A:3930:HOH:O	2.13	0.66
1:2A:781:A:OP1	60:2A:3743:HOH:O	2.14	0.66
32:2a:1338:G:N2	55:2x:41:C:O2	2.28	0.66
33:2b:67:THR:HG23	33:2b:159:PRO:HA	1.77	0.66
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.77	0.66
34:1c:113:ALA:HB2	34:1c:202:ILE:HG13	1.76	0.66
35:1d:12:CYS:HB2	59:1d:302:SF4:S2	2.35	0.66
34:2c:35:GLU:OE1	34:2c:59:ARG:NH2	2.28	0.66
5:1F:31:HIS:NE2	5:1F:35:GLU:OE2	2.29	0.66
32:1a:1291:G:OP1	38:1g:41:ARG:NH1	2.28	0.66
55:1x:6:G:N7	60:1x:202:HOH:O	2.28	0.66
1:2A:247:G:O6	30:28:12:LYS:NZ	2.29	0.66
1:2A:376:C:OP1	60:2A:3740:HOH:O	2.14	0.66
20:2Y:30:VAL:HG22	20:2Y:37:VAL:HG12	1.78	0.66
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.29	0.66
32:2a:56:U:H2'	32:2a:57:G:C8	2.30	0.66
1:2A:773:U:OP1	60:2A:3738:HOH:O	2.13	0.66
11:2P:93:GLY:H	11:2P:123:LEU:HD21	1.60	0.66
1:1A:1026:U:OP1	60:1A:3910:HOH:O	2.13	0.66
1:1A:2592:G:OP1	60:1A:3933:HOH:O	2.14	0.66
32:1a:1021:G:O2'	32:1a:1022:G:O5'	2.13	0.66
33:1b:12:GLU:HB2	33:1b:213:LEU:HD21	1.78	0.66
41:1j:17:ASP:OD1	41:1j:70:ARG:NH1	2.28	0.66
32:2a:558:G:O6	60:2a:1804:HOH:O	2.13	0.66
32:2a:1285:A:H5'	32:2a:1286:A:C6	2.31	0.66
1:1A:761:A:OP1	60:1A:3927:HOH:O	2.12	0.65
1:1A:1330:C:OP1	60:1A:3938:HOH:O	2.15	0.65
1:1A:2022:U:OP1	60:1A:3934:HOH:O	2.14	0.65
35:1d:43:HIS:O	35:1d:45:GLN:N	2.29	0.65
41:1j:8:LEU:HB2	41:1j:70:ARG:HB2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:578:A:OP2	60:2A:3741:HOH:O	2.14	0.65
1:2A:908:C:O2'	12:2Q:71:ASP:OD2	2.12	0.65
26:24:16:CYS:SG	26:24:17:GLY:N	2.69	0.65
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.77	0.65
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.61	0.65
48:2q:95:TYR:HA	48:2q:98:LEU:HD13	1.78	0.65
39:1h:14:ARG:HD3	39:1h:18:ARG:HH21	1.59	0.65
43:1l:6:THR:HG22	43:1l:9:GLN:H	1.61	0.65
54:2w:222:MET:HG2	54:2w:238:ALA:HB3	1.78	0.65
28:16:22:ALA:O	60:16:201:HOH:O	2.15	0.65
32:1a:1191:A:OP2	34:1c:3:ASN:ND2	2.28	0.65
55:1y:35:A:H62	55:1y:37:MIA:H153	1.61	0.65
1:2A:399:G:OP2	60:2A:3737:HOH:O	2.13	0.65
1:2A:1648:C:OP1	60:2A:3715:HOH:O	2.15	0.65
1:2A:2419:U:O4	60:2A:3736:HOH:O	2.13	0.65
32:2a:137:C:H2'	32:2a:138:G:H8	1.61	0.65
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.61	0.65
35:2d:104:VAL:HG21	35:2d:140:VAL:HG21	1.78	0.65
4:1E:143:ASN:HD22	4:1E:147:PRO:HD2	1.61	0.65
1:2A:1203:G:O6	60:2A:3739:HOH:O	2.14	0.65
10:2O:80:ASP:OD2	15:2T:64:ARG:NH2	2.27	0.65
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.30	0.65
40:2i:28:VAL:HA	40:2i:63:ILE:HB	1.79	0.65
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.31	0.65
35:1d:100:ARG:NH2	35:1d:136:PRO:O	2.30	0.65
1:2A:1771:C:OP1	60:2A:3744:HOH:O	2.14	0.65
18:2W:19:LEU:HB3	27:25:25:LEU:HG	1.79	0.65
32:2a:946:A:H2'	32:2a:947:G:C8	2.32	0.65
1:1A:1364:G:N7	23:11:3:LYS:HE2	2.10	0.65
5:1F:9:ILE:HD12	5:1F:123:LEU:HD23	1.79	0.65
1:2A:2136:C:C4	1:2A:2155:G:N1	2.64	0.65
3:2D:69:ARG:HE	3:2D:130:ALA:HB2	1.61	0.65
1:1A:1333:C:OP2	60:1A:3931:HOH:O	2.14	0.65
32:1a:1402:4OC:OP1	60:1a:1807:HOH:O	2.15	0.65
43:1l:117:ARG:HB3	43:1l:122:THR:HB	1.77	0.65
22:20:51:VAL:HG22	22:20:81:VAL:HG23	1.79	0.65
25:23:13:ILE:O	60:23:201:HOH:O	2.14	0.65
55:2y:62:C:H2'	55:2y:63:G:C8	2.32	0.65
1:1A:2131:G:H5'	1:1A:2133:G:C8	2.32	0.65
1:1A:2879:C:OP2	60:1A:3935:HOH:O	2.14	0.65
21:1Z:152:ALA:HA	21:1Z:155:LEU:HG	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:231:GLU:HB3	33:1b:232:PRO:HD2	1.79	0.65
38:1g:106:GLN:O	38:1g:110:GLN:HG2	1.96	0.65
1:2A:770:G:OP2	60:2A:3746:HOH:O	2.15	0.65
1:2A:2238:G:N7	60:2A:3823:HOH:O	2.29	0.65
32:2a:1179:A:H4'	40:2i:103:THR:HA	1.78	0.65
1:1A:2268:A:OP1	60:1A:3940:HOH:O	2.15	0.65
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.14	0.65
33:2b:88:ALA:HB2	33:2b:219:VAL:HB	1.77	0.65
35:2d:62:GLN:HB3	35:2d:66:ARG:HH11	1.61	0.65
1:1A:184:C:H2'	1:1A:185:U:C6	2.32	0.64
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.62	0.64
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.79	0.64
32:1a:539:A:H2'	32:1a:540:G:C8	2.31	0.64
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.79	0.64
35:1d:109:GLY:HA3	35:1d:165:MET:HG3	1.79	0.64
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.62	0.64
55:1y:35:A:OP1	60:1y:201:HOH:O	2.14	0.64
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.12	0.64
1:1A:2589:A:OP1	60:1A:3937:HOH:O	2.14	0.64
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.32	0.64
6:2G:96:ARG:HA	6:2G:99:MET:HE2	1.78	0.64
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.77	0.64
40:2i:46:ALA:HA	40:2i:78:LYS:HB2	1.77	0.64
1:1A:1380:G:OP2	60:1A:3936:HOH:O	2.14	0.64
32:1a:382:A:H2'	32:1a:383:A:H8	1.62	0.64
32:1a:664:G:H22	32:1a:741:G:H1	1.45	0.64
44:1m:9:ILE:HB	44:1m:18:ALA:HB1	1.78	0.64
1:2A:81:G:HO2'	1:2A:295:G:HO2'	1.45	0.64
38:2g:126:ASP:HB3	38:2g:131:LYS:HB2	1.78	0.64
55:2x:22:G:H2'	55:2x:23:A:H8	1.63	0.64
1:1A:674:G:H1'	5:1F:74:ARG:HD2	1.79	0.64
16:2U:104:GLN:HE21	16:2U:105:VAL:HG23	1.62	0.64
1:1A:11:G:H2'	1:1A:12:U:H5''	1.80	0.64
10:1O:97:ARG:HA	10:1O:117:LEU:HD22	1.78	0.64
33:1b:32:ILE:HD11	33:1b:40:HIS:HB3	1.79	0.64
1:2A:2125:G:N1	1:2A:2172:U:OP1	2.30	0.64
1:1A:2319:G:N1	14:1S:3:ARG:HA	2.13	0.64
32:1a:673:G:H2'	32:1a:674:G:C8	2.33	0.64
32:2a:728:A:H2'	32:2a:729:A:H8	1.61	0.64
1:1A:2336:A:H61	22:10:43:THR:HG21	1.61	0.64
1:2A:84:A:N1	1:2A:98:G:O2'	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:57:ARG:HB3	35:2d:206:PHE:HB2	1.78	0.64
1:1A:1041:C:H42	1:1A:1114:G:H1	1.46	0.64
44:2m:86:CYS:SG	44:2m:87:TYR:N	2.70	0.64
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	1.80	0.64
1:2A:999:U:OP2	60:2A:3745:HOH:O	2.15	0.64
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.29	0.64
32:2a:950:U:H3	32:2a:1231:G:H1	1.45	0.64
32:2a:1264:C:H42	32:2a:1271:G:H1	1.46	0.64
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.33	0.64
32:1a:1106:G:H5''	34:1c:172:ARG:HG2	1.80	0.64
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.23	0.64
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.33	0.64
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.79	0.64
7:2H:3:ARG:NH1	7:2H:4:ILE:H	1.96	0.64
42:2k:48:ILE:O	42:2k:50:TYR:N	2.27	0.64
1:1A:2687:U:OP2	60:1A:3939:HOH:O	2.15	0.63
32:1a:67:C:H2'	32:1a:68:G:C8	2.33	0.63
48:1q:7:THR:HG23	48:1q:58:GLU:HG2	1.80	0.63
5:2F:69:HIS:HB3	56:2z:11:PRO:HG3	1.81	0.63
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.80	0.63
1:1A:1345:C:OP2	60:1A:3941:HOH:O	2.15	0.63
1:1A:2440:C:O2'	60:1A:3932:HOH:O	2.14	0.63
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.80	0.63
1:2A:84:A:H5'	20:2Y:8:LYS:HG2	1.78	0.63
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.33	0.63
1:1A:576:U:H2'	1:1A:577:G:C8	2.33	0.63
1:2A:2056:G:N2	27:25:4:HIS:O	2.31	0.63
32:2a:56:U:H2'	32:2a:57:G:H8	1.62	0.63
50:2s:3:ARG:HH11	50:2s:10:PHE:HB2	1.63	0.63
3:1D:28:GLU:HG3	3:1D:29:PRO:HD2	1.80	0.63
32:2a:1267:C:H1'	52:2u:20:LYS:HE3	1.79	0.63
9:1N:10:GLU:HG3	9:1N:11:PRO:HD2	1.81	0.63
55:1y:19:G:O2'	55:1y:20:U:OP1	2.14	0.63
1:2A:602:G:O2'	1:2A:655:A:N6	2.31	0.63
1:2A:2009:G:OP1	18:2W:41:LYS:NZ	2.27	0.63
33:2b:95:GLN:HG2	33:2b:147:LYS:HG3	1.81	0.63
40:1i:42:ARG:NH1	40:1i:71:SER:O	2.31	0.63
32:2a:677:U:H3	32:2a:713:G:H22	1.46	0.63
32:2a:728:A:H2'	32:2a:729:A:C8	2.33	0.63
32:2a:1302:U:OP2	44:2m:21:TYR:OH	2.16	0.63
38:2g:15:ASP:HB3	38:2g:24:THR:HG22	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:67:LYS:HD3	26:14:5:ILE:HD12	1.81	0.63
19:1X:72:LYS:NZ	19:1X:75:ASP:OD1	2.32	0.63
26:14:16:CYS:SG	26:14:17:GLY:N	2.71	0.63
35:1d:174:LEU:HD23	35:1d:185:PHE:HA	1.81	0.63
32:2a:1030(A):G:H21	32:2a:1030(C):G:H8	1.47	0.63
32:2a:1279:A:O2'	32:2a:1281:U:OP2	2.13	0.63
1:1A:2616:C:O2	60:1A:3924:HOH:O	2.12	0.63
32:1a:8:A:H5'	36:1e:101:ILE:HG22	1.81	0.63
33:1b:7:VAL:O	33:1b:217:ARG:NH1	2.31	0.63
32:2a:1292:U:P	38:2g:41:ARG:HH22	2.22	0.63
36:2e:50:GLU:HB2	36:2e:53:LEU:HD13	1.79	0.63
34:1c:11:ARG:NH2	34:1c:177:THR:O	2.32	0.63
44:1m:34:LEU:HD13	44:1m:41:PRO:HB3	1.80	0.63
1:2A:2110:G:OP2	1:2A:2149:G:O2'	2.17	0.62
32:2a:1380:U:C4	38:2g:3:ARG:HG2	2.33	0.62
21:1Z:52:SER:C	21:1Z:54:HIS:H	2.07	0.62
44:1m:31:LYS:HA	44:1m:34:LEU:HD12	1.80	0.62
1:2A:2657:A:O2'	7:2H:160:LYS:NZ	2.32	0.62
32:1a:1530:G:H2'	32:1a:1531:A:C8	2.35	0.62
1:2A:624:C:OP1	60:2A:3748:HOH:O	2.16	0.62
1:1A:1047:G:H2'	1:1A:1110:G:H1	1.64	0.62
1:1A:1088:A:H4'	1:1A:1089:G:C8	2.34	0.62
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.64	0.62
32:1a:96:U:H2'	32:1a:97:G:H8	1.63	0.62
1:2A:2875:C:O2'	15:2T:2:ASN:OD1	2.17	0.62
2:2B:112:U:H2'	2:2B:113:G:H8	1.64	0.62
32:1a:96:U:H2'	32:1a:97:G:C8	2.35	0.62
50:1s:39:THR:HG22	50:1s:40:ILE:H	1.64	0.62
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.00	0.62
1:2A:1019:U:H3	1:2A:1142(A):A:H62	1.44	0.62
1:2A:2105:C:H2'	1:2A:2106:G:C8	2.34	0.62
32:2a:17:U:H2'	32:2a:18:C:C6	2.35	0.62
1:2A:272(D):G:N7	60:2A:3832:HOH:O	2.31	0.62
1:2A:1971:A:N1	60:2A:3834:HOH:O	2.31	0.62
32:2a:501:C:H2'	32:2a:502:G:H8	1.64	0.62
1:1A:2163:C:OP1	1:1A:2165:G:N2	2.32	0.62
32:1a:382:A:H2'	32:1a:383:A:C8	2.34	0.62
32:1a:501:C:H2'	32:1a:502:G:H8	1.63	0.62
32:1a:509:A:N3	32:1a:543:C:O2'	2.32	0.62
33:1b:91:PRO:HG3	33:1b:154:LEU:HB3	1.82	0.62
21:2Z:158:PRO:HG2	21:2Z:161:VAL:HG21	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:157:LEU:O	35:1d:161:ASN:ND2	2.23	0.62
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.64	0.62
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.65	0.62
50:2s:33:THR:HG22	50:2s:35:SER:H	1.64	0.62
1:1A:2124:G:N2	1:1A:2174:C:N3	2.43	0.62
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.18	0.62
32:2a:1250:A:H4'	40:2i:68:GLY:N	2.14	0.62
1:1A:1332:G:OP1	60:1A:3942:HOH:O	2.16	0.62
21:1Z:59:LEU:HD12	21:1Z:69:THR:HG21	1.81	0.62
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.82	0.62
1:2A:1991:U:H2'	1:2A:1992:G:H5''	1.82	0.62
1:2A:2689:U:H4'	1:2A:2690:C:H5'	1.81	0.62
3:2D:242:ARG:HH11	3:2D:242:ARG:HG3	1.64	0.62
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.80	0.62
32:2a:1271:G:N2	32:2a:1272:G:N7	2.48	0.62
33:2b:80:ILE:HD11	33:2b:211:ILE:HB	1.81	0.62
34:2c:99:VAL:O	34:2c:101:LEU:N	2.33	0.62
1:1A:2469:A:H4'	12:1Q:56:ARG:HG2	1.82	0.61
32:1a:1343:G:H4'	40:1i:122:ALA:HB3	1.82	0.61
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.35	0.61
21:2Z:124:ILE:HG22	21:2Z:126:VAL:HG23	1.82	0.61
1:1A:2135:A:N6	1:1A:2156:G:O2'	2.33	0.61
16:2U:34:LYS:NZ	16:2U:37:GLU:OE1	2.32	0.61
8:1I:130:TYR:HD2	8:1I:138:ILE:HD12	1.65	0.61
32:1a:1199:U:OP1	60:1a:1809:HOH:O	2.16	0.61
40:1i:23:ASN:HB2	40:1i:25:LYS:HE2	1.82	0.61
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.82	0.61
55:1y:68:C:H2'	55:1y:69:G:C8	2.34	0.61
1:2A:1366:A:OP1	23:21:3:LYS:NZ	2.30	0.61
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.00	0.61
32:2a:376:G:H5''	47:2p:5:ARG:HD3	1.81	0.61
1:1A:588:U:H2'	1:1A:589:C:C6	2.36	0.61
1:1A:631:A:OP1	11:1P:65:ARG:NE	2.27	0.61
4:2E:116:VAL:HG11	4:2E:138:PRO:HB3	1.82	0.61
10:2O:7:TYR:HE2	10:2O:20:MET:HE3	1.65	0.61
32:2a:1203:C:H2'	32:2a:1204:A:H8	1.64	0.61
40:2i:9:ARG:H	40:2i:79:LEU:HD23	1.64	0.61
5:1F:51:THR:O	5:1F:93:LYS:NZ	2.33	0.61
15:1T:108:ARG:HA	15:1T:111:ARG:HG3	1.82	0.61
32:1a:984:C:H42	32:1a:1221:G:H1	1.48	0.61
35:1d:150:GLU:OE1	35:1d:151:LYS:N	2.25	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2103:C:N4	1:2A:2186:G:H1	1.97	0.61
6:2G:5:VAL:HG22	6:2G:8:LYS:H	1.64	0.61
32:2a:1179:A:O3'	40:2i:103:THR:OG1	2.18	0.61
33:2b:9:GLU:O	33:2b:11:LEU:N	2.29	0.61
1:1A:1314:C:OP1	60:1A:3942:HOH:O	2.15	0.61
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.35	0.61
1:2A:601:C:OP1	5:2F:108:LYS:NZ	2.34	0.61
1:2A:2467:C:H4'	12:2Q:123:HIS:CD2	2.35	0.61
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.63	0.61
34:2c:22:TRP:HB3	34:2c:59:ARG:HB2	1.82	0.61
1:1A:271(X):G:N7	60:1A:4013:HOH:O	2.31	0.61
2:1B:83:G:N7	60:1B:301:HOH:O	2.31	0.61
32:1a:1086:U:H3	32:1a:1099:G:H22	1.47	0.61
1:2A:403:U:H4'	1:2A:404:C:H5'	1.83	0.61
1:2A:2370:G:H4'	28:26:44:ARG:HH22	1.66	0.61
1:2A:2507:C:OP2	60:2A:3753:HOH:O	2.16	0.61
32:2a:328:C:H4'	32:2a:329:A:H5'	1.81	0.61
11:1P:1:MET:HE2	11:1P:6:LEU:HD23	1.83	0.61
44:2m:54:VAL:HA	44:2m:57:ARG:HB3	1.82	0.61
8:1I:75:LEU:HD13	8:1I:105:HIS:CD2	2.36	0.61
43:1I:70:ILE:HG12	43:1I:100:ILE:HD12	1.82	0.61
5:2F:140:LEU:HD11	5:2F:170:LEU:HD21	1.83	0.61
13:2R:104:ARG:NH1	13:2R:107:ASP:OD2	2.33	0.61
32:2a:814:A:H2'	32:2a:816:A:H5''	1.82	0.61
6:1G:181:ARG:HG3	6:1G:182:LYS:H	1.66	0.61
32:1a:1004:A:N6	32:1a:1037:C:O2	2.34	0.61
40:1i:9:ARG:HG2	40:1i:14:VAL:HG22	1.83	0.61
1:2A:483:A:H5''	20:2Y:50:ARG:HE	1.64	0.61
48:2q:53:LEU:HD23	48:2q:82:MET:HE1	1.83	0.61
1:1A:671:C:N4	60:1A:4022:HOH:O	2.33	0.60
1:1A:2161:C:O2'	1:1A:2162:G:H5''	2.01	0.60
36:1e:101:ILE:O	36:1e:120:THR:OG1	2.19	0.60
32:2a:959:A:O2'	32:2a:984:C:O2'	2.17	0.60
32:2a:1103:C:H5'	33:2b:98:LEU:HD11	1.83	0.60
34:2c:130:VAL:HG11	34:2c:157:ILE:HG23	1.83	0.60
54:2w:182:ARG:HB3	54:2w:307:PHE:HB2	1.82	0.60
44:1m:67:GLU:OE1	44:1m:71:ARG:NH2	2.33	0.60
1:2A:2349:G:OP1	60:2A:3750:HOH:O	2.16	0.60
35:1d:91:SER:HA	35:1d:94:LEU:HD12	1.83	0.60
1:2A:392:C:H5''	1:2A:409:C:H5''	1.82	0.60
5:2F:160:ASN:HB3	5:2F:163:VAL:HB	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1226:C:H4'	50:2s:80:TYR:CZ	2.36	0.60
36:2e:110:LEU:HD13	36:2e:118:ILE:HD13	1.84	0.60
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.82	0.60
1:1A:1702:G:N7	60:1A:4014:HOH:O	2.31	0.60
32:1a:1414:U:H3	32:1a:1486:G:H1	1.47	0.60
51:1t:39:LYS:HA	51:1t:42:GLN:HB3	1.83	0.60
32:2a:1003:G:H1	32:2a:1027:C:H42	1.49	0.60
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.67	0.60
54:1w:130:MET:HE2	54:1w:328:LEU:HA	1.83	0.60
1:2A:2719:G:O6	60:2A:3733:HOH:O	2.12	0.60
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.34	0.60
32:2a:1458:G:H5''	51:2t:31:SER:HB3	1.83	0.60
35:2d:3:ARG:HD2	35:2d:118:ARG:HD3	1.84	0.60
1:1A:376:C:OP1	60:1A:3943:HOH:O	2.16	0.60
55:1x:12:U:OP2	60:1x:201:HOH:O	2.17	0.60
1:2A:994:C:OP2	16:2U:54:LYS:NZ	2.32	0.60
7:2H:15:VAL:HG22	7:2H:29:PRO:HD3	1.84	0.60
26:24:15:ILE:HG12	26:24:21:VAL:HG22	1.83	0.60
32:2a:1187:G:H4'	40:2i:111:ARG:HH11	1.66	0.60
41:2j:44:VAL:HG13	41:2j:66:ARG:HG2	1.84	0.60
1:1A:2349:G:OP1	60:1A:3945:HOH:O	2.16	0.60
33:1b:47:THR:HG22	33:1b:202:PRO:HG2	1.84	0.60
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.82	0.60
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.81	0.60
7:2H:42:ARG:NH2	7:2H:53:GLU:OE1	2.31	0.60
21:2Z:110:GLY:HA3	21:2Z:174:VAL:HG11	1.82	0.60
32:2a:948:C:OP1	44:2m:109:THR:OG1	2.19	0.60
32:2a:1221:G:OP1	32:2a:1320:C:N4	2.30	0.60
1:1A:1226:A:OP1	17:1V:84:LYS:NZ	2.27	0.60
23:11:59:THR:O	23:11:91:LYS:NZ	2.29	0.60
3:2D:83:GLU:OE1	3:2D:104:TYR:OH	2.15	0.60
12:2Q:43:THR:HG22	12:2Q:94:VAL:HG12	1.83	0.60
1:1A:807:U:OP2	11:1P:41:ARG:NH2	2.35	0.60
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.82	0.60
41:1j:50:ILE:HA	41:1j:60:ARG:HG2	1.84	0.60
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.83	0.60
46:1o:82:ILE:O	46:1o:86:GLY:N	2.33	0.60
47:1p:72:ARG:HG2	47:1p:73:LEU:HD23	1.82	0.60
43:2l:53:ARG:HG3	43:2l:93:LEU:HD21	1.83	0.60
1:1A:2404:C:O3'	11:1P:77:ARG:NH2	2.35	0.60
24:12:29:LYS:HG2	24:12:57:ILE:HD13	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:113:G:H1'	32:2a:354:G:H5'	1.84	0.60
38:2g:47:CYS:HA	38:2g:50:ILE:HD11	1.83	0.60
43:2l:6:THR:HB	43:2l:9:GLN:HG3	1.84	0.60
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.02	0.59
32:1a:73:G:H1	32:1a:96:U:H3	1.49	0.59
32:1a:953:G:H5'	32:1a:965:A:H61	1.67	0.59
32:1a:1111:A:N1	34:1c:177:THR:OG1	2.35	0.59
35:1d:76:ARG:NH2	35:1d:80:GLU:OE2	2.31	0.59
54:1w:302:ILE:HD12	54:1w:303:ARG:HB2	1.84	0.59
1:2A:1183:G:H2'	1:2A:1184:G:H8	1.66	0.59
1:2A:1785:A:OP1	60:2A:3752:HOH:O	2.16	0.59
1:2A:1830:C:OP2	60:2A:3751:HOH:O	2.16	0.59
4:2E:48:GLN:HA	4:2E:80:GLU:HA	1.84	0.59
24:22:32:LEU:HD11	24:22:54:LYS:HG3	1.83	0.59
44:2m:25:ILE:HG23	44:2m:29:ARG:HB2	1.84	0.59
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.35	0.59
1:1A:1352:U:OP2	60:1A:3946:HOH:O	2.17	0.59
11:1P:95:VAL:HB	11:1P:125:VAL:HG12	1.84	0.59
32:2a:1006:C:N4	32:2a:1023:G:N1	2.49	0.59
34:2c:19:GLU:HA	34:2c:54:ARG:HH12	1.67	0.59
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.84	0.59
54:2w:215:ASP:N	54:2w:215:ASP:OD1	2.35	0.59
1:1A:1325:G:OP1	1:1A:1647:G:O2'	2.16	0.59
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.67	0.59
13:1R:59:ASP:OD1	13:1R:59:ASP:N	2.35	0.59
27:15:11:THR:HG23	27:15:15:ARG:HB3	1.84	0.59
32:1a:875:C:H1'	39:1h:15:ASN:HD21	1.67	0.59
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.37	0.59
35:1d:18:LYS:NZ	35:1d:26:CYS:O	2.32	0.59
51:1t:60:GLU:HG3	51:1t:81:LYS:HD2	1.83	0.59
8:2I:77:LEU:HB3	8:2I:142:VAL:HG22	1.84	0.59
32:2a:736:C:OP1	49:2r:72:ARG:NH2	2.29	0.59
33:2b:93:VAL:HG21	33:2b:97:TRP:CD1	2.35	0.59
41:2j:25:GLU:OE2	41:2j:29:ARG:HG2	2.01	0.59
44:2m:53:VAL:O	44:2m:57:ARG:N	2.29	0.59
1:1A:2254:C:OP2	60:1A:3944:HOH:O	2.16	0.59
8:1I:77:LEU:HB3	8:1I:142:VAL:HG22	1.84	0.59
32:1a:377:G:H2'	32:1a:378:G:H8	1.68	0.59
32:1a:1256:A:N6	32:1a:1278:U:O4'	2.34	0.59
1:2A:131:G:OP1	60:2A:3754:HOH:O	2.17	0.59
8:2I:4:ILE:HG12	8:2I:18:VAL:HG22	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:664:G:P	49:2r:64:ARG:HH21	2.25	0.59
32:2a:757:U:O2'	32:2a:879:C:O2	2.21	0.59
9:1N:86:PRO:HD2	9:1N:89:LYS:HB2	1.84	0.59
1:2A:195:A:H61	1:2A:198:C:H3'	1.65	0.59
6:2G:35:GLU:HB3	6:2G:160:VAL:HB	1.83	0.59
20:2Y:28:LYS:NZ	20:2Y:64:GLU:OE1	2.33	0.59
35:2d:78:LEU:HD22	35:2d:96:LEU:HB3	1.84	0.59
32:1a:1228:C:H2'	32:1a:1229:A:H8	1.67	0.59
35:1d:8:VAL:HA	35:1d:11:LEU:HD13	1.84	0.59
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.35	0.59
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.37	0.59
14:2S:25:ARG:NE	14:2S:88:ASP:OD2	2.35	0.59
24:22:25:VAL:HG11	24:22:61:LEU:HD21	1.84	0.59
32:2a:407:G:H5''	35:2d:115:ARG:HG2	1.84	0.59
32:2a:903:G:OP1	60:2a:1805:HOH:O	2.17	0.59
32:2a:1271:G:C2	32:2a:1272:G:N7	2.70	0.59
38:2g:105:VAL:O	38:2g:109:ASN:ND2	2.34	0.59
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.36	0.59
33:1b:74:LYS:HG2	33:1b:169:LYS:HD3	1.85	0.59
54:1w:151:ASP:OD2	55:1x:36:A:O2'	2.20	0.59
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.35	0.59
33:2b:88:ALA:HB1	33:2b:222:ILE:HD11	1.84	0.59
44:2m:108:ARG:HD2	44:2m:114:ARG:HG2	1.83	0.59
54:2w:179:ARG:NH1	54:2w:304:THR:OG1	2.36	0.59
32:1a:631:G:H2'	32:1a:632:A:H8	1.66	0.59
36:2e:88:LYS:HD3	36:2e:123:LEU:HD12	1.83	0.59
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.84	0.59
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.84	0.59
1:2A:1022:G:N2	1:2A:1023:U:O4	2.28	0.59
8:2I:97:ILE:HD11	8:2I:120:ILE:HD11	1.83	0.59
32:2a:137:C:H2'	32:2a:138:G:C8	2.38	0.59
32:2a:782:A:OP1	60:2a:1801:HOH:O	2.17	0.59
3:1D:20:ASP:OD2	3:1D:22:SER:OG	2.21	0.59
32:1a:428:G:OP2	35:1d:10:ARG:NH1	2.35	0.59
32:1a:1101:A:OP2	33:1b:96:ARG:NH1	2.35	0.59
1:2A:2140:C:H42	1:2A:2151:G:H1	1.49	0.59
32:2a:1518:MA6:H93	32:2a:1519:MA6:H92	1.83	0.59
34:2c:157:ILE:HD13	34:2c:164:ARG:HB2	1.84	0.59
1:1A:933:A:OP1	25:13:24:LYS:NZ	2.36	0.58
3:1D:180:GLY:HA3	3:1D:275:LYS:HE3	1.84	0.58
32:1a:229:U:O2'	47:1p:23:ASP:OD2	2.21	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:766:A:OP2	60:1a:1808:HOH:O	2.16	0.58
36:1e:12:LEU:HB3	36:1e:31:LEU:HB2	1.85	0.58
35:2d:122:ARG:NH2	35:2d:134:ASP:OD2	2.36	0.58
43:2l:7:ILE:HD11	48:2q:32:TYR:HB3	1.85	0.58
10:1O:77:ILE:HG13	15:1T:74:ARG:HG2	1.85	0.58
32:1a:1010:G:C2	32:1a:1020:U:H1'	2.38	0.58
36:1e:31:LEU:HD22	36:1e:43:LEU:HD11	1.84	0.58
36:1e:75:THR:OG1	36:1e:76:ILE:N	2.31	0.58
47:1p:18:ARG:HD3	47:1p:35:LYS:HE3	1.85	0.58
1:2A:212:G:H2'	1:2A:213:A:O4'	2.02	0.58
8:2I:75:LEU:HD21	8:2I:105:HIS:CG	2.38	0.58
32:2a:1070:U:OP1	36:2e:18:ARG:NH2	2.36	0.58
32:2a:1263:C:C4	32:2a:1272:G:O6	2.56	0.58
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.35	0.58
44:2m:33:ALA:HB1	44:2m:56:LEU:HD11	1.85	0.58
32:1a:1150:U:H4'	41:1j:41:PRO:HG3	1.85	0.58
1:2A:328:U:H4'	20:2Y:68:HIS:CD2	2.38	0.58
8:2I:4:ILE:HD11	8:2I:44:LEU:HD12	1.85	0.58
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.85	0.58
33:2b:133:LYS:HA	33:2b:136:VAL:HG12	1.85	0.58
1:1A:1045:A:H8	1:1A:1111:A:H62	1.51	0.58
33:1b:212:GLN:HE21	33:1b:235:SER:HA	1.67	0.58
43:1l:78:GLN:O	43:1l:81:SER:OG	2.20	0.58
54:1w:222:MET:HG2	54:1w:238:ALA:HB3	1.85	0.58
35:2d:53:ASP:O	35:2d:57:ARG:NH1	2.36	0.58
48:2q:6:LEU:HD22	48:2q:23:VAL:HG11	1.85	0.58
50:2s:3:ARG:NH1	50:2s:10:PHE:HB2	2.18	0.58
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.04	0.58
1:1A:800:A:H8	1:1A:800:A:OP1	1.87	0.58
1:1A:1055:G:H5'	1:1A:1056:G:OP2	2.04	0.58
21:1Z:138:GLU:H	21:1Z:156:LYS:HZ1	1.50	0.58
32:1a:192:U:H2'	32:1a:193:C:C6	2.39	0.58
32:2a:1187:G:N2	45:2n:60:SER:OG	2.29	0.58
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.19	0.58
1:1A:606:U:OP2	5:1F:104:LYS:NZ	2.26	0.58
22:10:26:TYR:H	22:10:29:GLN:NE2	2.01	0.58
48:1q:9:VAL:HG22	48:1q:56:VAL:HG22	1.85	0.58
15:2T:50:ILE:HA	15:2T:99:LEU:HD12	1.86	0.58
32:2a:811:C:O2'	32:2a:901:A:N1	2.37	0.58
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.68	0.58
32:1a:41:G:H2'	32:1a:42:G:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:539:A:H2'	32:1a:540:G:H8	1.68	0.58
32:1a:890:G:O2'	32:1a:906:G:O6	2.16	0.58
39:1h:121:ASP:OD1	39:1h:121:ASP:N	2.29	0.58
54:1w:114:GLY:H	54:1w:120:ALA:HB1	1.67	0.58
1:2A:263:C:O2'	1:2A:429:A:N3	2.34	0.58
2:2B:40:U:O4	26:24:1:MET:N	2.34	0.58
35:2d:11:LEU:HG	35:2d:66:ARG:HE	1.69	0.58
36:2e:37:ARG:HG2	36:2e:112:LEU:HA	1.86	0.58
21:1Z:129:SER:HB3	21:1Z:132:ASN:HB2	1.86	0.58
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.39	0.58
1:2A:8:A:H2'	1:2A:9:U:H6	1.68	0.58
33:2b:68:ILE:HG12	33:2b:161:ALA:HB3	1.86	0.58
33:2b:178:ARG:NH2	39:2h:68:ARG:HH22	2.01	0.58
36:2e:148:VAL:HG21	39:2h:107:LEU:HD13	1.85	0.58
1:1A:2206:G:H3'	1:1A:2207:G:N7	2.19	0.58
1:2A:446:G:OP2	60:2A:3755:HOH:O	2.17	0.58
1:2A:2151:G:H2'	1:2A:2152:G:C8	2.39	0.58
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.39	0.58
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.85	0.58
1:2A:989:G:OP2	25:23:11:SER:OG	2.14	0.58
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.21	0.58
10:2O:97:ARG:HA	10:2O:117:LEU:HD22	1.86	0.58
32:2a:134:A:H61	47:2p:25:ARG:HH12	1.49	0.58
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.39	0.58
32:2a:1360:A:OP2	45:2n:35:ARG:NH2	2.37	0.58
34:2c:19:GLU:OE1	45:2n:52:GLN:NE2	2.36	0.58
1:1A:568:U:O5'	1:1A:945:A:N6	2.37	0.57
1:1A:831:G:O2'	11:1P:38:GLN:OE1	2.21	0.57
1:1A:1091:G:N1	1:1A:1100:C:C2	2.69	0.57
10:1O:64:ARG:HG2	10:1O:83:ALA:HB3	1.86	0.57
32:1a:737:A:H2'	32:1a:738:C:C6	2.39	0.57
32:1a:975:A:O2'	45:1n:32:SER:OG	2.14	0.57
1:2A:271(H):G:H1	1:2A:271(P):C:H42	1.51	0.57
16:2U:108:GLU:O	16:2U:112:ARG:HG2	2.04	0.57
21:2Z:53:ILE:HG22	21:2Z:71:VAL:HB	1.84	0.57
23:21:50:ARG:NH1	23:21:57:GLU:OE2	2.37	0.57
45:2n:4:LYS:HA	45:2n:7:ILE:HG12	1.86	0.57
38:1g:71:PRO:O	38:1g:91:VAL:HG21	2.03	0.57
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	1.86	0.57
44:1m:35:GLU:O	44:1m:38:GLY:N	2.37	0.57
1:2A:1688:U:H2'	1:2A:1698:A:N6	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.38	0.57
33:2b:30:ARG:NH2	33:2b:195:ASP:OD1	2.36	0.57
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.86	0.57
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.86	0.57
1:2A:2260:C:OP1	60:2A:3756:HOH:O	2.17	0.57
5:2F:40:GLN:NE2	5:2F:182:ASN:HB2	2.19	0.57
36:2e:6:PHE:HB2	36:2e:34:VAL:HG22	1.85	0.57
1:1A:1509(A):A:H3'	1:1A:1509(B):A:H8	1.68	0.57
1:1A:2128:C:H42	1:1A:2160:G:H1	1.51	0.57
1:1A:2336:A:H61	22:10:43:THR:CG2	2.17	0.57
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.03	0.57
15:1T:112:ARG:HG2	15:1T:115:ARG:HH21	1.69	0.57
32:1a:41:G:H2'	32:1a:42:G:C8	2.39	0.57
32:1a:110:C:O2'	47:1p:25:ARG:O	2.21	0.57
35:1d:65:ARG:HG3	35:1d:70:ILE:HG23	1.87	0.57
6:2G:11:TYR:HA	6:2G:15:VAL:HB	1.85	0.57
33:2b:124:SER:N	33:2b:125:PRO:HD3	2.20	0.57
28:16:9:LEU:HA	28:16:54:ILE:HB	1.86	0.57
1:2A:599:G:N7	60:2A:3842:HOH:O	2.32	0.57
1:2A:742:G:H2'	1:2A:743:G:C8	2.39	0.57
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.37	0.57
1:2A:1434:A:H61	1:2A:1558:A:H62	1.50	0.57
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.27	0.57
32:2a:857:C:H2'	32:2a:858:G:O4'	2.05	0.57
1:1A:185:U:H4'	1:1A:218:A:H4'	1.87	0.57
1:1A:2189:U:H2'	1:1A:2190:G:H8	1.70	0.57
1:1A:2817:G:OP1	13:1R:99:LYS:NZ	2.30	0.57
6:1G:137:GLU:HG2	6:1G:152:LEU:HD22	1.87	0.57
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.36	0.57
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.87	0.57
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.39	0.57
32:2a:123:C:OP1	32:2a:311:C:O2'	2.21	0.57
1:1A:862:G:H2'	1:1A:863:A:O4'	2.04	0.57
32:1a:341:C:H42	32:1a:348:G:N2	2.02	0.57
32:1a:1350:A:N7	40:1i:118:LYS:NZ	2.52	0.57
38:1g:113:GLU:HB2	38:1g:119:ARG:HG2	1.85	0.57
41:1j:61:GLU:OE1	45:1n:45:ARG:NE	2.37	0.57
47:1p:18:ARG:HH11	47:1p:35:LYS:HD2	1.69	0.57
54:1w:114:GLY:HA3	54:1w:196:THR:HG22	1.86	0.57
1:2A:8:A:H2'	1:2A:9:U:C6	2.39	0.57
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.28	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:3:LEU:HD11	6:2G:101:ILE:HD11	1.86	0.57
32:2a:1288:A:H2'	32:2a:1289:A:C8	2.39	0.57
12:1Q:14:ARG:HG2	12:1Q:41:TRP:HH2	1.69	0.57
31:19:15:LYS:HE2	31:19:17:ILE:HD11	1.86	0.57
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.37	0.57
32:1a:1355:G:H2'	32:1a:1356:G:H8	1.69	0.57
46:1o:55:GLY:HA2	46:1o:58:MET:HE2	1.86	0.57
1:2A:1604:C:OP1	60:2A:3759:HOH:O	2.18	0.57
1:2A:2345:G:OP2	28:26:38:LYS:NZ	2.31	0.57
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.38	0.57
32:2a:881:G:P	43:2l:12:ARG:HH22	2.27	0.57
37:2f:3:ARG:HG3	37:2f:66:GLU:HG3	1.87	0.57
44:2m:80:ARG:HH12	50:2s:69:HIS:HE1	1.53	0.57
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.40	0.57
1:1A:1071:G:N3	1:1A:1089:G:O2'	2.32	0.57
1:1A:2125:G:H21	1:1A:2173:A:H62	1.52	0.57
22:10:11:ARG:O	22:10:14:ARG:NH2	2.37	0.57
32:1a:269:C:H2'	32:1a:270:A:C8	2.39	0.57
32:1a:436:C:H2'	32:1a:437:U:C6	2.39	0.57
36:1e:78:HIS:CE1	36:1e:142:LEU:HA	2.39	0.57
44:1m:14:ARG:HH21	44:1m:41:PRO:HB2	1.68	0.57
44:2m:57:ARG:O	44:2m:61:GLU:HB2	2.04	0.57
3:1D:133:LEU:HA	3:1D:136:ILE:HD12	1.85	0.57
7:1H:13:LYS:NZ	7:1H:13:LYS:H	2.01	0.57
10:1O:115:VAL:HG13	10:1O:121:VAL:HG21	1.87	0.57
32:1a:390:C:H2'	32:1a:391:G:C8	2.40	0.57
36:1e:152:ARG:HA	39:1h:64:LYS:NZ	2.19	0.57
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.39	0.57
7:2H:80:SER:OG	7:2H:81:GLU:N	2.37	0.57
1:1A:1709:U:H2'	1:1A:1710:C:C6	2.40	0.56
1:1A:2462:U:H1'	1:1A:2491:U:O4	2.05	0.56
32:1a:1249:C:O2'	40:1i:73:GLN:NE2	2.38	0.56
7:2H:17:VAL:HG22	7:2H:26:VAL:HG13	1.86	0.56
8:2I:53:ALA:O	8:2I:57:ARG:NE	2.23	0.56
1:1A:566:U:OP1	17:1V:80:GLN:NE2	2.32	0.56
1:1A:1082:U:H3	1:1A:1086:A:H61	1.52	0.56
32:1a:235:C:H5'	48:1q:70:ARG:HG2	1.87	0.56
32:1a:977:A:O2'	32:1a:981:U:N3	2.37	0.56
55:1y:23:A:H2'	55:1y:24:G:C8	2.40	0.56
14:2S:38:GLN:HE21	14:2S:47:THR:HG21	1.70	0.56
21:2Z:30:ASN:HD22	21:2Z:33:LEU:HD23	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:501:C:H2'	32:2a:502:G:C8	2.41	0.56
32:2a:1263:C:N3	32:2a:1272:G:O6	2.38	0.56
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.40	0.56
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.40	0.56
32:1a:1006:C:N4	32:1a:1023:G:H1	2.00	0.56
33:1b:126:GLU:HG3	33:1b:127:ILE:HG13	1.88	0.56
33:1b:143:GLU:HA	33:1b:146:GLN:HB2	1.86	0.56
38:1g:156:TRP:HE3	38:1g:156:TRP:H	1.53	0.56
1:2A:796:C:H2'	1:2A:797:C:C6	2.41	0.56
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.87	0.56
1:2A:2641:G:H5''	9:2N:76:SER:HB3	1.86	0.56
14:2S:11:LYS:O	14:2S:15:ARG:HB2	2.05	0.56
15:2T:26:ASP:OD1	15:2T:120:ARG:NH2	2.35	0.56
26:24:14:ILE:HG23	26:24:31:ILE:HB	1.87	0.56
32:2a:143:A:H2	32:2a:220:G:H1	1.53	0.56
32:2a:1083:U:OP2	60:2a:1806:HOH:O	2.18	0.56
34:2c:47:LEU:HB2	34:2c:52:LEU:HD12	1.87	0.56
42:2k:18:ARG:N	42:2k:33:THR:O	2.36	0.56
47:2p:59:TRP:HB3	47:2p:64:ALA:HB2	1.85	0.56
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.86	0.56
32:1a:1027:C:C4	32:1a:1034:G:N1	2.74	0.56
32:1a:1053:G:N7	32:1a:1200:C:H5''	2.20	0.56
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.37	0.56
43:1l:109:GLY:HA3	43:1l:121:GLY:O	2.05	0.56
1:2A:449:A:OP2	60:2A:3758:HOH:O	2.18	0.56
1:2A:2063:C:OP1	60:2A:3757:HOH:O	2.18	0.56
32:2a:1006:C:N4	32:2a:1023:G:H1	2.03	0.56
32:2a:1292:U:H2'	32:2a:1293:G:C8	2.41	0.56
54:2w:229:GLY:HA3	55:2x:76:A:H3'	1.86	0.56
1:1A:2134:A:OP2	1:1A:2156:G:N2	2.36	0.56
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.86	0.56
32:1a:17:U:H2'	32:1a:18:C:C6	2.40	0.56
32:1a:1026:G:H8	32:1a:1027:C:O2	1.89	0.56
14:2S:66:ALA:O	14:2S:69:VAL:HG12	2.05	0.56
32:2a:1111:A:N1	34:2c:177:THR:OG1	2.31	0.56
34:2c:6:HIS:ND1	45:2n:49:HIS:HB3	2.20	0.56
1:1A:2136:C:H42	1:1A:2155:G:H1	1.53	0.56
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	1.87	0.56
32:1a:407:G:O4'	35:1d:119:GLN:NE2	2.39	0.56
32:1a:976:G:N2	32:1a:1363:C:OP2	2.38	0.56
33:1b:176:GLU:O	33:1b:180:LEU:HD12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:27:ILE:HD13	38:1g:40:ALA:HA	1.88	0.56
1:2A:2038:G:O6	60:2A:3749:HOH:O	2.16	0.56
12:2Q:64:ILE:HD12	21:2Z:178:GLU:HG3	1.87	0.56
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	1.88	0.56
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.86	0.56
32:1a:1445:C:H2'	32:1a:1446:U:O4'	2.05	0.56
32:1a:1457:G:OP1	51:1t:39:LYS:NZ	2.39	0.56
42:1k:84:VAL:HG12	42:1k:110:ASP:HA	1.86	0.56
1:2A:1341:U:OP2	1:2A:1394:U:O2'	2.22	0.56
55:2y:62:C:H2'	55:2y:63:G:H8	1.69	0.56
6:1G:138:GLN:HE21	6:1G:153:ARG:H	1.54	0.56
32:1a:253:U:OP1	48:1q:67:LYS:NZ	2.26	0.56
32:1a:352:C:O2'	32:1a:354:G:OP1	2.17	0.56
32:1a:430:A:OP1	35:1d:9:CYS:HB2	2.06	0.56
33:1b:18:GLY:HA2	33:1b:42:ILE:HG13	1.87	0.56
1:2A:651:G:OP1	30:28:19:SER:OG	2.20	0.56
4:2E:73:GLU:H	4:2E:73:GLU:CD	2.14	0.56
5:2F:123:LEU:HD12	5:2F:124:LEU:H	1.71	0.56
32:2a:1386:G:H2'	32:2a:1387:G:H8	1.71	0.56
35:2d:127:THR:HG23	35:2d:147:ALA:HB3	1.86	0.56
38:2g:54:THR:O	38:2g:56:GLN:N	2.31	0.56
39:2h:119:LEU:HB3	39:2h:123:GLU:HB2	1.86	0.56
42:2k:54:ARG:NH1	55:2y:39:PSU:O2'	2.39	0.56
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.39	0.56
15:1T:4:GLY:O	15:1T:8:LYS:HG2	2.06	0.56
21:1Z:93:ASP:OD1	21:1Z:93:ASP:N	2.39	0.56
8:2I:92:VAL:HG23	8:2I:120:ILE:HG13	1.88	0.56
43:1l:70:ILE:HD13	43:1l:77:LEU:HD12	1.88	0.56
1:2A:2109:U:O4	1:2A:2179:C:N4	2.39	0.56
32:2a:36:C:O2'	43:2l:117:ARG:NH2	2.39	0.56
1:1A:24:G:O2'	18:1W:78:GLU:O	2.20	0.55
1:1A:245:G:O6	30:18:8:LYS:NZ	2.39	0.55
1:1A:2533:A:H2'	1:1A:2534:A:O4'	2.06	0.55
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.88	0.55
32:1a:134:A:H61	47:1p:25:ARG:HH12	1.54	0.55
55:1y:68:C:H2'	55:1y:69:G:H8	1.69	0.55
1:2A:1586:A:H2'	1:2A:1587:A:O4'	2.07	0.55
26:24:61:ARG:NH1	50:2s:42:PRO:HD3	2.20	0.55
33:2b:101:MET:HA	33:2b:108:ILE:HG13	1.86	0.55
42:2k:84:VAL:HG22	42:2k:110:ASP:HA	1.89	0.55
55:2x:22:G:H2'	55:2x:23:A:C8	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2331:G:O2'	22:10:43:THR:HG22	2.06	0.55
5:1F:101:LEU:O	5:1F:106:ARG:NH1	2.37	0.55
10:1O:63:VAL:HA	10:1O:106:LEU:HD11	1.88	0.55
11:1P:84:ASN:HB3	11:1P:117:GLU:O	2.06	0.55
32:1a:1255:G:N7	41:1j:43:ARG:NH2	2.54	0.55
1:2A:686:G:N2	1:2A:788:A:H61	2.04	0.55
1:2A:698:C:O2'	1:2A:734:A:N6	2.39	0.55
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.40	0.55
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.42	0.55
4:2E:36:ARG:NH2	4:2E:88:GLY:O	2.39	0.55
12:2Q:21:THR:HG21	12:2Q:101:ARG:HD3	1.89	0.55
32:2a:833:U:H3	32:2a:853:G:H1	1.52	0.55
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.41	0.55
32:2a:1278:U:H5'	32:2a:1279:A:C5'	2.35	0.55
1:1A:2174:C:H5'	1:1A:2175:C:OP2	2.05	0.55
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.19	0.55
21:1Z:93:ASP:HB3	21:1Z:131:ARG:HH22	1.71	0.55
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.06	0.55
36:1e:80:ILE:HD13	39:1h:104:ARG:HH21	1.70	0.55
54:1w:218:ARG:NH1	54:1w:220:ASP:OD2	2.40	0.55
1:2A:886:C:H1'	1:2A:890:A:N1	2.21	0.55
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.15	0.55
42:2k:86:GLY:N	42:2k:112:THR:HG22	2.16	0.55
1:1A:684:G:OP1	29:17:16:HIS:ND1	2.37	0.55
1:1A:831:G:N2	11:1P:53:GLY:O	2.38	0.55
1:1A:910:A:N1	1:1A:2277:G:H1'	2.22	0.55
1:1A:946:G:OP1	60:1A:3947:HOH:O	2.18	0.55
1:1A:1611:C:OP1	60:1A:3948:HOH:O	2.18	0.55
41:1j:13:HIS:H	41:1j:13:HIS:CD2	2.24	0.55
1:2A:2037:G:O6	60:2A:3747:HOH:O	2.15	0.55
21:2Z:152:ALA:HA	21:2Z:155:LEU:HD23	1.88	0.55
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.41	0.55
39:2h:121:ASP:OD1	39:2h:121:ASP:N	2.32	0.55
1:1A:1071:G:O2'	1:1A:1089:G:OP2	2.25	0.55
21:1Z:111:VAL:C	21:1Z:113:ALA:H	2.14	0.55
32:1a:509:A:OP2	60:1a:1810:HOH:O	2.18	0.55
1:2A:1528:A:OP2	60:2A:3760:HOH:O	2.18	0.55
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	1.89	0.55
24:22:22:GLU:OE2	24:22:68:ARG:NH2	2.38	0.55
7:1H:24:VAL:HG22	7:1H:35:VAL:HB	1.89	0.55
21:1Z:158:PRO:HG2	21:1Z:161:VAL:HG21	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:51:A:N1	32:1a:314:C:O2'	2.37	0.55
32:1a:299:G:H2'	32:1a:300:A:C8	2.41	0.55
32:1a:1187:G:H4'	40:1i:111:ARG:HH11	1.71	0.55
2:2B:60:C:H2'	2:2B:61:G:C8	2.40	0.55
6:2G:7:LEU:HD22	6:2G:104:GLU:HA	1.88	0.55
32:2a:1251:A:H2'	32:2a:1252:A:C8	2.41	0.55
39:2h:51:VAL:HG11	39:2h:60:ARG:HH12	1.72	0.55
54:2w:303:ARG:HB3	54:2w:314:ASP:HA	1.89	0.55
32:1a:1027:C:N4	32:1a:1034:G:N1	2.55	0.55
32:1a:1048:G:OP1	45:1n:3:ARG:HB3	2.06	0.55
34:1c:139:GLN:NE2	34:1c:143:GLU:OE2	2.40	0.55
1:2A:321:G:OP1	5:2F:135:LYS:NZ	2.40	0.55
1:2A:646:A:H2'	1:2A:647:G:O4'	2.07	0.55
10:2O:13:ASN:ND2	10:2O:96:THR:OG1	2.30	0.55
14:2S:39:ILE:HB	14:2S:49:VAL:HG12	1.88	0.55
17:2V:25:LEU:HD12	17:2V:92:THR:HG21	1.88	0.55
32:2a:922:G:H2'	32:2a:923:A:C8	2.42	0.55
1:1A:234:C:H2'	1:1A:235:U:C6	2.42	0.55
1:1A:1082:U:O4	1:1A:1086:A:N1	2.40	0.55
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.22	0.55
21:1Z:7:ALA:HB2	21:1Z:59:LEU:HD22	1.88	0.55
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.25	0.55
45:1n:50:LYS:HB2	45:1n:52:GLN:HG3	1.89	0.55
50:1s:20:LEU:HA	50:1s:23:ASN:HB2	1.89	0.55
1:2A:247:G:H4'	1:2A:386:G:C5	2.41	0.55
15:2T:90:GLN:OE1	15:2T:91:ARG:N	2.36	0.55
42:2k:82:VAL:HB	42:2k:108:ILE:HG13	1.88	0.55
54:2w:148:HIS:CD2	54:2w:157:LYS:HE2	2.42	0.55
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.89	0.55
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.40	0.55
7:1H:3:ARG:HH11	7:1H:4:ILE:H	1.55	0.55
32:1a:537:G:H5''	43:1l:113:ARG:NH1	2.22	0.55
50:1s:3:ARG:NE	50:1s:8:GLY:O	2.37	0.55
1:2A:236:C:H2'	1:2A:237:C:C6	2.42	0.55
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.07	0.55
5:2F:40:GLN:HE22	5:2F:182:ASN:HB2	1.71	0.55
5:2F:185:ASP:OD1	5:2F:188:ARG:NH1	2.39	0.55
32:2a:713:G:H2'	32:2a:714:G:C8	2.42	0.55
1:1A:468:G:N7	29:17:39:ARG:NH2	2.52	0.55
1:1A:2771:C:H2'	1:1A:2772:C:C6	2.42	0.55
54:1w:111:ILE:HB	54:1w:158:VAL:HG23	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:658:C:H2'	1:2A:659:C:C6	2.41	0.55
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.40	0.55
6:2G:47:LYS:HG3	6:2G:48:GLU:H	1.72	0.55
8:2I:27:ARG:HD3	23:21:71:TYR:CE2	2.42	0.55
32:2a:1356:G:H2'	32:2a:1357:A:C8	2.41	0.55
43:2l:46:LYS:HE2	43:2l:92:0TD:H4	1.89	0.55
1:1A:518:G:H2'	1:1A:519:U:C6	2.42	0.54
1:1A:668:G:H5'	1:1A:669:G:OP2	2.07	0.54
1:1A:1972:A:OP2	3:1D:239:ARG:NH2	2.41	0.54
1:1A:1973:G:OP1	60:1A:3952:HOH:O	2.18	0.54
28:16:35:GLU:OE2	28:16:50:ARG:NH1	2.34	0.54
32:1a:1110:A:OP2	60:1a:1811:HOH:O	2.18	0.54
40:1i:3:GLN:HE21	40:1i:20:ARG:HH21	1.54	0.54
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.72	0.54
1:2A:2378:A:H2'	14:2S:21:THR:HG21	1.90	0.54
1:2A:2630:G:H2'	1:2A:2631:G:H8	1.71	0.54
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.72	0.54
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.40	0.54
39:2h:51:VAL:HG11	39:2h:60:ARG:NH1	2.22	0.54
41:2j:64:GLU:OE2	41:2j:66:ARG:NH1	2.40	0.54
1:1A:1091:G:C2	1:1A:1101:U:H1'	2.42	0.54
5:1F:89:VAL:O	60:1F:401:HOH:O	2.18	0.54
32:1a:404:U:H2'	32:1a:405:U:C6	2.43	0.54
33:1b:50:GLU:HA	33:1b:53:ARG:HB3	1.89	0.54
33:1b:193:ASP:OD2	33:1b:196:LEU:N	2.33	0.54
1:2A:1204:A:H2	1:2A:1241:A:H62	1.55	0.54
3:2D:20:ASP:OD2	3:2D:22:SER:OG	2.21	0.54
32:2a:539:A:OP2	43:2l:115:LYS:NZ	2.34	0.54
54:2w:111:ILE:HD11	54:2w:160:PHE:HE2	1.72	0.54
2:1B:75:G:N2	21:1Z:87:ASP:OD1	2.39	0.54
16:1U:47:TYR:HA	16:1U:50:ARG:NH2	2.23	0.54
32:1a:538:G:H5''	43:1l:114:LYS:HB2	1.89	0.54
32:1a:946:A:H2'	32:1a:947:G:C8	2.41	0.54
55:1y:42:C:H2'	55:1y:43:C:C6	2.43	0.54
1:2A:127:A:H5''	1:2A:128:C:C6	2.41	0.54
6:2G:83:ARG:N	6:2G:86:MET:SD	2.79	0.54
7:2H:88:LEU:HD12	7:2H:165:ALA:HA	1.89	0.54
15:2T:29:ARG:HB3	15:2T:87:ASP:HB2	1.89	0.54
32:2a:171:A:H2'	32:2a:172:A:C8	2.42	0.54
41:2j:63:PHE:HE1	45:2n:58:LYS:HG2	1.72	0.54
1:1A:1366:A:P	23:11:3:LYS:HZ1	2.31	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2808:U:H5''	1:1A:2891:G:O6	2.07	0.54
31:19:8:LYS:H	31:19:34:GLN:HE22	1.53	0.54
32:1a:642:A:N3	39:1h:113:SER:OG	2.39	0.54
32:1a:1228:C:H2'	32:1a:1229:A:C8	2.42	0.54
35:1d:11:LEU:O	35:1d:15:GLU:HG2	2.08	0.54
54:1w:330:GLY:O	54:1w:332:LEU:N	2.39	0.54
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.40	0.54
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.42	0.54
11:2P:19:VAL:HG12	11:2P:27:HIS:HB3	1.90	0.54
21:2Z:102:LEU:HD21	21:2Z:124:ILE:HG12	1.89	0.54
35:2d:65:ARG:NH1	35:2d:70:ILE:O	2.40	0.54
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.43	0.54
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.40	0.54
4:1E:168:MET:HE3	4:1E:203:LYS:HE2	1.89	0.54
5:1F:40:GLN:HE22	5:1F:184:TYR:H	1.54	0.54
6:1G:64:THR:HB	6:1G:94:LEU:HD11	1.88	0.54
1:2A:2166:G:N7	1:2A:2168:G:N2	2.56	0.54
1:2A:2532:G:O2'	1:2A:2657:A:N1	2.38	0.54
1:2A:2774:C:H2'	1:2A:2775:A:O4'	2.06	0.54
33:2b:101:MET:HG2	33:2b:108:ILE:HG21	1.89	0.54
44:2m:92:HIS:CD2	44:2m:110:ARG:HH22	2.25	0.54
1:1A:1985:G:OP2	60:1A:3949:HOH:O	2.18	0.54
32:1a:1316:G:N7	50:1s:7:LYS:NZ	2.55	0.54
33:1b:145:LEU:HD23	33:1b:149:LEU:HD12	1.89	0.54
40:2i:40:LEU:HD11	40:2i:70:LYS:HD3	1.90	0.54
40:2i:47:LEU:HB3	40:2i:50:LEU:HD12	1.90	0.54
42:2k:15:ALA:O	42:2k:78:GLN:N	2.38	0.54
48:2q:9:VAL:HG22	48:2q:56:VAL:HG22	1.89	0.54
1:1A:6:A:H2'	1:1A:7:G:O4'	2.08	0.54
1:1A:84:A:H5'	20:1Y:8:LYS:HB3	1.88	0.54
1:1A:340:A:H2'	1:1A:341:G:O4'	2.08	0.54
3:1D:26:LYS:HB3	3:1D:83:GLU:HG2	1.89	0.54
37:1f:22:GLU:OE2	37:1f:82:ARG:NH2	2.35	0.54
1:2A:918:A:C5	1:2A:919:G:H1'	2.43	0.54
6:2G:49:ASP:O	6:2G:51:ARG:NH1	2.41	0.54
14:2S:68:GLN:HG2	14:2S:71:ARG:HH12	1.72	0.54
32:2a:254:G:OP1	48:2q:66:SER:OG	2.21	0.54
32:2a:1286:A:N1	52:2u:18:TYR:OH	2.41	0.54
1:1A:1999:C:H4'	1:1A:2723:C:O2	2.08	0.54
7:1H:3:ARG:NH1	7:1H:4:ILE:H	2.06	0.54
32:1a:945:G:OP2	60:1a:1812:HOH:O	2.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1024:G:H2'	32:1a:1025:U:H5''	1.90	0.54
34:1c:30:ARG:NH1	45:1n:35:ARG:O	2.34	0.54
54:1w:104:GLU:HA	54:1w:166:GLY:HA2	1.90	0.54
1:2A:118:A:N3	1:2A:178:G:H1'	2.23	0.54
1:2A:742:G:H2'	1:2A:743:G:H8	1.73	0.54
2:2B:112:U:H2'	2:2B:113:G:C8	2.43	0.54
32:2a:673:G:H2'	32:2a:674:G:C8	2.43	0.54
35:2d:135:LEU:C	35:2d:137:SER:H	2.16	0.54
41:2j:57:LYS:HE2	41:2j:60:ARG:HH22	1.73	0.54
49:2r:58:LEU:HD23	49:2r:58:LEU:H	1.72	0.54
1:1A:271(K):U:O3'	8:1I:50:ARG:NH1	2.38	0.54
5:1F:30:PRO:HB3	11:1P:1:MET:HE1	1.89	0.54
32:1a:1014:A:H5'	50:1s:14:HIS:CE1	2.43	0.54
40:1i:53:VAL:O	40:1i:55:ALA:N	2.38	0.54
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.90	0.54
54:1w:119:GLU:CG	54:1w:184:PRO:HB3	2.38	0.54
32:2a:302:G:N3	32:2a:556:C:H4'	2.22	0.54
1:1A:2127:G:N2	1:1A:2173:A:H1'	2.23	0.54
15:1T:106:SER:OG	15:1T:109:GLU:HB2	2.06	0.54
33:1b:50:GLU:O	33:1b:54:THR:N	2.30	0.54
1:2A:668:G:H5'	1:2A:669:G:OP2	2.08	0.54
11:2P:138:LEU:HG	11:2P:143:GLY:HA3	1.90	0.54
32:2a:434:U:H2'	32:2a:435:C:C6	2.42	0.54
32:2a:444:C:H2'	32:2a:445:G:C8	2.43	0.54
32:2a:1150:U:O4	32:2a:1151:A:N6	2.41	0.54
32:2a:1216:G:H5''	45:2n:5:ALA:HB2	1.90	0.54
32:2a:1252:A:H2'	32:2a:1253:G:O4'	2.08	0.54
48:2q:76:LEU:HD12	48:2q:77:VAL:H	1.72	0.54
1:1A:410:G:OP2	60:1A:3954:HOH:O	2.19	0.53
60:1A:4290:HOH:O	11:1P:37:GLY:HA3	2.07	0.53
26:14:41:PRO:HA	26:14:47:GLN:HB3	1.90	0.53
54:1w:317:ILE:HG13	54:1w:319:PHE:H	1.73	0.53
1:2A:643:A:N1	1:2A:2369:A:O2'	2.41	0.53
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.37	0.53
1:2A:2627:G:N2	1:2A:2777:G:OP2	2.41	0.53
2:2B:13:A:N1	2:2B:69:G:O2'	2.38	0.53
7:2H:59:ARG:O	7:2H:63:SER:OG	2.25	0.53
11:2P:66:GLY:O	11:2P:68:GLN:NE2	2.41	0.53
15:2T:65:LYS:HE3	15:2T:67:SER:HB3	1.90	0.53
37:2f:99:ALA:HB2	49:2r:31:LEU:HD11	1.90	0.53
39:2h:112:LEU:HB3	39:2h:133:LEU:HA	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:88:ARG:HG2	44:2m:98:VAL:HG12	1.90	0.53
26:14:46:GLN:HG2	26:14:48:ARG:HG3	1.89	0.53
32:1a:942:G:H21	40:1i:124:GLN:NE2	2.06	0.53
32:1a:986:A:H2'	32:1a:987:G:O4'	2.07	0.53
32:1a:1129:C:H5''	40:1i:16:ARG:NH1	2.22	0.53
35:1d:10:ARG:HB2	35:1d:40:PRO:HG3	1.90	0.53
44:1m:90:LEU:HD11	50:1s:76:PRO:HG2	1.89	0.53
3:2D:26:LYS:HB3	3:2D:83:GLU:HG2	1.90	0.53
21:2Z:70:LEU:HB2	21:2Z:91:LEU:HD11	1.91	0.53
35:2d:189:PRO:HB2	35:2d:194:LEU:HD11	1.90	0.53
44:2m:40:ASN:HB3	44:2m:43:THR:HG23	1.90	0.53
1:1A:657:U:H2'	1:1A:658:C:C6	2.43	0.53
1:1A:1920:OMC:HM22	1:1A:1921:G:H5'	1.89	0.53
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.43	0.53
24:12:16:LEU:O	24:12:67:LYS:NZ	2.24	0.53
32:1a:417:C:H42	32:1a:426:G:H1	1.56	0.53
48:1q:53:LEU:HD23	48:1q:82:MET:HE1	1.90	0.53
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.43	0.53
14:2S:25:ARG:HG3	14:2S:88:ASP:HB2	1.90	0.53
32:2a:526:C:OP1	43:2l:91:LYS:NZ	2.41	0.53
1:1A:303:U:O4	60:1A:3950:HOH:O	2.18	0.53
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.90	0.53
1:1A:1797:C:H4'	3:1D:257:LEU:O	2.09	0.53
1:1A:1914:C:H1'	54:1w:290:LEU:HD21	1.89	0.53
14:1S:74:ALA:HA	14:1S:110:LEU:HD22	1.91	0.53
24:12:32:LEU:HD11	24:12:54:LYS:HG3	1.89	0.53
32:1a:1103:C:OP1	33:1b:96:ARG:NH2	2.41	0.53
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.42	0.53
45:1n:27:CYS:SG	45:1n:28:GLY:N	2.82	0.53
54:1w:119:GLU:HG3	54:1w:184:PRO:HB3	1.89	0.53
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.44	0.53
11:2P:19:VAL:HB	11:2P:31:ALA:HA	1.90	0.53
21:2Z:30:ASN:O	21:2Z:32:HIS:N	2.41	0.53
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.73	0.53
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.72	0.53
32:2a:1324:A:H4'	32:2a:1362:C:H4'	1.89	0.53
38:2g:144:MET:HE2	55:2y:30:G:H21	1.72	0.53
47:2p:34:GLU:OE2	47:2p:55:ARG:NE	2.42	0.53
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.90	0.53
32:1a:142:G:H2'	32:1a:143:A:C8	2.43	0.53
32:1a:837:G:H1	32:1a:849:C:H42	1.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.42	0.53
34:1c:68:VAL:HG12	34:1c:70:VAL:HG22	1.89	0.53
1:2A:245:G:N7	30:28:8:LYS:NZ	2.56	0.53
1:2A:770:G:OP1	29:27:8:ASN:ND2	2.33	0.53
1:2A:1908:C:O2	55:2x:12:U:H4'	2.08	0.53
17:2V:14:VAL:HA	17:2V:18:LEU:HD12	1.89	0.53
32:2a:828:A:H2'	32:2a:829:G:O4'	2.08	0.53
33:2b:123:ALA:C	33:2b:125:PRO:HD3	2.34	0.53
1:1A:191:A:H2'	1:1A:192:C:C6	2.43	0.53
1:1A:551:G:O2'	1:1A:1220:A:N3	2.31	0.53
1:1A:639:U:H2'	1:1A:640:C:C6	2.44	0.53
1:1A:1007:C:OP2	60:1A:3951:HOH:O	2.18	0.53
30:18:33:ASN:HA	30:18:36:LYS:HD2	1.90	0.53
32:1a:551:U:H2'	32:1a:552:U:C6	2.44	0.53
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.90	0.53
1:2A:500:G:N1	1:2A:503:A:OP2	2.41	0.53
2:2B:3:C:H2'	2:2B:4:C:C6	2.43	0.53
5:2F:101:LEU:O	5:2F:106:ARG:NH1	2.37	0.53
32:2a:981:U:H5'	45:2n:21:TYR:CE2	2.44	0.53
33:2b:141:GLU:HG3	33:2b:145:LEU:HD13	1.90	0.53
1:1A:55:G:O2'	1:1A:127:A:N1	2.40	0.53
1:1A:1568:G:H4'	3:1D:59:LYS:HB3	1.90	0.53
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.44	0.53
16:1U:28:ARG:NH1	16:1U:38:THR:OG1	2.42	0.53
32:1a:683:G:H21	42:1k:38:ASN:ND2	2.07	0.53
25:23:8:LEU:O	25:23:32:GLN:N	2.35	0.53
37:2f:9:VAL:HB	37:2f:87:ARG:HB2	1.90	0.53
38:2g:11:GLN:H	38:2g:11:GLN:CD	2.17	0.53
55:2x:9:A:OP1	60:2x:202:HOH:O	2.18	0.53
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.90	0.53
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.08	0.53
4:1E:4:ILE:HD13	4:1E:28:ALA:HB1	1.91	0.53
19:1X:40:LYS:HG3	19:1X:51:VAL:HB	1.91	0.53
32:1a:70:G:H1	32:1a:99:U:H3	1.57	0.53
32:1a:1211:U:H1'	32:1a:1213:A:C2	2.44	0.53
32:1a:1307:U:H2'	32:1a:1308:U:C6	2.44	0.53
34:1c:133:ALA:HA	34:1c:136:GLN:HG2	1.89	0.53
39:1h:64:LYS:HD3	39:1h:79:VAL:HG11	1.91	0.53
1:2A:583:G:OP2	16:2U:10:ARG:HD2	2.08	0.53
1:2A:1710:C:H2'	1:2A:1711:C:H6	1.74	0.53
1:2A:2075:U:OP2	1:2A:2238:G:O2'	2.25	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:61:ARG:HH11	50:2s:42:PRO:HD3	1.74	0.53
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.42	0.53
39:2h:51:VAL:HG21	39:2h:60:ARG:HH11	1.73	0.53
41:2j:47:PHE:CE1	45:2n:37:PHE:HE2	2.27	0.53
1:1A:636:G:N7	11:1P:113:LYS:NZ	2.44	0.53
32:1a:946:A:O2'	32:1a:1333:A:N3	2.38	0.53
32:1a:1129:C:H5''	40:1i:16:ARG:HH12	1.73	0.53
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.23	0.53
41:1j:32:ALA:HB2	41:1j:81:THR:HG21	1.90	0.53
42:1k:111:ASP:OD2	49:1r:84:LYS:NZ	2.36	0.53
1:2A:848:G:H2'	1:2A:849:A:C8	2.43	0.53
1:2A:1039:G:H1	1:2A:1116:C:H42	1.56	0.53
8:2I:78:THR:HA	8:2I:143:SER:O	2.09	0.53
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.42	0.53
32:2a:1203:C:H2'	32:2a:1204:A:C8	2.43	0.53
46:2o:84:LYS:O	46:2o:84:LYS:HD3	2.08	0.53
54:2w:182:ARG:HA	54:2w:308:PRO:HD3	1.91	0.53
32:1a:392:G:H2'	32:1a:393:A:H8	1.74	0.53
32:1a:770:C:OP1	60:1a:1814:HOH:O	2.19	0.53
32:1a:999:C:H2'	32:1a:1000:U:O4'	2.09	0.53
32:1a:1142:G:H2'	32:1a:1143:G:O4'	2.09	0.53
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.26	0.53
44:1m:3:ARG:HG2	44:1m:8:GLU:HA	1.89	0.53
44:1m:32:GLU:O	44:1m:36:LYS:HB2	2.08	0.53
1:2A:534:U:H5'	16:2U:42:ALA:HB1	1.91	0.53
32:2a:1149:C:OP2	40:2i:9:ARG:NH2	2.42	0.53
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.90	0.53
34:2c:83:ARG:O	34:2c:87:LEU:N	2.39	0.53
35:2d:111:ALA:HB2	35:2d:120:LEU:HD12	1.90	0.53
35:2d:117:ALA:O	35:2d:121:VAL:HG23	2.09	0.53
42:2k:31:THR:HG22	42:2k:42:TRP:HB2	1.91	0.53
1:1A:272:G:O2'	1:1A:421:U:OP2	2.21	0.52
32:1a:344:A:O2'	32:1a:346:G:O6	2.12	0.52
33:1b:170:GLU:O	33:1b:174:VAL:HG13	2.09	0.52
39:1h:112:LEU:HB3	39:1h:133:LEU:HA	1.91	0.52
51:1t:92:LEU:C	51:1t:94:ALA:H	2.17	0.52
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.09	0.52
5:2F:9:ILE:HD12	5:2F:123:LEU:HD23	1.90	0.52
16:2U:113:ALA:O	16:2U:117:GLN:NE2	2.41	0.52
32:2a:1072:G:H2'	32:2a:1073:U:H6	1.73	0.52
40:2i:53:VAL:C	40:2i:55:ALA:H	2.17	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:484:C:H2'	1:1A:485:C:C6	2.44	0.52
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.25	0.52
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.44	0.52
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.45	0.52
1:2A:1338:G:N7	19:2X:62:LYS:NZ	2.55	0.52
1:2A:2136:C:N3	1:2A:2155:G:N2	2.53	0.52
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.44	0.52
11:2P:29:LYS:HD3	11:2P:30:THR:HG23	1.92	0.52
12:2Q:45:GLN:N	12:2Q:45:GLN:OE1	2.42	0.52
22:20:51:VAL:HG21	22:20:79:VAL:O	2.09	0.52
26:24:2:LYS:HB2	26:24:5:ILE:HD11	1.92	0.52
32:2a:1052:U:O4	32:2a:1200:C:O2'	2.21	0.52
55:2x:51:U:H3	55:2x:63:G:H1	1.54	0.52
1:1A:577:G:O2'	1:1A:1254:A:OP1	2.26	0.52
1:1A:2612:C:OP2	27:15:2:ALA:N	2.42	0.52
7:1H:88:LEU:HD23	7:1H:130:ARG:HG2	1.89	0.52
32:1a:574:A:OP2	60:1a:1813:HOH:O	2.19	0.52
32:1a:1064:G:H4'	32:1a:1065:U:OP1	2.09	0.52
35:1d:64:LEU:HD22	35:1d:198:VAL:HG11	1.91	0.52
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.45	0.52
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.45	0.52
7:2H:129:THR:O	7:2H:129:THR:OG1	2.25	0.52
28:26:9:LEU:HD13	28:26:51:GLU:HG3	1.89	0.52
32:2a:91:C:H2'	32:2a:92:C:C6	2.44	0.52
32:2a:392:G:H2'	32:2a:393:A:C8	2.45	0.52
32:2a:1068:G:H8	32:2a:1068:G:OP2	1.92	0.52
32:2a:1309:G:O2'	44:2m:77:ASN:ND2	2.42	0.52
45:2n:57:ARG:HG2	45:2n:58:LYS:N	2.25	0.52
1:1A:195:A:OP1	11:1P:46:LYS:NZ	2.33	0.52
1:1A:604:G:OP2	11:1P:90:ARG:NH1	2.43	0.52
1:1A:2334:G:O6	22:10:74:ARG:NH2	2.42	0.52
32:1a:1141:C:H2'	32:1a:1142:G:H8	1.74	0.52
32:1a:1355:G:H2'	32:1a:1356:G:C8	2.44	0.52
1:2A:851:U:OP1	25:23:49:LYS:NZ	2.39	0.52
1:2A:2097:C:H2'	1:2A:2098:U:O4'	2.10	0.52
8:2I:9:LEU:HD21	8:2I:35:LEU:HD13	1.90	0.52
8:2I:75:LEU:HD11	8:2I:105:HIS:CE1	2.44	0.52
8:2I:110:ASP:OD1	8:2I:113:ARG:N	2.41	0.52
42:2k:29:ILE:HG23	42:2k:44:SER:HB3	1.90	0.52
1:1A:784:A:C6	3:1D:229:VAL:HG11	2.44	0.52
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.44	0.52
32:1a:1149:C:OP1	40:1i:14:VAL:HG21	2.10	0.52
33:1b:143:GLU:O	33:1b:147:LYS:HB2	2.09	0.52
44:1m:78:ILE:HA	44:1m:81:LEU:HB2	1.92	0.52
54:1w:132:LEU:HD22	54:1w:142:THR:HG21	1.92	0.52
1:2A:2751:G:H8	7:2H:2:SER:HA	1.74	0.52
2:2B:45:A:O4'	6:2G:95:ARG:NH1	2.42	0.52
3:2D:95:LEU:HD11	3:2D:105:ILE:HG12	1.91	0.52
15:2T:127:ALA:C	15:2T:129:ARG:H	2.17	0.52
24:22:44:LEU:HD23	24:22:47:ASN:HA	1.91	0.52
32:2a:164:U:H2'	32:2a:165:C:H6	1.75	0.52
32:2a:437:U:H5''	35:2d:155:LEU:HD11	1.92	0.52
1:1A:1225:G:OP1	17:1V:69:LYS:NZ	2.33	0.52
20:1Y:68:HIS:ND1	20:1Y:70:SER:HB3	2.24	0.52
32:1a:993:G:H2'	32:1a:995:C:H41	1.74	0.52
32:1a:1172:C:H2'	32:1a:1173:G:C8	2.42	0.52
33:1b:24:TRP:H	33:1b:24:TRP:HD1	1.57	0.52
46:1o:61:GLY:O	46:1o:65:ARG:HG3	2.09	0.52
1:2A:345:A:N3	1:2A:347:A:N6	2.57	0.52
1:2A:2171:A:H1'	1:2A:2172:U:C6	2.45	0.52
23:21:67:ILE:N	23:21:68:PRO:HD2	2.24	0.52
32:2a:1027:C:H5''	32:2a:1027:C:H6	1.74	0.52
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.92	0.52
44:2m:69:GLU:HA	44:2m:72:ALA:HB3	1.92	0.52
54:2w:302:ILE:HG22	54:2w:303:ARG:HG2	1.91	0.52
1:1A:253:C:OP2	30:18:5:LYS:NZ	2.30	0.52
1:1A:1102:C:H2'	1:1A:1103:A:O4'	2.10	0.52
1:1A:1377:G:H2'	60:1A:4281:HOH:O	2.09	0.52
13:1R:24:GLN:HB3	13:1R:44:LEU:HD22	1.91	0.52
32:1a:56:U:H2'	32:1a:57:G:H8	1.75	0.52
32:1a:490:G:H2'	32:1a:491:G:H8	1.74	0.52
32:1a:1009:G:N2	32:1a:1021:G:O4'	2.42	0.52
32:1a:1146:A:H2'	32:1a:1147:C:O4'	2.10	0.52
35:1d:12:CYS:CB	59:1d:302:SF4:S2	2.96	0.52
1:2A:489:G:N7	18:2W:49:LYS:NZ	2.57	0.52
1:2A:628:G:O2'	1:2A:651:G:O2'	2.28	0.52
10:2O:10:VAL:HG11	10:2O:16:ALA:HB3	1.92	0.52
15:2T:18:ASP:OD1	15:2T:18:ASP:N	2.31	0.52
32:2a:985:C:H2'	32:2a:986:A:C8	2.44	0.52
32:2a:1198:G:H2'	32:2a:1199:U:C6	2.45	0.52
41:2j:65:LEU:HB2	45:2n:56:VAL:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:110:ASP:OD1	42:2k:112:THR:HG23	2.10	0.52
44:2m:4:ILE:HG21	44:2m:9:ILE:H	1.75	0.52
55:2y:67:C:H2'	55:2y:68:C:C6	2.45	0.52
1:1A:478:A:N1	1:1A:500:G:H4'	2.25	0.52
1:1A:582:G:H2'	1:1A:583:G:C8	2.45	0.52
8:1I:30:LEU:HD23	8:1I:35:LEU:HD12	1.92	0.52
32:1a:407:G:OP1	35:1d:115:ARG:NH1	2.34	0.52
32:1a:646:U:H2'	32:1a:647:C:C6	2.45	0.52
43:1l:24:VAL:HB	43:1l:27:LEU:HD12	1.92	0.52
44:1m:30:ALA:O	44:1m:34:LEU:HG	2.10	0.52
32:2a:522:C:H1'	32:2a:536:C:H5''	1.91	0.52
1:1A:247:G:H4'	1:1A:386:G:C5	2.44	0.52
1:1A:1176:G:N2	1:1A:1178:C:OP2	2.35	0.52
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.24	0.52
14:1S:10:ARG:HG2	14:1S:91:PRO:HA	1.91	0.52
32:1a:127:G:HO2'	48:1q:2:PRO:N	2.08	0.52
50:1s:27:GLU:HB2	50:1s:28:LYS:HD3	1.91	0.52
54:1w:332:LEU:HB3	54:1w:336:LEU:HD13	1.92	0.52
32:2a:235:C:H5'	48:2q:70:ARG:HG2	1.91	0.52
32:2a:833:U:H2'	32:2a:834:C:C6	2.45	0.52
32:2a:1446:U:H4'	32:2a:1447:A:C5	2.44	0.52
33:2b:53:ARG:HA	33:2b:56:ARG:HD2	1.91	0.52
43:2l:6:THR:HG22	43:2l:8:ASN:H	1.74	0.52
1:1A:226:G:H21	1:1A:228:A:H62	1.57	0.52
1:1A:330:A:HO2'	1:1A:331:A:H8	1.57	0.52
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.44	0.52
1:1A:2870:C:H5''	13:1R:65:LEU:HD21	1.92	0.52
2:1B:66:A:H61	2:1B:108:U:H2'	1.74	0.52
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD21	1.92	0.52
32:1a:262:A:H2'	32:1a:263:A:C8	2.45	0.52
32:1a:986:A:H1'	50:1s:54:GLY:O	2.09	0.52
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.45	0.52
33:1b:78:GLN:NE2	33:1b:95:GLN:HG3	2.25	0.52
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.91	0.52
1:2A:740:U:OP2	60:2A:3762:HOH:O	2.19	0.52
1:2A:748:G:OP1	1:2A:2612:C:N4	2.43	0.52
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.24	0.52
29:27:12:ARG:NH2	29:27:44:PRO:HB3	2.24	0.52
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.25	0.51
1:1A:2185:C:H2'	1:1A:2186:G:C8	2.45	0.51
32:1a:406:G:N2	35:1d:119:GLN:OE1	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:690:G:C6	32:1a:691:G:C6	2.98	0.51
32:1a:857:C:H2'	32:1a:858:G:O4'	2.10	0.51
33:1b:212:GLN:NE2	33:1b:234:PRO:O	2.43	0.51
50:1s:27:GLU:HG3	50:1s:28:LYS:HE2	1.90	0.51
1:2A:122:G:OP1	1:2A:149:A:O2'	2.19	0.51
1:2A:2175:C:H2'	1:2A:2176:A:C8	2.45	0.51
9:2N:123:TYR:OH	9:2N:130:HIS:NE2	2.38	0.51
17:2V:28:GLU:HG3	17:2V:29:PRO:HD2	1.92	0.51
32:2a:20:U:H2'	32:2a:21:G:O4'	2.09	0.51
32:2a:572:A:OP1	60:2a:1808:HOH:O	2.19	0.51
32:2a:958:A:N6	32:2a:1221:G:O2'	2.41	0.51
32:2a:1127:G:H5'	32:2a:1280:A:O2'	2.09	0.51
55:2y:36:A:H2'	55:2y:37:MIA:O4'	2.11	0.51
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.29	0.51
1:1A:2785:C:OP1	4:1E:41:LYS:NZ	2.42	0.51
3:1D:85:ASP:OD2	3:1D:88:ARG:HD2	2.11	0.51
4:1E:7:VAL:HG23	4:1E:51:PHE:HE2	1.75	0.51
32:1a:346:G:H3'	32:1a:346:G:N3	2.26	0.51
32:1a:834:C:H2'	32:1a:835:U:C6	2.45	0.51
32:1a:1060:C:H5''	41:1j:51:ARG:HG2	1.93	0.51
40:1i:104:ARG:HD3	40:1i:105:ASP:O	2.11	0.51
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.42	0.51
1:2A:1156:A:OP2	60:2A:3761:HOH:O	2.19	0.51
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.11	0.51
1:2A:2447:G:N2	1:2A:2450:A:OP2	2.43	0.51
1:2A:2788:C:O2'	1:2A:2809:A:N3	2.42	0.51
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.91	0.51
32:2a:731:G:H5'	32:2a:766:A:H4'	1.91	0.51
32:2a:1203:C:OP1	45:2n:3:ARG:HD2	2.10	0.51
1:1A:1011:G:OP2	16:1U:66:ASN:ND2	2.27	0.51
1:1A:1315:C:OP2	60:1A:3942:HOH:O	2.18	0.51
1:1A:1460:A:H4'	1:1A:1461:G:OP2	2.09	0.51
11:1P:39:LYS:HB2	11:1P:45:LEU:HD21	1.93	0.51
16:1U:59:ARG:O	16:1U:63:VAL:HG23	2.10	0.51
24:12:32:LEU:HD12	24:12:57:ILE:HD12	1.91	0.51
25:13:10:LYS:HB3	25:13:53:LEU:HD23	1.93	0.51
38:1g:71:PRO:HA	38:1g:138:LYS:HD2	1.93	0.51
46:1o:28:GLN:HA	46:1o:31:LEU:HD12	1.92	0.51
55:1y:19:G:N2	55:1y:56:C:N3	2.59	0.51
55:1y:26:A:N6	55:1y:44:G:C6	2.78	0.51
1:2A:721:C:H2'	1:2A:722:A:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.43	0.51
3:2D:147:LEU:HD22	3:2D:155:LEU:HD11	1.93	0.51
35:2d:61:LYS:HD3	35:2d:206:PHE:CE2	2.46	0.51
1:1A:636:G:OP1	11:1P:132:LYS:HE2	2.11	0.51
1:1A:796:C:H2'	1:1A:797:C:C6	2.44	0.51
1:1A:2114:A:N6	1:1A:2119:A:H62	2.09	0.51
8:1I:79:ILE:HB	8:1I:144:VAL:HA	1.93	0.51
8:1I:109:ILE:HD12	8:1I:130:TYR:CZ	2.46	0.51
26:14:68:ARG:HG3	26:14:69:LYS:H	1.75	0.51
32:1a:56:U:H2'	32:1a:57:G:C8	2.45	0.51
32:1a:1144:G:N2	32:1a:1146:A:H62	2.09	0.51
36:1e:106:PRO:O	36:1e:110:LEU:HG	2.11	0.51
35:2d:114:ARG:HA	35:2d:117:ALA:HB3	1.91	0.51
1:1A:2572:A:C8	4:1E:144:ARG:HD3	2.45	0.51
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.45	0.51
37:1f:89:MET:HE1	49:1r:72:ARG:HB3	1.93	0.51
1:2A:151:C:H2'	1:2A:152:G:C8	2.45	0.51
1:2A:630:G:N2	1:2A:633:A:OP2	2.28	0.51
21:2Z:23:LYS:HD2	21:2Z:38:TYR:CE1	2.46	0.51
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.10	0.51
1:1A:1580:A:OP2	1:1A:1580:A:H8	1.94	0.51
6:1G:43:LEU:C	6:1G:45:GLU:H	2.18	0.51
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.28	0.51
32:1a:1289:A:OP1	52:1u:9:ARG:NH2	2.43	0.51
33:1b:178:ARG:HH22	39:1h:68:ARG:HH22	1.59	0.51
55:1y:3:C:H42	55:1y:70:G:H1	1.59	0.51
1:2A:1775:U:OP1	1:2A:1979:C:O2'	2.24	0.51
1:2A:2384:G:OP2	22:20:55:ARG:NH2	2.40	0.51
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.45	0.51
12:2Q:56:ARG:HA	21:2Z:180:VAL:HG23	1.92	0.51
15:2T:24:PRO:HA	15:2T:49:VAL:HG22	1.92	0.51
32:2a:1272:G:N2	32:2a:1273:G:C5	2.79	0.51
34:2c:139:GLN:O	34:2c:139:GLN:NE2	2.43	0.51
53:2v:12:A:O5'	53:2v:12:A:H8	1.92	0.51
1:1A:236:C:H2'	1:1A:237:C:C6	2.46	0.51
1:1A:882:G:H1	1:1A:894:C:H42	1.59	0.51
1:1A:1508:A:O2'	1:1A:1509:C:H5''	2.11	0.51
1:1A:1710:C:O2'	1:1A:2858:C:N3	2.43	0.51
7:1H:101:ARG:NH2	7:1H:121:ILE:O	2.43	0.51
11:1P:98:GLU:O	11:1P:101:VAL:HG22	2.09	0.51
15:1T:17:THR:O	15:1T:17:THR:OG1	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1226:C:H3'	44:1m:96:LEU:HD21	1.92	0.51
35:1d:166:LYS:HA	35:1d:178:VAL:HG11	1.93	0.51
1:2A:639:U:H2'	1:2A:640:C:C6	2.46	0.51
1:2A:2203:U:H2'	1:2A:2205:C:H6	1.75	0.51
6:2G:71:THR:OG1	6:2G:89:GLY:HA3	2.11	0.51
20:2Y:23:ARG:NH1	20:2Y:41:GLY:O	2.42	0.51
32:2a:406:G:O3'	35:2d:3:ARG:NH2	2.43	0.51
32:2a:539:A:H2'	32:2a:540:G:C8	2.46	0.51
32:2a:1292:U:H2'	32:2a:1293:G:H8	1.76	0.51
40:2i:46:ALA:O	40:2i:49:PRO:HD2	2.11	0.51
54:2w:230:MEQ:HE2	56:2z:17:ARG:HB3	1.93	0.51
1:1A:787:U:H5''	1:1A:788:A:H5'	1.92	0.51
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.29	0.51
8:1I:59:ALA:HA	8:1I:62:LYS:HB2	1.91	0.51
9:1N:97:ARG:HA	9:1N:100:GLU:HB2	1.93	0.51
23:11:73:LEU:HD22	23:11:97:LEU:HB2	1.93	0.51
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.26	0.51
33:1b:162:ILE:HD11	33:1b:184:VAL:HG22	1.93	0.51
8:2I:9:LEU:HD13	8:2I:12:LEU:HD12	1.93	0.51
12:2Q:54:MET:HE3	12:2Q:64:ILE:HG12	1.93	0.51
21:2Z:67:LEU:HD23	21:2Z:90:VAL:HG21	1.92	0.51
32:2a:1288:A:N1	32:2a:1371:G:HI'	2.26	0.51
49:2r:58:LEU:HD11	49:2r:66:LEU:HD22	1.92	0.51
1:1A:969:U:H4'	25:13:14:GLY:O	2.11	0.51
1:1A:2077:A:H2'	1:1A:2078:C:H6	1.76	0.51
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.93	0.51
3:1D:239:ARG:NH2	60:1D:402:HOH:O	2.43	0.51
54:1w:274:LEU:O	54:1w:278:ARG:HG2	2.10	0.51
1:2A:271(T):C:H2'	1:2A:271(U):G:H8	1.76	0.51
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.29	0.51
11:2P:63:PRO:HD3	30:28:27:THR:HG22	1.93	0.51
28:26:10:LEU:HD23	28:26:22:ALA:HB2	1.93	0.51
32:2a:1503:A:O2'	53:2v:13:A:N1	2.44	0.51
40:2i:104:ARG:NH1	40:2i:105:ASP:O	2.43	0.51
43:2l:84:LEU:HB2	43:2l:105:TYR:CE2	2.46	0.51
55:2y:48:C:C5	55:2y:59:U:H5''	2.46	0.51
1:1A:1071:G:O4'	1:1A:1088:A:O2'	2.25	0.51
1:1A:2637:U:H5''	4:1E:82:ARG:NH1	2.26	0.51
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	1.93	0.51
9:1N:15:LEU:HA	9:1N:53:VAL:O	2.11	0.51
32:1a:507:C:OP2	32:1a:508:C:O2'	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1027:C:N3	32:1a:1034:G:N2	2.59	0.51
54:1w:172:LYS:HE3	54:1w:173:TYR:CE2	2.46	0.51
54:1w:198:THR:HG21	54:1w:293:ILE:HG23	1.93	0.51
1:2A:639:U:H2'	1:2A:640:C:H6	1.76	0.51
1:2A:2725:A:H1'	1:2A:2726:U:H2'	1.92	0.51
5:2F:7:TYR:O	5:2F:21:ALA:HA	2.10	0.51
11:2P:29:LYS:HE2	11:2P:35:HIS:HE1	1.76	0.51
15:2T:85:LYS:NZ	15:2T:87:ASP:OD2	2.43	0.51
32:2a:396:G:O2'	32:2a:398:C:OP1	2.20	0.51
32:2a:426:G:OP1	35:2d:36:ARG:HD2	2.10	0.51
32:2a:1163:C:N4	32:2a:1164:G:O6	2.43	0.51
33:2b:15:VAL:HG12	33:2b:16:HIS:H	1.76	0.51
33:2b:69:LEU:HB2	33:2b:159:PRO:HG3	1.93	0.51
34:2c:110:ASN:ND2	34:2c:144:SER:OG	2.43	0.51
44:2m:14:ARG:HG3	44:2m:44:ARG:NH1	2.25	0.51
55:2y:67:C:H2'	55:2y:68:C:H6	1.76	0.51
1:1A:7:G:H2'	1:1A:8:A:O4'	2.11	0.50
1:1A:1478:G:H2'	1:1A:1479:G:H8	1.75	0.50
1:1A:2554:U:H2'	1:1A:2555:U:C6	2.47	0.50
13:1R:72:ASP:HB3	13:1R:75:LEU:HB3	1.92	0.50
32:1a:716:A:N3	42:1k:118:GLY:HA2	2.26	0.50
32:1a:1346:A:H61	32:1a:1374:A:H3'	1.75	0.50
36:1e:102:ALA:HB1	36:1e:106:PRO:HB2	1.93	0.50
40:1i:43:ALA:HA	40:1i:74:ILE:HD13	1.93	0.50
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.26	0.50
1:2A:1853:A:N3	1:2A:2233:U:O2'	2.39	0.50
1:2A:2365:G:H4'	22:20:60:PHE:CZ	2.45	0.50
32:2a:1002:G:C6	32:2a:1003:G:H8	2.29	0.50
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.11	0.50
35:2d:163:GLU:O	35:2d:166:LYS:HG3	2.10	0.50
1:1A:536:A:H2'	1:1A:537:C:C6	2.46	0.50
1:1A:1047:G:H2'	1:1A:1110:G:N1	2.25	0.50
32:1a:109:A:C6	32:1a:326:G:C6	2.99	0.50
32:1a:430:A:H4'	35:1d:7:PRO:HG3	1.94	0.50
32:1a:1323:G:H2'	32:1a:1324:A:C8	2.47	0.50
33:1b:48:MET:HA	33:1b:51:LEU:HD12	1.92	0.50
45:1n:4:LYS:HA	45:1n:7:ILE:HD12	1.91	0.50
55:1x:26:A:H2'	55:1x:27:G:O4'	2.11	0.50
1:2A:1507:A:O2'	1:2A:1508:A:H8	1.94	0.50
1:2A:1653:G:H3'	13:2R:2:ARG:HD3	1.91	0.50
6:2G:11:TYR:HB2	6:2G:176:LEU:HD21	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:129:THR:HG22	8:2I:139:GLN:NE2	2.26	0.50
18:2W:46:PHE:O	18:2W:50:VAL:HG23	2.11	0.50
24:22:16:LEU:O	24:22:67:LYS:NZ	2.39	0.50
33:2b:167:PRO:HD3	33:2b:187:LEU:O	2.11	0.50
55:2y:8:4SU:H4'	55:2y:48:C:H4'	1.92	0.50
1:1A:795:C:H2'	1:1A:796:C:H6	1.77	0.50
1:1A:883:G:N2	1:1A:884:C:H41	2.07	0.50
1:1A:1359:A:H61	1:1A:1372:U:H3	1.60	0.50
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.47	0.50
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.11	0.50
6:1G:179:PRO:HB2	26:14:42:PHE:HE2	1.76	0.50
10:1O:87:ILE:HD12	10:1O:91:LEU:HA	1.92	0.50
24:12:28:LYS:HD2	24:12:53:LEU:HD21	1.93	0.50
32:1a:782:A:OP1	60:1a:1816:HOH:O	2.19	0.50
32:1a:1346:A:N1	32:1a:1374:A:H5''	2.26	0.50
33:1b:10:LEU:HA	33:1b:12:GLU:OE1	2.12	0.50
51:1t:11:SER:O	51:1t:14:LYS:HB3	2.12	0.50
1:2A:288:C:H2'	1:2A:289:A:H8	1.75	0.50
1:2A:510:C:H2'	1:2A:511:U:O4'	2.12	0.50
30:28:4:MET:HE3	30:28:63:PRO:HG3	1.93	0.50
32:2a:109:A:C6	32:2a:326:G:C6	2.99	0.50
32:2a:189(D):C:H2'	32:2a:189(E):U:O4'	2.11	0.50
32:2a:691:G:H2'	32:2a:692:U:C6	2.47	0.50
32:2a:1124:G:O2'	32:2a:1145:C:N4	2.44	0.50
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.77	0.50
32:2a:1293:G:H2'	32:2a:1294:G:O4'	2.12	0.50
32:2a:1317:C:H2'	32:2a:1318:A:O4'	2.10	0.50
32:1a:542:G:OP1	35:1d:10:ARG:NH2	2.36	0.50
55:1x:19:G:H4'	55:1x:20:U:OP2	2.11	0.50
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.92	0.50
19:2X:29:TRP:CZ3	19:2X:78:LYS:HG3	2.46	0.50
41:2j:50:ILE:HB	45:2n:41:ARG:NH1	2.27	0.50
1:1A:251:A:C5	1:1A:252:G:H1'	2.46	0.50
2:1B:68:C:H2'	2:1B:69:G:O4'	2.11	0.50
24:12:65:ASN:HB3	24:12:69:ARG:HH12	1.76	0.50
32:1a:1002:G:N2	32:1a:1004:A:O2'	2.42	0.50
51:1t:50:GLU:HB2	51:1t:100:ILE:HG13	1.92	0.50
51:1t:54:LYS:HA	51:1t:57:ARG:NH2	2.27	0.50
54:1w:141:GLU:HB3	54:1w:163:ARG:HB2	1.93	0.50
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.46	0.50
6:2G:114:ILE:HB	6:2G:117:PHE:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:95:THR:HG22	13:2R:116:LEU:HD23	1.93	0.50
14:2S:58:LEU:HB2	14:2S:65:VAL:HG13	1.93	0.50
26:24:53:GLU:HB3	26:24:55:ARG:O	2.11	0.50
32:2a:324:G:OP1	51:2t:22:ARG:HD3	2.11	0.50
32:2a:1030(A):G:N2	32:2a:1030(C):G:H3'	2.26	0.50
35:2d:59:ARG:O	35:2d:63:LYS:HG3	2.12	0.50
49:2r:74:ARG:HB3	49:2r:79:LEU:O	2.12	0.50
1:1A:224:G:O6	1:1A:419:C:O2'	2.29	0.50
1:1A:458:G:O2'	1:1A:469:G:O6	2.27	0.50
1:1A:969:U:H2'	1:1A:970:C:C6	2.46	0.50
1:1A:1429:G:H2'	1:1A:1430:C:H6	1.76	0.50
5:1F:28:ILE:O	5:1F:30:PRO:HD3	2.12	0.50
19:1X:29:TRP:CZ3	19:1X:78:LYS:HG2	2.46	0.50
25:13:26:LEU:O	25:13:35:ARG:NE	2.44	0.50
32:1a:108:G:C6	51:1t:15:ARG:HG2	2.47	0.50
32:1a:1221:G:H1'	50:1s:54:GLY:HA3	1.93	0.50
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.77	0.50
33:1b:118:LEU:HD13	33:1b:142:LEU:HA	1.93	0.50
35:1d:71:SER:O	35:1d:75:PHE:N	2.35	0.50
1:2A:16:G:H2'	1:2A:17:G:H8	1.77	0.50
1:2A:38:A:H2'	1:2A:39:C:C6	2.47	0.50
1:2A:83:G:N2	1:2A:103:A:OP2	2.43	0.50
1:2A:588:U:H2'	1:2A:589:C:C6	2.46	0.50
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.27	0.50
1:2A:2123:G:H2'	1:2A:2124:G:C8	2.47	0.50
1:2A:2274:A:O2'	1:2A:2276:G:OP1	2.27	0.50
11:2P:90:ARG:HH12	11:2P:105:LEU:HD11	1.77	0.50
35:2d:100:ARG:NH1	35:2d:137:SER:OG	2.44	0.50
36:2e:143:ARG:HB3	36:2e:147:ASP:HB2	1.93	0.50
37:2f:28:ARG:HA	37:2f:31:GLU:HB2	1.93	0.50
44:2m:82:MET:HB3	44:2m:93:ARG:HD3	1.93	0.50
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.47	0.50
1:1A:1176:G:H4'	1:1A:1177:A:OP1	2.11	0.50
1:1A:1495:A:OP2	60:1A:3955:HOH:O	2.19	0.50
24:12:32:LEU:HD22	24:12:36:ARG:HH11	1.77	0.50
32:1a:1347:G:H5''	40:1i:107:ARG:HB3	1.92	0.50
1:2A:657:U:H2'	1:2A:658:C:C6	2.47	0.50
1:2A:1710:C:H2'	1:2A:1711:C:C6	2.46	0.50
1:2A:1762:A:N1	60:2A:3855:HOH:O	2.35	0.50
1:2A:2128:C:H1'	1:2A:2173:A:O2'	2.11	0.50
1:2A:2841:C:OP1	13:2R:53:HIS:NE2	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:56:G:OP1	6:2G:27:ASN:ND2	2.44	0.50
11:2P:126:VAL:HG22	11:2P:146:VAL:HB	1.92	0.50
16:2U:66:ASN:O	16:2U:70:ARG:HG2	2.12	0.50
32:2a:377:G:OP1	47:2p:3:LYS:HD2	2.12	0.50
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.43	0.50
33:2b:144:ARG:NH1	33:2b:148:TYR:OH	2.45	0.50
38:2g:13:GLN:O	38:2g:24:THR:HG21	2.12	0.50
54:2w:148:HIS:HD2	54:2w:157:LYS:HE2	1.75	0.50
1:1A:1364:G:C5	23:11:3:LYS:HE2	2.47	0.50
1:1A:1790:C:H5''	1:1A:1791:A:OP1	2.12	0.50
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.47	0.50
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.76	0.50
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.31	0.50
25:13:5:LYS:NZ	25:13:34:GLU:OE1	2.43	0.50
32:1a:142:G:O2'	32:1a:196:A:N1	2.44	0.50
32:1a:499:A:H4'	32:1a:500:G:H5'	1.93	0.50
55:1x:65:G:H2'	55:1x:66:U:C6	2.47	0.50
1:2A:644:A:H4'	1:2A:645:C:C4	2.46	0.50
1:2A:856:C:H2'	1:2A:857:C:C6	2.46	0.50
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.46	0.50
13:2R:72:ASP:HB3	13:2R:75:LEU:HB3	1.92	0.50
32:2a:742:G:OP2	46:2o:35:ARG:NH2	2.44	0.50
32:2a:757:U:H2'	32:2a:758:G:O4'	2.11	0.50
32:2a:1279:A:H4'	32:2a:1281:U:H5	1.76	0.50
37:2f:53:ALA:HB3	37:2f:86:ARG:NH1	2.26	0.50
40:2i:29:ASN:ND2	40:2i:65:VAL:H	2.09	0.50
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.11	0.50
1:1A:1779:U:H2'	60:1A:4047:HOH:O	2.11	0.50
1:1A:2133:G:HO2'	1:1A:2157:G:H1	0.63	0.50
1:1A:2296:U:OP2	14:1S:9:ARG:NH2	2.45	0.50
21:1Z:126:VAL:HG21	21:1Z:161:VAL:CG1	2.42	0.50
32:1a:392:G:H2'	32:1a:393:A:C8	2.46	0.50
32:1a:958:A:C2	50:1s:55:LYS:HB2	2.47	0.50
32:1a:1226:C:C5	44:1m:104:ARG:HA	2.46	0.50
35:1d:11:LEU:HD23	35:1d:66:ARG:HB3	1.92	0.50
1:2A:536:A:OP1	16:2U:53:ARG:NH1	2.45	0.50
1:2A:862:G:H2'	1:2A:863:A:O4'	2.12	0.50
1:2A:877:U:H2'	1:2A:878:A:H5''	1.94	0.50
1:2A:1187:G:OP1	17:2V:81:TYR:OH	2.24	0.50
6:2G:115:ARG:HD2	6:2G:136:ARG:NH2	2.27	0.50
32:2a:551:U:H2'	32:2a:552:U:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:57:ARG:HG3	35:2d:202:LEU:HD13	1.93	0.50
38:2g:31:MET:HE2	38:2g:36:LYS:HD2	1.94	0.50
1:1A:883:G:H2'	1:1A:884:C:C5	2.46	0.49
10:1O:68:GLU:H	10:1O:68:GLU:CD	2.20	0.49
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.47	0.49
18:1W:57:ASN:HA	18:1W:61:ASN:HD22	1.76	0.49
34:1c:155:GLY:HA3	34:1c:196:LEU:HG	1.93	0.49
48:1q:41:LYS:NZ	48:1q:88:TYR:OH	2.36	0.49
1:2A:2313:C:H4'	6:2G:91:ARG:HG3	1.93	0.49
2:2B:8:U:H3	2:2B:113:G:H1	1.60	0.49
9:2N:67:LEU:O	9:2N:88:GLU:HG3	2.11	0.49
13:2R:104:ARG:HD2	13:2R:109:ALA:HB3	1.94	0.49
32:2a:433:C:H2'	32:2a:434:U:C6	2.46	0.49
32:2a:1060:C:C5	34:2c:2:GLY:HA2	2.47	0.49
33:2b:30:ARG:NH2	33:2b:194:PRO:HB2	2.23	0.49
33:2b:214:ILE:HG22	33:2b:215:LEU:HD12	1.94	0.49
34:2c:98:ASN:C	34:2c:100:ALA:H	2.19	0.49
36:2e:71:LEU:HD21	36:2e:115:VAL:HG22	1.94	0.49
44:2m:39:ILE:HG13	44:2m:55:ARG:NH1	2.26	0.49
55:2y:53:G:H1	55:2y:61:C:H42	1.59	0.49
1:1A:922:U:H2'	1:1A:923:C:C6	2.48	0.49
4:1E:59:VAL:HG12	4:1E:64:LYS:HG3	1.94	0.49
12:1Q:109:VAL:HG13	12:1Q:113:GLN:HB2	1.94	0.49
19:1X:26:TYR:HD1	19:1X:92:LEU:HD23	1.76	0.49
32:1a:186:C:H2'	32:1a:187:C:H6	1.78	0.49
32:1a:334:C:H2'	32:1a:335:C:C6	2.47	0.49
32:1a:501:C:H2'	32:1a:502:G:C8	2.45	0.49
32:1a:565:U:H3'	32:1a:566:G:H2'	1.94	0.49
32:1a:1239:A:H4'	32:1a:1240:U:H5''	1.95	0.49
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.47	0.49
36:1e:137:GLU:OE2	36:1e:141:GLN:NE2	2.38	0.49
1:2A:1265:A:H5'	60:2A:4124:HOH:O	2.11	0.49
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.46	0.49
1:2A:2728:U:H2'	1:2A:2729:G:H8	1.77	0.49
2:2B:43:C:O2	6:2G:95:ARG:NE	2.43	0.49
12:2Q:35:VAL:HG22	12:2Q:130:LYS:HB3	1.94	0.49
32:2a:1492:A:N3	54:2w:298:ARG:NH2	2.60	0.49
33:2b:138:LEU:HA	33:2b:141:GLU:HB3	1.93	0.49
44:2m:11:ARG:H	44:2m:11:ARG:HD2	1.77	0.49
53:2v:22:U:OP2	54:2w:191:ARG:NH1	2.41	0.49
1:1A:548:A:H1'	1:1A:549:G:OP1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:127:VAL:HA	3:1D:193:VAL:HG22	1.94	0.49
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.93	0.49
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.12	0.49
32:1a:855:G:OP2	32:1a:871:U:N3	2.44	0.49
32:1a:1207:2MG:H2'	32:1a:1208:C:C6	2.47	0.49
33:1b:184:VAL:N	33:1b:198:ASP:OD2	2.40	0.49
54:1w:257:SER:HB3	54:1w:260:LYS:HB2	1.95	0.49
1:2A:2314:C:H2'	1:2A:2315:G:C8	2.47	0.49
32:2a:674:G:H2'	32:2a:675:A:H8	1.76	0.49
32:2a:1002:G:N2	32:2a:1039:C:N3	2.59	0.49
33:2b:28:PHE:HD1	33:2b:194:PRO:HG3	1.77	0.49
33:2b:98:LEU:HB3	33:2b:101:MET:HG3	1.93	0.49
33:2b:185:ILE:HG23	33:2b:199:TYR:HB2	1.95	0.49
47:2p:40:ASP:OD2	47:2p:44:THR:OG1	2.27	0.49
54:2w:250:VAL:HG11	54:2w:268:ILE:HB	1.93	0.49
55:2x:10:G:N2	55:2x:26:A:H1'	2.26	0.49
55:2y:11:C:N4	55:2y:24:G:H1	2.09	0.49
1:1A:2319:G:H1	14:1S:3:ARG:HA	1.74	0.49
6:1G:16:ARG:NH2	6:1G:28:VAL:HG22	2.26	0.49
21:1Z:136:PHE:O	21:1Z:137:ILE:HG13	2.13	0.49
26:14:58:ARG:HD3	50:1s:67:VAL:HB	1.95	0.49
32:1a:1314:C:H2'	32:1a:1315:U:C6	2.48	0.49
32:1a:1394:A:N1	32:1a:1500:A:O2'	2.35	0.49
33:1b:34:ALA:O	33:1b:41:ILE:HG12	2.13	0.49
1:2A:27:G:O2'	1:2A:28:A:OP2	2.28	0.49
1:2A:479:A:N3	1:2A:481:G:H5''	2.27	0.49
1:2A:784:A:C5	3:2D:229:VAL:HG21	2.48	0.49
1:2A:1609:A:OP2	60:2A:3763:HOH:O	2.19	0.49
14:2S:30:ARG:HD3	14:2S:98:VAL:HG13	1.95	0.49
32:2a:375:U:H2'	32:2a:376:G:C8	2.47	0.49
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.94	0.49
1:1A:1091:G:O6	1:1A:1100:C:N3	2.46	0.49
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.47	0.49
7:1H:144:VAL:O	7:1H:148:ILE:HG13	2.13	0.49
32:1a:4:U:C4	39:1h:105:ARG:HD3	2.48	0.49
32:1a:736:C:H2'	32:1a:737:A:C8	2.48	0.49
40:1i:7:THR:O	40:1i:83:ARG:NH1	2.37	0.49
49:1r:74:ARG:HG3	49:1r:79:LEU:HB2	1.93	0.49
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.12	0.49
7:2H:125:VAL:HG22	7:2H:131:VAL:HG22	1.94	0.49
32:2a:509:A:N3	32:2a:543:C:O2'	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1133:G:H1	32:2a:1141:C:H42	1.59	0.49
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.47	0.49
35:2d:108:LEU:HD13	35:2d:174:LEU:HD13	1.95	0.49
47:2p:5:ARG:NH1	47:2p:28:ARG:HA	2.27	0.49
1:1A:484:C:H2'	1:1A:485:C:H6	1.76	0.49
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.13	0.49
1:1A:795:C:H2'	1:1A:796:C:C6	2.46	0.49
1:1A:1291:C:H2'	1:1A:1292:U:C6	2.47	0.49
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.45	0.49
2:1B:89:G:H2'	2:1B:90:A:C8	2.48	0.49
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.24	0.49
32:1a:250:A:H4'	32:1a:251:G:O5'	2.12	0.49
32:1a:335:C:O2'	32:1a:1433:A:N3	2.37	0.49
32:1a:1118:C:OP1	40:1i:9:ARG:HD2	2.12	0.49
33:1b:171:ALA:HA	33:1b:174:VAL:HG22	1.94	0.49
43:1l:102:ARG:NH2	43:1l:108:ALA:O	2.42	0.49
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.12	0.49
1:2A:2363:C:O2	22:20:39:ARG:NH2	2.46	0.49
1:2A:2728:U:H2'	1:2A:2729:G:C8	2.47	0.49
14:2S:10:ARG:HH21	14:2S:91:PRO:HB2	1.77	0.49
32:2a:540:G:H2'	32:2a:541:G:O4'	2.12	0.49
43:2l:52:LEU:HG	54:2w:299:SER:HB3	1.95	0.49
47:2p:58:TYR:O	47:2p:61:SER:OG	2.28	0.49
1:1A:1107:G:H2'	1:1A:1108:U:H6	1.76	0.49
1:1A:2097:C:N4	1:1A:2192:G:H1	2.07	0.49
3:1D:246:PRO:O	3:1D:254:THR:HG22	2.12	0.49
5:1F:69:HIS:HB3	56:1z:11:PRO:HG3	1.93	0.49
20:1Y:86:ARG:HB2	20:1Y:98:VAL:HG23	1.94	0.49
32:1a:7:G:H5'	32:1a:298:A:O4'	2.12	0.49
32:1a:738:C:OP1	37:1f:2:ARG:NH1	2.44	0.49
33:1b:8:LYS:HD2	33:1b:55:PHE:HD2	1.76	0.49
38:1g:156:TRP:HE3	38:1g:156:TRP:N	2.10	0.49
40:1i:85:LEU:HD23	40:1i:96:LEU:HD11	1.95	0.49
55:1y:51:U:H2'	55:1y:52:G:C8	2.47	0.49
1:2A:244:A:H4'	11:2P:74:GLU:HB2	1.95	0.49
1:2A:483:A:H1'	20:2Y:59:GLY:O	2.12	0.49
1:2A:565:C:H2'	1:2A:566:U:O4'	2.13	0.49
1:2A:700:G:O2'	1:2A:1632:A:N3	2.41	0.49
1:2A:2102:U:H2'	1:2A:2103:C:C6	2.47	0.49
1:2A:2454:G:H1'	60:2A:3996:HOH:O	2.12	0.49
6:2G:98:ARG:CZ	26:24:1:MET:HE3	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:75:LEU:HD21	8:2I:105:HIS:CD2	2.48	0.49
13:2R:28:LEU:HD23	13:2R:48:VAL:HG21	1.95	0.49
32:2a:229:U:H5'	47:2p:33:ILE:HD13	1.95	0.49
32:2a:750:G:O2'	46:2o:21:ASP:OD1	2.31	0.49
32:2a:952:U:H4'	32:2a:964:A:N1	2.28	0.49
32:2a:1004:A:H1'	32:2a:1038:C:O2	2.12	0.49
32:2a:1033:G:H2'	32:2a:1034:G:H8	1.77	0.49
36:2e:88:LYS:HB3	36:2e:123:LEU:HB2	1.93	0.49
38:2g:27:ILE:HG23	38:2g:39:ALA:HB1	1.93	0.49
45:2n:37:PHE:HB3	45:2n:39:LEU:HD12	1.95	0.49
51:2t:50:GLU:H	51:2t:99:LEU:HD12	1.76	0.49
55:2x:23:A:H2'	55:2x:24:G:C8	2.48	0.49
1:1A:272(A):U:O2'	1:1A:272(B):G:O5'	2.30	0.49
10:1O:1:MET:HE3	10:1O:67:LYS:HG2	1.94	0.49
21:1Z:138:GLU:H	21:1Z:156:LYS:NZ	2.10	0.49
32:1a:186:C:H2'	32:1a:187:C:C6	2.47	0.49
32:1a:1382:C:H2'	32:1a:1383:C:H6	1.78	0.49
33:1b:80:ILE:HD11	33:1b:215:LEU:HD12	1.93	0.49
36:1e:92:LYS:HB3	36:1e:119:LEU:HB2	1.94	0.49
55:1y:56:C:H2'	55:1y:57:G:O4'	2.12	0.49
1:2A:532:A:N7	1:2A:2021:C:O2'	2.41	0.49
1:2A:919:G:N2	1:2A:2269:A:OP2	2.38	0.49
1:2A:1169:G:H1	1:2A:1180:C:H42	1.61	0.49
1:2A:1277:G:O2'	13:2R:24:GLN:NE2	2.40	0.49
1:2A:1330:C:H2'	1:2A:1331:A:H8	1.78	0.49
3:2D:252:TRP:CD1	3:2D:252:TRP:H	2.31	0.49
6:2G:59:GLU:O	6:2G:63:ILE:HG12	2.13	0.49
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.80	0.49
35:2d:31:CYS:HB3	35:2d:34:GLU:HB2	1.95	0.49
35:2d:71:SER:OG	35:2d:74:GLN:HG3	2.13	0.49
38:2g:26:PHE:CE2	38:2g:30:ILE:HD11	2.47	0.49
1:1A:264:C:O2'	1:1A:265:A:H2'	2.12	0.49
1:1A:1300:U:H4'	1:1A:1301:A:H5'	1.95	0.49
1:1A:1356:G:OP2	60:1A:3953:HOH:O	2.19	0.49
1:1A:2114:A:H2'	1:1A:2115:G:O4'	2.12	0.49
1:1A:2452:C:OP1	60:1A:3957:HOH:O	2.20	0.49
1:1A:2532:G:O2'	1:1A:2657:A:N1	2.40	0.49
8:1I:75:LEU:HD22	8:1I:105:HIS:CE1	2.47	0.49
32:1a:1197:G:OP2	60:1a:1815:HOH:O	2.19	0.49
33:1b:15:VAL:HG13	33:1b:209:ARG:HB3	1.94	0.49
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:563:G:OP2	60:2A:3769:HOH:O	2.20	0.49
5:2F:34:TRP:CE3	5:2F:35:GLU:HG2	2.48	0.49
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.95	0.49
34:2c:18:TRP:CD1	45:2n:54:PRO:HA	2.48	0.49
35:2d:11:LEU:O	35:2d:15:GLU:HG2	2.12	0.49
54:2w:213:ASN:O	54:2w:216:GLU:HG2	2.13	0.49
1:1A:1050:A:H2'	1:1A:1051:G:O4'	2.13	0.49
1:1A:1064:C:H42	1:1A:1074:G:H1	1.59	0.49
1:1A:1068:G:H2'	1:1A:1096:A:O2'	2.13	0.49
2:1B:88:C:H2'	2:1B:89:G:O4'	2.13	0.49
5:1F:168:ARG:O	60:1F:402:HOH:O	2.20	0.49
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.45	0.49
1:2A:200:U:O2	1:2A:386:G:N2	2.46	0.49
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.26	0.49
1:2A:795:C:H2'	1:2A:796:C:C6	2.48	0.49
1:2A:2808:U:H5''	1:2A:2891:G:O6	2.13	0.49
2:2B:49:C:H2'	2:2B:50:G:H8	1.77	0.49
6:2G:68:PRO:HA	6:2G:92:VAL:HB	1.94	0.49
24:22:29:LYS:HG2	24:22:57:ILE:HD13	1.94	0.49
32:2a:164:U:H2'	32:2a:165:C:C6	2.48	0.49
32:2a:1316:G:N2	32:2a:1319:A:H5''	2.24	0.49
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.48	0.49
33:2b:180:LEU:C	33:2b:182:ILE:H	2.20	0.49
37:2f:37:VAL:HA	37:2f:65:VAL:HG12	1.95	0.49
54:2w:184:PRO:HG3	54:2w:193:HIS:HB2	1.95	0.49
54:2w:327:VAL:HG23	54:2w:332:LEU:HG	1.94	0.49
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.13	0.48
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.48	0.48
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.95	0.48
32:1a:76:C:H2'	32:1a:77:G:H5'	1.94	0.48
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.48	0.48
1:2A:628:G:HO2'	1:2A:651:G:HO2'	1.59	0.48
1:2A:994:C:O2'	1:2A:996:A:OP1	2.31	0.48
1:2A:1224:C:O2'	17:2V:85:LYS:HA	2.13	0.48
1:2A:2110:G:H1	1:2A:2179:C:H42	1.61	0.48
1:2A:2136:C:N4	1:2A:2155:G:N1	2.61	0.48
1:2A:2751:G:C8	7:2H:2:SER:HA	2.48	0.48
1:2A:2869:G:H2'	1:2A:2870:C:C6	2.48	0.48
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.95	0.48
21:2Z:105:VAL:N	21:2Z:139:VAL:O	2.41	0.48
32:2a:195:A:OP1	51:2t:68:LYS:NZ	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:305:U:H2'	1:1A:306:U:C6	2.48	0.48
1:1A:531:C:H4'	1:1A:532:A:H5''	1.94	0.48
1:1A:1056:G:H1'	1:1A:1103:A:H61	1.77	0.48
1:1A:2260:C:HO2'	1:1A:2388:A:HO2'	1.61	0.48
1:1A:2378:A:H4'	14:1S:23:ARG:NH1	2.27	0.48
5:1F:117:ARG:NH2	5:1F:189:THR:O	2.46	0.48
6:1G:126:ASP:OD2	6:1G:130:ASN:ND2	2.34	0.48
26:14:64:GLY:C	26:14:66:SER:H	2.21	0.48
32:1a:1005:A:H5'	32:1a:1038:C:H1'	1.93	0.48
32:1a:1109:C:OP2	34:1c:176:HIS:ND1	2.46	0.48
32:1a:1304:G:OP1	52:1u:2:GLY:N	2.45	0.48
42:1k:51:LYS:HA	42:1k:55:LYS:HE2	1.94	0.48
1:2A:885:C:H2'	1:2A:886:C:O4'	2.13	0.48
2:2B:66:A:H61	2:2B:108:U:H2'	1.77	0.48
8:2I:65:ALA:HB1	8:2I:132:PRO:HG2	1.95	0.48
9:2N:102:ALA:O	9:2N:106:MET:HG3	2.12	0.48
32:2a:255:G:H2'	32:2a:256:U:C6	2.48	0.48
1:1A:184:C:H2'	1:1A:185:U:H6	1.74	0.48
1:1A:579:G:H2'	1:1A:580:C:C6	2.48	0.48
1:1A:1010:A:N3	1:1A:1153:C:H1'	2.27	0.48
1:1A:1107:G:H2'	1:1A:1108:U:C6	2.49	0.48
1:1A:1263:U:OP1	27:15:16:ARG:NH1	2.41	0.48
6:1G:16:ARG:HB2	6:1G:17:PRO:HD3	1.93	0.48
18:1W:71:VAL:HA	18:1W:107:LEU:HD23	1.95	0.48
32:1a:233:C:H2'	32:1a:234:C:H6	1.79	0.48
44:1m:102:ARG:HE	44:1m:105:THR:HG23	1.78	0.48
55:1x:47:U:O2'	55:1x:48:C:OP1	2.24	0.48
1:2A:774:A:H2'	1:2A:774:A:N3	2.28	0.48
1:2A:800:A:H8	1:2A:800:A:OP1	1.96	0.48
1:2A:910:A:N3	1:2A:2264:C:O2'	2.45	0.48
1:2A:1028:A:H2'	1:2A:1029:A:C8	2.47	0.48
1:2A:2674:G:O2'	10:2O:29:ASN:OD1	2.22	0.48
15:2T:119:LYS:HB2	32:2a:1442(A):G:N2	2.28	0.48
28:26:6:ARG:HH12	28:26:26:ASN:HB2	1.79	0.48
1:1A:372:G:O2'	1:1A:373:U:OP2	2.31	0.48
1:1A:774:A:N3	1:1A:774:A:H2'	2.27	0.48
6:1G:49:ASP:O	6:1G:51:ARG:N	2.46	0.48
26:14:58:ARG:NH1	50:1s:68:GLY:H	2.11	0.48
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.28	0.48
34:1c:35:GLU:O	34:1c:39:ILE:HG13	2.14	0.48
34:1c:193:TYR:HE1	34:1c:196:LEU:HD11	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:45:ARG:HH21	45:1n:36:PHE:HE1	1.60	0.48
42:1k:27:ASN:OD1	42:1k:28:THR:N	2.40	0.48
49:1r:25:THR:O	49:1r:25:THR:OG1	2.27	0.48
54:1w:239:VAL:HG11	54:1w:262:ARG:HA	1.94	0.48
1:2A:989:G:H4'	1:2A:990:A:OP1	2.12	0.48
1:2A:1443:G:H1	1:2A:1548:C:H42	1.61	0.48
1:2A:1467:C:C5	1:2A:1546:C:H2'	2.48	0.48
1:2A:2391:G:O6	1:2A:2425:A:H8	1.96	0.48
1:2A:2602:A:OP1	60:2A:3764:HOH:O	2.20	0.48
10:2O:25:LEU:HD11	10:2O:40:VAL:HG23	1.95	0.48
10:2O:48:PRO:HB3	32:2a:1422:G:H5'	1.94	0.48
32:2a:598:U:H4'	39:2h:94:TYR:CD2	2.48	0.48
32:2a:682:G:H2'	32:2a:683:G:C8	2.48	0.48
32:2a:1447:A:OP2	32:2a:1452:C:N4	2.45	0.48
32:2a:1456:G:O2'	51:2t:39:LYS:NZ	2.46	0.48
1:1A:311:A:C6	1:1A:328:U:C4	3.02	0.48
1:1A:752:A:H3'	29:17:1:MET:HE1	1.96	0.48
1:1A:958:U:OP2	12:1Q:14:ARG:HD3	2.14	0.48
1:1A:1756:G:O6	60:1A:3956:HOH:O	2.19	0.48
1:1A:2176:A:H2'	1:1A:2177:C:C6	2.49	0.48
6:1G:129:GLY:O	6:1G:161:THR:HB	2.13	0.48
10:1O:54:GLU:OE1	60:1O:301:HOH:O	2.20	0.48
13:1R:12:ARG:HB3	13:1R:16:HIS:HB3	1.94	0.48
26:14:26:SER:OG	26:14:27:THR:N	2.47	0.48
32:1a:540:G:H2'	32:1a:541:G:O4'	2.14	0.48
32:1a:1069:C:OP2	60:1a:1817:HOH:O	2.20	0.48
32:1a:1236:A:OP1	52:1u:2:GLY:HA3	2.14	0.48
32:1a:1288:A:N1	32:1a:1371:G:H1'	2.28	0.48
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.77	0.48
41:1j:12:ASP:OD1	41:1j:13:HIS:N	2.47	0.48
54:1w:228:GLY:HA3	54:1w:232:VAL:HB	1.95	0.48
55:1y:18:G:C2	55:1y:58:A:C5	3.02	0.48
55:1y:35:A:H2'	55:1y:36:A:C8	2.49	0.48
1:2A:1530:C:H42	1:2A:1539:G:H1	1.60	0.48
2:2B:31:C:H4'	6:2G:29:TRP:CH2	2.48	0.48
25:23:7:LYS:HG3	25:23:34:GLU:HG2	1.96	0.48
26:24:58:ARG:NH1	50:2s:68:GLY:H	2.11	0.48
45:2n:26:ARG:NH1	45:2n:46:GLU:OE1	2.46	0.48
1:1A:616:G:H5'	5:1F:205:ARG:HH11	1.78	0.48
1:1A:944:G:H5''	1:1A:945:A:O5'	2.14	0.48
1:1A:1710:C:H42	1:1A:1748:G:H1	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2049:G:N7	60:1A:4034:HOH:O	2.35	0.48
27:15:40:LYS:HD3	27:15:46:CYS:HA	1.96	0.48
31:19:25:VAL:HB	31:19:34:GLN:HB2	1.95	0.48
32:1a:859:A:H2'	32:1a:860:A:O4'	2.13	0.48
33:1b:16:HIS:HB3	33:1b:210:SER:OG	2.13	0.48
33:1b:44:LEU:H	33:1b:44:LEU:HD22	1.79	0.48
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.96	0.48
33:1b:178:ARG:NH2	39:1h:68:ARG:HH22	2.11	0.48
1:2A:793:A:OP2	1:2A:2071:A:O2'	2.28	0.48
1:2A:816:C:O2'	1:2A:932:G:O6	2.31	0.48
1:2A:1357:U:H2'	1:2A:1358:G:O4'	2.13	0.48
1:2A:2206:G:H5''	1:2A:2207:G:N7	2.28	0.48
5:2F:117:ARG:HH21	5:2F:187:VAL:HA	1.78	0.48
31:29:1:MET:SD	31:29:33:LYS:HG2	2.54	0.48
32:2a:10:A:H61	32:2a:24:U:H3	1.62	0.48
32:2a:110:C:H2'	32:2a:111:G:O4'	2.13	0.48
32:2a:833:U:H2'	32:2a:834:C:H6	1.79	0.48
32:2a:1274:G:N2	32:2a:1275:A:N7	2.57	0.48
41:2j:8:LEU:HD13	41:2j:20:ALA:HB2	1.95	0.48
1:1A:895:U:H5'	1:1A:896:A:OP2	2.14	0.48
1:1A:996:A:H4'	16:1U:91:ASP:OD2	2.13	0.48
8:1I:12:LEU:HD12	8:1I:19:VAL:HG21	1.96	0.48
32:1a:479:C:H2'	32:1a:480:U:C6	2.48	0.48
35:1d:155:LEU:HD13	35:1d:157:LEU:H	1.77	0.48
42:1k:21:ILE:HB	42:1k:84:VAL:HG23	1.96	0.48
1:2A:468:G:H5''	5:2F:60:SER:HB2	1.96	0.48
1:2A:519:U:H2'	1:2A:520:G:H8	1.79	0.48
1:2A:2038:G:H2'	1:2A:2039:C:O4'	2.14	0.48
1:2A:2116:G:N1	1:2A:2162:G:OP1	2.46	0.48
14:2S:11:LYS:HB2	14:2S:91:PRO:HB3	1.96	0.48
32:2a:103:C:P	51:2t:17:ARG:HH21	2.37	0.48
32:2a:567:G:H2'	32:2a:568:G:O4'	2.14	0.48
33:2b:80:ILE:O	33:2b:80:ILE:HG13	2.14	0.48
34:2c:54:ARG:NH1	34:2c:56:ASP:OD1	2.47	0.48
34:2c:63:ASN:HB2	34:2c:98:ASN:HB2	1.94	0.48
39:2h:29:SER:HB3	39:2h:32:LYS:HB2	1.95	0.48
41:2j:47:PHE:HE1	45:2n:37:PHE:HE2	1.62	0.48
1:1A:2846:G:H2'	1:1A:2847:U:O4'	2.13	0.48
5:1F:110:LEU:HG	5:1F:202:PHE:HE1	1.79	0.48
7:1H:3:ARG:HG2	7:1H:6:ARG:HG3	1.96	0.48
10:1O:64:ARG:HB2	10:1O:79:PHE:CD2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:35:VAL:HA	12:1Q:101:ARG:O	2.14	0.48
36:1e:51:VAL:O	36:1e:55:VAL:HG23	2.14	0.48
42:1k:59:TYR:CZ	42:1k:63:LEU:HD11	2.48	0.48
44:1m:18:ALA:HA	44:1m:21:TYR:HD2	1.78	0.48
47:1p:20:VAL:HG21	47:1p:32:TYR:CG	2.49	0.48
54:1w:216:GLU:HB2	54:1w:245:PRO:HD3	1.96	0.48
54:1w:259:ILE:HD13	54:1w:262:ARG:HE	1.78	0.48
56:1z:10:ARG:HG2	56:1z:11:PRO:HD2	1.96	0.48
1:2A:784:A:C8	1:2A:792:G:C5	3.02	0.48
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.14	0.48
3:2D:61:LEU:O	3:2D:63:ARG:NH1	2.46	0.48
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.95	0.48
28:26:11:LEU:HB2	28:26:21:TYR:HB2	1.96	0.48
32:2a:266:G:H2'	32:2a:266:G:N3	2.28	0.48
32:2a:779:C:O2'	42:2k:120:ARG:HD3	2.13	0.48
39:2h:97:VAL:HG21	39:2h:128:GLY:HA2	1.95	0.48
1:1A:2471:C:H2'	1:1A:2472:G:O4'	2.14	0.48
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.96	0.48
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.51	0.48
32:1a:1006:C:N3	32:1a:1023:G:N2	2.58	0.48
32:1a:1027:C:N3	32:1a:1034:G:C2	2.82	0.48
33:1b:80:ILE:HD13	33:1b:212:GLN:HA	1.96	0.48
34:1c:119:ARG:HH12	34:1c:140:ARG:HE	1.61	0.48
38:1g:46:ALA:HB1	38:1g:121:ALA:HB2	1.96	0.48
39:1h:95:VAL:HG23	39:1h:99:GLU:HB2	1.94	0.48
48:1q:45:HIS:HB3	48:1q:72:ARG:HB3	1.94	0.48
1:2A:9:U:H3	1:2A:2629:A:H2	1.62	0.48
1:2A:896:A:C6	21:2Z:146:ILE:HD12	2.48	0.48
5:2F:36:VAL:O	5:2F:40:GLN:HG3	2.13	0.48
5:2F:155:LEU:HD23	5:2F:186:ILE:HG13	1.95	0.48
6:2G:61:ALA:HA	6:2G:66:GLN:O	2.14	0.48
10:2O:15:GLY:O	10:2O:47:ILE:HG12	2.14	0.48
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.13	0.48
19:2X:4:ALA:HB1	19:2X:42:ALA:HA	1.96	0.48
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.29	0.48
36:2e:85:GLY:C	36:2e:87:SER:H	2.21	0.48
47:2p:52:ASP:O	47:2p:55:ARG:N	2.46	0.48
1:1A:2155:G:H3'	1:1A:2156:G:H8	1.79	0.48
2:1B:50:G:H5''	14:1S:61:ASN:HD22	1.79	0.48
18:1W:19:LEU:HB3	27:15:25:LEU:HG	1.96	0.48
32:1a:7:G:O2'	36:1e:120:THR:O	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:523:A:H61	43:1l:53:ARG:NH1	2.11	0.48
32:1a:572:A:OP1	60:1a:1818:HOH:O	2.20	0.48
32:1a:1127:G:H1'	32:1a:1280:A:C6	2.49	0.48
39:1h:36:LEU:HA	39:1h:39:LEU:HD12	1.94	0.48
1:2A:176:G:O2'	1:2A:177:G:H5'	2.14	0.48
1:2A:1030:G:H2'	1:2A:1031:G:C8	2.49	0.48
2:2B:49:C:H2'	2:2B:50:G:C8	2.49	0.48
8:2I:75:LEU:HD11	8:2I:105:HIS:NE2	2.29	0.48
21:2Z:44:PHE:O	21:2Z:48:PHE:N	2.37	0.48
21:2Z:71:VAL:HG22	21:2Z:88:PHE:HE1	1.78	0.48
26:24:61:ARG:O	26:24:61:ARG:HG2	2.14	0.48
32:2a:219:C:O2'	32:2a:381:C:H5'	2.14	0.48
32:2a:868:C:H2'	32:2a:869:G:O4'	2.14	0.48
32:2a:1016:A:H2'	32:2a:1017:G:O4'	2.13	0.48
32:2a:1157:A:H62	32:2a:1177:G:N2	2.12	0.48
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.32	0.48
39:2h:30:ARG:O	39:2h:34:GLU:HG2	2.13	0.48
54:2w:214:MET:HE1	54:2w:266:LEU:HD13	1.96	0.48
1:1A:2093:G:C6	1:1A:2225:A:C8	3.02	0.47
1:1A:2780:G:OP2	9:1N:118:LYS:HD3	2.14	0.47
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.48	0.47
32:1a:1279:A:H4'	32:1a:1281:U:H5	1.79	0.47
32:1a:1305:G:H5''	52:1u:4:GLY:HA3	1.96	0.47
34:1c:136:GLN:HG3	34:1c:137:ALA:N	2.29	0.47
41:1j:42:THR:HG23	41:1j:68:HIS:HA	1.95	0.47
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.47	0.47
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.14	0.47
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.77	0.47
4:2E:2:LYS:HB2	4:2E:95:ILE:HD12	1.95	0.47
5:2F:34:TRP:NE1	11:2P:8:PRO:HD3	2.29	0.47
5:2F:182:ASN:O	5:2F:186:ILE:HD12	2.14	0.47
18:2W:65:LEU:HD22	18:2W:68:ARG:NH1	2.28	0.47
30:28:56:GLU:HA	30:28:59:LYS:HE3	1.96	0.47
32:2a:44:G:H2'	32:2a:45:U:O4'	2.13	0.47
32:2a:411:A:O2'	32:2a:413:G:H5'	2.14	0.47
32:2a:743:U:H2'	32:2a:744:C:C6	2.49	0.47
32:2a:811:C:H4'	32:2a:900:A:N6	2.28	0.47
36:2e:40:ARG:HG3	36:2e:66:MET:HE3	1.96	0.47
55:2y:8:4SU:H2'	55:2y:13:C:N4	2.28	0.47
1:1A:572:A:OP2	17:1V:78:LYS:NZ	2.47	0.47
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.46	0.47
32:1a:1226:C:O2'	44:1m:111:LYS:NZ	2.39	0.47
32:1a:1256:A:OP2	34:1c:26:LYS:NZ	2.40	0.47
35:1d:111:ALA:HA	35:1d:116:GLN:NE2	2.29	0.47
39:1h:20:TYR:HE2	39:1h:75:ARG:HD2	1.78	0.47
49:1r:38:GLU:HA	49:1r:41:LYS:HE2	1.95	0.47
1:2A:83:G:N1	1:2A:102:G:O2'	2.36	0.47
1:2A:1823:G:OP1	3:2D:54:ARG:NH1	2.47	0.47
1:2A:2529:G:H5''	1:2A:2530:A:H5''	1.94	0.47
6:2G:33:ARG:HG3	6:2G:162:THR:HG21	1.96	0.47
6:2G:63:ILE:HD13	6:2G:143:GLU:HB2	1.95	0.47
16:2U:97:ASP:OD2	16:2U:101:ARG:HD2	2.14	0.47
20:2Y:20:TYR:CE2	20:2Y:43:ASN:HA	2.49	0.47
32:2a:390:C:H2'	32:2a:391:G:C8	2.50	0.47
32:2a:404:U:H2'	32:2a:405:U:H6	1.78	0.47
35:2d:200:GLU:H	35:2d:200:GLU:HG3	1.39	0.47
38:2g:91:VAL:HG23	38:2g:95:ARG:HB3	1.96	0.47
38:2g:152:ALA:O	38:2g:155:ARG:NH1	2.47	0.47
54:2w:168:TYR:CZ	54:2w:203:PRO:HD3	2.49	0.47
5:1F:150:GLY:HA2	5:1F:172:TRP:CD2	2.49	0.47
32:1a:986:A:N3	50:1s:52:TYR:OH	2.41	0.47
37:1f:5:GLU:HG3	37:1f:93:SER:OG	2.14	0.47
39:1h:2:LEU:HD21	39:1h:8:ASP:HB2	1.96	0.47
46:1o:26:GLU:HG3	46:1o:81:LEU:HD13	1.96	0.47
47:1p:18:ARG:NH1	47:1p:32:TYR:OH	2.47	0.47
1:2A:632:A:H2'	1:2A:633:A:C8	2.50	0.47
1:2A:724:U:H2'	1:2A:725:G:O4'	2.14	0.47
1:2A:1114:G:H2'	1:2A:1115:G:H8	1.79	0.47
1:2A:1625:C:H2'	1:2A:1626:G:O4'	2.14	0.47
1:2A:2133:G:N2	1:2A:2157:G:H1'	2.29	0.47
7:2H:5:GLY:HA3	7:2H:65:HIS:CE1	2.49	0.47
10:2O:87:ILE:HD12	10:2O:91:LEU:HA	1.95	0.47
21:2Z:3:TYR:CD2	21:2Z:51:ALA:HB2	2.49	0.47
32:2a:1109:C:H2'	32:2a:1110:A:O4'	2.13	0.47
1:1A:2116:G:H2'	1:1A:2117:A:C5	2.49	0.47
3:1D:218:ARG:HB3	3:1D:219:PRO:HD2	1.95	0.47
6:1G:146:TYR:O	6:1G:149:VAL:HG12	2.15	0.47
19:1X:5:TYR:CZ	24:12:30:ARG:HB2	2.49	0.47
32:1a:51:A:H61	32:1a:314:C:H1'	1.80	0.47
32:1a:343:U:O2'	32:1a:346:G:O6	2.26	0.47
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:6:GLY:HA3	40:1i:83:ARG:HB2	1.97	0.47
41:1j:70:ARG:HD3	41:1j:70:ARG:HA	1.69	0.47
42:1k:51:LYS:HE2	42:1k:51:LYS:HB3	1.70	0.47
43:1l:56:ALA:HB2	43:1l:70:ILE:HD11	1.96	0.47
1:2A:675:A:H4'	5:2F:67:GLN:OE1	2.14	0.47
32:2a:1133:G:H2'	32:2a:1134:G:H8	1.79	0.47
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.15	0.47
42:2k:92:GLU:C	42:2k:94:ALA:H	2.22	0.47
7:1H:27:LYS:HG2	7:1H:32:GLU:HB3	1.96	0.47
32:1a:457:C:H2'	32:1a:458:C:C6	2.49	0.47
32:1a:596:C:H2'	32:1a:597:G:H8	1.79	0.47
32:1a:670:G:H2'	32:1a:671:G:O4'	2.14	0.47
33:1b:219:VAL:HA	33:1b:222:ILE:HD12	1.95	0.47
41:1j:63:PHE:HE1	45:1n:58:LYS:HG2	1.79	0.47
54:1w:110:GLU:HG2	54:1w:159:VAL:HG13	1.96	0.47
1:2A:56:A:H2'	1:2A:57:C:O4'	2.14	0.47
5:2F:197:ASP:N	5:2F:197:ASP:OD1	2.47	0.47
22:20:68:GLU:CD	22:20:82:ARG:HE	2.22	0.47
32:2a:107:G:C2	32:2a:108:G:H1'	2.49	0.47
32:2a:909:A:H2'	32:2a:910:C:O4'	2.13	0.47
32:2a:1146:A:H2'	32:2a:1147:C:O4'	2.13	0.47
33:2b:25:ASN:HD21	33:2b:27:LYS:HG3	1.78	0.47
33:2b:28:PHE:CD1	33:2b:194:PRO:HG3	2.50	0.47
34:2c:36:ASP:HB3	34:2c:40:ARG:HH12	1.79	0.47
34:2c:152:ILE:HG12	34:2c:167:TRP:HB3	1.96	0.47
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.29	0.47
6:1G:60:LEU:HD12	6:1G:60:LEU:HA	1.77	0.47
32:1a:881:G:P	43:1l:12:ARG:HH22	2.37	0.47
33:1b:163:PHE:HA	33:1b:185:ILE:HG12	1.96	0.47
35:1d:196:LEU:C	35:1d:198:VAL:H	2.22	0.47
36:1e:148:VAL:HG21	39:1h:107:LEU:HD23	1.95	0.47
38:1g:50:ILE:HD11	38:1g:58:PRO:HA	1.95	0.47
43:1l:58:VAL:HG12	43:1l:60:LEU:HD12	1.97	0.47
43:1l:102:ARG:HE	43:1l:102:ARG:HB3	1.52	0.47
54:1w:200:ALA:HB2	54:1w:293:ILE:HG13	1.96	0.47
55:1y:35:A:N6	55:1y:37:MIA:H153	2.28	0.47
1:2A:185:U:H4'	1:2A:218:A:H4'	1.96	0.47
1:2A:307:G:N1	1:2A:310:A:OP2	2.48	0.47
1:2A:637:A:H2'	11:2P:117:GLU:OE1	2.14	0.47
1:2A:832:G:OP1	60:2A:3765:HOH:O	2.20	0.47
1:2A:1019:U:H3	1:2A:1142(A):A:N6	2.11	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1019:U:O2'	1:2A:1021:A:H2	1.98	0.47
1:2A:1459:G:H2'	1:2A:1461:G:OP2	2.13	0.47
1:2A:2300:G:H2'	1:2A:2301:C:C6	2.49	0.47
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.50	0.47
8:2I:26:ALA:O	8:2I:31:LEU:HB2	2.15	0.47
21:2Z:152:ALA:O	21:2Z:155:LEU:N	2.44	0.47
26:24:61:ARG:NH2	50:2s:9:VAL:HG11	2.30	0.47
32:2a:333:G:H4'	51:2t:16:HIS:CE1	2.49	0.47
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.30	0.47
33:2b:9:GLU:N	33:2b:9:GLU:OE2	2.48	0.47
33:2b:185:ILE:HA	33:2b:199:TYR:O	2.14	0.47
47:2p:5:ARG:HH12	47:2p:28:ARG:HA	1.80	0.47
1:1A:84:A:N1	1:1A:98:G:O2'	2.46	0.47
1:1A:96:G:H4'	24:12:48:HIS:CD2	2.49	0.47
1:1A:534:U:H2'	1:1A:535:C:C6	2.49	0.47
1:1A:887:A:H4'	1:1A:888:C:OP1	2.14	0.47
1:1A:1045:A:H8	1:1A:1111:A:N6	2.12	0.47
1:1A:1097:U:H2'	1:1A:1098:A:O4'	2.14	0.47
1:1A:1537:G:H2'	1:1A:1538:G:H8	1.80	0.47
1:1A:2390:U:O2'	1:1A:2391:G:H5'	2.15	0.47
1:1A:2820:A:C6	13:1R:4:LEU:HD11	2.50	0.47
2:1B:87:G:N2	2:1B:90:A:OP2	2.32	0.47
2:1B:96:U:H2'	2:1B:97:G:C8	2.50	0.47
4:1E:105:THR:OG1	4:1E:166:THR:OG1	2.18	0.47
10:1O:64:ARG:HD3	10:1O:79:PHE:CD1	2.50	0.47
32:1a:165:C:H2'	32:1a:166:G:C8	2.48	0.47
32:1a:189(A):C:H2'	32:1a:189(B):C:C6	2.49	0.47
32:1a:229:U:H5''	47:1p:33:ILE:HD13	1.97	0.47
32:1a:431:A:H2'	32:1a:432:A:O4'	2.15	0.47
32:1a:834:C:H2'	32:1a:835:U:H6	1.80	0.47
32:1a:1181:G:H4'	32:1a:1182:G:OP1	2.15	0.47
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.50	0.47
34:1c:172:ARG:NH2	34:1c:206:GLU:OE1	2.46	0.47
38:1g:66:VAL:O	38:1g:70:LYS:HG3	2.15	0.47
47:1p:50:LYS:HA	47:1p:50:LYS:HD2	1.68	0.47
49:1r:58:LEU:HB3	49:1r:62:GLU:HB2	1.95	0.47
50:1s:11:VAL:HG11	50:1s:16:LEU:HD13	1.97	0.47
52:1u:3:LYS:HD3	52:1u:14:TRP:CD1	2.49	0.47
54:1w:345:GLU:H	54:1w:345:GLU:HG2	1.48	0.47
1:2A:27:G:N2	1:2A:512:G:H1'	2.29	0.47
1:2A:787:U:H5''	1:2A:788:A:H5'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1020:A:N1	1:2A:1141:U:O2'	2.42	0.47
1:2A:1385:G:O2'	1:2A:1396:U:O2	2.27	0.47
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.49	0.47
1:2A:1639:U:H2'	1:2A:1640:C:H5''	1.96	0.47
1:2A:1906:G:OP2	1:2A:1929:G:O2'	2.31	0.47
1:2A:2206:G:H5''	1:2A:2207:G:C8	2.50	0.47
1:2A:2507:C:OP1	60:2A:3766:HOH:O	2.20	0.47
2:2B:40:U:O2'	2:2B:43:C:OP2	2.16	0.47
4:2E:28:ALA:HB3	4:2E:93:VAL:HG13	1.97	0.47
4:2E:55:ASN:HB3	4:2E:58:ARG:HD2	1.97	0.47
9:2N:138:LEU:HD22	9:2N:140:VAL:HG13	1.95	0.47
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.22	0.47
21:2Z:54:HIS:HB3	21:2Z:101:PRO:HG3	1.97	0.47
26:24:12:ALA:N	26:24:24:THR:O	2.43	0.47
26:24:60:GLN:C	26:24:62:ARG:H	2.22	0.47
30:28:34:TRP:CG	30:28:35:GLN:N	2.83	0.47
32:2a:301:G:H2'	32:2a:302:G:C8	2.50	0.47
32:2a:562:C:H1'	43:2l:15:ARG:HB3	1.95	0.47
32:2a:739:C:O2'	46:2o:42:HIS:ND1	2.44	0.47
32:2a:815:A:N7	32:2a:1509:C:O2'	2.40	0.47
32:2a:890:G:O2'	32:2a:906:G:O6	2.31	0.47
32:2a:977:A:O2'	32:2a:981:U:N3	2.47	0.47
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.50	0.47
32:2a:1060:C:H5	34:2c:2:GLY:HA2	1.80	0.47
34:2c:179:ARG:NH1	34:2c:206:GLU:OE1	2.48	0.47
38:2g:150:ALA:HB2	42:2k:50:TYR:OH	2.15	0.47
41:2j:31:GLY:O	41:2j:81:THR:HG21	2.15	0.47
43:2l:102:ARG:HE	43:2l:102:ARG:HB3	1.54	0.47
1:1A:483:A:O2'	20:1Y:59:GLY:N	2.47	0.47
1:1A:724:U:H2'	1:1A:725:G:O4'	2.14	0.47
1:1A:1799:G:O2'	3:1D:181:GLU:OE2	2.27	0.47
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.50	0.47
32:1a:756:C:H2'	32:1a:757:U:O4'	2.14	0.47
32:1a:1124:G:N2	32:1a:1125:U:O4	2.45	0.47
32:1a:1262:C:H2'	32:1a:1263:C:C6	2.50	0.47
32:1a:1262:C:H2'	32:1a:1263:C:H6	1.79	0.47
35:1d:108:LEU:HB3	35:1d:110:PHE:CE1	2.50	0.47
40:1i:118:LYS:HB2	40:1i:121:ARG:HB3	1.96	0.47
44:1m:45:VAL:HA	44:1m:48:LEU:HD12	1.97	0.47
1:2A:307:G:H21	1:2A:330:A:N6	2.10	0.47
1:2A:1531:C:N4	1:2A:1538:G:H1	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:23:ARG:HD2	15:2T:120:ARG:CZ	2.45	0.47
20:2Y:67:LEU:HD22	20:2Y:71:LYS:HE2	1.96	0.47
20:2Y:89:PHE:CD1	20:2Y:95:LYS:HB2	2.50	0.47
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.14	0.47
32:2a:134:A:H61	47:2p:25:ARG:NH1	2.12	0.47
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.15	0.47
32:2a:959:A:H2	32:2a:1221:G:H21	1.61	0.47
33:2b:120:ALA:C	33:2b:122:PHE:H	2.23	0.47
41:2j:6:ILE:O	41:2j:71:LEU:HD12	2.15	0.47
54:2w:336:LEU:O	54:2w:340:LYS:HB2	2.15	0.47
1:1A:1290:C:H2'	1:1A:1291:C:H6	1.80	0.47
1:1A:2125:G:H1	1:1A:2172:U:P	2.38	0.47
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.50	0.47
5:1F:13:SER:HB3	5:1F:16:GLY:O	2.15	0.47
8:1I:61:ARG:HA	8:1I:61:ARG:HH11	1.79	0.47
20:1Y:6:HIS:HE1	20:1Y:72:VAL:O	1.98	0.47
32:1a:911:U:H2'	32:1a:912:C:C6	2.50	0.47
33:1b:208:ILE:H	33:1b:208:ILE:HD12	1.80	0.47
34:1c:124:ILE:C	34:1c:126:ARG:H	2.23	0.47
40:1i:70:LYS:O	40:1i:74:ILE:HG13	2.15	0.47
40:1i:98:PRO:O	40:1i:100:GLY:N	2.48	0.47
21:2Z:151:HIS:HA	21:2Z:170:THR:HA	1.97	0.47
32:2a:176:C:H2'	32:2a:177:C:C6	2.50	0.47
32:2a:600:C:H2'	32:2a:601:C:C6	2.50	0.47
32:2a:620:C:H2'	32:2a:621:A:O4'	2.15	0.47
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.49	0.47
34:2c:19:GLU:HA	34:2c:54:ARG:NH1	2.29	0.47
7:1H:3:ARG:HD2	7:1H:3:ARG:HA	1.61	0.47
21:1Z:41:LEU:HD11	21:1Z:83:PRO:HG2	1.97	0.47
21:1Z:59:LEU:HD11	21:1Z:88:PHE:CG	2.50	0.47
32:1a:939:G:OP1	38:1g:95:ARG:NH2	2.35	0.47
32:1a:1133:G:C6	32:1a:1142:G:C6	3.02	0.47
32:1a:1272:G:H2'	32:1a:1273:G:O4'	2.14	0.47
44:1m:95:GLY:O	44:1m:110:ARG:HG2	2.14	0.47
1:2A:64:A:C4	19:2X:66:LEU:HD13	2.50	0.47
1:2A:631:A:N3	1:2A:2415:G:O2'	2.37	0.47
1:2A:1183:G:H2'	1:2A:1184:G:C8	2.49	0.47
1:2A:1328:G:H2'	1:2A:1330:C:C5	2.49	0.47
1:2A:2151:G:H2'	1:2A:2152:G:H8	1.78	0.47
1:2A:2353:G:H5''	22:20:32:ARG:NH1	2.30	0.47
2:2B:90:A:N7	2:2B:91:C:H1'	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:111:VAL:C	21:2Z:113:ALA:H	2.23	0.47
26:24:63:TYR:N	26:24:63:TYR:CD1	2.83	0.47
32:2a:766:A:H2'	32:2a:767:A:O4'	2.15	0.47
32:2a:1149:C:OP1	40:2i:14:VAL:HG11	2.15	0.47
33:2b:69:LEU:HD13	33:2b:155:LEU:HD12	1.97	0.47
47:2p:70:ALA:O	47:2p:74:LEU:HD22	2.15	0.47
52:2u:6:ARG:HE	52:2u:15:ARG:CZ	2.28	0.47
54:2w:172:LYS:HA	54:2w:201:VAL:HG21	1.97	0.47
55:2y:8:4SU:H6	55:2y:8:4SU:O5'	2.15	0.47
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.50	0.46
1:1A:857:C:N4	1:1A:858:U:O4	2.48	0.46
1:1A:881:G:H2'	1:1A:882:G:O4'	2.15	0.46
1:1A:1087:G:H22	1:1A:1103:A:H1'	1.79	0.46
1:1A:1504:C:H2'	1:1A:1505:C:C6	2.50	0.46
1:1A:1930:G:O2'	1:1A:1968:G:O6	2.25	0.46
8:1I:79:ILE:HB	8:1I:144:VAL:HG12	1.96	0.46
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.97	0.46
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.30	0.46
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.15	0.46
33:1b:97:TRP:CH2	33:1b:101:MET:HB2	2.50	0.46
49:1r:51:LEU:HD23	49:1r:52:PRO:HD2	1.97	0.46
1:2A:315:G:H2'	1:2A:316:C:C6	2.51	0.46
1:2A:453:C:OP1	60:2A:3706:HOH:O	2.20	0.46
1:2A:601:C:O2'	1:2A:605:C:OP1	2.33	0.46
1:2A:1038:C:H42	1:2A:1117:G:H1	1.62	0.46
1:2A:2162:G:H2'	1:2A:2163:C:O4'	2.14	0.46
1:2A:2468:G:OP1	12:2Q:119:ARG:NH2	2.37	0.46
1:2A:2528:U:H2'	1:2A:2530:A:O5'	2.15	0.46
15:2T:16:ARG:NH2	15:2T:83:ILE:O	2.48	0.46
32:2a:911:U:H2'	32:2a:912:C:C6	2.50	0.46
55:2y:53:G:H2'	55:2y:54:5MU:C6	2.51	0.46
1:1A:234:C:H2'	1:1A:235:U:H6	1.78	0.46
1:1A:1769:G:O2'	1:1A:1958:C:OP1	2.32	0.46
1:1A:2107:C:N3	1:1A:2182:G:O6	2.48	0.46
1:1A:2155:G:H2'	1:1A:2155:G:N3	2.30	0.46
3:1D:72:LYS:HE3	3:1D:75:ILE:HD12	1.97	0.46
8:1I:4:ILE:HG12	8:1I:18:VAL:HG22	1.96	0.46
8:1I:6:LEU:HG	8:1I:36:ALA:HA	1.96	0.46
15:1T:77:PRO:HB2	15:1T:80:SER:HB2	1.97	0.46
21:1Z:151:HIS:C	21:1Z:153:SER:H	2.22	0.46
32:1a:130:A:OP2	48:1q:63:ARG:NH1	2.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:718:G:H5'	42:1k:117:ASN:HB2	1.96	0.46
33:1b:8:LYS:HD2	33:1b:55:PHE:CD2	2.50	0.46
