



Full wwPDB X-ray Structure Validation Report ⓘ

Jun 1, 2020 – 12:57 pm BST

PDB ID : 6HHQ
Title : Crystal structure of compound C45 bound to the yeast 80S ribosome
Authors : Pellegrino, S.; Vanderwal, C.D.; Yusupov, M.
Deposited on : 2018-08-28
Resolution : 3.10 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 following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.11
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

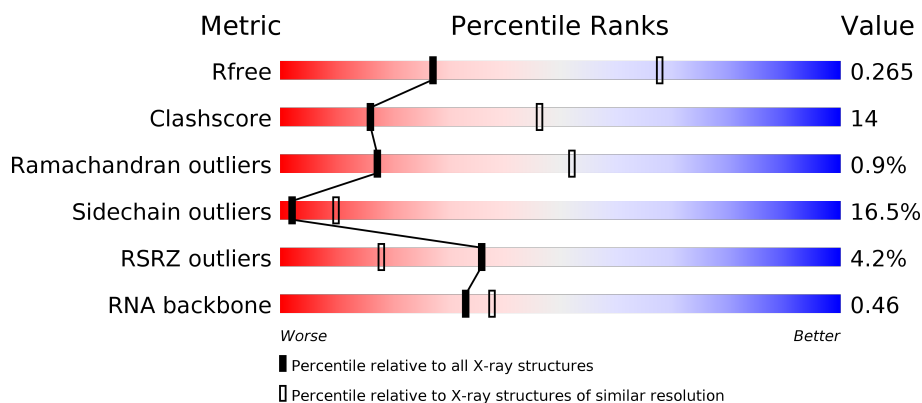
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 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.





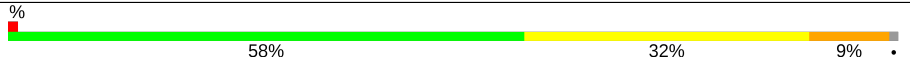
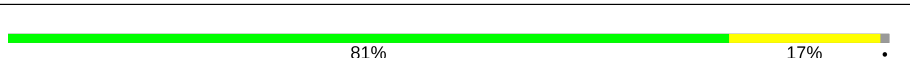

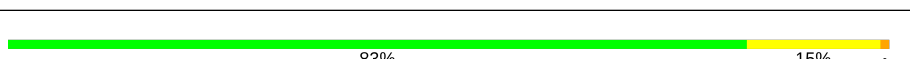
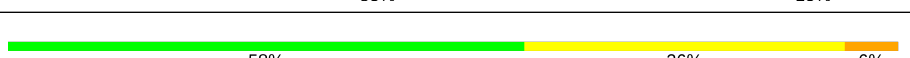
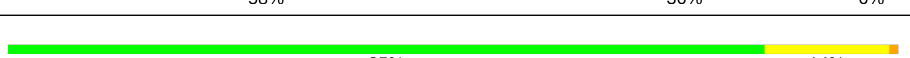
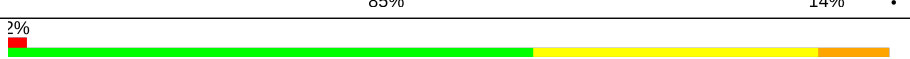

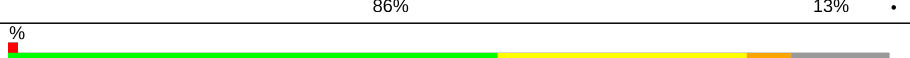







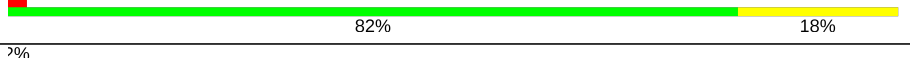
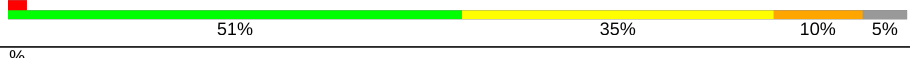

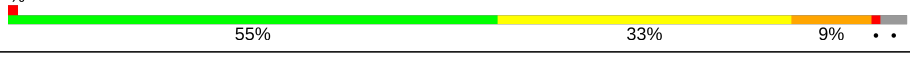



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1094 (3.10-3.10)
Clashscore	141614	1184 (3.10-3.10)
Ramachandran outliers	138981	1141 (3.10-3.10)
Sidechain outliers	138945	1141 (3.10-3.10)
RSRZ outliers	127900	1067 (3.10-3.10)
RNA backbone	3102	1116 (3.40-2.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on 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	1	3396	
1	AR	3396	
2	3	121	
2	AS	121	

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Mol	Chain	Length	Quality of chain
3	4	158	
3	AT	158	
4	CD	254	
4	j	254	
5	CE	387	
5	k	387	
6	CF	362	
6	l	362	
7	CG	297	
7	m	297	
8	CH	176	
8	n	176	
9	CI	244	
9	o	244	
10	CJ	256	
10	p	256	
11	CK	191	
11	q	191	
12	CL	221	
12	r	221	
13	CM	174	
13	s	174	
14	CN	199	
14	t	199	
15	CO	138	















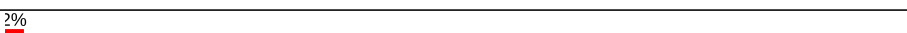




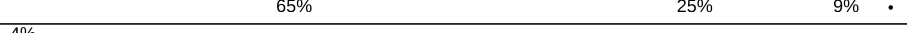





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Mol	Chain	Length	Quality of chain
15	u	138	
16	CP	204	
16	v	204	
17	CQ	199	
17	w	199	
18	CR	184	
18	x	184	
19	CS	186	
19	y	186	
20	CT	189	
20	z	189	
21	0	172	
21	CU	172	
22	2	160	
22	CV	160	
23	5	121	
23	CW	121	
24	6	137	
24	CX	137	
25	7	155	
25	CY	155	
26	8	142	
26	CZ	142	
27	9	127	
27	DA	127	




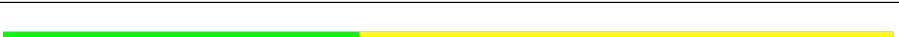
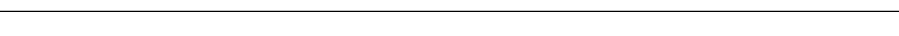
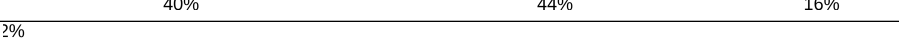
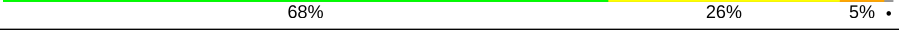




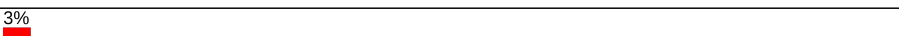

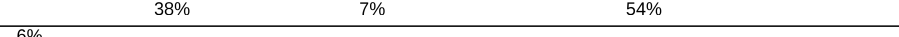

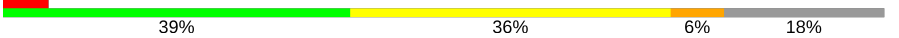



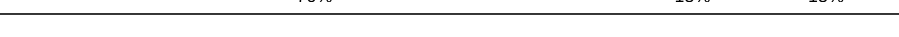





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Mol	Chain	Length	Quality of chain
28	AA	136	
28	DB	136	
29	AB	149	
29	DC	149	
30	AC	59	
30	DD	59	
31	AD	105	
31	DE	105	
32	AE	113	
32	DF	113	
33	AF	130	
33	DG	130	
34	AG	107	
34	DH	107	
35	AH	121	
35	DI	121	
36	AI	120	
36	DJ	120	
37	AJ	100	
37	DK	100	
38	AK	88	
38	DL	88	
39	AL	78	
39	DM	78	
40	AM	51	

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Mol	Chain	Length	Quality of chain
40	DN	51	
41	AN	128	
41	DO	128	
42	AO	25	
42	DP	25	
43	AP	106	
43	DQ	106	
44	AQ	92	
44	DR	92	
45	i	273	
45	sM	273	
46	p0	312	
47	A	1797	
48	B	252	
48	s0	252	
49	C	255	
49	s1	255	
50	D	254	
50	s2	254	
51	E	240	
51	s3	240	
52	F	261	
52	s4	261	
53	G	225	
53	s5	225	

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Mol	Chain	Length	Quality of chain
54	H	236	
54	s6	236	
55	I	190	
55	s7	190	
56	J	200	
56	s8	200	
57	K	197	
57	s9	197	
58	L	105	
58	c0	105	
59	M	156	
59	c1	156	
60	N	143	
60	c2	143	
61	O	151	
61	c3	151	
62	P	138	
62	c4	138	
63	Q	142	
63	c5	142	
64	R	143	
64	c6	143	
65	S	136	
65	c7	136	
66	T	146	



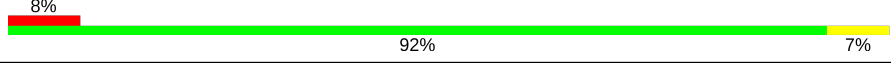
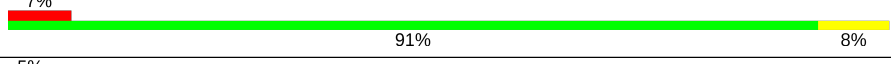

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Mol	Chain	Length	Quality of chain
66	c8	146	
67	U	144	
67	c9	144	
68	V	121	
68	d0	121	
69	W	87	
69	d1	87	
70	X	130	
70	d2	130	
71	Y	145	
71	d3	145	
72	Z	135	
72	d4	135	
73	a	108	
73	d5	108	
74	b	119	
74	d6	119	
75	c	82	
75	d7	82	
76	d	67	
76	d8	67	
77	d9	56	
77	e	56	
78	e0	63	
78	f	63	

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Mol	Chain	Length	Quality of chain
79	e1	152	
79	g	152	
80	Rb	319	
80	h	319	
81	sR	1800	

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
82	OHX	1	3405	-	-	X	-
82	OHX	1	3425	-	-	X	-
82	OHX	1	3467	-	-	X	-
82	OHX	1	3493	-	-	X	-
82	OHX	1	3505	-	-	X	-
82	OHX	1	3509	-	-	X	-
82	OHX	1	3537	-	-	X	-
82	OHX	1	3553	-	-	X	-
82	OHX	1	3562	-	-	X	-
82	OHX	1	3566	-	-	X	-
82	OHX	1	3577	-	-	X	-
82	OHX	1	3578	-	-	X	-
82	OHX	1	3588	-	-	X	-
82	OHX	1	3590	-	-	X	-
82	OHX	1	3617	-	-	X	-
82	OHX	1	3667	-	-	X	-
82	OHX	1	3673	-	-	X	-
82	OHX	1	3677	-	-	X	-
82	OHX	1	3681	-	-	X	-
82	OHX	1	3682	-	-	X	-
82	OHX	1	3683	-	-	X	-
82	OHX	1	3690	-	-	X	-
82	OHX	1	3697	-	-	X	-
82	OHX	1	3705	-	-	X	-
82	OHX	1	3719	-	-	X	-
82	OHX	1	3721	-	-	X	-
82	OHX	1	3722	-	-	X	-
82	OHX	1	3723	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
82	OHX	A	1809	-	-	X	-
82	OHX	A	1822	-	-	X	-
82	OHX	A	1853	-	-	X	-
82	OHX	A	1863	-	-	X	-
82	OHX	A	1867	-	-	X	-
82	OHX	A	1876	-	-	X	-
82	OHX	A	1886	-	-	X	-
82	OHX	A	1897	-	-	X	-
82	OHX	A	1920	-	-	X	-
82	OHX	A	1936	-	-	X	-
82	OHX	A	1941	-	-	X	-
82	OHX	AE	201	-	-	X	-
82	OHX	AK	102	-	-	X	-
82	OHX	AR	3443	-	-	X	-
82	OHX	AR	3458	-	-	X	-
82	OHX	AR	3463	-	-	X	-
82	OHX	AR	3479	-	-	X	-
82	OHX	AR	3486	-	-	X	-
82	OHX	AR	3503	-	-	X	-
82	OHX	AR	3504	-	-	X	-
82	OHX	AR	3513	-	-	X	-
82	OHX	AR	3523	-	-	X	-
82	OHX	AR	3526	-	-	X	-
82	OHX	AR	3530	-	-	X	-
82	OHX	AR	3536	-	-	X	-
82	OHX	AR	3538	-	-	X	-
82	OHX	AR	3558	-	-	X	-
82	OHX	AR	3569	-	-	X	-
82	OHX	AR	3584	-	-	X	-
82	OHX	AR	3593	-	-	X	-
82	OHX	AR	3597	-	-	X	-
82	OHX	AR	3598	-	-	X	-
82	OHX	AR	3683	-	-	X	-
82	OHX	AR	3691	-	-	X	-
82	OHX	AR	3692	-	-	X	-
82	OHX	AR	3693	-	-	X	-
82	OHX	AR	3696	-	-	X	-
82	OHX	AR	3709	-	-	X	-
82	OHX	AR	3723	-	-	X	-
82	OHX	AR	3725	-	-	X	-
82	OHX	AR	3728	-	-	X	-
82	OHX	AR	3736	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
82	OHX	AS	203	-	-	X	-
82	OHX	AS	209	-	-	X	-
82	OHX	AT	203	-	-	X	-
82	OHX	AT	212	-	-	X	-
82	OHX	AT	213	-	-	X	-
82	OHX	CF	401	-	-	X	-
82	OHX	CG	302	-	-	X	-
82	OHX	CL	301	-	-	X	-
82	OHX	DQ	502	-	-	X	-
83	MG	1	3728	-	-	-	X
83	MG	1	3731	-	-	-	X
83	MG	1	3780	-	-	-	X
83	MG	1	3803	-	-	-	X
83	MG	1	3828	-	-	-	X
83	MG	1	3931	-	-	-	X
83	MG	1	3958	-	-	-	X
83	MG	1	3962	-	-	-	X
83	MG	1	3992	-	-	-	X
83	MG	1	4008	-	-	-	X
83	MG	1	4029	-	-	-	X
83	MG	1	4136	-	-	-	X
83	MG	1	4143	-	-	-	X
83	MG	1	4158	-	-	-	X
83	MG	1	4205	-	-	-	X
83	MG	1	4210	-	-	-	X
83	MG	3	211	-	-	-	X
83	MG	3	217	-	-	-	X
83	MG	A	1946	-	-	-	X
83	MG	A	1954	-	-	-	X
83	MG	A	1961	-	-	-	X
83	MG	A	1962	-	-	-	X
83	MG	A	1969	-	-	-	X
83	MG	A	1988	-	-	-	X
83	MG	A	2001	-	-	-	X
83	MG	A	2005	-	-	-	X
83	MG	A	2010	-	-	-	X
83	MG	A	2012	-	-	-	X
83	MG	A	2018	-	-	-	X
83	MG	A	2021	-	-	-	X
83	MG	A	2025	-	-	-	X
83	MG	A	2058	-	-	-	X
83	MG	A	2061	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
83	MG	A	2062	-	-	-	X
83	MG	A	2068	-	-	-	X
83	MG	AR	3752	-	-	-	X
83	MG	AR	3794	-	-	-	X
83	MG	AR	3830	-	-	-	X
83	MG	AR	3895	-	-	-	X
83	MG	AR	3934	-	-	-	X
83	MG	AR	3953	-	-	-	X
83	MG	AR	3961	-	-	-	X
83	MG	AR	3969	-	-	-	X
83	MG	AR	3982	-	-	-	X
83	MG	AR	3994	-	-	-	X
83	MG	AR	4016	-	-	-	X
83	MG	AR	4062	-	-	-	X
83	MG	AR	4084	-	-	-	X
83	MG	AR	4089	-	-	-	X
83	MG	AR	4091	-	-	-	X
83	MG	AR	4105	-	-	-	X
83	MG	AR	4112	-	-	-	X
83	MG	AR	4113	-	-	-	X
83	MG	AR	4199	-	-	-	X
83	MG	AR	4222	-	-	-	X
83	MG	AR	4223	-	-	-	X
83	MG	AR	4235	-	-	-	X
83	MG	AR	4246	-	-	-	X
83	MG	AR	4260	-	-	-	X
83	MG	AT	225	-	-	-	X
83	MG	AT	228	-	-	-	X
83	MG	AT	230	-	-	-	X
83	MG	CD	301	-	-	-	X
83	MG	DA	201	-	-	-	X
83	MG	c6	201	-	-	-	X
83	MG	sR	2073	-	-	-	X
83	MG	sR	2079	-	-	-	X
83	MG	sR	2088	-	-	-	X
83	MG	sR	2107	-	-	-	X
83	MG	sR	2113	-	-	-	X
83	MG	sR	2128	-	-	-	X
83	MG	sR	2137	-	-	-	X
83	MG	sR	2154	-	-	-	X
83	MG	sR	2157	-	-	-	X
83	MG	sR	2159	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
83	MG	sR	2164	-	-	-	X
83	MG	sR	2180	-	-	-	X
83	MG	sR	2188	-	-	-	X
83	MG	sR	2189	-	-	-	X

2 Entry composition [i](#)

There are 86 unique types of molecules in this entry. The entry contains 409486 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 25S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1	3149	Total	C	N	O	P	0	0	0
			67355	30086	12142	21978	3149			
1	AR	3147	Total	C	N	O	P	0	0	0
			67313	30067	12134	21965	3147			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	3	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			
2	AS	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			

- Molecule 3 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	4	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			
3	AT	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			

- Molecule 4 is a protein called 60S ribosomal protein L2-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	j	252	Total	C	N	O	S	0	0	0
			1914	1191	388	334	1			
4	CD	252	Total	C	N	O	S	0	0	0
			1914	1191	388	334	1			

- Molecule 5 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	k	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			
5	CE	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			

- Molecule 6 is a protein called 60S ribosomal protein L4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	l	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			
6	CF	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			

- Molecule 7 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	m	296	Total	C	N	O	S	0	0	0
			2375	1501	414	458	2			
7	CG	296	Total	C	N	O	S	0	0	0
			2375	1501	414	458	2			

- Molecule 8 is a protein called 60S ribosomal protein L6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	n	156	Total	C	N	O	S	0	0	0
			1239	800	222	216	1			
8	CH	156	Total	C	N	O	S	0	0	0
			1239	800	222	216	1			

- Molecule 9 is a protein called 60S ribosomal protein L7-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	o	222	Total	C	N	O	S	0	0	0
			1784	1151	324	308	1			
9	CI	222	Total	C	N	O	S	0	0	0
			1784	1151	324	308	1			

- Molecule 10 is a protein called 60S ribosomal protein L8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	p	233	Total	C	N	O	S	0	0	0
			1804	1151	323	327	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CJ	233	Total	C	N	O	S	0	0	0
			1804	1151	323	327	3			

- Molecule 11 is a protein called 60S ribosomal protein L9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	q	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			
11	CK	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			

- Molecule 12 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	r	211	Total	C	N	O	S	0	0	0
			1705	1083	322	294	6			
12	CL	211	Total	C	N	O	S	0	0	0
			1705	1083	322	294	6			

- Molecule 13 is a protein called 60S ribosomal protein L11-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	s	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			
13	CM	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			

- Molecule 14 is a protein called 60S ribosomal protein L13-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	t	193	Total	C	N	O	0	0	0
			1543	962	315	266			
14	CN	193	Total	C	N	O	0	0	0
			1543	962	315	266			

- Molecule 15 is a protein called 60S ribosomal protein L14-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
15	u	136	Total	C	N	O	0	0	0
			1053	675	199	177			
15	CO	136	Total	C	N	O	0	0	0
			1053	675	199	177			

- Molecule 16 is a protein called 60S ribosomal protein L15-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	v	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			
16	CP	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			

- Molecule 17 is a protein called 60S ribosomal protein L16-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	w	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			
17	CQ	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			

- Molecule 18 is a protein called 60S ribosomal protein L17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	x	183	Total	C	N	O		0	0	0
			1420	882	281	257				
18	CR	183	Total	C	N	O		0	0	0
			1420	882	281	257				

- Molecule 19 is a protein called 60S ribosomal protein L18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	y	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			
19	CS	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			

- Molecule 20 is a protein called 60S ribosomal protein L19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	z	188	Total	C	N	O		0	0	0
			1521	935	326	260				
20	CT	188	Total	C	N	O		0	0	0
			1521	935	326	260				

- Molecule 21 is a protein called 60S ribosomal protein L20-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	0	172	Total	C	N	O	S	0	0	0
			1445	930	267	244	4			
21	CU	172	Total	C	N	O	S	0	0	0
			1445	930	267	244	4			

- Molecule 22 is a protein called 60S ribosomal protein L21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	2	159	Total	C	N	O	S	0	0	0
			1276	805	246	221	4			
22	CV	159	Total	C	N	O	S	0	0	0
			1276	805	246	221	4			

- Molecule 23 is a protein called 60S ribosomal protein L22-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	5	100	Total	C	N	O		0	0	0
			796	516	131	149				
23	CW	100	Total	C	N	O		0	0	0
			796	516	131	149				

- Molecule 24 is a protein called 60S ribosomal protein L23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	6	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			
24	CX	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			

- Molecule 25 is a protein called 60S ribosomal protein L24-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	7	98	Total	C	N	O	S	0	0	0
			699	443	137	118	1			
25	CY	124	Total	C	N	O	S	0	0	0
			836	525	166	144	1			

- Molecule 26 is a protein called 60S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	8	121	Total	C	N	O	S	0	0	0
			964	620	169	173	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	CZ	121	Total	C	N	O	S	0	0	0
			964	620	169	173	2			

- Molecule 27 is a protein called 60S ribosomal protein L26-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	9	126	Total	C	N	O		0	0	0
			993	625	192	176				
27	DA	124	Total	C	N	O		0	0	0
			976	614	190	172				

- Molecule 28 is a protein called 60S ribosomal protein L27-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	AA	135	Total	C	N	O		0	0	0
			1092	710	202	180				
28	DB	135	Total	C	N	O		0	0	0
			1092	710	202	180				

- Molecule 29 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	AB	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			
29	DC	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			

- Molecule 30 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	AC	58	Total	C	N	O		0	0	0
			462	289	100	73				
30	DD	58	Total	C	N	O		0	0	0
			462	289	100	73				

- Molecule 31 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	AD	97	Total	C	N	O	S	0	0	0
			743	479	124	139	1			
31	DE	97	Total	C	N	O	S	0	0	0
			743	479	124	139	1			

- Molecule 32 is a protein called 60S ribosomal protein L31-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	AE	109	Total	C	N	O	S	0	0	0
			876	556	167	152	1			
32	DF	109	Total	C	N	O	S	0	0	0
			876	556	167	152	1			

- Molecule 33 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	AF	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			
33	DG	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			

- Molecule 34 is a protein called 60S ribosomal protein L33-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	AG	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			
34	DH	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			

- Molecule 35 is a protein called 60S ribosomal protein L34-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	AH	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			
35	DI	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			

- Molecule 36 is a protein called 60S ribosomal protein L35-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	AI	119	Total	C	N	O	S	0	0	0
			969	615	186	167	1			
36	DJ	119	Total	C	N	O	S	0	0	0
			969	615	186	167	1			

- Molecule 37 is a protein called 60S ribosomal protein L36-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	AJ	99	Total	C	N	O	S	0	0	0
			771	481	156	132	2			
37	DK	99	Total	C	N	O	S	0	0	0
			771	481	156	132	2			

- Molecule 38 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	AK	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			
38	DL	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			

- Molecule 39 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	AL	77	Total	C	N	O		0	0	0
			612	391	115	106				
39	DM	77	Total	C	N	O		0	0	0
			612	391	115	106				

- Molecule 40 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	AM	50	Total	C	N	O	S	0	0	0
			436	272	97	65	2			
40	DN	50	Total	C	N	O	S	0	0	0
			436	272	97	65	2			

- Molecule 41 is a protein called Ubiquitin-60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	AN	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			
41	DO	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			

- Molecule 42 is a protein called 60S ribosomal protein L41-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	AO	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	DP	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			

- Molecule 43 is a protein called 60S ribosomal protein L42-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	AP	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			
43	DQ	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			

- Molecule 44 is a protein called 60S ribosomal protein L43-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	AQ	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			
44	DR	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			

- Molecule 45 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	i	159	Total	C	N	O	S	0	0	0
			1104	652	221	231				
45	sM	63	Total	C	N	O	S	0	0	0
			475	280	99	96				

- Molecule 46 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	p0	143	Total	C	N	O	S	0	0	0
			1076	686	192	195	3			

- Molecule 47 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	A	1781	Total	C	N	O	P	0	0	0
			37948	16965	6715	12487	1781			

- Molecule 48 is a protein called 40S ribosomal protein S0-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B	206	Total	C	N	O	S	0	0	0
			1577	1014	278	283	2			
48	s0	206	Total	C	N	O	S	0	0	0
			1583	1017	281	283	2			

- Molecule 49 is a protein called 40S ribosomal protein S1-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	C	214	Total	C	N	O	S	0	0	0
			1709	1084	310	311	4			
49	s1	216	Total	C	N	O	S	0	0	0
			1722	1091	312	315	4			

- Molecule 50 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	D	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			
50	s2	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			

- Molecule 51 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	E	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			
51	s3	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			

- Molecule 52 is a protein called 40S ribosomal protein S4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	F	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			
52	s4	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			

- Molecule 53 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	G	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	s5	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			

- Molecule 54 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	H	226	Total	C	N	O	S	0	0	0
			1799	1129	346	321	3			
54	s6	218	Total	C	N	O	S	0	0	0
			1755	1102	337	313	3			

- Molecule 55 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	I	184	Total	C	N	O	S	0	0	0
			1481	951	265	265				
55	s7	186	Total	C	N	O	S	0	0	0
			1491	957	267	267				

- Molecule 56 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	J	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			
56	s8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

- Molecule 57 is a protein called 40S ribosomal protein S9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	K	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			
57	s9	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			

- Molecule 58 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	L	96	Total	C	N	O	S	0	0	0
			772	499	126	145	2			
58	c0	96	Total	C	N	O	S	0	0	0
			761	490	125	144	2			

- Molecule 59 is a protein called 40S ribosomal protein S11-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
59	M	155	Total	C	N	O	S	0	0	0
			1213	774	230	206	3			
59	c1	146	Total	C	N	O	S	0	0	0
			1168	747	221	197	3			

- Molecule 60 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
60	N	124	Total	C	N	O	S	0	0	0
			890	560	156	172	2			
60	c2	124	Total	C	N	O	S	0	0	0
			890	560	156	172	2			

- Molecule 61 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
61	O	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			
61	c3	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			

- Molecule 62 is a protein called 40S ribosomal protein S14-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
62	P	127	Total	C	N	O	S	0	0	0
			891	545	182	163	1			
62	c4	128	Total	C	N	O	S	0	0	0
			949	582	188	176	3			

- Molecule 63 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
63	Q	124	Total	C	N	O	S	0	0	0
			977	622	182	166	7			
63	c5	135	Total	C	N	O	S	0	0	0
			1039	658	196	178	7			

- Molecule 64 is a protein called 40S ribosomal protein S16-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
64	R	141	Total	C	N	O	0	0	0
			1105	708	203	194			
64	c6	142	Total	C	N	O	0	0	0
			1111	711	204	196			

- Molecule 65 is a protein called 40S ribosomal protein S17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
65	S	120	Total	C	N	O	S	0	0	0
			926	577	177	170	2			
65	c7	117	Total	C	N	O	S	0	0	0
			906	563	174	167	2			

- Molecule 66 is a protein called 40S ribosomal protein S18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
66	T	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			
66	c8	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			

- Molecule 67 is a protein called 40S ribosomal protein S19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
67	U	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			
67	c9	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			

- Molecule 68 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
68	V	107	Total	C	N	O	S	0	0	0
			855	539	156	159	1			
68	d0	110	Total	C	N	O	S	0	0	0
			882	554	161	166	1			

- Molecule 69 is a protein called 40S ribosomal protein S21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
69	W	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
69	d1	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			

- Molecule 70 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
70	X	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			
70	d2	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			

- Molecule 71 is a protein called 40S ribosomal protein S23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
71	Y	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			
71	d3	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			

- Molecule 72 is a protein called 40S ribosomal protein S24-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
72	Z	134	Total	C	N	O	0	0	0
			1073	676	208	189			
72	d4	134	Total	C	N	O	0	0	0
			1073	676	208	189			

- Molecule 73 is a protein called 40S ribosomal protein S25-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
73	a	70	Total	C	N	O	0	0	0
			563	360	104	99			
73	d5	69	Total	C	N	O	0	0	0
			558	357	103	98			

- Molecule 74 is a protein called 40S ribosomal protein S26-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
74	b	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			
74	d6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			

- Molecule 75 is a protein called 40S ribosomal protein S27-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
75	c	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			
75	d7	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			

- Molecule 76 is a protein called 40S ribosomal protein S28-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
76	d	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			
76	d8	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			

- Molecule 77 is a protein called 40S ribosomal protein S29-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
77	e	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			
77	d9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			

- Molecule 78 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
78	f	60	Total	C	N	O	S	0	0	0
			475	299	98	77	1			
78	e0	62	Total	C	N	O	S	0	0	0
			491	309	101	80	1			

- Molecule 79 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
79	g	71	Total	C	N	O	S	0	0	0
			566	362	106	94	4			
79	e1	51	Total	C	N	O	S	0	0	0
			397	249	73	71	4			

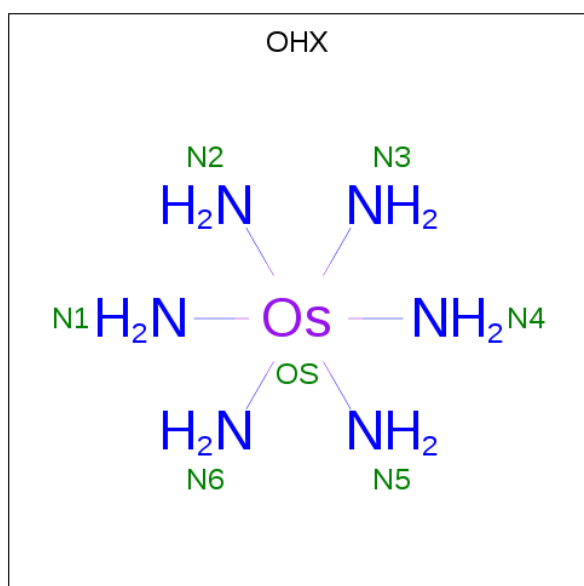
- Molecule 80 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
80	h	318	Total	C	N	O	S	0	0	0
			2437	1541	418	470	8			
80	Rb	318	Total	C	N	O	S	0	0	0
			2442	1544	418	472	8			

- Molecule 81 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
81	sR	1783	Total	C	N	O	P	0	0	0
			37990	16984	6723	12500	1783			

- Molecule 82 is osmium (III) hexammine (three-letter code: OHX) (formula: $\text{H}_{12}\text{N}_6\text{Os}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	1	1	Total	N	Os	0	0
			7	6	1		
82	1	1	Total	N	Os	0	0
			7	6	1		
82	1	1	Total	N	Os	0	0
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82	1	1	Total	N	Os	0	0
			7	6	1		
82	1	1	Total	N	Os	0	0
			7	6	1		
82	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	1	1	Total	N	Os	0	0
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82	1	1	Total	N	Os	0	0
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82	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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82	4	1	Total	N	Os	0	0
			7	6	1		
82	4	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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82	4	1	Total 7	N 6	Os 1	0	0
82	4	1	Total 7	N 6	Os 1	0	0
82	4	1	Total 7	N 6	Os 1	0	0
82	k	1	Total 7	N 6	Os 1	0	0
82	l	1	Total 7	N 6	Os 1	0	0
82	n	1	Total 7	N 6	Os 1	0	0
82	r	1	Total 7	N 6	Os 1	0	0
82	v	1	Total 7	N 6	Os 1	0	0
82	v	1	Total 7	N 6	Os 1	0	0
82	w	1	Total 7	N 6	Os 1	0	0
82	x	1	Total 7	N 6	Os 1	0	0
82	y	1	Total 7	N 6	Os 1	0	0
82	z	1	Total 7	N 6	Os 1	0	0
82	2	1	Total 7	N 6	Os 1	0	0
82	AC	1	Total 7	N 6	Os 1	0	0
82	AE	1	Total 7	N 6	Os 1	0	0
82	AG	1	Total 7	N 6	Os 1	0	0
82	AK	1	Total 7	N 6	Os 1	0	0
82	AK	1	Total 7	N 6	Os 1	0	0
82	AP	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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82	AR	1	Total	N	Os	0	0
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82	AR	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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82	AR	1	Total	N	Os	0	0
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82	AR	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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82	AR	1	Total	N	Os	0	0
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82	AR	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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82	AR	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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82	AR	1	Total	N	Os	0	0
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82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
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82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AS	1	Total	N	Os	0	0
			7	6	1		
82	AS	1	Total	N	Os	0	0
			7	6	1		
82	AS	1	Total	N	Os	0	0
			7	6	1		
82	AS	1	Total	N	Os	0	0
			7	6	1		
82	AS	1	Total	N	Os	0	0
			7	6	1		
82	AS	1	Total	N	Os	0	0
			7	6	1		
82	AS	1	Total	N	Os	0	0
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82	AS	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
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82	AT	1	Total	N	Os	0	0
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82	AT	1	Total	N	Os	0	0
			7	6	1		
82	AT	1	Total	N	Os	0	0
			7	6	1		
82	CE	1	Total	N	Os	0	0
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82	CE	1	Total	N	Os	0	0
			7	6	1		
82	CF	1	Total	N	Os	0	0
			7	6	1		
82	CG	1	Total	N	Os	0	0
			7	6	1		
82	CG	1	Total	N	Os	0	0
			7	6	1		
82	CG	1	Total	N	Os	0	0
			7	6	1		
82	CH	1	Total	N	Os	0	0
			7	6	1		
82	CK	1	Total	N	Os	0	0
			7	6	1		
82	CL	1	Total	N	Os	0	0
			7	6	1		
82	CL	1	Total	N	Os	0	0
			7	6	1		
82	CM	1	Total	N	Os	0	0
			7	6	1		
82	CO	1	Total	N	Os	0	0
			7	6	1		
82	CP	1	Total	N	Os	0	0
			7	6	1		
82	CQ	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	CS	1	Total	Os		0	0
			1	1			
82	CX	1	Total	N	Os	0	0
			7	6	1		
82	CX	1	Total	N	Os	0	0
			7	6	1		
82	DD	1	Total	N	Os	0	0
			7	6	1		
82	DG	1	Total	N	Os	0	0
			7	6	1		
82	DH	1	Total	N	Os	0	0
			7	6	1		
82	DQ	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
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82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
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82	A	1	Total	N	Os	0	0
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82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		
82	A	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	A	1	Total 7	N 6	Os 1	0	0
82	A	1	Total 7	N 6	Os 1	0	0
82	J	1	Total 7	N 6	Os 1	0	0
82	J	1	Total 7	N 6	Os 1	0	0
82	O	1	Total 7	N 6	Os 1	0	0
82	Q	1	Total 7	N 6	Os 1	0	0
82	T	1	Total 7	N 6	Os 1	0	0
82	e	1	Total 7	N 6	Os 1	0	0
82	h	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0
82	sR	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
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82	sR	1	Total	N	Os	0	0
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82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
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82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	Rb	1	Total	N	Os	0	0
			7	6	1		
82	s1	1	Total	N	Os	0	0
			7	6	1		
82	s4	1	Total	N	Os	0	0
			7	6	1		
82	s8	1	Total	N	Os	0	0
			7	6	1		
82	c1	1	Total	N	Os	0	0
			7	6	1		
82	c3	1	Total	N	Os	0	0
			7	6	1		
82	c5	1	Total	N	Os	0	0
			7	6	1		
82	c8	1	Total	N	Os	0	0
			7	6	1		
82	d4	1	Total	N	Os	0	0
			7	6	1		
82	d9	1	Total	N	Os	0	0
			7	6	1		

- Molecule 83 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
83	AP	1	Total 1	Mg 1	0	0
83	AK	2	Total 2	Mg 2	0	0
83	DQ	3	Total 3	Mg 3	0	0
83	AB	8	Total 8	Mg 8	0	0
83	c6	1	Total 1	Mg 1	0	0
83	6	3	Total 3	Mg 3	0	0
83	DO	1	Total 1	Mg 1	0	0
83	sM	2	Total 2	Mg 2	0	0
83	d5	1	Total 1	Mg 1	0	0
83	t	3	Total 3	Mg 3	0	0
83	d9	1	Total 1	Mg 1	0	0
83	CD	3	Total 3	Mg 3	0	0
83	CR	8	Total 8	Mg 8	0	0
83	o	1	Total 1	Mg 1	0	0
83	DR	2	Total 2	Mg 2	0	0
83	DC	4	Total 4	Mg 4	0	0
83	AS	19	Total 19	Mg 19	0	0
83	DH	1	Total 1	Mg 1	0	0
83	J	1	Total 1	Mg 1	0	0
83	c9	1	Total 1	Mg 1	0	0
83	k	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
83	CO	1	Total 1	Mg 1	0	0
83	CU	2	Total 2	Mg 2	0	0
83	b	1	Total 1	Mg 1	0	0
83	e	1	Total 1	Mg 1	0	0
83	DL	1	Total 1	Mg 1	0	0
83	CY	1	Total 1	Mg 1	0	0
83	w	1	Total 1	Mg 1	0	0
83	c8	1	Total 1	Mg 1	0	0
83	CK	3	Total 3	Mg 3	0	0
83	CQ	2	Total 2	Mg 2	0	0
83	x	5	Total 5	Mg 5	0	0
83	sR	154	Total 154	Mg 154	0	0
83	AR	523	Total 523	Mg 523	0	0
83	d6	1	Total 1	Mg 1	0	0
83	F	1	Total 1	Mg 1	0	0
83	s	1	Total 1	Mg 1	0	0
83	DI	1	Total 1	Mg 1	0	0
83	AM	1	Total 1	Mg 1	0	0
83	j	2	Total 2	Mg 2	0	0
83	1	499	Total 499	Mg 499	0	0
83	D	1	Total 1	Mg 1	0	0

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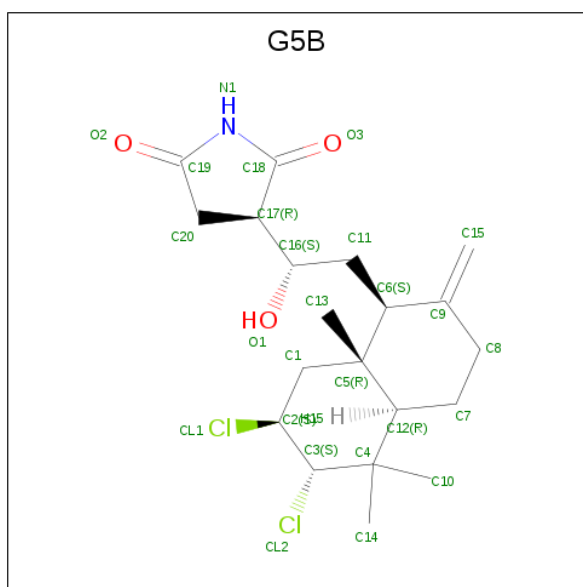
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
83	DD	1	Total 1	Mg 1	0	0
83	c4	1	Total 1	Mg 1	0	0
83	CM	1	Total 1	Mg 1	0	0
83	s2	1	Total 1	Mg 1	0	0
83	d3	3	Total 3	Mg 3	0	0
83	c1	2	Total 2	Mg 2	0	0
83	v	5	Total 5	Mg 5	0	0
83	CJ	1	Total 1	Mg 1	0	0
83	A	129	Total 129	Mg 129	0	0
83	CP	4	Total 4	Mg 4	0	0
83	4	23	Total 23	Mg 23	0	0
83	DA	2	Total 2	Mg 2	0	0
83	O	1	Total 1	Mg 1	0	0
83	r	2	Total 2	Mg 2	0	0
83	9	1	Total 1	Mg 1	0	0
83	CF	2	Total 2	Mg 2	0	0
83	CX	3	Total 3	Mg 3	0	0
83	AG	1	Total 1	Mg 1	0	0
83	DE	1	Total 1	Mg 1	0	0
83	Y	1	Total 1	Mg 1	0	0
83	s1	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
83	AH	1	Total 1 Mg 1	0	0
83	DP	1	Total 1 Mg 1	0	0
83	s8	2	Total 2 Mg 2	0	0
83	CI	2	Total 2 Mg 2	0	0
83	d4	3	Total 3 Mg 3	0	0
83	H	1	Total 1 Mg 1	0	0
83	z	1	Total 1 Mg 1	0	0
83	DN	1	Total 1 Mg 1	0	0
83	AT	15	Total 15 Mg 15	0	0
83	CL	1	Total 1 Mg 1	0	0
83	s4	1	Total 1 Mg 1	0	0
83	CE	3	Total 3 Mg 3	0	0
83	CG	3	Total 3 Mg 3	0	0
83	1	3	Total 3 Mg 3	0	0
83	3	13	Total 13 Mg 13	0	0
83	AF	2	Total 2 Mg 2	0	0

- Molecule 84 is (3 {R})-3-[(1 {S})-2-[(1 {S},4 {a} {R}),6 {S},7 {S},8 {a} {R})-6,7-bis(chloranyl)-5,5,8 {a}-trimethyl-2-methylidene-3,4,4 {a},6,7,8-hexahydro-1 {H}-naphthalen-1-yl]-1-oxidanyl-ethyl]pyrrolidine-2,5-dione (three-letter code: G5B) (formula: C₂₀H₂₉Cl₂NO₃).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
84	1	1	Total	C	Cl	N	O	
			26	20	2	1	3	0
84	AR	1	Total	C	Cl	N	O	
			26	20	2	1	3	0

- Molecule 85 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	AP	1	Total	Zn	0	0
			1	1		
85	g	1	Total	Zn	0	0
			1	1		
85	AQ	1	Total	Zn	0	0
			1	1		
85	AK	1	Total	Zn	0	0
			1	1		
85	DQ	1	Total	Zn	0	0
			1	1		
85	e	1	Total	Zn	0	0
			1	1		
85	b	1	Total	Zn	0	0
			1	1		
85	e1	1	Total	Zn	0	0
			1	1		
85	c	1	Total	Zn	0	0
			1	1		
85	DL	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	d9	1	Total	Zn	0	0
			1	1		
85	DR	1	Total	Zn	0	0
			1	1		
85	DO	1	Total	Zn	0	0
			1	1		
85	AN	1	Total	Zn	0	0
			1	1		
85	d7	1	Total	Zn	0	0
			1	1		
85	d6	1	Total	Zn	0	0
			1	1		

- Molecule 86 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).

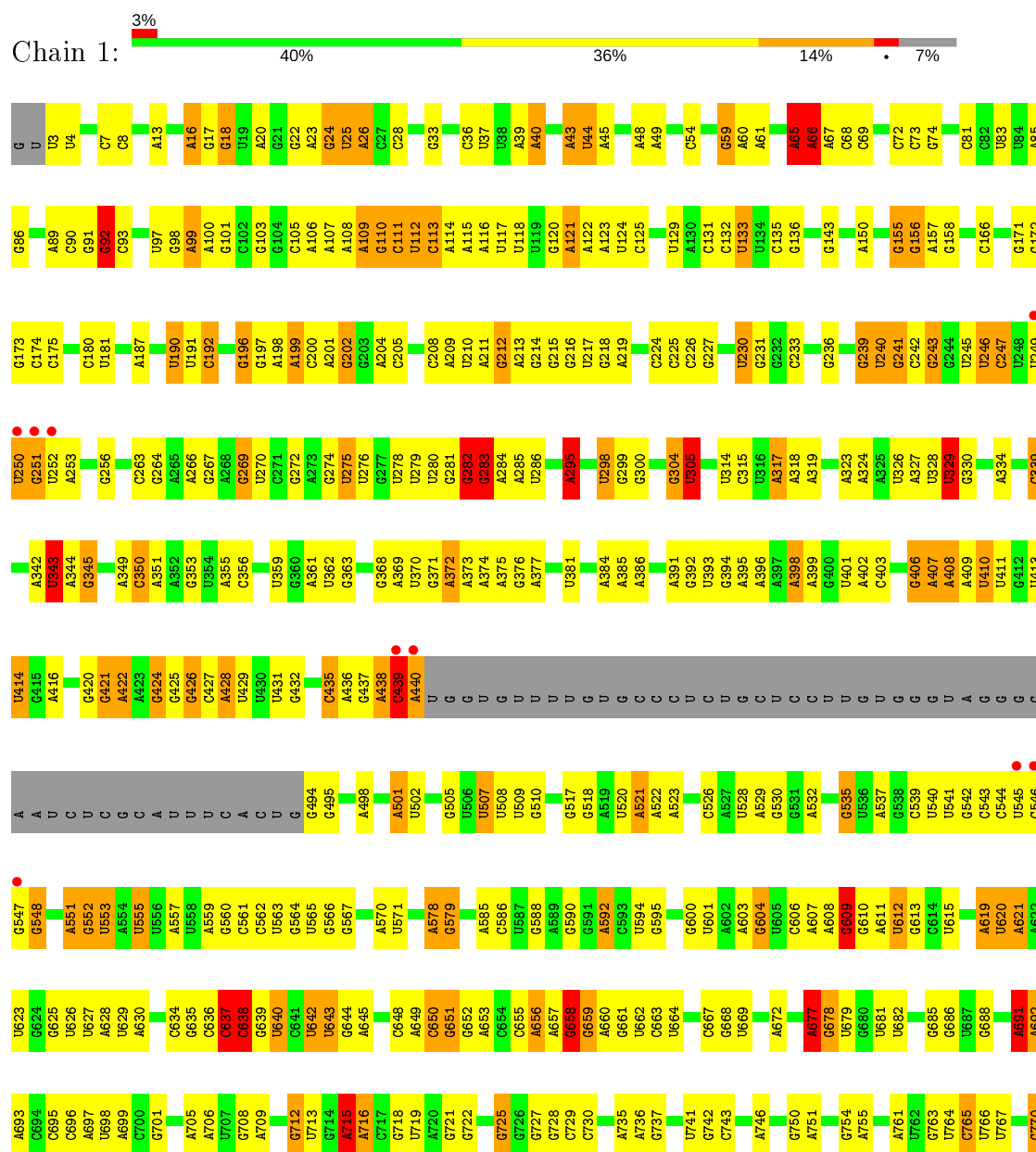


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	AR	1	Total	C	O	0	0
			6	3	3		
86	AR	1	Total	C	O	0	0
			6	3	3		

3 Residue-property plots

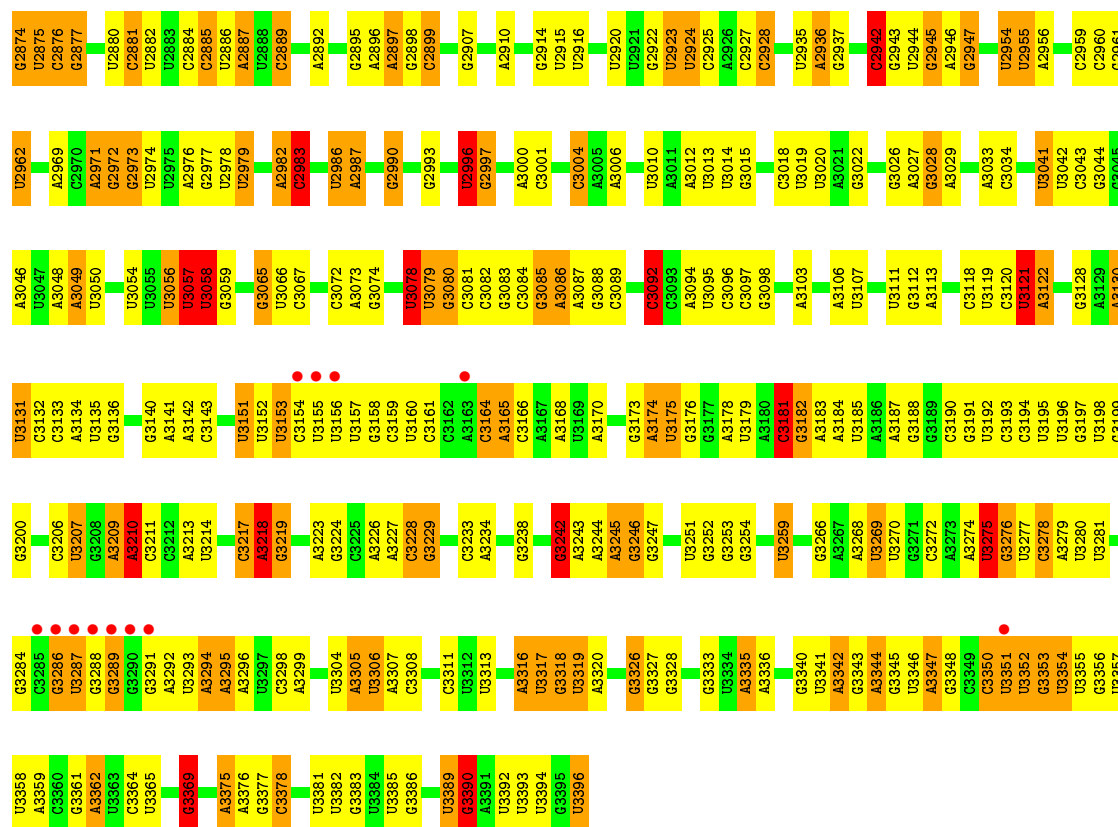
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are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

- Molecule 1: 25S ribosomal RNA

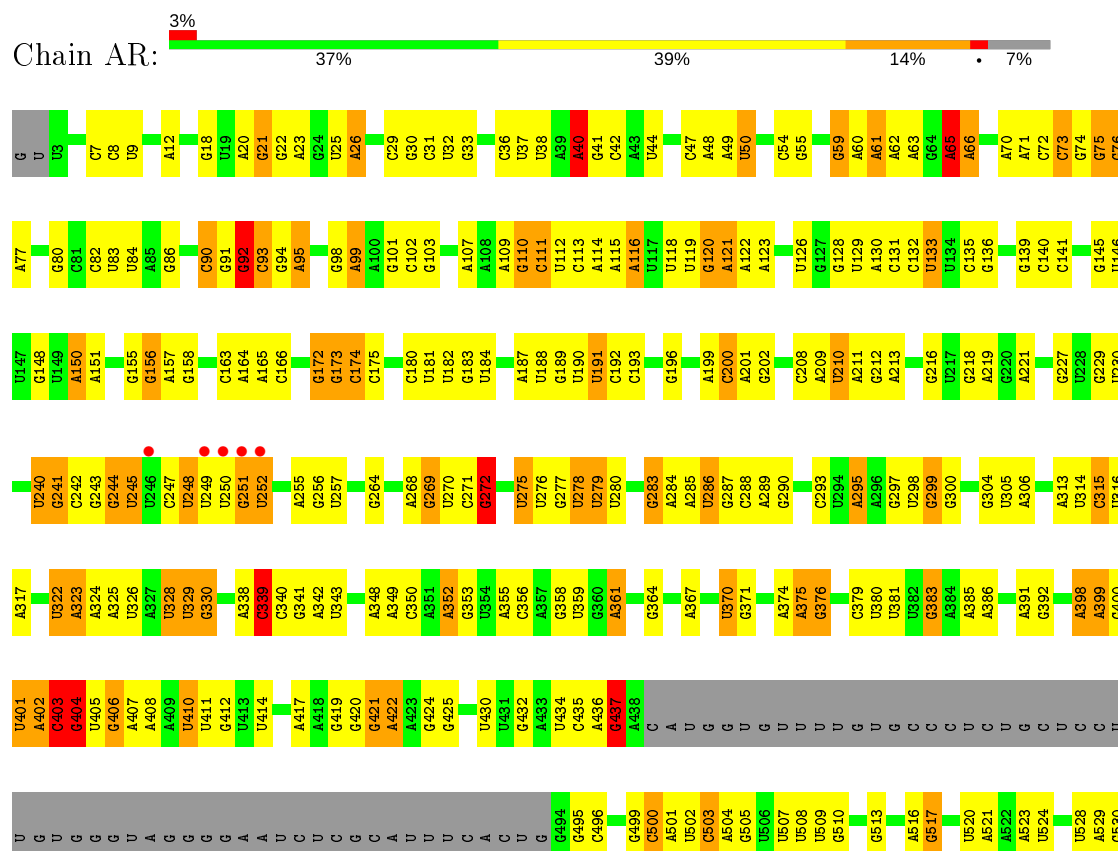


G1754	G1675	A1589	G1434	G1362	G1283	U1220	C1146	U1073	G999	A929	A847	A771
G1759	A1676	G1590	A1435	G1362	C1284	A1221	G1147	U1081	C1000	U930	A848	U772
A1760	G1680	G1591	U1436	A1363	G1285	G1222	G1148	U1082	A1001	C931	C849	G773
C1761	U1681	G1592	G1437	C1364	A1286	A1225	U1151	G1083	A1002	U932		U776
U1762	U1682	A1593	U1438	A1365	G1286	A1226	U1152	A1084	A1003	G933	A858	U777
U1763	A1683	U1595	U1439	A1366	C1287	C1227	A1153	G1087	U1004	G934	G859	
U1764	A1683	C1596	G1440	G1367	U1282	C1228			G1005	U935	G860	A780
U1765	U1688	C1597	G1443	A1368	U1283	G1229	G1157		A1006	G936	C861	G781
G1766	U1689	G1598	A1446	G1370	A1294	G1230	A1158	G1090	G1010	G937	G862	G782
G1767		G1599	A1446	G1371	G1295	A1231	A1159	A1091		U938	G863	A783
G1768	U1694		G1450	A1372	G1297	C1232	G1160	G1092	U1014	U942	G864	A784
G1769	U1695		G1450	A1373	C1298	C1233	G1161	A1093	U1015	U943	G865	G785
G1770	A1696		A1453	G1374	U1299	G1234	U1162	U1094	C1016	U944	A866	A786
G1775	C1697		A1453	G1375	U1300	U1235	G1166	U1095	C1017	U945	G867	
U1776	A1698		A1454	C1376	A1301	G1236		A1096	G1018	G946	U871	G788
U1777	A1698		U1455	G1377	A1302	G1237		G1097	G1019	U947	U872	A789
	G1701			U1378	A1303	C1238	A1169	A1098	G1020	U948	G873	U790
	U1702		A1460	U1378	A1304	C1239	A1170	A1099	G1021	C948	U874	A791
G1780	U1703		A1461	U1384	U1305	A1240	A1171	U1100			U874	G792
U1785		A1613	A1461	C1385	U1306	A1241	G1172	U1101	G1024	G953		G793
G1786	C1706	C1614	A1462	A1386	G1307	G1242	U1173	A1102	A1025	U954	G878	U794
A1787	A1707	C1615	G1464	G1387	A1308	G1243	G1174	A1103	A1026	U955	U879	G795
G1788	G1713			U1388	U1309	A1244	G1175	G1104	A1027	U956	G880	U796
G1789		G1618	A1468	G1389	G1310	A1245	G1176		U1028	C957		U797
G1790	U1716	A1619	A1475	A1390	G1313	G1246	G1177	U1108	G1029	C958	G887	
C1791	U1717	A1620	A1475	C1391	G1314	U1247	G1178	U1109	A1030	C959		C802
C1792	G1718	A1621	C1478	G1392	U1315	U1248	A1179	U1110	U1109	U960	C890	C803
C1793	G1719	G1624	G1478	G1392	U1316	G1249	U1180	U1111	U1033	C961		C804
G1794			G1480	U1393	G1317	G1250	U1181	A1112	U1034	A895	A895	G805
U1795	U1724	U1629	A1481	A1399	C1320	A1251	U1182	U1113	G1035	G963	A896	A806
G1796	C1725	U1630	A1482	A1401	U1321	U1252		U1114	A1036	C964	G897	A807
A1797	C1726	A1631	G1483	A1402	U1322	C1254	U1191	G1115	U1039	U966	U898	A808
A1798	G1727	A1632	G1484	A1403	U1323	G1255	C1192	G1116	A1040	C966	U899	G809
A1799	G1728	C1633	G1485	A1404	U1324	G1256	A1193	G1117	U1041	G968	G900	A810
	A1729	G1634	G1486	G1405	C1327	C1257	G1194	G1118	U1042	G969	G901	U811
G1807	G1730	G1635	G1487	A1406	U1328	U1258	C1195	A1120	C1043	U970		G812
G1808	A1731	U1636	G1488	A1407	C1329	A1259	A1196	U1121	U1044	A904	G815	
A1809	U1732	A1637	A1489	G1408	U1330	A1260	C1197	G1122	C1045	U905	A816	
A1810	G1733	A1638	A1490	G1409	U1331	G1261	A1198	G1123	A1046	C975	A817	C818
A1811	G1734	C1639	A1491	G1412	A1332	A1262	C1199	U1128	A1048	G977	G908	
A1812	G1735	G1640	G1492	G1413	U1333	G1264	A1200	A1129	C1049	G978	U821	
A1813	G1736		U1493	G1414	U1336	U1265	C1201	U1130	U1052	G979		
A1814	U1737	A1643	U1494	G1415	A1337	G1266	A1202	A1130	A1053	U980	U829	
U1815	C1738	C1644	U1495	U1416	U1337	U1267	A1203	A1131	A1054	U981	A913	
A1816	U1739	U1645	C1496	G1417	U1340	G1268	A1204	G1132	A1055	C982	A914	A830
A1817	U1740	G1646	C1497	A1418	U1341	U1269	A1205	A1133	A1056	G983	G916	G831
U1818	A1741		A1498	A1419	G1342	A1270		A1134	U1056	G984	A917	G832
U1819	U1742	C1657	C1499	G1500	U1348	A1271	G1209	A1135		U985		G835
U1820	G1743	G1658	U1501	U1425	G1349	C1272	U1210		A1061	U986	A920	A836
U1821	G1744	U1659	C1502	G1426	A1350	A1273	U1211	U1138	A1062	U987	A921	A837
C1822		C1660	A1503	U1427	U1351	A1274	A1212	G1139	G1063		U922	G838
	G1747	A1667	A1506	A1428	U1352	C1275	G1213	G1140	A1064	G993	G923	C839
G1833	G1748	G1668	G1507	G1429	U1353	U1276		G1141	A1065	G994	G924	C840
U1834	A1749		G1508	U1430	U1354	C1277	C1216	G1142	G1066	U995	A925	A841
A1835	A1750		G1509	A1431	A1355	C1278	A1217	G1143	U1067	A996	A926	
	G1751	U1672	A1587	G1432	U1356	C1279	U1218	U1144		A997	C927	G844
G1838	A1752	G1673	A1588	A1433	G1357		C1219	G1145	G1072	A998	C928	



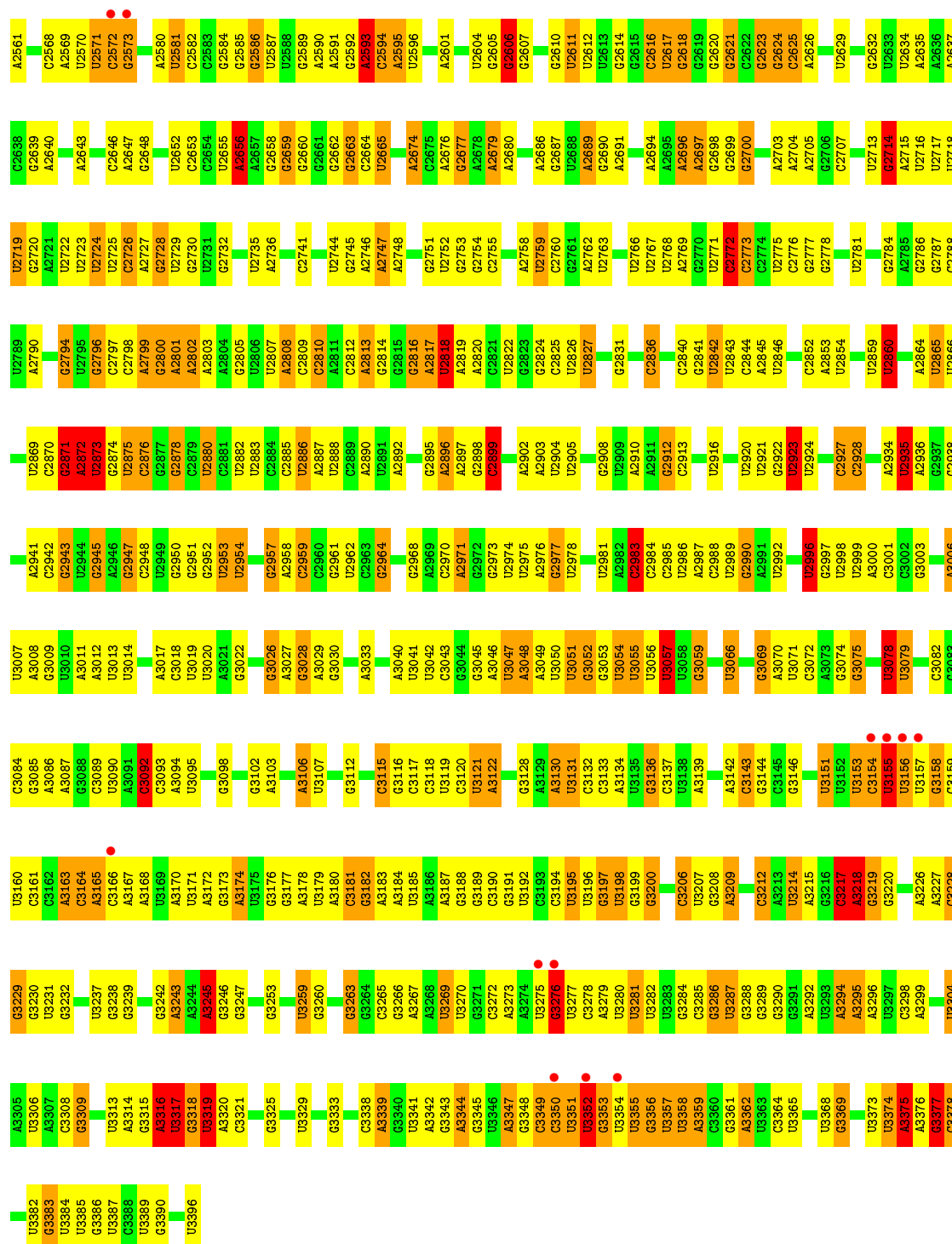


- Molecule 1: 25S ribosomal RNA





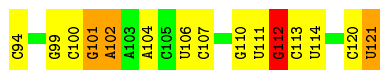
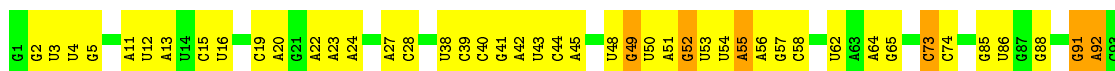
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C	C	A2280	A2363	U2435	G2206	U2129	G	G1940	U1855	G1718		A1539
C	C	A2281	G2364	U2436	G2207	G2130	U	C1941	C1856	G1719	U1620	A1540
U	U	G2282	C2365	G2437	A2208	A2131	U	U1942	C1857	U1720		G1541
U	U	G2283	C2366		A2209	C2132	U		C1858	U1721	A1625	G1542
U	U	C2284	A2367		U2208	U2133	U	G1947	A1797	U1722		G1543
		C2285			G2210	G2134	G	G1948	A1798	U1723	U1629	G1547
					U2211	U2135	G	G1949	A1800	U1724		G1548
		G2288	A2372		G2212	C2136	U	U1950	U1801	C1725	U1635	U1549
		U2289	C2374		A2213	U2137	A	C1951	C1802		G1636	
		C2444	G2375		A2214	A2138	U	G1952	C1803		A1637	
		C2290	G2376		A2215	A2138	G	G1953	C1866		A1637	
							A	G1954	C1869		A1638	U1584
		U2294	G2377			U2141	C	U1955	C1805	G1730	U1639	U1585
		A2295	U2378		A2223	A2142	C		A1804		A1639	C1556
		A2296	U2379		A2224	A2143	C		A1806		U1640	
		U2297	G2380		U2225	A2144	U	G	G1807	G1734	U1641	
		U2298	A2384		U2226	A2145	U	G	G1808	G1735	A1642	
		A2299	G2385		C2227	C2146	C	U	U1809	G1736	A1643	
					A2228	A2147	U	G	A1810		C1644	
		C2304	U2388		U2229	U2148	C	A	U1877	U1740	U1645	
		G2305	C2389		C2230	G2149	A	G	C1878	A1741	U1646	
		C2306	G2390		C2231	A2150	U	C	A1811		A1647	
		G2307	G2391		A2232	C2151	G	G	A1813	U1742		
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		G2311	A2395		A2243	G2155	U	C	A1886	A1749	U1651	
		A2312	G2396		A2244	G2156	U	C	U1887	A1750	U1570	
		G2313	A2397		C2245	C2157	A	C	U1888	G1751	A1571	
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		C2405	C2406		U2254	A2167	U	C	G1897	C1761	G1673	
		C2407	C2408		A2256	U2170	G	C	G1898			
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		U	U		A2270	A2191	C	C	U1925	C1781		
		A	U2421		A2271	C2192	U	C	A1847	U1782	C1701	
		C			G2272	U2193	U	C	G1848	U1783	U1702	
		C2425	U2426		A2273	A2120	G	C	U1849	G1784		
		U2427	C2356		U2274	G2121	G	U	A1930	U1785	C1706	
		C	U2428		A2275	C2122	G	C	U1931	G1786	A1707	
		U			C2276	G2123	C	U	A1932	A1787		
		C2368					A	U	G1852	C1790		
							U	U	U1852		A1715	
							C	C			A1716	





- Molecule 2: 5S ribosomal RNA

Chain AS: 50% 41% 7%



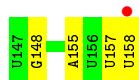
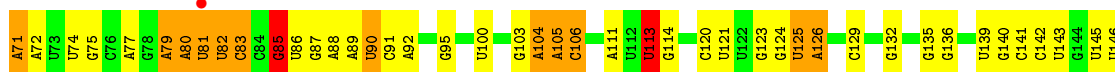
- Molecule 3: 5.8S ribosomal RNA

Chain 4: 44% 41% 14%



- Molecule 3: 5.8S ribosomal RNA

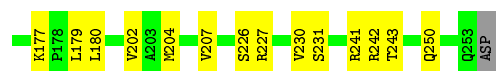
Chain AT: 41% 44% 13%



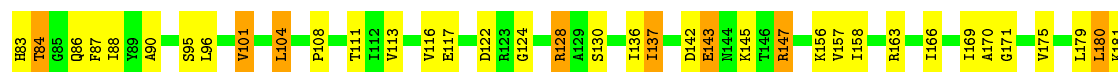
- Molecule 4: 60S ribosomal protein L2-A

Chain j: 81% 17%

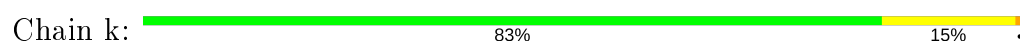




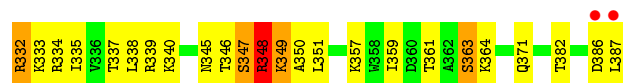
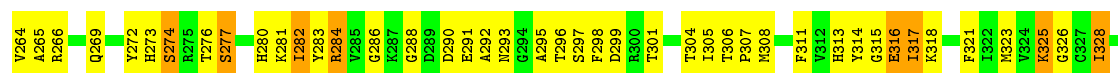
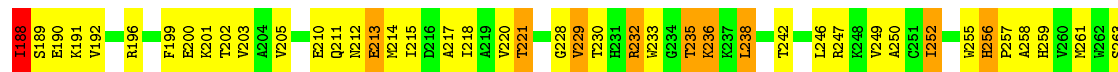
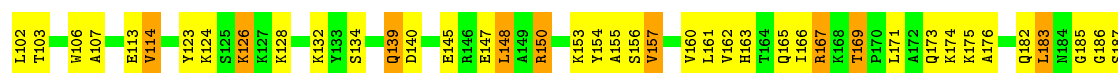
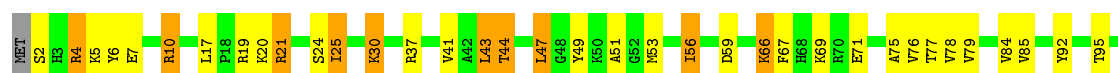
• Molecule 4: 60S ribosomal protein L2-A




• Molecule 5: 60S ribosomal protein L3

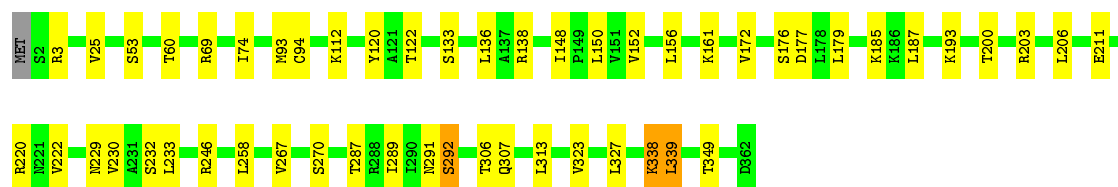


• Molecule 5: 60S ribosomal protein L3



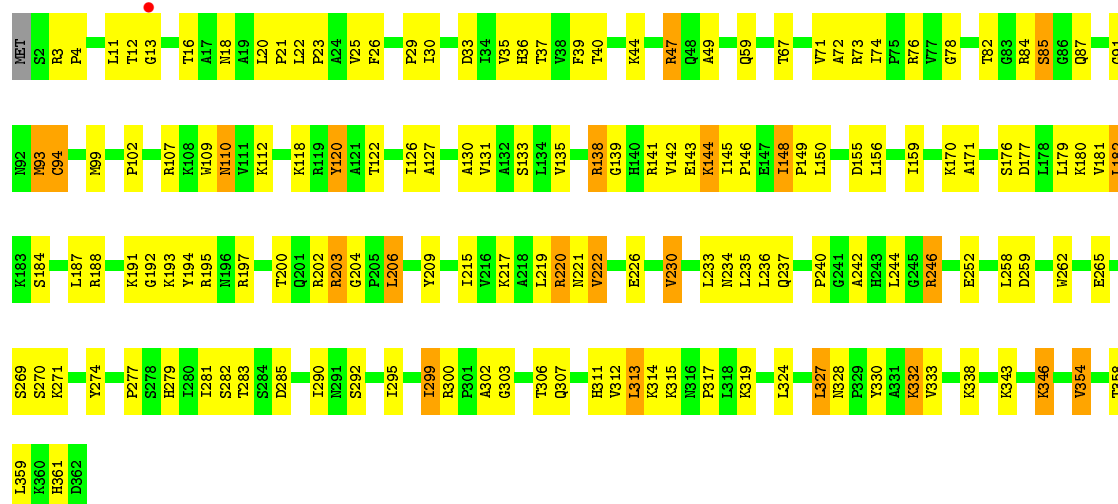
• Molecule 6: 60S ribosomal protein L4-A

Chain I: 




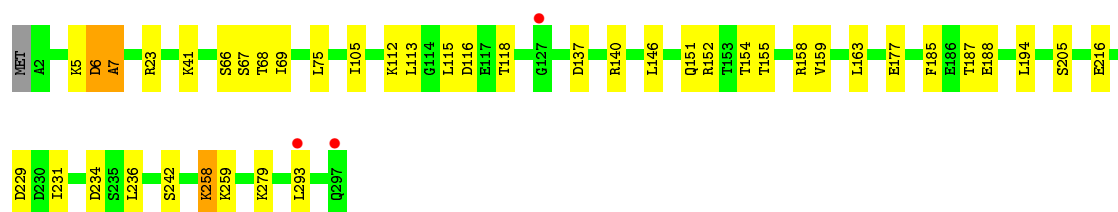
• Molecule 6: 60S ribosomal protein L4-A

Chain CF: 



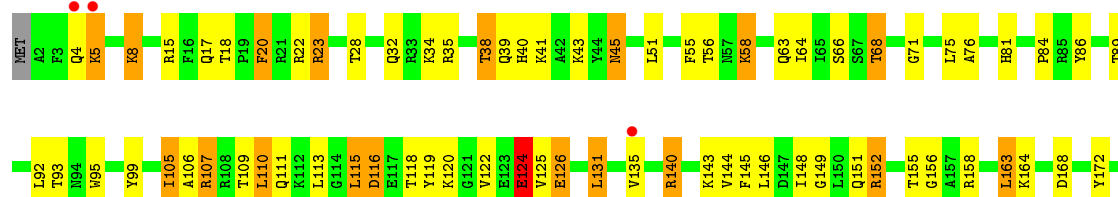
• Molecule 7: 60S ribosomal protein L5

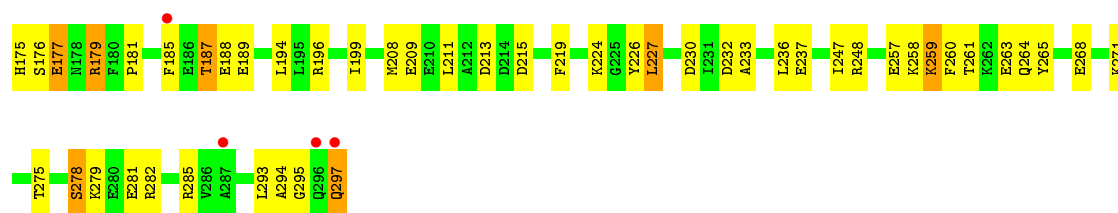
Chain m: 



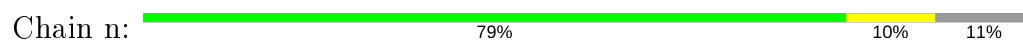
• Molecule 7: 60S ribosomal protein L5

Chain CG: 

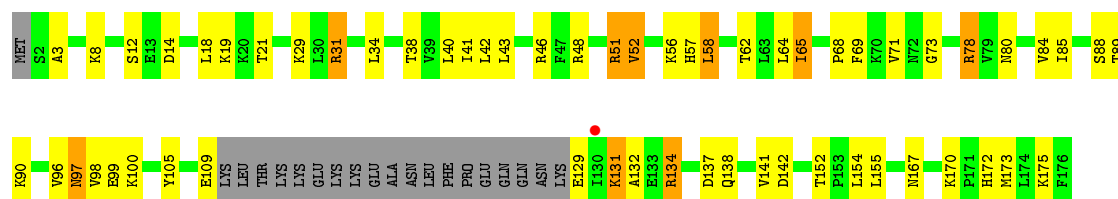




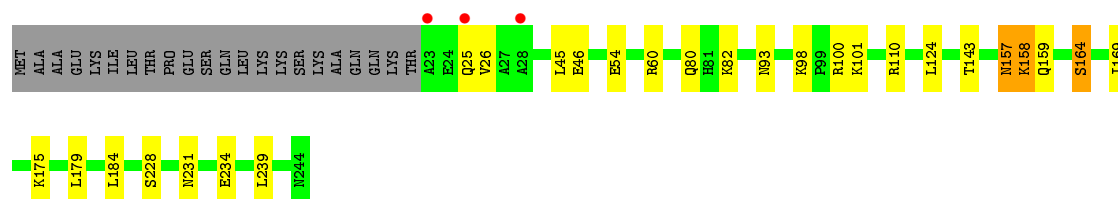
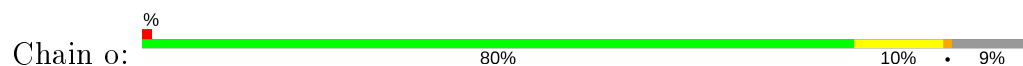
• Molecule 8: 60S ribosomal protein L6-A



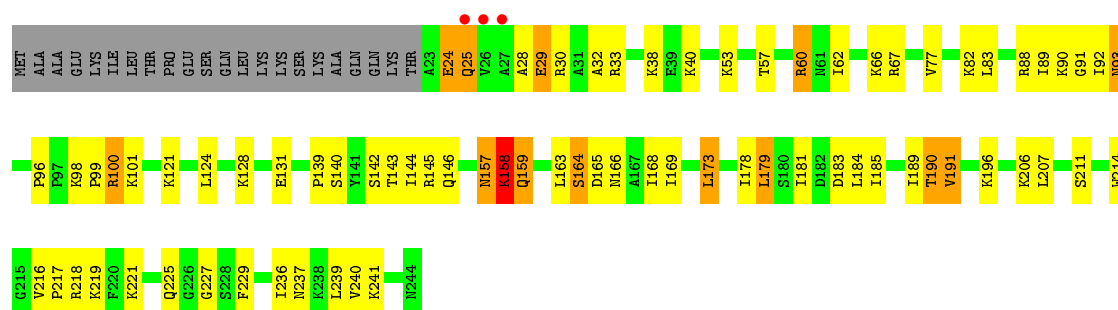
• Molecule 8: 60S ribosomal protein L6-A



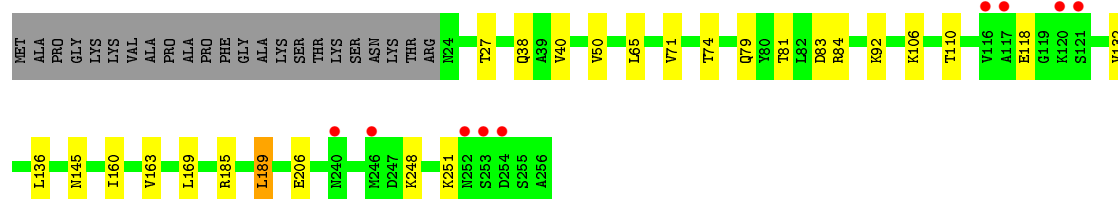
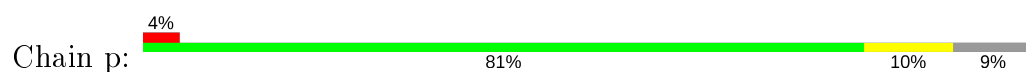
• Molecule 9: 60S ribosomal protein L7-A



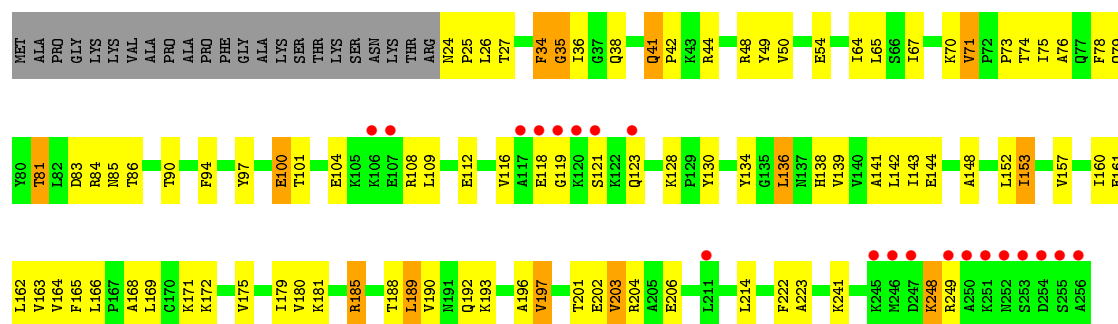
• Molecule 9: 60S ribosomal protein L7-A



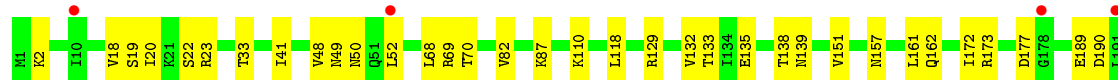
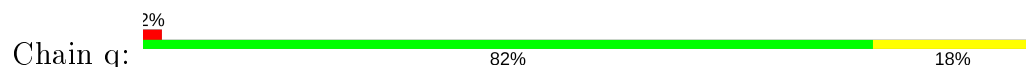
• Molecule 10: 60S ribosomal protein L8-A



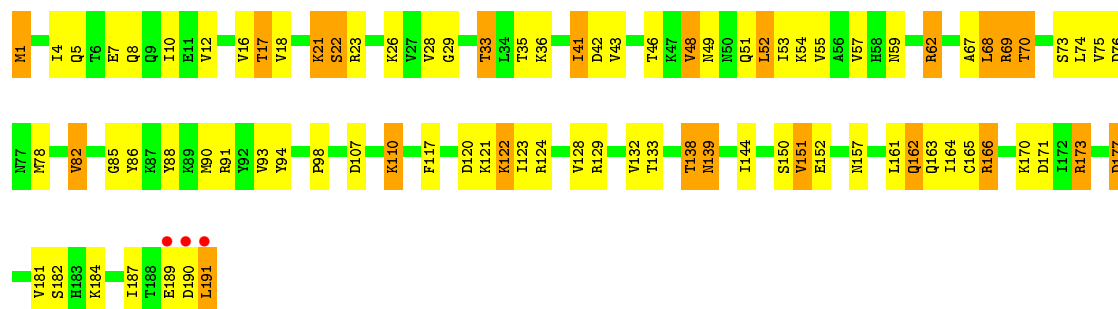
- Molecule 10: 60S ribosomal protein L8-A



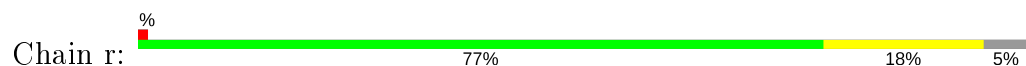
- Molecule 11: 60S ribosomal protein L9-A

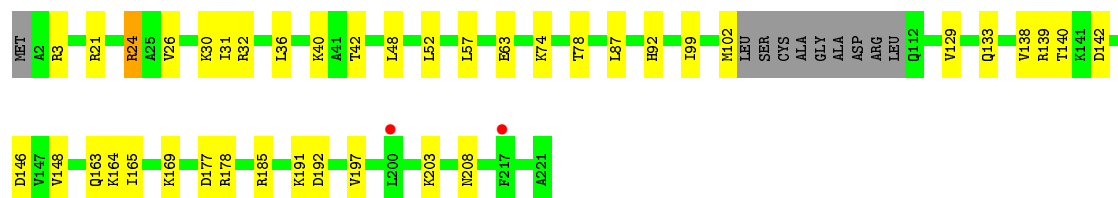


- Molecule 11: 60S ribosomal protein L9-A

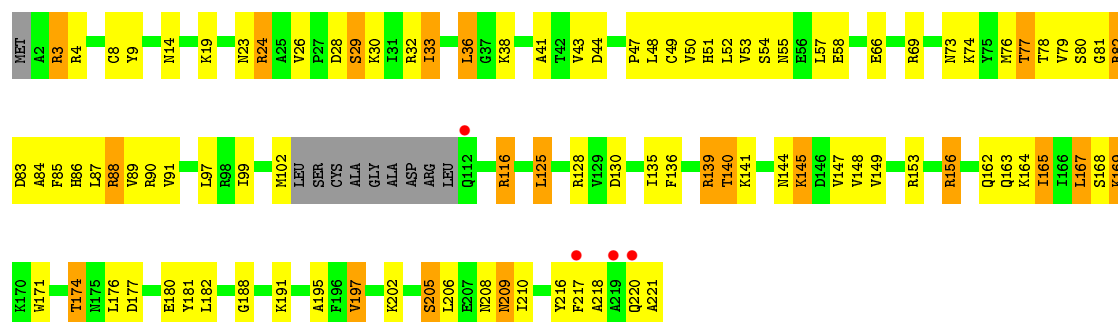


- Molecule 12: 60S ribosomal protein L10

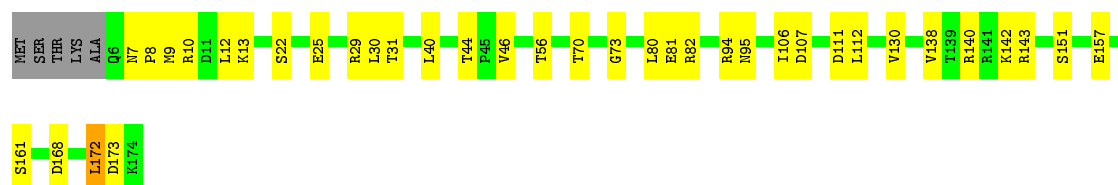




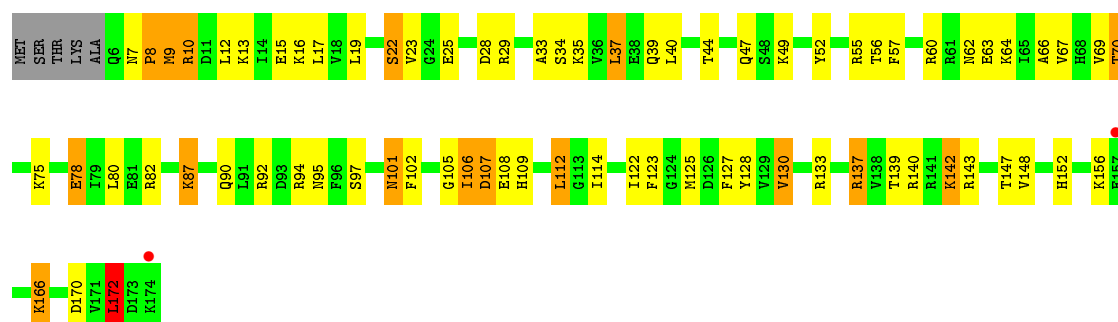
- Molecule 12: 60S ribosomal protein L10



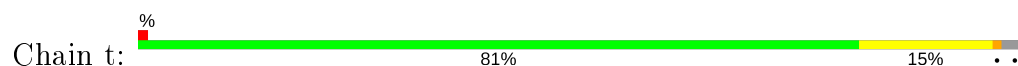
- Molecule 13: 60S ribosomal protein L11-B

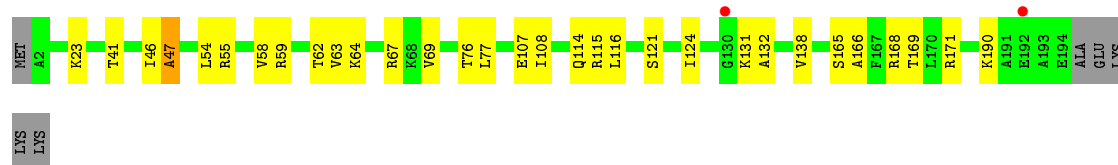


- Molecule 13: 60S ribosomal protein L11-B

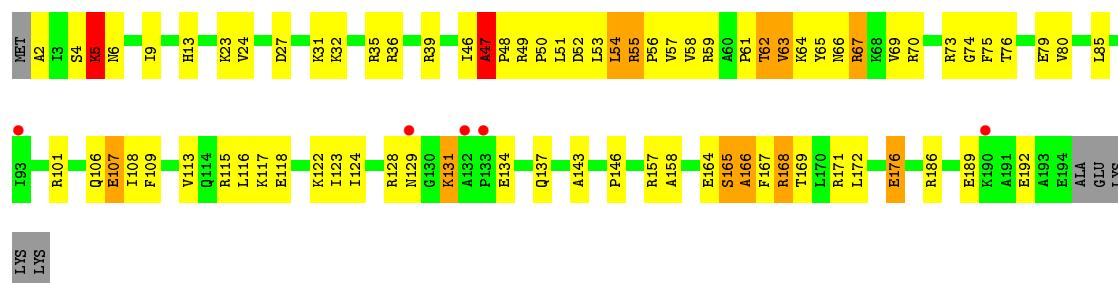


- Molecule 14: 60S ribosomal protein L13-A

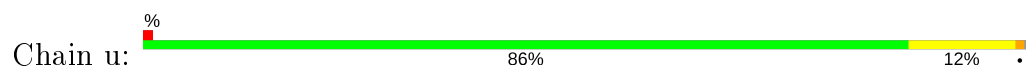




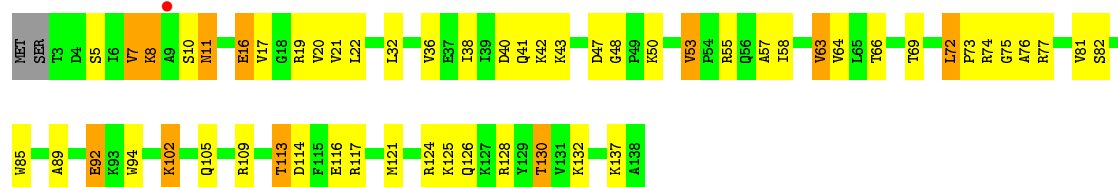
- Molecule 14: 60S ribosomal protein L13-A



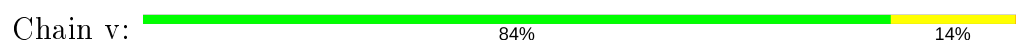
- Molecule 15: 60S ribosomal protein L14-A



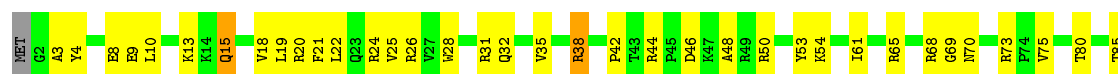
- Molecule 15: 60S ribosomal protein L14-A

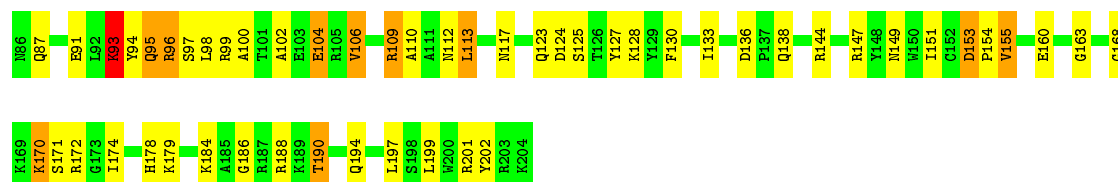


- Molecule 16: 60S ribosomal protein L15-A



- Molecule 16: 60S ribosomal protein L15-A





- Molecule 17: 60S ribosomal protein L16-A

Chain w: 86% 12% ...



- Molecule 17: 60S ribosomal protein L16-A

Chain CQ: 2% 65% 27% 7% .



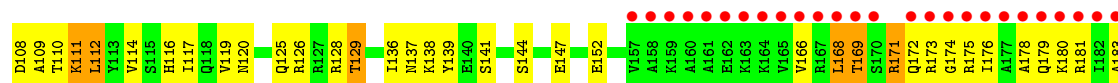
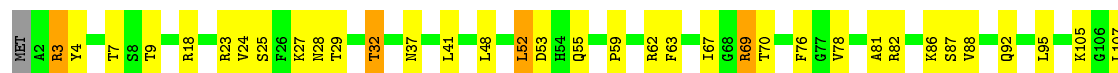
- Molecule 18: 60S ribosomal protein L17-A

Chain x: 5% 88% 12% .



- Molecule 18: 60S ribosomal protein L17-A

Chain CR: 15% 60% 34% 5% .



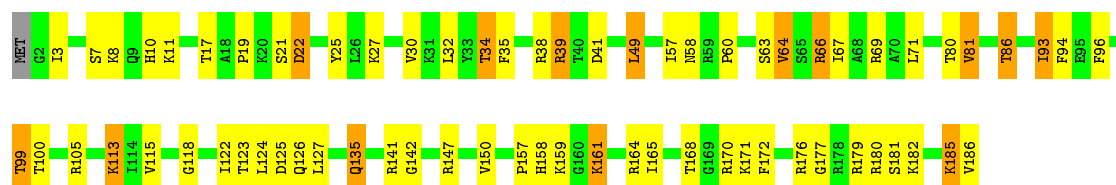
- Molecule 19: 60S ribosomal protein L18-A

Chain y: 85% 14% ..



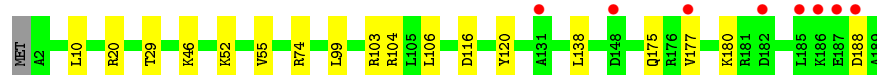
- Molecule 19: 60S ribosomal protein L18-A

Chain CS: 62% 30% 8% .



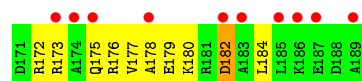
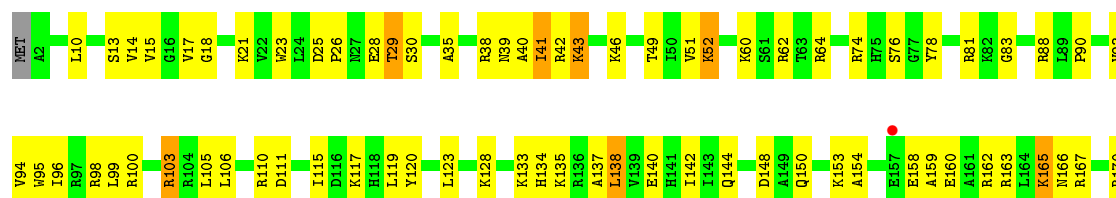
- Molecule 20: 60S ribosomal protein L19-A

Chain z: 4% 90% 10% .



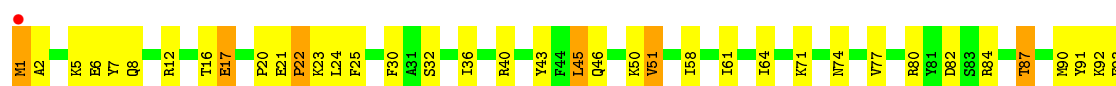
- Molecule 20: 60S ribosomal protein L19-A

Chain CT: 6% 56% 40% . .



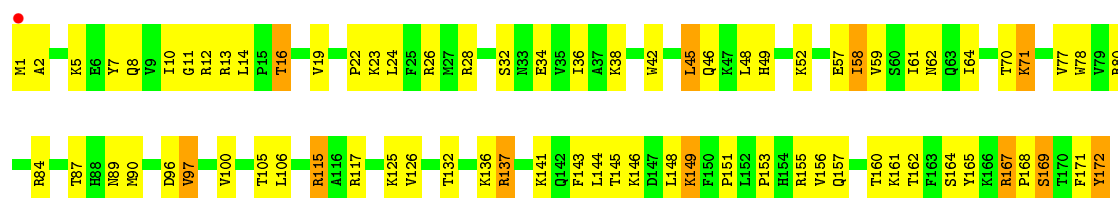
- Molecule 21: 60S ribosomal protein L20-A

Chain 0: % 58% 35% 7%



- Molecule 21: 60S ribosomal protein L20-A

Chain CU: % 56% 38% 6%



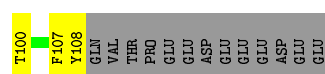
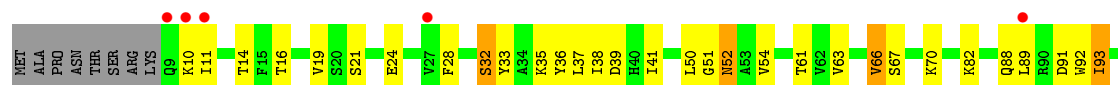
• Molecule 22: 60S ribosomal protein L21-A



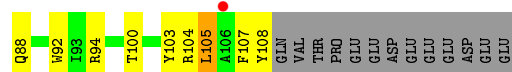
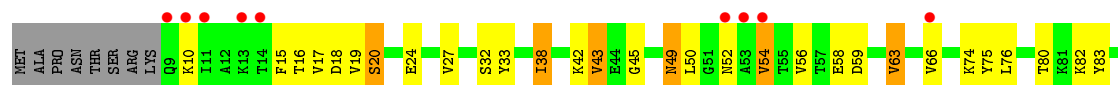
• Molecule 22: 60S ribosomal protein L21-A



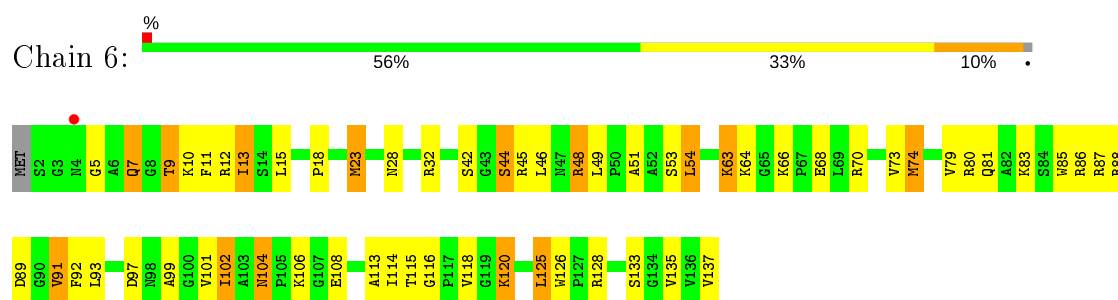
• Molecule 23: 60S ribosomal protein L22-A



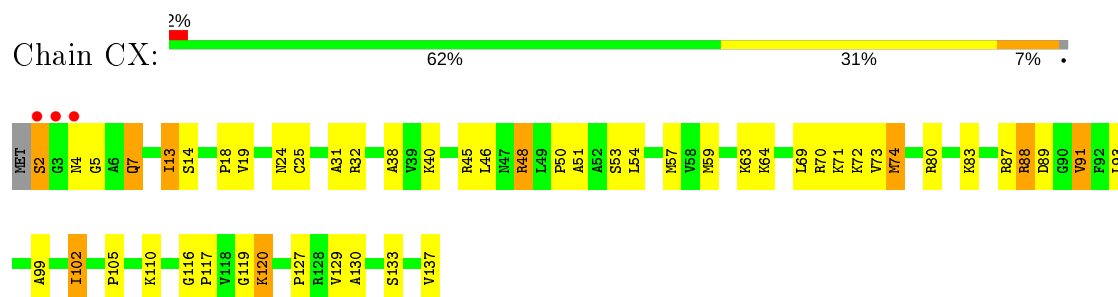
• Molecule 23: 60S ribosomal protein L22-A



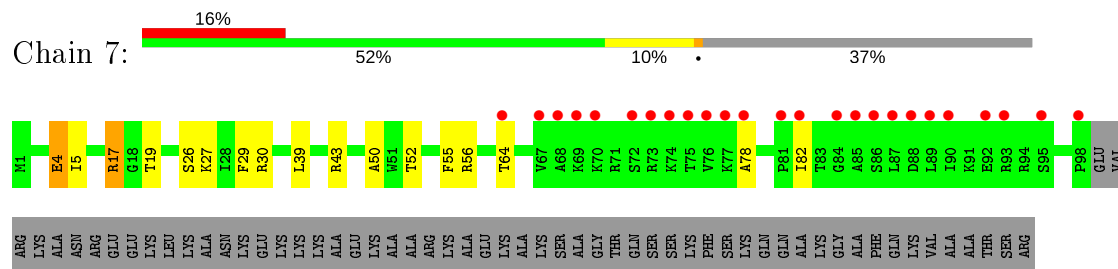
• Molecule 24: 60S ribosomal protein L23-A



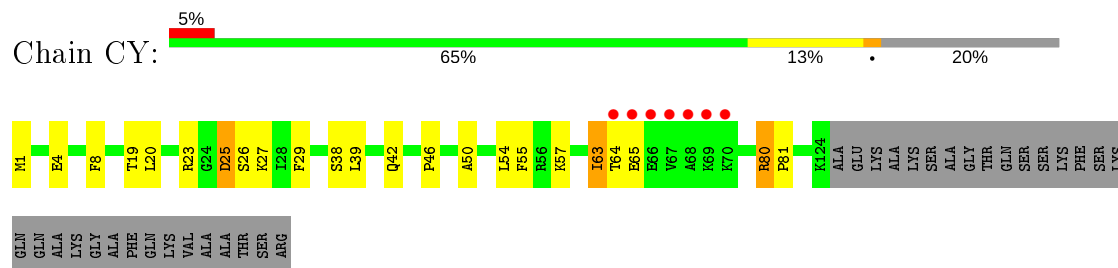
- Molecule 24: 60S ribosomal protein L23-A



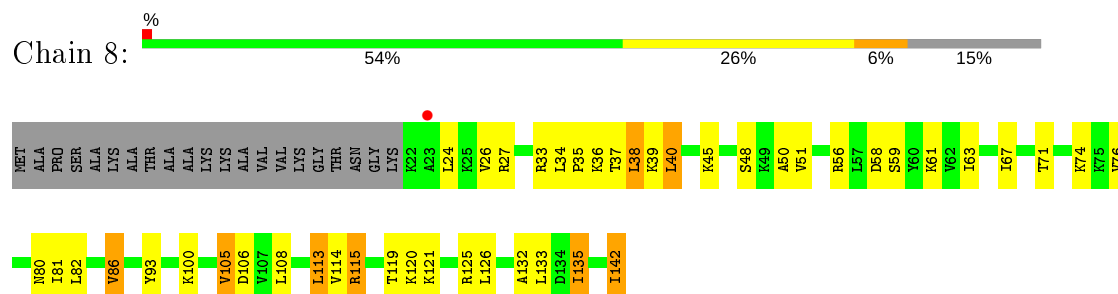
- Molecule 25: 60S ribosomal protein L24-A



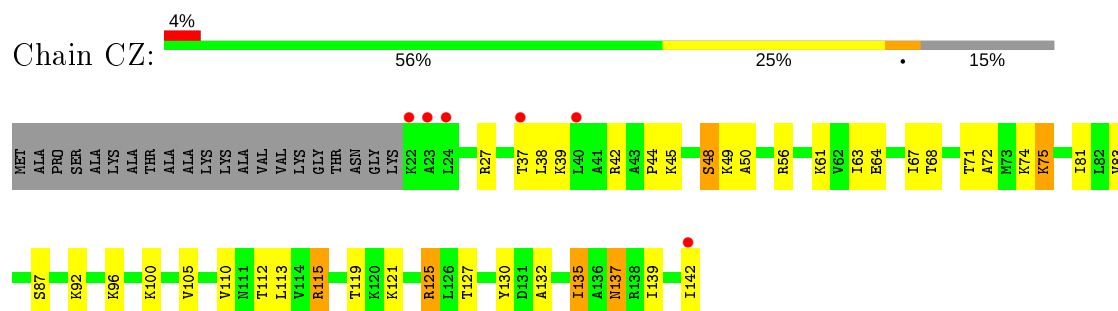
- Molecule 25: 60S ribosomal protein L24-A



- Molecule 26: 60S ribosomal protein L25



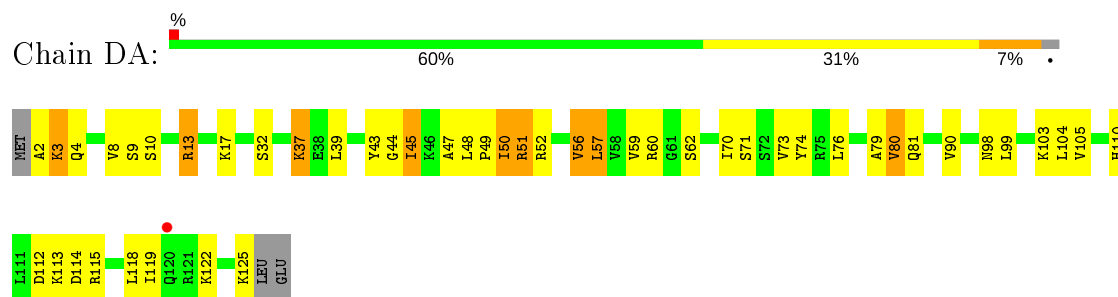
- Molecule 26: 60S ribosomal protein L25



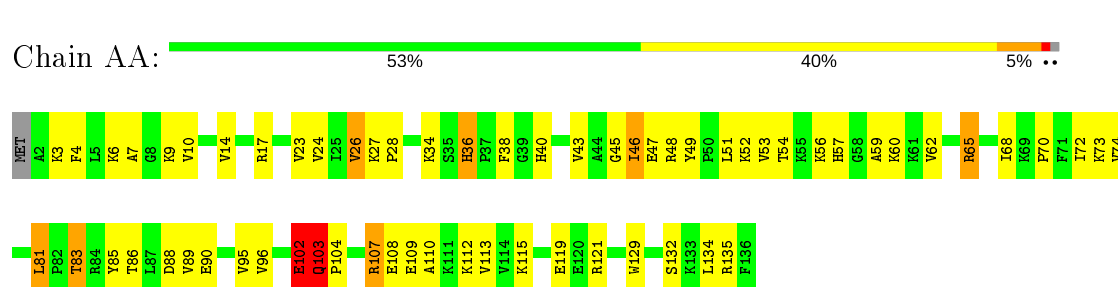
- Molecule 27: 60S ribosomal protein L26-A



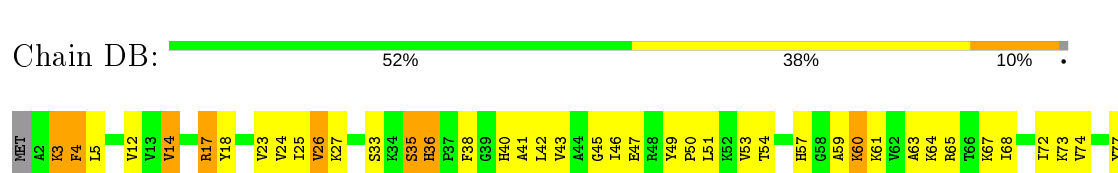
- Molecule 27: 60S ribosomal protein L26-A



- Molecule 28: 60S ribosomal protein L27-A



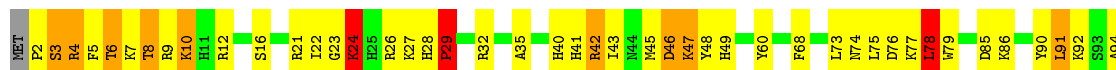
- Molecule 28: 60S ribosomal protein L27-A





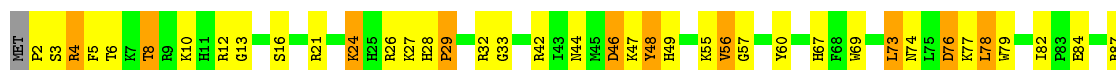
- Molecule 29: 60S ribosomal protein L28

Chain AB: 58% 33% 7% ..



- Molecule 29: 60S ribosomal protein L28

Chain DC: % 58% 32% 9% .



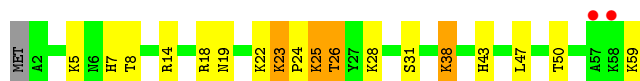
- Molecule 30: 60S ribosomal protein L29

Chain AC: 7% 49% 39% 10% .



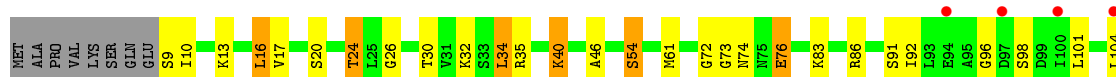
- Molecule 30: 60S ribosomal protein L29

Chain DD: 3% 68% 24% 7% .

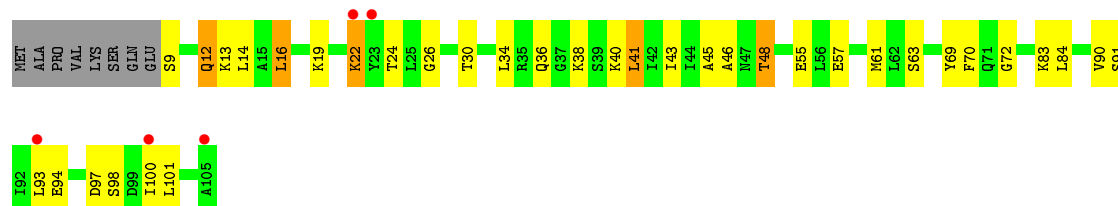


- Molecule 31: 60S ribosomal protein L30

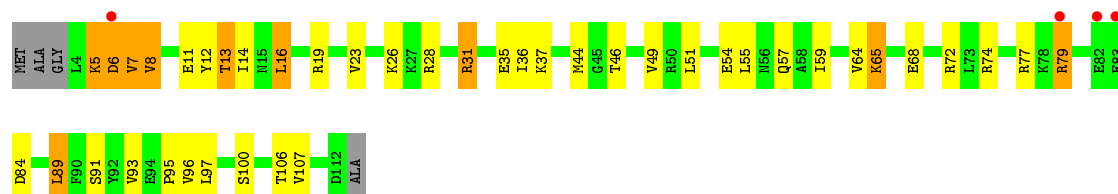
Chain AD: 5% 66% 21% 6% 8%



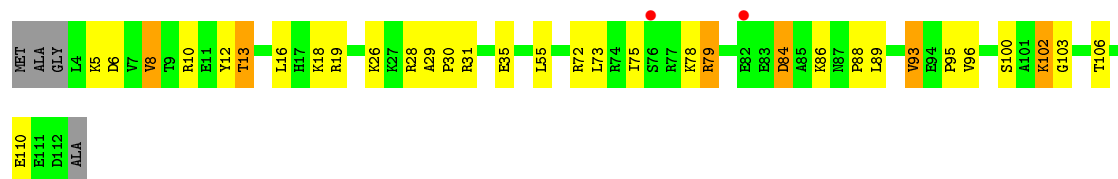
- Molecule 31: 60S ribosomal protein L30



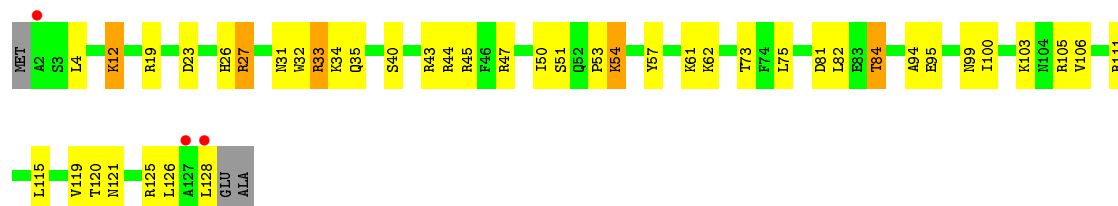
- Molecule 32: 60S ribosomal protein L31-A



- Molecule 32: 60S ribosomal protein L31-A



- Molecule 33: 60S ribosomal protein L32

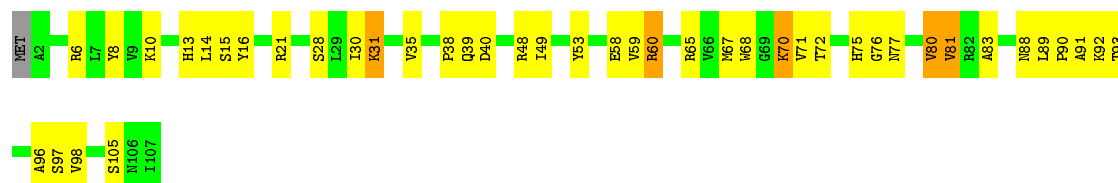


- Molecule 33: 60S ribosomal protein L32

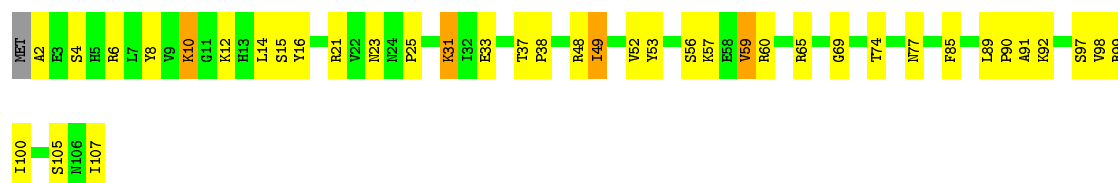




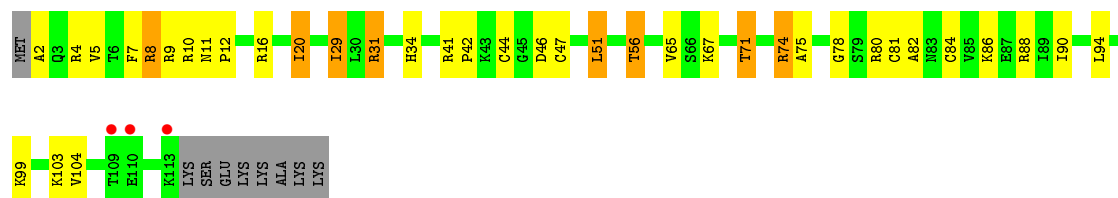
- Molecule 34: 60S ribosomal protein L33-A



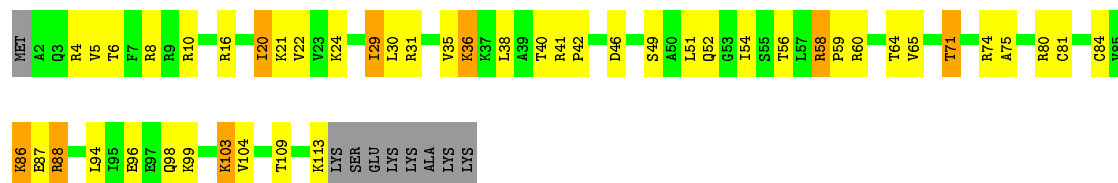
- Molecule 34: 60S ribosomal protein L33-A



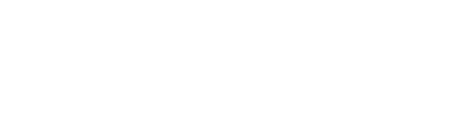
- Molecule 35: 60S ribosomal protein L34-A

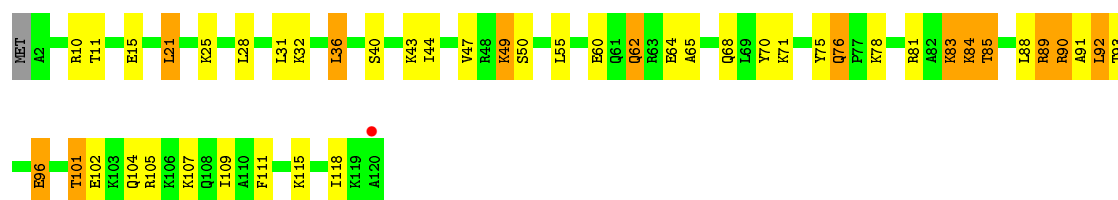


- Molecule 35: 60S ribosomal protein L34-A

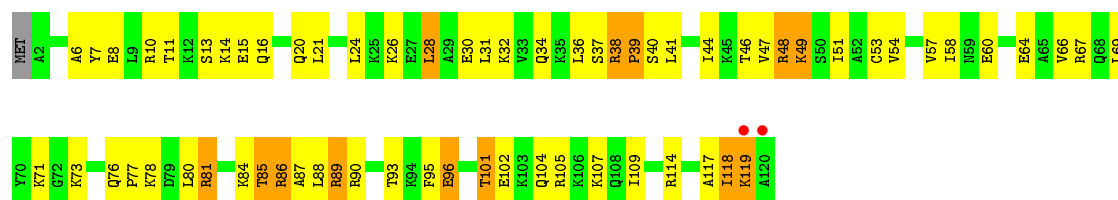
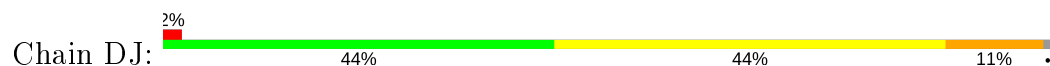


- Molecule 36: 60S ribosomal protein L35-A

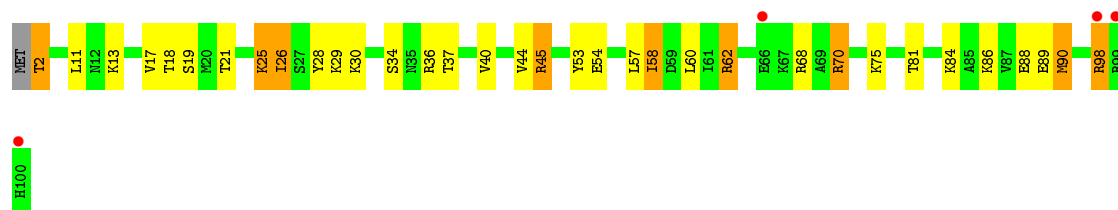




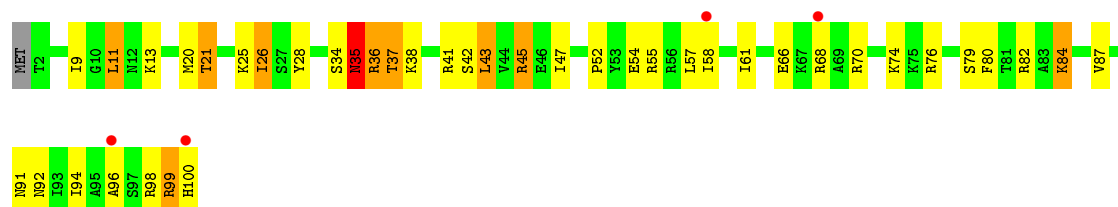
- Molecule 36: 60S ribosomal protein L35-A



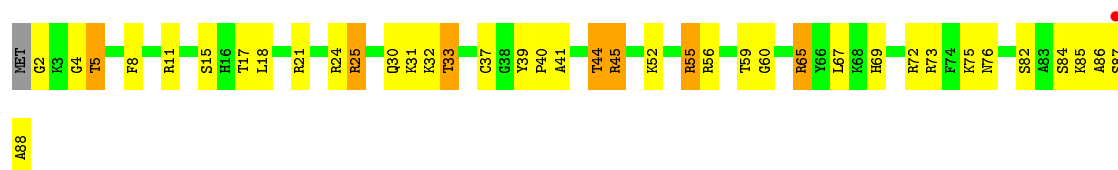
- Molecule 37: 60S ribosomal protein L36-A



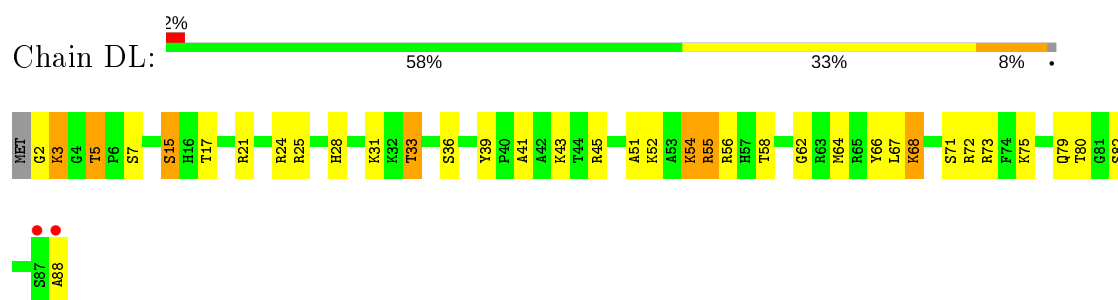
- Molecule 37: 60S ribosomal protein L36-A



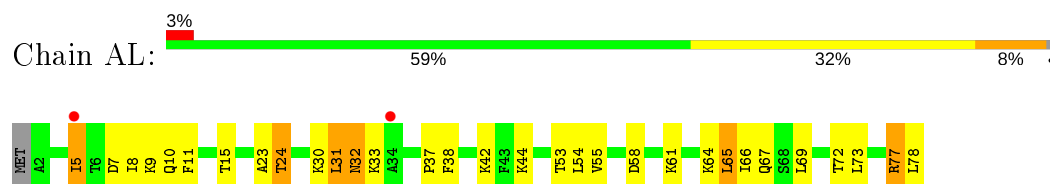
- Molecule 38: 60S ribosomal protein L37-A



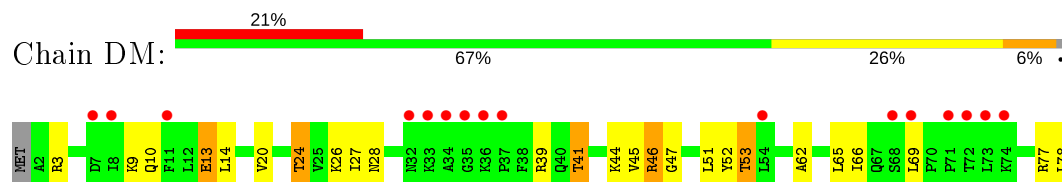
- Molecule 38: 60S ribosomal protein L37-A



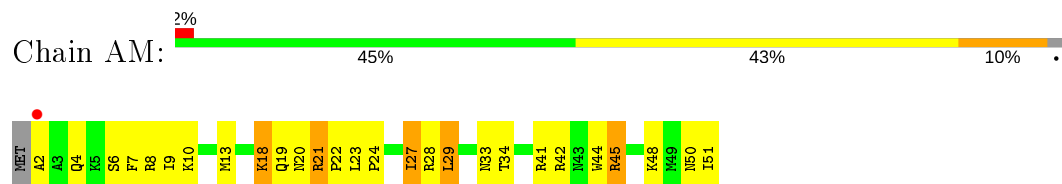
- Molecule 39: 60S ribosomal protein L38



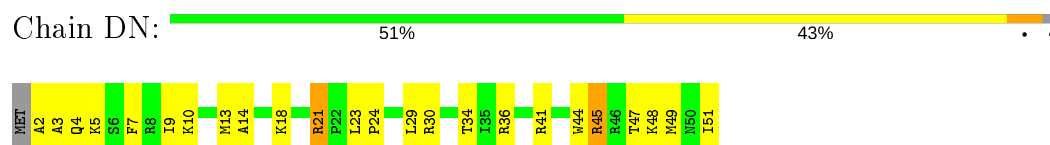
- Molecule 39: 60S ribosomal protein L38



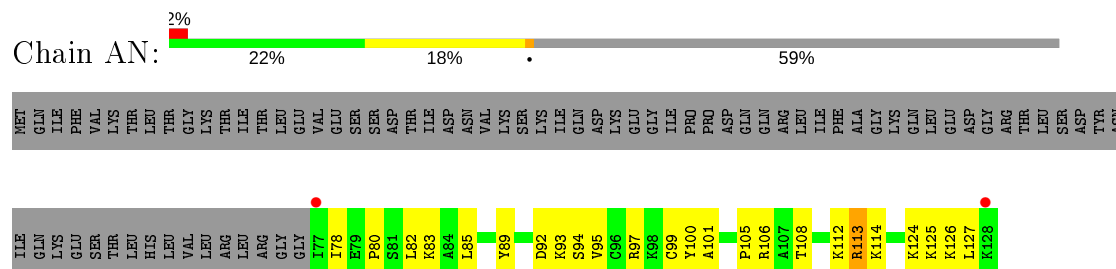
- Molecule 40: 60S ribosomal protein L39



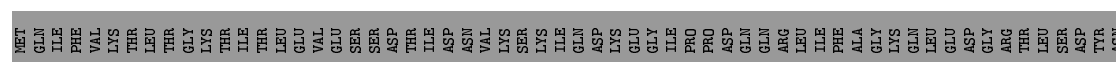
- Molecule 40: 60S ribosomal protein L39



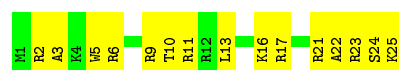
- Molecule 41: Ubiquitin-60S ribosomal protein L40



- Molecule 41: Ubiquitin-60S ribosomal protein L40



- Molecule 42: 60S ribosomal protein L41-B



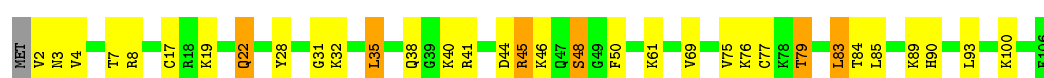
- Molecule 42: 60S ribosomal protein L41-B



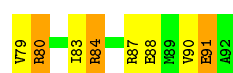
- Molecule 43: 60S ribosomal protein L42-A



- Molecule 43: 60S ribosomal protein L42-A

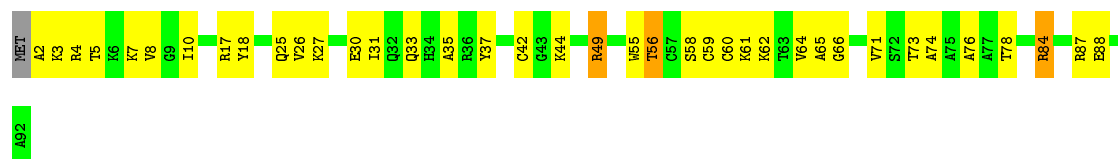


- Molecule 44: 60S ribosomal protein L43-A

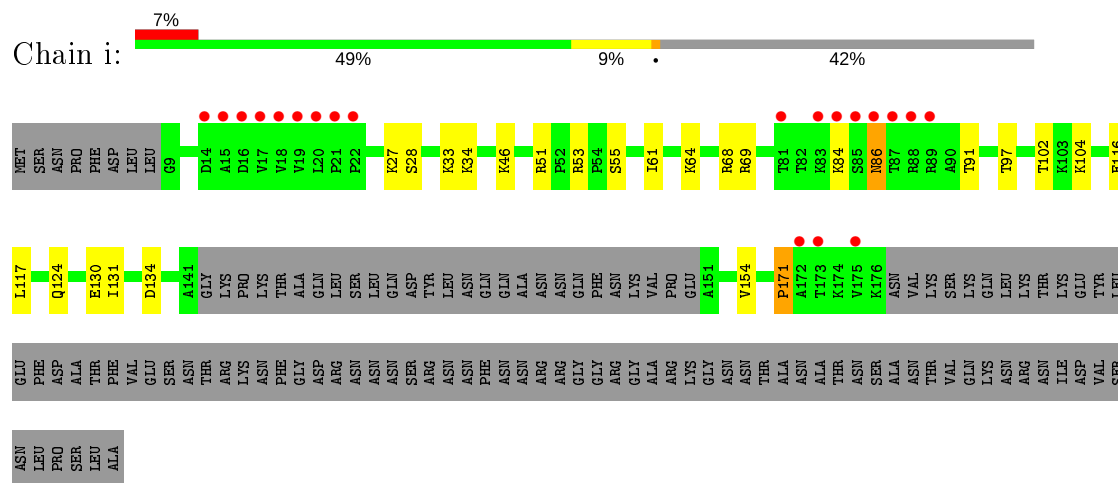


- Molecule 44: 60S ribosomal protein L43-A

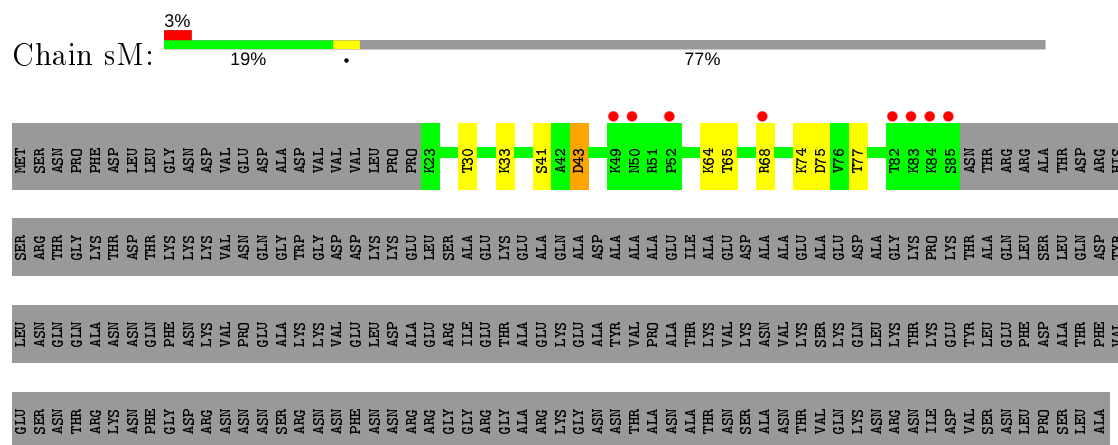




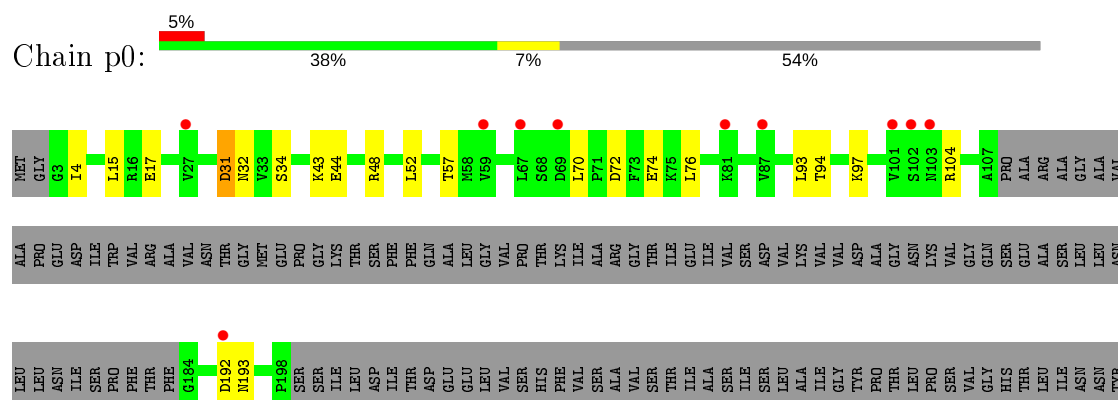
• Molecule 45: Suppressor protein STM1

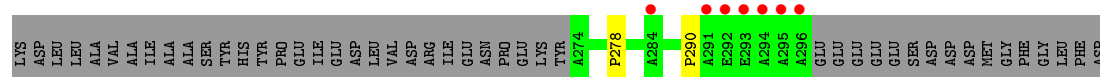


• Molecule 45: Suppressor protein STM1

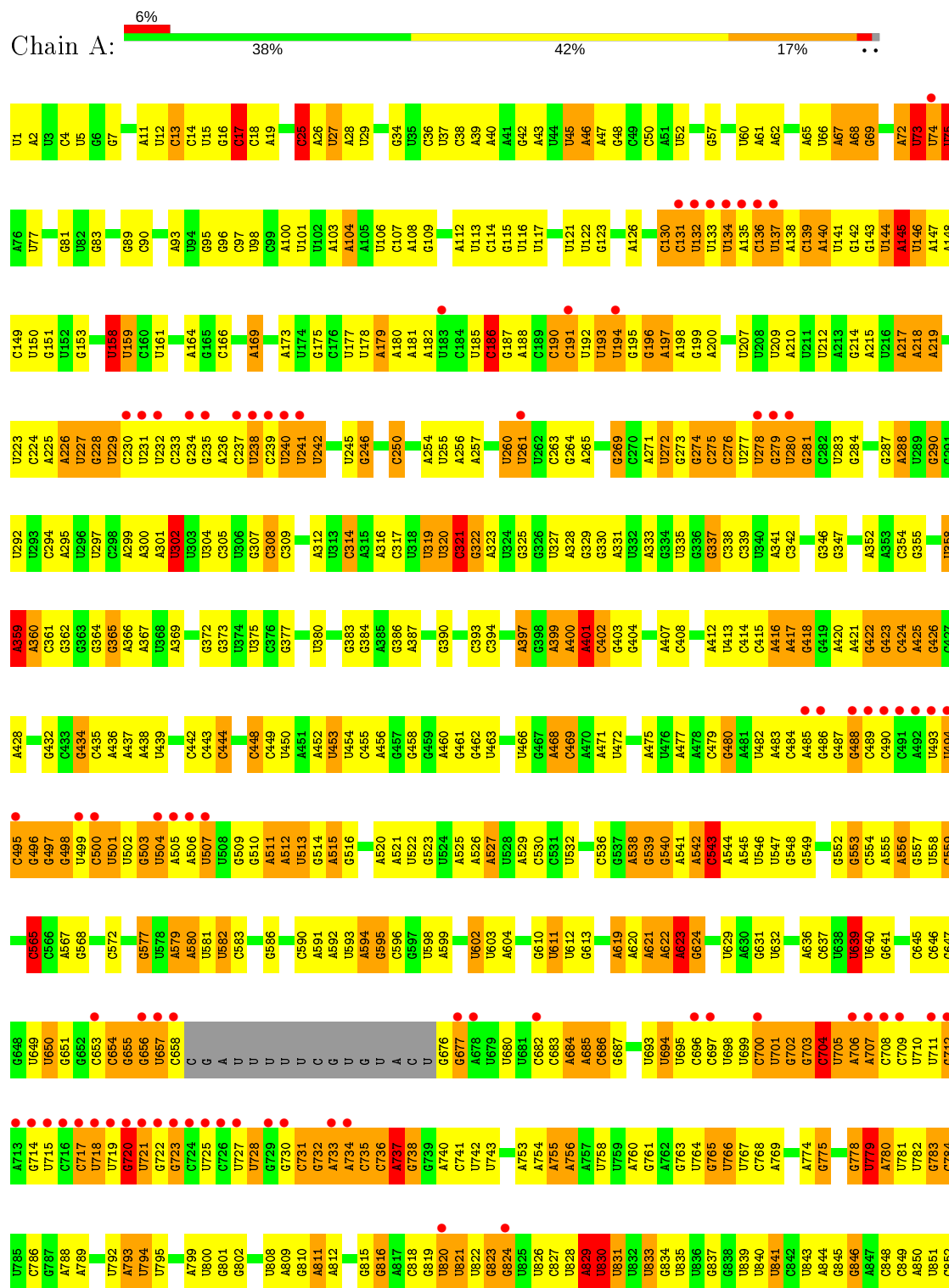


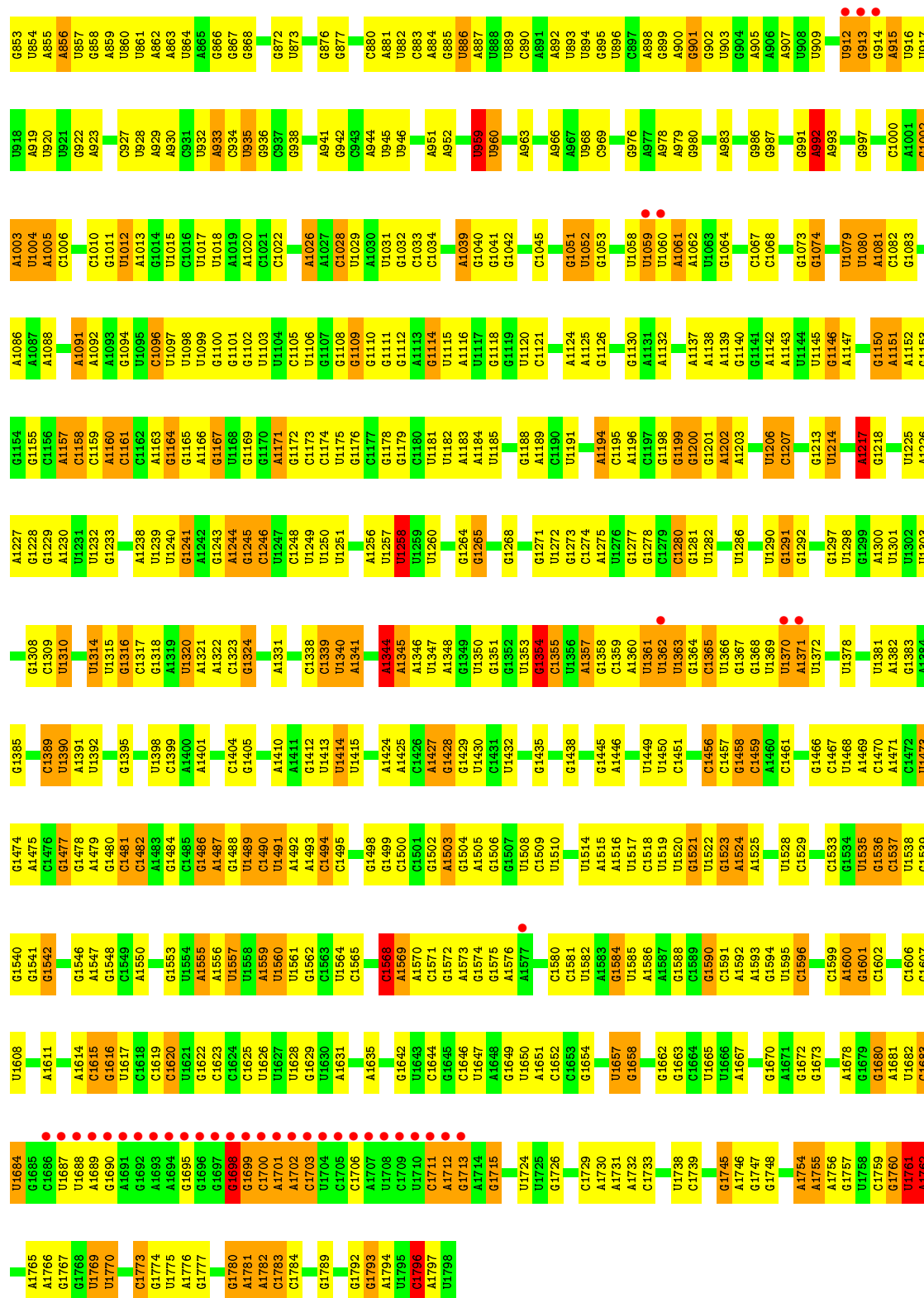
• Molecule 46: 60S acidic ribosomal protein P0





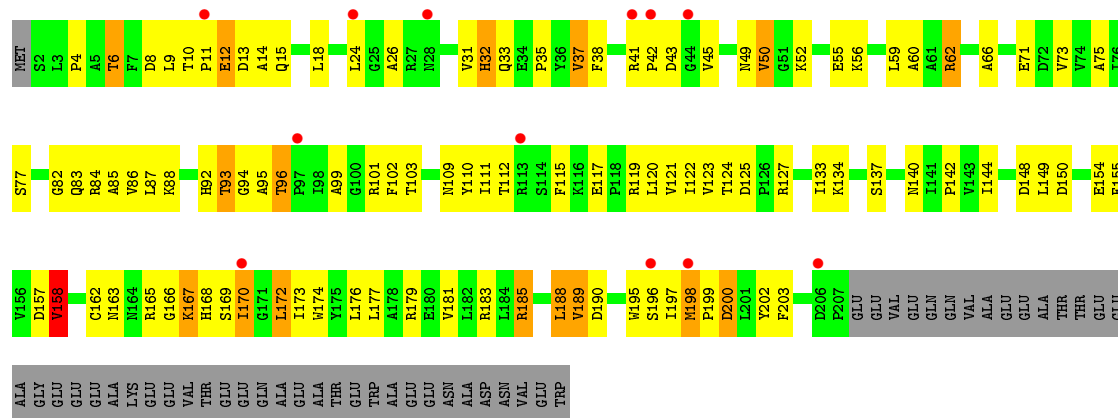
• Molecule 47: 18S ribosomal RNA



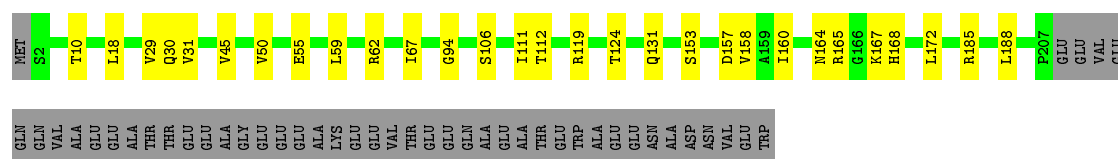


• Molecule 48: 40S ribosomal protein S0-A

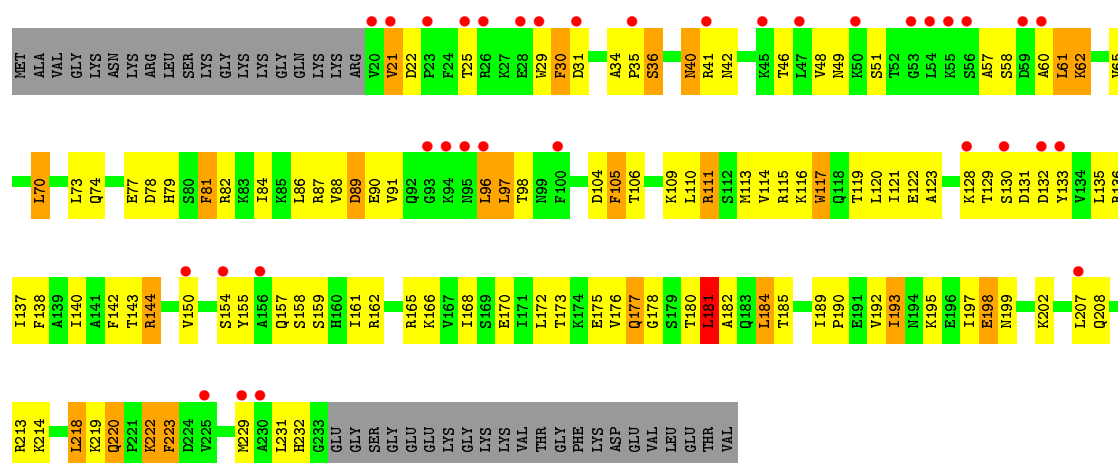




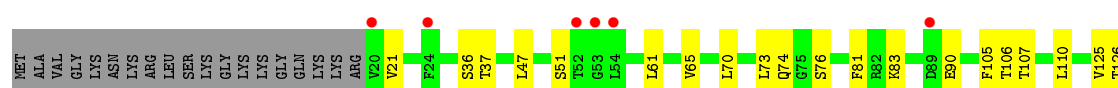
- Molecule 48: 40S ribosomal protein S0-A

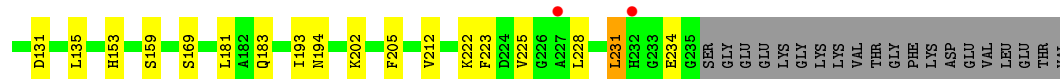


- Molecule 49: 40S ribosomal protein S1-A



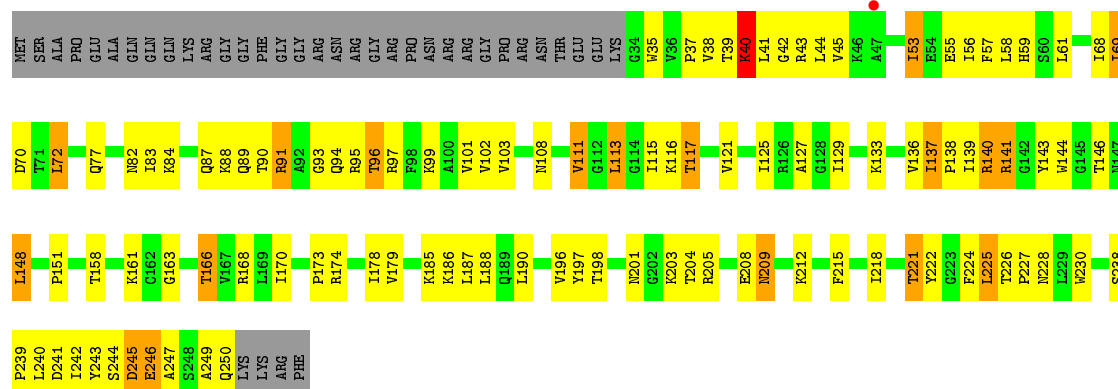
- Molecule 49: 40S ribosomal protein S1-A





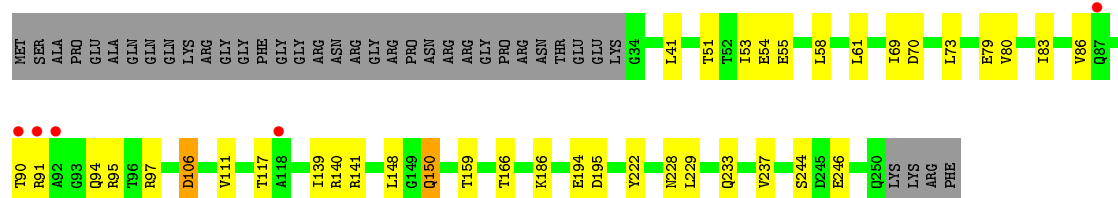
- Molecule 50: 40S ribosomal protein S2

Chain D: 43% 35% 7% 15%



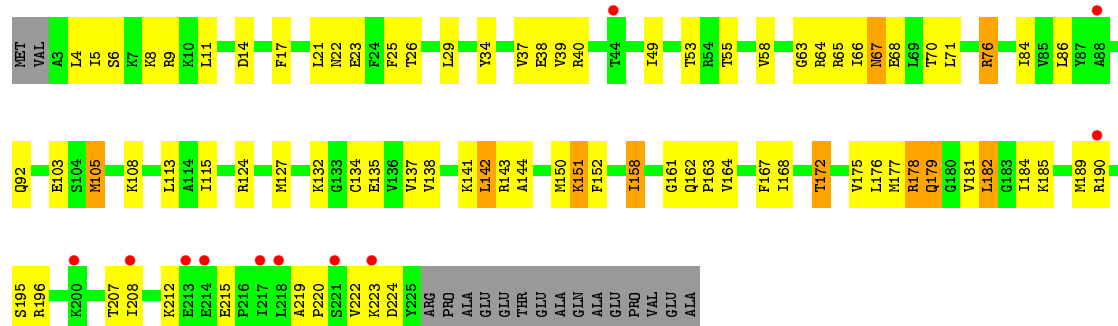
- Molecule 50: 40S ribosomal protein S2

Chain s2: 2% 70% 15% 15%



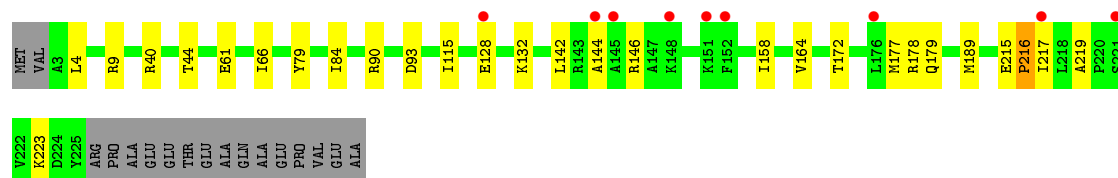
- Molecule 51: 40S ribosomal protein S3

Chain E: 5% 58% 31% 7%

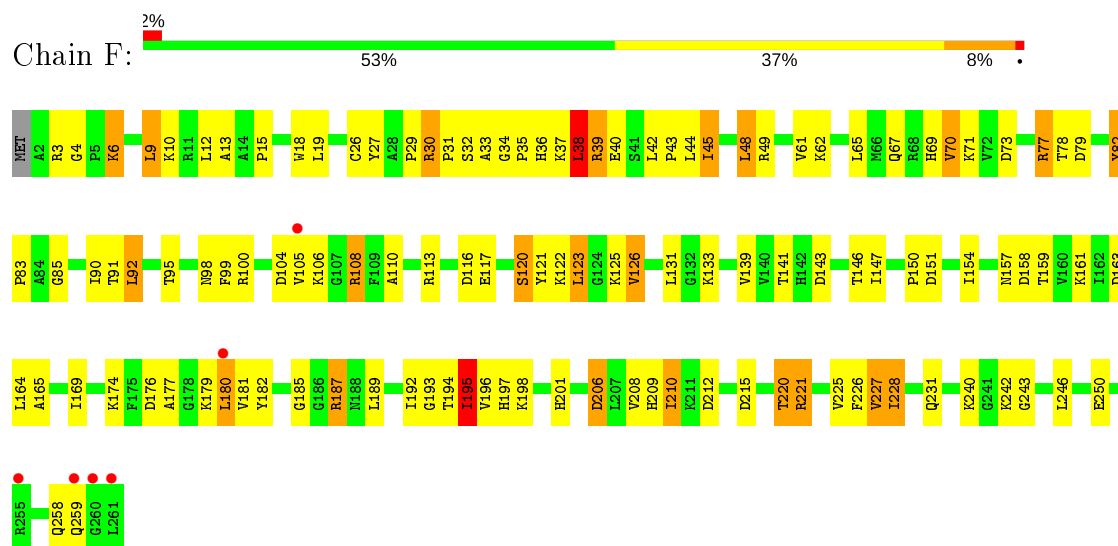


- Molecule 51: 40S ribosomal protein S3

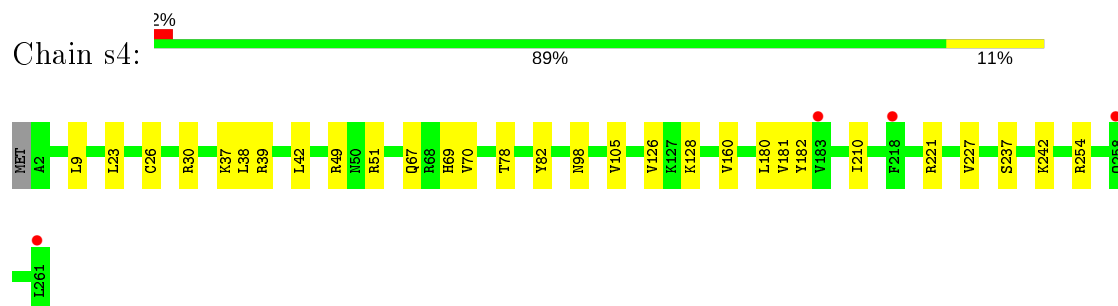
Chain s3: 4% 81% 11% 7%



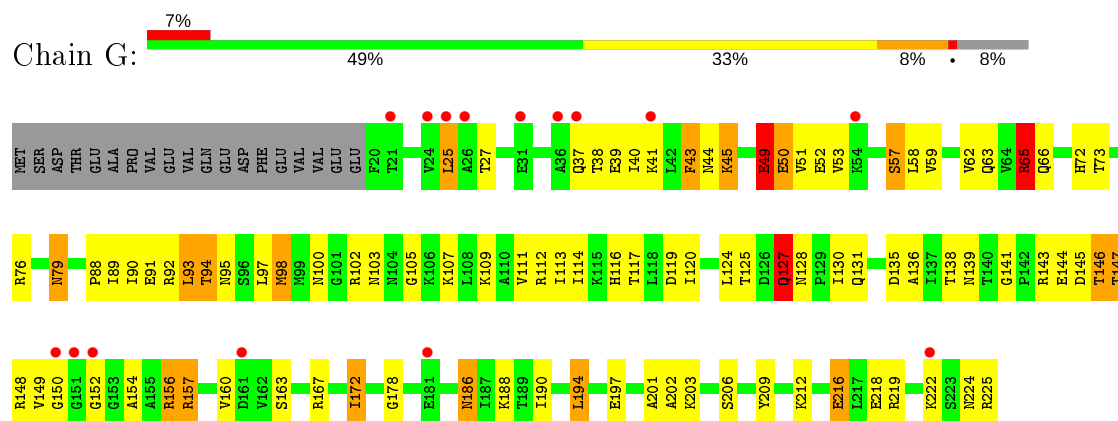
- Molecule 52: 40S ribosomal protein S4-A



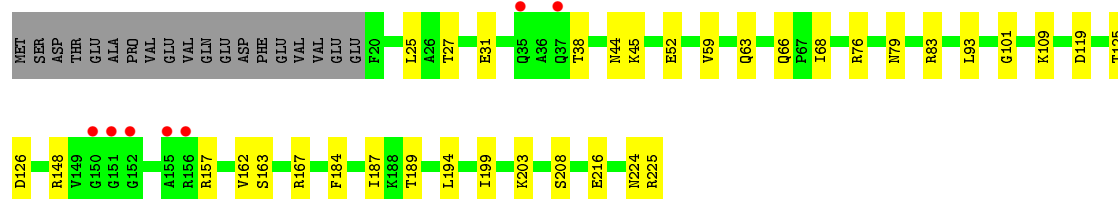
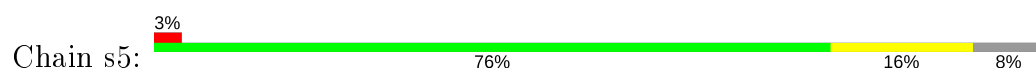
- Molecule 52: 40S ribosomal protein S4-A



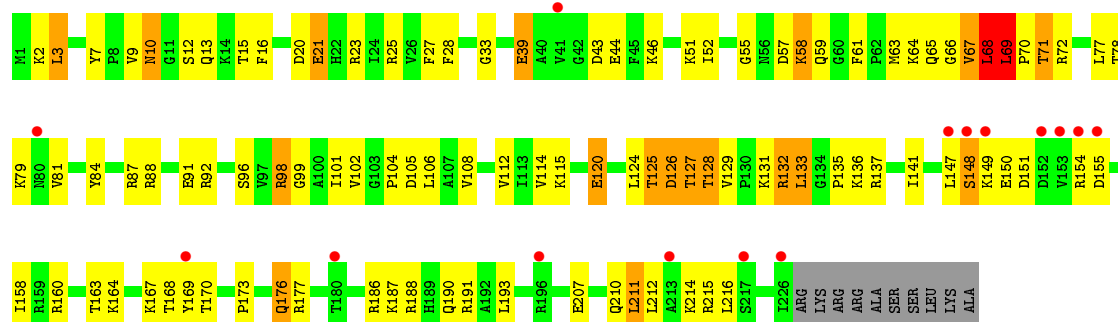
- Molecule 53: 40S ribosomal protein S5



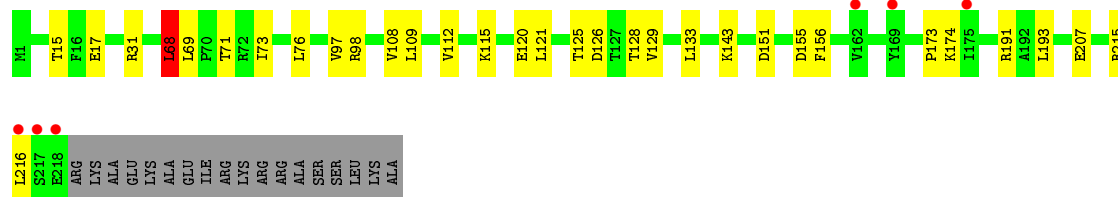
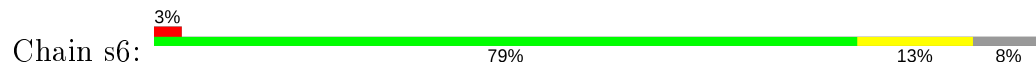
- Molecule 53: 40S ribosomal protein S5



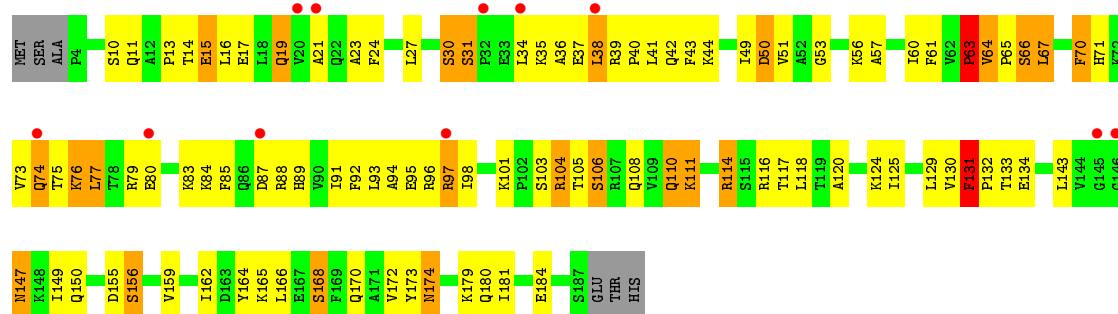
- Molecule 54: 40S ribosomal protein S6-A



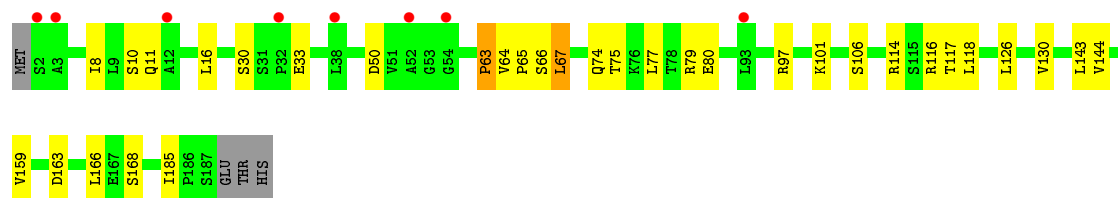
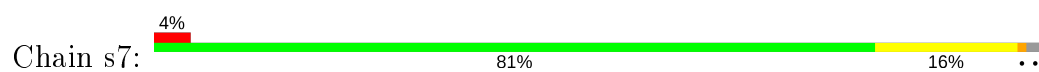
- Molecule 54: 40S ribosomal protein S6-A



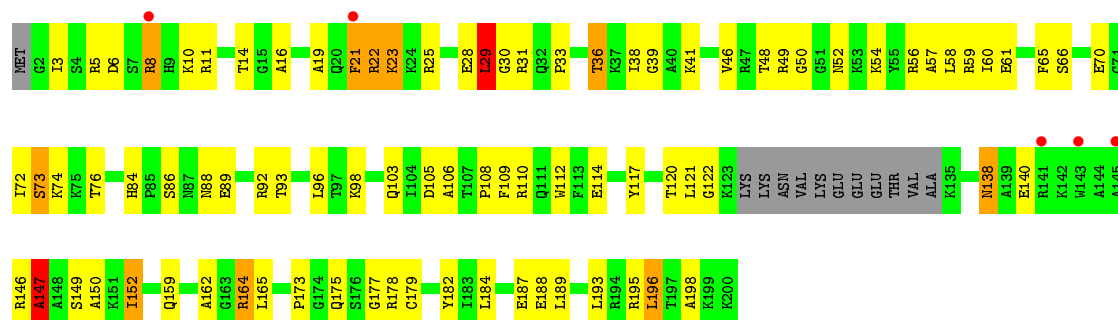
- Molecule 55: 40S ribosomal protein S7-A



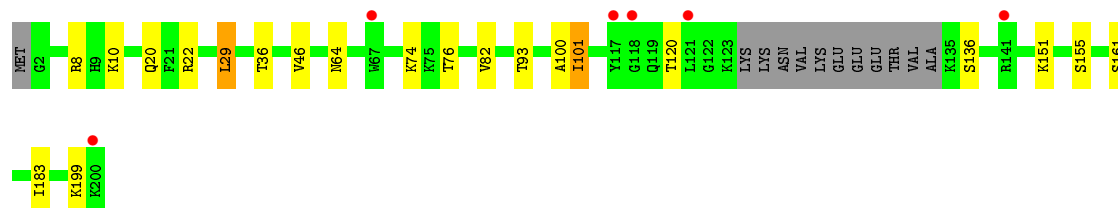
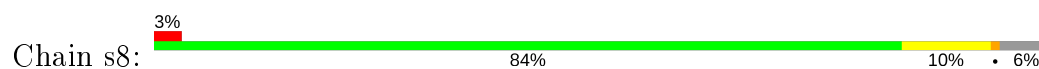
- Molecule 55: 40S ribosomal protein S7-A



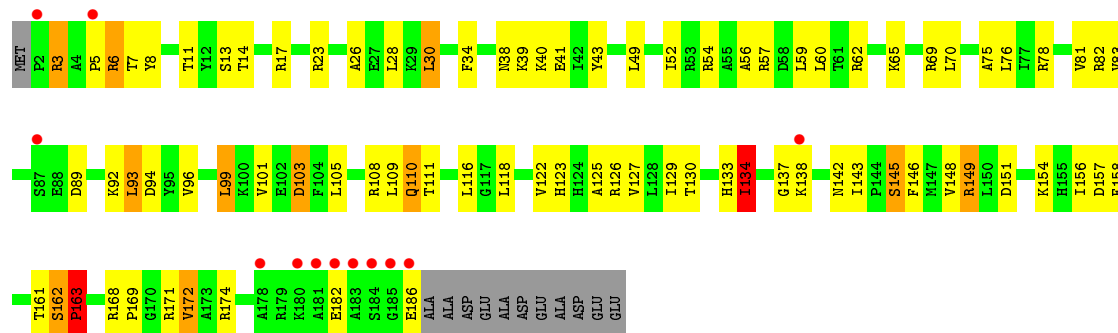
- Molecule 56: 40S ribosomal protein S8-A



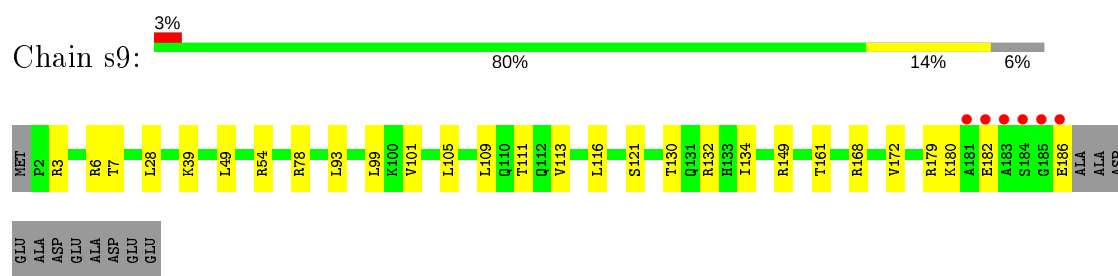
- Molecule 56: 40S ribosomal protein S8-A



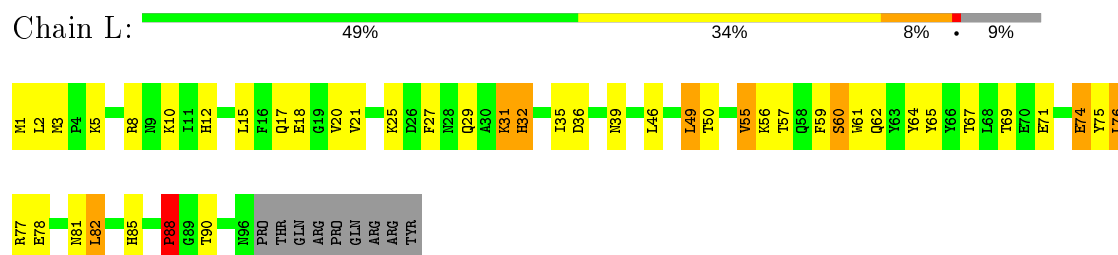
- Molecule 57: 40S ribosomal protein S9-A



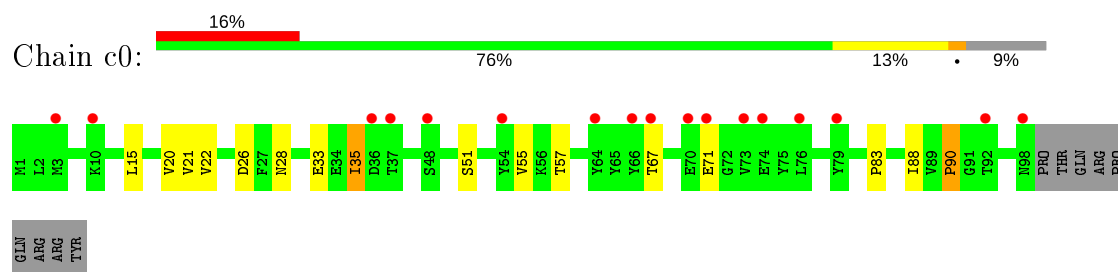
- Molecule 57: 40S ribosomal protein S9-A



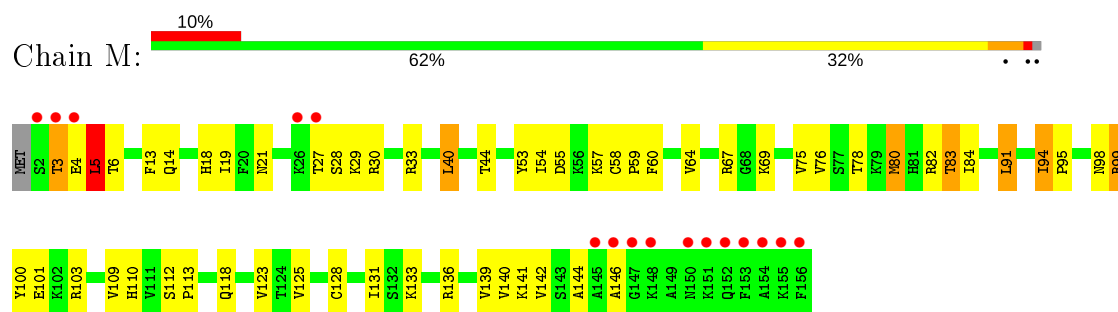
- Molecule 58: 40S ribosomal protein S10-A



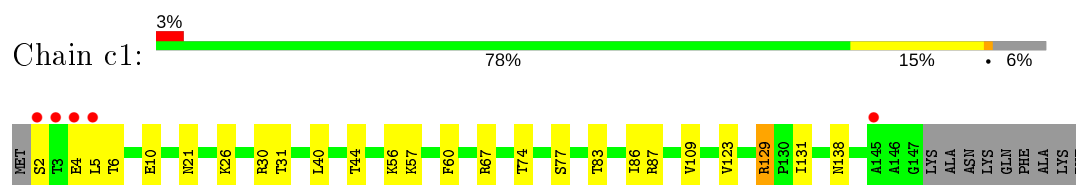
- Molecule 58: 40S ribosomal protein S10-A



- Molecule 59: 40S ribosomal protein S11-A

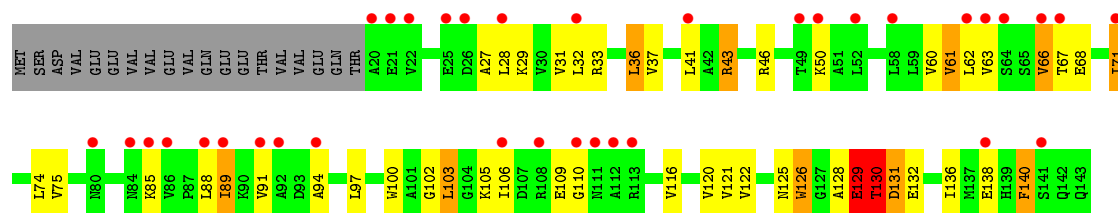


- Molecule 59: 40S ribosomal protein S11-A

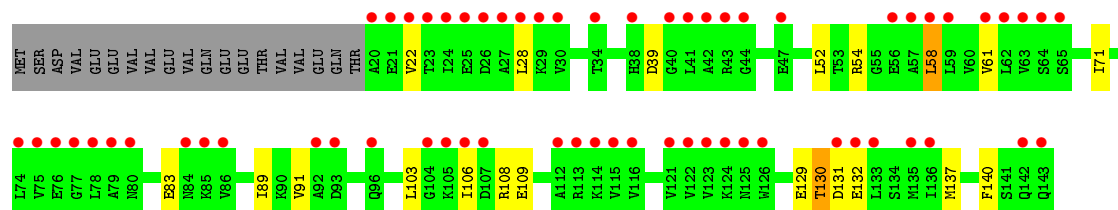
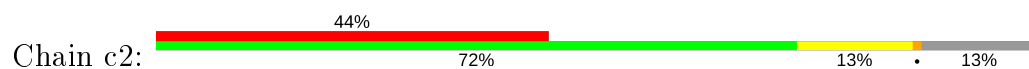


- Molecule 60: 40S ribosomal protein S12

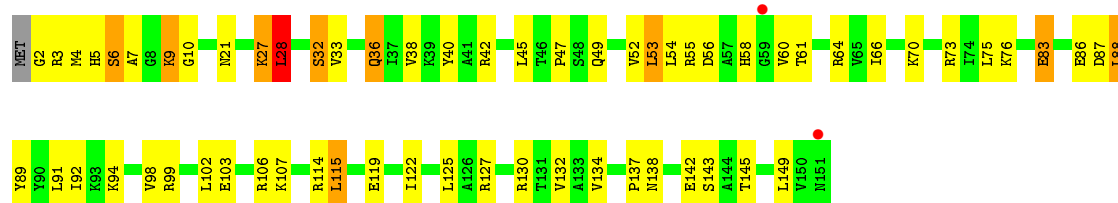




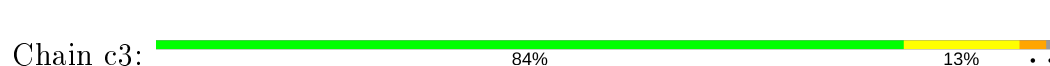
- Molecule 60: 40S ribosomal protein S12



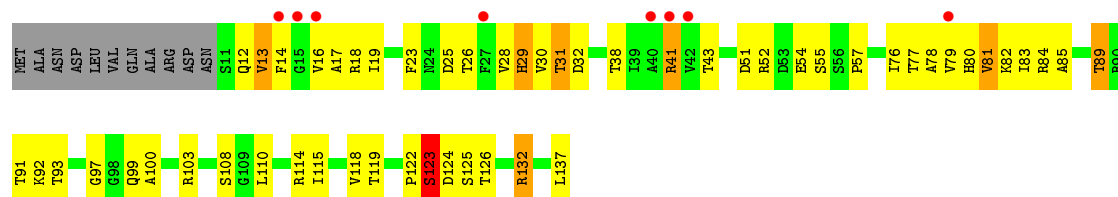
- Molecule 61: 40S ribosomal protein S13



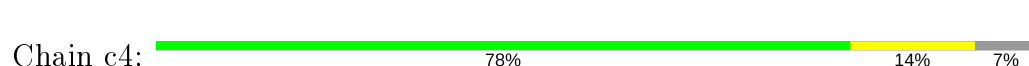
- Molecule 61: 40S ribosomal protein S13

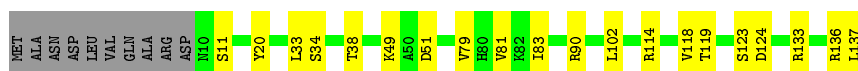


- Molecule 62: 40S ribosomal protein S14-B

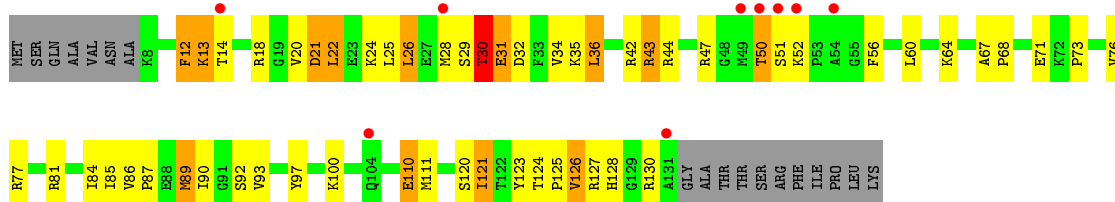


- Molecule 62: 40S ribosomal protein S14-B

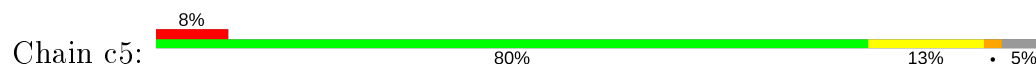




- Molecule 63: 40S ribosomal protein S15



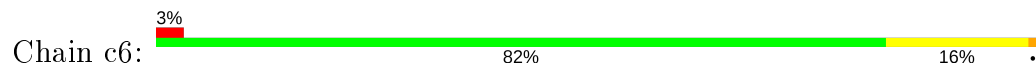
- Molecule 63: 40S ribosomal protein S15



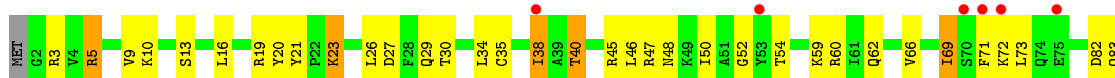
- Molecule 64: 40S ribosomal protein S16-A




- Molecule 64: 40S ribosomal protein S16-A

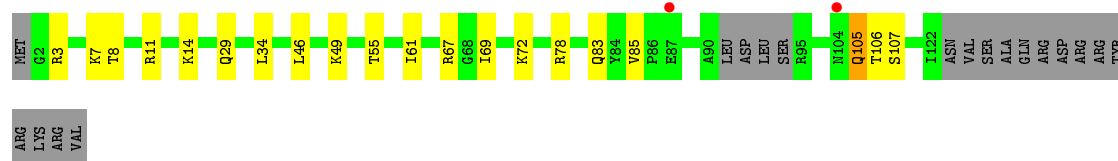


- Molecule 65: 40S ribosomal protein S17-A



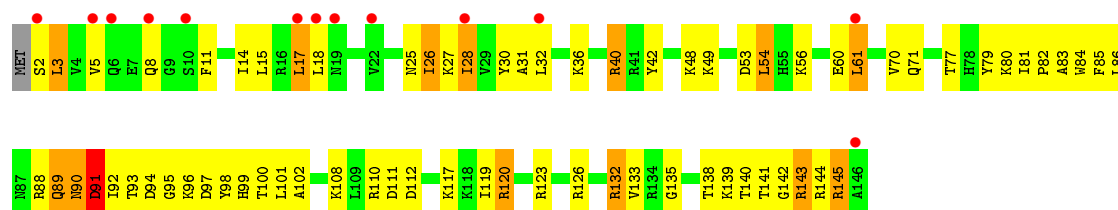
- Molecule 65: 40S ribosomal protein S17-A

Chain c7: 




- Molecule 66: 40S ribosomal protein S18-A

Chain T: 



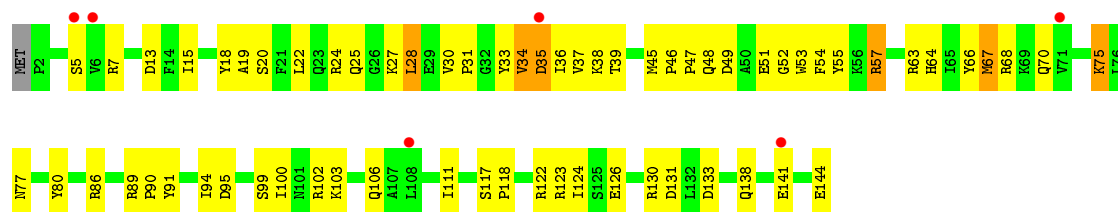
- Molecule 66: 40S ribosomal protein S18-A

Chain c8: 



- Molecule 67: 40S ribosomal protein S19-A

Chain U: 



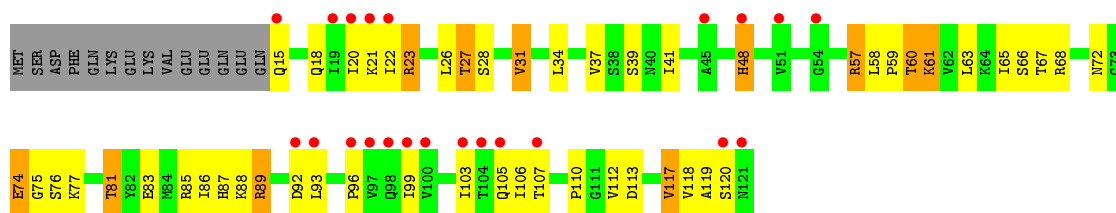
- Molecule 67: 40S ribosomal protein S19-A

Chain c9: 

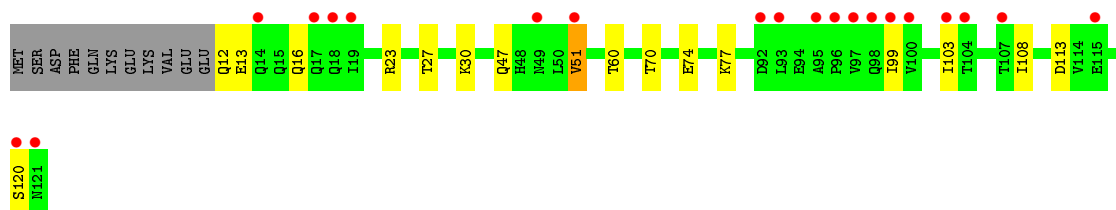
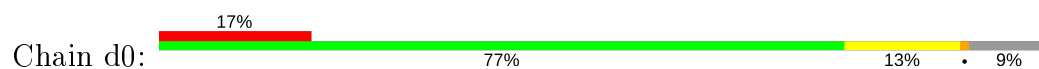


- Molecule 68: 40S ribosomal protein S20

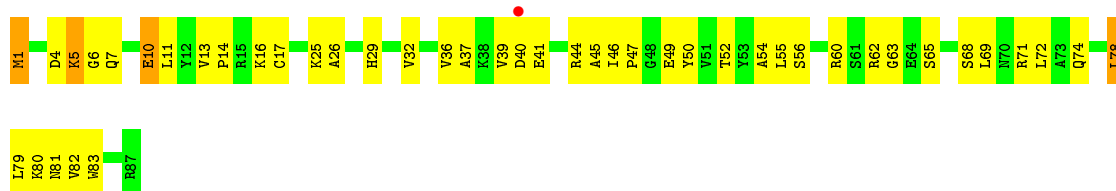
Chain V: 



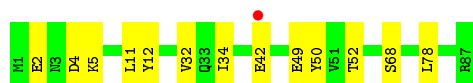
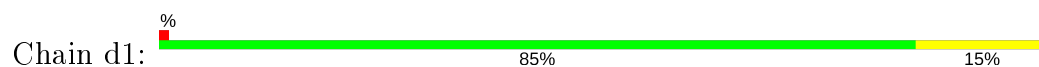
- Molecule 68: 40S ribosomal protein S20



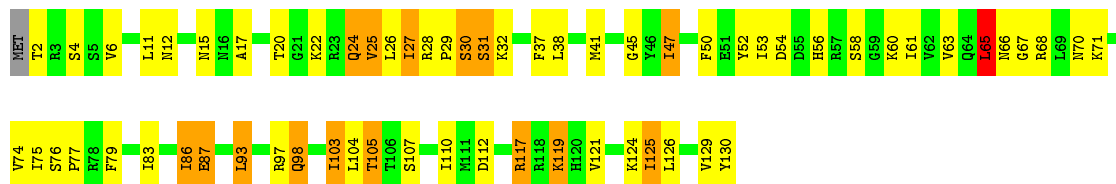
- Molecule 69: 40S ribosomal protein S21-A



- Molecule 69: 40S ribosomal protein S21-A



- Molecule 70: 40S ribosomal protein S22-A



- Molecule 70: 40S ribosomal protein S22-A





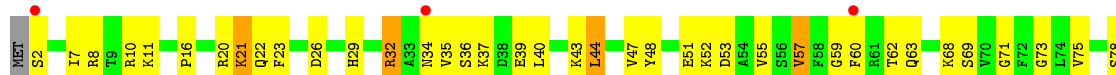
- Molecule 71: 40S ribosomal protein S23-A



- Molecule 71: 40S ribosomal protein S23-A



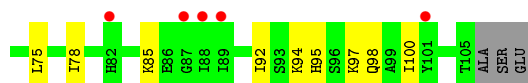
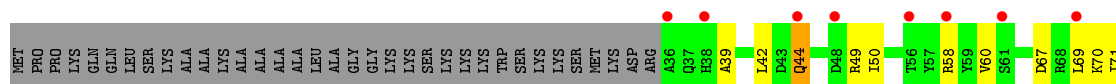
- Molecule 72: 40S ribosomal protein S24-A



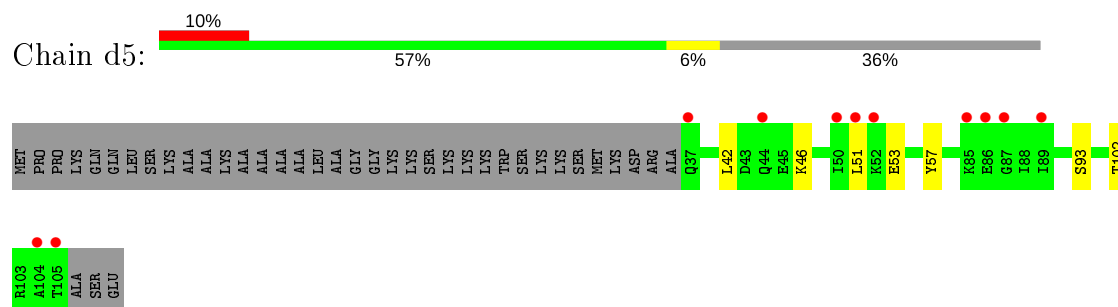
- Molecule 72: 40S ribosomal protein S24-A



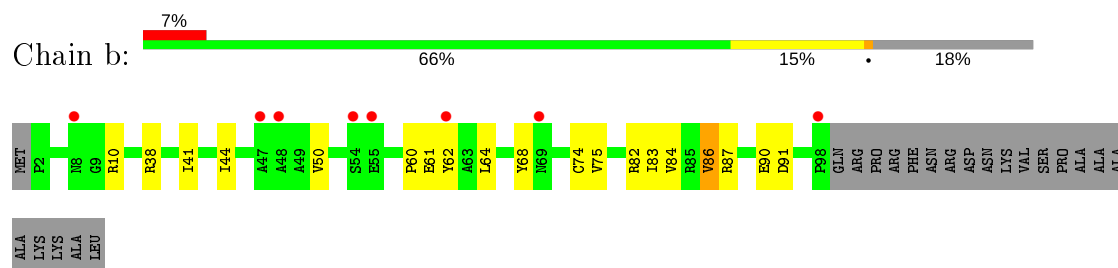
- Molecule 73: 40S ribosomal protein S25-A



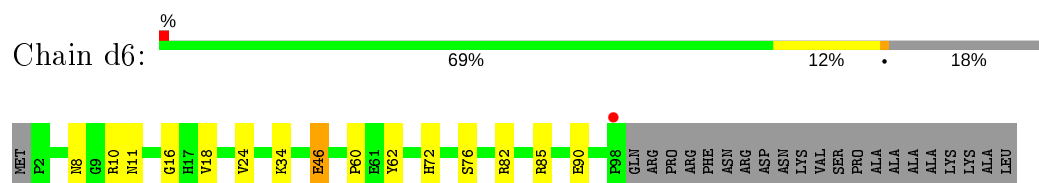
- Molecule 73: 40S ribosomal protein S25-A



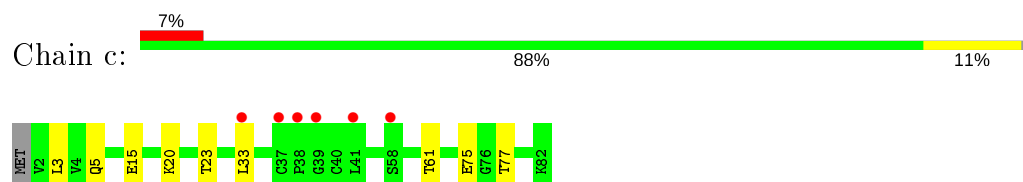
- Molecule 74: 40S ribosomal protein S26-B



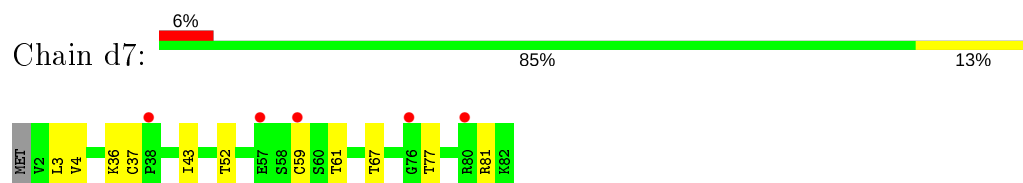
- Molecule 74: 40S ribosomal protein S26-B



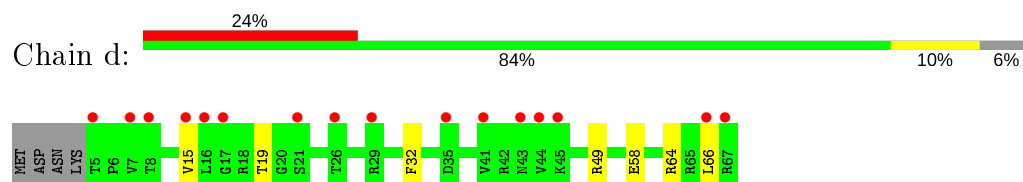
- Molecule 75: 40S ribosomal protein S27-A



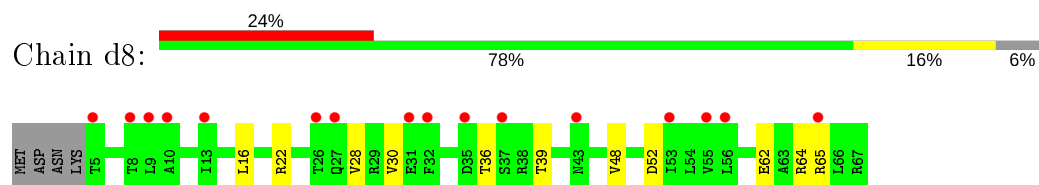
- Molecule 75: 40S ribosomal protein S27-A



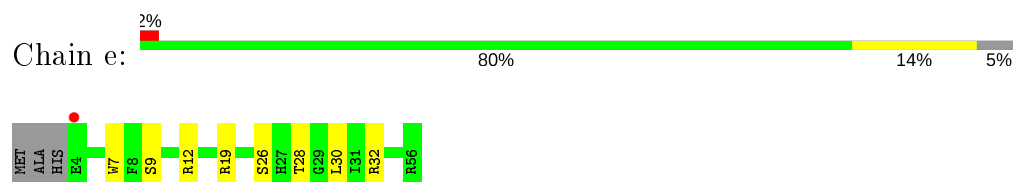
- Molecule 76: 40S ribosomal protein S28-A



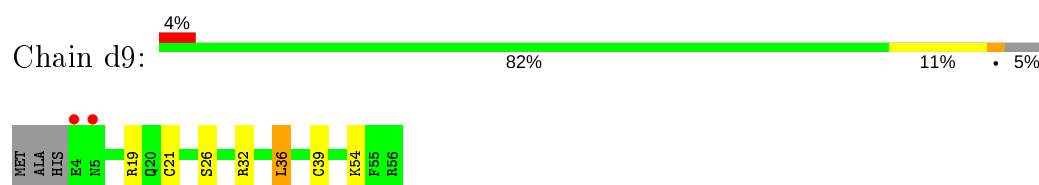
- Molecule 76: 40S ribosomal protein S28-A



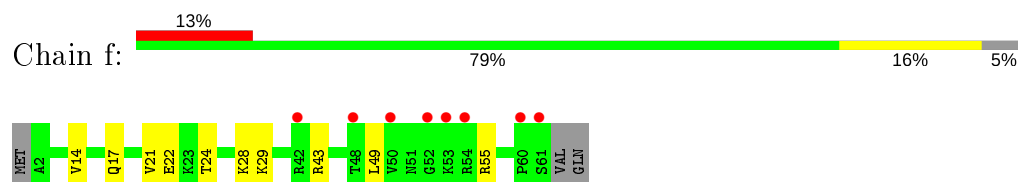
- Molecule 77: 40S ribosomal protein S29-A



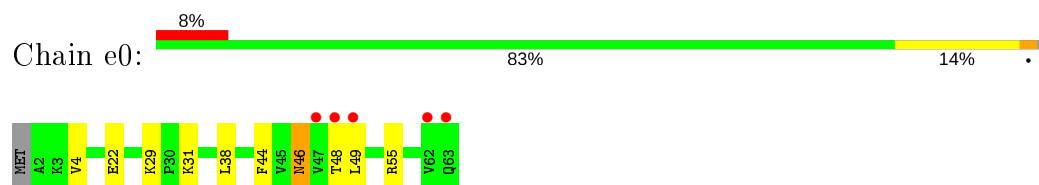
- Molecule 77: 40S ribosomal protein S29-A



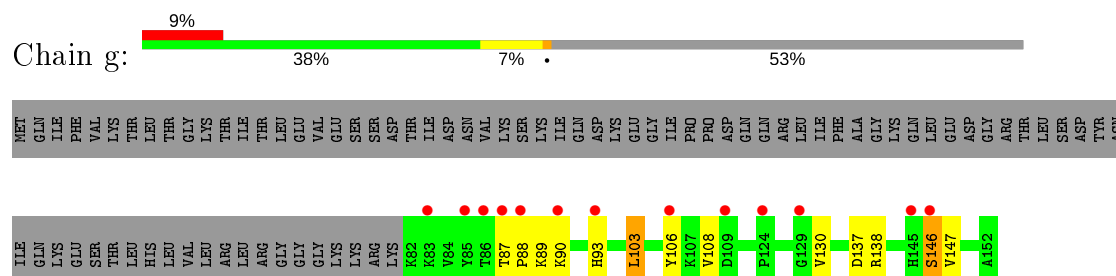
- Molecule 78: 40S ribosomal protein S30-A



