Full wwPDB X-ray Structure Validation Report ⓘ

Apr 26, 2026 – 10:11 PM EDT

PDB ID	:	8CQ7 / pdb_00008cq7
Title	:	Crystal structure of phyllanthoside bound to the Candida albicans 80S ribosome
Authors	:	Kolosova, O.; Zgadzay, Y.; Yusupov, M.
Deposited on	:	2023-03-03
Resolution	:	3.20 Å(reported)

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

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

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

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

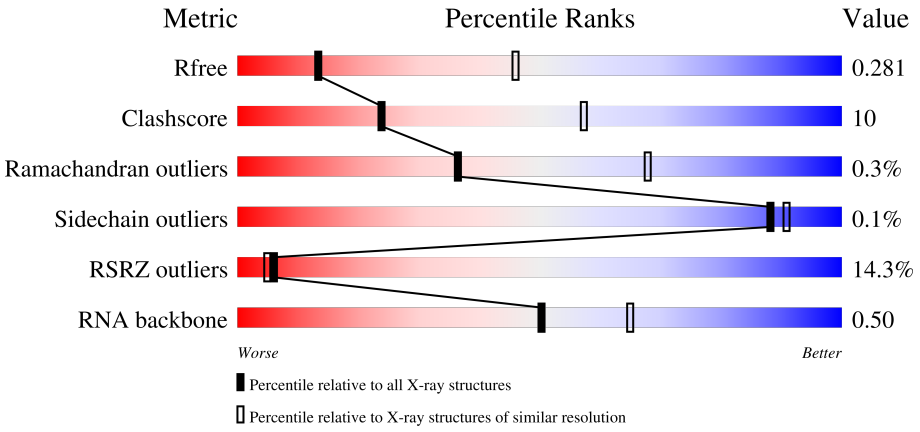
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.20 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1466 (3.20-3.20)
Clashscore	190562	1573 (3.20-3.20)
Ramachandran outliers	187476	1548 (3.20-3.20)
Sidechain outliers	187428	1547 (3.20-3.20)
RSRZ outliers	180081	1466 (3.20-3.20)
RNA backbone	3983	1222 (3.50-2.90)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	1	3359	5% 49% 39% 8% .
1	AS	3359	7% 49% 37% 9% .
2	3	121	67% 31% .
2	AT	121	3% 72% 27% .

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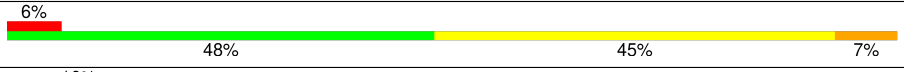
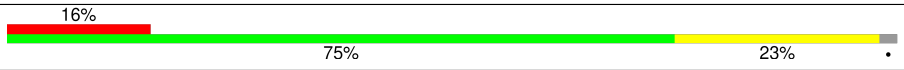
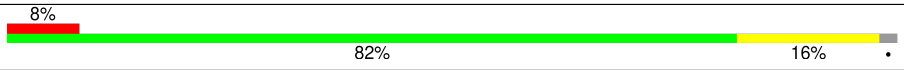
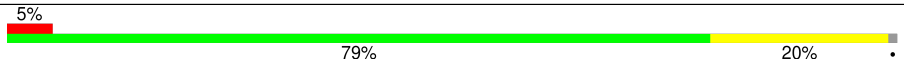
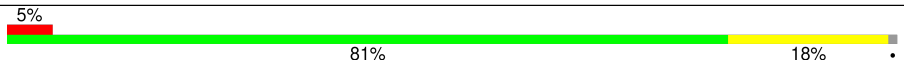
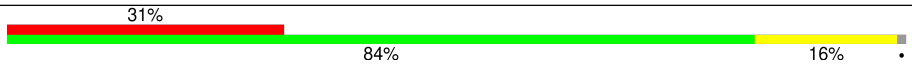
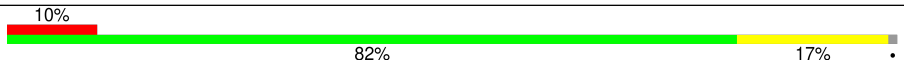
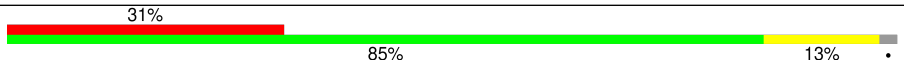
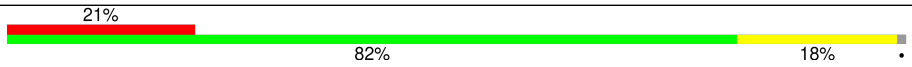
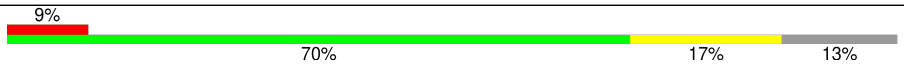
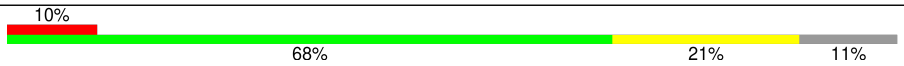
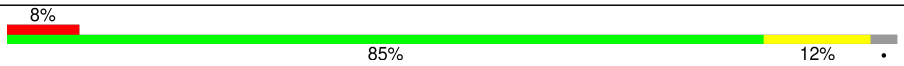
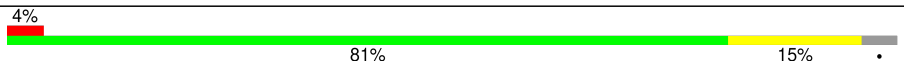
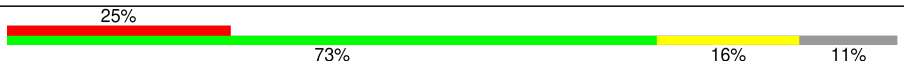
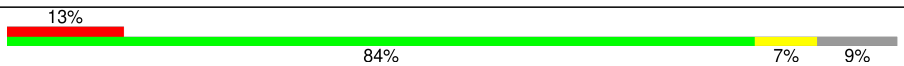
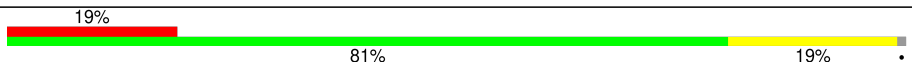
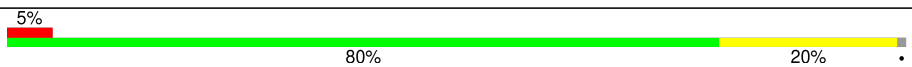
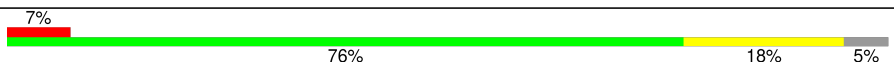
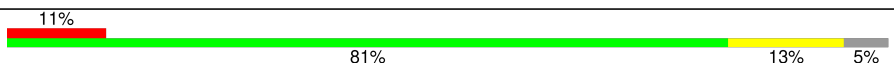
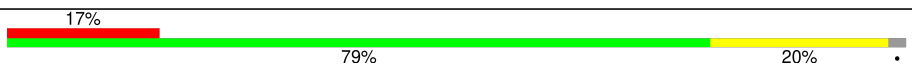
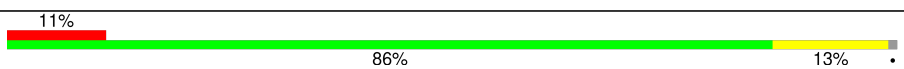
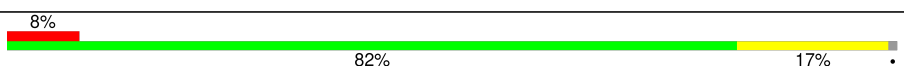
Mol	Chain	Length	Quality of chain
3	4	158	
3	AU	158	
4	AW	254	
4	j	254	
5	AX	389	
5	k	389	
6	AY	363	
6	l	363	
7	AZ	298	
7	m	298	
8	BA	176	
8	n	176	
9	BB	241	
9	o	241	
10	BC	262	
10	p	262	
11	BD	191	
11	q	191	
12	BE	220	
12	r	220	
13	BF	174	
13	s	174	
14	BG	202	
14	t	202	
15	BH	131	

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Mol	Chain	Length	Quality of chain
15	u	131	3% 82% 17%
16	BI	204	26% 75% 25%
16	v	204	6% 76% 23%
17	BJ	200	8% 83% 16%
17	w	200	4% 80% 20%
18	BK	185	12% 82% 14% 5%
18	x	185	7% 76% 17% 6%
19	BL	186	16% 82% 17%
19	y	186	12% 81% 19%
20	BM	190	8% 80% 14% 6%
20	z	190	13% 82% 13% 6%
21	0	172	4% 80% 19%
21	BN	172	4% 71% 28%
22	2	160	9% 83% 16%
22	BO	160	14% 81% 19%
23	5	124	12% 63% 19% 17%
23	BP	124	18% 54% 27% 18%
24	6	137	8% 83% 12%
24	BQ	137	8% 73% 23%
25	7	155	8% 59% 17% 24%
25	BR	155	7% 48% 15% 37%
26	8	142	8% 70% 14% 15%
26	BS	142	15% 72% 12% 16%
27	9	127	16% 82% 17%
27	BT	127	21% 79% 20%

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Mol	Chain	Length	Quality of chain
28	AA	136	16% 79% 20%
28	BU	136	32% 75% 24%
29	AB	149	7% 81% 19%
29	BV	149	23% 79% 21%
30	AC	63	24% 75% 17% 6%
30	BW	63	32% 76% 21%
31	AD	106	% 73% 18% 9%
31	BX	106	11% 70% 21% 9%
32	AE	112	6% 81% 17%
32	BY	112	11% 83% 15%
33	AF	131	10% 82% 13% 5%
33	BZ	131	24% 79% 15% 5%
34	AG	107	6% 82% 17%
34	CA	107	5% 88% 11%
35	AH	122	20% 75% 16% 8%
35	CB	122	28% 73% 19% 8%
36	AI	120	14% 85% 15%
36	CC	120	30% 75% 23%
37	AJ	99	3% 93%
37	CD	99	23% 86% 12%
38	AK	90	11% 71% 24%
38	CE	90	23% 79% 17%
39	AL	78	15% 86% 13%
39	CF	78	33% 69% 29%
40	AM	51	8% 75% 24%

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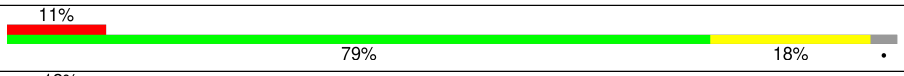
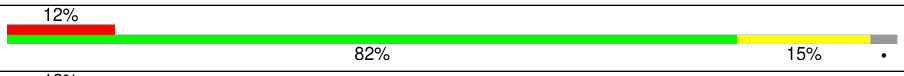
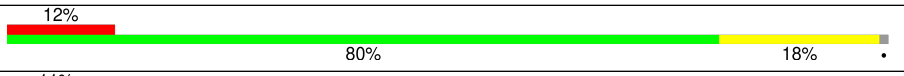
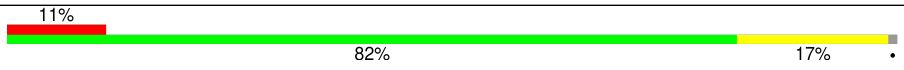
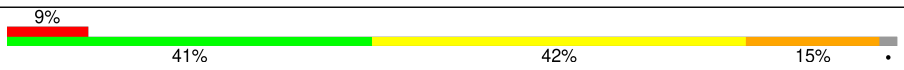
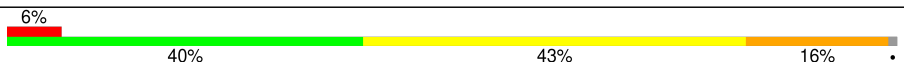
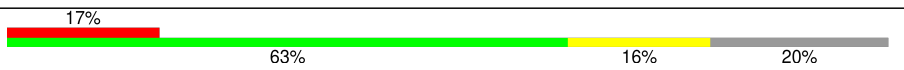
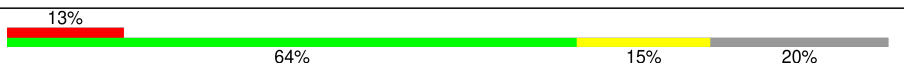
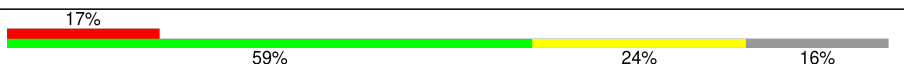
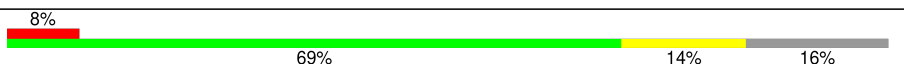
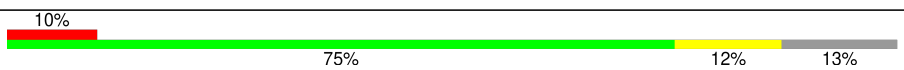
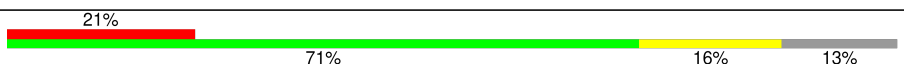
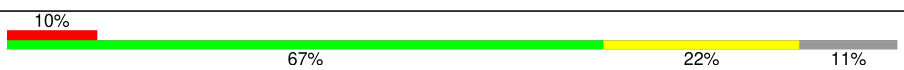
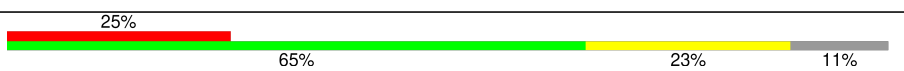
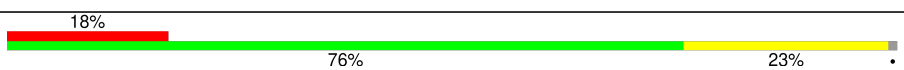
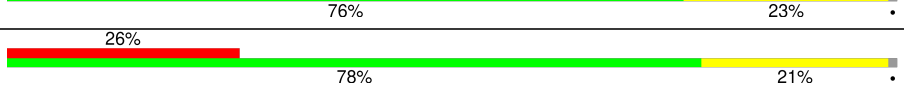
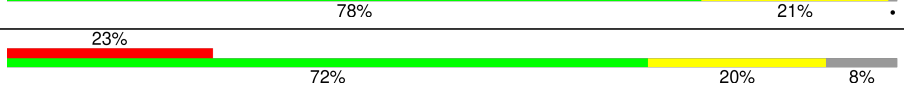
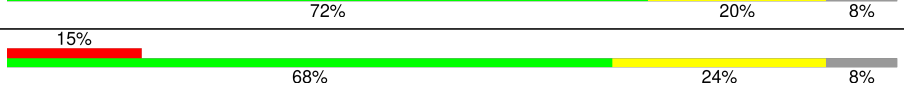
Mol	Chain	Length	Quality of chain
40	CG	51	
41	AN	52	
41	CH	52	
42	AO	25	
42	CI	25	
43	AP	106	
43	CJ	106	
44	AQ	92	
44	CK	92	
45	CL	267	
45	i	267	
46	B	1787	
46	CM	1787	
47	C	261	
47	CN	261	
48	CO	256	
48	D	256	
49	CP	249	
49	E	249	
50	CQ	251	
50	F	251	
51	CR	262	
51	G	262	
52	CS	225	
52	H	225	

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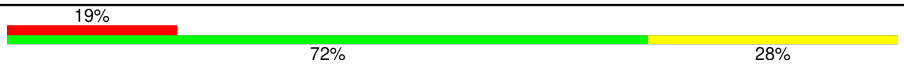
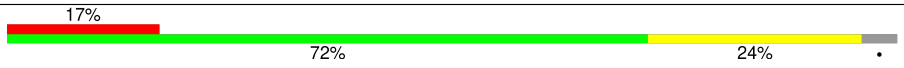
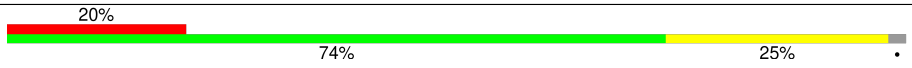
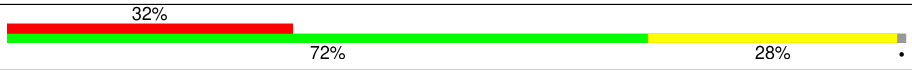
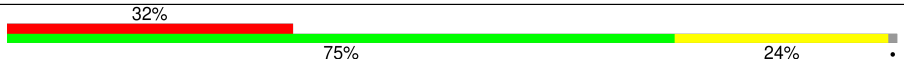
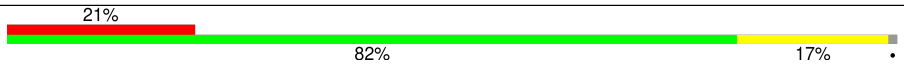
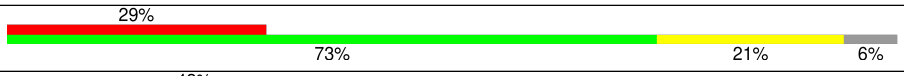
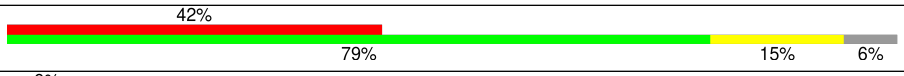
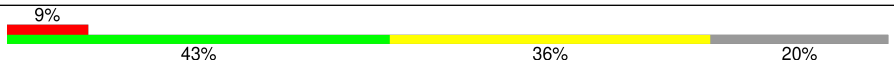
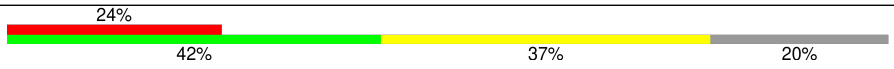
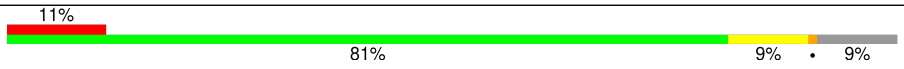
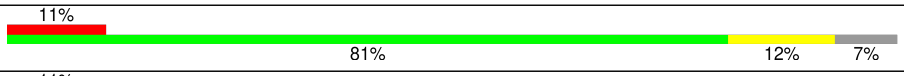
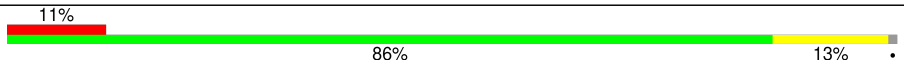
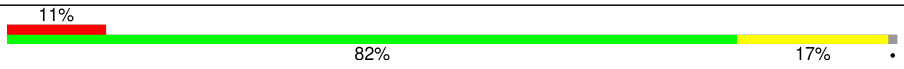
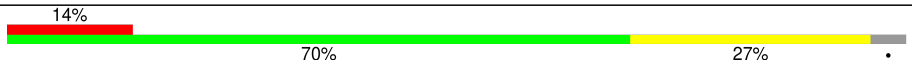
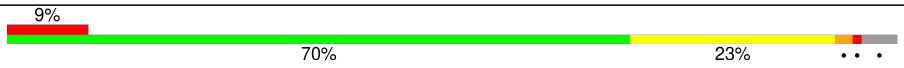
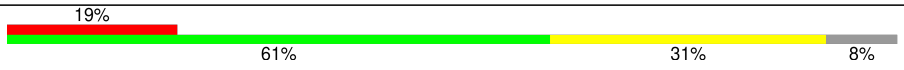
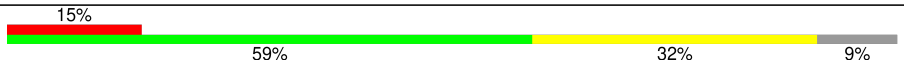
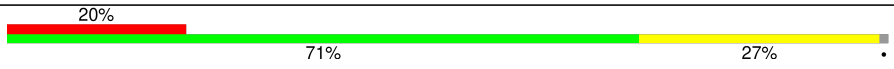
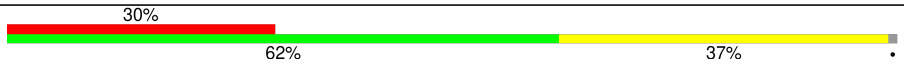
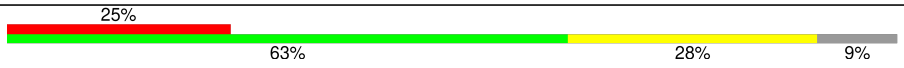
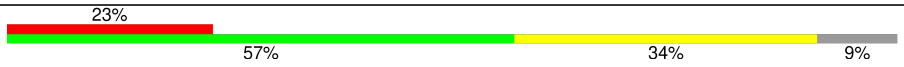
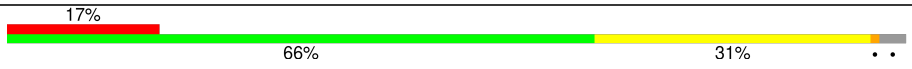
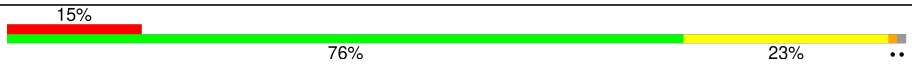
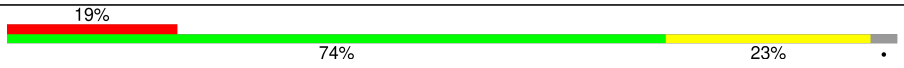
Mol	Chain	Length	Quality of chain
53	CT	236	
53	I	236	
54	CU	186	
54	J	186	
55	CV	206	
55	K	206	
56	CW	189	
56	L	189	
57	CX	118	
57	M	118	
58	CY	155	
58	N	155	
59	DA	151	
59	P	151	
60	DB	132	
60	Q	132	
61	DC	142	
61	R	142	
62	DD	142	
62	S	142	
63	DE	137	
63	T	137	
64	DF	145	
64	U	145	
65	DG	145	

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Mol	Chain	Length	Quality of chain
65	V	145	12% 74% 23%
66	DH	119	8% 55% 27% 18%
66	W	119	24% 65% 21% 14%
67	DI	87	11% 84% 16%
67	X	87	8% 78% 22%
68	DJ	130	12% 78% 22%
68	Y	130	22% 82% 17%
69	DK	145	6% 79% 19%
69	Z	145	22% 80% 19%
70	DL	135	18% 79% 19%
70	a	135	28% 84% 15%
71	DM	105	15% 45% 23% 32%
71	b	105	10% 50% 19% 31%
72	DN	119	18% 61% 21% 18%
72	c	119	20% 69% 13% 18%
73	DO	82	21% 83% 16%
73	d	82	17% 90% 9%
74	DP	67	18% 63% 28% 9%
74	e	67	28% 64% 28% 7%
75	DQ	56	11% 79% 18%
75	f	56	12% 82% 16%
76	DR	63	24% 57% 32% 8%
76	g	63	37% 81% 14% 5%
77	DS	193	16% 20% 16% 64%
77	h	193	12% 19% 16% 64%

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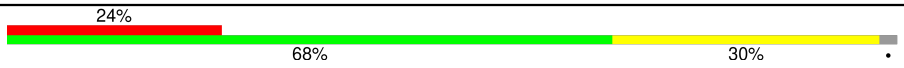
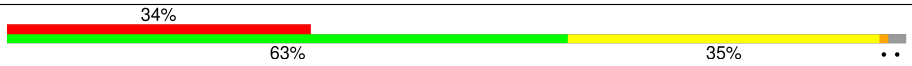
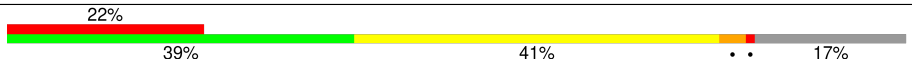
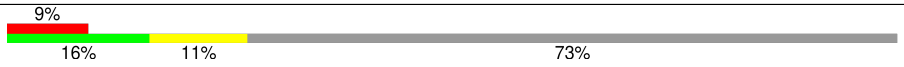
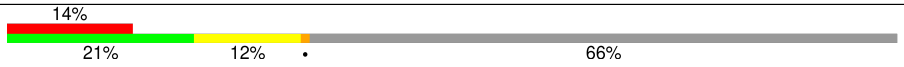
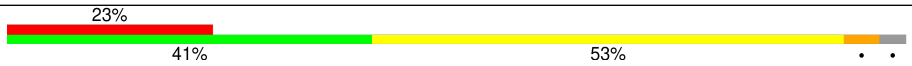
Mol	Chain	Length	Quality of chain
78	AR	317	
78	DT	317	
79	CZ	143	
79	O	143	
80	P0	312	
80	p0	312	
81	12	165	
82	L1	217	
82	l1	217	

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
84	MG	AS	3419	-	-	-	X
84	MG	AS	3661	-	-	-	X
84	MG	AT	210	-	-	-	X
84	MG	CL	302	-	-	-	X
84	MG	CM	1828	-	-	-	X

2 Entry composition

There are 86 unique types of molecules in this entry. The entry contains 408874 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.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1	3216	Total	C	N	O	P	0	0	0
			68751	30713	12360	22462	3216			
1	AS	3222	Total	C	N	O	P	0	0	0
			68877	30769	12381	22505	3222			

- Molecule 2 is a RNA chain called 5S.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	3	121	Total	C	N	O	P	0	0	0
			2579	1153	463	842	121			
2	AT	121	Total	C	N	O	P	0	0	0
			2579	1153	463	842	121			

- Molecule 3 is a RNA chain called 5.8S.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	4	157	Total	C	N	O	P	0	0	0
			3333	1491	583	1102	157			
3	AU	158	Total	C	N	O	P	0	0	0
			3353	1500	585	1110	158			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	j	249	Total	C	N	O	S	0	0	0
			1888	1180	376	330	2			
4	AW	249	Total	C	N	O	S	0	0	0
			1888	1180	376	330	2			

- 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	1	0
			3084	1955	584	538	7			
5	AX	386	Total	C	N	O	S	0	0	0
			3077	1950	582	538	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	l	361	Total	C	N	O	S	0	0	0
			2751	1729	529	490	3			
6	AY	361	Total	C	N	O	S	0	0	0
			2751	1729	529	490	3			

- Molecule 7 is a protein called Uncharacterized protein CaJ7.0206.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	m	296	Total	C	N	O	S	0	0	0
			2426	1544	422	458	2			
7	AZ	292	Total	C	N	O	S	0	0	0
			2394	1526	416	450	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	n	157	Total	C	N	O	S	0	0	0
			1242	796	226	219	1			
8	BA	153	Total	C	N	O		0	0	0
			1210	777	221	212				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	o	231	Total	C	N	O	S	0	0	0
			1861	1193	342	325	1			
9	BB	234	Total	C	N	O	S	0	0	0
			1885	1208	345	331	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	p	238	Total	C	N	O	S	0	0	0
			1839	1175	327	334	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	BC	233	Total	C	N	O	S	0	0	0
			1805	1156	321	325	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	q	190	Total	C	N	O	S	0	0	0
			1519	958	276	281	4			
11	BD	190	Total	C	N	O	S	0	0	0
			1519	958	276	281	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	r	208	Total	C	N	O	S	0	0	0
			1689	1069	322	291	7			
12	BE	208	Total	C	N	O	S	0	0	0
			1689	1069	322	291	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	s	171	Total	C	N	O	S	0	0	0
			1371	857	260	250	4			
13	BF	171	Total	C	N	O	S	0	0	0
			1371	857	260	250	4			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	t	200	Total	C	N	O	0	0	0
			1610	1009	318	283			
14	BG	200	Total	C	N	O	0	0	0
			1610	1009	318	283			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	u	130	Total	C	N	O	S	0	0	0
			1029	660	193	175	1			
15	BH	130	Total	C	N	O	S	0	0	0
			1029	660	193	175	1			

- 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
			1713	1075	356	280	2			
16	BI	203	Total	C	N	O	S	0	0	0
			1713	1075	356	280	2			

- Molecule 17 is a protein called Ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	w	199	Total	C	N	O	S	0	0	0
			1590	1025	294	269	2			
17	BJ	199	Total	C	N	O	S	0	0	0
			1590	1025	294	269	2			

- Molecule 18 is a protein called Ribosomal protein L22.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	x	173	Total	C	N	O	0	0	0
			1387	856	280	251			
18	BK	176	Total	C	N	O	0	0	0
			1406	868	284	254			

- 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	0	0	0
			1458	916	297	245			
19	BL	185	Total	C	N	O	0	0	0
			1458	916	297	245			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	z	179	Total	C	N	O	S	0	0	0
			1457	901	310	243	3			
20	BM	179	Total	C	N	O	S	0	0	0
			1457	901	310	243	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	0	170	Total	C	N	O	S	0	0	0
			1423	921	258	241	3			
21	BN	170	Total	C	N	O	S	0	0	0
			1423	921	258	241	3			

- 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
			1262	798	241	221	2			
22	BO	159	Total	C	N	O	S	0	0	0
			1262	798	241	221	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
23	5	103	Total	C	N	O	0	0	0
			831	539	138	154			
23	BP	102	Total	C	N	O	0	1	0
			837	546	138	153			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	6	131	Total	C	N	O	S	0	0	0
			977	615	183	171	8			
24	BQ	131	Total	C	N	O	S	0	0	0
			977	615	183	171	8			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	7	118	Total	C	N	O	S	0	0	0
			945	591	192	161	1			
25	BR	98	Total	C	N	O	S	0	0	0
			801	501	162	137	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	8	120	Total	C	N	O	S	0	0	0
			965	616	173	175	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BS	119	Total 960	C 613	N 172	O 174	S 1	0	0	0

- Molecule 27 is a protein called Ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	9	126	Total 989	C 618	N 190	O 181	0	0	0
27	BT	126	Total 989	C 618	N 190	O 181	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	AA	135	Total 1087	C 705	N 197	O 183	S 2	0	0	0
28	BU	135	Total 1087	C 705	N 197	O 183	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	AB	148	Total 1170	C 741	N 231	O 197	S 1	0	0	0
29	BV	148	Total 1170	C 741	N 231	O 197	S 1	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
30	AC	59	Total 473	C 295	N 101	O 77	0	0	0
30	BW	61	Total 488	C 304	N 104	O 80	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	AD	96	Total 729	C 469	N 121	O 137	S 2	0	0	0
31	BX	96	Total 729	C 469	N 121	O 137	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	AE	110	Total	C	N	O	S	0	0	0
			894	565	168	159	2			
32	BY	110	Total	C	N	O	S	0	0	0
			894	565	168	159	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	AF	124	Total	C	N	O	S	0	0	0
			1000	638	194	167	1			
33	BZ	124	Total	C	N	O	S	0	0	0
			1004	641	195	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
			847	543	161	142	1			
34	CA	106	Total	C	N	O	S	0	0	0
			847	543	161	142	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	AH	112	Total	C	N	O	S	0	0	0
			887	547	182	154	4			
35	CB	112	Total	C	N	O	S	0	0	0
			887	547	182	154	4			

- Molecule 36 is a protein called Ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	AI	120	Total	C	N	O	S	0	0	0
			992	629	195	167	1			
36	CC	118	Total	C	N	O		0	0	0
			979	621	193	165				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	AJ	95	Total	C	N	O	S	0	0	0
			736	459	148	128	1			
37	CD	97	Total	C	N	O	S	0	0	0
			758	471	156	130	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	AK	86	Total	C	N	O	S	0	0	0
			677	413	148	110	6			
38	CE	86	Total	C	N	O	S	0	0	0
			677	413	148	110	6			

- 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
			617	393	115	109			
39	CF	77	Total	C	N	O	0	0	0
			617	393	115	109			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	AM	50	Total	C	N	O	0	0	0
			438	275	97	66			
40	CG	50	Total	C	N	O	0	0	0
			438	275	97	66			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	AN	52	Total	C	N	O	S	0	0	0
			419	260	86	67	6			
41	CH	51	Total	C	N	O	S	0	0	0
			411	255	85	66	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	AO	25	Total	C	N	O	S	0	0	0
			236	144	63	28	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	CI	24	Total	C	N	O	S	0	0	0
			227	138	61	27	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	AP	103	Total	C	N	O	S	0	0	0
			828	521	165	137	5			
43	CJ	103	Total	C	N	O	S	0	0	0
			828	521	165	137	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
			698	430	140	124	4			
44	CK	91	Total	C	N	O	S	0	0	0
			698	430	140	124	4			

- Molecule 45 is a protein called 60S ribosomal protein CAALFM_C304810CA.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
45	i	121	Total	C	N	O	0	0	0
			931	563	166	202			
45	CL	121	Total	C	N	O	0	0	0
			931	563	166	202			

- Molecule 46 is a RNA chain called 18S.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	B	1756	Total	C	N	O	P	0	0	0
			37425	16730	6631	12308	1756			
46	CM	1765	Total	C	N	O	P	0	0	0
			37621	16818	6670	12368	1765			

- Molecule 47 is a protein called 40S ribosomal protein S0.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	C	208	Total	C	N	O	S	0	0	0
			1627	1041	284	297	5			
47	CN	208	Total	C	N	O	S	0	0	0
			1627	1041	284	297	5			

- Molecule 48 is a protein called 40S ribosomal protein S1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	D	214	Total	C	N	O	S	0	0	0
			1724	1094	313	313	4			
48	CO	214	Total	C	N	O	S	0	0	0
			1724	1094	313	313	4			

- Molecule 49 is a protein called Ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	E	217	Total	C	N	O	S	0	0	0
			1629	1039	289	296	5			
49	CP	217	Total	C	N	O	S	0	0	0
			1629	1039	289	296	5			

- Molecule 50 is a protein called Ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	F	223	Total	C	N	O	S	0	0	0
			1707	1087	311	305	4			
50	CQ	223	Total	C	N	O	S	0	0	0
			1707	1087	311	305	4			

- Molecule 51 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	G	259	Total	C	N	O	S	0	0	0
			2051	1304	385	357	5			
51	CR	260	Total	C	N	O	S	0	0	0
			2055	1306	386	358	5			

- Molecule 52 is a protein called Ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	H	206	Total	C	N	O	S	0	0	0
			1614	1008	301	301	4			
52	CS	206	Total	C	N	O	S	0	0	0
			1614	1008	301	301	4			

- Molecule 53 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	I	226	Total	C	N	O	S	0	0	0
			1820	1133	351	330	6			
53	CT	236	Total	C	N	O	S	0	0	0
			1904	1184	369	345	6			

- Molecule 54 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
54	J	185	Total	C	N	O	0	0	0
			1491	953	269	269			
54	CU	183	Total	C	N	O	0	0	0
			1475	944	265	266			

- Molecule 55 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	K	203	Total	C	N	O	S	0	0	0
			1579	973	322	283	1			
55	CV	203	Total	C	N	O	S	0	0	0
			1579	973	322	283	1			

- Molecule 56 is a protein called Ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	L	178	Total	C	N	O	S	0	0	0
			1453	918	286	248	1			
56	CW	178	Total	C	N	O	S	0	0	0
			1453	918	286	248	1			

- Molecule 57 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	M	94	Total	C	N	O		0	0	0
			785	508	131	146				
57	CX	94	Total	C	N	O	S	0	0	0
			791	515	131	144	1			

- Molecule 58 is a protein called 40S ribosomal protein S11A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	N	144	Total	C	N	O	S	0	0	0
			1150	734	215	198	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	CY	141	Total	C	N	O	S	0	0	0
			1129	722	212	192	3			

- Molecule 59 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
59	P	150	Total	C	N	O	S	0	0	0
			1187	757	219	210	1			
59	DA	150	Total	C	N	O	S	0	0	0
			1187	757	219	210	1			

- Molecule 60 is a protein called 40S ribosomal protein S14-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
60	Q	127	Total	C	N	O	S	0	0	0
			942	579	186	174	3			
60	DB	127	Total	C	N	O	S	0	0	0
			942	579	186	174	3			

- Molecule 61 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
61	R	129	Total	C	N	O	S	0	0	0
			1018	649	185	177	7			
61	DC	130	Total	C	N	O	S	0	0	0
			1029	655	189	178	7			

- Molecule 62 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
62	S	140	Total	C	N	O	S	0	0	0
			1091	700	198	192	1			
62	DD	140	Total	C	N	O	S	0	0	0
			1091	700	198	192	1			

- Molecule 63 is a protein called 40S ribosomal protein S17-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
63	T	124	Total	C	N	O	S	0	0	0
			997	628	183	185	1			
63	DE	124	Total	C	N	O	S	0	0	0
			997	628	183	185	1			

- Molecule 64 is a protein called 40S ribosomal protein S18-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
64	U	144	Total	C	N	O	S	0	0	0
			1187	744	233	207	3			
64	DF	141	Total	C	N	O	S	0	0	0
			1161	727	227	204	3			

- Molecule 65 is a protein called 40S ribosomal protein S19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
65	V	141	Total	C	N	O	S	0	0	0
			1100	689	210	200	1			
65	DG	141	Total	C	N	O	S	0	0	0
			1100	689	210	200	1			

- Molecule 66 is a protein called Ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
66	W	102	Total	C	N	O	S	0	0	0
			808	509	150	147	2			
66	DH	97	Total	C	N	O	S	0	0	0
			763	481	140	140	2			

- Molecule 67 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
67	X	87	Total	C	N	O	S	0	0	0
			676	415	126	133	2			
67	DI	87	Total	C	N	O	S	0	0	0
			676	415	126	133	2			

- Molecule 68 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
68	Y	129	Total	C	N	O	S	0	0	0
			1032	655	191	183	3			
68	DJ	129	Total	C	N	O	S	0	0	0
			1032	655	191	183	3			

- Molecule 69 is a protein called Ribosomal protein S23 (S12).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
69	Z	143	Total	C	N	O	S	0	0	0
			1110	701	219	188	2			
69	DK	143	Total	C	N	O	S	0	0	0
			1110	701	219	188	2			

- Molecule 70 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
70	a	134	Total	C	N	O	0	0	0
			1086	677	218	191			
70	DL	132	Total	C	N	O	0	0	0
			1072	670	216	186			

- Molecule 71 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
71	b	72	Total	C	N	O	0	0	0
			578	369	103	106			
71	DM	71	Total	C	N	O	0	0	0
			570	365	102	103			

- Molecule 72 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
72	c	98	Total	C	N	O	S	0	0	0
			779	482	163	128	6			
72	DN	98	Total	C	N	O	S	0	0	0
			779	482	163	128	6			

- Molecule 73 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
73	d	81	Total	C	N	O	S	0	0	0
			614	383	110	114	7			
73	DO	81	Total	C	N	O	S	0	0	0
			614	383	110	114	7			

- Molecule 74 is a protein called 40S ribosomal protein S28-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
74	e	62	Total	C	N	O	S	0	0	0
			487	299	98	88	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
74	DP	61	Total	C	N	O	S	0	0	0
			476	293	94	87	2			

- Molecule 75 is a protein called 40S ribosomal protein S29A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
75	f	55	Total	C	N	O	S	0	0	0
			454	281	94	75	4			
75	DQ	54	Total	C	N	O	S	0	0	0
			449	278	93	74	4			

- Molecule 76 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
76	g	60	Total	C	N	O	S	0	0	0
			474	297	96	79	2			
76	DR	58	Total	C	N	O	S	0	0	0
			461	289	93	77	2			

- Molecule 77 is a protein called Ubiquitin-40S ribosomal protein S31 fusion protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
77	h	70	Total	C	N	O	S	0	0	0
			574	362	113	93	6			
77	DS	70	Total	C	N	O	S	0	0	0
			574	362	113	93	6			

- Molecule 78 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
78	AR	311	Total	C	N	O	S	0	0	0
			2398	1519	412	462	5			
78	DT	311	Total	C	N	O	S	0	0	0
			2398	1519	412	462	5			

- Molecule 79 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
79	CZ	119	Total	C	N	O	S	0	0	0
			913	566	163	179	5			
79	O	39	Total	C	N	O	S	0	0	0
			293	180	50	60	3			

- Molecule 80 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
80	P0	107	Total	C	N	O	S	0	0	0
			845	542	150	150	3			
80	p0	61	Total	C	N	O	S	0	0	0
			487	305	94	85	3			

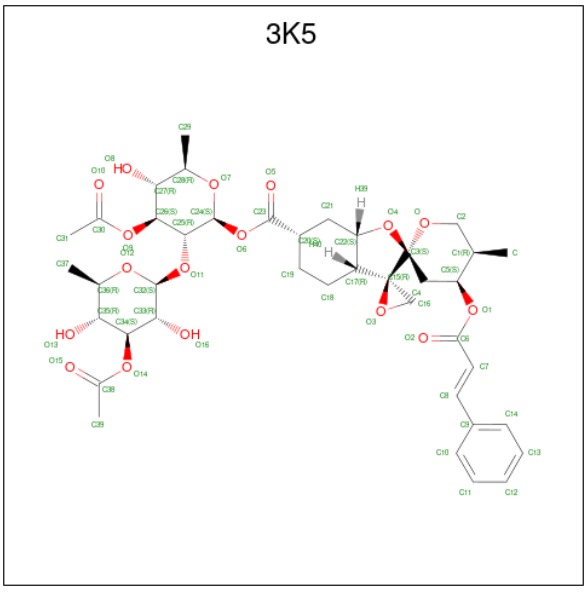
- Molecule 81 is a protein called 60S ribosomal protein L12-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
81	12	62	Total	C	N	O	S	0	0	0
			472	293	83	94	2			

- Molecule 82 is a protein called Ribosomal protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
82	L1	217	Total	C	N	O	S	0	0	0
			1711	1096	294	312	9			
82	l1	211	Total	C	N	O	S	0	0	0
			1661	1064	287	302	8			

- Molecule 83 is 3-O-acetyl-2-O-(3-O-acetyl-6-deoxy-beta-D-glucopyranosyl)-6-deoxy-1-O-{[(2R,2'S,3a'R,4''S,5''R,6'S,7a'S)-5''-methyl-4''-{[(2E)-3-phenylprop-2-enoyl]oxy}decahydrodispiro[oxirane-2,3'-[1]benzofuran-2',2''-pyran]-6'-yl]carbonyl}-beta-D-glucopyranose (CCD ID: 3K5) (formula: $C_{40}H_{52}O_{17}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
83	1	1	Total C O 57 40 17	0	0
83	AS	1	Total C O 57 40 17	0	0

- Molecule 84 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
84	1	636	Total Mg 636 636	0	0
84	3	19	Total Mg 19 19	0	0
84	4	15	Total Mg 15 15	0	0
84	j	3	Total Mg 3 3	0	0
84	k	7	Total Mg 7 7	0	0
84	o	6	Total Mg 6 6	0	0
84	r	3	Total Mg 3 3	0	0
84	s	1	Total Mg 1 1	0	0
84	u	2	Total Mg 2 2	0	0
84	v	4	Total Mg 4 4	0	0
84	w	4	Total Mg 4 4	0	0
84	x	3	Total Mg 3 3	0	0
84	y	3	Total Mg 3 3	0	0
84	z	1	Total Mg 1 1	0	0
84	0	3	Total Mg 3 3	0	0
84	2	2	Total Mg 2 2	0	0
84	6	3	Total Mg 3 3	0	0
84	8	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
84	9	1	Total Mg 1 1	0	0
84	AA	1	Total Mg 1 1	0	0
84	AB	2	Total Mg 2 2	0	0
84	AC	2	Total Mg 2 2	0	0
84	AD	2	Total Mg 2 2	0	0
84	AE	2	Total Mg 2 2	0	0
84	AF	2	Total Mg 2 2	0	0
84	AG	2	Total Mg 2 2	0	0
84	AH	1	Total Mg 1 1	0	0
84	AI	1	Total Mg 1 1	0	0
84	AJ	1	Total Mg 1 1	0	0
84	AM	1	Total Mg 1 1	0	0
84	AO	1	Total Mg 1 1	0	0
84	AP	2	Total Mg 2 2	0	0
84	i	1	Total Mg 1 1	0	0
84	B	197	Total Mg 197 197	0	0
84	D	2	Total Mg 2 2	0	0
84	E	1	Total Mg 1 1	0	0
84	G	1	Total Mg 1 1	0	0
84	I	1	Total Mg 1 1	0	0
84	J	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
84	K	2	Total Mg 2 2	0	0
84	Q	2	Total Mg 2 2	0	0
84	R	1	Total Mg 1 1	0	0
84	U	1	Total Mg 1 1	0	0
84	Y	3	Total Mg 3 3	0	0
84	Z	3	Total Mg 3 3	0	0
84	a	1	Total Mg 1 1	0	0
84	c	1	Total Mg 1 1	0	0
84	f	1	Total Mg 1 1	0	0
84	g	1	Total Mg 1 1	0	0
84	AR	1	Total Mg 1 1	0	0
84	AS	433	Total Mg 433 433	0	0
84	AT	14	Total Mg 14 14	0	0
84	AU	9	Total Mg 9 9	0	0
84	AW	4	Total Mg 4 4	0	0
84	AX	1	Total Mg 1 1	0	0
84	AY	1	Total Mg 1 1	0	0
84	BB	6	Total Mg 6 6	0	0
84	BE	3	Total Mg 3 3	0	0
84	BF	1	Total Mg 1 1	0	0
84	BH	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
84	BI	1	Total Mg 1 1	0	0
84	BJ	4	Total Mg 4 4	0	0
84	BK	1	Total Mg 1 1	0	0
84	BN	3	Total Mg 3 3	0	0
84	BO	2	Total Mg 2 2	0	0
84	BS	2	Total Mg 2 2	0	0
84	BV	1	Total Mg 1 1	0	0
84	BZ	4	Total Mg 4 4	0	0
84	CA	2	Total Mg 2 2	0	0
84	CJ	1	Total Mg 1 1	0	0
84	CL	4	Total Mg 4 4	0	0
84	CM	183	Total Mg 183 183	0	0
84	CN	1	Total Mg 1 1	0	0
84	CO	1	Total Mg 1 1	0	0
84	CP	1	Total Mg 1 1	0	0
84	CQ	3	Total Mg 3 3	0	0
84	CW	2	Total Mg 2 2	0	0
84	CY	1	Total Mg 1 1	0	0
84	DA	1	Total Mg 1 1	0	0
84	DB	3	Total Mg 3 3	0	0
84	DG	2	Total Mg 2 2	0	0

Continued on next page...

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
84	DJ	2	Total Mg 2 2	0	0

- Molecule 85 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
85	AH	1	Total Zn 1 1	0	0
85	AK	1	Total Zn 1 1	0	0
85	AN	1	Total Zn 1 1	0	0
85	AP	1	Total Zn 1 1	0	0
85	AQ	1	Total Zn 1 1	0	0
85	c	1	Total Zn 1 1	0	0
85	d	1	Total Zn 1 1	0	0
85	f	1	Total Zn 1 1	0	0
85	h	1	Total Zn 1 1	0	0
85	CB	1	Total Zn 1 1	0	0
85	CE	1	Total Zn 1 1	0	0
85	CH	1	Total Zn 1 1	0	0
85	CJ	1	Total Zn 1 1	0	0
85	CK	1	Total Zn 1 1	0	0
85	DN	1	Total Zn 1 1	0	0
85	DO	1	Total Zn 1 1	0	0
85	DQ	1	Total Zn 1 1	0	0
85	DS	1	Total Zn 1 1	0	0

- Molecule 86 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
86	1	23	Total O 23 23	0	0
86	l	1	Total O 1 1	0	0
86	B	12	Total O 12 12	0	0
86	AS	22	Total O 22 22	0	0
86	BQ	2	Total O 2 2	0	0

3 Residue-property plots (i)

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

- Molecule 1: 25S

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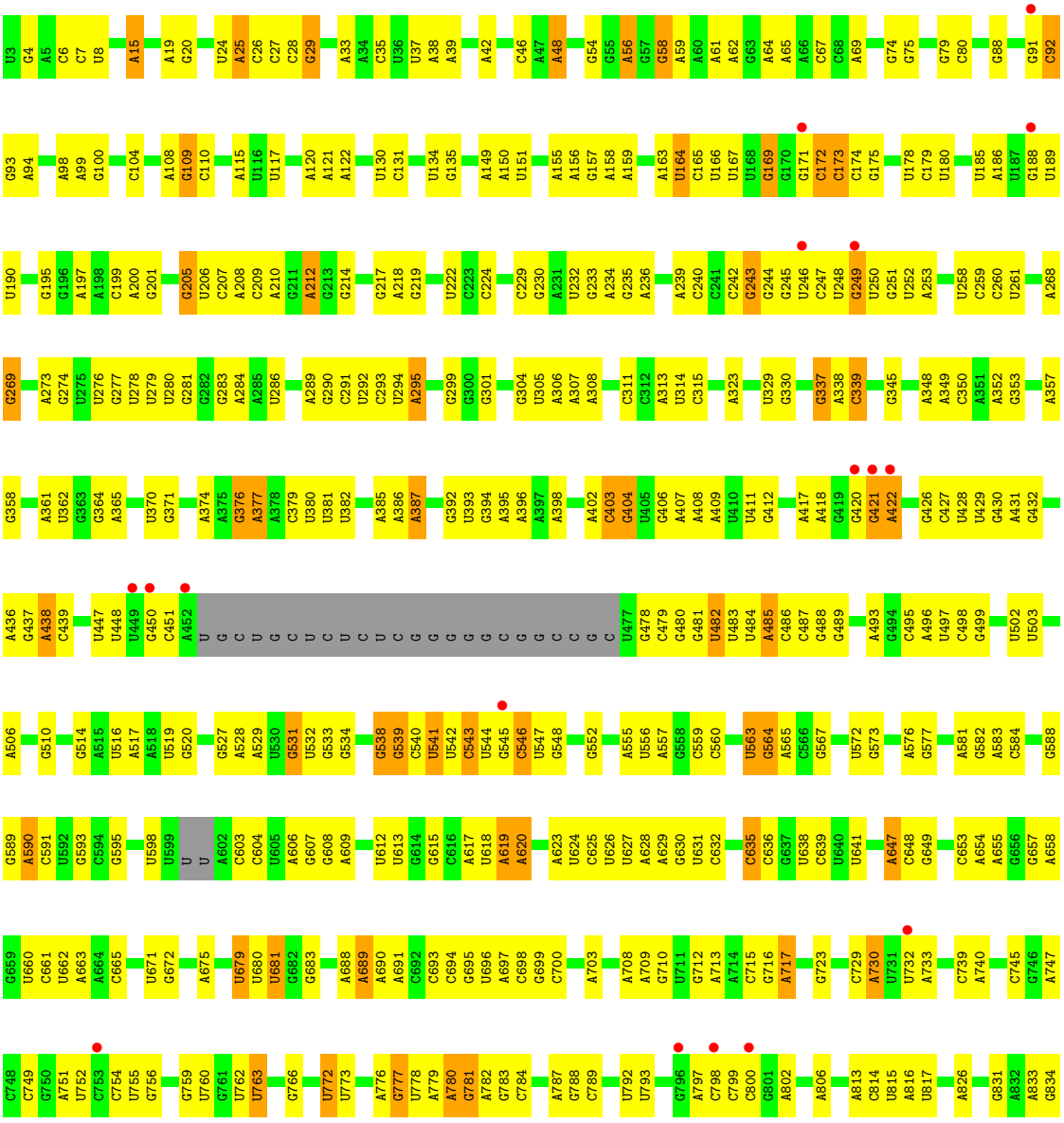

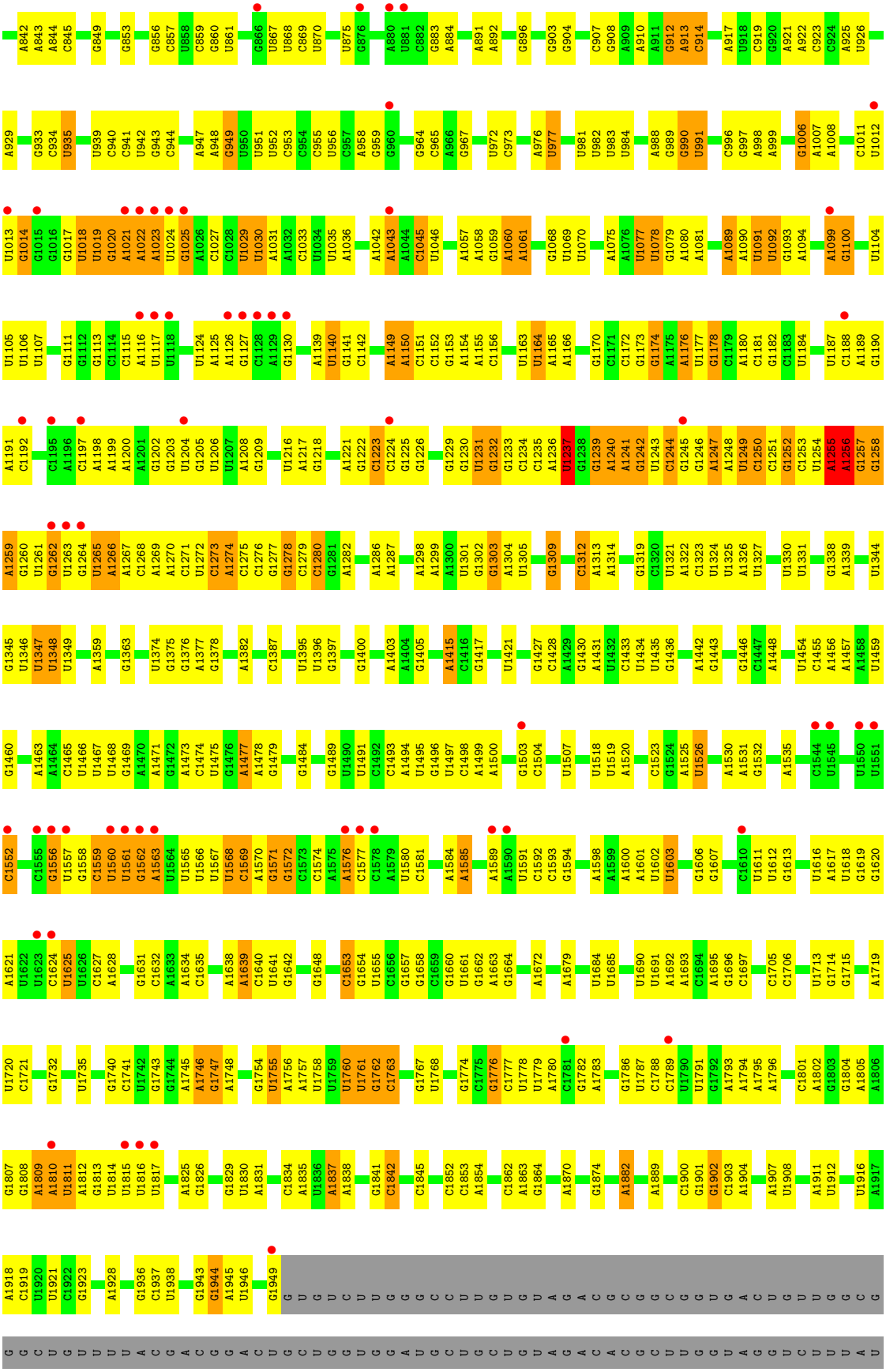

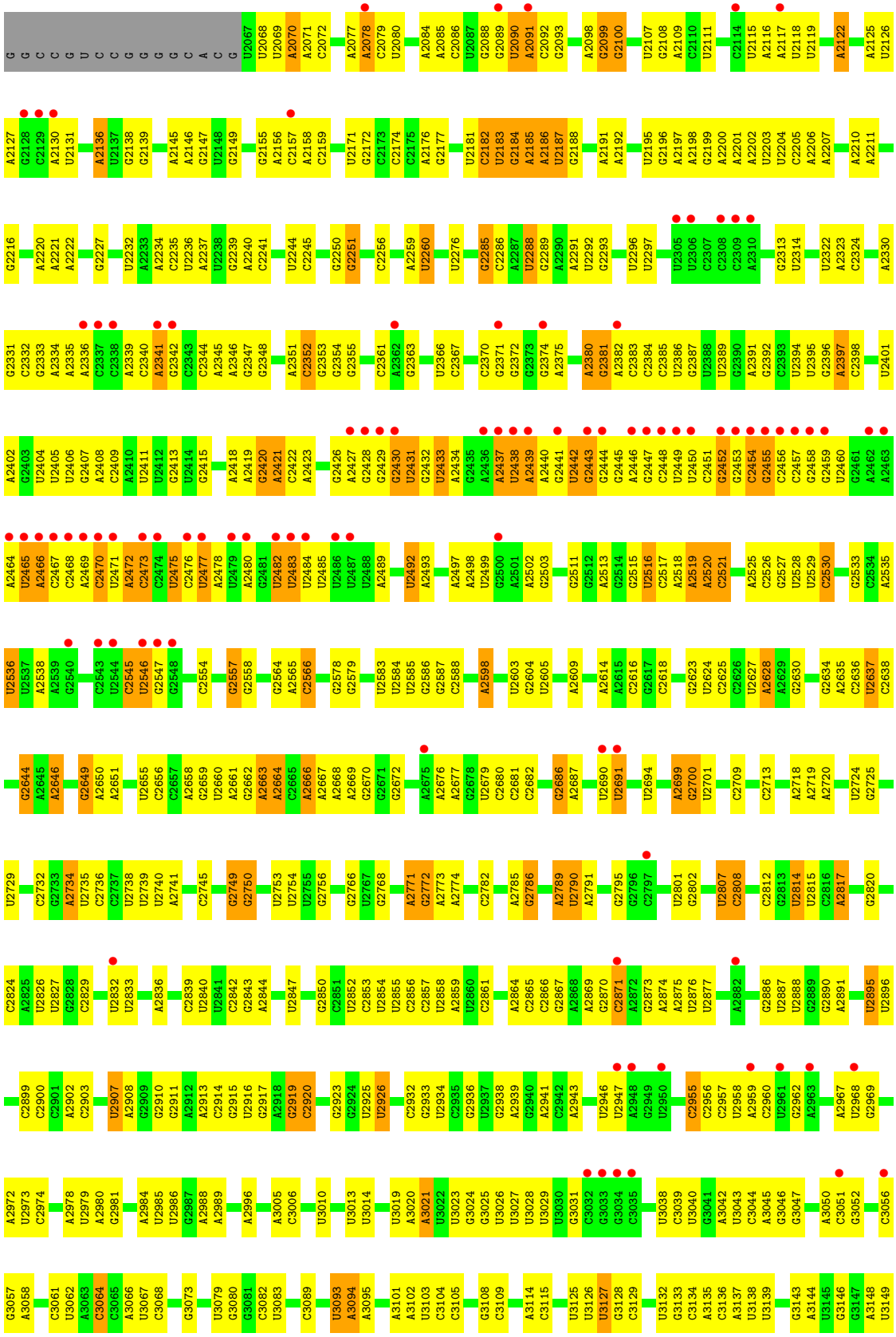
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U2536 U2537 A2538 A2539 G2540 C2543 U2544 C2545 U2546 G2547 G2548 C2554 G2557 G2558 G2564 A2565 C2566 G2578 G2579 U2583 U2584 U2585 G2586 G2587 C2588 A2598 U2603 G2604 U2605 A2609 A2614 A2615 C2616 G2617 C2618 G2623 U2624 C2625 C2626 U2627 A2628 A2629 G2630 G2634 A2635 C2636 U2637 C2638
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C2899 C2900 C2901 A2902 C2903 U2907 A2908 G2909 G2910 G2911 A2912 A2913 C2914 G2915 U2916 C2917 A2918 G2919 C2920 G2923 C2924 U2925 U2926 C2932 G2933 U2934 C2935 G2936 U2937 G2938 A2939 C2940 A2941 C2942 A2943 U2946 U2947 A2948 G2949 U2950 C2955 C2956 C2957 U2958 A2959 C2960 U2961 G2962 A2963 A2967 U2968 G2969
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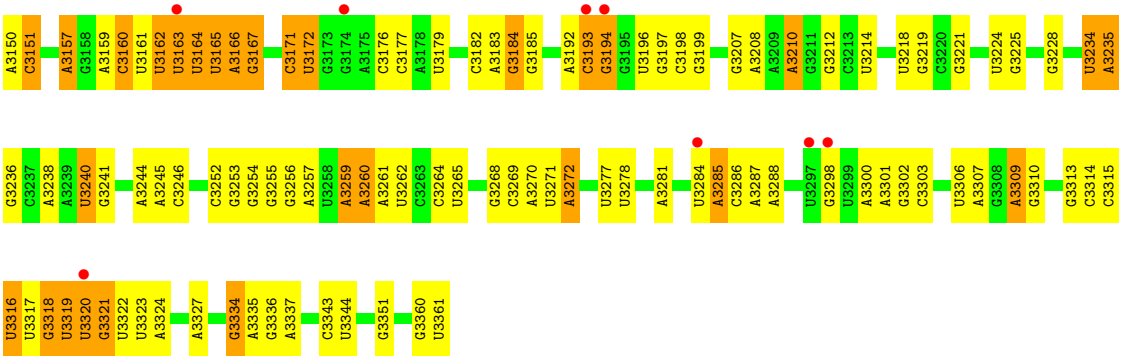

• Molecule 1: 25S

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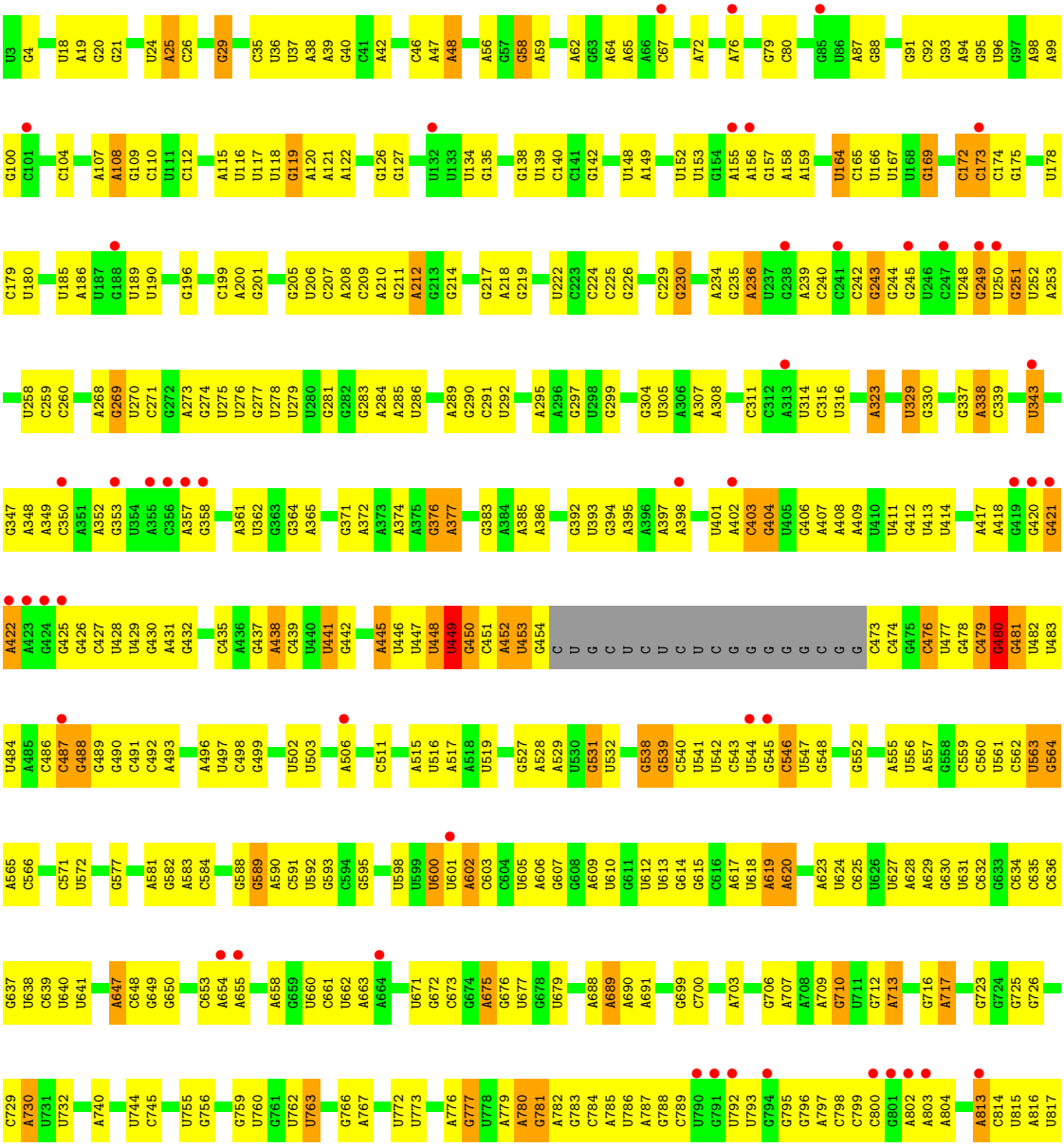

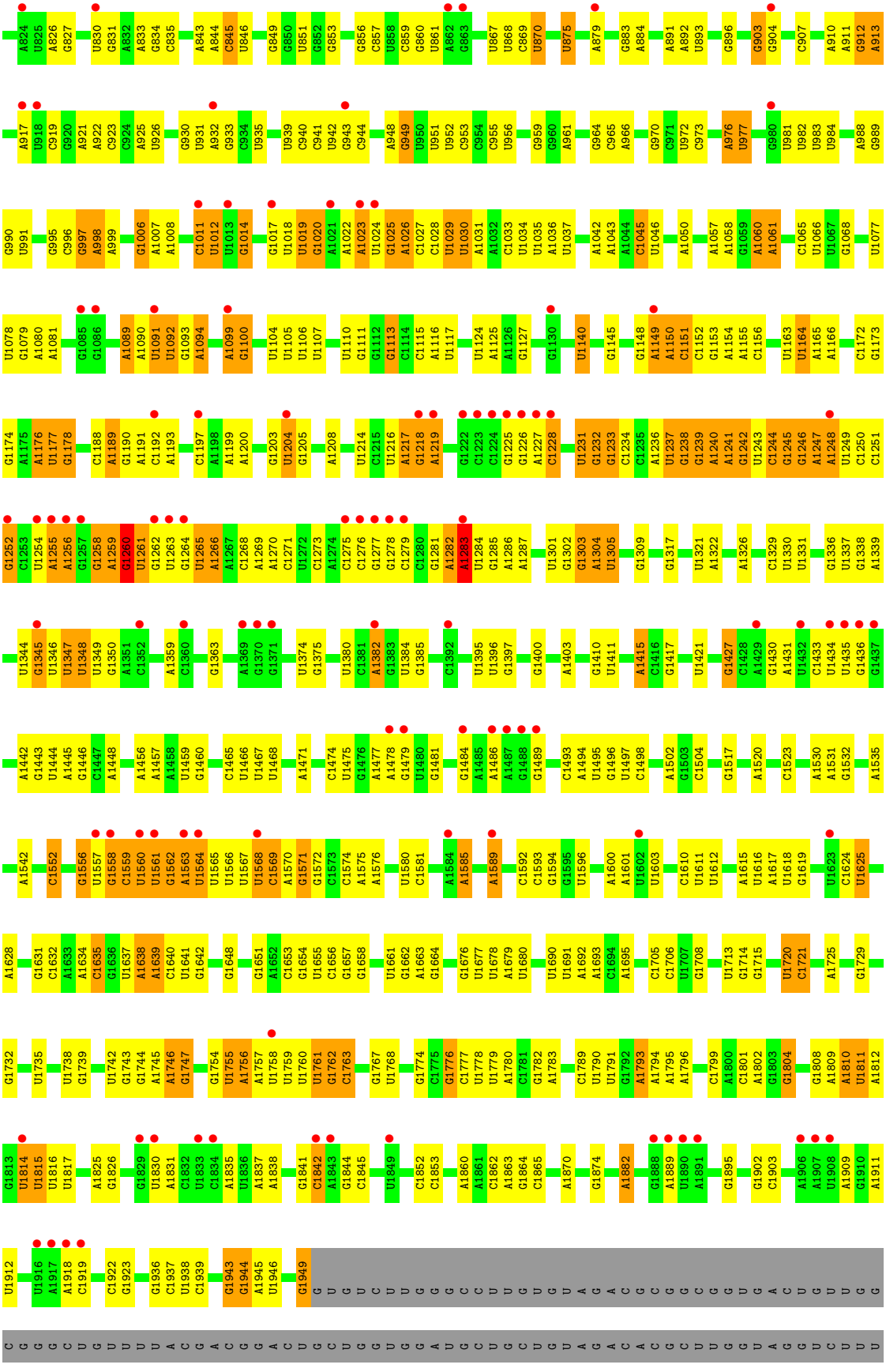

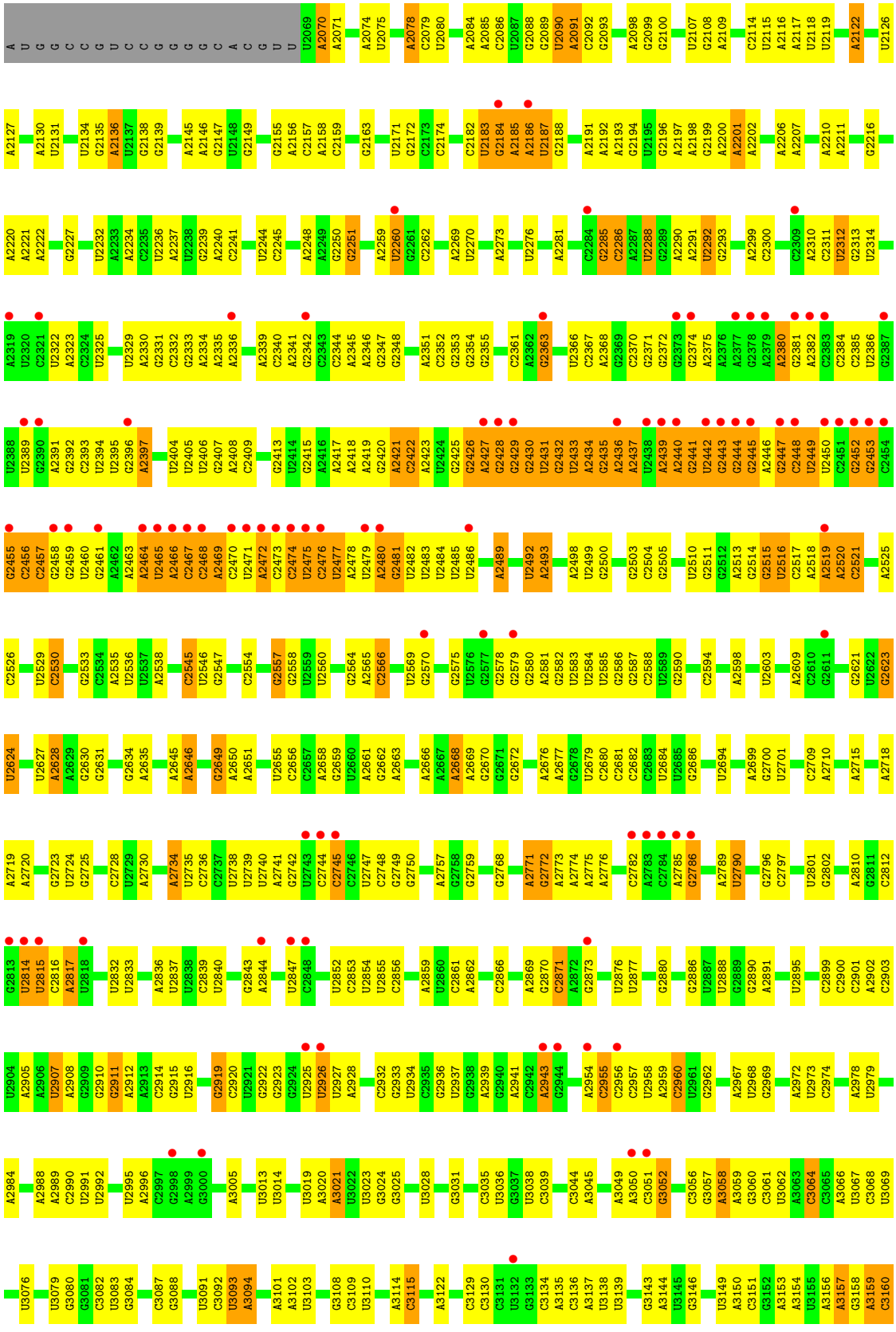
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A2127 A2130 U2131 U2134 G2135 A2136 U2137 G2138 G2139 A2145 A2146 G2147 U2148 G2149 G2155 A2156 C2157 A2158 C2159 G2163 U2171 G2172 C2173 C2174 C2182 U2183 G2184 A2185 A2186 U2187 G2188 A2191 A2192 A2193 G2194 U2195 G2196 A2197 A2198 G2199 A2200 A2201 A2202 A2206 A2207 A2210 A2211 G2216
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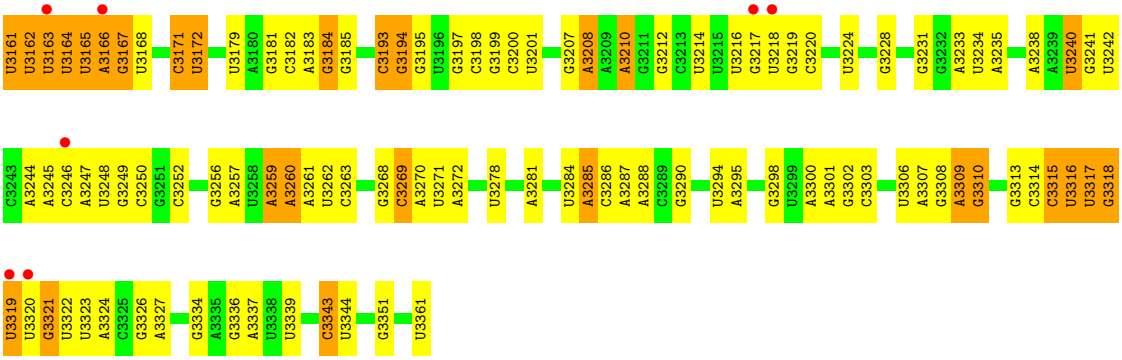

• Molecule 2: 5S

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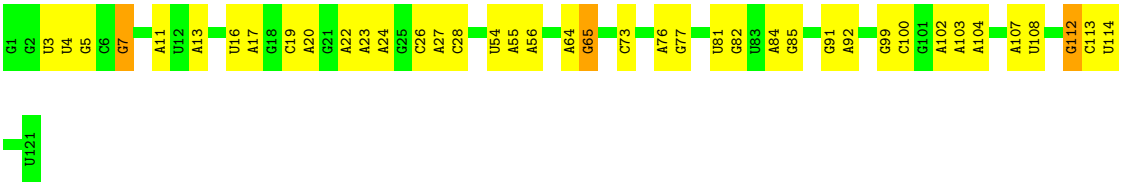

• Molecule 2: 5S

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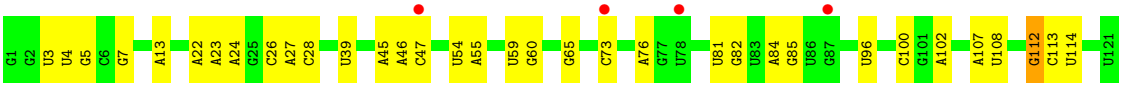

• Molecule 3: 5.8S

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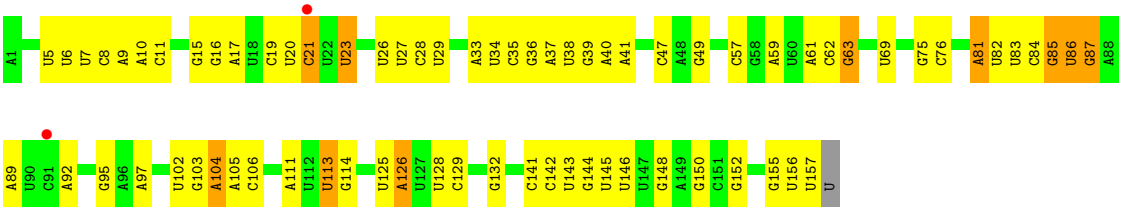

• Molecule 3: 5.8S

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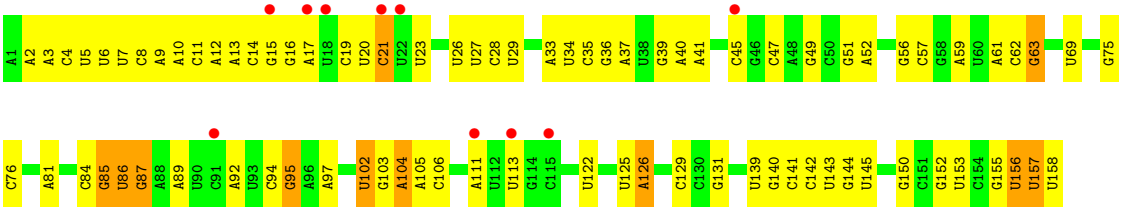
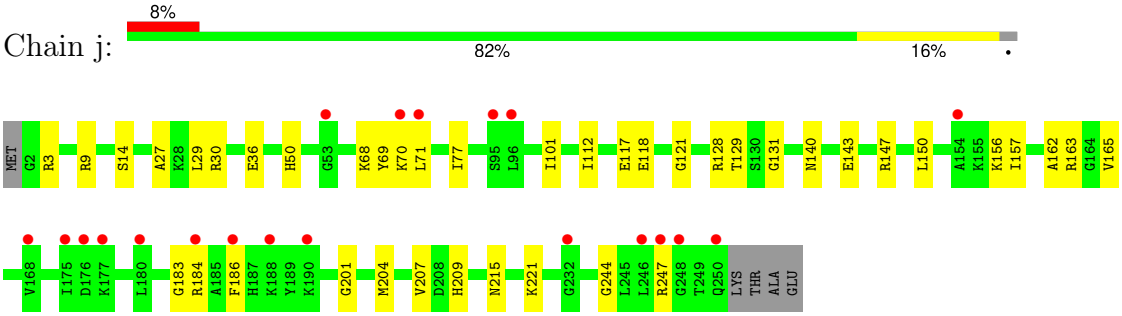


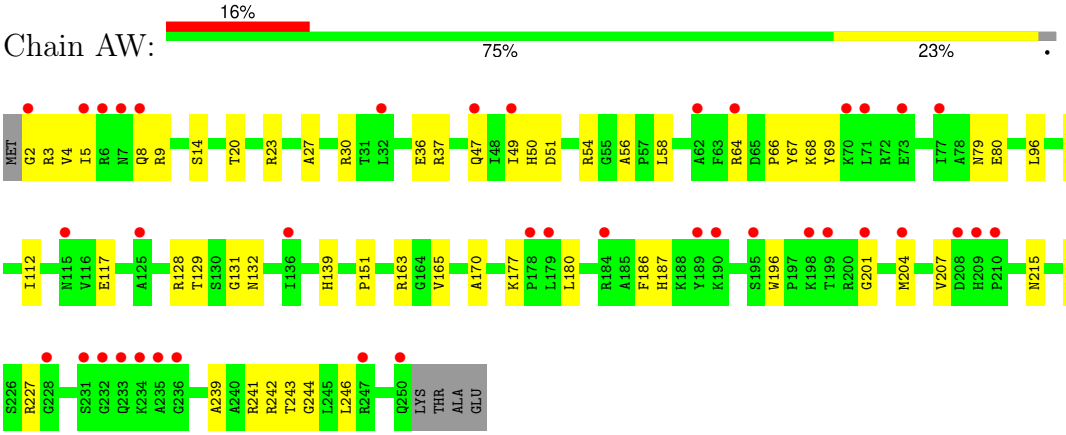
• Molecule 4: 60S ribosomal protein L2-B

Chain j:



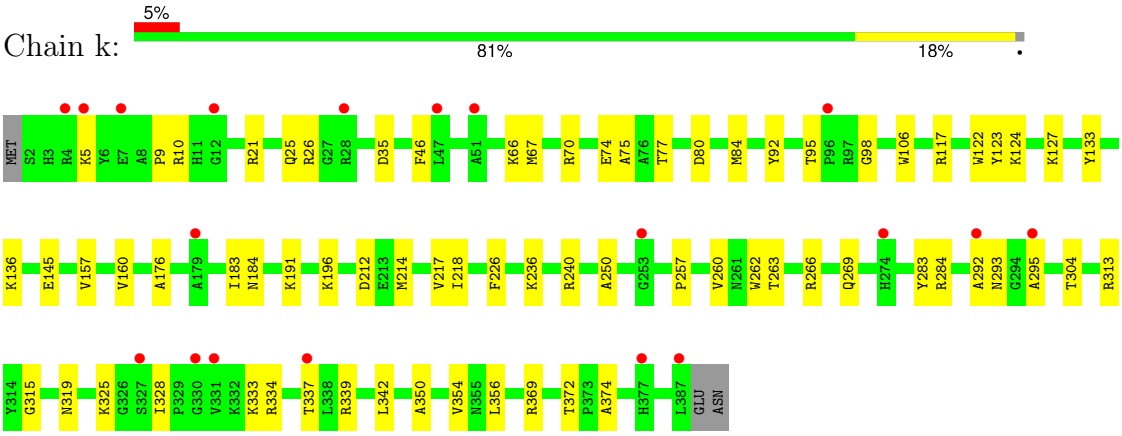
• Molecule 4: 60S ribosomal protein L2-B

Chain AW:



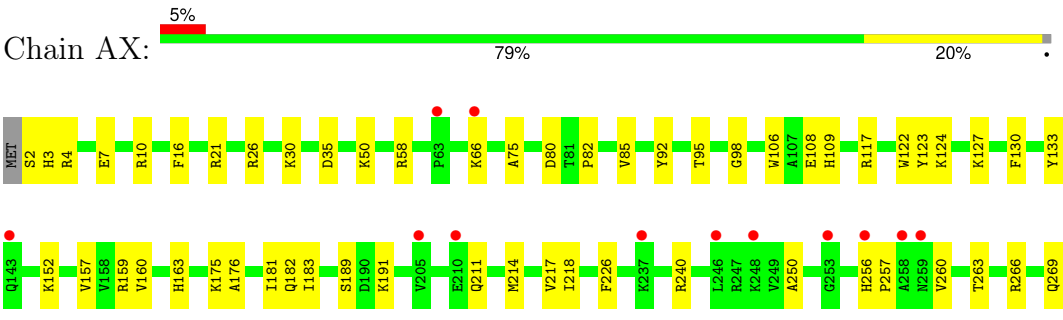
• Molecule 5: 60S ribosomal protein L3

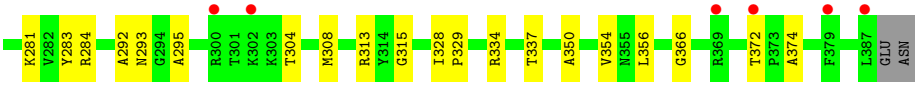
Chain k:



• Molecule 5: 60S ribosomal protein L3

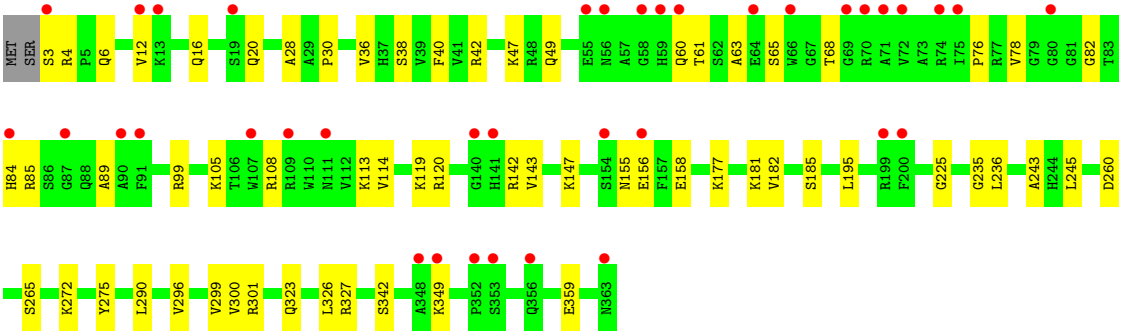
Chain AX:





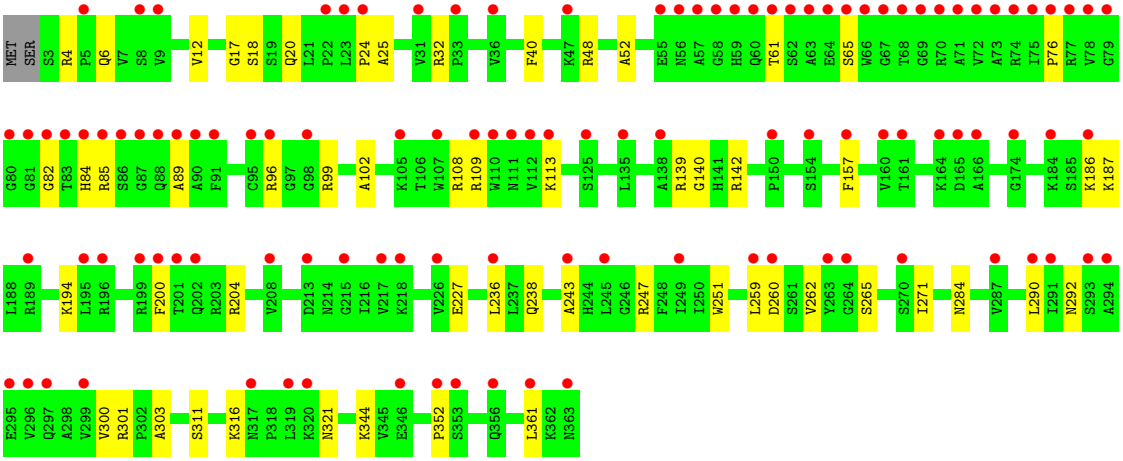
• Molecule 6: 60S ribosomal protein L4-B

Chain l:



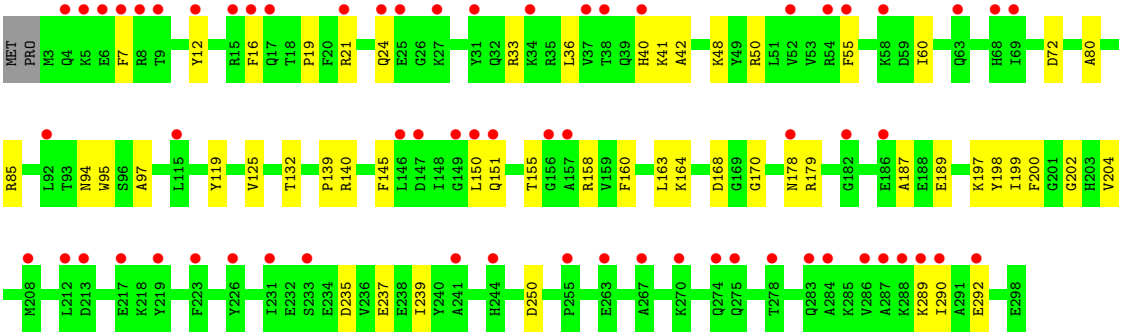
• Molecule 6: 60S ribosomal protein L4-B