37:1f:3:ARG:HB3	37:1f:93:SER:HB2	1.97	0.46
44:1m:74:VAL:O	44:1m:78:ILE:HG13	2.15	0.46
44:1m:92:HIS:HD2	44:1m:110:ARG:HH21	1.62	0.46
54:1w:133:ARG:HB2	54:1w:329:SER:O	2.16	0.46
54:1w:135:ALA:HB1	54:1w:140:PHE:HB2	1.96	0.46
1:2A:189:G:H2'	1:2A:205:G:N2	2.30	0.46
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.45	0.46
1:2A:1753:G:OP1	15:2T:95:ARG:HD2	2.15	0.46
6:2G:102:PHE:HD2	6:2G:103:LEU:HD23	1.79	0.46
10:2O:64:ARG:HD3	10:2O:79:PHE:CD1	2.50	0.46
32:2a:976:G:OP1	45:2n:32:SER:N	2.40	0.46
32:2a:1189:C:O2	60:2a:1809:HOH:O	2.20	0.46
32:2a:1229:A:OP2	44:2m:114:ARG:HD2	2.15	0.46
32:2a:1281:U:HO2'	32:2a:1282:C:H6	1.62	0.46
34:2c:42:LEU:HA	34:2c:45:LYS:NZ	2.30	0.46
49:2r:67:ALA:HA	49:2r:70:ILE:HB	1.97	0.46
53:2v:11:U:H3'	53:2v:12:A:C8	2.51	0.46
1:1A:213:A:H2'	1:1A:214:G:O4'	2.15	0.46
1:1A:2099:U:H3	1:1A:2190:G:H1	1.63	0.46
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.15	0.46
1:1A:2379:G:H2'	1:1A:2380:C:C6	2.51	0.46
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.37	0.46
7:1H:3:ARG:HE	7:1H:54:ARG:HH12	1.62	0.46
13:1R:38:VAL:HG22	13:1R:112:ALA:HB2	1.97	0.46
32:1a:1064:G:H1'	32:1a:1190:G:H21	1.80	0.46
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.50	0.46
38:1g:108:ALA:O	38:1g:111:ARG:HB2	2.15	0.46
45:1n:24:CYS:HB3	45:1n:28:GLY:H	1.81	0.46
1:2A:32:C:O2'	1:2A:33:U:H5'	2.15	0.46
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.48	0.46
1:2A:2109:U:C4	1:2A:2110:G:C6	3.03	0.46
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.13	0.46
3:2D:41:GLY:O	3:2D:43:ARG:NH1	2.40	0.46
32:2a:591:U:H2'	32:2a:592:G:C8	2.51	0.46
32:2a:1088:G:C6	32:2a:1089:G:C5	3.04	0.46
32:2a:1249:C:O2'	40:2i:68:GLY:O	2.33	0.46
35:2d:71:SER:HG	35:2d:74:GLN:HG3	1.81	0.46
40:2i:17:VAL:HG12	40:2i:63:ILE:HG23	1.97	0.46
42:2k:31:THR:HG22	42:2k:42:TRP:CB	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:72:LEU:HD23	51:2t:72:LEU:HA	1.78	0.46
1:1A:193:U:O3'	1:1A:803:U:H4'	2.16	0.46
1:1A:288:C:H2'	1:1A:289:A:H8	1.80	0.46
1:1A:686:G:N2	1:1A:788:A:H61	2.14	0.46
1:1A:1093:G:N1	1:1A:1098:A:OP2	2.47	0.46
14:1S:110:LEU:HD12	14:1S:110:LEU:HA	1.78	0.46
19:1X:12:VAL:HG21	19:1X:78:LYS:HD2	1.97	0.46
30:18:6:THR:HG22	30:18:62:LEU:HD23	1.95	0.46
32:1a:1255:G:P	41:1j:45:ARG:HH12	2.38	0.46
41:1j:64:GLU:HB3	45:1n:59:ALA:HB2	1.97	0.46
1:2A:185:U:H2'	1:2A:186:G:C8	2.50	0.46
1:2A:1876:A:H2'	1:2A:1877:A:C8	2.51	0.46
1:2A:2394:C:N3	55:2y:76:A:O2'	2.43	0.46
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.41	0.46
2:2B:91:C:P	12:2Q:16:ARG:HH21	2.38	0.46
10:2O:107:ARG:HA	10:2O:115:VAL:HG21	1.98	0.46
18:2W:57:ASN:HA	18:2W:61:ASN:HD22	1.79	0.46
32:2a:375:U:H2'	32:2a:376:G:H8	1.81	0.46
32:2a:397:A:H3'	32:2a:397:A:N3	2.31	0.46
32:2a:405:U:OP1	32:2a:406:G:O2'	2.27	0.46
32:2a:446:G:H2'	32:2a:447:G:O4'	2.15	0.46
32:2a:986:A:H1'	50:2s:54:GLY:O	2.15	0.46
32:2a:1112:C:O2	34:2c:178:LEU:N	2.48	0.46
33:2b:175:ARG:O	33:2b:179:LYS:N	2.46	0.46
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.35	0.46
35:2d:3:ARG:HH12	35:2d:115:ARG:HG3	1.80	0.46
35:2d:64:LEU:HD13	35:2d:198:VAL:HG21	1.98	0.46
40:2i:79:LEU:HG	40:2i:83:ARG:HD2	1.96	0.46
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.98	0.46
45:2n:50:LYS:HB3	45:2n:52:GLN:HG3	1.97	0.46
1:1A:1400:G:H2'	1:1A:1401:G:C8	2.50	0.46
1:1A:1537:G:H2'	1:1A:1538:G:C8	2.51	0.46
3:1D:108:PRO:HG2	3:1D:111:LEU:HB2	1.98	0.46
11:1P:65:ARG:HD2	30:18:25:MET:SD	2.56	0.46
16:1U:61:TRP:CH2	16:1U:93:LYS:HB2	2.51	0.46
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.98	0.46
19:1X:84:ALA:HB3	19:1X:87:GLN:NE2	2.31	0.46
32:1a:352:C:H42	32:1a:357:G:N2	2.12	0.46
32:1a:418:C:H1'	32:1a:540:G:O2'	2.15	0.46
32:1a:436:C:H4'	35:1d:157:LEU:HD23	1.98	0.46
32:1a:1176:A:H2'	32:1a:1177:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1529:G:H4'	32:1a:1530:G:OP2	2.16	0.46
37:1f:42:GLU:OE2	37:1f:59:TYR:OH	2.29	0.46
1:2A:903:C:H2'	1:2A:904:C:H6	1.80	0.46
1:2A:987:G:H2'	1:2A:988:A:O4'	2.16	0.46
1:2A:1116:C:H3'	1:2A:1117:G:H8	1.80	0.46
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.24	0.46
1:2A:2255:G:N2	22:20:8:GLY:O	2.41	0.46
2:2B:3:C:H2'	2:2B:4:C:H6	1.80	0.46
2:2B:28:C:OP1	14:2S:36:TYR:OH	2.30	0.46
32:2a:684:A:C6	32:2a:685:G:C6	3.03	0.46
32:2a:1244:C:H2'	32:2a:1245:A:C8	2.51	0.46
32:2a:1244:C:H2'	32:2a:1245:A:H8	1.79	0.46
32:2a:1262:C:H2'	32:2a:1263:C:H5'	1.96	0.46
54:2w:106:ASP:N	54:2w:106:ASP:OD1	2.48	0.46
54:2w:306:ASN:N	54:2w:311:ARG:O	2.48	0.46
1:1A:274:G:H1'	1:1A:363:G:N2	2.30	0.46
1:1A:572:A:H5''	1:1A:573:G:OP2	2.16	0.46
1:1A:828:U:C5	1:1A:2247:A:H4'	2.51	0.46
1:1A:2774:C:H2'	1:1A:2775:A:O4'	2.15	0.46
27:15:35:GLU:HG3	27:15:51:TYR:CG	2.51	0.46
32:1a:1236:A:H4'	32:1a:1304:G:H4'	1.98	0.46
35:1d:102:ASP:N	35:1d:102:ASP:OD1	2.49	0.46
50:1s:19:VAL:HG21	50:1s:44:MET:HG2	1.97	0.46
50:1s:40:ILE:HB	50:1s:67:VAL:O	2.15	0.46
16:2U:50:ARG:O	16:2U:54:LYS:NZ	2.42	0.46
32:2a:262:A:H4'	51:2t:75:ASN:HB2	1.97	0.46
32:2a:983:A:H5'	32:2a:984:C:OP2	2.15	0.46
32:2a:1136:U:H5''	32:2a:1137:C:C4	2.50	0.46
36:2e:71:LEU:HD11	36:2e:113:ALA:O	2.16	0.46
37:2f:35:ALA:HB2	37:2f:67:MET:SD	2.56	0.46
42:2k:18:ARG:NH1	42:2k:20:TYR:OH	2.47	0.46
44:2m:13:LYS:O	44:2m:44:ARG:HA	2.16	0.46
44:2m:80:ARG:O	44:2m:84:ILE:HG12	2.16	0.46
54:2w:216:GLU:HB2	54:2w:245:PRO:HD3	1.98	0.46
55:2y:46:G7M:H1'	55:2y:48:C:OP2	2.16	0.46
1:1A:82:G:O2'	1:1A:83:G:H5'	2.15	0.46
1:1A:606:U:H4'	1:1A:658:C:H4'	1.97	0.46
1:1A:811:U:H2'	11:1P:21:ARG:HA	1.98	0.46
1:1A:1095:A:H5''	1:1A:1096:A:OP2	2.15	0.46
1:1A:2164:C:C3'	1:1A:2165:G:H5'	2.45	0.46
5:1F:126:VAL:HG21	5:1F:129:PHE:CE1	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:202:PHE:CZ	5:1F:206:ILE:HD13	2.49	0.46
11:1P:81:GLN:NE2	11:1P:105:LEU:O	2.49	0.46
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.16	0.46
32:1a:343:U:O3'	32:1a:344:A:H2'	2.15	0.46
32:1a:615:C:H2'	32:1a:616:G:C8	2.50	0.46
32:1a:652:U:O4	32:1a:752:G:O2'	2.26	0.46
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.37	0.46
51:1t:59:ALA:O	51:1t:63:ILE:HG13	2.16	0.46
1:2A:172:C:H2'	1:2A:173:G:H8	1.81	0.46
1:2A:271(H):G:H1	1:2A:271(P):C:N4	2.14	0.46
1:2A:857:C:H4'	22:20:23:VAL:HG21	1.97	0.46
1:2A:2752:C:H2'	1:2A:2753:A:O4'	2.16	0.46
3:2D:39:LYS:NZ	3:2D:57:GLY:O	2.49	0.46
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.31	0.46
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.98	0.46
32:2a:1213:A:C8	32:2a:1215:G:C5	3.04	0.46
44:2m:56:LEU:O	44:2m:60:VAL:HG22	2.16	0.46
51:2t:29:LYS:HB2	51:2t:71:THR:HG21	1.97	0.46
54:2w:208:GLU:O	54:2w:210:PHE:N	2.49	0.46
1:1A:441:U:H2'	1:1A:442:G:C8	2.50	0.46
1:1A:593:G:C6	1:1A:594:U:C4	3.04	0.46
1:1A:2238:G:N3	1:1A:2238:G:H2'	2.31	0.46
1:1A:2262:U:OP1	1:1A:2387:U:O2'	2.29	0.46
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.50	0.46
1:1A:2432:A:C8	23:11:33:LYS:HD2	2.50	0.46
6:1G:11:TYR:CZ	6:1G:16:ARG:HD3	2.50	0.46
7:1H:56:SER:HG	7:1H:58:GLU:HG2	1.81	0.46
10:1O:120:GLU:HG2	10:1O:122:LEU:HG	1.96	0.46
15:1T:16:ARG:HD3	15:1T:19:LEU:HD11	1.98	0.46
32:1a:235:C:H2'	32:1a:236:G:H8	1.81	0.46
32:1a:376:G:H5''	47:1p:5:ARG:HB2	1.98	0.46
32:1a:503:C:H2'	32:1a:504:C:H6	1.81	0.46
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.51	0.46
32:1a:1351:U:O4	40:1i:118:LYS:NZ	2.42	0.46
1:2A:1221(A):C:H42	1:2A:1228:G:H1	1.64	0.46
1:2A:1651:G:N7	13:2R:11:ASN:ND2	2.63	0.46
1:2A:1812:A:O2'	3:2D:45:ASN:N	2.48	0.46
1:2A:2365:G:N7	30:28:39:LYS:NZ	2.64	0.46
6:2G:125:PHE:HB3	6:2G:166:ASP:OD1	2.15	0.46
7:2H:17:VAL:HG13	7:2H:26:VAL:HG22	1.97	0.46
21:2Z:119:GLU:OE1	21:2Z:122:ARG:NH1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:23:46:ASN:O	25:23:50:VAL:HG22	2.16	0.46
32:2a:669:U:H2'	32:2a:670:G:C8	2.51	0.46
32:2a:1002:G:C2	32:2a:1003:G:H1'	2.51	0.46
32:2a:1052:U:O2'	32:2a:1055:A:OP2	2.26	0.46
32:2a:1093:A:H2'	32:2a:1095:U:H5'	1.98	0.46
33:2b:162:ILE:O	33:2b:185:ILE:HG13	2.16	0.46
35:2d:92:VAL:O	35:2d:96:LEU:HD13	2.16	0.46
38:2g:76:ARG:HE	38:2g:76:ARG:HB3	1.42	0.46
46:2o:41:GLU:OE2	46:2o:44:LYS:HE3	2.15	0.46
48:2q:27:PHE:CE1	48:2q:36:ILE:HD11	2.51	0.46
50:2s:27:GLU:HG3	50:2s:47:HIS:CE1	2.51	0.46
1:1A:2125:G:N2	1:1A:2173:A:H62	2.14	0.46
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.61	0.46
13:1R:24:GLN:HE22	13:1R:36:THR:CG2	2.29	0.46
32:1a:1285:A:H4'	32:1a:1286:A:O5'	2.16	0.46
32:1a:1427:U:H2'	32:1a:1428:A:C8	2.51	0.46
33:1b:167:PRO:HG2	33:1b:192:SER:HB3	1.98	0.46
42:1k:59:TYR:CE2	42:1k:63:LEU:HD11	2.51	0.46
51:1t:63:ILE:HD13	51:1t:80:ARG:HB3	1.97	0.46
1:2A:300:A:OP2	20:2Y:86:ARG:NH2	2.48	0.46
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.16	0.46
1:2A:2817:G:O2'	1:2A:2836:U:O2	2.30	0.46
2:2B:117:G:H4'	14:2S:54:LEU:HG	1.96	0.46
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.96	0.46
11:2P:95:VAL:HB	11:2P:125:VAL:HG12	1.96	0.46
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.50	0.46
23:21:35:THR:OG1	23:21:35:THR:O	2.31	0.46
26:24:26:SER:OG	26:24:27:THR:N	2.49	0.46
32:2a:130:A:H1'	32:2a:263:A:O2'	2.15	0.46
32:2a:160:A:H2'	32:2a:161:A:O4'	2.15	0.46
32:2a:543:C:H2'	32:2a:544:G:C8	2.51	0.46
32:2a:613:C:O3'	35:2d:86:LYS:NZ	2.46	0.46
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.51	0.46
1:1A:586:A:N1	1:1A:809:G:O2'	2.42	0.46
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.51	0.46
1:1A:1198:U:H2'	1:1A:1199:U:C6	2.51	0.46
1:1A:1636:C:OP2	60:1A:3960:HOH:O	2.21	0.46
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.16	0.46
32:1a:175:C:H2'	32:1a:176:C:C6	2.51	0.46
32:1a:1247:U:H3	32:1a:1290:G:H1	1.62	0.46
35:1d:108:LEU:HD11	35:1d:174:LEU:HD22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:373:U:H2'	1:2A:374:A:H8	1.81	0.46
1:2A:1359:A:N6	1:2A:1372:U:H3	2.03	0.46
1:2A:1638:C:H5''	1:2A:2710:C:O2'	2.16	0.46
1:2A:1639:U:C2'	1:2A:1640:C:H5''	2.46	0.46
1:2A:2141:G:N2	1:2A:2151:G:H1'	2.30	0.46
1:2A:2371:G:O2'	28:26:46:HIS:ND1	2.32	0.46
1:2A:2591:C:H2'	1:2A:2592:G:C8	2.51	0.46
5:2F:34:TRP:HE3	5:2F:35:GLU:HG2	1.81	0.46
9:2N:104:LYS:HB2	9:2N:117:PHE:CE1	2.50	0.46
32:2a:737:A:H2'	32:2a:738:C:C6	2.51	0.46
32:2a:1375:A:H4'	38:2g:29:LYS:NZ	2.31	0.46
35:2d:100:ARG:NH2	35:2d:118:ARG:HH22	2.13	0.46
55:2y:34:G:H8	55:2y:34:G:OP1	1.98	0.46
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.16	0.45
1:1A:383:U:H2'	1:1A:385:C:H5	1.81	0.45
1:1A:481:G:OP2	20:1Y:47:LYS:NZ	2.49	0.45
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.51	0.45
6:1G:129:GLY:HA2	6:1G:169:ALA:HB2	1.98	0.45
11:1P:97:PRO:O	11:1P:101:VAL:HG13	2.17	0.45
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	1.98	0.45
21:1Z:111:VAL:HG12	21:1Z:112:ARG:H	1.81	0.45
32:1a:21:G:H2'	32:1a:22:G:C8	2.52	0.45
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.49	0.45
32:1a:641:U:H1'	32:1a:642:A:N7	2.30	0.45
32:1a:1041:A:H2'	32:1a:1042:G:O4'	2.17	0.45
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.45	0.45
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.16	0.45
33:1b:212:GLN:NE2	33:1b:235:SER:HA	2.31	0.45
43:1l:69:TYR:HB2	43:1l:96:VAL:HG11	1.97	0.45
7:2H:23:ARG:NH1	7:2H:25:LYS:HE2	2.31	0.45
32:2a:115:G:H4'	32:2a:116:A:O5'	2.15	0.45
32:2a:719:C:N4	49:2r:71:LYS:HE2	2.31	0.45
32:2a:1004:A:N6	32:2a:1037:C:O2	2.36	0.45
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.81	0.45
51:2t:40:ALA:HB2	51:2t:55:ILE:HG22	1.98	0.45
55:2y:68:C:C2'	55:2y:69:G:H5'	2.45	0.45
1:1A:1667:G:O2'	1:1A:1991:U:O4	2.25	0.45
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.51	0.45
1:1A:2602:A:OP1	60:1A:3958:HOH:O	2.20	0.45
1:1A:2820:A:C5	13:1R:4:LEU:HD11	2.51	0.45
32:1a:502:G:C2	32:1a:503:C:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:950:U:H2'	32:1a:951:G:C8	2.51	0.45
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.51	0.45
32:1a:1389:C:H2'	32:1a:1390:U:O4'	2.15	0.45
32:1a:1478:C:H2'	32:1a:1479:C:C6	2.51	0.45
33:1b:24:TRP:CE3	33:1b:26:PRO:HA	2.51	0.45
33:1b:78:GLN:HE22	33:1b:95:GLN:HG3	1.80	0.45
42:1k:73:MET:HE2	42:1k:103:LEU:HG	1.98	0.45
43:1l:84:LEU:HB2	43:1l:105:TYR:CE2	2.52	0.45
44:1m:40:ASN:HD21	44:1m:42:ALA:HB3	1.82	0.45
1:2A:141:A:C8	1:2A:1408:C:O2'	2.69	0.45
1:2A:271(A):A:N1	1:2A:272(D):G:O2'	2.36	0.45
1:2A:271(H):G:H5'	23:21:81:LYS:HE2	1.98	0.45
1:2A:1257:C:H4'	5:2F:83:PHE:CD1	2.51	0.45
2:2B:55:U:H1'	6:2G:29:TRP:HE1	1.82	0.45
6:2G:14:GLU:O	6:2G:17:PRO:HD2	2.15	0.45
32:2a:91:C:H2'	32:2a:92:C:H6	1.80	0.45
32:2a:327:A:H1'	32:2a:329:A:O4'	2.17	0.45
32:2a:974:A:H8	32:2a:974:A:OP1	1.98	0.45
32:2a:1209:C:O2'	32:2a:1214:C:N4	2.48	0.45
33:2b:10:LEU:HB2	33:2b:13:ALA:HB2	1.98	0.45
54:2w:143:GLU:OE1	54:2w:163:ARG:NH2	2.49	0.45
1:1A:709:U:H2'	1:1A:710:G:C8	2.50	0.45
1:1A:1323:U:OP1	18:1W:98:LYS:NZ	2.41	0.45
1:1A:1745(A):C:H2'	1:1A:1746:G:O4'	2.16	0.45
1:1A:2096:U:H2'	1:1A:2097:C:C6	2.51	0.45
7:1H:56:SER:OG	7:1H:58:GLU:HG2	2.16	0.45
10:1O:10:VAL:HG11	10:1O:16:ALA:HB3	1.98	0.45
20:1Y:85:VAL:HG12	20:1Y:106:LEU:HD13	1.98	0.45
23:11:3:LYS:HG2	23:11:4:VAL:HG23	1.97	0.45
32:1a:1382:C:H2'	32:1a:1383:C:C6	2.51	0.45
40:1i:29:ASN:OD1	40:1i:65:VAL:N	2.42	0.45
1:2A:530:G:C5	1:2A:2022:U:H5''	2.50	0.45
1:2A:945:A:OP2	60:2A:3767:HOH:O	2.20	0.45
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.16	0.45
1:2A:2684:U:H1'	10:2O:70:LYS:HD2	1.98	0.45
6:2G:44:GLY:C	6:2G:46:ALA:H	2.22	0.45
6:2G:179:PRO:HG3	26:24:43:TYR:OH	2.17	0.45
32:2a:526:C:C4	32:2a:527:G7M:H1'	2.52	0.45
32:2a:708:C:H2'	32:2a:709:G:H8	1.80	0.45
32:2a:913:A:H4'	32:2a:914:A:O5'	2.17	0.45
32:2a:1338:G:H2'	32:2a:1339:A:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:10:PHE:HA	45:2n:58:LYS:HD3	1.97	0.45
38:2g:62:PHE:HA	38:2g:124:LEU:HD22	1.97	0.45
38:2g:115:ARG:HH11	38:2g:118:VAL:HG21	1.82	0.45
44:2m:82:MET:HE3	44:2m:82:MET:HB2	1.82	0.45
1:1A:271(H):G:H2'	1:1A:271(I):G:C8	2.51	0.45
1:1A:300:A:OP2	20:1Y:86:ARG:NH2	2.50	0.45
1:1A:1048:A:N1	1:1A:1112:G:O2'	2.40	0.45
1:1A:1094:U:O2	1:1A:1096:A:H5'	2.16	0.45
1:1A:1448:G:H4'	1:1A:1542:A:OP1	2.16	0.45
1:1A:2055:C:OP1	27:15:8:LYS:NZ	2.48	0.45
3:1D:242:ARG:HG3	3:1D:242:ARG:NH1	2.25	0.45
32:1a:427:U:OP1	35:1d:13:ARG:NH1	2.49	0.45
32:1a:742:G:OP2	46:1o:35:ARG:NH2	2.45	0.45
32:1a:984:C:N4	32:1a:1221:G:H1	2.14	0.45
32:1a:1080:A:H5'	36:1e:14:ARG:NH2	2.31	0.45
32:1a:1369:C:H2'	32:1a:1370:G:C8	2.52	0.45
32:1a:1509:C:H2'	32:1a:1510:U:O4'	2.16	0.45
43:1l:97:ARG:HB2	43:1l:98:TYR:CE2	2.51	0.45
55:1x:67:C:H2'	55:1x:68:C:C6	2.51	0.45
1:2A:195:A:OP1	11:2P:46:LYS:NZ	2.42	0.45
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.15	0.45
1:2A:1506:C:H2'	1:2A:1507:A:H5'	1.99	0.45
1:2A:2316:C:H1'	6:2G:128:ARG:HH22	1.80	0.45
2:2B:78:A:H2'	2:2B:79:C:O4'	2.16	0.45
5:2F:108:LYS:HD3	5:2F:112:MET:HE3	1.99	0.45
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	1.99	0.45
14:2S:25:ARG:HD3	14:2S:42:ASP:OD2	2.17	0.45
15:2T:36:GLU:OE2	15:2T:41:ARG:NH2	2.47	0.45
32:2a:659:U:H3	32:2a:746:A:H61	1.64	0.45
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.51	0.45
33:2b:16:HIS:CG	33:2b:17:PHE:H	2.33	0.45
33:2b:47:THR:HA	33:2b:202:PRO:HG2	1.99	0.45
52:2u:8:THR:OG1	52:2u:9:ARG:N	2.49	0.45
1:1A:620:G:N3	1:1A:620:G:H5'	2.31	0.45
1:1A:637:A:H2'	11:1P:117:GLU:OE1	2.16	0.45
1:1A:1341:U:O2	19:1X:80:ILE:HD12	2.17	0.45
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.52	0.45
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.51	0.45
3:1D:5:LYS:HG2	3:1D:17:THR:HG22	1.98	0.45
4:1E:27:LEU:HD12	4:1E:180:ASN:O	2.16	0.45
21:1Z:28:MET:HG3	21:1Z:37:VAL:HG11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.32	0.45
32:1a:100:C:H2'	32:1a:101:A:C8	2.51	0.45
34:1c:134:ILE:HG22	34:1c:168:ALA:HB3	1.98	0.45
36:1e:152:ARG:HB3	39:1h:43:GLY:HA3	1.98	0.45
43:1l:43:VAL:HG23	43:1l:55:VAL:HG21	1.99	0.45
44:1m:15:VAL:O	44:1m:19:LEU:HD22	2.17	0.45
44:1m:23:TYR:HA	44:1m:24:GLY:HA2	1.64	0.45
48:1q:99:SER:OG	48:1q:100:LYS:N	2.48	0.45
50:1s:20:LEU:HD21	50:1s:43:GLU:OE2	2.15	0.45
1:2A:151:C:H2'	1:2A:152:G:H8	1.80	0.45
1:2A:970:C:H2'	1:2A:971:C:C6	2.52	0.45
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.51	0.45
1:2A:2103:C:H2'	1:2A:2104:G:O4'	2.16	0.45
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.52	0.45
10:2O:19:ILE:HG22	10:2O:43:VAL:HA	1.98	0.45
26:24:40:HIS:HB3	26:24:43:TYR:CD2	2.52	0.45
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.51	0.45
42:2k:73:MET:HG3	42:2k:103:LEU:HD11	1.98	0.45
1:1A:858:U:O2	1:1A:2268:A:H2'	2.16	0.45
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.51	0.45
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.17	0.45
1:1A:2014:A:H2'	1:1A:2015:A:C8	2.52	0.45
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.31	0.45
5:1F:40:GLN:NE2	5:1F:184:TYR:H	2.14	0.45
8:1I:72:LEU:HA	8:1I:75:LEU:HD12	1.99	0.45
32:1a:110:C:H2'	32:1a:111:G:O4'	2.17	0.45
32:1a:541:G:H2'	32:1a:542:G:H8	1.81	0.45
32:1a:1143:G:H2'	32:1a:1144:G:H8	1.81	0.45
33:1b:54:THR:HG22	33:1b:58:ILE:HD11	1.97	0.45
34:1c:188:LEU:HD11	34:1c:190:ARG:HH21	1.81	0.45
35:1d:124:GLY:C	35:1d:126:ILE:H	2.23	0.45
47:1p:48:TRP:CE3	47:1p:49:LEU:HB2	2.52	0.45
1:2A:2135:A:OP1	1:2A:2159:G:N2	2.49	0.45
1:2A:2784:C:H2'	1:2A:2785:C:H6	1.82	0.45
3:2D:124:PRO:HG2	3:2D:129:ASN:HD21	1.80	0.45
6:2G:140:ILE:HG13	6:2G:141:PHE:N	2.32	0.45
20:2Y:2:ARG:HH21	20:2Y:4:LYS:HD3	1.81	0.45
20:2Y:5:MET:HE2	20:2Y:32:PRO:HA	1.98	0.45
32:2a:363:A:OP1	43:2l:34:ARG:HB3	2.15	0.45
32:2a:663:A:O3'	49:2r:64:ARG:NH2	2.47	0.45
32:2a:664:G:H2'	32:2a:666:G:OP1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1106:G:C6	32:2a:1107:C:C4	3.05	0.45
32:2a:1264:C:N4	32:2a:1271:G:H1	2.14	0.45
33:2b:21:ARG:O	33:2b:23:ARG:HG3	2.16	0.45
33:2b:50:GLU:HG3	33:2b:202:PRO:HD3	1.98	0.45
40:2i:53:VAL:O	40:2i:55:ALA:N	2.50	0.45
1:1A:390:A:H4'	1:1A:391:G:H5'	1.97	0.45
1:1A:567:A:H5''	60:1A:4768:HOH:O	2.16	0.45
1:1A:2266:A:H8	1:1A:2266:A:OP1	2.00	0.45
1:1A:2508:G:H5'	54:1w:223:ARG:HH21	1.82	0.45
1:1A:2632:A:O2'	1:1A:2811:G:O2'	2.19	0.45
13:1R:33:ARG:NH2	27:15:57:VAL:O	2.30	0.45
32:1a:542:G:H5'	35:1d:41:GLY:HA3	1.99	0.45
32:1a:936:C:H2'	32:1a:937:A:O4'	2.17	0.45
32:1a:1292:U:H2'	32:1a:1293:G:O4'	2.16	0.45
32:1a:1318:A:H5''	50:1s:3:ARG:NH1	2.32	0.45
32:1a:1327:C:H2'	32:1a:1328:C:C6	2.52	0.45
33:1b:37:ASN:HD22	33:1b:39:ILE:HD12	1.81	0.45
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.98	0.45
40:1i:46:ALA:HB1	40:1i:77:ILE:HG22	1.98	0.45
47:1p:53:VAL:HG12	47:1p:79:VAL:HG22	1.97	0.45
50:1s:48:THR:HG22	50:1s:61:TYR:HA	1.99	0.45
1:2A:120:U:OP2	60:2A:3770:HOH:O	2.21	0.45
1:2A:320:A:H4'	1:2A:322:A:N7	2.31	0.45
1:2A:330:A:H2	1:2A:1210:A:HO2'	1.64	0.45
1:2A:531:C:H4'	1:2A:532:A:H5''	1.99	0.45
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.17	0.45
1:2A:2637:U:H5''	4:2E:82:ARG:NH1	2.31	0.45
1:2A:2659:G:O3'	7:2H:175:LYS:NZ	2.50	0.45
3:2D:142:VAL:HG23	3:2D:193:VAL:HA	1.99	0.45
4:2E:127:ASP:OD2	60:2E:402:HOH:O	2.20	0.45
21:2Z:30:ASN:ND2	21:2Z:33:LEU:HD23	2.32	0.45
21:2Z:63:ASP:OD2	21:2Z:65:GLN:NE2	2.44	0.45
32:2a:149:A:H2'	32:2a:150:C:C6	2.52	0.45
32:2a:754:C:H1'	46:2o:69:TYR:CD2	2.52	0.45
32:2a:922:G:N3	32:2a:1398:A:H2	2.14	0.45
32:2a:1342:C:H4'	40:2i:125:TYR:O	2.16	0.45
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.52	0.45
1:1A:855:G:O2'	22:10:27:GLU:OE2	2.29	0.45
1:1A:1088:A:H4'	1:1A:1089:G:N7	2.32	0.45
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.99	0.45
1:1A:1468:C:H2'	1:1A:1469:A:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2114:A:H61	1:1A:2119:A:H62	1.63	0.45
1:1A:2126:A:H1'	1:1A:2162:G:N2	2.32	0.45
7:1H:42:ARG:HE	7:1H:42:ARG:HB3	1.43	0.45
18:1W:78:GLU:OE2	18:1W:99:ARG:NH1	2.50	0.45
21:1Z:53:ILE:HG22	21:1Z:71:VAL:HG12	1.99	0.45
32:1a:544:G:OP1	35:1d:62:GLN:NE2	2.47	0.45
32:1a:955:U:O2'	50:1s:83:HIS:HD2	2.00	0.45
33:1b:165:VAL:HG13	33:1b:187:LEU:HD23	1.98	0.45
42:1k:16:SER:HB3	42:1k:35:PRO:HG3	1.98	0.45
44:1m:34:LEU:HB3	44:1m:39:ILE:O	2.17	0.45
49:1r:45:SER:OG	49:1r:47:THR:HG22	2.16	0.45
55:1y:37:MIA:H2'	55:1y:38:A:C8	2.52	0.45
1:2A:271(P):C:OP1	8:2I:45:LYS:HD3	2.16	0.45
1:2A:519:U:H2'	1:2A:520:G:C8	2.51	0.45
1:2A:1453:U:H1'	13:2R:60:LEU:HD11	1.97	0.45
21:2Z:13:GLU:H	21:2Z:13:GLU:CD	2.25	0.45
28:26:34:LEU:HB2	28:26:51:GLU:HB2	1.99	0.45
32:2a:45:U:H2'	32:2a:46:G:C8	2.52	0.45
32:2a:1034:G:H2'	32:2a:1034:G:N3	2.31	0.45
32:2a:1151:A:H5''	41:2j:41:PRO:HA	1.99	0.45
32:2a:1273:G:H3'	32:2a:1274:G:O4'	2.17	0.45
32:2a:1291:G:OP1	38:2g:37:ASN:ND2	2.48	0.45
35:2d:146:ILE:N	35:2d:183:GLY:O	2.48	0.45
36:2e:90:VAL:O	36:2e:91:LEU:HD13	2.17	0.45
38:2g:78:ARG:NH1	38:2g:79:ARG:HB3	2.32	0.45
38:2g:149:ARG:HB3	42:2k:59:TYR:CZ	2.50	0.45
50:2s:42:PRO:HA	50:2s:45:VAL:HG23	1.98	0.45
54:2w:146:ASP:OD2	54:2w:148:HIS:NE2	2.50	0.45
54:2w:349:ALA:HA	54:2w:353:GLU:CD	2.42	0.45
1:1A:284:U:H2'	1:1A:285:C:C6	2.52	0.45
1:1A:2133:G:O2'	1:1A:2156:G:N2	2.49	0.45
3:1D:146:GLU:HG2	3:1D:152:GLY:C	2.42	0.45
32:1a:374:A:C6	32:1a:375:U:C4	3.05	0.45
32:1a:564:C:C4	48:1q:31:LEU:HD11	2.52	0.45
32:1a:880:C:OP1	43:1l:8:ASN:ND2	2.50	0.45
33:1b:172:ILE:H	33:1b:172:ILE:HG13	1.33	0.45
36:1e:10:MET:HE2	36:1e:10:MET:HB3	1.87	0.45
51:1t:13:LEU:O	51:1t:17:ARG:HG3	2.17	0.45
54:1w:178:HIS:NE2	54:1w:302:ILE:HD11	2.32	0.45
54:1w:318:GLY:O	54:1w:320:THR:HG22	2.17	0.45
1:2A:876:C:H2'	1:2A:877:U:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1207:C:H2'	1:2A:1208:C:H6	1.80	0.45
1:2A:2025:C:H2'	1:2A:2026:C:C6	2.52	0.45
1:2A:2304:G:O2'	6:2G:133:LEU:O	2.28	0.45
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.17	0.45
1:2A:2748:A:C2	7:2H:63:SER:HB3	2.52	0.45
3:2D:8:PRO:HB3	3:2D:14:ARG:HG3	1.99	0.45
12:2Q:38:GLU:OE1	12:2Q:128:LYS:N	2.48	0.45
19:2X:5:TYR:CE2	24:22:30:ARG:HB2	2.51	0.45
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.65	0.45
34:2c:44:GLU:HA	34:2c:52:LEU:HD13	1.98	0.45
34:2c:58:GLU:HB2	34:2c:65:ALA:HB3	1.99	0.45
39:2h:85:ARG:HG3	39:2h:87:SER:O	2.17	0.45
51:2t:60:GLU:HG3	51:2t:81:LYS:HD3	1.97	0.45
54:2w:225:SER:H	54:2w:253:GLN:NE2	2.14	0.45
1:1A:1073:A:C8	1:1A:1074:G:C8	3.05	0.45
1:1A:2741:A:H61	1:1A:2763:G:H1'	1.82	0.45
1:1A:2802:G:H2'	1:1A:2803:C:C6	2.51	0.45
5:1F:36:VAL:O	5:1F:40:GLN:HG2	2.16	0.45
6:1G:115:ARG:HH11	6:1G:137:GLU:CD	2.25	0.45
7:1H:94:TYR:CE2	7:1H:160:LYS:HG2	2.52	0.45
21:1Z:70:LEU:HG	21:1Z:91:LEU:HD11	1.98	0.45
32:1a:580:U:H5''	46:1o:58:MET:HG2	1.98	0.45
32:1a:1002:G:N1	32:1a:1004:A:H1'	2.31	0.45
35:1d:79:PHE:CZ	35:1d:204:ILE:HD13	2.52	0.45
44:1m:37:THR:O	44:1m:55:ARG:HD3	2.17	0.45
44:1m:87:TYR:H	50:1s:73:GLU:HB3	1.81	0.45
45:1n:6:LEU:HB3	45:1n:23:ARG:NH2	2.32	0.45
51:1t:51:GLU:O	51:1t:55:ILE:HG23	2.16	0.45
1:2A:373:U:H2'	1:2A:374:A:C8	2.52	0.45
1:2A:2448:A:N1	60:2A:3865:HOH:O	2.36	0.45
1:2A:2577:A:HO2'	27:25:2:ALA:HB1	1.82	0.45
6:2G:50:ALA:C	6:2G:52:ILE:H	2.24	0.45
6:2G:129:GLY:O	6:2G:161:THR:HB	2.17	0.45
19:2X:92:LEU:O	19:2X:94:GLY:N	2.46	0.45
32:2a:376:G:H5''	47:2p:5:ARG:HB2	1.99	0.45
32:2a:617:G:H4'	47:2p:44:THR:HB	1.99	0.45
32:2a:634:C:H2'	32:2a:635:G:H8	1.82	0.45
32:2a:881:G:OP2	43:2l:12:ARG:NH2	2.50	0.45
32:2a:1015:A:N3	32:2a:1218:C:O2'	2.44	0.45
32:2a:1277:C:H1'	32:2a:1282:C:O2	2.16	0.45
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:78:GLN:O	33:2b:81:VAL:HG22	2.17	0.45
41:2j:58:ASP:N	41:2j:58:ASP:OD1	2.50	0.45
42:2k:81:ASP:OD1	42:2k:106:LYS:HB2	2.16	0.45
1:1A:48:G:O2'	1:1A:118:A:N1	2.48	0.44
1:1A:781:A:OP1	3:1D:218:ARG:NH2	2.48	0.44
1:1A:793:A:OP2	1:1A:2071:A:O2'	2.32	0.44
1:1A:1173:G:N2	1:1A:1176:G:OP2	2.49	0.44
1:1A:1179:C:H2'	1:1A:1180:C:C6	2.52	0.44
1:1A:2136:C:N4	1:1A:2155:G:H1	2.16	0.44
1:1A:2406:U:H6	1:1A:2406:U:H2'	1.64	0.44
1:1A:2579:C:H2'	1:1A:2580:U:O4'	2.17	0.44
8:1I:1:MET:N	8:1I:21:VAL:O	2.33	0.44
10:1O:13:ASN:ND2	10:1O:96:THR:OG1	2.29	0.44
11:1P:62:LEU:O	30:18:13:ARG:HD3	2.18	0.44
21:1Z:126:VAL:HG21	21:1Z:161:VAL:HG12	1.99	0.44
32:1a:62:U:H2'	32:1a:63:C:C6	2.52	0.44
32:1a:401:C:OP1	35:1d:73:ARG:NH2	2.49	0.44
60:1a:1803:HOH:O	53:1v:19:U:OP1	2.21	0.44
36:1e:78:HIS:HB3	39:1h:107:LEU:HD13	2.00	0.44
41:1j:26:ALA:HB1	41:1j:84:GLN:NE2	2.32	0.44
51:1t:43:LEU:HB2	51:1t:52:ALA:HB2	1.99	0.44
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.52	0.44
1:2A:469:G:O6	29:27:37:LYS:HE2	2.17	0.44
1:2A:1113:U:H2'	1:2A:1114:G:C8	2.52	0.44
1:2A:1207:C:H2'	1:2A:1208:C:C6	2.51	0.44
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.17	0.44
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.16	0.44
7:2H:7:LEU:HD23	7:2H:69:ARG:NH2	2.31	0.44
21:2Z:102:LEU:HD13	21:2Z:102:LEU:HA	1.77	0.44
32:2a:404:U:H2'	32:2a:405:U:C6	2.51	0.44
32:2a:682:G:H2'	32:2a:683:G:H8	1.83	0.44
32:2a:1500:A:H5''	32:2a:1508:G:H5''	1.98	0.44
38:2g:29:LYS:HB3	38:2g:105:VAL:HG21	1.99	0.44
48:2q:59:ILE:HG22	48:2q:73:VAL:HA	1.99	0.44
1:1A:848:G:H2'	1:1A:849:A:C8	2.52	0.44
1:1A:1080:C:C2	1:1A:1081:U:H1'	2.52	0.44
1:1A:1509(B):A:H2'	1:1A:1510:G:O4'	2.17	0.44
1:1A:1517:G:C6	1:1A:1518:U:C4	3.05	0.44
1:1A:1851:U:H2'	1:1A:1852:C:O4'	2.17	0.44
1:1A:1857:G:C6	1:1A:1858:G:C6	3.05	0.44
3:1D:61:LEU:O	3:1D:63:ARG:NH1	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:3:MET:HE2	12:1Q:3:MET:HB3	1.79	0.44
13:1R:60:LEU:O	13:1R:64:ARG:HG3	2.17	0.44
19:1X:11:PRO:CB	19:1X:92:LEU:HD11	2.47	0.44
21:1Z:7:ALA:O	21:1Z:62:PRO:HD3	2.17	0.44
28:16:9:LEU:HD21	28:16:25:LYS:HG2	1.98	0.44
29:17:41:ARG:HE	29:17:41:ARG:HB2	1.24	0.44
32:1a:222:U:H2'	32:1a:223:U:C6	2.53	0.44
32:1a:1318:A:H4'	50:1s:10:PHE:CD1	2.52	0.44
36:1e:78:HIS:CE1	36:1e:142:LEU:HD23	2.52	0.44
54:1w:172:LYS:HE2	54:1w:172:LYS:HB3	1.71	0.44
1:2A:71:A:H5''	1:2A:73:A:C8	2.52	0.44
1:2A:1922:G:H2'	1:2A:1923:U:O4'	2.17	0.44
1:2A:2013:A:H4'	18:2W:96:ILE:HD13	1.99	0.44
1:2A:2025:C:N4	60:2A:3747:HOH:O	2.50	0.44
1:2A:2102:U:H2'	1:2A:2103:C:H6	1.81	0.44
4:2E:67:PHE:CE2	4:2E:74:PRO:HA	2.52	0.44
4:2E:176:ILE:HB	4:2E:181:LEU:HB2	1.98	0.44
8:2I:117:GLU:HG3	8:2I:118:LYS:H	1.83	0.44
18:2W:34:ASN:ND2	27:25:39:MET:HG3	2.31	0.44
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD21	1.99	0.44
32:2a:601:C:H2'	32:2a:602:A:C8	2.52	0.44
32:2a:984:C:H42	32:2a:1221:G:H1	1.64	0.44
38:2g:30:ILE:HD13	38:2g:120:ILE:HD13	1.98	0.44
38:2g:72:ARG:HH22	38:2g:138:LYS:HZ3	1.65	0.44
55:2y:29:G:H2'	55:2y:30:G:O4'	2.17	0.44
1:1A:306:U:H2'	1:1A:307:G:O4'	2.17	0.44
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.17	0.44
1:1A:1288:U:C4	1:1A:1327:C:H1'	2.53	0.44
1:1A:1568:G:H5''	3:1D:61:LEU:HG	2.00	0.44
1:1A:1889:A:N1	1:1A:2234:G:H1'	2.32	0.44
1:1A:2541:A:OP2	60:1A:3962:HOH:O	2.21	0.44
2:1B:91:C:OP2	12:1Q:16:ARG:NH2	2.49	0.44
5:1F:11:VAL:HG22	5:1F:125:LEU:HB2	1.98	0.44
13:1R:22:ARG:O	13:1R:26:LYS:HG3	2.18	0.44
14:1S:93:LYS:HB3	14:1S:93:LYS:HE2	1.61	0.44
15:1T:73:GLU:OE2	15:1T:103:ARG:NE	2.50	0.44
32:1a:490:G:H2'	32:1a:491:G:C8	2.52	0.44
32:1a:1027:C:H5	32:1a:1033:G:N1	2.15	0.44
32:1a:1225:A:OP1	44:1m:103:THR:N	2.37	0.44
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.52	0.44
33:1b:7:VAL:HG21	33:1b:221:LEU:HD21	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:103:THR:HA	33:1b:180:LEU:HD11	2.00	0.44
33:1b:178:ARG:NH2	33:1b:198:ASP:OD1	2.51	0.44
35:1d:18:LYS:HG2	35:1d:20:TYR:CZ	2.52	0.44
35:1d:110:PHE:H	35:1d:110:PHE:HD1	1.66	0.44
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.17	0.44
37:1f:67:MET:HG2	37:1f:72:VAL:HG12	1.99	0.44
1:2A:1630:G:H2'	1:2A:1631:C:C6	2.53	0.44
1:2A:2100:G:C2	1:2A:2190:G:C5	3.05	0.44
1:2A:2615:U:OP1	60:2A:3774:HOH:O	2.21	0.44
3:2D:155:LEU:HD23	3:2D:177:LEU:HD22	1.99	0.44
22:20:39:ARG:HD2	22:20:58:THR:HG23	1.98	0.44
32:2a:324:G:N2	32:2a:326:G:H3'	2.32	0.44
32:2a:543:C:H2'	32:2a:544:G:H8	1.82	0.44
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.52	0.44
1:1A:1091:G:N1	1:1A:1100:C:O2	2.50	0.44
1:1A:1916:A:H2'	1:1A:1917:PSU:O4'	2.17	0.44
1:1A:2168:G:O6	1:1A:2170:A:H3'	2.17	0.44
1:1A:2402:C:O2	1:1A:2403:C:N4	2.49	0.44
3:1D:147:LEU:HD13	3:1D:155:LEU:HD11	1.98	0.44
4:1E:170:LEU:HB3	4:1E:184:VAL:CG2	2.46	0.44
8:1I:72:LEU:HD12	8:1I:138:ILE:HG21	2.00	0.44
8:1I:123:LEU:HA	8:1I:144:VAL:HG23	1.98	0.44
12:1Q:30:GLY:O	12:1Q:134:ARG:HD3	2.16	0.44
19:1X:92:LEU:HD12	19:1X:92:LEU:HA	1.57	0.44
32:1a:451:A:H2'	32:1a:481:G:O6	2.18	0.44
32:1a:565:U:OP2	32:1a:566:G:O2'	2.28	0.44
32:1a:620:C:H2'	32:1a:621:A:O4'	2.17	0.44
32:1a:841:U:O2	32:1a:841:U:H2'	2.17	0.44
32:1a:973:G:H3'	32:1a:974:A:H5''	1.99	0.44
32:1a:1226:C:P	44:1m:91:ARG:HH12	2.41	0.44
32:1a:1239:A:C4	32:1a:1298:C:N4	2.85	0.44
35:1d:112:VAL:HG12	35:1d:116:GLN:OE1	2.17	0.44
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	2.00	0.44
44:1m:92:HIS:HD2	44:1m:110:ARG:NH2	2.14	0.44
50:1s:3:ARG:CZ	50:1s:10:PHE:HB2	2.46	0.44
1:2A:272:G:N7	1:2A:421:U:H2'	2.31	0.44
1:2A:1529:G:C6	1:2A:1530:C:N4	2.85	0.44
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.53	0.44
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.52	0.44
1:2A:2524:G:C2	1:2A:2540:C:C2	3.06	0.44
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:97:ASP:O	6:2G:101:ILE:HG12	2.17	0.44
12:2Q:62:GLY:O	21:2Z:178:GLU:HG2	2.17	0.44
13:2R:99:LYS:O	27:25:45:VAL:HG23	2.18	0.44
18:2W:86:LEU:HD23	18:2W:88:ARG:HD3	1.98	0.44
20:2Y:39:VAL:HB	20:2Y:42:VAL:HB	1.99	0.44
21:2Z:10:ARG:HH21	21:2Z:26:GLY:N	2.16	0.44
28:26:12:GLU:OE2	28:26:17:LYS:HD3	2.17	0.44
29:27:46:VAL:HG12	29:27:48:LYS:H	1.83	0.44
32:2a:123:C:OP1	32:2a:312:C:H5'	2.18	0.44
32:2a:1009:G:C2	32:2a:1010:G:C8	3.05	0.44
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.18	0.44
33:2b:127:ILE:O	33:2b:129:GLU:N	2.50	0.44
35:2d:59:ARG:HD3	35:2d:59:ARG:HA	1.66	0.44
37:2f:94:GLN:OE1	49:2r:32:ARG:NH1	2.50	0.44
44:2m:24:GLY:N	44:2m:70:LEU:HD23	2.33	0.44
50:2s:27:GLU:HA	50:2s:28:LYS:HA	1.61	0.44
1:1A:208:C:H2'	1:1A:209:C:C6	2.53	0.44
1:1A:601:C:O2'	1:1A:605:C:OP1	2.32	0.44
1:1A:1062:G:H8	1:1A:1070:A:H4'	1.82	0.44
1:1A:1504:C:H2'	1:1A:1505:C:H6	1.83	0.44
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.51	0.44
1:1A:2319:G:H22	14:1S:3:ARG:NE	2.15	0.44
1:1A:2390:U:P	30:18:35:GLN:HE22	2.40	0.44
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.81	0.44
15:1T:109:GLU:O	15:1T:113:LYS:HG2	2.17	0.44
18:1W:29:LEU:HG	18:1W:33:ARG:HD2	2.00	0.44
24:12:3:LEU:HD22	24:12:7:ARG:NH1	2.32	0.44
30:18:42:ARG:HD2	60:18:205:HOH:O	2.16	0.44
32:1a:996:A:N1	32:1a:1045:C:O2'	2.50	0.44
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.64	0.44
37:1f:25:ILE:HG21	37:1f:82:ARG:HD3	1.99	0.44
37:1f:67:MET:HG3	37:1f:68:PRO:HD2	1.99	0.44
41:1j:5:ARG:HD2	41:1j:71:LEU:HD11	1.99	0.44
44:1m:20:THR:HA	44:1m:25:ILE:O	2.17	0.44
1:2A:30:G:H2'	1:2A:31:C:C6	2.52	0.44
1:2A:173:G:C6	1:2A:174:C:C4	3.06	0.44
1:2A:329:G:OP2	20:2Y:71:LYS:NZ	2.48	0.44
1:2A:757:U:H2'	1:2A:758:C:O4'	2.17	0.44
1:2A:851:U:O2'	25:23:45:GLY:HA3	2.17	0.44
1:2A:872:A:H2'	1:2A:873:G:O4'	2.17	0.44
1:2A:1153:C:H2'	1:2A:1154:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.18	0.44
1:2A:1916:A:H2'	1:2A:1917:PSU:O4'	2.18	0.44
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.53	0.44
1:2A:2334:G:H5'	14:2S:9:ARG:HG2	1.99	0.44
1:2A:2377:A:O2'	14:2S:112:PHE:O	2.28	0.44
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.51	0.44
10:2O:64:ARG:HB2	10:2O:79:PHE:CD2	2.53	0.44
13:2R:104:ARG:HD3	13:2R:107:ASP:OD1	2.17	0.44
32:2a:1141:C:H2'	32:2a:1142:G:H5'	1.99	0.44
34:2c:10:PHE:HD1	45:2n:58:LYS:HZ3	1.65	0.44
35:2d:63:LYS:O	35:2d:67:ILE:HG13	2.17	0.44
45:2n:53:LEU:HB3	45:2n:56:VAL:CG2	2.48	0.44
54:2w:118:GLU:O	54:2w:122:LEU:HG	2.17	0.44
1:1A:848:G:O6	1:1A:928:G:H2'	2.18	0.44
1:1A:2615:U:H2'	1:1A:2616:C:H6	1.83	0.44
32:1a:148:G:H2'	32:1a:149:A:C8	2.53	0.44
32:1a:728:A:N7	46:1o:54:ARG:HD2	2.33	0.44
32:1a:975:A:N1	41:1j:48:THR:HB	2.33	0.44
32:1a:1079:G:C6	32:1a:1080:A:N6	2.86	0.44
32:1a:1080:A:H5'	36:1e:14:ARG:HH21	1.82	0.44
32:1a:1134:G:H2'	32:1a:1135:U:H5'	1.98	0.44
32:1a:1325:C:H2'	32:1a:1326:C:H6	1.82	0.44
1:2A:150:C:H2'	1:2A:151:C:C6	2.53	0.44
1:2A:307:G:N2	1:2A:310:A:O5'	2.45	0.44
1:2A:699:A:H2'	1:2A:700:G:O4'	2.17	0.44
1:2A:1797:C:H4'	3:2D:257:LEU:O	2.18	0.44
6:2G:51:ARG:C	6:2G:53:LEU:H	2.25	0.44
7:2H:26:VAL:O	7:2H:79:VAL:HG11	2.17	0.44
13:2R:74:LYS:HG2	13:2R:77:ARG:HH12	1.81	0.44
14:2S:64:GLU:H	14:2S:64:GLU:CD	2.23	0.44
24:22:25:VAL:HG13	24:22:57:ILE:HG23	1.98	0.44
32:2a:716:A:N3	42:2k:118:GLY:HA2	2.33	0.44
33:2b:160:ASP:OD1	33:2b:160:ASP:N	2.51	0.44
49:2r:36:ASN:O	49:2r:40:LEU:HG	2.17	0.44
55:2x:26:A:H2'	55:2x:27:G:O4'	2.18	0.44
55:2y:51:U:H3	55:2y:63:G:H1	1.66	0.44
55:2y:53:G:H1	55:2y:61:C:N4	2.16	0.44
1:1A:2140:C:N3	1:1A:2151:G:O6	2.51	0.44
2:1B:50:G:OP1	14:1S:63:THR:OG1	2.30	0.44
2:1B:55:U:H2'	2:1B:56:G:O4'	2.17	0.44
32:1a:341:C:O2'	32:1a:342:C:H5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:880:C:OP2	43:1l:6:THR:HG21	2.17	0.44
32:1a:1508:G:H2'	32:1a:1509:C:O4'	2.18	0.44
33:1b:102:LEU:HB2	33:1b:176:GLU:HB3	2.00	0.44
37:1f:19:LEU:HD11	37:1f:59:TYR:CE1	2.53	0.44
41:1j:26:ALA:HB1	41:1j:84:GLN:HE21	1.82	0.44
47:1p:4:ILE:O	47:1p:66:PRO:HA	2.18	0.44
55:1y:38:A:H2'	55:1y:39:PSU:O4'	2.17	0.44
1:2A:2581:G:OP2	1:2A:2581:G:N2	2.44	0.44
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.52	0.44
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.98	0.44
20:2Y:73:ARG:NH2	20:2Y:84:ARG:HG3	2.33	0.44
26:24:13:ARG:O	26:24:30:GLU:HA	2.17	0.44
32:2a:1316:G:O2'	45:2n:18:VAL:HG21	2.18	0.44
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.53	0.44
33:2b:159:PRO:HB2	33:2b:161:ALA:O	2.18	0.44
36:2e:136:MET:HB2	36:2e:136:MET:HE3	1.71	0.44
37:2f:79:LEU:O	37:2f:81:ILE:N	2.51	0.44
42:2k:15:ALA:HB1	42:2k:78:GLN:HB2	2.00	0.44
54:2w:133:ARG:O	54:2w:137:GLU:HG3	2.17	0.44
1:1A:839:U:H1'	1:1A:1191:G:H1'	1.98	0.44
1:1A:1054:A:C6	1:1A:1106:G:C6	3.06	0.44
1:1A:1274:A:N3	1:1A:1297:C:H1'	2.32	0.44
1:1A:2206:G:H8	1:1A:2207:G:N7	2.15	0.44
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.53	0.44
1:1A:2608:G:H5''	1:1A:2609:U:OP1	2.18	0.44
1:1A:2802:G:H2'	1:1A:2803:C:H6	1.83	0.44
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.53	0.44
9:1N:60:ILE:O	9:1N:61:ARG:HD2	2.18	0.44
32:1a:64:G:H4'	32:1a:65:U:H5''	1.99	0.44
32:1a:334:C:O2'	32:1a:1434:A:O2'	2.33	0.44
32:1a:437:U:O2'	35:1d:125:HIS:HE1	2.01	0.44
32:1a:487:A:H2'	32:1a:488:C:O4'	2.18	0.44
32:1a:612:C:H2'	32:1a:613:C:C6	2.53	0.44
32:1a:768:A:OP2	60:1a:1819:HOH:O	2.21	0.44
36:1e:145:LYS:O	36:1e:149:GLU:HG2	2.17	0.44
54:1w:213:ASN:O	54:1w:216:GLU:HG2	2.17	0.44
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.52	0.44
1:2A:441:U:H2'	1:2A:442:G:C8	2.52	0.44
1:2A:1876:A:OP2	1:2A:1876:A:H8	2.01	0.44
1:2A:1957:C:H2'	1:2A:1958:C:C6	2.53	0.44
1:2A:2119:A:N1	1:2A:2170:A:H2'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2629:A:H1'	1:2A:2630:G:H5''	2.00	0.44
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.51	0.44
5:2F:158:THR:HA	5:2F:195:ASP:HB2	2.00	0.44
6:2G:91:ARG:CZ	6:2G:91:ARG:HB3	2.43	0.44
8:2I:129:THR:HG22	8:2I:139:GLN:HE22	1.82	0.44
12:2Q:36:ALA:HB2	12:2Q:103:MET:SD	2.58	0.44
12:2Q:135:ASP:N	12:2Q:138:ASP:OD2	2.49	0.44
14:2S:87:PHE:HB2	14:2S:112:PHE:CD1	2.53	0.44
16:2U:104:GLN:NE2	16:2U:105:VAL:HG23	2.29	0.44
23:21:80:LEU:O	23:21:82:LEU:HG	2.18	0.44
24:22:62:THR:O	24:22:66:GLU:HG3	2.17	0.44
32:2a:108:G:N1	51:2t:15:ARG:HG2	2.33	0.44
32:2a:985:C:H2'	32:2a:986:A:H8	1.83	0.44
32:2a:1460:A:H2'	32:2a:1461:G:O4'	2.18	0.44
32:2a:1530:G:H2'	32:2a:1531:A:O4'	2.16	0.44
33:2b:155:LEU:HD21	33:2b:159:PRO:HD3	1.99	0.44
35:2d:12:CYS:HB3	35:2d:19:LEU:HB2	1.99	0.44
42:2k:74:ALA:C	42:2k:76:GLY:H	2.25	0.44
43:2l:7:ILE:HA	43:2l:10:LEU:HD12	2.00	0.44
1:1A:363(F):A:N1	60:1A:4041:HOH:O	2.36	0.44
1:1A:729:G:O2'	1:1A:763:G:H4'	2.18	0.44
1:1A:747:U:O2	1:1A:2014:A:H1'	2.18	0.44
1:1A:1006:C:C2	1:1A:1138:G:N2	2.86	0.44
7:1H:154:PRO:HB3	7:1H:163:TYR:CE1	2.52	0.44
8:1I:81:VAL:O	8:1I:146:ALA:HA	2.18	0.44
32:1a:224:C:H2'	32:1a:225:C:C6	2.53	0.44
32:1a:1029:C:N4	32:1a:1030:C:H41	2.15	0.44
33:1b:118:LEU:HD22	33:1b:142:LEU:HB2	2.00	0.44
35:1d:61:LYS:HD3	35:1d:206:PHE:CE2	2.53	0.44
37:1f:65:VAL:HG21	37:1f:67:MET:HE2	2.00	0.44
49:1r:52:PRO:O	49:1r:56:THR:HG23	2.18	0.44
54:1w:272:ARG:O	54:1w:276:MET:HG3	2.18	0.44
54:1w:341:ARG:HG2	54:1w:342:ALA:N	2.33	0.44
55:1x:9:A:H5'	55:1x:46:G7M:H22	1.83	0.44
55:1y:45:U:O2'	55:1y:46:G7M:H5''	2.18	0.44
1:2A:2738:A:C2	1:2A:2739:U:H1'	2.52	0.44
1:2A:2776:A:H4'	1:2A:2777:G:H5''	1.99	0.44
9:2N:23:LEU:HA	9:2N:60:ILE:HD11	2.00	0.44
9:2N:43:THR:HB	9:2N:46:VAL:CG2	2.47	0.44
32:2a:674:G:H2'	32:2a:675:A:C8	2.53	0.44
32:2a:1118:C:OP1	40:2i:104:ARG:NE	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1216:G:H2'	32:2a:1217:C:C6	2.53	0.44
35:2d:100:ARG:HH22	35:2d:118:ARG:HH22	1.66	0.44
38:2g:113:GLU:OE1	38:2g:119:ARG:HG2	2.17	0.44
38:2g:153:HIS:HA	38:2g:155:ARG:HH12	1.83	0.44
43:2l:69:TYR:HB3	43:2l:99:HIS:ND1	2.33	0.44
44:2m:34:LEU:HB2	44:2m:39:ILE:O	2.18	0.44
54:2w:207:GLU:HG2	54:2w:278:ARG:HH12	1.83	0.44
1:1A:375:C:H2'	1:1A:376:C:C6	2.52	0.43
1:1A:2061:G:H5''	1:1A:2503:2MA:C2	2.48	0.43
1:1A:2203:U:O4'	3:1D:151:LYS:HE2	2.17	0.43
1:1A:2577:A:O4'	27:15:3:LYS:HB2	2.17	0.43
1:1A:2615:U:H2'	1:1A:2616:C:C6	2.53	0.43
4:1E:34:VAL:HB	4:1E:48:GLN:HE21	1.83	0.43
11:1P:132:LYS:HE3	11:1P:132:LYS:HB2	1.75	0.43
12:1Q:54:MET:HG2	12:1Q:117:ALA:HB1	1.99	0.43
15:1T:105:LEU:HA	15:1T:105:LEU:HD23	1.69	0.43
25:13:46:ASN:O	25:13:50:VAL:HG22	2.17	0.43
32:1a:71:C:H2'	32:1a:72:C:C6	2.53	0.43
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.33	0.43
32:1a:1255:G:H1	32:1a:1282:C:H42	1.65	0.43
35:1d:79:PHE:CZ	35:1d:204:ILE:HA	2.53	0.43
35:1d:156:GLU:HB2	35:1d:157:LEU:HD22	2.00	0.43
41:1j:16:LEU:HD21	41:1j:70:ARG:HG2	2.00	0.43
43:1l:53:ARG:HG3	43:1l:93:LEU:HD21	2.00	0.43
51:1t:35:THR:O	51:1t:38:LYS:HB3	2.17	0.43
54:1w:177:VAL:HG22	54:1w:198:THR:HG22	1.98	0.43
1:2A:236:C:H2'	1:2A:237:C:H6	1.82	0.43
1:2A:459:U:H5''	29:27:40:TRP:CD2	2.53	0.43
1:2A:614(C):A:N3	5:2F:180:GLY:HA2	2.33	0.43
1:2A:2121:G:H1	1:2A:2177:C:H42	1.66	0.43
1:2A:2679:A:H4'	4:2E:165:VAL:HG11	2.00	0.43
6:2G:98:ARG:NE	26:24:1:MET:HE3	2.33	0.43
12:2Q:21:THR:HG21	12:2Q:101:ARG:HB2	1.99	0.43
22:20:68:GLU:CD	22:20:82:ARG:HH21	2.26	0.43
23:21:44:PRO:O	23:21:46:LEU:N	2.50	0.43
24:22:38:GLN:HE21	24:22:44:LEU:HD12	1.83	0.43
24:22:51:ARG:HE	24:22:51:ARG:HB2	1.64	0.43
32:2a:652:U:O4	32:2a:752:G:O2'	2.30	0.43
32:2a:811:C:N4	60:2a:1825:HOH:O	2.51	0.43
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.47	0.43
32:2a:1183:A:O2'	32:2a:1184:G:H5''	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:180:GLY:HA3	35:2d:182:LYS:HE2	2.00	0.43
42:2k:82:VAL:HG11	42:2k:95:ILE:HG23	1.99	0.43
47:2p:21:VAL:O	47:2p:33:ILE:N	2.45	0.43
55:2y:8:4SU:H2'	55:2y:13:C:H41	1.83	0.43
55:2y:11:C:H2'	55:2y:12:U:C6	2.53	0.43
1:1A:952:G:C6	1:1A:953:A:N7	2.86	0.43
1:1A:1020:A:H4'	1:1A:1021:A:O5'	2.17	0.43
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.52	0.43
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.33	0.43
9:1N:49:GLY:N	60:1N:301:HOH:O	2.47	0.43
21:1Z:29:TYR:HB3	21:1Z:34:ASN:ND2	2.33	0.43
32:1a:584:G:H2'	32:1a:585:G:C8	2.53	0.43
32:1a:875:C:H1'	39:1h:15:ASN:ND2	2.32	0.43
32:1a:1255:G:C2	32:1a:1283:G:C2	3.06	0.43
32:1a:1368:G:C6	32:1a:1369:C:C4	3.06	0.43
36:1e:28:PHE:O	36:1e:47:LYS:HA	2.18	0.43
43:1l:36:VAL:HG22	43:1l:82:VAL:HG22	1.99	0.43
54:1w:102:MET:O	54:1w:104:GLU:N	2.40	0.43
54:1w:140:PHE:HD1	54:1w:164:GLY:HA3	1.82	0.43
1:2A:58:G:O2'	1:2A:73:A:N1	2.40	0.43
1:2A:818:G:H4'	1:2A:838:C:O3'	2.19	0.43
1:2A:1010:A:OP2	60:2A:3776:HOH:O	2.21	0.43
1:2A:1203:G:OP2	1:2A:1204:A:O2'	2.20	0.43
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.17	0.43
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.51	0.43
8:2I:132:PRO:HD2	8:2I:136:VAL:O	2.19	0.43
9:2N:46:VAL:HG23	9:2N:48:MET:HG2	2.00	0.43
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	2.00	0.43
12:2Q:66:ILE:HG12	12:2Q:104:PHE:CE1	2.54	0.43
18:2W:43:GLY:O	18:2W:47:VAL:HG23	2.18	0.43
32:2a:72:C:H2'	32:2a:73:G:O4'	2.18	0.43
32:2a:948:C:P	44:2m:109:THR:HG1	2.41	0.43
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.52	0.43
32:2a:1327:C:H2'	32:2a:1328:C:C6	2.53	0.43
32:2a:1481:U:H2'	32:2a:1482:G:C8	2.53	0.43
37:2f:67:MET:HG3	37:2f:68:PRO:HD2	2.00	0.43
37:2f:96:PRO:HB3	49:2r:30:ASP:CG	2.43	0.43
46:2o:33:THR:HG23	46:2o:63:ARG:HH11	1.82	0.43
46:2o:81:LEU:HG	46:2o:85:LEU:HD12	1.99	0.43
50:2s:27:GLU:HG3	50:2s:47:HIS:HE1	1.83	0.43
55:2x:15:G:H2'	55:2x:16:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1070:A:N6	1:1A:1097:U:H1'	2.33	0.43
1:1A:2536:G:C5	1:1A:2537:U:C5	3.06	0.43
5:1F:7:TYR:CD2	5:1F:24:LEU:HB2	2.53	0.43
11:1P:100:LEU:HD22	11:1P:105:LEU:HD12	1.99	0.43
11:1P:121:LYS:O	11:1P:123:LEU:N	2.52	0.43
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.26	0.43
28:16:15:GLU:OE2	28:16:45:LYS:NZ	2.40	0.43
32:1a:292:G:N7	32:1a:293:G:H1'	2.34	0.43
32:1a:1118:C:H42	32:1a:1155:G:H1	1.65	0.43
32:1a:1349:A:OP1	40:1i:121:ARG:N	2.46	0.43
33:1b:111:ARG:HA	33:1b:111:ARG:HE	1.81	0.43
34:1c:114:PRO:O	34:1c:118:GLN:HB2	2.18	0.43
36:1e:75:THR:HB	36:1e:117:ASP:O	2.18	0.43
41:1j:16:LEU:O	41:1j:20:ALA:N	2.50	0.43
44:1m:3:ARG:HG2	44:1m:8:GLU:HG3	2.00	0.43
47:1p:8:ARG:HG2	47:1p:9:PHE:N	2.33	0.43
47:1p:47:ASP:C	47:1p:49:LEU:H	2.26	0.43
1:2A:29:U:H2'	1:2A:30:G:C8	2.53	0.43
1:2A:1114:G:H2'	1:2A:1115:G:C8	2.54	0.43
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.53	0.43
6:2G:135:LEU:HD23	6:2G:140:ILE:HD11	2.00	0.43
8:2I:78:THR:HG22	8:2I:143:SER:HB3	2.00	0.43
11:2P:6:LEU:HD23	11:2P:6:LEU:HA	1.87	0.43
14:2S:9:ARG:O	14:2S:13:ARG:HG3	2.18	0.43
26:24:62:ARG:HA	26:24:62:ARG:HD3	1.76	0.43
32:2a:601:C:H2'	32:2a:602:A:H8	1.82	0.43
32:2a:1272:G:N2	32:2a:1273:G:C8	2.86	0.43
35:2d:18:LYS:H	35:2d:18:LYS:HG3	1.49	0.43
35:2d:104:VAL:O	35:2d:108:LEU:HB2	2.18	0.43
35:2d:108:LEU:HD12	35:2d:108:LEU:HA	1.84	0.43
36:2e:80:ILE:HG12	36:2e:138:ALA:HB1	2.01	0.43
38:2g:31:MET:SD	38:2g:34:GLY:HA2	2.59	0.43
1:1A:479:A:N3	1:1A:481:G:H5''	2.33	0.43
1:1A:631:A:H2'	1:1A:632:A:O4'	2.18	0.43
1:1A:1268:A:C2	1:1A:2013:A:C4	3.07	0.43
5:1F:25:PRO:HD2	5:1F:115:ALA:HB2	2.01	0.43
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	1.99	0.43
32:1a:44:G:N2	32:1a:399:G:C4	2.87	0.43
32:1a:103:C:P	51:1t:17:ARG:HH21	2.42	0.43
32:1a:267:C:OP1	48:1q:67:LYS:HG3	2.18	0.43
32:1a:401:C:H2'	32:1a:402:G:H8	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:713:G:H2'	32:1a:714:G:C8	2.54	0.43
55:1y:19:G:H1'	55:1y:57:G:H22	1.82	0.43
1:2A:887:A:H2'	1:2A:887:A:N3	2.33	0.43
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.33	0.43
1:2A:1288:U:O4	13:2R:106:GLY:HA3	2.19	0.43
1:2A:1312:U:OP2	19:2X:63:LYS:HD2	2.18	0.43
1:2A:2126:A:N3	1:2A:2127:G:H1'	2.33	0.43
1:2A:2892:A:N6	1:2A:2893:G:O6	2.52	0.43
2:2B:80:U:H2'	2:2B:81:G:C8	2.53	0.43
4:2E:117:MET:HE2	4:2E:117:MET:HB3	1.75	0.43
21:2Z:4:ARG:HB3	21:2Z:60:GLU:OE2	2.18	0.43
24:22:51:ARG:O	24:22:55:ARG:HG2	2.18	0.43
27:25:48:GLU:O	27:25:60:VAL:HG11	2.19	0.43
32:2a:324:G:O2'	32:2a:326:G:N7	2.43	0.43
32:2a:791:G:C6	32:2a:792:A:N7	2.86	0.43
33:2b:97:TRP:HZ2	33:2b:102:LEU:HD13	1.83	0.43
35:2d:10:ARG:HB2	35:2d:40:PRO:HG3	2.00	0.43
42:2k:27:ASN:ND2	42:2k:55:LYS:HB3	2.33	0.43
43:2l:84:LEU:HB2	43:2l:105:TYR:HE2	1.84	0.43
44:2m:32:GLU:O	44:2m:36:LYS:N	2.40	0.43
46:2o:5:LYS:H	46:2o:5:LYS:HD2	1.83	0.43
54:2w:198:THR:HB	54:2w:293:ILE:HG12	2.01	0.43
1:1A:636:G:O2'	1:1A:638:G:O2'	2.26	0.43
1:1A:1041:C:N4	1:1A:1114:G:H1	2.15	0.43
1:1A:1093:G:N2	1:1A:1098:A:C8	2.87	0.43
1:1A:1468:C:H2'	1:1A:1469:A:C8	2.53	0.43
1:1A:1815:A:C5	1:1A:1817:G:C6	3.07	0.43
1:1A:1826:G:H2'	1:1A:1827:C:O4'	2.18	0.43
1:1A:2563:U:H1'	1:1A:2566:A:N6	2.33	0.43
4:1E:181:LEU:HD23	4:1E:181:LEU:HA	1.82	0.43
9:1N:23:LEU:HA	9:1N:60:ILE:HD11	2.00	0.43
21:1Z:72:ARG:HA	21:1Z:72:ARG:HD3	1.79	0.43
32:1a:909:A:H2'	32:1a:910:C:O4'	2.19	0.43
34:1c:95:THR:HG23	34:1c:96:GLY:H	1.84	0.43
40:1i:18:PHE:CD2	40:1i:62:TYR:HD2	2.35	0.43
49:1r:44:LEU:HD11	49:1r:79:LEU:HB3	1.99	0.43
1:2A:576:U:H2'	1:2A:577:G:C8	2.53	0.43
1:2A:715:G:C2	46:2o:56:LEU:HD21	2.53	0.43
1:2A:2418:A:H2'	1:2A:2419:U:C6	2.53	0.43
1:2A:2717:G:H2'	1:2A:2718:G:O4'	2.18	0.43
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:145:THR:O	6:2G:149:VAL:HG22	2.17	0.43
20:2Y:7:VAL:HG12	20:2Y:8:LYS:N	2.33	0.43
32:2a:429:U:H1'	32:2a:430:A:H5''	2.01	0.43
32:2a:1017:G:H2'	32:2a:1018:C:O4'	2.19	0.43
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.06	0.43
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.99	0.43
37:2f:46:ARG:HA	37:2f:46:ARG:HD2	1.82	0.43
38:2g:50:ILE:HG13	38:2g:58:PRO:HA	2.00	0.43
39:2h:20:TYR:CE2	39:2h:75:ARG:HD2	2.53	0.43
46:2o:33:THR:HG23	46:2o:63:ARG:NH1	2.33	0.43
50:2s:12:ASP:OD2	50:2s:14:HIS:NE2	2.52	0.43
51:2t:50:GLU:N	51:2t:99:LEU:HD12	2.33	0.43
1:1A:1275:A:N3	1:1A:1276:A:H1'	2.34	0.43
1:1A:1651:G:OP1	13:1R:40:LYS:NZ	2.43	0.43
5:1F:182:ASN:HD21	5:1F:185:ASP:CG	2.27	0.43
7:1H:47:GLU:O	7:1H:49:VAL:HG23	2.18	0.43
14:1S:35:ILE:H	14:1S:53:SER:HB3	1.84	0.43
32:1a:335:C:H2'	32:1a:336:C:C6	2.54	0.43
32:1a:976:G:OP1	45:1n:32:SER:N	2.38	0.43
32:1a:1095:U:P	32:1a:1108:G:H1	2.41	0.43
32:1a:1269:A:N1	32:1a:1312:G:O2'	2.48	0.43
36:1e:33:VAL:HG13	36:1e:112:LEU:HD12	2.00	0.43
55:1y:51:U:H2'	55:1y:52:G:H8	1.84	0.43
1:2A:582:G:H2'	1:2A:583:G:C8	2.54	0.43
1:2A:637:A:H4'	1:2A:638:G:O5'	2.18	0.43
1:2A:884:C:H3'	1:2A:885:C:H6	1.82	0.43
1:2A:918:A:N3	2:2B:80:U:O2'	2.41	0.43
1:2A:1547:C:H2'	1:2A:1548:C:H6	1.83	0.43
1:2A:1607:C:N4	60:2A:3937:HOH:O	2.51	0.43
1:2A:1882:C:H2'	1:2A:1883:G:O4'	2.19	0.43
6:2G:117:PHE:C	6:2G:119:GLY:H	2.26	0.43
12:2Q:17:LEU:HD23	12:2Q:39:PRO:HB2	2.00	0.43
12:2Q:57:HIS:NE2	12:2Q:116:GLU:HB3	2.33	0.43
13:2R:26:LYS:HE2	13:2R:70:LEU:O	2.18	0.43
32:2a:67:C:H2'	32:2a:68:G:C8	2.53	0.43
32:2a:384:G:H2'	32:2a:385:C:C6	2.52	0.43
32:2a:444:C:H2'	32:2a:445:G:H8	1.84	0.43
32:2a:950:U:H2'	32:2a:951:G:C8	2.53	0.43
32:2a:1216:G:H5''	45:2n:5:ALA:CB	2.49	0.43
33:2b:77:ALA:O	33:2b:81:VAL:HG13	2.18	0.43
36:2e:80:ILE:CG2	36:2e:91:LEU:HB2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:69:VAL:HG22	38:2g:135:VAL:HG13	2.01	0.43
43:2l:34:ARG:O	43:2l:61:THR:HB	2.18	0.43
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.52	0.43
51:2t:41:ILE:HD11	51:2t:87:LYS:CB	2.48	0.43
1:1A:729:G:C5	3:1D:208:LYS:HB2	2.54	0.43
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.18	0.43
1:1A:2319:G:C2	14:1S:3:ARG:HA	2.53	0.43
1:1A:2556:C:H2'	1:1A:2557:G:O4'	2.19	0.43
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	2.00	0.43
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.54	0.43
20:1Y:5:MET:HE3	20:1Y:32:PRO:HA	2.00	0.43
21:1Z:152:ALA:HB2	21:1Z:171:ILE:HG21	2.01	0.43
32:1a:40:C:H2'	32:1a:41:G:H8	1.83	0.43
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.54	0.43
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.33	0.43
35:1d:59:ARG:HD3	35:1d:59:ARG:HA	1.83	0.43
35:1d:86:LYS:H	35:1d:86:LYS:HG3	1.59	0.43
35:1d:94:LEU:HD11	35:1d:200:GLU:HG2	2.00	0.43
37:1f:45:LEU:HD12	37:1f:59:TYR:HD1	1.83	0.43
40:1i:81:ILE:O	40:1i:85:LEU:N	2.49	0.43
41:1j:22:LYS:NZ	41:1j:89:ASP:HB3	2.33	0.43
46:1o:48:LYS:HA	46:1o:48:LYS:HD3	1.88	0.43
51:1t:36:LEU:O	51:1t:55:ILE:HD11	2.18	0.43
1:2A:857:C:H1'	22:20:26:TYR:HE1	1.83	0.43
1:2A:1388:G:H4'	1:2A:1525:G:O2'	2.19	0.43
1:2A:2238:G:H2'	1:2A:2238:G:N3	2.33	0.43
1:2A:2512:C:H2'	1:2A:2513:G:O4'	2.18	0.43
3:2D:154:LYS:HB2	3:2D:155:LEU:HD12	2.01	0.43
32:2a:186:C:H5'	51:2t:78:ALA:HB1	1.99	0.43
32:2a:423:G:H3'	32:2a:423:G:N3	2.34	0.43
32:2a:642:A:H2'	32:2a:643:C:C6	2.54	0.43
32:2a:908:A:H2'	32:2a:909:A:C8	2.53	0.43
32:2a:973:G:H3'	32:2a:974:A:H5''	2.00	0.43
32:2a:1005:A:H3'	32:2a:1006:C:H6	1.84	0.43
33:2b:15:VAL:HG21	33:2b:213:LEU:HD23	2.00	0.43
37:2f:89:MET:HE1	49:2r:72:ARG:O	2.18	0.43
41:2j:45:ARG:HB2	41:2j:65:LEU:HB3	2.00	0.43
41:2j:70:ARG:HD3	41:2j:70:ARG:HA	1.87	0.43
42:2k:98:LEU:O	42:2k:101:SER:OG	2.26	0.43
1:1A:768:G:C6	1:1A:769:G:C5	3.06	0.43
1:1A:2094:G:OP1	8:1I:22:LYS:HD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2494:G:O2'	12:1Q:80:GLU:HA	2.18	0.43
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.54	0.43
5:1F:106:ARG:H	5:1F:106:ARG:HG2	1.63	0.43
11:1P:63:PRO:HG2	30:18:25:MET:HB2	2.00	0.43
13:1R:29:LEU:HD12	13:1R:29:LEU:HA	1.87	0.43
14:1S:38:GLN:HE21	14:1S:47:THR:HG21	1.84	0.43
32:1a:276:G:O3'	48:1q:68:ARG:NH1	2.52	0.43
32:1a:600:C:OP1	39:1h:97:VAL:HG12	2.19	0.43
32:1a:923:A:H2'	32:1a:924:C:O4'	2.19	0.43
34:1c:182:ILE:HA	34:1c:202:ILE:O	2.19	0.43
36:1e:152:ARG:HA	39:1h:64:LYS:HZ1	1.81	0.43
38:1g:118:VAL:O	38:1g:122:HIS:ND1	2.52	0.43
45:1n:3:ARG:O	45:1n:7:ILE:HG13	2.18	0.43
54:1w:321:THR:OG1	54:1w:322:HIS:N	2.52	0.43
1:2A:251:A:C5	1:2A:252:G:H1'	2.54	0.43
1:2A:271(F):C:H42	1:2A:271(R):G:H1	1.67	0.43
1:2A:2105:C:H2'	1:2A:2106:G:H8	1.80	0.43
1:2A:2682:U:H5'	4:2E:11:MET:O	2.18	0.43
1:2A:2689:U:H5'	1:2A:2689:U:O2	2.18	0.43
6:2G:3:LEU:HD13	26:24:25:TYR:CZ	2.54	0.43
8:2I:85:GLU:HG3	8:2I:86:THR:HG23	2.00	0.43
13:2R:54:LEU:HD23	13:2R:54:LEU:HA	1.87	0.43
20:2Y:73:ARG:HH21	20:2Y:84:ARG:HG3	1.84	0.43
32:2a:69:G:H2'	32:2a:70:G:H8	1.82	0.43
32:2a:181:G:H4'	32:2a:182:U:H5'	2.00	0.43
32:2a:410:G:H21	32:2a:432:A:H62	1.65	0.43
32:2a:814:A:N7	32:2a:816:A:C4	2.87	0.43
32:2a:1142:G:C2	32:2a:1143:G:H1'	2.54	0.43
32:2a:1372:U:H2'	32:2a:1373:G:O4'	2.18	0.43
35:2d:4:TYR:OH	35:2d:7:PRO:O	2.23	0.43
1:1A:281:G:H1'	1:1A:360:G:N2	2.34	0.43
1:1A:657:U:H2'	1:1A:658:C:H6	1.83	0.43
1:1A:1316:U:H2'	1:1A:1317:A:C8	2.53	0.43
1:1A:1643:G:H2'	1:1A:1644:C:O4'	2.18	0.43
1:1A:2178:C:H2'	1:1A:2179:C:C6	2.54	0.43
1:1A:2701:C:H2'	1:1A:2702:U:H2'	2.00	0.43
13:1R:95:THR:HG22	13:1R:116:LEU:HD23	2.01	0.43
14:1S:67:ARG:HB2	14:1S:100:ALA:HB1	2.01	0.43
26:14:44:THR:O	26:14:47:GLN:HB2	2.17	0.43
26:14:58:ARG:HD3	50:1s:67:VAL:H	1.84	0.43
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.53	0.43
32:1a:1126:U:O2	32:1a:1280:A:H2'	2.19	0.43
32:1a:1326:C:H5''	52:1u:12:LYS:HE3	2.01	0.43
40:1i:53:VAL:C	40:1i:55:ALA:H	2.24	0.43
1:2A:359:A:H2'	1:2A:360:G:O4'	2.19	0.43
1:2A:442:G:H4'	5:2F:46:ARG:HG3	2.00	0.43
1:2A:1338:G:O2'	1:2A:1393:A:N1	2.40	0.43
1:2A:1341:U:O4'	19:2X:57:LEU:HD22	2.18	0.43
1:2A:2116:G:O2'	1:2A:2117:A:O4'	2.34	0.43
2:2B:74:U:H2'	2:2B:75:G:O4'	2.19	0.43
4:2E:3:GLY:HA2	4:2E:198:VAL:O	2.19	0.43
6:2G:142:PRO:C	6:2G:144:ILE:H	2.26	0.43
8:2I:68:LEU:HD23	8:2I:68:LEU:HA	1.81	0.43
9:2N:73:THR:HA	9:2N:83:LYS:O	2.19	0.43
12:2Q:1:MET:HE2	12:2Q:1:MET:HB3	1.81	0.43
18:2W:84:ARG:HG3	18:2W:98:LYS:HD2	2.01	0.43
32:2a:744:C:O2'	32:2a:851:G:N2	2.52	0.43
32:2a:1366:C:H2'	32:2a:1367:C:C6	2.54	0.43
35:2d:169:LYS:HE2	35:2d:169:LYS:HB3	1.84	0.43
44:2m:11:ARG:HA	44:2m:45:VAL:HB	2.01	0.43
1:1A:84:A:H5'	20:1Y:8:LYS:CB	2.49	0.43
1:1A:863:A:H2'	1:1A:864:G:O4'	2.19	0.43
1:1A:1296:G:OP1	1:1A:2709:G:O2'	2.23	0.43
1:1A:2857:G:N2	1:1A:2860:A:OP2	2.42	0.43
5:1F:164:ARG:O	5:1F:168:ARG:HG3	2.19	0.43
16:1U:79:PHE:CZ	16:1U:83:LEU:HD11	2.54	0.43
26:14:49:PHE:HB3	26:14:50:VAL:H	1.64	0.43
32:1a:1411:C:H2'	32:1a:1412:C:C6	2.54	0.43
33:1b:164:VAL:O	33:1b:186:ALA:HA	2.19	0.43
34:1c:83:ARG:O	34:1c:87:LEU:HG	2.19	0.43
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.18	0.43
43:1l:32:PHE:HB2	43:1l:84:LEU:HD11	2.01	0.43
44:1m:14:ARG:HE	44:1m:14:ARG:HB3	1.65	0.43
44:1m:65:LYS:HD2	44:1m:69:GLU:CD	2.44	0.43
51:1t:35:THR:O	51:1t:39:LYS:HE3	2.19	0.43
55:1y:4:C:H2'	55:1y:5:G:O4'	2.19	0.43
1:2A:150:C:H2'	1:2A:151:C:H6	1.84	0.43
1:2A:527:C:H3'	60:2A:3856:HOH:O	2.18	0.43
1:2A:1192:G:OP1	60:2A:3778:HOH:O	2.22	0.43
1:2A:2031:A:C6	1:2A:2498:C:H1'	2.54	0.43
1:2A:2353:G:H5''	22:20:32:ARG:HH11	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2502:G:H5''	1:2A:2503:2MA:H5''	2.00	0.43
1:2A:2611:U:H3'	1:2A:2611:U:OP2	2.19	0.43
4:2E:9:VAL:HA	15:2T:3:ARG:HD3	2.01	0.43
5:2F:166:ALA:C	5:2F:168:ARG:H	2.25	0.43
7:2H:3:ARG:HG2	7:2H:6:ARG:HG2	2.00	0.43
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	2.00	0.43
20:2Y:88:LYS:HG2	20:2Y:89:PHE:H	1.84	0.43
28:26:34:LEU:HD23	28:26:34:LEU:HA	1.87	0.43
32:2a:344:A:H4'	32:2a:345:C:OP2	2.19	0.43
32:2a:662:G:H2'	32:2a:663:A:C8	2.54	0.43
32:2a:1014:A:H2'	32:2a:1015:A:C8	2.54	0.43
32:2a:1265:G:C2	32:2a:1271:G:C2	3.06	0.43
32:2a:1425:U:H2'	32:2a:1426:C:C6	2.54	0.43
33:2b:58:ILE:HG22	33:2b:61:LEU:HD23	2.00	0.43
34:2c:47:LEU:HD12	34:2c:68:VAL:HG11	2.00	0.43
35:2d:90:GLY:HA2	35:2d:204:ILE:HD11	2.00	0.43
46:2o:55:GLY:HA2	46:2o:58:MET:HE3	2.00	0.43
1:1A:1588:C:H2'	1:1A:1589:C:C6	2.53	0.42
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.19	0.42
1:1A:1859:A:N6	1:1A:1883:G:O2'	2.52	0.42
2:1B:48:A:H2'	2:1B:49:C:C6	2.54	0.42
3:1D:133:LEU:HD23	3:1D:136:ILE:HD12	2.00	0.42
17:1V:22:VAL:HG23	17:1V:23:GLU:O	2.19	0.42
30:18:14:VAL:HG11	30:18:58:ILE:HG21	2.00	0.42
32:1a:280:C:N3	48:1q:39:SER:N	2.65	0.42
32:1a:439:A:N1	32:1a:496:A:H1'	2.34	0.42
36:1e:6:PHE:HD1	36:1e:36:ASP:HB3	1.83	0.42
43:1l:62:SER:C	43:1l:64:TYR:H	2.26	0.42
54:1w:243:HIS:CE1	54:1w:245:PRO:HD2	2.54	0.42
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.53	0.42
1:2A:1592:C:H2'	1:2A:1593:G:C8	2.54	0.42
1:2A:2472:G:H2'	1:2A:2475:C:H42	1.84	0.42
1:2A:2695:C:H2'	1:2A:2696:U:H6	1.83	0.42
3:2D:275:LYS:HD2	3:2D:276:LYS:N	2.23	0.42
5:2F:59:TYR:CD2	5:2F:78:ILE:HG13	2.54	0.42
6:2G:106:LEU:O	6:2G:111:LEU:HG	2.18	0.42
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.53	0.42
12:2Q:52:VAL:HG13	21:2Z:183:LEU:HD13	2.01	0.42
18:2W:68:ARG:HH21	18:2W:111:HIS:CE1	2.37	0.42
32:2a:1240:U:H3'	32:2a:1241:G:C5'	2.48	0.42
33:2b:155:LEU:HD11	33:2b:159:PRO:HD3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:75:PHE:HE1	35:2d:97:LEU:HD11	1.83	0.42
1:1A:307:G:N2	1:1A:309:G:H3'	2.34	0.42
1:1A:601:C:O2'	1:1A:605:C:H5''	2.19	0.42
1:1A:980:A:N3	1:1A:2037:G:O2'	2.49	0.42
1:1A:1273:U:H4'	1:1A:1275:A:OP1	2.19	0.42
1:1A:1590:U:H2'	1:1A:1591:G:C8	2.54	0.42
6:1G:91:ARG:HE	6:1G:91:ARG:HB3	1.48	0.42
14:1S:36:TYR:N	14:1S:36:TYR:CD2	2.87	0.42
32:1a:340:U:H2'	32:1a:341:C:C6	2.53	0.42
32:1a:1136:U:H5''	32:1a:1137:C:C4	2.54	0.42
33:1b:54:THR:O	33:1b:58:ILE:HG13	2.19	0.42
33:1b:60:ASP:OD1	33:1b:64:ARG:NE	2.52	0.42
33:1b:87:ARG:CD	33:1b:233:SER:HB3	2.49	0.42
33:1b:125:PRO:O	33:1b:126:GLU:HB3	2.17	0.42
37:1f:15:ASP:OD1	37:1f:18:GLN:N	2.38	0.42
43:1l:11:VAL:HG11	48:1q:36:ILE:HG21	2.00	0.42
47:1p:47:ASP:O	47:1p:49:LEU:N	2.52	0.42
1:2A:529:A:H62	1:2A:2041:U:H3	1.67	0.42
1:2A:815:C:C2	1:2A:1193:G:C2	3.07	0.42
1:2A:1022:G:OP2	9:2N:69:GLN:NE2	2.35	0.42
1:2A:2100:G:H1'	1:2A:2190:G:N2	2.34	0.42
6:2G:43:LEU:HD12	6:2G:43:LEU:H	1.84	0.42
7:2H:136:ILE:H	7:2H:136:ILE:HG13	1.38	0.42
7:2H:143:GLN:NE2	7:2H:147:ASN:OD1	2.52	0.42
10:2O:29:ASN:OD1	10:2O:29:ASN:N	2.51	0.42
10:2O:70:LYS:HB3	10:2O:70:LYS:HE2	1.84	0.42
25:23:18:ASP:OD1	25:23:18:ASP:N	2.49	0.42
32:2a:635:G:C6	32:2a:636:U:C4	3.08	0.42
32:2a:715:A:H2'	32:2a:716:A:C8	2.53	0.42
32:2a:1260:C:O5'	32:2a:1284:C:H4'	2.20	0.42
32:2a:1263:C:H1'	32:2a:1273:G:N2	2.34	0.42
32:2a:1402:4OC:H2'	32:2a:1403:C:O4'	2.19	0.42
33:2b:115:LEU:O	33:2b:119:GLU:HG2	2.19	0.42
34:2c:26:LYS:HB2	34:2c:26:LYS:HE3	1.75	0.42
35:2d:158:ILE:O	35:2d:162:LEU:HD12	2.19	0.42
37:2f:79:LEU:C	37:2f:81:ILE:H	2.27	0.42
40:2i:71:SER:HA	40:2i:74:ILE:HD12	2.01	0.42
40:2i:108:VAL:HG12	40:2i:109:VAL:H	1.84	0.42
1:1A:65:C:H2'	1:1A:66:C:C6	2.55	0.42
1:1A:634:C:H2'	1:1A:635:C:C6	2.55	0.42
1:1A:2543:G:H2'	1:1A:2544:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:144:LYS:C	5:1F:146:ALA:H	2.28	0.42
6:1G:101:ILE:HG22	6:1G:105:LYS:HE2	2.00	0.42
32:1a:342:C:N3	32:1a:348:G:H1'	2.34	0.42
32:1a:582:U:C2	32:1a:760:G:C6	3.07	0.42
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.54	0.42
32:1a:1305:G:OP2	52:1u:2:GLY:N	2.52	0.42
41:1j:16:LEU:HA	41:1j:94:VAL:HG21	2.02	0.42
54:1w:223:ARG:HD2	54:1w:233:ASN:O	2.19	0.42
1:2A:199:A:OP1	60:2A:3777:HOH:O	2.21	0.42
1:2A:613:G:O2'	1:2A:614(C):A:N6	2.52	0.42
1:2A:981:A:N1	1:2A:2027:G:O2'	2.40	0.42
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.48	0.42
1:2A:2135:A:C5	1:2A:2136:C:H5	2.38	0.42
1:2A:2206:G:H8	1:2A:2207:G:N7	2.17	0.42
6:2G:58:GLN:HG3	6:2G:59:GLU:N	2.33	0.42
10:2O:98:VAL:HG23	10:2O:117:LEU:HB3	2.01	0.42
32:2a:51:A:N7	32:2a:114:U:O2'	2.52	0.42
32:2a:266:G:OP2	60:2a:1810:HOH:O	2.21	0.42
32:2a:331:G:OP1	32:2a:332:G:H8	2.02	0.42
32:2a:673:G:O3'	37:2f:87:ARG:NH2	2.52	0.42
32:2a:975:A:H61	41:2j:48:THR:HB	1.83	0.42
32:2a:975:A:N1	41:2j:48:THR:HB	2.34	0.42
32:2a:1234:C:H1'	32:2a:1364:U:O2	2.18	0.42
35:2d:20:TYR:CD1	35:2d:26:CYS:HB3	2.54	0.42
38:2g:89:MET:SD	38:2g:155:ARG:HB2	2.59	0.42
42:2k:54:ARG:HH22	55:2y:40:C:H5'	1.83	0.42
50:2s:58:VAL:O	50:2s:60:VAL:HG23	2.20	0.42
1:1A:1359:A:N6	1:1A:1372:U:H3	2.16	0.42
1:1A:1501:C:O5'	1:1A:1501:C:H6	2.03	0.42
1:1A:2171:A:O2'	1:1A:2172:U:H6	2.02	0.42
1:1A:2251:OMG:HM23	1:1A:2251:OMG:H1'	1.83	0.42
1:1A:2611:U:H5'	1:1A:2611:U:H6	1.84	0.42
3:1D:228:PRO:HD3	3:1D:235:GLY:CA	2.50	0.42
7:1H:71:LEU:HD23	7:1H:71:LEU:HA	1.83	0.42
11:1P:42:SER:O	60:1P:301:HOH:O	2.21	0.42
18:1W:43:GLY:O	18:1W:47:VAL:HG23	2.20	0.42
18:1W:48:ALA:O	18:1W:52:GLU:HG2	2.19	0.42
25:13:28:LEU:HA	25:13:28:LEU:HD23	1.78	0.42
26:14:9:LEU:HD23	26:14:9:LEU:HA	1.93	0.42
35:1d:141:ARG:H	35:1d:141:ARG:HG3	1.58	0.42
42:1k:59:TYR:O	42:1k:63:LEU:HD12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:118:A:H1'	1:2A:178:G:O4'	2.19	0.42
1:2A:329:G:H8	1:2A:329:G:OP1	2.03	0.42
1:2A:483:A:C5'	20:2Y:50:ARG:HE	2.31	0.42
1:2A:1010:A:H1'	1:2A:1153:C:H1'	2.02	0.42
1:2A:1654:A:OP1	13:2R:1:MET:N	2.49	0.42
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.55	0.42
1:2A:2391:G:OP2	30:28:32:LEU:HD23	2.19	0.42
4:2E:124:GLY:HA2	4:2E:137:HIS:O	2.19	0.42
4:2E:168:MET:HE3	4:2E:168:MET:HB3	1.93	0.42
10:2O:80:ASP:OD2	15:2T:71:GLY:HA3	2.19	0.42
14:2S:87:PHE:CZ	14:2S:102:ALA:HB2	2.54	0.42
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.54	0.42
32:2a:688:G:H2'	32:2a:689:C:C6	2.54	0.42
32:2a:690:G:C6	32:2a:691:G:C6	3.08	0.42
35:2d:111:ALA:HA	35:2d:161:ASN:HD22	1.84	0.42
36:2e:57:LYS:HG2	36:2e:61:TYR:CE2	2.54	0.42
42:2k:32:ILE:O	42:2k:40:ILE:N	2.47	0.42
47:2p:9:PHE:HB3	47:2p:10:GLY:H	1.69	0.42
1:1A:226:G:N2	1:1A:228:A:H62	2.18	0.42
1:1A:278:A:H2'	1:1A:279:C:O4'	2.18	0.42
1:1A:863:A:H2'	1:1A:864:G:C8	2.54	0.42
1:1A:2503:2MA:O2'	1:1A:2505:G:OP2	2.33	0.42
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.19	0.42
12:1Q:76:LYS:HB3	12:1Q:91:GLU:HG3	2.02	0.42
19:1X:57:LEU:HD21	19:1X:78:LYS:HB2	2.02	0.42
32:1a:919:A:O2'	32:1a:920:U:H5'	2.20	0.42
32:1a:923:A:OP1	36:1e:21:ALA:HB2	2.18	0.42
32:1a:1289:A:N1	32:1a:1371:G:O2'	2.45	0.42
42:1k:30:VAL:HG21	42:1k:65:ALA:HA	2.00	0.42
44:1m:108:ARG:HD3	44:1m:108:ARG:HA	1.83	0.42
54:1w:144:VAL:HA	54:1w:160:PHE:HA	2.01	0.42
1:2A:65:C:H5'	19:2X:71:GLY:HA3	2.01	0.42
1:2A:973:A:H8	1:2A:973:A:OP1	2.02	0.42
1:2A:1747(A):G:C6	1:2A:1748:G:C5	3.07	0.42
1:2A:1850:G:C6	1:2A:1851:U:C4	3.08	0.42
1:2A:2250:G:O2'	1:2A:2496:C:OP1	2.27	0.42
1:2A:2316:C:O2'	6:2G:128:ARG:NH2	2.53	0.42
1:2A:2386:C:H2'	1:2A:2387:U:C6	2.55	0.42
1:2A:2680:C:H5'	4:2E:189:PRO:HA	2.02	0.42
60:2A:3765:HOH:O	11:2P:37:GLY:HA3	2.19	0.42
4:2E:48:GLN:HB2	4:2E:80:GLU:HG2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:168:MET:HE2	4:2E:203:LYS:HE2	2.02	0.42
5:2F:195:ASP:HB3	5:2F:198:ALA:H	1.84	0.42
6:2G:120:LEU:O	6:2G:181:ARG:HB3	2.20	0.42
7:2H:103:LEU:HB2	7:2H:123:PHE:CD2	2.55	0.42
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.55	0.42
12:2Q:17:LEU:HD11	12:2Q:41:TRP:NE1	2.34	0.42
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.19	0.42
27:25:20:ARG:HG2	27:25:23:HIS:ND1	2.35	0.42
32:2a:57:G:H2'	32:2a:58:C:C6	2.54	0.42
32:2a:475:G:H2'	32:2a:476:G:H8	1.85	0.42
32:2a:1187:G:H4'	40:2i:111:ARG:NH1	2.32	0.42
32:2a:1375:A:H2'	32:2a:1376:U:O4'	2.19	0.42
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.34	0.42
39:2h:13:ILE:O	39:2h:17:THR:HG23	2.19	0.42
39:2h:17:THR:HA	39:2h:65:TYR:OH	2.19	0.42
45:2n:53:LEU:HD23	45:2n:53:LEU:HA	1.80	0.42
54:2w:302:ILE:HD12	54:2w:302:ILE:HA	1.81	0.42
55:2x:75:C:H5''	55:2x:76:A:OP2	2.19	0.42
55:2y:25:C:H2'	55:2y:26:A:O4'	2.20	0.42
1:1A:322:A:OP1	5:1F:168:ARG:NH1	2.52	0.42
1:1A:687:C:H1'	29:17:4:THR:HG22	2.02	0.42
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.54	0.42
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.20	0.42
1:1A:2896:C:H2'	1:1A:2897:U:C6	2.55	0.42
6:1G:103:LEU:HD23	6:1G:106:LEU:HD23	2.01	0.42
8:1I:109:ILE:HD13	8:1I:109:ILE:HA	1.81	0.42
12:1Q:65:PHE:HB2	12:1Q:105:GLU:HB2	2.01	0.42
18:1W:6:ILE:HA	18:1W:103:ILE:O	2.19	0.42
32:1a:1298:C:H4'	32:1a:1299:A:C4	2.55	0.42
32:1a:1518:MA6:H93	32:1a:1519:MA6:C9	2.49	0.42
33:1b:63:MET:HE3	33:1b:225:ALA:O	2.20	0.42
36:1e:78:HIS:HE1	36:1e:142:LEU:HA	1.80	0.42
38:1g:12:LEU:O	38:1g:21:VAL:HG12	2.19	0.42
40:1i:116:LYS:HB3	40:1i:121:ARG:O	2.19	0.42
51:1t:66:ALA:HB3	51:1t:72:LEU:HD12	2.01	0.42
1:2A:644:A:H4'	1:2A:645:C:C5	2.55	0.42
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.55	0.42
1:2A:1630:G:H2'	1:2A:1631:C:H6	1.84	0.42
1:2A:1946:U:H2'	1:2A:1947:C:H6	1.85	0.42
1:2A:2033:A:OP1	60:2A:3779:HOH:O	2.22	0.42
1:2A:2385:C:H2'	1:2A:2386:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2786:U:H2'	1:2A:2787:C:C6	2.54	0.42
5:2F:179:GLU:H	5:2F:179:GLU:CD	2.27	0.42
21:2Z:151:HIS:CE1	21:2Z:170:THR:HB	2.55	0.42
32:2a:253:U:C2	32:2a:254:G:C8	3.07	0.42
32:2a:892:A:O2'	32:2a:1415:G:H4'	2.20	0.42
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.39	0.42
47:2p:51:VAL:HG12	47:2p:53:VAL:N	2.33	0.42
1:1A:883:G:H21	1:1A:884:C:N4	2.12	0.42
1:1A:1072:C:H2'	1:1A:1094:U:H3	1.84	0.42
1:1A:2356:C:H2'	1:1A:2357:U:O4'	2.19	0.42
1:1A:2572:A:N7	4:1E:145:LYS:HB2	2.35	0.42
1:1A:2649:U:H2'	1:1A:2650:U:C6	2.54	0.42
2:1B:78:A:C2	2:1B:100:A:C4	3.08	0.42
14:1S:15:ARG:HG2	14:1S:88:ASP:OD2	2.20	0.42
32:1a:781:A:H5'	32:1a:782:A:OP2	2.19	0.42
32:1a:1095:U:OP1	32:1a:1108:G:N2	2.50	0.42
32:1a:1124:G:O2'	32:1a:1145:C:C4	2.73	0.42
32:1a:1209:C:O2'	32:1a:1214:C:N4	2.31	0.42
44:1m:36:LYS:HE3	44:1m:36:LYS:HB3	1.88	0.42
46:1o:39:LEU:HD23	46:1o:39:LEU:HA	1.84	0.42
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.37	0.42
54:1w:109:VAL:HG13	54:1w:201:VAL:HG22	2.01	0.42
1:2A:81:G:O2'	1:2A:295:G:O2'	2.20	0.42
1:2A:1204:A:H4'	1:2A:1205:U:O5'	2.20	0.42
1:2A:1341:U:H3'	1:2A:1397:U:O2	2.18	0.42
1:2A:1628:G:H2'	1:2A:1629:U:C6	2.55	0.42
1:2A:1652:A:C2'	1:2A:1653:G:H5'	2.49	0.42
1:2A:1853:A:H2'	1:2A:1854:A:C8	2.55	0.42
1:2A:2507:C:H2'	1:2A:2508:G:O4'	2.19	0.42
2:2B:9:G:OP1	14:2S:15:ARG:HD3	2.19	0.42
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.55	0.42
6:2G:96:ARG:O	6:2G:99:MET:HB3	2.19	0.42
18:2W:56:ALA:O	18:2W:60:ASN:HB2	2.18	0.42
32:2a:448:A:OP2	32:2a:485:G:N2	2.49	0.42
32:2a:528:C:H41	43:2l:49:ASN:CG	2.27	0.42
32:2a:582:U:C2	32:2a:760:G:C6	3.08	0.42
32:2a:662:G:O2'	32:2a:836:G:OP1	2.37	0.42
32:2a:998:G:H1	32:2a:1043:C:H42	1.68	0.42
32:2a:1005:A:H3'	32:2a:1006:C:C6	2.54	0.42
34:2c:6:HIS:HA	34:2c:7:PRO:HD3	1.92	0.42
34:2c:16:ARG:HE	34:2c:16:ARG:HB3	1.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:15:THR:O	41:2j:19:SER:HB2	2.19	0.42
54:2w:106:ASP:HA	54:2w:167:ALA:HB3	2.02	0.42
54:2w:182:ARG:C	54:2w:192:ILE:HD12	2.45	0.42
1:1A:911:A:N6	12:1Q:9:TYR:HB3	2.34	0.42
1:1A:1098:A:N3	1:1A:1098:A:H2'	2.33	0.42
1:1A:2639:A:H2'	1:1A:2640:G:O4'	2.20	0.42
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.19	0.42
5:1F:102:PRO:HB2	5:1F:105:VAL:HG23	2.01	0.42
5:1F:140:LEU:HD23	5:1F:140:LEU:HA	1.85	0.42
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.54	0.42
21:1Z:104:PHE:HD1	21:1Z:141:VAL:HG11	1.85	0.42
32:1a:767:A:H2'	32:1a:768:A:O4'	2.20	0.42
32:1a:1124:G:H5'	41:1j:38:ILE:HG12	2.01	0.42
32:1a:1371:G:H2'	32:1a:1372:U:O4'	2.20	0.42
34:1c:91:LEU:HD12	34:1c:91:LEU:HA	1.92	0.42
34:1c:110:ASN:O	34:1c:111:LEU:HD12	2.20	0.42
51:1t:50:GLU:HB2	51:1t:100:ILE:CG1	2.49	0.42
1:2A:35:G:H2'	1:2A:36:G:O4'	2.20	0.42
1:2A:117:G:OP2	1:2A:119:A:O2'	2.32	0.42
1:2A:448:U:H1'	5:2F:84:VAL:HG11	2.02	0.42
1:2A:579:G:H2'	1:2A:580:C:C6	2.55	0.42
1:2A:614(C):A:C2	5:2F:180:GLY:HA2	2.55	0.42
1:2A:2143:C:O2	1:2A:2149:G:N1	2.52	0.42
1:2A:2885:C:OP2	60:2A:3773:HOH:O	2.21	0.42
6:2G:101:ILE:O	6:2G:105:LYS:HE2	2.19	0.42
20:2Y:19:LYS:HE2	20:2Y:20:TYR:CE2	2.54	0.42
21:2Z:30:ASN:O	21:2Z:31:ARG:C	2.63	0.42
26:24:24:THR:OG1	26:24:25:TYR:N	2.53	0.42
30:28:10:ALA:HB3	30:28:62:LEU:HD21	2.02	0.42
32:2a:523:A:N1	43:2l:92:OTD:H6	2.35	0.42
32:2a:605:U:H2'	32:2a:606:G:O4'	2.19	0.42
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.34	0.42
48:2q:25:ARG:HG2	48:2q:38:ARG:O	2.20	0.42
50:2s:40:ILE:HD13	50:2s:62:ILE:HD12	2.02	0.42
1:1A:90:U:H1'	1:1A:92:A:C8	2.55	0.42
1:1A:285:C:H2'	1:1A:286:C:H6	1.85	0.42
1:1A:1042:G:C6	1:1A:1043:C:C4	3.08	0.42
1:1A:1423:G:H2'	1:1A:1424:G:C8	2.55	0.42
1:1A:1426:G:C6	1:1A:1427:A:C6	3.08	0.42
1:1A:2836:U:C4	1:1A:2883:A:N6	2.88	0.42
1:1A:2836:U:H2'	1:1A:2837:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:117:ASP:O	15:1T:121:ILE:HG13	2.20	0.42
32:1a:445:G:H2'	32:1a:446:G:H8	1.85	0.42
32:1a:589:C:H2'	32:1a:590:C:H6	1.85	0.42
32:1a:742:G:H5''	46:1o:58:MET:HE1	2.01	0.42
32:1a:966:M2G:HM13	32:1a:967:5MC:H1'	2.02	0.42
32:1a:1316:G:H5''	32:1a:1317:C:OP2	2.19	0.42
32:1a:1325:C:H2'	32:1a:1326:C:C6	2.55	0.42
32:1a:1370:G:C2	32:1a:1371:G:C8	3.08	0.42
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.20	0.42
1:2A:570:G:H5''	60:2A:4267:HOH:O	2.18	0.42
1:2A:622:G:OP2	11:2P:108:LYS:NZ	2.39	0.42
1:2A:1580:A:H8	1:2A:1580:A:OP2	2.03	0.42
1:2A:1639:U:OP1	60:2A:3780:HOH:O	2.22	0.42
1:2A:2280:G:O6	22:20:14:ARG:HD2	2.20	0.42
1:2A:2341:G:H2'	1:2A:2342:C:O4'	2.20	0.42
1:2A:2811:G:N2	1:2A:2891:G:H1'	2.35	0.42
4:2E:4:ILE:HG12	4:2E:5:LEU:O	2.19	0.42
6:2G:116:ASP:OD1	6:2G:116:ASP:N	2.53	0.42
11:2P:94:GLU:HG3	11:2P:124:LYS:HD3	2.01	0.42
20:2Y:55:TYR:CZ	20:2Y:61:ILE:HG21	2.54	0.42
27:25:20:ARG:HG2	27:25:23:HIS:CE1	2.55	0.42
32:2a:933:G:OP2	38:2g:3:ARG:HB2	2.18	0.42
32:2a:1147:C:C4	32:2a:1148:U:C4	3.08	0.42
32:2a:1157:A:H62	32:2a:1177:G:H22	1.66	0.42
33:2b:78:GLN:HG3	33:2b:94:ASN:OD1	2.19	0.42
33:2b:92:TYR:CD2	33:2b:151:GLY:HA3	2.54	0.42
44:2m:34:LEU:HD22	44:2m:41:PRO:HA	2.02	0.42
44:2m:74:VAL:HA	44:2m:77:ASN:HB2	2.02	0.42
55:2x:8:4SU:O5'	55:2x:8:4SU:H6	2.20	0.42
1:1A:539:G:H2'	1:1A:540:C:C6	2.55	0.42
1:1A:855:G:C2	1:1A:856:C:C2	3.08	0.42
1:1A:1557:C:H5''	1:1A:1558:A:OP2	2.20	0.42
1:1A:2556:C:O2	54:1w:240:ARG:NH2	2.49	0.42
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.84	0.42
32:1a:19:C:O2'	32:1a:572:A:N1	2.50	0.42
32:1a:132:C:H42	32:1a:230:G:H1	1.67	0.42
32:1a:524:G:H2'	32:1a:525:C:C6	2.54	0.42
32:1a:1367:C:H2'	32:1a:1368:G:O4'	2.20	0.42
32:1a:1437:C:H2'	32:1a:1438:G:H8	1.83	0.42
33:1b:119:GLU:OE2	33:1b:153:ARG:NH2	2.52	0.42
34:1c:65:ALA:HA	34:1c:100:ALA:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:80:VAL:HG21	38:1g:85:TYR:CD2	2.54	0.42
54:1w:196:THR:HG21	54:1w:296:GLY:O	2.20	0.42
55:1x:65:G:H2'	55:1x:66:U:H6	1.84	0.42
1:2A:1414:G:C6	1:2A:1415:U:C4	3.08	0.42
1:2A:1550:C:H5'	1:2A:1742:G:N2	2.34	0.42
8:2I:125:GLU:HA	8:2I:143:SER:HA	2.02	0.42
10:2O:71:ARG:NE	10:2O:105:GLU:OE2	2.51	0.42
13:2R:70:LEU:C	13:2R:72:ASP:H	2.28	0.42
22:20:82:ARG:HB2	22:20:82:ARG:HH11	1.84	0.42
32:2a:741:G:H2'	32:2a:742:G:O4'	2.20	0.42
32:2a:1067:A:O2'	32:2a:1068:G:OP2	2.29	0.42
32:2a:1144:G:N2	32:2a:1146:A:H62	2.18	0.42
32:2a:1163:C:O2	32:2a:1174:G:N2	2.53	0.42
32:2a:1288:A:H2'	32:2a:1289:A:H8	1.81	0.42
35:2d:20:TYR:HD1	35:2d:26:CYS:HB3	1.84	0.42
38:2g:73:MET:HA	38:2g:90:GLU:HA	2.02	0.42
38:2g:80:VAL:O	38:2g:82:GLY:N	2.42	0.42
1:1A:1813:G:O6	1:1A:1814:G:C2	2.72	0.41
1:1A:2114:A:N3	1:1A:2167:U:N3	2.68	0.41
1:1A:2497:A:H5''	60:1A:4390:HOH:O	2.20	0.41
1:1A:2801(A):A:H1'	1:1A:2895:U:H1'	2.00	0.41
2:1B:75:G:H22	21:1Z:73:GLN:HE21	1.68	0.41
7:1H:91:GLY:HA3	7:1H:160:LYS:HG3	2.00	0.41
8:1I:75:LEU:HD22	8:1I:105:HIS:NE2	2.35	0.41
12:1Q:57:HIS:CE1	12:1Q:116:GLU:HG2	2.54	0.41
32:1a:189:G:C6	32:1a:189(A):C:C4	3.08	0.41
32:1a:189(L):G:H2'	32:1a:190:U:C6	2.55	0.41
32:1a:601:C:H2'	32:1a:602:A:C8	2.55	0.41
32:1a:778:G:H2'	32:1a:779:C:O4'	2.20	0.41
32:1a:789:U:O2'	32:1a:791:G:N7	2.42	0.41
32:1a:1304:G:C5	32:1a:1305:G:C6	3.08	0.41
35:1d:106:TYR:HA	35:1d:111:ALA:HB3	2.01	0.41
35:1d:127:THR:HA	35:1d:132:ARG:HA	2.02	0.41
36:1e:71:LEU:HD21	36:1e:115:VAL:HG22	2.01	0.41
1:2A:288:C:H2'	1:2A:289:A:C8	2.54	0.41
1:2A:322:A:OP1	5:2F:168:ARG:HD2	2.20	0.41
1:2A:2110:G:H3'	1:2A:2111:C:C5'	2.50	0.41
12:2Q:32:TYR:OH	12:2Q:111:GLU:OE1	2.22	0.41
14:2S:49:VAL:HG11	14:2S:77:ALA:HB2	2.02	0.41
14:2S:87:PHE:CE2	14:2S:102:ALA:HB2	2.55	0.41
21:2Z:77:ASP:N	21:2Z:82:ARG:O	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:98:LEU:HD23	23:21:98:LEU:HA	1.85	0.41
28:26:23:THR:OG1	28:26:24:GLU:N	2.48	0.41
32:2a:153:C:H2'	32:2a:154:C:C6	2.55	0.41
32:2a:1312:G:H5'	50:2s:5:LEU:CD2	2.49	0.41
32:2a:1372:U:H5''	40:2i:71:SER:HB3	2.01	0.41
33:2b:168:THR:HG21	33:2b:192:SER:HA	2.01	0.41
38:2g:85:TYR:CG	38:2g:154:TYR:HE2	2.37	0.41
44:2m:23:TYR:HA	44:2m:24:GLY:HA2	1.73	0.41
44:2m:89:GLY:O	44:2m:93:ARG:HG3	2.19	0.41
1:1A:27:G:N2	1:1A:512:G:H1'	2.35	0.41
1:1A:65:C:H2'	1:1A:66:C:H6	1.85	0.41
1:1A:1358:G:O2'	1:1A:1359:A:H5''	2.20	0.41
1:1A:2131:G:C2	1:1A:2158:A:N6	2.89	0.41
1:1A:2405:G:OP1	11:1P:77:ARG:NH2	2.53	0.41
10:1O:10:VAL:HG21	10:1O:16:ALA:HB1	2.02	0.41
11:1P:1:MET:HE3	11:1P:5:ASP:HB3	2.01	0.41
12:1Q:103:MET:HE1	12:1Q:125:LEU:HD13	2.02	0.41
32:1a:445:G:H2'	32:1a:446:G:C8	2.55	0.41
32:1a:554:C:H2'	32:1a:555:C:C6	2.54	0.41
33:1b:160:ASP:O	33:1b:183:PRO:HD2	2.19	0.41
34:1c:26:LYS:HB3	34:1c:26:LYS:HE2	1.73	0.41
36:1e:40:ARG:HB3	36:1e:66:MET:HE3	2.02	0.41
41:1j:12:ASP:OD2	41:1j:15:THR:HG23	2.19	0.41
45:1n:40:CYS:SG	45:1n:42:ILE:HB	2.60	0.41
54:1w:149:PRO:HA	54:1w:155:PHE:HD1	1.85	0.41
1:2A:234:C:H2'	1:2A:235:U:C6	2.55	0.41
1:2A:320:A:H4'	1:2A:322:A:C8	2.56	0.41
1:2A:464:U:H2'	1:2A:465:G:O4'	2.21	0.41
1:2A:1301:A:H2	1:2A:1626:G:N3	2.17	0.41
1:2A:1662:C:O2'	1:2A:2687:U:OP1	2.36	0.41
1:2A:2786:U:H4'	4:2E:65:GLY:O	2.20	0.41
1:2A:2807:G:C2	1:2A:2808:U:H1'	2.54	0.41
4:2E:93:VAL:HG21	4:2E:180:ASN:HA	2.02	0.41
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.84	0.41
11:2P:98:GLU:O	11:2P:101:VAL:HG22	2.20	0.41
13:2R:11:ASN:ND2	60:2R:301:HOH:O	2.51	0.41
14:2S:83:LYS:HB2	14:2S:83:LYS:HE3	1.84	0.41
16:2U:36:ARG:HG2	16:2U:40:PHE:CE2	2.55	0.41
32:2a:491:G:H2'	32:2a:492:G:H8	1.85	0.41
32:2a:778:G:H2'	32:2a:779:C:O4'	2.20	0.41
32:2a:1314:C:H5	50:2s:4:SER:HB2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:12:LEU:HD22	36:2e:128:PRO:HB2	2.03	0.41
38:2g:78:ARG:HG2	38:2g:79:ARG:H	1.84	0.41
42:2k:91:ARG:HE	42:2k:91:ARG:HB3	1.54	0.41
49:2r:74:ARG:HB2	49:2r:81:PHE:CZ	2.56	0.41
54:2w:144:VAL:HA	54:2w:160:PHE:HA	2.02	0.41
1:1A:271(L):U:H4'	8:1I:50:ARG:NH1	2.34	0.41
1:1A:2175:C:H3'	1:1A:2176:A:C8	2.55	0.41
1:1A:2379:G:O2'	14:1S:17:ARG:NH1	2.51	0.41
1:1A:2507:C:H4'	54:1w:233:ASN:O	2.21	0.41
6:1G:128:ARG:HA	6:1G:128:ARG:HD3	1.86	0.41
13:1R:54:LEU:HD23	13:1R:54:LEU:HA	1.90	0.41
17:1V:1:MET:HB2	17:1V:43:GLU:OE1	2.20	0.41
19:1X:35:THR:O	19:1X:39:ILE:HG13	2.20	0.41
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.55	0.41
32:1a:1190:G:O2'	34:1c:3:ASN:ND2	2.51	0.41
32:1a:1325:C:H4'	52:1u:17:THR:HG21	2.02	0.41
32:1a:1519:MA6:H102	32:1a:1520:G:O2'	2.20	0.41
34:1c:11:ARG:HB3	34:1c:15:THR:HB	2.03	0.41
40:1i:108:VAL:HG22	40:1i:109:VAL:H	1.85	0.41
1:2A:857:C:H1'	22:20:26:TYR:CE1	2.55	0.41
1:2A:1131:G:C2	1:2A:1132:A:C4	3.09	0.41
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.21	0.41
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.21	0.41
1:2A:1784:A:O2'	60:2A:3768:HOH:O	2.20	0.41
1:2A:2308:G:H5'	1:2A:2310:A:OP2	2.20	0.41
1:2A:2365:G:OP1	22:20:55:ARG:HG2	2.21	0.41
1:2A:2680:C:H1'	4:2E:187:ALA:HB1	2.01	0.41
2:2B:11:C:H3'	2:2B:12:C:C6	2.55	0.41
13:2R:33:ARG:HA	13:2R:114:VAL:O	2.20	0.41
17:2V:1:MET:HE3	17:2V:40:LEU:HB3	2.02	0.41
24:22:32:LEU:HD12	24:22:53:LEU:HB3	2.02	0.41
29:27:1:MET:HE3	29:27:3:ARG:NH2	2.35	0.41
32:2a:448:A:OP2	32:2a:485:G:N1	2.50	0.41
32:2a:673:G:N2	32:2a:674:G:C2	2.88	0.41
32:2a:688:G:H2'	32:2a:689:C:H6	1.84	0.41
32:2a:875:C:H1'	39:2h:15:ASN:OD1	2.20	0.41
32:2a:1331:G:O6	52:2u:7:ARG:NH2	2.53	0.41
1:1A:588:U:O4	1:1A:670:A:H1'	2.20	0.41
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.56	0.41
1:1A:2100:G:O2'	1:1A:2101:G:H5'	2.21	0.41
3:1D:70:TRP:O	3:1D:73:VAL:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:63:ASP:OD1	21:1Z:64:GLY:N	2.53	0.41
25:13:4:LEU:O	25:13:36:VAL:HA	2.20	0.41
32:1a:243:A:H4'	32:1a:244:U:H5''	2.02	0.41
32:1a:340:U:H2'	32:1a:341:C:O4'	2.20	0.41
38:1g:30:ILE:HD13	38:1g:120:ILE:HD13	2.03	0.41
42:1k:32:ILE:HB	42:1k:41:THR:HG22	2.02	0.41
44:1m:20:THR:C	44:1m:22:ILE:H	2.28	0.41
44:1m:70:LEU:HD23	44:1m:70:LEU:HA	1.88	0.41
45:1n:14:PRO:HB2	45:1n:16:PHE:O	2.20	0.41
54:1w:299:SER:O	54:1w:301:LYS:N	2.53	0.41
1:2A:289:A:H2'	1:2A:290:G:O4'	2.20	0.41
1:2A:1021:A:H62	1:2A:1141:U:H3	1.68	0.41
1:2A:1330:C:H2'	1:2A:1331:A:C8	2.56	0.41
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.56	0.41
1:2A:2443:C:H2'	1:2A:2444:G:H8	1.84	0.41
1:2A:2579:C:H4'	4:2E:134:ILE:HG12	2.02	0.41
1:2A:2745:C:C4	1:2A:2746:U:C4	3.08	0.41
3:2D:70:TRP:HB3	3:2D:190:TYR:CZ	2.55	0.41
3:2D:242:ARG:HG3	3:2D:242:ARG:NH1	2.31	0.41
5:2F:9:ILE:HG21	5:2F:125:LEU:HD22	2.02	0.41
8:2I:84:GLY:O	8:2I:86:THR:N	2.50	0.41
8:2I:126:TYR:O	8:2I:141:LYS:HA	2.20	0.41
10:2O:91:LEU:HB3	10:2O:111:PHE:HE1	1.86	0.41
13:2R:55:ALA:HA	13:2R:80:PHE:CE1	2.55	0.41
19:2X:55:ASN:HB2	19:2X:80:ILE:HB	2.02	0.41
19:2X:84:ALA:HB3	19:2X:87:GLN:NE2	2.35	0.41
21:2Z:71:VAL:HG22	21:2Z:88:PHE:CE1	2.54	0.41
21:2Z:182:LYS:C	21:2Z:184:ALA:H	2.29	0.41
32:2a:664:G:N2	32:2a:741:G:H1	1.99	0.41
32:2a:1025:U:H4'	32:2a:1026:G:OP1	2.19	0.41
32:2a:1080:A:H5''	32:2a:1081:G:OP2	2.21	0.41
33:2b:185:ILE:CG2	33:2b:199:TYR:HB2	2.50	0.41
33:2b:189:ASP:HB2	33:2b:191:ASP:OD1	2.19	0.41
35:2d:26:CYS:HA	59:2d:302:SF4:S3	2.60	0.41
37:2f:73:ASN:HD22	37:2f:73:ASN:HA	1.67	0.41
40:2i:87:GLN:HE21	40:2i:87:GLN:HB3	1.57	0.41
47:2p:23:ASP:OD2	47:2p:25:ARG:NH2	2.53	0.41
1:1A:12:U:O2	1:1A:12:U:H2'	2.21	0.41
1:1A:686:G:H8	29:17:6:GLN:O	2.03	0.41
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.20	0.41
4:1E:145:LYS:HZ2	4:1E:145:LYS:HG2	1.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:13:15:TYR:CE2	25:13:53:LEU:HD21	2.55	0.41
32:1a:418:C:H2'	32:1a:419:C:C6	2.56	0.41
32:1a:662:G:H2'	32:1a:663:A:C8	2.55	0.41
32:1a:691:G:O2'	32:1a:797:C:H4'	2.20	0.41
32:1a:757:U:H2'	32:1a:758:G:O4'	2.20	0.41
32:1a:881:G:H2'	32:1a:882:C:O4'	2.19	0.41
32:1a:990:C:C2	32:1a:1216:G:C2	3.09	0.41
32:1a:1063:C:H3'	32:1a:1064:G:H2'	2.01	0.41
32:1a:1069:C:O2'	32:1a:1192:C:H1'	2.20	0.41
32:1a:1090:U:H3	32:1a:1095:U:H3	1.68	0.41
36:1e:80:ILE:HD12	36:1e:80:ILE:HA	1.83	0.41
43:1l:36:VAL:O	43:1l:59:ARG:N	2.53	0.41
47:1p:71:ARG:HG3	47:1p:80:PHE:CZ	2.56	0.41
52:1u:9:ARG:HG3	52:1u:22:ARG:HD2	2.02	0.41
54:1w:115:THR:O	54:1w:195:SER:HA	2.20	0.41
55:1x:62:C:H2'	55:1x:63:G:H8	1.85	0.41
1:2A:779:U:OP1	3:2D:49:ILE:HG13	2.20	0.41
1:2A:1355:G:OP2	3:2D:38:LYS:NZ	2.53	0.41
1:2A:2771:C:H2'	1:2A:2772:C:C6	2.55	0.41
1:2A:2784:C:H2'	1:2A:2785:C:C6	2.55	0.41
1:2A:2887:U:H2'	1:2A:2888:C:C6	2.56	0.41
2:2B:106:G:C5'	21:2Z:31:ARG:HG2	2.50	0.41
5:2F:40:GLN:OE1	5:2F:183:VAL:HG13	2.19	0.41
32:2a:189(A):C:H2'	32:2a:189(B):C:C6	2.56	0.41
32:2a:222:U:H2'	32:2a:223:U:C6	2.55	0.41
32:2a:435:C:H2'	32:2a:436:C:H6	1.85	0.41
32:2a:577:G:C8	32:2a:816:A:C6	3.08	0.41
33:2b:71:VAL:O	33:2b:165:VAL:HG23	2.20	0.41
33:2b:121:LEU:N	33:2b:125:PRO:HD2	2.36	0.41
38:2g:78:ARG:HG3	38:2g:156:TRP:HZ3	1.86	0.41
39:2h:54:ASP:O	39:2h:56:LYS:HD2	2.20	0.41
41:2j:11:PHE:HE1	41:2j:67:THR:HG22	1.86	0.41
44:2m:79:LYS:HA	44:2m:82:MET:HE2	2.02	0.41
54:2w:264:LYS:O	54:2w:268:ILE:HG13	2.21	0.41
1:1A:1862:G:H2'	1:1A:1863:G:H8	1.85	0.41
1:1A:2563:U:H1'	1:1A:2566:A:C6	2.56	0.41
5:1F:65:TRP:CZ2	5:1F:75:HIS:HD2	2.38	0.41
5:1F:195:ASP:CB	5:1F:198:ALA:H	2.33	0.41
6:1G:179:PRO:HB2	26:14:42:PHE:CE2	2.55	0.41
11:1P:131:SER:O	11:1P:135:LEU:HB2	2.20	0.41
13:1R:98:LEU:HD12	27:15:57:VAL:HG11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:1S:25:ARG:HD3	14:1S:42:ASP:OD2	2.21	0.41
19:1X:46:ALA:HA	24:12:30:ARG:HH12	1.85	0.41
21:1Z:111:VAL:C	21:1Z:113:ALA:N	2.79	0.41
24:12:51:ARG:HD3	24:12:55:ARG:NH2	2.34	0.41
30:18:31:HIS:CD2	30:18:32:LEU:HD22	2.55	0.41
32:1a:363:A:C5	43:1l:31:PRO:HD2	2.55	0.41
32:1a:635:G:C6	32:1a:636:U:C4	3.08	0.41
32:1a:685:G:C2	32:1a:686:U:C4	3.08	0.41
32:1a:1100:C:O2'	32:1a:1102:A:OP1	2.34	0.41
32:1a:1258:G:H1	32:1a:1277:C:H42	1.68	0.41
32:1a:1258:G:H2'	32:1a:1259:C:C6	2.56	0.41
33:1b:53:ARG:NH1	33:1b:198:ASP:O	2.50	0.41
34:1c:152:ILE:O	34:1c:198:VAL:HA	2.20	0.41
34:1c:188:LEU:HD11	34:1c:190:ARG:NH2	2.36	0.41
35:1d:155:LEU:HD13	35:1d:156:GLU:N	2.35	0.41
42:1k:48:ILE:O	42:1k:50:TYR:N	2.44	0.41
44:1m:35:GLU:C	44:1m:38:GLY:H	2.26	0.41
51:1t:77:ALA:O	51:1t:81:LYS:HG3	2.20	0.41
1:2A:711:G:C6	1:2A:712:G:C5	3.09	0.41
1:2A:1315:C:C2	1:2A:1338:G:N2	2.89	0.41
1:2A:1547:C:H2'	1:2A:1548:C:C6	2.55	0.41
1:2A:1847:A:H3'	1:2A:1848:A:H5'	2.01	0.41
1:2A:2662:A:H8	1:2A:2662:A:O5'	2.04	0.41
2:2B:76:G:O3'	21:2Z:19:ARG:NH2	2.54	0.41
4:2E:143:ASN:HB2	4:2E:147:PRO:HD2	2.02	0.41
10:2O:13:ASN:ND2	10:2O:97:ARG:HG2	2.35	0.41
15:2T:11:GLU:OE1	15:2T:57:PHE:HB3	2.20	0.41
25:23:35:ARG:HH21	25:23:37:LEU:HD21	1.85	0.41
32:2a:189(B):C:H2'	32:2a:189(C):C:H6	1.85	0.41
32:2a:201:C:H5'	32:2a:202:U:OP2	2.20	0.41
32:2a:391:G:C6	32:2a:392:G:C5	3.08	0.41
32:2a:790:A:C6	32:2a:791:G:C6	3.09	0.41
32:2a:1127:G:H2'	32:2a:1128:C:C6	2.56	0.41
32:2a:1273:G:C8	32:2a:1274:G:C8	3.08	0.41
1:1A:1070:A:N7	1:1A:1096:A:H2'	2.36	0.41
1:1A:2298:A:H2'	1:1A:2299:G:O4'	2.21	0.41
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.20	0.41
4:1E:104:VAL:HG11	4:1E:188:VAL:HG22	2.02	0.41
5:1F:34:TRP:CH2	11:1P:8:PRO:HB3	2.56	0.41
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	2.02	0.41
32:1a:875:C:C1'	39:1h:15:ASN:HD21	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1053:G:O2'	32:1a:1199:U:OP2	2.26	0.41
32:1a:1187:G:OP1	40:1i:113:LYS:HD3	2.21	0.41
32:1a:1312:G:H5'	50:1s:5:LEU:HD21	2.02	0.41
35:1d:127:THR:HG23	35:1d:147:ALA:HB3	2.01	0.41
39:1h:134:ILE:HG22	39:1h:135:CYS:SG	2.60	0.41
54:1w:303:ARG:HD2	54:1w:305:TYR:OH	2.19	0.41
1:2A:98:G:H5''	24:22:3:LEU:HD12	2.03	0.41
1:2A:263:C:H2'	1:2A:264:C:O4'	2.21	0.41
1:2A:882:G:H1	1:2A:894:C:H42	1.68	0.41
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.56	0.41
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.55	0.41
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.84	0.41
1:2A:1839:G:C8	1:2A:1927:A:H1'	2.56	0.41
1:2A:2293:C:H2'	1:2A:2294:C:C6	2.55	0.41
1:2A:2443:C:H2'	1:2A:2444:G:C8	2.56	0.41
6:2G:51:ARG:HD2	6:2G:51:ARG:H	1.86	0.41
7:2H:3:ARG:HH21	7:2H:65:HIS:HB3	1.86	0.41
7:2H:30:LYS:HE2	7:2H:30:LYS:HA	2.02	0.41
9:2N:91:LEU:HA	9:2N:95:PRO:HA	2.02	0.41
10:2O:103:ALA:HB1	10:2O:105:GLU:OE1	2.19	0.41
12:2Q:56:ARG:HE	12:2Q:56:ARG:HB2	1.70	0.41
20:2Y:11:ASP:OD2	20:2Y:97:ARG:NH2	2.53	0.41
30:28:50:LEU:HA	30:28:50:LEU:HD23	1.81	0.41
32:2a:65:U:O4'	32:2a:200:G:H4'	2.21	0.41
32:2a:328:C:H4'	32:2a:329:A:C5'	2.47	0.41
32:2a:736:C:H2'	32:2a:737:A:C8	2.56	0.41
36:2e:125:SER:O	36:2e:131:ILE:HD11	2.20	0.41
38:2g:16:LEU:HD21	40:2i:45:ALA:HB2	2.02	0.41
44:2m:44:ARG:HB2	44:2m:47:ASP:OD1	2.20	0.41
50:2s:57:HIS:H	50:2s:57:HIS:CD2	2.37	0.41
54:2w:227:PRO:HB2	60:2w:502:HOH:O	2.21	0.41
1:1A:443:A:C5	5:1F:45:ARG:HD2	2.55	0.41
1:1A:1419:A:O2'	1:1A:1421:G:N7	2.50	0.41
1:1A:1435:G:H2'	1:1A:1436:G:O4'	2.20	0.41
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.50	0.41
1:1A:2281:C:C2'	1:1A:2282:G:H5'	2.51	0.41
1:1A:2841:C:H2'	1:1A:2842:G:H8	1.85	0.41
5:1F:37:VAL:HA	5:1F:40:GLN:HG3	2.02	0.41
18:1W:23:LEU:HD21	27:15:25:LEU:HB2	2.02	0.41
32:1a:596:C:H2'	32:1a:597:G:C8	2.56	0.41
32:1a:750:G:H1'	46:1o:22:THR:OG1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1269:A:H2	32:1a:1312:G:N3	2.18	0.41
35:1d:163:GLU:C	35:1d:165:MET:H	2.29	0.41
36:1e:110:LEU:HD13	36:1e:118:ILE:HD13	2.02	0.41
1:2A:527:C:C5	1:2A:2779:U:H2'	2.56	0.41
1:2A:638:G:H2'	1:2A:639:U:O4'	2.21	0.41
1:2A:740:U:H2'	1:2A:741:G:C8	2.56	0.41
1:2A:792:G:N3	1:2A:2072:G:O2'	2.48	0.41
1:2A:1357:U:H5''	29:27:23:ARG:NH2	2.35	0.41
1:2A:2466:C:OP1	31:29:4:ARG:HB2	2.21	0.41
1:2A:2869:G:H2'	1:2A:2870:C:O4'	2.19	0.41
4:2E:4:ILE:HD11	4:2E:29:GLY:HA2	2.03	0.41
7:2H:8:PRO:HB3	7:2H:51:ARG:HG2	2.01	0.41
11:2P:52:GLU:OE2	11:2P:58:THR:HG23	2.19	0.41
14:2S:68:GLN:HG2	14:2S:71:ARG:NH1	2.35	0.41
14:2S:94:TYR:CZ	14:2S:99:LYS:HG3	2.56	0.41
16:2U:104:GLN:H	16:2U:104:GLN:CD	2.29	0.41
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.21	0.41
24:22:53:LEU:O	24:22:57:ILE:HG13	2.21	0.41
32:2a:148:G:H2'	32:2a:149:A:C8	2.55	0.41
32:2a:1004:A:N3	32:2a:1038:C:C2	2.88	0.41
32:2a:1226:C:N4	44:2m:104:ARG:HE	2.19	0.41
32:2a:1279:A:O2'	32:2a:1282:C:N4	2.54	0.41
39:2h:21:LYS:O	39:2h:63:LEU:HD12	2.20	0.41
40:2i:99:LEU:HD22	40:2i:101:PHE:CZ	2.55	0.41
43:2l:28:LYS:HD2	43:2l:62:SER:HB2	2.03	0.41
54:2w:284:ARG:CZ	54:2w:284:ARG:HB2	2.50	0.41
1:1A:27:G:C2	1:1A:512:G:N3	2.89	0.41
1:1A:208:C:H2'	1:1A:209:C:H6	1.86	0.41
1:1A:271(X):G:C2	1:1A:271(Y):U:O4	2.73	0.41
1:1A:457:A:N1	1:1A:470:A:H5''	2.36	0.41
1:1A:652(C):G:N2	1:1A:653:A:H1'	2.36	0.41
1:1A:784:A:N6	3:1D:229:VAL:HG11	2.35	0.41
1:1A:865:C:H4'	1:1A:866:A:N7	2.35	0.41
1:1A:1082:U:H3	1:1A:1086:A:N6	2.18	0.41
1:1A:1243:G:H2'	1:1A:1244:G:O4'	2.20	0.41
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.21	0.41
1:1A:1654:A:OP1	13:1R:1:MET:N	2.31	0.41
1:1A:2100:G:H1'	1:1A:2190:G:N2	2.35	0.41
1:1A:2370:G:C6	1:1A:2371:G:C6	3.08	0.41
2:1B:66:A:H61	2:1B:109:C:H5'	1.86	0.41
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:196:LEU:HD23	5:1F:196:LEU:HA	1.87	0.41
6:1G:135:LEU:O	6:1G:154:GLY:HA3	2.20	0.41
15:1T:45:PHE:CZ	15:1T:65:LYS:HG2	2.56	0.41
19:1X:44:GLU:HG2	19:1X:49:VAL:O	2.21	0.41
20:1Y:17:SER:OG	20:1Y:71:LYS:NZ	2.48	0.41
25:13:19:GLN:OE1	25:13:52:HIS:NE2	2.51	0.41
27:15:47:PRO:O	27:15:60:VAL:HG11	2.20	0.41
32:1a:19:C:H4'	32:1a:864:A:O4'	2.21	0.41
32:1a:160:A:C2	32:1a:343:U:H5'	2.56	0.41
32:1a:271:C:H2'	32:1a:272:C:C6	2.56	0.41
32:1a:406:G:C2	32:1a:407:G:C8	3.08	0.41
32:1a:437:U:OP1	35:1d:155:LEU:HD21	2.21	0.41
32:1a:627:G:H2'	32:1a:628:G:H8	1.86	0.41
32:1a:1095:U:OP1	32:1a:1108:G:N1	2.50	0.41
32:1a:1137:C:H4'	32:1a:1138:G:N3	2.35	0.41
33:1b:48:MET:HA	33:1b:51:LEU:HB2	2.02	0.41
34:1c:112:SER:O	34:1c:116:VAL:HG23	2.21	0.41
35:1d:111:ALA:HA	35:1d:116:GLN:HE21	1.86	0.41
36:1e:50:GLU:HB3	36:1e:52:PRO:HD2	2.02	0.41
40:1i:90:PRO:O	40:1i:93:ARG:HG2	2.21	0.41
48:1q:19:VAL:HG23	48:1q:44:ALA:HB3	2.03	0.41
49:1r:22:VAL:HA	49:1r:25:THR:HG23	2.03	0.41
55:1y:46:G7M:H8	55:1y:46:G7M:H2'	1.83	0.41
1:2A:532:A:H4'	1:2A:533:G:C8	2.55	0.41
1:2A:1155:A:H5''	16:2U:55:ARG:HD3	2.03	0.41
1:2A:1221(A):C:C2	1:2A:1229:G:C2	3.09	0.41
1:2A:1530:C:O2'	1:2A:1531:C:P	2.79	0.41
1:2A:1815:A:P	3:2D:54:ARG:HH22	2.44	0.41
1:2A:2093:G:C6	1:2A:2225:A:C8	3.09	0.41
1:2A:2101:G:H1	1:2A:2188:C:H42	1.69	0.41
1:2A:2186:G:H2'	1:2A:2187:G:H8	1.85	0.41
1:2A:2342:C:O2'	1:2A:2374:C:H5''	2.21	0.41
2:2B:113:G:H2'	2:2B:114:C:C6	2.56	0.41
3:2D:275:LYS:H	3:2D:275:LYS:HG3	1.63	0.41
5:2F:67:GLN:O	5:2F:67:GLN:HG3	2.20	0.41
9:2N:4:TYR:O	16:2U:64:ARG:NH2	2.46	0.41
11:2P:62:LEU:O	30:28:13:ARG:NH1	2.44	0.41
11:2P:131:SER:HB2	11:2P:134:ALA:H	1.86	0.41
17:2V:72:VAL:HB	17:2V:85:LYS:HB3	2.02	0.41
19:2X:5:TYR:CZ	24:22:30:ARG:HB2	2.56	0.41
19:2X:68:ARG:HE	19:2X:68:ARG:HB3	1.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:134:PRO:HB2	21:2Z:136:PHE:O	2.20	0.41
22:20:53:MET:HG2	22:20:57:PHE:HA	2.03	0.41
29:27:16:HIS:HB2	29:27:44:PRO:HG2	2.02	0.41
32:2a:109:A:H2'	32:2a:326:G:N2	2.36	0.41
32:2a:114:U:H2'	32:2a:115:G:C8	2.56	0.41
32:2a:505:G:C6	32:2a:535:A:C2	3.09	0.41
32:2a:647:C:H2'	32:2a:648:A:O4'	2.20	0.41
32:2a:838:G:H3'	32:2a:840:C:H41	1.86	0.41
32:2a:866:C:C4	32:2a:867:G:H1'	2.56	0.41
32:2a:1212:U:H5''	32:2a:1213:A:O5'	2.21	0.41
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	2.03	0.41
32:2a:1523:G:H2'	32:2a:1524:C:C6	2.56	0.41
33:2b:75:LYS:HA	33:2b:78:GLN:HB2	2.03	0.41
34:2c:68:VAL:HG12	34:2c:70:VAL:HG23	2.03	0.41
38:2g:13:GLN:HE21	38:2g:14:PRO:HD2	1.86	0.41
39:2h:9:MET:HE1	39:2h:35:ILE:HB	2.02	0.41
51:2t:44:ALA:HB1	51:2t:91:LEU:HB2	2.03	0.41
54:2w:336:LEU:O	54:2w:340:LYS:HE3	2.21	0.41
1:1A:1087:G:N2	1:1A:1103:A:H1'	2.36	0.41
1:1A:2052:G:H4'	4:1E:143:ASN:O	2.21	0.41
2:1B:103:G:H21	21:1Z:73:GLN:NE2	2.14	0.41
3:1D:132:PRO:HD3	3:1D:190:TYR:CZ	2.56	0.41
4:1E:61:ARG:N	4:1E:62:PRO:HD2	2.36	0.41
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.55	0.41
12:1Q:30:GLY:HA2	12:1Q:107:ALA:HB2	2.02	0.41
13:1R:96:ARG:CZ	13:1R:117:VAL:HG12	2.51	0.41
24:12:2:LYS:O	24:12:6:VAL:HG23	2.21	0.41
27:15:17:ASP:HA	27:15:20:ARG:HG3	2.02	0.41
31:19:27:CYS:SG	31:19:28:GLU:N	2.94	0.41
32:1a:555:C:H2'	32:1a:556:C:C6	2.55	0.41
32:1a:1441:G:O2'	32:1a:1460:A:N6	2.54	0.41
32:1a:1465:C:H2'	32:1a:1466:C:O4'	2.21	0.41
32:1a:1493:A:N7	54:1w:115:THR:HG23	2.36	0.41
40:1i:16:ARG:HD3	40:1i:64:THR:HG21	2.03	0.41
41:1j:16:LEU:HD11	41:1j:70:ARG:HG2	2.01	0.41
45:1n:58:LYS:HE2	45:1n:58:LYS:HB3	1.83	0.41
51:1t:29:LYS:O	51:1t:33:ILE:HG13	2.20	0.41
55:1y:7:A:O2'	55:1y:49:C:O5'	2.37	0.41
1:2A:324:A:H2'	1:2A:325:G:O4'	2.21	0.41
1:2A:360:G:H2'	1:2A:361:G:O4'	2.20	0.41
1:2A:394:A:C6	1:2A:395:U:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1359:A:N1	1:2A:1372:U:O4	2.53	0.41
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.51	0.41
1:2A:1697:G:OP2	1:2A:1698:A:O2'	2.34	0.41
1:2A:2853:C:H2'	1:2A:2854:G:C8	2.56	0.41
3:2D:75:ILE:HG21	3:2D:99:ASP:OD2	2.21	0.41
20:2Y:37:VAL:N	20:2Y:67:LEU:O	2.40	0.41
23:21:8:SER:HB3	23:21:66:HIS:NE2	2.36	0.41
24:22:10:LEU:HA	24:22:10:LEU:HD23	1.89	0.41
32:2a:166:G:H2'	32:2a:167:G:H8	1.86	0.41
32:2a:324:G:N1	32:2a:327:A:OP2	2.54	0.41
32:2a:1080:A:OP1	36:2e:47:LYS:HD3	2.21	0.41
32:2a:1289:A:OP1	52:2u:10:ARG:NH2	2.43	0.41
34:2c:129:ALA:O	34:2c:133:ALA:N	2.51	0.41
35:2d:31:CYS:SG	35:2d:33:MET:HB2	2.61	0.41
37:2f:62:TRP:CZ3	37:2f:64:GLN:HB2	2.56	0.41
40:2i:7:THR:O	40:2i:83:ARG:NH1	2.47	0.41
44:2m:95:GLY:O	44:2m:110:ARG:HG3	2.21	0.41
45:2n:24:CYS:HB2	45:2n:40:CYS:HB3	2.03	0.41
50:2s:50:ALA:HA	50:2s:58:VAL:O	2.20	0.41
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.21	0.41
54:2w:302:ILE:HG13	54:2w:316:ARG:HD3	2.01	0.41
54:2w:307:PHE:CZ	54:2w:328:LEU:HD11	2.56	0.41
1:1A:207:A:H2'	1:1A:208:C:O4'	2.20	0.40
1:1A:236:C:H2'	1:1A:237:C:H6	1.86	0.40
1:1A:265:A:N1	1:1A:427:U:O2'	2.50	0.40
1:1A:372:G:H8	23:11:65:SER:O	2.04	0.40
1:1A:1490:A:O2'	3:1D:99:ASP:OD1	2.39	0.40
1:1A:2054:A:OP1	1:1A:2055:C:O2'	2.28	0.40
1:1A:2729:G:H2'	1:1A:2730:C:O4'	2.21	0.40
8:1I:12:LEU:HD13	8:1I:12:LEU:HA	1.87	0.40
9:1N:62:VAL:HG13	9:1N:66:LYS:HB2	2.03	0.40
32:1a:738:C:H2'	32:1a:739:C:C6	2.56	0.40
32:1a:1330:U:H2'	32:1a:1331:G:H5'	2.03	0.40
32:1a:1350:A:H2'	32:1a:1351:U:O4'	2.20	0.40
34:1c:91:LEU:O	34:1c:95:THR:HG22	2.21	0.40
34:1c:179:ARG:CD	34:1c:206:GLU:HB3	2.51	0.40
35:1d:120:LEU:HB3	35:1d:126:ILE:HD11	2.02	0.40
36:1e:31:LEU:HD23	36:1e:31:LEU:HA	1.76	0.40
41:1j:97:GLU:OE1	41:1j:97:GLU:HA	2.21	0.40
42:1k:73:MET:HE1	42:1k:101:SER:O	2.21	0.40
54:1w:179:ARG:HH21	54:1w:301:LYS:HD3	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:1w:182:ARG:HB3	54:1w:307:PHE:HB2	2.03	0.40
55:1y:55:PSU:C2	55:1y:57:G:H5'	2.56	0.40
1:2A:39:C:O2	5:2F:46:ARG:NH2	2.54	0.40
1:2A:172:C:H2'	1:2A:173:G:C8	2.56	0.40
1:2A:228:A:O2'	1:2A:229:A:H4'	2.21	0.40
1:2A:2065:C:H4'	1:2A:2251:OMG:HM22	2.02	0.40
1:2A:2740:A:C6	1:2A:2741:A:C6	3.09	0.40
5:2F:28:ILE:HD13	5:2F:116:ASP:HB2	2.02	0.40
5:2F:117:ARG:NH2	11:2P:1:MET:O	2.54	0.40
6:2G:144:ILE:HD13	6:2G:144:ILE:HA	1.91	0.40
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	2.03	0.40
13:2R:104:ARG:HB2	13:2R:107:ASP:OD1	2.21	0.40
23:21:64:ALA:HA	23:21:67:ILE:HG13	2.02	0.40
28:26:38:LYS:HE3	28:26:38:LYS:HB3	1.76	0.40
32:2a:926:G:H3'	32:2a:1505:G:H21	1.86	0.40
32:2a:947:G:C2	32:2a:948:C:C2	3.09	0.40
32:2a:1015:A:H2'	32:2a:1016:A:O4'	2.22	0.40
33:2b:109:SER:HA	33:2b:112:VAL:HG13	2.02	0.40
35:2d:61:LYS:HB3	35:2d:61:LYS:HE2	1.81	0.40
37:2f:67:MET:SD	37:2f:75:LEU:HD13	2.62	0.40
38:2g:72:ARG:HH22	38:2g:138:LYS:NZ	2.18	0.40
39:2h:95:VAL:HG22	39:2h:96:GLY:O	2.21	0.40
43:2l:46:LYS:HD3	43:2l:94:PRO:HG3	2.02	0.40
43:2l:83:VAL:HG21	43:2l:100:ILE:HD13	2.02	0.40
55:2y:5:G:H1	55:2y:68:C:H42	1.69	0.40
1:1A:483:A:O4'	20:1Y:48:ALA:HB1	2.21	0.40
1:1A:1022:G:C5	1:1A:1140:C:C4	3.09	0.40
1:1A:1700:A:H2'	1:1A:1701:A:H5'	2.03	0.40
1:1A:2224:G:H4'	1:1A:2226:C:C2	2.56	0.40
1:1A:2748:A:OP1	7:1H:70:THR:OG1	2.32	0.40
4:1E:33:VAL:HG13	4:1E:89:ASP:C	2.46	0.40
7:1H:52:VAL:HG12	7:1H:65:HIS:CD2	2.56	0.40
21:1Z:65:GLN:NE2	21:1Z:67:LEU:HD21	2.35	0.40
24:12:65:ASN:O	24:12:69:ARG:HG3	2.21	0.40
25:13:31:LEU:HD23	25:13:31:LEU:HA	1.70	0.40
32:1a:19:C:OP1	36:1e:130:ASN:ND2	2.54	0.40
32:1a:40:C:H2'	32:1a:41:G:C8	2.56	0.40
32:1a:541:G:C4	32:1a:542:G:C8	3.09	0.40
32:1a:958:A:C4	50:1s:55:LYS:HD2	2.56	0.40
32:1a:1207:2MG:H2'	32:1a:1208:C:H6	1.85	0.40
32:1a:1229:A:OP2	44:1m:114:ARG:HD3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1250:A:H2'	32:1a:1251:A:C8	2.57	0.40
1:2A:764:A:H2	3:2D:219:PRO:HG3	1.87	0.40
1:2A:1243:G:O3'	11:2P:7:ARG:HD3	2.21	0.40
1:2A:1772:G:N2	1:2A:1774:C:OP1	2.54	0.40
1:2A:2152:G:H2'	1:2A:2153:G:O4'	2.21	0.40
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.56	0.40
2:2B:106:G:H5'	21:2Z:31:ARG:HG2	2.03	0.40
2:2B:114:C:H4'	14:2S:46:VAL:HG22	2.04	0.40
3:2D:26:LYS:HD3	3:2D:83:GLU:OE2	2.21	0.40
4:2E:77:ILE:HG13	4:2E:195:LEU:HD13	2.03	0.40
8:2I:105:HIS:C	8:2I:107:VAL:H	2.29	0.40
8:2I:140:LEU:CD1	8:2I:142:VAL:HG23	2.51	0.40
12:2Q:78:PRO:HD2	12:2Q:81:VAL:HG21	2.02	0.40
18:2W:88:ARG:HD2	18:2W:88:ARG:HA	1.85	0.40
20:2Y:68:HIS:HB3	20:2Y:71:LYS:HD2	2.03	0.40
26:24:61:ARG:NH1	50:2s:41:VAL:HA	2.35	0.40
32:2a:583:A:H2'	32:2a:584:G:O4'	2.21	0.40
32:2a:818:G:O2'	32:2a:819:A:H5'	2.21	0.40
32:2a:1239:A:H62	32:2a:1299:A:N6	2.19	0.40
35:2d:160:GLN:HA	35:2d:163:GLU:HB2	2.02	0.40
40:2i:99:LEU:HD13	40:2i:101:PHE:CE2	2.56	0.40
41:2j:6:ILE:O	41:2j:71:LEU:HA	2.20	0.40
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.55	0.40
51:2t:87:LYS:O	51:2t:91:LEU:HG	2.21	0.40
54:2w:340:LYS:HB2	54:2w:340:LYS:HE3	1.81	0.40
1:1A:2121:G:H2'	1:1A:2122:U:O4'	2.22	0.40
1:1A:2712:U:O2'	1:1A:2712(A):A:OP2	2.29	0.40
2:1B:113:G:H2'	2:1B:114:C:C6	2.56	0.40
5:1F:192:LEU:HD23	5:1F:193:VAL:H	1.85	0.40
6:1G:43:LEU:HD22	6:1G:153:ARG:HD2	2.03	0.40
12:1Q:108:GLY:HA3	21:1Z:116:VAL:HG13	2.04	0.40
19:1X:59:VAL:HG21	19:1X:78:LYS:HG3	2.03	0.40
25:13:18:ASP:OD1	25:13:18:ASP:N	2.54	0.40
27:15:8:LYS:O	27:15:9:LYS:HD2	2.20	0.40
32:1a:234:C:H2'	32:1a:235:C:H6	1.86	0.40
32:1a:304:U:H2'	32:1a:305:G:C8	2.56	0.40
32:1a:942:G:C2	32:1a:1342:C:C2	3.09	0.40
32:1a:956:U:OP2	54:1w:133:ARG:NH2	2.53	0.40
32:1a:1030(D):A:C5	32:1a:1031:G:H1'	2.56	0.40
41:1j:63:PHE:HZ	45:1n:49:HIS:CE1	2.39	0.40
55:1y:23:A:H2'	55:1y:24:G:H8	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:84:A:O2'	1:2A:98:G:N2	2.55	0.40
1:2A:527:C:N4	1:2A:2779:U:OP2	2.40	0.40
1:2A:569:U:C4	1:2A:570:G:C6	3.09	0.40
1:2A:647:G:H2'	1:2A:648:G:O4'	2.20	0.40
1:2A:824:A:H2'	1:2A:825:C:O4'	2.22	0.40
1:2A:839:U:H2'	1:2A:840:C:C6	2.55	0.40
1:2A:1912:A:C8	1:2A:1918:A:C2	3.09	0.40
1:2A:2096:U:H2'	1:2A:2097:C:C6	2.56	0.40
1:2A:2307:G:H4'	1:2A:2308:G:O4'	2.21	0.40
1:2A:2637:U:H5''	4:2E:82:ARG:HH12	1.86	0.40
1:2A:2641:G:OP2	9:2N:74:ARG:NH2	2.54	0.40
2:2B:24:G:N7	2:2B:56:G:H2'	2.36	0.40
6:2G:179:PRO:HB2	26:24:42:PHE:HE2	1.86	0.40
14:2S:85:VAL:HG22	14:2S:86:ALA:H	1.86	0.40
14:2S:110:LEU:HD23	14:2S:110:LEU:HA	1.91	0.40
30:28:30:ARG:HD3	30:28:30:ARG:HA	1.79	0.40
32:2a:300:A:H1'	32:2a:565:U:O2	2.21	0.40
32:2a:302:G:O2'	32:2a:556:C:H5''	2.22	0.40
32:2a:399:G:H2'	32:2a:400:C:C6	2.57	0.40
32:2a:481:G:H21	32:2a:482:A:N6	2.19	0.40
32:2a:504:C:C2	32:2a:542:G:C2	3.09	0.40
32:2a:1151:A:C5'	41:2j:41:PRO:HA	2.52	0.40
32:2a:1250:A:C2	32:2a:1370:G:H1'	2.57	0.40
32:2a:1295:G:C6	32:2a:1296:C:C4	3.09	0.40
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.20	0.40
33:2b:50:GLU:HB3	33:2b:200:ILE:O	2.21	0.40
33:2b:132:LYS:O	33:2b:135:GLN:HG2	2.21	0.40
35:2d:19:LEU:HA	35:2d:19:LEU:HD22	1.84	0.40
47:2p:17:TYR:HD2	47:2p:39:TYR:CD2	2.40	0.40
49:2r:74:ARG:HD2	49:2r:81:PHE:CD1	2.57	0.40
54:2w:184:PRO:HD2	54:2w:187:GLU:HB3	2.03	0.40
1:1A:945:A:C4	1:1A:2448:A:C2	3.10	0.40
1:1A:1055:G:H2'	1:1A:1085:A:H2	1.86	0.40
1:1A:1750:G:O2'	1:1A:2860:A:N1	2.43	0.40
1:1A:1762:A:H2'	60:1A:4855:HOH:O	2.22	0.40
1:1A:2023:G:H5'	1:1A:2617:C:H4'	2.04	0.40
1:1A:2028:U:H2'	1:1A:2029:G:O4'	2.20	0.40
1:1A:2104:G:H2'	1:1A:2105:C:C6	2.57	0.40
1:1A:2574:G:H2'	1:1A:2575:C:C6	2.56	0.40
3:1D:133:LEU:HA	3:1D:133:LEU:HD23	1.93	0.40
21:1Z:99:TYR:HA	21:1Z:124:ILE:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:18:39:LYS:O	30:18:43:GLN:HB2	2.21	0.40
32:1a:149:A:H2'	32:1a:150:C:C6	2.56	0.40
32:1a:224:C:H2'	32:1a:225:C:H6	1.86	0.40
32:1a:687:A:H4'	32:1a:688:G:O5'	2.22	0.40
32:1a:748:C:H1'	32:1a:749:C:OP2	2.21	0.40
32:1a:953:G:H5'	32:1a:965:A:N6	2.36	0.40
32:1a:1154:G:H2'	32:1a:1155:G:C8	2.56	0.40
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.22	0.40
32:1a:1459:C:H2'	32:1a:1460:A:O4'	2.21	0.40
1:2A:193:U:O3'	1:2A:803:U:H4'	2.22	0.40
1:2A:234:C:H2'	1:2A:235:U:H6	1.87	0.40
1:2A:598:G:H2'	1:2A:599:G:O4'	2.21	0.40
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.57	0.40
1:2A:750:A:C4	1:2A:753:C:H1'	2.56	0.40
1:2A:2051:A:H8	1:2A:2051:A:OP2	2.04	0.40
1:2A:2077:A:H2'	1:2A:2078:C:C6	2.56	0.40
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.57	0.40
1:2A:2654:A:N1	1:2A:2665:A:H5''	2.37	0.40
3:2D:246:PRO:O	3:2D:254:THR:HG22	2.21	0.40
8:2I:3:VAL:O	8:2I:18:VAL:HA	2.21	0.40
15:2T:13:ARG:H	15:2T:13:ARG:HG3	1.73	0.40
20:2Y:68:HIS:C	20:2Y:70:SER:N	2.80	0.40
32:2a:544:G:P	35:2d:62:GLN:HE21	2.42	0.40
32:2a:837:G:H2'	32:2a:838:G:C8	2.56	0.40
32:2a:1228:C:H4'	44:2m:116:THR:HA	2.03	0.40
33:2b:219:VAL:O	33:2b:223:ILE:HG13	2.22	0.40
42:2k:33:THR:HB	42:2k:39:PRO:HA	2.02	0.40
42:2k:67:ASP:OD1	42:2k:71:LYS:HE3	2.21	0.40
45:2n:6:LEU:HD12	45:2n:6:LEU:HA	1.96	0.40
46:2o:17:ARG:HH11	46:2o:17:ARG:HG3	1.86	0.40
48:2q:3:LYS:H	48:2q:3:LYS:HG2	1.62	0.40
54:2w:135:ALA:HB1	54:2w:140:PHE:HB2	2.03	0.40
1:1A:957:A:N1	1:1A:2458:G:H4'	2.37	0.40
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.37	0.40
1:1A:2038:G:O6	60:1A:3959:HOH:O	2.20	0.40
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.57	0.40
1:1A:2841:C:H2'	1:1A:2842:G:C8	2.57	0.40
2:1B:33:G:H5'	6:1G:2:PRO:HD3	2.04	0.40
3:1D:206:LEU:HD23	3:1D:206:LEU:HA	1.83	0.40
6:1G:132:ASN:HA	6:1G:157:ILE:O	2.21	0.40
21:1Z:92:SER:OG	21:1Z:94:GLU:OE1	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:144:LEU:HD11	21:1Z:150:LEU:CD2	2.51	0.40
30:18:48:PHE:CE1	30:18:50:LEU:HD23	2.57	0.40
32:1a:262:A:C6	32:1a:263:A:C6	3.08	0.40
35:1d:20:TYR:HA	35:1d:26:CYS:SG	2.62	0.40
36:1e:60:TYR:O	36:1e:64:ARG:HG3	2.22	0.40
38:1g:103:TRP:CH2	38:1g:141:VAL:HG21	2.56	0.40
39:1h:14:ARG:CD	39:1h:18:ARG:HH21	2.30	0.40
43:1l:60:LEU:HD13	43:1l:66:VAL:HG22	2.04	0.40
43:1l:79:GLU:HG2	43:1l:80:HIS:CD2	2.56	0.40
51:1t:91:LEU:HA	51:1t:91:LEU:HD23	1.80	0.40
55:1x:8:4SU:H1'	55:1x:48:C:O2	2.22	0.40
1:2A:528:A:C2	1:2A:2043:C:H4'	2.57	0.40
1:2A:811:U:H2'	11:2P:21:ARG:HA	2.02	0.40
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.18	0.40
1:2A:1970:A:H4'	1:2A:1971:A:OP1	2.22	0.40
4:2E:134:ILE:HA	4:2E:137:HIS:CD2	2.57	0.40
5:2F:185:ASP:HA	5:2F:188:ARG:HB3	2.04	0.40
11:2P:121:LYS:O	11:2P:123:LEU:N	2.48	0.40
11:2P:123:LEU:HD23	11:2P:123:LEU:HA	1.77	0.40
15:2T:51:ARG:HG3	15:2T:98:LYS:HD2	2.03	0.40
26:24:15:ILE:O	26:24:33:VAL:HG23	2.21	0.40
32:2a:110:C:O2'	47:2p:25:ARG:O	2.33	0.40
32:2a:166:G:H2'	32:2a:167:G:C8	2.56	0.40
32:2a:382:A:C6	32:2a:383:A:C6	3.09	0.40
32:2a:940:C:H42	32:2a:1343:G:H1	1.67	0.40
32:2a:998:G:H2'	32:2a:999:C:O4'	2.22	0.40
32:2a:1003:G:H2'	32:2a:1004:A:O4'	2.22	0.40
34:2c:113:ALA:HB1	34:2c:200:ALA:HB3	2.03	0.40
41:2j:30:SER:HB3	41:2j:81:THR:HB	2.04	0.40
42:2k:41:THR:HG21	42:2k:71:LYS:HB3	2.04	0.40
47:2p:60:LEU:HD23	47:2p:60:LEU:HA	1.92	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1472:A:O2'	6:1G:21:ARG:NH1[1_455]	2.19	0.01