- Molecule 78: 40S ribosomal protein S30-A

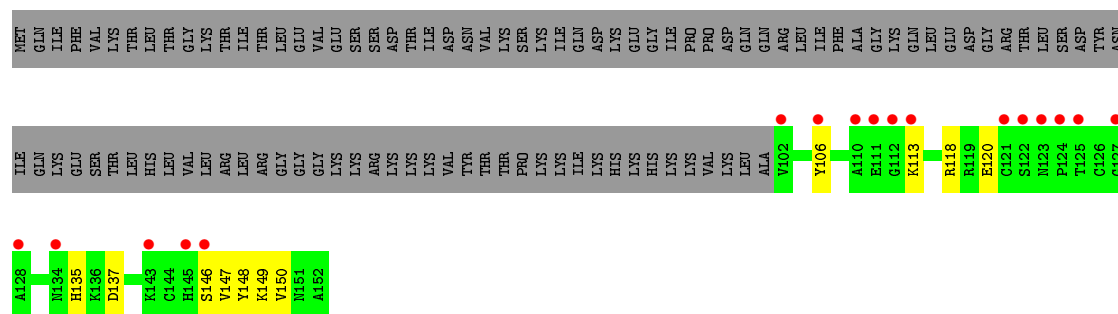


- Molecule 79: Ubiquitin-40S ribosomal protein S31

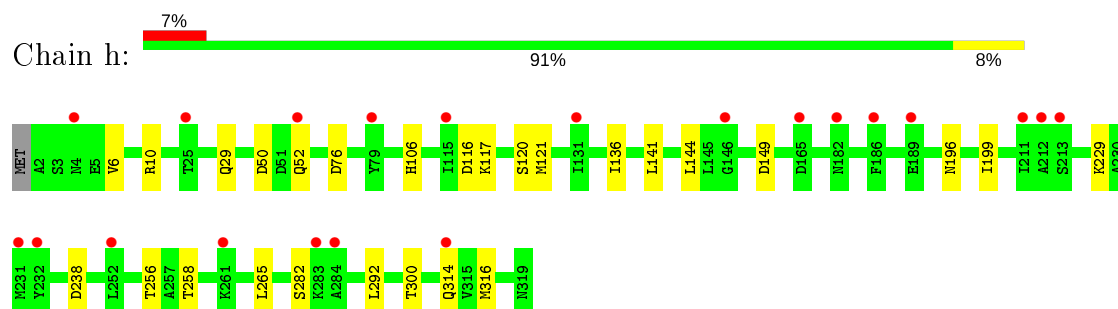


- Molecule 79: Ubiquitin-40S ribosomal protein S31

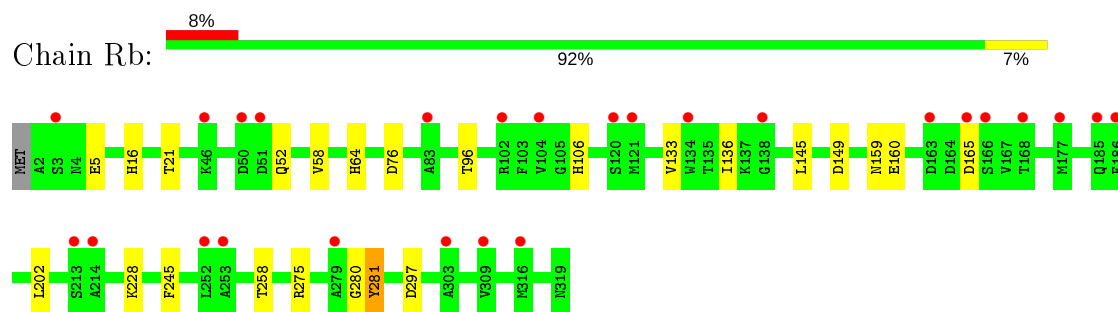




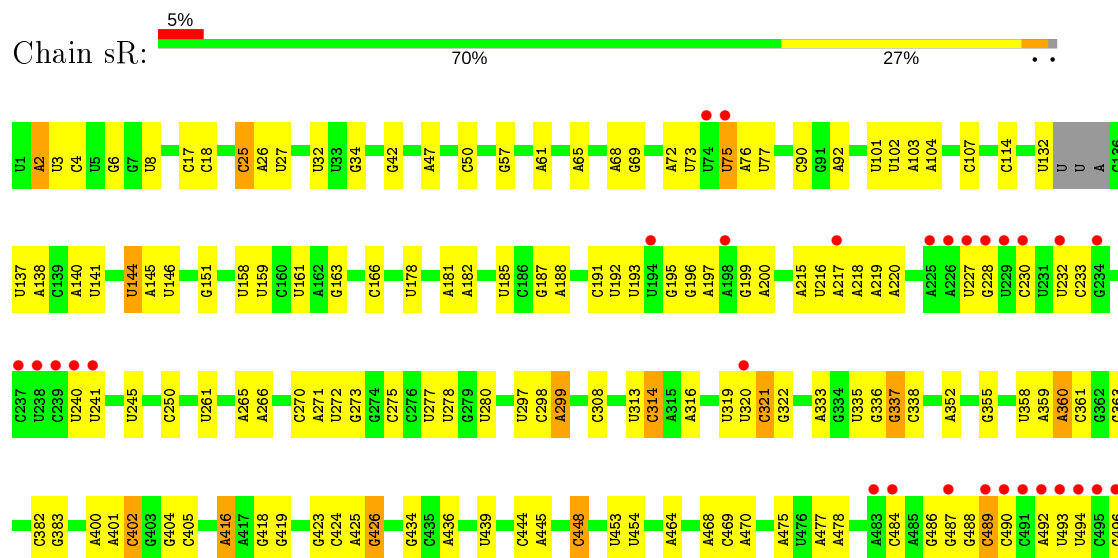
- Molecule 80: Guanine nucleotide-binding protein subunit beta-like protein

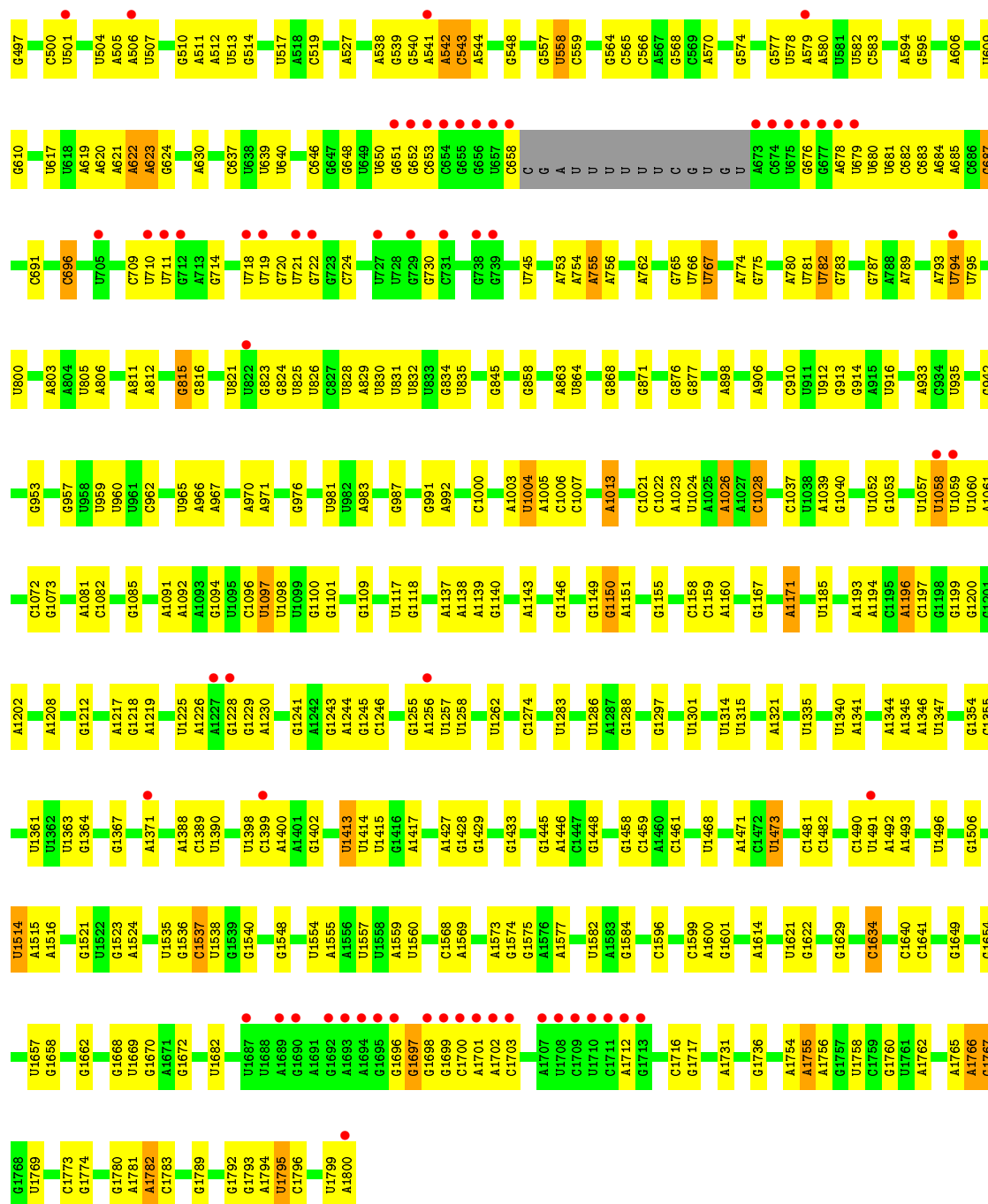


- Molecule 80: Guanine nucleotide-binding protein subunit beta-like protein



- Molecule 81: 18S ribosomal RNA





4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	303.77Å 287.95Å 435.45Å 90.00° 98.96° 90.00°	Depositor
Resolution (Å)	54.71 – 3.10 54.71 – 3.10	Depositor EDS
% Data completeness (in resolution range)	100.0 (54.71-3.10) 100.0 (54.71-3.10)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.45 (at 3.13Å)	Xtriage
Refinement program	PHENIX dev_2450, PHENIX dev_2450	Depositor
R, R_{free}	0.217 , 0.264 0.217 , 0.265	Depositor DCC
R_{free} test set	26494 reflections (1.99%)	wwPDB-VP
Wilson B-factor (Å ²)	67.0	Xtriage
Anisotropy	0.278	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 53.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	409486	wwPDB-VP
Average B, all atoms (Å ²)	60.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.47% 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: GOL, ZN, OHX, MG, G5B

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	1	1.00	49/75394 (0.1%)	1.43	925/117545 (0.8%)
1	AR	1.04	61/75347 (0.1%)	1.44	947/117472 (0.8%)
2	3	0.82	0/2883	1.25	7/4491 (0.2%)
2	AS	0.97	2/2883 (0.1%)	1.37	16/4491 (0.4%)
3	4	0.96	0/3746	1.35	28/5832 (0.5%)
3	AT	0.88	2/3746 (0.1%)	1.28	17/5832 (0.3%)
4	CD	0.54	0/1948	0.72	0/2617
4	j	0.54	0/1948	0.74	1/2617 (0.0%)
5	CE	0.63	0/3146	0.74	1/4228 (0.0%)
5	k	0.55	0/3146	0.70	1/4228 (0.0%)
6	CF	0.59	1/2800 (0.0%)	0.74	2/3790 (0.1%)
6	l	0.62	1/2800 (0.0%)	0.79	2/3790 (0.1%)
7	CG	0.61	1/2425 (0.0%)	0.69	0/3271
7	m	0.46	0/2425	0.64	0/3271
8	CH	0.60	0/1260	0.71	1/1694 (0.1%)
8	n	0.59	0/1260	0.69	1/1694 (0.1%)
9	CI	0.63	0/1821	0.73	2/2451 (0.1%)
9	o	0.59	0/1821	0.74	0/2451
10	CJ	0.44	0/1836	0.59	0/2481
10	p	0.47	0/1836	0.59	1/2481 (0.0%)
11	CK	0.56	0/1539	0.68	0/2073
11	q	0.53	0/1539	0.66	0/2073
12	CL	0.58	1/1741 (0.1%)	0.75	2/2335 (0.1%)
12	r	0.63	1/1741 (0.1%)	0.72	3/2335 (0.1%)
13	CM	0.53	1/1374 (0.1%)	0.72	2/1842 (0.1%)
13	s	0.43	0/1374	0.65	0/1842
14	CN	0.51	0/1568	0.63	0/2106
14	t	0.79	1/1568 (0.1%)	0.68	0/2106
15	CO	0.58	0/1068	0.68	0/1438
15	u	0.55	0/1068	0.65	0/1438
16	CP	0.52	0/1757	0.67	0/2354
16	v	0.59	0/1757	0.74	1/2354 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	CQ	0.73	0/1585	0.80	3/2128 (0.1%)
17	w	0.64	0/1585	0.72	1/2128 (0.0%)
18	CR	0.62	0/1443	0.71	0/1944
18	x	0.58	0/1443	0.70	0/1944
19	CS	0.59	0/1465	0.80	2/1965 (0.1%)
19	y	0.60	0/1465	0.77	1/1965 (0.1%)
20	CT	0.49	0/1538	0.61	0/2050
20	z	0.44	0/1538	0.60	0/2050
21	0	0.59	0/1481	0.70	0/1990
21	CU	0.65	0/1481	0.69	0/1990
22	2	0.58	0/1300	0.69	0/1743
22	CV	0.62	0/1300	0.70	0/1743
23	5	0.37	0/812	0.55	0/1099
23	CW	0.44	0/812	0.59	0/1099
24	6	0.59	0/1018	0.73	0/1369
24	CX	0.62	0/1018	0.73	0/1369
25	7	0.42	0/712	0.55	0/958
25	CY	0.49	0/848	0.57	0/1146
26	8	0.50	0/979	0.65	0/1321
26	CZ	0.49	0/979	0.68	0/1321
27	9	0.56	0/1004	0.79	1/1341 (0.1%)
27	DA	0.52	0/987	0.70	0/1318
28	AA	0.51	1/1118 (0.1%)	0.62	1/1497 (0.1%)
28	DB	0.49	1/1118 (0.1%)	0.56	0/1497
29	AB	0.63	0/1204	0.81	1/1612 (0.1%)
29	DC	0.58	0/1204	0.74	1/1612 (0.1%)
30	AC	0.54	0/473	0.67	0/629
30	DD	0.53	0/473	0.69	0/629
31	AD	0.41	0/751	0.59	0/1008
31	DE	0.41	0/751	0.61	1/1008 (0.1%)
32	AE	0.50	0/890	0.60	0/1196
32	DF	0.57	0/890	0.65	0/1196
33	AF	0.62	0/1041	0.73	0/1394
33	DG	0.63	0/1041	0.75	0/1394
34	AG	0.70	0/868	0.73	0/1168
34	DH	0.68	0/868	0.71	0/1168
35	AH	0.48	0/890	0.70	0/1189
35	DI	0.52	0/890	0.64	0/1189
36	AI	0.57	1/978 (0.1%)	0.72	2/1301 (0.2%)
36	DJ	0.50	0/978	0.66	1/1301 (0.1%)
37	AJ	0.50	0/778	0.65	0/1034
37	DK	0.45	0/778	0.60	0/1034
38	AK	0.59	0/696	0.78	1/923 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DL	0.58	0/696	0.71	0/923
39	AL	0.44	0/618	0.56	0/826
39	DM	0.40	0/618	0.60	0/826
40	AM	0.64	0/443	0.76	0/588
40	DN	0.58	0/443	0.75	0/588
41	AN	0.59	0/423	0.77	0/562
41	DO	0.71	0/423	0.79	0/562
42	AO	0.48	0/234	0.70	0/300
42	DP	0.68	0/234	0.81	0/300
43	AP	0.60	0/860	0.76	1/1136 (0.1%)
43	DQ	0.62	0/860	0.78	0/1136
44	AQ	0.58	0/701	0.70	0/934
44	DR	0.58	0/701	0.78	0/934
45	i	0.40	0/1113	0.64	1/1502 (0.1%)
45	sM	0.42	0/480	0.69	0/642
46	p0	0.41	0/1091	0.60	2/1472 (0.1%)
47	A	0.64	9/42443 (0.0%)	1.16	193/66134 (0.3%)
48	B	0.38	0/1617	0.59	0/2215
48	s0	0.47	1/1623 (0.1%)	0.60	0/2222
49	C	0.30	0/1735	0.58	1/2335 (0.0%)
49	s1	0.42	0/1748	0.61	1/2352 (0.0%)
50	D	0.39	0/1665	0.60	0/2263
50	s2	0.45	0/1665	0.67	0/2263
51	E	0.39	0/1759	0.55	0/2368
51	s3	0.38	0/1759	0.55	0/2368
52	F	0.44	1/2109 (0.0%)	0.63	1/2839 (0.0%)
52	s4	0.53	1/2109 (0.0%)	0.64	0/2839
53	G	0.32	0/1629	0.54	0/2202
53	s5	0.35	0/1629	0.53	0/2202
54	H	0.38	0/1823	0.60	1/2439 (0.0%)
54	s6	0.47	0/1779	0.63	0/2379
55	I	0.37	0/1506	0.58	0/2028
55	s7	0.40	0/1516	0.58	0/2043
56	J	0.42	0/1514	0.67	1/2021 (0.0%)
56	s8	0.47	0/1514	0.63	1/2021 (0.0%)
57	K	0.39	0/1519	0.60	1/2035 (0.0%)
57	s9	0.43	0/1519	0.60	0/2035
58	L	0.34	0/789	0.60	1/1067 (0.1%)
58	c0	0.33	0/776	0.58	2/1047 (0.2%)
59	M	0.46	0/1239	0.62	0/1673
59	c1	0.52	1/1194 (0.1%)	0.65	0/1610
60	N	0.34	0/898	0.62	0/1220
60	c2	0.27	0/898	0.61	1/1220 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
61	O	0.42	0/1215	0.56	0/1638
61	c3	0.45	0/1215	0.69	3/1638 (0.2%)
62	P	0.31	0/901	0.59	0/1217
62	c4	0.45	0/960	0.66	0/1290
63	Q	0.40	0/998	0.57	0/1341
63	c5	0.41	0/1060	0.62	0/1426
64	R	0.35	0/1125	0.59	0/1510
64	c6	0.37	0/1131	0.65	1/1518 (0.1%)
65	S	0.35	0/935	0.55	0/1254
65	c7	0.40	0/914	0.61	0/1224
66	T	0.36	0/1211	0.57	0/1628
66	c8	0.39	0/1211	0.60	2/1628 (0.1%)
67	U	0.36	0/1130	0.54	0/1517
67	c9	0.38	0/1130	0.54	0/1517
68	V	0.37	0/865	0.55	0/1169
68	d0	0.39	0/892	0.57	0/1205
69	W	0.36	0/693	0.58	0/935
69	d1	0.41	0/693	0.65	0/935
70	X	0.41	0/1038	0.64	2/1395 (0.1%)
70	d2	0.48	0/1038	0.66	0/1395
71	Y	0.47	0/1139	0.70	1/1518 (0.1%)
71	d3	0.54	0/1139	0.68	0/1518
72	Z	0.39	0/1087	0.54	0/1449
72	d4	0.43	0/1087	0.64	0/1449
73	a	0.32	0/571	0.55	0/768
73	d5	0.35	0/566	0.51	0/761
74	b	0.35	0/782	0.66	0/1047
74	d6	0.48	0/782	0.69	0/1047
75	c	0.36	0/620	0.62	0/838
75	d7	0.47	1/620 (0.2%)	0.63	0/838
76	d	0.32	0/499	0.55	0/670
76	d8	0.35	0/499	0.66	0/670
77	d9	0.42	0/452	0.62	1/600 (0.2%)
77	e	0.42	0/452	0.61	0/600
78	e0	0.44	0/499	0.61	0/665
78	f	0.38	0/483	0.52	0/643
79	e1	0.31	0/404	0.56	0/542
79	g	0.37	0/577	0.61	0/770
80	Rb	0.33	0/2495	0.55	0/3395
80	h	0.32	0/2490	0.54	0/3389
81	sR	0.78	17/42490 (0.0%)	1.24	270/66207 (0.4%)
All	All	0.77	155/430036 (0.0%)	1.14	2464/631418 (0.4%)

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
4	j	0	1
5	CE	0	2
5	k	0	2
6	CF	0	1
6	l	0	3
7	CG	0	4
7	m	0	3
8	CH	0	1
9	CI	0	2
9	o	0	2
10	CJ	0	3
11	CK	0	1
11	q	0	1
13	CM	0	1
13	s	0	1
14	CN	0	1
14	t	0	1
15	CO	0	1
15	u	0	2
16	CP	0	1
16	v	0	2
17	CQ	0	2
17	w	0	1
19	CS	0	1
21	0	0	1
22	2	0	1
28	AA	0	1
28	DB	0	1
29	AB	0	1
29	DC	0	1
30	AC	0	1
30	DD	0	1
32	AE	0	2
36	AI	0	1
36	DJ	0	1
43	DQ	0	1
46	p0	0	1
48	B	0	2
48	s0	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
50	s2	0	1
51	E	0	1
51	s3	0	3
52	F	0	1
53	G	0	2
53	s5	0	1
54	H	0	2
54	s6	0	1
55	I	0	4
55	s7	0	2
56	J	0	2
56	s8	0	1
57	K	0	2
59	M	0	2
60	N	0	4
60	c2	0	2
61	O	0	1
61	c3	0	2
62	P	0	1
62	c4	0	3
63	c5	0	2
64	R	0	1
64	c6	0	3
65	c7	0	1
66	T	0	3
66	c8	0	3
69	d1	0	1
71	Y	0	2
71	d3	0	1
72	d4	0	1
73	a	0	1
74	b	0	3
78	e0	0	1
79	e1	0	1
79	g	0	3
80	Rb	0	2
All	All	0	124

All (155) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	t	132	ALA	C-N	21.63	1.75	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AR	870	G	C8-N7	13.78	1.39	1.30
52	s4	82	TYR	C-N	-13.10	1.09	1.34
81	sR	1662	G	C8-N7	11.30	1.37	1.30
12	r	92	HIS	C-N	10.69	1.54	1.34
1	AR	275	U	C4-O4	9.57	1.31	1.23
48	s0	160	ILE	C-N	-9.56	1.16	1.34
81	sR	1007	C	P-OP2	9.53	1.65	1.49
1	1	1934	G	C8-N7	9.16	1.36	1.30
47	A	423	G	C8-N7	8.97	1.36	1.30
81	sR	1672	G	C8-N7	8.40	1.35	1.30
52	F	82	TYR	C-N	-8.39	1.18	1.34
1	AR	812	G	C8-N7	8.10	1.35	1.30
7	CG	179	ARG	C-N	-8.01	1.15	1.34
1	1	3181	C	N3-C4	-7.96	1.28	1.33
1	AR	3075	G	C6-O6	7.95	1.31	1.24
1	AR	2700	G	C8-N7	7.90	1.35	1.30
28	DB	36	HIS	C-N	7.77	1.49	1.34
6	CF	94	CYS	CB-SG	-7.69	1.69	1.82
1	AR	2401	A	N3-C4	7.64	1.39	1.34
81	sR	1756	A	P-OP2	7.63	1.61	1.49
1	1	275	U	C4-O4	7.56	1.29	1.23
1	AR	2401	A	N9-C4	7.48	1.42	1.37
1	AR	870	G	N9-C8	7.20	1.42	1.37
6	l	94	CYS	CB-SG	-7.10	1.70	1.82
1	AR	870	G	N7-C5	6.98	1.43	1.39
81	sR	1672	G	N7-C5	6.87	1.43	1.39
81	sR	1758	U	C4-O4	6.82	1.29	1.23
1	AR	2903	A	N9-C4	-6.79	1.33	1.37
1	1	2273	G	C6-O6	6.78	1.30	1.24
1	AR	3319	U	N1-C2	6.74	1.44	1.38
1	AR	2725	U	C4-O4	6.73	1.29	1.23
1	1	2395	G	C8-N7	-6.73	1.26	1.30
1	AR	3362	A	N9-C4	-6.69	1.33	1.37
1	AR	1115	G	N7-C5	-6.64	1.35	1.39
1	AR	2714	G	N9-C4	-6.43	1.32	1.38
1	1	2395	G	N7-C5	-6.42	1.35	1.39
3	AT	15	G	P-OP2	6.37	1.59	1.49
1	1	921	A	N7-C5	-6.37	1.35	1.39
1	1	1132	C	N3-C4	-6.35	1.29	1.33
1	AR	1047	A	C5-C6	-6.35	1.35	1.41
36	AI	64	GLU	CG-CD	6.34	1.61	1.51
1	AR	2983	C	N3-C4	-6.34	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	c1	57	LYS	C-N	6.24	1.48	1.34
1	AR	924	G	C5-C4	-6.23	1.33	1.38
12	CL	8	CYS	CB-SG	-6.23	1.71	1.82
1	AR	3006	A	N3-C4	-6.22	1.31	1.34
1	AR	2604	U	C4-O4	6.20	1.28	1.23
47	A	1214	U	C2-N3	6.20	1.42	1.37
1	1	804	C	N1-C6	-6.19	1.33	1.37
81	sR	1629	G	C2'-O2'	6.14	1.49	1.41
1	1	638	C	N1-C6	-6.14	1.33	1.37
1	AR	1103	A	N9-C4	6.13	1.41	1.37
47	A	423	G	N9-C8	6.10	1.42	1.37
47	A	577	G	C6-N1	6.09	1.43	1.39
1	AR	2147	A	C5-C6	-6.04	1.35	1.41
1	AR	2663	G	C6-O6	6.04	1.29	1.24
81	sR	163	G	N9-C4	-5.93	1.33	1.38
1	1	1143	A	N3-C4	-5.92	1.31	1.34
1	1	1429	G	N9-C8	-5.91	1.33	1.37
1	AR	2934	A	C6-N1	-5.90	1.31	1.35
1	1	1143	A	N9-C4	-5.88	1.34	1.37
1	1	2177	G	C6-O6	5.85	1.29	1.24
1	1	956	U	N1-C2	-5.85	1.33	1.38
1	1	1103	A	N9-C4	5.84	1.41	1.37
1	1	1103	A	N7-C5	5.81	1.42	1.39
1	AR	1132	C	N3-C4	-5.81	1.29	1.33
1	1	2333	C	N3-C4	-5.76	1.29	1.33
1	1	1133	A	N9-C4	-5.76	1.34	1.37
47	A	1265	G	N7-C5	5.75	1.42	1.39
75	d7	36	LYS	C-N	5.74	1.47	1.34
1	1	803	C	N1-C2	-5.74	1.34	1.40
47	A	976	G	C6-O6	5.71	1.29	1.24
1	1	1900	A	N9-C4	-5.71	1.34	1.37
1	AR	2846	U	N3-C4	-5.71	1.33	1.38
1	1	716	A	C5-C6	-5.64	1.35	1.41
1	1	1103	A	N3-C4	5.64	1.38	1.34
1	AR	1143	A	N9-C4	-5.62	1.34	1.37
1	1	1399	A	N9-C4	-5.61	1.34	1.37
1	1	98	G	N9-C4	-5.60	1.33	1.38
1	1	1116	G	N7-C5	-5.59	1.35	1.39
1	AR	3008	A	N9-C4	-5.57	1.34	1.37
1	1	1002	A	N9-C4	-5.56	1.34	1.37
81	sR	976	G	C6-O6	5.54	1.29	1.24
1	1	706	A	N9-C4	-5.54	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AR	964	G	N7-C5	-5.54	1.35	1.39
81	sR	337	G	C2-N3	5.53	1.37	1.32
81	sR	1765	A	N9-C4	-5.52	1.34	1.37
81	sR	577	G	C6-N1	5.51	1.43	1.39
1	AR	1874	A	N9-C4	-5.50	1.34	1.37
1	1	343	U	C2-N3	-5.47	1.33	1.37
1	1	2208	A	N9-C4	5.45	1.41	1.37
47	A	469	C	C2-O2	5.43	1.29	1.24
1	1	635	G	C5-C4	-5.40	1.34	1.38
1	AR	1332	A	N9-C4	-5.39	1.34	1.37
1	AR	3106	A	N7-C5	-5.39	1.36	1.39
47	A	1214	U	C4-O4	5.39	1.27	1.23
81	sR	163	G	N3-C4	-5.39	1.31	1.35
81	sR	1736	G	C6-O6	5.36	1.28	1.24
1	1	1370	G	C5-C6	-5.33	1.37	1.42
1	1	1891	A	N9-C4	-5.32	1.34	1.37
28	AA	36	HIS	C-N	5.29	1.44	1.34
1	1	1835	A	N9-C4	-5.29	1.34	1.37
1	1	658	G	N9-C8	-5.29	1.34	1.37
1	1	2762	A	N3-C4	-5.29	1.31	1.34
1	AR	367	A	N9-C4	-5.28	1.34	1.37
1	AR	1372	C	N1-C6	-5.27	1.33	1.37
1	1	1114	U	P-OP2	5.27	1.57	1.49
2	AS	49	G	N9-C8	-5.26	1.34	1.37
1	1	345	G	N9-C8	-5.26	1.34	1.37
47	A	423	G	N7-C5	5.26	1.42	1.39
1	1	1159	A	N3-C4	-5.26	1.31	1.34
1	1	656	A	N7-C5	-5.25	1.36	1.39
1	AR	2941	A	N9-C4	-5.25	1.34	1.37
3	AT	31	G	P-OP2	5.24	1.57	1.49
1	AR	3130	A	N3-C4	-5.21	1.31	1.34
2	AS	88	G	N9-C8	-5.20	1.34	1.37
1	AR	2726	C	N3-C4	-5.18	1.30	1.33
1	AR	1147	G	N9-C8	-5.16	1.34	1.37
1	AR	40	A	C8-N7	-5.15	1.27	1.31
1	1	970	A	N3-C4	-5.15	1.31	1.34
1	AR	2637	A	N9-C4	-5.15	1.34	1.37
81	sR	337	G	C2-N2	5.15	1.39	1.34
1	AR	953	G	C5-C4	-5.14	1.34	1.38
1	AR	804	C	N1-C6	-5.14	1.34	1.37
1	1	2617	U	N3-C4	-5.14	1.33	1.38
1	AR	973	A	N7-C5	-5.14	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AR	2404	A	C5-C4	5.14	1.42	1.38
1	AR	2617	U	N3-C4	-5.13	1.33	1.38
1	AR	3209	A	C6-N1	5.13	1.39	1.35
1	1	2983	C	N3-C4	-5.12	1.30	1.33
1	AR	3306	U	N1-C2	5.12	1.43	1.38
1	AR	2646	C	N1-C6	-5.09	1.34	1.37
1	AR	706	A	C5-C4	-5.08	1.35	1.38
81	sR	845	G	C8-N7	5.08	1.33	1.30
1	AR	1902	G	C5-C4	-5.07	1.34	1.38
13	CM	78	GLU	CG-CD	5.06	1.59	1.51
81	sR	1662	G	N7-C5	5.06	1.42	1.39
1	1	1390	A	N3-C4	-5.05	1.31	1.34
1	AR	934	G	C5-C4	-5.05	1.34	1.38
1	AR	1303	A	N9-C4	-5.05	1.34	1.37
1	AR	2903	A	N3-C4	-5.05	1.31	1.34
1	1	970	A	C6-N1	-5.05	1.32	1.35
1	AR	1103	A	N3-C4	5.05	1.37	1.34
1	AR	2413	A	C5-C6	-5.04	1.36	1.41
1	AR	647	A	C6-N1	-5.04	1.32	1.35
1	AR	970	A	N9-C4	-5.04	1.34	1.37
1	1	3010	U	C4-O4	5.03	1.27	1.23
1	AR	437	G	C5-C4	5.03	1.41	1.38
1	1	200	C	N1-C6	-5.02	1.34	1.37
1	AR	3040	A	N9-C4	-5.01	1.34	1.37
1	1	282	G	N1-C2	-5.01	1.33	1.37
1	1	317	A	N7-C5	-5.01	1.36	1.39
1	AR	420	G	N9-C8	-5.01	1.34	1.37
1	AR	2138	A	N7-C5	-5.00	1.36	1.39

All (2464) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	870	G	C5-N7-C8	-19.96	94.32	104.30
81	sR	1672	G	C5-N7-C8	-16.95	95.82	104.30
1	1	86	G	O5'-P-OP2	-16.12	91.19	105.70
1	AR	870	G	N7-C8-N9	15.53	120.86	113.10
1	AR	2700	G	C5-N7-C8	-14.21	97.19	104.30
1	AR	870	G	C8-N9-C4	-13.95	100.82	106.40
1	AR	3306	U	N3-C2-O2	-13.71	112.61	122.20
1	AR	1134	G	N1-C6-O6	13.53	128.02	119.90
1	1	1934	G	C5-N7-C8	-13.33	97.64	104.30
81	sR	1662	G	C5-N7-C8	-13.21	97.70	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	1897	G	N1-C6-O6	13.04	127.73	119.90
1	AR	1134	G	C5-C6-O6	-12.75	120.95	128.60
47	A	577	G	C5-C6-O6	-12.44	121.13	128.60
47	A	423	G	C5-N7-C8	-12.27	98.16	104.30
1	AR	1897	G	C5-N7-C8	-11.95	98.33	104.30
1	1	406	G	O4'-C1'-N9	11.88	117.70	108.20
1	AR	870	G	C4-C5-N7	11.65	115.46	110.80
1	AR	1902	G	C5-C6-O6	-11.57	121.66	128.60
81	sR	871	G	N1-C6-O6	11.56	126.84	119.90
1	1	2861	U	O5'-P-OP1	-11.56	95.30	105.70
81	sR	1672	G	N7-C8-N9	11.49	118.84	113.10
81	sR	1117	U	N3-C4-O4	11.24	127.27	119.40
1	AR	2373	A	O5'-P-OP1	-11.17	95.65	105.70
1	AR	275	U	N3-C4-C5	-11.11	107.93	114.60
47	A	1214	U	N3-C4-O4	11.09	127.16	119.40
81	sR	163	G	N3-C4-N9	-10.89	119.47	126.00
1	AR	1495	U	C5-C6-N1	-10.80	117.30	122.70
1	1	1934	G	C8-N9-C4	-10.76	102.10	106.40
1	AR	3075	G	C5-C6-N1	-10.73	106.14	111.50
47	A	423	G	C8-N9-C4	-10.73	102.11	106.40
1	AR	2846	U	C5-C4-O4	10.68	132.31	125.90
1	1	1934	G	N7-C8-N9	10.66	118.43	113.10
1	1	2617	U	C5-C4-O4	10.56	132.23	125.90
47	A	423	G	N7-C8-N9	10.49	118.34	113.10
81	sR	976	G	C5-C6-N1	-10.45	106.28	111.50
1	AR	3057	U	C5-C4-O4	10.43	132.16	125.90
1	1	2818	U	O5'-P-OP1	-10.38	96.36	105.70
47	A	577	G	C6-N1-C2	-10.36	118.88	125.10
1	AR	2860	U	O5'-P-OP2	-10.35	96.39	105.70
81	sR	1672	G	C4-C5-N7	10.35	114.94	110.80
1	AR	2700	G	C4-C5-N7	10.34	114.94	110.80
1	AR	3306	U	N1-C2-O2	10.31	130.02	122.80
1	AR	1495	U	C5-C4-O4	10.26	132.05	125.90
1	1	3278	C	N1-C2-O2	10.23	125.04	118.90
1	AR	877	C	N3-C4-C5	10.22	125.99	121.90
1	1	1495	U	C5-C6-N1	-10.17	117.62	122.70
1	1	716	A	N1-C6-N6	9.97	124.58	118.60
1	AR	2604	U	N3-C4-C5	-9.85	108.69	114.60
47	A	553	G	N1-C6-O6	9.83	125.80	119.90
1	AR	2846	U	N3-C2-O2	-9.80	115.34	122.20
47	A	639	U	N3-C2-O2	-9.66	115.44	122.20
1	AR	1897	G	C4-C5-N7	9.62	114.65	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	3217	C	N3-C2-O2	-9.60	115.18	121.90
1	1	3181	C	N3-C2-O2	-9.57	115.20	121.90
47	A	976	G	C5-C6-N1	-9.57	106.71	111.50
1	AR	2714	G	N3-C4-C5	9.56	133.38	128.60
1	AR	2726	C	N3-C2-O2	-9.55	115.22	121.90
1	1	2714	G	N3-C4-C5	9.50	133.35	128.60
1	AR	812	G	C5-N7-C8	-9.50	99.55	104.30
1	AR	2700	G	N7-C8-N9	9.49	117.85	113.10
1	AR	2111	G	O5'-P-OP1	9.48	122.08	110.70
1	AR	2846	U	N3-C4-O4	-9.46	112.78	119.40
1	1	2617	U	C5-C6-N1	-9.44	117.98	122.70
1	1	938	C	N3-C4-C5	9.44	125.68	121.90
1	AR	1115	G	C8-N9-C4	-9.42	102.63	106.40
1	1	3278	C	N3-C2-O2	-9.31	115.39	121.90
1	1	2395	G	N1-C6-O6	9.27	125.46	119.90
81	sR	1758	U	N3-C4-C5	-9.26	109.04	114.60
1	1	962	A	OP1-P-O3'	-9.22	84.92	105.20
1	1	2846	U	N3-C2-O2	-9.22	115.75	122.20
1	1	24	G	O5'-P-OP2	-9.21	97.41	105.70
1	1	1307	G	P-O3'-C3'	9.16	130.69	119.70
81	sR	1662	G	C8-N9-C1'	9.13	138.87	127.00
1	1	2831	G	N1-C6-O6	9.12	125.37	119.90
1	AR	2362	C	C6-N1-C2	-9.12	116.65	120.30
1	1	1556	C	C2-N1-C1'	9.11	128.82	118.80
1	AR	1047	A	N1-C6-N6	9.09	124.06	118.60
2	3	85	G	N1-C6-O6	9.05	125.33	119.90
1	1	2617	U	N1-C2-N3	9.04	120.32	114.90
1	1	637	C	C2-N1-C1'	-9.02	108.88	118.80
1	AR	1495	U	C4-C5-C6	9.01	125.11	119.70
1	1	1934	G	N3-C4-N9	-8.99	120.61	126.00
1	AR	1495	U	N1-C2-N3	8.98	120.29	114.90
81	sR	1000	C	C2-N1-C1'	8.96	128.65	118.80
1	1	439	C	N1-C2-O2	8.92	124.25	118.90
1	1	2663	G	N1-C6-O6	8.91	125.25	119.90
1	AR	2617	U	C5-C6-N1	-8.91	118.24	122.70
81	sR	448	C	C6-N1-C2	-8.91	116.74	120.30
1	AR	2385	G	O5'-P-OP1	-8.91	97.68	105.70
1	1	3217	C	C2-N1-C1'	8.88	128.56	118.80
1	AR	2726	C	C6-N1-C2	-8.87	116.75	120.30
1	AR	3057	U	N3-C2-O2	-8.87	115.99	122.20
1	AR	1134	G	C6-C5-N7	-8.86	125.08	130.40
1	1	1846	C	N1-C2-O2	-8.86	113.59	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2283	G	N1-C6-O6	8.84	125.20	119.90
1	1	2726	C	C6-N1-C2	-8.82	116.77	120.30
1	AR	1897	G	C5-C6-O6	-8.79	123.33	128.60
47	A	469	C	N1-C2-O2	8.79	124.17	118.90
1	AR	2623	G	C5-C6-O6	-8.79	123.33	128.60
47	A	565	C	C2-N3-C4	-8.78	115.51	119.90
1	1	962	A	OP2-P-O3'	8.76	124.48	105.20
81	sR	1662	G	N7-C8-N9	8.76	117.48	113.10
81	sR	1629	G	N3-C4-C5	-8.76	124.22	128.60
47	A	75	U	N1-C2-O2	8.73	128.91	122.80
1	1	1308	A	O5'-P-OP1	-8.72	97.85	105.70
81	sR	1473	U	N3-C2-O2	-8.72	116.09	122.20
1	AR	1881	A	O5'-P-OP2	-8.71	97.86	105.70
1	AR	2393	G	O5'-P-OP2	-8.71	97.86	105.70
1	AR	2794	G	C5-C6-O6	-8.71	123.38	128.60
1	AR	2964	G	N1-C6-O6	-8.69	114.68	119.90
1	AR	437	G	N7-C8-N9	8.69	117.44	113.10
1	AR	2367	A	O5'-P-OP2	8.66	121.09	110.70
81	sR	1629	G	C8-N9-C4	-8.65	102.94	106.40
1	AR	870	G	C8-N9-C1'	8.65	138.24	127.00
1	AR	1897	G	N7-C8-N9	8.65	117.42	113.10
1	AR	1902	G	N1-C6-O6	8.64	125.09	119.90
1	AR	437	G	C8-N9-C4	-8.61	102.96	106.40
1	AR	1897	G	C8-N9-C4	-8.60	102.96	106.40
1	AR	960	U	C5-C6-N1	8.54	126.97	122.70
1	AR	922	U	C5-C6-N1	8.53	126.96	122.70
1	AR	3344	A	N7-C8-N9	8.52	118.06	113.80
1	AR	2392	C	C6-N1-C2	8.52	123.71	120.30
1	1	97	U	C5-C6-N1	-8.52	118.44	122.70
1	AR	2679	A	N1-C6-N6	8.52	123.71	118.60
1	1	2831	G	C5-C6-O6	-8.50	123.50	128.60
47	A	1214	U	C2-N1-C1'	8.50	127.90	117.70
1	1	933	A	N1-C2-N3	8.48	133.54	129.30
1	1	1495	U	C4-C5-C6	8.47	124.78	119.70
81	sR	103	A	OP1-P-OP2	-8.47	106.89	119.60
1	1	1556	C	N1-C2-O2	8.47	123.98	118.90
1	1	2419	A	O5'-P-OP2	-8.46	98.09	105.70
1	1	645	A	C6-N1-C2	-8.45	113.53	118.60
1	1	2870	C	C2-N1-C1'	-8.45	109.51	118.80
47	A	554	C	N1-C2-O2	8.45	123.97	118.90
1	AR	3217	C	N1-C2-O2	8.43	123.96	118.90
1	1	1146	C	O5'-P-OP2	-8.42	98.12	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	2700	G	C5-C6-O6	-8.42	123.55	128.60
3	4	74	U	O5'-P-OP1	-8.41	98.13	105.70
47	A	577	G	C5-C6-N1	8.41	115.70	111.50
1	1	1934	G	N9-C4-C5	8.40	108.76	105.40
81	sR	453	U	C2-N1-C1'	8.38	127.76	117.70
1	AR	1134	G	C4-C5-N7	8.38	114.15	110.80
1	1	2138	A	C8-N9-C4	-8.37	102.45	105.80
1	AR	2604	U	C6-N1-C2	-8.37	115.98	121.00
81	sR	402	C	O5'-P-OP2	-8.36	98.18	105.70
47	A	453	U	C2-N1-C1'	8.33	127.70	117.70
1	AR	2927	C	C6-N1-C2	-8.33	116.97	120.30
1	1	1049	C	O5'-P-OP1	-8.33	98.21	105.70
1	AR	2825	C	C6-N1-C2	8.33	123.63	120.30
1	1	1672	U	OP2-P-O3'	8.30	123.47	105.20
1	1	1160	C	O5'-P-OP1	-8.27	98.26	105.70
1	AR	2341	A	C8-N9-C4	8.26	109.10	105.80
1	AR	1313	G	O5'-P-OP2	-8.24	98.28	105.70
1	AR	3344	A	C8-N9-C4	-8.24	102.50	105.80
1	1	1581	C	N1-C2-O2	8.23	123.84	118.90
1	1	3181	C	N3-C4-N4	-8.23	112.24	118.00
1	AR	835	G	O4'-C1'-N9	8.22	114.78	108.20
47	A	75	U	N3-C2-O2	-8.22	116.44	122.20
1	AR	2358	A	C8-N9-C4	8.22	109.09	105.80
1	AR	2243	A	O5'-P-OP1	-8.21	98.31	105.70
1	1	111	C	C5-C6-N1	-8.21	116.90	121.00
1	AR	283	G	C4-C5-N7	8.19	114.08	110.80
1	AR	2617	U	C5-C4-O4	8.19	130.81	125.90
1	1	275	U	N3-C4-C5	-8.19	109.69	114.60
1	AR	655	C	C6-N1-C2	-8.18	117.03	120.30
1	AR	1556	C	C6-N1-C2	-8.18	117.03	120.30
81	sR	1773	C	N3-C4-C5	-8.18	118.63	121.90
1	1	2389	C	O5'-P-OP1	-8.17	98.34	105.70
81	sR	1560	U	N3-C2-O2	-8.17	116.48	122.20
1	1	651	G	N3-C4-N9	8.17	130.90	126.00
1	1	2273	G	C5-C6-N1	-8.17	107.42	111.50
1	1	947	G	O5'-P-OP2	-8.16	98.36	105.70
1	AR	1373	A	O5'-P-OP2	-8.15	98.36	105.70
1	1	1127	G	N1-C6-O6	8.15	124.79	119.90
1	1	2700	G	N1-C6-O6	8.13	124.78	119.90
1	AR	812	G	C8-N9-C4	-8.13	103.15	106.40
47	A	25	C	N1-C2-O2	8.13	123.78	118.90
1	1	3181	C	C5-C4-N4	8.10	125.87	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	881	C	C5-C6-N1	8.10	125.05	121.00
1	AR	2726	C	N1-C2-N3	8.09	124.86	119.20
1	1	339	C	N3-C2-O2	-8.09	116.24	121.90
81	sR	163	G	N3-C4-C5	8.09	132.64	128.60
1	1	1414	G	C5-N7-C8	-8.08	100.26	104.30
1	1	2355	G	N1-C6-O6	8.07	124.74	119.90
1	1	637	C	O4'-C1'-N1	8.06	114.65	108.20
1	1	908	G	O4'-C1'-N9	-8.05	101.76	108.20
1	1	716	A	N9-C4-C5	-8.05	102.58	105.80
47	A	553	G	C5-C6-O6	-8.05	123.77	128.60
1	1	2412	G	C5-C6-O6	-8.03	123.78	128.60
1	1	421	G	N9-C4-C5	-8.03	102.19	105.40
1	AR	1897	G	C6-C5-N7	-8.03	125.58	130.40
54	H	69	LEU	CA-CB-CG	8.03	133.76	115.30
81	sR	1736	G	C5-C6-N1	-8.02	107.49	111.50
1	AR	1790	G	N1-C6-O6	8.02	124.71	119.90
47	A	1670	G	N1-C6-O6	8.02	124.71	119.90
1	1	421	G	C5-C6-O6	-8.01	123.79	128.60
1	1	1495	U	C2-N1-C1'	-8.01	108.08	117.70
1	1	1934	G	C8-N9-C1'	8.01	137.42	127.00
1	AR	2604	U	C5-C4-O4	8.01	130.71	125.90
3	AT	113	U	C5-C6-N1	-8.01	118.70	122.70
1	AR	812	G	N7-C8-N9	8.00	117.10	113.10
1	AR	3057	U	N3-C4-O4	-8.00	113.80	119.40
1	1	1790	G	N3-C2-N2	-7.99	114.31	119.90
1	1	2700	G	C5-C6-O6	-7.99	123.81	128.60
81	sR	868	G	N1-C6-O6	7.98	124.69	119.90
81	sR	1662	G	C8-N9-C4	-7.97	103.21	106.40
1	AR	3057	U	N1-C2-N3	7.97	119.68	114.90
1	1	1556	C	N3-C2-O2	-7.97	116.32	121.90
1	1	805	G	C8-N9-C4	7.96	109.58	106.40
1	1	1371	G	C8-N9-C4	7.96	109.58	106.40
1	AR	776	U	C5-C6-N1	-7.96	118.72	122.70
1	1	3306	U	C5-C4-O4	7.95	130.67	125.90
1	1	979	U	C6-N1-C2	-7.94	116.24	121.00
1	AR	3278	C	N1-C2-O2	7.92	123.65	118.90
1	AR	1115	G	C4-N9-C1'	7.92	136.79	126.50
81	sR	871	G	C6-C5-N7	-7.89	125.67	130.40
1	1	1581	C	N3-C2-O2	-7.88	116.38	121.90
1	AR	3344	A	C5-N7-C8	-7.87	99.96	103.90
47	A	365	G	C5-N7-C8	-7.87	100.36	104.30
81	sR	1000	C	N3-C2-O2	-7.87	116.39	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2621	G	O5'-P-OP2	-7.85	98.64	105.70
1	AR	2263	C	O5'-P-OP1	7.84	120.11	110.70
1	1	1889	G	N1-C6-O6	7.82	124.59	119.90
1	AR	1364	C	OP2-P-O3'	7.82	122.41	105.20
1	1	2942	C	C2-N1-C1'	-7.82	110.20	118.80
1	AR	1047	A	C5-C6-N6	-7.82	117.45	123.70
1	AR	2623	G	N1-C6-O6	7.81	124.59	119.90
1	1	2942	C	C6-N1-C2	7.80	123.42	120.30
1	AR	343	U	O5'-P-OP1	-7.80	98.68	105.70
1	1	695	C	C6-N1-C2	7.79	123.42	120.30
1	1	3340	G	C5-N7-C8	-7.78	100.41	104.30
1	1	67	A	O5'-P-OP1	-7.78	98.70	105.70
1	AR	1130	A	C2-N3-C4	7.77	114.49	110.60
1	AR	641	C	N1-C2-O2	-7.76	114.24	118.90
1	1	2395	G	C5-C6-O6	-7.76	123.94	128.60
1	1	427	C	C6-N1-C2	-7.76	117.20	120.30
1	AR	966	U	N3-C2-O2	-7.76	116.77	122.20
1	1	802	C	O5'-P-OP1	-7.75	98.72	105.70
81	sR	542	A	N7-C8-N9	7.75	117.67	113.80
1	1	2314	U	C5-C4-O4	-7.74	121.26	125.90
1	AR	2400	G	C5-C6-O6	-7.73	123.96	128.60
1	AR	2400	G	C4-C5-N7	7.73	113.89	110.80
81	sR	1006	C	OP2-P-O3'	7.73	122.20	105.20
3	4	51	G	C5-C6-O6	-7.72	123.97	128.60
1	AR	2714	G	C5-N7-C8	-7.72	100.44	104.30
1	AR	38	U	O5'-P-OP2	-7.72	98.75	105.70
47	A	1273	G	O5'-P-OP1	-7.72	98.75	105.70
1	AR	2263	C	C4-C5-C6	-7.72	113.54	117.40
1	1	3306	U	N3-C4-O4	-7.71	114.00	119.40
1	AR	2393	G	C5-C6-O6	-7.71	123.97	128.60
81	sR	426	G	C4-N9-C1'	7.70	136.51	126.50
1	1	2973	G	N1-C6-O6	7.70	124.52	119.90
1	AR	2620	G	N1-C6-O6	7.69	124.51	119.90
1	AR	2130	G	C8-N9-C4	7.68	109.47	106.40
1	1	1389	G	C4-C5-N7	7.68	113.87	110.80
1	1	2283	G	C5-C6-O6	-7.68	123.99	128.60
1	AR	2763	U	O5'-P-OP2	-7.67	98.80	105.70
1	AR	3155	U	C2-N1-C1'	7.67	126.91	117.70
81	sR	1662	G	C4-C5-N7	7.66	113.87	110.80
6	l	327	LEU	CA-CB-CG	7.65	132.91	115.30
1	AR	895	A	C5-N7-C8	-7.65	100.08	103.90
1	AR	2872	A	C8-N9-C4	7.65	108.86	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	3278	C	C2-N1-C1'	7.64	127.21	118.80
1	AR	881	C	N1-C2-O2	7.64	123.48	118.90
1	1	2373	A	O5'-P-OP1	-7.64	98.83	105.70
1	1	895	A	C5-N7-C8	-7.63	100.08	103.90
1	1	1002	A	C8-N9-C4	7.63	108.85	105.80
1	1	1838	G	C5-C6-O6	-7.63	124.02	128.60
1	1	435	C	C6-N1-C2	7.63	123.35	120.30
1	1	1406	A	O5'-P-OP2	-7.63	98.84	105.70
47	A	75	U	C2-N1-C1'	7.62	126.85	117.70
1	1	2836	C	C5-C4-N4	7.62	125.53	120.20
1	1	3214	U	N3-C2-O2	-7.61	116.88	122.20
47	A	469	C	N1-C2-N3	-7.61	113.88	119.20
1	AR	2831	G	C5-C6-O6	-7.60	124.04	128.60
1	AR	2726	C	C5-C4-N4	7.60	125.52	120.20
81	sR	1629	G	C4-N9-C1'	7.60	136.38	126.50
1	AR	870	G	N9-C4-C5	7.59	108.44	105.40
81	sR	1537	C	C6-N1-C2	-7.59	117.26	120.30
1	AR	2372	A	C8-N9-C4	-7.59	102.76	105.80
1	AR	1047	A	C4-C5-N7	7.58	114.49	110.70
81	sR	453	U	N3-C2-O2	-7.58	116.89	122.20
1	1	1495	U	N1-C2-O2	-7.58	117.50	122.80
1	AR	2618	G	C5-C6-O6	-7.58	124.06	128.60
1	1	895	A	C8-N9-C4	-7.56	102.78	105.80
1	AR	3306	U	C5-C6-N1	-7.55	118.92	122.70
1	AR	92	G	C5-C6-N1	7.55	115.28	111.50
1	1	1543	G	N1-C6-O6	7.55	124.43	119.90
1	1	651	G	N3-C4-C5	-7.54	124.83	128.60
47	A	728	U	C2-N1-C1'	7.54	126.75	117.70
1	AR	275	U	C6-N1-C2	-7.54	116.48	121.00
1	AR	870	G	N3-C4-N9	-7.54	121.48	126.00
1	AR	2899	C	C6-N1-C2	-7.54	117.29	120.30
47	A	1265	G	C5-N7-C8	-7.53	100.53	104.30
1	AR	2620	G	C5-C6-O6	-7.52	124.09	128.60
81	sR	1037	C	C6-N1-C2	7.52	123.31	120.30
1	1	2798	C	N1-C2-O2	-7.52	114.39	118.90
81	sR	298	C	N1-C2-O2	-7.52	114.39	118.90
1	1	3362	A	C2-N3-C4	-7.51	106.84	110.60
1	AR	3306	U	N3-C4-O4	-7.51	114.14	119.40
1	1	2395	G	C6-C5-N7	-7.50	125.90	130.40
1	1	2819	A	O5'-P-OP2	-7.50	98.95	105.70
1	AR	1131	G	O5'-P-OP2	-7.49	98.96	105.70
1	1	509	U	N3-C4-C5	-7.49	110.11	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1443	G	N7-C8-N9	7.49	116.85	113.10
1	1	2337	C	C6-N1-C2	-7.49	117.30	120.30
1	1	2808	A	N1-C6-N6	7.49	123.09	118.60
1	AR	2714	G	C4-C5-N7	7.49	113.80	110.80
1	1	716	A	C4-C5-N7	7.47	114.44	110.70
1	1	716	A	C5-C6-N6	-7.47	117.72	123.70
1	AR	2621	G	N1-C6-O6	7.47	124.38	119.90
1	AR	1134	G	N9-C4-C5	-7.47	102.41	105.40
1	1	608	A	N1-C6-N6	7.47	123.08	118.60
1	AR	406	G	O4'-C1'-N9	7.47	114.17	108.20
1	AR	2617	U	C4-C5-C6	7.47	124.18	119.70
1	AR	2873	U	C5-C4-O4	7.46	130.38	125.90
1	1	1790	G	N1-C6-O6	7.45	124.37	119.90
1	AR	216	G	C6-C5-N7	-7.45	125.93	130.40
81	sR	871	G	C5-C6-O6	-7.45	124.13	128.60
1	1	2726	C	N3-C2-O2	-7.44	116.69	121.90
1	1	1419	A	O5'-P-OP1	7.44	119.63	110.70
1	AR	95	A	C8-N9-C4	7.44	108.78	105.80
1	1	2860	U	C5-C6-N1	7.44	126.42	122.70
1	AR	1790	G	N3-C2-N2	-7.42	114.71	119.90
1	AR	909	G	N1-C6-O6	-7.41	115.45	119.90
1	AR	1223	A	O5'-P-OP1	-7.41	99.03	105.70
1	1	1389	G	C5-C6-O6	-7.40	124.16	128.60
1	1	112	U	C2-N1-C1'	7.40	126.58	117.70
1	AR	2116	G	N1-C6-O6	7.39	124.34	119.90
1	AR	2342	U	O5'-P-OP2	-7.39	99.05	105.70
81	sR	1117	U	N3-C4-C5	-7.39	110.17	114.60
81	sR	1117	U	N1-C2-O2	-7.38	117.63	122.80
1	1	421	G	C4-C5-N7	7.38	113.75	110.80
1	1	3214	U	C5-C4-O4	7.38	130.33	125.90
81	sR	1599	C	N1-C2-O2	7.38	123.33	118.90
1	AR	216	G	C5-C6-O6	-7.38	124.17	128.60
81	sR	965	U	N1-C2-O2	7.38	127.96	122.80
1	AR	2816	G	C8-N9-C4	7.37	109.35	106.40
81	sR	1596	C	N3-C2-O2	-7.36	116.75	121.90
1	AR	2818	U	O5'-P-OP1	-7.36	99.08	105.70
1	1	2617	U	N3-C4-O4	-7.36	114.25	119.40
47	A	1039	A	O4'-C1'-N9	7.36	114.09	108.20
1	1	895	A	N7-C8-N9	7.36	117.48	113.80
1	AR	2728	G	O5'-P-OP2	-7.36	99.08	105.70
1	1	2816	G	O4'-C1'-N9	7.35	114.08	108.20
1	1	3022	G	O4'-C1'-N9	7.35	114.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2870	C	N3-C4-N4	-7.34	112.86	118.00
1	AR	966	U	N1-C2-O2	7.34	127.94	122.80
1	1	1127	G	C5-C6-O6	-7.34	124.20	128.60
1	1	1495	U	N1-C2-N3	7.33	119.30	114.90
1	AR	2699	G	C8-N9-C4	7.33	109.33	106.40
47	A	73	U	C6-N1-C2	-7.33	116.60	121.00
1	AR	1790	G	C5-C6-N1	-7.33	107.84	111.50
1	AR	2870	C	C2-N1-C1'	-7.32	110.75	118.80
1	AR	216	G	N1-C6-O6	7.32	124.29	119.90
1	AR	2978	U	O4'-C1'-N1	7.31	114.05	108.20
1	1	65	A	P-O3'-C3'	7.31	128.47	119.70
1	AR	2123	G	C5-C6-O6	-7.31	124.22	128.60
1	1	2617	U	C4-C5-C6	7.30	124.08	119.70
1	1	2870	C	N3-C4-C5	7.29	124.82	121.90
81	sR	868	G	C5-C6-O6	-7.29	124.23	128.60
1	1	963	G	O5'-P-OP1	-7.28	99.14	105.70
81	sR	1672	G	N3-C4-N9	-7.28	121.63	126.00
1	AR	63	A	N1-C6-N6	7.28	122.97	118.60
1	AR	3009	G	O5'-P-OP1	-7.27	99.15	105.70
1	1	2387	A	C8-N9-C4	7.27	108.71	105.80
1	1	2661	G	O5'-P-OP1	-7.27	99.16	105.70
27	9	126	LEU	CA-CB-CG	7.27	132.01	115.30
1	1	909	G	C8-N9-C4	7.26	109.30	106.40
1	1	2197	C	C6-N1-C2	7.25	123.20	120.30
1	1	2944	U	N1-C2-O2	7.25	127.88	122.80
47	A	1214	U	N3-C4-C5	-7.24	110.26	114.60
47	A	453	U	C6-N1-C2	-7.24	116.66	121.00
1	1	3140	G	C5-C6-O6	-7.24	124.26	128.60
1	AR	2827	U	C2-N3-C4	-7.23	122.66	127.00
81	sR	405	C	O5'-P-OP1	7.23	119.38	110.70
81	sR	1758	U	N3-C4-O4	7.23	124.46	119.40
47	A	358	U	N3-C4-O4	7.23	124.46	119.40
1	1	932	U	N1-C2-O2	-7.23	117.74	122.80
1	1	1489	A	N1-C6-N6	7.23	122.94	118.60
1	AR	2827	U	C5-C6-N1	-7.23	119.09	122.70
1	1	1365	G	N3-C4-C5	-7.22	124.99	128.60
1	AR	3026	G	C5-C6-O6	-7.22	124.27	128.60
1	1	3207	U	C5-C4-O4	7.22	130.23	125.90
1	1	2345	A	N1-C6-N6	7.21	122.92	118.60
47	A	1560	U	N3-C2-O2	-7.21	117.16	122.20
1	1	922	U	N1-C2-O2	7.20	127.84	122.80
1	AR	1435	A	N1-C6-N6	7.20	122.92	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	2872	A	O5'-P-OP1	-7.19	99.23	105.70
1	AR	1155	C	N3-C4-C5	7.19	124.78	121.90
47	A	639	U	N1-C2-O2	7.18	127.83	122.80
2	3	77	G	OP1-P-O3'	7.17	120.98	105.20
1	1	2700	G	C6-C5-N7	-7.17	126.10	130.40
1	1	3217	C	C6-N1-C1'	-7.16	112.21	120.80
3	4	32	C	N1-C2-O2	-7.15	114.61	118.90
1	AR	279	U	C5-C4-O4	-7.15	121.61	125.90
1	1	2870	C	C6-N1-C1'	7.15	129.38	120.80
6	CF	182	LEU	CA-CB-CG	7.14	131.73	115.30
1	1	2285	C	O5'-P-OP1	-7.14	99.28	105.70
81	sR	1537	C	C6-N1-C1'	7.13	129.36	120.80
1	1	2943	G	O5'-P-OP2	-7.13	99.28	105.70
1	1	1891	A	C8-N9-C4	7.13	108.65	105.80
1	AR	342	A	O5'-P-OP2	-7.13	99.28	105.70
1	1	776	U	C4-C5-C6	7.13	123.97	119.70
81	sR	426	G	N3-C4-C5	-7.12	125.04	128.60
1	AR	636	C	N3-C4-C5	7.12	124.75	121.90
1	AR	1495	U	C2-N1-C1'	-7.11	109.17	117.70
81	sR	1672	G	C8-N9-C4	-7.11	103.56	106.40
1	AR	874	U	O5'-P-OP1	-7.11	99.31	105.70
13	CM	112	LEU	CA-CB-CG	7.11	131.65	115.30
2	3	77	G	P-O3'-C3'	7.10	128.22	119.70
1	1	2859	U	O5'-P-OP1	-7.09	99.32	105.70
1	1	1556	C	C6-N1-C2	-7.09	117.46	120.30
1	AR	189	G	N1-C6-O6	-7.08	115.65	119.90
47	A	453	U	N3-C4-C5	-7.08	110.35	114.60
81	sR	1629	G	N7-C8-N9	7.08	116.64	113.10
81	sR	610	G	C4-N9-C1'	7.07	135.69	126.50
1	AR	718	G	C5-N7-C8	-7.07	100.76	104.30
1	1	3048	A	O5'-P-OP2	-7.07	99.34	105.70
1	AR	2272	G	O4'-C1'-N9	7.07	113.86	108.20
1	1	1111	U	C6-N1-C2	7.07	125.24	121.00
1	AR	2699	G	N9-C4-C5	-7.07	102.57	105.40
47	A	423	G	C8-N9-C1'	7.06	136.18	127.00
1	AR	2870	C	C6-N1-C1'	7.06	129.27	120.80
1	AR	3181	C	N3-C2-O2	-7.06	116.96	121.90
1	1	1838	G	N1-C6-O6	7.05	124.13	119.90
1	AR	65	A	P-O3'-C3'	7.05	128.16	119.70
1	AR	2298	U	C5-C6-N1	-7.04	119.18	122.70
1	AR	340	C	N3-C4-N4	-7.04	113.07	118.00
47	A	1773	C	C6-N1-C2	-7.04	117.48	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AS	38	U	C5-C4-O4	-7.04	121.68	125.90
1	1	426	G	C5-C6-O6	-7.04	124.38	128.60
1	1	111	C	C6-N1-C2	7.04	123.11	120.30
1	1	2719	U	N1-C2-N3	7.03	119.12	114.90
81	sR	1000	C	C6-N1-C1'	-7.03	112.36	120.80
1	1	943	U	N3-C2-O2	-7.03	117.28	122.20
47	A	422	G	C5-N7-C8	-7.03	100.79	104.30
1	1	3041	U	N1-C2-O2	-7.02	117.88	122.80
47	A	830	U	N3-C2-O2	-7.02	117.28	122.20
1	AR	1723	A	O5'-P-OP2	-7.02	99.38	105.70
1	AR	2827	U	N1-C2-N3	7.02	119.11	114.90
47	A	423	G	C4-C5-N7	7.02	113.61	110.80
1	AR	957	C	C6-N1-C2	-7.01	117.50	120.30
1	AR	838	G	C5-C6-O6	7.01	132.80	128.60
1	AR	2950	G	O4'-C1'-N9	7.01	113.81	108.20
1	1	2971	A	O4'-C1'-N9	7.00	113.80	108.20
47	A	992	A	C2-N3-C4	-7.00	107.10	110.60
1	1	635	G	C5-C6-O6	-7.00	124.40	128.60
1	1	639	G	N1-C6-O6	7.00	124.10	119.90
1	AR	2700	G	C8-N9-C4	-6.99	103.60	106.40
47	A	934	C	C2-N1-C1'	6.99	126.49	118.80
1	1	1454	A	O5'-P-OP1	-6.99	99.41	105.70
1	AR	960	U	N1-C2-O2	6.99	127.69	122.80
1	AR	640	U	N1-C2-O2	-6.99	117.91	122.80
81	sR	1755	A	OP2-P-O3'	6.98	120.56	105.20
1	AR	2714	G	C2-N3-C4	-6.98	108.41	111.90
1	1	98	G	N3-C4-C5	6.97	132.09	128.60
81	sR	558	U	C2-N1-C1'	6.97	126.07	117.70
1	AR	2700	G	N1-C6-O6	6.97	124.08	119.90
3	AT	9	A	O5'-P-OP2	-6.97	99.42	105.70
1	1	880	G	C8-N9-C4	6.97	109.19	106.40
1	AR	881	C	C2-N3-C4	6.97	123.38	119.90
1	AR	1448	U	C5-C6-N1	-6.97	119.22	122.70
1	AR	679	U	C5-C4-O4	6.97	130.08	125.90
1	1	1560	G	O5'-P-OP2	-6.96	99.43	105.70
1	AR	275	U	C5-C4-O4	6.96	130.08	125.90
47	A	623	A	O5'-P-OP1	-6.96	99.44	105.70
1	1	639	G	C5-C6-O6	-6.96	124.42	128.60
1	1	1308	A	O5'-P-OP2	6.96	119.05	110.70
1	AR	2186	U	O5'-P-OP2	-6.95	99.44	105.70
1	AR	924	G	C5-C6-O6	-6.95	124.43	128.60
1	1	81	C	N3-C4-C5	6.95	124.68	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1907	C	N1-C2-O2	6.95	123.07	118.90
81	sR	1766	A	O5'-P-OP2	-6.94	99.45	105.70
1	AR	2147	A	C5-C6-N6	-6.94	118.15	123.70
1	AR	2617	U	O5'-P-OP2	-6.94	99.45	105.70
1	1	1377	G	C5-C6-O6	-6.94	124.44	128.60
81	sR	25	C	P-O3'-C3'	6.93	128.02	119.70
1	AR	1483	G	O5'-P-OP1	-6.93	99.46	105.70
1	1	1145	G	C5-C6-O6	-6.93	124.44	128.60
1	1	2395	G	N3-C4-N9	6.92	130.15	126.00
1	1	2368	A	O5'-P-OP1	-6.92	99.48	105.70
1	1	421	G	N3-C4-N9	6.91	130.15	126.00
1	1	2155	G	O5'-P-OP2	-6.91	99.48	105.70
1	1	2418	G	OP1-P-O3'	6.91	120.40	105.20
1	1	970	A	N1-C2-N3	6.90	132.75	129.30
1	1	2395	G	N9-C4-C5	-6.89	102.64	105.40
1	AR	1856	C	C6-N1-C2	-6.89	117.54	120.30
81	sR	337	G	N3-C4-N9	6.89	130.13	126.00
1	AR	1432	C	N1-C2-O2	6.89	123.03	118.90
1	1	1820	U	P-O3'-C3'	6.88	127.96	119.70
1	AR	1878	G	C4-N9-C1'	6.88	135.45	126.50
1	1	2385	G	O5'-P-OP2	6.88	118.95	110.70
1	1	2331	C	C6-N1-C2	6.87	123.05	120.30
1	AR	709	A	O5'-P-OP1	-6.87	99.52	105.70
1	1	111	C	C2-N3-C4	-6.86	116.47	119.90
1	AR	2617	U	N1-C2-N3	6.86	119.02	114.90
1	AR	2772	C	N1-C2-O2	6.86	123.01	118.90
1	AR	586	C	C6-N1-C2	6.85	123.04	120.30
1	AR	2831	G	C5-C6-N1	6.85	114.92	111.50
1	AR	961	C	OP1-P-OP2	-6.84	109.33	119.60
1	AR	1312	C	C6-N1-C2	-6.84	117.56	120.30
81	sR	577	G	C6-N1-C2	-6.84	121.00	125.10
56	J	29	LEU	CA-CB-CG	6.84	131.03	115.30
1	1	3319	U	P-O3'-C3'	6.83	127.89	119.70
1	1	509	U	C5-C4-O4	6.83	130.00	125.90
1	AR	1316	C	N1-C2-O2	-6.83	114.80	118.90
47	A	1363	U	C2-N1-C1'	6.83	125.89	117.70
1	AR	1191	U	N1-C2-O2	-6.82	118.02	122.80
1	AR	2996	U	N1-C2-O2	6.82	127.58	122.80
1	1	2846	U	C5-C4-O4	6.81	129.99	125.90
1	AR	41	G	C4-C5-N7	6.81	113.52	110.80
1	1	1414	G	N1-C6-O6	6.81	123.98	119.90
1	1	708	G	C8-N9-C4	6.80	109.12	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	A	1214	U	C6-N1-C2	-6.80	116.92	121.00
1	1	212	G	N3-C4-N9	6.80	130.08	126.00
1	AR	2376	G	OP1-P-OP2	6.80	129.80	119.60
1	1	755	A	N1-C6-N6	-6.79	114.52	118.60
1	1	3178	A	C8-N9-C4	6.79	108.52	105.80
1	AR	1145	G	N3-C2-N2	-6.79	115.15	119.90
1	1	69	C	N3-C4-C5	-6.79	119.19	121.90
1	1	835	G	O4'-C1'-N9	6.78	113.63	108.20
1	AR	2846	U	N1-C2-O2	6.78	127.55	122.80
1	1	3218	A	N1-C6-N6	6.78	122.67	118.60
1	1	1377	G	C4-C5-N7	6.77	113.51	110.80
81	sR	610	G	C8-N9-C1'	-6.77	118.20	127.00
1	AR	2167	A	C8-N9-C4	-6.77	103.09	105.80
1	AR	2364	G	N1-C6-O6	-6.77	115.84	119.90
1	AR	2392	C	N3-C4-C5	6.77	124.61	121.90
1	1	936	A	N1-C6-N6	6.77	122.66	118.60
19	CS	127	LEU	CA-CB-CG	6.76	130.86	115.30
1	1	421	G	O5'-P-OP1	-6.76	99.61	105.70
1	AR	924	G	N1-C6-O6	6.76	123.95	119.90
1	AR	111	C	C6-N1-C2	6.75	123.00	120.30
1	1	426	G	N3-C4-N9	6.75	130.05	126.00
1	1	2247	G	N1-C6-O6	6.75	123.95	119.90
1	1	1902	G	C4-C5-N7	6.74	113.50	110.80
81	sR	1117	U	C6-N1-C2	-6.74	116.96	121.00
1	1	2714	G	C2-N3-C4	-6.74	108.53	111.90
1	1	1160	C	N1-C2-O2	6.74	122.94	118.90
1	AR	636	C	C6-N1-C2	6.74	122.99	120.30
1	AR	1127	G	C5-C6-O6	-6.73	124.56	128.60
81	sR	158	U	P-O3'-C3'	6.73	127.78	119.70
1	1	2973	G	C5-C6-O6	-6.72	124.57	128.60
81	sR	542	A	O5'-P-OP1	-6.72	99.65	105.70
1	1	369	A	C8-N9-C4	-6.72	103.11	105.80
1	1	1443	G	C8-N9-C4	-6.72	103.71	106.40
1	AR	3116	G	C5-N7-C8	-6.72	100.94	104.30
1	1	66	A	O5'-P-OP1	-6.72	99.66	105.70
1	1	709	A	C8-N9-C4	6.72	108.49	105.80
1	AR	2419	A	C8-N9-C4	-6.72	103.11	105.80
1	1	1790	G	C5-C6-N1	-6.71	108.14	111.50
1	1	2144	A	O4'-C1'-N9	6.71	113.57	108.20
1	1	1211	U	N3-C4-O4	-6.71	114.70	119.40
1	1	3269	U	N3-C2-O2	-6.71	117.50	122.20
1	AR	343	U	C5-C4-O4	6.71	129.92	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	407	A	C8-N9-C4	-6.70	103.12	105.80
1	1	1200	A	C8-N9-C4	-6.70	103.12	105.80
1	1	339	C	C5-C4-N4	6.69	124.89	120.20
1	1	637	C	C6-N1-C1'	6.69	128.83	120.80
81	sR	542	A	C5-N7-C8	-6.69	100.55	103.90
1	1	1306	G	N3-C2-N2	-6.69	115.22	119.90
81	sR	1140	G	O5'-P-OP1	-6.69	99.68	105.70
81	sR	1629	G	N3-C4-N9	6.69	130.01	126.00
1	AR	2662	G	N1-C6-O6	-6.68	115.89	119.90
1	AR	2156	C	C6-N1-C2	6.68	122.97	120.30
1	1	965	A	O5'-P-OP2	-6.68	99.69	105.70
1	1	793	C	N1-C2-O2	-6.67	114.90	118.90
1	AR	2964	G	C5-C6-O6	6.67	132.60	128.60
81	sR	163	G	C2-N3-C4	-6.67	108.56	111.90
47	A	1280	C	N3-C4-C5	-6.67	119.23	121.90
47	A	401	A	O4'-C1'-N9	6.67	113.53	108.20
1	AR	1412	G	C8-N9-C4	-6.67	103.73	106.40
1	1	339	C	N3-C4-N4	-6.66	113.34	118.00
1	1	638	C	C5-C6-N1	6.66	124.33	121.00
1	AR	3339	A	N1-C6-N6	6.66	122.59	118.60
1	AR	3319	U	P-O3'-C3'	6.65	127.68	119.70
81	sR	1028	C	O5'-P-OP1	-6.65	99.72	105.70
1	1	1525	G	O5'-P-OP2	-6.64	99.72	105.70
81	sR	337	G	C4-N9-C1'	6.64	135.14	126.50
1	1	2827	U	C5-C4-O4	6.64	129.88	125.90
1	1	592	A	O5'-P-OP1	-6.64	99.72	105.70
1	1	956	U	N1-C2-O2	-6.64	118.15	122.80
1	1	1889	G	C5-C6-O6	-6.64	124.62	128.60
1	1	590	G	C5-C6-O6	-6.64	124.62	128.60
81	sR	426	G	C8-N9-C1'	-6.64	118.37	127.00
1	AR	948	C	C6-N1-C2	6.63	122.95	120.30
1	AR	2179	C	C6-N1-C2	6.63	122.95	120.30
81	sR	1649	G	N1-C6-O6	6.63	123.88	119.90
1	1	2314	U	C2-N1-C1'	6.63	125.66	117.70
81	sR	1662	G	C4-N9-C1'	-6.63	117.88	126.50
1	1	1820	U	N3-C2-O2	-6.63	117.56	122.20
1	AR	641	C	C2-N3-C4	-6.63	116.59	119.90
1	AR	644	G	C4-C5-N7	-6.63	108.15	110.80
1	AR	3316	A	OP2-P-O3'	6.62	119.77	105.20
1	1	722	G	N1-C6-O6	6.62	123.87	119.90
2	AS	112	G	C8-N9-C4	-6.62	103.75	106.40
1	1	2714	G	N3-C4-N9	-6.62	122.03	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	1844	C	C6-N1-C2	-6.62	117.65	120.30
1	1	2621	G	N3-C2-N2	-6.61	115.27	119.90
1	AR	810	A	O5'-P-OP1	-6.61	99.75	105.70
81	sR	358	U	O5'-P-OP1	-6.61	99.75	105.70
1	AR	2385	G	N3-C4-C5	6.61	131.90	128.60
1	AR	1103	A	P-O3'-C3'	6.60	127.62	119.70
81	sR	542	A	N1-C6-N6	6.60	122.56	118.60
1	1	2362	C	O5'-P-OP2	-6.60	99.76	105.70
29	DC	29	PRO	C-N-CA	-6.60	108.44	122.30
1	AR	1848	G	C5-C6-O6	-6.59	124.64	128.60
1	AR	2635	A	N1-C6-N6	-6.59	114.64	118.60
1	AR	2953	U	C6-N1-C2	-6.59	117.04	121.00
1	AR	1116	G	N3-C4-C5	-6.59	125.31	128.60
49	s1	231	LEU	CA-CB-CG	6.59	130.45	115.30
1	1	2550	U	N3-C2-O2	-6.59	117.59	122.20
1	1	2877	G	O5'-P-OP1	-6.59	99.77	105.70
1	1	2643	A	C8-N9-C4	6.58	108.43	105.80
1	1	2619	G	C8-N9-C4	6.58	109.03	106.40
2	3	85	G	C5-C6-O6	-6.58	124.65	128.60
1	1	933	A	C4-C5-C6	6.58	120.29	117.00
1	1	317	A	C8-N9-C4	-6.57	103.17	105.80
1	AR	895	A	C4-C5-N7	6.57	113.99	110.70
1	1	2395	G	C4-C5-C6	6.57	122.74	118.80
1	1	2138	A	N9-C4-C5	6.57	108.43	105.80
81	sR	337	G	N3-C2-N2	6.56	124.50	119.90
1	AR	2308	C	N1-C2-O2	-6.56	114.96	118.90
1	AR	2621	G	O5'-P-OP2	-6.56	99.79	105.70
1	AR	2878	G	N1-C6-O6	-6.56	115.96	119.90
1	1	3001	C	C6-N1-C2	6.56	122.92	120.30
1	AR	3155	U	N1-C2-O2	6.56	127.39	122.80
81	sR	151	G	N3-C4-N9	-6.56	122.07	126.00
1	1	1419	A	O5'-P-OP2	-6.55	99.80	105.70
3	4	7	U	O5'-P-OP1	-6.55	99.80	105.70
70	X	65	LEU	CA-CB-CG	6.55	130.37	115.30
1	1	3057	U	N3-C2-O2	-6.55	117.61	122.20
1	1	2871	G	O5'-P-OP2	-6.55	99.81	105.70
1	1	3278	C	C2-N1-C1'	6.55	126.00	118.80
1	AR	2400	G	N9-C4-C5	-6.55	102.78	105.40
81	sR	163	G	N3-C2-N2	-6.55	115.31	119.90
1	AR	1840	U	OP1-P-OP2	6.55	129.42	119.60
1	AR	1880	U	OP2-P-O3'	6.55	119.60	105.20
1	AR	1897	G	N3-C4-N9	-6.55	122.07	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	3116	G	N7-C8-N9	6.54	116.37	113.10
47	A	1096	C	C5-C6-N1	6.54	124.27	121.00
1	AR	2953	U	N3-C4-C5	-6.54	110.67	114.60
1	AR	3128	G	C5-C6-O6	-6.54	124.67	128.60
1	1	1838	G	N9-C4-C5	-6.54	102.78	105.40
1	AR	2351	U	C6-N1-C2	-6.54	117.08	121.00
1	1	1117	G	O5'-P-OP1	-6.53	99.82	105.70
81	sR	1634	C	N1-C2-O2	6.53	122.82	118.90
47	A	554	C	C2-N1-C1'	6.53	125.99	118.80
1	1	28	C	C6-N1-C2	6.53	122.91	120.30
1	AR	216	G	C4-C5-N7	6.53	113.41	110.80
1	1	719	U	O5'-P-OP1	-6.53	99.83	105.70
1	AR	642	U	O5'-P-OP2	-6.53	99.83	105.70
47	A	264	G	C5-N7-C8	-6.52	101.04	104.30
1	1	638	C	O5'-P-OP2	-6.52	99.83	105.70
1	1	2309	A	N1-C6-N6	6.52	122.51	118.60
1	AR	2943	G	O5'-P-OP2	-6.52	99.83	105.70
81	sR	453	U	C6-N1-C2	-6.52	117.09	121.00
1	1	1054	A	O5'-P-OP2	-6.52	99.84	105.70
1	1	1329	U	C2-N1-C1'	6.51	125.52	117.70
1	AR	811	U	C5-C6-N1	-6.51	119.44	122.70
1	AR	3214	U	N3-C2-O2	-6.51	117.64	122.20
1	AR	2758	A	C8-N9-C4	-6.51	103.20	105.80
1	1	2241	U	O5'-P-OP1	-6.51	99.84	105.70
1	1	2954	U	N3-C2-O2	6.51	126.75	122.20
1	AR	1419	A	O5'-P-OP2	-6.51	99.84	105.70
1	1	2978	U	O4'-C1'-N1	6.50	113.40	108.20
1	1	640	U	N1-C2-O2	-6.50	118.25	122.80
58	L	88	PRO	N-CA-CB	6.50	111.10	103.30
1	AR	2151	C	O5'-P-OP1	-6.49	99.86	105.70
1	1	3335	A	O5'-P-OP2	-6.49	99.86	105.70
1	1	410	U	N1-C2-O2	-6.49	118.26	122.80
1	AR	982	C	OP2-P-O3'	6.49	119.47	105.20
1	AR	1898	G	N1-C6-O6	6.49	123.79	119.90
2	AS	73	C	C6-N1-C2	-6.49	117.71	120.30
6	CF	313	LEU	CA-CB-CG	6.49	130.22	115.30
3	AT	8	C	C6-N1-C2	-6.48	117.71	120.30
47	A	1214	U	C5-C6-N1	6.48	125.94	122.70
81	sR	314	C	O5'-P-OP1	-6.48	99.87	105.70
1	1	3311	C	O5'-P-OP1	-6.48	99.87	105.70
47	A	347	G	C5-C6-N1	-6.48	108.26	111.50
8	n	64	LEU	CA-CB-CG	6.48	130.20	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	1389	G	N1-C6-O6	6.48	123.79	119.90
1	1	2885	C	C6-N1-C2	6.47	122.89	120.30
81	sR	558	U	N1-C2-O2	6.47	127.33	122.80
1	1	1132	C	N3-C4-N4	-6.47	113.47	118.00
1	AR	933	A	N1-C2-N3	6.47	132.53	129.30
47	A	1600	A	C2-N3-C4	-6.47	107.36	110.60
1	1	2623	G	C6-C5-N7	-6.47	126.52	130.40
1	AR	2714	G	N3-C4-N9	-6.47	122.12	126.00
1	AR	2625	C	C5-C4-N4	-6.46	115.67	120.20
47	A	1291	G	N3-C4-N9	-6.46	122.12	126.00
47	A	959	U	N3-C2-O2	-6.46	117.68	122.20
1	AR	1852	G	C8-N9-C4	-6.46	103.82	106.40
47	A	73	U	O4'-C1'-N1	6.46	113.37	108.20
1	AR	1437	C	C6-N1-C2	-6.46	117.72	120.30
1	1	375	A	O5'-P-OP2	-6.45	99.89	105.70
1	1	1433	A	C5-C6-N6	-6.45	118.54	123.70
1	1	2616	C	C6-N1-C2	-6.45	117.72	120.30
1	AR	2326	A	OP2-P-O3'	6.45	119.40	105.20
81	sR	1013	A	OP1-P-O3'	6.45	119.39	105.20
1	AR	1117	G	C5-C6-O6	-6.45	124.73	128.60
1	AR	1392	G	C5-C6-O6	-6.45	124.73	128.60
1	AR	2257	C	C2-N1-C1'	6.45	125.90	118.80
1	AR	3218	A	N1-C6-N6	6.45	122.47	118.60
81	sR	65	A	C2-N3-C4	-6.45	107.38	110.60
1	1	3010	U	N3-C4-C5	-6.45	110.73	114.60
1	AR	3184	A	O5'-P-OP2	-6.45	99.90	105.70
1	1	2400	G	N1-C6-O6	6.44	123.77	119.90
1	AR	406	G	N1-C6-O6	-6.44	116.04	119.90
1	AR	2256	A	N1-C6-N6	6.44	122.46	118.60
1	1	880	G	N7-C8-N9	-6.43	109.88	113.10
1	AR	2787	G	OP1-P-O3'	6.43	119.35	105.20
1	1	2144	A	C2-N3-C4	6.43	113.81	110.60
43	AP	93	LEU	CA-CB-CG	6.43	130.08	115.30
1	AR	1542	G	N1-C6-O6	6.43	123.76	119.90
47	A	1096	C	C2-N1-C1'	6.43	125.87	118.80
1	AR	877	C	C4-C5-C6	-6.42	114.19	117.40
1	1	859	G	C6-C5-N7	-6.42	126.55	130.40
1	1	1439	U	O5'-P-OP1	-6.42	99.92	105.70
1	AR	1160	C	C2-N1-C1'	-6.42	111.74	118.80
47	A	358	U	N3-C4-C5	-6.41	110.75	114.60
1	1	1331	U	O4'-C1'-N1	-6.41	103.07	108.20
1	1	2408	U	N3-C2-O2	-6.41	117.72	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	404	G	O5'-P-OP2	-6.41	99.94	105.70
1	1	1367	G	N1-C6-O6	6.40	123.74	119.90
1	1	685	G	C5-C6-O6	-6.40	124.76	128.60
47	A	565	C	N3-C2-O2	-6.40	117.42	121.90
1	AR	50	U	O5'-P-OP1	-6.39	99.95	105.70
3	4	56	G	O5'-P-OP2	-6.39	99.95	105.70
1	1	2306	C	C6-N1-C2	-6.39	117.75	120.30
1	AR	2403	G	C2-N3-C4	6.38	115.09	111.90
1	1	1495	U	C6-N1-C1'	6.38	130.13	121.20
1	1	2240	G	C8-N9-C4	6.38	108.95	106.40
81	sR	755	A	C8-N9-C4	-6.38	103.25	105.80
1	1	1307	G	N1-C6-O6	-6.37	116.08	119.90
1	1	1604	G	C4-N9-C1'	6.37	134.78	126.50
47	A	1652	C	C6-N1-C2	-6.37	117.75	120.30
1	AR	3075	G	C4-C5-C6	6.37	122.62	118.80
1	AR	973	A	N1-C6-N6	6.36	122.42	118.60
1	1	2314	U	N1-C2-N3	-6.36	111.08	114.90
1	AR	2725	U	N3-C4-C5	-6.36	110.78	114.60
1	AR	3375	A	C8-N9-C4	-6.36	103.26	105.80
47	A	1761	U	P-O3'-C3'	6.36	127.33	119.70
1	1	1138	U	N3-C2-O2	-6.36	117.75	122.20
1	AR	2130	G	N9-C4-C5	-6.36	102.86	105.40
1	AR	2621	G	C5-C6-O6	-6.36	124.79	128.60
1	1	907	G	O4'-C1'-N9	6.35	113.28	108.20
1	AR	3116	G	O4'-C1'-N9	6.35	113.28	108.20
81	sR	987	G	N1-C6-O6	6.35	123.71	119.90
1	1	2154	U	C5-C4-O4	-6.35	122.09	125.90
1	AR	3116	G	C4-C5-N7	6.34	113.34	110.80
3	AT	51	G	N1-C6-O6	6.33	123.70	119.90
81	sR	75	U	O4'-C1'-N1	6.33	113.27	108.20
1	AR	2726	C	C4-C5-C6	6.33	120.56	117.40
1	AR	1480	G	O4'-C1'-N9	6.33	113.26	108.20
1	AR	699	A	C2-N3-C4	-6.33	107.44	110.60
1	AR	812	G	N9-C4-C5	6.33	107.93	105.40
1	1	1153	A	O5'-P-OP1	-6.32	100.01	105.70
1	AR	2333	C	OP2-P-O3'	6.32	119.11	105.20
1	AR	2271	A	C8-N9-C4	6.32	108.33	105.80
1	AR	2620	G	N3-C2-N2	-6.32	115.47	119.90
1	AR	667	C	C6-N1-C2	6.32	122.83	120.30
1	AR	2390	A	C8-N9-C4	-6.32	103.27	105.80
1	AR	1432	C	N3-C2-O2	-6.32	117.48	121.90
47	A	610	G	C4-N9-C1'	6.32	134.71	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	2679	A	C2-N3-C4	-6.32	107.44	110.60
1	AR	2824	G	O5'-P-OP2	-6.32	100.02	105.70
47	A	158	U	P-O3'-C3'	6.32	127.28	119.70
81	sR	794	U	N3-C2-O2	-6.32	117.78	122.20
1	AR	653	A	N1-C6-N6	6.31	122.39	118.60
1	1	1269	U	C2-N1-C1'	6.31	125.27	117.70
1	AR	358	G	N1-C6-O6	6.31	123.69	119.90
1	AR	644	G	N9-C4-C5	6.31	107.92	105.40
1	AR	868	C	C6-N1-C2	6.31	122.82	120.30
1	AR	2145	A	C6-N1-C2	-6.31	114.82	118.60
1	AR	2400	G	N1-C6-O6	6.31	123.68	119.90
1	AR	2412	G	C8-N9-C4	-6.31	103.88	106.40
1	1	770	G	O4'-C1'-N9	6.30	113.24	108.20
3	4	108	C	N3-C4-C5	-6.30	119.38	121.90
1	1	267	G	C5-C6-O6	-6.30	124.82	128.60
47	A	728	U	N1-C2-O2	6.30	127.21	122.80
81	sR	542	A	C6-C5-N7	-6.30	127.89	132.30
81	sR	991	G	C5-C6-O6	-6.30	124.82	128.60
1	AR	627	U	C5-C4-O4	6.30	129.68	125.90
1	1	2302	G	C5-C6-O6	6.29	132.38	128.60
1	AR	2269	U	C4-C5-C6	6.29	123.47	119.70
1	1	1792	C	C4-C5-C6	6.29	120.55	117.40
1	AR	2725	U	N1-C2-O2	-6.29	118.40	122.80
81	sR	101	U	N3-C2-O2	-6.29	117.80	122.20
1	AR	2928	C	C4-C5-C6	6.29	120.54	117.40
47	A	73	U	C5-C4-O4	6.28	129.67	125.90
1	AR	2714	G	N1-C6-O6	6.28	123.67	119.90
1	AR	1853	U	N1-C2-O2	-6.28	118.40	122.80
47	A	365	G	N7-C8-N9	6.28	116.24	113.10
57	K	116	LEU	CA-CB-CG	6.28	129.73	115.30
1	1	817	A	C8-N9-C4	-6.27	103.29	105.80
1	AR	919	U	N3-C2-O2	-6.27	117.81	122.20
1	AR	1196	C	C6-N1-C2	6.27	122.81	120.30
2	AS	101	G	N1-C6-O6	6.27	123.66	119.90
1	1	1367	G	C5-C6-O6	-6.26	124.84	128.60
1	AR	2679	A	O4'-C1'-N9	6.26	113.21	108.20
1	1	1141	C	C4-C5-C6	6.26	120.53	117.40
2	AS	49	G	C5-N7-C8	6.26	107.43	104.30
1	1	2659	G	N1-C6-O6	6.26	123.65	119.90
1	AR	2271	A	N7-C8-N9	-6.25	110.67	113.80
1	AR	2123	G	N1-C6-O6	6.25	123.65	119.90
1	AR	869	G	N1-C6-O6	-6.25	116.15	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	3317	U	O5'-P-OP2	-6.25	100.07	105.70
1	1	1414	G	C4-C5-N7	6.25	113.30	110.80
1	AR	1392	G	N1-C6-O6	6.25	123.65	119.90
81	sR	957	G	N1-C6-O6	6.25	123.65	119.90
1	1	2827	U	C5-C6-N1	-6.25	119.58	122.70
1	1	3362	A	N1-C6-N6	6.25	122.35	118.60
3	4	51	G	N1-C6-O6	6.24	123.64	119.90
1	AR	561	C	C6-N1-C2	-6.24	117.81	120.30
1	1	2777	G	C5-C6-O6	6.24	132.34	128.60
47	A	17	C	C6-N1-C2	-6.24	117.81	120.30
1	AR	3278	C	C5-C6-N1	6.23	124.12	121.00
81	sR	32	U	N3-C4-O4	6.23	123.76	119.40
1	AR	2191	U	N1-C2-O2	6.23	127.16	122.80
81	sR	18	C	C6-N1-C2	-6.23	117.81	120.30
1	1	2944	U	N3-C2-O2	-6.22	117.84	122.20
19	y	41	ASP	CB-CG-OD1	6.22	123.90	118.30
81	sR	1640	C	C2-N1-C1'	6.22	125.65	118.80
1	1	817	A	O5'-P-OP1	-6.22	100.10	105.70
1	AR	2953	U	N3-C4-O4	6.21	123.75	119.40
47	A	610	G	C8-N9-C1'	-6.21	118.92	127.00
1	1	2928	C	C2-N1-C1'	6.21	125.63	118.80
1	1	3209	A	N1-C6-N6	6.21	122.33	118.60
47	A	186	C	C2-N1-C1'	6.21	125.63	118.80
1	1	2293	C	C5-C6-N1	6.21	124.10	121.00
1	AR	2735	U	C6-N1-C2	-6.21	117.27	121.00
81	sR	1340	U	N1-C2-O2	6.21	127.15	122.80
2	AS	104	A	N1-C6-N6	6.21	122.32	118.60
1	AR	2660	G	C8-N9-C4	6.20	108.88	106.40
1	AR	2263	C	C5-C6-N1	6.20	124.10	121.00
1	1	979	U	N1-C2-N3	6.20	118.62	114.90
1	1	1101	G	C6-C5-N7	6.20	134.12	130.40
81	sR	163	G	N9-C4-C5	6.20	107.88	105.40
1	1	895	A	C4-C5-N7	6.20	113.80	110.70
1	1	2355	G	C5-C6-O6	-6.20	124.88	128.60
1	1	2726	C	C5-C4-N4	6.20	124.54	120.20
1	AR	1741	A	N1-C2-N3	6.20	132.40	129.30
1	AR	92	G	C2-N3-C4	6.20	115.00	111.90
1	AR	1115	G	P-O3'-C3'	6.20	127.14	119.70
1	AR	1495	U	C6-N1-C1'	6.20	129.87	121.20
70	X	93	LEU	CA-CB-CG	6.20	129.55	115.30
1	1	2614	G	N3-C4-N9	6.19	129.71	126.00
1	1	329	U	N1-C2-O2	-6.19	118.47	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	372	A	O5'-P-OP2	-6.19	100.13	105.70
1	1	2827	U	C2-N1-C1'	-6.18	110.28	117.70
1	AR	2928	C	C6-N1-C2	-6.18	117.83	120.30
1	1	2384	A	N1-C6-N6	6.18	122.31	118.60
1	AR	295	A	O5'-P-OP1	-6.18	100.14	105.70
47	A	1600	A	N1-C6-N6	6.18	122.31	118.60
1	1	908	G	C8-N9-C1'	-6.18	118.97	127.00
1	AR	776	U	N1-C2-N3	6.18	118.61	114.90
1	AR	800	G	C8-N9-C4	6.18	108.87	106.40
1	AR	2334	U	N3-C2-O2	-6.18	117.87	122.20
47	A	976	G	C4-C5-N7	-6.18	108.33	110.80
3	4	14	C	N3-C4-C5	6.18	124.37	121.90
1	1	120	G	C8-N9-C4	6.18	108.87	106.40
47	A	1389	C	N1-C2-O2	6.18	122.61	118.90
1	1	2827	U	N3-C4-O4	-6.17	115.08	119.40
1	1	427	C	N3-C4-C5	-6.17	119.43	121.90
1	AR	1176	C	C5-C4-N4	-6.17	115.88	120.20
1	AR	2167	A	N9-C4-C5	6.17	108.27	105.80
1	AR	3277	U	N1-C2-O2	6.17	127.12	122.80
47	A	1005	A	OP1-P-O3'	6.17	118.77	105.20
1	AR	2604	U	N1-C2-N3	6.17	118.60	114.90
1	1	1169	A	OP2-P-O3'	6.17	118.77	105.20
1	AR	1143	A	C2-N3-C4	-6.16	107.52	110.60
2	3	85	G	C6-C5-N7	-6.16	126.70	130.40
1	AR	86	G	C5-C6-N1	6.16	114.58	111.50
81	sR	151	G	N3-C2-N2	-6.16	115.59	119.90
81	sR	1024	U	O5'-P-OP1	-6.16	100.16	105.70
1	AR	908	G	C4-N9-C1'	6.15	134.50	126.50
1	AR	92	G	N3-C4-C5	-6.15	125.52	128.60
1	1	608	A	C6-C5-N7	-6.15	128.00	132.30
1	1	1053	A	C8-N9-C4	6.15	108.26	105.80
1	AR	792	G	C8-N9-C4	6.15	108.86	106.40
1	AR	1519	G	N1-C6-O6	6.15	123.59	119.90
81	sR	102	U	O5'-P-OP1	-6.15	100.17	105.70
1	AR	2405	C	C5-C6-N1	-6.14	117.93	121.00
1	AR	934	G	C5-C6-O6	-6.14	124.91	128.60
3	AT	79	A	P-O3'-C3'	6.14	127.07	119.70
81	sR	337	G	C6-C5-N7	-6.14	126.71	130.40
81	sR	402	C	O4'-C1'-N1	6.14	113.11	108.20
1	AR	976	U	C5-C4-O4	6.14	129.58	125.90
2	AS	94	C	C5-C4-N4	-6.14	115.90	120.20
1	1	2924	U	C5-C6-N1	-6.13	119.63	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	1115	G	N7-C8-N9	6.13	116.17	113.10
5	CE	102	LEU	CA-CB-CG	6.13	129.40	115.30
1	AR	2978	U	C5-C6-N1	-6.13	119.64	122.70
1	AR	3118	C	C6-N1-C2	-6.13	117.85	120.30
47	A	1200	G	N1-C6-O6	6.13	123.58	119.90
1	AR	275	U	C2-N3-C4	6.12	130.67	127.00
1	AR	1047	A	C5-N7-C8	-6.12	100.84	103.90
1	AR	2263	C	OP1-P-OP2	-6.12	110.42	119.60
1	1	3046	A	O5'-P-OP1	-6.12	100.19	105.70
81	sR	1596	C	N1-C2-O2	6.12	122.57	118.90
1	AR	216	G	N9-C4-C5	-6.11	102.95	105.40
1	AR	2679	A	C4-C5-N7	6.11	113.75	110.70
81	sR	355	G	OP2-P-O3'	6.11	118.64	105.20
1	AR	2400	G	C6-C5-N7	-6.11	126.73	130.40
1	1	1157	G	OP2-P-O3'	6.11	118.64	105.20
1	1	3340	G	N7-C8-N9	6.11	116.15	113.10
81	sR	1473	U	C2-N1-C1'	6.11	125.03	117.70
1	1	143	G	N3-C4-C5	-6.10	125.55	128.60
1	AR	2399	A	N1-C6-N6	6.10	122.26	118.60
1	AR	2935	U	C5-C6-N1	6.10	125.75	122.70
1	1	2314	U	C6-N1-C1'	-6.10	112.66	121.20
1	1	416	A	C8-N9-C4	6.10	108.24	105.80
1	AR	21	G	N3-C4-C5	6.10	131.65	128.60
1	AR	3278	C	C6-N1-C2	-6.10	117.86	120.30
1	1	3181	C	N1-C2-O2	6.10	122.56	118.90
1	AR	2263	C	C6-N1-C1'	-6.09	113.49	120.80
1	1	984	G	C8-N9-C4	-6.09	103.96	106.40
1	AR	361	A	N1-C6-N6	-6.09	114.94	118.60
1	AR	2245	C	C6-N1-C2	-6.09	117.86	120.30
1	1	28	C	N3-C4-C5	6.09	124.33	121.90
3	AT	113	U	C2-N1-C1'	-6.08	110.40	117.70
31	DE	41	LEU	CA-CB-CG	6.08	129.30	115.30
1	1	192	C	O5'-P-OP1	-6.08	100.23	105.70
1	1	2869	U	O5'-P-OP2	6.08	118.00	110.70
1	1	1795	U	O5'-P-OP1	-6.08	100.23	105.70
1	1	2651	G	N3-C4-N9	-6.08	122.35	126.00
1	AR	587	U	C6-N1-C2	6.08	124.65	121.00
81	sR	1340	U	N3-C2-O2	-6.08	117.95	122.20
3	4	94	C	N3-C4-C5	6.07	124.33	121.90
1	AR	3276	G	C4-N9-C1'	-6.07	118.61	126.50
1	1	1349	G	N3-C4-N9	6.07	129.64	126.00
81	sR	1662	G	N3-C4-N9	-6.07	122.36	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2884	C	C6-N1-C2	6.07	122.73	120.30
1	AR	634	C	N3-C4-C5	6.07	124.33	121.90
1	1	3306	U	N3-C2-O2	-6.07	117.95	122.20
47	A	1560	U	C5-C4-O4	6.07	129.54	125.90
81	sR	805	U	C6-N1-C2	-6.07	117.36	121.00
47	A	959	U	N1-C2-O2	6.06	127.04	122.80
1	AR	92	G	N3-C4-N9	6.06	129.64	126.00
1	1	1113	G	N3-C2-N2	-6.06	115.66	119.90
1	1	2175	U	C5-C6-N1	-6.06	119.67	122.70
81	sR	577	G	C5-C6-O6	-6.06	124.97	128.60
1	1	802	C	N3-C2-O2	-6.06	117.66	121.90
81	sR	845	G	C8-N9-C1'	6.06	134.87	127.00
1	1	363	G	C5-C6-O6	-6.05	124.97	128.60
1	AR	2888	U	O5'-P-OP2	-6.05	100.25	105.70
1	AR	63	A	C5-C6-N6	-6.05	118.86	123.70
1	AR	691	A	N1-C6-N6	6.05	122.23	118.60
1	AR	2330	C	C2-N3-C4	-6.05	116.88	119.90
1	1	411	U	N3-C4-O4	6.05	123.63	119.40
1	1	2620	G	N1-C6-O6	6.05	123.53	119.90
1	1	295	A	N7-C8-N9	6.05	116.82	113.80
1	1	1507	G	N3-C4-N9	6.04	129.63	126.00
1	AR	776	U	C2-N3-C4	-6.04	123.37	127.00
1	AR	3344	A	O4'-C1'-N9	6.04	113.03	108.20
47	A	720	G	OP1-P-O3'	6.04	118.50	105.20
1	1	812	G	N1-C6-O6	6.04	123.53	119.90
1	AR	3319	U	N3-C2-O2	-6.04	117.97	122.20
1	AR	1372	C	C6-N1-C2	6.04	122.72	120.30
1	AR	1844	C	N1-C2-O2	-6.04	115.28	118.90
81	sR	858	G	N7-C8-N9	6.04	116.12	113.10
1	1	1390	A	N9-C4-C5	6.04	108.22	105.80
1	1	2169	G	C4-C5-N7	-6.04	108.38	110.80
1	AR	1117	G	O5'-P-OP1	-6.04	100.27	105.70
1	AR	1368	U	O5'-P-OP1	-6.04	100.27	105.70
81	sR	245	U	N3-C4-C5	-6.04	110.98	114.60
1	1	54	C	N3-C4-C5	6.03	124.31	121.90
1	AR	2298	U	C5-C4-O4	6.03	129.52	125.90
1	AR	2720	G	O5'-P-OP2	-6.03	100.27	105.70
2	AS	49	G	C8-N9-C4	6.03	108.81	106.40
81	sR	965	U	N3-C2-O2	-6.03	117.98	122.20
1	1	1365	G	C8-N9-C4	-6.03	103.99	106.40
1	AR	2872	A	N9-C4-C5	-6.03	103.39	105.80
1	1	2763	U	N3-C2-O2	6.03	126.42	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	4	13	A	N1-C6-N6	6.02	122.21	118.60
1	AR	2604	U	C4-C5-C6	6.02	123.31	119.70
1	AR	2954	U	C5-C4-O4	-6.02	122.29	125.90
1	AR	1181	U	C5-C6-N1	-6.02	119.69	122.70
1	AR	2873	U	O4'-C1'-N1	-6.02	103.38	108.20
81	sR	1085	G	N1-C6-O6	-6.02	116.29	119.90
1	AR	957	C	N3-C2-O2	-6.02	117.69	121.90
1	1	1543	G	C5-C6-N1	-6.02	108.49	111.50
1	AR	950	G	N3-C4-N9	6.02	129.61	126.00
81	sR	795	U	C2-N1-C1'	6.02	124.92	117.70
81	sR	609	U	N3-C4-O4	-6.02	115.19	119.40
1	1	1838	G	C6-C5-N7	-6.01	126.79	130.40
1	AR	1404	G	N3-C4-N9	-6.01	122.39	126.00
1	AR	2207	A	N1-C6-N6	6.01	122.20	118.60
1	AR	1556	C	C2-N1-C1'	6.01	125.41	118.80
1	1	2954	U	C6-N1-C2	6.00	124.60	121.00
1	AR	653	A	C6-C5-N7	-6.00	128.10	132.30
1	AR	1431	G	C8-N9-C4	-6.00	104.00	106.40
45	i	171	PRO	N-CA-CB	6.00	110.50	103.30
81	sR	795	U	N3-C2-O2	-6.00	118.00	122.20
81	sR	1758	U	C4-C5-C6	6.00	123.30	119.70
1	1	3133	C	OP1-P-O3'	6.00	118.39	105.20
1	1	957	C	N1-C2-O2	-6.00	115.30	118.90
81	sR	858	G	O4'-C1'-N9	6.00	113.00	108.20
1	AR	2281	A	C8-N9-C4	5.99	108.20	105.80
1	1	3175	U	N3-C2-O2	-5.99	118.00	122.20
81	sR	3	U	C5-C6-N1	-5.99	119.70	122.70
81	sR	542	A	O4'-C1'-N9	5.99	112.99	108.20
1	1	2177	G	C4-C5-C6	5.99	122.39	118.80
1	1	2407	C	N3-C4-N4	5.99	122.19	118.00
46	p0	290	PRO	N-CA-CB	5.99	110.48	103.30
47	A	1698	G	P-O3'-C3'	5.99	126.88	119.70
1	1	867	G	N3-C2-N2	-5.98	115.71	119.90
1	AR	3051	U	N3-C2-O2	-5.98	118.01	122.20
1	1	709	A	N7-C8-N9	-5.98	110.81	113.80
1	1	1101	G	C5-C6-O6	5.98	132.19	128.60
1	AR	3217	C	C2-N1-C1'	5.98	125.38	118.80
1	AR	1203	A	O5'-P-OP1	-5.98	100.32	105.70
1	AR	3260	G	C5-C6-O6	5.97	132.18	128.60
81	sR	1026	A	O5'-P-OP1	-5.97	100.32	105.70
1	AR	2123	G	N3-C2-N2	-5.97	115.72	119.90
1	1	1507	G	C5-C6-O6	-5.97	125.02	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1522	U	C5-C4-O4	-5.97	122.32	125.90
1	1	2343	C	N3-C4-C5	5.97	124.29	121.90
47	A	621	A	OP2-P-O3'	5.96	118.31	105.20
81	sR	90	C	N3-C2-O2	-5.96	117.73	121.90
1	1	969	C	N1-C2-O2	-5.96	115.32	118.90
1	AR	1897	G	C8-N9-C1'	5.96	134.75	127.00
1	1	2811	A	C6-N1-C2	-5.96	115.03	118.60
1	1	2987	A	N1-C6-N6	5.96	122.17	118.60
1	1	295	A	C8-N9-C4	-5.96	103.42	105.80
1	1	867	G	C4-C5-N7	-5.96	108.42	110.80
1	1	2887	A	O5'-P-OP2	-5.95	100.34	105.70
1	AR	922	U	C2-N1-C1'	5.95	124.84	117.70
1	AR	2809	C	C6-N1-C2	5.95	122.68	120.30
81	sR	2	A	C8-N9-C4	5.95	108.18	105.80
1	AR	2207	A	C4-C5-N7	5.95	113.67	110.70
1	1	1151	U	N1-C2-O2	-5.95	118.64	122.80
1	AR	1006	A	O5'-P-OP2	-5.95	100.35	105.70
3	AT	85	G	N1-C6-O6	5.94	123.46	119.90
3	4	16	G	O5'-P-OP1	-5.94	100.36	105.70
81	sR	858	G	C4-C5-N7	5.94	113.18	110.80
1	1	363	G	C8-N9-C4	5.94	108.78	106.40
1	AR	283	G	C6-C5-N7	-5.94	126.84	130.40
1	AR	2399	A	C5-C6-N6	-5.94	118.95	123.70
12	r	24	ARG	NE-CZ-NH1	5.93	123.27	120.30
1	AR	2201	G	N3-C2-N2	5.93	124.06	119.90
1	AR	2871	G	OP2-P-O3'	5.93	118.26	105.20
1	1	2831	G	C6-C5-N7	-5.93	126.84	130.40
81	sR	489	C	C2-N1-C1'	5.93	125.32	118.80
1	1	1132	C	O5'-P-OP1	-5.93	100.36	105.70
1	1	2637	A	C5-C6-N6	-5.93	118.96	123.70
47	A	423	G	N9-C4-C5	5.93	107.77	105.40
81	sR	1672	G	N3-C4-C5	5.93	131.56	128.60
1	1	1556	C	C6-N1-C1'	-5.93	113.69	120.80
1	1	612	U	N3-C4-O4	-5.92	115.25	119.40
1	AR	102	C	N1-C2-O2	-5.92	115.34	118.90
1	AR	1141	C	O5'-P-OP1	-5.92	100.37	105.70
1	AR	2697	A	O5'-P-OP1	-5.92	100.37	105.70
46	p0	278	PRO	N-CA-CB	5.92	110.41	103.30
1	1	275	U	C6-N1-C2	-5.92	117.45	121.00
1	1	2726	C	N1-C2-N3	5.92	123.34	119.20
1	AR	2148	U	N3-C4-C5	5.92	118.15	114.60
1	1	835	G	C5-C6-N1	5.92	114.46	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	909	G	C5-C6-O6	5.92	132.15	128.60
1	AR	2899	C	N3-C2-O2	-5.92	117.76	121.90
1	1	939	U	N1-C2-O2	-5.92	118.66	122.80
81	sR	1139	A	N1-C6-N6	-5.92	115.05	118.60
1	AR	1208	U	O5'-P-OP1	-5.91	100.38	105.70
1	1	1727	G	N3-C4-C5	-5.91	125.64	128.60
1	1	2624	G	C8-N9-C4	-5.91	104.03	106.40
1	1	1101	G	N1-C6-O6	-5.91	116.35	119.90
1	1	2864	A	O5'-P-OP1	-5.91	100.38	105.70
1	1	2273	G	C4-C5-N7	-5.91	108.44	110.80
1	AR	1375	G	C8-N9-C4	-5.91	104.04	106.40
1	1	933	A	C2-N3-C4	-5.91	107.65	110.60
1	AR	2263	C	C5-C4-N4	-5.90	116.07	120.20
1	AR	1483	G	O4'-C1'-N9	5.90	112.92	108.20
81	sR	1781	A	O5'-P-OP1	5.90	117.78	110.70
81	sR	782	U	N3-C2-O2	-5.90	118.07	122.20
1	1	812	G	C5-C6-O6	-5.90	125.06	128.60
81	sR	436	A	O5'-P-OP1	-5.90	100.39	105.70
1	1	2418	G	C2-N3-C4	5.89	114.85	111.90
81	sR	864	U	N3-C2-O2	-5.89	118.07	122.20
81	sR	1672	G	C8-N9-C1'	5.89	134.66	127.00
1	1	2404	A	O4'-C1'-N9	-5.89	103.49	108.20
1	AR	2805	G	C8-N9-C4	5.89	108.76	106.40
1	1	2147	A	C8-N9-C4	5.89	108.16	105.80
1	AR	3050	U	N1-C2-O2	5.89	126.92	122.80
1	1	785	G	C2-N3-C4	5.89	114.84	111.90
1	AR	2786	G	OP2-P-O3'	5.89	118.15	105.20
1	AR	634	C	C6-N1-C2	5.88	122.65	120.30
1	1	2395	G	C8-N9-C4	5.88	108.75	106.40
1	1	2820	A	C2-N3-C4	5.88	113.54	110.60
1	1	1002	A	C4-C5-C6	-5.88	114.06	117.00
81	sR	609	U	C5-C4-O4	5.88	129.43	125.90
1	1	1329	U	N3-C2-O2	-5.87	118.09	122.20
1	AR	3362	A	O4'-C1'-N9	5.87	112.90	108.20
81	sR	981	U	OP1-P-O3'	5.87	118.12	105.20
1	1	979	U	P-O3'-C3'	5.87	126.75	119.70
19	CS	49	LEU	CA-CB-CG	5.87	128.80	115.30
1	AR	2366	C	C2-N1-C1'	5.87	125.25	118.80
1	AR	3317	U	C5-C4-O4	5.87	129.42	125.90
47	A	553	G	C6-C5-N7	-5.87	126.88	130.40
2	AS	49	G	N7-C8-N9	-5.86	110.17	113.10
3	4	145	U	N3-C2-O2	-5.86	118.10	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	494	G	N3-C4-N9	5.86	129.51	126.00
1	AR	2659	G	N1-C6-O6	5.85	123.41	119.90
2	AS	120	C	C6-N1-C2	5.85	122.64	120.30
1	1	227	G	N1-C6-O6	5.85	123.41	119.90
1	AR	279	U	N3-C2-O2	5.85	126.30	122.20
1	AR	960	U	C2-N1-C1'	5.85	124.72	117.70
47	A	1762	A	O5'-P-OP1	-5.85	100.43	105.70
1	AR	2805	G	N9-C4-C5	-5.85	103.06	105.40
1	1	2400	G	C6-C5-N7	-5.85	126.89	130.40
81	sR	782	U	N1-C2-O2	5.85	126.89	122.80
81	sR	991	G	N1-C6-O6	5.84	123.41	119.90
1	1	521	A	N1-C6-N6	5.84	122.11	118.60
1	AR	895	A	C6-C5-N7	-5.84	128.21	132.30
1	AR	3368	U	C2-N1-C1'	-5.84	110.69	117.70
81	sR	1662	G	N9-C4-C5	5.84	107.73	105.40
1	1	421	G	N1-C6-O6	5.83	123.40	119.90
1	AR	3075	G	N1-C6-O6	5.83	123.40	119.90
38	AK	11	ARG	NE-CZ-NH1	-5.83	117.38	120.30
1	AR	2541	U	P-O3'-C3'	5.83	126.70	119.70
1	1	1507	G	N1-C6-O6	5.83	123.40	119.90
1	AR	146	U	C5-C6-N1	-5.83	119.78	122.70
1	AR	1513	G	C8-N9-C4	-5.83	104.07	106.40
81	sR	313	U	C5-C6-N1	-5.83	119.79	122.70
1	AR	1154	A	C2-N3-C4	5.83	113.51	110.60
1	AR	2191	U	N3-C2-O2	-5.83	118.12	122.20
1	AR	2816	G	C4-N9-C1'	-5.83	118.93	126.50
1	AR	2643	A	C8-N9-C4	5.82	108.13	105.80
1	1	1103	A	P-O3'-C3'	5.82	126.69	119.70
1	1	200	C	C2-N1-C1'	5.82	125.20	118.80
1	1	2585	G	N3-C4-C5	-5.82	125.69	128.60
1	AR	2611	U	C4-C5-C6	5.82	123.19	119.70
47	A	1363	U	N1-C2-O2	5.82	126.87	122.80
1	1	2765	C	C6-N1-C2	-5.82	117.97	120.30
1	AR	21	G	C8-N9-C4	5.82	108.73	106.40
81	sR	25	C	OP2-P-O3'	5.82	118.00	105.20
1	1	887	G	O5'-P-OP2	-5.81	100.47	105.70
47	A	15	U	C6-N1-C2	-5.81	117.51	121.00
47	A	1596	C	N3-C2-O2	-5.81	117.83	121.90
1	1	2395	G	C8-N9-C1'	-5.81	119.45	127.00
1	1	2922	G	N1-C2-N2	-5.81	110.97	116.20
3	4	99	C	C6-N1-C2	5.81	122.62	120.30
2	AS	57	G	O5'-P-OP2	-5.81	100.47	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	CQ	84	LEU	CB-CG-CD1	-5.81	101.12	111.00
1	1	2869	U	O5'-P-OP1	-5.81	100.47	105.70
17	w	84	LEU	CB-CG-CD2	-5.81	101.13	111.00
1	AR	3078	U	N3-C2-O2	-5.81	118.14	122.20
1	AR	141	C	N1-C2-O2	-5.80	115.42	118.90
1	AR	3078	U	N1-C2-O2	5.80	126.86	122.80
1	AR	2593	A	P-O3'-C3'	5.80	126.66	119.70
1	AR	1389	G	C5-C6-O6	-5.80	125.12	128.60
1	1	212	G	C8-N9-C4	5.80	108.72	106.40
1	AR	646	A	C8-N9-C4	-5.79	103.48	105.80
1	AR	1189	C	N1-C2-O2	-5.79	115.42	118.90
1	AR	1302	A	N9-C4-C5	5.79	108.12	105.80
47	A	359	A	C8-N9-C4	5.79	108.12	105.80
81	sR	1654	G	N1-C6-O6	5.79	123.38	119.90
1	1	33	G	O5'-P-OP1	-5.79	100.49	105.70
1	1	3362	A	O4'-C1'-N9	5.79	112.83	108.20
47	A	1494	C	C6-N1-C2	-5.79	117.98	120.30
1	1	2945	G	O5'-P-OP1	-5.79	100.49	105.70
47	A	556	A	N1-C6-N6	-5.79	115.13	118.60
1	AR	2341	A	N7-C8-N9	-5.79	110.91	113.80
47	A	830	U	N1-C2-O2	5.79	126.85	122.80
1	1	1116	G	N1-C6-O6	5.78	123.37	119.90
1	AR	1840	U	O5'-P-OP2	-5.78	100.50	105.70
81	sR	1118	G	N1-C6-O6	5.78	123.37	119.90
1	1	406	G	O5'-P-OP2	-5.78	100.50	105.70
1	1	2827	U	N1-C2-N3	5.78	118.37	114.90
1	AR	1083	G	OP1-P-OP2	5.78	128.27	119.60
1	AR	2724	U	N1-C2-N3	5.78	118.37	114.90
81	sR	630	A	C2-N3-C4	-5.78	107.71	110.60
1	1	3092	C	C2-N3-C4	-5.78	117.01	119.90
81	sR	1773	C	N3-C4-N4	5.78	122.05	118.00
1	AR	718	G	C4-C5-N7	5.78	113.11	110.80
1	1	3078	U	C5-C6-N1	5.78	125.59	122.70
1	AR	3362	A	C5-N7-C8	-5.77	101.01	103.90
1	1	3340	G	C8-N9-C4	-5.77	104.09	106.40
47	A	73	U	N3-C2-O2	-5.77	118.16	122.20
47	A	934	C	C6-N1-C1'	-5.77	113.87	120.80
81	sR	1022	C	N3-C4-C5	5.77	124.21	121.90
1	1	645	A	C5-C6-N1	5.77	120.58	117.70
1	1	1170	A	N1-C6-N6	5.77	122.06	118.60
1	1	3210	A	N1-C6-N6	-5.77	115.14	118.60
29	AB	29	PRO	C-N-CA	-5.77	110.18	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	sR	1649	G	C6-C5-N7	-5.77	126.94	130.40
1	1	3121	U	OP1-P-O3'	5.76	117.88	105.20
1	1	334	A	C8-N9-C4	-5.76	103.50	105.80
1	1	895	A	O5'-P-OP1	-5.76	100.52	105.70
1	AR	2269	U	C5-C6-N1	-5.76	119.82	122.70
1	AR	3309	G	C4-N9-C1'	5.76	133.99	126.50
1	1	324	A	N1-C2-N3	5.76	132.18	129.30
1	1	1389	G	N1-C6-O6	5.75	123.35	119.90
1	AR	1329	U	N1-C1'-C2'	-5.75	105.67	112.00
1	AR	2759	U	N1-C2-N3	5.75	118.35	114.90
1	AR	340	C	N3-C4-C5	5.75	124.20	121.90
1	1	2996	U	N1-C2-O2	5.75	126.82	122.80
1	AR	1160	C	C6-N1-C2	5.75	122.60	120.30
1	1	3369	G	C5-C6-O6	-5.75	125.15	128.60
1	AR	706	A	C8-N9-C4	5.75	108.10	105.80
1	AR	2144	A	O4'-C1'-N9	5.75	112.80	108.20
47	A	621	A	P-O3'-C3'	5.75	126.59	119.70
1	AR	99	A	O5'-P-OP1	-5.74	100.53	105.70
1	AR	1604	G	C4-N9-C1'	5.74	133.97	126.50
1	1	645	A	N1-C2-N3	5.74	132.17	129.30
1	AR	2873	U	N3-C2-O2	-5.74	118.18	122.20
1	1	1370	G	C5-C6-O6	-5.74	125.16	128.60
12	r	48	LEU	CA-CB-CG	5.74	128.50	115.30
1	AR	41	G	N9-C4-C5	-5.74	103.11	105.40
1	1	1132	C	C5-C4-N4	5.74	124.22	120.20
81	sR	1473	U	C6-N1-C2	-5.74	117.56	121.00
1	AR	718	G	N3-C4-C5	5.73	131.47	128.60
1	1	43	A	C6-N1-C2	5.73	122.04	118.60
1	AR	922	U	C4-C5-C6	-5.73	116.26	119.70
1	AR	977	C	C6-N1-C2	-5.73	118.01	120.30
1	1	1432	C	N1-C2-O2	-5.73	115.46	118.90
1	AR	1435	A	C5-C6-N6	-5.73	119.12	123.70
81	sR	1140	G	C5-C6-O6	-5.73	125.16	128.60
1	1	2808	A	N9-C4-C5	-5.73	103.51	105.80
1	AR	2135	U	N3-C4-C5	5.73	118.03	114.60
81	sR	1094	G	N1-C6-O6	-5.73	116.46	119.90
1	1	903	U	N3-C2-O2	-5.72	118.19	122.20
1	AR	189	G	C5-C6-O6	5.72	132.03	128.60
1	AR	938	C	C5-C4-N4	-5.72	116.19	120.20
1	1	866	A	N1-C6-N6	5.72	122.03	118.60
1	AR	1852	G	N7-C8-N9	5.72	115.96	113.10
1	1	797	U	OP2-P-O3'	5.72	117.79	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1198	C	C6-N1-C2	-5.72	118.01	120.30
1	1	1052	U	N3-C4-O4	-5.72	115.40	119.40
1	1	1115	G	C8-N9-C4	-5.72	104.11	106.40
1	AR	2827	U	N1-C2-O2	-5.72	118.80	122.80
1	AR	979	U	P-O3'-C3'	5.72	126.56	119.70
66	c8	116	LEU	CA-CB-CG	5.72	128.45	115.30
1	1	1581	C	C2-N1-C1'	5.72	125.09	118.80
1	1	3362	A	C5-N7-C8	-5.72	101.04	103.90
1	AR	2349	U	OP1-P-O3'	5.72	117.78	105.20
1	AR	2551	U	N3-C4-O4	-5.72	115.40	119.40
1	AR	3206	C	N3-C2-O2	-5.72	117.90	121.90
1	AR	42	C	N1-C2-O2	5.71	122.33	118.90
1	AR	341	G	OP1-P-O3'	5.71	117.77	105.20
1	1	3044	G	N1-C6-O6	-5.71	116.47	119.90
81	sR	416	A	N1-C6-N6	5.71	122.03	118.60
1	1	895	A	C6-C5-N7	-5.71	128.30	132.30
1	1	3246	G	C5-C6-N1	-5.71	108.65	111.50
1	AR	1520	G	C5-C6-O6	-5.71	125.17	128.60
81	sR	1629	G	O4'-C1'-N9	-5.71	103.63	108.20
1	1	2169	G	N1-C6-O6	-5.71	116.48	119.90
1	AR	3048	A	O5'-P-OP2	-5.71	100.56	105.70
1	1	1048	A	C8-N9-C4	5.71	108.08	105.80
1	1	914	A	N1-C6-N6	-5.70	115.18	118.60
1	1	2314	U	C5-C6-N1	5.70	125.55	122.70
36	AI	36	LEU	CA-CB-CG	5.70	128.42	115.30
1	AR	1924	U	N3-C4-C5	5.70	118.02	114.60
1	1	3344	A	N7-C8-N9	5.70	116.65	113.80
1	1	1112	A	N9-C4-C5	-5.70	103.52	105.80
1	AR	3344	A	C2-N3-C4	-5.70	107.75	110.60
47	A	1600	A	C5-C6-N1	-5.70	114.85	117.70
81	sR	1758	U	C6-N1-C2	-5.70	117.58	121.00
1	1	637	C	C5-C6-N1	-5.70	118.15	121.00
1	AR	939	U	O5'-P-OP2	-5.70	100.57	105.70
1	AR	3309	G	N3-C4-C5	-5.70	125.75	128.60
1	1	2847	A	N1-C6-N6	5.70	122.02	118.60
1	AR	1432	C	C2-N1-C1'	5.69	125.06	118.80
1	1	2861	U	O5'-P-OP2	5.69	117.53	110.70
1	AR	2141	U	OP2-P-O3'	5.69	117.72	105.20
1	1	922	U	C4-C5-C6	-5.69	116.29	119.70
1	AR	694	C	N3-C2-O2	-5.69	117.92	121.90
81	sR	542	A	P-O3'-C3'	5.69	126.53	119.70
81	sR	1774	G	C5-C6-O6	5.69	132.01	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	776	U	C4-C5-C6	5.69	123.11	119.70
1	1	2245	C	N3-C2-O2	-5.69	117.92	121.90
47	A	25	C	OP2-P-O3'	5.69	117.71	105.20
1	1	2177	G	C5-C6-N1	-5.68	108.66	111.50
1	1	1407	A	N7-C8-N9	-5.68	110.96	113.80
1	AR	2978	U	N3-C2-O2	-5.68	118.22	122.20
1	AR	3087	A	OP2-P-O3'	5.68	117.70	105.20
1	1	2283	G	C6-C5-N7	-5.68	126.99	130.40
1	AR	1133	A	C5-N7-C8	5.68	106.74	103.90
47	A	1745	G	C6-C5-N7	-5.68	126.99	130.40
81	sR	65	A	N1-C6-N6	5.68	122.01	118.60
81	sR	782	U	C2-N1-C1'	5.68	124.52	117.70
1	AR	1115	G	N3-C4-C5	-5.68	125.76	128.60
1	AR	3218	A	C4-C5-N7	5.68	113.54	110.70
47	A	577	G	N3-C4-N9	5.68	129.41	126.00
81	sR	858	G	C6-C5-N7	-5.68	126.99	130.40
1	AR	103	G	N1-C6-O6	-5.68	116.49	119.90
1	AR	410	U	N3-C4-C5	-5.67	111.19	114.60
1	AR	718	G	N7-C8-N9	5.67	115.94	113.10
1	AR	820	A	C8-N9-C4	-5.67	103.53	105.80
1	AR	1604	G	N3-C4-C5	-5.67	125.76	128.60
1	AR	2163	C	N3-C2-O2	-5.67	117.93	121.90
1	AR	2977	G	C8-N9-C4	5.67	108.67	106.40
81	sR	622	A	O5'-P-OP1	-5.67	100.59	105.70
1	1	2402	A	N1-C6-N6	5.67	122.00	118.60
47	A	501	U	OP1-P-O3'	5.67	117.67	105.20
81	sR	687	G	N3-C4-N9	-5.67	122.60	126.00
1	1	677	A	O5'-P-OP1	-5.67	100.60	105.70
1	1	2811	A	N1-C2-N3	5.67	132.13	129.30
1	AR	653	A	C5-C6-N6	-5.67	119.17	123.70
81	sR	1766	A	N1-C6-N6	5.67	122.00	118.60
1	1	326	U	C2-N1-C1'	5.67	124.50	117.70
1	1	1116	G	C8-N9-C4	-5.67	104.13	106.40
1	AR	2333	C	C5-C4-N4	-5.67	116.23	120.20
1	1	610	G	O5'-P-OP2	-5.66	100.60	105.70
1	1	3022	G	C8-N9-C4	-5.66	104.13	106.40
1	AR	928	C	O5'-P-OP2	-5.66	100.60	105.70
47	A	1773	C	N3-C4-C5	-5.66	119.64	121.90
58	c0	90	PRO	N-CA-CB	5.66	110.10	103.30
1	AR	2142	A	OP1-P-O3'	5.66	117.66	105.20
81	sR	815	G	C4-N9-C1'	-5.66	119.14	126.50
1	1	1048	A	N7-C8-N9	-5.66	110.97	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	30	G	O5'-P-OP2	5.66	117.49	110.70
1	AR	694	C	C6-N1-C2	-5.66	118.04	120.30
1	AR	1914	G	O5'-P-OP1	-5.66	100.61	105.70
1	AR	3306	U	C2-N1-C1'	5.66	124.49	117.70
1	1	678	G	N1-C6-O6	5.66	123.30	119.90
1	1	1713	G	N3-C4-C5	5.66	131.43	128.60
1	1	1793	C	C6-N1-C2	5.66	122.56	120.30
1	1	2897	A	C8-N9-C4	5.66	108.06	105.80
81	sR	858	G	C5-N7-C8	-5.66	101.47	104.30
1	AR	2632	G	C8-N9-C4	5.66	108.66	106.40
1	AR	328	U	N3-C4-C5	-5.66	111.21	114.60
1	AR	1348	U	C2-N1-C1'	-5.66	110.91	117.70
1	AR	2679	A	C6-C5-N7	-5.66	128.34	132.30
81	sR	337	G	C8-N9-C1'	-5.66	119.65	127.00
1	AR	562	C	C2-N1-C1'	5.65	125.02	118.80
1	1	2836	C	C4-C5-C6	5.65	120.23	117.40
81	sR	1150	G	N3-C4-C5	5.65	131.43	128.60
1	1	968	G	C5-C6-N1	5.65	114.33	111.50
1	AR	50	U	C5-C6-N1	5.65	125.53	122.70
1	AR	3054	U	N1-C2-O2	-5.65	118.84	122.80
81	sR	1171	A	C8-N9-C4	-5.65	103.54	105.80
47	A	1198	G	C8-N9-C4	-5.65	104.14	106.40
1	1	1320	C	O5'-P-OP2	-5.65	100.62	105.70
1	AR	2298	U	O4'-C1'-N1	5.65	112.72	108.20
81	sR	1117	U	C5-C6-N1	5.65	125.52	122.70
1	AR	1897	G	N3-C2-N2	-5.64	115.95	119.90
1	AR	2364	G	C5-C6-O6	5.64	131.99	128.60
1	AR	2819	A	O5'-P-OP2	-5.64	100.62	105.70
47	A	1363	U	N3-C2-O2	-5.64	118.25	122.20
1	1	1269	U	N1-C2-O2	5.64	126.75	122.80
1	1	2550	U	C5-C4-O4	5.64	129.29	125.90
47	A	728	U	N3-C2-O2	-5.64	118.25	122.20
1	1	305	U	N3-C2-O2	-5.64	118.25	122.20
1	AR	1408	G	OP1-P-O3'	5.64	117.60	105.20
1	AR	2332	A	C8-N9-C4	5.64	108.06	105.80
81	sR	1058	U	OP1-P-O3'	5.64	117.60	105.20
1	1	1727	G	C2-N3-C4	5.64	114.72	111.90
1	AR	216	G	N3-C4-N9	5.64	129.38	126.00
1	AR	966	U	C2-N1-C1'	5.64	124.46	117.70
1	AR	2968	G	N1-C6-O6	-5.64	116.52	119.90
81	sR	1117	U	C5-C4-O4	-5.64	122.52	125.90
1	1	922	U	C2-N1-C1'	5.63	124.46	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	1792	C	N3-C4-C5	-5.63	119.65	121.90
81	sR	1149	G	C5-C6-O6	5.63	131.98	128.60
1	1	776	U	N1-C2-N3	5.63	118.28	114.90
1	1	2304	C	C6-N1-C2	-5.63	118.05	120.30
1	AR	3321	C	N1-C2-O2	-5.63	115.52	118.90
1	1	158	G	N1-C6-O6	5.63	123.28	119.90
47	A	554	C	C2-N3-C4	5.63	122.72	119.90
1	1	2920	U	C2-N3-C4	-5.63	123.62	127.00
1	1	2962	U	O5'-P-OP1	-5.63	100.63	105.70
47	A	401	A	OP2-P-O3'	5.63	117.58	105.20
1	1	2522	G	C4-N9-C1'	5.62	133.81	126.50
1	AR	297	G	O4'-C1'-N9	5.62	112.70	108.20
1	AR	1445	U	N1-C2-O2	-5.62	118.86	122.80
1	1	809	G	C8-N9-C4	5.62	108.65	106.40
1	1	1330	A	O5'-P-OP1	-5.62	100.64	105.70
1	AR	886	C	N1-C2-O2	-5.62	115.53	118.90
1	1	1148	G	C8-N9-C4	5.62	108.65	106.40
1	1	1373	A	N1-C6-N6	-5.62	115.23	118.60
1	1	1407	A	C8-N9-C4	5.62	108.05	105.80
1	AR	2335	G	OP2-P-O3'	5.62	117.57	105.20
1	1	1934	G	C4-C5-N7	5.62	113.05	110.80
1	AR	655	C	N3-C4-C5	-5.62	119.65	121.90
1	1	1493	G	O4'-C1'-N9	5.62	112.69	108.20
1	AR	2207	A	C5-N7-C8	-5.62	101.09	103.90
1	1	866	A	C5-C6-N6	-5.62	119.21	123.70
81	sR	1670	G	C8-N9-C4	-5.62	104.15	106.40
1	1	2550	U	N1-C2-O2	5.62	126.73	122.80
3	4	95	G	C4-N9-C1'	-5.62	119.20	126.50
1	AR	1884	A	OP2-P-O3'	5.61	117.55	105.20
81	sR	962	C	C6-N1-C2	5.61	122.55	120.30
47	A	264	G	N3-C4-N9	-5.61	122.63	126.00
1	1	1876	U	C2-N1-C1'	5.61	124.43	117.70
1	1	945	C	O5'-P-OP2	-5.61	100.65	105.70
1	1	283	G	O4'-C1'-N9	-5.61	103.71	108.20
1	1	1443	G	C5-N7-C8	-5.61	101.50	104.30
1	1	3000	A	C8-N9-C4	5.61	108.04	105.80
3	4	79	A	C8-N9-C4	-5.61	103.56	105.80
1	AR	637	C	C2-N1-C1'	-5.61	112.63	118.80
1	AR	2552	C	N1-C2-O2	5.61	122.27	118.90
81	sR	1301	U	N1-C2-O2	5.61	126.73	122.80
81	sR	1614	A	N1-C6-N6	5.61	121.97	118.60
1	1	967	A	N1-C2-N3	5.61	132.10	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	196	G	O5'-P-OP2	-5.60	100.66	105.70
1	1	1307	G	C2'-C3'-O3'	5.60	122.66	113.70
1	1	1523	U	N1-C2-O2	-5.60	118.88	122.80
1	1	809	G	N9-C4-C5	-5.60	103.16	105.40
1	1	233	C	C6-N1-C2	5.60	122.54	120.30
1	1	942	U	OP1-P-OP2	-5.60	111.20	119.60
1	1	54	C	C6-N1-C2	5.60	122.54	120.30
1	1	2293	C	C5-C4-N4	-5.60	116.28	120.20
1	1	3275	U	OP1-P-O3'	5.59	117.51	105.20
1	1	3340	G	C8-N9-C1'	5.59	134.27	127.00
1	AR	1465	A	N1-C6-N6	-5.59	115.24	118.60
47	A	1217	A	O4'-C1'-N9	-5.59	103.72	108.20
1	1	2959	C	N1-C2-O2	-5.59	115.54	118.90
1	AR	836	A	O5'-P-OP2	-5.59	100.67	105.70
1	AR	1161	G	C5-C6-N1	5.59	114.30	111.50
1	AR	1448	U	C6-N1-C2	5.59	124.36	121.00
1	AR	2758	A	O5'-P-OP1	-5.59	100.67	105.70
1	AR	2934	A	N1-C6-N6	-5.59	115.24	118.60
1	AR	1300	G	C8-N9-C4	5.59	108.64	106.40
81	sR	845	G	C5-N7-C8	-5.59	101.50	104.30
1	1	2139	A	N1-C6-N6	-5.59	115.25	118.60
1	AR	644	G	C8-N9-C4	-5.59	104.16	106.40
1	AR	866	A	C8-N9-C4	5.59	108.03	105.80
1	AR	1854	C	C2-N3-C4	5.59	122.69	119.90
1	1	1365	G	N3-C2-N2	5.59	123.81	119.90
1	1	2417	U	C2-N3-C4	-5.59	123.65	127.00
3	4	28	C	N1-C2-O2	5.59	122.25	118.90
1	AR	2983	C	O4'-C1'-N1	5.59	112.67	108.20
1	1	1415	U	C5-C6-N1	-5.58	119.91	122.70
1	1	1793	C	C2-N3-C4	-5.58	117.11	119.90
1	1	2395	G	N7-C8-N9	-5.58	110.31	113.10
1	AR	339	C	OP1-P-OP2	-5.58	111.23	119.60
1	AR	2191	U	N3-C4-O4	-5.58	115.49	119.40
1	AR	2872	A	N1-C6-N6	5.58	121.95	118.60
1	AR	2945	G	C5-C6-O6	-5.58	125.25	128.60
1	1	1429	G	N3-C4-C5	-5.58	125.81	128.60
1	1	2361	A	OP2-P-O3'	5.58	117.48	105.20
1	AR	1127	G	C2-N3-C4	5.58	114.69	111.90
1	AR	2419	A	N7-C8-N9	5.58	116.59	113.80
1	1	2283	G	C4-C5-N7	5.58	113.03	110.80
81	sR	1389	C	C2-N1-C1'	5.58	124.94	118.80
1	1	945	C	N3-C4-C5	5.58	124.13	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	2551	U	N3-C2-O2	-5.58	118.30	122.20
1	AR	2912	G	O5'-P-OP1	-5.58	100.68	105.70
64	c6	114	ARG	C-N-CA	5.57	135.64	121.70
1	1	1405	U	C5-C4-O4	-5.57	122.56	125.90
1	1	2852	C	C6-N1-C2	5.57	122.53	120.30
1	AR	2364	G	N9-C4-C5	5.57	107.63	105.40
1	1	3001	C	C2-N1-C1'	-5.57	112.67	118.80
81	sR	144	U	C5-C4-O4	5.57	129.24	125.90
81	sR	1697	G	C4-N9-C1'	5.57	133.74	126.50
1	1	2647	A	C6-N1-C2	-5.57	115.26	118.60
1	1	2808	A	C4-C5-N7	5.57	113.48	110.70
1	1	3058	U	C2-N1-C1'	5.57	124.38	117.70
1	AR	1116	G	OP2-P-O3'	5.57	117.45	105.20
1	AR	1147	G	C4-C5-N7	-5.57	108.57	110.80
81	sR	1773	C	N1-C2-O2	-5.57	115.56	118.90
1	1	817	A	N9-C1'-C2'	5.57	121.24	114.00
1	AR	637	C	N1-C2-O2	-5.57	115.56	118.90
1	AR	2606	G	C5-C6-O6	5.57	131.94	128.60
1	AR	2888	U	C5-C4-O4	-5.57	122.56	125.90
1	1	1414	G	N7-C8-N9	5.56	115.88	113.10
1	1	112	U	C6-N1-C1'	-5.56	113.41	121.20
1	1	2836	C	N3-C4-N4	-5.56	114.11	118.00
1	1	866	A	C8-N9-C4	5.56	108.02	105.80
1	1	2293	C	C2-N1-C1'	5.56	124.92	118.80
1	1	2434	U	C5-C4-O4	5.56	129.24	125.90
1	AR	908	G	C8-N9-C1'	-5.56	119.77	127.00
81	sR	1097	U	P-O3'-C3'	5.56	126.37	119.70
1	AR	877	C	N3-C4-N4	-5.56	114.11	118.00
1	1	1306	G	N1-C6-O6	5.56	123.23	119.90
1	AR	2412	G	N3-C4-C5	-5.56	125.82	128.60
3	4	13	A	C5-C6-N6	-5.55	119.26	123.70
1	AR	621	A	N1-C6-N6	-5.55	115.27	118.60
47	A	737	A	O4'-C1'-N9	5.55	112.64	108.20
1	1	414	U	OP2-P-O3'	5.55	117.42	105.20
58	c0	83	PRO	N-CA-CB	5.55	109.96	103.30
1	1	1141	C	N3-C4-C5	-5.55	119.68	121.90
1	1	2362	C	N1-C2-O2	5.55	122.23	118.90
1	AR	1151	U	O5'-P-OP2	-5.55	100.70	105.70
1	AR	1513	G	N1-C6-O6	-5.55	116.57	119.90
1	AR	3309	G	N3-C4-N9	5.55	129.33	126.00
81	sR	337	G	N3-C4-C5	-5.55	125.82	128.60
1	1	1364	C	OP2-P-O3'	5.55	117.41	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	914	A	N9-C4-C5	5.55	108.02	105.80
1	AR	3181	C	C5-C4-N4	5.55	124.08	120.20
1	1	1101	G	C4-C5-N7	-5.54	108.58	110.80
1	AR	2726	C	N3-C4-C5	-5.54	119.68	121.90
1	AR	3052	G	C8-N9-C4	-5.54	104.18	106.40
1	1	672	A	N1-C6-N6	5.54	121.92	118.60
1	AR	828	A	O5'-P-OP2	-5.54	100.71	105.70
1	1	2986	U	N1-C2-N3	5.54	118.22	114.90
1	AR	941	G	OP1-P-O3'	5.54	117.39	105.20
8	CH	173	MET	CB-CG-SD	-5.54	95.78	112.40
1	1	954	U	O5'-P-OP2	-5.54	100.72	105.70
1	AR	3212	C	N1-C2-O2	-5.54	115.58	118.90
47	A	25	C	P-O3'-C3'	5.54	126.35	119.70
47	A	1214	U	C5-C4-O4	-5.54	122.58	125.90
1	1	1349	G	N9-C4-C5	-5.54	103.19	105.40
1	AR	3003	G	C8-N9-C4	-5.54	104.19	106.40
1	1	227	G	C5-C6-O6	-5.54	125.28	128.60
1	1	282	G	C2'-C3'-O3'	5.54	122.56	113.70
81	sR	3	U	C6-N1-C2	5.54	124.32	121.00
1	AR	682	U	C2-N1-C1'	-5.53	111.06	117.70
1	AR	1431	G	C2-N3-C4	5.53	114.67	111.90
47	A	507	U	N1-C2-O2	5.53	126.67	122.80
1	1	2710	C	N1-C2-O2	-5.53	115.58	118.90
1	AR	2923	U	O5'-P-OP1	-5.53	100.72	105.70
1	1	2249	G	P-O3'-C3'	5.53	126.34	119.70
1	AR	2808	A	N9-C4-C5	-5.53	103.59	105.80
1	AR	2983	C	C6-N1-C2	-5.53	118.09	120.30
47	A	565	C	N1-C2-N3	5.53	123.07	119.20
1	1	304	G	N3-C2-N2	-5.53	116.03	119.90
1	1	2632	G	N1-C6-O6	-5.53	116.58	119.90
1	1	976	U	O5'-P-OP2	-5.53	100.73	105.70
52	F	38	LEU	CA-CB-CG	5.53	128.01	115.30
81	sR	1118	G	C5-C6-N1	-5.53	108.74	111.50
1	1	1337	A	C2-N3-C4	5.53	113.36	110.60
1	AR	1390	A	N1-C6-N6	-5.53	115.28	118.60
1	1	743	C	C6-N1-C2	5.52	122.51	120.30
1	1	1838	G	C4-C5-N7	5.52	113.01	110.80
1	1	363	G	N9-C4-C5	-5.52	103.19	105.40
1	1	1374	G	N1-C2-N2	-5.52	111.23	116.20
1	1	3004	C	O5'-P-OP1	-5.52	100.73	105.70
3	4	99	C	C2-N3-C4	-5.52	117.14	119.90
6	1	313	LEU	CA-CB-CG	5.52	127.99	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	374	A	N1-C6-N6	-5.52	115.29	118.60
1	1	3050	U	N1-C2-O2	5.51	126.66	122.80
1	AR	936	A	P-O3'-C3'	5.51	126.32	119.70
1	AR	981	U	C5-C6-N1	5.51	125.46	122.70
1	AR	2758	A	C2-N3-C4	5.51	113.36	110.60
1	AR	2964	G	C4-C5-N7	-5.51	108.59	110.80
47	A	469	C	C6-N1-C1'	-5.51	114.18	120.80
1	1	3050	U	N3-C2-O2	-5.51	118.34	122.20
1	1	509	U	C4-C5-C6	5.51	123.01	119.70
1	1	922	U	C5-C6-N1	5.51	125.46	122.70
1	1	3010	U	C6-N1-C2	-5.51	117.69	121.00
1	1	284	A	O4'-C1'-N9	5.50	112.60	108.20
1	1	932	U	N1-C2-N3	5.50	118.20	114.90
1	AR	2865	U	C5-C6-N1	5.50	125.45	122.70
1	1	2928	C	C6-N1-C2	-5.50	118.10	120.30
1	AR	1926	C	N1-C2-O2	-5.50	115.60	118.90
2	AS	101	G	C6-C5-N7	-5.50	127.10	130.40
47	A	554	C	C6-N1-C1'	-5.50	114.20	120.80
1	1	3085	G	N1-C6-O6	5.50	123.20	119.90
1	1	3207	U	N3-C4-O4	-5.50	115.55	119.40
1	AR	869	G	N3-C2-N2	5.50	123.75	119.90
81	sR	623	A	O4'-C1'-N9	5.50	112.60	108.20
1	1	650	C	OP2-P-O3'	5.50	117.30	105.20
1	1	2756	C	C2-N1-C1'	5.50	124.85	118.80
1	AR	955	U	C5-C4-O4	-5.50	122.60	125.90
1	AR	2618	G	N1-C6-O6	5.50	123.20	119.90
1	AR	3306	U	C2-N3-C4	-5.50	123.70	127.00
1	1	2160	G	C5-C6-O6	5.50	131.90	128.60
81	sR	1297	G	O5'-P-OP2	-5.50	100.75	105.70
1	AR	1902	G	N3-C4-N9	5.50	129.30	126.00
1	AR	3144	G	N1-C6-O6	-5.50	116.60	119.90
47	A	335	U	OP2-P-O3'	5.50	117.29	105.20
1	AR	1440	G	C5-C6-O6	5.49	131.90	128.60
1	AR	2116	G	C6-C5-N7	-5.49	127.10	130.40
1	1	692	A	O5'-P-OP1	-5.49	100.76	105.70
1	AR	2392	C	C2-N3-C4	-5.49	117.15	119.90
47	A	469	C	C4-C5-C6	-5.49	114.65	117.40
1	1	804	C	O5'-P-OP1	-5.49	100.76	105.70
1	1	1374	G	N3-C2-N2	5.49	123.74	119.90
1	AR	1481	A	P-O3'-C3'	5.49	126.29	119.70
1	1	2367	A	N1-C6-N6	5.49	121.89	118.60
1	1	2833	A	O5'-P-OP2	-5.49	100.76	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	3	118	A	N1-C6-N6	-5.49	115.31	118.60
1	AR	2629	U	C5-C4-O4	-5.49	122.61	125.90
1	AR	3055	U	C2-N1-C1'	5.49	124.28	117.70
1	1	2643	A	N9-C4-C5	-5.48	103.61	105.80
1	AR	800	G	N9-C4-C5	-5.48	103.21	105.40
1	AR	1886	A	O5'-P-OP2	-5.48	100.77	105.70
1	AR	2813	A	C8-N9-C4	-5.48	103.61	105.80
47	A	1600	A	C6-C5-N7	-5.48	128.46	132.30
1	1	99	A	O4'-C1'-N9	5.48	112.58	108.20
81	sR	383	G	C8-N9-C4	-5.48	104.21	106.40
81	sR	864	U	O4'-C1'-N1	5.48	112.58	108.20
1	1	1547	G	N7-C8-N9	-5.48	110.36	113.10
1	1	794	U	N3-C4-C5	-5.48	111.31	114.60
1	1	1483	G	O4'-C1'-N9	5.48	112.58	108.20
1	AR	911	C	C5-C6-N1	-5.48	118.26	121.00
1	AR	1133	A	N7-C8-N9	-5.48	111.06	113.80
1	AR	3200	G	N1-C6-O6	5.48	123.19	119.90
81	sR	297	U	C6-N1-C2	-5.48	117.71	121.00
81	sR	1560	U	N1-C2-O2	5.48	126.63	122.80
1	1	635	G	C5-C6-N1	5.47	114.24	111.50
1	1	936	A	C5-C6-N6	-5.47	119.32	123.70
1	1	2779	A	O5'-P-OP2	-5.47	100.77	105.70
81	sR	976	G	C2-N3-C4	-5.47	109.16	111.90
3	4	99	C	C5-C6-N1	-5.47	118.26	121.00
1	AR	2403	G	O5'-P-OP1	5.47	117.26	110.70
1	AR	3136	G	N1-C2-N3	5.47	127.18	123.90
1	AR	960	U	N3-C2-O2	-5.47	118.37	122.20
1	1	1160	C	N1-C2-N3	-5.47	115.37	119.20
1	1	2651	G	C5-C6-O6	5.47	131.88	128.60
1	AR	887	G	C5-N7-C8	-5.47	101.57	104.30
47	A	1773	C	N3-C4-N4	5.47	121.83	118.00
1	1	1368	U	C2-N1-C1'	5.46	124.26	117.70
81	sR	1000	C	N1-C2-O2	5.46	122.18	118.90
1	1	686	G	OP2-P-O3'	5.46	117.22	105.20
1	1	1313	G	C5-C6-O6	-5.46	125.32	128.60
12	CL	88	ARG	NE-CZ-NH1	-5.46	117.57	120.30
1	1	645	A	N3-C4-C5	-5.46	122.98	126.80
1	1	3246	G	O4'-C1'-N9	5.46	112.57	108.20
1	AR	895	A	N1-C6-N6	5.46	121.88	118.60
47	A	453	U	C5-C6-N1	5.46	125.43	122.70
81	sR	1662	G	O4'-C1'-N9	5.46	112.57	108.20
1	1	678	G	C4-C5-C6	5.46	122.08	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	92	G	N3-C2-N2	5.46	123.72	119.90
1	1	970	A	C2-N3-C4	-5.46	107.87	110.60
1	1	1741	A	C2-N3-C4	-5.46	107.87	110.60
1	1	2186	U	N1-C2-O2	5.46	126.62	122.80
81	sR	583	C	C2-N1-C1'	5.46	124.81	118.80
81	sR	795	U	N1-C2-O2	5.46	126.62	122.80
1	1	2352	A	O5'-P-OP2	-5.46	100.79	105.70
1	AR	1910	A	OP2-P-O3'	5.46	117.20	105.20
1	AR	1897	G	N3-C4-C5	5.46	131.33	128.60
1	AR	2899	C	C2-N1-C1'	5.46	124.80	118.80
1	1	1440	G	C8-N9-C4	5.45	108.58	106.40
1	1	2331	C	N3-C4-C5	5.45	124.08	121.90
1	AR	2305	G	C6-C5-N7	-5.45	127.13	130.40
1	1	426	G	C5-C6-N1	5.45	114.23	111.50
1	AR	716	A	O4'-C1'-N9	-5.45	103.84	108.20
3	AT	71	A	C8-N9-C4	5.45	107.98	105.80
1	1	1160	C	C2-N3-C4	5.45	122.62	119.90
1	AR	399	A	O5'-P-OP1	-5.45	100.80	105.70
1	AR	1124	U	OP1-P-O3'	5.45	117.19	105.20
1	AR	1161	G	C4-C5-C6	-5.45	115.53	118.80
1	AR	1555	U	O4'-C1'-N1	5.45	112.56	108.20
1	1	1367	G	O5'-P-OP1	-5.45	100.80	105.70
1	1	2915	U	C5-C4-O4	-5.45	122.63	125.90
1	AR	1331	U	O4'-C1'-N1	-5.45	103.84	108.20
1	AR	2874	G	N3-C4-C5	-5.45	125.88	128.60
1	1	2983	C	C5-C6-N1	-5.45	118.28	121.00
1	AR	1002	A	N1-C6-N6	-5.45	115.33	118.60
1	AR	1200	A	N1-C6-N6	5.45	121.87	118.60
1	AR	2551	U	C5-C4-O4	5.45	129.17	125.90
47	A	1200	G	N3-C2-N2	-5.45	116.09	119.90
81	sR	426	G	N3-C4-N9	5.45	129.27	126.00
1	AR	1724	U	C6-N1-C2	-5.44	117.73	121.00
81	sR	512	A	P-O3'-C3'	5.44	126.23	119.70
1	1	3344	A	O4'-C1'-N9	5.44	112.55	108.20
1	AR	324	A	C8-N9-C4	-5.44	103.62	105.80
1	AR	889	U	N3-C4-C5	5.44	117.86	114.60
1	AR	1858	A	N7-C8-N9	5.44	116.52	113.80
1	AR	1878	G	C8-N9-C1'	-5.44	119.93	127.00
1	1	97	U	C2-N3-C4	-5.44	123.74	127.00
1	1	2142	A	OP1-P-O3'	5.44	117.16	105.20
1	1	2375	G	C5-C6-N1	5.44	114.22	111.50
1	1	2537	U	P-O3'-C3'	5.44	126.22	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2874	G	P-O3'-C3'	5.44	126.23	119.70
1	AR	2392	C	C2-N1-C1'	-5.44	112.82	118.80
1	AR	3218	A	C5-N7-C8	-5.44	101.18	103.90
2	AS	104	A	O5'-P-OP1	5.44	117.22	110.70
81	sR	858	G	C4-N9-C1'	5.44	133.57	126.50
1	1	28	C	C6-N1-C1'	-5.44	114.28	120.80
1	AR	1180	A	O4'-C1'-N9	-5.44	103.85	108.20
1	AR	2805	G	N3-C4-N9	5.44	129.26	126.00
1	1	2651	G	C4-C5-N7	-5.43	108.63	110.80
1	AR	666	A	C6-N1-C2	-5.43	115.34	118.60
47	A	1432	U	C5-C6-N1	-5.43	119.98	122.70
1	1	755	A	C5-C6-N6	5.43	128.04	123.70
1	1	2881	C	O5'-P-OP2	-5.43	100.81	105.70
1	AR	2773	C	N1-C2-O2	-5.43	115.64	118.90
1	1	811	U	C5-C6-N1	-5.43	119.98	122.70
3	4	61	A	C5-C6-N1	5.43	120.42	117.70
12	r	57	LEU	CA-CB-CG	5.43	127.79	115.30
1	1	909	G	N7-C8-N9	-5.43	110.39	113.10
1	AR	2866	U	OP1-P-O3'	5.43	117.14	105.20
1	1	2836	C	N3-C2-O2	-5.43	118.10	121.90
1	AR	2959	C	OP2-P-O3'	5.43	117.14	105.20
1	AR	1365	G	C8-N9-C4	-5.42	104.23	106.40
1	1	1370	G	N1-C6-O6	5.42	123.15	119.90
1	AR	725	G	N1-C6-O6	-5.42	116.65	119.90
47	A	1265	G	N7-C8-N9	5.42	115.81	113.10
1	1	609	G	C2-N3-C4	5.42	114.61	111.90
1	1	1901	A	N1-C6-N6	-5.42	115.35	118.60
3	4	94	C	C6-N1-C2	5.42	122.47	120.30
1	AR	644	G	C2-N3-C4	5.42	114.61	111.90
1	AR	2278	C	C4-C5-C6	-5.42	114.69	117.40
47	A	360	A	C8-N9-C4	5.42	107.97	105.80
47	A	577	G	N1-C6-O6	5.42	123.15	119.90
1	AR	2816	G	N7-C8-N9	-5.41	110.39	113.10
1	1	1365	G	N3-C4-N9	5.41	129.25	126.00
1	AR	1117	G	N1-C6-O6	5.41	123.15	119.90
1	1	283	G	C5-N7-C8	-5.41	101.60	104.30
1	1	648	C	O5'-P-OP1	-5.41	100.83	105.70
1	AR	2275	A	O5'-P-OP1	-5.41	100.83	105.70
47	A	137	U	N3-C2-O2	-5.41	118.41	122.20
1	1	1200	A	N9-C4-C5	5.41	107.96	105.80
1	1	2821	C	N3-C2-O2	5.41	125.69	121.90
3	AT	33	A	O5'-P-OP1	-5.41	100.83	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	97	U	O5'-P-OP2	-5.41	100.83	105.70
1	1	1494	U	N3-C4-O4	-5.41	115.62	119.40
47	A	1745	G	N3-C4-N9	5.41	129.24	126.00
61	c3	22	ALA	C-N-CD	5.41	139.75	128.40
3	4	61	A	C5-C6-N6	-5.40	119.38	123.70
1	AR	1512	U	N3-C2-O2	-5.40	118.42	122.20
1	1	1822	C	C6-N1-C2	-5.40	118.14	120.30
1	1	2983	C	C4-C5-C6	5.40	120.10	117.40
81	sR	1355	C	C6-N1-C2	-5.40	118.14	120.30
1	1	1604	G	C8-N9-C1'	-5.40	119.98	127.00
47	A	1202	A	C8-N9-C4	-5.40	103.64	105.80
1	1	2273	G	N9-C4-C5	5.40	107.56	105.40
1	1	2331	C	OP1-P-OP2	5.40	127.70	119.60
1	1	3305	A	N1-C6-N6	-5.40	115.36	118.60
1	AR	2880	U	N3-C2-O2	-5.40	118.42	122.20
17	CQ	68	ARG	NE-CZ-NH2	5.40	123.00	120.30
47	A	1012	U	C2-N3-C4	5.40	130.24	127.00
81	sR	1473	U	N1-C2-O2	5.40	126.58	122.80
81	sR	1514	U	N3-C4-O4	-5.40	115.62	119.40
77	d9	36	LEU	CA-CB-CG	5.39	127.71	115.30
1	1	2148	U	N1-C2-O2	-5.39	119.03	122.80
1	1	2802	A	OP2-P-O3'	5.39	117.06	105.20
1	AR	1496	C	C2-N1-C1'	5.39	124.73	118.80
1	AR	1517	G	O5'-P-OP2	-5.39	100.85	105.70
1	AR	2899	C	N1-C2-N3	5.39	122.97	119.20
1	AR	3188	G	N1-C6-O6	-5.39	116.66	119.90
1	AR	1314	C	N1-C2-O2	5.39	122.13	118.90
1	AR	2264	U	O5'-P-OP2	5.39	117.17	110.70
1	AR	2350	C	OP1-P-OP2	-5.39	111.52	119.60
1	AR	1431	G	N9-C4-C5	5.39	107.56	105.40
1	1	339	C	N1-C2-O2	5.38	122.13	118.90
1	1	716	A	C8-N9-C4	5.38	107.95	105.80
1	1	1336	U	N3-C2-O2	-5.38	118.43	122.20
3	4	95	G	N3-C4-C5	5.38	131.29	128.60
3	4	113	U	C5-C6-N1	-5.38	120.01	122.70
47	A	829	A	P-O3'-C3'	5.38	126.16	119.70
81	sR	299	A	O5'-P-OP2	-5.38	100.85	105.70
1	1	652	G	C5-C6-O6	5.38	131.83	128.60
1	1	2606	G	N3-C2-N2	5.38	123.67	119.90
47	A	507	U	C2-N1-C1'	5.38	124.16	117.70
1	1	678	G	C5-C6-N1	-5.38	108.81	111.50
47	A	1494	C	P-O3'-C3'	-5.38	113.24	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	sR	815	G	N3-C4-N9	-5.38	122.77	126.00
81	sR	1004	U	N1-C2-O2	-5.38	119.03	122.80
1	AR	2298	U	N3-C4-O4	-5.38	115.63	119.40
81	sR	800	U	C6-N1-C2	-5.38	117.77	121.00
1	1	2777	G	N1-C6-O6	-5.38	116.67	119.90
1	AR	2269	U	N1-C2-O2	-5.38	119.03	122.80
1	AR	2679	A	N9-C4-C5	-5.38	103.65	105.80
1	1	1340	G	O5'-P-OP2	-5.38	100.86	105.70
3	4	64	U	N3-C2-O2	-5.38	118.44	122.20
1	AR	671	U	C5-C4-O4	-5.38	122.67	125.90
1	AR	3277	U	N3-C2-O2	-5.38	118.44	122.20
1	1	935	U	OP2-P-O3'	5.37	117.02	105.20
1	1	1126	G	C4-C5-N7	5.37	112.95	110.80
1	AR	425	G	C5-C6-O6	-5.37	125.38	128.60
1	AR	425	G	N1-C6-O6	5.37	123.12	119.90
1	AR	1117	G	N1-C2-N2	5.37	121.03	116.20
1	AR	3277	U	C2-N1-C1'	5.37	124.15	117.70
3	AT	32	C	N1-C2-O2	-5.37	115.67	118.90
1	1	968	G	N3-C4-C5	-5.37	125.92	128.60
1	1	968	G	C5-C6-O6	-5.37	125.38	128.60
1	1	1294	A	O4'-C1'-N9	5.37	112.50	108.20
1	AR	644	G	N3-C4-C5	-5.37	125.92	128.60
1	AR	2245	C	N3-C4-C5	-5.37	119.75	121.90
1	AR	2294	U	N1-C2-N3	5.37	118.12	114.90
47	A	469	C	C2-N3-C4	5.37	122.58	119.90
81	sR	1767	G	C8-N9-C4	5.37	108.55	106.40
1	1	1376	C	N1-C2-O2	5.37	122.12	118.90
1	AR	945	C	C6-N1-C2	5.37	122.45	120.30
47	A	581	U	C2-N1-C1'	5.37	124.14	117.70
1	1	155	G	N3-C2-N2	5.36	123.65	119.90
1	1	421	G	C8-N9-C1'	-5.36	120.03	127.00
1	AR	716	A	O5'-P-OP1	-5.36	100.87	105.70
47	A	1246	C	N3-C2-O2	-5.36	118.15	121.90
71	Y	133	LEU	CA-CB-CG	5.36	127.64	115.30
61	c3	22	ALA	C-N-CA	-5.36	99.47	122.00
1	1	3140	G	N3-C4-N9	5.36	129.22	126.00
47	A	704	C	N1-C2-O2	5.36	122.12	118.90
1	1	1507	G	OP1-P-OP2	5.36	127.64	119.60
1	AR	2808	A	O4'-C1'-N9	-5.36	103.91	108.20
47	A	399	A	N1-C6-N6	-5.36	115.39	118.60
1	1	2385	G	O5'-P-OP1	-5.36	100.88	105.70
1	1	2889	C	N1-C2-O2	5.36	122.11	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	1304	A	C5-C6-N6	-5.36	119.42	123.70
1	AR	2550	U	N3-C2-O2	-5.36	118.45	122.20
1	1	1116	G	OP2-P-O3'	5.35	116.98	105.20
81	sR	321	C	N3-C2-O2	-5.35	118.15	121.90
1	1	342	A	O5'-P-OP2	-5.35	100.88	105.70
1	AR	1367	G	C5-C6-N1	-5.35	108.82	111.50
1	AR	2831	G	C2-N3-C4	5.35	114.58	111.90
47	A	453	U	N3-C4-O4	5.35	123.15	119.40
81	sR	360	A	N1-C6-N6	5.35	121.81	118.60
81	sR	965	U	C2-N1-C1'	5.35	124.12	117.70
1	1	2551	U	N3-C2-O2	-5.35	118.46	122.20
1	1	2663	G	C5-C6-O6	-5.35	125.39	128.60
47	A	1258	U	N3-C2-O2	-5.35	118.45	122.20
1	1	637	C	N3-C4-N4	-5.35	114.26	118.00
1	1	1906	G	C4-N9-C1'	5.35	133.45	126.50
1	1	2979	U	C2-N3-C4	-5.35	123.79	127.00
10	p	189	LEU	CA-CB-CG	5.35	127.60	115.30
1	AR	1047	A	C6-C5-N7	-5.35	128.56	132.30
1	1	439	C	C2-N1-C1'	5.34	124.68	118.80
1	1	1879	A	C8-N9-C4	5.34	107.94	105.80
1	1	2817	A	OP2-P-O3'	5.34	116.96	105.20
1	AR	578	A	N1-C6-N6	5.34	121.81	118.60
1	AR	2405	C	N3-C2-O2	-5.34	118.16	121.90
1	1	2314	U	N3-C4-O4	5.34	123.14	119.40
3	4	103	G	C8-N9-C4	-5.34	104.26	106.40
1	AR	414	U	C5-C6-N1	-5.34	120.03	122.70
1	AR	909	G	C4-C5-N7	-5.34	108.66	110.80
81	sR	1058	U	P-O3'-C3'	5.34	126.11	119.70
1	1	873	C	C2-N3-C4	-5.34	117.23	119.90
1	1	916	G	P-O3'-C3'	5.34	126.11	119.70
1	1	521	A	C5-C6-N6	-5.34	119.43	123.70
1	AR	906	A	C6-N1-C2	-5.34	115.40	118.60
81	sR	1672	G	C4-C5-C6	-5.34	115.60	118.80
1	AR	895	A	N7-C8-N9	5.33	116.47	113.80
1	AR	3092	C	N1-C2-O2	5.33	122.10	118.90
1	1	361	A	N1-C6-N6	-5.33	115.40	118.60
1	1	999	G	C5-C6-O6	-5.33	125.40	128.60
1	AR	275	U	C4-C5-C6	5.33	122.90	119.70
1	AR	1110	U	C5-C6-N1	5.33	125.37	122.70
61	c3	65	VAL	N-CA-C	-5.33	96.60	111.00
1	1	439	C	N3-C2-O2	-5.33	118.17	121.90
1	1	2990	G	N3-C4-N9	5.33	129.20	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	3140	G	N1-C6-O6	5.33	123.10	119.90
1	AR	718	G	N3-C4-N9	-5.33	122.80	126.00
1	1	509	U	C6-N1-C2	-5.33	117.80	121.00
1	1	640	U	N3-C4-O4	5.33	123.13	119.40
1	1	1475	A	N1-C6-N6	-5.33	115.40	118.60
1	1	2827	U	C6-N1-C1'	5.33	128.66	121.20
1	1	1114	U	C4-C5-C6	-5.33	116.50	119.70
1	1	2821	C	C6-N1-C2	5.33	122.43	120.30
1	AR	3266	G	C5-C6-O6	5.33	131.79	128.60
81	sR	363	G	C8-N9-C4	5.33	108.53	106.40
1	1	324	A	C6-N1-C2	-5.32	115.41	118.60
1	1	1306	G	N1-C2-N2	5.32	120.99	116.20
1	1	1366	A	C5-N7-C8	-5.32	101.24	103.90
1	1	1899	G	C5-N7-C8	-5.32	101.64	104.30
1	1	2121	G	N3-C4-C5	-5.32	125.94	128.60
1	1	3266	G	N9-C4-C5	5.32	107.53	105.40
1	AR	2822	U	N3-C4-O4	-5.32	115.67	119.40
47	A	1456	C	N3-C2-O2	-5.32	118.17	121.90
1	AR	3155	U	C5-C6-N1	5.32	125.36	122.70
47	A	901	G	C4-N9-C1'	5.32	133.42	126.50
1	1	2810	C	O5'-P-OP2	-5.32	100.91	105.70
1	AR	2334	U	N1-C2-N3	5.32	118.09	114.90
47	A	553	G	N3-C2-N2	-5.32	116.18	119.90
1	AR	1193	A	C4-C5-C6	5.32	119.66	117.00
1	1	2847	A	C5-C6-N6	-5.32	119.45	123.70
1	1	2359	C	O5'-P-OP2	-5.32	100.92	105.70
1	AR	1042	U	N3-C2-O2	-5.32	118.48	122.20
1	AR	3050	U	N3-C2-O2	-5.32	118.48	122.20
47	A	1324	G	N3-C4-N9	-5.32	122.81	126.00
1	1	2892	A	N1-C6-N6	-5.31	115.41	118.60
1	AR	2296	A	N1-C6-N6	5.31	121.79	118.60
1	AR	1404	G	N3-C4-C5	5.31	131.25	128.60
1	AR	1855	U	C5-C6-N1	-5.31	120.05	122.70
1	AR	2433	U	C6-N1-C2	5.31	124.19	121.00
1	AR	2797	C	N1-C2-O2	-5.31	115.72	118.90
81	sR	609	U	C5-C6-N1	-5.31	120.05	122.70
1	1	431	U	C5-C4-O4	-5.31	122.72	125.90
1	1	2184	U	C5-C4-O4	-5.31	122.72	125.90
1	AR	2130	G	N3-C4-C5	5.31	131.25	128.60
1	AR	2390	A	N9-C4-C5	5.31	107.92	105.80
1	AR	2611	U	C5-C6-N1	-5.31	120.05	122.70
1	AR	3047	U	O5'-P-OP1	-5.31	100.92	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	A	590	C	N1-C2-O2	5.31	122.08	118.90
1	AR	424	G	N3-C2-N2	5.30	123.61	119.90
1	AR	1075	A	C8-N9-C4	5.30	107.92	105.80
81	sR	1781	A	C5-C6-N1	-5.30	115.05	117.70
1	1	3326	G	C8-N9-C4	5.30	108.52	106.40
1	AR	1327	C	N3-C4-C5	5.30	124.02	121.90
1	AR	2257	C	N3-C2-O2	-5.30	118.19	121.90
1	1	3065	G	C8-N9-C4	5.30	108.52	106.40
1	AR	890	C	C6-N1-C2	5.30	122.42	120.30
1	1	202	G	O5'-P-OP2	-5.30	100.93	105.70
1	AR	2747	A	N1-C6-N6	-5.30	115.42	118.60
1	AR	993	G	O5'-P-OP2	-5.30	100.93	105.70
1	1	283	G	C4-C5-N7	5.30	112.92	110.80
1	1	2712	U	N3-C2-O2	-5.30	118.49	122.20
1	1	359	U	C4-C5-C6	5.29	122.88	119.70
1	1	2808	A	C5-N7-C8	-5.29	101.25	103.90
3	4	113	U	N1-C2-N3	5.29	118.08	114.90
1	1	304	G	N9-C4-C5	5.29	107.52	105.40
1	1	1329	U	N1-C1'-C2'	-5.29	106.18	112.00
1	AR	3278	C	N3-C2-O2	-5.29	118.20	121.90
47	A	779	U	O4'-C1'-N1	5.29	112.43	108.20
81	sR	308	C	N3-C2-O2	-5.29	118.20	121.90
81	sR	363	G	N9-C4-C5	-5.29	103.28	105.40
1	1	2398	A	C4-C5-C6	5.29	119.64	117.00
47	A	321	C	N3-C2-O2	-5.29	118.20	121.90
81	sR	542	A	C4-N9-C1'	5.29	135.82	126.30
81	sR	1614	A	C4-C5-N7	5.29	113.34	110.70
1	1	2384	A	C4-C5-N7	5.29	113.34	110.70
1	1	3218	A	C5-C6-N6	-5.29	119.47	123.70
1	AR	3306	U	C6-N1-C1'	-5.29	113.80	121.20
81	sR	687	G	N3-C2-N2	-5.29	116.20	119.90
1	1	2877	G	N3-C4-C5	-5.29	125.96	128.60
1	AR	2258	U	N3-C2-O2	-5.29	118.50	122.20
47	A	422	G	C4-C5-N7	5.29	112.91	110.80
1	1	3390	G	C5-C6-O6	-5.28	125.43	128.60
1	AR	417	A	N1-C6-N6	-5.28	115.43	118.60
1	AR	1938	U	C6-N1-C2	5.28	124.17	121.00
81	sR	337	G	C2-N3-C4	5.28	114.54	111.90
81	sR	1641	C	N1-C2-O2	-5.28	115.73	118.90
1	1	428	A	OP2-P-O3'	5.28	116.82	105.20
81	sR	92	A	C8-N9-C4	5.28	107.91	105.80
1	1	3344	A	C8-N9-C4	-5.28	103.69	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	2401	A	C5-C6-N1	5.28	120.34	117.70
47	A	145	A	C8-N9-C4	-5.28	103.69	105.80
81	sR	1274	C	N1-C2-O2	5.28	122.07	118.90
1	1	2651	G	C6-C5-N7	5.28	133.57	130.40
1	1	2689	A	N1-C6-N6	-5.28	115.43	118.60
1	AR	2617	U	N3-C4-O4	-5.28	115.70	119.40
1	1	961	C	OP1-P-OP2	-5.28	111.68	119.60
1	1	2140	U	N3-C4-O4	-5.28	115.70	119.40
1	1	2273	G	C5-C6-O6	5.28	131.77	128.60
1	AR	500	C	OP1-P-O3'	5.28	116.81	105.20
56	s8	29	LEU	CA-CB-CG	5.28	127.44	115.30
5	k	387	LEU	CA-CB-CG	5.28	127.43	115.30
1	AR	75	G	O5'-P-OP1	5.28	117.03	110.70
1	AR	981	U	C6-N1-C2	-5.28	117.83	121.00
1	AR	2258	U	N1-C2-O2	5.28	126.49	122.80
1	AR	2974	U	OP1-P-O3'	5.28	116.81	105.20
47	A	1126	G	OP2-P-O3'	5.28	116.81	105.20
1	AR	1355	A	OP2-P-O3'	5.27	116.80	105.20
1	AR	1119	C	N3-C4-N4	-5.27	114.31	118.00
1	AR	1556	C	N3-C2-O2	-5.27	118.21	121.90
1	AR	3055	U	C6-N1-C1'	-5.27	113.82	121.20
1	1	1390	A	N1-C6-N6	-5.27	115.44	118.60
1	1	2977	G	C8-N9-C4	5.27	108.51	106.40
1	1	3213	A	C4-C5-C6	5.27	119.63	117.00
1	1	3277	U	N3-C2-O2	-5.27	118.51	122.20
1	AR	1854	C	C5-C4-N4	5.27	123.89	120.20
47	A	1171	A	N1-C6-N6	-5.27	115.44	118.60
1	AR	2983	C	OP1-P-OP2	5.27	127.50	119.60
1	1	2374	C	C2-N1-C1'	5.26	124.59	118.80
47	A	621	A	O4'-C1'-N9	-5.26	103.99	108.20
81	sR	696	C	O4'-C1'-N1	5.26	112.41	108.20
1	1	926	A	O5'-P-OP2	-5.26	100.96	105.70
1	1	948	C	N1-C2-O2	-5.26	115.74	118.90
1	1	1495	U	C2-N3-C4	-5.26	123.84	127.00
1	1	1713	G	C8-N9-C4	5.26	108.50	106.40
1	AR	1178	G	N3-C4-C5	-5.26	125.97	128.60
1	AR	1314	C	C2-N1-C1'	5.26	124.59	118.80
1	AR	1445	U	C5-C4-O4	-5.26	122.74	125.90
1	AR	1660	C	N3-C2-O2	-5.26	118.22	121.90
1	AR	2713	U	N1-C2-O2	5.26	126.48	122.80
1	1	2648	G	C4-C5-N7	5.26	112.90	110.80
1	AR	90	C	C6-N1-C2	-5.26	118.20	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	1104	G	C4-N9-C1'	5.26	133.34	126.50
47	A	1596	C	N1-C2-O2	5.26	122.06	118.90
1	1	61	A	N1-C6-N6	5.26	121.75	118.60
60	c2	58	LEU	CA-CB-CG	5.26	127.39	115.30
1	1	2942	C	C5-C6-N1	-5.26	118.37	121.00
1	AR	1465	A	C5-C6-N6	5.26	127.91	123.70
1	AR	3352	U	C6-N1-C2	-5.26	117.85	121.00
47	A	619	A	OP2-P-O3'	5.26	116.76	105.20
1	1	1351	U	N1-C2-O2	5.25	126.48	122.80
1	1	2944	U	OP2-P-O3'	5.25	116.76	105.20
1	AR	620	U	N1-C2-N3	5.25	118.05	114.90
1	AR	2215	A	C8-N9-C4	5.25	107.90	105.80
1	AR	2719	U	C2-N1-C1'	-5.25	111.39	117.70
1	1	2945	G	C5-C6-O6	-5.25	125.45	128.60
1	AR	655	C	C5-C6-N1	5.25	123.63	121.00
1	AR	2659	G	C5-C6-O6	-5.25	125.45	128.60
1	1	1680	G	N3-C2-N2	-5.25	116.22	119.90
1	AR	2149	A	C4-C5-C6	5.25	119.62	117.00
1	1	857	G	N1-C6-O6	5.25	123.05	119.90
1	1	2369	G	C8-N9-C4	-5.25	104.30	106.40
1	1	3089	C	C6-N1-C2	-5.25	118.20	120.30
81	sR	678	A	P-O3'-C3'	5.25	126.00	119.70
1	1	2651	G	N9-C4-C5	5.25	107.50	105.40
1	AR	2411	U	C5-C6-N1	-5.25	120.08	122.70
1	AR	2719	U	C5-C6-N1	-5.25	120.08	122.70
1	1	2816	G	O5'-P-OP2	-5.25	100.98	105.70
1	1	3242	G	C8-N9-C4	5.25	108.50	106.40
1	AR	2421	U	C5-C6-N1	-5.25	120.08	122.70
1	AR	2794	G	C4-C5-N7	5.25	112.90	110.80
1	1	2818	U	OP2-P-O3'	5.24	116.73	105.20
1	AR	1365	G	N3-C4-C5	-5.24	125.98	128.60
47	A	264	G	C8-N9-C1'	5.24	133.82	127.00
47	A	501	U	P-O3'-C3'	5.24	125.99	119.70
1	AR	3011	A	C8-N9-C4	5.24	107.90	105.80
1	1	304	G	C4-C5-N7	-5.24	108.70	110.80
1	1	1414	G	C5-C6-O6	-5.24	125.46	128.60
1	AR	1115	G	C6-C5-N7	-5.24	127.26	130.40
1	AR	1355	A	O4'-C1'-N9	5.24	112.39	108.20
1	AR	1878	G	C8-N9-C4	-5.24	104.30	106.40
47	A	795	U	N3-C2-O2	-5.24	118.53	122.20
2	3	73	C	N1-C2-O2	5.24	122.04	118.90
1	1	1329	U	C6-N1-C1'	-5.24	113.87	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	637	C	C6-N1-C1'	5.24	127.08	120.80
1	AR	2728	G	N3-C2-N2	-5.24	116.23	119.90
47	A	786	C	C6-N1-C2	-5.24	118.21	120.30
81	sR	1596	C	N3-C4-N4	-5.24	114.34	118.00
1	1	908	G	C4-N9-C1'	5.23	133.31	126.50
1	1	1131	G	C8-N9-C4	5.23	108.49	106.40
17	CQ	27	LEU	CB-CG-CD1	-5.23	102.10	111.00
1	1	962	A	P-O3'-C3'	5.23	125.98	119.70
1	1	2174	G	C5-C6-O6	-5.23	125.46	128.60
1	1	2393	G	N3-C2-N2	-5.23	116.24	119.90
1	AR	2093	A	C2-N3-C4	5.23	113.22	110.60
1	AR	2391	G	N1-C6-O6	-5.23	116.76	119.90
1	1	99	A	C5'-C4'-O4'	5.23	115.38	109.10
1	1	1870	C	C2-N1-C1'	-5.23	113.05	118.80
1	1	2372	A	O4'-C1'-N9	-5.23	104.02	108.20
1	1	3362	A	N1-C2-N3	5.23	131.91	129.30
81	sR	542	A	C4-C5-N7	5.23	113.31	110.70
1	AR	2285	C	C6-N1-C2	-5.23	118.21	120.30
1	1	832	G	C8-N9-C4	5.23	108.49	106.40
1	1	3340	G	N3-C4-N9	-5.23	122.86	126.00
1	AR	3155	U	C6-N1-C1'	-5.23	113.88	121.20
1	1	25	U	N3-C4-C5	-5.22	111.47	114.60
1	1	2798	C	C6-N1-C1'	5.22	127.07	120.80
1	AR	1137	C	C6-N1-C2	5.22	122.39	120.30
1	AR	1506	A	N9-C4-C5	5.22	107.89	105.80
1	AR	2333	C	N3-C2-O2	5.22	125.56	121.90
47	A	720	G	P-O3'-C3'	5.22	125.97	119.70
1	1	920	A	N1-C2-N3	5.22	131.91	129.30
1	AR	1556	C	N1-C2-O2	5.22	122.03	118.90
9	CI	211	SER	C-N-CA	-5.22	111.33	122.30
1	1	2418	G	N3-C4-C5	-5.22	125.99	128.60
1	1	158	G	C6-C5-N7	-5.22	127.27	130.40
1	1	968	G	N3-C4-N9	5.22	129.13	126.00
1	1	1911	A	N1-C6-N6	5.22	121.73	118.60
1	1	2541	U	P-O3'-C3'	5.22	125.96	119.70
1	AR	1321	G	C6-C5-N7	-5.22	127.27	130.40
47	A	1568	C	P-O3'-C3'	5.22	125.96	119.70
81	sR	542	A	C8-N9-C4	-5.22	103.71	105.80
1	1	2121	G	N1-C6-O6	-5.22	116.77	119.90
1	AR	2928	C	N1-C2-N3	5.22	122.85	119.20
81	sR	1023	A	OP1-P-O3'	5.22	116.68	105.20
1	1	1370	G	C4-C5-N7	5.22	112.89	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	2395	G	C5-N7-C8	5.22	106.91	104.30
1	AR	907	G	O5'-P-OP1	-5.22	101.00	105.70
81	sR	610	G	N3-C4-N9	5.22	129.13	126.00
1	1	2192	C	C5-C6-N1	-5.21	118.39	121.00
28	AA	7	ALA	CA-C-N	5.21	126.63	116.20
1	1	1848	G	O5'-P-OP1	-5.21	101.01	105.70
1	AR	221	A	O4'-C1'-N9	5.21	112.37	108.20
1	1	1111	U	N3-C4-C5	5.21	117.73	114.60
1	AR	3375	A	OP2-P-O3'	5.21	116.66	105.20
81	sR	1795	U	O5'-P-OP1	5.21	116.95	110.70
1	1	427	C	C5-C6-N1	5.21	123.61	121.00
1	1	1304	A	N1-C6-N6	-5.21	115.47	118.60
1	1	1624	G	N3-C4-N9	5.21	129.12	126.00
1	AR	2339	C	C2-N1-C1'	5.21	124.53	118.80
47	A	1344	A	C3'-C2'-C1'	5.21	105.67	101.50
81	sR	1629	G	C8-N9-C1'	-5.21	120.23	127.00
1	1	2884	C	N3-C4-C5	5.21	123.98	121.90
1	1	3182	G	C8-N9-C4	5.21	108.48	106.40
1	AR	1858	A	C8-N9-C4	-5.21	103.72	105.80
1	AR	3092	C	O4'-C1'-N1	5.21	112.37	108.20
1	AR	3128	G	N9-C4-C5	-5.21	103.32	105.40
1	AR	3276	G	C8-N9-C1'	5.21	133.77	127.00
1	1	2366	C	C2-N1-C1'	5.21	124.53	118.80
12	CL	125	LEU	CA-CB-CG	-5.21	103.33	115.30
1	1	1201	C	N3-C4-N4	5.20	121.64	118.00
1	1	2617	U	N3-C2-O2	-5.20	118.56	122.20
1	AR	3075	G	C8-N9-C4	-5.20	104.32	106.40
47	A	48	G	O5'-P-OP2	-5.20	101.02	105.70
47	A	1114	G	O4'-C1'-N9	5.20	112.36	108.20
1	1	669	U	C6-N1-C2	5.20	124.12	121.00
1	AR	3048	A	N1-C6-N6	5.20	121.72	118.60
81	sR	360	A	C5-N7-C8	-5.20	101.30	103.90
1	AR	272	G	N1-C6-O6	5.20	123.02	119.90
1	AR	903	U	N3-C4-O4	-5.20	115.76	119.40
1	AR	1748	G	C5-C6-O6	5.20	131.72	128.60
47	A	302	U	C5-C6-N1	5.20	125.30	122.70
1	1	2302	G	N1-C6-O6	-5.20	116.78	119.90
1	AR	1435	A	C5-N7-C8	-5.20	101.30	103.90
47	A	624	G	N1-C6-O6	-5.20	116.78	119.90
1	AR	887	G	C4-C5-N7	5.19	112.88	110.80
1	AR	2656	A	C8-N9-C4	-5.19	103.72	105.80
1	AR	822	G	O5'-P-OP1	-5.19	101.03	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	A	347	G	N1-C6-O6	5.19	123.02	119.90
1	1	2401	A	C8-N9-C4	-5.19	103.72	105.80
1	AR	3026	G	N1-C6-O6	5.19	123.01	119.90
1	AR	1372	C	C5-C6-N1	-5.19	118.41	121.00
81	sR	1117	U	O5'-P-OP2	-5.19	101.03	105.70
1	AR	838	G	N1-C6-O6	-5.19	116.79	119.90
1	AR	1869	C	C6-N1-C2	5.19	122.38	120.30
1	AR	2147	A	N1-C6-N6	5.19	121.71	118.60
1	AR	3306	U	C5-C4-O4	5.19	129.01	125.90
1	1	91	G	N3-C4-N9	-5.18	122.89	126.00
1	1	2734	A	OP2-P-O3'	5.18	116.61	105.20
47	A	941	A	N9-C4-C5	5.18	107.87	105.80
47	A	1240	U	O5'-P-OP2	5.18	116.92	110.70
81	sR	1413	U	OP2-P-O3'	5.18	116.61	105.20
1	1	1160	C	C6-N1-C2	5.18	122.37	120.30
1	AR	414	U	C6-N1-C2	5.18	124.11	121.00
1	AR	1844	C	N1-C2-N3	5.18	122.83	119.20
1	AR	2808	A	C8-N9-C4	5.18	107.87	105.80
81	sR	767	U	C5-C4-O4	5.18	129.01	125.90
1	1	2936	A	O5'-P-OP2	5.18	116.92	110.70
1	AR	2366	C	C6-N1-C1'	-5.18	114.58	120.80
1	1	2846	U	N1-C2-O2	5.18	126.43	122.80
1	AR	517	G	C4-N9-C1'	5.18	133.23	126.50
81	sR	245	U	C6-N1-C2	-5.18	117.89	121.00
1	AR	283	G	C5-N7-C8	-5.18	101.71	104.30
81	sR	1758	U	N1-C2-O2	-5.18	119.18	122.80
1	AR	2403	G	O5'-P-OP2	-5.18	101.04	105.70
47	A	941	A	N1-C6-N6	-5.18	115.49	118.60
1	AR	974	G	N3-C4-C5	-5.17	126.01	128.60
1	AR	2663	G	N1-C6-O6	5.17	123.00	119.90
81	sR	107	C	OP2-P-O3'	5.17	116.58	105.20
1	1	1115	G	N9-C4-C5	5.17	107.47	105.40
1	AR	3276	G	C6-C5-N7	5.17	133.50	130.40
1	AR	3116	G	C8-N9-C4	-5.17	104.33	106.40
47	A	582	U	C5-C6-N1	5.17	125.29	122.70
81	sR	298	C	N3-C2-O2	5.17	125.52	121.90
1	1	3200	G	N3-C2-N2	-5.17	116.28	119.90
81	sR	1006	C	OP1-P-O3'	-5.17	93.83	105.20
1	1	1399	A	C2-N3-C4	-5.17	108.02	110.60
81	sR	163	G	C8-N9-C4	-5.17	104.33	106.40
1	AR	111	C	N3-C4-C5	5.17	123.97	121.90
47	A	602	U	O5'-P-OP1	-5.17	101.05	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	2983	C	N1-C2-N3	5.17	122.81	119.20
3	AT	23	U	N1-C2-N3	5.17	118.00	114.90
1	AR	2978	U	N1-C2-O2	5.16	126.42	122.80
47	A	302	U	C2-N1-C1'	5.16	123.90	117.70
1	AR	2257	C	O4'-C1'-N1	5.16	112.33	108.20
1	1	339	C	OP1-P-OP2	-5.16	111.86	119.60
1	1	3184	A	C8-N9-C4	5.16	107.86	105.80
1	AR	594	U	C5-C4-O4	-5.16	122.81	125.90
1	AR	2794	G	O4'-C1'-N9	5.16	112.33	108.20
1	AR	3245	A	C4-C5-N7	5.16	113.28	110.70
1	AR	3245	A	N1-C6-N6	5.16	121.69	118.60
1	AR	3269	U	N3-C2-O2	-5.16	118.59	122.20
2	AS	92	A	N1-C6-N6	5.16	121.69	118.60
1	1	1716	U	P-O3'-C3'	5.16	125.89	119.70
1	1	2889	C	N3-C2-O2	-5.16	118.29	121.90
1	1	3218	A	C4-C5-N7	5.16	113.28	110.70
1	AR	61	A	C4-C5-C6	5.16	119.58	117.00
1	AR	1149	G	N3-C2-N2	-5.16	116.29	119.90
1	AR	1427	U	N3-C2-O2	-5.16	118.59	122.20
1	AR	1902	G	C6-C5-N7	-5.16	127.31	130.40
81	sR	1389	C	N1-C2-O2	5.16	121.99	118.90
1	1	2273	G	N3-C4-N9	-5.15	122.91	126.00
1	AR	2304	C	O5'-P-OP1	-5.15	101.06	105.70
1	AR	2618	G	N9-C4-C5	-5.15	103.34	105.40
81	sR	1668	G	OP2-P-O3'	5.15	116.54	105.20
1	1	282	G	P-O3'-C3'	5.15	125.88	119.70
1	1	2626	A	O5'-P-OP1	-5.15	101.06	105.70
1	AR	1556	C	C5-C6-N1	5.15	123.58	121.00
1	AR	3218	A	P-O3'-C3'	5.15	125.88	119.70
36	DJ	28	LEU	CA-CB-CG	5.15	127.15	115.30
66	c8	15	LEU	CA-CB-CG	5.15	127.14	115.30
1	AR	840	C	N1-C2-N3	5.15	122.80	119.20
1	AR	2327	U	C5-C6-N1	-5.15	120.12	122.70
1	AR	2417	U	N1-C2-O2	-5.15	119.20	122.80
1	AR	278	U	N3-C2-O2	5.15	125.80	122.20
1	AR	921	A	C8-N9-C4	-5.15	103.74	105.80
1	AR	1786	G	N3-C4-C5	-5.15	126.03	128.60
1	AR	2400	G	OP1-P-O3'	5.15	116.53	105.20
1	1	984	G	N1-C6-O6	-5.14	116.81	119.90
1	AR	3374	U	C2-N1-C1'	-5.14	111.53	117.70
1	1	48	A	O4'-C1'-N9	5.14	112.31	108.20
1	1	505	G	C8-N9-C4	5.14	108.46	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AT	20	U	C5-C6-N1	-5.14	120.13	122.70
47	A	1354	G	C8-N9-C4	-5.14	104.34	106.40
49	C	96	LEU	CA-CB-CG	5.14	127.13	115.30
81	sR	1670	G	C5-N7-C8	-5.14	101.73	104.30
1	AR	658	G	N1-C6-O6	5.14	122.98	119.90
1	AR	1419	A	O5'-P-OP1	5.14	116.87	110.70
1	AR	2665	U	O5'-P-OP2	-5.14	101.07	105.70
2	AS	12	U	C5-C4-O4	-5.14	122.81	125.90
1	1	1180	A	N1-C6-N6	-5.14	115.52	118.60
1	AR	1489	A	C5-C6-N6	-5.14	119.59	123.70
1	AR	1755	C	C6-N1-C2	5.14	122.36	120.30
1	AR	2820	A	N7-C8-N9	5.14	116.37	113.80
1	1	1639	C	O5'-P-OP2	-5.14	101.08	105.70
1	AR	2256	A	N9-C4-C5	-5.14	103.75	105.80
1	1	305	U	N1-C2-O2	5.14	126.40	122.80
1	1	2758	A	C5-C6-N1	5.14	120.27	117.70
1	1	2983	C	C5-C4-N4	5.14	123.80	120.20
1	1	3181	C	C6-N1-C2	-5.14	118.25	120.30
1	AR	358	G	N3-C4-C5	5.14	131.17	128.60
1	AR	590	G	C5-C6-O6	-5.14	125.52	128.60
1	AR	2144	A	N1-C6-N6	5.14	121.68	118.60
1	AR	2984	C	N3-C2-O2	-5.14	118.31	121.90
47	A	401	A	C8-N9-C4	-5.14	103.75	105.80
1	1	585	A	O5'-P-OP1	-5.13	101.08	105.70
1	1	2394	G	OP2-P-O3'	5.13	116.50	105.20
1	1	2704	A	C8-N9-C4	5.13	107.85	105.80
1	AR	993	G	O4'-C1'-N9	5.13	112.31	108.20
1	AR	1108	U	O5'-P-OP2	-5.13	101.08	105.70
1	1	1433	A	C5-C6-N1	5.13	120.27	117.70
1	1	2309	A	N9-C4-C5	-5.13	103.75	105.80
47	A	1118	G	N1-C6-O6	5.13	122.98	119.90
47	A	1555	A	O5'-P-OP2	-5.13	101.08	105.70
81	sR	845	G	C4-N9-C1'	-5.13	119.83	126.50
1	AR	2145	A	C4-N9-C1'	5.13	135.53	126.30
3	AT	26	U	N1-C2-O2	5.13	126.39	122.80
1	1	1117	G	C4-C5-N7	5.13	112.85	110.80
1	1	2617	U	C2-N3-C4	-5.13	123.92	127.00
1	AR	3048	A	C5-C6-N6	-5.13	119.60	123.70
3	AT	26	U	N3-C2-O2	-5.13	118.61	122.20
1	1	648	C	C6-N1-C2	-5.12	118.25	120.30
1	AR	960	U	N3-C4-O4	5.12	122.99	119.40
81	sR	1782	A	O5'-P-OP1	-5.12	101.09	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	281	G	C6-N1-C2	-5.12	122.03	125.10
1	1	793	C	C5-C4-N4	-5.12	116.61	120.20
1	AR	403	C	OP2-P-O3'	5.12	116.47	105.20
1	AR	1908	A	C8-N9-C4	-5.12	103.75	105.80
1	AR	2263	C	O4'-C1'-N1	5.12	112.30	108.20
1	1	66	A	O5'-P-OP2	5.12	116.84	110.70
1	1	2808	A	O4'-C1'-N9	-5.12	104.11	108.20
1	AR	2871	G	P-O3'-C3'	5.12	125.84	119.70
47	A	507	U	N3-C2-O2	-5.12	118.62	122.20
47	A	1620	C	C6-N1-C2	-5.12	118.25	120.30
81	sR	815	G	C6-C5-N7	5.12	133.47	130.40
81	sR	767	U	N3-C2-O2	-5.12	118.62	122.20
1	AR	2809	C	C5-C6-N1	-5.12	118.44	121.00
1	1	272	G	N1-C6-O6	-5.11	116.83	119.90
1	1	1899	G	C4-C5-N7	5.11	112.85	110.80
1	AR	955	U	C2-N3-C4	-5.11	123.93	127.00
1	1	803	C	C4-C5-C6	-5.11	114.84	117.40
1	AR	1506	A	C8-N9-C4	-5.11	103.75	105.80
1	1	350	C	N3-C2-O2	-5.11	118.32	121.90
1	1	1115	G	OP1-P-OP2	-5.11	111.93	119.60
1	1	2323	G	N1-C6-O6	-5.11	116.83	119.90
1	AR	585	A	O5'-P-OP2	-5.11	101.10	105.70
1	1	509	U	N1-C2-N3	5.11	117.97	114.90
1	1	944	C	OP2-P-O3'	5.11	116.44	105.20
2	AS	42	A	N1-C6-N6	5.11	121.67	118.60
47	A	728	U	C6-N1-C1'	-5.11	114.05	121.20
1	1	1819	U	C5-C6-N1	5.11	125.25	122.70
1	AR	2920	U	N1-C2-O2	-5.11	119.22	122.80
3	AT	68	G	C6-C5-N7	-5.11	127.34	130.40
1	1	494	G	C8-N9-C1'	-5.11	120.36	127.00
1	1	1911	A	C5-C6-N6	-5.11	119.61	123.70
1	1	2400	G	C2-N3-C4	-5.11	109.35	111.90
1	AR	620	U	O4'-C1'-N1	5.11	112.28	108.20
1	AR	1604	G	N3-C4-N9	5.11	129.06	126.00
1	1	3390	G	N1-C6-O6	5.10	122.96	119.90
1	AR	817	A	O5'-P-OP1	-5.10	101.11	105.70
1	1	642	U	N3-C2-O2	-5.10	118.63	122.20
1	1	658	G	C8-N9-C1'	-5.10	120.37	127.00
1	1	1045	C	O5'-P-OP2	-5.10	101.11	105.70
1	1	1145	G	N1-C6-O6	5.10	122.96	119.90
1	1	1389	G	C6-C5-N7	-5.10	127.34	130.40
16	v	22	LEU	CA-CB-CG	5.10	127.04	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	38	U	C6-N1-C2	5.10	124.06	121.00
81	sR	1568	C	P-O3'-C3'	5.10	125.82	119.70
1	AR	1897	G	C5-C6-N1	-5.10	108.95	111.50
1	1	432	G	C6-C5-N7	-5.10	127.34	130.40
1	AR	652	G	N3-C4-C5	-5.10	126.05	128.60
47	A	577	G	N3-C4-C5	-5.10	126.05	128.60
1	1	359	U	N1-C2-N3	5.10	117.96	114.90
1	1	937	G	O5'-P-OP2	-5.10	101.11	105.70
1	AR	2618	G	C8-N9-C4	5.10	108.44	106.40
47	A	976	G	N9-C4-C5	5.10	107.44	105.40
81	sR	1765	A	C8-N9-C4	5.10	107.84	105.80
1	1	282	G	C8-N9-C4	-5.10	104.36	106.40
1	1	1217	A	OP2-P-O3'	5.10	116.41	105.20
1	1	2983	C	N1-C2-N3	5.10	122.77	119.20
47	A	1458	G	C4-N9-C1'	5.10	133.12	126.50
81	sR	987	G	C5-C6-O6	-5.10	125.54	128.60
1	1	424	G	O5'-P-OP2	-5.09	101.11	105.70
1	1	659	G	OP2-P-O3'	5.09	116.41	105.20
1	1	1877	U	C5-C6-N1	-5.09	120.15	122.70
1	1	2688	U	C6-N1-C1'	-5.09	114.07	121.20
47	A	1644	C	N3-C2-O2	-5.09	118.33	121.90
81	sR	646	C	C6-N1-C2	-5.09	118.26	120.30
1	AR	660	A	OP1-P-O3'	5.09	116.41	105.20
1	AR	1335	C	OP2-P-O3'	5.09	116.41	105.20
47	A	1059	U	N1-C2-O2	5.09	126.36	122.80
1	1	199	A	N1-C6-N6	5.09	121.65	118.60
1	1	230	U	N1-C2-N3	5.09	117.95	114.90
1	1	1547	G	C8-N9-C4	5.09	108.44	106.40
36	AI	118	ILE	C-N-CA	-5.09	108.97	121.70
1	AR	343	U	O5'-P-OP2	5.09	116.81	110.70
1	AR	921	A	N9-C4-C5	5.09	107.84	105.80
1	AR	2816	G	N3-C4-C5	5.09	131.15	128.60
47	A	1503	A	N1-C6-N6	5.09	121.66	118.60
81	sR	800	U	N3-C2-O2	-5.09	118.64	122.20
1	1	91	G	N3-C4-C5	5.09	131.15	128.60
1	1	92	G	N3-C4-N9	5.09	129.05	126.00
1	AR	1496	C	N1-C2-O2	5.09	121.95	118.90
1	AR	1722	U	N3-C4-C5	5.09	117.65	114.60
1	AR	2836	C	C4-C5-C6	5.09	119.94	117.40
47	A	577	G	C2-N3-C4	5.09	114.44	111.90
1	1	3278	C	C6-N1-C2	-5.09	118.27	120.30
1	AR	2297	U	O5'-P-OP2	-5.09	101.12	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	2950	G	N1-C2-N3	-5.08	120.85	123.90
47	A	1796	C	C4-C5-C6	5.08	119.94	117.40
1	1	1453	A	OP2-P-O3'	5.08	116.38	105.20
1	AR	3377	G	O5'-P-OP2	5.08	116.80	110.70
1	1	903	U	N1-C2-O2	5.08	126.36	122.80
1	AR	150	A	N1-C6-N6	5.08	121.65	118.60
3	AT	51	G	C5-C6-O6	-5.08	125.55	128.60
1	1	43	A	C2-N3-C4	-5.08	108.06	110.60
1	AR	661	G	O5'-P-OP1	-5.08	101.13	105.70
1	AR	2634	U	C2-N3-C4	-5.08	123.95	127.00
1	1	199	A	O4'-C1'-N9	5.08	112.26	108.20
1	1	1481	A	N7-C8-N9	5.08	116.34	113.80
1	AR	383	G	N3-C4-C5	5.08	131.14	128.60
47	A	1773	C	C5-C6-N1	5.08	123.54	121.00
1	1	111	C	C4-C5-C6	5.08	119.94	117.40
1	AR	2616	C	OP2-P-O3'	5.08	116.37	105.20
1	AR	2763	U	C5-C4-O4	-5.08	122.86	125.90
1	AR	2772	C	C2-N1-C1'	5.08	124.38	118.80
81	sR	1094	G	C5-C6-O6	5.08	131.65	128.60
1	1	421	G	C6-C5-N7	-5.07	127.36	130.40
1	1	2954	U	C5-C4-O4	-5.07	122.86	125.90
3	4	85	G	C8-N9-C4	-5.07	104.37	106.40
1	AR	202	G	C4-C5-N7	5.07	112.83	110.80
3	AT	33	A	C8-N9-C4	5.07	107.83	105.80
81	sR	75	U	C2-N1-C1'	5.07	123.79	117.70
81	sR	1347	U	N1-C2-O2	-5.07	119.25	122.80
81	sR	1640	C	C6-N1-C1'	-5.07	114.71	120.80
1	1	615	U	C5-C4-O4	5.07	128.94	125.90
1	1	695	C	N3-C4-C5	5.07	123.93	121.90
1	1	2249	G	N1-C6-O6	-5.07	116.86	119.90
1	1	2993	G	C5-C6-O6	-5.07	125.56	128.60
1	AR	658	G	C6-C5-N7	-5.07	127.36	130.40
1	AR	1899	G	C8-N9-C4	-5.07	104.37	106.40
1	AR	2981	U	C2-N1-C1'	5.07	123.78	117.70
47	A	543	C	N1-C2-O2	5.07	121.94	118.90
47	A	1268	G	O5'-P-OP2	-5.07	101.14	105.70
81	sR	337	G	C4-C5-N7	5.07	112.83	110.80
1	1	1581	C	C6-N1-C2	-5.07	118.27	120.30
1	1	2812	C	N3-C2-O2	-5.07	118.35	121.90
1	AR	1489	A	N1-C6-N6	5.07	121.64	118.60
1	1	103	G	N3-C4-C5	-5.07	126.07	128.60
1	1	2714	G	C4-C5-N7	5.07	112.83	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	1116	G	N9-C4-C5	5.07	107.43	105.40
1	AR	1211	U	OP2-P-O3'	5.07	116.35	105.20
81	sR	1670	G	N7-C8-N9	5.07	115.63	113.10
1	1	1052	U	C5-C4-O4	5.07	128.94	125.90
1	1	2247	G	C6-C5-N7	-5.07	127.36	130.40
1	AR	666	A	N9-C4-C5	5.07	107.83	105.80
1	AR	2888	U	N3-C4-O4	5.07	122.94	119.40
1	AR	2976	A	N1-C6-N6	-5.07	115.56	118.60
1	1	2176	U	N3-C2-O2	-5.06	118.66	122.20
1	1	2345	A	C6-C5-N7	-5.06	128.75	132.30
1	AR	3022	G	C5-C6-O6	5.06	131.64	128.60
81	sR	1000	C	C4-C5-C6	5.06	119.93	117.40
1	1	200	C	N3-C4-N4	5.06	121.54	118.00
1	1	943	U	N1-C2-O2	5.06	126.34	122.80
1	1	3213	A	C6-C5-N7	-5.06	128.76	132.30
1	AR	293	C	O5'-P-OP1	-5.06	101.14	105.70
1	AR	1103	A	O4'-C1'-N9	5.06	112.25	108.20
1	AR	1829	G	OP2-P-O3'	5.06	116.34	105.20
1	AR	2393	G	N1-C6-O6	5.06	122.94	119.90
1	AR	2975	U	O5'-P-OP1	-5.06	101.14	105.70
1	1	3049	A	N1-C6-N6	5.06	121.64	118.60
1	AR	2393	G	C4-C5-N7	5.06	112.82	110.80
1	AR	2903	A	C2-N3-C4	-5.06	108.07	110.60
1	1	1366	A	N7-C8-N9	5.06	116.33	113.80
1	1	2996	U	N3-C2-O2	-5.06	118.66	122.20
1	AR	1103	A	OP1-P-O3'	5.06	116.33	105.20
1	AR	2623	G	C4-C5-N7	5.06	112.82	110.80
1	AR	2634	U	C5-C4-O4	-5.06	122.86	125.90
1	AR	3066	U	C5-C4-O4	5.06	128.94	125.90
1	AR	739	G	O5'-P-OP1	-5.06	101.15	105.70
1	AR	2285	C	C5-C6-N1	5.06	123.53	121.00
1	AR	950	G	C5-C6-O6	-5.06	125.57	128.60
1	1	2388	U	OP2-P-O3'	5.05	116.32	105.20
1	AR	810	A	C8-N9-C4	-5.05	103.78	105.80
81	sR	163	G	C8-N9-C1'	5.05	133.57	127.00
81	sR	871	G	C5-C6-N1	-5.05	108.97	111.50
47	A	1206	U	N3-C4-O4	5.05	122.94	119.40
1	AR	725	G	C5-C6-O6	5.05	131.63	128.60
1	AR	2136	C	OP2-P-O3'	5.05	116.31	105.20
1	AR	2330	C	O5'-P-OP2	-5.05	101.15	105.70
1	AR	2605	G	C5-C6-O6	-5.05	125.57	128.60
81	sR	543	C	C6-N1-C2	-5.05	118.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	790	U	C5-C4-O4	5.05	128.93	125.90
1	1	866	A	N9-C4-C5	-5.05	103.78	105.80
1	1	3085	G	C6-C5-N7	-5.05	127.37	130.40
1	AR	939	U	C2-N1-C1'	-5.05	111.64	117.70
1	AR	1370	G	N3-C4-C5	-5.05	126.08	128.60
1	AR	2197	C	C2-N1-C1'	-5.05	113.25	118.80
1	AR	2342	U	N3-C4-O4	-5.05	115.86	119.40
1	1	369	A	C2-N3-C4	5.05	113.12	110.60
1	1	715	A	P-O3'-C3'	5.05	125.76	119.70
1	1	1269	U	N3-C2-O2	-5.05	118.67	122.20
1	1	267	G	N1-C6-O6	5.05	122.93	119.90
1	1	812	G	N3-C2-N2	-5.05	116.37	119.90
1	AR	2817	A	C5-C6-N6	-5.05	119.66	123.70
1	AR	3146	G	N1-C2-N2	-5.05	111.66	116.20
81	sR	1196	A	P-O3'-C3'	5.05	125.76	119.70
1	AR	2273	G	C4-N9-C1'	-5.04	119.94	126.50
1	1	3244	A	C8-N9-C4	5.04	107.82	105.80
1	AR	2282	U	O5'-P-OP2	-5.04	101.16	105.70
1	1	494	G	C4-N9-C1'	5.04	133.06	126.50
1	1	644	G	C8-N9-C4	-5.04	104.38	106.40
4	j	55	GLY	C-N-CA	5.04	134.30	121.70
1	AR	2417	U	N3-C4-O4	5.04	122.93	119.40
1	AR	2871	G	N1-C6-O6	-5.04	116.88	119.90
1	1	212	G	N9-C4-C5	-5.04	103.38	105.40
1	1	1365	G	N1-C6-O6	-5.04	116.88	119.90
81	sR	1007	C	O5'-P-OP1	-5.04	101.17	105.70
81	sR	577	G	C5-C6-N1	5.04	114.02	111.50
81	sR	815	G	C8-N9-C1'	5.04	133.55	127.00
1	1	426	G	N3-C4-C5	-5.04	126.08	128.60
1	1	818	C	OP1-P-OP2	-5.04	112.05	119.60
1	1	1849	C	N3-C2-O2	5.04	125.42	121.90
1	1	2699	G	C6-C5-N7	-5.04	127.38	130.40
1	AR	586	C	N3-C4-C5	5.04	123.92	121.90
1	AR	2319	U	N3-C2-O2	-5.04	118.67	122.20
1	AR	2951	G	C5-C6-N1	5.04	114.02	111.50
47	A	1347	U	N1-C2-O2	-5.04	119.28	122.80
81	sR	1669	U	N3-C2-O2	-5.04	118.67	122.20
1	1	678	G	N3-C2-N2	-5.03	116.38	119.90
1	1	754	G	OP2-P-O3'	5.03	116.27	105.20
1	1	2314	U	P-O3'-C3'	-5.03	113.66	119.70
1	1	2727	A	O5'-P-OP1	-5.03	101.17	105.70
1	AR	2732	G	N1-C6-O6	5.03	122.92	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	A	976	G	C5-C6-O6	5.03	131.62	128.60
47	A	1124	A	C2-N3-C4	-5.03	108.08	110.60
47	A	1365	C	C6-N1-C2	-5.03	118.29	120.30
81	sR	953	G	C8-N9-C4	5.03	108.41	106.40
1	1	2731	U	N3-C4-O4	5.03	122.92	119.40
1	AR	2617	U	C2-N3-C4	-5.03	123.98	127.00
1	1	2634	U	C4-C5-C6	5.03	122.72	119.70
1	AR	1435	A	C4-C5-N7	5.03	113.21	110.70
1	AR	1604	G	C8-N9-C1'	-5.03	120.47	127.00
81	sR	217	A	P-O3'-C3'	5.03	125.73	119.70
1	1	802	C	O5'-P-OP2	5.03	116.73	110.70
1	1	1543	G	C6-C5-N7	-5.03	127.39	130.40
1	1	1496	C	C4-C5-C6	-5.02	114.89	117.40
1	AR	1671	C	C6-N1-C2	-5.02	118.29	120.30
1	AR	2606	G	N1-C6-O6	-5.02	116.89	119.90
1	1	501	A	C8-N9-C4	5.02	107.81	105.80
13	CM	172	LEU	CA-CB-CG	5.02	126.85	115.30
1	1	155	G	N3-C4-N9	5.02	129.01	126.00
1	1	2385	G	OP1-P-O3'	5.02	116.24	105.20
1	AR	355	A	C2-N3-C4	-5.02	108.09	110.60
1	AR	2860	U	OP1-P-OP2	5.02	127.13	119.60
1	1	408	A	OP2-P-O3'	5.02	116.24	105.20
1	1	691	A	OP1-P-O3'	5.02	116.24	105.20
1	1	1724	U	O4'-C1'-N1	5.02	112.21	108.20
1	AR	788	C	OP2-P-O3'	5.02	116.24	105.20
1	AR	2399	A	C8-N9-C4	5.02	107.81	105.80
1	1	793	C	N3-C4-N4	5.02	121.51	118.00
1	1	3218	A	C6-C5-N7	-5.02	128.79	132.30
47	A	365	G	C4-C5-N7	5.02	112.81	110.80
1	AR	634	C	C2-N3-C4	-5.01	117.39	119.90
1	AR	1298	C	N1-C2-O2	-5.01	115.89	118.90
1	AR	1495	U	N3-C4-O4	-5.01	115.89	119.40
81	sR	382	C	N3-C4-C5	5.01	123.91	121.90
1	1	864	G	O5'-P-OP1	-5.01	101.19	105.70
1	AR	70	A	C8-N9-C4	-5.01	103.80	105.80
1	AR	640	U	N3-C4-O4	5.01	122.91	119.40
1	AR	2405	C	C4-C5-C6	5.01	119.91	117.40
1	AR	1208	U	C5-C4-O4	-5.01	122.89	125.90
1	AR	2198	A	C2-N3-C4	-5.01	108.09	110.60
1	AR	2388	U	N3-C4-O4	5.01	122.91	119.40
81	sR	868	G	C4-C5-N7	5.01	112.80	110.80
1	AR	76	G	C2-N3-C4	-5.01	109.40	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AR	1400	G	N1-C6-O6	-5.01	116.89	119.90
47	A	317	C	C6-N1-C2	5.01	122.30	120.30
1	1	701	G	OP2-P-O3'	5.01	116.22	105.20
1	AR	2257	C	C6-N1-C2	-5.01	118.30	120.30
1	AR	2820	A	C8-N9-C4	-5.01	103.80	105.80
1	1	105	C	C5-C4-N4	-5.00	116.70	120.20
1	AR	3182	G	C5-C6-O6	5.00	131.60	128.60
1	1	1552	G	C5-C6-O6	-5.00	125.60	128.60
1	AR	1496	C	N3-C2-O2	-5.00	118.40	121.90
1	AR	2640	A	C8-N9-C4	5.00	107.80	105.80
9	CI	179	LEU	CA-CB-CG	5.00	126.81	115.30
81	sR	558	U	C5-C6-N1	5.00	125.20	122.70
1	1	688	G	N3-C4-C5	-5.00	126.10	128.60
1	1	765	C	C6-N1-C2	-5.00	118.30	120.30
1	1	2861	U	N3-C2-O2	-5.00	118.70	122.20
1	AR	2130	G	C2-N3-C4	-5.00	109.40	111.90
1	AR	2961	G	OP2-P-O3'	5.00	116.20	105.20
47	A	590	C	N3-C2-O2	-5.00	118.40	121.90

There are no chirality outliers.