Chain AY:



• Molecule 7: Uncharacterized protein CaJ7.0206

Chain m:



• Molecule 7: Uncharacterized protein CaJ7.0206

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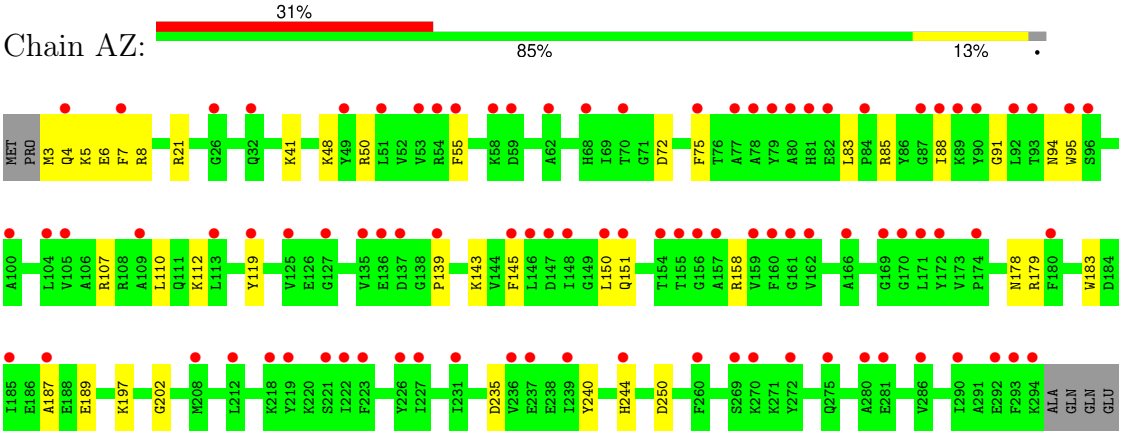
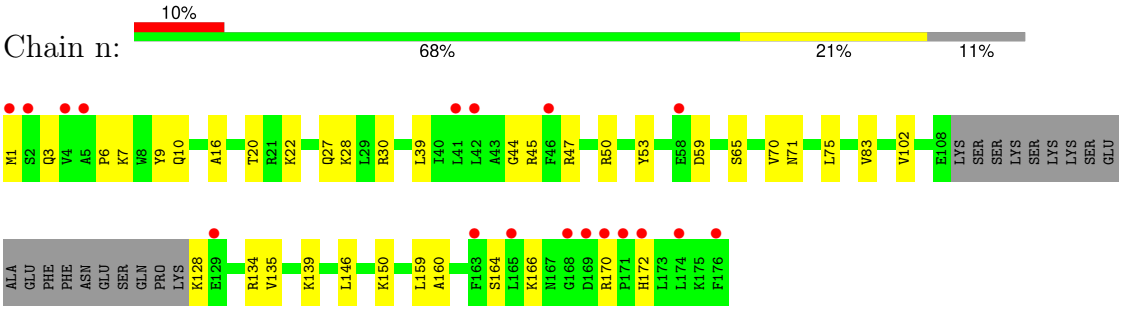


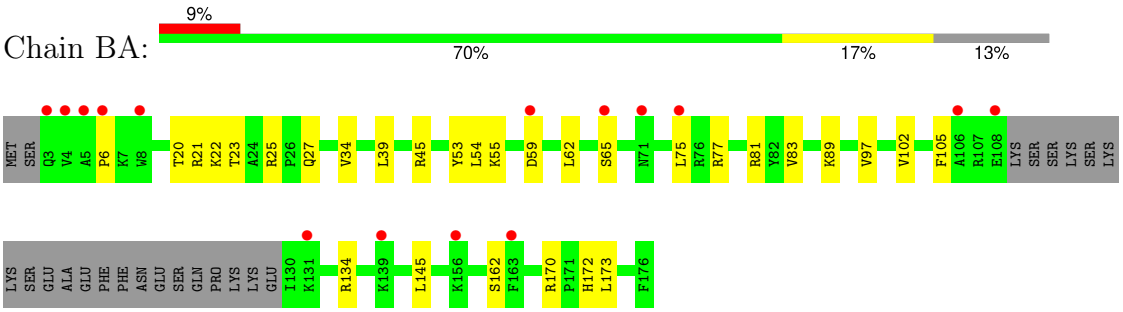
• Molecule 8: 60S ribosomal protein L6

Chain n:



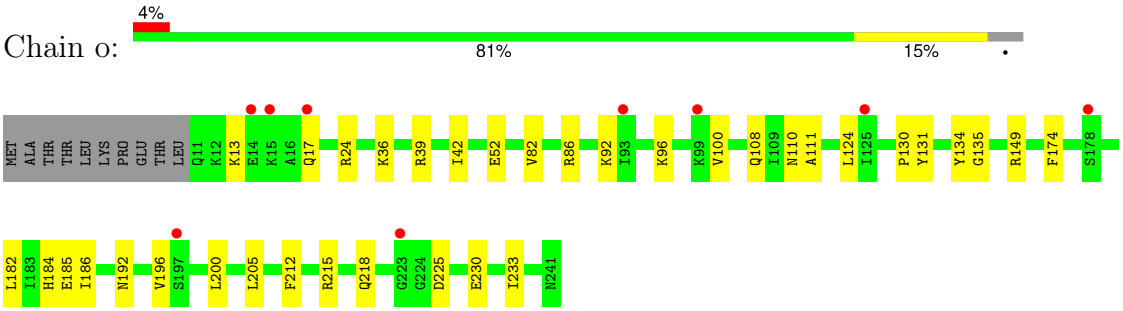
• Molecule 8: 60S ribosomal protein L6

Chain BA:



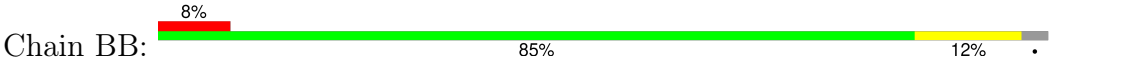
• Molecule 9: 60S ribosomal protein L7-A

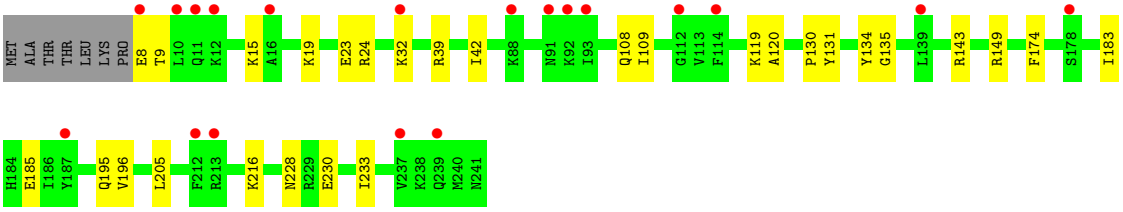
Chain o:



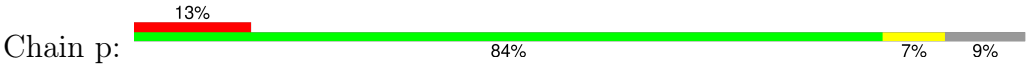
• Molecule 9: 60S ribosomal protein L7-A

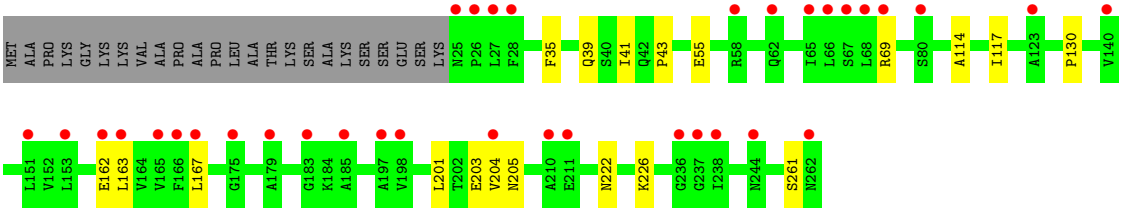
Chain BB:



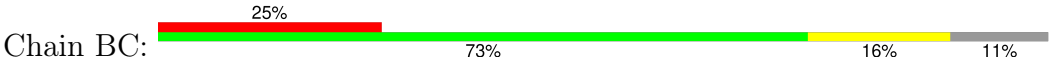


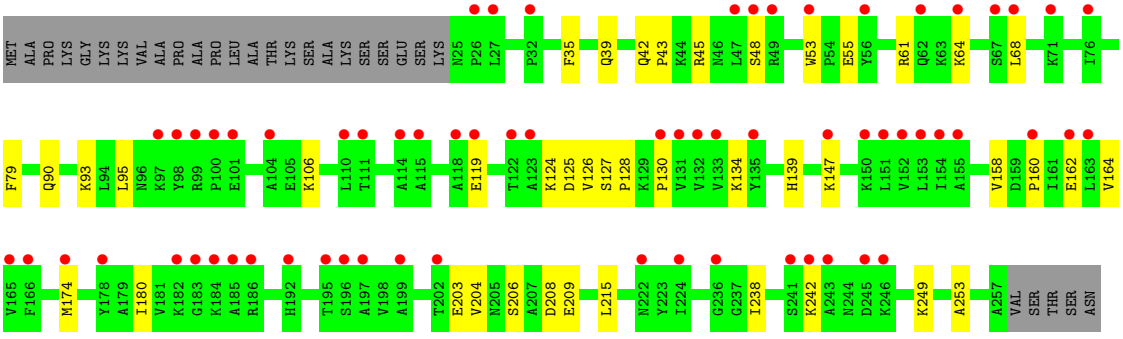
• Molecule 10: 60S ribosomal protein L8



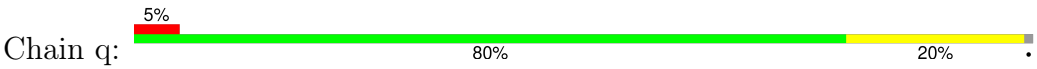


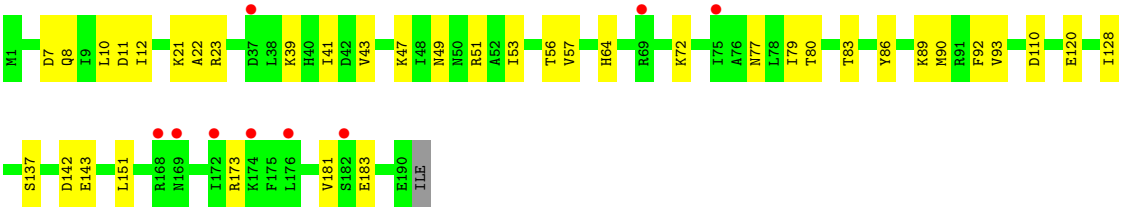
• Molecule 10: 60S ribosomal protein L8



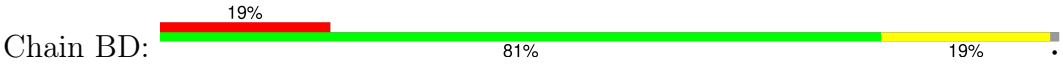


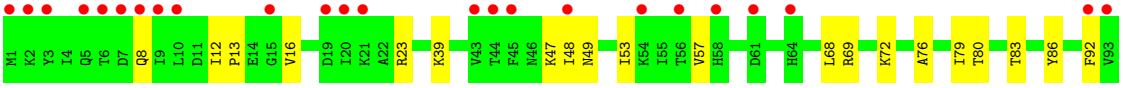
• Molecule 11: 60S ribosomal protein L9-B

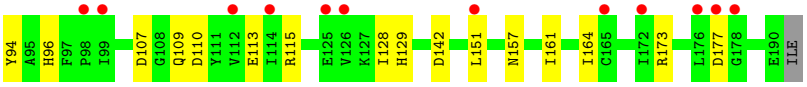




• Molecule 11: 60S ribosomal protein L9-B

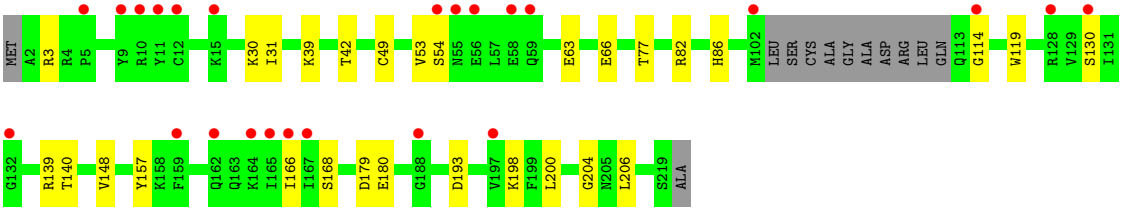






• Molecule 12: 60S ribosomal protein L10

Chain r:



• Molecule 12: 60S ribosomal protein L10

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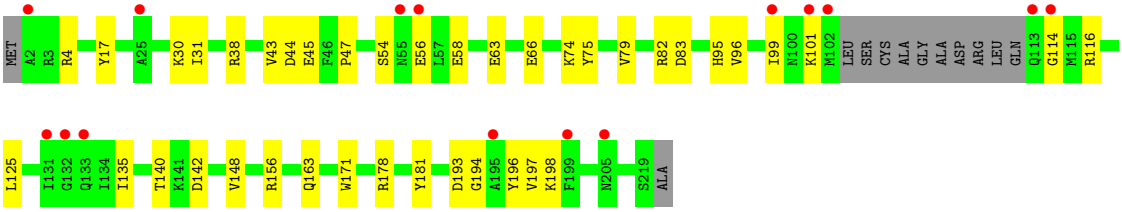
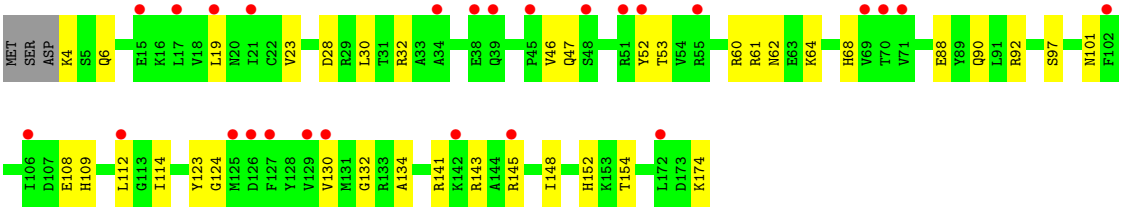


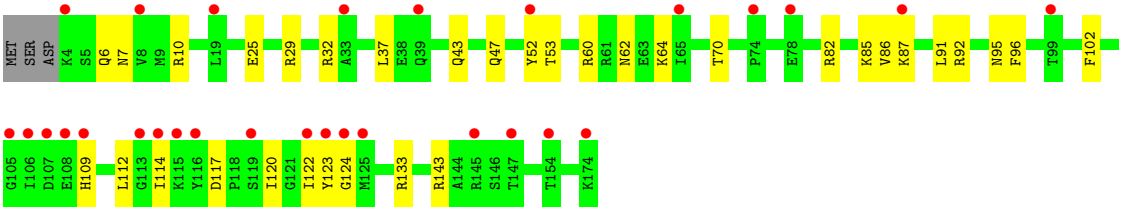
• Molecule 13: 60S ribosomal protein L11-B

Chain s:



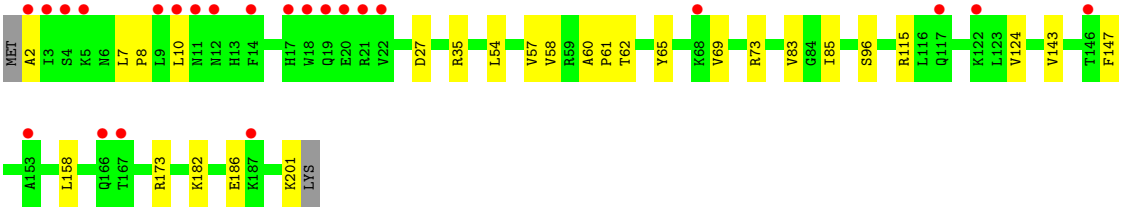
• Molecule 13: 60S ribosomal protein L11-B

Chain BF:



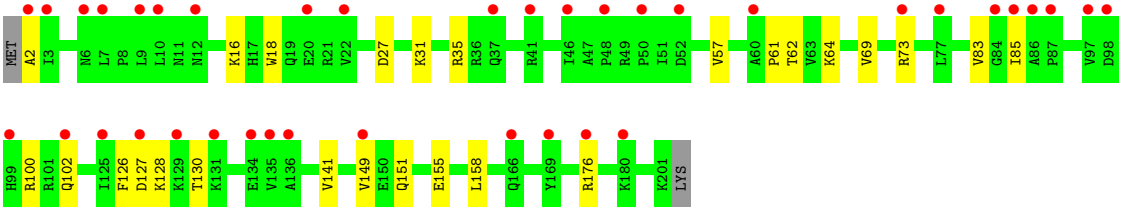
• Molecule 14: 60S ribosomal protein L13

Chain t:



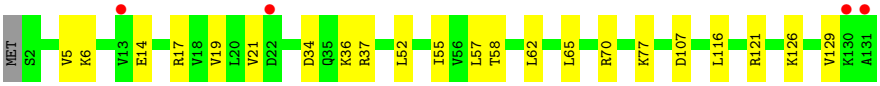
• Molecule 14: 60S ribosomal protein L13

Chain BG:



• Molecule 15: 60S ribosomal protein L14-B

Chain u:



• Molecule 15: 60S ribosomal protein L14-B

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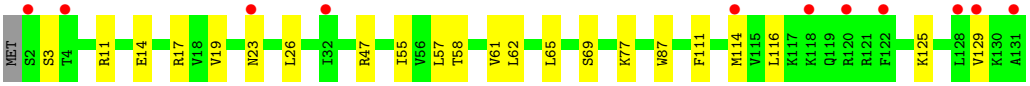
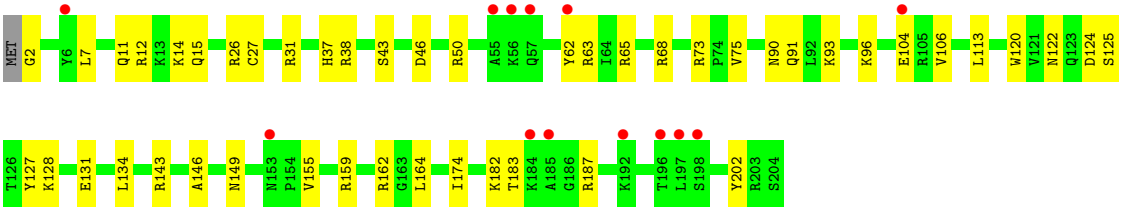


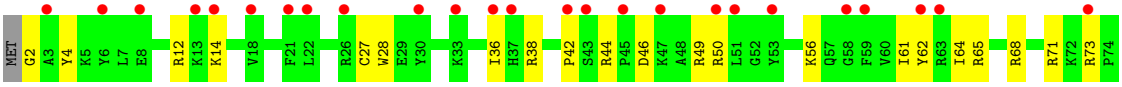
• Molecule 16: 60S ribosomal protein L15-A

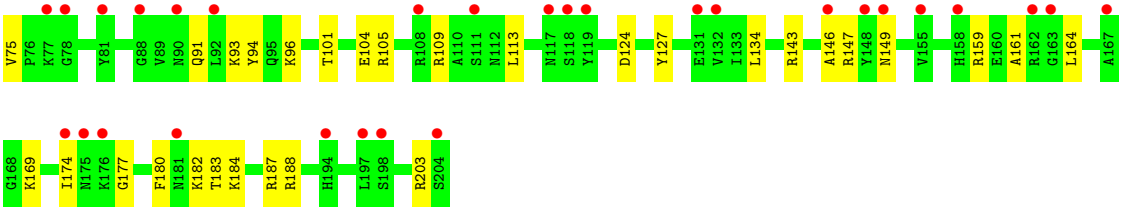
Chain v:



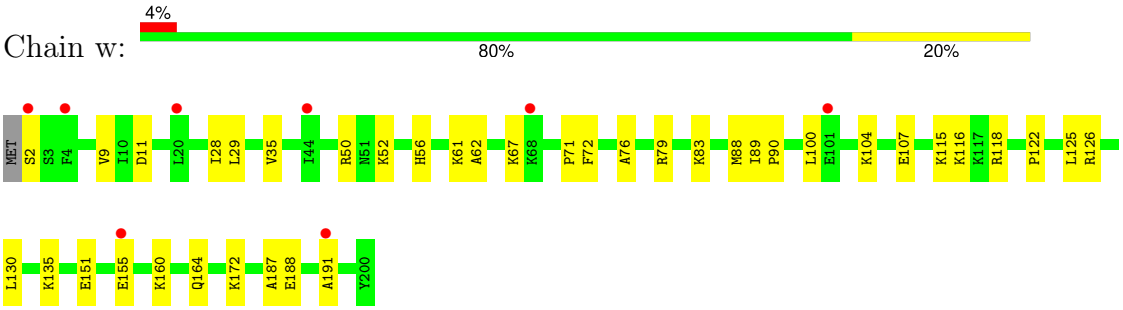
• Molecule 16: 60S ribosomal protein L15-A

Chain BI:

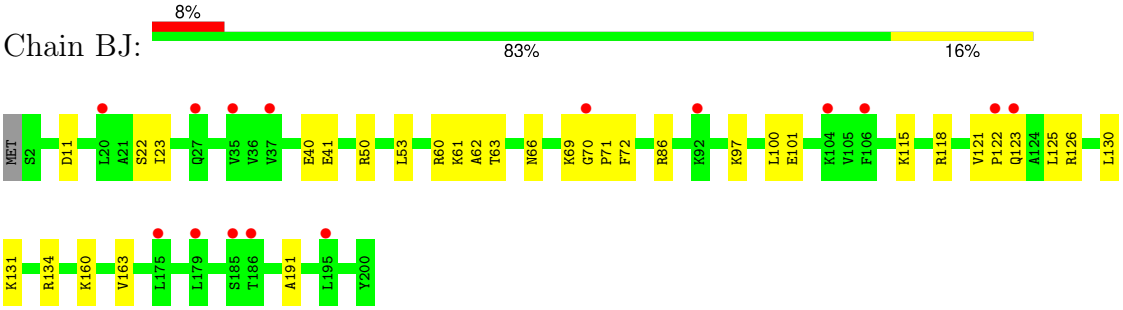




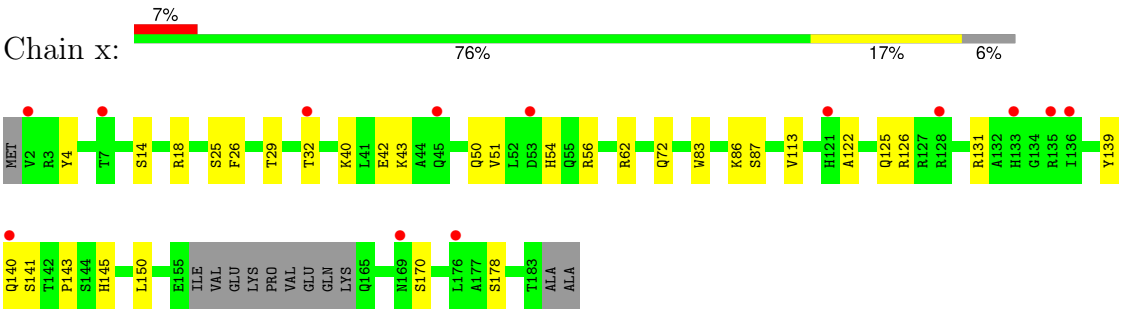
• Molecule 17: Ribosomal protein L13



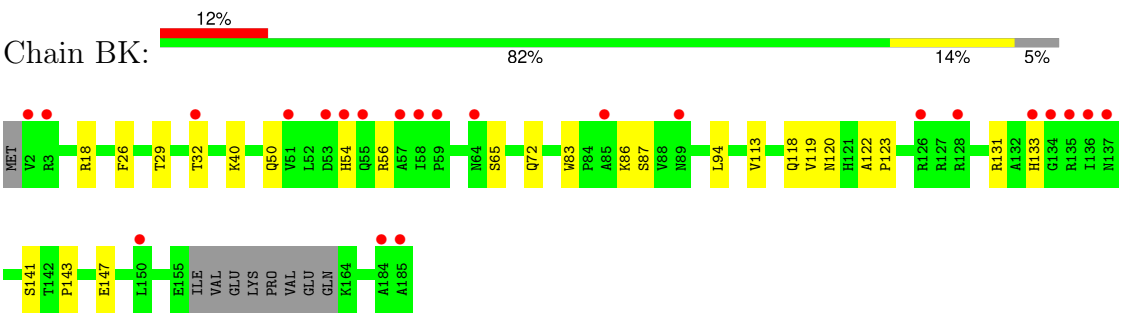
• Molecule 17: Ribosomal protein L13



• Molecule 18: Ribosomal protein L22

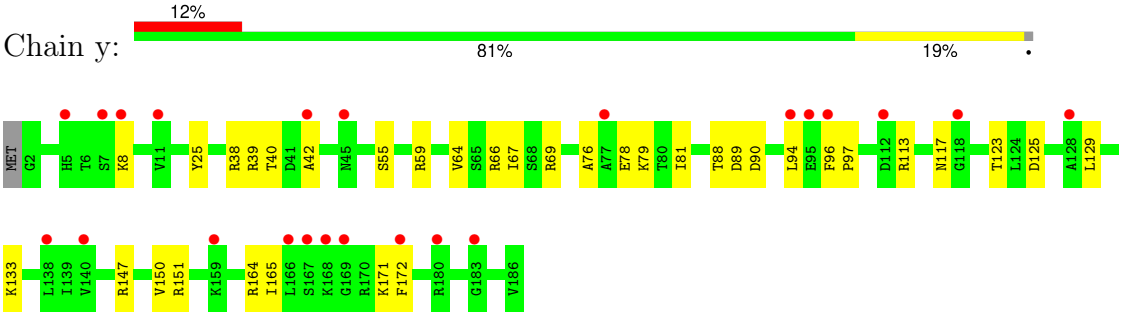


• Molecule 18: Ribosomal protein L22



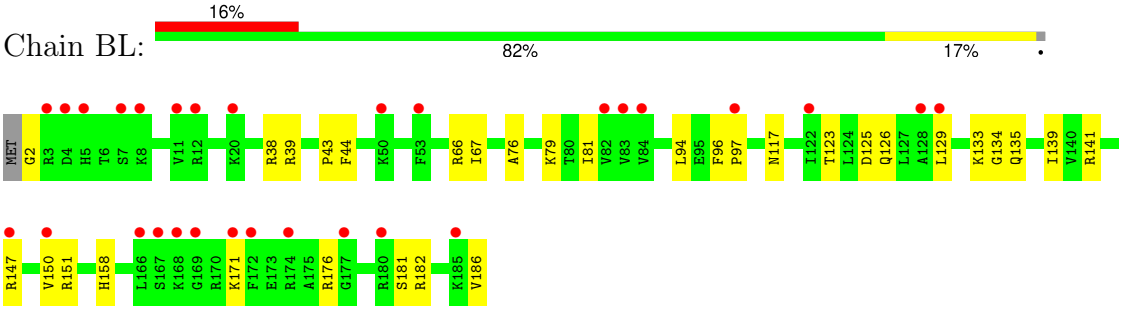
• Molecule 19: 60S ribosomal protein L18-A

Chain y:



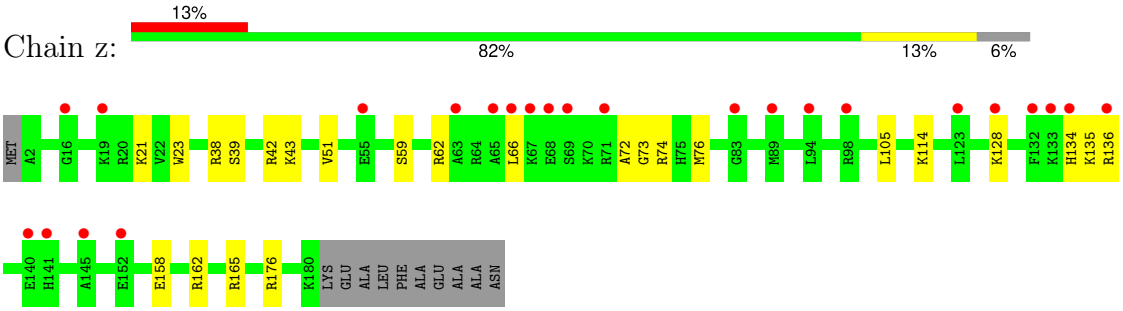
• Molecule 19: 60S ribosomal protein L18-A

Chain BL:



• Molecule 20: 60S ribosomal protein L19-A

Chain z:



• Molecule 20: 60S ribosomal protein L19-A

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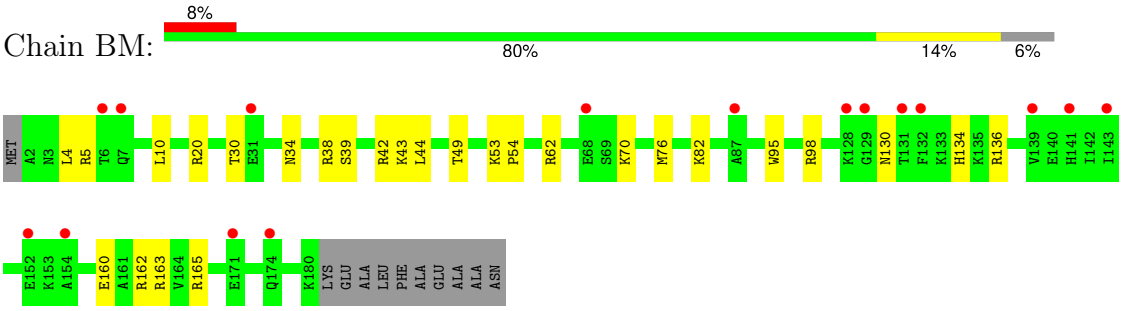
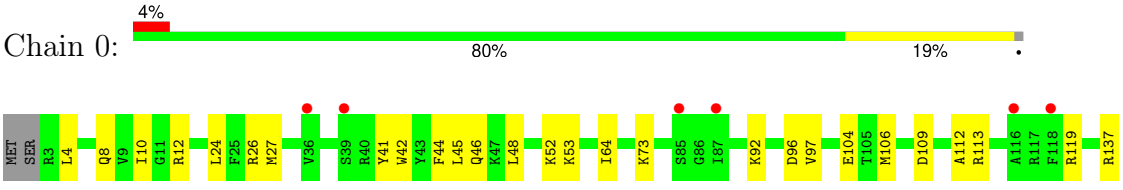
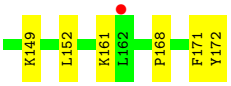


• Molecule 21: 60S ribosomal protein L20

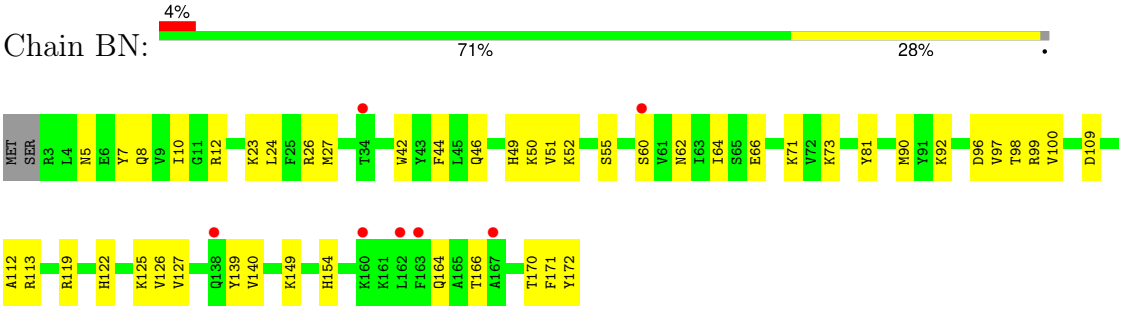
Chain 0:





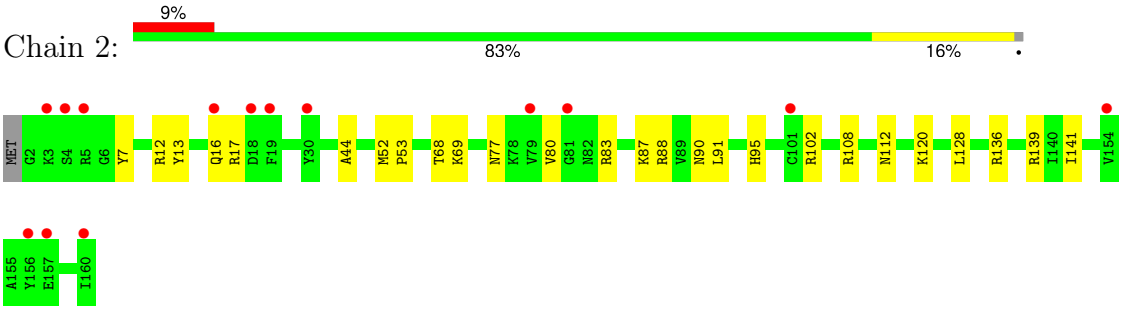
• Molecule 21: 60S ribosomal protein L20

Chain BN:



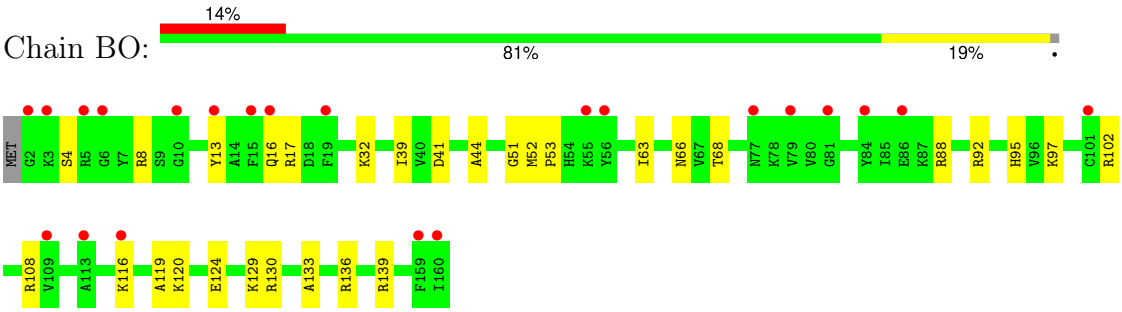
• Molecule 22: 60S ribosomal protein L21-A

Chain 2:



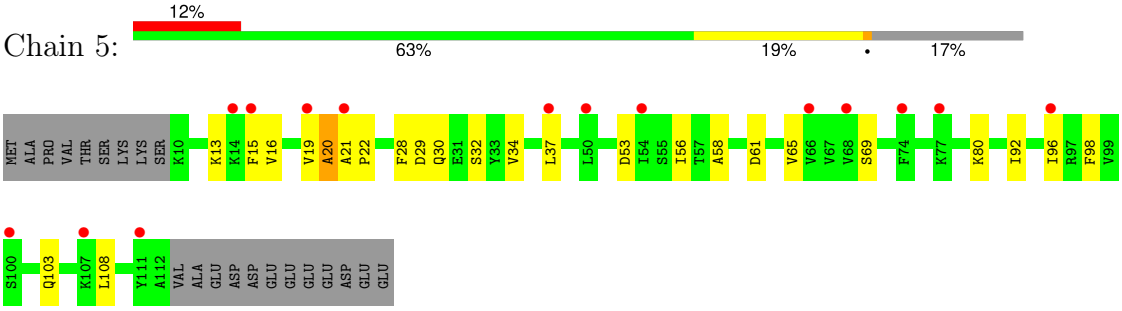
• Molecule 22: 60S ribosomal protein L21-A

Chain BO:



• Molecule 23: 60S ribosomal protein L22-B

Chain 5:



• Molecule 23: 60S ribosomal protein L22-B

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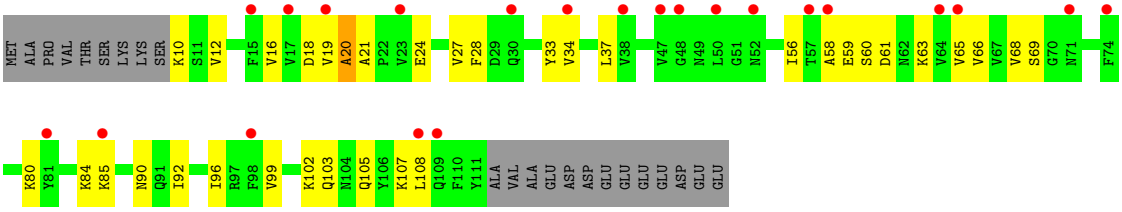
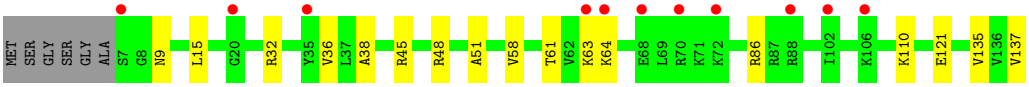


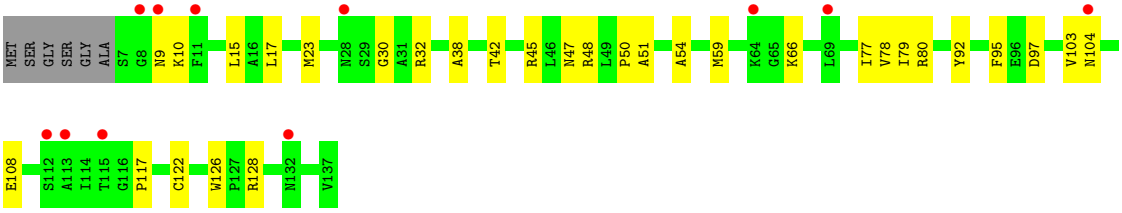
• Molecule 24: 60S ribosomal protein L23-A

Chain 6:



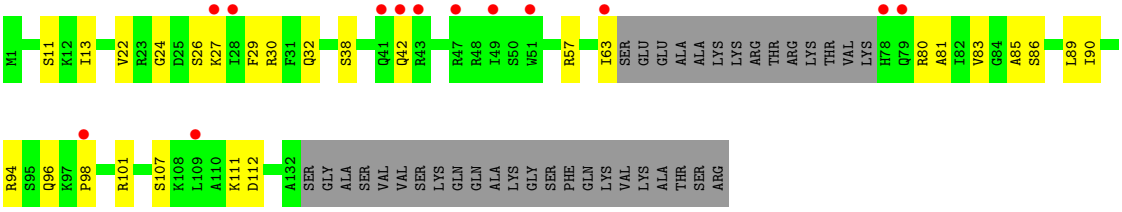
• Molecule 24: 60S ribosomal protein L23-A

Chain BQ:



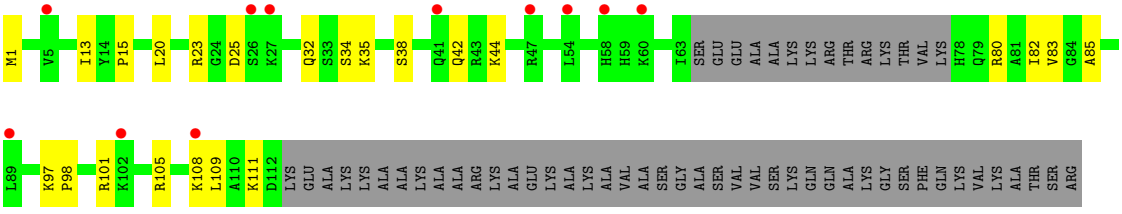
• Molecule 25: 60S ribosomal protein L24-A

Chain 7:



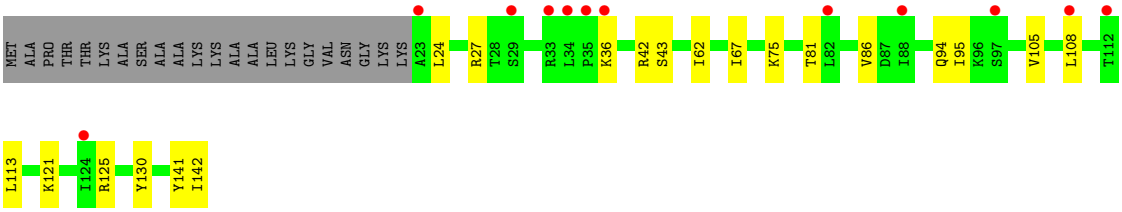
• Molecule 25: 60S ribosomal protein L24-A

Chain BR:



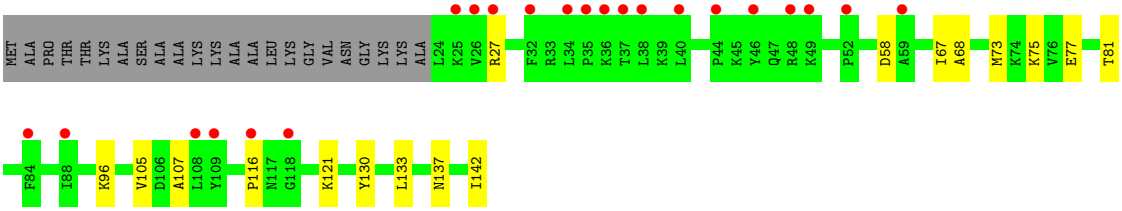
• Molecule 26: 60S ribosomal protein L25

Chain 8:



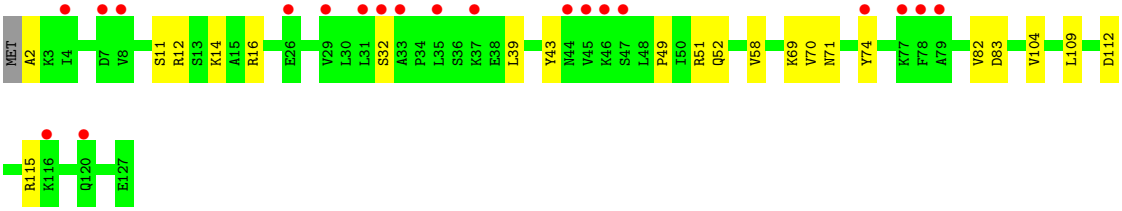
• Molecule 26: 60S ribosomal protein L25

Chain BS:



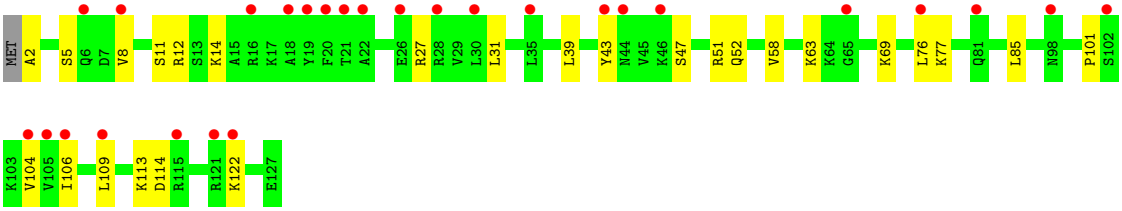
• Molecule 27: Ribosomal protein L24

Chain 9:



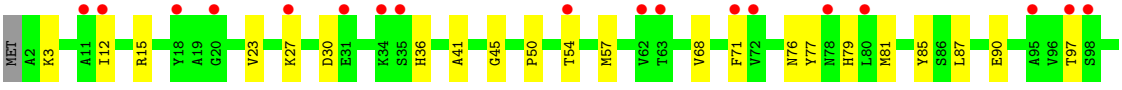
• Molecule 27: Ribosomal protein L24

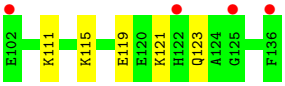
Chain BT:



• Molecule 28: 60S ribosomal protein L27

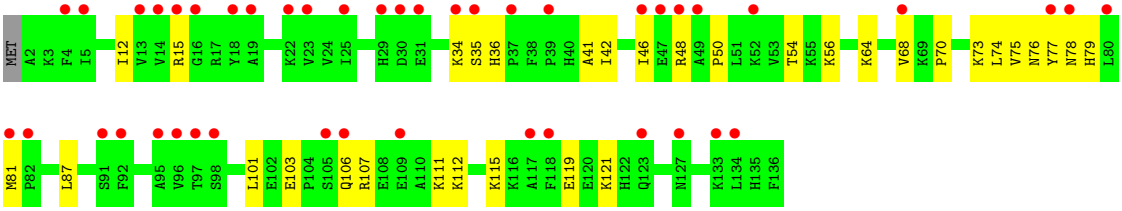
Chain AA:





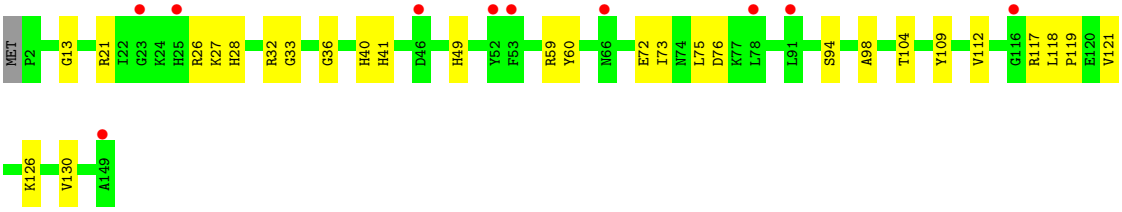
• Molecule 28: 60S ribosomal protein L27

Chain BU:



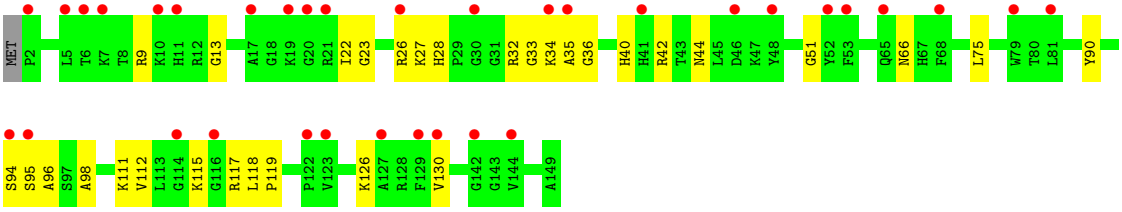
• Molecule 29: 60S ribosomal protein L28

Chain AB:



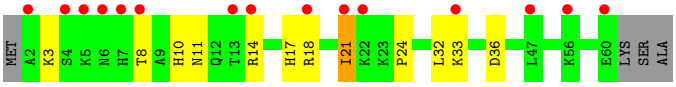
• Molecule 29: 60S ribosomal protein L28

Chain BV:



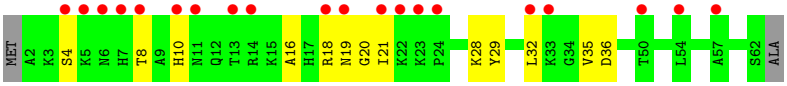
• Molecule 30: 60S ribosomal protein L29

Chain AC:



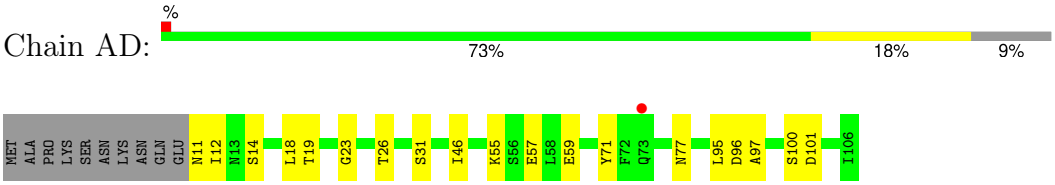
• Molecule 30: 60S ribosomal protein L29

Chain BW:



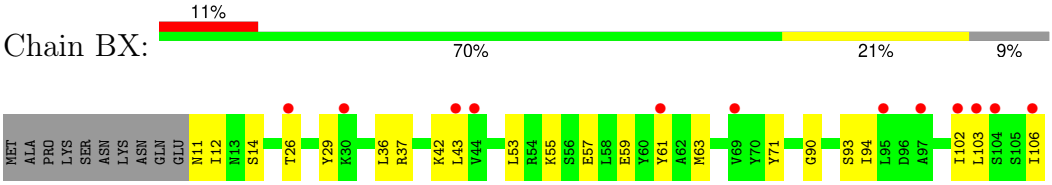
• Molecule 31: 60S ribosomal protein L30

Chain AD:



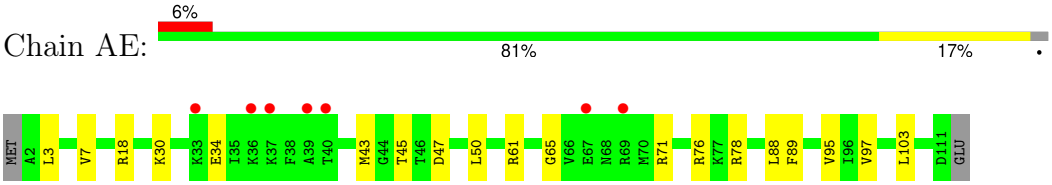
• Molecule 31: 60S ribosomal protein L30

Chain BX:



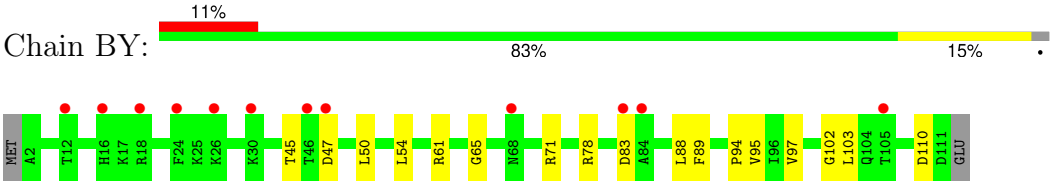
• Molecule 32: 60S ribosomal protein L31-B

Chain AE:



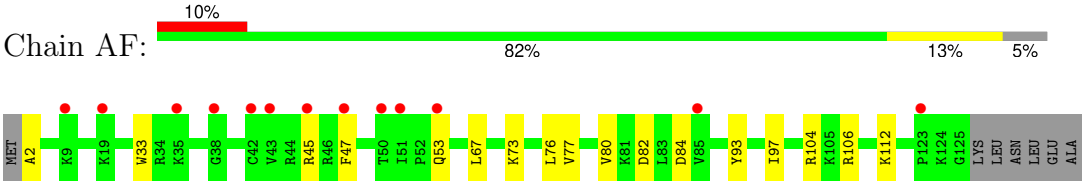
• Molecule 32: 60S ribosomal protein L31-B

Chain BY:



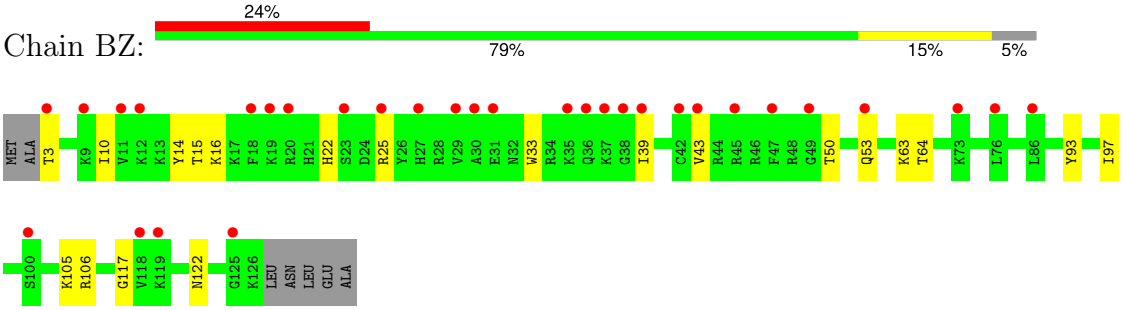
• Molecule 33: 60S ribosomal protein L32

Chain AF:



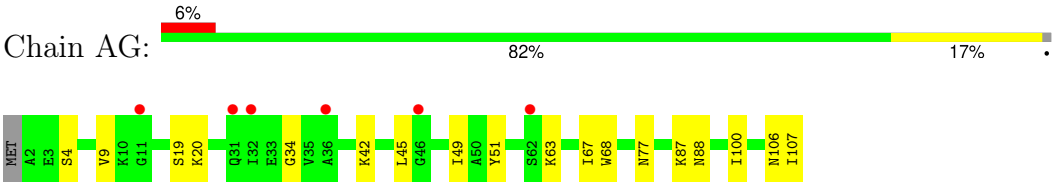
• Molecule 33: 60S ribosomal protein L32

Chain BZ:



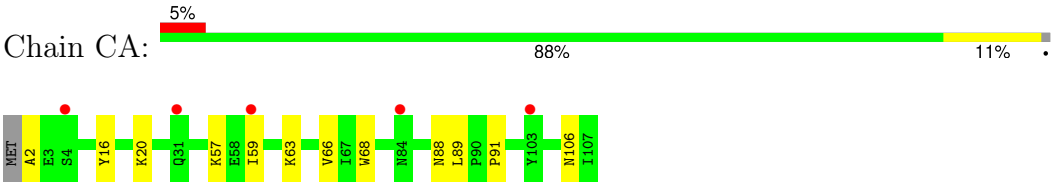
• Molecule 34: 60S ribosomal protein L33-A

Chain AG:



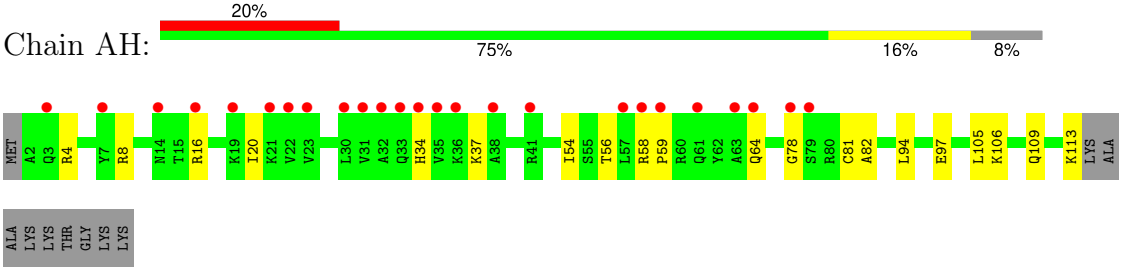
• Molecule 34: 60S ribosomal protein L33-A

Chain CA:



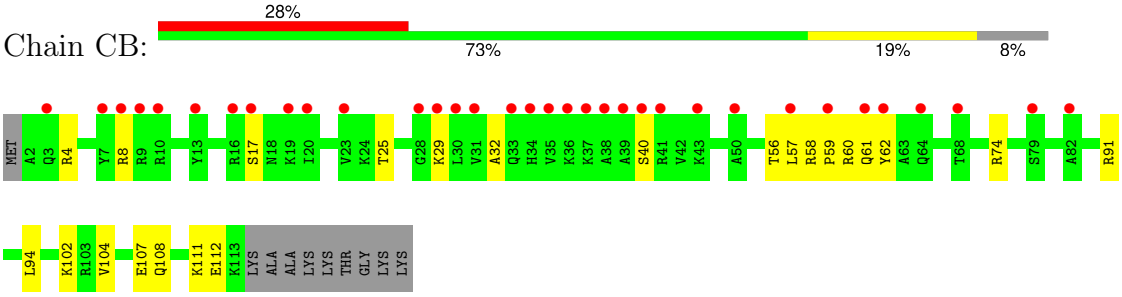
• Molecule 35: 60S ribosomal protein L34-B

Chain AH:



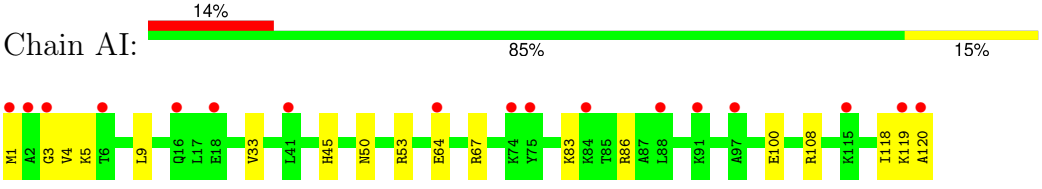
• Molecule 35: 60S ribosomal protein L34-B

Chain CB:



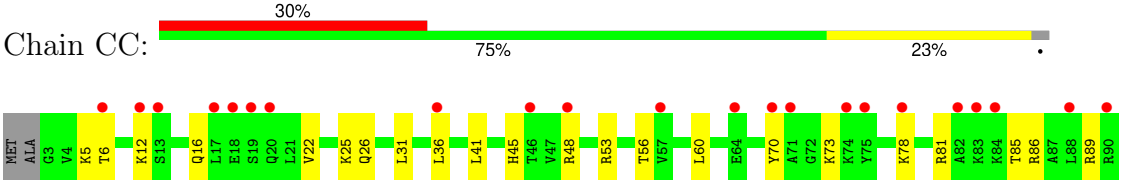
• Molecule 36: Ribosomal protein L29

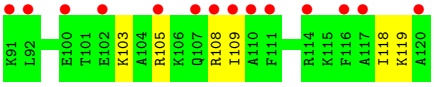
Chain AI:



• Molecule 36: Ribosomal protein L29

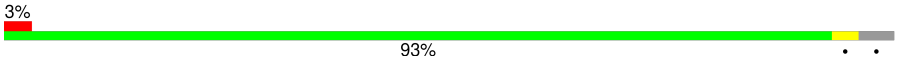
Chain CC:

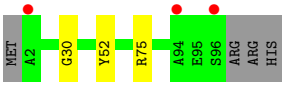




• Molecule 37: 60S ribosomal protein L36

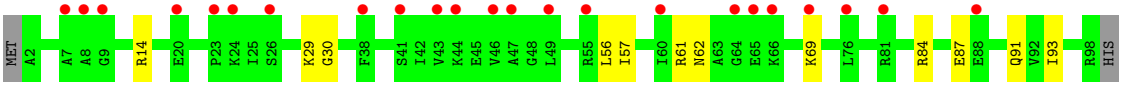
Chain AJ:





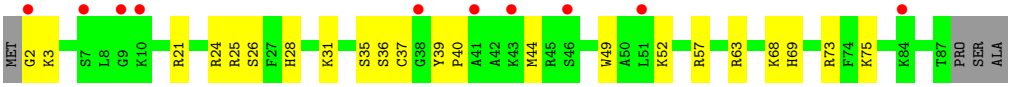
• Molecule 37: 60S ribosomal protein L36

Chain CD:



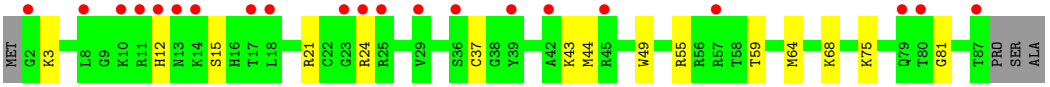
• Molecule 38: 60S ribosomal protein L37-B

Chain AK:



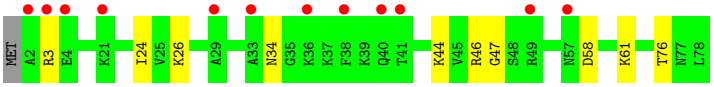
• Molecule 38: 60S ribosomal protein L37-B

Chain CE:



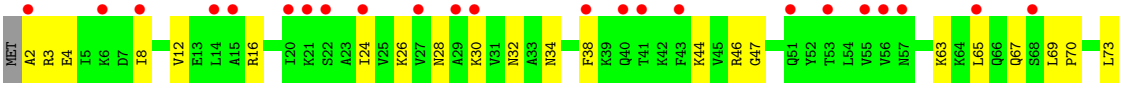
• Molecule 39: 60S ribosomal protein L38

Chain AL:



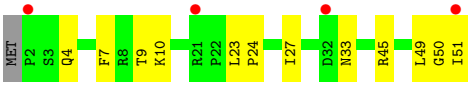
• Molecule 39: 60S ribosomal protein L38

Chain CF:



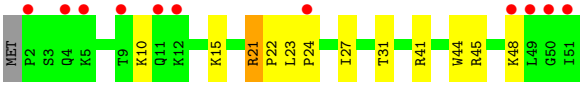
• Molecule 40: 60S ribosomal protein L39

Chain AM:



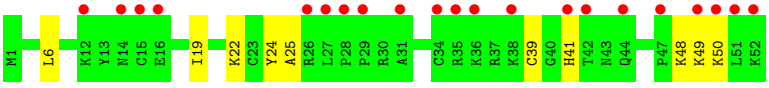
• Molecule 40: 60S ribosomal protein L39

Chain CG:



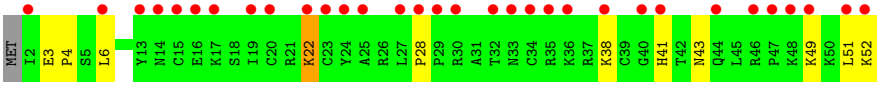
• Molecule 41: 60S ribosomal protein L40-B

Chain AN:



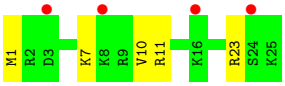
• Molecule 41: 60S ribosomal protein L40-B

Chain CH:



• Molecule 42: 60S ribosomal protein L41

Chain AO:

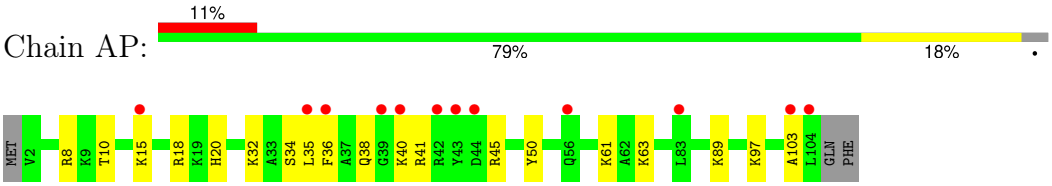


• Molecule 42: 60S ribosomal protein L41

Chain CI:

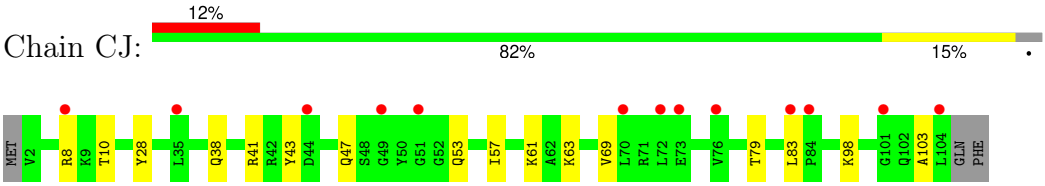
• Molecule 43: 60S ribosomal protein L42-B

Chain AP:



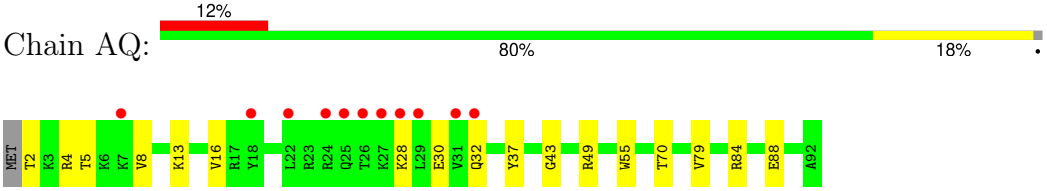
• Molecule 43: 60S ribosomal protein L42-B

Chain CJ:



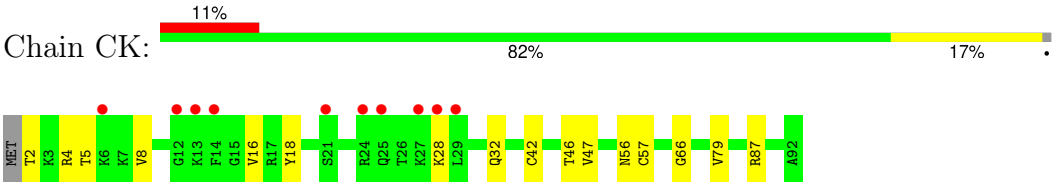
• Molecule 44: 60S ribosomal protein L43-A

Chain AQ:



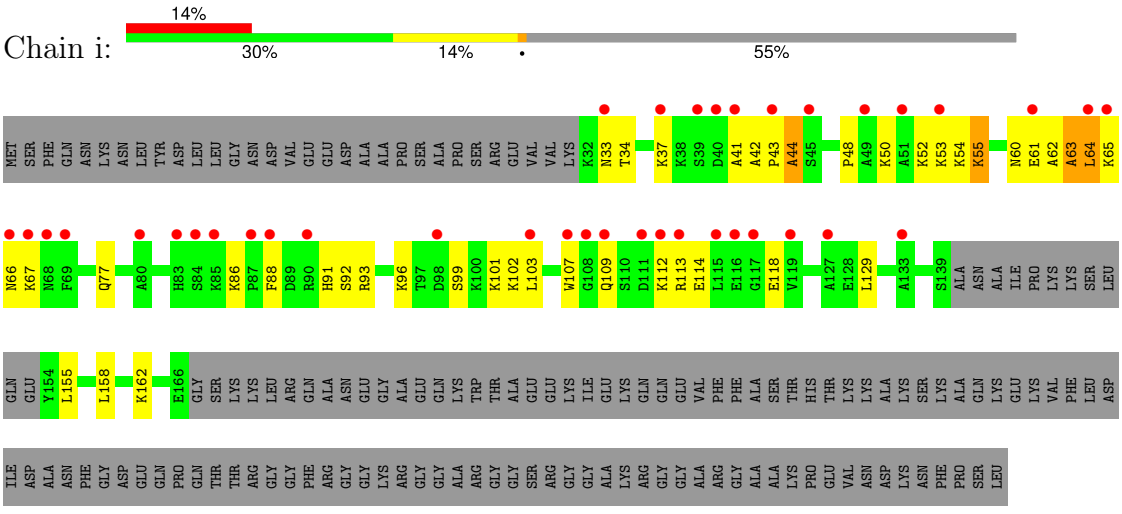
• Molecule 44: 60S ribosomal protein L43-A

Chain CK:



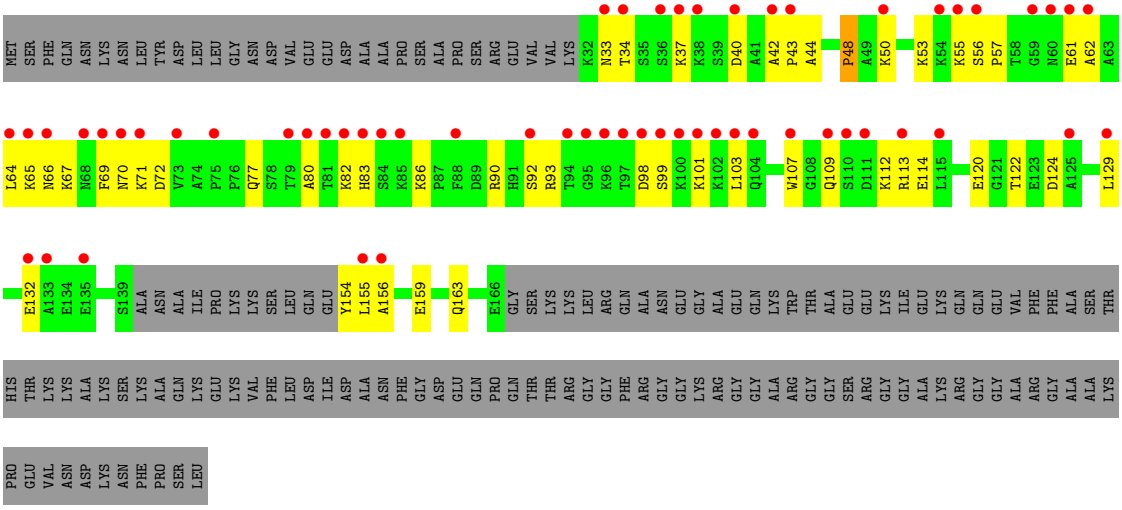
• Molecule 45: 60S ribosomal protein CAALFM_C304810CA

Chain i:



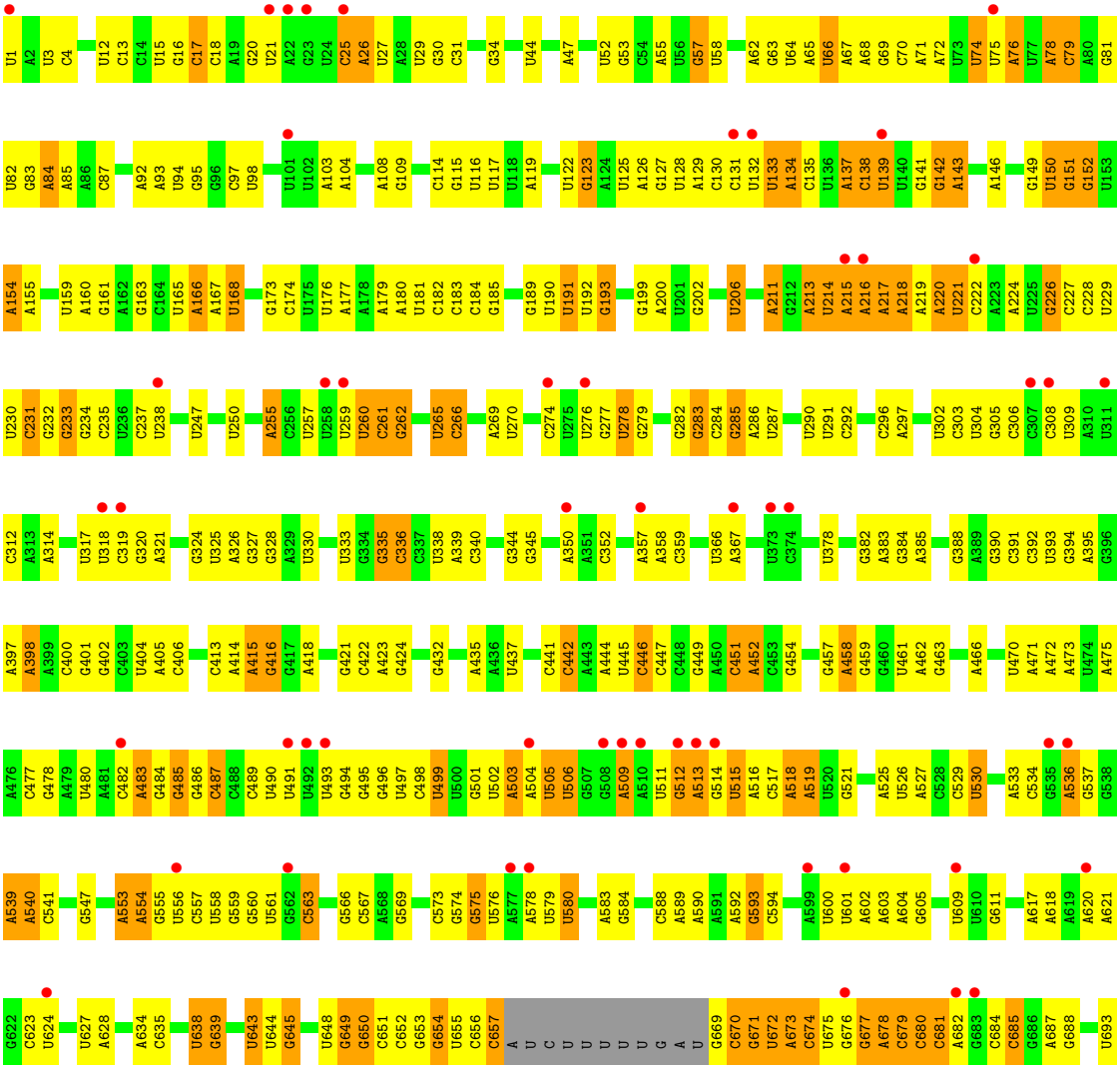
• Molecule 45: 60S ribosomal protein CAALFM_C304810CA

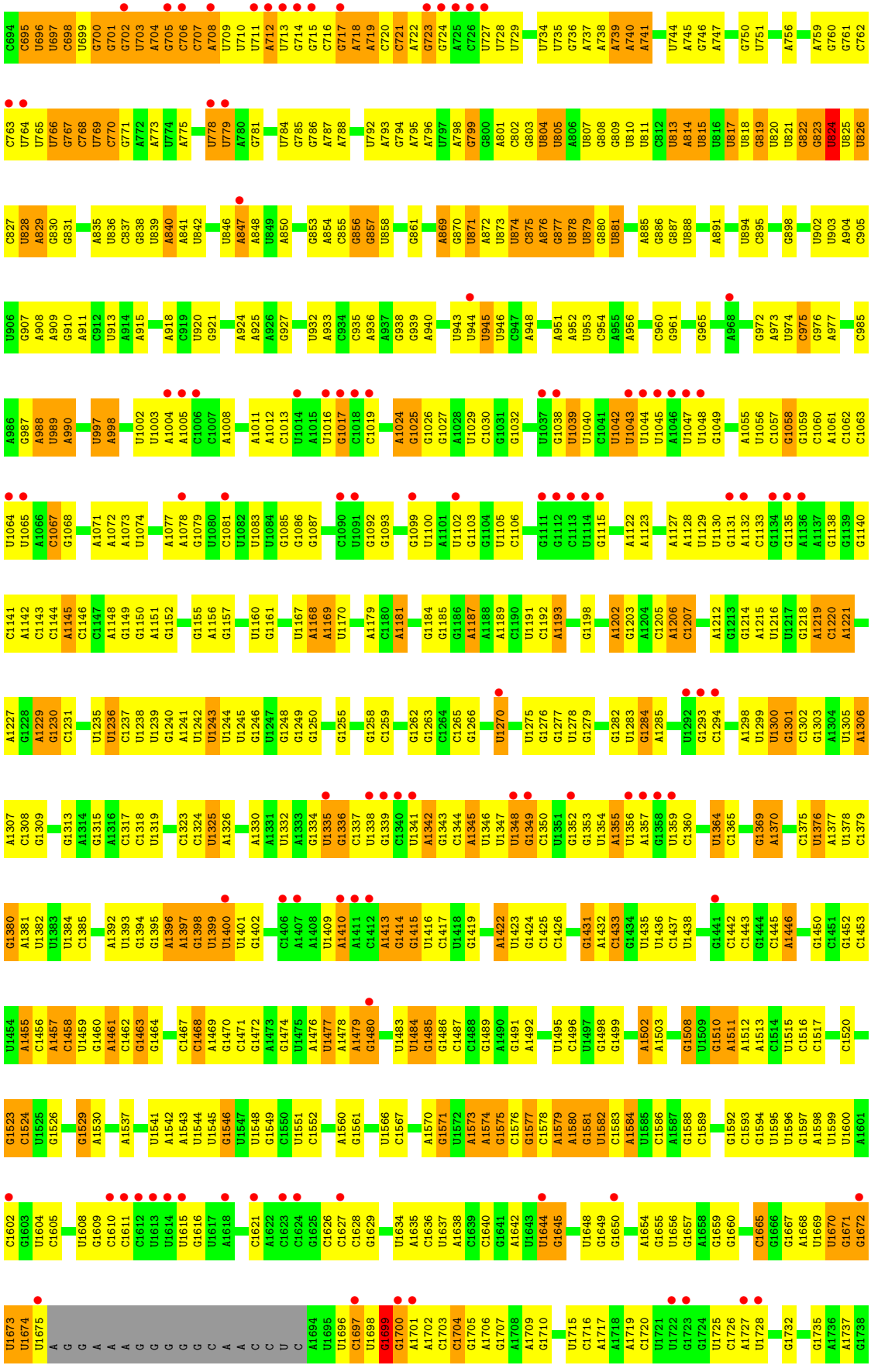
Chain CL:

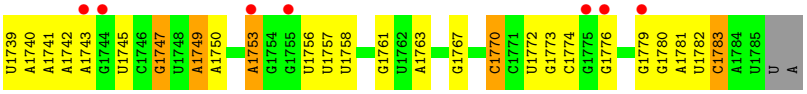


• Molecule 46: 18S

Chain B:

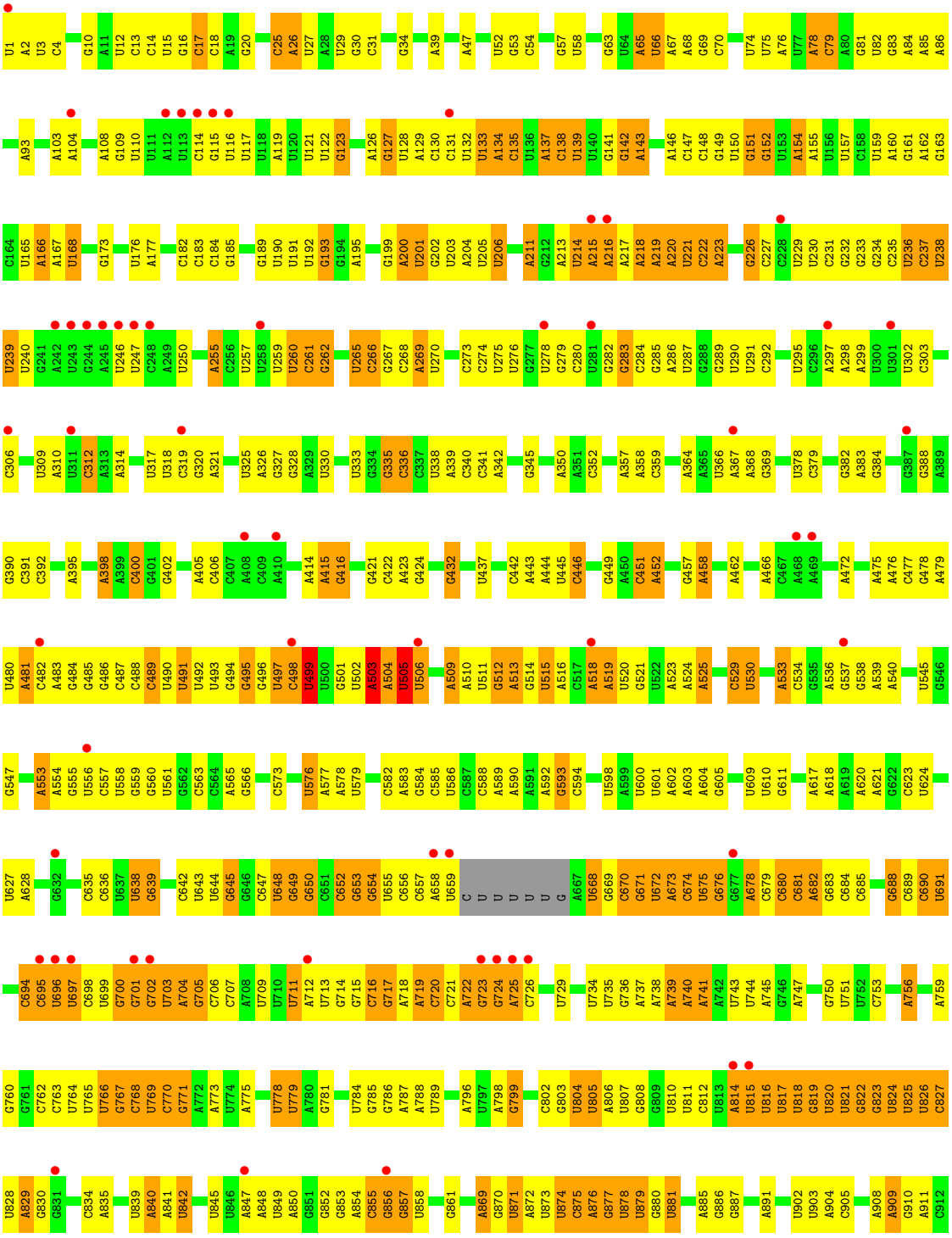


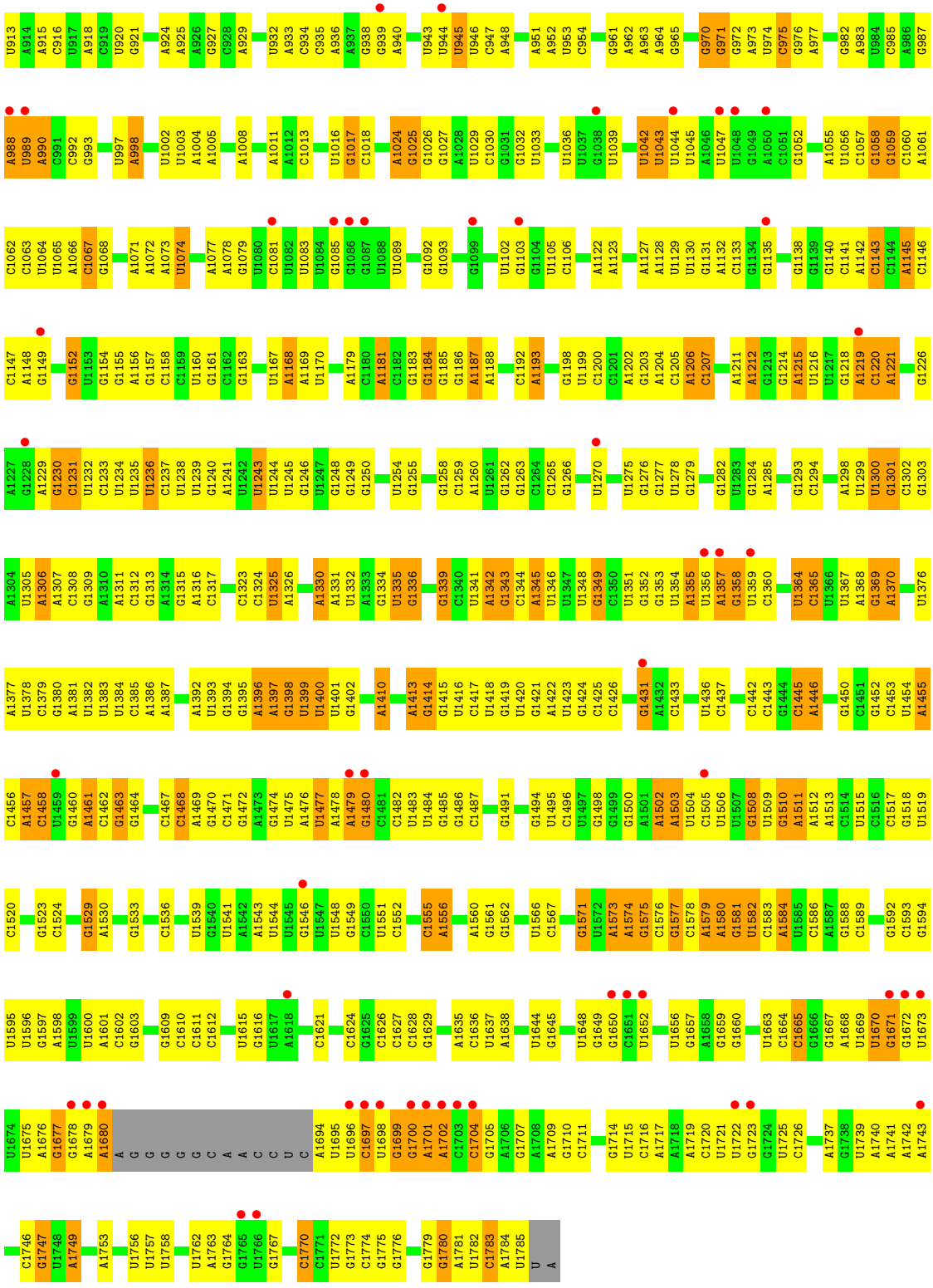




• Molecule 46: 18S

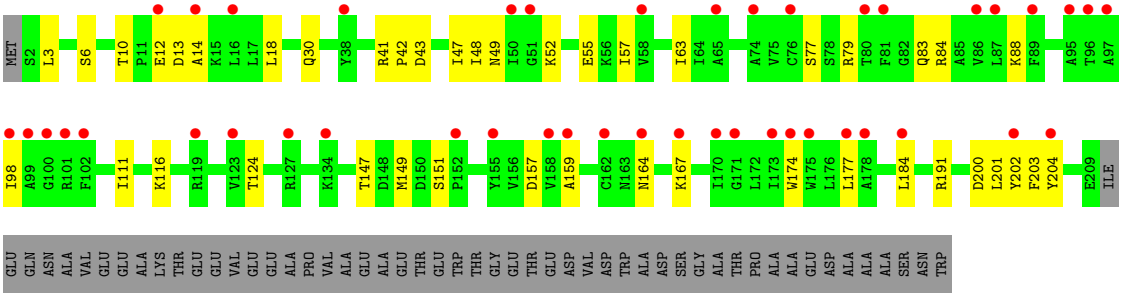
Chain CM:

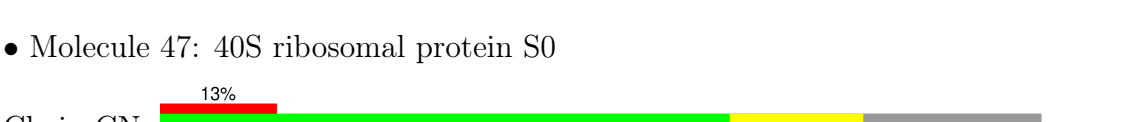




• Molecule 47: 40S ribosomal protein S0

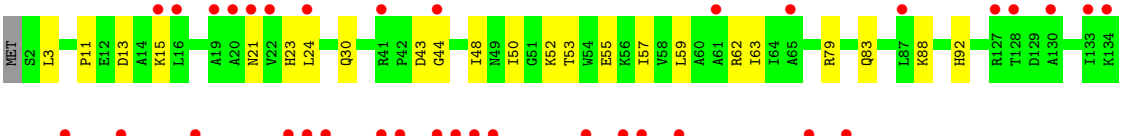
Chain C:

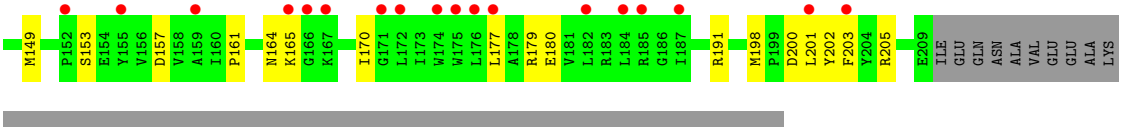




• Molecule 47: 40S ribosomal protein S0

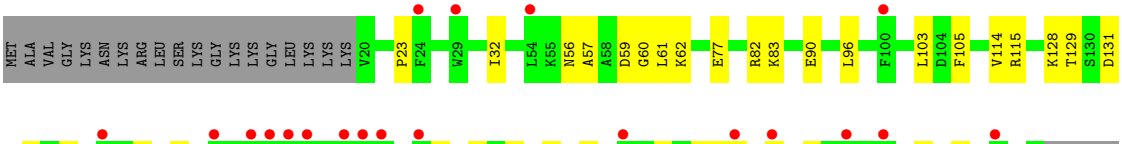
Chain CN:

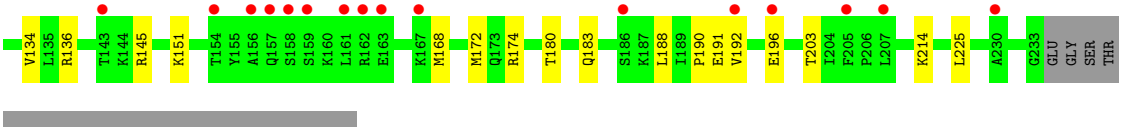




• Molecule 48: 40S ribosomal protein S1

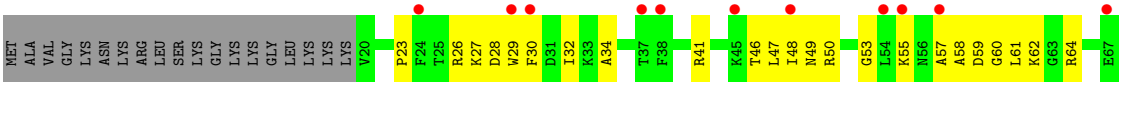
Chain D:

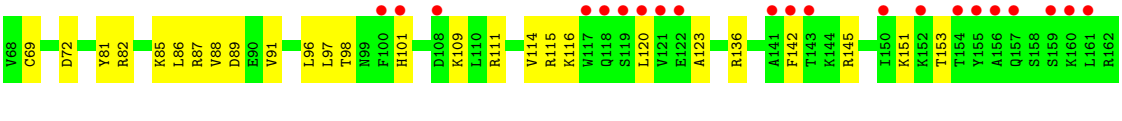


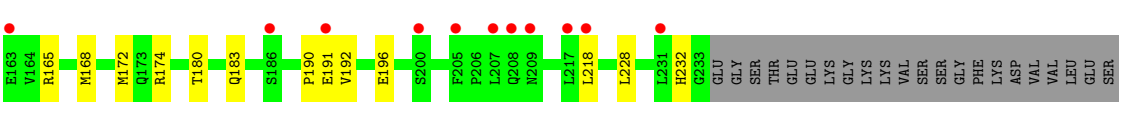


• Molecule 48: 40S ribosomal protein S1

Chain CO:

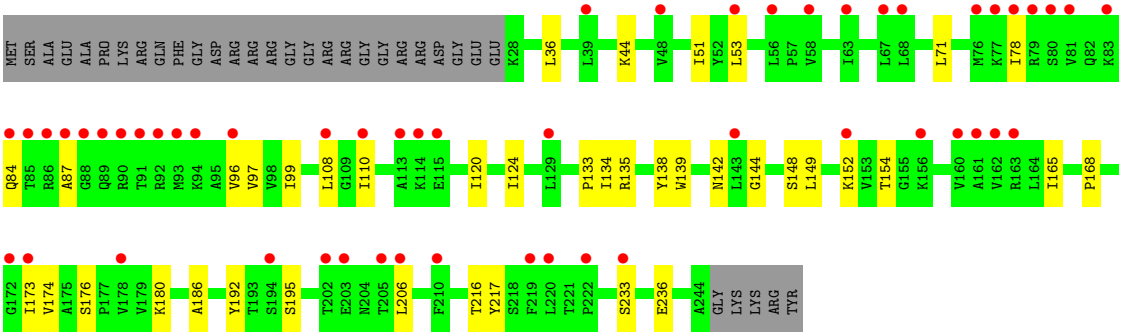






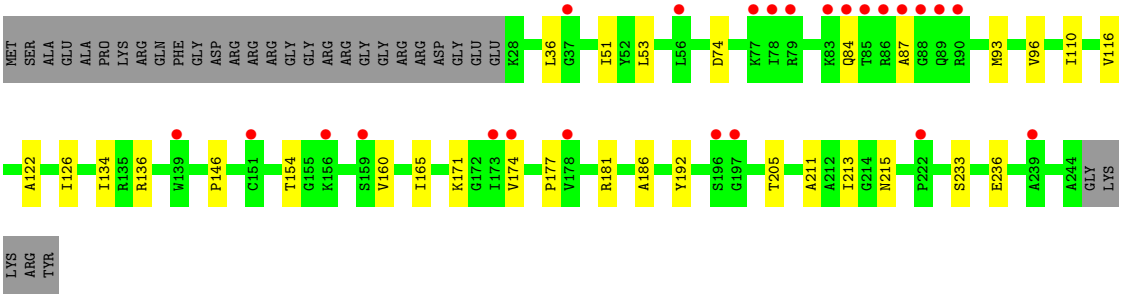
• Molecule 49: Ribosomal protein S5

Chain E:



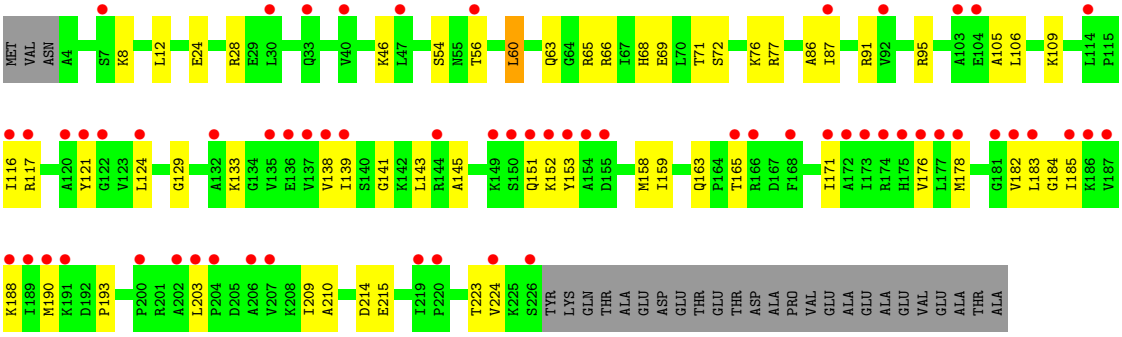
• Molecule 49: Ribosomal protein S5

Chain CP:



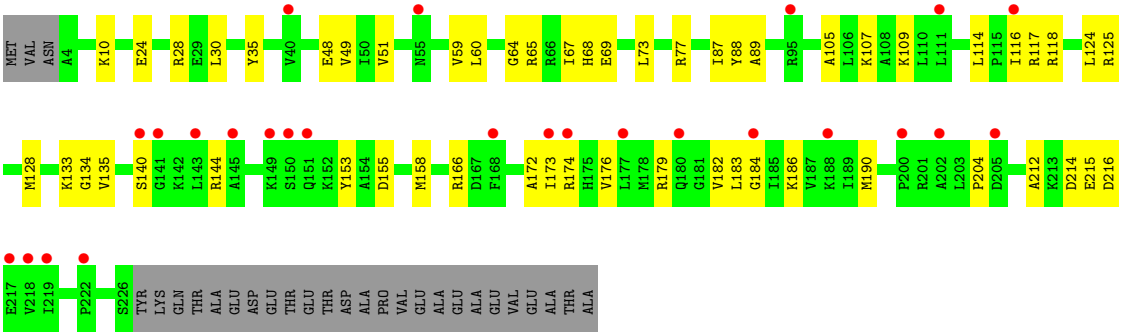
• Molecule 50: Ribosomal protein S3

Chain F:



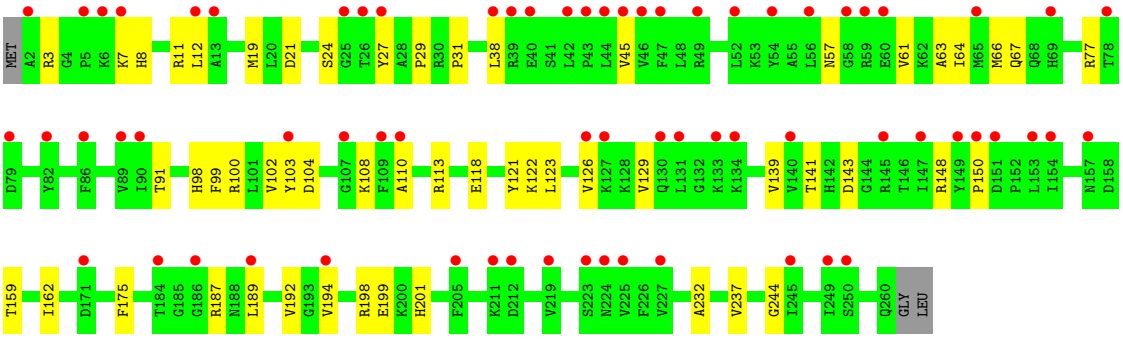
• Molecule 50: Ribosomal protein S3

Chain CQ:



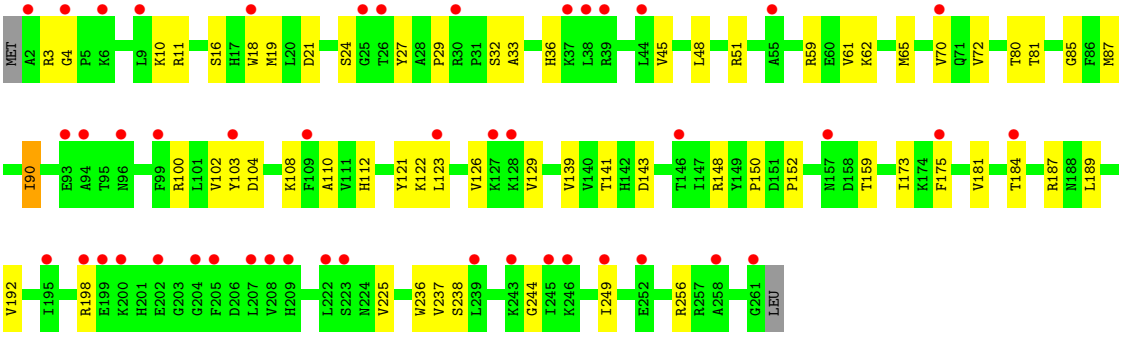
• Molecule 51: 40S ribosomal protein S4

Chain G:



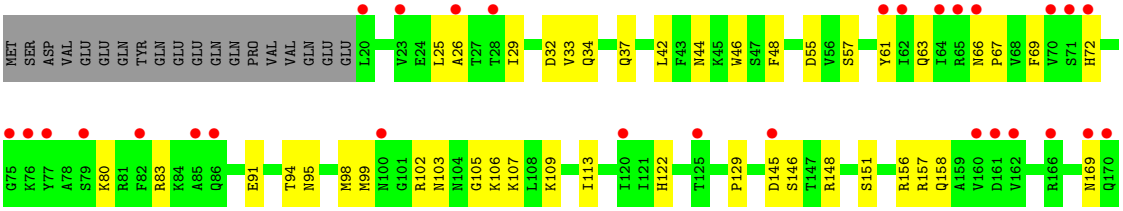
• Molecule 51: 40S ribosomal protein S4

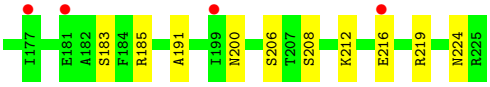
Chain CR:



• Molecule 52: Ribosomal protein S7

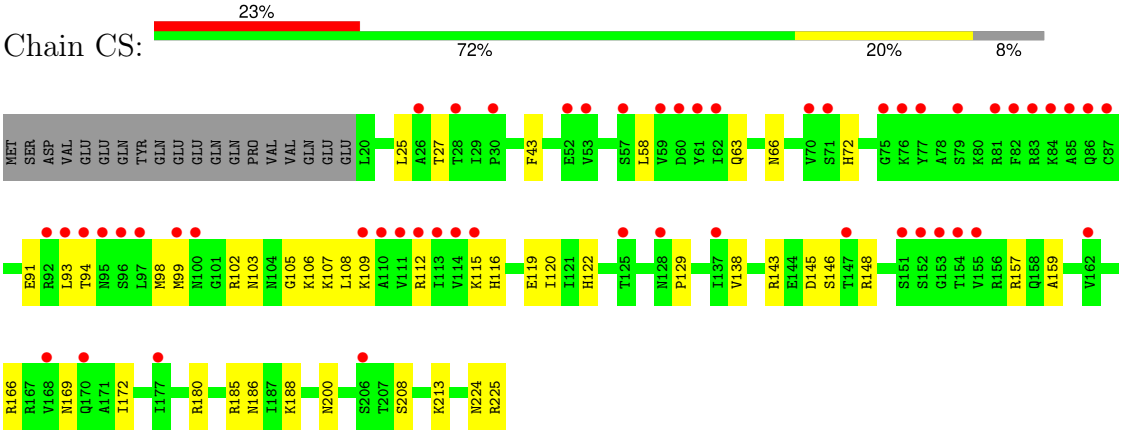
Chain H:





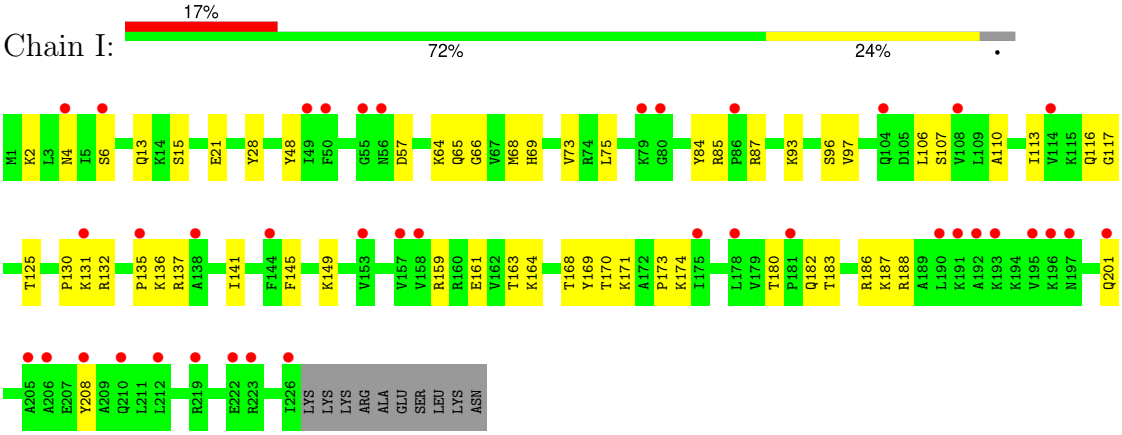
• Molecule 52: Ribosomal protein S7

Chain CS:



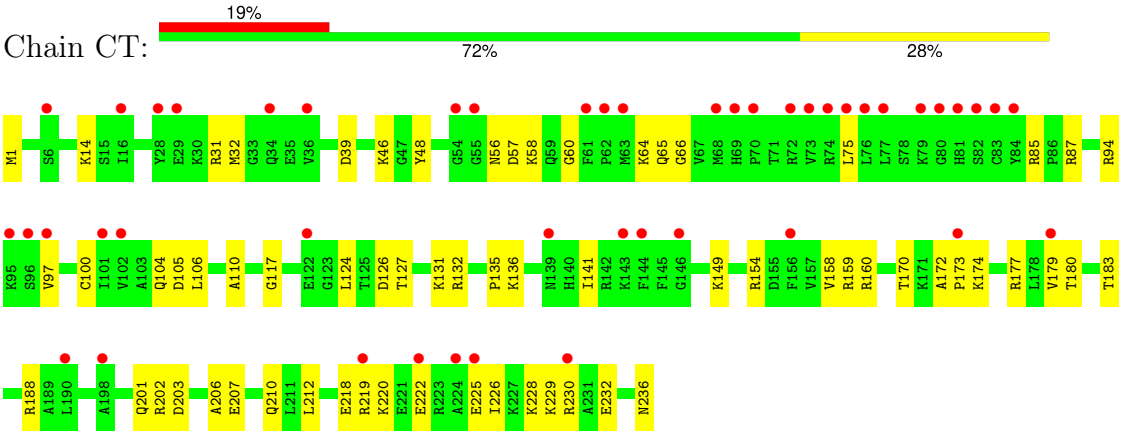
• Molecule 53: 40S ribosomal protein S6

Chain I:



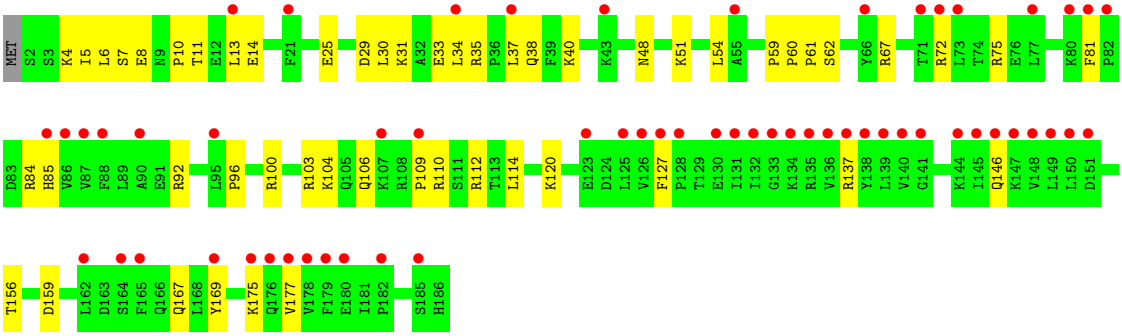
• Molecule 53: 40S ribosomal protein S6

Chain CT:



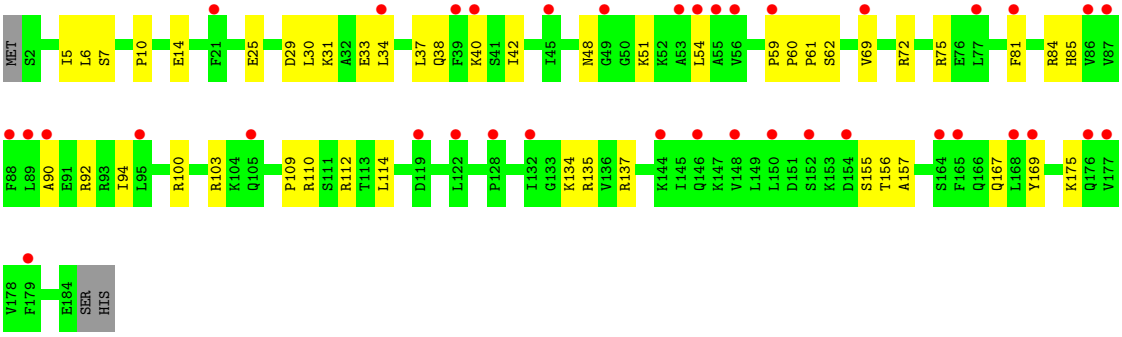
• Molecule 54: 40S ribosomal protein S7

Chain J:



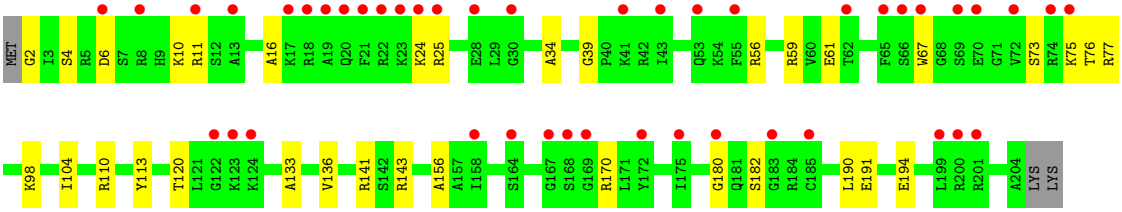
• Molecule 54: 40S ribosomal protein S7

Chain CU:



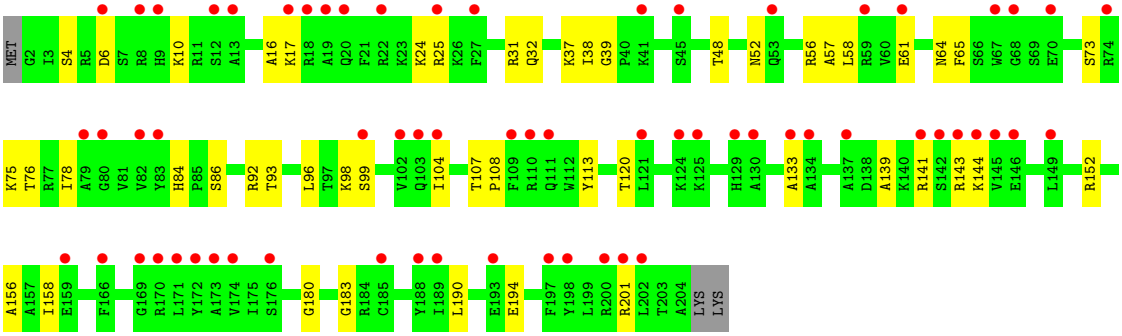
• Molecule 55: 40S ribosomal protein S8

Chain K:



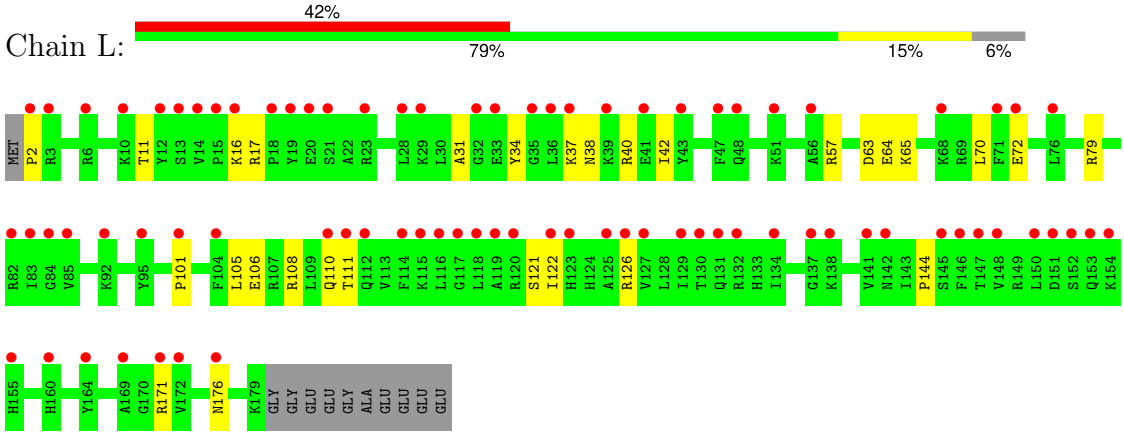
• Molecule 55: 40S ribosomal protein S8

Chain CV:



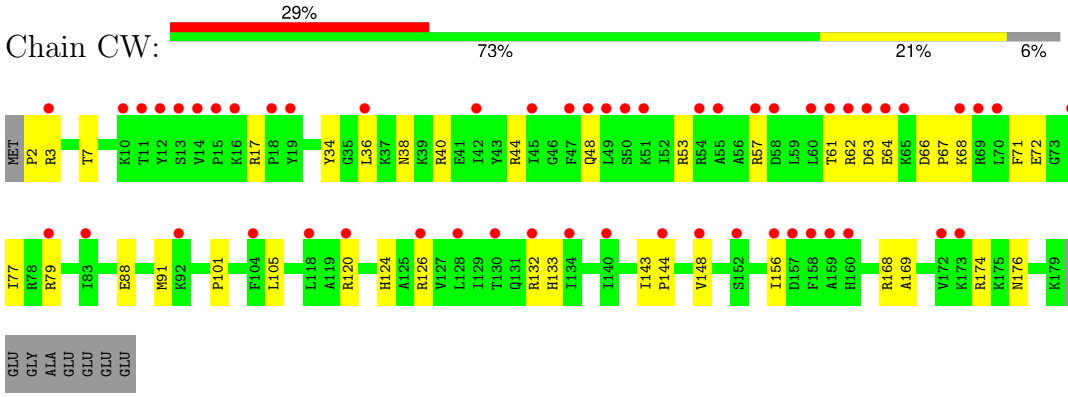
• Molecule 56: Ribosomal protein S4

Chain L:



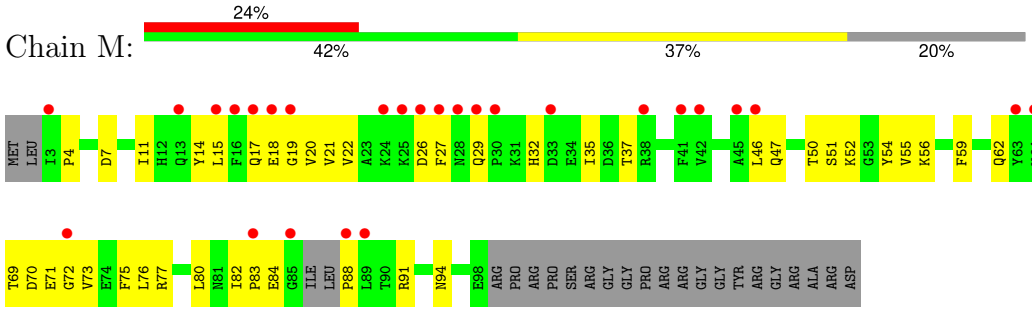
• Molecule 56: Ribosomal protein S4

Chain CW:



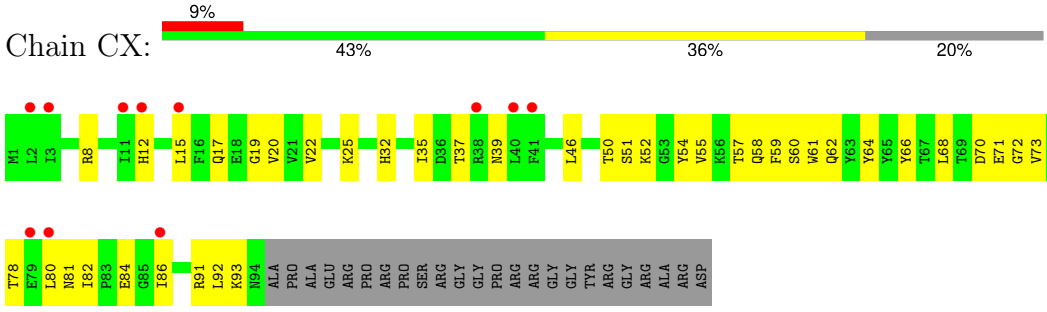
• Molecule 57: 40S ribosomal protein S10-A

Chain M:



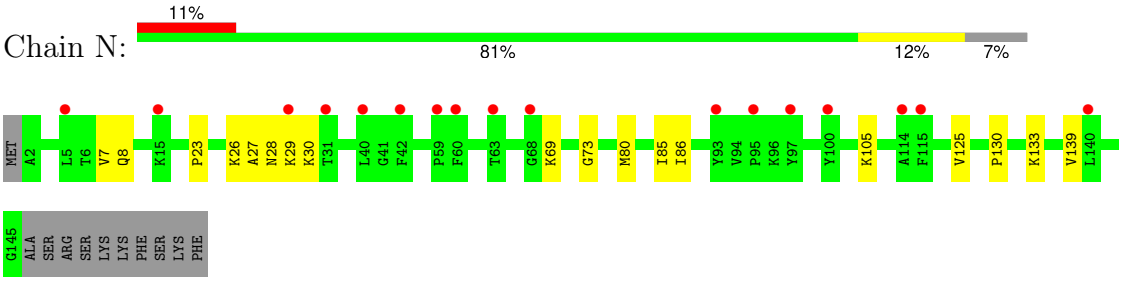
• Molecule 57: 40S ribosomal protein S10-A

Chain CX:



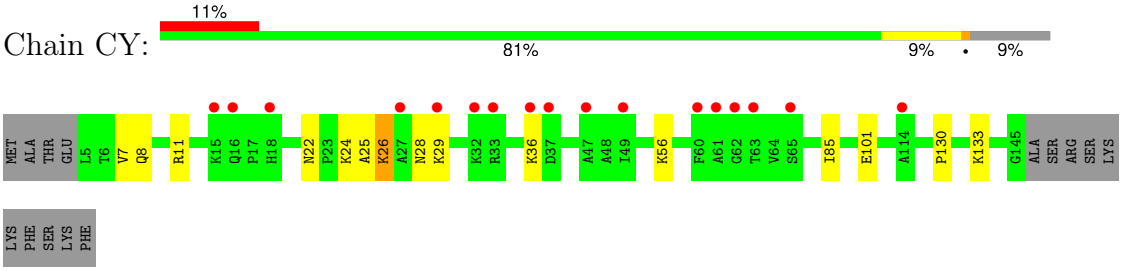
• Molecule 58: 40S ribosomal protein S11A

Chain N:



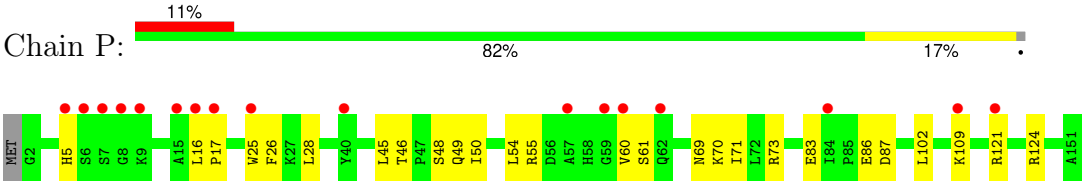
• Molecule 58: 40S ribosomal protein S11A

Chain CY:



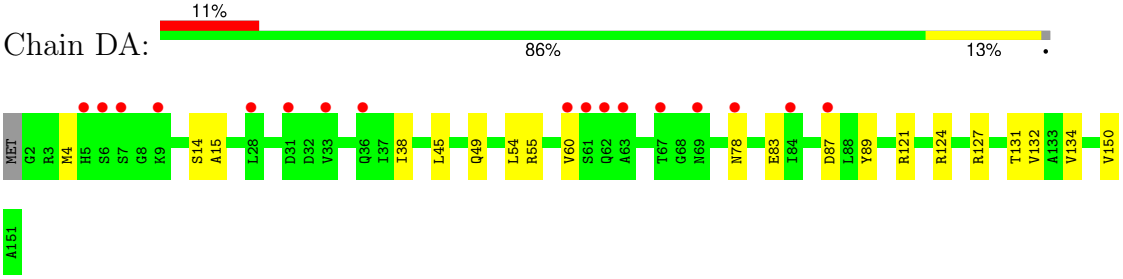
• Molecule 59: 40S ribosomal protein S13

Chain P:



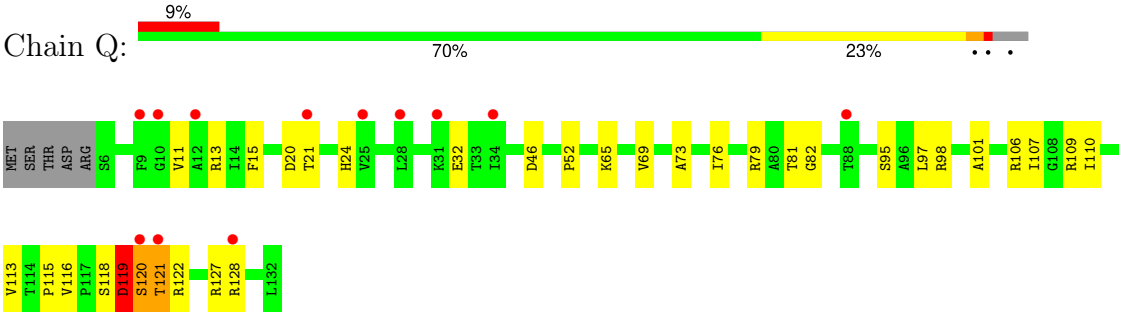
• Molecule 59: 40S ribosomal protein S13

Chain DA:



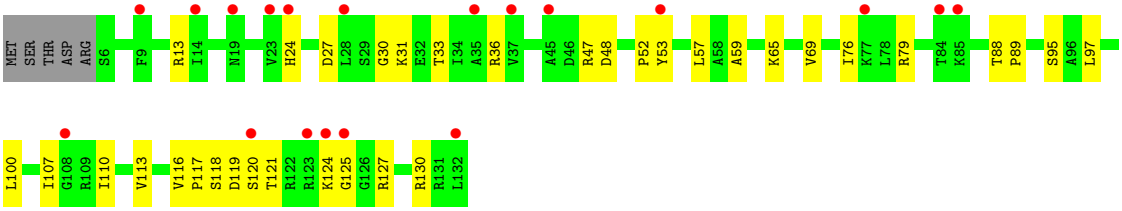
• Molecule 60: 40S ribosomal protein S14-A

Chain Q:

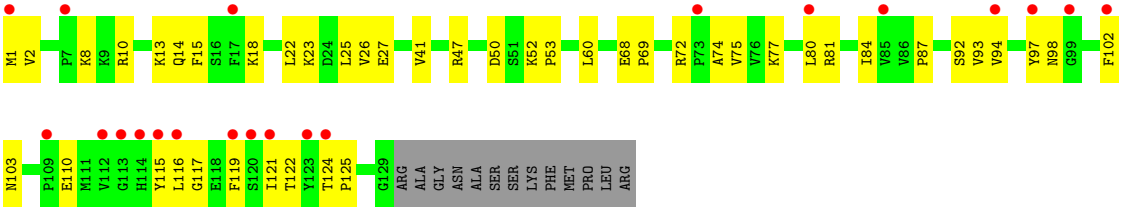


• Molecule 60: 40S ribosomal protein S14-A

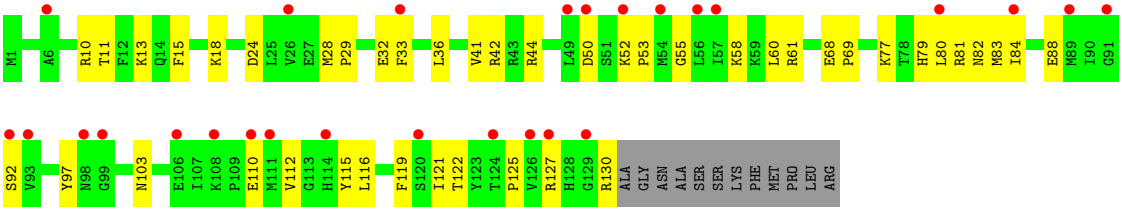
Chain DB:



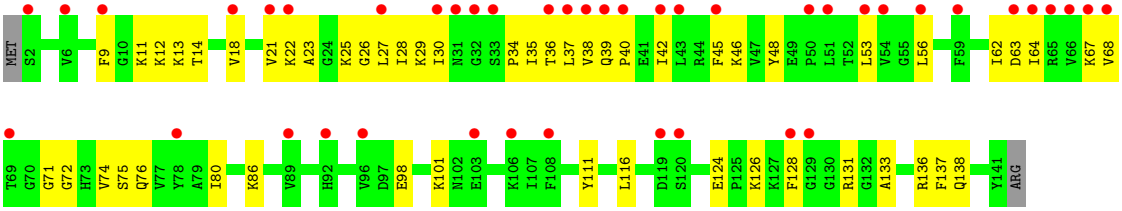
• Molecule 61: 40S ribosomal protein S15



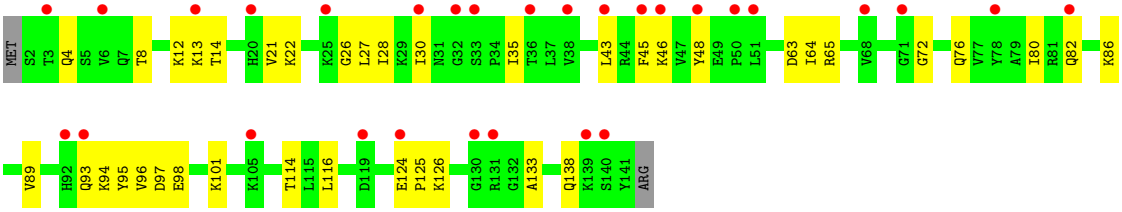
• Molecule 61: 40S ribosomal protein S15



• Molecule 62: 40S ribosomal protein S16

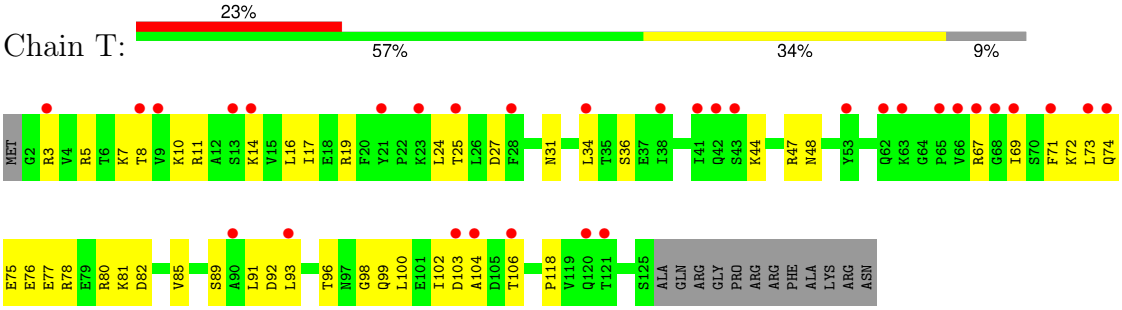


• Molecule 62: 40S ribosomal protein S16



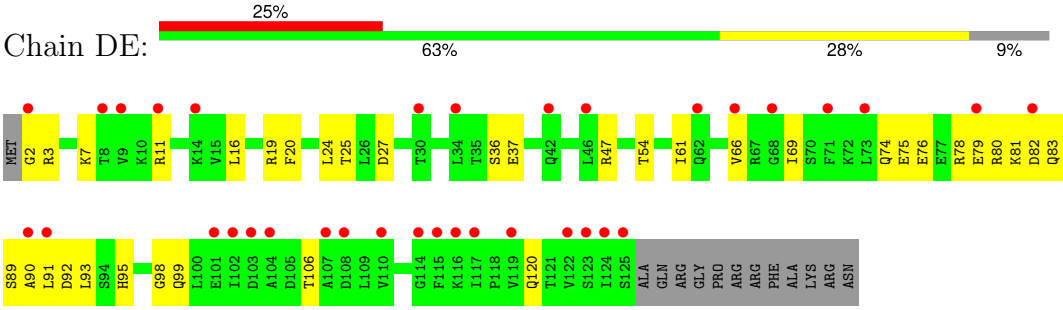
• Molecule 63: 40S ribosomal protein S17-B

Chain T:



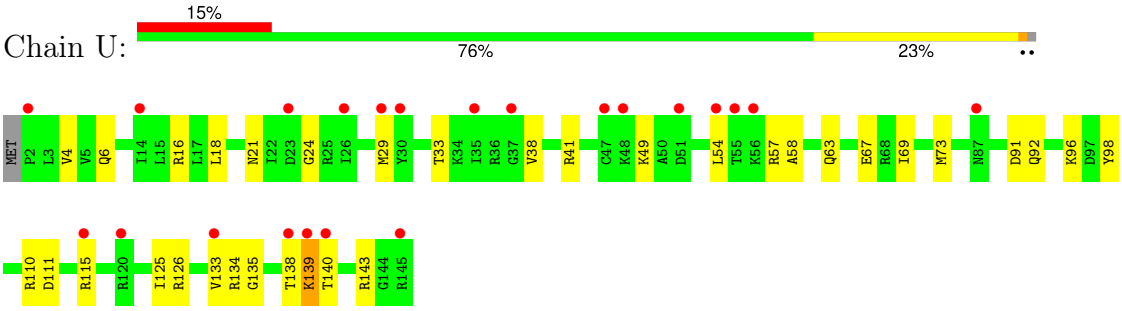
• Molecule 63: 40S ribosomal protein S17-B

Chain DE:



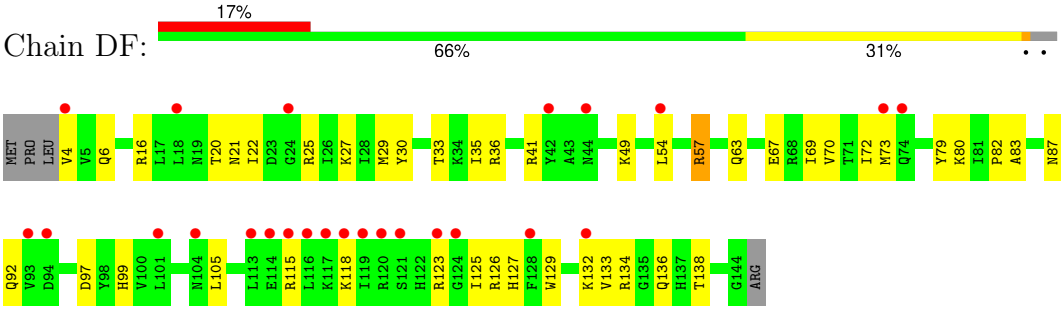
• Molecule 64: 40S ribosomal protein S18-B

Chain U:



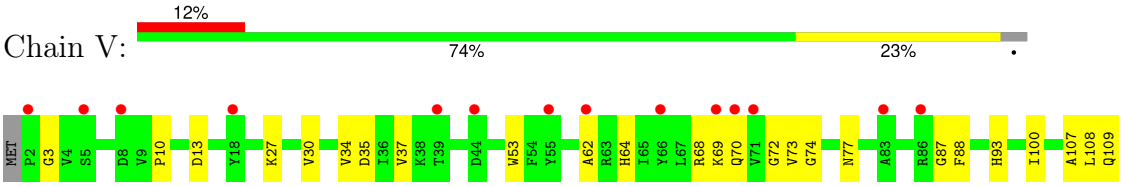
• Molecule 64: 40S ribosomal protein S18-B

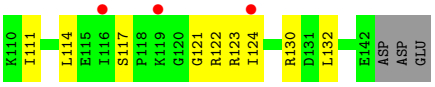
Chain DF:



• Molecule 65: 40S ribosomal protein S19-A

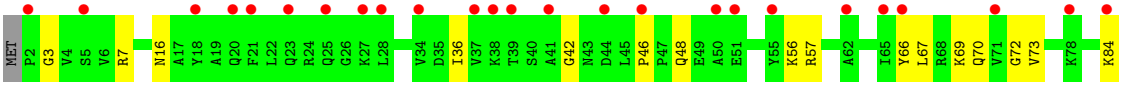
Chain V:

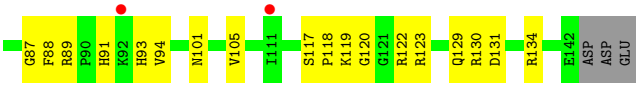




• Molecule 65: 40S ribosomal protein S19-A

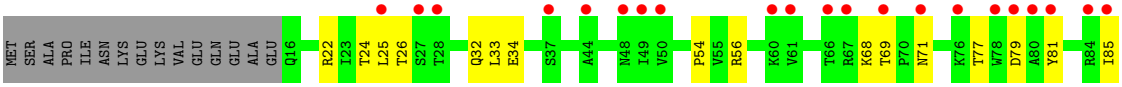
Chain DG:

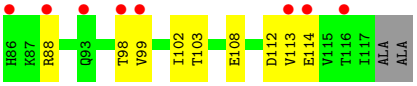




• Molecule 66: Ribosomal protein S10

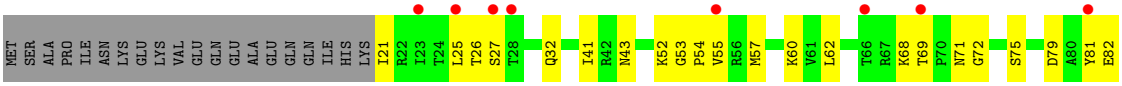
Chain W:

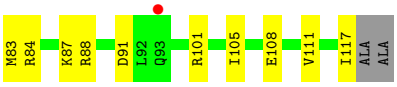




• Molecule 66: Ribosomal protein S10

Chain DH:





• Molecule 67: 40S ribosomal protein S21

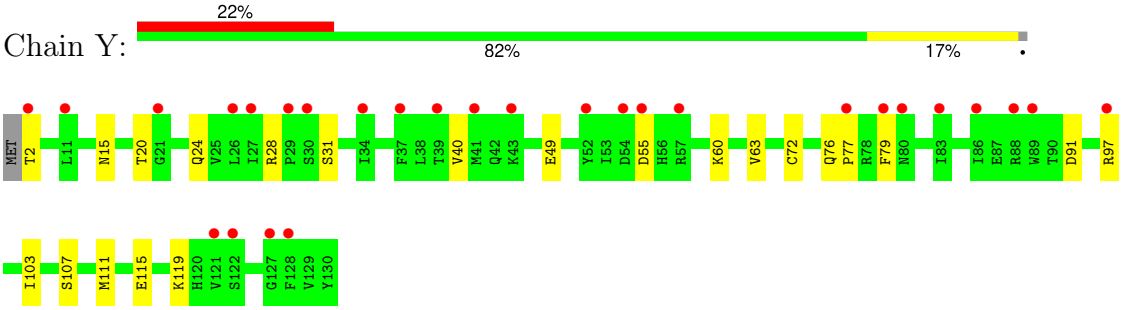
Chain X:

• Molecule 67: 40S ribosomal protein S21

Chain DI:

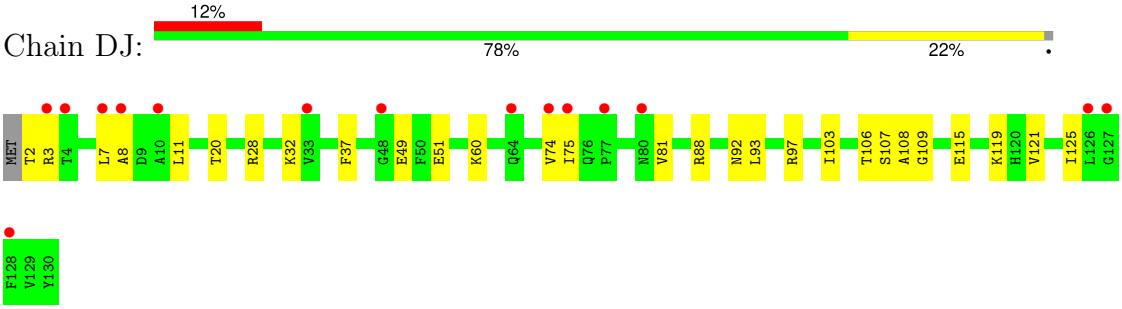
• Molecule 68: 40S ribosomal protein S22-A

Chain Y:



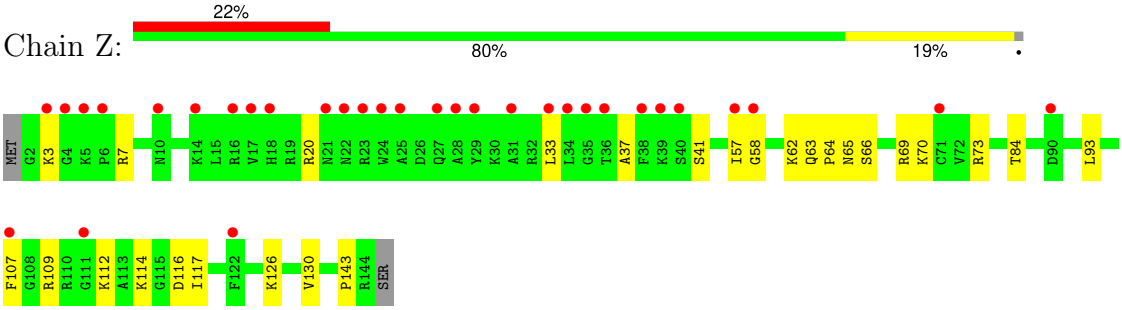
• Molecule 68: 40S ribosomal protein S22-A

Chain DJ:



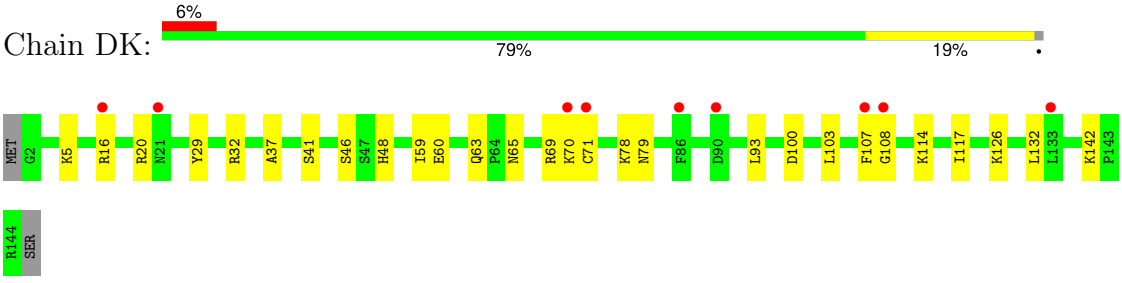
• Molecule 69: Ribosomal protein S23 (S12)

Chain Z:



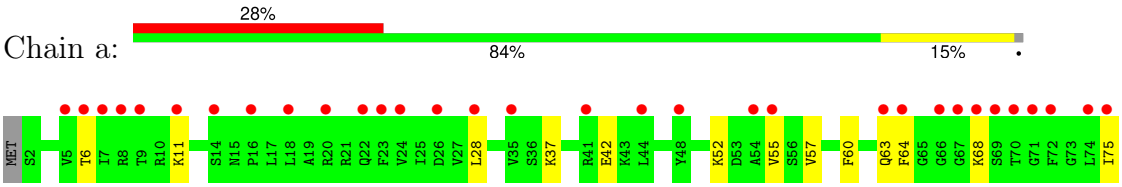
• Molecule 69: Ribosomal protein S23 (S12)

Chain DK:



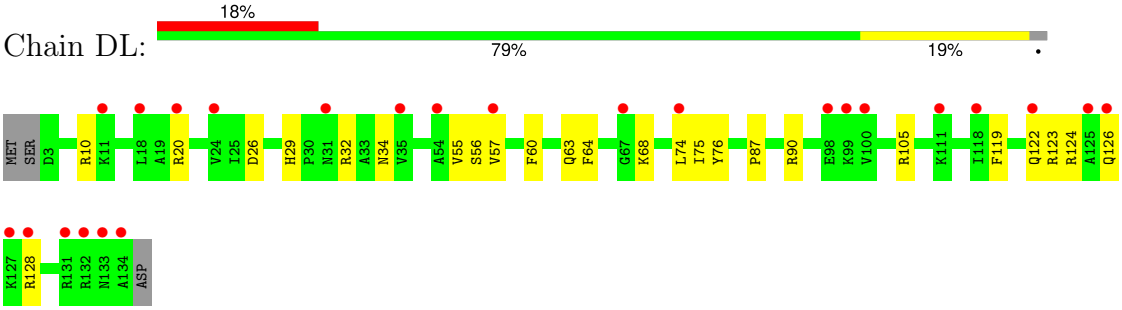
• Molecule 70: 40S ribosomal protein S24

Chain a:



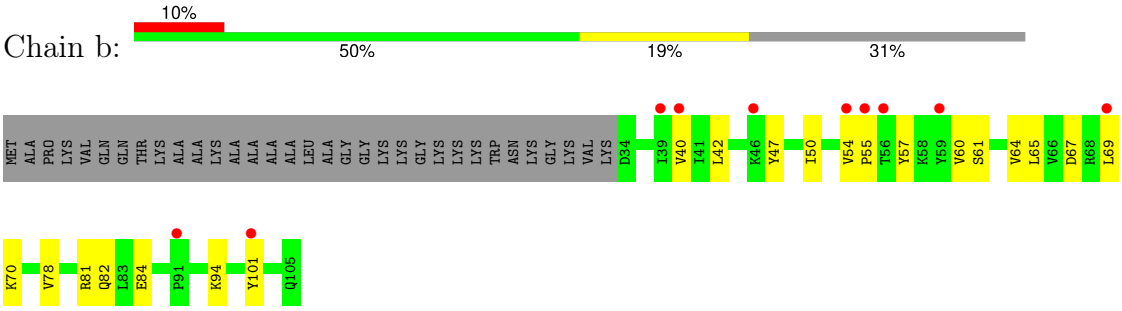
• Molecule 70: 40S ribosomal protein S24

Chain DL:



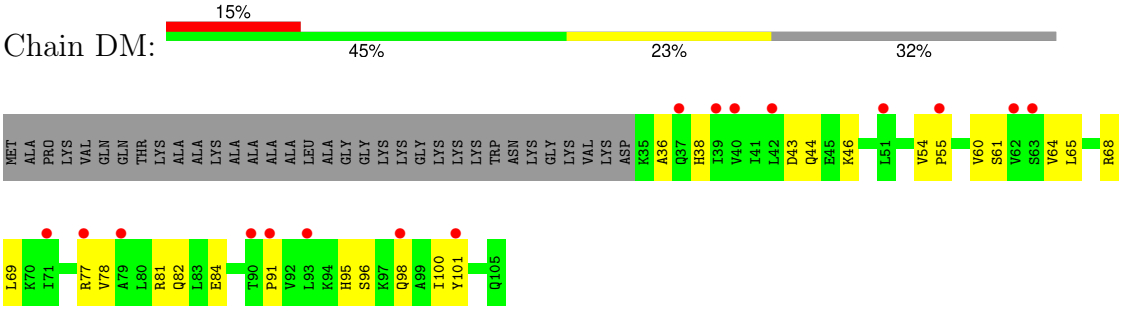
• Molecule 71: 40S ribosomal protein S25

Chain b:



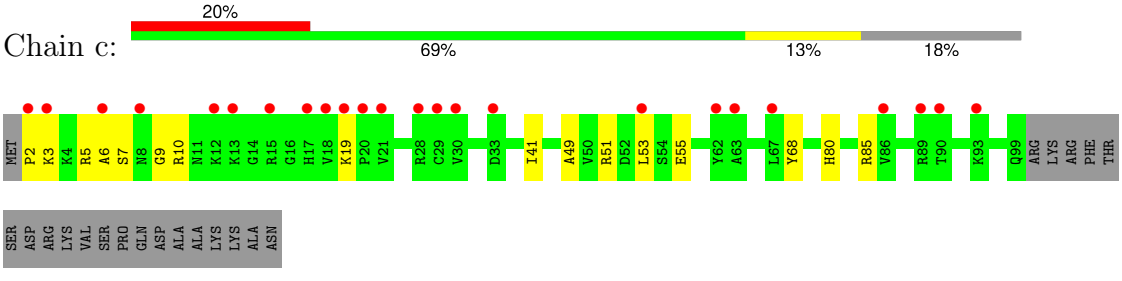
• Molecule 71: 40S ribosomal protein S25

Chain DM:



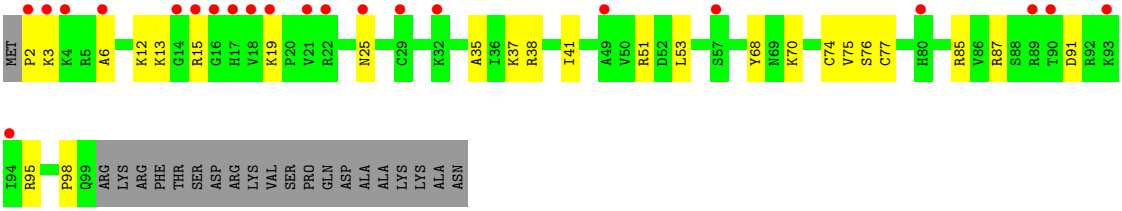
• Molecule 72: 40S ribosomal protein S26

Chain c:



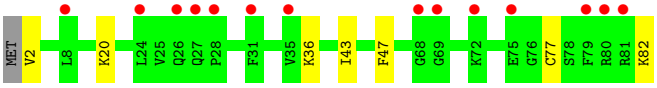
• Molecule 72: 40S ribosomal protein S26

Chain DN:



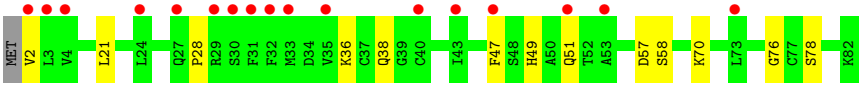
• Molecule 73: 40S ribosomal protein S27

Chain d:



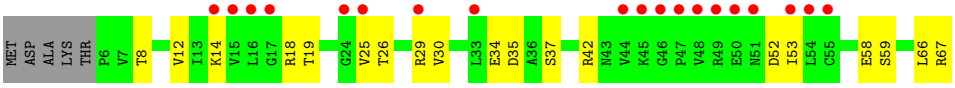
• Molecule 73: 40S ribosomal protein S27

Chain DO:



• Molecule 74: 40S ribosomal protein S28-B

Chain e:

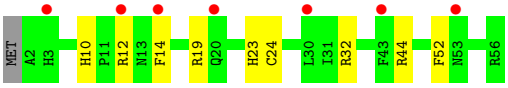


• Molecule 74: 40S ribosomal protein S28-B

Chain DP:

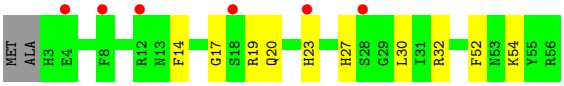
• Molecule 75: 40S ribosomal protein S29A

Chain f:

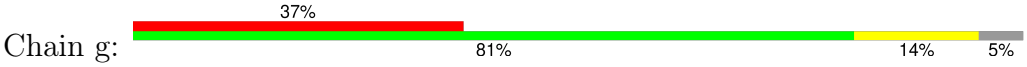


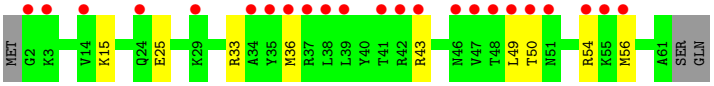
• Molecule 75: 40S ribosomal protein S29A

Chain DQ:

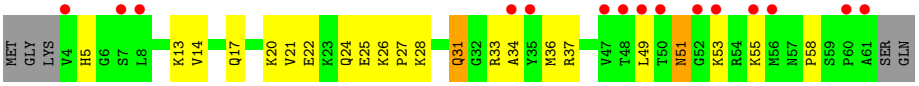


• Molecule 76: 40S ribosomal protein S30

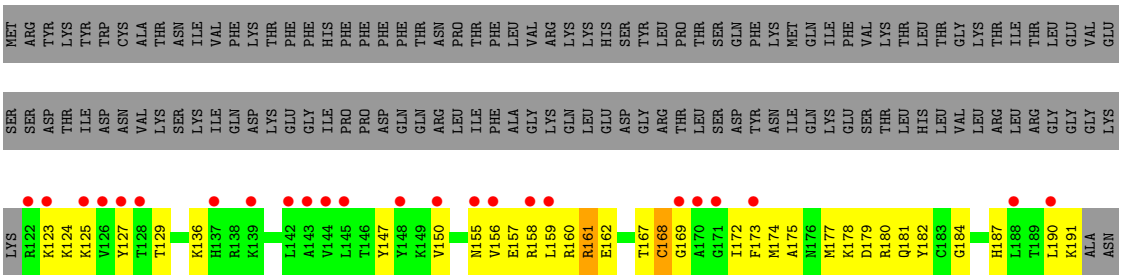




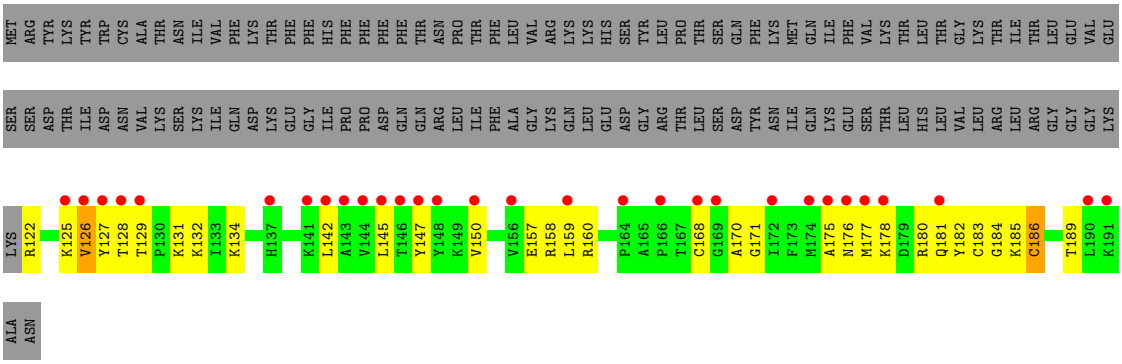
• Molecule 76: 40S ribosomal protein S30



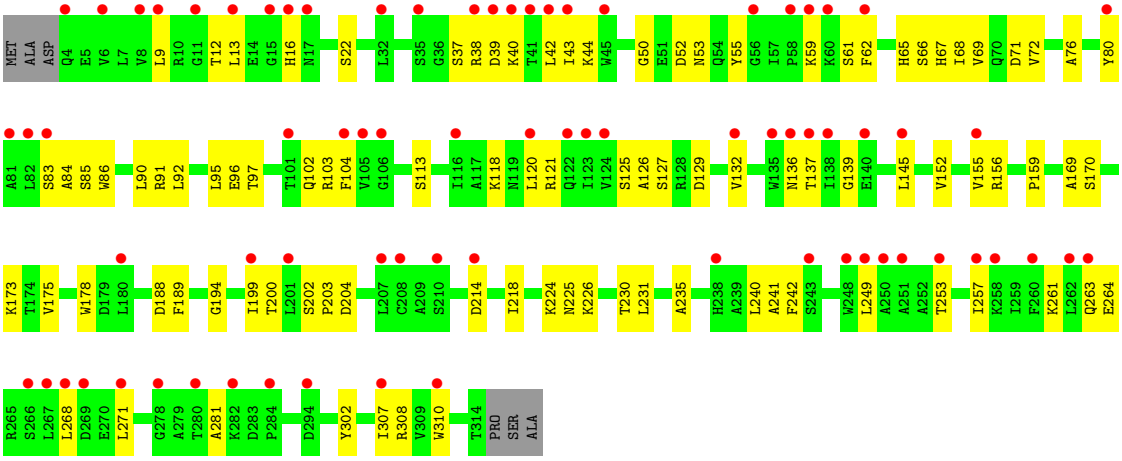
• Molecule 77: Ubiquitin-40S ribosomal protein S31 fusion protein



• Molecule 77: Ubiquitin-40S ribosomal protein S31 fusion protein

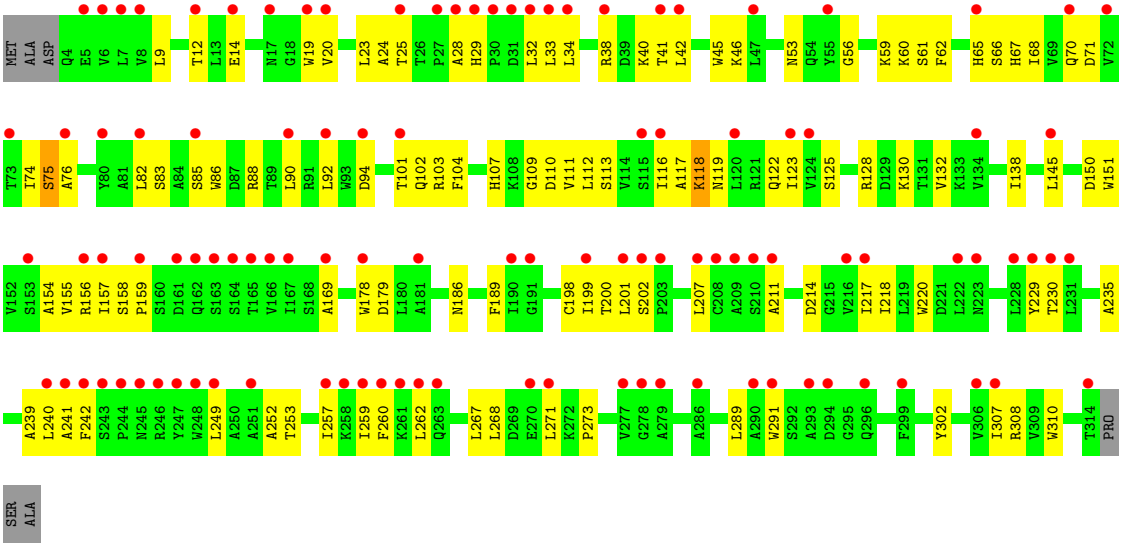


• Molecule 78: Guanine nucleotide-binding protein subunit beta-like protein



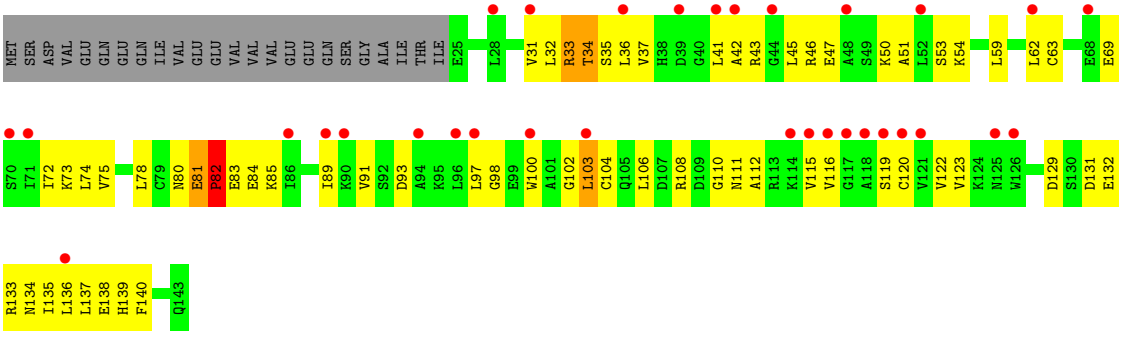
• Molecule 78: Guanine nucleotide-binding protein subunit beta-like protein

Chain DT:



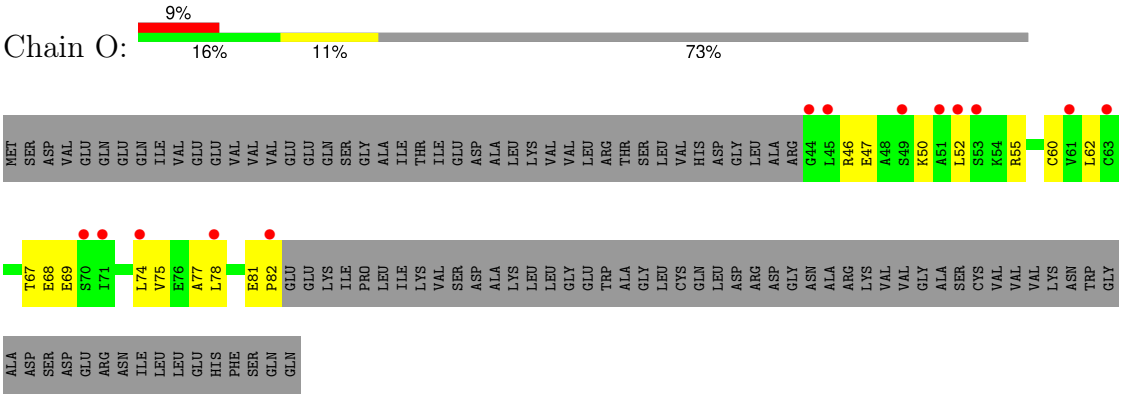
• Molecule 79: 40S ribosomal protein S12

Chain CZ:



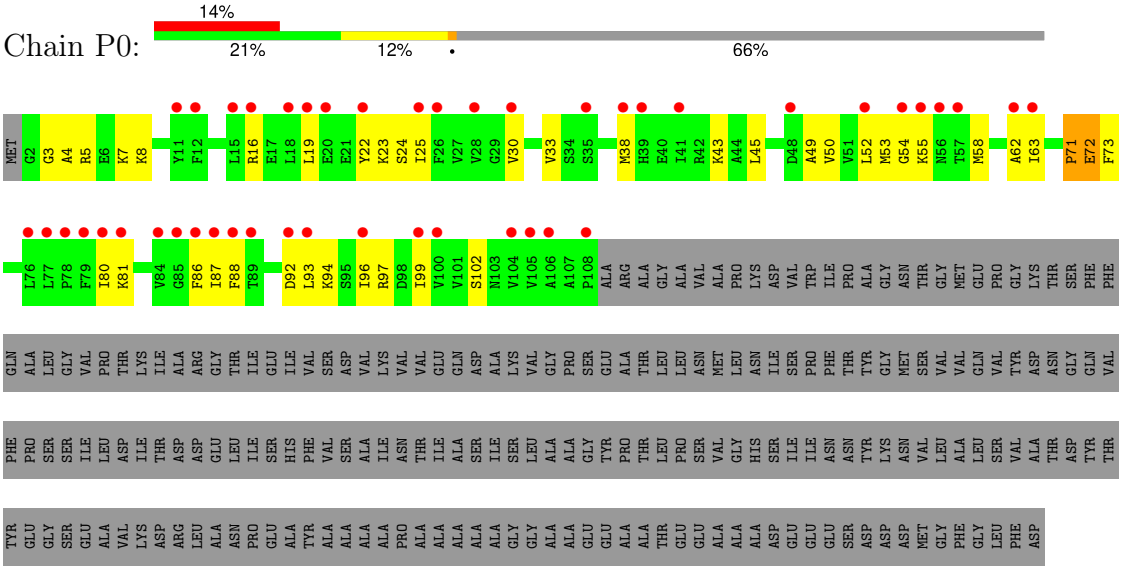
• Molecule 79: 40S ribosomal protein S12

Chain O:



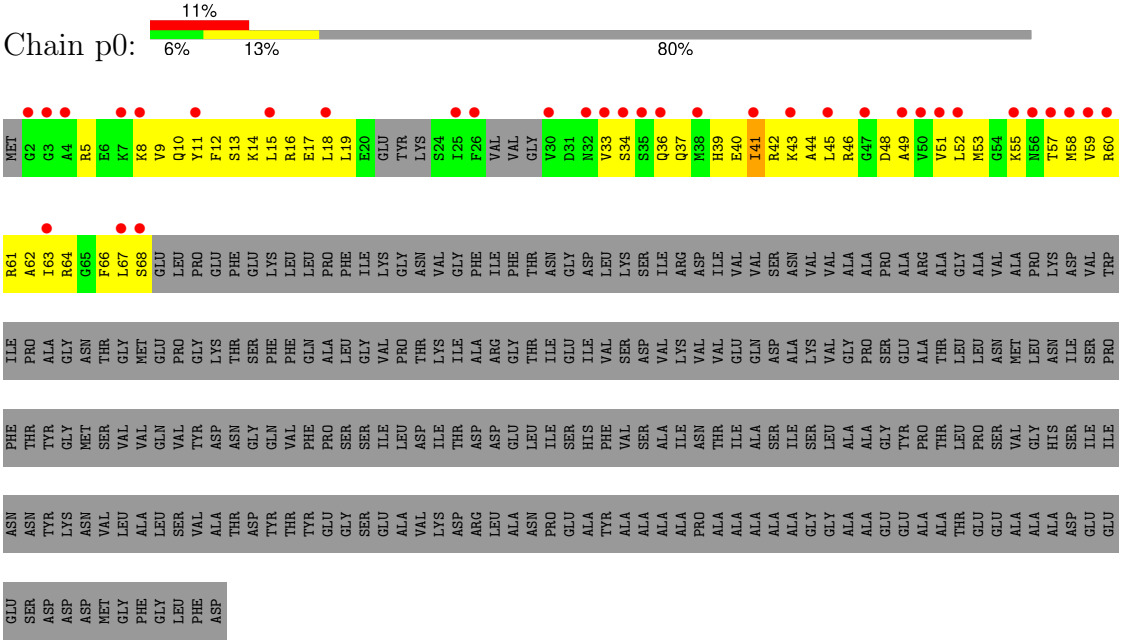
• Molecule 80: 60S acidic ribosomal protein P0

Chain P0:



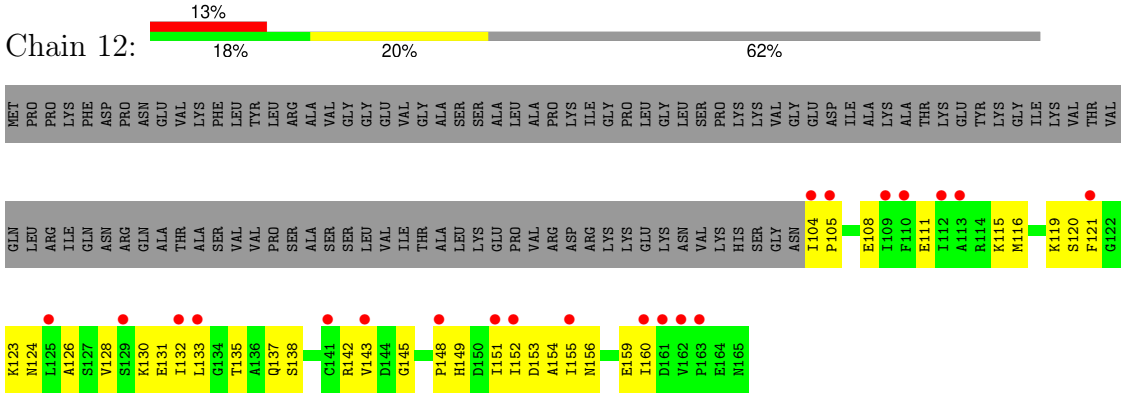
• Molecule 80: 60S acidic ribosomal protein P0

Chain p0:



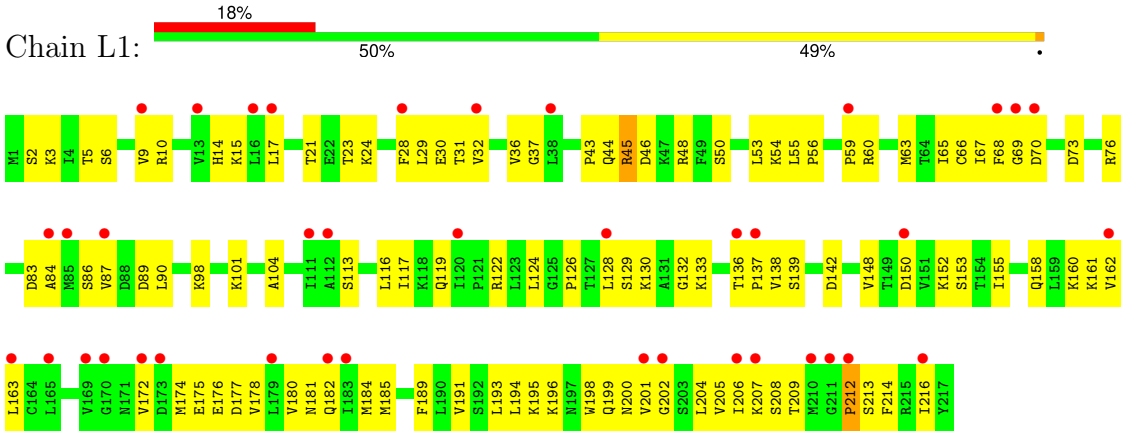
• Molecule 81: 60S ribosomal protein L12-A

Chain 12:



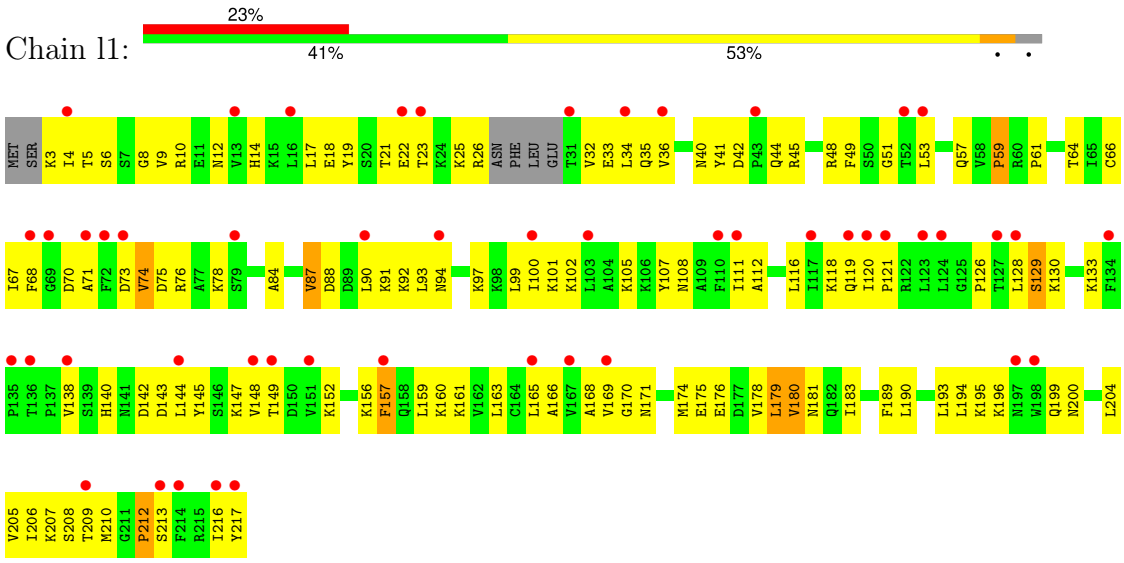
• Molecule 82: Ribosomal protein

Chain L1:



• Molecule 82: Ribosomal protein

Chain l1:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	299.77Å 294.17Å 451.17Å 90.00° 100.05° 90.00°	Depositor
Resolution (Å)	228.18 – 3.20 228.18 – 3.20	Depositor EDS
% Data completeness (in resolution range)	100.0 (228.18-3.20) 91.7 (228.18-3.20)	Depositor EDS
R_{merge}	0.74	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.00 (at 3.19Å)	Xtriage
Refinement program	PHENIX 1.19rc4_4035	Depositor
R, R_{free}	0.246 , 0.281 0.246 , 0.281	Depositor DCC
R_{free} test set	2000 reflections (0.16%)	wwPDB-VP
Wilson B-factor (Å^2)	65.1	Xtriage
Anisotropy	0.105	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 69.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.42$, $< L^2 > = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.87	EDS
Total number of atoms	408874	wwPDB-VP
Average B, all atoms (Å^2)	94.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.42% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: 3K5, ZN, MG

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	0.19	0/76948	0.43	10/119959 (0.0%)
1	AS	0.19	0/77089	0.43	8/120181 (0.0%)
2	3	0.14	0/2884	0.30	0/4492
2	AT	0.15	0/2884	0.32	0/4492
3	4	0.15	0/3724	0.37	1/5798 (0.0%)
3	AU	0.17	0/3746	0.39	1/5832 (0.0%)
4	AW	0.14	0/1922	0.38	0/2581
4	j	0.16	0/1922	0.42	0/2581
5	AX	0.16	0/3145	0.42	0/4231
5	k	0.21	0/3156	0.47	0/4246
6	AY	0.14	0/2799	0.40	0/3777
6	l	0.16	0/2799	0.44	0/3777
7	AZ	0.14	0/2447	0.37	0/3294
7	m	0.16	0/2479	0.43	0/3337
8	BA	0.14	0/1231	0.39	0/1662
8	n	0.16	0/1263	0.41	0/1703
9	BB	0.15	0/1918	0.39	0/2575
9	o	0.17	0/1894	0.42	0/2542
10	BC	0.20	0/1835	0.46	0/2472
10	p	0.17	0/1869	0.42	0/2519
11	BD	0.14	0/1537	0.38	0/2067
11	q	0.18	0/1537	0.41	0/2067
12	BE	0.16	0/1724	0.42	0/2314
12	r	0.16	0/1724	0.42	0/2314
13	BF	0.20	0/1390	0.44	0/1861
13	s	0.16	0/1390	0.43	0/1861
14	BG	0.16	0/1637	0.42	0/2195
14	t	0.17	0/1637	0.44	0/2195
15	BH	0.15	0/1044	0.40	0/1407
15	u	0.18	0/1044	0.42	0/1407
16	BI	0.14	0/1753	0.39	0/2347
16	v	0.18	0/1753	0.43	0/2347

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	BJ	0.16	0/1620	0.41	0/2167
17	w	0.18	0/1620	0.41	0/2167
18	BK	0.14	0/1429	0.39	0/1920
18	x	0.17	0/1410	0.40	0/1895
19	BL	0.13	0/1482	0.37	0/1985
19	y	0.20	0/1482	0.40	0/1985
20	BM	0.16	0/1475	0.42	0/1961
20	z	0.16	0/1475	0.39	0/1961
21	0	0.16	0/1457	0.42	0/1962
21	BN	0.16	0/1457	0.36	0/1962
22	2	0.16	0/1285	0.40	0/1723
22	BO	0.16	0/1285	0.37	0/1723
23	5	0.19	0/846	0.41	0/1140
23	BP	0.16	0/857	0.49	0/1156
24	6	0.16	0/993	0.41	0/1339
24	BQ	0.19	0/993	0.43	0/1339
25	7	0.14	0/958	0.32	0/1267
25	BR	0.13	0/814	0.29	0/1079
26	8	0.15	0/981	0.39	0/1326
26	BS	0.12	0/976	0.33	0/1319
27	9	0.13	0/999	0.35	0/1334
27	BT	0.13	0/999	0.37	0/1334
28	AA	0.12	0/1112	0.34	0/1488
28	BU	0.15	0/1112	0.38	0/1488
29	AB	0.14	0/1199	0.39	0/1607
29	BV	0.14	0/1199	0.37	0/1607
30	AC	0.16	0/483	0.56	0/642
30	BW	0.15	0/498	0.38	0/661
31	AD	0.13	0/738	0.34	0/994
31	BX	0.13	0/738	0.37	0/994
32	AE	0.15	0/907	0.44	0/1219
32	BY	0.13	0/907	0.43	0/1219
33	AF	0.14	0/1021	0.37	0/1368
33	BZ	0.14	0/1025	0.42	0/1372
34	AG	0.15	0/866	0.37	0/1165
34	CA	0.15	0/866	0.37	0/1165
35	AH	0.15	0/896	0.41	0/1195
35	CB	0.13	0/896	0.38	0/1195
36	AI	0.14	0/1003	0.38	0/1336
36	CC	0.13	0/990	0.39	0/1319
37	AJ	0.13	0/741	0.35	0/984
37	CD	0.12	0/763	0.41	0/1012
38	AK	0.19	0/690	0.44	0/916

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	CE	0.15	0/690	0.38	0/916
39	AL	0.12	0/623	0.38	0/831
39	CF	0.21	0/623	0.52	0/831
40	AM	0.15	0/447	0.37	0/594
40	CG	0.15	0/447	0.46	0/594
41	AN	0.14	0/425	0.40	0/563
41	CH	0.35	0/417	0.60	0/553
42	AO	0.19	0/237	0.43	0/304
42	CI	0.16	0/228	0.38	0/293
43	AP	0.18	0/840	0.41	0/1110
43	CJ	0.18	0/840	0.40	0/1110
44	AQ	0.16	0/705	0.39	0/940
44	CK	0.14	0/705	0.39	0/940
45	CL	0.32	0/942	0.79	0/1258
45	i	0.24	0/942	0.73	0/1258
46	B	0.19	0/41860	0.46	4/65228 (0.0%)
46	CM	0.20	0/42081	0.47	9/65573 (0.0%)
47	C	0.12	0/1666	0.34	0/2273
47	CN	0.14	0/1666	0.40	0/2273
48	CO	0.16	0/1750	0.45	0/2354
48	D	0.13	0/1750	0.37	0/2354
49	CP	0.16	0/1657	0.39	0/2248
49	E	0.13	0/1657	0.35	0/2248
50	CQ	0.18	0/1731	0.52	0/2324
50	F	0.15	0/1731	0.48	1/2324 (0.0%)
51	CR	0.18	0/2096	0.41	0/2822
51	G	0.13	0/2092	0.36	0/2817
52	CS	0.19	0/1631	0.41	0/2199
52	H	0.15	0/1631	0.40	0/2199
53	CT	0.15	0/1929	0.44	0/2571
53	I	0.12	0/1845	0.38	0/2464
54	CU	0.15	0/1499	0.43	0/2016
54	J	0.14	0/1516	0.40	0/2039
55	CV	0.15	0/1606	0.39	0/2150
55	K	0.14	0/1606	0.39	0/2150
56	CW	0.13	0/1478	0.37	0/1978
56	L	0.13	0/1478	0.35	0/1978
57	CX	0.18	0/809	0.56	0/1092
57	M	0.20	0/803	0.66	0/1083
58	CY	0.17	0/1154	0.39	0/1553
58	N	0.14	0/1175	0.41	0/1582
59	DA	0.17	0/1210	0.39	0/1631
59	P	0.12	0/1210	0.35	0/1631

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
60	DB	0.22	0/953	0.53	1/1279 (0.1%)
60	Q	0.23	0/953	0.57	4/1279 (0.3%)
61	DC	0.17	0/1049	0.54	0/1409
61	R	0.19	0/1038	0.52	0/1395
62	DD	0.14	0/1109	0.42	0/1486
62	S	0.25	0/1109	0.47	0/1486
63	DE	0.19	0/1009	0.57	0/1354
63	T	0.19	0/1009	0.54	1/1354 (0.1%)
64	DF	0.20	0/1178	0.46	0/1579
64	U	0.18	0/1205	0.44	0/1615
65	DG	0.16	0/1120	0.46	0/1508
65	V	0.16	0/1120	0.49	0/1508
66	DH	0.17	0/772	0.46	0/1045
66	W	0.14	0/818	0.44	0/1106
67	DI	0.16	0/683	0.44	0/918
67	X	0.14	0/683	0.38	0/918
68	DJ	0.24	0/1049	0.43	0/1412
68	Y	0.13	0/1049	0.35	0/1412
69	DK	0.17	0/1128	0.45	0/1505
69	Z	0.15	0/1128	0.50	0/1505
70	DL	0.13	0/1086	0.35	0/1447
70	a	0.12	0/1100	0.33	0/1466
71	DM	0.15	0/577	0.49	0/778
71	b	0.14	0/585	0.35	0/789
72	DN	0.13	0/791	0.40	0/1060
72	c	0.15	0/791	0.42	0/1060
73	DO	0.14	0/624	0.44	0/843
73	d	0.13	0/624	0.37	0/843
74	DP	0.15	0/478	0.51	0/640
74	e	0.14	0/489	0.45	0/654
75	DQ	0.22	0/461	0.50	0/613
75	f	0.15	0/466	0.41	0/620
76	DR	0.34	0/469	0.71	0/626
76	g	0.24	0/482	0.48	0/642
77	DS	0.35	0/585	0.83	1/778 (0.1%)
77	h	0.19	0/585	0.68	0/778
78	AR	0.14	0/2451	0.39	0/3337
78	DT	0.22	0/2451	0.58	0/3337
79	CZ	0.25	0/921	0.91	7/1240 (0.6%)
79	O	0.20	0/293	0.66	0/393
80	P0	0.18	0/857	0.46	0/1148
80	p0	0.31	0/489	0.67	0/645
81	12	0.35	0/478	0.65	0/642

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
82	L1	0.18	0/1737	0.42	1/2335 (0.0%)
82	l1	0.24	0/1685	0.54	0/2264
All	All	0.18	0/436812	0.44	49/640723 (0.0%)

There are no bond length outliers.