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1D	273/276 (99%)	257 (94%)	16 (6%)	0	100	100
3	2D	273/276 (99%)	254 (93%)	19 (7%)	0	100	100
4	1E	202/206 (98%)	190 (94%)	11 (5%)	1 (0%)	24	48
4	2E	202/206 (98%)	184 (91%)	17 (8%)	1 (0%)	24	48
5	1F	201/210 (96%)	194 (96%)	5 (2%)	2 (1%)	12	32
5	2F	201/210 (96%)	187 (93%)	11 (6%)	3 (2%)	8	22
6	1G	179/182 (98%)	155 (87%)	19 (11%)	5 (3%)	4	9
6	2G	179/182 (98%)	155 (87%)	22 (12%)	2 (1%)	11	29
7	1H	172/180 (96%)	161 (94%)	10 (6%)	1 (1%)	21	44
7	2H	172/180 (96%)	149 (87%)	20 (12%)	3 (2%)	7	19
8	1I	144/148 (97%)	123 (85%)	19 (13%)	2 (1%)	9	23
8	2I	144/148 (97%)	122 (85%)	20 (14%)	2 (1%)	9	23
9	1N	138/140 (99%)	134 (97%)	4 (3%)	0	100	100
9	2N	138/140 (99%)	133 (96%)	5 (4%)	0	100	100
10	1O	120/122 (98%)	109 (91%)	11 (9%)	0	100	100
10	2O	120/122 (98%)	110 (92%)	10 (8%)	0	100	100
11	1P	147/150 (98%)	138 (94%)	7 (5%)	2 (1%)	9	23
11	2P	147/150 (98%)	127 (86%)	19 (13%)	1 (1%)	18	41
12	1Q	139/141 (99%)	130 (94%)	8 (6%)	1 (1%)	18	41
12	2Q	139/141 (99%)	130 (94%)	9 (6%)	0	100	100
13	1R	116/118 (98%)	111 (96%)	5 (4%)	0	100	100
13	2R	116/118 (98%)	107 (92%)	9 (8%)	0	100	100
14	1S	108/112 (96%)	98 (91%)	10 (9%)	0	100	100
14	2S	108/112 (96%)	91 (84%)	11 (10%)	6 (6%)	1	2
15	1T	129/146 (88%)	121 (94%)	7 (5%)	1 (1%)	16	37