All (124) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
21	0	22	PRO	Peptide
22	2	16	GLN	Peptide
28	AA	102	GLU	Peptide
29	AB	23	GLY	Peptide
30	AC	19	ASN	Peptide
32	AE	5	LYS	Peptide
32	AE	6	ASP	Peptide
36	AI	83	LYS	Peptide
48	B	166	GLY	Peptide
48	B	190	ASP	Peptide
5	CE	315	GLY	Peptide
5	CE	349	LYS	Peptide
6	CF	13	GLY	Peptide
7	CG	124	GLU	Peptide
7	CG	257	GLU	Peptide
7	CG	258	LYS	Peptide
7	CG	58	LYS	Peptide
8	CH	51	ARG	Peptide
9	CI	157	ASN	Peptide

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Mol	Chain	Res	Type	Group
9	CI	190	THR	Peptide
10	CJ	119	GLY	Peptide
10	CJ	34	PHE	Peptide
10	CJ	35	GLY	Peptide
11	CK	21	LYS	Peptide
13	CM	172	LEU	Peptide
14	CN	47	ALA	Peptide
15	CO	7	VAL	Peptide
16	CP	93	LYS	Peptide
17	CQ	110	PRO	Mainchain,Peptide
19	CS	161	LYS	Peptide
28	DB	3	LYS	Peptide
29	DC	97	GLU	Peptide
30	DD	19	ASN	Peptide
36	DJ	118	ILE	Peptide
43	DQ	31	GLY	Peptide
51	E	219	ALA	Peptide
52	F	195	ILE	Peptide
53	G	57	SER	Peptide
53	G	65	ARG	Peptide
54	H	148	SER	Peptide
54	H	67	VAL	Peptide
55	I	110	GLN	Peptide
55	I	131	PHE	Peptide
55	I	30	SER	Peptide
55	I	63	PRO	Peptide
56	J	147	ALA	Peptide
56	J	198	ALA	Peptide
57	K	137	GLY	Peptide
57	K	163	PRO	Peptide
59	M	3	THR	Peptide
59	M	5	LEU	Peptide
60	N	105	LYS	Peptide
60	N	110	GLY	Peptide
60	N	129	GLU	Peptide
60	N	130	THR	Peptide
61	O	28	LEU	Peptide
62	P	123	SER	Peptide
64	R	40	GLU	Peptide
80	Rb	160	GLU	Peptide
80	Rb	280	GLY	Peptide
66	T	144	ARG	Peptide

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Mol	Chain	Res	Type	Group
66	T	81	ILE	Peptide
66	T	90	ASN	Peptide
71	Y	44	GLY	Peptide
71	Y	88	PRO	Peptide
73	a	94	LYS	Peptide
74	b	10	ARG	Peptide
74	b	74	CYS	Peptide
74	b	83	ILE	Peptide
60	c2	108	ARG	Peptide
60	c2	130	THR	Peptide
61	c3	21	ASN	Peptide
61	c3	22	ALA	Peptide
62	c4	11	SER	Peptide
62	c4	34	SER	Peptide
62	c4	90	ARG	Peptide
63	c5	124	THR	Peptide
63	c5	52	LYS	Peptide
64	c6	115	THR	Peptide
64	c6	40	GLU	Peptide
64	c6	41	PRO	Peptide
65	c7	105	GLN	Peptide
66	c8	101	LEU	Peptide
66	c8	90	ASN	Peptide
66	c8	91	ASP	Peptide
69	d1	42	GLU	Peptide
71	d3	44	GLY	Peptide
72	d4	29	HIS	Peptide
78	e0	46	ASN	Peptide
79	e1	146	SER	Peptide
79	g	103	LEU	Peptide
79	g	146	SER	Peptide
79	g	88	PRO	Peptide
4	j	48	ILE	Peptide
5	k	139	GLN	Peptide
5	k	315	GLY	Peptide
6	l	291	ASN	Peptide
6	l	292	SER	Peptide
6	l	338	LYS	Peptide
7	m	258	LYS	Peptide
7	m	6	ASP	Peptide
7	m	7	ALA	Peptide
9	o	157	ASN	Peptide

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Mol	Chain	Res	Type	Group
9	o	231	ASN	Peptide
46	p0	31	ASP	Peptide
11	q	22	SER	Peptide
13	s	73	GLY	Peptide
48	s0	94	GLY	Peptide
50	s2	106	ASP	Peptide
51	s3	144	ALA	Peptide
51	s3	216	PRO	Peptide
51	s3	219	ALA	Peptide
53	s5	44	ASN	Peptide
54	s6	68	LEU	Peptide
55	s7	130	VAL	Peptide
55	s7	63	PRO	Peptide
56	s8	100	ALA	Peptide
14	t	47	ALA	Peptide
15	u	7	VAL	Peptide
15	u	8	LYS	Peptide
16	v	89	VAL	Peptide
16	v	93	LYS	Peptide
17	w	110	PRO	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	1	67355	0	33845	1134	0
1	AR	67313	0	33820	1287	0
2	3	2579	0	1304	32	0
2	AS	2579	0	1304	39	1
3	4	3353	0	1695	66	1
3	AT	3353	0	1695	70	0
4	CD	1914	0	1981	83	0
4	j	1914	0	1981	0	0
5	CE	3075	0	3142	146	0
5	k	3075	0	3142	0	0
6	CF	2748	0	2859	115	0
6	l	2748	0	2859	0	0
7	CG	2375	0	2324	85	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	m	2375	0	2325	0	0
8	CH	1239	0	1326	38	0
8	n	1239	0	1326	0	0
9	CI	1784	0	1862	55	0
9	o	1784	0	1862	0	0
10	CJ	1804	0	1877	60	0
10	p	1804	0	1877	0	0
11	CK	1518	0	1587	60	0
11	q	1518	0	1587	0	0
12	CL	1705	0	1736	64	0
12	r	1705	0	1736	0	0
13	CM	1353	0	1383	51	0
13	s	1353	0	1383	0	0
14	CN	1543	0	1608	73	0
14	t	1543	0	1608	0	0
15	CO	1053	0	1149	43	0
15	u	1053	0	1149	0	0
16	CP	1720	0	1779	66	0
16	v	1720	0	1779	0	0
17	CQ	1555	0	1659	49	0
17	w	1555	0	1659	0	0
18	CR	1420	0	1437	56	0
18	x	1420	0	1437	0	0
19	CS	1441	0	1543	51	0
19	y	1441	0	1543	0	0
20	CT	1521	0	1617	55	0
20	z	1521	0	1617	0	0
21	0	1445	0	1487	47	0
21	CU	1445	0	1487	51	0
22	2	1276	0	1323	43	0
22	CV	1276	0	1323	46	0
23	5	796	0	812	15	0
23	CW	796	0	812	24	0
24	6	1003	0	1048	49	0
24	CX	1003	0	1048	34	0
25	7	699	0	640	10	0
25	CY	836	0	721	9	0
26	8	964	0	1025	33	0
26	CZ	964	0	1025	20	0
27	9	993	0	1081	37	0
27	DA	976	0	1064	29	0
28	AA	1092	0	1155	49	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
28	DB	1092	0	1155	45	0
29	AB	1173	0	1215	56	0
29	DC	1173	0	1215	53	0
30	AC	462	0	491	20	0
30	DD	462	0	491	15	0
31	AD	743	0	797	18	0
31	DE	743	0	797	19	0
32	AE	876	0	912	28	0
32	DF	876	0	912	20	0
33	AF	1020	0	1090	32	0
33	DG	1020	0	1090	43	0
34	AG	850	0	880	33	0
34	DH	850	0	880	24	0
35	AH	880	0	945	34	0
35	DI	880	0	945	32	0
36	AI	969	0	1078	27	0
36	DJ	969	0	1078	47	0
37	AJ	771	0	849	20	0
37	DK	771	0	849	37	0
38	AK	681	0	683	30	0
38	DL	681	0	683	28	0
39	AL	612	0	682	17	0
39	DM	612	0	682	15	0
40	AM	436	0	475	29	0
40	DN	436	0	475	19	0
41	AN	417	0	455	18	0
41	DO	417	0	455	9	0
42	AO	233	0	284	12	0
42	DP	233	0	284	12	0
43	AP	847	0	914	19	0
43	DQ	847	0	914	20	0
44	AQ	694	0	734	31	0
44	DR	694	0	734	29	0
45	i	1104	0	1002	0	0
45	sM	475	0	492	0	0
46	p0	1076	0	1076	0	0
47	A	37948	0	19089	879	1
48	B	1577	0	1567	74	0
48	s0	1583	0	1578	0	0
49	C	1709	0	1784	87	0
49	s1	1722	0	1793	0	0
50	D	1635	0	1723	71	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
50	s2	1635	0	1723	0	0
51	E	1734	0	1817	47	0
51	s3	1734	0	1817	0	0
52	F	2068	0	2154	89	0
52	s4	2068	0	2154	0	0
53	G	1609	0	1675	76	0
53	s5	1609	0	1675	0	0
54	H	1799	0	1879	74	0
54	s6	1755	0	1846	0	0
55	I	1481	0	1572	80	0
55	s7	1491	0	1578	0	0
56	J	1489	0	1525	70	0
56	s8	1489	0	1525	0	0
57	K	1494	0	1573	52	0
57	s9	1494	0	1573	0	0
58	L	772	0	727	39	0
58	c0	761	0	698	0	0
59	M	1213	0	1257	33	0
59	c1	1168	0	1233	0	0
60	N	890	0	887	27	0
60	c2	890	0	887	0	0
61	O	1192	0	1255	39	0
61	c3	1192	0	1255	0	0
62	P	891	0	883	46	0
62	c4	949	0	985	0	0
63	Q	977	0	1002	44	0
63	c5	1039	0	1050	0	0
64	R	1105	0	1166	48	0
64	c6	1111	0	1171	0	0
65	S	926	0	930	31	0
65	c7	906	0	909	0	0
66	T	1192	0	1222	46	0
66	c8	1192	0	1222	0	0
67	U	1112	0	1124	43	0
67	c9	1112	0	1124	0	0
68	V	855	0	917	39	0
68	d0	882	0	939	0	0
69	W	684	0	672	32	0
69	d1	684	0	672	0	0
70	X	1021	0	1060	49	0
70	d2	1021	0	1060	0	0
71	Y	1121	0	1196	40	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
71	d3	1121	0	1196	0	0
72	Z	1073	0	1132	52	0
72	d4	1073	0	1132	0	0
73	a	563	0	603	0	0
73	d5	558	0	598	0	0
74	b	769	0	814	0	0
74	d6	769	0	814	0	0
75	c	610	0	633	0	0
75	d7	610	0	633	0	0
76	d	497	0	535	0	0
76	d8	497	0	535	0	0
77	d9	442	0	428	0	0
77	e	442	0	428	0	0
78	e0	491	0	542	0	0
78	f	475	0	525	0	0
79	e1	397	0	396	0	0
79	g	566	0	601	0	0
80	Rb	2442	0	2392	0	0
80	h	2437	0	2386	0	0
81	sR	37990	0	19111	0	0
82	1	2262	0	0	316	0
82	2	7	0	0	0	0
82	3	63	0	0	4	0
82	4	98	0	0	7	0
82	A	994	0	0	148	0
82	AC	7	0	0	2	0
82	AE	7	0	0	9	0
82	AG	7	0	0	1	0
82	AK	14	0	0	6	0
82	AP	7	0	0	3	0
82	AR	2366	0	0	354	1
82	AS	70	0	0	12	0
82	AT	112	0	0	34	0
82	CE	14	0	0	4	0
82	CF	7	0	0	4	0
82	CG	21	0	0	8	0
82	CH	7	0	0	2	0
82	CK	7	0	0	0	0
82	CL	14	0	0	6	0
82	CM	7	0	0	0	0
82	CO	7	0	0	0	0
82	CP	7	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
82	CQ	7	0	0	1	0
82	CS	1	0	0	0	0
82	CX	14	0	0	1	0
82	DD	7	0	0	1	0
82	DG	7	0	0	1	0
82	DH	7	0	0	0	0
82	DQ	7	0	0	4	0
82	J	14	0	0	2	0
82	O	7	0	0	0	0
82	Q	7	0	0	1	0
82	Rb	7	0	0	0	0
82	T	7	0	0	2	0
82	c1	7	0	0	0	0
82	c3	7	0	0	0	0
82	c5	7	0	0	0	0
82	c8	7	0	0	0	0
82	d4	7	0	0	0	0
82	d9	7	0	0	0	0
82	e	7	0	0	0	0
82	h	7	0	0	0	0
82	k	7	0	0	0	0
82	l	7	0	0	0	0
82	n	7	0	0	0	0
82	r	7	0	0	0	0
82	s1	7	0	0	0	0
82	s4	7	0	0	0	0
82	s8	7	0	0	0	0
82	sR	1043	0	0	0	0
82	v	14	0	0	0	0
82	w	7	0	0	0	0
82	x	7	0	0	0	0
82	y	7	0	0	0	0
82	z	7	0	0	0	0
83	1	499	0	0	0	0
83	3	13	0	0	0	0
83	4	23	0	0	0	0
83	6	3	0	0	0	0
83	9	1	0	0	0	0
83	A	129	0	0	0	0
83	AB	8	0	0	0	0
83	AF	2	0	0	0	0
83	AG	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
83	AH	1	0	0	0	0
83	AK	2	0	0	0	0
83	AM	1	0	0	0	0
83	AP	1	0	0	0	0
83	AR	523	0	0	0	0
83	AS	19	0	0	0	0
83	AT	15	0	0	0	0
83	CD	3	0	0	0	0
83	CE	3	0	0	0	0
83	CF	2	0	0	0	0
83	CG	3	0	0	0	0
83	CI	2	0	0	0	0
83	CJ	1	0	0	0	0
83	CK	3	0	0	0	0
83	CL	1	0	0	0	0
83	CM	1	0	0	0	0
83	CO	1	0	0	0	0
83	CP	4	0	0	0	0
83	CQ	2	0	0	0	0
83	CR	8	0	0	0	0
83	CU	2	0	0	0	0
83	CX	3	0	0	0	0
83	CY	1	0	0	0	0
83	D	1	0	0	0	0
83	DA	2	0	0	0	0
83	DC	4	0	0	0	0
83	DD	1	0	0	0	0
83	DE	1	0	0	0	0
83	DH	1	0	0	0	0
83	DI	1	0	0	0	0
83	DL	1	0	0	0	0
83	DN	1	0	0	0	0
83	DO	1	0	0	0	0
83	DP	1	0	0	0	0
83	DQ	3	0	0	0	0
83	DR	2	0	0	0	0
83	F	1	0	0	0	0
83	H	1	0	0	0	0
83	J	1	0	0	0	0
83	O	1	0	0	0	0
83	Y	1	0	0	0	0
83	b	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
83	c1	2	0	0	0	0
83	c4	1	0	0	0	0
83	c6	1	0	0	0	0
83	c8	1	0	0	0	0
83	c9	1	0	0	0	0
83	d3	3	0	0	0	0
83	d4	3	0	0	0	0
83	d5	1	0	0	0	0
83	d6	1	0	0	0	0
83	d9	1	0	0	0	0
83	e	1	0	0	0	0
83	j	2	0	0	0	0
83	k	1	0	0	0	0
83	l	3	0	0	0	0
83	o	1	0	0	0	0
83	r	2	0	0	0	0
83	s	1	0	0	0	0
83	s1	1	0	0	0	0
83	s2	1	0	0	0	0
83	s4	1	0	0	0	0
83	s8	2	0	0	0	0
83	sM	2	0	0	0	0
83	sR	154	0	0	0	0
83	t	3	0	0	0	0
83	v	5	0	0	0	0
83	w	1	0	0	0	0
83	x	5	0	0	0	0
83	z	1	0	0	0	0
84	1	26	0	0	1	0
84	AR	26	0	0	0	0
85	AK	1	0	0	0	0
85	AN	1	0	0	0	0
85	AP	1	0	0	0	0
85	AQ	1	0	0	0	0
85	DL	1	0	0	0	0
85	DO	1	0	0	0	0
85	DQ	1	0	0	0	0
85	DR	1	0	0	0	0
85	b	1	0	0	0	0
85	c	1	0	0	0	0
85	d6	1	0	0	0	0
85	d7	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	d9	1	0	0	0	0
85	e	1	0	0	0	0
85	e1	1	0	0	0	0
85	g	1	0	0	0	0
86	AR	12	0	16	0	0
All	All	409486	0	296719	6599	2

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 14.