All (49) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	CM	725	A	C5'-C4'-C3'	-7.56	104.67	116.00
77	DS	127	TYR	CB-CA-C	-7.43	103.65	114.87
60	Q	118	SER	N-CA-C	-7.33	105.19	112.97
1	AS	119	G	C2'-C3'-O3'	-7.32	98.52	109.50
1	AS	1247	A	O3'-P-O5'	6.97	114.45	104.00
1	1	1653	C	C3'-C2'-O2'	-6.94	104.19	114.60
1	1	1576	A	O4'-C1'-N9	6.80	118.70	108.50
46	CM	725	A	O5'-C5'-C4'	-6.35	101.97	111.50
46	CM	505	U	C2'-C3'-O3'	6.33	118.99	109.50
1	1	1255	A	O3'-P-O5'	-6.26	94.61	104.00
1	1	2637	U	O3'-P-O5'	-6.25	94.62	104.00
79	CZ	81	GLU	C-N-CD	-6.18	99.65	125.00
60	Q	121	THR	N-CA-C	-6.13	101.44	110.52
1	AS	449	U	C2'-C3'-O3'	-6.07	104.60	113.70
60	DB	118	SER	N-CA-C	-5.91	103.30	111.81
1	1	1576	A	C4-N9-C1'	5.80	143.69	126.30
46	CM	505	U	C5'-C4'-O4'	5.78	117.77	109.10
46	CM	970	G	O3'-P-O5'	5.68	112.51	104.00
1	1	1653	C	C2'-C3'-O3'	-5.56	101.16	109.50
79	CZ	82	PRO	CA-C-N	5.55	132.14	121.54
79	CZ	82	PRO	C-N-CA	5.55	132.14	121.54
50	F	60	LEU	CA-CB-CG	5.48	135.49	116.30
1	AS	119	G	OP2-P-O3'	-5.47	91.60	108.00
1	1	3127	U	C4'-C3'-O3'	5.45	117.58	109.40
60	Q	119	ASP	CA-CB-CG	5.45	118.05	112.60
46	B	824	U	P-O5'-C5'	-5.43	112.75	120.90
1	AS	480	G	N9-C1'-C2'	-5.38	103.92	112.00
1	1	2637	U	C4'-C3'-O3'	-5.36	101.36	109.40
3	4	21	C	N1-C1'-C2'	5.33	119.99	112.00
46	CM	503	A	N9-C1'-C2'	-5.28	104.08	112.00
60	Q	119	ASP	CB-CA-C	-5.27	99.93	110.42
1	AS	1260	G	O3'-P-O5'	5.26	111.89	104.00
63	T	73	LEU	CA-CB-CG	5.26	134.71	116.30
3	AU	21	C	N1-C1'-C2'	5.26	119.89	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
79	CZ	111	ASN	CA-C-N	5.22	131.52	121.54
79	CZ	111	ASN	C-N-CA	5.22	131.52	121.54
46	CM	971	G	P-O5'-C5'	5.21	128.71	120.90
1	AS	1283	A	P-O5'-C5'	5.19	128.68	120.90
82	L1	69	GLY	N-CA-C	5.16	117.30	112.08
1	1	1237	U	C5'-C4'-O4'	5.15	117.52	109.80
46	B	1699	G	C4'-C3'-O3'	5.12	120.67	113.00
79	CZ	33	ARG	CA-C-N	5.07	131.22	121.54
79	CZ	33	ARG	C-N-CA	5.07	131.22	121.54
46	B	824	U	O4'-C1'-N1	-5.07	100.90	108.50
46	B	1284	G	P-O5'-C5'	5.05	128.47	120.90
46	CM	576	U	C4'-C3'-O3'	-5.03	101.86	109.40
1	AS	1260	G	N9-C1'-C2'	5.02	121.53	114.00
46	CM	499	U	P-O3'-C3'	-5.02	112.67	120.20
1	1	1256	A	C5'-C4'-C3'	5.00	123.50	116.00

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	68751	0	34549	1139	0
1	AS	68877	0	34614	1205	0
2	3	2579	0	1303	32	0
2	AT	2579	0	1304	24	0
3	4	3333	0	1684	59	0
3	AU	3353	0	1694	70	0
4	AW	1888	0	1962	52	0
4	j	1888	0	1962	37	0
5	AX	3077	0	3166	63	0
5	k	3084	0	3173	62	0
6	AY	2751	0	2879	46	0
6	l	2751	0	2879	52	0
7	AZ	2394	0	2361	35	0
7	m	2426	0	2389	37	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	BA	1210	0	1285	26	0
8	n	1242	0	1321	32	0
9	BB	1885	0	1977	18	0
9	o	1861	0	1953	24	0
10	BC	1805	0	1925	27	0
10	p	1839	0	1957	15	0
11	BD	1519	0	1588	29	0
11	q	1519	0	1588	24	0
12	BE	1689	0	1731	25	0
12	r	1689	0	1731	22	0
13	BF	1371	0	1410	28	0
13	s	1371	0	1410	31	0
14	BG	1610	0	1686	22	0
14	t	1610	0	1686	22	0
15	BH	1029	0	1116	22	0
15	u	1029	0	1116	25	0
16	BI	1713	0	1764	40	0
16	v	1713	0	1764	38	0
17	BJ	1590	0	1705	26	0
17	w	1590	0	1705	32	0
18	BK	1406	0	1431	20	0
18	x	1387	0	1408	22	0
19	BL	1458	0	1556	27	0
19	y	1458	0	1556	28	0
20	BM	1457	0	1564	27	0
20	z	1457	0	1564	24	0
21	0	1423	0	1480	31	0
21	BN	1423	0	1480	35	0
22	2	1262	0	1314	20	0
22	BO	1262	0	1314	26	0
23	5	831	0	848	17	0
23	BP	837	0	853	26	0
24	6	977	0	1026	15	0
24	BQ	977	0	1026	21	0
25	7	945	0	1010	20	0
25	BR	801	0	840	18	0
26	8	965	0	1019	18	0
26	BS	960	0	1014	11	0
27	9	989	0	1064	17	0
27	BT	989	0	1064	22	0
28	AA	1087	0	1154	16	0
28	BU	1087	0	1154	28	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	AB	1170	0	1203	23	0
29	BV	1170	0	1203	26	0
30	AC	473	0	497	10	0
30	BW	488	0	515	13	0
31	AD	729	0	775	14	0
31	BX	729	0	775	17	0
32	AE	894	0	941	16	0
32	BY	894	0	941	11	0
33	AF	1000	0	1069	13	0
33	BZ	1004	0	1077	16	0
34	AG	847	0	893	17	0
34	CA	847	0	893	12	0
35	AH	887	0	947	15	0
35	CB	887	0	947	22	0
36	AI	992	0	1093	15	0
36	CC	979	0	1076	20	0
37	AJ	736	0	812	2	0
37	CD	758	0	838	12	0
38	AK	677	0	697	20	0
38	CE	677	0	697	16	0
39	AL	617	0	675	8	0
39	CF	617	0	675	21	0
40	AM	438	0	475	10	0
40	CG	438	0	475	11	0
41	AN	419	0	460	9	0
41	CH	411	0	448	9	0
42	AO	236	0	285	5	0
42	CI	227	0	272	5	0
43	AP	828	0	893	22	0
43	CJ	828	0	893	12	0
44	AQ	698	0	734	13	0
44	CK	698	0	734	15	0
45	CL	931	0	908	55	0
45	i	931	0	908	52	0
46	B	37425	0	18829	825	0
46	CM	37621	0	18923	880	0
47	C	1627	0	1644	35	0
47	CN	1627	0	1644	34	0
48	CO	1724	0	1805	53	0
48	D	1724	0	1805	27	0
49	CP	1629	0	1728	27	0
49	E	1629	0	1728	30	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
50	CQ	1707	0	1807	53	0
50	F	1707	0	1807	49	0
51	CR	2055	0	2137	46	0
51	G	2051	0	2134	42	0
52	CS	1614	0	1688	39	0
52	H	1614	0	1688	47	0
53	CT	1904	0	1994	56	0
53	I	1820	0	1896	47	0
54	CU	1475	0	1567	38	0
54	J	1491	0	1579	36	0
55	CV	1579	0	1602	39	0
55	K	1579	0	1602	27	0
56	CW	1453	0	1532	41	0
56	L	1453	0	1532	25	0
57	CX	791	0	805	42	0
57	M	785	0	783	38	0
58	CY	1129	0	1183	13	0
58	N	1150	0	1201	14	0
59	DA	1187	0	1249	15	0
59	P	1187	0	1248	21	0
60	DB	942	0	981	27	0
60	Q	942	0	981	23	0
61	DC	1029	0	1078	36	0
61	R	1018	0	1065	39	0
62	DD	1091	0	1155	31	0
62	S	1091	0	1155	47	0
63	DE	997	0	1053	38	0
63	T	997	0	1053	42	0
64	DF	1161	0	1205	39	0
64	U	1187	0	1237	25	0
65	DG	1100	0	1114	32	0
65	V	1100	0	1114	28	0
66	DH	763	0	824	24	0
66	W	808	0	871	19	0
67	DI	676	0	677	16	0
67	X	676	0	677	16	0
68	DJ	1032	0	1066	28	0
68	Y	1032	0	1066	17	0
69	DK	1110	0	1182	23	0
69	Z	1110	0	1181	29	0
70	DL	1072	0	1123	24	0
70	a	1086	0	1132	15	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
71	DM	570	0	609	25	0
71	b	578	0	613	13	0
72	DN	779	0	833	22	0
72	c	779	0	832	15	0
73	DO	614	0	630	10	0
73	d	614	0	627	6	0
74	DP	476	0	510	18	0
74	e	487	0	523	15	0
75	DQ	449	0	426	9	0
75	f	454	0	431	10	0
76	DR	461	0	499	17	0
76	g	474	0	515	7	0
77	DS	574	0	606	32	0
77	h	574	0	606	38	0
78	AR	2398	0	2374	68	0
78	DT	2398	0	2374	83	0
79	CZ	913	0	934	53	0
79	O	293	0	305	15	0
80	P0	845	0	884	38	0
80	p0	487	0	511	71	0
81	12	472	0	471	31	0
82	L1	1711	0	1817	78	0
82	l1	1661	0	1767	111	0
83	1	57	0	52	4	0
83	AS	57	0	52	2	0
84	0	3	0	0	0	0
84	1	636	0	0	0	0
84	2	2	0	0	0	0
84	3	19	0	0	0	0
84	4	15	0	0	0	0
84	6	3	0	0	0	0
84	8	1	0	0	0	0
84	9	1	0	0	0	0
84	AA	1	0	0	0	0
84	AB	2	0	0	0	0
84	AC	2	0	0	0	0
84	AD	2	0	0	0	0
84	AE	2	0	0	0	0
84	AF	2	0	0	0	0
84	AG	2	0	0	0	0
84	AH	1	0	0	0	0
84	AI	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
84	AJ	1	0	0	0	0
84	AM	1	0	0	0	0
84	AO	1	0	0	0	0
84	AP	2	0	0	0	0
84	AR	1	0	0	0	0
84	AS	433	0	0	0	0
84	AT	14	0	0	0	0
84	AU	9	0	0	0	0
84	AW	4	0	0	0	0
84	AX	1	0	0	0	0
84	AY	1	0	0	0	0
84	B	197	0	0	0	0
84	BB	6	0	0	0	0
84	BE	3	0	0	0	0
84	BF	1	0	0	0	0
84	BH	1	0	0	0	0
84	BI	1	0	0	0	0
84	BJ	4	0	0	0	0
84	BK	1	0	0	0	0
84	BN	3	0	0	0	0
84	BO	2	0	0	0	0
84	BS	2	0	0	0	0
84	BV	1	0	0	0	0
84	BZ	4	0	0	0	0
84	CA	2	0	0	0	0
84	CJ	1	0	0	0	0
84	CL	4	0	0	0	0
84	CM	183	0	0	0	0
84	CN	1	0	0	0	0
84	CO	1	0	0	0	0
84	CP	1	0	0	0	0
84	CQ	3	0	0	0	0
84	CW	2	0	0	0	0
84	CY	1	0	0	0	0
84	D	2	0	0	0	0
84	DA	1	0	0	0	0
84	DB	3	0	0	0	0
84	DG	2	0	0	0	0
84	DJ	2	0	0	0	0
84	E	1	0	0	0	0
84	G	1	0	0	0	0
84	I	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
84	J	1	0	0	0	0
84	K	2	0	0	0	0
84	Q	2	0	0	0	0
84	R	1	0	0	0	0
84	U	1	0	0	0	0
84	Y	3	0	0	0	0
84	Z	3	0	0	0	0
84	a	1	0	0	0	0
84	c	1	0	0	0	0
84	f	1	0	0	0	0
84	g	1	0	0	0	0
84	i	1	0	0	0	0
84	j	3	0	0	0	0
84	k	7	0	0	0	0
84	o	6	0	0	0	0
84	r	3	0	0	0	0
84	s	1	0	0	0	0
84	u	2	0	0	0	0
84	v	4	0	0	0	0
84	w	4	0	0	0	0
84	x	3	0	0	0	0
84	y	3	0	0	0	0
84	z	1	0	0	0	0
85	AH	1	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	CB	1	0	0	0	0
85	CE	1	0	0	0	0
85	CH	1	0	0	0	0
85	CJ	1	0	0	0	0
85	CK	1	0	0	0	0
85	DN	1	0	0	0	0
85	DO	1	0	0	0	0
85	DQ	1	0	0	0	0
85	DS	1	0	0	0	0
85	c	1	0	0	0	0
85	d	1	0	0	0	0
85	f	1	0	0	0	0
85	h	1	0	0	0	0
86	1	23	0	0	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	AS	22	0	0	0	0
86	B	12	0	0	0	0
86	BQ	2	0	0	1	0
86	l	1	0	0	0	0
All	All	408874	0	303731	7077	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 10.