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	2T	129/146 (88%)	117 (91%)	12 (9%)	0	100	100
16	1U	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
16	2U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
17	1V	99/101 (98%)	91 (92%)	7 (7%)	1 (1%)	12	32
17	2V	99/101 (98%)	94 (95%)	3 (3%)	2 (2%)	6	16
18	1W	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
18	2W	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
19	1X	93/96 (97%)	90 (97%)	1 (1%)	2 (2%)	5	14
19	2X	93/96 (97%)	87 (94%)	6 (6%)	0	100	100
20	1Y	105/110 (96%)	98 (93%)	6 (6%)	1 (1%)	12	32
20	2Y	105/110 (96%)	88 (84%)	17 (16%)	0	100	100
21	1Z	181/206 (88%)	159 (88%)	19 (10%)	3 (2%)	7	19
21	2Z	184/206 (89%)	159 (86%)	21 (11%)	4 (2%)	5	14
22	10	74/85 (87%)	70 (95%)	3 (4%)	1 (1%)	9	23
22	20	75/85 (88%)	67 (89%)	8 (11%)	0	100	100
23	11	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	11	29
23	21	95/98 (97%)	90 (95%)	4 (4%)	1 (1%)	11	29
24	12	68/72 (94%)	66 (97%)	2 (3%)	0	100	100
24	22	68/72 (94%)	64 (94%)	4 (6%)	0	100	100
25	13	57/60 (95%)	54 (95%)	2 (4%)	1 (2%)	6	18
25	23	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
26	14	67/71 (94%)	48 (72%)	11 (16%)	8 (12%)	0	0
26	24	66/71 (93%)	43 (65%)	18 (27%)	5 (8%)	1	1
27	15	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
27	25	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	26	51/54 (94%)	46 (90%)	5 (10%)	0	100	100
29	17	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
29	27	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
30	18	62/65 (95%)	61 (98%)	1 (2%)	0	100	100
30	28	62/65 (95%)	57 (92%)	5 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	33 (94%)	2 (6%)	0	100	100
33	1b	229/256 (90%)	193 (84%)	29 (13%)	7 (3%)	3	8
33	2b	229/256 (90%)	193 (84%)	24 (10%)	12 (5%)	1	3
34	1c	204/239 (85%)	175 (86%)	27 (13%)	2 (1%)	12	32
34	2c	204/239 (85%)	166 (81%)	36 (18%)	2 (1%)	12	32
35	1d	206/209 (99%)	180 (87%)	24 (12%)	2 (1%)	12	32
35	2d	206/209 (99%)	177 (86%)	27 (13%)	2 (1%)	12	32
36	1e	146/162 (90%)	129 (88%)	17 (12%)	0	100	100
36	2e	146/162 (90%)	124 (85%)	19 (13%)	3 (2%)	5	15
37	1f	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
37	2f	98/101 (97%)	85 (87%)	12 (12%)	1 (1%)	12	32
38	1g	153/156 (98%)	134 (88%)	15 (10%)	4 (3%)	4	11
38	2g	153/156 (98%)	135 (88%)	13 (8%)	5 (3%)	3	7
39	1h	135/138 (98%)	125 (93%)	9 (7%)	1 (1%)	18	41
39	2h	135/138 (98%)	123 (91%)	11 (8%)	1 (1%)	18	41
40	1i	125/128 (98%)	103 (82%)	18 (14%)	4 (3%)	3	7
40	2i	121/128 (94%)	99 (82%)	20 (16%)	2 (2%)	7	19
41	1j	96/105 (91%)	88 (92%)	7 (7%)	1 (1%)	12	32
41	2j	94/105 (90%)	80 (85%)	12 (13%)	2 (2%)	5	15
42	1k	112/129 (87%)	103 (92%)	7 (6%)	2 (2%)	6	18
42	2k	112/129 (87%)	96 (86%)	15 (13%)	1 (1%)	14	35
43	1l	119/132 (90%)	108 (91%)	11 (9%)	0	100	100
43	2l	119/132 (90%)	114 (96%)	5 (4%)	0	100	100
44	1m	116/126 (92%)	102 (88%)	13 (11%)	1 (1%)	14	35
44	2m	113/126 (90%)	96 (85%)	14 (12%)	3 (3%)	4	10
45	1n	58/61 (95%)	55 (95%)	2 (3%)	1 (2%)	7	19
45	2n	58/61 (95%)	53 (91%)	5 (9%)	0	100	100
46	1o	86/89 (97%)	81 (94%)	4 (5%)	1 (1%)	10	27
46	2o	86/89 (97%)	76 (88%)	9 (10%)	1 (1%)	10	27
47	1p	80/88 (91%)	66 (82%)	13 (16%)	1 (1%)	9	25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	2p	80/88 (91%)	71 (89%)	9 (11%)	0	100	100
48	1q	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
48	2q	97/105 (92%)	85 (88%)	12 (12%)	0	100	100
49	1r	66/88 (75%)	62 (94%)	4 (6%)	0	100	100
49	2r	66/88 (75%)	60 (91%)	5 (8%)	1 (2%)	8	22
50	1s	81/93 (87%)	70 (86%)	10 (12%)	1 (1%)	10	27
50	2s	81/93 (87%)	67 (83%)	12 (15%)	2 (2%)	4	11
51	1t	94/106 (89%)	80 (85%)	10 (11%)	4 (4%)	2	4
51	2t	94/106 (89%)	85 (90%)	5 (5%)	4 (4%)	2	4
52	1u	21/27 (78%)	21 (100%)	0	0	100	100
52	2u	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
54	1w	246/354 (70%)	228 (93%)	13 (5%)	5 (2%)	6	16
54	2w	250/354 (71%)	235 (94%)	14 (6%)	1 (0%)	30	54
56	1z	12/18 (67%)	11 (92%)	1 (8%)	0	100	100
56	2z	12/18 (67%)	10 (83%)	2 (17%)	0	100	100
All	All	11922/12872 (93%)	10772 (90%)	1007 (8%)	143 (1%)	10	27