All (6599) 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)
1:1:2395:G:N7	82:1:3722:OHX:N1	2.04	1.05
47:A:320:U:H3'	47:A:321:C:H5''	1.41	1.02
1:1:1481:A:O2'	1:1:1858:A:N3	1.91	1.01
12:CL:174:THR:HG23	12:CL:176:LEU:H	1.24	1.01
5:CE:41:VAL:HA	5:CE:185:GLY:HA3	1.42	1.00
22:CV:51:GLY:HA3	22:CV:92:ARG:HG3	1.43	0.99
1:AR:979:U:H1'	1:AR:980:A:C8	1.96	0.99
82:AR:3443:OHX:N3	82:AR:3443:OHX:N5	2.11	0.99
1:AR:2875:U:H3	1:AR:2952:G:H1	1.11	0.98
1:AR:2964:G:N7	82:AR:3483:OHX:N6	2.11	0.97
6:CF:204:GLY:O	6:CF:246:ARG:NH1	1.98	0.97
6:CF:283:THR:HG22	6:CF:285:ASP:H	1.30	0.96
1:AR:419:G:N7	82:AR:3406:OHX:N3	2.13	0.96
1:1:343:U:OP2	82:1:3418:OHX:N2	1.98	0.96
1:AR:2311:G:OP2	82:AR:3691:OHX:N1	1.98	0.95
1:AR:1639:C:OP2	35:DI:74:ARG:NH2	1.98	0.95
1:1:1222:G:HO2'	1:1:1285:G:H1	1.12	0.94
47:A:702:G:HO2'	47:A:703:G:H8	1.00	0.94
1:1:781:G:N7	82:1:3474:OHX:N5	2.16	0.94
67:U:117:SER:HB2	67:U:123:ARG:HB2	1.50	0.93
1:AR:299:G:N7	82:AR:3683:OHX:N1	2.17	0.93
12:CL:77:THR:HG22	12:CL:82:ARG:HA	1.48	0.93
6:CF:16:THR:HG22	6:CF:18:ASN:H	1.33	0.93
3:AT:62:C:O2	82:AT:208:OHX:N4	2.03	0.92
54:H:120:GLU:HG3	54:H:125:THR:HB	1.52	0.92
5:CE:185:GLY:O	5:CE:191:LYS:NZ	2.02	0.91
38:AK:88:ALA:O	82:AK:102:OHX:N4	2.03	0.91
1:AR:3347:A:N6	1:AR:3358:U:O4	2.03	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3253:G:N7	82:1:3588:OHX:N1	2.19	0.91
1:AR:640:U:OP1	29:DC:21:ARG:NH2	2.04	0.91
1:AR:1019:G:H1	1:AR:1033:U:H3	1.18	0.90
47:A:237:C:H5''	47:A:238:U:H5'	1.53	0.90
1:AR:912:G:OP2	4:CD:9:ARG:NH1	2.05	0.90
47:A:139:C:H42	47:A:175:G:H21	1.11	0.90
1:AR:2836:C:H5	1:AR:2852:C:H42	1.20	0.89
36:DJ:78:LYS:HA	36:DJ:81:ARG:HD2	1.54	0.89
66:T:123:ARG:HG3	66:T:133:VAL:HG21	1.55	0.89
63:Q:68:PRO:HG2	63:Q:71:GLU:HB3	1.54	0.89
15:CO:55:ARG:NH2	15:CO:76:ALA:O	2.06	0.89
1:1:3344:A:H2	1:1:3361:G:H21	1.14	0.89
28:AA:83:THR:HG23	28:AA:85:TYR:H	1.38	0.89
36:AI:78:LYS:HA	36:AI:81:ARG:HD2	1.54	0.89
1:AR:2335:G:N7	82:AR:3736:OHX:N5	2.21	0.89
1:AR:3214:U:OP2	15:CO:128:ARG:NH2	2.04	0.88
1:1:3343:G:H21	1:1:3362:A:H2	1.17	0.88
30:AC:18:ARG:O	82:AC:101:OHX:N2	2.06	0.88
11:CK:41:ILE:HD11	11:CK:67:ALA:HB1	1.54	0.88
33:DG:100:ILE:O	33:DG:105:ARG:NH1	2.06	0.88
1:AR:55:G:OP1	38:DL:43:LYS:NZ	2.07	0.88
1:1:3120:C:OP2	82:1:3425:OHX:N3	2.06	0.88
1:AR:1213:G:N7	82:AR:3551:OHX:N6	2.22	0.88
1:1:1852:G:N7	82:1:3511:OHX:N3	2.21	0.88
1:AR:1899:G:N7	82:AR:3446:OHX:N6	2.22	0.88
5:CE:296:THR:HG22	5:CE:298:PHE:H	1.38	0.88
1:AR:1486:G:N7	82:AR:3536:OHX:N4	2.21	0.88
1:AR:3182:G:OP1	17:CQ:160:ARG:NH2	2.07	0.88
1:1:1486:G:N7	82:1:3682:OHX:N2	2.22	0.87
47:A:1159:C:N3	82:A:1892:OHX:N6	2.22	0.87
62:P:85:ALA:H	62:P:119:THR:HG22	1.38	0.87
53:G:51:VAL:O	53:G:65:ARG:NH2	2.08	0.87
6:CF:145:ILE:O	82:CF:401:OHX:N3	2.08	0.86
47:A:1429:G:H1'	68:V:74:GLU:HG2	1.56	0.86
70:X:70:ASN:ND2	70:X:130:TYR:O	2.07	0.86
58:L:56:LYS:HG2	58:L:67:THR:HB	1.57	0.86
82:AR:3610:OHX:N1	5:CE:30:LYS:O	2.09	0.86
3:4:43:A:OP1	82:4:214:OHX:N2	2.09	0.86
1:1:640:U:OP1	29:AB:21:ARG:NH2	2.08	0.85
12:CL:43:VAL:HG21	12:CL:197:VAL:HB	1.58	0.85
1:1:2836:C:H5	1:1:2852:C:H42	1.21	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AS:49:G:N7	7:CG:58:LYS:HG3	1.91	0.85
1:AR:3164:C:N4	1:AR:3286:G:O6	2.08	0.85
8:CH:29:LYS:O	82:CH:201:OHX:N2	2.09	0.85
82:AT:212:OHX:N2	27:DA:114:ASP:OD1	2.09	0.85
40:DN:23:LEU:HD22	40:DN:24:PRO:HD2	1.58	0.85
1:AR:2234:G:N7	82:AR:3463:OHX:N1	2.25	0.85
1:AR:1591:G:OP1	35:DI:16:ARG:NH1	2.09	0.85
3:AT:124:G:OP2	82:AT:211:OHX:N2	2.08	0.85
1:1:1639:C:OP2	35:AH:74:ARG:NH2	2.09	0.85
1:AR:3377:G:O6	82:AR:3591:OHX:N1	2.08	0.85
1:1:1817:G:OP1	82:1:3623:OHX:N1	2.09	0.85
1:AR:2687:G:N7	82:AR:3420:OHX:N1	2.24	0.84
1:AR:1378:U:OP1	82:AR:3530:OHX:N3	2.10	0.84
1:AR:31:C:OP2	16:CP:188:ARG:NH2	2.10	0.84
57:K:109:LEU:HB2	57:K:146:PHE:HB3	1.59	0.84
1:AR:1752:A:OP2	82:AR:3583:OHX:N6	2.11	0.84
1:AR:510:G:O6	82:AR:3526:OHX:N2	2.10	0.84
33:DG:19:ARG:HH11	33:DG:28:VAL:HG13	1.38	0.84
3:4:62:C:O2	82:4:206:OHX:N5	2.11	0.84
47:A:142:G:H22	47:A:173:A:H2	1.23	0.84
1:AR:2962:U:OP1	82:AR:3691:OHX:N4	2.11	0.84
1:AR:283:G:OP2	43:DQ:45:ARG:NH2	2.11	0.84
1:1:2513:U:OP2	82:1:3442:OHX:N3	2.11	0.84
47:A:1564:U:OP1	67:U:38:LYS:NZ	2.10	0.84
47:A:1780:G:OP2	82:A:1830:OHX:N6	2.11	0.84
1:1:3348:G:H1	1:1:3357:U:H3	1.26	0.83
1:AR:2533:G:O6	1:AR:2546:C:N4	2.11	0.83
47:A:169:A:H5''	54:H:176:GLN:HG2	1.60	0.83
1:1:627:U:O4	82:1:3532:OHX:N5	2.11	0.83
1:AR:1840:U:OP2	82:AR:3542:OHX:N4	2.11	0.83
1:1:742:G:O6	82:1:3508:OHX:N1	2.11	0.83
1:AR:1565:G:N2	1:AR:1574:C:N3	2.25	0.83
3:AT:135:G:OP2	26:CZ:56:ARG:NH2	2.12	0.83
7:CG:297:GLN:O	82:CG:302:OHX:N5	2.12	0.83
1:1:2313:A:OP1	82:1:3723:OHX:N3	2.12	0.83
1:AR:508:U:O4	82:AR:3523:OHX:N3	2.12	0.83
1:1:2736:A:OP1	22:2:92:ARG:NH1	2.12	0.82
1:1:1413:G:N7	82:1:3652:OHX:N6	2.26	0.82
47:A:1770:U:O2'	82:A:1870:OHX:N2	2.12	0.82
1:1:1833:G:OP1	40:AM:10:LYS:NZ	2.12	0.82
1:AR:2120:A:OP2	82:AR:3574:OHX:N4	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1734:G:O6	82:AR:3470:OHX:N5	2.13	0.82
27:DA:45:ILE:HD11	27:DA:122:LYS:HB2	1.60	0.82
9:CI:158:LYS:HE2	9:CI:159:GLN:H	1.44	0.82
14:CN:4:SER:O	29:DC:44:ASN:ND2	2.11	0.82
70:X:15:ASN:HD21	70:X:71:LYS:HA	1.44	0.82
1:1:2535:A:H61	1:1:2544:U:H3	1.27	0.82
82:A:1853:OHX:N3	82:A:1853:OHX:N5	2.28	0.82
49:C:58:SER:O	49:C:62:LYS:NZ	2.12	0.82
47:A:1508:U:O4	82:A:1809:OHX:N2	2.12	0.82
1:AR:2841:G:OP2	82:AR:3639:OHX:N5	2.13	0.82
1:AR:916:G:C6	4:CD:207:VAL:HG21	2.14	0.82
1:AR:2703:A:OP2	7:CG:23:ARG:NH1	2.13	0.82
1:AR:1740:U:H1'	1:AR:1741:A:H2	1.45	0.81
1:AR:1878:G:OP1	82:AR:3458:OHX:N5	2.13	0.81
1:1:3353:G:H3'	56:J:162:ALA:HA	1.62	0.81
44:AQ:56:THR:HG22	44:AQ:63:THR:HG23	1.62	0.81
47:A:1369:U:O4	82:A:1873:OHX:N2	2.13	0.81
1:AR:2818:U:H6	1:AR:2818:U:H5'	1.44	0.81
21:O:91:TYR:O	21:O:137:ARG:NH1	2.14	0.81
1:1:18:G:OP1	36:AI:81:ARG:NH2	2.12	0.81
1:AR:2233:A:OP2	82:AR:3463:OHX:N5	2.13	0.81
1:AR:2137:U:OP1	82:AR:3472:OHX:N3	2.13	0.81
1:AR:356:C:OP2	82:AR:3702:OHX:N6	2.13	0.81
47:A:1537:C:N3	82:A:1928:OHX:N3	2.28	0.81
47:A:1672:G:N7	82:A:1822:OHX:N5	2.28	0.81
32:DF:78:LYS:HG2	32:DF:79:ARG:HH21	1.44	0.81
1:1:3166:C:H42	1:1:3284:G:H1	1.29	0.81
1:AR:2744:U:OP1	82:AR:3598:OHX:N1	2.14	0.81
1:AR:2261:G:O2'	1:AR:2263:C:N4	2.13	0.81
1:AR:2187:G:OP2	82:AR:3473:OHX:N4	2.14	0.81
47:A:760:A:OP2	82:A:1839:OHX:N4	2.14	0.81
31:AD:30:THR:HG22	31:AD:91:SER:HB2	1.62	0.81
47:A:1110:G:N7	82:A:1847:OHX:N3	2.28	0.81
1:1:1541:G:OP2	82:1:3553:OHX:N2	2.14	0.81
47:A:1006:C:N3	82:A:1919:OHX:N2	2.29	0.80
33:AF:100:ILE:O	33:AF:105:ARG:NH1	2.14	0.80
1:AR:2679:A:O2'	13:CM:52:TYR:OH	1.99	0.80
1:AR:3352:U:O2'	82:AR:3720:OHX:N5	2.14	0.80
22:CV:39:ILE:HD12	22:CV:102:ARG:HD3	1.63	0.80
1:AR:2977:G:OP1	82:AR:3653:OHX:N4	2.14	0.80
82:AT:204:OHX:N3	38:DL:62:GLY:O	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:A:1935:OHX:N4	54:H:155:ASP:OD1	2.15	0.80
30:AC:14:ARG:NH2	30:AC:18:ARG:HD2	1.97	0.80
1:AR:25:U:O4	82:AR:3408:OHX:N5	2.15	0.80
12:CL:41:ALA:O	12:CL:139:ARG:NH2	2.14	0.80
47:A:1514:U:O2'	51:E:5:ILE:O	2.00	0.80
1:1:2356:A:H61	1:1:2983:C:H5	1.29	0.80
1:1:1409:G:N7	82:1:3600:OHX:N3	2.29	0.80
1:AR:3364:C:OP1	82:AR:3723:OHX:N3	2.14	0.80
1:1:3087:A:OP1	82:1:3705:OHX:N2	2.14	0.80
1:1:543:C:H42	1:1:548:G:H1	1.27	0.80
1:1:637:C:H2'	1:1:638:C:C6	2.17	0.80
1:1:2699:G:OP2	82:1:3441:OHX:N1	2.14	0.80
50:D:137:ILE:HG12	50:D:138:PRO:HD2	1.62	0.80
71:Y:102:VAL:HG12	71:Y:127:VAL:HG12	1.61	0.80
1:1:129:U:O4	82:1:3424:OHX:N5	2.15	0.80
1:1:2818:U:H6	1:1:2818:U:H5'	1.47	0.80
1:1:2960:C:OP1	82:1:3535:OHX:N4	2.15	0.80
59:M:99:ARG:NH1	71:Y:7:ARG:O	2.15	0.80
1:AR:744:A:OP1	19:CS:66:ARG:NH2	2.15	0.79
43:DQ:48:SER:O	82:DQ:502:OHX:N5	2.16	0.79
18:CR:108:ASP:N	18:CR:152:GLU:OE2	2.12	0.79
3:4:95:G:OP2	38:AK:72:ARG:NH1	2.15	0.79
8:CH:40:LEU:HD13	8:CH:84:VAL:HG11	1.63	0.79
1:AR:3098:G:N7	82:AR:3422:OHX:N6	2.30	0.79
1:AR:2679:A:HO2'	13:CM:52:TYR:HH	1.24	0.79
1:1:283:G:OP1	43:AP:45:ARG:NH2	2.14	0.79
82:AR:3406:OHX:N1	3:AT:2:A:OP2	2.16	0.79
5:CE:53:MET:HG2	5:CE:77:THR:HG22	1.65	0.79
54:H:164:LYS:HB3	54:H:167:LYS:HB3	1.65	0.79
1:1:1230:G:H1	1:1:1279:C:H42	1.30	0.79
1:AR:3272:C:OP2	8:CH:78:ARG:NH1	2.16	0.79
11:CK:120:ASP:OD2	11:CK:124:ARG:NH2	2.16	0.79
1:1:3275:U:H5'	34:AG:68:TRP:HZ2	1.46	0.79
16:CP:160:GLU:OE1	16:CP:160:GLU:N	2.14	0.79
1:1:1634:G:N7	28:AA:17:ARG:NH2	2.29	0.79
66:T:36:LYS:HB2	66:T:102:ALA:HA	1.64	0.79
66:T:95:GLY:O	82:T:201:OHX:N2	2.15	0.79
1:1:978:G:O2'	1:1:979:U:O2	2.01	0.79
1:AR:3074:G:OP1	82:AR:3620:OHX:N1	2.16	0.79
1:AR:1650:G:N7	82:AR:3676:OHX:N3	2.31	0.78
18:CR:25:SER:HB3	18:CR:28:ASN:HB2	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1374:G:O6	29:AB:10:LYS:NZ	2.17	0.78
39:DM:44:LYS:HG2	39:DM:53:THR:HB	1.64	0.78
1:1:2794:G:N7	82:1:3468:OHX:N1	2.31	0.78
24:6:13:ILE:HG12	24:6:53:SER:HB2	1.65	0.78
3:4:136:G:OP1	26:8:48:SER:OG	2.00	0.78
47:A:74:U:O2'	47:A:75:U:H5''	1.83	0.78
28:AA:88:ASP:HB3	28:AA:121:ARG:HH22	1.46	0.78
1:AR:1485:G:O6	82:AR:3584:OHX:N1	2.16	0.78
1:AR:1541:G:OP2	82:AR:3597:OHX:N3	2.16	0.78
57:K:93:LEU:HA	57:K:96:VAL:HG13	1.66	0.78
1:1:2233:A:OP2	82:1:3577:OHX:N5	2.16	0.78
47:A:373:G:N7	82:A:1933:OHX:N6	2.30	0.78
1:AR:1563:C:O2	1:AR:1577:G:N2	2.16	0.78
1:AR:3230:G:H4'	15:CO:132:LYS:HD3	1.64	0.78
68:V:106:ILE:HG23	68:V:107:THR:HG23	1.65	0.78
22:2:51:GLY:HA3	22:2:92:ARG:HG3	1.64	0.78
47:A:1382:A:H5''	68:V:60:THR:HG22	1.65	0.78
30:AC:17:HIS:O	82:AC:101:OHX:N2	2.16	0.78
48:B:150:ASP:OD2	48:B:165:ARG:NH2	2.15	0.78
1:1:439:C:H3'	1:1:440:A:H8	1.48	0.78
31:AD:40:LYS:HB3	31:AD:101:LEU:HD11	1.65	0.78
82:AR:3501:OHX:N6	2:AS:86:U:O2	2.17	0.78
19:CS:71:LEU:HD13	19:CS:99:THR:HG21	1.65	0.78
1:1:2717:U:OP1	82:1:3516:OHX:N6	2.17	0.77
47:A:383:G:N7	82:A:1907:OHX:N4	2.31	0.77
1:AR:3344:A:H2	1:AR:3361:G:H21	1.32	0.77
1:1:2916:U:H1'	24:6:44:SER:HB3	1.65	0.77
47:A:149:C:O2'	54:H:132:ARG:NH1	2.17	0.77
1:1:439:C:H3'	1:1:440:A:C8	2.19	0.77
1:AR:789:A:H2'	1:AR:790:U:H6	1.49	0.77
12:CL:220:GLN:O	82:CL:301:OHX:N2	2.17	0.77
56:J:5:ARG:NH1	56:J:29:LEU:O	2.17	0.77
1:AR:3200:G:O6	82:AR:3645:OHX:N2	2.18	0.77
1:AR:412:G:OP1	18:CR:62:ARG:NH1	2.15	0.77
1:1:1440:G:O6	82:1:3459:OHX:N1	2.18	0.77
26:8:80:ASN:HD21	26:8:126:LEU:HB2	1.50	0.77
26:8:86:VAL:HG12	26:8:120:LYS:HB3	1.65	0.77
36:AI:85:THR:HG22	36:AI:88:LEU:H	1.49	0.77
1:AR:1839:A:OP1	82:AR:3536:OHX:N3	2.18	0.77
1:1:24:G:OP2	82:1:3405:OHX:N4	2.17	0.77
1:1:3375:A:O2'	1:1:3378:C:OP2	2.03	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:3117:C:N3	82:AR:3697:OHX:N1	2.32	0.77
43:AP:46:LYS:HD3	43:AP:54:THR:HB	1.67	0.77
1:AR:1447:G:H3'	18:CR:67:ILE:HD11	1.67	0.77
1:AR:801:A:OP1	29:DC:27:LYS:NZ	2.17	0.77
1:AR:1103:A:OP2	1:AR:1103:A:H4'	1.84	0.77
7:CG:76:ALA:HB3	7:CG:109:THR:HG22	1.65	0.77
54:H:163:THR:HG22	54:H:168:THR:HG22	1.66	0.77
47:A:1592:A:H2'	47:A:1593:A:H8	1.50	0.77
37:AJ:25:LYS:HD3	37:AJ:28:TYR:HE1	1.49	0.77
47:A:740:A:H2'	47:A:741:C:H5''	1.67	0.77
39:AL:66:ILE:HD13	39:AL:77:ARG:HH21	1.50	0.77
12:CL:86:HIS:HB3	12:CL:139:ARG:HG2	1.66	0.77
1:1:1634:G:OP1	28:AA:107:ARG:NH1	2.18	0.76
1:1:1485:G:N7	82:1:3509:OHX:N1	2.34	0.76
10:CJ:41:GLN:HG3	10:CJ:44:ARG:HH12	1.51	0.76
47:A:702:G:O6	47:A:736:C:N4	2.15	0.76
4:CD:3:ARG:HB3	4:CD:207:VAL:HG12	1.64	0.76
1:1:2211:U:O4	82:1:3577:OHX:N4	2.18	0.76
47:A:68:A:OP1	54:H:160:ARG:NH2	2.16	0.76
1:AR:80:G:OP2	82:AR:3462:OHX:N1	2.19	0.76
13:CM:87:LYS:NZ	13:CM:105:GLY:O	2.16	0.76
47:A:1291:G:N2	47:A:1324:G:H22	1.84	0.76
1:AR:437:G:N1	1:AR:621:A:N1	2.31	0.76
47:A:1339:C:O2'	47:A:1341:A:N7	2.18	0.76
47:A:693:U:H5'	47:A:694:U:H5'	1.68	0.76
1:AR:2686:A:OP2	82:AR:3420:OHX:N5	2.18	0.76
3:AT:132:G:N7	82:AT:209:OHX:N6	2.33	0.76
1:1:2243:A:OP2	82:1:3723:OHX:N4	2.18	0.76
1:1:1517:G:OP1	40:AM:41:ARG:NH1	2.16	0.76
47:A:738:G:O6	82:A:1874:OHX:N1	2.19	0.76
47:A:823:G:H2'	47:A:824:G:C8	2.20	0.76
47:A:1625:C:OP1	50:D:91:ARG:NH2	2.19	0.76
1:1:1369:A:OP1	29:AB:21:ARG:NH1	2.19	0.76
1:1:2201:G:OP1	82:1:3648:OHX:N1	2.19	0.76
1:AR:129:U:O4	82:AR:3434:OHX:N4	2.17	0.76
1:AR:2146:C:OP1	4:CD:200:ARG:NH1	2.19	0.76
1:AR:687:U:OP2	14:CN:36:ARG:NH2	2.19	0.76
1:1:3128:G:OP2	82:1:3693:OHX:N2	2.19	0.75
25:7:4:GLU:HG2	25:7:30:ARG:HD3	1.68	0.75
1:AR:502:U:OP1	82:CH:201:OHX:N6	2.19	0.75
14:CN:61:PRO:HB2	14:CN:62:THR:HG23	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1427:U:OP2	29:DC:4:ARG:NH2	2.19	0.75
67:U:25:GLN:HE21	67:U:27:LYS:HB2	1.50	0.75
1:1:2187:G:OP2	82:1:3535:OHX:N2	2.20	0.75
1:AR:2308:C:O2	82:AR:3730:OHX:N4	2.17	0.75
1:AR:75:G:H5''	14:CN:58:VAL:HG13	1.66	0.75
4:CD:30:ARG:NH2	4:CD:33:ASP:OD1	2.19	0.75
37:DK:66:GLU:OE2	37:DK:91:ASN:ND2	2.19	0.75
1:1:1148:G:OP2	82:1:3692:OHX:N4	2.19	0.75
36:AI:101:THR:HG22	36:AI:104:GLN:H	1.51	0.75
1:AR:1599:G:OP1	82:AR:3638:OHX:N4	2.19	0.75
1:AR:986:U:OP2	82:AR:3649:OHX:N2	2.19	0.75
5:CE:293:ASN:HB2	5:CE:304:THR:HA	1.66	0.75
13:CM:101:ASN:HB3	13:CM:130:VAL:HA	1.68	0.75
53:G:94:THR:HG22	53:G:114:ILE:HG13	1.68	0.75
47:A:297:U:OP1	52:F:37:LYS:NZ	2.16	0.75
1:AR:947:G:H5''	33:DG:55:ILE:HB	1.68	0.75
1:1:1565:G:N2	1:1:1574:C:N3	2.35	0.75
47:A:1542:G:N2	47:A:1569:A:OP2	2.20	0.75
47:A:992:A:OP1	82:A:1813:OHX:N2	2.19	0.75
1:AR:2854:U:OP2	12:CL:3:ARG:NH2	2.19	0.75
82:AR:3683:OHX:N2	37:DK:28:TYR:O	2.19	0.75
33:AF:81:ASP:O	33:AF:84:THR:HG23	1.85	0.75
11:CK:22:SER:OG	11:CK:23:ARG:N	2.17	0.75
47:A:1015:U:OP1	82:A:1823:OHX:N3	2.19	0.75
7:CG:226:TYR:HE2	7:CG:236:LEU:HD11	1.52	0.75
14:CN:47:ALA:HB3	14:CN:49:ARG:H	1.52	0.75
52:F:158:ASP:OD2	52:F:174:LYS:NZ	2.19	0.75
1:1:2861:U:OP1	82:1:3403:OHX:N1	2.19	0.75
37:AJ:58:ILE:HG22	37:AJ:90:MET:HG3	1.68	0.75
1:AR:1331:U:OP2	82:AR:3402:OHX:N4	2.20	0.75
1:1:3015:G:OP1	82:1:3646:OHX:N5	2.20	0.75
4:CD:27:ALA:O	4:CD:128:ARG:NH2	2.17	0.75
51:E:164:VAL:HG13	51:E:168:ILE:HD11	1.68	0.75
63:Q:36:LEU:H	63:Q:36:LEU:HD23	1.49	0.75
1:1:155:G:H5''	1:1:156:G:C8	2.22	0.74
1:1:2925:C:O2	82:1:3551:OHX:N1	2.19	0.74
47:A:778:G:H3'	47:A:780:A:H2	1.52	0.74
7:CG:209:GLU:OE2	82:CG:301:OHX:N5	2.20	0.74
62:P:81:VAL:HG22	62:P:115:ILE:HB	1.69	0.74
1:AR:23:A:OP1	82:AR:3408:OHX:N4	2.20	0.74
1:1:1015:U:O2'	1:1:1017:C:OP2	2.04	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:992:A:H2	47:A:1012:U:H3	1.34	0.74
5:CE:346:THR:O	5:CE:348:ARG:N	2.20	0.74
14:CN:123:ILE:HG22	36:DJ:118:ILE:HG12	1.69	0.74
36:DJ:38:ARG:HH11	36:DJ:38:ARG:HB2	1.52	0.74
1:1:2956:A:OP1	82:1:3412:OHX:N1	2.20	0.74
47:A:1201:G:O2'	82:A:1888:OHX:N6	2.20	0.74
1:AR:2113:A:OP2	82:AR:3477:OHX:N5	2.19	0.74
1:AR:3151:U:OP2	5:CE:132:LYS:NZ	2.20	0.74
1:1:3224:G:O6	82:1:3427:OHX:N4	2.21	0.74
1:1:1631:C:OP2	28:AA:48:ARG:NH2	2.20	0.74
1:AR:2973:G:O6	82:AR:3619:OHX:N1	2.21	0.74
6:CF:203:ARG:NH1	6:CF:226:GLU:OE2	2.20	0.74
11:CK:163:GLN:O	11:CK:166:ARG:NH1	2.20	0.74
12:CL:84:ALA:O	12:CL:140:THR:HG22	1.88	0.74
53:G:51:VAL:HG22	53:G:131:GLN:HB2	1.68	0.74
1:AR:2108:C:H1'	1:AR:3344:A:C8	2.21	0.74
31:DE:100:ILE:HG13	31:DE:101:LEU:HD22	1.69	0.74
31:DE:24:THR:HG22	31:DE:91:SER:HB3	1.67	0.74
1:1:155:G:H1'	37:AJ:26:ILE:HD13	1.67	0.74
1:1:718:G:C2	1:1:721:G:H1'	2.23	0.74
47:A:1592:A:H2'	47:A:1593:A:C8	2.22	0.74
47:A:559:C:N4	47:A:586:G:O6	2.20	0.74
52:F:180:LEU:HD23	52:F:194:THR:HG22	1.70	0.74
55:I:50:ASP:OD1	55:I:50:ASP:N	2.21	0.74
1:1:1213:G:H4'	21:O:90:MET:HG2	1.70	0.74
47:A:1139:A:OP2	82:A:1843:OHX:N5	2.21	0.74
47:A:190:C:N4	47:A:196:G:O6	2.19	0.74
1:AR:2284:C:O2	82:AR:3674:OHX:N1	2.21	0.74
1:AR:2319:U:OP1	82:AR:3503:OHX:N5	2.21	0.74
47:A:1034:C:HO2'	70:X:2:THR:N	1.85	0.74
47:A:62:A:OP1	82:A:1844:OHX:N4	2.20	0.74
40:AM:9:ILE:HG22	40:AM:13:MET:HE2	1.70	0.74
1:AR:1661:G:H2'	1:AR:1662:G:C8	2.23	0.74
1:AR:758:C:H42	1:AR:773:G:H1	1.33	0.74
8:CH:100:LYS:HE2	8:CH:105:TYR:HE2	1.53	0.74
1:1:864:G:OP2	82:1:3417:OHX:N2	2.21	0.74
47:A:542:A:H8	47:A:543:C:H5'	1.51	0.74
39:AL:5:ILE:HG22	39:AL:54:LEU:HB2	1.68	0.74
18:CR:125:GLN:HB2	18:CR:141:SER:HB2	1.68	0.74
47:A:1370:U:O4	82:A:1897:OHX:N5	2.20	0.73
29:AB:6:THR:HG23	29:AB:8:THR:HG23	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2258:U:OP1	82:AR:3449:OHX:N4	2.21	0.73
1:AR:2537:U:H3	1:AR:2542:U:H3	1.35	0.73
50:D:40:LYS:HB3	50:D:247:ALA:HB1	1.69	0.73
1:1:2579:G:O6	82:1:3460:OHX:N6	2.21	0.73
47:A:1748:G:O6	82:A:1882:OHX:N4	2.21	0.73
53:G:125:THR:O	53:G:127:GLN:HB2	1.88	0.73
47:A:1181:U:O4	82:A:1895:OHX:N6	2.20	0.73
1:AR:2560:C:O2	82:AR:3534:OHX:N2	2.20	0.73
49:C:77:GLU:OE1	62:P:114:ARG:NH2	2.22	0.73
5:CE:284:ARG:NH2	5:CE:295:ALA:O	2.22	0.73
1:1:3396:U:OP2	82:1:3676:OHX:N2	2.21	0.73
1:AR:581:U:O4	82:AR:3526:OHX:N6	2.21	0.73
7:CG:294:ALA:O	82:CG:302:OHX:N2	2.22	0.73
1:1:1430:U:O4	29:AB:3:SER:OG	2.06	0.73
1:1:3087:A:OP2	82:1:3705:OHX:N6	2.22	0.73
24:6:74:MET:HG3	24:6:102:ILE:HD13	1.69	0.73
1:1:2295:A:OP1	24:6:63:LYS:NZ	2.21	0.73
29:AB:28:HIS:CD2	29:AB:32:ARG:HG2	2.23	0.73
47:A:522:U:H5"	72:Z:37:LYS:HG3	1.70	0.73
1:AR:902:G:O6	82:AR:3478:OHX:N4	2.21	0.73
1:AR:3115:C:OP1	11:CK:62:ARG:NH2	2.22	0.73
1:1:1320:C:O2	21:0:115:ARG:NH2	2.22	0.73
1:1:790:U:OP1	82:1:3450:OHX:N5	2.21	0.73
29:AB:85:ASP:OD1	29:AB:86:LYS:N	2.22	0.73
13:CM:37:LEU:HD13	13:CM:69:VAL:HG12	1.71	0.73
1:AR:1440:G:N7	82:AR:3465:OHX:N6	2.37	0.73
67:U:52:GLY:HA2	67:U:55:TYR:HD2	1.52	0.73
44:AQ:84:ARG:NH1	44:AQ:88:GLU:OE1	2.21	0.73
56:J:147:ALA:HA	56:J:149:SER:H	1.51	0.73
1:1:1596:C:H2'	1:1:1597:C:C6	2.24	0.72
1:1:1887:A:OP2	82:1:3426:OHX:N4	2.22	0.72
1:1:3065:G:O6	82:1:3662:OHX:N3	2.23	0.72
3:4:133:G:O6	82:4:207:OHX:N5	2.21	0.72
37:DK:70:ARG:HD3	37:DK:84:LYS:HG2	1.71	0.72
82:1:3668:OHX:N6	40:AM:48:LYS:O	2.23	0.72
3:4:135:G:OP2	26:8:56:ARG:NH2	2.22	0.72
1:1:1599:G:OP1	82:1:3617:OHX:N5	2.22	0.72
9:CI:157:ASN:O	9:CI:159:GLN:HG2	1.88	0.72
55:I:50:ASP:HB3	55:I:56:LYS:HG2	1.70	0.72
1:1:2261:G:O6	82:1:3467:OHX:N4	2.22	0.72
71:Y:75:GLN:HG3	71:Y:82:LYS:HG3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:269:G:O6	82:1:3612:OHX:N5	2.23	0.72
1:AR:1538:G:OP2	82:AR:3508:OHX:N4	2.23	0.72
1:AR:1852:G:N7	82:AR:3542:OHX:N6	2.38	0.72
1:AR:1381:A:OP1	6:CF:197:ARG:NH1	2.23	0.72
35:DI:8:ARG:HH21	35:DI:31:ARG:HD2	1.55	0.72
60:N:66:VAL:HG11	60:N:71:ILE:HD12	1.70	0.72
1:1:1134:G:N7	82:1:3487:OHX:N5	2.37	0.72
41:AN:78:ILE:HG12	41:AN:83:LYS:HG3	1.70	0.72
1:AR:789:A:H2'	1:AR:790:U:C6	2.25	0.72
82:AR:3504:OHX:N2	9:CI:217:PRO:HA	2.05	0.72
16:CP:96:ARG:NH2	16:CP:104:GLU:OE1	2.22	0.72
53:G:49:GLU:O	53:G:51:VAL:N	2.22	0.72
47:A:1537:C:O2	47:A:1571:C:N4	2.22	0.72
32:AE:31:ARG:HH11	32:AE:31:ARG:HB3	1.54	0.72
1:AR:2717:U:OP1	82:AR:3571:OHX:N5	2.22	0.72
55:I:38:LEU:HD23	55:I:41:LEU:HD12	1.71	0.72
1:1:240:U:H4'	1:1:241:G:H5'	1.72	0.71
1:1:2972:G:H2'	1:1:2973:G:H8	1.55	0.71
47:A:1041:G:H2'	47:A:1042:G:C8	2.24	0.71
5:CE:147:GLU:OE2	5:CE:150:ARG:NH1	2.22	0.71
1:AR:1345:G:N7	82:AR:3569:OHX:N5	2.39	0.71
23:5:51:GLY:O	23:5:52:ASN:ND2	2.14	0.71
47:A:1002:G:N1	47:A:1761:U:OP1	2.23	0.71
47:A:1488:G:H3'	47:A:1515:A:H61	1.54	0.71
82:A:1809:OHX:N3	82:A:1920:OHX:N1	2.38	0.71
1:AR:3375:A:O2'	1:AR:3378:C:OP2	2.08	0.71
1:AR:891:G:OP1	82:AR:3418:OHX:N6	2.23	0.71
15:CO:16:GLU:HB3	21:CU:149:LYS:HB3	1.72	0.71
34:DH:14:LEU:HD11	34:DH:31:LYS:HB2	1.71	0.71
36:DJ:85:THR:HG22	36:DJ:88:LEU:H	1.55	0.71
1:1:1233:G:H22	1:1:1255:C:H42	1.36	0.71
29:AB:94:ALA:HB1	29:AB:121:VAL:HG13	1.71	0.71
1:AR:1507:G:N7	18:CR:129:THR:HG22	2.05	0.71
65:S:26:LEU:HD13	65:S:59:LYS:HG3	1.71	0.71
1:1:2369:G:OP2	82:1:3407:OHX:N2	2.24	0.71
1:1:2749:G:N7	82:1:3645:OHX:N1	2.38	0.71
1:1:2982:A:N1	82:1:3722:OHX:N4	2.38	0.71
47:A:915:A:OP1	82:A:1872:OHX:N3	2.24	0.71
1:1:838:G:O6	44:AQ:4:ARG:NH2	2.23	0.71
1:AR:371:G:O6	82:AR:3698:OHX:N2	2.23	0.71
1:1:2371:G:O6	82:1:3407:OHX:N4	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1887:A:OP1	82:AR:3616:OHX:N3	2.23	0.71
3:AT:77:A:OP2	82:AT:207:OHX:N1	2.23	0.71
1:1:979:U:H1'	1:1:980:A:C8	2.26	0.71
47:A:1690:G:N2	47:A:1711:C:O2	2.24	0.71
1:AR:655:C:H2'	1:AR:656:A:C8	2.25	0.71
47:A:1291:G:H22	47:A:1324:G:H22	1.39	0.71
1:AR:2977:G:OP2	82:AR:3653:OHX:N6	2.24	0.71
36:DJ:10:ARG:NH1	36:DJ:60:GLU:OE1	2.24	0.71
1:AR:3049:A:H5'	1:AR:3049:A:H8	1.55	0.71
16:CP:31:ARG:NH1	16:CP:124:ASP:OD2	2.23	0.71
1:1:1657:C:OP2	82:1:3664:OHX:N1	2.23	0.70
1:1:2259:A:OP2	82:1:3467:OHX:N2	2.24	0.70
47:A:823:G:H2'	47:A:824:G:H8	1.56	0.70
28:AA:52:LYS:O	28:AA:65:ARG:NH1	2.23	0.70
1:1:3276:G:H22	34:AG:60:ARG:HH22	1.37	0.70
1:AR:1549:U:O4	82:AR:3694:OHX:N2	2.24	0.70
1:1:2193:U:O2'	82:1:3723:OHX:N2	2.24	0.70
47:A:1317:C:OP2	82:A:1863:OHX:N3	2.24	0.70
5:CE:387:LEU:O	82:CE:402:OHX:N2	2.23	0.70
64:R:82:ARG:HH22	64:R:114:ARG:HB2	1.57	0.70
1:1:2310:U:OP1	82:1:3666:OHX:N1	2.23	0.70
1:1:2768:U:H2'	1:1:2769:A:H8	1.56	0.70
4:CD:111:THR:HB	4:CD:136:ILE:HD13	1.72	0.70
32:DF:5:LYS:HA	32:DF:89:LEU:HD21	1.73	0.70
1:AR:981:U:O2'	1:AR:982:C:OP1	2.09	0.70
1:AR:801:A:O2'	82:AR:3531:OHX:N1	2.24	0.70
6:CF:122:THR:HG22	6:CF:235:LEU:HB2	1.74	0.70
23:CW:49:ASN:O	23:CW:49:ASN:ND2	2.24	0.70
67:U:37:VAL:HG11	67:U:100:ILE:HD11	1.73	0.70
1:1:1815:U:O2'	1:1:1816:A:OP2	2.08	0.70
1:1:408:A:OP1	82:1:3589:OHX:N3	2.24	0.70
1:1:626:U:O4	82:1:3532:OHX:N3	2.25	0.70
32:DF:84:ASP:N	32:DF:84:ASP:OD1	2.25	0.70
65:S:13:SER:HA	65:S:54:THR:HG22	1.73	0.70
47:A:1502:G:O6	67:U:102:ARG:NH2	2.24	0.70
1:1:1161:G:OP2	82:1:3500:OHX:N2	2.25	0.70
1:1:904:A:OP2	38:AK:30:GLN:NE2	2.24	0.70
41:AN:82:LEU:HB3	63:Q:93:VAL:HG22	107.81	0.70
1:AR:3263:G:N7	82:AR:3621:OHX:N2	2.39	0.70
82:AR:3443:OHX:N1	82:AR:3723:OHX:N4	2.39	0.70
5:CE:221:THR:HG22	5:CE:273:HIS:H	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:36:LYS:NZ	11:CK:152:GLU:OE1	2.25	0.70
15:CO:89:ALA:HB1	15:CO:92:GLU:HG3	1.72	0.70
24:6:80:ARG:HH12	24:6:116:GLY:HA3	1.56	0.70
47:A:1303:U:O4	82:A:1855:OHX:N6	2.25	0.70
1:1:772:U:H2'	1:1:773:G:C8	2.27	0.70
3:4:126:A:O2'	3:4:128:U:OP1	2.10	0.70
47:A:355:G:OP2	82:A:1814:OHX:N4	2.25	0.70
1:AR:2953:U:H2'	1:AR:2954:U:H2'	1.73	0.70
49:C:123:ALA:HB2	49:C:165:ARG:HG2	1.71	0.70
82:AR:3733:OHX:N1	16:CP:95:GLN:OE1	2.24	0.70
6:CF:300:ARG:O	19:CS:39:ARG:NH1	2.24	0.70
47:A:1073:G:H2'	47:A:1074:G:H5''	1.72	0.70
47:A:872:G:O6	82:A:1903:OHX:N3	2.25	0.70
3:AT:106:C:O2'	82:AT:216:OHX:N5	2.24	0.70
12:CL:174:THR:HG23	12:CL:176:LEU:N	2.02	0.70
52:F:139:VAL:HG13	52:F:150:PRO:HG3	1.74	0.70
50:D:53:ILE:HB	53:G:57:SER:HB3	86.24	0.70
47:A:732:G:O2'	47:A:733:A:O4'	2.10	0.69
1:AR:300:G:O6	82:AR:3685:OHX:N2	2.25	0.69
1:AR:1076:C:H4'	30:DD:38:LYS:HD3	1.73	0.69
1:1:2534:G:H2'	1:1:2535:A:H8	1.55	0.69
36:AI:92:LEU:HB3	36:AI:96:GLU:HB2	1.74	0.69
1:AR:1170:A:OP2	82:AR:3504:OHX:N3	2.25	0.69
50:D:39:THR:O	50:D:42:GLY:N	2.23	0.69
52:F:106:LYS:O	52:F:187:ARG:NH2	2.25	0.69
1:1:1740:U:H1'	1:1:1741:A:H2	1.57	0.69
1:AR:1696:A:OP2	82:AR:3680:OHX:N6	2.24	0.69
5:CE:296:THR:HG22	5:CE:298:PHE:N	2.07	0.69
6:CF:82:THR:HG23	6:CF:84:ARG:H	1.55	0.69
30:DD:5:LYS:HE2	30:DD:8:THR:HB	1.74	0.69
1:AR:576:C:OP1	9:CI:241:LYS:NZ	2.26	0.69
64:R:32:ASN:N	64:R:67:VAL:O	2.25	0.69
1:1:1567:U:O2	1:1:1571:A:N6	2.26	0.69
1:AR:2927:C:H2'	1:AR:2928:C:C6	2.28	0.69
2:AS:39:C:N3	13:CM:70:THR:HG23	2.08	0.69
1:1:1235:U:H4'	1:1:1236:G:H5'	1.75	0.69
47:A:42:G:N7	82:A:1818:OHX:N4	2.41	0.69
47:A:916:U:H3	62:P:41:ARG:NH2	1.91	0.69
1:AR:3353:G:OP2	82:AR:3720:OHX:N1	2.25	0.69
49:C:129:THR:HA	49:C:177:GLN:HA	1.74	0.69
7:CG:107:ARG:HH22	7:CG:120:LYS:HA	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:105:LYS:HB3	18:CR:107:LEU:HD13	1.74	0.69
36:DJ:101:THR:HG22	36:DJ:104:GLN:HB2	1.74	0.69
47:A:144:U:H5	54:H:137:ARG:HH12	1.40	0.69
1:1:381:U:O4	82:1:3595:OHX:N4	2.24	0.69
1:AR:1155:C:O2'	1:AR:1197:A:N1	2.23	0.69
1:AR:2400:G:O2'	1:AR:2401:A:OP1	2.10	0.69
1:AR:567:G:O6	82:AR:3632:OHX:N2	2.25	0.69
1:AR:860:G:OP1	44:DR:17:ARG:NH1	2.26	0.69
49:C:70:LEU:HA	49:C:73:LEU:HB3	1.75	0.69
6:CF:20:LEU:HD11	6:CF:252:GLU:HG3	1.75	0.69
8:CH:58:LEU:HD21	8:CH:64:LEU:HB2	1.75	0.69
35:DI:58:ARG:HG3	35:DI:59:PRO:HD2	1.75	0.69
57:K:110:GLN:NE2	57:K:122:VAL:O	2.26	0.69
48:B:55:GLU:OE2	69:W:80:LYS:N	2.26	0.69
1:1:517:G:O6	82:1:3641:OHX:N2	2.26	0.69
30:AC:16:ALA:O	30:AC:20:GLY:HA2	1.93	0.69
53:G:62:VAL:HG13	53:G:89:ILE:HG12	1.74	0.69
13:CM:34:SER:HB2	13:CM:67:VAL:HG11	1.75	0.69
1:1:1201:C:O2	82:1:3554:OHX:N4	2.26	0.69
47:A:1114:G:O2'	47:A:1130:G:O6	2.10	0.69
47:A:123:G:H21	52:F:146:THR:HG21	1.56	0.69
47:A:598:U:OP2	82:A:1896:OHX:N5	2.26	0.69
47:A:434:G:H5'	71:Y:78:LYS:HB3	1.75	0.69
49:C:104:ASP:HA	49:C:214:LYS:HE2	1.73	0.69
66:T:83:ALA:HA	66:T:86:LEU:HD23	1.75	0.69
47:A:523:G:O6	82:A:1831:OHX:N4	2.26	0.69
1:1:353:G:N7	38:AK:55:ARG:HD3	2.07	0.69
1:AR:3055:U:O2'	1:AR:3057:U:OP1	2.10	0.69
1:AR:3155:U:H3'	1:AR:3156:U:H4'	1.75	0.69
1:AR:1171:G:O6	82:AR:3504:OHX:N1	2.26	0.69
1:1:3088:G:OP2	82:1:3705:OHX:N3	2.26	0.68
2:3:75:G:OP1	82:3:201:OHX:N6	2.26	0.68
47:A:1665:U:O4	82:A:1911:OHX:N3	2.26	0.68
1:AR:2234:G:O6	82:AR:3463:OHX:N4	2.25	0.68
50:D:56:ILE:HG23	50:D:61:LEU:HB2	1.74	0.68
64:R:110:THR:HA	64:R:113:ASP:HB2	1.75	0.68
71:Y:7:ARG:HH11	71:Y:7:ARG:HB2	1.57	0.68
11:CK:189:GLU:C	11:CK:191:LEU:H	1.95	0.68
56:J:57:ALA:HB2	56:J:177:GLY:HA2	1.73	0.68
70:X:27:ILE:HG12	70:X:61:ILE:HB	1.75	0.68
1:1:3118:C:H4'	41:AN:106:ARG:HH22	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:123:G:N7	82:4:210:OHX:N4	2.41	0.68
47:A:1486:G:OP2	82:A:1877:OHX:N2	2.26	0.68
47:A:1238:A:OP2	82:A:1825:OHX:N2	2.26	0.68
7:CG:64:ILE:HD12	7:CG:109:THR:HG21	1.75	0.68
15:CO:11:ASN:ND2	15:CO:11:ASN:O	2.25	0.68
1:1:1940:G:H21	1:1:3362:A:H8	1.41	0.68
1:1:2516:U:O2'	1:1:2595:A:N6	2.27	0.68
1:1:2927:C:H2'	1:1:2928:C:C6	2.29	0.68
1:1:3026:G:O6	82:1:3473:OHX:N4	2.26	0.68
47:A:1034:C:OP1	61:O:9:LYS:NZ	2.24	0.68
82:AR:3443:OHX:N5	82:AR:3723:OHX:N3	2.41	0.68
14:CN:165:SER:O	14:CN:167:PHE:N	2.26	0.68
3:AT:59:A:O2'	26:CZ:61:LYS:NZ	2.27	0.68
3:AT:100:U:OP2	82:AT:205:OHX:N1	2.26	0.68
50:D:38:VAL:HG13	50:D:39:THR:HG23	1.74	0.68
50:D:45:VAL:HG21	50:D:68:ILE:HG23	1.75	0.68
34:DH:49:ILE:HG23	34:DH:100:ILE:HG13	1.75	0.68
52:F:71:LYS:HG3	52:F:91:THR:HB	1.75	0.68
64:R:32:ASN:HD21	64:R:69:VAL:H	1.42	0.68
47:A:209:U:H2'	47:A:210:A:C8	2.28	0.68
47:A:422:G:OP1	82:A:1820:OHX:N6	2.27	0.68
47:A:65:A:OP1	54:H:176:GLN:NE2	2.24	0.68
1:AR:1796:G:O6	82:AR:3717:OHX:N5	2.26	0.68
12:CL:33:ILE:HD11	12:CL:36:LEU:HD23	1.75	0.68
43:DQ:38:GLN:NE2	43:DQ:38:GLN:O	2.23	0.68
55:I:11:GLN:HG3	55:I:13:PRO:HD2	1.76	0.68
56:J:36:THR:HB	56:J:57:ALA:O	1.93	0.68
1:1:2767:U:O2'	43:AP:30:ALA:O	2.11	0.68
1:1:1599:G:OP1	82:1:3681:OHX:N5	2.26	0.68
1:AR:770:G:O6	82:AR:3600:OHX:N3	2.27	0.68
24:CX:133:SER:O	82:CX:202:OHX:N3	2.27	0.68
30:DD:14:ARG:HH12	30:DD:18:ARG:HH11	1.40	0.68
55:I:50:ASP:HA	55:I:56:LYS:HA	1.76	0.68
50:D:143:TYR:O	70:X:98:GLN:NE2	2.27	0.68
47:A:641:G:H1	47:A:693:U:H3	1.42	0.68
28:AA:46:ILE:HD13	28:AA:68:ILE:HG23	1.75	0.68
8:CH:175:LYS:O	15:CO:117:ARG:NH2	2.26	0.68
1:1:679:U:OP2	82:1:3643:OHX:N6	2.27	0.68
39:AL:24:THR:HG23	39:AL:44:LYS:HB2	1.74	0.68
1:AR:1924:U:OP1	42:DP:25:LYS:NZ	2.26	0.68
1:AR:18:G:O6	82:AT:210:OHX:N3	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B:134:LYS:O	48:B:137:SER:OG	2.09	0.68
72:Z:39:GLU:HG2	72:Z:43:LYS:HE2	1.76	0.68
47:A:1331:A:OP1	65:S:45:ARG:NH2	2.26	0.68
47:A:1678:A:OP1	56:J:59:ARG:NH1	2.25	0.68
29:AB:95:SER:HA	29:AB:122:PRO:HG2	1.75	0.68
1:AR:621:A:O2'	82:AR:3623:OHX:N6	2.26	0.68
11:CK:57:VAL:HG23	11:CK:68:LEU:HG	1.76	0.68
14:CN:48:PRO:HA	14:CN:137:GLN:HB2	1.76	0.68
54:H:148:SER:O	54:H:150:GLU:N	2.26	0.68
48:B:154:GLU:HA	69:W:63:GLY:HA2	1.77	0.68
47:A:1482:C:OP2	47:A:1521:G:N2	2.27	0.67
1:AR:2871:G:H5''	1:AR:2872:A:H5'	1.75	0.67
1:1:1103:A:H4'	1:1:1103:A:OP2	1.94	0.67
1:1:1056:U:O2	82:1:3518:OHX:N4	2.27	0.67
1:AR:3026:G:O6	82:AR:3441:OHX:N3	2.27	0.67
60:N:63:VAL:HG11	60:N:94:ALA:HA	1.75	0.67
1:1:3194:C:O2'	1:1:3195:U:O2	2.13	0.67
1:1:2942:C:O2	82:1:3661:OHX:N5	2.27	0.67
47:A:1015:U:OP1	82:A:1823:OHX:N5	2.27	0.67
47:A:1173:C:OP1	66:T:132:ARG:NH1	2.28	0.67
1:AR:3374:U:O4	82:AR:3728:OHX:N5	2.26	0.67
7:CG:34:LYS:O	7:CG:38:THR:HG23	1.94	0.67
1:1:2974:U:O4	82:1:3631:OHX:N5	2.27	0.67
1:AR:3092:C:O2'	1:AR:3094:A:OP2	2.12	0.67
1:AR:3208:G:O3'	21:CU:161:LYS:NZ	2.26	0.67
50:D:53:ILE:HG23	50:D:72:LEU:HD23	1.75	0.67
65:S:23:LYS:HB3	65:S:34:LEU:HD11	1.77	0.67
1:1:2572:C:O2'	1:1:2573:G:O4'	2.12	0.67
1:1:662:U:OP1	29:AB:8:THR:HG21	1.95	0.67
1:AR:1095:U:H4'	1:AR:1096:U:H5''	1.76	0.67
18:CR:25:SER:O	18:CR:29:THR:HG23	1.94	0.67
47:A:1550:A:OP2	63:Q:42:ARG:NH2	2.28	0.67
71:Y:79:ASN:HB3	71:Y:81:LYS:H	1.60	0.67
1:1:2768:U:H2'	1:1:2769:A:C8	2.30	0.67
47:A:1101:G:H5''	70:X:76:SER:HB3	1.77	0.67
47:A:1628:U:H2'	47:A:1629:G:C8	2.29	0.67
47:A:138:A:OP2	47:A:1706:C:O2'	2.11	0.67
47:A:761:G:OP1	57:K:54:ARG:NH1	2.27	0.67
1:1:3275:U:H5'	34:AG:68:TRP:CZ2	2.27	0.67
1:AR:3325:G:OP1	32:DF:102:LYS:NZ	2.28	0.67
18:CR:178:ALA:HA	18:CR:181:ARG:HG2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DP:16:LYS:O	42:DP:20:VAL:HG23	1.95	0.67
1:AR:1878:G:H5'	82:AR:3458:OHX:N5	2.10	0.67
47:A:855:A:C2	47:A:857:U:H1'	2.29	0.67
1:AR:1542:G:N7	82:AR:3597:OHX:N3	2.42	0.67
1:AR:155:G:H5''	1:AR:156:G:C8	2.29	0.67
1:AR:1454:A:OP1	82:AR:3688:OHX:N6	2.27	0.67
8:CH:31:ARG:NH1	34:DH:107:ILE:O	2.27	0.67
60:N:103:LEU:HG	60:N:116:VAL:HG22	1.76	0.67
71:Y:6:PRO:HG3	71:Y:14:LYS:HG2	1.77	0.67
1:1:1853:U:OP2	82:1:3567:OHX:N4	2.28	0.67
47:A:591:A:H2'	47:A:592:A:C8	2.29	0.67
1:AR:2263:C:H1'	1:AR:2264:U:H5'	1.77	0.67
1:AR:837:A:OP2	44:DR:4:ARG:NH1	2.26	0.67
3:AT:63:G:O2'	36:DJ:49:LYS:NZ	2.28	0.67
10:CJ:100:GLU:OE2	10:CJ:108:ARG:NH1	2.27	0.67
66:T:83:ALA:HA	66:T:117:LYS:HE3	27.08	0.67
1:1:523:A:OP2	82:1:3536:OHX:N5	2.28	0.66
47:A:1711:C:H2'	47:A:1712:A:H5''	1.75	0.66
47:A:647:G:N2	47:A:687:G:H22	1.93	0.66
1:1:789:A:H2'	1:1:790:U:C6	2.30	0.66
27:9:63:LYS:HE3	27:9:97:ILE:HD13	1.75	0.66
47:A:377:G:O6	82:A:1856:OHX:N5	2.28	0.66
1:AR:2428:U:O4	82:AR:3708:OHX:N5	2.28	0.66
1:AR:3343:G:H21	1:AR:3362:A:H2	1.39	0.66
1:AR:994:G:N7	82:AR:3412:OHX:N2	2.42	0.66
6:CF:91:GLY:HA3	6:CF:93:MET:HE1	1.77	0.66
66:T:97:ASP:OD1	82:T:201:OHX:N6	2.28	0.66
21:0:91:TYR:OH	21:0:93:GLU:OE2	2.09	0.66
1:1:1769:G:N7	82:1:3695:OHX:N4	2.42	0.66
1:AR:107:A:OP1	14:CN:39:ARG:NH1	2.29	0.66
1:1:2573:G:O6	82:1:3531:OHX:N3	2.29	0.66
82:A:1809:OHX:N6	82:A:1920:OHX:N5	2.43	0.66
47:A:471:A:OP2	82:A:1854:OHX:N4	2.29	0.66
47:A:52:U:OP2	82:A:1850:OHX:N3	2.29	0.66
1:AR:1525:G:N7	82:AR:3550:OHX:N3	2.43	0.66
1:AR:381:U:O4	82:AR:3695:OHX:N2	2.29	0.66
7:CG:196:ARG:NH2	7:CG:237:GLU:OE1	2.27	0.66
1:1:201:A:OP2	82:1:3478:OHX:N6	2.27	0.66
1:AR:2209:U:O2'	1:AR:2210:G:OP1	2.11	0.66
13:CM:60:ARG:O	13:CM:63:GLU:HB2	1.96	0.66
50:D:144:TRP:CE2	50:D:173:PRO:HG3	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DR:49:ARG:HB2	44:DR:55:TRP:CZ3	2.30	0.66
52:F:193:GLY:HA2	52:F:212:ASP:HA	1.77	0.66
1:1:953:G:OP1	30:AC:15:LYS:NZ	2.28	0.66
31:AD:17:VAL:HG11	31:AD:92:ILE:HD12	1.76	0.66
82:1:3719:OHX:N6	82:AE:201:OHX:N5	2.43	0.66
1:AR:2299:A:OP2	82:AR:3461:OHX:N1	2.28	0.66
5:CE:139:GLN:NE2	5:CE:140:ASP:OD1	2.28	0.66
52:F:151:ASP:HB3	52:F:154:ILE:HG13	1.76	0.66
32:AE:54:GLU:N	32:AE:54:GLU:OE2	2.22	0.66
19:CS:22:ASP:HA	19:CS:27:LYS:HE3	1.77	0.66
20:CT:13:SER:OG	20:CT:38:ARG:NH2	2.28	0.66
55:I:89:HIS:ND1	55:I:168:SER:OG	2.26	0.66
1:1:742:G:N7	82:1:3508:OHX:N5	2.44	0.66
47:A:829:A:O2'	47:A:830:U:OP2	2.14	0.66
38:AK:21:ARG:NH2	38:AK:41:ALA:O	2.20	0.66
64:R:112:TYR:OH	64:R:114:ARG:NH1	2.27	0.66
2:3:112:G:OP2	82:3:207:OHX:N3	2.29	0.66
47:A:1562:G:OP1	67:U:89:ARG:NH2	2.29	0.66
47:A:720:G:H1'	47:A:721:U:H5''	1.78	0.66
1:AR:1853:U:OP2	82:AR:3559:OHX:N2	2.29	0.66
15:CO:19:ARG:HA	15:CO:69:THR:HG22	1.78	0.66
55:I:150:GLN:HB3	55:I:181:ILE:HD12	1.77	0.66
68:V:48:HIS:ND1	68:V:48:HIS:O	2.29	0.66
1:1:1495:U:H5	1:1:1835:A:N1	1.94	0.66
1:1:1919:G:N7	82:1:3547:OHX:N2	2.43	0.66
47:A:649:U:O2'	47:A:650:U:O5'	2.13	0.66
22:2:88:ARG:NH2	30:AC:33:LYS:O	2.27	0.66
34:AG:35:VAL:HG13	34:AG:40:ASP:HB3	1.77	0.66
1:AR:2260:U:OP2	82:AR:3624:OHX:N1	2.29	0.66
33:DG:40:SER:O	33:DG:44:ARG:HG3	1.95	0.66
47:A:1500:C:H5''	67:U:102:ARG:HD3	1.77	0.66
1:1:1538:G:OP2	82:1:3663:OHX:N1	2.29	0.65
1:1:2211:U:OP2	82:1:3714:OHX:N1	2.28	0.65
1:AR:2610:G:O6	82:AR:3669:OHX:N3	2.28	0.65
47:A:885:G:OP1	49:C:136:ARG:NH1	2.29	0.65
32:DF:19:ARG:HD3	32:DF:35:GLU:HG3	1.78	0.65
36:DJ:76:GLN:O	36:DJ:81:ARG:NH1	2.29	0.65
71:Y:69:ARG:NH1	71:Y:116:ASP:OD2	2.29	0.65
1:AR:288:C:OP1	16:CP:170:LYS:NZ	2.29	0.65
1:AR:979:U:H1'	1:AR:980:A:N7	2.11	0.65
49:C:61:LEU:O	49:C:62:LYS:NZ	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:E:208:ILE:HD12	65:S:16:LEU:HD21	1.77	0.65
66:T:99:HIS:HD2	66:T:101:LEU:HD21	1.62	0.65
1:1:2674:A:OP2	82:1:3581:OHX:N3	2.29	0.65
2:3:58:C:H2'	2:3:59:U:H6	1.62	0.65
47:A:1500:C:OP1	67:U:122:ARG:NH2	2.28	0.65
47:A:1239:U:O4	82:A:1825:OHX:N6	2.29	0.65
82:A:1809:OHX:N6	82:A:1920:OHX:N2	2.44	0.65
36:AI:89:ARG:HH11	36:AI:89:ARG:HG2	1.60	0.65
1:AR:1235:U:H4'	1:AR:1236:G:H5'	1.78	0.65
1:AR:2211:U:O4	82:AR:3463:OHX:N4	2.28	0.65
1:AR:412:G:H1'	18:CR:120:ASN:HB3	1.77	0.65
19:CS:170:ARG:HH11	29:DC:57:GLY:H	1.43	0.65
44:DR:7:LYS:O	44:DR:27:LYS:NZ	2.30	0.65
1:1:3316:A:OP1	1:1:3318:G:N2	2.29	0.65
47:A:1564:U:H2'	47:A:1565:C:C6	2.31	0.65
47:A:656:G:O2'	47:A:657:U:O4'	2.15	0.65
1:AR:1721:U:O4	20:CT:128:LYS:NZ	2.27	0.65
71:Y:126:LYS:HB3	71:Y:131:SER:H	1.61	0.65
28:AA:129:TRP:O	28:AA:132:SER:OG	2.14	0.65
1:AR:3284:G:OP1	82:AR:3677:OHX:N3	2.30	0.65
4:CD:36:GLU:OE1	4:CD:163:ARG:NH1	2.28	0.65
18:CR:126:ARG:HH21	18:CR:138:LYS:HB3	1.61	0.65
1:1:1724:U:H1'	1:1:1725:C:C6	2.32	0.65
2:3:109:G:N7	82:3:205:OHX:N5	2.44	0.65
1:AR:1317:A:OP1	82:AR:3601:OHX:N1	2.30	0.65
1:AR:980:A:N7	1:AR:981:U:C4	2.64	0.65
49:C:109:LYS:HG3	49:C:113:MET:HE3	1.77	0.65
12:CL:145:LYS:HZ2	12:CL:167:LEU:HD22	1.61	0.65
27:DA:73:VAL:HA	27:DA:80:VAL:HG23	1.79	0.65
53:G:37:GLN:HB3	64:R:53:LEU:HB3	1.77	0.65
1:1:1659:U:O4	82:1:3694:OHX:N1	2.29	0.65
47:A:1521:G:O6	67:U:68:ARG:NH1	2.30	0.65
47:A:45:U:O2'	47:A:46:A:H2'	1.96	0.65
7:CG:297:GLN:HA	82:CG:302:OHX:N1	2.12	0.65
20:CT:159:ALA:O	20:CT:163:ARG:HB2	1.97	0.65
50:D:116:LYS:HG2	50:D:127:ALA:HB3	1.78	0.65
32:DF:13:THR:HG22	32:DF:72:ARG:HH11	1.58	0.65
1:AR:1410:U:O2'	33:DG:95:GLU:OE1	2.08	0.65
37:DK:45:ARG:NH2	37:DK:54:GLU:OE1	2.29	0.65
57:K:162:SER:O	57:K:162:SER:OG	2.12	0.65
1:1:1014:U:H2'	1:1:1015:U:H5''	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1291:G:O5'	47:A:1291:G:H8	1.80	0.65
47:A:1301:U:H5'	50:D:88:LYS:HD2	1.79	0.65
1:AR:2892:A:OP1	82:AR:3628:OHX:N6	2.29	0.65
82:AR:3538:OHX:N6	82:AR:3728:OHX:N2	2.44	0.65
25:CY:23:ARG:NH2	25:CY:25:ASP:OD2	2.29	0.65
53:G:216:GLU:HG3	53:G:219:ARG:HH21	1.60	0.65
57:K:56:ALA:HA	57:K:59:LEU:HD12	1.77	0.65
50:D:218:ILE:O	50:D:221:THR:OG1	2.15	0.65
22:2:83:ARG:NH1	22:2:85:LEU:HD21	2.12	0.65
47:A:1164:G:H1	47:A:1581:C:H42	1.44	0.65
28:AA:95:VAL:HG21	28:AA:113:VAL:HG11	1.78	0.65
1:AR:3348:G:H1	1:AR:3357:U:H3	1.42	0.65
1:AR:2923:U:O4	82:AR:3562:OHX:N1	2.30	0.65
1:AR:964:G:OP1	82:AR:3510:OHX:N1	2.30	0.65
50:D:148:LEU:HA	69:W:4:ASP:HB2	1.78	0.65
1:1:3233:C:H2'	1:1:3234:A:C8	2.32	0.64
47:A:1529:C:OP1	53:G:112:ARG:NH1	2.26	0.64
1:AR:304:G:H5'	1:AR:304:G:N3	2.11	0.64
1:AR:549:U:H2'	1:AR:550:A:C8	2.32	0.64
7:CG:279:LYS:HE3	7:CG:282:ARG:HH12	1.63	0.64
62:P:19:ILE:HB	62:P:83:ILE:HD12	1.78	0.64
64:R:123:ARG:HG3	64:R:124:PRO:HD2	1.78	0.64
72:Z:34:ASN:HD22	72:Z:62:THR:HG21	1.60	0.64
1:1:2107:A:H2	1:1:3344:A:H8	1.43	0.64
1:1:318:A:OP1	82:1:3444:OHX:N2	2.30	0.64
1:1:425:G:O6	82:1:3410:OHX:N6	2.29	0.64
1:AR:1717:U:H2'	1:AR:1718:G:C8	2.32	0.64
37:DK:35:ASN:HA	37:DK:38:LYS:HB2	1.79	0.64
47:A:159:U:O2'	54:H:87:ARG:NH1	2.30	0.64
55:I:155:ASP:OD1	55:I:156:SER:N	2.30	0.64
47:A:294:C:H2'	47:A:295:A:H8	1.63	0.64
1:AR:1015:U:O2'	1:AR:1017:C:OP2	2.11	0.64
21:CU:10:ILE:HG12	21:CU:26:ARG:HB2	1.78	0.64
23:CW:19:VAL:HG12	23:CW:105:LEU:HD22	1.79	0.64
38:DL:21:ARG:NH2	38:DL:41:ALA:O	2.30	0.64
52:F:122:LYS:HD2	52:F:164:LEU:HD21	1.79	0.64
47:A:887:A:H1'	62:P:122:PRO:HB3	1.79	0.64
70:X:26:LEU:HD21	70:X:60:LYS:HD3	1.79	0.64
70:X:47:ILE:HG22	70:X:65:LEU:HB3	1.80	0.64
32:AE:55:LEU:HB2	32:AE:95:PRO:HD3	1.80	0.64
8:CH:105:TYR:HE1	8:CH:134:ARG:HD2	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:R:71:GLY:O	64:R:77:GLN:NE2	2.31	0.64
82:1:3719:OHX:N1	82:AE:201:OHX:N4	2.46	0.64
28:DB:36:HIS:CD2	28:DB:74:VAL:HG11	2.32	0.64
69:W:74:GLN:HE22	69:W:83:TRP:H	1.43	0.64
1:1:3318:G:H2'	1:1:3318:G:OP2	1.97	0.64
1:1:863:C:OP1	82:1:3417:OHX:N6	2.30	0.64
1:1:567:G:O6	82:1:3536:OHX:N1	2.31	0.64
47:A:14:C:H42	47:A:1140:G:H1	1.43	0.64
47:A:320:U:H3'	47:A:321:C:C5'	2.23	0.64
47:A:66:U:OP1	54:H:136:LYS:NZ	2.27	0.64
47:A:851:U:H2'	47:A:852:C:C6	2.33	0.64
34:AG:60:ARG:NH2	34:AG:60:ARG:HB2	2.13	0.64
12:CL:153:ARG:HG3	12:CL:156:ARG:HH21	1.62	0.64
1:1:3164:C:HO2'	1:1:3165:A:H8	1.46	0.64
1:1:2718:U:OP2	82:1:3516:OHX:N3	2.30	0.64
47:A:523:G:OP2	72:Z:37:LYS:NZ	2.20	0.64
38:AK:87:SER:O	82:AK:102:OHX:N3	2.31	0.64
1:AR:2794:G:N7	82:AR:3490:OHX:N1	2.46	0.64
72:Z:23:PHE:HE1	72:Z:75:VAL:HG12	1.63	0.64
47:A:734:A:H5''	47:A:735:C:OP1	1.98	0.64
60:N:61:VAL:HG13	60:N:121:VAL:HG23	1.79	0.64
1:1:2560:C:O2	82:1:3460:OHX:N1	2.31	0.64
1:1:1192:C:OP2	82:1:3583:OHX:N4	2.31	0.64
47:A:1522:U:OP2	82:A:1837:OHX:N3	2.30	0.64
47:A:651:G:N7	82:A:1881:OHX:N6	2.44	0.64
1:AR:1743:G:N7	82:AR:3604:OHX:N5	2.46	0.64
1:AR:528:U:H2'	1:AR:529:A:H8	1.63	0.64
49:C:81:PHE:HD2	49:C:82:ARG:HG3	1.63	0.64
5:CE:173:GLN:HG3	5:CE:175:LYS:H	1.63	0.64
1:1:2112:U:H4'	1:1:2113:A:H5'	1.81	0.64
1:1:637:C:H2'	1:1:638:C:H6	1.62	0.64
47:A:339:C:OP2	56:J:10:LYS:NZ	2.25	0.64
43:AP:48:SER:O	82:AP:502:OHX:N2	2.31	0.64
1:AR:3103:A:OP2	82:AR:3657:OHX:N4	2.31	0.64
1:AR:1540:U:OP1	82:AR:3597:OHX:N4	2.30	0.64
1:1:3291:G:H2'	1:1:3292:A:H8	1.62	0.63
1:AR:776:U:H5	1:AR:2719:U:O2	1.80	0.63
1:AR:830:A:O2'	1:AR:1866:C:H2'	1.98	0.63
1:AR:955:U:H2'	1:AR:956:U:C6	2.33	0.63
49:C:89:ASP:OD1	49:C:89:ASP:N	2.31	0.63
67:U:27:LYS:HB3	67:U:111:ILE:HD11	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:263:C:H2'	1:1:264:G:O4'	1.98	0.63
11:CK:21:LYS:HG3	15:CO:8:LYS:HD3	1.80	0.63
47:A:559:C:N3	47:A:586:G:N1	2.43	0.63
1:AR:619:A:H4'	1:AR:620:U:H5'	1.81	0.63
1:AR:968:G:O6	82:AR:3734:OHX:N4	2.31	0.63
5:CE:316:GLU:O	5:CE:318:LYS:HG3	1.98	0.63
44:DR:74:ALA:O	44:DR:78:THR:HG23	1.97	0.63
67:U:52:GLY:HA2	67:U:55:TYR:CD2	2.32	0.63
1:1:619:A:H5''	1:1:620:U:OP1	1.98	0.63
47:A:1280:C:H2'	47:A:1281:G:H8	1.63	0.63
47:A:1561:U:H2'	47:A:1562:G:H8	1.64	0.63
42:AO:25:LYS:O	82:A:1867:OHX:N3	2.32	0.63
47:A:991:G:O6	82:A:1868:OHX:N2	2.31	0.63
1:AR:509:U:O4	82:AR:3709:OHX:N1	2.31	0.63
7:CG:297:GLN:OE1	82:CG:302:OHX:N1	2.32	0.63
32:DF:75:ILE:HG12	32:DF:93:VAL:HG13	1.80	0.63
43:DQ:77:CYS:SG	43:DQ:79:THR:OG1	2.56	0.63
55:I:73:VAL:O	55:I:75:THR:N	2.31	0.63
62:P:23:PHE:HE1	62:P:91:THR:HG21	1.63	0.63
1:1:1952:G:H3'	1:1:1953:G:H5''	1.80	0.63
82:1:3722:OHX:N5	82:1:3722:OHX:N3	2.47	0.63
3:AT:74:U:O2	82:AT:207:OHX:N5	2.31	0.63
5:CE:187:SER:O	5:CE:190:GLU:N	2.32	0.63
17:CQ:27:LEU:HD11	17:CQ:102:LEU:HD22	1.81	0.63
21:CU:2:ALA:HB3	21:CU:32:SER:HB3	1.81	0.63
28:DB:27:LYS:HB3	28:DB:42:LEU:HD13	1.79	0.63
52:F:246:LEU:HB3	52:F:250:GLU:HB2	1.80	0.63
68:V:57:ARG:HG3	68:V:89:ARG:CZ	2.28	0.63
70:X:30:SER:HB2	70:X:61:ILE:HG13	1.80	0.63
1:AR:2572:C:O2'	1:AR:2573:G:O4'	2.17	0.63
82:AS:203:OHX:N5	82:AS:209:OHX:N3	2.47	0.63
48:B:24:LEU:O	48:B:163:ASN:ND2	2.29	0.63
6:CF:3:ARG:NE	6:CF:22:LEU:O	2.31	0.63
9:CI:25:GLN:HA	9:CI:28:ALA:HB3	1.80	0.63
27:DA:37:LYS:HE2	27:DA:37:LYS:H	1.62	0.63
59:M:14:GLN:HB3	59:M:54:ILE:HG21	1.79	0.63
62:P:13:VAL:HG13	62:P:77:THR:H	1.62	0.63
66:T:139:LYS:O	66:T:143:ARG:NH1	2.31	0.63
66:T:30:TYR:HE2	66:T:40:ARG:HH11	1.45	0.63
1:1:3278:C:H2'	1:1:3278:C:O2	1.98	0.63
1:1:3111:U:OP2	82:1:3425:OHX:N2	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:637:C:OP1	70:X:32:LYS:HG3	1.97	0.63
1:AR:1406:A:OP1	82:DG:201:OHX:N3	2.32	0.63
82:AR:3443:OHX:N2	82:AR:3723:OHX:N4	2.47	0.63
1:AR:733:G:N7	82:AR:3567:OHX:N5	2.46	0.63
13:CM:23:VAL:HG13	13:CM:29:ARG:HG2	1.79	0.63
1:AR:944:C:H4'	33:DG:33:ARG:NH1	2.14	0.63
59:M:118:GLN:NE2	59:M:146:ALA:O	2.32	0.63
66:T:88:ARG:NH2	66:T:91:ASP:OD1	2.32	0.63
1:1:2426:U:O4	82:1:3402:OHX:N2	2.32	0.63
33:AF:12:LYS:HD3	33:AF:57:TYR:O	1.99	0.63
38:AK:87:SER:O	82:AK:102:OHX:N4	2.32	0.63
1:AR:1661:G:O6	82:AR:3421:OHX:N5	2.32	0.63
1:AR:2247:G:OP2	82:AR:3479:OHX:N3	2.32	0.63
1:AR:247:C:H2'	1:AR:248:U:O4'	1.98	0.63
1:AR:2945:G:O2'	1:AR:2948:C:OP2	2.13	0.63
5:CE:167:ARG:O	82:CE:401:OHX:N5	2.30	0.63
5:CE:306:THR:HG21	5:CE:316:GLU:HG2	1.81	0.63
12:CL:221:ALA:O	82:CL:301:OHX:N5	2.31	0.63
16:CP:98:LEU:HD23	16:CP:128:LYS:HD2	1.81	0.63
50:D:121:VAL:O	50:D:125:ILE:HG13	1.99	0.63
1:1:1243:G:N2	1:1:1244:A:N7	2.47	0.63
1:1:1674:G:N7	82:1:3481:OHX:N5	2.47	0.63
1:1:783:A:OP2	82:1:3637:OHX:N3	2.31	0.63
1:1:562:C:H2'	1:1:563:U:H6	1.64	0.63
1:1:735:A:H2'	1:1:736:A:C8	2.34	0.63
24:6:9:THR:OG1	24:6:9:THR:O	2.17	0.63
28:AA:26:VAL:HG21	28:AA:96:VAL:HB	1.81	0.63
1:AR:1148:G:OP2	82:AR:3704:OHX:N2	2.32	0.63
82:AR:3406:OHX:N2	3:AT:1:A:OP1	2.32	0.63
49:C:51:SER:HA	49:C:57:ALA:H	1.62	0.63
21:CU:11:GLY:HA2	21:CU:59:VAL:HG23	1.81	0.63
1:AR:1065:A:N1	30:DD:26:THR:OG1	2.31	0.63
24:6:80:ARG:NH1	24:6:116:GLY:HA3	2.14	0.62
1:AR:2256:A:H8	1:AR:2256:A:OP1	1.81	0.62
5:CE:173:GLN:O	5:CE:174:LYS:HB2	1.99	0.62
20:CT:105:LEU:HD13	20:CT:138:LEU:HD12	1.81	0.62
50:D:168:ARG:HH11	50:D:170:ILE:HD11	1.64	0.62
2:3:4:U:H2'	2:3:5:G:C8	2.34	0.62
47:A:513:U:H2'	47:A:514:G:C8	2.34	0.62
1:AR:1766:G:N7	20:CT:46:LYS:NZ	2.46	0.62
1:AR:1845:G:O2'	38:DL:5:THR:HG22	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1854:C:OP2	82:AR:3559:OHX:N6	2.32	0.62
49:C:140:ILE:HB	49:C:213:ARG:HD3	1.80	0.62
1:AR:3267:A:O2'	8:CH:73:GLY:O	2.16	0.62
1:AR:290:G:O2'	16:CP:70:ASN:OD1	2.11	0.62
47:A:1559:A:H5''	66:T:135:GLY:HA3	1.81	0.62
1:1:1542:G:N7	82:1:3553:OHX:N6	2.46	0.62
1:AR:2227:C:OP1	43:DQ:32:LYS:NZ	2.33	0.62
1:AR:2416:U:O4	82:AR:3669:OHX:N5	2.32	0.62
1:AR:3054:U:OP2	82:AR:3407:OHX:N6	2.32	0.62
1:AR:739:G:O6	82:AR:3467:OHX:N6	2.32	0.62
82:AR:3443:OHX:N5	82:AR:3723:OHX:N6	2.47	0.62
1:AR:83:U:OP2	82:AR:3700:OHX:N4	2.32	0.62
50:D:170:ILE:HB	50:D:197:TYR:HB2	1.80	0.62
52:F:123:LEU:HD23	52:F:228:ILE:HG22	1.79	0.62
47:A:66:U:C5	54:H:173:PRO:HG3	2.35	0.62
47:A:1681:A:H1'	54:H:66:GLY:HA3	1.80	0.62
1:1:2209:U:O2'	1:1:2210:G:OP1	2.16	0.62
47:A:511:A:N6	47:A:539:G:O6	2.33	0.62
47:A:856:A:C4	55:I:64:VAL:HG21	2.34	0.62
1:AR:129:U:H2'	1:AR:130:A:C8	2.34	0.62
1:AR:279:U:H2'	1:AR:280:U:H6	1.64	0.62
1:AR:2128:C:OP1	82:AR:3593:OHX:N4	2.33	0.62
49:C:34:ALA:HB3	49:C:41:ARG:HA	1.81	0.62
16:CP:42:PRO:HG3	16:CP:61:ILE:HG13	1.81	0.62
64:R:13:LYS:HD3	64:R:14:LYS:H	1.63	0.62
1:1:2510:U:O4	82:1:3528:OHX:N2	2.33	0.62
34:AG:6:ARG:NH1	34:AG:8:TYR:O	2.27	0.62
1:AR:2298:U:O4	1:AR:2923:U:H5	1.83	0.62
7:CG:293:LEU:O	82:CG:302:OHX:N6	2.32	0.62
28:DB:97:SER:HB2	28:DB:99:GLU:HG3	1.81	0.62
55:I:129:LEU:HD21	55:I:172:VAL:HG11	1.81	0.62
66:T:96:LYS:HB2	66:T:98:TYR:CE1	2.34	0.62
71:Y:50:LYS:HB2	71:Y:103:LEU:HD23	1.81	0.62
47:A:1207:C:H42	47:A:1456:C:H5	1.46	0.62
47:A:1370:U:O4	82:A:1897:OHX:N3	2.33	0.62
37:AJ:62:ARG:HH12	37:AJ:98:ARG:HD3	1.64	0.62
1:AR:2101:C:O2'	1:AR:2102:U:O5'	2.13	0.62
1:AR:3122:A:N1	11:CK:70:THR:HG21	2.14	0.62
1:AR:718:G:C2	1:AR:721:G:H1'	2.35	0.62
56:J:39:GLY:N	56:J:60:ILE:O	2.28	0.62
1:1:410:U:O4	82:1:3589:OHX:N5	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1615:C:OP1	82:1:3703:OHX:N3	2.33	0.62
47:A:384:G:O6	82:A:1907:OHX:N6	2.32	0.62
1:AR:1110:U:H2'	1:AR:1111:U:C6	2.35	0.62
1:AR:722:G:O6	82:AR:3514:OHX:N5	2.32	0.62
8:CH:97:ASN:O	8:CH:99:GLU:N	2.32	0.62
11:CK:162:GLN:HG3	11:CK:163:GLN:N	2.13	0.62
57:K:96:VAL:HA	57:K:99:LEU:HD22	1.81	0.62
1:1:256:G:N7	82:1:3686:OHX:N4	2.48	0.62
1:1:1171:G:N7	82:1:3491:OHX:N2	2.48	0.62
1:1:781:G:O6	82:1:3474:OHX:N3	2.32	0.62
47:A:1151:A:H2'	47:A:1152:A:H8	1.65	0.62
47:A:1338:C:H1'	47:A:1410:A:C4	2.34	0.62
1:AR:1897:G:O6	82:AR:3736:OHX:N6	2.33	0.62
1:AR:3155:U:H3'	1:AR:3156:U:C4'	2.30	0.62
1:AR:392:G:O6	82:AR:3570:OHX:N3	2.33	0.62
1:AR:618:C:O2'	1:AR:620:U:O2	2.15	0.62
1:AR:59:G:H2'	3:AT:33:A:O2'	1.99	0.62
28:DB:83:THR:HG23	28:DB:85:TYR:N	2.14	0.62
55:I:30:SER:HB2	55:I:34:LEU:HB2	1.81	0.62
1:1:2683:U:H2'	1:1:2684:C:C6	2.35	0.62
1:1:2697:A:H2'	1:1:2698:G:C8	2.35	0.62
1:1:3119:U:OP2	82:1:3425:OHX:N4	2.33	0.62
1:1:526:C:OP2	82:1:3630:OHX:N5	2.33	0.62
1:1:637:C:O2'	1:1:638:C:O5'	2.18	0.62
27:9:57:LEU:HB3	27:9:105:VAL:HG12	1.82	0.62
47:A:12:U:H2'	47:A:13:C:C6	2.34	0.62
47:A:761:G:N7	82:A:1839:OHX:N1	2.48	0.62
47:A:706:A:N1	47:A:734:A:N6	2.48	0.62
1:AR:2880:U:H1'	5:CE:250:ALA:HB3	1.81	0.62
21:CU:77:VAL:HG11	21:CU:106:LEU:HD22	1.82	0.62
50:D:102:VAL:HG11	50:D:129:ILE:HG12	1.80	0.62
36:DJ:34:GLN:HB3	36:DJ:38:ARG:HH12	1.64	0.62
1:1:1230:G:N2	1:1:1279:C:N3	2.43	0.62
1:1:2232:A:OP2	82:1:3577:OHX:N3	2.32	0.62
1:1:789:A:H2'	1:1:790:U:H6	1.63	0.62
1:1:92:G:OP2	1:1:93:C:H5''	2.00	0.62
22:2:46:GLY:O	22:2:49:GLN:NE2	2.33	0.62
47:A:1358:G:H2'	47:A:1359:C:C6	2.34	0.62
1:AR:172:G:H3'	1:AR:173:G:H5''	1.81	0.62
1:AR:1772:U:H5''	1:AR:1773:C:H5'	1.81	0.62
6:CF:138:ARG:NH2	6:CF:240:PRO:HB2	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:88:ARG:NH1	9:CI:91:GLY:O	2.33	0.62
1:AR:402:A:OP1	40:DN:36:ARG:NH2	2.32	0.62
1:1:3019:U:O4	82:1:3522:OHX:N1	2.32	0.61
1:1:368:G:OP1	82:1:3418:OHX:N5	2.33	0.61
1:1:236:G:N7	82:1:3483:OHX:N1	2.48	0.61
47:A:1188:G:O2'	47:A:1430:U:OP1	2.16	0.61
47:A:83:G:OP2	82:A:1844:OHX:N5	2.31	0.61
82:A:1851:OHX:N5	82:A:1851:OHX:N3	2.48	0.61
1:AR:2433:U:H1'	16:CP:125:SER:HB3	1.82	0.61
21:CU:1:MET:HE1	21:CU:32:SER:H	1.65	0.61
31:DE:43:ILE:HD12	31:DE:90:VAL:HB	1.82	0.61
54:H:68:LEU:HD22	54:H:68:LEU:H	1.64	0.61
60:N:63:VAL:HA	60:N:91:VAL:O	2.00	0.61
82:1:3719:OHX:N6	82:AE:201:OHX:N3	2.48	0.61
1:1:860:G:OP1	44:AQ:17:ARG:NH1	2.33	0.61
1:AR:1554:U:H4'	1:AR:1555:U:H5'	1.81	0.61
1:AR:26:A:N3	1:AR:328:U:O2'	2.31	0.61
5:CE:229:VAL:HG13	5:CE:235:THR:HG21	1.81	0.61
47:A:895:G:H21	62:P:38:THR:HG21	1.63	0.61
1:1:807:A:H61	1:1:934:G:H22	1.45	0.61
27:9:37:LYS:HD3	27:9:37:LYS:H	1.64	0.61
28:AA:46:ILE:HD11	28:AA:49:TYR:HA	1.83	0.61
1:AR:126:U:OP1	16:CP:144:ARG:NH1	2.33	0.61
1:AR:2724:U:H4'	22:CV:54:HIS:CD2	2.36	0.61
1:AR:2818:U:C6	1:AR:2818:U:H5'	2.32	0.61
1:AR:1471:U:OP2	82:AR:3458:OHX:N6	2.33	0.61
6:CF:317:PRO:C	6:CF:319:LYS:H	2.04	0.61
7:CG:105:ILE:O	7:CG:109:THR:HG23	2.01	0.61
10:CJ:94:PHE:HB3	10:CJ:189:LEU:HD13	1.82	0.61
14:CN:62:THR:O	14:CN:64:LYS:N	2.33	0.61
63:Q:60:LEU:HD23	63:Q:76:VAL:HG21	1.82	0.61
66:T:100:THR:HG21	66:T:108:LYS:HG3	1.82	0.61
1:1:2309:A:H4'	82:1:3666:OHX:N1	2.13	0.61
1:1:2395:G:N7	82:1:3722:OHX:N2	2.48	0.61
1:1:2258:U:OP2	82:1:3467:OHX:N5	2.33	0.61
1:1:1918:C:OP2	82:1:3547:OHX:N1	2.33	0.61
1:1:812:G:N7	82:1:3517:OHX:N1	2.47	0.61
47:A:866:G:OP1	61:O:2:GLY:HA3	2.00	0.61
1:AR:1410:U:OP1	82:AR:3530:OHX:N2	2.34	0.61
3:AT:6:U:O4	82:AT:202:OHX:N5	2.33	0.61
37:DK:25:LYS:HB2	37:DK:28:TYR:HD1	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:G:92:ARG:HA	53:G:95:ASN:HD22	1.64	0.61
63:Q:18:ARG:NH1	66:T:90:ASN:O	2.33	0.61
47:A:1354:G:H5'	47:A:1355:C:OP2	2.01	0.61
47:A:1488:G:O2'	47:A:1494:C:O2	2.15	0.61
47:A:196:G:O2'	47:A:197:A:H8	1.84	0.61
32:AE:13:THR:HG22	32:AE:72:ARG:HD3	1.82	0.61
1:AR:1688:U:H2'	1:AR:1689:U:C6	2.35	0.61
3:AT:123:G:OP2	82:AT:211:OHX:N6	2.33	0.61
5:CE:166:ILE:HD13	5:CE:173:GLN:HG2	1.83	0.61
6:CF:354:VAL:O	6:CF:358:THR:HG23	2.01	0.61
11:CK:138:THR:O	11:CK:139:ASN:ND2	2.33	0.61
44:DR:84:ARG:O	44:DR:88:GLU:HG2	1.99	0.61
63:Q:81:ARG:HH12	63:Q:120:SER:HB3	1.65	0.61
1:1:1029:G:H2'	1:1:1030:A:C8	2.35	0.61
1:1:653:A:OP1	82:1:3464:OHX:N4	2.34	0.61
1:1:543:C:N4	1:1:548:G:H1	1.98	0.61
47:A:108:A:H2'	47:A:109:G:C8	2.36	0.61
1:1:1407:A:O3'	33:AF:33:ARG:NH2	2.34	0.61
49:C:116:LYS:HE2	49:C:117:TRP:HZ3	1.66	0.61
13:CM:34:SER:HA	13:CM:67:VAL:HG21	1.83	0.61
1:1:25:U:O4	82:1:3405:OHX:N6	2.33	0.61
1:1:3113:A:OP2	82:1:3560:OHX:N5	2.34	0.61
26:8:38:LEU:HD11	26:8:40:LEU:HD13	1.81	0.61
47:A:1466:G:O2'	47:A:1602:C:OP1	2.17	0.61
47:A:1518:C:OP1	82:A:1897:OHX:N5	2.32	0.61
3:4:52:A:H62	40:AM:27:ILE:HD13	1.65	0.61
1:AR:2180:G:H2'	1:AR:2181:C:C6	2.36	0.61
49:C:173:THR:O	49:C:177:GLN:NE2	2.34	0.61
7:CG:56:THR:O	7:CG:58:LYS:N	2.32	0.61
20:CT:159:ALA:HB2	20:CT:162:ARG:HH22	1.65	0.61
62:P:57:PRO:HB3	62:P:100:ALA:HB2	1.83	0.61
47:A:788:A:OP2	52:F:108:ARG:NH1	2.30	0.61
1:AR:145:G:O6	82:AR:3520:OHX:N5	2.34	0.61
1:AR:2908:G:OP1	82:AR:3444:OHX:N1	2.33	0.61
82:AR:3523:OHX:N3	82:AR:3709:OHX:N1	2.48	0.61
5:CE:169:THR:O	82:CE:401:OHX:N3	2.34	0.61
26:CZ:115:ARG:NH1	26:CZ:119:THR:OG1	2.34	0.61
52:F:79:ASP:HB3	52:F:82:TYR:HB2	1.81	0.61
62:P:17:ALA:HB3	62:P:81:VAL:HA	1.83	0.61
71:Y:79:ASN:HB3	71:Y:81:LYS:HG3	1.82	0.61
1:1:2216:G:OP1	37:AJ:75:LYS:NZ	2.21	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:9:112:ASP:HB2	27:9:115:ARG:HB2	1.83	0.61
47:A:307:G:OP1	59:M:103:ARG:NH1	2.33	0.61
47:A:793:A:H5'	47:A:794:U:N1	2.16	0.61
2:AS:3:U:H2'	2:AS:4:U:C6	2.36	0.61
5:CE:10:ARG:NH2	5:CE:263:SER:O	2.34	0.61
10:CJ:153:ILE:HD13	10:CJ:166:LEU:HB3	1.83	0.61
1:1:3346:U:H3	1:1:3359:A:H61	1.48	0.61
1:1:300:G:O6	82:1:3677:OHX:N1	2.34	0.61
47:A:1142:A:H2'	47:A:1143:A:C8	2.36	0.61
47:A:1738:U:H2'	47:A:1739:C:C6	2.36	0.61
1:AR:2582:C:OP1	82:AR:3631:OHX:N3	2.34	0.61
82:AT:212:OHX:N3	38:DL:88:ALA:O	2.33	0.61
11:CK:122:LYS:HD3	11:CK:123:ILE:N	2.15	0.61
13:CM:47:GLN:HG2	13:CM:67:VAL:HG12	1.83	0.61
24:CX:2:SER:N	24:CX:57:MET:H	1.98	0.61
39:DM:46:ARG:NH1	39:DM:47:GLY:O	2.34	0.61
54:H:64:LYS:O	54:H:67:VAL:HG22	2.01	0.61
1:1:2247:G:OP1	82:1:3416:OHX:N4	2.34	0.60
22:2:36:VAL:HA	22:2:64:VAL:HG12	1.83	0.60
47:A:1350:U:H5'	64:R:68:ARG:NH2	2.16	0.60
47:A:636:A:H5"	70:X:31:SER:HB2	1.83	0.60
39:AL:42:LYS:HG2	39:AL:55:VAL:HG13	1.83	0.60
8:CH:105:TYR:CE1	8:CH:134:ARG:HD2	2.36	0.60
11:CK:8:GLN:NE2	11:CK:69:ARG:HG2	2.16	0.60
64:R:109:PHE:O	64:R:113:ASP:N	2.34	0.60
1:1:1117:G:OP1	30:AC:4:SER:HB2	2.00	0.60
47:A:1689:A:H2'	47:A:1690:G:C8	2.37	0.60
47:A:938:G:N7	82:A:1865:OHX:N2	2.49	0.60
82:1:3719:OHX:N4	82:AE:201:OHX:N3	2.49	0.60
1:AR:2525:G:OP2	4:CD:37:ARG:NH1	2.32	0.60
1:AR:655:C:H2'	1:AR:656:A:H8	1.65	0.60
9:CI:139:PRO:HA	9:CI:237:ASN:OD1	2.01	0.60
16:CP:65:ARG:HG2	16:CP:127:TYR:CD1	2.36	0.60
17:CQ:127:LEU:HD11	21:CU:168:PRO:HG3	1.82	0.60
1:1:1856:C:OP2	82:1:3678:OHX:N5	2.34	0.60
1:1:2947:G:H4'	1:1:2947:G:OP2	2.02	0.60
1:1:2808:A:O2'	1:1:2969:A:OP1	2.18	0.60
1:1:59:G:H2'	3:4:33:A:O2'	2.00	0.60
47:A:1280:C:H2'	47:A:1281:G:C8	2.36	0.60
47:A:868:G:O6	82:A:1810:OHX:N6	2.34	0.60
1:AR:2392:C:O2'	5:CE:266:ARG:NH2	2.25	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:3120:C:OP2	82:AR:3419:OHX:N3	2.34	0.60
6:CF:354:VAL:HG11	22:CV:143:THR:HG21	1.82	0.60
12:CL:55:ASN:ND2	12:CL:162:GLN:OE1	2.25	0.60
19:CS:182:LYS:HE2	29:DC:55:LYS:O	2.00	0.60
55:I:147:ASN:N	55:I:147:ASN:OD1	2.24	0.60
58:L:59:PHE:CZ	58:L:62:GLN:HA	2.36	0.60
47:A:325:G:H4'	59:M:83:THR:HG21	1.84	0.60
64:R:29:ILE:HG22	64:R:65:ILE:HB	1.84	0.60
1:1:2104:A:H2'	1:1:2105:G:H8	1.66	0.60
1:1:2263:C:OP1	82:1:3519:OHX:N5	2.35	0.60
34:AG:60:ARG:HB2	34:AG:60:ARG:HH21	1.66	0.60
1:AR:2897:A:H2'	1:AR:2899:C:H5''	1.83	0.60
1:AR:561:C:H2'	1:AR:562:C:H6	1.67	0.60
3:AT:125:U:O2'	3:AT:126:A:OP1	2.16	0.60
7:CG:211:LEU:HB3	7:CG:219:PHE:HB2	1.83	0.60
14:CN:47:ALA:CB	14:CN:49:ARG:H	2.14	0.60
50:D:87:GLN:HG2	50:D:96:THR:HB	1.82	0.60
36:DJ:6:ALA:O	36:DJ:10:ARG:HG3	2.01	0.60
54:H:135:PRO:HB2	54:H:141:ILE:HG12	1.83	0.60
56:J:152:ILE:HD12	56:J:152:ILE:H	1.66	0.60
61:O:55:ARG:NH1	61:O:56:ASP:OD1	2.35	0.60
72:Z:62:THR:HA	72:Z:69:SER:HA	1.83	0.60
47:A:142:G:N2	47:A:173:A:H2	1.98	0.60
1:AR:2248:C:OP2	82:AR:3691:OHX:N3	2.34	0.60
1:AR:781:G:O6	82:AR:3493:OHX:N6	2.35	0.60
49:C:70:LEU:O	49:C:74:GLN:N	2.34	0.60
13:CM:107:ASP:OD1	13:CM:107:ASP:N	2.34	0.60
33:DG:81:ASP:O	33:DG:84:THR:OG1	2.19	0.60
44:DR:73:THR:HG23	44:DR:76:ALA:H	1.65	0.60
47:A:122:U:O3'	52:F:77:ARG:NH2	2.35	0.60
47:A:158:U:O2'	47:A:159:U:H3'	2.01	0.60
47:A:876:G:H1'	47:A:944:A:O4'	2.02	0.60
31:AD:54:SER:HB3	35:AH:94:LEU:HD13	1.82	0.60
1:AR:1438:U:H2'	1:AR:1439:U:C6	2.36	0.60
49:C:137:ILE:HD11	49:C:172:LEU:HB3	1.82	0.60
3:AT:136:G:OP1	26:CZ:48:SER:OG	2.19	0.60
70:X:76:SER:OG	70:X:77:PRO:HD3	2.01	0.60
1:1:1233:G:H22	1:1:1255:C:N4	1.98	0.60
1:1:2284:C:O2'	82:1:3656:OHX:N1	2.35	0.60
1:1:2997:G:H1'	1:1:3396:U:H5'	1.84	0.60
1:1:2668:U:O4	82:1:3706:OHX:N1	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AA:53:VAL:HA	28:AA:57:HIS:HD2	1.67	0.60
1:AR:201:A:OP2	82:AR:3488:OHX:N5	2.34	0.60
1:AR:2759:U:H5'	1:AR:2760:C:H5'	1.83	0.60
1:AR:2883:U:OP2	82:AR:3564:OHX:N4	2.34	0.60
1:AR:860:G:C6	4:CD:181:LYS:HB2	2.35	0.60
3:AT:139:U:O4	82:AT:210:OHX:N5	2.35	0.60
9:CI:189:ILE:HG23	9:CI:190:THR:HG23	1.83	0.60
11:CK:29:GLY:HA3	11:CK:82:VAL:HG13	1.83	0.60
23:CW:50:LEU:HB3	23:CW:54:VAL:HG23	1.82	0.60
53:G:91:GLU:OE2	53:G:107:LYS:NZ	2.34	0.60
66:T:54:LEU:H	66:T:54:LEU:HD22	1.66	0.60
1:1:212:G:OP2	27:9:2:ALA:N	2.35	0.60
47:A:40:A:O2'	82:A:1862:OHX:N1	2.34	0.60
1:1:2138:A:HO2'	38:AK:2:GLY:N	2.00	0.60
1:AR:1349:G:H2'	1:AR:1350:A:C4	2.36	0.60
82:AR:3503:OHX:N6	82:AR:3593:OHX:N5	2.50	0.60
14:CN:50:PRO:O	14:CN:52:ASP:N	2.34	0.60
1:AR:944:C:H4'	33:DG:33:ARG:HH11	1.67	0.60
60:N:33:ARG:HA	60:N:36:LEU:HB2	1.82	0.60
1:1:2319:U:O4	82:1:3573:OHX:N2	2.35	0.60
82:1:3537:OHX:N6	82:1:3697:OHX:N1	2.50	0.60
47:A:1680:G:O6	82:A:1887:OHX:N5	2.35	0.60
47:A:193:U:H2'	47:A:194:U:H2'	1.83	0.60
1:AR:1304:A:N6	1:AR:2860:U:OP1	2.34	0.60
1:AR:3057:U:O2'	1:AR:3059:G:OP1	2.20	0.60
1:AR:3358:U:H2'	1:AR:3359:A:O4'	2.02	0.60
1:AR:287:G:H5'	16:CP:179:LYS:O	2.02	0.60
18:CR:29:THR:HG22	18:CR:87:SER:OG	2.02	0.60
50:D:166:THR:HG23	50:D:201:ASN:HB3	1.84	0.60
68:V:118:VAL:HG22	68:V:119:ALA:H	1.67	0.60
1:1:2535:A:N6	1:1:2544:U:H3	1.97	0.60
1:1:2754:G:OP2	82:1:3540:OHX:N3	2.34	0.60
32:AE:51:LEU:HD22	32:AE:55:LEU:HD12	1.82	0.60
1:1:2895:G:O2'	41:AN:100:TYR:O	2.17	0.60
1:AR:1438:U:H2'	1:AR:1439:U:H6	1.67	0.60
1:AR:3112:G:O2'	11:CK:70:THR:HB	2.02	0.60
1:AR:1754:G:OP1	82:AR:3579:OHX:N4	2.35	0.60
5:CE:41:VAL:CA	5:CE:185:GLY:HA3	2.25	0.60
12:CL:221:ALA:O	82:CL:301:OHX:N2	2.35	0.60
15:CO:113:THR:HG22	15:CO:116:GLU:H	1.67	0.60
24:CX:40:LYS:HG3	24:CX:57:MET:HG2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:H:70:PRO:HD3	54:H:101:ILE:HD12	1.83	0.60
72:Z:29:HIS:NE2	72:Z:69:SER:OG	2.31	0.60
1:1:2218:G:H2'	1:1:2219:A:H8	1.66	0.59
26:8:82:LEU:HD11	26:8:135:ILE:HG21	1.83	0.59
47:A:793:A:H5'	47:A:794:U:C6	2.36	0.59
1:1:2320:A:H2	44:AQ:16:VAL:HG13	1.67	0.59
1:AR:2700:G:OP1	22:CV:17:ARG:HB2	2.01	0.59
24:CX:38:ALA:HB3	24:CX:59:MET:HB2	1.84	0.59
52:F:13:ALA:O	52:F:39:ARG:NH2	2.34	0.59
71:Y:27:ASN:O	71:Y:31:LYS:HG2	2.02	0.59
1:1:1747:G:OP1	39:AL:42:LYS:NZ	2.27	0.59
24:6:10:LYS:NZ	24:6:53:SER:OG	2.32	0.59
26:8:115:ARG:NH1	26:8:119:THR:OG1	2.36	0.59
47:A:1041:G:OP1	82:A:1923:OHX:N5	2.34	0.59
1:AR:2268:U:H3'	1:AR:2269:U:H5''	1.84	0.59
1:AR:3082:C:OP2	82:AR:3442:OHX:N4	2.35	0.59
1:AR:3259:U:H5'	1:AR:3259:U:H6	1.67	0.59
82:AT:203:OHX:N6	82:AT:212:OHX:N4	2.50	0.59
1:AR:3294:A:OP1	5:CE:128:LYS:NZ	2.35	0.59
1:AR:3329:U:H5''	5:CE:308:MET:HE3	1.83	0.59
36:DJ:119:LYS:HE2	36:DJ:119:LYS:HA	1.84	0.59
4:CD:96:LEU:O	44:DR:87:ARG:HD3	2.02	0.59
1:1:2107:A:H2	1:1:3344:A:C8	2.20	0.59
1:1:908:G:OP1	82:1:3517:OHX:N6	2.34	0.59
47:A:1523:G:N7	67:U:64:HIS:NE2	2.45	0.59
47:A:730:G:O6	82:A:1930:OHX:N4	2.34	0.59
29:AB:74:ASN:HB2	29:AB:76:ASP:HB2	1.83	0.59
29:AB:90:TYR:CG	29:AB:100:PRO:HG3	2.36	0.59
43:AP:50:PHE:O	82:AP:502:OHX:N5	2.35	0.59
1:AR:543:C:N4	1:AR:548:G:H1	2.01	0.59
82:AS:203:OHX:N4	82:AS:209:OHX:N2	2.50	0.59
1:AR:3267:A:H2'	8:CH:69:PHE:CZ	2.36	0.59
12:CL:218:ALA:HB3	82:CL:301:OHX:N3	2.17	0.59
50:D:245:ASP:N	50:D:245:ASP:OD1	2.29	0.59
1:1:118:U:O2	1:1:121:A:H5'	2.03	0.59
1:1:2808:A:H5'	1:1:2808:A:C8	2.38	0.59
22:2:42:ILE:HG12	22:2:96:ILE:HD11	1.83	0.59
47:A:639:U:OP1	55:I:117:THR:OG1	2.13	0.59
6:CF:226:GLU:OE1	6:CF:237:GLN:NE2	2.27	0.59
37:DK:92:ASN:O	37:DK:96:ALA:N	2.27	0.59
72:Z:8:ARG:NH1	72:Z:26:ASP:OD1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:829:U:H3	1:1:895:A:H62	1.51	0.59
47:A:983:A:OP1	82:A:1910:OHX:N2	2.35	0.59
47:A:899:G:O2'	47:A:915:A:N1	2.34	0.59
1:AR:1808:G:O6	82:AR:3527:OHX:N4	2.35	0.59
82:AR:3615:OHX:N2	82:AR:3615:OHX:N6	2.50	0.59
2:AS:3:U:H2'	2:AS:4:U:H6	1.67	0.59
48:B:120:LEU:HD12	48:B:121:VAL:H	1.66	0.59
13:CM:109:HIS:O	13:CM:112:LEU:HD23	2.03	0.59
20:CT:39:ASN:O	20:CT:43:LYS:HG2	2.03	0.59
50:D:140:ARG:HB3	50:D:221:THR:HB	1.84	0.59
47:A:297:U:H5''	52:F:37:LYS:HD3	1.83	0.59
47:A:283:U:H5''	54:H:188:ARG:HD3	1.85	0.59
1:1:1196:C:O2	82:1:3591:OHX:N1	2.36	0.59
1:1:362:U:OP1	38:AK:45:ARG:NH2	2.35	0.59
1:1:1062:A:N3	22:2:130:ARG:NH2	2.50	0.59
47:A:1318:G:N7	82:A:1863:OHX:N6	2.50	0.59
47:A:952:A:OP1	61:O:94:LYS:NZ	2.35	0.59
1:AR:3198:U:O2	11:CK:21:LYS:N	2.34	0.59
1:AR:1414:G:O6	82:AR:3648:OHX:N5	2.35	0.59
5:CE:218:ILE:HG12	5:CE:276:THR:HG23	1.84	0.59
7:CG:232:ASP:OD1	7:CG:232:ASP:N	2.34	0.59
47:A:169:A:OP1	54:H:137:ARG:HG3	2.03	0.59
56:J:11:ARG:O	59:M:133:LYS:NZ	2.35	0.59
47:A:354:C:H5''	56:J:16:ALA:HB2	1.83	0.59
47:A:399:A:OP1	56:J:49:ARG:NH2	2.36	0.59
1:1:1145:G:OP1	33:AF:44:ARG:NH1	2.34	0.59
1:1:2207:A:O2'	1:1:2208:A:H5'	2.02	0.59
47:A:61:A:H8	47:A:269:G:HO2'	1.50	0.59
34:AG:59:VAL:HG23	34:AG:60:ARG:H	1.68	0.59
1:AR:1089:G:N7	82:AR:3684:OHX:N3	2.50	0.59
48:B:167:LYS:HB2	48:B:168:HIS:CD2	2.37	0.59
17:CQ:65:ASN:HB3	17:CQ:68:ARG:HD2	1.85	0.59
21:CU:48:LEU:O	21:CU:49:HIS:ND1	2.35	0.59
23:CW:88:GLN:OE1	23:CW:88:GLN:N	2.35	0.59
28:DB:42:LEU:HD23	28:DB:101:PHE:HE2	1.67	0.59
1:1:2108:C:H1'	1:1:3344:A:C8	2.38	0.59
1:1:539:C:H42	1:1:552:G:H1	1.50	0.59
47:A:1385:G:N7	82:A:1908:OHX:N3	2.51	0.59
47:A:346:G:O6	82:A:1902:OHX:N2	2.36	0.59
82:1:3719:OHX:N4	82:AE:201:OHX:N4	2.50	0.59
1:AR:2209:U:H1'	1:AR:2210:G:OP2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2404:A:N7	1:AR:2872:A:N6	2.51	0.59
1:AR:3026:G:N7	82:AR:3441:OHX:N3	2.50	0.59
82:AR:3579:OHX:N2	20:CT:14:VAL:O	2.36	0.59
54:H:10:ASN:HB3	54:H:128:THR:HA	1.84	0.59
56:J:103:GLN:HB3	56:J:164:ARG:HG2	1.83	0.59
1:1:2117:A:HO2'	1:1:3080:G:HO2'	1.50	0.59
1:1:2790:A:O2'	82:1:3516:OHX:N5	2.36	0.59
47:A:1542:G:N2	47:A:1568:C:H1'	2.17	0.59
47:A:520:A:H2'	47:A:521:A:C8	2.37	0.59
1:AR:3353:G:H1'	1:AR:3356:G:H5'	1.83	0.59
1:AR:1388:U:OP2	82:AR:3513:OHX:N3	2.36	0.59
5:CE:187:SER:HB3	5:CE:190:GLU:HB2	1.85	0.59
6:CF:47:ARG:NH1	6:CF:109:TRP:O	2.36	0.59
18:CR:70:THR:HG21	18:CR:81:ALA:HB3	1.85	0.59
54:H:2:LYS:HB3	54:H:108:VAL:HG22	1.83	0.59
56:J:54:LYS:HG2	56:J:175:GLN:O	2.02	0.59
1:1:3289:G:O6	82:1:3660:OHX:N6	2.35	0.59
1:1:821:U:OP2	82:1:3513:OHX:N3	2.36	0.59
24:6:108:GLU:HG2	24:6:128:ARG:NH1	2.18	0.59
47:A:104:A:OP2	47:A:308:C:N4	2.35	0.59
47:A:387:A:N7	82:A:1941:OHX:N1	2.51	0.59
1:AR:1327:C:OP2	82:AR:3738:OHX:N1	2.36	0.59
1:AR:1596:C:H2'	1:AR:1597:C:C6	2.37	0.59
1:AR:2745:G:N7	82:AR:3469:OHX:N5	2.51	0.59
1:AR:1453:A:OP1	82:AR:3735:OHX:N1	2.35	0.59
48:B:124:THR:HG22	48:B:174:TRP:HE1	1.68	0.59
11:CK:189:GLU:HG3	11:CK:190:ASP:H	1.68	0.59
6:CF:112:LYS:HG3	16:CP:202:TYR:HB3	1.83	0.59
63:Q:126:VAL:HG13	63:Q:127:ARG:H	1.68	0.59
1:1:1608:C:H2'	1:1:1609:C:H6	1.68	0.58
1:1:1734:G:N7	82:1:3449:OHX:N5	2.50	0.58
1:1:2308:C:O2	82:1:3689:OHX:N2	2.35	0.58
24:6:15:LEU:HD13	24:6:51:ALA:HB3	1.83	0.58
1:AR:1834:U:H5'	40:DN:3:ALA:O	2.03	0.58
10:CJ:83:ASP:OD1	10:CJ:86:THR:N	2.33	0.58
11:CK:23:ARG:NH2	11:CK:42:ASP:H	2.01	0.58
14:CN:165:SER:C	14:CN:167:PHE:H	2.05	0.58
21:CU:12:ARG:HB3	21:CU:24:LEU:HD23	1.85	0.58
22:CV:119:ALA:O	22:CV:123:GLY:N	2.36	0.58
1:AR:1637:A:P	28:DB:73:LYS:HZ2	2.26	0.58
52:F:177:ALA:HA	52:F:195:ILE:HG21	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:X:11:LEU:HD12	70:X:74:VAL:HB	1.85	0.58
1:1:2207:A:H2'	1:1:2208:A:H8	1.67	0.58
1:1:2218:G:H2'	1:1:2219:A:C8	2.38	0.58
1:1:871:U:H2'	1:1:872:U:C6	2.38	0.58
47:A:579:A:OP1	51:E:179:GLN:NE2	2.36	0.58
1:AR:1028:U:O2	13:CM:94:ARG:NH1	2.35	0.58
20:CT:115:ILE:HG23	20:CT:119:LEU:HB3	1.85	0.58
38:DL:21:ARG:HD2	38:DL:39:TYR:HB2	1.85	0.58
66:T:82:PRO:HD2	66:T:85:PHE:HB2	1.84	0.58
1:1:2997:G:N7	82:1:3684:OHX:N5	2.51	0.58
1:1:562:C:H2'	1:1:563:U:C6	2.38	0.58
47:A:116:U:H2'	47:A:117:U:C6	2.38	0.58
32:AE:79:ARG:CZ	32:AE:79:ARG:H	2.17	0.58
1:1:2897:A:OP2	41:AN:124:LYS:NZ	2.35	0.58
82:AS:203:OHX:N5	82:AS:209:OHX:N5	2.51	0.58
55:I:174:ASN:ND2	55:I:179:LYS:O	2.36	0.58
55:I:51:VAL:HG23	55:I:53:GLY:H	1.67	0.58
58:L:17:GLN:HG3	58:L:18:GLU:HG2	1.84	0.58
1:1:1064:A:H4'	1:1:1065:A:O5'	2.01	0.58
1:1:1230:G:H2'	1:1:1231:A:H8	1.69	0.58
1:1:1231:A:OP2	82:1:3618:OHX:N6	2.36	0.58
1:1:1489:A:OP1	35:AH:10:ARG:HD2	2.02	0.58
1:1:510:G:O6	82:1:3541:OHX:N1	2.36	0.58
1:1:586:C:OP1	34:AG:70:LYS:NZ	2.32	0.58
27:9:74:TYR:CZ	27:9:77:LYS:HE3	2.38	0.58
47:A:482:U:H2'	47:A:483:A:H8	1.66	0.58
39:AL:31:LEU:HA	39:AL:37:PRO:HA	1.84	0.58
1:AR:3049:A:C8	1:AR:3049:A:H5'	2.37	0.58
5:CE:4:ARG:NH1	5:CE:6:TYR:O	2.35	0.58
13:CM:17:LEU:HD21	13:CM:19:LEU:HD21	1.84	0.58
1:AR:563:U:OP1	21:CU:71:LYS:NZ	2.36	0.58
29:DC:77:LYS:C	29:DC:79:TRP:H	2.06	0.58
52:F:73:ASP:OD2	52:F:122:LYS:NZ	2.34	0.58
59:M:94:ILE:HG12	71:Y:16:ARG:HD2	1.85	0.58
21:0:82:ASP:OD1	21:0:87:THR:HB	2.04	0.58
1:1:1278:A:O2'	1:1:1279:C:O5'	2.21	0.58
1:1:2274:U:OP2	82:1:3498:OHX:N4	2.36	0.58
22:2:50:LYS:HB3	22:2:92:ARG:HH11	1.67	0.58
47:A:1585:U:H3	47:A:1611:A:H2	1.51	0.58
47:A:1695:G:H21	47:A:1706:C:H41	1.50	0.58
47:A:523:G:H5''	72:Z:59:GLY:O	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AD:20:SER:OG	31:AD:96:GLY:HA3	2.02	0.58
5:CE:67:PHE:CE1	24:CX:88:ARG:HB2	2.38	0.58
16:CP:190:THR:O	16:CP:194:GLN:HG2	2.03	0.58
57:K:40:LYS:HA	57:K:43:TYR:HB2	1.86	0.58
68:V:61:LYS:HG3	68:V:86:ILE:HB	1.85	0.58
1:1:908:G:H4'	1:1:909:G:O5'	2.04	0.58
47:A:1098:U:OP2	50:D:168:ARG:NH2	2.36	0.58
1:AR:276:U:O2	16:CP:93:LYS:NZ	2.35	0.58
6:CF:271:LYS:HB2	6:CF:274:TYR:HB3	1.86	0.58
11:CK:26:LYS:HG3	11:CK:35:THR:HG22	1.85	0.58
14:CN:176:GLU:HG2	37:DK:11:LEU:HD23	1.84	0.58
52:F:196:VAL:N	52:F:209:HIS:O	2.33	0.58
56:J:182:TYR:OH	56:J:188:GLU:OE1	2.15	0.58
62:P:25:ASP:N	62:P:55:SER:HB3	2.18	0.58
1:1:2860:U:H6	1:1:2860:U:H5'	1.68	0.58
47:A:1244:A:O2'	47:A:1245:G:OP1	2.22	0.58
29:AB:6:THR:HG22	29:AB:9:ARG:HG2	1.84	0.58
32:AE:79:ARG:HA	32:AE:89:LEU:HD12	1.85	0.58
41:AN:89:TYR:O	41:AN:93:LYS:HE2	2.04	0.58
7:CG:278:SER:N	7:CG:281:GLU:OE2	2.27	0.58
55:I:14:THR:OG1	55:I:15:GLU:N	2.36	0.58
1:1:109:A:H4'	1:1:110:G:OP1	2.02	0.58
47:A:1683:C:O2'	47:A:1684:U:O5'	2.20	0.58
1:1:1488:G:O2'	35:AH:10:ARG:O	2.20	0.58
1:AR:84:U:O2'	1:AR:101:G:O6	2.11	0.58
1:AR:2209:U:HO2'	1:AR:2210:G:P	2.27	0.58
1:AR:2898:G:O6	41:DO:125:LYS:NZ	2.37	0.58
1:AR:3295:A:H2'	1:AR:3296:A:C8	2.39	0.58
82:AR:3523:OHX:N2	82:AR:3709:OHX:N6	2.51	0.58
1:AR:408:A:N6	3:AT:15:G:H1'	2.19	0.58
5:CE:92:TYR:HB2	5:CE:157:VAL:HG22	1.84	0.58
12:CL:89:VAL:HG22	12:CL:136:PHE:CE1	2.39	0.58
14:CN:79:GLU:OE2	14:CN:101:ARG:NH2	2.36	0.58
1:1:812:G:O6	82:1:3517:OHX:N1	2.37	0.58
1:1:1819:U:O4	82:1:3574:OHX:N6	2.37	0.58
1:1:392:G:O6	82:1:3673:OHX:N5	2.37	0.58
82:1:3509:OHX:N4	82:1:3682:OHX:N1	2.51	0.58
82:1:3719:OHX:N2	82:AE:201:OHX:N5	2.51	0.58
1:1:634:C:O2'	33:AF:47:ARG:HD3	2.04	0.58
22:2:78:LYS:HG2	22:2:87:LYS:HG3	1.84	0.58
2:3:71:G:H2'	2:3:72:A:C8	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:5:36:TYR:OH	23:5:82:LYS:HG2	2.04	0.58
47:A:1535:U:O2'	47:A:1536:G:N3	2.35	0.58
47:A:42:G:H4'	47:A:43:A:O5'	2.04	0.58
38:DL:31:LYS:O	38:DL:33:THR:HG22	2.03	0.58
1:1:2802:A:OP1	84:1:4224:G5B:O1	2.22	0.58
47:A:799:A:H5''	52:F:201:HIS:CD2	2.38	0.58
1:AR:1348:U:O2	1:AR:1349:G:N2	2.36	0.58
1:AR:20:A:OP2	36:DJ:90:ARG:NH1	2.37	0.58
1:AR:3317:U:O2'	82:AR:3641:OHX:N6	2.36	0.58
49:C:135:LEU:HD13	49:C:137:ILE:HG23	1.85	0.58
14:CN:109:PHE:O	14:CN:113:VAL:HG23	2.04	0.58
14:CN:47:ALA:HB3	14:CN:49:ARG:HB2	1.86	0.58
18:CR:59:PRO:HG3	18:CR:76:PHE:CD2	2.39	0.58
53:G:52:GLU:O	53:G:131:GLN:NE2	2.36	0.58
1:1:1119:C:OP2	82:1:3487:OHX:N4	2.37	0.57
1:1:1892:G:N7	82:1:3611:OHX:N1	2.52	0.57
1:1:3393:U:H2'	1:1:3394:U:C6	2.38	0.57
1:1:2722:U:O2'	22:2:88:ARG:O	2.22	0.57
23:5:35:LYS:HA	23:5:38:ILE:HD12	1.86	0.57
47:A:150:U:OP1	72:Z:123:LYS:NZ	2.36	0.57
47:A:1657:U:C4	82:A:1867:OHX:N6	2.72	0.57
47:A:1657:U:H4'	47:A:1658:G:O5'	2.02	0.57
47:A:800:U:H2'	47:A:801:G:H8	1.68	0.57
1:AR:2213:A:H2'	1:AR:2214:A:C8	2.38	0.57
1:AR:2425:G:H2'	1:AR:2426:U:O4'	2.03	0.57
1:AR:2554:A:N7	44:DR:62:LYS:NZ	2.40	0.57
1:AR:869:G:H2'	1:AR:870:G:O4'	2.03	0.57
6:CF:82:THR:HG23	6:CF:84:ARG:N	2.19	0.57
9:CI:88:ARG:HD2	9:CI:90:LYS:O	2.04	0.57
22:CV:65:TYR:HB3	22:CV:75:ILE:HG22	1.85	0.57
24:CX:13:ILE:HG12	24:CX:53:SER:HB2	1.85	0.57
50:D:158:THR:HG21	50:D:221:THR:HG23	1.86	0.57
29:DC:28:HIS:ND1	29:DC:32:ARG:HG2	2.19	0.57
1:AR:1493:G:O6	40:DN:2:ALA:N	2.37	0.57
55:I:75:THR:O	55:I:79:ARG:HB2	2.04	0.57
62:P:85:ALA:H	62:P:119:THR:CG2	2.13	0.57
1:1:2101:C:O2'	1:1:2102:U:O5'	2.18	0.57
1:1:3251:U:H2'	1:1:3252:G:C8	2.38	0.57
1:1:414:U:O4	82:4:202:OHX:N5	2.37	0.57
1:AR:1213:G:H4'	21:CU:90:MET:HG2	1.86	0.57
1:AR:2232:A:OP2	82:AR:3463:OHX:N3	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2842:U:OP1	1:AR:2844:C:N4	2.37	0.57
1:AR:3047:U:O2'	5:CE:53:MET:HE1	2.04	0.57
12:CL:205:SER:O	12:CL:209:ASN:HB2	2.04	0.57
14:CN:2:ALA:HB3	29:DC:33:GLY:O	2.04	0.57
28:DB:83:THR:HG23	28:DB:85:TYR:H	1.68	0.57
32:DF:12:TYR:O	32:DF:73:LEU:N	2.36	0.57
11:CK:93:VAL:HG22	41:DO:82:LEU:HD13	1.86	0.57
1:1:2818:U:C6	1:1:2818:U:H5'	2.36	0.57
1:1:3358:U:H2'	1:1:3359:A:O4'	2.02	0.57
1:AR:1114:U:OP2	82:AR:3510:OHX:N5	2.37	0.57
1:AR:1340:G:H2'	1:AR:1341:U:H6	1.67	0.57
1:AR:1429:G:OP2	6:CF:107:ARG:NH2	2.32	0.57
1:AR:1495:U:H5	1:AR:1835:A:N1	2.02	0.57
3:AT:81:U:O2'	3:AT:82:U:OP2	2.21	0.57
48:B:31:VAL:HG12	48:B:33:GLN:H	1.69	0.57
6:CF:120:TYR:CE2	6:CF:277:PRO:HB3	2.39	0.57
2:AS:62:U:O3'	7:CG:285:ARG:NH1	2.37	0.57
1:AR:596:C:OP1	9:CI:33:ARG:NH1	2.37	0.57
19:CS:158:HIS:H	19:CS:186:VAL:HG12	1.70	0.57
26:CZ:67:ILE:HB	26:CZ:83:VAL:HG12	1.85	0.57
29:DC:77:LYS:O	29:DC:79:TRP:N	2.36	0.57
59:M:53:TYR:HH	59:M:58:CYS:HG	1.47	0.57
1:1:1433:A:N3	33:AF:27:ARG:NH1	2.52	0.57
48:B:71:GLU:O	48:B:96:THR:HG22	2.04	0.57
6:CF:234:ASN:OD1	6:CF:236:LEU:N	2.38	0.57
15:CO:48:GLY:HA3	15:CO:53:VAL:HG13	1.85	0.57
44:DR:49:ARG:HB2	44:DR:55:TRP:CH2	2.39	0.57
67:U:28:LEU:HD13	67:U:30:VAL:HG13	1.85	0.57
1:1:1877:U:OP2	82:1:3461:OHX:N2	2.37	0.57
1:1:2261:G:OP2	82:1:3614:OHX:N1	2.37	0.57
1:1:2338:C:H1'	24:6:49:LEU:HD12	1.86	0.57
1:AR:3013:U:H2'	1:AR:3014:U:C6	2.39	0.57
82:AR:3468:OHX:N5	82:AR:3468:OHX:N3	2.52	0.57
2:AS:49:G:O6	7:CG:58:LYS:NZ	2.28	0.57
63:Q:128:HIS:O	63:Q:130:ARG:NH1	2.38	0.57
68:V:22:ILE:HG22	68:V:93:LEU:HB2	1.86	0.57
72:Z:35:VAL:HG13	72:Z:36:SER:H	1.69	0.57
21:0:155:ARG:HD3	21:0:172:TYR:CG	2.40	0.57
21:0:2:ALA:HB3	21:0:32:SER:HB3	1.87	0.57
1:1:3092:C:O2'	1:1:3094:A:OP2	2.14	0.57
1:1:600:G:N7	82:1:3629:OHX:N1	2.53	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:71:G:H2'	2:3:72:A:H8	1.69	0.57
24:6:87:ARG:HH12	24:6:137:VAL:HG11	1.70	0.57
24:6:80:ARG:NE	24:6:97:ASP:OD1	2.33	0.57
1:AR:2676:A:H4'	1:AR:2677:G:O5'	2.05	0.57
1:AR:3121:U:H1'	1:AR:3122:A:H5''	1.85	0.57
1:AR:979:U:C2	1:AR:980:A:C4	2.92	0.57
7:CG:106:ALA:O	7:CG:110:LEU:HB2	2.05	0.57
31:DE:57:GLU:OE1	31:DE:69:TYR:OH	2.21	0.57
1:1:1485:G:OP2	82:1:3682:OHX:N1	2.36	0.57
1:1:831:G:O2'	1:1:1864:A:N3	2.26	0.57
1:1:2972:G:H2'	1:1:2973:G:C8	2.37	0.57
1:1:980:A:H2'	1:1:981:U:C1'	2.35	0.57
2:3:60:G:H2'	2:3:61:G:C8	2.39	0.57
47:A:131:C:OP1	82:A:1851:OHX:N4	2.37	0.57
47:A:1657:U:C2	82:A:1867:OHX:N1	2.73	0.57
36:AI:10:ARG:NH1	36:AI:60:GLU:OE1	2.38	0.57
1:AR:1833:G:OP1	40:DN:10:LYS:NZ	2.38	0.57
1:AR:850:U:H2'	1:AR:851:C:C6	2.38	0.57
1:AR:916:G:H5'	1:AR:917:A:OP1	2.04	0.57
16:CP:186:GLY:O	16:CP:190:THR:HG22	2.03	0.57
1:1:239:G:N7	82:1:3568:OHX:N4	2.53	0.57
1:1:3346:U:H3	1:1:3359:A:N6	2.02	0.57
2:3:60:G:H2'	2:3:61:G:H8	1.70	0.57
47:A:1754:A:H4'	47:A:1755:A:O5'	2.04	0.57
47:A:25:C:H4'	47:A:25:C:OP2	2.04	0.57
28:AA:104:PRO:O	28:AA:108:GLU:HG3	2.04	0.57
31:AD:26:GLY:O	31:AD:30:THR:HG23	2.05	0.57
1:AR:1276:U:OP2	82:AR:3509:OHX:N5	2.38	0.57
35:DI:84:CYS:O	35:DI:88:ARG:HG2	2.05	0.57
1:AR:353:G:N7	38:DL:55:ARG:NH1	2.51	0.57
53:G:58:LEU:HD21	53:G:167:ARG:HD2	1.86	0.57
72:Z:47:VAL:HG23	72:Z:48:TYR:CD1	2.40	0.57
1:1:3041:U:OP1	24:6:12:ARG:NH1	2.38	0.57
47:A:1600:A:H4'	47:A:1601:G:OP1	2.04	0.57
43:AP:15:LYS:HA	43:AP:18:ARG:HE	1.68	0.57
1:AR:1145:G:H5'	33:DG:46:PHE:CE1	2.39	0.57
1:AR:1295:G:O2'	21:CU:115:ARG:NH1	2.31	0.57
1:AR:370:U:H4'	1:AR:404:G:H5'	1.87	0.57
1:AR:629:U:H2'	1:AR:630:A:C8	2.39	0.57
11:CK:171:ASP:OD2	11:CK:173:ARG:NH1	2.38	0.57
48:B:117:GLU:OE1	50:D:40:LYS:HG3	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:F:125:LYS:NZ	52:F:225:VAL:O	2.34	0.57
1:1:2505:U:H2'	1:1:2506:U:C6	2.40	0.57
1:1:2827:U:O4	82:1:3403:OHX:N4	2.38	0.57
1:1:1276:U:OP1	82:1:3618:OHX:N4	2.38	0.57
1:1:962:A:N1	1:1:2814:G:O2'	2.28	0.57
24:6:13:ILE:HD12	24:6:85:TRP:CD1	2.39	0.57
1:1:1485:G:N2	35:AH:4:ARG:HD2	2.20	0.57
1:AR:3019:U:O4	82:AR:3486:OHX:N2	2.38	0.57
82:AR:3523:OHX:N5	82:AR:3709:OHX:N1	2.53	0.57
48:B:144:ILE:HG12	48:B:158:VAL:HG13	1.87	0.57
48:B:85:ALA:HA	48:B:202:TYR:HD2	1.70	0.57
17:CQ:56:ASP:O	17:CQ:59:ARG:HG2	2.04	0.57
18:CR:136:ILE:O	18:CR:137:ASN:ND2	2.32	0.57
47:A:475:A:OP2	57:K:126:ARG:NH1	2.38	0.57
51:E:8:LYS:HE2	68:V:61:LYS:HD3	1.87	0.57
47:A:1381:U:H4'	68:V:59:PRO:HG3	1.86	0.56
47:A:1114:G:O6	82:A:1852:OHX:N5	2.37	0.56
47:A:895:G:H1	47:A:917:U:H3	1.51	0.56
29:AB:74:ASN:HB3	29:AB:115:LYS:H	1.69	0.56
32:AE:44:MET:HB3	32:AE:77:ARG:HD3	1.86	0.56
1:AR:1090:G:O6	82:AR:3684:OHX:N5	2.36	0.56
1:AR:2185:G:O2'	1:AR:2314:U:OP2	2.23	0.56
1:AR:2528:G:H1	1:AR:2582:C:H42	1.52	0.56
82:AR:3523:OHX:N2	82:AR:3709:OHX:N2	2.53	0.56
1:AR:374:A:N3	1:AR:376:G:H5''	2.20	0.56
10:CJ:190:VAL:HG13	10:CJ:192:GLN:HG2	1.87	0.56
12:CL:86:HIS:HB3	12:CL:139:ARG:CG	2.33	0.56
12:CL:80:SER:HB3	12:CL:147:VAL:HG11	1.87	0.56
15:CO:17:VAL:HG11	15:CO:74:ARG:HA	1.86	0.56
19:CS:67:ILE:HG23	19:CS:81:VAL:HG11	1.86	0.56
1:AR:1686:U:O4	23:CW:82:LYS:NZ	2.38	0.56
24:CX:129:VAL:O	24:CX:133:SER:OG	2.22	0.56
31:DE:16:LEU:HD12	31:DE:97:ASP:HB3	1.86	0.56
1:AR:1386:A:OP2	33:DG:80:LYS:NZ	2.35	0.56
54:H:148:SER:OG	54:H:148:SER:O	2.21	0.56
62:P:79:VAL:HG12	62:P:110:LEU:HD22	1.87	0.56
1:1:25:U:O4	82:1:3405:OHX:N3	2.38	0.56
1:1:625:G:OP1	82:1:3579:OHX:N1	2.38	0.56
1:1:844:G:O6	82:1:3456:OHX:N5	2.37	0.56
47:A:1194:A:OP2	68:V:75:GLY:N	2.36	0.56
82:A:1900:OHX:N5	82:A:1900:OHX:N3	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:780:A:C8	72:Z:8:ARG:HB3	2.41	0.56
1:AR:1820:U:H4'	1:AR:1821:U:O5'	2.05	0.56
1:AR:1940:G:H21	1:AR:3362:A:H8	1.53	0.56
1:AR:2656:A:O2'	82:AR:3409:OHX:N1	2.38	0.56
1:AR:2810:C:OP1	82:AR:3582:OHX:N3	2.38	0.56
1:AR:718:G:N1	1:AR:721:G:H1'	2.20	0.56
2:AS:58:C:OP1	82:AS:202:OHX:N3	2.38	0.56
49:C:137:ILE:HD12	49:C:172:LEU:HD22	1.87	0.56
1:AR:2663:G:H5'	7:CG:152:ARG:HD3	1.87	0.56
20:CT:165:LYS:C	20:CT:167:ARG:H	2.07	0.56
20:CT:175:GLN:HG3	20:CT:179:GLU:HG3	1.88	0.56
21:CU:1:MET:HE1	21:CU:32:SER:N	2.20	0.56
32:DF:79:ARG:NE	32:DF:79:ARG:H	2.03	0.56
51:E:68:GLU:OE2	58:L:67:THR:HG23	2.05	0.56
47:A:93:A:O2'	52:F:4:GLY:HA3	2.05	0.56
54:H:88:ARG:HB3	54:H:91:GLU:HB2	1.86	0.56
47:A:780:A:H8	72:Z:8:ARG:HB3	1.70	0.56
1:1:1144:U:OP1	1:1:1367:G:O2'	2.22	0.56
1:1:3364:C:OP1	82:1:3462:OHX:N2	2.38	0.56
47:A:1256:A:OP1	58:L:5:LYS:NZ	2.28	0.56
47:A:1459:C:OP1	66:T:126:ARG:NH2	2.38	0.56
47:A:698:U:H2'	47:A:699:U:O4'	2.04	0.56
47:A:218:A:N6	47:A:844:A:H1'	2.20	0.56
1:AR:1029:G:H2'	1:AR:1030:A:C8	2.40	0.56
1:AR:1506:A:H1'	1:AR:1848:G:O6	2.05	0.56
1:AR:3164:C:N4	1:AR:3287:U:O4	2.38	0.56
1:AR:724:U:OP2	82:AR:3505:OHX:N5	2.38	0.56
3:AT:83:C:H1'	3:AT:85:G:N2	2.20	0.56
13:CM:23:VAL:HG12	13:CM:25:GLU:H	1.69	0.56
14:CN:75:PHE:HA	14:CN:101:ARG:HH12	1.70	0.56
1:AR:114:A:OP1	16:CP:54:LYS:NZ	2.38	0.56
59:M:53:TYR:CG	59:M:113:PRO:HG2	2.41	0.56
65:S:82:ASP:O	65:S:83:GLN:NE2	2.38	0.56
1:1:1019:G:O6	82:1:3592:OHX:N1	2.39	0.56
23:5:14:THR:HG23	23:5:66:VAL:HG13	1.85	0.56
47:A:131:C:OP1	82:A:1851:OHX:N1	2.38	0.56
47:A:603:U:H2'	47:A:604:A:C8	2.40	0.56
38:AK:65:ARG:HG3	38:AK:65:ARG:HH11	1.71	0.56
1:AR:1765:U:H4'	1:AR:1765:U:OP1	2.04	0.56
1:AR:2767:U:H2'	1:AR:2768:U:C6	2.40	0.56
1:AR:2943:G:OP2	5:CE:2:SER:OG	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:AR:3479:OHX:N1	82:AR:3691:OHX:N1	2.54	0.56
1:AR:914:A:C2	4:CD:204:MET:HB3	2.41	0.56
6:CF:49:ALA:HA	6:CF:109:TRP:CZ2	2.40	0.56
55:I:13:PRO:HB3	55:I:14:THR:HB	1.87	0.56
1:1:2150:G:H4'	44:AQ:22:LEU:HD21	1.87	0.56
1:1:2535:A:H3'	1:1:2536:A:C8	2.40	0.56
1:1:3121:U:H1'	1:1:3122:A:H5''	1.86	0.56
1:AR:213:A:H5''	27:DA:2:ALA:N	2.21	0.56
1:AR:1045:C:OP2	82:AR:3672:OHX:N5	2.38	0.56
1:AR:662:U:H2'	1:AR:663:C:C6	2.40	0.56
5:CE:4:ARG:O	5:CE:5:LYS:HB3	2.05	0.56
20:CT:175:GLN:HA	20:CT:178:ALA:HB3	1.87	0.56
20:CT:17:VAL:HG11	20:CT:21:LYS:HB2	1.87	0.56
26:CZ:105:VAL:HA	26:CZ:130:TYR:CE2	2.41	0.56
40:DN:21:ARG:NH1	40:DN:24:PRO:HG3	2.21	0.56
70:X:86:ILE:HD12	70:X:87:GLU:H	1.69	0.56
1:1:1310:G:O6	82:1:3561:OHX:N5	2.38	0.56
1:1:1798:A:H2'	1:1:1799:A:C8	2.41	0.56
1:1:1814:A:OP1	82:1:3623:OHX:N2	2.39	0.56
82:1:3562:OHX:N1	82:1:3673:OHX:N4	2.54	0.56
47:A:1051:G:H4'	47:A:1052:U:OP2	2.04	0.56
1:AR:2864:A:H5'	12:CL:102:MET:HE1	1.87	0.56
9:CI:143:THR:HG22	9:CI:241:LYS:HE3	1.88	0.56
12:CL:77:THR:HG23	12:CL:85:PHE:CZ	2.41	0.56
50:D:143:TYR:CZ	50:D:151:PRO:HG3	2.40	0.56
36:DJ:38:ARG:HG2	36:DJ:39:PRO:HD2	1.86	0.56
52:F:31:PRO:HG2	52:F:38:LEU:HD13	1.87	0.56
65:S:20:TYR:CE1	65:S:38:ILE:HD11	2.41	0.56
72:Z:122:GLY:O	72:Z:125:LEU:N	2.38	0.56
1:1:196:G:O6	82:1:3439:OHX:N6	2.39	0.56
1:1:2662:G:H2'	1:1:2663:G:C8	2.41	0.56
24:6:68:GLU:CD	24:6:68:GLU:H	2.07	0.56
47:A:1140:G:N7	82:A:1843:OHX:N2	2.53	0.56
47:A:1206:U:OP1	82:A:1840:OHX:N6	2.37	0.56
1:1:317:A:OP2	37:AJ:30:LYS:NZ	2.39	0.56
82:AR:3598:OHX:N5	82:AR:3725:OHX:N6	2.54	0.56
1:AR:685:G:OP2	14:CN:35:ARG:NH1	2.39	0.56
48:B:12:GLU:OE1	48:B:13:ASP:N	2.35	0.56
13:CM:9:MET:O	13:CM:9:MET:HG3	2.04	0.56
1:AR:1062:A:N3	22:CV:130:ARG:NH2	2.47	0.56
35:DI:96:GLU:HA	35:DI:99:LYS:HE2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:756:A:H1'	52:F:12:LEU:O	2.05	0.56
54:H:63:MET:HE1	54:H:106:LEU:HD13	1.87	0.56
47:A:323:A:OP2	56:J:10:LYS:HA	2.05	0.56
63:Q:31:GLU:HG3	63:Q:32:ASP:N	2.21	0.56
72:Z:2:SER:N	72:Z:32:ARG:HG3	2.21	0.56
1:1:1564:U:H2'	1:1:1565:G:C8	2.41	0.56
1:1:900:G:H1'	1:1:1589:A:N6	2.21	0.56
47:A:1606:C:H2'	47:A:1607:G:C8	2.40	0.56
47:A:1746:A:H2'	47:A:1747:G:O4'	2.05	0.56
47:A:859:A:C6	61:O:73:ARG:HD3	2.41	0.56
39:AL:66:ILE:HA	39:AL:69:LEU:HD23	1.86	0.56
39:AL:8:ILE:H	39:AL:8:ILE:HD12	1.70	0.56
44:AQ:83:ILE:HG22	44:AQ:87:ARG:NH1	2.20	0.56
1:AR:1064:A:H4'	1:AR:1065:A:O5'	2.05	0.56
1:AR:2840:C:OP1	82:AR:3639:OHX:N3	2.38	0.56
1:AR:2674:A:OP2	82:AR:3655:OHX:N3	2.39	0.56
1:AR:2155:G:OP1	4:CD:241:ARG:HG2	2.06	0.56
12:CL:14:ASN:O	12:CL:128:ARG:NH2	2.39	0.56
29:DC:48:TYR:O	29:DC:49:HIS:CG	2.58	0.56
64:R:22:VAL:HG22	64:R:65:ILE:HD13	1.87	0.56
1:1:1500:G:H2'	1:1:1501:U:O4'	2.06	0.56
1:1:2438:A:H2'	1:1:2439:A:C8	2.40	0.56
1:1:2532:U:H3	1:1:2547:A:H61	1.54	0.56
1:1:530:G:O6	82:1:3454:OHX:N5	2.38	0.56
82:1:3505:OHX:N2	82:1:3683:OHX:N6	2.53	0.56
47:A:1241:G:H5''	63:Q:77:ARG:HB3	1.88	0.56
40:AM:21:ARG:HD3	40:AM:22:PRO:O	2.06	0.56
1:AR:196:G:N7	82:AR:3445:OHX:N3	2.53	0.56
1:AR:568:G:N7	82:AR:3440:OHX:N2	2.54	0.56
82:AR:3538:OHX:N3	82:AR:3728:OHX:N1	2.54	0.56
6:CF:26:PHE:HA	6:CF:127:ALA:HA	1.88	0.56
8:CH:56:LYS:HD2	8:CH:58:LEU:HD23	1.88	0.56
21:CU:155:ARG:HD3	21:CU:172:TYR:CG	2.41	0.56
68:V:20:ILE:HD13	68:V:22:ILE:HD13	1.88	0.56
70:X:83:ILE:HG13	70:X:117:ARG:HH12	1.69	0.56
1:1:1464:G:O6	82:AE:201:OHX:N3	2.39	0.56
1:1:2677:G:H2'	1:1:2679:A:H2	1.70	0.56
82:A:1809:OHX:N4	82:A:1920:OHX:N2	2.54	0.56
47:A:715:U:H3	47:A:723:G:H1	1.54	0.56
1:AR:1310:G:N7	82:AR:3529:OHX:N4	2.54	0.56
1:AR:1334:U:H5'	9:CI:207:LEU:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2244:A:H5''	4:CD:243:THR:OG1	2.05	0.56
1:AR:2573:G:N7	82:AR:3687:OHX:N2	2.53	0.56
2:AS:28:C:H5''	13:CM:137:ARG:HG2	1.88	0.56
56:J:39:GLY:HA2	56:J:61:GLU:HB3	1.87	0.56
1:1:2982:A:OP1	82:1:3712:OHX:N3	2.38	0.56
47:A:1682:U:O2'	47:A:1683:C:H5'	2.04	0.56
82:A:1809:OHX:N4	82:A:1920:OHX:N1	2.53	0.56
47:A:1064:G:O6	82:A:1939:OHX:N6	2.38	0.56
28:AA:10:VAL:HB	28:AA:83:THR:HG21	1.88	0.56
44:AQ:8:VAL:HB	44:AQ:11:THR:HG22	1.86	0.56
1:AR:1018:G:H2'	1:AR:1019:G:O4'	2.05	0.56
1:AR:1096:U:H4'	1:AR:1097:G:H5''	1.88	0.56
1:AR:1340:G:H2'	1:AR:1341:U:C6	2.40	0.56
1:AR:188:U:H1'	1:AR:208:C:H1'	1.87	0.56
1:AR:277:G:H2'	1:AR:278:U:C6	2.41	0.56
1:AR:2356:A:H61	1:AR:2983:C:H5	1.49	0.56
1:AR:3165:A:H2'	1:AR:3166:C:C6	2.41	0.56
82:AT:203:OHX:N2	82:AT:212:OHX:N1	2.54	0.56
11:CK:23:ARG:HH21	11:CK:42:ASP:H	1.53	0.56
28:DB:3:LYS:O	28:DB:5:LEU:N	2.40	0.56
36:DJ:85:THR:CG2	36:DJ:88:LEU:H	2.19	0.56
53:G:51:VAL:HG21	53:G:130:ILE:HG23	1.88	0.56
65:S:5:ARG:O	65:S:10:LYS:HE2	2.05	0.56
66:T:53:ASP:HB3	66:T:56:LYS:HG3	1.87	0.56
1:1:180:C:H2'	1:1:181:U:H6	1.71	0.55
31:AD:74:ASN:OD1	31:AD:74:ASN:N	2.39	0.55
1:AR:1645:U:H3	1:AR:1810:A:H61	1.54	0.55
82:AR:3558:OHX:N4	82:AR:3692:OHX:N1	2.54	0.55
1:AR:528:U:H2'	1:AR:529:A:C8	2.42	0.55
10:CJ:143:ILE:HG23	10:CJ:175:VAL:HG21	1.88	0.55
55:I:35:LYS:HG2	55:I:36:ALA:H	1.70	0.55
70:X:30:SER:OG	70:X:30:SER:O	2.20	0.55
1:1:3165:A:H2'	1:1:3166:C:C6	2.41	0.55
1:1:2317:A:OP2	82:1:3603:OHX:N2	2.39	0.55
82:A:1934:OHX:N1	57:K:8:TYR:O	2.39	0.55
47:A:1314:U:OP1	82:A:1942:OHX:N5	2.39	0.55
47:A:591:A:H2'	47:A:592:A:H8	1.70	0.55
3:4:52:A:N6	40:AM:27:ILE:HD13	2.21	0.55
1:AR:1352:A:H4'	1:AR:1353:U:OP1	2.06	0.55
1:AR:2768:U:H2'	1:AR:2769:A:C8	2.41	0.55
5:CE:51:ALA:CB	5:CE:317:ILE:HD11	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:4:ARG:NH2	12:CL:99:ILE:HG13	2.21	0.55
14:CN:57:VAL:HG23	14:CN:115:ARG:HD2	1.87	0.55
17:CQ:84:LEU:HD13	17:CQ:102:LEU:HD21	1.88	0.55
62:P:29:HIS:O	62:P:29:HIS:ND1	2.39	0.55
72:Z:36:SER:HB3	72:Z:39:GLU:HB2	1.88	0.55
1:1:3378:C:OP2	82:1:3440:OHX:N6	2.39	0.55
1:1:1115:G:OP1	82:1:3721:OHX:N3	2.39	0.55
1:1:612:U:H2'	1:1:613:G:H8	1.70	0.55
47:A:730:G:H21	47:A:731:C:H5'	1.71	0.55
28:AA:23:VAL:HG12	28:AA:45:GLY:HA3	1.89	0.55
1:AR:2254:U:H3	1:AR:2263:C:H42	1.55	0.55
1:AR:279:U:H2'	1:AR:280:U:C6	2.40	0.55
13:CM:114:ILE:HD12	13:CM:114:ILE:H	1.71	0.55
13:CM:8:PRO:HG2	13:CM:9:MET:HB3	1.88	0.55
19:CS:185:LYS:HD3	19:CS:186:VAL:HG23	1.87	0.55
36:DJ:38:ARG:HD2	36:DJ:41:LEU:HD13	1.88	0.55
66:T:42:TYR:HA	66:T:85:PHE:HE2	1.71	0.55
82:1:3502:OHX:N1	3:4:31:G:OP2	2.39	0.55
47:A:1508:U:O4	82:A:1809:OHX:N6	2.40	0.55
37:AJ:2:THR:OG1	37:AJ:2:THR:O	2.21	0.55
1:AR:1594:A:OP1	35:DI:36:LYS:NZ	2.36	0.55
1:AR:1677:G:OP2	23:CW:103:TYR:OH	2.12	0.55
1:AR:1804:A:H2'	1:AR:1805:C:C6	2.42	0.55
1:AR:385:A:H2'	1:AR:386:A:C8	2.42	0.55
7:CG:131:LEU:H	7:CG:131:LEU:HD22	1.70	0.55
8:CH:3:ALA:HB1	33:DG:75:LEU:HD13	1.88	0.55
13:CM:139:THR:HG22	13:CM:147:THR:HA	1.89	0.55
21:CU:42:TRP:CZ2	21:CU:58:ILE:HD12	2.41	0.55
22:CV:12:ARG:HD3	22:CV:13:TYR:CZ	2.41	0.55
23:CW:43:VAL:C	23:CW:45:GLY:H	2.10	0.55
25:CY:27:LYS:HD3	25:CY:29:PHE:CZ	2.42	0.55
50:D:90:THR:HG23	50:D:93:GLY:N	2.21	0.55
34:DH:52:VAL:HG21	34:DH:99:ARG:NH1	2.20	0.55
51:E:105:MET:HB3	51:E:184:ILE:HD12	1.87	0.55
55:I:155:ASP:O	55:I:159:VAL:HG11	2.05	0.55
57:K:108:ARG:O	57:K:111:THR:OG1	2.23	0.55
57:K:163:PRO:HB3	57:K:168:ARG:O	2.04	0.55
60:N:67:THR:HG22	60:N:68:GLU:HG3	1.88	0.55
1:1:190:U:H2'	27:9:60:ARG:NH2	2.22	0.55
23:5:50:LEU:HD13	23:5:54:VAL:HG23	1.89	0.55
47:A:514:G:O2'	47:A:515:A:H5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:826:U:H2'	47:A:827:C:C6	2.40	0.55
1:AR:1807:G:H5''	28:DB:135:ARG:HH22	1.70	0.55
1:AR:2896:A:OP1	41:DO:102:ARG:NE	2.35	0.55
1:AR:2971:A:N3	1:AR:2971:A:H3'	2.22	0.55
1:AR:3159:C:H2'	1:AR:3160:U:C6	2.42	0.55
1:AR:3350:C:H3'	1:AR:3352:U:C5	2.41	0.55
82:AR:3525:OHX:N6	82:AR:3525:OHX:N2	2.55	0.55
1:AR:94:G:H2'	1:AR:95:A:C8	2.41	0.55
48:B:167:LYS:HE3	48:B:168:HIS:CD2	2.42	0.55
5:CE:339:ARG:HG2	5:CE:340:LYS:O	2.07	0.55
8:CH:105:TYR:OH	8:CH:137:ASP:OD2	2.17	0.55
2:AS:44:C:OP2	13:CM:137:ARG:NH2	2.40	0.55
15:CO:21:VAL:HB	15:CO:63:VAL:HG13	1.88	0.55
1:AR:287:G:OP1	16:CP:179:LYS:HE3	2.07	0.55
24:CX:4:ASN:HB3	24:CX:105:PRO:O	2.07	0.55
30:DD:14:ARG:HH12	30:DD:18:ARG:NH1	2.05	0.55
53:G:63:GLN:HB3	53:G:88:PRO:HA	1.89	0.55
56:J:117:TYR:CD1	56:J:150:ALA:HB2	2.42	0.55
61:O:47:PRO:HG3	61:O:75:LEU:HD22	1.88	0.55
47:A:1555:A:OP2	63:Q:47:ARG:NH2	2.39	0.55
1:1:112:U:O2'	1:1:113:C:OP2	2.19	0.55
47:A:1557:U:OP2	47:A:1559:A:O2'	2.11	0.55
47:A:1689:A:H2'	47:A:1690:G:H8	1.72	0.55
47:A:226:A:H2'	47:A:227:U:H5'	1.88	0.55
29:AB:46:ASP:N	29:AB:46:ASP:OD1	2.33	0.55
32:AE:36:ILE:HD12	32:AE:59:ILE:HD11	1.87	0.55
23:CW:27:VAL:HG21	23:CW:107:PHE:HE1	1.71	0.55
1:AR:1369:A:OP1	29:DC:21:ARG:NH1	2.39	0.55
32:DF:6:ASP:O	32:DF:8:VAL:HG22	2.07	0.55
40:DN:14:ALA:O	40:DN:18:LYS:HG3	2.07	0.55
52:F:176:ASP:HB2	52:F:179:LYS:HZ3	1.72	0.55
1:1:1352:A:H4'	1:1:1353:U:OP1	2.07	0.55
3:4:150:G:N7	82:4:205:OHX:N1	2.55	0.55
47:A:1541:G:O2'	47:A:1570:A:N6	2.37	0.55
47:A:1585:U:N3	47:A:1611:A:H2	2.05	0.55
47:A:539:G:H8	47:A:539:G:OP2	1.89	0.55
28:AA:38:PHE:O	28:AA:40:HIS:ND1	2.38	0.55
29:AB:24:LYS:HD2	29:AB:26:ARG:NH2	2.22	0.55
1:AR:1387:G:OP1	82:AR:3693:OHX:N4	2.39	0.55
1:AR:1464:G:N2	1:AR:1466:G:H3'	2.21	0.55
1:AR:3316:A:OP1	1:AR:3318:G:N2	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:830:A:OP1	82:AR:3565:OHX:N2	2.40	0.55
3:AT:4:C:H2'	3:AT:5:U:H6	1.71	0.55
49:C:175:GLU:HG3	49:C:193:ILE:HD12	1.88	0.55
1:AR:3049:A:H5''	5:CE:53:MET:HB2	1.87	0.55
20:CT:99:LEU:HD11	20:CT:103:ARG:CZ	2.37	0.55
61:O:132:VAL:HG23	61:O:134:VAL:HG13	1.88	0.55
1:1:1039:U:H2'	1:1:1040:A:C8	2.42	0.55
1:1:1296:C:OP1	21:O:84:ARG:NH2	2.23	0.55
1:1:1591:G:OP1	35:AH:16:ARG:NH1	2.39	0.55
1:1:2534:G:O6	82:1:3530:OHX:N4	2.40	0.55
3:4:151:C:C4	26:8:24:LEU:HD11	2.42	0.55
27:9:82:VAL:HG12	27:9:84:LYS:H	1.71	0.55
47:A:1083:G:HO2'	47:A:1094:G:HO2'	1.51	0.55
82:A:1836:OHX:N5	82:A:1836:OHX:N3	2.54	0.55
47:A:792:U:H2'	47:A:793:A:N7	2.21	0.55
28:AA:88:ASP:HB3	28:AA:121:ARG:NH2	2.19	0.55
37:AJ:54:GLU:O	37:AJ:58:ILE:HG23	2.06	0.55
3:4:52:A:H4'	40:AM:19:GLN:HA	1.88	0.55
1:AR:1637:A:OP2	28:DB:73:LYS:NZ	2.36	0.55
1:AR:2697:A:H2'	1:AR:2698:G:C8	2.42	0.55
1:AR:715:A:H8	29:DC:115:LYS:HG2	1.72	0.55
48:B:41:ARG:HD2	48:B:42:PRO:O	2.07	0.55
49:C:181:LEU:HA	49:C:184:LEU:HB2	1.87	0.55
4:CD:83:HIS:CE1	4:CD:86:GLN:HB2	2.42	0.55
1:AR:2395:G:H5''	5:CE:255:TRP:CD1	2.42	0.55
8:CH:68:PRO:HB2	8:CH:71:VAL:HG23	1.88	0.55
10:CJ:144:GLU:OE1	37:DK:36:ARG:NH2	2.39	0.55
15:CO:22:LEU:HB3	15:CO:64:VAL:HG13	1.89	0.55
17:CQ:62:THR:H	17:CQ:69:GLY:HA3	1.71	0.55
1:AR:784:A:H2'	19:CS:69:ARG:HH21	1.70	0.55
21:CU:12:ARG:HG3	21:CU:13:ARG:O	2.06	0.55
52:F:79:ASP:OD1	52:F:82:TYR:N	2.40	0.55
56:J:120:THR:O	82:J:302:OHX:N5	2.40	0.55
58:L:29:GLN:HB3	58:L:39:ASN:HB2	1.88	0.55
62:P:84:ARG:HB2	62:P:118:VAL:HG23	1.89	0.55
64:R:127:LYS:HA	64:R:134:ALA:HA	1.88	0.55
65:S:19:ARG:HG3	65:S:20:TYR:CD1	2.42	0.55
72:Z:29:HIS:CE1	72:Z:34:ASN:H	2.25	0.55
1:1:1581:C:O2	1:1:1582:C:H5'	2.07	0.55
1:1:2104:A:H2'	1:1:2105:G:C8	2.41	0.55
1:1:901:G:O6	82:1:3472:OHX:N2	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1102:G:H2'	47:A:1103:U:O4'	2.06	0.55
43:AP:15:LYS:HD2	43:AP:18:ARG:HH11	1.72	0.55
1:AR:1160:C:O2'	1:AR:1366:A:H5'	2.07	0.55
1:AR:1786:G:H2'	1:AR:1787:A:C8	2.41	0.55
1:AR:2158:A:H5'	1:AR:2160:G:O4'	2.06	0.55
82:AR:3513:OHX:N3	82:AR:3693:OHX:N1	2.55	0.55
1:AR:671:U:OP2	19:CS:57:ILE:HD12	2.07	0.55
1:AR:817:A:C8	38:DL:15:SER:HB2	2.41	0.55
1:AR:900:G:H1'	1:AR:1589:A:N6	2.22	0.55
3:AT:21:C:OP1	6:CF:193:LYS:NZ	2.40	0.55
49:C:40:ASN:ND2	49:C:42:ASN:O	2.40	0.55
43:DQ:2:VAL:N	43:DQ:90:HIS:O	2.39	0.55
1:1:656:A:C2	1:1:1440:G:C2	2.95	0.55
82:1:3537:OHX:N2	82:1:3697:OHX:N5	2.55	0.55
47:A:1615:C:O2'	47:A:1616:G:OP2	2.23	0.55
47:A:487:G:H3'	47:A:488:G:H5''	1.88	0.55
47:A:800:U:H2'	47:A:801:G:C8	2.42	0.55
47:A:848:C:H2'	47:A:849:C:C6	2.42	0.55
44:AQ:30:GLU:HA	44:AQ:33:GLN:HG2	1.88	0.55
1:AR:1751:G:H5''	39:DM:26:LYS:HE3	1.88	0.55
1:AR:2705:A:OP2	82:AR:3401:OHX:N1	2.40	0.55
1:AR:2426:U:O4	82:AR:3405:OHX:N2	2.40	0.55
82:AR:3696:OHX:N6	82:AT:213:OHX:N5	2.55	0.55
1:AR:535:G:O6	82:AR:3587:OHX:N6	2.40	0.55
1:AR:758:C:N4	1:AR:773:G:H1	2.04	0.55
1:AR:980:A:H2'	1:AR:981:U:C1'	2.37	0.55
4:CD:156:LYS:HG2	4:CD:158:ILE:HG22	1.89	0.55
5:CE:361:THR:HG23	5:CE:371:GLN:O	2.07	0.55
1:AR:1429:G:N1	6:CF:99:MET:HE2	2.22	0.55
10:CJ:134:TYR:CG	10:CJ:190:VAL:HG21	2.42	0.55
17:CQ:42:ASN:OD1	17:CQ:125:ARG:HD3	2.07	0.55
53:G:98:MET:HB2	53:G:105:GLY:O	2.07	0.55
62:P:84:ARG:HE	62:P:84:ARG:H	7.21	0.55
47:A:1479:A:OP1	67:U:57:ARG:NH1	2.40	0.55
1:1:1636:U:H5''	28:AA:73:LYS:NZ	2.22	0.54
1:1:3174:A:H2'	1:1:3175:U:H5'	1.88	0.54
47:A:1017:U:H2'	47:A:1018:U:H6	1.72	0.54
47:A:134:U:OP1	47:A:136:C:N4	2.40	0.54
47:A:420:A:OP1	54:H:96:SER:OG	2.17	0.54
35:AH:84:CYS:O	35:AH:88:ARG:HG2	2.08	0.54
1:AR:1157:G:H2'	1:AR:1158:A:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:3276:G:O6	18:CR:171:ARG:HD2	2.07	0.54
1:AR:3309:G:O6	5:CE:21:ARG:NH2	2.32	0.54
82:AR:3538:OHX:N6	82:AR:3728:OHX:N5	2.54	0.54
16:CP:110:ALA:HB1	16:CP:113:LEU:HD22	1.90	0.54
1:AR:71:A:OP2	29:DC:67:HIS:NE2	2.35	0.54
1:1:1368:U:H5'	33:AF:43:ARG:NH1	2.22	0.54
1:1:2194:G:O6	82:1:3723:OHX:N5	2.40	0.54
47:A:1316:G:HO2'	47:A:1401:A:HO2'	1.55	0.54
29:AB:116:GLY:HA2	29:AB:137:LYS:NZ	2.22	0.54
30:AC:17:HIS:HA	30:AC:20:GLY:HA2	1.88	0.54
1:AR:2389:C:H42	1:AR:2990:G:H1	1.55	0.54
1:AR:3089:C:H2'	1:AR:3090:U:O4'	2.06	0.54
1:AR:863:C:OP1	82:AR:3418:OHX:N3	2.40	0.54
82:AR:3433:OHX:N6	82:AR:3433:OHX:N2	2.55	0.54
82:AS:203:OHX:N4	82:AS:209:OHX:N6	2.54	0.54
49:C:36:SER:HB3	49:C:231:LEU:HB3	1.89	0.54
5:CE:345:ASN:OD1	5:CE:347:SER:HB2	2.07	0.54
13:CM:15:GLU:HB3	13:CM:130:VAL:HG22	1.88	0.54
44:DR:58:SER:O	44:DR:61:LYS:HE3	2.07	0.54
65:S:27:ASP:OD2	65:S:30:THR:HG22	2.07	0.54
21:O:8:GLN:HB2	21:O:64:ILE:HD11	1.89	0.54
82:1:3493:OHX:N1	82:1:3667:OHX:N4	2.56	0.54
47:A:622:A:H4'	47:A:623:A:OP1	2.05	0.54
1:AR:148:G:OP2	16:CP:4:TYR:OH	2.16	0.54
1:AR:2801:A:O2'	1:AR:2802:A:H2'	2.07	0.54
82:AT:203:OHX:N5	82:AT:212:OHX:N5	2.55	0.54
49:C:91:VAL:HG23	49:C:96:LEU:HB3	1.90	0.54
1:AR:3139:A:OP1	5:CE:274:SER:OG	2.26	0.54
37:DK:79:SER:OG	37:DK:82:ARG:HG3	2.08	0.54
1:1:1796:G:H5''	1:1:1797:A:OP1	2.07	0.54
47:A:1165:G:C6	47:A:1166:A:C6	2.95	0.54
47:A:7:G:N7	50:D:205:ARG:NH1	2.48	0.54
47:A:979:A:N3	47:A:1775:U:O2'	2.37	0.54
1:AR:2895:G:H2'	1:AR:2896:A:H5''	1.90	0.54
1:AR:2251:G:O6	82:AR:3448:OHX:N6	2.40	0.54
82:AR:3558:OHX:N5	82:AR:3692:OHX:N6	2.55	0.54
49:C:133:TYR:CE2	49:C:220:GLN:HB3	2.42	0.54
4:CD:188:LYS:HG2	4:CD:189:TYR:CE2	2.42	0.54
11:CK:171:ASP:OD1	11:CK:173:ARG:HD3	2.07	0.54
1:AR:1212:A:OP1	11:CK:1:MET:HB3	2.07	0.54
13:CM:92:ARG:NH2	13:CM:94:ARG:HH21	2.05	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2356:A:OP1	18:CR:138:LYS:NZ	2.40	0.54
32:DF:102:LYS:HZ1	32:DF:103:GLY:H	1.55	0.54
23:5:107:PHE:HD1	23:5:108:TYR:H	1.54	0.54
47:A:144:U:O2'	47:A:145:A:H8	1.91	0.54
47:A:583:C:OP1	82:A:1804:OHX:N4	2.41	0.54
28:AA:9:LYS:HD2	28:AA:83:THR:O	2.08	0.54
35:AH:44:CYS:HB2	35:AH:81:CYS:HB3	1.88	0.54
35:AH:44:CYS:HG	35:AH:84:CYS:HG	1.54	0.54
38:AK:5:THR:HA	38:AK:8:PHE:CD2	2.43	0.54
39:AL:7:ASP:HB3	39:AL:10:GLN:HB3	1.89	0.54
1:AR:2520:A:H2'	1:AR:2521:U:C6	2.43	0.54
1:AR:3094:A:H2'	1:AR:3095:U:C6	2.43	0.54
1:AR:2865:U:OP2	82:AR:3474:OHX:N3	2.41	0.54
82:AR:3503:OHX:N3	82:AR:3593:OHX:N1	2.55	0.54
1:AR:501:A:H2'	1:AR:502:U:C6	2.42	0.54
10:CJ:171:LYS:NZ	10:CJ:223:ALA:O	2.37	0.54
16:CP:68:ARG:NH2	16:CP:123:GLN:OE1	2.40	0.54
36:DJ:85:THR:HB	36:DJ:88:LEU:HB2	1.88	0.54
57:K:65:LYS:HD3	57:K:70:LEU:HD11	1.90	0.54
62:P:125:SER:OG	62:P:126:THR:N	2.40	0.54
65:S:47:ARG:NH1	65:S:48:ASN:OD1	2.39	0.54
67:U:25:GLN:HG2	67:U:27:LYS:H	1.72	0.54
71:Y:107:PHE:CD2	71:Y:114:LYS:HB2	2.43	0.54
21:O:148:LEU:HD12	21:O:149:LYS:N	2.23	0.54
1:1:1027:A:H2'	1:1:1029:G:H5''	1.89	0.54
1:1:1204:A:H2	1:1:2834:G:N3	2.06	0.54
1:1:1222:G:HO2'	1:1:1285:G:N2	2.04	0.54
2:3:79:A:C2	2:3:102:A:C4	2.95	0.54
47:A:1160:A:H2'	47:A:1161:C:C6	2.42	0.54
47:A:1291:G:H22	47:A:1324:G:N2	2.04	0.54
47:A:218:A:O2'	47:A:219:A:OP1	2.18	0.54
1:1:424:G:O2'	33:AF:23:ASP:OD2	2.21	0.54
35:AH:74:ARG:HG2	35:AH:75:ALA:N	2.23	0.54
1:AR:2696:A:H2'	1:AR:2697:A:C8	2.43	0.54
1:AR:286:U:OP2	82:AR:3481:OHX:N2	2.40	0.54
1:AR:1861:G:N7	82:AR:3556:OHX:N1	2.56	0.54
49:C:168:ILE:HG12	49:C:197:ILE:HD12	1.89	0.54
49:C:180:THR:O	49:C:182:ALA:N	2.41	0.54
5:CE:347:SER:C	5:CE:349:LYS:H	2.10	0.54
7:CG:68:THR:O	7:CG:71:GLY:N	2.39	0.54
34:DH:59:VAL:HG23	34:DH:60:ARG:H	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:G:116:HIS:O	53:G:120:ILE:HG13	2.07	0.54
61:O:36:GLN:OE1	61:O:58:HIS:NE2	2.39	0.54
1:1:1785:U:H2'	1:1:1786:G:C8	2.42	0.54
1:1:3042:U:OP2	1:1:3092:C:N4	2.28	0.54
1:1:627:U:H2'	1:1:628:A:C8	2.42	0.54
1:1:1636:U:H5''	28:AA:73:LYS:HZ2	1.73	0.54
32:AE:23:VAL:O	32:AE:28:ARG:NH1	2.40	0.54
1:AR:3355:U:H5'	1:AR:3356:G:H5''	1.90	0.54
3:AT:67:U:O4	82:AT:214:OHX:N3	2.41	0.54
6:CF:11:LEU:HD13	6:CF:159:ILE:HD11	1.89	0.54
15:CO:50:LYS:HD3	15:CO:85:TRP:CD1	2.43	0.54
24:CX:87:ARG:HH22	24:CX:137:VAL:CG2	2.20	0.54
50:D:227:PRO:HA	50:D:230:TRP:CE2	2.43	0.54
29:DC:6:THR:HG23	29:DC:8:THR:HG23	1.89	0.54
38:DL:52:LYS:HA	38:DL:55:ARG:HD2	1.88	0.54
44:DR:5:THR:HB	44:DR:8:VAL:HG22	1.90	0.54
55:I:117:THR:HG23	55:I:120:ALA:H	1.72	0.54
57:K:186:GLU:N	57:K:186:GLU:OE1	2.40	0.54
59:M:27:THR:HG23	59:M:30:ARG:H	1.70	0.54
1:1:3033:A:OP2	82:1:3522:OHX:N4	2.41	0.54
1:1:691:A:N1	3:4:28:C:O2'	2.34	0.54
1:1:407:A:C2	3:4:17:A:H1'	2.42	0.54
25:7:52:THR:O	25:7:56:ARG:HG3	2.08	0.54
27:9:43:TYR:CD1	27:9:126:LEU:HA	2.43	0.54
47:A:16:G:O6	50:D:203:LYS:NZ	2.39	0.54
47:A:1701:A:H3'	47:A:1702:A:H5''	1.90	0.54
47:A:274:G:H3'	47:A:275:C:C6	2.43	0.54
1:1:965:A:H2	29:AB:43:ILE:HD12	1.73	0.54
1:AR:1243:G:O6	1:AR:1244:A:N6	2.41	0.54
1:AR:1641:U:O2'	1:AR:1642:A:H3'	2.08	0.54
1:AR:1942:U:OP2	20:CT:74:ARG:NH1	2.37	0.54
1:AR:2746:A:H2'	1:AR:2747:A:O4'	2.08	0.54
1:AR:3163:A:N6	1:AR:3288:G:O6	2.40	0.54
1:AR:383:G:N7	82:AR:3572:OHX:N5	2.56	0.54
1:AR:816:A:OP1	38:DL:15:SER:OG	2.26	0.54
6:CF:35:VAL:HG21	6:CF:244:LEU:HD21	1.88	0.54
1:AR:658:G:N2	6:CF:93:MET:HB2	2.22	0.54
7:CG:34:LYS:HD3	22:CV:30:TYR:CE2	2.42	0.54
11:CK:7:GLU:OE1	11:CK:54:LYS:HD2	2.07	0.54
12:CL:74:LYS:O	12:CL:78:THR:HG23	2.07	0.54
20:CT:140:GLU:O	20:CT:144:GLN:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CY:63:ILE:O	25:CY:65:GLU:N	2.41	0.54
42:DP:4:LYS:HG2	42:DP:5:TRP:CZ3	2.43	0.54
52:F:141:THR:OG1	52:F:143:ASP:OD1	2.23	0.54
57:K:103:ASP:OD1	57:K:103:ASP:N	2.40	0.54
1:1:1115:G:N2	82:1:3721:OHX:N1	2.56	0.54
82:1:3721:OHX:N4	29:AB:22:ILE:HG22	2.23	0.54
3:4:104:A:C8	3:4:105:A:C8	2.96	0.54
47:A:319:U:H5''	47:A:320:U:H5	1.73	0.54
1:AR:1080:A:OP1	7:CG:140:ARG:HB2	2.08	0.54
1:AR:1481:A:O2'	1:AR:1858:A:C2	2.58	0.54
82:AR:3513:OHX:N6	82:AR:3693:OHX:N5	2.56	0.54
1:AR:408:A:H61	3:AT:15:G:H1'	1.72	0.54
1:AR:787:G:H2'	1:AR:788:C:C6	2.43	0.54
82:AS:203:OHX:N3	82:AS:209:OHX:N3	2.56	0.54
5:CE:345:ASN:OD1	5:CE:346:THR:N	2.41	0.54
54:H:28:PHE:CE2	54:H:104:PRO:HG3	2.43	0.54
60:N:126:TRP:O	60:N:128:ALA:N	2.40	0.54
66:T:142:GLY:O	66:T:145:ARG:HD2	2.08	0.54
1:1:100:A:H2'	1:1:101:G:N3	2.23	0.54
1:1:398:A:O2'	1:1:1416:C:OP1	2.21	0.54
1:1:197:G:H2'	1:1:198:A:C8	2.43	0.54
1:1:2808:A:H5'	1:1:2808:A:H8	1.72	0.54
1:1:299:G:O6	82:1:3613:OHX:N1	2.40	0.54
1:1:643:U:H5'	1:1:953:G:O6	2.08	0.54
47:A:514:G:HO2'	47:A:515:A:H8	1.55	0.54
47:A:5:U:OP2	50:D:204:THR:OG1	2.25	0.54
47:A:654:C:H3'	47:A:655:G:H5''	1.90	0.54
47:A:820:U:H2'	47:A:821:U:H4'	1.90	0.54
1:AR:1681:U:O2'	1:AR:3069:G:O6	2.23	0.54
82:AR:3443:OHX:N2	82:AR:3723:OHX:N6	2.55	0.54
2:AS:48:U:O4	7:CG:58:LYS:HE2	2.08	0.54
1:AR:406:G:H1'	3:AT:16:G:N2	2.23	0.54
49:C:190:PRO:HG2	49:C:192:VAL:HG23	1.90	0.54
47:A:1473:U:O2'	53:G:103:ASN:ND2	2.41	0.54
54:H:71:THR:OG1	54:H:72:ARG:N	2.41	0.54
63:Q:20:VAL:HG13	63:Q:24:LYS:HD2	1.90	0.54
66:T:88:ARG:NH1	66:T:112:ASP:OD1	2.41	0.54
67:U:117:SER:OG	67:U:118:PRO:O	2.23	0.54
1:1:3160:U:H2'	1:1:3161:C:C6	2.43	0.53
1:1:595:G:H1	1:1:609:G:H5''	1.73	0.53
22:2:119:ALA:HB2	22:2:126:VAL:HG13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1274:C:H5	55:I:96:ARG:H	111.77	0.53
47:A:789:A:OP1	52:F:108:ARG:NH2	2.40	0.53
47:A:848:C:H2'	47:A:849:C:H6	1.73	0.53
1:1:938:C:OP2	29:AB:26:ARG:NH1	2.41	0.53
1:AR:1686:U:OP1	23:CW:42:LYS:NZ	2.34	0.53
48:B:200:ASP:OD1	48:B:200:ASP:N	2.41	0.53
5:CE:113:GLU:HB3	5:CE:176:ALA:HB2	1.89	0.53
5:CE:230:THR:HA	5:CE:235:THR:HG22	1.89	0.53
7:CG:107:ARG:HH11	7:CG:248:ARG:HE	1.55	0.53
11:CK:91:ARG:HG2	11:CK:182:SER:HB3	1.88	0.53
24:CX:87:ARG:HH12	24:CX:137:VAL:HG21	1.73	0.53
51:E:115:ILE:HD11	51:E:138:VAL:HG21	1.89	0.53
55:I:98:ILE:HD13	55:I:118:LEU:HD23	1.90	0.53
55:I:63:PRO:HD2	55:I:66:SER:OG	2.07	0.53
1:1:1351:U:H2'	1:1:1352:A:H5'	1.88	0.53
1:1:1688:U:H2'	1:1:1689:U:C6	2.43	0.53
1:1:1947:G:H1	1:1:2101:C:N4	2.06	0.53
1:1:2402:A:OP2	82:1:3621:OHX:N6	2.41	0.53
1:1:3087:A:P	82:1:3705:OHX:N6	2.81	0.53
1:1:817:A:H2'	1:1:920:A:C2	2.43	0.53
47:A:1486:G:H1'	47:A:1592:A:O2'	2.08	0.53
47:A:197:A:H61	56:J:138:ASN:ND2	2.06	0.53
1:AR:1152:G:N2	1:AR:1152:G:OP2	2.35	0.53
1:AR:1556:C:H5''	1:AR:2169:G:H22	1.74	0.53
1:AR:322:U:H5''	1:AR:323:A:OP1	2.08	0.53
82:AR:3523:OHX:N6	82:AR:3709:OHX:N6	2.56	0.53
48:B:179:ARG:O	48:B:183:ARG:HG3	2.08	0.53
49:C:105:PHE:CE1	49:C:213:ARG:HA	2.43	0.53
7:CG:113:LEU:HB3	7:CG:115:LEU:HD22	1.88	0.53
9:CI:163:LEU:O	9:CI:165:ASP:N	2.41	0.53
10:CJ:161:GLU:HA	10:CJ:164:VAL:HG22	1.90	0.53
54:H:64:LYS:HB3	54:H:67:VAL:HG21	1.90	0.53
56:J:121:LEU:H	56:J:121:LEU:HD22	1.72	0.53
62:P:26:THR:HG21	62:P:97:GLY:HA3	1.90	0.53
64:R:79:TYR:HA	64:R:82:ARG:HD3	1.90	0.53
47:A:568:G:N7	71:Y:69:ARG:NH2	2.56	0.53
72:Z:124:ARG:O	72:Z:127:LYS:HG3	2.08	0.53
21:O:148:LEU:HD12	21:O:149:LYS:H	1.72	0.53
1:1:1724:U:OP2	72:Z:128:LYS:NZ	99.79	0.53
1:1:2683:U:H2'	1:1:2684:C:H6	1.72	0.53
1:1:3190:C:H2'	1:1:3191:G:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2976:A:OP1	82:1:3649:OHX:N6	2.42	0.53
1:1:2585:G:C2	3:4:151:C:H5	2.27	0.53
47:A:186:C:H42	47:A:199:G:H1	1.56	0.53
47:A:479:C:H2'	47:A:480:G:O4'	2.09	0.53
47:A:705:U:H2'	47:A:706:A:C8	2.44	0.53
1:AR:1284:C:O2'	1:AR:1285:G:H5'	2.08	0.53
1:AR:269:G:OP1	16:CP:44:ARG:NH2	2.39	0.53
1:AR:2768:U:H2'	1:AR:2769:A:H8	1.74	0.53
1:AR:595:G:H1	1:AR:609:G:H5''	1.73	0.53
5:CE:76:VAL:HG12	5:CE:325:LYS:HA	1.90	0.53
1:AR:716:A:C6	29:DC:117:ARG:HG3	2.43	0.53
55:I:73:VAL:C	55:I:75:THR:H	2.11	0.53
71:Y:110:LYS:O	71:Y:112:LYS:HG2	2.08	0.53
1:1:2230:C:OP2	82:1:3714:OHX:N5	2.42	0.53
1:1:2771:U:O2'	1:1:2772:C:H4'	2.08	0.53
1:1:3326:G:O6	82:1:3469:OHX:N1	2.42	0.53
24:6:5:GLY:HA3	24:6:106:LYS:O	2.09	0.53
47:A:1348:A:OP1	82:A:1897:OHX:N1	2.41	0.53
47:A:1600:A:HO2'	47:A:1602:C:N4	2.07	0.53
47:A:1600:A:O2'	47:A:1602:C:N4	2.41	0.53
47:A:1246:C:OP2	82:A:1926:OHX:N6	2.41	0.53
1:AR:1200:A:H5'	1:AR:1201:C:O5'	2.09	0.53
1:AR:158:G:N2	1:AR:264:G:H1'	2.22	0.53
1:AR:1796:G:H5''	1:AR:1797:A:OP1	2.08	0.53
1:AR:2754:G:O2'	1:AR:2755:C:OP1	2.24	0.53
1:AR:3143:C:O2'	82:AR:3435:OHX:N3	2.42	0.53
49:C:61:LEU:HD23	49:C:62:LYS:HG3	1.90	0.53
5:CE:77:THR:HG23	5:CE:326:GLY:O	2.08	0.53
10:CJ:71:VAL:HG22	10:CJ:76:ALA:HB2	1.90	0.53
26:CZ:50:ALA:O	36:DJ:66:VAL:HG21	2.08	0.53
50:D:161:LYS:NZ	50:D:163:GLY:O	2.34	0.53
39:DM:26:LYS:NZ	39:DM:28:ASN:OD1	2.38	0.53
39:DM:3:ARG:NH1	39:DM:52:TYR:HE1	2.06	0.53
55:I:131:PHE:O	55:I:133:THR:N	2.26	0.53
1:1:1103:A:H1'	1:1:1104:G:OP1	2.09	0.53
1:1:1554:U:H4'	1:1:1555:U:H5'	1.90	0.53
3:4:10:A:H2'	3:4:11:C:C6	2.43	0.53
28:AA:102:GLU:O	28:AA:103:GLN:HB2	2.08	0.53
28:AA:88:ASP:OD1	28:AA:89:VAL:N	2.41	0.53
43:AP:73:GLU:OE1	43:AP:80:ARG:NH2	2.41	0.53
1:AR:1571:A:H2'	1:AR:1572:U:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2571:U:H1'	1:AR:2572:C:C6	2.43	0.53
1:AR:2771:U:HO2'	1:AR:2772:C:P	2.32	0.53
1:AR:762:U:OP2	82:AR:3541:OHX:N2	2.41	0.53
49:C:119:THR:HB	49:C:143:THR:HG23	1.89	0.53
15:CO:32:LEU:HD11	15:CO:94:TRP:CG	2.44	0.53
22:CV:7:TYR:OH	22:CV:54:HIS:HB2	2.08	0.53
30:DD:18:ARG:O	82:DD:101:OHX:N4	2.41	0.53
50:D:53:ILE:HB	53:G:57:SER:CB	86.45	0.53
61:O:86:GLU:HA	61:O:89:TYR:HB3	1.91	0.53
1:1:1240:A:H3'	1:1:1241:U:C5'	2.38	0.53
1:1:2689:A:H2'	1:1:2689:A:N3	2.24	0.53
2:3:3:U:H2'	2:3:4:U:C6	2.43	0.53
47:A:1031:U:H4'	47:A:1032:G:OP2	2.07	0.53
47:A:1773:C:H2'	47:A:1774:G:C8	2.44	0.53
47:A:538:A:H8	47:A:543:C:N4	2.07	0.53
28:AA:4:PHE:CZ	31:AD:35:ARG:HA	2.44	0.53
28:AA:57:HIS:HB3	28:AA:62:VAL:HG22	1.91	0.53
1:AR:2268:U:C2	1:AR:2269:U:C5	2.97	0.53
1:AR:3317:U:H4'	1:AR:3318:G:O5'	2.07	0.53
1:AR:831:G:N7	82:AR:3425:OHX:N2	2.56	0.53
7:CG:126:GLU:HA	7:CG:196:ARG:HD2	1.91	0.53
1:AR:7:C:H5''	10:CJ:193:LYS:HB3	1.90	0.53
6:CF:30:ILE:N	19:CS:25:TYR:OH	2.34	0.53
20:CT:23:TRP:HB3	20:CT:51:VAL:HG22	1.89	0.53
35:DI:42:PRO:HB2	35:DI:51:LEU:HD21	1.90	0.53
43:DQ:50:PHE:O	82:DQ:502:OHX:N1	2.41	0.53
44:DR:42:CYS:SG	44:DR:44:LYS:HG3	2.49	0.53
65:S:35:CYS:HA	65:S:38:ILE:HG22	1.90	0.53
66:T:86:LEU:HD12	66:T:99:HIS:HB2	1.90	0.53
69:W:39:VAL:HA	69:W:45:ALA:HA	1.90	0.53
1:1:1094:U:O2'	1:1:1095:U:O5'	2.20	0.53
1:1:1498:A:H2'	1:1:1499:C:C6	2.44	0.53
1:1:1706:C:H2'	1:1:1707:A:O4'	2.08	0.53
1:1:1947:G:H1	1:1:2101:C:H42	1.56	0.53
1:1:2846:U:H3'	41:AN:97:ARG:HH21	1.74	0.53
82:1:3563:OHX:N1	27:DA:44:GLY:O	2.41	0.53
1:1:792:G:H2'	1:1:793:C:C6	2.44	0.53
47:A:1017:U:H2'	47:A:1018:U:C6	2.44	0.53
47:A:488:G:H4'	47:A:488:G:OP1	2.08	0.53
36:AI:93:THR:N	36:AI:96:GLU:HG3	2.24	0.53
1:AR:1307:G:O2'	1:AR:1308:A:N7	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1471:U:H2'	1:AR:1472:U:C6	2.44	0.53
1:AR:3194:C:O2'	1:AR:3195:U:H2'	2.09	0.53
1:AR:662:U:OP1	29:DC:8:THR:HG21	2.09	0.53
2:AS:5:G:OP1	13:CM:143:ARG:NH2	2.41	0.53
3:AT:90:U:O2	82:AT:208:OHX:N2	2.41	0.53
6:CF:281:ILE:HG13	19:CS:125:ASP:CG	2.29	0.53
7:CG:99:TYR:CD2	7:CG:199:ILE:HG12	2.44	0.53
7:CG:58:LYS:HD2	7:CG:93:THR:HG21	1.91	0.53
12:CL:88:ARG:HG2	12:CL:90:ARG:HG2	1.90	0.53
50:D:111:VAL:O	50:D:136:VAL:HA	2.09	0.53
50:D:215:PHE:O	50:D:218:ILE:HG13	2.09	0.53
50:D:59:HIS:CD2	50:D:238:SER:HA	2.44	0.53
30:DD:23:LYS:HD2	30:DD:24:PRO:HD2	1.91	0.53
38:DL:54:LYS:O	38:DL:58:THR:HG23	2.09	0.53
48:B:52:LYS:HB3	69:W:82:VAL:HG22	1.90	0.53
70:X:15:ASN:ND2	70:X:71:LYS:HA	2.18	0.53
1:1:2907:G:O6	82:1:3409:OHX:N6	2.42	0.53
47:A:1344:A:O2'	47:A:1345:A:O4'	2.26	0.53
47:A:1404:C:H2'	47:A:1405:G:H8	1.74	0.53
47:A:1699:G:H2'	47:A:1700:C:H5''	1.91	0.53
47:A:28:A:H2'	47:A:29:U:C6	2.43	0.53
47:A:452:A:H3'	47:A:453:U:C5	2.44	0.53
34:AG:72:THR:HG23	34:AG:83:ALA:HA	1.90	0.53
44:AQ:83:ILE:HG22	44:AQ:87:ARG:HH12	1.74	0.53
1:AR:3006:A:H2'	1:AR:3007:U:O4'	2.09	0.53
1:AR:3158:G:H22	1:AR:3292:A:H2	1.57	0.53
1:AR:3242:G:H21	1:AR:3245:A:H5''	1.74	0.53
48:B:185:ARG:HG3	69:W:47:PRO:HD3	1.91	0.53
6:CF:59:GLN:OE1	38:DL:55:ARG:NH2	2.42	0.53
10:CJ:148:ALA:HA	10:CJ:201:THR:HG22	1.90	0.53
12:CL:206:LEU:O	12:CL:210:ILE:HG13	2.09	0.53
31:DE:16:LEU:HA	31:DE:19:LYS:HE2	1.91	0.53
35:DI:41:ARG:HG2	35:DI:56:THR:HG21	1.91	0.53
54:H:98:ARG:HD3	54:H:99:GLY:N	2.24	0.53
1:1:1763:U:H5'	1:1:1764:U:OP2	2.09	0.53
1:1:2396:G:OP1	1:1:2397:A:H4'	2.09	0.53
1:1:2662:G:H2'	1:1:2663:G:H8	1.74	0.53
1:1:3033:A:H2'	1:1:3034:C:C6	2.44	0.53
1:1:3276:G:H1	34:AG:60:ARG:HH12	1.56	0.53
47:A:1350:U:H2'	47:A:1351:G:C8	2.44	0.53
47:A:1542:G:H22	47:A:1568:C:H1'	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1681:A:H2'	47:A:1682:U:H5'	1.90	0.53
47:A:598:U:H2'	47:A:599:A:C8	2.43	0.53
47:A:740:A:C2'	47:A:741:C:H5''	2.39	0.53
32:AE:19:ARG:HD3	32:AE:35:GLU:HG3	1.90	0.53
35:AH:20:ILE:HD11	35:AH:34:HIS:CE1	2.43	0.53
1:AR:722:G:N7	82:AR:3514:OHX:N3	2.56	0.53
82:AR:3530:OHX:N3	82:AR:3530:OHX:N5	2.57	0.53
8:CH:96:VAL:HG13	8:CH:141:VAL:HG13	1.91	0.53
50:D:139:ILE:HD13	50:D:218:ILE:HB	1.90	0.53
1:AR:1298:C:O3'	41:DO:113:ARG:NH1	2.42	0.53
52:F:34:GLY:HA3	52:F:83:PRO:CG	2.39	0.53
56:J:187:GLU:OE2	59:M:30:ARG:NH1	2.26	0.53
71:Y:47:SER:HB2	71:Y:48:HIS:CD2	2.44	0.53
1:1:1390:A:N6	1:1:1418:A:O2'	2.41	0.53
1:1:1915:A:H2'	1:1:1916:U:C6	2.44	0.53
3:4:85:G:H3'	3:4:85:G:C8	2.44	0.53
47:A:1588:G:H1	47:A:1608:U:H3	1.56	0.53
47:A:1776:A:H2'	47:A:1777:G:C8	2.44	0.53
1:AR:1895:A:O2'	1:AR:3053:G:H4'	2.09	0.53
1:AR:595:G:N1	1:AR:609:G:H5''	2.24	0.53
82:AS:203:OHX:N1	82:AS:209:OHX:N2	2.56	0.53
49:C:176:VAL:C	49:C:178:GLY:H	2.11	0.53
12:CL:149:VAL:HG13	12:CL:165:ILE:HG13	1.91	0.53
1:AR:3215:A:N7	15:CO:125:LYS:NZ	2.57	0.53
28:DB:46:ILE:HD11	28:DB:49:TYR:HA	1.91	0.53
14:CN:64:LYS:HG3	29:DC:69:TRP:CG	2.44	0.53
32:DF:79:ARG:HE	32:DF:79:ARG:H	1.56	0.53
51:E:178:ARG:H	51:E:178:ARG:NE	2.06	0.53
56:J:159:GLN:HB2	56:J:165:LEU:HD23	1.91	0.53
69:W:62:ARG:HH22	70:X:20:THR:HG22	1.73	0.53
1:1:2307:G:O6	82:1:3498:OHX:N1	2.42	0.52
3:4:78:G:H2'	3:4:79:A:C8	2.43	0.52
47:A:386:G:OP2	82:A:1941:OHX:N6	2.42	0.52
47:A:880:C:OP2	82:A:1898:OHX:N1	2.42	0.52
1:AR:2726:C:O2'	1:AR:2727:A:H2'	2.08	0.52
1:AR:3383:G:H2'	1:AR:3384:U:C6	2.44	0.52
1:AR:542:G:N2	1:AR:543:C:N3	2.57	0.52
3:AT:79:A:H3'	3:AT:80:A:C4'	2.39	0.52
49:C:62:LYS:HE3	49:C:91:VAL:HG11	1.91	0.52
4:CD:45:VAL:HG12	4:CD:88:ILE:HD13	1.91	0.52
7:CG:126:GLU:HG3	7:CG:196:ARG:HD2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1334:U:OP1	9:CI:206:LYS:HE3	2.09	0.52
19:CS:94:PHE:CZ	29:DC:119:PRO:HD3	2.44	0.52
34:DH:69:GLY:HA3	34:DH:85:PHE:HA	1.91	0.52
38:DL:2:GLY:O	38:DL:7:SER:HB3	2.09	0.52
55:I:41:LEU:HD13	55:I:70:PHE:CD1	2.44	0.52
57:K:129:ILE:HG22	57:K:142:ASN:HA	1.91	0.52
59:M:55:ASP:HB3	59:M:58:CYS:HB2	1.90	0.52
61:O:130:ARG:HD3	61:O:137:PRO:O	2.08	0.52
1:1:1560:G:C2'	1:1:1561:G:H5'	2.39	0.52
1:1:2314:U:O2'	1:1:2315:G:OP1	2.25	0.52
1:1:283:G:OP2	1:1:285:A:H4'	2.09	0.52
47:A:177:U:O2	54:H:191:ARG:NH1	2.43	0.52
47:A:827:C:H2'	47:A:828:U:O4'	2.09	0.52
1:AR:1595:U:C2	1:AR:1596:C:C5	2.97	0.52
1:AR:3052:G:O6	82:AR:3668:OHX:N5	2.42	0.52
49:C:120:LEU:HD21	49:C:122:GLU:HG3	1.91	0.52
4:CD:206:PRO:HD3	4:CD:213:GLY:CA	2.39	0.52
18:CR:174:GLY:O	18:CR:178:ALA:HB3	2.09	0.52
20:CT:28:GLU:HG3	20:CT:49:THR:HG23	1.91	0.52
28:DB:59:ALA:O	28:DB:61:LYS:N	2.42	0.52
1:1:1586:G:OP1	82:1:3476:OHX:N5	2.42	0.52
1:1:1620:U:H2'	1:1:1621:A:C8	2.44	0.52
1:1:3392:U:H2'	1:1:3393:U:H6	1.75	0.52
2:3:61:G:H2'	2:3:62:U:H6	1.74	0.52
27:9:45:ILE:HD11	27:9:122:LYS:HB2	1.92	0.52
47:A:1120:U:H2'	47:A:1121:C:C6	2.44	0.52
47:A:40:A:OP1	57:K:3:ARG:NH1	2.31	0.52
1:AR:2586:G:C5	10:CJ:241:LYS:HB2	2.45	0.52
82:AR:3569:OHX:N5	82:AR:3644:OHX:N6	2.58	0.52
82:AR:3571:OHX:N4	82:AR:3571:OHX:N1	2.58	0.52
82:AR:3598:OHX:N4	82:AR:3725:OHX:N1	2.57	0.52
1:AR:625:G:OP1	82:AR:3636:OHX:N6	2.42	0.52
5:CE:228:GLY:O	5:CE:232:ARG:HB3	2.08	0.52
1:AR:1010:G:H1'	12:CL:195:ALA:HB2	1.91	0.52
18:CR:27:LYS:HD3	18:CR:63:PHE:HB3	1.91	0.52
23:CW:43:VAL:HG23	23:CW:49:ASN:HB3	1.91	0.52
63:Q:68:PRO:HG2	63:Q:71:GLU:CB	2.35	0.52
69:W:17:CYS:HB2	69:W:56:SER:HB3	1.91	0.52
72:Z:36:SER:O	72:Z:40:LEU:HG	2.09	0.52
1:1:2714:G:H4'	1:1:2715:A:O5'	2.09	0.52
1:1:385:A:H2'	1:1:386:A:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:6:13:ILE:HD12	24:6:85:TRP:CG	2.44	0.52
47:A:1642:G:O6	82:A:1801:OHX:N6	2.42	0.52
47:A:367:A:OP1	82:A:1934:OHX:N3	2.43	0.52
47:A:707:A:H2'	47:A:708:C:H5''	1.92	0.52
33:AF:103:LYS:O	33:AF:106:VAL:HG22	2.10	0.52
1:AR:1566:A:H3'	1:AR:1567:U:H5''	1.91	0.52
1:AR:2996:U:O2	1:AR:2996:U:H2'	2.09	0.52
4:CD:79:ASN:O	4:CD:82:VAL:HG13	2.09	0.52
5:CE:59:ASP:OD1	5:CE:71:GLU:HG2	2.09	0.52
7:CG:122:VAL:HG12	7:CG:168:ASP:HA	1.92	0.52
10:CJ:101:THR:OG1	10:CJ:104:GLU:HG3	2.08	0.52
31:DE:43:ILE:HG22	31:DE:70:PHE:HB2	1.91	0.52
36:DJ:77:PRO:HD2	36:DJ:80:LEU:HD12	1.92	0.52
36:DJ:86:ARG:HG3	36:DJ:90:ARG:NH2	2.25	0.52
37:DK:94:ILE:HA	37:DK:98:ARG:HD3	1.91	0.52
51:E:150:MET:HB3	51:E:152:PHE:CE2	2.45	0.52
52:F:32:SER:HB2	52:F:83:PRO:HD3	1.91	0.52
1:1:1862:U:OP2	82:1:3688:OHX:N1	2.42	0.52
1:1:2400:G:H5''	1:1:2401:A:OP2	2.09	0.52
47:A:301:A:OP2	82:A:1842:OHX:N2	2.43	0.52
47:A:61:A:H8	47:A:269:G:O2'	1.92	0.52
34:AG:30:ILE:HB	34:AG:81:VAL:HG12	1.92	0.52
40:AM:20:ASN:ND2	40:AM:42:ARG:O	2.43	0.52
1:AR:1560:G:C2	1:AR:1580:A:N1	2.77	0.52
1:AR:2659:G:H4'	1:AR:2751:G:O2'	2.10	0.52
1:AR:3078:U:H4'	1:AR:3079:U:O5'	2.08	0.52
1:AR:3177:G:N7	8:CH:167:ASN:ND2	2.56	0.52
1:AR:277:G:OP1	82:AR:3423:OHX:N4	2.43	0.52
1:AR:329:U:OP2	82:AR:3552:OHX:N5	2.42	0.52
49:C:84:ILE:HG22	49:C:86:LEU:HD22	1.92	0.52
4:CD:62:VAL:HA	4:CD:73:GLU:HA	1.91	0.52
6:CF:84:ARG:O	6:CF:87:GLN:HG3	2.09	0.52
7:CG:68:THR:HG22	7:CG:71:GLY:H	1.75	0.52
20:CT:160:GLU:HG2	20:CT:163:ARG:HH11	1.74	0.52
47:A:1:U:O4	57:K:54:ARG:HD3	2.10	0.52
68:V:68:ARG:NH2	68:V:77:LYS:HA	2.25	0.52
1:1:1127:G:H8	1:1:1127:G:O5'	1.92	0.52
1:1:3218:A:H4'	1:1:3219:G:O5'	2.10	0.52
1:1:564:G:H2'	1:1:565:U:C6	2.44	0.52
3:4:24:G:OP2	27:9:13:ARG:HD3	2.09	0.52
47:A:1233:G:OP1	82:A:1926:OHX:N4	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:50:C:N4	47:A:425:A:OP2	2.38	0.52
35:AH:56:THR:O	35:AH:56:THR:OG1	2.24	0.52
1:1:1491:A:OP2	40:AM:2:ALA:N	2.43	0.52
44:AQ:75:ALA:O	44:AQ:79:VAL:HG23	2.09	0.52
1:AR:2384:A:OP1	82:CQ:201:OHX:N3	2.43	0.52
1:AR:945:C:H2'	1:AR:946:U:C6	2.44	0.52
1:AR:98:G:N7	14:CN:13:HIS:NE2	2.51	0.52
48:B:56:LYS:HD2	48:B:158:VAL:HG23	1.91	0.52
4:CD:108:PRO:O	4:CD:111:THR:OG1	2.26	0.52
4:CD:45:VAL:HG22	4:CD:84:THR:HA	1.92	0.52
5:CE:41:VAL:HA	5:CE:185:GLY:CA	2.27	0.52
6:CF:142:VAL:HB	6:CF:145:ILE:HG12	1.92	0.52
10:CJ:185:ARG:O	10:CJ:188:THR:OG1	2.26	0.52
20:CT:159:ALA:HB2	20:CT:162:ARG:NH2	2.25	0.52
26:CZ:137:ASN:HB3	26:CZ:142:ILE:HD11	1.90	0.52
32:DF:88:PRO:HG2	32:DF:89:LEU:HD13	1.91	0.52
34:DH:37:THR:HB	34:DH:38:PRO:HD2	1.91	0.52
16:CP:144:ARG:HD3	36:DJ:95:PHE:HE2	1.74	0.52
54:H:70:PRO:HB3	54:H:101:ILE:HB	1.92	0.52
70:X:105:THR:OG1	70:X:126:LEU:HG	2.10	0.52
1:1:437:G:H2'	1:1:438:A:C8	2.45	0.52
1:1:735:A:H2'	1:1:736:A:H8	1.74	0.52
47:A:1477:G:H2'	47:A:1478:G:H8	1.74	0.52
47:A:240:U:H4'	47:A:241:U:OP2	2.10	0.52
1:AR:12:A:OP1	82:AR:3727:OHX:N4	2.43	0.52
1:AR:1863:G:N1	1:AR:1866:C:OP2	2.32	0.52
1:AR:2924:U:O4	82:AR:3562:OHX:N1	2.42	0.52
1:AR:374:A:H4'	1:AR:375:A:OP1	2.08	0.52
1:AR:546:C:H4'	1:AR:547:G:C5	2.44	0.52
4:CD:90:ALA:HB2	4:CD:101:VAL:HG13	1.90	0.52
6:CF:141:ARG:CZ	6:CF:180:LYS:HD3	2.40	0.52
9:CI:142:SER:O	9:CI:146:GLN:HG3	2.10	0.52
10:CJ:130:TYR:HD2	10:CJ:204:ARG:HG2	1.75	0.52
11:CK:129:ARG:O	11:CK:132:VAL:HG13	2.09	0.52
14:CN:46:ILE:HG23	14:CN:49:ARG:CZ	2.38	0.52
17:CQ:62:THR:HG22	17:CQ:65:ASN:H	1.75	0.52
50:D:243:TYR:HB3	50:D:246:GLU:HG3	1.90	0.52
50:D:82:ASN:OD1	50:D:83:ILE:N	2.43	0.52
38:DL:28:HIS:ND1	38:DL:31:LYS:HE2	2.25	0.52
52:F:147:ILE:HG21	52:F:169:ILE:HG13	1.91	0.52
54:H:39:GLU:HB2	54:H:46:LYS:HG3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:H:33:GLY:HA2	54:H:51:LYS:HE2	1.91	0.52
56:J:8:ARG:HD3	56:J:21:PHE:H	1.75	0.52
67:U:66:TYR:HA	67:U:124:ILE:HB	1.91	0.52
67:U:57:ARG:NH2	67:U:80:TYR:HB3	2.25	0.52
47:A:778:G:H1	72:Z:10:ARG:NH1	2.08	0.52
1:1:1108:U:H2'	1:1:1109:U:H6	1.75	0.52
1:1:270:U:O2'	1:1:318:A:H1'	2.10	0.52
82:1:3566:OHX:N6	82:1:3578:OHX:N5	2.57	0.52
82:1:3617:OHX:N2	82:1:3681:OHX:N1	2.58	0.52
1:1:539:C:N3	1:1:552:G:N2	2.41	0.52
22:2:17:ARG:NH1	22:2:21:LYS:O	2.43	0.52
47:A:1281:G:H2'	47:A:1282:U:H6	1.74	0.52
47:A:1390:U:OP1	65:S:5:ARG:HD2	2.09	0.52
47:A:1404:C:H2'	47:A:1405:G:C8	2.45	0.52
47:A:830:U:O2'	47:A:831:U:H6	1.92	0.52
28:AA:3:LYS:O	28:AA:6:LYS:HG3	2.10	0.52
32:AE:19:ARG:HD3	32:AE:35:GLU:CG	2.40	0.52
1:AR:1471:U:H2'	1:AR:1472:U:H6	1.75	0.52
1:AR:284:A:H4'	1:AR:285:A:C2	2.45	0.52
1:AR:2947:G:OP2	1:AR:2947:G:H4'	2.10	0.52
1:AR:619:A:H8	1:AR:619:A:O5'	1.91	0.52
5:CE:286:GLY:HA3	5:CE:321:PHE:CE2	2.45	0.52
14:CN:166:ALA:HA	14:CN:169:THR:HB	1.91	0.52
18:CR:111:LYS:HG3	18:CR:152:GLU:HG2	1.91	0.52
44:DR:66:GLY:HA3	44:DR:71:VAL:O	2.09	0.52
55:I:125:ILE:O	55:I:129:LEU:N	2.38	0.52
55:I:164:TYR:CE2	55:I:165:LYS:HG3	2.45	0.52
57:K:126:ARG:O	57:K:130:THR:HG22	2.09	0.52
58:L:25:LYS:HD2	58:L:59:PHE:CZ	2.45	0.52
69:W:71:ARG:HG3	69:W:83:TRP:CH2	2.44	0.52
1:1:1298:C:O3'	41:AN:113:ARG:NH1	2.43	0.52
1:1:3066:U:H2'	1:1:3067:C:C6	2.45	0.52
82:1:3562:OHX:N6	82:1:3673:OHX:N5	2.58	0.52
1:1:2785:A:OP2	82:1:3713:OHX:N1	2.43	0.52
22:2:79:MET:HB3	22:2:84:TYR:CE2	2.45	0.52
47:A:17:C:H2'	47:A:18:C:C6	2.44	0.52
47:A:565:C:O2	82:A:1817:OHX:N2	2.43	0.52
47:A:927:C:H1'	62:P:125:SER:HB2	1.91	0.52
31:AD:24:THR:HG23	31:AD:91:SER:HB3	1.91	0.52
38:AK:86:ALA:O	82:AK:102:OHX:N5	2.42	0.52
1:AR:3239:G:N7	82:AR:3489:OHX:N5	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:238:LEU:HB3	5:CE:242:THR:HG21	1.92	0.52
5:CE:296:THR:CG2	5:CE:298:PHE:H	2.13	0.52
14:CN:74:GLY:O	14:CN:101:ARG:NH1	2.42	0.52
1:AR:524:U:OP1	15:CO:77:ARG:NH2	2.43	0.52
36:DJ:13:SER:O	36:DJ:16:GLN:N	2.41	0.52
40:DN:9:ILE:HG22	40:DN:13:MET:HE2	1.92	0.52
41:DO:111:ARG:HG3	41:DO:112:LYS:HD2	1.92	0.52
53:G:141:GLY:HA3	53:G:167:ARG:HG2	1.91	0.52
55:I:35:LYS:NZ	55:I:39:ARG:HD2	2.24	0.52
57:K:83:VAL:HA	57:K:149:ARG:HA	1.91	0.52
65:S:5:ARG:HG2	65:S:9:VAL:HG11	1.91	0.52
1:1:1159:A:H5'	61:O:92:ILE:HG22	154.08	0.52
1:1:3095:U:H2'	1:1:3096:C:C6	2.45	0.52
1:1:3106:A:H2'	1:1:3107:U:O4'	2.10	0.52
47:A:1182:U:O2	47:A:1184:A:H8	1.93	0.52
1:AR:132:C:H2'	1:AR:133:U:H5''	1.92	0.52
1:AR:2529:A:OP1	10:CJ:248:LYS:NZ	2.43	0.52
1:AR:2799:A:H5''	1:AR:2800:G:O5'	2.10	0.52
1:AR:2854:U:P	12:CL:3:ARG:HH22	2.33	0.52
10:CJ:139:VAL:O	10:CJ:143:ILE:HG13	2.10	0.52
1:AR:1874:A:H5''	20:CT:18:GLY:HA3	1.91	0.52
27:DA:56:VAL:HG11	27:DA:104:LEU:HD13	1.92	0.52
33:DG:60:ASN:OD1	33:DG:62:LYS:HB2	2.10	0.52
1:AR:181:U:H4'	38:DL:75:LYS:HD2	1.92	0.52
53:G:202:ALA:O	53:G:203:LYS:HD2	2.10	0.52
68:V:27:THR:HG23	68:V:113:ASP:HB3	1.91	0.52
1:1:2320:A:C2	44:AQ:16:VAL:HG13	2.45	0.51
1:1:3259:U:H6	1:1:3259:U:H5'	1.75	0.51
1:1:3393:U:H2'	1:1:3394:U:H6	1.75	0.51
47:A:1490:C:H4'	47:A:1491:U:OP1	2.10	0.51
47:A:595:G:H2'	47:A:596:C:C6	2.45	0.51
28:AA:53:VAL:HA	28:AA:57:HIS:CD2	2.44	0.51
29:AB:75:LEU:HA	29:AB:78:LEU:HB2	1.91	0.51
1:AR:1094:U:H4'	1:AR:1095:U:OP1	2.09	0.51
1:AR:1952:G:H8	1:AR:1952:G:OP2	1.92	0.51
1:AR:2207:A:C6	1:AR:2208:A:C6	2.98	0.51
1:AR:2406:C:H2'	1:AR:2407:C:C6	2.45	0.51
82:AR:3479:OHX:N2	82:AR:3691:OHX:N5	2.58	0.51
1:AR:379:C:H2'	1:AR:380:U:H6	1.75	0.51
1:AR:567:G:H2'	1:AR:568:G:C8	2.45	0.51
5:CE:92:TYR:O	5:CE:155:ALA:HA	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:59:ARG:NH1	14:CN:66:ASN:O	2.43	0.51
15:CO:72:LEU:HD23	15:CO:73:PRO:HD2	1.90	0.51
1:AR:1369:A:H5''	29:DC:21:ARG:HD2	1.91	0.51
71:Y:47:SER:HB2	71:Y:48:HIS:HD2	1.74	0.51
1:1:1014:U:C2'	1:1:1015:U:H5''	2.40	0.51
1:1:1103:A:H2'	1:1:1103:A:N3	2.25	0.51
1:1:1841:A:N3	40:AM:45:ARG:NH2	2.58	0.51
1:1:2444:C:H3'	1:1:2445:A:H5''	1.92	0.51
82:1:3553:OHX:N3	82:1:3590:OHX:N1	2.58	0.51
1:1:595:G:N1	1:1:609:G:H5''	2.25	0.51
24:6:48:ARG:HG3	24:6:48:ARG:HH11	1.74	0.51
47:A:1498:G:OP1	67:U:75:LYS:HD3	2.10	0.51
47:A:1004:U:O4	47:A:1780:G:H8	1.93	0.51
47:A:209:U:H2'	47:A:210:A:H8	1.74	0.51
47:A:552:G:C6	47:A:553:G:C6	2.98	0.51
47:A:700:C:H42	47:A:738:G:H1	1.56	0.51
1:1:3107:U:OP2	41:AN:112:LYS:HE3	2.11	0.51
1:AR:1103:A:H2'	1:AR:1103:A:N3	2.25	0.51
1:AR:1722:U:H5''	20:CT:99:LEU:HD12	1.92	0.51
16:CP:172:ARG:NH2	16:CP:174:ILE:HD11	2.26	0.51
1:AR:290:G:H4'	16:CP:69:GLY:O	2.11	0.51
27:DA:80:VAL:HG12	27:DA:99:LEU:O	2.10	0.51
31:DE:26:GLY:O	31:DE:30:THR:HG23	2.10	0.51
56:J:84:HIS:CE1	56:J:86:SER:HB2	2.45	0.51
72:Z:78:SER:OG	72:Z:81:GLU:N	2.42	0.51
1:1:1317:A:O2'	1:1:1318:A:H3'	2.10	0.51
1:1:2185:G:O2'	1:1:2314:U:OP2	2.27	0.51
1:1:2558:U:O2'	1:1:2559:U:H5'	2.11	0.51
1:1:1502:C:OP2	82:1:3413:OHX:N6	2.43	0.51
1:1:786:A:H4'	1:1:787:G:H5'	1.91	0.51
47:A:458:G:OP2	72:Z:105:ARG:NH2	2.43	0.51
1:AR:2617:U:H5	1:AR:2621:G:OP2	1.94	0.51
1:AR:2985:C:H2'	1:AR:2986:U:C6	2.45	0.51
5:CE:332:ARG:NH1	5:CE:333:LYS:HD2	2.26	0.51
7:CG:120:LYS:O	7:CG:248:ARG:NH2	2.43	0.51
1:AR:517:G:P	9:CI:60:ARG:HH22	2.32	0.51
11:CK:122:LYS:HD3	11:CK:123:ILE:H	1.74	0.51
16:CP:73:ARG:HG2	16:CP:75:VAL:HG22	1.93	0.51
41:DO:99:CYS:HB2	41:DO:114:LYS:HD2	1.90	0.51
54:H:7:TYR:HB2	54:H:124:LEU:HG	1.92	0.51
48:B:185:ARG:H	69:W:44:ARG:HA	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2656:A:O2'	82:1:3414:OHX:N5	2.43	0.51
82:1:3505:OHX:N3	82:1:3683:OHX:N1	2.59	0.51
82:1:3588:OHX:N6	82:1:3690:OHX:N3	2.59	0.51
1:1:371:G:OP2	82:1:3647:OHX:N4	2.43	0.51
1:1:528:U:H2'	1:1:529:A:C8	2.45	0.51
47:A:840:U:O2'	47:A:841:U:H5''	2.11	0.51
32:AE:13:THR:HG22	32:AE:72:ARG:CD	2.40	0.51
34:AG:39:GLN:CD	34:AG:39:GLN:H	2.13	0.51
37:AJ:40:VAL:O	37:AJ:44:VAL:HG23	2.10	0.51
39:AL:66:ILE:HG21	39:AL:77:ARG:NH2	2.25	0.51
44:AQ:72:SER:OG	44:AQ:80:ARG:NH2	2.43	0.51
1:AR:1103:A:N6	1:AR:1363:A:O2'	2.44	0.51
1:AR:1517:G:P	40:DN:41:ARG:HH22	2.33	0.51
1:AR:275:U:H2'	1:AR:276:U:C6	2.46	0.51
1:AR:499:G:H2'	1:AR:500:C:C6	2.45	0.51
1:AR:75:G:H5''	14:CN:58:VAL:CG1	2.38	0.51
1:AR:8:C:H2'	1:AR:9:U:O4'	2.11	0.51
1:AR:980:A:H2'	1:AR:981:U:N1	2.25	0.51
3:AT:85:G:H3'	3:AT:85:G:C8	2.45	0.51
10:CJ:161:GLU:OE2	16:CP:26:ARG:NH2	2.33	0.51
2:AS:64:A:N1	12:CL:202:LYS:HD3	2.25	0.51
13:CM:49:LYS:HB3	13:CM:62:ASN:HA	1.92	0.51
1:AR:3243:A:C8	17:CQ:156:LEU:HD22	2.45	0.51
1:AR:3185:U:O2	21:CU:169:SER:HA	2.10	0.51
1:AR:361:A:O3'	38:DL:45:ARG:NH2	2.42	0.51
56:J:36:THR:HG21	56:J:173:PRO:HB2	1.92	0.51
58:L:12:HIS:NE2	58:L:49:LEU:HD21	2.24	0.51
47:A:839:U:H5''	59:M:28:SER:HB3	1.91	0.51
68:V:65:ILE:O	68:V:81:THR:HA	2.09	0.51
1:1:217:U:O2'	27:9:103:LYS:HE2	2.11	0.51
1:1:3013:U:H2'	1:1:3014:U:C6	2.46	0.51
1:1:3082:C:H2'	1:1:3083:G:C8	2.46	0.51
1:1:3107:U:P	41:AN:112:LYS:HE3	2.50	0.51
1:1:2669:G:O6	82:1:3604:OHX:N4	2.44	0.51
47:A:130:C:O2'	47:A:131:C:OP1	2.25	0.51
29:AB:77:LYS:C	29:AB:79:TRP:H	2.14	0.51
1:AR:1228:C:H2'	1:AR:1229:G:H8	1.75	0.51
1:AR:1615:C:H2'	1:AR:1616:U:C6	2.46	0.51
82:AR:3479:OHX:N6	82:AR:3691:OHX:N5	2.59	0.51
1:AR:73:C:C2	14:CN:59:ARG:HD3	2.46	0.51
5:CE:307:PRO:HD3	5:CE:311:PHE:CE2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:36:HIS:O	6:CF:40:THR:HG23	2.11	0.51
11:CK:7:GLU:HA	11:CK:68:LEU:HD11	1.93	0.51
16:CP:102:ALA:O	16:CP:106:VAL:HG13	2.11	0.51
17:CQ:73:PHE:CD2	17:CQ:78:ARG:HG2	2.46	0.51
50:D:43:ARG:NE	50:D:249:ALA:HB2	2.25	0.51
28:DB:46:ILE:HD13	28:DB:68:ILE:HG23	1.92	0.51
51:E:134:CYS:SG	51:E:135:GLU:N	2.83	0.51
51:E:34:TYR:OH	51:E:37:VAL:HG13	2.10	0.51
53:G:57:SER:HA	53:G:59:VAL:H	1.74	0.51
47:A:331:A:H5'	56:J:33:PRO:HA	1.91	0.51
57:K:6:ARG:HH11	57:K:6:ARG:HB2	1.75	0.51
66:T:49:LYS:NZ	66:T:79:TYR:O	2.43	0.51
67:U:45:MET:HE3	67:U:46:PRO:HD2	1.91	0.51
68:V:23:ARG:NH1	68:V:92:ASP:OD2	2.38	0.51
71:Y:23:ARG:O	71:Y:26:GLU:HB2	2.10	0.51
1:1:1186:G:N3	21:0:112:ALA:HB1	2.26	0.51
1:1:2771:U:HO2'	1:1:2772:C:P	2.34	0.51
1:1:3078:U:H4'	1:1:3079:U:O5'	2.09	0.51
47:A:919:A:H2'	47:A:920:U:C6	2.46	0.51
32:AE:5:LYS:HA	32:AE:89:LEU:HD21	1.92	0.51
33:AF:111:ARG:NH2	33:AF:115:LEU:HD21	2.25	0.51
1:AR:1226:G:H2'	1:AR:1227:C:C6	2.45	0.51
1:AR:2400:G:OP1	82:AR:3612:OHX:N1	2.44	0.51
82:AR:3513:OHX:N4	82:AR:3693:OHX:N1	2.59	0.51
3:AT:103:G:OP2	3:AT:105:A:O2'	2.23	0.51
6:CF:126:ILE:HD11	6:CF:233:LEU:HD13	1.92	0.51
7:CG:156:GLY:HA2	7:CG:181:PRO:HD3	1.93	0.51
7:CG:163:LEU:HD11	7:CG:175:HIS:CG	2.45	0.51
8:CH:137:ASP:O	8:CH:141:VAL:HG23	2.10	0.51
50:D:103:VAL:HG22	50:D:113:LEU:HD22	1.93	0.51
52:F:19:LEU:HD11	52:F:108:ARG:HD2	1.92	0.51
47:A:122:U:H5''	52:F:77:ARG:HH21	1.75	0.51
64:R:5:PRO:HG2	64:R:24:ALA:HB2	1.91	0.51
1:1:2255:A:OP1	82:1:3467:OHX:N3	2.43	0.51
1:1:1580:A:H5'	1:1:2522:G:C5	2.46	0.51
82:1:3588:OHX:N1	82:1:3690:OHX:N1	2.59	0.51
1:1:994:G:N2	1:1:995:U:O4	2.44	0.51
27:9:86:THR:HG22	27:9:96:PRO:HA	1.92	0.51
47:A:1389:C:O2'	65:S:52:GLY:HA3	2.10	0.51
47:A:1450:U:H2'	47:A:1451:C:C6	2.46	0.51
47:A:1528:U:OP1	53:G:109:LYS:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1789:G:OP2	62:P:132:ARG:NH2	2.33	0.51
47:A:480:G:H22	47:A:509:G:H1'	1.76	0.51
1:1:1924:U:OP1	42:AO:25:LYS:NZ	2.43	0.51
1:AR:626:U:O4	82:AR:3484:OHX:N4	2.44	0.51
82:AR:3561:OHX:N3	35:DI:64:THR:O	2.44	0.51
1:AR:421:G:OP1	82:AR:3521:OHX:N2	2.44	0.51
1:AR:495:G:H2'	1:AR:496:C:O4'	2.09	0.51
7:CG:76:ALA:CB	7:CG:109:THR:HG22	2.39	0.51
16:CP:73:ARG:O	16:CP:75:VAL:N	2.42	0.51
24:CX:18:PRO:HA	24:CX:51:ALA:HA	1.92	0.51
30:DD:23:LYS:CD	30:DD:24:PRO:HD2	2.40	0.51
37:DK:61:ILE:HD11	37:DK:87:VAL:HG13	1.92	0.51
58:L:76:LEU:HD13	58:L:76:LEU:H	1.76	0.51
1:1:1349:G:H22	1:1:1355:A:H61	1.59	0.51
1:1:1761:C:O2'	1:1:1762:C:H5''	2.11	0.51
1:1:3151:U:H4'	1:1:3294:A:H1'	1.91	0.51
1:1:428:A:OP2	82:1:3579:OHX:N6	2.44	0.51
47:A:260:U:H3'	47:A:261:U:H5''	1.93	0.51
29:AB:94:ALA:CB	29:AB:121:VAL:HG13	2.41	0.51
1:AR:244:G:C5	1:AR:245:U:C4	2.99	0.51
1:AR:553:U:H2'	1:AR:554:A:O4'	2.11	0.51
10:CJ:141:ALA:HA	10:CJ:144:GLU:HB2	1.92	0.51
17:CQ:46:GLU:HB3	17:CQ:134:LYS:HB3	1.93	0.51
18:CR:168:LEU:HD13	18:CR:172:GLN:HB3	1.93	0.51
24:CX:120:LYS:H	24:CX:137:VAL:HG23	1.76	0.51
44:DR:30:GLU:HA	44:DR:33:GLN:HG2	1.92	0.51
47:A:448:C:OP1	52:F:29:PRO:HD3	2.10	0.51
60:N:60:VAL:HG22	60:N:122:VAL:HG22	1.93	0.51
61:O:87:ASP:OD1	61:O:88:LEU:N	2.44	0.51
1:1:2227:C:OP1	43:AP:32:LYS:NZ	2.38	0.51
1:1:2437:G:N2	1:1:2511:A:H1'	2.25	0.51
1:1:2800:G:O6	29:AB:42:ARG:NH2	2.42	0.51
27:9:37:LYS:H	27:9:37:LYS:CD	2.24	0.51
82:A:1822:OHX:N1	82:A:1876:OHX:N5	2.59	0.51
47:A:629:U:OP1	61:O:127:ARG:NH2	2.43	0.51
47:A:683:C:H2'	47:A:684:A:O4'	2.11	0.51
47:A:789:A:O2'	52:F:106:LYS:NZ	2.32	0.51
47:A:887:A:C1'	62:P:122:PRO:HB3	2.40	0.51
47:A:986:G:H2'	47:A:987:G:O4'	2.11	0.51
33:AF:121:ASN:N	33:AF:121:ASN:OD1	2.44	0.51
37:AJ:21:THR:O	37:AJ:21:THR:OG1	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2310:U:O4	82:AR:3485:OHX:N5	2.44	0.51
1:AR:959:C:N4	1:AR:2801:A:C8	2.79	0.51
49:C:166:LYS:O	49:C:170:GLU:N	2.41	0.51
14:CN:56:PRO:HG3	14:CN:74:GLY:O	2.10	0.51
33:DG:21:HIS:CD2	33:DG:24:ARG:HD2	2.45	0.51
35:DI:109:THR:HG22	35:DI:113:LYS:HD2	1.92	0.51
51:E:108:LYS:HG2	51:E:113:LEU:HD12	1.92	0.51
54:H:77:LEU:HD13	54:H:84:TYR:HB2	1.93	0.51
55:I:30:SER:HB3	55:I:34:LEU:HD12	1.93	0.51
65:S:104:ASN:O	65:S:107:SER:OG	2.27	0.51
65:S:71:PHE:CD2	65:S:73:LEU:HB3	2.46	0.51
70:X:105:THR:HG23	70:X:110:ILE:HG13	1.93	0.51
1:1:1176:C:H2'	1:1:1177:G:N2	2.25	0.51
1:1:2592:G:H4'	1:1:2594:C:C2	2.45	0.51
1:1:3291:G:H2'	1:1:3292:A:C8	2.46	0.51
1:1:1419:A:H5'	3:4:20:U:O3'	2.11	0.51
47:A:495:C:H3'	47:A:496:G:C4'	2.41	0.51
47:A:594:A:H4'	47:A:595:G:H5'	1.91	0.51
47:A:702:G:O6	47:A:737:A:N6	2.44	0.51
36:AI:32:LYS:HG2	36:AI:44:ILE:HD11	1.93	0.51
1:AR:3227:A:H2'	1:AR:3228:C:H5'	1.92	0.51
1:AR:92:G:H5''	1:AR:94:G:N7	2.25	0.51
5:CE:256:HIS:HA	5:CE:257:PRO:C	2.31	0.51
6:CF:146:PRO:O	82:CF:401:OHX:N3	2.44	0.51
24:CX:19:VAL:HG23	24:CX:50:PRO:O	2.10	0.51
27:DA:32:SER:HA	27:DA:49:PRO:HA	1.92	0.51
1:AR:2138:A:O2'	38:DL:3:LYS:HG2	2.11	0.51
63:Q:29:SER:O	63:Q:31:GLU:N	2.44	0.51
68:V:34:LEU:HD23	68:V:112:VAL:HG13	1.93	0.51
71:Y:91:GLY:O	71:Y:93:LEU:N	2.44	0.51
71:Y:91:GLY:C	71:Y:93:LEU:H	2.14	0.51
1:1:1015:U:O2	1:1:1017:C:O2'	2.12	0.50
1:1:1331:U:OP1	82:1:3401:OHX:N2	2.43	0.50
1:1:2885:C:N4	1:1:2886:U:O4	2.44	0.50
1:1:317:A:C2	1:1:318:A:C4	2.99	0.50
1:1:2107:A:C2	1:1:3344:A:H8	2.27	0.50
1:1:2619:G:OP2	82:1:3457:OHX:N3	2.44	0.50
24:6:66:LYS:O	24:6:70:ARG:HG3	2.10	0.50
47:A:1277:G:H2'	47:A:1278:G:O4'	2.10	0.50
47:A:1340:U:C2	47:A:1378:U:H4'	2.46	0.50
29:AB:2:PRO:HG2	29:AB:5:PHE:CD2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1750:A:H4'	1:AR:1751:G:H5'	1.92	0.50
1:AR:644:G:H2'	1:AR:2372:A:N7	2.26	0.50
82:AR:3479:OHX:N1	82:AR:3691:OHX:N4	2.59	0.50
82:AR:3538:OHX:N3	82:AR:3728:OHX:N5	2.59	0.50
48:B:75:ALA:HB1	48:B:86:VAL:HG12	1.93	0.50
4:CD:20:THR:O	4:CD:20:THR:OG1	2.29	0.50
1:AR:693:A:H4'	6:CF:234:ASN:ND2	2.26	0.50
16:CP:28:TRP:O	16:CP:32:GLN:HG2	2.12	0.50
12:CL:169:LYS:HD3	22:CV:159:PHE:HA	1.93	0.50
28:DB:38:PHE:O	28:DB:40:HIS:ND1	2.40	0.50
52:F:95:THR:HG22	72:Z:16:PRO:HD2	1.92	0.50
53:G:93:LEU:HD23	53:G:172:ILE:HG12	1.93	0.50
54:H:55:GLY:O	54:H:63:MET:HG3	2.11	0.50
56:J:6:ASP:OD2	56:J:8:ARG:HB3	2.12	0.50
63:Q:121:ILE:HG23	63:Q:123:TYR:H	1.76	0.50
53:G:73:THR:HG23	64:R:114:ARG:HG3	1.92	0.50
1:1:2131:A:N6	44:AQ:18:TYR:HA	2.26	0.50
1:1:1556:C:H2'	1:1:2169:G:H1	1.77	0.50
1:1:420:G:O2'	1:1:2384:A:N3	2.37	0.50
3:4:146:U:H2'	3:4:147:U:C6	2.47	0.50
24:6:135:VAL:HG11	25:7:26:SER:HB3	1.93	0.50
47:A:143:G:N7	54:H:177:ARG:NH2	2.59	0.50
47:A:1282:U:OP1	82:A:1892:OHX:N1	2.44	0.50
47:A:393:C:H2'	47:A:394:C:C6	2.46	0.50
47:A:548:G:H2'	47:A:549:G:O4'	2.12	0.50
47:A:603:U:H2'	47:A:604:A:H8	1.76	0.50
1:AR:835:G:O2'	1:AR:857:G:N2	2.30	0.50
3:AT:71:A:O2'	27:DA:52:ARG:NH2	2.45	0.50
4:CD:3:ARG:HG3	4:CD:4:VAL:N	2.26	0.50
6:CF:26:PHE:HD2	6:CF:130:ALA:HB2	1.77	0.50
6:CF:217:LYS:HA	6:CF:220:ARG:HG2	1.93	0.50
51:E:40:ARG:HB2	68:V:67:THR:HG21	31.26	0.50
47:A:207:U:O2	56:J:178:ARG:NH1	2.44	0.50
58:L:10:LYS:HD3	58:L:36:ASP:HB3	1.93	0.50
58:L:50:THR:HA	58:L:55:VAL:HG13	1.94	0.50
68:V:31:VAL:HG13	68:V:87:HIS:CD2	2.45	0.50
69:W:60:ARG:HA	69:W:65:SER:HB2	1.93	0.50
1:1:1438:U:H2'	1:1:1439:U:C6	2.47	0.50
1:1:2128:C:OP1	82:1:3490:OHX:N6	2.45	0.50
1:1:437:G:H2'	1:1:438:A:O4'	2.11	0.50
1:1:501:A:H2'	1:1:502:U:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:772:U:H2'	1:1:773:G:H8	1.76	0.50
29:AB:45:MET:O	29:AB:49:HIS:N	2.44	0.50
1:1:1135:A:OP1	30:AC:6:ASN:HB2	2.11	0.50
32:AE:37:LYS:HA	32:AE:49:VAL:HG11	1.93	0.50
40:AM:21:ARG:CZ	40:AM:24:PRO:HG3	2.42	0.50
1:AR:1277:C:H2'	1:AR:1278:A:C8	2.47	0.50
1:AR:383:G:O6	82:AR:3572:OHX:N3	2.44	0.50
2:AS:112:G:OP2	82:AS:205:OHX:N2	2.44	0.50
5:CE:210:GLU:O	5:CE:213:GLU:HB2	2.11	0.50
28:DB:50:PRO:HD3	28:DB:68:ILE:HG12	1.91	0.50
31:DE:38:LYS:HB3	31:DE:93:LEU:HD23	1.94	0.50
39:DM:62:ALA:O	39:DM:66:ILE:HG13	2.11	0.50
53:G:135:ASP:O	53:G:138:THR:OG1	2.27	0.50
25:7:27:LYS:HD3	25:7:29:PHE:CZ	2.45	0.50
26:8:80:ASN:O	26:8:80:ASN:ND2	2.44	0.50
47:A:1214:U:OP1	47:A:1246:C:H1'	2.11	0.50
47:A:1435:G:N7	58:L:25:LYS:NZ	2.37	0.50
47:A:1650:U:H2'	47:A:1651:A:C8	2.46	0.50
47:A:196:G:O2'	47:A:197:A:OP2	2.24	0.50
47:A:280:U:H4'	47:A:281:G:O5'	2.12	0.50
1:1:715:A:H8	29:AB:115:LYS:HG2	1.76	0.50
36:AI:90:ARG:O	36:AI:91:ALA:HB3	2.11	0.50
41:AN:99:CYS:HB2	41:AN:114:LYS:HE2	1.94	0.50
1:AR:1135:A:H5'	30:DD:7:HIS:O	2.12	0.50
1:AR:1228:C:H2'	1:AR:1229:G:C8	2.46	0.50
1:AR:1430:U:O4	29:DC:3:SER:OG	2.24	0.50
1:AR:1701:C:H2'	1:AR:1702:U:O4'	2.11	0.50
2:AS:110:G:C6	2:AS:111:U:C4	2.99	0.50
6:CF:143:GLU:O	82:CF:401:OHX:N1	2.45	0.50
17:CQ:65:ASN:OD1	17:CQ:67:THR:HB	2.11	0.50
20:CT:17:VAL:CG1	20:CT:21:LYS:HB2	2.41	0.50
9:CI:121:LYS:HB2	22:CV:133:ALA:HB3	1.93	0.50
28:DB:25:ILE:HG23	28:DB:41:ALA:HB1	1.93	0.50
34:DH:38:PRO:HD3	34:DH:77:ASN:O	2.11	0.50
37:DK:74:LYS:HD2	37:DK:80:PHE:HD1	1.75	0.50
1:1:1286:A:O2'	1:1:1287:A:OP2	2.23	0.50
1:1:1768:U:H2'	1:1:1769:G:O4'	2.11	0.50
1:1:3120:C:HO2'	1:1:3121:U:H6	1.60	0.50
47:A:1061:A:H2'	47:A:1062:A:H5'	1.94	0.50
47:A:1238:A:H2'	47:A:1239:U:O4'	2.12	0.50
47:A:1428:G:H5'	47:A:1428:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1533:C:H4'	47:A:1539:G:N1	2.25	0.50
38:AK:52:LYS:O	38:AK:56:ARG:HG3	2.12	0.50
1:AR:2836:C:H5	1:AR:2852:C:N4	1.99	0.50
1:AR:314:U:H2'	1:AR:315:C:C6	2.47	0.50
1:AR:700:C:OP1	14:CN:65:TYR:OH	2.19	0.50
5:CE:56:ILE:HD11	5:CE:359:ILE:HG12	1.94	0.50
1:AR:505:G:OP1	6:CF:315:LYS:HG2	2.12	0.50
9:CI:158:LYS:HG2	9:CI:159:GLN:N	2.26	0.50
11:CK:41:ILE:HD11	11:CK:67:ALA:CB	2.33	0.50
18:CR:169:THR:O	18:CR:173:ARG:N	2.39	0.50
18:CR:172:GLN:NE2	34:DH:60:ARG:O	2.45	0.50
56:J:48:THR:HG21	56:J:54:LYS:HE3	1.93	0.50
58:L:1:MET:HG2	58:L:2:LEU:H	1.77	0.50
63:Q:81:ARG:NH1	63:Q:97:TYR:O	2.38	0.50
1:1:1116:G:O5'	82:1:3721:OHX:N5	2.45	0.50
1:1:132:C:H2'	1:1:133:U:H5''	1.93	0.50
1:1:1559:A:H4'	1:1:1560:G:OP2	2.11	0.50
1:1:1581:C:O2	1:1:1581:C:H2'	2.11	0.50
1:1:3159:C:H2'	1:1:3160:U:C6	2.46	0.50
22:2:15:PHE:CE1	22:2:44:ALA:HB3	2.47	0.50
47:A:366:A:H61	47:A:375:U:H3	1.60	0.50
82:1:3719:OHX:N1	82:AE:201:OHX:N1	2.60	0.50
1:1:1481:A:N1	35:AH:2:ALA:HA	2.27	0.50
1:AR:1243:G:N2	1:AR:1270:A:O2'	2.35	0.50
1:AR:2533:G:H2'	1:AR:2534:G:O4'	2.10	0.50
1:AR:3290:G:N7	82:AR:3605:OHX:N5	2.58	0.50
1:AR:348:A:N3	1:AR:352:A:O2'	2.45	0.50
3:AT:79:A:H3'	3:AT:80:A:H4'	1.94	0.50
48:B:9:LEU:HD11	48:B:14:ALA:HB2	1.93	0.50
11:CK:86:TYR:CE2	11:CK:151:VAL:HG22	2.47	0.50
21:CU:8:GLN:HB3	21:CU:64:ILE:HD11	1.93	0.50
1:AR:3215:A:H5''	34:DH:2:ALA:HB2	1.93	0.50
54:H:67:VAL:O	54:H:68:LEU:O	2.30	0.50
56:J:147:ALA:CA	56:J:149:SER:H	2.21	0.50
57:K:148:VAL:HG11	57:K:156:ILE:HD11	1.94	0.50
1:1:190:U:H2'	27:9:60:ARG:HH22	1.76	0.50
1:1:3305:A:H2'	1:1:3306:U:O2	2.11	0.50
47:A:1228:G:N2	60:N:68:GLU:OE1	2.44	0.50
82:A:1822:OHX:N6	82:A:1876:OHX:N6	2.60	0.50
47:A:413:U:H2'	47:A:414:C:C6	2.46	0.50
47:A:417:A:H4'	47:A:418:G:O5'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AB:125:VAL:HG21	29:AB:138:ILE:HD13	1.94	0.50
1:1:1492:G:N7	40:AM:2:ALA:HB1	2.26	0.50
1:AR:1167:U:OP1	82:AR:3738:OHX:N3	2.45	0.50
1:AR:1307:G:C2	1:AR:1308:A:C2	3.00	0.50
1:AR:3272:C:O2	8:CH:80:ASN:HB2	2.11	0.50
1:AR:2513:U:OP2	82:AR:3466:OHX:N3	2.45	0.50
1:AR:1625:A:OP2	82:AR:3711:OHX:N5	2.45	0.50
1:AR:701:G:H2'	1:AR:702:C:C6	2.47	0.50
49:C:121:ILE:HG12	49:C:161:ILE:HG23	1.93	0.50
6:CF:192:GLY:HA2	6:CF:195:ARG:HG3	1.92	0.50
1:AR:2902:A:OP1	11:CK:170:LYS:HE3	2.12	0.50
1:AR:269:G:P	16:CP:44:ARG:HH22	2.34	0.50
20:CT:172:ARG:O	20:CT:176:ARG:HG2	2.11	0.50
28:DB:18:TYR:CE1	28:DB:47:GLU:HG3	2.45	0.50
34:DH:53:TYR:CZ	34:DH:65:ARG:HB2	2.47	0.50
37:DK:55:ARG:O	37:DK:58:ILE:HG12	2.10	0.50
1:AR:2138:A:HO2'	38:DL:2:GLY:N	2.09	0.50
51:E:141:LYS:HE3	51:E:179:GLN:HG2	1.93	0.50
53:G:152:GLY:O	53:G:154:ALA:N	2.45	0.50
56:J:150:ALA:O	56:J:152:ILE:HG13	2.11	0.50
47:A:861:U:O2'	70:X:56:HIS:O	2.27	0.50
1:1:2986:U:H2'	1:1:2987:A:C8	2.46	0.50
1:1:832:G:OP1	82:1:3504:OHX:N4	2.45	0.50
82:1:3566:OHX:N1	82:1:3578:OHX:N4	2.59	0.50
1:1:662:U:H2'	1:1:663:C:C6	2.46	0.50
26:8:45:LYS:HG2	36:AI:75:TYR:CD2	2.47	0.50
47:A:1000:C:N4	47:A:1003:A:OP2	2.40	0.50
47:A:275:C:H2'	47:A:276:C:C5	2.46	0.50
47:A:301:A:H2'	47:A:302:U:O4'	2.12	0.50
47:A:711:U:H1'	47:A:712:G:C8	2.47	0.50
43:AP:72:LEU:O	43:AP:80:ARG:HA	2.11	0.50
1:AR:2263:C:O2'	1:AR:2264:U:P	2.70	0.50
1:AR:2278:C:OP1	42:DP:23:ARG:NH1	2.44	0.50
1:AR:543:C:H3'	1:AR:544:C:C6	2.47	0.50
1:AR:636:C:O2	1:AR:2377:G:O2'	2.29	0.50
1:AR:735:A:H2'	1:AR:736:A:C8	2.47	0.50
1:AR:980:A:C5	1:AR:981:U:N3	2.80	0.50
2:AS:91:G:H2'	2:AS:92:A:C8	2.46	0.50
1:AR:2402:A:H5''	6:CF:67:THR:OG1	2.11	0.50
10:CJ:108:ARG:O	10:CJ:112:GLU:HG2	2.11	0.50
19:CS:115:VAL:O	19:CS:118:GLY:N	2.33	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DI:41:ARG:HA	35:DI:56:THR:HG22	1.93	0.50
14:CN:106:GLN:OE1	37:DK:20:MET:HG3	2.11	0.50
57:K:169:PRO:HB2	57:K:174:ARG:HG2	1.93	0.50
47:A:1459:C:H4'	63:Q:126:VAL:HG11	1.93	0.50
67:U:52:GLY:C	67:U:54:PHE:H	2.14	0.50
1:1:1397:C:C2'	1:1:1398:U:H5'	2.42	0.50
1:1:2223:A:H8	1:1:2223:A:OP2	1.95	0.50
1:1:274:G:H2'	1:1:275:U:O4'	2.12	0.50
1:1:847:A:H2'	1:1:848:A:C8	2.47	0.50
47:A:1477:G:H2'	47:A:1478:G:C8	2.46	0.50
47:A:366:A:OP1	47:A:758:U:O2'	2.22	0.50
1:AR:1781:C:H2'	1:AR:1782:U:C6	2.47	0.50
1:AR:1487:G:H1	1:AR:1855:U:H3	1.60	0.50
1:AR:2106:A:H2'	1:AR:2107:A:H8	1.76	0.50
1:AR:2557:A:OP1	4:CD:69:TYR:OH	2.29	0.50
82:AR:3501:OHX:N1	82:AR:3596:OHX:N1	2.60	0.50
2:AS:112:G:H2'	2:AS:113:C:C6	2.46	0.50
8:CH:43:LEU:HD21	8:CH:85:ILE:HG13	1.93	0.50
12:CL:218:ALA:O	82:CL:301:OHX:N4	2.45	0.50
14:CN:24:VAL:HG12	16:CP:199:LEU:HB2	1.94	0.50
1:AR:3212:C:OP2	15:CO:124:ARG:NH2	2.45	0.50
1:AR:290:G:H1'	16:CP:93:LYS:HD2	1.94	0.50
19:CS:64:VAL:HG11	19:CS:113:LYS:HD2	1.93	0.50
28:DB:51:LEU:HB2	28:DB:65:ARG:HB3	1.94	0.50
44:DR:73:THR:HG22	44:DR:76:ALA:HB3	1.93	0.50
51:E:137:VAL:HG22	51:E:151:LYS:HG3	1.94	0.50
54:H:78:THR:HG22	54:H:92:ARG:HG2	1.94	0.50
59:M:142:VAL:HG12	59:M:144:ALA:O	2.12	0.50
59:M:64:VAL:HG11	59:M:131:ILE:HD11	1.93	0.50
21:O:74:ASN:HD22	21:O:135:VAL:HG21	1.77	0.49
1:1:1815:U:HO2'	1:1:1816:A:P	2.30	0.49
1:1:2419:A:H2'	1:1:2420:C:C6	2.47	0.49
1:1:3351:U:O2'	1:1:3352:U:OP1	2.26	0.49
1:1:1043:C:OP2	82:1:3521:OHX:N6	2.45	0.49
82:1:3553:OHX:N4	82:1:3590:OHX:N1	2.59	0.49
1:1:3136:G:OP2	82:1:3632:OHX:N6	2.45	0.49
24:6:48:ARG:NH1	24:6:48:ARG:HG3	2.27	0.49
47:A:319:U:H1'	47:A:323:A:C4	2.47	0.49
47:A:372:G:H1'	47:A:612:U:O2	2.11	0.49
29:AB:46:ASP:O	29:AB:47:LYS:HB3	2.12	0.49
82:1:3719:OHX:N2	82:AE:201:OHX:N1	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:AH:42:PRO:HB2	35:AH:51:LEU:HD21	1.93	0.49
35:AH:74:ARG:CZ	35:AH:82:ALA:HB2	2.42	0.49
1:AR:139:G:H2'	1:AR:140:C:C6	2.47	0.49
1:AR:1740:U:H1'	1:AR:1741:A:C2	2.36	0.49
1:AR:1831:U:H2'	1:AR:1832:C:C6	2.47	0.49
1:AR:210:U:C2	1:AR:230:U:H4'	2.47	0.49
1:AR:2256:A:C8	1:AR:2256:A:OP1	2.65	0.49
1:AR:2751:G:O6	82:AR:3654:OHX:N3	2.45	0.49
1:AR:3000:A:H2'	1:AR:3001:C:C6	2.46	0.49
1:AR:3017:A:OP2	82:AR:3486:OHX:N6	2.45	0.49
1:AR:1436:U:O2	82:AR:3612:OHX:N6	2.45	0.49
1:AR:912:G:N7	4:CD:9:ARG:NH2	2.60	0.49
1:AR:2245:C:H4'	4:CD:221:LYS:O	2.11	0.49
7:CG:226:TYR:CE2	7:CG:236:LEU:HD11	2.40	0.49
12:CL:77:THR:HG23	12:CL:85:PHE:HZ	1.75	0.49
19:CS:86:THR:HB	19:CS:105:ARG:HB2	1.93	0.49
19:CS:157:PRO:HD3	29:DC:47:LYS:HG3	1.93	0.49
23:CW:38:ILE:HG13	23:CW:56:VAL:HB	1.94	0.49
50:D:42:GLY:HA2	50:D:68:ILE:HD11	1.93	0.49
38:DL:66:TYR:OH	38:DL:73:ARG:NH2	2.45	0.49
1:AR:44:U:O3'	82:DQ:502:OHX:N2	2.45	0.49
53:G:117:THR:HG21	53:G:194:LEU:HD12	1.93	0.49
56:J:89:GLU:O	56:J:93:THR:OG1	2.24	0.49
47:A:885:G:H21	62:P:123:SER:HB2	1.77	0.49
1:1:1578:C:H3'	1:1:1579:C:C6	2.46	0.49
1:1:1719:G:H4'	1:1:1732:U:H4'	1.93	0.49
1:1:2335:G:N2	1:1:2339:C:O2'	2.45	0.49
1:1:696:C:HO2'	1:1:697:A:H8	1.58	0.49
22:2:79:MET:HA	22:2:84:TYR:HA	1.93	0.49
24:6:120:LYS:HB3	24:6:137:VAL:HG21	1.95	0.49
47:A:651:G:H1	47:A:683:C:H42	1.59	0.49
32:AE:12:TYR:O	32:AE:72:ARG:HD2	2.12	0.49
26:8:45:LYS:HG2	36:AI:75:TYR:HD2	1.77	0.49
43:AP:71:ARG:NH2	43:AP:80:ARG:HH21	2.10	0.49
1:AR:3355:U:H3'	1:AR:3356:G:C5'	2.42	0.49
1:AR:410:U:O4	82:AR:3606:OHX:N3	2.45	0.49
5:CE:258:ALA:O	5:CE:259:HIS:CD2	2.65	0.49
5:CE:232:ARG:NH1	5:CE:269:GLN:O	2.43	0.49
12:CL:210:ILE:HG12	12:CL:217:PHE:CE2	2.47	0.49
12:CL:78:THR:OG1	12:CL:79:VAL:N	2.45	0.49
1:AR:1368:U:H5'	33:DG:43:ARG:NH1	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DI:22:VAL:HG11	35:DI:30:LEU:HD13	1.94	0.49
54:H:186:ARG:O	54:H:190:GLN:HG2	2.12	0.49
57:K:134:ILE:HG22	57:K:158:PHE:CD2	2.48	0.49
1:1:1556:C:H2'	1:1:2169:G:N1	2.27	0.49
1:1:2505:U:H2'	1:1:2506:U:H6	1.77	0.49
1:1:2514:U:OP2	1:1:2586:G:N2	2.45	0.49
1:1:2771:U:O2'	1:1:2772:C:O5'	2.27	0.49
1:1:3317:U:H4'	1:1:3318:G:O5'	2.11	0.49
22:2:68:THR:HG23	22:2:71:SER:HB2	1.95	0.49
47:A:1537:C:H41	47:A:1572:G:H1	1.60	0.49
47:A:1769:U:OP2	82:A:1919:OHX:N4	2.45	0.49
47:A:480:G:N2	47:A:509:G:H1'	2.27	0.49
28:AA:115:LYS:NZ	28:AA:119:GLU:OE2	2.43	0.49
1:1:1427:U:OP2	29:AB:4:ARG:NH2	2.45	0.49
39:AL:23:ALA:HB2	39:AL:73:LEU:HD21	1.94	0.49
1:AR:2112:U:H4'	1:AR:2113:A:O5'	2.10	0.49
1:AR:3033:A:OP2	82:AR:3486:OHX:N5	2.45	0.49
1:AR:552:G:H2'	1:AR:553:U:H6	1.77	0.49
1:AR:791:A:H2'	1:AR:792:G:C8	2.47	0.49
1:AR:980:A:C8	1:AR:981:U:C4	2.99	0.49
49:C:119:THR:HB	49:C:143:THR:CG2	2.43	0.49
5:CE:47:LEU:HG	5:CE:335:ILE:HD11	1.95	0.49
18:CR:179:GLN:O	18:CR:184:ALA:N	2.46	0.49
19:CS:30:VAL:O	19:CS:34:THR:HG23	2.13	0.49
20:CT:96:ILE:O	20:CT:100:ARG:HG3	2.12	0.49
15:CO:55:ARG:HD3	21:CU:70:THR:OG1	2.12	0.49
50:D:225:LEU:HD13	70:X:68:ARG:HA	1.92	0.49
52:F:104:ASP:HB2	52:F:108:ARG:H	1.77	0.49
57:K:129:ILE:HG12	57:K:134:ILE:HD11	1.92	0.49
58:L:15:LEU:HD13	58:L:21:VAL:HG23	1.93	0.49
64:R:67:VAL:HG11	64:R:81:ILE:HG22	1.92	0.49
70:X:30:SER:HB2	70:X:61:ILE:CG1	2.43	0.49
21:0:96:ASP:OD1	21:0:97:VAL:N	2.45	0.49
1:1:1838:G:H4'	1:1:1839:A:N3	2.28	0.49
1:1:2723:U:H2'	1:1:2724:U:C6	2.47	0.49
82:1:3493:OHX:N1	82:1:3667:OHX:N3	2.61	0.49
1:1:603:A:H2'	1:1:604:G:O4'	2.12	0.49
1:1:1061:A:H4'	22:2:102:ARG:HD2	1.94	0.49
22:2:57:TYR:CG	22:2:89:LEU:HD21	2.46	0.49
27:9:112:ASP:HB2	27:9:115:ARG:H	1.77	0.49
47:A:1207:C:N4	47:A:1456:C:H5	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:454:U:H3'	47:A:455:C:C6	2.46	0.49
47:A:486:G:N2	47:A:487:G:N3	2.60	0.49
47:A:872:G:H2'	47:A:873:U:O4'	2.12	0.49
1:AR:2970:C:H4'	1:AR:2971:A:N1	2.27	0.49
1:AR:3197:G:N2	1:AR:3199:G:C4	2.81	0.49
1:AR:1200:A:O2'	82:AR:3506:OHX:N2	2.45	0.49
1:AR:65:A:C4	1:AR:110:G:N7	2.80	0.49
49:C:81:PHE:CE1	49:C:109:LYS:HE2	2.48	0.49
49:C:128:LYS:HE3	49:C:132:ASP:HB3	1.94	0.49
1:AR:1362:G:O2'	9:CI:158:LYS:HE3	2.11	0.49
13:CM:90:GLN:HG2	13:CM:170:ASP:HB2	1.94	0.49
16:CP:91:GLU:O	16:CP:93:LYS:HE3	2.12	0.49
1:AR:3178:A:C2	17:CQ:115:LYS:HD3	2.47	0.49
1:AR:989:A:O2'	22:CV:104:GLU:HG2	2.12	0.49
26:CZ:132:ALA:O	26:CZ:135:ILE:HG22	2.12	0.49
35:DI:8:ARG:NH2	35:DI:31:ARG:HD2	2.25	0.49
52:F:105:VAL:HG22	52:F:243:GLY:HA2	1.94	0.49
53:G:63:GLN:NE2	53:G:66:GLN:OE1	2.44	0.49
65:S:84:TYR:HB3	65:S:85:VAL:HG23	1.93	0.49
68:V:23:ARG:HD3	68:V:92:ASP:OD1	2.13	0.49
70:X:103:ILE:HA	70:X:112:ASP:HA	1.94	0.49
1:1:1110:U:H2'	1:1:1111:U:C6	2.47	0.49
1:1:1262:G:C6	1:1:1278:A:N6	2.81	0.49
1:1:2115:G:H22	1:1:2120:A:H1'	1.77	0.49
82:1:3553:OHX:N6	82:1:3590:OHX:N5	2.60	0.49
47:A:1079:U:H2'	47:A:1080:U:C6	2.47	0.49
47:A:1189:A:N3	47:A:1194:A:O2'	2.35	0.49
47:A:1449:U:H2'	47:A:1450:U:C6	2.46	0.49
47:A:837:G:N7	82:A:1815:OHX:N6	2.60	0.49
47:A:294:C:H2'	47:A:295:A:C8	2.46	0.49
47:A:882:U:H2'	47:A:883:C:C6	2.48	0.49
1:AR:2751:G:N7	82:AR:3654:OHX:N5	2.60	0.49
1:AR:289:A:H5'	16:CP:95:GLN:O	2.12	0.49
1:AR:1938:U:O4	82:AR:3451:OHX:N4	2.46	0.49
82:AR:3558:OHX:N4	82:AR:3692:OHX:N4	2.61	0.49
1:AR:1450:G:OP1	82:AR:3719:OHX:N1	2.46	0.49
1:AR:879:U:O2	1:AR:2357:A:H1'	2.12	0.49
3:AT:125:U:HO2'	3:AT:126:A:P	2.33	0.49
1:AR:2664:C:OP2	13:CM:142:LYS:HE3	2.13	0.49
18:CR:48:LEU:HD22	18:CR:88:VAL:HG13	1.93	0.49
1:AR:718:G:OP1	29:DC:117:ARG:NH2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DG:78:ASN:H	33:DG:81:ASP:HB2	1.77	0.49
43:DQ:48:SER:O	82:DQ:502:OHX:N3	2.45	0.49
60:N:88:LEU:HB3	60:N:140:PHE:HZ	1.75	0.49
64:R:82:ARG:NH2	64:R:116:LEU:HD11	2.28	0.49
48:B:66:ALA:HB1	69:W:50:TYR:HE1	1.78	0.49
1:1:1767:C:H2'	1:1:1768:U:C6	2.48	0.49
1:1:2192:C:O2'	1:1:2312:A:N1	2.36	0.49
1:1:898:U:H2'	1:1:899:U:O4'	2.13	0.49
47:A:1248:C:H2'	47:A:1249:U:C6	2.47	0.49
47:A:304:U:H2'	47:A:305:C:H6	1.77	0.49
47:A:886:U:H2'	47:A:887:A:O4'	2.13	0.49
34:AG:75:HIS:HB3	34:AG:80:VAL:HB	1.95	0.49
1:1:72:C:OP2	37:AJ:13:LYS:NZ	2.45	0.49
1:1:1845:G:O2'	38:AK:5:THR:HB	2.13	0.49
1:AR:1362:G:OP1	82:AR:3558:OHX:N3	2.46	0.49
1:AR:229:G:C6	1:AR:230:U:C4	3.01	0.49
1:AR:2389:C:H1'	18:CR:69:ARG:NH1	2.28	0.49
6:CF:361:HIS:O	21:CU:28:ARG:NH2	2.46	0.49
13:CM:106:ILE:HD13	13:CM:125:MET:HB3	1.95	0.49
1:AR:1522:U:H3'	26:CZ:113:LEU:HD22	1.94	0.49
36:DJ:85:THR:HG22	36:DJ:87:ALA:N	2.27	0.49
52:F:37:LYS:HB2	52:F:40:GLU:HG2	1.93	0.49
52:F:9:LEU:HD12	52:F:30:ARG:HA	1.94	0.49
53:G:156:ARG:HH11	53:G:156:ARG:HB2	1.76	0.49
54:H:114:VAL:O	54:H:115:LYS:HD3	2.13	0.49
54:H:72:ARG:HG2	54:H:98:ARG:HA	1.94	0.49
66:T:17:LEU:HD12	66:T:18:LEU:HD23	1.94	0.49
1:1:1095:U:O2	22:2:128:LEU:N	2.45	0.49
1:1:1109:U:H2'	1:1:1110:U:C6	2.48	0.49
1:1:2593:A:H4'	1:1:2594:C:O5'	2.12	0.49
1:1:3294:A:H2'	1:1:3295:A:O4'	2.13	0.49
82:1:3617:OHX:N6	82:1:3681:OHX:N4	2.60	0.49
1:1:3:U:H2'	1:1:4:U:C6	2.47	0.49
47:A:18:C:C4	47:A:19:A:N7	2.81	0.49
38:AK:69:HIS:O	38:AK:73:ARG:HG3	2.13	0.49
1:AR:1764:U:C5	1:AR:1765:U:H1'	2.48	0.49
1:AR:283:G:O6	1:AR:304:G:H1'	2.12	0.49
1:AR:286:U:H2'	1:AR:287:G:C8	2.47	0.49
1:AR:1530:U:OP1	82:AR:3492:OHX:N4	2.46	0.49
1:AR:61:A:H2'	1:AR:62:A:O4'	2.13	0.49
5:CE:308:MET:O	5:CE:363:SER:HB2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:299:ILE:HG23	19:CS:39:ARG:HB3	1.93	0.49
20:CT:78:TYR:HA	20:CT:81:ARG:HD3	1.94	0.49
23:CW:18:ASP:OD1	23:CW:20:SER:OG	2.22	0.49
24:CX:80:ARG:HD3	24:CX:117:PRO:O	2.13	0.49
47:A:161:U:OP2	54:H:87:ARG:NH2	2.45	0.49
56:J:3:ILE:O	56:J:30:GLY:N	2.42	0.49
57:K:134:ILE:HA	57:K:158:PHE:HA	1.95	0.49
1:1:2419:A:H2'	1:1:2420:C:H6	1.78	0.49
1:1:2793:G:O6	82:1:3468:OHX:N5	2.46	0.49
1:1:561:C:H2'	1:1:562:C:H6	1.78	0.49
24:6:85:TRP:O	24:6:92:PHE:HA	2.13	0.49
26:8:105:VAL:HG11	26:8:126:LEU:HD22	1.95	0.49
3:4:131:A:H5''	26:8:93:TYR:CE2	2.48	0.49
47:A:1011:G:OP2	82:A:1868:OHX:N5	2.45	0.49
47:A:1477:G:H1'	67:U:48:GLN:HG3	1.95	0.49
47:A:275:C:O2	47:A:276:C:N4	2.46	0.49
47:A:328:A:H2'	47:A:329:G:O4'	2.12	0.49
47:A:810:G:C5	55:I:111:LYS:HE3	2.48	0.49
47:A:811:A:C2	47:A:858:G:H1'	2.47	0.49
29:AB:91:LEU:HD12	29:AB:121:VAL:HG21	1.95	0.49
1:1:3118:C:C4'	41:AN:106:ARG:HH22	2.25	0.49
1:AR:1812:G:O6	28:DB:64:LYS:HD2	2.12	0.49
82:AR:3696:OHX:N4	82:AT:213:OHX:N4	2.61	0.49
82:AR:3702:OHX:N1	40:DN:48:LYS:O	2.46	0.49
4:CD:187:HIS:ND1	4:CD:190:ARG:NH2	2.59	0.49
4:CD:18:SER:O	4:CD:20:THR:HG22	2.11	0.49
4:CD:65:ASP:HB3	4:CD:68:LYS:O	2.12	0.49
5:CE:169:THR:CG2	5:CE:171:LEU:HG	2.43	0.49
5:CE:232:ARG:HG2	5:CE:233:TRP:CD1	2.47	0.49
5:CE:53:MET:HE2	5:CE:77:THR:CG2	2.43	0.49
8:CH:170:LYS:HB3	8:CH:172:HIS:CE1	2.47	0.49
11:CK:41:ILE:HD13	11:CK:41:ILE:O	2.12	0.49
6:CF:302:ALA:HB2	19:CS:39:ARG:NH2	2.27	0.49
47:A:1145:U:O2'	50:D:89:GLN:O	2.19	0.49
35:DI:74:ARG:HG2	35:DI:75:ALA:N	2.28	0.49
54:H:27:PHE:HD1	54:H:52:ILE:HD11	1.76	0.49
47:A:929:A:C8	62:P:123:SER:HA	2.48	0.49
64:R:40:GLU:HB2	64:R:45:ARG:HH21	1.77	0.49
70:X:50:PHE:HB3	70:X:63:VAL:HG22	1.95	0.49
21:O:77:VAL:HG11	21:O:106:LEU:HD12	1.95	0.49
1:1:1560:G:H2'	1:1:1561:G:H5'	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:156:G:OP2	37:AJ:25:LYS:HB3	2.13	0.49
1:1:3152:U:O2'	1:1:3153:U:H5'	2.13	0.49
23:5:19:VAL:HB	23:5:28:PHE:CE2	2.48	0.49
26:8:50:ALA:O	26:8:51:VAL:HG23	2.13	0.49
47:A:1310:U:O2	47:A:1316:G:C2	2.66	0.49
47:A:43:A:H5''	47:A:437:A:N1	2.28	0.49
33:AF:32:TRP:CE2	33:AF:53:PRO:HD2	2.48	0.49
1:AR:139:G:H2'	1:AR:140:C:H6	1.78	0.49
1:AR:3197:G:H2'	1:AR:3198:U:H5''	1.95	0.49
1:AR:678:G:H2'	1:AR:679:U:O4'	2.13	0.49
9:CI:93:ASN:OD1	9:CI:93:ASN:N	2.45	0.49
12:CL:169:LYS:HE3	22:CV:158:THR:OG1	2.12	0.49
47:A:1298:U:O2'	50:D:209:ASN:ND2	2.45	0.49
28:DB:12:VAL:HB	28:DB:81:LEU:HB3	1.95	0.49
32:DF:29:ALA:HB3	32:DF:30:PRO:HD3	1.95	0.49
36:DJ:31:LEU:HD22	36:DJ:41:LEU:HD21	1.93	0.49
59:M:57:LYS:HB2	59:M:110:HIS:CE1	2.47	0.49
1:1:2667:A:OP1	55:I:31:SER:OG	199.63	0.49
1:1:3164:C:H1'	1:1:3165:A:H5'	1.95	0.49
82:1:3617:OHX:N5	82:1:3681:OHX:N5	2.61	0.49
1:1:539:C:H2'	1:1:540:U:H6	1.77	0.49
23:5:19:VAL:HB	23:5:28:PHE:HE2	1.78	0.49
47:A:1317:C:H2'	47:A:1318:G:O4'	2.13	0.49
47:A:223:U:H2'	47:A:224:C:C6	2.48	0.49
47:A:978:A:H2'	47:A:979:A:O4'	2.13	0.49
82:AR:3538:OHX:N4	82:AR:3728:OHX:N2	2.60	0.49
3:AT:145:U:H2'	3:AT:146:U:O4'	2.13	0.49
49:C:48:VAL:CG1	49:C:61:LEU:HD21	2.43	0.49
5:CE:25:ILE:HG23	5:CE:272:TYR:OH	2.11	0.49
19:CS:158:HIS:H	19:CS:186:VAL:CG1	2.26	0.49
19:CS:64:VAL:HG22	19:CS:96:PHE:CE1	2.48	0.49
21:CU:137:ARG:HD2	21:CU:137:ARG:N	2.26	0.49
33:DG:89:THR:HG22	33:DG:117:ILE:HG13	1.95	0.49
39:DM:27:ILE:HB	39:DM:78:LEU:HD11	1.95	0.49
56:J:122:GLY:O	82:J:302:OHX:N2	2.46	0.49
60:N:32:LEU:O	60:N:36:LEU:N	2.46	0.49
62:P:41:ARG:O	62:P:41:ARG:HG3	2.12	0.49
64:R:35:PRO:HG2	64:R:38:LEU:HG	1.95	0.49
64:R:39:VAL:HG21	64:R:48:VAL:HG11	1.95	0.49
1:1:776:U:C5	1:1:2719:U:O2	2.66	0.48
47:A:1000:C:O2'	47:A:1002:G:N7	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1150:G:HO2'	47:A:1151:A:P	2.35	0.48
47:A:1757:G:O6	82:A:1801:OHX:N2	2.46	0.48
47:A:181:A:H2'	47:A:182:A:C8	2.47	0.48
47:A:488:G:H3'	47:A:489:C:C6	2.48	0.48
47:A:779:U:O2'	47:A:780:A:H5''	2.13	0.48
28:AA:10:VAL:HB	28:AA:83:THR:CG2	2.42	0.48
1:1:2278:C:OP2	42:AO:23:ARG:NH1	2.46	0.48
1:AR:2957:G:H5'	1:AR:2957:G:H8	1.77	0.48
1:AR:3066:U:O4	82:AR:3609:OHX:N6	2.46	0.48
1:AR:915:A:H8	1:AR:2136:C:O2'	1.96	0.48
4:CD:206:PRO:HG3	4:CD:213:GLY:HA3	1.95	0.48
5:CE:361:THR:HG22	5:CE:371:GLN:OE1	2.13	0.48
5:CE:84:VAL:HG22	5:CE:162:VAL:HB	1.95	0.48
10:CJ:41:GLN:HG3	10:CJ:44:ARG:NH1	2.23	0.48
1:AR:2655:U:H2'	43:DQ:3:ASN:O	2.13	0.48
21:O:155:ARG:NH2	21:O:171:PHE:O	2.46	0.48
1:1:1024:G:N7	82:1:3691:OHX:N3	2.60	0.48
1:1:1213:G:OP1	21:O:137:ARG:HD3	2.13	0.48
1:1:1597:C:H42	1:1:1610:G:H1	1.60	0.48
1:1:1703:U:N3	1:1:1740:U:O2	2.46	0.48
1:1:1748:G:C6	1:1:1749:A:C6	3.01	0.48
1:1:2383:C:H2'	1:1:2384:A:H5'	1.94	0.48
1:1:2996:U:O2	1:1:2996:U:H2'	2.13	0.48
1:1:3347:A:OP2	1:1:3347:A:H8	1.96	0.48
22:2:12:ARG:HD3	22:2:13:TYR:CE1	2.48	0.48
22:2:68:THR:CG2	22:2:71:SER:HB2	2.43	0.48
47:A:549:G:OP2	82:A:1804:OHX:N2	2.46	0.48
47:A:704:C:OP2	47:A:704:C:H3'	2.13	0.48
36:AI:90:ARG:H	36:AI:90:ARG:HG2	1.39	0.48
1:AR:1577:G:H2'	1:AR:1578:C:C6	2.48	0.48
1:AR:3107:U:OP2	41:DO:112:LYS:NZ	2.39	0.48
1:AR:566:G:O6	82:AR:3632:OHX:N2	2.46	0.48
3:AT:25:G:N7	27:DA:13:ARG:NH2	2.56	0.48
5:CE:215:ILE:HD13	5:CE:282:ILE:HD11	1.94	0.48
6:CF:237:GLN:O	6:CF:246:ARG:HG3	2.13	0.48
7:CG:110:LEU:HD12	7:CG:110:LEU:HA	1.58	0.48
1:AR:2549:G:C2	10:CJ:35:GLY:HA2	2.48	0.48
13:CM:33:ALA:HB2	13:CM:123:PHE:CE1	2.48	0.48
14:CN:64:LYS:HA	29:DC:69:TRP:CE3	2.48	0.48
33:DG:74:PHE:HB3	33:DG:85:LEU:HD11	1.95	0.48
38:DL:64:MET:O	38:DL:68:LYS:HB3	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:I:42:GLN:HG2	55:I:43:PHE:N	2.27	0.48
61:O:4:MET:HG3	61:O:5:HIS:N	2.28	0.48
63:Q:110:GLU:HG3	66:T:119:ILE:HD11	1.95	0.48
68:V:48:HIS:CG	68:V:48:HIS:O	2.67	0.48
72:Z:10:ARG:HD2	72:Z:26:ASP:HB2	1.96	0.48
72:Z:34:ASN:HD22	72:Z:62:THR:CG2	2.26	0.48
1:1:1777:U:H4'	1:1:2099:A:O2'	2.13	0.48
1:1:2350:C:H4'	1:1:3308:C:O2'	2.14	0.48
1:1:2367:A:H2'	1:1:2368:A:C8	2.48	0.48
1:1:393:U:OP2	82:1:3451:OHX:N2	2.47	0.48
1:1:839:C:H4'	1:1:1724:U:H2'	1.94	0.48
3:4:82:U:H2'	3:4:83:C:C6	2.47	0.48
23:5:32:SER:HA	23:5:35:LYS:HB3	1.95	0.48
26:8:100:LYS:NZ	26:8:106:ASP:HA	2.29	0.48
1:1:2585:G:C6	26:8:24:LEU:HD13	2.48	0.48
47:A:1796:C:H4'	47:A:1797:A:OP2	2.13	0.48
47:A:245:U:O4	82:A:1871:OHX:N5	2.47	0.48
47:A:272:U:O2'	47:A:273:G:O4'	2.32	0.48
29:AB:48:TYR:O	29:AB:49:HIS:ND1	2.47	0.48
34:AG:53:TYR:CZ	34:AG:65:ARG:HB2	2.48	0.48
1:1:2846:U:H3'	41:AN:97:ARG:NH2	2.29	0.48
1:AR:1778:G:O2'	1:AR:1780:G:OP2	2.26	0.48
1:AR:3119:U:OP2	82:AR:3419:OHX:N5	2.47	0.48
82:AR:3503:OHX:N6	82:AR:3593:OHX:N2	2.61	0.48
82:AR:3513:OHX:N6	82:AR:3693:OHX:N2	2.61	0.48
1:AR:1651:U:O4	82:AR:3676:OHX:N5	2.47	0.48
1:AR:1168:U:OP2	82:AR:3738:OHX:N6	2.46	0.48
1:AR:92:G:H5'	1:AR:93:C:H5''	1.95	0.48
3:AT:51:G:OP2	40:DN:21:ARG:NH2	2.45	0.48
5:CE:106:TRP:CH2	5:CE:161:LEU:HD13	2.48	0.48
10:CJ:165:PHE:HA	37:DK:47:ILE:HD13	1.93	0.48
11:CK:139:ASN:HD22	11:CK:139:ASN:C	2.16	0.48
20:CT:105:LEU:HD12	20:CT:135:LYS:HG3	1.96	0.48
21:CU:141:LYS:HA	21:CU:144:LEU:HD12	1.95	0.48
57:K:93:LEU:O	57:K:96:VAL:HG22	2.12	0.48
1:1:1496:C:C2	1:1:1521:G:N2	2.81	0.48
1:1:180:C:H2'	1:1:181:U:C6	2.49	0.48
1:1:1913:A:N3	1:1:2120:A:H2'	2.29	0.48
1:1:246:U:O2'	1:1:247:C:H5'	2.14	0.48
1:1:2504:U:H2'	1:1:2505:U:O4'	2.14	0.48
1:1:3098:G:O6	82:1:3437:OHX:N5	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:329:U:OP2	82:1:3576:OHX:N4	2.47	0.48
1:1:428:A:H2'	1:1:429:U:C6	2.48	0.48
1:1:917:A:OP2	82:1:3670:OHX:N2	2.46	0.48
3:4:83:C:H4'	3:4:85:G:N3	2.27	0.48
24:6:87:ARG:HH22	24:6:137:VAL:HG22	1.78	0.48
82:A:1861:OHX:N6	82:A:1863:OHX:N2	2.61	0.48
47:A:214:G:N2	47:A:250:C:OP2	2.40	0.48
47:A:256:A:H2'	47:A:257:A:O4'	2.12	0.48
47:A:287:G:O2'	47:A:288:A:OP2	2.22	0.48
47:A:843:U:H2'	47:A:844:A:C8	2.49	0.48
28:AA:88:ASP:CB	28:AA:121:ARG:HH22	2.22	0.48
29:AB:7:LYS:HA	29:AB:7:LYS:HD3	1.58	0.48
36:AI:62:GLN:O	36:AI:65:ALA:HB3	2.13	0.48
1:AR:1350:A:C2'	1:AR:1351:U:H5'	2.43	0.48
1:AR:638:C:N4	1:AR:647:A:OP1	2.42	0.48
1:AR:979:U:O2'	1:AR:980:A:OP2	2.31	0.48
48:B:77:SER:HB2	48:B:124:THR:HG21	1.95	0.48
48:B:123:VAL:HG11	48:B:133:ILE:HD11	1.95	0.48
6:CF:317:PRO:HB3	6:CF:324:LEU:HA	1.94	0.48
10:CJ:196:ALA:O	10:CJ:197:VAL:HG13	2.13	0.48
14:CN:46:ILE:HA	14:CN:46:ILE:HD13	1.72	0.48
16:CP:15:GLN:HB3	37:DK:52:PRO:HD2	1.94	0.48
1:AR:2992:U:H1'	18:CR:69:ARG:HH21	1.78	0.48
20:CT:154:ALA:O	20:CT:158:GLU:HG3	2.14	0.48
21:CU:7:TYR:CE2	21:CU:34:GLU:HG2	2.48	0.48
23:CW:17:VAL:HA	23:CW:103:TYR:O	2.12	0.48
27:DA:50:ILE:HD11	27:DA:70:ILE:HD13	1.95	0.48
27:DA:57:LEU:HB3	27:DA:105:VAL:HG12	1.94	0.48
33:DG:119:VAL:O	33:DG:122:PRO:HD3	2.13	0.48
1:1:1561:G:O2'	1:1:1562:C:OP2	2.32	0.48
1:1:539:C:H2'	1:1:540:U:C6	2.48	0.48
1:1:715:A:H5''	29:AB:114:GLY:O	2.14	0.48
24:6:66:LYS:HB3	24:6:68:GLU:OE1	2.14	0.48
47:A:164:A:N3	54:H:13:GLN:NE2	2.60	0.48
47:A:320:U:C2	47:A:321:C:H2'	2.49	0.48
47:A:602:U:H2'	47:A:603:U:C6	2.48	0.48
47:A:753:A:H5'	52:F:221:ARG:HG3	1.95	0.48
47:A:835:U:OP1	82:A:1916:OHX:N2	2.46	0.48
1:AR:1162:U:H4'	33:DG:57:TYR:CE1	2.49	0.48
1:AR:1485:G:N2	35:DI:4:ARG:HD2	2.28	0.48
1:AR:213:A:OP1	27:DA:2:ALA:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2444:C:H2'	1:AR:2445:A:C8	2.49	0.48
1:AR:2724:U:H4'	22:CV:54:HIS:NE2	2.29	0.48
1:AR:2989:U:O2'	5:CE:232:ARG:NH2	2.46	0.48
1:AR:3383:G:H2'	1:AR:3384:U:H6	1.77	0.48
82:AR:3479:OHX:N4	82:AR:3691:OHX:N3	2.61	0.48
1:AR:90:C:H2'	1:AR:91:G:H5'	1.94	0.48
6:CF:26:PHE:CD2	6:CF:130:ALA:HB2	2.47	0.48
6:CF:78:GLY:O	6:CF:85:SER:HB3	2.13	0.48
13:CM:97:SER:O	13:CM:156:LYS:HB2	2.14	0.48
15:CO:57:ALA:HB2	21:CU:97:VAL:HG21	1.95	0.48
21:CU:42:TRP:O	21:CU:46:GLN:HG3	2.13	0.48
29:DC:82:ILE:HD11	29:DC:102:ILE:HD11	1.95	0.48
66:T:2:SER:OG	66:T:3:LEU:N	2.45	0.48
69:W:5:LYS:O	69:W:7:GLN:N	2.47	0.48
1:1:1108:U:H2'	1:1:1109:U:C6	2.48	0.48