All (7077) 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)
69:Z:107:PHE:CE2	69:Z:114:LYS:HD3	1.30	1.59
69:Z:107:PHE:HE2	69:Z:114:LYS:CD	1.37	1.35
46:B:671:G:H3'	46:B:672:U:H5'	1.33	1.09
1:1:1233:G:H1	1:1:1247:A:N6	1.52	1.06
82:l1:26:ARG:NH1	82:l1:210:MET:SD	2.37	0.98
1:AS:1870:A:N7	20:BM:20:ARG:NH2	2.12	0.98
65:V:117:SER:HB2	65:V:123:ARG:HB2	1.44	0.97
80:p0:33:VAL:HG22	80:p0:37:GLN:HB3	1.44	0.97
54:CU:25:GLU:HB2	54:CU:31:LYS:HG3	1.43	0.95
46:B:701:G:H2'	46:B:702:G:H2'	1.47	0.95
80:p0:57:THR:HA	80:p0:60:ARG:HD2	1.45	0.95
46:CM:694:C:H3'	46:CM:695:C:H5"	1.45	0.95
69:Z:107:PHE:CE2	69:Z:114:LYS:CD	2.23	0.94
1:AS:437:G:H22	1:AS:620:A:H61	1.12	0.93
1:AS:1014:G:H1	1:AS:1030:U:H3	0.99	0.93
1:AS:538:G:H1	1:AS:547:U:H3	0.94	0.92
82:l1:59:PRO:HB3	82:l1:169:VAL:HB	1.50	0.92
46:CM:218:A:H3'	46:CM:219:A:H5"	1.51	0.92
1:1:1241:A:H3'	1:1:1242:G:H5"	1.51	0.91
46:CM:701:G:H5'	53:CT:230:ARG:HH12	1.35	0.91
46:B:697:U:H3	46:B:724:G:H1	1.19	0.90
78:DT:42:LEU:HB2	78:DT:62:PHE:HB2	1.51	0.90
1:AS:1241:A:H3'	1:AS:1242:G:H5"	1.54	0.89
50:CQ:215:GLU:HG3	50:CQ:216:ASP:H	1.37	0.89
46:B:853:G:H1	46:B:945:U:H3	1.21	0.89
46:B:880:G:H1	46:B:902:U:H3	1.16	0.89
46:CM:1276:G:H1	46:CM:1309:G:H22	1.19	0.89
16:BI:42:PRO:HD3	16:BI:61:ILE:HG13	1.53	0.89
1:1:1233:G:N2	1:1:1247:A:N1	2.20	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:P0:55:LYS:HD3	80:P0:58:MET:HG3	1.56	0.88
1:1:1253:C:H42	1:1:1257:G:N2	1.73	0.87
35:AH:58:ARG:HD3	35:AH:59:PRO:HD2	1.56	0.87
46:CM:880:G:H1	46:CM:902:U:H3	1.22	0.87
1:AS:2467:C:H3'	1:AS:2468:C:H2'	1.57	0.86
1:AS:3165:U:C2	1:AS:3166:A:H1'	2.11	0.86
35:CB:58:ARG:HD3	35:CB:59:PRO:HD2	1.54	0.86
1:1:1253:C:H42	1:1:1257:G:H22	1.23	0.86
46:B:512:G:H1	46:B:541:C:H5	1.19	0.86
30:AC:8:THR:HG22	30:AC:10:HIS:H	1.42	0.85
46:B:671:G:H5"	46:B:672:U:H6	1.39	0.85
46:CM:484:G:H1	46:CM:499:U:H3	0.87	0.85
1:1:3235:A:N7	8:n:45:ARG:NH1	2.24	0.85
46:B:869:A:H62	46:B:913:U:H3	1.23	0.85
1:AS:2836:A:H5"	12:BE:114:GLY:HA2	1.58	0.85
1:AS:617:A:H5'	1:AS:619:A:H1'	1.58	0.85
81:12:149:HIS:H	81:12:152:ILE:HD12	1.41	0.84
1:1:617:A:H5'	1:1:619:A:H1'	1.59	0.84
13:s:61:ARG:NH1	45:i:42:ALA:O	2.11	0.83
78:DT:75:SER:HA	78:DT:116:ILE:HD13	1.60	0.83
46:CM:1410:A:H2'	49:CP:87:ALA:HB3	1.61	0.83
7:AZ:41:LYS:NZ	22:BO:32:LYS:O	2.12	0.83
54:CU:81:PHE:HB3	54:CU:84:ARG:HD2	1.58	0.83
55:CV:139:ALA:HB3	55:CV:141:ARG:HH12	1.43	0.83
46:CM:726:C:O2	54:CU:103:ARG:NH2	2.12	0.82
46:CM:538:G:N2	76:DR:25:GLU:OE2	2.11	0.82
78:DT:158:SER:HA	78:DT:201:LEU:HD12	1.60	0.82
51:G:11:ARG:HH12	51:G:24:SER:HB3	1.44	0.82
57:M:17:GLN:H	57:M:88:PRO:HB3	1.43	0.82
1:AS:2445:G:N2	1:AS:2467:C:O2	2.13	0.82
46:B:1236:U:O2'	46:B:1237:C:O2	1.98	0.82
51:CR:45:VAL:HG23	51:CR:61:VAL:HG11	1.59	0.82
82:l1:73:ASP:O	82:l1:75:ASP:N	2.13	0.82
46:B:484:G:H1	46:B:499:U:H3	1.28	0.81
69:Z:107:PHE:CD2	69:Z:114:LYS:HD3	2.12	0.81
46:CM:2:A:OP1	49:CP:171:LYS:NZ	2.13	0.81
1:1:1248:A:H2'	1:1:1249:U:H5'	1.60	0.81
45:i:64:LEU:HA	45:i:67:LYS:HE2	1.60	0.81
46:CM:1236:U:O2'	46:CM:1237:C:O2	1.97	0.81
68:DJ:11:LEU:HD11	68:DJ:37:PHE:HE2	1.44	0.81
30:BW:8:THR:HG22	30:BW:10:HIS:H	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2139:G:H5"	4:AW:227:ARG:HH12	1.44	0.81
46:B:217:A:N6	46:B:828:U:O2	2.14	0.81
77:h:150:VAL:HG11	79:O:74:LEU:HA	1.60	0.80
1:1:2836:A:H5"	12:r:114:GLY:HA2	1.63	0.80
54:CU:94:ILE:HD13	54:CU:114:LEU:HD12	1.61	0.80
78:AR:42:LEU:HB2	78:AR:62:PHE:HB2	1.63	0.80
1:1:2850:G:H5"	5:k:5:LYS:HE2	1.62	0.80
42:AO:7:LYS:NZ	46:B:1761:G:OP1	2.14	0.80
1:AS:2428:G:H22	1:AS:2475:U:H3	1.30	0.80
64:DF:49:LYS:NZ	64:DF:80:LYS:O	2.14	0.80
46:B:1334:G:N3	46:B:1365:C:N4	2.29	0.80
1:AS:2461:G:H22	1:AS:2464:A:H5"	1.45	0.80
77:DS:157:GLU:HG2	77:DS:159:LEU:HG	1.61	0.80
46:CM:853:G:H1	46:CM:945:U:H3	1.28	0.79
1:AS:1542:A:N7	16:BI:71:ARG:NH1	2.29	0.79
1:1:1631:G:N2	1:1:1634:A:OP2	2.15	0.79
52:H:95:ASN:OD1	52:H:107:LYS:NZ	2.15	0.79
45:CL:124:ASP:OD2	50:CQ:118:ARG:NH1	2.15	0.79
59:DA:54:LEU:HB3	59:DA:60:VAL:HB	1.64	0.79
1:1:2086:C:H1'	1:1:3309:A:C8	2.17	0.79
46:B:509:A:OP2	56:L:176:ASN:ND2	2.13	0.79
1:AS:1561:U:O2'	1:AS:1562:G:OP1	2.00	0.79
68:DJ:75:ILE:HD11	68:DJ:93:LEU:HD11	1.64	0.79
1:AS:1203:G:OP1	41:CH:43:ASN:ND2	2.16	0.79
80:P0:25:ILE:HD11	80:P0:88:PHE:HA	1.65	0.79
54:J:48:ASN:OD1	54:J:167:GLN:NE2	2.14	0.78
1:AS:1657:G:H2'	1:AS:1658:G:C8	2.18	0.78
18:BK:50:GLN:OE1	18:BK:56:ARG:NH2	2.15	0.78
13:s:92:ARG:HD3	13:s:174:LYS:HE3	1.65	0.78
54:J:25:GLU:HG3	54:J:35:ARG:HH12	1.48	0.78
1:AS:185:U:H3	1:AS:229:C:H42	1.31	0.78
64:DF:134:ARG:HB2	64:DF:136:GLN:HE22	1.47	0.78
69:Z:107:PHE:CD2	69:Z:114:LYS:HB3	2.18	0.78
79:CZ:135:ILE:HA	79:CZ:138:GLU:OE2	1.82	0.78
1:AS:1562:G:N2	1:AS:1564:U:O4	2.17	0.78
18:x:50:GLN:OE1	18:x:56:ARG:NH2	2.17	0.77
11:BD:92:PHE:HB2	11:BD:142:ASP:HB3	1.66	0.77
82:l1:26:ARG:H	82:l1:26:ARG:HD3	1.49	0.77
1:AS:449:U:H2'	1:AS:450:G:C8	2.18	0.77
69:DK:107:PHE:HD2	69:DK:114:LYS:HD3	1.49	0.77
57:CX:54:TYR:HD1	57:CX:72:GLY:HA2	1.49	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:p0:10:GLN:HA	80:p0:13:SER:HB2	1.67	0.77
1:AS:564:G:H2'	1:AS:565:A:C8	2.20	0.77
53:CT:159:ARG:NH1	53:CT:170:THR:OG1	2.18	0.77
1:1:2736:C:H42	83:1:3401:3K5:H2	1.49	0.77
48:CO:97:LEU:HD22	48:CO:232:HIS:CD2	2.20	0.77
78:DT:102:GLN:NE2	78:DT:138:ILE:O	2.15	0.77
23:5:19:VAL:HG23	23:5:20:ALA:H	1.49	0.77
23:BP:19:VAL:HG23	23:BP:20:ALA:H	1.49	0.77
1:AS:437:G:N2	1:AS:620:A:H61	1.82	0.77
47:CN:200:ASP:HB2	63:DE:85:VAL:HG23	1.65	0.77
13:BF:7:ASN:OD1	13:BF:10:ARG:HG3	1.84	0.77
46:CM:672:U:H1'	46:CM:673:A:C5	2.20	0.77
63:DE:20:PHE:O	63:DE:24:LEU:HD12	1.85	0.77
24:BQ:80:ARG:NH1	24:BQ:97:ASP:OD1	2.18	0.77
46:CM:1152:G:H21	62:DD:138:GLN:HE22	1.33	0.77
1:1:572:U:H2'	1:1:573:G:H8	1.49	0.76
46:CM:151:G:O6	70:DL:128:ARG:NH2	2.18	0.76
46:B:4:C:O2'	56:L:17:ARG:NH2	2.17	0.76
46:B:635:C:O2	54:J:110:ARG:NH2	2.18	0.76
46:CM:1529:G:N2	46:CM:1556:A:OP2	2.18	0.76
82:l1:12:ASN:HB3	82:l1:206:ILE:HG21	1.66	0.76
46:B:671:G:H5"	46:B:672:U:H2'	1.67	0.76
47:C:124:THR:HG22	47:C:174:TRP:HE1	1.50	0.76
1:1:1091:U:H4'	1:1:1092:U:H5'	1.66	0.76
1:1:1231:U:H4'	1:1:1232:G:H5'	1.66	0.76
1:1:1279:C:H2'	1:1:1280:C:H6	1.50	0.76
1:AS:2444:G:N2	1:AS:2467:C:O2'	2.18	0.76
45:CL:156:ALA:HB1	57:CX:17:GLN:HG2	1.67	0.76
45:i:63:ALA:O	45:i:65:LYS:N	2.18	0.76
46:B:352:C:H5"	55:K:16:ALA:HB2	1.67	0.76
74:e:8:THR:HG21	74:e:59:SER:HB2	1.68	0.76
1:AS:1631:G:N2	1:AS:1634:A:OP2	2.18	0.76
46:B:1395:G:N2	46:B:1398:G:OP2	2.19	0.76
1:AS:3313:G:H1	1:AS:3322:U:H3	1.31	0.76
1:1:1436:G:OP1	6:l:84:HIS:NE2	2.19	0.76
46:B:1375:C:O5'	63:T:48:ASN:ND2	2.19	0.76
50:F:138:VAL:HG22	50:F:152:LYS:HG2	1.66	0.76
79:CZ:82:PRO:HG3	79:CZ:85:LYS:HA	1.68	0.75
1:AS:1767:G:H4'	23:BP:103:GLN:HE21	1.51	0.75
46:B:853:G:OP1	59:P:121:ARG:NH1	2.19	0.75
46:B:1230:G:H1	46:B:1235:U:H3	1.34	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CP:211:ALA:O	49:CP:215:ASN:ND2	2.19	0.75
12:BE:30:LYS:HG3	12:BE:63:GLU:HG3	1.68	0.75
46:CM:345:G:H5"	58:CY:85:ILE:HD11	1.67	0.75
46:CM:1156:A:H2'	46:CM:1157:G:C8	2.21	0.75
1:1:1519:U:H5'	26:8:113:LEU:HD13	1.67	0.75
1:1:3194:G:H5'	15:u:129:VAL:HG21	1.66	0.75
46:CM:586:U:OP2	76:DR:26:LYS:NZ	2.20	0.75
1:1:2470:C:H1'	82:l1:207:LYS:HE3	1.68	0.75
1:AS:1218:G:H4'	1:AS:1219:A:H5"	1.69	0.75
45:CL:67:LYS:HG2	64:DF:129:TRP:HZ2	1.52	0.75
1:1:1657:G:H2'	1:1:1658:G:C8	2.22	0.74
11:q:92:PHE:HB2	11:q:142:ASP:HB3	1.68	0.74
57:M:77:ARG:NH1	57:M:83:PRO:O	2.19	0.74
1:AS:3162:U:H3	1:AS:3166:A:H2	1.32	0.74
19:BL:96:PHE:O	19:BL:117:ASN:ND2	2.19	0.74
1:1:653:C:H2'	1:1:654:A:H8	1.51	0.74
46:B:653:G:N2	46:B:676:G:N7	2.36	0.74
15:u:17:ARG:NH2	15:u:58:THR:O	2.20	0.74
53:I:159:ARG:NH1	53:I:170:THR:OG1	2.19	0.74
1:AS:2334:A:N3	18:BK:131:ARG:NH2	2.35	0.74
78:DT:158:SER:HA	78:DT:201:LEU:CD1	2.17	0.74
5:AX:10:ARG:NH2	5:AX:263:THR:O	2.20	0.74
64:DF:69:ILE:HG22	64:DF:73:MET:HE2	1.69	0.74
1:1:2200:A:H2'	1:1:2201:A:C8	2.22	0.74
1:1:2420:G:H1	1:1:2483:U:H3	1.35	0.74
19:y:96:PHE:O	19:y:117:ASN:ND2	2.20	0.74
26:8:75:LYS:HB3	26:8:81:THR:HG23	1.68	0.74
46:B:218:A:OP2	46:B:817:U:H5'	1.87	0.74
46:B:1673:U:H2'	46:B:1674:U:O4'	1.85	0.74
82:l1:33:GLU:HA	82:l1:168:ALA:HB3	1.69	0.74
46:B:871:U:OP1	48:D:214:LYS:NZ	2.20	0.74
1:AS:2455:G:O2'	1:AS:2456:C:O5'	2.05	0.74
46:CM:1042:U:H3'	46:CM:1043:U:H2'	1.70	0.74
55:CV:139:ALA:HB3	55:CV:141:ARG:NH1	2.03	0.74
80:P0:45:LEU:HD21	80:P0:99:ILE:HB	1.70	0.74
1:1:2191:A:H2'	1:1:2192:A:C8	2.22	0.74
46:B:1579:A:H2'	46:B:1580:A:H8	1.53	0.74
46:B:766:U:H4'	46:B:767:G:H5"	1.70	0.73
46:B:1511:A:H2'	46:B:1512:A:C8	2.23	0.73
20:BM:30:THR:O	20:BM:34:ASN:ND2	2.20	0.73
1:1:1273:C:H2'	1:1:1274:A:H8	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:833:A:OP2	44:CK:4:ARG:NH1	2.20	0.73
1:AS:1091:U:H4'	1:AS:1092:U:H5'	1.68	0.73
79:CZ:129:ASP:HA	79:CZ:133:ARG:HD3	1.70	0.73
46:B:721:C:O2'	46:B:722:A:H5'	1.88	0.73
82:l1:36:VAL:HA	82:l1:204:LEU:HA	1.70	0.73
1:1:3194:G:H4'	15:u:129:VAL:HG11	1.70	0.73
1:1:3254:G:H2'	1:1:3255:G:H8	1.53	0.73
64:U:140:THR:HA	64:U:143:ARG:HH21	1.54	0.73
46:CM:139:U:OP1	53:CT:149:LYS:NZ	2.20	0.73
1:AS:1653:C:O2'	1:AS:1793:A:OP2	2.06	0.73
46:B:653:G:N1	46:B:677:G:O6	2.20	0.73
1:1:1251:C:H2'	1:1:1252:G:H8	1.53	0.73
1:1:3199:G:H1	1:1:3218:U:H3	1.37	0.73
8:n:71:ASN:ND2	8:n:159:LEU:O	2.21	0.73
46:B:219:A:H5"	46:B:818:U:H1'	1.71	0.73
80:p0:11:TYR:HE2	80:p0:58:MET:HG2	1.54	0.73
46:B:747:A:OP1	56:L:79:ARG:NH2	2.22	0.73
82:l1:53:LEU:HB3	82:l1:189:PHE:HZ	1.53	0.73
52:H:29:ILE:HB	52:H:34:GLN:HE21	1.54	0.73
1:AS:480:G:H2'	1:AS:480:G:N3	2.02	0.73
46:CM:636:C:OP2	68:DJ:32:LYS:NZ	2.20	0.73
65:DG:130:ARG:NH1	65:DG:131:ASP:OD1	2.22	0.72
77:DS:168:CYS:SG	77:DS:186:CYS:HB3	2.28	0.72
46:B:856:G:H2'	46:B:857:G:C8	2.24	0.72
1:1:2334:A:H61	1:1:2955:C:H5	1.36	0.72
46:B:211:A:H62	46:B:250:U:H3	1.37	0.72
46:CM:1520:C:OP2	71:DM:77:ARG:NH1	2.20	0.72
1:1:2428:G:H22	1:1:2475:U:H3	1.37	0.72
55:K:136:VAL:O	55:K:141:ARG:NH2	2.23	0.72
78:AR:16:HIS:CE1	78:AR:37:SER:HB2	2.24	0.72
1:1:269:G:H5"	16:v:14:LYS:HE2	1.71	0.72
17:BJ:63:THR:HG21	17:BJ:69:LYS:HB2	1.71	0.72
1:1:1249:U:OP1	81:12:137:GLN:NE2	2.23	0.72
3:4:150:G:OP1	26:8:27:ARG:NH2	2.23	0.72
1:AS:2492:U:OP2	1:AS:2558:G:N2	2.23	0.72
1:AS:3165:U:H2'	1:AS:3166:A:O4'	1.90	0.72
46:CM:148:C:H42	46:CM:162:A:H61	1.35	0.72
46:CM:502:U:H2'	46:CM:503:A:H8	1.53	0.72
1:1:1253:C:N4	1:1:1257:G:H22	1.86	0.72
3:4:63:G:H1	3:4:97:A:H61	1.38	0.72
32:AE:45:THR:HG21	32:AE:89:PHE:HA	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:139:U:OP1	53:I:149:LYS:NZ	2.17	0.72
1:AS:437:G:H22	1:AS:620:A:N6	1.86	0.72
46:CM:122:U:H2'	46:CM:123:G:H5"	1.71	0.72
12:r:30:LYS:HG3	12:r:63:GLU:HG3	1.70	0.72
23:BP:16:VAL:HG12	23:BP:65:VAL:HG22	1.72	0.72
1:1:3021:A:N1	24:6:86:ARG:NH2	2.38	0.72
46:CM:1255:G:OP2	77:DS:122:ARG:NH2	2.23	0.72
63:DE:27:ASP:OD2	78:DT:38:ARG:NH2	2.19	0.72
1:1:3157:A:OP1	11:q:23:ARG:NH1	2.23	0.71
15:BH:17:ARG:NH2	15:BH:58:THR:O	2.23	0.71
23:BP:68:VAL:HG12	23:BP:69:SER:H	1.54	0.71
57:CX:15:LEU:O	57:CX:19:GLY:HA2	1.89	0.71
80:p0:14:LYS:O	80:p0:18:LEU:N	2.17	0.71
1:1:564:G:H2'	1:1:565:A:C8	2.25	0.71
1:1:831:G:O2'	1:1:853:G:N2	2.21	0.71
1:1:1251:C:H2'	1:1:1252:G:C8	2.25	0.71
46:CM:1698:U:H2'	46:CM:1699:G:H4'	1.72	0.71
46:B:1156:A:H2'	46:B:1157:G:C8	2.26	0.71
66:W:34:GLU:OE2	66:W:88:ARG:NH2	2.23	0.71
72:DN:74:CYS:SG	72:DN:75:VAL:N	2.63	0.71
1:1:1199:A:H2'	1:1:1200:A:C8	2.25	0.71
46:B:122:U:H2'	46:B:123:G:H5"	1.72	0.71
52:H:156:ARG:HH12	74:e:67:ARG:HG3	1.56	0.71
1:AS:1034:U:H1'	7:AZ:3:MET:HE3	1.72	0.71
47:C:84:ARG:NH1	47:C:203:PHE:O	2.24	0.71
5:AX:35:ASP:OD2	5:AX:191:LYS:NZ	2.21	0.71
46:CM:766:U:H4'	46:CM:767:G:H5"	1.72	0.71
46:CM:1239:U:OP1	79:CZ:50:LYS:NZ	2.24	0.71
6:l:42:ARG:HD2	6:l:114:VAL:HG22	1.73	0.71
46:B:1240:G:N7	79:O:46:ARG:NH2	2.36	0.71
31:BX:57:GLU:HB2	35:CB:94:LEU:HD11	1.72	0.71
46:CM:690:C:H2'	46:CM:691:U:C6	2.26	0.71
46:CM:1275:U:H2'	46:CM:1276:G:C8	2.26	0.71
82:L1:54:LYS:HD2	82:L1:150:ASP:HB3	1.73	0.71
1:AS:628:A:H2'	1:AS:629:A:C8	2.25	0.71
46:CM:820:U:H2'	46:CM:821:U:C6	2.26	0.71
46:CM:1067:C:H4'	67:DI:58:TYR:HE1	1.56	0.71
46:CM:1669:U:O4	46:CM:1707:G:N2	2.24	0.71
54:CU:5:ILE:HG21	54:CU:10:PRO:HB3	1.72	0.71
66:DH:41:ILE:HD11	66:DH:54:PRO:HD3	1.73	0.71
46:CM:476:A:OP1	76:DR:37:ARG:NH1	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1229:G:N2	81:12:131:GLU:OE2	2.24	0.71
1:1:2334:A:N3	18:x:131:ARG:NH2	2.38	0.71
46:CM:482:C:H2'	46:CM:483:A:C8	2.26	0.71
66:DH:21:ILE:HG12	66:DH:117:ILE:HG12	1.72	0.71
46:B:1460:G:H2'	46:B:1461:A:H8	1.55	0.70
1:AS:538:G:N2	1:AS:547:U:O2	2.23	0.70
65:V:53:TRP:HH2	65:V:100:ILE:HD12	1.56	0.70
6:AY:290:LEU:HD22	19:BL:129:LEU:HD11	1.72	0.70
1:AS:2669:A:H2'	1:AS:2670:G:C8	2.27	0.70
3:AU:122:U:H3	3:AU:131:G:H1	1.39	0.70
10:BC:42:GLN:OE1	10:BC:45:ARG:NH2	2.23	0.70
82:l1:53:LEU:HB3	82:l1:189:PHE:CZ	2.26	0.70
1:1:2932:C:H2'	1:1:2933:G:C8	2.26	0.70
1:AS:831:G:O2'	1:AS:853:G:N2	2.21	0.70
68:DJ:88:ARG:O	68:DJ:92:ASN:ND2	2.24	0.70
1:1:628:A:H2'	1:1:629:A:C8	2.26	0.70
1:1:2899:C:H2'	1:1:2900:C:C6	2.27	0.70
67:X:38:LYS:HD2	67:X:49:GLU:HG3	1.73	0.70
1:AS:412:G:H21	18:BK:118:GLN:HE22	1.39	0.70
15:BH:23:ASN:ND2	15:BH:23:ASN:O	2.24	0.70
16:v:183:THR:HG22	16:v:187:ARG:HB2	1.73	0.70
46:B:1665:C:OP1	55:K:59:ARG:NH2	2.24	0.70
51:G:100:ARG:NH2	51:G:121:TYR:O	2.24	0.70
13:s:46:VAL:HG12	45:i:33:ASN:HB3	1.73	0.70
48:CO:30:PHE:CE1	48:CO:46:THR:HB	2.27	0.70
78:DT:117:ALA:HB2	78:DT:122:GLN:HB2	1.71	0.70
81:12:155:ILE:HG13	81:12:159:GLU:HB3	1.74	0.70
1:AS:662:U:H2'	1:AS:663:A:C8	2.27	0.70
46:CM:671:G:H3'	46:CM:672:U:H5'	1.74	0.70
46:CM:1678:G:H1	46:CM:1698:U:H3	1.39	0.70
46:B:345:G:H5"	58:N:85:ILE:HD11	1.73	0.70
46:B:650:G:H3'	46:B:678:A:H61	1.57	0.70
25:BR:97:LYS:HG3	25:BR:98:PRO:HD3	1.74	0.70
45:CL:42:ALA:O	45:CL:44:ALA:N	2.25	0.70
50:CQ:128:MET:HE2	50:CQ:135:VAL:HG12	1.74	0.70
80:P0:52:LEU:HB3	80:P0:86:PHE:HB2	1.73	0.70
57:M:88:PRO:HD2	57:M:91:ARG:HB2	1.74	0.69
1:AS:153:U:OP2	36:CC:103:LYS:NZ	2.21	0.69
20:BM:160:GLU:OE2	20:BM:163:ARG:NH1	2.25	0.69
46:CM:1410:A:H2'	49:CP:87:ALA:CB	2.22	0.69
51:CR:11:ARG:HH12	51:CR:24:SER:HB2	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:1239:U:OP2	79:O:46:ARG:NH1	2.24	0.69
50:F:63:GLN:OE1	50:F:65:ARG:NH2	2.25	0.69
50:F:124:LEU:HD11	50:F:153:TYR:HB3	1.74	0.69
2:AT:39:U:H5'	45:CL:33:ASN:HD22	1.56	0.69
1:1:3254:G:H2'	1:1:3255:G:C8	2.27	0.69
11:q:80:THR:HA	11:q:83:THR:HG22	1.74	0.69
1:AS:1217:A:C5	80:p0:12:PHE:HD2	2.10	0.69
1:AS:1760:U:OP1	20:BM:43:LYS:HE2	1.92	0.69
1:1:2395:U:H5"	4:j:221:LYS:HE3	1.75	0.69
46:B:1219:A:O2'	77:h:187:HIS:ND1	2.21	0.69
46:B:1276:G:H1	46:B:1309:G:H22	1.39	0.69
51:G:45:VAL:HG23	51:G:61:VAL:HG11	1.72	0.69
62:S:26:GLY:HA2	62:S:62:ILE:O	1.93	0.69
6:AY:301:ARG:NH2	19:BL:38:ARG:O	2.25	0.69
1:1:662:U:H2'	1:1:663:A:C8	2.27	0.69
1:AS:2812:C:N4	1:AS:2817:A:O2'	2.23	0.69
46:CM:78:A:H8	53:CT:154:ARG:HG3	1.55	0.69
46:CM:1668:A:H8	53:CT:65:GLN:HG3	1.58	0.69
51:CR:148:ARG:NH2	53:CT:201:GLN:OE1	2.25	0.69
82:L1:67:ILE:HG22	82:L1:68:PHE:H	1.57	0.69
82:l1:205:VAL:HG13	82:l1:213:SER:HB3	1.74	0.69
4:AW:36:GLU:OE1	4:AW:163:ARG:NH1	2.24	0.69
18:BK:18:ARG:NH1	18:BK:147:GLU:OE1	2.24	0.69
46:CM:482:C:H2'	46:CM:483:A:H8	1.56	0.69
1:1:483:U:H2'	1:1:484:U:C6	2.28	0.69
1:1:2941:A:N7	4:j:215:ASN:ND2	2.41	0.69
12:BE:43:VAL:HG21	12:BE:197:VAL:HG13	1.74	0.69
53:CT:1:MET:HE2	53:CT:106:LEU:HB2	1.75	0.69
82:L1:30:GLU:H	82:L1:172:VAL:HB	1.57	0.69
1:1:1936:G:H21	1:1:3327:A:H8	1.39	0.69
1:AS:1020:G:N2	1:AS:1023:A:OP2	2.26	0.69
46:CM:502:U:H2'	46:CM:503:A:C8	2.27	0.69
46:CM:700:G:O2'	46:CM:701:G:O5'	2.09	0.69
46:CM:972:G:N2	46:CM:998:A:OP1	2.25	0.69
46:CM:1219:A:HO2'	77:DS:182:TYR:HH	1.39	0.69
79:CZ:75:VAL:HA	79:CZ:78:LEU:HG	1.74	0.69
62:DD:98:GLU:HG3	62:DD:101:LYS:HE3	1.74	0.69
65:DG:42:GLY:HA2	65:DG:84:LYS:HG3	1.75	0.69
4:j:101:ILE:HG12	4:j:165:VAL:HG22	1.74	0.69
6:l:290:LEU:HD22	19:y:129:LEU:HD11	1.75	0.69
1:AS:3262:U:O4	5:AX:124:LYS:NZ	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:DT:19:TRP:HB2	78:DT:38:ARG:HD2	1.75	0.69
13:s:109:HIS:HD2	13:s:123:TYR:H	1.42	0.69
32:AE:45:THR:HG22	32:AE:47:ASP:H	1.58	0.69
57:M:77:ARG:HD2	57:M:84:GLU:HA	1.74	0.69
1:AS:2191:A:H2'	1:AS:2192:A:C8	2.27	0.69
1:AS:2530:C:OP1	35:CB:102:LYS:NZ	2.24	0.69
1:AS:3318:G:H5"	1:AS:3319:U:H4'	1.74	0.69
46:CM:216:A:N6	46:CM:829:A:O2'	2.26	0.69
46:CM:1156:A:H2'	46:CM:1157:G:H8	1.58	0.69
53:CT:57:ASP:HA	53:CT:106:LEU:HA	1.73	0.69
80:P0:71:PRO:O	80:P0:73:PHE:N	2.24	0.69
82:L1:66:CYS:HB2	82:L1:83:ASP:HB2	1.75	0.69
80:p0:19:LEU:HD23	80:p0:66:PHE:CD2	2.28	0.69
1:AS:1436:G:OP1	6:AY:84:HIS:NE2	2.25	0.68
1:1:1903:C:O2	5:k:240:ARG:NH2	2.26	0.68
46:B:903:U:H2'	46:B:904:A:C8	2.29	0.68
80:p0:15:LEU:O	80:p0:19:LEU:HB2	1.93	0.68
35:AH:81:CYS:SG	35:AH:82:ALA:N	2.67	0.68
52:H:72:HIS:CD2	52:H:107:LYS:HD3	2.29	0.68
62:S:37:LEU:HD22	65:V:10:PRO:HG3	1.76	0.68
1:1:2869:A:OP2	41:AN:48:LYS:NZ	2.24	0.68
3:4:57:C:OP2	38:AK:68:LYS:NZ	2.26	0.68
46:B:1463:G:H2'	46:B:1464:G:H8	1.58	0.68
1:AS:653:C:H2'	1:AS:654:A:H8	1.57	0.68
46:CM:856:G:H2'	46:CM:857:G:C8	2.28	0.68
62:DD:86:LYS:HG2	62:DD:116:LEU:HD13	1.75	0.68
1:1:2679:U:O2'	45:i:37:LYS:O	2.11	0.68
6:l:113:LYS:HE3	16:v:202:TYR:HB3	1.75	0.68
46:B:1130:U:O2'	49:E:84:GLN:O	2.11	0.68
63:T:103:ASP:OD1	63:T:104:ALA:N	2.26	0.68
1:AS:654:A:H2'	1:AS:655:A:C8	2.28	0.68
1:1:2812:C:N4	1:1:2817:A:O2'	2.26	0.68
46:B:1026:G:H2'	46:B:1027:G:C8	2.29	0.68
46:CM:1043:U:O2'	46:CM:1045:U:OP2	2.12	0.68
1:1:934:C:H2'	1:1:935:U:H5"	1.75	0.68
46:B:944:U:O2	59:P:61:SER:OG	2.12	0.68
46:B:1354:U:N3	46:B:1355:A:N7	2.41	0.68
46:B:1698:U:H2'	46:B:1699:G:O4'	1.93	0.68
1:AS:976:A:H2'	1:AS:977:U:H5'	1.75	0.68
1:AS:1662:G:H2'	1:AS:1663:A:H8	1.59	0.68
46:CM:255:A:N3	55:CV:64:ASN:ND2	2.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:m:85:ARG:NH2	7:m:250:ASP:OD2	2.27	0.68
50:F:54:SER:O	50:F:95:ARG:NH1	2.26	0.68
46:CM:327:G:H5"	55:CV:98:LYS:HB3	1.76	0.68
46:CM:697:U:H3	46:CM:724:G:H1	1.40	0.68
1:1:3207:G:OP1	17:w:160:LYS:NZ	2.17	0.68
17:BJ:62:ALA:HA	17:BJ:71:PRO:HD2	1.76	0.68
46:CM:1339:G:O6	46:CM:1354:U:O2	2.11	0.68
48:CO:190:PRO:HG2	48:CO:192:VAL:HG23	1.76	0.68
50:CQ:24:GLU:OE1	75:DQ:23:HIS:HE1	1.76	0.68
46:B:778:U:O2'	46:B:779:U:O2	2.12	0.68
46:B:854:A:H61	46:B:943:U:H5	1.42	0.68
46:CM:654:G:H8	46:CM:654:G:O5'	1.77	0.68
1:1:482:U:H2'	1:1:483:U:C6	2.30	0.67
1:1:1115:C:H2'	1:1:1116:A:H8	1.59	0.67
1:1:2669:A:H2'	1:1:2670:G:C8	2.29	0.67
46:B:697:U:HO2'	46:B:698:C:H6	1.42	0.67
15:BH:14:GLU:HG2	15:BH:17:ARG:HG2	1.75	0.67
45:CL:159:GLU:OE2	45:CL:163:GLN:NE2	2.26	0.67
46:CM:515:U:H2'	46:CM:516:A:H8	1.59	0.67
46:CM:530:U:OP2	56:CW:132:ARG:NH2	2.27	0.67
46:CM:847:A:O2'	46:CM:948:A:N1	2.27	0.67
46:CM:1324:C:O2'	46:CM:1326:A:N7	2.25	0.67
54:CU:48:ASN:OD1	54:CU:167:GLN:NE2	2.26	0.67
1:1:653:C:H2'	1:1:654:A:C8	2.29	0.67
43:AP:36:PHE:O	43:AP:41:ARG:NH1	2.27	0.67
46:B:589:A:H2'	46:B:590:A:C8	2.29	0.67
50:F:214:ASP:OD1	50:F:215:GLU:N	2.19	0.67
63:DE:78:ARG:HH11	63:DE:81:LYS:HD3	1.59	0.67
10:p:222:ASN:HA	10:p:226:LYS:HE2	1.76	0.67
18:x:32:THR:HG21	18:x:87:SER:HB3	1.74	0.67
1:AS:2709:C:O2'	30:BW:36:ASP:OD1	2.12	0.67
24:BQ:47:ASN:OD1	86:BQ:201:HOH:O	2.11	0.67
52:CS:116:HIS:HD2	71:DM:98:GLN:HB3	1.59	0.67
1:1:660:U:H2'	1:1:661:C:C6	2.30	0.67
46:B:1218:G:H1	46:B:1237:C:H5	1.41	0.67
1:AS:2634:G:H2'	1:AS:2635:A:C8	2.30	0.67
68:DJ:37:PHE:CE1	68:DJ:103:ILE:HG13	2.30	0.67
1:1:2442:U:O2'	1:1:2443:G:N7	2.27	0.67
55:K:191:GLU:HB3	58:N:23:PRO:HG3	1.75	0.67
22:BO:66:ASN:HD21	30:BW:36:ASP:H	1.41	0.67
68:DJ:37:PHE:HE1	68:DJ:103:ILE:HG13	1.57	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:k:35:ASP:OD2	5:k:191:LYS:NZ	2.21	0.67
46:CM:200:A:H2'	46:CM:201:U:C6	2.30	0.67
46:B:703:U:H2'	46:B:704:A:C5	2.30	0.67
46:B:1350:C:H5"	62:S:27:LEU:HD22	1.76	0.67
57:M:80:LEU:HB3	57:M:82:ILE:HG23	1.77	0.67
1:AS:3233:A:OP1	8:BA:45:ARG:NH2	2.28	0.67
46:CM:553:A:N3	46:CM:588:C:O2'	2.25	0.67
46:CM:1460:G:H2'	46:CM:1461:A:H8	1.60	0.67
46:CM:1463:G:H2'	46:CM:1464:G:H8	1.60	0.67
20:z:23:TRP:HB3	20:z:51:VAL:HG12	1.77	0.67
1:AS:2932:C:H2'	1:AS:2933:G:H8	1.60	0.67
46:CM:12:U:H2'	46:CM:13:C:C6	2.29	0.67
82:L1:10:ARG:HG2	82:L1:180:VAL:HG21	1.76	0.67
1:1:1782:G:H2'	1:1:1783:A:C8	2.30	0.67
63:T:27:ASP:O	63:T:31:ASN:ND2	2.26	0.67
1:AS:2155:G:OP2	4:AW:128:ARG:NH1	2.27	0.67
46:CM:1511:A:H2'	46:CM:1512:A:C8	2.30	0.67
54:CU:5:ILE:HG22	54:CU:7:SER:H	1.60	0.67
1:AS:1217:A:N7	80:p0:9:VAL:HA	2.08	0.67
1:AS:2988:A:H2'	1:AS:2989:A:H8	1.59	0.67
46:CM:647:C:O2'	46:CM:648:U:O5'	2.12	0.67
46:CM:849:U:OP1	68:DJ:28:ARG:NH1	2.28	0.67
46:CM:985:C:H5	46:CM:988:A:H5"	1.59	0.67
46:CM:1578:C:H2'	46:CM:1579:A:H8	1.59	0.67
46:CM:1701:A:H2'	46:CM:1702:A:C8	2.30	0.67
82:l1:194:LEU:HD13	82:l1:200:ASN:HB2	1.77	0.67
1:1:2932:C:H2'	1:1:2933:G:H8	1.59	0.66
50:F:65:ARG:HD2	57:M:91:ARG:HH11	1.59	0.66
78:AR:52:ASP:O	78:AR:53:ASN:ND2	2.28	0.66
46:CM:855:C:O2	73:DO:51:GLN:NE2	2.27	0.66
82:L1:116:LEU:HA	82:L1:119:GLN:HB2	1.75	0.66
1:1:307:A:H2'	1:1:308:A:C8	2.29	0.66
46:B:327:G:H5"	55:K:98:LYS:HB3	1.78	0.66
46:B:1238:U:H5"	77:h:172:ILE:HD12	1.77	0.66
46:B:1578:C:H2'	46:B:1579:A:H8	1.61	0.66
77:h:190:LEU:HB3	77:h:191:LYS:HD2	1.76	0.66
1:AS:93:G:H2'	1:AS:94:A:C8	2.30	0.66
1:AS:627:U:H2'	1:AS:628:A:C8	2.30	0.66
1:AS:1564:U:N3	1:AS:1568:U:O4	2.28	0.66
5:AX:284:ARG:NH2	5:AX:295:ALA:O	2.28	0.66
27:BT:39:LEU:HD22	27:BT:43:TYR:HE2	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CB:57:LEU:HB2	35:CB:62:TYR:CE1	2.31	0.66
46:CM:1598:A:OP1	52:CS:107:LYS:NZ	2.28	0.66
3:4:89:A:OP1	36:AI:1:MET:N	2.28	0.66
7:m:119:TYR:OH	7:m:139:PRO:O	2.13	0.66
52:H:200:ASN:HB3	52:H:208:SER:HB3	1.77	0.66
1:AS:429:U:H2'	1:AS:430:G:H8	1.59	0.66
14:BG:126:PHE:O	14:BG:130:THR:OG1	2.11	0.66
46:CM:211:A:H62	46:CM:250:U:H3	1.42	0.66
79:CZ:80:ASN:C	79:CZ:82:PRO:HD3	2.20	0.66
80:P0:43:LYS:HD3	81:12:121:PHE:HB3	1.76	0.66
1:1:3039:C:H3'	20:z:62:ARG:HH22	1.60	0.66
1:AS:2472:A:H1'	82:L1:163:LEU:HB2	1.76	0.66
1:AS:2932:C:H2'	1:AS:2933:G:C8	2.31	0.66
11:BD:47:LYS:HE3	11:BD:49:ASN:O	1.95	0.66
45:CL:101:LYS:NZ	46:CM:579:U:OP1	2.28	0.66
46:CM:1211:A:O2'	46:CM:1241:A:N1	2.26	0.66
46:CM:1400:U:H5"	63:DE:3:ARG:HE	1.59	0.66
82:L1:160:LYS:H	82:L1:162:VAL:HG12	1.61	0.66
1:1:2820:G:OP1	41:AN:24:TYR:OH	2.12	0.66
1:1:3014:U:OP2	1:1:3064:C:N4	2.29	0.66
48:D:190:PRO:HG2	48:D:192:VAL:HG23	1.77	0.66
1:AS:1217:A:N6	80:p0:9:VAL:HG13	2.11	0.66
1:AS:1479:G:O6	35:CB:4:ARG:NH2	2.26	0.66
1:AS:1761:U:C5	20:BM:43:LYS:HE3	2.30	0.66
23:BP:59:GLU:HG2	23:BP:60:SER:H	1.61	0.66
46:CM:1353:G:H5"	65:DG:69:LYS:HE3	1.77	0.66
46:CM:1543:A:OP1	61:DC:115:TYR:OH	2.12	0.66
82:L1:76:ARG:NH2	82:L1:139:SER:O	2.29	0.66
1:1:627:U:H2'	1:1:628:A:C8	2.31	0.66
1:1:2155:G:OP2	4:j:128:ARG:NH1	2.29	0.66
46:B:784:U:H2'	46:B:785:G:H8	1.61	0.66
46:B:1326:A:H1'	78:AR:66:SER:HB2	1.78	0.66
46:B:1543:A:OP1	61:R:115:TYR:OH	2.12	0.66
32:BY:45:THR:HG22	32:BY:47:ASP:H	1.60	0.66
46:CM:668:U:H3'	46:CM:669:G:H8	1.60	0.66
46:CM:1282:G:N2	46:CM:1285:A:OP2	2.23	0.66
82:l1:49:PHE:HB2	82:l1:193:LEU:HD22	1.77	0.66
1:1:976:A:H2'	1:1:977:U:H5'	1.77	0.66
1:1:2171:U:H5'	1:1:2172:G:H5'	1.78	0.66
46:B:1470:G:H21	46:B:1593:C:H1'	1.60	0.66
1:AS:316:U:O2'	37:CD:29:LYS:NZ	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AX:21:ARG:HE	5:AX:269:GLN:HG3	1.60	0.66
46:CM:747:A:OP1	56:CW:79:ARG:NH2	2.29	0.66
52:CS:72:HIS:CD2	52:CS:107:LYS:HD3	2.31	0.66
63:DE:75:GLU:HG3	63:DE:76:GLU:OE1	1.96	0.66
46:B:1719:A:H2'	46:B:1720:C:C6	2.31	0.66
54:J:5:ILE:HG21	54:J:10:PRO:HB3	1.77	0.66
55:K:2:GLY:O	55:K:24:LYS:NZ	2.18	0.66
1:AS:3060:G:OP1	5:AX:313:ARG:NH1	2.29	0.66
78:DT:92:LEU:O	78:DT:101:THR:N	2.29	0.66
78:DT:252:ALA:HB2	78:DT:289:LEU:HD11	1.78	0.66
82:l1:93:LEU:HD21	82:l1:100:ILE:HG23	1.78	0.66
46:B:813:U:H2'	46:B:814:A:C8	2.31	0.66
52:H:158:GLN:HG2	74:e:66:LEU:HD11	1.78	0.66
77:DS:175:ALA:N	77:DS:182:TYR:O	2.29	0.66
82:l1:44:GLN:HB3	82:l1:45:ARG:HE	1.59	0.66
1:1:1387:C:C2	33:AF:104:ARG:HD3	2.30	0.66
1:1:1663:A:H2'	1:1:1664:G:C8	2.31	0.66
1:1:1735:U:HO2'	35:AH:56:THR:HG1	1.43	0.66
46:B:518:A:H2'	46:B:519:A:C8	2.31	0.66
62:S:12:LYS:HG3	62:S:13:LYS:H	1.61	0.66
78:AR:90:LEU:HB2	78:AR:104:PHE:HB2	1.77	0.66
7:AZ:91:GLY:O	7:AZ:94:ASN:ND2	2.29	0.66
53:CT:232:GLU:OE2	53:CT:236:ASN:ND2	2.29	0.66
46:B:418:A:OP1	53:I:96:SER:OG	2.13	0.65
46:B:702:G:H1'	46:B:703:U:H1'	1.78	0.65
46:B:1575:G:H1	46:B:1595:U:H3	1.42	0.65
63:T:75:GLU:HA	63:T:78:ARG:HB2	1.76	0.65
1:AS:600:U:C2	1:AS:602:A:H1'	2.31	0.65
3:AU:52:A:H62	40:CG:27:ILE:HD13	1.61	0.65
46:CM:778:U:O2'	46:CM:779:U:O2	2.13	0.65
66:DH:52:LYS:HB3	66:DH:91:ASP:HB2	1.78	0.65
46:B:1145:A:H2'	46:B:1146:C:H6	1.61	0.65
1:AS:2449:U:O4	1:AS:2452:G:N2	2.26	0.65
1:1:1230:G:H2'	1:1:1231:U:C6	2.31	0.65
1:1:1279:C:H2'	1:1:1280:C:C6	2.31	0.65
1:1:2191:A:H2'	1:1:2192:A:H8	1.61	0.65
16:v:46:ASP:OD2	16:v:50:ARG:NH2	2.30	0.65
1:AS:1217:A:H4'	1:AS:1218:G:OP2	1.95	0.65
1:AS:3195:G:H5"	15:BH:125:LYS:HE2	1.78	0.65
13:BF:85:LYS:HE3	61:DC:11:THR:HA	1.77	0.65
18:BK:122:ALA:HB3	18:BK:143:PRO:HB2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BP:28:PHE:CE1	23:BP:33:TYR:HB2	2.31	0.65
46:CM:79:C:OP1	53:CT:159:ARG:NH2	2.28	0.65
48:CO:26:ARG:O	48:CO:50:ARG:N	2.30	0.65
79:CZ:36:LEU:HD11	79:CZ:43:ARG:HH21	1.61	0.65
61:DC:18:LYS:NZ	64:DF:90:LYS:O	2.20	0.65
82:L1:28:PHE:HD1	82:L1:29:LEU:H	1.45	0.65
1:1:1017:G:H2'	1:1:1018:U:O4'	1.96	0.65
1:AS:591:C:O2	9:BB:24:ARG:NH1	2.29	0.65
1:AS:1489:G:N2	1:AS:1489:G:OP2	2.30	0.65
1:AS:2634:G:H2'	1:AS:2635:A:H8	1.62	0.65
2:AT:100:C:OP2	21:BN:52:LYS:NZ	2.30	0.65
31:BX:29:TYR:OH	31:BX:57:GLU:OE2	2.15	0.65
46:CM:317:U:H4'	46:CM:321:A:C8	2.31	0.65
46:CM:1198:G:H1	46:CM:1436:U:H3	1.45	0.65
78:DT:14:GLU:OE2	78:DT:53:ASN:ND2	2.27	0.65
1:1:591:C:O2	9:o:24:ARG:NH1	2.28	0.65
1:1:3287:A:H2'	1:1:3288:A:C8	2.32	0.65
46:B:681:C:H3'	46:B:682:A:C8	2.32	0.65
48:D:128:LYS:HG2	48:D:134:VAL:HG22	1.77	0.65
77:h:124:LYS:NZ	77:h:125:LYS:O	2.29	0.65
1:AS:2404:U:H3	1:AS:2575:G:H1	1.45	0.65
1:AS:2435:G:H1	1:AS:2439:A:H61	1.44	0.65
4:AW:27:ALA:O	4:AW:128:ARG:NH2	2.30	0.65
46:CM:326:A:OP2	58:CY:56:LYS:NZ	2.27	0.65
46:CM:573:C:N4	69:DK:65:ASN:OD1	2.28	0.65
1:1:2867:G:O2'	41:AN:24:TYR:O	2.13	0.65
46:B:960:C:H5"	59:P:109:LYS:HD3	1.79	0.65
5:AX:284:ARG:HH11	5:AX:356:LEU:HD12	1.61	0.65
46:B:1131:G:H2'	46:B:1132:A:C8	2.32	0.65
52:H:109:LYS:O	52:H:113:ILE:HD12	1.96	0.65
1:AS:1663:A:H2'	1:AS:1664:G:C8	2.31	0.65
1:AS:1782:G:H2'	1:AS:1783:A:C8	2.31	0.65
1:AS:2163:G:O2'	1:AS:2292:U:OP2	2.14	0.65
1:AS:2196:G:H2'	1:AS:2197:A:H8	1.61	0.65
3:AU:94:C:OP1	38:CE:75:LYS:NZ	2.24	0.65
46:CM:696:U:H6	46:CM:696:U:OP1	1.80	0.65
48:CO:28:ASP:HB3	48:CO:50:ARG:CD	2.27	0.65
1:1:2347:G:H2'	1:1:2348:G:C8	2.32	0.65
5:k:66:LYS:HZ1	24:6:9:ASN:H	1.44	0.65
5:k:372:THR:HG22	5:k:374:ALA:H	1.60	0.65
46:CM:1239:U:OP2	79:CZ:46:ARG:NH2	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1668:A:O3'	53:CT:31:ARG:NH2	2.30	0.65
49:CP:96:VAL:HG22	49:CP:110:ILE:HG12	1.77	0.65
1:1:2451:C:OP1	1:1:2452:G:N2	2.29	0.65
46:B:1181:A:OP2	46:B:1450:G:N2	2.27	0.65
16:BI:143:ARG:O	16:BI:149:ASN:ND2	2.30	0.65
24:BQ:17:LEU:HD13	24:BQ:23:MET:HE2	1.79	0.65
46:CM:352:C:H5"	55:CV:16:ALA:HB2	1.77	0.65
48:CO:145:ARG:NH2	48:CO:151:LYS:O	2.30	0.65
68:DJ:2:THR:HG22	68:DJ:3:ARG:H	1.61	0.65
78:DT:211:ALA:HB2	78:DT:217:ILE:HG12	1.78	0.65
82:l1:34:LEU:HD11	82:l1:183:ILE:HG21	1.78	0.65
80:p0:19:LEU:HD21	80:p0:63:ILE:HD12	1.78	0.65
1:1:581:A:H5"	34:AG:106:ASN:HD21	1.62	0.65
5:k:284:ARG:NH2	5:k:295:ALA:O	2.30	0.65
1:AS:358:G:N2	1:AS:361:A:OP2	2.27	0.65
1:AS:1662:G:H2'	1:AS:1663:A:C8	2.32	0.65
32:BY:45:THR:HG21	32:BY:89:PHE:HA	1.77	0.65
46:CM:63:G:O2'	46:CM:168:U:OP1	2.14	0.65
46:CM:405:A:H2'	46:CM:406:C:C6	2.32	0.65
46:CM:518:A:H2'	46:CM:519:A:C8	2.31	0.65
46:CM:1300:U:OP1	46:CM:1313:G:N2	2.24	0.65
50:CQ:107:LYS:HB2	50:CQ:176:VAL:HG22	1.79	0.65
80:p0:59:VAL:HA	80:p0:62:ALA:HB3	1.77	0.65
1:1:429:U:H2'	1:1:430:G:H8	1.61	0.64
8:n:3:GLN:NE2	33:AF:76:LEU:O	2.29	0.64
19:y:90:ASP:O	19:y:113:ARG:NH1	2.29	0.64
1:AS:654:A:H2'	1:AS:655:A:H8	1.62	0.64
1:AS:2580:G:OP1	4:AW:2:GLY:N	2.30	0.64
8:BA:39:LEU:HD11	8:BA:53:TYR:HB2	1.79	0.64
1:1:1273:C:H2'	1:1:1274:A:C8	2.32	0.64
1:1:3179:U:OP2	15:u:121:ARG:NH2	2.30	0.64
1:1:3318:G:OP1	55:K:170:ARG:NH2	2.30	0.64
6:l:38:SER:OG	6:l:42:ARG:NH2	2.28	0.64
43:AP:38:GLN:OE1	43:AP:41:ARG:NH2	2.30	0.64
46:B:511:U:H2'	46:B:512:G:C8	2.32	0.64
51:CR:126:VAL:HG13	51:CR:139:VAL:HG13	1.79	0.64
1:1:1019:U:H3	1:1:1025:G:H1	1.44	0.64
1:1:1172:C:H4'	17:w:90:PRO:HD3	1.80	0.64
1:AS:2370:C:O2'	5:AX:266:ARG:NH2	2.30	0.64
23:BP:34:VAL:HG21	23:BP:58:ALA:HB2	1.79	0.64
46:CM:509:A:OP2	56:CW:176:ASN:ND2	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:635:C:O2	54:CU:110:ARG:NH2	2.28	0.64
1:1:1479:G:O6	35:AH:4:ARG:NH2	2.31	0.64
46:B:458:A:O2'	51:G:27:TYR:OH	2.13	0.64
65:V:27:LYS:HG2	65:V:111:ILE:HD12	1.78	0.64
1:AS:307:A:H2'	1:AS:308:A:C8	2.33	0.64
1:AS:795:G:O2'	14:BG:18:TRP:NE1	2.27	0.64
20:BM:53:LYS:HG2	20:BM:54:PRO:HD2	1.78	0.64
46:CM:484:G:N2	46:CM:499:U:O2	2.29	0.64
46:CM:589:A:H2'	46:CM:590:A:C8	2.33	0.64
46:CM:869:A:H62	46:CM:913:U:H3	1.43	0.64
46:CM:903:U:H2'	46:CM:904:A:C8	2.32	0.64
46:CM:1597:G:N7	62:DD:13:LYS:NZ	2.44	0.64
1:1:628:A:H2'	1:1:629:A:H8	1.61	0.64
1:1:1662:G:H2'	1:1:1663:A:C8	2.33	0.64
20:z:158:GLU:OE2	20:z:162:ARG:NH2	2.31	0.64
1:AS:660:U:H2'	1:AS:661:C:C6	2.32	0.64
1:AS:2655:U:H2'	1:AS:2656:C:C6	2.33	0.64
1:AS:2873:G:O2'	1:AS:2996:A:N1	2.31	0.64
46:CM:1145:A:H2'	46:CM:1146:C:H6	1.63	0.64
46:CM:1276:G:H22	46:CM:1309:G:N2	1.96	0.64
82:L1:191:VAL:HG11	82:L1:198:TRP:CD1	2.33	0.64
1:1:2634:G:H2'	1:1:2635:A:C8	2.33	0.64
64:U:92:GLN:OE1	64:U:115:ARG:NH2	2.30	0.64
21:BN:8:GLN:HB2	21:BN:64:ILE:HD11	1.80	0.64
46:CM:970:G:H2'	46:CM:971:G:C8	2.32	0.64
46:CM:1230:G:H1	46:CM:1235:U:H3	1.45	0.64
66:DH:26:THR:HG22	66:DH:87:LYS:HG3	1.78	0.64
80:p0:19:LEU:HB3	80:p0:66:PHE:CE2	2.32	0.64
46:B:1579:A:H2'	46:B:1580:A:C8	2.33	0.64
46:B:1753:A:N1	72:c:80:HIS:ND1	2.43	0.64
64:U:16:ARG:NH1	64:U:21:ASN:OD1	2.31	0.64
82:L1:104:ALA:HB2	82:L1:128:LEU:HD12	1.79	0.64
46:B:945:U:H5'	59:P:55:ARG:HD3	1.80	0.64
46:B:1600:U:OP1	52:H:169:ASN:HB2	1.98	0.64
74:e:12:VAL:HG12	74:e:30:VAL:HG12	1.80	0.64
4:AW:51:ASP:OD2	4:AW:54:ARG:NH2	2.31	0.64
7:AZ:197:LYS:HG2	7:AZ:202:GLY:HA3	1.80	0.64
53:CT:159:ARG:HB2	53:CT:170:THR:HB	1.80	0.64
1:1:1255:A:C8	80:P0:53:MET:HB3	2.33	0.64
1:1:2873:G:O2'	1:1:2996:A:N1	2.31	0.64
7:m:289:LYS:HA	7:m:292:GLU:HG2	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:700:G:O2'	46:B:701:G:O4'	2.15	0.64
46:B:1156:A:H2'	46:B:1157:G:H8	1.60	0.64
46:B:1487:C:OP1	65:V:122:ARG:NH2	2.31	0.64
50:F:171:ILE:HG12	50:F:188:LYS:HG3	1.80	0.64
53:I:161:GLU:HB3	53:I:170:THR:HG22	1.78	0.64
72:c:7:SER:OG	72:c:10:ARG:O	2.16	0.64
1:AS:1283:A:OP2	1:AS:1283:A:H8	1.80	0.64
46:CM:133:U:H4'	46:CM:134:A:OP2	1.97	0.64
46:CM:142:G:O2'	46:CM:143:A:O5'	2.16	0.64
46:CM:826:U:H2'	46:CM:827:C:H5'	1.80	0.64
46:B:515:U:H2'	46:B:516:A:H8	1.63	0.64
46:B:553:A:N3	46:B:588:C:O2'	2.27	0.64
46:B:1460:G:H2'	46:B:1461:A:C8	2.33	0.64
49:E:53:LEU:HA	67:X:12:TYR:HE1	1.62	0.64
8:BA:54:LEU:HD21	8:BA:145:LEU:HD11	1.80	0.64
46:CM:834:C:H2'	46:CM:835:A:C8	2.33	0.64
82:l1:59:PRO:HA	82:l1:170:GLY:HA2	1.79	0.64
1:1:1239:G:N2	1:1:1266:A:O2'	2.20	0.63
1:1:2669:A:H2'	1:1:2670:G:H8	1.62	0.63
46:CM:870:G:H2'	46:CM:871:U:C6	2.34	0.63
80:p0:12:PHE:CD1	80:p0:62:ALA:HB1	2.32	0.63
12:r:54:SER:OG	12:r:130:SER:O	2.16	0.63
45:i:103:LEU:HB3	45:i:109:GLN:HG3	1.80	0.63
46:B:330:U:P	55:K:56:ARG:HH22	2.22	0.63
13:BF:109:HIS:HD2	13:BF:123:TYR:H	1.45	0.63
80:P0:8:LYS:HG2	80:P0:58:MET:HE1	1.79	0.63
1:1:1106:U:H2'	1:1:1107:U:C6	2.33	0.63
8:n:65:SER:HB2	8:n:75:LEU:HD23	1.79	0.63
61:R:97:TYR:HE1	61:R:102:PHE:CZ	2.17	0.63
46:CM:1579:A:H2'	46:CM:1580:A:H8	1.64	0.63
4:j:27:ALA:O	4:j:128:ARG:NH2	2.31	0.63
46:B:671:G:C5'	46:B:672:U:H2'	2.29	0.63
53:I:163:THR:HA	53:I:168:THR:HG22	1.80	0.63
59:P:54:LEU:HB3	59:P:60:VAL:HB	1.79	0.63
1:AS:896:G:H1'	1:AS:1585:A:N6	2.13	0.63
46:CM:218:A:H3'	46:CM:219:A:C5'	2.27	0.63
46:CM:511:U:H2'	46:CM:512:G:C8	2.34	0.63
1:1:1018:U:O2'	1:1:1019:U:H5'	1.98	0.63
1:1:1611:U:H2'	1:1:1612:U:C6	2.34	0.63
11:q:93:VAL:HG22	41:AN:6:LEU:HD13	1.80	0.63
17:w:76:ALA:HB3	17:w:79:ARG:HG2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:29:U:H2'	46:B:30:G:H8	1.62	0.63
46:B:1776:G:OP2	60:Q:127:ARG:NH2	2.23	0.63
69:Z:109:ARG:HB3	69:Z:112:LYS:HG3	1.80	0.63
1:AS:2668:A:H2'	1:AS:2669:A:C8	2.34	0.63
21:BN:52:LYS:HG2	21:BN:55:SER:HB3	1.80	0.63
45:CL:67:LYS:HG2	64:DF:129:TRP:CZ2	2.34	0.63
46:CM:1026:G:H2'	46:CM:1027:G:C8	2.33	0.63
1:1:496:A:H4'	8:n:27:GLN:HG3	1.81	0.63
5:k:284:ARG:HH11	5:k:356:LEU:HD12	1.62	0.63
23:5:34:VAL:HG13	23:5:56:ILE:HG22	1.80	0.63
55:K:120:THR:HG21	55:K:133:ALA:HA	1.80	0.63
1:AS:1089:A:OP2	22:BO:120:LYS:NZ	2.31	0.63
1:AS:1214:U:H5"	80:p0:5:ARG:HH12	1.64	0.63
57:CX:78:THR:O	57:CX:81:ASN:ND2	2.31	0.63
79:CZ:59:LEU:HD11	79:CZ:89:ILE:HD11	1.80	0.63
1:1:2634:G:H2'	1:1:2635:A:H8	1.64	0.63
46:B:1578:C:H2'	46:B:1579:A:C8	2.33	0.63
46:B:1596:U:O2'	52:H:105:GLY:O	2.14	0.63
1:AS:1046:U:OP2	22:BO:13:TYR:OH	2.15	0.63
1:AS:1217:A:C5	80:p0:12:PHE:CD2	2.87	0.63
1:AS:2086:C:H1'	1:AS:3309:A:C8	2.33	0.63
5:AX:372:THR:HG22	5:AX:374:ALA:H	1.64	0.63
1:1:2655:U:H2'	1:1:2656:C:C6	2.33	0.63
46:B:12:U:H2'	46:B:13:C:C6	2.34	0.63
63:T:71:PHE:HD1	63:T:72:LYS:H	1.47	0.63
52:CS:122:HIS:HB2	52:CS:129:PRO:HG3	1.80	0.63
71:DM:46:LYS:NZ	71:DM:69:LEU:O	2.30	0.63
16:v:159:ARG:HB2	16:v:164:LEU:HB2	1.80	0.63
46:B:317:U:H4'	46:B:321:A:C8	2.34	0.63
1:AS:1251:C:H2'	1:AS:1252:G:C8	2.33	0.63
46:CM:1536:C:OP1	61:DC:42:ARG:NH1	2.31	0.63
46:CM:1719:A:H2'	46:CM:1720:C:C6	2.34	0.63
49:CP:171:LYS:HE2	56:CW:57:ARG:NH1	2.13	0.63
74:DP:19:THR:HG23	74:DP:25:VAL:HG13	1.81	0.63
46:B:521:G:OP2	70:a:37:LYS:NZ	2.29	0.62
62:S:98:GLU:HG3	62:S:101:LYS:HE3	1.79	0.62
1:AS:1692:A:H2'	1:AS:1693:A:C8	2.33	0.62
1:AS:2466:A:OP2	1:AS:2467:C:N4	2.30	0.62
46:CM:1131:G:H2'	46:CM:1132:A:C8	2.33	0.62
50:CQ:128:MET:HE1	50:CQ:134:GLY:HA2	1.81	0.62
69:DK:107:PHE:CD2	69:DK:114:LYS:HD3	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:DT:90:LEU:HD11	78:DT:125:SER:HB3	1.81	0.62
1:1:654:A:H2'	1:1:655:A:C8	2.33	0.62
1:1:1237:U:O2'	1:1:1239:G:N7	2.26	0.62
45:i:129:LEU:HD21	50:F:129:GLY:HA3	1.80	0.62
46:B:125:U:OP1	53:I:201:GLN:NE2	2.31	0.62
46:B:876:A:H2'	46:B:877:G:H8	1.63	0.62
46:B:1419:G:O2'	75:f:24:CYS:SG	2.48	0.62
67:X:55:LEU:HD11	67:X:69:LEU:HD21	1.79	0.62
1:AS:2334:A:H61	1:AS:2955:C:H5	1.47	0.62
1:AS:2557:G:O6	10:BC:48:SER:OG	2.17	0.62
62:DD:12:LYS:HG3	62:DD:13:LYS:H	1.64	0.62
78:DT:145:LEU:HD21	78:DT:178:TRP:CE2	2.33	0.62
1:1:572:U:H2'	1:1:573:G:C8	2.31	0.62
63:T:25:THR:HG23	63:T:27:ASP:H	1.64	0.62
1:AS:362:U:O4	38:CE:24:ARG:NH2	2.31	0.62
1:AS:3298:G:N7	25:BR:35:LYS:NZ	2.48	0.62
46:CM:952:A:OP2	59:DA:124:ARG:NH2	2.28	0.62
1:1:1662:G:H2'	1:1:1663:A:H8	1.65	0.62
46:B:1459:U:OP1	52:H:183:SER:OG	2.17	0.62
47:C:200:ASP:HB2	63:T:85:VAL:HG23	1.81	0.62
1:AS:2199:G:N2	1:AS:2202:A:OP2	2.22	0.62
11:BD:107:ASP:O	11:BD:109:GLN:NE2	2.31	0.62
11:BD:110:ASP:HB3	11:BD:128:ILE:HD12	1.81	0.62
46:CM:78:A:C8	53:CT:154:ARG:HG3	2.34	0.62
46:CM:472:A:H5"	56:CW:144:PRO:HD2	1.81	0.62
50:CQ:124:LEU:HD11	50:CQ:153:TYR:HB3	1.79	0.62
64:DF:132:LYS:HD2	64:DF:138:THR:HG22	1.80	0.62
1:1:833:A:OP2	44:AQ:4:ARG:NH1	2.32	0.62
1:1:1249:U:H3'	1:1:1250:C:H5'	1.80	0.62
29:AB:36:GLY:HA3	29:AB:40:HIS:CE1	2.35	0.62
46:B:133:U:H4'	46:B:134:A:OP2	1.98	0.62
46:B:504:A:H5"	46:B:505:U:O5'	1.99	0.62
46:B:578:A:O2'	46:B:580:U:OP1	2.18	0.62
69:Z:69:ARG:HG3	69:Z:117:ILE:HG12	1.80	0.62
78:AR:102:GLN:NE2	78:AR:103:ARG:O	2.32	0.62
1:AS:1774:G:O2'	1:AS:1776:G:OP2	2.16	0.62
1:AS:2651:A:O2'	13:BF:52:TYR:OH	2.12	0.62
2:AT:23:A:H2'	2:AT:24:A:C8	2.35	0.62
7:AZ:119:TYR:OH	7:AZ:139:PRO:O	2.18	0.62
46:CM:17:C:O2'	46:CM:1122:A:N1	2.29	0.62
46:CM:127:G:N7	53:CT:202:ARG:NH2	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:DC:52:LYS:HB3	61:DC:80:LEU:HD13	1.80	0.62
74:DP:40:ILE:HG23	74:DP:62:GLU:HG3	1.80	0.62
82:L1:44:GLN:O	82:L1:46:ASP:N	2.32	0.62
82:L1:87:VAL:HA	82:L1:90:LEU:HD12	1.82	0.62
1:1:208:A:H4'	1:1:210:A:C8	2.34	0.62
1:1:834:G:O6	44:AQ:4:ARG:NH2	2.33	0.62
17:w:2:SER:N	21:0:161:LYS:HZ3	1.97	0.62
46:B:1669:U:O4	46:B:1707:G:N2	2.32	0.62
54:J:25:GLU:HB2	54:J:31:LYS:HG3	1.82	0.62
46:CM:1265:C:H2'	46:CM:1266:G:H8	1.65	0.62
1:1:581:A:H5"	34:AG:106:ASN:ND2	2.15	0.62
1:1:782:A:H4'	1:1:783:G:H5'	1.82	0.62
1:1:2116:A:HO2'	38:AK:2:GLY:N	1.97	0.62
3:4:63:G:N2	3:4:97:A:N1	2.48	0.62
51:G:148:ARG:NH2	53:I:201:GLN:OE1	2.32	0.62
54:J:137:ARG:NH2	68:Y:49:GLU:OE1	2.33	0.62
1:AS:1635:C:OP2	35:CB:74:ARG:NH1	2.30	0.62
1:AS:1735:U:O2'	35:CB:56:THR:OG1	2.14	0.62
4:AW:54:ARG:HH21	4:AW:58:LEU:HD11	1.64	0.62
23:BP:19:VAL:O	23:BP:21:ALA:N	2.33	0.62
1:1:1249:U:H5"	1:1:1259:A:H2	1.65	0.62
46:B:17:C:H2'	46:B:18:C:C6	2.34	0.62
46:B:985:C:H5	46:B:988:A:H5"	1.63	0.62
46:B:1715:U:H2'	46:B:1716:C:C6	2.35	0.62
46:B:1783:C:OP2	72:c:5:ARG:NH2	2.32	0.62
46:CM:405:A:H2'	46:CM:406:C:H6	1.65	0.62
81:12:111:GLU:O	81:12:115:LYS:N	2.29	0.62
1:1:2244:U:H2'	1:1:2245:C:H6	1.65	0.62
15:u:14:GLU:HG2	15:u:17:ARG:HG2	1.82	0.62
46:B:1282:G:N2	46:B:1285:A:OP2	2.28	0.62
77:h:155:ASN:HB2	79:O:81:GLU:HG3	1.80	0.62
1:AS:1236:A:N1	1:AS:1240:A:O2'	2.27	0.62
1:AS:2456:C:H3'	1:AS:2457:C:H5"	1.81	0.62
46:CM:214:U:H4'	46:CM:215:A:OP2	2.00	0.62
79:CZ:50:LYS:HG3	77:DS:171:GLY:HA3	1.80	0.62
17:w:122:PRO:HA	17:w:125:LEU:HD12	1.81	0.62
46:B:1245:U:H2'	46:B:1246:G:H8	1.65	0.62
61:R:26:VAL:HG23	61:R:27:GLU:HG3	1.82	0.62
1:AS:2516:U:O2'	1:AS:2519:A:N1	2.29	0.62
1:AS:2669:A:H2'	1:AS:2670:G:H8	1.62	0.62
8:BA:34:VAL:HB	8:BA:89:LYS:HE3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1578:C:H2'	46:CM:1579:A:C8	2.35	0.62
47:CN:59:LEU:HD22	67:DI:79:LEU:HD11	1.82	0.62
66:DH:32:GLN:HB3	66:DH:108:GLU:HG2	1.81	0.62
1:1:412:G:OP1	18:x:62:ARG:NH1	2.32	0.61
1:1:1130:G:O2'	1:1:2614:A:N3	2.32	0.61
1:1:2974:C:OP1	5:k:26:ARG:NH1	2.32	0.61
11:q:110:ASP:HB3	11:q:128:ILE:HD12	1.81	0.61
21:0:8:GLN:HB2	21:0:64:ILE:HD11	1.81	0.61
46:B:671:G:H5"	46:B:672:U:C6	2.29	0.61
50:F:65:ARG:HD2	57:M:91:ARG:NH1	2.14	0.61
16:BI:73:ARG:HG2	16:BI:75:VAL:HG13	1.82	0.61
49:CP:136:ARG:HB3	49:CP:146:PRO:HB2	1.81	0.61
50:CQ:48:GLU:HG2	50:CQ:88:TYR:HE2	1.65	0.61
52:CS:157:ARG:HG3	52:CS:224:ASN:OD1	2.00	0.61
78:DT:9:LEU:HB2	78:DT:310:TRP:CZ3	2.35	0.61
1:1:1713:U:H2'	1:1:1714:G:C8	2.34	0.61
1:1:3133:G:H2'	1:1:3134:C:H6	1.66	0.61
53:I:135:PRO:HB2	53:I:141:ILE:HG12	1.82	0.61
62:S:30:ILE:HG12	62:S:35:ILE:HG22	1.81	0.61
1:AS:88:G:N7	19:BL:171:LYS:NZ	2.48	0.61
1:AS:2456:C:O2	1:AS:2466:A:N6	2.34	0.61
1:AS:2880:G:O2'	41:CH:38:LYS:NZ	2.31	0.61
4:AW:242:ARG:NH2	4:AW:243:THR:O	2.34	0.61
47:CN:205:ARG:NH2	63:DE:82:ASP:OD1	2.33	0.61
82:l1:49:PHE:CG	82:l1:193:LEU:HB3	2.34	0.61
80:p0:12:PHE:CD1	80:p0:15:LEU:HD22	2.35	0.61
1:1:2370:C:H1'	5:k:266:ARG:HH21	1.65	0.61
28:AA:41:ALA:HB2	28:AA:77:TYR:HE1	1.66	0.61
45:i:93:ARG:H	46:B:1259:C:H5	1.48	0.61
46:B:1668:A:H8	53:I:65:GLN:HG3	1.66	0.61
50:F:56:THR:O	50:F:60:LEU:HG	2.00	0.61
51:G:175:PHE:HE2	51:G:198:ARG:HD2	1.64	0.61
59:P:46:THR:O	59:P:50:ILE:HD12	1.99	0.61
62:S:27:LEU:HB3	62:S:63:ASP:HB2	1.80	0.61
79:CZ:80:ASN:O	79:CZ:82:PRO:HD3	2.01	0.61
68:DJ:7:LEU:HD11	68:DJ:37:PHE:HD2	1.64	0.61
78:DT:218:ILE:HG23	78:DT:230:THR:HG22	1.82	0.61
82:L1:36:VAL:HG13	82:L1:204:LEU:HG	1.81	0.61
82:l1:35:GLN:HB2	82:l1:205:VAL:HB	1.82	0.61
1:1:1199:A:H2'	1:1:1200:A:H8	1.63	0.61
13:s:101:ASN:HD22	13:s:130:VAL:HA	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:Z:107:PHE:CE2	69:Z:114:LYS:HB3	2.35	0.61
46:CM:657:C:O2	46:CM:669:G:N2	2.34	0.61
82:l1:41:TYR:HE1	82:l1:195:LYS:H	1.47	0.61
1:1:1058:A:O2'	22:2:108:ARG:NH2	2.33	0.61
1:1:2322:U:H2'	1:1:2323:A:C8	2.35	0.61
1:1:2492:U:OP2	1:1:2558:G:N2	2.34	0.61
4:j:77:ILE:HD13	4:j:128:ARG:HB3	1.82	0.61
46:B:515:U:H2'	46:B:516:A:C8	2.35	0.61
58:N:7:VAL:HG23	58:N:8:GLN:HG2	1.80	0.61
63:T:96:THR:HG23	63:T:98:GLY:H	1.65	0.61
1:AS:834:G:O6	44:CK:4:ARG:NH2	2.34	0.61
1:AS:1115:C:H2'	1:AS:1116:A:H8	1.62	0.61
1:AS:3161:U:H2'	1:AS:3162:U:C6	2.36	0.61
1:AS:3260:A:H2'	1:AS:3261:A:C8	2.35	0.61
1:AS:3287:A:H2'	1:AS:3288:A:C8	2.34	0.61
46:CM:721:C:H42	46:CM:722:A:H62	1.49	0.61
46:CM:771:G:H4'	51:CR:256:ARG:HH22	1.66	0.61
46:CM:1181:A:OP2	46:CM:1450:G:N2	2.30	0.61
55:CV:4:SER:OG	55:CV:6:ASP:OD1	2.18	0.61
81:12:155:ILE:HA	81:12:159:GLU:H	1.66	0.61
82:L1:76:ARG:HH22	82:L1:142:ASP:HB2	1.66	0.61
1:1:252:U:H5'	1:1:253:A:C8	2.35	0.61
1:1:1115:C:H2'	1:1:1116:A:C8	2.36	0.61
1:1:1240:A:O2'	1:1:1244:C:N4	2.33	0.61
1:1:1789:C:H2'	4:j:184:ARG:HH22	1.65	0.61
1:1:2709:C:O2'	30:AC:36:ASP:OD1	2.18	0.61
1:1:3318:G:P	55:K:77:ARG:HH22	2.24	0.61
40:AM:9:THR:HG23	40:AM:51:ILE:HG21	1.82	0.61
46:B:1324:C:O2'	46:B:1326:A:N7	2.29	0.61
1:AS:1939:C:O2'	55:CV:92:ARG:NH1	2.34	0.61
1:AS:2171:U:H5'	1:AS:2172:G:H5'	1.81	0.61
1:AS:2347:G:H2'	1:AS:2348:G:C8	2.35	0.61
46:CM:515:U:H2'	46:CM:516:A:C8	2.36	0.61
82:l1:19:TYR:HD2	82:l1:210:MET:HB3	1.64	0.61
1:1:1592:C:H2'	1:1:1593:C:C6	2.36	0.61
16:v:143:ARG:O	16:v:149:ASN:ND2	2.33	0.61
46:B:1474:G:H3'	46:B:1502:A:H61	1.64	0.61
24:BQ:30:GLY:HA3	24:BQ:66:LYS:HE2	1.83	0.61
46:CM:673:A:H2'	46:CM:674:C:C6	2.34	0.61
46:CM:715:G:N2	46:CM:715:G:OP2	2.33	0.61
46:CM:1474:G:H3'	46:CM:1502:A:H61	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:DG:7:ARG:NH2	65:DG:67:LEU:O	2.33	0.61
1:1:93:G:H2'	1:1:94:A:C8	2.35	0.61
1:1:967:G:OP1	19:y:8:LYS:NZ	2.33	0.61
46:B:220:A:H2'	46:B:221:U:C2	2.36	0.61
78:AR:127:SER:OG	78:AR:129:ASP:OD1	2.19	0.61
1:AS:740:A:OP1	19:BL:66:ARG:NH2	2.33	0.61
1:AS:2139:G:H5"	4:AW:227:ARG:NH1	2.13	0.61
1:AS:2941:A:N7	4:AW:215:ASN:ND2	2.49	0.61
2:AT:4:U:H2'	2:AT:5:G:H8	1.64	0.61
46:CM:578:A:H5"	50:CQ:144:ARG:HH21	1.66	0.61
46:CM:669:G:H2'	46:CM:671:G:C8	2.36	0.61
51:CR:21:ASP:OD2	51:CR:24:SER:OG	2.17	0.61
82:l1:87:VAL:HG12	82:l1:90:LEU:HD12	1.83	0.61
1:1:2244:U:H2'	1:1:2245:C:C6	2.35	0.61
5:k:66:LYS:NZ	24:6:9:ASN:H	1.99	0.61
9:o:13:LYS:HE3	9:o:17:GLN:NE2	2.15	0.61
46:B:932:U:H2'	46:B:933:A:H8	1.66	0.61
46:B:1019:C:HO2'	68:Y:2:THR:N	1.99	0.61
62:S:21:VAL:HG22	62:S:64:ILE:HG12	1.83	0.61
1:AS:46:C:H5"	14:BG:16:LYS:HG2	1.83	0.61
1:AS:628:A:H2'	1:AS:629:A:H8	1.64	0.61
1:AS:3309:A:H2	1:AS:3326:G:H21	1.46	0.61
25:BR:1:MET:HE2	25:BR:15:PRO:HG2	1.83	0.61
25:BR:98:PRO:HA	25:BR:101:ARG:HD2	1.81	0.61
43:CJ:38:GLN:OE1	43:CJ:41:ARG:NH2	2.33	0.61
48:CO:62:LYS:HA	48:CO:88:VAL:HG13	1.82	0.61
82:l1:41:TYR:HB3	82:l1:163:LEU:HD11	1.80	0.61
16:v:96:LYS:NZ	16:v:104:GLU:OE2	2.32	0.61
27:9:51:ARG:HG2	27:9:52:GLN:H	1.66	0.61
46:B:217:A:H2'	46:B:218:A:O4'	2.00	0.61
54:J:92:ARG:NH1	54:J:120:LYS:HB3	2.16	0.61
1:AS:3256:G:H2'	1:AS:3257:A:C8	2.36	0.61
3:AU:36:G:C5	36:CC:86:ARG:HD3	2.35	0.61
16:BI:113:LEU:HB2	16:BI:134:LEU:HD23	1.82	0.61
19:BL:94:LEU:HD22	29:BV:119:PRO:HG3	1.83	0.61
46:CM:924:A:H2'	46:CM:925:A:C8	2.36	0.61
46:CM:1596:U:O2'	52:CS:105:GLY:O	2.17	0.61
49:CP:134:ILE:HD13	49:CP:186:ALA:HB1	1.82	0.61
50:CQ:49:VAL:HB	50:CQ:87:ILE:HD13	1.82	0.61
1:AS:2331:G:H5"	18:BK:86:LYS:HB2	1.82	0.60
39:CF:32:ASN:C	39:CF:34:ASN:H	2.07	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:786:G:H21	68:DJ:107:SER:HB3	1.65	0.60
46:CM:1715:U:H2'	46:CM:1716:C:C6	2.35	0.60
1:1:907:C:N4	4:j:3:ARG:HD3	2.15	0.60
46:B:52:U:H2'	46:B:53:G:C8	2.36	0.60
46:B:65:A:H2	46:B:84:A:H62	1.48	0.60
46:B:1463:G:H2'	46:B:1464:G:C8	2.36	0.60
46:B:1487:C:P	65:V:122:ARG:HH22	2.23	0.60
52:H:151:SER:OG	52:H:156:ARG:NH2	2.31	0.60
62:S:86:LYS:HG2	62:S:116:LEU:HD13	1.83	0.60
1:AS:289:A:H2'	1:AS:290:G:H8	1.67	0.60
1:AS:653:C:H2'	1:AS:654:A:C8	2.35	0.60
1:AS:1801:C:H2'	1:AS:1802:A:H8	1.66	0.60
1:AS:2740:U:H2'	1:AS:2741:A:H8	1.66	0.60
5:AX:292:ALA:HB1	5:AX:295:ALA:HB3	1.83	0.60
46:CM:1463:G:H2'	46:CM:1464:G:C8	2.36	0.60
46:CM:1776:G:OP2	60:DB:127:ARG:NH2	2.28	0.60
48:CO:26:ARG:NH1	48:CO:49:ASN:OD1	2.34	0.60
48:CO:28:ASP:HB3	48:CO:50:ARG:HD2	1.82	0.60
82:l1:48:ARG:HA	82:l1:159:LEU:HD23	1.83	0.60
1:1:739:C:H5"	19:y:69:ARG:HH22	1.66	0.60
16:v:31:ARG:NH1	16:v:124:ASP:OD2	2.32	0.60
48:D:82:ARG:NH2	48:D:191:GLU:OE2	2.35	0.60
71:b:67:ASP:O	71:b:70:LYS:NZ	2.35	0.60
77:h:158:ARG:O	77:h:161:ARG:NH2	2.34	0.60
1:AS:476:C:H2'	1:AS:477:U:C6	2.35	0.60
11:BD:23:ARG:NH2	11:BD:39:LYS:O	2.34	0.60
17:BJ:11:ASP:HB2	17:BJ:118:ARG:HB3	1.82	0.60
28:BU:115:LYS:NZ	28:BU:119:GLU:OE2	2.32	0.60
48:CO:30:PHE:CD1	48:CO:96:LEU:HD21	2.36	0.60
82:l1:26:ARG:HD3	82:l1:26:ARG:N	2.17	0.60
1:1:2888:U:H5	1:1:2907:U:HO2'	1.49	0.60
78:AR:90:LEU:HD11	78:AR:125:SER:HB3	1.83	0.60
1:AS:477:U:H2'	1:AS:478:G:C8	2.36	0.60
16:BI:177:GLY:H	16:BI:184:LYS:NZ	2.00	0.60
46:CM:1533:G:OP1	64:DF:123:ARG:NH1	2.33	0.60
82:L1:23:THR:HG22	82:L1:24:LYS:H	1.66	0.60
1:1:896:G:H1'	1:1:1585:A:N6	2.16	0.60
29:AB:59:ARG:HH22	43:AP:38:GLN:HG2	1.67	0.60
46:B:64:U:O2'	46:B:166:A:N3	2.29	0.60
46:B:944:U:OP2	73:d:20:LYS:NZ	2.34	0.60
46:CM:452:A:H4'	51:CR:62:LYS:HE3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1334:G:N3	46:CM:1365:C:N4	2.49	0.60
64:DF:134:ARG:HB2	64:DF:136:GLN:NE2	2.16	0.60
72:DN:12:LYS:HA	72:DN:15:ARG:HH12	1.65	0.60
1:1:2455:G:OP1	1:1:2465:U:O2'	2.19	0.60
1:1:3133:G:H2'	1:1:3134:C:C6	2.36	0.60
46:B:1431:G:N2	77:h:129:THR:O	2.35	0.60
61:R:14:GLN:HE22	61:R:23:LYS:HB2	1.67	0.60
1:AS:92:C:OP2	1:AS:2736:C:O2'	2.17	0.60
33:BZ:106:ARG:NH2	33:BZ:122:ASN:O	2.34	0.60
39:CF:69:LEU:HB3	39:CF:73:LEU:HD21	1.82	0.60
46:CM:768:C:H2'	46:CM:769:U:O4'	2.02	0.60
46:CM:1487:C:OP1	65:DG:122:ARG:NH2	2.31	0.60
1:1:1265:U:H5'	1:1:1266:A:OP2	2.01	0.60
6:l:300:VAL:HB	19:y:39:ARG:HG2	1.83	0.60
28:AA:54:THR:HG22	28:AA:57:MET:HE3	1.84	0.60
1:AS:2335:A:H2'	1:AS:2336:A:H8	1.66	0.60
1:AS:2590:G:OP1	12:BE:116:ARG:HG3	2.02	0.60
78:DT:14:GLU:CD	78:DT:53:ASN:HD21	2.10	0.60
82:L1:117:ILE:HD11	82:L1:137:PRO:HB3	1.84	0.60
82:l1:21:THR:HA	82:l1:25:LYS:HE3	1.84	0.60
1:1:638:U:H2'	1:1:639:C:C6	2.37	0.60
16:v:27:CYS:HB2	16:v:122:ASN:ND2	2.17	0.60
46:B:540:A:N6	76:g:25:GLU:OE2	2.34	0.60
46:B:1335:U:H2'	46:B:1336:G:C8	2.37	0.60
48:D:180:THR:N	48:D:183:GLN:OE1	2.34	0.60
49:E:78:ILE:HD11	49:E:120:ILE:HD11	1.83	0.60
1:AS:2869:A:H2'	1:AS:2871:C:H5"	1.84	0.60
7:AZ:75:PHE:O	7:AZ:112:LYS:NZ	2.33	0.60
46:CM:530:U:OP1	70:DL:64:PHE:HA	2.01	0.60
46:CM:881:U:H5'	48:CO:23:PRO:HG2	1.83	0.60
46:CM:1549:G:OP1	65:DG:89:ARG:NH1	2.35	0.60
61:DC:13:LYS:H	61:DC:13:LYS:HD2	1.67	0.60
46:B:1219:A:O2'	77:h:182:TYR:OH	2.16	0.60
1:AS:1057:A:O2'	22:BO:102:ARG:NH2	2.35	0.60
1:AS:2672:G:H5"	22:BO:17:ARG:HG2	1.84	0.60
6:AY:300:VAL:HB	19:BL:39:ARG:HG2	1.83	0.60
1:1:712:G:HO2'	1:1:749:C:HO2'	1.46	0.60
1:1:730:A:H4'	1:1:730:A:OP1	2.02	0.60
14:t:8:PRO:HD3	19:y:164:ARG:HB3	1.84	0.60
46:B:767:G:HO2'	46:B:768:C:H6	1.50	0.60
46:B:1024:A:O2'	46:B:1025:G:O5'	2.20	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:I:159:ARG:HB2	53:I:170:THR:HB	1.83	0.60
54:J:5:ILE:HG22	54:J:7:SER:H	1.66	0.60
1:AS:2345:A:H2'	1:AS:2346:A:C8	2.36	0.60
67:DI:36:ILE:HD12	67:DI:78:LEU:HD13	1.84	0.60
78:DT:155:VAL:O	78:DT:156:ARG:NH1	2.32	0.60
1:1:208:A:H4'	1:1:210:A:N7	2.17	0.59
1:1:403:C:O2'	1:1:404:G:OP1	2.19	0.59
1:1:1655:U:H3	1:1:1786:G:H1	1.50	0.59
1:1:2583:U:H2'	1:1:2584:U:C6	2.37	0.59
2:3:65:G:O3'	12:r:204:GLY:HA2	2.02	0.59
28:AA:15:ARG:HD2	28:AA:79:HIS:CD2	2.37	0.59
46:B:79:C:OP1	53:I:159:ARG:NH2	2.34	0.59
46:B:1469:A:N3	46:B:1594:G:O2'	2.28	0.59
47:C:6:SER:O	47:C:191:ARG:NH1	2.35	0.59
4:AW:80:GLU:HG3	44:CK:66:GLY:HA2	1.84	0.59
1:1:654:A:H2'	1:1:655:A:H8	1.67	0.59
1:1:1057:A:O2'	22:2:102:ARG:NH2	2.33	0.59
1:1:1250:C:H2'	1:1:1251:C:H6	1.66	0.59
29:AB:75:LEU:HD22	29:AB:118:LEU:HD11	1.83	0.59
46:B:1469:A:OP2	46:B:1508:G:N2	2.32	0.59
74:e:12:VAL:HG22	74:e:52:ASP:H	1.66	0.59
1:AS:498:C:H5"	8:BA:25:ARG:NH2	2.17	0.59
1:AS:941:C:H2'	1:AS:942:U:C6	2.36	0.59
1:AS:2434:A:H61	1:AS:2439:A:H62	1.50	0.59
1:AS:2919:G:OP1	1:AS:2954:A:N6	2.29	0.59
64:DF:63:GLN:O	64:DF:67:GLU:HG3	2.02	0.59
1:1:1099:A:H62	1:1:1338:G:H21	1.49	0.59
45:i:107:TRP:HA	50:F:116:ILE:HD11	1.83	0.59
1:AS:2587:G:H2'	1:AS:2588:C:H6	1.66	0.59
1:AS:3136:C:H2'	1:AS:3137:A:C8	2.37	0.59
3:AU:8:C:H2'	3:AU:9:A:H8	1.68	0.59
10:BC:249:LYS:HE3	10:BC:253:ALA:HB2	1.85	0.59
23:BP:28:PHE:HE1	23:BP:33:TYR:HB2	1.66	0.59
45:CL:64:LEU:O	45:CL:66:ASN:N	2.28	0.59
46:CM:1670:U:H3	46:CM:1705:G:H1	1.48	0.59
64:DF:126:ARG:HB2	64:DF:133:VAL:HG12	1.84	0.59
82:L1:124:LEU:HD22	82:L1:128:LEU:HD13	1.84	0.59
82:l1:112:ALA:O	82:l1:116:LEU:HB2	2.03	0.59
23:5:22:PRO:HB2	23:5:28:PHE:HB2	1.84	0.59
46:B:728:U:OP1	54:J:104:LYS:N	2.36	0.59
57:M:54:TYR:HD1	57:M:72:GLY:HA2	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1279:C:OP1	80:p0:60:ARG:NH1	2.36	0.59
1:AS:2862:A:O2'	1:AS:2905:A:N3	2.31	0.59
28:BU:15:ARG:HD2	28:BU:79:HIS:CD2	2.37	0.59
45:CL:155:LEU:HD13	57:CX:92:LEU:HD13	1.85	0.59
46:CM:869:A:OP1	48:CO:136:ARG:NH2	2.35	0.59
1:1:1268:C:H3'	1:1:1269:A:H8	1.67	0.59
18:x:122:ALA:HB3	18:x:143:PRO:HB2	1.83	0.59
20:z:73:GLY:HA2	20:z:76:MET:HE2	1.84	0.59
25:7:13:ILE:HG12	25:7:32:GLN:HB2	1.84	0.59
46:B:219:A:H3'	46:B:818:U:O2	2.02	0.59
46:B:881:U:H5'	48:D:23:PRO:HG2	1.85	0.59
47:C:147:THR:HG21	47:C:159:ALA:HB1	1.83	0.59
49:E:168:PRO:HG3	56:L:57:ARG:HD3	1.84	0.59
1:AS:411:U:H2'	1:AS:412:G:H8	1.67	0.59
1:AS:2191:A:H2'	1:AS:2192:A:H8	1.66	0.59
1:AS:2244:U:H2'	1:AS:2245:C:C6	2.38	0.59
1:AS:2391:A:H2'	1:AS:2392:G:H8	1.67	0.59
1:AS:3256:G:H2'	1:AS:3257:A:H8	1.66	0.59
10:BC:147:LYS:HG3	10:BC:174:MET:HE3	1.84	0.59
25:BR:82:ILE:HD13	53:CT:131:LYS:HG3	1.84	0.59
45:CL:80:ALA:O	46:CM:1163:G:O2'	2.21	0.59
46:CM:829:A:H2'	46:CM:830:G:H8	1.68	0.59
46:CM:849:U:H3'	68:DJ:28:ARG:HH22	1.66	0.59
1:1:662:U:H2'	1:1:663:A:H8	1.66	0.59
4:j:29:LEU:HD22	4:j:101:ILE:HD13	1.84	0.59
15:u:34:ASP:OD2	15:u:37:ARG:NH2	2.35	0.59
48:D:180:THR:HG22	48:D:183:GLN:CD	2.28	0.59
53:I:68:MET:O	53:I:69:HIS:ND1	2.36	0.59
61:R:77:LYS:HB3	61:R:102:PHE:CE1	2.37	0.59
64:U:29:MET:HB2	64:U:54:LEU:HD22	1.83	0.59
1:AS:1344:U:OP1	19:BL:39:ARG:NH2	2.36	0.59
12:BE:101:LYS:HE2	12:BE:101:LYS:HA	1.84	0.59
46:CM:739:A:H5"	46:CM:740:A:H5'	1.85	0.59
46:CM:1400:U:OP2	63:DE:2:GLY:N	2.36	0.59
46:CM:1600:U:OP1	52:CS:169:ASN:HB2	2.02	0.59
50:CQ:215:GLU:HG3	50:CQ:216:ASP:N	2.13	0.59
63:DE:69:ILE:HG13	63:DE:69:ILE:O	2.02	0.59
71:DM:43:ASP:CG	71:DM:44:GLN:H	2.11	0.59
82:L1:67:ILE:HB	82:L1:84:ALA:HA	1.84	0.59
1:1:2789:A:H4'	1:1:2790:U:OP2	2.03	0.59
23:5:19:VAL:O	23:5:21:ALA:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AD:19:THR:HG23	31:AD:97:ALA:HA	1.84	0.59
46:B:697:U:O2	46:B:724:G:N2	2.29	0.59
46:B:1265:C:O2'	66:W:69:THR:HG22	2.02	0.59
46:B:1458:C:OP1	52:H:102:ARG:NH2	2.34	0.59
78:AR:155:VAL:O	78:AR:156:ARG:NH1	2.32	0.59
78:AR:302:TYR:CE2	78:AR:308:ARG:HD2	2.37	0.59
1:AS:662:U:H2'	1:AS:663:A:H8	1.66	0.59
1:AS:2210:A:H2'	1:AS:2211:A:C8	2.38	0.59
46:CM:829:A:H2'	46:CM:830:G:C8	2.37	0.59
47:CN:180:GLU:OE2	47:CN:191:ARG:NH2	2.35	0.59
82:l1:93:LEU:HD11	82:l1:100:ILE:HG12	1.85	0.59
45:i:64:LEU:H	45:i:64:LEU:HD12	1.68	0.59
46:B:952:A:OP2	59:P:124:ARG:NH2	2.36	0.59
47:C:30:GLN:NE2	47:C:151:SER:O	2.35	0.59
50:F:91:ARG:HD2	50:F:95:ARG:NH2	2.18	0.59
1:AS:619:A:H2'	1:AS:620:A:C8	2.37	0.59
1:AS:2196:G:H2'	1:AS:2197:A:C8	2.38	0.59
1:AS:2937:U:O2'	4:AW:221:LYS:HD3	2.02	0.59
46:CM:1266:G:O3'	66:DH:75:SER:OG	2.18	0.59
57:CX:50:THR:HG21	57:CX:57:THR:HG22	1.85	0.59
1:1:1187:U:OP2	17:w:50:ARG:HD2	2.02	0.59
1:1:2138:G:H2'	1:1:2139:G:H8	1.68	0.59
46:B:839:U:O4	46:B:840:A:N6	2.36	0.59
46:CM:52:U:H2'	46:CM:53:G:C8	2.38	0.59
46:CM:1615:U:H2'	46:CM:1616:G:C8	2.38	0.59
46:CM:1637:U:H2'	46:CM:1638:A:C8	2.38	0.59
46:CM:1739:U:H2'	46:CM:1740:A:H8	1.67	0.59
51:CR:129:VAL:HG22	51:CR:139:VAL:HG22	1.85	0.59
79:CZ:97:LEU:HD13	79:CZ:119:SER:HA	1.84	0.59
68:DJ:11:LEU:HD11	68:DJ:37:PHE:CE2	2.33	0.59
74:DP:58:GLU:OE2	74:DP:61:ARG:NE	2.33	0.59
1:1:365:A:OP1	6:l:85:ARG:NH1	2.36	0.59
7:m:50:ARG:NH2	7:m:72:ASP:OD2	2.36	0.59
24:6:32:ARG:HH21	24:6:64:LYS:HD3	1.68	0.59
25:7:81:ALA:HB3	53:I:130:PRO:HB3	1.84	0.59
46:B:718:A:H4'	46:B:719:A:C6	2.38	0.59
1:AS:1256:A:O2'	1:AS:1275:C:O2	2.21	0.59
1:AS:1713:U:H2'	1:AS:1714:G:C8	2.37	0.59
1:AS:2958:U:H2'	1:AS:2959:A:H8	1.68	0.59
45:CL:61:GLU:OE1	45:CL:61:GLU:N	2.35	0.59
50:CQ:212:ALA:HB2	63:DE:19:ARG:HG3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2206:A:H2'	1:1:2207:A:C8	2.37	0.58
16:v:73:ARG:HG2	16:v:75:VAL:HG13	1.85	0.58
31:AD:26:THR:HB	31:AD:31:SER:HB3	1.85	0.58
46:B:1719:A:H2'	46:B:1720:C:H6	1.67	0.58
47:C:47:ILE:HD12	63:T:106:THR:HG22	1.84	0.58
1:AS:1384:U:OP1	33:BZ:105:LYS:NZ	2.28	0.58
1:AS:1795:A:H2'	1:AS:1796:A:C8	2.38	0.58
29:BV:75:LEU:HD22	29:BV:118:LEU:HD11	1.85	0.58
46:CM:17:C:H2'	46:CM:18:C:C6	2.38	0.58
46:CM:1245:U:H2'	46:CM:1246:G:H8	1.68	0.58
47:CN:30:GLN:OE1	47:CN:153:SER:OG	2.18	0.58
71:DM:78:VAL:HG12	71:DM:81:ARG:HH21	1.68	0.58
1:1:362:U:O4	38:AK:24:ARG:NH2	2.36	0.58
1:1:1774:G:O2'	1:1:1776:G:OP2	2.21	0.58
1:1:3260:A:H2'	1:1:3261:A:C8	2.38	0.58
3:4:21:C:H5"	6:l:195:LEU:HD21	1.84	0.58
46:B:17:C:O2'	46:B:1122:A:N1	2.35	0.58
46:B:305:G:OP2	58:N:105:LYS:NZ	2.36	0.58
46:B:814:A:O2'	46:B:815:U:OP2	2.19	0.58
46:B:1205:C:O3'	57:M:52:LYS:NZ	2.34	0.58
1:AS:118:U:O2'	10:BC:134:LYS:NZ	2.35	0.58
1:AS:1530:A:H2'	1:AS:1531:A:C8	2.38	0.58
1:AS:2448:C:N3	1:AS:2467:C:H4'	2.18	0.58
21:BN:8:GLN:HG3	21:BN:26:ARG:HD2	1.85	0.58
46:CM:16:G:H2'	46:CM:17:C:C6	2.38	0.58
46:CM:149:G:O6	70:DL:124:ARG:NH2	2.35	0.58
82:L1:6:SER:HA	82:L1:9:VAL:HB	1.85	0.58
1:1:2718:A:H5'	7:m:178:ASN:OD1	2.03	0.58
7:m:155:THR:HG22	7:m:179:ARG:HD3	1.84	0.58
45:i:77:GLN:OE1	46:B:1446:A:N6	2.36	0.58
46:B:142:G:O2'	46:B:143:A:O5'	2.17	0.58
46:B:265:U:H2'	46:B:266:C:H6	1.66	0.58
47:C:63:ILE:HG12	67:X:36:ILE:HG12	1.85	0.58
49:E:138:TYR:OH	49:E:144:GLY:O	2.18	0.58
1:AS:421:G:O6	1:AS:2361:C:O2'	2.15	0.58
1:AS:782:A:H4'	1:AS:783:G:H5'	1.83	0.58
1:AS:3179:U:H2'	15:BH:114:MET:HE1	1.85	0.58
78:DT:132:VAL:HB	78:DT:145:LEU:HD22	1.83	0.58
1:1:679:U:O2'	1:1:695:G:O6	2.16	0.58
46:B:1670:U:O2'	46:B:1671:G:O5'	2.20	0.58
52:H:98:MET:O	52:H:99:MET:HE2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BL:67:ILE:HG12	19:BL:81:ILE:HG21	1.85	0.58
40:CG:24:PRO:HG2	40:CG:27:ILE:HD12	1.84	0.58
46:CM:577:A:H2'	50:CQ:144:ARG:HH22	1.67	0.58
46:CM:876:A:H2'	46:CM:877:G:H8	1.67	0.58
78:DT:65:HIS:CE1	78:DT:85:SER:HG	2.22	0.58
1:1:783:G:H2'	1:1:784:C:C6	2.38	0.58
45:i:41:ALA:HB1	45:i:44:ALA:HB2	1.86	0.58
46:B:739:A:H5"	46:B:740:A:H5'	1.84	0.58
46:B:1214:G:N2	46:B:1240:G:O2'	2.34	0.58
46:B:1275:U:H2'	46:B:1276:G:C8	2.38	0.58
56:L:110:GLN:NE2	56:L:126:ARG:HB2	2.18	0.58
1:AS:3014:U:OP2	1:AS:3064:C:N4	2.36	0.58
4:AW:20:THR:HA	4:AW:23:ARG:HG3	1.85	0.58
7:AZ:85:ARG:NH2	7:AZ:250:ASP:OD2	2.36	0.58
20:BM:165:ARG:NE	46:CM:835:A:OP1	2.36	0.58
43:CJ:61:LYS:NZ	43:CJ:63:LYS:O	2.35	0.58
46:CM:1067:C:H4'	67:DI:58:TYR:CE1	2.38	0.58
47:CN:88:LYS:HD2	47:CN:201:LEU:HD11	1.85	0.58
46:B:1410:A:H2'	49:E:87:ALA:CB	2.32	0.58
1:AS:449:U:H3	1:AS:480:G:H1	1.51	0.58
1:AS:547:U:H2'	1:AS:548:G:H8	1.68	0.58
1:AS:627:U:H2'	1:AS:628:A:H8	1.68	0.58
47:CN:198:MET:HB3	63:DE:85:VAL:HG21	1.86	0.58
48:CO:82:ARG:NH1	48:CO:191:GLU:OE2	2.36	0.58
61:DC:121:ILE:HD11	64:DF:125:ILE:HD13	1.86	0.58
81:12:153:ASP:HA	81:12:156:ASN:HB2	1.86	0.58
82:L1:50:SER:HA	82:L1:158:GLN:HA	1.86	0.58
82:l1:93:LEU:HD22	82:l1:99:LEU:HD13	1.86	0.58
79:O:52:LEU:HD21	79:O:60:CYS:SG	2.44	0.58
1:1:3151:C:OP2	17:w:172:LYS:NZ	2.30	0.58
46:B:150:U:O2	53:I:4:ASN:ND2	2.27	0.58
46:B:649:G:C5	46:B:650:G:H1'	2.39	0.58
46:B:1042:U:H3'	46:B:1043:U:H2'	1.86	0.58
50:F:224:VAL:HG23	78:AR:188:ASP:HB2	1.86	0.58
63:T:17:ILE:HB	63:T:69:ILE:HD12	1.85	0.58
1:AS:1830:U:OP2	40:CG:10:LYS:NZ	2.34	0.58
2:AT:4:U:H2'	2:AT:5:G:C8	2.38	0.58