All (143) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	50	ALA
8	1I	10	GLU
17	1V	79	VAL
23	11	3	LYS
26	14	18	CYS
33	1b	17	PHE
33	1b	125	PRO
34	1c	107	GLN
35	1d	44	GLY
40	1i	100	GLY
44	1m	67	GLU
5	2F	130	ALA
6	2G	96	ARG
7	2H	126	PRO
21	2Z	31	ARG
33	2b	10	LEU

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Mol	Chain	Res	Type
33	2b	22	LYS
34	2c	100	ALA
38	2g	80	VAL
41	2j	55	LYS
54	2w	209	ASP
6	1G	24	GLY
15	1T	37	GLY
20	1Y	101	LYS
21	1Z	52	SER
22	10	10	THR
26	14	49	PHE
26	14	62	ARG
38	1g	55	GLY
40	1i	99	LEU
54	1w	299	SER
54	1w	331	HIS
8	2I	42	SER
14	2S	62	LYS
17	2V	79	VAL
17	2V	100	ARG
21	2Z	52	SER
26	24	39	CYS
26	24	45	GLY
26	24	49	PHE
33	2b	17	PHE
33	2b	78	GLN
36	2e	98	THR
38	2g	55	GLY
38	2g	79	ARG
41	2j	31	GLY
42	2k	49	GLY
44	2m	5	ALA
44	2m	28	ALA
46	2o	19	PRO
50	2s	25	LYS
51	2t	47	GLY
6	1G	47	LYS
6	1G	51	ARG
11	1P	29	LYS
12	1Q	59	ARG
26	14	47	GLN
33	1b	96	ARG

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Mol	Chain	Res	Type
34	1c	157	ILE
38	1g	80	VAL
40	1i	54	ASP
41	1j	55	LYS
47	1p	48	TRP
54	1w	207	GLU
5	2F	54	ARG
7	2H	55	PRO
7	2H	92	ILE
14	2S	57	LYS
21	2Z	152	ALA
33	2b	16	HIS
33	2b	128	GLU
33	2b	150	SER
34	2c	99	VAL
38	2g	82	GLY
40	2i	29	ASN
44	2m	67	GLU
5	1F	145	GLU
8	1I	83	ALA
19	1X	94	GLY
21	1Z	137	ILE
26	14	64	GLY
26	14	65	ASP
33	1b	10	LEU
35	1d	137	SER
38	1g	82	GLY
45	1n	20	ALA
51	1t	38	LYS
51	1t	93	GLU
54	1w	116	GLY
54	1w	208	GLU
4	2E	52	LEU
5	2F	18	ARG
6	2G	143	GLU
11	2P	6	LEU
14	2S	63	THR
14	2S	97	ARG
21	2Z	153	SER
23	21	3	LYS
26	24	62	ARG
33	2b	63	MET

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Mol	Chain	Res	Type
33	2b	96	ARG
35	2d	147	ALA
35	2d	166	LYS
39	2h	115	SER
50	2s	3	ARG
4	1E	52	LEU
19	1X	93	GLU
26	14	63	TYR
33	1b	21	ARG
33	1b	232	PRO
39	1h	70	GLN
26	24	47	GLN
33	2b	124	SER
37	2f	80	ARG
38	2g	81	GLY
40	2i	54	ASP
49	2r	53	ARG
51	2t	9	ASN
7	1H	126	PRO
21	1Z	53	ILE
26	14	51	ASP
33	1b	15	VAL
40	1i	98	PRO
51	1t	97	ALA
51	1t	102	GLY
36	2e	69	VAL
11	1P	44	GLY
42	1k	49	GLY
46	1o	86	GLY
14	2S	96	GLY
33	2b	165	VAL
36	2e	39	GLY
25	13	59	VAL
42	1k	105	VAL
14	2S	60	GLY
51	2t	100	ILE
38	1g	9	VAL
50	1s	26	GLY
8	2I	111	PRO
33	2b	125	PRO
51	2t	102	GLY
6	1G	52	ILE

5.3.2 Protein sidechains ⓘ

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%)	199 (93%)	16 (7%)	13	32
3	2D	215/218 (99%)	200 (93%)	15 (7%)	14	34
4	1E	164/166 (99%)	149 (91%)	15 (9%)	9	22
4	2E	164/166 (99%)	149 (91%)	15 (9%)	9	22
5	1F	160/166 (96%)	147 (92%)	13 (8%)	11	27
5	2F	159/166 (96%)	141 (89%)	18 (11%)	5	14
6	1G	143/156 (92%)	122 (85%)	21 (15%)	3	8
6	2G	142/156 (91%)	122 (86%)	20 (14%)	3	9
7	1H	144/148 (97%)	128 (89%)	16 (11%)	6	15
7	2H	144/148 (97%)	128 (89%)	16 (11%)	6	15
8	1I	110/124 (89%)	94 (86%)	16 (14%)	3	8
8	2I	104/124 (84%)	76 (73%)	28 (27%)	0	1
9	1N	118/119 (99%)	111 (94%)	7 (6%)	18	42
9	2N	118/119 (99%)	112 (95%)	6 (5%)	21	48
10	1O	100/100 (100%)	98 (98%)	2 (2%)	48	76
10	2O	100/100 (100%)	98 (98%)	2 (2%)	48	76
11	1P	115/116 (99%)	109 (95%)	6 (5%)	21	47
11	2P	115/116 (99%)	106 (92%)	9 (8%)	11	29
12	1Q	111/111 (100%)	99 (89%)	12 (11%)	6	16
12	2Q	111/111 (100%)	100 (90%)	11 (10%)	7	19
13	1R	101/101 (100%)	88 (87%)	13 (13%)	4	10
13	2R	101/101 (100%)	95 (94%)	6 (6%)	18	42
14	1S	87/88 (99%)	72 (83%)	15 (17%)	2	6
14	2S	85/88 (97%)	74 (87%)	11 (13%)	4	10
15	1T	115/127 (91%)	104 (90%)	11 (10%)	8	20
15	2T	113/127 (89%)	106 (94%)	7 (6%)	16	39

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	1U	93/94 (99%)	87 (94%)	6 (6%)	15	37
16	2U	93/94 (99%)	90 (97%)	3 (3%)	34	64
17	1V	80/82 (98%)	76 (95%)	4 (5%)	22	48
17	2V	80/82 (98%)	71 (89%)	9 (11%)	5	14
18	1W	90/92 (98%)	85 (94%)	5 (6%)	19	44
18	2W	90/92 (98%)	85 (94%)	5 (6%)	19	44
19	1X	77/78 (99%)	74 (96%)	3 (4%)	28	57
19	2X	76/78 (97%)	71 (93%)	5 (7%)	15	36
20	1Y	85/91 (93%)	76 (89%)	9 (11%)	6	17
20	2Y	86/91 (94%)	75 (87%)	11 (13%)	4	11
21	1Z	155/179 (87%)	141 (91%)	14 (9%)	9	23
21	2Z	155/179 (87%)	137 (88%)	18 (12%)	5	13
22	10	61/67 (91%)	56 (92%)	5 (8%)	10	27
22	20	61/67 (91%)	54 (88%)	7 (12%)	5	14
23	11	80/83 (96%)	76 (95%)	4 (5%)	22	48
23	21	80/83 (96%)	74 (92%)	6 (8%)	12	31
24	12	65/67 (97%)	61 (94%)	4 (6%)	16	39
24	22	65/67 (97%)	58 (89%)	7 (11%)	6	16
25	13	51/52 (98%)	49 (96%)	2 (4%)	28	57
25	23	50/52 (96%)	47 (94%)	3 (6%)	17	41
26	14	58/63 (92%)	52 (90%)	6 (10%)	7	18
26	24	51/63 (81%)	41 (80%)	10 (20%)	1	4
27	15	50/52 (96%)	47 (94%)	3 (6%)	17	41
27	25	50/52 (96%)	47 (94%)	3 (6%)	17	41
28	16	51/52 (98%)	47 (92%)	4 (8%)	11	29
28	26	50/52 (96%)	45 (90%)	5 (10%)	7	19
29	17	41/42 (98%)	39 (95%)	2 (5%)	22	49
29	27	41/42 (98%)	39 (95%)	2 (5%)	22	49
30	18	53/55 (96%)	45 (85%)	8 (15%)	3	7
30	28	54/55 (98%)	51 (94%)	3 (6%)	19	44
31	19	34/34 (100%)	33 (97%)	1 (3%)	37	67