1:1:1480:G:H4'	1:1:1481:A:OP1	2.14	0.48
1:1:3074:G:O6	82:1:3662:OHX:N5	2.46	0.48
1:1:3174:A:OP1	34:AG:97:SER:OG	2.20	0.48
47:A:1000:C:H5	47:A:1002:G:H3'	1.78	0.48
47:A:1765:A:H5'	47:A:1767:G:N7	2.29	0.48
42:AO:24:SER:O	82:A:1867:OHX:N3	2.46	0.48
47:A:1367:G:O6	82:A:1886:OHX:N3	2.46	0.48
47:A:462:G:OP1	57:K:3:ARG:HG2	2.13	0.48
1:AR:1093:A:H4'	1:AR:1093:A:OP1	2.13	0.48
1:AR:1715:A:C8	1:AR:1717:U:H5''	2.48	0.48
1:AR:1953:G:H3'	1:AR:1954:G:H5''	1.96	0.48
82:AR:3568:OHX:N6	82:AR:3577:OHX:N5	2.61	0.48
1:AR:1088:U:OP2	82:AR:3684:OHX:N4	2.46	0.48
1:AR:873:C:H3'	1:AR:874:U:H4'	1.95	0.48
82:AT:203:OHX:N2	82:AT:212:OHX:N4	2.61	0.48
48:B:122:ILE:HA	48:B:144:ILE:O	2.13	0.48
4:CD:64:ARG:HH12	10:CJ:38:GLN:HA	1.79	0.48
4:CD:68:LYS:HD3	4:CD:70:ARG:NH1	2.29	0.48
5:CE:296:THR:HG22	5:CE:299:ASP:H	1.77	0.48
8:CH:41:ILE:HB	8:CH:85:ILE:HB	1.96	0.48
9:CI:221:LYS:HB2	9:CI:227:GLY:HA3	1.95	0.48
10:CJ:121:SER:O	10:CJ:123:GLN:N	2.42	0.48
13:CM:23:VAL:CG1	13:CM:29:ARG:HG2	2.42	0.48
22:CV:12:ARG:HD3	22:CV:13:TYR:CE1	2.48	0.48
22:CV:17:ARG:O	22:CV:18:ASP:HB2	2.13	0.48
24:CX:93:LEU:H	24:CX:93:LEU:HD23	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DA:59:VAL:HG12	27:DA:103:LYS:O	2.14	0.48
31:DE:46:ALA:HB2	31:DE:72:GLY:H	1.78	0.48
1:AR:1160:C:N3	33:DG:45:ARG:NH1	2.62	0.48
51:E:40:ARG:HG2	68:V:110:PRO:HB3	1.94	0.48
69:W:71:ARG:HG3	69:W:83:TRP:CZ2	2.48	0.48
72:Z:36:SER:OG	72:Z:37:LYS:N	2.46	0.48
1:1:1306:G:O2'	1:1:1307:G:H5'	2.14	0.48
1:1:275:U:H2'	1:1:276:U:C6	2.48	0.48
1:1:3276:G:H1	34:AG:60:ARG:NH1	2.12	0.48
1:1:1443:G:N7	82:1:3510:OHX:N4	2.62	0.48
23:5:33:TYR:CE2	23:5:63:VAL:HG21	2.49	0.48
27:9:55:GLU:HG2	27:9:69:LYS:HG3	1.95	0.48
47:A:1339:C:O2'	47:A:1340:U:OP1	2.31	0.48
47:A:177:U:H1'	54:H:191:ARG:NH1	2.29	0.48
47:A:237:C:H4'	47:A:238:U:C6	2.48	0.48
47:A:322:G:O4'	47:A:323:A:H8	1.97	0.48
1:AR:1070:U:C4	1:AR:1071:U:C4	3.01	0.48
1:AR:1464:G:H4'	82:AR:3414:OHX:N2	2.29	0.48
1:AR:1686:U:O2	1:AR:1688:U:H1'	2.14	0.48
1:AR:3228:C:O3'	15:CO:137:LYS:NZ	2.47	0.48
82:AR:3523:OHX:N6	82:AR:3709:OHX:N4	2.62	0.48
7:CG:211:LEU:HD22	7:CG:215:ASP:HB3	1.95	0.48
19:CS:159:LYS:O	19:CS:161:LYS:HG2	2.14	0.48
22:CV:126:VAL:HG23	22:CV:127:GLN:H	1.79	0.48
35:DI:22:VAL:CG1	35:DI:30:LEU:HD13	2.44	0.48
53:G:197:GLU:OE1	53:G:209:TYR:N	2.46	0.48
53:G:94:THR:O	53:G:97:LEU:N	2.42	0.48
47:A:472:U:H5''	57:K:11:THR:HG23	1.96	0.48
58:L:50:THR:HG21	58:L:57:THR:OG1	2.13	0.48
58:L:60:SER:O	58:L:61:TRP:HB2	2.12	0.48
67:U:57:ARG:HH21	67:U:80:TYR:HB3	1.77	0.48
68:V:58:LEU:HD12	68:V:88:LYS:HB3	1.95	0.48
1:1:213:A:H2'	1:1:214:G:O4'	2.14	0.48
1:1:239:G:H2'	1:1:240:U:C6	2.49	0.48
1:1:2692:A:O5'	1:1:2692:A:H8	1.97	0.48
1:1:3103:A:OP2	82:1:3693:OHX:N3	2.47	0.48
1:1:3289:G:N7	82:1:3660:OHX:N4	2.62	0.48
27:9:87:LYS:O	27:9:95:VAL:N	2.46	0.48
47:A:1357:A:H61	47:A:1366:U:H3	1.61	0.48
47:A:1:U:C4	47:A:369:A:C6	3.02	0.48
32:AE:11:GLU:HG2	32:AE:74:ARG:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AE:44:MET:HB2	32:AE:46:THR:HG22	1.94	0.48
1:AR:119:U:H4'	1:AR:120:G:H3'	1.95	0.48
1:AR:123:A:C6	1:AR:150:A:C5	3.02	0.48
1:AR:1716:U:O2'	1:AR:1717:U:O5'	2.30	0.48
1:AR:1815:U:O2'	1:AR:1816:A:OP2	2.26	0.48
1:AR:2103:U:H2'	1:AR:2104:A:C8	2.49	0.48
1:AR:2775:U:H2'	1:AR:2776:C:H6	1.79	0.48
1:AR:3217:C:C5	1:AR:3220:G:H1'	2.48	0.48
1:AR:3295:A:OP2	5:CE:126:LYS:N	2.32	0.48
82:AR:3504:OHX:N6	9:CI:217:PRO:O	2.46	0.48
1:AR:379:C:H2'	1:AR:380:U:C6	2.49	0.48
1:AR:908:G:OP1	82:AR:3547:OHX:N3	2.47	0.48
1:AR:978:G:O2'	1:AR:979:U:O2	2.31	0.48
12:CL:176:LEU:HB2	12:CL:181:TYR:HB2	1.95	0.48
20:CT:182:ASP:OD1	20:CT:182:ASP:N	2.46	0.48
26:CZ:67:ILE:CD1	26:CZ:121:LYS:HG3	2.44	0.48
28:DB:110:ALA:O	28:DB:114:VAL:HG23	2.13	0.48
1:AR:353:G:N7	38:DL:55:ARG:HD3	2.27	0.48
53:G:52:GLU:H	53:G:131:GLN:NE2	2.11	0.48
56:J:96:LEU:HD13	56:J:179:CYS:SG	2.53	0.48
58:L:55:VAL:HA	58:L:69:THR:HG23	1.94	0.48
61:O:6:SER:OG	61:O:7:ALA:N	2.47	0.48
67:U:77:ASN:HB3	67:U:95:ASP:HB3	1.94	0.48
21:O:5:LYS:HB2	21:O:7:TYR:CE2	2.48	0.48
1:1:2356:A:N6	1:1:2983:C:H5	2.05	0.48
3:4:60:U:P	26:8:61:LYS:HZ1	2.37	0.48
47:A:1761:U:O4	82:A:1894:OHX:N4	2.47	0.48
47:A:598:U:H2'	47:A:599:A:H8	1.79	0.48
47:A:72:A:C2	47:A:73:U:N3	2.82	0.48
47:A:808:U:H2'	47:A:809:A:C8	2.49	0.48
1:AR:1753:G:H1	1:AR:1772:U:H3	1.62	0.48
1:AR:2611:U:H2'	1:AR:2612:U:C6	2.48	0.48
82:AT:203:OHX:N5	82:AT:212:OHX:N3	2.62	0.48
3:AT:4:C:H2'	3:AT:5:U:C6	2.48	0.48
3:AT:85:G:H3'	3:AT:85:G:H8	1.78	0.48
6:CF:39:PHE:CD1	6:CF:242:ALA:HB2	2.49	0.48
9:CI:158:LYS:HE2	9:CI:159:GLN:N	2.23	0.48
11:CK:88:TYR:CE2	11:CK:184:LYS:HE2	2.48	0.48
12:CL:53:VAL:O	12:CL:164:LYS:N	2.44	0.48
22:CV:48:ILE:HG13	22:CV:94:GLU:HG2	1.96	0.48
24:CX:54:LEU:HD21	24:CX:119:GLY:HA3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DB:53:VAL:HA	28:DB:57:HIS:HD2	1.77	0.48
37:DK:43:LEU:HD13	37:DK:47:ILE:HD11	1.94	0.48
61:O:38:VAL:O	61:O:42:ARG:HB2	2.14	0.48
21:O:104:GLU:O	21:O:108:GLN:HG2	2.14	0.48
82:1:3566:OHX:N6	82:1:3578:OHX:N3	2.62	0.48
1:1:1744:G:O6	82:1:3627:OHX:N2	2.47	0.48
1:1:678:G:H2'	1:1:679:U:O4'	2.14	0.48
1:1:837:A:OP2	44:AQ:4:ARG:NH1	2.46	0.48
47:A:1595:U:N3	47:A:1600:A:H2	2.11	0.48
47:A:180:A:H2'	47:A:181:A:O4'	2.14	0.48
28:AA:65:ARG:HH11	28:AA:65:ARG:HB3	1.79	0.48
30:AC:32:LEU:O	30:AC:35:VAL:HB	2.14	0.48
39:AL:30:LYS:O	39:AL:38:PHE:N	2.43	0.48
44:AQ:38:ASP:OD1	44:AQ:45:LYS:HB3	2.14	0.48
1:AR:3027:A:H2'	1:AR:3028:G:O4'	2.13	0.48
48:B:52:LYS:HG2	48:B:52:LYS:H	1.40	0.48
49:C:81:PHE:HA	49:C:106:THR:HG23	1.95	0.48
5:CE:221:THR:HB	5:CE:273:HIS:O	2.13	0.48
11:CK:189:GLU:HA	11:CK:189:GLU:OE1	2.13	0.48
37:DK:9:ILE:C	37:DK:13:LYS:HB3	2.33	0.48
42:DP:7:LYS:HE2	42:DP:11:ARG:NH1	2.29	0.48
51:E:63:GLY:O	51:E:67:ASN:HB2	2.14	0.48
53:G:91:GLU:O	53:G:95:ASN:ND2	2.47	0.48
53:G:72:HIS:O	64:R:79:TYR:OH	2.32	0.48
66:T:60:GLU:O	66:T:61:LEU:HB2	2.13	0.48
47:A:1102:G:P	70:X:76:SER:HB2	2.53	0.48
1:1:1613:A:H2'	1:1:1614:C:H6	1.79	0.47
1:1:3350:C:O2'	1:1:3351:U:O5'	2.22	0.47
82:1:3668:OHX:N4	40:AM:50:ASN:OD1	2.47	0.47
1:1:578:A:H5''	1:1:579:G:O5'	2.14	0.47
2:3:28:C:H1'	2:3:55:A:H61	1.79	0.47
47:A:1467:C:H2'	47:A:1468:U:H6	1.79	0.47
47:A:402:C:OP1	82:A:1941:OHX:N5	2.46	0.47
47:A:894:U:H2'	47:A:895:G:C8	2.49	0.47
47:A:900:A:OP1	62:P:43:THR:OG1	2.32	0.47
29:AB:48:TYR:O	29:AB:49:HIS:CG	2.67	0.47
1:1:20:A:OP2	36:AI:90:ARG:NH1	2.46	0.47
1:AR:1173:U:OP1	82:AR:3529:OHX:N2	2.47	0.47
1:AR:3020:U:O4	82:AR:3486:OHX:N1	2.47	0.47
1:AR:3084:C:H2'	1:AR:3085:G:O4'	2.13	0.47
1:AR:3356:G:H2'	1:AR:3357:U:C6	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:846:A:OP1	1:AR:846:A:H8	1.97	0.47
48:B:82:GLY:O	48:B:86:VAL:HG22	2.14	0.47
6:CF:131:VAL:O	6:CF:135:VAL:HG23	2.14	0.47
14:CN:54:LEU:HA	14:CN:54:LEU:HD22	1.59	0.47
22:CV:75:ILE:HA	22:CV:87:LYS:O	2.14	0.47
24:CX:74:MET:HG3	24:CX:102:ILE:HD13	1.95	0.47
50:D:35:TRP:CG	50:D:37:PRO:HD3	2.49	0.47
27:DA:39:LEU:HD22	27:DA:43:TYR:CE2	2.48	0.47
52:F:185:GLY:N	52:F:189:LEU:HD13	2.29	0.47
55:I:44:LYS:NZ	55:I:95:GLU:HG2	2.29	0.47
56:J:138:ASN:N	56:J:138:ASN:OD1	2.47	0.47
1:1:1211:U:H2'	1:1:1212:A:C8	2.49	0.47
1:1:2539:C:H5'	1:1:2541:U:O4	2.14	0.47
1:1:2616:C:C2'	1:1:2617:U:H5'	2.44	0.47
1:1:926:A:H2'	1:1:927:C:C6	2.49	0.47
1:1:956:U:H2'	1:1:957:C:C6	2.49	0.47
2:3:45:A:H2'	2:3:46:A:H8	1.79	0.47
47:A:1067:C:H2'	47:A:1068:C:C6	2.49	0.47
47:A:1153:G:H1	47:A:1625:C:H42	1.61	0.47
47:A:833:U:OP2	82:A:1916:OHX:N6	2.47	0.47
47:A:407:A:H2'	47:A:408:C:C6	2.49	0.47
28:AA:81:LEU:HD11	35:AH:90:ILE:HG23	1.95	0.47
1:AR:1807:G:C6	1:AR:1808:G:N1	2.82	0.47
1:AR:3218:A:H4'	1:AR:3219:G:O5'	2.13	0.47
2:AS:15:C:O3'	7:CG:8:LYS:NZ	2.36	0.47
5:CE:229:VAL:HG11	5:CE:249:VAL:HG23	1.96	0.47
7:CG:261:THR:N	7:CG:264:GLN:OE1	2.48	0.47
1:AR:1339:C:P	33:DG:61:LYS:HZ3	2.37	0.47
56:J:72:ILE:HD13	56:J:112:TRP:CD2	2.50	0.47
58:L:74:GLU:HG2	58:L:74:GLU:H	1.42	0.47
72:Z:124:ARG:HB3	72:Z:124:ARG:HH11	1.79	0.47
72:Z:21:LYS:HB2	72:Z:75:VAL:HG13	1.96	0.47
1:1:1608:C:H2'	1:1:1609:C:C6	2.48	0.47
1:1:1879:A:H4'	1:1:1880:U:OP2	2.14	0.47
1:1:2896:A:H4'	41:AN:95:VAL:HG11	1.95	0.47
1:1:698:U:H2'	1:1:699:A:O4'	2.14	0.47
47:A:1353:U:H2'	47:A:1354:G:O4'	2.15	0.47
47:A:1783:C:H2'	47:A:1784:C:H6	1.78	0.47
47:A:922:G:H2'	47:A:923:A:C8	2.48	0.47
30:AC:17:HIS:HA	30:AC:20:GLY:CA	2.44	0.47
31:AD:46:ALA:HB2	31:AD:72:GLY:H	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1475:A:H4'	32:AE:57:GLN:HG2	1.95	0.47
1:AR:1488:G:O2'	35:DI:10:ARG:O	2.32	0.47
1:AR:1878:G:O2'	1:AR:1879:A:H5'	2.14	0.47
1:AR:2550:U:O4	4:CD:40:TYR:N	2.44	0.47
1:AR:3317:U:H1'	82:AR:3641:OHX:N3	2.30	0.47
1:AR:2826:U:O4	82:AR:3403:OHX:N3	2.47	0.47
1:AR:2910:A:N1	82:AR:3404:OHX:N4	2.61	0.47
1:AR:599:C:H2'	1:AR:600:G:O4'	2.14	0.47
1:AR:65:A:H2'	1:AR:110:G:N7	2.29	0.47
1:AR:956:U:H2'	1:AR:957:C:C6	2.50	0.47
49:C:144:ARG:HB2	49:C:208:GLN:HB3	1.94	0.47
4:CD:117:GLU:HG2	4:CD:124:GLY:H	1.79	0.47
6:CF:181:VAL:O	6:CF:182:LEU:HB2	2.14	0.47
11:CK:163:GLN:O	11:CK:166:ARG:HD3	2.13	0.47
13:CM:95:ASN:N	13:CM:95:ASN:HD22	2.12	0.47
51:E:142:LEU:C	51:E:144:ALA:H	2.18	0.47
55:I:43:PHE:HB2	55:I:61:PHE:O	2.14	0.47
57:K:108:ARG:HH21	57:K:145:SER:HB2	1.79	0.47
66:T:28:ILE:O	66:T:32:LEU:HG	2.14	0.47
67:U:31:PRO:HG3	67:U:103:LYS:HD3	1.95	0.47
72:Z:20:ARG:NH1	72:Z:22:GLN:OE1	2.46	0.47
1:1:1478:C:H2'	1:1:1479:U:C6	2.50	0.47
1:1:1492:G:O2'	40:AM:48:LYS:NZ	2.45	0.47
1:1:3333:G:N2	1:1:3369:G:O2'	2.47	0.47
1:1:663:C:H2'	1:1:664:U:H6	1.79	0.47
47:A:1761:U:O2'	47:A:1762:A:OP2	2.26	0.47
47:A:355:G:P	82:A:1814:OHX:N4	2.87	0.47
47:A:273:G:H1	47:A:283:U:H3	1.62	0.47
47:A:687:G:H5'	70:X:119:LYS:HD2	1.96	0.47
32:AE:11:GLU:OE2	32:AE:74:ARG:NE	2.41	0.47
33:AF:32:TRP:CZ2	33:AF:53:PRO:HD2	2.49	0.47
33:AF:94:ALA:HB3	33:AF:119:VAL:HG22	1.95	0.47
34:AG:14:LEU:HD11	34:AG:31:LYS:HB2	1.96	0.47
41:AN:92:ASP:O	41:AN:105:PRO:HG3	2.15	0.47
44:AQ:49:ARG:HB2	44:AQ:55:TRP:CZ3	2.49	0.47
1:AR:1831:U:H2'	1:AR:1832:C:H6	1.80	0.47
1:AR:2396:G:OP1	1:AR:2397:A:H4'	2.14	0.47
1:AR:371:G:O6	82:AR:3650:OHX:N2	2.47	0.47
1:AR:599:C:OP1	6:CF:332:LYS:NZ	2.47	0.47
1:AR:403:C:P	82:AT:201:OHX:N1	2.87	0.47
5:CE:113:GLU:OE2	5:CE:167:ARG:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:187:SER:O	5:CE:189:SER:N	2.47	0.47
5:CE:257:PRO:HG2	5:CE:261:MET:CE	2.44	0.47
21:CU:155:ARG:NH2	21:CU:171:PHE:O	2.47	0.47
47:A:7:G:O6	50:D:205:ARG:NH2	2.47	0.47
50:D:84:LYS:HE3	50:D:84:LYS:HB2	1.66	0.47
29:DC:74:ASN:CG	29:DC:115:LYS:HB2	2.34	0.47
32:DF:78:LYS:HG2	32:DF:79:ARG:NH2	2.23	0.47
40:DN:44:TRP:CH2	40:DN:45:ARG:HG3	2.49	0.47
43:DQ:35:LEU:HA	43:DQ:40:LYS:HG2	1.95	0.47
55:I:10:SER:OG	55:I:10:SER:O	2.27	0.47
55:I:60:ILE:HD12	55:I:92:PHE:CZ	2.49	0.47
1:1:3268:A:OP1	60:N:46:ARG:NH2	189.88	0.47
63:Q:50:THR:O	63:Q:50:THR:OG1	2.30	0.47
53:G:37:GLN:OE1	64:R:53:LEU:HD22	2.15	0.47
65:S:101:ASN:HA	65:S:120:SER:CB	2.44	0.47
65:S:96:SER:HA	65:S:97:ASN:HA	1.49	0.47
65:S:99:VAL:HA	65:S:118:PRO:HB2	1.96	0.47
1:1:1951:C:H42	1:1:2095:G:H1	1.62	0.47
1:1:208:C:O2'	1:1:209:A:H5'	2.13	0.47
1:1:225:C:H2'	1:1:226:C:C6	2.49	0.47
1:1:2697:A:H2'	1:1:2698:G:H8	1.79	0.47
1:1:3072:C:H2'	1:1:3073:A:O4'	2.14	0.47
1:1:3228:C:H4'	1:1:3229:G:O5'	2.15	0.47
1:1:3353:G:O2'	1:1:3354:U:OP1	2.25	0.47
47:A:1585:U:N3	47:A:1611:A:C2	2.81	0.47
47:A:912:U:H4'	47:A:913:G:O5'	2.15	0.47
47:A:97:C:H2'	47:A:98:U:C6	2.49	0.47
29:AB:112:ILE:HB	29:AB:130:VAL:HG12	1.96	0.47
1:AR:1614:C:H2'	1:AR:1615:C:H6	1.80	0.47
1:AR:2595:A:N3	1:AR:2595:A:H5''	2.29	0.47
1:AR:734:C:H2'	1:AR:735:A:O4'	2.14	0.47
3:AT:140:G:O6	82:AT:210:OHX:N5	2.48	0.47
3:AT:27:U:H2'	3:AT:28:C:H6	1.79	0.47
49:C:34:ALA:HA	49:C:98:THR:HG22	1.96	0.47
5:CE:211:GLN:NE2	5:CE:284:ARG:HA	2.30	0.47
14:CN:64:LYS:HE2	14:CN:65:TYR:CZ	2.49	0.47
16:CP:153:ASP:OD1	16:CP:155:VAL:HG23	2.14	0.47
18:CR:25:SER:CB	18:CR:28:ASN:HB2	2.42	0.47
50:D:212:LYS:HB3	50:D:212:LYS:HE2	1.54	0.47
37:DK:66:GLU:OE1	37:DK:70:ARG:NH2	2.48	0.47
52:F:67:GLN:HB2	52:F:69:HIS:HD2	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:G:144:GLU:HB2	53:G:160:VAL:O	2.14	0.47
56:J:48:THR:OG1	56:J:52:ASN:O	2.19	0.47
58:L:1:MET:HG2	58:L:2:LEU:N	2.29	0.47
60:N:31:VAL:HG21	60:N:136:ILE:HD11	1.96	0.47
63:Q:25:LEU:HA	63:Q:28:MET:HE2	1.97	0.47
1:1:3057:U:H5'	1:1:3086:A:H61	1.80	0.47
1:1:3190:C:H2'	1:1:3191:G:C8	2.49	0.47
82:1:3408:OHX:N1	3:4:2:A:OP2	2.48	0.47
1:1:955:U:H2'	1:1:956:U:C6	2.49	0.47
47:A:1146:G:C6	47:A:1147:A:C6	3.02	0.47
47:A:145:A:O2'	47:A:146:U:O5'	2.24	0.47
47:A:694:U:H3'	47:A:695:U:C6	2.50	0.47
34:AG:16:TYR:OH	34:AG:91:ALA:HB2	2.15	0.47
35:AH:46:ASP:HB2	35:AH:84:CYS:SG	2.54	0.47
44:AQ:33:GLN:HB3	44:AQ:69:TYR:HB3	1.96	0.47
1:AR:2254:U:H6	1:AR:2254:U:H5''	1.80	0.47
1:AR:2435:G:N7	1:AR:2593:A:H2'	2.28	0.47
1:AR:251:G:H4'	1:AR:252:U:OP1	2.13	0.47
1:AR:3045:G:OP1	5:CE:19:ARG:NH2	2.41	0.47
48:B:140:ASN:OD1	69:W:29:HIS:HA	2.14	0.47
49:C:214:LYS:HB2	49:C:214:LYS:HE3	1.70	0.47
49:C:90:GLU:HG2	49:C:223:PHE:CZ	2.50	0.47
6:CF:148:ILE:HA	6:CF:149:PRO:C	2.35	0.47
6:CF:262:TRP:CZ3	6:CF:271:LYS:HE3	2.50	0.47
18:CR:168:LEU:HD21	18:CR:176:ILE:HD11	1.96	0.47
24:CX:93:LEU:HA	25:CX:20:LEU:O	2.15	0.47
44:DR:73:THR:CG2	44:DR:76:ALA:H	2.27	0.47
51:E:22:ASN:O	51:E:26:THR:OG1	2.19	0.47
52:F:43:PRO:HA	52:F:82:TYR:O	2.14	0.47
54:H:207:GLU:HA	54:H:210:GLN:OE1	2.14	0.47
57:K:62:ARG:HD3	57:K:69:ARG:HB2	1.96	0.47
66:T:99:HIS:CD2	66:T:101:LEU:HD21	2.45	0.47
1:1:1613:A:H2'	1:1:1614:C:C6	2.50	0.47
82:1:3537:OHX:N3	82:1:3697:OHX:N3	2.62	0.47
1:1:563:U:OP1	21:O:71:LYS:NZ	2.37	0.47
3:4:81:U:C2	3:4:82:U:C5	3.02	0.47
3:4:91:C:H2'	3:4:92:A:C8	2.50	0.47
47:A:100:A:H2'	47:A:101:U:O4'	2.14	0.47
47:A:365:G:O6	82:A:1883:OHX:N6	2.47	0.47
47:A:330:G:H2'	47:A:331:A:C8	2.50	0.47
47:A:639:U:OP1	55:I:118:LEU:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:AQ:46:THR:HB	44:AQ:58:SER:HB2	1.95	0.47
1:AR:1408:G:P	33:DG:33:ARG:HH22	2.38	0.47
1:AR:2107:A:C2	1:AR:2108:C:C2	3.03	0.47
1:AR:2571:U:H2'	1:AR:2571:U:OP1	2.15	0.47
1:AR:2736:A:O2'	22:CV:68:THR:HG21	2.15	0.47
1:AR:2771:U:O2'	1:AR:2772:C:H4'	2.15	0.47
1:AR:2916:U:H5	1:AR:2935:U:HO2'	1.62	0.47
1:AR:860:G:C5	4:CD:181:LYS:HB2	2.50	0.47
49:C:58:SER:HA	49:C:62:LYS:HD3	1.94	0.47
15:CO:72:LEU:CD2	15:CO:73:PRO:HD2	2.45	0.47
19:CS:122:ILE:HG22	19:CS:123:THR:O	2.14	0.47
19:CS:124:LEU:HA	19:CS:124:LEU:HD23	1.74	0.47
23:CW:20:SER:O	23:CW:24:GLU:HG2	2.15	0.47
50:D:168:ARG:HD3	50:D:170:ILE:HD11	1.96	0.47
48:B:119:ARG:NE	50:D:240:LEU:HB3	2.29	0.47
28:DB:18:TYR:HE1	28:DB:47:GLU:HG3	1.78	0.47
36:DJ:54:VAL:O	36:DJ:58:ILE:HG13	2.14	0.47
41:DO:118:THR:OG1	41:DO:120:GLN:HG3	2.14	0.47
58:L:46:LEU:O	58:L:50:THR:HG23	2.15	0.47
70:X:17:ALA:HB2	70:X:25:VAL:HG13	1.96	0.47
1:1:1228:C:H2'	1:1:1229:G:H8	1.79	0.47
1:1:1481:A:H2'	1:1:1481:A:N3	2.29	0.47
1:1:2910:A:O2'	1:1:3130:A:N1	2.38	0.47
82:1:3493:OHX:N5	82:1:3667:OHX:N6	2.62	0.47
82:1:3509:OHX:N1	82:1:3682:OHX:N1	2.62	0.47
47:A:849:C:C2	47:A:850:A:C8	3.02	0.47
28:AA:53:VAL:HG21	28:AA:62:VAL:HG13	1.97	0.47
44:AQ:73:THR:HG23	44:AQ:76:ALA:H	1.80	0.47
1:AR:1005:G:OP2	82:AR:3706:OHX:N6	2.48	0.47
1:AR:1596:C:O2'	1:AR:1696:A:N3	2.44	0.47
1:AR:1770:G:H5'	1:AR:1771:C:OP2	2.13	0.47
1:AR:2591:A:O2'	1:AR:2592:G:H5'	2.14	0.47
1:AR:2875:U:H2'	1:AR:2876:C:O5'	2.15	0.47
1:AR:422:A:C2	1:AR:2363:A:H4'	2.50	0.47
1:AR:430:U:OP2	82:AR:3484:OHX:N2	2.48	0.47
6:CF:33:ASP:O	6:CF:37:THR:HG23	2.14	0.47
8:CH:19:LYS:HE2	8:CH:19:LYS:HB3	1.58	0.47
17:CQ:121:PRO:HA	17:CQ:124:LEU:HD22	1.97	0.47
36:DJ:7:TYR:HA	36:DJ:10:ARG:HD2	1.97	0.47
43:DQ:40:LYS:HE3	43:DQ:44:ASP:OD2	2.15	0.47
53:G:57:SER:O	53:G:58:LEU:HG	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:I:14:THR:HG23	55:I:17:GLU:H	1.80	0.47
60:N:131:ASP:OD1	60:N:132:GLU:N	2.48	0.47
63:Q:64:LYS:HA	63:Q:73:PRO:HB3	1.97	0.47
66:T:108:LYS:HA	66:T:111:ASP:HB2	1.96	0.47
1:1:1219:C:O2'	1:1:1286:A:N1	2.41	0.47
1:1:653:A:C2	1:1:1443:G:C4	3.02	0.47
1:1:2822:U:H2'	1:1:2823:G:O4'	2.14	0.47
1:1:2869:U:H5''	1:1:2870:C:OP2	2.15	0.47
1:1:391:A:C5	1:1:392:G:C8	3.02	0.47
1:1:437:G:OP2	82:1:3710:OHX:N3	2.48	0.47
82:A:1817:OHX:N5	71:Y:64:PRO:O	2.48	0.47
82:A:1853:OHX:N4	82:A:1936:OHX:N2	2.63	0.47
47:A:802:G:H21	70:X:107:SER:HB3	1.80	0.47
28:AA:27:LYS:HD2	28:AA:28:PRO:HD2	1.96	0.47
1:1:817:A:H8	38:AK:15:SER:HG	1.61	0.47
1:AR:1742:U:H2'	1:AR:1743:G:C8	2.49	0.47
1:AR:2586:G:N7	10:CJ:241:LYS:HB2	2.30	0.47
82:AR:3536:OHX:N4	82:AR:3584:OHX:N1	2.63	0.47
82:AR:3503:OHX:N4	82:AR:3593:OHX:N2	2.62	0.47
1:AR:770:G:N7	82:AR:3600:OHX:N6	2.63	0.47
1:AR:993:G:OP1	82:AR:3412:OHX:N6	2.47	0.47
6:CF:299:ILE:HG12	6:CF:299:ILE:H	1.52	0.47
20:CT:40:ALA:HA	20:CT:43:LYS:HE3	1.96	0.47
27:DA:79:ALA:HB1	27:DA:98:ASN:HB3	1.96	0.47
1:AR:2555:G:N2	28:DB:135:ARG:O	2.40	0.47
32:DF:55:LEU:HD23	32:DF:95:PRO:HB3	1.97	0.47
53:G:51:VAL:HA	53:G:131:GLN:OE1	2.15	0.47
53:G:157:ARG:O	53:G:224:ASN:HB3	2.15	0.47
64:R:32:ASN:ND2	64:R:69:VAL:H	2.09	0.47
47:A:522:U:OP1	72:Z:37:LYS:HB2	2.14	0.47
21:O:46:GLN:HG2	21:O:51:VAL:O	2.15	0.47
1:1:1035:G:H3'	1:1:1036:A:H8	1.80	0.47
1:1:2766:U:H2'	1:1:2767:U:C6	2.50	0.47
1:1:3335:A:H2'	1:1:3336:A:C8	2.50	0.47
22:2:9:SER:O	22:2:11:THR:HG23	2.15	0.47
47:A:1484:G:H21	47:A:1606:C:H1'	1.79	0.47
47:A:1760:G:C2'	47:A:1761:U:H5'	2.45	0.47
47:A:38:C:C2'	47:A:39:A:H5'	2.45	0.47
47:A:460:A:H5'	47:A:461:G:OP2	2.15	0.47
40:AM:44:TRP:CZ3	40:AM:45:ARG:HG3	2.49	0.47
1:AR:112:U:O2'	1:AR:113:C:OP2	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1495:U:C5	1:AR:1835:A:N1	2.82	0.47
1:AR:2659:G:O6	82:AR:3409:OHX:N6	2.48	0.47
1:AR:2697:A:H2'	1:AR:2698:G:H8	1.80	0.47
1:AR:3160:U:H2'	1:AR:3161:C:C6	2.50	0.47
1:AR:3279:A:N6	1:AR:3280:U:O4	2.48	0.47
1:AR:2924:U:O2'	82:AR:3557:OHX:N1	2.48	0.47
1:AR:715:A:H4'	1:AR:716:A:OP1	2.15	0.47
49:C:62:LYS:O	49:C:88:VAL:HB	2.14	0.47
5:CE:78:VAL:HG22	5:CE:323:MET:HG3	1.96	0.47
10:CJ:163:VAL:HG22	10:CJ:166:LEU:HD12	1.96	0.47
11:CK:10:ILE:HD13	11:CK:75:VAL:HG11	1.96	0.47
1:AR:304:G:C6	16:CP:178:HIS:CD2	3.03	0.47
17:CQ:23:VAL:CG1	17:CQ:84:LEU:HD11	2.44	0.47
50:D:188:LEU:HD13	50:D:196:VAL:HG11	1.96	0.47
28:DB:14:VAL:HG22	35:DI:86:LYS:HG2	1.97	0.47
52:F:36:HIS:CG	52:F:85:GLY:HA3	2.50	0.47
52:F:34:GLY:HA3	52:F:83:PRO:HG3	1.96	0.47
47:A:1473:U:OP1	53:G:190:ILE:HG12	2.14	0.47
55:I:129:LEU:HA	55:I:129:LEU:HD23	1.76	0.47
55:I:73:VAL:HG12	55:I:77:LEU:H	1.80	0.47
47:A:444:C:OP2	72:Z:105:ARG:HD2	2.14	0.47
1:1:1351:U:C2'	1:1:1352:A:H5'	2.45	0.47
1:1:2105:G:O2'	1:1:2106:A:H5'	2.15	0.47
1:1:2358:A:H2'	1:1:2359:C:O4'	2.15	0.47
1:1:2361:A:N6	1:1:2376:G:O6	2.48	0.47
1:1:282:G:C8	1:1:282:G:H3'	2.50	0.47
1:1:3094:A:H2'	1:1:3095:U:C6	2.50	0.47
1:1:3159:C:H2'	1:1:3160:U:H6	1.80	0.47
1:1:3192:U:H2'	1:1:3193:C:C6	2.50	0.47
82:1:3505:OHX:N3	82:1:3683:OHX:N4	2.63	0.47
1:1:535:G:O2'	82:1:3482:OHX:N3	2.48	0.47
1:1:655:C:H2'	1:1:656:A:C8	2.50	0.47
3:4:7:U:O4	82:4:202:OHX:N3	2.48	0.47
1:1:224:C:O2	27:9:103:LYS:NZ	2.48	0.47
47:A:1151:A:H2'	47:A:1152:A:C8	2.48	0.47
47:A:1553:G:O6	63:Q:43:ARG:HD3	2.15	0.47
47:A:1649:G:H2'	47:A:1650:U:C6	2.50	0.47
1:1:655:C:H5''	33:AF:26:HIS:HB2	1.95	0.47
33:AF:40:SER:O	33:AF:44:ARG:HG3	2.15	0.47
1:1:3276:G:N2	34:AG:60:ARG:HH22	2.10	0.47
35:AH:74:ARG:CZ	35:AH:74:ARG:HB3	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2523:A:O2'	1:AR:2587:U:H1'	2.14	0.47
1:AR:2590:A:C6	1:AR:2591:A:C5	3.03	0.47
1:AR:2689:A:H2'	1:AR:2689:A:N3	2.29	0.47
1:AR:2859:U:O2'	82:AR:3403:OHX:N2	2.48	0.47
1:AR:3279:A:C6	1:AR:3280:U:C4	3.03	0.47
1:AR:22:G:H1'	3:AT:104:A:N3	2.30	0.47
49:C:154:SER:O	49:C:154:SER:OG	2.33	0.47
5:CE:299:ASP:OD1	5:CE:301:THR:HG23	2.15	0.47
11:CK:117:PHE:CE1	11:CK:165:CYS:HB3	2.50	0.47
12:CL:51:HIS:O	12:CL:165:ILE:HA	2.15	0.47
28:DB:41:ALA:HB2	28:DB:77:TYR:HE1	1.80	0.47
36:DJ:64:GLU:HA	36:DJ:67:ARG:HB2	1.97	0.47
55:I:73:VAL:HG13	55:I:76:LYS:HG3	1.96	0.47
56:J:76:THR:HG22	56:J:108:PRO:HG2	1.96	0.47
70:X:11:LEU:HD11	70:X:37:PHE:CZ	2.51	0.47
70:X:25:VAL:HG23	70:X:63:VAL:HB	1.97	0.47
1:1:1245:A:H3'	1:1:1246:G:H5''	1.96	0.46
1:1:1299:U:H2'	1:1:1300:G:O4'	2.15	0.46
1:1:2659:G:O6	82:1:3414:OHX:N3	2.49	0.46
1:1:916:G:H5'	1:1:917:A:OP1	2.15	0.46
47:A:1163:A:N6	47:A:1164:G:C6	2.84	0.46
47:A:1264:G:H2'	47:A:1265:G:O4'	2.14	0.46
47:A:144:U:H5	54:H:137:ARG:NH1	2.08	0.46
47:A:1695:G:N2	47:A:1706:C:H41	2.12	0.46
47:A:523:G:O2'	47:A:529:A:N6	2.48	0.46
47:A:867:G:C4	47:A:868:G:C8	3.03	0.46
29:AB:77:LYS:O	29:AB:79:TRP:N	2.45	0.46
1:AR:1150:A:H8	1:AR:1150:A:P	2.38	0.46
1:AR:2289:U:H2'	1:AR:2290:C:C6	2.49	0.46
1:AR:3112:G:N7	82:AR:3419:OHX:N2	2.62	0.46
82:AR:3523:OHX:N3	82:AR:3709:OHX:N4	2.63	0.46
2:AS:106:U:H2'	2:AS:107:C:O4'	2.15	0.46
5:CE:107:ALA:HA	5:CE:199:PHE:CD2	2.50	0.46
6:CF:209:TYR:O	6:CF:230:VAL:HG22	2.15	0.46
7:CG:119:TYR:CZ	7:CG:135:VAL:HG23	2.49	0.46
9:CI:178:ILE:HG23	9:CI:183:ASP:HB3	1.97	0.46
10:CJ:48:ARG:HH21	10:CJ:49:TYR:HE1	1.61	0.46
15:CO:72:LEU:HD11	15:CO:81:VAL:HG22	1.96	0.46
32:DF:26:LYS:HA	32:DF:26:LYS:HD3	1.42	0.46
47:A:1489:U:O5'	51:E:9:ARG:NH2	2.47	0.46
52:F:159:THR:HB	52:F:227:VAL:HG23	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:I:84:LYS:H	55:I:84:LYS:HD2	4.59	0.46
71:Y:57:LEU:HD11	71:Y:73:ARG:HG2	1.96	0.46
1:1:1255:C:H2'	1:1:1256:G:H8	1.80	0.46
1:1:1356:U:H6	1:1:1356:U:O5'	1.98	0.46
1:1:1555:U:H5	1:1:1559:A:H61	1.63	0.46
1:1:249:U:H1'	1:1:250:U:C2	2.51	0.46
1:1:279:U:H2'	1:1:280:U:C6	2.50	0.46
1:1:612:U:H2'	1:1:613:G:C8	2.47	0.46
23:5:89:LEU:O	23:5:93:ILE:HG13	2.15	0.46
24:6:28:ASN:OD1	24:6:113:ALA:N	2.43	0.46
24:6:89:ASP:OD1	24:6:91:VAL:HG13	2.15	0.46
47:A:1498:G:C2	47:A:1510:U:O2	2.68	0.46
47:A:230:C:H2'	47:A:231:U:H5''	1.98	0.46
47:A:290:G:O6	82:A:1927:OHX:N6	2.49	0.46
47:A:702:G:C6	47:A:737:A:C6	3.04	0.46
32:AE:51:LEU:HD23	32:AE:93:VAL:HB	1.96	0.46
1:AR:1014:U:H2'	1:AR:1015:U:O4'	2.15	0.46
1:AR:1517:G:H2'	1:AR:1518:U:C6	2.51	0.46
1:AR:1674:G:N7	82:AR:3471:OHX:N1	2.62	0.46
1:AR:2536:A:O5'	1:AR:2536:A:H8	1.98	0.46
1:AR:3159:C:H2'	1:AR:3160:U:H6	1.79	0.46
1:AR:3378:C:OP1	82:AR:3436:OHX:N3	2.48	0.46
11:CK:49:ASN:HD21	11:CK:51:GLN:HB2	1.79	0.46
12:CL:66:GLU:OE1	12:CL:69:ARG:NH2	2.49	0.46
14:CN:6:ASN:O	19:CS:164:ARG:NH1	2.41	0.46
15:CO:47:ASP:OD2	15:CO:55:ARG:HB2	2.15	0.46
17:CQ:102:LEU:HD12	17:CQ:103:LYS:N	2.31	0.46
24:CX:87:ARG:HB2	24:CX:89:ASP:OD1	2.15	0.46
29:DC:133:LEU:HD11	29:DC:137:LYS:HZ1	1.81	0.46
19:CS:170:ARG:HD2	29:DC:56:VAL:HG23	1.97	0.46
28:DB:4:PHE:HE2	31:DE:63:SER:HB3	1.81	0.46
61:O:92:ILE:HA	61:O:92:ILE:HD12	4.55	0.46
63:Q:30:THR:O	63:Q:34:VAL:HG13	2.16	0.46
1:1:1854:C:OP2	82:1:3567:OHX:N5	2.48	0.46
1:1:2261:G:O2'	1:1:2263:C:N4	2.48	0.46
1:1:2533:G:H3'	1:1:2534:G:C8	2.50	0.46
1:1:3385:U:H2'	1:1:3386:G:O4'	2.16	0.46
3:4:62:C:H4'	3:4:63:G:O5'	2.16	0.46
47:A:1367:G:N7	82:A:1886:OHX:N6	2.63	0.46
47:A:330:G:C6	47:A:331:A:C6	3.02	0.46
47:A:393:C:H4'	47:A:1673:G:O2'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:525:A:C6	47:A:526:A:C6	3.03	0.46
38:AK:72:ARG:O	38:AK:75:LYS:N	2.48	0.46
39:AL:61:LYS:O	39:AL:65:LEU:HB2	2.16	0.46
44:AQ:50:GLY:O	44:AQ:51:ALA:HB3	2.15	0.46
1:AR:114:A:H2'	1:AR:115:A:O4'	2.15	0.46
1:AR:1500:G:H2'	1:AR:1501:U:O4'	2.15	0.46
1:AR:1677:G:OP1	23:CW:100:THR:HA	2.14	0.46
1:AR:2338:C:OP1	5:CE:236:LYS:NZ	2.47	0.46
1:AR:2384:A:H8	1:AR:2384:A:O5'	1.98	0.46
82:AR:3479:OHX:N6	82:AR:3691:OHX:N3	2.63	0.46
48:B:120:LEU:HD13	48:B:142:PRO:HB2	1.96	0.46
5:CE:218:ILE:CG1	5:CE:276:THR:HG23	2.43	0.46
10:CJ:78:PHE:CD2	10:CJ:179:ILE:HD13	2.50	0.46
10:CJ:65:LEU:HD12	16:CP:25:VAL:HG13	1.97	0.46
17:CQ:192:LYS:HE3	17:CQ:192:LYS:HB3	1.59	0.46
22:CV:105:PHE:O	22:CV:109:VAL:HG23	2.14	0.46
23:CW:33:TYR:HE1	23:CW:80:THR:HG22	1.79	0.46
29:DC:104:THR:HG21	29:DC:112:ILE:HD11	1.97	0.46
14:CN:157:ARG:NH2	29:DC:124:ILE:HG21	2.30	0.46
1:AR:634:C:O3'	33:DG:47:ARG:NH1	2.49	0.46
52:F:125:LYS:HE3	52:F:157:ASN:HA	1.97	0.46
56:J:38:ILE:HA	56:J:60:ILE:O	2.15	0.46
58:L:8:ARG:HD2	58:L:12:HIS:NE2	2.31	0.46
65:S:50:ILE:O	65:S:54:THR:HG23	2.15	0.46
1:1:1120:A:H2'	1:1:1121:U:C6	2.51	0.46
1:1:1120:A:C2	1:1:1139:G:C2	3.04	0.46
1:1:1170:A:H2'	1:1:1171:G:O4'	2.15	0.46
1:1:1355:A:H4'	1:1:1356:U:O5'	2.15	0.46
1:1:1743:G:H2'	1:1:1744:G:H8	1.80	0.46
1:1:1495:U:C5	1:1:1835:A:N1	2.79	0.46
1:1:1131:G:O2'	1:1:2373:A:N1	2.42	0.46
1:1:2416:U:H2'	1:1:2417:U:C6	2.51	0.46
1:1:2510:U:O2'	1:1:2511:A:H5''	2.16	0.46
1:1:2766:U:H2'	1:1:2767:U:H6	1.81	0.46
1:1:997:A:H2'	1:1:998:A:O4'	2.15	0.46
2:3:19:C:H42	2:3:60:G:H1	1.63	0.46
47:A:1309:C:H2'	47:A:1310:U:O4'	2.16	0.46
47:A:1553:G:N2	47:A:1555:A:H3'	2.30	0.46
47:A:927:C:H1'	62:P:125:SER:CB	2.45	0.46
32:AE:46:THR:HG21	32:AE:91:SER:OG	2.16	0.46
35:AH:29:ILE:HD11	35:AH:31:ARG:HH21	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:AH:41:ARG:HG2	35:AH:56:THR:HG21	1.98	0.46
1:AR:2790:A:OP2	19:CS:181:SER:HB3	2.16	0.46
1:AR:3182:G:O3'	17:CQ:161:LYS:NZ	2.35	0.46
1:AR:958:C:H5'	1:AR:2799:A:H2'	1.97	0.46
48:B:148:ASP:OD1	48:B:149:LEU:N	2.41	0.46
5:CE:123:TYR:CZ	5:CE:124:LYS:HG3	2.50	0.46
7:CG:5:LYS:O	82:CG:303:OHX:N5	2.48	0.46
9:CI:173:LEU:HB3	9:CI:178:ILE:HB	1.97	0.46
9:CI:24:GLU:HG3	9:CI:24:GLU:H	1.52	0.46
13:CM:75:LYS:O	13:CM:78:GLU:HB2	2.16	0.46
14:CN:32:LYS:HA	14:CN:35:ARG:NH1	2.30	0.46
7:CG:40:HIS:CE1	22:CV:69:LYS:HA	2.51	0.46
25:CY:63:ILE:HG23	25:CY:64:THR:H	1.79	0.46
56:J:114:GLU:CD	56:J:120:THR:HA	2.35	0.46
57:K:142:ASN:OD1	57:K:142:ASN:N	2.47	0.46
58:L:50:THR:HG22	58:L:55:VAL:HG22	1.95	0.46
62:P:84:ARG:NE	62:P:84:ARG:H	6.66	0.46
63:Q:128:HIS:O	63:Q:130:ARG:HG2	2.15	0.46
63:Q:14:THR:HB	63:Q:22:LEU:HB2	1.96	0.46
70:X:104:LEU:HA	70:X:126:LEU:H	1.79	0.46
21:O:12:ARG:HB3	21:O:24:LEU:HD23	1.98	0.46
21:O:137:ARG:HG2	21:O:139:TYR:CE2	2.51	0.46
1:1:1245:A:C3'	1:1:1246:G:H5''	2.46	0.46
1:1:1454:A:H5''	1:1:1455:U:H5'	1.97	0.46
1:1:2193:U:H5'	1:1:2194:G:H5'	1.97	0.46
1:1:305:U:C5	1:1:2776:C:H1'	2.51	0.46
1:1:1378:U:OP1	82:1:3486:OHX:N2	2.48	0.46
1:1:735:A:O5'	1:1:735:A:H8	1.97	0.46
1:1:863:C:H2'	1:1:864:G:O4'	2.15	0.46
47:A:1244:A:HO2'	47:A:1245:G:P	2.38	0.46
47:A:260:U:H3'	47:A:261:U:C5'	2.44	0.46
42:AO:6:ARG:O	42:AO:10:THR:HG23	2.16	0.46
1:AR:1517:G:H2'	1:AR:1518:U:H6	1.79	0.46
1:AR:2611:U:O4	82:AR:3669:OHX:N3	2.49	0.46
1:AR:2816:G:HO2'	1:AR:2869:U:H5	1.62	0.46
1:AR:3304:U:O2'	5:CE:334:ARG:NH2	2.42	0.46
5:CE:277:SER:HG	5:CE:280:HIS:HE2	1.60	0.46
5:CE:350:ALA:O	5:CE:351:LEU:HB2	2.15	0.46
9:CI:53:LYS:O	9:CI:57:THR:HG23	2.16	0.46
12:CL:54:SER:HB3	12:CL:135:ILE:HD11	1.97	0.46
15:CO:113:THR:HG22	15:CO:116:GLU:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:48:ALA:C	16:CP:53:TYR:HB3	2.35	0.46
1:AR:1348:U:OP2	19:CS:38:ARG:NH2	2.49	0.46
19:CS:58:ASN:C	19:CS:60:PRO:HD3	2.36	0.46
20:CT:81:ARG:HG2	20:CT:88:ARG:CZ	2.45	0.46
1:AR:992:A:H5''	22:CV:43:LYS:HD2	1.97	0.46
1:AR:715:A:H3'	29:DC:115:LYS:HA	1.98	0.46
51:E:11:LEU:HD12	68:V:86:ILE:HG12	1.97	0.46
63:Q:29:SER:O	63:Q:32:ASP:N	2.44	0.46
70:X:104:LEU:HB2	70:X:124:LYS:O	2.16	0.46
21:0:1:MET:SD	21:0:36:ILE:HD13	2.56	0.46
1:1:1322:U:O2	21:0:108:GLN:NE2	2.48	0.46
1:1:1341:U:O4	82:1:3708:OHX:N2	2.49	0.46
1:1:1886:A:O4'	1:1:3307:A:H5'	2.16	0.46
1:1:1910:A:H8	1:1:1910:A:O5'	1.98	0.46
1:1:2298:U:O4	1:1:2923:U:H5	1.99	0.46
1:1:2770:G:O2'	1:1:2771:U:H5'	2.16	0.46
1:1:522:A:OP1	82:1:3477:OHX:N5	2.48	0.46
22:2:160:ILE:HD12	22:2:160:ILE:HA	1.69	0.46
1:1:2916:U:C1'	24:6:44:SER:HB3	2.39	0.46
47:A:1258:U:OP1	58:L:1:MET:N	2.34	0.46
47:A:225:A:H2'	47:A:226:A:O4'	2.15	0.46
47:A:650:U:O4	47:A:684:A:N6	2.47	0.46
47:A:960:U:H1'	61:O:52:VAL:HG23	1.98	0.46
37:AJ:34:SER:HB3	37:AJ:37:THR:OG1	2.16	0.46
1:AR:1029:G:H2'	1:AR:1030:A:H8	1.78	0.46
1:AR:1341:U:O2	19:CS:10:HIS:HD2	1.98	0.46
1:AR:2415:C:OP1	4:CD:2:GLY:HA2	2.15	0.46
1:AR:2948:C:O2'	5:CE:242:THR:HG22	2.15	0.46
1:AR:3071:U:H2'	1:AR:3072:C:O4'	2.16	0.46
5:CE:49:TYR:CZ	5:CE:166:ILE:HD12	2.51	0.46
6:CF:44:LYS:O	6:CF:47:ARG:HB2	2.16	0.46
14:CN:168:ARG:CZ	14:CN:172:LEU:HD21	2.45	0.46
25:CY:38:SER:O	25:CY:42:GLN:HG3	2.16	0.46
28:DB:63:ALA:O	28:DB:67:LYS:HD3	2.15	0.46
31:DE:22:LYS:HB2	31:DE:94:GLU:HB2	1.97	0.46
14:CN:128:ARG:HD3	36:DJ:114:ARG:CZ	2.46	0.46
36:DJ:73:LYS:HE2	36:DJ:73:LYS:HB3	1.70	0.46
16:CP:15:GLN:HG2	37:DK:52:PRO:HG2	1.98	0.46
54:H:51:LYS:HB3	54:H:112:VAL:HB	1.98	0.46
47:A:1232:U:H4'	58:L:2:LEU:HD21	1.98	0.46
62:P:81:VAL:H	62:P:115:ILE:HG22	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:U:89:ARG:HB3	67:U:90:PRO:HD2	1.98	0.46
1:1:2208:A:N1	82:1:3577:OHX:N2	2.64	0.46
1:1:2677:G:H2'	1:1:2679:A:C2	2.50	0.46
1:1:26:A:C4	1:1:330:G:C8	3.04	0.46
1:1:561:C:H2'	1:1:562:C:C6	2.50	0.46
1:1:663:C:H2'	1:1:664:U:C6	2.50	0.46
1:1:839:C:H2'	1:1:840:C:C6	2.50	0.46
24:6:79:VAL:HG23	24:6:80:ARG:HG3	1.98	0.46
47:A:1183:A:C6	47:A:1184:A:N1	2.83	0.46
47:A:190:C:O2'	47:A:191:C:H5'	2.15	0.46
47:A:538:A:C8	47:A:543:C:N4	2.83	0.46
47:A:602:U:H2'	47:A:603:U:H6	1.81	0.46
28:AA:4:PHE:CZ	31:AD:35:ARG:HG2	2.51	0.46
1:AR:1022:U:H2'	1:AR:1023:C:C6	2.51	0.46
1:AR:1312:C:H2'	1:AR:1313:G:O4'	2.16	0.46
1:AR:212:G:H2'	6:CF:221:ASN:ND2	2.31	0.46
1:AR:2335:G:C8	82:AR:3736:OHX:N5	2.84	0.46
1:AR:987:U:OP2	82:AR:3637:OHX:N2	2.48	0.46
49:C:65:VAL:HA	49:C:86:LEU:O	2.16	0.46
5:CE:291:GLU:O	5:CE:292:ALA:HB3	2.15	0.46
9:CI:140:SER:O	9:CI:144:ILE:HG13	2.16	0.46
1:AR:1100:U:OP2	9:CI:196:LYS:HE2	2.15	0.46
11:CK:17:THR:O	11:CK:17:THR:OG1	2.34	0.46
11:CK:74:LEU:O	11:CK:78:MET:HG3	2.16	0.46
21:CU:45:LEU:HD22	21:CU:45:LEU:HA	1.62	0.46
23:CW:107:PHE:O	23:CW:108:TYR:CG	2.69	0.46
27:DA:103:LYS:HD3	27:DA:103:LYS:HA	1.70	0.46
33:DG:4:LEU:HD12	33:DG:4:LEU:HA	1.77	0.46
1:AR:1824:U:OP1	39:DM:3:ARG:NH2	2.48	0.46
52:F:100:ARG:NH2	52:F:122:LYS:HA	2.31	0.46
53:G:51:VAL:HG13	53:G:131:GLN:HA	1.97	0.46
47:A:639:U:P	55:I:117:THR:HG1	2.35	0.46
58:L:35:ILE:HG22	58:L:36:ASP:N	2.31	0.46
59:M:125:VAL:HG12	59:M:139:VAL:HA	1.98	0.46
60:N:62:LEU:HB2	60:N:120:VAL:HG22	1.98	0.46
64:R:4:VAL:HG12	64:R:5:PRO:HD2	1.97	0.46
51:E:207:THR:HB	65:S:40:THR:OG1	2.16	0.46
72:Z:21:LYS:NZ	72:Z:55:VAL:HA	11.39	0.46
1:1:1186:G:H5''	1:1:1186:G:H8	1.80	0.46
1:1:225:C:H2'	1:1:226:C:H6	1.81	0.46
1:1:2818:U:C5'	1:1:2818:U:H6	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2823:G:N7	82:1:3438:OHX:N1	2.64	0.46
82:1:3588:OHX:N4	82:1:3690:OHX:N4	2.63	0.46
1:1:692:A:C4	1:1:693:A:C8	3.04	0.46
22:2:17:ARG:HB3	22:2:22:HIS:CE1	2.51	0.46
22:2:84:TYR:O	22:2:85:LEU:HD23	2.15	0.46
3:4:124:G:H1	3:4:129:C:H42	1.62	0.46
47:A:1018:U:OP1	61:O:107:LYS:NZ	2.48	0.46
47:A:1616:G:H2'	47:A:1617:U:C6	2.50	0.46
47:A:217:A:OP1	47:A:217:A:H2'	2.16	0.46
47:A:968:U:OP1	47:A:1033:C:O2'	2.27	0.46
47:A:992:A:H2	47:A:1012:U:N3	2.06	0.46
44:AQ:18:TYR:O	44:AQ:22:LEU:HD12	2.15	0.46
1:AR:1145:G:OP1	33:DG:44:ARG:NH1	2.48	0.46
1:AR:1388:U:H5'	33:DG:77:ALA:HB1	1.98	0.46
1:AR:3356:G:H2'	1:AR:3357:U:H6	1.81	0.46
1:AR:623:U:OP2	82:AR:3611:OHX:N6	2.48	0.46
82:AR:3683:OHX:N1	82:AR:3685:OHX:N2	2.63	0.46
3:AT:16:G:O6	82:AT:201:OHX:N6	2.49	0.46
10:CJ:90:THR:HA	10:CJ:214:LEU:HD21	1.98	0.46
11:CK:53:ILE:HD13	15:CO:7:VAL:HG21	1.97	0.46
19:CS:177:GLY:O	19:CS:186:VAL:N	2.40	0.46
15:CO:40:ASP:HA	21:CU:143:PHE:CE2	2.51	0.46
22:CV:9:SER:OG	22:CV:10:ARG:HG3	2.15	0.46
28:DB:26:VAL:HG12	28:DB:89:VAL:HG21	1.98	0.46
29:DC:73:LEU:HD13	29:DC:109:TYR:CE2	2.50	0.46
28:DB:3:LYS:HD3	31:DE:36:GLN:HA	1.98	0.46
34:DH:12:LYS:HD3	34:DH:97:SER:HA	1.96	0.46
38:DL:72:ARG:HB3	38:DL:72:ARG:HE	1.52	0.46
55:I:173:TYR:CE2	55:I:179:LYS:HB2	2.51	0.46
61:O:142:GLU:HB2	61:O:145:THR:HG23	1.97	0.46
72:Z:112:LYS:O	72:Z:116:LYS:HG3	2.16	0.46
21:O:74:ASN:HD21	21:O:144:LEU:HD21	1.79	0.46
1:1:1367:G:OP1	33:AF:45:ARG:NH2	2.49	0.46
1:1:1438:U:H2'	1:1:1439:U:H6	1.81	0.46
1:1:2955:U:H6	1:1:2955:U:O5'	1.99	0.46
1:1:3174:A:H2'	1:1:3175:U:C5'	2.45	0.46
1:1:2910:A:N1	82:1:3409:OHX:N1	2.64	0.46
1:1:3066:U:O4	82:1:3662:OHX:N5	2.48	0.46
1:1:953:G:C8	1:1:1117:G:C8	3.04	0.46
23:5:21:SER:HA	23:5:24:GLU:OE2	2.16	0.46
47:A:1759:C:H2'	47:A:1760:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:68:A:O2'	47:A:69:G:OP2	2.29	0.46
47:A:902:G:O5'	47:A:902:G:H8	1.99	0.46
29:AB:104:THR:HG21	29:AB:112:ILE:HD11	1.96	0.46
35:AH:7:PHE:CE1	35:AH:20:ILE:HG12	2.51	0.46
35:AH:46:ASP:OD1	35:AH:80:ARG:NH1	2.49	0.46
1:1:256:G:H4'	36:AI:111:PHE:HZ	1.80	0.46
1:AR:1345:G:C2	1:AR:1360:C:C2	3.03	0.46
1:AR:1639:C:H5'	35:DI:52:GLN:HG2	1.97	0.46
1:AR:1806:A:H2'	1:AR:1807:G:O4'	2.15	0.46
1:AR:2230:C:H2'	1:AR:2231:C:O4'	2.16	0.46
1:AR:2509:U:O2'	1:AR:2510:U:H5'	2.16	0.46
1:AR:3237:U:H2'	1:AR:3238:G:O4'	2.15	0.46
1:AR:856:G:OP1	1:AR:1722:U:O2'	2.24	0.46
48:B:31:VAL:HG23	48:B:150:ASP:HA	1.98	0.46
1:AR:3242:G:H2'	5:CE:154:TYR:CE1	2.51	0.46
11:CK:73:SER:HA	11:CK:76:ASP:HB2	1.98	0.46
13:CM:16:LYS:HG3	13:CM:130:VAL:HG13	1.96	0.46
14:CN:27:ASP:O	14:CN:31:LYS:HG3	2.16	0.46
15:CO:92:GLU:H	15:CO:92:GLU:HG2	1.34	0.46
17:CQ:58:LEU:HA	17:CQ:58:LEU:HD12	1.77	0.46
19:CS:165:ILE:HD11	19:CS:172:PHE:HB3	1.98	0.46
40:DN:23:LEU:HD22	40:DN:24:PRO:CD	2.38	0.46
53:G:206:SER:O	53:G:212:LYS:HE3	2.15	0.46
56:J:76:THR:HB	56:J:105:ASP:H	1.81	0.46
71:Y:96:VAL:HG12	71:Y:127:VAL:HG11	1.98	0.46
1:1:1160:C:OP1	82:1:3500:OHX:N6	2.49	0.46
1:1:16:A:H2'	1:1:17:G:O4'	2.16	0.46
1:1:3119:U:H5''	82:1:3425:OHX:N3	2.31	0.46
21:0:24:LEU:O	22:2:148:PRO:HA	2.16	0.46
2:3:77:G:N2	2:3:102:A:OP2	2.36	0.46
47:A:1490:C:H1'	47:A:1491:U:O4'	2.15	0.46
47:A:1657:U:O2	82:A:1867:OHX:N1	2.49	0.46
47:A:72:A:O2'	47:A:73:U:H5''	2.15	0.46
47:A:933:A:C6	47:A:935:U:C2	3.04	0.46
34:AG:89:LEU:HD23	34:AG:89:LEU:HA	1.80	0.46
35:AH:99:LYS:O	35:AH:103:LYS:HG2	2.16	0.46
3:4:113:U:N3	40:AM:7:PHE:CE2	2.84	0.46
1:AR:1261:G:H5''	1:AR:1262:G:OP1	2.16	0.46
1:AR:1447:G:H3'	18:CR:67:ILE:CD1	2.41	0.46
1:AR:2443:A:O2'	1:AR:2444:C:H5'	2.16	0.46
1:AR:2772:C:H2'	1:AR:2772:C:O2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2882:U:H2'	1:AR:2883:U:C6	2.51	0.46
1:AR:2988:C:P	17:CQ:68:ARG:NH1	2.89	0.46
1:AR:3333:G:N2	1:AR:3369:G:O2'	2.49	0.46
1:AR:1534:A:OP1	82:AR:3424:OHX:N2	2.49	0.46
1:AR:541:U:O4	82:AR:3515:OHX:N4	2.49	0.46
1:AR:1485:G:C6	82:AR:3584:OHX:N1	2.84	0.46
82:AR:3589:OHX:N5	2:AS:102:A:OP1	2.48	0.46
1:AR:551:A:HO2'	1:AR:552:G:H8	1.64	0.46
82:AS:203:OHX:N1	82:AS:209:OHX:N5	2.64	0.46
48:B:83:GLN:HG2	48:B:99:ALA:HB1	1.97	0.46
49:C:77:GLU:C	49:C:79:HIS:H	2.18	0.46
5:CE:165:GLN:HG2	5:CE:167:ARG:NH2	2.31	0.46
6:CF:72:ALA:O	6:CF:76:ARG:NH1	2.49	0.46
1:AR:3182:G:H4'	17:CQ:161:LYS:HG2	1.98	0.46
18:CR:179:GLN:O	18:CR:183:ALA:N	2.49	0.46
50:D:179:VAL:O	50:D:198:THR:OG1	2.23	0.46
29:DC:46:ASP:OD1	29:DC:46:ASP:N	2.48	0.46
57:K:133:HIS:CD2	57:K:162:SER:HB2	2.50	0.46
67:U:86:ARG:HG3	67:U:86:ARG:HH11	1.81	0.46
68:V:21:LYS:HB2	68:V:21:LYS:HE3	1.63	0.46
71:Y:63:GLN:HB3	71:Y:64:PRO:HA	1.97	0.46
1:1:1064:A:H5''	1:1:1066:G:C8	2.50	0.45
1:1:1265:U:N3	1:1:1277:C:O2	2.49	0.45
1:1:1645:U:H2'	1:1:1646:G:H5'	1.97	0.45
1:1:2623:G:H2'	1:1:2624:G:H8	1.81	0.45
1:1:3166:C:N4	1:1:3284:G:H1	2.06	0.45
3:4:104:A:H3'	3:4:105:A:C5'	2.44	0.45
23:5:37:LEU:O	23:5:41:ILE:HG13	2.16	0.45
24:6:7:GLN:OE1	24:6:7:GLN:HA	2.16	0.45
38:AK:84:SER:O	38:AK:85:LYS:HB2	2.16	0.45
43:AP:9:LYS:HE3	43:AP:9:LYS:HB2	1.66	0.45
1:AR:1046:A:H2'	1:AR:1049:C:C5	2.51	0.45
1:AR:1543:G:OP1	16:CP:35:VAL:HG23	2.15	0.45
1:AR:2515:A:N6	1:AR:2592:G:H1'	2.31	0.45
1:AR:2864:A:H5'	12:CL:102:MET:CE	2.46	0.45
1:AR:32:U:O5'	1:AR:32:U:H6	1.98	0.45
3:AT:71:A:H4'	3:AT:72:A:O5'	2.16	0.45
49:C:157:GLN:C	49:C:159:SER:H	2.18	0.45
10:CJ:138:HIS:CE1	10:CJ:142:LEU:HD11	2.51	0.45
16:CP:21:PHE:O	16:CP:25:VAL:HG23	2.16	0.45
1:AR:398:A:H5'	18:CR:3:ARG:HD2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:170:ARG:O	19:CS:171:LYS:HB2	2.15	0.45
24:CX:89:ASP:OD1	24:CX:91:VAL:HG13	2.16	0.45
26:CZ:96:LYS:O	26:CZ:100:LYS:HB2	2.16	0.45
1:AR:1412:G:OP1	33:DG:105:ARG:NH2	2.50	0.45
36:DJ:44:ILE:O	36:DJ:48:ARG:HB2	2.15	0.45
47:A:580:A:H5''	51:E:143:ARG:HH12	1.82	0.45
51:E:167:PHE:O	51:E:190:ARG:HG2	2.16	0.45
53:G:72:HIS:O	64:R:47:LYS:HE3	2.17	0.45
70:X:66:ASN:OD1	70:X:67:GLY:N	2.46	0.45
70:X:79:PHE:O	70:X:125:ILE:HG22	2.16	0.45
1:1:1482:A:H4'	1:1:1483:G:OP2	2.16	0.45
1:1:174:C:H2'	1:1:175:C:C6	2.52	0.45
1:1:1821:U:C4	35:AH:67:LYS:HD2	2.50	0.45
1:1:3164:C:O2'	1:1:3165:A:H8	1.99	0.45
1:1:3206:C:O2	21:0:155:ARG:NH1	2.49	0.45
82:1:3505:OHX:N5	82:1:3683:OHX:N1	2.64	0.45
1:1:677:A:H4'	1:1:678:G:O5'	2.15	0.45
47:A:17:C:H4'	47:A:1109:G:C8	2.52	0.45
47:A:579:A:N1	51:E:143:ARG:HG2	2.31	0.45
30:AC:7:HIS:CG	30:AC:8:THR:N	2.84	0.45
42:AO:2:ARG:HB3	42:AO:5:TRP:CD1	2.52	0.45
1:AR:2225:U:H2'	1:AR:2226:U:C6	2.51	0.45
1:AR:2409:G:H4'	1:AR:2410:U:OP2	2.16	0.45
1:AR:2437:G:N2	1:AR:2511:A:H1'	2.30	0.45
1:AR:3183:A:P	17:CQ:37:ARG:HH12	2.39	0.45
1:AR:330:G:OP2	82:AR:3552:OHX:N1	2.50	0.45
1:AR:1410:U:P	82:AR:3530:OHX:N2	2.89	0.45
82:AR:3598:OHX:N5	82:AR:3725:OHX:N2	2.64	0.45
82:AT:203:OHX:N3	82:AT:212:OHX:N3	2.64	0.45
48:B:14:ALA:O	48:B:18:LEU:HG	2.16	0.45
48:B:172:LEU:O	48:B:176:LEU:HG	2.16	0.45
48:B:60:ALA:HB3	48:B:177:LEU:HD21	1.97	0.45
48:B:32:HIS:O	48:B:32:HIS:ND1	2.49	0.45
49:C:158:SER:HA	49:C:161:ILE:HD12	1.98	0.45
4:CD:44:ILE:HG23	4:CD:87:PHE:CE1	2.51	0.45
5:CE:308:MET:HB3	5:CE:308:MET:HE3	1.82	0.45
7:CG:208:MET:HB2	7:CG:233:ALA:HB2	1.98	0.45
9:CI:143:THR:HG22	9:CI:241:LYS:HG3	1.98	0.45
9:CI:62:ILE:O	9:CI:66:LYS:HG3	2.16	0.45
12:CL:73:ASN:O	12:CL:77:THR:OG1	2.30	0.45
17:CQ:10:ASP:HB2	17:CQ:117:ARG:HG3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:18:ASP:HB3	23:CW:104:ARG:HB2	1.99	0.45
24:CX:87:ARG:HH22	24:CX:137:VAL:HG22	1.81	0.45
50:D:116:LYS:HD2	50:D:117:THR:H	1.81	0.45
32:DF:13:THR:HG22	32:DF:72:ARG:NH1	2.29	0.45
1:AR:1407:A:O3'	33:DG:33:ARG:NH2	2.50	0.45
1:AR:817:A:N7	38:DL:15:SER:HB2	2.31	0.45
52:F:192:ILE:HG13	52:F:243:GLY:HA3	1.99	0.45
55:I:93:LEU:HD21	55:I:129:LEU:HD23	1.97	0.45
56:J:39:GLY:O	56:J:59:ARG:HB3	2.17	0.45
67:U:30:VAL:HG12	67:U:54:PHE:CD2	2.51	0.45
1:1:651:G:O2'	1:1:1435:A:OP1	2.22	0.45
82:1:3509:OHX:N4	82:1:3682:OHX:N4	2.64	0.45
1:1:541:U:H2'	1:1:542:G:C8	2.51	0.45
2:3:112:G:H2'	2:3:113:C:C6	2.52	0.45
3:4:79:A:O3'	3:4:80:A:H4'	2.16	0.45
47:A:14:C:N4	47:A:1140:G:H1	2.13	0.45
47:A:142:G:O6	54:H:177:ARG:NH1	2.49	0.45
47:A:1586:A:H1'	47:A:1611:A:N6	2.31	0.45
47:A:1688:U:H3	47:A:1713:G:H22	1.62	0.45
47:A:364:G:OP1	82:A:1883:OHX:N1	2.48	0.45
47:A:482:U:H2'	47:A:483:A:C8	2.49	0.45
33:AF:82:LEU:O	33:AF:82:LEU:HD22	2.16	0.45
34:AG:71:VAL:HG13	34:AG:81:VAL:HG13	1.99	0.45
40:AM:28:ARG:HA	40:AM:33:ASN:ND2	2.31	0.45
44:AQ:27:LYS:O	44:AQ:31:ILE:HG13	2.16	0.45
1:AR:1077:U:H2'	1:AR:1078:U:C6	2.51	0.45
1:AR:1954:G:H2'	1:AR:1955:U:C6	2.51	0.45
1:AR:2100:A:N7	1:AR:2101:C:N4	2.64	0.45
1:AR:2258:U:H2'	1:AR:2259:A:O4'	2.16	0.45
1:AR:2595:A:H5'	1:AR:2596:U:OP2	2.17	0.45
1:AR:284:A:OP2	43:DQ:41:ARG:NH1	2.39	0.45
82:AR:3455:OHX:N1	10:CJ:54:GLU:OE2	2.49	0.45
1:AR:523:A:OP1	82:AR:3632:OHX:N1	2.49	0.45
48:B:50:VAL:HG22	65:S:109:LEU:HD21	1.98	0.45
49:C:116:LYS:HB3	49:C:117:TRP:HE3	1.82	0.45
5:CE:20:LYS:HE3	5:CE:20:LYS:HB2	1.77	0.45
6:CF:110:ASN:OD1	16:CP:201:ARG:HB3	2.16	0.45
7:CG:51:LEU:HB2	7:CG:144:VAL:CG1	2.46	0.45
9:CI:29:GLU:HA	9:CI:32:ALA:HB3	1.98	0.45
12:CL:141:LYS:O	12:CL:144:ASN:N	2.43	0.45
15:CO:113:THR:CG2	15:CO:116:GLU:H	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DH:16:TYR:CD2	34:DH:25:PRO:HA	2.51	0.45
37:DK:58:ILE:HB	37:DK:94:ILE:HD11	1.99	0.45
52:F:10:LYS:HA	52:F:27:TYR:HA	1.98	0.45
52:F:48:LEU:HD21	52:F:70:VAL:HG11	1.98	0.45
53:G:136:ALA:HA	53:G:201:ALA:O	2.17	0.45
25:7:78:ALA:HB2	54:H:9:VAL:HG13	1.97	0.45
47:A:1550:A:P	63:Q:42:ARG:NH2	2.90	0.45
68:V:27:THR:HB	68:V:88:LYS:HG3	1.98	0.45
72:Z:44:LEU:HA	72:Z:47:VAL:HG22	1.98	0.45
1:1:2536:A:H2'	1:1:2537:U:C5	2.52	0.45
1:1:3084:C:H2'	1:1:3085:G:O4'	2.17	0.45
82:1:3509:OHX:N5	82:1:3682:OHX:N6	2.64	0.45
1:1:435:C:H2'	1:1:436:A:C8	2.51	0.45
1:1:712:G:H2'	1:1:713:U:C6	2.52	0.45
1:1:795:G:O6	82:1:3428:OHX:N3	2.49	0.45
22:2:39:ILE:HG22	22:2:99:SER:HB3	1.99	0.45
2:3:45:A:H2'	2:3:46:A:C8	2.51	0.45
47:A:1498:G:N2	47:A:1510:U:O2	2.49	0.45
47:A:329:G:N7	82:A:1884:OHX:N6	2.64	0.45
47:A:115:G:N2	47:A:302:U:O2'	2.40	0.45
47:A:902:G:H2'	47:A:903:U:C6	2.50	0.45
28:AA:95:VAL:HG13	28:AA:110:ALA:HA	1.97	0.45
31:AD:16:LEU:HB3	31:AD:98:SER:HB2	1.98	0.45
1:AR:1798:A:H2'	1:AR:1799:A:C8	2.52	0.45
1:AR:1915:A:H4'	20:CT:83:GLY:O	2.16	0.45
1:AR:1580:A:H5'	1:AR:2522:G:N7	2.31	0.45
1:AR:2616:C:H3'	1:AR:2617:U:O2	2.16	0.45
1:AR:3066:U:H3	1:AR:3075:G:H1	1.63	0.45
82:AR:3579:OHX:N4	82:AR:3638:OHX:N1	2.64	0.45
1:AR:3191:G:O6	82:AR:3645:OHX:N6	2.49	0.45
1:AR:748:U:H2'	1:AR:749:C:C6	2.50	0.45
2:AS:121:U:OP2	7:CG:265:TYR:OH	2.26	0.45
4:CD:192:LYS:HB3	4:CD:193:ARG:CZ	2.46	0.45
1:AR:916:G:N1	4:CD:207:VAL:HG21	2.30	0.45
11:CK:41:ILE:HG23	11:CK:43:VAL:HG13	1.98	0.45
1:AR:3308:C:N3	18:CR:69:ARG:NH1	2.65	0.45
20:CT:158:GLU:C	20:CT:160:GLU:H	2.20	0.45
1:AR:3206:C:O2	21:CU:155:ARG:NH1	2.46	0.45
26:CZ:42:ARG:O	26:CZ:44:PRO:HD3	2.17	0.45
26:CZ:49:LYS:HE2	26:CZ:49:LYS:HB2	1.69	0.45
37:DK:99:ARG:HB3	37:DK:100:HIS:ND1	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:S:21:TYR:C	65:S:23:LYS:H	2.19	0.45
70:X:77:PRO:O	70:X:79:PHE:N	2.48	0.45
71:Y:137:LYS:HB2	71:Y:139:LYS:HG3	1.99	0.45
1:1:1152:G:OP2	1:1:1152:G:N2	2.49	0.45
1:1:1468:A:N6	1:1:1508:C:O2	2.50	0.45
1:1:2278:C:P	42:AO:23:ARG:HH12	2.39	0.45
1:1:2585:G:N3	3:4:151:C:H5	2.15	0.45
1:1:2612:U:H1'	1:1:2803:A:N3	2.30	0.45
1:1:2927:C:H2'	1:1:2928:C:H6	1.81	0.45
1:1:3027:A:H2'	1:1:3028:G:C8	2.52	0.45
1:1:314:U:O4	82:1:3677:OHX:N6	2.49	0.45
1:1:729:C:H2'	1:1:730:C:H6	1.82	0.45
24:6:10:LYS:HB2	24:6:125:LEU:CD2	2.46	0.45
47:A:1000:C:H2'	47:A:1002:G:OP2	2.16	0.45
47:A:1519:U:H2'	47:A:1520:U:C5	2.51	0.45
47:A:1595:U:H5	47:A:1596:C:C5	2.34	0.45
82:A:1853:OHX:N6	82:A:1936:OHX:N5	2.64	0.45
47:A:645:C:H2'	47:A:646:C:C6	2.51	0.45
35:AH:47:CYS:SG	35:AH:81:CYS:SG	3.13	0.45
1:AR:1093:A:N3	1:AR:1096:U:N3	2.65	0.45
1:AR:1397:C:O2'	1:AR:1398:U:H5'	2.17	0.45
1:AR:1394:A:H4'	1:AR:1420:C:H4'	1.98	0.45
1:AR:1715:A:O3'	1:AR:1716:U:H3'	2.17	0.45
1:AR:1805:C:OP1	35:DI:71:THR:HG21	2.16	0.45
1:AR:2268:U:C2	1:AR:2269:U:H5	2.34	0.45
1:AR:2443:A:H61	1:AR:2504:U:H3	1.65	0.45
1:AR:2522:G:O6	4:CD:70:ARG:NH2	2.47	0.45
1:AR:2528:G:H1	1:AR:2582:C:N4	2.13	0.45
82:AS:203:OHX:N3	82:AS:209:OHX:N6	2.64	0.45
3:AT:56:G:H2'	3:AT:57:C:O4'	2.16	0.45
48:B:10:THR:HB	48:B:11:PRO:HD2	1.98	0.45
49:C:138:PHE:CD1	49:C:214:LYS:HB3	2.51	0.45
6:CF:203:ARG:HH21	6:CF:240:PRO:HB3	1.81	0.45
10:CJ:41:GLN:CG	10:CJ:44:ARG:HH12	2.26	0.45
14:CN:36:ARG:O	14:CN:39:ARG:N	2.50	0.45
23:CW:74:LYS:HE2	23:CW:74:LYS:HB2	1.66	0.45
24:CX:13:ILE:HG13	24:CX:14:SER:N	2.31	0.45
42:DP:9:ARG:HH11	42:DP:9:ARG:CG	2.29	0.45
53:G:52:GLU:H	53:G:131:GLN:HE22	1.62	0.45
56:J:195:ARG:HA	56:J:195:ARG:HD3	1.63	0.45
68:V:34:LEU:HD11	68:V:89:ARG:HD2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1362:G:H2'	1:1:1363:A:C8	2.52	0.45
1:1:1369:A:H2'	1:1:1370:G:O4'	2.17	0.45
1:1:2213:A:H2'	1:1:2214:A:C8	2.51	0.45
1:1:3185:U:O2	21:0:169:SER:HA	2.17	0.45
1:1:3279:A:C6	1:1:3280:U:C4	3.04	0.45
82:1:3537:OHX:N5	82:1:3697:OHX:N5	2.64	0.45
1:1:2849:C:OP1	82:1:3711:OHX:N2	2.50	0.45
1:1:426:G:H5'	33:AF:50:ILE:HG22	1.98	0.45
1:1:815:G:C2	1:1:926:A:C2	3.05	0.45
26:8:76:VAL:HG22	26:8:81:ILE:O	2.16	0.45
27:9:118:LEU:O	27:9:122:LYS:HG3	2.16	0.45
47:A:1687:U:H1'	47:A:1715:G:N2	2.31	0.45
47:A:583:C:OP1	82:A:1804:OHX:N3	2.49	0.45
29:AB:74:ASN:HB2	29:AB:76:ASP:CB	2.47	0.45
44:AQ:45:LYS:HG3	44:AQ:45:LYS:O	2.17	0.45
1:AR:129:U:H2'	1:AR:130:A:H8	1.80	0.45
1:AR:2714:G:H4'	1:AR:2715:A:H5''	1.99	0.45
1:AR:2860:U:N3	1:AR:2938:G:OP1	2.48	0.45
1:AR:3047:U:O2'	1:AR:3048:A:H5'	2.17	0.45
1:AR:3355:U:H3'	1:AR:3356:G:H5''	1.98	0.45
1:AR:863:C:H2'	1:AR:864:G:O4'	2.17	0.45
48:B:26:ALA:HB3	48:B:149:LEU:HB2	1.98	0.45
49:C:181:LEU:HA	49:C:184:LEU:CB	2.47	0.45
1:AR:2181:C:H5''	4:CD:193:ARG:NH2	2.31	0.45
5:CE:53:MET:HE2	5:CE:77:THR:HG22	1.99	0.45
6:CF:118:LYS:O	6:CF:122:THR:HG23	2.16	0.45
7:CG:143:LYS:HG3	7:CG:172:TYR:HD2	1.80	0.45
1:AR:120:G:N7	10:CJ:128:LYS:HG3	2.32	0.45
15:CO:36:VAL:HG12	15:CO:75:GLY:HA2	1.98	0.45
18:CR:172:GLN:O	18:CR:176:ILE:HG13	2.16	0.45
21:CU:5:LYS:HB2	21:CU:7:TYR:CE1	2.52	0.45
50:D:101:VAL:HG22	50:D:115:ILE:HG12	1.98	0.45
28:DB:81:LEU:HD22	28:DB:81:LEU:HA	1.55	0.45
34:DH:6:ARG:HG3	34:DH:8:TYR:CE1	2.50	0.45
39:DM:10:GLN:HA	39:DM:13:GLU:CD	2.37	0.45
1:AR:2741:C:H4'	43:DQ:19:LYS:HA	1.97	0.45
51:E:142:LEU:O	51:E:144:ALA:N	2.46	0.45
55:I:133:THR:HG22	55:I:159:VAL:HG12	1.98	0.45
55:I:149:ILE:HG12	55:I:180:GLN:HB3	1.99	0.45
56:J:21:PHE:O	56:J:22:ARG:HB3	2.16	0.45
57:K:154:LYS:HE3	57:K:154:LYS:HB2	1.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:L:77:ARG:NH1	58:L:85:HIS:H	2.15	0.45
62:P:80:HIS:N	62:P:80:HIS:CD2	2.83	0.45
64:R:59:LYS:HB2	64:R:59:LYS:HE2	1.79	0.45
69:W:36:VAL:HG11	69:W:78:LEU:HD13	1.99	0.45
1:1:1017:C:OP2	1:1:1017:C:H2'	2.16	0.45
1:1:1090:G:H2'	1:1:1091:A:H8	1.81	0.45
1:1:1240:A:H3'	1:1:1241:U:H5''	1.99	0.45
1:1:1716:U:O2'	1:1:1717:U:H4'	2.16	0.45
1:1:242:C:HO2'	1:1:243:G:H8	1.63	0.45
1:1:2510:U:O2'	1:1:2511:A:H8	2.00	0.45
1:1:565:U:H2'	1:1:566:G:H8	1.81	0.45
22:2:38:ASP:OD2	22:2:98:HIS:HE1	2.00	0.45
2:3:58:C:H2'	2:3:59:U:C6	2.47	0.45
3:4:91:C:H2'	3:4:92:A:H8	1.82	0.45
47:A:1169:G:O2'	47:A:1576:A:N6	2.49	0.45
47:A:1225:U:O2	47:A:1230:A:H4'	2.17	0.45
47:A:38:C:H2'	47:A:39:A:H5'	1.97	0.45
1:1:2131:A:H61	44:AQ:18:TYR:HA	1.82	0.45
1:AR:1176:C:OP1	17:CQ:25:LYS:HE3	2.17	0.45
1:AR:1433:A:N3	33:DG:27:ARG:NH1	2.64	0.45
82:AR:3629:OHX:N4	82:AR:3647:OHX:N5	2.65	0.45
1:AR:437:G:H21	1:AR:622:A:N6	2.14	0.45
1:AR:26:A:H61	1:AR:59:G:H1	1.63	0.45
1:AR:733:G:N2	1:AR:736:A:OP2	2.49	0.45
1:AR:999:G:C6	1:AR:1000:C:N4	2.85	0.45
49:C:70:LEU:HD21	49:C:79:HIS:ND1	2.31	0.45
1:AR:2392:C:HO2'	5:CE:266:ARG:HH22	1.54	0.45
5:CE:313:HIS:O	5:CE:333:LYS:HE3	2.16	0.45
6:CF:23:PRO:O	6:CF:25:VAL:HG23	2.17	0.45
12:CL:81:GLY:O	12:CL:83:ASP:N	2.49	0.45
14:CN:189:GLU:HA	14:CN:192:GLU:OE1	2.17	0.45
16:CP:97:SER:O	16:CP:100:ALA:N	2.50	0.45
19:CS:179:ARG:HG3	19:CS:182:LYS:HB2	1.99	0.45
21:CU:77:VAL:HG13	21:CU:126:VAL:HG22	1.99	0.45
24:CX:102:ILE:HG13	24:CX:110:LYS:HB2	1.99	0.45
24:CX:127:PRO:O	24:CX:130:ALA:N	2.50	0.45
33:DG:12:LYS:HD3	33:DG:57:TYR:O	2.16	0.45
35:DI:81:CYS:SG	35:DI:84:CYS:SG	3.14	0.45
43:DQ:76:LYS:HA	43:DQ:76:LYS:HD3	1.56	0.45
52:F:163:ASP:C	52:F:165:ALA:H	2.20	0.45
1:1:3049:A:C2	57:K:75:ALA:HB2	112.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:M:55:ASP:HA	59:M:82:ARG:HH12	1.82	0.45
64:R:18:ALA:HB2	64:R:69:VAL:HG13	1.99	0.45
21:0:21:GLU:N	21:0:22:PRO:HD3	2.32	0.45
1:1:1267:U:H2'	1:1:1268:G:O4'	2.17	0.45
1:1:1247:U:H2'	1:1:1268:G:O6	2.17	0.45
1:1:1725:C:H2'	1:1:1726:C:C6	2.52	0.45
1:1:241:G:C6	1:1:242:C:C4	3.05	0.45
1:1:2435:G:N7	1:1:2593:A:H2'	2.31	0.45
1:1:2747:A:H2'	1:1:2748:A:C8	2.51	0.45
1:1:2764:C:H2'	1:1:2765:C:O4'	2.17	0.45
1:1:1062:A:H4'	22:2:105:PHE:CD1	2.51	0.45
47:A:1111:G:C2	47:A:1112:G:H1'	2.51	0.45
82:A:1941:OHX:N5	52:F:3:ARG:NE	2.65	0.45
47:A:226:A:C2'	47:A:227:U:H5'	2.47	0.45
47:A:327:U:H2'	47:A:328:A:C8	2.52	0.45
47:A:694:U:H5	55:I:96:ARG:O	2.00	0.45
47:A:945:U:H2'	47:A:946:U:H6	1.81	0.45
32:AE:8:VAL:O	32:AE:77:ARG:N	2.48	0.45
38:AK:31:LYS:O	38:AK:33:THR:HG22	2.17	0.45
1:AR:1221:A:H3'	1:AR:1222:G:H5'	1.98	0.45
1:AR:1243:G:H2'	1:AR:1244:A:H5''	1.98	0.45
1:AR:2163:C:H4'	4:CD:8:GLN:HA	1.99	0.45
1:AR:3166:C:H42	1:AR:3284:G:H1	1.64	0.45
82:AR:3558:OHX:N3	82:AR:3692:OHX:N6	2.64	0.45
3:AT:44:A:H2'	3:AT:45:C:C6	2.52	0.45
48:B:38:PHE:HB2	48:B:49:ASN:HB2	1.97	0.45
49:C:87:ARG:O	49:C:98:THR:OG1	2.23	0.45
6:CF:290:ILE:HG23	19:CS:35:PHE:CE2	2.51	0.45
6:CF:311:HIS:NE2	6:CF:314:LYS:HA	2.31	0.45
9:CI:145:ARG:HA	9:CI:185:ILE:HD13	1.99	0.45
14:CN:166:ALA:HB1	29:DC:147:LEU:HD21	1.99	0.45
18:CR:48:LEU:HB3	18:CR:88:VAL:HG13	1.99	0.45
20:CT:167:ARG:HG3	20:CT:170:ARG:CZ	2.46	0.45
1:AR:1323:G:O3'	21:CU:2:ALA:HA	2.16	0.45
7:CG:17:GLN:NE2	22:CV:22:HIS:O	2.47	0.45
26:CZ:64:GLU:OE2	26:CZ:87:SER:HA	2.16	0.45
28:DB:115:LYS:HG2	28:DB:119:GLU:OE1	2.16	0.45
1:AR:655:C:OP1	33:DG:27:ARG:HB3	2.17	0.45
35:DI:99:LYS:O	35:DI:103:LYS:HG2	2.17	0.45
37:DK:9:ILE:HA	37:DK:13:LYS:HD3	1.99	0.45
52:F:212:ASP:N	52:F:212:ASP:OD1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:G:93:LEU:HA	53:G:93:LEU:HD22	1.73	0.45
54:H:137:ARG:HD3	54:H:177:ARG:HE	1.81	0.45
56:J:117:TYR:CE1	56:J:150:ALA:HB2	2.52	0.45
47:A:197:A:H61	56:J:138:ASN:HD22	1.62	0.45
56:J:29:LEU:HD21	56:J:31:ARG:HG3	1.98	0.45
56:J:66:SER:HA	56:J:73:SER:HA	1.99	0.45
57:K:17:ARG:O	57:K:23:ARG:NH2	2.50	0.45
60:N:75:VAL:HG21	60:N:120:VAL:HG21	1.99	0.45
61:O:91:LEU:HB3	61:O:122:ILE:HG12	1.99	0.45
63:Q:89:MET:HG3	63:Q:89:MET:H	1.63	0.45
68:V:27:THR:HB	68:V:88:LYS:CG	2.46	0.45
1:1:1874:A:N7	72:Z:20:ARG:NH1	130.51	0.45
1:1:1509:A:O2'	1:1:1510:G:H5'	2.16	0.45
1:1:1701:C:H2'	1:1:1702:U:O4'	2.17	0.45
1:1:1724:U:H1'	1:1:1725:C:C5	2.52	0.45
1:1:2280:A:H5''	1:1:2281:A:OP2	2.16	0.45
1:1:22:G:H1'	3:4:104:A:N3	2.32	0.45
1:1:1485:G:O6	82:1:3509:OHX:N1	2.49	0.45
1:1:1313:G:O6	82:1:3624:OHX:N4	2.50	0.45
1:1:518:G:O6	82:1:3641:OHX:N6	2.49	0.45
1:1:600:G:H5'	1:1:601:U:OP2	2.17	0.45
1:1:829:U:H3	1:1:895:A:N6	2.13	0.45
2:3:22:A:C6	2:3:23:A:C6	3.05	0.45
27:9:59:VAL:HA	27:9:64:LYS:HD2	1.97	0.45
47:A:1165:G:O6	47:A:1166:A:N6	2.50	0.45
47:A:1724:U:O4	82:A:1841:OHX:N6	2.50	0.45
47:A:503:G:O2'	47:A:504:U:OP1	2.31	0.45
47:A:540:G:H2'	47:A:540:G:OP2	2.17	0.45
34:AG:13:HIS:HB3	34:AG:93:THR:O	2.17	0.45
43:AP:77:CYS:SG	43:AP:79:THR:OG1	2.69	0.45
1:AR:1128:U:H2'	1:AR:1129:A:O4'	2.17	0.45
1:AR:1583:A:H5''	1:AR:1584:U:OP2	2.17	0.45
1:AR:2656:A:C4	1:AR:2658:G:N7	2.85	0.45
1:AR:1383:G:O6	82:AR:3438:OHX:N6	2.50	0.45
1:AR:678:G:O6	82:AR:3517:OHX:N2	2.50	0.45
1:AR:874:U:H5'	1:AR:875:G:OP1	2.17	0.45
49:C:48:VAL:HG11	49:C:61:LEU:HD21	1.99	0.45
1:AR:805:G:H1'	6:CF:73:ARG:NH1	2.32	0.45
7:CG:211:LEU:HD23	7:CG:211:LEU:HA	1.78	0.45
12:CL:156:ARG:HG2	12:CL:163:GLN:HG2	1.99	0.45
17:CQ:138:LEU:HD12	17:CQ:138:LEU:HA	1.66	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:97:LYS:HE3	22:CV:97:LYS:HB2	1.80	0.45
23:CW:32:SER:HB3	23:CW:83:TYR:OH	2.16	0.45
50:D:140:ARG:CZ	69:W:1:MET:SD	3.05	0.45
29:DC:46:ASP:O	29:DC:47:LYS:HB3	2.17	0.45
53:G:44:ASN:O	53:G:45:LYS:NZ	2.26	0.45
54:H:63:MET:HE1	54:H:106:LEU:CD1	2.46	0.45
61:O:114:ARG:HH11	61:O:114:ARG:HG2	1.82	0.45
63:Q:24:LYS:O	63:Q:28:MET:HB2	2.17	0.45
67:U:15:ILE:O	67:U:19:ALA:N	2.42	0.45
1:1:1120:A:H2'	1:1:1121:U:H6	1.82	0.45
1:1:1238:C:N4	1:1:1245:A:OP2	2.50	0.45
1:1:391:A:OP2	82:1:3673:OHX:N1	2.50	0.45
1:1:437:G:O2'	1:1:438:A:H5'	2.16	0.45
1:1:900:G:H1'	1:1:1589:A:H61	1.82	0.45
1:1:979:U:H1'	1:1:980:A:N7	2.31	0.45
24:6:13:ILE:HD13	24:6:54:LEU:HB3	1.99	0.45
47:A:1171:A:H2'	47:A:1172:G:C8	2.52	0.45
47:A:1622:G:H2'	47:A:1623:C:C6	2.52	0.45
47:A:1687:U:H1'	47:A:1715:G:H22	1.82	0.45
47:A:341:A:H2'	47:A:342:C:C6	2.52	0.45
47:A:36:C:H2'	47:A:37:U:O4'	2.17	0.45
47:A:526:A:C6	47:A:527:A:C5	3.05	0.45
47:A:702:G:N2	47:A:703:G:H1'	2.32	0.45
30:AC:28:LYS:HD3	30:AC:29:TYR:H	1.82	0.45
36:AI:68:GLN:HA	36:AI:71:LYS:HB2	1.99	0.45
1:AR:1335:C:H2'	1:AR:1336:U:C6	2.52	0.45
1:AR:2103:U:H2'	1:AR:2104:A:H8	1.79	0.45
1:AR:271:C:H2'	1:AR:272:G:O4'	2.17	0.45
1:AR:2812:C:H2'	1:AR:2813:A:C8	2.52	0.45
1:AR:325:A:H5''	1:AR:326:U:OP2	2.16	0.45
1:AR:3350:C:HO2'	1:AR:3351:U:P	2.40	0.45
1:AR:364:G:O3'	6:CF:84:ARG:HG2	2.17	0.45
1:AR:278:U:O2'	82:AR:3733:OHX:N1	2.50	0.45
1:AR:407:A:C2	3:AT:17:A:H1'	2.52	0.45
1:AR:742:G:N7	82:AR:3505:OHX:N4	2.65	0.45
2:AS:27:A:H2'	2:AS:28:C:C6	2.52	0.45
2:AS:55:A:H2'	2:AS:56:A:O4'	2.17	0.45
48:B:198:MET:SD	48:B:199:PRO:HD2	2.56	0.45
49:C:222:LYS:HD3	49:C:223:PHE:H	1.82	0.45
10:CJ:97:TYR:OH	10:CJ:203:VAL:HG22	2.16	0.45
12:CL:47:PRO:HB3	12:CL:171:TRP:CZ2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:63:GLU:O	13:CM:64:LYS:HB2	2.17	0.45
15:CO:102:LYS:HB2	15:CO:102:LYS:HE3	1.61	0.45
19:CS:8:LYS:HB2	19:CS:8:LYS:HE3	1.57	0.45
15:CO:43:LYS:NZ	21:CU:96:ASP:OD2	2.47	0.45
22:CV:102:ARG:HH11	22:CV:102:ARG:HG2	1.81	0.45
23:CW:33:TYR:CE2	23:CW:63:VAL:HG21	2.52	0.45
28:DB:33:SER:OG	28:DB:35:SER:O	2.22	0.45
32:DF:55:LEU:HB2	32:DF:95:PRO:HD3	1.99	0.45
37:DK:25:LYS:HB2	37:DK:28:TYR:CD1	2.51	0.45
44:DR:73:THR:HG22	44:DR:76:ALA:CB	2.47	0.45
47:A:753:A:OP1	52:F:220:THR:HG22	2.17	0.45
53:G:145:ASP:OD1	53:G:146:THR:N	2.49	0.45
55:I:49:ILE:O	55:I:57:ALA:N	2.38	0.45
57:K:125:ALA:O	57:K:129:ILE:HG13	2.16	0.45
56:J:188:GLU:HG3	59:M:13:PHE:CD2	2.51	0.45
61:O:115:LEU:HD22	61:O:119:GLU:HG3	1.99	0.45
63:Q:67:ALA:O	82:Q:201:OHX:N2	2.51	0.45
1:1:1019:G:H2'	1:1:1020:G:O4'	2.17	0.44
1:1:1246:G:H2'	1:1:1247:U:O4'	2.18	0.44
1:1:1680:G:C5	1:1:1681:U:C5	3.05	0.44
1:1:2270:A:H2'	1:1:2271:A:C8	2.52	0.44
1:1:634:C:O3'	33:AF:47:ARG:NH1	2.50	0.44
42:AO:17:ARG:NH2	47:A:1116:A:OP1	2.49	0.44
47:A:1183:A:C4	63:Q:100:LYS:HE2	2.52	0.44
47:A:1662:G:O2'	47:A:1663:G:H5'	2.16	0.44
47:A:300:A:H2'	47:A:301:A:C8	2.52	0.44
47:A:436:A:H5''	47:A:437:A:OP1	2.17	0.44
47:A:565:C:O2	71:Y:66:SER:HB3	2.17	0.44
47:A:930:A:H2'	49:C:114:VAL:HG11	2.00	0.44
1:AR:240:U:H4'	1:AR:240:U:OP1	2.17	0.44
1:AR:3287:U:H2'	1:AR:3288:G:H5'	1.97	0.44
1:AR:3299:A:H61	1:AR:3315:G:H1	1.65	0.44
1:AR:29:C:H4'	1:AR:62:A:H4'	1.99	0.44
7:CG:113:LEU:HD12	7:CG:113:LEU:HA	1.78	0.44
7:CG:177:GLU:O	7:CG:179:ARG:N	2.50	0.44
9:CI:236:ILE:HA	9:CI:236:ILE:HD12	1.80	0.44
9:CI:96:PRO:HG2	9:CI:99:PRO:CG	2.47	0.44
14:CN:76:THR:HG22	14:CN:101:ARG:HG2	1.99	0.44
22:CV:17:ARG:HG3	22:CV:17:ARG:O	2.17	0.44
29:DC:96:LYS:C	29:DC:98:THR:H	2.21	0.44
33:DG:77:ALA:HB3	33:DG:81:ASP:OD2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:E:76:ARG:HD2	58:L:65:TYR:OH	2.16	0.44
53:G:89:ILE:H	53:G:89:ILE:HG13	1.58	0.44
54:H:3:LEU:N	54:H:16:PHE:O	2.33	0.44
56:J:106:ALA:HB2	56:J:165:LEU:HG	1.99	0.44
61:O:99:ARG:NH2	61:O:143:SER:OG	2.50	0.44
67:U:86:ARG:NH1	67:U:90:PRO:O	2.50	0.44
1:1:1323:G:O3'	21:O:2:ALA:HA	2.17	0.44
1:1:1944:U:H2'	1:1:1945:A:C8	2.52	0.44
1:1:2226:U:H2'	1:1:2227:C:H6	1.82	0.44
1:1:327:A:H2'	1:1:328:U:C6	2.52	0.44
1:1:3354:U:H3	56:J:110:ARG:NH2	2.16	0.44
1:1:3354:U:OP1	1:1:3356:G:H5'	2.16	0.44
1:1:718:G:N2	1:1:721:G:H1'	2.32	0.44
1:1:741:U:H2'	1:1:742:G:O4'	2.18	0.44
47:A:1427:A:O2'	47:A:1428:G:OP1	2.28	0.44
47:A:1503:A:H2'	47:A:1504:G:O4'	2.16	0.44
47:A:1155:G:O2'	82:A:1942:OHX:N6	2.50	0.44
47:A:651:G:O6	82:A:1881:OHX:N4	2.50	0.44
47:A:877:G:N7	82:A:1859:OHX:N1	2.64	0.44
1:1:1391:C:C2	33:AF:103:LYS:HD3	2.52	0.44
1:AR:1190:A:C8	1:AR:1193:A:H1'	2.53	0.44
1:AR:1843:C:H2'	1:AR:1844:C:H6	1.81	0.44
1:AR:192:C:H2'	1:AR:193:C:C6	2.52	0.44
1:AR:2133:U:O4	1:AR:2147:A:H2	2.00	0.44
1:AR:256:G:H2'	1:AR:257:U:C6	2.52	0.44
1:AR:2730:G:OP2	82:AR:3460:OHX:N6	2.51	0.44
1:AR:637:C:C2	1:AR:638:C:C5	3.05	0.44
1:AR:72:C:C2	1:AR:74:G:H1'	2.52	0.44
1:AR:782:U:C4	1:AR:783:A:C6	3.05	0.44
3:AT:142:C:OP1	16:CP:38:ARG:NH1	2.47	0.44
5:CE:114:VAL:HG22	5:CE:163:HIS:CE1	2.52	0.44
6:CF:359:LEU:O	21:CU:26:ARG:NH2	2.50	0.44
7:CG:107:ARG:HD2	7:CG:248:ARG:HG2	1.99	0.44
7:CG:224:LYS:HB2	7:CG:224:LYS:HE3	1.75	0.44
10:CJ:116:VAL:HG22	10:CJ:121:SER:O	2.16	0.44
17:CQ:12:LYS:HD2	17:CQ:37:ARG:CZ	2.47	0.44
17:CQ:79:ILE:HG21	17:CQ:138:LEU:HD11	1.99	0.44
22:CV:35:LYS:N	22:CV:38:ASP:OD2	2.39	0.44
28:DB:41:ALA:O	28:DB:43:VAL:HG13	2.18	0.44
39:DM:46:ARG:HH21	39:DM:51:LEU:HB2	1.82	0.44
40:DN:9:ILE:HG22	40:DN:13:MET:CE	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:G:109:LYS:O	53:G:113:ILE:HG13	2.17	0.44
47:A:400:A:H5''	56:J:25:ARG:HA	1.98	0.44
60:N:29:LYS:HG3	60:N:100:TRP:CD1	2.52	0.44
69:W:74:GLN:HG3	69:W:79:LEU:O	2.18	0.44
1:1:1765:U:H5''	72:Z:43:LYS:HE2	178.11	0.44
1:1:1506:A:C2	1:1:1513:G:C2	3.05	0.44
1:1:1675:G:H2'	1:1:1676:A:C8	2.52	0.44
1:1:1908:A:H8	1:1:1908:A:O5'	2.00	0.44
1:1:2407:C:H1'	1:1:2818:U:O2	2.17	0.44
1:1:314:U:H2'	1:1:315:C:C6	2.52	0.44
1:1:345:G:OP1	1:1:1429:G:N1	2.46	0.44
1:1:172:G:N7	82:1:3526:OHX:N2	2.64	0.44
82:1:3562:OHX:N1	82:1:3673:OHX:N1	2.66	0.44
82:1:3537:OHX:N3	82:1:3697:OHX:N4	2.65	0.44
26:8:113:LEU:HD12	26:8:114:VAL:C	2.38	0.44
27:9:74:TYR:CE1	27:9:77:LYS:HE3	2.52	0.44
47:A:1164:G:H1	47:A:1581:C:N4	2.11	0.44
47:A:1320:U:H3'	48:B:101:ARG:HH21	1.83	0.44
47:A:1628:U:H2'	47:A:1629:G:H8	1.78	0.44
82:A:1822:OHX:N1	82:A:1876:OHX:N2	2.65	0.44
47:A:424:C:O2'	47:A:426:G:OP1	2.30	0.44
47:A:577:G:O6	82:A:1817:OHX:N3	2.50	0.44
1:AR:1269:U:H1'	1:AR:1272:C:H5	1.83	0.44
1:AR:1380:G:OP1	6:CF:191:LYS:N	2.42	0.44
1:AR:2190:U:C4	1:AR:2191:U:C4	3.05	0.44
1:AR:2244:A:H5''	4:CD:243:THR:HG1	1.83	0.44
1:AR:2655:U:H4'	1:AR:2656:A:O4'	2.16	0.44
1:AR:3285:C:H2'	1:AR:3286:G:O4'	2.18	0.44
1:AR:998:A:O2'	1:AR:999:G:H5'	2.17	0.44
48:B:73:VAL:O	48:B:95:ALA:HB1	2.17	0.44
6:CF:91:GLY:HA3	6:CF:93:MET:CE	2.45	0.44
13:CM:148:VAL:HG12	13:CM:152:HIS:HB3	1.99	0.44
17:CQ:8:VAL:HG13	17:CQ:34:VAL:HG22	1.99	0.44
22:CV:132:PRO:O	22:CV:134:GLN:HG2	2.17	0.44
50:D:69:ILE:HG12	50:D:133:LYS:HB3	1.99	0.44
29:DC:84:GLU:HG2	29:DC:87:ARG:NH2	2.32	0.44
57:K:26:ALA:O	57:K:30:LEU:HD12	2.17	0.44
57:K:34:PHE:CD1	57:K:105:LEU:HD23	2.52	0.44
57:K:52:ILE:HG23	57:K:76:LEU:HD11	1.98	0.44
65:S:71:PHE:HD2	65:S:73:LEU:HB3	1.83	0.44
70:X:83:ILE:HA	70:X:83:ILE:HD12	1.84	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1248:C:OP1	1:1:1249:G:H8	2.00	0.44
1:1:209:A:H4'	1:1:211:A:C8	2.53	0.44
1:1:2379:U:H2'	1:1:2380:U:C6	2.52	0.44
1:1:2537:U:H1'	1:1:2538:U:O5'	2.17	0.44
1:1:2815:G:H5''	1:1:2816:G:OP2	2.16	0.44
1:1:2875:U:O2'	1:1:2876:C:P	2.76	0.44
1:1:668:G:OP1	82:1:3650:OHX:N2	2.51	0.44
2:3:112:G:OP2	82:3:207:OHX:N5	2.51	0.44
2:3:77:G:H3'	21:0:46:GLN:O	2.17	0.44
3:4:37:A:H5''	3:4:39:G:O4'	2.17	0.44
24:6:23:MET:HB2	24:6:99:ALA:HA	2.00	0.44
25:7:4:GLU:HG2	25:7:30:ARG:CD	2.42	0.44
25:7:50:ALA:HA	25:7:55:PHE:CD2	2.52	0.44
47:A:112:A:O2'	47:A:113:U:H5'	2.17	0.44
47:A:1166:A:H2'	47:A:1167:G:O4'	2.17	0.44
47:A:1533:C:H4'	47:A:1539:G:C6	2.52	0.44
47:A:1672:G:O5'	47:A:1672:G:H8	2.00	0.44
47:A:1688:U:H2'	47:A:1689:A:C8	2.52	0.44
41:AN:95:VAL:HA	41:AN:101:ALA:O	2.18	0.44
1:AR:1063:G:OP2	1:AR:1097:G:H3'	2.16	0.44
1:AR:1353:U:H3'	1:AR:1353:U:OP2	2.18	0.44
1:AR:1716:U:HO2'	1:AR:1717:U:P	2.40	0.44
1:AR:271:C:OP1	82:AR:3577:OHX:N6	2.50	0.44
1:AR:3298:C:H2'	1:AR:3299:A:O4'	2.17	0.44
82:AR:3536:OHX:N1	82:AR:3584:OHX:N2	2.66	0.44
1:AR:1892:G:N7	82:AR:3617:OHX:N1	2.65	0.44
1:AR:617:G:H4'	18:CR:171:ARG:HH21	1.82	0.44
49:C:35:PRO:HG3	49:C:98:THR:O	2.16	0.44
4:CD:206:PRO:HD3	4:CD:213:GLY:HA3	2.00	0.44
5:CE:296:THR:HG21	5:CE:357:LYS:O	2.18	0.44
7:CG:279:LYS:HE3	7:CG:282:ARG:NH1	2.29	0.44
9:CI:236:ILE:O	9:CI:240:VAL:HG23	2.17	0.44
15:CO:105:GLN:NE2	17:CQ:198:GLY:O	2.49	0.44
27:DA:110:HIS:H	27:DA:115:ARG:HH12	1.65	0.44
29:DC:47:LYS:O	29:DC:48:TYR:CG	2.70	0.44
31:DE:13:LYS:HB3	31:DE:100:ILE:CG2	2.48	0.44
33:DG:24:ARG:HG2	33:DG:25:TYR:CZ	2.52	0.44
51:E:164:VAL:O	51:E:168:ILE:HG13	2.16	0.44
51:E:172:THR:HA	51:E:184:ILE:O	2.18	0.44
53:G:100:ASN:O	53:G:102:ARG:N	2.50	0.44
53:G:186:ASN:HD21	53:G:188:LYS:HB2	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:H:67:VAL:HG23	54:H:67:VAL:O	2.18	0.44
1:1:1100:U:H2'	1:1:1101:G:O4'	2.17	0.44
1:1:1536:G:N7	82:1:3411:OHX:N3	2.66	0.44
1:1:1639:C:O2'	1:1:1640:G:H5'	2.18	0.44
1:1:2881:C:H2'	1:1:2882:U:C6	2.53	0.44
1:1:3131:U:H2'	1:1:3132:C:H6	1.83	0.44
1:1:3389:U:O2'	1:1:3390:G:OP2	2.34	0.44
1:1:863:C:OP1	82:1:3417:OHX:N2	2.50	0.44
82:1:3553:OHX:N3	82:1:3590:OHX:N5	2.65	0.44
1:1:621:A:H8	1:1:623:U:O4	2.00	0.44
1:1:979:U:C2	1:1:980:A:C5	3.05	0.44
47:A:1291:G:H2'	47:A:1292:G:H8	1.82	0.44
47:A:1486:G:C8	47:A:1487:A:C8	3.06	0.44
47:A:1537:C:N4	47:A:1572:G:N1	2.65	0.44
47:A:196:G:O2'	47:A:197:A:P	2.76	0.44
47:A:254:A:H2'	47:A:255:U:H6	1.82	0.44
47:A:763:G:C6	47:A:764:U:C4	3.05	0.44
34:AG:93:THR:O	34:AG:96:ALA:N	2.34	0.44
35:AH:46:ASP:CG	35:AH:80:ARG:HD2	2.38	0.44
36:AI:96:GLU:H	36:AI:96:GLU:HG2	1.40	0.44
37:AJ:45:ARG:NH2	37:AJ:54:GLU:OE1	2.51	0.44
1:AR:118:U:C5	1:AR:119:U:C4	3.05	0.44
1:AR:1449:A:C2	1:AR:2356:A:C4	3.05	0.44
1:AR:268:A:O4'	1:AR:270:U:H1'	2.18	0.44
1:AR:2722:U:H2'	1:AR:2723:U:H6	1.81	0.44
1:AR:286:U:H2'	1:AR:287:G:H8	1.83	0.44
1:AR:2962:U:OP1	82:AR:3479:OHX:N1	2.50	0.44
1:AR:600:G:N7	82:AR:3626:OHX:N1	2.66	0.44
1:AR:825:U:H6	1:AR:825:U:O5'	2.01	0.44
1:AR:2147:A:OP1	4:CD:200:ARG:HG3	2.16	0.44
5:CE:346:THR:C	5:CE:348:ARG:H	2.16	0.44
6:CF:29:PRO:HG3	6:CF:279:HIS:CD2	2.52	0.44
1:AR:1003:A:H1'	7:CG:15:ARG:CZ	2.48	0.44
10:CJ:70:LYS:HE3	10:CJ:70:LYS:HB3	1.81	0.44
1:AR:3198:U:H1'	11:CK:21:LYS:HB2	2.00	0.44
14:CN:131:LYS:H	14:CN:131:LYS:HG2	1.63	0.44
14:CN:168:ARG:O	14:CN:172:LEU:HG	2.17	0.44
15:CO:11:ASN:C	15:CO:11:ASN:ND2	2.71	0.44
16:CP:113:LEU:HD12	16:CP:136:ASP:HA	1.98	0.44
1:AR:304:G:C6	16:CP:178:HIS:HD2	2.36	0.44
18:CR:41:LEU:CD2	18:CR:95:LEU:HD22	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:95:TRP:O	20:CT:98:ARG:N	2.51	0.44
22:CV:91:LEU:HD23	22:CV:91:LEU:HA	1.72	0.44
47:A:331:A:H4'	56:J:31:ARG:O	2.16	0.44
61:O:103:GLU:O	61:O:106:ARG:NH2	2.50	0.44
63:Q:85:ILE:HA	63:Q:89:MET:SD	2.57	0.44
1:1:1243:G:HO2'	1:1:1271:A:HO2'	1.65	0.44
1:1:1915:A:H2'	1:1:1916:U:H6	1.82	0.44
1:1:2897:A:H5''	41:AN:125:LYS:HD2	2.00	0.44
1:1:3342:A:C2	1:1:3364:C:C2	3.06	0.44
1:1:413:U:H2'	1:1:414:U:C6	2.53	0.44
1:1:658:G:H5''	1:1:659:G:OP2	2.17	0.44
47:A:526:A:H2'	47:A:527:A:O4'	2.17	0.44
31:AD:9:SER:OG	31:AD:10:ILE:N	2.50	0.44
32:AE:13:THR:CG2	32:AE:72:ARG:HH11	2.31	0.44
35:AH:8:ARG:C	35:AH:9:ARG:HG3	2.38	0.44
39:AL:77:ARG:O	39:AL:78:LEU:HB2	2.18	0.44
1:AR:1258:U:O2	1:AR:1260:A:H8	1.99	0.44
1:AR:1481:A:H2'	1:AR:1481:A:N3	2.32	0.44
1:AR:1613:A:OP1	39:DM:51:LEU:N	2.51	0.44
1:AR:183:G:H2'	1:AR:184:U:O4'	2.17	0.44
1:AR:20:A:O2'	1:AR:21:G:H5'	2.18	0.44
1:AR:2407:C:H2'	1:AR:2408:U:H6	1.83	0.44
1:AR:2617:U:O3'	12:CL:116:ARG:NH2	2.50	0.44
82:AR:3538:OHX:N4	82:AR:3728:OHX:N1	2.66	0.44
2:AS:85:G:N7	82:AS:204:OHX:N6	2.66	0.44
3:AT:79:A:H5''	3:AT:80:A:OP2	2.18	0.44
48:B:169:SER:O	48:B:173:ILE:HG12	2.18	0.44
49:C:193:ILE:O	49:C:197:ILE:HG12	2.18	0.44
1:AR:2148:U:O2'	4:CD:182:ALA:HB2	2.16	0.44
6:CF:295:ILE:HG23	6:CF:299:ILE:HD11	1.99	0.44
6:CF:3:ARG:HA	6:CF:4:PRO:HD3	1.80	0.44
7:CG:143:LYS:HE3	7:CG:145:PHE:HZ	1.83	0.44
7:CG:58:LYS:HA	7:CG:93:THR:OG1	2.17	0.44
13:CM:125:MET:HB2	13:CM:125:MET:HE2	1.87	0.44
18:CR:70:THR:CG2	18:CR:81:ALA:HB3	2.46	0.44
20:CT:184:LEU:HA	20:CT:184:LEU:HD23	1.80	0.44
22:CV:14:MET:HE1	22:CV:55:LYS:HB2	2.00	0.44
24:CX:25:CYS:HB3	24:CX:31:ALA:O	2.17	0.44
27:DA:37:LYS:H	27:DA:37:LYS:CE	2.27	0.44
27:DA:71:SER:N	27:DA:81:GLN:O	2.45	0.44
36:DJ:30:GLU:O	36:DJ:34:GLN:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:F:246:LEU:HB3	52:F:250:GLU:CB	2.46	0.44
57:K:143:ILE:HG22	57:K:145:SER:H	1.82	0.44
62:P:16:VAL:HG23	62:P:31:THR:HG23	1.99	0.44
47:A:1547:A:H5'	66:T:112:ASP:OD2	2.17	0.44
66:T:26:ILE:HD11	66:T:31:ALA:N	2.32	0.44
68:V:28:SER:HB2	68:V:112:VAL:HA	2.00	0.44
69:W:40:ASP:HB3	69:W:46:ILE:HD11	1.99	0.44
69:W:68:SER:O	69:W:72:LEU:HG	2.18	0.44
70:X:45:GLY:O	70:X:66:ASN:ND2	2.47	0.44
1:1:2207:A:C2'	1:1:2208:A:H5'	2.47	0.44
1:1:3028:G:H2'	1:1:3029:A:C8	2.53	0.44
2:3:94:C:H2'	2:3:95:A:C8	2.53	0.44
3:4:95:G:OP1	38:AK:76:ASN:ND2	2.47	0.44
24:6:18:PRO:HA	24:6:51:ALA:HA	2.00	0.44
26:8:40:LEU:HA	26:8:40:LEU:HD12	1.83	0.44
47:A:1091:A:N3	47:A:1091:A:H5''	2.32	0.44
47:A:130:C:H2'	47:A:131:C:C6	2.53	0.44
47:A:1435:G:O6	58:L:64:TYR:OH	2.30	0.44
82:A:1853:OHX:N4	82:A:1936:OHX:N1	2.66	0.44
47:A:442:C:H2'	47:A:443:C:H6	1.83	0.44
47:A:788:A:H3'	52:F:108:ARG:NH2	2.33	0.44
47:A:867:G:O6	82:A:1810:OHX:N2	2.51	0.44
28:AA:54:THR:H	28:AA:57:HIS:CD2	2.34	0.44
1:1:40:A:C2	29:AB:40:HIS:CD2	3.05	0.44
37:AJ:45:ARG:NH1	37:AJ:89:GLU:OE1	2.48	0.44
1:AR:953:G:H2'	1:AR:1117:G:H5''	1.99	0.44
1:AR:1155:C:H1'	1:AR:1198:C:O2	2.18	0.44
1:AR:1768:U:H2'	1:AR:1769:G:O4'	2.18	0.44
1:AR:3281:U:H2'	1:AR:3282:U:O4'	2.17	0.44
1:AR:2827:U:O4	82:AR:3403:OHX:N3	2.50	0.44
1:AR:501:A:H2'	1:AR:502:U:H6	1.83	0.44
3:AT:27:U:O5'	3:AT:27:U:H6	2.00	0.44
3:AT:69:U:OP2	82:AT:203:OHX:N5	2.50	0.44
6:CF:269:SER:O	6:CF:270:SER:OG	2.22	0.44
8:CH:154:LEU:HD23	8:CH:154:LEU:HA	1.65	0.44
12:CL:29:SER:HA	12:CL:125:LEU:HD12	1.99	0.44
20:CT:115:ILE:HD11	20:CT:142:ILE:HG23	1.99	0.44
22:CV:124:VAL:HG12	22:CV:125:ALA:H	1.83	0.44
26:CZ:72:ALA:O	26:CZ:75:LYS:N	2.51	0.44
27:DA:50:ILE:HD13	27:DA:51:ARG:N	2.32	0.44
39:DM:41:THR:HG21	39:DM:62:ALA:CB	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:I:103:SER:HB3	55:I:106:SER:HB3	1.99	0.44
56:J:39:GLY:H	56:J:60:ILE:C	2.18	0.44
58:L:3:MET:SD	58:L:8:ARG:NH1	2.91	0.44
60:N:130:THR:O	60:N:132:GLU:N	2.51	0.44
63:Q:126:VAL:HG13	63:Q:127:ARG:N	2.33	0.44
63:Q:56:PHE:CE2	63:Q:60:LEU:HD11	2.52	0.44
72:Z:104:SER:HB3	72:Z:107:GLN:HG3	2.00	0.44
1:1:114:A:H2'	1:1:115:A:O4'	2.18	0.44
1:1:1697:A:H2'	1:1:1698:C:O4'	2.17	0.44
1:1:2801:A:O2'	1:1:2802:A:H2'	2.17	0.44
1:1:2997:G:C1'	1:1:3396:U:H5'	2.48	0.44
1:1:770:G:N7	82:1:3628:OHX:N6	2.66	0.44
1:1:718:G:O6	1:1:751:A:H1'	2.18	0.44
22:2:17:ARG:HG3	22:2:17:ARG:HH11	1.82	0.44
22:2:50:LYS:HB3	22:2:92:ARG:NH1	2.32	0.44
24:6:46:LEU:HD12	24:6:46:LEU:HA	1.62	0.44
47:A:1002:G:H2'	47:A:1003:A:H5'	2.00	0.44
47:A:1178:G:H2'	47:A:1179:G:O4'	2.18	0.44
47:A:1290:U:H2'	47:A:1291:G:C8	2.53	0.44
47:A:1584:G:H5'	64:R:123:ARG:H	1.82	0.44
47:A:1646:C:H2'	47:A:1647:U:C6	2.53	0.44
47:A:27:U:OP1	82:A:1862:OHX:N6	2.51	0.44
47:A:354:C:OP1	56:J:14:THR:OG1	2.25	0.44
47:A:702:G:C6	47:A:737:A:N6	2.86	0.44
28:AA:56:LYS:H	28:AA:56:LYS:HG3	1.53	0.44
22:2:84:TYR:CG	30:AC:24:PRO:HG3	2.52	0.44
33:AF:95:GLU:OE1	33:AF:120:THR:OG1	2.22	0.44
1:AR:1072:G:H1'	1:AR:1087:G:N2	2.33	0.44
1:AR:1240:A:N3	1:AR:1249:G:N2	2.66	0.44
1:AR:1317:A:C4	1:AR:1319:G:N7	2.86	0.44
1:AR:1782:U:H2'	1:AR:1783:U:H6	1.83	0.44
1:AR:2311:G:OP2	82:AR:3479:OHX:N2	2.50	0.44
1:AR:2623:G:C4	1:AR:2624:G:C8	3.05	0.44
1:AR:2718:U:OP1	82:AR:3571:OHX:N3	2.51	0.44
1:AR:2816:G:C8	1:AR:2869:U:H3'	2.53	0.44
1:AR:3170:A:OP2	34:DH:56:SER:OG	2.26	0.44
1:AR:634:C:H5'	34:DH:21:ARG:O	2.18	0.44
12:CL:156:ARG:HD3	12:CL:163:GLN:O	2.18	0.44
18:CR:29:THR:HA	18:CR:32:THR:HG23	1.99	0.44
27:DA:3:LYS:HE2	27:DA:8:VAL:O	2.18	0.44
31:DE:9:SER:OG	31:DE:12:GLN:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:432:G:OP1	34:DH:57:LYS:HB2	2.18	0.44
37:DK:26:ILE:HG13	37:DK:26:ILE:H	1.39	0.44
43:DQ:22:GLN:O	43:DQ:75:VAL:HG22	2.18	0.44
54:H:63:MET:HA	54:H:98:ARG:O	2.18	0.44
57:K:149:ARG:O	57:K:151:ASP:N	2.51	0.44
70:X:103:ILE:HD13	70:X:126:LEU:HB2	1.99	0.44
1:1:1309:U:OP1	82:1:3624:OHX:N5	2.51	0.44
1:1:2209:U:HO2'	1:1:2210:G:P	2.36	0.44
1:1:2331:C:H2'	1:1:2332:A:O4'	2.18	0.44
1:1:3191:G:H2'	1:1:3192:U:O4'	2.18	0.44
1:1:3227:A:H2'	1:1:3228:C:H5'	2.00	0.44
1:1:345:G:OP1	1:1:1429:G:N2	2.48	0.44
82:1:3537:OHX:N6	82:1:3697:OHX:N5	2.66	0.44
1:1:650:C:H2'	1:1:651:G:C8	2.52	0.44
22:2:44:ALA:HB2	22:2:53:PRO:HG2	1.99	0.44
26:8:105:VAL:CG1	26:8:126:LEU:HD22	2.48	0.44
47:A:11:A:C2'	47:A:12:U:H5'	2.48	0.44
47:A:1354:G:C2	47:A:1372:U:C4	3.06	0.44
47:A:144:U:HO2'	47:A:145:A:H8	1.64	0.44
47:A:733:A:O3'	47:A:734:A:H3'	2.16	0.44
36:AI:101:THR:HG22	36:AI:104:GLN:HB2	1.99	0.44
1:AR:1266:G:C6	1:AR:1267:U:C4	3.06	0.44
1:AR:1313:G:H2'	1:AR:1314:C:H6	1.83	0.44
1:AR:3070:A:OP1	20:CT:62:ARG:HD3	2.18	0.44
1:AR:48:A:O4'	1:AR:50:U:C6	2.71	0.44
1:AR:499:G:H2'	1:AR:500:C:H6	1.81	0.44
49:C:48:VAL:HG12	49:C:49:ASN:N	2.32	0.44
4:CD:96:LEU:HD11	4:CD:108:PRO:HD2	1.98	0.44
6:CF:16:THR:HG22	6:CF:18:ASN:N	2.16	0.44
6:CF:3:ARG:HB2	6:CF:21:PRO:HB3	1.99	0.44
7:CG:268:GLU:HA	7:CG:271:LYS:HE2	2.00	0.44
8:CH:34:LEU:HD23	8:CH:34:LEU:HA	1.66	0.44
9:CI:158:LYS:O	9:CI:159:GLN:C	2.56	0.44
14:CN:158:ALA:O	29:DC:124:ILE:HD11	2.18	0.44
14:CN:47:ALA:HB3	14:CN:49:ARG:CB	2.48	0.44
1:AR:1307:G:O4'	17:CQ:60:LYS:HE3	2.18	0.44
21:CU:143:PHE:HA	21:CU:148:LEU:HD22	2.00	0.44
27:DA:112:ASP:H	27:DA:115:ARG:HB2	1.83	0.44
33:DG:24:ARG:HG2	33:DG:25:TYR:CE1	2.53	0.44
1:AR:945:C:OP1	33:DG:33:ARG:HG3	2.17	0.44
35:DI:29:ILE:HD13	35:DI:29:ILE:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DK:34:SER:O	37:DK:37:THR:N	2.50	0.44
53:G:43:PHE:CE2	53:G:90:ILE:HG21	2.53	0.44
53:G:91:GLU:HA	53:G:94:THR:HG23	2.00	0.44
56:J:36:THR:HG23	56:J:96:LEU:O	2.18	0.44
57:K:109:LEU:CB	57:K:146:PHE:HB3	2.40	0.44
47:A:952:A:O2'	61:O:114:ARG:HG3	2.18	0.44
63:Q:13:LYS:HD2	63:Q:13:LYS:HA	1.71	0.44
64:R:47:LYS:NZ	64:R:114:ARG:HG2	2.33	0.44
64:R:91:ALA:O	64:R:94:GLN:HB3	2.17	0.44
1:1:1741:A:C2	1:1:1742:U:C4	3.06	0.43
1:1:2616:C:H2'	1:1:2617:U:H5'	1.99	0.43
1:1:2808:A:OP1	1:1:2808:A:H2'	2.17	0.43
1:1:3019:U:C4	1:1:3020:U:C4	3.06	0.43
1:1:304:G:N3	1:1:304:G:H5'	2.33	0.43
1:1:3018:C:OP2	82:1:3522:OHX:N2	2.51	0.43
1:1:563:U:H2'	1:1:564:G:H8	1.83	0.43
1:1:570:A:H2'	1:1:571:U:O4'	2.18	0.43
1:1:72:C:C2	1:1:74:G:H1'	2.52	0.43
1:1:7:C:H2'	1:1:8:C:C6	2.53	0.43
2:3:13:A:O4'	2:3:112:G:C8	2.71	0.43
3:4:9:A:H2'	3:4:10:A:C8	2.53	0.43
3:4:79:A:C3'	3:4:80:A:H4'	2.47	0.43
3:4:85:G:H3'	3:4:85:G:H8	1.81	0.43
47:A:1228:G:H1	60:N:67:THR:HB	1.83	0.43
47:A:197:A:H2'	47:A:198:A:C8	2.53	0.43
47:A:811:A:H5'	47:A:816:G:O2'	2.18	0.43
40:AM:18:LYS:HG2	40:AM:18:LYS:H	1.61	0.43
1:AR:1000:C:C2	1:AR:1045:C:N4	2.87	0.43
1:AR:1109:U:H2'	1:AR:1110:U:O4'	2.17	0.43
1:AR:1235:U:C4'	1:AR:1236:G:H5'	2.46	0.43
1:AR:1740:U:H4'	1:AR:1741:A:H5'	2.00	0.43
1:AR:2255:A:O2'	1:AR:2256:A:OP1	2.29	0.43
1:AR:2526:C:H42	1:AR:2584:G:H1	1.65	0.43
1:AR:2921:U:H2'	1:AR:2923:U:OP2	2.18	0.43
1:AR:3106:A:H2'	1:AR:3107:U:O4'	2.18	0.43
1:AR:3134:A:OP1	82:AR:3427:OHX:N5	2.50	0.43
82:AR:3526:OHX:N6	82:AR:3709:OHX:N3	2.66	0.43
1:AR:391:A:H2'	1:AR:392:G:O4'	2.18	0.43
1:AR:72:C:C5'	14:CN:63:VAL:HG13	2.48	0.43
2:AS:112:G:OP2	82:AS:205:OHX:N6	2.51	0.43
2:AS:2:G:O2'	2:AS:23:A:N1	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:44:ILE:CD1	4:CD:62:VAL:HG13	2.48	0.43
7:CG:143:LYS:HE3	7:CG:145:PHE:CZ	2.53	0.43
12:CL:36:LEU:HD21	12:CL:69:ARG:HD3	1.99	0.43
14:CN:143:ALA:O	14:CN:146:PRO:HD3	2.18	0.43
18:CR:4:TYR:CZ	18:CR:18:ARG:HG3	2.52	0.43
34:DH:10:LYS:O	34:DH:33:GLU:HB2	2.19	0.43
1:AR:1836:C:H41	40:DN:3:ALA:HB2	1.83	0.43
55:I:96:ARG:CZ	55:I:124:LYS:HB3	2.48	0.43
59:M:75:VAL:HG22	59:M:84:ILE:HD12	2.00	0.43
64:R:12:LYS:HD2	64:R:17:THR:HG22	2.00	0.43
66:T:120:ARG:HA	66:T:120:ARG:HD3	1.77	0.43
68:V:105:GLN:HG3	68:V:106:ILE:N	2.32	0.43
68:V:18:GLN:O	68:V:96:PRO:HA	2.18	0.43
72:Z:63:GLN:HB2	72:Z:68:LYS:HB3	1.99	0.43
1:1:1412:G:OP1	33:AF:105:ARG:NH2	2.51	0.43
1:1:1507:G:N3	1:1:1507:G:H5'	2.33	0.43
1:1:1815:U:O2'	1:1:1816:A:P	2.75	0.43
1:1:2615:G:H2'	1:1:2616:C:C6	2.53	0.43
1:1:2667:A:C2	1:1:2668:U:H1'	2.53	0.43
1:1:2946:A:H5''	1:1:2947:G:H5'	2.00	0.43
1:1:3112:G:O6	1:1:3120:C:H5''	2.18	0.43
1:1:3181:C:H2'	1:1:3182:G:O4'	2.17	0.43
1:1:3350:C:HO2'	1:1:3351:U:P	2.39	0.43
1:1:3364:C:H2'	1:1:3365:U:C6	2.54	0.43
1:1:2605:G:O6	82:1:3494:OHX:N5	2.50	0.43
47:A:1781:A:H2'	47:A:1782:A:O4'	2.18	0.43
47:A:231:U:O2'	47:A:232:U:H5''	2.18	0.43
47:A:263:C:H4'	47:A:292:U:H5'	1.99	0.43
47:A:330:G:N2	47:A:339:C:C2	2.87	0.43
47:A:765:G:H4'	47:A:766:U:OP1	2.18	0.43
35:AH:20:ILE:HD13	35:AH:20:ILE:HA	1.65	0.43
40:AM:6:SER:OG	40:AM:9:ILE:HG12	2.18	0.43
43:AP:99:GLN:OE1	43:AP:102:GLN:HG3	2.18	0.43
1:AR:1495:U:H5	1:AR:1835:A:C2	2.35	0.43
1:AR:3133:C:H2'	1:AR:3134:A:O4'	2.17	0.43
1:AR:517:G:O6	82:AR:3576:OHX:N4	2.51	0.43
1:AR:815:G:C6	1:AR:906:A:C4	3.05	0.43
1:AR:948:C:H2'	1:AR:949:C:C6	2.53	0.43
3:AT:70:G:O6	82:AT:212:OHX:N1	2.52	0.43
4:CD:183:GLY:O	4:CD:186:PHE:HB3	2.18	0.43
4:CD:45:VAL:HG12	4:CD:88:ILE:CD1	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:165:GLN:HG2	5:CE:167:ARG:HH21	1.83	0.43
5:CE:169:THR:HG23	5:CE:171:LEU:H	1.83	0.43
6:CF:22:LEU:HA	6:CF:22:LEU:HD23	1.80	0.43
9:CI:96:PRO:O	9:CI:100:ARG:HB2	2.19	0.43
10:CJ:163:VAL:O	10:CJ:166:LEU:HB2	2.18	0.43
11:CK:90:MET:HG2	11:CK:181:VAL:HA	2.00	0.43
11:CK:85:GLY:HA3	11:CK:187:ILE:HD12	2.00	0.43
11:CK:49:ASN:ND2	11:CK:51:GLN:HB2	2.32	0.43
11:CK:90:MET:HB2	11:CK:144:ILE:HG22	2.00	0.43
14:CN:5:LYS:HG2	14:CN:5:LYS:H	1.28	0.43
17:CQ:85:ARG:HD3	17:CQ:90:HIS:ND1	2.33	0.43
19:CS:60:PRO:HB2	19:CS:142:GLY:HA3	1.99	0.43
20:CT:138:LEU:O	20:CT:138:LEU:HD22	2.19	0.43
36:DJ:13:SER:N	36:DJ:16:GLN:OE1	2.33	0.43
36:DJ:24:LEU:HB3	36:DJ:51:ILE:HG12	2.00	0.43
36:DJ:34:GLN:O	36:DJ:37:SER:N	2.51	0.43
44:DR:3:LYS:HE3	44:DR:3:LYS:HB3	1.64	0.43
52:F:193:GLY:HA3	52:F:210:ILE:HG22	1.99	0.43
52:F:34:GLY:HA3	52:F:83:PRO:HG2	2.00	0.43
53:G:58:LEU:HD13	53:G:138:THR:HA	2.00	0.43
55:I:74:GLN:NE2	55:I:92:PHE:HB2	2.33	0.43
62:P:89:THR:HG21	62:P:126:THR:O	2.18	0.43
53:G:27:THR:HG21	64:R:30:LYS:HE3	2.00	0.43
65:S:99:VAL:CB	65:S:118:PRO:HB2	2.48	0.43
21:O:109:ASP:OD1	21:O:113:ARG:NH1	2.41	0.43
1:1:1257:C:H42	1:1:1261:G:H22	1.67	0.43
1:1:1577:G:H2'	1:1:1578:C:O4'	2.18	0.43
1:1:1580:A:H2'	26:8:33:ARG:HH21	1.84	0.43
1:1:278:U:H2'	1:1:279:U:O4'	2.19	0.43
1:1:1753:G:N7	82:1:3580:OHX:N6	2.66	0.43
1:1:612:U:C2	1:1:613:G:C8	3.06	0.43
24:6:101:VAL:HG11	24:6:114:ILE:HG12	1.99	0.43
47:A:1590:G:OP1	67:U:91:TYR:HB2	2.18	0.43
47:A:17:C:O2'	47:A:1137:A:N6	2.33	0.43
82:A:1885:OHX:N5	82:A:1885:OHX:N3	2.66	0.43
47:A:455:C:H3'	47:A:456:A:H8	1.82	0.43
47:A:685:A:H2'	47:A:686:C:C6	2.52	0.43
1:1:1388:U:O2'	33:AF:99:ASN:O	2.36	0.43
35:AH:44:CYS:SG	35:AH:84:CYS:SG	3.12	0.43
40:AM:23:LEU:HD22	40:AM:24:PRO:HD2	2.00	0.43
1:AR:1635:G:O6	28:DB:17:ARG:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1648:A:H2'	1:AR:1649:U:O4'	2.18	0.43
1:AR:1706:C:H2'	1:AR:1707:A:O4'	2.18	0.43
1:AR:182:U:H2'	1:AR:183:G:C8	2.53	0.43
1:AR:1899:G:O6	82:AR:3736:OHX:N4	2.51	0.43
1:AR:255:A:H2'	1:AR:256:G:C8	2.54	0.43
1:AR:2766:U:H2'	1:AR:2767:U:C6	2.53	0.43
1:AR:3183:A:OP1	17:CQ:37:ARG:NH1	2.50	0.43
1:AR:400:G:H4'	1:AR:401:U:O5'	2.18	0.43
48:B:110:TYR:HA	48:B:115:PHE:CZ	2.53	0.43
48:B:10:THR:OG1	48:B:12:GLU:OE1	2.19	0.43
4:CD:185:ALA:O	4:CD:188:LYS:HB3	2.19	0.43
5:CE:255:TRP:CD1	5:CE:256:HIS:CE1	3.06	0.43
8:CH:138:GLN:HE21	8:CH:142:ASP:CG	2.21	0.43
1:AR:2648:G:OP1	12:CL:24:ARG:NH2	2.49	0.43
17:CQ:106:GLU:HG2	17:CQ:106:GLU:H	1.49	0.43
17:CQ:128:ARG:HA	17:CQ:128:ARG:HD2	1.50	0.43
20:CT:134:HIS:CE1	20:CT:137:ALA:HB2	2.54	0.43
21:CU:14:LEU:HD23	21:CU:14:LEU:HA	1.72	0.43
28:DB:14:VAL:HG12	28:DB:79:HIS:HA	2.00	0.43
31:DE:14:LEU:HD21	31:DE:43:ILE:HD13	2.00	0.43
34:DH:89:LEU:HA	34:DH:90:PRO:HD3	1.85	0.43
39:DM:13:GLU:H	39:DM:13:GLU:HG3	1.64	0.43
52:F:208:VAL:HG11	52:F:225:VAL:HG21	2.00	0.43
52:F:36:HIS:ND1	52:F:85:GLY:HA3	2.33	0.43
54:H:102:VAL:HG13	54:H:106:LEU:HD12	2.01	0.43
55:I:67:LEU:HD12	55:I:94:ALA:HB2	2.00	0.43
55:I:56:LYS:HD2	55:I:88:ARG:NH2	2.33	0.43
56:J:196:LEU:HA	56:J:196:LEU:HD12	1.83	0.43
60:N:61:VAL:HA	60:N:89:ILE:HG22	1.99	0.43
47:A:952:A:H5'	61:O:98:VAL:HG22	1.99	0.43
59:M:101:GLU:OE2	71:Y:16:ARG:NH2	2.52	0.43
21:O:23:LYS:O	21:O:24:LEU:HB2	2.17	0.43
1:1:1061:A:O2'	22:2:102:ARG:HG3	2.17	0.43
1:1:112:U:HO2'	1:1:113:C:P	2.37	0.43
1:1:1595:U:C2	1:1:1596:C:C5	3.06	0.43
1:1:1624:G:H1	1:1:1819:U:H3	1.66	0.43
1:1:999:G:OP2	82:1:3653:OHX:N3	2.52	0.43
1:1:810:A:H2'	1:1:811:U:H6	1.83	0.43
1:1:409:A:H61	3:4:15:G:H1'	1.84	0.43
47:A:1203:A:OP2	82:A:1888:OHX:N1	2.52	0.43
47:A:1323:C:H2'	47:A:1324:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1368:G:C6	47:A:1369:U:C4	3.06	0.43
47:A:1169:G:N1	47:A:1575:G:OP2	2.39	0.43
82:A:1861:OHX:N4	82:A:1863:OHX:N2	2.66	0.43
82:A:1853:OHX:N3	82:A:1936:OHX:N1	2.66	0.43
47:A:278:U:OP1	47:A:279:G:N2	2.50	0.43
47:A:449:C:H2'	47:A:450:U:H6	1.83	0.43
47:A:545:A:N3	47:A:546:U:H1'	2.33	0.43
47:A:703:G:H2'	47:A:704:C:H5'	1.99	0.43
47:A:755:A:H2'	47:A:756:A:O4'	2.19	0.43
47:A:968:U:H2'	47:A:969:C:O4'	2.19	0.43
30:AC:23:LYS:HA	30:AC:23:LYS:HD2	1.80	0.43
1:AR:1263:A:H2'	1:AR:1263:A:N3	2.34	0.43
1:AR:209:A:H4'	1:AR:211:A:C8	2.53	0.43
1:AR:2213:A:H2	1:AR:2601:A:N3	2.17	0.43
1:AR:2610:G:H2'	1:AR:2611:U:O4'	2.18	0.43
1:AR:2617:U:C5	1:AR:2621:G:OP2	2.71	0.43
1:AR:2726:C:O2	1:AR:2726:C:O5'	2.36	0.43
1:AR:3153:U:O2'	82:AR:3716:OHX:N2	2.51	0.43
1:AR:3314:A:OP1	5:CE:173:GLN:O	2.37	0.43
1:AR:1913:A:OP1	82:AR:3451:OHX:N5	2.52	0.43
1:AR:551:A:O2'	1:AR:552:G:H8	2.01	0.43
48:B:71:GLU:HA	48:B:94:GLY:O	2.17	0.43
6:CF:23:PRO:O	6:CF:25:VAL:N	2.52	0.43
9:CI:173:LEU:HD12	9:CI:173:LEU:HA	1.81	0.43
13:CM:166:LYS:HB2	13:CM:166:LYS:HE2	1.72	0.43
16:CP:112:ASN:ND2	16:CP:113:LEU:HD13	2.33	0.43
16:CP:194:GLN:HG2	16:CP:194:GLN:H	1.61	0.43
17:CQ:116:LYS:HE2	21:CU:165:TYR:HB3	2.01	0.43
21:CU:89:ASN:HD21	22:CV:156:TYR:HB3	1.83	0.43
33:DG:55:ILE:HD12	33:DG:55:ILE:HA	1.72	0.43
37:DK:98:ARG:HD2	37:DK:98:ARG:N	2.32	0.43
52:F:104:ASP:OD1	52:F:110:ALA:HB2	2.19	0.43
54:H:21:GLU:O	54:H:25:ARG:HB2	2.19	0.43
63:Q:22:LEU:HD12	63:Q:26:LEU:HD22	2.00	0.43
72:Z:21:LYS:N	72:Z:21:LYS:HD2	2.33	0.43
1:1:108:A:O2'	1:1:109:A:H2'	2.18	0.43
1:1:1576:G:C6	1:1:1577:G:C2	3.07	0.43
1:1:1485:G:C5	82:1:3509:OHX:N1	2.87	0.43
1:1:394:G:N2	1:1:396:A:H3'	2.34	0.43
1:1:627:U:H4'	1:1:1399:A:O2'	2.19	0.43
1:1:629:U:H2'	1:1:630:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:777:U:O4	82:1:3539:OHX:N2	2.52	0.43
26:8:58:ASP:O	26:8:61:LYS:N	2.49	0.43
1:1:216:G:H4'	27:9:19:TYR:CZ	2.54	0.43
47:A:1157:A:H2'	47:A:1160:A:N7	2.34	0.43
47:A:1199:G:N7	68:V:67:THR:HG23	2.33	0.43
47:A:16:G:H2'	47:A:17:C:C6	2.54	0.43
47:A:401:A:H4'	82:A:1941:OHX:N5	2.34	0.43
47:A:312:A:C2	47:A:314:C:H2'	2.54	0.43
47:A:448:C:OP2	52:F:49:ARG:NH2	2.47	0.43
47:A:834:G:C6	47:A:835:U:C4	3.07	0.43
33:AF:4:LEU:HA	33:AF:4:LEU:HD12	1.78	0.43
1:AR:1055:A:H4'	2:AS:100:C:O2	2.19	0.43
1:AR:2158:A:O4'	1:AR:2160:G:C8	2.71	0.43
1:AR:3242:G:N2	1:AR:3245:A:H5''	2.31	0.43
1:AR:3329:U:H5''	5:CE:308:MET:CE	2.47	0.43
1:AR:517:G:H5'	9:CI:67:ARG:NH2	2.33	0.43
1:AR:90:C:C2'	1:AR:91:G:H5'	2.49	0.43
1:AR:929:A:H2'	1:AR:930:U:C6	2.53	0.43
2:AS:19:C:H2'	2:AS:20:A:C8	2.54	0.43
49:C:128:LYS:HG2	49:C:129:THR:H	1.83	0.43
4:CD:201:GLY:O	4:CD:204:MET:HG2	2.18	0.43
6:CF:12:THR:HA	6:CF:171:ALA:HB1	2.00	0.43
6:CF:139:GLY:O	6:CF:141:ARG:NH1	2.50	0.43
6:CF:99:MET:SD	6:CF:102:PRO:HA	2.58	0.43
7:CG:115:LEU:HD22	7:CG:115:LEU:H	1.82	0.43
14:CN:53:LEU:HA	14:CN:53:LEU:HD23	1.77	0.43
21:CU:13:ARG:O	21:CU:22:PRO:HG2	2.18	0.43
50:D:55:GLU:OE1	50:D:239:PRO:HG3	2.18	0.43
28:DB:54:THR:HG22	28:DB:57:HIS:CE1	2.53	0.43
31:DE:45:ALA:O	31:DE:48:THR:OG1	2.37	0.43
36:DJ:6:ALA:HB1	36:DJ:10:ARG:NH2	2.34	0.43
82:AR:3503:OHX:N2	42:DP:23:ARG:HA	2.34	0.43
53:G:147:THR:OG1	53:G:148:ARG:N	2.52	0.43
53:G:163:SER:O	53:G:167:ARG:HB2	2.17	0.43
53:G:79:ASN:H	53:G:79:ASN:ND2	2.17	0.43
54:H:10:ASN:OD1	54:H:10:ASN:N	2.51	0.43
54:H:61:PHE:CE1	54:H:96:SER:HB2	2.53	0.43
55:I:170:GLN:HA	55:I:181:ILE:CG2	2.49	0.43
55:I:10:SER:HB2	55:I:42:GLN:NE2	2.33	0.43
55:I:67:LEU:HD23	55:I:67:LEU:HA	1.81	0.43
58:L:49:LEU:HB3	58:L:55:VAL:HG11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:L:88:PRO:C	58:L:90:THR:H	2.22	0.43
61:O:36:GLN:HB2	61:O:36:GLN:HE21	1.64	0.43
62:P:25:ASP:OD1	62:P:26:THR:N	2.52	0.43
71:Y:53:VAL:HG23	71:Y:100:ASP:O	2.19	0.43
71:Y:6:PRO:HG3	71:Y:14:LYS:CG	2.46	0.43
21:O:17:GLU:O	21:O:20:PRO:HD3	2.18	0.43
1:1:196:G:C2	1:1:199:A:C8	3.07	0.43
1:1:2353:G:C5	1:1:2354:C:C5	3.06	0.43
1:1:241:G:O2'	1:1:242:C:H5'	2.18	0.43
1:1:3286:G:H3'	1:1:3287:U:H5''	2.01	0.43
2:3:3:U:H2'	2:3:4:U:H6	1.83	0.43
3:4:127:U:C2'	3:4:128:U:H5'	2.48	0.43
24:6:118:VAL:O	24:6:137:VAL:N	2.47	0.43
24:6:81:GLN:HB3	24:6:81:GLN:HE21	1.58	0.43
26:8:82:LEU:HD12	26:8:126:LEU:HD21	2.01	0.43
27:9:40:ARG:O	27:9:44:GLY:N	2.50	0.43
47:A:1308:G:C6	47:A:1309:C:C4	3.06	0.43
47:A:1500:C:OP1	67:U:106:GLN:NE2	2.43	0.43
47:A:1580:C:H2'	47:A:1581:C:C6	2.52	0.43
47:A:529:A:H2'	47:A:530:C:O4'	2.18	0.43
47:A:611:U:OP1	71:Y:19:ARG:NH2	2.52	0.43
35:AH:7:PHE:HE1	35:AH:20:ILE:HG12	1.82	0.43
1:AR:116:A:OP1	37:DK:36:ARG:NH1	2.52	0.43
1:AR:1440:G:H2'	1:AR:1441:G:H8	1.84	0.43
1:AR:1915:A:H2'	1:AR:1916:U:C6	2.54	0.43
1:AR:3197:G:C2	1:AR:3199:G:C5	3.07	0.43
1:AR:54:C:O2'	1:AR:1547:G:H1'	2.19	0.43
1:AR:703:G:O2'	1:AR:787:G:H4'	2.18	0.43
1:AR:909:G:O2'	82:AR:3581:OHX:N2	2.51	0.43
2:AS:11:A:H8	7:CG:18:THR:HG1	1.65	0.43
1:AR:1347:U:H5''	6:CF:303:GLY:H	1.84	0.43
6:CF:343:LYS:HE2	6:CF:343:LYS:HB2	1.75	0.43
8:CH:52:VAL:CG1	8:CH:65:ILE:HG13	2.48	0.43
11:CK:28:VAL:HG22	11:CK:33:THR:HB	2.01	0.43
13:CM:112:LEU:HD11	13:CM:127:PHE:HZ	1.82	0.43
13:CM:35:LYS:O	13:CM:39:GLN:HG2	2.19	0.43
17:CQ:124:LEU:HA	17:CQ:124:LEU:HD12	1.86	0.43
17:CQ:189:ASP:O	17:CQ:193:GLN:HG3	2.17	0.43
1:AR:1718:G:H4'	20:CT:117:LYS:HD3	2.00	0.43
20:CT:90:PRO:HB2	20:CT:93:VAL:HG23	2.00	0.43
21:CU:78:TRP:CZ3	21:CU:125:LYS:HG2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CX:5:GLY:O	24:CX:7:GLN:HG2	2.18	0.43
1:AR:1831:U:OP2	26:CZ:92:LYS:HD2	2.19	0.43
50:D:178:ILE:HB	50:D:185:LYS:HG3	2.00	0.43
30:DD:23:LYS:HD2	30:DD:23:LYS:HA	1.82	0.43
42:DP:8:LYS:HD3	42:DP:12:ARG:NH2	2.34	0.43
53:G:107:LYS:HG2	53:G:111:VAL:HG23	1.99	0.43
54:H:58:LYS:HG2	54:H:105:ASP:O	2.18	0.43
57:K:41:GLU:OE1	57:K:126:ARG:NH2	2.52	0.43
61:O:28:LEU:HB2	61:O:32:SER:OG	2.19	0.43
61:O:40:TYR:CZ	61:O:53:LEU:HD23	2.53	0.43
63:Q:86:VAL:O	63:Q:89:MET:HG3	2.19	0.43
63:Q:87:PRO:HA	63:Q:90:ILE:HG13	1.99	0.43
1:1:1787:A:N6	1:1:1788:C:C4	2.87	0.43
1:1:22:G:O2'	1:1:23:A:H5'	2.19	0.43
82:1:3505:OHX:N6	82:1:3683:OHX:N6	2.67	0.43
82:1:3613:OHX:N4	82:1:3677:OHX:N4	2.67	0.43
82:1:3585:OHX:N3	82:1:3687:OHX:N5	2.66	0.43
1:1:637:C:HO2'	1:1:638:C:C5'	2.31	0.43
1:1:3043:C:OP2	24:6:48:ARG:NH2	2.52	0.43
26:8:38:LEU:CD1	26:8:40:LEU:HD13	2.48	0.43
27:9:34:PRO:HG2	27:9:105:VAL:HG23	1.99	0.43
47:A:1391:A:H2'	47:A:1392:U:C6	2.54	0.43
47:A:1480:G:H3'	47:A:1481:C:C6	2.53	0.43
47:A:1499:G:C6	47:A:1500:C:C4	3.07	0.43
47:A:304:U:H2'	47:A:305:C:C6	2.53	0.43
47:A:449:C:O2'	47:A:450:U:H5'	2.19	0.43
47:A:455:C:H3'	47:A:456:A:C8	2.53	0.43
47:A:783:G:HO2'	47:A:784:C:H6	1.64	0.43
29:AB:74:ASN:CB	29:AB:115:LYS:HB2	2.48	0.43
31:AD:73:GLY:O	31:AD:76:GLU:HG2	2.19	0.43
32:AE:14:ILE:HG13	32:AE:19:ARG:NH1	2.34	0.43
1:AR:191:U:H2'	1:AR:192:C:C6	2.54	0.43
1:AR:3049:A:C2	5:CE:75:ALA:HB2	2.54	0.43
1:AR:595:G:C8	1:AR:609:G:C6	3.06	0.43
1:AR:75:G:H5'	14:CN:59:ARG:O	2.18	0.43
3:AT:17:A:H2'	3:AT:18:U:O4'	2.19	0.43
4:CD:170:ALA:HB2	44:DR:65:ALA:HB1	2.01	0.43
1:AR:824:C:H5''	4:CD:21:ARG:HD3	2.01	0.43
6:CF:184:SER:CB	6:CF:202:ARG:HG2	2.49	0.43
2:AS:16:U:P	7:CG:8:LYS:HZ3	2.41	0.43
12:CL:176:LEU:HD12	12:CL:181:TYR:HD1	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:36:LEU:N	12:CL:36:LEU:HD12	2.34	0.43
1:AR:767:U:H5'	14:CN:186:ARG:NH2	2.34	0.43
22:CV:54:HIS:CE1	22:CV:55:LYS:HG2	2.53	0.43
14:CN:165:SER:H	29:DC:139:ARG:HH21	1.67	0.43
34:DH:16:TYR:OH	34:DH:91:ALA:HB2	2.19	0.43
52:F:15:PRO:HG2	52:F:18:TRP:CE2	2.54	0.43
53:G:178:GLY:HA3	53:G:209:TYR:CD1	2.54	0.43
57:K:123:HIS:O	57:K:127:VAL:HG23	2.18	0.43
47:A:1073:G:H4'	61:O:10:GLY:HA2	2.01	0.43
71:Y:33:LEU:HA	71:Y:33:LEU:HD23	1.74	0.43
1:1:1667:A:H2'	1:1:1668:G:C8	2.54	0.43
1:1:202:G:N7	82:1:3478:OHX:N1	2.66	0.43
1:1:2443:A:N6	1:1:2504:U:N3	2.67	0.43
1:1:2556:C:O2'	28:AA:135:ARG:NE	2.37	0.43
82:1:3562:OHX:N2	82:1:3673:OHX:N5	2.67	0.43
1:1:2582:C:OP1	82:1:3675:OHX:N3	2.52	0.43
1:1:725:G:C6	1:1:746:A:C6	3.07	0.43
3:4:113:U:H5''	40:AM:7:PHE:HB3	2.01	0.43
3:4:120:C:H2'	3:4:121:U:O4'	2.18	0.43
26:8:80:ASN:ND2	26:8:126:LEU:HB2	2.25	0.43
47:A:1297:G:N2	47:A:1300:A:OP2	2.51	0.43
47:A:1361:U:O2	47:A:1362:U:H3'	2.18	0.43
47:A:1424:A:H2'	47:A:1425:A:C8	2.54	0.43
47:A:1469:A:H2'	47:A:1470:C:C6	2.54	0.43
42:AO:2:ARG:NH1	47:A:1773:C:OP2	2.45	0.43
47:A:358:U:OP2	82:A:1866:OHX:N4	2.52	0.43
47:A:480:G:H1	47:A:509:G:H1'	1.83	0.43
47:A:717:C:H2'	47:A:718:U:H5''	2.01	0.43
36:AI:49:LYS:HA	36:AI:49:LYS:HD3	1.76	0.43
37:AJ:25:LYS:HD3	37:AJ:28:TYR:CE1	2.40	0.43
39:AL:58:ASP:OD2	39:AL:61:LYS:N	2.40	0.43
40:AM:29:LEU:HA	40:AM:29:LEU:HD12	1.89	0.43
1:AR:1252:A:H2'	1:AR:1253:U:H5'	2.00	0.43
1:AR:2885:C:C2'	1:AR:2886:U:H5'	2.49	0.43
1:AR:2904:U:H2'	1:AR:2905:U:C6	2.54	0.43
1:AR:3349:C:H42	1:AR:3356:G:H1	1.66	0.43
82:AR:3513:OHX:N3	82:AR:3693:OHX:N5	2.66	0.43
1:AR:2230:C:OP2	82:AR:3714:OHX:N4	2.52	0.43
1:AR:694:C:OP2	6:CF:118:LYS:HE2	2.19	0.43
3:AT:120:C:H2'	3:AT:121:U:O4'	2.19	0.43
49:C:198:GLU:HG3	49:C:199:ASN:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:153:LYS:HD3	5:CE:154:TYR:CE2	2.53	0.43
7:CG:297:GLN:O	82:CG:302:OHX:N2	2.52	0.43
14:CN:53:LEU:HB2	14:CN:55:ARG:NH1	2.33	0.43
1:AR:2433:U:C1'	16:CP:125:SER:HB3	2.47	0.43
18:CR:168:LEU:HG	18:CR:168:LEU:H	1.57	0.43
27:DA:48:LEU:HD23	27:DA:48:LEU:HA	1.81	0.43
28:DB:4:PHE:CE2	31:DE:63:SER:HB3	2.53	0.43
35:DI:46:ASP:OD1	35:DI:80:ARG:NH1	2.52	0.43
36:DJ:28:LEU:HD13	36:DJ:32:LYS:HE2	2.00	0.43
52:F:121:TYR:CD2	52:F:161:LYS:HE3	2.54	0.43
54:H:98:ARG:NH2	54:H:101:ILE:O	2.40	0.43
55:I:15:GLU:O	55:I:19:GLN:HG2	2.19	0.43
55:I:21:ALA:O	55:I:24:PHE:HB2	2.19	0.43
60:N:27:ALA:O	60:N:31:VAL:HG23	2.19	0.43
64:R:66:ARG:NH2	64:R:68:ARG:HD3	2.33	0.43
1:1:2580:A:H8	1:1:2580:A:OP1	2.01	0.43
1:1:2585:G:C2	3:4:151:C:C5	3.06	0.43
1:1:3242:G:H5'	1:1:3245:A:N3	2.34	0.43
1:1:929:A:H2'	1:1:930:U:C6	2.54	0.43
1:1:1618:G:H4'	3:4:129:C:H1'	2.00	0.43
26:8:142:ILE:HD13	26:8:142:ILE:HA	1.81	0.43
47:A:46:A:N1	47:A:432:G:O2'	2.41	0.43
28:AA:46:ILE:HD11	28:AA:48:ARG:C	2.38	0.43
1:1:750:G:P	30:AC:40:ARG:HH21	2.41	0.43
34:AG:88:ASN:OD1	82:AG:201:OHX:N1	2.52	0.43
1:AR:2592:G:H4'	1:AR:2594:C:C2	2.53	0.43
1:AR:2687:G:OP1	7:CG:8:LYS:HE3	2.18	0.43
1:AR:3041:U:H2'	1:AR:3042:U:C6	2.54	0.43
1:AR:3059:G:H4'	1:AR:3373:U:O2'	2.19	0.43
1:AR:339:C:OP1	1:AR:1380:G:O2'	2.30	0.43
82:AR:3533:OHX:N3	82:AR:3735:OHX:N6	2.67	0.43
82:AR:3696:OHX:N3	38:DL:56:ARG:O	2.52	0.43
1:AR:77:A:OP2	14:CN:73:ARG:HD2	2.18	0.43
48:B:109:ASN:O	48:B:112:THR:HG22	2.19	0.43
4:CD:225:ILE:HD13	4:CD:225:ILE:HA	1.72	0.43
5:CE:66:LYS:HZ1	24:CX:120:LYS:HD3	1.83	0.43
9:CI:163:LEU:HD23	9:CI:163:LEU:HA	1.87	0.43
10:CJ:157:VAL:HG11	10:CJ:162:LEU:HB2	2.00	0.43
10:CJ:214:LEU:HA	10:CJ:214:LEU:HD12	1.89	0.43
10:CJ:75:ILE:HG13	16:CP:18:VAL:HG23	1.99	0.43
18:CR:109:ALA:HA	18:CR:112:LEU:HD22	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:95:LEU:HD23	18:CR:95:LEU:HA	1.81	0.43
19:CS:147:ARG:HB2	19:CS:150:VAL:HG13	2.00	0.43
1:AR:1065:A:N3	30:DD:28:LYS:HG2	2.33	0.43
1:AR:634:C:O2'	33:DG:47:ARG:HD3	2.19	0.43
35:DI:42:PRO:HG2	35:DI:54:ILE:HG21	2.01	0.43
51:E:29:LEU:HB2	51:E:34:TYR:HB2	2.01	0.43
52:F:120:SER:O	52:F:164:LEU:HB2	2.19	0.43
53:G:25:LEU:H	53:G:25:LEU:HD22	1.84	0.43
56:J:89:GLU:OE1	56:J:92:ARG:NH2	2.48	0.43
59:M:53:TYR:OH	59:M:58:CYS:SG	2.58	0.43
65:S:71:PHE:HE2	65:S:73:LEU:HD22	1.84	0.43
70:X:52:TYR:HE1	70:X:54:ASP:HB2	1.83	0.43
1:1:1121:U:C4	1:1:1122:U:C4	3.07	0.43
1:1:1266:G:C2	1:1:1276:U:C2	3.06	0.43
1:1:1348:U:O4'	1:1:1349:G:N2	2.52	0.43
1:1:1400:G:C2	1:1:1401:A:C8	3.07	0.43
1:1:1659:U:H2'	1:1:1660:C:C6	2.54	0.43
1:1:1725:C:H2'	1:1:1726:C:H6	1.84	0.43
1:1:2254:U:H2'	1:1:2261:G:N2	2.34	0.43
1:1:251:G:C6	1:1:253:A:C6	3.06	0.43
1:1:2875:U:O2'	1:1:2876:C:O5'	2.36	0.43
1:1:2885:C:O2'	1:1:2886:U:H5'	2.19	0.43
1:1:2897:A:H2'	1:1:2899:C:H5'	2.00	0.43
1:1:3153:U:O2	1:1:3158:G:N1	2.52	0.43
82:1:3595:OHX:N3	82:1:3699:OHX:N5	2.66	0.43
1:1:913:A:H2	1:1:2134:G:N3	2.16	0.43
22:2:83:ARG:HH11	22:2:85:LEU:HD21	1.81	0.43
24:6:79:VAL:HG22	24:6:99:ALA:O	2.19	0.43
25:7:17:ARG:HA	25:7:17:ARG:HD3	1.39	0.43
26:8:67:ILE:HD12	26:8:121:LYS:HG3	2.00	0.43
26:8:34:LEU:HD22	26:8:35:PRO:HD2	2.00	0.43
27:9:63:LYS:O	27:9:66:GLN:HG3	2.19	0.43
47:A:1320:U:O2	47:A:1322:A:H5'	2.19	0.43
47:A:337:G:H3'	59:M:133:LYS:HB2	1.99	0.43
47:A:435:C:H2'	47:A:436:A:O4'	2.19	0.43
47:A:95:G:C2	47:A:96:G:H1'	2.54	0.43
28:AA:23:VAL:HB	28:AA:43:VAL:HB	2.01	0.43
28:AA:34:LYS:HD2	28:AA:34:LYS:HA	1.84	0.43
28:AA:51:LEU:HD12	28:AA:65:ARG:HD2	2.01	0.43
29:AB:24:LYS:HD2	29:AB:26:ARG:CZ	2.48	0.43
33:AF:126:LEU:HD23	33:AF:126:LEU:HA	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AI:83:LYS:O	36:AI:84:LYS:C	2.58	0.43
1:AR:1506:A:H1'	1:AR:1848:G:C6	2.54	0.43
1:AR:1554:U:H4'	1:AR:1555:U:OP1	2.19	0.43
1:AR:1646:G:N3	1:AR:1808:G:C2	2.86	0.43
1:AR:1784:G:C6	1:AR:1785:U:C4	3.06	0.43
1:AR:2294:U:OP2	24:CX:71:LYS:NZ	2.43	0.43
1:AR:529:A:H2'	1:AR:530:G:O4'	2.19	0.43
1:AR:663:C:H2'	1:AR:664:U:H6	1.83	0.43
48:B:125:ASP:OD1	48:B:127:ARG:HB3	2.19	0.43
7:CG:55:PHE:CZ	7:CG:158:ARG:HG3	2.53	0.43
7:CG:187:THR:O	7:CG:189:GLU:N	2.52	0.43
8:CH:90:LYS:HE3	8:CH:90:LYS:HB2	1.61	0.43
19:CS:11:LYS:HB3	19:CS:11:LYS:HE2	1.57	0.43
20:CT:106:LEU:HD21	20:CT:123:LEU:HB2	2.01	0.43
33:DG:76:VAL:HG21	33:DG:94:ALA:HB1	2.01	0.43
16:CP:9:GLU:CD	37:DK:41:ARG:HG2	2.39	0.43
40:DN:3:ALA:HA	40:DN:5:LYS:NZ	2.33	0.43
51:E:5:ILE:HG22	51:E:6:SER:H	1.84	0.43
53:G:94:THR:OG1	53:G:95:ASN:N	2.52	0.43
57:K:13:SER:O	57:K:43:TYR:HB3	2.19	0.43
2:3:7:G:O3'	59:M:33:ARG:NH2	195.11	0.43
63:Q:111:MET:HG2	66:T:119:ILE:HG23	2.01	0.43
64:R:52:LEU:HD23	64:R:52:LEU:HA	2.51	0.43
66:T:18:LEU:HD21	66:T:70:VAL:HG13	2.00	0.43
70:X:29:PRO:HB2	70:X:58:SER:HB2	2.01	0.43
1:1:1460:A:H2'	1:1:1461:A:H8	1.83	0.42
1:1:1492:G:O3'	40:AM:48:LYS:NZ	2.52	0.42
1:1:1560:G:N1	1:1:1561:G:C5	2.87	0.42
1:1:1594:A:H1'	1:1:1615:C:H1'	2.00	0.42
1:1:3056:U:H1'	1:1:3058:U:O5'	2.18	0.42
1:1:3175:U:OP1	34:AG:10:LYS:HE2	2.18	0.42
82:1:3541:OHX:N1	82:1:3697:OHX:N2	2.67	0.42
27:9:74:TYR:CD1	27:9:77:LYS:HG3	2.54	0.42
47:A:1291:G:H1	47:A:1324:G:H1	1.67	0.42
47:A:1370:U:H4'	47:A:1371:A:O5'	2.19	0.42
47:A:1477:G:O2'	67:U:47:PRO:HA	2.20	0.42
47:A:1619:C:H2'	47:A:1620:C:H6	1.83	0.42
47:A:1698:G:H22	47:A:1703:C:H42	1.67	0.42
47:A:1732:A:H2'	47:A:1733:C:C6	2.54	0.42
47:A:387:A:OP2	82:A:1941:OHX:N4	2.51	0.42
47:A:241:U:H5'	47:A:242:U:OP2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:631:G:H2'	47:A:632:U:C6	2.54	0.42
47:A:701:U:H3	47:A:737:A:H61	1.66	0.42
47:A:711:U:H1'	47:A:712:G:H8	1.82	0.42
28:AA:23:VAL:HA	28:AA:45:GLY:HA2	2.00	0.42
1:AR:1109:U:H2'	1:AR:1110:U:C6	2.54	0.42
1:AR:1722:U:OP1	20:CT:100:ARG:NH1	2.51	0.42
1:AR:2192:C:H2'	1:AR:2193:U:O4'	2.19	0.42
1:AR:241:G:O2'	1:AR:242:C:H5'	2.19	0.42
1:AR:3170:A:N6	1:AR:3171:U:O4	2.51	0.42
1:AR:603:A:O2'	1:AR:604:G:OP1	2.27	0.42
1:AR:978:G:O2'	1:AR:979:U:C2	2.71	0.42
3:AT:104:A:H3'	3:AT:105:A:H5''	2.00	0.42
4:CD:143:GLU:O	4:CD:145:LYS:N	2.52	0.42
5:CE:37:ARG:HA	5:CE:186:GLY:HA2	1.99	0.42
5:CE:24:SER:O	5:CE:220:VAL:HG21	2.18	0.42
6:CF:313:LEU:HD12	6:CF:315:LYS:HE3	2.00	0.42
8:CH:42:LEU:HD23	8:CH:84:VAL:HG22	1.99	0.42
14:CN:67:ARG:HG3	14:CN:67:ARG:H	1.52	0.42
16:CP:172:ARG:CZ	16:CP:174:ILE:HD11	2.49	0.42
18:CR:41:LEU:HD22	18:CR:41:LEU:O	2.19	0.42
25:CY:57:LYS:HB2	25:CY:57:LYS:HE3	1.65	0.42
48:B:119:ARG:NH1	50:D:241:ASP:OD1	2.51	0.42
50:D:41:LEU:HD11	50:D:56:ILE:HD13	2.01	0.42
28:DB:23:VAL:HG12	28:DB:45:GLY:HA3	2.00	0.42
28:DB:81:LEU:HD22	28:DB:82:PRO:HD2	2.01	0.42
51:E:14:ASP:O	51:E:17:PHE:HB3	2.19	0.42
52:F:44:LEU:HD23	52:F:44:LEU:HA	1.77	0.42
52:F:61:VAL:O	52:F:65:LEU:HD12	2.18	0.42
54:H:58:LYS:O	54:H:59:GLN:HB2	2.18	0.42
59:M:3:THR:OG1	59:M:82:ARG:NE	2.48	0.42
67:U:138:GLN:O	67:U:141:GLU:HB2	2.19	0.42
47:A:567:A:O2'	71:Y:90:ASP:OD1	2.30	0.42
1:1:1560:G:C2	1:1:1580:A:N1	2.87	0.42
1:1:1728:G:H5''	1:1:1730:G:O4'	2.19	0.42
1:1:2623:G:H2'	1:1:2624:G:C8	2.54	0.42
1:1:2842:U:C5	1:1:2843:U:C5	3.07	0.42
1:1:3096:C:H2'	1:1:3097:C:C6	2.54	0.42
1:1:3:U:C2	3:4:157:U:C2	3.07	0.42
2:3:42:A:C5	2:3:43:U:C5	3.07	0.42
3:4:88:A:H2'	3:4:89:A:O4'	2.19	0.42
47:A:1060:U:H2'	47:A:1061:A:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1246:C:H5''	82:A:1926:OHX:N6	2.35	0.42
82:A:1822:OHX:N2	82:A:1876:OHX:N2	2.67	0.42
47:A:852:C:N3	47:A:853:G:C5	2.87	0.42
34:AG:38:PRO:HD3	34:AG:77:ASN:O	2.19	0.42
35:AH:44:CYS:SG	35:AH:81:CYS:HB3	2.59	0.42
36:AI:105:ARG:O	36:AI:109:ILE:HG13	2.18	0.42
38:AK:39:TYR:CD1	38:AK:40:PRO:HA	2.53	0.42
44:AQ:45:LYS:HB2	44:AQ:45:LYS:HE3	1.80	0.42
1:AR:3174:A:OP1	34:DH:97:SER:OG	2.16	0.42
1:AR:1114:U:O4	82:AR:3734:OHX:N3	2.52	0.42
1:AR:996:A:H2'	1:AR:997:A:O4'	2.19	0.42
1:AR:2550:U:C5	4:CD:40:TYR:CE1	3.07	0.42
11:CK:48:VAL:HG11	11:CK:52:LEU:HD13	2.01	0.42
12:CL:188:GLY:H	12:CL:216:TYR:HD1	1.66	0.42
16:CP:100:ALA:O	16:CP:104:GLU:HB2	2.19	0.42
17:CQ:51:LYS:HE2	17:CQ:144:SER:HB2	2.01	0.42
6:CF:299:ILE:HG22	19:CS:39:ARG:HD2	2.00	0.42
37:DK:74:LYS:HD2	37:DK:80:PHE:CD1	2.54	0.42
51:E:21:LEU:HD23	51:E:21:LEU:HA	1.81	0.42
52:F:126:VAL:HG13	52:F:158:ASP:O	2.19	0.42
53:G:45:LYS:HE3	53:G:45:LYS:HA	2.00	0.42
55:I:64:VAL:H	55:I:65:PRO:HD2	1.84	0.42
56:J:8:ARG:NH2	56:J:19:ALA:O	2.45	0.42
56:J:41:LYS:HA	56:J:59:ARG:O	2.20	0.42
60:N:129:GLU:OE2	60:N:130:THR:HG23	2.19	0.42
62:P:108:SER:OG	62:P:108:SER:O	2.30	0.42
69:W:16:LYS:HB2	69:W:16:LYS:HE3	1.81	0.42
70:X:27:ILE:HD11	70:X:61:ILE:HD12	2.00	0.42
1:1:1093:A:C2	1:1:1096:U:N3	2.87	0.42
1:1:1560:G:C6	1:1:1561:G:N7	2.87	0.42
1:1:963:G:O5'	1:1:963:G:H8	2.02	0.42
1:1:13:A:H4'	26:8:39:LYS:HG2	2.00	0.42
47:A:1022:C:H4'	47:A:1125:A:H61	1.83	0.42
47:A:1140:G:N7	82:A:1843:OHX:N6	2.67	0.42
47:A:1195:C:N4	64:R:143:ARG:HA	2.35	0.42
47:A:1498:G:H1	47:A:1509:C:H42	1.67	0.42
47:A:1561:U:H4'	47:A:1599:C:H4'	2.01	0.42
47:A:1726:G:O6	82:A:1876:OHX:N3	2.51	0.42
47:A:229:U:H2'	47:A:230:C:C6	2.54	0.42
47:A:415:C:O2'	47:A:416:A:H2'	2.20	0.42
47:A:623:A:OP2	82:A:1931:OHX:N6	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:67:A:O3'	47:A:68:A:H3'	2.19	0.42
1:1:1807:G:H5''	28:AA:135:ARG:HH22	1.84	0.42
1:AR:1948:G:C2	1:AR:1949:G:C8	3.08	0.42
1:AR:1913:A:N3	1:AR:2120:A:H2'	2.35	0.42
1:AR:503:C:H2'	1:AR:504:A:H8	1.83	0.42
48:B:188:LEU:CD1	48:B:189:VAL:H	2.32	0.42
49:C:30:PHE:HD1	49:C:96:LEU:HD22	1.84	0.42
4:CD:54:ARG:HG2	4:CD:55:GLY:N	2.34	0.42
4:CD:60:LYS:HB3	4:CD:73:GLU:OE2	2.19	0.42
5:CE:169:THR:HG23	5:CE:171:LEU:HG	2.01	0.42
5:CE:37:ARG:CA	5:CE:186:GLY:HA2	2.49	0.42
1:AR:610:G:C8	6:CF:312:VAL:HG21	2.54	0.42
9:CI:166:ASN:OD1	9:CI:181:ILE:N	2.51	0.42
11:CK:110:LYS:O	11:CK:128:VAL:HB	2.19	0.42
19:CS:99:THR:O	19:CS:99:THR:OG1	2.33	0.42
1:AR:633:C:H1'	34:DH:23:ASN:ND2	2.34	0.42
36:DJ:53:CYS:O	36:DJ:57:VAL:HG23	2.19	0.42
52:F:194:THR:O	52:F:195:ILE:HB	2.19	0.42
53:G:150:GLY:C	53:G:152:GLY:H	2.23	0.42
47:A:856:A:N9	55:I:64:VAL:HG21	2.33	0.42
47:A:1217:A:O5'	58:L:1:MET:HG3	2.19	0.42
60:N:97:LEU:HA	60:N:100:TRP:CE3	2.54	0.42
47:A:959:U:C6	61:O:61:THR:HB	2.55	0.42
67:U:7:ARG:NH1	67:U:67:MET:HG3	2.33	0.42
72:Z:60:PHE:H	72:Z:71:GLY:HA2	1.84	0.42
21:O:1:MET:HE2	21:O:1:MET:HB3	1.81	0.42
21:O:23:LYS:HB3	21:O:25:PHE:CE1	2.54	0.42
21:O:40:ARG:O	21:O:43:TYR:HB3	2.20	0.42
1:1:1112:A:H2'	1:1:1113:G:C8	2.54	0.42
1:1:1478:C:H2'	1:1:1479:U:H6	1.85	0.42
1:1:1581:C:H2'	1:1:1582:C:C5'	2.49	0.42
1:1:2369:G:H2'	1:1:2370:G:O4'	2.19	0.42
1:1:245:U:H2'	1:1:246:U:C6	2.54	0.42
82:1:3562:OHX:N6	82:1:3673:OHX:N3	2.67	0.42
82:1:3585:OHX:N3	82:1:3687:OHX:N3	2.67	0.42
1:1:839:C:H2'	1:1:840:C:H6	1.84	0.42
47:A:359:A:C2	71:Y:38:PHE:HB3	2.54	0.42
47:A:647:G:H22	47:A:687:G:N2	2.18	0.42
47:A:853:G:C8	47:A:854:U:H5	2.37	0.42
47:A:883:C:H2'	47:A:884:A:H8	1.84	0.42
47:A:929:A:C1'	62:P:124:ASP:H	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AB:112:ILE:HD13	29:AB:112:ILE:HA	1.75	0.42
31:AD:24:THR:CG2	31:AD:91:SER:HB3	2.49	0.42
3:4:51:G:C8	40:AM:27:ILE:HD11	2.55	0.42
1:AR:1176:C:H2'	1:AR:1177:G:N2	2.33	0.42
1:AR:128:G:H2'	1:AR:129:U:O4'	2.19	0.42
1:AR:1414:G:N7	82:AR:3648:OHX:N5	2.68	0.42
1:AR:1393:A:C8	1:AR:1418:A:C6	3.07	0.42
82:AR:3503:OHX:N4	82:AR:3593:OHX:N1	2.67	0.42
1:AR:434:U:H2'	1:AR:435:C:C6	2.54	0.42
1:AR:602:A:H2'	1:AR:603:A:C8	2.54	0.42
4:CD:41:ILE:HG12	4:CD:63:PHE:HD2	1.85	0.42
5:CE:148:LEU:HD12	5:CE:148:LEU:HA	1.84	0.42
8:CH:52:VAL:HG13	8:CH:65:ILE:HG13	2.02	0.42
1:AR:1334:U:OP1	9:CI:206:LYS:HB3	2.19	0.42
82:AR:3504:OHX:N6	9:CI:216:VAL:O	2.51	0.42
12:CL:49:CYS:O	12:CL:168:SER:HB3	2.20	0.42
14:CN:61:PRO:HD3	14:CN:70:ARG:HH21	1.85	0.42
19:CS:176:ARG:HA	19:CS:182:LYS:O	2.19	0.42
21:CU:23:LYS:HA	22:CV:146:ASN:HD21	1.84	0.42
29:DC:74:ASN:HB2	29:DC:76:ASP:HB2	2.01	0.42
33:DG:126:LEU:HA	33:DG:126:LEU:HD23	1.67	0.42
37:DK:34:SER:OG	37:DK:37:THR:HG23	2.20	0.42
39:DM:27:ILE:HD12	39:DM:39:ARG:HG3	2.01	0.42
42:DP:9:ARG:HH11	42:DP:9:ARG:HG3	1.84	0.42
52:F:35:PRO:HB3	52:F:143:ASP:O	2.19	0.42
52:F:98:ASN:ND2	52:F:116:ASP:HA	2.34	0.42
48:B:157:ASP:OD1	69:W:65:SER:OG	2.37	0.42
48:B:52:LYS:HD2	69:W:82:VAL:HA	2.02	0.42
71:Y:26:GLU:HB3	71:Y:29:TYR:HB3	2.01	0.42
1:1:872:U:H2'	1:1:873:C:C6	2.54	0.42
1:1:907:G:O2'	1:1:926:A:N7	2.47	0.42
1:1:92:G:O5'	43:AP:46:LYS:NZ	2.51	0.42
22:2:76:ILE:HD13	22:2:76:ILE:HA	1.87	0.42
24:6:86:ARG:HD2	24:6:92:PHE:CZ	2.55	0.42
27:9:23:PRO:HG2	27:9:26:GLN:HB2	2.02	0.42
47:A:72:A:H4'	47:A:72:A:OP1	2.18	0.42
47:A:89:G:C6	47:A:90:C:C4	3.08	0.42
31:AD:9:SER:O	31:AD:13:LYS:HG3	2.19	0.42
32:AE:65:LYS:HG2	32:AE:65:LYS:H	1.66	0.42
1:AR:2581:U:H2'	1:AR:2582:C:H6	1.85	0.42
1:AR:733:G:O6	82:AR:3567:OHX:N1	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:AR:3597:OHX:N6	82:AR:3694:OHX:N6	2.68	0.42
1:AR:753:C:OP1	82:AR:3622:OHX:N1	2.52	0.42
1:AR:404:G:H2'	1:AR:405:U:O4'	2.20	0.42
1:AR:513:G:C5	1:AR:579:G:C6	3.07	0.42
1:AR:589:A:H1'	1:AR:1337:A:H5''	2.00	0.42
1:AR:707:U:H1'	1:AR:754:G:O2'	2.19	0.42
1:AR:838:G:O6	44:DR:4:ARG:NH2	2.53	0.42
3:AT:88:A:H2'	3:AT:89:A:O4'	2.18	0.42
48:B:188:LEU:HD11	48:B:195:TRP:CD1	2.54	0.42
48:B:35:PRO:C	48:B:37:VAL:H	2.23	0.42
49:C:41:ARG:HH22	49:C:97:LEU:HD21	1.84	0.42
4:CD:204:MET:H	4:CD:204:MET:HG2	1.67	0.42
5:CE:214:MET:SD	5:CE:281:LYS:HB2	2.60	0.42
5:CE:171:LEU:HD21	5:CE:314:TYR:CE1	2.54	0.42
7:CG:39:GLN:HG3	7:CG:40:HIS:O	2.20	0.42
14:CN:165:SER:C	14:CN:167:PHE:N	2.72	0.42
18:CR:37:ASN:OD1	18:CR:117:ILE:HG22	2.19	0.42
26:CZ:81:ILE:HA	26:CZ:125:ARG:HA	2.01	0.42
29:DC:3:SER:O	29:DC:6:THR:HG22	2.19	0.42
33:DG:12:LYS:HD3	33:DG:57:TYR:C	2.39	0.42
44:DR:27:LYS:O	44:DR:31:ILE:HG13	2.19	0.42
51:E:70:THR:HG22	51:E:86:LEU:HB2	2.00	0.42
54:H:20:ASP:O	54:H:23:ARG:N	2.43	0.42
55:I:91:ILE:HA	55:I:91:ILE:HD12	1.87	0.42
56:J:89:GLU:CD	56:J:92:ARG:HH21	2.22	0.42
21:O:45:LEU:HD22	21:O:45:LEU:HA	1.85	0.42
1:1:1066:G:C6	1:1:1067:U:C4	3.08	0.42
1:1:1384:U:O2'	1:1:1385:C:H5'	2.20	0.42
1:1:1579:C:H2'	1:1:1580:A:C8	2.55	0.42
1:1:172:G:C8	82:1:3526:OHX:N2	2.87	0.42
1:1:171:G:H2'	1:1:172:G:O4'	2.20	0.42
1:1:1912:U:C4	1:1:1913:A:C6	3.07	0.42
1:1:2137:U:C6	1:1:2141:U:C4	3.07	0.42
1:1:3165:A:H2'	1:1:3166:C:H6	1.83	0.42
1:1:3295:A:H2'	1:1:3296:A:C8	2.55	0.42
1:1:3298:C:C2	1:1:3299:A:C8	3.07	0.42
1:1:1440:G:C6	82:1:3459:OHX:N1	2.86	0.42
1:1:355:A:H2'	1:1:356:C:O4'	2.19	0.42
47:A:1026:A:H4'	47:A:1028:C:C4	2.54	0.42
47:A:1494:C:H2'	47:A:1495:C:H6	1.85	0.42
28:AA:70:PRO:HG3	28:AA:115:LYS:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:39:A:H5''	29:AB:35:ALA:HB2	2.01	0.42
35:AH:11:ASN:HA	35:AH:12:PRO:HD3	1.93	0.42
1:1:1739:U:O2'	35:AH:56:THR:HG21	2.19	0.42
37:AJ:60:LEU:HD11	37:AJ:68:ARG:CZ	2.49	0.42
38:AK:32:LYS:HD3	38:AK:32:LYS:HA	1.87	0.42
40:AM:44:TRP:CH2	40:AM:45:ARG:HG3	2.54	0.42
1:AR:1221:A:H4'	1:AR:1222:G:OP2	2.19	0.42
1:AR:1494:U:H4'	1:AR:1495:U:O5'	2.20	0.42
1:AR:163:C:H2'	1:AR:164:A:C8	2.55	0.42
1:AR:2807:U:O3'	1:AR:2808:A:H3'	2.19	0.42
1:AR:3275:U:H2'	1:AR:3276:G:OP1	2.19	0.42
1:AR:3294:A:H2'	1:AR:3295:A:O4'	2.20	0.42
1:AR:3353:G:O2'	1:AR:3356:G:H5'	2.20	0.42
1:AR:796:U:O4	82:AR:3437:OHX:N5	2.52	0.42
3:AT:143:U:OP1	16:CP:38:ARG:NH2	2.45	0.42
3:AT:75:G:C8	40:DN:30:ARG:HG2	2.54	0.42
48:B:170:ILE:HG13	48:B:170:ILE:H	1.57	0.42
49:C:158:SER:H	49:C:161:ILE:HG13	1.85	0.42
49:C:229:MET:SD	49:C:232:HIS:ND1	2.82	0.42
6:CF:193:LYS:HE3	6:CF:193:LYS:HB3	1.57	0.42
8:CH:62:THR:OG1	8:CH:78:ARG:HD3	2.20	0.42
9:CI:40:LYS:HZ3	9:CI:40:LYS:HG3	1.73	0.42
11:CK:93:VAL:O	11:CK:177:ASP:HA	2.20	0.42
20:CT:159:ALA:HA	20:CT:162:ARG:HB2	2.01	0.42
6:CF:359:LEU:HA	21:CU:8:GLN:OE1	2.19	0.42
50:D:99:LYS:HE2	50:D:208:GLU:HG3	2.01	0.42
28:DB:80:LEU:HD23	28:DB:80:LEU:HA	1.77	0.42
29:DC:116:GLY:HA2	29:DC:137:LYS:NZ	2.34	0.42
30:DD:14:ARG:NH1	30:DD:18:ARG:HH11	2.12	0.42
36:DJ:93:THR:OG1	36:DJ:96:GLU:HG2	2.19	0.42
38:DL:36:SER:O	38:DL:45:ARG:HB3	2.19	0.42
43:DQ:28:TYR:HB3	43:DQ:69:VAL:HB	2.00	0.42
66:T:26:ILE:HD11	66:T:30:TYR:C	2.40	0.42
66:T:84:TRP:HA	66:T:89:GLN:OE1	2.19	0.42
68:V:22:ILE:HD12	68:V:118:VAL:HG23	2.02	0.42
47:A:778:G:O6	72:Z:10:ARG:HG2	2.19	0.42
21:O:137:ARG:HG2	21:O:139:TYR:CZ	2.55	0.42
1:1:1657:C:C5	1:1:1797:A:H5''	2.55	0.42
1:1:1945:A:H2'	1:1:1946:A:C8	2.54	0.42
1:1:208:C:C2'	1:1:209:A:H5'	2.50	0.42
1:1:2621:G:C6	1:1:2622:C:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3018:C:H2'	1:1:3019:U:O4'	2.20	0.42
1:1:3183:A:H2	1:1:3188:G:H4'	1.85	0.42
1:1:3210:A:H2'	1:1:3211:C:C6	2.54	0.42
82:1:3566:OHX:N2	82:1:3578:OHX:N5	2.68	0.42
1:1:422:A:C2	1:1:2363:A:H4'	2.55	0.42
1:1:552:G:H5''	1:1:553:U:OP2	2.20	0.42
1:1:994:G:N2	1:1:1053:A:H2'	2.35	0.42
47:A:1729:C:H2'	47:A:1730:A:O4'	2.20	0.42
47:A:179:A:H2'	47:A:180:A:O4'	2.19	0.42
82:A:1822:OHX:N4	82:A:1876:OHX:N3	2.68	0.42
47:A:278:U:H4'	47:A:279:G:O5'	2.19	0.42
47:A:386:G:OP2	56:J:25:ARG:NH2	2.53	0.42
47:A:830:U:O2	47:A:830:U:H2'	2.20	0.42
47:A:894:U:H2'	47:A:895:G:H8	1.84	0.42
47:A:932:U:H4'	47:A:933:A:O4'	2.19	0.42
37:AJ:70:ARG:NH1	37:AJ:84:LYS:HD3	2.34	0.42
38:AK:25:ARG:HG3	40:AM:50:ASN:O	2.19	0.42
1:AR:2269:U:O2'	1:AR:2270:A:P	2.78	0.42
1:AR:2407:C:H2'	1:AR:2408:U:C6	2.55	0.42
1:AR:2664:C:O2'	1:AR:2665:U:H5'	2.19	0.42
1:AR:3189:G:H2'	1:AR:3190:C:O4'	2.20	0.42
1:AR:3384:U:H2'	1:AR:3385:U:C6	2.54	0.42
82:AR:3569:OHX:N4	82:AR:3644:OHX:N1	2.67	0.42
82:AR:3643:OHX:N6	82:AR:3678:OHX:N3	2.67	0.42
82:AR:3513:OHX:N4	82:AR:3693:OHX:N2	2.67	0.42
82:AR:3526:OHX:N4	82:AR:3709:OHX:N3	2.68	0.42
1:AR:570:A:H2'	1:AR:571:U:O4'	2.19	0.42
1:AR:661:G:P	29:DC:12:ARG:HH22	2.43	0.42
1:AR:789:A:C4	1:AR:790:U:C5	3.06	0.42
1:AR:847:A:H2'	1:AR:848:A:C8	2.54	0.42
48:B:71:GLU:HA	48:B:94:GLY:C	2.40	0.42
1:AR:1888:U:OP1	5:CE:247:ARG:HD3	2.19	0.42
6:CF:317:PRO:C	6:CF:319:LYS:N	2.73	0.42
6:CF:71:VAL:HG22	6:CF:76:ARG:NH1	2.35	0.42
7:CG:86:TYR:CE2	7:CG:247:ILE:HA	2.55	0.42
10:CJ:24:ASN:N	10:CJ:25:PRO:HD2	2.34	0.42
13:CM:17:LEU:HD12	13:CM:128:TYR:O	2.20	0.42
11:CK:59:ASN:HB2	15:CO:41:GLN:NE2	2.34	0.42
21:CU:38:LYS:HE3	21:CU:38:LYS:HB2	1.84	0.42
22:CV:100:LYS:HD2	22:CV:103:GLN:NE2	2.35	0.42
1:AR:1486:G:N2	35:DI:6:THR:HG22	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DM:24:THR:HG23	39:DM:44:LYS:HB2	2.01	0.42
1:AR:44:U:O2'	43:DQ:46:LYS:HE3	2.18	0.42
51:E:158:ILE:HD13	51:E:158:ILE:H	1.84	0.42
55:I:170:GLN:HA	55:I:181:ILE:HG22	2.01	0.42
55:I:84:LYS:N	55:I:84:LYS:HD2	4.55	0.42
58:L:77:ARG:HA	58:L:82:LEU:HD12	2.02	0.42
47:A:246:G:C2	59:M:40:LEU:HD22	2.54	0.42
61:O:70:LYS:NZ	61:O:73:ARG:HH12	2.18	0.42
47:A:1429:G:C1'	68:V:74:GLU:HG2	2.39	0.42
69:W:74:GLN:HE22	69:W:83:TRP:N	2.16	0.42
72:Z:7:ILE:HD12	72:Z:43:LYS:HB2	2.02	0.42
21:O:6:GLU:HG3	21:O:30:PHE:CD1	2.55	0.42
1:1:1004:U:C4	1:1:1005:G:N7	2.88	0.42
1:1:2162:U:H2'	1:1:2163:C:O4'	2.20	0.42
1:1:2226:U:H6	1:1:2226:U:O5'	2.02	0.42
1:1:2623:G:C5	1:1:2624:G:C5	3.08	0.42
1:1:2681:U:H2'	1:1:2682:C:H6	1.83	0.42
1:1:3335:A:C2	1:1:3336:A:C4	3.08	0.42
47:A:1080:U:H2'	47:A:1081:A:C8	2.55	0.42
30:AC:5:LYS:HG3	30:AC:6:ASN:N	2.35	0.42
31:AD:30:THR:O	31:AD:34:LEU:N	2.52	0.42
38:AK:31:LYS:HE2	38:AK:31:LYS:HB2	1.85	0.42
1:AR:1612:A:H8	1:AR:1612:A:O5'	2.02	0.42
1:AR:1615:C:H2'	1:AR:1616:U:H6	1.82	0.42
1:AR:208:C:C2'	1:AR:209:A:H5'	2.49	0.42
1:AR:65:A:H3'	1:AR:111:C:N4	2.35	0.42
3:AT:126:A:O2'	3:AT:129:C:N4	2.53	0.42
1:AR:406:G:N3	3:AT:16:G:C2	2.88	0.42
48:B:62:ARG:HD3	69:W:37:ALA:HB3	2.02	0.42
49:C:142:PHE:O	49:C:207:LEU:HA	2.19	0.42
49:C:193:ILE:H	49:C:193:ILE:HG12	1.52	0.42
6:CF:142:VAL:O	6:CF:145:ILE:HG12	2.19	0.42
6:CF:22:LEU:HA	6:CF:23:PRO:HD3	1.87	0.42
7:CG:81:HIS:O	7:CG:84:PRO:HD2	2.19	0.42
10:CJ:34:PHE:CE2	10:CJ:42:PRO:HG3	2.55	0.42
11:CK:12:VAL:HG13	11:CK:16:VAL:HG22	2.01	0.42
13:CM:133:ARG:HD2	13:CM:152:HIS:O	2.19	0.42
17:CQ:61:ALA:HB1	17:CQ:66:LYS:HG3	2.00	0.42
25:CY:50:ALA:HA	25:CY:55:PHE:CG	2.54	0.42
3:AT:65:A:O3'	36:DJ:10:ARG:NH2	2.53	0.42
52:F:31:PRO:HB2	52:F:38:LEU:HD22	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:G:128:ASN:O	53:G:131:GLN:HB3	2.19	0.42
55:I:67:LEU:HD22	55:I:71:HIS:CE1	2.55	0.42
51:E:34:TYR:CZ	68:V:63:LEU:HD22	26.68	0.42
70:X:11:LEU:HD21	70:X:37:PHE:CE1	2.55	0.42
70:X:37:PHE:CD2	70:X:103:ILE:HD12	2.55	0.42
71:Y:63:GLN:HA	71:Y:65:ASN:N	2.35	0.42
21:O:25:PHE:N	21:O:25:PHE:CD1	2.87	0.42
1:1:1065:A:N1	30:AC:26:THR:HG23	2.35	0.42
1:1:1161:G:O2'	33:AF:54:LYS:HD2	2.20	0.42
1:1:2292:U:C4	1:1:2293:C:N4	2.88	0.42
1:1:2363:A:C2	1:1:2376:G:C6	3.08	0.42
1:1:2834:G:OP1	82:1:3711:OHX:N3	2.53	0.42
1:1:532:A:H2	1:1:560:G:H22	1.68	0.42
1:1:696:C:O2'	1:1:697:A:H8	2.03	0.42
1:1:986:U:H2'	1:1:987:U:H6	1.84	0.42
22:2:143:THR:O	22:2:146:ASN:N	2.37	0.42
2:3:26:C:H2'	2:3:27:A:O4'	2.20	0.42
47:A:1581:C:O2'	47:A:1582:U:H5'	2.20	0.42
47:A:321:C:N4	47:A:1667:A:OP1	2.52	0.42
47:A:1745:G:O6	82:A:1864:OHX:N2	2.53	0.42
82:A:1873:OHX:N3	82:A:1886:OHX:N5	2.68	0.42
47:A:613:G:OP2	47:A:1099:U:O2'	2.31	0.42
47:A:67:A:C2	47:A:69:G:H1'	2.54	0.42
47:A:778:G:H1	72:Z:10:ARG:CZ	2.33	0.42
28:AA:36:HIS:CE1	28:AA:74:VAL:HG11	2.55	0.42
29:AB:24:LYS:HG2	29:AB:24:LYS:HZ3	1.73	0.42
30:AC:54:LEU:HD23	30:AC:54:LEU:HA	1.90	0.42
1:AR:1877:U:OP2	82:AR:3458:OHX:N1	2.53	0.42
1:AR:2263:C:HO2'	1:AR:2264:U:C5'	2.32	0.42
1:AR:3299:A:N6	1:AR:3315:G:H1	2.18	0.42
1:AR:1169:A:OP2	82:AR:3504:OHX:N4	2.52	0.42
82:AR:3598:OHX:N1	82:AR:3725:OHX:N1	2.67	0.42
1:AR:651:G:C6	1:AR:652:G:C6	3.08	0.42
1:AR:887:G:H2'	1:AR:888:A:C8	2.55	0.42
1:AR:916:G:N7	1:AR:924:G:C5	2.88	0.42
48:B:101:ARG:HG2	48:B:103:THR:H	1.84	0.42
48:B:202:TYR:O	48:B:203:PHE:HB2	2.20	0.42
49:C:158:SER:O	49:C:162:ARG:HG3	2.19	0.42
4:CD:82:VAL:HA	4:CD:86:GLN:OE1	2.20	0.42
5:CE:188:ILE:HD12	5:CE:188:ILE:N	2.34	0.42
5:CE:288:GLY:C	5:CE:290:ASP:H	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:64:ILE:HA	10:CJ:67:ILE:HD12	2.02	0.42
8:CH:51:ARG:NH1	15:CO:114:ASP:OD2	2.52	0.42
20:CT:15:VAL:HG11	20:CT:52:LYS:HG3	2.02	0.42
22:CV:39:ILE:CD1	22:CV:102:ARG:HD3	2.43	0.42
24:CX:80:ARG:NH1	24:CX:116:GLY:HA3	2.35	0.42
50:D:108:ASN:HA	50:D:141:ARG:HH12	1.83	0.42
33:DG:24:ARG:HD3	33:DG:25:TYR:CZ	2.54	0.42
36:DJ:105:ARG:O	36:DJ:109:ILE:HG13	2.19	0.42
41:DO:112:LYS:N	41:DO:112:LYS:HD2	2.35	0.42
43:DQ:83:LEU:HA	43:DQ:83:LEU:HD23	1.70	0.42
51:E:55:THR:HA	51:E:58:VAL:HG23	2.02	0.42
58:L:75:TYR:O	58:L:78:GLU:HB2	2.20	0.42
59:M:57:LYS:HD3	59:M:131:ILE:HG23	2.01	0.42
60:N:89:ILE:HG23	60:N:91:VAL:HG23	2.02	0.42
62:P:16:VAL:O	62:P:30:VAL:HA	2.20	0.42
72:Z:51:GLU:O	72:Z:53:ASP:N	2.52	0.42
1:1:1157:G:H2'	1:1:1158:A:O4'	2.20	0.42
1:1:1235:U:C4'	1:1:1236:G:H5'	2.49	0.42
1:1:1327:C:O2'	34:AG:76:GLY:HA2	2.20	0.42
1:1:1763:U:H3'	1:1:1764:U:C5	2.54	0.42
1:1:3358:U:H2'	1:1:3359:A:C1'	2.50	0.42
1:1:3392:U:H2'	1:1:3393:U:C6	2.53	0.42
1:1:551:A:OP2	1:1:551:A:H2'	2.19	0.42
1:1:89:A:O2'	1:1:90:C:H5'	2.20	0.42
1:1:944:C:H4'	33:AF:33:ARG:NH1	2.35	0.42
2:3:9:C:OP1	22:2:28:SER:HB3	2.20	0.42
47:A:1524:A:C6	47:A:1525:A:C6	3.08	0.42
47:A:1561:U:H2'	47:A:1562:G:C8	2.49	0.42
47:A:228:G:H2'	47:A:229:U:C6	2.55	0.42
47:A:420:A:H2'	47:A:421:A:O4'	2.20	0.42
47:A:883:C:H2'	47:A:884:A:C8	2.55	0.42
31:AD:86:ARG:NH1	44:AQ:44:LYS:HG2	2.35	0.42
1:AR:1137:C:H2'	1:AR:1138:U:O4'	2.20	0.42
1:AR:1595:U:H1'	1:AR:1596:C:C6	2.55	0.42
1:AR:1801:U:H2'	1:AR:1802:C:C6	2.55	0.42
1:AR:2537:U:O2'	1:AR:2538:U:O5'	2.21	0.42
1:AR:2586:G:C6	10:CJ:241:LYS:HB2	2.55	0.42
1:AR:2998:U:C4	1:AR:2999:U:C4	3.07	0.42
1:AR:3131:U:H2'	1:AR:3132:C:C6	2.54	0.42
1:AR:781:G:C6	82:AR:3493:OHX:N6	2.88	0.42
1:AR:906:A:OP1	82:AR:3581:OHX:N1	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:720:A:H5''	19:CS:69:ARG:NH1	2.35	0.42
1:AR:909:G:O3'	82:AR:3581:OHX:N2	2.53	0.42
5:CE:43:LEU:HD22	5:CE:203:VAL:HG11	2.01	0.42
6:CF:233:LEU:HD23	6:CF:233:LEU:HA	1.72	0.42
7:CG:40:HIS:ND1	22:CV:69:LYS:HA	2.35	0.42
13:CM:16:LYS:HE2	13:CM:130:VAL:HG11	2.01	0.42
18:CR:116:HIS:NE2	18:CR:147:GLU:OE2	2.49	0.42
21:CU:151:PRO:C	21:CU:153:PRO:HD3	2.40	0.42
24:CX:70:ARG:O	24:CX:72:LYS:HG2	2.20	0.42
50:D:42:GLY:CA	50:D:68:ILE:HD11	2.49	0.42
34:DH:8:TYR:CE2	34:DH:99:ARG:HG2	2.55	0.42
35:DI:20:ILE:HA	35:DI:20:ILE:HD13	1.64	0.42
1:AR:1597:C:OP1	35:DI:8:ARG:NH2	2.53	0.42
36:DJ:26:LYS:HB3	36:DJ:26:LYS:HE2	1.77	0.42
42:DP:25:LYS:HE3	42:DP:25:LYS:HB2	1.95	0.42
44:DR:56:THR:HA	44:DR:62:LYS:O	2.19	0.42
4:CD:170:ALA:CB	44:DR:65:ALA:HB1	2.49	0.42
53:G:222:LYS:HG3	53:G:225:ARG:NH2	2.35	0.42
56:J:65:PHE:O	56:J:109:PHE:HZ	2.03	0.42
47:A:380:U:C5	57:K:5:PRO:HB3	2.55	0.42
58:L:32:HIS:HD2	58:L:35:ILE:HD12	1.85	0.42
67:U:5:SER:HA	67:U:133:ASP:OD2	2.20	0.42
21:O:139:TYR:CD1	21:O:140:VAL:HG23	2.54	0.41
1:1:1094:U:H4'	1:1:1096:U:OP1	2.20	0.41
1:1:123:A:C6	1:1:150:A:C5	3.08	0.41
1:1:1340:G:H2'	1:1:1341:U:H6	1.85	0.41
1:1:1366:A:C2	1:1:1367:G:C4	3.08	0.41
1:1:2139:A:H62	38:AK:4:GLY:HA3	1.85	0.41
1:1:3291:G:O2'	1:1:3292:A:H5'	2.20	0.41
1:1:40:A:N7	29:AB:29:PRO:O	2.53	0.41
1:1:551:A:HO2'	1:1:552:G:H8	1.66	0.41
1:1:736:A:C2	1:1:737:G:H1'	2.55	0.41
2:3:4:U:H2'	2:3:5:G:H8	1.81	0.41
2:3:67:G:H2'	2:3:68:C:O4'	2.19	0.41
47:A:1105:C:H2'	47:A:1106:U:C6	2.55	0.41
47:A:1146:G:C2	47:A:1147:A:C4	3.08	0.41
47:A:131:C:O2'	47:A:132:U:OP1	2.34	0.41
47:A:1478:G:OP1	67:U:39:THR:OG1	2.37	0.41
47:A:1556:A:C5	47:A:1560:U:C2	3.08	0.41
47:A:704:C:N4	47:A:735:C:N3	2.69	0.41
47:A:73:U:O2	47:A:74:U:H5'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AE:16:LEU:HA	32:AE:16:LEU:HD12	1.76	0.41
35:AH:71:THR:HG23	35:AH:78:GLY:H	1.85	0.41
36:AI:28:LEU:O	36:AI:32:LYS:HG3	2.20	0.41
1:AR:1093:A:H2	1:AR:1096:U:O2	2.03	0.41
1:AR:1255:C:H2'	1:AR:1256:G:O4'	2.20	0.41
1:AR:1604:G:N3	1:AR:1604:G:H3'	2.35	0.41
1:AR:1826:C:H2'	1:AR:1827:C:C6	2.55	0.41
1:AR:2106:A:H2'	1:AR:2107:A:C8	2.54	0.41
1:AR:2181:C:H5''	4:CD:193:ARG:CZ	2.50	0.41
1:AR:2590:A:C4	1:AR:2591:A:C8	3.07	0.41
1:AR:2812:C:H2'	1:AR:2813:A:H8	1.84	0.41
1:AR:3046:A:H2'	1:AR:3047:U:O4'	2.20	0.41
1:AR:316:U:H4'	1:AR:317:A:H5'	2.02	0.41
82:AR:3650:OHX:N2	82:AR:3663:OHX:N1	2.68	0.41
1:AR:65:A:H4'	1:AR:66:A:O5'	2.19	0.41
1:AR:763:G:H2'	1:AR:764:U:O4'	2.20	0.41
1:AR:94:G:H2'	1:AR:95:A:H8	1.84	0.41
2:AS:113:C:H2'	2:AS:114:U:O4'	2.20	0.41
4:CD:113:VAL:HG12	4:CD:166:ILE:HD13	2.02	0.41
10:CJ:136:LEU:HD23	10:CJ:136:LEU:HA	1.88	0.41
10:CJ:73:PRO:HA	10:CJ:76:ALA:HB3	2.01	0.41
11:CK:4:ILE:HD11	21:CU:143:PHE:CE2	2.54	0.41
18:CR:23:ARG:O	18:CR:86:LYS:HE2	2.20	0.41
20:CT:26:PRO:O	20:CT:29:THR:HG22	2.21	0.41
20:CT:90:PRO:O	20:CT:94:VAL:HG23	2.20	0.41
28:DB:61:LYS:O	28:DB:64:LYS:N	2.46	0.41
34:DH:6:ARG:HG3	34:DH:8:TYR:CD1	2.55	0.41
52:F:67:GLN:HB2	52:F:69:HIS:CD2	2.55	0.41
53:G:145:ASP:CG	53:G:146:THR:H	2.21	0.41
54:H:68:LEU:O	54:H:69:LEU:CB	2.68	0.41
47:A:386:G:H5''	56:J:23:LYS:HE2	2.02	0.41
59:M:80:MET:HB3	59:M:80:MET:HE2	1.79	0.41
60:N:43:ARG:HH12	60:N:102:GLY:HA3	1.85	0.41
68:V:72:ASN:HD22	68:V:74:GLU:H	1.68	0.41
70:X:28:ARG:HA	70:X:29:PRO:HA	1.70	0.41
71:Y:57:LEU:HD11	71:Y:73:ARG:CG	2.50	0.41
72:Z:106:GLN:HA	72:Z:109:LYS:HD2	2.02	0.41
72:Z:57:VAL:HG22	72:Z:60:PHE:CE2	2.55	0.41
21:O:40:ARG:HD2	21:O:40:ARG:HA	1.80	0.41
1:1:1047:A:H2'	1:1:1048:A:C8	2.56	0.41
1:1:106:A:H2'	1:1:107:A:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1159:A:H5'	61:O:92:ILE:CG2	154.01	0.41
1:1:1468:A:N1	1:1:1880:U:O2'	2.48	0.41
1:1:1856:C:H2'	1:1:1857:C:H6	1.85	0.41
1:1:2407:C:H2'	1:1:2408:U:H6	1.84	0.41
1:1:2535:A:H3'	1:1:2536:A:H8	1.85	0.41
1:1:2780:A:H2'	1:1:2781:U:C6	2.55	0.41
1:1:279:U:H2'	1:1:280:U:H6	1.84	0.41
1:1:776:U:H5	1:1:2719:U:O2	2.03	0.41
1:1:975:C:H2'	1:1:976:U:H6	1.84	0.41
3:4:103:G:C6	3:4:105:A:C6	3.08	0.41
3:4:121:U:H2'	3:4:122:U:C6	2.55	0.41
24:6:120:LYS:H	24:6:137:VAL:CG2	2.32	0.41
47:A:1584:G:C8	64:R:122:ARG:HB3	2.55	0.41
47:A:1698:G:N2	47:A:1703:C:H42	2.18	0.41
47:A:1793:G:H4'	82:A:1870:OHX:N4	2.35	0.41
47:A:438:A:H1'	47:A:466:U:O2	2.19	0.41
47:A:494:U:O2'	47:A:495:C:O5'	2.35	0.41
47:A:645:C:H2'	47:A:646:C:H6	1.85	0.41
47:A:720:G:H2'	47:A:720:G:N3	2.35	0.41
47:A:73:U:O2'	47:A:74:U:O5'	2.38	0.41
29:AB:6:THR:CG2	29:AB:8:THR:HG23	2.43	0.41
34:AG:67:MET:HE1	34:AG:90:PRO:HG3	2.02	0.41
39:AL:11:PHE:O	39:AL:15:THR:HG23	2.20	0.41
1:1:3118:C:O2'	41:AN:106:ARG:NH2	2.53	0.41
1:1:44:U:O3'	82:AP:502:OHX:N1	2.53	0.41
1:AR:1184:A:O2'	1:AR:1185:C:H5'	2.20	0.41
1:AR:2118:C:H5''	1:AR:2119:A:OP2	2.20	0.41
1:AR:2278:C:C2	1:AR:2307:G:N2	2.88	0.41
1:AR:3226:A:H2'	1:AR:3227:A:O4'	2.20	0.41
1:AR:3364:C:H2'	1:AR:3365:U:C6	2.55	0.41
1:AR:3386:G:H2'	1:AR:3387:U:H6	1.85	0.41
82:AR:3558:OHX:N1	82:AR:3692:OHX:N1	2.68	0.41
1:AR:550:A:N6	1:AR:551:A:H62	2.18	0.41
82:AR:3696:OHX:N1	82:AT:213:OHX:N1	2.68	0.41
4:CD:23:ARG:HH11	4:CD:23:ARG:HD2	1.74	0.41
4:CD:29:LEU:HA	4:CD:76:PHE:CE1	2.55	0.41
6:CF:91:GLY:O	6:CF:94:CYS:HB2	2.20	0.41
9:CI:30:ARG:HG3	9:CI:33:ARG:NH2	2.35	0.41
14:CN:107:GLU:HG2	14:CN:107:GLU:H	1.52	0.41
23:CW:76:LEU:O	23:CW:80:THR:HG23	2.19	0.41
50:D:140:ARG:HH22	50:D:228:ASN:HD21	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D:57:PHE:HB3	69:W:26:ALA:HB2	2.01	0.41
28:DB:60:LYS:HA	28:DB:63:ALA:HB3	2.02	0.41
35:DI:38:LEU:HD13	35:DI:38:LEU:HA	1.82	0.41
42:DP:9:ARG:HG3	42:DP:9:ARG:NH1	2.36	0.41
54:H:12:SER:C	54:H:13:GLN:HG2	2.40	0.41
59:M:78:THR:HG22	59:M:84:ILE:HG22	2.02	0.41
64:R:16:ALA:HB2	64:R:72:GLY:HA3	2.02	0.41
64:R:53:LEU:H	64:R:53:LEU:HG	1.47	0.41
65:S:66:VAL:HB	65:S:69:ILE:HD11	2.02	0.41
69:W:1:MET:SD	69:W:10:GLU:HB3	2.60	0.41
70:X:6:VAL:HG13	70:X:29:PRO:HD2	2.02	0.41
47:A:1132:A:P	71:Y:30:LYS:HZ1	2.42	0.41
21:O:23:LYS:HD2	21:O:25:PHE:CZ	2.55	0.41
1:1:1084:A:OP1	22:2:35:LYS:NZ	2.50	0.41
1:1:124:U:H2'	1:1:125:C:H6	1.85	0.41
1:1:1262:G:H5''	1:1:1263:A:OP2	2.19	0.41
1:1:1404:G:N7	82:1:3569:OHX:N5	2.67	0.41
1:1:2209:U:H2'	1:1:2209:U:H6	1.69	0.41
1:1:2294:U:O2	1:1:2296:A:H8	2.03	0.41
1:1:2414:G:H2'	1:1:2415:C:O4'	2.21	0.41
1:1:2677:G:OP2	82:1:3581:OHX:N1	2.53	0.41
1:1:1894:U:O2'	1:1:3054:U:H5''	2.20	0.41
82:1:3405:OHX:N1	38:AK:44:THR:O	2.54	0.41
1:1:2962:U:OP1	82:1:3416:OHX:N2	2.53	0.41
1:1:567:G:O6	82:1:3536:OHX:N4	2.53	0.41
1:1:841:A:OP2	82:1:3700:OHX:N2	2.54	0.41
3:4:107:G:C2	3:4:116:G:C5	3.09	0.41
3:4:49:G:H8	3:4:49:G:OP1	2.03	0.41
23:5:54:VAL:HG12	23:5:67:SER:CB	2.50	0.41
24:6:104:ASN:OD1	24:6:106:LYS:HB2	2.19	0.41
24:6:11:PHE:CD2	24:6:88:ARG:HD2	2.56	0.41
47:A:1524:A:N3	47:A:1590:G:O2'	2.38	0.41
47:A:512:A:OP2	57:K:172:VAL:HG13	2.20	0.41
47:A:884:A:H2'	47:A:885:G:C8	2.55	0.41
28:AA:83:THR:CG2	28:AA:85:TYR:H	2.20	0.41
38:AK:18:LEU:HD12	40:AM:8:ARG:HD2	2.01	0.41
40:AM:9:ILE:HG22	40:AM:13:MET:CE	2.46	0.41
1:AR:1035:G:H2'	1:AR:1036:A:O4'	2.20	0.41
1:AR:1138:U:H2'	1:AR:1139:G:O4'	2.20	0.41
1:AR:2144:A:C4	1:AR:2281:A:N6	2.88	0.41
1:AR:361:A:N3	1:AR:814:U:H1'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:943:U:H3'	29:DC:13:GLY:HA2	2.02	0.41
2:AS:11:A:O2'	2:AS:13:A:H2'	2.20	0.41
4:CD:137:ILE:HD11	4:CD:147:ARG:HH11	1.84	0.41
1:AR:3315:G:H2'	5:CE:123:TYR:CD2	2.55	0.41
8:CH:18:LEU:HD22	8:CH:18:LEU:H	1.84	0.41
9:CI:214:TRP:CZ2	9:CI:219:LYS:HE3	2.55	0.41
1:AR:2680:A:C2	13:CM:57:PHE:HB3	2.55	0.41
14:CN:106:GLN:HA	37:DK:20:MET:SD	2.59	0.41
1:AR:1175:C:H5''	17:CQ:25:LYS:HG2	2.02	0.41
18:CR:67:ILE:HG13	18:CR:82:ARG:CZ	2.50	0.41
24:CX:46:LEU:HD12	24:CX:46:LEU:HA	1.85	0.41
50:D:186:LYS:O	50:D:190:LEU:HG	2.20	0.41
29:DC:77:LYS:C	29:DC:79:TRP:N	2.73	0.41
31:DE:16:LEU:HB3	31:DE:98:SER:HB2	2.02	0.41
35:DI:8:ARG:HH21	35:DI:31:ARG:CD	2.30	0.41
42:DP:15:ARG:HG2	42:DP:18:ARG:NH1	2.36	0.41
52:F:185:GLY:H	52:F:189:LEU:HD13	1.85	0.41
55:I:133:THR:HG21	55:I:162:ILE:HD11	2.02	0.41
1:1:3004:C:H4'	57:K:99:LEU:O	151.07	0.41
58:L:74:GLU:O	58:L:77:ARG:HB3	2.20	0.41
61:O:54:LEU:HB3	61:O:60:VAL:HB	2.03	0.41
62:P:18:ARG:HH21	62:P:82:LYS:NZ	2.18	0.41
66:T:48:LYS:HD3	67:U:35:ASP:OD1	2.21	0.41
68:V:23:ARG:HB3	68:V:117:VAL:HG12	2.01	0.41
68:V:26:LEU:O	68:V:89:ARG:N	2.39	0.41
1:1:2226:U:O2'	1:1:2227:C:H5'	2.20	0.41
1:1:2144:A:C4	1:1:2281:A:N6	2.88	0.41
1:1:2407:C:H2'	1:1:2408:U:C6	2.56	0.41
1:1:2438:A:H2'	1:1:2439:A:H8	1.83	0.41
1:1:2572:C:P	1:1:2572:C:H3'	2.60	0.41
1:1:3238:G:O6	82:1:3501:OHX:N4	2.53	0.41
1:1:3254:G:O6	82:1:3588:OHX:N5	2.54	0.41
27:9:115:ARG:O	27:9:119:ILE:HG13	2.20	0.41
47:A:1010:C:H2'	47:A:1011:G:O4'	2.20	0.41
47:A:1480:G:C2	47:A:1528:U:C2	3.08	0.41
47:A:274:G:C2	47:A:275:C:H1'	2.54	0.41
47:A:327:U:H2'	47:A:328:A:H8	1.85	0.41
47:A:480:G:N1	47:A:509:G:H1'	2.35	0.41
47:A:767:U:O2	47:A:767:U:O4'	2.39	0.41
47:A:905:A:O3'	62:P:52:ARG:HD3	2.20	0.41
1:AR:1096:U:H4'	1:AR:1097:G:C5'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:953:G:O2'	1:AR:1116:G:H5'	2.19	0.41
1:AR:2401:A:H2'	1:AR:2401:A:N3	2.35	0.41
1:AR:3164:C:H1'	1:AR:3165:A:H5'	2.02	0.41
1:AR:3214:U:C4	15:CO:121:MET:HG3	2.56	0.41
1:AR:3231:U:H2'	1:AR:3232:G:H8	1.86	0.41
1:AR:3242:G:C2	1:AR:3245:A:C8	3.08	0.41
1:AR:830:A:H5'	1:AR:831:G:OP2	2.20	0.41
2:AS:28:C:OP1	13:CM:137:ARG:HD3	2.20	0.41
3:AT:10:A:H2'	3:AT:11:C:C6	2.55	0.41
48:B:66:ALA:HB1	69:W:50:TYR:CE1	2.53	0.41
49:C:218:LEU:H	49:C:218:LEU:HD22	1.85	0.41
49:C:219:LYS:HE2	49:C:219:LYS:HB3	1.86	0.41
4:CD:180:LEU:HD22	44:DR:18:TYR:HB3	2.02	0.41
4:CD:227:ARG:HG2	4:CD:239:ALA:HB2	2.02	0.41
1:AR:1079:A:H4'	7:CG:140:ARG:O	2.21	0.41
17:CQ:65:ASN:O	17:CQ:68:ARG:HG2	2.20	0.41
22:CV:14:MET:CE	22:CV:55:LYS:HB2	2.51	0.41
32:DF:10:ARG:HD2	32:DF:12:TYR:OH	2.20	0.41
36:DJ:101:THR:HG23	36:DJ:104:GLN:H	1.84	0.41
51:E:132:LYS:HB3	51:E:189:MET:HG3	2.02	0.41
51:E:21:LEU:HD22	51:E:25:PHE:CE2	2.55	0.41
52:F:206:ASP:N	52:F:206:ASP:OD1	2.54	0.41
53:G:62:VAL:HA	53:G:89:ILE:HG21	2.02	0.41
55:I:104:ARG:H	55:I:104:ARG:HG2	1.59	0.41
58:L:29:GLN:NE2	58:L:31:LYS:O	2.52	0.41
59:M:59:PRO:HG2	59:M:60:PHE:CE2	2.55	0.41
61:O:83:GLU:H	61:O:83:GLU:HG2	1.47	0.41
63:Q:31:GLU:O	63:Q:34:VAL:HG22	2.21	0.41
64:R:44:LEU:O	64:R:47:LYS:HB2	2.20	0.41
21:O:166:LYS:O	21:O:167:ARG:HB3	2.21	0.41
1:1:1035:G:C6	1:1:1036:A:C6	3.09	0.41
1:1:1227:C:H5'	1:1:1228:C:OP2	2.21	0.41
1:1:1841:A:O2'	1:1:1842:A:H5''	2.19	0.41
1:1:1881:A:H2'	1:1:1882:G:H8	1.84	0.41
1:1:1202:A:C2	1:1:2857:C:H5'	2.55	0.41
1:1:3289:G:C6	82:1:3660:OHX:N6	2.88	0.41
1:1:394:G:N7	82:1:3451:OHX:N6	2.68	0.41
1:1:2395:G:C8	82:1:3722:OHX:N2	2.89	0.41
22:2:143:THR:HA	22:2:146:ASN:O	2.20	0.41
25:7:50:ALA:HA	25:7:55:PHE:CG	2.56	0.41
25:7:82:ILE:HA	54:H:131:LYS:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1203:A:C4	47:A:1556:A:C2	3.09	0.41
47:A:1213:G:C6	47:A:1214:U:C4	3.09	0.41
47:A:1504:G:C6	47:A:1505:A:C6	3.09	0.41
47:A:1533:C:H5'	66:T:27:LYS:NZ	2.36	0.41
47:A:980:G:O6	82:A:1823:OHX:N2	2.53	0.41
47:A:240:U:H1'	47:A:241:U:OP1	2.21	0.41
47:A:386:G:C6	47:A:387:A:N6	2.88	0.41
47:A:487:G:H1	47:A:500:C:H42	1.69	0.41
47:A:542:A:C8	47:A:543:C:H5'	2.42	0.41
47:A:932:U:OP2	49:C:155:TYR:OH	2.26	0.41
1:1:964:G:O2'	29:AB:41:HIS:NE2	2.46	0.41
33:AF:34:LYS:HG3	33:AF:35:GLN:N	2.35	0.41
1:AR:1131:G:C4	1:AR:2373:A:C2	3.08	0.41
1:AR:1236:G:N2	1:AR:1244:A:OP1	2.35	0.41
1:AR:1366:A:C2	1:AR:1367:G:C4	3.08	0.41
1:AR:2540:A:O2'	1:AR:2541:U:H5''	2.20	0.41
1:AR:2612:U:H1'	1:AR:2803:A:N3	2.35	0.41
1:AR:3136:G:C5	1:AR:3137:C:C5	3.08	0.41
1:AR:3284:G:H2'	1:AR:3285:C:C6	2.56	0.41
1:AR:359:U:H4'	1:AR:817:A:N6	2.36	0.41
1:AR:33:G:OP2	82:AR:3733:OHX:N6	2.53	0.41
1:AR:503:C:H2'	1:AR:504:A:C8	2.55	0.41
1:AR:542:G:H1	1:AR:549:U:H3	1.69	0.41
1:AR:731:U:H2'	1:AR:732:C:H6	1.83	0.41
2:AS:40:C:H5''	2:AS:41:G:OP2	2.21	0.41
48:B:93:THR:HG21	48:B:181:VAL:HG21	2.03	0.41
4:CD:130:SER:HB2	4:CD:171:GLY:O	2.20	0.41
5:CE:169:THR:CG2	5:CE:171:LEU:H	2.33	0.41
6:CF:141:ARG:NH1	6:CF:180:LYS:HD3	2.36	0.41
12:CL:33:ILE:HD11	12:CL:36:LEU:CD2	2.47	0.41
19:CS:135:GLN:HE21	19:CS:135:GLN:HB3	1.70	0.41
50:D:40:LYS:O	50:D:44:LEU:HG	2.20	0.41
29:DC:130:VAL:HG11	29:DC:145:VAL:HG21	2.01	0.41
4:CD:180:LEU:HG	44:DR:26:VAL:HG21	2.02	0.41
52:F:193:GLY:CA	52:F:210:ILE:HG22	2.50	0.41
53:G:124:LEU:O	53:G:125:THR:OG1	2.37	0.41
54:H:126:ASP:OD1	54:H:127:THR:HG22	2.20	0.41
55:I:23:ALA:O	55:I:27:LEU:HG	2.20	0.41
58:L:71:GLU:H	58:L:71:GLU:HG2	1.68	0.41
63:Q:21:ASP:N	63:Q:21:ASP:OD1	2.53	0.41
67:U:34:VAL:HG23	67:U:53:TRP:CZ2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:X:75:ILE:HD13	70:X:75:ILE:HA	1.82	0.41
1:1:1000:C:H6	1:1:1000:C:H2'	1.68	0.41
1:1:2144:A:C5	1:1:2281:A:C6	3.08	0.41
1:1:2247:G:OP1	82:1:3598:OHX:N6	2.53	0.41
1:1:2961:G:C6	1:1:2962:U:C4	3.08	0.41
1:1:298:U:H6	1:1:298:U:O5'	2.04	0.41
1:1:3327:G:N2	1:1:3328:G:H1'	2.36	0.41
3:4:104:A:H3'	3:4:105:A:H5''	2.02	0.41
24:6:106:LYS:HD2	24:6:108:GLU:CD	2.41	0.41
47:A:1174:C:H2'	47:A:1175:U:O4'	2.20	0.41
47:A:121:U:H1'	52:F:33:ALA:HB3	2.02	0.41
47:A:1591:C:H2'	47:A:1592:A:C8	2.55	0.41
47:A:1672:G:H2'	47:A:1673:G:C8	2.55	0.41
47:A:25:C:H6	47:A:25:C:H2'	1.60	0.41
47:A:107:C:H1'	47:A:362:G:O2'	2.21	0.41
47:A:735:C:O2'	47:A:736:C:OP2	2.30	0.41
47:A:775:G:O6	72:Z:11:LYS:NZ	2.50	0.41
47:A:876:G:O2'	47:A:944:A:H5''	2.21	0.41
47:A:912:U:H4'	47:A:913:G:H2'	2.01	0.41
1:1:965:A:C2	29:AB:43:ILE:HD12	2.53	0.41
29:AB:78:LEU:HD22	29:AB:78:LEU:O	2.20	0.41
34:AG:49:ILE:HD13	34:AG:49:ILE:HG21	1.76	0.41
34:AG:93:THR:HB	34:AG:96:ALA:HB3	2.02	0.41
44:AQ:7:LYS:HB3	44:AQ:7:LYS:HE2	1.88	0.41
1:AR:1094:U:H2'	1:AR:1094:U:H6	1.66	0.41
1:AR:1759:C:H3'	1:AR:1760:A:H5''	2.02	0.41
1:AR:2766:U:H2'	1:AR:2767:U:H6	1.84	0.41
1:AR:908:G:H4'	1:AR:909:G:O5'	2.21	0.41
2:AS:48:U:O2	2:AS:50:U:C4	2.74	0.41
4:CD:87:PHE:C	4:CD:88:ILE:HD12	2.40	0.41
5:CE:171:LEU:O	82:CE:401:OHX:N3	2.53	0.41
5:CE:283:TYR:CZ	5:CE:325:LYS:HB2	2.56	0.41
5:CE:347:SER:C	5:CE:349:LYS:N	2.74	0.41
7:CG:43:LYS:O	7:CG:45:ASN:N	2.47	0.41
9:CI:121:LYS:O	9:CI:121:LYS:HD3	2.20	0.41
9:CI:140:SER:OG	9:CI:143:THR:HG23	2.21	0.41
11:CK:94:TYR:CD2	11:CK:98:PRO:HA	2.55	0.41
14:CN:48:PRO:HB2	36:DJ:117:ALA:HB2	2.02	0.41
14:CN:62:THR:O	14:CN:65:TYR:N	2.36	0.41
16:CP:153:ASP:OD1	16:CP:154:PRO:HD2	2.20	0.41
16:CP:149:ASN:OD1	82:CP:501:OHX:N1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1505:C:OP1	18:CR:23:ARG:NH2	2.54	0.41
19:CS:93:ILE:H	19:CS:93:ILE:HG13	1.32	0.41
20:CT:106:LEU:HB3	20:CT:120:TYR:CE1	2.55	0.41
21:CU:1:MET:SD	21:CU:36:ILE:HD13	2.61	0.41
1:AR:3043:C:P	24:CX:48:ARG:HH22	2.43	0.41
24:CX:24:ASN:O	24:CX:99:ALA:HA	2.21	0.41
27:DA:47:ALA:O	27:DA:122:LYS:NZ	2.52	0.41
1:AR:40:A:N7	29:DC:29:PRO:O	2.53	0.41
29:DC:48:TYR:O	29:DC:49:HIS:ND1	2.53	0.41
52:F:179:LYS:O	52:F:181:VAL:HG23	2.21	0.41
55:I:39:ARG:N	55:I:40:PRO:HD2	2.35	0.41
47:A:329:G:H5''	56:J:98:LYS:HB3	2.03	0.41
61:O:52:VAL:HG22	61:O:55:ARG:NH2	2.35	0.41
48:B:62:ARG:HH21	69:W:39:VAL:HG22	1.86	0.41
70:X:38:LEU:HD23	70:X:41:MET:HE3	2.03	0.41
70:X:24:GLN:HA	70:X:63:VAL:O	2.20	0.41
1:1:1072:G:O2'	1:1:1073:U:H5'	2.20	0.41
1:1:1231:A:N1	1:1:1279:C:N4	2.69	0.41
1:1:1856:C:H2'	1:1:1857:C:C6	2.56	0.41
1:1:2404:A:H8	1:1:2404:A:H5'	1.85	0.41
1:1:2595:A:OP1	82:1:3520:OHX:N5	2.54	0.41
1:1:2727:A:H4'	1:1:2728:G:OP2	2.20	0.41
1:1:1940:G:N2	1:1:3362:A:H8	2.12	0.41
3:4:59:A:O2'	26:8:61:LYS:NZ	2.28	0.41
47:A:1217:A:H5'	47:A:1217:A:H8	1.86	0.41
47:A:1291:G:C8	47:A:1291:G:O5'	2.68	0.41
47:A:462:G:C6	47:A:463:U:C4	3.09	0.41
1:1:1162:U:OP1	33:AF:54:LYS:HE3	2.20	0.41
43:AP:47:GLN:HB2	43:AP:47:GLN:HE21	1.59	0.41
1:AR:121:A:N3	10:CJ:108:ARG:NH1	2.69	0.41
1:AR:1440:G:H2'	1:AR:1441:G:C8	2.55	0.41
1:AR:1522:U:H4'	1:AR:1604:G:O2'	2.21	0.41
1:AR:1742:U:H2'	1:AR:1743:G:H8	1.86	0.41
1:AR:1838:G:H4'	1:AR:1839:A:N3	2.35	0.41
1:AR:1947:G:H5''	1:AR:1948:G:OP2	2.21	0.41
1:AR:2557:A:N1	4:CD:64:ARG:NH1	2.68	0.41
1:AR:2748:A:OP2	82:AR:3659:OHX:N5	2.53	0.41
1:AR:2767:U:H2'	1:AR:2768:U:H6	1.83	0.41
1:AR:3136:G:C6	1:AR:3137:C:C4	3.09	0.41
1:AR:537:A:H2'	1:AR:538:G:O4'	2.20	0.41
2:AS:43:U:C4	2:AS:44:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B:102:PHE:CG	48:B:102:PHE:O	2.74	0.41
5:CE:160:VAL:HB	5:CE:183:LEU:HD22	2.03	0.41
5:CE:217:ALA:CB	5:CE:328:ILE:HG12	2.50	0.41
1:AR:3304:U:O3'	5:CE:334:ARG:NH2	2.53	0.41
5:CE:56:ILE:HD12	5:CE:56:ILE:HA	1.79	0.41
8:CH:58:LEU:H	8:CH:58:LEU:HG	1.56	0.41
9:CI:190:THR:O	9:CI:191:VAL:C	2.59	0.41
12:CL:74:LYS:HE3	12:CL:74:LYS:HB2	1.80	0.41
14:CN:27:ASP:OD1	14:CN:31:LYS:HE2	2.21	0.41
6:CF:282:SER:HB3	19:CS:126:GLN:HE21	1.86	0.41
28:DB:26:VAL:HG21	28:DB:96:VAL:HB	2.03	0.41
33:DG:21:HIS:CG	33:DG:24:ARG:HD2	2.56	0.41
52:F:193:GLY:C	52:F:210:ILE:HG22	2.41	0.41
52:F:45:ILE:HA	52:F:61:VAL:HG11	2.03	0.41
54:H:147:LEU:HD23	54:H:147:LEU:HA	1.91	0.41
47:A:929:A:H1'	62:P:124:ASP:H	1.86	0.41
63:Q:26:LEU:HA	63:Q:26:LEU:HD12	1.68	0.41
21:O:99:ARG:O	21:O:103:VAL:HG23	2.21	0.41
1:1:1128:U:H2'	1:1:1129:A:O4'	2.21	0.41
1:1:1228:C:H2'	1:1:1229:G:C8	2.55	0.41
1:1:1932:A:H5'	1:1:1933:A:OP2	2.20	0.41
1:1:2722:U:H2'	1:1:2723:U:C6	2.56	0.41
1:1:90:C:H4'	1:1:282:G:OP1	2.21	0.41
1:1:372:A:C6	1:1:373:A:C6	3.09	0.41
82:A:1822:OHX:N4	82:A:1876:OHX:N6	2.69	0.41
82:A:1873:OHX:N4	82:A:1886:OHX:N1	2.68	0.41
47:A:337:G:H1'	56:J:10:LYS:HZ1	1.86	0.41
47:A:572:C:O5'	47:A:572:C:H6	2.03	0.41
47:A:830:U:O2'	47:A:831:U:P	2.79	0.41
36:AI:21:LEU:HD11	36:AI:55:LEU:HD21	2.02	0.41
38:AK:87:SER:HA	82:AK:102:OHX:N5	2.36	0.41
1:AR:2206:G:O2'	1:AR:2207:A:H5'	2.21	0.41
1:AR:2319:U:O4	82:AR:3497:OHX:N2	2.54	0.41
1:AR:244:G:H2'	1:AR:245:U:C6	2.56	0.41
1:AR:2606:G:N3	1:AR:2606:G:H2'	2.36	0.41
2:AS:4:U:H2'	2:AS:5:G:C8	2.56	0.41
3:AT:85:G:C8	3:AT:85:G:C3'	3.04	0.41
49:C:115:ARG:HG3	49:C:116:LYS:N	2.36	0.41
49:C:131:ASP:O	49:C:133:TYR:N	2.48	0.41
49:C:195:LYS:HA	49:C:195:LYS:HD3	1.80	0.41
12:CL:19:LYS:HA	12:CL:23:ASN:HD22	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:87:LYS:HD2	13:CM:87:LYS:HA	1.87	0.41
17:CQ:18:ARG:O	17:CQ:22:VAL:HG13	2.20	0.41
1:AR:1720:U:OP2	20:CT:110:ARG:NH1	2.54	0.41
22:CV:17:ARG:HG2	22:CV:22:HIS:CG	2.55	0.41
28:DB:53:VAL:HA	28:DB:57:HIS:CD2	2.55	0.41
29:DC:2:PRO:HG2	29:DC:5:PHE:CD2	2.56	0.41
38:DL:51:ALA:O	38:DL:54:LYS:HB2	2.21	0.41
44:DR:35:ALA:HB3	44:DR:37:TYR:CE1	2.55	0.41
52:F:143:ASP:OD1	52:F:143:ASP:N	2.54	0.41
55:I:83:LYS:HB3	55:I:83:LYS:HE2	1.75	0.41
61:O:45:LEU:HD12	61:O:49:GLN:HB3	2.03	0.41
64:R:47:LYS:HZ3	64:R:114:ARG:HG2	1.85	0.41
47:A:1173:C:H3'	66:T:141:THR:HG21	2.03	0.41
66:T:14:ILE:O	66:T:14:ILE:HG13	2.21	0.41
71:Y:107:PHE:HA	71:Y:107:PHE:HD1	1.70	0.41
72:Z:57:VAL:HG23	72:Z:73:GLY:CA	2.51	0.41
1:1:112:U:O2'	1:1:113:C:P	2.79	0.41
1:1:114:A:N1	1:1:266:A:O2'	2.47	0.41
1:1:1488:G:H5''	1:1:1838:G:O6	2.20	0.41
1:1:216:G:OP1	27:9:16:ARG:NH1	2.53	0.41
1:1:2656:A:C4	1:1:2658:G:N7	2.89	0.41
1:1:3226:A:H2'	1:1:3227:A:O4'	2.21	0.41
82:1:3588:OHX:N2	82:1:3690:OHX:N5	2.69	0.41
82:1:3505:OHX:N5	82:1:3683:OHX:N2	2.69	0.41
1:1:727:G:H2'	1:1:728:G:O4'	2.20	0.41
1:1:975:C:O2'	71:Y:144:ARG:NH1	148.97	0.41
3:4:151:C:N4	26:8:24:LEU:HD11	2.36	0.41
27:9:48:LEU:HD23	27:9:48:LEU:HA	1.75	0.41
47:A:1535:U:H6	47:A:1535:U:H2'	1.50	0.41
47:A:1540:G:C6	47:A:1541:G:C4	3.08	0.41
47:A:1414:U:O2'	82:A:1803:OHX:N6	2.53	0.41
47:A:468:A:H4'	47:A:469:C:OP1	2.20	0.41
47:A:514:G:O2'	47:A:515:A:H8	2.03	0.41
47:A:649:U:O2'	47:A:650:U:H6	2.04	0.41
47:A:845:G:C2	47:A:846:G:C4	3.09	0.41
34:AG:70:LYS:HG2	34:AG:70:LYS:O	2.20	0.41
38:AK:60:GLY:O	82:AK:103:OHX:N3	2.54	0.41
42:AO:22:ALA:C	42:AO:24:SER:H	2.23	0.41
44:AQ:88:GLU:HA	44:AQ:91:GLU:HG2	2.03	0.41
1:AR:1039:U:H2'	1:AR:1040:A:C8	2.56	0.41
1:AR:1447:G:OP2	18:CR:27:LYS:NZ	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1528:G:H2'	1:AR:1529:A:O4'	2.21	0.41
1:AR:3228:C:H4'	1:AR:3229:G:O5'	2.20	0.41
1:AR:1840:U:OP2	82:AR:3542:OHX:N1	2.54	0.41
82:AR:3569:OHX:N1	82:AR:3644:OHX:N2	2.69	0.41
82:AR:3683:OHX:N3	82:AR:3685:OHX:N6	2.68	0.41
1:AR:799:G:O6	82:AR:3531:OHX:N1	2.54	0.41
1:AR:92:G:OP1	43:DQ:46:LYS:NZ	2.43	0.41
3:AT:106:C:O2	82:AT:216:OHX:N5	2.53	0.41
7:CG:227:LEU:HA	7:CG:227:LEU:HD12	1.77	0.41
12:CL:220:GLN:O	82:CL:301:OHX:N6	2.54	0.41
13:CM:108:GLU:HA	13:CM:122:ILE:HG23	2.01	0.41
16:CP:99:ARG:HB2	16:CP:130:PHE:CE2	2.56	0.41
15:CO:109:ARG:HD3	17:CQ:199:TYR:CZ	2.56	0.41
5:CE:66:LYS:HZ1	24:CX:120:LYS:CD	2.34	0.41
26:CZ:92:LYS:HG2	26:CZ:110:VAL:O	2.21	0.41
36:DJ:41:LEU:HD12	36:DJ:41:LEU:HA	1.89	0.41
51:E:71:LEU:HA	51:E:71:LEU:HD23	1.71	0.41
55:I:131:PHE:C	55:I:133:THR:H	2.16	0.41
55:I:35:LYS:C	55:I:37:GLU:H	2.22	0.41
60:N:43:ARG:HA	60:N:121:VAL:HG12	2.02	0.41
62:P:19:ILE:HG12	62:P:28:VAL:HG22	2.03	0.41
63:Q:12:PHE:O	63:Q:13:LYS:HB2	2.20	0.41
69:W:13:VAL:HA	69:W:14:PRO:HD3	1.89	0.41
1:1:112:U:H2'	1:1:112:U:H6	1.48	0.41
1:1:1317:A:C4	1:1:1319:G:C8	3.08	0.41
1:1:1349:G:H22	1:1:1355:A:N6	2.19	0.41
1:1:2862:U:H2'	1:1:2863:G:O4'	2.20	0.41
1:1:3081:C:H2'	1:1:3082:C:H6	1.86	0.41
1:1:3227:A:C2'	1:1:3228:C:H5'	2.51	0.41
1:1:507:U:H2'	1:1:508:U:C6	2.55	0.41
1:1:535:G:C2	1:1:555:U:C2	3.08	0.41
2:3:92:A:C5	2:3:93:C:H1'	2.56	0.41
3:4:120:C:C4	3:4:121:U:C4	3.09	0.41
1:1:406:G:H1'	3:4:16:G:N2	2.36	0.41
24:6:125:LEU:HB3	24:6:126:TRP:CD1	2.56	0.41
27:9:32:SER:HA	27:9:49:PRO:HA	2.03	0.41
47:A:1271:G:H2'	47:A:1272:U:O4'	2.21	0.41
47:A:412:A:H2'	47:A:413:U:C6	2.56	0.41
47:A:538:A:C8	47:A:543:C:C4	3.09	0.41
47:A:639:U:H5''	55:I:101:LYS:HB2	2.02	0.41
47:A:760:A:H2'	47:A:761:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:862:A:C2	47:A:963:A:C4	3.09	0.41
47:A:901:G:H22	62:P:54:GLU:CD	2.23	0.41
47:A:876:G:C6	47:A:936:G:C6	3.09	0.41
32:AE:19:ARG:HB3	32:AE:35:GLU:HG2	2.03	0.41
36:AI:70:TYR:CD2	36:AI:76:GLN:HA	2.56	0.41
1:AR:1220:U:OP1	1:AR:1221:A:O2'	2.34	0.41
1:AR:2427:U:H2'	1:AR:2428:U:C6	2.56	0.41
1:AR:2788:C:OP1	29:DC:56:VAL:O	2.39	0.41
1:AR:279:U:O2	1:AR:287:G:C6	2.74	0.41
1:AR:2987:A:H2'	1:AR:2988:C:C6	2.56	0.41
1:AR:3017:A:H2'	1:AR:3018:C:C6	2.56	0.41
1:AR:3121:U:C1'	1:AR:3122:A:H5''	2.50	0.41
1:AR:36:C:H2'	1:AR:37:U:H5'	2.03	0.41
1:AR:47:C:OP2	1:AR:48:A:O2'	2.33	0.41
1:AR:743:C:O2	19:CS:141:ARG:HD3	2.20	0.41
2:AS:23:A:H2'	2:AS:24:A:C8	2.56	0.41
3:AT:104:A:C8	3:AT:105:A:C8	3.09	0.41
3:AT:91:C:H2'	3:AT:92:A:C8	2.56	0.41
47:A:1067:C:H5''	49:C:150:VAL:HG23	2.02	0.41
7:CG:51:LEU:HB2	7:CG:144:VAL:HG13	2.01	0.41
10:CJ:160:ILE:H	10:CJ:160:ILE:HG13	1.50	0.41
12:CL:76:MET:HE1	12:CL:148:VAL:HG22	2.03	0.41
12:CL:9:TYR:CG	12:CL:97:LEU:HD13	2.55	0.41
13:CM:7:ASN:OD1	13:CM:10:ARG:HD2	2.20	0.41
14:CN:80:VAL:HG12	14:CN:85:LEU:O	2.21	0.41
15:CO:47:ASP:CG	15:CO:55:ARG:HB2	2.40	0.41
18:CR:88:VAL:O	18:CR:92:GLN:HG2	2.21	0.41
1:AR:1295:G:OP1	21:CU:84:ARG:HG3	2.21	0.41
22:CV:96:ILE:HD12	22:CV:96:ILE:HA	1.75	0.41
50:D:111:VAL:HG11	50:D:187:LEU:HD12	2.03	0.41
30:DD:14:ARG:NH1	30:DD:18:ARG:HD3	2.36	0.41
30:DD:24:PRO:O	30:DD:25:LYS:HB3	2.21	0.41
3:AT:38:U:C4	36:DJ:89:ARG:HD2	2.55	0.41
36:DJ:7:TYR:CE1	36:DJ:8:GLU:HG3	2.56	0.41
51:E:38:GLU:HG3	51:E:49:ILE:HD13	2.01	0.41
52:F:180:LEU:HA	52:F:194:THR:HA	2.03	0.41
52:F:6:LYS:HB2	52:F:6:LYS:NZ	2.36	0.41
53:G:127:GLN:O	53:G:128:ASN:C	2.59	0.41
54:H:57:ASP:HA	54:H:106:LEU:HA	2.02	0.41
57:K:38:ASN:HB3	57:K:40:LYS:H	1.86	0.41
59:M:18:HIS:O	59:M:19:ILE:HD13	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:M:95:PRO:O	59:M:98:ASN:N	2.52	0.41
62:P:29:HIS:CB	62:P:41:ARG:HA	2.51	0.41
64:R:9:THR:HG21	64:R:88:GLY:HA2	2.02	0.41
1:1:1364:C:O2'	1:1:1365:G:H5'	2.21	0.41
1:1:1694:U:H2'	1:1:1695:U:C6	2.56	0.41
1:1:1811:G:H2'	1:1:1812:G:O4'	2.20	0.41
1:1:2775:U:H2'	1:1:2776:C:C6	2.55	0.41
1:1:2612:U:H1'	1:1:2803:A:C2	2.56	0.41
1:1:2860:U:H6	1:1:2860:U:C5'	2.34	0.41
1:1:1166:G:O6	82:1:3401:OHX:N6	2.53	0.41
1:1:300:G:C6	82:1:3677:OHX:N1	2.89	0.41
1:1:656:A:C6	1:1:657:A:C6	3.09	0.41
47:A:1370:U:H1'	47:A:1371:A:OP2	2.21	0.41
47:A:1482:C:OP2	47:A:1521:G:N1	2.53	0.41
47:A:147:A:H2'	47:A:148:A:O4'	2.21	0.41
47:A:489:C:N3	47:A:490:C:N4	2.69	0.41
47:A:889:U:H2'	47:A:890:C:O4'	2.21	0.41
47:A:892:A:H2'	47:A:893:U:C6	2.56	0.41
37:AJ:54:GLU:OE2	37:AJ:86:LYS:NZ	2.43	0.41
43:AP:71:ARG:CZ	43:AP:80:ARG:HE	2.33	0.41
1:AR:1011:A:H2'	1:AR:1012:G:C8	2.56	0.41
1:AR:1027:A:C6	1:AR:1029:G:H1'	2.55	0.41
1:AR:1068:C:H2'	1:AR:1069:C:C6	2.56	0.41
1:AR:1728:G:H5''	1:AR:1730:G:O4'	2.21	0.41
1:AR:2890:A:N1	1:AR:2913:C:N3	2.69	0.41
1:AR:3280:U:O2'	1:AR:3281:U:P	2.79	0.41
1:AR:3338:C:H2'	1:AR:3339:A:O4'	2.21	0.41
1:AR:673:U:OP1	19:CS:21:SER:OG	2.28	0.41
1:AR:778:U:O4	82:AR:3590:OHX:N1	2.54	0.41
1:AR:853:G:N7	44:DR:2:ALA:HB2	2.36	0.41
82:AR:3696:OHX:N1	82:AT:213:OHX:N4	2.68	0.41
49:C:111:ARG:HD3	49:C:111:ARG:HA	1.78	0.41
49:C:60:ALA:HB3	49:C:61:LEU:HD13	2.03	0.41
49:C:70:LEU:HD12	49:C:82:ARG:O	2.21	0.41
5:CE:84:VAL:CG2	5:CE:162:VAL:HB	2.51	0.41
5:CE:44:THR:OG1	5:CE:182:GLN:O	2.24	0.41
5:CE:257:PRO:HB2	5:CE:261:MET:HE3	2.03	0.41
6:CF:206:LEU:HD23	6:CF:226:GLU:HB2	2.03	0.41
6:CF:219:LEU:O	6:CF:222:VAL:HG13	2.21	0.41
6:CF:324:LEU:O	6:CF:327:LEU:O	2.39	0.41
7:CG:111:GLN:HA	7:CG:116:ASP:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:22:ARG:HB3	7:CG:28:THR:HB	2.02	0.41
8:CH:131:LYS:HG3	8:CH:132:ALA:N	2.36	0.41
8:CH:56:LYS:HG2	8:CH:57:HIS:N	2.36	0.41
9:CI:96:PRO:HG2	9:CI:99:PRO:HG3	2.03	0.41
10:CJ:109:LEU:HA	10:CJ:109:LEU:HD23	1.86	0.41
13:CM:95:ASN:O	13:CM:102:PHE:HA	2.20	0.41
14:CN:129:ASN:OD1	14:CN:131:LYS:HE3	2.21	0.41
15:CO:32:LEU:HD11	15:CO:94:TRP:CD1	2.56	0.41
17:CQ:72:HIS:O	17:CQ:74:ARG:HD3	2.21	0.41
19:CS:19:PRO:HD3	19:CS:30:VAL:HG21	2.02	0.41
53:G:143:ARG:N	53:G:218:GLU:OE2	2.33	0.41
64:R:13:LYS:O	64:R:14:LYS:C	2.60	0.41
1:1:1157:G:C2	1:1:1158:A:H1'	2.55	0.40
1:1:1313:G:N7	82:1:3624:OHX:N4	2.69	0.40
1:1:1416:C:O5'	1:1:1416:C:H6	2.04	0.40
1:1:1638:A:C2	1:1:1736:G:N3	2.89	0.40
1:1:1754:G:O6	82:1:3580:OHX:N4	2.54	0.40
1:1:2416:U:H2'	1:1:2417:U:H6	1.86	0.40
1:1:2802:A:C8	43:AP:56:PRO:HA	2.56	0.40
1:1:2726:C:H5	82:1:3443:OHX:N4	2.18	0.40
3:4:38:U:O4	36:AI:81:ARG:HD3	2.21	0.40
47:A:1366:U:O4	82:A:1886:OHX:N6	2.54	0.40
47:A:140:A:OP2	54:H:187:LYS:NZ	2.37	0.40
47:A:61:A:C8	47:A:269:G:O2'	2.69	0.40
47:A:647:G:N2	47:A:687:G:N2	2.66	0.40
47:A:892:A:C6	47:A:893:U:C4	3.08	0.40
29:AB:75:LEU:HB3	29:AB:118:ILE:HG23	2.02	0.40
30:AC:58:LYS:HD2	30:AC:58:LYS:HA	1.77	0.40
1:1:634:C:H5'	34:AG:21:ARG:O	2.21	0.40
44:AQ:26:VAL:CG1	44:AQ:30:GLU:HG3	2.51	0.40
1:AR:1313:G:H2'	1:AR:1314:C:C6	2.56	0.40
1:AR:151:A:P	16:CP:147:ARG:HH22	2.44	0.40
1:AR:173:G:H2'	1:AR:174:C:O4'	2.21	0.40
1:AR:2401:A:C5	1:AR:2872:A:N1	2.89	0.40
1:AR:645:A:N6	1:AR:2869:U:OP1	2.38	0.40
82:AR:3533:OHX:N3	82:AR:3735:OHX:N2	2.70	0.40
1:AR:534:U:O2	21:CU:146:LYS:HA	2.20	0.40
1:AR:864:G:OP2	82:AR:3418:OHX:N4	2.54	0.40
48:B:110:TYR:HA	48:B:115:PHE:CE1	2.56	0.40
49:C:21:VAL:HG23	49:C:22:ASP:H	1.86	0.40
5:CE:265:ALA:C	5:CE:266:ARG:HG2	2.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:23:PRO:HD2	6:CF:26:PHE:CE1	2.56	0.40
7:CG:259:LYS:O	7:CG:260:PHE:HB2	2.21	0.40
10:CJ:179:ILE:HB	10:CJ:222:PHE:HE2	1.85	0.40
13:CM:22:SER:HA	13:CM:66:ALA:CB	2.52	0.40
16:CP:13:LYS:O	16:CP:19:LEU:HD22	2.22	0.40
17:CQ:27:LEU:HD22	17:CQ:101:ARG:HB2	2.04	0.40
17:CQ:65:ASN:HB3	17:CQ:68:ARG:CD	2.49	0.40
20:CT:23:TRP:CH2	20:CT:25:ASP:HA	2.56	0.40
21:CU:26:ARG:HD3	22:CV:150:THR:OG1	2.20	0.40
23:CW:33:TYR:CE1	23:CW:80:THR:HG22	2.56	0.40
23:CW:92:TRP:HA	23:CW:108:TYR:O	2.21	0.40
37:DK:21:THR:OG1	37:DK:21:THR:O	2.36	0.40
53:G:216:GLU:OE2	53:G:219:ARG:HD2	2.21	0.40
48:B:198:MET:SD	65:S:88:VAL:HB	2.61	0.40
66:T:145:ARG:H	66:T:145:ARG:HG3	1.42	0.40
1:1:1151:U:O4	1:1:1200:A:N6	2.53	0.40
1:1:1569:U:H5'	1:1:1570:U:H5''	2.04	0.40
1:1:2960:C:H2'	1:1:2961:G:C8	2.56	0.40
1:1:113:C:C2	1:1:319:A:C2	3.09	0.40
1:1:3326:G:H2'	1:1:3327:G:H8	1.85	0.40
1:1:906:A:OP1	82:1:3533:OHX:N5	2.54	0.40
1:1:606:C:O2'	1:1:607:A:N3	2.52	0.40
3:4:15:G:C6	3:4:16:G:N1	2.89	0.40
47:A:1088:A:C4'	47:A:1143:A:H5'	2.51	0.40
47:A:212:U:C2	47:A:254:A:C2	3.10	0.40
47:A:766:U:C4	47:A:769:A:N7	2.89	0.40
47:A:793:A:H5''	47:A:794:U:C5'	2.51	0.40
47:A:881:A:H2'	47:A:882:U:O4'	2.21	0.40
28:AA:54:THR:HG22	28:AA:57:HIS:CE1	2.56	0.40
42:AO:3:ALA:HB3	47:A:1773:C:OP1	2.21	0.40
1:AR:132:C:C2'	1:AR:133:U:H5''	2.51	0.40
1:AR:1406:A:H5'	33:DG:17:PHE:CD2	2.57	0.40
1:AR:2152:A:H2'	1:AR:2153:U:C6	2.56	0.40
1:AR:2244:A:OP1	4:CD:244:GLY:N	2.53	0.40
1:AR:2397:A:C2	1:AR:2873:U:H5'	2.56	0.40
1:AR:2922:G:N1	1:AR:2923:U:O2	2.55	0.40
1:AR:2947:G:C2	5:CE:250:ALA:HB1	2.55	0.40
1:AR:306:A:C2	1:AR:2784:G:H1'	2.56	0.40
82:AR:3523:OHX:N5	82:AR:3709:OHX:N2	2.68	0.40
82:AR:3674:OHX:N1	82:AR:3730:OHX:N4	2.70	0.40
2:AS:49:G:H4'	2:AS:50:U:O5'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AT:6:U:H2'	3:AT:7:U:C6	2.57	0.40
48:B:11:PRO:O	48:B:15:GLN:HG3	2.21	0.40
5:CE:283:TYR:OH	5:CE:325:LYS:HD3	2.20	0.40
6:CF:11:LEU:HD11	6:CF:155:ASP:HB3	2.02	0.40
8:CH:38:THR:OG1	8:CH:90:LYS:HE2	2.21	0.40
9:CI:169:ILE:HD13	9:CI:181:ILE:HA	2.03	0.40
9:CI:185:ILE:O	9:CI:189:ILE:HG22	2.20	0.40
3:AT:141:C:OP1	16:CP:109:ARG:NH1	2.55	0.40
21:CU:16:THR:HG23	21:CU:19:VAL:HB	2.04	0.40
26:CZ:68:THR:OG1	36:DJ:36:LEU:HD13	2.21	0.40
1:AR:200:C:OP1	27:DA:60:ARG:NH1	2.51	0.40
29:DC:126:LYS:HA	29:DC:146:GLU:O	2.21	0.40
51:E:161:GLY:O	51:E:164:VAL:HB	2.21	0.40
52:F:67:GLN:HE22	72:Z:85:PHE:HE1	1.69	0.40
54:H:133:LEU:HA	54:H:133:LEU:HD12	1.92	0.40
55:I:56:LYS:O	55:I:88:ARG:HA	2.21	0.40
57:K:59:LEU:O	57:K:62:ARG:HG3	2.22	0.40
58:L:77:ARG:HA	58:L:82:LEU:CD1	2.51	0.40
64:R:10:PHE:HA	64:R:18:ALA:O	2.22	0.40
64:R:113:ASP:C	64:R:115:THR:H	2.25	0.40
64:R:13:LYS:HG3	64:R:79:TYR:HB3	2.04	0.40
66:T:94:ASP:OD2	66:T:96:LYS:HG3	2.21	0.40
68:V:37:VAL:O	68:V:41:ILE:HD13	2.22	0.40
1:1:1033:U:H2'	1:1:1034:U:C6	2.56	0.40
1:1:1072:G:C5	1:1:1087:G:C2	3.09	0.40
1:1:1194:G:H2'	1:1:1195:A:C8	2.57	0.40
1:1:1408:G:OP2	33:AF:31:ASN:ND2	2.42	0.40
1:1:215:G:OP1	27:9:12:ARG:HD2	2.22	0.40
1:1:230:U:H2'	1:1:231:G:O4'	2.22	0.40
1:1:2875:U:C6	1:1:2875:U:H5'	2.56	0.40
82:1:3562:OHX:N4	82:1:3673:OHX:N4	2.69	0.40
1:1:384:A:H2'	1:1:385:A:O4'	2.20	0.40
27:9:6:LEU:HA	27:9:6:LEU:HD23	1.84	0.40
47:A:1535:U:O2'	47:A:1536:G:H5''	2.21	0.40
47:A:1546:G:OP1	66:T:123:ARG:NH1	2.52	0.40
47:A:1654:G:O2'	47:A:1746:A:N6	2.52	0.40
47:A:346:G:H2'	47:A:346:G:N3	2.36	0.40
47:A:856:A:N7	55:I:97:ARG:HB2	2.36	0.40
47:A:915:A:H5'	47:A:916:U:OP2	2.21	0.40
29:AB:73:LEU:HD23	29:AB:112:ILE:HD12	2.02	0.40
29:AB:74:ASN:HB3	29:AB:115:LYS:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AB:75:LEU:HD11	29:AB:134:ALA:O	2.21	0.40
82:1:3497:OHX:N1	29:AB:24:LYS:O	2.54	0.40
42:AO:17:ARG:NH2	47:A:1115:U:O3'	2.54	0.40
1:AR:1077:U:H2'	1:AR:1078:U:H6	1.86	0.40
1:AR:1481:A:OP1	1:AR:1481:A:O4'	2.40	0.40
1:AR:1906:G:N2	1:AR:1909:A:N1	2.65	0.40
1:AR:191:U:H2'	1:AR:192:C:H6	1.86	0.40
1:AR:199:A:C4	1:AR:201:A:C8	3.09	0.40
1:AR:2390:A:H2'	1:AR:2391:G:O4'	2.21	0.40
1:AR:2927:C:H2'	1:AR:2928:C:H6	1.81	0.40
1:AR:3051:U:H2'	1:AR:3052:G:O4'	2.22	0.40
1:AR:3153:U:H3'	1:AR:3154:C:C6	2.56	0.40
1:AR:3192:U:OP1	17:CQ:176:LYS:HE3	2.22	0.40
1:AR:411:U:H2'	1:AR:412:G:H8	1.86	0.40
1:AR:663:C:H2'	1:AR:664:U:C6	2.57	0.40
1:AR:718:G:N2	1:AR:721:G:O2'	2.53	0.40
1:AR:738:A:H2'	1:AR:739:G:C8	2.56	0.40
1:AR:837:A:OP2	44:DR:4:ARG:HD2	2.21	0.40
4:CD:104:LEU:HD12	4:CD:104:LEU:HA	1.80	0.40
1:AR:2417:U:H5''	4:CD:221:LYS:HE3	2.04	0.40
4:CD:224:THR:O	4:CD:225:ILE:HD13	2.22	0.40
6:CF:328:ASN:OD1	6:CF:330:TYR:HB3	2.22	0.40
6:CF:144:LYS:O	82:CF:401:OHX:N4	2.54	0.40
9:CI:128:LYS:HA	9:CI:131:GLU:HG3	2.04	0.40
10:CJ:136:LEU:HD13	16:CP:3:ALA:CB	2.51	0.40
10:CJ:152:LEU:HB3	10:CJ:180:VAL:HG11	2.03	0.40
14:CN:4:SER:O	14:CN:5:LYS:O	2.38	0.40
16:CP:197:LEU:HA	16:CP:197:LEU:HD12	1.75	0.40
17:CQ:98:ALA:HA	17:CQ:101:ARG:HH11	1.87	0.40
18:CR:32:THR:HG21	18:CR:87:SER:CB	2.51	0.40
20:CT:165:LYS:C	20:CT:167:ARG:N	2.74	0.40
36:DJ:88:LEU:HD23	36:DJ:88:LEU:HA	1.89	0.40
10:CJ:168:ALA:HB3	37:DK:47:ILE:HD11	2.03	0.40
37:DK:54:GLU:HA	37:DK:57:LEU:HD12	2.02	0.40
51:E:137:VAL:HB	51:E:185:LYS:HB2	2.03	0.40
51:E:162:GLN:N	51:E:163:PRO:CD	2.84	0.40
51:E:70:THR:CG2	51:E:86:LEU:HB2	2.51	0.40
61:O:27:LYS:HB2	61:O:27:LYS:HE2	1.71	0.40
62:P:31:THR:OG1	62:P:32:ASP:N	2.54	0.40
67:U:63:ARG:O	67:U:67:MET:HE3	2.21	0.40
1:1:1301:A:H4'	1:1:1302:A:O5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1736:G:C6	1:1:1737:U:C4	3.10	0.40
1:1:2544:U:H2'	1:1:2545:C:C6	2.56	0.40
1:1:2696:A:H2'	1:1:2697:A:O4'	2.22	0.40
1:1:295:A:OP1	37:AJ:53:TYR:HE2	2.05	0.40
1:1:3134:A:C2'	1:1:3135:U:H5'	2.52	0.40
1:1:2726:C:C5	82:1:3443:OHX:N4	2.89	0.40
1:1:761:A:C2	1:1:771:A:H1'	2.56	0.40
22:2:57:TYR:OH	22:2:87:LYS:HD2	2.21	0.40
22:2:96:ILE:HD12	22:2:96:ILE:HA	1.59	0.40
24:6:68:GLU:OE1	24:6:68:GLU:N	2.40	0.40
26:8:132:ALA:O	26:8:135:ILE:HG22	2.21	0.40
27:9:5:SER:OG	27:9:6:LEU:N	2.54	0.40
27:9:90:VAL:C	27:9:92:GLY:H	2.24	0.40
47:A:1059:U:O2'	47:A:1060:U:N3	2.55	0.40
47:A:106:U:H2'	47:A:107:C:O4'	2.22	0.40
47:A:1594:G:C6	47:A:1595:U:N3	2.90	0.40
47:A:1619:C:H2'	47:A:1620:C:C6	2.56	0.40
47:A:497:G:O2'	47:A:498:G:C8	2.75	0.40
47:A:676:G:O6	47:A:677:G:N1	2.55	0.40
47:A:704:C:H4'	47:A:705:U:OP1	2.19	0.40
28:AA:108:GLU:O	28:AA:112:LYS:HG3	2.22	0.40
29:AB:75:LEU:HD13	29:AB:118:ILE:HD13	2.02	0.40
39:AL:32:ASN:O	39:AL:32:ASN:ND2	2.41	0.40
44:AQ:79:VAL:O	44:AQ:83:ILE:HG12	2.22	0.40
1:AR:1672:U:OP1	20:CT:64:ARG:NE	2.39	0.40
1:AR:2228:A:H2'	1:AR:2229:A:C8	2.57	0.40
1:AR:2796:G:H4'	1:AR:2798:C:C6	2.56	0.40
1:AR:2390:A:C2	1:AR:2990:G:C2	3.09	0.40
1:AR:353:G:O6	38:DL:55:ARG:NH1	2.54	0.40
1:AR:398:A:C5	18:CR:3:ARG:NH2	2.90	0.40
1:AR:597:G:H2'	1:AR:598:A:H8	1.86	0.40
1:AR:658:G:H21	6:CF:93:MET:HB2	1.84	0.40
3:AT:113:U:H5''	40:DN:7:PHE:HB3	2.03	0.40
82:AT:203:OHX:N5	82:AT:212:OHX:N1	2.69	0.40
82:AT:203:OHX:N3	82:AT:212:OHX:N4	2.70	0.40
48:B:41:ARG:HB3	48:B:45:VAL:O	2.21	0.40
49:C:185:THR:O	49:C:189:ILE:HG13	2.22	0.40
5:CE:252:ILE:HA	5:CE:252:ILE:HD12	1.56	0.40
6:CF:191:LYS:HG2	6:CF:194:TYR:OH	2.21	0.40
7:CG:32:GLN:NE2	7:CG:149:GLY:O	2.55	0.40
7:CG:68:THR:HG22	7:CG:71:GLY:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:38:LYS:HG2	12:CL:41:ALA:HB2	2.02	0.40
14:CN:116:LEU:HD23	14:CN:116:LEU:HA	1.80	0.40
14:CN:27:ASP:HB2	14:CN:31:LYS:HG3	2.04	0.40
18:CR:180:LYS:HB3	18:CR:180:LYS:HE2	1.90	0.40
20:CT:158:GLU:O	20:CT:159:ALA:HB3	2.22	0.40
27:DA:45:ILE:HD12	27:DA:119:ILE:HG23	2.03	0.40
29:DC:129:PHE:HZ	37:DK:9:ILE:HG23	1.86	0.40
30:DD:43:HIS:CE1	30:DD:47:LEU:HD21	2.57	0.40
35:DI:94:LEU:HA	35:DI:94:LEU:HD23	1.80	0.40
40:DN:44:TRP:CZ3	40:DN:45:ARG:HG3	2.56	0.40
1:AR:2653:C:P	43:DQ:89:LYS:HG3	2.60	0.40
52:F:90:ILE:HB	52:F:99:PHE:HB2	2.03	0.40
52:F:92:LEU:HB3	52:F:95:THR:HG1	1.86	0.40
53:G:190:ILE:O	53:G:194:LEU:HB2	2.21	0.40
47:A:928:U:H4'	62:P:124:ASP:OD1	2.20	0.40
69:W:54:ALA:O	69:W:55:LEU:HD23	2.22	0.40
1:1:1571:A:C2	1:1:1572:U:H1'	2.56	0.40
1:1:1631:C:C2	1:1:1812:G:N2	2.89	0.40
1:1:204:A:C6	1:1:205:C:C4	3.09	0.40
1:1:2385:G:O6	82:1:3434:OHX:N6	2.55	0.40
1:1:2422:C:O5'	43:AP:52:GLY:HA2	2.22	0.40
1:1:2428:U:H2'	1:1:2429:G:C8	2.57	0.40
1:1:2536:A:H8	1:1:2536:A:O5'	2.04	0.40
1:1:2630:C:H1'	1:1:2758:A:N3	2.37	0.40
1:1:2881:C:H2'	1:1:2882:U:H6	1.87	0.40
1:1:3198:U:H4'	1:1:3199:G:OP2	2.21	0.40
1:1:2924:U:O4	82:1:3551:OHX:N1	2.55	0.40
82:1:3493:OHX:N5	82:1:3667:OHX:N3	2.70	0.40
1:1:36:C:H2'	1:1:37:U:H5'	2.03	0.40
1:1:65:A:H4'	1:1:66:A:O5'	2.22	0.40
1:1:873:C:H4'	1:1:874:U:OP2	2.22	0.40
23:5:54:VAL:HG12	23:5:67:SER:HA	2.02	0.40
24:6:85:TRP:CE2	24:6:93:LEU:HD21	2.56	0.40
27:9:60:ARG:HD3	27:9:60:ARG:HA	1.82	0.40
47:A:1045:C:C2	47:A:1074:G:C2	3.09	0.40
47:A:1157:A:O2'	47:A:1158:C:OP1	2.34	0.40
47:A:1365:C:C4	47:A:1366:U:C4	3.10	0.40
47:A:1275:A:C6	47:A:1438:G:C5	3.09	0.40
47:A:150:U:H2'	47:A:151:G:O4'	2.21	0.40
47:A:17:C:H2'	47:A:18:C:H6	1.86	0.40
82:A:1853:OHX:N6	82:A:1936:OHX:N2	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:545:A:N1	47:A:593:U:O2'	2.40	0.40
47:A:637:C:O2	55:I:114:ARG:NH2	2.36	0.40
47:A:704:C:O2	47:A:705:U:H1'	2.21	0.40
47:A:67:A:N6	47:A:83:G:O2'	2.54	0.40
47:A:895:G:H2'	47:A:896:U:H6	1.86	0.40
36:AI:21:LEU:CD2	36:AI:25:LYS:HE3	2.51	0.40
38:AK:21:ARG:HD2	38:AK:37:CYS:SG	2.61	0.40
1:AR:1118:C:H6	1:AR:1118:C:O5'	2.05	0.40
1:AR:1697:A:H2'	1:AR:1698:C:O4'	2.22	0.40
1:AR:2154:U:H5''	4:CD:242:ARG:O	2.22	0.40
1:AR:2355:G:H4'	18:CR:139:TYR:CE1	2.57	0.40
1:AR:939:U:O2'	1:AR:2402:A:N1	2.52	0.40
1:AR:2503:G:H1'	1:AR:2504:U:H5	1.86	0.40
1:AR:2897:A:H2'	1:AR:2899:C:C5'	2.50	0.40
1:AR:313:A:H2'	1:AR:314:U:O4'	2.21	0.40
1:AR:3227:A:C6	1:AR:3228:C:C4	3.10	0.40
1:AR:3319:U:O4	5:CE:167:ARG:HD2	2.22	0.40
1:AR:437:G:C8	1:AR:437:G:OP2	2.74	0.40
1:AR:632:G:H2'	1:AR:633:C:O4'	2.22	0.40
3:AT:37:A:C6	3:AT:104:A:C5	3.09	0.40
48:B:200:ASP:OD1	65:S:88:VAL:HG23	2.21	0.40
48:B:6:THR:C	48:B:8:ASP:H	2.25	0.40
49:C:172:LEU:HD23	49:C:172:LEU:HA	1.93	0.40
4:CD:158:ILE:HG21	4:CD:158:ILE:HD13	1.76	0.40
5:CE:188:ILE:HD12	5:CE:189:SER:H	1.87	0.40
5:CE:257:PRO:HG2	5:CE:261:MET:HE3	2.04	0.40
6:CF:346:LYS:HG2	6:CF:346:LYS:H	1.53	0.40
9:CI:131:GLU:O	9:CI:229:PHE:HB2	2.21	0.40
10:CJ:81:THR:OG1	10:CJ:181:LYS:HB2	2.22	0.40
1:AR:2899:C:C5	11:CK:171:ASP:HA	2.57	0.40
15:CO:126:GLN:O	15:CO:130:THR:HG22	2.21	0.40
16:CP:163:GLY:HA2	16:CP:168:GLY:HA3	2.03	0.40
18:CR:52:LEU:HA	18:CR:52:LEU:HD12	1.82	0.40
20:CT:35:ALA:HB1	20:CT:41:ILE:HD12	2.03	0.40
22:CV:111:ALA:O	22:CV:115:LYS:HG3	2.22	0.40
25:CY:8:PHE:CD2	25:CY:46:PRO:HG3	2.57	0.40
50:D:139:ILE:CD1	50:D:218:ILE:HB	2.52	0.40
27:DA:118:LEU:O	27:DA:122:LYS:HG3	2.22	0.40
51:E:177:MET:SD	51:E:182:LEU:HD11	2.62	0.40
54:H:211:LEU:O	54:H:215:ARG:HB2	2.21	0.40
55:I:173:TYR:OH	55:I:179:LYS:HD2	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:J:184:LEU:HB3	56:J:189:LEU:HB2	2.04	0.40
47:A:397:A:O3'	56:J:50:GLY:HA2	2.22	0.40
57:K:129:ILE:H	57:K:129:ILE:HG13	1.76	0.40
59:M:91:LEU:HB3	59:M:100:TYR:HB3	2.04	0.40
62:P:76:ILE:HG23	62:P:78:ALA:O	2.22	0.40
62:P:99:GLN:H	62:P:99:GLN:HG2	1.66	0.40
64:R:37:THR:O	64:R:38:LEU:HD23	2.22	0.40
66:T:83:ALA:CA	66:T:86:LEU:HD23	2.49	0.40
67:U:49:ASP:C	67:U:51:GLU:H	2.24	0.40
67:U:33:TYR:HH	67:U:99:SER:HG	1.70	0.40
72:Z:126:ALA:O	72:Z:129:VAL:HG12	2.22	0.40