46:CM:605:G:H5'	46:CM:611:G:N2	2.19	0.58
46:CM:1214:G:N2	46:CM:1240:G:O2'	2.35	0.58
46:CM:1469:A:H2'	46:CM:1470:G:C8	2.39	0.58
46:CM:1610:C:H2'	46:CM:1611:C:H6	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:DC:41:VAL:HG13	61:DC:84:ILE:HD13	1.84	0.58
63:DE:25:THR:HG23	63:DE:27:ASP:H	1.67	0.58
70:DL:87:PRO:HD2	70:DL:90:ARG:HD2	1.84	0.58
81:12:124:ASN:O	81:12:126:ALA:N	2.33	0.58
46:B:673:A:H2'	46:B:674:C:O4'	2.04	0.58
48:D:77:GLU:OE2	60:Q:109:ARG:NH1	2.21	0.58
54:J:29:ASP:OD1	54:J:30:LEU:HD23	2.04	0.58
1:AS:1592:C:H2'	1:AS:1593:C:C6	2.39	0.58
1:AS:2853:C:H2'	1:AS:2854:U:C6	2.39	0.58
1:AS:2925:U:H2'	1:AS:2926:U:H2'	1.86	0.58
1:AS:3294:U:H5"	5:AX:308:MET:HE2	1.86	0.58
25:BR:82:ILE:HG21	53:CT:158:VAL:HG11	1.86	0.58
57:CX:70:ASP:OD1	57:CX:71:GLU:N	2.36	0.58
78:DT:235:ALA:HB3	78:DT:253:THR:HB	1.86	0.58
13:s:88:GLU:HB3	61:R:10:ARG:NH1	2.19	0.58
43:AP:61:LYS:NZ	43:AP:63:LYS:O	2.36	0.58
46:B:703:U:H2'	46:B:704:A:N7	2.19	0.58
1:AS:3260:A:H2'	1:AS:3261:A:H8	1.69	0.58
8:BA:39:LEU:HD13	8:BA:83:VAL:HG11	1.86	0.58
46:CM:1148:A:H2'	46:CM:1149:G:O4'	2.04	0.58
46:CM:1659:G:H2'	46:CM:1660:G:C8	2.39	0.58
52:CS:159:ALA:HB3	52:CS:225:ARG:HB3	1.86	0.58
81:12:159:GLU:HG3	81:12:160:ILE:HG12	1.86	0.58
1:1:1060:A:H4'	1:1:1061:A:O5'	2.04	0.58
22:2:44:ALA:HB2	22:2:53:PRO:HG2	1.86	0.58
46:B:219:A:H2'	46:B:220:A:C8	2.39	0.58
46:B:477:C:OP1	56:L:121:SER:OG	2.16	0.58
46:B:1301:G:OP1	63:T:7:LYS:N	2.32	0.58
48:D:145:ARG:NH2	48:D:151:LYS:O	2.37	0.58
61:R:94:VAL:HG21	61:R:116:LEU:HD11	1.85	0.58
1:AS:638:U:H2'	1:AS:639:C:C6	2.38	0.58
1:AS:2138:G:H2'	1:AS:2139:G:H8	1.68	0.58
46:CM:267:G:H2'	46:CM:268:C:C6	2.39	0.58
46:CM:816:U:H2'	46:CM:817:U:C6	2.39	0.58
46:CM:1200:C:P	77:DS:134:LYS:HZ1	2.27	0.58
50:CQ:65:ARG:HD2	57:CX:91:ARG:HE	1.69	0.58
64:DF:22:ILE:HD11	64:DF:35:ILE:HG13	1.86	0.58
82:L1:55:LEU:HD13	82:L1:182:GLN:HE21	1.69	0.58
1:1:481:G:H2'	1:1:482:U:C6	2.39	0.57
1:1:1692:A:H2'	1:1:1693:A:C8	2.39	0.57
46:B:255:A:H1'	55:K:73:SER:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:1669:U:HO2'	46:B:1670:U:H6	1.52	0.57
49:E:36:LEU:HD21	49:E:51:ILE:HD12	1.86	0.57
1:AS:172:C:O2'	1:AS:173:C:OP1	2.22	0.57
1:AS:2435:G:H3'	1:AS:2436:A:C5'	2.34	0.57
46:CM:518:A:H2'	46:CM:519:A:H8	1.68	0.57
46:CM:653:G:O2'	46:CM:655:U:O4	2.22	0.57
50:CQ:214:ASP:CG	50:CQ:215:GLU:H	2.11	0.57
57:CX:54:TYR:CE1	57:CX:75:PHE:HB2	2.39	0.57
72:DN:51:ARG:NH2	74:DP:60:GLU:HG3	2.18	0.57
46:B:1276:G:H22	46:B:1309:G:N2	2.02	0.57
46:B:1413:A:O2'	46:B:1414:G:OP1	2.22	0.57
46:B:1741:A:H2'	46:B:1742:A:C8	2.39	0.57
1:AS:527:G:H2'	1:AS:528:A:C8	2.39	0.57
28:BU:78:ASN:OD1	31:BX:37:ARG:NH2	2.30	0.57
46:CM:1719:A:H2'	46:CM:1720:C:H6	1.68	0.57
67:DI:74:GLN:NE2	67:DI:83:TRP:O	2.35	0.57
1:1:1561:U:H2'	1:1:1562:G:C8	2.39	0.57
1:1:2535:A:OP1	4:j:69:TYR:OH	2.19	0.57
1:1:2587:G:H2'	1:1:2588:C:H6	1.68	0.57
46:B:1672:G:N2	46:B:1704:C:C2	2.73	0.57
1:AS:2171:U:O4	1:AS:2221:A:N6	2.36	0.57
1:AS:2545:C:O2'	1:AS:2547:G:N3	2.37	0.57
11:BD:80:THR:HA	11:BD:83:THR:HG22	1.87	0.57
18:BK:118:GLN:OE1	18:BK:120:ASN:ND2	2.36	0.57
46:CM:165:U:H2'	46:CM:166:A:H5"	1.86	0.57
46:CM:814:A:O2'	46:CM:815:U:OP2	2.18	0.57
50:CQ:128:MET:HE3	50:CQ:155:ASP:HB3	1.86	0.57
79:CZ:78:LEU:O	79:CZ:81:GLU:HG3	2.04	0.57
64:DF:36:ARG:NH1	64:DF:105:LEU:HD22	2.19	0.57
1:1:417:A:H2'	1:1:418:A:C8	2.39	0.57
1:1:1837:A:H1'	40:AM:45:ARG:HH22	1.68	0.57
1:1:2130:A:HO2'	1:1:2221:A:HO2'	1.53	0.57
1:1:2205:C:OP1	43:AP:32:LYS:NZ	2.37	0.57
1:1:2384:C:H2'	1:1:2385:C:C6	2.40	0.57
2:3:4:U:H2'	2:3:5:G:H8	1.70	0.57
31:AD:55:LYS:O	31:AD:59:GLU:HG2	2.04	0.57
46:B:1301:G:O2'	63:T:10:LYS:NZ	2.35	0.57
46:B:1400:U:H5"	63:T:3:ARG:HE	1.70	0.57
46:B:1422:A:OP2	50:F:28:ARG:NH2	2.36	0.57
49:E:165:ILE:HB	49:E:192:TYR:HB2	1.86	0.57
1:AS:2330:A:H5"	18:BK:83:TRP:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2384:C:H2'	1:AS:2385:C:C6	2.40	0.57
46:CM:965:G:H4'	46:CM:1763:A:H4'	1.86	0.57
46:CM:1335:U:H2'	46:CM:1336:G:C8	2.39	0.57
56:CW:101:PRO:O	56:CW:105:LEU:HD12	2.03	0.57
16:v:91:GLN:O	16:v:93:LYS:NZ	2.37	0.57
50:F:141:GLY:HA3	50:F:183:LEU:HD23	1.86	0.57
1:AS:1256:A:H1'	1:AS:1276:C:H1'	1.86	0.57
1:AS:1628:A:OP1	28:BU:48:ARG:NH1	2.37	0.57
1:AS:2988:A:H2'	1:AS:2989:A:C8	2.39	0.57
28:BU:12:ILE:HB	28:BU:81:MET:HB3	1.86	0.57
46:CM:1262:G:O3'	50:CQ:184:GLY:HA3	2.04	0.57
74:DP:12:VAL:HG22	74:DP:52:ASP:H	1.70	0.57
78:DT:65:HIS:CG	78:DT:85:SER:HG	2.22	0.57
1:1:1794:A:H2'	1:1:1795:A:C8	2.40	0.57
1:1:2210:A:H2'	1:1:2211:A:C8	2.40	0.57
31:AD:46:ILE:HG21	31:AD:55:LYS:HG3	1.85	0.57
50:F:210:ALA:O	63:T:19:ARG:NH1	2.37	0.57
61:R:60:LEU:HD21	61:R:94:VAL:HG12	1.86	0.57
1:AS:477:U:H2'	1:AS:478:G:H8	1.68	0.57
1:AS:1199:A:H2'	1:AS:1200:A:C8	2.39	0.57
46:CM:834:C:H2'	46:CM:835:A:H8	1.68	0.57
51:CR:59:ARG:HH22	70:DL:87:PRO:HG3	1.69	0.57
54:CU:29:ASP:OD1	54:CU:30:LEU:HD23	2.04	0.57
56:CW:53:ARG:O	56:CW:57:ARG:HG3	2.04	0.57
61:DC:44:ARG:NH2	61:DC:82:ASN:OD1	2.38	0.57
1:1:619:A:H2'	1:1:620:A:C8	2.40	0.57
1:1:1043:A:N3	1:1:2605:U:O2'	2.37	0.57
1:1:2651:A:H1'	45:i:50:LYS:HG3	1.87	0.57
23:5:92:ILE:HD12	23:5:96:ILE:HD12	1.86	0.57
46:B:784:U:H2'	46:B:785:G:C8	2.39	0.57
46:B:1245:U:H2'	46:B:1246:G:C8	2.40	0.57
1:AS:1611:U:H2'	1:AS:1612:U:C6	2.39	0.57
1:AS:1663:A:H2'	1:AS:1664:G:H8	1.67	0.57
1:AS:1779:U:H2'	1:AS:1780:A:C8	2.39	0.57
1:AS:2933:G:H2'	1:AS:2934:U:C6	2.39	0.57
2:AT:112:G:H2'	2:AT:113:C:C6	2.39	0.57
46:CM:560:G:H2'	46:CM:561:U:O2	2.05	0.57
46:CM:1064:U:H2'	46:CM:1065:U:C6	2.40	0.57
79:CZ:103:LEU:HD13	79:CZ:116:VAL:O	2.04	0.57
69:DK:69:ARG:HG3	69:DK:117:ILE:HG12	1.86	0.57
1:1:172:C:O2'	1:1:173:C:OP1	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:935:U:OP2	29:AB:26:ARG:NH2	2.38	0.57
46:B:671:G:C3'	46:B:672:U:H5'	2.23	0.57
46:B:801:A:O4'	54:J:106:GLN:NE2	2.37	0.57
46:B:932:U:H2'	46:B:933:A:C8	2.40	0.57
46:B:1192:C:N3	46:B:1442:C:H5	2.03	0.57
1:AS:148:U:H4'	16:BI:56:LYS:HG2	1.87	0.57
1:AS:3166:A:H2'	1:AS:3167:G:H5'	1.85	0.57
1:AS:3310:G:OP1	55:CV:92:ARG:HG2	2.05	0.57
79:CZ:78:LEU:HA	79:CZ:81:GLU:HG2	1.87	0.57
64:DF:25:ARG:NH1	64:DF:25:ARG:HB3	2.19	0.57
82:l1:204:LEU:HB3	82:l1:217:TYR:HB3	1.86	0.57
1:1:2411:U:H1'	16:v:125:SER:HB3	1.86	0.57
1:1:2527:G:N2	1:1:2527:G:OP2	2.38	0.57
3:4:103:G:OP2	3:4:105:A:O2'	2.22	0.57
8:n:39:LEU:HB3	8:n:83:VAL:HG13	1.87	0.57
27:9:39:LEU:HD22	27:9:43:TYR:HE2	1.67	0.57
45:i:48:PRO:C	45:i:50:LYS:H	2.12	0.57
69:Z:107:PHE:CE2	69:Z:114:LYS:CG	2.86	0.57
1:AS:1258:G:O6	1:AS:1260:G:N2	2.38	0.57
1:AS:1936:G:H21	1:AS:3327:A:H8	1.53	0.57
3:AU:8:C:H2'	3:AU:9:A:C8	2.39	0.57
46:CM:610:U:OP2	69:DK:5:LYS:NZ	2.38	0.57
46:CM:1395:G:N2	46:CM:1398:G:OP2	2.37	0.57
46:CM:1548:U:H4'	46:CM:1586:C:H4'	1.87	0.57
46:CM:1679:A:H2	46:CM:1696:U:H3	1.53	0.57
79:CZ:132:GLU:O	79:CZ:136:LEU:HB2	2.04	0.57
60:DB:124:LYS:HG3	60:DB:125:GLY:N	2.19	0.57
70:DL:56:SER:HB3	70:DL:74:LEU:HD11	1.87	0.57
78:DT:70:GLN:OE1	78:DT:86:TRP:NE1	2.32	0.57
82:l1:189:PHE:O	82:l1:193:LEU:HG	2.05	0.57
1:1:1248:A:C2'	1:1:1249:U:H5'	2.33	0.57
1:1:1255:A:N3	1:1:1276:C:O2'	2.33	0.57
1:1:2988:A:H2'	1:1:2989:A:H8	1.68	0.57
3:4:9:A:H2'	3:4:10:A:C8	2.40	0.57
4:j:204:MET:SD	4:j:209:HIS:HB2	2.45	0.57
8:n:170:ARG:HB3	8:n:172:HIS:CE1	2.40	0.57
53:I:57:ASP:HA	53:I:106:LEU:HA	1.87	0.57
58:N:26:LYS:HZ2	58:N:29:LYS:HB3	1.70	0.57
1:AS:2079:C:HO2'	1:AS:2080:U:H6	1.51	0.57
2:AT:3:U:H2'	2:AT:4:U:C6	2.40	0.57
13:BF:32:ARG:HD2	13:BF:120:ILE:HA	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BN:96:ASP:OD1	21:BN:97:VAL:N	2.37	0.57
46:CM:668:U:H3'	46:CM:669:G:C8	2.40	0.57
57:CX:12:HIS:HB3	57:CX:80:LEU:HD21	1.87	0.57
82:L1:10:ARG:O	82:L1:14:HIS:ND1	2.38	0.57
82:L1:73:ASP:CG	82:L1:113:SER:HB2	2.30	0.57
82:L1:119:GLN:HA	82:L1:122:ARG:HB2	1.86	0.57
1:1:421:G:O6	1:1:2361:C:O2'	2.22	0.56
1:1:496:A:H2'	1:1:497:U:C6	2.40	0.56
1:1:662:U:H5'	6:l:108:ARG:HA	1.87	0.56
6:l:301:ARG:NH2	19:y:38:ARG:O	2.37	0.56
6:l:359:GLU:OE2	21:0:8:GLN:NE2	2.38	0.56
46:B:1699:G:H2'	46:B:1700:G:H5"	1.86	0.56
46:CM:824:U:N3	46:CM:825:U:O4	2.38	0.56
79:CZ:42:ALA:HB1	79:CZ:47:GLU:HB3	1.87	0.56
79:CZ:53:SER:HB2	77:DS:158:ARG:HH21	1.68	0.56
78:DT:20:VAL:HG11	78:DT:307:ILE:HG12	1.87	0.56
82:l1:174:MET:HB3	82:l1:178:VAL:HB	1.87	0.56
1:1:1116:A:H2'	1:1:1117:U:H6	1.69	0.56
1:1:2331:G:H5"	18:x:86:LYS:HB2	1.86	0.56
1:1:2345:A:H2'	1:1:2346:A:C8	2.40	0.56
5:k:339:ARG:NH2	5:k:342:LEU:HD11	2.20	0.56
25:7:80:ARG:HH21	53:I:131:LYS:HG2	1.70	0.56
46:B:1593:C:H2'	46:B:1594:G:C8	2.39	0.56
46:B:1635:A:H2'	46:B:1636:C:C6	2.40	0.56
65:V:107:ALA:O	65:V:111:ILE:HG12	2.05	0.56
1:AS:449:U:H2'	1:AS:450:G:H8	1.68	0.56
1:AS:538:G:O6	1:AS:547:U:O4	2.22	0.56
1:AS:1030:U:H2'	1:AS:1031:A:C8	2.40	0.56
1:AS:1060:A:H4'	1:AS:1061:A:O5'	2.05	0.56
1:AS:1241:A:H3'	1:AS:1242:G:C5'	2.32	0.56
39:CF:46:ARG:HD2	39:CF:47:GLY:O	2.05	0.56
1:1:1691:U:O2'	1:1:1745:A:N1	2.37	0.56
1:1:1830:U:OP2	40:AM:10:LYS:NZ	2.35	0.56
1:1:2126:U:H2'	1:1:2127:A:C8	2.41	0.56
1:1:2158:A:H2'	1:1:2159:C:C6	2.39	0.56
1:1:2740:U:H2'	1:1:2741:A:H8	1.71	0.56
40:AM:23:LEU:HD12	40:AM:24:PRO:HD2	1.87	0.56
46:B:4:C:H5	46:B:20:G:H1	1.53	0.56
46:B:1300:U:HO2'	46:B:1301:G:H8	1.51	0.56
46:B:1300:U:OP1	46:B:1313:G:N2	2.30	0.56
46:B:1315:G:H21	63:T:8:THR:HG21	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:1410:A:H2'	49:E:87:ALA:HB3	1.86	0.56
46:B:1644:U:O5'	46:B:1645:G:H5"	2.05	0.56
57:M:70:ASP:O	57:M:73:VAL:HG22	2.06	0.56
66:W:24:THR:HB	66:W:114:GLU:HG3	1.88	0.56
1:AS:2342:G:H22	1:AS:2374:G:H1'	1.70	0.56
1:AS:2587:G:H2'	1:AS:2588:C:C6	2.40	0.56
1:AS:3240:U:OP2	34:CA:66:VAL:HG21	2.05	0.56
2:AT:39:U:H5'	45:CL:33:ASN:ND2	2.20	0.56
21:BN:73:LYS:NZ	21:BN:97:VAL:O	2.37	0.56
26:BS:133:LEU:O	26:BS:137:ASN:ND2	2.37	0.56
40:CG:44:TRP:O	40:CG:48:LYS:NZ	2.35	0.56
46:CM:68:A:OP1	53:CT:160:ARG:NH2	2.35	0.56
46:CM:519:A:N3	70:DL:34:ASN:ND2	2.48	0.56
46:CM:787:A:O2'	54:CU:100:ARG:NE	2.37	0.56
46:CM:1218:G:N1	46:CM:1238:U:O2	2.38	0.56
46:CM:1579:A:H2'	46:CM:1580:A:C8	2.39	0.56
51:CR:100:ARG:HG2	51:CR:102:VAL:HG13	1.87	0.56
61:DC:18:LYS:HB2	61:DC:36:LEU:HD12	1.86	0.56
67:DI:53:TYR:OH	67:DI:76:ASP:OD2	2.17	0.56
82:L1:48:ARG:NH1	82:L1:161:LYS:H	2.04	0.56
80:p0:9:VAL:O	80:p0:13:SER:N	2.33	0.56
1:1:289:A:H2'	1:1:290:G:H8	1.71	0.56
1:1:683:G:OP2	14:t:35:ARG:NH1	2.38	0.56
1:1:2498:A:H2'	1:1:2499:U:C6	2.40	0.56
33:AF:80:VAL:HG12	33:AF:112:LYS:HD2	1.87	0.56
46:B:518:A:H2'	46:B:519:A:H8	1.70	0.56
46:B:878:U:H5'	46:B:879:U:OP2	2.05	0.56
50:F:223:THR:HG21	78:AR:225:ASN:HB3	1.87	0.56
53:I:116:GLN:NE2	53:I:125:THR:HB	2.20	0.56
71:b:50:ILE:HG12	71:b:69:LEU:HD13	1.87	0.56
80:P0:4:ALA:HB3	80:P0:5:ARG:NH1	2.21	0.56
1:1:1795:A:H2'	1:1:1796:A:C8	2.39	0.56
1:1:2370:C:H1'	5:k:266:ARG:NH2	2.21	0.56
1:1:3192:A:O3'	15:u:126:LYS:NZ	2.35	0.56
3:4:75:G:OP2	27:9:74:TYR:OH	2.22	0.56
51:G:126:VAL:HG13	51:G:139:VAL:HG13	1.86	0.56
1:AS:115:A:OP2	16:BI:2:GLY:N	2.39	0.56
1:AS:269:G:H5"	16:BI:14:LYS:HE2	1.88	0.56
1:AS:1743:G:H21	39:CF:2:ALA:HB3	1.70	0.56
5:AX:211:GLN:NE2	5:AX:283:TYR:O	2.33	0.56
6:AY:204:ARG:NH2	6:AY:227:GLU:OE2	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BZ:97:ILE:HG21	33:BZ:106:ARG:HG3	1.86	0.56
46:CM:504:A:H5"	46:CM:505:U:O5'	2.05	0.56
46:CM:824:U:OP2	58:CY:28:ASN:HB2	2.05	0.56
46:CM:1575:G:H1	46:CM:1595:U:H3	1.53	0.56
79:CZ:102:GLY:C	79:CZ:104:CYS:H	2.14	0.56
1:1:1239:G:C2'	1:1:1240:A:H5'	2.35	0.56
1:1:1250:C:H2'	1:1:1251:C:C6	2.41	0.56
1:1:2899:C:H2'	1:1:2900:C:H6	1.69	0.56
3:4:83:U:O2	27:9:51:ARG:NH2	2.39	0.56
23:5:16:VAL:HG12	23:5:65:VAL:HG22	1.88	0.56
45:i:48:PRO:O	45:i:50:LYS:N	2.36	0.56
46:B:1087:G:OP2	69:Z:7:ARG:NH1	2.32	0.56
46:B:1597:G:N7	62:S:13:LYS:NZ	2.54	0.56
51:G:104:ASP:HB3	51:G:110:ALA:HB2	1.86	0.56
1:AS:117:U:O2	1:AS:120:A:H5"	2.06	0.56
1:AS:730:A:H4'	1:AS:730:A:OP1	2.06	0.56
1:AS:2262:C:N4	1:AS:2286:C:OP2	2.34	0.56
1:AS:2434:A:O2'	1:AS:2435:G:OP1	2.20	0.56
29:BV:28:HIS:CD2	29:BV:32:ARG:HG2	2.40	0.56
46:CM:724:G:C4	46:CM:725:A:C8	2.93	0.56
46:CM:1216:U:H3	46:CM:1239:U:H3	1.54	0.56
46:CM:1231:C:O3'	77:DS:134:LYS:NZ	2.38	0.56
46:CM:1551:U:H2'	46:CM:1552:C:C6	2.40	0.56
81:12:116:MET:HB3	81:12:119:LYS:HG2	1.87	0.56
46:B:55:A:OP1	70:a:112:LYS:NZ	2.36	0.56
46:B:650:G:H2'	46:B:678:A:N1	2.21	0.56
1:AS:2158:A:H2'	1:AS:2159:C:C6	2.41	0.56
2:AT:3:U:H2'	2:AT:4:U:H6	1.70	0.56
26:BS:67:ILE:HD12	26:BS:121:LYS:HG3	1.88	0.56
46:CM:784:U:H2'	46:CM:785:G:C8	2.41	0.56
46:CM:1024:A:O2'	46:CM:1025:G:O5'	2.23	0.56
46:CM:1220:C:H5	77:DS:180:ARG:HE	1.52	0.56
47:CN:57:ILE:HG23	47:CN:177:LEU:HD23	1.88	0.56
59:DA:55:ARG:NH2	73:DO:51:GLN:OE1	2.38	0.56
60:DB:79:ARG:HB3	60:DB:113:VAL:HG23	1.88	0.56
70:DL:74:LEU:HD13	70:DL:76:TYR:CE1	2.41	0.56
81:12:130:LYS:HA	81:12:133:LEU:HB2	1.87	0.56
15:u:21:VAL:HG22	15:u:55:ILE:HG22	1.87	0.56
32:AE:43:MET:HE3	32:AE:76:ARG:HB2	1.86	0.56
1:AS:252:U:H5'	1:AS:253:A:H8	1.70	0.56
1:AS:1265:U:H5'	1:AS:1266:A:OP2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1302:G:C5	17:BJ:63:THR:HA	2.41	0.56
1:AS:3166:A:C2	1:AS:3167:G:N7	2.74	0.56
46:CM:701:G:H5'	53:CT:230:ARG:NH1	2.15	0.56
46:CM:701:G:N2	46:CM:721:C:C2	2.74	0.56
46:CM:1145:A:H2'	46:CM:1146:C:C6	2.41	0.56
46:CM:1160:U:H2'	46:CM:1161:G:H8	1.69	0.56
46:CM:1677:G:H2'	46:CM:1678:G:N7	2.21	0.56
78:DT:189:PHE:HD2	78:DT:220:TRP:CE3	2.24	0.56
1:1:2391:A:H2'	1:1:2392:G:H8	1.71	0.56
1:1:2660:U:OP1	7:m:12:TYR:OH	2.22	0.56
1:1:3171:C:H5"	1:1:3172:U:O5'	2.06	0.56
2:3:3:U:H2'	2:3:4:U:C6	2.41	0.56
5:k:117:ARG:HD2	5:k:176:ALA:O	2.05	0.56
9:o:52:GLU:OE2	9:o:184:HIS:NE2	2.38	0.56
46:B:216:A:H4'	46:B:217:A:OP1	2.06	0.56
46:B:1064:U:H2'	46:B:1065:U:C6	2.40	0.56
47:C:14:ALA:O	47:C:18:LEU:HD12	2.05	0.56
1:AS:417:A:H2'	1:AS:418:A:C8	2.41	0.56
1:AS:1895:G:O2'	1:AS:2312:U:O4	2.18	0.56
1:AS:2385:C:H2'	1:AS:2386:U:H6	1.71	0.56
1:AS:2435:G:H1	1:AS:2439:A:N6	2.02	0.56
1:AS:3300:A:H2'	1:AS:3301:A:C8	2.41	0.56
27:BT:11:SER:HB3	27:BT:14:LYS:HB2	1.87	0.56
46:CM:119:A:H1'	46:CM:395:A:C5	2.40	0.56
47:CN:50:ILE:HA	47:CN:53:THR:HB	1.88	0.56
47:CN:200:ASP:O	47:CN:203:PHE:HB2	2.06	0.56
55:CV:56:ARG:NH1	55:CV:180:GLY:O	2.39	0.56
1:1:2458:G:H4'	82:l1:102:LYS:HZ1	1.70	0.56
46:B:405:A:H2'	46:B:406:C:H6	1.70	0.56
46:B:786:G:H21	68:Y:107:SER:HB3	1.70	0.56
46:B:1478:A:O2'	46:B:1479:A:O4'	2.23	0.56
46:B:1610:C:H2'	46:B:1611:C:H6	1.70	0.56
69:Z:107:PHE:CD2	69:Z:114:LYS:CB	2.88	0.56
1:AS:547:U:H2'	1:AS:548:G:C8	2.41	0.56
1:AS:2853:C:H2'	1:AS:2854:U:H6	1.70	0.56
1:AS:2888:U:H5	1:AS:2907:U:HO2'	1.53	0.56
4:AW:132:ASN:HD22	4:AW:151:PRO:HB3	1.71	0.56
7:AZ:50:ARG:NH2	7:AZ:72:ASP:OD2	2.38	0.56
16:BI:46:ASP:OD2	16:BI:50:ARG:NH2	2.36	0.56
27:BT:51:ARG:HG2	27:BT:52:GLN:H	1.70	0.56
38:CE:21:ARG:HD2	38:CE:37:CYS:SG	2.46	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:29:U:H2'	46:CM:30:G:H8	1.70	0.56
67:DI:11:LEU:HD23	67:DI:11:LEU:H	1.71	0.56
77:DS:125:LYS:O	77:DS:126:VAL:HG23	2.06	0.56
82:L1:15:LYS:HB2	82:L1:214:PHE:CZ	2.41	0.56
82:l1:156:LYS:HG2	82:l1:157:PHE:H	1.70	0.56
82:l1:175:GLU:HB3	82:l1:178:VAL:HG23	1.87	0.56
1:1:173:C:H2'	1:1:174:C:C6	2.40	0.55
17:w:2:SER:HB2	34:AG:34:GLY:HA2	1.87	0.55
46:B:123:G:OP1	51:G:77:ARG:NH2	2.29	0.55
46:B:671:G:H5'	46:B:672:U:OP2	2.06	0.55
46:B:768:C:H2'	46:B:769:U:O4'	2.07	0.55
46:B:1668:A:H1'	53:I:66:GLY:HA2	1.87	0.55
47:C:52:LYS:HD3	67:X:82:VAL:HG23	1.88	0.55
49:E:53:LEU:O	67:X:15:ARG:NE	2.39	0.55
49:E:97:VAL:HG11	49:E:124:ILE:HG12	1.87	0.55
66:W:33:LEU:HG	66:W:88:ARG:HE	1.71	0.55
1:AS:431:A:H2'	1:AS:432:G:C8	2.41	0.55
1:AS:1467:U:OP1	20:BM:5:ARG:NH2	2.39	0.55
1:AS:1617:A:H2'	1:AS:1618:U:C6	2.41	0.55
1:AS:2183:U:O2'	1:AS:2184:G:OP1	2.22	0.55
1:AS:2370:C:H1'	5:AX:266:ARG:NH2	2.21	0.55
3:AU:150:G:OP1	26:BS:27:ARG:NH2	2.39	0.55
46:CM:970:G:H2'	46:CM:971:G:H8	1.69	0.55
46:CM:1074:U:O2'	46:CM:1078:A:N1	2.37	0.55
46:CM:1479:A:H4'	46:CM:1480:G:O5'	2.04	0.55
54:CU:54:LEU:HD13	54:CU:84:ARG:HB3	1.87	0.55
55:CV:120:THR:HG21	55:CV:133:ALA:HA	1.88	0.55
58:CY:7:VAL:HG23	58:CY:8:GLN:HG2	1.87	0.55
61:DC:130:ARG:HD3	61:DC:130:ARG:H	1.71	0.55
81:12:137:GLN:HB2	81:12:148:PRO:HB2	1.87	0.55
1:1:252:U:H5'	1:1:253:A:H8	1.70	0.55
1:1:1278:G:OP1	80:P0:55:LYS:HB2	2.06	0.55
1:1:2093:G:H22	1:1:2098:A:H1'	1.70	0.55
1:1:2196:G:H2'	1:1:2197:A:H8	1.71	0.55
1:1:3039:C:H3'	20:z:62:ARG:NH2	2.20	0.55
2:3:64:A:H61	12:r:200:LEU:HD21	1.70	0.55
3:4:141:C:O3'	16:v:62:TYR:OH	2.25	0.55
29:AB:104:THR:OG1	29:AB:126:LYS:O	2.20	0.55
46:B:309:U:OP2	69:Z:20:ARG:HD3	2.06	0.55
46:B:965:G:H4'	46:B:1763:A:H4'	1.88	0.55
46:B:988:A:H2'	46:B:990:A:N7	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:C:124:THR:O	47:C:164:ASN:ND2	2.39	0.55
61:R:121:ILE:HD11	64:U:125:ILE:HD13	1.88	0.55
1:AS:511:C:H5"	6:AY:344:LYS:HD2	1.89	0.55
12:BE:193:ASP:OD2	12:BE:198:LYS:HE3	2.06	0.55
45:CL:99:SER:OG	46:CM:573:C:OP1	2.23	0.55
46:CM:1332:U:C4	66:DH:57:MET:HE1	2.42	0.55
79:CZ:135:ILE:HA	79:CZ:138:GLU:CD	2.31	0.55
80:p0:15:LEU:HG	80:p0:19:LEU:HD13	1.88	0.55
1:1:99:A:H3'	1:1:100:G:H21	1.71	0.55
1:1:1255:A:N7	80:P0:53:MET:HB3	2.21	0.55
1:1:2933:G:H2'	1:1:2934:U:C6	2.41	0.55
2:3:23:A:H2'	2:3:24:A:C8	2.41	0.55
28:AA:27:LYS:HE3	28:AA:97:THR:HG22	1.88	0.55
46:B:871:U:H2'	46:B:872:A:H8	1.71	0.55
1:AS:252:U:H5'	1:AS:253:A:C8	2.42	0.55
1:AS:1561:U:H6	1:AS:1561:U:H5"	1.72	0.55
1:AS:2174:C:O2'	1:AS:2248:A:N3	2.36	0.55
1:AS:3093:U:H1'	1:AS:3094:A:H5"	1.88	0.55
23:BP:33:TYR:O	23:BP:37:LEU:HD23	2.06	0.55
26:BS:58:ASP:OD2	36:CC:25:LYS:NZ	2.36	0.55
29:BV:36:GLY:HA3	29:BV:40:HIS:CE1	2.42	0.55
46:CM:670:C:H3'	46:CM:671:G:O4'	2.06	0.55
46:CM:1399:U:O2'	46:CM:1400:U:OP1	2.24	0.55
46:CM:1679:A:H2'	46:CM:1680:A:C8	2.41	0.55
65:DG:16:ASN:OD1	65:DG:56:LYS:NZ	2.38	0.55
71:DM:36:ALA:HB1	71:DM:38:HIS:HD2	1.70	0.55
1:1:538:G:H2'	1:1:539:G:C8	2.41	0.55
1:1:2530:C:N4	31:AD:59:GLU:OE2	2.38	0.55
1:1:2694:U:O2'	22:2:88:ARG:O	2.23	0.55
5:k:260:VAL:HG11	5:k:266:ARG:HH11	1.71	0.55
15:u:19:VAL:HG12	15:u:57:LEU:HA	1.88	0.55
42:AO:10:VAL:HG11	46:B:1100:U:H5"	1.89	0.55
46:B:405:A:H2'	46:B:406:C:C6	2.41	0.55
46:B:874:U:H2'	46:B:875:C:H6	1.72	0.55
46:B:1469:A:H2'	46:B:1470:G:C8	2.42	0.55
46:B:1649:G:H2'	46:B:1650:G:H8	1.72	0.55
78:AR:200:THR:HG21	78:AR:241:ALA:HA	1.88	0.55
1:AS:120:A:C2	10:BC:130:PRO:HB3	2.41	0.55
1:AS:496:A:OP1	8:BA:81:ARG:NH1	2.39	0.55
1:AS:1106:U:H2'	1:AS:1107:U:C6	2.41	0.55
1:AS:1190:G:H2'	1:AS:1191:A:C8	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CC:85:THR:O	36:CC:89:ARG:HG3	2.06	0.55
46:CM:238:U:O2'	46:CM:239:U:OP1	2.22	0.55
46:CM:940:A:H4'	46:CM:1058:G:O2'	2.05	0.55
1:1:527:G:H2'	1:1:528:A:C8	2.42	0.55
1:1:563:U:H2'	1:1:564:G:C8	2.41	0.55
1:1:1080:A:H2'	1:1:1081:A:C8	2.41	0.55
1:1:1571:G:H2'	1:1:1572:G:C8	2.42	0.55
2:3:3:U:H2'	2:3:4:U:H6	1.71	0.55
11:q:12:ILE:HD11	11:q:53:ILE:HG13	1.87	0.55
21:0:161:LYS:NZ	21:0:161:LYS:HB3	2.21	0.55
36:AI:64:GLU:HA	36:AI:67:ARG:HB2	1.88	0.55
46:B:345:G:H5"	58:N:80:MET:HE2	1.88	0.55
46:B:940:A:H4'	46:B:1058:G:O2'	2.06	0.55
46:B:1160:U:H2'	46:B:1161:G:H8	1.72	0.55
63:T:99:GLN:OE1	63:T:99:GLN:N	2.39	0.55
1:AS:148:U:O2'	16:BI:56:LYS:NZ	2.38	0.55
1:AS:290:G:H1'	16:BI:93:LYS:HD2	1.89	0.55
1:AS:989:G:N3	1:AS:2609:A:H2'	2.22	0.55
1:AS:1655:U:H2'	1:AS:1656:C:C6	2.42	0.55
1:AS:2244:U:H2'	1:AS:2245:C:H6	1.70	0.55
49:CP:177:PRO:HD3	56:CW:17:ARG:HH22	1.72	0.55
76:DR:20:LYS:NZ	76:DR:21:VAL:O	2.39	0.55
80:p0:12:PHE:HZ	80:p0:16:ARG:HH21	1.53	0.55
80:p0:48:ASP:N	80:p0:48:ASP:OD1	2.40	0.55
1:1:294:U:OP2	16:v:15:GLN:NE2	2.36	0.55
8:n:20:THR:HG22	8:n:22:LYS:H	1.72	0.55
46:B:30:G:H2'	46:B:31:C:C6	2.42	0.55
46:B:987:G:N2	46:B:1747:G:O3'	2.38	0.55
46:B:1335:U:H5'	62:S:67:LYS:HZ3	1.71	0.55
46:B:1479:A:H4'	46:B:1480:G:O5'	2.07	0.55
46:B:1597:G:H5"	52:H:107:LYS:HD2	1.88	0.55
49:E:96:VAL:HG22	49:E:110:ILE:HG12	1.89	0.55
78:AR:218:ILE:HG23	78:AR:230:THR:HG22	1.89	0.55
1:AS:1837:A:H1'	40:CG:45:ARG:HH22	1.71	0.55
1:AS:1943:G:O2'	1:AS:1944:G:OP1	2.21	0.55
1:AS:3184:G:H1	8:BA:162:SER:HG	1.54	0.55
13:BF:92:ARG:HB3	13:BF:95:ASN:OD1	2.06	0.55
46:CM:478:G:H1	46:CM:506:U:H3	1.55	0.55
46:CM:723:G:H2'	46:CM:724:G:O4'	2.06	0.55
46:CM:904:A:H2'	46:CM:905:C:C6	2.41	0.55
47:CN:11:PRO:O	47:CN:15:LYS:HG3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CW:148:VAL:HG11	56:CW:156:ILE:HD11	1.87	0.55
80:p0:10:GLN:O	80:p0:14:LYS:N	2.33	0.55
1:1:583:A:H2'	1:1:584:C:C6	2.41	0.55
1:1:1202:G:OP1	12:r:157:TYR:OH	2.19	0.55
1:1:1231:U:OP2	81:12:119:LYS:NZ	2.40	0.55
1:1:1302:G:O6	1:1:2344:C:O2'	2.24	0.55
1:1:1556:G:N7	26:8:36:LYS:HE2	2.22	0.55
1:1:1801:C:H2'	1:1:1802:A:H8	1.72	0.55
1:1:2428:G:N2	1:1:2475:U:H3	2.04	0.55
1:1:2978:A:H2'	1:1:2979:U:O4'	2.07	0.55
1:1:3256:G:H2'	1:1:3257:A:H8	1.71	0.55
38:AK:63:ARG:O	38:AK:68:LYS:HE3	2.07	0.55
46:B:703:U:C5	46:B:712:A:H5"	2.42	0.55
46:B:870:G:H2'	46:B:871:U:C6	2.42	0.55
54:J:51:LYS:HD2	54:J:85:HIS:CE1	2.42	0.55
54:J:72:ARG:HG2	54:J:75:ARG:HH21	1.72	0.55
55:K:11:ARG:O	58:N:133:LYS:NZ	2.40	0.55
69:Z:73:ARG:NH1	69:Z:84:THR:OG1	2.37	0.55
1:AS:1870:A:OP2	20:BM:20:ARG:NH1	2.39	0.55
1:AS:3153:A:H2	1:AS:3158:G:H4'	1.70	0.55
9:BB:143:ARG:HG3	9:BB:183:ILE:HD13	1.88	0.55
23:BP:19:VAL:C	23:BP:21:ALA:H	2.13	0.55
46:CM:1410:A:C2'	49:CP:87:ALA:HB3	2.36	0.55
57:CX:81:ASN:HB3	79:CZ:37:VAL:HG13	1.89	0.55
74:DP:42:ARG:NH1	74:DP:58:GLU:O	2.40	0.55
1:1:582:G:H2'	1:1:583:A:H8	1.71	0.55
1:1:1099:A:N6	1:1:1359:A:H1'	2.22	0.55
15:u:19:VAL:HG11	15:u:55:ILE:HD12	1.88	0.55
27:9:58:VAL:HA	27:9:104:VAL:HG12	1.87	0.55
46:B:974:U:H2'	46:B:975:C:C6	2.42	0.55
46:B:1129:U:H2'	46:B:1130:U:C6	2.42	0.55
46:B:1772:U:H2'	46:B:1773:G:H8	1.71	0.55
1:AS:2465:U:H4'	1:AS:2466:A:OP2	2.06	0.55
1:AS:2810:A:H4'	12:BE:74:LYS:HD3	1.89	0.55
10:BC:206:SER:HA	10:BC:209:GLU:HB2	1.89	0.55
45:CL:90:ARG:HG3	46:CM:1624:C:C2	2.41	0.55
46:CM:78:A:H2	53:CT:174:LYS:HG3	1.72	0.55
46:CM:238:U:H3'	46:CM:239:U:O4'	2.07	0.55
46:CM:1460:G:H2'	46:CM:1461:A:C8	2.41	0.55
46:CM:1582:U:H5'	46:CM:1583:C:OP2	2.06	0.55
48:CO:48:ILE:HG21	48:CO:61:LEU:HD11	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CO:151:LYS:NZ	48:CO:153:THR:O	2.39	0.55
57:CX:77:ARG:NH1	57:CX:86:ILE:O	2.39	0.55
61:DC:68:GLU:OE1	61:DC:68:GLU:N	2.40	0.55
70:DL:56:SER:HB3	70:DL:74:LEU:CD1	2.37	0.55
80:p0:8:LYS:HA	80:p0:11:TYR:HB3	1.89	0.55
1:1:941:C:H2'	1:1:942:U:C6	2.42	0.55
1:1:1400:G:N2	1:1:1403:A:OP2	2.31	0.55
46:B:338:U:H2'	46:B:339:A:H8	1.72	0.55
46:B:674:C:H2'	46:B:675:U:O4'	2.07	0.55
46:B:961:G:N1	46:B:1008:A:O2'	2.31	0.55
46:B:1237:C:O2'	77:h:184:GLY:N	2.36	0.55
14:BG:158:LEU:HB3	29:BV:98:ALA:HB1	1.89	0.55
40:CG:23:LEU:HD12	40:CG:24:PRO:HD2	1.89	0.55
46:CM:823:G:H4'	46:CM:824:U:OP2	2.05	0.55
46:CM:1571:G:O2'	46:CM:1597:G:O6	2.21	0.55
78:DT:198:CYS:O	78:DT:199:ILE:HG12	2.07	0.55
1:1:314:U:H2'	1:1:315:C:C6	2.42	0.55
1:1:348:A:H5"	86:1:4105:HOH:O	2.06	0.55
1:1:1225:G:H2'	1:1:1226:G:C8	2.42	0.55
1:1:1493:C:H2'	1:1:1494:A:C8	2.42	0.55
1:1:3046:G:H4'	32:AE:61:ARG:HD2	1.89	0.55
21:0:92:LYS:HE2	21:0:109:ASP:OD1	2.07	0.55
46:B:52:U:H2'	46:B:53:G:H8	1.72	0.55
46:B:1398:G:H4'	46:B:1399:U:O5'	2.06	0.55
46:B:1468:C:H5"	46:B:1508:G:H22	1.72	0.55
78:AR:202:SER:OG	78:AR:204:ASP:OD1	2.20	0.55
1:AS:1695:A:O2'	39:CF:3:ARG:NH1	2.40	0.55
6:AY:6:GLN:HB2	6:AY:20:GLN:OE1	2.07	0.55
7:AZ:48:LYS:HG2	7:AZ:145:PHE:HE2	1.72	0.55
46:CM:52:U:H2'	46:CM:53:G:H8	1.72	0.55
46:CM:234:G:H2'	46:CM:235:C:C6	2.42	0.55
46:CM:694:C:C3'	46:CM:695:C:H5"	2.29	0.55
48:CO:180:THR:HG23	48:CO:183:GLN:H	1.72	0.55
50:CQ:114:LEU:HD23	50:CQ:118:ARG:HD3	1.88	0.55
79:CZ:106:LEU:HB3	79:CZ:110:GLY:HA2	1.89	0.55
63:DE:89:SER:C	63:DE:91:LEU:H	2.14	0.55
64:DF:87:ASN:HB2	64:DF:99:HIS:CE1	2.42	0.55
1:1:25:A:H2'	1:1:26:C:H6	1.72	0.54
1:1:745:C:H5"	30:AC:32:LEU:HD12	1.88	0.54
1:1:1152:C:OP2	9:o:92:LYS:NZ	2.38	0.54
1:1:2958:U:H2'	1:1:2959:A:H8	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:v:90:ASN:O	43:AP:50:TYR:OH	2.23	0.54
46:B:1138:G:OP1	72:c:85:ARG:NH1	2.40	0.54
46:B:1198:G:H1	46:B:1436:U:H3	1.56	0.54
48:D:83:LYS:NZ	48:D:105:PHE:O	2.40	0.54
61:R:14:GLN:OE1	61:R:22:LEU:N	2.39	0.54
64:U:24:GLY:HA2	64:U:58:ALA:HB3	1.87	0.54
1:AS:531:G:HO2'	1:AS:552:G:H1	1.54	0.54
1:AS:1795:A:H2'	1:AS:1796:A:H8	1.71	0.54
1:AS:2628:A:H4'	43:CJ:98:LYS:HE3	1.89	0.54
5:AX:4:ARG:HD3	5:AX:7:GLU:HG2	1.90	0.54
11:BD:48:ILE:HG22	11:BD:49:ASN:HD22	1.72	0.54
37:CD:91:GLN:HG3	82:L1:3:LYS:HE3	1.88	0.54
45:CL:69:PHE:CE1	61:DC:127:ARG:HD3	2.42	0.54
46:CM:496:G:H2'	46:CM:497:U:O4'	2.07	0.54
46:CM:1147:C:H4'	74:DP:22:ARG:HD3	1.89	0.54
46:CM:1265:C:O2'	66:DH:69:THR:HG22	2.07	0.54
46:CM:1302:C:H2'	46:CM:1303:G:O4'	2.08	0.54
70:DL:122:GLN:HG2	70:DL:126:GLN:HE22	1.71	0.54
82:L1:194:LEU:HD13	82:L1:200:ASN:HB2	1.87	0.54
80:p0:57:THR:HA	80:p0:60:ARG:CD	2.27	0.54
1:1:699:G:H2'	1:1:700:C:C6	2.42	0.54
1:1:2116:A:C4	38:AK:3:LYS:HB3	2.42	0.54
5:k:106:TRP:HB2	5:k:133:TYR:CE2	2.42	0.54
5:k:260:VAL:HG11	5:k:266:ARG:NH1	2.23	0.54
7:m:40:HIS:CE1	7:m:42:ALA:HB3	2.42	0.54
22:2:80:VAL:O	22:2:83:ARG:NH1	2.40	0.54
46:B:654:G:H3'	46:B:655:U:C6	2.41	0.54
46:B:1145:A:H2'	46:B:1146:C:C6	2.41	0.54
53:I:69:HIS:HD2	53:I:73:VAL:HG11	1.72	0.54
61:R:60:LEU:HD22	61:R:92:SER:OG	2.07	0.54
62:S:98:GLU:OE1	78:AR:61:SER:N	2.41	0.54
1:AS:348:A:N3	1:AS:352:A:O2'	2.40	0.54
1:AS:1104:U:H2'	1:AS:1105:U:C6	2.42	0.54
1:AS:1275:C:H2'	1:AS:1276:C:C6	2.41	0.54
1:AS:2126:U:H2'	1:AS:2127:A:C8	2.42	0.54
1:AS:3193:C:H4'	1:AS:3194:G:O5'	2.07	0.54
1:AS:3287:A:H2'	1:AS:3288:A:H8	1.70	0.54
46:CM:718:A:H2'	46:CM:720:C:H5	1.71	0.54
46:CM:1218:G:H22	46:CM:1238:U:H1'	1.72	0.54
46:CM:1315:G:H2'	46:CM:1316:A:H8	1.72	0.54
46:CM:1393:U:H2'	46:CM:1394:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1595:U:O3'	62:DD:72:GLY:HA3	2.07	0.54
53:CT:222:GLU:O	53:CT:226:ILE:HG12	2.07	0.54
57:CX:81:ASN:CB	79:CZ:37:VAL:HG13	2.36	0.54
64:DF:67:GLU:HA	64:DF:70:VAL:HG22	1.89	0.54
80:p0:41:ILE:HG22	80:p0:51:VAL:HG21	1.89	0.54
1:1:1568:U:C4	1:1:1569:C:H1'	2.43	0.54
1:1:2285:G:O2'	1:1:2288:U:OP2	2.23	0.54
2:3:81:U:H2'	2:3:82:G:C8	2.42	0.54
13:s:141:ARG:O	13:s:145:ARG:HG2	2.08	0.54
16:v:43:SER:OG	16:v:131:GLU:OE2	2.17	0.54
26:8:105:VAL:HG23	26:8:130:TYR:CG	2.42	0.54
26:8:141:TYR:HB3	36:AI:33:VAL:HG13	1.89	0.54
46:B:697:U:H2'	46:B:698:C:H6	1.71	0.54
46:B:924:A:H2'	46:B:925:A:C8	2.43	0.54
46:B:1193:A:H4'	46:B:1255:G:P	2.48	0.54
1:AS:353:G:O6	38:CE:55:ARG:NH2	2.40	0.54
1:AS:487:C:O2'	1:AS:488:G:OP1	2.25	0.54
1:AS:1246:G:H2'	1:AS:1247:A:C8	2.42	0.54
1:AS:1708:G:N2	1:AS:1729:G:O6	2.40	0.54
1:AS:2423:A:H5'	37:CD:62:ASN:OD1	2.08	0.54
83:AS:3401:3K5:H9	43:CJ:57:ILE:HD13	1.88	0.54
46:CM:233:G:H2'	46:CM:234:G:C8	2.43	0.54
50:CQ:133:LYS:HB3	50:CQ:190:MET:HE2	1.88	0.54
62:DD:27:LEU:HB3	62:DD:63:ASP:HB2	1.89	0.54
72:DN:87:ARG:NH2	72:DN:91:ASP:O	2.40	0.54
81:12:133:LEU:HB3	81:12:152:ILE:HG12	1.89	0.54
1:1:1493:C:H2'	1:1:1494:A:H8	1.72	0.54
1:1:2958:U:H2'	1:1:2959:A:C8	2.42	0.54
2:3:84:A:H2'	2:3:85:G:C8	2.42	0.54
16:v:113:LEU:HB2	16:v:134:LEU:HD23	1.88	0.54
19:y:123:THR:OG1	19:y:125:ASP:OD1	2.20	0.54
46:B:444:A:H5"	51:G:57:ASN:HD22	1.71	0.54
46:B:1265:C:H2'	46:B:1266:G:H8	1.72	0.54
46:B:1486:G:OP2	65:V:73:VAL:HG12	2.07	0.54
48:D:56:ASN:OD1	48:D:57:ALA:N	2.41	0.54
66:W:81:TYR:HB3	75:f:52:PHE:HB3	1.88	0.54
1:AS:408:A:N3	1:AS:653:C:O2'	2.41	0.54
1:AS:939:U:H3'	29:BV:13:GLY:HA2	1.89	0.54
1:AS:1116:A:H2'	1:AS:1117:U:H6	1.73	0.54
1:AS:1580:U:H2'	1:AS:1581:C:H6	1.71	0.54
1:AS:2440:A:O5'	1:AS:2441:G:N2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2958:U:H2'	1:AS:2959:A:C8	2.43	0.54
10:BC:158:VAL:HG21	10:BC:164:VAL:HG21	1.90	0.54
26:BS:75:LYS:HB3	26:BS:81:THR:HB	1.90	0.54
46:CM:878:U:H5'	46:CM:879:U:OP2	2.06	0.54
46:CM:1772:U:H2'	46:CM:1773:G:H8	1.72	0.54
48:CO:111:ARG:HB3	72:DN:68:TYR:HB2	1.89	0.54
60:DB:107:ILE:HG21	72:DN:53:LEU:HD11	1.89	0.54
66:DH:25:LEU:HD23	66:DH:88:ARG:O	2.08	0.54
82:l1:70:ASP:HA	82:l1:74:VAL:HG12	1.90	0.54
1:1:185:U:H3	1:1:229:C:H42	1.55	0.54
1:1:780:A:C2	19:y:69:ARG:HD3	2.42	0.54
1:1:2405:U:H2'	1:1:2406:U:C6	2.42	0.54
20:z:176:ARG:NH1	46:B:837:C:OP1	2.38	0.54
21:0:161:LYS:HB3	21:0:161:LYS:HZ2	1.73	0.54
29:AB:112:VAL:HB	29:AB:130:VAL:HG12	1.89	0.54
45:i:42:ALA:HB3	45:i:43:PRO:HD3	1.89	0.54
46:B:213:A:C2'	46:B:214:U:H5'	2.38	0.54
46:B:653:G:O2'	46:B:672:U:O2	2.26	0.54
46:B:1573:A:H2'	46:B:1574:A:O4'	2.07	0.54
60:Q:13:ARG:N	60:Q:24:HIS:O	2.38	0.54
1:AS:827:G:O2'	1:AS:1860:A:N3	2.34	0.54
1:AS:935:U:OP2	29:BV:26:ARG:NH2	2.41	0.54
1:AS:2335:A:H2'	1:AS:2336:A:C8	2.42	0.54
1:AS:2469:A:O5'	82:L1:212:PRO:HA	2.06	0.54
1:AS:2583:U:H2'	1:AS:2584:U:C6	2.42	0.54
25:BR:80:ARG:HH21	46:CM:163:G:H4'	1.73	0.54
46:CM:141:G:O6	53:CT:177:ARG:NH2	2.41	0.54
46:CM:189:G:N7	55:CV:143:ARG:NH2	2.54	0.54
46:CM:222:C:N3	46:CM:823:G:N2	2.56	0.54
52:CS:116:HIS:CD2	71:DM:98:GLN:HB3	2.42	0.54
61:DC:24:ASP:O	61:DC:28:MET:HG3	2.07	0.54
64:DF:36:ARG:HH12	64:DF:105:LEU:HD22	1.73	0.54
65:DG:57:ARG:NH2	65:DG:101:ASN:OD1	2.40	0.54
82:L1:70:ASP:HB3	82:L1:87:VAL:HG21	1.90	0.54
82:L1:180:VAL:O	82:L1:184:MET:HG2	2.08	0.54
1:1:1079:G:H2'	1:1:1080:A:H8	1.73	0.54
1:1:1104:U:H2'	1:1:1105:U:C6	2.42	0.54
1:1:1611:U:H5"	35:AH:64:GLN:OE1	2.08	0.54
8:n:30:ARG:NE	34:AG:107:ILE:O	2.39	0.54
19:y:94:LEU:HD22	29:AB:119:PRO:HG3	1.89	0.54
46:B:1235:U:O2'	77:h:177:MET:HB3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:G:192:VAL:HG23	51:G:244:GLY:HA3	1.89	0.54
55:K:56:ARG:NH1	55:K:180:GLY:O	2.40	0.54
58:N:125:VAL:HG12	58:N:139:VAL:HA	1.89	0.54
1:AS:394:G:N1	1:AS:397:A:OP2	2.40	0.54
1:AS:3164:U:H1'	1:AS:3165:U:C5	2.42	0.54
1:1:484:U:H2'	1:1:485:A:H8	1.72	0.54
1:1:1172:C:H2'	1:1:1173:G:N2	2.23	0.54
1:1:3300:A:H2'	1:1:3301:A:C8	2.42	0.54
45:i:155:LEU:HD12	45:i:158:LEU:HG	1.89	0.54
51:G:129:VAL:HG22	51:G:139:VAL:HG22	1.89	0.54
52:H:91:GLU:HA	52:H:94:THR:HG22	1.90	0.54
1:AS:589:G:N2	1:AS:610:U:OP1	2.40	0.54
1:AS:783:G:H2'	1:AS:784:C:C6	2.42	0.54
1:AS:835:C:H4'	1:AS:1720:U:H2'	1.88	0.54
46:CM:220:A:C8	46:CM:221:U:H5	2.26	0.54
46:CM:1609:G:H2'	46:CM:1610:C:C6	2.43	0.54
50:CQ:68:HIS:CE1	57:CX:93:LYS:HG2	2.43	0.54
82:L1:104:ALA:O	82:L1:133:LYS:NZ	2.32	0.54
1:1:1268:C:H2'	1:1:1269:A:O4'	2.07	0.54
1:1:2736:C:O2	83:1:3401:3K5:H36	2.08	0.54
7:m:197:LYS:HG2	7:m:202:GLY:HA3	1.90	0.54
16:v:11:GLN:O	16:v:14:LYS:NZ	2.37	0.54
25:7:83:VAL:HG11	46:B:68:A:C2	2.43	0.54
31:AD:26:THR:HG23	31:AD:95:LEU:HD11	1.90	0.54
46:B:1205:C:H2'	46:B:1206:A:C8	2.43	0.54
51:G:139:VAL:HG23	51:G:150:PRO:HG3	1.89	0.54
53:I:57:ASP:O	53:I:107:SER:OG	2.26	0.54
78:AR:235:ALA:HB3	78:AR:253:THR:HB	1.90	0.54
1:AS:208:A:H4'	1:AS:210:A:N7	2.23	0.54
1:AS:1245:G:O2'	1:AS:1246:G:OP1	2.25	0.54
1:AS:2718:A:H5'	7:AZ:178:ASN:OD1	2.08	0.54
1:AS:3067:U:H2'	1:AS:3068:C:H6	1.72	0.54
3:AU:9:A:H2'	3:AU:10:A:C8	2.42	0.54
15:BH:11:ARG:NH1	15:BH:57:LEU:O	2.40	0.54
21:BN:42:TRP:O	21:BN:46:GLN:HG3	2.08	0.54
46:CM:336:C:H5"	55:CV:10:LYS:HD2	1.90	0.54
46:CM:673:A:C5	46:CM:674:C:C4	2.96	0.54
46:CM:825:U:O2'	46:CM:826:U:H5"	2.07	0.54
46:CM:1160:U:H2'	46:CM:1161:G:C8	2.43	0.54
46:CM:1354:U:N3	46:CM:1355:A:N7	2.56	0.54
48:CO:123:ALA:HB2	48:CO:165:ARG:HG3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:DF:91:ASP:OD1	64:DF:92:GLN:N	2.41	0.54
67:DI:64:GLU:OE2	73:DO:2:VAL:N	2.41	0.54
80:P0:52:LEU:HD22	80:P0:88:PHE:CE2	2.43	0.54
1:1:2625:C:OP1	43:AP:89:LYS:HB2	2.07	0.54
2:3:81:U:H2'	2:3:82:G:H8	1.72	0.54
24:6:15:LEU:HD13	24:6:51:ALA:HB3	1.90	0.54
33:AF:77:VAL:HG13	33:AF:82:ASP:HB2	1.90	0.54
46:B:1:U:H1'	49:E:174:VAL:HG13	1.90	0.54
46:B:1417:C:O2'	46:B:1423:U:O4	2.17	0.54
61:R:18:LYS:N	64:U:92:GLN:O	2.34	0.54
74:e:14:LYS:HB3	74:e:29:ARG:HB3	1.90	0.54
1:AS:563:U:H2'	1:AS:564:G:C8	2.43	0.54
1:AS:907:C:N4	4:AW:3:ARG:HD3	2.22	0.54
1:AS:2322:U:H2'	1:AS:2323:A:C8	2.43	0.54
16:BI:159:ARG:HB2	16:BI:164:LEU:HB2	1.88	0.54
22:BO:136:ARG:HD3	22:BO:139:ARG:NH2	2.22	0.54
23:BP:99:VAL:HG12	23:BP:107:LYS:O	2.08	0.54
28:BU:34:LYS:C	28:BU:36:HIS:H	2.15	0.54
31:BX:43:LEU:HD23	31:BX:94:ILE:HD12	1.90	0.54
50:CQ:172:ALA:HB1	50:CQ:174:ARG:NH1	2.23	0.54
51:CR:48:LEU:HD11	51:CR:70:VAL:HG21	1.89	0.54
55:CV:113:TYR:OH	55:CV:156:ALA:O	2.23	0.54
81:12:143:VAL:HG11	81:12:148:PRO:HG3	1.88	0.54
80:p0:45:LEU:HB3	80:p0:49:ALA:O	2.08	0.54
1:1:431:A:H2'	1:1:432:G:C8	2.43	0.54
1:1:1079:G:H2'	1:1:1080:A:C8	2.43	0.54
1:1:1241:A:H3'	1:1:1242:G:C5'	2.33	0.54
1:1:1396:U:H2'	1:1:1397:G:O4'	2.08	0.54
1:1:1762:G:O2'	1:1:1763:C:OP1	2.25	0.54
1:1:2232:U:H2'	1:1:2239:G:N2	2.22	0.54
7:m:187:ALA:O	7:m:189:GLU:N	2.41	0.54
11:q:8:GLN:HB3	11:q:72:LYS:HD2	1.90	0.54
39:AL:34:ASN:ND2	39:AL:34:ASN:O	2.41	0.54
46:B:560:G:H2'	46:B:561:U:O2	2.08	0.54
46:B:685:C:H5"	68:Y:119:LYS:HG2	1.90	0.54
46:B:1399:U:O2'	46:B:1400:U:OP1	2.26	0.54
46:B:1571:G:H22	46:B:1598:A:P	2.30	0.54
51:G:99:PHE:HE1	51:G:113:ARG:HG2	1.73	0.54
64:U:91:ASP:OD1	64:U:92:GLN:N	2.40	0.54
78:AR:76:ALA:HB3	78:AR:120:LEU:HD11	1.90	0.54
1:AS:1204:U:O2	1:AS:3087:C:N4	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2535:A:OP1	4:AW:69:TYR:OH	2.22	0.54
4:AW:132:ASN:ND2	4:AW:151:PRO:HB3	2.22	0.54
5:AX:218:ILE:HB	5:AX:337:THR:HB	1.90	0.54
22:BO:66:ASN:ND2	30:BW:35:VAL:HA	2.22	0.54
29:BV:112:VAL:HB	29:BV:130:VAL:HG12	1.90	0.54
37:CD:57:ILE:HG23	37:CD:93:ILE:HD11	1.90	0.54
45:CL:154:TYR:HB2	57:CX:86:ILE:HG22	1.90	0.54
46:CM:58:U:O2'	46:CM:449:G:N3	2.41	0.54
46:CM:932:U:H2'	46:CM:933:A:H8	1.73	0.54
52:CS:25:LEU:HD12	62:DD:26:GLY:HA3	1.90	0.54
53:CT:180:THR:HG23	53:CT:183:THR:H	1.73	0.54
65:DG:117:SER:HB2	65:DG:123:ARG:HB2	1.88	0.54
66:DH:32:GLN:OE1	66:DH:32:GLN:N	2.41	0.54
71:DM:36:ALA:HB1	71:DM:38:HIS:CD2	2.42	0.54
1:1:1252:G:O2'	81:12:120:SER:OG	2.19	0.53
1:1:3166:A:H2'	1:1:3167:G:H8	1.73	0.53
3:4:63:G:H1	3:4:97:A:N6	2.05	0.53
46:B:108:A:H2'	46:B:109:G:C8	2.43	0.53
1:AS:620:A:OP1	34:CA:59:ILE:HD11	2.08	0.53
1:AS:1208:A:O3'	21:BN:92:LYS:NZ	2.40	0.53
1:AS:2919:G:N3	5:AX:250:ALA:HB1	2.23	0.53
36:CC:105:ARG:HG3	36:CC:108:ARG:HH21	1.73	0.53
46:CM:533:A:OP1	56:CW:168:ARG:NH2	2.40	0.53
46:CM:721:C:H2'	46:CM:722:A:H5'	1.90	0.53
46:CM:1265:C:H2'	46:CM:1266:G:C8	2.42	0.53
46:CM:1593:C:H2'	46:CM:1594:G:C8	2.43	0.53
59:DA:4:MET:HE1	59:DA:121:ARG:HG3	1.89	0.53
76:DR:13:LYS:O	76:DR:17:GLN:HG2	2.08	0.53
82:L1:17:LEU:O	82:L1:21:THR:HG22	2.08	0.53
82:L1:43:PRO:HB3	82:L1:161:LYS:HA	1.90	0.53
80:p0:63:ILE:O	80:p0:67:LEU:N	2.35	0.53
1:1:564:G:H2'	1:1:565:A:H8	1.72	0.53
1:1:2079:C:HO2'	1:1:2080:U:H6	1.56	0.53
1:1:2729:U:H4'	22:2:7:TYR:HB3	1.90	0.53
1:1:3336:G:H2'	1:1:3337:A:H8	1.73	0.53
3:4:37:A:H5"	3:4:39:G:O4'	2.08	0.53
9:o:13:LYS:HE3	9:o:17:GLN:HE22	1.72	0.53
31:AD:57:GLU:HB2	35:AH:94:LEU:HD11	1.88	0.53
45:i:52:LYS:C	45:i:54:LYS:H	2.15	0.53
52:H:61:TYR:OH	74:e:52:ASP:OD1	2.22	0.53
54:J:8:GLU:H	54:J:8:GLU:CD	2.15	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:S:124:GLU:HG2	62:S:133:ALA:HB1	1.89	0.53
1:AS:72:A:C4	37:CD:14:ARG:HD2	2.42	0.53
1:AS:411:U:H2'	1:AS:412:G:C8	2.43	0.53
1:AS:2498:A:H2'	1:AS:2499:U:C6	2.43	0.53
1:AS:2503:G:OP2	4:AW:37:ARG:NH2	2.40	0.53
10:BC:134:LYS:HD2	10:BC:139:HIS:HE1	1.72	0.53
11:BD:173:ARG:HH21	41:CH:51:LEU:HD23	1.72	0.53
20:BM:162:ARG:HD3	20:BM:165:ARG:HD3	1.89	0.53
24:BQ:108:GLU:HG2	24:BQ:128:ARG:HG3	1.90	0.53
33:BZ:33:TRP:CH2	33:BZ:53:GLN:HG2	2.43	0.53
45:CL:62:ALA:C	45:CL:64:LEU:H	2.15	0.53
46:CM:108:A:H2'	46:CM:109:G:C8	2.43	0.53
46:CM:330:U:P	55:CV:56:ARG:HH22	2.32	0.53
46:CM:652:C:H5'	46:CM:653:G:OP2	2.07	0.53
49:CP:36:LEU:HD21	49:CP:51:ILE:HD12	1.89	0.53
51:CR:152:PRO:HG3	53:CT:212:LEU:HD23	1.88	0.53
69:DK:100:ASP:OD2	69:DK:142:LYS:NZ	2.34	0.53
82:l1:208:SER:C	82:l1:210:MET:H	2.17	0.53
1:1:1042:A:H2'	1:1:1045:C:C5	2.43	0.53
1:1:3166:A:N6	1:1:3167:G:O6	2.42	0.53
15:u:62:LEU:HD21	15:u:77:LYS:HB3	1.90	0.53
46:B:30:G:OP1	69:Z:126:LYS:NZ	2.41	0.53
46:B:1659:G:H2'	46:B:1660:G:C8	2.43	0.53
1:AS:1561:U:H5"	1:AS:1561:U:C6	2.43	0.53
1:AS:2869:A:H5"	41:CH:49:LYS:HB2	1.90	0.53
21:BN:60:SER:OG	21:BN:62:ASN:OD1	2.26	0.53
46:CM:1470:G:H5'	62:DD:14:THR:HG21	1.91	0.53
46:CM:1486:G:OP2	65:DG:73:VAL:HG12	2.08	0.53
46:CM:1551:U:H2'	46:CM:1552:C:H6	1.73	0.53
72:DN:3:LYS:NZ	72:DN:6:ALA:HA	2.23	0.53
78:DT:200:THR:HG21	78:DT:242:PHE:H	1.74	0.53
82:L1:175:GLU:HG3	82:L1:177:ASP:H	1.74	0.53
1:1:374:A:N3	1:1:376:G:H5"	2.24	0.53
1:1:680:U:H5"	1:1:681:U:H5	1.73	0.53
11:q:10:LEU:HD21	11:q:79:ILE:CD1	2.38	0.53
16:v:38:ARG:HA	16:v:62:TYR:CD1	2.43	0.53
46:B:701:G:H2'	46:B:702:G:C2'	2.32	0.53
52:H:80:LYS:HB2	52:H:83:ARG:HH11	1.74	0.53
53:I:180:THR:HG23	53:I:183:THR:H	1.74	0.53
64:U:110:ARG:NH2	64:U:111:ASP:OD1	2.41	0.53
1:AS:582:G:H2'	1:AS:583:A:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2419:A:H2'	1:AS:2420:G:C8	2.43	0.53
1:AS:3244:A:O2'	1:AS:3245:A:H5'	2.08	0.53
5:AX:58:ARG:HD2	5:AX:354:VAL:HG13	1.90	0.53
17:BJ:126:ARG:HG2	17:BJ:130:LEU:HD12	1.90	0.53
18:BK:32:THR:HG21	18:BK:87:SER:HB3	1.89	0.53
45:CL:64:LEU:HB2	61:DC:103:ASN:HD21	1.73	0.53
46:CM:1199:U:OP1	77:DS:132:LYS:NZ	2.28	0.53
46:CM:1298:A:N3	46:CM:1300:U:H5'	2.23	0.53
60:DB:59:ALA:HB1	60:DB:100:LEU:HG	1.90	0.53
82:l1:68:PHE:H	82:l1:111:ILE:HG12	1.73	0.53
82:l1:92:LYS:HG3	82:l1:93:LEU:H	1.74	0.53
80:p0:12:PHE:HD1	80:p0:15:LEU:HD22	1.73	0.53
1:1:248:U:H2'	1:1:249:G:H4'	1.91	0.53
15:u:57:LEU:HG	21:0:172:TYR:OH	2.08	0.53
32:AE:7:VAL:HG13	32:AE:43:MET:HE1	1.91	0.53
46:B:17:C:H2'	46:B:18:C:H6	1.73	0.53
46:B:282:G:N7	53:I:188:ARG:NH2	2.52	0.53
46:B:1235:U:O2'	77:h:177:MET:HE2	2.07	0.53
46:B:1277:G:H21	47:C:111:ILE:HD11	1.74	0.53
46:B:1551:U:H2'	46:B:1552:C:C6	2.43	0.53
54:J:13:LEU:HD21	54:J:54:LEU:HD11	1.91	0.53
54:J:146:GLN:HB2	54:J:177:VAL:HG23	1.91	0.53
69:Z:107:PHE:HE2	69:Z:114:LYS:CG	2.10	0.53
71:b:42:LEU:HD21	71:b:47:TYR:HD1	1.73	0.53
1:AS:1140:U:OP1	1:AS:1363:G:O2'	2.20	0.53
1:AS:1434:U:H4'	6:AY:89:ALA:HB3	1.90	0.53
1:AS:1744:G:OP1	39:CF:44:LYS:NZ	2.29	0.53
1:AS:2978:A:H2'	1:AS:2979:U:O4'	2.08	0.53
46:CM:1566:U:H2'	46:CM:1567:C:C6	2.44	0.53
46:CM:1678:G:H3'	46:CM:1679:A:H8	1.74	0.53
52:CS:159:ALA:O	74:DP:61:ARG:NH2	2.31	0.53
80:P0:16:ARG:NH2	80:P0:62:ALA:O	2.32	0.53
1:1:541:U:H3	1:1:543:C:HO2'	1.57	0.53
1:1:1795:A:H2'	1:1:1796:A:H8	1.74	0.53
1:1:2587:G:H2'	1:1:2588:C:C6	2.43	0.53
1:1:3287:A:H2'	1:1:3288:A:H8	1.72	0.53
4:j:150:LEU:HD11	4:j:156:LYS:HD2	1.91	0.53
14:t:158:LEU:HB3	29:AB:98:ALA:HB1	1.89	0.53
36:AI:1:MET:HG2	36:AI:53:ARG:HH22	1.72	0.53
38:AK:36:SER:OG	38:AK:57:ARG:NH2	2.40	0.53
46:B:605:G:H5'	46:B:611:G:N2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:L:31:ALA:HB2	56:L:42:ILE:HD11	1.90	0.53
72:c:3:LYS:NZ	72:c:6:ALA:HA	2.24	0.53
72:c:5:ARG:HD3	72:c:9:GLY:N	2.23	0.53
1:AS:583:A:H2'	1:AS:584:C:C6	2.44	0.53
1:AS:1115:C:H2'	1:AS:1116:A:C8	2.43	0.53
1:AS:1794:A:H2'	1:AS:1795:A:C8	2.44	0.53
1:AS:2814:U:OP1	1:AS:2816:C:N4	2.42	0.53
1:AS:3171:C:H5"	1:AS:3172:U:O5'	2.09	0.53
10:BC:158:VAL:HG21	10:BC:164:VAL:CG2	2.39	0.53
17:BJ:122:PRO:HA	17:BJ:125:LEU:HD12	1.89	0.53
46:CM:4:C:H5	46:CM:20:G:H1	1.56	0.53
46:CM:449:G:H2'	46:CM:451:C:C5	2.44	0.53
46:CM:1478:A:O2'	46:CM:1479:A:O4'	2.24	0.53
46:CM:1668:A:H1'	53:CT:66:GLY:HA2	1.90	0.53
60:DB:76:ILE:HD12	60:DB:110:ILE:HG13	1.91	0.53
60:DB:76:ILE:HD13	60:DB:97:LEU:HD11	1.89	0.53
61:DC:50:ASP:C	61:DC:52:LYS:H	2.16	0.53
1:1:624:U:H2'	1:1:625:C:C6	2.43	0.53
1:1:783:G:H2'	1:1:784:C:H6	1.74	0.53
46:B:302:U:H2'	46:B:303:C:C6	2.44	0.53
53:I:169:TYR:HE2	53:I:171:LYS:HE3	1.73	0.53
57:M:70:ASP:OD1	57:M:71:GLU:N	2.41	0.53
1:AS:1255:A:H61	80:p0:33:VAL:HG12	1.74	0.53
1:AS:1493:C:H2'	1:AS:1494:A:H8	1.73	0.53
1:AS:1642:G:O2'	1:AS:1804:G:N2	2.38	0.53
1:AS:2206:A:H2'	1:AS:2207:A:C8	2.43	0.53
9:BB:185:GLU:HG2	9:BB:196:VAL:HG21	1.89	0.53
46:CM:85:A:N3	46:CM:146:A:O2'	2.33	0.53
46:CM:1043:U:O2	46:CM:1045:U:N3	2.40	0.53
46:CM:1452:G:O2'	46:CM:1589:C:OP1	2.26	0.53
48:CO:86:LEU:HB3	48:CO:98:THR:HB	1.90	0.53
1:1:2469:A:N3	82:l1:209:THR:HA	2.22	0.53
26:8:75:LYS:HB3	26:8:81:THR:CG2	2.39	0.53
35:AH:16:ARG:HG2	35:AH:37:LYS:HD3	1.90	0.53
46:B:1341:U:H2'	46:B:1342:A:H8	1.74	0.53
52:H:42:LEU:HB3	52:H:46:TRP:HB2	1.89	0.53
52:H:113:ILE:HG23	52:H:191:ALA:HA	1.90	0.53
1:AS:62:A:H5"	16:BI:174:ILE:HG21	1.91	0.53
1:AS:222:U:OP1	1:AS:224:C:N4	2.31	0.53
1:AS:401:U:H1'	1:AS:403:C:C4	2.44	0.53
1:AS:430:G:H2'	1:AS:431:A:H8	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1011:C:H4'	1:AS:1012:U:H6	1.74	0.53
1:AS:1233:G:H1	1:AS:1247:A:H61	1.57	0.53
1:AS:3261:A:H2'	1:AS:3262:U:H6	1.73	0.53
3:AU:141:C:O3'	16:BI:62:TYR:OH	2.26	0.53
11:BD:76:ALA:O	11:BD:79:ILE:HG22	2.09	0.53
24:BQ:23:MET:HE1	24:BQ:78:VAL:HG22	1.91	0.53
46:CM:903:U:H2'	46:CM:904:A:H8	1.72	0.53
46:CM:921:G:OP1	46:CM:1059:G:N2	2.35	0.53
46:CM:1200:C:OP1	77:DS:134:LYS:NZ	2.26	0.53
46:CM:1453:C:O2'	65:DG:88:PHE:O	2.18	0.53
81:12:132:ILE:HA	81:12:135:THR:HG22	1.91	0.53
80:p0:61:ARG:HG2	80:p0:64:ARG:CG	2.39	0.53
1:1:1203:G:H4'	41:AN:41:HIS:O	2.09	0.53
1:1:1325:U:O3'	34:AG:19:SER:OG	2.27	0.53
1:1:1908:U:O2'	1:1:2099:G:N7	2.35	0.53
1:1:2408:A:H2'	1:1:2409:C:C6	2.44	0.53
1:1:2429:G:H2'	1:1:2430:G:C8	2.44	0.53
21:0:12:ARG:HB3	21:0:24:LEU:HD23	1.90	0.53
21:0:44:PHE:O	21:0:48:LEU:HD12	2.08	0.53
38:AK:28:HIS:HB3	38:AK:31:LYS:HB2	1.89	0.53
46:B:338:U:H2'	46:B:339:A:C8	2.44	0.53
46:B:826:U:H2'	46:B:827:C:O4'	2.08	0.53
46:B:1470:G:H5'	62:S:14:THR:HG21	1.90	0.53
51:G:64:ILE:HA	51:G:67:GLN:HE21	1.74	0.53
61:R:72:ARG:HH21	61:R:93:VAL:HG11	1.73	0.53
61:R:81:ARG:NH2	61:R:117:GLY:O	2.42	0.53
1:AS:25:A:H4'	1:AS:329:U:H2'	1.90	0.53
1:AS:2468:C:H1'	1:AS:2469:A:H5"	1.91	0.53
5:AX:117:ARG:HD2	5:AX:176:ALA:O	2.08	0.53
46:CM:623:C:H2'	46:CM:624:U:C6	2.43	0.53
46:CM:694:C:H3'	46:CM:695:C:C5'	2.29	0.53
46:CM:1129:U:H2'	46:CM:1130:U:C6	2.43	0.53
46:CM:1245:U:H2'	46:CM:1246:G:C8	2.43	0.53
46:CM:1399:U:O2'	46:CM:1402:G:OP1	2.26	0.53
49:CP:53:LEU:HA	67:DI:12:TYR:HE1	1.73	0.53
49:CP:171:LYS:HE3	49:CP:192:TYR:OH	2.09	0.53
78:DT:159:PRO:HD3	78:DT:201:LEU:HD11	1.91	0.53
78:DT:169:ALA:HB2	78:DT:199:ILE:HD11	1.91	0.53
82:l1:40:ASN:O	82:l1:200:ASN:ND2	2.41	0.53
1:1:117:U:O2	1:1:120:A:H5"	2.09	0.53
1:1:438:A:N1	1:1:489:G:O2'	2.30	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:623:A:H2'	1:1:624:U:C6	2.44	0.53
3:4:36:G:C5	36:AI:86:ARG:HD3	2.44	0.53
46:B:486:G:H2'	46:B:487:C:O4'	2.08	0.53
46:B:1187:A:H1'	46:B:1192:C:N4	2.24	0.53
46:B:1258:G:N7	46:B:1416:U:H3'	2.24	0.53
46:B:1566:U:H1'	62:S:138:GLN:HG3	1.91	0.53
62:S:34:PRO:HB2	62:S:36:THR:HG22	1.91	0.53
77:h:147:TYR:HD2	77:h:173:PHE:CD2	2.27	0.53
77:h:157:GLU:CG	77:h:159:LEU:HG	2.39	0.53
1:AS:631:U:H2'	1:AS:632:C:C6	2.44	0.53
1:AS:1099:A:H62	1:AS:1359:A:H1'	1.74	0.53
1:AS:2408:A:H2'	1:AS:2409:C:C6	2.43	0.53
19:BL:123:THR:OG1	19:BL:125:ASP:OD1	2.24	0.53
24:BQ:77:ILE:HD12	24:BQ:103:VAL:HG11	1.91	0.53
46:CM:483:A:H2'	46:CM:484:G:C8	2.44	0.53
50:CQ:65:ARG:HD2	57:CX:91:ARG:NE	2.24	0.53
63:DE:66:VAL:HG13	63:DE:69:ILE:HG12	1.91	0.53
1:1:1021:A:C2	61:R:75:VAL:HB	2.44	0.52
1:1:1617:A:H2'	1:1:1618:U:C6	2.44	0.52
1:1:2650:A:C8	45:i:55:LYS:HG2	2.44	0.52
46:B:1637:U:H2'	46:B:1638:A:C8	2.44	0.52
46:B:1672:G:O2'	46:B:1673:U:H5'	2.08	0.52
54:J:156:THR:HA	54:J:159:ASP:OD2	2.09	0.52
1:AS:38:A:H5"	29:BV:35:ALA:HB2	1.91	0.52
1:AS:1755:U:H2'	1:AS:1756:A:H5"	1.91	0.52
5:AX:95:THR:OG1	5:AX:98:GLY:O	2.26	0.52
6:AY:109:ARG:HG2	16:BI:203:ARG:HG3	1.91	0.52
10:BC:124:LYS:O	10:BC:126:VAL:N	2.42	0.52
26:BS:96:LYS:HG3	26:BS:107:ALA:HB3	1.91	0.52
28:BU:70:PRO:O	28:BU:111:LYS:HE3	2.09	0.52
28:BU:103:GLU:HB2	28:BU:106:GLN:HB2	1.91	0.52
82:L1:207:LYS:HD2	82:L1:208:SER:O	2.10	0.52
1:1:627:U:H2'	1:1:628:A:H8	1.72	0.52
1:1:699:G:H2'	1:1:700:C:H6	1.74	0.52
1:1:1663:A:H2'	1:1:1664:G:H8	1.71	0.52
5:k:92:TYR:HB2	5:k:157:VAL:HB	1.91	0.52
43:AP:34:SER:O	43:AP:40:LYS:HD3	2.09	0.52
46:B:871:U:C2	46:B:872:A:C8	2.96	0.52
46:B:1317:C:O2'	50:F:163:GLN:HB3	2.10	0.52
46:B:1635:A:H2'	46:B:1636:C:H6	1.74	0.52
1:AS:1493:C:H2'	1:AS:1494:A:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1841:G:H5”	1:AS:1842:C:H5’	1.91	0.52
1:AS:2107:U:H2’	1:AS:2108:G:C8	2.44	0.52
1:AS:2435:G:N1	1:AS:2439:A:N6	2.57	0.52
4:AW:227:ARG:HB2	4:AW:239:ALA:HB2	1.91	0.52
5:AX:152:LYS:HG2	5:AX:189:SER:HA	1.92	0.52
11:BD:173:ARG:NH2	41:CH:51:LEU:HD23	2.23	0.52
20:BM:39:SER:HA	20:BM:42:ARG:HH11	1.74	0.52
46:CM:79:C:H1’	53:CT:174:LYS:HB2	1.91	0.52
46:CM:815:U:O2’	46:CM:816:U:O5’	2.27	0.52
46:CM:1301:G:OP1	63:DE:7:LYS:N	2.31	0.52
1:1:483:U:H2’	1:1:484:U:H6	1.72	0.52
1:1:1035:U:H2’	1:1:1036:A:C8	2.45	0.52
1:1:1518:U:O2’	26:8:113:LEU:HD11	2.09	0.52
1:1:1530:A:H2’	1:1:1531:A:C8	2.44	0.52
5:k:21:ARG:HE	5:k:269:GLN:HG3	1.74	0.52
8:n:164:SER:OG	8:n:166:LYS:NZ	2.41	0.52
46:B:1452:G:O2’	46:B:1589:C:OP1	2.27	0.52
64:U:4:VAL:HG22	71:b:82:GLN:OE1	2.09	0.52
1:AS:437:G:O2’	1:AS:438:A:H5”	2.10	0.52
1:AS:1303:G:H5’	17:BJ:61:LYS:HE3	1.89	0.52
1:AS:2443:G:H1	1:AS:2468:C:H5	1.56	0.52
9:BB:8:GLU:HG3	9:BB:9:THR:H	1.73	0.52
46:CM:504:A:H4’	46:CM:505:U:H3’	1.91	0.52
51:CR:139:VAL:HG23	51:CR:150:PRO:HG3	1.91	0.52
80:P0:8:LYS:NZ	80:P0:58:MET:SD	2.77	0.52
1:1:559:C:H2’	1:1:560:C:H6	1.74	0.52
1:1:1456:A:H2’	1:1:1457:A:C8	2.45	0.52
1:1:2138:G:H2’	1:1:2139:G:C8	2.44	0.52
1:1:3240:U:H5”	34:AG:68:TRP:HZ2	1.73	0.52
13:s:61:ARG:HG2	13:s:62:ASN:ND2	2.25	0.52
46:B:518:A:O2’	46:B:519:A:OP1	2.25	0.52
57:M:11:ILE:HD11	57:M:37:THR:HG21	1.90	0.52
65:V:10:PRO:HB2	65:V:13:ASP:OD1	2.09	0.52
1:AS:2469:A:H2’	1:AS:2470:C:C6	2.44	0.52
1:AS:3172:U:N3	21:BN:164:GLN:OE1	2.40	0.52
2:AT:39:U:O2’	13:BF:43:GLN:HB3	2.09	0.52
4:AW:112:ILE:HG13	44:CK:79:VAL:HG22	1.91	0.52
13:BF:109:HIS:CD2	13:BF:122:ILE:HD12	2.44	0.52
46:CM:309:U:OP2	69:DK:20:ARG:HD3	2.10	0.52
46:CM:1193:A:H4’	46:CM:1255:G:P	2.50	0.52
48:CO:69:CYS:O	48:CO:72:ASP:OD1	2.28	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CZ:137:LEU:HA	79:CZ:140:PHE:CZ	2.44	0.52
64:DF:115:ARG:HG2	64:DF:118:LYS:HE2	1.92	0.52
1:1:1006:G:OP1	12:r:39:LYS:NZ	2.34	0.52
1:1:2528:U:O4'	10:p:39:GLN:NE2	2.42	0.52
1:1:2826:U:P	12:r:3:ARG:HH22	2.32	0.52
8:n:59:ASP:HB2	8:n:102:VAL:HG22	1.90	0.52
13:s:47:GLN:HB2	45:i:34:THR:HG22	1.89	0.52
21:0:96:ASP:OD1	21:0:97:VAL:N	2.43	0.52
31:AD:59:GLU:OE1	31:AD:71:TYR:OH	2.26	0.52
45:i:64:LEU:HD13	61:R:103:ASN:HD21	1.73	0.52
45:i:67:LYS:NZ	61:R:124:THR:HA	2.24	0.52
46:B:151:G:H2'	46:B:152:G:C8	2.45	0.52
46:B:681:C:H3'	46:B:682:A:H8	1.74	0.52
52:H:57:SER:HB2	74:e:53:ILE:O	2.10	0.52
78:AR:96:GLU:HG2	78:AR:97:THR:HG23	1.91	0.52
1:AS:2679:U:H5'	45:CL:40:ASP:OD1	2.09	0.52
16:BI:36:ILE:HG12	16:BI:64:ILE:HG13	1.91	0.52
42:CI:11:ARG:NH2	46:CM:1762:U:OP1	2.39	0.52
46:CM:643:U:H2'	46:CM:644:U:O4'	2.10	0.52
46:CM:784:U:H2'	46:CM:785:G:H8	1.74	0.52
46:CM:1258:G:N7	46:CM:1416:U:H3'	2.25	0.52
46:CM:1635:A:H2'	46:CM:1636:C:C6	2.45	0.52
48:CO:174:ARG:NH2	48:CO:196:GLU:OE2	2.42	0.52
50:CQ:179:ARG:H	50:CQ:179:ARG:HD2	1.74	0.52
52:CS:200:ASN:HB3	52:CS:208:SER:HB3	1.92	0.52
53:CT:85:ARG:NH2	53:CT:87:ARG:HH12	2.08	0.52
57:CX:15:LEU:HD23	57:CX:76:LEU:HD11	1.91	0.52
79:CZ:82:PRO:HG3	79:CZ:85:LYS:CA	2.38	0.52
71:DM:65:LEU:HD13	71:DM:69:LEU:HD12	1.92	0.52
76:DR:22:GLU:O	76:DR:24:GLN:NE2	2.43	0.52
80:P0:16:ARG:HE	80:P0:63:ILE:HD13	1.74	0.52
82:L1:181:ASN:O	82:L1:185:MET:HG3	2.09	0.52
1:1:79:G:H2'	1:1:80:C:H6	1.75	0.52
1:1:1249:U:OP2	1:1:1249:U:H2'	2.10	0.52
1:1:2107:U:H2'	1:1:2108:G:C8	2.45	0.52
5:k:218:ILE:HB	5:k:337:THR:HB	1.92	0.52
8:n:7:LYS:H	8:n:10:GLN:HG3	1.74	0.52
23:5:19:VAL:C	23:5:21:ALA:H	2.18	0.52
31:AD:18:LEU:HB3	31:AD:100:SER:HB2	1.91	0.52
32:AE:18:ARG:HB3	32:AE:34:GLU:HG3	1.91	0.52
32:AE:30:LYS:NZ	32:AE:34:GLU:OE2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:AP:8:ARG:HG2	43:AP:10:THR:HG23	1.91	0.52
46:B:638:U:H2'	46:B:639:G:O4'	2.09	0.52
46:B:1774:C:OP1	60:Q:122:ARG:NH2	2.41	0.52
64:U:63:GLN:O	64:U:67:GLU:HG3	2.09	0.52
78:AR:214:ASP:OD1	78:AR:214:ASP:N	2.42	0.52
1:AS:1239:G:O2'	1:AS:1240:A:H5'	2.09	0.52
1:AS:2441:G:H4'	1:AS:2442:U:C6	2.44	0.52
1:AS:2645:A:H5"	13:BF:95:ASN:HD22	1.74	0.52
46:CM:477:C:H4'	56:CW:120:ARG:HG3	1.92	0.52
46:CM:702:G:H4'	46:CM:703:U:OP1	2.08	0.52
72:DN:35:ALA:O	72:DN:37:LYS:HD3	2.10	0.52
82:l1:12:ASN:ND2	82:l1:216:ILE:HD12	2.25	0.52
1:1:284:A:OP2	43:AP:41:ARG:NE	2.34	0.52
1:1:740:A:OP1	19:y:66:ARG:NH2	2.43	0.52
1:1:1020:G:OP1	1:1:1020:G:H4'	2.08	0.52
1:1:1519:U:OP1	1:1:1603:U:N3	2.35	0.52
1:1:2084:A:H2'	1:1:2085:A:C8	2.45	0.52
1:1:2453:G:OP2	1:1:2454:C:N4	2.36	0.52
2:3:112:G:H2'	2:3:113:C:C6	2.44	0.52
46:B:29:U:H2'	46:B:30:G:C8	2.42	0.52
46:B:335:G:O2'	55:K:10:LYS:NZ	2.42	0.52
46:B:829:A:H2'	46:B:830:G:H8	1.74	0.52
46:B:1259:C:O2	46:B:1413:A:O2'	2.26	0.52
46:B:1341:U:H2'	46:B:1342:A:C8	2.44	0.52
47:C:48:ILE:HD12	47:C:149:MET:HE3	1.91	0.52
1:AS:516:U:OP1	6:AY:352:PRO:HD2	2.10	0.52
1:AS:649:G:O2'	1:AS:1431:A:OP1	2.27	0.52
1:AS:2370:C:H1'	5:AX:266:ARG:HH21	1.75	0.52
1:AS:2650:A:OP1	45:CL:57:PRO:HD2	2.09	0.52
1:AS:2740:U:H2'	1:AS:2741:A:C8	2.44	0.52
1:AS:2876:U:H2'	1:AS:2877:U:C6	2.45	0.52
1:AS:3079:U:H2'	1:AS:3080:G:C8	2.45	0.52
46:CM:310:A:C2	46:CM:312:C:H2'	2.44	0.52
46:CM:379:C:H5"	51:CR:10:LYS:HD3	1.91	0.52
46:CM:521:G:H5'	70:DL:60:PHE:O	2.10	0.52
46:CM:676:G:OP1	46:CM:676:G:H4'	2.09	0.52
46:CM:1277:G:H2'	46:CM:1278:U:C6	2.45	0.52
49:CP:177:PRO:HG3	56:CW:17:ARG:HH12	1.75	0.52
79:CZ:82:PRO:HB2	79:CZ:84:GLU:H	1.75	0.52
82:l1:206:ILE:HG12	82:l1:216:ILE:HG13	1.91	0.52
1:1:754:C:OP1	43:AP:15:LYS:NZ	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:64:A:N6	12:r:200:LEU:HD21	2.25	0.52
46:B:874:U:H2'	46:B:875:C:C6	2.45	0.52
46:B:904:A:H2'	46:B:905:C:C6	2.45	0.52
46:B:948:A:N7	59:P:70:LYS:NZ	2.57	0.52
46:B:1425:C:H2'	46:B:1426:C:H6	1.75	0.52
65:V:62:ALA:HB2	65:V:108:LEU:HD21	1.91	0.52
1:AS:1593:C:H2'	1:AS:1594:G:H8	1.74	0.52
1:AS:1632:C:H5"	28:BU:73:LYS:NZ	2.24	0.52
1:AS:1762:G:O2'	1:AS:1763:C:OP1	2.26	0.52
1:AS:1777:C:H2'	1:AS:1778:U:C6	2.44	0.52
1:AS:1863:A:H2'	1:AS:1864:G:C8	2.45	0.52
1:AS:2084:A:H2'	1:AS:2085:A:H8	1.75	0.52
1:AS:2093:G:O2'	20:BM:82:LYS:NZ	2.40	0.52
1:AS:2530:C:N4	31:BX:59:GLU:OE2	2.43	0.52
14:BG:126:PHE:HB3	14:BG:130:THR:OG1	2.09	0.52
47:CN:23:HIS:HD2	63:DE:106:THR:HG21	1.74	0.52
82:l1:75:ASP:HA	82:l1:78:LYS:HD2	1.90	0.52
1:1:541:U:N3	1:1:543:C:O2'	2.43	0.52
1:1:976:A:N6	1:1:1100:G:O2'	2.33	0.52
1:1:1232:G:N2	1:1:1241:A:N7	2.57	0.52
1:1:1660:G:H2'	1:1:1661:U:C6	2.45	0.52
37:AJ:52:TYR:HB2	37:AJ:75:ARG:HH11	1.75	0.52
46:B:119:A:H1'	46:B:395:A:C5	2.44	0.52
46:B:336:C:H5"	55:K:10:LYS:HD2	1.91	0.52
46:B:1099:G:O2'	46:B:1115:G:O6	2.26	0.52
46:B:1584:A:C8	75:f:14:PHE:HD1	2.28	0.52
1:AS:94:A:H5"	29:BV:34:LYS:HB2	1.92	0.52
1:AS:951:U:H2'	1:AS:952:U:C6	2.44	0.52
1:AS:1214:U:H5"	80:p0:5:ARG:HH22	1.74	0.52
1:AS:2520:A:H1'	1:AS:2521:C:C5	2.44	0.52
1:AS:3302:G:H2'	1:AS:3303:C:C6	2.45	0.52
45:CL:92:SER:HB2	46:CM:1413:A:H62	1.75	0.52
46:CM:390:G:OP1	55:CV:24:LYS:NZ	2.30	0.52
46:CM:647:C:O2'	46:CM:648:U:H6	1.93	0.52
46:CM:1016:U:H4'	46:CM:1017:G:OP2	2.10	0.52
46:CM:1306:A:H4'	46:CM:1307:A:O5'	2.10	0.52
79:O:74:LEU:O	79:O:78:LEU:HD13	2.09	0.52
1:1:249:G:N2	1:1:251:G:N7	2.58	0.52
1:1:948:A:H4'	1:1:964:G:N2	2.24	0.52
1:1:989:G:N3	1:1:2609:A:H2'	2.23	0.52
1:1:1153:G:O2'	1:1:1165:A:N3	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:4:U:H2'	2:3:5:G:C8	2.45	0.52
36:AI:100:GLU:OE1	36:AI:108:ARG:NE	2.43	0.52
46:B:699:U:C2	46:B:723:G:N2	2.79	0.52
46:B:1127:A:H2'	46:B:1128:A:C8	2.45	0.52
46:B:1697:C:H2'	46:B:1698:U:C2	2.44	0.52
53:I:136:LYS:HG3	53:I:173:PRO:HB2	1.91	0.52
56:L:110:GLN:HE21	56:L:126:ARG:HB2	1.75	0.52
61:R:41:VAL:HG13	61:R:84:ILE:HD13	1.91	0.52
66:W:26:THR:OG1	66:W:112:ASP:OD1	2.23	0.52
1:AS:112:C:OP1	16:BI:147:ARG:NH2	2.43	0.52
1:AS:481:G:P	1:AS:481:G:O4'	2.68	0.52
1:AS:647:A:H2'	1:AS:648:C:C6	2.45	0.52
1:AS:932:A:OP2	29:BV:27:LYS:HE2	2.10	0.52
1:AS:2138:G:H2'	1:AS:2139:G:C8	2.45	0.52
1:AS:2899:C:H2'	1:AS:2900:C:C6	2.44	0.52
20:BM:44:LEU:HB3	20:BM:49:THR:HB	1.92	0.52
46:CM:341:C:H2'	46:CM:342:A:H8	1.74	0.52
46:CM:398:A:H5"	55:CV:25:ARG:HA	1.92	0.52
56:CW:169:ALA:O	56:CW:174:ARG:NH1	2.38	0.52
61:DC:10:ARG:NH1	61:DC:13:LYS:HE3	2.25	0.52
82:L1:31:THR:O	82:L1:209:THR:N	2.42	0.52
82:l1:129:SER:HA	82:l1:133:LYS:HB2	1.92	0.52
1:1:867:U:H2'	1:1:868:U:C6	2.46	0.51
1:1:1006:G:N2	12:r:193:ASP:O	2.34	0.51
1:1:1344:U:OP1	19:y:39:ARG:NH2	2.43	0.51
25:7:94:ARG:HG3	53:I:145:PHE:HD1	1.75	0.51
29:AB:76:ASP:OD1	29:AB:76:ASP:N	2.43	0.51
46:B:4:C:H4'	49:E:176:SER:HB3	1.91	0.51
46:B:457:G:OP1	70:a:109:LYS:NZ	2.43	0.51
46:B:1472:G:N2	46:B:1580:A:OP1	2.38	0.51
56:L:106:GLU:HA	56:L:111:THR:HG21	1.92	0.51
66:W:68:LYS:O	75:f:44:ARG:NH1	2.43	0.51
76:g:54:ARG:HH12	76:g:56:MET:HE2	1.75	0.51
1:AS:729:C:H3'	1:AS:730:A:H5"	1.91	0.51
1:AS:1277:G:OP1	80:p0:55:LYS:HG2	2.09	0.51
1:AS:2479:U:H5"	1:AS:2480:A:C2	2.45	0.51
1:AS:3136:C:H2'	1:AS:3137:A:H8	1.74	0.51
46:CM:103:A:O3'	46:CM:306:C:N4	2.43	0.51
46:CM:151:G:H2'	46:CM:152:G:C8	2.45	0.51
46:CM:690:C:H2'	46:CM:691:U:H6	1.72	0.51
47:CN:53:THR:OG1	47:CN:161:PRO:HG2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CZ:45:LEU:HA	79:CZ:120:CYS:SG	2.49	0.51
65:DG:42:GLY:HA3	65:DG:94:VAL:HG21	1.92	0.51
70:DL:57:VAL:HB	70:DL:60:PHE:HE1	1.74	0.51
77:DS:178:LYS:O	77:DS:180:ARG:HG2	2.09	0.51
1:1:2196:G:H2'	1:1:2197:A:C8	2.44	0.51
1:1:2808:C:H5	1:1:2824:C:H42	1.58	0.51
1:1:3344:U:H4'	5:k:315:GLY:HA2	1.93	0.51
9:o:182:LEU:HD21	9:o:200:LEU:HD11	1.92	0.51
11:q:10:LEU:HD23	11:q:11:ASP:N	2.25	0.51
19:y:67:ILE:HG12	19:y:81:ILE:HG21	1.92	0.51
21:0:73:LYS:NZ	21:0:97:VAL:O	2.37	0.51
46:B:684:C:H2'	46:B:685:C:C6	2.45	0.51
46:B:1582:U:H5'	46:B:1583:C:OP2	2.10	0.51
60:Q:79:ARG:HB3	60:Q:113:VAL:HG23	1.92	0.51
1:AS:169:G:C6	1:AS:249:G:H1'	2.45	0.51
1:AS:1014:G:N2	1:AS:1030:U:O2	2.32	0.51
1:AS:1034:U:H5"	7:AZ:5:LYS:HG2	1.93	0.51
1:AS:1124:U:OP1	12:BE:4:ARG:NH1	2.36	0.51
13:BF:117:ASP:HB3	13:BF:120:ILE:HD12	1.91	0.51
25:BR:83:VAL:HG11	46:CM:68:A:N1	2.26	0.51
46:CM:561:U:H4'	76:DR:17:GLN:OE1	2.09	0.51
46:CM:971:G:H2'	46:CM:972:G:O4'	2.10	0.51
46:CM:1072:A:H2'	46:CM:1073:A:C8	2.44	0.51
51:CR:104:ASP:HB3	51:CR:110:ALA:HB2	1.92	0.51
82:l1:35:GLN:N	82:l1:205:VAL:O	2.41	0.51
80:p0:13:SER:O	80:p0:17:GLU:HG3	2.11	0.51
80:p0:16:ARG:NH2	80:p0:62:ALA:O	2.42	0.51
1:1:158:A:H2'	1:1:159:A:C8	2.45	0.51
1:1:647:A:H2'	1:1:648:C:C6	2.44	0.51
1:1:689:A:N1	3:4:28:C:O2'	2.39	0.51
1:1:2855:U:H2'	1:1:2856:C:C6	2.45	0.51
8:n:39:LEU:HD11	8:n:53:TYR:HB2	1.91	0.51
46:B:1149:G:H2'	46:B:1150:G:H8	1.74	0.51
78:AR:68:ILE:O	78:AR:86:TRP:N	2.35	0.51
1:AS:437:G:O2'	1:AS:438:A:OP1	2.26	0.51
1:AS:689:A:N1	3:AU:28:C:O2'	2.39	0.51
1:AS:843:A:H2'	1:AS:844:A:C8	2.45	0.51
1:AS:1245:G:H2'	1:AS:1246:G:H8	1.73	0.51
1:AS:1443:G:OP1	18:BK:65:SER:HB2	2.10	0.51
7:AZ:187:ALA:O	7:AZ:189:GLU:N	2.42	0.51
13:BF:82:ARG:HH22	13:BF:114:ILE:HD11	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BM:162:ARG:NH1	46:CM:835:A:OP1	2.39	0.51
50:CQ:60:LEU:HD11	50:CQ:89:ALA:HB3	1.93	0.51
64:DF:6:GLN:HB2	71:DM:43:ASP:O	2.10	0.51
80:P0:52:LEU:HD22	80:P0:88:PHE:HE2	1.75	0.51
1:1:1021:A:N6	61:R:74:ALA:HA	2.25	0.51
1:1:2183:U:O2'	1:1:2184:G:OP1	2.28	0.51
1:1:3164:U:H1'	1:1:3165:U:C4	2.45	0.51
8:n:39:LEU:HD13	8:n:83:VAL:HG11	1.93	0.51
17:w:160:LYS:O	17:w:164:GLN:HG3	2.11	0.51
32:AE:95:VAL:HG12	32:AE:97:VAL:HG13	1.90	0.51
46:B:15:U:H2'	46:B:16:G:O4'	2.10	0.51
48:D:180:THR:HG22	48:D:183:GLN:OE1	2.11	0.51
49:E:173:ILE:HG21	49:E:180:LYS:HA	1.91	0.51
54:J:81:PHE:HB3	54:J:84:ARG:HG3	1.91	0.51
63:T:89:SER:C	63:T:91:LEU:H	2.19	0.51
67:X:64:GLU:OE2	73:d:2:VAL:N	2.43	0.51
1:AS:565:A:H2'	1:AS:566:C:O4'	2.11	0.51
1:AS:595:G:OP2	9:BB:32:LYS:NZ	2.41	0.51
1:AS:2174:C:H2'	1:AS:2220:A:H61	1.75	0.51
1:AS:2461:G:OP2	82:L1:98:LYS:NZ	2.30	0.51
1:AS:2628:A:C8	1:AS:2630:G:C8	2.98	0.51
1:AS:3165:U:N3	1:AS:3166:A:N3	2.57	0.51
31:BX:42:LYS:HB3	31:BX:103:LEU:HD21	1.91	0.51
46:CM:558:U:H2'	46:CM:559:G:H8	1.74	0.51
46:CM:982:G:C6	46:CM:993:G:C6	2.99	0.51
46:CM:1237:C:H2'	46:CM:1238:U:O4'	2.11	0.51
54:CU:109:PRO:HG2	54:CU:112:ARG:HD3	1.92	0.51
1:1:612:U:H2'	1:1:613:U:C6	2.46	0.51