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	29	34/34 (100%)	33 (97%)	1 (3%)	37	67
33	1b	192/220 (87%)	156 (81%)	36 (19%)	1	4
33	2b	187/220 (85%)	154 (82%)	33 (18%)	2	5
34	1c	144/188 (77%)	127 (88%)	17 (12%)	5	13
34	2c	140/188 (74%)	120 (86%)	20 (14%)	3	8
35	1d	170/181 (94%)	142 (84%)	28 (16%)	2	6
35	2d	173/181 (96%)	148 (86%)	25 (14%)	3	8
36	1e	113/123 (92%)	106 (94%)	7 (6%)	16	39
36	2e	113/123 (92%)	103 (91%)	10 (9%)	9	23
37	1f	84/90 (93%)	76 (90%)	8 (10%)	8	20
37	2f	85/90 (94%)	78 (92%)	7 (8%)	10	27
38	1g	119/127 (94%)	104 (87%)	15 (13%)	4	11
38	2g	120/127 (94%)	109 (91%)	11 (9%)	8	22
39	1h	114/119 (96%)	102 (90%)	12 (10%)	6	17
39	2h	114/119 (96%)	105 (92%)	9 (8%)	11	28
40	1i	90/99 (91%)	83 (92%)	7 (8%)	11	29
40	2i	86/99 (87%)	72 (84%)	14 (16%)	2	6
41	1j	68/92 (74%)	56 (82%)	12 (18%)	2	5
41	2j	69/92 (75%)	59 (86%)	10 (14%)	3	8
42	1k	82/99 (83%)	73 (89%)	9 (11%)	6	15
42	2k	83/99 (84%)	75 (90%)	8 (10%)	8	20
43	1l	96/108 (89%)	86 (90%)	10 (10%)	7	17
43	2l	96/108 (89%)	88 (92%)	8 (8%)	10	26
44	1m	90/101 (89%)	78 (87%)	12 (13%)	4	10
44	2m	85/101 (84%)	79 (93%)	6 (7%)	13	33
45	1n	49/50 (98%)	43 (88%)	6 (12%)	5	12
45	2n	48/50 (96%)	38 (79%)	10 (21%)	1	3
46	1o	78/80 (98%)	73 (94%)	5 (6%)	16	38
46	2o	78/80 (98%)	73 (94%)	5 (6%)	16	38
47	1p	69/74 (93%)	60 (87%)	9 (13%)	4	10
47	2p	68/74 (92%)	61 (90%)	7 (10%)	7	18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
48	1q	94/97 (97%)	85 (90%)	9 (10%)	8	20
48	2q	94/97 (97%)	80 (85%)	14 (15%)	3	8
49	1r	59/77 (77%)	51 (86%)	8 (14%)	3	9
49	2r	58/77 (75%)	48 (83%)	10 (17%)	2	6
50	1s	69/80 (86%)	64 (93%)	5 (7%)	13	32
50	2s	67/80 (84%)	57 (85%)	10 (15%)	3	8
51	1t	70/82 (85%)	61 (87%)	9 (13%)	4	10
51	2t	70/82 (85%)	64 (91%)	6 (9%)	10	25
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%)	177 (87%)	26 (13%)	4	11
54	2w	202/298 (68%)	167 (83%)	35 (17%)	2	5
56	1z	14/17 (82%)	12 (86%)	2 (14%)	3	8
56	2z	14/17 (82%)	12 (86%)	2 (14%)	3	8
All	All	9747/10694 (91%)	8729 (90%)	1018 (10%)	7	17

All (1018) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	12	SER
3	1D	69	ARG
3	1D	78	LYS
3	1D	88	ARG
3	1D	99	ASP
3	1D	111	LEU
3	1D	141	VAL
3	1D	142	VAL
3	1D	176	ARG
3	1D	193	VAL
3	1D	200	ASP
3	1D	211	ARG
3	1D	229	VAL
3	1D	242	ARG
3	1D	275	LYS
4	1E	33	VAL
4	1E	73	GLU

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Mol	Chain	Res	Type
4	1E	75	VAL
4	1E	77	ILE
4	1E	82	ARG
4	1E	89	ASP
4	1E	90	THR
4	1E	93	VAL
4	1E	116	VAL
4	1E	170	LEU
4	1E	173	VAL
4	1E	182	LEU
4	1E	183	LEU
4	1E	188	VAL
4	1E	195	LEU
5	1F	24	LEU
5	1F	40	GLN
5	1F	53	THR
5	1F	57	VAL
5	1F	106	ARG
5	1F	119	ARG
5	1F	120	GLU
5	1F	137	LYS
5	1F	162	LEU
5	1F	170	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	8	LYS
6	1G	28	VAL
6	1G	31	VAL
6	1G	40	ASN
6	1G	60	LEU
6	1G	70	VAL
6	1G	79	ASN
6	1G	91	ARG
6	1G	116	ASP
6	1G	136	ARG
6	1G	139	LEU
6	1G	140	ILE
6	1G	165	THR

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Mol	Chain	Res	Type
6	1G	167	GLU
6	1G	168	GLU
6	1G	170	ARG
6	1G	174	GLU
6	1G	175	LEU
7	1H	13	LYS
7	1H	18	GLU
7	1H	24	VAL
7	1H	37	VAL
7	1H	42	ARG
7	1H	44	VAL
7	1H	49	VAL
7	1H	50	VAL
7	1H	57	ASP
7	1H	76	VAL
7	1H	84	SER
7	1H	95	ARG
7	1H	116	GLU
7	1H	119	GLU
7	1H	122	THR
7	1H	172	LYS
8	1I	5	LEU
8	1I	7	GLU
8	1I	10	GLU
8	1I	12	LEU
8	1I	19	VAL
8	1I	31	LEU
8	1I	37	VAL
8	1I	38	LEU
8	1I	40	THR
8	1I	47	LEU
8	1I	86	THR
8	1I	92	VAL
8	1I	108	THR
8	1I	109	ILE
8	1I	125	GLU
8	1I	133	HIS
9	1N	12	ARG
9	1N	33	LEU
9	1N	48	MET
9	1N	58	ASP
9	1N	62	VAL

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Mol	Chain	Res	Type
9	1N	73	THR
9	1N	140	VAL
10	1O	47	ILE
10	1O	66	LYS
11	1P	1	MET
11	1P	98	GLU
11	1P	99	LEU
11	1P	135	LEU
11	1P	148	LEU
11	1P	149	GLU
12	1Q	3	MET
12	1Q	7	MET
12	1Q	17	LEU
12	1Q	21	THR
12	1Q	35	VAL
12	1Q	75	THR
12	1Q	81	VAL
12	1Q	106	VAL
12	1Q	109	VAL
12	1Q	111	GLU
12	1Q	127	ILE
12	1Q	129	THR
13	1R	5	LYS
13	1R	6	SER
13	1R	8	ARG
13	1R	29	LEU
13	1R	36	THR
13	1R	59	ASP
13	1R	64	ARG
13	1R	65	LEU
13	1R	73	VAL
13	1R	75	LEU
13	1R	91	GLN
13	1R	113	LEU
13	1R	114	VAL
14	1S	4	LEU
14	1S	26	LEU
14	1S	27	SER
14	1S	36	TYR
14	1S	43	GLU
14	1S	46	VAL
14	1S	50	SER

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Mol	Chain	Res	Type
14	1S	53	SER
14	1S	59	LYS
14	1S	61	ASN
14	1S	76	LYS
14	1S	78	LEU
14	1S	85	VAL
14	1S	88	ASP
14	1S	110	LEU
15	1T	17	THR
15	1T	21	GLU
15	1T	28	VAL
15	1T	36	GLU
15	1T	49	VAL
15	1T	66	VAL
15	1T	82	LEU
15	1T	84	GLN
15	1T	96	ARG
15	1T	112	ARG
15	1T	118	ARG
16	1U	8	VAL
16	1U	13	LYS
16	1U	27	LEU
16	1U	55	ARG
16	1U	74	LEU
16	1U	100	VAL
17	1V	32	THR
17	1V	73	SER
17	1V	79	VAL
17	1V	85	LYS
18	1W	11	ARG
18	1W	17	VAL
18	1W	68	ARG
18	1W	100	THR
18	1W	101	SER
19	1X	1	MET
19	1X	49	VAL
19	1X	52	VAL
20	1Y	1	MET
20	1Y	7	VAL
20	1Y	19	LYS
20	1Y	47	LYS
20	1Y	70	SER

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Mol	Chain	Res	Type
20	1Y	72	VAL
20	1Y	88	LYS
20	1Y	106	LEU
20	1Y	107	ASP
21	1Z	31	ARG
21	1Z	37	VAL
21	1Z	42	VAL
21	1Z	74	VAL
21	1Z	86	VAL
21	1Z	119	GLU
21	1Z	121	HIS
21	1Z	137	ILE
21	1Z	142	SER
21	1Z	150	LEU
21	1Z	155	LEU
21	1Z	165	VAL
21	1Z	170	THR
21	1Z	175	VAL
22	10	14	ARG
22	10	39	ARG
22	10	44	ARG
22	10	68	GLU
22	10	82	ARG
23	11	38	SER
23	11	40	ARG
23	11	75	GLU
23	11	80	LEU
24	12	3	LEU
24	12	4	SER
24	12	45	SER
24	12	65	ASN
25	13	54	VAL
25	13	58	VAL
26	14	1	MET
26	14	21	VAL
26	14	49	PHE
26	14	50	VAL
26	14	57	GLU
26	14	63	TYR
27	15	6	VAL
27	15	20	ARG
27	15	26	THR

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Mol	Chain	Res	Type
28	16	5	VAL
28	16	6	ARG
28	16	7	ILE
28	16	14	THR
29	17	41	ARG
29	17	43	THR
30	18	6	THR
30	18	14	VAL
30	18	23	VAL
30	18	26	LYS
30	18	32	LEU
30	18	41	ILE
30	18	43	GLN
30	18	58	ILE
31	19	6	SER
33	1b	8	LYS
33	1b	10	LEU
33	1b	11	LEU
33	1b	15	VAL
33	1b	32	ILE
33	1b	35	GLU
33	1b	37	ASN
33	1b	45	GLN
33	1b	53	ARG
33	1b	58	ILE
33	1b	61	LEU
33	1b	63	MET
33	1b	67	THR
33	1b	73	THR
33	1b	75	LYS
33	1b	80	ILE
33	1b	90	MET
33	1b	93	VAL
33	1b	97	TRP
33	1b	107	THR
33	1b	108	ILE
33	1b	112	VAL
33	1b	118	LEU
33	1b	128	GLU
33	1b	145	LEU
33	1b	147	LYS
33	1b	153	ARG

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Mol	Chain	Res	Type
33	1b	154	LEU
33	1b	156	LYS
33	1b	168	THR
33	1b	172	ILE
33	1b	185	ILE
33	1b	190	THR
33	1b	210	SER
33	1b	213	LEU
33	1b	233	SER
34	1c	17	ASP
34	1c	32	LEU
34	1c	49	SER
34	1c	64	VAL
34	1c	67	THR
34	1c	70	VAL
34	1c	82	GLU
34	1c	85	ARG
34	1c	95	THR
34	1c	98	ASN
34	1c	115	LEU
34	1c	118	GLN
34	1c	130	VAL
34	1c	152	ILE
34	1c	188	LEU
34	1c	192	THR
34	1c	195	VAL
35	1d	17	VAL
35	1d	18	LYS
35	1d	30	LYS
35	1d	31	CYS
35	1d	33	MET
35	1d	35	ARG
35	1d	42	GLN
35	1d	47	ARG
35	1d	56	VAL
35	1d	85	LYS
35	1d	88	VAL
35	1d	94	LEU
35	1d	108	LEU
35	1d	122	ARG
35	1d	127	THR
35	1d	135	LEU

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Mol	Chain	Res	Type
35	1d	141	ARG
35	1d	150	GLU
35	1d	155	LEU
35	1d	163	GLU
35	1d	165	MET
35	1d	174	LEU
35	1d	186	LEU
35	1d	188	LEU
35	1d	193	ASP
35	1d	198	VAL
35	1d	200	GLU
35	1d	204	ILE
36	1e	10	MET
36	1e	31	LEU
36	1e	41	VAL
36	1e	50	GLU
36	1e	75	THR
36	1e	78	HIS
36	1e	98	THR
37	1f	31	GLU
37	1f	40	VAL
37	1f	45	LEU
37	1f	55	ASP
37	1f	71	ARG
37	1f	72	VAL
37	1f	91	VAL
37	1f	98	LEU
38	1g	8	GLU
38	1g	9	VAL
38	1g	11	GLN
38	1g	45	ASP
38	1g	49	ILE
38	1g	50	ILE
38	1g	72	ARG
38	1g	75	VAL
38	1g	89	MET
38	1g	90	GLU
38	1g	91	VAL
38	1g	92	SER
38	1g	114	ARG
38	1g	138	LYS
38	1g	156	TRP

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Mol	Chain	Res	Type
39	1h	2	LEU
39	1h	18	ARG
39	1h	19	VAL
39	1h	24	THR
39	1h	50	ARG
39	1h	86	ILE
39	1h	88	LYS
39	1h	99	GLU
39	1h	112	LEU
39	1h	120	THR
39	1h	121	ASP
39	1h	137	VAL
40	1i	11	LYS
40	1i	17	VAL
40	1i	27	THR
40	1i	60	ASP
40	1i	65	VAL
40	1i	113	LYS
40	1i	128	ARG
41	1j	5	ARG
41	1j	16	LEU
41	1j	44	VAL
41	1j	49	VAL
41	1j	55	LYS
41	1j	72	VAL
41	1j	84	GLN
41	1j	92	THR
41	1j	94	VAL
41	1j	95	GLU
41	1j	97	GLU
41	1j	100	THR
42	1k	14	VAL
42	1k	41	THR
42	1k	48	ILE
42	1k	80	VAL
42	1k	82	VAL
42	1k	84	VAL
42	1k	87	THR
42	1k	114	VAL
42	1k	117	ASN
43	1l	6	THR
43	1l	46	LYS

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Mol	Chain	Res	Type
43	1l	60	LEU
43	1l	61	THR
43	1l	78	GLN
43	1l	81	SER
43	1l	83	VAL
43	1l	91	LYS
43	1l	102	ARG
43	1l	104	VAL
44	1m	4	ILE
44	1m	15	VAL
44	1m	19	LEU
44	1m	32	GLU
44	1m	48	LEU
44	1m	56	LEU
44	1m	90	LEU
44	1m	92	HIS
44	1m	103	THR
44	1m	105	THR
44	1m	106	ASN
44	1m	117	VAL
45	1n	11	LYS
45	1n	13	THR
45	1n	18	VAL
45	1n	32	SER
45	1n	33	VAL
45	1n	41	ARG
46	1o	3	ILE
46	1o	26	GLU
46	1o	39	LEU
46	1o	56	LEU
46	1o	87	ILE
47	1p	2	VAL
47	1p	4	ILE
47	1p	6	LEU
47	1p	16	HIS
47	1p	20	VAL
47	1p	21	VAL
47	1p	67	THR
47	1p	74	LEU
47	1p	79	VAL
48	1q	7	THR
48	1q	9	VAL

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Mol	Chain	Res	Type
48	1q	10	VAL
48	1q	36	ILE
48	1q	43	LEU
48	1q	79	SER
48	1q	85	VAL
48	1q	86	GLU
48	1q	90	ILE
49	1r	25	THR
49	1r	26	LEU
49	1r	28	GLU
49	1r	37	VAL
49	1r	46	GLU
49	1r	55	ARG
49	1r	85	LEU
49	1r	86	VAL
50	1s	5	LEU
50	1s	31	ILE
50	1s	35	SER
50	1s	49	ILE
50	1s	63	THR
51	1t	10	LEU
51	1t	13	LEU
51	1t	23	ARG
51	1t	37	SER
51	1t	50	GLU
51	1t	55	ILE
51	1t	84	LEU
51	1t	86	ARG
51	1t	93	GLU
54	1w	102	MET
54	1w	108	ILE
54	1w	115	THR
54	1w	119	GLU
54	1w	132	LEU
54	1w	143	GLU
54	1w	152	LEU
54	1w	158	VAL
54	1w	172	LYS
54	1w	182	ARG
54	1w	192	ILE
54	1w	196	THR
54	1w	202	LEU

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Mol	Chain	Res	Type
54	1w	259	ILE
54	1w	260	LYS
54	1w	288	THR
54	1w	297	GLU
54	1w	298	ARG
54	1w	301	LYS
54	1w	304	THR
54	1w	320	THR
54	1w	321	THR
54	1w	339	LEU
54	1w	341	ARG
54	1w	345	GLU
54	1w	348	LEU
56	1z	8	ILE
56	1z	12	ARG
3	2D	4	LYS
3	2D	27	THR
3	2D	28	GLU
3	2D	105	ILE
3	2D	134	ARG
3	2D	142	VAL
3	2D	193	VAL
3	2D	204	ILE
3	2D	205	VAL
3	2D	211	ARG
3	2D	218	ARG
3	2D	229	VAL
3	2D	237	GLU
3	2D	242	ARG
3	2D	275	LYS
4	2E	33	VAL
4	2E	59	VAL
4	2E	69	LYS
4	2E	72	VAL
4	2E	73	GLU
4	2E	75	VAL
4	2E	82	ARG
4	2E	90	THR
4	2E	93	VAL
4	2E	116	VAL
4	2E	128	SER
4	2E	141	ILE

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Mol	Chain	Res	Type
4	2E	170	LEU
4	2E	181	LEU
4	2E	184	VAL
5	2F	53	THR
5	2F	57	VAL
5	2F	74	ARG
5	2F	88	VAL
5	2F	98	SER
5	2F	106	ARG
5	2F	110	LEU
5	2F	125	LEU
5	2F	132	VAL
5	2F	153	SER
5	2F	165	ARG
5	2F	175	THR
5	2F	181	LEU
5	2F	183	VAL
5	2F	186	ILE
5	2F	192	LEU
5	2F	197	ASP
5	2F	201	VAL
6	2G	5	VAL
6	2G	20	ILE
6	2G	21	ARG
6	2G	28	VAL
6	2G	31	VAL
6	2G	33	ARG
6	2G	43	LEU
6	2G	91	ARG
6	2G	95	ARG
6	2G	96	ARG
6	2G	97	ASP
6	2G	99	MET
6	2G	106	LEU
6	2G	128	ARG
6	2G	133	LEU
6	2G	144	ILE
6	2G	145	THR
6	2G	146	TYR
6	2G	152	LEU
6	2G	156	ASP
7	2H	2	SER

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Mol	Chain	Res	Type
7	2H	6	ARG
7	2H	7	LEU
7	2H	30	LYS
7	2H	43	VAL
7	2H	58	GLU
7	2H	63	SER
7	2H	67	LEU
7	2H	90	LYS
7	2H	116	GLU
7	2H	122	THR
7	2H	129	THR
7	2H	134	SER
7	2H	136	ILE
7	2H	140	LYS
7	2H	175	LYS
8	2I	3	VAL
8	2I	7	GLU
8	2I	11	ASN
8	2I	15	VAL
8	2I	20	ASP
8	2I	31	LEU
8	2I	37	VAL
8	2I	40	THR
8	2I	44	LEU
8	2I	50	ARG
8	2I	51	ILE
8	2I	58	LEU
8	2I	68	LEU
8	2I	79	ILE
8	2I	82	ARG
8	2I	92	VAL
8	2I	101	LEU
8	2I	110	ASP
8	2I	120	ILE
8	2I	123	LEU
8	2I	125	GLU
8	2I	127	VAL
8	2I	133	HIS
8	2I	136	VAL
8	2I	140	LEU
8	2I	142	VAL
8	2I	144	VAL

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Mol	Chain	Res	Type
8	2I	145	VAL
9	2N	9	VAL
9	2N	12	ARG
9	2N	16	ILE
9	2N	32	THR
9	2N	83	LYS
9	2N	138	LEU
10	2O	42	SER
10	2O	47	ILE
11	2P	30	THR
11	2P	95	VAL
11	2P	99	LEU
11	2P	123	LEU
11	2P	133	SER
11	2P	138	LEU
11	2P	147	LEU
11	2P	148	LEU
11	2P	149	GLU
12	2Q	21	THR
12	2Q	22	LYS
12	2Q	35	VAL
12	2Q	38	GLU
12	2Q	56	ARG
12	2Q	63	LYS
12	2Q	64	ILE
12	2Q	75	THR
12	2Q	109	VAL
12	2Q	115	MET
12	2Q	127	ILE
13	2R	29	LEU
13	2R	36	THR
13	2R	65	LEU
13	2R	83	ILE
13	2R	86	ARG
13	2R	114	VAL
14	2S	4	LEU
14	2S	12	PHE
14	2S	15	ARG
14	2S	24	LEU
14	2S	52	SER
14	2S	56	LEU
14	2S	71	ARG

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Mol	Chain	Res	Type
14	2S	75	GLU
14	2S	83	LYS
14	2S	98	VAL
14	2S	103	GLU
15	2T	6	LEU
15	2T	18	ASP
15	2T	28	VAL
15	2T	49	VAL
15	2T	72	VAL
15	2T	96	ARG
15	2T	121	ILE
16	2U	5	LYS
16	2U	13	LYS
16	2U	31	SER
17	2V	18	LEU
17	2V	33	VAL
17	2V	45	THR
17	2V	46	VAL
17	2V	51	VAL
17	2V	53	GLU
17	2V	61	VAL
17	2V	73	SER
17	2V	79	VAL
18	2W	6	ILE
18	2W	11	ARG
18	2W	70	TYR
18	2W	100	THR
18	2W	105	VAL
19	2X	45	THR
19	2X	52	VAL
19	2X	57	LEU
19	2X	68	ARG
19	2X	78	LYS
20	2Y	11	ASP
20	2Y	12	THR
20	2Y	28	LYS
20	2Y	30	VAL
20	2Y	31	LEU
20	2Y	40	GLU
20	2Y	71	LYS
20	2Y	72	VAL
20	2Y	85	VAL

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Mol	Chain	Res	Type
20	2Y	91	GLU
20	2Y	92	ASN
21	2Z	4	ARG
21	2Z	18	LEU
21	2Z	30	ASN
21	2Z	33	LEU
21	2Z	41	LEU
21	2Z	42	VAL
21	2Z	58	VAL
21	2Z	76	LEU
21	2Z	80	ARG
21	2Z	84	GLU
21	2Z	102	LEU
21	2Z	132	ASN
21	2Z	142	SER
21	2Z	151	HIS
21	2Z	155	LEU
21	2Z	161	VAL
21	2Z	165	VAL
21	2Z	180	VAL
22	20	10	THR
22	20	11	ARG
22	20	39	ARG
22	20	44	ARG
22	20	64	ASP
22	20	67	VAL
22	20	81	VAL
23	21	30	VAL
23	21	35	THR
23	21	40	ARG
23	21	46	LEU
23	21	74	VAL
23	21	80	LEU
24	22	12	GLU
24	22	16	LEU
24	22	21	LEU
24	22	44	LEU
24	22	50	ILE
24	22	52	ASP
24	22	53	LEU
25	23	31	LEU
25	23	40	THR

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Mol	Chain	Res	Type
25	23	54	VAL
26	24	1	MET
26	24	3	GLU
26	24	33	VAL
26	24	35	VAL
26	24	39	CYS
26	24	46	GLN
26	24	49	PHE
26	24	61	ARG
26	24	63	TYR
26	24	68	ARG
27	25	6	VAL
27	25	26	THR
27	25	59	GLU
28	26	17	LYS
28	26	19	ARG
28	26	20	ASN
28	26	40	CYS
28	26	48	VAL
29	27	4	THR
29	27	43	THR
30	28	14	VAL
30	28	23	VAL
30	28	37	SER
31	29	7	VAL
33	2b	12	GLU
33	2b	15	VAL
33	2b	22	LYS
33	2b	25	ASN
33	2b	44	LEU
33	2b	49	GLU
33	2b	55	PHE
33	2b	56	ARG
33	2b	63	MET
33	2b	67	THR
33	2b	80	ILE
33	2b	93	VAL
33	2b	112	VAL
33	2b	133	LYS
33	2b	140	HIS
33	2b	154	LEU
33	2b	164	VAL

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Mol	Chain	Res	Type
33	2b	169	LYS
33	2b	172	ILE
33	2b	184	VAL
33	2b	185	ILE
33	2b	190	THR
33	2b	197	VAL
33	2b	200	ILE
33	2b	208	ILE
33	2b	212	GLN
33	2b	213	LEU
33	2b	219	VAL
33	2b	223	ILE
33	2b	224	GLN
33	2b	229	VAL
33	2b	230	VAL
33	2b	233	SER
34	2c	3	ASN
34	2c	15	THR
34	2c	19	GLU
34	2c	20	SER
34	2c	33	LEU
34	2c	49	SER
34	2c	63	ASN
34	2c	67	THR
34	2c	70	VAL
34	2c	82	GLU
34	2c	89	GLU
34	2c	91	LEU
34	2c	106	VAL
34	2c	115	LEU
34	2c	130	VAL
34	2c	170	GLN
34	2c	188	LEU
34	2c	192	THR
34	2c	195	VAL
34	2c	198	VAL
35	2d	3	ARG
35	2d	12	CYS
35	2d	17	VAL
35	2d	18	LYS
35	2d	19	LEU
35	2d	21	LEU

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Mol	Chain	Res	Type
35	2d	34	GLU
35	2d	66	ARG
35	2d	101	LEU
35	2d	108	LEU
35	2d	115	ARG
35	2d	127	THR
35	2d	128	VAL
35	2d	132	ARG
35	2d	135	LEU
35	2d	137	SER
35	2d	141	ARG
35	2d	150	GLU
35	2d	155	LEU
35	2d	157	LEU
35	2d	162	LEU
35	2d	175	SER
35	2d	184	LYS
35	2d	200	GLU
35	2d	202	LEU
36	2e	16	THR
36	2e	18	ARG
36	2e	31	LEU
36	2e	41	VAL
36	2e	51	VAL
36	2e	79	GLU
36	2e	115	VAL
36	2e	120	THR
36	2e	125	SER
36	2e	144	THR
37	2f	30	LEU
37	2f	65	VAL
37	2f	69	GLU
37	2f	70	ASP
37	2f	72	VAL
37	2f	73	ASN
37	2f	81	ILE
38	2g	8	GLU
38	2g	9	VAL
38	2g	35	LYS
38	2g	49	ILE
38	2g	50	ILE
38	2g	75	VAL

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Mol	Chain	Res	Type
38	2g	76	ARG
38	2g	91	VAL
38	2g	139	GLU
38	2g	148	ASN
38	2g	155	ARG
39	2h	8	ASP
39	2h	26	VAL
39	2h	51	VAL
39	2h	56	LYS
39	2h	99	GLU
39	2h	111	ILE
39	2h	112	LEU
39	2h	121	ASP
39	2h	129	VAL
40	2i	7	THR
40	2i	20	ARG
40	2i	41	VAL
40	2i	48	GLU
40	2i	56	LEU
40	2i	64	THR
40	2i	65	VAL
40	2i	75	ASP
40	2i	86	VAL
40	2i	87	GLN
40	2i	103	THR
40	2i	108	VAL
40	2i	124	GLN
40	2i	128	ARG
41	2j	13	HIS
41	2j	16	LEU
41	2j	25	GLU
41	2j	35	SER
41	2j	46	ARG
41	2j	54	PHE
41	2j	81	THR
41	2j	92	THR
41	2j	95	GLU
41	2j	96	ILE
42	2k	26	ASN
42	2k	28	THR
42	2k	33	THR
42	2k	50	TYR

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Mol	Chain	Res	Type
42	2k	84	VAL
42	2k	87	THR
42	2k	109	VAL
42	2k	114	VAL
43	2l	13	LYS
43	2l	18	VAL
43	2l	24	VAL
43	2l	60	LEU
43	2l	61	THR
43	2l	66	VAL
43	2l	91	LYS
43	2l	96	VAL
44	2m	20	THR
44	2m	25	ILE
44	2m	34	LEU
44	2m	82	MET
44	2m	103	THR
44	2m	109	THR
45	2n	4	LYS
45	2n	6	LEU
45	2n	11	LYS
45	2n	12	ARG
45	2n	13	THR
45	2n	17	LYS
45	2n	22	THR
45	2n	32	SER
45	2n	33	VAL
45	2n	42	ILE
46	2o	3	ILE
46	2o	38	ARG
46	2o	39	LEU
46	2o	82	ILE
46	2o	84	LYS
47	2p	2	VAL
47	2p	5	ARG
47	2p	20	VAL
47	2p	45	THR
47	2p	53	VAL
47	2p	67	THR
47	2p	74	LEU
48	2q	3	LYS
48	2q	7	THR

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Mol	Chain	Res	Type
48	2q	11	VAL
48	2q	31	LEU
48	2q	36	ILE
48	2q	53	LEU
48	2q	76	LEU
48	2q	83	ASP
48	2q	85	VAL
48	2q	86	GLU
48	2q	87	LYS
48	2q	89	LEU
48	2q	90	ILE
48	2q	96	GLU
49	2r	34	TYR
49	2r	37	VAL
49	2r	45	SER
49	2r	55	ARG
49	2r	58	LEU
49	2r	74	ARG
49	2r	76	LEU
49	2r	82	THR
49	2r	85	LEU
49	2r	87	ARG
50	2s	3	ARG
50	2s	5	LEU
50	2s	20	LEU
50	2s	28	LYS
50	2s	43	GLU
50	2s	49	ILE
50	2s	64	GLU
50	2s	66	MET
50	2s	67	VAL
50	2s	83	HIS
51	2t	9	ASN
51	2t	41	ILE
51	2t	56	MET
51	2t	71	THR
51	2t	93	GLU
51	2t	100	ILE
52	2u	8	THR
54	2w	106	ASP
54	2w	111	ILE
54	2w	115	THR

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Mol	Chain	Res	Type
54	2w	133	ARG
54	2w	144	VAL
54	2w	158	VAL
54	2w	162	VAL
54	2w	172	LYS
54	2w	179	ARG
54	2w	183	VAL
54	2w	185	VAL
54	2w	192	ILE
54	2w	196	THR
54	2w	202	LEU
54	2w	204	LYS
54	2w	215	ASP
54	2w	235	THR
54	2w	248	ILE
54	2w	250	VAL
54	2w	257	SER
54	2w	259	ILE
54	2w	262	ARG
54	2w	271	SER
54	2w	290	LEU
54	2w	295	THR
54	2w	300	GLU
54	2w	302	ILE
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	339	LEU
54	2w	351	LEU
56	2z	8	ILE
56	2z	12	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (143) such sidechains are listed below:

Mol	Chain	Res	Type
4	1E	48	GLN
4	1E	85	ASN
4	1E	143	ASN
5	1F	204	ASN

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Mol	Chain	Res	Type
6	1G	66	GLN
6	1G	138	GLN
8	1I	43	ASN
8	1I	105	HIS
9	1N	94	HIS
9	1N	131	GLN
11	1P	35	HIS
12	1Q	57	HIS
13	1R	24	GLN
13	1R	50	HIS
13	1R	71	GLN
14	1S	38	GLN
14	1S	68	GLN
15	1T	58	ASN
15	1T	84	GLN
16	1U	94	ASN
18	1W	111	HIS
19	1X	31	HIS
19	1X	82	GLN
20	1Y	6	HIS
21	1Z	32	HIS
21	1Z	34	ASN
21	1Z	50	GLN
21	1Z	65	GLN
21	1Z	73	GLN
22	10	29	GLN
22	10	35	ASN
24	12	38	GLN
24	12	43	GLN
25	13	32	GLN
30	18	35	GLN
31	19	34	GLN
33	1b	37	ASN
33	1b	212	GLN
35	1d	74	GLN
35	1d	125	HIS
35	1d	129	ASN
37	1f	94	GLN
37	1f	100	ASN
38	1g	13	GLN
38	1g	51	GLN
38	1g	64	GLN

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Mol	Chain	Res	Type
39	1h	15	ASN
39	1h	82	HIS
40	1i	31	GLN
40	1i	73	GLN
40	1i	117	HIS
40	1i	124	GLN
41	1j	13	HIS
41	1j	56	HIS
41	1j	62	HIS
42	1k	38	ASN
43	1l	80	HIS
44	1m	92	HIS
44	1m	106	ASN
45	1n	49	HIS
46	1o	28	GLN
46	1o	50	HIS
46	1o	62	GLN
47	1p	13	HIS
47	1p	76	GLN
48	1q	26	GLN
51	1t	16	HIS
54	1w	181	GLN
54	1w	258	GLN
3	2D	164	GLN
4	2E	48	GLN
4	2E	121	ASN
5	2F	69	HIS
5	2F	75	HIS
5	2F	160	ASN
6	2G	66	GLN
6	2G	79	ASN
7	2H	74	ASN
7	2H	143	GLN
8	2I	104	GLN
8	2I	139	GLN
9	2N	101	HIS
9	2N	131	GLN
10	2O	3	GLN
11	2P	35	HIS
11	2P	68	GLN
12	2Q	113	GLN
12	2Q	123	HIS

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Mol	Chain	Res	Type
13	2R	24	GLN
13	2R	50	HIS
13	2R	71	GLN
14	2S	38	GLN
15	2T	43	GLN
15	2T	58	ASN
16	2U	94	ASN
18	2W	60	ASN
21	2Z	30	ASN
21	2Z	32	HIS
21	2Z	55	HIS
21	2Z	73	GLN
21	2Z	121	HIS
21	2Z	132	ASN
21	2Z	151	HIS
24	22	38	GLN
31	29	34	GLN
33	2b	135	GLN
33	2b	204	ASN
33	2b	212	GLN
34	2c	31	HIS
34	2c	37	GLN
34	2c	69	HIS
34	2c	110	ASN
34	2c	123	GLN
34	2c	136	GLN
34	2c	181	ASN
35	2d	42	GLN
35	2d	45	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
36	2e	73	ASN
37	2f	7	ASN
37	2f	13	ASN
37	2f	57	GLN
37	2f	73	ASN
38	2g	13	GLN
38	2g	97	GLN
39	2h	15	ASN
40	2i	29	ASN

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Mol	Chain	Res	Type
40	2i	87	GLN
41	2j	13	HIS
44	2m	62	ASN
44	2m	77	ASN
44	2m	101	GLN
46	2o	28	GLN
50	2s	23	ASN
50	2s	56	GLN
50	2s	69	HIS
51	2t	16	HIS
54	2w	233	ASN
54	2w	253	GLN
54	2w	315	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2864/2915 (98%)	468 (16%)	28 (0%)
1	2A	2791/2915 (95%)	490 (17%)	25 (0%)
2	1B	119/121 (98%)	11 (9%)	0
2	2B	119/121 (98%)	18 (15%)	0
32	1a	1497/1521 (98%)	318 (21%)	0
32	2a	1501/1521 (98%)	323 (21%)	0
53	1v	10/24 (41%)	3 (30%)	0
53	2v	10/24 (41%)	2 (20%)	0
55	1x	73/76 (96%)	13 (17%)	0
55	1y	71/76 (93%)	22 (30%)	0
55	2x	73/76 (96%)	12 (16%)	0
55	2y	72/76 (94%)	26 (36%)	0
All	All	9200/9466 (97%)	1706 (18%)	53 (0%)

All (1706) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	13	A
1	1A	15	G
1	1A	34	C
1	1A	45	C
1	1A	71	A
1	1A	74	A

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Mol	Chain	Res	Type
1	1A	75	G
1	1A	83	G
1	1A	84	A
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	125	G
1	1A	140	G
1	1A	181	A
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	222	A
1	1A	229	A
1	1A	230	U
1	1A	233	A
1	1A	248	G
1	1A	250	G
1	1A	266	G
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	279	C
1	1A	311	A
1	1A	327	G
1	1A	329	G
1	1A	330	A
1	1A	352	G
1	1A	362	U
1	1A	363	G
1	1A	363(B)	G
1	1A	370	G
1	1A	380	U

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Mol	Chain	Res	Type
1	1A	386	G
1	1A	395	U
1	1A	396	G
1	1A	411	G
1	1A	412	A
1	1A	428	A
1	1A	444	C
1	1A	448	U
1	1A	457	A
1	1A	479	A
1	1A	481	G
1	1A	493	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	574	C
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	U
1	1A	614(A)	U
1	1A	614(B)	G
1	1A	615	G
1	1A	616	G
1	1A	619	G
1	1A	627	A
1	1A	637	A
1	1A	645	C

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Mol	Chain	Res	Type
1	1A	646	A
1	1A	651	G
1	1A	652(E)	G
1	1A	652(T)	C
1	1A	668	G
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	730	C
1	1A	740	U
1	1A	775	G
1	1A	776	G
1	1A	778	G
1	1A	782	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	879	G
1	1A	880	G
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	892	G
1	1A	894	C
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	938	G
1	1A	945	A

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Mol	Chain	Res	Type
1	1A	946	G
1	1A	953	A
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	970	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1005	C
1	1A	1012	U
1	1A	1013	C
1	1A	1020	A
1	1A	1021	A
1	1A	1022	G
1	1A	1026	U
1	1A	1033	U
1	1A	1041	C
1	1A	1044	G
1	1A	1046	A
1	1A	1047	G
1	1A	1054	A
1	1A	1055	G
1	1A	1058	G
1	1A	1060	U
1	1A	1063	G
1	1A	1064	C
1	1A	1071	G
1	1A	1072	C
1	1A	1073	A
1	1A	1077	A
1	1A	1078	U
1	1A	1080	C
1	1A	1081	U
1	1A	1082	U
1	1A	1083	U
1	1A	1085	A
1	1A	1087	G
1	1A	1088	A
1	1A	1089	G
1	1A	1092	C

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Mol	Chain	Res	Type
1	1A	1094	U
1	1A	1095	A
1	1A	1096	A
1	1A	1097	U
1	1A	1099	G
1	1A	1100	C
1	1A	1108	U
1	1A	1110	G
1	1A	1111	A
1	1A	1112	G
1	1A	1115	G
1	1A	1116	C
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1171	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	1205	U
1	1A	1218	C
1	1A	1220	A
1	1A	1241	A
1	1A	1248	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	1309	G
1	1A	1321	A
1	1A	1329	U
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1380	G

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Mol	Chain	Res	Type
1	1A	1384	A
1	1A	1385	G
1	1A	1386	C
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	1465	G
1	1A	1467	C
1	1A	1482	G
1	1A	1493	C
1	1A	1494	A
1	1A	1497	U
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1509(B)	A
1	1A	1525	G
1	1A	1539	G
1	1A	1540	U
1	1A	1541	G
1	1A	1543	C
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1580	A
1	1A	1583	A
1	1A	1584	C
1	1A	1586	A
1	1A	1607	C
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1644	C
1	1A	1647	G
1	1A	1648	C

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Mol	Chain	Res	Type
1	1A	1653	G
1	1A	1654	A
1	1A	1664	A
1	1A	1668	A
1	1A	1669	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1703	G
1	1A	1722	A
1	1A	1739	U
1	1A	1740	G
1	1A	1756	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1812	A
1	1A	1816	G
1	1A	1828	G
1	1A	1847	A
1	1A	1878	G
1	1A	1884	A
1	1A	1889	A
1	1A	1900	A
1	1A	1906	G
1	1A	1914	C
1	1A	1929	G
1	1A	1930	G
1	1A	1938	A
1	1A	1955	U
1	1A	1963	U
1	1A	1964	G
1	1A	1966	A
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A

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Mol	Chain	Res	Type
1	1A	1993	U
1	1A	1997	G
1	1A	2001	A
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
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	2093	G
1	1A	2099	U
1	1A	2101	G
1	1A	2113	U
1	1A	2116	G
1	1A	2119	A
1	1A	2122	U
1	1A	2123	G
1	1A	2126	A
1	1A	2127	G
1	1A	2129	C
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	2142	C
1	1A	2144	U
1	1A	2145	C
1	1A	2146	C
1	1A	2147	G
1	1A	2149	G
1	1A	2150	U
1	1A	2151	G

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Mol	Chain	Res	Type
1	1A	2155	G
1	1A	2156	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2160	G
1	1A	2162	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
1	1A	2175	C
1	1A	2176	A
1	1A	2178	C
1	1A	2179	C
1	1A	2180	U
1	1A	2181	G
1	1A	2182	G
1	1A	2184	G
1	1A	2189	U
1	1A	2190	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2225	A
1	1A	2226	C
1	1A	2268	A
1	1A	2269	A
1	1A	2278	A
1	1A	2280	G
1	1A	2283	C
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2308	G
1	1A	2313	C
1	1A	2320	A

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Mol	Chain	Res	Type
1	1A	2325	G
1	1A	2334	G
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2366	A
1	1A	2383	G
1	1A	2384	G
1	1A	2385	C
1	1A	2406	U
1	1A	2407	G
1	1A	2410	G
1	1A	2422	A
1	1A	2423	U
1	1A	2424	C
1	1A	2425	A
1	1A	2428	G
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2435	A
1	1A	2438	U
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2460	U
1	1A	2468	G
1	1A	2476	A
1	1A	2477	C
1	1A	2478	A
1	1A	2484	G
1	1A	2487	G
1	1A	2502	G
1	1A	2505	G
1	1A	2507	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

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Mol	Chain	Res	Type
1	1A	2573	C
1	1A	2574	G
1	1A	2582	G
1	1A	2601	C
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	2654	A
1	1A	2682	U
1	1A	2689	U
1	1A	2690	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2733	A
1	1A	2758	A
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2780	G
1	1A	2790	A
1	1A	2791	C
1	1A	2794	C
1	1A	2802	G
1	1A	2803	C
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2839	G
1	1A	2872	G
1	1A	2882	A
1	1A	2894	G
1	1A	2895	U
2	1B	7	G

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Mol	Chain	Res	Type
2	1B	13	A
2	1B	42	C
2	1B	45	A
2	1B	52	A
2	1B	56	G
2	1B	66	A
2	1B	73	A
2	1B	85	G
2	1B	106	G
2	1B	110	G
32	1a	5	U
32	1a	7	G
32	1a	9	G
32	1a	22	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
32	1a	52	G
32	1a	54	C
32	1a	61	G
32	1a	65	U
32	1a	69	G
32	1a	76	C
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(A)	G
32	1a	131	C
32	1a	144	G
32	1a	155	C
32	1a	156	G
32	1a	157	G
32	1a	158	G

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Mol	Chain	Res	Type
32	1a	161	A
32	1a	162	A
32	1a	163	C
32	1a	167	G
32	1a	173	U
32	1a	174	C
32	1a	182	U
32	1a	185	A
32	1a	189(A)	C
32	1a	189(E)	U
32	1a	189(F)	U
32	1a	189(G)	G
32	1a	195	A
32	1a	197	A
32	1a	199	G
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	220	G
32	1a	223	U
32	1a	231	G
32	1a	247	G
32	1a	251	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	308	C
32	1a	321	A
32	1a	328	C
32	1a	332	G
32	1a	333	G
32	1a	341	C
32	1a	343	U
32	1a	344	A
32	1a	345	C
32	1a	347	G
32	1a	348	G
32	1a	349	A
32	1a	352	C
32	1a	353	A
32	1a	354	G

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Mol	Chain	Res	Type
32	1a	355	C
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	381	C
32	1a	388	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	415	A
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	458	C
32	1a	460	G
32	1a	461	A
32	1a	470	C
32	1a	477	A
32	1a	479	C
32	1a	485	G
32	1a	495	A
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	518	C
32	1a	521	G
32	1a	525	C
32	1a	528	C
32	1a	532	A
32	1a	540	G
32	1a	545	C
32	1a	547	A
32	1a	559	A
32	1a	564	C

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Mol	Chain	Res	Type
32	1a	568	G
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	590	C
32	1a	596	C
32	1a	618	C
32	1a	621	A
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	671	G
32	1a	687	A
32	1a	688	G
32	1a	695	A
32	1a	723	U
32	1a	731	G
32	1a	749	C
32	1a	755	G
32	1a	773	G
32	1a	774	G
32	1a	777	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	799	G
32	1a	802	A
32	1a	815	A
32	1a	816	A
32	1a	817	C
32	1a	819	A
32	1a	821	G
32	1a	828	A
32	1a	836	G
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	848	C

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Mol	Chain	Res	Type
32	1a	851	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	934	C
32	1a	935	A
32	1a	939	G
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	991	U
32	1a	992	U
32	1a	993	G
32	1a	996	A
32	1a	997	U
32	1a	1000	U
32	1a	1002	G
32	1a	1003	G
32	1a	1004	A
32	1a	1005	A
32	1a	1006	C
32	1a	1009	G
32	1a	1011	G
32	1a	1012	U
32	1a	1014	A
32	1a	1016	A
32	1a	1022	G
32	1a	1023	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C

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Mol	Chain	Res	Type
32	1a	1028	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	1032	G
32	1a	1036	G
32	1a	1037	C
32	1a	1039	C
32	1a	1040	U
32	1a	1042	G
32	1a	1043	C
32	1a	1044	A
32	1a	1050	G
32	1a	1054	C
32	1a	1065	U
32	1a	1066	C
32	1a	1067	A
32	1a	1081	G
32	1a	1086	U
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1120	G
32	1a	1121	U
32	1a	1122	U
32	1a	1123	A
32	1a	1125	U
32	1a	1126	U
32	1a	1129	C
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	1141	C
32	1a	1146	A
32	1a	1150	U
32	1a	1152	A
32	1a	1155	G

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Mol	Chain	Res	Type
32	1a	1159	U
32	1a	1166	G
32	1a	1182	G
32	1a	1183	A
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	1217	C
32	1a	1220	G
32	1a	1227	A
32	1a	1228	C
32	1a	1229	A
32	1a	1236	A
32	1a	1238	A
32	1a	1240	U
32	1a	1250	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1260	C
32	1a	1262	C
32	1a	1264	C
32	1a	1270	C
32	1a	1275	A
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1298	C
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1305	G
32	1a	1316	G
32	1a	1319	A

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Mol	Chain	Res	Type
32	1a	1320	C
32	1a	1322	C
32	1a	1332	A
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1360	A
32	1a	1363	C
32	1a	1368	G
32	1a	1370	G
32	1a	1379	G
32	1a	1394	A
32	1a	1397	C
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1452	C
32	1a	1460	A
32	1a	1487	G
32	1a	1492	A
32	1a	1493	A
32	1a	1494	G
32	1a	1497	G
32	1a	1499	A
32	1a	1503	A
32	1a	1504	G
32	1a	1506	U
32	1a	1507	A
32	1a	1517	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
53	1v	11	U
53	1v	12	A
53	1v	21	A
55	1x	9	A
55	1x	16	U
55	1x	18	G
55	1x	19	G
55	1x	20	U

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Mol	Chain	Res	Type
55	1x	21	A
55	1x	28	G
55	1x	31	A
55	1x	47	U
55	1x	48	C
55	1x	53	G
55	1x	62	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	26	A
55	1y	27	G
55	1y	31	A
55	1y	41	C
55	1y	44	G
55	1y	45	U
55	1y	46	G7M
55	1y	48	C
55	1y	49	C
55	1y	53	G
55	1y	58	A
55	1y	59	U
55	1y	65	G
55	1y	68	C
55	1y	71	G
55	1y	72	C
55	1y	73	A
1	2A	33	U
1	2A	35	G
1	2A	36	G
1	2A	45	C
1	2A	55	G
1	2A	61	G
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	94	C
1	2A	100	G

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Mol	Chain	Res	Type
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	123	G
1	2A	125	G
1	2A	141	A
1	2A	150	C
1	2A	154(A)	C
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	225	A
1	2A	228	A
1	2A	229	A
1	2A	233	A
1	2A	248	G
1	2A	249	C
1	2A	265	A
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	292	C
1	2A	294	A
1	2A	311	A
1	2A	312	G

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Mol	Chain	Res	Type
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	356	G
1	2A	362	U
1	2A	363	G
1	2A	371	A
1	2A	373	U
1	2A	386	G
1	2A	388	G
1	2A	396	G
1	2A	405	U
1	2A	411	G
1	2A	412	A
1	2A	444	C
1	2A	449	A
1	2A	451	C
1	2A	454	A
1	2A	455	C
1	2A	457	A
1	2A	467	G
1	2A	481	G
1	2A	489	G
1	2A	504	U
1	2A	505	A
1	2A	508	G
1	2A	509	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	592	G
1	2A	599	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(A)	U
1	2A	614(B)	G
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	634	C
1	2A	637	A
1	2A	643	A
1	2A	644	A
1	2A	645	C
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	653	A
1	2A	669	G
1	2A	686	G
1	2A	717	G
1	2A	730	C
1	2A	740	U
1	2A	753	C
1	2A	770	G
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	794	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

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Mol	Chain	Res	Type
1	2A	867	C
1	2A	874	G
1	2A	878	A
1	2A	879	G
1	2A	880	G
1	2A	886	C
1	2A	887	A
1	2A	889	C
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	907	U
1	2A	910	A
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	959	A
1	2A	961	C
1	2A	968	G
1	2A	974	G
1	2A	975	C
1	2A	980	A
1	2A	983	A
1	2A	996	A
1	2A	1006	C
1	2A	1012	U
1	2A	1013	C
1	2A	1022	G
1	2A	1025	G
1	2A	1027	A
1	2A	1033	U
1	2A	1040	C
1	2A	1041	C
1	2A	1042	G

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Mol	Chain	Res	Type
1	2A	1043	C
1	2A	1116	C
1	2A	1117	G
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	1171	G
1	2A	1188	U
1	2A	1210	A
1	2A	1211	U
1	2A	1220	A
1	2A	1237	A
1	2A	1250	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1300	U
1	2A	1301	A
1	2A	1314	C
1	2A	1321	A
1	2A	1333	C
1	2A	1342	A
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1370	C
1	2A	1376	C
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1402	C
1	2A	1403	C
1	2A	1413	G
1	2A	1416	G

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Mol	Chain	Res	Type
1	2A	1417	C
1	2A	1419	A
1	2A	1427	A
1	2A	1428	C
1	2A	1436	G
1	2A	1437	C
1	2A	1445	A
1	2A	1449	A
1	2A	1450	G
1	2A	1455	G
1	2A	1460	A
1	2A	1461	G
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	1494	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509(A)	A
1	2A	1509(B)	A
1	2A	1531	C
1	2A	1533	G
1	2A	1547	C
1	2A	1554	A
1	2A	1558	A
1	2A	1566	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	1588	C
1	2A	1595	G
1	2A	1603	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1618	A

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Mol	Chain	Res	Type
1	2A	1622	G
1	2A	1639	U
1	2A	1640	C
1	2A	1646	C
1	2A	1647	G
1	2A	1648	C
1	2A	1653	G
1	2A	1654	A
1	2A	1664	A
1	2A	1668	A
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	1743	C
1	2A	1745(A)	C
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	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1829	A
1	2A	1835	G
1	2A	1847	A
1	2A	1848	A
1	2A	1858	G
1	2A	1877	A
1	2A	1878	G
1	2A	1889	A
1	2A	1900	A

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Mol	Chain	Res	Type
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	1934	C
1	2A	1936	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1964	G
1	2A	1965	C
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1992	G
1	2A	1993	U
1	2A	1997	G
1	2A	2021	C
1	2A	2023	G
1	2A	2027	G
1	2A	2030	A
1	2A	2031	A
1	2A	2033	A
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2069	G
1	2A	2080	G
1	2A	2099	U
1	2A	2111	C
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2119	A
1	2A	2120	G
1	2A	2122	U
1	2A	2125	G

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Mol	Chain	Res	Type
1	2A	2126	A
1	2A	2127	G
1	2A	2129	C
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2136	C
1	2A	2138	C
1	2A	2142	C
1	2A	2146	C
1	2A	2150	U
1	2A	2152	G
1	2A	2154	G
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	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2171	A
1	2A	2172	U
1	2A	2173	A
1	2A	2183	C
1	2A	2185	C
1	2A	2188	C
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2219	G
1	2A	2225	A
1	2A	2232	U
1	2A	2239	G
1	2A	2248	C

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Mol	Chain	Res	Type
1	2A	2273	A
1	2A	2275	C
1	2A	2278	A
1	2A	2283	C
1	2A	2287	A
1	2A	2288	A
1	2A	2305	A
1	2A	2307	G
1	2A	2308	G
1	2A	2311	A
1	2A	2312	U
1	2A	2319	G
1	2A	2320	A
1	2A	2322	A
1	2A	2325	G
1	2A	2334	G
1	2A	2336	A
1	2A	2347	C
1	2A	2350	C
1	2A	2372	G
1	2A	2377	A
1	2A	2379	G
1	2A	2383	G
1	2A	2385	C
1	2A	2396	G
1	2A	2406	U
1	2A	2410	G
1	2A	2422	A
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2432	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2448	A
1	2A	2449	U
1	2A	2465	C
1	2A	2469	A
1	2A	2473	U
1	2A	2474	C
1	2A	2476	A

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Mol	Chain	Res	Type
1	2A	2477	C
1	2A	2478	A
1	2A	2480	C
1	2A	2487	G
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2520	C
1	2A	2529	G
1	2A	2549	G
1	2A	2554	U
1	2A	2562	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2574	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	2654	A
1	2A	2664	G
1	2A	2669	G
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2744	G
1	2A	2753	A
1	2A	2758	A
1	2A	2761	G

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Mol	Chain	Res	Type
1	2A	2764	A
1	2A	2765	A
1	2A	2775	A
1	2A	2778	A
1	2A	2802	G
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2839	G
1	2A	2872	G
1	2A	2880	C
1	2A	2894	G
1	2A	2896	C
1	2A	2897	U
2	2B	7	G
2	2B	12	C
2	2B	13	A
2	2B	15	A
2	2B	21	G
2	2B	24	G
2	2B	40	U
2	2B	45	A
2	2B	48	A
2	2B	56	G
2	2B	63	G
2	2B	67	G
2	2B	70	C
2	2B	73	A
2	2B	88	C
2	2B	91	C
2	2B	110	G
2	2B	118	G
32	2a	5	U
32	2a	8	A
32	2a	9	G
32	2a	22	G
32	2a	31	G
32	2a	32	A
32	2a	39	G
32	2a	41	G

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Mol	Chain	Res	Type
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	66	G
32	2a	72	C
32	2a	73	G
32	2a	80	G
32	2a	88	A
32	2a	89	C
32	2a	101	A
32	2a	105	G
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	142	G
32	2a	146	G
32	2a	163	C
32	2a	173	U
32	2a	174	C
32	2a	182	U
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	189(G)	G
32	2a	189(J)	G
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	220	G
32	2a	247	G
32	2a	251	G
32	2a	266	G
32	2a	267	C
32	2a	279	A
32	2a	281	G
32	2a	289	G
32	2a	316	G
32	2a	321	A

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Mol	Chain	Res	Type
32	2a	328	C
32	2a	332	G
32	2a	350	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	375	U
32	2a	395	C
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	422	C
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	442	C
32	2a	443	C
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	471	G
32	2a	482	A
32	2a	485	G
32	2a	494	U
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	525	C
32	2a	532	A
32	2a	536	C
32	2a	547	A

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Mol	Chain	Res	Type
32	2a	559	A
32	2a	561	U
32	2a	564	C
32	2a	568	G
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	577	G
32	2a	630	G
32	2a	639	G
32	2a	640	A
32	2a	653	A
32	2a	657	G
32	2a	665	A
32	2a	687	A
32	2a	688	G
32	2a	691	G
32	2a	693	G
32	2a	701	C
32	2a	702	A
32	2a	708	C
32	2a	716	A
32	2a	721	G
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	733	A
32	2a	734	G
32	2a	753	A
32	2a	755	G
32	2a	759	A
32	2a	793	U
32	2a	794	A
32	2a	810	C
32	2a	815	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	836	G
32	2a	840	C
32	2a	841	U
32	2a	851	G

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Mol	Chain	Res	Type
32	2a	855	G
32	2a	859	A
32	2a	864	A
32	2a	870	U
32	2a	872	A
32	2a	873	A
32	2a	902	G
32	2a	912	C
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	932	C
32	2a	934	C
32	2a	935	A
32	2a	938	A
32	2a	942	G
32	2a	954	G
32	2a	960	U
32	2a	961	U
32	2a	966	M2G
32	2a	969	A
32	2a	971	G
32	2a	973	G
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	982	U
32	2a	987	G
32	2a	992	U
32	2a	993	G
32	2a	995	C
32	2a	999	C
32	2a	1001(A)	G
32	2a	1002	G
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1011	G
32	2a	1020	U

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Mol	Chain	Res	Type
32	2a	1022	G
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1030(B)	C
32	2a	1030(C)	G
32	2a	1031	G
32	2a	1032	G
32	2a	1033	G
32	2a	1034	G
32	2a	1035	A
32	2a	1036	G
32	2a	1037	C
32	2a	1038	C
32	2a	1040	U
32	2a	1042	G
32	2a	1044	A
32	2a	1046	A
32	2a	1050	G
32	2a	1053	G
32	2a	1064	G
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1072	G
32	2a	1077	G
32	2a	1080	A
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U
32	2a	1099	G
32	2a	1101	A
32	2a	1113	C
32	2a	1115	C
32	2a	1117	G
32	2a	1120	G
32	2a	1122	U
32	2a	1123	A

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Mol	Chain	Res	Type
32	2a	1125	U
32	2a	1126	U
32	2a	1127	G
32	2a	1128	C
32	2a	1129	C
32	2a	1132	C
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1147	C
32	2a	1151	A
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1171	G
32	2a	1175	G
32	2a	1178	G
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1187	G
32	2a	1188	A
32	2a	1193	G
32	2a	1196	U
32	2a	1197	G
32	2a	1201	A
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	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1247	U
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G

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Mol	Chain	Res	Type
32	2a	1260	C
32	2a	1270	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	1282	C
32	2a	1285	A
32	2a	1286	A
32	2a	1287	A
32	2a	1297	C
32	2a	1298	C
32	2a	1299	A
32	2a	1300	G
32	2a	1305	G
32	2a	1312	G
32	2a	1319	A
32	2a	1321	C
32	2a	1322	C
32	2a	1335	C
32	2a	1347	G
32	2a	1353	G
32	2a	1358	U
32	2a	1362	C
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1364	U
32	2a	1377	A
32	2a	1379	G
32	2a	1381	U
32	2a	1383	C
32	2a	1396	A
32	2a	1397	C
32	2a	1398	A
32	2a	1402	4OC
32	2a	1412	C
32	2a	1419	G
32	2a	1434	A
32	2a	1442	G
32	2a	1442(A)	G

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Mol	Chain	Res	Type
32	2a	1446	U
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1487	G
32	2a	1491	G
32	2a	1492	A
32	2a	1493	A
32	2a	1494	G
32	2a	1497	G
32	2a	1499	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1519	MA6
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	17	C
55	2x	18	G
55	2x	19	G
55	2x	20	U
55	2x	21	A
55	2x	28	G
55	2x	31	A
55	2x	48	C
55	2x	52	G
55	2x	60	U
55	2x	76	A
55	2y	8	4SU
55	2y	11	C
55	2y	13	C
55	2y	15	G
55	2y	19	G
55	2y	20	U
55	2y	21	A

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Mol	Chain	Res	Type
55	2y	23	A
55	2y	24	G
55	2y	25	C
55	2y	27	G
55	2y	30	G
55	2y	33	U
55	2y	41	C
55	2y	42	C
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	52	G
55	2y	58	A
55	2y	59	U
55	2y	60	U
55	2y	69	G

All (53) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	196	A
1	1A	266	G
1	1A	278	A
1	1A	548	A
1	1A	573	G
1	1A	746	A
1	1A	764	A
1	1A	774	A
1	1A	887	A
1	1A	895	U
1	1A	974	G
1	1A	1065	U
1	1A	1107	G
1	1A	1174	A
1	1A	1176	G
1	1A	1379	A
1	1A	1442	G
1	1A	1508	A
1	1A	1653	G

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Mol	Chain	Res	Type
1	1A	1663	C
1	1A	2131	G
1	1A	2134	A
1	1A	2183	C
1	1A	2406	U
1	1A	2422	A
1	1A	2439	A
1	1A	2601	C
1	1A	2689	U
1	2A	34	C
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	746	A
1	2A	752	A
1	2A	764	A
1	2A	827	U
1	2A	856	C
1	2A	888	C
1	2A	960	A
1	2A	1026	U
1	2A	1210	A
1	2A	1379	A
1	2A	1530	C
1	2A	1653	G
1	2A	1913	A
1	2A	1992	G
1	2A	2119	A
1	2A	2126	A
1	2A	2406	U
1	2A	2689	U

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

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	PSU	1y	39	55	18,21,22	1.38	2 (11%)	21,30,33	1.94	3 (14%)
55	4SU	1x	8	55	18,21,22	1.78	5 (27%)	25,30,33	2.16	5 (20%)
1	2MA	1A	2503	57,1	22,25,26	1.51	4 (18%)	32,37,40	2.32	7 (21%)
43	0TD	1l	92	43	8,9,10	4.34	1 (12%)	6,11,13	7.76	1 (16%)
55	PSU	2y	39	55	18,21,22	1.42	2 (11%)	21,30,33	1.66	3 (14%)
1	PSU	2A	1911	1	18,21,22	1.40	3 (16%)	21,30,33	2.10	5 (23%)
55	PSU	1y	32	55	18,21,22	1.40	3 (16%)	21,30,33	1.94	3 (14%)
55	5MU	1y	54	55	19,22,23	1.43	4 (21%)	27,32,35	1.68	6 (22%)
55	G7M	2y	46	55	23,26,27	1.55	4 (17%)	34,39,42	1.78	5 (14%)
55	PSU	2x	32	55	18,21,22	1.37	2 (11%)	21,30,33	2.03	3 (14%)
32	PSU	1a	516	57,32	18,21,22	1.40	2 (11%)	21,30,33	2.00	5 (23%)
32	MA6	2a	1518	32	23,26,27	0.41	0	33,38,41	2.06	9 (27%)
55	PSU	1x	39	55	18,21,22	1.42	2 (11%)	21,30,33	1.86	3 (14%)
32	MA6	2a	1519	32	23,26,27	0.41	0	33,38,41	2.11	8 (24%)
32	PSU	2a	516	57,32	18,21,22	1.37	2 (11%)	21,30,33	2.02	5 (23%)
55	MIA	2x	37	55	28,31,32	2.41	5 (17%)	38,44,47	2.70	14 (36%)
55	G7M	2x	46	55	23,26,27	1.51	3 (13%)	34,39,42	1.75	5 (14%)
32	4OC	1a	1402	57,32	20,23,24	0.80	1 (5%)	25,32,35	0.96	1 (4%)
55	MIA	1x	37	55	28,31,32	2.36	7 (25%)	38,44,47	2.62	13 (34%)
32	G7M	1a	527	57,32	23,26,27	1.56	3 (13%)	34,39,42	1.73	5 (14%)
32	5MC	2a	1400	32	19,22,23	1.65	3 (15%)	26,32,35	1.24	4 (15%)
32	UR3	2a	1498	57,32	19,22,23	0.96	0	26,32,35	1.70	2 (7%)
32	MA6	1a	1518	32	23,26,27	0.41	0	33,38,41	1.96	9 (27%)
55	5MU	1x	54	55	19,22,23	1.40	4 (21%)	27,32,35	1.78	7 (25%)
55	4SU	1y	8	55	18,21,22	1.74	4 (22%)	25,30,33	2.46	6 (24%)
1	2MA	2A	2503	57,1	22,25,26	1.48	4 (18%)	32,37,40	2.24	9 (28%)
1	OMG	1A	2251	55,57,1	23,26,27	1.25	3 (13%)	32,38,41	2.09	7 (21%)
1	5MU	2A	1915	57,1	19,22,23	1.44	5 (26%)	27,32,35	2.14	6 (22%)
1	5MU	1A	1939	57,1	19,22,23	1.46	6 (31%)	27,32,35	2.30	6 (22%)
32	2MG	2a	1207	32	23,26,27	1.22	2 (8%)	33,38,41	2.21	8 (24%)
54	MEQ	1w	230	54	8,9,10	1.00	0	5,10,12	0.78	0
1	PSU	1A	2605	57,1	18,21,22	1.49	4 (22%)	21,30,33	1.99	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	OMG	2A	2251	55,57,1	23,26,27	1.29	3 (13%)	32,38,41	1.93	6 (18%)
1	OMC	2A	1920	57,1	19,22,23	0.82	0	25,31,34	0.89	0
32	5MC	1a	1400	32	19,22,23	1.75	3 (15%)	26,32,35	1.15	2 (7%)
55	PSU	1x	32	55	18,21,22	1.38	3 (16%)	21,30,33	2.09	5 (23%)
1	5MU	2A	1939	57,1	19,22,23	1.48	6 (31%)	27,32,35	2.15	6 (22%)
1	PSU	2A	1917	1	18,21,22	1.36	3 (16%)	21,30,33	2.09	4 (19%)
1	PSU	2A	2605	1	18,21,22	1.30	2 (11%)	21,30,33	2.08	3 (14%)
55	PSU	2y	55	55	18,21,22	1.37	3 (16%)	21,30,33	1.98	3 (14%)
32	2MG	1a	1207	32	23,26,27	1.24	4 (17%)	33,38,41	2.20	8 (24%)
55	MIA	2y	37	55	28,31,32	2.45	6 (21%)	38,44,47	2.81	13 (34%)
1	5MU	1A	1915	57,1	19,22,23	1.48	5 (26%)	27,32,35	2.11	6 (22%)
55	G7M	1y	46	55	23,26,27	1.55	4 (17%)	34,39,42	1.81	5 (14%)
32	5MC	2a	967	32	19,22,23	1.61	3 (15%)	26,32,35	1.11	2 (7%)
32	5MC	2a	1404	32	19,22,23	1.60	2 (10%)	26,32,35	1.16	3 (11%)
1	5MC	2A	1942	1	19,22,23	1.74	3 (15%)	26,32,35	1.21	2 (7%)
1	PSU	1A	1911	1	18,21,22	1.39	2 (11%)	21,30,33	2.12	5 (23%)
1	OMC	1A	1920	1	19,22,23	0.80	0	25,31,34	1.03	2 (8%)
32	M2G	2a	966	32	24,27,28	1.30	4 (16%)	33,40,43	1.88	6 (18%)
55	PSU	2x	55	55	18,21,22	1.39	2 (11%)	21,30,33	2.02	3 (14%)
55	4SU	2y	8	55	18,21,22	1.83	6 (33%)	25,30,33	1.67	5 (20%)
32	5MC	2a	1407	32	19,22,23	1.59	3 (15%)	26,32,35	1.14	3 (11%)
1	OMU	1A	2552	57,1	19,22,23	1.27	3 (15%)	25,31,34	1.93	5 (20%)
55	5MU	2y	54	55	19,22,23	1.44	5 (26%)	27,32,35	2.15	8 (29%)
1	5MC	1A	1942	1	19,22,23	1.50	3 (15%)	26,32,35	1.14	3 (11%)
1	OMU	2A	2552	57,1	19,22,23	1.25	3 (15%)	25,31,34	1.90	5 (20%)
55	PSU	1y	55	55	18,21,22	1.41	2 (11%)	21,30,33	1.91	3 (14%)
55	MIA	1y	37	55	28,31,32	2.36	5 (17%)	38,44,47	2.53	12 (31%)
1	5MC	1A	1962	57,1	19,22,23	1.55	3 (15%)	26,32,35	1.11	2 (7%)
55	PSU	2x	39	55	18,21,22	1.40	2 (11%)	21,30,33	1.86	3 (14%)
32	4OC	2a	1402	57,32	20,23,24	0.79	0	25,32,35	0.92	0
55	G7M	1x	46	55	23,26,27	1.55	4 (17%)	34,39,42	1.78	4 (11%)
32	MA6	1a	1519	32	23,26,27	0.45	0	33,38,41	2.14	10 (30%)
1	5MC	2A	1962	57,1	19,22,23	1.57	3 (15%)	26,32,35	1.14	2 (7%)
54	MEQ	2w	230	54	8,9,10	0.91	0	5,10,12	0.50	0
55	PSU	2y	32	55	18,21,22	1.40	2 (11%)	21,30,33	1.90	3 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	5MC	1a	1404	32	19,22,23	1.62	3 (15%)	26,32,35	1.10	2 (7%)
32	M2G	1a	966	32	24,27,28	1.31	3 (12%)	33,40,43	1.92	7 (21%)
32	G7M	2a	527	32	23,26,27	1.49	3 (13%)	34,39,42	1.71	5 (14%)
32	UR3	1a	1498	32	19,22,23	1.08	2 (10%)	26,32,35	1.66	4 (15%)
32	5MC	1a	967	32	19,22,23	1.65	3 (15%)	26,32,35	1.14	2 (7%)
43	0TD	2l	92	43	8,9,10	4.44	2 (25%)	6,11,13	5.67	1 (16%)
55	4SU	2x	8	55	18,21,22	1.87	5 (27%)	25,30,33	2.04	5 (20%)
1	PSU	1A	1917	1	18,21,22	1.42	2 (11%)	21,30,33	2.12	5 (23%)
55	5MU	2x	54	55	19,22,23	1.40	5 (26%)	27,32,35	1.80	6 (22%)
32	5MC	1a	1407	32	19,22,23	1.43	2 (10%)	26,32,35	1.06	2 (7%)
55	PSU	1x	55	55	18,21,22	1.36	2 (11%)	21,30,33	1.98	4 (19%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	PSU	1y	39	55	-	0/7/25/26	0/2/2/2
55	4SU	1x	8	55	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	57,1	-	2/7/25/26	0/3/3/3
43	0TD	1l	92	43	-	3/7/12/14	-
55	PSU	2y	39	55	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
55	PSU	1y	32	55	-	0/7/25/26	0/2/2/2
55	5MU	1y	54	55	-	0/7/25/26	0/2/2/2
55	G7M	2y	46	55	-	2/7/25/26	0/3/3/3
55	PSU	2x	32	55	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	57,32	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
55	PSU	1x	39	55	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
32	PSU	2a	516	57,32	-	0/7/25/26	0/2/2/2
55	MIA	2x	37	55	-	3/15/33/34	0/3/3/3
55	G7M	2x	46	55	-	3/7/25/26	0/3/3/3
32	4OC	1a	1402	57,32	-	2/9/29/30	0/2/2/2
55	MIA	1x	37	55	-	5/15/33/34	0/3/3/3
32	G7M	1a	527	57,32	-	2/7/25/26	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	57,32	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
55	5MU	1x	54	55	-	0/7/25/26	0/2/2/2
55	4SU	1y	8	55	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	57,1	-	2/7/25/26	0/3/3/3
1	OMG	1A	2251	55,57,1	-	0/9/27/28	0/3/3/3
1	5MU	2A	1915	57,1	-	0/7/25/26	0/2/2/2
1	5MU	1A	1939	57,1	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	1/9/27/28	0/3/3/3
54	MEQ	1w	230	54	-	3/8/9/11	-
1	PSU	1A	2605	57,1	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	55,57,1	-	0/9/27/28	0/3/3/3
1	OMC	2A	1920	57,1	-	0/9/27/28	0/2/2/2
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
55	PSU	1x	32	55	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	57,1	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
55	PSU	2y	55	55	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	32	-	0/9/27/28	0/3/3/3
55	MIA	2y	37	55	-	3/15/33/34	0/3/3/3
1	5MU	1A	1915	57,1	-	0/7/25/26	0/2/2/2
55	G7M	1y	46	55	-	3/7/25/26	0/3/3/3
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	OMC	1A	1920	1	-	3/9/27/28	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
55	4SU	2y	8	55	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
1	OMU	1A	2552	57,1	-	0/9/27/28	0/2/2/2
55	5MU	2y	54	55	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
1	OMU	2A	2552	57,1	-	0/9/27/28	0/2/2/2
55	PSU	1y	55	55	-	0/7/25/26	0/2/2/2
55	MIA	1y	37	55	-	4/15/33/34	0/3/3/3
1	5MC	1A	1962	57,1	-	0/7/25/26	0/2/2/2
55	PSU	2x	39	55	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	4OC	2a	1402	57,32	-	2/9/29/30	0/2/2/2
55	G7M	1x	46	55	-	3/7/25/26	0/3/3/3
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
1	5MC	2A	1962	57,1	-	2/7/25/26	0/2/2/2
54	MEQ	2w	230	54	-	2/8/9/11	-
55	PSU	2y	32	55	-	0/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	G7M	2a	527	32	-	0/7/25/26	0/3/3/3
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	5/7/12/14	-
55	4SU	2x	8	55	-	0/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
55	PSU	1x	55	55	-	0/7/25/26	0/2/2/2

All (224) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.01	1.70	1.82
43	1l	92	0TD	CB-SB	-11.84	1.70	1.82
55	2y	37	MIA	C2-S10	-7.45	1.69	1.75
55	1x	37	MIA	C2-S10	-7.12	1.69	1.75
55	2x	37	MIA	C13-C14	7.06	1.53	1.32
55	2x	37	MIA	C2-S10	-6.97	1.70	1.75
55	2y	37	MIA	C13-C14	6.91	1.53	1.32
55	1y	37	MIA	C13-C14	6.87	1.53	1.32
55	1x	37	MIA	C13-C14	6.86	1.53	1.32
55	1y	37	MIA	C2-S10	-6.68	1.70	1.75
1	2A	1942	5MC	C5-C4	6.40	1.49	1.44
32	1a	1400	5MC	C5-C4	6.38	1.48	1.44
32	2a	1400	5MC	C5-C4	6.07	1.48	1.44
32	1a	967	5MC	C5-C4	6.03	1.48	1.44
32	1a	1404	5MC	C5-C4	5.88	1.48	1.44
32	2a	967	5MC	C5-C4	5.73	1.48	1.44
32	2a	1407	5MC	C5-C4	5.66	1.48	1.44
1	2A	1962	5MC	C5-C4	5.59	1.48	1.44
32	2a	1404	5MC	C5-C4	5.50	1.48	1.44
1	1A	1962	5MC	C5-C4	5.40	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2y	37	MIA	C5-C4	5.29	1.48	1.39
55	1y	37	MIA	C5-C4	5.13	1.48	1.39
1	1A	1942	5MC	C5-C4	5.09	1.48	1.44
55	2x	37	MIA	C5-C4	5.03	1.48	1.39
55	2x	8	4SU	C4-S4	-4.97	1.59	1.68
55	1x	46	G7M	C5-N7	-4.91	1.33	1.39
55	1y	8	4SU	C4-S4	-4.88	1.60	1.68
55	1x	8	4SU	C4-S4	-4.84	1.60	1.68
32	1a	527	G7M	C5-N7	-4.76	1.33	1.39
55	2x	46	G7M	C5-N7	-4.71	1.33	1.39
32	1a	1407	5MC	C5-C4	4.70	1.47	1.44
55	1x	37	MIA	C5-C4	4.68	1.47	1.39
55	2y	8	4SU	C4-S4	-4.64	1.60	1.68
55	1y	46	G7M	C5-N7	-4.54	1.33	1.39
1	2A	2503	2MA	C5-C4	4.52	1.47	1.39
32	2a	527	G7M	C5-N7	-4.50	1.34	1.39
1	1A	2503	2MA	C5-C4	4.37	1.46	1.39
55	2y	46	G7M	C5-N7	-4.33	1.34	1.39
55	2x	55	PSU	C6-C5	4.22	1.40	1.35
55	1y	32	PSU	C6-C5	4.08	1.39	1.35
55	1y	55	PSU	C6-C5	3.98	1.39	1.35
55	2y	32	PSU	C6-C5	3.96	1.39	1.35
1	1A	1911	PSU	C6-C5	3.91	1.39	1.35
55	1x	39	PSU	C6-C5	3.88	1.39	1.35
1	1A	1917	PSU	C6-C5	3.88	1.39	1.35
32	1a	516	PSU	C6-C5	3.85	1.39	1.35
55	2y	39	PSU	C6-C5	3.79	1.39	1.35
55	2y	55	PSU	C6-C5	3.69	1.39	1.35
55	2x	39	PSU	C6-C5	3.67	1.39	1.35
55	2x	32	PSU	C6-C5	3.65	1.39	1.35
55	1y	39	PSU	C6-C5	3.65	1.39	1.35
55	2y	46	G7M	C5-C4	3.60	1.47	1.38
32	2a	516	PSU	C6-C5	3.57	1.39	1.35
1	2A	1911	PSU	C6-C5	3.51	1.39	1.35
55	2x	37	MIA	C5-C6	3.46	1.50	1.41
55	1x	55	PSU	C6-C5	3.44	1.39	1.35
55	1y	46	G7M	C5-C4	3.43	1.46	1.38
1	2A	2605	PSU	C6-C5	3.41	1.39	1.35
1	2A	1917	PSU	C6-C5	3.37	1.39	1.35
55	1x	46	G7M	C5-C4	3.35	1.46	1.38
55	2y	8	4SU	C4-N3	-3.34	1.34	1.37
32	1a	527	G7M	C5-C4	3.30	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2x	46	G7M	C5-C4	3.27	1.46	1.38
1	1A	1915	5MU	C6-C5	3.26	1.39	1.34
32	2a	1207	2MG	C5-C4	3.24	1.47	1.38
32	1a	1207	2MG	C5-C4	3.21	1.47	1.38
32	2a	966	M2G	C5-C4	3.21	1.47	1.38
1	2A	2251	OMG	C5-C4	3.20	1.47	1.38
32	2a	1404	5MC	C6-C5	3.17	1.39	1.34
55	1y	37	MIA	C5-C6	3.16	1.49	1.41
55	1x	32	PSU	C6-C5	3.16	1.38	1.35
32	1a	966	M2G	C5-C4	3.16	1.47	1.38
32	2a	527	G7M	C5-C4	3.15	1.46	1.38
1	1A	2605	PSU	C6-C5	3.15	1.38	1.35
55	2x	8	4SU	C5-C4	-3.14	1.38	1.42
1	1A	2605	PSU	C4-N3	-3.13	1.33	1.38
55	2y	37	MIA	C5-C6	3.11	1.49	1.41
55	1x	8	4SU	C4-N3	-3.06	1.34	1.37
55	2x	8	4SU	C4-N3	-3.04	1.34	1.37
1	1A	2251	OMG	C5-C4	3.01	1.47	1.38
1	2A	1939	5MU	C6-C5	3.00	1.39	1.34
32	1a	1407	5MC	C6-C5	2.98	1.39	1.34
55	1x	54	5MU	C6-C5	2.95	1.39	1.34
1	2A	1939	5MU	C4-N3	-2.93	1.33	1.38
55	1y	54	5MU	C6-C5	2.92	1.39	1.34
1	2A	1915	5MU	C2-N1	2.91	1.43	1.38
32	2a	967	5MC	C6-C5	2.90	1.39	1.34
32	1a	966	M2G	C2-N2	2.89	1.40	1.35
1	1A	1915	5MU	C4-N3	-2.89	1.33	1.38
55	2y	54	5MU	C6-C5	2.88	1.39	1.34
55	2y	54	5MU	C4-C5	2.87	1.49	1.44
1	2A	1942	5MC	C6-C5	2.86	1.39	1.34
55	1x	37	MIA	C5-C6	2.85	1.48	1.41
1	1A	1939	5MU	C6-C5	2.85	1.39	1.34
1	2A	2552	OMU	C4-N3	-2.83	1.33	1.38
1	2A	1915	5MU	C6-C5	2.82	1.39	1.34
55	2x	54	5MU	C4-N3	-2.82	1.33	1.38
1	1A	2503	2MA	C5-N7	-2.81	1.33	1.39
32	2a	966	M2G	C2-N2	2.81	1.40	1.35
1	2A	1911	PSU	C4-N3	-2.80	1.33	1.38
32	1a	1400	5MC	C6-C5	2.79	1.39	1.34
55	2y	39	PSU	C4-N3	-2.78	1.33	1.38
1	1A	1942	5MC	C6-C5	2.77	1.39	1.34
1	2A	2251	OMG	C6-N1	-2.77	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	1x	32	PSU	C4-N3	-2.77	1.33	1.38
55	2x	37	MIA	C8-N7	2.74	1.37	1.31
32	2a	1407	5MC	C6-C5	2.74	1.39	1.34
1	2A	2251	OMG	C5-N7	-2.72	1.33	1.39
55	1y	8	4SU	C4-N3	-2.70	1.34	1.37
55	2y	54	5MU	C2-N1	2.68	1.42	1.38
55	1x	54	5MU	C4-N3	-2.68	1.33	1.38
55	2x	54	5MU	C6-C5	2.67	1.39	1.34
55	1x	8	4SU	C5-C4	-2.67	1.39	1.42
55	1y	37	MIA	C8-N7	2.67	1.36	1.31
1	2A	1917	PSU	C4-N3	-2.66	1.33	1.38
1	2A	2605	PSU	C4-N3	-2.65	1.33	1.38
1	1A	1962	5MC	C6-N1	-2.64	1.33	1.38
1	2A	1962	5MC	C6-C5	2.64	1.38	1.34
1	1A	2251	OMG	C6-N1	-2.64	1.33	1.38
1	1A	2503	2MA	C5-C6	2.64	1.48	1.41
55	1x	39	PSU	C4-N3	-2.63	1.33	1.38
55	2y	8	4SU	C5-C4	-2.63	1.39	1.42
55	2y	55	PSU	C4-N3	-2.62	1.33	1.38
55	1x	55	PSU	C4-N3	-2.62	1.33	1.38
32	1a	527	G7M	C6-N1	-2.61	1.34	1.38
32	2a	516	PSU	C4-N3	-2.61	1.34	1.38
55	1y	8	4SU	C5-C4	-2.60	1.39	1.42
1	1A	2552	OMU	C4-N3	-2.57	1.34	1.38
32	1a	1404	5MC	C6-C5	2.57	1.38	1.34
1	1A	1917	PSU	C4-N3	-2.56	1.34	1.38
55	1y	39	PSU	C4-N3	-2.54	1.34	1.38
32	1a	967	5MC	C6-C5	2.53	1.38	1.34
1	2A	2503	2MA	C5-N7	-2.52	1.34	1.39
1	1A	1939	5MU	C4-N3	-2.51	1.34	1.38
55	1y	54	5MU	C4-C5	2.51	1.48	1.44
1	1A	1939	5MU	C6-N1	-2.49	1.33	1.38
32	1a	516	PSU	C4-N3	-2.49	1.34	1.38
32	2a	1400	5MC	C6-C5	2.49	1.38	1.34
32	1a	1498	UR3	C2-N1	2.48	1.41	1.38
1	1A	2251	OMG	C5-N7	-2.46	1.34	1.39
55	2x	32	PSU	C4-N3	-2.46	1.34	1.38
32	2a	966	M2G	C6-N1	-2.45	1.34	1.38
55	1y	54	5MU	C2-N1	2.45	1.42	1.38
1	2A	1939	5MU	C6-N1	-2.44	1.33	1.38
32	1a	1404	5MC	C6-N1	-2.44	1.33	1.38
32	2a	527	G7M	C6-N1	-2.44	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2503	2MA	C5-C6	2.43	1.47	1.41
55	1x	37	MIA	C8-N7	2.42	1.36	1.31
55	1y	54	5MU	C4-N3	-2.41	1.34	1.38
55	2y	37	MIA	C8-N7	2.41	1.36	1.31
1	2A	1915	5MU	C4-C5	2.41	1.48	1.44
55	2x	39	PSU	C4-N3	-2.41	1.34	1.38
1	2A	1915	5MU	C4-N3	-2.40	1.34	1.38
55	1y	46	G7M	C6-N1	-2.40	1.34	1.38
55	2y	8	4SU	C2-N1	2.40	1.42	1.38
55	2x	8	4SU	C2-N1	2.38	1.42	1.38
32	1a	1207	2MG	C6-N1	-2.36	1.34	1.38
1	2A	2552	OMU	C2-N3	-2.36	1.33	1.38
55	2y	32	PSU	C4-N3	-2.36	1.34	1.38
1	1A	1939	5MU	C2-N1	2.35	1.42	1.38
55	2y	46	G7M	C6-N1	-2.35	1.34	1.38
1	2A	1939	5MU	C2-N3	-2.34	1.33	1.38
55	1x	37	MIA	C5-N7	-2.34	1.34	1.39
55	2x	54	5MU	C2-N3	-2.33	1.33	1.38
55	1x	37	MIA	C4-N9	-2.33	1.32	1.37
1	1A	2552	OMU	C5-C4	-2.32	1.38	1.43
1	2A	2503	2MA	C8-N7	2.32	1.36	1.31
55	1y	8	4SU	C2-N1	2.31	1.42	1.38
1	1A	1939	5MU	C2-N3	-2.31	1.33	1.38
32	2a	1400	5MC	C6-N1	-2.30	1.34	1.38
55	2x	54	5MU	C4-C5	2.30	1.48	1.44
55	2x	46	G7M	C6-N1	-2.30	1.34	1.38
1	2A	1939	5MU	C4-C5	2.29	1.48	1.44
1	1A	2605	PSU	C2-N3	-2.27	1.33	1.37
1	1A	1915	5MU	C4-C5	2.27	1.48	1.44
32	1a	967	5MC	C6-N1	-2.27	1.34	1.38
1	1A	1962	5MC	C6-C5	2.26	1.38	1.34
43	2l	92	0TD	CB-CA	2.26	1.55	1.54
55	1x	46	G7M	C6-N1	-2.26	1.34	1.38
1	1A	2552	OMU	C2-N3	-2.26	1.34	1.38
1	2A	1962	5MC	C6-N1	-2.25	1.34	1.38
1	1A	1911	PSU	C4-N3	-2.25	1.34	1.38
55	2y	54	5MU	C4-N3	-2.25	1.34	1.38
55	1x	54	5MU	C4-C5	2.24	1.48	1.44
1	1A	1915	5MU	C2-N1	2.23	1.41	1.38
1	1A	1942	5MC	C6-N1	-2.22	1.34	1.38
55	1y	32	PSU	C4-N3	-2.22	1.34	1.38
32	1a	1400	5MC	C6-N1	-2.22	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	966	M2G	C6-N1	-2.22	1.34	1.38
55	2x	55	PSU	C4-N3	-2.21	1.34	1.38
55	1y	55	PSU	C4-N3	-2.21	1.34	1.38
55	1x	54	5MU	C2-N1	2.20	1.41	1.38
55	2y	8	4SU	C2-N3	-2.19	1.34	1.38
55	1x	8	4SU	C2-N1	2.18	1.41	1.38
1	1A	2503	2MA	C4-N9	-2.17	1.33	1.37
32	2a	1207	2MG	C6-N1	-2.17	1.34	1.38
32	1a	1498	UR3	C6-C5	2.16	1.40	1.35
1	1A	1915	5MU	C2-N3	-2.15	1.34	1.38
32	2a	966	M2G	C5-N7	-2.12	1.34	1.39
55	2x	54	5MU	C6-N1	-2.11	1.34	1.38
1	2A	2552	OMU	C5-C4	-2.11	1.39	1.43
1	2A	1942	5MC	C6-N1	-2.10	1.34	1.38
1	2A	1939	5MU	C2-N1	2.10	1.41	1.38
55	2y	54	5MU	C6-N1	-2.09	1.34	1.38
1	1A	1939	5MU	C4-C5	2.09	1.48	1.44
55	1x	8	4SU	C2-N3	-2.09	1.34	1.38
32	2a	967	5MC	C6-N1	-2.07	1.34	1.38
1	1A	2605	PSU	C2-N1	-2.07	1.34	1.36
55	2y	46	G7M	C5-C6	2.07	1.48	1.43
55	2x	8	4SU	C2-N3	-2.07	1.34	1.38
1	2A	1915	5MU	C6-N1	-2.07	1.34	1.38
55	1x	32	PSU	C2-N3	-2.05	1.34	1.37
32	1a	1207	2MG	C5-N7	-2.05	1.35	1.39
55	2y	37	MIA	C5-N7	-2.05	1.35	1.39
32	1a	1207	2MG	C2-N3	2.04	1.35	1.32
55	1x	46	G7M	C5-C6	2.04	1.48	1.43
55	2y	8	4SU	O2-C2	2.04	1.26	1.23
1	2A	1911	PSU	C2-N3	-2.04	1.34	1.37
1	2A	1917	PSU	C2-N3	-2.03	1.34	1.37
55	2y	55	PSU	C4-C5	2.03	1.50	1.44
55	1y	32	PSU	C4-C5	2.01	1.49	1.44
32	1a	1402	4OC	C6-N1	-2.01	1.33	1.38
55	1y	46	G7M	C5-C6	2.01	1.48	1.43
32	2a	1407	5MC	C6-N1	-2.01	1.34	1.38