All (2) 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)
2:AS:52:G:OP1	82:AR:3441:OHX:N2[2_756]	1.31	0.89
3:4:158:U:O2'	47:A:236:A:O2'[2_655]	2.01	0.19

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	
4	CD	250/254 (98%)	225 (90%)	25 (10%)	0	100	100
4	j	250/254 (98%)	223 (89%)	26 (10%)	1 (0%)	34	69
5	CE	384/387 (99%)	347 (90%)	34 (9%)	3 (1%)	19	54
5	k	384/387 (99%)	343 (89%)	37 (10%)	4 (1%)	15	49
6	CF	359/362 (99%)	315 (88%)	44 (12%)	0	100	100
6	l	359/362 (99%)	322 (90%)	35 (10%)	2 (1%)	25	59
7	CG	294/297 (99%)	240 (82%)	49 (17%)	5 (2%)	9	36

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	m	294/297 (99%)	252 (86%)	39 (13%)	3 (1%)	15	49
8	CH	152/176 (86%)	135 (89%)	16 (10%)	1 (1%)	22	57
8	n	152/176 (86%)	143 (94%)	9 (6%)	0	100	100
9	CI	220/244 (90%)	201 (91%)	15 (7%)	4 (2%)	8	34
9	o	220/244 (90%)	198 (90%)	18 (8%)	4 (2%)	8	34
10	CJ	231/256 (90%)	204 (88%)	26 (11%)	1 (0%)	34	69
10	p	231/256 (90%)	205 (89%)	25 (11%)	1 (0%)	34	69
11	CK	189/191 (99%)	173 (92%)	16 (8%)	0	100	100
11	q	189/191 (99%)	164 (87%)	23 (12%)	2 (1%)	14	46
12	CL	207/221 (94%)	184 (89%)	23 (11%)	0	100	100
12	r	207/221 (94%)	185 (89%)	22 (11%)	0	100	100
13	CM	167/174 (96%)	136 (81%)	30 (18%)	1 (1%)	25	59
13	s	167/174 (96%)	133 (80%)	31 (19%)	3 (2%)	8	34
14	CN	191/199 (96%)	165 (86%)	20 (10%)	6 (3%)	4	23
14	t	191/199 (96%)	168 (88%)	17 (9%)	6 (3%)	4	23
15	CO	134/138 (97%)	120 (90%)	13 (10%)	1 (1%)	22	57
15	u	134/138 (97%)	117 (87%)	16 (12%)	1 (1%)	22	57
16	CP	201/204 (98%)	182 (90%)	18 (9%)	1 (0%)	29	64
16	v	201/204 (98%)	181 (90%)	16 (8%)	4 (2%)	7	31
17	CQ	195/199 (98%)	185 (95%)	9 (5%)	1 (0%)	29	64
17	w	195/199 (98%)	186 (95%)	7 (4%)	2 (1%)	15	49
18	CR	181/184 (98%)	154 (85%)	27 (15%)	0	100	100
18	x	181/184 (98%)	159 (88%)	22 (12%)	0	100	100
19	CS	183/186 (98%)	156 (85%)	26 (14%)	1 (0%)	29	64
19	y	183/186 (98%)	170 (93%)	13 (7%)	0	100	100
20	CT	186/189 (98%)	165 (89%)	21 (11%)	0	100	100
20	z	186/189 (98%)	174 (94%)	12 (6%)	0	100	100
21	0	170/172 (99%)	154 (91%)	16 (9%)	0	100	100
21	CU	170/172 (99%)	157 (92%)	12 (7%)	1 (1%)	25	59
22	2	157/160 (98%)	140 (89%)	16 (10%)	1 (1%)	25	59
22	CV	157/160 (98%)	143 (91%)	14 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	5	98/121 (81%)	85 (87%)	13 (13%)	0	100	100
23	CW	98/121 (81%)	81 (83%)	17 (17%)	0	100	100
24	6	134/137 (98%)	127 (95%)	7 (5%)	0	100	100
24	CX	134/137 (98%)	124 (92%)	10 (8%)	0	100	100
25	7	96/155 (62%)	81 (84%)	15 (16%)	0	100	100
25	CY	122/155 (79%)	107 (88%)	12 (10%)	3 (2%)	5	27
26	8	119/142 (84%)	113 (95%)	6 (5%)	0	100	100
26	CZ	119/142 (84%)	108 (91%)	11 (9%)	0	100	100
27	9	124/127 (98%)	109 (88%)	15 (12%)	0	100	100
27	DA	122/127 (96%)	117 (96%)	5 (4%)	0	100	100
28	AA	133/136 (98%)	112 (84%)	17 (13%)	4 (3%)	4	23
28	DB	133/136 (98%)	114 (86%)	15 (11%)	4 (3%)	4	23
29	AB	146/149 (98%)	119 (82%)	25 (17%)	2 (1%)	11	40
29	DC	146/149 (98%)	120 (82%)	23 (16%)	3 (2%)	7	30
30	AC	56/59 (95%)	51 (91%)	4 (7%)	1 (2%)	8	34
30	DD	56/59 (95%)	47 (84%)	9 (16%)	0	100	100
31	AD	95/105 (90%)	89 (94%)	6 (6%)	0	100	100
31	DE	95/105 (90%)	88 (93%)	7 (7%)	0	100	100
32	AE	107/113 (95%)	98 (92%)	8 (8%)	1 (1%)	17	52
32	DF	107/113 (95%)	97 (91%)	10 (9%)	0	100	100
33	AF	125/130 (96%)	117 (94%)	8 (6%)	0	100	100
33	DG	125/130 (96%)	116 (93%)	9 (7%)	0	100	100
34	AG	104/107 (97%)	97 (93%)	7 (7%)	0	100	100
34	DH	104/107 (97%)	95 (91%)	9 (9%)	0	100	100
35	AH	110/121 (91%)	101 (92%)	9 (8%)	0	100	100
35	DI	110/121 (91%)	103 (94%)	7 (6%)	0	100	100
36	AI	117/120 (98%)	104 (89%)	12 (10%)	1 (1%)	17	52
36	DJ	117/120 (98%)	102 (87%)	13 (11%)	2 (2%)	9	36
37	AJ	97/100 (97%)	81 (84%)	16 (16%)	0	100	100
37	DK	97/100 (97%)	84 (87%)	12 (12%)	1 (1%)	15	49
38	AK	85/88 (97%)	74 (87%)	11 (13%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
38	DL	85/88 (97%)	79 (93%)	6 (7%)	0	100	100
39	AL	75/78 (96%)	64 (85%)	11 (15%)	0	100	100
39	DM	75/78 (96%)	61 (81%)	14 (19%)	0	100	100
40	AM	48/51 (94%)	42 (88%)	6 (12%)	0	100	100
40	DN	48/51 (94%)	45 (94%)	3 (6%)	0	100	100
41	AN	50/128 (39%)	47 (94%)	3 (6%)	0	100	100
41	DO	50/128 (39%)	47 (94%)	3 (6%)	0	100	100
42	AO	23/25 (92%)	22 (96%)	1 (4%)	0	100	100
42	DP	23/25 (92%)	19 (83%)	4 (17%)	0	100	100
43	AP	103/106 (97%)	87 (84%)	16 (16%)	0	100	100
43	DQ	103/106 (97%)	90 (87%)	13 (13%)	0	100	100
44	AQ	89/92 (97%)	79 (89%)	10 (11%)	0	100	100
44	DR	89/92 (97%)	81 (91%)	8 (9%)	0	100	100
45	i	155/273 (57%)	115 (74%)	37 (24%)	3 (2%)	8	33
45	sM	61/273 (22%)	44 (72%)	16 (26%)	1 (2%)	9	37
46	p0	139/312 (45%)	125 (90%)	12 (9%)	2 (1%)	11	40
48	B	204/252 (81%)	157 (77%)	44 (22%)	3 (2%)	10	39
48	s0	204/252 (81%)	162 (79%)	39 (19%)	3 (2%)	10	39
49	C	212/255 (83%)	161 (76%)	50 (24%)	1 (0%)	29	64
49	s1	214/255 (84%)	179 (84%)	33 (15%)	2 (1%)	17	52
50	D	215/254 (85%)	192 (89%)	22 (10%)	1 (0%)	29	64
50	s2	215/254 (85%)	193 (90%)	20 (9%)	2 (1%)	17	52
51	E	221/240 (92%)	198 (90%)	22 (10%)	1 (0%)	29	64
51	s3	221/240 (92%)	194 (88%)	26 (12%)	1 (0%)	29	64
52	F	258/261 (99%)	225 (87%)	32 (12%)	1 (0%)	34	69
52	s4	258/261 (99%)	230 (89%)	28 (11%)	0	100	100
53	G	204/225 (91%)	160 (78%)	40 (20%)	4 (2%)	7	31
53	s5	204/225 (91%)	169 (83%)	33 (16%)	2 (1%)	15	49
54	H	224/236 (95%)	199 (89%)	21 (9%)	4 (2%)	8	34
54	s6	216/236 (92%)	197 (91%)	16 (7%)	3 (1%)	11	40
55	I	182/190 (96%)	156 (86%)	20 (11%)	6 (3%)	4	21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
55	s7	184/190 (97%)	152 (83%)	26 (14%)	6 (3%)	4	21
56	J	184/200 (92%)	157 (85%)	24 (13%)	3 (2%)	9	37
56	s8	184/200 (92%)	158 (86%)	25 (14%)	1 (0%)	29	64
57	K	183/197 (93%)	157 (86%)	24 (13%)	2 (1%)	14	46
57	s9	183/197 (93%)	162 (88%)	21 (12%)	0	100	100
58	L	94/105 (90%)	69 (73%)	23 (24%)	2 (2%)	7	30
58	c0	92/105 (88%)	63 (68%)	26 (28%)	3 (3%)	4	21
59	M	153/156 (98%)	130 (85%)	20 (13%)	3 (2%)	7	31
59	c1	144/156 (92%)	128 (89%)	15 (10%)	1 (1%)	22	57
60	N	122/143 (85%)	85 (70%)	32 (26%)	5 (4%)	3	16
60	c2	122/143 (85%)	86 (70%)	31 (25%)	5 (4%)	3	16
61	O	148/151 (98%)	132 (89%)	14 (10%)	2 (1%)	11	40
61	c3	148/151 (98%)	127 (86%)	18 (12%)	3 (2%)	7	31
62	P	125/138 (91%)	96 (77%)	29 (23%)	0	100	100
62	c4	126/138 (91%)	104 (82%)	22 (18%)	0	100	100
63	Q	122/142 (86%)	93 (76%)	25 (20%)	4 (3%)	4	21
63	c5	133/142 (94%)	99 (74%)	30 (23%)	4 (3%)	4	23
64	R	139/143 (97%)	120 (86%)	18 (13%)	1 (1%)	22	57
64	c6	140/143 (98%)	123 (88%)	14 (10%)	3 (2%)	7	30
65	S	116/136 (85%)	97 (84%)	19 (16%)	0	100	100
65	c7	113/136 (83%)	96 (85%)	17 (15%)	0	100	100
66	T	143/146 (98%)	120 (84%)	21 (15%)	2 (1%)	11	40
66	c8	143/146 (98%)	117 (82%)	23 (16%)	3 (2%)	7	30
67	U	141/144 (98%)	124 (88%)	17 (12%)	0	100	100
67	c9	141/144 (98%)	130 (92%)	11 (8%)	0	100	100
68	V	105/121 (87%)	92 (88%)	12 (11%)	1 (1%)	15	49
68	d0	108/121 (89%)	92 (85%)	15 (14%)	1 (1%)	17	52
69	W	85/87 (98%)	63 (74%)	19 (22%)	3 (4%)	3	20
69	d1	85/87 (98%)	72 (85%)	13 (15%)	0	100	100
70	X	127/130 (98%)	113 (89%)	14 (11%)	0	100	100
70	d2	127/130 (98%)	118 (93%)	9 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
71	Y	142/145 (98%)	112 (79%)	28 (20%)	2 (1%)	11	40
71	d3	142/145 (98%)	122 (86%)	20 (14%)	0	100	100
72	Z	132/135 (98%)	113 (86%)	18 (14%)	1 (1%)	19	54
72	d4	132/135 (98%)	113 (86%)	17 (13%)	2 (2%)	10	39
73	a	68/108 (63%)	53 (78%)	13 (19%)	2 (3%)	4	24
73	d5	67/108 (62%)	58 (87%)	9 (13%)	0	100	100
74	b	95/119 (80%)	68 (72%)	23 (24%)	4 (4%)	3	16
74	d6	95/119 (80%)	69 (73%)	21 (22%)	5 (5%)	2	12
75	c	79/82 (96%)	63 (80%)	16 (20%)	0	100	100
75	d7	79/82 (96%)	64 (81%)	15 (19%)	0	100	100
76	d	61/67 (91%)	52 (85%)	9 (15%)	0	100	100
76	d8	61/67 (91%)	45 (74%)	16 (26%)	0	100	100
77	d9	51/56 (91%)	45 (88%)	6 (12%)	0	100	100
77	e	51/56 (91%)	47 (92%)	4 (8%)	0	100	100
78	e0	60/63 (95%)	52 (87%)	8 (13%)	0	100	100
78	f	58/63 (92%)	44 (76%)	14 (24%)	0	100	100
79	e1	49/152 (32%)	32 (65%)	17 (35%)	0	100	100
79	g	69/152 (45%)	37 (54%)	32 (46%)	0	100	100
80	Rb	316/319 (99%)	276 (87%)	39 (12%)	1 (0%)	41	73
80	h	316/319 (99%)	281 (89%)	35 (11%)	0	100	100
All	All	22284/24620 (90%)	19305 (87%)	2782 (12%)	197 (1%)	17	52

All (197) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	l	339	LEU
7	m	7	ALA
9	o	159	GLN
9	o	234	GLU
11	q	50	ASN
13	s	173	ASP
14	t	63	VAL
15	u	8	LYS
29	AB	24	LYS
45	i	154	VAL

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Mol	Chain	Res	Type
45	i	171	PRO
7	CG	125	VAL
10	CJ	36	ILE
14	CN	5	LYS
14	CN	63	VAL
17	CQ	111	PRO
25	CY	80	ARG
46	p0	32	ASN
49	C	181	LEU
52	F	195	ILE
53	G	50	GLU
54	H	68	LEU
54	H	149	LYS
55	I	63	PRO
55	I	74	GLN
56	J	147	ALA
58	L	88	PRO
59	M	5	LEU
60	N	130	THR
60	N	131	ASP
61	O	28	LEU
74	b	75	VAL
54	s6	68	LEU
54	s6	173	PRO
55	s7	64	VAL
55	s7	67	LEU
56	s8	101	ILE
58	c0	88	ILE
60	c2	106	ILE
60	c2	109	GLU
61	c3	66	ILE
63	c5	128	HIS
64	c6	116	LEU
66	c8	91	ASP
72	d4	52	LYS
6	l	292	SER
14	t	77	LEU
29	AB	78	LEU
5	CE	188	ILE
7	CG	20	PHE
7	CG	124	GLU
8	CH	98	VAL

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Mol	Chain	Res	Type
9	CI	158	LYS
15	CO	8	LYS
19	CS	99	THR
28	DB	4	PHE
28	DB	60	LYS
29	DC	24	LYS
29	DC	78	LEU
37	DK	35	ASN
55	I	111	LYS
60	N	85	LYS
63	Q	125	PRO
66	T	91	ASP
73	a	39	ALA
74	b	86	VAL
50	s2	106	ASP
53	s5	101	GLY
60	c2	130	THR
61	c3	140	LYS
5	k	4	ARG
5	k	347	SER
7	m	6	ASP
7	m	259	LYS
9	o	164	SER
13	s	8	PRO
14	t	166	ALA
16	v	94	TYR
17	w	110	PRO
17	w	111	PRO
22	2	159	PHE
28	AA	59	ALA
7	CG	259	LYS
7	CG	295	GLY
9	CI	164	SER
9	CI	191	VAL
14	CN	51	LEU
25	CY	81	PRO
48	B	4	PRO
50	D	40	LYS
53	G	49	GLU
60	N	109	GLU
61	O	27	LYS
63	Q	30	THR

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Mol	Chain	Res	Type
71	Y	98	GLU
72	Z	52	LYS
74	b	61	GLU
48	s0	167	LYS
48	s0	168	HIS
54	s6	174	LYS
55	s7	63	PRO
55	s7	74	GLN
58	c0	90	PRO
63	c5	68	PRO
63	c5	125	PRO
9	o	158	LYS
11	q	23	ARG
13	s	172	LEU
14	t	76	THR
28	AA	60	LYS
45	i	86	ASN
14	CN	166	ALA
16	CP	94	TYR
48	B	196	SER
53	G	127	GLN
54	H	21	GLU
55	I	64	VAL
55	I	132	PRO
56	J	146	ARG
58	L	60	SER
59	M	4	GLU
63	Q	12	PHE
68	V	120	SER
69	W	81	ASN
73	a	44	GLN
49	s1	107	THR
55	s7	66	SER
60	c2	131	ASP
68	d0	51	VAL
72	d4	30	PRO
74	d6	34	LYS
74	d6	46	GLU
5	k	348	ARG
14	t	47	ALA
14	t	62	THR
16	v	146	ALA

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Mol	Chain	Res	Type
30	AC	20	GLY
36	AI	92	LEU
5	CE	348	ARG
9	CI	159	GLN
13	CM	8	PRO
14	CN	62	THR
25	CY	25	ASP
28	DB	103	GLN
36	DJ	85	THR
46	p0	31	ASP
56	J	23	LYS
57	K	134	ILE
59	M	6	THR
63	Q	126	VAL
66	T	92	ILE
80	Rb	281	TYR
49	s1	106	THR
55	s7	65	PRO
61	c3	65	VAL
63	c5	126	VAL
66	c8	92	ILE
4	j	250	GLN
16	v	74	PRO
28	AA	102	GLU
28	AA	103	GLN
14	CN	47	ALA
28	DB	102	GLU
29	DC	48	TYR
45	sM	43	ASP
53	G	39	GLU
54	H	69	LEU
64	R	33	GLY
69	W	11	LEU
53	s5	184	PHE
58	c0	35	ILE
74	d6	62	TYR
10	p	40	VAL
16	v	75	VAL
32	AE	7	VAL
5	CE	317	ILE
21	CU	167	ARG
48	s0	31	VAL

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Mol	Chain	Res	Type
51	s3	216	PRO
59	c1	129	ARG
5	k	188	ILE
71	Y	41	SER
74	b	60	PRO
50	s2	150	GLN
60	c2	22	VAL
64	c6	4	VAL
74	d6	16	GLY
36	DJ	39	PRO
48	B	158	VAL
55	I	131	PHE
60	N	106	ILE
64	c6	5	PRO
66	c8	9	GLY
74	d6	60	PRO
51	E	220	PRO
57	K	163	PRO
69	W	6	GLY

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	
4	CD	193/196 (98%)	152 (79%)	41 (21%)	1	5
4	j	193/196 (98%)	150 (78%)	43 (22%)	1	3
5	CE	320/323 (99%)	254 (79%)	66 (21%)	1	5
5	k	320/323 (99%)	259 (81%)	61 (19%)	1	6
6	CF	288/289 (100%)	249 (86%)	39 (14%)	4	16
6	l	288/289 (100%)	241 (84%)	47 (16%)	2	10
7	CG	244/245 (100%)	198 (81%)	46 (19%)	1	6
7	m	244/245 (100%)	205 (84%)	39 (16%)	2	11
8	CH	134/153 (88%)	114 (85%)	20 (15%)	3	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	n	134/153 (88%)	118 (88%)	16 (12%)	5	20
9	CI	186/205 (91%)	162 (87%)	24 (13%)	4	18
9	o	186/205 (91%)	162 (87%)	24 (13%)	4	18
10	CJ	187/208 (90%)	163 (87%)	24 (13%)	4	18
10	p	187/208 (90%)	162 (87%)	25 (13%)	4	16
11	CK	171/171 (100%)	138 (81%)	33 (19%)	1	6
11	q	171/171 (100%)	140 (82%)	31 (18%)	1	7
12	CL	177/187 (95%)	140 (79%)	37 (21%)	1	5
12	r	177/187 (95%)	140 (79%)	37 (21%)	1	5
13	CM	147/151 (97%)	123 (84%)	24 (16%)	2	10
13	s	147/151 (97%)	113 (77%)	34 (23%)	1	3
14	CN	154/159 (97%)	134 (87%)	20 (13%)	4	18
14	t	154/159 (97%)	130 (84%)	24 (16%)	2	11
15	CO	107/109 (98%)	90 (84%)	17 (16%)	2	11
15	u	107/109 (98%)	91 (85%)	16 (15%)	3	12
16	CP	175/176 (99%)	146 (83%)	29 (17%)	2	9
16	v	175/176 (99%)	149 (85%)	26 (15%)	3	13
17	CQ	160/162 (99%)	141 (88%)	19 (12%)	5	20
17	w	160/162 (99%)	136 (85%)	24 (15%)	3	12
18	CR	140/146 (96%)	117 (84%)	23 (16%)	2	10
18	x	140/146 (96%)	118 (84%)	22 (16%)	2	11
19	CS	150/151 (99%)	128 (85%)	22 (15%)	3	13
19	y	150/151 (99%)	123 (82%)	27 (18%)	1	7
20	CT	153/154 (99%)	131 (86%)	22 (14%)	3	14
20	z	153/154 (99%)	135 (88%)	18 (12%)	5	21
21	0	156/156 (100%)	129 (83%)	27 (17%)	2	9
21	CU	156/156 (100%)	128 (82%)	28 (18%)	2	8
22	2	136/137 (99%)	111 (82%)	25 (18%)	1	7
22	CV	136/137 (99%)	108 (79%)	28 (21%)	1	5
23	5	87/107 (81%)	73 (84%)	14 (16%)	2	10
23	CW	87/107 (81%)	71 (82%)	16 (18%)	1	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
24	6	104/105 (99%)	82 (79%)	22 (21%)	1	5
24	CX	104/105 (99%)	88 (85%)	16 (15%)	2	11
25	7	57/129 (44%)	50 (88%)	7 (12%)	4	19
25	CY	58/129 (45%)	50 (86%)	8 (14%)	3	16
26	8	104/118 (88%)	85 (82%)	19 (18%)	1	7
26	CZ	104/118 (88%)	87 (84%)	17 (16%)	2	10
27	9	109/110 (99%)	84 (77%)	25 (23%)	1	3
27	DA	107/110 (97%)	88 (82%)	19 (18%)	2	8
28	AA	115/116 (99%)	100 (87%)	15 (13%)	4	18
28	DB	115/116 (99%)	99 (86%)	16 (14%)	3	15
29	AB	118/119 (99%)	97 (82%)	21 (18%)	2	8
29	DC	118/119 (99%)	99 (84%)	19 (16%)	2	10
30	AC	46/47 (98%)	35 (76%)	11 (24%)	0	2
30	DD	46/47 (98%)	38 (83%)	8 (17%)	2	9
31	AD	81/88 (92%)	71 (88%)	10 (12%)	4	19
31	DE	81/88 (92%)	70 (86%)	11 (14%)	3	16
32	AE	92/97 (95%)	74 (80%)	18 (20%)	1	6
32	DF	92/97 (95%)	77 (84%)	15 (16%)	2	10
33	AF	109/111 (98%)	96 (88%)	13 (12%)	5	20
33	DG	109/111 (98%)	89 (82%)	20 (18%)	1	7
34	AG	90/91 (99%)	78 (87%)	12 (13%)	4	16
34	DH	90/91 (99%)	79 (88%)	11 (12%)	5	19
35	AH	95/103 (92%)	83 (87%)	12 (13%)	4	18
35	DI	95/103 (92%)	76 (80%)	19 (20%)	1	5
36	AI	104/105 (99%)	83 (80%)	21 (20%)	1	5
36	DJ	104/105 (99%)	82 (79%)	22 (21%)	1	5
37	AJ	81/82 (99%)	63 (78%)	18 (22%)	1	4
37	DK	81/82 (99%)	68 (84%)	13 (16%)	2	11
38	AK	70/71 (99%)	58 (83%)	12 (17%)	2	9
38	DL	70/71 (99%)	55 (79%)	15 (21%)	1	4
39	AL	68/69 (99%)	56 (82%)	12 (18%)	2	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	DM	68/69 (99%)	56 (82%)	12 (18%)	2	8
40	AM	45/46 (98%)	37 (82%)	8 (18%)	2	8
40	DN	45/46 (98%)	37 (82%)	8 (18%)	2	8
41	AN	47/116 (40%)	40 (85%)	7 (15%)	3	13
41	DO	47/116 (40%)	40 (85%)	7 (15%)	3	13
42	AO	23/23 (100%)	18 (78%)	5 (22%)	1	4
42	DP	23/23 (100%)	17 (74%)	6 (26%)	0	1
43	AP	90/91 (99%)	74 (82%)	16 (18%)	2	8
43	DQ	90/91 (99%)	75 (83%)	15 (17%)	2	9
44	AQ	71/72 (99%)	55 (78%)	16 (22%)	1	3
44	DR	71/72 (99%)	63 (89%)	8 (11%)	6	23
45	i	97/228 (42%)	73 (75%)	24 (25%)	0	2
45	sM	54/228 (24%)	44 (82%)	10 (18%)	1	7
46	p0	105/254 (41%)	86 (82%)	19 (18%)	1	7
48	B	164/210 (78%)	137 (84%)	27 (16%)	2	10
48	s0	165/210 (79%)	141 (86%)	24 (14%)	3	13
49	C	191/224 (85%)	160 (84%)	31 (16%)	2	10
49	s1	192/224 (86%)	156 (81%)	36 (19%)	1	6
50	D	176/205 (86%)	143 (81%)	33 (19%)	1	6
50	s2	176/205 (86%)	138 (78%)	38 (22%)	1	4
51	E	182/195 (93%)	150 (82%)	32 (18%)	2	8
51	s3	182/195 (93%)	157 (86%)	25 (14%)	3	16
52	F	221/222 (100%)	180 (81%)	41 (19%)	1	7
52	s4	221/222 (100%)	193 (87%)	28 (13%)	4	18
53	G	173/191 (91%)	146 (84%)	27 (16%)	2	11
53	s5	173/191 (91%)	141 (82%)	32 (18%)	1	7
54	H	188/201 (94%)	155 (82%)	33 (18%)	2	8
54	s6	187/201 (93%)	157 (84%)	30 (16%)	2	11
55	I	165/170 (97%)	134 (81%)	31 (19%)	1	6
55	s7	165/170 (97%)	138 (84%)	27 (16%)	2	10
56	J	150/161 (93%)	131 (87%)	19 (13%)	4	18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
56	s8	150/161 (93%)	130 (87%)	20 (13%)	4	16
57	K	158/166 (95%)	126 (80%)	32 (20%)	1	5
57	s9	158/166 (95%)	130 (82%)	28 (18%)	2	8
58	L	77/98 (79%)	67 (87%)	10 (13%)	4	18
58	c0	73/98 (74%)	60 (82%)	13 (18%)	2	8
59	M	129/137 (94%)	109 (84%)	20 (16%)	2	11
59	c1	129/137 (94%)	105 (81%)	24 (19%)	1	7
60	N	88/119 (74%)	71 (81%)	17 (19%)	1	6
60	c2	88/119 (74%)	73 (83%)	15 (17%)	2	9
61	O	127/128 (99%)	108 (85%)	19 (15%)	3	12
61	c3	127/128 (99%)	107 (84%)	20 (16%)	2	11
62	P	81/105 (77%)	66 (82%)	15 (18%)	1	7
62	c4	97/105 (92%)	80 (82%)	17 (18%)	2	8
63	Q	101/118 (86%)	82 (81%)	19 (19%)	1	6
63	c5	103/118 (87%)	85 (82%)	18 (18%)	2	8
64	R	117/119 (98%)	95 (81%)	22 (19%)	1	6
64	c6	118/119 (99%)	98 (83%)	20 (17%)	2	9
65	S	94/124 (76%)	80 (85%)	14 (15%)	3	13
65	c7	92/124 (74%)	72 (78%)	20 (22%)	1	4
66	T	128/129 (99%)	103 (80%)	25 (20%)	1	6
66	c8	128/129 (99%)	112 (88%)	16 (12%)	4	18
67	U	115/116 (99%)	97 (84%)	18 (16%)	2	11
67	c9	115/116 (99%)	102 (89%)	13 (11%)	6	23
68	V	100/114 (88%)	81 (81%)	19 (19%)	1	6
68	d0	103/114 (90%)	86 (84%)	17 (16%)	2	10
69	W	74/74 (100%)	64 (86%)	10 (14%)	4	16
69	d1	74/74 (100%)	62 (84%)	12 (16%)	2	10
70	X	110/111 (99%)	87 (79%)	23 (21%)	1	5
70	d2	110/111 (99%)	98 (89%)	12 (11%)	6	25
71	Y	119/120 (99%)	105 (88%)	14 (12%)	5	21
71	d3	119/120 (99%)	102 (86%)	17 (14%)	3	14

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
72	Z	112/113 (99%)	101 (90%)	11 (10%)	8	29
72	d4	112/113 (99%)	103 (92%)	9 (8%)	12	40
73	a	61/89 (68%)	43 (70%)	18 (30%)	0	1
73	d5	61/89 (68%)	54 (88%)	7 (12%)	5	22
74	b	83/100 (83%)	70 (84%)	13 (16%)	2	11
74	d6	83/100 (83%)	72 (87%)	11 (13%)	4	16
75	c	70/71 (99%)	61 (87%)	9 (13%)	4	18
75	d7	70/71 (99%)	60 (86%)	10 (14%)	3	14
76	d	56/60 (93%)	49 (88%)	7 (12%)	4	18
76	d8	56/60 (93%)	45 (80%)	11 (20%)	1	6
77	d9	47/49 (96%)	40 (85%)	7 (15%)	3	13
77	e	47/49 (96%)	39 (83%)	8 (17%)	2	9
78	e0	53/54 (98%)	43 (81%)	10 (19%)	1	6
78	f	51/54 (94%)	41 (80%)	10 (20%)	1	6
79	e1	43/135 (32%)	33 (77%)	10 (23%)	1	3
79	g	62/135 (46%)	50 (81%)	12 (19%)	1	6
80	Rb	260/262 (99%)	238 (92%)	22 (8%)	10	37
80	h	259/262 (99%)	232 (90%)	27 (10%)	7	27
All	All	18682/20678 (90%)	15601 (84%)	3081 (16%)	2	10

All (3081) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	j	14	SER
4	j	18	SER
4	j	20	THR
4	j	32	LEU
4	j	37	ARG
4	j	44	ILE
4	j	45	VAL
4	j	48	ILE
4	j	49	VAL
4	j	52	SER
4	j	62	VAL
4	j	71	LEU
4	j	72	ARG

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Mol	Chain	Res	Type
4	j	74	GLU
4	j	79	ASN
4	j	84	THR
4	j	95	SER
4	j	96	LEU
4	j	101	VAL
4	j	104	LEU
4	j	114	SER
4	j	116	VAL
4	j	128	ARG
4	j	130	SER
4	j	134	VAL
4	j	142	ASP
4	j	144	ASN
4	j	149	ARG
4	j	157	VAL
4	j	165	VAL
4	j	177	LYS
4	j	179	LEU
4	j	180	LEU
4	j	202	VAL
4	j	204	MET
4	j	207	VAL
4	j	226	SER
4	j	227	ARG
4	j	230	VAL
4	j	231	SER
4	j	241	ARG
4	j	242	ARG
4	j	243	THR
5	k	5	LYS
5	k	7	GLU
5	k	10	ARG
5	k	17	LEU
5	k	21	ARG
5	k	25	ILE
5	k	30	LYS
5	k	37	ARG
5	k	45	SER
5	k	47	LEU
5	k	56	ILE
5	k	67	PHE

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Mol	Chain	Res	Type
5	k	70	ARG
5	k	71	GLU
5	k	79	VAL
5	k	84	VAL
5	k	85	VAL
5	k	90	VAL
5	k	103	THR
5	k	114	VAL
5	k	116	ARG
5	k	139	GLN
5	k	146	ARG
5	k	147	GLU
5	k	148	LEU
5	k	160	VAL
5	k	178	LEU
5	k	183	LEU
5	k	188	ILE
5	k	192	VAL
5	k	196	ARG
5	k	201	LYS
5	k	202	THR
5	k	205	VAL
5	k	207	SER
5	k	208	VAL
5	k	210	GLU
5	k	211	GLN
5	k	212	ASN
5	k	229	VAL
5	k	235	THR
5	k	236	LYS
5	k	238	LEU
5	k	241	LYS
5	k	244	ARG
5	k	252	ILE
5	k	266	ARG
5	k	274	SER
5	k	284	ARG
5	k	305	ILE
5	k	316	GLU
5	k	320	ASP
5	k	332	ARG
5	k	338	LEU

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Mol	Chain	Res	Type
5	k	347	SER
5	k	348	ARG
5	k	352	GLU
5	k	353	GLU
5	k	361	THR
5	k	364	LYS
5	k	387	LEU
6	l	3	ARG
6	l	25	VAL
6	l	53	SER
6	l	60	THR
6	l	69	ARG
6	l	74	ILE
6	l	93	MET
6	l	112	LYS
6	l	120	TYR
6	l	122	THR
6	l	133	SER
6	l	136	LEU
6	l	138	ARG
6	l	148	ILE
6	l	150	LEU
6	l	152	VAL
6	l	156	LEU
6	l	161	LYS
6	l	172	VAL
6	l	176	SER
6	l	177	ASP
6	l	179	LEU
6	l	185	LYS
6	l	187	LEU
6	l	193	LYS
6	l	200	THR
6	l	203	ARG
6	l	206	LEU
6	l	211	GLU
6	l	220	ARG
6	l	222	VAL
6	l	229	ASN
6	l	230	VAL
6	l	232	SER
6	l	233	LEU

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Mol	Chain	Res	Type
6	l	246	ARG
6	l	258	LEU
6	l	267	VAL
6	l	270	SER
6	l	287	THR
6	l	289	ILE
6	l	306	THR
6	l	307	GLN
6	l	323	VAL
6	l	338	LYS
6	l	339	LEU
6	l	349	THR
7	m	5	LYS
7	m	23	ARG
7	m	41	LYS
7	m	66	SER
7	m	67	SER
7	m	68	THR
7	m	69	ILE
7	m	75	LEU
7	m	105	ILE
7	m	112	LYS
7	m	113	LEU
7	m	115	LEU
7	m	116	ASP
7	m	118	THR
7	m	137	ASP
7	m	140	ARG
7	m	146	LEU
7	m	151	GLN
7	m	152	ARG
7	m	154	THR
7	m	155	THR
7	m	158	ARG
7	m	159	VAL
7	m	163	LEU
7	m	177	GLU
7	m	185	PHE
7	m	187	THR
7	m	188	GLU
7	m	194	LEU
7	m	205	SER

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Mol	Chain	Res	Type
7	m	216	GLU
7	m	229	ASP
7	m	231	ILE
7	m	234	ASP
7	m	236	LEU
7	m	242	SER
7	m	258	LYS
7	m	279	LYS
7	m	293	LEU
8	n	5	LYS
8	n	8	LYS
8	n	21	THR
8	n	31	ARG
8	n	50	LYS
8	n	56	LYS
8	n	65	ILE
8	n	78	ARG
8	n	89	THR
8	n	93	VAL
8	n	98	VAL
8	n	129	GLU
8	n	130	ILE
8	n	134	ARG
8	n	155	LEU
8	n	162	SER
9	o	25	GLN
9	o	26	VAL
9	o	45	LEU
9	o	46	GLU
9	o	54	GLU
9	o	60	ARG
9	o	80	GLN
9	o	82	LYS
9	o	93	ASN
9	o	98	LYS
9	o	100	ARG
9	o	101	LYS
9	o	110	ARG
9	o	124	LEU
9	o	143	THR
9	o	157	ASN
9	o	158	LYS

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Mol	Chain	Res	Type
9	o	164	SER
9	o	169	ILE
9	o	175	LYS
9	o	179	LEU
9	o	184	LEU
9	o	228	SER
9	o	239	LEU
10	p	27	THR
10	p	38	GLN
10	p	50	VAL
10	p	65	LEU
10	p	71	VAL
10	p	74	THR
10	p	79	GLN
10	p	81	THR
10	p	83	ASP
10	p	84	ARG
10	p	92	LYS
10	p	106	LYS
10	p	110	THR
10	p	118	GLU
10	p	132	VAL
10	p	136	LEU
10	p	145	ASN
10	p	160	ILE
10	p	163	VAL
10	p	169	LEU
10	p	185	ARG
10	p	189	LEU
10	p	206	GLU
10	p	248	LYS
10	p	251	LYS
11	q	2	LYS
11	q	18	VAL
11	q	19	SER
11	q	20	ILE
11	q	33	THR
11	q	41	ILE
11	q	48	VAL
11	q	49	ASN
11	q	52	LEU
11	q	68	LEU

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Mol	Chain	Res	Type
11	q	69	ARG
11	q	70	THR
11	q	82	VAL
11	q	87	LYS
11	q	110	LYS
11	q	118	LEU
11	q	129	ARG
11	q	132	VAL
11	q	133	THR
11	q	135	GLU
11	q	138	THR
11	q	139	ASN
11	q	151	VAL
11	q	157	ASN
11	q	161	LEU
11	q	162	GLN
11	q	172	ILE
11	q	173	ARG
11	q	177	ASP
11	q	189	GLU
11	q	190	ASP
12	r	3	ARG
12	r	21	ARG
12	r	24	ARG
12	r	26	VAL
12	r	30	LYS
12	r	31	ILE
12	r	32	ARG
12	r	36	LEU
12	r	40	LYS
12	r	42	THR
12	r	52	LEU
12	r	63	GLU
12	r	74	LYS
12	r	78	THR
12	r	87	LEU
12	r	99	ILE
12	r	102	MET
12	r	129	VAL
12	r	133	GLN
12	r	138	VAL
12	r	139	ARG

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Mol	Chain	Res	Type
12	r	140	THR
12	r	142	ASP
12	r	146	ASP
12	r	148	VAL
12	r	163	GLN
12	r	164	LYS
12	r	165	ILE
12	r	169	LYS
12	r	177	ASP
12	r	178	ARG
12	r	185	ARG
12	r	191	LYS
12	r	192	ASP
12	r	197	VAL
12	r	203	LYS
12	r	208	ASN
13	s	7	ASN
13	s	9	MET
13	s	10	ARG
13	s	12	LEU
13	s	13	LYS
13	s	22	SER
13	s	25	GLU
13	s	29	ARG
13	s	30	LEU
13	s	31	THR
13	s	40	LEU
13	s	44	THR
13	s	46	VAL
13	s	56	THR
13	s	70	THR
13	s	80	LEU
13	s	81	GLU
13	s	82	ARG
13	s	94	ARG
13	s	95	ASN
13	s	106	ILE
13	s	107	ASP
13	s	111	ASP
13	s	112	LEU
13	s	130	VAL
13	s	138	VAL

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Mol	Chain	Res	Type
13	s	140	ARG
13	s	142	LYS
13	s	143	ARG
13	s	151	SER
13	s	157	GLU
13	s	161	SER
13	s	168	ASP
13	s	172	LEU
14	t	23	LYS
14	t	41	THR
14	t	46	ILE
14	t	54	LEU
14	t	55	ARG
14	t	58	VAL
14	t	59	ARG
14	t	64	LYS
14	t	67	ARG
14	t	69	VAL
14	t	107	GLU
14	t	108	ILE
14	t	114	GLN
14	t	115	ARG
14	t	116	LEU
14	t	121	SER
14	t	124	ILE
14	t	131	LYS
14	t	138	VAL
14	t	165	SER
14	t	168	ARG
14	t	169	THR
14	t	171	ARG
14	t	190	LYS
15	u	3	THR
15	u	4	ASP
15	u	6	ILE
15	u	27	GLN
15	u	50	LYS
15	u	53	VAL
15	u	55	ARG
15	u	66	THR
15	u	90	VAL
15	u	92	GLU

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Mol	Chain	Res	Type
15	u	93	LYS
15	u	102	LYS
15	u	105	GLN
15	u	122	VAL
15	u	130	THR
15	u	135	LEU
16	v	10	LEU
16	v	15	GLN
16	v	19	LEU
16	v	20	ARG
16	v	22	LEU
16	v	24	ARG
16	v	38	ARG
16	v	49	ARG
16	v	50	ARG
16	v	80	THR
16	v	85	THR
16	v	92	LEU
16	v	93	LYS
16	v	96	ARG
16	v	106	VAL
16	v	109	ARG
16	v	117	ASN
16	v	133	ILE
16	v	138	GLN
16	v	151	ILE
16	v	167	THR
16	v	170	LYS
16	v	182	ASN
16	v	188	ARG
16	v	190	THR
16	v	204	LYS
17	w	22	VAL
17	w	33	ILE
17	w	34	VAL
17	w	58	LEU
17	w	59	ARG
17	w	68	ARG
17	w	78	ARG
17	w	84	LEU
17	w	85	ARG
17	w	106	GLU

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Mol	Chain	Res	Type
17	w	110	PRO
17	w	116	LYS
17	w	117	ARG
17	w	122	GLN
17	w	124	LEU
17	w	126	VAL
17	w	128	ARG
17	w	129	LEU
17	w	134	LYS
17	w	140	LYS
17	w	143	THR
17	w	160	ARG
17	w	166	GLU
17	w	184	THR
18	x	9	THR
18	x	14	SER
18	x	24	VAL
18	x	25	SER
18	x	29	THR
18	x	32	THR
18	x	40	GLU
18	x	42	THR
18	x	52	LEU
18	x	55	GLN
18	x	67	ILE
18	x	78	VAL
18	x	91	VAL
18	x	107	LEU
18	x	119	VAL
18	x	126	ARG
18	x	127	ARG
18	x	142	SER
18	x	157	VAL
18	x	168	LEU
18	x	180	LYS
18	x	181	ARG
19	y	3	ILE
19	y	17	THR
19	y	21	SER
19	y	24	VAL
19	y	26	LEU
19	y	32	LEU

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Mol	Chain	Res	Type
19	y	34	THR
19	y	41	ASP
19	y	49	LEU
19	y	57	ILE
19	y	63	SER
19	y	69	ARG
19	y	80	THR
19	y	81	VAL
19	y	86	THR
19	y	98	LYS
19	y	99	THR
19	y	100	THR
19	y	122	ILE
19	y	127	LEU
19	y	135	GLN
19	y	138	LEU
19	y	147	ARG
19	y	159	LYS
19	y	179	ARG
19	y	180	ARG
19	y	182	LYS
20	z	10	LEU
20	z	20	ARG
20	z	29	THR
20	z	46	LYS
20	z	52	LYS
20	z	55	VAL
20	z	74	ARG
20	z	99	LEU
20	z	103	ARG
20	z	104	ARG
20	z	106	LEU
20	z	116	ASP
20	z	120	TYR
20	z	138	LEU
20	z	175	GLN
20	z	177	VAL
20	z	180	LYS
20	z	188	ASP
21	0	1	MET
21	0	16	THR
21	0	17	GLU

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Mol	Chain	Res	Type
21	0	45	LEU
21	0	50	LYS
21	0	51	VAL
21	0	58	ILE
21	0	61	ILE
21	0	80	ARG
21	0	87	THR
21	0	92	LYS
21	0	100	VAL
21	0	104	GLU
21	0	105	THR
21	0	115	ARG
21	0	117	ARG
21	0	137	ARG
21	0	138	GLN
21	0	142	GLN
21	0	145	THR
21	0	155	ARG
21	0	156	VAL
21	0	157	GLN
21	0	162	THR
21	0	168	PRO
21	0	171	PHE
21	0	172	TYR
22	2	4	SER
22	2	12	ARG
22	2	18	ASP
22	2	25	VAL
22	2	32	LYS
22	2	55	LYS
22	2	75	ILE
22	2	78	LYS
22	2	79	MET
22	2	80	VAL
22	2	83	ARG
22	2	88	ARG
22	2	96	ILE
22	2	102	ARG
22	2	106	LEU
22	2	110	LYS
22	2	126	VAL
22	2	127	GLN

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Mol	Chain	Res	Type
22	2	128	LEU
22	2	139	ARG
22	2	143	THR
22	2	149	GLN
22	2	151	LEU
22	2	158	THR
22	2	159	PHE
23	5	10	LYS
23	5	11	ILE
23	5	16	THR
23	5	32	SER
23	5	39	ASP
23	5	52	ASN
23	5	61	THR
23	5	66	VAL
23	5	70	LYS
23	5	88	GLN
23	5	91	ASP
23	5	92	TRP
23	5	93	ILE
23	5	100	THR
24	6	7	GLN
24	6	9	THR
24	6	13	ILE
24	6	23	MET
24	6	32	ARG
24	6	42	SER
24	6	44	SER
24	6	45	ARG
24	6	48	ARG
24	6	54	LEU
24	6	63	LYS
24	6	64	LYS
24	6	73	VAL
24	6	74	MET
24	6	83	LYS
24	6	91	VAL
24	6	102	ILE
24	6	104	ASN
24	6	115	THR
24	6	120	LYS
24	6	125	LEU

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Mol	Chain	Res	Type
24	6	133	SER
25	7	4	GLU
25	7	5	ILE
25	7	17	ARG
25	7	19	THR
25	7	39	LEU
25	7	43	ARG
25	7	64	THR
26	8	26	VAL
26	8	27	ARG
26	8	36	LYS
26	8	37	THR
26	8	38	LEU
26	8	40	LEU
26	8	59	SER
26	8	63	ILE
26	8	71	THR
26	8	74	LYS
26	8	86	VAL
26	8	105	VAL
26	8	108	LEU
26	8	113	LEU
26	8	115	ARG
26	8	125	ARG
26	8	133	LEU
26	8	135	ILE
26	8	142	ILE
27	9	5	SER
27	9	8	VAL
27	9	13	ARG
27	9	17	LYS
27	9	26	GLN
27	9	37	LYS
27	9	38	GLU
27	9	42	GLN
27	9	45	ILE
27	9	50	ILE
27	9	51	ARG
27	9	56	VAL
27	9	57	LEU
27	9	60	ARG
27	9	64	LYS

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Mol	Chain	Res	Type
27	9	70	ILE
27	9	71	SER
27	9	74	TYR
27	9	76	LEU
27	9	80	VAL
27	9	86	THR
27	9	94	SER
27	9	105	VAL
27	9	115	ARG
27	9	126	LEU
28	AA	14	VAL
28	AA	24	VAL
28	AA	26	VAL
28	AA	46	ILE
28	AA	47	GLU
28	AA	65	ARG
28	AA	72	ILE
28	AA	81	LEU
28	AA	83	THR
28	AA	86	THR
28	AA	90	GLU
28	AA	103	GLN
28	AA	107	ARG
28	AA	109	GLU
28	AA	134	LEU
29	AB	3	SER
29	AB	4	ARG
29	AB	6	THR
29	AB	8	THR
29	AB	10	LYS
29	AB	12	ARG
29	AB	16	SER
29	AB	24	LYS
29	AB	27	LYS
29	AB	29	PRO
29	AB	42	ARG
29	AB	46	ASP
29	AB	47	LYS
29	AB	60	TYR
29	AB	68	PHE
29	AB	78	LEU
29	AB	91	LEU

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Mol	Chain	Res	Type
29	AB	92	LYS
29	AB	98	THR
29	AB	115	LYS
29	AB	120	ASN
30	AC	13	THR
30	AC	14	ARG
30	AC	23	LYS
30	AC	25	LYS
30	AC	29	TYR
30	AC	35	VAL
30	AC	38	LYS
30	AC	40	ARG
30	AC	44	LYS
30	AC	50	THR
30	AC	59	LYS
31	AD	16	LEU
31	AD	24	THR
31	AD	32	LYS
31	AD	34	LEU
31	AD	40	LYS
31	AD	54	SER
31	AD	61	MET
31	AD	76	GLU
31	AD	83	LYS
31	AD	104	LEU
32	AE	6	ASP
32	AE	7	VAL
32	AE	8	VAL
32	AE	13	THR
32	AE	16	LEU
32	AE	26	LYS
32	AE	31	ARG
32	AE	64	VAL
32	AE	65	LYS
32	AE	68	GLU
32	AE	79	ARG
32	AE	84	ASP
32	AE	89	LEU
32	AE	96	VAL
32	AE	97	LEU
32	AE	100	SER
32	AE	106	THR

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Mol	Chain	Res	Type
32	AE	107	VAL
33	AF	12	LYS
33	AF	19	ARG
33	AF	27	ARG
33	AF	33	ARG
33	AF	51	SER
33	AF	54	LYS
33	AF	61	LYS
33	AF	62	LYS
33	AF	73	THR
33	AF	75	LEU
33	AF	84	THR
33	AF	125	ARG
33	AF	128	LEU
34	AG	15	SER
34	AG	28	SER
34	AG	31	LYS
34	AG	48	ARG
34	AG	58	GLU
34	AG	60	ARG
34	AG	70	LYS
34	AG	80	VAL
34	AG	81	VAL
34	AG	92	LYS
34	AG	98	VAL
34	AG	105	SER
35	AH	5	VAL
35	AH	8	ARG
35	AH	20	ILE
35	AH	29	ILE
35	AH	31	ARG
35	AH	51	LEU
35	AH	56	THR
35	AH	65	VAL
35	AH	71	THR
35	AH	74	ARG
35	AH	86	LYS
35	AH	104	VAL
36	AI	11	THR
36	AI	15	GLU
36	AI	21	LEU
36	AI	31	LEU

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Mol	Chain	Res	Type
36	AI	36	LEU
36	AI	40	SER
36	AI	43	LYS
36	AI	47	VAL
36	AI	49	LYS
36	AI	50	SER
36	AI	62	GLN
36	AI	76	GLN
36	AI	84	LYS
36	AI	85	THR
36	AI	89	ARG
36	AI	90	ARG
36	AI	96	GLU
36	AI	101	THR
36	AI	102	GLU
36	AI	107	LYS
36	AI	115	LYS
37	AJ	2	THR
37	AJ	11	LEU
37	AJ	17	VAL
37	AJ	18	THR
37	AJ	19	SER
37	AJ	25	LYS
37	AJ	26	ILE
37	AJ	29	LYS
37	AJ	36	ARG
37	AJ	45	ARG
37	AJ	57	LEU
37	AJ	58	ILE
37	AJ	62	ARG
37	AJ	70	ARG
37	AJ	81	THR
37	AJ	88	GLU
37	AJ	90	MET
37	AJ	98	ARG
38	AK	5	THR
38	AK	17	THR
38	AK	24	ARG
38	AK	25	ARG
38	AK	33	THR
38	AK	44	THR
38	AK	45	ARG

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Mol	Chain	Res	Type
38	AK	55	ARG
38	AK	59	THR
38	AK	65	ARG
38	AK	67	LEU
38	AK	82	SER
39	AL	5	ILE
39	AL	9	LYS
39	AL	24	THR
39	AL	31	LEU
39	AL	32	ASN
39	AL	33	LYS
39	AL	53	THR
39	AL	64	LYS
39	AL	65	LEU
39	AL	67	GLN
39	AL	72	THR
39	AL	77	ARG
40	AM	4	GLN
40	AM	18	LYS
40	AM	21	ARG
40	AM	27	ILE
40	AM	29	LEU
40	AM	34	THR
40	AM	45	ARG
40	AM	51	ILE
41	AN	80	PRO
41	AN	85	LEU
41	AN	94	SER
41	AN	108	THR
41	AN	113	ARG
41	AN	126	LYS
41	AN	127	LEU
42	AO	9	ARG
42	AO	11	ARG
42	AO	13	LEU
42	AO	16	LYS
42	AO	21	ARG
43	AP	2	VAL
43	AP	7	THR
43	AP	16	THR
43	AP	26	THR
43	AP	29	LYS

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Mol	Chain	Res	Type
43	AP	38	GLN
43	AP	47	GLN
43	AP	54	THR
43	AP	71	ARG
43	AP	76	LYS
43	AP	77	CYS
43	AP	78	LYS
43	AP	79	THR
43	AP	83	LEU
43	AP	84	THR
43	AP	85	LEU
44	AQ	11	THR
44	AQ	21	SER
44	AQ	25	GLN
44	AQ	40	SER
44	AQ	42	CYS
44	AQ	45	LYS
44	AQ	49	ARG
44	AQ	56	THR
44	AQ	60	CYS
44	AQ	62	LYS
44	AQ	70	THR
44	AQ	78	THR
44	AQ	80	ARG
44	AQ	84	ARG
44	AQ	90	VAL
44	AQ	91	GLU
45	i	27	LYS
45	i	28	SER
45	i	33	LYS
45	i	34	LYS
45	i	46	LYS
45	i	51	ARG
45	i	53	ARG
45	i	55	SER
45	i	61	ILE
45	i	64	LYS
45	i	68	ARG
45	i	69	ARG
45	i	84	LYS
45	i	86	ASN
45	i	91	THR

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Mol	Chain	Res	Type
45	i	97	THR
45	i	102	THR
45	i	104	LYS
45	i	116	GLU
45	i	117	LEU
45	i	124	GLN
45	i	130	GLU
45	i	131	ILE
45	i	134	ASP
4	CD	3	ARG
4	CD	20	THR
4	CD	23	ARG
4	CD	30	ARG
4	CD	32	LEU
4	CD	41	ILE
4	CD	44	ILE
4	CD	45	VAL
4	CD	46	LYS
4	CD	48	ILE
4	CD	49	VAL
4	CD	52	SER
4	CD	62	VAL
4	CD	73	GLU
4	CD	74	GLU
4	CD	82	VAL
4	CD	84	THR
4	CD	95	SER
4	CD	101	VAL
4	CD	104	LEU
4	CD	116	VAL
4	CD	122	ASP
4	CD	128	ARG
4	CD	137	ILE
4	CD	142	ASP
4	CD	143	GLU
4	CD	147	ARG
4	CD	157	VAL
4	CD	169	ILE
4	CD	175	VAL
4	CD	179	LEU
4	CD	180	LEU
4	CD	188	LYS

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Mol	Chain	Res	Type
4	CD	204	MET
4	CD	226	SER
4	CD	227	ARG
4	CD	230	VAL
4	CD	241	ARG
4	CD	243	THR
4	CD	250	GLN
4	CD	251	LYS
5	CE	4	ARG
5	CE	7	GLU
5	CE	10	ARG
5	CE	17	LEU
5	CE	21	ARG
5	CE	25	ILE
5	CE	30	LYS
5	CE	43	LEU
5	CE	44	THR
5	CE	47	LEU
5	CE	56	ILE
5	CE	66	LYS
5	CE	69	LYS
5	CE	79	VAL
5	CE	85	VAL
5	CE	95	THR
5	CE	103	THR
5	CE	114	VAL
5	CE	126	LYS
5	CE	134	SER
5	CE	139	GLN
5	CE	145	GLU
5	CE	148	LEU
5	CE	150	ARG
5	CE	156	SER
5	CE	157	VAL
5	CE	167	ARG
5	CE	169	THR
5	CE	183	LEU
5	CE	188	ILE
5	CE	192	VAL
5	CE	196	ARG
5	CE	200	GLU
5	CE	201	LYS

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Mol	Chain	Res	Type
5	CE	202	THR
5	CE	205	VAL
5	CE	212	ASN
5	CE	213	GLU
5	CE	221	THR
5	CE	229	VAL
5	CE	232	ARG
5	CE	235	THR
5	CE	236	LYS
5	CE	238	LEU
5	CE	246	LEU
5	CE	252	ILE
5	CE	256	HIS
5	CE	264	VAL
5	CE	274	SER
5	CE	277	SER
5	CE	282	ILE
5	CE	284	ARG
5	CE	297	SER
5	CE	305	ILE
5	CE	316	GLU
5	CE	325	LYS
5	CE	328	ILE
5	CE	332	ARG
5	CE	337	THR
5	CE	338	LEU
5	CE	347	SER
5	CE	348	ARG
5	CE	363	SER
5	CE	364	LYS
5	CE	382	THR
5	CE	386	ASP
6	CF	47	ARG
6	CF	74	ILE
6	CF	85	SER
6	CF	93	MET
6	CF	110	ASN
6	CF	120	TYR
6	CF	133	SER
6	CF	138	ARG
6	CF	144	LYS
6	CF	148	ILE

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Mol	Chain	Res	Type
6	CF	150	LEU
6	CF	156	LEU
6	CF	170	LYS
6	CF	176	SER
6	CF	177	ASP
6	CF	179	LEU
6	CF	187	LEU
6	CF	188	ARG
6	CF	200	THR
6	CF	203	ARG
6	CF	206	LEU
6	CF	215	ILE
6	CF	220	ARG
6	CF	222	VAL
6	CF	230	VAL
6	CF	246	ARG
6	CF	258	LEU
6	CF	259	ASP
6	CF	265	GLU
6	CF	292	SER
6	CF	299	ILE
6	CF	306	THR
6	CF	307	GLN
6	CF	327	LEU
6	CF	332	LYS
6	CF	333	VAL
6	CF	338	LYS
6	CF	346	LYS
6	CF	354	VAL
7	CG	4	GLN
7	CG	5	LYS
7	CG	8	LYS
7	CG	20	PHE
7	CG	23	ARG
7	CG	35	ARG
7	CG	38	THR
7	CG	41	LYS
7	CG	45	ASN
7	CG	63	GLN
7	CG	66	SER
7	CG	68	THR
7	CG	75	LEU

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Mol	Chain	Res	Type
7	CG	89	THR
7	CG	92	LEU
7	CG	95	TRP
7	CG	105	ILE
7	CG	107	ARG
7	CG	110	LEU
7	CG	115	LEU
7	CG	116	ASP
7	CG	118	THR
7	CG	124	GLU
7	CG	126	GLU
7	CG	131	LEU
7	CG	140	ARG
7	CG	146	LEU
7	CG	148	ILE
7	CG	151	GLN
7	CG	152	ARG
7	CG	155	THR
7	CG	163	LEU
7	CG	164	LYS
7	CG	176	SER
7	CG	177	GLU
7	CG	185	PHE
7	CG	187	THR
7	CG	188	GLU
7	CG	194	LEU
7	CG	213	ASP
7	CG	227	LEU
7	CG	230	ASP
7	CG	263	GLU
7	CG	275	THR
7	CG	278	SER
7	CG	297	GLN
8	CH	8	LYS
8	CH	12	SER
8	CH	14	ASP
8	CH	21	THR
8	CH	31	ARG
8	CH	46	ARG
8	CH	48	ARG
8	CH	52	VAL
8	CH	58	LEU

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Mol	Chain	Res	Type
8	CH	65	ILE
8	CH	78	ARG
8	CH	88	SER
8	CH	89	THR
8	CH	97	ASN
8	CH	109	GLU
8	CH	129	GLU
8	CH	131	LYS
8	CH	134	ARG
8	CH	152	THR
8	CH	155	LEU
9	CI	24	GLU
9	CI	25	GLN
9	CI	29	GLU
9	CI	38	LYS
9	CI	60	ARG
9	CI	77	VAL
9	CI	82	LYS
9	CI	83	LEU
9	CI	89	ILE
9	CI	92	ILE
9	CI	93	ASN
9	CI	98	LYS
9	CI	100	ARG
9	CI	101	LYS
9	CI	124	LEU
9	CI	158	LYS
9	CI	164	SER
9	CI	168	ILE
9	CI	173	LEU
9	CI	179	LEU
9	CI	184	LEU
9	CI	218	ARG
9	CI	225	GLN
9	CI	239	LEU
10	CJ	26	LEU
10	CJ	27	THR
10	CJ	41	GLN
10	CJ	50	VAL
10	CJ	71	VAL
10	CJ	74	THR
10	CJ	79	GLN

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Mol	Chain	Res	Type
10	CJ	81	THR
10	CJ	84	ARG
10	CJ	85	ASN
10	CJ	100	GLU
10	CJ	118	GLU
10	CJ	136	LEU
10	CJ	153	ILE
10	CJ	169	LEU
10	CJ	172	LYS
10	CJ	185	ARG
10	CJ	189	LEU
10	CJ	197	VAL
10	CJ	202	GLU
10	CJ	203	VAL
10	CJ	206	GLU
10	CJ	248	LYS
10	CJ	249	ARG
11	CK	1	MET
11	CK	5	GLN
11	CK	17	THR
11	CK	18	VAL
11	CK	22	SER
11	CK	33	THR
11	CK	41	ILE
11	CK	46	THR
11	CK	48	VAL
11	CK	52	LEU
11	CK	55	VAL
11	CK	62	ARG
11	CK	68	LEU
11	CK	69	ARG
11	CK	70	THR
11	CK	82	VAL
11	CK	107	ASP
11	CK	110	LYS
11	CK	121	LYS
11	CK	122	LYS
11	CK	133	THR
11	CK	138	THR
11	CK	139	ASN
11	CK	150	SER
11	CK	151	VAL

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Mol	Chain	Res	Type
11	CK	157	ASN
11	CK	161	LEU
11	CK	162	GLN
11	CK	164	ILE
11	CK	166	ARG
11	CK	173	ARG
11	CK	177	ASP
11	CK	191	LEU
12	CL	3	ARG
12	CL	24	ARG
12	CL	26	VAL
12	CL	28	ASP
12	CL	29	SER
12	CL	30	LYS
12	CL	32	ARG
12	CL	33	ILE
12	CL	36	LEU
12	CL	44	ASP
12	CL	48	LEU
12	CL	50	VAL
12	CL	52	LEU
12	CL	57	LEU
12	CL	58	GLU
12	CL	77	THR
12	CL	82	ARG
12	CL	87	LEU
12	CL	91	VAL
12	CL	116	ARG
12	CL	130	ASP
12	CL	139	ARG
12	CL	140	THR
12	CL	145	LYS
12	CL	156	ARG
12	CL	165	ILE
12	CL	167	LEU
12	CL	169	LYS
12	CL	174	THR
12	CL	177	ASP
12	CL	180	GLU
12	CL	182	LEU
12	CL	191	LYS
12	CL	197	VAL

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Mol	Chain	Res	Type
12	CL	205	SER
12	CL	208	ASN
12	CL	209	ASN
13	CM	9	MET
13	CM	10	ARG
13	CM	12	LEU
13	CM	13	LYS
13	CM	22	SER
13	CM	28	ASP
13	CM	37	LEU
13	CM	40	LEU
13	CM	44	THR
13	CM	55	ARG
13	CM	56	THR
13	CM	70	THR
13	CM	80	LEU
13	CM	82	ARG
13	CM	87	LYS
13	CM	101	ASN
13	CM	106	ILE
13	CM	107	ASP
13	CM	130	VAL
13	CM	137	ARG
13	CM	140	ARG
13	CM	142	LYS
13	CM	166	LYS
13	CM	172	LEU
14	CN	5	LYS
14	CN	9	ILE
14	CN	23	LYS
14	CN	54	LEU
14	CN	55	ARG
14	CN	67	ARG
14	CN	69	VAL
14	CN	107	GLU
14	CN	108	ILE
14	CN	117	LYS
14	CN	118	GLU
14	CN	122	LYS
14	CN	124	ILE
14	CN	131	LYS
14	CN	134	GLU

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Mol	Chain	Res	Type
14	CN	164	GLU
14	CN	165	SER
14	CN	168	ARG
14	CN	171	ARG
14	CN	176	GLU
15	CO	5	SER
15	CO	10	SER
15	CO	11	ASN
15	CO	16	GLU
15	CO	20	VAL
15	CO	38	ILE
15	CO	42	LYS
15	CO	53	VAL
15	CO	58	ILE
15	CO	63	VAL
15	CO	66	THR
15	CO	72	LEU
15	CO	82	SER
15	CO	92	GLU
15	CO	102	LYS
15	CO	113	THR
15	CO	130	THR
16	CP	8	GLU
16	CP	10	LEU
16	CP	15	GLN
16	CP	20	ARG
16	CP	22	LEU
16	CP	24	ARG
16	CP	38	ARG
16	CP	46	ASP
16	CP	50	ARG
16	CP	80	THR
16	CP	85	THR
16	CP	87	GLN
16	CP	93	LYS
16	CP	95	GLN
16	CP	96	ARG
16	CP	104	GLU
16	CP	106	VAL
16	CP	109	ARG
16	CP	113	LEU
16	CP	117	ASN

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Mol	Chain	Res	Type
16	CP	133	ILE
16	CP	138	GLN
16	CP	151	ILE
16	CP	153	ASP
16	CP	155	VAL
16	CP	170	LYS
16	CP	171	SER
16	CP	184	LYS
16	CP	190	THR
17	CQ	22	VAL
17	CQ	33	ILE
17	CQ	41	LEU
17	CQ	58	LEU
17	CQ	59	ARG
17	CQ	66	LYS
17	CQ	67	THR
17	CQ	78	ARG
17	CQ	85	ARG
17	CQ	106	GLU
17	CQ	117	ARG
17	CQ	122	GLN
17	CQ	128	ARG
17	CQ	129	LEU
17	CQ	134	LYS
17	CQ	166	GLU
17	CQ	180	SER
17	CQ	184	THR
17	CQ	190	VAL
18	CR	3	ARG
18	CR	7	THR
18	CR	9	THR
18	CR	24	VAL
18	CR	32	THR
18	CR	52	LEU
18	CR	53	ASP
18	CR	55	GLN
18	CR	69	ARG
18	CR	78	VAL
18	CR	110	THR
18	CR	111	LYS
18	CR	112	LEU
18	CR	114	VAL

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Mol	Chain	Res	Type
18	CR	119	VAL
18	CR	128	ARG
18	CR	129	THR
18	CR	144	SER
18	CR	166	VAL
18	CR	168	LEU
18	CR	169	THR
18	CR	171	ARG
18	CR	175	ARG
19	CS	3	ILE
19	CS	7	SER
19	CS	17	THR
19	CS	22	ASP
19	CS	32	LEU
19	CS	34	THR
19	CS	39	ARG
19	CS	41	ASP
19	CS	49	LEU
19	CS	63	SER
19	CS	64	VAL
19	CS	66	ARG
19	CS	80	THR
19	CS	81	VAL
19	CS	86	THR
19	CS	93	ILE
19	CS	100	THR
19	CS	113	LYS
19	CS	135	GLN
19	CS	168	THR
19	CS	180	ARG
19	CS	185	LYS
20	CT	10	LEU
20	CT	29	THR
20	CT	30	SER
20	CT	41	ILE
20	CT	42	ARG
20	CT	43	LYS
20	CT	52	LYS
20	CT	60	LYS
20	CT	76	SER
20	CT	103	ARG
20	CT	111	ASP

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Mol	Chain	Res	Type
20	CT	133	LYS
20	CT	138	LEU
20	CT	148	ASP
20	CT	150	GLN
20	CT	153	LYS
20	CT	165	LYS
20	CT	166	ASN
20	CT	173	ARG
20	CT	177	VAL
20	CT	180	LYS
20	CT	182	ASP
21	CU	16	THR
21	CU	45	LEU
21	CU	52	LYS
21	CU	57	GLU
21	CU	58	ILE
21	CU	61	ILE
21	CU	62	ASN
21	CU	71	LYS
21	CU	80	ARG
21	CU	87	THR
21	CU	97	VAL
21	CU	100	VAL
21	CU	105	THR
21	CU	115	ARG
21	CU	117	ARG
21	CU	132	THR
21	CU	136	LYS
21	CU	137	ARG
21	CU	145	THR
21	CU	149	LYS
21	CU	156	VAL
21	CU	157	GLN
21	CU	160	THR
21	CU	162	THR
21	CU	164	SER
21	CU	167	ARG
21	CU	169	SER
21	CU	172	TYR
22	CV	12	ARG
22	CV	16	GLN
22	CV	25	VAL

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Mol	Chain	Res	Type
22	CV	26	HIS
22	CV	27	LEU
22	CV	36	VAL
22	CV	71	SER
22	CV	75	ILE
22	CV	76	ILE
22	CV	78	LYS
22	CV	80	VAL
22	CV	83	ARG
22	CV	88	ARG
22	CV	89	LEU
22	CV	96	ILE
22	CV	102	ARG
22	CV	103	GLN
22	CV	104	GLU
22	CV	106	LEU
22	CV	124	VAL
22	CV	126	VAL
22	CV	127	GLN
22	CV	128	LEU
22	CV	139	ARG
22	CV	141	VAL
22	CV	143	THR
22	CV	159	PHE
22	CV	160	ILE
23	CW	10	LYS
23	CW	15	PHE
23	CW	16	THR
23	CW	20	SER
23	CW	38	ILE
23	CW	43	VAL
23	CW	49	ASN
23	CW	52	ASN
23	CW	54	VAL
23	CW	58	GLU
23	CW	59	ASP
23	CW	63	VAL
23	CW	66	VAL
23	CW	75	TYR
23	CW	94	ARG
23	CW	105	LEU
24	CX	2	SER

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Mol	Chain	Res	Type
24	CX	7	GLN
24	CX	13	ILE
24	CX	32	ARG
24	CX	45	ARG
24	CX	48	ARG
24	CX	63	LYS
24	CX	64	LYS
24	CX	69	LEU
24	CX	73	VAL
24	CX	74	MET
24	CX	83	LYS
24	CX	88	ARG
24	CX	91	VAL
24	CX	102	ILE
24	CX	120	LYS
25	CY	1	MET
25	CY	4	GLU
25	CY	19	THR
25	CY	26	SER
25	CY	39	LEU
25	CY	54	LEU
25	CY	63	ILE
25	CY	80	ARG
26	CZ	27	ARG
26	CZ	37	THR
26	CZ	38	LEU
26	CZ	39	LYS
26	CZ	45	LYS
26	CZ	48	SER
26	CZ	63	ILE
26	CZ	71	THR
26	CZ	74	LYS
26	CZ	75	LYS
26	CZ	112	THR
26	CZ	115	ARG
26	CZ	125	ARG
26	CZ	127	THR
26	CZ	135	ILE
26	CZ	137	ASN
26	CZ	139	ILE
27	DA	3	LYS
27	DA	4	GLN

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Mol	Chain	Res	Type
27	DA	9	SER
27	DA	10	SER
27	DA	13	ARG
27	DA	17	LYS
27	DA	37	LYS
27	DA	45	ILE
27	DA	50	ILE
27	DA	51	ARG
27	DA	56	VAL
27	DA	57	LEU
27	DA	62	SER
27	DA	74	TYR
27	DA	76	LEU
27	DA	80	VAL
27	DA	90	VAL
27	DA	113	LYS
27	DA	125	LYS
28	DB	14	VAL
28	DB	17	ARG
28	DB	24	VAL
28	DB	26	VAL
28	DB	35	SER
28	DB	72	ILE
28	DB	81	LEU
28	DB	83	THR
28	DB	88	ASP
28	DB	99	GLU
28	DB	102	GLU
28	DB	103	GLN
28	DB	105	SER
28	DB	126	LYS
28	DB	128	GLN
28	DB	134	LEU
29	DC	4	ARG
29	DC	8	THR
29	DC	10	LYS
29	DC	16	SER
29	DC	24	LYS
29	DC	26	ARG
29	DC	42	ARG
29	DC	46	ASP
29	DC	56	VAL

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Mol	Chain	Res	Type
29	DC	60	TYR
29	DC	73	LEU
29	DC	76	ASP
29	DC	78	LEU
29	DC	91	LEU
29	DC	98	THR
29	DC	115	LYS
29	DC	124	ILE
29	DC	139	ARG
29	DC	148	ILE
30	DD	22	LYS
30	DD	23	LYS
30	DD	25	LYS
30	DD	26	THR
30	DD	31	SER
30	DD	38	LYS
30	DD	50	THR
30	DD	59	LYS
31	DE	12	GLN
31	DE	16	LEU
31	DE	22	LYS
31	DE	34	LEU
31	DE	40	LYS
31	DE	41	LEU
31	DE	48	THR
31	DE	55	GLU
31	DE	61	MET
31	DE	83	LYS
31	DE	84	LEU
32	DF	8	VAL
32	DF	13	THR
32	DF	16	LEU
32	DF	18	LYS
32	DF	28	ARG
32	DF	31	ARG
32	DF	79	ARG
32	DF	84	ASP
32	DF	86	LYS
32	DF	93	VAL
32	DF	96	VAL
32	DF	100	SER
32	DF	102	LYS

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Mol	Chain	Res	Type
32	DF	106	THR
32	DF	110	GLU
33	DG	4	LEU
33	DG	8	LYS
33	DG	10	VAL
33	DG	12	LYS
33	DG	19	ARG
33	DG	31	ASN
33	DG	33	ARG
33	DG	34	LYS
33	DG	51	SER
33	DG	54	LYS
33	DG	61	LYS
33	DG	73	THR
33	DG	75	LEU
33	DG	82	LEU
33	DG	84	THR
33	DG	101	SER
33	DG	103	LYS
33	DG	106	VAL
33	DG	111	ARG
33	DG	125	ARG
34	DH	4	SER
34	DH	10	LYS
34	DH	15	SER
34	DH	31	LYS
34	DH	48	ARG
34	DH	49	ILE
34	DH	59	VAL
34	DH	74	THR
34	DH	92	LYS
34	DH	98	VAL
34	DH	105	SER
35	DI	5	VAL
35	DI	20	ILE
35	DI	21	LYS
35	DI	24	LYS
35	DI	29	ILE
35	DI	35	VAL
35	DI	36	LYS
35	DI	40	THR
35	DI	49	SER

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Mol	Chain	Res	Type
35	DI	58	ARG
35	DI	60	ARG
35	DI	65	VAL
35	DI	71	THR
35	DI	86	LYS
35	DI	87	GLU
35	DI	88	ARG
35	DI	98	GLN
35	DI	103	LYS
35	DI	104	VAL
36	DJ	11	THR
36	DJ	14	LYS
36	DJ	15	GLU
36	DJ	20	GLN
36	DJ	21	LEU
36	DJ	38	ARG
36	DJ	40	SER
36	DJ	46	THR
36	DJ	47	VAL
36	DJ	48	ARG
36	DJ	49	LYS
36	DJ	69	LEU
36	DJ	71	LYS
36	DJ	81	ARG
36	DJ	84	LYS
36	DJ	86	ARG
36	DJ	89	ARG
36	DJ	96	GLU
36	DJ	101	THR
36	DJ	102	GLU
36	DJ	107	LYS
36	DJ	119	LYS
37	DK	11	LEU
37	DK	21	THR
37	DK	26	ILE
37	DK	35	ASN
37	DK	36	ARG
37	DK	37	THR
37	DK	42	SER
37	DK	43	LEU
37	DK	45	ARG
37	DK	68	ARG

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Mol	Chain	Res	Type
37	DK	76	ARG
37	DK	84	LYS
37	DK	99	ARG
38	DL	3	LYS
38	DL	5	THR
38	DL	15	SER
38	DL	17	THR
38	DL	24	ARG
38	DL	25	ARG
38	DL	33	THR
38	DL	54	LYS
38	DL	55	ARG
38	DL	67	LEU
38	DL	68	LYS
38	DL	71	SER
38	DL	79	GLN
38	DL	80	THR
38	DL	82	SER
39	DM	9	LYS
39	DM	13	GLU
39	DM	14	LEU
39	DM	20	VAL
39	DM	24	THR
39	DM	41	THR
39	DM	45	VAL
39	DM	46	ARG
39	DM	53	THR
39	DM	65	LEU
39	DM	69	LEU
39	DM	77	ARG
40	DN	4	GLN
40	DN	21	ARG
40	DN	29	LEU
40	DN	34	THR
40	DN	45	ARG
40	DN	47	THR
40	DN	49	MET
40	DN	51	ILE
41	DO	78	ILE
41	DO	85	LEU
41	DO	91	CYS
41	DO	112	LYS

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Mol	Chain	Res	Type
41	DO	113	ARG
41	DO	127	LEU
41	DO	128	LYS
42	DP	6	ARG
42	DP	9	ARG
42	DP	11	ARG
42	DP	13	LEU
42	DP	16	LYS
42	DP	25	LYS
43	DQ	4	VAL
43	DQ	7	THR
43	DQ	8	ARG
43	DQ	17	CYS
43	DQ	22	GLN
43	DQ	35	LEU
43	DQ	45	ARG
43	DQ	48	SER
43	DQ	61	LYS
43	DQ	79	THR
43	DQ	83	LEU
43	DQ	84	THR
43	DQ	85	LEU
43	DQ	93	LEU
43	DQ	100	LYS
44	DR	10	ILE
44	DR	25	GLN
44	DR	49	ARG
44	DR	56	THR
44	DR	59	CYS
44	DR	60	CYS
44	DR	64	VAL
44	DR	84	ARG
46	p0	4	ILE
46	p0	15	LEU
46	p0	17	GLU
46	p0	34	SER
46	p0	43	LYS
46	p0	44	GLU
46	p0	48	ARG
46	p0	52	LEU
46	p0	57	THR
46	p0	70	LEU

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Mol	Chain	Res	Type
46	p0	72	ASP
46	p0	74	GLU
46	p0	76	LEU
46	p0	93	LEU
46	p0	94	THR
46	p0	97	LYS
46	p0	104	ARG
46	p0	192	ASP
46	p0	193	ASN
45	sM	30	THR
45	sM	33	LYS
45	sM	41	SER
45	sM	43	ASP
45	sM	64	LYS
45	sM	65	THR
45	sM	68	ARG
45	sM	74	LYS
45	sM	75	ASP
45	sM	77	THR
48	B	6	THR
48	B	12	GLU
48	B	32	HIS
48	B	37	VAL
48	B	43	ASP
48	B	50	VAL
48	B	59	LEU
48	B	62	ARG
48	B	84	ARG
48	B	87	LEU
48	B	88	LYS
48	B	92	HIS
48	B	93	THR
48	B	96	THR
48	B	111	ILE
48	B	155	PHE
48	B	158	VAL
48	B	162	CYS
48	B	167	LYS
48	B	170	ILE
48	B	172	LEU
48	B	185	ARG
48	B	188	LEU

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Mol	Chain	Res	Type
48	B	189	VAL
48	B	197	ILE
48	B	198	MET
48	B	200	ASP
49	C	21	VAL
49	C	25	THR
49	C	29	TRP
49	C	30	PHE
49	C	31	ASP
49	C	36	SER
49	C	40	ASN
49	C	46	THR
49	C	61	LEU
49	C	62	LYS
49	C	70	LEU
49	C	78	ASP
49	C	81	PHE
49	C	89	ASP
49	C	97	LEU
49	C	105	PHE
49	C	110	LEU
49	C	111	ARG
49	C	117	TRP
49	C	130	SER
49	C	144	ARG
49	C	177	GLN
49	C	181	LEU
49	C	184	LEU
49	C	193	ILE
49	C	198	GLU
49	C	202	LYS
49	C	218	LEU
49	C	220	GLN
49	C	222	LYS
49	C	223	PHE
50	D	40	LYS
50	D	53	ILE
50	D	58	LEU
50	D	69	ILE
50	D	70	ASP
50	D	72	LEU
50	D	77	GLN

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Mol	Chain	Res	Type
50	D	91	ARG
50	D	94	GLN
50	D	95	ARG
50	D	96	THR
50	D	97	ARG
50	D	111	VAL
50	D	113	LEU
50	D	117	THR
50	D	137	ILE
50	D	140	ARG
50	D	141	ARG
50	D	146	THR
50	D	148	LEU
50	D	166	THR
50	D	174	ARG
50	D	209	ASN
50	D	221	THR
50	D	222	TYR
50	D	224	PHE
50	D	225	LEU
50	D	226	THR
50	D	242	ILE
50	D	244	SER
50	D	245	ASP
50	D	246	GLU
50	D	250	GLN
51	E	4	LEU
51	E	23	GLU
51	E	39	VAL
51	E	53	THR
51	E	64	ARG
51	E	65	ARG
51	E	66	ILE
51	E	67	ASN
51	E	76	ARG
51	E	84	ILE
51	E	92	GLN
51	E	103	GLU
51	E	105	MET
51	E	124	ARG
51	E	127	MET
51	E	142	LEU

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Mol	Chain	Res	Type
51	E	151	LYS
51	E	158	ILE
51	E	172	THR
51	E	175	VAL
51	E	176	LEU
51	E	178	ARG
51	E	179	GLN
51	E	181	VAL
51	E	182	LEU
51	E	195	SER
51	E	196	ARG
51	E	212	LYS
51	E	215	GLU
51	E	222	VAL
51	E	223	LYS
51	E	224	ASP
52	F	6	LYS
52	F	9	LEU
52	F	26	CYS
52	F	30	ARG
52	F	38	LEU
52	F	39	ARG
52	F	42	LEU
52	F	45	ILE
52	F	48	LEU
52	F	62	LYS
52	F	70	VAL
52	F	77	ARG
52	F	78	THR
52	F	92	LEU
52	F	108	ARG
52	F	113	ARG
52	F	117	GLU
52	F	120	SER
52	F	123	LEU
52	F	126	VAL
52	F	131	LEU
52	F	133	LYS
52	F	180	LEU
52	F	182	TYR
52	F	187	ARG
52	F	195	ILE

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Mol	Chain	Res	Type
52	F	197	HIS
52	F	198	LYS
52	F	206	ASP
52	F	210	ILE
52	F	215	ASP
52	F	220	THR
52	F	221	ARG
52	F	226	PHE
52	F	227	VAL
52	F	228	ILE
52	F	231	GLN
52	F	240	LYS
52	F	242	LYS
52	F	258	GLN
52	F	259	GLN
53	G	25	LEU
53	G	38	THR
53	G	40	ILE
53	G	41	LYS
53	G	43	PHE
53	G	45	LYS
53	G	49	GLU
53	G	50	GLU
53	G	53	VAL
53	G	65	ARG
53	G	76	ARG
53	G	79	ASN
53	G	93	LEU
53	G	94	THR
53	G	98	MET
53	G	119	ASP
53	G	127	GLN
53	G	139	ASN
53	G	146	THR
53	G	147	THR
53	G	149	VAL
53	G	156	ARG
53	G	157	ARG
53	G	172	ILE
53	G	186	ASN
53	G	194	LEU
53	G	216	GLU

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Mol	Chain	Res	Type
54	H	3	LEU
54	H	10	ASN
54	H	15	THR
54	H	39	GLU
54	H	43	ASP
54	H	44	GLU
54	H	58	LYS
54	H	65	GLN
54	H	68	LEU
54	H	69	LEU
54	H	71	THR
54	H	79	LYS
54	H	81	VAL
54	H	98	ARG
54	H	120	GLU
54	H	125	THR
54	H	126	ASP
54	H	127	THR
54	H	128	THR
54	H	129	VAL
54	H	132	ARG
54	H	133	LEU
54	H	151	ASP
54	H	154	ARG
54	H	158	ILE
54	H	169	TYR
54	H	170	THR
54	H	176	GLN
54	H	193	LEU
54	H	211	LEU
54	H	212	LEU
54	H	214	LYS
54	H	216	LEU
55	I	15	GLU
55	I	16	LEU
55	I	19	GLN
55	I	31	SER
55	I	38	LEU
55	I	50	ASP
55	I	66	SER
55	I	67	LEU
55	I	70	PHE

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Mol	Chain	Res	Type
55	I	76	LYS
55	I	77	LEU
55	I	80	GLU
55	I	85	PHE
55	I	87	ASP
55	I	97	ARG
55	I	104	ARG
55	I	105	THR
55	I	106	SER
55	I	108	GLN
55	I	110	GLN
55	I	114	ARG
55	I	116	ARG
55	I	130	VAL
55	I	134	GLU
55	I	143	LEU
55	I	147	ASN
55	I	156	SER
55	I	166	LEU
55	I	168	SER
55	I	174	ASN
55	I	184	GLU
56	J	8	ARG
56	J	21	PHE
56	J	22	ARG
56	J	28	GLU
56	J	29	LEU
56	J	36	THR
56	J	46	VAL
56	J	56	ARG
56	J	58	LEU
56	J	70	GLU
56	J	73	SER
56	J	74	LYS
56	J	88	ASN
56	J	138	ASN
56	J	140	GLU
56	J	152	ILE
56	J	164	ARG
56	J	193	LEU
56	J	196	LEU
57	K	3	ARG

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Mol	Chain	Res	Type
57	K	6	ARG
57	K	7	THR
57	K	14	THR
57	K	28	LEU
57	K	30	LEU
57	K	39	LYS
57	K	49	LEU
57	K	57	ARG
57	K	60	LEU
57	K	78	ARG
57	K	81	VAL
57	K	82	ARG
57	K	89	ASP
57	K	92	LYS
57	K	93	LEU
57	K	94	ASP
57	K	99	LEU
57	K	101	VAL
57	K	103	ASP
57	K	110	GLN
57	K	118	LEU
57	K	134	ILE
57	K	138	LYS
57	K	145	SER
57	K	149	ARG
57	K	157	ASP
57	K	161	THR
57	K	162	SER
57	K	171	ARG
57	K	172	VAL
57	K	182	GLU
58	L	20	VAL
58	L	27	PHE
58	L	31	LYS
58	L	32	HIS
58	L	49	LEU
58	L	55	VAL
58	L	74	GLU
58	L	76	LEU
58	L	81	ASN
58	L	82	LEU
59	M	5	LEU

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Mol	Chain	Res	Type
59	M	21	ASN
59	M	29	LYS
59	M	40	LEU
59	M	44	THR
59	M	67	ARG
59	M	69	LYS
59	M	76	VAL
59	M	80	MET
59	M	83	THR
59	M	91	LEU
59	M	94	ILE
59	M	99	ARG
59	M	109	VAL
59	M	112	SER
59	M	123	VAL
59	M	128	CYS
59	M	136	ARG
59	M	140	VAL
59	M	141	LYS
60	N	28	LEU
60	N	36	LEU
60	N	37	VAL
60	N	41	LEU
60	N	43	ARG
60	N	50	LYS
60	N	61	VAL
60	N	66	VAL
60	N	71	ILE
60	N	74	LEU
60	N	89	ILE
60	N	103	LEU
60	N	125	ASN
60	N	126	TRP
60	N	129	GLU
60	N	138	GLU
60	N	140	PHE
61	O	3	ARG
61	O	6	SER
61	O	9	LYS
61	O	21	ASN
61	O	28	LEU
61	O	32	SER

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Mol	Chain	Res	Type
61	O	33	VAL
61	O	36	GLN
61	O	53	LEU
61	O	64	ARG
61	O	66	ILE
61	O	76	LYS
61	O	83	GLU
61	O	88	LEU
61	O	102	LEU
61	O	115	LEU
61	O	125	LEU
61	O	138	ASN
61	O	149	LEU
62	P	12	GLN
62	P	13	VAL
62	P	14	PHE
62	P	29	HIS
62	P	31	THR
62	P	41	ARG
62	P	51	ASP
62	P	81	VAL
62	P	89	THR
62	P	92	LYS
62	P	93	THR
62	P	103	ARG
62	P	123	SER
62	P	132	ARG
62	P	137	LEU
63	Q	13	LYS
63	Q	21	ASP
63	Q	22	LEU
63	Q	26	LEU
63	Q	30	THR
63	Q	31	GLU
63	Q	35	LYS
63	Q	36	LEU
63	Q	43	ARG
63	Q	44	ARG
63	Q	50	THR
63	Q	51	SER
63	Q	52	LYS
63	Q	84	ILE

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Mol	Chain	Res	Type
63	Q	89	MET
63	Q	92	SER
63	Q	110	GLU
63	Q	121	ILE
63	Q	124	THR
64	R	4	VAL
64	R	12	LYS
64	R	14	LYS
64	R	28	LEU
64	R	29	ILE
64	R	43	ILE
64	R	47	LYS
64	R	53	LEU
64	R	57	LEU
64	R	59	LYS
64	R	65	ILE
64	R	66	ARG
64	R	69	VAL
64	R	74	HIS
64	R	98	ASP
64	R	114	ARG
64	R	123	ARG
64	R	127	LYS
64	R	128	LYS
64	R	137	ARG
64	R	141	SER
64	R	143	ARG
65	S	3	ARG
65	S	5	ARG
65	S	23	LYS
65	S	29	GLN
65	S	38	ILE
65	S	40	THR
65	S	46	LEU
65	S	60	ARG
65	S	62	GLN
65	S	69	ILE
65	S	72	LYS
65	S	84	TYR
65	S	105	GLN
65	S	115	LEU
66	T	3	LEU

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Mol	Chain	Res	Type
66	T	5	VAL
66	T	8	GLN
66	T	11	PHE
66	T	15	LEU
66	T	17	LEU
66	T	25	ASN
66	T	26	ILE
66	T	28	ILE
66	T	40	ARG
66	T	54	LEU
66	T	61	LEU
66	T	71	GLN
66	T	77	THR
66	T	80	LYS
66	T	89	GLN
66	T	91	ASP
66	T	93	THR
66	T	110	ARG
66	T	120	ARG
66	T	132	ARG
66	T	138	THR
66	T	140	THR
66	T	143	ARG
66	T	145	ARG
67	U	13	ASP
67	U	18	TYR
67	U	20	SER
67	U	22	LEU
67	U	24	ARG
67	U	28	LEU
67	U	34	VAL
67	U	35	ASP
67	U	36	ILE
67	U	57	ARG
67	U	67	MET
67	U	70	GLN
67	U	75	LYS
67	U	94	ILE
67	U	126	GLU
67	U	130	ARG
67	U	131	ASP
67	U	144	GLU

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Mol	Chain	Res	Type
68	V	15	GLN
68	V	23	ARG
68	V	27	THR
68	V	31	VAL
68	V	39	SER
68	V	48	HIS
68	V	57	ARG
68	V	60	THR
68	V	61	LYS
68	V	66	SER
68	V	74	GLU
68	V	76	SER
68	V	81	THR
68	V	83	GLU
68	V	85	ARG
68	V	89	ARG
68	V	99	ILE
68	V	103	ILE
68	V	117	VAL
69	W	1	MET
69	W	5	LYS
69	W	10	GLU
69	W	25	LYS
69	W	32	VAL
69	W	41	GLU
69	W	49	GLU
69	W	52	THR
69	W	69	LEU
69	W	78	LEU
70	X	4	SER
70	X	12	ASN
70	X	22	LYS
70	X	24	GLN
70	X	25	VAL
70	X	27	ILE
70	X	30	SER
70	X	31	SER
70	X	47	ILE
70	X	53	ILE
70	X	65	LEU
70	X	86	ILE
70	X	87	GLU

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Mol	Chain	Res	Type
70	X	93	LEU
70	X	97	ARG
70	X	98	GLN
70	X	103	ILE
70	X	105	THR
70	X	117	ARG
70	X	119	LYS
70	X	121	VAL
70	X	125	ILE
70	X	129	VAL
71	Y	7	ARG
71	Y	9	LEU
71	Y	14	LYS
71	Y	19	ARG
71	Y	26	GLU
71	Y	40	SER
71	Y	41	SER
71	Y	47	SER
71	Y	52	ILE
71	Y	84	THR
71	Y	107	PHE
71	Y	132	LEU
71	Y	138	GLU
71	Y	144	ARG
72	Z	21	LYS
72	Z	32	ARG
72	Z	44	LEU
72	Z	57	VAL
72	Z	81	GLU
72	Z	99	LYS
72	Z	100	VAL
72	Z	102	LYS
72	Z	124	ARG
72	Z	128	LYS
72	Z	133	ASN
73	a	42	LEU
73	a	44	GLN
73	a	49	ARG
73	a	50	ILE
73	a	58	ARG
73	a	60	VAL
73	a	67	ASP

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Mol	Chain	Res	Type
73	a	69	LEU
73	a	70	LYS
73	a	71	ILE
73	a	75	LEU
73	a	78	ILE
73	a	85	LYS
73	a	92	ILE
73	a	95	HIS
73	a	97	LYS
73	a	98	GLN
73	a	100	ILE
74	b	38	ARG
74	b	41	ILE
74	b	44	ILE
74	b	50	VAL
74	b	62	TYR
74	b	64	LEU
74	b	68	TYR
74	b	82	ARG
74	b	84	VAL
74	b	86	VAL
74	b	87	ARG
74	b	90	GLU
74	b	91	ASP
75	c	3	LEU
75	c	5	GLN
75	c	15	GLU
75	c	20	LYS
75	c	23	THR
75	c	33	LEU
75	c	61	THR
75	c	75	GLU
75	c	77	THR
76	d	15	VAL
76	d	19	THR
76	d	32	PHE
76	d	49	ARG
76	d	58	GLU
76	d	64	ARG
76	d	66	LEU
77	e	7	TRP
77	e	9	SER

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Mol	Chain	Res	Type
77	e	12	ARG
77	e	19	ARG
77	e	26	SER
77	e	28	THR
77	e	30	LEU
77	e	32	ARG
78	f	14	VAL
78	f	17	GLN
78	f	21	VAL
78	f	22	GLU
78	f	24	THR
78	f	28	LYS
78	f	29	LYS
78	f	43	ARG
78	f	49	LEU
78	f	55	ARG
79	g	87	THR
79	g	89	LYS
79	g	90	LYS
79	g	93	HIS
79	g	103	LEU
79	g	106	TYR
79	g	108	VAL
79	g	130	VAL
79	g	137	ASP
79	g	138	ARG
79	g	146	SER
79	g	147	VAL
80	h	6	VAL
80	h	10	ARG
80	h	29	GLN
80	h	50	ASP
80	h	52	GLN
80	h	76	ASP
80	h	106	HIS
80	h	116	ASP
80	h	117	LYS
80	h	120	SER
80	h	121	MET
80	h	136	ILE
80	h	141	LEU
80	h	144	LEU

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Mol	Chain	Res	Type
80	h	149	ASP
80	h	196	ASN
80	h	199	ILE
80	h	229	LYS
80	h	238	ASP
80	h	256	THR
80	h	258	THR
80	h	265	LEU
80	h	282	SER
80	h	292	LEU
80	h	300	THR
80	h	314	GLN
80	h	316	MET
80	Rb	5	GLU
80	Rb	16	HIS
80	Rb	21	THR
80	Rb	52	GLN
80	Rb	58	VAL
80	Rb	64	HIS
80	Rb	76	ASP
80	Rb	96	THR
80	Rb	106	HIS
80	Rb	133	VAL
80	Rb	136	ILE
80	Rb	145	LEU
80	Rb	149	ASP
80	Rb	159	ASN
80	Rb	165	ASP
80	Rb	202	LEU
80	Rb	228	LYS
80	Rb	245	PHE
80	Rb	258	THR
80	Rb	275	ARG
80	Rb	281	TYR
80	Rb	297	ASP
48	s0	10	THR
48	s0	18	LEU
48	s0	29	VAL
48	s0	30	GLN
48	s0	45	VAL
48	s0	50	VAL
48	s0	55	GLU

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Mol	Chain	Res	Type
48	s0	59	LEU
48	s0	62	ARG
48	s0	67	ILE
48	s0	106	SER
48	s0	111	ILE
48	s0	112	THR
48	s0	119	ARG
48	s0	124	THR
48	s0	131	GLN
48	s0	153	SER
48	s0	157	ASP
48	s0	158	VAL
48	s0	164	ASN
48	s0	165	ARG
48	s0	172	LEU
48	s0	185	ARG
48	s0	188	LEU
49	s1	21	VAL
49	s1	36	SER
49	s1	37	THR
49	s1	47	LEU
49	s1	51	SER
49	s1	61	LEU
49	s1	65	VAL
49	s1	70	LEU
49	s1	73	LEU
49	s1	74	GLN
49	s1	76	SER
49	s1	81	PHE
49	s1	83	LYS
49	s1	90	GLU
49	s1	105	PHE
49	s1	110	LEU
49	s1	125	VAL
49	s1	126	THR
49	s1	131	ASP
49	s1	135	LEU
49	s1	153	HIS
49	s1	159	SER
49	s1	169	SER
49	s1	181	LEU
49	s1	183	GLN

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Mol	Chain	Res	Type
49	s1	193	ILE
49	s1	194	ASN
49	s1	202	LYS
49	s1	205	PHE
49	s1	212	VAL
49	s1	222	LYS
49	s1	223	PHE
49	s1	225	VAL
49	s1	228	LEU
49	s1	231	LEU
49	s1	234	GLU
50	s2	41	LEU
50	s2	51	THR
50	s2	53	ILE
50	s2	54	GLU
50	s2	55	GLU
50	s2	58	LEU
50	s2	61	LEU
50	s2	69	ILE
50	s2	70	ASP
50	s2	73	LEU
50	s2	79	GLU
50	s2	80	VAL
50	s2	83	ILE
50	s2	86	VAL
50	s2	90	THR
50	s2	91	ARG
50	s2	94	GLN
50	s2	95	ARG
50	s2	97	ARG
50	s2	111	VAL
50	s2	117	THR
50	s2	139	ILE
50	s2	140	ARG
50	s2	141	ARG
50	s2	148	LEU
50	s2	150	GLN
50	s2	159	THR
50	s2	166	THR
50	s2	186	LYS
50	s2	194	GLU
50	s2	195	ASP

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Mol	Chain	Res	Type
50	s2	222	TYR
50	s2	228	ASN
50	s2	229	LEU
50	s2	233	GLN
50	s2	237	VAL
50	s2	244	SER
50	s2	246	GLU
51	s3	4	LEU
51	s3	9	ARG
51	s3	40	ARG
51	s3	44	THR
51	s3	61	GLU
51	s3	66	ILE
51	s3	79	TYR
51	s3	84	ILE
51	s3	90	ARG
51	s3	93	ASP
51	s3	115	ILE
51	s3	128	GLU
51	s3	132	LYS
51	s3	142	LEU
51	s3	146	ARG
51	s3	158	ILE
51	s3	164	VAL
51	s3	172	THR
51	s3	177	MET
51	s3	178	ARG
51	s3	179	GLN
51	s3	189	MET
51	s3	215	GLU
51	s3	217	ILE
51	s3	223	LYS
52	s4	9	LEU
52	s4	23	LEU
52	s4	26	CYS
52	s4	30	ARG
52	s4	37	LYS
52	s4	38	LEU
52	s4	39	ARG
52	s4	42	LEU
52	s4	49	ARG
52	s4	51	ARG

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Mol	Chain	Res	Type
52	s4	67	GLN
52	s4	69	HIS
52	s4	70	VAL
52	s4	78	THR
52	s4	98	ASN
52	s4	105	VAL
52	s4	126	VAL
52	s4	128	LYS
52	s4	160	VAL
52	s4	180	LEU
52	s4	181	VAL
52	s4	182	TYR
52	s4	210	ILE
52	s4	221	ARG
52	s4	227	VAL
52	s4	237	SER
52	s4	242	LYS
52	s4	254	ARG
53	s5	25	LEU
53	s5	27	THR
53	s5	31	GLU
53	s5	38	THR
53	s5	45	LYS
53	s5	52	GLU
53	s5	59	VAL
53	s5	63	GLN
53	s5	66	GLN
53	s5	68	ILE
53	s5	76	ARG
53	s5	79	ASN
53	s5	83	ARG
53	s5	93	LEU
53	s5	109	LYS
53	s5	119	ASP
53	s5	125	THR
53	s5	126	ASP
53	s5	148	ARG
53	s5	157	ARG
53	s5	162	VAL
53	s5	163	SER
53	s5	167	ARG
53	s5	187	ILE

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Mol	Chain	Res	Type
53	s5	189	THR
53	s5	194	LEU
53	s5	199	ILE
53	s5	203	LYS
53	s5	208	SER
53	s5	216	GLU
53	s5	224	ASN
53	s5	225	ARG
54	s6	15	THR
54	s6	17	GLU
54	s6	31	ARG
54	s6	68	LEU
54	s6	69	LEU
54	s6	71	THR
54	s6	73	ILE
54	s6	76	LEU
54	s6	97	VAL
54	s6	98	ARG
54	s6	108	VAL
54	s6	109	LEU
54	s6	112	VAL
54	s6	115	LYS
54	s6	120	GLU
54	s6	121	LEU
54	s6	125	THR
54	s6	126	ASP
54	s6	128	THR
54	s6	129	VAL
54	s6	133	LEU
54	s6	143	LYS
54	s6	151	ASP
54	s6	155	ASP
54	s6	156	PHE
54	s6	191	ARG
54	s6	193	LEU
54	s6	207	GLU
54	s6	215	ARG
54	s6	216	LEU
55	s7	8	ILE
55	s7	10	SER
55	s7	11	GLN
55	s7	16	LEU

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Mol	Chain	Res	Type
55	s7	30	SER
55	s7	33	GLU
55	s7	50	ASP
55	s7	67	LEU
55	s7	75	THR
55	s7	77	LEU
55	s7	79	ARG
55	s7	80	GLU
55	s7	97	ARG
55	s7	101	LYS
55	s7	106	SER
55	s7	114	ARG
55	s7	116	ARG
55	s7	117	THR
55	s7	118	LEU
55	s7	126	LEU
55	s7	143	LEU
55	s7	144	VAL
55	s7	159	VAL
55	s7	163	ASP
55	s7	166	LEU
55	s7	168	SER
55	s7	185	ILE
56	s8	8	ARG
56	s8	10	LYS
56	s8	20	GLN
56	s8	22	ARG
56	s8	29	LEU
56	s8	36	THR
56	s8	46	VAL
56	s8	64	ASN
56	s8	74	LYS
56	s8	76	THR
56	s8	82	VAL
56	s8	93	THR
56	s8	101	ILE
56	s8	120	THR
56	s8	136	SER
56	s8	151	LYS
56	s8	155	SER
56	s8	161	SER
56	s8	183	ILE

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Mol	Chain	Res	Type
56	s8	199	LYS
57	s9	3	ARG
57	s9	6	ARG
57	s9	7	THR
57	s9	28	LEU
57	s9	39	LYS
57	s9	49	LEU
57	s9	54	ARG
57	s9	78	ARG
57	s9	93	LEU
57	s9	99	LEU
57	s9	101	VAL
57	s9	105	LEU
57	s9	109	LEU
57	s9	111	THR
57	s9	113	VAL
57	s9	116	LEU
57	s9	121	SER
57	s9	130	THR
57	s9	132	ARG
57	s9	134	ILE
57	s9	149	ARG
57	s9	161	THR
57	s9	168	ARG
57	s9	172	VAL
57	s9	179	ARG
57	s9	180	LYS
57	s9	182	GLU
57	s9	186	GLU
58	c0	15	LEU
58	c0	20	VAL
58	c0	21	VAL
58	c0	22	VAL
58	c0	26	ASP
58	c0	28	ASN
58	c0	33	GLU
58	c0	35	ILE
58	c0	51	SER
58	c0	55	VAL
58	c0	57	THR
58	c0	67	THR
58	c0	71	GLU

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Mol	Chain	Res	Type
59	c1	2	SER
59	c1	4	GLU
59	c1	5	LEU
59	c1	6	THR
59	c1	10	GLU
59	c1	21	ASN
59	c1	26	LYS
59	c1	30	ARG
59	c1	31	THR
59	c1	40	LEU
59	c1	44	THR
59	c1	56	LYS
59	c1	60	PHE
59	c1	67	ARG
59	c1	74	THR
59	c1	77	SER
59	c1	83	THR
59	c1	86	ILE
59	c1	87	ARG
59	c1	109	VAL
59	c1	123	VAL
59	c1	129	ARG
59	c1	131	ILE
59	c1	138	ASN
60	c2	28	LEU
60	c2	39	ASP
60	c2	52	LEU
60	c2	54	ARG
60	c2	58	LEU
60	c2	61	VAL
60	c2	71	ILE
60	c2	83	GLU
60	c2	89	ILE
60	c2	91	VAL
60	c2	103	LEU
60	c2	129	GLU
60	c2	132	GLU
60	c2	137	MET
60	c2	140	PHE
61	c3	12	SER
61	c3	16	ILE
61	c3	21	ASN

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Mol	Chain	Res	Type
61	c3	30	SER
61	c3	39	LYS
61	c3	46	THR
61	c3	60	VAL
61	c3	66	ILE
61	c3	67	THR
61	c3	76	LYS
61	c3	83	GLU
61	c3	87	ASP
61	c3	97	SER
61	c3	102	LEU
61	c3	115	LEU
61	c3	125	LEU
61	c3	127	ARG
61	c3	134	VAL
61	c3	138	ASN
61	c3	143	SER
62	c4	20	TYR
62	c4	33	LEU
62	c4	38	THR
62	c4	49	LYS
62	c4	51	ASP
62	c4	79	VAL
62	c4	81	VAL
62	c4	83	ILE
62	c4	102	LEU
62	c4	114	ARG
62	c4	118	VAL
62	c4	119	THR
62	c4	123	SER
62	c4	124	ASP
62	c4	133	ARG
62	c4	136	ARG
62	c4	137	LEU
63	c5	10	ARG
63	c5	12	PHE
63	c5	22	LEU
63	c5	23	GLU
63	c5	27	GLU
63	c5	36	LEU
63	c5	40	ARG
63	c5	60	LEU

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Mol	Chain	Res	Type
63	c5	65	LEU
63	c5	69	GLU
63	c5	72	LYS
63	c5	110	GLU
63	c5	120	SER
63	c5	122	THR
63	c5	124	THR
63	c5	126	VAL
63	c5	127	ARG
63	c5	128	HIS
64	c6	7	VAL
64	c6	23	LYS
64	c6	28	LEU
64	c6	37	THR
64	c6	43	ILE
64	c6	48	VAL
64	c6	53	LEU
64	c6	54	LEU
64	c6	57	LEU
64	c6	68	ARG
64	c6	69	VAL
64	c6	70	THR
64	c6	81	ILE
64	c6	94	GLN
64	c6	114	ARG
64	c6	115	THR
64	c6	117	LEU
64	c6	122	ARG
64	c6	137	ARG
64	c6	143	ARG
65	c7	3	ARG
65	c7	7	LYS
65	c7	8	THR
65	c7	11	ARG
65	c7	14	LYS
65	c7	29	GLN
65	c7	34	LEU
65	c7	46	LEU
65	c7	49	LYS
65	c7	55	THR
65	c7	61	ILE
65	c7	67	ARG

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Mol	Chain	Res	Type
65	c7	69	ILE
65	c7	72	LYS
65	c7	78	ARG
65	c7	83	GLN
65	c7	85	VAL
65	c7	105	GLN
65	c7	106	THR
65	c7	107	SER
66	c8	3	LEU
66	c8	4	VAL
66	c8	6	GLN
66	c8	25	ASN
66	c8	27	LYS
66	c8	33	THR
66	c8	40	ARG
66	c8	61	LEU
66	c8	63	GLN
66	c8	92	ILE
66	c8	116	LEU
66	c8	119	ILE
66	c8	136	GLN
66	c8	138	THR
66	c8	143	ARG
66	c8	145	ARG
67	c9	6	VAL
67	c9	25	GLN
67	c9	28	LEU
67	c9	71	VAL
67	c9	86	ARG
67	c9	110	LYS
67	c9	117	SER
67	c9	126	GLU
67	c9	131	ASP
67	c9	139	THR
67	c9	140	LEU
67	c9	141	GLU
67	c9	142	GLU
68	d0	12	GLN
68	d0	13	GLU
68	d0	16	GLN
68	d0	23	ARG
68	d0	27	THR

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Mol	Chain	Res	Type
68	d0	30	LYS
68	d0	47	GLN
68	d0	51	VAL
68	d0	60	THR
68	d0	70	THR
68	d0	74	GLU
68	d0	77	LYS
68	d0	99	ILE
68	d0	103	ILE
68	d0	108	ILE
68	d0	113	ASP
68	d0	120	SER
69	d1	2	GLU
69	d1	4	ASP
69	d1	5	LYS
69	d1	11	LEU
69	d1	12	TYR
69	d1	32	VAL
69	d1	34	ILE
69	d1	49	GLU
69	d1	50	TYR
69	d1	52	THR
69	d1	68	SER
69	d1	78	LEU
70	d2	7	LEU
70	d2	15	ASN
70	d2	23	ARG
70	d2	25	VAL
70	d2	26	LEU
70	d2	42	GLN
70	d2	56	HIS
70	d2	65	LEU
70	d2	93	LEU
70	d2	98	GLN
70	d2	103	ILE
70	d2	105	THR
71	d3	9	LEU
71	d3	16	ARG
71	d3	19	ARG
71	d3	23	ARG
71	d3	27	ASN
71	d3	28	ASN

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Mol	Chain	Res	Type
71	d3	40	SER
71	d3	73	ARG
71	d3	74	VAL
71	d3	83	VAL
71	d3	84	THR
71	d3	99	ASN
71	d3	100	ASP
71	d3	107	PHE
71	d3	121	ARG
71	d3	133	LEU
71	d3	138	GLU
72	d4	5	VAL
72	d4	22	GLN
72	d4	26	ASP
72	d4	43	LYS
72	d4	49	LYS
72	d4	62	THR
72	d4	88	THR
72	d4	92	VAL
72	d4	104	SER
73	d5	42	LEU
73	d5	46	LYS
73	d5	51	LEU
73	d5	53	GLU
73	d5	57	TYR
73	d5	93	SER
73	d5	102	THR
74	d6	8	ASN
74	d6	10	ARG
74	d6	11	ASN
74	d6	18	VAL
74	d6	24	VAL
74	d6	46	GLU
74	d6	72	HIS
74	d6	76	SER
74	d6	82	ARG
74	d6	85	ARG
74	d6	90	GLU
75	d7	3	LEU
75	d7	4	VAL
75	d7	37	CYS
75	d7	43	ILE

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Mol	Chain	Res	Type
75	d7	52	THR
75	d7	59	CYS
75	d7	61	THR
75	d7	67	THR
75	d7	77	THR
75	d7	81	ARG
76	d8	16	LEU
76	d8	22	ARG
76	d8	28	VAL
76	d8	30	VAL
76	d8	36	THR
76	d8	39	THR
76	d8	48	VAL
76	d8	52	ASP
76	d8	62	GLU
76	d8	64	ARG
76	d8	65	ARG
77	d9	19	ARG
77	d9	21	CYS
77	d9	26	SER
77	d9	32	ARG
77	d9	36	LEU
77	d9	39	CYS
77	d9	54	LYS
78	e0	4	VAL
78	e0	22	GLU
78	e0	29	LYS
78	e0	31	LYS
78	e0	38	LEU
78	e0	44	PHE
78	e0	46	ASN
78	e0	48	THR
78	e0	49	LEU
78	e0	55	ARG
79	e1	106	TYR
79	e1	113	LYS
79	e1	118	ARG
79	e1	120	GLU
79	e1	135	HIS
79	e1	137	ASP
79	e1	147	VAL
79	e1	148	TYR

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Mol	Chain	Res	Type
79	e1	149	LYS
79	e1	150	VAL

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (30) such sidechains are listed below:

Mol	Chain	Res	Type
4	j	132	ASN
7	m	264	GLN
11	q	49	ASN
13	s	7	ASN
18	x	55	GLN
26	8	80	ASN
28	AA	57	HIS
28	AA	127	ASN
45	i	71	ASN
11	CK	139	ASN
19	CS	145	ASN
28	DB	36	HIS
48	B	168	HIS
49	C	177	GLN
49	C	211	HIS
50	D	94	GLN
53	G	95	ASN
53	G	131	GLN
55	I	174	ASN
56	J	9	HIS
57	K	110	GLN
67	U	25	GLN
71	Y	48	HIS
73	a	95	HIS
80	h	187	GLN
48	s0	69	ASN
53	s5	104	ASN
55	s7	71	HIS
65	c7	31	ASN
70	d2	56	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1	3145/3396 (92%)	643 (20%)	74 (2%)
1	AR	3143/3396 (92%)	642 (20%)	75 (2%)
2	3	120/121 (99%)	15 (12%)	2 (1%)
2	AS	120/121 (99%)	16 (13%)	1 (0%)
3	4	157/158 (99%)	35 (22%)	2 (1%)
3	AT	157/158 (99%)	32 (20%)	3 (1%)
47	A	1778/1797 (98%)	453 (25%)	53 (2%)
81	sR	1780/1800 (98%)	433 (24%)	0
All	All	10400/10947 (95%)	2269 (21%)	210 (2%)

All (2269) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1	16	A
1	1	18	G
1	1	26	A
1	1	40	A
1	1	43	A
1	1	44	U
1	1	45	A
1	1	49	A
1	1	59	G
1	1	60	A
1	1	65	A
1	1	66	A
1	1	68	C
1	1	73	C
1	1	83	U
1	1	85	A
1	1	92	G
1	1	99	A
1	1	109	A
1	1	110	G
1	1	111	C
1	1	113	C
1	1	116	A
1	1	117	U
1	1	121	A
1	1	122	A
1	1	131	C
1	1	133	U
1	1	135	C
1	1	136	G

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Mol	Chain	Res	Type
1	1	156	G
1	1	157	A
1	1	166	C
1	1	173	G
1	1	187	A
1	1	190	U
1	1	191	U
1	1	192	C
1	1	210	U
1	1	218	G
1	1	219	A
1	1	240	U
1	1	241	G
1	1	243	G
1	1	246	U
1	1	247	C
1	1	250	U
1	1	251	G
1	1	252	U
1	1	269	G
1	1	282	G
1	1	283	G
1	1	286	U
1	1	295	A
1	1	298	U
1	1	305	U
1	1	323	A
1	1	329	U
1	1	339	C
1	1	343	U
1	1	344	A
1	1	349	A
1	1	350	C
1	1	351	A
1	1	370	U
1	1	376	G
1	1	377	A
1	1	395	A
1	1	398	A
1	1	399	A
1	1	401	U
1	1	402	A

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Mol	Chain	Res	Type
1	1	403	C
1	1	421	G
1	1	422	A
1	1	438	A
1	1	439	C
1	1	440	A
1	1	495	G
1	1	498	A
1	1	507	U
1	1	520	U
1	1	521	A
1	1	535	G
1	1	537	A
1	1	544	C
1	1	546	C
1	1	547	G
1	1	548	G
1	1	551	A
1	1	552	G
1	1	553	U
1	1	555	U
1	1	557	A
1	1	559	A
1	1	578	A
1	1	579	G
1	1	592	A
1	1	604	G
1	1	609	G
1	1	611	A
1	1	619	A
1	1	620	U
1	1	621	A
1	1	636	C
1	1	637	C
1	1	638	C
1	1	642	U
1	1	643	U
1	1	649	A
1	1	658	G
1	1	660	A
1	1	661	G
1	1	667	C

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Mol	Chain	Res	Type
1	1	677	A
1	1	681	U
1	1	682	U
1	1	691	A
1	1	705	A
1	1	712	G
1	1	715	A
1	1	716	A
1	1	725	G
1	1	764	U
1	1	765	C
1	1	766	U
1	1	767	U
1	1	776	U
1	1	777	U
1	1	780	A
1	1	781	G
1	1	785	G
1	1	806	A
1	1	816	A
1	1	817	A
1	1	829	U
1	1	830	A
1	1	849	C
1	1	861	C
1	1	874	U
1	1	878	G
1	1	879	U
1	1	887	G
1	1	890	C
1	1	896	A
1	1	907	G
1	1	908	G
1	1	914	A
1	1	916	G
1	1	917	A
1	1	921	A
1	1	924	G
1	1	937	G
1	1	938	C
1	1	944	C
1	1	959	C

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Mol	Chain	Res	Type
1	1	960	U
1	1	961	C
1	1	962	A
1	1	974	G
1	1	979	U
1	1	980	A
1	1	981	U
1	1	982	C
1	1	993	G
1	1	994	G
1	1	1000	C
1	1	1001	G
1	1	1002	A
1	1	1006	A
1	1	1010	G
1	1	1017	C
1	1	1018	G
1	1	1020	G
1	1	1021	G
1	1	1024	G
1	1	1025	A
1	1	1029	G
1	1	1034	U
1	1	1036	A
1	1	1041	U
1	1	1042	U
1	1	1047	A
1	1	1049	C
1	1	1052	U
1	1	1064	A
1	1	1065	A
1	1	1072	G
1	1	1081	U
1	1	1082	U
1	1	1083	G
1	1	1093	A
1	1	1094	U
1	1	1095	U
1	1	1097	G
1	1	1098	A
1	1	1103	A
1	1	1104	G

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Mol	Chain	Res	Type
1	1	1111	U
1	1	1117	G
1	1	1128	U
1	1	1131	G
1	1	1152	G
1	1	1153	A
1	1	1159	A
1	1	1160	C
1	1	1161	G
1	1	1173	U
1	1	1174	G
1	1	1178	G
1	1	1179	A
1	1	1180	A
1	1	1181	U
1	1	1182	A
1	1	1186	G
1	1	1191	U
1	1	1192	C
1	1	1201	C
1	1	1205	A
1	1	1209	G
1	1	1213	G
1	1	1216	C
1	1	1217	A
1	1	1221	A
1	1	1222	G
1	1	1225	A
1	1	1227	C
1	1	1232	C
1	1	1233	G
1	1	1235	U
1	1	1236	G
1	1	1237	G
1	1	1241	U
1	1	1243	G
1	1	1244	A
1	1	1245	A
1	1	1246	G
1	1	1248	C
1	1	1249	G
1	1	1254	C

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Mol	Chain	Res	Type
1	1	1258	U
1	1	1262	G
1	1	1263	A
1	1	1264	G
1	1	1269	U
1	1	1270	A
1	1	1271	A
1	1	1274	A
1	1	1278	A
1	1	1279	C
1	1	1285	G
1	1	1286	A
1	1	1287	A
1	1	1292	C
1	1	1307	G
1	1	1308	A
1	1	1309	U
1	1	1313	G
1	1	1329	U
1	1	1330	A
1	1	1333	C
1	1	1348	U
1	1	1349	G
1	1	1350	A
1	1	1351	U
1	1	1352	A
1	1	1353	U
1	1	1354	G
1	1	1355	A
1	1	1356	U
1	1	1357	G
1	1	1386	A
1	1	1392	G
1	1	1398	U
1	1	1399	A
1	1	1400	G
1	1	1419	A
1	1	1425	U
1	1	1428	A
1	1	1429	G
1	1	1433	A
1	1	1434	G

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Mol	Chain	Res	Type
1	1	1435	A
1	1	1437	C
1	1	1446	A
1	1	1450	G
1	1	1462	A
1	1	1481	A
1	1	1482	A
1	1	1496	C
1	1	1503	A
1	1	1508	C
1	1	1526	U
1	1	1527	C
1	1	1533	U
1	1	1536	G
1	1	1555	U
1	1	1556	C
1	1	1560	G
1	1	1561	G
1	1	1562	C
1	1	1563	C
1	1	1564	U
1	1	1567	U
1	1	1568	U
1	1	1569	U
1	1	1576	G
1	1	1580	A
1	1	1582	C
1	1	1583	A
1	1	1587	A
1	1	1589	A
1	1	1593	A
1	1	1605	A
1	1	1607	U
1	1	1620	U
1	1	1629	U
1	1	1633	C
1	1	1639	C
1	1	1643	A
1	1	1657	C
1	1	1658	G
1	1	1683	A
1	1	1716	U

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Mol	Chain	Res	Type
1	1	1717	U
1	1	1724	U
1	1	1729	A
1	1	1736	G
1	1	1741	A
1	1	1750	A
1	1	1751	G
1	1	1759	C
1	1	1760	A
1	1	1762	C
1	1	1763	U
1	1	1765	U
1	1	1766	G
1	1	1767	C
1	1	1768	U
1	1	1769	G
1	1	1770	G
1	1	1775	G
1	1	1780	G
1	1	1797	A
1	1	1809	A
1	1	1810	A
1	1	1814	A
1	1	1815	U
1	1	1816	A
1	1	1817	G
1	1	1819	U
1	1	1820	U
1	1	1821	U
1	1	1839	A
1	1	1841	A
1	1	1842	A
1	1	1845	G
1	1	1846	C
1	1	1849	C
1	1	1850	A
1	1	1851	G
1	1	1855	U
1	1	1866	C
1	1	1871	U
1	1	1878	G
1	1	1879	A

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Mol	Chain	Res	Type
1	1	1886	A
1	1	1906	G
1	1	1911	A
1	1	1935	G
1	1	1951	C
1	1	1952	G
1	1	1953	G
1	1	1954	G
1	1	2094	C
1	1	2101	C
1	1	2102	U
1	1	2111	G
1	1	2112	U
1	1	2113	A
1	1	2121	G
1	1	2122	G
1	1	2131	A
1	1	2137	U
1	1	2140	U
1	1	2158	A
1	1	2169	G
1	1	2188	A
1	1	2198	A
1	1	2205	U
1	1	2208	A
1	1	2210	G
1	1	2213	A
1	1	2223	A
1	1	2228	A
1	1	2244	A
1	1	2249	G
1	1	2250	G
1	1	2255	A
1	1	2256	A
1	1	2272	G
1	1	2273	G
1	1	2279	A
1	1	2281	A
1	1	2282	U
1	1	2288	G
1	1	2301	U
1	1	2307	G

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Mol	Chain	Res	Type
1	1	2309	A
1	1	2310	U
1	1	2313	A
1	1	2314	U
1	1	2315	G
1	1	2334	U
1	1	2336	U
1	1	2362	C
1	1	2366	C
1	1	2373	A
1	1	2374	C
1	1	2375	G
1	1	2385	G
1	1	2388	U
1	1	2393	G
1	1	2394	G
1	1	2397	A
1	1	2401	A
1	1	2402	A
1	1	2403	G
1	1	2404	A
1	1	2411	U
1	1	2418	G
1	1	2419	A
1	1	2424	A
1	1	2437	G
1	1	2443	A
1	1	2444	C
1	1	2445	A
1	1	2502	A
1	1	2503	G
1	1	2507	C
1	1	2514	U
1	1	2515	A
1	1	2522	G
1	1	2523	A
1	1	2532	U
1	1	2533	G
1	1	2534	G
1	1	2537	U
1	1	2538	U
1	1	2539	C

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Mol	Chain	Res	Type
1	1	2540	A
1	1	2541	U
1	1	2542	U
1	1	2543	U
1	1	2544	U
1	1	2547	A
1	1	2548	C
1	1	2549	G
1	1	2551	U
1	1	2552	C
1	1	2555	G
1	1	2561	A
1	1	2568	C
1	1	2569	A
1	1	2570	U
1	1	2571	U
1	1	2572	C
1	1	2573	G
1	1	2585	G
1	1	2586	G
1	1	2593	A
1	1	2594	C
1	1	2606	G
1	1	2607	G
1	1	2614	G
1	1	2617	U
1	1	2637	A
1	1	2652	U
1	1	2656	A
1	1	2672	G
1	1	2674	A
1	1	2677	G
1	1	2689	A
1	1	2690	G
1	1	2691	A
1	1	2694	A
1	1	2696	A
1	1	2705	A
1	1	2714	G
1	1	2720	G
1	1	2728	G
1	1	2729	U

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Mol	Chain	Res	Type
1	1	2749	G
1	1	2752	U
1	1	2753	G
1	1	2755	C
1	1	2762	A
1	1	2765	C
1	1	2771	U
1	1	2772	C
1	1	2777	G
1	1	2778	G
1	1	2783	U
1	1	2788	C
1	1	2796	G
1	1	2799	A
1	1	2800	G
1	1	2801	A
1	1	2802	A
1	1	2808	A
1	1	2810	C
1	1	2814	G
1	1	2816	G
1	1	2817	A
1	1	2818	U
1	1	2822	U
1	1	2828	G
1	1	2829	U
1	1	2842	U
1	1	2843	U
1	1	2845	A
1	1	2849	C
1	1	2853	A
1	1	2860	U
1	1	2867	C
1	1	2871	G
1	1	2872	A
1	1	2875	U
1	1	2876	C
1	1	2877	G
1	1	2880	U
1	1	2887	A
1	1	2889	C
1	1	2898	G

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Mol	Chain	Res	Type
1	1	2899	C
1	1	2914	G
1	1	2923	U
1	1	2935	U
1	1	2936	A
1	1	2937	G
1	1	2942	C
1	1	2945	G
1	1	2947	G
1	1	2954	U
1	1	2955	U
1	1	2971	A
1	1	2972	G
1	1	2979	U
1	1	2982	A
1	1	2983	C
1	1	2990	G
1	1	2996	U
1	1	2997	G
1	1	3006	A
1	1	3012	A
1	1	3028	G
1	1	3057	U
1	1	3058	U
1	1	3059	G
1	1	3078	U
1	1	3079	U
1	1	3080	G
1	1	3086	A
1	1	3092	C
1	1	3122	A
1	1	3130	A
1	1	3131	U
1	1	3141	A
1	1	3142	A
1	1	3143	C
1	1	3151	U
1	1	3153	U
1	1	3154	C
1	1	3155	U
1	1	3156	U
1	1	3157	U

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Mol	Chain	Res	Type
1	1	3164	C
1	1	3165	A
1	1	3168	A
1	1	3170	A
1	1	3173	G
1	1	3174	A
1	1	3176	G
1	1	3179	U
1	1	3181	C
1	1	3187	A
1	1	3196	U
1	1	3197	G
1	1	3207	U
1	1	3209	A
1	1	3210	A
1	1	3217	C
1	1	3218	A
1	1	3219	G
1	1	3223	A
1	1	3228	C
1	1	3229	G
1	1	3242	G
1	1	3243	A
1	1	3245	A
1	1	3246	G
1	1	3247	G
1	1	3259	U
1	1	3270	U
1	1	3272	C
1	1	3274	A
1	1	3275	U
1	1	3276	G
1	1	3281	U
1	1	3286	G
1	1	3287	U
1	1	3288	G
1	1	3289	G
1	1	3293	U
1	1	3294	A
1	1	3295	A
1	1	3304	U
1	1	3313	U

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Mol	Chain	Res	Type
1	1	3316	A
1	1	3317	U
1	1	3318	G
1	1	3319	U
1	1	3320	A
1	1	3341	U
1	1	3342	A
1	1	3345	G
1	1	3347	A
1	1	3351	U
1	1	3352	U
1	1	3353	G
1	1	3354	U
1	1	3355	U
1	1	3369	G
1	1	3375	A
1	1	3376	A
1	1	3377	G
1	1	3378	C
1	1	3381	U
1	1	3382	U
1	1	3383	G
1	1	3389	U
1	1	3390	G
1	1	3396	U
2	3	7	G
2	3	13	A
2	3	17	A
2	3	22	A
2	3	26	C
2	3	42	A
2	3	54	U
2	3	65	G
2	3	74	C
2	3	76	A
2	3	78	U
2	3	91	G
2	3	102	A
2	3	112	G
2	3	121	U
3	4	2	A
3	4	21	C

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Mol	Chain	Res	Type
3	4	26	U
3	4	34	U
3	4	35	C
3	4	48	A
3	4	52	A
3	4	53	A
3	4	59	A
3	4	62	C
3	4	63	G
3	4	69	U
3	4	77	A
3	4	80	A
3	4	81	U
3	4	82	U
3	4	83	C
3	4	86	U
3	4	87	G
3	4	90	U
3	4	95	G
3	4	96	A
3	4	104	A
3	4	105	A
3	4	106	C
3	4	107	G
3	4	111	A
3	4	113	U
3	4	125	U
3	4	126	A
3	4	128	U
3	4	138	A
3	4	155	A
3	4	157	U
3	4	158	U
1	AR	26	A
1	AR	40	A
1	AR	49	A
1	AR	59	G
1	AR	60	A
1	AR	65	A
1	AR	66	A
1	AR	73	C
1	AR	76	G

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Mol	Chain	Res	Type
1	AR	82	C
1	AR	92	G
1	AR	93	C
1	AR	99	A
1	AR	109	A
1	AR	110	G
1	AR	116	A
1	AR	120	G
1	AR	121	A
1	AR	122	A
1	AR	131	C
1	AR	133	U
1	AR	135	C
1	AR	136	G
1	AR	156	G
1	AR	157	A
1	AR	165	A
1	AR	166	C
1	AR	172	G
1	AR	173	G
1	AR	174	C
1	AR	175	C
1	AR	180	C
1	AR	187	A
1	AR	190	U
1	AR	191	U
1	AR	200	C
1	AR	210	U
1	AR	218	G
1	AR	219	A
1	AR	227	G
1	AR	240	U
1	AR	241	G
1	AR	243	G
1	AR	244	G
1	AR	245	U
1	AR	248	U
1	AR	249	U
1	AR	250	U
1	AR	251	G
1	AR	252	U
1	AR	269	G

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Mol	Chain	Res	Type
1	AR	272	G
1	AR	286	U
1	AR	295	A
1	AR	298	U
1	AR	299	G
1	AR	305	U
1	AR	315	C
1	AR	322	U
1	AR	323	A
1	AR	329	U
1	AR	330	G
1	AR	338	A
1	AR	339	C
1	AR	349	A
1	AR	350	C
1	AR	352	A
1	AR	370	U
1	AR	375	A
1	AR	376	G
1	AR	398	A
1	AR	399	A
1	AR	401	U
1	AR	402	A
1	AR	403	C
1	AR	404	G
1	AR	421	G
1	AR	422	A
1	AR	436	A
1	AR	437	G
1	AR	503	C
1	AR	507	U
1	AR	516	A
1	AR	520	U
1	AR	521	A
1	AR	535	G
1	AR	544	C
1	AR	546	C
1	AR	548	G
1	AR	551	A
1	AR	552	G
1	AR	555	U
1	AR	557	A

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Mol	Chain	Res	Type
1	AR	559	A
1	AR	578	A
1	AR	579	G
1	AR	592	A
1	AR	600	G
1	AR	604	G
1	AR	607	A
1	AR	608	A
1	AR	609	G
1	AR	611	A
1	AR	619	A
1	AR	620	U
1	AR	621	A
1	AR	622	A
1	AR	636	C
1	AR	649	A
1	AR	651	G
1	AR	660	A
1	AR	667	C
1	AR	677	A
1	AR	681	U
1	AR	683	U
1	AR	691	A
1	AR	705	A
1	AR	712	G
1	AR	715	A
1	AR	716	A
1	AR	750	G
1	AR	751	A
1	AR	758	C
1	AR	764	U
1	AR	765	C
1	AR	766	U
1	AR	767	U
1	AR	774	G
1	AR	776	U
1	AR	777	U
1	AR	778	U
1	AR	781	G
1	AR	784	A
1	AR	785	G
1	AR	786	A

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Mol	Chain	Res	Type
1	AR	800	G
1	AR	806	A
1	AR	817	A
1	AR	830	A
1	AR	849	C
1	AR	861	C
1	AR	870	G
1	AR	874	U
1	AR	875	G
1	AR	879	U
1	AR	891	G
1	AR	896	A
1	AR	897	U
1	AR	907	G
1	AR	908	G
1	AR	910	G
1	AR	914	A
1	AR	916	G
1	AR	917	A
1	AR	921	A
1	AR	922	U
1	AR	923	C
1	AR	924	G
1	AR	937	G
1	AR	938	C
1	AR	944	C
1	AR	946	U
1	AR	948	C
1	AR	953	G
1	AR	959	C
1	AR	960	U
1	AR	962	A
1	AR	964	G
1	AR	979	U
1	AR	980	A
1	AR	981	U
1	AR	982	C
1	AR	983	A
1	AR	993	G
1	AR	994	G
1	AR	1000	C
1	AR	1001	G

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Mol	Chain	Res	Type
1	AR	1002	A
1	AR	1003	A
1	AR	1006	A
1	AR	1010	G
1	AR	1012	G
1	AR	1015	U
1	AR	1016	C
1	AR	1017	C
1	AR	1018	G
1	AR	1020	G
1	AR	1021	G
1	AR	1024	G
1	AR	1025	A
1	AR	1029	G
1	AR	1037	C
1	AR	1047	A
1	AR	1049	C
1	AR	1052	U
1	AR	1064	A
1	AR	1065	A
1	AR	1071	U
1	AR	1072	G
1	AR	1081	U
1	AR	1082	U
1	AR	1087	G
1	AR	1093	A
1	AR	1094	U
1	AR	1095	U
1	AR	1096	U
1	AR	1097	G
1	AR	1098	A
1	AR	1103	A
1	AR	1104	G
1	AR	1117	G
1	AR	1128	U
1	AR	1129	A
1	AR	1131	G
1	AR	1153	A
1	AR	1159	A
1	AR	1160	C
1	AR	1168	U
1	AR	1180	A

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Mol	Chain	Res	Type
1	AR	1181	U
1	AR	1182	A
1	AR	1190	A
1	AR	1191	U
1	AR	1192	C
1	AR	1193	A
1	AR	1196	C
1	AR	1201	C
1	AR	1202	A
1	AR	1209	G
1	AR	1217	A
1	AR	1222	G
1	AR	1235	U
1	AR	1236	G
1	AR	1237	G
1	AR	1239	C
1	AR	1241	U
1	AR	1242	G
1	AR	1245	A
1	AR	1246	G
1	AR	1254	C
1	AR	1261	G
1	AR	1262	G
1	AR	1263	A
1	AR	1265	U
1	AR	1266	G
1	AR	1285	G
1	AR	1292	C
1	AR	1295	G
1	AR	1305	U
1	AR	1307	G
1	AR	1309	U
1	AR	1311	G
1	AR	1313	G
1	AR	1330	A
1	AR	1332	A
1	AR	1345	G
1	AR	1348	U
1	AR	1349	G
1	AR	1350	A
1	AR	1351	U
1	AR	1352	A

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Mol	Chain	Res	Type
1	AR	1353	U
1	AR	1355	A
1	AR	1356	U
1	AR	1357	G
1	AR	1380	G
1	AR	1385	C
1	AR	1386	A
1	AR	1387	G
1	AR	1399	A
1	AR	1400	G
1	AR	1418	A
1	AR	1419	A
1	AR	1422	G
1	AR	1428	A
1	AR	1431	G
1	AR	1434	G
1	AR	1437	C
1	AR	1446	A
1	AR	1450	G
1	AR	1451	C
1	AR	1481	A
1	AR	1482	A
1	AR	1486	G
1	AR	1488	G
1	AR	1490	A
1	AR	1496	C
1	AR	1508	C
1	AR	1514	G
1	AR	1515	A
1	AR	1531	C
1	AR	1536	G
1	AR	1555	U
1	AR	1556	C
1	AR	1560	G
1	AR	1561	G
1	AR	1562	C
1	AR	1563	C
1	AR	1566	A
1	AR	1567	U
1	AR	1568	U
1	AR	1569	U
1	AR	1570	U

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Mol	Chain	Res	Type
1	AR	1572	U
1	AR	1576	G
1	AR	1579	C
1	AR	1580	A
1	AR	1581	C
1	AR	1582	C
1	AR	1583	A
1	AR	1587	A
1	AR	1589	A
1	AR	1620	U
1	AR	1629	U
1	AR	1639	C
1	AR	1643	A
1	AR	1657	C
1	AR	1683	A
1	AR	1716	U
1	AR	1717	U
1	AR	1724	U
1	AR	1725	C
1	AR	1736	G
1	AR	1741	A
1	AR	1742	U
1	AR	1750	A
1	AR	1751	G
1	AR	1760	A
1	AR	1762	C
1	AR	1765	U
1	AR	1766	G
1	AR	1769	G
1	AR	1770	G
1	AR	1780	G
1	AR	1793	C
1	AR	1797	A
1	AR	1810	A
1	AR	1814	A
1	AR	1815	U
1	AR	1816	A
1	AR	1817	G
1	AR	1819	U
1	AR	1820	U
1	AR	1821	U
1	AR	1839	A

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Mol	Chain	Res	Type
1	AR	1841	A
1	AR	1842	A
1	AR	1845	G
1	AR	1846	C
1	AR	1847	A
1	AR	1849	C
1	AR	1850	A
1	AR	1878	G
1	AR	1892	G
1	AR	1893	A
1	AR	1895	A
1	AR	1896	A
1	AR	1901	A
1	AR	1906	G
1	AR	1908	A
1	AR	1930	A
1	AR	1932	A
1	AR	1948	G
1	AR	1951	C
1	AR	1952	G
1	AR	1953	G
1	AR	1954	G
1	AR	2094	C
1	AR	2101	C
1	AR	2102	U
1	AR	2112	U
1	AR	2113	A
1	AR	2118	C
1	AR	2121	G
1	AR	2122	G
1	AR	2131	A
1	AR	2158	A
1	AR	2169	G
1	AR	2170	U
1	AR	2177	G
1	AR	2187	G
1	AR	2188	A
1	AR	2192	C
1	AR	2205	U
1	AR	2209	U
1	AR	2210	G
1	AR	2223	A

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Mol	Chain	Res	Type
1	AR	2225	U
1	AR	2228	A
1	AR	2244	A
1	AR	2252	A
1	AR	2253	G
1	AR	2254	U
1	AR	2255	A
1	AR	2256	A
1	AR	2261	G
1	AR	2264	U
1	AR	2265	C
1	AR	2267	C
1	AR	2269	U
1	AR	2270	A
1	AR	2273	G
1	AR	2278	C
1	AR	2279	A
1	AR	2281	A
1	AR	2282	U
1	AR	2288	G
1	AR	2307	G
1	AR	2310	U
1	AR	2313	A
1	AR	2314	U
1	AR	2315	G
1	AR	2334	U
1	AR	2335	G
1	AR	2336	U
1	AR	2372	A
1	AR	2373	A
1	AR	2374	C
1	AR	2375	G
1	AR	2379	U
1	AR	2385	G
1	AR	2393	G
1	AR	2394	G
1	AR	2397	A
1	AR	2401	A
1	AR	2403	G
1	AR	2404	A
1	AR	2411	U
1	AR	2418	G

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Mol	Chain	Res	Type
1	AR	2419	A
1	AR	2435	G
1	AR	2443	A
1	AR	2444	C
1	AR	2445	A
1	AR	2502	A
1	AR	2503	G
1	AR	2504	U
1	AR	2508	U
1	AR	2514	U
1	AR	2515	A
1	AR	2522	G
1	AR	2523	A
1	AR	2530	G
1	AR	2533	G
1	AR	2536	A
1	AR	2538	U
1	AR	2539	C
1	AR	2540	A
1	AR	2541	U
1	AR	2542	U
1	AR	2543	U
1	AR	2546	C
1	AR	2547	A
1	AR	2549	G
1	AR	2551	U
1	AR	2552	C
1	AR	2555	G
1	AR	2560	C
1	AR	2561	A
1	AR	2568	C
1	AR	2569	A
1	AR	2570	U
1	AR	2571	U
1	AR	2572	C
1	AR	2573	G
1	AR	2580	A
1	AR	2581	U
1	AR	2585	G
1	AR	2586	G
1	AR	2589	G
1	AR	2593	A

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Mol	Chain	Res	Type
1	AR	2594	C
1	AR	2595	A
1	AR	2606	G
1	AR	2607	G
1	AR	2614	G
1	AR	2618	G
1	AR	2624	G
1	AR	2625	C
1	AR	2626	A
1	AR	2639	G
1	AR	2647	A
1	AR	2652	U
1	AR	2656	A
1	AR	2674	A
1	AR	2677	G
1	AR	2689	A
1	AR	2690	G
1	AR	2691	A
1	AR	2694	A
1	AR	2696	A
1	AR	2704	A
1	AR	2707	C
1	AR	2714	G
1	AR	2716	U
1	AR	2728	G
1	AR	2729	U
1	AR	2752	U
1	AR	2753	G
1	AR	2762	A
1	AR	2772	C
1	AR	2773	C
1	AR	2777	G
1	AR	2778	G
1	AR	2781	U
1	AR	2796	G
1	AR	2799	A
1	AR	2800	G
1	AR	2801	A
1	AR	2802	A
1	AR	2810	C
1	AR	2814	G
1	AR	2817	A

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Mol	Chain	Res	Type
1	AR	2818	U
1	AR	2842	U
1	AR	2843	U
1	AR	2845	A
1	AR	2853	A
1	AR	2860	U
1	AR	2871	G
1	AR	2872	A
1	AR	2873	U
1	AR	2875	U
1	AR	2876	C
1	AR	2878	G
1	AR	2886	U
1	AR	2887	A
1	AR	2896	A
1	AR	2899	C
1	AR	2912	G
1	AR	2923	U
1	AR	2935	U
1	AR	2936	A
1	AR	2942	C
1	AR	2947	G
1	AR	2957	G
1	AR	2958	A
1	AR	2959	C
1	AR	2971	A
1	AR	2983	C
1	AR	2990	G
1	AR	2996	U
1	AR	2997	G
1	AR	3012	A
1	AR	3028	G
1	AR	3029	A
1	AR	3030	G
1	AR	3056	U
1	AR	3057	U
1	AR	3059	G
1	AR	3069	G
1	AR	3078	U
1	AR	3079	U
1	AR	3086	A
1	AR	3092	C

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Mol	Chain	Res	Type
1	AR	3102	G
1	AR	3115	C
1	AR	3122	A
1	AR	3130	A
1	AR	3131	U
1	AR	3142	A
1	AR	3143	C
1	AR	3151	U
1	AR	3153	U
1	AR	3154	C
1	AR	3155	U
1	AR	3156	U
1	AR	3157	U
1	AR	3158	G
1	AR	3163	A
1	AR	3164	C
1	AR	3165	A
1	AR	3167	A
1	AR	3168	A
1	AR	3172	A
1	AR	3173	G
1	AR	3174	A
1	AR	3176	G
1	AR	3179	U
1	AR	3180	A
1	AR	3181	C
1	AR	3187	A
1	AR	3195	U
1	AR	3196	U
1	AR	3197	G
1	AR	3198	U
1	AR	3207	U
1	AR	3209	A
1	AR	3217	C
1	AR	3218	A
1	AR	3219	G
1	AR	3228	C
1	AR	3229	G
1	AR	3243	A
1	AR	3245	A
1	AR	3246	G
1	AR	3247	G

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Mol	Chain	Res	Type
1	AR	3253	G
1	AR	3259	U
1	AR	3263	G
1	AR	3265	C
1	AR	3270	U
1	AR	3273	A
1	AR	3276	G
1	AR	3281	U
1	AR	3286	G
1	AR	3287	U
1	AR	3289	G
1	AR	3294	A
1	AR	3295	A
1	AR	3304	U
1	AR	3313	U
1	AR	3316	A
1	AR	3317	U
1	AR	3318	G
1	AR	3319	U
1	AR	3320	A
1	AR	3341	U
1	AR	3342	A
1	AR	3345	G
1	AR	3347	A
1	AR	3349	C
1	AR	3350	C
1	AR	3351	U
1	AR	3352	U
1	AR	3353	G
1	AR	3354	U
1	AR	3355	U
1	AR	3356	G
1	AR	3357	U
1	AR	3358	U
1	AR	3359	A
1	AR	3369	G
1	AR	3375	A
1	AR	3376	A
1	AR	3377	G
1	AR	3378	C
1	AR	3382	U
1	AR	3383	G

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Mol	Chain	Res	Type
1	AR	3389	U
1	AR	3390	G
1	AR	3396	U
2	AS	22	A
2	AS	45	A
2	AS	51	A
2	AS	52	G
2	AS	53	U
2	AS	54	U
2	AS	55	A
2	AS	65	G
2	AS	73	C
2	AS	74	C
2	AS	91	G
2	AS	99	G
2	AS	101	G
2	AS	102	A
2	AS	112	G
2	AS	121	U
3	AT	2	A
3	AT	21	C
3	AT	34	U
3	AT	35	C
3	AT	48	A
3	AT	49	G
3	AT	52	A
3	AT	53	A
3	AT	57	C
3	AT	59	A
3	AT	62	C
3	AT	63	G
3	AT	80	A
3	AT	81	U
3	AT	82	U
3	AT	83	C
3	AT	86	U
3	AT	87	G
3	AT	90	U
3	AT	95	G
3	AT	104	A
3	AT	105	A
3	AT	106	C

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Mol	Chain	Res	Type
3	AT	111	A
3	AT	113	U
3	AT	114	G
3	AT	125	U
3	AT	126	A
3	AT	148	G
3	AT	155	A
3	AT	157	U
3	AT	158	U
47	A	2	A
47	A	4	C
47	A	13	C
47	A	17	C
47	A	25	C
47	A	26	A
47	A	27	U
47	A	34	G
47	A	45	U
47	A	46	A
47	A	47	A
47	A	57	G
47	A	60	U
47	A	67	A
47	A	68	A
47	A	69	G
47	A	72	A
47	A	73	U
47	A	74	U
47	A	75	U
47	A	77	U
47	A	81	G
47	A	104	A
47	A	114	C
47	A	130	C
47	A	131	C
47	A	132	U
47	A	133	U
47	A	134	U
47	A	135	A
47	A	136	C
47	A	137	U
47	A	140	A

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Mol	Chain	Res	Type
47	A	141	U
47	A	144	U
47	A	145	A
47	A	146	U
47	A	153	G
47	A	158	U
47	A	159	U
47	A	166	C
47	A	169	A
47	A	178	U
47	A	179	A
47	A	185	U
47	A	186	C
47	A	187	G
47	A	188	A
47	A	190	C
47	A	191	C
47	A	192	U
47	A	193	U
47	A	194	U
47	A	195	G
47	A	196	G
47	A	197	A
47	A	200	A
47	A	215	A
47	A	217	A
47	A	218	A
47	A	219	A
47	A	226	A
47	A	227	U
47	A	228	G
47	A	229	U
47	A	233	C
47	A	234	G
47	A	235	G
47	A	238	U
47	A	239	C
47	A	240	U
47	A	241	U
47	A	242	U
47	A	246	G
47	A	250	C

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Mol	Chain	Res	Type
47	A	260	U
47	A	261	U
47	A	265	A
47	A	269	G
47	A	271	A
47	A	272	U
47	A	274	G
47	A	275	C
47	A	276	C
47	A	277	U
47	A	278	U
47	A	279	G
47	A	280	U
47	A	281	G
47	A	284	G
47	A	288	A
47	A	290	G
47	A	299	A
47	A	302	U
47	A	308	C
47	A	309	C
47	A	314	C
47	A	316	A
47	A	319	U
47	A	320	U
47	A	321	C
47	A	322	G
47	A	333	A
47	A	337	G
47	A	338	C
47	A	352	A
47	A	359	A
47	A	360	A
47	A	361	C
47	A	390	G
47	A	397	A
47	A	400	A
47	A	401	A
47	A	402	C
47	A	403	G
47	A	404	G
47	A	416	A

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Mol	Chain	Res	Type
47	A	418	G
47	A	423	G
47	A	424	C
47	A	425	A
47	A	426	G
47	A	428	A
47	A	434	G
47	A	439	U
47	A	444	C
47	A	448	C
47	A	468	A
47	A	477	A
47	A	480	G
47	A	484	C
47	A	485	A
47	A	488	G
47	A	493	U
47	A	494	U
47	A	495	C
47	A	496	G
47	A	497	G
47	A	498	G
47	A	499	U
47	A	500	C
47	A	502	U
47	A	503	G
47	A	504	U
47	A	505	A
47	A	506	A
47	A	507	U
47	A	510	G
47	A	511	A
47	A	512	A
47	A	513	U
47	A	515	A
47	A	516	G
47	A	527	A
47	A	532	U
47	A	536	C
47	A	538	A
47	A	539	G
47	A	540	G

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Mol	Chain	Res	Type
47	A	541	A
47	A	542	A
47	A	543	C
47	A	544	A
47	A	547	U
47	A	555	A
47	A	556	A
47	A	557	G
47	A	558	U
47	A	559	C
47	A	565	C
47	A	579	A
47	A	580	A
47	A	582	U
47	A	594	A
47	A	595	G
47	A	611	U
47	A	619	A
47	A	620	A
47	A	621	A
47	A	622	A
47	A	623	A
47	A	624	G
47	A	639	U
47	A	640	U
47	A	650	U
47	A	653	C
47	A	654	C
47	A	655	G
47	A	656	G
47	A	657	U
47	A	658	C
47	A	677	G
47	A	680	U
47	A	682	C
47	A	684	A
47	A	685	A
47	A	686	C
47	A	694	U
47	A	696	C
47	A	697	C
47	A	700	C

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Mol	Chain	Res	Type
47	A	701	U
47	A	702	G
47	A	703	G
47	A	704	C
47	A	705	U
47	A	706	A
47	A	707	A
47	A	709	C
47	A	710	U
47	A	712	G
47	A	714	G
47	A	717	C
47	A	718	U
47	A	719	U
47	A	721	U
47	A	722	G
47	A	723	G
47	A	725	U
47	A	727	U
47	A	728	U
47	A	731	C
47	A	732	G
47	A	733	A
47	A	734	A
47	A	735	C
47	A	736	C
47	A	737	A
47	A	738	G
47	A	742	U
47	A	743	U
47	A	754	A
47	A	755	A
47	A	756	A
47	A	765	G
47	A	766	U
47	A	768	C
47	A	774	A
47	A	775	G
47	A	778	G
47	A	779	U
47	A	780	A
47	A	781	U

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Mol	Chain	Res	Type
47	A	782	U
47	A	783	G
47	A	784	C
47	A	793	A
47	A	794	U
47	A	812	A
47	A	815	G
47	A	816	G
47	A	818	C
47	A	819	G
47	A	820	U
47	A	821	U
47	A	822	U
47	A	823	G
47	A	824	G
47	A	829	A
47	A	830	U
47	A	831	U
47	A	833	U
47	A	841	U
47	A	846	G
47	A	856	A
47	A	860	U
47	A	863	A
47	A	864	U
47	A	886	U
47	A	898	A
47	A	907	A
47	A	909	U
47	A	912	U
47	A	914	G
47	A	915	A
47	A	933	A
47	A	935	U
47	A	942	G
47	A	951	A
47	A	959	U
47	A	960	U
47	A	966	A
47	A	992	A
47	A	993	A
47	A	997	G

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Mol	Chain	Res	Type
47	A	1002	G
47	A	1003	A
47	A	1004	U
47	A	1005	A
47	A	1013	A
47	A	1020	A
47	A	1026	A
47	A	1028	C
47	A	1029	U
47	A	1039	A
47	A	1040	G
47	A	1052	U
47	A	1053	G
47	A	1058	U
47	A	1061	A
47	A	1074	G
47	A	1079	U
47	A	1080	U
47	A	1082	C
47	A	1086	A
47	A	1091	A
47	A	1092	A
47	A	1096	C
47	A	1097	U
47	A	1100	G
47	A	1109	G
47	A	1138	A
47	A	1146	G
47	A	1150	G
47	A	1151	A
47	A	1157	A
47	A	1158	C
47	A	1160	A
47	A	1161	C
47	A	1164	G
47	A	1167	G
47	A	1176	G
47	A	1185	U
47	A	1191	U
47	A	1194	A
47	A	1196	A
47	A	1199	G

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Mol	Chain	Res	Type
47	A	1200	G
47	A	1202	A
47	A	1207	C
47	A	1217	A
47	A	1218	G
47	A	1227	A
47	A	1229	G
47	A	1241	G
47	A	1243	G
47	A	1244	A
47	A	1245	G
47	A	1250	U
47	A	1251	U
47	A	1257	U
47	A	1258	U
47	A	1260	U
47	A	1286	U
47	A	1310	U
47	A	1314	U
47	A	1315	U
47	A	1316	G
47	A	1320	U
47	A	1321	A
47	A	1339	C
47	A	1340	U
47	A	1341	A
47	A	1344	A
47	A	1345	A
47	A	1346	A
47	A	1354	G
47	A	1355	C
47	A	1357	A
47	A	1360	A
47	A	1361	U
47	A	1362	U
47	A	1363	U
47	A	1364	G
47	A	1370	U
47	A	1371	A
47	A	1383	G
47	A	1390	U
47	A	1395	G

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Mol	Chain	Res	Type
47	A	1398	U
47	A	1399	C
47	A	1412	G
47	A	1413	U
47	A	1414	U
47	A	1415	U
47	A	1427	A
47	A	1428	G
47	A	1445	G
47	A	1446	A
47	A	1457	C
47	A	1458	G
47	A	1459	C
47	A	1461	C
47	A	1471	A
47	A	1473	U
47	A	1474	G
47	A	1475	A
47	A	1477	G
47	A	1482	C
47	A	1486	G
47	A	1487	A
47	A	1489	U
47	A	1490	C
47	A	1491	U
47	A	1492	A
47	A	1493	A
47	A	1506	G
47	A	1516	A
47	A	1517	U
47	A	1521	G
47	A	1523	G
47	A	1524	A
47	A	1535	U
47	A	1536	G
47	A	1537	C
47	A	1538	U
47	A	1542	G
47	A	1548	G
47	A	1557	U
47	A	1559	A
47	A	1569	A

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Mol	Chain	Res	Type
47	A	1574	G
47	A	1584	G
47	A	1590	G
47	A	1601	G
47	A	1614	A
47	A	1616	G
47	A	1626	U
47	A	1631	A
47	A	1635	A
47	A	1657	U
47	A	1658	G
47	A	1680	G
47	A	1683	C
47	A	1684	U
47	A	1698	G
47	A	1699	G
47	A	1700	C
47	A	1701	A
47	A	1702	A
47	A	1703	C
47	A	1711	C
47	A	1712	A
47	A	1713	G
47	A	1715	G
47	A	1731	A
47	A	1754	A
47	A	1755	A
47	A	1756	A
47	A	1760	G
47	A	1761	U
47	A	1762	A
47	A	1766	A
47	A	1769	U
47	A	1770	U
47	A	1780	G
47	A	1781	A
47	A	1782	A
47	A	1783	C
47	A	1792	G
47	A	1793	G
47	A	1794	A
47	A	1796	C

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Mol	Chain	Res	Type
81	sR	2	A
81	sR	4	C
81	sR	6	G
81	sR	8	U
81	sR	17	C
81	sR	25	C
81	sR	26	A
81	sR	27	U
81	sR	34	G
81	sR	42	G
81	sR	47	A
81	sR	50	C
81	sR	57	G
81	sR	61	A
81	sR	68	A
81	sR	69	G
81	sR	72	A
81	sR	73	U
81	sR	75	U
81	sR	76	A
81	sR	77	U
81	sR	104	A
81	sR	114	C
81	sR	132	U
81	sR	137	U
81	sR	138	A
81	sR	140	A
81	sR	141	U
81	sR	144	U
81	sR	145	A
81	sR	146	U
81	sR	159	U
81	sR	161	U
81	sR	166	C
81	sR	178	U
81	sR	181	A
81	sR	182	A
81	sR	185	U
81	sR	187	G
81	sR	188	A
81	sR	191	C
81	sR	192	U

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Mol	Chain	Res	Type
81	sR	193	U
81	sR	195	G
81	sR	196	G
81	sR	197	A
81	sR	199	G
81	sR	200	A
81	sR	215	A
81	sR	216	U
81	sR	218	A
81	sR	219	A
81	sR	220	A
81	sR	227	U
81	sR	228	G
81	sR	230	C
81	sR	232	U
81	sR	233	C
81	sR	240	U
81	sR	241	U
81	sR	250	C
81	sR	261	U
81	sR	265	A
81	sR	266	A
81	sR	270	C
81	sR	271	A
81	sR	272	U
81	sR	273	G
81	sR	275	C
81	sR	277	U
81	sR	278	U
81	sR	280	U
81	sR	299	A
81	sR	314	C
81	sR	316	A
81	sR	319	U
81	sR	320	U
81	sR	321	C
81	sR	322	G
81	sR	333	A
81	sR	335	U
81	sR	336	G
81	sR	337	G
81	sR	338	C

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Mol	Chain	Res	Type
81	sR	352	A
81	sR	359	A
81	sR	360	A
81	sR	361	C
81	sR	400	A
81	sR	401	A
81	sR	402	C
81	sR	404	G
81	sR	416	A
81	sR	418	G
81	sR	419	G
81	sR	423	G
81	sR	424	C
81	sR	425	A
81	sR	426	G
81	sR	434	G
81	sR	439	U
81	sR	444	C
81	sR	445	A
81	sR	448	C
81	sR	454	U
81	sR	464	A
81	sR	468	A
81	sR	469	C
81	sR	470	A
81	sR	475	A
81	sR	477	A
81	sR	478	A
81	sR	484	C
81	sR	486	G
81	sR	487	G
81	sR	488	G
81	sR	489	C
81	sR	490	C
81	sR	492	A
81	sR	493	U
81	sR	494	U
81	sR	496	G
81	sR	497	G
81	sR	500	C
81	sR	501	U
81	sR	504	U

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Mol	Chain	Res	Type
81	sR	505	A
81	sR	506	A
81	sR	507	U
81	sR	510	G
81	sR	511	A
81	sR	513	U
81	sR	514	G
81	sR	517	U
81	sR	519	C
81	sR	527	A
81	sR	538	A
81	sR	539	G
81	sR	540	G
81	sR	541	A
81	sR	542	A
81	sR	543	C
81	sR	544	A
81	sR	548	G
81	sR	557	G
81	sR	558	U
81	sR	559	C
81	sR	564	G
81	sR	565	C
81	sR	566	C
81	sR	568	G
81	sR	570	A
81	sR	574	G
81	sR	578	U
81	sR	579	A
81	sR	580	A
81	sR	582	U
81	sR	594	A
81	sR	595	G
81	sR	606	A
81	sR	617	U
81	sR	619	A
81	sR	620	A
81	sR	621	A
81	sR	622	A
81	sR	623	A
81	sR	624	G
81	sR	637	C

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Mol	Chain	Res	Type
81	sR	639	U
81	sR	640	U
81	sR	648	G
81	sR	650	U
81	sR	651	G
81	sR	652	G
81	sR	653	C
81	sR	658	C
81	sR	676	G
81	sR	679	U
81	sR	680	U
81	sR	681	U
81	sR	682	C
81	sR	683	C
81	sR	684	A
81	sR	685	A
81	sR	687	G
81	sR	691	C
81	sR	696	C
81	sR	709	C
81	sR	710	U
81	sR	711	U
81	sR	714	G
81	sR	718	U
81	sR	719	U
81	sR	720	G
81	sR	721	U
81	sR	722	G
81	sR	724	C
81	sR	730	G
81	sR	745	U
81	sR	753	A
81	sR	754	A
81	sR	755	A
81	sR	756	A
81	sR	762	A
81	sR	765	G
81	sR	766	U
81	sR	767	U
81	sR	774	A
81	sR	775	G
81	sR	780	A

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Mol	Chain	Res	Type
81	sR	781	U
81	sR	782	U
81	sR	783	G
81	sR	787	G
81	sR	789	A
81	sR	793	A
81	sR	794	U
81	sR	803	A
81	sR	806	A
81	sR	811	A
81	sR	812	A
81	sR	815	G
81	sR	816	G
81	sR	821	U
81	sR	823	G
81	sR	824	G
81	sR	825	U
81	sR	826	U
81	sR	828	U
81	sR	829	A
81	sR	830	U
81	sR	831	U
81	sR	832	U
81	sR	834	G
81	sR	835	U
81	sR	863	A
81	sR	876	G
81	sR	877	G
81	sR	898	A
81	sR	906	A
81	sR	910	C
81	sR	912	U
81	sR	913	G
81	sR	914	G
81	sR	916	U
81	sR	933	A
81	sR	935	U
81	sR	942	G
81	sR	959	U
81	sR	960	U
81	sR	966	A
81	sR	967	A

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Mol	Chain	Res	Type
81	sR	970	A
81	sR	971	A
81	sR	983	A
81	sR	992	A
81	sR	1003	A
81	sR	1004	U
81	sR	1005	A
81	sR	1013	A
81	sR	1021	C
81	sR	1026	A
81	sR	1028	C
81	sR	1039	A
81	sR	1040	G
81	sR	1052	U
81	sR	1053	G
81	sR	1057	U
81	sR	1058	U
81	sR	1059	U
81	sR	1060	U
81	sR	1061	A
81	sR	1072	C
81	sR	1073	G
81	sR	1081	A
81	sR	1082	C
81	sR	1091	A
81	sR	1092	A
81	sR	1096	C
81	sR	1097	U
81	sR	1098	U
81	sR	1100	G
81	sR	1101	G
81	sR	1109	G
81	sR	1137	A
81	sR	1138	A
81	sR	1143	A
81	sR	1146	G
81	sR	1150	G
81	sR	1151	A
81	sR	1155	G
81	sR	1158	C
81	sR	1159	C
81	sR	1160	A

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Mol	Chain	Res	Type
81	sR	1167	G
81	sR	1171	A
81	sR	1185	U
81	sR	1193	A
81	sR	1194	A
81	sR	1196	A
81	sR	1197	C
81	sR	1199	G
81	sR	1200	G
81	sR	1202	A
81	sR	1208	A
81	sR	1212	G
81	sR	1217	A
81	sR	1218	G
81	sR	1219	A
81	sR	1225	U
81	sR	1226	A
81	sR	1228	G
81	sR	1229	G
81	sR	1230	A
81	sR	1241	G
81	sR	1243	G
81	sR	1244	A
81	sR	1245	G
81	sR	1246	C
81	sR	1255	G
81	sR	1256	A
81	sR	1257	U
81	sR	1258	U
81	sR	1262	U
81	sR	1283	U
81	sR	1286	U
81	sR	1288	G
81	sR	1314	U
81	sR	1315	U
81	sR	1321	A
81	sR	1335	U
81	sR	1341	A
81	sR	1344	A
81	sR	1345	A
81	sR	1346	A
81	sR	1354	G