1:1:694:C:OP2	6:l:120:ARG:NH2	2.44	0.51
1:1:1239:G:O2'	1:1:1240:A:H5'	2.11	0.51
1:1:1921:U:O4	1:1:2297:U:O2'	2.27	0.51
6:l:6:GLN:HB3	6:l:20:GLN:HB3	1.91	0.51
14:t:2:ALA:HB1	29:AB:33:GLY:O	2.11	0.51
32:AE:71:ARG:HH11	32:AE:103:LEU:HD13	1.74	0.51
46:B:16:G:H2'	46:B:17:C:C6	2.45	0.51
46:B:1216:U:H3	46:B:1239:U:H3	1.59	0.51
55:K:190:LEU:HD22	55:K:194:GLU:HG2	1.92	0.51
66:W:32:GLN:OE1	66:W:32:GLN:N	2.44	0.51
69:Z:62:LYS:H	69:Z:116:ASP:HB2	1.74	0.51
1:AS:428:U:H2'	1:AS:429:U:C6	2.45	0.51
1:AS:2464:A:O2'	1:AS:2465:U:H5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AU:21:C:OP1	6:AY:194:LYS:NZ	2.35	0.51
3:AU:29:U:H5"	14:BG:27:ASP:HB3	1.92	0.51
14:BG:100:ARG:O	14:BG:102:GLN:NE2	2.43	0.51
18:BK:40:LYS:HD2	18:BK:113:VAL:HG22	1.93	0.51
46:CM:78:A:H2'	46:CM:79:C:H6	1.74	0.51
46:CM:491:U:H3'	46:CM:492:U:C6	2.46	0.51
46:CM:1187:A:H1'	46:CM:1192:C:N4	2.26	0.51
46:CM:1698:U:C2'	46:CM:1699:G:H4'	2.40	0.51
50:CQ:109:LYS:HE3	50:CQ:114:LEU:HD22	1.92	0.51
1:1:1116:A:H2'	1:1:1117:U:C6	2.44	0.51
11:q:22:ALA:O	11:q:39:LYS:NZ	2.41	0.51
46:B:1140:G:H2'	46:B:1141:C:C6	2.46	0.51
46:B:1749:A:H1'	46:B:1770:C:H5'	1.91	0.51
50:F:12:LEU:HD12	66:W:85:ILE:HG12	1.93	0.51
59:P:48:SER:OG	59:P:86:GLU:OE2	2.20	0.51
70:a:57:VAL:HB	70:a:60:PHE:HE2	1.76	0.51
77:h:160:ARG:HB3	77:h:173:PHE:CD2	2.46	0.51
1:AS:430:G:H2'	1:AS:431:A:C8	2.46	0.51
1:AS:1116:A:H2'	1:AS:1117:U:C6	2.45	0.51
3:AU:69:U:H3	3:AU:89:A:H61	1.58	0.51
46:CM:68:A:N6	53:CT:132:ARG:HG3	2.25	0.51
46:CM:1325:U:O4'	46:CM:1364:U:H5"	2.11	0.51
47:CN:23:HIS:CD2	63:DE:106:THR:HG21	2.46	0.51
51:CR:123:LEU:HD13	51:CR:237:VAL:HG13	1.92	0.51
81:12:120:SER:HB3	81:12:128:VAL:HA	1.93	0.51
81:12:142:ARG:NH1	81:12:145:GLY:O	2.44	0.51
82:l1:126:PRO:HA	82:l1:130:LYS:HE2	1.93	0.51
80:p0:12:PHE:CZ	80:p0:16:ARG:NH2	2.79	0.51
80:p0:64:ARG:HH11	80:p0:67:LEU:HB2	1.75	0.51
1:1:58:G:H2'	3:4:33:A:O2'	2.11	0.51
1:1:2086:C:H1'	1:1:3309:A:H8	1.71	0.51
30:AC:14:ARG:HD2	30:AC:18:ARG:NH2	2.26	0.51
45:i:67:LYS:NZ	61:R:125:PRO:HD3	2.26	0.51
46:B:1739:U:H2'	46:B:1740:A:H8	1.76	0.51
50:F:143:LEU:O	50:F:145:ALA:N	2.35	0.51
59:P:46:THR:OG1	59:P:49:GLN:HG3	2.11	0.51
1:AS:409:A:H61	3:AU:15:G:H1'	1.76	0.51
1:AS:1023:A:C6	1:AS:1025:G:H1'	2.46	0.51
1:AS:1580:U:H2'	1:AS:1581:C:C6	2.46	0.51
1:AS:1593:C:H2'	1:AS:1594:G:C8	2.44	0.51
1:AS:3138:U:H2'	1:AS:3139:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3308:G:O2'	1:AS:3327:A:N6	2.43	0.51
7:AZ:95:TRP:CD1	7:AZ:158:ARG:HA	2.46	0.51
32:BY:71:ARG:HH11	32:BY:103:LEU:HD13	1.75	0.51
36:CC:78:LYS:HA	36:CC:81:ARG:HD2	1.92	0.51
46:CM:290:U:H2'	46:CM:291:U:C6	2.45	0.51
47:CN:15:LYS:HZ1	63:DE:93:LEU:HD13	1.76	0.51
49:CP:93:MET:HG3	49:CP:116:VAL:HG23	1.93	0.51
51:CR:141:THR:OG1	51:CR:143:ASP:OD1	2.22	0.51
79:CZ:31:VAL:O	79:CZ:35:SER:HB3	2.11	0.51
78:DT:67:HIS:CG	78:DT:68:ILE:H	2.29	0.51
78:DT:107:HIS:HE2	78:DT:125:SER:HG	1.59	0.51
1:1:715:C:OP1	1:1:747:A:O2'	2.26	0.51
1:1:716:G:H3'	1:1:717:A:H5"	1.93	0.51
1:1:1374:U:H2'	1:1:1375:G:H8	1.76	0.51
1:1:1807:G:H2'	1:1:1808:G:O4'	2.11	0.51
1:1:1810:A:H4'	1:1:1811:U:O4'	2.11	0.51
1:1:2853:C:H2'	1:1:2854:U:C6	2.46	0.51
2:3:13:A:H2	7:m:21:ARG:HB2	1.75	0.51
46:B:257:U:OP1	55:K:75:LYS:NZ	2.33	0.51
46:B:291:U:H2'	46:B:292:C:H6	1.76	0.51
46:B:536:A:H1'	46:B:539:A:C8	2.45	0.51
46:B:1062:C:H2'	46:B:1063:C:H6	1.75	0.51
1:AS:243:G:H2'	1:AS:244:G:H8	1.75	0.51
1:AS:281:G:N7	16:BI:182:LYS:NZ	2.54	0.51
1:AS:448:U:H2'	1:AS:481:G:N1	2.25	0.51
1:AS:2385:C:H2'	1:AS:2386:U:C6	2.46	0.51
1:AS:2659:G:H4'	7:AZ:7:PHE:HE2	1.75	0.51
1:AS:3156:A:O2'	11:BD:23:ARG:NH1	2.38	0.51
1:AS:3269:C:O2	5:AX:334:ARG:HD3	2.11	0.51
12:BE:194:GLY:C	12:BE:196:TYR:H	2.18	0.51
23:BP:96:ILE:HG21	23:BP:108:LEU:HD13	1.92	0.51
46:CM:122:U:C2'	46:CM:123:G:H5"	2.40	0.51
46:CM:799:G:H8	46:CM:799:G:OP1	1.94	0.51
46:CM:1154:G:N1	46:CM:1562:G:OP2	2.37	0.51
54:CU:137:ARG:HG2	68:DJ:51:GLU:OE1	2.11	0.51
1:1:428:U:H2'	1:1:429:U:C6	2.45	0.51
1:1:624:U:H2'	1:1:625:C:H6	1.76	0.51
1:1:849:G:OP2	44:AQ:2:THR:HG21	2.11	0.51
1:1:1265:U:N3	1:1:1268:C:OP2	2.32	0.51
1:1:1456:A:H2'	1:1:1457:A:H8	1.76	0.51
1:1:2385:C:H2'	1:1:2386:U:H6	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3336:G:H2'	1:1:3337:A:C8	2.45	0.51
9:o:135:GLY:HA3	9:o:233:ILE:HB	1.93	0.51
19:y:96:PHE:CD1	19:y:97:PRO:HD2	2.46	0.51
45:i:62:ALA:O	45:i:63:ALA:C	2.54	0.51
45:i:99:SER:OG	45:i:102:LYS:HD2	2.11	0.51
46:B:1131:G:H1'	49:E:84:GLN:HG2	1.92	0.51
46:B:1566:U:H2'	46:B:1567:C:C6	2.45	0.51
52:H:26:ALA:HB2	62:S:25:LYS:HG3	1.92	0.51
57:M:15:LEU:O	57:M:19:GLY:HA2	2.11	0.51
66:W:32:GLN:HB3	66:W:108:GLU:HG2	1.93	0.51
69:Z:70:LYS:HB3	69:Z:93:LEU:HD22	1.93	0.51
1:AS:948:A:H4'	1:AS:964:G:N2	2.26	0.51
1:AS:1225:G:H2'	1:AS:1226:G:C8	2.46	0.51
1:AS:2447:G:H1'	1:AS:2466:A:H2	1.76	0.51
1:AS:3285:A:H2'	1:AS:3286:C:C6	2.46	0.51
3:AU:47:C:H1'	3:AU:61:A:H2'	1.92	0.51
31:BX:36:LEU:HD13	31:BX:61:TYR:HB3	1.92	0.51
33:BZ:33:TRP:HH2	33:BZ:53:GLN:HG2	1.75	0.51
46:CM:39:A:OP1	56:CW:3:ARG:NH2	2.44	0.51
46:CM:379:C:OP1	51:CR:10:LYS:NZ	2.43	0.51
46:CM:504:A:N6	76:DR:27:PRO:HB3	2.25	0.51
46:CM:583:A:H2'	46:CM:584:G:C8	2.46	0.51
46:CM:1341:U:H2'	46:CM:1342:A:C8	2.46	0.51
48:CO:168:MET:O	48:CO:172:MET:HG3	2.11	0.51
53:CT:218:GLU:HG2	53:CT:219:ARG:CZ	2.41	0.51
79:CZ:63:CYS:HB2	79:CZ:97:LEU:HD11	1.92	0.51
76:DR:55:LYS:HB2	76:DR:58:PRO:HG3	1.92	0.51
82:l1:14:HIS:O	82:l1:18:GLU:N	2.43	0.51
1:1:1221:A:H2'	1:1:1222:G:C8	2.46	0.51
1:1:1322:A:O2'	34:AG:77:ASN:OD1	2.24	0.51
7:m:60:ILE:HB	7:m:80:ALA:HB2	1.93	0.51
7:m:94:ASN:HB2	7:m:97:ALA:H	1.76	0.51
46:B:70:C:OP2	53:I:164:LYS:NZ	2.43	0.51
46:B:470:U:H5"	56:L:11:THR:HG23	1.93	0.51
46:B:483:A:H2'	46:B:484:G:C8	2.46	0.51
46:B:739:A:H5"	46:B:740:A:C5'	2.42	0.51
47:C:10:THR:HG23	47:C:13:ASP:H	1.76	0.51
74:e:19:THR:HG23	74:e:25:VAL:HG13	1.93	0.51
1:AS:21:G:H5"	38:CE:43:LYS:HG2	1.93	0.51
1:AS:745:C:H5"	30:BW:32:LEU:HD12	1.93	0.51
1:AS:2281:A:OP1	42:CI:23:ARG:NE	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3039:C:OP2	20:BM:62:ARG:NH2	2.44	0.51
11:BD:16:VAL:HG11	11:BD:79:ILE:HG13	1.92	0.51
14:BG:69:VAL:O	14:BG:151:GLN:NE2	2.44	0.51
46:CM:696:U:OP1	46:CM:696:U:C6	2.62	0.51
46:CM:1436:U:H2'	46:CM:1437:C:C6	2.46	0.51
71:DM:64:VAL:HG13	71:DM:68:ARG:HH21	1.75	0.51
82:l1:196:LYS:HD2	82:l1:200:ASN:HD21	1.75	0.51
1:1:422:A:C2	1:1:2341:A:H4'	2.46	0.50
1:1:641:U:H5"	86:1:4111:HOH:O	2.10	0.50
1:1:2236:U:C2	1:1:2237:A:C8	2.99	0.50
1:1:2925:U:H2'	1:1:2926:U:H2'	1.92	0.50
1:1:3259:A:H2'	1:1:3260:A:O4'	2.11	0.50
17:w:28:ILE:HD11	17:w:89:ILE:HD11	1.91	0.50
46:B:79:C:H1'	53:I:174:LYS:HB2	1.93	0.50
46:B:673:A:H8	46:B:673:A:O5'	1.93	0.50
56:L:38:ASN:HA	76:g:36:MET:HE3	1.93	0.50
57:M:55:VAL:HG12	57:M:68:LEU:HA	1.91	0.50
68:Y:15:ASN:ND2	68:Y:72:CYS:O	2.31	0.50
69:Z:57:ILE:HG23	69:Z:58:GLY:H	1.76	0.50
1:AS:2433:U:H3'	1:AS:2434:A:H8	1.75	0.50
1:AS:2854:U:H2'	1:AS:2855:U:C6	2.46	0.50
1:AS:3035:C:H2'	1:AS:3036:U:H6	1.76	0.50
4:AW:96:LEU:O	44:CK:87:ARG:HD3	2.10	0.50
12:BE:82:ARG:NH1	12:BE:83:ASP:OD1	2.43	0.50
46:CM:494:G:H3'	46:CM:495:G:H5"	1.93	0.50
46:CM:504:A:H62	76:DR:27:PRO:HB3	1.76	0.50
46:CM:947:C:H2'	46:CM:948:A:O4'	2.11	0.50
46:CM:1458:C:OP1	52:CS:102:ARG:NH2	2.38	0.50
46:CM:1676:A:H1'	46:CM:1700:G:C6	2.46	0.50
51:CR:18:TRP:O	51:CR:51:ARG:NH2	2.34	0.50
52:CS:98:MET:HB2	52:CS:103:ASN:O	2.11	0.50
62:DD:124:GLU:HG2	62:DD:133:ALA:HB1	1.93	0.50
78:DT:159:PRO:HD3	78:DT:201:LEU:CD1	2.41	0.50
80:p0:61:ARG:O	80:p0:64:ARG:HG2	2.11	0.50
1:1:631:U:H2'	1:1:632:C:C6	2.47	0.50
1:1:1182:G:N3	21:0:112:ALA:HB1	2.26	0.50
36:AI:1:MET:N	36:AI:1:MET:SD	2.79	0.50
46:B:1220:C:H3'	46:B:1221:A:H8	1.74	0.50
46:B:1369:G:O2'	46:B:1370:A:H8	1.94	0.50
46:B:1551:U:H2'	46:B:1552:C:H6	1.76	0.50
47:C:49:ASN:ND2	47:C:52:LYS:HG3	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:R:77:LYS:HD2	61:R:102:PHE:CZ	2.47	0.50
77:h:174:MET:HB3	77:h:181:GLN:HB3	1.94	0.50
1:AS:179:C:H2'	1:AS:180:U:H6	1.75	0.50
1:AS:200:A:H2'	1:AS:201:G:H8	1.77	0.50
1:AS:314:U:H2'	1:AS:315:C:C6	2.46	0.50
1:AS:671:U:H2'	1:AS:672:G:C8	2.47	0.50
1:AS:1058:A:O2'	22:BO:108:ARG:NH2	2.43	0.50
1:AS:1556:G:O2'	1:AS:1557:U:H5'	2.11	0.50
1:AS:2943:A:H2'	1:AS:2943:A:N3	2.26	0.50
1:AS:2956:C:H2'	1:AS:2957:C:H6	1.75	0.50
5:AX:106:TRP:HB2	5:AX:133:TYR:CE1	2.45	0.50
12:BE:47:PRO:HB3	12:BE:171:TRP:CZ2	2.46	0.50
27:BT:31:LEU:HB3	27:BT:101:PRO:HG2	1.92	0.50
44:CK:28:LYS:O	44:CK:32:GLN:HG3	2.11	0.50
46:CM:302:U:H2'	46:CM:303:C:C6	2.46	0.50
57:CX:76:LEU:O	57:CX:80:LEU:HB2	2.11	0.50
61:DC:61:ARG:NH1	61:DC:88:GLU:OE2	2.44	0.50
78:DT:214:ASP:N	78:DT:214:ASP:OD1	2.43	0.50
82:l1:204:LEU:N	82:l1:217:TYR:OXT	2.45	0.50
1:1:33:A:N3	1:1:806:A:O2'	2.41	0.50
1:1:1199:A:N3	1:1:2827:U:O2'	2.42	0.50
1:1:2957:C:H2'	1:1:2958:U:C6	2.46	0.50
1:1:3285:A:H2'	1:1:3286:C:C6	2.46	0.50
5:k:122:TRP:CE2	5:k:127:LYS:HE3	2.46	0.50
6:l:3:SER:OG	6:l:4:ARG:N	2.37	0.50
46:B:265:U:H2'	46:B:266:C:C6	2.46	0.50
46:B:946:U:H5"	59:P:71:ILE:HD12	1.94	0.50
46:B:1453:C:O2'	65:V:88:PHE:O	2.25	0.50
78:AR:126:ALA:HB1	78:AR:152:VAL:HG23	1.93	0.50
1:AS:122:A:OP1	10:BC:106:LYS:NZ	2.33	0.50
1:AS:1245:G:H2'	1:AS:1246:G:C8	2.47	0.50
1:AS:1303:G:OP1	17:BJ:60:ARG:NH2	2.44	0.50
1:AS:1810:A:H4'	1:AS:1811:U:O4'	2.11	0.50
3:AU:153:U:OP1	10:BC:64:LYS:NZ	2.33	0.50
4:AW:5:ILE:HG12	4:AW:8:GLN:HG3	1.93	0.50
45:CL:53:LYS:C	45:CL:55:LYS:H	2.18	0.50
45:CL:67:LYS:HD2	61:DC:125:PRO:HG3	1.93	0.50
46:CM:598:U:OP2	69:DK:108:GLY:HA2	2.11	0.50
46:CM:874:U:H2'	46:CM:875:C:H6	1.76	0.50
46:CM:1230:G:N2	46:CM:1235:U:O4	2.39	0.50
46:CM:1573:A:H2'	46:CM:1574:A:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1716:C:H2'	46:CM:1717:A:O4'	2.11	0.50
69:DK:48:HIS:HB3	69:DK:103:LEU:HD11	1.93	0.50
1:1:411:U:H2'	1:1:412:G:H8	1.77	0.50
1:1:756:G:O2'	1:1:766:G:N2	2.37	0.50
1:1:1852:C:H2'	1:1:1853:C:H6	1.76	0.50
5:k:74:GLU:OE2	5:k:325:LYS:HE3	2.12	0.50
13:s:108:GLU:OE1	64:U:110:ARG:NH1	2.44	0.50
46:B:78:A:H2'	46:B:79:C:H6	1.76	0.50
46:B:501:G:H2'	46:B:502:U:C6	2.47	0.50
46:B:822:G:H3'	46:B:823:G:C5'	2.41	0.50
46:B:1455:A:H2'	46:B:1456:C:C6	2.46	0.50
47:C:184:LEU:HB3	67:X:45:ALA:HB2	1.93	0.50
52:H:55:ASP:OD1	52:H:57:SER:OG	2.28	0.50
63:T:77:GLU:O	63:T:80:ARG:NH1	2.44	0.50
78:AR:152:VAL:HG12	78:AR:170:SER:HB2	1.94	0.50
1:AS:142:G:H4'	3:AU:145:U:OP1	2.11	0.50
1:AS:173:C:H2'	1:AS:174:C:C6	2.47	0.50
1:AS:214:G:OP1	27:BT:12:ARG:NH1	2.42	0.50
1:AS:297:G:OP2	1:AS:297:G:N2	2.37	0.50
1:AS:606:A:C5	8:BA:21:ARG:HD3	2.47	0.50
1:AS:2201:A:H2'	1:AS:2202:A:C8	2.47	0.50
7:AZ:6:GLU:OE1	7:AZ:7:PHE:N	2.44	0.50
8:BA:39:LEU:HB3	8:BA:83:VAL:HG13	1.94	0.50
45:CL:48:PRO:O	45:CL:50:LYS:N	2.42	0.50
46:CM:15:U:H2'	46:CM:16:G:O4'	2.11	0.50
46:CM:638:U:H2'	46:CM:639:G:O4'	2.10	0.50
46:CM:1138:G:OP1	72:DN:85:ARG:NH1	2.44	0.50
46:CM:1475:U:OP1	50:CQ:10:LYS:NZ	2.30	0.50
50:CQ:28:ARG:HD2	57:CX:60:SER:HB2	1.94	0.50
51:CR:36:HIS:CG	51:CR:85:GLY:HA3	2.46	0.50
62:DD:21:VAL:HG22	62:DD:64:ILE:HG12	1.93	0.50
63:DE:7:LYS:O	63:DE:11:ARG:HG2	2.11	0.50
63:DE:79:GLU:O	63:DE:83:GLN:NE2	2.29	0.50
74:DP:12:VAL:HG12	74:DP:30:VAL:HG12	1.92	0.50
82:L1:194:LEU:HD13	82:L1:200:ASN:HD22	1.76	0.50
1:1:1779:U:H2'	1:1:1780:A:C8	2.46	0.50
1:1:2206:A:H2'	1:1:2207:A:H8	1.74	0.50
1:1:2251:G:O2'	1:1:2289:G:O6	2.25	0.50
1:1:2981:G:OP1	17:w:67:LYS:HD2	2.12	0.50
7:m:164:LYS:NZ	7:m:168:ASP:OD1	2.39	0.50
14:t:61:PRO:C	14:t:62:THR:HG23	2.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:y:76:ALA:HA	19:y:79:LYS:HG3	1.92	0.50
19:y:89:ASP:OD1	19:y:90:ASP:N	2.43	0.50
23:5:37:LEU:HB3	23:5:56:ILE:HD13	1.94	0.50
35:AH:105:LEU:O	35:AH:109:GLN:NE2	2.45	0.50
53:I:182:GLN:HE21	53:I:186:ARG:HG3	1.76	0.50
62:S:36:THR:HG23	62:S:37:LEU:HG	1.92	0.50
78:AR:16:HIS:CD2	78:AR:43:ILE:HD12	2.46	0.50
1:AS:139:U:H2'	1:AS:140:C:C6	2.47	0.50
1:AS:1259:A:H4'	1:AS:1260:G:H5"	1.93	0.50
1:AS:1863:A:H2'	1:AS:1864:G:H8	1.76	0.50
1:AS:2444:G:N2	1:AS:2468:C:OP1	2.44	0.50
1:AS:3057:G:OP1	25:BR:34:SER:OG	2.21	0.50
16:BI:177:GLY:H	16:BI:184:LYS:HZ2	1.58	0.50
46:CM:151:G:N2	53:CT:56:ASN:OD1	2.40	0.50
46:CM:255:A:H1'	55:CV:73:SER:HB2	1.93	0.50
46:CM:261:C:H4'	46:CM:290:U:H5'	1.93	0.50
46:CM:1369:G:O2'	46:CM:1370:A:H8	1.95	0.50
46:CM:1398:G:H4'	46:CM:1399:U:O5'	2.11	0.50
47:CN:63:ILE:HG12	67:DI:36:ILE:HG22	1.93	0.50
54:CU:69:VAL:HG12	54:CU:72:ARG:NH2	2.26	0.50
82:L1:174:MET:HB3	82:L1:178:VAL:HB	1.92	0.50
1:1:337:G:O4'	6:l:49:GLN:NE2	2.45	0.50
1:1:381:U:H2'	1:1:382:U:C6	2.46	0.50
1:1:964:G:H2'	1:1:965:C:C6	2.47	0.50
1:1:1089:A:OP2	22:2:120:LYS:NZ	2.30	0.50
1:1:1216:U:OP1	1:1:1217:A:O2'	2.27	0.50
1:1:1233:G:N2	81:12:138:SER:HB2	2.27	0.50
1:1:1761:U:C5	20:z:43:LYS:HE3	2.47	0.50
1:1:1829:G:H5"	40:AM:10:LYS:HD2	1.92	0.50
13:s:61:ARG:HH22	45:i:42:ALA:HA	1.76	0.50
18:x:40:LYS:HD2	18:x:113:VAL:HG22	1.93	0.50
43:AP:15:LYS:HD3	43:AP:18:ARG:HH21	1.77	0.50
46:B:233:G:H2'	46:B:234:G:C8	2.46	0.50
46:B:234:G:H2'	46:B:235:C:C6	2.47	0.50
46:B:810:U:H2'	46:B:811:U:O4'	2.11	0.50
46:B:1354:U:C2	46:B:1355:A:N7	2.79	0.50
46:B:1485:G:H2'	46:B:1486:G:H8	1.77	0.50
51:G:64:ILE:O	51:G:67:GLN:HG3	2.12	0.50
62:S:14:THR:HB	62:S:71:GLY:HA2	1.94	0.50
1:AS:164:U:H2'	1:AS:165:C:C6	2.46	0.50
1:AS:429:U:H2'	1:AS:430:G:C8	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2475:U:H2'	1:AS:2476:C:C5	2.47	0.50
4:AW:180:LEU:HD23	44:CK:18:TYR:CD2	2.47	0.50
21:BN:71:LYS:O	21:BN:73:LYS:NZ	2.34	0.50
36:CC:22:VAL:O	36:CC:26:GLN:HG3	2.12	0.50
45:CL:103:LEU:HB3	45:CL:109:GLN:HG3	1.93	0.50
46:CM:874:U:H2'	46:CM:875:C:C6	2.46	0.50
46:CM:1315:G:H2'	46:CM:1316:A:C8	2.46	0.50
50:CQ:166:ARG:NH2	75:DQ:54:LYS:O	2.41	0.50
51:CR:100:ARG:NH2	51:CR:121:TYR:O	2.44	0.50
54:CU:40:LYS:HG3	54:CU:59:PRO:HD3	1.93	0.50
55:CV:57:ALA:HB2	55:CV:183:GLY:HA2	1.92	0.50
62:DD:89:VAL:HG13	62:DD:101:LYS:HG2	1.94	0.50
78:DT:41:THR:CG2	78:DT:61:SER:HB2	2.42	0.50
82:l1:6:SER:O	82:l1:10:ARG:HG3	2.11	0.50
82:l1:138:VAL:HG13	82:l1:147:LYS:HZ1	1.77	0.50
1:1:294:U:P	16:v:15:GLN:HE22	2.34	0.50
1:1:364:G:OP1	6:l:61:THR:HG23	2.12	0.50
1:1:370:U:H4'	1:1:403:C:H2'	1.94	0.50
1:1:493:A:O2'	1:1:3238:A:N1	2.42	0.50
3:4:47:C:H1'	3:4:61:A:H2'	1.93	0.50
4:j:117:GLU:OE2	4:j:163:ARG:HB2	2.12	0.50
5:k:293:ASN:HB2	5:k:304:THR:HA	1.93	0.50
8:n:70:VAL:HG13	8:n:160:ALA:HB2	1.93	0.50
34:AG:9:VAL:HB	34:AG:100:ILE:HB	1.94	0.50
39:AL:24:ILE:HD13	39:AL:76:THR:HB	1.92	0.50
46:B:167:A:OP1	53:I:137:ARG:NE	2.45	0.50
63:T:89:SER:HB3	63:T:92:ASP:HB2	1.93	0.50
1:AS:169:G:H5"	36:CC:109:ILE:HD13	1.93	0.50
1:AS:3166:A:C2'	1:AS:3167:G:H5'	2.42	0.50
9:BB:108:GLN:HG2	9:BB:109:ILE:N	2.27	0.50
16:BI:104:GLU:OE2	16:BI:161:ALA:HA	2.12	0.50
31:BX:59:GLU:OE1	31:BX:71:TYR:OH	2.28	0.50
46:CM:504:A:H5'	46:CM:505:U:H2'	1.92	0.50
46:CM:698:C:H2'	46:CM:699:U:C6	2.46	0.50
46:CM:845:U:O4'	54:CU:110:ARG:HG3	2.12	0.50
46:CM:974:U:H2'	46:CM:975:C:C6	2.47	0.50
46:CM:1472:G:N2	46:CM:1509:U:O4	2.45	0.50
46:CM:1610:C:H2'	46:CM:1611:C:C6	2.46	0.50
46:CM:1659:G:H2'	46:CM:1660:G:H8	1.75	0.50
48:CO:85:LYS:HB2	48:CO:101:HIS:HB3	1.93	0.50
52:CS:200:ASN:CB	52:CS:208:SER:HB3	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:DS:184:GLY:O	77:DS:186:CYS:N	2.45	0.50
82:L1:116:LEU:HD23	82:L1:119:GLN:HB2	1.92	0.50
1:1:1593:C:H2'	1:1:1594:G:C8	2.47	0.50
1:1:1684:U:H2'	1:1:1685:U:C6	2.47	0.50
1:1:2680:C:H2'	1:1:2681:C:H6	1.76	0.50
1:1:3159:A:H2'	1:1:3160:C:C6	2.46	0.50
3:4:87:G:OP2	36:AI:5:LYS:HD2	2.12	0.50
6:l:61:THR:HG21	6:l:78:VAL:HG22	1.94	0.50
24:6:36:VAL:HG22	24:6:58:VAL:HG11	1.94	0.50
25:7:27:LYS:HG2	25:7:29:PHE:CE1	2.47	0.50
46:B:413:C:O2'	46:B:416:G:O6	2.29	0.50
46:B:693:U:H4'	54:J:96:PRO:HG3	1.94	0.50
46:B:1132:A:H2'	46:B:1133:C:C6	2.47	0.50
77:h:180:ARG:HA	77:h:190:LEU:O	2.11	0.50
78:AR:50:GLY:H	78:AR:55:TYR:HA	1.76	0.50
1:AS:25:A:H2'	1:AS:26:C:H6	1.76	0.50
1:AS:277:G:H2'	1:AS:278:U:C6	2.45	0.50
1:AS:623:A:H2'	1:AS:624:U:C6	2.46	0.50
1:AS:2448:C:H4'	1:AS:2449:U:OP2	2.11	0.50
8:BA:170:ARG:HB3	8:BA:172:HIS:CE1	2.47	0.50
14:BG:141:VAL:HG21	36:CC:118:ILE:HB	1.94	0.50
46:CM:879:U:H1'	60:DB:31:LYS:NZ	2.27	0.50
46:CM:1354:U:H2'	46:CM:1355:A:H8	1.77	0.50
46:CM:1431:G:C5	77:DS:131:LYS:HD3	2.46	0.50
46:CM:1609:G:H2'	46:CM:1610:C:H6	1.77	0.50
63:DE:93:LEU:HD12	63:DE:98:GLY:O	2.11	0.50
68:DJ:119:LYS:HG3	68:DJ:121:VAL:HG22	1.93	0.50
82:l1:61:PRO:HG3	82:l1:171:ASN:HB3	1.94	0.50
1:1:371:G:N1	1:1:374:A:OP2	2.39	0.50
1:1:648:C:H2'	1:1:649:G:C8	2.46	0.50
1:1:1377:A:H2'	1:1:1378:G:H8	1.77	0.50
27:9:51:ARG:HG2	27:9:52:GLN:N	2.26	0.50
38:AK:39:TYR:CD1	38:AK:40:PRO:HA	2.47	0.50
46:B:1026:G:H2'	46:B:1027:G:H8	1.72	0.50
46:B:1218:G:N1	46:B:1237:C:H5	2.08	0.50
1:AS:496:A:H4'	8:BA:27:GLN:HG3	1.93	0.50
1:AS:883:G:H2'	1:AS:884:A:C8	2.47	0.50
1:AS:1007:A:H2'	1:AS:1008:A:C8	2.47	0.50
1:AS:1481:G:N2	35:CB:4:ARG:HD2	2.27	0.50
1:AS:2232:U:H2'	1:AS:2239:G:N2	2.27	0.50
1:AS:2441:G:H4'	1:AS:2442:U:C5	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BG:127:ASP:OD1	14:BG:128:LYS:N	2.38	0.50
20:BM:134:HIS:HE1	20:BM:136:ARG:HE	1.60	0.50
33:BZ:22:HIS:CE1	33:BZ:25:ARG:HE	2.30	0.50
46:CM:257:U:OP1	55:CV:75:LYS:NZ	2.35	0.50
46:CM:953:U:H2'	46:CM:954:C:O4'	2.11	0.50
46:CM:1652:U:H3	46:CM:1723:G:H1	1.59	0.50
47:CN:79:ARG:O	47:CN:83:GLN:HG3	2.11	0.50
1:1:290:G:H1'	16:v:93:LYS:HD2	1.94	0.49
1:1:437:G:O2'	1:1:438:A:OP1	2.30	0.49
1:1:1190:G:H2'	1:1:1191:A:C8	2.46	0.49
1:1:1233:G:H1	1:1:1247:A:H61	0.71	0.49
1:1:1841:G:H5"	1:1:1842:C:H5'	1.93	0.49
1:1:1923:G:C8	44:AQ:16:VAL:HG12	2.47	0.49
1:1:2330:A:H5"	18:x:83:TRP:O	2.11	0.49
1:1:2407:G:H2'	1:1:2408:A:C8	2.46	0.49
1:1:3019:U:O2'	1:1:3020:A:H5'	2.12	0.49
1:1:3256:G:H2'	1:1:3257:A:C8	2.46	0.49
16:v:65:ARG:HG2	16:v:127:TYR:CD1	2.47	0.49
46:B:87:C:O2'	46:B:167:A:N1	2.41	0.49
46:B:415:A:H4'	46:B:416:G:O5'	2.12	0.49
46:B:935:C:H2'	46:B:936:A:C8	2.47	0.49
46:B:1086:G:H4'	68:Y:76:GLN:HG3	1.94	0.49
46:B:1716:C:H2'	46:B:1717:A:O4'	2.12	0.49
51:G:91:THR:HG23	51:G:98:HIS:CD2	2.46	0.49
1:AS:925:A:H2'	1:AS:926:U:C6	2.47	0.49
1:AS:1261:U:H2'	1:AS:1262:G:O4'	2.12	0.49
1:AS:1345:G:N2	6:AY:292:ASN:O	2.45	0.49
1:AS:1678:U:O2	23:BP:85:LYS:HG2	2.12	0.49
1:AS:2876:U:H2'	1:AS:2877:U:H6	1.77	0.49
16:BI:94:TYR:OH	16:BI:96:LYS:HE2	2.12	0.49
24:BQ:42:THR:HG21	24:BQ:50:PRO:HG3	1.95	0.49
46:CM:17:C:H2'	46:CM:18:C:H6	1.77	0.49
46:CM:876:A:H2'	46:CM:877:G:C8	2.46	0.49
46:CM:1214:G:O2'	46:CM:1240:G:N2	2.33	0.49
46:CM:1315:G:H2'	46:CM:1316:A:O4'	2.11	0.49
50:CQ:140:SER:O	50:CQ:184:GLY:N	2.42	0.49
51:CR:72:VAL:HG22	51:CR:90:ILE:HD13	1.93	0.49
79:O:47:GLU:HG2	79:O:50:LYS:HE2	1.94	0.49
1:1:246:U:H2'	1:1:247:C:C6	2.46	0.49
1:1:277:G:H2'	1:1:278:U:C6	2.46	0.49
1:1:638:U:OP1	29:AB:21:ARG:NH1	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:815:U:H2'	1:1:816:A:H8	1.77	0.49
1:1:1256:A:H1'	1:1:1276:C:H1'	1.94	0.49
4:j:117:GLU:OE2	4:j:163:ARG:NE	2.46	0.49
8:n:146:LEU:O	8:n:150:LYS:HG2	2.12	0.49
17:w:62:ALA:HA	17:w:71:PRO:HD2	1.92	0.49
46:B:189:G:N7	55:K:143:ARG:NH2	2.53	0.49
46:B:227:C:H2'	46:B:228:C:O4'	2.11	0.49
46:B:290:U:H2'	46:B:291:U:C6	2.47	0.49
46:B:1127:A:H5"	72:c:2:PRO:HB3	1.94	0.49
49:E:134:ILE:HD13	49:E:186:ALA:HB1	1.94	0.49
53:I:48:TYR:CD2	53:I:117:GLY:HA3	2.47	0.49
53:I:84:TYR:HE1	53:I:93:LYS:HE3	1.77	0.49
76:g:43:ARG:HG2	76:g:54:ARG:NH2	2.27	0.49
1:AS:941:C:H2'	1:AS:942:U:H6	1.74	0.49
1:AS:1153:G:H2'	1:AS:1154:A:O4'	2.12	0.49
1:AS:1236:A:H3'	1:AS:1237:U:C5	2.46	0.49
1:AS:2090:U:H4'	1:AS:2091:A:O5'	2.12	0.49
1:AS:2739:U:H2'	1:AS:2740:U:C6	2.46	0.49
6:AY:260:ASP:OD1	6:AY:265:SER:HB3	2.11	0.49
46:CM:1:U:OP2	56:CW:57:ARG:NH2	2.45	0.49
46:CM:226:G:C6	46:CM:819:G:C4	3.00	0.49
46:CM:458:A:O2'	51:CR:27:TYR:OH	2.22	0.49
46:CM:477:C:H5'	56:CW:124:HIS:HD1	1.77	0.49
46:CM:497:U:O2'	46:CM:498:C:H5'	2.11	0.49
46:CM:1205:C:H2'	46:CM:1206:A:C8	2.46	0.49
46:CM:1425:C:H2'	46:CM:1426:C:H6	1.77	0.49
52:CS:225:ARG:HD2	74:DP:58:GLU:CD	2.37	0.49
64:DF:25:ARG:HB3	64:DF:25:ARG:HH11	1.76	0.49
66:DH:27:SER:OG	66:DH:111:VAL:HA	2.11	0.49
80:p0:59:VAL:HA	80:p0:62:ALA:CB	2.41	0.49
1:1:393:U:H2'	1:1:394:G:O4'	2.12	0.49
1:1:797:A:OP1	29:AB:27:LYS:HE3	2.12	0.49
1:1:1225:G:H2'	1:1:1226:G:H8	1.76	0.49
3:4:126:A:O2'	3:4:129:C:N4	2.45	0.49
45:i:99:SER:OG	46:B:574:G:OP2	2.27	0.49
46:B:261:C:H4'	46:B:290:U:H5'	1.95	0.49
46:B:655:U:H2'	46:B:656:C:O4'	2.12	0.49
46:B:1279:G:O2'	46:B:1306:A:N1	2.43	0.49
46:B:1409:U:OP1	50:F:152:LYS:NZ	2.45	0.49
49:E:233:SER:HB3	49:E:236:GLU:HG3	1.93	0.49
50:F:68:HIS:CE1	57:M:94:ASN:HB3	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:h:175:ALA:O	77:h:177:MET:HG3	2.12	0.49
1:AS:673:C:O2'	1:AS:677:U:OP1	2.24	0.49
1:AS:1199:A:H2'	1:AS:1200:A:H8	1.77	0.49
1:AS:1632:C:H5"	28:BU:73:LYS:HZ1	1.78	0.49
1:AS:2391:A:H2'	1:AS:2392:G:C8	2.46	0.49
46:CM:721:C:H42	46:CM:722:A:N6	2.08	0.49
46:CM:839:U:O4	46:CM:840:A:N6	2.44	0.49
46:CM:1482:C:O2'	46:CM:1506:U:O2	2.27	0.49
46:CM:1678:G:H3'	46:CM:1679:A:C8	2.47	0.49
48:CO:59:ASP:OD1	48:CO:60:GLY:N	2.45	0.49
51:CR:123:LEU:HD23	51:CR:159:THR:HG21	1.94	0.49
72:DN:12:LYS:HA	72:DN:15:ARG:NH1	2.27	0.49
73:DO:49:HIS:HA	73:DO:70:LYS:HA	1.95	0.49
78:DT:90:LEU:HB2	78:DT:104:PHE:HB2	1.94	0.49
82:L1:37:GLY:O	82:L1:202:GLY:HA3	2.11	0.49
1:1:164:U:H2'	1:1:165:C:C6	2.47	0.49
1:1:358:G:N2	1:1:361:A:OP2	2.42	0.49
1:1:2090:U:H4'	1:1:2091:A:O5'	2.12	0.49
1:1:2985:U:H2'	1:1:2986:U:C6	2.46	0.49
3:4:49:G:OP1	36:AI:45:HIS:HB2	2.12	0.49
25:7:86:SER:O	25:7:90:ILE:HG12	2.12	0.49
41:AN:22:LYS:HG3	41:AN:39:CYS:HB2	1.94	0.49
46:B:151:G:H2'	46:B:152:G:H8	1.76	0.49
46:B:1636:C:H2'	46:B:1637:U:C6	2.48	0.49
46:B:1674:U:H2'	46:B:1675:U:C2	2.47	0.49
57:M:4:PRO:HG2	57:M:7:ASP:HB2	1.95	0.49
57:M:11:ILE:HD13	57:M:35:ILE:HG21	1.94	0.49
1:AS:107:A:H2	14:BG:73:ARG:HE	1.60	0.49
1:AS:636:C:N4	1:AS:637:G:O6	2.45	0.49
1:AS:867:U:H2'	1:AS:868:U:C6	2.47	0.49
1:AS:1080:A:H2'	1:AS:1081:A:C8	2.47	0.49
1:AS:1191:A:H2'	1:AS:1305:U:O2	2.13	0.49
1:AS:1911:A:H2'	1:AS:1912:U:C6	2.47	0.49
7:AZ:143:LYS:HE3	7:AZ:145:PHE:CZ	2.48	0.49
19:BL:125:ASP:OD1	19:BL:126:GLN:N	2.45	0.49
20:BM:134:HIS:CE1	20:BM:136:ARG:HB3	2.47	0.49
35:CB:8:ARG:HD2	35:CB:32:ALA:O	2.12	0.49
46:CM:654:G:O5'	46:CM:654:G:C8	2.62	0.49
46:CM:1413:A:O2'	46:CM:1414:G:OP1	2.23	0.49
46:CM:1592:G:OP2	62:DD:126:LYS:NZ	2.37	0.49
53:CT:136:LYS:HG3	53:CT:173:PRO:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CV:84:HIS:CE1	55:CV:86:SER:HB3	2.47	0.49
62:DD:22:LYS:HG2	62:DD:63:ASP:OD1	2.12	0.49
63:DE:74:GLN:O	63:DE:78:ARG:HB3	2.12	0.49
80:P0:96:ILE:O	80:P0:99:ILE:HG13	2.12	0.49
82:l1:49:PHE:CE1	82:l1:159:LEU:HB2	2.48	0.49
82:l1:67:ILE:HB	82:l1:84:ALA:HA	1.93	0.49
1:1:157:G:H2'	1:1:158:A:H8	1.77	0.49
1:1:179:C:H2'	1:1:180:U:H6	1.77	0.49
1:1:243:G:H2'	1:1:244:G:H8	1.77	0.49
1:1:502:U:H2'	1:1:503:U:C6	2.47	0.49
1:1:716:G:O2'	1:1:717:A:OP1	2.24	0.49
1:1:1059:G:N7	1:1:1093:G:O2'	2.37	0.49
1:1:1611:U:H2'	1:1:1612:U:H6	1.77	0.49
1:1:2876:U:H2'	1:1:2877:U:C6	2.46	0.49
2:3:91:G:H2'	2:3:92:A:C8	2.48	0.49
3:4:69:U:H3	3:4:89:A:H61	1.60	0.49
14:t:83:VAL:HG23	14:t:85:ILE:HG13	1.95	0.49
23:5:53:ASP:HA	23:5:69:SER:HB3	1.94	0.49
28:AA:23:VAL:HG12	28:AA:45:GLY:HA3	1.93	0.49
46:B:704:A:H2	46:B:719:A:C4	2.31	0.49
47:C:41:ARG:HD3	47:C:47:ILE:HD11	1.94	0.49
52:H:32:ASP:OD1	52:H:33:VAL:N	2.45	0.49
75:f:19:ARG:HD2	75:f:32:ARG:HD3	1.95	0.49
1:AS:445:A:H2'	1:AS:446:U:C6	2.48	0.49
1:AS:515:A:N7	6:AY:361:LEU:HD11	2.27	0.49
1:AS:1486:A:O2'	38:CE:12:HIS:O	2.29	0.49
1:AS:2475:U:H2'	1:AS:2476:C:H5	1.77	0.49
28:BU:87:LEU:HD11	28:BU:121:LYS:HD2	1.93	0.49
46:CM:110:U:OP1	46:CM:738:A:O2'	2.30	0.49
46:CM:364:A:OP1	46:CM:743:U:O2'	2.26	0.49
82:l1:49:PHE:CZ	82:l1:159:LEU:HB2	2.47	0.49
1:1:436:A:H2'	1:1:437:G:C8	2.48	0.49
1:1:779:A:H5"	1:1:780:A:H5"	1.93	0.49
1:1:2240:A:N1	46:B:1745:U:O2'	2.40	0.49
12:r:140:THR:HG21	12:r:148:VAL:HG21	1.93	0.49
20:z:38:ARG:O	20:z:42:ARG:HG3	2.12	0.49
23:5:30:GLN:NE2	23:5:58:ALA:HB1	2.28	0.49
27:9:32:SER:HA	27:9:49:PRO:HA	1.95	0.49
46:B:218:A:N6	46:B:817:U:O4	2.45	0.49
46:B:511:U:O4	56:L:171:ARG:NH2	2.46	0.49
46:B:703:U:H5	46:B:712:A:H5"	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:1149:G:H2'	46:B:1150:G:C8	2.47	0.49
46:B:1241:A:H5'	46:B:1242:U:C5	2.48	0.49
46:B:1306:A:H4'	46:B:1307:A:O5'	2.12	0.49
46:B:1602:C:N4	52:H:80:LYS:O	2.45	0.49
60:Q:82:GLY:HA3	60:Q:115:PRO:HG2	1.94	0.49
60:Q:101:ALA:HB2	72:c:53:LEU:CD2	2.41	0.49
74:e:35:ASP:O	74:e:37:SER:N	2.44	0.49
1:AS:538:G:H2'	1:AS:539:G:C8	2.47	0.49
1:AS:762:U:H4'	1:AS:763:U:O4'	2.12	0.49
1:AS:1268:C:H3'	1:AS:1269:A:H8	1.77	0.49
2:AT:13:A:H2	7:AZ:21:ARG:HB2	1.76	0.49
3:AU:157:U:O2'	3:AU:158:U:O4'	2.27	0.49
18:BK:54:HIS:O	18:BK:72:GLN:NE2	2.40	0.49
25:BR:23:ARG:NE	25:BR:25:ASP:OD1	2.36	0.49
46:CM:25:C:H4'	46:CM:26:A:O5'	2.13	0.49
46:CM:671:G:H5'	46:CM:672:U:OP2	2.13	0.49
46:CM:854:A:H61	46:CM:943:U:H5	1.60	0.49
46:CM:1131:G:H2'	46:CM:1132:A:H8	1.76	0.49
48:CO:32:ILE:HG22	48:CO:96:LEU:HD11	1.93	0.49
61:DC:68:GLU:N	61:DC:69:PRO:HD3	2.27	0.49
82:l1:57:GLN:O	82:l1:59:PRO:HD3	2.12	0.49
80:p0:12:PHE:CE1	80:p0:62:ALA:HB1	2.48	0.49
1:1:1180:A:H2'	1:1:1181:C:C6	2.48	0.49
9:o:130:PRO:HG2	9:o:131:TYR:CE2	2.48	0.49
15:u:52:LEU:HD23	15:u:55:ILE:HD11	1.93	0.49
15:u:65:LEU:HD12	15:u:77:LYS:HD2	1.95	0.49
38:AK:26:SER:HB3	38:AK:35:SER:OG	2.13	0.49
46:B:291:U:H2'	46:B:292:C:C6	2.48	0.49
46:B:583:A:H2'	46:B:584:G:H8	1.78	0.49
46:B:697:U:O2'	46:B:698:C:O4'	2.28	0.49
46:B:1040:U:H3	46:B:1049:G:H1	1.60	0.49
46:B:1230:G:N2	46:B:1235:U:O4	2.37	0.49
52:H:37:GLN:NE2	62:S:56:LEU:H	2.11	0.49
52:H:80:LYS:HB2	52:H:83:ARG:NH1	2.28	0.49
78:AR:69:VAL:HA	78:AR:85:SER:HA	1.94	0.49
1:AS:29:G:H5"	16:BI:188:ARG:HH12	1.77	0.49
1:AS:371:G:N1	1:AS:374:A:OP2	2.39	0.49
1:AS:602:A:H2'	1:AS:603:C:C6	2.48	0.49
1:AS:964:G:H2'	1:AS:965:C:H6	1.77	0.49
1:AS:1176:A:C4	1:AS:1178:G:C8	3.01	0.49
1:AS:2772:G:O6	29:BV:42:ARG:NH1	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3066:A:H2'	1:AS:3067:U:C6	2.46	0.49
32:BY:78:ARG:HA	32:BY:88:LEU:HD23	1.94	0.49
46:CM:184:C:OP1	55:CV:152:ARG:NH2	2.39	0.49
46:CM:656:C:H2'	46:CM:657:C:C6	2.47	0.49
1:1:234:A:H2'	1:1:235:G:O4'	2.13	0.49
1:1:788:G:H2'	1:1:789:C:C6	2.48	0.49
1:1:1176:A:C4	1:1:1178:G:C8	3.00	0.49
1:1:2239:G:O2'	1:1:2241:C:N4	2.46	0.49
1:1:2335:A:H2'	1:1:2336:A:H8	1.78	0.49
1:1:2887:U:OP1	5:k:9:PRO:HD3	2.13	0.49
1:1:3005:A:H2'	1:1:3006:C:H6	1.78	0.49
1:1:3066:A:H2'	1:1:3067:U:C6	2.47	0.49
23:5:80:LYS:NZ	23:5:98:PHE:O	2.45	0.49
46:B:583:A:H2'	46:B:584:G:C8	2.47	0.49
46:B:717:G:H4'	46:B:719:A:N1	2.28	0.49
46:B:875:C:H2'	46:B:876:A:H8	1.78	0.49
46:B:1216:U:OP1	77:h:136:LYS:NZ	2.39	0.49
46:B:1337:C:H2'	46:B:1338:U:O4'	2.13	0.49
46:B:1523:G:O2'	46:B:1524:C:OP1	2.27	0.49
51:G:123:LEU:HD23	51:G:159:THR:HG21	1.94	0.49
55:K:76:THR:HG21	55:K:104:ILE:HD12	1.93	0.49
1:AS:119:G:H21	1:AS:120:A:H62	1.61	0.49
1:AS:249:G:H2'	1:AS:251:G:OP2	2.12	0.49
1:AS:1042:A:H2'	1:AS:1045:C:C5	2.47	0.49
1:AS:1755:U:H3	1:AS:1762:G:H1	1.61	0.49
1:AS:2186:A:O2'	1:AS:2187:U:H5'	2.13	0.49
1:AS:2345:A:H2'	1:AS:2346:A:H8	1.77	0.49
1:AS:2734:A:H2'	1:AS:2735:U:H6	1.78	0.49
1:AS:3019:U:O2'	1:AS:3020:A:H5'	2.13	0.49
5:AX:66:LYS:NZ	24:BQ:9:ASN:H	2.10	0.49
5:AX:293:ASN:HB2	5:AX:304:THR:HA	1.94	0.49
8:BA:59:ASP:HB2	8:BA:102:VAL:HG22	1.94	0.49
15:BH:19:VAL:HG11	15:BH:55:ILE:HD12	1.95	0.49
19:BL:96:PHE:CD1	19:BL:97:PRO:HD2	2.47	0.49
45:CL:129:LEU:HA	45:CL:132:GLU:OE1	2.13	0.49
46:CM:327:G:H5'	55:CV:99:SER:HB3	1.95	0.49
46:CM:787:A:N3	54:CU:100:ARG:NH1	2.60	0.49
46:CM:1155:G:C2	46:CM:1156:A:C8	3.01	0.49
46:CM:1668:A:N6	46:CM:1707:G:O2'	2.46	0.49
79:CZ:80:ASN:O	79:CZ:82:PRO:CD	2.60	0.49
79:CZ:131:ASP:O	79:CZ:135:ILE:HB	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:283:G:OP2	43:AP:45:ARG:NH1	2.45	0.49
1:1:514:G:H2'	1:1:516:U:H5'	1.95	0.49
1:1:2404:U:H2'	1:1:2405:U:C6	2.48	0.49
1:1:2869:A:H5"	41:AN:49:LYS:HB2	1.94	0.49
1:1:3040:U:OP1	20:z:59:SER:N	2.27	0.49
1:1:3261:A:H2'	1:1:3262:U:H6	1.78	0.49
6:l:326:LEU:O	9:o:39:ARG:NH2	2.44	0.49
13:s:101:ASN:ND2	13:s:130:VAL:HG13	2.28	0.49
24:6:135:VAL:HG11	25:7:26:SER:HB3	1.95	0.49
46:B:738:A:OP1	51:G:187:ARG:N	2.46	0.49
46:B:1167:U:O2'	46:B:1169:A:N7	2.41	0.49
46:B:1546:G:C5	64:U:134:ARG:HD3	2.48	0.49
55:K:4:SER:OG	55:K:6:ASP:OD1	2.25	0.49
78:AR:263:GLN:O	78:AR:264:GLU:HG2	2.13	0.49
1:AS:813:A:H8	38:CE:15:SER:HG	1.59	0.49
1:AS:2520:A:H1'	1:AS:2521:C:H5	1.77	0.49
1:AS:3038:U:H2'	1:AS:3039:C:C6	2.47	0.49
1:AS:3269:C:O2'	5:AX:334:ARG:NH1	2.46	0.49
4:AW:64:ARG:NH2	10:BC:39:GLN:O	2.46	0.49
5:AX:16:PHE:HD2	5:AX:275:ARG:CZ	2.26	0.49
6:AY:40:PHE:CD2	6:AY:243:ALA:HB2	2.48	0.49
7:AZ:83:LEU:HD13	7:AZ:88:ILE:HD12	1.95	0.49
35:CB:57:LEU:HB2	35:CB:62:TYR:HE1	1.76	0.49
39:CF:30:LYS:HB3	39:CF:38:PHE:CE2	2.48	0.49
46:CM:191:U:H4'	46:CM:192:U:H5'	1.95	0.49
46:CM:658:A:C8	46:CM:672:U:H5"	2.48	0.49
46:CM:1218:G:N2	46:CM:1238:U:H1'	2.28	0.49
46:CM:1254:U:H5'	46:CM:1418:U:OP2	2.12	0.49
46:CM:1575:G:O2'	52:CS:106:LYS:NZ	2.46	0.49
48:CO:27:LYS:HD2	48:CO:47:LEU:HD13	1.93	0.49
53:CT:225:GLU:O	53:CT:228:LYS:HB3	2.12	0.49
79:CZ:98:GLY:O	79:CZ:103:LEU:HB2	2.13	0.49
78:DT:42:LEU:HD11	78:DT:83:SER:HB3	1.94	0.49
1:1:498:C:H2'	1:1:499:G:C8	2.48	0.49
1:1:1719:A:OP1	20:z:128:LYS:NZ	2.42	0.49
1:1:2649:G:H2'	1:1:2649:G:N3	2.28	0.49
7:m:160:PHE:O	7:m:163:LEU:HB3	2.12	0.49
22:2:112:ASN:HB3	22:2:128:LEU:HD13	1.95	0.49
32:AE:43:MET:CE	32:AE:76:ARG:HB2	2.43	0.49
46:B:880:G:H4'	60:Q:32:GLU:OE1	2.13	0.49
67:X:79:LEU:HD13	67:X:82:VAL:HG11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1079:G:H2'	1:AS:1080:A:H8	1.77	0.49
1:AS:1217:A:N7	80:p0:12:PHE:HD2	2.11	0.49
1:AS:1456:A:H2'	1:AS:1457:A:C8	2.48	0.49
1:AS:1799:C:H4'	35:CB:62:TYR:HB3	1.94	0.49
1:AS:2206:A:H2'	1:AS:2207:A:H8	1.78	0.49
1:AS:2995:U:H2'	1:AS:2996:A:H8	1.78	0.49
4:AW:117:GLU:OE2	4:AW:163:ARG:NH2	2.46	0.49
43:CJ:8:ARG:HG2	43:CJ:10:THR:HG23	1.95	0.49
46:CM:78:A:H2'	46:CM:79:C:C6	2.47	0.49
46:CM:873:U:H2'	46:CM:874:U:C6	2.48	0.49
46:CM:932:U:H2'	46:CM:933:A:C8	2.47	0.49
46:CM:988:A:H2'	46:CM:990:A:N7	2.28	0.49
48:CO:46:THR:HG23	60:DB:27:ASP:HB2	1.94	0.49
52:CS:143:ARG:HG2	74:DP:55:CYS:SG	2.53	0.49
61:DC:53:PRO:HB3	61:DC:83:MET:SD	2.53	0.49
63:DE:37:GLU:OE1	78:DT:151:TRP:NE1	2.30	0.49
75:DQ:19:ARG:HD2	75:DQ:32:ARG:HD3	1.95	0.49
1:1:671:U:H2'	1:1:672:G:C8	2.48	0.48
1:1:1029:U:H2'	1:1:1030:U:C6	2.47	0.48
1:1:1493:C:O2'	1:1:1598:A:N3	2.41	0.48
1:1:1593:C:H2'	1:1:1594:G:H8	1.78	0.48
1:1:2628:A:C8	1:1:2630:G:C8	3.01	0.48
1:1:2739:U:H2'	1:1:2740:U:C6	2.48	0.48
1:1:3061:C:H2'	1:1:3062:U:O4'	2.13	0.48
1:1:3316:U:H3	55:K:110:ARG:NH1	2.10	0.48
7:m:48:LYS:HG2	7:m:145:PHE:HE2	1.78	0.48
9:o:185:GLU:HG2	9:o:196:VAL:HG21	1.94	0.48
27:9:69:LYS:NZ	27:9:70:VAL:O	2.46	0.48
46:B:103:A:O3'	46:B:306:C:N4	2.45	0.48
46:B:1168:A:H2'	46:B:1169:A:C8	2.48	0.48
46:B:1265:C:H2'	46:B:1266:G:C8	2.48	0.48
46:B:1529:G:H5"	65:V:87:GLY:C	2.38	0.48
46:B:1609:G:H2'	46:B:1610:C:C6	2.47	0.48
49:E:138:TYR:CD1	49:E:142:ASN:HA	2.48	0.48
51:G:19:MET:HE2	51:G:108:LYS:HG2	1.95	0.48
1:AS:374:A:N3	1:AS:376:G:H5"	2.28	0.48
1:AS:448:U:H4'	1:AS:448:U:OP1	2.12	0.48
1:AS:1301:U:C2	5:AX:257:PRO:HG3	2.47	0.48
1:AS:1632:C:OP1	28:BU:36:HIS:NE2	2.46	0.48
1:AS:2116:A:C4	38:CE:3:LYS:HB3	2.48	0.48
1:AS:3082:C:H2'	1:AS:3083:U:C6	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3181:G:OP2	34:CA:2:ALA:HB2	2.13	0.48
3:AU:126:A:O2'	3:AU:129:C:N4	2.46	0.48
8:BA:20:THR:HG22	8:BA:22:LYS:H	1.77	0.48
11:BD:47:LYS:NZ	15:BH:3:SER:HA	2.28	0.48
46:CM:1:U:C2	46:CM:3:U:C4	3.00	0.48
46:CM:195:A:N6	55:CV:144:LYS:HD3	2.28	0.48
46:CM:1226:G:C8	61:DC:79:HIS:CE1	3.01	0.48
46:CM:1341:U:H2'	46:CM:1342:A:H8	1.77	0.48
50:CQ:28:ARG:HB3	57:CX:58:GLN:HE21	1.78	0.48
1:1:269:G:N2	1:1:295:A:OP2	2.34	0.48
1:1:299:G:C8	37:AJ:30:GLY:HA3	2.48	0.48
1:1:385:A:H2'	1:1:386:A:C8	2.49	0.48
1:1:606:A:O3'	6:l:327:ARG:NH2	2.46	0.48
1:1:1221:A:H2'	1:1:1222:G:H8	1.78	0.48
1:1:1632:C:OP1	28:AA:36:HIS:NE2	2.45	0.48
1:1:2339:A:H2'	1:1:2340:C:H6	1.78	0.48
1:1:2584:U:H2'	1:1:2585:U:O4'	2.13	0.48
1:1:2869:A:H2'	1:1:2871:C:H5"	1.94	0.48
1:1:3218:U:H2'	1:1:3219:G:C8	2.49	0.48
1:1:3234:U:H3	8:n:134:ARG:NH1	2.11	0.48
3:4:9:A:H2'	3:4:10:A:H8	1.76	0.48
9:o:39:ARG:HA	9:o:42:ILE:HG12	1.93	0.48
26:8:67:ILE:HD12	26:8:121:LYS:HG3	1.95	0.48
45:i:114:GLU:HG3	50:F:117:ARG:NH2	2.27	0.48
46:B:71:A:H2'	46:B:72:A:C8	2.48	0.48
46:B:583:A:OP1	76:g:15:LYS:NZ	2.45	0.48
46:B:679:C:O2'	46:B:680:C:O4'	2.29	0.48
46:B:1512:A:H5'	65:V:93:HIS:HB2	1.94	0.48
46:B:1548:U:H4'	46:B:1586:C:H4'	1.94	0.48
46:B:1610:C:H2'	46:B:1611:C:C6	2.48	0.48
46:B:1709:A:H5"	53:I:75:LEU:HD22	1.94	0.48
50:F:66:ARG:HA	50:F:69:GLU:HG2	1.95	0.48
1:AS:1218:G:C4'	1:AS:1219:A:H5"	2.40	0.48
1:AS:1255:A:H2	80:p0:53:MET:HG3	1.77	0.48
1:AS:1616:U:H2'	1:AS:1617:A:C8	2.48	0.48
1:AS:2084:A:H2'	1:AS:2085:A:C8	2.47	0.48
1:AS:2432:G:H5'	1:AS:2433:U:OP2	2.13	0.48
1:AS:2469:A:H4'	82:L1:212:PRO:HA	1.94	0.48
1:AS:2581:A:H2'	1:AS:2582:G:C8	2.48	0.48
1:AS:3021:A:C5	5:AX:75:ALA:HB2	2.47	0.48
1:AS:3023:U:C2	1:AS:3024:G:C8	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3259:A:H2'	1:AS:3260:A:O4'	2.14	0.48
7:AZ:235:ASP:OD1	7:AZ:235:ASP:N	2.45	0.48
15:BH:17:ARG:HD2	15:BH:61:VAL:HG22	1.94	0.48
46:CM:29:U:H2'	46:CM:30:G:C8	2.48	0.48
46:CM:983:A:N6	46:CM:989:U:OP2	2.47	0.48
46:CM:1308:C:H2'	46:CM:1309:G:O4'	2.13	0.48
46:CM:1344:C:O2	65:DG:3:GLY:HA3	2.14	0.48
46:CM:1742:A:OP1	69:DK:63:GLN:HG2	2.13	0.48
53:CT:104:GLN:OE1	53:CT:104:GLN:N	2.46	0.48
63:DE:93:LEU:HD23	63:DE:93:LEU:H	1.78	0.48
1:1:712:G:N2	29:AB:72:GLU:OE1	2.46	0.48
1:1:892:A:H5'	4:j:183:GLY:HA2	1.95	0.48
1:1:951:U:H2'	1:1:952:U:C6	2.48	0.48
1:1:2407:G:H2'	1:1:2408:A:H8	1.79	0.48
1:1:2771:A:H5"	1:1:2772:G:O5'	2.14	0.48
1:1:2917:G:O2'	1:1:2920:C:OP2	2.30	0.48
1:1:3132:U:H3	1:1:3253:G:H1	1.59	0.48
18:x:29:THR:HA	18:x:32:THR:HG22	1.94	0.48
45:i:63:ALA:O	45:i:66:ASN:N	2.40	0.48
46:B:846:U:H5'	46:B:847:A:OP2	2.11	0.48
46:B:1347:U:H1'	46:B:1348:U:O2	2.13	0.48
46:B:1545:U:H3	61:R:122:THR:HG22	1.77	0.48
52:H:148:ARG:HB3	52:H:157:ARG:HH11	1.78	0.48
54:J:29:ASP:OD1	54:J:30:LEU:N	2.46	0.48
61:R:81:ARG:HB2	61:R:117:GLY:HA3	1.95	0.48
67:X:73:ALA:HB1	67:X:78:LEU:HB2	1.95	0.48
1:AS:481:G:H2'	1:AS:481:G:N3	2.28	0.48
1:AS:1020:G:H4'	1:AS:1020:G:OP1	2.12	0.48
1:AS:1937:C:H2'	1:AS:1938:U:C6	2.48	0.48
1:AS:2433:U:C2	1:AS:2434:A:C8	3.01	0.48
6:AY:4:ARG:HH12	6:AY:25:ALA:HA	1.78	0.48
39:CF:24:ILE:HB	39:CF:44:LYS:HB2	1.95	0.48
46:CM:265:U:H2'	46:CM:266:C:H6	1.78	0.48
46:CM:338:U:H2'	46:CM:339:A:H8	1.77	0.48
46:CM:339:A:H2'	46:CM:340:C:C6	2.48	0.48
48:CO:97:LEU:HD22	48:CO:232:HIS:CG	2.48	0.48
57:CX:77:ARG:HD2	57:CX:84:GLU:HA	1.95	0.48
60:DB:107:ILE:HG13	72:DN:53:LEU:HD12	1.94	0.48
80:P0:3:GLY:O	80:P0:7:LYS:HG2	2.13	0.48
82:l1:70:ASP:OD1	82:l1:87:VAL:N	2.46	0.48
1:1:67:C:OP2	1:1:301:G:N2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:292:U:OP2	16:v:68:ARG:NH2	2.37	0.48
1:1:964:G:H2'	1:1:965:C:H6	1.79	0.48
1:1:1714:G:H2'	1:1:1715:G:H8	1.78	0.48
1:1:2354:G:H2'	1:1:2355:G:C8	2.48	0.48
1:1:2397:A:H2'	1:1:2398:C:C6	2.48	0.48
1:1:2936:G:N2	1:1:2939:A:OP2	2.42	0.48
1:1:2957:C:H2'	1:1:2958:U:H6	1.77	0.48
1:1:3313:G:H2'	1:1:3314:C:C6	2.49	0.48
21:0:42:TRP:O	21:0:46:GLN:HG3	2.13	0.48
30:AC:17:HIS:CD2	30:AC:21:ILE:HG13	2.48	0.48
46:B:231:C:H4'	46:B:232:G:C2	2.47	0.48
46:B:563:C:O3'	69:Z:66:SER:OG	2.31	0.48
46:B:702:G:H1'	46:B:703:U:C1'	2.43	0.48
46:B:809:G:H2'	46:B:810:U:H6	1.78	0.48
46:B:876:A:H2'	46:B:877:G:C8	2.46	0.48
46:B:1396:A:O2'	46:B:1397:A:OP1	2.28	0.48
46:B:1436:U:H2'	46:B:1437:C:C6	2.49	0.48
46:B:1495:U:H2'	46:B:1496:C:C6	2.47	0.48
47:C:10:THR:OG1	47:C:12:GLU:OE1	2.31	0.48
78:AR:175:VAL:HB	78:AR:189:PHE:HB2	1.95	0.48
1:AS:422:A:C2	1:AS:2341:A:H4'	2.48	0.48
1:AS:431:A:H2'	1:AS:432:G:H8	1.79	0.48
1:AS:496:A:H2'	1:AS:497:U:C6	2.48	0.48
1:AS:1035:U:H2'	1:AS:1036:A:C8	2.48	0.48
1:AS:1231:U:O3'	1:AS:1232:G:H3'	2.13	0.48
1:AS:1600:A:H4'	1:AS:1831:A:H4'	1.95	0.48
1:AS:2197:A:H2'	1:AS:2198:A:C8	2.48	0.48
1:AS:3067:U:H2'	1:AS:3068:C:C6	2.48	0.48
6:AY:17:GLY:O	6:AY:18:SER:OG	2.32	0.48
8:BA:59:ASP:OD2	8:BA:77:ARG:NH1	2.46	0.48
22:BO:51:GLY:HA3	22:BO:92:ARG:HG3	1.95	0.48
45:CL:71:LYS:HD2	46:CM:1446:A:OP1	2.13	0.48
46:CM:642:C:H2'	46:CM:643:U:H6	1.78	0.48
46:CM:1105:U:H2'	46:CM:1106:C:C6	2.48	0.48
46:CM:1192:C:N3	46:CM:1442:C:H5	2.12	0.48
46:CM:1739:U:H2'	46:CM:1740:A:C8	2.47	0.48
61:DC:81:ARG:HH12	61:DC:122:THR:HG22	1.78	0.48
71:DM:43:ASP:OD1	71:DM:44:GLN:N	2.46	0.48
78:DT:82:LEU:HD11	78:DT:123:ILE:HG12	1.95	0.48
82:l1:116:LEU:HB3	82:l1:120:ILE:HD11	1.94	0.48
82:l1:145:TYR:HA	82:l1:148:VAL:HG22	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1149:A:HO2'	1:1:1150:A:H5'	1.79	0.48
1:1:1217:A:H1'	80:P0:8:LYS:NZ	2.29	0.48
1:1:1231:U:H4'	1:1:1232:G:H3'	1.96	0.48
1:1:1415:A:OP1	3:4:20:U:O2'	2.31	0.48
1:1:1852:C:H2'	1:1:1853:C:C6	2.48	0.48
1:1:2384:C:H2'	1:1:2385:C:H6	1.77	0.48
4:j:3:ARG:HB2	4:j:207:VAL:HG22	1.94	0.48
6:l:36:VAL:HG21	6:l:245:LEU:HD21	1.95	0.48
8:n:45:ARG:HH12	18:x:178:SER:CB	2.27	0.48
13:s:88:GLU:OE2	13:s:90:GLN:NE2	2.46	0.48
17:w:35:VAL:HG22	17:w:104:LYS:HB2	1.96	0.48
36:AI:118:ILE:HG22	36:AI:119:LYS:N	2.28	0.48
46:B:180:A:H2'	46:B:181:U:C6	2.49	0.48
46:B:672:U:O3'	46:B:673:A:C8	2.66	0.48
46:B:721:C:C2'	46:B:722:A:H5'	2.43	0.48
46:B:857:G:N2	46:B:1032:G:H4'	2.28	0.48
69:Z:107:PHE:CE2	69:Z:114:LYS:CB	2.97	0.48
1:AS:856:G:O2'	1:AS:891:A:H4'	2.13	0.48
1:AS:1233:G:H2'	1:AS:1234:C:H6	1.77	0.48
1:AS:1632:C:H1'	28:BU:76:ASN:HB2	1.95	0.48
1:AS:3013:U:H2'	1:AS:3014:U:C6	2.47	0.48
1:AS:3261:A:H2'	1:AS:3262:U:C6	2.48	0.48
28:BU:54:THR:OG1	28:BU:56:LYS:HG3	2.14	0.48
46:CM:415:A:H4'	46:CM:416:G:O5'	2.13	0.48
46:CM:769:U:O2'	46:CM:770:C:OP2	2.31	0.48
46:CM:840:A:O2'	46:CM:841:A:H3'	2.13	0.48
46:CM:1354:U:C2	46:CM:1355:A:N7	2.82	0.48
46:CM:1548:U:H2'	46:CM:1549:G:H8	1.78	0.48
55:CV:76:THR:HG21	55:CV:104:ILE:HD12	1.96	0.48
60:DB:52:PRO:HB3	60:DB:95:SER:OG	2.13	0.48
66:DH:43:ASN:HD21	66:DH:105:ILE:HG21	1.78	0.48
82:l1:190:LEU:O	82:l1:194:LEU:HG	2.13	0.48
1:1:480:G:H2'	1:1:481:G:H8	1.78	0.48
1:1:1020:G:H21	1:1:1023:A:H8	1.61	0.48
1:1:1174:G:N3	1:1:1324:U:O2'	2.44	0.48
1:1:1233:G:H2'	1:1:1234:C:H6	1.79	0.48
1:1:1560:U:H3	1:1:1571:G:H22	1.60	0.48
1:1:1562:G:C2	1:1:1563:A:H1'	2.49	0.48
1:1:1593:C:P	35:AH:8:ARG:HH22	2.36	0.48
1:1:1945:A:H2'	1:1:1946:U:C6	2.49	0.48
1:1:2469:A:H2'	82:l1:207:LYS:HE2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2919:G:N3	5:k:250:ALA:HB1	2.28	0.48
1:1:2938:G:H2'	1:1:2939:A:C8	2.49	0.48
1:1:3320:U:H5"	1:1:3321:G:OP1	2.12	0.48
2:3:26:C:H2'	2:3:27:A:O4'	2.13	0.48
46:B:85:A:N3	46:B:146:A:O2'	2.37	0.48
46:B:869:A:N6	46:B:913:U:H3	2.03	0.48
46:B:1029:U:H2'	46:B:1030:C:C6	2.48	0.48
46:B:1704:C:C2	46:B:1705:G:C8	3.01	0.48
1:AS:172:C:HO2'	1:AS:173:C:P	2.36	0.48
1:AS:783:G:H2'	1:AS:784:C:H6	1.78	0.48
1:AS:1275:C:H2'	1:AS:1276:C:H6	1.78	0.48
1:AS:1494:A:H2'	1:AS:1495:U:C6	2.48	0.48
1:AS:2135:G:N2	1:AS:2155:G:O2'	2.47	0.48
1:AS:2832:U:O2	1:AS:2910:G:H4'	2.12	0.48
6:AY:262:VAL:HA	6:AY:271:ILE:HG12	1.95	0.48
9:BB:130:PRO:HG2	9:BB:131:TYR:CE2	2.48	0.48
17:BJ:160:LYS:O	17:BJ:163:VAL:HG12	2.13	0.48
35:CB:104:VAL:O	35:CB:108:GLN:HG2	2.14	0.48
45:CL:82:LYS:HZ2	45:CL:83:HIS:HB3	1.77	0.48
45:CL:112:LYS:HG3	45:CL:113:ARG:H	1.77	0.48
46:CM:652:C:H2'	46:CM:654:G:OP1	2.13	0.48
46:CM:1696:U:H2'	46:CM:1697:C:C5	2.48	0.48
50:CQ:35:TYR:HE1	50:CQ:51:VAL:HG23	1.79	0.48
66:DH:101:ARG:O	66:DH:105:ILE:HG12	2.13	0.48
72:DN:25:ASN:HB3	72:DN:77:CYS:SG	2.54	0.48
78:DT:202:SER:HB3	78:DT:207:LEU:HB2	1.95	0.48
82:L1:15:LYS:HB2	82:L1:214:PHE:HZ	1.78	0.48
82:l1:120:ILE:HB	82:l1:121:PRO:HD3	1.95	0.48
1:1:486:C:H2'	1:1:487:C:C6	2.48	0.48
1:1:1863:A:H2'	1:1:1864:G:C8	2.49	0.48
1:1:2477:U:H2'	1:1:2478:A:H8	1.77	0.48
1:1:2482:U:H2'	1:1:2483:U:H5'	1.96	0.48
1:1:3093:U:H1'	1:1:3094:A:H5"	1.95	0.48
5:k:46:PHE:CE1	5:k:84:MET:HG3	2.48	0.48
5:k:283:TYR:CE1	5:k:354:VAL:HG21	2.49	0.48
12:r:42:THR:O	12:r:139:ARG:NH2	2.42	0.48
14:t:201:LYS:HE2	82:l1:51:GLY:HA2	1.94	0.48
46:B:809:G:H2'	46:B:810:U:C6	2.49	0.48
46:B:1016:U:H4'	46:B:1017:G:OP2	2.12	0.48
46:B:1648:U:H2'	46:B:1649:G:H8	1.79	0.48
63:T:77:GLU:O	63:T:81:LYS:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:377:A:H1'	1:AS:392:G:N2	2.28	0.48
1:AS:581:A:H5"	34:CA:106:ASN:HD21	1.77	0.48
1:AS:2992:U:H2'	1:AS:3005:A:N6	2.29	0.48
1:AS:3038:U:H2'	1:AS:3039:C:H6	1.79	0.48
3:AU:140:G:O3'	16:BI:109:ARG:NH1	2.46	0.48
14:BG:2:ALA:HB1	29:BV:33:GLY:O	2.12	0.48
21:BN:66:GLU:HB2	21:BN:98:THR:HG23	1.95	0.48
46:CM:30:G:H2'	46:CM:31:C:C6	2.48	0.48
46:CM:116:U:H2'	46:CM:117:U:C6	2.49	0.48
46:CM:672:U:O3'	46:CM:673:A:C8	2.66	0.48
46:CM:1237:C:OP1	77:DS:160:ARG:NH2	2.44	0.48
46:CM:1529:G:H5"	65:DG:87:GLY:C	2.39	0.48
57:CX:55:VAL:HG12	57:CX:68:LEU:HA	1.95	0.48
78:DT:40:LYS:HD3	78:DT:66:SER:C	2.39	0.48
1:1:510:G:O2'	6:l:342:SER:HB3	2.14	0.48
1:1:2583:U:H2'	1:1:2584:U:H6	1.76	0.48
1:1:2719:A:H2'	1:1:2720:A:C8	2.49	0.48
1:1:3082:C:H2'	1:1:3083:U:C6	2.48	0.48
46:B:82:U:H2'	46:B:83:G:O4'	2.13	0.48
46:B:339:A:H2'	46:B:340:C:C6	2.48	0.48
46:B:643:U:H2'	46:B:644:U:O4'	2.13	0.48
46:B:673:A:C5	46:B:674:C:C2	3.01	0.48
46:B:814:A:H2	46:B:815:U:H3	1.60	0.48
46:B:829:A:H2'	46:B:830:G:C8	2.49	0.48
52:H:48:PHE:CD1	52:H:67:PRO:HB3	2.49	0.48
61:R:80:LEU:HD12	61:R:80:LEU:O	2.12	0.48
1:AS:19:A:H2'	1:AS:20:G:C8	2.48	0.48
1:AS:1474:C:H2'	1:AS:1475:U:C6	2.49	0.48
1:AS:1617:A:H2'	1:AS:1618:U:H6	1.78	0.48
1:AS:2086:C:H1'	1:AS:3309:A:H8	1.77	0.48
1:AS:2273:A:N3	1:AS:2901:C:O2'	2.40	0.48
20:BM:38:ARG:O	20:BM:42:ARG:HG3	2.14	0.48
30:BW:16:ALA:HB1	30:BW:21:ILE:HD11	1.96	0.48
36:CC:118:ILE:HG22	36:CC:119:LYS:N	2.29	0.48
46:CM:165:U:C2'	46:CM:166:A:H5"	2.43	0.48
46:CM:518:A:O2'	46:CM:519:A:OP1	2.27	0.48
46:CM:674:C:H3'	46:CM:675:U:C6	2.49	0.48
46:CM:1468:C:H5"	46:CM:1508:G:H22	1.77	0.48
53:CT:135:PRO:HB2	53:CT:141:ILE:HG12	1.94	0.48
82:l1:8:GLY:O	82:l1:12:ASN:ND2	2.47	0.48
1:1:158:A:H2'	1:1:159:A:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:595:G:C2	1:1:606:A:H1'	2.48	0.48
1:1:716:G:OP1	29:AB:117:ARG:NH2	2.47	0.48
1:1:981:U:H5"	9:o:96:LYS:HE2	1.95	0.48
1:1:1301:U:C2	5:k:257:PRO:HG3	2.48	0.48
1:1:2956:C:H2'	1:1:2957:C:H6	1.79	0.48
1:1:3148:A:C2	17:w:116:LYS:HD2	2.49	0.48
17:w:9:VAL:HG12	17:w:118:ARG:HG3	1.96	0.48
19:y:147:ARG:HB3	19:y:150:VAL:HG23	1.96	0.48
19:y:165:ILE:HD11	19:y:172:PHE:HB3	1.95	0.48
25:7:107:SER:O	25:7:111:LYS:HG2	2.13	0.48
46:B:333:U:O2'	58:N:130:PRO:O	2.23	0.48
46:B:886:G:H2'	46:B:887:G:C8	2.49	0.48
46:B:1238:U:H2'	46:B:1239:U:H6	1.79	0.48
46:B:1341:U:H1'	46:B:1353:G:N2	2.29	0.48
46:B:1399:U:OP2	63:T:3:ARG:NH2	2.46	0.48
46:B:1656:U:H2'	46:B:1657:G:O4'	2.13	0.48
46:B:1668:A:H2'	46:B:1669:U:H5'	1.95	0.48
51:G:141:THR:OG1	51:G:143:ASP:OD1	2.25	0.48
52:H:157:ARG:HB3	52:H:224:ASN:OD1	2.14	0.48
65:V:37:VAL:HG21	65:V:100:ILE:HD11	1.94	0.48
65:V:108:LEU:HD23	65:V:114:LEU:HD23	1.94	0.48
77:h:157:GLU:HG3	77:h:159:LEU:HG	1.96	0.48
1:AS:564:G:H2'	1:AS:565:A:H8	1.78	0.48
1:AS:612:U:H2'	1:AS:613:U:C6	2.48	0.48
1:AS:634:C:O2	1:AS:2355:G:O2'	2.24	0.48
1:AS:976:A:C2'	1:AS:977:U:H5'	2.44	0.48
1:AS:1172:C:H2'	1:AS:1173:G:N2	2.28	0.48
1:AS:1705:C:H5"	28:BU:15:ARG:HH12	1.78	0.48
1:AS:1738:U:H2'	1:AS:1739:G:H8	1.79	0.48
1:AS:1903:C:O2	5:AX:240:ARG:NH2	2.46	0.48
4:AW:66:PRO:HG2	4:AW:67:TYR:CE2	2.48	0.48
6:AY:251:TRP:CZ3	6:AY:259:LEU:HD11	2.49	0.48
21:BN:44:PHE:HE1	21:BN:122:HIS:ND1	2.11	0.48
46:CM:291:U:H2'	46:CM:292:C:H6	1.79	0.48
46:CM:871:U:C2	46:CM:872:A:C8	3.02	0.48
46:CM:1068:G:HO2'	46:CM:1079:G:HO2'	1.62	0.48
46:CM:1127:A:H5"	72:DN:2:PRO:HB3	1.94	0.48
46:CM:1668:A:H2'	46:CM:1669:U:H5'	1.95	0.48
78:DT:239:ALA:HB3	78:DT:289:LEU:HD12	1.94	0.48
80:P0:53:MET:HE3	80:P0:54:GLY:H	1.79	0.48
1:1:411:U:H2'	1:1:412:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:583:A:H2'	1:1:584:C:H6	1.79	0.48
1:1:629:A:H2'	1:1:630:G:C8	2.49	0.48
1:1:843:A:H2'	1:1:844:A:C8	2.48	0.48
1:1:925:A:O2'	38:AK:49:TRP:O	2.29	0.48
1:1:943:G:H2'	1:1:944:C:C6	2.48	0.48
1:1:1019:U:H2'	1:1:1020:G:O4'	2.13	0.48
1:1:2115:U:C6	1:1:2119:U:C4	3.02	0.48
1:1:2201:A:H2'	1:1:2202:A:C8	2.48	0.48
1:1:2988:A:H2'	1:1:2989:A:C8	2.46	0.48
1:1:3244:A:O2'	1:1:3245:A:H5'	2.14	0.48
21:0:152:LEU:HD12	21:0:172:TYR:HE2	1.79	0.48
46:B:634:A:H5"	68:Y:31:SER:HB3	1.95	0.48
46:B:671:G:H3'	46:B:672:U:C5'	2.23	0.48
46:B:697:U:H2'	46:B:698:C:C6	2.48	0.48
46:B:700:G:H5"	46:B:717:G:H22	1.78	0.48
46:B:827:C:H5"	46:B:828:U:OP2	2.13	0.48
46:B:1303:G:H5"	63:T:67:ARG:NH1	2.28	0.48
46:B:1659:G:H2'	46:B:1660:G:H8	1.77	0.48
1:AS:58:G:H2'	3:AU:33:A:O2'	2.14	0.48
1:AS:493:A:O2'	1:AS:3238:A:N1	2.44	0.48
1:AS:1093:G:H4'	22:BO:129:LYS:HG2	1.96	0.48
1:AS:1655:U:H2'	1:AS:1656:C:H6	1.79	0.48
1:AS:2339:A:H2'	1:AS:2340:C:H6	1.79	0.48
1:AS:2525:A:H2'	1:AS:2526:C:O4'	2.14	0.48
24:BQ:45:ARG:HG2	24:BQ:48:ARG:CZ	2.44	0.48
46:CM:391:C:H2'	46:CM:392:C:C6	2.49	0.48
46:CM:446:C:OP1	51:CR:29:PRO:HD3	2.13	0.48
46:CM:738:A:OP1	51:CR:187:ARG:N	2.45	0.48
46:CM:852:G:H5"	59:DA:4:MET:HE2	1.95	0.48
51:CR:32:SER:OG	51:CR:81:THR:HG23	2.14	0.48
70:DL:29:HIS:HB2	70:DL:32:ARG:HB3	1.96	0.48
82:l1:34:LEU:HD21	82:l1:183:ILE:HG21	1.95	0.48
1:1:169:G:C6	1:1:249:G:H1'	2.49	0.47
1:1:630:G:H2'	1:1:631:U:C6	2.49	0.47
1:1:1222:G:H5'	1:1:3089:C:H1'	1.96	0.47
1:1:1312:C:H5'	1:1:1313:A:C2	2.48	0.47
1:1:2084:A:H2'	1:1:2085:A:H8	1.78	0.47
1:1:2628:A:OP2	43:AP:97:LYS:HD3	2.13	0.47
1:1:2853:C:H2'	1:1:2854:U:H6	1.79	0.47
4:j:30:ARG:NH1	4:j:36:GLU:HG3	2.28	0.47
7:m:132:THR:HG21	7:m:170:GLY:O	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:x:14:SER:HA	18:x:150:LEU:O	2.14	0.47
25:7:85:ALA:HB1	25:7:89:LEU:HD22	1.96	0.47
33:AF:84:ASP:OD1	33:AF:112:LYS:NZ	2.47	0.47
46:B:30:G:H2'	46:B:31:C:H6	1.78	0.47
46:B:1336:G:H2'	46:B:1337:C:O4'	2.14	0.47
46:B:1575:G:O6	46:B:1595:U:O4	2.32	0.47
50:F:71:THR:HB	50:F:87:ILE:HD12	1.96	0.47
1:AS:672:G:OP1	6:AY:32:ARG:NH1	2.39	0.47
1:AS:2130:A:H2'	1:AS:2131:U:H6	1.79	0.47
1:AS:3240:U:N3	1:AS:3242:U:O4'	2.44	0.47
3:AU:10:A:H2'	3:AU:11:C:C6	2.49	0.47
9:BB:8:GLU:HG3	9:BB:9:THR:N	2.27	0.47
46:CM:583:A:H2'	46:CM:584:G:H8	1.78	0.47
46:CM:673:A:O5'	46:CM:673:A:H8	1.97	0.47
80:p0:43:LYS:HG3	80:p0:44:ALA:N	2.28	0.47
1:1:62:A:H5"	16:v:174:ILE:HG21	1.96	0.47
1:1:249:G:H2'	1:1:251:G:OP2	2.13	0.47
1:1:407:A:C2	3:4:17:A:H1'	2.49	0.47
1:1:798:C:H2'	1:1:799:C:C6	2.49	0.47
1:1:1182:G:OP2	15:u:36:LYS:NZ	2.23	0.47
1:1:1580:U:H2'	1:1:1581:C:H6	1.79	0.47
1:1:2431:U:C6	1:1:2439:A:H5"	2.50	0.47
1:1:2740:U:H2'	1:1:2741:A:C8	2.49	0.47
2:3:113:C:H2'	2:3:114:U:O4'	2.13	0.47
8:n:39:LEU:HB3	8:n:83:VAL:CG1	2.44	0.47
11:q:41:ILE:HG22	11:q:43:VAL:HG13	1.95	0.47
35:AH:58:ARG:CD	35:AH:59:PRO:HD2	2.37	0.47
44:AQ:49:ARG:HB2	44:AQ:55:TRP:CZ3	2.49	0.47
46:B:116:U:H2'	46:B:117:U:C6	2.49	0.47
46:B:503:A:H2'	46:B:505:U:C6	2.49	0.47
46:B:1305:U:O2	46:B:1307:A:H5'	2.13	0.47
46:B:1436:U:H2'	46:B:1437:C:H6	1.79	0.47
51:G:63:ALA:O	51:G:67:GLN:HG2	2.14	0.47
52:H:42:LEU:HD12	52:H:69:PHE:O	2.14	0.47
56:L:101:PRO:O	56:L:105:LEU:HD12	2.14	0.47
57:M:59:PHE:CZ	57:M:62:GLN:HA	2.49	0.47
68:Y:28:ARG:HD3	68:Y:60:LYS:HE2	1.95	0.47
1:AS:619:A:H2'	1:AS:620:A:N7	2.29	0.47
1:AS:964:G:H2'	1:AS:965:C:C6	2.49	0.47
1:AS:965:C:OP1	30:BW:19:ASN:ND2	2.42	0.47
1:AS:1302:G:C6	17:BJ:63:THR:HA	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2405:U:H2'	1:AS:2406:U:C6	2.50	0.47
1:AS:2421:A:H5'	1:AS:2422:C:OP2	2.14	0.47
3:AU:139:U:H2'	3:AU:140:G:H8	1.79	0.47
17:BJ:63:THR:HG23	17:BJ:66:ASN:O	2.14	0.47
42:CI:1:MET:HB3	46:CM:1629:G:H5'	1.96	0.47
46:CM:215:A:H4'	46:CM:216:A:OP2	2.13	0.47
46:CM:481:A:N1	46:CM:503:A:C6	2.83	0.47
46:CM:1026:G:H2'	46:CM:1027:G:H8	1.76	0.47
46:CM:1204:A:N3	57:CX:51:SER:OG	2.44	0.47
46:CM:1383:U:O2'	46:CM:1386:A:N6	2.31	0.47
51:CR:103:TYR:HE2	51:CR:184:THR:HG23	1.79	0.47
75:DQ:17:GLY:HA2	75:DQ:27:HIS:ND1	2.30	0.47
82:L1:195:LYS:HD3	82:L1:196:LYS:HD3	1.96	0.47
1:1:1014:G:H1	1:1:1030:U:H3	1.62	0.47
1:1:2391:A:H2'	1:1:2392:G:C8	2.49	0.47
1:1:2680:C:H2'	1:1:2681:C:C6	2.50	0.47
1:1:3023:U:C2	1:1:3024:G:C8	3.02	0.47
1:1:3260:A:H2'	1:1:3261:A:H8	1.77	0.47
1:1:3302:G:H2'	1:1:3303:C:C6	2.50	0.47
3:4:10:A:H2'	3:4:11:C:C6	2.49	0.47
5:k:25:GLN:HE21	5:k:334:ARG:HD3	1.79	0.47
18:x:54:HIS:O	18:x:72:GLN:NE2	2.42	0.47
39:AL:46:ARG:HD3	39:AL:47:GLY:O	2.14	0.47
46:B:1160:U:H2'	46:B:1161:G:C8	2.47	0.47
46:B:1335:U:H5'	62:S:67:LYS:NZ	2.28	0.47
46:B:1498:G:H2'	46:B:1499:G:H8	1.79	0.47
46:B:1604:U:H2'	46:B:1605:C:C6	2.49	0.47
46:B:1783:C:H5	72:c:6:ALA:HB3	1.80	0.47
71:b:61:SER:H	71:b:64:VAL:HB	1.79	0.47
1:AS:347:G:O6	38:CE:55:ARG:NH1	2.48	0.47
1:AS:480:G:OP2	1:AS:480:G:H8	1.97	0.47
1:AS:546:C:H2'	1:AS:547:U:O4'	2.13	0.47
1:AS:624:U:OP1	33:BZ:15:THR:OG1	2.27	0.47
1:AS:1790:U:C2	4:AW:187:HIS:CD2	3.02	0.47
2:AT:39:U:H3	13:BF:70:THR:HB	1.79	0.47
8:BA:6:PRO:HB3	33:BZ:93:TYR:CE1	2.49	0.47
19:BL:181:SER:OG	19:BL:182:ARG:NH1	2.47	0.47
25:BR:13:ILE:HG12	25:BR:32:GLN:HB2	1.96	0.47
45:CL:65:LYS:HG2	61:DC:119:PHE:O	2.15	0.47
45:CL:107:TRP:HA	50:CQ:116:ILE:HD11	1.96	0.47
46:CM:86:A:H5'	70:DL:119:PHE:CE1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:739:A:H5”	46:CM:740:A:C5’	2.44	0.47
52:CS:58:LEU:HD12	52:CS:138:VAL:HG12	1.95	0.47
57:CX:32:HIS:HB2	57:CX:39:ASN:HA	1.94	0.47
59:DA:83:GLU:OE1	59:DA:83:GLU:N	2.45	0.47
82:l1:66:CYS:HB2	82:l1:107:TYR:CG	2.50	0.47
1:1:538:G:O2’	1:1:539:G:OP1	2.29	0.47
1:1:547:U:H2’	1:1:548:G:H8	1.78	0.47
1:1:792:U:H2’	1:1:793:U:C6	2.49	0.47
1:1:1309:G:O2’	1:1:1314:A:N1	2.45	0.47
1:1:1569:C:H2’	1:1:1570:A:C8	2.50	0.47
1:1:1584:A:C6	40:AM:4:GLN:HB3	2.48	0.47
1:1:2655:U:H2’	1:1:2656:C:H6	1.77	0.47
3:4:57:C:H4’	3:4:63:G:N7	2.30	0.47
16:v:62:TYR:HD2	16:v:106:VAL:HG13	1.79	0.47
29:AB:73:ILE:HB	29:AB:109:TYR:CD2	2.49	0.47
46:B:123:G:P	51:G:77:ARG:HH22	2.37	0.47
46:B:151:G:C6	46:B:160:A:C6	3.02	0.47
46:B:558:U:H2’	46:B:559:G:H8	1.79	0.47
46:B:1423:U:O2’	50:F:182:VAL:HG23	2.14	0.47
1:AS:37:U:H2’	1:AS:38:A:O4’	2.14	0.47
1:AS:289:A:H2’	1:AS:290:G:C8	2.47	0.47
1:AS:1023:A:N6	1:AS:1025:G:N3	2.63	0.47
1:AS:1400:G:N2	1:AS:1403:A:OP2	2.40	0.47
1:AS:2157:C:C4	4:AW:131:GLY:HA3	2.49	0.47
1:AS:2415:G:C6	1:AS:2489:A:C5	3.02	0.47
1:AS:2452:G:O2’	1:AS:2453:G:OP2	2.31	0.47
1:AS:3035:C:H2’	1:AS:3036:U:C6	2.49	0.47
1:AS:3110:U:OP1	5:AX:274:HIS:ND1	2.47	0.47
1:AS:3199:G:H1	1:AS:3218:U:H3	1.61	0.47
46:CM:483:A:H2’	46:CM:484:G:H8	1.77	0.47
52:CS:103:ASN:HA	52:CS:106:LYS:HD3	1.96	0.47
78:DT:94:ASP:OD1	78:DT:101:THR:OG1	2.33	0.47
82:l1:5:THR:O	82:l1:9:VAL:HG23	2.15	0.47
1:1:212:A:OP1	27:9:2:ALA:N	2.48	0.47
1:1:729:C:H3’	1:1:730:A:H5”	1.97	0.47
1:1:1405:G:H21	8:n:1:MET:HG2	1.80	0.47
1:1:2260:U:O2	1:1:2288:U:H4’	2.14	0.47
1:1:2546:U:H5’	1:1:2547:G:O4’	2.13	0.47
1:1:2959:A:H2’	1:1:2960:C:H6	1.80	0.47
1:1:3150:A:C4	17:w:115:LYS:HA	2.50	0.47
7:m:95:TRP:CE3	7:m:198:TYR:HB3	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:25:C:H4'	46:B:26:A:O5'	2.13	0.47
46:B:66:U:C5	53:I:173:PRO:HD3	2.50	0.47
46:B:180:A:H2'	46:B:181:U:H6	1.79	0.47
46:B:215:A:H4'	46:B:216:A:OP2	2.13	0.47
46:B:335:G:H3'	58:N:133:LYS:HB2	1.96	0.47
46:B:740:A:O2'	46:B:741:A:OP1	2.30	0.47
46:B:744:U:C2	46:B:745:A:C8	3.01	0.47
46:B:871:U:O2'	60:Q:116:VAL:O	2.32	0.47
50:F:106:LEU:HD21	50:F:139:ILE:HD11	1.96	0.47
60:Q:119:ASP:HB2	60:Q:120:SER:H	1.39	0.47
67:X:4:ASP:OD1	67:X:5:LYS:N	2.48	0.47
78:AR:71:ASP:HB3	78:AR:113:SER:HA	1.95	0.47
1:AS:1214:U:C5'	80:p0:5:ARG:HH12	2.27	0.47
1:AS:1478:A:H4'	1:AS:1479:G:OP2	2.15	0.47
1:AS:3290:G:O3'	32:BY:102:GLY:HA2	2.14	0.47
46:CM:203:U:C2	46:CM:204:A:C8	3.02	0.47
46:CM:222:C:H2'	46:CM:223:A:C8	2.49	0.47
46:CM:741:A:H5'	51:CR:16:SER:HB3	1.96	0.47
48:CO:53:GLY:O	48:CO:55:LYS:N	2.41	0.47
54:CU:33:GLU:HG3	54:CU:69:VAL:HG11	1.96	0.47
54:CU:169:TYR:HE2	54:CU:175:LYS:HB2	1.78	0.47
64:DF:30:TYR:O	64:DF:33:THR:OG1	2.30	0.47
80:P0:80:ILE:C	80:P0:81:LYS:HD2	2.40	0.47
1:1:120:A:C2	10:p:130:PRO:HB3	2.50	0.47
1:1:1632:C:H1'	28:AA:76:ASN:HB2	1.97	0.47
1:1:2186:A:O2'	1:1:2187:U:H5'	2.15	0.47
1:1:2651:A:C1'	45:i:50:LYS:HG3	2.45	0.47
1:1:2887:U:P	5:k:9:PRO:HD3	2.55	0.47
5:k:10:ARG:NH2	5:k:263:THR:O	2.37	0.47
6:l:12:VAL:CG2	10:BC:119:GLU:HB3	2.45	0.47
6:l:155:ASN:O	6:l:158:GLU:HB2	2.14	0.47
16:v:27:CYS:HB2	16:v:122:ASN:HD21	1.79	0.47
25:7:13:ILE:HD12	25:7:30:ARG:HB3	1.96	0.47
46:B:1048:U:O2'	48:D:203:THR:OG1	2.26	0.47
46:B:1675:U:O2'	46:B:1700:G:O6	2.32	0.47
48:D:82:ARG:NH2	48:D:188:LEU:O	2.46	0.47
50:F:193:PRO:HG3	50:F:203:LEU:HD12	1.97	0.47
50:F:209:ILE:HD12	63:T:16:LEU:HD21	1.96	0.47
53:I:85:ARG:O	53:I:87:ARG:NH1	2.47	0.47
1:AS:46:C:OP2	1:AS:47:A:O2'	2.19	0.47
1:AS:248:U:H2'	1:AS:249:G:H4'	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1714:G:H2'	1:AS:1715:G:H8	1.79	0.47
1:AS:1725:A:OP1	31:BX:90:GLY:N	2.37	0.47
1:AS:2474:C:H5'	1:AS:2475:U:OP2	2.14	0.47
1:AS:2719:A:H2'	1:AS:2720:A:C8	2.49	0.47
27:BT:27:ARG:NH1	27:BT:76:LEU:HA	2.30	0.47
46:CM:260:U:O2'	46:CM:261:C:H5'	2.15	0.47
46:CM:291:U:H2'	46:CM:292:C:C6	2.49	0.47
46:CM:432:G:OP1	69:DK:78:LYS:HA	2.13	0.47
46:CM:1036:U:O2	46:CM:1052:G:N2	2.35	0.47
46:CM:1132:A:H2'	46:CM:1133:C:C6	2.50	0.47
46:CM:1421:G:O6	57:CX:64:TYR:OH	2.20	0.47
46:CM:1635:A:H2'	46:CM:1636:C:H6	1.80	0.47
78:DT:259:ILE:HD12	78:DT:268:LEU:HD23	1.96	0.47
80:p0:12:PHE:HA	80:p0:15:LEU:HB3	1.96	0.47
1:1:149:A:C4	1:1:150:A:C8	3.03	0.47
1:1:169:G:N1	1:1:249:G:H1'	2.29	0.47
1:1:386:A:C5	1:1:387:A:H1'	2.50	0.47
1:1:712:G:H1	29:AB:72:GLU:CD	2.22	0.47
1:1:798:C:H2'	1:1:799:C:H6	1.79	0.47
1:1:859:C:H2'	1:1:860:G:O4'	2.14	0.47
1:1:942:U:H2'	1:1:943:G:H8	1.79	0.47
1:1:1466:U:H2'	1:1:1467:U:C6	2.49	0.47
1:1:1489:G:OP2	1:1:1489:G:N2	2.39	0.47
1:1:1834:C:H4'	1:1:1835:A:O4'	2.14	0.47
1:1:2443:G:H5"	1:1:2443:G:H8	1.79	0.47
1:1:2636:C:O2'	1:1:2637:U:H5'	2.15	0.47
1:1:2681:C:H2'	1:1:2682:C:C6	2.49	0.47
1:1:3044:C:H2'	1:1:3045:A:O4'	2.14	0.47
2:3:100:C:OP2	21:0:52:LYS:HE3	2.15	0.47
4:j:247:ARG:HB3	46:B:997:U:H4'	1.96	0.47
5:k:77:THR:HG21	5:k:328:ILE:HG12	1.96	0.47
5:k:133:TYR:O	5:k:136:LYS:HB2	2.14	0.47
6:l:65:SER:HA	6:l:76:PRO:HA	1.97	0.47
13:s:47:GLN:OE1	13:s:64:LYS:HD3	2.14	0.47
14:t:7:LEU:O	29:AB:49:HIS:NE2	2.48	0.47
29:AB:28:HIS:CD2	29:AB:32:ARG:HG2	2.50	0.47
30:AC:11:ASN:O	30:AC:11:ASN:ND2	2.48	0.47
32:AE:45:THR:HG22	32:AE:47:ASP:N	2.27	0.47
46:B:12:U:H2'	46:B:13:C:H6	1.76	0.47
46:B:484:G:H2'	46:B:485:G:C8	2.50	0.47
46:B:623:C:H2'	46:B:624:U:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:1438:U:OP1	75:f:10:HIS:HD2	1.98	0.47
46:B:1615:U:H2'	46:B:1616:G:C8	2.49	0.47
47:C:77:SER:HB2	47:C:124:THR:HG21	1.97	0.47
51:G:31:PRO:HD2	51:G:38:LEU:HD11	1.97	0.47
52:H:25:LEU:HD22	62:S:56:LEU:HD22	1.97	0.47
60:Q:11:VAL:HG12	60:Q:13:ARG:HG3	1.97	0.47
1:AS:212:A:OP1	27:BT:2:ALA:N	2.48	0.47
1:AS:242:C:O2'	1:AS:243:G:H8	1.97	0.47
1:AS:258:U:H2'	1:AS:259:C:C6	2.49	0.47
1:AS:357:A:O4'	6:AY:82:GLY:HA3	2.13	0.47
1:AS:413:U:H2'	1:AS:414:U:H6	1.79	0.47
1:AS:502:U:H2'	1:AS:503:U:C6	2.49	0.47
1:AS:588:G:OP1	33:BZ:63:LYS:NZ	2.35	0.47
1:AS:624:U:H2'	1:AS:625:C:C6	2.50	0.47
1:AS:1007:A:H2'	1:AS:1008:A:H8	1.80	0.47
1:AS:1148:G:N2	1:AS:1148:G:OP2	2.47	0.47
1:AS:1738:U:H2'	1:AS:1739:G:C8	2.49	0.47
1:AS:2404:U:H2'	1:AS:2405:U:C6	2.49	0.47
1:AS:2627:U:H4'	1:AS:2628:A:O4'	2.15	0.47
1:AS:2658:A:H2'	1:AS:2659:G:O4'	2.14	0.47
1:AS:2694:U:O2'	22:BO:88:ARG:O	2.25	0.47
1:AS:2855:U:H2'	1:AS:2856:C:C6	2.49	0.47
1:AS:2959:A:H2'	1:AS:2960:C:H6	1.78	0.47
1:AS:3135:A:H2'	1:AS:3136:C:C6	2.50	0.47
1:AS:3314:C:H2'	1:AS:3315:C:C6	2.50	0.47
3:AU:40:A:H2'	3:AU:41:A:C8	2.49	0.47
5:AX:66:LYS:HZ1	24:BQ:9:ASN:H	1.62	0.47
7:AZ:95:TRP:HD1	7:AZ:158:ARG:HA	1.79	0.47
8:BA:65:SER:HB3	8:BA:75:LEU:HD23	1.97	0.47
9:BB:149:ARG:HD2	9:BB:205:LEU:HD23	1.96	0.47
13:BF:10:ARG:O	13:BF:133:ARG:HD3	2.15	0.47
23:BP:80:LYS:O	23:BP:84:LYS:HG3	2.14	0.47
24:BQ:92:TYR:O	25:BR:20:LEU:N	2.47	0.47
46:CM:642:C:H2'	46:CM:643:U:C6	2.50	0.47
46:CM:672:U:H1'	46:CM:673:A:C4	2.49	0.47