All (372) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	1l	92	0TD	CSB-SB-CB	18.90	136.33	102.36
43	2l	92	0TD	CSB-SB-CB	13.78	127.14	102.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	2y	37	MIA	C12-C13-C14	-8.81	111.21	127.01
1	1A	2503	2MA	C5-C4-N3	-8.24	118.50	127.18
55	1x	37	MIA	C12-C13-C14	-8.09	112.49	127.01
55	2x	37	MIA	C12-C13-C14	-7.78	113.04	127.01
55	2x	37	MIA	C5-C4-N3	-7.71	119.06	127.18
1	2A	2503	2MA	C5-C4-N3	-7.71	119.06	127.18
55	1y	37	MIA	C5-C4-N3	-7.55	119.23	127.18
55	2y	37	MIA	C5-C4-N3	-7.52	119.26	127.18
55	1y	8	4SU	C4-N3-C2	-7.51	120.12	127.31
55	1x	37	MIA	C5-C4-N3	-7.21	119.58	127.18
32	2a	1498	UR3	C4-N3-C2	-6.92	119.01	124.58
32	2a	1207	2MG	C2-N3-C4	6.89	120.62	112.00
32	1a	1207	2MG	C2-N3-C4	6.82	120.53	112.00
55	1y	37	MIA	C12-C13-C14	-6.81	114.79	127.01
1	1A	1917	PSU	N1-C2-N3	6.76	122.30	115.17
1	2A	1911	PSU	N1-C2-N3	6.68	122.21	115.17
1	1A	2251	OMG	C5-C4-N3	-6.62	117.85	128.39
1	2A	2251	OMG	C5-C4-N3	-6.58	117.92	128.39
1	2A	1917	PSU	N1-C2-N3	6.55	122.07	115.17
1	1A	2503	2MA	N3-C4-N9	6.50	135.24	126.99
32	1a	1498	UR3	C4-N3-C2	-6.35	119.47	124.58
55	1x	32	PSU	N1-C2-N3	6.34	121.86	115.17
55	2x	32	PSU	N1-C2-N3	6.31	121.82	115.17
55	1x	8	4SU	C4-N3-C2	-6.31	121.27	127.31
1	1A	1911	PSU	N1-C2-N3	6.29	121.80	115.17
32	1a	966	M2G	C5-C4-N3	-6.21	118.51	128.39
55	1y	8	4SU	C5-C4-N3	6.20	120.52	114.75
55	2y	55	PSU	N1-C2-N3	6.18	121.69	115.17
32	1a	516	PSU	N1-C2-N3	6.17	121.68	115.17
1	2A	2605	PSU	N1-C2-N3	6.16	121.67	115.17
55	1y	55	PSU	N1-C2-N3	6.15	121.66	115.17
32	2a	966	M2G	C5-C4-N3	-6.14	118.62	128.39
32	2a	516	PSU	N1-C2-N3	6.12	121.63	115.17
55	1y	32	PSU	N1-C2-N3	6.10	121.60	115.17
55	1x	55	PSU	N1-C2-N3	6.09	121.60	115.17
55	2x	55	PSU	N1-C2-N3	6.09	121.59	115.17
55	2y	32	PSU	N1-C2-N3	6.08	121.58	115.17
1	1A	2605	PSU	N1-C2-N3	6.06	121.56	115.17
1	2A	2503	2MA	N3-C4-N9	6.06	134.68	126.99
32	1a	1207	2MG	C5-C4-N3	-6.05	118.76	128.39
55	1y	39	PSU	N1-C2-N3	5.97	121.47	115.17
55	1y	46	G7M	N9-C4-N3	5.96	137.86	125.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	1x	39	PSU	N1-C2-N3	5.89	121.38	115.17
55	2y	46	G7M	N9-C4-N3	5.86	137.68	125.95
55	2y	37	MIA	N3-C4-N9	5.85	134.42	126.99
55	1x	46	G7M	C5-C4-N3	-5.73	117.33	128.15
55	1x	8	4SU	C5-C4-N3	5.68	120.03	114.75
55	2y	37	MIA	C11-S10-C2	-5.63	98.03	102.25
55	2y	46	G7M	C5-C4-N3	-5.61	117.56	128.15
55	2x	39	PSU	N1-C2-N3	5.60	121.08	115.17
55	1x	46	G7M	N9-C4-N3	5.57	137.10	125.95
1	2A	1939	5MU	N3-C2-N1	5.57	122.14	114.89
55	2x	46	G7M	N9-C4-N3	5.54	137.04	125.95
55	1y	46	G7M	C5-C4-N3	-5.53	117.70	128.15
32	2a	1207	2MG	C5-C4-N3	-5.51	119.61	128.39
55	1y	37	MIA	N3-C4-N9	5.50	133.97	126.99
1	1A	1939	5MU	O4-C4-C5	-5.50	118.62	124.92
1	1A	1939	5MU	C5-C4-N3	5.49	120.10	115.32
32	1a	527	G7M	N9-C4-N3	5.48	136.92	125.95
1	1A	1915	5MU	N3-C2-N1	5.45	121.98	114.89
1	1A	1939	5MU	C4-N3-C2	-5.42	120.23	127.34
55	2x	8	4SU	C5-C4-N3	5.42	119.79	114.75
32	1a	527	G7M	C5-C4-N3	-5.41	117.93	128.15
1	1A	2251	OMG	C2-N3-C4	5.38	121.57	112.30
55	2y	39	PSU	N1-C2-N3	5.31	120.77	115.17
55	2x	46	G7M	C5-C4-N3	-5.30	118.14	128.15
55	2y	54	5MU	C4-N3-C2	-5.26	120.44	127.34
1	2A	1939	5MU	C4-N3-C2	-5.26	120.44	127.34
1	2A	2552	OMU	C4-N3-C2	-5.24	120.10	126.61
55	2x	37	MIA	N3-C4-N9	5.19	133.57	126.99
1	1A	1915	5MU	C4-N3-C2	-5.18	120.55	127.34
1	1A	2251	OMG	N9-C4-N3	5.17	136.30	125.95
55	2y	54	5MU	N3-C2-N1	5.14	121.58	114.89
1	2A	1915	5MU	C4-N3-C2	-5.12	120.63	127.34
32	2a	1518	MA6	N1-C2-N3	-5.12	120.84	128.58
55	1x	37	MIA	N3-C4-N9	5.10	133.47	126.99
32	2a	527	G7M	C5-C4-N3	-5.08	118.55	128.15
32	2a	527	G7M	N9-C4-N3	5.07	136.09	125.95
1	1A	2552	OMU	C4-N3-C2	-5.00	120.40	126.61
32	2a	1519	MA6	N1-C2-N3	-4.97	121.06	128.58
32	1a	1518	MA6	N1-C2-N3	-4.96	121.08	128.58
1	2A	2251	OMG	N9-C4-N3	4.95	135.84	125.95
1	2A	1915	5MU	N3-C2-N1	4.94	121.32	114.89
55	2x	37	MIA	C6-C5-N7	4.93	137.81	132.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	1y	46	G7M	C2-N3-C4	4.93	120.80	112.30
55	2y	8	4SU	C5-C4-N3	4.85	119.26	114.75
55	1x	46	G7M	C2-N3-C4	4.82	120.59	112.30
55	1y	8	4SU	C5-C4-S4	-4.80	118.82	124.31
55	2y	46	G7M	C2-N3-C4	4.77	120.52	112.30
1	2A	2251	OMG	C2-N3-C4	4.76	120.50	112.30
55	2x	8	4SU	C4-N3-C2	-4.76	122.76	127.31
32	2a	527	G7M	C2-N3-C4	4.69	120.37	112.30
55	2x	46	G7M	C2-N3-C4	4.68	120.37	112.30
32	1a	1519	MA6	N1-C2-N3	-4.67	121.51	128.58
55	2x	8	4SU	C5-C4-S4	-4.67	118.97	124.31
55	1x	54	5MU	N3-C2-N1	4.66	120.95	114.89
32	1a	966	M2G	N9-C4-N3	4.63	135.20	125.95
32	1a	527	G7M	C2-N3-C4	4.60	120.22	112.30
32	2a	966	M2G	C2-N3-C4	4.58	120.98	112.51
32	1a	966	M2G	C2-N3-C4	4.51	120.86	112.51
32	2a	966	M2G	N9-C4-N3	4.51	134.96	125.95
1	2A	1915	5MU	C5-C4-N3	4.49	119.23	115.32
55	2x	54	5MU	N3-C2-N1	4.49	120.74	114.89
1	1A	1915	5MU	C5-C4-N3	4.47	119.21	115.32
55	2x	37	MIA	C4-C5-N7	-4.46	105.49	110.58
32	2a	1518	MA6	C5-C4-N3	-4.45	120.59	126.72
32	1a	1519	MA6	C4-C5-N7	-4.43	105.52	110.58
32	1a	1519	MA6	C5-C4-N3	-4.43	120.62	126.72
1	2A	1915	5MU	O4-C4-C5	-4.42	119.86	124.92
1	2A	2605	PSU	C4-N3-C2	-4.42	120.29	126.37
32	2a	1519	MA6	C5-C4-N3	-4.40	120.66	126.72
1	2A	1917	PSU	C4-N3-C2	-4.39	120.33	126.37
1	2A	1911	PSU	C4-N3-C2	-4.38	120.33	126.37
1	1A	1939	5MU	N3-C2-N1	4.37	120.58	114.89
1	1A	1939	5MU	C5-C6-N1	-4.34	118.60	123.31
32	1a	1207	2MG	N9-C4-N3	4.32	134.59	125.95
1	1A	1917	PSU	C4-N3-C2	-4.30	120.44	126.37
55	1x	32	PSU	C4-N3-C2	-4.30	120.45	126.37
1	2A	2552	OMU	N3-C2-N1	4.29	120.48	114.89
55	2y	54	5MU	C5-C4-N3	4.29	119.05	115.32
1	1A	1911	PSU	C4-N3-C2	-4.29	120.46	126.37
1	1A	1911	PSU	O2-C2-N1	-4.21	118.44	122.79
32	1a	1519	MA6	C5-N7-C8	4.21	110.07	103.45
32	2a	516	PSU	C4-N3-C2	-4.19	120.60	126.37
1	1A	2552	OMU	N3-C2-N1	4.18	120.33	114.89
55	1y	37	MIA	C15-C14-C13	-4.17	110.14	122.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2552	OMU	C5-C4-N3	4.17	120.64	114.80
32	1a	516	PSU	C4-N3-C2	-4.16	120.64	126.37
55	1x	37	MIA	C6-C5-N7	4.15	136.96	132.43
55	1y	8	4SU	N3-C2-N1	4.15	120.30	114.89
1	2A	2552	OMU	C5-C4-N3	4.13	120.59	114.80
1	2A	1939	5MU	C5-C4-N3	4.11	118.90	115.32
55	2x	54	5MU	C4-N3-C2	-4.10	121.97	127.34
55	1x	37	MIA	C16-C14-C13	-4.08	110.40	122.66
55	1y	54	5MU	N3-C2-N1	4.06	120.18	114.89
32	2a	1519	MA6	C4-C5-N7	-4.04	105.96	110.58
32	1a	1519	MA6	C2-N1-C6	4.03	121.67	111.83
32	1a	1518	MA6	C2-N1-C6	3.99	121.58	111.83
55	2x	32	PSU	C4-N3-C2	-3.99	120.88	126.37
32	2a	1519	MA6	C5-N7-C8	3.98	109.70	103.45
55	2x	55	PSU	C4-N3-C2	-3.95	120.93	126.37
32	2a	1518	MA6	C2-N1-C6	3.94	121.45	111.83
55	2y	55	PSU	C4-N3-C2	-3.93	120.96	126.37
1	2A	1939	5MU	C5-C6-N1	-3.92	119.06	123.31
55	1y	39	PSU	C4-N3-C2	-3.92	120.97	126.37
32	1a	1518	MA6	C5-C4-N3	-3.91	121.33	126.72
1	1A	2605	PSU	C4-N3-C2	-3.91	120.99	126.37
32	2a	1519	MA6	C2-N1-C6	3.90	121.36	111.83
55	1x	8	4SU	C5-C4-S4	-3.89	119.87	124.31
55	2y	8	4SU	C4-N3-C2	-3.88	123.59	127.31
55	1x	55	PSU	C4-N3-C2	-3.86	121.05	126.37
55	2x	32	PSU	O2-C2-N1	-3.86	118.81	122.79
55	2y	37	MIA	C15-C14-C13	-3.86	111.08	122.66
1	1A	1915	5MU	C5-C6-N1	-3.86	119.12	123.31
55	1y	37	MIA	C6-C5-N7	3.85	136.63	132.43
1	2A	1939	5MU	O4-C4-C5	-3.85	120.52	124.92
55	2y	54	5MU	O4-C4-C5	-3.85	120.52	124.92
55	1y	55	PSU	O2-C2-N1	-3.83	118.83	122.79
55	1x	37	MIA	C4-C5-N7	-3.83	106.21	110.58
55	1x	8	4SU	N3-C2-N1	3.81	119.86	114.89
32	2a	1518	MA6	C5-N7-C8	3.80	109.43	103.45
32	1a	1404	5MC	C5-C6-N1	-3.80	119.19	123.31
55	1y	32	PSU	C4-N3-C2	-3.78	121.16	126.37
32	2a	1207	2MG	N1-C2-N2	3.77	120.41	116.56
32	2a	1207	2MG	C6-C5-N7	3.75	137.12	130.29
55	1y	37	MIA	C4-C5-N7	-3.75	106.30	110.58
55	1x	54	5MU	C4-N3-C2	-3.73	122.45	127.34
55	2y	37	MIA	C16-C14-C13	-3.72	111.50	122.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2552	OMU	O4-C4-C5	-3.71	118.77	125.16
32	2a	1518	MA6	C4-C5-N7	-3.70	106.35	110.58
1	1A	1915	5MU	O4-C4-C5	-3.68	120.70	124.92
1	1A	2503	2MA	N6-C6-N1	3.68	122.00	117.03
1	2A	1942	5MC	C5-C6-N1	-3.67	119.33	123.31
55	2x	37	MIA	C16-C14-C13	-3.63	111.77	122.66
32	2a	1207	2MG	N9-C4-N3	3.62	133.20	125.95
55	1x	39	PSU	C4-N3-C2	-3.61	121.40	126.37
32	2a	1518	MA6	C2-N3-C4	3.60	120.64	111.83
55	1x	32	PSU	O2-C2-N1	-3.58	119.09	122.79
32	1a	1519	MA6	N9-C8-N7	-3.57	108.87	113.94
32	1a	1518	MA6	C5-N7-C8	3.56	109.05	103.45
55	2x	54	5MU	C5-C4-N3	3.54	118.40	115.32
55	1x	55	PSU	O2-C2-N1	-3.53	119.15	122.79
32	2a	1519	MA6	C2-N3-C4	3.52	120.43	111.83
55	2y	32	PSU	C4-N3-C2	-3.52	121.53	126.37
55	1x	37	MIA	C15-C14-C13	-3.50	112.14	122.66
55	2x	37	MIA	C2-N3-C4	3.50	121.45	112.29
55	2x	37	MIA	C15-C14-C13	-3.50	112.17	122.66
55	2x	39	PSU	C4-N3-C2	-3.46	121.61	126.37
32	2a	1519	MA6	N9-C8-N7	-3.46	109.03	113.94
55	2x	39	PSU	O2-C2-N1	-3.43	119.25	122.79
55	2y	37	MIA	C4-C5-N7	-3.42	106.67	110.58
32	1a	1518	MA6	N9-C8-N7	-3.41	109.09	113.94
1	2A	2503	2MA	C4-C5-N7	-3.41	106.68	110.58
32	2a	1400	5MC	C5-C6-N1	-3.40	119.62	123.31
55	1y	37	MIA	C16-C14-C13	-3.39	112.48	122.66
55	2y	32	PSU	O2-C2-N1	-3.39	119.29	122.79
1	2A	1962	5MC	C5-C6-N1	-3.38	119.64	123.31
1	1A	2605	PSU	O2-C2-N1	-3.38	119.30	122.79
55	2x	55	PSU	O2-C2-N1	-3.38	119.30	122.79
32	1a	967	5MC	C5-C6-N1	-3.38	119.65	123.31
32	2a	967	5MC	C5-C6-N1	-3.36	119.66	123.31
1	1A	2503	2MA	C4-C5-N7	-3.35	106.75	110.58
32	2a	1518	MA6	N9-C8-N7	-3.33	109.21	113.94
55	1y	54	5MU	C4-N3-C2	-3.33	122.98	127.34
55	1y	55	PSU	C4-N3-C2	-3.32	121.80	126.37
55	1y	37	MIA	C2-N3-C4	3.32	120.97	112.29
32	1a	1518	MA6	C2-N3-C4	3.31	119.92	111.83
55	1x	37	MIA	C2-N3-C4	3.30	120.95	112.29
32	1a	1207	2MG	C6-C5-N7	3.29	136.27	130.29
32	2a	1498	UR3	C5-C4-N3	3.28	119.36	115.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1519	MA6	C2-N3-C4	3.28	119.84	111.83
1	1A	1917	PSU	O2-C2-N1	-3.26	119.42	122.79
55	1y	32	PSU	O2-C2-N1	-3.26	119.42	122.79
32	2a	966	M2G	C6-C5-N7	3.25	136.20	130.29
1	2A	1915	5MU	C5-C6-N1	-3.24	119.79	123.31
32	1a	1518	MA6	C4-C5-N7	-3.22	106.89	110.58
55	2x	54	5MU	O4-C4-C5	-3.21	121.24	124.92
32	1a	966	M2G	C6-C5-N7	3.21	136.14	130.29
55	2y	55	PSU	O2-C2-N1	-3.18	119.51	122.79
1	2A	1917	PSU	O2-C2-N1	-3.17	119.52	122.79
55	1x	54	5MU	O4-C4-C5	-3.17	121.29	124.92
55	1y	54	5MU	O4-C4-C5	-3.16	121.30	124.92
32	1a	1400	5MC	C5-C6-N1	-3.14	119.90	123.31
55	2x	54	5MU	C5-C6-N1	-3.14	119.90	123.31
32	2a	1404	5MC	C5-C6-N1	-3.11	119.93	123.31
32	2a	1404	5MC	C5-C4-N3	-3.11	118.57	121.75
55	2y	54	5MU	C5-C6-N1	-3.10	119.94	123.31
32	2a	1407	5MC	C5-C4-N3	-3.10	118.57	121.75
1	1A	1942	5MC	C5-C6-N1	-3.09	119.96	123.31
55	1y	54	5MU	C5-C4-N3	3.09	118.01	115.32
1	2A	1942	5MC	C5-C4-N3	-3.09	118.59	121.75
55	1y	39	PSU	O2-C2-N1	-3.08	119.61	122.79
55	2y	37	MIA	C2-N3-C4	3.05	120.29	112.29
55	2x	8	4SU	C1'-N1-C2	3.05	123.06	117.59
32	1a	1498	UR3	C5-C4-N3	2.99	118.97	115.04
55	1x	54	5MU	C5-C4-N3	2.95	117.89	115.32
55	2y	39	PSU	C4-N3-C2	-2.95	122.30	126.37
32	1a	1407	5MC	C5-C4-N3	-2.94	118.74	121.75
1	2A	1911	PSU	O2-C2-N1	-2.93	119.76	122.79
55	2x	37	MIA	C5-N7-C8	2.93	108.06	103.45
1	2A	2552	OMU	O4-C4-C5	-2.92	120.12	125.16
1	2A	2605	PSU	O2-C2-N1	-2.92	119.78	122.79
55	2y	37	MIA	C6-C5-N7	2.91	135.60	132.43
32	2a	1207	2MG	N2-C2-N3	-2.90	116.81	120.51
1	2A	2503	2MA	C2-N1-C6	2.90	122.55	118.10
32	2a	1207	2MG	C4-C5-N7	-2.87	106.12	110.67
1	1A	1942	5MC	C5-C4-N3	-2.87	118.81	121.75
32	1a	1400	5MC	C5-C4-N3	-2.86	118.82	121.75
1	1A	1962	5MC	C5-C6-N1	-2.86	120.20	123.31
32	1a	966	M2G	C4-C5-N7	-2.86	106.14	110.67
32	1a	1207	2MG	C4-C5-N7	-2.85	106.15	110.67
55	2y	8	4SU	C5-C4-S4	-2.84	121.06	124.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	516	PSU	O2-C2-N1	-2.83	119.87	122.79
1	2A	2503	2MA	N6-C6-N1	2.81	120.82	117.03
32	1a	516	PSU	O2-C2-N1	-2.81	119.89	122.79
55	1x	39	PSU	O2-C2-N1	-2.80	119.90	122.79
55	2x	37	MIA	C11-S10-C2	-2.78	100.16	102.25
55	2y	37	MIA	N6-C6-N1	2.78	122.06	118.33
1	2A	2552	OMU	O2-C2-N1	-2.77	119.20	122.80
1	2A	2503	2MA	C4-N9-C8	2.76	108.63	105.74
1	1A	2251	OMG	C6-C5-N7	2.75	135.29	130.29
55	1y	54	5MU	C5M-C5-C4	2.74	121.71	118.78
32	2a	1518	MA6	N3-C4-N9	2.72	131.80	127.17
32	2a	1407	5MC	C5-C6-N1	-2.71	120.37	123.31
1	1A	2503	2MA	C2-N1-C6	2.71	122.26	118.10
55	1y	37	MIA	C2-N1-C6	2.70	122.66	117.54
55	2y	54	5MU	O2-C2-N1	-2.69	119.30	122.80
55	2x	8	4SU	N3-C2-N1	2.67	118.37	114.89
32	1a	1207	2MG	N1-C2-N2	2.65	119.27	116.56
1	1A	1915	5MU	O2-C2-N1	-2.65	119.35	122.80
32	1a	1518	MA6	N3-C4-N9	2.64	131.66	127.17
32	1a	967	5MC	C5-C4-N3	-2.64	119.04	121.75
55	2y	8	4SU	N3-C2-N1	2.64	118.33	114.89
1	2A	2503	2MA	C5-N7-C8	2.63	107.59	103.45
1	1A	2605	PSU	C5-C6-N1	-2.63	118.50	122.14
55	2y	37	MIA	C2-N1-C6	2.62	122.52	117.54
55	2x	46	G7M	O6-C6-C5	-2.62	122.17	128.01
1	2A	1939	5MU	O2-C2-N1	-2.61	119.39	122.80
32	1a	1519	MA6	C4-C5-C6	2.61	118.61	115.91
32	2a	966	M2G	C4-C5-N7	-2.56	106.61	110.67
32	1a	1207	2MG	N2-C2-N3	-2.55	117.26	120.51
55	1x	37	MIA	C11-S10-C2	-2.55	100.34	102.25
32	1a	1498	UR3	C6-N1-C2	-2.55	119.72	121.80
32	2a	967	5MC	C5-C4-N3	-2.54	119.15	121.75
1	2A	1962	5MC	C5-C4-N3	-2.53	119.16	121.75
55	1x	37	MIA	C2-N1-C6	2.52	122.32	117.54
1	1A	1920	OMC	C1'-N1-C2	2.51	123.98	118.44
32	2a	1519	MA6	N3-C4-N9	2.50	131.41	127.17
1	1A	2251	OMG	O6-C6-C5	-2.49	119.96	126.53
55	1x	37	MIA	C5-N7-C8	2.48	107.35	103.45
32	2a	527	G7M	O6-C6-C5	-2.48	122.48	128.01
55	1y	37	MIA	C5-N7-C8	2.47	107.33	103.45
55	1x	54	5MU	O2-C2-N1	-2.45	119.60	122.80
32	1a	527	G7M	O6-C6-C5	-2.45	122.55	128.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2503	2MA	C5-N7-C8	2.42	107.25	103.45
55	1x	37	MIA	C4-N9-C8	2.40	108.26	105.74
55	1y	37	MIA	N3-C2-N1	-2.40	122.63	127.00
32	1a	1402	4OC	C6-C5-C4	2.39	119.88	117.00
55	2y	54	5MU	C5M-C5-C4	2.38	121.32	118.78
55	1x	46	G7M	O6-C6-C5	-2.37	122.73	128.01
32	2a	516	PSU	O4'-C1'-C2'	2.36	108.42	105.15
55	1x	32	PSU	C5-C6-N1	-2.35	118.88	122.14
55	1x	37	MIA	N3-C2-N1	-2.35	122.72	127.00
32	2a	1400	5MC	C1'-N1-C6	-2.34	117.30	121.15
55	2y	37	MIA	C5-N7-C8	2.34	107.13	103.45
1	1A	1920	OMC	O2-C2-N3	-2.34	118.64	122.33
55	2y	39	PSU	O2-C2-N1	-2.34	120.38	122.79
55	2x	37	MIA	C2-N1-C6	2.33	121.97	117.54
1	2A	1911	PSU	C5-C6-N1	-2.33	118.90	122.14
55	2y	8	4SU	C1'-N1-C2	2.33	121.77	117.59
1	1A	2552	OMU	O2-C2-N1	-2.32	119.78	122.80
32	1a	1407	5MC	O2-C2-N3	-2.32	118.68	122.33
1	2A	2251	OMG	C6-C5-N7	2.31	134.50	130.29
32	2a	1400	5MC	C5-C4-N3	-2.31	119.39	121.75
32	1a	1519	MA6	N3-C4-N9	2.31	131.09	127.17
1	1A	2251	OMG	C4-C5-N7	-2.30	107.02	110.67
1	1A	2503	2MA	C4-N9-C8	2.30	108.15	105.74
32	1a	1404	5MC	C5-C4-N3	-2.29	119.41	121.75
55	2y	37	MIA	C4-N9-C8	2.29	108.14	105.74
55	2x	37	MIA	N3-C2-N1	-2.29	122.83	127.00
55	1y	37	MIA	C4-N9-C8	2.28	108.14	105.74
55	2x	37	MIA	C4-N9-C8	2.28	108.14	105.74
32	1a	516	PSU	C5-C6-N1	-2.28	118.98	122.14
55	1y	46	G7M	O6-C6-C5	-2.28	122.93	128.01
1	1A	1917	PSU	C5-C6-N1	-2.27	118.98	122.14
32	1a	1519	MA6	C5-C4-N9	2.27	108.28	105.81
55	1y	8	4SU	O2-C2-N1	-2.27	119.85	122.80
1	1A	1911	PSU	C5-C6-N1	-2.25	119.02	122.14
32	1a	527	G7M	C5-C6-N1	2.23	116.45	111.84
1	2A	1917	PSU	C5-C6-N1	-2.23	119.05	122.14
55	2y	46	G7M	O6-C6-C5	-2.21	123.08	128.01
1	1A	2251	OMG	C5-C6-N1	2.21	118.87	113.25
32	2a	1407	5MC	O2-C2-N3	-2.20	118.87	122.33
55	1x	32	PSU	O4'-C1'-C2'	2.19	108.19	105.15
1	2A	2503	2MA	N9-C8-N7	-2.19	110.83	113.94
1	2A	2251	OMG	C4-C5-N7	-2.19	107.20	110.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	2y	46	G7M	C5-C6-N1	2.18	116.35	111.84
32	2a	527	G7M	C5-C6-N1	2.18	116.35	111.84
55	1x	54	5MU	C5-C6-N1	-2.16	120.97	123.31
1	2A	1911	PSU	O2-C2-N3	-2.16	118.03	121.86
32	2a	516	PSU	C5-C6-N1	-2.16	119.15	122.14
32	2a	1400	5MC	O2-C2-N3	-2.15	118.95	122.33
55	1x	54	5MU	C5M-C5-C4	2.14	121.07	118.78
32	1a	1498	UR3	C3U-N3-C2	2.13	121.05	117.33
32	1a	1518	MA6	C4-N9-C8	2.12	107.96	105.74
1	1A	1962	5MC	CM5-C5-C6	-2.11	120.00	122.85
32	1a	966	M2G	O6-C6-C5	-2.11	120.97	126.53
55	2x	37	MIA	N9-C8-N7	-2.11	110.95	113.94
55	1y	46	G7M	C5-C6-N1	2.11	116.19	111.84
32	2a	966	M2G	O6-C6-C5	-2.10	120.98	126.53
32	2a	1207	2MG	CM2-N2-C2	-2.10	119.13	123.65
55	2x	46	G7M	C5-C6-N1	2.10	116.18	111.84
1	2A	2251	OMG	O6-C6-C5	-2.10	121.00	126.53
55	1y	54	5MU	C1'-N1-C2	2.09	121.35	117.59
1	2A	2503	2MA	C6-C5-N7	2.09	136.12	132.09
55	1y	8	4SU	C1'-N1-C2	2.09	121.34	117.59
55	1x	8	4SU	C1'-N1-C2	2.08	121.32	117.59
1	1A	1939	5MU	O2-C2-N1	-2.07	120.10	122.80
1	2A	1915	5MU	C1'-N1-C2	2.07	121.30	117.59
32	1a	1207	2MG	CM2-N2-C2	-2.07	119.21	123.65
32	1a	516	PSU	O4'-C1'-C2'	2.06	108.00	105.15
32	2a	1404	5MC	O2-C2-N3	-2.06	119.09	122.33
32	1a	966	M2G	C8-N7-C5	2.05	107.92	104.26
1	1A	1911	PSU	O4'-C1'-C2'	2.04	107.97	105.15
55	2y	54	5MU	C5M-C5-C6	-2.03	120.10	122.85
1	1A	1917	PSU	O2-C2-N3	-2.02	118.28	121.86
1	1A	1942	5MC	N4-C4-N3	2.01	122.15	118.51
55	2x	54	5MU	O2-C2-N1	-2.01	120.18	122.80
32	2a	1518	MA6	C4-C5-C6	2.01	117.98	115.91
55	1x	55	PSU	C5-C6-N1	-2.00	119.36	122.14

There are no chirality outliers.

All (61) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	1a	1519	MA6	O4'-C4'-C5'-O5'
54	1w	230	MEQ	C-CA-CB-CG
55	1x	37	MIA	C12-C13-C14-C15

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Mol	Chain	Res	Type	Atoms
55	1x	37	MIA	C12-C13-C14-C16
55	1x	46	G7M	C4'-C5'-O5'-P
55	1y	37	MIA	C12-C13-C14-C15
32	2a	1519	MA6	O4'-C4'-C5'-O5'
43	2l	92	0TD	O-C-CA-CB
43	2l	92	0TD	CG-CB-SB-CSB
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
32	1a	1402	4OC	O4'-C4'-C5'-O5'
55	1x	46	G7M	C3'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
55	2x	46	G7M	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
55	1x	37	MIA	C5-C6-N6-C12
55	1y	37	MIA	C5-C6-N6-C12
32	1a	527	G7M	C3'-C4'-C5'-O5'
55	1x	46	G7M	O4'-C4'-C5'-O5'
55	1y	46	G7M	O4'-C4'-C5'-O5'
55	2x	46	G7M	O4'-C4'-C5'-O5'
55	1y	46	G7M	C4'-C5'-O5'-P
55	1y	37	MIA	N1-C6-N6-C12
54	1w	230	MEQ	NE2-CD-CG-CB
54	1w	230	MEQ	OE1-CD-CG-CB
55	1x	37	MIA	N1-C6-N6-C12
55	1y	46	G7M	C3'-C4'-C5'-O5'
43	1l	92	0TD	CG-CB-SB-CSB
43	1l	92	0TD	SB-CB-CG-OD1
43	2l	92	0TD	SB-CB-CG-OD1
1	1A	2503	2MA	C4'-C5'-O5'-P
32	2a	1519	MA6	C4'-C5'-O5'-P
55	1x	37	MIA	N6-C12-C13-C14
55	1y	37	MIA	C13-C12-N6-C6
55	2y	46	G7M	C2'-C1'-N9-C8
1	1A	2503	2MA	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C4'-C5'-O5'-P
55	2x	46	G7M	C4'-C5'-O5'-P
1	2A	2503	2MA	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
55	2x	37	MIA	C3'-C4'-C5'-O5'
43	1l	92	0TD	SB-CB-CG-OD2
43	2l	92	0TD	SB-CB-CG-OD2
1	1A	1920	OMC	C1'-C2'-O2'-CM2
55	2y	46	G7M	C2'-C1'-N9-C4
1	1A	1920	OMC	C3'-C2'-O2'-CM2
43	2l	92	0TD	CA-CB-CG-OD2
1	1A	1920	OMC	C2'-C1'-N1-C2
1	2A	2503	2MA	C4'-C5'-O5'-P
54	2w	230	MEQ	OE1-CD-CG-CB
32	1a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1207	2MG	O4'-C4'-C5'-O5'
1	2A	1962	5MC	C2'-C1'-N1-C6
54	2w	230	MEQ	NE2-CD-CG-CB
55	2y	37	MIA	C5-C6-N6-C12
1	2A	1962	5MC	O4'-C1'-N1-C6

There are no ring outliers.

35 monomers are involved in 45 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	1y	39	PSU	1	0
55	1x	8	4SU	1	0
1	1A	2503	2MA	2	0
55	2y	39	PSU	1	0
55	2y	46	G7M	1	0
32	2a	1518	MA6	1	0
32	2a	1519	MA6	2	0
32	1a	1402	4OC	2	0
32	1a	1518	MA6	2	0
1	2A	2503	2MA	1	0
1	1A	2251	OMG	1	0
1	1A	1939	5MU	1	0
32	2a	1207	2MG	1	0
1	2A	2251	OMG	1	0
1	2A	1917	PSU	1	0
32	1a	1207	2MG	2	0
55	2y	37	MIA	1	0
55	1y	46	G7M	2	0
32	2a	1404	5MC	1	0
1	1A	1920	OMC	1	0
55	2y	8	4SU	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	1A	2552	OMU	1	0
55	2y	54	5MU	1	0
55	1y	55	PSU	1	0
55	1y	37	MIA	3	0
32	2a	1402	4OC	2	0
55	1x	46	G7M	1	0
32	1a	1519	MA6	3	0
54	2w	230	MEQ	1	0
32	1a	966	M2G	1	0
32	2a	527	G7M	1	0
32	1a	967	5MC	1	0
43	2l	92	0TD	2	0
55	2x	8	4SU	1	0
1	1A	1917	PSU	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2056 ligands modelled in this entry, 2054 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
59	SF4	1d	302	35	0,12,12	-	-	-		
59	SF4	2d	302	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	302	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 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	1d	302	SF4	2	0
59	2d	302	SF4	1	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, 95th 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%)	-0.51	91 (3%)	50	46	16, 33, 90, 104	0
1	2A	2789/2915 (95%)	-0.02	78 (2%)	55	51	29, 56, 89, 104	0
2	1B	120/121 (99%)	-0.44	0	100	100	25, 48, 61, 77	0
2	2B	120/121 (99%)	0.66	6 (5%)	34	30	59, 79, 88, 98	0
3	1D	275/276 (99%)	-0.18	2 (0%)	84	83	17, 35, 51, 75	0
3	2D	275/276 (99%)	0.41	7 (2%)	58	55	31, 50, 64, 77	0
4	1E	204/206 (99%)	-0.15	0	100	100	17, 36, 55, 67	0
4	2E	204/206 (99%)	0.38	2 (0%)	79	78	35, 56, 69, 77	0
5	1F	203/210 (96%)	-0.15	2 (0%)	79	78	18, 38, 65, 82	0
5	2F	203/210 (96%)	0.48	1 (0%)	87	86	36, 63, 76, 89	0
6	1G	181/182 (99%)	0.59	12 (6%)	24	21	43, 56, 71, 84	0
6	2G	181/182 (99%)	1.35	37 (20%)	3	2	63, 79, 85, 89	0
7	1H	174/180 (96%)	0.17	3 (1%)	69	67	34, 51, 65, 69	0
7	2H	174/180 (96%)	0.91	8 (4%)	37	34	64, 77, 84, 91	0
8	1I	146/148 (98%)	0.51	4 (2%)	56	53	42, 67, 76, 80	0
8	2I	146/148 (98%)	1.01	13 (8%)	15	13	55, 72, 79, 83	0
9	1N	140/140 (100%)	-0.31	0	100	100	21, 32, 54, 61	0
9	2N	140/140 (100%)	0.44	1 (0%)	84	83	45, 61, 72, 80	0
10	1O	122/122 (100%)	-0.13	0	100	100	27, 38, 54, 60	0
10	2O	122/122 (100%)	0.09	0	100	100	38, 53, 63, 73	0
11	1P	149/150 (99%)	0.03	2 (1%)	75	73	15, 39, 59, 67	0
11	2P	149/150 (99%)	0.61	4 (2%)	56	53	37, 65, 77, 88	0
12	1Q	141/141 (100%)	-0.11	0	100	100	23, 37, 52, 71	0
12	2Q	141/141 (100%)	0.60	6 (4%)	40	36	48, 60, 70, 84	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.22	0 100 100	21, 31, 44, 57	0
13	2R	118/118 (100%)	0.33	1 (0%) 82 81	38, 53, 64, 71	0
14	1S	110/112 (98%)	0.11	1 (0%) 81 80	37, 47, 60, 64	0
14	2S	110/112 (98%)	1.05	9 (8%) 17 15	62, 71, 76, 81	0
15	1T	131/146 (89%)	-0.00	3 (2%) 61 58	29, 41, 66, 81	0
15	2T	131/146 (89%)	0.47	3 (2%) 61 58	46, 56, 72, 83	0
16	1U	116/118 (98%)	-0.27	1 (0%) 81 80	18, 26, 39, 58	0
16	2U	116/118 (98%)	0.32	0 100 100	41, 57, 70, 76	0
17	1V	101/101 (100%)	-0.26	0 100 100	18, 35, 52, 58	0
17	2V	101/101 (100%)	0.46	0 100 100	40, 65, 75, 81	0
18	1W	112/113 (99%)	-0.37	0 100 100	21, 27, 42, 81	0
18	2W	112/113 (99%)	0.15	0 100 100	40, 50, 66, 84	0
19	1X	95/96 (98%)	-0.08	1 (1%) 78 76	24, 35, 54, 68	0
19	2X	95/96 (98%)	0.74	4 (4%) 40 37	49, 61, 69, 80	0
20	1Y	107/110 (97%)	0.15	0 100 100	27, 44, 63, 74	0
20	2Y	107/110 (97%)	0.78	4 (3%) 45 41	56, 69, 77, 82	0
21	1Z	183/206 (88%)	0.30	1 (0%) 87 86	35, 54, 69, 74	0
21	2Z	186/206 (90%)	0.69	3 (1%) 70 68	59, 73, 80, 89	0
22	10	76/85 (89%)	-0.08	0 100 100	25, 35, 48, 61	0
22	20	77/85 (90%)	1.02	9 (11%) 9 7	50, 62, 70, 77	0
23	11	97/98 (98%)	0.09	1 (1%) 79 78	26, 40, 66, 70	0
23	21	97/98 (98%)	0.63	4 (4%) 41 37	41, 58, 74, 79	0
24	12	70/72 (97%)	0.12	3 (4%) 40 36	34, 46, 58, 74	0
24	22	70/72 (97%)	0.41	1 (1%) 73 72	57, 67, 73, 78	0
25	13	59/60 (98%)	-0.27	0 100 100	20, 31, 55, 72	0
25	23	59/60 (98%)	0.40	1 (1%) 69 67	50, 58, 71, 78	0
26	14	69/71 (97%)	0.93	9 (13%) 7 6	53, 73, 86, 88	0
26	24	68/71 (95%)	1.29	16 (23%) 2 1	76, 84, 89, 94	0
27	15	59/60 (98%)	-0.46	0 100 100	16, 28, 45, 55	0
27	25	59/60 (98%)	0.37	2 (3%) 48 44	34, 50, 66, 82	0
28	16	53/54 (98%)	-0.14	0 100 100	30, 40, 54, 58	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.56	0 100 100	54, 61, 68, 73	0
29	17	48/49 (97%)	-0.10	3 (6%) 26 23	21, 26, 64, 66	0
29	27	48/49 (97%)	0.31	4 (8%) 17 14	36, 44, 65, 79	0
30	18	64/65 (98%)	0.04	0 100 100	24, 30, 37, 46	0
30	28	64/65 (98%)	0.52	1 (1%) 70 68	43, 51, 60, 62	0
31	19	37/37 (100%)	0.00	0 100 100	27, 39, 52, 57	0
31	29	37/37 (100%)	0.71	0 100 100	56, 64, 73, 76	0
32	1a	1488/1521 (97%)	0.45	56 (3%) 44 40	35, 71, 92, 103	0
32	2a	1491/1521 (98%)	0.50	46 (3%) 51 48	44, 74, 92, 104	0
33	1b	231/256 (90%)	1.02	25 (10%) 11 9	63, 75, 85, 90	0
33	2b	231/256 (90%)	1.43	63 (27%) 1 1	63, 79, 87, 96	0
34	1c	206/239 (86%)	1.07	18 (8%) 16 13	63, 77, 84, 91	0
34	2c	206/239 (86%)	1.07	21 (10%) 12 10	67, 78, 84, 87	0
35	1d	208/209 (99%)	0.99	11 (5%) 32 28	53, 72, 79, 89	0
35	2d	208/209 (99%)	0.86	13 (6%) 26 23	53, 68, 76, 86	0
36	1e	148/162 (91%)	0.64	4 (2%) 56 53	53, 64, 73, 81	0
36	2e	148/162 (91%)	0.89	10 (6%) 23 20	58, 70, 76, 88	0
37	1f	100/101 (99%)	0.62	2 (2%) 65 62	55, 68, 75, 80	0
37	2f	100/101 (99%)	0.75	2 (2%) 65 62	57, 70, 76, 79	0
38	1g	155/156 (99%)	0.85	12 (7%) 19 17	60, 73, 82, 90	0
38	2g	155/156 (99%)	1.03	18 (11%) 9 8	66, 79, 85, 91	0
39	1h	137/138 (99%)	0.59	10 (7%) 21 18	56, 65, 73, 76	0
39	2h	137/138 (99%)	0.87	8 (5%) 29 25	59, 70, 77, 83	0
40	1i	127/128 (99%)	1.40	28 (22%) 2 2	60, 77, 83, 89	0
40	2i	123/128 (96%)	2.11	63 (51%) 0 0	70, 82, 87, 91	0
41	1j	98/105 (93%)	1.46	23 (23%) 2 1	63, 79, 85, 89	0
41	2j	96/105 (91%)	1.94	38 (39%) 1 0	72, 82, 88, 91	0
42	1k	114/129 (88%)	0.57	5 (4%) 39 35	45, 65, 75, 78	0
42	2k	114/129 (88%)	0.92	9 (7%) 18 16	62, 73, 80, 85	0
43	1l	121/132 (91%)	0.52	5 (4%) 41 37	47, 59, 70, 73	0
43	2l	121/132 (91%)	0.57	3 (2%) 58 55	49, 61, 69, 76	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	118/126 (93%)	1.16	8 (6%) 23 20	60, 73, 78, 84	0
44	2m	115/126 (91%)	1.49	24 (20%) 2 2	69, 81, 87, 88	0
45	1n	60/61 (98%)	1.43	13 (21%) 2 2	67, 74, 80, 81	0
45	2n	60/61 (98%)	2.25	27 (45%) 0 0	72, 80, 86, 92	0
46	1o	88/89 (98%)	0.72	6 (6%) 23 20	49, 63, 73, 79	0
46	2o	88/89 (98%)	0.85	3 (3%) 48 44	60, 69, 77, 81	0
47	1p	82/88 (93%)	1.35	17 (20%) 2 2	58, 71, 80, 82	0
47	2p	82/88 (93%)	0.85	1 (1%) 76 75	56, 67, 74, 78	0
48	1q	99/105 (94%)	0.70	6 (6%) 27 24	50, 63, 71, 75	0
48	2q	99/105 (94%)	0.67	3 (3%) 52 49	57, 67, 74, 78	0
49	1r	68/88 (77%)	0.44	0 100 100	53, 64, 74, 80	0
49	2r	68/88 (77%)	0.80	0 100 100	61, 71, 76, 80	0
50	1s	83/93 (89%)	1.43	16 (19%) 3 3	66, 76, 81, 83	0
50	2s	83/93 (89%)	1.46	18 (21%) 2 2	74, 82, 88, 90	0
51	1t	96/106 (90%)	0.88	7 (7%) 21 18	54, 67, 78, 83	0
51	2t	96/106 (90%)	0.81	7 (7%) 21 18	56, 68, 78, 83	0
52	1u	23/27 (85%)	1.53	5 (21%) 2 2	65, 71, 74, 79	0
52	2u	23/27 (85%)	1.81	10 (43%) 0 0	72, 82, 85, 86	0
53	1v	13/24 (54%)	0.72	3 (23%) 2 2	52, 64, 92, 92	0
53	2v	13/24 (54%)	1.44	5 (38%) 1 0	68, 75, 98, 100	0
54	1w	248/354 (70%)	0.29	8 (3%) 50 46	29, 65, 79, 87	0
54	2w	252/354 (71%)	0.69	12 (4%) 35 32	48, 73, 83, 88	0
55	1x	68/76 (89%)	-0.20	0 100 100	27, 59, 73, 82	0
55	1y	67/76 (88%)	0.81	7 (10%) 11 10	41, 91, 97, 99	0
55	2x	68/76 (89%)	0.22	0 100 100	48, 74, 82, 94	0
55	2y	67/76 (88%)	1.26	8 (11%) 9 7	61, 97, 101, 103	0
56	1z	14/18 (77%)	1.19	3 (21%) 2 2	31, 49, 71, 80	0
56	2z	14/18 (77%)	1.77	5 (35%) 1 0	52, 65, 77, 82	0
All	All	21290/22338 (95%)	0.34	1079 (5%) 33 29	15, 62, 86, 104	0

All (1079) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
45	2n	2	ALA	7.6
23	1l	2	SER	6.3
44	1m	2	ALA	5.9
40	2i	14	VAL	5.9
1	1A	1088	A	5.5
32	1a	1531	A	5.2
40	2i	15	ALA	5.1
1	2A	2134	A	5.1
32	1a	1532	U	5.0
1	2A	2158	A	5.0
23	2l	2	SER	5.0
1	2A	2113	U	5.0
32	1a	1002	G	4.9
32	2a	1030(B)	C	4.9
44	2m	4	ILE	4.9
40	2i	106	ALA	4.9
43	1l	126	LYS	4.9
1	2A	2146	C	4.8
33	2b	7	VAL	4.8
12	2Q	121	ALA	4.8
45	2n	3	ARG	4.7
19	2X	69	TYR	4.7
40	2i	126	SER	4.7
1	2A	1536	C	4.7
1	2A	2157	G	4.6
45	1n	2	ALA	4.6
1	1A	2113	U	4.5
45	2n	33	VAL	4.5
32	1a	344	A	4.5
40	2i	46	ALA	4.4
1	1A	2115	G	4.4
1	2A	2115	G	4.4
1	2A	2156	G	4.4
1	2A	2138	C	4.4
11	2P	15	ARG	4.4
1	2A	2147	G	4.4
50	2s	9	VAL	4.4
1	2A	2114	A	4.3
50	1s	16	LEU	4.3
14	2S	3	ARG	4.3
40	2i	6	GLY	4.3
32	2a	1236	A	4.3
3	2D	236	GLY	4.3

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Mol	Chain	Res	Type	RSRZ
40	1i	2	GLU	4.3
5	2F	89	VAL	4.3
1	1A	1058	G	4.3
56	2z	10	ARG	4.3
1	2A	2136	C	4.3
50	1s	9	VAL	4.3
1	2A	2159	G	4.2
45	2n	30	ALA	4.2
38	1g	156	TRP	4.2
1	1A	1068	G	4.2
43	1l	91	LYS	4.2
51	1t	14	LYS	4.2
26	24	56	VAL	4.2
42	1k	64	ALA	4.2
1	2A	2116	G	4.1
40	1i	8	GLY	4.1
38	1g	79	ARG	4.1
1	1A	1059	G	4.1
38	2g	16	LEU	4.1
41	2j	47	PHE	4.1
45	2n	17	LYS	4.0
33	2b	123	ALA	4.0
40	2i	43	ALA	4.0
32	1a	1028	C	4.0
53	2v	10	G	4.0
40	2i	10	ARG	4.0
38	1g	80	VAL	4.0
33	2b	19	HIS	4.0
35	1d	155	LEU	4.0
7	2H	96	ALA	4.0
3	2D	38	LYS	4.0
56	2z	6	VAL	4.0
51	1t	10	LEU	3.9
32	1a	1029	C	3.9
51	2t	9	ASN	3.9
6	2G	48	GLU	3.9
38	2g	156	TRP	3.9
40	1i	126	SER	3.9
41	2j	71	LEU	3.9
33	2b	236	TYR	3.9
40	2i	123	PRO	3.9
3	2D	55	GLY	3.9

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Mol	Chain	Res	Type	RSRZ
1	1A	1087	G	3.8
40	2i	109	VAL	3.8
14	2S	7	TYR	3.8
41	2j	65	LEU	3.8
50	1s	20	LEU	3.8
1	1A	1057	A	3.8
1	2A	2119	A	3.8
32	1a	1447	A	3.8
32	2a	977	A	3.8
38	1g	2	ALA	3.8
44	2m	7	VAL	3.8
33	2b	88	ALA	3.7
7	2H	115	VAL	3.7
40	2i	19	LEU	3.7
1	2A	2169	A	3.7
15	1T	131	ALA	3.7
15	2T	131	ALA	3.7
38	2g	83	ALA	3.7
41	1j	66	ARG	3.7
1	2A	2133	G	3.7
56	1z	6	VAL	3.7
32	1a	1030(B)	C	3.7
22	20	9	SER	3.7
32	1a	1397	C	3.7
40	2i	11	LYS	3.7
44	2m	102	ARG	3.7
45	2n	21	TYR	3.7
44	2m	6	GLY	3.7
46	1o	66	LEU	3.6
41	2j	75	ILE	3.6
1	1A	1063	G	3.6
1	1A	1092	C	3.6
1	2A	2111	C	3.6
1	2A	2137	C	3.6
54	2w	183	VAL	3.6
40	1i	15	ALA	3.6
1	2A	2112	G	3.6
32	1a	1026	G	3.6
32	2a	1331	G	3.6
41	2j	54	PHE	3.6
56	1z	5	PRO	3.6
3	2D	276	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
1	1A	2114	A	3.6
40	2i	62	TYR	3.6
41	2j	55	LYS	3.6
32	1a	346	G	3.6
32	2a	1002	G	3.6
32	2a	1224	G	3.6
40	2i	122	ALA	3.6
46	2o	15	PHE	3.6
26	14	56	VAL	3.6
41	2j	76	ASN	3.5
32	1a	1001(A)	G	3.5
44	2m	100	GLY	3.5
41	2j	61	GLU	3.5
1	1A	1060	U	3.5
41	2j	56	HIS	3.5
43	2l	64	TYR	3.5
1	2A	2160	G	3.5
44	2m	65	LYS	3.5
1	1A	2170	A	3.5
1	2A	2135	A	3.5
41	1j	34	VAL	3.5
1	2A	2145	C	3.4
34	2c	2	GLY	3.4
40	2i	13	ALA	3.4
47	1p	47	ASP	3.4
33	2b	44	LEU	3.4
6	2G	43	LEU	3.4
1	2A	2144	U	3.4
33	2b	200	ILE	3.4
45	1n	3	ARG	3.4
1	1A	1082	U	3.4
1	1A	2112	G	3.4
14	2S	56	LEU	3.4
33	2b	10	LEU	3.4
40	1i	19	LEU	3.4
1	2A	2118	U	3.3
40	2i	36	TYR	3.3
15	1T	130	ALA	3.3
51	2t	103	GLY	3.3
1	2A	2131	G	3.3
32	1a	630	G	3.3
55	1y	18	G	3.3

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Mol	Chain	Res	Type	RSRZ
12	2Q	104	PHE	3.3
45	2n	18	VAL	3.3
40	2i	115	GLY	3.3
44	1m	98	VAL	3.3
1	2A	2155	G	3.3
40	2i	66	ARG	3.3
41	2j	40	LEU	3.3
23	2l	28	GLY	3.3
38	2g	81	GLY	3.3
41	2j	52	GLY	3.3
15	2T	130	ALA	3.3
38	2g	2	ALA	3.3
33	2b	80	ILE	3.3
1	2A	2170	A	3.3
40	2i	9	ARG	3.3
1	1A	271(K)	U	3.3
1	1A	2189	U	3.3
54	2w	151	ASP	3.3
44	1m	102	ARG	3.2
50	1s	71	LEU	3.2
47	1p	16	HIS	3.2
47	1p	82	GLN	3.2
35	1d	2	GLY	3.2
32	1a	1003	G	3.2
1	1A	2172	U	3.2
11	1P	15	ARG	3.2
45	2n	41	ARG	3.2
22	20	8	GLY	3.2
33	2b	15	VAL	3.2
1	1A	2166	G	3.2
33	2b	221	LEU	3.2
50	2s	2	PRO	3.2
34	2c	13	GLY	3.2
32	1a	345	C	3.2
45	1n	5	ALA	3.2
50	2s	35	SER	3.2
41	2j	72	VAL	3.2
50	2s	13	ASP	3.2
41	2j	46	ARG	3.2
3	1D	276	LYS	3.2
33	2b	234	PRO	3.2
1	1A	1093	G	3.2

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Mol	Chain	Res	Type	RSRZ
32	1a	928	G	3.2
6	1G	50	ALA	3.2
45	2n	7	ILE	3.2
35	2d	88	VAL	3.2
32	1a	1533	C	3.1
6	2G	133	LEU	3.1
52	2u	23	PRO	3.1
41	2j	42	THR	3.1
1	1A	2150	U	3.1
34	1c	189	ALA	3.1
33	2b	39	ILE	3.1
45	2n	31	ARG	3.1
32	1a	1030	C	3.1
45	2n	22	THR	3.1
38	2g	40	ALA	3.1
44	2m	118	ALA	3.1
45	2n	42	ILE	3.1
33	2b	165	VAL	3.1
12	2Q	60	ARG	3.1
52	2u	24	ARG	3.1
1	2A	2166	G	3.1
55	1y	19	G	3.1
33	2b	167	PRO	3.1
45	2n	9	LYS	3.1
26	14	50	VAL	3.1
40	2i	41	VAL	3.1
42	2k	114	VAL	3.1
22	20	68	GLU	3.1
1	2A	2110	G	3.1
1	2A	2148	G	3.1
26	24	54	GLY	3.1
41	1j	100	THR	3.1
40	1i	13	ALA	3.1
40	2i	17	VAL	3.1
7	1H	2	SER	3.1
40	2i	48	GLU	3.0
39	1h	4	ASP	3.0
47	1p	68	ASP	3.0
46	2o	3	ILE	3.0
52	2u	13	ILE	3.0
7	2H	102	ALA	3.0
8	1I	146	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
41	2j	60	ARG	3.0
26	14	59	PHE	3.0
33	2b	136	VAL	3.0
40	2i	18	PHE	3.0
1	2A	2125	G	3.0
1	1A	2129	C	3.0
56	2z	8	ILE	3.0
6	1G	80	PHE	3.0
34	1c	207	VAL	3.0
41	2j	63	PHE	3.0
4	2E	151	TYR	3.0
26	14	63	TYR	3.0
26	14	69	LYS	3.0
1	1A	1064	C	3.0
1	1A	2119	A	3.0
32	1a	1257	U	3.0
32	2a	1235	U	3.0
45	2n	6	LEU	3.0
40	2i	21	PRO	3.0
50	1s	13	ASP	3.0
26	14	54	GLY	3.0
1	1A	2125	G	3.0
32	1a	1036	G	3.0
1	1A	1100	C	3.0
1	2A	2139	C	3.0
32	1a	1037	C	3.0
44	2m	30	ALA	3.0
1	2A	2117	A	3.0
32	2a	1363(A)	A	3.0
6	2G	34	LEU	2.9
22	20	84	LEU	2.9
40	2i	79	LEU	2.9
54	2w	351	LEU	2.9
1	1A	1090	U	2.9
6	2G	12	TYR	2.9
33	1b	200	ILE	2.9
47	1p	7	ALA	2.9
36	2e	105	VAL	2.9
33	2b	215	LEU	2.9
42	1k	98	LEU	2.9
44	1m	56	LEU	2.9
1	1A	2145	C	2.9

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Mol	Chain	Res	Type	RSRZ
1	1A	2178	C	2.9
1	1A	2188	C	2.9
32	1a	1024	G	2.9
32	2a	1234	C	2.9
36	1e	81	GLU	2.9
40	1i	78	LYS	2.9
41	2j	57	LYS	2.9
40	2i	49	PRO	2.9
1	1A	1026	U	2.9
45	1n	32	SER	2.9
35	1d	154	ASN	2.9
41	1j	76	ASN	2.9
44	2m	80	ARG	2.9
40	2i	81	ILE	2.9
38	1g	82	GLY	2.9
40	1i	43	ALA	2.9
40	2i	76	ALA	2.9
54	1w	350	ALA	2.9
41	2j	49	VAL	2.9
1	1A	548	A	2.9
36	2e	27	ARG	2.9
1	1A	2190	G	2.9
32	2a	1532	U	2.9
38	2g	84	ASN	2.9
55	2y	20	U	2.9
34	2c	17	ASP	2.9
15	1T	37	GLY	2.9
8	2I	5	LEU	2.9
21	2Z	175	VAL	2.9
41	1j	40	LEU	2.9
50	1s	74	PHE	2.9
45	2n	61	TRP	2.9
41	2j	59	SER	2.9
50	1s	35	SER	2.9
40	2i	74	ILE	2.9
44	2m	25	ILE	2.9
33	2b	199	TYR	2.9
34	1c	185	GLY	2.9
40	2i	67	GLY	2.9
42	2k	75	TYR	2.9
45	1n	59	ALA	2.9
33	1b	229	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
40	2i	65	VAL	2.9
55	2y	15	G	2.9
55	2y	19	G	2.9
26	14	53	GLU	2.8
6	2G	2	PRO	2.8
7	2H	128	PRO	2.8
6	1G	21	ARG	2.8
39	1h	94	TYR	2.8
50	1s	84	GLY	2.8
51	1t	103	GLY	2.8
7	2H	88	LEU	2.8
38	1g	83	ALA	2.8
40	1i	55	ALA	2.8
44	2m	107	ALA	2.8
1	1A	2117	A	2.8
1	2A	2897	U	2.8
33	1b	28	PHE	2.8
38	1g	153	HIS	2.8
41	2j	34	VAL	2.8
1	1A	2111	C	2.8
34	1c	109	PRO	2.8
32	1a	1030(A)	G	2.8
45	1n	51	GLY	2.8
33	2b	13	ALA	2.8
50	1s	80	TYR	2.8
54	1w	349	ALA	2.8
26	24	57	GLU	2.8
39	1h	89	PRO	2.8
56	2z	5	PRO	2.8
34	2c	182	ILE	2.8
40	2i	71	SER	2.8
1	1A	173	G	2.8
1	1A	2116	G	2.8
52	1u	11	GLY	2.8
8	2I	146	ALA	2.8
7	1H	58	GLU	2.8
26	24	32	TYR	2.8
19	2X	68	ARG	2.8
40	2i	42	ARG	2.8
32	1a	204	U	2.8
45	2n	50	LYS	2.8
33	1b	127	ILE	2.8

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Mol	Chain	Res	Type	RSRZ
41	2j	38	ILE	2.8
32	1a	932	C	2.8
6	2G	24	GLY	2.8
8	2I	77	LEU	2.8
35	2d	87	GLY	2.8
40	2i	72	GLY	2.8
52	2u	11	GLY	2.8
6	2G	50	ALA	2.8
40	2i	86	VAL	2.8
43	1l	6	THR	2.8
44	2m	103	THR	2.8
1	1A	2168	G	2.8
32	2a	971	G	2.8
39	2h	18	ARG	2.8
40	1i	66	ARG	2.8
1	1A	1094	U	2.7
53	2v	11	U	2.7
6	2G	175	LEU	2.7
41	1j	59	SER	2.7
51	1t	11	SER	2.7
32	1a	1035	A	2.7
26	24	49	PHE	2.7
45	2n	16	PHE	2.7
45	2n	25	VAL	2.7
7	2H	94	TYR	2.7
8	2I	126	TYR	2.7
42	2k	25	TYR	2.7
40	2i	118	LYS	2.7
1	1A	1071	G	2.7
1	2A	2805	G	2.7
2	2B	118	G	2.7
33	2b	196	LEU	2.7
22	20	82	ARG	2.7
33	2b	134	GLU	2.7
26	24	51	ASP	2.7
29	27	47	ARG	2.7
33	2b	232	PRO	2.7
29	27	48	LYS	2.7
34	2c	184	TYR	2.7
47	2p	82	GLN	2.7
32	1a	1007	C	2.7
40	1i	74	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
1	2A	1533	G	2.7
1	2A	2149	G	2.7
33	1b	228	GLY	2.7
40	2i	12	GLU	2.7
33	1b	165	VAL	2.7
34	1c	76	VAL	2.7
34	1c	130	VAL	2.7
38	1g	9	VAL	2.7
38	2g	80	VAL	2.7
34	1c	56	ASP	2.7
54	2w	194	THR	2.7
1	1A	1081	U	2.7
1	2A	1026	U	2.7
32	2a	950	U	2.7
40	2i	114	TYR	2.7
1	1A	2126	A	2.7
1	1A	2169	A	2.7
1	1A	2171	A	2.7
32	1a	160	A	2.7
33	2b	222	ILE	2.7
1	1A	1072	C	2.7
41	1j	88	LEU	2.7
41	2j	5	ARG	2.7
42	2k	126	ARG	2.7
52	2u	14	TRP	2.7
42	1k	65	ALA	2.7
45	1n	16	PHE	2.7
47	1p	2	VAL	2.7
1	2A	2319	G	2.6
32	2a	1304	G	2.6
40	2i	88	TYR	2.6
41	2j	74	ILE	2.6
6	1G	53	LEU	2.6
34	2c	12	LEU	2.6
6	2G	85	GLY	2.6
34	2c	171	GLY	2.6
1	1A	2174	C	2.6
1	2A	2142	C	2.6
1	2A	2803	C	2.6
32	1a	1039	C	2.6
32	2a	979	C	2.6
32	2a	1397	C	2.6

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Mol	Chain	Res	Type	RSRZ
33	1b	237	ALA	2.6
42	2k	89	ALA	2.6
38	2g	85	TYR	2.6
39	2h	94	TYR	2.6
47	1p	38	TYR	2.6
1	1A	614(B)	G	2.6
32	1a	157	G	2.6
33	2b	187	LEU	2.6
33	2b	66	GLY	2.6
1	1A	2135	A	2.6
32	1a	1287	A	2.6
32	2a	1225	A	2.6
36	2e	104	ALA	2.6
40	1i	45	ALA	2.6
44	2m	98	VAL	2.6
45	1n	25	VAL	2.6
41	1j	77	PRO	2.6
41	1j	33	GLN	2.6
1	1A	1079	C	2.6
32	2a	1249	C	2.6
6	2G	88	ILE	2.6
45	1n	7	ILE	2.6
6	2G	139	LEU	2.6
8	2I	12	LEU	2.6
40	2i	125	TYR	2.6
44	1m	96	LEU	2.6
29	17	47	ARG	2.6
41	2j	66	ARG	2.6
46	1o	88	ARG	2.6
27	25	59	GLU	2.6
38	1g	81	GLY	2.6
51	2t	69	GLY	2.6
1	1A	2151	G	2.6
1	2A	2141	G	2.6
32	1a	927	G	2.6
32	1a	1023	G	2.6
32	2a	1036	G	2.6
7	2H	99	VAL	2.6
33	2b	93	VAL	2.6
33	2b	164	VAL	2.6
34	2c	160	ALA	2.6
39	1h	72	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
41	2j	27	ALA	2.6
40	2i	103	THR	2.6
32	2a	1286	A	2.6
33	2b	42	ILE	2.6
32	1a	1027	C	2.6
33	2b	121	LEU	2.6
33	2b	213	LEU	2.6
38	2g	154	TYR	2.6
43	1l	89	ARG	2.6
39	1h	71	GLY	2.6
1	1A	2130	U	2.6
29	17	46	VAL	2.6
33	1b	15	VAL	2.6
33	2b	171	ALA	2.6
54	2w	158	VAL	2.6
32	1a	929	G	2.5
55	1y	15	G	2.5
6	1G	77	ILE	2.5
41	1j	4	ILE	2.5
22	20	75	LEU	2.5
14	2S	57	LYS	2.5
26	14	55	ARG	2.5
41	2j	45	ARG	2.5
51	2t	74	LYS	2.5
6	1G	146	TYR	2.5
1	1A	2803	C	2.5
1	2A	2188	C	2.5
42	2k	13	GLN	2.5
44	2m	101	GLN	2.5
32	2a	1212	U	2.5
41	1j	35	SER	2.5
34	2c	167	TRP	2.5
6	2G	157	ILE	2.5
40	2i	63	ILE	2.5
41	1j	75	ILE	2.5
44	2m	39	ILE	2.5
6	2G	7	LEU	2.5
45	2n	35	ARG	2.5
1	1A	2159	G	2.5
1	2A	2318	G	2.5
1	1A	1077	A	2.5
6	1G	48	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
33	1b	33	TYR	2.5
44	2m	87	TYR	2.5
6	2G	134	GLY	2.5
26	24	33	VAL	2.5
34	2c	151	VAL	2.5
33	1b	17	PHE	2.5
33	2b	218	ALA	2.5
40	1i	106	ALA	2.5
52	2u	17	THR	2.5
26	24	66	SER	2.5
33	2b	133	LYS	2.5
40	1i	75	ASP	2.5
41	2j	14	LYS	2.5
48	2q	91	ARG	2.5
33	2b	40	HIS	2.5
33	1b	227	GLY	2.5
1	1A	1091	G	2.5
1	1A	1537	G	2.5
1	1A	2120	G	2.5
1	2A	614(B)	G	2.5
32	1a	1032	G	2.5
32	2a	1033	G	2.5
35	2d	164	ALA	2.5
35	2d	195	ALA	2.5
45	1n	4	LYS	2.5
6	2G	76	SER	2.5
8	1I	79	ILE	2.5
6	2G	29	TRP	2.5
14	2S	58	LEU	2.5
50	2s	4	SER	2.5
50	2s	38	SER	2.5
32	2a	1008	C	2.5
1	1A	1078	U	2.5
1	2A	2132	U	2.5
45	2n	51	GLY	2.5
33	1b	7	VAL	2.5
15	2T	126	ALA	2.5
23	2I	77	ALA	2.5
26	24	59	PHE	2.5
33	2b	55	PHE	2.5
36	2e	86	ALA	2.5
52	2u	3	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
33	2b	168	THR	2.4
1	1A	1073	A	2.4
34	1c	52	LEU	2.4
35	2d	155	LEU	2.4
1	1A	1062	G	2.4
1	1A	2152	G	2.4
1	1A	2162	G	2.4
32	1a	1030(C)	G	2.4
32	2a	630	G	2.4
3	2D	28	GLU	2.4
33	2b	129	GLU	2.4
1	2A	2804	C	2.4
6	2G	155	MET	2.4
12	2Q	33	GLY	2.4
32	1a	723	U	2.4
41	1j	41	PRO	2.4
50	2s	84	GLY	2.4
26	24	67	TYR	2.4
29	17	48	LYS	2.4
34	2c	199	LYS	2.4
39	2h	19	VAL	2.4
54	2w	189	GLN	2.4
33	2b	237	ALA	2.4
35	1d	139	ARG	2.4
41	2j	67	THR	2.4
50	2s	3	ARG	2.4
6	2G	20	ILE	2.4
34	2c	152	ILE	2.4
39	1h	2	LEU	2.4
44	2m	34	LEU	2.4
46	1o	87	ILE	2.4
20	2Y	29	GLU	2.4
1	1A	1099	G	2.4
1	1A	2141	G	2.4
32	1a	1034	G	2.4
32	2a	1030(A)	G	2.4
55	2y	18	G	2.4
5	1F	208	GLY	2.4
1	1A	2161	C	2.4
32	2a	1282	C	2.4
39	1h	93	VAL	2.4
42	1k	14	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
44	2m	15	VAL	2.4
55	2y	56	C	2.4
1	1A	1083	U	2.4
1	2A	614(A)	U	2.4
8	2I	55	ALA	2.4
32	1a	1000	U	2.4
34	2c	129	ALA	2.4
36	2e	84	PHE	2.4
35	2d	132	ARG	2.4
38	2g	7	ALA	2.4
39	2h	30	ARG	2.4
51	2t	86	ARG	2.4
24	22	60	LEU	2.4
34	1c	62	ASP	2.4
54	2w	102	MET	2.4
1	2A	2126	A	2.4
32	1a	1503	A	2.4
6	2G	17	PRO	2.4
7	2H	100	GLY	2.4
6	2G	73	ALA	2.4
33	2b	34	ALA	2.4
41	1j	45	ARG	2.4
45	2n	5	ALA	2.4
33	2b	138	LEU	2.4
1	2A	271(K)	U	2.4
1	2A	2164	C	2.4
1	2A	2312	U	2.4
32	1a	1446	U	2.4
32	2a	1364	U	2.4
33	2b	201	ILE	2.4
48	1q	98	LEU	2.4
53	1v	22	U	2.4
13	2R	14	SER	2.4
41	2j	37	PRO	2.4
8	1I	90	GLY	2.4
33	2b	38	GLY	2.4
37	1f	58	GLY	2.4
22	20	30	VAL	2.4
24	12	51	ARG	2.4
40	2i	53	VAL	2.4
47	1p	72	ARG	2.4
1	1A	1067	A	2.4

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Mol	Chain	Res	Type	RSRZ
39	1h	7	ALA	2.4
33	1b	44	LEU	2.3
34	1c	201	TYR	2.3
35	2d	157	LEU	2.3
40	2i	96	LEU	2.3
47	1p	73	LEU	2.3
6	2G	39	ILE	2.3
14	2S	35	ILE	2.3
40	1i	7	THR	2.3
1	2A	2120	G	2.3
32	1a	933	G	2.3
32	1a	1020	U	2.3
32	1a	1353	G	2.3
32	2a	1190	G	2.3
44	2m	69	GLU	2.3
1	2A	2129	C	2.3
40	2i	116	LYS	2.3
33	1b	97	TRP	2.3
34	2c	159	GLY	2.3
35	1d	153	ARG	2.3
37	1f	18	GLN	2.3
50	2s	68	GLY	2.3
50	1s	3	ARG	2.3
8	2I	92	VAL	2.3
35	1d	178	VAL	2.3
51	2t	97	ALA	2.3
6	2G	131	TYR	2.3
47	1p	17	TYR	2.3
32	1a	1001	A	2.3
32	1a	1286	A	2.3
40	1i	117	HIS	2.3
41	1j	87	THR	2.3
6	2G	132	ASN	2.3
11	2P	98	GLU	2.3
33	2b	205	ASP	2.3
53	2v	22	U	2.3
1	2A	2894	G	2.3
1	1A	2108	C	2.3
29	27	23	ARG	2.3
32	2a	972	C	2.3
34	1c	2	GLY	2.3
41	1j	31	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
33	2b	184	VAL	2.3
34	2c	130	VAL	2.3
37	2f	6	VAL	2.3
33	2b	152	PHE	2.3
40	1i	59	PHE	2.3
33	1b	13	ALA	2.3
33	1b	172	ILE	2.3
33	2b	16	HIS	2.3
54	2w	150	THR	2.3
26	24	30	GLU	2.3
40	1i	12	GLU	2.3
44	2m	73	GLU	2.3
38	2g	155	ARG	2.3
41	2j	77	PRO	2.3
39	1h	90	GLY	2.3
52	2u	2	GLY	2.3
54	1w	185	VAL	2.3
6	1G	82	LEU	2.3
19	2X	95	LEU	2.3
33	2b	145	LEU	2.3
34	1c	188	LEU	2.3
41	1j	11	PHE	2.3
12	2Q	120	ILE	2.3
33	2b	214	ILE	2.3
1	1A	1509	C	2.3
33	1b	132	LYS	2.3
43	2l	126	LYS	2.3
52	1u	17	THR	2.3
4	2E	149	ARG	2.3
38	2g	112	PRO	2.3
1	1A	1086	A	2.3
2	2B	26	A	2.3
32	2a	532	A	2.3
32	2a	1035	A	2.3
32	2a	1130	A	2.3
41	2j	33	GLN	2.3
41	1j	10	GLY	2.3
41	2j	36	GLY	2.3
46	1o	89	GLY	2.3
20	2Y	45	VAL	2.3
26	24	50	VAL	2.3
33	2b	230	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
38	1g	118	VAL	2.3
40	2i	85	LEU	2.3
39	2h	31	PHE	2.3
55	1y	20	U	2.2
47	1p	3	LYS	2.2
41	1j	42	THR	2.2
40	1i	125	TYR	2.2
40	2i	92	TYR	2.2
42	1k	75	TYR	2.2
1	2A	652(T)	C	2.2
1	2A	2128	C	2.2
2	2B	60	C	2.2
1	1A	2131	G	2.2
1	2A	1171	G	2.2
32	2a	1032	G	2.2
8	2I	57	ARG	2.2
52	2u	6	ARG	2.2
38	1g	33	ASP	2.2
19	2X	67	GLY	2.2
34	1c	25	GLY	2.2
6	2G	19	LEU	2.2
43	2l	18	VAL	2.2
34	2c	14	ILE	2.2
36	1e	129	ILE	2.2
36	2e	28	PHE	2.2
40	2i	127	LYS	2.2
48	1q	100	LYS	2.2
54	2w	307	PHE	2.2
41	2j	68	HIS	2.2
55	1y	58	A	2.2
1	1A	12	U	2.2
1	2A	2167	U	2.2
41	2j	64	GLU	2.2
47	1p	39	TYR	2.2
39	2h	92	ARG	2.2
39	2h	89	PRO	2.2
52	1u	23	PRO	2.2
1	1A	2163	C	2.2
1	1A	2185	C	2.2
1	2A	2896	C	2.2
1	1A	2154	G	2.2
1	2A	2104	G	2.2