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Mol	Chain	Res	Type
81	sR	1361	U
81	sR	1363	U
81	sR	1364	G
81	sR	1367	G
81	sR	1371	A
81	sR	1388	A
81	sR	1390	U
81	sR	1398	U
81	sR	1399	C
81	sR	1400	A
81	sR	1402	G
81	sR	1413	U
81	sR	1414	U
81	sR	1415	U
81	sR	1417	A
81	sR	1427	A
81	sR	1428	G
81	sR	1429	G
81	sR	1433	G
81	sR	1445	G
81	sR	1446	A
81	sR	1448	G
81	sR	1458	G
81	sR	1459	C
81	sR	1461	C
81	sR	1468	U
81	sR	1471	A
81	sR	1473	U
81	sR	1481	C
81	sR	1482	C
81	sR	1490	C
81	sR	1491	U
81	sR	1492	A
81	sR	1493	A
81	sR	1496	U
81	sR	1506	G
81	sR	1514	U
81	sR	1515	A
81	sR	1516	A
81	sR	1521	G
81	sR	1523	G
81	sR	1524	A

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Mol	Chain	Res	Type
81	sR	1535	U
81	sR	1536	G
81	sR	1537	C
81	sR	1538	U
81	sR	1540	G
81	sR	1548	G
81	sR	1554	U
81	sR	1555	A
81	sR	1557	U
81	sR	1559	A
81	sR	1569	A
81	sR	1573	A
81	sR	1574	G
81	sR	1575	G
81	sR	1577	A
81	sR	1582	U
81	sR	1584	G
81	sR	1600	A
81	sR	1601	G
81	sR	1621	U
81	sR	1622	G
81	sR	1634	C
81	sR	1657	U
81	sR	1658	G
81	sR	1682	U
81	sR	1696	G
81	sR	1697	G
81	sR	1698	G
81	sR	1699	G
81	sR	1700	C
81	sR	1701	A
81	sR	1702	A
81	sR	1703	C
81	sR	1712	A
81	sR	1716	C
81	sR	1717	G
81	sR	1731	A
81	sR	1754	A
81	sR	1755	A
81	sR	1760	G
81	sR	1762	A
81	sR	1766	A

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Mol	Chain	Res	Type
81	sR	1767	G
81	sR	1769	U
81	sR	1780	G
81	sR	1782	A
81	sR	1783	C
81	sR	1789	G
81	sR	1792	G
81	sR	1793	G
81	sR	1794	A
81	sR	1795	U
81	sR	1796	C
81	sR	1799	U
81	sR	1800	A

All (210) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1	43	A
1	1	65	A
1	1	210	U
1	1	239	G
1	1	282	G
1	1	545	U
1	1	547	G
1	1	588	G
1	1	594	U
1	1	637	C
1	1	715	A
1	1	763	G
1	1	816	A
1	1	873	C
1	1	896	A
1	1	916	G
1	1	979	U
1	1	981	U
1	1	993	G
1	1	1064	A
1	1	1094	U
1	1	1097	G
1	1	1103	A
1	1	1181	U
1	1	1196	C

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Mol	Chain	Res	Type
1	1	1273	A
1	1	1307	G
1	1	1329	U
1	1	1352	A
1	1	1355	A
1	1	1481	A
1	1	1507	G
1	1	1554	U
1	1	1559	A
1	1	1562	C
1	1	1716	U
1	1	1751	G
1	1	1815	U
1	1	1820	U
1	1	2101	C
1	1	2112	U
1	1	2209	U
1	1	2227	C
1	1	2249	G
1	1	2404	A
1	1	2418	G
1	1	2522	G
1	1	2537	U
1	1	2541	U
1	1	2585	G
1	1	2593	A
1	1	2689	A
1	1	2704	A
1	1	2728	G
1	1	2771	U
1	1	2801	A
1	1	2808	A
1	1	2818	U
1	1	2859	U
1	1	2874	G
1	1	2875	U
1	1	3056	U
1	1	3078	U
1	1	3121	U
1	1	3207	U
1	1	3218	A
1	1	3228	C

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Mol	Chain	Res	Type
1	1	3269	U
1	1	3275	U
1	1	3319	U
1	1	3350	C
1	1	3351	U
1	1	3353	G
1	1	3375	A
2	3	49	G
2	3	77	G
3	4	85	G
3	4	125	U
1	AR	65	A
1	AR	269	G
1	AR	588	G
1	AR	594	U
1	AR	620	U
1	AR	647	A
1	AR	715	A
1	AR	719	U
1	AR	896	A
1	AR	916	G
1	AR	979	U
1	AR	981	U
1	AR	993	G
1	AR	1064	A
1	AR	1094	U
1	AR	1097	G
1	AR	1103	A
1	AR	1152	G
1	AR	1181	U
1	AR	1238	C
1	AR	1241	U
1	AR	1284	C
1	AR	1317	A
1	AR	1329	U
1	AR	1331	U
1	AR	1352	A
1	AR	1355	A
1	AR	1481	A
1	AR	1507	G
1	AR	1554	U
1	AR	1562	C

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Mol	Chain	Res	Type
1	AR	1589	A
1	AR	1716	U
1	AR	1793	C
1	AR	1815	U
1	AR	1816	A
1	AR	1820	U
1	AR	1841	A
1	AR	1846	C
1	AR	2101	C
1	AR	2112	U
1	AR	2209	U
1	AR	2252	A
1	AR	2255	A
1	AR	2260	U
1	AR	2269	U
1	AR	2374	C
1	AR	2400	G
1	AR	2401	A
1	AR	2418	G
1	AR	2537	U
1	AR	2541	U
1	AR	2585	G
1	AR	2593	A
1	AR	2728	G
1	AR	2801	A
1	AR	2818	U
1	AR	2871	G
1	AR	2887	A
1	AR	2896	A
1	AR	3056	U
1	AR	3078	U
1	AR	3093	C
1	AR	3121	U
1	AR	3157	U
1	AR	3218	A
1	AR	3228	C
1	AR	3269	U
1	AR	3276	G
1	AR	3316	A
1	AR	3317	U
1	AR	3319	U
1	AR	3350	C

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Mol	Chain	Res	Type
1	AR	3352	U
1	AR	3375	A
2	AS	52	G
3	AT	85	G
3	AT	111	A
3	AT	125	U
47	A	2	A
47	A	25	C
47	A	45	U
47	A	68	A
47	A	73	U
47	A	103	A
47	A	126	A
47	A	130	C
47	A	131	C
47	A	139	C
47	A	158	U
47	A	187	G
47	A	218	A
47	A	240	U
47	A	278	U
47	A	280	U
47	A	400	A
47	A	417	A
47	A	499	U
47	A	501	U
47	A	503	G
47	A	510	G
47	A	512	A
47	A	555	A
47	A	582	U
47	A	685	A
47	A	704	C
47	A	720	G
47	A	721	U
47	A	755	A
47	A	781	U
47	A	811	A
47	A	829	A
47	A	913	G
47	A	1051	G
47	A	1081	A

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Mol	Chain	Res	Type
47	A	1108	G
47	A	1150	G
47	A	1157	A
47	A	1226	A
47	A	1244	A
47	A	1250	U
47	A	1344	A
47	A	1370	U
47	A	1481	C
47	A	1490	C
47	A	1568	C
47	A	1573	A
47	A	1615	C
47	A	1657	U
47	A	1698	G
47	A	1754	A
47	A	1761	U

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 2586 ligands modelled in this entry, 2 are modelled with single atom and 1525 are monoatomic - leaving 1059 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	$\# Z > 2$
82	OHX	1	3720	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	A	1913	-	0,6,6	0.00	-	-		
82	OHX	1	3620	-	0,6,6	0.00	-	-		
82	OHX	1	3584	-	0,6,6	0.00	-	-		
82	OHX	AR	3487	-	0,6,6	0.00	-	-		
82	OHX	1	3557	-	0,6,6	0.00	-	-		
82	OHX	AR	3663	-	0,6,6	0.00	-	-		
82	OHX	AR	3575	-	0,6,6	0.00	-	-		
82	OHX	A	1911	-	0,6,6	0.00	-	-		
82	OHX	A	1889	-	0,6,6	0.00	-	-		
82	OHX	1	3601	-	0,6,6	0.00	-	-		
82	OHX	DD	101	-	0,6,6	0.00	-	-		
82	OHX	AR	3706	-	0,6,6	0.00	-	-		
82	OHX	sR	1990	-	0,6,6	0.00	-	-		
82	OHX	sR	1931	-	0,6,6	0.00	-	-		
82	OHX	AR	3415	-	0,6,6	0.00	-	-		
82	OHX	AR	3677	-	0,6,6	0.00	-	-		
82	OHX	sR	2039	-	0,6,6	0.00	-	-		
82	OHX	1	3566	-	0,6,6	0.00	-	-		
82	OHX	A	1899	-	0,6,6	0.00	-	-		
82	OHX	sR	2017	-	0,6,6	0.00	-	-		
82	OHX	AR	3448	-	0,6,6	0.00	-	-		
82	OHX	A	1890	-	0,6,6	0.00	-	-		
82	OHX	sR	1960	-	0,6,6	0.00	-	-		
82	OHX	1	3613	-	0,6,6	0.00	-	-		
82	OHX	AR	3494	-	0,6,6	0.00	-	-		
82	OHX	sR	1911	-	0,6,6	0.00	-	-		
82	OHX	AR	3576	-	0,6,6	0.00	-	-		
82	OHX	sR	1951	-	0,6,6	0.00	-	-		
82	OHX	AR	3691	-	0,6,6	0.00	-	-		
82	OHX	AR	3467	-	0,6,6	0.00	-	-		
82	OHX	1	3526	-	0,6,6	0.00	-	-		
82	OHX	1	3440	-	0,6,6	0.00	-	-		
82	OHX	1	3696	-	0,6,6	0.00	-	-		
82	OHX	AR	3406	-	0,6,6	0.00	-	-		
82	OHX	A	1819	-	0,6,6	0.00	-	-		
82	OHX	AR	3545	-	0,6,6	0.00	-	-		
82	OHX	sR	2026	-	0,6,6	0.00	-	-		
82	OHX	AR	3658	-	0,6,6	0.00	-	-		
82	OHX	sR	1956	-	0,6,6	0.00	-	-		
82	OHX	sR	1913	-	0,6,6	0.00	-	-		
82	OHX	sR	1933	-	0,6,6	0.00	-	-		
82	OHX	AR	3413	-	0,6,6	0.00	-	-		
82	OHX	AR	3427	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	sR	1905	-	0,6,6	0.00	-	-		
82	OHX	1	3513	-	0,6,6	0.00	-	-		
82	OHX	1	3456	-	0,6,6	0.00	-	-		
82	OHX	AR	3686	-	0,6,6	0.00	-	-		
82	OHX	sR	2006	-	0,6,6	0.00	-	-		
82	OHX	1	3581	-	0,6,6	0.00	-	-		
82	OHX	1	3654	-	0,6,6	0.00	-	-		
82	OHX	n	201	-	0,6,6	0.00	-	-		
82	OHX	sR	2010	-	0,6,6	0.00	-	-		
82	OHX	c1	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3465	-	0,6,6	0.00	-	-		
82	OHX	A	1834	-	0,6,6	0.00	-	-		
82	OHX	AR	3684	-	0,6,6	0.00	-	-		
82	OHX	sR	2047	-	0,6,6	0.00	-	-		
82	OHX	sR	2024	-	0,6,6	0.00	-	-		
82	OHX	AR	3565	-	0,6,6	0.00	-	-		
82	OHX	AR	3719	-	0,6,6	0.00	-	-		
82	OHX	AR	3473	-	0,6,6	0.00	-	-		
82	OHX	A	1914	-	0,6,6	0.00	-	-		
82	OHX	AR	3613	-	0,6,6	0.00	-	-		
82	OHX	1	3538	-	0,6,6	0.00	-	-		
82	OHX	1	3586	-	0,6,6	0.00	-	-		
82	OHX	AR	3528	-	0,6,6	0.00	-	-		
82	OHX	c5	201	-	0,6,6	0.00	-	-		
82	OHX	A	1938	-	0,6,6	0.00	-	-		
82	OHX	AR	3644	-	0,6,6	0.00	-	-		
82	OHX	AR	3432	-	0,6,6	0.00	-	-		
82	OHX	1	3642	-	0,6,6	0.00	-	-		
82	OHX	4	204	-	0,6,6	0.00	-	-		
82	OHX	1	3615	-	0,6,6	0.00	-	-		
82	OHX	AR	3570	-	0,6,6	0.00	-	-		
82	OHX	A	1839	-	0,6,6	0.00	-	-		
82	OHX	1	3417	-	0,6,6	0.00	-	-		
82	OHX	A	1856	-	0,6,6	0.00	-	-		
82	OHX	A	1934	-	0,6,6	0.00	-	-		
82	OHX	J	301	-	0,6,6	0.00	-	-		
82	OHX	AR	3690	-	0,6,6	0.00	-	-		
82	OHX	AR	3516	-	0,6,6	0.00	-	-		
82	OHX	1	3701	-	0,6,6	0.00	-	-		
82	OHX	AK	102	-	0,6,6	0.00	-	-		
82	OHX	AR	3665	-	0,6,6	0.00	-	-		
82	OHX	AR	3581	-	0,6,6	0.00	-	-		
82	OHX	sR	1957	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3540	-	0,6,6	0.00	-	-		
82	OHX	A	1808	-	0,6,6	0.00	-	-		
82	OHX	DG	201	-	0,6,6	0.00	-	-		
82	OHX	AT	205	-	0,6,6	0.00	-	-		
82	OHX	AR	3419	-	0,6,6	0.00	-	-		
82	OHX	A	1931	-	0,6,6	0.00	-	-		
82	OHX	1	3576	-	0,6,6	0.00	-	-		
82	OHX	1	3573	-	0,6,6	0.00	-	-		
82	OHX	AR	3435	-	0,6,6	0.00	-	-		
82	OHX	sR	1908	-	0,6,6	0.00	-	-		
82	OHX	AR	3416	-	0,6,6	0.00	-	-		
82	OHX	AR	3493	-	0,6,6	0.00	-	-		
82	OHX	A	1806	-	0,6,6	0.00	-	-		
82	OHX	1	3494	-	0,6,6	0.00	-	-		
82	OHX	A	1909	-	0,6,6	0.00	-	-		
82	OHX	sR	1965	-	0,6,6	0.00	-	-		
82	OHX	AR	3549	-	0,6,6	0.00	-	-		
82	OHX	CF	401	-	0,6,6	0.00	-	-		
82	OHX	AR	3634	-	0,6,6	0.00	-	-		
82	OHX	AT	204	-	0,6,6	0.00	-	-		
82	OHX	3	204	-	0,6,6	0.00	-	-		
82	OHX	1	3483	-	0,6,6	0.00	-	-		
82	OHX	AR	3724	-	0,6,6	0.00	-	-		
82	OHX	AR	3525	-	0,6,6	0.00	-	-		
82	OHX	1	3574	-	0,6,6	0.00	-	-		
82	OHX	AR	3707	-	0,6,6	0.00	-	-		
82	OHX	CG	303	-	0,6,6	0.00	-	-		
82	OHX	AR	3424	-	0,6,6	0.00	-	-		
82	OHX	1	3462	-	0,6,6	0.00	-	-		
82	OHX	1	3433	-	0,6,6	0.00	-	-		
82	OHX	AR	3498	-	0,6,6	0.00	-	-		
82	OHX	A	1832	-	0,6,6	0.00	-	-		
82	OHX	AR	3455	-	0,6,6	0.00	-	-		
82	OHX	AR	3472	-	0,6,6	0.00	-	-		
82	OHX	4	206	-	0,6,6	0.00	-	-		
82	OHX	AK	103	-	0,6,6	0.00	-	-		
82	OHX	sR	1994	-	0,6,6	0.00	-	-		
82	OHX	sR	1962	-	0,6,6	0.00	-	-		
82	OHX	AR	3705	-	0,6,6	0.00	-	-		
82	OHX	AR	3682	-	0,6,6	0.00	-	-		
82	OHX	A	1912	-	0,6,6	0.00	-	-		
82	OHX	AR	3469	-	0,6,6	0.00	-	-		
82	OHX	A	1860	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	sR	1914	-	0,6,6	0.00	-	-		
82	OHX	AR	3699	-	0,6,6	0.00	-	-		
82	OHX	AR	3522	-	0,6,6	0.00	-	-		
82	OHX	CG	302	-	0,6,6	0.00	-	-		
82	OHX	sR	1904	-	0,6,6	0.00	-	-		
82	OHX	AR	3482	-	0,6,6	0.00	-	-		
82	OHX	1	3530	-	0,6,6	0.00	-	-		
82	OHX	sR	2040	-	0,6,6	0.00	-	-		
82	OHX	1	3718	-	0,6,6	0.00	-	-		
82	OHX	A	1827	-	0,6,6	0.00	-	-		
82	OHX	1	3564	-	0,6,6	0.00	-	-		
82	OHX	AR	3597	-	0,6,6	0.00	-	-		
82	OHX	sR	2033	-	0,6,6	0.00	-	-		
82	OHX	AR	3637	-	0,6,6	0.00	-	-		
82	OHX	1	3630	-	0,6,6	0.00	-	-		
82	OHX	1	3569	-	0,6,6	0.00	-	-		
82	OHX	AR	3620	-	0,6,6	0.00	-	-		
82	OHX	AR	3535	-	0,6,6	0.00	-	-		
82	OHX	1	3711	-	0,6,6	0.00	-	-		
82	OHX	1	3517	-	0,6,6	0.00	-	-		
82	OHX	sR	1982	-	0,6,6	0.00	-	-		
82	OHX	A	1876	82	0,6,6	0.00	-	-		
82	OHX	A	1903	-	0,6,6	0.00	-	-		
82	OHX	1	3636	-	0,6,6	0.00	-	-		
82	OHX	AR	3678	-	0,6,6	0.00	-	-		
82	OHX	1	3638	-	0,6,6	0.00	-	-		
82	OHX	AR	3479	-	0,6,6	0.00	-	-		
82	OHX	sR	1950	-	0,6,6	0.00	-	-		
82	OHX	AR	3731	-	0,6,6	0.00	-	-		
82	OHX	sR	2045	-	0,6,6	0.00	-	-		
82	OHX	1	3710	-	0,6,6	0.00	-	-		
82	OHX	sR	1986	-	0,6,6	0.00	-	-		
82	OHX	sR	1993	-	0,6,6	0.00	-	-		
82	OHX	sR	1987	-	0,6,6	0.00	-	-		
82	OHX	sR	1902	-	0,6,6	0.00	-	-		
82	OHX	A	1896	-	0,6,6	0.00	-	-		
82	OHX	1	3506	-	0,6,6	0.00	-	-		
82	OHX	1	3614	-	0,6,6	0.00	-	-		
82	OHX	1	3585	-	0,6,6	0.00	-	-		
82	OHX	1	3403	-	0,6,6	0.00	-	-		
82	OHX	1	3580	-	0,6,6	0.00	-	-		
82	OHX	A	1881	-	0,6,6	0.00	-	-		
82	OHX	A	1870	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3679	-	0,6,6	0.00	-	-		
82	OHX	AR	3715	-	0,6,6	0.00	-	-		
82	OHX	1	3648	-	0,6,6	0.00	-	-		
82	OHX	AR	3571	-	0,6,6	0.00	-	-		
82	OHX	A	1850	-	0,6,6	0.00	-	-		
82	OHX	AR	3429	-	0,6,6	0.00	-	-		
82	OHX	4	214	-	0,6,6	0.00	-	-		
82	OHX	1	3459	-	0,6,6	0.00	-	-		
82	OHX	A	1936	-	0,6,6	0.00	-	-		
82	OHX	A	1883	-	0,6,6	0.00	-	-		
82	OHX	AR	3502	-	0,6,6	0.00	-	-		
82	OHX	1	3673	-	0,6,6	0.00	-	-		
82	OHX	1	3535	-	0,6,6	0.00	-	-		
82	OHX	sR	1945	-	0,6,6	0.00	-	-		
82	OHX	1	3706	-	0,6,6	0.00	-	-		
82	OHX	sR	1959	-	0,6,6	0.00	-	-		
82	OHX	AS	201	-	0,6,6	0.00	-	-		
82	OHX	1	3480	-	0,6,6	0.00	-	-		
82	OHX	1	3419	-	0,6,6	0.00	-	-		
82	OHX	AR	3676	-	0,6,6	0.00	-	-		
82	OHX	AR	3627	-	0,6,6	0.00	-	-		
82	OHX	sR	1923	-	0,6,6	0.00	-	-		
82	OHX	AR	3401	-	0,6,6	0.00	-	-		
82	OHX	AR	3508	-	0,6,6	0.00	-	-		
82	OHX	1	3430	-	0,6,6	0.00	-	-		
82	OHX	sR	1912	-	0,6,6	0.00	-	-		
82	OHX	A	1862	-	0,6,6	0.00	-	-		
82	OHX	sR	1998	-	0,6,6	0.00	-	-		
82	OHX	4	205	-	0,6,6	0.00	-	-		
82	OHX	sR	1973	-	0,6,6	0.00	-	-		
82	OHX	1	3611	-	0,6,6	0.00	-	-		
82	OHX	AR	3579	-	0,6,6	0.00	-	-		
82	OHX	AR	3737	1	0,6,6	0.00	-	-		
82	OHX	1	3409	-	0,6,6	0.00	-	-		
82	OHX	1	3522	-	0,6,6	0.00	-	-		
82	OHX	1	3495	-	0,6,6	0.00	-	-		
82	OHX	A	1873	-	0,6,6	0.00	-	-		
82	OHX	AR	3503	-	0,6,6	0.00	-	-		
82	OHX	AR	3461	-	0,6,6	0.00	-	-		
82	OHX	1	3516	-	0,6,6	0.00	-	-		
82	OHX	AR	3666	-	0,6,6	0.00	-	-		
82	OHX	A	1880	-	0,6,6	0.00	-	-		
82	OHX	3	207	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3481	-	0,6,6	0.00	-	-		
82	OHX	sR	1903	-	0,6,6	0.00	-	-		
82	OHX	AR	3649	-	0,6,6	0.00	-	-		
82	OHX	1	3577	-	0,6,6	0.00	-	-		
82	OHX	sR	1992	-	0,6,6	0.00	-	-		
82	OHX	1	3640	-	0,6,6	0.00	-	-		
82	OHX	AR	3630	-	0,6,6	0.00	-	-		
82	OHX	sR	1930	-	0,6,6	0.00	-	-		
82	OHX	AR	3735	-	0,6,6	0.00	-	-		
82	OHX	AR	3588	-	0,6,6	0.00	-	-		
82	OHX	AR	3687	-	0,6,6	0.00	-	-		
82	OHX	AR	3595	-	0,6,6	0.00	-	-		
82	OHX	A	1838	-	0,6,6	0.00	-	-		
82	OHX	AR	3500	-	0,6,6	0.00	-	-		
82	OHX	A	1906	47	0,6,6	0.00	-	-		
82	OHX	AR	3505	-	0,6,6	0.00	-	-		
82	OHX	1	3631	-	0,6,6	0.00	-	-		
82	OHX	1	3612	-	0,6,6	0.00	-	-		
82	OHX	1	3447	-	0,6,6	0.00	-	-		
82	OHX	1	3452	-	0,6,6	0.00	-	-		
82	OHX	1	3550	-	0,6,6	0.00	-	-		
82	OHX	sR	2011	-	0,6,6	0.00	-	-		
82	OHX	1	3476	-	0,6,6	0.00	-	-		
82	OHX	1	3532	-	0,6,6	0.00	-	-		
82	OHX	AR	3402	-	0,6,6	0.00	-	-		
82	OHX	AR	3667	-	0,6,6	0.00	-	-		
82	OHX	AR	3646	-	0,6,6	0.00	-	-		
82	OHX	1	3420	-	0,6,6	0.00	-	-		
82	OHX	1	3541	-	0,6,6	0.00	-	-		
82	OHX	1	3484	-	0,6,6	0.00	-	-		
82	OHX	1	3548	-	0,6,6	0.00	-	-		
82	OHX	A	1885	-	0,6,6	0.00	-	-		
82	OHX	1	3477	-	0,6,6	0.00	-	-		
82	OHX	A	1811	-	0,6,6	0.00	-	-		
82	OHX	1	3425	-	0,6,6	0.00	-	-		
82	OHX	AR	3458	-	0,6,6	0.00	-	-		
82	OHX	AR	3464	-	0,6,6	0.00	-	-		
82	OHX	A	1820	-	0,6,6	0.00	-	-		
82	OHX	1	3421	-	0,6,6	0.00	-	-		
82	OHX	AR	3536	-	0,6,6	0.00	-	-		
82	OHX	AR	3405	-	0,6,6	0.00	-	-		
82	OHX	v	302	-	0,6,6	0.00	-	-		
82	OHX	A	1816	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	AT	201	-	0,6,6	0.00	-	-		
82	OHX	s4	301	-	0,6,6	0.00	-	-		
82	OHX	AR	3517	-	0,6,6	0.00	-	-		
82	OHX	AR	3587	-	0,6,6	0.00	-	-		
82	OHX	sR	1938	-	0,6,6	0.00	-	-		
82	OHX	1	3423	-	0,6,6	0.00	-	-		
82	OHX	AG	201	-	0,6,6	0.00	-	-		
82	OHX	1	3635	-	0,6,6	0.00	-	-		
82	OHX	AS	206	-	0,6,6	0.00	-	-		
82	OHX	AR	3606	-	0,6,6	0.00	-	-		
82	OHX	1	3594	-	0,6,6	0.00	-	-		
82	OHX	1	3634	-	0,6,6	0.00	-	-		
82	OHX	AR	3654	-	0,6,6	0.00	-	-		
82	OHX	A	1801	-	0,6,6	0.00	-	-		
82	OHX	4	207	-	0,6,6	0.00	-	-		
82	OHX	1	3474	-	0,6,6	0.00	-	-		
82	OHX	O	201	-	0,6,6	0.00	-	-		
82	OHX	1	3694	-	0,6,6	0.00	-	-		
82	OHX	AS	209	-	0,6,6	0.00	-	-		
82	OHX	1	3590	-	0,6,6	0.00	-	-		
82	OHX	AR	3600	-	0,6,6	0.00	-	-		
82	OHX	1	3646	-	0,6,6	0.00	-	-		
82	OHX	1	3507	-	0,6,6	0.00	-	-		
82	OHX	1	3405	-	0,6,6	0.00	-	-		
82	OHX	AR	3674	-	0,6,6	0.00	-	-		
82	OHX	sR	1954	-	0,6,6	0.00	-	-		
82	OHX	1	3699	-	0,6,6	0.00	-	-		
82	OHX	1	3618	-	0,6,6	0.00	-	-		
82	OHX	AR	3648	-	0,6,6	0.00	-	-		
82	OHX	1	3705	-	0,6,6	0.00	-	-		
82	OHX	AR	3626	-	0,6,6	0.00	-	-		
82	OHX	AR	3490	-	0,6,6	0.00	-	-		
82	OHX	AR	3673	-	0,6,6	0.00	-	-		
82	OHX	1	3644	-	0,6,6	0.00	-	-		
82	OHX	1	3629	-	0,6,6	0.00	-	-		
82	OHX	AR	3656	-	0,6,6	0.00	-	-		
82	OHX	AR	3659	-	0,6,6	0.00	-	-		
82	OHX	A	1927	-	0,6,6	0.00	-	-		
82	OHX	1	3442	-	0,6,6	0.00	-	-		
82	OHX	CQ	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3519	-	0,6,6	0.00	-	-		
82	OHX	1	3552	-	0,6,6	0.00	-	-		
82	OHX	CE	402	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	AR	3559	-	0,6,6	0.00	-	-		
86	GOL	AR	4262	-	5,5,5	0.28	0	5,5,5	0.37	0
82	OHX	A	1817	-	0,6,6	0.00	-	-		
82	OHX	1	3512	-	0,6,6	0.00	-	-		
82	OHX	sR	1969	-	0,6,6	0.00	-	-		
82	OHX	1	3448	-	0,6,6	0.00	-	-		
82	OHX	A	1919	-	0,6,6	0.00	-	-		
82	OHX	AR	3551	-	0,6,6	0.00	-	-		
82	OHX	1	3588	82	0,6,6	0.00	-	-		
82	OHX	AR	3403	-	0,6,6	0.00	-	-		
82	OHX	A	1893	-	0,6,6	0.00	-	-		
82	OHX	AR	3529	-	0,6,6	0.00	-	-		
82	OHX	AR	3722	-	0,6,6	0.00	-	-		
82	OHX	sR	1949	-	0,6,6	0.00	-	-		
82	OHX	AR	3438	-	0,6,6	0.00	-	-		
82	OHX	sR	1921	-	0,6,6	0.00	-	-		
82	OHX	1	3500	-	0,6,6	0.00	-	-		
82	OHX	T	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3631	-	0,6,6	0.00	-	-		
82	OHX	1	3596	-	0,6,6	0.00	-	-		
82	OHX	AR	3725	-	0,6,6	0.00	-	-		
82	OHX	1	3715	-	0,6,6	0.00	-	-		
82	OHX	1	3418	-	0,6,6	0.00	-	-		
82	OHX	1	3565	-	0,6,6	0.00	-	-		
82	OHX	sR	1967	-	0,6,6	0.00	-	-		
82	OHX	CL	302	-	0,6,6	0.00	-	-		
82	OHX	1	3683	-	0,6,6	0.00	-	-		
82	OHX	AR	3695	-	0,6,6	0.00	-	-		
82	OHX	1	3553	-	0,6,6	0.00	-	-		
82	OHX	1	3598	-	0,6,6	0.00	-	-		
82	OHX	AR	3623	-	0,6,6	0.00	-	-		
82	OHX	AR	3643	-	0,6,6	0.00	-	-		
82	OHX	AR	3492	-	0,6,6	0.00	-	-		
82	OHX	AR	3664	-	0,6,6	0.00	-	-		
82	OHX	AR	3672	-	0,6,6	0.00	-	-		
82	OHX	1	3441	-	0,6,6	0.00	-	-		
82	OHX	sR	2043	-	0,6,6	0.00	-	-		
82	OHX	1	3471	-	0,6,6	0.00	-	-		
82	OHX	AR	3420	-	0,6,6	0.00	-	-		
82	OHX	sR	2037	-	0,6,6	0.00	-	-		
82	OHX	1	3658	-	0,6,6	0.00	-	-		
82	OHX	1	3478	-	0,6,6	0.00	-	-		
82	OHX	AR	3653	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3651	-	0,6,6	0.00	-	-		
82	OHX	1	3560	-	0,6,6	0.00	-	-		
82	OHX	1	3677	-	0,6,6	0.00	-	-		
82	OHX	1	3708	-	0,6,6	0.00	-	-		
82	OHX	AR	3573	-	0,6,6	0.00	-	-		
82	OHX	1	3723	-	0,6,6	0.00	-	-		
82	OHX	3	201	-	0,6,6	0.00	-	-		
82	OHX	sR	1939	-	0,6,6	0.00	-	-		
82	OHX	1	3527	-	0,6,6	0.00	-	-		
82	OHX	1	3510	-	0,6,6	0.00	-	-		
82	OHX	A	1871	-	0,6,6	0.00	-	-		
82	OHX	1	3697	82	0,6,6	0.00	-	-		
82	OHX	AR	3423	-	0,6,6	0.00	-	-		
82	OHX	sR	1919	-	0,6,6	0.00	-	-		
82	OHX	AR	3426	-	0,6,6	0.00	-	-		
82	OHX	sR	2020	-	0,6,6	0.00	-	-		
82	OHX	1	3502	-	0,6,6	0.00	-	-		
82	OHX	A	1837	-	0,6,6	0.00	-	-		
82	OHX	AR	3485	-	0,6,6	0.00	-	-		
82	OHX	AR	3501	-	0,6,6	0.00	-	-		
82	OHX	A	1831	-	0,6,6	0.00	-	-		
82	OHX	A	1942	-	0,6,6	0.00	-	-		
82	OHX	AR	3689	-	0,6,6	0.00	-	-		
82	OHX	1	3669	-	0,6,6	0.00	-	-		
82	OHX	A	1924	-	0,6,6	0.00	-	-		
82	OHX	AR	3696	-	0,6,6	0.00	-	-		
82	OHX	sR	2001	-	0,6,6	0.00	-	-		
82	OHX	1	3531	-	0,6,6	0.00	-	-		
82	OHX	1	3604	-	0,6,6	0.00	-	-		
82	OHX	1	3670	-	0,6,6	0.00	-	-		
82	OHX	1	3563	-	0,6,6	0.00	-	-		
82	OHX	1	3449	-	0,6,6	0.00	-	-		
82	OHX	1	3451	-	0,6,6	0.00	-	-		
82	OHX	AR	3704	-	0,6,6	0.00	-	-		
82	OHX	AR	3557	-	0,6,6	0.00	-	-		
82	OHX	1	3545	-	0,6,6	0.00	-	-		
82	OHX	sR	2049	81	0,6,6	0.00	-	-		
82	OHX	1	3643	-	0,6,6	0.00	-	-		
82	OHX	AR	3410	-	0,6,6	0.00	-	-		
82	OHX	AR	3591	-	0,6,6	0.00	-	-		
82	OHX	AR	3728	-	0,6,6	0.00	-	-		
82	OHX	AR	3703	-	0,6,6	0.00	-	-		
82	OHX	AR	3537	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	AR	3404	-	0,6,6	0.00	-	-		
82	OHX	A	1930	-	0,6,6	0.00	-	-		
82	OHX	AR	3518	-	0,6,6	0.00	-	-		
82	OHX	AR	3614	-	0,6,6	0.00	-	-		
82	OHX	AR	3603	-	0,6,6	0.00	-	-		
82	OHX	A	1813	-	0,6,6	0.00	-	-		
82	OHX	1	3454	-	0,6,6	0.00	-	-		
82	OHX	sR	2028	-	0,6,6	0.00	-	-		
82	OHX	AR	3470	-	0,6,6	0.00	-	-		
82	OHX	A	1888	-	0,6,6	0.00	-	-		
82	OHX	AR	3450	-	0,6,6	0.00	-	-		
82	OHX	AR	3732	-	0,6,6	0.00	-	-		
82	OHX	AR	3572	-	0,6,6	0.00	-	-		
82	OHX	1	3435	-	0,6,6	0.00	-	-		
82	OHX	J	302	-	0,6,6	0.00	-	-		
82	OHX	v	301	-	0,6,6	0.00	-	-		
82	OHX	AR	3675	-	0,6,6	0.00	-	-		
82	OHX	AR	3544	-	0,6,6	0.00	-	-		
82	OHX	1	3401	-	0,6,6	0.00	-	-		
82	OHX	sR	1989	-	0,6,6	0.00	-	-		
82	OHX	d9	102	-	0,6,6	0.00	-	-		
82	OHX	AR	3521	-	0,6,6	0.00	-	-		
82	OHX	1	3692	-	0,6,6	0.00	-	-		
82	OHX	AR	3431	-	0,6,6	0.00	-	-		
82	OHX	1	3671	-	0,6,6	0.00	-	-		
82	OHX	AR	3538	-	0,6,6	0.00	-	-		
82	OHX	sR	1991	-	0,6,6	0.00	-	-		
82	OHX	AR	3547	-	0,6,6	0.00	-	-		
82	OHX	AE	201	-	0,6,6	0.00	-	-		
82	OHX	1	3491	-	0,6,6	0.00	-	-		
82	OHX	sR	2027	-	0,6,6	0.00	-	-		
82	OHX	AR	3480	-	0,6,6	0.00	-	-		
82	OHX	CK	201	-	0,6,6	0.00	-	-		
82	OHX	1	3406	-	0,6,6	0.00	-	-		
82	OHX	AR	3714	-	0,6,6	0.00	-	-		
82	OHX	1	3415	-	0,6,6	0.00	-	-		
82	OHX	sR	1907	-	0,6,6	0.00	-	-		
82	OHX	A	1929	-	0,6,6	0.00	-	-		
82	OHX	AR	3642	-	0,6,6	0.00	-	-		
82	OHX	1	3567	-	0,6,6	0.00	-	-		
82	OHX	Q	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3734	-	0,6,6	0.00	-	-		
82	OHX	AC	101	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	AR	3510	-	0,6,6	0.00	-	-		
82	OHX	sR	1988	-	0,6,6	0.00	-	-		
82	OHX	AR	3641	-	0,6,6	0.00	-	-		
82	OHX	1	3680	-	0,6,6	0.00	-	-		
82	OHX	AR	3727	-	0,6,6	0.00	-	-		
82	OHX	A	1887	-	0,6,6	0.00	-	-		
82	OHX	sR	2035	-	0,6,6	0.00	-	-		
82	OHX	1	3461	-	0,6,6	0.00	-	-		
82	OHX	AT	216	-	0,6,6	0.00	-	-		
82	OHX	A	1815	-	0,6,6	0.00	-	-		
82	OHX	sR	1941	-	0,6,6	0.00	-	-		
82	OHX	1	3547	-	0,6,6	0.00	-	-		
82	OHX	A	1867	-	0,6,6	0.00	-	-		
86	GOL	AR	4263	-	5,5,5	0.07	0	5,5,5	0.24	0
82	OHX	1	3429	-	0,6,6	0.00	-	-		
82	OHX	AR	3422	-	0,6,6	0.00	-	-		
82	OHX	1	3592	-	0,6,6	0.00	-	-		
82	OHX	4	213	-	0,6,6	0.00	-	-		
82	OHX	1	3445	-	0,6,6	0.00	-	-		
82	OHX	sR	2029	-	0,6,6	0.00	-	-		
82	OHX	1	3667	-	0,6,6	0.00	-	-		
82	OHX	AR	3532	-	0,6,6	0.00	-	-		
82	OHX	sR	1999	-	0,6,6	0.00	-	-		
82	OHX	sR	2013	-	0,6,6	0.00	-	-		
82	OHX	AR	3514	-	0,6,6	0.00	-	-		
82	OHX	sR	2032	-	0,6,6	0.00	-	-		
82	OHX	1	3475	-	0,6,6	0.00	-	-		
82	OHX	AR	3669	-	0,6,6	0.00	-	-		
82	OHX	1	3597	-	0,6,6	0.00	-	-		
82	OHX	A	1829	-	0,6,6	0.00	-	-		
82	OHX	sR	1937	-	0,6,6	0.00	-	-		
82	OHX	1	3689	-	0,6,6	0.00	-	-		
82	OHX	AR	3562	-	0,6,6	0.00	-	-		
82	OHX	sR	1932	-	0,6,6	0.00	-	-		
82	OHX	1	3439	-	0,6,6	0.00	-	-		
82	OHX	1	3436	-	0,6,6	0.00	-	-		
82	OHX	A	1849	-	0,6,6	0.00	-	-		
82	OHX	A	1851	-	0,6,6	0.00	-	-		
82	OHX	AR	3601	-	0,6,6	0.00	-	-		
82	OHX	AR	3655	-	0,6,6	0.00	-	-		
82	OHX	3	208	-	0,6,6	0.00	-	-		
82	OHX	AR	3534	-	0,6,6	0.00	-	-		
82	OHX	AR	3594	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3668	-	0,6,6	0.00	-	-		
82	OHX	1	3501	-	0,6,6	0.00	-	-		
82	OHX	DH	201	-	0,6,6	0.00	-	-		
82	OHX	1	3591	-	0,6,6	0.00	-	-		
82	OHX	1	3608	-	0,6,6	0.00	-	-		
82	OHX	1	3602	-	0,6,6	0.00	-	-		
82	OHX	sR	1935	-	0,6,6	0.00	-	-		
82	OHX	1	3455	-	0,6,6	0.00	-	-		
82	OHX	4	201	-	0,6,6	0.00	-	-		
82	OHX	r	301	-	0,6,6	0.00	-	-		
82	OHX	AR	3409	-	0,6,6	0.00	-	-		
82	OHX	1	3431	-	0,6,6	0.00	-	-		
82	OHX	1	3468	-	0,6,6	0.00	-	-		
82	OHX	1	3622	-	0,6,6	0.00	-	-		
82	OHX	sR	2042	-	0,6,6	0.00	-	-		
82	OHX	sR	2008	-	0,6,6	0.00	-	-		
82	OHX	AT	211	-	0,6,6	0.00	-	-		
82	OHX	AR	3496	-	0,6,6	0.00	-	-		
82	OHX	1	3466	-	0,6,6	0.00	-	-		
82	OHX	AR	3708	-	0,6,6	0.00	-	-		
82	OHX	1	3605	-	0,6,6	0.00	-	-		
82	OHX	1	3437	-	0,6,6	0.00	-	-		
82	OHX	A	1810	-	0,6,6	0.00	-	-		
82	OHX	sR	1975	-	0,6,6	0.00	-	-		
82	OHX	AR	3701	-	0,6,6	0.00	-	-		
82	OHX	AR	3692	-	0,6,6	0.00	-	-		
82	OHX	AR	3457	-	0,6,6	0.00	-	-		
82	OHX	sR	1958	-	0,6,6	0.00	-	-		
82	OHX	DQ	502	-	0,6,6	0.00	-	-		
82	OHX	AR	3726	-	0,6,6	0.00	-	-		
82	OHX	AR	3729	-	0,6,6	0.00	-	-		
82	OHX	AR	3694	-	0,6,6	0.00	-	-		
82	OHX	AR	3662	-	0,6,6	0.00	-	-		
82	OHX	AR	3556	-	0,6,6	0.00	-	-		
82	OHX	1	3498	-	0,6,6	0.00	-	-		
82	OHX	AR	3553	-	0,6,6	0.00	-	-		
82	OHX	1	3411	-	0,6,6	0.00	-	-		
82	OHX	1	3499	-	0,6,6	0.00	-	-		
82	OHX	d4	201	-	0,6,6	0.00	-	-		
82	OHX	1	3709	-	0,6,6	0.00	-	-		
82	OHX	1	3702	-	0,6,6	0.00	-	-		
82	OHX	A	1910	-	0,6,6	0.00	-	-		
82	OHX	1	3520	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3457	-	0,6,6	0.00	-	-		
82	OHX	AR	3680	-	0,6,6	0.00	-	-		
82	OHX	sR	2038	-	0,6,6	0.00	-	-		
82	OHX	AR	3460	-	0,6,6	0.00	-	-		
82	OHX	1	3570	-	0,6,6	0.00	-	-		
82	OHX	1	3408	-	0,6,6	0.00	-	-		
82	OHX	1	3661	-	0,6,6	0.00	-	-		
82	OHX	A	1884	-	0,6,6	0.00	-	-		
82	OHX	A	1802	-	0,6,6	0.00	-	-		
82	OHX	sR	1985	-	0,6,6	0.00	-	-		
82	OHX	A	1897	47	0,6,6	0.00	-	-		
82	OHX	AR	3671	-	0,6,6	0.00	-	-		
82	OHX	1	3453	-	0,6,6	0.00	-	-		
82	OHX	1	3703	-	0,6,6	0.00	-	-		
82	OHX	1	3497	-	0,6,6	0.00	-	-		
82	OHX	1	3578	-	0,6,6	0.00	-	-		
82	OHX	A	1805	-	0,6,6	0.00	-	-		
82	OHX	AT	215	-	0,6,6	0.00	-	-		
82	OHX	AT	202	-	0,6,6	0.00	-	-		
82	OHX	sR	1980	-	0,6,6	0.00	-	-		
82	OHX	AR	3638	-	0,6,6	0.00	-	-		
82	OHX	1	3623	-	0,6,6	0.00	-	-		
82	OHX	AR	3445	-	0,6,6	0.00	-	-		
82	OHX	A	1894	-	0,6,6	0.00	-	-		
82	OHX	sR	1936	-	0,6,6	0.00	-	-		
82	OHX	AR	3584	-	0,6,6	0.00	-	-		
82	OHX	sR	2007	-	0,6,6	0.00	-	-		
82	OHX	AR	3523	-	0,6,6	0.00	-	-		
82	OHX	AR	3593	-	0,6,6	0.00	-	-		
82	OHX	AR	3599	-	0,6,6	0.00	-	-		
82	OHX	AR	3596	-	0,6,6	0.00	-	-		
82	OHX	1	3521	-	0,6,6	0.00	-	-		
82	OHX	sR	1979	-	0,6,6	0.00	-	-		
82	OHX	A	1895	-	0,6,6	0.00	-	-		
82	OHX	AT	213	-	0,6,6	0.00	-	-		
82	OHX	A	1861	-	0,6,6	0.00	-	-		
82	OHX	1	3657	-	0,6,6	0.00	-	-		
82	OHX	e	102	-	0,6,6	0.00	-	-		
82	OHX	1	3549	-	0,6,6	0.00	-	-		
82	OHX	AR	3417	-	0,6,6	0.00	-	-		
82	OHX	CE	401	-	0,6,6	0.00	-	-		
82	OHX	sR	1944	-	0,6,6	0.00	-	-		
82	OHX	AR	3723	82	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	AR	3717	-	0,6,6	0.00	-	-		
82	OHX	1	3519	-	0,6,6	0.00	-	-		
82	OHX	sR	1995	-	0,6,6	0.00	-	-		
82	OHX	AR	3554	-	0,6,6	0.00	-	-		
82	OHX	AR	3452	-	0,6,6	0.00	-	-		
82	OHX	A	1821	-	0,6,6	0.00	-	-		
82	OHX	A	1846	-	0,6,6	0.00	-	-		
82	OHX	1	3681	-	0,6,6	0.00	-	-		
82	OHX	1	3579	-	0,6,6	0.00	-	-		
82	OHX	AR	3558	-	0,6,6	0.00	-	-		
82	OHX	A	1830	-	0,6,6	0.00	-	-		
82	OHX	AR	3526	82	0,6,6	0.00	-	-		
82	OHX	AR	3700	-	0,6,6	0.00	-	-		
82	OHX	Rb	401	-	0,6,6	0.00	-	-		
82	OHX	y	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3604	-	0,6,6	0.00	-	-		
82	OHX	1	3432	-	0,6,6	0.00	-	-		
82	OHX	z	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3477	-	0,6,6	0.00	-	-		
82	OHX	AS	210	-	0,6,6	0.00	-	-		
82	OHX	sR	2019	-	0,6,6	0.00	-	-		
82	OHX	AR	3619	-	0,6,6	0.00	-	-		
82	OHX	1	3490	-	0,6,6	0.00	-	-		
82	OHX	sR	1926	-	0,6,6	0.00	-	-		
82	OHX	1	3599	-	0,6,6	0.00	-	-		
82	OHX	A	1804	-	0,6,6	0.00	-	-		
82	OHX	1	3682	-	0,6,6	0.00	-	-		
82	OHX	sR	1978	-	0,6,6	0.00	-	-		
82	OHX	CX	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3685	-	0,6,6	0.00	-	-		
82	OHX	A	1920	82	0,6,6	0.00	-	-		
82	OHX	AR	3625	-	0,6,6	0.00	-	-		
82	OHX	AR	3542	-	0,6,6	0.00	-	-		
82	OHX	AR	3414	-	0,6,6	0.00	-	-		
82	OHX	1	3467	-	0,6,6	0.00	-	-		
82	OHX	AT	208	-	0,6,6	0.00	-	-		
82	OHX	3	206	-	0,6,6	0.00	-	-		
82	OHX	sR	1966	-	0,6,6	0.00	-	-		
82	OHX	3	203	-	0,6,6	0.00	-	-		
82	OHX	AR	3447	-	0,6,6	0.00	-	-		
82	OHX	sR	1963	-	0,6,6	0.00	-	-		
82	OHX	A	1818	-	0,6,6	0.00	-	-		
82	OHX	AR	3563	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3529	-	0,6,6	0.00	-	-		
82	OHX	1	3606	-	0,6,6	0.00	-	-		
82	OHX	sR	1972	-	0,6,6	0.00	-	-		
82	OHX	sR	1955	-	0,6,6	0.00	-	-		
82	OHX	A	1809	82	0,6,6	0.00	-	-		
82	OHX	1	3444	-	0,6,6	0.00	-	-		
82	OHX	1	3625	-	0,6,6	0.00	-	-		
82	OHX	AR	3488	-	0,6,6	0.00	-	-		
82	OHX	sR	1976	-	0,6,6	0.00	-	-		
82	OHX	1	3575	-	0,6,6	0.00	-	-		
82	OHX	A	1926	-	0,6,6	0.00	-	-		
82	OHX	AR	3511	-	0,6,6	0.00	-	-		
82	OHX	1	3722	-	0,6,6	0.00	-	-		
82	OHX	1	3482	-	0,6,6	0.00	-	-		
82	OHX	AR	3451	-	0,6,6	0.00	-	-		
82	OHX	1	3672	-	0,6,6	0.00	-	-		
82	OHX	sR	1964	-	0,6,6	0.00	-	-		
82	OHX	AR	3712	-	0,6,6	0.00	-	-		
82	OHX	AR	3709	82	0,6,6	0.00	-	-		
82	OHX	sR	1983	-	0,6,6	0.00	-	-		
82	OHX	1	3713	-	0,6,6	0.00	-	-		
82	OHX	1	3666	-	0,6,6	0.00	-	-		
82	OHX	AR	3449	-	0,6,6	0.00	-	-		
82	OHX	A	1923	-	0,6,6	0.00	-	-		
82	OHX	1	3659	-	0,6,6	0.00	-	-		
82	OHX	AR	3471	-	0,6,6	0.00	-	-		
82	OHX	sR	2046	-	0,6,6	0.00	-	-		
82	OHX	A	1917	-	0,6,6	0.00	-	-		
82	OHX	1	3427	-	0,6,6	0.00	-	-		
82	OHX	c3	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3612	-	0,6,6	0.00	-	-		
82	OHX	sR	2030	-	0,6,6	0.00	-	-		
82	OHX	1	3675	-	0,6,6	0.00	-	-		
82	OHX	AR	3491	-	0,6,6	0.00	-	-		
82	OHX	AR	3668	-	0,6,6	0.00	-	-		
82	OHX	AR	3436	-	0,6,6	0.00	-	-		
82	OHX	AR	3645	-	0,6,6	0.00	-	-		
82	OHX	AR	3446	-	0,6,6	0.00	-	-		
82	OHX	A	1866	-	0,6,6	0.00	-	-		
82	OHX	1	3492	-	0,6,6	0.00	-	-		
82	OHX	1	3704	-	0,6,6	0.00	-	-		
82	OHX	sR	1977	-	0,6,6	0.00	-	-		
82	OHX	AR	3430	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	sR	2021	-	0,6,6	0.00	-	-		
82	OHX	sR	2036	-	0,6,6	0.00	-	-		
82	OHX	AR	3495	-	0,6,6	0.00	-	-		
82	OHX	sR	1947	-	0,6,6	0.00	-	-		
82	OHX	AR	3425	-	0,6,6	0.00	-	-		
82	OHX	1	3438	-	0,6,6	0.00	-	-		
82	OHX	1	3653	-	0,6,6	0.00	-	-		
82	OHX	AR	3621	-	0,6,6	0.00	-	-		
82	OHX	CX	202	-	0,6,6	0.00	-	-		
82	OHX	sR	2048	-	0,6,6	0.00	-	-		
82	OHX	A	1803	-	0,6,6	0.00	-	-		
82	OHX	1	3404	-	0,6,6	0.00	-	-		
82	OHX	A	1863	-	0,6,6	0.00	-	-		
82	OHX	AR	3421	-	0,6,6	0.00	-	-		
82	OHX	AR	3541	-	0,6,6	0.00	-	-		
82	OHX	1	3533	-	0,6,6	0.00	-	-		
82	OHX	AR	3533	-	0,6,6	0.00	-	-		
82	OHX	AR	3582	-	0,6,6	0.00	-	-		
82	OHX	CL	301	-	0,6,6	0.00	-	-		
82	OHX	A	1822	82	0,6,6	0.00	-	-		
82	OHX	AR	3736	-	0,6,6	0.00	-	-		
82	OHX	1	3652	-	0,6,6	0.00	-	-		
82	OHX	1	3434	-	0,6,6	0.00	-	-		
82	OHX	3	202	-	0,6,6	0.00	-	-		
82	OHX	sR	1971	-	0,6,6	0.00	-	-		
82	OHX	AR	3428	-	0,6,6	0.00	-	-		
82	OHX	AR	3583	-	0,6,6	0.00	-	-		
82	OHX	1	3628	-	0,6,6	0.00	-	-		
82	OHX	1	3627	-	0,6,6	0.00	-	-		
82	OHX	1	3446	-	0,6,6	0.00	-	-		
82	OHX	AS	203	-	0,6,6	0.00	-	-		
82	OHX	sR	1927	-	0,6,6	0.00	-	-		
82	OHX	A	1872	-	0,6,6	0.00	-	-		
82	OHX	1	3428	-	0,6,6	0.00	-	-		
82	OHX	sR	1909	-	0,6,6	0.00	-	-		
82	OHX	1	3518	-	0,6,6	0.00	-	-		
82	OHX	1	3508	-	0,6,6	0.00	-	-		
82	OHX	1	3662	-	0,6,6	0.00	-	-		
82	OHX	A	1841	-	0,6,6	0.00	-	-		
82	OHX	AR	3524	-	0,6,6	0.00	-	-		
82	OHX	AR	3718	-	0,6,6	0.00	-	-		
82	OHX	AR	3540	-	0,6,6	0.00	-	-		
82	OHX	AR	3640	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	sR	1924	-	0,6,6	0.00	-	-		
82	OHX	1	3515	-	0,6,6	0.00	-	-		
82	OHX	AR	3474	-	0,6,6	0.00	-	-		
82	OHX	AR	3515	-	0,6,6	0.00	-	-		
82	OHX	1	3685	-	0,6,6	0.00	-	-		
82	OHX	AR	3411	-	0,6,6	0.00	-	-		
82	OHX	1	3721	1	0,6,6	0.00	-	-		
82	OHX	A	1939	-	0,6,6	0.00	-	-		
82	OHX	1	3641	-	0,6,6	0.00	-	-		
82	OHX	1	3607	-	0,6,6	0.00	-	-		
82	OHX	AR	3408	-	0,6,6	0.00	-	-		
82	OHX	1	3610	-	0,6,6	0.00	-	-		
82	OHX	AR	3478	-	0,6,6	0.00	-	-		
82	OHX	1	3633	-	0,6,6	0.00	-	-		
82	OHX	AR	3506	-	0,6,6	0.00	-	-		
82	OHX	sR	2044	-	0,6,6	0.00	-	-		
82	OHX	AR	3437	-	0,6,6	0.00	-	-		
82	OHX	1	3542	-	0,6,6	0.00	-	-		
82	OHX	1	3486	-	0,6,6	0.00	-	-		
82	OHX	1	3509	-	0,6,6	0.00	-	-		
82	OHX	AT	203	82	0,6,6	0.00	-	-		
82	OHX	AR	3629	-	0,6,6	0.00	-	-		
82	OHX	AR	3585	-	0,6,6	0.00	-	-		
82	OHX	AR	3720	-	0,6,6	0.00	-	-		
82	OHX	1	3402	-	0,6,6	0.00	-	-		
82	OHX	sR	1910	-	0,6,6	0.00	-	-		
82	OHX	sR	1934	-	0,6,6	0.00	-	-		
82	OHX	4	203	-	0,6,6	0.00	-	-		
82	OHX	AR	3697	-	0,6,6	0.00	-	-		
82	OHX	sR	2034	-	0,6,6	0.00	-	-		
82	OHX	A	1882	-	0,6,6	0.00	-	-		
82	OHX	sR	2012	-	0,6,6	0.00	-	-		
82	OHX	AR	3456	-	0,6,6	0.00	-	-		
84	G5B	1	4224	-	27,28,28	0.39	0	33,45,45	0.91	2 (6%)
82	OHX	A	1891	-	0,6,6	0.00	-	-		
82	OHX	sR	2009	-	0,6,6	0.00	-	-		
82	OHX	1	3616	-	0,6,6	0.00	-	-		
82	OHX	CO	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3652	-	0,6,6	0.00	-	-		
82	OHX	AR	3574	-	0,6,6	0.00	-	-		
82	OHX	A	1905	-	0,6,6	0.00	-	-		
82	OHX	AR	3657	-	0,6,6	0.00	-	-		
82	OHX	A	1900	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	sR	2031	-	0,6,6	0.00	-	-		
82	OHX	1	3479	-	0,6,6	0.00	-	-		
82	OHX	1	3561	-	0,6,6	0.00	-	-		
82	OHX	sR	2023	-	0,6,6	0.00	-	-		
82	OHX	A	1844	-	0,6,6	0.00	-	-		
82	OHX	AR	3531	-	0,6,6	0.00	-	-		
82	OHX	AR	3633	-	0,6,6	0.00	-	-		
82	OHX	A	1826	-	0,6,6	0.00	-	-		
82	OHX	sR	1916	-	0,6,6	0.00	-	-		
82	OHX	AR	3617	-	0,6,6	0.00	-	-		
82	OHX	AR	3527	-	0,6,6	0.00	-	-		
82	OHX	A	1853	-	0,6,6	0.00	-	-		
82	OHX	x	201	-	0,6,6	0.00	-	-		
82	OHX	AS	207	-	0,6,6	0.00	-	-		
82	OHX	1	3412	-	0,6,6	0.00	-	-		
82	OHX	AR	3539	-	0,6,6	0.00	-	-		
82	OHX	A	1857	-	0,6,6	0.00	-	-		
82	OHX	AR	3439	-	0,6,6	0.00	-	-		
82	OHX	sR	2025	-	0,6,6	0.00	-	-		
82	OHX	A	1843	-	0,6,6	0.00	-	-		
82	OHX	AR	3650	-	0,6,6	0.00	-	-		
82	OHX	AR	3647	-	0,6,6	0.00	-	-		
82	OHX	sR	1929	-	0,6,6	0.00	-	-		
82	OHX	A	1907	-	0,6,6	0.00	-	-		
82	OHX	1	3485	-	0,6,6	0.00	-	-		
82	OHX	sR	2005	-	0,6,6	0.00	-	-		
82	OHX	4	210	-	0,6,6	0.00	-	-		
82	OHX	A	1933	-	0,6,6	0.00	-	-		
82	OHX	A	1915	-	0,6,6	0.00	-	-		
82	OHX	1	3656	-	0,6,6	0.00	-	-		
82	OHX	1	3655	-	0,6,6	0.00	-	-		
82	OHX	1	3463	-	0,6,6	0.00	-	-		
82	OHX	A	1901	-	0,6,6	0.00	-	-		
82	OHX	A	1874	-	0,6,6	0.00	-	-		
82	OHX	AR	3698	-	0,6,6	0.00	-	-		
82	OHX	A	1858	-	0,6,6	0.00	-	-		
82	OHX	1	3690	82	0,6,6	0.00	-	-		
82	OHX	AS	204	-	0,6,6	0.00	-	-		
82	OHX	sR	1940	-	0,6,6	0.00	-	-		
82	OHX	AR	3738	-	0,6,6	0.00	-	-		
82	OHX	AT	212	82	0,6,6	0.00	-	-		
82	OHX	1	3472	-	0,6,6	0.00	-	-		
82	OHX	AR	3608	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3551	-	0,6,6	0.00	-	-		
82	OHX	1	3674	-	0,6,6	0.00	-	-		
82	OHX	AR	3586	-	0,6,6	0.00	-	-		
82	OHX	AT	206	-	0,6,6	0.00	-	-		
82	OHX	1	3688	-	0,6,6	0.00	-	-		
84	G5B	AR	4264	-	27,28,28	0.41	0	33,45,45	0.51	0
82	OHX	1	3626	-	0,6,6	0.00	-	-		
82	OHX	c8	201	-	0,6,6	0.00	-	-		
82	OHX	sR	1925	-	0,6,6	0.00	-	-		
82	OHX	1	3617	-	0,6,6	0.00	-	-		
82	OHX	1	3422	-	0,6,6	0.00	-	-		
82	OHX	sR	1952	-	0,6,6	0.00	-	-		
82	OHX	A	1937	-	0,6,6	0.00	-	-		
82	OHX	AR	3555	-	0,6,6	0.00	-	-		
82	OHX	1	3695	-	0,6,6	0.00	-	-		
82	OHX	1	3678	-	0,6,6	0.00	-	-		
82	OHX	A	1842	-	0,6,6	0.00	-	-		
82	OHX	AR	3730	-	0,6,6	0.00	-	-		
82	OHX	1	3523	-	0,6,6	0.00	-	-		
82	OHX	AR	3512	-	0,6,6	0.00	-	-		
82	OHX	1	3693	-	0,6,6	0.00	-	-		
82	OHX	A	1807	-	0,6,6	0.00	-	-		
82	OHX	A	1892	-	0,6,6	0.00	-	-		
82	OHX	sR	2018	-	0,6,6	0.00	-	-		
82	OHX	AR	3618	-	0,6,6	0.00	-	-		
82	OHX	AR	3453	-	0,6,6	0.00	-	-		
82	OHX	AR	3412	-	0,6,6	0.00	-	-		
82	OHX	CH	201	-	0,6,6	0.00	-	-		
82	OHX	AR	3509	-	0,6,6	0.00	-	-		
82	OHX	1	3524	-	0,6,6	0.00	-	-		
82	OHX	A	1840	-	0,6,6	0.00	-	-		
82	OHX	AR	3548	-	0,6,6	0.00	-	-		
82	OHX	AR	3639	-	0,6,6	0.00	-	-		
82	OHX	A	1852	-	0,6,6	0.00	-	-		
82	OHX	AR	3683	-	0,6,6	0.00	-	-		
82	OHX	sR	1943	-	0,6,6	0.00	-	-		
82	OHX	4	212	-	0,6,6	0.00	-	-		
82	OHX	AR	3440	-	0,6,6	0.00	-	-		
82	OHX	AR	3661	-	0,6,6	0.00	-	-		
82	OHX	AR	3610	-	0,6,6	0.00	-	-		
82	OHX	AR	3418	-	0,6,6	0.00	-	-		
82	OHX	1	3664	-	0,6,6	0.00	-	-		
82	OHX	AR	3615	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	sR	1953	-	0,6,6	0.00	-	-		
82	OHX	CP	501	-	0,6,6	0.00	-	-		
82	OHX	AR	3592	-	0,6,6	0.00	-	-		
82	OHX	1	3691	-	0,6,6	0.00	-	-		
82	OHX	sR	1942	-	0,6,6	0.00	-	-		
82	OHX	1	3719	-	0,6,6	0.00	-	-		
82	OHX	1	3470	-	0,6,6	0.00	-	-		
82	OHX	AR	3721	-	0,6,6	0.00	-	-		
82	OHX	1	3493	-	0,6,6	0.00	-	-		
82	OHX	1	3700	-	0,6,6	0.00	-	-		
82	OHX	1	3687	-	0,6,6	0.00	-	-		
82	OHX	1	3556	-	0,6,6	0.00	-	-		
82	OHX	1	3600	-	0,6,6	0.00	-	-		
82	OHX	AR	3568	-	0,6,6	0.00	-	-		
82	OHX	sR	1928	-	0,6,6	0.00	-	-		
82	OHX	AR	3442	-	0,6,6	0.00	-	-		
82	OHX	AR	3463	-	0,6,6	0.00	-	-		
82	OHX	A	1836	-	0,6,6	0.00	-	-		
82	OHX	AR	3567	-	0,6,6	0.00	-	-		
82	OHX	CM	201	-	0,6,6	0.00	-	-		
82	OHX	1	3572	-	0,6,6	0.00	-	-		
82	OHX	A	1932	-	0,6,6	0.00	-	-		
82	OHX	1	3410	-	0,6,6	0.00	-	-		
82	OHX	sR	2004	-	0,6,6	0.00	-	-		
82	OHX	AR	3475	-	0,6,6	0.00	-	-		
82	OHX	s1	301	-	0,6,6	0.00	-	-		
82	OHX	sR	2014	-	0,6,6	0.00	-	-		
82	OHX	A	1854	-	0,6,6	0.00	-	-		
82	OHX	sR	1996	-	0,6,6	0.00	-	-		
82	OHX	A	1941	47	0,6,6	0.00	-	-		
82	OHX	AR	3407	-	0,6,6	0.00	-	-		
82	OHX	A	1859	-	0,6,6	0.00	-	-		
82	OHX	1	3544	-	0,6,6	0.00	-	-		
82	OHX	1	3488	-	0,6,6	0.00	-	-		
82	OHX	AR	3605	-	0,6,6	0.00	-	-		
82	OHX	1	3450	-	0,6,6	0.00	-	-		
82	OHX	1	3464	-	0,6,6	0.00	-	-		
82	OHX	A	1833	-	0,6,6	0.00	-	-		
82	OHX	4	208	-	0,6,6	0.00	-	-		
82	OHX	4	209	-	0,6,6	0.00	-	-		
82	OHX	1	3582	-	0,6,6	0.00	-	-		
82	OHX	AR	3580	-	0,6,6	0.00	-	-		
82	OHX	1	3536	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	AR	3609	-	0,6,6	0.00	-	-		
82	OHX	1	3555	-	0,6,6	0.00	-	-		
82	OHX	1	3525	-	0,6,6	0.00	-	-		
82	OHX	AR	3679	-	0,6,6	0.00	-	-		
82	OHX	A	1886	-	0,6,6	0.00	-	-		
82	OHX	3	205	-	0,6,6	0.00	-	-		
82	OHX	A	1865	-	0,6,6	0.00	-	-		
82	OHX	sR	1968	-	0,6,6	0.00	-	-		
82	OHX	1	3426	-	0,6,6	0.00	-	-		
82	OHX	sR	1961	-	0,6,6	0.00	-	-		
82	OHX	1	3496	-	0,6,6	0.00	-	-		
82	OHX	AR	3624	-	0,6,6	0.00	-	-		
82	OHX	A	1828	-	0,6,6	0.00	-	-		
82	OHX	AR	3681	-	0,6,6	0.00	-	-		
82	OHX	AR	3590	-	0,6,6	0.00	-	-		
82	OHX	AR	3520	-	0,6,6	0.00	-	-		
82	OHX	A	1904	-	0,6,6	0.00	-	-		
82	OHX	1	3637	-	0,6,6	0.00	-	-		
82	OHX	1	3489	-	0,6,6	0.00	-	-		
82	OHX	AR	3486	-	0,6,6	0.00	-	-		
82	OHX	1	3663	-	0,6,6	0.00	-	-		
82	OHX	AT	207	-	0,6,6	0.00	-	-		
82	OHX	1	3603	-	0,6,6	0.00	-	-		
82	OHX	AR	3670	-	0,6,6	0.00	-	-		
82	OHX	1	3528	-	0,6,6	0.00	-	-		
82	OHX	1	3514	-	0,6,6	0.00	-	-		
82	OHX	AR	3713	-	0,6,6	0.00	-	-		
82	OHX	AR	3507	-	0,6,6	0.00	-	-		
82	OHX	sR	1984	-	0,6,6	0.00	-	-		
82	OHX	AR	3688	-	0,6,6	0.00	-	-		
82	OHX	sR	1981	-	0,6,6	0.00	-	-		
82	OHX	AR	3607	-	0,6,6	0.00	-	-		
82	OHX	1	3717	-	0,6,6	0.00	-	-		
82	OHX	1	3487	-	0,6,6	0.00	-	-		
82	OHX	CG	301	-	0,6,6	0.00	-	-		
82	OHX	1	3473	-	0,6,6	0.00	-	-		
82	OHX	AR	3578	-	0,6,6	0.00	-	-		
82	OHX	2	201	-	0,6,6	0.00	-	-		
82	OHX	sR	2022	-	0,6,6	0.00	-	-		
82	OHX	1	3649	-	0,6,6	0.00	-	-		
82	OHX	AR	3616	-	0,6,6	0.00	-	-		
82	OHX	1	3686	-	0,6,6	0.00	-	-		
82	OHX	sR	2016	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3583	-	0,6,6	0.00	-	-		
82	OHX	AR	3459	-	0,6,6	0.00	-	-		
82	OHX	AR	3462	-	0,6,6	0.00	-	-		
82	OHX	1	3413	-	0,6,6	0.00	-	-		
82	OHX	AR	3444	-	0,6,6	0.00	-	-		
82	OHX	A	1814	-	0,6,6	0.00	-	-		
82	OHX	A	1918	-	0,6,6	0.00	-	-		
82	OHX	AR	3552	-	0,6,6	0.00	-	-		
82	OHX	A	1847	-	0,6,6	0.00	-	-		
82	OHX	1	3707	-	0,6,6	0.00	-	-		
82	OHX	sR	1974	-	0,6,6	0.00	-	-		
82	OHX	1	3589	-	0,6,6	0.00	-	-		
82	OHX	AR	3711	-	0,6,6	0.00	-	-		
82	OHX	1	3414	-	0,6,6	0.00	-	-		
82	OHX	AT	210	-	0,6,6	0.00	-	-		
82	OHX	sR	1915	-	0,6,6	0.00	-	-		
82	OHX	sR	1920	-	0,6,6	0.00	-	-		
82	OHX	AR	3569	-	0,6,6	0.00	-	-		
82	OHX	1	3543	-	0,6,6	0.00	-	-		
82	OHX	k	401	-	0,6,6	0.00	-	-		
82	OHX	3	209	-	0,6,6	0.00	-	-		
82	OHX	A	1935	-	0,6,6	0.00	-	-		
82	OHX	1	3624	-	0,6,6	0.00	-	-		
82	OHX	l	401	-	0,6,6	0.00	-	-		
82	OHX	1	3645	-	0,6,6	0.00	-	-		
82	OHX	AR	3454	-	0,6,6	0.00	-	-		
82	OHX	AR	3483	-	0,6,6	0.00	-	-		
82	OHX	1	3465	-	0,6,6	0.00	-	-		
82	OHX	AR	3602	-	0,6,6	0.00	-	-		
82	OHX	A	1825	-	0,6,6	0.00	-	-		
82	OHX	1	3407	-	0,6,6	0.00	-	-		
82	OHX	A	1925	-	0,6,6	0.00	-	-		
82	OHX	1	3639	-	0,6,6	0.00	-	-		
82	OHX	AR	3543	-	0,6,6	0.00	-	-		
82	OHX	AR	3564	-	0,6,6	0.00	-	-		
82	OHX	1	3712	-	0,6,6	0.00	-	-		
82	OHX	1	3460	-	0,6,6	0.00	-	-		
82	OHX	A	1916	-	0,6,6	0.00	-	-		
82	OHX	1	3716	-	0,6,6	0.00	-	-		
82	OHX	1	3546	-	0,6,6	0.00	-	-		
82	OHX	AP	502	-	0,6,6	0.00	-	-		
82	OHX	A	1921	-	0,6,6	0.00	-	-		
82	OHX	1	3559	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	1	3676	-	0,6,6	0.00	-	-		
82	OHX	A	1855	-	0,6,6	0.00	-	-		
82	OHX	1	3619	-	0,6,6	0.00	-	-		
82	OHX	1	3660	-	0,6,6	0.00	-	-		
82	OHX	AR	3484	-	0,6,6	0.00	-	-		
82	OHX	A	1869	-	0,6,6	0.00	-	-		
82	OHX	1	3665	-	0,6,6	0.00	-	-		
82	OHX	AR	3622	-	0,6,6	0.00	-	-		
82	OHX	AR	3504	-	0,6,6	0.00	-	-		
82	OHX	1	3424	-	0,6,6	0.00	-	-		
82	OHX	1	3609	-	0,6,6	0.00	-	-		
82	OHX	A	1875	-	0,6,6	0.00	-	-		
82	OHX	A	1928	-	0,6,6	0.00	-	-		
82	OHX	A	1908	-	0,6,6	0.00	-	-		
82	OHX	1	3647	-	0,6,6	0.00	-	-		
82	OHX	h	401	-	0,6,6	0.00	-	-		
82	OHX	sR	2003	-	0,6,6	0.00	-	-		
82	OHX	1	3539	-	0,6,6	0.00	-	-		
82	OHX	AR	3733	-	0,6,6	0.00	-	-		
82	OHX	AR	3434	-	0,6,6	0.00	-	-		
82	OHX	AR	3611	-	0,6,6	0.00	-	-		
82	OHX	AR	3702	-	0,6,6	0.00	-	-		
82	OHX	AR	3560	-	0,6,6	0.00	-	-		
82	OHX	AR	3546	-	0,6,6	0.00	-	-		
82	OHX	1	3537	82	0,6,6	0.00	-	-		
82	OHX	s8	301	-	0,6,6	0.00	-	-		
82	OHX	AR	3693	-	0,6,6	0.00	-	-		
82	OHX	1	3587	-	0,6,6	0.00	-	-		
82	OHX	1	3505	-	0,6,6	0.00	-	-		
82	OHX	AR	3636	-	0,6,6	0.00	-	-		
82	OHX	AR	3716	-	0,6,6	0.00	-	-		
82	OHX	sR	1997	-	0,6,6	0.00	-	-		
82	OHX	A	1898	-	0,6,6	0.00	-	-		
82	OHX	1	3558	-	0,6,6	0.00	-	-		
82	OHX	AR	3513	-	0,6,6	0.00	-	-		
82	OHX	1	3534	-	0,6,6	0.00	-	-		
82	OHX	A	1922	-	0,6,6	0.00	-	-		
82	OHX	AR	3530	-	0,6,6	0.00	-	-		
82	OHX	A	1864	-	0,6,6	0.00	-	-		
82	OHX	AR	3577	-	0,6,6	0.00	-	-		
82	OHX	1	3443	-	0,6,6	0.00	-	-		
82	OHX	AS	205	-	0,6,6	0.00	-	-		
82	OHX	1	3568	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	AT	214	-	0,6,6	0.00	-	-		
82	OHX	AS	208	-	0,6,6	0.00	-	-		
82	OHX	1	3511	-	0,6,6	0.00	-	-		
82	OHX	1	3504	-	0,6,6	0.00	-	-		
82	OHX	1	3593	-	0,6,6	0.00	-	-		
82	OHX	1	3562	-	0,6,6	0.00	-	-		
82	OHX	1	3632	-	0,6,6	0.00	-	-		
82	OHX	1	3458	-	0,6,6	0.00	-	-		
82	OHX	sR	2002	-	0,6,6	0.00	-	-		
82	OHX	sR	2015	-	0,6,6	0.00	-	-		
82	OHX	sR	2041	-	0,6,6	0.00	-	-		
82	OHX	1	3571	-	0,6,6	0.00	-	-		
82	OHX	AR	3497	-	0,6,6	0.00	-	-		
82	OHX	sR	1901	-	0,6,6	0.00	-	-		
82	OHX	AR	3489	-	0,6,6	0.00	-	-		
82	OHX	AR	3660	-	0,6,6	0.00	-	-		
82	OHX	A	1835	-	0,6,6	0.00	-	-		
82	OHX	AR	3628	-	0,6,6	0.00	-	-		
82	OHX	A	1848	-	0,6,6	0.00	-	-		
82	OHX	sR	1918	-	0,6,6	0.00	-	-		
82	OHX	A	1845	-	0,6,6	0.00	-	-		
82	OHX	AR	3651	-	0,6,6	0.00	-	-		
82	OHX	w	201	-	0,6,6	0.00	-	-		
82	OHX	1	3698	-	0,6,6	0.00	-	-		
82	OHX	4	202	-	0,6,6	0.00	-	-		
82	OHX	A	1902	-	0,6,6	0.00	-	-		
82	OHX	sR	1946	-	0,6,6	0.00	-	-		
82	OHX	4	211	-	0,6,6	0.00	-	-		
82	OHX	AR	3481	-	0,6,6	0.00	-	-		
82	OHX	1	3714	-	0,6,6	0.00	-	-		
82	OHX	A	1824	-	0,6,6	0.00	-	-		
82	OHX	1	3595	-	0,6,6	0.00	-	-		
82	OHX	1	3684	-	0,6,6	0.00	-	-		
82	OHX	AT	209	-	0,6,6	0.00	-	-		
82	OHX	A	1877	-	0,6,6	0.00	-	-		
82	OHX	A	1878	-	0,6,6	0.00	-	-		
82	OHX	1	3650	-	0,6,6	0.00	-	-		
82	OHX	A	1823	-	0,6,6	0.00	-	-		
82	OHX	sR	2000	-	0,6,6	0.00	-	-		
82	OHX	1	3469	-	0,6,6	0.00	-	-		
82	OHX	sR	1917	-	0,6,6	0.00	-	-		
82	OHX	AR	3466	-	0,6,6	0.00	-	-		
82	OHX	AR	3635	-	0,6,6	0.00	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
82	OHX	AR	3598	-	0,6,6	0.00	-	-		
82	OHX	AR	3441	-	0,6,6	0.00	-	-		
82	OHX	AR	3566	-	0,6,6	0.00	-	-		
82	OHX	AR	3710	-	0,6,6	0.00	-	-		
82	OHX	A	1940	-	0,6,6	0.00	-	-		
82	OHX	sR	1948	-	0,6,6	0.00	-	-		
82	OHX	AR	3561	-	0,6,6	0.00	-	-		
82	OHX	AR	3589	-	0,6,6	0.00	-	-		
82	OHX	sR	1922	-	0,6,6	0.00	-	-		
82	OHX	AR	3476	-	0,6,6	0.00	-	-		
82	OHX	A	1812	-	0,6,6	0.00	-	-		
82	OHX	AR	3468	-	0,6,6	0.00	-	-		
82	OHX	AR	3499	-	0,6,6	0.00	-	-		
82	OHX	A	1868	-	0,6,6	0.00	-	-		
82	OHX	AR	3433	-	0,6,6	0.00	-	-		
82	OHX	AS	202	-	0,6,6	0.00	-	-		
82	OHX	1	3416	-	0,6,6	0.00	-	-		
82	OHX	AR	3632	-	0,6,6	0.00	-	-		
82	OHX	AR	3550	-	0,6,6	0.00	-	-		
82	OHX	1	3554	-	0,6,6	0.00	-	-		
82	OHX	sR	1906	-	0,6,6	0.00	-	-		
82	OHX	1	3621	-	0,6,6	0.00	-	-		
82	OHX	A	1879	-	0,6,6	0.00	-	-		
82	OHX	1	3503	-	0,6,6	0.00	-	-		
82	OHX	sR	1970	-	0,6,6	0.00	-	-		
82	OHX	AR	3443	82	0,6,6	0.00	-	-		

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
84	G5B	1	4224	-	-	1/8/62/62	0/3/3/3
86	GOL	AR	4263	-	-	0/4/4/4	-
86	GOL	AR	4262	-	-	2/4/4/4	-
84	G5B	AR	4264	-	-	1/8/62/62	0/3/3/3

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
84	1	4224	G5B	C11-C6-C5	-3.63	109.39	114.43
84	1	4224	G5B	C11-C6-C9	2.28	117.03	113.71

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
86	AR	4262	GOL	C1-C2-C3-O3
86	AR	4262	GOL	O2-C2-C3-O3
84	1	4224	G5B	C6-C11-C16-O1
84	AR	4264	G5B	C6-C11-C16-O1

There are no ring outliers.

540 monomers are involved in 924 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3663	OHX	1	0
82	A	1911	OHX	1	0
82	DD	101	OHX	1	0
82	AR	3706	OHX	1	0
82	AR	3677	OHX	1	0
82	1	3566	OHX	4	0
82	AR	3448	OHX	1	0
82	1	3613	OHX	2	0
82	AR	3576	OHX	1	0
82	AR	3691	OHX	9	0
82	AR	3467	OHX	1	0
82	1	3526	OHX	2	0
82	1	3440	OHX	1	0
82	AR	3406	OHX	3	0
82	AR	3427	OHX	1	0
82	1	3513	OHX	1	0
82	1	3456	OHX	1	0
82	1	3581	OHX	2	0
82	AR	3465	OHX	1	0
82	AR	3684	OHX	3	0
82	AR	3565	OHX	1	0
82	AR	3719	OHX	1	0
82	AR	3473	OHX	1	0
82	AR	3644	OHX	3	0
82	AR	3570	OHX	1	0
82	A	1839	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	1	3417	OHX	3	0
82	A	1856	OHX	1	0
82	A	1934	OHX	2	0
82	AK	102	OHX	5	0
82	AR	3581	OHX	3	0
82	1	3540	OHX	1	0
82	DG	201	OHX	1	0
82	AT	205	OHX	1	0
82	AR	3419	OHX	3	0
82	A	1931	OHX	1	0
82	1	3576	OHX	1	0
82	1	3573	OHX	1	0
82	AR	3435	OHX	1	0
82	AR	3493	OHX	2	0
82	1	3494	OHX	1	0
82	CF	401	OHX	4	0
82	AT	204	OHX	1	0
82	1	3483	OHX	1	0
82	AR	3525	OHX	1	0
82	1	3574	OHX	1	0
82	CG	303	OHX	1	0
82	AR	3424	OHX	1	0
82	1	3462	OHX	1	0
82	AR	3455	OHX	1	0
82	AR	3472	OHX	1	0
82	4	206	OHX	1	0
82	AK	103	OHX	1	0
82	AR	3469	OHX	1	0
82	CG	302	OHX	6	0
82	1	3530	OHX	1	0
82	AR	3597	OHX	4	0
82	AR	3637	OHX	1	0
82	1	3630	OHX	1	0
82	1	3569	OHX	1	0
82	AR	3620	OHX	1	0
82	1	3711	OHX	2	0
82	1	3517	OHX	3	0
82	A	1876	OHX	7	0
82	A	1903	OHX	1	0
82	AR	3678	OHX	1	0
82	AR	3479	OHX	9	0
82	1	3710	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	A	1896	OHX	1	0
82	1	3614	OHX	1	0
82	1	3585	OHX	2	0
82	1	3403	OHX	2	0
82	1	3580	OHX	2	0
82	A	1881	OHX	2	0
82	A	1870	OHX	2	0
82	1	3648	OHX	1	0
82	AR	3571	OHX	3	0
82	A	1850	OHX	1	0
82	4	214	OHX	1	0
82	1	3459	OHX	2	0
82	A	1936	OHX	5	0
82	A	1883	OHX	2	0
82	1	3673	OHX	8	0
82	1	3535	OHX	2	0
82	1	3706	OHX	1	0
82	AR	3676	OHX	2	0
82	AR	3401	OHX	1	0
82	AR	3508	OHX	1	0
82	A	1862	OHX	2	0
82	4	205	OHX	1	0
82	1	3611	OHX	1	0
82	AR	3579	OHX	3	0
82	1	3409	OHX	2	0
82	1	3522	OHX	3	0
82	A	1873	OHX	3	0
82	AR	3503	OHX	7	0
82	AR	3461	OHX	1	0
82	1	3516	OHX	3	0
82	3	207	OHX	2	0
82	1	3481	OHX	1	0
82	AR	3649	OHX	1	0
82	1	3577	OHX	4	0
82	AR	3735	OHX	3	0
82	AR	3687	OHX	1	0
82	AR	3505	OHX	2	0
82	1	3631	OHX	1	0
82	1	3612	OHX	1	0
82	1	3476	OHX	1	0
82	1	3532	OHX	2	0
82	AR	3402	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	1	3541	OHX	2	0
82	A	1885	OHX	1	0
82	1	3477	OHX	1	0
82	1	3425	OHX	4	0
82	AR	3458	OHX	4	0
82	A	1820	OHX	1	0
82	AR	3536	OHX	4	0
82	AR	3405	OHX	1	0
82	AT	201	OHX	2	0
82	AR	3517	OHX	1	0
82	AR	3587	OHX	1	0
82	AG	201	OHX	1	0
82	AR	3606	OHX	1	0
82	AR	3654	OHX	2	0
82	A	1801	OHX	2	0
82	4	207	OHX	1	0
82	1	3474	OHX	2	0
82	1	3694	OHX	1	0
82	AS	209	OHX	8	0
82	1	3590	OHX	4	0
82	AR	3600	OHX	2	0
82	1	3646	OHX	1	0
82	1	3405	OHX	4	0
82	AR	3674	OHX	2	0
82	1	3699	OHX	1	0
82	1	3618	OHX	2	0
82	AR	3648	OHX	2	0
82	1	3705	OHX	4	0
82	AR	3626	OHX	1	0
82	AR	3490	OHX	1	0
82	1	3629	OHX	1	0
82	AR	3659	OHX	1	0
82	A	1927	OHX	1	0
82	1	3442	OHX	1	0
82	CQ	201	OHX	1	0
82	CE	402	OHX	1	0
82	AR	3559	OHX	2	0
82	A	1817	OHX	3	0
82	A	1919	OHX	2	0
82	AR	3551	OHX	1	0
82	1	3588	OHX	6	0
82	AR	3403	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3529	OHX	2	0
82	AR	3438	OHX	1	0
82	1	3500	OHX	2	0
82	T	201	OHX	2	0
82	AR	3631	OHX	1	0
82	AR	3725	OHX	4	0
82	1	3418	OHX	2	0
82	1	3683	OHX	6	0
82	AR	3695	OHX	1	0
82	1	3553	OHX	6	0
82	1	3598	OHX	1	0
82	AR	3623	OHX	1	0
82	AR	3643	OHX	1	0
82	AR	3492	OHX	1	0
82	AR	3672	OHX	1	0
82	1	3441	OHX	1	0
82	AR	3420	OHX	2	0
82	1	3478	OHX	2	0
82	AR	3653	OHX	2	0
82	1	3560	OHX	1	0
82	1	3677	OHX	4	0
82	1	3708	OHX	1	0
82	1	3723	OHX	4	0
82	3	201	OHX	1	0
82	1	3510	OHX	1	0
82	A	1871	OHX	1	0
82	1	3697	OHX	7	0
82	AR	3423	OHX	1	0
82	1	3502	OHX	1	0
82	A	1837	OHX	1	0
82	AR	3485	OHX	1	0
82	AR	3501	OHX	2	0
82	A	1831	OHX	1	0
82	A	1942	OHX	2	0
82	AR	3696	OHX	5	0
82	1	3531	OHX	1	0
82	1	3604	OHX	1	0
82	1	3670	OHX	1	0
82	1	3563	OHX	1	0
82	1	3449	OHX	1	0
82	1	3451	OHX	2	0
82	AR	3704	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3557	OHX	1	0
82	1	3643	OHX	1	0
82	AR	3591	OHX	1	0
82	AR	3728	OHX	7	0
82	AR	3404	OHX	1	0
82	A	1930	OHX	1	0
82	A	1813	OHX	1	0
82	1	3454	OHX	1	0
82	AR	3470	OHX	1	0
82	A	1888	OHX	2	0
82	AR	3572	OHX	2	0
82	J	302	OHX	2	0
82	1	3401	OHX	2	0
82	AR	3521	OHX	1	0
82	1	3692	OHX	1	0
82	AR	3538	OHX	6	0
82	AR	3547	OHX	1	0
82	AE	201	OHX	9	0
82	1	3491	OHX	1	0
82	AR	3714	OHX	1	0
82	1	3567	OHX	2	0
82	Q	201	OHX	1	0
82	AR	3734	OHX	2	0
82	AC	101	OHX	2	0
82	AR	3510	OHX	2	0
82	AR	3641	OHX	2	0
82	AR	3727	OHX	1	0
82	A	1887	OHX	1	0
82	1	3461	OHX	1	0
82	AT	216	OHX	2	0
82	A	1815	OHX	1	0
82	1	3547	OHX	2	0
82	A	1867	OHX	5	0
82	AR	3422	OHX	1	0
82	1	3592	OHX	1	0
82	1	3667	OHX	4	0
82	AR	3514	OHX	2	0
82	AR	3669	OHX	3	0
82	1	3689	OHX	1	0
82	AR	3562	OHX	2	0
82	1	3439	OHX	1	0
82	A	1851	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3601	OHX	1	0
82	AR	3655	OHX	1	0
82	AR	3534	OHX	1	0
82	1	3668	OHX	2	0
82	1	3501	OHX	1	0
82	1	3591	OHX	1	0
82	AR	3409	OHX	2	0
82	1	3468	OHX	2	0
82	AT	211	OHX	2	0
82	AR	3708	OHX	1	0
82	1	3437	OHX	1	0
82	A	1810	OHX	2	0
82	AR	3692	OHX	5	0
82	DQ	502	OHX	4	0
82	AR	3694	OHX	2	0
82	AR	3556	OHX	1	0
82	1	3498	OHX	2	0
82	1	3411	OHX	1	0
82	A	1910	OHX	1	0
82	1	3520	OHX	1	0
82	1	3457	OHX	1	0
82	AR	3680	OHX	1	0
82	AR	3460	OHX	1	0
82	1	3408	OHX	1	0
82	1	3661	OHX	1	0
82	A	1884	OHX	1	0
82	A	1897	OHX	4	0
82	1	3703	OHX	1	0
82	1	3497	OHX	1	0
82	1	3578	OHX	4	0
82	AT	202	OHX	1	0
82	AR	3638	OHX	2	0
82	1	3623	OHX	2	0
82	AR	3445	OHX	1	0
82	A	1894	OHX	1	0
82	AR	3584	OHX	4	0
82	AR	3523	OHX	9	0
82	AR	3593	OHX	6	0
82	AR	3596	OHX	1	0
82	1	3521	OHX	1	0
82	A	1895	OHX	1	0
82	AT	213	OHX	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	A	1861	OHX	2	0
82	CE	401	OHX	3	0
82	AR	3723	OHX	6	0
82	AR	3717	OHX	1	0
82	1	3519	OHX	1	0
82	1	3681	OHX	4	0
82	1	3579	OHX	2	0
82	AR	3558	OHX	6	0
82	A	1830	OHX	1	0
82	AR	3526	OHX	4	0
82	AR	3700	OHX	1	0
82	AR	3604	OHX	1	0
82	AR	3477	OHX	1	0
82	AR	3619	OHX	1	0
82	1	3490	OHX	1	0
82	A	1804	OHX	3	0
82	1	3682	OHX	6	0
82	AR	3685	OHX	3	0
82	A	1920	OHX	5	0
82	AR	3542	OHX	3	0
82	AR	3414	OHX	1	0
82	1	3467	OHX	4	0
82	AT	208	OHX	2	0
82	A	1818	OHX	1	0
82	A	1809	OHX	7	0
82	1	3444	OHX	1	0
82	AR	3488	OHX	1	0
82	A	1926	OHX	3	0
82	1	3722	OHX	5	0
82	1	3482	OHX	1	0
82	AR	3451	OHX	2	0
82	AR	3709	OHX	11	0
82	1	3713	OHX	1	0
82	1	3666	OHX	2	0
82	AR	3449	OHX	1	0
82	A	1923	OHX	1	0
82	AR	3471	OHX	1	0
82	1	3427	OHX	1	0
82	AR	3612	OHX	2	0
82	1	3675	OHX	1	0
82	AR	3668	OHX	1	0
82	AR	3436	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3645	OHX	2	0
82	AR	3446	OHX	1	0
82	A	1866	OHX	1	0
82	AR	3425	OHX	1	0
82	1	3438	OHX	1	0
82	1	3653	OHX	1	0
82	AR	3621	OHX	1	0
82	CX	202	OHX	1	0
82	A	1803	OHX	1	0
82	A	1863	OHX	4	0
82	AR	3421	OHX	1	0
82	AR	3541	OHX	1	0
82	1	3533	OHX	1	0
82	AR	3533	OHX	2	0
82	AR	3582	OHX	1	0
82	CL	301	OHX	6	0
82	A	1822	OHX	7	0
82	AR	3736	OHX	4	0
82	1	3652	OHX	1	0
82	1	3434	OHX	1	0
82	AR	3583	OHX	1	0
82	1	3628	OHX	1	0
82	1	3627	OHX	1	0
82	AS	203	OHX	8	0
82	A	1872	OHX	1	0
82	1	3428	OHX	1	0
82	1	3518	OHX	1	0
82	1	3508	OHX	2	0
82	1	3662	OHX	3	0
82	A	1841	OHX	1	0
82	AR	3474	OHX	1	0
82	AR	3515	OHX	1	0
82	1	3721	OHX	4	0
82	A	1939	OHX	1	0
82	1	3641	OHX	2	0
82	AR	3408	OHX	2	0
82	AR	3478	OHX	1	0
82	AR	3506	OHX	1	0
82	AR	3437	OHX	1	0
82	1	3486	OHX	1	0
82	1	3509	OHX	7	0
82	AT	203	OHX	9	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3629	OHX	1	0
82	AR	3720	OHX	2	0
82	1	3402	OHX	1	0
82	AR	3697	OHX	1	0
82	A	1882	OHX	1	0
84	1	4224	G5B	1	0
82	AR	3574	OHX	1	0
82	AR	3657	OHX	1	0
82	A	1900	OHX	1	0
82	1	3561	OHX	1	0
82	A	1844	OHX	2	0
82	AR	3531	OHX	2	0
82	AR	3617	OHX	1	0
82	AR	3527	OHX	1	0
82	A	1853	OHX	6	0
82	1	3412	OHX	1	0
82	A	1843	OHX	3	0
82	AR	3650	OHX	2	0
82	AR	3647	OHX	1	0
82	A	1907	OHX	2	0
82	4	210	OHX	1	0
82	A	1933	OHX	1	0
82	1	3656	OHX	1	0
82	A	1874	OHX	1	0
82	AR	3698	OHX	1	0
82	1	3690	OHX	4	0
82	AS	204	OHX	1	0
82	AR	3738	OHX	3	0
82	AT	212	OHX	11	0
82	1	3472	OHX	1	0
82	1	3551	OHX	2	0
82	1	3688	OHX	1	0
82	1	3617	OHX	4	0
82	1	3695	OHX	1	0
82	1	3678	OHX	1	0
82	A	1842	OHX	1	0
82	AR	3730	OHX	2	0
82	1	3693	OHX	2	0
82	A	1892	OHX	2	0
82	AR	3412	OHX	2	0
82	CH	201	OHX	2	0
82	AR	3509	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	A	1840	OHX	1	0
82	AR	3639	OHX	2	0
82	A	1852	OHX	1	0
82	AR	3683	OHX	4	0
82	AR	3440	OHX	1	0
82	AR	3610	OHX	1	0
82	AR	3418	OHX	3	0
82	1	3664	OHX	1	0
82	AR	3615	OHX	1	0
82	CP	501	OHX	1	0
82	1	3691	OHX	1	0
82	1	3719	OHX	8	0
82	1	3493	OHX	4	0
82	1	3700	OHX	1	0
82	1	3687	OHX	2	0
82	1	3600	OHX	1	0
82	AR	3568	OHX	1	0
82	AR	3442	OHX	1	0
82	AR	3463	OHX	5	0
82	A	1836	OHX	1	0
82	AR	3567	OHX	2	0
82	1	3410	OHX	1	0
82	A	1854	OHX	1	0
82	A	1941	OHX	6	0
82	AR	3407	OHX	1	0
82	A	1859	OHX	1	0
82	AR	3605	OHX	1	0
82	1	3450	OHX	1	0
82	1	3464	OHX	1	0
82	1	3536	OHX	3	0
82	AR	3609	OHX	1	0
82	A	1886	OHX	5	0
82	3	205	OHX	1	0
82	A	1865	OHX	1	0
82	1	3426	OHX	1	0
82	AR	3624	OHX	1	0
82	AR	3590	OHX	1	0
82	AR	3520	OHX	1	0
82	1	3637	OHX	1	0
82	AR	3486	OHX	4	0
82	1	3663	OHX	1	0
82	AT	207	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	1	3603	OHX	1	0
82	1	3528	OHX	1	0
82	AR	3688	OHX	1	0
82	1	3487	OHX	2	0
82	CG	301	OHX	1	0
82	1	3473	OHX	1	0
82	1	3649	OHX	1	0
82	AR	3616	OHX	1	0
82	1	3686	OHX	1	0
82	1	3583	OHX	1	0
82	AR	3462	OHX	1	0
82	1	3413	OHX	1	0
82	AR	3444	OHX	1	0
82	A	1814	OHX	2	0
82	AR	3552	OHX	2	0
82	A	1847	OHX	1	0
82	1	3589	OHX	2	0
82	AR	3711	OHX	1	0
82	1	3414	OHX	2	0
82	AT	210	OHX	3	0
82	AR	3569	OHX	4	0
82	A	1935	OHX	1	0
82	1	3624	OHX	3	0
82	1	3645	OHX	1	0
82	AR	3483	OHX	1	0
82	A	1825	OHX	2	0
82	1	3407	OHX	2	0
82	AR	3564	OHX	1	0
82	1	3712	OHX	1	0
82	1	3460	OHX	2	0
82	A	1916	OHX	2	0
82	AP	502	OHX	3	0
82	1	3676	OHX	1	0
82	A	1855	OHX	1	0
82	1	3660	OHX	3	0
82	AR	3484	OHX	2	0
82	AR	3622	OHX	1	0
82	AR	3504	OHX	6	0
82	1	3424	OHX	1	0
82	A	1928	OHX	1	0
82	A	1908	OHX	1	0
82	1	3647	OHX	1	0

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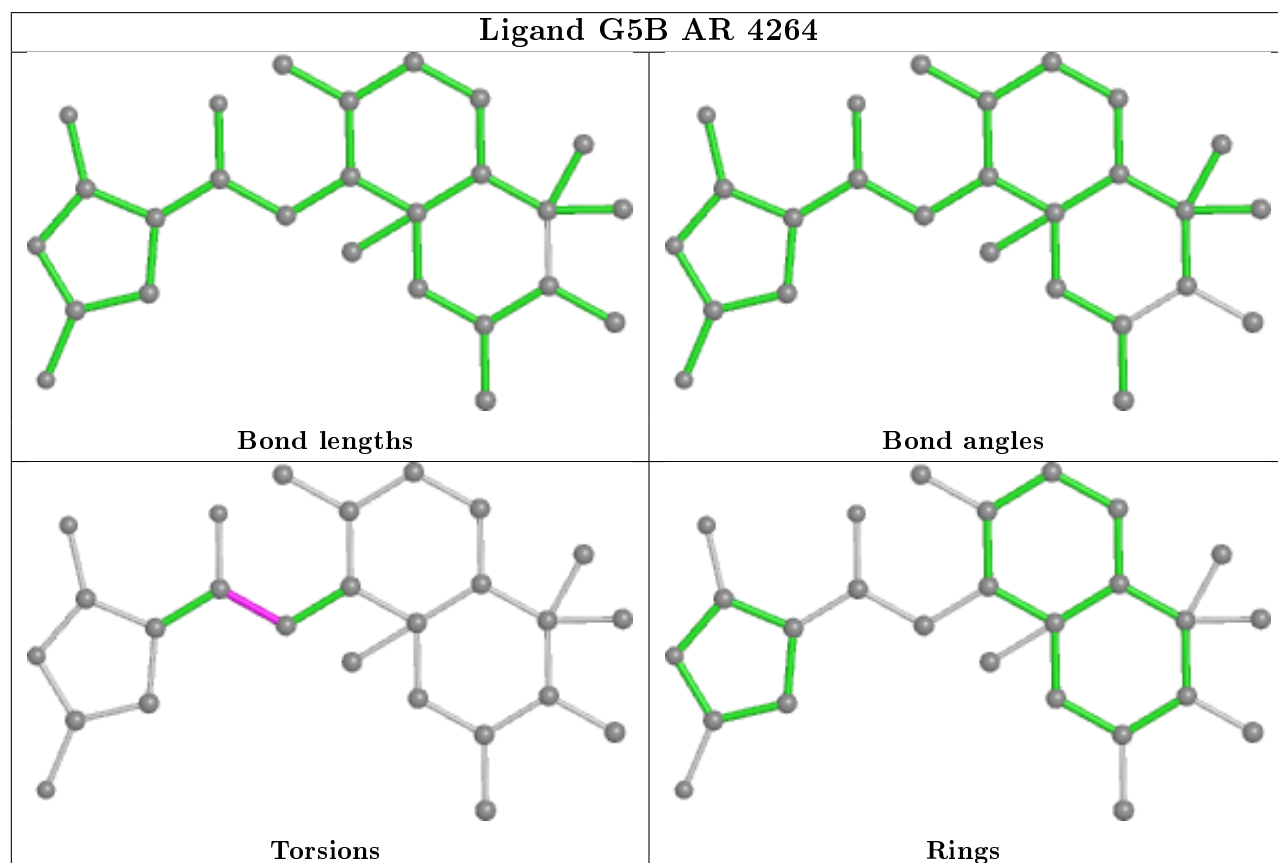
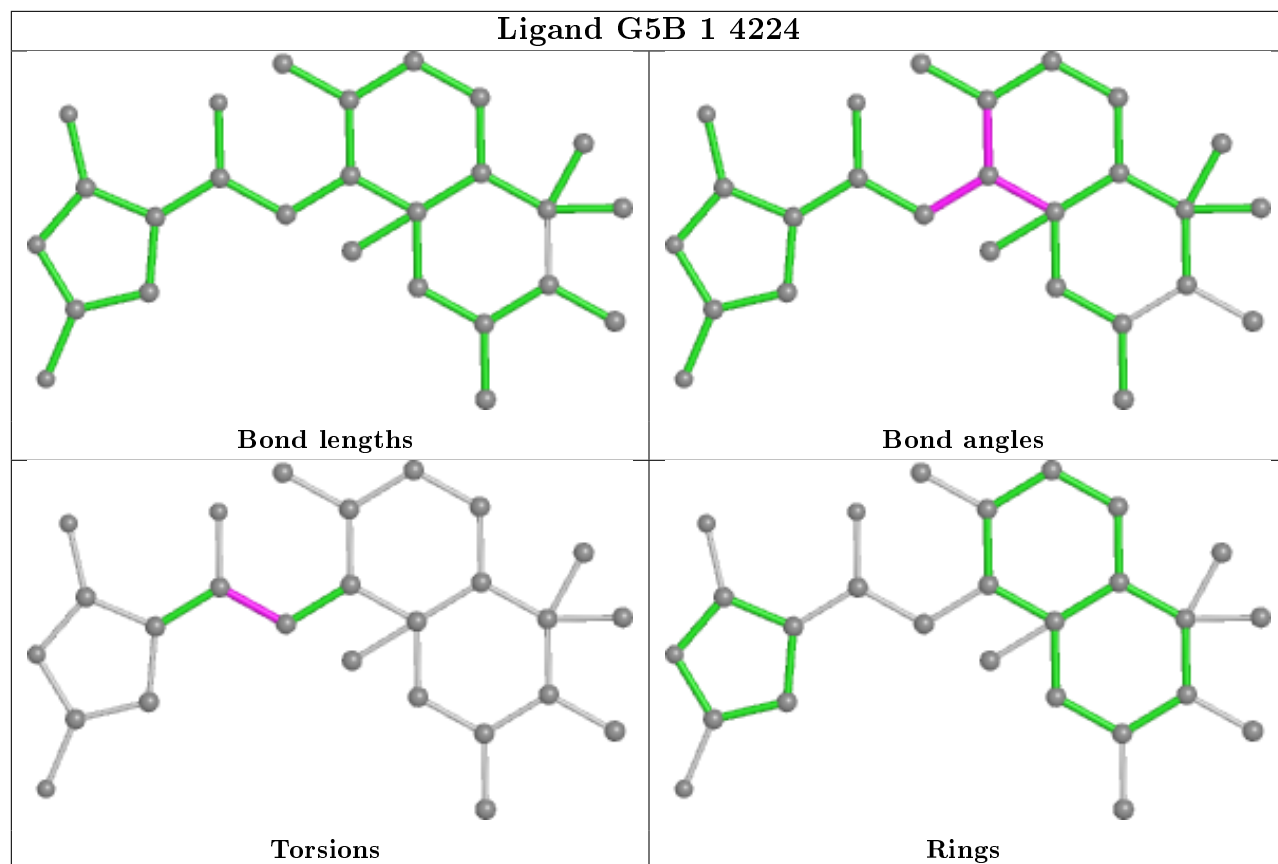
Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	1	3539	OHX	1	0
82	AR	3733	OHX	3	0
82	AR	3434	OHX	1	0
82	AR	3611	OHX	1	0
82	AR	3702	OHX	2	0
82	1	3537	OHX	6	0
82	AR	3693	OHX	7	0
82	1	3505	OHX	6	0
82	AR	3636	OHX	1	0
82	AR	3716	OHX	1	0
82	A	1898	OHX	1	0
82	AR	3513	OHX	7	0
82	AR	3530	OHX	4	0
82	A	1864	OHX	1	0
82	AR	3577	OHX	2	0
82	1	3443	OHX	2	0
82	AS	205	OHX	2	0
82	1	3568	OHX	1	0
82	AT	214	OHX	1	0
82	1	3511	OHX	1	0
82	1	3504	OHX	1	0
82	1	3562	OHX	6	0
82	1	3632	OHX	1	0
82	AR	3497	OHX	1	0
82	AR	3489	OHX	1	0
82	AR	3628	OHX	1	0
82	4	202	OHX	2	0
82	A	1902	OHX	1	0
82	AR	3481	OHX	1	0
82	1	3714	OHX	2	0
82	1	3595	OHX	2	0
82	1	3684	OHX	1	0
82	AT	209	OHX	1	0
82	A	1877	OHX	1	0
82	1	3650	OHX	1	0
82	A	1823	OHX	3	0
82	1	3469	OHX	1	0
82	AR	3466	OHX	1	0
82	AR	3598	OHX	5	0
82	AR	3441	OHX	2	1
82	AR	3561	OHX	1	0
82	AR	3589	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3468	OHX	1	0
82	A	1868	OHX	2	0
82	AR	3433	OHX	1	0
82	AS	202	OHX	1	0
82	1	3416	OHX	2	0
82	AR	3632	OHX	3	0
82	AR	3550	OHX	1	0
82	1	3554	OHX	1	0
82	1	3621	OHX	1	0
82	AR	3443	OHX	6	0

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



5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
48	s0	1
58	c0	1
47	A	1
14	t	1
52	s4	1
52	F	1
7	CG	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	c0	84:GLU	C	87:HIS	N	9.26
1	A	1716:C	O3'	1717:G	P	4.20
1	t	132:ALA	C	133:PRO	N	1.75
1	F	82:TYR	C	83:PRO	N	1.18
1	s0	160:ILE	C	161:PRO	N	1.16
1	CG	179:ARG	C	180:PHE	N	1.15
1	s4	82:TYR	C	83:PRO	N	1.09

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	1	3149/3396 (92%)	-0.03	116 (3%) 41 21	20, 42, 104, 200	0
1	AR	3147/3396 (92%)	-0.03	97 (3%) 49 26	21, 40, 100, 196	0
2	3	121/121 (100%)	-0.31	0 100 100	34, 58, 70, 71	0
2	AS	121/121 (100%)	-0.31	0 100 100	27, 43, 53, 56	0
3	4	158/158 (100%)	-0.23	2 (1%) 77 59	24, 40, 73, 107	0
3	AT	158/158 (100%)	-0.17	2 (1%) 77 59	29, 48, 78, 95	0
4	CD	252/254 (99%)	-0.28	3 (1%) 79 61	25, 40, 57, 64	0
4	j	252/254 (99%)	-0.28	0 100 100	25, 39, 53, 62	0
5	CE	386/387 (99%)	-0.31	2 (0%) 91 81	22, 33, 43, 76	0
5	k	386/387 (99%)	-0.28	1 (0%) 94 88	28, 44, 54, 64	0
6	CF	361/362 (99%)	-0.38	1 (0%) 94 88	25, 39, 53, 67	0
6	l	361/362 (99%)	-0.36	0 100 100	21, 34, 49, 56	0
7	CG	296/297 (99%)	-0.09	7 (2%) 59 37	34, 44, 64, 79	0
7	m	296/297 (99%)	-0.02	3 (1%) 82 67	41, 61, 74, 95	0
8	CH	156/176 (88%)	-0.28	1 (0%) 89 78	33, 41, 58, 70	0
8	n	156/176 (88%)	-0.35	0 100 100	33, 37, 49, 62	0
9	CI	222/244 (90%)	-0.37	3 (1%) 75 56	26, 31, 61, 93	0
9	o	222/244 (90%)	-0.37	3 (1%) 75 56	27, 33, 52, 79	0
10	CJ	233/256 (91%)	0.58	20 (8%) 10 4	54, 64, 94, 103	0
10	p	233/256 (91%)	-0.01	9 (3%) 39 20	45, 57, 85, 93	0
11	CK	191/191 (100%)	-0.27	3 (1%) 72 51	33, 39, 53, 62	0
11	q	191/191 (100%)	0.02	4 (2%) 63 43	42, 52, 62, 72	0
12	CL	211/221 (95%)	-0.21	4 (1%) 66 46	26, 39, 62, 90	0
12	r	211/221 (95%)	-0.10	2 (0%) 84 69	29, 42, 73, 81	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	CM	169/174 (97%)	-0.22	2 (1%) 79 61	36, 51, 65, 76	0
13	s	169/174 (97%)	-0.00	0 100 100	51, 67, 76, 82	0
14	CN	193/199 (96%)	0.06	5 (2%) 56 33	26, 49, 80, 95	0
14	t	193/199 (96%)	-0.15	2 (1%) 82 67	23, 41, 73, 95	0
15	CO	136/138 (98%)	-0.42	1 (0%) 87 75	31, 36, 53, 68	0
15	u	136/138 (98%)	-0.28	1 (0%) 87 75	34, 42, 53, 60	0
16	CP	203/204 (99%)	-0.25	0 100 100	28, 44, 53, 57	0
16	v	203/204 (99%)	-0.34	0 100 100	24, 37, 46, 51	0
17	CQ	197/199 (98%)	-0.37	3 (1%) 73 54	23, 26, 51, 56	0
17	w	197/199 (98%)	-0.40	0 100 100	27, 33, 48, 50	0
18	CR	183/184 (99%)	0.95	27 (14%) 2 1	25, 31, 109, 140	0
18	x	183/184 (99%)	0.06	9 (4%) 29 14	28, 35, 76, 106	0
19	CS	185/186 (99%)	-0.25	0 100 100	28, 39, 47, 53	0
19	y	185/186 (99%)	-0.35	0 100 100	27, 36, 48, 65	0
20	CT	188/189 (99%)	0.17	11 (5%) 22 10	38, 49, 119, 134	0
20	z	188/189 (99%)	0.25	8 (4%) 35 17	43, 55, 125, 139	0
21	0	172/172 (100%)	-0.37	1 (0%) 89 78	33, 40, 50, 54	0
21	CU	172/172 (100%)	-0.39	1 (0%) 89 78	28, 32, 40, 48	0
22	2	159/160 (99%)	-0.20	1 (0%) 89 78	27, 40, 73, 80	0
22	CV	159/160 (99%)	-0.23	0 100 100	24, 34, 67, 73	0
23	5	100/121 (82%)	0.47	5 (5%) 28 13	71, 82, 89, 95	0
23	CW	100/121 (82%)	0.76	10 (10%) 7 2	60, 70, 76, 90	0
24	6	136/137 (99%)	-0.24	1 (0%) 87 75	31, 40, 48, 52	0
24	CX	136/137 (99%)	-0.13	3 (2%) 62 41	24, 32, 42, 45	0
25	7	98/155 (63%)	1.03	25 (25%) 0 0	40, 52, 124, 127	0
25	CY	124/155 (80%)	0.03	7 (5%) 24 11	32, 64, 109, 125	0
26	8	121/142 (85%)	-0.17	1 (0%) 86 72	36, 46, 59, 90	0
26	CZ	121/142 (85%)	0.02	6 (4%) 28 13	38, 49, 68, 78	0
27	9	126/127 (99%)	-0.07	1 (0%) 86 72	27, 42, 51, 54	0
27	DA	124/127 (97%)	-0.08	1 (0%) 86 72	32, 49, 60, 64	0
28	AA	135/136 (99%)	0.04	0 100 100	55, 65, 79, 87	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DB	135/136 (99%)	0.04	0 100 100	61, 73, 92, 99	0
29	AB	148/149 (99%)	-0.30	0 100 100	20, 36, 52, 60	0
29	DC	148/149 (99%)	-0.33	1 (0%) 87 75	22, 41, 54, 56	0
30	AC	58/59 (98%)	-0.01	4 (6%) 16 7	24, 43, 85, 97	0
30	DD	58/59 (98%)	-0.20	2 (3%) 45 24	23, 42, 64, 70	0
31	AD	97/105 (92%)	0.11	5 (5%) 27 12	53, 60, 77, 81	0
31	DE	97/105 (92%)	0.23	5 (5%) 27 12	53, 63, 79, 82	0
32	AE	109/113 (96%)	0.04	4 (3%) 41 21	40, 51, 74, 86	0
32	DF	109/113 (96%)	0.08	2 (1%) 68 47	33, 42, 69, 85	0
33	AF	127/130 (97%)	-0.16	3 (2%) 59 37	22, 34, 41, 51	0
33	DG	127/130 (97%)	-0.15	3 (2%) 59 37	22, 39, 47, 56	0
34	AG	106/107 (99%)	-0.41	0 100 100	28, 32, 49, 54	0
34	DH	106/107 (99%)	-0.34	0 100 100	26, 32, 57, 70	0
35	AH	112/121 (92%)	0.00	3 (2%) 54 31	38, 52, 86, 95	0
35	DI	112/121 (92%)	-0.13	0 100 100	39, 55, 86, 95	0
36	AI	119/120 (99%)	-0.18	1 (0%) 86 72	34, 48, 55, 59	0
36	DJ	119/120 (99%)	-0.04	2 (1%) 70 49	44, 54, 65, 72	0
37	AJ	99/100 (99%)	0.06	4 (4%) 38 19	39, 48, 71, 84	0
37	DK	99/100 (99%)	-0.10	4 (4%) 38 19	46, 56, 72, 85	0
38	AK	87/88 (98%)	-0.30	1 (1%) 80 64	25, 30, 47, 66	0
38	DL	87/88 (98%)	-0.08	2 (2%) 60 39	26, 33, 58, 86	0
39	AL	77/78 (98%)	0.29	2 (2%) 56 33	59, 70, 85, 89	0
39	DM	77/78 (98%)	1.09	16 (20%) 1 0	60, 70, 81, 86	0
40	AM	50/51 (98%)	-0.23	1 (2%) 65 44	33, 36, 43, 46	0
40	DN	50/51 (98%)	-0.30	0 100 100	35, 39, 48, 52	0
41	AN	52/128 (40%)	0.02	2 (3%) 40 20	39, 44, 53, 56	0
41	DO	52/128 (40%)	-0.22	1 (1%) 66 46	28, 30, 41, 48	0
42	AO	25/25 (100%)	0.03	0 100 100	48, 50, 54, 55	0
42	DP	25/25 (100%)	-0.41	0 100 100	34, 39, 46, 49	0
43	AP	105/106 (99%)	0.10	2 (1%) 66 46	26, 41, 62, 77	0
43	DQ	105/106 (99%)	0.06	0 100 100	27, 38, 52, 70	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å ²)	Q<0.9
44	AQ	91/92 (98%)	-0.26	0	100 100	32, 40, 50, 55	0
44	DR	91/92 (98%)	-0.40	0	100 100	30, 40, 51, 60	0
45	i	159/273 (58%)	0.67	20 (12%)	3 1	47, 77, 123, 128	0
45	sM	63/273 (23%)	0.71	8 (12%)	3 1	48, 76, 88, 91	0
46	p0	143/312 (45%)	0.84	17 (11%)	4 2	73, 90, 152, 161	0
47	A	1781/1797 (99%)	0.29	115 (6%)	18 8	47, 77, 163, 229	0
48	B	206/252 (81%)	0.32	12 (5%)	23 10	82, 94, 103, 116	0
48	s0	206/252 (81%)	-0.17	0	100 100	60, 73, 85, 89	0
49	C	214/255 (83%)	0.91	35 (16%)	1 1	84, 110, 135, 144	0
49	s1	216/255 (84%)	0.12	8 (3%)	41 21	53, 65, 92, 107	0
50	D	217/254 (85%)	-0.15	1 (0%)	91 81	61, 74, 88, 95	0
50	s2	217/254 (85%)	-0.10	5 (2%)	60 39	46, 57, 68, 77	0
51	E	223/240 (92%)	0.25	11 (4%)	29 14	67, 79, 105, 113	0
51	s3	223/240 (92%)	0.30	9 (4%)	38 19	62, 85, 103, 108	0
52	F	260/261 (99%)	0.24	6 (2%)	60 39	58, 74, 83, 101	0
52	s4	260/261 (99%)	-0.06	4 (1%)	73 54	42, 60, 73, 100	0
53	G	206/225 (91%)	0.45	15 (7%)	15 6	85, 101, 112, 120	0
53	s5	206/225 (91%)	0.25	7 (3%)	45 24	64, 82, 97, 101	0
54	H	226/236 (95%)	0.39	15 (6%)	18 7	57, 86, 105, 114	0
54	s6	218/236 (92%)	0.16	6 (2%)	53 30	43, 68, 84, 99	0
55	I	184/190 (96%)	0.45	11 (5%)	21 10	73, 99, 127, 132	0
55	s7	186/190 (97%)	0.36	8 (4%)	35 17	54, 85, 117, 126	0
56	J	188/200 (94%)	0.13	5 (2%)	54 31	50, 61, 94, 105	0
56	s8	188/200 (94%)	0.08	6 (3%)	47 25	39, 57, 96, 108	0
57	K	185/197 (93%)	0.45	12 (6%)	18 8	68, 83, 118, 149	0
57	s9	185/197 (93%)	0.04	6 (3%)	47 25	54, 65, 89, 113	0
58	L	96/105 (91%)	0.10	0	100 100	72, 91, 115, 130	0
58	c0	96/105 (91%)	1.03	17 (17%)	1 0	82, 110, 128, 145	0
59	M	155/156 (99%)	0.32	16 (10%)	6 2	51, 59, 92, 101	0
59	c1	146/156 (93%)	-0.01	5 (3%)	45 24	39, 52, 76, 97	0
60	N	124/143 (86%)	1.52	35 (28%)	0 0	114, 126, 146, 155	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
60	c2	124/143 (86%)	2.50	63 (50%) 0 0	148, 162, 179, 183	0
61	O	150/151 (99%)	-0.04	2 (1%) 77 59	58, 73, 84, 88	0
61	c3	150/151 (99%)	-0.25	0 100 100	45, 57, 70, 83	0
62	P	127/138 (92%)	0.29	8 (6%) 20 8	59, 112, 126, 127	0
62	c4	128/138 (92%)	-0.11	0 100 100	38, 69, 76, 78	0
63	Q	124/142 (87%)	0.38	9 (7%) 15 6	67, 80, 105, 127	0
63	c5	135/142 (95%)	0.50	11 (8%) 12 5	68, 80, 99, 109	0
64	R	141/143 (98%)	0.57	13 (9%) 9 3	72, 94, 99, 101	0
64	c6	142/143 (99%)	0.33	5 (3%) 44 23	58, 76, 88, 102	0
65	S	120/136 (88%)	0.44	11 (9%) 9 3	81, 94, 112, 114	0
65	c7	117/136 (86%)	0.14	2 (1%) 70 49	66, 77, 95, 101	0
66	T	145/146 (99%)	0.58	13 (8%) 9 3	66, 89, 111, 118	0
66	c8	145/146 (99%)	0.37	16 (11%) 5 2	60, 74, 95, 104	0
67	U	143/144 (99%)	0.31	6 (4%) 36 18	76, 90, 103, 110	0
67	c9	143/144 (99%)	0.09	0 100 100	60, 70, 86, 94	0
68	V	107/121 (88%)	0.96	22 (20%) 1 0	64, 96, 118, 123	0
68	d0	110/121 (90%)	0.80	20 (18%) 1 0	61, 89, 122, 132	0
69	W	87/87 (100%)	-0.06	1 (1%) 80 64	77, 82, 95, 102	0
69	d1	87/87 (100%)	-0.20	1 (1%) 80 64	55, 62, 79, 85	0
70	X	129/130 (99%)	-0.12	0 100 100	59, 69, 76, 86	0
70	d2	129/130 (99%)	-0.28	0 100 100	43, 52, 58, 66	0
71	Y	144/145 (99%)	0.03	2 (1%) 75 56	50, 55, 63, 70	0
71	d3	144/145 (99%)	-0.09	0 100 100	38, 42, 53, 59	0
72	Z	134/135 (99%)	0.44	8 (5%) 21 10	64, 85, 97, 104	0
72	d4	134/135 (99%)	0.08	5 (3%) 41 21	49, 67, 78, 96	0
73	a	70/108 (64%)	1.05	13 (18%) 1 0	97, 109, 116, 118	0
73	d5	69/108 (63%)	0.66	11 (15%) 1 1	75, 92, 101, 103	0
74	b	97/119 (81%)	0.54	8 (8%) 11 4	61, 75, 126, 131	0
74	d6	97/119 (81%)	-0.16	1 (1%) 82 67	43, 52, 78, 85	0
75	c	81/82 (98%)	0.43	6 (7%) 14 5	72, 84, 112, 115	0
75	d7	81/82 (98%)	0.24	5 (6%) 20 9	53, 67, 97, 99	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
76	d	63/67 (94%)	1.36	16 (25%) 0 0	95, 110, 118, 122	0
76	d8	63/67 (94%)	1.46	16 (25%) 0 0	79, 91, 100, 107	0
77	d9	53/56 (94%)	0.26	2 (3%) 40 20	61, 69, 100, 105	0
77	e	53/56 (94%)	-0.04	1 (1%) 66 46	66, 70, 85, 89	0
78	e0	62/63 (98%)	0.53	5 (8%) 12 5	44, 66, 84, 91	0
78	f	60/63 (95%)	0.83	8 (13%) 3 1	53, 83, 111, 113	0
79	e1	51/152 (33%)	1.54	17 (33%) 0 0	128, 142, 157, 160	0
79	g	71/152 (46%)	0.99	13 (18%) 1 0	87, 107, 119, 121	0
80	Rb	318/319 (99%)	0.49	26 (8%) 11 4	83, 95, 103, 111	0
80	h	318/319 (99%)	0.42	21 (6%) 18 7	88, 100, 113, 125	0
81	sR	1783/1800 (99%)	0.21	94 (5%) 26 12	33, 64, 134, 203	0
All	All	33026/35567 (92%)	0.08	1381 (4%) 36 18	20, 55, 110, 229	0

All (1381) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
18	CR	179	GLN	16.5
18	CR	161	ALA	16.0
18	CR	162	GLU	15.0
18	CR	160	ALA	13.1
47	A	1694	A	12.4
18	CR	178	ALA	10.9
18	CR	176	ILE	10.8
60	c2	63	VAL	10.6
47	A	1702	A	10.6
18	CR	180	LYS	10.4
47	A	1699	G	9.5
18	CR	158	ALA	9.3
55	s7	2	SER	8.9
47	A	1700	C	8.9
25	7	76	VAL	8.8
45	i	85	SER	8.8
60	c2	105	LYS	8.5
47	A	658	C	8.4
47	A	1698	G	8.4
47	A	238	U	8.3
1	AR	1569	U	8.3
47	A	656	G	8.2

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Mol	Chain	Res	Type	RSRZ
81	sR	658	C	8.2
18	CR	159	LYS	8.2
57	K	181	ALA	7.9
47	A	1709	C	7.8
79	g	87	THR	7.8
81	sR	239	C	7.7
60	c2	20	ALA	7.6
47	A	1696	G	7.5
20	CT	182	ASP	7.4
18	CR	181	ARG	7.3
47	A	1692	G	7.1
38	DL	88	ALA	7.1
49	C	20	VAL	7.1
63	c5	135	THR	7.0
47	A	1693	A	7.0
60	N	62	LEU	7.0
59	M	146	ALA	7.0
45	i	87	THR	6.9
1	1	1569	U	6.9
60	c2	56	GLU	6.8
25	7	75	THR	6.8
18	CR	157	VAL	6.7
60	c2	113	ARG	6.7
18	CR	170	SER	6.7
81	sR	678	A	6.7
18	CR	184	ALA	6.7
47	A	1701	A	6.7
10	CJ	121	SER	6.6
81	sR	1710	U	6.6
45	i	84	LYS	6.6
1	1	1568	U	6.5
47	A	913	G	6.5
25	CY	69	LYS	6.5
47	A	1708	U	6.5
1	AR	2445	A	6.4
53	G	152	GLY	6.4
18	CR	165	VAL	6.4
18	CR	175	ARG	6.4
18	CR	163	LYS	6.3
1	AR	2539	C	6.3
25	7	78	ALA	6.3
68	V	120	SER	6.2

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Mol	Chain	Res	Type	RSRZ
25	7	69	LYS	6.2
18	x	161	ALA	6.2
81	sR	676	G	6.2
59	M	147	GLY	6.2
53	s5	151	GLY	6.2
7	CG	297	GLN	6.1
79	g	85	TYR	6.1
47	A	1703	C	6.0
49	C	55	LYS	6.0
59	M	152	GLN	6.0
60	c2	23	THR	5.9
18	CR	168	LEU	5.9
1	AR	1025	A	5.9
25	7	88	ASP	5.9
60	c2	64	SER	5.9
60	c2	28	LEU	5.9
45	i	16	ASP	5.9
18	CR	177	ALA	5.9
60	c2	112	ALA	5.9
81	sR	718	U	5.8
60	c2	30	VAL	5.8
60	c2	114	LYS	5.8
60	c2	123	VAL	5.8
47	A	1697	G	5.8
18	CR	167	ARG	5.7
64	c6	142	TYR	5.7
47	A	506	A	5.7
49	C	54	LEU	5.7
47	A	1704	U	5.7
81	sR	656	G	5.7
55	s7	3	ALA	5.6
81	sR	1707	A	5.6
47	A	657	U	5.6
1	1	1566	A	5.6
64	R	20	ALA	5.5
45	i	88	ARG	5.5
63	c5	134	THR	5.5
75	c	38	PRO	5.5
63	c5	50	THR	5.5
1	AR	1574	C	5.5
53	G	37	GLN	5.5
1	AR	1581	C	5.5

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Mol	Chain	Res	Type	RSRZ
18	CR	182	ILE	5.5
1	1	1567	U	5.4
77	d9	4	GLU	5.4
18	x	162	GLU	5.4
25	CY	66	GLU	5.4
18	CR	169	THR	5.4
1	1	1762	C	5.4
17	CQ	182	ASN	5.4
54	H	149	LYS	5.4
1	AR	1573	G	5.4
1	AR	1028	U	5.4
25	7	84	GLY	5.4
25	7	68	ALA	5.3
60	c2	92	ALA	5.3
1	1	1240	A	5.3
63	c5	4	ALA	5.3
1	1	2539	C	5.3
1	AR	1016	C	5.3
10	CJ	255	SER	5.3
47	A	135	A	5.3
18	CR	174	GLY	5.3
1	AR	2503	G	5.3
1	1	1269	U	5.3
10	CJ	254	ASP	5.3
1	AR	2535	A	5.3
1	AR	252	U	5.3
1	1	1952	G	5.3
47	A	1695	G	5.3
68	d0	121	ASN	5.2
1	1	1955	U	5.2
25	7	86	SER	5.2
63	Q	50	THR	5.2
81	sR	506	A	5.2
1	AR	1566	A	5.2
1	AR	1570	U	5.2
10	CJ	253	SER	5.2
1	1	1238	C	5.2
1	AR	2502	A	5.1
1	1	1570	U	5.1
47	A	718	U	5.1
49	C	25	THR	5.1
1	AR	1567	U	5.1

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Mol	Chain	Res	Type	RSRZ
1	AR	1579	C	5.0
47	A	1711	C	5.0
81	sR	1711	C	5.0
1	1	1237	G	5.0
1	1	1243	G	5.0
18	CR	164	LYS	5.0
47	A	239	C	4.9
25	7	85	ALA	4.9
80	h	283	LYS	4.9
1	AR	1351	U	4.9
48	B	28	ASN	4.8
51	E	44	THR	4.8
47	A	1705	C	4.8
57	K	180	LYS	4.8
60	c2	34	THR	4.8
25	7	81	PRO	4.8
59	M	2	SER	4.8
80	Rb	121	MET	4.8
60	N	112	ALA	4.8
1	AR	1562	C	4.8
23	CW	14	THR	4.7
1	1	1571	A	4.7
47	A	1690	G	4.7
23	5	27	VAL	4.7
60	c2	57	ALA	4.7
63	c5	133	ALA	4.7
59	c1	5	LEU	4.7
1	AR	1571	A	4.7
81	sR	1693	A	4.7
81	sR	1694	A	4.7
25	CY	67	VAL	4.7
57	K	184	SER	4.6
47	A	134	U	4.6
81	sR	194	U	4.6
1	1	1255	C	4.6
47	A	194	U	4.6
59	M	145	ALA	4.6
78	e0	62	VAL	4.6
81	sR	679	U	4.6
47	A	715	U	4.6
47	A	719	U	4.6
25	CY	68	ALA	4.6

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Mol	Chain	Res	Type	RSRZ
1	AR	1024	G	4.6
81	sR	1371	A	4.6
60	N	64	SER	4.5
67	U	5	SER	4.5
10	CJ	247	ASP	4.5
1	1	1763	U	4.5
57	s9	184	SER	4.5
76	d8	13	ILE	4.5
47	A	494	U	4.5
23	CW	52	ASN	4.5
1	1	2445	A	4.5
1	1	1239	C	4.5
38	DL	87	SER	4.5
47	A	714	G	4.5
45	i	19	VAL	4.4
60	c2	85	LYS	4.4
18	CR	172	GLN	4.4
76	d	26	THR	4.4
75	d7	38	PRO	4.4
47	A	1712	A	4.4
58	c0	74	GLU	4.4
47	A	912	U	4.4
1	AR	1563	C	4.4
18	CR	166	VAL	4.4
64	R	143	ARG	4.4
26	CZ	23	ALA	4.3
81	sR	493	U	4.3
39	DM	34	ALA	4.3
63	c5	5	VAL	4.3
68	V	93	LEU	4.3
81	sR	675	U	4.3
62	P	40	ALA	4.3
47	A	1707	A	4.3
53	G	161	ASP	4.3
18	x	184	ALA	4.3
47	A	729	G	4.3
76	d	44	VAL	4.3
1	1	1236	G	4.3
66	c8	14	ILE	4.3
57	K	138	LYS	4.2
64	R	92	TYR	4.2
20	CT	183	ALA	4.2

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Mol	Chain	Res	Type	RSRZ
33	DG	128	LEU	4.2
25	7	77	LYS	4.2
78	f	52	GLY	4.2
78	f	53	LYS	4.2
58	c0	79	TYR	4.2
76	d8	9	LEU	4.2
1	1	2205	U	4.2
51	s3	144	ALA	4.2
20	CT	189	ALA	4.2
1	1	1349	G	4.2
45	sM	84	LYS	4.2
65	S	126	ALA	4.2
54	s6	217	SER	4.2
47	A	723	G	4.2
81	sR	229	U	4.2
60	c2	21	GLU	4.2
1	1	1951	C	4.2
60	c2	93	ASP	4.2
59	M	155	LYS	4.2
78	e0	49	LEU	4.2
47	A	1687	U	4.1
49	C	95	ASN	4.1
20	z	187	GLU	4.1
60	c2	107	ASP	4.1
80	h	4	ASN	4.1
60	N	113	ARG	4.1
81	sR	677	G	4.1
12	CL	112	GLN	4.1
1	1	2207	A	4.1
81	sR	240	U	4.1
57	K	182	GLU	4.1
1	1	1263	A	4.1
49	C	26	ARG	4.1
1	AR	1572	U	4.1
64	R	141	SER	4.1
76	d	16	LEU	4.1
64	R	3	ALA	4.1
33	AF	128	LEU	4.1
78	f	61	SER	4.1
25	7	70	LYS	4.1
64	c6	143	ARG	4.1
53	G	25	LEU	4.1

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Mol	Chain	Res	Type	RSRZ
81	sR	494	U	4.1
1	1	1256	G	4.1
58	c0	98	ASN	4.1
49	C	94	LYS	4.0
45	i	89	ARG	4.0
1	AR	2538	U	4.0
11	CK	190	ASP	4.0
79	e1	146	SER	4.0
25	7	98	PRO	4.0
9	CI	26	VAL	4.0
81	sR	495	C	4.0
7	CG	296	GLN	4.0
66	T	22	VAL	4.0
39	DM	71	PRO	4.0
60	N	67	THR	4.0
46	p0	295	ALA	4.0
59	M	153	PHE	4.0
1	1	1764	U	3.9
60	N	111	ASN	3.9
81	sR	1228	G	3.9
47	A	734	A	3.9
68	d0	18	GLN	3.9
68	d0	100	VAL	3.9
20	z	185	LEU	3.9
60	N	106	ILE	3.9
1	1	547	G	3.9
47	A	730	G	3.9
47	A	706	A	3.9
79	e1	124	PRO	3.9
49	C	60	ALA	3.9
1	AR	1576	G	3.9
68	V	20	ILE	3.9
20	CT	174	ALA	3.9
68	V	96	PRO	3.9
49	s1	20	VAL	3.9
45	i	172	ALA	3.9
51	s3	145	ALA	3.9
60	c2	115	VAL	3.9
79	e1	113	LYS	3.9
25	7	95	SER	3.9
45	i	83	LYS	3.9
64	R	66	ARG	3.9

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Mol	Chain	Res	Type	RSRZ
54	H	217	SER	3.8
1	1	1815	U	3.8
58	c0	37	THR	3.8
37	DK	100	HIS	3.8
10	CJ	120	LYS	3.8
53	G	41	LYS	3.8
47	A	491	C	3.8
60	c2	47	GLU	3.8
25	7	87	LEU	3.8
60	c2	74	LEU	3.8
79	e1	102	VAL	3.8
80	Rb	120	SER	3.8
1	1	1581	C	3.8
47	A	1686	C	3.8
20	z	188	ASP	3.8
59	c1	3	THR	3.8
31	AD	105	ALA	3.8
47	A	725	U	3.8
73	a	87	GLY	3.8
1	1	1352	A	3.8
47	A	493	U	3.8
64	R	142	TYR	3.8
60	N	86	VAL	3.8
60	c2	143	GLN	3.8
27	9	127	GLU	3.8
63	c5	136	SER	3.8
46	p0	192	ASP	3.8
5	CE	387	LEU	3.8
60	N	52	LEU	3.8
68	V	19	ILE	3.7
79	g	88	PRO	3.7
10	CJ	249	ARG	3.7
47	A	707	A	3.7
80	h	52	GLN	3.7
68	V	121	ASN	3.7
77	d9	5	ASN	3.7
20	CT	186	LYS	3.7
81	sR	234	G	3.7
1	AR	2504	U	3.7
3	4	158	U	3.7
81	sR	484	C	3.7
81	sR	1491	U	3.7

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Mol	Chain	Res	Type	RSRZ
81	sR	738	G	3.7
56	J	145	ALA	3.7
74	b	47	ALA	3.7
37	AJ	99	ARG	3.7
45	sM	85	SER	3.7
63	Q	51	SER	3.7
32	DF	82	GLU	3.7
60	N	41	LEU	3.7
47	A	507	U	3.7
47	A	1710	U	3.7
76	d	17	GLY	3.7
25	7	73	ARG	3.7
18	CR	183	ALA	3.7
48	B	170	ILE	3.7
54	H	226	ILE	3.7
1	AR	1352	A	3.7
81	sR	1800	A	3.7
60	c2	59	LEU	3.7
68	d0	99	ILE	3.7
81	sR	487	G	3.7
60	c2	126	TRP	3.7
54	H	152	ASP	3.6
47	A	696	C	3.6
47	A	724	C	3.6
10	CJ	246	MET	3.6
20	CT	185	LEU	3.6
23	CW	9	GLN	3.6
47	A	697	C	3.6
65	S	85	VAL	3.6
81	sR	721	U	3.6
81	sR	655	G	3.6
60	N	88	LEU	3.6
67	U	35	ASP	3.6
78	e0	63	GLN	3.6
1	AR	1815	U	3.6
47	A	132	U	3.6
47	A	1691	A	3.6
60	c2	75	VAL	3.6
60	c2	125	ASN	3.6
81	sR	1702	A	3.6
37	DK	96	ALA	3.6
79	g	86	THR	3.6

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Mol	Chain	Res	Type	RSRZ
1	AR	1764	U	3.5
60	N	50	LYS	3.5
47	A	713	A	3.5
49	C	133	TYR	3.5
81	sR	1699	G	3.5
76	d8	32	PHE	3.5
81	sR	1712	A	3.5
60	c2	132	GLU	3.5
60	c2	96	GLN	3.5
25	7	89	LEU	3.5
1	AR	1031	C	3.5
59	c1	2	SER	3.5
1	1	1265	U	3.5
47	A	237	C	3.5
48	B	113	ARG	3.5
1	1	1095	U	3.5
47	A	1688	U	3.5
65	S	123	ASN	3.5
81	sR	653	C	3.5
55	s7	52	ALA	3.5
21	0	1	MET	3.5
1	1	3290	G	3.5
63	c5	7	ALA	3.5
80	h	261	LYS	3.5
10	CJ	252	ASN	3.5
1	1	1242	G	3.5
1	AR	1564	U	3.5
81	sR	1708	U	3.5
66	T	8	GLN	3.5
57	s9	186	GLU	3.5
73	d5	86	GLU	3.4
1	1	1576	G	3.4
1	AR	2505	U	3.4
10	p	121	SER	3.4
18	x	157	VAL	3.4
47	A	1059	U	3.4
47	A	1362	U	3.4
47	A	1370	U	3.4
60	c2	43	ARG	3.4
60	c2	44	GLY	3.4
49	s1	52	THR	3.4
1	AR	1350	A	3.4

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Mol	Chain	Res	Type	RSRZ
1	AR	1026	A	3.4
9	CI	27	ALA	3.4
60	N	91	VAL	3.4
68	d0	17	GLN	3.4
66	T	10	SER	3.4
80	h	146	GLY	3.4
1	1	1094	U	3.4
18	x	159	LYS	3.4
52	s4	261	LEU	3.4
1	1	1260	A	3.4
10	p	252	ASN	3.4
60	N	110	GLY	3.4
81	sR	654	C	3.4
60	c2	80	ASN	3.4
49	s1	227	ALA	3.4
25	7	82	ILE	3.4
81	sR	705	U	3.4
25	CY	65	GLU	3.4
58	c0	36	ASP	3.4
60	c2	131	ASP	3.4
73	a	88	ILE	3.4
79	g	83	LYS	3.4
68	d0	107	THR	3.4
55	I	74	GLN	3.4
10	CJ	251	LYS	3.4
62	P	41	ARG	3.4
76	d	7	VAL	3.3
12	CL	219	ALA	3.3
5	k	387	LEU	3.3
47	A	488	G	3.3
10	CJ	119	GLY	3.3
49	C	28	GLU	3.3
1	1	2095	G	3.3
59	M	4	GLU	3.3
47	A	1706	C	3.3
36	AI	120	ALA	3.3
58	c0	71	GLU	3.3
79	e1	145	HIS	3.3
81	sR	490	C	3.3
10	CJ	107	GLU	3.3
59	M	154	ALA	3.3
1	1	252	U	3.3

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Mol	Chain	Res	Type	RSRZ
25	CY	70	LYS	3.3
46	p0	87	VAL	3.3
23	CW	11	ILE	3.3
57	K	185	GLY	3.3
1	1	1241	U	3.3
81	sR	657	U	3.3
23	CW	13	LYS	3.3
5	CE	386	ASP	3.3
68	V	92	ASP	3.3
79	g	109	ASP	3.3
1	1	1950	U	3.3
1	AR	1349	G	3.3
47	A	280	U	3.3
60	N	85	LYS	3.3
76	d	21	SER	3.3
78	f	48	THR	3.3
60	N	20	ALA	3.3
7	m	127	GLY	3.2
53	G	36	ALA	3.2
60	N	63	VAL	3.2
79	e1	111	GLU	3.2
1	AR	1027	A	3.2
53	s5	155	ALA	3.2
60	N	28	LEU	3.2
60	c2	41	LEU	3.2
68	d0	93	LEU	3.2
81	sR	483	A	3.2
45	i	17	VAL	3.2
47	A	279	G	3.2
81	sR	729	G	3.2
36	DJ	120	ALA	3.2
1	1	1351	U	3.2
43	AP	106	PHE	3.2
1	AR	1021	G	3.2
55	s7	12	ALA	3.2
55	s7	93	LEU	3.2
25	7	67	VAL	3.2
65	S	125	SER	3.2
1	AR	1568	U	3.2
31	AD	97	ASP	3.2
51	E	213	GLU	3.2
81	sR	225	A	3.2

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Mol	Chain	Res	Type	RSRZ
1	AR	1762	C	3.2
80	h	165	ASP	3.2
80	Rb	213	SER	3.2
68	d0	103	ILE	3.2
47	A	505	A	3.2
72	Z	2	SER	3.2
73	d5	105	THR	3.2
80	Rb	51	ASP	3.2
33	AF	127	ALA	3.2
49	C	45	LYS	3.2
81	sR	232	U	3.2
1	AR	1029	G	3.2
60	c2	124	LYS	3.2
80	h	212	ALA	3.2
1	AR	3275	U	3.2
1	1	1234	G	3.2
1	1	2206	G	3.2
39	DM	32	ASN	3.2
55	I	34	LEU	3.2
73	d5	87	GLY	3.2
60	N	22	VAL	3.2
80	Rb	303	ALA	3.2
1	1	1761	C	3.2
47	A	495	C	3.2
14	t	130	GLY	3.2
45	sM	50	ASN	3.2
1	AR	1565	G	3.2
18	x	163	LYS	3.1
35	AH	110	GLU	3.1
45	i	86	ASN	3.1
68	d0	104	THR	3.1
1	AR	1954	G	3.1
18	CR	173	ARG	3.1
51	E	214	GLU	3.1
53	s5	152	GLY	3.1
60	c2	106	ILE	3.1
1	1	1259	A	3.1
1	AR	2540	A	3.1
68	V	97	VAL	3.1
81	sR	496	G	3.1
81	sR	719	U	3.1
60	c2	22	VAL	3.1

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Mol	Chain	Res	Type	RSRZ
20	z	182	ASP	3.1
79	e1	106	TYR	3.1
24	CX	3	GLY	3.1
46	p0	81	LYS	3.1
1	1	1350	A	3.1
81	sR	226	A	3.1
25	7	92	GLU	3.1
49	C	59	ASP	3.1
1	AR	1577	G	3.1
49	C	29	TRP	3.1
59	c1	145	ALA	3.1
13	CM	174	LYS	3.1
73	d5	37	GLN	3.1
1	AR	1023	C	3.1
47	A	678	A	3.1
55	s7	32	PRO	3.1
10	p	116	VAL	3.1
48	B	198	MET	3.1
79	e1	123	ASN	3.1
62	P	15	GLY	3.1
49	C	35	PRO	3.1
66	c8	17	LEU	3.1
9	CI	25	GLN	3.1
53	G	222	LYS	3.1
51	s3	152	PHE	3.1
62	P	14	PHE	3.1
10	CJ	118	GLU	3.1
23	CW	66	VAL	3.1
1	AR	1575	A	3.1
27	DA	120	GLN	3.0
68	V	99	ILE	3.0
45	sM	82	THR	3.0
1	AR	1952	G	3.0
22	2	121	ALA	3.0
1	AR	2572	C	3.0
23	CW	10	LYS	3.0
80	h	186	PHE	3.0
76	d	15	VAL	3.0
81	sR	1687	U	3.0
43	AP	104	LEU	3.0
30	AC	57	ALA	3.0
73	d5	85	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
1	AR	1561	G	3.0
68	V	22	ILE	3.0
1	AR	1239	C	3.0
60	c2	26	ASP	3.0
81	sR	1700	C	3.0
47	A	727	U	3.0
60	c2	104	GLY	3.0
79	e1	110	ALA	3.0
54	H	80	ASN	3.0
76	d	43	ASN	3.0
79	e1	134	ASN	3.0
47	A	492	A	3.0
1	AR	2506	U	3.0
10	CJ	250	ALA	3.0
47	A	232	U	3.0
52	F	259	GLN	3.0
59	M	150	ASN	3.0
68	d0	92	ASP	3.0
47	A	700	C	3.0
47	A	733	A	3.0
51	s3	128	GLU	3.0
80	h	314	GLN	3.0
65	S	71	PHE	3.0
80	Rb	214	ALA	3.0
1	AR	2097	U	3.0
60	c2	133	LEU	3.0
47	A	720	G	3.0
10	p	240	ASN	3.0
10	CJ	256	ALA	3.0
18	x	164	LYS	3.0
60	c2	40	GLY	3.0
47	A	709	C	3.0
81	sR	227	U	3.0
81	sR	238	U	3.0
60	c2	136	ILE	3.0
72	Z	98	GLU	3.0
73	a	36	ALA	3.0
58	c0	76	LEU	3.0
60	N	32	LEU	3.0
67	U	108	LEU	3.0
75	c	33	LEU	3.0
1	1	251	G	3.0

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Mol	Chain	Res	Type	RSRZ
1	1	1954	G	3.0
59	M	27	THR	3.0
57	s9	182	GLU	3.0
79	g	129	GLY	3.0
10	CJ	117	ALA	3.0
47	A	231	U	3.0
66	c8	18	LEU	3.0
1	1	2502	A	3.0
75	c	37	CYS	3.0
49	s1	53	GLY	2.9
60	c2	122	VAL	2.9
51	s3	151	LYS	2.9
1	1	1579	C	2.9
1	1	2096	A	2.9
60	N	108	ARG	2.9
45	i	18	VAL	2.9
47	A	234	G	2.9
72	d4	135	ASP	2.9
4	CD	252	THR	2.9
72	d4	134	ALA	2.9
54	H	196	ARG	2.9
15	u	9	ALA	2.9
1	AR	2536	A	2.9
60	c2	76	GLU	2.9
73	a	56	THR	2.9
20	CT	187	GLU	2.9
76	d8	31	GLU	2.9
1	1	3163	A	2.9
80	Rb	50	ASP	2.9
31	DE	93	LEU	2.9
47	A	721	U	2.9
49	C	130	SER	2.9
7	m	293	LEU	2.9
68	V	100	VAL	2.9
1	AR	1950	U	2.9
1	AR	2537	U	2.9
3	AT	158	U	2.9
7	CG	5	LYS	2.9
81	sR	75	U	2.9
47	A	726	C	2.9
75	c	41	LEU	2.9
54	H	155	ASP	2.9

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Mol	Chain	Res	Type	RSRZ
10	CJ	106	LYS	2.9
66	T	19	ASN	2.9
47	A	74	U	2.9
68	d0	19	ILE	2.9
32	AE	82	GLU	2.9
24	CX	2	SER	2.8
1	AR	1238	C	2.8
32	AE	79	ARG	2.8
45	i	22	PRO	2.8
47	A	486	G	2.8
76	d8	56	LEU	2.8
51	E	190	ARG	2.8
75	d7	59	CYS	2.8
46	p0	69	ASP	2.8
54	s6	162	VAL	2.8
64	R	26	LYS	2.8
81	sR	1696	G	2.8
45	i	173	THR	2.8
51	E	208	ILE	2.8
21	CU	1	MET	2.8
54	s6	169	TYR	2.8
60	N	94	ALA	2.8
77	e	4	GLU	2.8
1	1	1573	G	2.8
47	A	1713	G	2.8
55	I	87	ASP	2.8
1	AR	3154	C	2.8
47	A	490	C	2.8
66	c8	59	GLY	2.8
80	Rb	3	SER	2.8
31	DE	100	ILE	2.8
58	c0	73	VAL	2.8
60	N	49	THR	2.8
64	c6	19	VAL	2.8
1	1	3291	G	2.8
46	p0	284	ALA	2.8
63	Q	131	ALA	2.8
49	s1	54	LEU	2.8
41	DO	77	ILE	2.8
1	1	2208	A	2.8
1	AR	1022	U	2.8
32	AE	6	ASP	2.8

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Mol	Chain	Res	Type	RSRZ
9	o	25	GLN	2.8
12	r	200	LEU	2.8
81	sR	228	G	2.8
25	7	72	SER	2.8
75	c	58	SER	2.8
80	h	115	ILE	2.8
24	6	4	ASN	2.8
69	d1	42	GLU	2.8
45	sM	49	LYS	2.8
79	e1	143	LYS	2.8
48	B	24	LEU	2.8
73	a	69	LEU	2.8
81	sR	1059	U	2.8
66	c8	5	VAL	2.8
57	K	87	SER	2.8
66	T	2	SER	2.8
35	AH	109	THR	2.8
46	p0	296	ALA	2.8
74	b	62	TYR	2.8
1	1	2540	A	2.8
1	AR	249	U	2.8
47	A	261	U	2.8
80	Rb	186	PHE	2.8
74	b	8	ASN	2.8
11	q	178	GLY	2.8
53	G	151	GLY	2.8
65	S	53	TYR	2.8
80	h	284	ALA	2.8
79	g	93	HIS	2.8
60	c2	142	GLN	2.8
80	Rb	309	VAL	2.8
25	7	90	ILE	2.8
51	s3	221	SER	2.8
18	x	160	ALA	2.8
57	K	183	ALA	2.8
57	s9	183	ALA	2.8
58	c0	64	TYR	2.8
60	c2	61	VAL	2.8
66	c8	22	VAL	2.8
1	AR	1560	G	2.7
23	5	89	LEU	2.7
10	CJ	245	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
53	G	54	LYS	2.7
54	H	148	SER	2.7
81	sR	1701	A	2.7
79	g	124	PRO	2.7
46	p0	292	GLU	2.7
80	h	211	ILE	2.7
49	C	56	SER	2.7
81	sR	1698	G	2.7
10	CJ	123	GLN	2.7
54	s6	218	GLU	2.7
66	c8	6	GLN	2.7
75	c	39	GLY	2.7
62	P	16	VAL	2.7
67	U	71	VAL	2.7
39	AL	5	ILE	2.7
53	s5	37	GLN	2.7
81	sR	652	G	2.7
1	1	1252	A	2.7
39	DM	54	LEU	2.7
81	sR	1227	A	2.7
58	c0	70	GLU	2.7
81	sR	489	C	2.7
1	AR	1763	U	2.7
64	R	21	HIS	2.7
1	1	1565	G	2.7
59	M	151	LYS	2.7
1	AR	2541	U	2.7
76	d8	8	THR	2.7
20	CT	178	ALA	2.7
60	c2	42	ALA	2.7
1	1	1245	A	2.7
1	1	3286	G	2.7
11	CK	191	LEU	2.7
48	B	196	SER	2.7
59	M	26	LYS	2.7
56	s8	121	LEU	2.7
57	K	2	PRO	2.7
58	c0	10	LYS	2.7
1	1	1572	U	2.7
1	1	1577	G	2.7
1	1	3155	U	2.7
66	c8	21	ASN	2.7

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Mol	Chain	Res	Type	RSRZ
81	sR	1690	G	2.7
1	1	439	C	2.7
1	AR	2507	C	2.7
18	x	158	ALA	2.7
39	AL	34	ALA	2.7
25	7	74	LYS	2.7
62	P	27	PHE	2.7
23	CW	54	VAL	2.7
46	p0	101	VAL	2.7
47	A	1689	A	2.7
53	G	24	VAL	2.7
56	s8	117	TYR	2.7
11	q	191	LEU	2.7
54	H	154	ARG	2.7
52	s4	183	VAL	2.7
57	s9	185	GLY	2.7
63	Q	104	GLN	2.7
68	d0	98	GLN	2.7
80	Rb	177	MET	2.7
51	E	221	SER	2.7
53	G	181	GLU	2.7
66	T	5	VAL	2.7
68	V	48	HIS	2.7
75	d7	57	GLU	2.7
46	p0	291	ALA	2.7
55	I	21	ALA	2.7
39	DM	7	ASP	2.7
59	M	148	LYS	2.7
47	A	717	C	2.7
47	A	914	G	2.7
20	z	186	LYS	2.6
50	s2	118	ALA	2.7
80	h	252	LEU	2.6
66	c8	20	THR	2.6
68	V	51	VAL	2.6
1	1	1016	C	2.6
1	AR	1951	C	2.6
60	c2	27	ALA	2.6
79	g	145	HIS	2.6
62	P	79	VAL	2.6
68	V	54	GLY	2.6
39	DM	33	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
63	c5	10	ARG	2.6
30	DD	57	ALA	2.6
66	T	17	LEU	2.6
66	c8	15	LEU	2.6
1	AR	546	C	2.6
1	AR	2444	C	2.6
59	M	3	THR	2.6
65	c7	87	GLU	2.6
53	G	26	ALA	2.6
76	d8	53	ILE	2.6
80	Rb	252	LEU	2.6
1	1	440	A	2.6
63	c5	128	HIS	2.6
1	1	1574	C	2.6
60	N	21	GLU	2.6
60	N	84	ASN	2.6
76	d8	35	ASP	2.6
73	d5	104	ALA	2.6
64	c6	141	SER	2.6
54	H	180	THR	2.6
68	d0	95	ALA	2.6
76	d8	10	ALA	2.6
1	AR	246	U	2.6
47	A	240	U	2.6
47	A	235	G	2.6
58	c0	48	SER	2.6
68	d0	14	GLN	2.6
31	DE	22	LYS	2.6
73	d5	52	LYS	2.6
80	Rb	163	ASP	2.6
81	sR	491	C	2.6
60	c2	77	GLY	2.6
72	d4	18	LEU	2.6
1	AR	2095	G	2.6
45	sM	68	ARG	2.6
81	sR	1692	G	2.6
68	d0	49	ASN	2.6
74	b	69	ASN	2.6
63	Q	49	MET	2.6
45	i	175	VAL	2.6
65	S	72	LYS	2.6
74	d6	98	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
1	AR	544	C	2.6
54	H	147	LEU	2.6
23	CW	53	ALA	2.6
23	CW	106	ALA	2.6
80	Rb	253	ALA	2.6
11	CK	189	GLU	2.6
1	1	2569	A	2.6
81	sR	651	G	2.6
1	1	2501	U	2.6
1	AR	3166	C	2.6
80	h	79	TYR	2.6
55	I	97	ARG	2.6
80	h	182	ASN	2.6
39	DM	72	THR	2.6
49	C	50	LYS	2.5
1	1	1251	A	2.5
1	AR	1580	A	2.5
1	1	1262	G	2.5
1	1	1268	G	2.5
47	A	183	U	2.5
30	DD	58	LYS	2.5
1	AR	3157	U	2.5
49	C	207	LEU	2.5
60	c2	29	LYS	2.5
81	sR	1709	C	2.5
1	1	1261	G	2.5
53	s5	150	GLY	2.5
65	S	70	SER	2.5
58	c0	67	THR	2.5
76	d8	26	THR	2.5
78	e0	48	THR	2.5
26	CZ	142	ILE	2.5
1	AR	3155	U	2.5
81	sR	74	U	2.5
26	8	23	ALA	2.5
62	P	42	VAL	2.5
73	a	82	HIS	2.5
1	1	1277	C	2.5
51	s3	176	LEU	2.5
73	d5	89	ILE	2.5
47	A	711	U	2.5
64	c6	3	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
39	DM	69	LEU	2.5
68	V	98	GLN	2.5
80	Rb	168	THR	2.5
1	AR	2440	G	2.5
31	DE	105	ALA	2.5
1	1	250	U	2.5
1	1	2538	U	2.5
1	AR	2501	U	2.5
1	AR	3156	U	2.5
65	c7	104	ASN	2.5
63	Q	28	MET	2.5
73	d5	50	ILE	2.5
23	5	10	LYS	2.5
60	c2	121	VAL	2.5
52	F	180	LEU	2.5
1	1	545	U	2.5
1	1	1353	U	2.5
10	p	117	ALA	2.5
53	G	150	GLY	2.5
68	d0	97	VAL	2.5
60	c2	38	HIS	2.5
76	d	5	THR	2.5
20	z	177	VAL	2.5
49	C	150	VAL	2.5
58	c0	66	TYR	2.5
66	T	32	LEU	2.5
39	DM	74	LYS	2.5
47	A	653	C	2.5
81	sR	731	C	2.5
60	c2	25	GLU	2.5
80	Rb	102	ARG	2.5
1	1	2522	G	2.5
47	A	722	G	2.5
50	s2	91	ARG	2.5
33	AF	2	ALA	2.4
45	i	81	THR	2.4
31	AD	100	ILE	2.4
66	c8	10	SER	2.4
1	AR	3276	G	2.4
47	A	136	C	2.4
47	A	716	C	2.4
66	c8	146	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
1	1	979	U	2.4
47	A	504	U	2.4
76	d	67	ARG	2.4
66	T	18	LEU	2.4
78	e0	47	VAL	2.4
45	i	15	ALA	2.4
1	1	3285	C	2.4
76	d8	43	ASN	2.4
1	AR	547	G	2.4
31	AD	94	GLU	2.4
81	sR	230	C	2.4
81	sR	674	C	2.4
48	B	42	PRO	2.4
11	q	52	LEU	2.4
52	F	260	GLY	2.4
12	CL	220	GLN	2.4
14	CN	93	ILE	2.4
68	V	21	LYS	2.4
66	T	6	GLN	2.4
1	AR	1032	C	2.4
54	H	153	VAL	2.4
9	o	28	ALA	2.4
10	p	253	SER	2.4
49	C	154	SER	2.4
58	c0	54	TYR	2.4
80	h	189	GLU	2.4
23	5	9	GLN	2.4
10	p	246	MET	2.4
45	sM	52	PRO	2.4
47	A	133	U	2.4
57	K	186	GLU	2.4
60	N	71	ILE	2.4
45	i	20	LEU	2.4
72	d4	106	GLN	2.4
72	Z	101	GLU	2.4
80	Rb	165	ASP	2.4
1	1	1275	C	2.4
1	1	1562	C	2.4
8	CH	130	ILE	2.4
60	c2	65	SER	2.4
80	h	213	SER	2.4
1	1	1270	A	2.4

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Mol	Chain	Res	Type	RSRZ
1	1	1271	A	2.4
30	AC	54	LEU	2.4
54	s6	216	LEU	2.4
55	s7	38	LEU	2.4
81	sR	673	A	2.4
65	S	75	GLU	2.4
39	DM	68	SER	2.4
60	N	141	SER	2.4
67	U	6	VAL	2.4
72	Z	100	VAL	2.4
4	CD	247	ARG	2.4
24	CX	4	ASN	2.4
47	A	485	A	2.4
81	sR	198	A	2.4
81	sR	1256	A	2.4
56	s8	67	TRP	2.4
81	sR	1695	G	2.4
1	AR	3354	U	2.4
26	CZ	24	LEU	2.4
20	CT	173	ARG	2.4
47	A	708	C	2.4
50	s2	90	THR	2.4
72	Z	34	ASN	2.4
1	1	249	U	2.4
1	1	1953	G	2.4
3	AT	81	U	2.4
37	AJ	98	ARG	2.4
46	p0	102	SER	2.4
81	sR	241	U	2.4
20	z	131	ALA	2.4
40	AM	2	ALA	2.4
51	E	223	LYS	2.4
73	a	89	ILE	2.4
33	DG	126	LEU	2.4
79	e1	125	THR	2.4
58	c0	3	MET	2.3
32	DF	76	SER	2.3
81	sR	320	U	2.3
55	I	32	PRO	2.3
46	p0	103	ASN	2.3
52	F	105	VAL	2.3
66	c8	144	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
73	d5	44	GLN	2.3
37	DK	58	ILE	2.3
30	AC	59	LYS	2.3
47	A	677	G	2.3
20	CT	175	GLN	2.3
68	d0	115	GLU	2.3
1	1	1244	A	2.3
23	5	11	ILE	2.3
80	h	131	ILE	2.3
1	1	1253	U	2.3
1	AR	3352	U	2.3
76	d	45	LYS	2.3
76	d8	55	VAL	2.3
81	sR	822	U	2.3
49	C	100	PHE	2.3
68	V	104	THR	2.3
80	h	25	THR	2.3
60	N	26	ASP	2.3
1	1	1228	C	2.3
47	A	131	C	2.3
47	A	230	C	2.3
49	C	47	LEU	2.3
51	E	218	LEU	2.3
54	H	213	ALA	2.3
80	Rb	83	ALA	2.3
76	d8	37	SER	2.3
79	g	146	SER	2.3
47	A	1060	U	2.3
81	sR	541	A	2.3
56	s8	200	LYS	2.3
60	c2	79	ALA	2.3
7	CG	135	VAL	2.3
81	sR	1703	C	2.3
1	1	3289	G	2.3
56	J	143	TRP	2.3
60	c2	84	ASN	2.3
41	AN	77	ILE	2.3
66	T	146	ALA	2.3
68	V	103	ILE	2.3
80	Rb	138	GLY	2.3
1	AR	1582	C	2.3
59	c1	4	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
1	1	1267	U	2.3
1	1	3351	U	2.3
3	4	81	U	2.3
7	m	297	GLN	2.3
47	A	241	U	2.3
45	i	14	ASP	2.3
51	E	88	ALA	2.3
39	DM	73	LEU	2.3
73	a	38	HIS	2.3
64	R	62	ASN	2.3
76	d	41	VAL	2.3
1	1	1026	A	2.3
81	sR	712	G	2.3
63	c5	51	SER	2.3
51	s3	217	ILE	2.3
72	Z	60	PHE	2.3
1	1	546	C	2.3
1	1	1765	U	2.3
1	AR	1955	U	2.3
41	AN	128	LYS	2.3
47	A	682	C	2.3
61	O	151	ASN	2.3
31	AD	104	LEU	2.3
81	sR	217	A	2.3
48	B	41	ARG	2.3
49	C	21	VAL	2.3
57	s9	181	ALA	2.3
80	Rb	104	VAL	2.3
80	Rb	279	ALA	2.3
79	e1	112	GLY	2.3
73	a	48	ASP	2.3
46	p0	67	LEU	2.3
65	S	86	PRO	2.3
14	CN	190	LYS	2.3
51	E	217	ILE	2.3
37	AJ	100	HIS	2.3
50	s2	92	ALA	2.3
60	c2	86	VAL	2.3
79	e1	121	CYS	2.2
80	h	231	MET	2.2
1	1	1272	C	2.2
1	AR	543	C	2.2

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Mol	Chain	Res	Type	RSRZ
48	B	11	PRO	2.2
60	N	89	ILE	2.2
81	sR	237	C	2.2
49	s1	232	HIS	2.2
1	1	1278	A	2.2
81	sR	1689	A	2.2
1	1	3287	U	2.2
54	H	41	VAL	2.2
71	Y	130	VAL	2.2
53	s5	156	ARG	2.2
73	a	61	SER	2.2
80	Rb	134	TRP	2.2
1	AR	2443	A	2.2
74	b	98	PRO	2.2
30	AC	55	ALA	2.2
67	U	141	GLU	2.2
73	a	44	GLN	2.2
64	R	57	LEU	2.2
49	s1	24	PHE	2.2
37	DK	68	ARG	2.2
49	s1	89	ASP	2.2
47	A	1577	A	2.2
56	J	141	ARG	2.2
52	s4	258	GLN	2.2
79	g	106	TYR	2.2
47	A	820	U	2.2
47	A	489	C	2.2
78	f	54	ARG	2.2
45	sM	83	LYS	2.2
25	CY	64	THR	2.2
50	D	47	ALA	2.2
12	CL	217	PHE	2.2
60	c2	135	MET	2.2
1	AR	1761	C	2.2
55	I	146	GLY	2.2
20	z	148	ASP	2.2
73	a	101	TYR	2.2
76	d	8	THR	2.2
80	Rb	185	GLN	2.2
12	r	217	PHE	2.2
51	s3	148	LYS	2.2
49	C	23	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
35	AH	113	LYS	2.2
47	A	712	G	2.2
56	J	21	PHE	2.2
60	c2	116	VAL	2.2
15	CO	9	ALA	2.2
68	V	45	ALA	2.2
81	sR	492	A	2.2
55	I	38	LEU	2.2
60	c2	58	LEU	2.2
14	CN	133	PRO	2.2
78	f	60	PRO	2.2
54	H	169	TYR	2.2
4	CD	253	GLN	2.2
39	DM	37	PRO	2.2
53	s5	35	GLN	2.2
49	C	132	ASP	2.2
13	CM	157	GLU	2.2
79	g	90	LYS	2.2
1	1	2503	G	2.2
76	d8	27	GLN	2.2
81	sR	722	G	2.2
32	AE	83	GLU	2.2
60	N	58	LEU	2.1
1	AR	3350	C	2.1
81	sR	710	U	2.1
14	t	192	GLU	2.1
60	c2	24	ILE	2.1
76	d	35	ASP	2.1
78	f	50	VAL	2.1
80	Rb	316	MET	2.1
6	CF	13	GLY	2.1
55	I	145	GLY	2.1
1	1	1025	A	2.1
25	7	64	THR	2.1
68	V	107	THR	2.1
59	M	156	PHE	2.1
7	CG	4	GLN	2.1
20	CT	157	GLU	2.1
25	7	93	ARG	2.1
76	d8	65	ARG	2.1
79	e1	122	SER	2.1
1	1	1258	U	2.1

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Mol	Chain	Res	Type	RSRZ
48	B	97	PRO	2.1
57	K	5	PRO	2.1
71	Y	45	GLY	2.1
10	CJ	211	LEU	2.1
60	N	80	ASN	2.1
79	e1	128	ALA	2.1
80	h	232	TYR	2.1
1	AR	2442	G	2.1
29	DC	97	GLU	2.1
49	C	41	ARG	2.1
81	sR	1713	G	2.1
55	I	80	GLU	2.1
60	N	25	GLU	2.1
1	1	1248	C	2.1
1	1	1283	C	2.1
47	A	191	C	2.1
49	C	96	LEU	2.1
73	d5	51	LEU	2.1
49	C	230	ALA	2.1
1	1	1580	A	2.1
1	AR	251	G	2.1
55	s7	54	GLY	2.1
60	c2	62	LEU	2.1
68	d0	120	SER	2.1
17	CQ	183	ALA	2.1
47	A	278	U	2.1
56	s8	141	ARG	2.1
26	CZ	37	THR	2.1
60	N	66	VAL	2.1
1	AR	1103	A	2.1
31	DE	23	TYR	2.1
39	DM	11	PHE	2.1
1	AR	2573	G	2.1
81	sR	739	G	2.1
11	q	10	ILE	2.1
14	CN	129	ASN	2.1
47	A	500	C	2.1
49	C	229	MET	2.1
52	F	261	LEU	2.1
7	CG	185	PHE	2.1
45	i	21	PRO	2.1
68	d0	96	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
46	p0	294	ALA	2.1
1	AR	250	U	2.1
39	DM	8	ILE	2.1
47	A	1371	A	2.1
55	I	20	VAL	2.1
64	R	29	ILE	2.1
81	sR	501	U	2.1
81	sR	579	A	2.1
81	sR	711	U	2.1
81	sR	794	U	2.1
1	1	1257	C	2.1
81	sR	1399	C	2.1
9	o	23	ALA	2.1
38	AK	87	SER	2.1
57	K	178	ALA	2.1
64	R	140	LYS	2.1
49	C	93	GLY	2.1
1	1	1575	A	2.1
50	s2	87	GLN	2.1
26	CZ	22	LYS	2.1
51	E	200	LYS	2.1
49	C	31	ASP	2.1
76	d	29	ARG	2.1
61	O	59	GLY	2.1
1	1	1564	U	2.1
76	d8	5	THR	2.1
81	sR	1058	U	2.1
1	AR	1816	A	2.1
60	N	138	GLU	2.1
73	a	58	ARG	2.1
74	b	55	GLU	2.1
1	1	2772	C	2.1
65	S	38	ILE	2.1
1	AR	1250	G	2.1
10	p	254	ASP	2.1
69	W	40	ASP	2.1
75	d7	76	GLY	2.1
68	V	15	GLN	2.1
68	V	105	GLN	2.1
1	1	2097	U	2.1
1	1	2209	U	2.1
47	A	137	U	2.1

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Mol	Chain	Res	Type	RSRZ
53	G	31	GLU	2.1
49	C	225	VAL	2.1
72	Z	107	GLN	2.0
37	AJ	66	GLU	2.0
7	CG	287	ALA	2.0
46	p0	27	VAL	2.0
47	A	499	U	2.0
58	c0	92	THR	2.0
39	DM	35	GLY	2.0
39	DM	36	LYS	2.0
66	c8	7	GLU	2.0
46	p0	59	VAL	2.0
66	c8	102	ALA	2.0
74	b	48	ALA	2.0
54	s6	175	ILE	2.0
66	T	61	LEU	2.0
1	1	3156	U	2.0
1	AR	1353	U	2.0
63	Q	52	LYS	2.0
80	Rb	46	LYS	2.0
81	sR	727	U	2.0
52	F	255	ARG	2.0
48	B	206	ASP	2.0
14	CN	132	ALA	2.0
60	N	92	ALA	2.0
60	c2	78	LEU	2.0
52	s4	218	PHE	2.0
78	f	42	ARG	2.0
1	1	3288	G	2.0
1	AR	1020	G	2.0
17	CQ	187	GLU	2.0
74	b	54	SER	2.0
26	CZ	40	LEU	2.0
33	DG	127	ALA	2.0
36	DJ	119	LYS	2.0
49	C	156	ALA	2.0
63	Q	54	ALA	2.0
75	d7	80	ARG	2.0
53	G	21	THR	2.0
72	d4	99	LYS	2.0
56	J	8	ARG	2.0
80	Rb	166	SER	2.0

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Mol	Chain	Res	Type	RSRZ
47	A	824	G	2.0
48	B	44	GLY	2.0
49	C	53	GLY	2.0
56	s8	118	GLY	2.0
66	T	28	ILE	2.0
79	e1	127	GLY	2.0
66	c8	11	PHE	2.0
46	p0	293	GLU	2.0
1	1	3154	C	2.0
10	p	120	LYS	2.0
49	C	128	LYS	2.0
63	Q	14	THR	2.0
72	Z	106	GLN	2.0
68	d0	51	VAL	2.0
76	d	66	LEU	2.0

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

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates [i](#)

There are no carbohydrates 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(\AA^2)	Q<0.9
83	MG	sR	2188	1/1	0.13	0.68	120,120,120,120	0
83	MG	AR	4112	1/1	0.26	0.46	73,73,73,73	0
83	MG	A	2012	1/1	0.35	0.99	83,83,83,83	0
83	MG	A	2001	1/1	0.45	0.71	71,71,71,71	0
83	MG	1	4111	1/1	0.46	0.32	58,58,58,58	0
83	MG	3	211	1/1	0.48	0.49	39,39,39,39	0
83	MG	AR	3953	1/1	0.51	0.65	38,38,38,38	0
83	MG	1	4146	1/1	0.54	0.39	174,174,174,174	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AM	101	1/1	0.55	0.29	49,49,49,49	0
83	MG	AR	4046	1/1	0.56	0.30	43,43,43,43	0
83	MG	A	2018	1/1	0.56	1.03	80,80,80,80	0
83	MG	sR	2131	1/1	0.56	0.31	73,73,73,73	0
83	MG	AR	4223	1/1	0.57	0.41	29,29,29,29	0
83	MG	1	4047	1/1	0.57	0.35	46,46,46,46	0
83	MG	A	2062	1/1	0.59	1.26	82,82,82,82	0
83	MG	t	202	1/1	0.59	0.30	76,76,76,76	0
83	MG	sR	2137	1/1	0.60	0.44	66,66,66,66	0
83	MG	1	4094	1/1	0.62	0.28	104,104,104,104	0
83	MG	1	3931	1/1	0.62	1.04	68,68,68,68	0
83	MG	1	4158	1/1	0.62	0.57	91,91,91,91	0
83	MG	A	2010	1/1	0.62	0.73	102,102,102,102	0
83	MG	1	3728	1/1	0.63	0.47	57,57,57,57	0
83	MG	c6	201	1/1	0.63	0.45	76,76,76,76	0
83	MG	1	4080	1/1	0.64	0.37	38,38,38,38	0
83	MG	DA	201	1/1	0.64	0.44	52,52,52,52	0
83	MG	A	1962	1/1	0.65	0.44	58,58,58,58	0
83	MG	A	2005	1/1	0.65	0.45	65,65,65,65	0
83	MG	AT	230	1/1	0.65	0.72	61,61,61,61	0
83	MG	6	202	1/1	0.65	0.29	58,58,58,58	0
83	MG	AR	3895	1/1	0.66	0.41	39,39,39,39	0
83	MG	A	2021	1/1	0.66	0.62	86,86,86,86	0
83	MG	DN	101	1/1	0.66	0.29	49,49,49,49	0
83	MG	A	1946	1/1	0.66	0.61	70,70,70,70	0
83	MG	1	3992	1/1	0.67	0.53	41,41,41,41	0
83	MG	w	202	1/1	0.67	0.25	40,40,40,40	0
83	MG	A	2057	1/1	0.67	0.28	109,109,109,109	0
83	MG	AR	3830	1/1	0.67	0.42	48,48,48,48	0
83	MG	sR	2164	1/1	0.67	0.41	43,43,43,43	0
83	MG	AR	3865	1/1	0.68	0.34	43,43,43,43	0
83	MG	sR	2180	1/1	0.68	0.61	59,59,59,59	0
83	MG	A	2009	1/1	0.68	0.21	79,79,79,79	0
83	MG	1	4142	1/1	0.68	0.38	55,55,55,55	0
83	MG	AR	3823	1/1	0.68	0.32	38,38,38,38	0
83	MG	A	2058	1/1	0.68	0.67	76,76,76,76	0
83	MG	AR	4014	1/1	0.69	0.33	27,27,27,27	0
83	MG	AR	3934	1/1	0.69	0.44	33,33,33,33	0
83	MG	s8	302	1/1	0.69	0.34	45,45,45,45	0
83	MG	AR	4006	1/1	0.70	0.12	76,76,76,76	0
83	MG	1	4133	1/1	0.70	0.32	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	3804	1/1	0.70	0.38	88,88,88,88	0
83	MG	AS	225	1/1	0.70	0.32	45,45,45,45	0
83	MG	A	1986	1/1	0.71	0.35	58,58,58,58	0
83	MG	AR	3752	1/1	0.71	0.55	50,50,50,50	0
83	MG	AT	228	1/1	0.71	0.49	46,46,46,46	0
83	MG	A	1954	1/1	0.71	0.50	62,62,62,62	0
83	MG	AR	4142	1/1	0.71	0.37	36,36,36,36	0
83	MG	sR	2157	1/1	0.71	0.80	42,42,42,42	0
83	MG	sR	2138	1/1	0.71	0.33	45,45,45,45	0
83	MG	CK	202	1/1	0.71	0.23	36,36,36,36	0
83	MG	AR	4222	1/1	0.71	0.50	30,30,30,30	0
83	MG	1	4077	1/1	0.71	0.34	42,42,42,42	0
83	MG	1	4029	1/1	0.71	0.92	59,59,59,59	0
83	MG	1	4204	1/1	0.72	0.38	54,54,54,54	0
83	MG	AR	4016	1/1	0.72	0.42	51,51,51,51	0
83	MG	1	3960	1/1	0.72	0.31	38,38,38,38	0
83	MG	AR	4235	1/1	0.72	0.71	38,38,38,38	0
83	MG	AR	4189	1/1	0.72	0.24	53,53,53,53	0
83	MG	A	2025	1/1	0.72	0.93	75,75,75,75	0
83	MG	1	4161	1/1	0.72	0.29	45,45,45,45	0
83	MG	3	217	1/1	0.72	0.56	53,53,53,53	0
83	MG	AR	3988	1/1	0.72	0.36	37,37,37,37	0
83	MG	1	4036	1/1	0.72	0.32	43,43,43,43	0
83	MG	AR	3994	1/1	0.73	0.40	48,48,48,48	0
83	MG	AR	4148	1/1	0.73	0.26	54,54,54,54	0
83	MG	DR	502	1/1	0.73	0.32	56,56,56,56	0
83	MG	AG	202	1/1	0.73	0.22	48,48,48,48	0
83	MG	1	3828	1/1	0.73	0.62	39,39,39,39	0
83	MG	1	4044	1/1	0.74	0.21	62,62,62,62	0
83	MG	CU	201	1/1	0.74	0.38	31,31,31,31	0
83	MG	AR	4260	1/1	0.74	0.42	33,33,33,33	0
83	MG	A	1969	1/1	0.74	0.58	51,51,51,51	0
83	MG	AR	4062	1/1	0.74	0.42	55,55,55,55	0
83	MG	AR	4182	1/1	0.74	0.24	41,41,41,41	0
83	MG	1	3849	1/1	0.74	0.24	26,26,26,26	0
83	MG	1	3859	1/1	0.74	0.35	35,35,35,35	0
83	MG	A	1988	1/1	0.74	0.69	77,77,77,77	0
83	MG	AR	3961	1/1	0.74	0.48	51,51,51,51	0
83	MG	AR	3742	1/1	0.74	0.20	34,34,34,34	0
83	MG	AR	3969	1/1	0.74	0.52	50,50,50,50	0
83	MG	1	4143	1/1	0.74	0.56	23,23,23,23	0
83	MG	1	4171	1/1	0.75	0.32	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	4088	1/1	0.75	0.20	39,39,39,39	0
83	MG	A	2068	1/1	0.75	0.49	67,67,67,67	0
83	MG	1	4062	1/1	0.75	0.20	71,71,71,71	0
83	MG	AR	3807	1/1	0.75	0.14	95,95,95,95	0
83	MG	1	4084	1/1	0.75	0.23	33,33,33,33	0
83	MG	AR	3816	1/1	0.75	0.26	47,47,47,47	0
83	MG	sR	2073	1/1	0.75	1.05	96,96,96,96	0
83	MG	1	3826	1/1	0.75	0.31	64,64,64,64	0
83	MG	AF	201	1/1	0.76	0.38	23,23,23,23	0
83	MG	1	4205	1/1	0.76	0.71	44,44,44,44	0
83	MG	AR	4025	1/1	0.76	0.28	37,37,37,37	0
83	MG	1	3803	1/1	0.76	0.49	35,35,35,35	0
83	MG	1	3745	1/1	0.76	0.28	55,55,55,55	0
83	MG	sR	2135	1/1	0.76	0.26	70,70,70,70	0
83	MG	1	3731	1/1	0.76	0.45	33,33,33,33	0
83	MG	A	2031	1/1	0.76	0.40	64,64,64,64	0
83	MG	1	4093	1/1	0.76	0.31	41,41,41,41	0
83	MG	1	4099	1/1	0.76	0.28	45,45,45,45	0
83	MG	sR	2154	1/1	0.76	0.49	43,43,43,43	0
83	MG	1	4164	1/1	0.76	0.23	47,47,47,47	0
83	MG	AR	4084	1/1	0.76	0.45	38,38,38,38	0
83	MG	AR	3987	1/1	0.76	0.13	35,35,35,35	0
83	MG	AR	4227	1/1	0.76	0.33	36,36,36,36	0
83	MG	AR	4109	1/1	0.76	0.29	74,74,74,74	0
83	MG	CD	301	1/1	0.77	0.60	40,40,40,40	0
83	MG	1	4160	1/1	0.77	0.34	54,54,54,54	0
83	MG	AS	219	1/1	0.77	0.20	48,48,48,48	0
83	MG	AR	4246	1/1	0.77	0.85	49,49,49,49	0
83	MG	AR	3829	1/1	0.77	0.39	44,44,44,44	0
83	MG	AR	3946	1/1	0.77	0.11	44,44,44,44	0
83	MG	sR	2079	1/1	0.77	0.63	63,63,63,63	0
83	MG	sR	2113	1/1	0.77	0.44	57,57,57,57	0
83	MG	A	2061	1/1	0.77	0.92	77,77,77,77	0
83	MG	sR	2118	1/1	0.77	0.17	52,52,52,52	0
83	MG	AR	4180	1/1	0.77	0.33	36,36,36,36	0
83	MG	CD	303	1/1	0.77	0.34	31,31,31,31	0
83	MG	s	300	1/1	0.77	0.37	64,64,64,64	0
83	MG	AR	3834	1/1	0.77	0.25	21,21,21,21	0
83	MG	1	4210	1/1	0.78	0.68	58,58,58,58	0
83	MG	sR	2088	1/1	0.78	0.54	82,82,82,82	0
83	MG	AR	4090	1/1	0.78	0.39	46,46,46,46	0
83	MG	AR	3893	1/1	0.78	0.39	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	4247	1/1	0.78	0.32	39,39,39,39	0
83	MG	1	3956	1/1	0.78	0.26	24,24,24,24	0
83	MG	1	4003	1/1	0.78	0.38	54,54,54,54	0
83	MG	1	4051	1/1	0.78	0.21	44,44,44,44	0
83	MG	AR	4146	1/1	0.78	0.19	69,69,69,69	0
83	MG	1	3958	1/1	0.78	0.52	51,51,51,51	0
83	MG	1	3783	1/1	0.78	0.36	59,59,59,59	0
83	MG	sR	2107	1/1	0.78	0.75	51,51,51,51	0
83	MG	CM	202	1/1	0.78	0.23	52,52,52,52	0
83	MG	1	4136	1/1	0.78	0.46	41,41,41,41	0
83	MG	AR	3841	1/1	0.78	0.31	31,31,31,31	0
83	MG	AR	4091	1/1	0.78	0.77	48,48,48,48	0
83	MG	AR	4145	1/1	0.78	0.33	34,34,34,34	0
83	MG	AR	4113	1/1	0.79	0.54	61,61,61,61	0
83	MG	CR	207	1/1	0.79	0.25	37,37,37,37	0
83	MG	AR	3810	1/1	0.79	0.20	28,28,28,28	0
83	MG	DR	503	1/1	0.79	0.29	54,54,54,54	0
83	MG	AR	4117	1/1	0.79	0.21	29,29,29,29	0
83	MG	1	3959	1/1	0.79	0.32	61,61,61,61	0
83	MG	z	202	1/1	0.79	0.18	50,50,50,50	0
83	MG	1	3801	1/1	0.79	0.36	31,31,31,31	0
83	MG	sR	2148	1/1	0.79	0.30	62,62,62,62	0
83	MG	AR	4060	1/1	0.79	0.40	66,66,66,66	0
85	ZN	c	101	1/1	0.79	0.28	119,119,119,119	0
83	MG	1	3818	1/1	0.79	0.35	54,54,54,54	0
83	MG	AR	3794	1/1	0.79	0.64	25,25,25,25	0
83	MG	AR	4009	1/1	0.79	0.21	29,29,29,29	0
83	MG	sR	2140	1/1	0.79	0.34	45,45,45,45	0
83	MG	AR	4087	1/1	0.79	0.24	49,49,49,49	0
83	MG	AR	4199	1/1	0.79	0.45	41,41,41,41	0
83	MG	A	2016	1/1	0.79	0.36	61,61,61,61	0
83	MG	1	4008	1/1	0.79	0.62	72,72,72,72	0
83	MG	sM	301	1/1	0.79	0.17	37,37,37,37	0
83	MG	sR	2128	1/1	0.79	0.50	58,58,58,58	0
83	MG	AR	4137	1/1	0.79	0.39	51,51,51,51	0
83	MG	AT	225	1/1	0.79	0.48	50,50,50,50	0
83	MG	1	3962	1/1	0.79	0.42	49,49,49,49	0
83	MG	1	3940	1/1	0.79	0.14	52,52,52,52	0
83	MG	AR	4056	1/1	0.79	0.15	82,82,82,82	0
83	MG	CF	403	1/1	0.79	0.23	38,38,38,38	0
83	MG	d5	201	1/1	0.79	0.18	74,74,74,74	0
83	MG	sR	2069	1/1	0.80	0.55	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	3752	1/1	0.80	0.37	31,31,31,31	0
83	MG	CG	306	1/1	0.80	0.34	52,52,52,52	0
83	MG	1	4106	1/1	0.80	0.27	33,33,33,33	0
83	MG	AR	4089	1/1	0.80	0.65	26,26,26,26	0
83	MG	AR	4085	1/1	0.80	0.34	40,40,40,40	0
83	MG	AR	4105	1/1	0.80	0.52	62,62,62,62	0
83	MG	sR	2141	1/1	0.80	0.23	37,37,37,37	0
83	MG	AR	4160	1/1	0.80	0.29	31,31,31,31	0
83	MG	1	4059	1/1	0.80	0.34	42,42,42,42	0
83	MG	AR	4029	1/1	0.80	0.29	52,52,52,52	0
83	MG	sR	2189	1/1	0.80	0.61	64,64,64,64	0
83	MG	AR	4206	1/1	0.80	0.37	33,33,33,33	0
83	MG	AR	4167	1/1	0.80	0.26	49,49,49,49	0
83	MG	1	3864	1/1	0.80	0.53	50,50,50,50	0
83	MG	1	3780	1/1	0.80	0.69	50,50,50,50	0
83	MG	A	1961	1/1	0.80	0.53	61,61,61,61	0
83	MG	1	3970	1/1	0.80	0.43	41,41,41,41	0
83	MG	AR	3802	1/1	0.80	0.38	31,31,31,31	0
83	MG	AR	4238	1/1	0.80	0.22	30,30,30,30	0
83	MG	AR	3982	1/1	0.80	0.44	61,61,61,61	0
83	MG	AR	4002	1/1	0.80	0.18	61,61,61,61	0
83	MG	sR	2159	1/1	0.80	0.56	95,95,95,95	0
83	MG	A	2032	1/1	0.80	0.20	81,81,81,81	0
83	MG	CE	403	1/1	0.80	0.52	21,21,21,21	0
83	MG	A	1947	1/1	0.81	0.69	53,53,53,53	0
83	MG	AR	3976	1/1	0.81	0.72	49,49,49,49	0
83	MG	AR	3743	1/1	0.81	0.36	29,29,29,29	0
83	MG	AR	4110	1/1	0.81	0.37	55,55,55,55	0
83	MG	1	3939	1/1	0.81	0.30	30,30,30,30	0
83	MG	AR	3980	1/1	0.81	0.24	40,40,40,40	0
83	MG	1	4002	1/1	0.81	0.36	48,48,48,48	0
83	MG	1	3966	1/1	0.81	0.35	36,36,36,36	0
83	MG	AS	218	1/1	0.81	0.31	50,50,50,50	0
83	MG	AR	4191	1/1	0.81	0.57	44,44,44,44	0
83	MG	1	4199	1/1	0.81	0.39	37,37,37,37	0
83	MG	1	4048	1/1	0.81	0.51	43,43,43,43	0
83	MG	1	4027	1/1	0.81	0.47	39,39,39,39	0
83	MG	1	4175	1/1	0.81	0.28	22,22,22,22	0
83	MG	AR	4215	1/1	0.81	0.19	35,35,35,35	0
83	MG	AR	3769	1/1	0.81	0.32	33,33,33,33	0
83	MG	1	3991	1/1	0.81	0.15	65,65,65,65	0
83	MG	A	2004	1/1	0.81	0.43	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	3831	1/1	0.81	0.37	38,38,38,38	0
83	MG	1	3878	1/1	0.81	0.45	27,27,27,27	0
83	MG	1	3837	1/1	0.81	0.47	24,24,24,24	0
83	MG	1	4173	1/1	0.81	0.18	27,27,27,27	0
83	MG	A	2030	1/1	0.81	0.36	90,90,90,90	0
83	MG	sR	2132	1/1	0.81	0.27	38,38,38,38	0
83	MG	AR	4022	1/1	0.81	0.35	41,41,41,41	0
83	MG	1	3974	1/1	0.81	0.47	62,62,62,62	0
83	MG	r	303	1/1	0.82	0.32	37,37,37,37	0
83	MG	A	1985	1/1	0.82	0.33	63,63,63,63	0
83	MG	1	3949	1/1	0.82	0.40	63,63,63,63	0
83	MG	AR	4229	1/1	0.82	0.62	44,44,44,44	0
83	MG	AR	4190	1/1	0.82	0.24	32,32,32,32	0
83	MG	1	3954	1/1	0.82	0.31	34,34,34,34	0
83	MG	AR	3931	1/1	0.82	0.15	38,38,38,38	0
83	MG	sR	2095	1/1	0.82	0.57	48,48,48,48	0
83	MG	CK	203	1/1	0.82	0.29	38,38,38,38	0
83	MG	AR	4131	1/1	0.82	0.26	54,54,54,54	0
83	MG	A	1960	1/1	0.82	0.93	53,53,53,53	0
83	MG	1	4096	1/1	0.82	0.68	47,47,47,47	0
83	MG	1	4018	1/1	0.82	0.45	36,36,36,36	0
83	MG	A	1950	1/1	0.82	0.36	65,65,65,65	0
83	MG	sR	2114	1/1	0.82	0.30	71,71,71,71	0
83	MG	AR	3824	1/1	0.82	0.48	37,37,37,37	0
83	MG	1	4038	1/1	0.82	0.34	33,33,33,33	0
83	MG	1	4167	1/1	0.82	0.37	55,55,55,55	0
83	MG	1	3763	1/1	0.82	0.56	26,26,26,26	0
83	MG	AR	3753	1/1	0.82	0.22	26,26,26,26	0
83	MG	1	3868	1/1	0.82	0.55	34,34,34,34	0
83	MG	AR	3955	1/1	0.82	0.27	53,53,53,53	0
83	MG	A	1968	1/1	0.82	0.34	82,82,82,82	0
83	MG	1	3846	1/1	0.83	0.34	61,61,61,61	0
83	MG	AR	4237	1/1	0.83	0.30	34,34,34,34	0
83	MG	1	4089	1/1	0.83	0.53	38,38,38,38	0
83	MG	AR	3936	1/1	0.83	0.21	23,23,23,23	0
83	MG	AR	4168	1/1	0.83	0.13	56,56,56,56	0
83	MG	AR	3903	1/1	0.83	0.36	25,25,25,25	0
83	MG	1	3934	1/1	0.83	0.30	32,32,32,32	0
83	MG	AR	4015	1/1	0.83	0.37	42,42,42,42	0
83	MG	1	3809	1/1	0.83	0.26	31,31,31,31	0
83	MG	1	3792	1/1	0.83	0.54	35,35,35,35	0
83	MG	AR	4151	1/1	0.83	0.15	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	4093	1/1	0.83	0.27	39,39,39,39	0
83	MG	AR	3896	1/1	0.83	0.41	23,23,23,23	0
83	MG	sR	2053	1/1	0.83	0.54	66,66,66,66	0
83	MG	1	4021	1/1	0.83	0.58	62,62,62,62	0
83	MG	A	2037	1/1	0.83	0.35	64,64,64,64	0
83	MG	1	4049	1/1	0.83	0.48	37,37,37,37	0
83	MG	AR	4234	1/1	0.83	0.42	20,20,20,20	0
83	MG	sR	2052	1/1	0.83	0.52	38,38,38,38	0
83	MG	4	219	1/1	0.83	0.58	39,39,39,39	0
83	MG	AR	3840	1/1	0.83	0.56	33,33,33,33	0
83	MG	AR	4107	1/1	0.83	0.34	27,27,27,27	0
83	MG	AR	4216	1/1	0.83	0.24	38,38,38,38	0
83	MG	sR	2196	1/1	0.83	0.44	62,62,62,62	0
83	MG	AR	4023	1/1	0.83	0.37	38,38,38,38	0
83	MG	1	4052	1/1	0.83	0.36	38,38,38,38	0
83	MG	AR	4018	1/1	0.83	0.20	36,36,36,36	0
83	MG	1	4213	1/1	0.83	0.49	30,30,30,30	0
83	MG	sR	2063	1/1	0.83	0.33	64,64,64,64	0
83	MG	1	4108	1/1	0.83	0.25	60,60,60,60	0
83	MG	A	2007	1/1	0.83	0.46	87,87,87,87	0
83	MG	AR	3937	1/1	0.83	0.34	33,33,33,33	0
83	MG	1	4004	1/1	0.83	0.20	33,33,33,33	0
83	MG	1	4141	1/1	0.83	0.35	36,36,36,36	0
83	MG	1	4022	1/1	0.84	0.33	37,37,37,37	0
83	MG	1	3986	1/1	0.84	0.33	42,42,42,42	0
83	MG	CR	202	1/1	0.84	0.34	28,28,28,28	0
83	MG	AR	3985	1/1	0.84	0.26	61,61,61,61	0
83	MG	sR	2183	1/1	0.84	0.51	34,34,34,34	0
83	MG	d9	103	1/1	0.84	0.69	94,94,94,94	0
83	MG	DD	102	1/1	0.84	0.33	29,29,29,29	0
83	MG	AS	214	1/1	0.84	0.55	55,55,55,55	0
83	MG	1	4180	1/1	0.84	0.82	52,52,52,52	0
83	MG	sR	2116	1/1	0.84	0.47	66,66,66,66	0
83	MG	AR	4155	1/1	0.84	0.19	27,27,27,27	0
83	MG	1	3973	1/1	0.84	0.37	78,78,78,78	0
83	MG	1	4162	1/1	0.84	0.25	35,35,35,35	0
83	MG	AR	4030	1/1	0.84	0.32	36,36,36,36	0
83	MG	1	3881	1/1	0.84	0.09	41,41,41,41	0
83	MG	sR	2136	1/1	0.84	0.58	63,63,63,63	0
83	MG	AR	4214	1/1	0.84	0.36	26,26,26,26	0
83	MG	1	3877	1/1	0.84	0.38	45,45,45,45	0
83	MG	1	3808	1/1	0.84	0.27	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	4067	1/1	0.84	0.26	59,59,59,59	0
83	MG	CX	204	1/1	0.84	0.23	33,33,33,33	0
83	MG	1	4145	1/1	0.84	0.26	32,32,32,32	0
83	MG	AR	4193	1/1	0.84	0.50	65,65,65,65	0
83	MG	AR	4048	1/1	0.84	0.22	44,44,44,44	0
83	MG	1	4079	1/1	0.84	0.21	47,47,47,47	0
83	MG	AR	3932	1/1	0.84	0.16	37,37,37,37	0
82	OHX	A	1938	7/7	0.84	0.52	106,106,106,106	0
83	MG	AT	217	1/1	0.84	0.32	29,29,29,29	0
83	MG	1	3744	1/1	0.84	0.34	70,70,70,70	0
83	MG	1	4028	1/1	0.84	0.42	38,38,38,38	0
83	MG	DC	203	1/1	0.84	0.32	28,28,28,28	0
83	MG	AR	3958	1/1	0.84	0.39	23,23,23,23	0
83	MG	CR	204	1/1	0.84	0.20	40,40,40,40	0
83	MG	AR	4158	1/1	0.84	0.27	37,37,37,37	0
83	MG	AR	4027	1/1	0.84	0.98	57,57,57,57	0
83	MG	AR	4122	1/1	0.84	0.24	41,41,41,41	0
82	OHX	AR	3662	7/7	0.85	0.39	137,137,137,137	0
83	MG	1	3936	1/1	0.85	0.37	45,45,45,45	0
83	MG	AR	3745	1/1	0.85	0.24	36,36,36,36	0
83	MG	4	232	1/1	0.85	0.26	60,60,60,60	0
83	MG	1	4211	1/1	0.85	0.32	29,29,29,29	0
83	MG	A	2008	1/1	0.85	0.64	54,54,54,54	0
83	MG	s8	303	1/1	0.85	0.27	42,42,42,42	0
83	MG	1	4159	1/1	0.85	0.24	33,33,33,33	0
83	MG	sR	2070	1/1	0.85	0.65	38,38,38,38	0
83	MG	AR	3814	1/1	0.85	0.48	30,30,30,30	0
83	MG	AR	4143	1/1	0.85	0.42	33,33,33,33	0
83	MG	1	3791	1/1	0.85	0.20	43,43,43,43	0
83	MG	AR	4039	1/1	0.85	0.65	73,73,73,73	0
83	MG	A	2033	1/1	0.85	0.85	53,53,53,53	0
83	MG	1	3742	1/1	0.85	0.44	37,37,37,37	0
83	MG	AR	3761	1/1	0.85	0.45	47,47,47,47	0
83	MG	1	3952	1/1	0.85	0.22	65,65,65,65	0
83	MG	AR	3921	1/1	0.85	0.73	43,43,43,43	0
83	MG	1	3810	1/1	0.85	0.45	41,41,41,41	0
83	MG	1	3972	1/1	0.85	0.28	56,56,56,56	0
83	MG	sR	2201	1/1	0.85	0.15	62,62,62,62	0
83	MG	4	220	1/1	0.85	0.45	29,29,29,29	0
83	MG	AR	4128	1/1	0.85	0.30	36,36,36,36	0
83	MG	AR	3803	1/1	0.85	0.41	50,50,50,50	0
83	MG	AR	3975	1/1	0.85	0.26	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	3890	1/1	0.85	0.62	31,31,31,31	0
83	MG	1	4013	1/1	0.85	0.22	31,31,31,31	0
83	MG	AR	3945	1/1	0.85	0.31	27,27,27,27	0
83	MG	x	205	1/1	0.85	0.19	36,36,36,36	0
83	MG	4	215	1/1	0.85	0.47	41,41,41,41	0
82	OHX	AR	3732	7/7	0.85	0.38	181,181,181,181	0
83	MG	A	1990	1/1	0.85	0.75	56,56,56,56	0
83	MG	sR	2182	1/1	0.85	0.53	37,37,37,37	0
83	MG	1	4107	1/1	0.85	0.43	47,47,47,47	0
83	MG	A	2038	1/1	0.85	0.56	65,65,65,65	0
82	OHX	A	1937	7/7	0.85	0.41	130,130,130,130	0
83	MG	CF	402	1/1	0.85	0.28	27,27,27,27	0
83	MG	AR	4248	1/1	0.85	0.35	31,31,31,31	0
83	MG	AR	4203	1/1	0.85	0.33	50,50,50,50	0
83	MG	1	4223	1/1	0.85	0.33	34,34,34,34	0
83	MG	1	4065	1/1	0.85	0.46	53,53,53,53	0
83	MG	3	213	1/1	0.86	0.49	32,32,32,32	0
83	MG	v	305	1/1	0.86	0.78	39,39,39,39	0
83	MG	AR	4133	1/1	0.86	0.14	59,59,59,59	0
83	MG	1	4019	1/1	0.86	0.31	40,40,40,40	0
83	MG	AR	4253	1/1	0.86	0.51	38,38,38,38	0
83	MG	A	2014	1/1	0.86	0.42	67,67,67,67	0
83	MG	A	1956	1/1	0.86	0.64	59,59,59,59	0
83	MG	A	2054	1/1	0.86	0.63	44,44,44,44	0
83	MG	AR	3779	1/1	0.86	0.37	21,21,21,21	0
83	MG	sR	2059	1/1	0.86	0.34	46,46,46,46	0
83	MG	1	3771	1/1	0.86	0.43	39,39,39,39	0
83	MG	1	4068	1/1	0.86	0.46	43,43,43,43	0
83	MG	1	4010	1/1	0.86	0.52	31,31,31,31	0
83	MG	4	234	1/1	0.86	0.48	31,31,31,31	0
83	MG	1	3755	1/1	0.86	0.51	37,37,37,37	0
83	MG	DE	201	1/1	0.86	0.17	55,55,55,55	0
83	MG	4	230	1/1	0.86	0.22	37,37,37,37	0
83	MG	AR	3768	1/1	0.86	0.49	76,76,76,76	0
83	MG	1	4083	1/1	0.86	0.28	32,32,32,32	0
83	MG	1	4207	1/1	0.86	0.59	38,38,38,38	0
83	MG	sR	2120	1/1	0.86	0.50	50,50,50,50	0
83	MG	1	3814	1/1	0.86	0.27	42,42,42,42	0
83	MG	sR	2067	1/1	0.86	0.44	61,61,61,61	0
83	MG	AR	4034	1/1	0.86	0.17	55,55,55,55	0
83	MG	AR	3974	1/1	0.86	0.57	44,44,44,44	0
83	MG	1	4169	1/1	0.86	0.17	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	3821	1/1	0.86	0.38	39,39,39,39	0
83	MG	1	4192	1/1	0.86	0.30	29,29,29,29	0
83	MG	3	218	1/1	0.86	0.58	56,56,56,56	0
83	MG	CR	205	1/1	0.86	0.28	28,28,28,28	0
83	MG	sR	2123	1/1	0.86	0.61	55,55,55,55	0
83	MG	d4	203	1/1	0.86	0.32	66,66,66,66	0
83	MG	AR	4178	1/1	0.86	0.15	46,46,46,46	0
83	MG	A	1948	1/1	0.86	0.34	49,49,49,49	0
83	MG	1	3906	1/1	0.86	0.39	33,33,33,33	0
83	MG	1	4046	1/1	0.86	0.36	27,27,27,27	0
83	MG	sR	2064	1/1	0.86	0.56	47,47,47,47	0
83	MG	A	2027	1/1	0.86	0.31	55,55,55,55	0
83	MG	AR	4198	1/1	0.86	0.31	40,40,40,40	0
83	MG	1	4116	1/1	0.86	0.42	40,40,40,40	0
83	MG	AR	3905	1/1	0.86	0.37	25,25,25,25	0
83	MG	AT	221	1/1	0.86	0.37	32,32,32,32	0
83	MG	1	4134	1/1	0.86	0.43	24,24,24,24	0
83	MG	AR	4118	1/1	0.86	0.77	70,70,70,70	0
83	MG	sR	2152	1/1	0.86	0.21	48,48,48,48	0
83	MG	AR	3747	1/1	0.86	0.29	37,37,37,37	0
83	MG	o	301	1/1	0.86	0.40	34,34,34,34	0
83	MG	1	3788	1/1	0.86	0.19	30,30,30,30	0
83	MG	1	3975	1/1	0.86	0.24	38,38,38,38	0
83	MG	1	3802	1/1	0.86	0.34	39,39,39,39	0
83	MG	DC	204	1/1	0.86	0.32	33,33,33,33	0
83	MG	AR	3889	1/1	0.86	0.39	38,38,38,38	0
83	MG	AR	3933	1/1	0.86	0.24	57,57,57,57	0
83	MG	A	1970	1/1	0.86	0.94	77,77,77,77	0
83	MG	A	2013	1/1	0.86	0.57	68,68,68,68	0
83	MG	4	227	1/1	0.86	0.32	52,52,52,52	0
83	MG	AR	4028	1/1	0.86	0.14	29,29,29,29	0
83	MG	1	4163	1/1	0.86	0.31	44,44,44,44	0
83	MG	AR	4075	1/1	0.86	0.43	50,50,50,50	0
83	MG	1	3989	1/1	0.86	0.35	41,41,41,41	0
82	OHX	A	1939	7/7	0.87	0.28	138,138,138,138	0
83	MG	1	3967	1/1	0.87	0.40	54,54,54,54	0
83	MG	1	3916	1/1	0.87	0.66	59,59,59,59	0
83	MG	AR	3990	1/1	0.87	0.34	26,26,26,26	0
83	MG	1	4070	1/1	0.87	0.38	54,54,54,54	0
83	MG	AR	4104	1/1	0.87	0.21	86,86,86,86	0
83	MG	AR	4250	1/1	0.87	0.24	49,49,49,49	0
83	MG	AR	4251	1/1	0.87	0.55	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	3876	1/1	0.87	0.48	31,31,31,31	0
83	MG	sR	2077	1/1	0.87	0.37	50,50,50,50	0
83	MG	AR	4058	1/1	0.87	0.23	45,45,45,45	0
83	MG	1	4197	1/1	0.87	0.34	26,26,26,26	0
83	MG	1	3795	1/1	0.87	0.17	33,33,33,33	0
83	MG	AR	3773	1/1	0.87	0.43	30,30,30,30	0
83	MG	AR	3789	1/1	0.87	0.33	29,29,29,29	0
83	MG	sR	2058	1/1	0.87	0.42	90,90,90,90	0
83	MG	A	1951	1/1	0.87	0.66	65,65,65,65	0
83	MG	AR	4138	1/1	0.87	0.21	40,40,40,40	0
83	MG	v	307	1/1	0.87	0.50	34,34,34,34	0
83	MG	d6	202	1/1	0.87	0.27	43,43,43,43	0
83	MG	A	2028	1/1	0.87	0.56	60,60,60,60	0
83	MG	AR	4184	1/1	0.87	0.25	44,44,44,44	0
83	MG	A	1981	1/1	0.87	0.42	61,61,61,61	0
83	MG	AR	4245	1/1	0.87	0.58	43,43,43,43	0
83	MG	AR	4011	1/1	0.87	0.25	27,27,27,27	0
83	MG	AR	4208	1/1	0.87	0.59	52,52,52,52	0
83	MG	1	4206	1/1	0.87	0.66	36,36,36,36	0
83	MG	AR	4202	1/1	0.87	1.05	72,72,72,72	0
83	MG	1	3876	1/1	0.87	0.59	29,29,29,29	0
83	MG	c4	201	1/1	0.87	0.46	46,46,46,46	0
83	MG	sR	2103	1/1	0.87	0.53	38,38,38,38	0
83	MG	1	4055	1/1	0.87	0.56	31,31,31,31	0
83	MG	A	1978	1/1	0.87	0.42	51,51,51,51	0
83	MG	1	3981	1/1	0.87	0.53	35,35,35,35	0
83	MG	AR	4020	1/1	0.87	0.53	40,40,40,40	0
83	MG	AR	4001	1/1	0.87	0.31	24,24,24,24	0
83	MG	AR	3939	1/1	0.87	0.48	26,26,26,26	0
83	MG	1	3827	1/1	0.87	0.46	21,21,21,21	0
83	MG	AR	3792	1/1	0.87	0.37	29,29,29,29	0
83	MG	AR	4188	1/1	0.87	0.49	31,31,31,31	0
83	MG	1	4042	1/1	0.87	0.24	37,37,37,37	0
83	MG	A	2002	1/1	0.87	0.56	94,94,94,94	0
83	MG	l	404	1/1	0.87	0.23	83,83,83,83	0
83	MG	DA	202	1/1	0.87	0.40	39,39,39,39	0
83	MG	sR	2185	1/1	0.87	0.55	46,46,46,46	0
83	MG	1	4135	1/1	0.87	0.27	46,46,46,46	0
83	MG	A	1989	1/1	0.87	0.33	54,54,54,54	0
83	MG	A	2045	1/1	0.88	0.57	49,49,49,49	0
83	MG	AR	3924	1/1	0.88	0.43	35,35,35,35	0
83	MG	AR	4212	1/1	0.88	0.53	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	c1	202	1/1	0.88	0.30	42,42,42,42	0
83	MG	1	4144	1/1	0.88	0.24	27,27,27,27	0
83	MG	AR	4013	1/1	0.88	0.26	42,42,42,42	0
83	MG	c9	201	1/1	0.88	0.55	65,65,65,65	0
82	OHX	sR	2018	7/7	0.88	0.29	136,136,136,136	0
83	MG	sR	2194	1/1	0.88	0.45	83,83,83,83	0
83	MG	AR	3880	1/1	0.88	0.44	26,26,26,26	0
83	MG	1	4195	1/1	0.88	0.70	42,42,42,42	0
83	MG	AR	3991	1/1	0.88	0.61	35,35,35,35	0
83	MG	sR	2061	1/1	0.88	0.63	47,47,47,47	0
83	MG	sR	2174	1/1	0.88	0.61	81,81,81,81	0
83	MG	1	4040	1/1	0.88	0.49	79,79,79,79	0
83	MG	AR	3806	1/1	0.88	0.33	30,30,30,30	0
83	MG	1	3729	1/1	0.88	0.76	59,59,59,59	0
83	MG	1	4074	1/1	0.88	0.62	46,46,46,46	0
83	MG	AR	4031	1/1	0.88	0.27	26,26,26,26	0
83	MG	AT	227	1/1	0.88	0.50	51,51,51,51	0
83	MG	1	4020	1/1	0.88	0.45	48,48,48,48	0
83	MG	A	2064	1/1	0.88	0.55	68,68,68,68	0
83	MG	1	3999	1/1	0.88	0.48	36,36,36,36	0
83	MG	CQ	203	1/1	0.88	0.39	27,27,27,27	0
83	MG	1	3816	1/1	0.88	0.61	53,53,53,53	0
83	MG	1	4157	1/1	0.88	0.20	41,41,41,41	0
83	MG	1	4098	1/1	0.88	0.19	39,39,39,39	0
83	MG	1	3774	1/1	0.88	0.30	35,35,35,35	0
83	MG	sR	2202	1/1	0.88	1.02	49,49,49,49	0
83	MG	AR	4173	1/1	0.88	0.49	30,30,30,30	0
83	MG	sR	2065	1/1	0.88	1.41	64,64,64,64	0
83	MG	1	4181	1/1	0.88	0.75	44,44,44,44	0
83	MG	AR	3771	1/1	0.88	0.32	68,68,68,68	0
83	MG	sR	2081	1/1	0.88	0.60	63,63,63,63	0
83	MG	AR	4038	1/1	0.88	0.18	41,41,41,41	0
83	MG	AR	3862	1/1	0.88	0.51	38,38,38,38	0
83	MG	1	3769	1/1	0.88	0.50	37,37,37,37	0
83	MG	1	3961	1/1	0.88	0.30	47,47,47,47	0
83	MG	AR	4181	1/1	0.88	0.22	29,29,29,29	0
83	MG	1	3854	1/1	0.88	0.69	54,54,54,54	0
83	MG	A	2053	1/1	0.88	0.75	46,46,46,46	0
83	MG	CR	203	1/1	0.88	0.69	93,93,93,93	0
83	MG	AR	4221	1/1	0.88	0.66	44,44,44,44	0
83	MG	1	3935	1/1	0.88	0.34	36,36,36,36	0
83	MG	1	3946	1/1	0.88	0.18	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	A	2000	1/1	0.88	1.10	69,69,69,69	0
83	MG	e	103	1/1	0.88	0.54	81,81,81,81	0
83	MG	3	221	1/1	0.88	0.66	74,74,74,74	0
83	MG	1	3945	1/1	0.88	0.22	55,55,55,55	0
83	MG	1	4129	1/1	0.88	0.19	46,46,46,46	0
83	MG	sR	2191	1/1	0.88	0.34	75,75,75,75	0
83	MG	sR	2163	1/1	0.88	0.78	49,49,49,49	0
83	MG	AR	3744	1/1	0.88	0.41	32,32,32,32	0
83	MG	A	2029	1/1	0.88	0.40	59,59,59,59	0
83	MG	1	4026	1/1	0.88	0.27	32,32,32,32	0
82	OHX	1	3720	7/7	0.88	0.29	112,112,112,112	0
83	MG	AR	4045	1/1	0.88	0.29	38,38,38,38	0
83	MG	AR	3964	1/1	0.88	0.65	79,79,79,79	0
83	MG	1	3947	1/1	0.88	0.48	36,36,36,36	0
83	MG	AR	4147	1/1	0.88	0.21	46,46,46,46	0
83	MG	d4	204	1/1	0.88	0.43	57,57,57,57	0
83	MG	sR	2111	1/1	0.88	0.52	78,78,78,78	0
83	MG	1	4100	1/1	0.88	0.35	56,56,56,56	0
83	MG	1	4151	1/1	0.88	0.41	28,28,28,28	0
83	MG	A	2060	1/1	0.88	0.72	49,49,49,49	0
83	MG	AR	4066	1/1	0.88	0.34	58,58,58,58	0
83	MG	1	4039	1/1	0.89	0.33	33,33,33,33	0
83	MG	AR	4126	1/1	0.89	0.40	32,32,32,32	0
83	MG	1	3767	1/1	0.89	0.24	62,62,62,62	0
82	OHX	sR	2047	7/7	0.89	0.29	127,127,127,127	0
83	MG	3	210	1/1	0.89	0.31	60,60,60,60	0
83	MG	AR	3952	1/1	0.89	0.25	40,40,40,40	0
83	MG	CX	205	1/1	0.89	0.22	31,31,31,31	0
82	OHX	A	1919	7/7	0.89	0.35	117,117,117,117	0
83	MG	AR	3858	1/1	0.89	0.41	22,22,22,22	0
83	MG	AR	3801	1/1	0.89	0.43	44,44,44,44	0
83	MG	4	237	1/1	0.89	0.57	39,39,39,39	0
83	MG	A	1996	1/1	0.89	0.72	101,101,101,101	0
82	OHX	AS	210	7/7	0.89	0.33	112,112,112,112	0
83	MG	1	4060	1/1	0.89	0.38	30,30,30,30	0
83	MG	j	302	1/1	0.89	0.31	28,28,28,28	0
83	MG	AR	3836	1/1	0.89	0.31	38,38,38,38	0
83	MG	1	4176	1/1	0.89	0.63	43,43,43,43	0
82	OHX	A	1853	7/7	0.89	0.35	112,112,112,112	0
83	MG	A	2006	1/1	0.89	0.31	108,108,108,108	0
83	MG	AR	4162	1/1	0.89	0.23	23,23,23,23	0
83	MG	AR	3949	1/1	0.89	0.15	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	sR	2106	1/1	0.89	0.67	44,44,44,44	0
83	MG	A	2046	1/1	0.89	0.28	96,96,96,96	0
83	MG	A	2065	1/1	0.89	0.46	51,51,51,51	0
83	MG	AR	4036	1/1	0.89	0.42	44,44,44,44	0
83	MG	1	3762	1/1	0.89	0.29	39,39,39,39	0
83	MG	1	4105	1/1	0.89	0.29	48,48,48,48	0
83	MG	CE	405	1/1	0.89	0.28	28,28,28,28	0
83	MG	v	306	1/1	0.89	0.50	43,43,43,43	0
83	MG	1	3747	1/1	0.89	0.22	29,29,29,29	0
83	MG	A	2039	1/1	0.89	0.68	59,59,59,59	0
83	MG	A	2023	1/1	0.89	0.55	62,62,62,62	0
83	MG	AR	4017	1/1	0.89	0.22	61,61,61,61	0
83	MG	1	4191	1/1	0.89	0.63	37,37,37,37	0
83	MG	1	3875	1/1	0.89	0.56	29,29,29,29	0
83	MG	J	303	1/1	0.89	0.36	51,51,51,51	0
83	MG	AR	4057	1/1	0.89	0.26	25,25,25,25	0
83	MG	AF	202	1/1	0.89	0.23	24,24,24,24	0
83	MG	H	301	1/1	0.89	0.32	82,82,82,82	0
83	MG	1	4081	1/1	0.89	0.17	49,49,49,49	0
82	OHX	sR	2045	7/7	0.89	0.36	139,139,139,139	0
83	MG	AR	3906	1/1	0.89	0.40	31,31,31,31	0
83	MG	1	3768	1/1	0.89	0.26	55,55,55,55	0
83	MG	sR	2177	1/1	0.89	0.74	50,50,50,50	0
83	MG	1	3930	1/1	0.89	0.97	44,44,44,44	0
83	MG	AR	4049	1/1	0.89	0.27	45,45,45,45	0
83	MG	1	4035	1/1	0.89	0.17	42,42,42,42	0
83	MG	AT	219	1/1	0.89	0.25	46,46,46,46	0
83	MG	AR	3786	1/1	0.89	0.43	43,43,43,43	0
83	MG	1	3834	1/1	0.89	0.48	18,18,18,18	0
83	MG	1	4064	1/1	0.89	0.24	30,30,30,30	0
83	MG	AR	3944	1/1	0.89	0.18	26,26,26,26	0
83	MG	AR	4032	1/1	0.89	0.19	47,47,47,47	0
83	MG	AR	3778	1/1	0.89	0.36	32,32,32,32	0
83	MG	sR	2179	1/1	0.89	0.56	51,51,51,51	0
83	MG	CP	502	1/1	0.89	0.51	40,40,40,40	0
83	MG	AR	4000	1/1	0.89	0.35	47,47,47,47	0
83	MG	A	1965	1/1	0.89	0.77	54,54,54,54	0
83	MG	CP	505	1/1	0.89	0.52	40,40,40,40	0
83	MG	A	2036	1/1	0.89	0.23	48,48,48,48	0
83	MG	A	1995	1/1	0.89	0.15	81,81,81,81	0
83	MG	1	3957	1/1	0.89	0.21	54,54,54,54	0
83	MG	1	4092	1/1	0.89	0.30	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	3994	1/1	0.89	0.40	28,28,28,28	0
82	OHX	A	1930	7/7	0.89	0.24	193,193,193,193	0
83	MG	AR	3854	1/1	0.89	0.47	30,30,30,30	0
83	MG	AR	3851	1/1	0.89	0.27	25,25,25,25	0
83	MG	AR	3963	1/1	0.89	0.16	37,37,37,37	0
83	MG	AR	3751	1/1	0.89	0.58	27,27,27,27	0
83	MG	3	220	1/1	0.89	0.23	42,42,42,42	0
83	MG	1	4001	1/1	0.89	0.21	29,29,29,29	0
83	MG	AR	3938	1/1	0.89	0.33	39,39,39,39	0
83	MG	x	204	1/1	0.89	0.21	33,33,33,33	0
83	MG	4	216	1/1	0.90	0.80	48,48,48,48	0
83	MG	AR	4124	1/1	0.90	0.45	70,70,70,70	0
83	MG	1	4034	1/1	0.90	0.12	46,46,46,46	0
83	MG	1	4005	1/1	0.90	0.56	40,40,40,40	0
83	MG	AR	3972	1/1	0.90	0.20	44,44,44,44	0
83	MG	AR	4252	1/1	0.90	0.53	26,26,26,26	0
83	MG	A	2017	1/1	0.90	0.22	60,60,60,60	0
83	MG	AR	3957	1/1	0.90	0.50	36,36,36,36	0
83	MG	AR	3843	1/1	0.90	0.44	24,24,24,24	0
83	MG	AR	3762	1/1	0.90	0.33	33,33,33,33	0
83	MG	AR	4026	1/1	0.90	0.28	34,34,34,34	0
83	MG	AS	227	1/1	0.90	0.43	38,38,38,38	0
83	MG	1	4109	1/1	0.90	0.30	45,45,45,45	0
83	MG	1	4058	1/1	0.90	0.34	28,28,28,28	0
82	OHX	AR	3712	7/7	0.90	0.46	104,104,104,104	0
83	MG	1	3911	1/1	0.90	0.44	29,29,29,29	0
83	MG	AT	223	1/1	0.90	0.30	55,55,55,55	0
83	MG	AR	4236	1/1	0.90	0.32	34,34,34,34	0
83	MG	AR	4242	1/1	0.90	0.65	41,41,41,41	0
83	MG	1	3971	1/1	0.90	0.26	39,39,39,39	0
83	MG	AR	4132	1/1	0.90	0.26	29,29,29,29	0
83	MG	1	4082	1/1	0.90	0.45	29,29,29,29	0
83	MG	sR	2133	1/1	0.90	0.35	65,65,65,65	0
83	MG	AR	3746	1/1	0.90	0.24	24,24,24,24	0
83	MG	AR	4050	1/1	0.90	0.23	38,38,38,38	0
83	MG	1	3886	1/1	0.90	0.52	22,22,22,22	0
82	OHX	1	3709	7/7	0.90	0.43	127,127,127,127	0
83	MG	A	1953	1/1	0.90	0.62	53,53,53,53	0
83	MG	A	1952	1/1	0.90	0.54	53,53,53,53	0
83	MG	1	3900	1/1	0.90	0.42	21,21,21,21	0
83	MG	AR	4064	1/1	0.90	0.27	36,36,36,36	0
83	MG	sR	2186	1/1	0.90	0.28	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	sR	2057	1/1	0.90	0.28	43,43,43,43	0
83	MG	AB	208	1/1	0.90	0.38	45,45,45,45	0
83	MG	1	4069	1/1	0.90	0.23	40,40,40,40	0
83	MG	1	3995	1/1	0.90	0.38	40,40,40,40	0
83	MG	AR	3867	1/1	0.90	0.62	46,46,46,46	0
83	MG	1	4131	1/1	0.90	0.30	22,22,22,22	0
83	MG	AR	3775	1/1	0.90	0.32	42,42,42,42	0
83	MG	AR	3983	1/1	0.90	0.26	25,25,25,25	0
83	MG	sR	2066	1/1	0.90	0.45	48,48,48,48	0
83	MG	sR	2119	1/1	0.90	0.35	63,63,63,63	0
83	MG	sR	2130	1/1	0.90	0.20	68,68,68,68	0
83	MG	1	3825	1/1	0.90	0.89	59,59,59,59	0
83	MG	d3	201	1/1	0.90	0.37	48,48,48,48	0
83	MG	1	4168	1/1	0.90	0.52	36,36,36,36	0
83	MG	sR	2170	1/1	0.90	0.74	54,54,54,54	0
82	OHX	1	3710	7/7	0.90	0.40	106,106,106,106	0
83	MG	AR	4067	1/1	0.90	0.40	31,31,31,31	0
83	MG	1	3982	1/1	0.90	0.25	26,26,26,26	0
82	OHX	AR	3530	7/7	0.90	0.27	69,69,69,69	0
83	MG	sR	2199	1/1	0.90	0.57	65,65,65,65	0
82	OHX	sR	2041	7/7	0.90	0.48	92,92,92,92	0
83	MG	1	3905	1/1	0.90	0.40	39,39,39,39	0
83	MG	AR	4051	1/1	0.90	0.26	46,46,46,46	0
83	MG	AR	3767	1/1	0.90	0.17	22,22,22,22	0
83	MG	AR	4139	1/1	0.90	0.14	127,127,127,127	0
83	MG	1	3773	1/1	0.90	0.15	29,29,29,29	0
83	MG	sR	2178	1/1	0.90	0.24	45,45,45,45	0
83	MG	sR	2146	1/1	0.90	0.23	71,71,71,71	0
82	OHX	1	3701	7/7	0.90	0.38	103,103,103,103	0
83	MG	AR	4207	1/1	0.90	0.79	43,43,43,43	0
83	MG	1	3750	1/1	0.90	0.33	23,23,23,23	0
83	MG	AK	104	1/1	0.90	0.28	47,47,47,47	0
83	MG	4	236	1/1	0.90	0.49	42,42,42,42	0
83	MG	sR	2153	1/1	0.90	0.26	39,39,39,39	0
83	MG	1	3998	1/1	0.90	0.43	31,31,31,31	0
83	MG	AR	3852	1/1	0.90	0.53	46,46,46,46	0
83	MG	sR	2127	1/1	0.90	0.57	50,50,50,50	0
83	MG	1	4000	1/1	0.90	0.37	43,43,43,43	0
83	MG	A	1997	1/1	0.90	0.43	88,88,88,88	0
83	MG	AR	3774	1/1	0.90	0.46	32,32,32,32	0
83	MG	1	3796	1/1	0.90	0.43	28,28,28,28	0
83	MG	AR	4217	1/1	0.90	0.58	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	3888	1/1	0.90	0.38	39,39,39,39	0
83	MG	AR	4063	1/1	0.90	0.24	29,29,29,29	0
82	OHX	AR	3682	7/7	0.90	0.38	121,121,121,121	0
83	MG	DQ	505	1/1	0.90	0.17	34,34,34,34	0
82	OHX	AR	3729	7/7	0.90	0.21	114,114,114,114	0
82	OHX	AR	3721	7/7	0.90	0.37	118,118,118,118	0
83	MG	1	3754	1/1	0.90	0.46	39,39,39,39	0
83	MG	sR	2087	1/1	0.90	0.82	62,62,62,62	0
83	MG	AK	105	1/1	0.90	0.61	33,33,33,33	0
83	MG	AR	4197	1/1	0.90	0.09	48,48,48,48	0
83	MG	AR	4154	1/1	0.90	0.42	34,34,34,34	0
83	MG	CP	504	1/1	0.90	0.80	48,48,48,48	0
83	MG	AR	3954	1/1	0.90	0.51	28,28,28,28	0
83	MG	6	203	1/1	0.90	0.49	40,40,40,40	0
83	MG	sR	2117	1/1	0.90	0.20	49,49,49,49	0
83	MG	sR	2076	1/1	0.90	0.76	55,55,55,55	0
83	MG	sR	2129	1/1	0.90	0.31	39,39,39,39	0
83	MG	1	3772	1/1	0.90	0.35	23,23,23,23	0
83	MG	AR	4135	1/1	0.90	0.23	25,25,25,25	0
83	MG	AR	3740	1/1	0.90	0.32	24,24,24,24	0
83	MG	AR	3886	1/1	0.90	0.67	35,35,35,35	0
83	MG	AR	4102	1/1	0.90	0.27	32,32,32,32	0
83	MG	sR	2105	1/1	0.90	1.04	56,56,56,56	0
83	MG	sR	2083	1/1	0.90	0.93	56,56,56,56	0
83	MG	AR	4136	1/1	0.90	0.19	34,34,34,34	0
82	OHX	1	3687	7/7	0.90	0.33	116,116,116,116	0
83	MG	1	3794	1/1	0.90	0.31	45,45,45,45	0
83	MG	AR	4115	1/1	0.90	0.15	47,47,47,47	0
83	MG	CE	404	1/1	0.90	0.31	22,22,22,22	0
83	MG	1	4215	1/1	0.90	0.49	38,38,38,38	0
83	MG	sR	2090	1/1	0.91	0.44	30,30,30,30	0
83	MG	1	3882	1/1	0.91	0.52	45,45,45,45	0
83	MG	AR	4076	1/1	0.91	0.21	51,51,51,51	0
82	OHX	1	3691	7/7	0.91	0.37	154,154,154,154	0
82	OHX	A	1932	7/7	0.91	0.23	215,215,215,215	0
82	OHX	A	1885	7/7	0.91	0.35	96,96,96,96	0
83	MG	1	3987	1/1	0.91	0.32	30,30,30,30	0
83	MG	A	2049	1/1	0.91	0.20	54,54,54,54	0
82	OHX	A	1846	7/7	0.91	0.21	126,126,126,126	0
83	MG	1	3993	1/1	0.91	0.50	57,57,57,57	0
83	MG	A	1984	1/1	0.91	0.49	66,66,66,66	0
83	MG	3	216	1/1	0.91	0.30	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	3758	1/1	0.91	0.26	40,40,40,40	0
83	MG	1	3730	1/1	0.91	0.45	78,78,78,78	0
83	MG	AR	4210	1/1	0.91	0.30	33,33,33,33	0
82	OHX	sR	2021	7/7	0.91	0.31	137,137,137,137	0
83	MG	1	3933	1/1	0.91	0.28	35,35,35,35	0
83	MG	AR	4077	1/1	0.91	0.22	47,47,47,47	0
82	OHX	CG	302	7/7	0.91	0.36	107,107,107,107	0
82	OHX	AR	3687	7/7	0.91	0.33	136,136,136,136	0
83	MG	AR	4240	1/1	0.91	0.17	33,33,33,33	0
83	MG	AR	4021	1/1	0.91	0.41	35,35,35,35	0
83	MG	1	3743	1/1	0.91	0.51	41,41,41,41	0
83	MG	1	4154	1/1	0.91	0.24	38,38,38,38	0
82	OHX	1	3652	7/7	0.91	0.34	76,76,76,76	0
83	MG	r	302	1/1	0.91	0.33	35,35,35,35	0
83	MG	CR	201	1/1	0.91	0.45	26,26,26,26	0
83	MG	1	3867	1/1	0.91	0.55	31,31,31,31	0
83	MG	1	4165	1/1	0.91	0.22	33,33,33,33	0
83	MG	AR	3856	1/1	0.91	0.28	33,33,33,33	0
83	MG	1	3805	1/1	0.91	0.29	33,33,33,33	0
83	MG	1	3851	1/1	0.91	0.37	24,24,24,24	0
83	MG	F	301	1/1	0.91	0.51	62,62,62,62	0
83	MG	3	215	1/1	0.91	0.39	59,59,59,59	0
83	MG	1	3976	1/1	0.91	0.31	24,24,24,24	0
83	MG	AR	3828	1/1	0.91	0.48	25,25,25,25	0
83	MG	1	3979	1/1	0.91	0.65	31,31,31,31	0
83	MG	1	3776	1/1	0.91	0.34	29,29,29,29	0
83	MG	DC	201	1/1	0.91	0.30	20,20,20,20	0
83	MG	4	218	1/1	0.91	0.43	55,55,55,55	0
83	MG	3	222	1/1	0.91	0.52	27,27,27,27	0
83	MG	AR	4170	1/1	0.91	0.34	31,31,31,31	0
83	MG	AR	4019	1/1	0.91	0.12	31,31,31,31	0
82	OHX	AR	3711	7/7	0.91	0.40	133,133,133,133	0
83	MG	1	4202	1/1	0.91	0.39	43,43,43,43	0
83	MG	AH	201	1/1	0.91	0.48	49,49,49,49	0
83	MG	AS	226	1/1	0.91	0.29	46,46,46,46	0
83	MG	AR	4127	1/1	0.91	0.25	37,37,37,37	0
83	MG	D	301	1/1	0.91	0.68	66,66,66,66	0
83	MG	1	4006	1/1	0.91	0.26	38,38,38,38	0
82	OHX	s1	301	7/7	0.91	0.45	126,126,126,126	0
83	MG	AR	4010	1/1	0.91	0.59	66,66,66,66	0
82	OHX	sR	1960	7/7	0.91	0.24	92,92,92,92	0
83	MG	AR	3996	1/1	0.91	0.30	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	sR	2203	1/1	0.91	0.61	42,42,42,42	0
82	OHX	AR	3519	7/7	0.91	0.15	122,122,122,122	0
83	MG	1	3727	1/1	0.91	0.24	31,31,31,31	0
83	MG	AR	3793	1/1	0.91	0.37	36,36,36,36	0
83	MG	A	2066	1/1	0.91	0.80	58,58,58,58	0
83	MG	AR	3993	1/1	0.91	0.27	39,39,39,39	0
83	MG	1	4033	1/1	0.91	0.26	30,30,30,30	0
83	MG	A	1982	1/1	0.91	0.21	57,57,57,57	0
82	OHX	sR	2042	7/7	0.91	0.35	118,118,118,118	0
82	OHX	AR	3642	7/7	0.91	0.28	101,101,101,101	0
83	MG	AR	4239	1/1	0.91	0.41	30,30,30,30	0
83	MG	4	235	1/1	0.91	0.16	30,30,30,30	0
83	MG	A	2063	1/1	0.91	0.77	76,76,76,76	0
83	MG	AR	4200	1/1	0.91	0.25	70,70,70,70	0
83	MG	4	231	1/1	0.91	0.32	35,35,35,35	0
82	OHX	A	1921	7/7	0.91	0.29	140,140,140,140	0
83	MG	j	301	1/1	0.91	0.36	25,25,25,25	0
83	MG	1	4177	1/1	0.91	0.50	66,66,66,66	0
83	MG	AR	3756	1/1	0.91	0.33	27,27,27,27	0
83	MG	1	3990	1/1	0.91	0.63	36,36,36,36	0
83	MG	1	3778	1/1	0.91	0.40	31,31,31,31	0
83	MG	1	4187	1/1	0.91	0.20	34,34,34,34	0
83	MG	1	3872	1/1	0.91	0.48	37,37,37,37	0
82	OHX	AS	208	7/7	0.91	0.28	115,115,115,115	0
83	MG	A	2003	1/1	0.91	0.45	55,55,55,55	0
83	MG	AR	4074	1/1	0.91	0.45	36,36,36,36	0
82	OHX	A	1871	7/7	0.91	0.20	116,116,116,116	0
83	MG	1	4086	1/1	0.91	0.15	28,28,28,28	0
82	OHX	AR	3724	7/7	0.91	0.41	115,115,115,115	0
83	MG	1	4216	1/1	0.91	0.59	44,44,44,44	0
83	MG	AR	4258	1/1	0.91	0.60	26,26,26,26	0
83	MG	1	3969	1/1	0.91	0.16	35,35,35,35	0
83	MG	CD	302	1/1	0.91	0.57	27,27,27,27	0
83	MG	sR	2074	1/1	0.91	0.55	41,41,41,41	0
83	MG	AR	3780	1/1	0.91	0.42	27,27,27,27	0
82	OHX	AR	3731	7/7	0.91	0.35	135,135,135,135	0
83	MG	1	4024	1/1	0.91	0.36	33,33,33,33	0
83	MG	1	3964	1/1	0.91	0.34	30,30,30,30	0
83	MG	AR	3749	1/1	0.91	0.53	32,32,32,32	0
83	MG	AT	222	1/1	0.92	0.48	39,39,39,39	0
83	MG	AR	3875	1/1	0.92	0.38	29,29,29,29	0
83	MG	AR	3901	1/1	0.92	0.43	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	3827	1/1	0.92	0.20	22,22,22,22	0
83	MG	AR	4012	1/1	0.92	0.24	29,29,29,29	0
83	MG	1	4071	1/1	0.92	0.12	39,39,39,39	0
83	MG	AR	3748	1/1	0.92	0.24	44,44,44,44	0
83	MG	AR	3821	1/1	0.92	0.61	23,23,23,23	0
83	MG	1	4172	1/1	0.92	0.38	42,42,42,42	0
83	MG	1	3941	1/1	0.92	0.19	45,45,45,45	0
83	MG	1	3738	1/1	0.92	0.64	51,51,51,51	0
83	MG	AR	4086	1/1	0.92	0.13	38,38,38,38	0
83	MG	AR	3978	1/1	0.92	0.32	41,41,41,41	0
82	OHX	A	1934	7/7	0.92	0.48	103,103,103,103	0
83	MG	AR	3891	1/1	0.92	0.42	25,25,25,25	0
83	MG	sR	2200	1/1	0.92	0.25	36,36,36,36	0
82	OHX	4	212	7/7	0.92	0.35	112,112,112,112	0
83	MG	1	4011	1/1	0.92	0.66	45,45,45,45	0
83	MG	3	219	1/1	0.92	0.15	63,63,63,63	0
83	MG	AB	204	1/1	0.92	0.26	25,25,25,25	0
83	MG	x	203	1/1	0.92	0.18	27,27,27,27	0
82	OHX	A	1881	7/7	0.92	0.21	173,173,173,173	0
83	MG	sR	2126	1/1	0.92	0.31	62,62,62,62	0
85	ZN	d7	101	1/1	0.92	0.20	108,108,108,108	0
83	MG	AR	3966	1/1	0.92	0.39	70,70,70,70	0
83	MG	AR	3920	1/1	0.92	0.30	24,24,24,24	0
83	MG	AR	3797	1/1	0.92	0.36	23,23,23,23	0
83	MG	AR	3776	1/1	0.92	0.30	52,52,52,52	0
83	MG	AR	3759	1/1	0.92	0.27	29,29,29,29	0
83	MG	AR	3965	1/1	0.92	0.27	30,30,30,30	0
82	OHX	sR	2048	7/7	0.92	0.36	112,112,112,112	0
83	MG	1	3823	1/1	0.92	0.45	36,36,36,36	0
82	OHX	AR	3649	7/7	0.92	0.31	101,101,101,101	0
83	MG	sR	2181	1/1	0.92	0.47	44,44,44,44	0
83	MG	1	4056	1/1	0.92	0.21	27,27,27,27	0
83	MG	1	3921	1/1	0.92	0.48	31,31,31,31	0
83	MG	1	3857	1/1	0.92	0.23	23,23,23,23	0
82	OHX	A	1909	7/7	0.92	0.26	117,117,117,117	0
83	MG	1	3853	1/1	0.92	0.82	31,31,31,31	0
83	MG	AR	4108	1/1	0.92	0.41	24,24,24,24	0
82	OHX	z	201	7/7	0.92	0.39	123,123,123,123	0
83	MG	1	3948	1/1	0.92	0.49	40,40,40,40	0
83	MG	AR	4121	1/1	0.92	0.27	26,26,26,26	0
83	MG	A	1944	1/1	0.92	0.41	36,36,36,36	0
83	MG	A	2022	1/1	0.92	0.50	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AP	503	1/1	0.92	0.11	52,52,52,52	0
83	MG	1	4121	1/1	0.92	0.30	39,39,39,39	0
83	MG	sR	2071	1/1	0.92	0.82	47,47,47,47	0
83	MG	1	3965	1/1	0.92	0.17	36,36,36,36	0
83	MG	4	229	1/1	0.92	0.22	45,45,45,45	0
82	OHX	A	1912	7/7	0.92	0.35	125,125,125,125	0
83	MG	DH	202	1/1	0.92	0.57	29,29,29,29	0
83	MG	sR	2144	1/1	0.92	0.20	51,51,51,51	0
83	MG	1	4188	1/1	0.92	0.53	41,41,41,41	0
83	MG	1	4193	1/1	0.92	0.48	35,35,35,35	0
83	MG	DC	202	1/1	0.92	0.38	41,41,41,41	0
82	OHX	1	3718	7/7	0.92	0.43	94,94,94,94	0
82	OHX	AR	3700	7/7	0.92	0.35	106,106,106,106	0
83	MG	AR	3785	1/1	0.92	0.21	36,36,36,36	0
83	MG	1	3950	1/1	0.92	0.28	31,31,31,31	0
82	OHX	A	1908	7/7	0.92	0.24	122,122,122,122	0
83	MG	1	3840	1/1	0.92	0.43	31,31,31,31	0
82	OHX	AR	3727	7/7	0.92	0.39	107,107,107,107	0
83	MG	t	203	1/1	0.92	0.35	22,22,22,22	0
82	OHX	sR	1969	7/7	0.92	0.19	91,91,91,91	0
83	MG	1	3910	1/1	0.92	0.72	40,40,40,40	0
83	MG	1	4217	1/1	0.92	0.25	50,50,50,50	0
82	OHX	AR	3713	7/7	0.92	0.40	121,121,121,121	0
83	MG	AR	3763	1/1	0.92	0.36	36,36,36,36	0
82	OHX	J	301	7/7	0.92	0.32	106,106,106,106	0
83	MG	1	4124	1/1	0.92	0.20	29,29,29,29	0
83	MG	1	3873	1/1	0.92	0.41	28,28,28,28	0
83	MG	AB	205	1/1	0.92	0.45	26,26,26,26	0
83	MG	A	1949	1/1	0.92	0.67	53,53,53,53	0
83	MG	sR	2060	1/1	0.92	0.32	69,69,69,69	0
83	MG	1	4045	1/1	0.92	0.20	33,33,33,33	0
83	MG	t	201	1/1	0.92	0.19	39,39,39,39	0
83	MG	sR	2078	1/1	0.92	0.34	48,48,48,48	0
83	MG	1	3786	1/1	0.92	0.43	22,22,22,22	0
83	MG	1	4057	1/1	0.92	0.26	38,38,38,38	0
83	MG	AR	4044	1/1	0.92	0.24	42,42,42,42	0
83	MG	AR	4177	1/1	0.92	0.28	33,33,33,33	0
83	MG	sR	2156	1/1	0.92	0.61	51,51,51,51	0
83	MG	AR	3967	1/1	0.92	0.21	42,42,42,42	0
82	OHX	sR	2036	7/7	0.92	0.41	118,118,118,118	0
82	OHX	CS	201	1/7	0.92	0.05	137,137,137,137	0
83	MG	AR	4169	1/1	0.92	0.20	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	4003	1/1	0.92	0.62	38,38,38,38	0
83	MG	DI	201	1/1	0.92	0.39	53,53,53,53	0
83	MG	AR	4042	1/1	0.92	0.29	33,33,33,33	0
83	MG	AR	3848	1/1	0.92	0.47	36,36,36,36	0
83	MG	AR	4037	1/1	0.92	0.21	29,29,29,29	0
83	MG	sR	2155	1/1	0.92	0.21	44,44,44,44	0
83	MG	1	3852	1/1	0.92	0.34	43,43,43,43	0
83	MG	AR	3923	1/1	0.92	0.38	31,31,31,31	0
83	MG	A	2020	1/1	0.92	0.41	78,78,78,78	0
83	MG	1	3869	1/1	0.92	0.33	42,42,42,42	0
83	MG	sR	2147	1/1	0.92	0.33	45,45,45,45	0
82	OHX	AR	3703	7/7	0.92	0.35	99,99,99,99	0
83	MG	1	4152	1/1	0.92	0.20	40,40,40,40	0
83	MG	AR	4033	1/1	0.92	0.33	25,25,25,25	0
83	MG	AR	3872	1/1	0.92	0.38	29,29,29,29	0
83	MG	1	4122	1/1	0.92	0.33	38,38,38,38	0
83	MG	A	2034	1/1	0.92	0.70	73,73,73,73	0
83	MG	1	4179	1/1	0.92	0.52	34,34,34,34	0
83	MG	AR	4068	1/1	0.92	0.52	28,28,28,28	0
83	MG	AR	4005	1/1	0.92	0.12	27,27,27,27	0
82	OHX	CM	201	7/7	0.92	0.37	120,120,120,120	0
83	MG	A	2067	1/1	0.92	0.85	56,56,56,56	0
83	MG	A	1945	1/1	0.92	0.63	47,47,47,47	0
83	MG	AR	3820	1/1	0.92	0.14	53,53,53,53	0
83	MG	1	4117	1/1	0.92	0.18	54,54,54,54	0
82	OHX	sR	2027	7/7	0.93	0.33	114,114,114,114	0
83	MG	1	3885	1/1	0.93	0.61	32,32,32,32	0
83	MG	AB	201	1/1	0.93	0.23	20,20,20,20	0
83	MG	AR	4098	1/1	0.93	0.33	33,33,33,33	0
82	OHX	sR	2002	7/7	0.93	0.32	97,97,97,97	0
86	GOL	AR	4262	6/6	0.93	0.28	27,27,27,27	0
83	MG	AR	4070	1/1	0.93	0.35	27,27,27,27	0
83	MG	1	3968	1/1	0.93	0.54	28,28,28,28	0
82	OHX	sR	2006	7/7	0.93	0.28	121,121,121,121	0
83	MG	AS	223	1/1	0.93	0.16	60,60,60,60	0
83	MG	sR	2172	1/1	0.93	0.27	70,70,70,70	0
82	OHX	AR	3641	7/7	0.93	0.28	104,104,104,104	0
82	OHX	1	3712	7/7	0.93	0.48	99,99,99,99	0
83	MG	AR	4205	1/1	0.93	0.18	30,30,30,30	0
82	OHX	AR	3677	7/7	0.93	0.31	117,117,117,117	0
83	MG	AR	3947	1/1	0.93	0.14	34,34,34,34	0
83	MG	1	3836	1/1	0.93	0.39	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	3861	1/1	0.93	0.48	23,23,23,23	0
82	OHX	1	3698	7/7	0.93	0.38	131,131,131,131	0
83	MG	sR	2198	1/1	0.93	0.49	60,60,60,60	0
83	MG	AR	4219	1/1	0.93	0.57	39,39,39,39	0
83	MG	sR	2122	1/1	0.93	0.36	48,48,48,48	0
83	MG	AR	3863	1/1	0.93	0.46	30,30,30,30	0
83	MG	1	3914	1/1	0.93	0.56	28,28,28,28	0
83	MG	CU	202	1/1	0.93	0.27	32,32,32,32	0
83	MG	1	4153	1/1	0.93	0.24	42,42,42,42	0
83	MG	AR	3760	1/1	0.93	0.22	36,36,36,36	0
82	OHX	sR	2044	7/7	0.93	0.36	126,126,126,126	0
83	MG	AR	3770	1/1	0.93	0.32	40,40,40,40	0
83	MG	1	4218	1/1	0.93	0.16	23,23,23,23	0
82	OHX	sR	1990	7/7	0.93	0.36	103,103,103,103	0
82	OHX	1	3486	7/7	0.93	0.20	73,73,73,73	0
83	MG	1	4119	1/1	0.93	0.18	44,44,44,44	0
83	MG	AR	4004	1/1	0.93	0.34	35,35,35,35	0
82	OHX	AR	3633	7/7	0.93	0.20	142,142,142,142	0
82	OHX	CF	401	7/7	0.93	0.35	107,107,107,107	0
83	MG	AR	3960	1/1	0.93	0.21	41,41,41,41	0
82	OHX	sR	2040	7/7	0.93	0.46	111,111,111,111	0
83	MG	AR	4224	1/1	0.93	0.29	28,28,28,28	0
82	OHX	A	1926	7/7	0.93	0.38	115,115,115,115	0
83	MG	AR	3822	1/1	0.93	0.14	38,38,38,38	0
83	MG	1	4041	1/1	0.93	0.21	27,27,27,27	0
82	OHX	AR	3657	7/7	0.93	0.32	82,82,82,82	0
82	OHX	4	213	7/7	0.93	0.33	109,109,109,109	0
83	MG	1	4174	1/1	0.93	0.54	27,27,27,27	0
82	OHX	1	3708	7/7	0.93	0.36	110,110,110,110	0
83	MG	AR	4101	1/1	0.93	0.17	27,27,27,27	0
83	MG	AR	3941	1/1	0.93	0.50	23,23,23,23	0
83	MG	CR	206	1/1	0.93	0.43	33,33,33,33	0
83	MG	1	4104	1/1	0.93	0.17	39,39,39,39	0
83	MG	1	4156	1/1	0.93	0.12	46,46,46,46	0
82	OHX	AR	3697	7/7	0.93	0.43	106,106,106,106	0
83	MG	1	3736	1/1	0.93	0.30	30,30,30,30	0
83	MG	1	4095	1/1	0.93	0.15	38,38,38,38	0
83	MG	AR	3930	1/1	0.93	0.14	37,37,37,37	0
83	MG	AR	3811	1/1	0.93	0.24	44,44,44,44	0
82	OHX	AR	3650	7/7	0.93	0.37	103,103,103,103	0
83	MG	AB	207	1/1	0.93	0.19	29,29,29,29	0
83	MG	AR	3943	1/1	0.93	0.29	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	CO	201	7/7	0.93	0.39	148,148,148,148	0
83	MG	AR	3777	1/1	0.93	0.41	28,28,28,28	0
83	MG	s4	302	1/1	0.93	0.38	47,47,47,47	0
83	MG	1	3775	1/1	0.93	0.40	37,37,37,37	0
83	MG	1	3996	1/1	0.93	0.31	21,21,21,21	0
83	MG	1	3734	1/1	0.93	0.46	24,24,24,24	0
83	MG	1	3985	1/1	0.93	0.11	39,39,39,39	0
83	MG	A	1993	1/1	0.93	0.72	74,74,74,74	0
83	MG	1	3860	1/1	0.93	0.70	46,46,46,46	0
83	MG	sR	2151	1/1	0.93	0.39	48,48,48,48	0
83	MG	AR	4078	1/1	0.93	0.41	34,34,34,34	0
83	MG	1	4196	1/1	0.93	0.63	29,29,29,29	0
82	OHX	sR	1932	7/7	0.93	0.17	88,88,88,88	0
83	MG	AR	3912	1/1	0.93	0.90	38,38,38,38	0
83	MG	1	4043	1/1	0.93	0.19	35,35,35,35	0
83	MG	AR	4241	1/1	0.93	0.49	25,25,25,25	0
83	MG	DQ	504	1/1	0.93	0.12	31,31,31,31	0
83	MG	d4	202	1/1	0.93	0.35	43,43,43,43	0
83	MG	1	4198	1/1	0.93	0.19	29,29,29,29	0
83	MG	AR	3950	1/1	0.93	0.35	32,32,32,32	0
82	OHX	1	3608	7/7	0.93	0.27	96,96,96,96	0
82	OHX	AR	3607	7/7	0.93	0.19	124,124,124,124	0
82	OHX	AR	3715	7/7	0.93	0.30	111,111,111,111	0
83	MG	1	3789	1/1	0.93	0.70	40,40,40,40	0
83	MG	AR	4052	1/1	0.93	0.34	39,39,39,39	0
83	MG	sR	2056	1/1	0.93	0.37	61,61,61,61	0
82	OHX	AR	3566	7/7	0.93	0.22	100,100,100,100	0
82	OHX	sR	1966	7/7	0.93	0.19	101,101,101,101	0
83	MG	1	4113	1/1	0.93	0.20	43,43,43,43	0
82	OHX	sR	2037	7/7	0.93	0.35	114,114,114,114	0
83	MG	1	3915	1/1	0.93	0.45	45,45,45,45	0
83	MG	1	4190	1/1	0.93	0.50	21,21,21,21	0
83	MG	AR	4196	1/1	0.93	0.17	29,29,29,29	0
83	MG	AR	4185	1/1	0.93	0.21	29,29,29,29	0
82	OHX	A	1918	7/7	0.93	0.33	124,124,124,124	0
83	MG	sR	2092	1/1	0.93	0.81	58,58,58,58	0
83	MG	A	2059	1/1	0.93	0.85	69,69,69,69	0
83	MG	CO	202	1/1	0.93	0.22	34,34,34,34	0
83	MG	4	233	1/1	0.93	0.43	52,52,52,52	0
82	OHX	1	3666	7/7	0.93	0.49	86,86,86,86	0
82	OHX	A	1925	7/7	0.93	0.28	149,149,149,149	0
83	MG	AR	4176	1/1	0.93	0.20	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	3726	1/1	0.93	0.65	40,40,40,40	0
83	MG	AT	226	1/1	0.93	0.17	38,38,38,38	0
83	MG	sR	2168	1/1	0.93	0.58	48,48,48,48	0
82	OHX	1	3700	7/7	0.93	0.40	111,111,111,111	0
82	OHX	1	3717	7/7	0.93	0.37	117,117,117,117	0
83	MG	sR	2096	1/1	0.93	0.58	37,37,37,37	0
83	MG	1	3953	1/1	0.93	0.18	39,39,39,39	0
83	MG	1	3858	1/1	0.93	0.48	26,26,26,26	0
83	MG	1	3929	1/1	0.93	0.09	47,47,47,47	0
83	MG	1	3756	1/1	0.93	0.67	38,38,38,38	0
83	MG	1	4053	1/1	0.93	0.32	34,34,34,34	0
83	MG	1	4091	1/1	0.93	0.23	42,42,42,42	0
83	MG	c1	203	1/1	0.93	0.33	51,51,51,51	0
83	MG	A	1958	1/1	0.93	0.41	47,47,47,47	0
82	OHX	sR	2019	7/7	0.93	0.38	113,113,113,113	0
83	MG	sR	2091	1/1	0.93	0.38	38,38,38,38	0
83	MG	1	4014	1/1	0.93	0.44	33,33,33,33	0
83	MG	1	3740	1/1	0.93	0.14	43,43,43,43	0
83	MG	sR	2158	1/1	0.93	0.20	57,57,57,57	0
83	MG	AR	4163	1/1	0.93	0.31	38,38,38,38	0
82	OHX	sR	1977	7/7	0.93	0.20	104,104,104,104	0
83	MG	sR	2075	1/1	0.93	0.61	42,42,42,42	0
83	MG	AS	224	1/1	0.93	0.55	36,36,36,36	0
83	MG	1	3908	1/1	0.93	0.38	35,35,35,35	0
83	MG	sR	2190	1/1	0.93	0.41	53,53,53,53	0
83	MG	AR	4083	1/1	0.93	0.22	47,47,47,47	0
83	MG	AR	3818	1/1	0.93	0.62	50,50,50,50	0
82	OHX	AR	3725	7/7	0.93	0.41	111,111,111,111	0
83	MG	A	2019	1/1	0.93	0.29	51,51,51,51	0
83	MG	1	3737	1/1	0.93	0.50	35,35,35,35	0
82	OHX	AR	3702	7/7	0.93	0.36	82,82,82,82	0
83	MG	A	2052	1/1	0.93	0.58	66,66,66,66	0
83	MG	AR	3860	1/1	0.93	0.48	29,29,29,29	0
82	OHX	1	3668	7/7	0.93	0.42	79,79,79,79	0
83	MG	sR	2104	1/1	0.93	0.57	37,37,37,37	0
82	OHX	AR	3659	7/7	0.93	0.35	95,95,95,95	0
83	MG	AS	216	1/1	0.93	0.34	37,37,37,37	0
82	OHX	1	3716	7/7	0.93	0.41	112,112,112,112	0
83	MG	sR	2112	1/1	0.94	0.43	50,50,50,50	0
82	OHX	1	3603	7/7	0.94	0.31	85,85,85,85	0
83	MG	b	202	1/1	0.94	0.46	63,63,63,63	0
83	MG	1	4007	1/1	0.94	0.21	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	sR	2192	1/1	0.94	0.52	41,41,41,41	0
82	OHX	AR	3603	7/7	0.94	0.34	85,85,85,85	0
83	MG	Y	201	1/1	0.94	0.15	50,50,50,50	0
83	MG	AR	3998	1/1	0.94	0.37	36,36,36,36	0
82	OHX	CG	303	7/7	0.94	0.42	105,105,105,105	0
83	MG	A	2015	1/1	0.94	0.43	75,75,75,75	0
83	MG	AR	3914	1/1	0.94	0.45	32,32,32,32	0
83	MG	AR	3795	1/1	0.94	0.34	22,22,22,22	0
83	MG	sR	2166	1/1	0.94	0.21	56,56,56,56	0
83	MG	AR	3790	1/1	0.94	0.28	27,27,27,27	0
83	MG	AR	4209	1/1	0.94	0.30	44,44,44,44	0
83	MG	1	4088	1/1	0.94	0.25	86,86,86,86	0
83	MG	A	1999	1/1	0.94	0.45	55,55,55,55	0
83	MG	CG	304	1/1	0.94	0.53	35,35,35,35	0
83	MG	AR	4159	1/1	0.94	0.15	30,30,30,30	0
83	MG	AR	3825	1/1	0.94	0.25	43,43,43,43	0
83	MG	AR	4043	1/1	0.94	0.17	51,51,51,51	0
82	OHX	1	3645	7/7	0.94	0.33	99,99,99,99	0
83	MG	CR	208	1/1	0.94	0.39	31,31,31,31	0
86	GOL	AR	4263	6/6	0.94	0.36	40,40,40,40	0
83	MG	CJ	301	1/1	0.94	0.44	68,68,68,68	0
83	MG	AR	4040	1/1	0.94	0.49	30,30,30,30	0
82	OHX	sR	2034	7/7	0.94	0.39	110,110,110,110	0
82	OHX	1	3665	7/7	0.94	0.36	107,107,107,107	0
83	MG	sR	2051	1/1	0.94	0.38	46,46,46,46	0
83	MG	A	1964	1/1	0.94	0.64	60,60,60,60	0
83	MG	AR	3809	1/1	0.94	0.32	37,37,37,37	0
82	OHX	sR	2013	7/7	0.94	0.34	83,83,83,83	0
82	OHX	A	1877	7/7	0.94	0.31	118,118,118,118	0
83	MG	1	4166	1/1	0.94	0.19	34,34,34,34	0
83	MG	1	3804	1/1	0.94	0.12	59,59,59,59	0
83	MG	AR	4081	1/1	0.94	0.29	35,35,35,35	0
82	OHX	AR	3716	7/7	0.94	0.24	120,120,120,120	0
83	MG	AR	4255	1/1	0.94	0.45	48,48,48,48	0
83	MG	1	3782	1/1	0.94	0.40	32,32,32,32	0
83	MG	AR	4183	1/1	0.94	0.37	36,36,36,36	0
82	OHX	sR	2025	7/7	0.94	0.33	110,110,110,110	0
83	MG	A	1972	1/1	0.94	0.29	59,59,59,59	0
83	MG	1	4032	1/1	0.94	0.13	63,63,63,63	0
82	OHX	sR	2029	7/7	0.94	0.40	86,86,86,86	0
82	OHX	A	1915	7/7	0.94	0.35	125,125,125,125	0
83	MG	AR	4080	1/1	0.94	0.17	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	A	1974	1/1	0.94	0.61	54,54,54,54	0
83	MG	c8	202	1/1	0.94	0.56	68,68,68,68	0
83	MG	1	4102	1/1	0.94	0.18	31,31,31,31	0
83	MG	sR	2098	1/1	0.94	0.43	38,38,38,38	0
83	MG	AR	3942	1/1	0.94	0.32	25,25,25,25	0
82	OHX	sR	1972	7/7	0.94	0.35	110,110,110,110	0
83	MG	1	3819	1/1	0.94	0.23	69,69,69,69	0
82	OHX	AR	3726	7/7	0.94	0.39	105,105,105,105	0
83	MG	1	4101	1/1	0.94	0.23	69,69,69,69	0
83	MG	1	3892	1/1	0.94	0.37	23,23,23,23	0
83	MG	AR	3874	1/1	0.94	0.38	30,30,30,30	0
83	MG	AR	3902	1/1	0.94	0.49	21,21,21,21	0
82	OHX	1	3597	7/7	0.94	0.35	100,100,100,100	0
83	MG	AR	3832	1/1	0.94	0.31	30,30,30,30	0
83	MG	A	1966	1/1	0.94	0.59	75,75,75,75	0
83	MG	AS	229	1/1	0.94	0.24	43,43,43,43	0
83	MG	1	3932	1/1	0.94	0.58	52,52,52,52	0
83	MG	1	4148	1/1	0.94	0.24	31,31,31,31	0
83	MG	A	1980	1/1	0.94	0.56	55,55,55,55	0
83	MG	AR	4225	1/1	0.94	0.38	45,45,45,45	0
82	OHX	1	3702	7/7	0.94	0.26	162,162,162,162	0
83	MG	A	2024	1/1	0.94	0.77	53,53,53,53	0
83	MG	v	304	1/1	0.94	0.25	37,37,37,37	0
82	OHX	A	1818	7/7	0.94	0.15	80,80,80,80	0
83	MG	1	3741	1/1	0.94	0.28	25,25,25,25	0
83	MG	AR	3918	1/1	0.94	0.44	25,25,25,25	0
83	MG	1	4123	1/1	0.94	0.23	30,30,30,30	0
82	OHX	sR	1980	7/7	0.94	0.45	76,76,76,76	0
83	MG	AR	3910	1/1	0.94	0.57	36,36,36,36	0
82	OHX	s4	301	7/7	0.94	0.24	118,118,118,118	0
83	MG	sR	2089	1/1	0.94	0.30	41,41,41,41	0
82	OHX	AR	3678	7/7	0.94	0.46	111,111,111,111	0
82	OHX	1	3675	7/7	0.94	0.34	111,111,111,111	0
83	MG	A	1987	1/1	0.94	0.47	60,60,60,60	0
82	OHX	1	3655	7/7	0.94	0.37	111,111,111,111	0
83	MG	1	3980	1/1	0.94	0.39	36,36,36,36	0
83	MG	1	4209	1/1	0.94	0.33	34,34,34,34	0
83	MG	AR	4165	1/1	0.94	0.51	38,38,38,38	0
83	MG	AS	212	1/1	0.94	0.41	25,25,25,25	0
83	MG	1	4075	1/1	0.94	0.41	25,25,25,25	0
83	MG	1	3889	1/1	0.94	0.42	25,25,25,25	0
82	OHX	AR	3735	7/7	0.94	0.35	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	3988	1/1	0.94	0.49	63,63,63,63	0
83	MG	AR	4114	1/1	0.94	0.31	64,64,64,64	0
83	MG	A	2047	1/1	0.94	0.36	60,60,60,60	0
82	OHX	1	3614	7/7	0.94	0.35	111,111,111,111	0
82	OHX	AR	3500	7/7	0.94	0.16	90,90,90,90	0
82	OHX	3	208	7/7	0.94	0.22	112,112,112,112	0
83	MG	1	3984	1/1	0.94	0.30	36,36,36,36	0
82	OHX	AR	3710	7/7	0.94	0.38	112,112,112,112	0
83	MG	1	3797	1/1	0.94	0.33	24,24,24,24	0
83	MG	AR	4007	1/1	0.94	0.25	35,35,35,35	0
83	MG	1	4066	1/1	0.94	0.27	26,26,26,26	0
83	MG	4	217	1/1	0.94	0.53	41,41,41,41	0
83	MG	1	3748	1/1	0.94	0.28	32,32,32,32	0
83	MG	sR	2121	1/1	0.94	0.28	45,45,45,45	0
83	MG	1	4200	1/1	0.94	0.49	29,29,29,29	0
82	OHX	AR	3571	7/7	0.94	0.30	76,76,76,76	0
83	MG	1	3781	1/1	0.94	0.37	20,20,20,20	0
83	MG	4	224	1/1	0.94	0.32	36,36,36,36	0
83	MG	1	3766	1/1	0.94	0.34	21,21,21,21	0
82	OHX	AR	3737	7/7	0.94	0.25	58,58,58,58	0
83	MG	A	1979	1/1	0.94	0.61	53,53,53,53	0
83	MG	AT	218	1/1	0.94	0.53	31,31,31,31	0
83	MG	1	4015	1/1	0.94	0.17	38,38,38,38	0
83	MG	AR	3864	1/1	0.94	0.42	25,25,25,25	0
82	OHX	1	3669	7/7	0.94	0.34	112,112,112,112	0
82	OHX	AR	3719	7/7	0.94	0.42	83,83,83,83	0
83	MG	AR	4140	1/1	0.94	0.13	27,27,27,27	0
82	OHX	A	1870	7/7	0.94	0.28	92,92,92,92	0
83	MG	AR	4065	1/1	0.94	0.36	32,32,32,32	0
82	OHX	A	1917	7/7	0.94	0.21	115,115,115,115	0
83	MG	sR	2197	1/1	0.94	0.52	38,38,38,38	0
82	OHX	A	1851	7/7	0.94	0.17	111,111,111,111	0
83	MG	1	3764	1/1	0.94	0.35	28,28,28,28	0
83	MG	AR	4171	1/1	0.94	0.28	34,34,34,34	0
83	MG	1	3870	1/1	0.94	0.27	55,55,55,55	0
82	OHX	A	1906	7/7	0.94	0.29	160,160,160,160	0
83	MG	A	2055	1/1	0.94	0.65	40,40,40,40	0
82	OHX	1	3692	7/7	0.94	0.40	83,83,83,83	0
83	MG	AR	4144	1/1	0.94	0.28	39,39,39,39	0
83	MG	sR	2125	1/1	0.94	0.30	42,42,42,42	0
83	MG	sR	2054	1/1	0.94	0.68	47,47,47,47	0
83	MG	AR	4134	1/1	0.94	0.18	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	sR	2187	1/1	0.94	0.38	43,43,43,43	0
82	OHX	1	3648	7/7	0.94	0.42	98,98,98,98	0
83	MG	x	206	1/1	0.94	0.16	30,30,30,30	0
82	OHX	AR	3661	7/7	0.94	0.28	109,109,109,109	0
83	MG	AR	3788	1/1	0.94	0.31	24,24,24,24	0
83	MG	A	2056	1/1	0.94	0.78	36,36,36,36	0
82	OHX	A	1936	7/7	0.94	0.28	123,123,123,123	0
83	MG	AR	4254	1/1	0.94	0.38	34,34,34,34	0
83	MG	AR	4249	1/1	0.94	0.57	42,42,42,42	0
83	MG	A	1991	1/1	0.94	0.68	80,80,80,80	0
83	MG	sR	2084	1/1	0.94	0.37	61,61,61,61	0
83	MG	AR	4226	1/1	0.94	0.50	22,22,22,22	0
83	MG	AR	4079	1/1	0.94	0.27	46,46,46,46	0
82	OHX	sR	2005	7/7	0.94	0.33	83,83,83,83	0
83	MG	AR	4149	1/1	0.94	0.21	37,37,37,37	0
83	MG	AR	4172	1/1	0.94	1.16	31,31,31,31	0
83	MG	x	202	1/1	0.94	0.43	29,29,29,29	0
82	OHX	sR	1984	7/7	0.94	0.24	90,90,90,90	0
82	OHX	1	3601	7/7	0.94	0.29	94,94,94,94	0
83	MG	sR	2050	1/1	0.94	0.58	40,40,40,40	0
82	OHX	1	3618	7/7	0.94	0.16	170,170,170,170	0
82	OHX	AR	3600	7/7	0.94	0.28	110,110,110,110	0
83	MG	1	3732	1/1	0.94	0.43	33,33,33,33	0
82	OHX	1	3671	7/7	0.94	0.30	115,115,115,115	0
82	OHX	1	3707	7/7	0.94	0.32	111,111,111,111	0
83	MG	DP	101	1/1	0.94	0.35	38,38,38,38	0
83	MG	AR	4055	1/1	0.94	0.57	29,29,29,29	0
82	OHX	4	214	7/7	0.94	0.23	106,106,106,106	0
83	MG	AR	3948	1/1	0.94	0.62	35,35,35,35	0
83	MG	1	3735	1/1	0.94	0.53	39,39,39,39	0
82	OHX	1	3499	7/7	0.94	0.17	89,89,89,89	0
82	OHX	A	1893	7/7	0.94	0.31	111,111,111,111	0
83	MG	DO	202	1/1	0.94	0.28	37,37,37,37	0
83	MG	AR	3989	1/1	0.94	0.21	36,36,36,36	0
83	MG	3	212	1/1	0.94	0.63	59,59,59,59	0
82	OHX	1	3724	1/7	0.94	0.16	143,143,143,143	0
83	MG	AR	3817	1/1	0.94	0.30	51,51,51,51	0
83	MG	1	4110	1/1	0.94	0.28	26,26,26,26	0
82	OHX	1	3714	7/7	0.94	0.48	112,112,112,112	0
83	MG	1	4114	1/1	0.94	0.23	58,58,58,58	0
83	MG	AR	3884	1/1	0.94	0.31	38,38,38,38	0
83	MG	1	4012	1/1	0.94	0.32	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	3833	1/1	0.94	0.41	28,28,28,28	0
83	MG	k	402	1/1	0.94	0.35	30,30,30,30	0
82	OHX	sR	2046	7/7	0.94	0.37	112,112,112,112	0
83	MG	AR	3815	1/1	0.94	0.34	21,21,21,21	0
83	MG	1	4016	1/1	0.94	0.39	29,29,29,29	0
82	OHX	A	1924	7/7	0.94	0.29	126,126,126,126	0
82	OHX	AR	3529	7/7	0.94	0.26	80,80,80,80	0
83	MG	1	3920	1/1	0.94	0.44	20,20,20,20	0
83	MG	AR	3868	1/1	0.94	0.24	24,24,24,24	0
83	MG	AR	3741	1/1	0.94	0.70	50,50,50,50	0
83	MG	DL	102	1/1	0.94	0.41	27,27,27,27	0
83	MG	AR	3784	1/1	0.94	0.57	29,29,29,29	0
83	MG	4	226	1/1	0.94	0.38	42,42,42,42	0
83	MG	AR	3812	1/1	0.94	0.61	41,41,41,41	0
83	MG	1	3924	1/1	0.94	0.40	22,22,22,22	0
83	MG	A	2051	1/1	0.94	0.66	50,50,50,50	0
83	MG	l	403	1/1	0.94	0.25	25,25,25,25	0
83	MG	1	3903	1/1	0.94	0.61	29,29,29,29	0
83	MG	1	4201	1/1	0.94	0.65	33,33,33,33	0
82	OHX	AR	3705	7/7	0.94	0.36	97,97,97,97	0
83	MG	AR	4152	1/1	0.94	0.27	25,25,25,25	0
82	OHX	1	3690	7/7	0.94	0.36	123,123,123,123	0
83	MG	AR	4244	1/1	0.94	0.57	28,28,28,28	0
83	MG	A	2042	1/1	0.94	0.15	81,81,81,81	0
83	MG	1	3944	1/1	0.94	0.46	52,52,52,52	0
83	MG	sR	2082	1/1	0.94	0.29	70,70,70,70	0
83	MG	AR	3838	1/1	0.94	0.40	31,31,31,31	0
82	OHX	1	3604	7/7	0.94	0.32	101,101,101,101	0
83	MG	1	3822	1/1	0.94	0.24	28,28,28,28	0
82	OHX	AR	3508	7/7	0.94	0.17	91,91,91,91	0
82	OHX	1	3552	7/7	0.95	0.21	103,103,103,103	0
82	OHX	A	1873	7/7	0.95	0.22	121,121,121,121	0
83	MG	1	3835	1/1	0.95	0.33	38,38,38,38	0
83	MG	1	3951	1/1	0.95	0.22	28,28,28,28	0
82	OHX	AR	3667	7/7	0.95	0.26	116,116,116,116	0
82	OHX	1	3689	7/7	0.95	0.43	115,115,115,115	0
83	MG	A	1975	1/1	0.95	0.53	55,55,55,55	0
82	OHX	sR	2028	7/7	0.95	0.35	73,73,73,73	0
82	OHX	AR	3655	7/7	0.95	0.27	110,110,110,110	0
83	MG	AB	203	1/1	0.95	0.20	40,40,40,40	0
82	OHX	AR	3684	7/7	0.95	0.31	108,108,108,108	0
83	MG	1	3847	1/1	0.95	0.51	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	4130	1/1	0.95	0.15	48,48,48,48	0
83	MG	AT	224	1/1	0.95	0.23	37,37,37,37	0
82	OHX	1	3609	7/7	0.95	0.25	105,105,105,105	0
83	MG	sR	2134	1/1	0.95	0.20	40,40,40,40	0
82	OHX	1	3660	7/7	0.95	0.36	117,117,117,117	0
83	MG	AR	3799	1/1	0.95	0.34	35,35,35,35	0
82	OHX	AR	3708	7/7	0.95	0.39	103,103,103,103	0
82	OHX	1	3670	7/7	0.95	0.27	83,83,83,83	0
83	MG	AR	3805	1/1	0.95	0.32	27,27,27,27	0
82	OHX	A	1855	7/7	0.95	0.15	97,97,97,97	0
82	OHX	AR	3706	7/7	0.95	0.27	112,112,112,112	0
82	OHX	A	1899	7/7	0.95	0.38	100,100,100,100	0
83	MG	A	2041	1/1	0.95	0.39	71,71,71,71	0
83	MG	1	3751	1/1	0.95	0.14	50,50,50,50	0
82	OHX	sR	2039	7/7	0.95	0.35	118,118,118,118	0
83	MG	AR	4053	1/1	0.95	0.29	33,33,33,33	0
83	MG	AR	4047	1/1	0.95	0.32	52,52,52,52	0
83	MG	1	4009	1/1	0.95	0.39	40,40,40,40	0
82	OHX	1	3554	7/7	0.95	0.26	91,91,91,91	0
82	OHX	AR	3658	7/7	0.95	0.37	98,98,98,98	0
82	OHX	A	1922	7/7	0.95	0.40	85,85,85,85	0
83	MG	AR	4061	1/1	0.95	0.35	32,32,32,32	0
83	MG	1	4214	1/1	0.95	0.70	33,33,33,33	0
82	OHX	AT	214	7/7	0.95	0.32	98,98,98,98	0
83	MG	sR	2094	1/1	0.95	0.45	59,59,59,59	0
82	OHX	AR	3676	7/7	0.95	0.40	109,109,109,109	0
83	MG	AR	3992	1/1	0.95	0.35	23,23,23,23	0
82	OHX	1	3711	7/7	0.95	0.46	95,95,95,95	0
83	MG	4	225	1/1	0.95	0.28	40,40,40,40	0
83	MG	1	3842	1/1	0.95	0.66	32,32,32,32	0
83	MG	AR	3791	1/1	0.95	0.53	32,32,32,32	0
82	OHX	1	3659	7/7	0.95	0.29	118,118,118,118	0
83	MG	AS	215	1/1	0.95	0.60	26,26,26,26	0
83	MG	AR	4100	1/1	0.95	0.36	23,23,23,23	0
83	MG	AR	3959	1/1	0.95	0.25	55,55,55,55	0
83	MG	AT	231	1/1	0.95	0.51	30,30,30,30	0
83	MG	A	1976	1/1	0.95	0.80	67,67,67,67	0
83	MG	sR	2068	1/1	0.95	0.54	35,35,35,35	0
83	MG	sR	2109	1/1	0.95	0.72	71,71,71,71	0
82	OHX	1	3650	7/7	0.95	0.25	98,98,98,98	0
83	MG	1	4221	1/1	0.95	0.49	41,41,41,41	0
83	MG	AR	3808	1/1	0.95	0.30	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	A	1931	7/7	0.95	0.42	87,87,87,87	0
83	MG	AR	4157	1/1	0.95	0.10	31,31,31,31	0
82	OHX	A	1940	7/7	0.95	0.23	128,128,128,128	0
82	OHX	AR	3722	7/7	0.95	0.23	120,120,120,120	0
82	OHX	CL	302	7/7	0.95	0.24	88,88,88,88	0
83	MG	A	2071	1/1	0.95	0.41	56,56,56,56	0
83	MG	sM	302	1/1	0.95	0.26	38,38,38,38	0
83	MG	1	3787	1/1	0.95	0.38	21,21,21,21	0
82	OHX	sR	2049	7/7	0.95	0.30	72,72,72,72	0
82	OHX	AR	3707	7/7	0.95	0.25	149,149,149,149	0
83	MG	1	3923	1/1	0.95	0.40	33,33,33,33	0
82	OHX	1	3594	7/7	0.95	0.16	120,120,120,120	0
82	OHX	AR	3606	7/7	0.95	0.26	73,73,73,73	0
83	MG	sR	2175	1/1	0.95	0.20	82,82,82,82	0
83	MG	AR	4035	1/1	0.95	0.13	41,41,41,41	0
83	MG	AR	3798	1/1	0.95	0.20	25,25,25,25	0
82	OHX	AR	3668	7/7	0.95	0.34	71,71,71,71	0
83	MG	CI	301	1/1	0.95	0.19	29,29,29,29	0
82	OHX	1	3530	7/7	0.95	0.10	128,128,128,128	0
82	OHX	1	3653	7/7	0.95	0.25	105,105,105,105	0
83	MG	CQ	202	1/1	0.95	0.08	33,33,33,33	0
82	OHX	1	3622	7/7	0.95	0.27	100,100,100,100	0
82	OHX	sR	2033	7/7	0.95	0.34	97,97,97,97	0
82	OHX	AR	3652	7/7	0.95	0.29	110,110,110,110	0
83	MG	1	4078	1/1	0.95	0.56	36,36,36,36	0
83	MG	AR	3844	1/1	0.95	0.32	44,44,44,44	0
83	MG	1	4140	1/1	0.95	0.31	43,43,43,43	0
82	OHX	1	3656	7/7	0.95	0.48	114,114,114,114	0
83	MG	AR	4123	1/1	0.95	0.30	28,28,28,28	0
83	MG	1	3977	1/1	0.95	0.29	42,42,42,42	0
82	OHX	A	1896	7/7	0.95	0.28	101,101,101,101	0
83	MG	AS	221	1/1	0.95	0.74	37,37,37,37	0
83	MG	sR	2097	1/1	0.95	0.52	44,44,44,44	0
82	OHX	AR	3674	7/7	0.95	0.50	110,110,110,110	0
83	MG	sR	2184	1/1	0.95	0.38	33,33,33,33	0
82	OHX	AR	3583	7/7	0.95	0.19	86,86,86,86	0
82	OHX	AR	3698	7/7	0.95	0.38	103,103,103,103	0
83	MG	AR	3885	1/1	0.95	0.46	40,40,40,40	0
82	OHX	AR	3540	7/7	0.95	0.24	88,88,88,88	0
82	OHX	1	3705	7/7	0.95	0.25	74,74,74,74	0
82	OHX	1	3673	7/7	0.95	0.35	101,101,101,101	0
82	OHX	AR	3648	7/7	0.95	0.30	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	1	3706	7/7	0.95	0.44	106,106,106,106	0
82	OHX	A	1854	7/7	0.95	0.25	97,97,97,97	0
83	MG	AR	4097	1/1	0.95	0.44	32,32,32,32	0
82	OHX	AR	3720	7/7	0.95	0.33	137,137,137,137	0
83	MG	AR	3883	1/1	0.95	0.59	43,43,43,43	0
83	MG	AR	3882	1/1	0.95	0.41	25,25,25,25	0
82	OHX	AR	3701	7/7	0.95	0.30	114,114,114,114	0
83	MG	1	3918	1/1	0.95	0.59	19,19,19,19	0
83	MG	AR	4228	1/1	0.95	0.35	26,26,26,26	0
83	MG	AR	4141	1/1	0.95	0.18	82,82,82,82	0
83	MG	1	4115	1/1	0.95	0.23	32,32,32,32	0
83	MG	1	3880	1/1	0.95	0.43	30,30,30,30	0
82	OHX	c5	201	7/7	0.95	0.29	130,130,130,130	0
82	OHX	sR	2024	7/7	0.95	0.38	121,121,121,121	0
82	OHX	1	3640	7/7	0.95	0.36	95,95,95,95	0
82	OHX	1	3661	7/7	0.95	0.31	83,83,83,83	0
82	OHX	AR	3630	7/7	0.95	0.30	120,120,120,120	0
83	MG	sR	2173	1/1	0.95	0.50	58,58,58,58	0
82	OHX	1	3454	7/7	0.95	0.15	91,91,91,91	0
83	MG	1	3926	1/1	0.95	0.26	31,31,31,31	0
83	MG	AR	4150	1/1	0.95	0.15	36,36,36,36	0
83	MG	AS	211	1/1	0.95	0.59	36,36,36,36	0
83	MG	AS	220	1/1	0.95	0.32	41,41,41,41	0
83	MG	sR	2108	1/1	0.95	0.60	40,40,40,40	0
83	MG	AR	4194	1/1	0.95	0.51	52,52,52,52	0
83	MG	AR	3892	1/1	0.95	0.51	40,40,40,40	0
83	MG	1	3765	1/1	0.95	0.32	36,36,36,36	0
83	MG	AR	4059	1/1	0.95	0.31	33,33,33,33	0
83	MG	sR	2149	1/1	0.95	0.15	64,64,64,64	0
83	MG	AR	3962	1/1	0.95	0.36	30,30,30,30	0
82	OHX	AR	3610	7/7	0.95	0.27	78,78,78,78	0
82	OHX	AR	3626	7/7	0.95	0.22	119,119,119,119	0
83	MG	AR	4096	1/1	0.95	0.14	31,31,31,31	0
82	OHX	AR	3544	7/7	0.95	0.10	127,127,127,127	0
82	OHX	1	3699	7/7	0.95	0.39	107,107,107,107	0
83	MG	1	3955	1/1	0.95	0.33	23,23,23,23	0
83	MG	AR	3881	1/1	0.95	0.47	57,57,57,57	0
82	OHX	1	3644	7/7	0.95	0.24	134,134,134,134	0
83	MG	1	3739	1/1	0.95	0.39	29,29,29,29	0
83	MG	sR	2086	1/1	0.95	0.32	35,35,35,35	0
82	OHX	r	301	7/7	0.95	0.19	74,74,74,74	0
83	MG	1	3832	1/1	0.95	0.62	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	1	3942	1/1	0.95	0.54	41,41,41,41	0
83	MG	1	3806	1/1	0.95	0.60	36,36,36,36	0
83	MG	1	3866	1/1	0.95	0.48	32,32,32,32	0
82	OHX	AR	3624	7/7	0.95	0.23	109,109,109,109	0
82	OHX	AR	3605	7/7	0.95	0.15	118,118,118,118	0
83	MG	1	3798	1/1	0.95	0.55	22,22,22,22	0
83	MG	1	3815	1/1	0.95	0.23	28,28,28,28	0
82	OHX	AR	3622	7/7	0.95	0.29	114,114,114,114	0
82	OHX	AR	3631	7/7	0.95	0.21	108,108,108,108	0
83	MG	sR	2093	1/1	0.95	0.63	40,40,40,40	0
82	OHX	AP	502	7/7	0.95	0.28	63,63,63,63	0
82	OHX	1	3715	7/7	0.95	0.10	140,140,140,140	0
83	MG	sR	2139	1/1	0.95	1.21	59,59,59,59	0
83	MG	1	4212	1/1	0.95	0.49	42,42,42,42	0
82	OHX	A	1927	7/7	0.95	0.27	132,132,132,132	0
82	OHX	A	1904	7/7	0.95	0.36	94,94,94,94	0
82	OHX	1	3557	7/7	0.95	0.19	109,109,109,109	0
82	OHX	AR	3664	7/7	0.95	0.28	96,96,96,96	0
82	OHX	1	3462	7/7	0.95	0.15	80,80,80,80	0
82	OHX	1	3663	7/7	0.95	0.17	84,84,84,84	0
83	MG	A	1957	1/1	0.95	0.85	63,63,63,63	0
83	MG	AR	4256	1/1	0.95	0.19	26,26,26,26	0
83	MG	AR	4054	1/1	0.95	0.17	44,44,44,44	0
83	MG	AR	3837	1/1	0.95	0.22	24,24,24,24	0
83	MG	A	2026	1/1	0.95	0.25	59,59,59,59	0
82	OHX	A	1941	7/7	0.95	0.38	78,78,78,78	0
82	OHX	AR	3663	7/7	0.95	0.33	102,102,102,102	0
82	OHX	1	3676	7/7	0.95	0.33	113,113,113,113	0
83	MG	1	3896	1/1	0.95	0.41	25,25,25,25	0
83	MG	AB	206	1/1	0.95	0.34	22,22,22,22	0
82	OHX	sR	2000	7/7	0.95	0.21	107,107,107,107	0
83	MG	1	4112	1/1	0.95	0.25	36,36,36,36	0
83	MG	AR	3855	1/1	0.95	0.44	23,23,23,23	0
83	MG	AR	3970	1/1	0.95	0.32	33,33,33,33	0
82	OHX	A	1875	7/7	0.95	0.14	123,123,123,123	0
82	OHX	AR	3730	7/7	0.95	0.50	109,109,109,109	0
83	MG	1	3807	1/1	0.95	0.23	28,28,28,28	0
82	OHX	AR	3557	7/7	0.95	0.24	77,77,77,77	0
83	MG	A	1973	1/1	0.95	0.71	67,67,67,67	0
83	MG	AR	3984	1/1	0.95	0.14	32,32,32,32	0
83	MG	AR	3758	1/1	0.95	0.20	76,76,76,76	0
82	OHX	AR	3728	7/7	0.95	0.33	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	sR	1940	7/7	0.95	0.12	105,105,105,105	0
82	OHX	A	1923	7/7	0.95	0.32	123,123,123,123	0
82	OHX	AR	3696	7/7	0.95	0.40	91,91,91,91	0
83	MG	AR	3995	1/1	0.95	0.52	40,40,40,40	0
83	MG	1	3841	1/1	0.95	0.63	33,33,33,33	0
83	MG	1	3899	1/1	0.95	0.54	17,17,17,17	0
82	OHX	1	3672	7/7	0.95	0.31	114,114,114,114	0
82	OHX	AR	3587	7/7	0.95	0.18	107,107,107,107	0
83	MG	O	202	1/1	0.95	0.88	59,59,59,59	0
83	MG	1	3779	1/1	0.95	0.49	45,45,45,45	0
82	OHX	sR	2026	7/7	0.95	0.34	116,116,116,116	0
82	OHX	1	3696	7/7	0.95	0.40	138,138,138,138	0
82	OHX	c3	201	7/7	0.95	0.28	113,113,113,113	0
83	MG	4	228	1/1	0.95	0.25	28,28,28,28	0
82	OHX	1	3550	7/7	0.95	0.12	125,125,125,125	0
82	OHX	sR	1989	7/7	0.95	0.20	100,100,100,100	0
83	MG	1	3793	1/1	0.95	0.70	51,51,51,51	0
82	OHX	1	3610	7/7	0.95	0.41	91,91,91,91	0
83	MG	1	3829	1/1	0.95	0.32	22,22,22,22	0
82	OHX	1	3561	7/7	0.95	0.28	84,84,84,84	0
83	MG	1	3862	1/1	0.95	0.47	32,32,32,32	0
82	OHX	sR	2035	7/7	0.95	0.40	107,107,107,107	0
82	OHX	A	1888	7/7	0.95	0.22	90,90,90,90	0
82	OHX	1	3695	7/7	0.95	0.39	120,120,120,120	0
83	MG	AR	4201	1/1	0.95	0.19	37,37,37,37	0
83	MG	1	4097	1/1	0.95	0.33	39,39,39,39	0
82	OHX	1	3628	7/7	0.96	0.26	111,111,111,111	0
82	OHX	AR	3699	7/7	0.96	0.42	109,109,109,109	0
82	OHX	A	1928	7/7	0.96	0.27	118,118,118,118	0
82	OHX	J	302	7/7	0.96	0.31	125,125,125,125	0
82	OHX	3	206	7/7	0.96	0.18	98,98,98,98	0
82	OHX	3	203	7/7	0.96	0.14	75,75,75,75	0
82	OHX	AR	3623	7/7	0.96	0.36	98,98,98,98	0
82	OHX	sR	2032	7/7	0.96	0.23	118,118,118,118	0
82	OHX	AR	3636	7/7	0.96	0.33	88,88,88,88	0
82	OHX	A	1849	7/7	0.96	0.23	103,103,103,103	0
82	OHX	1	3606	7/7	0.96	0.21	95,95,95,95	0
82	OHX	CK	201	7/7	0.96	0.28	97,97,97,97	0
83	MG	1	4147	1/1	0.96	0.32	56,56,56,56	0
83	MG	1	4063	1/1	0.96	0.28	52,52,52,52	0
82	OHX	sR	1955	7/7	0.96	0.13	133,133,133,133	0
82	OHX	AR	3734	7/7	0.96	0.35	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	3826	1/1	0.96	0.61	24,24,24,24	0
82	OHX	sR	1961	7/7	0.96	0.18	86,86,86,86	0
83	MG	A	1967	1/1	0.96	0.96	64,64,64,64	0
82	OHX	AR	3570	7/7	0.96	0.16	96,96,96,96	0
83	MG	AR	3977	1/1	0.96	0.54	32,32,32,32	0
82	OHX	AR	3539	7/7	0.96	0.16	106,106,106,106	0
82	OHX	A	1858	7/7	0.96	0.16	127,127,127,127	0
83	MG	AR	3878	1/1	0.96	0.37	24,24,24,24	0
83	MG	1	4203	1/1	0.96	0.47	35,35,35,35	0
82	OHX	AR	3532	7/7	0.96	0.22	69,69,69,69	0
82	OHX	1	3595	7/7	0.96	0.49	110,110,110,110	0
83	MG	1	4120	1/1	0.96	0.36	31,31,31,31	0
83	MG	1	3912	1/1	0.96	0.51	20,20,20,20	0
82	OHX	AR	3638	7/7	0.96	0.39	100,100,100,100	0
82	OHX	AR	3601	7/7	0.96	0.25	89,89,89,89	0
82	OHX	AR	3714	7/7	0.96	0.35	109,109,109,109	0
82	OHX	1	3516	7/7	0.96	0.23	81,81,81,81	0
82	OHX	1	3723	7/7	0.96	0.29	72,72,72,72	0
83	MG	CI	302	1/1	0.96	0.41	35,35,35,35	0
83	MG	1	4118	1/1	0.96	0.26	38,38,38,38	0
82	OHX	A	1895	7/7	0.96	0.31	110,110,110,110	0
83	MG	AR	3871	1/1	0.96	0.45	39,39,39,39	0
84	G5B	1	4224	26/26	0.96	0.20	27,27,27,27	0
83	MG	A	2050	1/1	0.96	0.71	39,39,39,39	0
82	OHX	sR	1950	7/7	0.96	0.15	104,104,104,104	0
83	MG	A	2035	1/1	0.96	0.27	87,87,87,87	0
82	OHX	A	1913	7/7	0.96	0.20	111,111,111,111	0
82	OHX	AR	3717	7/7	0.96	0.33	95,95,95,95	0
82	OHX	1	3469	7/7	0.96	0.13	80,80,80,80	0
83	MG	sR	2099	1/1	0.96	0.81	63,63,63,63	0
82	OHX	e	102	7/7	0.96	0.33	110,110,110,110	0
82	OHX	1	3697	7/7	0.96	0.28	74,74,74,74	0
83	MG	1	3784	1/1	0.96	0.45	28,28,28,28	0
83	MG	1	3902	1/1	0.96	0.50	20,20,20,20	0
82	OHX	1	3620	7/7	0.96	0.31	93,93,93,93	0
83	MG	1	3898	1/1	0.96	0.63	33,33,33,33	0
83	MG	1	3820	1/1	0.96	0.22	33,33,33,33	0
82	OHX	AR	3609	7/7	0.96	0.30	76,76,76,76	0
82	OHX	1	3674	7/7	0.96	0.37	113,113,113,113	0
82	OHX	sR	2011	7/7	0.96	0.33	110,110,110,110	0
82	OHX	AR	3619	7/7	0.96	0.32	76,76,76,76	0
83	MG	1	4185	1/1	0.96	0.40	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
85	ZN	e1	501	1/1	0.96	0.04	136,136,136,136	0
83	MG	1	3725	1/1	0.96	0.52	32,32,32,32	0
83	MG	AR	3887	1/1	0.96	0.75	43,43,43,43	0
82	OHX	1	3688	7/7	0.96	0.27	100,100,100,100	0
83	MG	AR	4161	1/1	0.96	0.17	32,32,32,32	0
82	OHX	1	3627	7/7	0.96	0.36	97,97,97,97	0
82	OHX	1	3479	7/7	0.96	0.13	88,88,88,88	0
83	MG	AR	4116	1/1	0.96	0.34	23,23,23,23	0
82	OHX	1	3629	7/7	0.96	0.25	113,113,113,113	0
83	MG	AR	3842	1/1	0.96	0.30	35,35,35,35	0
83	MG	6	201	1/1	0.96	0.48	25,25,25,25	0
82	OHX	AR	3611	7/7	0.96	0.36	90,90,90,90	0
82	OHX	1	3704	7/7	0.96	0.41	99,99,99,99	0
82	OHX	1	3643	7/7	0.96	0.28	100,100,100,100	0
82	OHX	sR	2007	7/7	0.96	0.19	111,111,111,111	0
82	OHX	AR	3718	7/7	0.96	0.33	134,134,134,134	0
83	MG	1	3759	1/1	0.96	0.35	32,32,32,32	0
82	OHX	A	1883	7/7	0.96	0.27	101,101,101,101	0
82	OHX	A	1914	7/7	0.96	0.26	125,125,125,125	0
82	OHX	1	3722	7/7	0.96	0.35	58,58,58,58	0
82	OHX	sR	1954	7/7	0.96	0.17	127,127,127,127	0
82	OHX	sR	1994	7/7	0.96	0.27	104,104,104,104	0
82	OHX	sR	2022	7/7	0.96	0.42	91,91,91,91	0
82	OHX	sR	1976	7/7	0.96	0.17	115,115,115,115	0
82	OHX	sR	2017	7/7	0.96	0.29	100,100,100,100	0
83	MG	1	4090	1/1	0.96	0.12	27,27,27,27	0
82	OHX	1	3542	7/7	0.96	0.21	96,96,96,96	0
82	OHX	AR	3618	7/7	0.96	0.25	114,114,114,114	0
83	MG	sR	2145	1/1	0.96	0.50	89,89,89,89	0
83	MG	s2	301	1/1	0.96	0.19	48,48,48,48	0
82	OHX	sR	1979	7/7	0.96	0.27	101,101,101,101	0
83	MG	AR	3898	1/1	0.96	0.83	26,26,26,26	0
82	OHX	AR	3666	7/7	0.96	0.19	143,143,143,143	0
82	OHX	sR	1993	7/7	0.96	0.25	93,93,93,93	0
82	OHX	1	3625	7/7	0.96	0.25	110,110,110,110	0
82	OHX	1	3613	7/7	0.96	0.40	87,87,87,87	0
82	OHX	AR	3574	7/7	0.96	0.23	103,103,103,103	0
82	OHX	1	3667	7/7	0.96	0.26	103,103,103,103	0
82	OHX	CE	402	7/7	0.96	0.40	112,112,112,112	0
83	MG	1	3770	1/1	0.96	0.15	36,36,36,36	0
82	OHX	CG	301	7/7	0.96	0.23	109,109,109,109	0
83	MG	4	221	1/1	0.96	0.58	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	A	1910	7/7	0.96	0.32	97,97,97,97	0
82	OHX	AR	3547	7/7	0.96	0.28	64,64,64,64	0
83	MG	CK	204	1/1	0.96	0.26	32,32,32,32	0
83	MG	AR	4232	1/1	0.96	0.52	49,49,49,49	0
82	OHX	sR	1949	7/7	0.96	0.15	104,104,104,104	0
83	MG	A	2048	1/1	0.96	0.46	60,60,60,60	0
82	OHX	1	3546	7/7	0.96	0.14	107,107,107,107	0
83	MG	1	3760	1/1	0.96	0.30	38,38,38,38	0
82	OHX	AR	3621	7/7	0.96	0.31	95,95,95,95	0
82	OHX	1	3596	7/7	0.96	0.36	99,99,99,99	0
82	OHX	A	1882	7/7	0.96	0.25	88,88,88,88	0
83	MG	1	3909	1/1	0.96	0.76	41,41,41,41	0
82	OHX	sR	1962	7/7	0.96	0.31	102,102,102,102	0
82	OHX	AR	3505	7/7	0.96	0.15	82,82,82,82	0
82	OHX	AR	3686	7/7	0.96	0.33	86,86,86,86	0
83	MG	A	2069	1/1	0.96	0.51	58,58,58,58	0
82	OHX	A	1900	7/7	0.96	0.29	110,110,110,110	0
82	OHX	sR	2023	7/7	0.96	0.32	122,122,122,122	0
83	MG	1	3893	1/1	0.96	0.43	22,22,22,22	0
82	OHX	h	401	7/7	0.96	0.19	134,134,134,134	0
83	MG	AT	229	1/1	0.96	0.47	31,31,31,31	0
83	MG	1	4186	1/1	0.96	0.25	22,22,22,22	0
82	OHX	AR	3672	7/7	0.96	0.27	102,102,102,102	0
82	OHX	AR	3637	7/7	0.96	0.22	103,103,103,103	0
83	MG	sR	2100	1/1	0.96	0.58	61,61,61,61	0
83	MG	AR	4230	1/1	0.96	0.48	35,35,35,35	0
82	OHX	sR	2010	7/7	0.96	0.36	107,107,107,107	0
82	OHX	sR	2043	7/7	0.96	0.28	120,120,120,120	0
83	MG	1	4189	1/1	0.96	0.46	18,18,18,18	0
82	OHX	AR	3640	7/7	0.96	0.41	90,90,90,90	0
83	MG	AR	4218	1/1	0.96	0.48	21,21,21,21	0
83	MG	AR	3765	1/1	0.96	0.47	35,35,35,35	0
83	MG	1	3978	1/1	0.96	0.37	28,28,28,28	0
83	MG	AR	3973	1/1	0.96	0.15	26,26,26,26	0
82	OHX	1	3633	7/7	0.96	0.35	128,128,128,128	0
83	MG	AR	4111	1/1	0.96	0.24	38,38,38,38	0
82	OHX	AR	3653	7/7	0.96	0.35	82,82,82,82	0
83	MG	1	3844	1/1	0.96	0.50	35,35,35,35	0
83	MG	AR	4211	1/1	0.96	0.21	29,29,29,29	0
83	MG	AR	4120	1/1	0.96	0.14	40,40,40,40	0
82	OHX	1	3616	7/7	0.96	0.26	114,114,114,114	0
82	OHX	sR	2009	7/7	0.96	0.20	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	A	1905	7/7	0.96	0.28	118,118,118,118	0
83	MG	AR	3951	1/1	0.96	0.25	70,70,70,70	0
83	MG	1	4031	1/1	0.96	0.42	24,24,24,24	0
82	OHX	AR	3551	7/7	0.96	0.21	83,83,83,83	0
82	OHX	sR	1998	7/7	0.96	0.31	107,107,107,107	0
82	OHX	1	3513	7/7	0.96	0.16	80,80,80,80	0
82	OHX	1	3480	7/7	0.96	0.15	69,69,69,69	0
83	MG	AR	3981	1/1	0.96	0.28	80,80,80,80	0
82	OHX	AR	3613	7/7	0.96	0.39	106,106,106,106	0
82	OHX	sR	2004	7/7	0.96	0.31	105,105,105,105	0
82	OHX	A	1933	7/7	0.96	0.47	117,117,117,117	0
83	MG	1	4219	1/1	0.96	0.19	31,31,31,31	0
83	MG	AR	3999	1/1	0.96	0.25	27,27,27,27	0
82	OHX	A	1942	7/7	0.96	0.27	111,111,111,111	0
83	MG	AR	3915	1/1	0.96	0.54	32,32,32,32	0
82	OHX	AS	209	7/7	0.96	0.25	74,74,74,74	0
82	OHX	1	3635	7/7	0.96	0.21	107,107,107,107	0
82	OHX	A	1874	7/7	0.96	0.11	136,136,136,136	0
82	OHX	sR	1973	7/7	0.96	0.19	105,105,105,105	0
83	MG	AR	4072	1/1	0.96	0.21	29,29,29,29	0
82	OHX	sR	2008	7/7	0.96	0.17	106,106,106,106	0
83	MG	1	3817	1/1	0.96	0.33	25,25,25,25	0
83	MG	AR	3928	1/1	0.96	0.82	34,34,34,34	0
83	MG	AR	3986	1/1	0.96	0.38	46,46,46,46	0
82	OHX	1	3693	7/7	0.96	0.32	90,90,90,90	0
84	G5B	AR	4264	26/26	0.96	0.20	29,29,29,29	0
82	OHX	1	3626	7/7	0.96	0.23	109,109,109,109	0
83	MG	CP	503	1/1	0.96	0.10	35,35,35,35	0
82	OHX	AR	3595	7/7	0.96	0.28	79,79,79,79	0
82	OHX	c8	201	7/7	0.96	0.17	115,115,115,115	0
82	OHX	1	3605	7/7	0.96	0.29	105,105,105,105	0
83	MG	sR	2110	1/1	0.96	0.31	39,39,39,39	0
82	OHX	A	1836	7/7	0.96	0.15	84,84,84,84	0
83	MG	AR	3873	1/1	0.96	0.24	41,41,41,41	0
82	OHX	sR	1975	7/7	0.96	0.23	82,82,82,82	0
82	OHX	AR	3690	7/7	0.96	0.31	81,81,81,81	0
83	MG	1	3733	1/1	0.96	0.42	28,28,28,28	0
83	MG	1	3919	1/1	0.96	0.64	22,22,22,22	0
82	OHX	A	1859	7/7	0.96	0.18	107,107,107,107	0
82	OHX	AR	3639	7/7	0.96	0.36	92,92,92,92	0
83	MG	AR	3888	1/1	0.96	0.65	25,25,25,25	0
82	OHX	4	208	7/7	0.96	0.28	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	3869	1/1	0.96	0.34	26,26,26,26	0
83	MG	CG	305	1/1	0.96	0.18	49,49,49,49	0
83	MG	AR	4213	1/1	0.96	0.39	25,25,25,25	0
82	OHX	AR	3665	7/7	0.96	0.28	117,117,117,117	0
83	MG	A	1959	1/1	0.96	0.48	55,55,55,55	0
82	OHX	1	3664	7/7	0.96	0.31	94,94,94,94	0
83	MG	AR	3911	1/1	0.96	0.53	26,26,26,26	0
83	MG	d3	202	1/1	0.96	0.27	41,41,41,41	0
82	OHX	1	3579	7/7	0.96	0.24	82,82,82,82	0
82	OHX	1	3646	7/7	0.96	0.24	103,103,103,103	0
83	MG	A	1977	1/1	0.96	0.70	57,57,57,57	0
82	OHX	AR	3694	7/7	0.96	0.38	86,86,86,86	0
82	OHX	sR	2031	7/7	0.96	0.33	110,110,110,110	0
83	MG	1	3824	1/1	0.96	0.36	25,25,25,25	0
83	MG	1	4023	1/1	0.96	0.16	82,82,82,82	0
82	OHX	x	201	7/7	0.96	0.41	101,101,101,101	0
83	MG	1	3785	1/1	0.96	0.45	18,18,18,18	0
82	OHX	sR	1971	7/7	0.96	0.20	102,102,102,102	0
83	MG	sR	2085	1/1	0.96	0.52	37,37,37,37	0
83	MG	1	3811	1/1	0.96	0.50	32,32,32,32	0
82	OHX	sR	2038	7/7	0.96	0.40	125,125,125,125	0
83	MG	AR	3968	1/1	0.96	0.55	40,40,40,40	0
82	OHX	4	209	7/7	0.96	0.19	116,116,116,116	0
82	OHX	3	209	7/7	0.96	0.26	118,118,118,118	0
83	MG	AR	4233	1/1	0.96	0.45	57,57,57,57	0
83	MG	1	3928	1/1	0.96	0.21	33,33,33,33	0
82	OHX	AR	3646	7/7	0.96	0.30	98,98,98,98	0
82	OHX	AR	3602	7/7	0.96	0.17	104,104,104,104	0
83	MG	AR	3782	1/1	0.96	0.20	35,35,35,35	0
83	MG	1	4194	1/1	0.96	0.31	38,38,38,38	0
82	OHX	1	3632	7/7	0.96	0.29	90,90,90,90	0
85	ZN	g	501	1/1	0.96	0.08	102,102,102,102	0
82	OHX	AR	3695	7/7	0.96	0.46	107,107,107,107	0
83	MG	1	3753	1/1	0.96	0.40	40,40,40,40	0
82	OHX	AR	3704	7/7	0.96	0.34	77,77,77,77	0
83	MG	1	4073	1/1	0.96	0.28	41,41,41,41	0
82	OHX	1	3637	7/7	0.96	0.28	91,91,91,91	0
82	OHX	sR	2014	7/7	0.96	0.41	93,93,93,93	0
82	OHX	AR	3599	7/7	0.96	0.24	93,93,93,93	0
83	MG	AR	3926	1/1	0.96	0.34	25,25,25,25	0
82	OHX	AR	3688	7/7	0.96	0.39	97,97,97,97	0
82	OHX	sR	1981	7/7	0.96	0.32	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	sR	1992	7/7	0.96	0.21	94,94,94,94	0
83	MG	AR	4129	1/1	0.96	0.23	38,38,38,38	0
83	MG	AR	4094	1/1	0.96	0.29	68,68,68,68	0
82	OHX	sR	2015	7/7	0.96	0.35	90,90,90,90	0
82	OHX	AR	3546	7/7	0.96	0.17	83,83,83,83	0
83	MG	AR	3757	1/1	0.96	0.36	58,58,58,58	0
83	MG	1	3907	1/1	0.96	0.53	28,28,28,28	0
83	MG	9	201	1/1	0.96	0.39	34,34,34,34	0
82	OHX	1	3505	7/7	0.96	0.24	74,74,74,74	0
82	OHX	AR	3580	7/7	0.96	0.10	135,135,135,135	0
82	OHX	A	1894	7/7	0.96	0.20	118,118,118,118	0
83	MG	1	3838	1/1	0.96	0.49	20,20,20,20	0
82	OHX	1	3686	7/7	0.96	0.53	121,121,121,121	0
83	MG	A	1998	1/1	0.96	0.26	58,58,58,58	0
82	OHX	sR	1919	7/7	0.96	0.15	73,73,73,73	0
82	OHX	1	3593	7/7	0.96	0.20	99,99,99,99	0
82	OHX	1	3551	7/7	0.96	0.23	91,91,91,91	0
82	OHX	sR	2020	7/7	0.96	0.26	111,111,111,111	0
82	OHX	A	1831	7/7	0.96	0.11	105,105,105,105	0
82	OHX	A	1935	7/7	0.96	0.35	122,122,122,122	0
82	OHX	AR	3689	7/7	0.96	0.21	105,105,105,105	0
82	OHX	AR	3651	7/7	0.96	0.34	90,90,90,90	0
82	OHX	sR	2001	7/7	0.96	0.28	83,83,83,83	0
82	OHX	AR	3573	7/7	0.96	0.22	90,90,90,90	0
83	MG	AR	3857	1/1	0.96	0.58	21,21,21,21	0
82	OHX	1	3444	7/7	0.96	0.20	66,66,66,66	0
82	OHX	1	3483	7/7	0.96	0.13	95,95,95,95	0
82	OHX	1	3485	7/7	0.96	0.13	82,82,82,82	0
83	MG	1	3831	1/1	0.96	0.33	31,31,31,31	0
82	OHX	AR	3594	7/7	0.96	0.26	88,88,88,88	0
82	OHX	AR	3561	7/7	0.96	0.13	106,106,106,106	0
82	OHX	1	3496	7/7	0.96	0.16	74,74,74,74	0
83	MG	AR	3859	1/1	0.96	0.33	34,34,34,34	0
82	OHX	1	3713	7/7	0.96	0.22	105,105,105,105	0
82	OHX	AT	216	7/7	0.96	0.36	95,95,95,95	0
82	OHX	AR	3496	7/7	0.96	0.15	86,86,86,86	0
82	OHX	1	3562	7/7	0.96	0.29	99,99,99,99	0
82	OHX	1	3619	7/7	0.96	0.24	102,102,102,102	0
82	OHX	4	211	7/7	0.96	0.28	87,87,87,87	0
83	MG	sR	2101	1/1	0.96	0.49	57,57,57,57	0
82	OHX	sR	2030	7/7	0.96	0.43	95,95,95,95	0
83	MG	1	3749	1/1	0.97	0.28	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	A	1983	1/1	0.97	0.57	57,57,57,57	0
82	OHX	1	3538	7/7	0.97	0.19	90,90,90,90	0
82	OHX	AR	3644	7/7	0.97	0.32	103,103,103,103	0
82	OHX	AR	3692	7/7	0.97	0.27	83,83,83,83	0
82	OHX	3	201	7/7	0.97	0.11	76,76,76,76	0
82	OHX	1	3615	7/7	0.97	0.30	98,98,98,98	0
82	OHX	sR	1939	7/7	0.97	0.12	91,91,91,91	0
82	OHX	sR	1991	7/7	0.97	0.34	95,95,95,95	0
83	MG	AR	4164	1/1	0.97	0.18	36,36,36,36	0
83	MG	1	3777	1/1	0.97	0.37	38,38,38,38	0
82	OHX	A	1884	7/7	0.97	0.17	86,86,86,86	0
82	OHX	A	1880	7/7	0.97	0.28	119,119,119,119	0
82	OHX	1	3600	7/7	0.97	0.31	78,78,78,78	0
83	MG	A	2070	1/1	0.97	0.30	76,76,76,76	0
83	MG	AR	3935	1/1	0.97	0.34	31,31,31,31	0
82	OHX	1	3490	7/7	0.97	0.16	70,70,70,70	0
82	OHX	1	3577	7/7	0.97	0.20	81,81,81,81	0
83	MG	AB	202	1/1	0.97	0.33	22,22,22,22	0
82	OHX	1	3563	7/7	0.97	0.21	99,99,99,99	0
82	OHX	l	401	7/7	0.97	0.35	106,106,106,106	0
82	OHX	A	1891	7/7	0.97	0.17	122,122,122,122	0
82	OHX	A	1920	7/7	0.97	0.25	98,98,98,98	0
82	OHX	1	3545	7/7	0.97	0.13	93,93,93,93	0
82	OHX	AR	3680	7/7	0.97	0.39	93,93,93,93	0
82	OHX	AT	208	7/7	0.97	0.26	85,85,85,85	0
82	OHX	1	3642	7/7	0.97	0.34	107,107,107,107	0
83	MG	AS	217	1/1	0.97	0.09	52,52,52,52	0
82	OHX	AR	3525	7/7	0.97	0.21	76,76,76,76	0
82	OHX	A	1897	7/7	0.97	0.26	119,119,119,119	0
83	MG	1	4025	1/1	0.97	0.33	42,42,42,42	0
82	OHX	AR	3535	7/7	0.97	0.23	81,81,81,81	0
82	OHX	AR	3534	7/7	0.97	0.11	106,106,106,106	0
83	MG	sR	2142	1/1	0.97	0.20	65,65,65,65	0
82	OHX	1	3585	7/7	0.97	0.20	103,103,103,103	0
82	OHX	y	201	7/7	0.97	0.26	97,97,97,97	0
83	MG	1	3894	1/1	0.97	0.39	19,19,19,19	0
82	OHX	1	3535	7/7	0.97	0.21	74,74,74,74	0
82	OHX	AR	3596	7/7	0.97	0.27	81,81,81,81	0
83	MG	1	3761	1/1	0.97	0.33	24,24,24,24	0
83	MG	1	3855	1/1	0.97	0.39	21,21,21,21	0
83	MG	AR	3781	1/1	0.97	0.28	22,22,22,22	0
83	MG	1	4050	1/1	0.97	0.32	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	A	1861	7/7	0.97	0.18	110,110,110,110	0
82	OHX	sR	1965	7/7	0.97	0.22	82,82,82,82	0
82	OHX	AG	201	7/7	0.97	0.27	83,83,83,83	0
82	OHX	1	3493	7/7	0.97	0.13	85,85,85,85	0
83	MG	AR	4103	1/1	0.97	0.29	36,36,36,36	0
82	OHX	A	1869	7/7	0.97	0.32	108,108,108,108	0
83	MG	AR	3839	1/1	0.97	0.36	24,24,24,24	0
82	OHX	1	3641	7/7	0.97	0.25	92,92,92,92	0
83	MG	1	3799	1/1	0.97	0.30	64,64,64,64	0
82	OHX	1	3501	7/7	0.97	0.09	105,105,105,105	0
82	OHX	1	3572	7/7	0.97	0.24	91,91,91,91	0
83	MG	1	3812	1/1	0.97	0.48	32,32,32,32	0
82	OHX	AR	3538	7/7	0.97	0.28	89,89,89,89	0
82	OHX	AR	3565	7/7	0.97	0.24	89,89,89,89	0
82	OHX	1	3529	7/7	0.97	0.25	74,74,74,74	0
83	MG	AR	3904	1/1	0.97	0.52	26,26,26,26	0
82	OHX	1	3636	7/7	0.97	0.27	93,93,93,93	0
82	OHX	1	3500	7/7	0.97	0.20	73,73,73,73	0
82	OHX	AR	3681	7/7	0.97	0.29	94,94,94,94	0
83	MG	AR	3850	1/1	0.97	0.58	22,22,22,22	0
82	OHX	1	3482	7/7	0.97	0.10	105,105,105,105	0
83	MG	1	3879	1/1	0.97	0.58	24,24,24,24	0
82	OHX	1	3623	7/7	0.97	0.27	120,120,120,120	0
83	MG	A	1992	1/1	0.97	0.21	52,52,52,52	0
83	MG	sR	2167	1/1	0.97	0.32	63,63,63,63	0
83	MG	AS	213	1/1	0.97	0.41	47,47,47,47	0
83	MG	AR	3894	1/1	0.97	0.51	22,22,22,22	0
83	MG	1	3938	1/1	0.97	0.28	36,36,36,36	0
83	MG	AR	4082	1/1	0.97	0.27	25,25,25,25	0
83	MG	sR	2195	1/1	0.97	0.23	58,58,58,58	0
82	OHX	1	3719	7/7	0.97	0.22	93,93,93,93	0
82	OHX	AR	3548	7/7	0.97	0.20	85,85,85,85	0
83	MG	1	3757	1/1	0.97	0.44	26,26,26,26	0
82	OHX	A	1866	7/7	0.97	0.22	100,100,100,100	0
82	OHX	sR	1995	7/7	0.97	0.24	128,128,128,128	0
82	OHX	AR	3597	7/7	0.97	0.25	86,86,86,86	0
82	OHX	sR	1978	7/7	0.97	0.31	81,81,81,81	0
82	OHX	1	3649	7/7	0.97	0.28	83,83,83,83	0
82	OHX	A	1865	7/7	0.97	0.21	103,103,103,103	0
82	OHX	sR	1985	7/7	0.97	0.17	116,116,116,116	0
82	OHX	AR	3473	7/7	0.97	0.14	62,62,62,62	0
82	OHX	AR	3549	7/7	0.97	0.27	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	AR	3457	7/7	0.97	0.14	70,70,70,70	0
82	OHX	AR	3592	7/7	0.97	0.41	78,78,78,78	0
82	OHX	1	3540	7/7	0.97	0.22	78,78,78,78	0
83	MG	AR	4195	1/1	0.97	0.47	28,28,28,28	0
83	MG	1	3983	1/1	0.97	0.24	27,27,27,27	0
83	MG	1	3901	1/1	0.97	0.14	22,22,22,22	0
82	OHX	CL	301	7/7	0.97	0.16	97,97,97,97	0
82	OHX	1	3541	7/7	0.97	0.28	78,78,78,78	0
83	MG	AR	4008	1/1	0.97	0.52	37,37,37,37	0
82	OHX	AR	3515	7/7	0.97	0.09	123,123,123,123	0
82	OHX	AR	3428	7/7	0.97	0.20	57,57,57,57	0
82	OHX	AR	3567	7/7	0.97	0.20	122,122,122,122	0
83	MG	AR	3916	1/1	0.97	0.65	37,37,37,37	0
82	OHX	AR	3582	7/7	0.97	0.26	95,95,95,95	0
82	OHX	sR	2016	7/7	0.97	0.31	89,89,89,89	0
82	OHX	1	3679	7/7	0.97	0.32	106,106,106,106	0
82	OHX	3	207	7/7	0.97	0.20	97,97,97,97	0
83	MG	AR	3796	1/1	0.97	0.43	24,24,24,24	0
82	OHX	1	3662	7/7	0.97	0.30	88,88,88,88	0
83	MG	1	3895	1/1	0.97	0.59	38,38,38,38	0
82	OHX	1	3582	7/7	0.97	0.24	86,86,86,86	0
82	OHX	AR	3598	7/7	0.97	0.35	98,98,98,98	0
82	OHX	AT	213	7/7	0.97	0.27	106,106,106,106	0
82	OHX	3	205	7/7	0.97	0.20	94,94,94,94	0
82	OHX	1	3694	7/7	0.97	0.34	81,81,81,81	0
82	OHX	1	3631	7/7	0.97	0.33	82,82,82,82	0
82	OHX	1	3721	7/7	0.97	0.27	55,55,55,55	0
82	OHX	1	3458	7/7	0.97	0.12	64,64,64,64	0
82	OHX	1	3612	7/7	0.97	0.26	87,87,87,87	0
83	MG	AR	4095	1/1	0.97	0.46	37,37,37,37	0
82	OHX	1	3532	7/7	0.97	0.32	79,79,79,79	0
83	MG	AT	220	1/1	0.97	0.59	37,37,37,37	0
82	OHX	1	3508	7/7	0.97	0.14	81,81,81,81	0
83	MG	1	4128	1/1	0.97	0.15	75,75,75,75	0
83	MG	AR	4243	1/1	0.97	0.27	20,20,20,20	0
83	MG	A	1955	1/1	0.97	1.56	71,71,71,71	0
82	OHX	AT	212	7/7	0.97	0.26	93,93,93,93	0
83	MG	1	4222	1/1	0.97	0.52	32,32,32,32	0
82	OHX	sR	1958	7/7	0.97	0.18	84,84,84,84	0
82	OHX	AR	3673	7/7	0.97	0.33	103,103,103,103	0
82	OHX	1	3651	7/7	0.97	0.27	109,109,109,109	0
82	OHX	A	1844	7/7	0.97	0.13	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	sR	2176	1/1	0.97	0.36	63,63,63,63	0
83	MG	AR	3907	1/1	0.97	0.53	27,27,27,27	0
82	OHX	1	3592	7/7	0.97	0.18	129,129,129,129	0
83	MG	1	3884	1/1	0.97	0.52	33,33,33,33	0
83	MG	1	3874	1/1	0.97	0.40	35,35,35,35	0
82	OHX	4	207	7/7	0.97	0.24	92,92,92,92	0
82	OHX	A	1911	7/7	0.97	0.46	99,99,99,99	0
83	MG	AR	3927	1/1	0.97	0.60	35,35,35,35	0
82	OHX	1	3507	7/7	0.97	0.10	98,98,98,98	0
83	MG	1	3839	1/1	0.97	0.56	18,18,18,18	0
83	MG	1	3848	1/1	0.97	0.44	22,22,22,22	0
82	OHX	A	1863	7/7	0.97	0.20	114,114,114,114	0
83	MG	AR	3846	1/1	0.97	0.65	30,30,30,30	0
82	OHX	A	1833	7/7	0.97	0.21	90,90,90,90	0
82	OHX	1	3657	7/7	0.97	0.30	89,89,89,89	0
83	MG	AR	4125	1/1	0.97	0.53	26,26,26,26	0
82	OHX	AR	3536	7/7	0.97	0.23	76,76,76,76	0
83	MG	AR	4220	1/1	0.97	0.30	38,38,38,38	0
82	OHX	1	3589	7/7	0.97	0.25	69,69,69,69	0
83	MG	4	222	1/1	0.97	0.39	22,22,22,22	0
83	MG	1	3927	1/1	0.97	0.45	31,31,31,31	0
82	OHX	1	3587	7/7	0.97	0.25	76,76,76,76	0
82	OHX	AR	3460	7/7	0.97	0.14	53,53,53,53	0
83	MG	AR	4071	1/1	0.97	0.42	28,28,28,28	0
83	MG	AR	3971	1/1	0.97	0.45	30,30,30,30	0
82	OHX	AR	3671	7/7	0.97	0.41	97,97,97,97	0
83	MG	AR	3909	1/1	0.97	0.54	22,22,22,22	0
83	MG	AR	3879	1/1	0.97	0.53	33,33,33,33	0
82	OHX	1	3524	7/7	0.97	0.27	78,78,78,78	0
83	MG	1	3843	1/1	0.97	0.52	27,27,27,27	0
82	OHX	AR	3543	7/7	0.97	0.20	99,99,99,99	0
83	MG	AR	4259	1/1	0.97	0.50	44,44,44,44	0
82	OHX	A	1845	7/7	0.97	0.14	110,110,110,110	0
82	OHX	AT	215	7/7	0.97	0.25	108,108,108,108	0
82	OHX	AR	3709	7/7	0.97	0.25	77,77,77,77	0
82	OHX	AR	3616	7/7	0.97	0.22	83,83,83,83	0
82	OHX	1	3591	7/7	0.97	0.33	88,88,88,88	0
83	MG	AR	3847	1/1	0.97	0.46	22,22,22,22	0
82	OHX	AR	3475	7/7	0.97	0.10	84,84,84,84	0
83	MG	1	3856	1/1	0.97	0.64	31,31,31,31	0
83	MG	sR	2162	1/1	0.97	0.15	25,25,25,25	0
82	OHX	AR	3593	7/7	0.97	0.34	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	1	3471	7/7	0.97	0.13	69,69,69,69	0
82	OHX	1	3571	7/7	0.97	0.19	103,103,103,103	0
83	MG	AR	3922	1/1	0.97	0.39	22,22,22,22	0
83	MG	AR	4099	1/1	0.97	0.13	45,45,45,45	0
82	OHX	1	3536	7/7	0.97	0.15	95,95,95,95	0
82	OHX	A	1886	7/7	0.97	0.35	123,123,123,123	0
83	MG	1	3861	1/1	0.97	0.79	26,26,26,26	0
82	OHX	sR	1987	7/7	0.97	0.32	117,117,117,117	0
83	MG	1	3917	1/1	0.97	0.48	22,22,22,22	0
82	OHX	1	3548	7/7	0.97	0.17	99,99,99,99	0
83	MG	AR	3929	1/1	0.97	0.70	30,30,30,30	0
83	MG	1	3890	1/1	0.97	0.56	27,27,27,27	0
83	MG	AR	3997	1/1	0.97	0.15	22,22,22,22	0
82	OHX	Rb	401	7/7	0.97	0.26	127,127,127,127	0
82	OHX	1	3565	7/7	0.97	0.20	103,103,103,103	0
83	MG	AR	3835	1/1	0.97	0.52	28,28,28,28	0
82	OHX	AR	3670	7/7	0.97	0.21	99,99,99,99	0
82	OHX	A	1903	7/7	0.97	0.25	113,113,113,113	0
82	OHX	AR	3617	7/7	0.97	0.23	87,87,87,87	0
82	OHX	AR	3476	7/7	0.97	0.13	71,71,71,71	0
82	OHX	AR	3620	7/7	0.97	0.24	86,86,86,86	0
82	OHX	AR	3635	7/7	0.97	0.21	96,96,96,96	0
82	OHX	1	3473	7/7	0.97	0.10	86,86,86,86	0
83	MG	1	3887	1/1	0.97	0.39	42,42,42,42	0
82	OHX	1	3638	7/7	0.97	0.16	116,116,116,116	0
82	OHX	AR	3628	7/7	0.97	0.26	100,100,100,100	0
82	OHX	1	3534	7/7	0.97	0.26	82,82,82,82	0
83	MG	AR	3764	1/1	0.97	0.34	31,31,31,31	0
82	OHX	DQ	502	7/7	0.97	0.26	64,64,64,64	0
83	MG	sR	2102	1/1	0.97	0.42	42,42,42,42	0
82	OHX	A	1847	7/7	0.97	0.24	90,90,90,90	0
82	OHX	A	1902	7/7	0.97	0.34	91,91,91,91	0
83	MG	AR	3979	1/1	0.97	0.30	37,37,37,37	0
82	OHX	sR	1986	7/7	0.97	0.33	87,87,87,87	0
82	OHX	AT	210	7/7	0.97	0.26	85,85,85,85	0
82	OHX	1	3684	7/7	0.97	0.40	110,110,110,110	0
82	OHX	AR	3685	7/7	0.97	0.29	89,89,89,89	0
83	MG	AR	3739	1/1	0.97	0.16	45,45,45,45	0
82	OHX	AR	3632	7/7	0.97	0.21	83,83,83,83	0
82	OHX	AR	3625	7/7	0.97	0.24	106,106,106,106	0
82	OHX	A	1843	7/7	0.97	0.23	83,83,83,83	0
82	OHX	sR	1997	7/7	0.97	0.24	117,117,117,117	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	1	3683	7/7	0.97	0.27	82,82,82,82	0
82	OHX	AR	3614	7/7	0.97	0.19	96,96,96,96	0
82	OHX	A	1901	7/7	0.97	0.27	115,115,115,115	0
83	MG	AR	3813	1/1	0.97	0.10	64,64,64,64	0
82	OHX	1	3430	7/7	0.97	0.18	62,62,62,62	0
82	OHX	AR	3589	7/7	0.97	0.24	96,96,96,96	0
82	OHX	A	1817	7/7	0.97	0.12	76,76,76,76	0
82	OHX	1	3599	7/7	0.97	0.14	117,117,117,117	0
83	MG	AR	3849	1/1	0.97	0.59	24,24,24,24	0
82	OHX	A	1864	7/7	0.97	0.24	92,92,92,92	0
82	OHX	AR	3643	7/7	0.97	0.42	94,94,94,94	0
82	OHX	1	3682	7/7	0.97	0.21	77,77,77,77	0
83	MG	1	4132	1/1	0.97	0.72	27,27,27,27	0
82	OHX	d9	102	7/7	0.97	0.38	125,125,125,125	0
82	OHX	A	1879	7/7	0.97	0.20	114,114,114,114	0
83	MG	AR	4106	1/1	0.97	0.26	27,27,27,27	0
83	MG	A	2043	1/1	0.97	0.50	63,63,63,63	0
82	OHX	A	1868	7/7	0.97	0.17	93,93,93,93	0
82	OHX	sR	1999	7/7	0.97	0.25	98,98,98,98	0
82	OHX	s8	301	7/7	0.97	0.37	127,127,127,127	0
82	OHX	sR	1983	7/7	0.97	0.13	112,112,112,112	0
82	OHX	1	3654	7/7	0.97	0.17	114,114,114,114	0
82	OHX	T	201	7/7	0.97	0.11	91,91,91,91	0
82	OHX	A	1929	7/7	0.97	0.28	116,116,116,116	0
82	OHX	A	1857	7/7	0.97	0.27	93,93,93,93	0
82	OHX	Q	201	7/7	0.97	0.26	131,131,131,131	0
83	MG	3	214	1/1	0.97	0.55	31,31,31,31	0
82	OHX	AR	3541	7/7	0.97	0.16	99,99,99,99	0
82	OHX	AR	3584	7/7	0.97	0.21	77,77,77,77	0
82	OHX	AS	207	7/7	0.97	0.14	101,101,101,101	0
82	OHX	1	3586	7/7	0.97	0.18	104,104,104,104	0
83	MG	sR	2161	1/1	0.97	0.17	53,53,53,53	0
83	MG	A	1943	1/1	0.97	1.25	72,72,72,72	0
83	MG	sR	2062	1/1	0.97	0.51	32,32,32,32	0
83	MG	AR	3877	1/1	0.97	0.37	21,21,21,21	0
82	OHX	sR	1951	7/7	0.97	0.15	102,102,102,102	0
82	OHX	A	1848	7/7	0.97	0.09	106,106,106,106	0
82	OHX	1	3647	7/7	0.97	0.18	93,93,93,93	0
82	OHX	1	3526	7/7	0.97	0.13	110,110,110,110	0
82	OHX	1	3658	7/7	0.97	0.28	114,114,114,114	0
82	OHX	sR	1946	7/7	0.97	0.21	85,85,85,85	0
83	MG	AR	4187	1/1	0.97	0.13	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	d3	203	1/1	0.97	0.25	40,40,40,40	0
83	MG	1	4072	1/1	0.97	0.13	32,32,32,32	0
82	OHX	AR	3555	7/7	0.97	0.26	80,80,80,80	0
83	MG	1	3925	1/1	0.97	0.44	26,26,26,26	0
83	MG	1	4182	1/1	0.97	0.54	31,31,31,31	0
82	OHX	1	3549	7/7	0.97	0.27	80,80,80,80	0
83	MG	sR	2169	1/1	0.97	0.23	40,40,40,40	0
83	MG	1	4054	1/1	0.97	0.19	51,51,51,51	0
82	OHX	AR	3467	7/7	0.97	0.12	85,85,85,85	0
82	OHX	A	1807	7/7	0.97	0.13	83,83,83,83	0
82	OHX	A	1837	7/7	0.97	0.12	102,102,102,102	0
82	OHX	AR	3545	7/7	0.97	0.25	98,98,98,98	0
82	OHX	AR	3468	7/7	0.97	0.14	64,64,64,64	0
82	OHX	A	1821	7/7	0.97	0.12	95,95,95,95	0
82	OHX	1	3560	7/7	0.97	0.15	102,102,102,102	0
82	OHX	1	3495	7/7	0.97	0.12	97,97,97,97	0
82	OHX	A	1898	7/7	0.97	0.29	115,115,115,115	0
82	OHX	1	3573	7/7	0.97	0.26	81,81,81,81	0
82	OHX	AR	3736	7/7	0.97	0.31	53,53,53,53	0
82	OHX	AR	3494	7/7	0.98	0.22	71,71,71,71	0
82	OHX	AR	3516	7/7	0.98	0.15	70,70,70,70	0
82	OHX	AR	3441	7/7	0.98	0.11	65,65,65,65	0
83	MG	AR	3787	1/1	0.98	0.41	53,53,53,53	0
82	OHX	AR	3445	7/7	0.98	0.11	67,67,67,67	0
83	MG	CL	303	1/1	0.98	0.56	26,26,26,26	0
82	OHX	CE	401	7/7	0.98	0.14	76,76,76,76	0
83	MG	sR	2055	1/1	0.98	0.58	42,42,42,42	0
82	OHX	AR	3723	7/7	0.98	0.19	74,74,74,74	0
82	OHX	1	3519	7/7	0.98	0.14	94,94,94,94	0
82	OHX	AR	3523	7/7	0.98	0.25	74,74,74,74	0
82	OHX	AR	3504	7/7	0.98	0.21	55,55,55,55	0
82	OHX	sR	1988	7/7	0.98	0.24	104,104,104,104	0
82	OHX	AR	3433	7/7	0.98	0.14	53,53,53,53	0
82	OHX	A	1872	7/7	0.98	0.09	125,125,125,125	0
83	MG	AR	3956	1/1	0.98	0.45	36,36,36,36	0
82	OHX	A	1887	7/7	0.98	0.22	114,114,114,114	0
82	OHX	AR	3459	7/7	0.98	0.11	69,69,69,69	0
83	MG	1	3863	1/1	0.98	0.48	22,22,22,22	0
82	OHX	c1	201	7/7	0.98	0.34	101,101,101,101	0
82	OHX	AR	3452	7/7	0.98	0.12	92,92,92,92	0
82	OHX	A	1834	7/7	0.98	0.12	111,111,111,111	0
83	MG	AR	3754	1/1	0.98	0.21	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	AR	3524	7/7	0.98	0.12	84,84,84,84	0
82	OHX	AT	211	7/7	0.98	0.14	108,108,108,108	0
82	OHX	AR	3470	7/7	0.98	0.09	74,74,74,74	0
83	MG	AR	4119	1/1	0.98	0.10	36,36,36,36	0
82	OHX	1	3445	7/7	0.98	0.09	71,71,71,71	0
82	OHX	AR	3526	7/7	0.98	0.24	82,82,82,82	0
83	MG	1	4037	1/1	0.98	0.32	30,30,30,30	0
82	OHX	A	1806	7/7	0.98	0.14	78,78,78,78	0
82	OHX	AR	3447	7/7	0.98	0.12	54,54,54,54	0
82	OHX	1	3588	7/7	0.98	0.22	110,110,110,110	0
83	MG	1	3871	1/1	0.98	0.17	37,37,37,37	0
82	OHX	AR	3518	7/7	0.98	0.16	80,80,80,80	0
82	OHX	AT	205	7/7	0.98	0.14	80,80,80,80	0
83	MG	v	303	1/1	0.98	0.32	27,27,27,27	0
82	OHX	1	3518	7/7	0.98	0.26	72,72,72,72	0
82	OHX	1	3583	7/7	0.98	0.23	83,83,83,83	0
82	OHX	d4	201	7/7	0.98	0.26	116,116,116,116	0
82	OHX	AR	3499	7/7	0.98	0.10	82,82,82,82	0
82	OHX	1	3498	7/7	0.98	0.17	76,76,76,76	0
82	OHX	1	3575	7/7	0.98	0.26	85,85,85,85	0
82	OHX	sR	1941	7/7	0.98	0.12	81,81,81,81	0
82	OHX	AR	3464	7/7	0.98	0.11	72,72,72,72	0
82	OHX	1	3489	7/7	0.98	0.10	78,78,78,78	0
82	OHX	1	3476	7/7	0.98	0.19	68,68,68,68	0
82	OHX	3	204	7/7	0.98	0.17	75,75,75,75	0
82	OHX	AR	3552	7/7	0.98	0.23	78,78,78,78	0
82	OHX	1	3607	7/7	0.98	0.24	94,94,94,94	0
82	OHX	1	3502	7/7	0.98	0.14	74,74,74,74	0
83	MG	AR	3819	1/1	0.98	0.47	34,34,34,34	0
82	OHX	AT	204	7/7	0.98	0.15	78,78,78,78	0
82	OHX	sR	1926	7/7	0.98	0.09	85,85,85,85	0
82	OHX	k	401	7/7	0.98	0.20	87,87,87,87	0
82	OHX	v	302	7/7	0.98	0.24	85,85,85,85	0
83	MG	AR	3908	1/1	0.98	0.74	33,33,33,33	0
82	OHX	sR	1963	7/7	0.98	0.23	83,83,83,83	0
83	MG	AR	4261	1/1	0.98	0.33	29,29,29,29	0
82	OHX	AR	3491	7/7	0.98	0.11	77,77,77,77	0
82	OHX	1	3553	7/7	0.98	0.24	85,85,85,85	0
82	OHX	1	3452	7/7	0.98	0.10	77,77,77,77	0
82	OHX	AR	3563	7/7	0.98	0.11	110,110,110,110	0
83	MG	CY	201	1/1	0.98	0.17	69,69,69,69	0
82	OHX	4	206	7/7	0.98	0.27	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	sR	1947	7/7	0.98	0.09	93,93,93,93	0
82	OHX	1	3544	7/7	0.98	0.20	97,97,97,97	0
82	OHX	AR	3456	7/7	0.98	0.17	70,70,70,70	0
82	OHX	sR	1944	7/7	0.98	0.08	103,103,103,103	0
82	OHX	1	3522	7/7	0.98	0.17	79,79,79,79	0
82	OHX	AR	3569	7/7	0.98	0.18	90,90,90,90	0
82	OHX	sR	1918	7/7	0.98	0.12	67,67,67,67	0
82	OHX	1	3681	7/7	0.98	0.31	96,96,96,96	0
82	OHX	A	1830	7/7	0.98	0.12	87,87,87,87	0
82	OHX	A	1809	7/7	0.98	0.23	94,94,94,94	0
82	OHX	sR	1936	7/7	0.98	0.12	75,75,75,75	0
82	OHX	AR	3477	7/7	0.98	0.12	79,79,79,79	0
82	OHX	1	3578	7/7	0.98	0.29	79,79,79,79	0
82	OHX	1	3576	7/7	0.98	0.23	74,74,74,74	0
82	OHX	1	3520	7/7	0.98	0.13	81,81,81,81	0
82	OHX	AR	3489	7/7	0.98	0.11	94,94,94,94	0
82	OHX	AR	3448	7/7	0.98	0.11	72,72,72,72	0
83	MG	sR	2193	1/1	0.98	0.54	37,37,37,37	0
82	OHX	1	3478	7/7	0.98	0.11	70,70,70,70	0
83	MG	1	3790	1/1	0.98	0.31	48,48,48,48	0
82	OHX	1	3511	7/7	0.98	0.21	67,67,67,67	0
82	OHX	AR	3469	7/7	0.98	0.12	72,72,72,72	0
82	OHX	CQ	201	7/7	0.98	0.12	70,70,70,70	0
83	MG	AR	3940	1/1	0.98	0.30	25,25,25,25	0
82	OHX	sR	1964	7/7	0.98	0.16	97,97,97,97	0
82	OHX	AS	203	7/7	0.98	0.16	72,72,72,72	0
82	OHX	AT	209	7/7	0.98	0.14	95,95,95,95	0
82	OHX	AR	3431	7/7	0.98	0.10	58,58,58,58	0
82	OHX	AR	3590	7/7	0.98	0.19	94,94,94,94	0
82	OHX	1	3624	7/7	0.98	0.25	82,82,82,82	0
83	MG	1	4150	1/1	0.98	0.10	41,41,41,41	0
82	OHX	AR	3463	7/7	0.98	0.09	72,72,72,72	0
82	OHX	AR	3522	7/7	0.98	0.22	85,85,85,85	0
82	OHX	A	1878	7/7	0.98	0.17	120,120,120,120	0
82	OHX	1	3447	7/7	0.98	0.11	65,65,65,65	0
82	OHX	AR	3559	7/7	0.98	0.23	78,78,78,78	0
82	OHX	1	3569	7/7	0.98	0.20	70,70,70,70	0
83	MG	1	3813	1/1	0.98	0.21	30,30,30,30	0
82	OHX	1	3492	7/7	0.98	0.11	86,86,86,86	0
82	OHX	AR	3482	7/7	0.98	0.10	66,66,66,66	0
82	OHX	AR	3629	7/7	0.98	0.30	98,98,98,98	0
82	OHX	A	1827	7/7	0.98	0.08	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	A	1820	7/7	0.98	0.10	81,81,81,81	0
83	MG	1	3904	1/1	0.98	0.57	33,33,33,33	0
82	OHX	A	1841	7/7	0.98	0.12	106,106,106,106	0
83	MG	A	1963	1/1	0.98	0.46	48,48,48,48	0
82	OHX	1	3630	7/7	0.98	0.32	114,114,114,114	0
82	OHX	1	3564	7/7	0.98	0.24	82,82,82,82	0
82	OHX	sR	2012	7/7	0.98	0.19	106,106,106,106	0
82	OHX	1	3598	7/7	0.98	0.29	73,73,73,73	0
83	MG	AR	3899	1/1	0.98	0.53	26,26,26,26	0
82	OHX	1	3556	7/7	0.98	0.21	111,111,111,111	0
82	OHX	sR	1982	7/7	0.98	0.31	114,114,114,114	0
82	OHX	A	1876	7/7	0.98	0.29	89,89,89,89	0
82	OHX	A	1838	7/7	0.98	0.20	78,78,78,78	0
83	MG	A	1971	1/1	0.98	0.70	61,61,61,61	0
82	OHX	A	1835	7/7	0.98	0.18	107,107,107,107	0
82	OHX	sR	1967	7/7	0.98	0.22	98,98,98,98	0
82	OHX	CX	202	7/7	0.98	0.26	81,81,81,81	0
83	MG	1	4220	1/1	0.98	0.10	45,45,45,45	0
82	OHX	1	3467	7/7	0.98	0.07	84,84,84,84	0
83	MG	AR	3917	1/1	0.98	0.69	35,35,35,35	0
82	OHX	AR	3509	7/7	0.98	0.10	101,101,101,101	0
82	OHX	1	3525	7/7	0.98	0.24	86,86,86,86	0
83	MG	1	3963	1/1	0.98	0.29	30,30,30,30	0
83	MG	1	3922	1/1	0.98	0.59	22,22,22,22	0
82	OHX	A	1824	7/7	0.98	0.10	91,91,91,91	0
83	MG	AS	222	1/1	0.98	0.35	45,45,45,45	0
82	OHX	AR	3579	7/7	0.98	0.34	94,94,94,94	0
83	MG	AR	3845	1/1	0.98	0.42	23,23,23,23	0
82	OHX	A	1839	7/7	0.98	0.08	105,105,105,105	0
83	MG	A	1994	1/1	0.98	0.77	86,86,86,86	0
82	OHX	AR	3493	7/7	0.98	0.11	77,77,77,77	0
82	OHX	sR	1931	7/7	0.98	0.10	79,79,79,79	0
83	MG	AR	3866	1/1	0.98	0.52	27,27,27,27	0
82	OHX	AR	3474	7/7	0.98	0.10	56,56,56,56	0
83	MG	1	4076	1/1	0.98	0.15	32,32,32,32	0
83	MG	1	4087	1/1	0.98	0.35	24,24,24,24	0
83	MG	sR	2160	1/1	0.98	0.27	42,42,42,42	0
82	OHX	AR	3502	7/7	0.98	0.09	83,83,83,83	0
82	OHX	1	3539	7/7	0.98	0.21	87,87,87,87	0
82	OHX	A	1812	7/7	0.98	0.14	87,87,87,87	0
82	OHX	AR	3669	7/7	0.98	0.38	65,65,65,65	0
82	OHX	1	3527	7/7	0.98	0.13	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	AT	206	7/7	0.98	0.12	96,96,96,96	0
82	OHX	A	1890	7/7	0.98	0.29	100,100,100,100	0
82	OHX	1	3639	7/7	0.98	0.22	88,88,88,88	0
82	OHX	1	3611	7/7	0.98	0.24	91,91,91,91	0
82	OHX	1	3434	7/7	0.98	0.13	65,65,65,65	0
83	MG	1	4017	1/1	0.98	0.38	35,35,35,35	0
82	OHX	1	3555	7/7	0.98	0.23	87,87,87,87	0
83	MG	AR	3900	1/1	0.98	0.27	21,21,21,21	0
82	OHX	A	1832	7/7	0.98	0.18	98,98,98,98	0
82	OHX	AR	3484	7/7	0.98	0.23	75,75,75,75	0
82	OHX	AR	3461	7/7	0.98	0.11	57,57,57,57	0
82	OHX	1	3685	7/7	0.98	0.32	101,101,101,101	0
82	OHX	sR	1952	7/7	0.98	0.11	121,121,121,121	0
83	MG	1	4208	1/1	0.98	0.39	39,39,39,39	0
82	OHX	1	3416	7/7	0.98	0.14	56,56,56,56	0
82	OHX	sR	1916	7/7	0.98	0.11	63,63,63,63	0
83	MG	1	4126	1/1	0.98	0.31	21,21,21,21	0
83	MG	1	3830	1/1	0.98	0.49	37,37,37,37	0
82	OHX	A	1826	7/7	0.98	0.12	93,93,93,93	0
82	OHX	AR	3588	7/7	0.98	0.28	88,88,88,88	0
82	OHX	AR	3533	7/7	0.98	0.19	81,81,81,81	0
83	MG	1	3865	1/1	0.98	0.29	21,21,21,21	0
82	OHX	AR	3487	7/7	0.98	0.12	64,64,64,64	0
83	MG	1	4138	1/1	0.98	0.10	44,44,44,44	0
82	OHX	AR	3572	7/7	0.98	0.24	105,105,105,105	0
82	OHX	AR	3478	7/7	0.98	0.11	70,70,70,70	0
82	OHX	AR	3479	7/7	0.98	0.16	58,58,58,58	0
82	OHX	A	1850	7/7	0.98	0.19	95,95,95,95	0
82	OHX	AS	204	7/7	0.98	0.16	69,69,69,69	0
82	OHX	AR	3683	7/7	0.98	0.36	92,92,92,92	0
83	MG	AR	3783	1/1	0.98	0.34	34,34,34,34	0
82	OHX	1	3472	7/7	0.98	0.10	69,69,69,69	0
83	MG	DQ	503	1/1	0.98	0.09	34,34,34,34	0
82	OHX	AR	3585	7/7	0.98	0.30	78,78,78,78	0
83	MG	AR	4069	1/1	0.98	0.18	43,43,43,43	0
82	OHX	AR	3675	7/7	0.98	0.25	121,121,121,121	0
83	MG	AR	3913	1/1	0.98	0.44	26,26,26,26	0
83	MG	1	4155	1/1	0.98	0.12	42,42,42,42	0
82	OHX	AR	3615	7/7	0.98	0.31	73,73,73,73	0
82	OHX	1	3509	7/7	0.98	0.20	77,77,77,77	0
82	OHX	AR	3556	7/7	0.98	0.19	72,72,72,72	0
82	OHX	sR	1934	7/7	0.98	0.11	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	AR	3647	7/7	0.98	0.35	92,92,92,92	0
82	OHX	AR	3575	7/7	0.98	0.31	88,88,88,88	0
82	OHX	A	1842	7/7	0.98	0.22	88,88,88,88	0
82	OHX	1	3470	7/7	0.98	0.08	76,76,76,76	0
82	OHX	1	3523	7/7	0.98	0.22	82,82,82,82	0
82	OHX	AR	3512	7/7	0.98	0.11	85,85,85,85	0
82	OHX	AR	3562	7/7	0.98	0.28	90,90,90,90	0
82	OHX	A	1889	7/7	0.98	0.29	130,130,130,130	0
83	MG	1	3746	1/1	0.98	0.48	26,26,26,26	0
82	OHX	sR	1959	7/7	0.98	0.17	92,92,92,92	0
82	OHX	A	1840	7/7	0.98	0.22	99,99,99,99	0
82	OHX	sR	1928	7/7	0.98	0.10	101,101,101,101	0
82	OHX	AR	3656	7/7	0.98	0.32	104,104,104,104	0
82	OHX	O	201	7/7	0.98	0.18	125,125,125,125	0
82	OHX	AE	201	7/7	0.98	0.19	91,91,91,91	0
82	OHX	AR	3442	7/7	0.98	0.10	63,63,63,63	0
83	MG	AR	3870	1/1	0.98	0.60	21,21,21,21	0
82	OHX	1	3590	7/7	0.98	0.36	84,84,84,84	0
82	OHX	sR	1956	7/7	0.98	0.07	135,135,135,135	0
83	MG	CX	203	1/1	0.98	0.54	21,21,21,21	0
82	OHX	AR	3627	7/7	0.98	0.33	107,107,107,107	0
82	OHX	AR	3513	7/7	0.98	0.18	77,77,77,77	0
82	OHX	AR	3604	7/7	0.98	0.28	97,97,97,97	0
82	OHX	A	1862	7/7	0.98	0.26	91,91,91,91	0
82	OHX	1	3581	7/7	0.98	0.15	107,107,107,107	0
82	OHX	AR	3495	7/7	0.98	0.15	97,97,97,97	0
82	OHX	sR	1929	7/7	0.98	0.12	106,106,106,106	0
82	OHX	1	3487	7/7	0.98	0.16	68,68,68,68	0
82	OHX	AR	3558	7/7	0.98	0.17	78,78,78,78	0
82	OHX	1	3512	7/7	0.98	0.15	78,78,78,78	0
82	OHX	1	3451	7/7	0.98	0.10	75,75,75,75	0
82	OHX	AR	3679	7/7	0.98	0.32	88,88,88,88	0
83	MG	1	3850	1/1	0.98	0.35	25,25,25,25	0
82	OHX	1	3680	7/7	0.98	0.33	98,98,98,98	0
82	OHX	sR	1921	7/7	0.98	0.12	95,95,95,95	0
82	OHX	A	1828	7/7	0.98	0.15	86,86,86,86	0
82	OHX	AR	3503	7/7	0.98	0.23	73,73,73,73	0
82	OHX	4	210	7/7	0.98	0.23	103,103,103,103	0
83	MG	1	4183	1/1	0.98	0.41	20,20,20,20	0
82	OHX	sR	1938	7/7	0.98	0.10	90,90,90,90	0
82	OHX	1	3425	7/7	0.98	0.14	58,58,58,58	0
82	OHX	AR	3691	7/7	0.98	0.21	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	3853	1/1	0.98	0.58	21,21,21,21	0
82	OHX	AT	207	7/7	0.98	0.15	91,91,91,91	0
82	OHX	A	1907	7/7	0.98	0.22	88,88,88,88	0
82	OHX	1	3584	7/7	0.98	0.15	102,102,102,102	0
83	MG	A	2011	1/1	0.98	0.77	72,72,72,72	0
82	OHX	sR	1905	7/7	0.98	0.18	59,59,59,59	0
82	OHX	sR	1945	7/7	0.98	0.15	81,81,81,81	0
82	OHX	1	3547	7/7	0.98	0.24	90,90,90,90	0
83	MG	AR	3766	1/1	0.98	0.11	27,27,27,27	0
82	OHX	A	1867	7/7	0.98	0.20	82,82,82,82	0
82	OHX	1	3463	7/7	0.98	0.11	83,83,83,83	0
82	OHX	AR	3480	7/7	0.98	0.12	71,71,71,71	0
82	OHX	1	3617	7/7	0.98	0.22	96,96,96,96	0
83	MG	sR	2115	1/1	0.98	0.21	67,67,67,67	0
82	OHX	AR	3576	7/7	0.98	0.28	83,83,83,83	0
82	OHX	AK	102	7/7	0.98	0.08	71,71,71,71	0
82	OHX	1	3677	7/7	0.98	0.29	82,82,82,82	0
83	MG	sR	2143	1/1	0.98	0.14	48,48,48,48	0
83	MG	AR	3833	1/1	0.98	0.40	23,23,23,23	0
82	OHX	AR	3444	7/7	0.98	0.11	62,62,62,62	0
83	MG	AR	4130	1/1	0.98	0.08	26,26,26,26	0
82	OHX	sR	1933	7/7	0.98	0.12	70,70,70,70	0
82	OHX	sR	1974	7/7	0.98	0.19	83,83,83,83	0
82	OHX	AR	3514	7/7	0.98	0.18	81,81,81,81	0
83	MG	AR	3755	1/1	0.98	0.54	17,17,17,17	0
82	OHX	AR	3645	7/7	0.98	0.30	90,90,90,90	0
82	OHX	A	1829	7/7	0.98	0.16	82,82,82,82	0
82	OHX	1	3543	7/7	0.98	0.17	98,98,98,98	0
82	OHX	1	3439	7/7	0.98	0.11	64,64,64,64	0
82	OHX	A	1808	7/7	0.98	0.14	81,81,81,81	0
82	OHX	A	1916	7/7	0.98	0.19	130,130,130,130	0
82	OHX	1	3703	7/7	0.98	0.41	98,98,98,98	0
82	OHX	AS	206	7/7	0.98	0.13	84,84,84,84	0
82	OHX	1	3559	7/7	0.98	0.20	98,98,98,98	0
82	OHX	1	3602	7/7	0.98	0.17	94,94,94,94	0
82	OHX	AR	3560	7/7	0.98	0.18	100,100,100,100	0
82	OHX	1	3634	7/7	0.98	0.30	93,93,93,93	0
82	OHX	A	1813	7/7	0.98	0.15	83,83,83,83	0
83	MG	1	4127	1/1	0.98	0.14	51,51,51,51	0
82	OHX	AR	3564	7/7	0.98	0.24	76,76,76,76	0
82	OHX	AR	3634	7/7	0.98	0.31	91,91,91,91	0
83	MG	1	3997	1/1	0.98	0.15	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	1	3431	7/7	0.98	0.14	64,64,64,64	0
83	MG	AR	4231	1/1	0.98	0.33	36,36,36,36	0
82	OHX	A	1803	7/7	0.98	0.20	74,74,74,74	0
82	OHX	A	1892	7/7	0.98	0.26	100,100,100,100	0
82	OHX	sR	1970	7/7	0.98	0.25	90,90,90,90	0
82	OHX	sR	2003	7/7	0.98	0.24	83,83,83,83	0
82	OHX	A	1811	7/7	0.98	0.16	89,89,89,89	0
82	OHX	AR	3451	7/7	0.98	0.13	64,64,64,64	0
82	OHX	AR	3455	7/7	0.98	0.13	72,72,72,72	0
83	MG	1	3913	1/1	0.98	0.40	26,26,26,26	0
82	OHX	AR	3693	7/7	0.98	0.33	90,90,90,90	0
82	OHX	AR	3608	7/7	0.98	0.15	96,96,96,96	0
82	OHX	sR	1943	7/7	0.98	0.13	87,87,87,87	0
82	OHX	A	1822	7/7	0.98	0.12	77,77,77,77	0
82	OHX	AR	3586	7/7	0.98	0.17	81,81,81,81	0
82	OHX	A	1816	7/7	0.98	0.13	83,83,83,83	0
82	OHX	1	3506	7/7	0.98	0.19	73,73,73,73	0
82	OHX	A	1860	7/7	0.98	0.14	122,122,122,122	0
82	OHX	AR	3738	7/7	0.98	0.29	71,71,71,71	0
83	MG	1	4178	1/1	0.98	0.43	42,42,42,42	0
82	OHX	AR	3577	7/7	0.98	0.20	86,86,86,86	0
82	OHX	AR	3578	7/7	0.98	0.28	87,87,87,87	0
82	OHX	AR	3733	7/7	0.98	0.25	76,76,76,76	0
82	OHX	AR	3450	7/7	0.98	0.10	83,83,83,83	0
82	OHX	3	202	7/7	0.98	0.19	76,76,76,76	0
82	OHX	1	3448	7/7	0.98	0.13	67,67,67,67	0
82	OHX	AR	3521	7/7	0.98	0.24	74,74,74,74	0
82	OHX	1	3450	7/7	0.98	0.11	62,62,62,62	0
82	OHX	AR	3660	7/7	0.98	0.26	81,81,81,81	0
82	OHX	1	3558	7/7	0.98	0.20	74,74,74,74	0
82	OHX	sR	1996	7/7	0.98	0.33	102,102,102,102	0
82	OHX	AR	3528	7/7	0.98	0.14	81,81,81,81	0
82	OHX	1	3491	7/7	0.98	0.17	56,56,56,56	0
82	OHX	AS	205	7/7	0.98	0.09	79,79,79,79	0
83	MG	1	3891	1/1	0.98	0.57	26,26,26,26	0
82	OHX	1	3531	7/7	0.98	0.12	115,115,115,115	0
83	MG	1	3937	1/1	0.98	0.51	30,30,30,30	0
82	OHX	1	3537	7/7	0.98	0.24	78,78,78,78	0
82	OHX	AR	3497	7/7	0.98	0.17	69,69,69,69	0
82	OHX	1	3567	7/7	0.98	0.27	80,80,80,80	0
83	MG	sR	2165	1/1	0.98	0.15	85,85,85,85	0
83	MG	AR	4166	1/1	0.98	0.10	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	1	3457	7/7	0.98	0.10	57,57,57,57	0
82	OHX	AR	3654	7/7	0.98	0.27	83,83,83,83	0
82	OHX	4	204	7/7	0.98	0.12	90,90,90,90	0
82	OHX	AR	3537	7/7	0.98	0.11	67,67,67,67	0
82	OHX	AR	3553	7/7	0.98	0.11	104,104,104,104	0
82	OHX	A	1815	7/7	0.98	0.12	101,101,101,101	0
82	OHX	AR	3481	7/7	0.98	0.13	78,78,78,78	0
83	MG	AR	3925	1/1	0.98	0.52	22,22,22,22	0
82	OHX	1	3517	7/7	0.98	0.18	63,63,63,63	0
82	OHX	1	3580	7/7	0.98	0.18	95,95,95,95	0
82	OHX	AS	202	7/7	0.98	0.13	71,71,71,71	0
82	OHX	1	3570	7/7	0.98	0.19	92,92,92,92	0
82	OHX	A	1856	7/7	0.98	0.21	103,103,103,103	0
83	MG	sR	2080	1/1	0.98	0.19	42,42,42,42	0
82	OHX	1	3503	7/7	0.98	0.15	85,85,85,85	0
82	OHX	AR	3426	7/7	0.99	0.09	50,50,50,50	0
82	OHX	1	3449	7/7	0.99	0.11	76,76,76,76	0
82	OHX	1	3481	7/7	0.99	0.16	83,83,83,83	0
82	OHX	sR	1914	7/7	0.99	0.11	80,80,80,80	0
82	OHX	1	3494	7/7	0.99	0.13	73,73,73,73	0
82	OHX	1	3566	7/7	0.99	0.25	77,77,77,77	0
83	MG	AR	3800	1/1	0.99	0.54	22,22,22,22	0
82	OHX	sR	1924	7/7	0.99	0.07	78,78,78,78	0
82	OHX	sR	1968	7/7	0.99	0.21	82,82,82,82	0
83	MG	1	4149	1/1	0.99	0.14	26,26,26,26	0
82	OHX	AR	3404	7/7	0.99	0.15	40,40,40,40	0
82	OHX	sR	1930	7/7	0.99	0.13	64,64,64,64	0
85	ZN	b	201	1/1	0.99	0.11	71,71,71,71	0
82	OHX	1	3418	7/7	0.99	0.10	45,45,45,45	0
82	OHX	1	3436	7/7	0.99	0.08	60,60,60,60	0
82	OHX	AR	3612	7/7	0.99	0.19	63,63,63,63	0
82	OHX	AR	3472	7/7	0.99	0.09	66,66,66,66	0
82	OHX	AR	3591	7/7	0.99	0.20	83,83,83,83	0
82	OHX	sR	1942	7/7	0.99	0.12	85,85,85,85	0
83	MG	A	2040	1/1	0.99	0.20	84,84,84,84	0
82	OHX	1	3621	7/7	0.99	0.21	64,64,64,64	0
82	OHX	1	3419	7/7	0.99	0.11	55,55,55,55	0
83	MG	4	223	1/1	0.99	0.28	30,30,30,30	0
82	OHX	AK	103	7/7	0.99	0.11	73,73,73,73	0
82	OHX	sR	1935	7/7	0.99	0.15	71,71,71,71	0
83	MG	1	3845	1/1	0.99	0.15	26,26,26,26	0
82	OHX	AR	3430	7/7	0.99	0.08	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	1	3504	7/7	0.99	0.22	83,83,83,83	0
82	OHX	1	3440	7/7	0.99	0.12	70,70,70,70	0
82	OHX	sR	1948	7/7	0.99	0.14	80,80,80,80	0
82	OHX	1	3459	7/7	0.99	0.10	60,60,60,60	0
85	ZN	AP	501	1/1	0.99	0.03	54,54,54,54	0
82	OHX	AR	3511	7/7	0.99	0.15	69,69,69,69	0
82	OHX	AR	3401	7/7	0.99	0.20	37,37,37,37	0
83	MG	l	402	1/1	0.99	0.07	46,46,46,46	0
83	MG	1	3800	1/1	0.99	0.23	25,25,25,25	0
82	OHX	AR	3507	7/7	0.99	0.15	78,78,78,78	0
82	OHX	1	3404	7/7	0.99	0.20	45,45,45,45	0
82	OHX	4	205	7/7	0.99	0.20	94,94,94,94	0
82	OHX	1	3437	7/7	0.99	0.14	60,60,60,60	0
82	OHX	A	1814	7/7	0.99	0.11	76,76,76,76	0
82	OHX	A	1810	7/7	0.99	0.11	81,81,81,81	0
82	OHX	AR	3520	7/7	0.99	0.07	96,96,96,96	0
82	OHX	AR	3425	7/7	0.99	0.14	55,55,55,55	0
82	OHX	AS	201	7/7	0.99	0.10	67,67,67,67	0
82	OHX	AC	101	7/7	0.99	0.15	47,47,47,47	0
83	MG	AR	4024	1/1	0.99	0.10	42,42,42,42	0
83	MG	AR	3772	1/1	0.99	0.30	23,23,23,23	0
83	MG	A	2044	1/1	0.99	0.16	70,70,70,70	0
82	OHX	1	3414	7/7	0.99	0.14	52,52,52,52	0
82	OHX	1	3466	7/7	0.99	0.08	74,74,74,74	0
82	OHX	1	3477	7/7	0.99	0.08	82,82,82,82	0
82	OHX	sR	1907	7/7	0.99	0.14	59,59,59,59	0
82	OHX	AR	3486	7/7	0.99	0.12	69,69,69,69	0
82	OHX	AR	3436	7/7	0.99	0.09	57,57,57,57	0
82	OHX	AR	3483	7/7	0.99	0.13	59,59,59,59	0
82	OHX	sR	1902	7/7	0.99	0.19	59,59,59,59	0
82	OHX	sR	1913	7/7	0.99	0.11	64,64,64,64	0
82	OHX	1	3429	7/7	0.99	0.10	60,60,60,60	0
82	OHX	A	1825	7/7	0.99	0.07	104,104,104,104	0
83	MG	AR	4156	1/1	0.99	0.12	50,50,50,50	0
83	MG	AR	4204	1/1	0.99	0.17	49,49,49,49	0
82	OHX	1	3433	7/7	0.99	0.16	71,71,71,71	0
82	OHX	AR	3421	7/7	0.99	0.13	52,52,52,52	0
82	OHX	1	3528	7/7	0.99	0.08	102,102,102,102	0
82	OHX	1	3465	7/7	0.99	0.08	66,66,66,66	0
82	OHX	DG	201	7/7	0.99	0.18	68,68,68,68	0
82	OHX	1	3460	7/7	0.99	0.10	88,88,88,88	0
83	MG	1	4137	1/1	0.99	0.10	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	AR	3429	7/7	0.99	0.09	57,57,57,57	0
82	OHX	AR	3415	7/7	0.99	0.13	50,50,50,50	0
82	OHX	AR	3443	7/7	0.99	0.14	72,72,72,72	0
82	OHX	A	1852	7/7	0.99	0.28	92,92,92,92	0
82	OHX	w	201	7/7	0.99	0.11	80,80,80,80	0
82	OHX	AR	3440	7/7	0.99	0.09	70,70,70,70	0
82	OHX	sR	1911	7/7	0.99	0.14	65,65,65,65	0
82	OHX	sR	1953	7/7	0.99	0.12	91,91,91,91	0
83	MG	AR	4175	1/1	0.99	0.09	49,49,49,49	0
83	MG	AR	4041	1/1	0.99	0.17	69,69,69,69	0
82	OHX	AR	3498	7/7	0.99	0.06	95,95,95,95	0
82	OHX	AR	3510	7/7	0.99	0.07	49,49,49,49	0
82	OHX	sR	1904	7/7	0.99	0.12	61,61,61,61	0
82	OHX	1	3514	7/7	0.99	0.10	57,57,57,57	0
82	OHX	AR	3406	7/7	0.99	0.14	45,45,45,45	0
82	OHX	sR	1923	7/7	0.99	0.12	70,70,70,70	0
82	OHX	AR	3418	7/7	0.99	0.10	49,49,49,49	0
82	OHX	sR	1915	7/7	0.99	0.13	64,64,64,64	0
82	OHX	CH	201	7/7	0.99	0.16	43,43,43,43	0
82	OHX	AR	3411	7/7	0.99	0.18	52,52,52,52	0
82	OHX	AR	3568	7/7	0.99	0.23	82,82,82,82	0
83	MG	AR	4073	1/1	0.99	0.22	52,52,52,52	0
82	OHX	AR	3454	7/7	0.99	0.11	55,55,55,55	0
82	OHX	AR	3458	7/7	0.99	0.08	61,61,61,61	0
82	OHX	1	3464	7/7	0.99	0.08	62,62,62,62	0
82	OHX	1	3409	7/7	0.99	0.15	49,49,49,49	0
82	OHX	AR	3453	7/7	0.99	0.07	80,80,80,80	0
83	MG	AR	4174	1/1	0.99	0.15	28,28,28,28	0
82	OHX	AR	3446	7/7	0.99	0.07	59,59,59,59	0
82	OHX	AR	3405	7/7	0.99	0.16	41,41,41,41	0
82	OHX	1	3443	7/7	0.99	0.11	54,54,54,54	0
83	MG	AR	4186	1/1	0.99	0.61	23,23,23,23	0
82	OHX	1	3442	7/7	0.99	0.13	71,71,71,71	0
82	OHX	1	3568	7/7	0.99	0.10	115,115,115,115	0
82	OHX	sR	1903	7/7	0.99	0.13	50,50,50,50	0
82	OHX	sR	1910	7/7	0.99	0.13	52,52,52,52	0
82	OHX	1	3441	7/7	0.99	0.12	66,66,66,66	0
82	OHX	1	3411	7/7	0.99	0.12	49,49,49,49	0
82	OHX	4	203	7/7	0.99	0.12	71,71,71,71	0
83	MG	AS	228	1/1	0.99	0.29	44,44,44,44	0
82	OHX	1	3497	7/7	0.99	0.10	45,45,45,45	0
82	OHX	DH	201	7/7	0.99	0.11	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	A	1805	7/7	0.99	0.12	63,63,63,63	0
82	OHX	AT	202	7/7	0.99	0.09	57,57,57,57	0
83	MG	1	3897	1/1	0.99	0.61	26,26,26,26	0
83	MG	AR	3750	1/1	0.99	0.47	25,25,25,25	0
82	OHX	4	201	7/7	0.99	0.15	44,44,44,44	0
82	OHX	1	3474	7/7	0.99	0.07	78,78,78,78	0
82	OHX	4	202	7/7	0.99	0.11	61,61,61,61	0
82	OHX	A	1801	7/7	0.99	0.17	64,64,64,64	0
82	OHX	1	3432	7/7	0.99	0.10	61,61,61,61	0
82	OHX	1	3484	7/7	0.99	0.08	65,65,65,65	0
82	OHX	1	3424	7/7	0.99	0.14	63,63,63,63	0
82	OHX	AR	3407	7/7	0.99	0.18	44,44,44,44	0
85	ZN	AN	500	1/1	0.99	0.12	40,40,40,40	0
82	OHX	sR	1957	7/7	0.99	0.11	89,89,89,89	0
82	OHX	sR	1927	7/7	0.99	0.20	67,67,67,67	0
82	OHX	AR	3462	7/7	0.99	0.06	63,63,63,63	0
82	OHX	1	3678	7/7	0.99	0.17	94,94,94,94	0
82	OHX	AR	3517	7/7	0.99	0.16	76,76,76,76	0
85	ZN	DO	201	1/1	0.99	0.13	29,29,29,29	0
82	OHX	AR	3492	7/7	0.99	0.15	66,66,66,66	0
82	OHX	1	3521	7/7	0.99	0.13	87,87,87,87	0
82	OHX	1	3515	7/7	0.99	0.09	85,85,85,85	0
82	OHX	AR	3554	7/7	0.99	0.32	89,89,89,89	0
85	ZN	d6	201	1/1	0.99	0.12	44,44,44,44	0
83	MG	sR	2150	1/1	0.99	0.10	75,75,75,75	0
82	OHX	1	3407	7/7	0.99	0.12	40,40,40,40	0
82	OHX	AT	201	7/7	0.99	0.14	45,45,45,45	0
82	OHX	sR	1937	7/7	0.99	0.12	81,81,81,81	0
85	ZN	DQ	501	1/1	0.99	0.03	51,51,51,51	0
82	OHX	1	3574	7/7	0.99	0.18	100,100,100,100	0
83	MG	1	4184	1/1	0.99	0.53	28,28,28,28	0
85	ZN	d9	101	1/1	0.99	0.14	69,69,69,69	0
82	OHX	sR	1920	7/7	0.99	0.08	80,80,80,80	0
82	OHX	sR	1908	7/7	0.99	0.15	60,60,60,60	0
83	MG	1	3883	1/1	0.99	0.34	22,22,22,22	0
82	OHX	AR	3501	7/7	0.99	0.14	65,65,65,65	0
82	OHX	AR	3506	7/7	0.99	0.15	70,70,70,70	0
82	OHX	1	3427	7/7	0.99	0.12	59,59,59,59	0
82	OHX	AT	203	7/7	0.99	0.12	84,84,84,84	0
82	OHX	1	3417	7/7	0.99	0.14	49,49,49,49	0
82	OHX	AR	3527	7/7	0.99	0.10	88,88,88,88	0
82	OHX	1	3461	7/7	0.99	0.10	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	AR	3542	7/7	0.99	0.22	64,64,64,64	0
82	OHX	AR	3414	7/7	0.99	0.13	46,46,46,46	0
83	MG	1	4125	1/1	0.99	0.33	24,24,24,24	0
83	MG	sR	2072	1/1	0.99	0.34	61,61,61,61	0
83	MG	AR	3919	1/1	0.99	0.59	22,22,22,22	0
82	OHX	1	3406	7/7	0.99	0.17	45,45,45,45	0
82	OHX	A	1802	7/7	0.99	0.13	68,68,68,68	0
83	MG	1	4170	1/1	0.99	0.11	49,49,49,49	0
82	OHX	sR	1922	7/7	0.99	0.17	66,66,66,66	0
82	OHX	AR	3581	7/7	0.99	0.17	69,69,69,69	0
82	OHX	1	3435	7/7	0.99	0.08	51,51,51,51	0
82	OHX	1	3456	7/7	0.99	0.09	70,70,70,70	0
83	MG	AR	4192	1/1	0.99	0.16	37,37,37,37	0
83	MG	AR	4257	1/1	0.99	0.70	32,32,32,32	0
85	ZN	DR	501	1/1	0.99	0.11	49,49,49,49	0
82	OHX	AR	3485	7/7	0.99	0.15	69,69,69,69	0
82	OHX	sR	1901	7/7	0.99	0.16	47,47,47,47	0
82	OHX	AR	3434	7/7	0.99	0.14	72,72,72,72	0
82	OHX	AR	3437	7/7	0.99	0.08	56,56,56,56	0
82	OHX	AR	3412	7/7	0.99	0.11	47,47,47,47	0
82	OHX	AR	3531	7/7	0.99	0.15	61,61,61,61	0
82	OHX	1	3453	7/7	0.99	0.07	61,61,61,61	0
82	OHX	AR	3416	7/7	0.99	0.13	49,49,49,49	0
82	OHX	1	3510	7/7	0.99	0.18	64,64,64,64	0
82	OHX	1	3422	7/7	0.99	0.14	64,64,64,64	0
82	OHX	A	1819	7/7	0.99	0.09	81,81,81,81	0
82	OHX	A	1823	7/7	0.99	0.07	83,83,83,83	0
82	OHX	sR	1909	7/7	0.99	0.13	72,72,72,72	0
82	OHX	AR	3420	7/7	0.99	0.11	54,54,54,54	0
82	OHX	A	1804	7/7	0.99	0.12	70,70,70,70	0
83	MG	sR	2124	1/1	0.99	0.20	42,42,42,42	0
82	OHX	AR	3438	7/7	0.99	0.10	53,53,53,53	0
82	OHX	AR	3435	7/7	0.99	0.10	56,56,56,56	0
82	OHX	1	3488	7/7	0.99	0.14	69,69,69,69	0
82	OHX	DD	101	7/7	0.99	0.14	50,50,50,50	0
82	OHX	sR	1912	7/7	0.99	0.11	62,62,62,62	0
82	OHX	CP	501	7/7	0.99	0.17	94,94,94,94	0
82	OHX	1	3475	7/7	0.99	0.11	70,70,70,70	0
83	MG	AR	3897	1/1	0.99	0.52	25,25,25,25	0
82	OHX	AR	3466	7/7	0.99	0.11	74,74,74,74	0
82	OHX	1	3533	7/7	0.99	0.11	64,64,64,64	0
82	OHX	sR	1917	7/7	0.99	0.06	67,67,67,67	0

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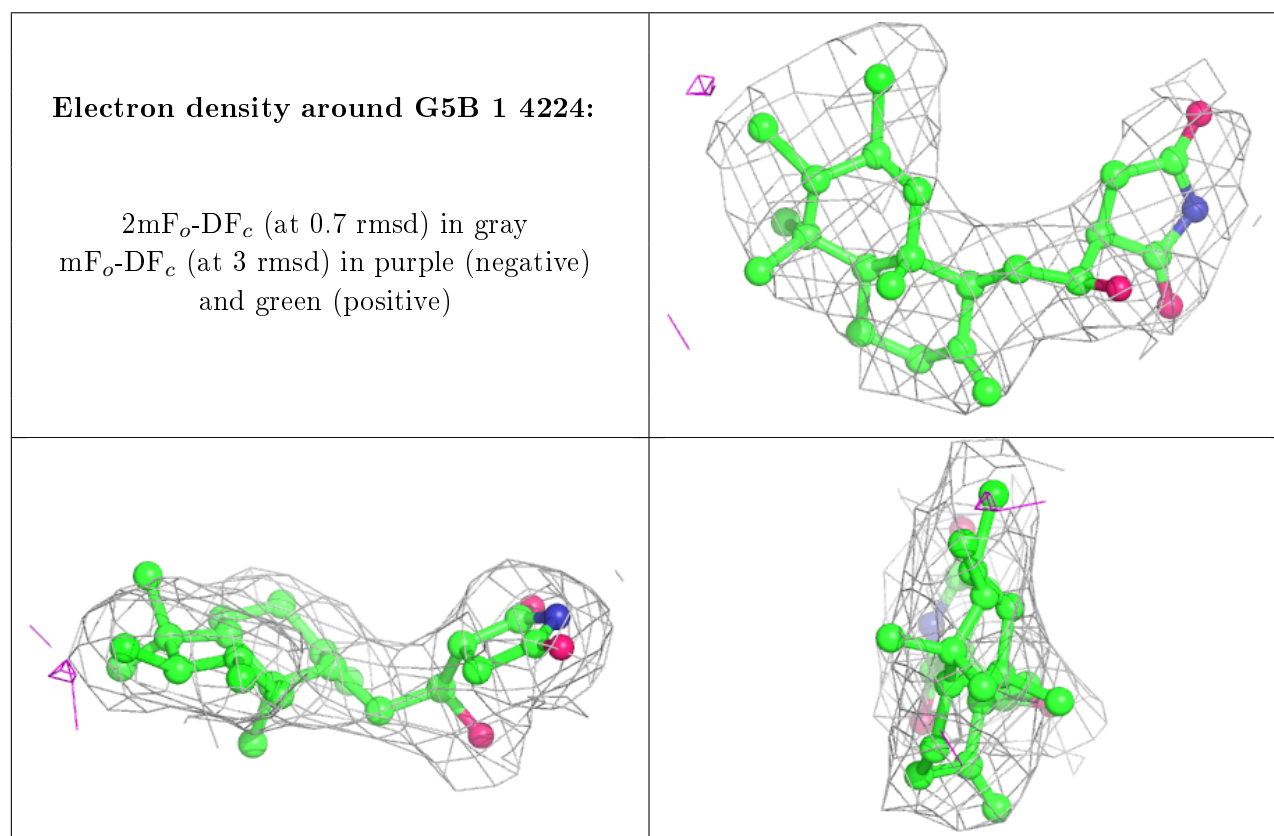
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
82	OHX	AR	3465	7/7	0.99	0.14	60,60,60,60	0
82	OHX	1	3455	7/7	0.99	0.09	68,68,68,68	0
82	OHX	1	3415	7/7	0.99	0.09	47,47,47,47	0
83	MG	1	3943	1/1	0.99	0.23	39,39,39,39	0
83	MG	sR	2171	1/1	0.99	0.09	71,71,71,71	0
82	OHX	sR	1925	7/7	0.99	0.10	67,67,67,67	0
82	OHX	AR	3419	7/7	0.99	0.11	49,49,49,49	0
82	OHX	CX	201	7/7	0.99	0.07	67,67,67,67	0
82	OHX	AR	3471	7/7	0.99	0.10	78,78,78,78	0
82	OHX	1	3446	7/7	0.99	0.09	64,64,64,64	0
82	OHX	2	201	7/7	0.99	0.12	53,53,53,53	0
82	OHX	AR	3439	7/7	0.99	0.12	66,66,66,66	0
85	ZN	e	101	1/1	0.99	0.10	70,70,70,70	0
82	OHX	AR	3550	7/7	0.99	0.17	91,91,91,91	0
82	OHX	AR	3449	7/7	0.99	0.08	75,75,75,75	0
82	OHX	AR	3488	7/7	0.99	0.09	72,72,72,72	0
83	MG	AR	4092	1/1	0.99	0.15	36,36,36,36	0
82	OHX	1	3410	7/7	1.00	0.12	46,46,46,46	0
82	OHX	1	3421	7/7	1.00	0.11	54,54,54,54	0
83	MG	1	4139	1/1	1.00	0.12	44,44,44,44	0
82	OHX	1	3408	7/7	1.00	0.12	49,49,49,49	0
82	OHX	1	3412	7/7	1.00	0.09	46,46,46,46	0
82	OHX	1	3402	7/7	1.00	0.14	40,40,40,40	0
82	OHX	AR	3402	7/7	1.00	0.15	33,33,33,33	0
82	OHX	AR	3410	7/7	1.00	0.12	35,35,35,35	0
82	OHX	AR	3417	7/7	1.00	0.11	55,55,55,55	0
82	OHX	1	3423	7/7	1.00	0.09	53,53,53,53	0
82	OHX	1	3401	7/7	1.00	0.15	33,33,33,33	0
83	MG	s1	302	1/1	1.00	0.12	63,63,63,63	0
82	OHX	n	201	7/7	1.00	0.14	43,43,43,43	0
82	OHX	1	3403	7/7	1.00	0.14	38,38,38,38	0
83	MG	1	4061	1/1	1.00	0.11	40,40,40,40	0
83	MG	1	4085	1/1	1.00	0.28	45,45,45,45	0
82	OHX	AR	3408	7/7	1.00	0.14	45,45,45,45	0
82	OHX	1	3405	7/7	1.00	0.13	39,39,39,39	0
82	OHX	1	3468	7/7	1.00	0.10	46,46,46,46	0
83	MG	AR	4153	1/1	1.00	0.09	44,44,44,44	0
83	MG	1	4030	1/1	1.00	0.12	54,54,54,54	0
82	OHX	sR	1906	7/7	1.00	0.11	56,56,56,56	0
82	OHX	AR	3427	7/7	1.00	0.09	47,47,47,47	0
82	OHX	AR	3424	7/7	1.00	0.11	52,52,52,52	0
85	ZN	AK	101	1/1	1.00	0.11	27,27,27,27	0

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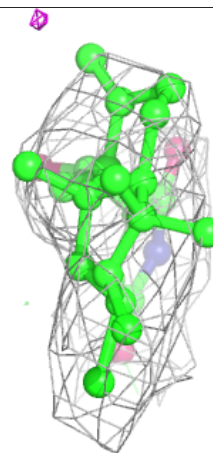
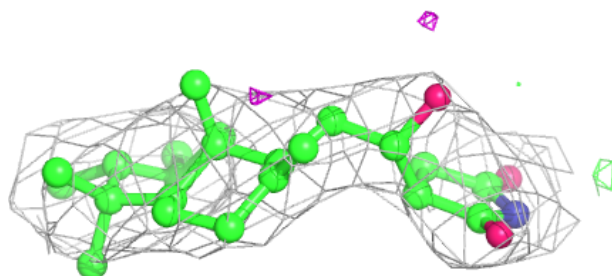
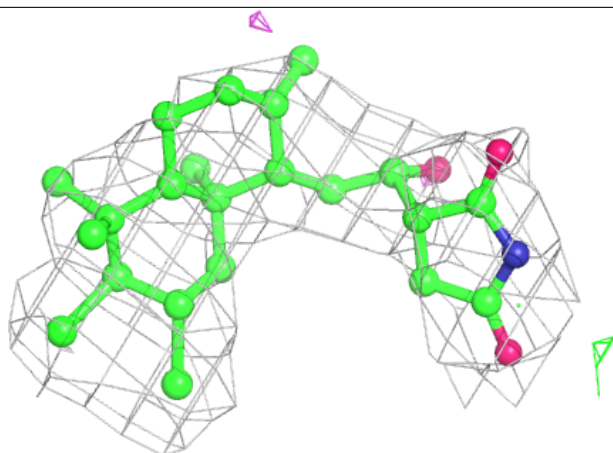
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
83	MG	AR	4179	1/1	1.00	0.12	41,41,41,41	0
85	ZN	DL	101	1/1	1.00	0.12	35,35,35,35	0
82	OHX	AR	3409	7/7	1.00	0.15	44,44,44,44	0
82	OHX	AR	3403	7/7	1.00	0.15	34,34,34,34	0
82	OHX	1	3413	7/7	1.00	0.10	51,51,51,51	0
82	OHX	1	3428	7/7	1.00	0.06	55,55,55,55	0
82	OHX	1	3426	7/7	1.00	0.09	53,53,53,53	0
82	OHX	AR	3423	7/7	1.00	0.13	48,48,48,48	0
82	OHX	1	3420	7/7	1.00	0.12	53,53,53,53	0
82	OHX	AR	3432	7/7	1.00	0.09	48,48,48,48	0
82	OHX	1	3438	7/7	1.00	0.07	54,54,54,54	0
85	ZN	AQ	501	1/1	1.00	0.08	43,43,43,43	0
83	MG	1	4103	1/1	1.00	0.09	47,47,47,47	0
82	OHX	v	301	7/7	1.00	0.12	43,43,43,43	0
82	OHX	AR	3413	7/7	1.00	0.10	43,43,43,43	0
82	OHX	AR	3490	7/7	1.00	0.10	47,47,47,47	0
82	OHX	AR	3422	7/7	1.00	0.09	49,49,49,49	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.



Electron density around G5B AR 4264:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.