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Mol	Chain	Res	Type	RSRZ
40	1i	67	GLY	2.2
41	2j	31	GLY	2.2
44	1m	6	GLY	2.2
19	1X	95	LEU	2.2
21	1Z	70	LEU	2.2
34	2c	94	LEU	2.2
53	1v	10	G	2.2
6	2G	31	VAL	2.2
29	27	46	VAL	2.2
33	2b	197	VAL	2.2
38	2g	21	VAL	2.2
38	2g	105	VAL	2.2
44	2m	45	VAL	2.2
50	2s	67	VAL	2.2
6	2G	77	ILE	2.2
21	2Z	146	ILE	2.2
40	2i	59	PHE	2.2
56	1z	8	ILE	2.2
41	2j	32	ALA	2.2
44	1m	61	GLU	2.2
1	1A	2134	A	2.2
32	2a	1285	A	2.2
53	2v	14	A	2.2
1	1A	2167	U	2.2
22	20	11	ARG	2.2
24	12	69	ARG	2.2
27	25	19	ARG	2.2
32	2a	1065	U	2.2
40	1i	42	ARG	2.2
40	1i	88	TYR	2.2
46	1o	69	TYR	2.2
45	2n	14	PRO	2.2
16	1U	117	GLN	2.2
51	1t	18	GLN	2.2
6	2G	82	LEU	2.2
34	1c	43	LEU	2.2
42	2k	122	LYS	2.2
50	2s	71	LEU	2.2
51	2t	10	LEU	2.2
6	2G	5	VAL	2.2
36	2e	148	VAL	2.2
50	1s	11	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
6	2G	125	PHE	2.2
30	28	34	TRP	2.2
32	2a	1027	C	2.2
32	2a	1063	C	2.2
42	2k	40	ILE	2.2
40	2i	61	ALA	2.2
54	2w	352	ALA	2.2
1	2A	2151	G	2.2
1	2A	2793	G	2.2
32	1a	348	G	2.2
8	2I	61	ARG	2.2
47	1p	42	ARG	2.2
48	2q	68	ARG	2.2
1	1A	1045	A	2.2
1	1A	1070	A	2.2
55	1y	21	A	2.2
1	2A	63	U	2.2
32	1a	223	U	2.2
42	2k	123	LYS	2.2
46	1o	48	LYS	2.2
8	1I	34	GLY	2.2
11	1P	104	GLY	2.2
33	2b	115	LEU	2.2
34	2c	196	LEU	2.2
35	2d	2	GLY	2.2
40	1i	85	LEU	2.2
44	1m	95	GLY	2.2
33	1b	195	ASP	2.2
40	2i	75	ASP	2.2
8	2I	109	ILE	2.2
40	2i	77	ILE	2.2
6	2G	23	PHE	2.2
45	2n	36	PHE	2.2
45	2n	8	GLU	2.1
1	1A	1532	C	2.1
26	14	62	ARG	2.1
39	1h	18	ARG	2.1
52	1u	15	ARG	2.1
52	2u	7	ARG	2.1
2	2B	117	G	2.1
32	2a	1048	G	2.1
56	2z	14	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
6	2G	146	TYR	2.1
37	2f	59	TYR	2.1
40	1i	4	TYR	2.1
47	1p	43	LYS	2.1
9	2N	34	LEU	2.1
5	1F	16	GLY	2.1
33	2b	14	GLY	2.1
35	2d	44	GLY	2.1
36	1e	85	GLY	2.1
40	1i	39	GLY	2.1
6	2G	52	ILE	2.1
14	2S	46	VAL	2.1
26	24	65	ASP	2.1
33	2b	32	ILE	2.1
33	2b	189	ASP	2.1
34	1c	106	VAL	2.1
34	2c	202	ILE	2.1
40	1i	44	VAL	2.1
40	1i	109	VAL	2.1
40	2i	54	ASP	2.1
55	1y	45	U	2.1
33	2b	86	GLU	2.1
40	2i	104	ARG	2.1
41	2j	43	ARG	2.1
47	1p	67	THR	2.1
50	2s	79	THR	2.1
54	1w	295	THR	2.1
7	1H	175	LYS	2.1
45	1n	17	LYS	2.1
50	2s	76	PRO	2.1
1	1A	1075	C	2.1
1	2A	34	C	2.1
1	2A	2140	C	2.1
34	2c	181	ASN	2.1
33	1b	236	TYR	2.1
23	2l	22	GLY	2.1
35	1d	23	GLY	2.1
40	2i	68	GLY	2.1
1	1A	2793	G	2.1
1	2A	2165	G	2.1
1	2A	2182	G	2.1
26	24	22	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
32	1a	1274	G	2.1
32	2a	1022	G	2.1
32	2a	1024	G	2.1
32	2a	1117	G	2.1
33	1b	164	VAL	2.1
38	1g	49	ILE	2.1
48	1q	35	VAL	2.1
33	2b	122	PHE	2.1
40	2i	33	PHE	2.1
47	1p	80	PHE	2.1
1	2A	652(B)	A	2.1
1	2A	2173	A	2.1
32	1a	343	U	2.1
32	1a	1041	A	2.1
40	1i	84	ALA	2.1
53	2v	12	A	2.1
35	1d	156	GLU	2.1
50	1s	43	GLU	2.1
55	2y	33	U	2.1
34	1c	67	THR	2.1
41	1j	3	LYS	2.1
48	1q	26	GLN	2.1
33	1b	196	LEU	2.1
35	1d	58	LEU	2.1
41	1j	8	LEU	2.1
45	2n	53	LEU	2.1
47	1p	6	LEU	2.1
51	1t	75	ASN	2.1
44	2m	112	GLY	2.1
50	2s	14	HIS	2.1
50	2s	46	GLY	2.1
1	1A	889	C	2.1
1	1A	2137	C	2.1
1	2A	2789	C	2.1
8	2I	4	ILE	2.1
32	1a	330	C	2.1
35	2d	121	VAL	2.1
36	2e	129	ILE	2.1
51	1t	55	ILE	2.1
8	2I	96	ASP	2.1
33	2b	163	PHE	2.1
3	2D	2	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
40	2i	45	ALA	2.1
40	2i	119	ALA	2.1
50	1s	4	SER	2.1
11	2P	149	GLU	2.1
12	2Q	59	ARG	2.1
22	20	74	ARG	2.1
33	2b	21	ARG	2.1
54	1w	325	GLU	2.1
1	2A	2124	G	2.1
14	2S	33	LYS	2.1
24	12	15	LYS	2.1
32	1a	347	G	2.1
55	2y	57	G	2.1
1	1A	1095	A	2.1
1	2A	529	A	2.1
32	2a	1257	U	2.1
50	2s	33	THR	2.1
53	1v	11	U	2.1
34	2c	109	PRO	2.1
41	1j	37	PRO	2.1
6	1G	139	LEU	2.1
41	2j	8	LEU	2.1
44	2m	106	ASN	2.1
35	2d	109	GLY	2.1
40	2i	57	GLY	2.1
45	2n	55	GLY	2.1
6	1G	52	ILE	2.1
41	1j	74	ILE	2.1
35	2d	112	VAL	2.1
36	2e	34	VAL	2.1
20	2Y	60	PHE	2.1
36	1e	84	PHE	2.1
38	2g	26	PHE	2.1
6	1G	83	ARG	2.0
40	2i	128	ARG	2.0
8	2I	46	ALA	2.0
33	1b	233	SER	2.0
33	2b	188	ALA	2.0
34	1c	117	ALA	2.0
35	1d	60	GLU	2.0
35	1d	195	ALA	2.0
35	2d	156	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
54	1w	113	ALA	2.0
1	1A	888	C	2.0
1	1A	2138	C	2.0
1	2A	2161	C	2.0
3	1D	275	LYS	2.0
20	2Y	54	LYS	2.0
32	1a	1038	C	2.0
32	1a	1363	C	2.0
32	2a	1223	C	2.0
32	2a	1354	C	2.0
39	2h	21	LYS	2.0
44	2m	31	LYS	2.0
6	2G	100	TRP	2.0
50	1s	39	THR	2.0
54	1w	188	THR	2.0
6	2G	87	PRO	2.0
45	2n	54	PRO	2.0
1	1A	1097	U	2.0
11	2P	6	LEU	2.0
33	1b	10	LEU	2.0
33	1b	11	LEU	2.0
40	2i	99	LEU	2.0
1	1A	1046	A	2.0
1	1A	1098	A	2.0
1	1A	2160	G	2.0
1	2A	528	A	2.0
1	2A	2802	G	2.0
55	2y	71	G	2.0
40	2i	58	HIS	2.0
43	1l	90	VAL	2.0
45	1n	18	VAL	2.0
50	1s	67	VAL	2.0
38	2g	5	ARG	2.0
40	2i	37	PHE	2.0
45	1n	12	ARG	2.0
3	2D	275	LYS	2.0
6	1G	46	ALA	2.0
33	2b	85	ALA	2.0
48	1q	37	LYS	2.0
50	1s	6	LYS	2.0
50	2s	50	ALA	2.0
54	2w	350	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
38	2g	98	SER	2.0
25	23	2	PRO	2.0
33	1b	202	PRO	2.0
1	2A	2108	C	2.0
32	2a	1028	C	2.0
54	1w	202	LEU	2.0
33	2b	140	HIS	2.0
2	2B	1	U	2.0
32	2a	1040	U	2.0
33	2b	127	ILE	2.0
36	2e	13	ILE	2.0
48	1q	33	GLY	2.0
50	2s	8	GLY	2.0
54	2w	192	ILE	2.0
2	2B	59	A	2.0
6	2G	16	ARG	2.0
14	1S	20	ARG	2.0
21	2Z	96	VAL	2.0
26	24	10	VAL	2.0
32	2a	1180	A	2.0
34	1c	70	VAL	2.0
46	2o	68	ARG	2.0
6	2G	25	TYR	2.0
14	2S	92	TYR	2.0
26	24	43	TYR	2.0
33	2b	33	TYR	2.0
48	2q	95	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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MIA	2y	37	29/30	0.56	0.18	82,91,98,107	0
55	PSU	2y	32	20/21	0.61	0.15	86,94,101,104	0
55	G7M	2y	46	24/25	0.61	0.13	85,97,109,126	0
55	4SU	2y	8	20/21	0.62	0.13	94,98,108,118	0
55	5MU	1y	54	21/22	0.63	0.12	82,90,99,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	PSU	2y	55	20/21	0.63	0.16	88,99,107,107	0
55	5MU	2y	54	21/22	0.65	0.14	89,97,103,117	0
55	PSU	1y	55	20/21	0.66	0.13	82,96,103,107	0
55	PSU	2y	39	20/21	0.68	0.13	87,96,107,118	0
55	G7M	1y	46	24/25	0.69	0.14	79,92,98,111	0
55	MIA	1y	37	29/30	0.71	0.16	73,88,99,113	0
55	4SU	1y	8	20/21	0.75	0.12	80,92,98,103	0
55	PSU	1y	32	20/21	0.81	0.12	72,83,91,96	0
55	PSU	1y	39	20/21	0.81	0.09	76,87,94,98	0
32	2MG	2a	1207	24/25	0.83	0.13	72,83,87,87	0
55	G7M	2x	46	24/25	0.85	0.12	65,73,81,100	0
43	0TD	1l	92	10/11	0.86	0.15	60,63,67,79	0
55	PSU	2x	32	20/21	0.86	0.13	72,79,86,86	0
55	MIA	2x	37	29/30	0.88	0.15	65,76,83,102	0
55	G7M	1x	46	24/25	0.88	0.10	50,60,73,97	0
32	2MG	1a	1207	24/25	0.88	0.11	73,78,83,84	0
55	PSU	2x	55	20/21	0.89	0.09	70,76,82,90	0
32	PSU	2a	516	20/21	0.90	0.10	69,77,84,86	0
32	5MC	2a	967	21/22	0.90	0.15	63,69,76,76	0
32	5MC	2a	1400	21/22	0.91	0.14	57,73,74,79	0
55	5MU	1x	54	21/22	0.92	0.09	58,64,70,73	0
55	4SU	2x	8	20/21	0.92	0.09	60,70,77,78	0
32	G7M	2a	527	24/25	0.92	0.11	60,68,71,73	0
32	M2G	2a	966	25/26	0.92	0.13	61,67,78,83	0
55	MIA	1x	37	29/30	0.92	0.11	43,58,65,90	0
55	5MU	2x	54	21/22	0.92	0.09	62,70,78,80	0
1	5MU	2A	1915	21/22	0.92	0.09	62,68,75,79	0
32	M2G	1a	966	25/26	0.93	0.12	49,61,69,75	0
55	PSU	1x	32	20/21	0.93	0.10	52,61,71,71	0
32	PSU	1a	516	20/21	0.93	0.10	51,67,75,75	0
55	PSU	2x	39	20/21	0.93	0.09	56,72,78,78	0
55	PSU	1x	39	20/21	0.93	0.09	54,59,63,69	0
32	MA6	2a	1518	24/25	0.93	0.13	51,57,62,63	0
43	0TD	2l	92	10/11	0.93	0.11	52,64,68,81	0
1	5MU	1A	1915	21/22	0.94	0.10	46,51,58,62	0
1	PSU	2A	1917	20/21	0.94	0.09	59,63,67,68	0
32	5MC	1a	1400	21/22	0.94	0.11	47,60,68,73	0
32	4OC	2a	1402	22/23	0.94	0.12	54,61,65,66	0
32	5MC	1a	967	21/22	0.94	0.10	55,62,67,69	0
1	PSU	2A	1911	20/21	0.94	0.09	52,61,66,68	0
54	MEQ	2w	230	10/11	0.94	0.12	52,54,56,57	0
32	G7M	1a	527	24/25	0.95	0.10	51,62,71,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	5MC	2a	1404	21/22	0.95	0.10	49,58,65,67	0
32	5MC	2a	1407	21/22	0.95	0.10	47,56,61,64	0
55	PSU	1x	55	20/21	0.95	0.08	55,60,64,71	0
1	PSU	1A	1917	20/21	0.96	0.07	42,48,53,54	0
1	5MC	1A	1962	21/22	0.96	0.09	22,29,36,37	0
32	4OC	1a	1402	22/23	0.96	0.09	41,47,53,54	0
32	5MC	1a	1404	21/22	0.96	0.09	40,46,52,59	0
32	5MC	1a	1407	21/22	0.96	0.09	36,42,48,50	0
32	MA6	1a	1518	24/25	0.96	0.10	36,43,48,60	0
1	PSU	1A	1911	20/21	0.96	0.09	36,47,55,55	0
55	4SU	1x	8	20/21	0.96	0.07	39,48,55,59	0
1	OMC	2A	1920	21/22	0.96	0.09	53,57,62,63	0
32	UR3	2a	1498	21/22	0.96	0.10	48,53,62,68	0
1	5MC	2A	1962	21/22	0.96	0.09	37,43,47,57	0
32	MA6	2a	1519	24/25	0.96	0.11	51,57,62,63	0
1	OMG	2A	2251	24/25	0.96	0.09	24,39,45,50	0
1	2MA	2A	2503	23/24	0.96	0.07	31,35,41,42	0
1	OMU	2A	2552	21/22	0.97	0.08	30,36,41,48	0
1	PSU	2A	2605	20/21	0.97	0.07	33,39,46,49	0
32	MA6	1a	1519	24/25	0.97	0.09	38,42,48,50	0
1	OMU	1A	2552	21/22	0.97	0.08	19,26,30,35	0
54	MEQ	1w	230	10/11	0.97	0.07	25,30,33,33	0
1	5MU	2A	1939	21/22	0.97	0.08	36,41,46,48	0
1	5MC	2A	1942	21/22	0.97	0.07	44,52,56,63	0
1	PSU	1A	2605	20/21	0.97	0.07	20,25,35,36	0
1	5MC	1A	1942	21/22	0.97	0.07	30,33,39,45	0
1	OMC	1A	1920	21/22	0.97	0.08	34,43,46,50	0
1	OMG	1A	2251	24/25	0.98	0.06	19,23,26,29	0
1	5MU	1A	1939	21/22	0.98	0.07	18,26,30,31	0
32	UR3	1a	1498	21/22	0.98	0.07	38,45,50,53	0
1	2MA	1A	2503	23/24	0.99	0.05	14,19,22,22	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($\text{\AA}^2$)	Q<0.9
57	MG	1A	3634	1/1	0.56	0.58	60,60,60,60	0
57	MG	1A	3490	1/1	0.58	0.20	75,75,75,75	0
57	MG	1A	3658	1/1	0.59	0.22	68,68,68,68	0
57	MG	1A	3726	1/1	0.64	0.14	46,46,46,46	0
57	MG	2A	3148	1/1	0.66	0.26	69,69,69,69	0
57	MG	2A	3116	1/1	0.67	0.42	81,81,81,81	0
57	MG	2a	1694	1/1	0.67	0.26	78,78,78,78	0
57	MG	1A	3650	1/1	0.68	0.20	54,54,54,54	0
57	MG	2A	3638	1/1	0.70	0.17	65,65,65,65	0
57	MG	1A	3641	1/1	0.70	0.10	42,42,42,42	0
57	MG	1a	1638	1/1	0.71	0.32	79,79,79,79	0
57	MG	2A	3511	1/1	0.71	0.17	77,77,77,77	0
57	MG	2A	3110	1/1	0.72	0.13	75,75,75,75	0
57	MG	2A	3598	1/1	0.72	0.19	82,82,82,82	0
57	MG	2A	3379	1/1	0.72	0.14	67,67,67,67	0
57	MG	2a	1602	1/1	0.72	0.14	68,68,68,68	0
57	MG	2A	3410	1/1	0.72	0.20	69,69,69,69	0
57	MG	2A	3431	1/1	0.73	0.20	50,50,50,50	0
57	MG	1w	404	1/1	0.73	0.18	69,69,69,69	0
57	MG	2A	3182	1/1	0.73	0.23	65,65,65,65	0
57	MG	1A	3336	1/1	0.74	0.13	34,34,34,34	0
57	MG	1A	3624	1/1	0.74	0.30	72,72,72,72	0
57	MG	1a	1738	1/1	0.74	0.22	64,64,64,64	0
57	MG	2A	3535	1/1	0.74	0.23	67,67,67,67	0
57	MG	2A	3262	1/1	0.75	0.28	68,68,68,68	0
57	MG	2A	3486	1/1	0.75	0.14	65,65,65,65	0
57	MG	2A	3648	1/1	0.75	0.15	77,77,77,77	0
57	MG	1A	3644	1/1	0.75	0.18	32,32,32,32	0
57	MG	2A	3144	1/1	0.75	0.16	71,71,71,71	0
57	MG	2a	1759	1/1	0.75	0.14	78,78,78,78	0
57	MG	2A	3578	1/1	0.76	0.12	54,54,54,54	0
57	MG	2a	1752	1/1	0.76	0.25	69,69,69,69	0
57	MG	2A	3639	1/1	0.76	0.15	78,78,78,78	0
57	MG	2A	3348	1/1	0.77	0.13	56,56,56,56	0
57	MG	1a	1707	1/1	0.77	0.23	71,71,71,71	0
57	MG	2a	1720	1/1	0.77	0.20	76,76,76,76	0
57	MG	2A	3055	1/1	0.77	0.20	64,64,64,64	0
57	MG	2A	3662	1/1	0.77	0.29	73,73,73,73	0
57	MG	2e	201	1/1	0.77	0.11	70,70,70,70	0
57	MG	1A	3771	1/1	0.78	0.16	66,66,66,66	0
57	MG	2A	3481	1/1	0.78	0.19	60,60,60,60	0
57	MG	1O	202	1/1	0.78	0.16	67,67,67,67	0
57	MG	2X	104	1/1	0.78	0.15	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3137	1/1	0.78	0.15	69,69,69,69	0
57	MG	2A	3532	1/1	0.78	0.19	68,68,68,68	0
57	MG	2A	3354	1/1	0.78	0.18	72,72,72,72	0
57	MG	1A	3664	1/1	0.78	0.11	45,45,45,45	0
57	MG	2a	1758	1/1	0.78	0.24	69,69,69,69	0
57	MG	1a	1669	1/1	0.78	0.29	59,59,59,59	0
57	MG	2A	3422	1/1	0.78	0.22	47,47,47,47	0
57	MG	2A	3665	1/1	0.79	0.12	63,63,63,63	0
57	MG	1A	3371	1/1	0.79	0.13	66,66,66,66	0
57	MG	1A	3219	1/1	0.79	0.18	69,69,69,69	0
57	MG	2a	1665	1/1	0.79	0.39	68,68,68,68	0
57	MG	2A	3256	1/1	0.79	0.14	53,53,53,53	0
57	MG	1E	307	1/1	0.79	0.19	31,31,31,31	0
57	MG	2A	3434	1/1	0.79	0.15	57,57,57,57	0
57	MG	2A	3284	1/1	0.79	0.23	49,49,49,49	0
57	MG	1A	3021	1/1	0.79	0.16	56,56,56,56	0
57	MG	1a	1612	1/1	0.79	0.22	54,54,54,54	0
57	MG	1A	3516	1/1	0.80	0.23	54,54,54,54	0
57	MG	2A	3603	1/1	0.80	0.13	69,69,69,69	0
57	MG	2a	1643	1/1	0.80	0.24	60,60,60,60	0
57	MG	2A	3618	1/1	0.80	0.14	58,58,58,58	0
57	MG	2A	3105	1/1	0.80	0.32	67,67,67,67	0
57	MG	1c	301	1/1	0.80	0.28	71,71,71,71	0
57	MG	2a	1735	1/1	0.80	0.17	65,65,65,65	0
57	MG	2A	3647	1/1	0.80	0.16	67,67,67,67	0
57	MG	2A	3572	1/1	0.80	0.19	75,75,75,75	0
57	MG	1A	3690	1/1	0.80	0.18	58,58,58,58	0
57	MG	2A	3580	1/1	0.80	0.19	61,61,61,61	0
57	MG	2x	108	1/1	0.80	0.29	77,77,77,77	0
57	MG	1a	1771	1/1	0.81	0.13	60,60,60,60	0
57	MG	1a	1783	1/1	0.81	0.25	60,60,60,60	0
57	MG	2A	3505	1/1	0.81	0.14	70,70,70,70	0
57	MG	1A	3455	1/1	0.81	0.14	16,16,16,16	0
57	MG	1A	3314	1/1	0.81	0.14	39,39,39,39	0
57	MG	2A	3305	1/1	0.81	0.23	67,67,67,67	0
57	MG	2a	1657	1/1	0.81	0.16	72,72,72,72	0
57	MG	1A	3328	1/1	0.81	0.21	51,51,51,51	0
57	MG	1a	1683	1/1	0.81	0.18	63,63,63,63	0
57	MG	2A	3359	1/1	0.81	0.22	60,60,60,60	0
57	MG	1a	1688	1/1	0.81	0.18	57,57,57,57	0
57	MG	1A	3596	1/1	0.81	0.17	62,62,62,62	0
57	MG	2A	3416	1/1	0.81	0.32	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1a	1718	1/1	0.81	0.20	69,69,69,69	0
57	MG	2a	1769	1/1	0.81	0.33	77,77,77,77	0
57	MG	1a	1733	1/1	0.81	0.25	62,62,62,62	0
57	MG	2x	101	1/1	0.81	0.20	72,72,72,72	0
57	MG	1l	103	1/1	0.81	0.26	52,52,52,52	0
57	MG	1a	1756	1/1	0.82	0.17	63,63,63,63	0
57	MG	2A	3374	1/1	0.82	0.17	63,63,63,63	0
57	MG	2A	3195	1/1	0.82	0.23	60,60,60,60	0
57	MG	2A	3201	1/1	0.82	0.13	57,57,57,57	0
57	MG	2A	3211	1/1	0.82	0.10	81,81,81,81	0
57	MG	2a	1668	1/1	0.82	0.34	70,70,70,70	0
57	MG	2A	3589	1/1	0.82	0.26	70,70,70,70	0
57	MG	2a	1708	1/1	0.82	0.22	66,66,66,66	0
57	MG	1A	3674	1/1	0.82	0.13	54,54,54,54	0
57	MG	1A	3746	1/1	0.82	0.14	25,25,25,25	0
57	MG	1A	3102	1/1	0.82	0.23	52,52,52,52	0
57	MG	2A	3472	1/1	0.82	0.18	65,65,65,65	0
57	MG	2A	3473	1/1	0.82	0.21	71,71,71,71	0
57	MG	2A	3288	1/1	0.82	0.13	61,61,61,61	0
57	MG	2a	1771	1/1	0.82	0.14	78,78,78,78	0
57	MG	1A	3807	1/1	0.82	0.19	49,49,49,49	0
57	MG	2A	3037	1/1	0.82	0.23	59,59,59,59	0
57	MG	2A	3048	1/1	0.82	0.30	61,61,61,61	0
57	MG	2A	3652	1/1	0.83	0.15	49,49,49,49	0
57	MG	2A	3655	1/1	0.83	0.19	70,70,70,70	0
57	MG	2A	3369	1/1	0.83	0.14	66,66,66,66	0
57	MG	2A	3513	1/1	0.83	0.13	60,60,60,60	0
57	MG	2B	206	1/1	0.83	0.37	69,69,69,69	0
57	MG	2A	3523	1/1	0.83	0.14	62,62,62,62	0
57	MG	1A	3362	1/1	0.83	0.09	39,39,39,39	0
57	MG	1A	3753	1/1	0.83	0.10	50,50,50,50	0
57	MG	2a	1652	1/1	0.83	0.17	67,67,67,67	0
57	MG	2A	3555	1/1	0.83	0.19	59,59,59,59	0
57	MG	2A	3556	1/1	0.83	0.27	61,61,61,61	0
57	MG	2A	3244	1/1	0.83	0.30	79,79,79,79	0
57	MG	2a	1674	1/1	0.83	0.23	65,65,65,65	0
57	MG	2a	1684	1/1	0.83	0.19	61,61,61,61	0
57	MG	2A	3129	1/1	0.83	0.30	64,64,64,64	0
57	MG	2a	1701	1/1	0.83	0.18	82,82,82,82	0
57	MG	1A	3049	1/1	0.83	0.28	63,63,63,63	0
57	MG	2A	3584	1/1	0.83	0.14	81,81,81,81	0
57	MG	2A	3138	1/1	0.83	0.14	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3524	1/1	0.83	0.11	49,49,49,49	0
57	MG	1a	1750	1/1	0.83	0.24	66,66,66,66	0
57	MG	2A	3610	1/1	0.83	0.16	41,41,41,41	0
57	MG	2A	3314	1/1	0.83	0.12	64,64,64,64	0
57	MG	2A	3173	1/1	0.83	0.18	65,65,65,65	0
57	MG	1A	3153	1/1	0.83	0.09	76,76,76,76	0
57	MG	2A	3503	1/1	0.83	0.11	54,54,54,54	0
57	MG	1A	3604	1/1	0.83	0.09	23,23,23,23	0
57	MG	1A	3274	1/1	0.84	0.23	43,43,43,43	0
57	MG	2A	3461	1/1	0.84	0.20	46,46,46,46	0
57	MG	1A	3589	1/1	0.84	0.09	21,21,21,21	0
57	MG	2A	3025	1/1	0.84	0.25	67,67,67,67	0
57	MG	1A	3020	1/1	0.84	0.24	65,65,65,65	0
57	MG	1a	1725	1/1	0.84	0.26	53,53,53,53	0
57	MG	2A	3501	1/1	0.84	0.28	70,70,70,70	0
57	MG	1A	3404	1/1	0.84	0.16	37,37,37,37	0
57	MG	2A	3617	1/1	0.84	0.25	57,57,57,57	0
57	MG	1A	3775	1/1	0.84	0.19	59,59,59,59	0
57	MG	2A	3622	1/1	0.84	0.15	81,81,81,81	0
57	MG	2A	3626	1/1	0.84	0.18	58,58,58,58	0
57	MG	1a	1652	1/1	0.84	0.22	76,76,76,76	0
57	MG	2A	3405	1/1	0.84	0.14	63,63,63,63	0
57	MG	1a	1661	1/1	0.84	0.24	56,56,56,56	0
57	MG	1a	1767	1/1	0.84	0.25	52,52,52,52	0
57	MG	1A	3798	1/1	0.84	0.19	64,64,64,64	0
57	MG	2A	3537	1/1	0.84	0.17	75,75,75,75	0
57	MG	2A	3656	1/1	0.84	0.11	45,45,45,45	0
57	MG	2A	3543	1/1	0.84	0.13	71,71,71,71	0
57	MG	2A	3423	1/1	0.84	0.23	61,61,61,61	0
57	MG	1A	3646	1/1	0.84	0.15	46,46,46,46	0
57	MG	1B	212	1/1	0.85	0.29	67,67,67,67	0
57	MG	1a	1702	1/1	0.85	0.21	57,57,57,57	0
57	MG	2A	3274	1/1	0.85	0.11	44,44,44,44	0
57	MG	2A	3046	1/1	0.85	0.15	61,61,61,61	0
57	MG	1A	3286	1/1	0.85	0.13	60,60,60,60	0
57	MG	2A	3661	1/1	0.85	0.14	58,58,58,58	0
57	MG	1A	3491	1/1	0.85	0.17	49,49,49,49	0
57	MG	2A	3071	1/1	0.85	0.10	44,44,44,44	0
57	MG	2B	205	1/1	0.85	0.16	61,61,61,61	0
57	MG	1A	3496	1/1	0.85	0.12	32,32,32,32	0
57	MG	1a	1731	1/1	0.85	0.10	54,54,54,54	0
57	MG	2A	3536	1/1	0.85	0.19	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2a	1605	1/1	0.85	0.17	66,66,66,66	0
57	MG	1a	1611	1/1	0.85	0.23	68,68,68,68	0
57	MG	2a	1648	1/1	0.85	0.16	51,51,51,51	0
57	MG	1A	3761	1/1	0.85	0.15	45,45,45,45	0
57	MG	1a	1623	1/1	0.85	0.15	58,58,58,58	0
57	MG	2a	1658	1/1	0.85	0.22	59,59,59,59	0
57	MG	1a	1633	1/1	0.85	0.18	57,57,57,57	0
57	MG	2A	3564	1/1	0.85	0.19	65,65,65,65	0
57	MG	2A	3401	1/1	0.85	0.11	39,39,39,39	0
57	MG	1A	3610	1/1	0.85	0.11	53,53,53,53	0
57	MG	1a	1769	1/1	0.85	0.15	56,56,56,56	0
57	MG	2A	3583	1/1	0.85	0.26	73,73,73,73	0
57	MG	1A	3423	1/1	0.85	0.09	18,18,18,18	0
57	MG	2a	1713	1/1	0.85	0.11	63,63,63,63	0
57	MG	1a	1782	1/1	0.85	0.12	58,58,58,58	0
57	MG	1A	3105	1/1	0.85	0.18	50,50,50,50	0
57	MG	2A	3197	1/1	0.85	0.19	64,64,64,64	0
57	MG	1A	3571	1/1	0.85	0.11	37,37,37,37	0
57	MG	2A	3443	1/1	0.85	0.14	65,65,65,65	0
57	MG	2A	3448	1/1	0.85	0.10	40,40,40,40	0
57	MG	1w	402	1/1	0.85	0.21	44,44,44,44	0
57	MG	2A	3227	1/1	0.85	0.24	54,54,54,54	0
57	MG	2A	3240	1/1	0.85	0.13	47,47,47,47	0
57	MG	1B	211	1/1	0.85	0.21	57,57,57,57	0
57	MG	2A	3482	1/1	0.86	0.11	41,41,41,41	0
57	MG	1a	1626	1/1	0.86	0.33	70,70,70,70	0
57	MG	2A	3500	1/1	0.86	0.11	54,54,54,54	0
57	MG	1A	3370	1/1	0.86	0.20	66,66,66,66	0
57	MG	1A	3492	1/1	0.86	0.13	52,52,52,52	0
57	MG	2A	3319	1/1	0.86	0.12	55,55,55,55	0
57	MG	2A	3339	1/1	0.86	0.12	46,46,46,46	0
57	MG	2A	3341	1/1	0.86	0.16	60,60,60,60	0
57	MG	1a	1648	1/1	0.86	0.21	54,54,54,54	0
57	MG	1A	3661	1/1	0.86	0.12	52,52,52,52	0
57	MG	1a	1656	1/1	0.86	0.24	53,53,53,53	0
57	MG	20	101	1/1	0.86	0.10	77,77,77,77	0
57	MG	21	101	1/1	0.86	0.13	57,57,57,57	0
57	MG	1a	1659	1/1	0.86	0.18	56,56,56,56	0
57	MG	2A	3161	1/1	0.86	0.29	59,59,59,59	0
57	MG	2a	1626	1/1	0.86	0.26	60,60,60,60	0
57	MG	2a	1632	1/1	0.86	0.20	69,69,69,69	0
57	MG	2A	3171	1/1	0.86	0.25	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3397	1/1	0.86	0.14	49,49,49,49	0
57	MG	2A	3399	1/1	0.86	0.29	68,68,68,68	0
57	MG	1a	1778	1/1	0.86	0.17	58,58,58,58	0
57	MG	1A	3175	1/1	0.86	0.28	43,43,43,43	0
57	MG	1A	3615	1/1	0.86	0.21	47,47,47,47	0
57	MG	1A	3466	1/1	0.86	0.11	25,25,25,25	0
57	MG	2A	3418	1/1	0.86	0.18	60,60,60,60	0
57	MG	1A	3716	1/1	0.86	0.12	50,50,50,50	0
57	MG	1a	1693	1/1	0.86	0.20	66,66,66,66	0
57	MG	2A	3591	1/1	0.86	0.26	57,57,57,57	0
57	MG	1a	1701	1/1	0.86	0.09	62,62,62,62	0
57	MG	2A	3601	1/1	0.86	0.12	52,52,52,52	0
57	MG	1A	3470	1/1	0.86	0.18	60,60,60,60	0
57	MG	1A	3544	1/1	0.86	0.14	37,37,37,37	0
57	MG	2a	1744	1/1	0.86	0.24	67,67,67,67	0
57	MG	2A	3611	1/1	0.86	0.13	66,66,66,66	0
57	MG	2a	1756	1/1	0.86	0.17	47,47,47,47	0
57	MG	2A	3613	1/1	0.86	0.11	43,43,43,43	0
57	MG	1A	3749	1/1	0.86	0.13	30,30,30,30	0
57	MG	1a	1721	1/1	0.86	0.16	62,62,62,62	0
57	MG	2A	3468	1/1	0.86	0.13	54,54,54,54	0
57	MG	1A	3488	1/1	0.86	0.22	62,62,62,62	0
57	MG	2A	3281	1/1	0.86	0.12	65,65,65,65	0
57	MG	1A	3045	1/1	0.86	0.12	30,30,30,30	0
57	MG	1B	201	1/1	0.87	0.08	56,56,56,56	0
57	MG	2A	3072	1/1	0.87	0.17	57,57,57,57	0
57	MG	2A	3081	1/1	0.87	0.16	59,59,59,59	0
57	MG	1A	3594	1/1	0.87	0.10	33,33,33,33	0
57	MG	2A	3383	1/1	0.87	0.21	57,57,57,57	0
57	MG	2A	3612	1/1	0.87	0.15	54,54,54,54	0
57	MG	2A	3393	1/1	0.87	0.12	58,58,58,58	0
57	MG	1A	3281	1/1	0.87	0.14	50,50,50,50	0
57	MG	2A	3112	1/1	0.87	0.24	60,60,60,60	0
57	MG	1A	3346	1/1	0.87	0.12	49,49,49,49	0
57	MG	2A	3126	1/1	0.87	0.24	55,55,55,55	0
57	MG	2A	3634	1/1	0.87	0.07	57,57,57,57	0
57	MG	2A	3406	1/1	0.87	0.13	51,51,51,51	0
57	MG	1A	3503	1/1	0.87	0.11	52,52,52,52	0
57	MG	1A	3613	1/1	0.87	0.47	30,30,30,30	0
57	MG	18	101	1/1	0.87	0.24	64,64,64,64	0
57	MG	1A	3350	1/1	0.87	0.12	56,56,56,56	0
57	MG	2A	3654	1/1	0.87	0.25	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3147	1/1	0.87	0.15	58,58,58,58	0
57	MG	1A	3059	1/1	0.87	0.17	35,35,35,35	0
57	MG	2A	3151	1/1	0.87	0.20	53,53,53,53	0
57	MG	2A	3159	1/1	0.87	0.14	53,53,53,53	0
57	MG	1a	1617	1/1	0.87	0.16	59,59,59,59	0
57	MG	2A	3455	1/1	0.87	0.12	56,56,56,56	0
57	MG	2A	3168	1/1	0.87	0.31	64,64,64,64	0
57	MG	2X	102	1/1	0.87	0.12	74,74,74,74	0
57	MG	2A	3467	1/1	0.87	0.18	54,54,54,54	0
57	MG	1a	1740	1/1	0.87	0.20	73,73,73,73	0
57	MG	1A	3736	1/1	0.87	0.23	30,30,30,30	0
57	MG	1A	3629	1/1	0.87	0.11	34,34,34,34	0
57	MG	1a	1758	1/1	0.87	0.23	73,73,73,73	0
57	MG	1a	1759	1/1	0.87	0.09	63,63,63,63	0
57	MG	1A	3543	1/1	0.87	0.12	17,17,17,17	0
57	MG	2a	1636	1/1	0.87	0.18	65,65,65,65	0
57	MG	2A	3210	1/1	0.87	0.10	57,57,57,57	0
57	MG	1A	3636	1/1	0.87	0.29	41,41,41,41	0
57	MG	1A	3758	1/1	0.87	0.10	51,51,51,51	0
57	MG	1a	1773	1/1	0.87	0.14	70,70,70,70	0
57	MG	1A	3302	1/1	0.87	0.34	34,34,34,34	0
57	MG	1A	3765	1/1	0.87	0.15	49,49,49,49	0
57	MG	1a	1657	1/1	0.87	0.20	57,57,57,57	0
57	MG	2A	3526	1/1	0.87	0.27	67,67,67,67	0
57	MG	2a	1677	1/1	0.87	0.25	65,65,65,65	0
57	MG	2A	3531	1/1	0.87	0.18	64,64,64,64	0
57	MG	1A	3770	1/1	0.87	0.38	43,43,43,43	0
57	MG	1v	101	1/1	0.87	0.12	71,71,71,71	0
57	MG	1A	3552	1/1	0.87	0.09	16,16,16,16	0
57	MG	1a	1667	1/1	0.87	0.39	64,64,64,64	0
57	MG	2a	1717	1/1	0.87	0.20	73,73,73,73	0
57	MG	2A	3542	1/1	0.87	0.14	58,58,58,58	0
57	MG	2a	1728	1/1	0.87	0.24	49,49,49,49	0
57	MG	2A	3295	1/1	0.87	0.11	74,74,74,74	0
57	MG	2A	3298	1/1	0.87	0.19	50,50,50,50	0
57	MG	1y	101	1/1	0.87	0.22	77,77,77,77	0
57	MG	1A	3122	1/1	0.87	0.21	56,56,56,56	0
57	MG	1a	1673	1/1	0.87	0.29	66,66,66,66	0
57	MG	2A	3335	1/1	0.87	0.17	59,59,59,59	0
57	MG	2a	1761	1/1	0.87	0.11	59,59,59,59	0
57	MG	1A	3647	1/1	0.87	0.18	54,54,54,54	0
57	MG	1a	1686	1/1	0.87	0.10	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3347	1/1	0.87	0.14	40,40,40,40	0
57	MG	2j	201	1/1	0.87	0.15	74,74,74,74	0
57	MG	1A	3016	1/1	0.87	0.19	40,40,40,40	0
57	MG	2x	102	1/1	0.87	0.24	68,68,68,68	0
57	MG	2A	3059	1/1	0.87	0.12	58,58,58,58	0
57	MG	2A	3186	1/1	0.88	0.12	54,54,54,54	0
57	MG	2A	3194	1/1	0.88	0.35	65,65,65,65	0
57	MG	2A	3390	1/1	0.88	0.21	64,64,64,64	0
57	MG	2B	209	1/1	0.88	0.31	63,63,63,63	0
57	MG	2D	306	1/1	0.88	0.12	54,54,54,54	0
57	MG	1A	3108	1/1	0.88	0.18	44,44,44,44	0
57	MG	1a	1668	1/1	0.88	0.29	60,60,60,60	0
57	MG	2A	3198	1/1	0.88	0.14	45,45,45,45	0
57	MG	1A	3645	1/1	0.88	0.14	53,53,53,53	0
57	MG	1A	3538	1/1	0.88	0.20	41,41,41,41	0
57	MG	1a	1679	1/1	0.88	0.16	42,42,42,42	0
57	MG	2a	1612	1/1	0.88	0.11	50,50,50,50	0
57	MG	2a	1624	1/1	0.88	0.22	61,61,61,61	0
57	MG	1B	210	1/1	0.88	0.28	59,59,59,59	0
57	MG	1a	1624	1/1	0.88	0.10	59,59,59,59	0
57	MG	2A	3579	1/1	0.88	0.20	53,53,53,53	0
57	MG	1A	3111	1/1	0.88	0.16	42,42,42,42	0
57	MG	2A	3248	1/1	0.88	0.10	38,38,38,38	0
57	MG	2a	1650	1/1	0.88	0.33	57,57,57,57	0
57	MG	2A	3250	1/1	0.88	0.26	67,67,67,67	0
57	MG	2A	3588	1/1	0.88	0.20	64,64,64,64	0
57	MG	2A	3428	1/1	0.88	0.09	42,42,42,42	0
57	MG	2a	1659	1/1	0.88	0.12	48,48,48,48	0
57	MG	2A	3115	1/1	0.88	0.32	61,61,61,61	0
57	MG	1A	3477	1/1	0.88	0.08	31,31,31,31	0
57	MG	2a	1671	1/1	0.88	0.29	53,53,53,53	0
57	MG	1a	1634	1/1	0.88	0.34	62,62,62,62	0
57	MG	2A	3602	1/1	0.88	0.17	44,44,44,44	0
57	MG	2a	1680	1/1	0.88	0.20	50,50,50,50	0
57	MG	1a	1779	1/1	0.88	0.18	56,56,56,56	0
57	MG	2A	3134	1/1	0.88	0.19	46,46,46,46	0
57	MG	1A	3375	1/1	0.88	0.09	31,31,31,31	0
57	MG	2A	3292	1/1	0.88	0.14	66,66,66,66	0
57	MG	1a	1703	1/1	0.88	0.15	64,64,64,64	0
57	MG	2A	3140	1/1	0.88	0.11	64,64,64,64	0
57	MG	2A	3141	1/1	0.88	0.12	41,41,41,41	0
57	MG	2A	3620	1/1	0.88	0.13	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3476	1/1	0.88	0.23	52,52,52,52	0
57	MG	1A	3741	1/1	0.88	0.25	68,68,68,68	0
57	MG	2A	3629	1/1	0.88	0.20	70,70,70,70	0
57	MG	1a	1649	1/1	0.88	0.12	58,58,58,58	0
57	MG	1Z	301	1/1	0.88	0.17	53,53,53,53	0
57	MG	1A	3459	1/1	0.88	0.20	58,58,58,58	0
57	MG	2A	3340	1/1	0.88	0.13	47,47,47,47	0
57	MG	2a	1763	1/1	0.88	0.15	64,64,64,64	0
57	MG	2a	1764	1/1	0.88	0.11	51,51,51,51	0
57	MG	1a	1729	1/1	0.88	0.20	58,58,58,58	0
57	MG	14	502	1/1	0.88	0.28	69,69,69,69	0
57	MG	2A	3164	1/1	0.88	0.15	56,56,56,56	0
57	MG	2f	201	1/1	0.88	0.19	59,59,59,59	0
57	MG	1A	3796	1/1	0.88	0.25	69,69,69,69	0
57	MG	2t	201	1/1	0.88	0.21	54,54,54,54	0
57	MG	2A	3039	1/1	0.88	0.11	51,51,51,51	0
57	MG	1a	1734	1/1	0.88	0.26	71,71,71,71	0
57	MG	1a	1605	1/1	0.88	0.35	54,54,54,54	0
57	MG	2A	3346	1/1	0.89	0.11	58,58,58,58	0
57	MG	2A	3029	1/1	0.89	0.20	50,50,50,50	0
57	MG	2A	3033	1/1	0.89	0.20	69,69,69,69	0
57	MG	2A	3352	1/1	0.89	0.18	54,54,54,54	0
57	MG	2F	303	1/1	0.89	0.11	64,64,64,64	0
57	MG	2Q	203	1/1	0.89	0.28	56,56,56,56	0
57	MG	1A	3744	1/1	0.89	0.12	40,40,40,40	0
57	MG	2A	3356	1/1	0.89	0.13	65,65,65,65	0
57	MG	1a	1732	1/1	0.89	0.24	56,56,56,56	0
57	MG	2A	3362	1/1	0.89	0.13	48,48,48,48	0
57	MG	28	101	1/1	0.89	0.19	63,63,63,63	0
57	MG	1A	3195	1/1	0.89	0.16	42,42,42,42	0
57	MG	1A	3518	1/1	0.89	0.12	39,39,39,39	0
57	MG	2a	1610	1/1	0.89	0.17	64,64,64,64	0
57	MG	2A	3544	1/1	0.89	0.13	67,67,67,67	0
57	MG	2a	1620	1/1	0.89	0.19	59,59,59,59	0
57	MG	2A	3546	1/1	0.89	0.14	56,56,56,56	0
57	MG	1A	3751	1/1	0.89	0.12	56,56,56,56	0
57	MG	2a	1630	1/1	0.89	0.15	60,60,60,60	0
57	MG	1A	3648	1/1	0.89	0.15	47,47,47,47	0
57	MG	1a	1744	1/1	0.89	0.27	74,74,74,74	0
57	MG	2A	3570	1/1	0.89	0.17	50,50,50,50	0
57	MG	2a	1645	1/1	0.89	0.16	59,59,59,59	0
57	MG	1a	1665	1/1	0.89	0.15	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3074	1/1	0.89	0.22	62,62,62,62	0
57	MG	2A	3207	1/1	0.89	0.15	39,39,39,39	0
57	MG	2a	1653	1/1	0.89	0.14	61,61,61,61	0
57	MG	2A	3075	1/1	0.89	0.16	59,59,59,59	0
57	MG	1A	3064	1/1	0.89	0.18	40,40,40,40	0
57	MG	2A	3212	1/1	0.89	0.09	58,58,58,58	0
57	MG	2A	3587	1/1	0.89	0.12	73,73,73,73	0
57	MG	2A	3407	1/1	0.89	0.15	43,43,43,43	0
57	MG	2A	3083	1/1	0.89	0.23	53,53,53,53	0
57	MG	2A	3413	1/1	0.89	0.15	50,50,50,50	0
57	MG	2A	3233	1/1	0.89	0.13	62,62,62,62	0
57	MG	2A	3239	1/1	0.89	0.20	63,63,63,63	0
57	MG	2A	3419	1/1	0.89	0.18	65,65,65,65	0
57	MG	2a	1685	1/1	0.89	0.28	65,65,65,65	0
57	MG	2a	1688	1/1	0.89	0.28	64,64,64,64	0
57	MG	1A	3267	1/1	0.89	0.23	48,48,48,48	0
57	MG	1A	3085	1/1	0.89	0.26	51,51,51,51	0
57	MG	1A	3767	1/1	0.89	0.23	29,29,29,29	0
57	MG	1A	3626	1/1	0.89	0.12	35,35,35,35	0
57	MG	1A	3670	1/1	0.89	0.24	53,53,53,53	0
57	MG	2A	3261	1/1	0.89	0.12	57,57,57,57	0
57	MG	2a	1727	1/1	0.89	0.20	76,76,76,76	0
57	MG	1a	1620	1/1	0.89	0.10	49,49,49,49	0
57	MG	2a	1730	1/1	0.89	0.19	71,71,71,71	0
57	MG	1A	3030	1/1	0.89	0.11	43,43,43,43	0
57	MG	2A	3621	1/1	0.89	0.12	48,48,48,48	0
57	MG	2a	1747	1/1	0.89	0.16	64,64,64,64	0
57	MG	2a	1748	1/1	0.89	0.22	62,62,62,62	0
57	MG	1A	3683	1/1	0.89	0.16	46,46,46,46	0
57	MG	2A	3135	1/1	0.89	0.28	53,53,53,53	0
57	MG	1A	3188	1/1	0.89	0.24	51,51,51,51	0
57	MG	1A	3802	1/1	0.89	0.07	20,20,20,20	0
57	MG	2a	1760	1/1	0.89	0.15	65,65,65,65	0
57	MG	1A	3355	1/1	0.89	0.11	45,45,45,45	0
57	MG	1A	3288	1/1	0.89	0.40	40,40,40,40	0
57	MG	1a	1639	1/1	0.89	0.22	62,62,62,62	0
57	MG	2a	1768	1/1	0.89	0.20	73,73,73,73	0
57	MG	1a	1647	1/1	0.89	0.20	60,60,60,60	0
57	MG	1x	107	1/1	0.89	0.07	43,43,43,43	0
57	MG	2A	3493	1/1	0.89	0.18	57,57,57,57	0
57	MG	2A	3322	1/1	0.89	0.17	46,46,46,46	0
57	MG	1A	3514	1/1	0.89	0.08	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2k	201	1/1	0.89	0.27	68,68,68,68	0
57	MG	2A	3019	1/1	0.89	0.25	40,40,40,40	0
57	MG	1A	3515	1/1	0.89	0.09	29,29,29,29	0
57	MG	2A	3162	1/1	0.89	0.23	45,45,45,45	0
57	MG	2x	105	1/1	0.89	0.14	40,40,40,40	0
57	MG	2B	204	1/1	0.89	0.23	56,56,56,56	0
57	MG	1a	1685	1/1	0.90	0.11	53,53,53,53	0
57	MG	1A	3738	1/1	0.90	0.16	63,63,63,63	0
57	MG	2A	3027	1/1	0.90	0.35	51,51,51,51	0
57	MG	1A	3247	1/1	0.90	0.16	54,54,54,54	0
57	MG	2A	3214	1/1	0.90	0.17	57,57,57,57	0
57	MG	2A	3463	1/1	0.90	0.30	48,48,48,48	0
57	MG	1A	3424	1/1	0.90	0.10	17,17,17,17	0
57	MG	1a	1609	1/1	0.90	0.20	65,65,65,65	0
57	MG	2B	202	1/1	0.90	0.19	70,70,70,70	0
57	MG	2A	3470	1/1	0.90	0.11	43,43,43,43	0
57	MG	1A	3431	1/1	0.90	0.07	16,16,16,16	0
57	MG	1A	3452	1/1	0.90	0.12	35,35,35,35	0
57	MG	2A	3474	1/1	0.90	0.15	52,52,52,52	0
57	MG	2D	301	1/1	0.90	0.25	52,52,52,52	0
57	MG	1a	1614	1/1	0.90	0.12	74,74,74,74	0
57	MG	2A	3478	1/1	0.90	0.17	70,70,70,70	0
57	MG	2Q	201	1/1	0.90	0.27	61,61,61,61	0
57	MG	1a	1711	1/1	0.90	0.16	76,76,76,76	0
57	MG	2R	201	1/1	0.90	0.13	66,66,66,66	0
57	MG	2V	202	1/1	0.90	0.19	49,49,49,49	0
57	MG	2A	3058	1/1	0.90	0.15	61,61,61,61	0
57	MG	1a	1717	1/1	0.90	0.15	51,51,51,51	0
57	MG	2A	3490	1/1	0.90	0.17	75,75,75,75	0
57	MG	1A	3750	1/1	0.90	0.14	32,32,32,32	0
57	MG	2A	3495	1/1	0.90	0.10	54,54,54,54	0
57	MG	1A	3261	1/1	0.90	0.10	52,52,52,52	0
57	MG	1a	1724	1/1	0.90	0.21	51,51,51,51	0
57	MG	2A	3278	1/1	0.90	0.15	49,49,49,49	0
57	MG	2A	3504	1/1	0.90	0.16	64,64,64,64	0
57	MG	2a	1613	1/1	0.90	0.24	56,56,56,56	0
57	MG	2A	3279	1/1	0.90	0.13	61,61,61,61	0
57	MG	1a	1622	1/1	0.90	0.26	55,55,55,55	0
57	MG	1A	3642	1/1	0.90	0.07	19,19,19,19	0
57	MG	2a	1629	1/1	0.90	0.13	67,67,67,67	0
57	MG	2A	3082	1/1	0.90	0.15	48,48,48,48	0
57	MG	1a	1730	1/1	0.90	0.15	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3528	1/1	0.90	0.12	68,68,68,68	0
57	MG	2a	1639	1/1	0.90	0.14	44,44,44,44	0
57	MG	2A	3096	1/1	0.90	0.13	48,48,48,48	0
57	MG	1A	3542	1/1	0.90	0.13	30,30,30,30	0
57	MG	2a	1646	1/1	0.90	0.17	60,60,60,60	0
57	MG	2A	3533	1/1	0.90	0.11	65,65,65,65	0
57	MG	1A	3156	1/1	0.90	0.09	54,54,54,54	0
57	MG	1A	3028	1/1	0.90	0.17	52,52,52,52	0
57	MG	1A	3546	1/1	0.90	0.08	36,36,36,36	0
57	MG	1A	3467	1/1	0.90	0.12	25,25,25,25	0
57	MG	2A	3334	1/1	0.90	0.10	35,35,35,35	0
57	MG	1A	3275	1/1	0.90	0.18	65,65,65,65	0
57	MG	2A	3127	1/1	0.90	0.16	54,54,54,54	0
57	MG	2A	3554	1/1	0.90	0.13	65,65,65,65	0
57	MG	1a	1743	1/1	0.90	0.14	51,51,51,51	0
57	MG	2A	3131	1/1	0.90	0.11	50,50,50,50	0
57	MG	2a	1675	1/1	0.90	0.11	59,59,59,59	0
57	MG	1a	1646	1/1	0.90	0.18	66,66,66,66	0
57	MG	2A	3566	1/1	0.90	0.14	55,55,55,55	0
57	MG	2A	3568	1/1	0.90	0.09	70,70,70,70	0
57	MG	1A	3583	1/1	0.90	0.11	19,19,19,19	0
57	MG	1a	1753	1/1	0.90	0.19	58,58,58,58	0
57	MG	2a	1691	1/1	0.90	0.15	39,39,39,39	0
57	MG	1A	3279	1/1	0.90	0.26	56,56,56,56	0
57	MG	1A	3361	1/1	0.90	0.09	40,40,40,40	0
57	MG	1a	1651	1/1	0.90	0.25	36,36,36,36	0
57	MG	2a	1711	1/1	0.90	0.14	52,52,52,52	0
57	MG	2A	3143	1/1	0.90	0.25	56,56,56,56	0
57	MG	1a	1762	1/1	0.90	0.14	50,50,50,50	0
57	MG	1A	3019	1/1	0.90	0.12	31,31,31,31	0
57	MG	1A	3368	1/1	0.90	0.10	10,10,10,10	0
57	MG	1A	3677	1/1	0.90	0.11	71,71,71,71	0
57	MG	2A	3590	1/1	0.90	0.20	48,48,48,48	0
57	MG	2A	3153	1/1	0.90	0.14	60,60,60,60	0
57	MG	2a	1742	1/1	0.90	0.17	50,50,50,50	0
57	MG	1A	3191	1/1	0.90	0.10	35,35,35,35	0
57	MG	1a	1775	1/1	0.90	0.12	71,71,71,71	0
57	MG	1a	1660	1/1	0.90	0.12	48,48,48,48	0
57	MG	2A	3163	1/1	0.90	0.23	62,62,62,62	0
57	MG	2a	1754	1/1	0.90	0.23	67,67,67,67	0
57	MG	1A	3287	1/1	0.90	0.23	49,49,49,49	0
57	MG	1A	3709	1/1	0.90	0.13	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1E	303	1/1	0.90	0.11	42,42,42,42	0
57	MG	1a	1787	1/1	0.90	0.16	49,49,49,49	0
57	MG	2A	3409	1/1	0.90	0.14	76,76,76,76	0
57	MG	1A	3103	1/1	0.90	0.25	53,53,53,53	0
57	MG	1N	203	1/1	0.90	0.08	36,36,36,36	0
57	MG	2A	3191	1/1	0.90	0.12	45,45,45,45	0
57	MG	1a	1671	1/1	0.90	0.33	71,71,71,71	0
57	MG	2A	3624	1/1	0.90	0.27	66,66,66,66	0
57	MG	1A	3619	1/1	0.90	0.11	47,47,47,47	0
57	MG	2e	202	1/1	0.90	0.13	60,60,60,60	0
57	MG	1A	3731	1/1	0.90	0.26	32,32,32,32	0
57	MG	2A	3632	1/1	0.90	0.24	53,53,53,53	0
57	MG	2A	3633	1/1	0.90	0.08	67,67,67,67	0
57	MG	1A	3077	1/1	0.90	0.16	51,51,51,51	0
57	MG	2A	3200	1/1	0.90	0.18	57,57,57,57	0
57	MG	2A	3002	1/1	0.90	0.18	57,57,57,57	0
57	MG	2A	3645	1/1	0.90	0.41	69,69,69,69	0
57	MG	2A	3433	1/1	0.90	0.12	40,40,40,40	0
57	MG	2A	3636	1/1	0.91	0.10	49,49,49,49	0
57	MG	2A	3157	1/1	0.91	0.24	66,66,66,66	0
57	MG	1A	3068	1/1	0.91	0.30	54,54,54,54	0
57	MG	2A	3640	1/1	0.91	0.12	57,57,57,57	0
57	MG	1a	1642	1/1	0.91	0.10	50,50,50,50	0
57	MG	1A	3003	1/1	0.91	0.07	21,21,21,21	0
57	MG	1a	1772	1/1	0.91	0.19	76,76,76,76	0
57	MG	2A	3420	1/1	0.91	0.19	48,48,48,48	0
57	MG	1A	3224	1/1	0.91	0.11	35,35,35,35	0
57	MG	1A	3461	1/1	0.91	0.07	24,24,24,24	0
57	MG	1A	3364	1/1	0.91	0.11	29,29,29,29	0
57	MG	2A	3657	1/1	0.91	0.15	48,48,48,48	0
57	MG	2A	3658	1/1	0.91	0.13	52,52,52,52	0
57	MG	2A	3659	1/1	0.91	0.25	63,63,63,63	0
57	MG	1A	3230	1/1	0.91	0.13	47,47,47,47	0
57	MG	2A	3176	1/1	0.91	0.08	40,40,40,40	0
57	MG	2A	3177	1/1	0.91	0.22	52,52,52,52	0
57	MG	2A	3438	1/1	0.91	0.09	32,32,32,32	0
57	MG	2A	3178	1/1	0.91	0.13	56,56,56,56	0
57	MG	1A	3553	1/1	0.91	0.11	19,19,19,19	0
57	MG	1A	3173	1/1	0.91	0.07	43,43,43,43	0
57	MG	2A	3458	1/1	0.91	0.21	57,57,57,57	0
57	MG	2B	210	1/1	0.91	0.13	66,66,66,66	0
57	MG	1A	3776	1/1	0.91	0.09	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3780	1/1	0.91	0.14	48,48,48,48	0
57	MG	1A	3781	1/1	0.91	0.11	43,43,43,43	0
57	MG	1w	401	1/1	0.91	0.41	46,46,46,46	0
57	MG	1A	3785	1/1	0.91	0.14	45,45,45,45	0
57	MG	1A	3651	1/1	0.91	0.15	40,40,40,40	0
57	MG	2U	201	1/1	0.91	0.09	48,48,48,48	0
57	MG	1A	3580	1/1	0.91	0.07	32,32,32,32	0
57	MG	1A	3253	1/1	0.91	0.10	73,73,73,73	0
57	MG	1A	3585	1/1	0.91	0.11	45,45,45,45	0
57	MG	2A	3005	1/1	0.91	0.10	58,58,58,58	0
57	MG	2A	3006	1/1	0.91	0.22	54,54,54,54	0
57	MG	23	101	1/1	0.91	0.14	51,51,51,51	0
57	MG	1A	3668	1/1	0.91	0.08	46,46,46,46	0
57	MG	2A	3484	1/1	0.91	0.14	43,43,43,43	0
57	MG	2a	1604	1/1	0.91	0.20	56,56,56,56	0
57	MG	2A	3216	1/1	0.91	0.24	53,53,53,53	0
57	MG	2A	3221	1/1	0.91	0.32	66,66,66,66	0
57	MG	2a	1611	1/1	0.91	0.14	54,54,54,54	0
57	MG	1B	209	1/1	0.91	0.23	58,58,58,58	0
57	MG	2A	3026	1/1	0.91	0.25	57,57,57,57	0
57	MG	1A	3259	1/1	0.91	0.09	57,57,57,57	0
57	MG	1A	3671	1/1	0.91	0.16	49,49,49,49	0
57	MG	2a	1625	1/1	0.91	0.09	51,51,51,51	0
57	MG	2A	3032	1/1	0.91	0.16	48,48,48,48	0
57	MG	2A	3245	1/1	0.91	0.11	62,62,62,62	0
57	MG	1A	3592	1/1	0.91	0.09	18,18,18,18	0
57	MG	1B	219	1/1	0.91	0.19	57,57,57,57	0
57	MG	2a	1634	1/1	0.91	0.22	50,50,50,50	0
57	MG	1A	3377	1/1	0.91	0.07	29,29,29,29	0
57	MG	2A	3514	1/1	0.91	0.09	59,59,59,59	0
57	MG	2a	1640	1/1	0.91	0.20	49,49,49,49	0
57	MG	2a	1642	1/1	0.91	0.22	60,60,60,60	0
57	MG	1a	1692	1/1	0.91	0.12	32,32,32,32	0
57	MG	1A	3678	1/1	0.91	0.07	43,43,43,43	0
57	MG	2A	3266	1/1	0.91	0.08	49,49,49,49	0
57	MG	2A	3529	1/1	0.91	0.09	40,40,40,40	0
57	MG	2A	3051	1/1	0.91	0.21	67,67,67,67	0
57	MG	1N	202	1/1	0.91	0.06	40,40,40,40	0
57	MG	1A	3393	1/1	0.91	0.15	42,42,42,42	0
57	MG	1A	3689	1/1	0.91	0.17	61,61,61,61	0
57	MG	1a	1706	1/1	0.91	0.13	70,70,70,70	0
57	MG	2A	3285	1/1	0.91	0.10	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2a	1663	1/1	0.91	0.31	54,54,54,54	0
57	MG	1P	204	1/1	0.91	0.14	42,42,42,42	0
57	MG	2a	1666	1/1	0.91	0.11	62,62,62,62	0
57	MG	1A	3599	1/1	0.91	0.11	31,31,31,31	0
57	MG	1a	1712	1/1	0.91	0.25	64,64,64,64	0
57	MG	2a	1673	1/1	0.91	0.14	80,80,80,80	0
57	MG	2A	3296	1/1	0.91	0.12	40,40,40,40	0
57	MG	2A	3548	1/1	0.91	0.20	56,56,56,56	0
57	MG	2A	3553	1/1	0.91	0.22	65,65,65,65	0
57	MG	2a	1679	1/1	0.91	0.13	73,73,73,73	0
57	MG	1A	3695	1/1	0.91	0.10	30,30,30,30	0
57	MG	2A	3303	1/1	0.91	0.06	55,55,55,55	0
57	MG	12	101	1/1	0.91	0.12	36,36,36,36	0
57	MG	2A	3557	1/1	0.91	0.10	46,46,46,46	0
57	MG	2A	3307	1/1	0.91	0.11	47,47,47,47	0
57	MG	2A	3565	1/1	0.91	0.20	61,61,61,61	0
57	MG	2a	1698	1/1	0.91	0.21	73,73,73,73	0
57	MG	1a	1720	1/1	0.91	0.22	64,64,64,64	0
57	MG	2A	3084	1/1	0.91	0.13	54,54,54,54	0
57	MG	2A	3320	1/1	0.91	0.09	38,38,38,38	0
57	MG	2A	3086	1/1	0.91	0.13	53,53,53,53	0
57	MG	2A	3092	1/1	0.91	0.13	56,56,56,56	0
57	MG	1A	3706	1/1	0.91	0.13	49,49,49,49	0
57	MG	2A	3104	1/1	0.91	0.18	55,55,55,55	0
57	MG	15	101	1/1	0.91	0.20	38,38,38,38	0
57	MG	2A	3108	1/1	0.91	0.33	48,48,48,48	0
57	MG	2a	1734	1/1	0.91	0.13	47,47,47,47	0
57	MG	2A	3585	1/1	0.91	0.09	60,60,60,60	0
57	MG	2a	1736	1/1	0.91	0.13	63,63,63,63	0
57	MG	2a	1738	1/1	0.91	0.18	49,49,49,49	0
57	MG	1A	3707	1/1	0.91	0.08	42,42,42,42	0
57	MG	1A	3603	1/1	0.91	0.09	44,44,44,44	0
57	MG	1a	1607	1/1	0.91	0.07	67,67,67,67	0
57	MG	1A	3710	1/1	0.91	0.09	23,23,23,23	0
57	MG	2A	3120	1/1	0.91	0.24	55,55,55,55	0
57	MG	1A	3395	1/1	0.91	0.09	34,34,34,34	0
57	MG	2A	3358	1/1	0.91	0.19	56,56,56,56	0
57	MG	1A	3401	1/1	0.91	0.15	46,46,46,46	0
57	MG	1A	3730	1/1	0.91	0.16	29,29,29,29	0
57	MG	2A	3606	1/1	0.91	0.20	69,69,69,69	0
57	MG	2A	3608	1/1	0.91	0.08	67,67,67,67	0
57	MG	2A	3368	1/1	0.91	0.11	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3061	1/1	0.91	0.23	57,57,57,57	0
57	MG	2a	1766	1/1	0.91	0.15	48,48,48,48	0
57	MG	1a	1618	1/1	0.91	0.25	53,53,53,53	0
57	MG	1a	1741	1/1	0.91	0.14	71,71,71,71	0
57	MG	1A	3504	1/1	0.91	0.10	47,47,47,47	0
57	MG	1A	3508	1/1	0.91	0.09	42,42,42,42	0
57	MG	1A	3406	1/1	0.91	0.07	22,22,22,22	0
57	MG	2A	3395	1/1	0.91	0.18	68,68,68,68	0
57	MG	1A	3086	1/1	0.91	0.10	27,27,27,27	0
57	MG	1a	1754	1/1	0.91	0.14	41,41,41,41	0
57	MG	1A	3031	1/1	0.91	0.34	38,38,38,38	0
57	MG	2v	101	1/1	0.91	0.16	63,63,63,63	0
57	MG	1A	3194	1/1	0.91	0.19	37,37,37,37	0
57	MG	1A	3635	1/1	0.91	0.19	63,63,63,63	0
57	MG	1A	3441	1/1	0.91	0.07	19,19,19,19	0
57	MG	1a	1763	1/1	0.91	0.15	69,69,69,69	0
57	MG	2A	3192	1/1	0.92	0.14	41,41,41,41	0
57	MG	1A	3618	1/1	0.92	0.12	41,41,41,41	0
57	MG	2A	3021	1/1	0.92	0.12	56,56,56,56	0
57	MG	2A	3196	1/1	0.92	0.12	39,39,39,39	0
57	MG	1E	306	1/1	0.92	0.12	24,24,24,24	0
57	MG	1A	3278	1/1	0.92	0.32	56,56,56,56	0
57	MG	2A	3450	1/1	0.92	0.11	58,58,58,58	0
57	MG	2A	3199	1/1	0.92	0.20	57,57,57,57	0
57	MG	1a	1687	1/1	0.92	0.19	60,60,60,60	0
57	MG	1A	3622	1/1	0.92	0.14	32,32,32,32	0
57	MG	1a	1691	1/1	0.92	0.19	52,52,52,52	0
57	MG	2A	3466	1/1	0.92	0.16	46,46,46,46	0
57	MG	1A	3159	1/1	0.92	0.11	34,34,34,34	0
57	MG	2A	3034	1/1	0.92	0.20	44,44,44,44	0
57	MG	2A	3036	1/1	0.92	0.09	53,53,53,53	0
57	MG	2A	3471	1/1	0.92	0.16	58,58,58,58	0
57	MG	1A	3522	1/1	0.92	0.09	47,47,47,47	0
57	MG	1a	1698	1/1	0.92	0.19	65,65,65,65	0
57	MG	2A	3220	1/1	0.92	0.13	56,56,56,56	0
57	MG	2A	3040	1/1	0.92	0.10	54,54,54,54	0
57	MG	2A	3225	1/1	0.92	0.18	46,46,46,46	0
57	MG	2V	201	1/1	0.92	0.18	58,58,58,58	0
57	MG	2A	3479	1/1	0.92	0.13	60,60,60,60	0
57	MG	1P	201	1/1	0.92	0.27	28,28,28,28	0
57	MG	1A	3433	1/1	0.92	0.17	38,38,38,38	0
57	MG	2A	3236	1/1	0.92	0.18	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3049	1/1	0.92	0.15	62,62,62,62	0
57	MG	1Q	205	1/1	0.92	0.10	42,42,42,42	0
57	MG	2A	3491	1/1	0.92	0.11	46,46,46,46	0
57	MG	29	101	1/1	0.92	0.21	64,64,64,64	0
57	MG	2A	3241	1/1	0.92	0.09	64,64,64,64	0
57	MG	2a	1603	1/1	0.92	0.19	64,64,64,64	0
57	MG	2A	3052	1/1	0.92	0.13	46,46,46,46	0
57	MG	1U	201	1/1	0.92	0.16	33,33,33,33	0
57	MG	1A	3537	1/1	0.92	0.10	22,22,22,22	0
57	MG	1A	3360	1/1	0.92	0.09	59,59,59,59	0
57	MG	2A	3060	1/1	0.92	0.18	66,66,66,66	0
57	MG	2A	3257	1/1	0.92	0.13	42,42,42,42	0
57	MG	2a	1614	1/1	0.92	0.13	52,52,52,52	0
57	MG	2A	3509	1/1	0.92	0.15	56,56,56,56	0
57	MG	2a	1623	1/1	0.92	0.18	54,54,54,54	0
57	MG	2A	3258	1/1	0.92	0.13	51,51,51,51	0
57	MG	2A	3512	1/1	0.92	0.10	61,61,61,61	0
57	MG	1A	3739	1/1	0.92	0.08	38,38,38,38	0
57	MG	1A	3539	1/1	0.92	0.10	31,31,31,31	0
57	MG	2A	3518	1/1	0.92	0.16	49,49,49,49	0
57	MG	2A	3519	1/1	0.92	0.11	56,56,56,56	0
57	MG	1A	3442	1/1	0.92	0.08	43,43,43,43	0
57	MG	2A	3267	1/1	0.92	0.14	54,54,54,54	0
57	MG	1A	3052	1/1	0.92	0.10	32,32,32,32	0
57	MG	2A	3076	1/1	0.92	0.17	52,52,52,52	0
57	MG	1a	1603	1/1	0.92	0.23	57,57,57,57	0
57	MG	1A	3282	1/1	0.92	0.10	44,44,44,44	0
57	MG	1A	3076	1/1	0.92	0.10	28,28,28,28	0
57	MG	1A	3248	1/1	0.92	0.10	41,41,41,41	0
57	MG	2A	3286	1/1	0.92	0.17	63,63,63,63	0
57	MG	2a	1649	1/1	0.92	0.17	59,59,59,59	0
57	MG	2A	3287	1/1	0.92	0.11	44,44,44,44	0
57	MG	2A	3540	1/1	0.92	0.08	51,51,51,51	0
57	MG	1A	3187	1/1	0.92	0.28	32,32,32,32	0
57	MG	1A	3754	1/1	0.92	0.09	47,47,47,47	0
57	MG	1A	3555	1/1	0.92	0.08	39,39,39,39	0
57	MG	1A	3007	1/1	0.92	0.07	33,33,33,33	0
57	MG	2a	1660	1/1	0.92	0.18	63,63,63,63	0
57	MG	2a	1661	1/1	0.92	0.12	53,53,53,53	0
57	MG	1A	3763	1/1	0.92	0.18	59,59,59,59	0
57	MG	2a	1664	1/1	0.92	0.24	52,52,52,52	0
57	MG	2A	3552	1/1	0.92	0.11	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3129	1/1	0.92	0.28	36,36,36,36	0
57	MG	2a	1667	1/1	0.92	0.14	69,69,69,69	0
57	MG	1A	3315	1/1	0.92	0.11	35,35,35,35	0
57	MG	2a	1669	1/1	0.92	0.15	64,64,64,64	0
57	MG	1A	3485	1/1	0.92	0.10	41,41,41,41	0
57	MG	1A	3380	1/1	0.92	0.15	31,31,31,31	0
57	MG	2A	3317	1/1	0.92	0.15	32,32,32,32	0
57	MG	2A	3559	1/1	0.92	0.10	48,48,48,48	0
57	MG	2a	1676	1/1	0.92	0.39	57,57,57,57	0
57	MG	1A	3591	1/1	0.92	0.11	28,28,28,28	0
57	MG	2A	3118	1/1	0.92	0.08	53,53,53,53	0
57	MG	2A	3321	1/1	0.92	0.13	37,37,37,37	0
57	MG	2a	1683	1/1	0.92	0.15	55,55,55,55	0
57	MG	1a	1627	1/1	0.92	0.34	65,65,65,65	0
57	MG	2A	3323	1/1	0.92	0.10	40,40,40,40	0
57	MG	2a	1687	1/1	0.92	0.17	62,62,62,62	0
57	MG	2A	3121	1/1	0.92	0.21	55,55,55,55	0
57	MG	2a	1689	1/1	0.92	0.12	61,61,61,61	0
57	MG	1a	1628	1/1	0.92	0.15	56,56,56,56	0
57	MG	1A	3669	1/1	0.92	0.28	43,43,43,43	0
57	MG	1A	3778	1/1	0.92	0.09	40,40,40,40	0
57	MG	2A	3130	1/1	0.92	0.23	59,59,59,59	0
57	MG	2a	1703	1/1	0.92	0.22	56,56,56,56	0
57	MG	1a	1757	1/1	0.92	0.10	70,70,70,70	0
57	MG	1A	3386	1/1	0.92	0.09	34,34,34,34	0
57	MG	1A	3325	1/1	0.92	0.17	45,45,45,45	0
57	MG	2a	1715	1/1	0.92	0.09	70,70,70,70	0
57	MG	1a	1760	1/1	0.92	0.18	71,71,71,71	0
57	MG	1a	1761	1/1	0.92	0.15	66,66,66,66	0
57	MG	2a	1722	1/1	0.92	0.22	51,51,51,51	0
57	MG	2a	1723	1/1	0.92	0.14	67,67,67,67	0
57	MG	1A	3783	1/1	0.92	0.11	43,43,43,43	0
57	MG	1A	3133	1/1	0.92	0.07	30,30,30,30	0
57	MG	2a	1729	1/1	0.92	0.21	62,62,62,62	0
57	MG	2A	3142	1/1	0.92	0.26	48,48,48,48	0
57	MG	1A	3789	1/1	0.92	0.22	57,57,57,57	0
57	MG	2A	3366	1/1	0.92	0.09	56,56,56,56	0
57	MG	1A	3791	1/1	0.92	0.12	20,20,20,20	0
57	MG	1A	3794	1/1	0.92	0.10	45,45,45,45	0
57	MG	2a	1741	1/1	0.92	0.12	58,58,58,58	0
57	MG	2A	3370	1/1	0.92	0.23	48,48,48,48	0
57	MG	1A	3399	1/1	0.92	0.10	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3329	1/1	0.92	0.06	21,21,21,21	0
57	MG	2A	3152	1/1	0.92	0.14	52,52,52,52	0
57	MG	1a	1653	1/1	0.92	0.10	50,50,50,50	0
57	MG	2A	3615	1/1	0.92	0.26	49,49,49,49	0
57	MG	1A	3066	1/1	0.92	0.30	46,46,46,46	0
57	MG	1A	3337	1/1	0.92	0.12	37,37,37,37	0
57	MG	2A	3396	1/1	0.92	0.12	49,49,49,49	0
57	MG	2A	3160	1/1	0.92	0.20	65,65,65,65	0
57	MG	1a	1658	1/1	0.92	0.15	62,62,62,62	0
57	MG	2a	1762	1/1	0.92	0.18	65,65,65,65	0
57	MG	1A	3411	1/1	0.92	0.08	39,39,39,39	0
57	MG	1B	202	1/1	0.92	0.20	44,44,44,44	0
57	MG	1B	205	1/1	0.92	0.13	49,49,49,49	0
57	MG	1A	3107	1/1	0.92	0.23	55,55,55,55	0
57	MG	1A	3700	1/1	0.92	0.23	57,57,57,57	0
57	MG	2a	1770	1/1	0.92	0.22	67,67,67,67	0
57	MG	1A	3703	1/1	0.92	0.12	47,47,47,47	0
57	MG	2A	3635	1/1	0.92	0.08	49,49,49,49	0
57	MG	2A	3412	1/1	0.92	0.10	44,44,44,44	0
57	MG	1A	3616	1/1	0.92	0.07	55,55,55,55	0
57	MG	1a	1670	1/1	0.92	0.10	41,41,41,41	0
57	MG	1A	3617	1/1	0.92	0.16	49,49,49,49	0
57	MG	2A	3641	1/1	0.92	0.07	44,44,44,44	0
57	MG	1D	305	1/1	0.92	0.11	38,38,38,38	0
57	MG	2v	102	1/1	0.92	0.19	59,59,59,59	0
57	MG	2A	3183	1/1	0.92	0.10	37,37,37,37	0
57	MG	2A	3184	1/1	0.92	0.12	51,51,51,51	0
57	MG	1E	302	1/1	0.92	0.09	17,17,17,17	0
57	MG	1a	1680	1/1	0.92	0.12	51,51,51,51	0
57	MG	1A	3523	1/1	0.93	0.16	42,42,42,42	0
57	MG	1A	3095	1/1	0.93	0.11	35,35,35,35	0
57	MG	2A	3172	1/1	0.93	0.09	33,33,33,33	0
57	MG	1a	1784	1/1	0.93	0.20	51,51,51,51	0
57	MG	2A	3174	1/1	0.93	0.16	71,71,71,71	0
57	MG	1A	3533	1/1	0.93	0.06	19,19,19,19	0
57	MG	1a	1650	1/1	0.93	0.13	54,54,54,54	0
57	MG	1A	3407	1/1	0.93	0.07	21,21,21,21	0
57	MG	1v	103	1/1	0.93	0.15	78,78,78,78	0
57	MG	2A	3424	1/1	0.93	0.07	36,36,36,36	0
57	MG	2A	3426	1/1	0.93	0.17	61,61,61,61	0
57	MG	2B	201	1/1	0.93	0.13	61,61,61,61	0
57	MG	1A	3250	1/1	0.93	0.08	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3100	1/1	0.93	0.08	38,38,38,38	0
57	MG	1A	3341	1/1	0.93	0.13	39,39,39,39	0
57	MG	1A	3344	1/1	0.93	0.21	43,43,43,43	0
57	MG	2B	208	1/1	0.93	0.21	47,47,47,47	0
57	MG	1A	3432	1/1	0.93	0.09	36,36,36,36	0
57	MG	2A	3193	1/1	0.93	0.10	68,68,68,68	0
57	MG	2B	211	1/1	0.93	0.12	47,47,47,47	0
57	MG	1y	102	1/1	0.93	0.12	73,73,73,73	0
57	MG	2A	3001	1/1	0.93	0.18	59,59,59,59	0
57	MG	2D	307	1/1	0.93	0.10	60,60,60,60	0
57	MG	2A	3451	1/1	0.93	0.10	38,38,38,38	0
57	MG	2F	304	1/1	0.93	0.09	41,41,41,41	0
57	MG	2A	3453	1/1	0.93	0.09	41,41,41,41	0
57	MG	1A	3545	1/1	0.93	0.10	19,19,19,19	0
57	MG	2A	3457	1/1	0.93	0.14	54,54,54,54	0
57	MG	1A	3804	1/1	0.93	0.11	44,44,44,44	0
57	MG	1A	3806	1/1	0.93	0.07	34,34,34,34	0
57	MG	2A	3007	1/1	0.93	0.08	39,39,39,39	0
57	MG	2W	201	1/1	0.93	0.10	52,52,52,52	0
57	MG	2X	101	1/1	0.93	0.18	53,53,53,53	0
57	MG	2A	3013	1/1	0.93	0.14	57,57,57,57	0
57	MG	1A	3181	1/1	0.93	0.08	36,36,36,36	0
57	MG	2A	3205	1/1	0.93	0.16	54,54,54,54	0
57	MG	2A	3469	1/1	0.93	0.22	59,59,59,59	0
57	MG	1A	3435	1/1	0.93	0.16	70,70,70,70	0
57	MG	2A	3209	1/1	0.93	0.11	63,63,63,63	0
57	MG	2A	3024	1/1	0.93	0.11	39,39,39,39	0
57	MG	1A	3123	1/1	0.93	0.06	32,32,32,32	0
57	MG	1B	203	1/1	0.93	0.15	50,50,50,50	0
57	MG	1A	3263	1/1	0.93	0.14	39,39,39,39	0
57	MG	1A	3447	1/1	0.93	0.09	17,17,17,17	0
57	MG	2A	3219	1/1	0.93	0.15	46,46,46,46	0
57	MG	2A	3480	1/1	0.93	0.16	48,48,48,48	0
57	MG	2A	3031	1/1	0.93	0.05	47,47,47,47	0
57	MG	1a	1672	1/1	0.93	0.13	56,56,56,56	0
57	MG	1A	3449	1/1	0.93	0.13	55,55,55,55	0
57	MG	2a	1615	1/1	0.93	0.15	59,59,59,59	0
57	MG	1a	1675	1/1	0.93	0.17	59,59,59,59	0
57	MG	2a	1622	1/1	0.93	0.18	58,58,58,58	0
57	MG	2A	3489	1/1	0.93	0.08	39,39,39,39	0
57	MG	2A	3229	1/1	0.93	0.12	56,56,56,56	0
57	MG	2A	3035	1/1	0.93	0.10	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3679	1/1	0.93	0.08	34,34,34,34	0
57	MG	1A	3358	1/1	0.93	0.18	40,40,40,40	0
57	MG	2A	3497	1/1	0.93	0.07	63,63,63,63	0
57	MG	2a	1631	1/1	0.93	0.22	63,63,63,63	0
57	MG	2A	3498	1/1	0.93	0.10	57,57,57,57	0
57	MG	1a	1681	1/1	0.93	0.18	66,66,66,66	0
57	MG	1A	3359	1/1	0.93	0.07	38,38,38,38	0
57	MG	2a	1637	1/1	0.93	0.20	49,49,49,49	0
57	MG	1A	3456	1/1	0.93	0.08	32,32,32,32	0
57	MG	1A	3017	1/1	0.93	0.10	41,41,41,41	0
57	MG	1A	3190	1/1	0.93	0.22	54,54,54,54	0
57	MG	2A	3508	1/1	0.93	0.22	55,55,55,55	0
57	MG	2a	1644	1/1	0.93	0.10	48,48,48,48	0
57	MG	1A	3701	1/1	0.93	0.10	58,58,58,58	0
57	MG	1A	3032	1/1	0.93	0.15	34,34,34,34	0
57	MG	2A	3053	1/1	0.93	0.21	65,65,65,65	0
57	MG	1A	3595	1/1	0.93	0.05	38,38,38,38	0
57	MG	2A	3260	1/1	0.93	0.13	62,62,62,62	0
57	MG	1A	3138	1/1	0.93	0.19	30,30,30,30	0
57	MG	1A	3468	1/1	0.93	0.09	39,39,39,39	0
57	MG	2A	3520	1/1	0.93	0.18	47,47,47,47	0
57	MG	2A	3263	1/1	0.93	0.11	66,66,66,66	0
57	MG	2A	3524	1/1	0.93	0.08	40,40,40,40	0
57	MG	2A	3264	1/1	0.93	0.07	47,47,47,47	0
57	MG	1A	3602	1/1	0.93	0.12	62,62,62,62	0
57	MG	2A	3065	1/1	0.93	0.14	46,46,46,46	0
57	MG	2A	3066	1/1	0.93	0.10	52,52,52,52	0
57	MG	2A	3276	1/1	0.93	0.09	33,33,33,33	0
57	MG	2A	3277	1/1	0.93	0.23	67,67,67,67	0
57	MG	2A	3067	1/1	0.93	0.13	42,42,42,42	0
57	MG	1P	202	1/1	0.93	0.24	24,24,24,24	0
57	MG	1A	3140	1/1	0.93	0.11	41,41,41,41	0
57	MG	2A	3538	1/1	0.93	0.13	43,43,43,43	0
57	MG	1A	3471	1/1	0.93	0.11	50,50,50,50	0
57	MG	1A	3727	1/1	0.93	0.35	21,21,21,21	0
57	MG	1U	203	1/1	0.93	0.07	27,27,27,27	0
57	MG	1A	3606	1/1	0.93	0.07	44,44,44,44	0
57	MG	1a	1714	1/1	0.93	0.14	62,62,62,62	0
57	MG	10	102	1/1	0.93	0.18	40,40,40,40	0
57	MG	1A	3474	1/1	0.93	0.07	59,59,59,59	0
57	MG	1A	3733	1/1	0.93	0.23	34,34,34,34	0
57	MG	1A	3196	1/1	0.93	0.23	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3093	1/1	0.93	0.07	58,58,58,58	0
57	MG	2A	3095	1/1	0.93	0.22	62,62,62,62	0
57	MG	1A	3152	1/1	0.93	0.13	30,30,30,30	0
57	MG	1A	3221	1/1	0.93	0.07	30,30,30,30	0
57	MG	2A	3316	1/1	0.93	0.11	46,46,46,46	0
57	MG	2a	1693	1/1	0.93	0.19	47,47,47,47	0
57	MG	1a	1601	1/1	0.93	0.09	52,52,52,52	0
57	MG	2A	3106	1/1	0.93	0.10	46,46,46,46	0
57	MG	2a	1700	1/1	0.93	0.08	57,57,57,57	0
57	MG	1A	3740	1/1	0.93	0.17	32,32,32,32	0
57	MG	2A	3569	1/1	0.93	0.11	47,47,47,47	0
57	MG	2a	1706	1/1	0.93	0.25	69,69,69,69	0
57	MG	2a	1707	1/1	0.93	0.17	60,60,60,60	0
57	MG	1a	1604	1/1	0.93	0.09	69,69,69,69	0
57	MG	1A	3011	1/1	0.93	0.16	43,43,43,43	0
57	MG	1A	3378	1/1	0.93	0.06	23,23,23,23	0
57	MG	2a	1714	1/1	0.93	0.16	52,52,52,52	0
57	MG	2A	3324	1/1	0.93	0.09	29,29,29,29	0
57	MG	2a	1716	1/1	0.93	0.12	65,65,65,65	0
57	MG	2A	3326	1/1	0.93	0.16	46,46,46,46	0
57	MG	2A	3327	1/1	0.93	0.15	50,50,50,50	0
57	MG	1a	1608	1/1	0.93	0.12	52,52,52,52	0
57	MG	1a	1735	1/1	0.93	0.09	54,54,54,54	0
57	MG	2a	1724	1/1	0.93	0.12	55,55,55,55	0
57	MG	2a	1726	1/1	0.93	0.08	58,58,58,58	0
57	MG	2A	3119	1/1	0.93	0.08	58,58,58,58	0
57	MG	1A	3379	1/1	0.93	0.07	32,32,32,32	0
57	MG	1A	3621	1/1	0.93	0.09	42,42,42,42	0
57	MG	2A	3343	1/1	0.93	0.08	61,61,61,61	0
57	MG	2a	1731	1/1	0.93	0.09	45,45,45,45	0
57	MG	1A	3494	1/1	0.93	0.13	43,43,43,43	0
57	MG	2A	3593	1/1	0.93	0.08	45,45,45,45	0
57	MG	2A	3595	1/1	0.93	0.28	63,63,63,63	0
57	MG	1A	3623	1/1	0.93	0.12	51,51,51,51	0
57	MG	2a	1740	1/1	0.93	0.15	64,64,64,64	0
57	MG	2A	3600	1/1	0.93	0.10	54,54,54,54	0
57	MG	1a	1616	1/1	0.93	0.19	55,55,55,55	0
57	MG	1a	1748	1/1	0.93	0.18	42,42,42,42	0
57	MG	1A	3227	1/1	0.93	0.16	36,36,36,36	0
57	MG	1A	3293	1/1	0.93	0.13	48,48,48,48	0
57	MG	1A	3757	1/1	0.93	0.09	41,41,41,41	0
57	MG	2a	1753	1/1	0.93	0.19	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3388	1/1	0.93	0.11	44,44,44,44	0
57	MG	1A	3633	1/1	0.93	0.09	40,40,40,40	0
57	MG	1A	3229	1/1	0.93	0.08	34,34,34,34	0
57	MG	1a	1625	1/1	0.93	0.13	57,57,57,57	0
57	MG	1A	3764	1/1	0.93	0.07	50,50,50,50	0
57	MG	1A	3001	1/1	0.93	0.09	26,26,26,26	0
57	MG	1A	3232	1/1	0.93	0.14	25,25,25,25	0
57	MG	1a	1632	1/1	0.93	0.26	55,55,55,55	0
57	MG	2A	3380	1/1	0.93	0.17	58,58,58,58	0
57	MG	1a	1764	1/1	0.93	0.19	69,69,69,69	0
57	MG	2a	1767	1/1	0.93	0.14	53,53,53,53	0
57	MG	2A	3623	1/1	0.93	0.10	54,54,54,54	0
57	MG	2A	3384	1/1	0.93	0.13	56,56,56,56	0
57	MG	2A	3387	1/1	0.93	0.12	55,55,55,55	0
57	MG	2A	3627	1/1	0.93	0.09	61,61,61,61	0
57	MG	1A	3637	1/1	0.93	0.24	49,49,49,49	0
57	MG	1A	3638	1/1	0.93	0.32	26,26,26,26	0
57	MG	1a	1637	1/1	0.93	0.15	58,58,58,58	0
57	MG	2A	3155	1/1	0.93	0.12	45,45,45,45	0
57	MG	1A	3773	1/1	0.93	0.12	55,55,55,55	0
57	MG	1A	3236	1/1	0.93	0.28	35,35,35,35	0
57	MG	2u	101	1/1	0.93	0.19	66,66,66,66	0
57	MG	1a	1774	1/1	0.93	0.08	62,62,62,62	0
57	MG	2A	3404	1/1	0.93	0.13	58,58,58,58	0
57	MG	1A	3402	1/1	0.93	0.07	26,26,26,26	0
57	MG	1a	1645	1/1	0.93	0.29	55,55,55,55	0
57	MG	1A	3050	1/1	0.93	0.06	26,26,26,26	0
57	MG	2x	106	1/1	0.93	0.18	65,65,65,65	0
57	MG	1a	1781	1/1	0.93	0.16	73,73,73,73	0
57	MG	2A	3337	1/1	0.94	0.11	34,34,34,34	0
57	MG	1A	3182	1/1	0.94	0.32	29,29,29,29	0
57	MG	2A	3078	1/1	0.94	0.07	51,51,51,51	0
57	MG	2A	3079	1/1	0.94	0.06	30,30,30,30	0
57	MG	1A	3390	1/1	0.94	0.20	42,42,42,42	0
57	MG	1A	3277	1/1	0.94	0.12	28,28,28,28	0
57	MG	1B	206	1/1	0.94	0.13	30,30,30,30	0
57	MG	2A	3628	1/1	0.94	0.08	54,54,54,54	0
57	MG	1a	1689	1/1	0.94	0.16	61,61,61,61	0
57	MG	2A	3631	1/1	0.94	0.09	56,56,56,56	0
57	MG	2A	3085	1/1	0.94	0.12	45,45,45,45	0
57	MG	1A	3667	1/1	0.94	0.09	36,36,36,36	0
57	MG	2A	3090	1/1	0.94	0.09	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3394	1/1	0.94	0.11	48,48,48,48	0
57	MG	1A	3117	1/1	0.94	0.07	36,36,36,36	0
57	MG	1a	1694	1/1	0.94	0.09	59,59,59,59	0
57	MG	1A	3119	1/1	0.94	0.14	47,47,47,47	0
57	MG	2A	3099	1/1	0.94	0.10	53,53,53,53	0
57	MG	1B	214	1/1	0.94	0.06	42,42,42,42	0
57	MG	1B	215	1/1	0.94	0.09	34,34,34,34	0
57	MG	1A	3189	1/1	0.94	0.25	45,45,45,45	0
57	MG	1a	1704	1/1	0.94	0.07	64,64,64,64	0
57	MG	2A	3651	1/1	0.94	0.09	61,61,61,61	0
57	MG	2A	3109	1/1	0.94	0.08	42,42,42,42	0
57	MG	2A	3381	1/1	0.94	0.06	36,36,36,36	0
57	MG	1A	3089	1/1	0.94	0.27	48,48,48,48	0
57	MG	1A	3675	1/1	0.94	0.06	60,60,60,60	0
57	MG	1A	3403	1/1	0.94	0.07	14,14,14,14	0
57	MG	2A	3389	1/1	0.94	0.08	64,64,64,64	0
57	MG	1A	3283	1/1	0.94	0.24	51,51,51,51	0
57	MG	1A	3284	1/1	0.94	0.07	20,20,20,20	0
57	MG	1F	308	1/1	0.94	0.11	53,53,53,53	0
57	MG	1N	201	1/1	0.94	0.24	41,41,41,41	0
57	MG	1A	3682	1/1	0.94	0.14	26,26,26,26	0
57	MG	1A	3090	1/1	0.94	0.22	34,34,34,34	0
57	MG	1a	1722	1/1	0.94	0.16	66,66,66,66	0
57	MG	2A	3128	1/1	0.94	0.28	53,53,53,53	0
57	MG	1N	204	1/1	0.94	0.09	38,38,38,38	0
57	MG	1A	3687	1/1	0.94	0.21	42,42,42,42	0
57	MG	1a	1726	1/1	0.94	0.17	49,49,49,49	0
57	MG	1A	3688	1/1	0.94	0.17	56,56,56,56	0
57	MG	1A	3550	1/1	0.94	0.08	23,23,23,23	0
57	MG	2A	3411	1/1	0.94	0.17	45,45,45,45	0
57	MG	2D	304	1/1	0.94	0.51	46,46,46,46	0
57	MG	2A	3136	1/1	0.94	0.10	57,57,57,57	0
57	MG	1A	3192	1/1	0.94	0.21	30,30,30,30	0
57	MG	2D	308	1/1	0.94	0.09	54,54,54,54	0
57	MG	2D	309	1/1	0.94	0.10	64,64,64,64	0
57	MG	2A	3414	1/1	0.94	0.14	36,36,36,36	0
57	MG	1Q	201	1/1	0.94	0.21	38,38,38,38	0
57	MG	2O	3700	1/1	0.94	0.15	45,45,45,45	0
57	MG	1A	3193	1/1	0.94	0.07	26,26,26,26	0
57	MG	1A	3699	1/1	0.94	0.10	41,41,41,41	0
57	MG	1A	3124	1/1	0.94	0.19	36,36,36,36	0
57	MG	1V	204	1/1	0.94	0.18	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1W	202	1/1	0.94	0.09	35,35,35,35	0
57	MG	1A	3094	1/1	0.94	0.16	40,40,40,40	0
57	MG	1A	3303	1/1	0.94	0.10	59,59,59,59	0
57	MG	1A	3581	1/1	0.94	0.09	22,22,22,22	0
57	MG	2A	3430	1/1	0.94	0.21	53,53,53,53	0
57	MG	1a	1746	1/1	0.94	0.09	49,49,49,49	0
57	MG	2Y	201	1/1	0.94	0.09	55,55,55,55	0
57	MG	1a	1747	1/1	0.94	0.20	41,41,41,41	0
57	MG	1A	3582	1/1	0.94	0.18	55,55,55,55	0
57	MG	12	102	1/1	0.94	0.07	49,49,49,49	0
57	MG	2A	3440	1/1	0.94	0.09	59,59,59,59	0
57	MG	2A	3441	1/1	0.94	0.09	51,51,51,51	0
57	MG	2A	3442	1/1	0.94	0.07	34,34,34,34	0
57	MG	1a	1752	1/1	0.94	0.10	63,63,63,63	0
57	MG	1A	3310	1/1	0.94	0.07	31,31,31,31	0
57	MG	1A	3132	1/1	0.94	0.22	28,28,28,28	0
57	MG	2a	1606	1/1	0.94	0.16	52,52,52,52	0
57	MG	2a	1608	1/1	0.94	0.12	63,63,63,63	0
57	MG	15	102	1/1	0.94	0.20	27,27,27,27	0
57	MG	2A	3452	1/1	0.94	0.11	42,42,42,42	0
57	MG	15	103	1/1	0.94	0.13	43,43,43,43	0
57	MG	15	104	1/1	0.94	0.15	29,29,29,29	0
57	MG	2A	3456	1/1	0.94	0.09	61,61,61,61	0
57	MG	2A	3165	1/1	0.94	0.20	42,42,42,42	0
57	MG	2a	1616	1/1	0.94	0.21	61,61,61,61	0
57	MG	2a	1618	1/1	0.94	0.12	56,56,56,56	0
57	MG	16	101	1/1	0.94	0.09	46,46,46,46	0
57	MG	2a	1621	1/1	0.94	0.25	50,50,50,50	0
57	MG	17	105	1/1	0.94	0.11	30,30,30,30	0
57	MG	1A	3712	1/1	0.94	0.10	46,46,46,46	0
57	MG	2A	3464	1/1	0.94	0.25	58,58,58,58	0
57	MG	18	102	1/1	0.94	0.11	34,34,34,34	0
57	MG	1A	3715	1/1	0.94	0.18	60,60,60,60	0
57	MG	1A	3587	1/1	0.94	0.06	16,16,16,16	0
57	MG	1A	3717	1/1	0.94	0.20	55,55,55,55	0
57	MG	1A	3720	1/1	0.94	0.07	39,39,39,39	0
57	MG	1a	1770	1/1	0.94	0.11	42,42,42,42	0
57	MG	1A	3723	1/1	0.94	0.06	43,43,43,43	0
57	MG	2a	1635	1/1	0.94	0.16	55,55,55,55	0
57	MG	1A	3724	1/1	0.94	0.13	22,22,22,22	0
57	MG	2A	3185	1/1	0.94	0.19	53,53,53,53	0
57	MG	1A	3439	1/1	0.94	0.16	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3477	1/1	0.94	0.11	42,42,42,42	0
57	MG	2a	1641	1/1	0.94	0.10	58,58,58,58	0
57	MG	2A	3189	1/1	0.94	0.27	61,61,61,61	0
57	MG	1A	3590	1/1	0.94	0.09	50,50,50,50	0
57	MG	1A	3198	1/1	0.94	0.08	48,48,48,48	0
57	MG	1a	1776	1/1	0.94	0.19	56,56,56,56	0
57	MG	1a	1777	1/1	0.94	0.15	57,57,57,57	0
57	MG	2a	1647	1/1	0.94	0.13	63,63,63,63	0
57	MG	1a	1613	1/1	0.94	0.08	47,47,47,47	0
57	MG	2A	3485	1/1	0.94	0.13	62,62,62,62	0
57	MG	1A	3317	1/1	0.94	0.18	61,61,61,61	0
57	MG	1a	1780	1/1	0.94	0.06	43,43,43,43	0
57	MG	1A	3593	1/1	0.94	0.07	16,16,16,16	0
57	MG	2a	1656	1/1	0.94	0.23	51,51,51,51	0
57	MG	1A	3324	1/1	0.94	0.09	26,26,26,26	0
57	MG	1A	3211	1/1	0.94	0.06	33,33,33,33	0
57	MG	1A	3212	1/1	0.94	0.15	45,45,45,45	0
57	MG	1A	3454	1/1	0.94	0.07	28,28,28,28	0
57	MG	2A	3206	1/1	0.94	0.19	55,55,55,55	0
57	MG	2a	1662	1/1	0.94	0.08	62,62,62,62	0
57	MG	2A	3499	1/1	0.94	0.10	58,58,58,58	0
57	MG	1A	3048	1/1	0.94	0.13	35,35,35,35	0
57	MG	1n	101	1/1	0.94	0.17	62,62,62,62	0
57	MG	2A	3502	1/1	0.94	0.13	53,53,53,53	0
57	MG	1A	3335	1/1	0.94	0.08	39,39,39,39	0
57	MG	1v	102	1/1	0.94	0.09	48,48,48,48	0
57	MG	1A	3457	1/1	0.94	0.07	42,42,42,42	0
57	MG	1A	3458	1/1	0.94	0.08	24,24,24,24	0
57	MG	1A	3607	1/1	0.94	0.09	24,24,24,24	0
57	MG	2A	3218	1/1	0.94	0.09	45,45,45,45	0
57	MG	1A	3036	1/1	0.94	0.33	30,30,30,30	0
57	MG	1x	103	1/1	0.94	0.12	60,60,60,60	0
57	MG	1a	1630	1/1	0.94	0.18	51,51,51,51	0
57	MG	1A	3752	1/1	0.94	0.12	58,58,58,58	0
57	MG	1A	3222	1/1	0.94	0.10	36,36,36,36	0
57	MG	2a	1681	1/1	0.94	0.08	57,57,57,57	0
57	MG	1A	3101	1/1	0.94	0.15	45,45,45,45	0
57	MG	2A	3230	1/1	0.94	0.52	47,47,47,47	0
57	MG	2A	3232	1/1	0.94	0.32	43,43,43,43	0
57	MG	2A	3525	1/1	0.94	0.07	63,63,63,63	0
57	MG	1a	1636	1/1	0.94	0.18	49,49,49,49	0
57	MG	1A	3756	1/1	0.94	0.08	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3237	1/1	0.94	0.17	44,44,44,44	0
57	MG	2A	3530	1/1	0.94	0.08	55,55,55,55	0
57	MG	1A	3141	1/1	0.94	0.10	32,32,32,32	0
57	MG	2a	1697	1/1	0.94	0.14	58,58,58,58	0
57	MG	1A	3142	1/1	0.94	0.28	31,31,31,31	0
57	MG	2A	3009	1/1	0.94	0.13	57,57,57,57	0
57	MG	2A	3011	1/1	0.94	0.13	43,43,43,43	0
57	MG	1a	1641	1/1	0.94	0.10	44,44,44,44	0
57	MG	2A	3016	1/1	0.94	0.08	48,48,48,48	0
57	MG	2A	3017	1/1	0.94	0.07	55,55,55,55	0
57	MG	2A	3253	1/1	0.94	0.07	46,46,46,46	0
57	MG	2a	1709	1/1	0.94	0.07	53,53,53,53	0
57	MG	1A	3469	1/1	0.94	0.11	32,32,32,32	0
57	MG	1a	1644	1/1	0.94	0.17	49,49,49,49	0
57	MG	2A	3023	1/1	0.94	0.13	52,52,52,52	0
57	MG	2A	3259	1/1	0.94	0.08	46,46,46,46	0
57	MG	1A	3145	1/1	0.94	0.14	27,27,27,27	0
57	MG	2A	3551	1/1	0.94	0.07	64,64,64,64	0
57	MG	1A	3620	1/1	0.94	0.06	19,19,19,19	0
57	MG	1A	3149	1/1	0.94	0.23	35,35,35,35	0
57	MG	1A	3472	1/1	0.94	0.09	45,45,45,45	0
57	MG	1A	3151	1/1	0.94	0.05	32,32,32,32	0
57	MG	2a	1725	1/1	0.94	0.14	46,46,46,46	0
57	MG	1A	3475	1/1	0.94	0.17	42,42,42,42	0
57	MG	1A	3772	1/1	0.94	0.13	52,52,52,52	0
57	MG	1A	3244	1/1	0.94	0.07	38,38,38,38	0
57	MG	1A	3038	1/1	0.94	0.16	36,36,36,36	0
57	MG	1a	1655	1/1	0.94	0.31	60,60,60,60	0
57	MG	1A	3070	1/1	0.94	0.08	33,33,33,33	0
57	MG	2a	1733	1/1	0.94	0.10	55,55,55,55	0
57	MG	1A	3777	1/1	0.94	0.14	51,51,51,51	0
57	MG	1A	3154	1/1	0.94	0.16	40,40,40,40	0
57	MG	1A	3044	1/1	0.94	0.11	41,41,41,41	0
57	MG	2A	3045	1/1	0.94	0.08	58,58,58,58	0
57	MG	2A	3573	1/1	0.94	0.07	53,53,53,53	0
57	MG	2A	3574	1/1	0.94	0.07	47,47,47,47	0
57	MG	2A	3576	1/1	0.94	0.16	60,60,60,60	0
57	MG	2a	1743	1/1	0.94	0.22	59,59,59,59	0
57	MG	1A	3257	1/1	0.94	0.08	34,34,34,34	0
57	MG	2a	1746	1/1	0.94	0.12	62,62,62,62	0
57	MG	2A	3047	1/1	0.94	0.20	57,57,57,57	0
57	MG	1A	3258	1/1	0.94	0.20	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2a	1750	1/1	0.94	0.10	60,60,60,60	0
57	MG	2a	1751	1/1	0.94	0.17	53,53,53,53	0
57	MG	2A	3582	1/1	0.94	0.09	58,58,58,58	0
57	MG	1A	3004	1/1	0.94	0.09	31,31,31,31	0
57	MG	2A	3293	1/1	0.94	0.15	54,54,54,54	0
57	MG	2a	1755	1/1	0.94	0.21	57,57,57,57	0
57	MG	2A	3050	1/1	0.94	0.20	59,59,59,59	0
57	MG	1a	1666	1/1	0.94	0.11	47,47,47,47	0
57	MG	1A	3788	1/1	0.94	0.09	37,37,37,37	0
57	MG	2A	3299	1/1	0.94	0.06	57,57,57,57	0
57	MG	1A	3640	1/1	0.94	0.12	34,34,34,34	0
57	MG	2A	3054	1/1	0.94	0.21	57,57,57,57	0
57	MG	2A	3592	1/1	0.94	0.14	53,53,53,53	0
57	MG	1A	3372	1/1	0.94	0.13	62,62,62,62	0
57	MG	2a	1765	1/1	0.94	0.14	72,72,72,72	0
57	MG	2A	3056	1/1	0.94	0.12	64,64,64,64	0
57	MG	2A	3057	1/1	0.94	0.17	36,36,36,36	0
57	MG	2A	3599	1/1	0.94	0.09	49,49,49,49	0
57	MG	1A	3792	1/1	0.94	0.07	40,40,40,40	0
57	MG	1A	3046	1/1	0.94	0.13	27,27,27,27	0
57	MG	1A	3063	1/1	0.94	0.05	24,24,24,24	0
57	MG	1A	3512	1/1	0.94	0.06	21,21,21,21	0
57	MG	2A	3604	1/1	0.94	0.12	50,50,50,50	0
57	MG	1A	3264	1/1	0.94	0.07	32,32,32,32	0
57	MG	2A	3607	1/1	0.94	0.10	61,61,61,61	0
57	MG	1a	1677	1/1	0.94	0.11	52,52,52,52	0
57	MG	1A	3177	1/1	0.94	0.30	43,43,43,43	0
57	MG	1A	3271	1/1	0.94	0.07	37,37,37,37	0
57	MG	2A	3073	1/1	0.94	0.07	46,46,46,46	0
57	MG	2A	3328	1/1	0.94	0.09	59,59,59,59	0
57	MG	2w	402	1/1	0.94	0.14	62,62,62,62	0
57	MG	2A	3614	1/1	0.94	0.09	41,41,41,41	0
57	MG	2A	3332	1/1	0.94	0.11	50,50,50,50	0
57	MG	2x	103	1/1	0.94	0.14	59,59,59,59	0
57	MG	1A	3112	1/1	0.94	0.19	42,42,42,42	0
57	MG	1A	3520	1/1	0.94	0.09	32,32,32,32	0
57	MG	2A	3619	1/1	0.94	0.10	50,50,50,50	0
57	MG	1A	3438	1/1	0.95	0.10	37,37,37,37	0
57	MG	2B	203	1/1	0.95	0.21	65,65,65,65	0
57	MG	2A	3427	1/1	0.95	0.09	48,48,48,48	0
57	MG	2A	3179	1/1	0.95	0.14	36,36,36,36	0
57	MG	1A	3005	1/1	0.95	0.10	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2B	207	1/1	0.95	0.13	54,54,54,54	0
57	MG	1x	102	1/1	0.95	0.10	51,51,51,51	0
57	MG	1A	3799	1/1	0.95	0.07	44,44,44,44	0
57	MG	1A	3340	1/1	0.95	0.14	46,46,46,46	0
57	MG	2A	3436	1/1	0.95	0.14	51,51,51,51	0
57	MG	1A	3803	1/1	0.95	0.08	35,35,35,35	0
57	MG	2A	3187	1/1	0.95	0.31	58,58,58,58	0
57	MG	1A	3033	1/1	0.95	0.08	24,24,24,24	0
57	MG	1A	3805	1/1	0.95	0.10	24,24,24,24	0
57	MG	1A	3444	1/1	0.95	0.06	23,23,23,23	0
57	MG	1A	3445	1/1	0.95	0.07	22,22,22,22	0
57	MG	2E	301	1/1	0.95	0.12	46,46,46,46	0
57	MG	2E	303	1/1	0.95	0.14	48,48,48,48	0
57	MG	1A	3557	1/1	0.95	0.07	17,17,17,17	0
57	MG	1A	3558	1/1	0.95	0.09	33,33,33,33	0
57	MG	1A	3561	1/1	0.95	0.05	62,62,62,62	0
57	MG	1A	3568	1/1	0.95	0.06	22,22,22,22	0
57	MG	1a	1662	1/1	0.95	0.14	61,61,61,61	0
57	MG	2A	3015	1/1	0.95	0.09	45,45,45,45	0
57	MG	1A	3680	1/1	0.95	0.08	35,35,35,35	0
57	MG	1B	207	1/1	0.95	0.10	33,33,33,33	0
57	MG	2A	3203	1/1	0.95	0.23	53,53,53,53	0
57	MG	1A	3342	1/1	0.95	0.09	39,39,39,39	0
57	MG	1A	3579	1/1	0.95	0.11	41,41,41,41	0
57	MG	2A	3465	1/1	0.95	0.15	67,67,67,67	0
57	MG	1A	3686	1/1	0.95	0.12	55,55,55,55	0
57	MG	2A	3208	1/1	0.95	0.11	48,48,48,48	0
57	MG	1A	3072	1/1	0.95	0.28	47,47,47,47	0
57	MG	1A	3266	1/1	0.95	0.18	31,31,31,31	0
57	MG	1A	3205	1/1	0.95	0.09	32,32,32,32	0
57	MG	25	101	1/1	0.95	0.09	58,58,58,58	0
57	MG	1A	3206	1/1	0.95	0.13	27,27,27,27	0
57	MG	28	103	1/1	0.95	0.10	48,48,48,48	0
57	MG	2A	3028	1/1	0.95	0.15	38,38,38,38	0
57	MG	2A	3215	1/1	0.95	0.20	41,41,41,41	0
57	MG	1B	220	1/1	0.95	0.06	33,33,33,33	0
57	MG	1A	3691	1/1	0.95	0.09	48,48,48,48	0
57	MG	1A	3693	1/1	0.95	0.08	42,42,42,42	0
57	MG	1A	3272	1/1	0.95	0.14	25,25,25,25	0
57	MG	1A	3697	1/1	0.95	0.23	35,35,35,35	0
57	MG	2a	1609	1/1	0.95	0.22	68,68,68,68	0
57	MG	1A	3273	1/1	0.95	0.12	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3226	1/1	0.95	0.25	43,43,43,43	0
57	MG	1F	304	1/1	0.95	0.18	27,27,27,27	0
57	MG	2A	3483	1/1	0.95	0.07	51,51,51,51	0
57	MG	1A	3155	1/1	0.95	0.10	23,23,23,23	0
57	MG	2A	3038	1/1	0.95	0.14	46,46,46,46	0
57	MG	1G	201	1/1	0.95	0.11	54,54,54,54	0
57	MG	2A	3488	1/1	0.95	0.15	47,47,47,47	0
57	MG	1A	3073	1/1	0.95	0.29	46,46,46,46	0
57	MG	2A	3042	1/1	0.95	0.15	48,48,48,48	0
57	MG	1A	3214	1/1	0.95	0.20	52,52,52,52	0
57	MG	2A	3492	1/1	0.95	0.09	42,42,42,42	0
57	MG	1A	3704	1/1	0.95	0.14	21,21,21,21	0
57	MG	1A	3463	1/1	0.95	0.09	19,19,19,19	0
57	MG	2A	3496	1/1	0.95	0.19	29,29,29,29	0
57	MG	2a	1628	1/1	0.95	0.19	39,39,39,39	0
57	MG	1O	201	1/1	0.95	0.12	58,58,58,58	0
57	MG	1A	3216	1/1	0.95	0.10	36,36,36,36	0
57	MG	1A	3365	1/1	0.95	0.15	39,39,39,39	0
57	MG	1A	3060	1/1	0.95	0.09	37,37,37,37	0
57	MG	1P	203	1/1	0.95	0.25	37,37,37,37	0
57	MG	1A	3280	1/1	0.95	0.11	33,33,33,33	0
57	MG	2A	3254	1/1	0.95	0.11	28,28,28,28	0
57	MG	1A	3597	1/1	0.95	0.10	28,28,28,28	0
57	MG	2a	1638	1/1	0.95	0.14	73,73,73,73	0
57	MG	1a	1705	1/1	0.95	0.10	51,51,51,51	0
57	MG	1Q	203	1/1	0.95	0.12	34,34,34,34	0
57	MG	1Q	204	1/1	0.95	0.11	41,41,41,41	0
57	MG	1a	1709	1/1	0.95	0.21	46,46,46,46	0
57	MG	1A	3598	1/1	0.95	0.06	45,45,45,45	0
57	MG	1T	201	1/1	0.95	0.08	37,37,37,37	0
57	MG	2A	3062	1/1	0.95	0.10	53,53,53,53	0
57	MG	2A	3516	1/1	0.95	0.15	45,45,45,45	0
57	MG	2A	3517	1/1	0.95	0.21	55,55,55,55	0
57	MG	2A	3063	1/1	0.95	0.13	42,42,42,42	0
57	MG	1A	3220	1/1	0.95	0.23	46,46,46,46	0
57	MG	1a	1716	1/1	0.95	0.16	60,60,60,60	0
57	MG	2A	3270	1/1	0.95	0.10	53,53,53,53	0
57	MG	2A	3272	1/1	0.95	0.08	40,40,40,40	0
57	MG	2a	1654	1/1	0.95	0.30	57,57,57,57	0
57	MG	1A	3601	1/1	0.95	0.07	41,41,41,41	0
57	MG	2A	3275	1/1	0.95	0.11	48,48,48,48	0
57	MG	1U	204	1/1	0.95	0.12	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3721	1/1	0.95	0.07	25,25,25,25	0
57	MG	1A	3722	1/1	0.95	0.09	36,36,36,36	0
57	MG	1X	101	1/1	0.95	0.08	41,41,41,41	0
57	MG	2A	3280	1/1	0.95	0.14	52,52,52,52	0
57	MG	1a	1723	1/1	0.95	0.15	50,50,50,50	0
57	MG	1A	3171	1/1	0.95	0.12	37,37,37,37	0
57	MG	1Z	302	1/1	0.95	0.13	40,40,40,40	0
57	MG	10	101	1/1	0.95	0.16	27,27,27,27	0
57	MG	2A	3080	1/1	0.95	0.11	52,52,52,52	0
57	MG	1a	1728	1/1	0.95	0.07	51,51,51,51	0
57	MG	1A	3022	1/1	0.95	0.05	26,26,26,26	0
57	MG	2a	1670	1/1	0.95	0.20	61,61,61,61	0
57	MG	10	103	1/1	0.95	0.11	48,48,48,48	0
57	MG	1A	3082	1/1	0.95	0.20	28,28,28,28	0
57	MG	1A	3285	1/1	0.95	0.17	45,45,45,45	0
57	MG	2A	3297	1/1	0.95	0.13	41,41,41,41	0
57	MG	1A	3226	1/1	0.95	0.10	34,34,34,34	0
57	MG	2A	3089	1/1	0.95	0.13	43,43,43,43	0
57	MG	2A	3300	1/1	0.95	0.09	27,27,27,27	0
57	MG	1A	3609	1/1	0.95	0.08	33,33,33,33	0
57	MG	2A	3304	1/1	0.95	0.09	34,34,34,34	0
57	MG	2a	1682	1/1	0.95	0.13	66,66,66,66	0
57	MG	1A	3479	1/1	0.95	0.15	30,30,30,30	0
57	MG	1A	3480	1/1	0.95	0.07	45,45,45,45	0
57	MG	2A	3309	1/1	0.95	0.08	39,39,39,39	0
57	MG	2A	3562	1/1	0.95	0.14	31,31,31,31	0
57	MG	2A	3310	1/1	0.95	0.06	48,48,48,48	0
57	MG	1a	1739	1/1	0.95	0.13	61,61,61,61	0
57	MG	1A	3483	1/1	0.95	0.12	42,42,42,42	0
57	MG	2a	1692	1/1	0.95	0.14	49,49,49,49	0
57	MG	1A	3135	1/1	0.95	0.08	29,29,29,29	0
57	MG	2A	3101	1/1	0.95	0.08	46,46,46,46	0
57	MG	2a	1695	1/1	0.95	0.08	48,48,48,48	0
57	MG	2a	1696	1/1	0.95	0.17	54,54,54,54	0
57	MG	2A	3103	1/1	0.95	0.14	63,63,63,63	0
57	MG	1A	3179	1/1	0.95	0.14	43,43,43,43	0
57	MG	2a	1699	1/1	0.95	0.13	44,44,44,44	0
57	MG	1A	3387	1/1	0.95	0.07	63,63,63,63	0
57	MG	1a	1745	1/1	0.95	0.16	54,54,54,54	0
57	MG	1A	3742	1/1	0.95	0.10	38,38,38,38	0
57	MG	2a	1705	1/1	0.95	0.11	55,55,55,55	0
57	MG	2A	3325	1/1	0.95	0.15	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3136	1/1	0.95	0.10	32,32,32,32	0
57	MG	1A	3296	1/1	0.95	0.20	40,40,40,40	0
57	MG	1a	1749	1/1	0.95	0.06	40,40,40,40	0
57	MG	1a	1602	1/1	0.95	0.22	56,56,56,56	0
57	MG	2a	1712	1/1	0.95	0.11	57,57,57,57	0
57	MG	1a	1751	1/1	0.95	0.12	68,68,68,68	0
57	MG	1A	3299	1/1	0.95	0.07	42,42,42,42	0
57	MG	1A	3084	1/1	0.95	0.23	50,50,50,50	0
57	MG	1A	3498	1/1	0.95	0.11	42,42,42,42	0
57	MG	1a	1755	1/1	0.95	0.15	54,54,54,54	0
57	MG	2a	1718	1/1	0.95	0.09	50,50,50,50	0
57	MG	2A	3124	1/1	0.95	0.20	39,39,39,39	0
57	MG	2A	3342	1/1	0.95	0.06	40,40,40,40	0
57	MG	2A	3125	1/1	0.95	0.11	40,40,40,40	0
57	MG	1A	3184	1/1	0.95	0.06	50,50,50,50	0
57	MG	2A	3594	1/1	0.95	0.06	74,74,74,74	0
57	MG	1A	3308	1/1	0.95	0.08	44,44,44,44	0
57	MG	1A	3507	1/1	0.95	0.06	39,39,39,39	0
57	MG	2A	3350	1/1	0.95	0.07	33,33,33,33	0
57	MG	2A	3351	1/1	0.95	0.11	40,40,40,40	0
57	MG	1A	3630	1/1	0.95	0.09	45,45,45,45	0
57	MG	1A	3400	1/1	0.95	0.05	18,18,18,18	0
57	MG	2a	1732	1/1	0.95	0.12	54,54,54,54	0
57	MG	1A	3511	1/1	0.95	0.09	38,38,38,38	0
57	MG	2A	3132	1/1	0.95	0.13	28,28,28,28	0
57	MG	1A	3759	1/1	0.95	0.08	26,26,26,26	0
57	MG	2A	3360	1/1	0.95	0.12	50,50,50,50	0
57	MG	1A	3139	1/1	0.95	0.14	23,23,23,23	0
57	MG	2a	1739	1/1	0.95	0.12	67,67,67,67	0
57	MG	2A	3364	1/1	0.95	0.09	53,53,53,53	0
57	MG	1A	3245	1/1	0.95	0.04	20,20,20,20	0
57	MG	1A	3037	1/1	0.95	0.17	28,28,28,28	0
57	MG	1A	3109	1/1	0.95	0.16	49,49,49,49	0
57	MG	2A	3139	1/1	0.95	0.26	56,56,56,56	0
57	MG	1A	3639	1/1	0.95	0.09	45,45,45,45	0
57	MG	2A	3375	1/1	0.95	0.16	44,44,44,44	0
57	MG	2A	3378	1/1	0.95	0.05	51,51,51,51	0
57	MG	1A	3769	1/1	0.95	0.24	46,46,46,46	0
57	MG	1A	3322	1/1	0.95	0.09	41,41,41,41	0
57	MG	1A	3023	1/1	0.95	0.15	45,45,45,45	0
57	MG	1A	3408	1/1	0.95	0.07	34,34,34,34	0
57	MG	2A	3145	1/1	0.95	0.07	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3386	1/1	0.95	0.15	60,60,60,60	0
57	MG	2A	3146	1/1	0.95	0.14	56,56,56,56	0
57	MG	1A	3065	1/1	0.95	0.21	25,25,25,25	0
57	MG	1A	3416	1/1	0.95	0.07	15,15,15,15	0
57	MG	2A	3391	1/1	0.95	0.10	41,41,41,41	0
57	MG	2A	3150	1/1	0.95	0.07	37,37,37,37	0
57	MG	2A	3394	1/1	0.95	0.06	55,55,55,55	0
57	MG	1A	3532	1/1	0.95	0.14	22,22,22,22	0
57	MG	1A	3420	1/1	0.95	0.08	24,24,24,24	0
57	MG	1A	3146	1/1	0.95	0.24	40,40,40,40	0
57	MG	2A	3154	1/1	0.95	0.08	36,36,36,36	0
57	MG	2A	3637	1/1	0.95	0.11	38,38,38,38	0
57	MG	1A	3113	1/1	0.95	0.13	35,35,35,35	0
57	MG	2A	3402	1/1	0.95	0.08	46,46,46,46	0
57	MG	1A	3330	1/1	0.95	0.12	54,54,54,54	0
57	MG	1A	3782	1/1	0.95	0.13	55,55,55,55	0
57	MG	1A	3334	1/1	0.95	0.08	33,33,33,33	0
57	MG	1A	3659	1/1	0.95	0.07	30,30,30,30	0
57	MG	1a	1786	1/1	0.95	0.16	44,44,44,44	0
57	MG	2A	3650	1/1	0.95	0.07	64,64,64,64	0
57	MG	1A	3787	1/1	0.95	0.06	20,20,20,20	0
57	MG	1A	3040	1/1	0.95	0.12	36,36,36,36	0
57	MG	1d	301	1/1	0.95	0.23	37,37,37,37	0
57	MG	1f	201	1/1	0.95	0.12	42,42,42,42	0
57	MG	2A	3170	1/1	0.95	0.14	49,49,49,49	0
57	MG	1m	3001	1/1	0.95	0.10	64,64,64,64	0
57	MG	1a	1643	1/1	0.95	0.23	52,52,52,52	0
57	MG	1A	3663	1/1	0.95	0.04	29,29,29,29	0
57	MG	1A	3260	1/1	0.95	0.27	49,49,49,49	0
57	MG	2A	3175	1/1	0.95	0.10	51,51,51,51	0
57	MG	1A	3665	1/1	0.95	0.07	54,54,54,54	0
57	MG	1A	3666	1/1	0.95	0.08	37,37,37,37	0
57	MG	2A	3408	1/1	0.96	0.05	48,48,48,48	0
57	MG	1A	3161	1/1	0.96	0.11	32,32,32,32	0
57	MG	1A	3486	1/1	0.96	0.12	41,41,41,41	0
57	MG	1A	3162	1/1	0.96	0.08	25,25,25,25	0
57	MG	1a	1619	1/1	0.96	0.05	65,65,65,65	0
57	MG	1a	1785	1/1	0.96	0.12	49,49,49,49	0
57	MG	1A	3489	1/1	0.96	0.08	39,39,39,39	0
57	MG	2A	3415	1/1	0.96	0.09	29,29,29,29	0
57	MG	1a	1621	1/1	0.96	0.07	52,52,52,52	0
57	MG	2A	3417	1/1	0.96	0.06	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3760	1/1	0.96	0.07	18,18,18,18	0
57	MG	1A	3170	1/1	0.96	0.15	42,42,42,42	0
57	MG	1A	3382	1/1	0.96	0.14	39,39,39,39	0
57	MG	1k	201	1/1	0.96	0.11	53,53,53,53	0
57	MG	1A	3385	1/1	0.96	0.08	34,34,34,34	0
57	MG	1A	3627	1/1	0.96	0.05	37,37,37,37	0
57	MG	1A	3766	1/1	0.96	0.18	43,43,43,43	0
57	MG	1A	3223	1/1	0.96	0.17	30,30,30,30	0
57	MG	1a	1629	1/1	0.96	0.17	41,41,41,41	0
57	MG	1A	3768	1/1	0.96	0.14	15,15,15,15	0
57	MG	1a	1631	1/1	0.96	0.11	53,53,53,53	0
57	MG	2A	3432	1/1	0.96	0.09	44,44,44,44	0
57	MG	2D	303	1/1	0.96	0.09	35,35,35,35	0
57	MG	1w	403	1/1	0.96	0.11	31,31,31,31	0
57	MG	2D	305	1/1	0.96	0.06	43,43,43,43	0
57	MG	1A	3098	1/1	0.96	0.19	35,35,35,35	0
57	MG	1A	3497	1/1	0.96	0.12	43,43,43,43	0
57	MG	2A	3437	1/1	0.96	0.14	50,50,50,50	0
57	MG	1A	3225	1/1	0.96	0.07	32,32,32,32	0
57	MG	1x	104	1/1	0.96	0.05	55,55,55,55	0
57	MG	1x	106	1/1	0.96	0.04	40,40,40,40	0
57	MG	2F	302	1/1	0.96	0.09	40,40,40,40	0
57	MG	1A	3126	1/1	0.96	0.06	27,27,27,27	0
57	MG	1A	3174	1/1	0.96	0.17	29,29,29,29	0
57	MG	2F	306	1/1	0.96	0.10	44,44,44,44	0
57	MG	2N	201	1/1	0.96	0.05	41,41,41,41	0
57	MG	2A	3444	1/1	0.96	0.13	50,50,50,50	0
57	MG	2A	3445	1/1	0.96	0.05	60,60,60,60	0
57	MG	2Q	202	1/1	0.96	0.06	51,51,51,51	0
57	MG	2A	3446	1/1	0.96	0.09	34,34,34,34	0
57	MG	2A	3447	1/1	0.96	0.11	41,41,41,41	0
57	MG	1A	3774	1/1	0.96	0.22	28,28,28,28	0
57	MG	2A	3449	1/1	0.96	0.17	49,49,49,49	0
57	MG	1A	3055	1/1	0.96	0.16	14,14,14,14	0
57	MG	1a	1640	1/1	0.96	0.07	49,49,49,49	0
57	MG	1A	3300	1/1	0.96	0.06	43,43,43,43	0
57	MG	1A	3396	1/1	0.96	0.17	37,37,37,37	0
57	MG	1A	3398	1/1	0.96	0.09	49,49,49,49	0
57	MG	2A	3008	1/1	0.96	0.06	41,41,41,41	0
57	MG	1A	3779	1/1	0.96	0.08	41,41,41,41	0
57	MG	20	102	1/1	0.96	0.08	53,53,53,53	0
57	MG	2A	3010	1/1	0.96	0.06	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3460	1/1	0.96	0.17	65,65,65,65	0
57	MG	23	102	1/1	0.96	0.11	50,50,50,50	0
57	MG	1A	3513	1/1	0.96	0.12	28,28,28,28	0
57	MG	2A	3012	1/1	0.96	0.07	46,46,46,46	0
57	MG	28	102	1/1	0.96	0.07	67,67,67,67	0
57	MG	1A	3130	1/1	0.96	0.32	22,22,22,22	0
57	MG	1A	3643	1/1	0.96	0.06	33,33,33,33	0
57	MG	2a	1601	1/1	0.96	0.06	38,38,38,38	0
57	MG	1A	3178	1/1	0.96	0.17	36,36,36,36	0
57	MG	1A	3304	1/1	0.96	0.30	32,32,32,32	0
57	MG	2A	3217	1/1	0.96	0.16	36,36,36,36	0
57	MG	1A	3234	1/1	0.96	0.23	32,32,32,32	0
57	MG	1A	3519	1/1	0.96	0.19	35,35,35,35	0
57	MG	2A	3022	1/1	0.96	0.04	24,24,24,24	0
57	MG	1A	3309	1/1	0.96	0.08	32,32,32,32	0
57	MG	1A	3235	1/1	0.96	0.08	38,38,38,38	0
57	MG	1a	1654	1/1	0.96	0.06	34,34,34,34	0
57	MG	2A	3475	1/1	0.96	0.08	48,48,48,48	0
57	MG	1A	3405	1/1	0.96	0.11	35,35,35,35	0
57	MG	1A	3652	1/1	0.96	0.11	46,46,46,46	0
57	MG	1A	3655	1/1	0.96	0.15	49,49,49,49	0
57	MG	1A	3797	1/1	0.96	0.07	40,40,40,40	0
57	MG	1A	3312	1/1	0.96	0.06	39,39,39,39	0
57	MG	2a	1619	1/1	0.96	0.06	55,55,55,55	0
57	MG	2A	3235	1/1	0.96	0.14	48,48,48,48	0
57	MG	1A	3525	1/1	0.96	0.04	36,36,36,36	0
57	MG	1A	3660	1/1	0.96	0.05	24,24,24,24	0
57	MG	2A	3238	1/1	0.96	0.05	44,44,44,44	0
57	MG	1A	3313	1/1	0.96	0.06	18,18,18,18	0
57	MG	1a	1663	1/1	0.96	0.08	50,50,50,50	0
57	MG	1A	3662	1/1	0.96	0.06	36,36,36,36	0
57	MG	2A	3242	1/1	0.96	0.10	60,60,60,60	0
57	MG	1A	3014	1/1	0.96	0.07	24,24,24,24	0
57	MG	1A	3534	1/1	0.96	0.10	32,32,32,32	0
57	MG	2A	3246	1/1	0.96	0.12	50,50,50,50	0
57	MG	2A	3247	1/1	0.96	0.15	48,48,48,48	0
57	MG	2A	3494	1/1	0.96	0.06	44,44,44,44	0
57	MG	1A	3238	1/1	0.96	0.36	35,35,35,35	0
57	MG	1A	3412	1/1	0.96	0.06	26,26,26,26	0
57	MG	1A	3413	1/1	0.96	0.08	23,23,23,23	0
57	MG	2A	3044	1/1	0.96	0.17	41,41,41,41	0
57	MG	1A	3316	1/1	0.96	0.08	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1B	204	1/1	0.96	0.08	26,26,26,26	0
57	MG	1A	3417	1/1	0.96	0.06	26,26,26,26	0
57	MG	1a	1674	1/1	0.96	0.15	40,40,40,40	0
57	MG	1A	3418	1/1	0.96	0.06	24,24,24,24	0
57	MG	1a	1676	1/1	0.96	0.07	41,41,41,41	0
57	MG	1A	3239	1/1	0.96	0.05	34,34,34,34	0
57	MG	1B	208	1/1	0.96	0.05	40,40,40,40	0
57	MG	1A	3673	1/1	0.96	0.08	27,27,27,27	0
57	MG	1A	3422	1/1	0.96	0.07	34,34,34,34	0
57	MG	1A	3549	1/1	0.96	0.13	15,15,15,15	0
57	MG	2A	3269	1/1	0.96	0.04	30,30,30,30	0
57	MG	1a	1684	1/1	0.96	0.18	42,42,42,42	0
57	MG	2A	3271	1/1	0.96	0.09	48,48,48,48	0
57	MG	1A	3676	1/1	0.96	0.13	43,43,43,43	0
57	MG	2a	1655	1/1	0.96	0.27	52,52,52,52	0
57	MG	2A	3273	1/1	0.96	0.07	40,40,40,40	0
57	MG	1A	3319	1/1	0.96	0.07	48,48,48,48	0
57	MG	1A	3024	1/1	0.96	0.05	23,23,23,23	0
57	MG	2A	3522	1/1	0.96	0.08	63,63,63,63	0
57	MG	1B	218	1/1	0.96	0.04	52,52,52,52	0
57	MG	1A	3027	1/1	0.96	0.18	28,28,28,28	0
57	MG	1A	3246	1/1	0.96	0.06	32,32,32,32	0
57	MG	2A	3064	1/1	0.96	0.11	54,54,54,54	0
57	MG	2A	3527	1/1	0.96	0.06	62,62,62,62	0
57	MG	1D	301	1/1	0.96	0.26	43,43,43,43	0
57	MG	1A	3327	1/1	0.96	0.07	47,47,47,47	0
57	MG	2A	3282	1/1	0.96	0.09	45,45,45,45	0
57	MG	2A	3283	1/1	0.96	0.10	44,44,44,44	0
57	MG	1E	301	1/1	0.96	0.24	28,28,28,28	0
57	MG	2A	3070	1/1	0.96	0.05	47,47,47,47	0
57	MG	1A	3434	1/1	0.96	0.06	26,26,26,26	0
57	MG	2a	1672	1/1	0.96	0.12	47,47,47,47	0
57	MG	1A	3685	1/1	0.96	0.06	37,37,37,37	0
57	MG	1A	3560	1/1	0.96	0.06	38,38,38,38	0
57	MG	2A	3289	1/1	0.96	0.10	38,38,38,38	0
57	MG	1A	3015	1/1	0.96	0.10	34,34,34,34	0
57	MG	1F	301	1/1	0.96	0.17	24,24,24,24	0
57	MG	2a	1678	1/1	0.96	0.08	70,70,70,70	0
57	MG	1F	302	1/1	0.96	0.25	34,34,34,34	0
57	MG	2A	3077	1/1	0.96	0.11	47,47,47,47	0
57	MG	2A	3545	1/1	0.96	0.10	90,90,90,90	0
57	MG	1A	3562	1/1	0.96	0.05	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3547	1/1	0.96	0.05	51,51,51,51	0
57	MG	1F	306	1/1	0.96	0.05	42,42,42,42	0
57	MG	2A	3550	1/1	0.96	0.11	51,51,51,51	0
57	MG	1A	3564	1/1	0.96	0.06	22,22,22,22	0
57	MG	1A	3565	1/1	0.96	0.05	30,30,30,30	0
57	MG	2A	3301	1/1	0.96	0.08	39,39,39,39	0
57	MG	1G	203	1/1	0.96	0.13	41,41,41,41	0
57	MG	1a	1713	1/1	0.96	0.13	58,58,58,58	0
57	MG	1A	3009	1/1	0.96	0.05	21,21,21,21	0
57	MG	2A	3306	1/1	0.96	0.14	62,62,62,62	0
57	MG	1A	3692	1/1	0.96	0.12	18,18,18,18	0
57	MG	2A	3560	1/1	0.96	0.09	52,52,52,52	0
57	MG	2A	3561	1/1	0.96	0.16	29,29,29,29	0
57	MG	1A	3569	1/1	0.96	0.05	68,68,68,68	0
57	MG	2A	3563	1/1	0.96	0.06	34,34,34,34	0
57	MG	2A	3087	1/1	0.96	0.10	44,44,44,44	0
57	MG	1A	3039	1/1	0.96	0.07	31,31,31,31	0
57	MG	1A	3696	1/1	0.96	0.12	40,40,40,40	0
57	MG	2a	1704	1/1	0.96	0.14	57,57,57,57	0
57	MG	2A	3567	1/1	0.96	0.06	58,58,58,58	0
57	MG	1A	3572	1/1	0.96	0.08	53,53,53,53	0
57	MG	1A	3573	1/1	0.96	0.10	42,42,42,42	0
57	MG	1A	3575	1/1	0.96	0.06	48,48,48,48	0
57	MG	1A	3251	1/1	0.96	0.07	36,36,36,36	0
57	MG	1A	3702	1/1	0.96	0.12	46,46,46,46	0
57	MG	1A	3051	1/1	0.96	0.12	23,23,23,23	0
57	MG	1a	1727	1/1	0.96	0.15	35,35,35,35	0
57	MG	1A	3443	1/1	0.96	0.08	23,23,23,23	0
57	MG	1A	3255	1/1	0.96	0.06	25,25,25,25	0
57	MG	1A	3256	1/1	0.96	0.09	38,38,38,38	0
57	MG	1A	3708	1/1	0.96	0.11	31,31,31,31	0
57	MG	1A	3584	1/1	0.96	0.08	48,48,48,48	0
57	MG	1A	3087	1/1	0.96	0.05	20,20,20,20	0
57	MG	2a	1721	1/1	0.96	0.12	47,47,47,47	0
57	MG	2A	3111	1/1	0.96	0.06	47,47,47,47	0
57	MG	2A	3586	1/1	0.96	0.14	48,48,48,48	0
57	MG	2A	3336	1/1	0.96	0.09	54,54,54,54	0
57	MG	1A	3586	1/1	0.96	0.05	56,56,56,56	0
57	MG	2A	3338	1/1	0.96	0.07	45,45,45,45	0
57	MG	2A	3113	1/1	0.96	0.13	41,41,41,41	0
57	MG	1U	206	1/1	0.96	0.12	28,28,28,28	0
57	MG	1a	1736	1/1	0.96	0.05	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3117	1/1	0.96	0.19	35,35,35,35	0
57	MG	1a	1737	1/1	0.96	0.08	48,48,48,48	0
57	MG	1V	202	1/1	0.96	0.14	26,26,26,26	0
57	MG	2A	3596	1/1	0.96	0.06	65,65,65,65	0
57	MG	1A	3713	1/1	0.96	0.05	36,36,36,36	0
57	MG	1A	3714	1/1	0.96	0.08	30,30,30,30	0
57	MG	1A	3448	1/1	0.96	0.09	17,17,17,17	0
57	MG	1A	3088	1/1	0.96	0.07	62,62,62,62	0
57	MG	1A	3143	1/1	0.96	0.10	29,29,29,29	0
57	MG	1A	3006	1/1	0.96	0.06	42,42,42,42	0
57	MG	1A	3115	1/1	0.96	0.16	21,21,21,21	0
57	MG	2A	3605	1/1	0.96	0.15	61,61,61,61	0
57	MG	1A	3116	1/1	0.96	0.07	30,30,30,30	0
57	MG	10	104	1/1	0.96	0.06	53,53,53,53	0
57	MG	2a	1745	1/1	0.96	0.14	63,63,63,63	0
57	MG	10	105	1/1	0.96	0.12	46,46,46,46	0
57	MG	2A	3609	1/1	0.96	0.09	40,40,40,40	0
57	MG	11	102	1/1	0.96	0.38	42,42,42,42	0
57	MG	2a	1749	1/1	0.96	0.13	63,63,63,63	0
57	MG	1A	3353	1/1	0.96	0.06	21,21,21,21	0
57	MG	2A	3365	1/1	0.96	0.11	45,45,45,45	0
57	MG	11	104	1/1	0.96	0.06	35,35,35,35	0
57	MG	1A	3150	1/1	0.96	0.19	46,46,46,46	0
57	MG	1A	3725	1/1	0.96	0.08	32,32,32,32	0
57	MG	2A	3616	1/1	0.96	0.09	50,50,50,50	0
57	MG	1A	3357	1/1	0.96	0.07	20,20,20,20	0
57	MG	2a	1757	1/1	0.96	0.04	52,52,52,52	0
57	MG	1A	3069	1/1	0.96	0.08	24,24,24,24	0
57	MG	1A	3199	1/1	0.96	0.14	40,40,40,40	0
57	MG	2A	3376	1/1	0.96	0.15	45,45,45,45	0
57	MG	1A	3202	1/1	0.96	0.40	31,31,31,31	0
57	MG	1A	3600	1/1	0.96	0.05	32,32,32,32	0
57	MG	1A	3118	1/1	0.96	0.18	45,45,45,45	0
57	MG	17	103	1/1	0.96	0.18	32,32,32,32	0
57	MG	1A	3737	1/1	0.96	0.09	33,33,33,33	0
57	MG	1A	3054	1/1	0.96	0.16	40,40,40,40	0
57	MG	1A	3207	1/1	0.96	0.09	17,17,17,17	0
57	MG	1a	1766	1/1	0.96	0.06	49,49,49,49	0
57	MG	2A	3630	1/1	0.96	0.06	51,51,51,51	0
57	MG	2A	3149	1/1	0.96	0.14	48,48,48,48	0
57	MG	1A	3120	1/1	0.96	0.15	41,41,41,41	0
57	MG	2a	1772	1/1	0.96	0.10	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2d	301	1/1	0.96	0.19	45,45,45,45	0
57	MG	1a	1768	1/1	0.96	0.06	42,42,42,42	0
57	MG	1A	3121	1/1	0.96	0.06	36,36,36,36	0
57	MG	1A	3369	1/1	0.96	0.06	12,12,12,12	0
57	MG	1A	3743	1/1	0.96	0.11	22,22,22,22	0
57	MG	1A	3608	1/1	0.96	0.13	57,57,57,57	0
57	MG	2k	202	1/1	0.96	0.06	72,72,72,72	0
57	MG	1a	1606	1/1	0.96	0.10	34,34,34,34	0
57	MG	1A	3213	1/1	0.96	0.11	29,29,29,29	0
57	MG	2A	3400	1/1	0.96	0.09	57,57,57,57	0
57	MG	1A	3071	1/1	0.96	0.19	48,48,48,48	0
57	MG	2w	401	1/1	0.96	0.06	38,38,38,38	0
57	MG	2A	3643	1/1	0.96	0.06	43,43,43,43	0
57	MG	2A	3644	1/1	0.96	0.07	60,60,60,60	0
57	MG	1A	3157	1/1	0.96	0.04	37,37,37,37	0
57	MG	1A	3478	1/1	0.96	0.08	65,65,65,65	0
57	MG	1A	3373	1/1	0.96	0.12	22,22,22,22	0
57	MG	1A	3217	1/1	0.96	0.12	38,38,38,38	0
57	MG	1A	3096	1/1	0.96	0.16	29,29,29,29	0
57	MG	2x	109	1/1	0.96	0.08	55,55,55,55	0
57	MG	1A	3499	1/1	0.97	0.06	25,25,25,25	0
57	MG	1A	3163	1/1	0.97	0.17	31,31,31,31	0
57	MG	1A	3165	1/1	0.97	0.07	29,29,29,29	0
57	MG	1A	3318	1/1	0.97	0.07	27,27,27,27	0
57	MG	1A	3625	1/1	0.97	0.15	30,30,30,30	0
57	MG	2A	3265	1/1	0.97	0.08	45,45,45,45	0
57	MG	1A	3166	1/1	0.97	0.05	15,15,15,15	0
57	MG	1A	3509	1/1	0.97	0.11	56,56,56,56	0
57	MG	2A	3268	1/1	0.97	0.07	60,60,60,60	0
57	MG	1A	3320	1/1	0.97	0.09	35,35,35,35	0
57	MG	1A	3208	1/1	0.97	0.04	29,29,29,29	0
57	MG	13	101	1/1	0.97	0.12	28,28,28,28	0
57	MG	2A	3487	1/1	0.97	0.18	48,48,48,48	0
57	MG	1A	3631	1/1	0.97	0.09	34,34,34,34	0
57	MG	2A	3088	1/1	0.97	0.10	59,59,59,59	0
57	MG	1A	3323	1/1	0.97	0.04	39,39,39,39	0
57	MG	1A	3755	1/1	0.97	0.08	21,21,21,21	0
57	MG	2A	3091	1/1	0.97	0.11	26,26,26,26	0
57	MG	1A	3137	1/1	0.97	0.09	27,27,27,27	0
57	MG	1A	3053	1/1	0.97	0.09	26,26,26,26	0
57	MG	2A	3094	1/1	0.97	0.11	49,49,49,49	0
57	MG	1A	3409	1/1	0.97	0.09	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3326	1/1	0.97	0.06	35,35,35,35	0
57	MG	2A	3097	1/1	0.97	0.10	54,54,54,54	0
57	MG	1A	3172	1/1	0.97	0.16	37,37,37,37	0
57	MG	2A	3100	1/1	0.97	0.10	36,36,36,36	0
57	MG	17	106	1/1	0.97	0.18	45,45,45,45	0
57	MG	2A	3102	1/1	0.97	0.07	48,48,48,48	0
57	MG	17	107	1/1	0.97	0.07	49,49,49,49	0
57	MG	1A	3008	1/1	0.97	0.13	22,22,22,22	0
57	MG	1A	3414	1/1	0.97	0.07	18,18,18,18	0
57	MG	2A	3506	1/1	0.97	0.07	48,48,48,48	0
57	MG	2a	1607	1/1	0.97	0.23	46,46,46,46	0
57	MG	2A	3507	1/1	0.97	0.06	38,38,38,38	0
57	MG	2A	3291	1/1	0.97	0.06	47,47,47,47	0
57	MG	19	101	1/1	0.97	0.09	29,29,29,29	0
57	MG	1A	3265	1/1	0.97	0.13	19,19,19,19	0
57	MG	1A	3079	1/1	0.97	0.13	33,33,33,33	0
57	MG	1A	3331	1/1	0.97	0.05	28,28,28,28	0
57	MG	1A	3526	1/1	0.97	0.06	38,38,38,38	0
57	MG	2A	3515	1/1	0.97	0.14	59,59,59,59	0
57	MG	1A	3530	1/1	0.97	0.14	46,46,46,46	0
57	MG	2a	1617	1/1	0.97	0.18	40,40,40,40	0
57	MG	1A	3332	1/1	0.97	0.14	10,10,10,10	0
57	MG	2A	3114	1/1	0.97	0.07	40,40,40,40	0
57	MG	1A	3080	1/1	0.97	0.11	11,11,11,11	0
57	MG	1A	3268	1/1	0.97	0.09	29,29,29,29	0
57	MG	2A	3521	1/1	0.97	0.09	34,34,34,34	0
57	MG	1A	3649	1/1	0.97	0.07	40,40,40,40	0
57	MG	1a	1610	1/1	0.97	0.07	37,37,37,37	0
57	MG	1A	3536	1/1	0.97	0.20	47,47,47,47	0
57	MG	1A	3269	1/1	0.97	0.23	40,40,40,40	0
57	MG	2a	1627	1/1	0.97	0.26	55,55,55,55	0
57	MG	2A	3308	1/1	0.97	0.06	47,47,47,47	0
57	MG	1A	3428	1/1	0.97	0.09	24,24,24,24	0
57	MG	2A	3122	1/1	0.97	0.12	51,51,51,51	0
57	MG	2A	3312	1/1	0.97	0.08	40,40,40,40	0
57	MG	2A	3123	1/1	0.97	0.06	41,41,41,41	0
57	MG	2a	1633	1/1	0.97	0.21	61,61,61,61	0
57	MG	1A	3653	1/1	0.97	0.13	36,36,36,36	0
57	MG	1A	3654	1/1	0.97	0.05	38,38,38,38	0
57	MG	1A	3429	1/1	0.97	0.05	20,20,20,20	0
57	MG	1A	3656	1/1	0.97	0.07	46,46,46,46	0
57	MG	1A	3657	1/1	0.97	0.03	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3540	1/1	0.97	0.05	19,19,19,19	0
57	MG	1A	3218	1/1	0.97	0.19	40,40,40,40	0
57	MG	1A	3338	1/1	0.97	0.06	19,19,19,19	0
57	MG	1A	3784	1/1	0.97	0.06	52,52,52,52	0
57	MG	1A	3176	1/1	0.97	0.30	27,27,27,27	0
57	MG	1A	3081	1/1	0.97	0.30	34,34,34,34	0
57	MG	1A	3002	1/1	0.97	0.09	46,46,46,46	0
57	MG	2A	3329	1/1	0.97	0.09	26,26,26,26	0
57	MG	2A	3330	1/1	0.97	0.08	49,49,49,49	0
57	MG	2A	3331	1/1	0.97	0.09	33,33,33,33	0
57	MG	1A	3547	1/1	0.97	0.07	22,22,22,22	0
57	MG	1A	3790	1/1	0.97	0.05	14,14,14,14	0
57	MG	2a	1651	1/1	0.97	0.18	45,45,45,45	0
57	MG	1A	3343	1/1	0.97	0.07	39,39,39,39	0
57	MG	1A	3144	1/1	0.97	0.05	38,38,38,38	0
57	MG	1A	3793	1/1	0.97	0.05	31,31,31,31	0
57	MG	1A	3551	1/1	0.97	0.14	29,29,29,29	0
57	MG	1A	3180	1/1	0.97	0.10	47,47,47,47	0
57	MG	1A	3348	1/1	0.97	0.05	22,22,22,22	0
57	MG	1A	3554	1/1	0.97	0.05	37,37,37,37	0
57	MG	1A	3349	1/1	0.97	0.06	23,23,23,23	0
57	MG	1A	3672	1/1	0.97	0.08	35,35,35,35	0
57	MG	2A	3344	1/1	0.97	0.06	38,38,38,38	0
57	MG	2A	3345	1/1	0.97	0.07	50,50,50,50	0
57	MG	1A	3067	1/1	0.97	0.14	40,40,40,40	0
57	MG	1A	3352	1/1	0.97	0.06	13,13,13,13	0
57	MG	1A	3104	1/1	0.97	0.08	21,21,21,21	0
57	MG	2A	3349	1/1	0.97	0.14	32,32,32,32	0
57	MG	1A	3183	1/1	0.97	0.16	38,38,38,38	0
57	MG	1A	3147	1/1	0.97	0.26	36,36,36,36	0
57	MG	1A	3563	1/1	0.97	0.06	16,16,16,16	0
57	MG	1A	3450	1/1	0.97	0.05	29,29,29,29	0
57	MG	2A	3355	1/1	0.97	0.06	31,31,31,31	0
57	MG	1A	3451	1/1	0.97	0.04	51,51,51,51	0
57	MG	2A	3357	1/1	0.97	0.17	50,50,50,50	0
57	MG	2A	3577	1/1	0.97	0.08	48,48,48,48	0
57	MG	2A	3156	1/1	0.97	0.11	43,43,43,43	0
57	MG	1A	3681	1/1	0.97	0.07	42,42,42,42	0
57	MG	2A	3158	1/1	0.97	0.12	33,33,33,33	0
57	MG	2A	3581	1/1	0.97	0.08	41,41,41,41	0
57	MG	2A	3361	1/1	0.97	0.07	41,41,41,41	0
57	MG	1A	3566	1/1	0.97	0.07	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1x	101	1/1	0.97	0.07	39,39,39,39	0
57	MG	1A	3567	1/1	0.97	0.11	52,52,52,52	0
57	MG	1A	3684	1/1	0.97	0.06	14,14,14,14	0
57	MG	1A	3228	1/1	0.97	0.17	36,36,36,36	0
57	MG	1A	3453	1/1	0.97	0.05	38,38,38,38	0
57	MG	1A	3057	1/1	0.97	0.11	26,26,26,26	0
57	MG	2A	3166	1/1	0.97	0.08	35,35,35,35	0
57	MG	2A	3167	1/1	0.97	0.17	41,41,41,41	0
57	MG	2a	1690	1/1	0.97	0.14	36,36,36,36	0
57	MG	1A	3125	1/1	0.97	0.04	19,19,19,19	0
57	MG	2A	3377	1/1	0.97	0.09	46,46,46,46	0
57	MG	2A	3169	1/1	0.97	0.24	44,44,44,44	0
57	MG	1A	3018	1/1	0.97	0.04	20,20,20,20	0
57	MG	1B	213	1/1	0.97	0.08	40,40,40,40	0
57	MG	2A	3597	1/1	0.97	0.10	48,48,48,48	0
57	MG	1A	3127	1/1	0.97	0.03	24,24,24,24	0
57	MG	2A	3004	1/1	0.97	0.14	34,34,34,34	0
57	MG	1A	3578	1/1	0.97	0.06	37,37,37,37	0
57	MG	2A	3385	1/1	0.97	0.10	41,41,41,41	0
57	MG	1A	3043	1/1	0.97	0.28	26,26,26,26	0
57	MG	2a	1702	1/1	0.97	0.12	65,65,65,65	0
57	MG	1A	3029	1/1	0.97	0.18	37,37,37,37	0
57	MG	1A	3460	1/1	0.97	0.08	26,26,26,26	0
57	MG	1A	3366	1/1	0.97	0.10	38,38,38,38	0
57	MG	1D	302	1/1	0.97	0.04	19,19,19,19	0
57	MG	2A	3180	1/1	0.97	0.16	56,56,56,56	0
57	MG	1D	303	1/1	0.97	0.09	33,33,33,33	0
57	MG	1A	3290	1/1	0.97	0.10	20,20,20,20	0
57	MG	2a	1710	1/1	0.97	0.11	42,42,42,42	0
57	MG	1D	306	1/1	0.97	0.17	35,35,35,35	0
57	MG	2A	3014	1/1	0.97	0.07	43,43,43,43	0
57	MG	2A	3398	1/1	0.97	0.05	27,27,27,27	0
57	MG	1A	3464	1/1	0.97	0.09	46,46,46,46	0
57	MG	1A	3465	1/1	0.97	0.09	47,47,47,47	0
57	MG	2A	3188	1/1	0.97	0.07	45,45,45,45	0
57	MG	1A	3292	1/1	0.97	0.10	25,25,25,25	0
57	MG	2A	3403	1/1	0.97	0.09	49,49,49,49	0
57	MG	2a	1719	1/1	0.97	0.09	70,70,70,70	0
57	MG	2A	3018	1/1	0.97	0.17	38,38,38,38	0
57	MG	1E	305	1/1	0.97	0.07	46,46,46,46	0
57	MG	2A	3020	1/1	0.97	0.06	25,25,25,25	0
57	MG	1A	3131	1/1	0.97	0.06	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3295	1/1	0.97	0.05	31,31,31,31	0
57	MG	1A	3062	1/1	0.97	0.08	31,31,31,31	0
57	MG	1A	3297	1/1	0.97	0.12	30,30,30,30	0
57	MG	2A	3625	1/1	0.97	0.13	65,65,65,65	0
57	MG	1F	303	1/1	0.97	0.06	30,30,30,30	0
57	MG	1A	3298	1/1	0.97	0.09	33,33,33,33	0
57	MG	1a	1678	1/1	0.97	0.04	47,47,47,47	0
57	MG	1F	305	1/1	0.97	0.17	34,34,34,34	0
57	MG	2A	3202	1/1	0.97	0.24	56,56,56,56	0
57	MG	1A	3240	1/1	0.97	0.10	16,16,16,16	0
57	MG	2A	3204	1/1	0.97	0.10	69,69,69,69	0
57	MG	1F	307	1/1	0.97	0.09	32,32,32,32	0
57	MG	1a	1682	1/1	0.97	0.04	39,39,39,39	0
57	MG	2a	1737	1/1	0.97	0.24	59,59,59,59	0
57	MG	1A	3473	1/1	0.97	0.08	52,52,52,52	0
57	MG	1A	3010	1/1	0.97	0.05	24,24,24,24	0
57	MG	1G	202	1/1	0.97	0.11	35,35,35,35	0
57	MG	1A	3711	1/1	0.97	0.10	48,48,48,48	0
57	MG	1A	3301	1/1	0.97	0.12	28,28,28,28	0
57	MG	1A	3158	1/1	0.97	0.14	29,29,29,29	0
57	MG	1A	3197	1/1	0.97	0.07	33,33,33,33	0
57	MG	2A	3642	1/1	0.97	0.08	46,46,46,46	0
57	MG	1A	3383	1/1	0.97	0.06	33,33,33,33	0
57	MG	1A	3134	1/1	0.97	0.12	27,27,27,27	0
57	MG	1A	3481	1/1	0.97	0.06	34,34,34,34	0
57	MG	1A	3718	1/1	0.97	0.06	42,42,42,42	0
57	MG	1a	1695	1/1	0.97	0.11	34,34,34,34	0
57	MG	1A	3482	1/1	0.97	0.11	37,37,37,37	0
57	MG	1A	3305	1/1	0.97	0.05	23,23,23,23	0
57	MG	2A	3224	1/1	0.97	0.10	48,48,48,48	0
57	MG	1A	3484	1/1	0.97	0.07	17,17,17,17	0
57	MG	1A	3605	1/1	0.97	0.04	25,25,25,25	0
57	MG	1Q	202	1/1	0.97	0.10	31,31,31,31	0
57	MG	2A	3228	1/1	0.97	0.33	54,54,54,54	0
57	MG	1A	3306	1/1	0.97	0.08	25,25,25,25	0
57	MG	1A	3307	1/1	0.97	0.12	40,40,40,40	0
57	MG	2A	3231	1/1	0.97	0.11	54,54,54,54	0
57	MG	1A	3389	1/1	0.97	0.08	21,21,21,21	0
57	MG	2A	3663	1/1	0.97	0.17	45,45,45,45	0
57	MG	2A	3664	1/1	0.97	0.06	37,37,37,37	0
57	MG	1R	201	1/1	0.97	0.12	31,31,31,31	0
57	MG	1R	202	1/1	0.97	0.28	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3091	1/1	0.97	0.13	27,27,27,27	0
57	MG	1A	3392	1/1	0.97	0.12	36,36,36,36	0
57	MG	1A	3200	1/1	0.97	0.06	33,33,33,33	0
57	MG	1A	3732	1/1	0.97	0.30	29,29,29,29	0
57	MG	2A	3061	1/1	0.97	0.10	47,47,47,47	0
57	MG	1U	205	1/1	0.97	0.19	30,30,30,30	0
57	MG	1A	3075	1/1	0.97	0.06	40,40,40,40	0
57	MG	1a	1719	1/1	0.97	0.11	37,37,37,37	0
57	MG	1A	3734	1/1	0.97	0.16	26,26,26,26	0
57	MG	1A	3735	1/1	0.97	0.13	42,42,42,42	0
57	MG	1W	201	1/1	0.97	0.23	41,41,41,41	0
57	MG	2D	302	1/1	0.97	0.14	32,32,32,32	0
57	MG	2A	3068	1/1	0.97	0.10	40,40,40,40	0
57	MG	2A	3249	1/1	0.97	0.19	39,39,39,39	0
57	MG	1A	3252	1/1	0.97	0.13	22,22,22,22	0
57	MG	2A	3251	1/1	0.97	0.06	40,40,40,40	0
57	MG	1W	203	1/1	0.97	0.17	27,27,27,27	0
57	MG	1W	204	1/1	0.97	0.06	40,40,40,40	0
57	MG	2A	3255	1/1	0.97	0.05	61,61,61,61	0
57	MG	1A	3495	1/1	0.97	0.05	44,44,44,44	0
57	MG	2E	302	1/1	0.97	0.16	44,44,44,44	0
57	MG	1A	3203	1/1	0.97	0.17	26,26,26,26	0
57	MG	2E	304	1/1	0.97	0.09	33,33,33,33	0
57	MG	2x	104	1/1	0.97	0.13	61,61,61,61	0
57	MG	2E	305	1/1	0.97	0.08	46,46,46,46	0
57	MG	2F	301	1/1	0.97	0.08	39,39,39,39	0
57	MG	1A	3254	1/1	0.97	0.07	36,36,36,36	0
57	MG	1A	3204	1/1	0.97	0.12	22,22,22,22	0
58	ZN	1n	102	1/1	0.97	0.04	97,97,97,97	0
58	ZN	2n	501	1/1	0.97	0.06	86,86,86,86	0
57	MG	2A	3223	1/1	0.98	0.04	31,31,31,31	0
57	MG	1A	3110	1/1	0.98	0.13	30,30,30,30	0
57	MG	1A	3160	1/1	0.98	0.04	37,37,37,37	0
57	MG	1a	1715	1/1	0.98	0.17	58,58,58,58	0
57	MG	1A	3462	1/1	0.98	0.06	8,8,8,8	0
57	MG	1A	3528	1/1	0.98	0.05	24,24,24,24	0
57	MG	1A	3529	1/1	0.98	0.06	37,37,37,37	0
57	MG	2A	3353	1/1	0.98	0.06	55,55,55,55	0
57	MG	1A	3074	1/1	0.98	0.15	21,21,21,21	0
57	MG	1A	3531	1/1	0.98	0.04	38,38,38,38	0
57	MG	1A	3351	1/1	0.98	0.04	30,30,30,30	0
57	MG	1A	3270	1/1	0.98	0.08	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3234	1/1	0.98	0.10	55,55,55,55	0
57	MG	1A	3237	1/1	0.98	0.08	27,27,27,27	0
57	MG	1A	3762	1/1	0.98	0.07	16,16,16,16	0
57	MG	1A	3535	1/1	0.98	0.06	36,36,36,36	0
57	MG	1A	3128	1/1	0.98	0.16	28,28,28,28	0
57	MG	1A	3311	1/1	0.98	0.05	45,45,45,45	0
57	MG	1A	3611	1/1	0.98	0.04	32,32,32,32	0
57	MG	1A	3210	1/1	0.98	0.05	27,27,27,27	0
57	MG	2A	3646	1/1	0.98	0.07	34,34,34,34	0
57	MG	1A	3614	1/1	0.98	0.17	53,53,53,53	0
57	MG	2A	3243	1/1	0.98	0.09	48,48,48,48	0
57	MG	2A	3649	1/1	0.98	0.03	35,35,35,35	0
57	MG	1A	3185	1/1	0.98	0.03	20,20,20,20	0
57	MG	2A	3373	1/1	0.98	0.07	44,44,44,44	0
57	MG	1A	3241	1/1	0.98	0.06	32,32,32,32	0
57	MG	2A	3653	1/1	0.98	0.06	33,33,33,33	0
57	MG	2A	3510	1/1	0.98	0.09	39,39,39,39	0
57	MG	1A	3276	1/1	0.98	0.15	29,29,29,29	0
57	MG	2A	3133	1/1	0.98	0.08	48,48,48,48	0
57	MG	1a	1635	1/1	0.98	0.10	24,24,24,24	0
57	MG	1A	3242	1/1	0.98	0.03	21,21,21,21	0
57	MG	1A	3363	1/1	0.98	0.06	12,12,12,12	0
57	MG	2A	3660	1/1	0.98	0.07	39,39,39,39	0
57	MG	1A	3243	1/1	0.98	0.11	31,31,31,31	0
57	MG	2a	1686	1/1	0.98	0.19	48,48,48,48	0
57	MG	2A	3252	1/1	0.98	0.06	36,36,36,36	0
57	MG	2A	3382	1/1	0.98	0.10	67,67,67,67	0
57	MG	2A	3030	1/1	0.98	0.17	41,41,41,41	0
57	MG	1A	3476	1/1	0.98	0.06	15,15,15,15	0
57	MG	1A	3694	1/1	0.98	0.11	22,22,22,22	0
57	MG	1A	3186	1/1	0.98	0.07	26,26,26,26	0
57	MG	1A	3548	1/1	0.98	0.07	28,28,28,28	0
57	MG	2A	3388	1/1	0.98	0.05	66,66,66,66	0
57	MG	1a	1742	1/1	0.98	0.12	69,69,69,69	0
57	MG	1A	3097	1/1	0.98	0.08	32,32,32,32	0
57	MG	1A	3698	1/1	0.98	0.09	25,25,25,25	0
57	MG	2A	3392	1/1	0.98	0.04	58,58,58,58	0
57	MG	1A	3367	1/1	0.98	0.04	35,35,35,35	0
57	MG	1A	3421	1/1	0.98	0.10	18,18,18,18	0
57	MG	1A	3164	1/1	0.98	0.12	37,37,37,37	0
57	MG	2A	3041	1/1	0.98	0.21	32,32,32,32	0
57	MG	1U	202	1/1	0.98	0.14	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3534	1/1	0.98	0.17	43,43,43,43	0
57	MG	1A	3628	1/1	0.98	0.10	34,34,34,34	0
57	MG	1A	3321	1/1	0.98	0.05	15,15,15,15	0
57	MG	1A	3786	1/1	0.98	0.05	22,22,22,22	0
57	MG	1A	3215	1/1	0.98	0.16	28,28,28,28	0
57	MG	1V	201	1/1	0.98	0.25	21,21,21,21	0
57	MG	2A	3541	1/1	0.98	0.07	57,57,57,57	0
57	MG	1A	3705	1/1	0.98	0.05	35,35,35,35	0
57	MG	1V	203	1/1	0.98	0.36	26,26,26,26	0
57	MG	1A	3427	1/1	0.98	0.06	31,31,31,31	0
57	MG	1V	205	1/1	0.98	0.17	25,25,25,25	0
57	MG	1A	3632	1/1	0.98	0.05	51,51,51,51	0
57	MG	1A	3556	1/1	0.98	0.07	16,16,16,16	0
57	MG	1A	3058	1/1	0.98	0.03	17,17,17,17	0
57	MG	2A	3549	1/1	0.98	0.08	33,33,33,33	0
57	MG	1A	3249	1/1	0.98	0.13	25,25,25,25	0
57	MG	2F	305	1/1	0.98	0.17	47,47,47,47	0
57	MG	1A	3559	1/1	0.98	0.06	14,14,14,14	0
57	MG	1X	103	1/1	0.98	0.07	24,24,24,24	0
57	MG	1a	1664	1/1	0.98	0.04	61,61,61,61	0
57	MG	1a	1765	1/1	0.98	0.05	58,58,58,58	0
57	MG	1A	3430	1/1	0.98	0.03	27,27,27,27	0
57	MG	1A	3099	1/1	0.98	0.05	30,30,30,30	0
57	MG	1A	3167	1/1	0.98	0.07	39,39,39,39	0
57	MG	1A	3376	1/1	0.98	0.05	28,28,28,28	0
57	MG	1A	3800	1/1	0.98	0.07	23,23,23,23	0
57	MG	1A	3168	1/1	0.98	0.08	48,48,48,48	0
57	MG	1A	3493	1/1	0.98	0.07	35,35,35,35	0
57	MG	2A	3290	1/1	0.98	0.07	45,45,45,45	0
57	MG	1A	3148	1/1	0.98	0.18	31,31,31,31	0
57	MG	2X	103	1/1	0.98	0.06	51,51,51,51	0
57	MG	2A	3425	1/1	0.98	0.05	37,37,37,37	0
57	MG	2A	3069	1/1	0.98	0.12	53,53,53,53	0
57	MG	1A	3719	1/1	0.98	0.13	43,43,43,43	0
57	MG	2A	3294	1/1	0.98	0.09	45,45,45,45	0
57	MG	2A	3429	1/1	0.98	0.07	33,33,33,33	0
57	MG	1A	3436	1/1	0.98	0.06	44,44,44,44	0
57	MG	2A	3571	1/1	0.98	0.12	46,46,46,46	0
57	MG	1A	3042	1/1	0.98	0.18	33,33,33,33	0
57	MG	1A	3291	1/1	0.98	0.06	23,23,23,23	0
57	MG	2A	3181	1/1	0.98	0.23	50,50,50,50	0
57	MG	2A	3575	1/1	0.98	0.05	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3381	1/1	0.98	0.07	39,39,39,39	0
57	MG	2A	3435	1/1	0.98	0.11	39,39,39,39	0
57	MG	1A	3025	1/1	0.98	0.07	39,39,39,39	0
57	MG	1A	3500	1/1	0.98	0.05	18,18,18,18	0
57	MG	2A	3302	1/1	0.98	0.05	40,40,40,40	0
57	MG	2A	3439	1/1	0.98	0.05	58,58,58,58	0
57	MG	1A	3502	1/1	0.98	0.04	38,38,38,38	0
57	MG	1A	3576	1/1	0.98	0.05	30,30,30,30	0
57	MG	1A	3729	1/1	0.98	0.09	35,35,35,35	0
57	MG	1A	3026	1/1	0.98	0.04	15,15,15,15	0
57	MG	17	101	1/1	0.98	0.09	32,32,32,32	0
57	MG	2A	3190	1/1	0.98	0.09	56,56,56,56	0
57	MG	17	102	1/1	0.98	0.15	34,34,34,34	0
57	MG	1A	3294	1/1	0.98	0.15	41,41,41,41	0
57	MG	2A	3311	1/1	0.98	0.09	30,30,30,30	0
57	MG	1A	3505	1/1	0.98	0.04	39,39,39,39	0
57	MG	2A	3313	1/1	0.98	0.12	37,37,37,37	0
57	MG	1A	3506	1/1	0.98	0.09	40,40,40,40	0
57	MG	2A	3315	1/1	0.98	0.04	31,31,31,31	0
57	MG	1A	3013	1/1	0.98	0.08	19,19,19,19	0
57	MG	2A	3454	1/1	0.98	0.10	37,37,37,37	0
57	MG	1a	1690	1/1	0.98	0.08	40,40,40,40	0
57	MG	2A	3318	1/1	0.98	0.11	22,22,22,22	0
57	MG	1A	3034	1/1	0.98	0.11	22,22,22,22	0
57	MG	1A	3092	1/1	0.98	0.07	27,27,27,27	0
57	MG	1A	3106	1/1	0.98	0.12	42,42,42,42	0
57	MG	1B	217	1/1	0.98	0.05	47,47,47,47	0
57	MG	2A	3462	1/1	0.98	0.07	36,36,36,36	0
57	MG	1A	3339	1/1	0.98	0.05	23,23,23,23	0
57	MG	1a	1696	1/1	0.98	0.15	54,54,54,54	0
57	MG	1a	1697	1/1	0.98	0.11	44,44,44,44	0
57	MG	1A	3391	1/1	0.98	0.14	46,46,46,46	0
57	MG	1a	1700	1/1	0.98	0.06	49,49,49,49	0
57	MG	1A	3201	1/1	0.98	0.06	31,31,31,31	0
57	MG	2A	3098	1/1	0.98	0.10	39,39,39,39	0
57	MG	1A	3262	1/1	0.98	0.18	37,37,37,37	0
57	MG	1A	3093	1/1	0.98	0.16	28,28,28,28	0
57	MG	1A	3517	1/1	0.98	0.07	41,41,41,41	0
57	MG	1x	105	1/1	0.98	0.06	60,60,60,60	0
57	MG	1A	3035	1/1	0.98	0.17	32,32,32,32	0
57	MG	2A	3213	1/1	0.98	0.15	52,52,52,52	0
57	MG	1A	3231	1/1	0.98	0.19	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3747	1/1	0.98	0.06	24,24,24,24	0
57	MG	1A	3397	1/1	0.98	0.04	36,36,36,36	0
57	MG	2A	3107	1/1	0.98	0.07	44,44,44,44	0
57	MG	1a	1710	1/1	0.98	0.06	29,29,29,29	0
57	MG	2x	107	1/1	0.98	0.05	76,76,76,76	0
57	MG	1A	3345	1/1	0.98	0.04	18,18,18,18	0
57	MG	2A	3003	1/1	0.98	0.05	23,23,23,23	0
57	MG	1A	3041	1/1	0.98	0.10	19,19,19,19	0
58	ZN	2Y	202	1/1	0.98	0.04	89,89,89,89	0
58	ZN	24	501	1/1	0.98	0.09	125,125,125,125	0
57	MG	2A	3222	1/1	0.98	0.04	37,37,37,37	0
59	SF4	2d	302	8/8	0.98	0.04	55,65,83,89	0
57	MG	1B	216	1/1	0.99	0.04	34,34,34,34	0
57	MG	1x	108	1/1	0.99	0.03	42,42,42,42	0
57	MG	1A	3384	1/1	0.99	0.03	16,16,16,16	0
57	MG	2A	3539	1/1	0.99	0.06	44,44,44,44	0
57	MG	1A	3114	1/1	0.99	0.22	45,45,45,45	0
57	MG	1A	3487	1/1	0.99	0.03	17,17,17,17	0
57	MG	1A	3356	1/1	0.99	0.07	20,20,20,20	0
57	MG	1A	3169	1/1	0.99	0.08	34,34,34,34	0
57	MG	2A	3333	1/1	0.99	0.05	38,38,38,38	0
57	MG	1A	3541	1/1	0.99	0.09	23,23,23,23	0
57	MG	1A	3333	1/1	0.99	0.03	23,23,23,23	0
57	MG	17	104	1/1	0.99	0.10	24,24,24,24	0
57	MG	1D	304	1/1	0.99	0.07	33,33,33,33	0
57	MG	1A	3570	1/1	0.99	0.05	37,37,37,37	0
57	MG	1A	3795	1/1	0.99	0.04	37,37,37,37	0
57	MG	1A	3446	1/1	0.99	0.08	19,19,19,19	0
57	MG	1A	3728	1/1	0.99	0.03	50,50,50,50	0
57	MG	1A	3012	1/1	0.99	0.03	22,22,22,22	0
57	MG	1E	304	1/1	0.99	0.07	16,16,16,16	0
57	MG	1A	3425	1/1	0.99	0.02	26,26,26,26	0
57	MG	1A	3574	1/1	0.99	0.09	34,34,34,34	0
57	MG	1A	3801	1/1	0.99	0.09	27,27,27,27	0
57	MG	2A	3558	1/1	0.99	0.04	29,29,29,29	0
57	MG	1A	3426	1/1	0.99	0.04	21,21,21,21	0
57	MG	1A	3374	1/1	0.99	0.04	27,27,27,27	0
57	MG	1A	3577	1/1	0.99	0.04	44,44,44,44	0
57	MG	1A	3521	1/1	0.99	0.08	31,31,31,31	0
57	MG	1A	3047	1/1	0.99	0.11	27,27,27,27	0
57	MG	1A	3347	1/1	0.99	0.05	37,37,37,37	0
57	MG	1X	102	1/1	0.99	0.03	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3056	1/1	0.99	0.09	19,19,19,19	0
57	MG	2A	3459	1/1	0.99	0.03	34,34,34,34	0
57	MG	1a	1699	1/1	0.99	0.03	38,38,38,38	0
57	MG	1A	3410	1/1	0.99	0.07	40,40,40,40	0
57	MG	1A	3078	1/1	0.99	0.06	32,32,32,32	0
57	MG	1a	1615	1/1	0.99	0.03	45,45,45,45	0
57	MG	1A	3527	1/1	0.99	0.03	32,32,32,32	0
57	MG	1A	3501	1/1	0.99	0.03	10,10,10,10	0
57	MG	1A	3233	1/1	0.99	0.36	30,30,30,30	0
57	MG	1A	3209	1/1	0.99	0.11	25,25,25,25	0
57	MG	1A	3745	1/1	0.99	0.06	30,30,30,30	0
57	MG	1a	1708	1/1	0.99	0.04	29,29,29,29	0
57	MG	1l	101	1/1	0.99	0.18	39,39,39,39	0
57	MG	2A	3367	1/1	0.99	0.04	53,53,53,53	0
57	MG	1A	3588	1/1	0.99	0.03	15,15,15,15	0
57	MG	1A	3289	1/1	0.99	0.07	14,14,14,14	0
57	MG	2A	3421	1/1	0.99	0.11	48,48,48,48	0
57	MG	1A	3748	1/1	0.99	0.05	19,19,19,19	0
57	MG	2A	3371	1/1	0.99	0.04	34,34,34,34	0
57	MG	2A	3372	1/1	0.99	0.04	38,38,38,38	0
58	ZN	1Y	501	1/1	0.99	0.03	56,56,56,56	0
58	ZN	14	501	1/1	0.99	0.08	107,107,107,107	0
58	ZN	15	105	1/1	0.99	0.02	38,38,38,38	0
58	ZN	16	102	1/1	0.99	0.03	42,42,42,42	0
57	MG	1A	3415	1/1	0.99	0.08	14,14,14,14	0
57	MG	1A	3437	1/1	0.99	0.03	14,14,14,14	0
57	MG	1A	3083	1/1	0.99	0.03	12,12,12,12	0
58	ZN	25	102	1/1	0.99	0.05	52,52,52,52	0
58	ZN	26	501	1/1	0.99	0.02	55,55,55,55	0
58	ZN	29	102	1/1	0.99	0.04	69,69,69,69	0
57	MG	1A	3354	1/1	0.99	0.07	13,13,13,13	0
59	SF4	1d	302	8/8	0.99	0.04	61,72,77,81	0
57	MG	2A	3043	1/1	0.99	0.04	39,39,39,39	0
57	MG	2A	3363	1/1	1.00	0.10	35,35,35,35	0
57	MG	1A	3440	1/1	1.00	0.07	17,17,17,17	0
58	ZN	19	102	1/1	1.00	0.02	39,39,39,39	0
57	MG	1A	3419	1/1	1.00	0.01	21,21,21,21	0
57	MG	1A	3612	1/1	1.00	0.01	18,18,18,18	0
57	MG	1A	3510	1/1	1.00	0.03	52,52,52,52	0

6.5 Other polymers [i](#)

There are no such residues in this entry.