46:CM:946:U:C2	46:CM:947:C:C5	3.02	0.47
46:CM:1127:A:H2'	46:CM:1128:A:C8	2.50	0.47
46:CM:1308:C:H2'	46:CM:1309:G:C8	2.50	0.47
46:CM:1332:U:C5	66:DH:57:MET:HE1	2.49	0.47
47:CN:21:ASN:HB3	47:CN:24:LEU:HD12	1.97	0.47
47:CN:52:LYS:HD3	67:DI:82:VAL:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CU:59:PRO:HG2	54:CU:62:SER:HB3	1.96	0.47
56:CW:63:ASP:OD1	56:CW:64:GLU:N	2.48	0.47
79:CZ:63:CYS:HA	79:CZ:91:VAL:O	2.14	0.47
60:DB:27:ASP:OD1	60:DB:30:GLY:N	2.46	0.47
61:DC:83:MET:HB3	61:DC:116:LEU:HD13	1.97	0.47
62:DD:94:LYS:O	78:DT:60:LYS:NZ	2.36	0.47
78:DT:240:LEU:HD22	78:DT:249:LEU:HD11	1.96	0.47
1:1:268:A:N1	1:1:295:A:H5'	2.29	0.47
1:1:281:G:N7	16:v:182:LYS:HE2	2.30	0.47
1:1:972:U:H2'	1:1:973:C:O4'	2.15	0.47
1:1:1222:G:H2'	1:1:1223:C:C6	2.50	0.47
1:1:1937:C:H2'	1:1:1938:U:C6	2.50	0.47
1:1:2855:U:H2'	1:1:2856:C:H6	1.80	0.47
1:1:2895:U:H2'	1:1:2896:U:C6	2.50	0.47
1:1:2946:U:H2'	1:1:2947:U:C6	2.50	0.47
1:1:3193:C:H4'	1:1:3194:G:O5'	2.13	0.47
7:m:150:LEU:HD12	13:s:143:ARG:HG3	1.97	0.47
15:u:14:GLU:HB3	21:0:149:LYS:HG2	1.97	0.47
18:x:125:GLN:HB2	18:x:141:SER:HB2	1.96	0.47
33:AF:33:TRP:CH2	33:AF:53:GLN:HG2	2.49	0.47
46:B:226:G:H2'	46:B:227:C:C6	2.50	0.47
46:B:302:U:H2'	46:B:303:C:H6	1.79	0.47
46:B:669:G:H2'	46:B:671:G:C8	2.50	0.47
46:B:1344:C:OP1	65:V:130:ARG:HG3	2.14	0.47
70:a:6:THR:HB	70:a:28:LEU:HB2	1.97	0.47
78:AR:92:LEU:HB2	78:AR:104:PHE:HE1	1.78	0.47
1:AS:716:G:H3'	1:AS:717:A:H5"	1.96	0.47
1:AS:983:U:H2'	1:AS:984:U:C6	2.49	0.47
1:AS:1725:A:C6	44:CK:42:CYS:HA	2.50	0.47
1:AS:2603:U:OP2	22:BO:4:SER:OG	2.33	0.47
1:AS:2902:A:H2'	1:AS:2903:C:C6	2.50	0.47
1:AS:2902:A:H2'	1:AS:2903:C:H6	1.79	0.47
1:AS:3159:A:H2'	1:AS:3160:C:C6	2.50	0.47
7:AZ:150:LEU:HD12	13:BF:143:ARG:HG3	1.96	0.47
12:BE:54:SER:HB2	12:BE:135:ILE:HD11	1.97	0.47
14:BG:69:VAL:HG12	14:BG:151:GLN:OE1	2.15	0.47
15:BH:116:LEU:HD22	17:BJ:191:ALA:HA	1.97	0.47
27:BT:47:SER:O	27:BT:122:LYS:HE2	2.15	0.47
27:BT:58:VAL:HA	27:BT:104:VAL:HG12	1.96	0.47
27:BT:85:LEU:HD23	27:BT:85:LEU:HA	1.77	0.47
46:CM:12:U:H2'	46:CM:13:C:H6	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:82:U:H2'	46:CM:83:G:O4'	2.15	0.47
46:CM:333:U:O2'	58:CY:130:PRO:O	2.23	0.47
46:CM:476:A:O2'	56:CW:124:HIS:ND1	2.47	0.47
46:CM:645:G:OP2	46:CM:645:G:H8	1.98	0.47
46:CM:904:A:H2'	46:CM:905:C:H6	1.80	0.47
46:CM:1649:G:H2'	46:CM:1650:G:H8	1.79	0.47
46:CM:1656:U:H2'	46:CM:1657:G:O4'	2.15	0.47
46:CM:1725:U:H2'	46:CM:1726:C:C6	2.49	0.47
48:CO:58:ALA:CB	48:CO:91:VAL:HG11	2.44	0.47
56:CW:38:ASN:HA	76:DR:36:MET:HE3	1.97	0.47
57:CX:15:LEU:HD21	57:CX:68:LEU:HD13	1.96	0.47
58:CY:101:GLU:OE1	69:DK:16:ARG:NH2	2.48	0.47
79:CZ:51:ALA:HB3	79:CZ:122:VAL:HG11	1.97	0.47
79:CZ:54:LYS:HA	77:DS:170:ALA:HB3	1.97	0.47
61:DC:29:PRO:HG2	61:DC:32:GLU:HG2	1.97	0.47
65:DG:118:PRO:C	65:DG:120:GLY:H	2.22	0.47
1:1:883:G:H2'	1:1:884:A:C8	2.50	0.47
1:1:1714:G:H2'	1:1:1715:G:C8	2.49	0.47
5:k:123:TYR:CZ	5:k:124:LYS:HG3	2.49	0.47
7:m:125:VAL:HG11	7:m:199:ILE:HG21	1.97	0.47
9:o:82:VAL:HG21	9:o:134:TYR:HD2	1.79	0.47
29:AB:59:ARG:NH2	43:AP:38:GLN:HG2	2.30	0.47
46:B:68:A:N6	53:I:132:ARG:HG2	2.29	0.47
46:B:441:C:OP2	70:a:105:ARG:HB2	2.15	0.47
46:B:656:C:H42	46:B:669:G:H1	1.63	0.47
46:B:1416:U:H1'	66:W:71:ASN:HB3	1.96	0.47
46:B:1489:G:N2	46:B:1492:A:OP2	2.46	0.47
46:B:1592:G:OP2	62:S:126:LYS:NZ	2.40	0.47
50:F:72:SER:O	50:F:76:LYS:HD2	2.15	0.47
69:Z:37:ALA:HA	69:Z:41:SER:HB3	1.95	0.47
78:AR:13:LEU:HB2	78:AR:307:ILE:HB	1.97	0.47
1:AS:593:G:C8	1:AS:607:G:C6	3.03	0.47
1:AS:605:U:OP1	8:BA:23:THR:HB	2.15	0.47
1:AS:647:A:OP2	1:AS:2840:U:O2'	2.31	0.47
1:AS:1124:U:H2'	1:AS:1125:A:O4'	2.14	0.47
1:AS:2093:G:H22	1:AS:2098:A:H1'	1.80	0.47
13:BF:87:LYS:HG2	13:BF:91:LEU:HD23	1.96	0.47
25:BR:38:SER:O	25:BR:42:GLN:NE2	2.48	0.47
35:CB:58:ARG:CD	35:CB:59:PRO:HD2	2.36	0.47
39:CF:16:ARG:HG3	39:CF:70:PRO:HG3	1.96	0.47
46:CM:147:C:C2	46:CM:148:C:C5	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1335:U:O2'	46:CM:1336:G:OP1	2.31	0.47
46:CM:1512:A:H5'	65:DG:93:HIS:HB2	1.97	0.47
53:CT:48:TYR:CD2	53:CT:117:GLY:HA3	2.49	0.47
53:CT:149:LYS:HB3	53:CT:149:LYS:HE2	1.70	0.47
54:CU:69:VAL:HG12	54:CU:72:ARG:HH21	1.80	0.47
63:DE:75:GLU:O	63:DE:79:GLU:HB2	2.14	0.47
78:DT:179:ASP:HB2	78:DT:186:ASN:HD21	1.78	0.47
80:P0:50:VAL:O	80:P0:88:PHE:N	2.46	0.47
82:l1:196:LYS:HD2	82:l1:196:LYS:H	1.80	0.47
1:1:15:A:OP1	26:8:42:ARG:HG2	2.14	0.47
1:1:657:G:H2'	1:1:1428:C:H42	1.80	0.47
1:1:693:C:H5"	6:l:272:LYS:HD3	1.97	0.47
1:1:1239:G:OP2	1:1:1239:G:H8	1.97	0.47
1:1:1911:A:H2'	1:1:1912:U:C6	2.49	0.47
1:1:3132:U:H2'	1:1:3133:G:C8	2.50	0.47
1:1:3196:U:H2'	1:1:3197:G:H8	1.79	0.47
6:l:114:VAL:HB	6:l:119:LYS:HE3	1.96	0.47
9:o:86:ARG:O	9:o:110:ASN:N	2.41	0.47
46:B:530:U:OP1	70:a:64:PHE:HA	2.15	0.47
46:B:1072:A:H2'	46:B:1073:A:C8	2.50	0.47
46:B:1772:U:P	60:Q:128:ARG:HH22	2.38	0.47
51:G:11:ARG:NH1	51:G:21:ASP:O	2.46	0.47
52:H:103:ASN:HA	52:H:106:LYS:HD2	1.97	0.47
60:Q:98:ARG:HD2	72:c:49:ALA:HB2	1.97	0.47
1:AS:270:U:H2'	1:AS:271:C:H6	1.80	0.47
1:AS:1079:G:H2'	1:AS:1080:A:C8	2.50	0.47
1:AS:1149:A:O2'	1:AS:1150:A:H5'	2.15	0.47
1:AS:1468:U:H5'	20:BM:4:LEU:HB2	1.97	0.47
1:AS:3088:G:H4'	11:BD:69:ARG:NH1	2.30	0.47
46:CM:1417:C:O2'	46:CM:1423:U:O4	2.15	0.47
46:CM:1445:C:OP1	64:DF:126:ARG:NH1	2.48	0.47
47:CN:13:ASP:CG	47:CN:179:ARG:HH22	2.23	0.47
55:CV:48:THR:HG22	55:CV:52:ASN:C	2.40	0.47
63:DE:89:SER:HB3	63:DE:92:ASP:HB2	1.97	0.47
69:DK:37:ALA:HA	69:DK:41:SER:HB3	1.97	0.47
69:DK:70:LYS:HB3	69:DK:93:LEU:HD22	1.97	0.47
76:DR:34:ALA:O	76:DR:37:ARG:HG2	2.15	0.47
82:L1:44:GLN:HG3	82:L1:45:ARG:H	1.79	0.47
1:1:377:A:H1'	1:1:392:G:N2	2.30	0.46
1:1:406:G:H1'	3:4:16:G:N2	2.29	0.46
1:1:868:U:H2'	1:1:869:C:C6	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1278:G:OP1	80:P0:55:LYS:HE3	2.13	0.46
1:1:1473:A:OP1	1:1:3047:G:O2'	2.26	0.46
1:1:1777:C:H2'	1:1:1778:U:C6	2.51	0.46
1:1:1863:A:H2'	1:1:1864:G:H8	1.80	0.46
1:1:2433:U:C2	1:1:2434:A:C8	3.03	0.46
1:1:3136:C:H2'	1:1:3137:A:C8	2.50	0.46
5:k:313:ARG:O	5:k:333:LYS:HE3	2.16	0.46
21:0:171:PHE:O	21:0:172:TYR:HB2	2.14	0.46
45:i:65:LYS:HB3	61:R:119:PHE:O	2.15	0.46
46:B:1148:A:H2'	46:B:1149:G:O4'	2.15	0.46
46:B:1155:G:C2	46:B:1156:A:C8	3.02	0.46
46:B:1262:G:O3'	50:F:184:GLY:HA3	2.15	0.46
56:L:37:LYS:HA	76:g:33:ARG:HA	1.96	0.46
1:AS:581:A:H5"	34:CA:106:ASN:ND2	2.30	0.46
1:AS:1396:U:H2'	1:AS:1397:G:O4'	2.15	0.46
3:AU:2:A:C4	3:AU:3:A:C8	3.03	0.46
5:AX:260:VAL:HG11	5:AX:266:ARG:NH1	2.30	0.46
16:BI:65:ARG:HG2	16:BI:127:TYR:CD1	2.50	0.46
18:BK:29:THR:HA	18:BK:32:THR:HG22	1.97	0.46
46:CM:819:G:C5	46:CM:820:U:C5	3.03	0.46
46:CM:916:C:H5"	48:CO:116:LYS:HG2	1.97	0.46
46:CM:1226:G:H4'	61:DC:77:LYS:O	2.14	0.46
46:CM:1436:U:H2'	46:CM:1437:C:H6	1.79	0.46
46:CM:1694:A:H2'	46:CM:1695:U:O4'	2.14	0.46
46:CM:1697:C:H2'	46:CM:1698:U:C6	2.50	0.46
48:CO:26:ARG:HG3	48:CO:49:ASN:OD1	2.14	0.46
64:DF:83:ALA:HB1	64:DF:97:ASP:OD2	2.15	0.46
78:DT:46:LYS:HD2	78:DT:59:LYS:HE3	1.97	0.46
80:p0:61:ARG:HG2	80:p0:64:ARG:HG2	1.96	0.46
1:1:88:G:N7	19:y:171:LYS:NZ	2.63	0.46
1:1:307:A:H2'	1:1:308:A:H8	1.78	0.46
1:1:635:C:C2	1:1:636:C:C5	3.03	0.46
1:1:2370:C:O2'	5:k:266:ARG:NH2	2.48	0.46
1:1:2690:U:H2'	1:1:2691:U:O4'	2.15	0.46
1:1:2734:A:H2'	1:1:2735:U:H6	1.79	0.46
1:1:2959:A:H2'	1:1:2960:C:C6	2.50	0.46
1:1:3138:U:H2'	1:1:3139:U:C6	2.50	0.46
2:3:56:A:H4'	13:s:152:HIS:HB2	1.98	0.46
3:4:5:U:H2'	3:4:6:U:H6	1.80	0.46
3:4:19:C:H2'	3:4:20:U:C6	2.50	0.46
4:j:117:GLU:OE1	4:j:121:GLY:N	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:s:4:LYS:HG3	13:s:6:GLN:H	1.80	0.46
46:B:308:C:H4'	69:Z:33:LEU:HD23	1.96	0.46
46:B:786:G:H2'	46:B:787:A:C8	2.50	0.46
46:B:1706:A:H2'	46:B:1707:G:O4'	2.15	0.46
62:S:131:ARG:HG3	62:S:137:PHE:HE1	1.81	0.46
63:T:77:GLU:HG2	63:T:80:ARG:NH2	2.30	0.46
77:h:160:ARG:O	77:h:161:ARG:C	2.58	0.46
1:AS:18:U:H3	3:AU:140:G:H1	1.64	0.46
1:AS:116:U:O2	1:AS:118:U:H2'	2.15	0.46
1:AS:1104:U:H2'	1:AS:1105:U:H6	1.79	0.46
1:AS:1151:C:H2'	1:AS:1152:C:H6	1.80	0.46
1:AS:1618:U:H2'	1:AS:1619:G:C8	2.50	0.46
1:AS:1692:A:H2'	1:AS:1693:A:H8	1.79	0.46
1:AS:1714:G:H2'	1:AS:1715:G:C8	2.51	0.46
1:AS:1865:C:H4'	1:AS:3049:A:O2'	2.15	0.46
1:AS:2435:G:H5'	1:AS:2460:U:O4'	2.15	0.46
1:AS:2485:U:H2'	1:AS:2486:U:C6	2.50	0.46
1:AS:2996:A:H5"	11:BD:96:HIS:CE1	2.49	0.46
22:BO:119:ALA:HB1	22:BO:124:GLU:O	2.15	0.46
46:CM:1628:C:H2'	46:CM:1629:G:C8	2.50	0.46
47:CN:205:ARG:NH2	63:DE:84:TYR:HB3	2.30	0.46
59:DA:45:LEU:HD22	59:DA:49:GLN:CD	2.39	0.46
59:DA:89:TYR:CE2	59:DA:150:VAL:HG12	2.51	0.46
66:DH:68:LYS:HE2	66:DH:79:ASP:OD1	2.16	0.46
72:DN:13:LYS:H	72:DN:15:ARG:NH2	2.12	0.46
78:DT:157:ILE:O	78:DT:201:LEU:HD11	2.14	0.46
82:l1:18:GLU:O	82:l1:22:GLU:N	2.49	0.46
79:O:68:GLU:O	79:O:69:GLU:HG3	2.15	0.46
1:1:2564:G:H4'	1:1:2566:C:C2	2.51	0.46
8:n:50:ARG:NH2	15:u:107:ASP:OD2	2.48	0.46
46:B:57:G:OP1	70:a:112:LYS:NZ	2.32	0.46
46:B:92:A:OP1	51:G:7:LYS:NZ	2.48	0.46
46:B:182:C:H2'	46:B:183:C:H6	1.81	0.46
46:B:261:C:O2'	46:B:262:G:H5'	2.16	0.46
46:B:472:A:H5"	56:L:144:PRO:HD2	1.98	0.46
46:B:1302:C:H2'	46:B:1303:G:O4'	2.15	0.46
46:B:1626:C:H2'	46:B:1627:C:O4'	2.16	0.46
46:B:1699:G:C2'	46:B:1700:G:H5"	2.45	0.46
62:S:9:PHE:CE1	62:S:11:LYS:HE3	2.50	0.46
1:AS:21:G:H1'	3:AU:104:A:N3	2.30	0.46
1:AS:152:U:H4'	1:AS:157:G:H4'	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:559:C:H2'	1:AS:560:C:H6	1.79	0.46
1:AS:797:A:OP1	29:BV:27:LYS:HE3	2.15	0.46
1:AS:1217:A:H62	80:p0:9:VAL:HG13	1.80	0.46
1:AS:1329:C:OP1	19:BL:2:GLY:N	2.48	0.46
1:AS:2912:A:OP2	5:AX:2:SER:N	2.49	0.46
1:AS:2959:A:H2'	1:AS:2960:C:C6	2.49	0.46
19:BL:147:ARG:HB3	19:BL:150:VAL:HG23	1.98	0.46
23:BP:16:VAL:HG21	23:BP:105:GLN:HE21	1.79	0.46
23:BP:18:ASP:HA	23:BP:63:LYS:HG2	1.96	0.46
26:BS:105:VAL:HG23	26:BS:130:TYR:CG	2.51	0.46
46:CM:151:G:H2'	46:CM:152:G:H8	1.80	0.46
46:CM:226:G:H2'	46:CM:227:C:O4'	2.15	0.46
79:CZ:134:ASN:O	79:CZ:138:GLU:OE2	2.34	0.46
68:DJ:28:ARG:HD2	68:DJ:60:LYS:HE2	1.97	0.46
82:L1:198:TRP:HE3	82:L1:201:VAL:HG11	1.79	0.46
82:L1:206:ILE:HB	82:L1:216:ILE:HD12	1.97	0.46
79:O:55:ARG:HH12	79:O:82:PRO:HD3	1.80	0.46
1:1:593:G:C8	1:1:607:G:C6	3.03	0.46
1:1:1140:U:OP1	1:1:1363:G:O2'	2.27	0.46
1:1:1907:A:H2	1:1:2100:G:C8	2.33	0.46
1:1:2335:A:H2'	1:1:2336:A:C8	2.50	0.46
1:1:2650:A:H8	45:i:55:LYS:HG2	1.80	0.46
1:1:2679:U:H2'	1:1:2680:C:C6	2.50	0.46
1:1:3298:G:N2	1:1:3334:G:O2'	2.49	0.46
14:t:54:LEU:O	14:t:96:SER:OG	2.27	0.46
46:B:63:G:O2'	46:B:168:U:OP1	2.33	0.46
46:B:366:U:H2'	46:B:367:A:O4'	2.15	0.46
46:B:704:A:C8	46:B:705:G:C2	3.04	0.46
46:B:1102:U:H2'	46:B:1103:G:C8	2.51	0.46
46:B:1149:G:O2'	46:B:1599:U:O2	2.26	0.46
46:B:1206:A:H2'	46:B:1207:C:O4'	2.16	0.46
46:B:1700:G:N3	46:B:1700:G:H2'	2.30	0.46
50:F:133:LYS:HB3	50:F:190:MET:HG2	1.97	0.46
57:M:54:TYR:CE1	57:M:75:PHE:HB2	2.49	0.46
59:P:26:PHE:CE1	59:P:28:LEU:HB2	2.50	0.46
70:a:63:GLN:CD	70:a:68:LYS:HD3	2.41	0.46
1:AS:48:A:N7	16:BI:187:ARG:HD2	2.29	0.46
1:AS:283:G:OP2	1:AS:285:A:O2'	2.27	0.46
1:AS:1949:G:H1	1:AS:2070:A:H2'	1.81	0.46
5:AX:122:TRP:CE2	5:AX:127:LYS:HE3	2.50	0.46
10:BC:160:PRO:HB2	10:BC:162:GLU:OE1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BD:57:VAL:HG23	11:BD:68:LEU:HD13	1.97	0.46
14:BG:61:PRO:C	14:BG:62:THR:HG23	2.39	0.46
21:BN:10:ILE:HG12	21:BN:26:ARG:HG3	1.97	0.46
21:BN:109:ASP:OD1	21:BN:113:ARG:NH1	2.45	0.46
33:BZ:43:VAL:HG22	33:BZ:50:THR:HB	1.97	0.46
35:CB:25:THR:OG1	35:CB:29:LYS:HG2	2.15	0.46
45:CL:112:LYS:HG3	45:CL:113:ARG:N	2.30	0.46
46:CM:770:C:OP1	46:CM:770:C:H6	1.98	0.46
46:CM:1455:A:H2'	46:CM:1456:C:C6	2.51	0.46
46:CM:1740:A:H2'	46:CM:1741:A:H8	1.80	0.46
51:CR:175:PHE:HE1	51:CR:198:ARG:HD2	1.81	0.46
51:CR:181:VAL:HG11	51:CR:225:VAL:HG13	1.97	0.46
79:CZ:62:LEU:HG	79:CZ:63:CYS:N	2.30	0.46
69:DK:29:TYR:HA	69:DK:32:ARG:HH12	1.80	0.46
78:DT:88:ARG:HA	78:DT:111:VAL:HG23	1.97	0.46
1:1:1240:A:H5"	1:1:1241:A:N7	2.30	0.46
1:1:1494:A:H2'	1:1:1495:U:C6	2.51	0.46
1:1:1900:C:H2'	1:1:1901:G:O4'	2.16	0.46
1:1:2658:A:H2'	1:1:2659:G:O4'	2.14	0.46
1:1:2854:U:H2'	1:1:2855:U:C6	2.51	0.46
3:4:5:U:H2'	3:4:6:U:C6	2.50	0.46
5:k:284:ARG:NH1	5:k:356:LEU:HD12	2.29	0.46
22:2:52:MET:HA	22:2:95:HIS:CD2	2.50	0.46
46:B:122:U:C2'	46:B:123:G:H5"	2.42	0.46
46:B:325:U:H2'	46:B:326:A:C8	2.50	0.46
46:B:397:A:H4'	51:G:3:ARG:HG2	1.97	0.46
46:B:446:C:OP1	51:G:29:PRO:HD3	2.16	0.46
46:B:485:G:N2	46:B:499:U:C2	2.83	0.46
46:B:494:G:H2'	46:B:495:G:O4'	2.15	0.46
46:B:761:G:O6	70:a:11:LYS:HE2	2.15	0.46
46:B:872:A:H2'	46:B:873:U:H6	1.80	0.46
46:B:1241:A:H5'	46:B:1242:U:C6	2.50	0.46
60:Q:20:ASP:OD1	60:Q:21:THR:N	2.43	0.46
63:T:71:PHE:HZ	63:T:74:GLN:HG3	1.80	0.46
1:AS:164:U:H2'	1:AS:165:C:H6	1.79	0.46
3:AU:139:U:H2'	3:AU:140:G:C8	2.50	0.46
3:AU:156:U:O2'	3:AU:157:U:P	2.74	0.46
20:BM:134:HIS:HE1	20:BM:136:ARG:NE	2.14	0.46
39:CF:73:LEU:HD12	39:CF:75:ILE:HG23	1.98	0.46
45:CL:82:LYS:HZ2	45:CL:83:HIS:H	1.62	0.46
45:CL:156:ALA:N	57:CX:92:LEU:HD11	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1351:U:P	62:DD:65:ARG:HH21	2.38	0.46
48:CO:136:ARG:HG3	48:CO:218:LEU:HD11	1.97	0.46
82:l1:128:LEU:O	82:l1:130:LYS:N	2.48	0.46
1:1:88:G:H21	1:1:281:G:C4'	2.29	0.46
1:1:200:A:H2'	1:1:201:G:H8	1.79	0.46
1:1:339:C:OP1	1:1:1376:G:O2'	2.30	0.46
1:1:892:A:H4'	4:j:186:PHE:CD2	2.51	0.46
1:1:1153:G:H2'	1:1:1154:A:O4'	2.16	0.46
1:1:1184:U:OP1	1:1:1206:U:O2'	2.21	0.46
11:q:137:SER:HB3	11:q:143:GLU:HB3	1.97	0.46
46:B:569:G:H5"	69:Z:114:LYS:HE2	1.98	0.46
46:B:656:C:C4	46:B:657:C:H1'	2.51	0.46
46:B:736:G:H2'	46:B:737:A:H8	1.80	0.46
46:B:1012:A:OP1	46:B:1776:G:O2'	2.21	0.46
47:C:57:ILE:HG23	47:C:177:LEU:HD23	1.97	0.46
77:h:182:TYR:CE1	77:h:187:HIS:HA	2.50	0.46
1:AS:292:U:OP2	16:BI:68:ARG:NH2	2.40	0.46
1:AS:981:U:H2'	1:AS:982:U:H6	1.80	0.46
1:AS:1045:C:H2'	1:AS:1046:U:C6	2.51	0.46
1:AS:1779:U:H2'	1:AS:1780:A:H8	1.79	0.46
1:AS:2915:G:H2'	1:AS:2916:U:O4'	2.15	0.46
2:AT:27:A:H2'	2:AT:28:C:C6	2.50	0.46
12:BE:140:THR:HG21	12:BE:148:VAL:HG21	1.97	0.46
16:BI:4:TYR:CZ	16:BI:49:ARG:HD2	2.50	0.46
23:BP:27:VAL:HG12	23:BP:92:ILE:HD13	1.97	0.46
31:BX:102:ILE:O	31:BX:106:ILE:HG23	2.16	0.46
46:CM:1301:G:O2'	46:CM:1387:A:O2'	2.33	0.46
46:CM:1367:U:O4	46:CM:1368:A:N6	2.49	0.46
46:CM:1664:C:H42	46:CM:1711:C:H42	1.63	0.46
46:CM:1697:C:H2'	46:CM:1698:U:C2	2.51	0.46
46:CM:1774:C:H2'	46:CM:1775:G:C8	2.50	0.46
79:CZ:132:GLU:OE1	79:CZ:132:GLU:N	2.48	0.46
59:DA:38:ILE:HD11	59:DA:78:ASN:ND2	2.30	0.46
80:P0:22:TYR:O	80:P0:23:LYS:HG2	2.15	0.46
82:l1:14:HIS:NE2	82:l1:176:GLU:HG2	2.30	0.46
82:l1:33:GLU:H	82:l1:208:SER:HA	1.81	0.46
80:p0:12:PHE:HZ	80:p0:16:ARG:NH2	2.12	0.46
1:1:1017:G:C6	1:1:1018:U:C2	3.03	0.46
1:1:1258:G:O6	1:1:1260:G:N2	2.49	0.46
1:1:1469:G:H5"	20:z:23:TRP:CD1	2.50	0.46
1:1:2832:U:O2	1:1:2910:G:H4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3010:U:O2	24:6:9:ASN:ND2	2.48	0.46
2:3:27:A:H2'	2:3:28:C:C6	2.50	0.46
5:k:35:ASP:HA	5:k:184:ASN:OD1	2.15	0.46
6:l:296:VAL:O	6:l:300:VAL:HG13	2.15	0.46
7:m:40:HIS:CE1	22:2:69:LYS:HA	2.51	0.46
12:r:49:CYS:HB3	12:r:168:SER:HB3	1.96	0.46
13:s:88:GLU:HB3	61:R:10:ARG:HH11	1.79	0.46
46:B:526:U:H2'	46:B:527:A:O4'	2.16	0.46
46:B:938:G:H2'	46:B:939:G:C8	2.51	0.46
46:B:1131:G:H2'	46:B:1132:A:H8	1.75	0.46
46:B:1323:C:H1'	46:B:1396:A:C5	2.51	0.46
46:B:1369:G:O2'	46:B:1370:A:O5'	2.28	0.46
46:B:1485:G:H5"	65:V:72:GLY:HA3	1.98	0.46
47:C:88:LYS:HD3	47:C:88:LYS:HA	1.82	0.46
49:E:138:TYR:CG	49:E:142:ASN:HA	2.50	0.46
61:R:68:GLU:N	61:R:69:PRO:HD3	2.31	0.46
1:AS:755:U:H2'	1:AS:756:G:O4'	2.16	0.46
1:AS:1216:U:H1'	80:p0:61:ARG:CZ	2.46	0.46
1:AS:1410:G:C6	1:AS:1411:U:C4	3.04	0.46
1:AS:2354:G:H2'	1:AS:2355:G:C8	2.51	0.46
1:AS:2419:A:H2'	1:AS:2420:G:H8	1.80	0.46
2:AT:26:C:H2'	2:AT:27:A:O4'	2.15	0.46
3:AU:26:U:H2'	3:AU:27:U:C6	2.49	0.46
3:AU:49:G:OP1	36:CC:45:HIS:HB2	2.16	0.46
3:AU:49:G:OP2	36:CC:48:ARG:NH1	2.48	0.46
9:BB:134:TYR:CZ	9:BB:228:ASN:HB2	2.51	0.46
34:CA:20:LYS:HB2	34:CA:20:LYS:HE2	1.72	0.46
46:CM:295:U:O2'	51:CR:33:ALA:HA	2.15	0.46
46:CM:390:G:H5"	46:CM:1716:C:O2'	2.16	0.46
46:CM:810:U:H2'	46:CM:811:U:O4'	2.16	0.46
46:CM:933:A:H2'	46:CM:934:C:H6	1.81	0.46
46:CM:1243:U:C6	46:CM:1244:U:H5	2.33	0.46
46:CM:1500:G:H1'	46:CM:1505:C:O2	2.16	0.46
48:CO:23:PRO:HB3	48:CO:26:ARG:HH21	1.80	0.46
49:CP:122:ALA:O	49:CP:126:ILE:HG13	2.16	0.46
55:CV:190:LEU:HD22	55:CV:194:GLU:HG2	1.97	0.46
63:DE:90:ALA:HA	63:DE:95:HIS:CD2	2.50	0.46
64:DF:4:VAL:N	71:DM:82:GLN:OE1	2.49	0.46
66:DH:81:TYR:HB3	75:DQ:52:PHE:HB3	1.96	0.46
70:DL:20:ARG:HB3	70:DL:76:TYR:CD2	2.51	0.46
1:1:164:U:H2'	1:1:165:C:H6	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:559:C:H2'	1:1:560:C:C6	2.50	0.46
1:1:1705:C:H2'	1:1:1706:C:H6	1.81	0.46
1:1:1746:A:H1'	1:1:1748:A:N7	2.31	0.46
1:1:1825:A:H5"	1:1:1826:G:H5'	1.96	0.46
1:1:2332:C:H2'	1:1:2333:G:O4'	2.14	0.46
1:1:2334:A:N6	1:1:2955:C:H5	2.11	0.46
1:1:2472:A:H3'	1:1:2473:C:H5"	1.97	0.46
1:1:2627:U:H4'	1:1:2628:A:O4'	2.15	0.46
1:1:3162:U:H2'	1:1:3163:U:H4'	1.98	0.46
11:q:89:LYS:HB2	11:q:183:GLU:HB3	1.98	0.46
16:v:146:ALA:HA	16:v:149:ASN:OD1	2.16	0.46
17:w:83:LYS:HB3	17:w:83:LYS:HE2	1.70	0.46
32:AE:18:ARG:HD3	32:AE:34:GLU:HB3	1.97	0.46
33:AF:33:TRP:HH2	33:AF:53:GLN:HG2	1.80	0.46
46:B:78:A:H2'	46:B:79:C:C6	2.51	0.46
46:B:1144:C:N4	46:B:1270:U:OP1	2.49	0.46
46:B:1628:C:H2'	46:B:1629:G:C8	2.50	0.46
46:B:1670:U:H3	46:B:1705:G:H1	1.62	0.46
46:B:1727:A:H2'	46:B:1728:U:C6	2.51	0.46
47:C:41:ARG:HG2	47:C:42:PRO:HD2	1.97	0.46
62:S:30:ILE:CG1	62:S:35:ILE:HG22	2.45	0.46
1:AS:179:C:H2'	1:AS:180:U:C6	2.51	0.46
1:AS:236:A:OP1	3:AU:95:G:N2	2.30	0.46
1:AS:624:U:H2'	1:AS:625:C:H6	1.81	0.46
1:AS:1656:C:H2'	1:AS:1657:G:H8	1.81	0.46
1:AS:2239:G:O2'	1:AS:2241:C:N4	2.49	0.46
1:AS:2739:U:H2'	1:AS:2740:U:H6	1.81	0.46
1:AS:2742:G:H5"	43:CJ:79:THR:HG23	1.98	0.46
1:AS:2972:A:H2'	1:AS:2973:U:C6	2.51	0.46
1:AS:3122:A:H5'	5:AX:130:PHE:H	1.81	0.46
12:BE:4:ARG:NH1	12:BE:99:ILE:HG13	2.31	0.46
19:BL:44:PHE:CD2	19:BL:134:GLY:HA3	2.50	0.46
22:BO:97:LYS:HE2	22:BO:97:LYS:HB3	1.61	0.46
24:BQ:10:LYS:NZ	24:BQ:54:ALA:O	2.47	0.46
44:CK:46:THR:OG1	44:CK:57:CYS:SG	2.66	0.46
46:CM:184:C:H2'	46:CM:185:G:O4'	2.15	0.46
46:CM:261:C:O2'	46:CM:262:G:H5'	2.16	0.46
46:CM:789:U:O4	54:CU:100:ARG:NH2	2.47	0.46
46:CM:933:A:H2'	46:CM:934:C:C6	2.51	0.46
46:CM:1339:G:O6	46:CM:1354:U:C2	2.69	0.46
59:DA:15:ALA:O	73:DO:28:PRO:HD3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:DF:20:THR:HG21	64:DF:35:ILE:HA	1.97	0.46
68:DJ:106:THR:HG23	68:DJ:108:ALA:H	1.81	0.46
82:l1:19:TYR:CD2	82:l1:210:MET:HB3	2.46	0.46
82:l1:87:VAL:HG23	82:l1:88:ASP:H	1.81	0.46
82:l1:102:LYS:HA	82:l1:105:LYS:HG2	1.98	0.46
80:p0:45:LEU:HD12	80:p0:49:ALA:HB3	1.98	0.46
79:O:47:GLU:HA	79:O:50:LYS:HG2	1.98	0.46
1:1:291:C:H2'	1:1:292:U:C6	2.51	0.46
1:1:533:G:H2'	1:1:534:G:O4'	2.16	0.46
1:1:698:C:H2'	1:1:699:G:H8	1.80	0.46
1:1:1165:A:H2'	1:1:1166:A:C8	2.51	0.46
1:1:3162:U:H4'	1:1:3162:U:OP1	2.16	0.46
7:m:160:PHE:CE2	7:m:179:ARG:HB3	2.50	0.46
10:p:261:SER:HB3	48:D:225:LEU:HD23	1.97	0.46
18:x:126:ARG:HG3	18:x:140:GLN:HG2	1.97	0.46
38:AK:21:ARG:HD2	38:AK:37:CYS:SG	2.56	0.46
46:B:1242:U:O2	46:B:1242:U:H2'	2.14	0.46
46:B:1669:U:O2'	46:B:1670:U:H6	1.99	0.46
52:H:200:ASN:CB	52:H:208:SER:HB3	2.44	0.46
54:J:6:LEU:HG	54:J:38:GLN:HB3	1.98	0.46
54:J:67:ARG:HD2	54:J:127:PHE:CE1	2.51	0.46
63:T:71:PHE:CZ	63:T:74:GLN:HG3	2.51	0.46
69:Z:130:VAL:HG21	69:Z:143:PRO:HD3	1.96	0.46
1:AS:284:A:N6	1:AS:2757:A:O4'	2.49	0.46
1:AS:699:G:H2'	1:AS:700:C:C6	2.51	0.46
1:AS:779:A:H5"	1:AS:780:A:H5"	1.98	0.46
1:AS:1618:U:H2'	1:AS:1619:G:H8	1.80	0.46
1:AS:1625:U:H3	28:BU:111:LYS:HE2	1.79	0.46
1:AS:2251:G:H22	1:AS:2290:A:P	2.38	0.46
1:AS:2684:U:HO2'	1:AS:2715:A:HO2'	1.43	0.46
1:AS:2974:C:OP1	5:AX:26:ARG:NH1	2.49	0.46
1:AS:3038:U:C2	1:AS:3039:C:C5	3.04	0.46
1:AS:3201:U:H1'	1:AS:3217:G:N2	2.31	0.46
1:AS:3323:U:H2'	1:AS:3324:A:H8	1.79	0.46
2:AT:113:C:H2'	2:AT:114:U:O4'	2.15	0.46
24:BQ:104:ASN:ND2	24:BQ:108:GLU:O	2.48	0.46
27:BT:51:ARG:HG2	27:BT:52:GLN:N	2.31	0.46
31:BX:11:ASN:HB3	31:BX:12:ILE:HD12	1.97	0.46
46:CM:157:U:O2'	53:CT:87:ARG:NE	2.49	0.46
46:CM:1218:G:H1	46:CM:1237:C:H5	1.64	0.46
46:CM:1220:C:H3'	46:CM:1221:A:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CQ:30:LEU:HD22	50:CQ:59:VAL:HG22	1.98	0.46
50:CQ:69:GLU:O	57:CX:20:VAL:HG11	2.15	0.46
52:CS:27:THR:OG1	62:DD:27:LEU:HD12	2.15	0.46
55:CV:38:ILE:HG12	55:CV:96:LEU:HD11	1.98	0.46
57:CX:8:ARG:O	57:CX:12:HIS:ND1	2.49	0.46
68:DJ:106:THR:HG22	68:DJ:109:GLY:O	2.16	0.46
70:DL:63:GLN:CD	70:DL:68:LYS:HD3	2.40	0.46
82:L1:55:LEU:HB2	82:L1:153:SER:HB2	1.98	0.46
1:1:258:U:H2'	1:1:259:C:C6	2.50	0.46
1:1:1434:U:H2'	1:1:1435:U:C6	2.51	0.46
1:1:1552:C:O2'	10:p:55:GLU:OE2	2.34	0.46
1:1:2130:A:H2'	1:1:2131:U:H6	1.81	0.46
1:1:2700:G:N7	22:2:87:LYS:NZ	2.55	0.46
1:1:3079:U:H2'	1:1:3080:G:C8	2.50	0.46
21:0:27:MET:HE2	21:0:27:MET:HB3	1.82	0.46
44:AQ:28:LYS:O	44:AQ:32:GLN:HG3	2.16	0.46
46:B:706:C:H2'	46:B:708:A:OP2	2.15	0.46
46:B:1187:A:N6	46:B:1443:C:O5'	2.49	0.46
46:B:1298:A:N3	46:B:1300:U:H5'	2.31	0.46
46:B:1344:C:O2	65:V:3:GLY:HA3	2.15	0.46
46:B:1672:G:H2'	46:B:1673:U:C6	2.50	0.46
46:B:1750:A:H5"	46:B:1758:U:H5"	1.97	0.46
52:H:33:VAL:HG23	62:S:45:PHE:HE1	1.81	0.46
57:M:35:ILE:O	57:M:37:THR:N	2.47	0.46
62:S:67:LYS:O	62:S:67:LYS:HG2	2.16	0.46
63:T:14:LYS:HB2	63:T:69:ILE:HD11	1.96	0.46
63:T:24:LEU:HD23	63:T:34:LEU:HD23	1.97	0.46
66:W:68:LYS:HE2	66:W:79:ASP:OD1	2.16	0.46
69:Z:63:GLN:OE1	69:Z:64:PRO:HA	2.16	0.46
1:AS:648:C:H2'	1:AS:649:G:C8	2.51	0.46
1:AS:925:A:O2'	38:CE:49:TRP:O	2.33	0.46
1:AS:2417:A:H2'	1:AS:2418:A:C8	2.52	0.46
16:BI:183:THR:HG22	16:BI:187:ARG:HB2	1.98	0.46
29:BV:95:SER:OG	29:BV:96:ALA:N	2.49	0.46
31:BX:11:ASN:O	31:BX:14:SER:OG	2.33	0.46
36:CC:6:THR:HG22	36:CC:53:ARG:HD3	1.97	0.46
46:CM:14:C:H2'	46:CM:15:U:C6	2.51	0.46
46:CM:415:A:H5'	46:CM:416:G:C5	2.51	0.46
46:CM:511:U:H5'	56:CW:133:HIS:CE1	2.51	0.46
46:CM:734:U:H2'	46:CM:735:U:C6	2.50	0.46
46:CM:872:A:H1'	60:DB:117:PRO:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1167:U:H2'	46:CM:1168:A:O3'	2.15	0.46
46:CM:1317:C:H4'	50:CQ:204:PRO:HB3	1.98	0.46
46:CM:1676:A:H2'	46:CM:1677:G:H1'	1.98	0.46
47:CN:48:ILE:HG12	47:CN:149:MET:HE3	1.98	0.46
52:CS:93:LEU:HD12	52:CS:172:ILE:HG23	1.98	0.46
79:CZ:74:LEU:HD23	77:DS:150:VAL:HG13	1.97	0.46
62:DD:76:GLN:O	62:DD:80:ILE:HG13	2.16	0.46
82:L1:158:GLN:H	82:L1:158:GLN:CD	2.24	0.46
82:L1:205:VAL:HG11	82:L1:213:SER:HB2	1.97	0.46
82:l1:160:LYS:HE3	82:l1:165:LEU:HD11	1.97	0.46
1:1:115:A:OP2	16:v:2:GLY:N	2.49	0.45
1:1:348:A:N3	1:1:352:A:O2'	2.48	0.45
1:1:1303:G:O2'	1:1:2345:A:O2'	2.32	0.45
1:1:1556:G:O2'	1:1:1557:U:H5'	2.16	0.45
1:1:3261:A:H2'	1:1:3262:U:C6	2.51	0.45
11:q:57:VAL:HG13	11:q:64:HIS:CE1	2.51	0.45
16:v:68:ARG:HG2	16:v:128:LYS:HG3	1.98	0.45
23:5:13:LYS:HD2	23:5:15:PHE:CZ	2.51	0.45
25:7:96:GLN:NE2	25:7:101:ARG:HE	2.14	0.45
46:B:167:A:H8	46:B:167:A:OP2	1.99	0.45
46:B:206:U:H5"	55:K:182:SER:HB2	1.99	0.45
46:B:444:A:N6	46:B:459:G:H21	2.14	0.45
46:B:553:A:H2'	46:B:554:A:C8	2.52	0.45
46:B:720:C:O2'	46:B:721:C:H5"	2.16	0.45
50:F:24:GLU:OE1	75:f:23:HIS:HE1	1.98	0.45
53:I:2:LYS:HE3	53:I:2:LYS:HB2	1.83	0.45
78:AR:84:ALA:HA	78:AR:90:LEU:HD23	1.97	0.45
1:AS:268:A:C4	16:BI:12:ARG:HG2	2.51	0.45
1:AS:972:U:H2'	1:AS:973:C:O4'	2.16	0.45
1:AS:1203:G:H4'	41:CH:41:HIS:O	2.15	0.45
1:AS:2197:A:H2'	1:AS:2198:A:H8	1.81	0.45
1:AS:2728:C:H1'	22:BO:8:ARG:NH1	2.31	0.45
3:AU:12:A:C6	3:AU:13:A:N7	2.84	0.45
3:AU:155:G:C5	3:AU:156:U:C4	3.04	0.45
7:AZ:41:LYS:HD3	7:AZ:41:LYS:HA	1.79	0.45
24:BQ:38:ALA:HB3	24:BQ:59:MET:HB2	1.97	0.45
46:CM:695:C:O2'	46:CM:696:U:OP1	2.30	0.45
46:CM:711:U:OP1	46:CM:713:U:N3	2.49	0.45
46:CM:1457:A:H5'	52:CS:185:ARG:HG2	1.97	0.45
46:CM:1477:U:H4'	46:CM:1478:A:H5'	1.98	0.45
48:CO:28:ASP:O	48:CO:29:TRP:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CO:57:ALA:O	48:CO:61:LEU:HD13	2.16	0.45
50:CQ:183:LEU:HD23	50:CQ:183:LEU:H	1.80	0.45
52:CS:186:ASN:HD21	52:CS:188:LYS:HD2	1.81	0.45
54:CU:137:ARG:NH2	68:DJ:49:GLU:OE2	2.48	0.45
59:DA:127:ARG:O	59:DA:131:THR:HG23	2.16	0.45
62:DD:28:ILE:HG22	62:DD:64:ILE:HB	1.96	0.45
64:DF:41:ARG:NH2	65:DG:36:ILE:O	2.48	0.45
70:DL:20:ARG:HA	70:DL:76:TYR:HA	1.98	0.45
80:P0:92:ASP:OD1	80:P0:93:LEU:N	2.49	0.45
82:L1:60:ARG:HB2	82:L1:63:MET:HE3	1.96	0.45
1:1:1018:U:H2'	1:1:1019:U:C5	2.51	0.45
1:1:1104:U:H2'	1:1:1105:U:H6	1.81	0.45
1:1:2342:G:H22	1:1:2374:G:H1'	1.81	0.45
1:1:3024:G:H2'	1:1:3025:G:H8	1.80	0.45
5:k:160:VAL:HB	5:k:183:ILE:HD11	1.98	0.45
46:B:221:U:O2'	46:B:222:C:H5"	2.15	0.45
46:B:788:A:C8	68:Y:107:SER:HA	2.51	0.45
46:B:804:U:H2'	46:B:805:U:H5	1.80	0.45
46:B:1332:U:OP1	66:W:22:ARG:NH2	2.41	0.45
62:S:45:PHE:HA	62:S:48:TYR:HB2	1.98	0.45
78:AR:22:SER:OG	78:AR:72:VAL:N	2.48	0.45
78:AR:67:HIS:CG	78:AR:68:ILE:H	2.34	0.45
78:AR:102:GLN:NE2	78:AR:139:GLY:HA3	2.31	0.45
1:AS:158:A:H2'	1:AS:159:A:H8	1.81	0.45
1:AS:479:C:H2'	1:AS:480:G:C8	2.51	0.45
1:AS:605:U:OP2	8:BA:21:ARG:HG2	2.16	0.45
1:AS:640:U:OP1	29:BV:22:ILE:HG23	2.15	0.45
1:AS:943:G:H2'	1:AS:944:C:C6	2.52	0.45
1:AS:1030:U:H2'	1:AS:1031:A:H8	1.81	0.45
1:AS:2074:A:H2'	1:AS:2075:U:C6	2.51	0.45
1:AS:2814:U:H2'	1:AS:2814:U:O2	2.15	0.45
1:AS:3336:G:H2'	1:AS:3337:A:H8	1.81	0.45
6:AY:186:LYS:HE3	6:AY:200:PHE:HB3	1.97	0.45
11:BD:161:ILE:O	11:BD:164:ILE:HG22	2.17	0.45
12:BE:17:TYR:H	12:BE:95:HIS:CD2	2.34	0.45
17:BJ:97:LYS:O	17:BJ:101:GLU:HG2	2.16	0.45
28:BU:46:ILE:HG23	28:BU:68:VAL:HG13	1.97	0.45
46:CM:703:U:H2'	46:CM:704:A:N7	2.32	0.45
46:CM:938:G:H2'	46:CM:939:G:C8	2.51	0.45
46:CM:1219:A:O2'	77:DS:182:TYR:OH	2.15	0.45
53:CT:218:GLU:HG2	53:CT:219:ARG:NH2	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CU:30:LEU:HD12	54:CU:34:LEU:HD21	1.98	0.45
57:CX:25:LYS:HD2	57:CX:59:PHE:CZ	2.52	0.45
57:CX:46:LEU:HD23	57:CX:66:TYR:CG	2.51	0.45
78:DT:200:THR:HG21	78:DT:241:ALA:HA	1.99	0.45
82:l1:17:LEU:O	82:l1:21:THR:N	2.49	0.45
80:p0:5:ARG:HB3	80:p0:9:VAL:HG21	1.99	0.45
1:1:7:C:H2'	1:1:8:U:C6	2.51	0.45
1:1:130:U:H2'	1:1:131:C:H6	1.82	0.45
1:1:268:A:C4	16:v:12:ARG:HG2	2.51	0.45
1:1:273:A:H2'	1:1:274:G:H8	1.80	0.45
1:1:429:U:H5"	34:AG:87:LYS:HE3	1.99	0.45
1:1:484:U:H2'	1:1:485:A:C8	2.50	0.45
1:1:1255:A:H8	1:1:1255:A:OP1	1.99	0.45
1:1:1313:A:O2'	1:1:1314:A:H3'	2.17	0.45
1:1:1713:U:H2'	1:1:1714:G:H8	1.81	0.45
1:1:1852:C:C2	1:1:1853:C:C5	3.04	0.45
1:1:1902:G:H1'	1:1:1904:A:N6	2.31	0.45
5:k:145:GLU:OE2	5:k:196:LYS:HE2	2.15	0.45
8:n:6:PRO:HB3	33:AF:93:TYR:CE1	2.51	0.45
10:p:201:LEU:HD23	10:p:203:GLU:H	1.82	0.45
35:AH:20:ILE:HG22	35:AH:34:HIS:CD2	2.52	0.45
46:B:378:U:H4'	56:L:2:PRO:HD2	1.98	0.45
46:B:870:G:P	48:D:136:ARG:HH11	2.39	0.45
46:B:1277:G:H2'	46:B:1278:U:C6	2.52	0.45
46:B:1516:C:H2'	46:B:1517:C:C6	2.51	0.45
54:J:4:LYS:NZ	54:J:34:LEU:O	2.49	0.45
57:M:56:LYS:NZ	57:M:69:THR:HG22	2.31	0.45
70:a:42:GLU:HG3	70:a:52:LYS:HE3	1.99	0.45
75:f:12:ARG:HB2	75:f:12:ARG:HH11	1.80	0.45
1:AS:1456:A:H2'	1:AS:1457:A:H8	1.81	0.45
1:AS:2655:U:H2'	1:AS:2656:C:H6	1.79	0.45
3:AU:5:U:H2'	3:AU:6:U:H6	1.81	0.45
11:BD:8:GLN:HB3	11:BD:72:LYS:HD2	1.96	0.45
46:CM:1:U:H1'	49:CP:174:VAL:HG13	1.98	0.45
46:CM:497:U:H2'	46:CM:498:C:C6	2.51	0.45
46:CM:1232:U:H2'	46:CM:1233:C:C6	2.51	0.45
46:CM:1749:A:H1'	46:CM:1770:C:H5'	1.99	0.45
56:CW:36:LEU:HD11	56:CW:105:LEU:HD21	1.99	0.45
80:p0:51:VAL:HG12	80:p0:53:MET:HG2	1.97	0.45
1:1:130:U:H2'	1:1:131:C:C6	2.50	0.45
1:1:798:C:C2	1:1:799:C:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:814:C:H2'	1:1:815:U:O4'	2.16	0.45
1:1:976:A:C2'	1:1:977:U:H5'	2.45	0.45
1:1:2408:A:H2'	1:1:2409:C:H6	1.80	0.45
1:1:2651:A:O2'	13:s:52:TYR:OH	2.33	0.45
11:q:173:ARG:HH11	41:AN:50:LYS:C	2.24	0.45
12:r:77:THR:HG22	12:r:82:ARG:HA	1.98	0.45
13:s:132:GLY:HA2	13:s:154:THR:HG21	1.97	0.45
46:B:1:U:C2	46:B:3:U:C4	3.04	0.45
46:B:485:G:C2	46:B:486:G:C8	3.04	0.45
46:B:600:U:H2'	46:B:601:U:C6	2.52	0.45
46:B:1083:U:OP1	49:E:154:THR:OG1	2.33	0.45
46:B:1293:G:H2'	46:B:1294:C:C6	2.52	0.45
46:B:1546:G:H5"	64:U:135:GLY:HA3	1.99	0.45
46:B:1595:U:O3'	62:S:72:GLY:HA3	2.17	0.45
46:B:1609:G:H2'	46:B:1610:C:H6	1.82	0.45
68:Y:77:PRO:HD2	68:Y:79:PHE:CZ	2.51	0.45
1:AS:629:A:H2'	1:AS:630:G:C8	2.51	0.45
1:AS:859:C:H2'	1:AS:860:G:O4'	2.16	0.45
1:AS:2260:U:O2	1:AS:2288:U:H4'	2.16	0.45
1:AS:2384:C:H2'	1:AS:2385:C:H6	1.82	0.45
21:BN:171:PHE:O	21:BN:172:TYR:HB2	2.16	0.45
30:BW:20:GLY:HA3	30:BW:21:ILE:HA	1.77	0.45
30:BW:28:LYS:HG2	30:BW:29:TYR:CD1	2.52	0.45
30:BW:28:LYS:HG2	30:BW:29:TYR:CE1	2.51	0.45
46:CM:695:C:H1'	46:CM:696:U:P	2.57	0.45
46:CM:736:G:H2'	46:CM:737:A:H8	1.81	0.45
46:CM:815:U:O2'	46:CM:816:U:C6	2.68	0.45
46:CM:1757:U:H2'	46:CM:1758:U:C6	2.52	0.45
46:CM:1780:G:N2	72:DN:76:SER:OG	2.46	0.45
46:CM:1784:A:H5'	72:DN:95:ARG:HG2	1.96	0.45
54:CU:51:LYS:HB3	54:CU:85:HIS:CD2	2.52	0.45
56:CW:66:ASP:OD1	56:CW:67:PRO:HD2	2.17	0.45
63:DE:81:LYS:N	63:DE:83:GLN:OE1	2.50	0.45
65:DG:66:TYR:HE1	65:DG:129:GLN:HG2	1.81	0.45
78:DT:271:LEU:HD21	78:DT:310:TRP:CD2	2.52	0.45
82:l1:3:LYS:HG3	82:l1:217:TYR:CE1	2.51	0.45
1:1:88:G:H21	1:1:281:G:H4'	1.82	0.45
1:1:925:A:H2'	1:1:926:U:C6	2.51	0.45
1:1:1007:A:H2'	1:1:1008:A:C8	2.52	0.45
1:1:1253:C:OP1	81:12:123:LYS:HG3	2.16	0.45
1:1:1754:G:H2'	1:1:1755:U:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2437:A:H3'	1:1:2438:U:H5"	1.99	0.45
1:1:2808:C:H4'	12:r:157:TYR:CD2	2.51	0.45
2:3:85:G:H1'	9:o:218:GLN:NE2	2.32	0.45
6:l:30:PRO:HB3	19:y:25:TYR:HE2	1.81	0.45
20:z:176:ARG:NH2	46:B:838:G:OP2	2.49	0.45
44:AQ:32:GLN:HE21	44:AQ:70:THR:CG2	2.30	0.45
46:B:1668:A:N6	46:B:1707:G:O2'	2.49	0.45
62:S:27:LEU:HD11	62:S:29:LYS:NZ	2.32	0.45
1:AS:178:U:H2'	1:AS:179:C:H6	1.81	0.45
1:AS:385:A:H2'	1:AS:386:A:C8	2.51	0.45
1:AS:478:G:C6	1:AS:479:C:N4	2.85	0.45
1:AS:716:G:O2'	1:AS:717:A:OP1	2.29	0.45
1:AS:1385:G:O6	6:AY:187:LYS:NZ	2.38	0.45
1:AS:1568:U:C4	1:AS:1569:C:H1'	2.52	0.45
1:AS:2435:G:H2'	1:AS:2437:A:N7	2.32	0.45
1:AS:3079:U:H2'	1:AS:3080:G:H8	1.82	0.45
1:AS:3285:A:H2'	1:AS:3286:C:H6	1.81	0.45
6:AY:284:ASN:HB3	6:AY:290:LEU:HD11	1.99	0.45
12:BE:44:ASP:OD1	12:BE:181:TYR:OH	2.20	0.45
22:BO:52:MET:HA	22:BO:95:HIS:CE1	2.51	0.45
45:CL:122:THR:OG1	50:CQ:125:ARG:HG3	2.16	0.45
46:CM:753:C:C2	56:CW:143:ILE:HG21	2.52	0.45
46:CM:815:U:O2'	46:CM:816:U:H6	2.00	0.45
48:CO:81:TYR:HB2	48:CO:109:LYS:HG2	1.97	0.45
80:p0:41:ILE:O	80:p0:45:LEU:HD23	2.16	0.45
80:p0:64:ARG:HD2	80:p0:67:LEU:HD12	1.98	0.45
1:1:762:U:H4'	1:1:763:U:O4'	2.16	0.45
1:1:1559:C:O2'	1:1:1560:U:OP1	2.26	0.45
1:1:2079:C:O2'	1:1:2080:U:H6	1.99	0.45
1:1:2345:A:H2'	1:1:2346:A:H8	1.80	0.45
11:q:49:ASN:ND2	11:q:51:ARG:H	2.15	0.45
17:w:11:ASP:HB2	17:w:118:ARG:HB3	1.98	0.45
46:B:461:U:H2'	46:B:462:A:C8	2.51	0.45
61:R:25:LEU:HG	61:R:87:PRO:HB3	1.98	0.45
65:V:108:LEU:HD12	65:V:108:LEU:HA	1.81	0.45
73:d:36:LYS:HZ1	73:d:43:ILE:HD13	1.81	0.45
1:AS:412:G:H5'	18:BK:26:PHE:HZ	1.82	0.45
1:AS:1434:U:H4'	6:AY:89:ALA:CB	2.46	0.45
1:AS:1747:G:H5'	39:CF:26:LYS:HE2	1.99	0.45
1:AS:1909:A:N3	1:AS:2098:A:H2'	2.31	0.45
1:AS:2239:G:H21	1:AS:2240:A:N6	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2927:U:H2'	1:AS:2928:A:O4'	2.17	0.45
1:AS:2957:C:H2'	1:AS:2958:U:H6	1.81	0.45
1:AS:3208:A:OP1	17:BJ:160:LYS:NZ	2.36	0.45
4:AW:47:GLN:HG2	4:AW:49:ILE:HG23	1.98	0.45
7:AZ:178:ASN:HA	7:AZ:183:TRP:CD2	2.51	0.45
10:BC:79:PHE:HA	10:BC:180:ILE:HD13	1.97	0.45
15:BH:65:LEU:HD12	15:BH:77:LYS:HD2	1.98	0.45
28:BU:50:PRO:HD3	28:BU:68:VAL:HG22	1.99	0.45
46:CM:652:C:N4	46:CM:654:G:C6	2.85	0.45
46:CM:1029:U:H2'	46:CM:1030:C:C6	2.51	0.45
46:CM:1092:G:O2'	46:CM:1093:G:H5'	2.16	0.45
50:CQ:124:LEU:HD21	50:CQ:153:TYR:O	2.15	0.45
53:CT:126:ASP:OD1	53:CT:127:THR:N	2.49	0.45
61:DC:33:PHE:CZ	61:DC:112:VAL:HG22	2.51	0.45
64:DF:25:ARG:H	64:DF:25:ARG:HG2	1.58	0.45
81:12:151:ILE:H	81:12:151:ILE:HD12	1.81	0.45
82:L1:9:VAL:HG22	82:L1:216:ILE:CG2	2.46	0.45
1:1:430:G:H2'	1:1:431:A:H8	1.81	0.45
1:1:1237:U:N3	1:1:1240:A:OP2	2.47	0.45
1:1:1478:A:H4'	1:1:1479:G:OP2	2.17	0.45
1:1:1612:U:H2'	1:1:1613:G:C8	2.51	0.45
1:1:2197:A:H2'	1:1:2198:A:C8	2.52	0.45
5:k:95:THR:OG1	5:k:98:GLY:O	2.32	0.45
6:l:142:ARG:HB3	6:l:177:LYS:HE2	1.97	0.45
7:m:94:ASN:ND2	7:m:204:VAL:HG21	2.31	0.45
11:q:86:TYR:CE2	11:q:151:LEU:HB2	2.51	0.45
13:s:109:HIS:ND1	13:s:114:ILE:HD11	2.31	0.45
28:AA:119:GLU:O	28:AA:123:GLN:HG2	2.17	0.45
45:i:107:TRP:CH2	50:F:143:LEU:HD13	2.51	0.45
46:B:972:G:N2	46:B:998:A:OP1	2.48	0.45
46:B:1672:G:C2	46:B:1673:U:C2	3.04	0.45
48:D:61:LEU:HD21	48:D:96:LEU:HD21	1.99	0.45
57:M:22:VAL:O	57:M:32:HIS:NE2	2.33	0.45
77:h:178:LYS:HB3	77:h:179:ASP:H	1.50	0.45
1:AS:185:U:H3	1:AS:229:C:N4	2.06	0.45
1:AS:275:U:H2'	1:AS:276:U:C6	2.52	0.45
1:AS:283:G:O6	1:AS:304:G:H1'	2.16	0.45
1:AS:297:G:H5'	37:CD:84:ARG:NH2	2.31	0.45
1:AS:364:G:OP1	6:AY:61:THR:HG23	2.16	0.45
1:AS:1247:A:H3'	1:AS:1248:A:H5"	1.99	0.45
1:AS:1569:C:H2'	1:AS:1570:A:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1761:U:H5	20:BM:43:LYS:HE3	1.80	0.45
1:AS:2515:G:H1'	1:AS:2516:U:O4'	2.17	0.45
1:AS:2581:A:H2'	1:AS:2582:G:H8	1.81	0.45
1:AS:2936:G:N2	1:AS:2939:A:OP2	2.44	0.45
1:AS:3167:G:C6	1:AS:3168:U:C4	3.04	0.45
3:AU:37:A:OP2	36:CC:86:ARG:HD2	2.16	0.45
12:BE:38:ARG:NH2	12:BE:45:GLU:OE1	2.50	0.45
13:BF:32:ARG:NH1	13:BF:120:ILE:O	2.50	0.45
15:BH:14:GLU:HG2	15:BH:17:ARG:CG	2.45	0.45
19:BL:176:ARG:N	29:BV:51:GLY:HA2	2.32	0.45
31:BX:26:THR:OG1	31:BX:93:SER:OG	2.35	0.45
46:CM:138:C:O4'	53:CT:179:VAL:HG11	2.16	0.45
46:CM:1396:A:O2'	46:CM:1397:A:OP1	2.29	0.45
46:CM:1512:A:H2'	46:CM:1513:A:C8	2.51	0.45
48:CO:120:LEU:HD13	48:CO:142:PHE:CE2	2.51	0.45
56:CW:77:ILE:HG21	56:CW:91:MET:HB3	1.98	0.45
79:CZ:69:GLU:OE2	79:CZ:73:LYS:HE3	2.15	0.45
70:DL:10:ARG:NH1	70:DL:26:ASP:OD2	2.45	0.45
80:P0:55:LYS:HB2	80:P0:55:LYS:HE3	1.67	0.45
82:l1:21:THR:CA	82:l1:25:LYS:HE3	2.46	0.45
1:1:947:A:H5"	1:1:1139:A:N1	2.32	0.45
1:1:2381:G:H2'	1:1:2842:C:O2'	2.17	0.45
1:1:2557:G:H2'	1:1:2557:G:N3	2.32	0.45
1:1:2598:A:N3	1:1:2616:C:H5'	2.31	0.45
1:1:2720:A:H1'	7:m:36:LEU:HD23	1.98	0.45
1:1:2807:U:O2'	1:1:2808:C:OP1	2.33	0.45
42:AO:7:LYS:HD3	42:AO:11:ARG:NH2	2.32	0.45
46:B:4:C:H5	46:B:20:G:N1	2.13	0.45
46:B:160:A:H3'	46:B:161:G:H21	1.81	0.45
46:B:700:G:C2	46:B:701:G:C5	3.04	0.45
46:B:746:G:O2'	56:L:72:GLU:OE2	2.26	0.45
46:B:1218:G:N2	46:B:1238:U:H1'	2.32	0.45
50:F:159:ILE:HG23	50:F:165:THR:HG22	1.99	0.45
1:AS:108:A:O2'	1:AS:323:A:N6	2.50	0.45
1:AS:412:G:H2'	1:AS:413:U:C6	2.52	0.45
1:AS:473:C:H6	1:AS:473:C:O5'	1.99	0.45
1:AS:707:A:N3	1:AS:2759:G:O2'	2.47	0.45
1:AS:976:A:H2	1:AS:1100:G:H21	1.65	0.45
1:AS:1286:A:H2'	1:AS:1287:A:C8	2.51	0.45
1:AS:1560:U:H3	1:AS:1571:G:H1	1.64	0.45
1:AS:1742:U:O2'	39:CF:4:GLU:OE2	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2078:A:H3'	1:AS:2078:A:N3	2.32	0.45
1:AS:2269:A:H2'	1:AS:2270:U:C6	2.52	0.45
1:AS:2659:G:H4'	7:AZ:7:PHE:CE2	2.50	0.45
1:AS:2679:U:H2'	1:AS:2680:C:C6	2.52	0.45
3:AU:37:A:H5"	3:AU:39:G:O4'	2.16	0.45
4:AW:79:ASN:ND2	4:AW:165:VAL:HG12	2.32	0.45
7:AZ:83:LEU:HB3	7:AZ:88:ILE:HB	1.99	0.45
19:BL:133:LYS:HB2	19:BL:135:GLN:NE2	2.31	0.45
32:BY:45:THR:HG22	32:BY:47:ASP:N	2.29	0.45
45:CL:98:ASP:N	45:CL:98:ASP:OD1	2.49	0.45
45:CL:120:GLU:HG2	50:CQ:118:ARG:HE	1.81	0.45
46:CM:880:G:O2'	60:DB:33:THR:N	2.36	0.45
46:CM:938:G:H2'	46:CM:939:G:H8	1.82	0.45
46:CM:1485:G:H2'	46:CM:1486:G:H8	1.81	0.45
54:CU:14:GLU:HG2	54:CU:42:ILE:HG13	1.97	0.45
66:DH:82:GLU:OE1	66:DH:84:ARG:NE	2.46	0.45
1:1:242:C:O2'	1:1:243:G:H8	2.00	0.45
1:1:800:C:OP1	6:l:99:ARG:NH2	2.50	0.45
1:1:2478:A:N3	1:1:2478:A:H2'	2.32	0.45
1:1:2502:A:H1'	1:1:2503:G:C8	2.52	0.45
1:1:2857:C:O2'	1:1:2858:U:H5'	2.17	0.45
3:4:83:U:H4'	3:4:85:G:N3	2.31	0.45
10:p:261:SER:HB3	48:D:225:LEU:HB3	1.99	0.45
12:r:31:ILE:HA	12:r:66:GLU:OE1	2.16	0.45
13:s:28:ASP:OD2	13:s:32:ARG:NH2	2.50	0.45
34:AG:42:LYS:HA	34:AG:45:LEU:HG	1.98	0.45
46:B:473:A:OP1	56:L:126:ARG:HD3	2.17	0.45
46:B:650:G:C4	46:B:678:A:C6	3.05	0.45
46:B:885:A:H2'	46:B:886:G:H8	1.82	0.45
46:B:1238:U:C2	46:B:1239:U:C5	3.05	0.45
46:B:1431:G:O2'	77:h:127:TYR:OH	2.27	0.45
57:M:47:GLN:O	57:M:51:SER:HB3	2.16	0.45
70:a:123:ARG:HG2	70:a:127:LYS:HE2	1.99	0.45
1:AS:243:G:H2'	1:AS:244:G:C8	2.51	0.45
1:AS:283:G:O2'	43:CJ:38:GLN:NE2	2.48	0.45
1:AS:1754:G:H2'	1:AS:1755:U:O4'	2.17	0.45
1:AS:2418:A:H2'	1:AS:2419:A:C8	2.51	0.45
1:AS:2423:A:H4'	37:CD:61:ARG:HB3	1.97	0.45
1:AS:2434:A:N6	1:AS:2439:A:H62	2.13	0.45
1:AS:2855:U:H2'	1:AS:2856:C:H6	1.82	0.45
1:AS:2933:G:H2'	1:AS:2934:U:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3295:A:H4'	5:AX:366:GLY:HA3	1.99	0.45
3:AU:142:C:H2'	3:AU:143:U:C6	2.51	0.45
6:AY:316:LYS:HD3	6:AY:321:ASN:ND2	2.32	0.45
23:BP:90:ASN:O	23:BP:92:ILE:HG13	2.17	0.45
28:BU:101:LEU:HB3	28:BU:107:ARG:NH2	2.32	0.45
46:CM:154:A:H2'	46:CM:155:A:O4'	2.17	0.45
46:CM:484:G:H2'	46:CM:485:G:C8	2.51	0.45
46:CM:559:G:H2'	46:CM:560:G:H8	1.82	0.45
46:CM:565:A:H1'	76:DR:14:VAL:HG23	1.99	0.45
46:CM:1083:U:OP1	49:CP:154:THR:OG1	2.23	0.45
46:CM:1325:U:O4	62:DD:8:THR:HA	2.16	0.45
46:CM:1344:C:OP1	65:DG:130:ARG:HG3	2.17	0.45
49:CP:160:VAL:HG11	49:CP:205:THR:HA	1.99	0.45
51:CR:51:ARG:HD3	51:CR:51:ARG:HA	1.69	0.45
75:DQ:20:GLN:C	75:DQ:30:LEU:HD21	2.41	0.45
78:DT:25:THR:HG21	78:DT:291:TRP:O	2.16	0.45
78:DT:260:PHE:CE2	78:DT:267:LEU:HD13	2.52	0.45
1:1:842:A:N6	46:B:956:A:N1	2.64	0.45
1:1:1303:G:C4	17:w:61:LYS:HD3	2.52	0.45
1:1:1661:U:H2'	1:1:1662:G:H8	1.81	0.45
1:1:2136:A:O2'	4:j:118:GLU:OE1	2.24	0.45
1:1:2738:U:H2'	1:1:2739:U:C6	2.52	0.45
1:1:3038:U:H2'	1:1:3039:C:C6	2.52	0.45
14:t:173:ARG:HA	14:t:173:ARG:HD2	1.86	0.45
23:5:61:ASP:OD1	23:5:61:ASP:N	2.42	0.45
46:B:94:U:O2'	51:G:8:HIS:ND1	2.47	0.45
46:B:415:A:H5'	46:B:416:G:C5	2.52	0.45
46:B:913:U:OP1	72:c:19:LYS:HE3	2.17	0.45
46:B:1596:U:OP1	62:S:75:SER:N	2.41	0.45
49:E:44:LYS:HA	49:E:44:LYS:HD3	1.77	0.45
78:AR:44:LYS:NZ	78:AR:95:LEU:O	2.37	0.45
1:AS:997:G:O2'	1:AS:1037:U:OP2	2.32	0.45
1:AS:1029:U:H2'	1:AS:1030:U:C6	2.53	0.45
1:AS:1231:U:H1'	1:AS:1233:G:OP2	2.17	0.45
1:AS:1382:A:H5"	6:AY:142:ARG:HH21	1.82	0.45
1:AS:2645:A:H5"	13:BF:95:ASN:ND2	2.31	0.45
1:AS:2785:A:H2'	1:AS:2786:G:O4'	2.17	0.45
1:AS:2919:G:C2	5:AX:250:ALA:HB1	2.52	0.45
1:AS:2957:C:H2'	1:AS:2958:U:C6	2.51	0.45
2:AT:84:A:H2'	2:AT:85:G:C8	2.52	0.45
4:AW:54:ARG:HG2	4:AW:56:ALA:H	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AX:260:VAL:HG11	5:AX:266:ARG:HH11	1.82	0.45
14:BG:83:VAL:HG23	14:BG:85:ILE:HG13	1.98	0.45
21:BN:12:ARG:HB3	21:BN:24:LEU:HD23	1.99	0.45
46:CM:498:C:C2	46:CM:499:U:C6	3.04	0.45
46:CM:852:G:H21	59:DA:87:ASP:CG	2.24	0.45
46:CM:857:G:H2'	46:CM:858:U:O4'	2.17	0.45
46:CM:1206:A:H2'	46:CM:1207:C:O4'	2.16	0.45
46:CM:1396:A:HO2'	46:CM:1397:A:P	2.39	0.45
54:CU:29:ASP:OD1	54:CU:30:LEU:N	2.49	0.45
58:CY:36:LYS:HE2	58:CY:36:LYS:HB3	1.86	0.45
63:DE:89:SER:C	63:DE:91:LEU:N	2.75	0.45
77:DS:142:LEU:HB3	77:DS:145:LEU:HG	1.99	0.45
78:DT:200:THR:OG1	78:DT:240:LEU:O	2.35	0.45
1:1:19:A:H2'	1:1:20:G:C8	2.52	0.44
1:1:150:A:C5	1:1:151:U:C5	3.05	0.44
1:1:487:C:H2'	1:1:488:G:O4'	2.17	0.44
1:1:590:A:H5'	8:n:16:ALA:O	2.16	0.44
1:1:1562:G:C4	1:1:1563:A:H1'	2.52	0.44
1:1:2111:U:O4	1:1:2125:A:H2	2.00	0.44
1:1:2394:U:H2'	1:1:2395:U:C6	2.52	0.44
1:1:3225:G:OP2	15:u:121:ARG:NH1	2.50	0.44
4:j:112:ILE:HG13	44:AQ:79:VAL:HG22	1.98	0.44
8:n:166:LYS:HZ1	34:AG:4:SER:HB3	1.82	0.44
9:o:108:GLN:HG3	9:o:111:ALA:HB2	1.99	0.44
39:AL:58:ASP:OD1	39:AL:61:LYS:N	2.38	0.44
46:B:165:U:H2'	46:B:166:A:H5"	1.97	0.44
46:B:213:A:H2'	46:B:214:U:H5'	1.99	0.44
46:B:840:A:O2'	46:B:841:A:H3'	2.17	0.44
46:B:1042:U:C5	46:B:1048:U:C4	3.05	0.44
46:B:1654:A:H2'	46:B:1655:G:C8	2.52	0.44
51:G:150:PRO:O	53:I:208:TYR:HE1	2.00	0.44
55:K:113:TYR:OH	55:K:156:ALA:O	2.33	0.44
60:Q:101:ALA:HB2	72:c:53:LEU:HD23	1.99	0.44
62:S:46:LYS:HD2	62:S:46:LYS:HA	1.77	0.44
63:T:100:LEU:HB3	63:T:102:ILE:HG23	1.99	0.44
65:V:74:GLY:HA2	65:V:77:ASN:HD22	1.82	0.44
71:b:84:GLU:OE1	71:b:94:LYS:NZ	2.50	0.44
72:c:51:ARG:O	72:c:55:GLU:HG3	2.16	0.44
78:AR:38:ARG:HB3	78:AR:68:ILE:HG12	1.99	0.44
1:AS:1006:G:N2	12:BE:193:ASP:O	2.38	0.44
1:AS:1496:G:H2'	1:AS:1497:U:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1852:C:H2'	1:AS:1853:C:H6	1.81	0.44
1:AS:2481:G:H2'	1:AS:2482:U:H6	1.82	0.44
1:AS:3322:U:H2'	1:AS:3323:U:C6	2.52	0.44
5:AX:256:HIS:HA	5:AX:257:PRO:C	2.42	0.44
13:BF:86:VAL:HG21	13:BF:112:LEU:HD22	1.98	0.44
21:BN:92:LYS:HE2	21:BN:109:ASP:OD2	2.18	0.44
33:BZ:10:ILE:HA	33:BZ:64:THR:HG21	1.98	0.44
46:CM:520:U:H2'	46:CM:521:G:O4'	2.17	0.44
46:CM:1571:G:N2	46:CM:1598:A:OP2	2.28	0.44
47:CN:48:ILE:HG21	47:CN:161:PRO:HB2	1.98	0.44
49:CP:165:ILE:HB	49:CP:192:TYR:HB2	1.99	0.44
52:CS:91:GLU:HA	52:CS:94:THR:HG22	1.99	0.44
81:12:130:LYS:HD3	81:12:133:LEU:HD12	1.98	0.44
81:12:153:ASP:HA	81:12:156:ASN:CB	2.47	0.44
82:l1:87:VAL:HB	82:l1:91:LYS:NZ	2.32	0.44
1:1:278:U:H2'	1:1:279:U:C6	2.52	0.44
1:1:619:A:H8	1:1:619:A:OP2	2.00	0.44
1:1:941:C:H2'	1:1:942:U:H6	1.80	0.44
1:1:1916:U:O2'	1:1:1928:A:N7	2.45	0.44
1:1:2339:A:H2'	1:1:2340:C:C6	2.53	0.44
1:1:2686:G:H4'	1:1:2687:A:H5"	1.99	0.44
1:1:2753:U:H2'	1:1:2754:U:C6	2.52	0.44
6:l:181:LYS:O	6:l:185:SER:HB3	2.17	0.44
13:s:53:THR:HG23	13:s:60:ARG:HA	1.99	0.44
25:7:112:ASP:HB3	46:B:278:U:O4	2.16	0.44
32:AE:78:ARG:HA	32:AE:88:LEU:HD23	1.99	0.44
46:B:74:U:O2'	46:B:76:A:OP1	2.33	0.44
46:B:191:U:H4'	46:B:192:U:H5'	1.98	0.44
46:B:217:A:N6	46:B:828:U:H1'	2.33	0.44
46:B:327:G:H2'	46:B:328:G:H8	1.82	0.44
46:B:770:C:H6	46:B:770:C:OP1	2.00	0.44
46:B:1283:U:H2'	46:B:1284:G:O4'	2.17	0.44
46:B:1396:A:HO2'	46:B:1397:A:P	2.40	0.44
55:K:67:TRP:NE1	55:K:191:GLU:OE2	2.49	0.44
57:M:50:THR:HB	57:M:55:VAL:HG23	2.00	0.44
1:AS:158:A:H2'	1:AS:159:A:C8	2.51	0.44
1:AS:907:C:OP1	4:AW:14:SER:OG	2.35	0.44
1:AS:907:C:OP2	4:AW:9:ARG:HD2	2.17	0.44
1:AS:2852:U:H1'	5:AX:250:ALA:HB3	1.99	0.44
1:AS:2854:U:H2'	1:AS:2855:U:H6	1.82	0.44
13:BF:62:ASN:O	43:CJ:103:ALA:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BG:155:GLU:OE1	29:BV:126:LYS:NZ	2.38	0.44
15:BH:57:LEU:HG	21:BN:172:TYR:OH	2.17	0.44
21:BN:5:ASN:HB2	21:BN:7:TYR:CE1	2.52	0.44
24:BQ:32:ARG:NH2	46:CM:1722:U:OP1	2.50	0.44
46:CM:69:G:P	70:DL:123:ARG:HH12	2.39	0.44
46:CM:871:U:O2'	60:DB:116:VAL:O	2.32	0.44
46:CM:985:C:H6	46:CM:988:A:H8	1.64	0.44
48:CO:53:GLY:C	48:CO:55:LYS:H	2.24	0.44
50:CQ:173:ILE:HG12	50:CQ:186:LYS:HZ2	1.82	0.44
52:CS:116:HIS:O	52:CS:120:ILE:HG13	2.17	0.44
79:CZ:41:LEU:HA	79:CZ:122:VAL:O	2.17	0.44
60:DB:120:SER:HB2	60:DB:121:THR:H	1.54	0.44
78:DT:259:ILE:HG13	78:DT:268:LEU:HB3	1.99	0.44
1:1:122:A:C6	1:1:149:A:C5	3.05	0.44
1:1:567:G:OP2	6:l:349:LYS:HE2	2.17	0.44
1:1:780:A:H2'	1:1:780:A:N3	2.31	0.44
1:1:1617:A:H2'	1:1:1618:U:H6	1.82	0.44
1:1:2367:C:O2'	1:1:3272:A:N1	2.47	0.44
1:1:2469:A:H5'	1:1:2470:C:OP2	2.18	0.44
1:1:2672:G:H5"	22:2:17:ARG:HG2	1.98	0.44
1:1:2732:C:N3	43:AP:63:LYS:HE3	2.31	0.44
1:1:3319:U:H5"	1:1:3320:U:H3'	1.98	0.44
3:4:145:U:H2'	3:4:146:U:C6	2.53	0.44
12:r:179:ASP:OD1	12:r:180:GLU:N	2.50	0.44
31:AD:101:ASP:OD1	31:AD:101:ASP:N	2.48	0.44
40:AM:27:ILE:O	40:AM:33:ASN:ND2	2.50	0.44
46:B:1552:C:H5"	64:U:41:ARG:HG2	1.99	0.44
48:D:59:ASP:OD1	48:D:60:GLY:N	2.49	0.44
53:I:161:GLU:HA	53:I:170:THR:HA	1.99	0.44
62:S:22:LYS:HB3	62:S:63:ASP:OD1	2.18	0.44
1:AS:649:G:C6	1:AS:650:G:C6	3.05	0.44
1:AS:675:A:N6	1:AS:782:A:O4'	2.50	0.44
1:AS:911:A:H8	1:AS:2114:C:O2'	2.00	0.44
1:AS:966:A:OP1	30:BW:18:ARG:HD2	2.16	0.44
1:AS:1502:A:H1'	1:AS:1844:G:O6	2.17	0.44
1:AS:2430:G:O2'	1:AS:2431:U:OP2	2.32	0.44
1:AS:3061:C:H2'	1:AS:3062:U:O4'	2.17	0.44
3:AU:6:U:H2'	3:AU:7:U:H6	1.82	0.44
6:AY:238:GLN:O	6:AY:247:ARG:NH1	2.43	0.44
10:BC:90:GLN:O	10:BC:93:LYS:HG2	2.17	0.44
39:CF:73:LEU:CD1	39:CF:75:ILE:HG23	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:487:C:O2	46:CM:496:G:C2	2.71	0.44
46:CM:650:G:H2'	46:CM:678:A:N1	2.32	0.44
46:CM:688:G:C2	46:CM:689:C:C6	3.04	0.44
46:CM:722:A:C6	46:CM:723:G:C6	3.06	0.44
46:CM:737:A:H2	46:CM:781:G:H22	1.66	0.44
46:CM:804:U:H2'	46:CM:805:U:H5	1.82	0.44
46:CM:840:A:C2	46:CM:842:U:H1'	2.52	0.44
46:CM:944:U:H5"	59:DA:14:SER:HB3	2.00	0.44
46:CM:1470:G:H2'	46:CM:1471:C:C6	2.53	0.44
46:CM:1470:G:H2'	46:CM:1471:C:H6	1.83	0.44
46:CM:1472:G:N2	46:CM:1580:A:OP1	2.38	0.44
46:CM:1663:U:H5"	55:CV:58:LEU:HD21	1.99	0.44
47:CN:48:ILE:CG2	47:CN:161:PRO:HB2	2.47	0.44
49:CP:74:ASP:OD2	49:CP:181:ARG:NE	2.50	0.44
52:CS:166:ARG:HB2	74:DP:46:GLY:HA3	1.98	0.44
53:CT:203:ASP:O	53:CT:207:GLU:HG3	2.17	0.44
53:CT:229:LYS:HB3	53:CT:229:LYS:HE3	1.58	0.44
66:DH:62:LEU:HB2	66:DH:83:MET:HB3	1.99	0.44
76:DR:28:LYS:HD2	76:DR:31:GLN:HE22	1.81	0.44
81:12:143:VAL:HG21	81:12:148:PRO:HG3	1.99	0.44
82:L1:176:GLU:O	82:L1:180:VAL:HG23	2.17	0.44
82:l1:36:VAL:H	82:l1:166:ALA:HB1	1.82	0.44
82:l1:93:LEU:HG	82:l1:94:ASN:H	1.82	0.44
1:1:531:G:O2'	1:1:552:G:N1	2.45	0.44
1:1:546:C:H2'	1:1:547:U:O4'	2.17	0.44
1:1:1468:U:H2'	1:1:1469:G:H8	1.83	0.44
1:1:1918:A:H2'	1:1:1919:C:O4'	2.17	0.44
1:1:2385:C:H2'	1:1:2386:U:C6	2.53	0.44
1:1:2852:U:H1'	5:k:250:ALA:HB3	1.97	0.44
3:4:126:A:O2'	3:4:128:U:OP2	2.19	0.44
3:4:142:C:H2'	3:4:143:U:C6	2.51	0.44
6:l:61:THR:HG22	6:l:63:ALA:N	2.32	0.44
14:t:124:VAL:HG21	36:AI:120:ALA:HB3	1.99	0.44
46:B:1071:A:H2'	46:B:1072:A:C8	2.52	0.44
47:C:167:LYS:NZ	47:C:204:TYR:O	2.50	0.44
52:H:206:SER:O	52:H:212:LYS:NZ	2.37	0.44
77:h:150:VAL:CG1	79:O:74:LEU:HA	2.39	0.44
1:AS:224:C:OP1	27:BT:47:SER:OG	2.33	0.44
1:AS:559:C:H2'	1:AS:560:C:C6	2.53	0.44
1:AS:777:G:OP1	19:BL:151:ARG:HD2	2.17	0.44
1:AS:1018:U:H3'	1:AS:1019:U:H5"	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1029:U:O2'	1:AS:1030:U:OP1	2.28	0.44
1:AS:1330:U:H2'	1:AS:1331:U:C6	2.53	0.44
1:AS:1338:G:H2'	1:AS:1339:A:O4'	2.17	0.44
1:AS:1558:G:H5'	1:AS:1559:C:OP2	2.18	0.44
4:AW:80:GLU:HB2	4:AW:170:ALA:HA	1.99	0.44
26:BS:68:ALA:HB3	36:CC:36:LEU:HD13	1.99	0.44
46:CM:705:G:H21	46:CM:716:C:H2'	1.82	0.44
46:CM:850:A:OP1	68:DJ:28:ARG:NH2	2.50	0.44
46:CM:1183:G:OP1	46:CM:1184:G:O2'	2.25	0.44
46:CM:1215:A:H2	46:CM:1243:U:O2	2.01	0.44
46:CM:1279:G:O2'	46:CM:1306:A:N1	2.49	0.44
46:CM:1345:A:N1	46:CM:1349:G:C6	2.85	0.44
54:CU:60:PRO:N	54:CU:61:PRO:HD2	2.32	0.44
55:CV:65:PHE:CZ	55:CV:78:ILE:HD11	2.52	0.44
56:CW:68:LYS:HE3	56:CW:72:GLU:HG3	1.99	0.44
61:DC:15:PHE:CE1	61:DC:110:GLU:HG3	2.53	0.44
78:DT:145:LEU:HD21	78:DT:178:TRP:CZ2	2.52	0.44
78:DT:302:TYR:CE2	78:DT:308:ARG:HD2	2.53	0.44
82:l1:118:LYS:HB2	82:l1:119:GLN:OE1	2.16	0.44
1:1:438:A:N7	33:AF:2:ALA:N	2.65	0.44
1:1:907:C:H42	4:j:3:ARG:HD3	1.82	0.44
1:1:952:U:H2'	1:1:953:C:C6	2.52	0.44
1:1:1124:U:H2'	1:1:1125:A:O4'	2.18	0.44
1:1:1237:U:H2'	1:1:1239:G:OP2	2.17	0.44
1:1:1330:U:H2'	1:1:1331:U:C6	2.53	0.44
1:1:1695:A:C6	1:1:1743:G:C6	3.05	0.44
1:1:1696:G:H5'	39:AL:3:ARG:NH1	2.33	0.44
1:1:2646:A:C2	13:s:124:GLY:HA3	2.53	0.44
1:1:2972:A:H2'	1:1:2973:U:C6	2.53	0.44
4:j:70:LYS:HG3	4:j:71:LEU:N	2.32	0.44
6:l:4:ARG:NH2	6:l:28:ALA:HB2	2.33	0.44
14:t:57:VAL:HG22	14:t:69:VAL:HG22	2.00	0.44
46:B:138:C:OP2	53:I:187:LYS:NZ	2.35	0.44
49:E:71:LEU:HB3	49:E:99:ILE:HD11	1.99	0.44
50:F:178:MET:HE3	50:F:183:LEU:HD12	1.99	0.44
57:M:14:TYR:HD2	57:M:21:VAL:HG22	1.81	0.44
59:P:87:ASP:N	59:P:87:ASP:OD1	2.49	0.44
60:Q:107:ILE:HG13	72:c:53:LEU:HD23	2.00	0.44
78:AR:156:ARG:HA	78:AR:156:ARG:HD3	1.82	0.44
1:AS:122:A:C6	1:AS:149:A:C5	3.05	0.44
1:AS:343:U:H1'	6:AY:96:ARG:HG3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1163:U:H2'	1:AS:1164:U:O4'	2.17	0.44
1:AS:1825:A:H5"	1:AS:1826:G:H5'	1.99	0.44
1:AS:2394:U:H2'	1:AS:2395:U:C6	2.53	0.44
12:BE:96:VAL:HG22	12:BE:125:LEU:HD21	1.99	0.44
12:BE:142:ASP:CG	12:BE:178:ARG:HH22	2.26	0.44
19:BL:158:HIS:NE2	19:BL:186:VAL:HG12	2.33	0.44
24:BQ:79:ILE:HG22	24:BQ:122:CYS:SG	2.58	0.44
32:BY:61:ARG:HB2	32:BY:65:GLY:HA3	1.99	0.44
40:CG:21:ARG:HG3	40:CG:22:PRO:O	2.18	0.44
46:CM:488:C:N3	46:CM:489:C:N4	2.65	0.44
46:CM:723:G:C4	46:CM:724:G:H1'	2.52	0.44
46:CM:1485:G:H5"	65:DG:72:GLY:HA3	1.99	0.44
46:CM:1697:C:H2'	46:CM:1698:U:N1	2.32	0.44
48:CO:115:ARG:HA	48:CO:115:ARG:HD3	1.80	0.44
52:CS:112:ARG:HH11	71:DM:95:HIS:CE1	2.35	0.44
79:CZ:103:LEU:O	79:CZ:115:VAL:HG13	2.17	0.44
60:DB:76:ILE:HD13	60:DB:97:LEU:CD1	2.47	0.44
78:DT:41:THR:HG22	78:DT:42:LEU:H	1.83	0.44
1:1:109:G:OP2	14:t:73:ARG:NH2	2.50	0.44
1:1:195:G:N2	1:1:197:A:H3'	2.33	0.44
1:1:528:A:O2'	1:1:529:A:H5'	2.18	0.44
1:1:777:G:OP1	19:y:151:ARG:HD2	2.18	0.44
1:1:1338:G:H2'	1:1:1339:A:O4'	2.17	0.44
1:1:2108:G:O4'	1:1:2122:A:H4'	2.16	0.44
1:1:2157:C:C4	4:j:131:GLY:HA3	2.52	0.44
1:1:2322:U:H2'	1:1:2323:A:H8	1.78	0.44
1:1:2420:G:H2'	1:1:2421:A:C8	2.52	0.44
1:1:2785:A:H2'	1:1:2786:G:O4'	2.18	0.44
1:1:3313:G:H1	1:1:3322:U:H3	1.64	0.44
9:o:212:PHE:HB3	9:o:225:ASP:OD2	2.18	0.44
17:w:151:GLU:O	17:w:155:GLU:HG2	2.18	0.44
21:0:119:ARG:HE	21:0:119:ARG:HB2	1.58	0.44
38:AK:21:ARG:HD3	38:AK:44:MET:SD	2.58	0.44
46:B:296:C:H5"	51:G:38:LEU:HB2	1.98	0.44
46:B:761:G:N2	46:B:769:U:H1'	2.33	0.44
46:B:1575:G:H5'	46:B:1576:C:OP2	2.17	0.44
46:B:1596:U:H5"	62:S:74:VAL:HB	2.00	0.44
46:B:1640:C:C2	46:B:1735:G:C2	3.06	0.44
51:G:12:LEU:HD23	51:G:12:LEU:HA	1.85	0.44
57:M:56:LYS:HZ2	57:M:69:THR:HG22	1.82	0.44
63:T:7:LYS:O	63:T:11:ARG:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:4:G:C6	3:AU:155:G:O6	2.71	0.44
1:AS:25:A:C4	1:AS:330:G:C8	3.06	0.44
1:AS:638:U:OP2	33:BZ:39:ILE:HG12	2.18	0.44
1:AS:875:U:O2'	18:BK:131:ARG:HD2	2.18	0.44
1:AS:949:G:O2'	1:AS:1111:G:H4'	2.18	0.44
1:AS:1233:G:H2'	1:AS:1234:C:C6	2.53	0.44
1:AS:1563:A:H2	1:AS:1569:C:C4	2.36	0.44
1:AS:1637:U:O2'	1:AS:1638:A:H3'	2.16	0.44
1:AS:1937:C:O2'	1:AS:3309:A:N6	2.50	0.44
1:AS:3024:G:H2'	1:AS:3025:G:H8	1.83	0.44
1:AS:3110:U:OP2	5:AX:30:LYS:HG3	2.18	0.44
1:AS:3207:G:N2	1:AS:3210:A:OP2	2.51	0.44
11:BD:86:TYR:CE2	11:BD:151:LEU:HB2	2.53	0.44
11:BD:94:TYR:HA	11:BD:177:ASP:OD1	2.17	0.44
12:BE:31:ILE:HA	12:BE:66:GLU:OE1	2.16	0.44
27:BT:113:LYS:HB2	27:BT:113:LYS:HE2	1.80	0.44
39:CF:32:ASN:C	39:CF:34:ASN:N	2.75	0.44
46:CM:10:G:H1'	49:CP:84:GLN:HE21	1.82	0.44
46:CM:1152:G:N2	62:DD:138:GLN:HE22	2.07	0.44
46:CM:1369:G:O2'	46:CM:1370:A:O5'	2.30	0.44
46:CM:1678:G:C8	46:CM:1679:A:C8	3.06	0.44
57:CX:35:ILE:HG22	57:CX:37:THR:HG22	2.00	0.44
57:CX:73:VAL:HG21	57:CX:91:ARG:NH1	2.33	0.44
60:DB:13:ARG:N	60:DB:24:HIS:O	2.49	0.44
63:DE:36:SER:OG	63:DE:47:ARG:NH1	2.45	0.44
80:P0:94:LYS:HA	80:P0:97:ARG:HD2	1.99	0.44
80:p0:36:GLN:HA	80:p0:39:HIS:CD2	2.52	0.44
1:1:498:C:H2'	1:1:499:G:H8	1.82	0.44
1:1:538:G:C6	1:1:548:G:C6	3.06	0.44
1:1:1023:A:C6	1:1:1025:G:H1'	2.53	0.44
1:1:1149:A:O2'	1:1:1150:A:H5'	2.16	0.44
1:1:1571:G:H2'	1:1:1572:G:H8	1.83	0.44
1:1:1591:U:O2'	1:1:1602:U:O2	2.34	0.44
1:1:1612:U:H2'	1:1:1613:G:H8	1.81	0.44
1:1:2458:G:H2'	1:1:2458:G:N3	2.33	0.44
5:k:80:ASP:OD1	5:k:319:ASN:HB2	2.18	0.44
7:m:235:ASP:O	7:m:239:ILE:HG13	2.17	0.44
20:z:105:LEU:HD12	20:z:135:LYS:HE2	2.00	0.44
22:2:90:ASN:O	22:2:91:LEU:HD23	2.18	0.44
46:B:1141:C:H2'	46:B:1142:A:C8	2.53	0.44
46:B:1740:A:H2'	46:B:1741:A:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:C:124:THR:HG22	47:C:174:TRP:NE1	2.26	0.44
51:G:194:VAL:HG11	51:G:232:ALA:HB2	1.98	0.44
52:H:63:GLN:HE22	52:H:66:ASN:HB2	1.83	0.44
53:I:6:SER:O	53:I:113:ILE:HG13	2.18	0.44
61:R:52:LYS:HB2	61:R:53:PRO:HD3	2.00	0.44
63:T:72:LYS:NZ	63:T:76:GLU:OE2	2.37	0.44
8:BA:145:LEU:HD23	8:BA:145:LEU:HA	1.84	0.44
9:BB:135:GLY:N	9:BB:233:ILE:HD12	2.33	0.44
13:BF:25:GLU:OE2	13:BF:29:ARG:HD3	2.18	0.44
16:BI:101:THR:O	16:BI:105:ARG:HD2	2.18	0.44
46:CM:67:A:O2'	46:CM:69:G:OP1	2.36	0.44
46:CM:222:C:C2	46:CM:823:G:N2	2.86	0.44
46:CM:260:U:C2'	46:CM:261:C:H5'	2.47	0.44
46:CM:338:U:H2'	46:CM:339:A:C8	2.52	0.44
46:CM:787:A:H8	46:CM:787:A:OP2	2.01	0.44
46:CM:903:U:H4'	60:DB:13:ARG:HD3	2.00	0.44
46:CM:987:G:N2	46:CM:1747:G:O3'	2.48	0.44
46:CM:1002:U:H2'	46:CM:1003:U:C6	2.52	0.44
46:CM:1064:U:H2'	46:CM:1065:U:H6	1.82	0.44
46:CM:1311:A:H2'	46:CM:1312:C:H6	1.82	0.44
46:CM:1555:C:H4'	46:CM:1556:A:O5'	2.18	0.44
79:CZ:69:GLU:HA	79:CZ:72:ILE:HD12	2.00	0.44
68:DJ:81:VAL:HG21	68:DJ:125:ILE:HB	1.99	0.44
77:DS:177:MET:SD	77:DS:180:ARG:NH2	2.90	0.44
80:p0:34:SER:OG	80:p0:37:GLN:HG3	2.17	0.44
1:1:1093:G:H2'	1:1:1093:G:N3	2.32	0.44
1:1:1787:U:H2'	1:1:1788:C:C6	2.52	0.44
1:1:1882:A:O2'	5:k:226:PHE:O	2.30	0.44
1:1:2183:U:O4	1:1:2216:G:N1	2.51	0.44
2:3:16:U:H2'	2:3:17:A:C8	2.53	0.44
24:6:121:GLU:OE1	24:6:121:GLU:N	2.49	0.44
38:AK:44:MET:HE3	38:AK:44:MET:HB3	1.81	0.44
46:B:446:C:H2'	46:B:447:C:H6	1.82	0.44
46:B:462:A:C2	46:B:463:G:C8	3.05	0.44
46:B:697:U:C2'	46:B:698:C:H6	2.31	0.44
61:R:52:LYS:HB3	61:R:80:LEU:HD22	1.99	0.44
67:X:58:TYR:OH	68:Y:20:THR:HA	2.17	0.44
71:b:78:VAL:HG12	71:b:81:ARG:HH21	1.82	0.44
73:d:36:LYS:O	73:d:77:CYS:HA	2.18	0.44
1:AS:211:G:OP2	27:BT:2:ALA:N	2.51	0.44
1:AS:308:A:H1'	1:AS:2200:A:N3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:952:U:H2'	1:AS:953:C:C6	2.53	0.44
1:AS:1218:G:H4'	1:AS:1219:A:C5'	2.44	0.44
1:AS:1284:U:H2'	1:AS:1285:G:H8	1.81	0.44
1:AS:1596:U:H5"	20:BM:42:ARG:NH2	2.33	0.44
1:AS:2290:A:OP1	1:AS:2292:U:H5	2.01	0.44
1:AS:2956:C:H2'	1:AS:2957:C:C6	2.52	0.44
1:AS:3019:U:H5'	5:AX:329:PRO:HA	1.99	0.44
4:AW:54:ARG:NH2	4:AW:58:LEU:HD11	2.29	0.44
8:BA:105:PHE:HA	8:BA:134:ARG:HH22	1.83	0.44
20:BM:162:ARG:HA	20:BM:165:ARG:HD3	1.99	0.44
39:CF:16:ARG:HG3	39:CF:70:PRO:CG	2.48	0.44
45:CL:86:LYS:HD3	45:CL:86:LYS:HA	1.73	0.44
45:CL:114:GLU:OE2	50:CQ:117:ARG:NH2	2.51	0.44
46:CM:457:G:OP2	70:DL:105:ARG:NH2	2.40	0.44
46:CM:874:U:HO2'	46:CM:875:C:P	2.41	0.44
46:CM:1248:G:H2'	46:CM:1249:G:O4'	2.17	0.44
46:CM:1637:U:H2'	46:CM:1638:A:H8	1.81	0.44
50:CQ:214:ASP:OD1	50:CQ:215:GLU:N	2.29	0.44
56:CW:62:ARG:HD3	56:CW:66:ASP:OD2	2.18	0.44
57:CX:59:PHE:CZ	57:CX:62:GLN:HA	2.53	0.44
78:DT:40:LYS:HG2	78:DT:67:HIS:O	2.18	0.44
82:L1:5:THR:O	82:L1:9:VAL:HG23	2.18	0.44
82:l1:156:LYS:HB3	82:l1:156:LYS:HE2	1.68	0.44
1:1:206:U:H2'	1:1:207:C:C6	2.53	0.44
1:1:212:A:O4'	27:9:2:ALA:HA	2.17	0.44
1:1:222:U:OP1	1:1:224:C:N4	2.42	0.44
1:1:1021:A:OP1	1:1:1021:A:C8	2.70	0.44
1:1:1625:U:O3'	28:AA:115:LYS:HE3	2.18	0.44
1:1:2220:A:H5"	4:j:244:GLY:HA3	1.98	0.44
1:1:3021:A:C5	5:k:75:ALA:HB2	2.53	0.44
1:1:3104:C:H2'	1:1:3105:C:C6	2.53	0.44
1:1:3314:C:H2'	1:1:3315:C:C6	2.53	0.44
3:4:8:C:H2'	3:4:9:A:H8	1.83	0.44
3:4:113:U:H5"	40:AM:7:PHE:CB	2.48	0.44
25:7:80:ARG:NH2	46:B:163:G:O2'	2.51	0.44
27:9:11:SER:HB3	27:9:14:LYS:HB2	1.99	0.44
31:AD:77:ASN:ND2	44:AQ:43:GLY:O	2.40	0.44
36:AI:1:MET:HB3	36:AI:45:HIS:HE1	1.83	0.44
44:AQ:5:THR:HB	44:AQ:8:VAL:HG22	2.00	0.44
46:B:182:C:H2'	46:B:183:C:C6	2.53	0.44
46:B:1300:U:O2'	46:B:1301:G:H8	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:1469:A:C2	46:B:1594:G:H1'	2.53	0.44
46:B:1484:U:C4	46:B:1498:G:C2	3.06	0.44
46:B:1636:C:H2'	46:B:1637:U:H6	1.83	0.44
48:D:62:LYS:NZ	48:D:90:GLU:HA	2.33	0.44
59:P:69:ASN:HB3	59:P:73:ARG:HD2	1.99	0.44
62:S:45:PHE:CD1	62:S:48:TYR:HD2	2.36	0.44
63:T:44:LYS:O	63:T:48:ASN:OD1	2.36	0.44
64:U:139:LYS:HB2	64:U:139:LYS:HE3	1.61	0.44
71:b:78:VAL:HG12	71:b:81:ARG:NH2	2.32	0.44
1:AS:450:G:H8	1:AS:450:G:OP2	2.00	0.44
1:AS:498:C:H2'	1:AS:499:G:C8	2.53	0.44
1:AS:675:A:H4'	1:AS:676:G:O5'	2.18	0.44
1:AS:816:A:H2'	1:AS:817:U:C6	2.53	0.44
1:AS:1937:C:H42	1:AS:2085:A:H61	1.66	0.44
1:AS:1945:A:H2'	1:AS:1946:U:C6	2.53	0.44
7:AZ:41:LYS:HB2	22:BO:68:THR:O	2.18	0.44
7:AZ:240:TYR:O	7:AZ:244:HIS:ND1	2.51	0.44
18:BK:29:THR:HG22	18:BK:119:VAL:HG21	1.99	0.44
23:BP:60:SER:OG	23:BP:61:ASP:OD1	2.23	0.44
32:BY:71:ARG:NH1	32:BY:103:LEU:HB3	2.33	0.44
46:CM:236:U:O2'	46:CM:237:C:H5"	2.18	0.44
46:CM:582:C:C4	46:CM:583:A:N7	2.86	0.44
46:CM:744:U:C2	46:CM:745:A:C8	3.06	0.44
46:CM:788:A:C8	68:DJ:107:SER:HA	2.53	0.44
46:CM:1714:G:H21	55:CV:32:GLN:HE21	1.66	0.44
67:DI:36:ILE:HG13	67:DI:51:ILE:HB	2.00	0.44
80:P0:19:LEU:HD21	80:P0:73:PHE:CZ	2.53	0.44
82:l1:64:THR:HB	82:l1:108:ASN:HB2	2.00	0.44
82:l1:97:LYS:O	82:l1:101:LYS:HB3	2.18	0.44
1:1:149:A:C5	1:1:150:A:C8	3.06	0.43
1:1:394:G:N2	1:1:396:A:H3'	2.32	0.43
1:1:772:U:H5	1:1:2691:U:O2	2.01	0.43
1:1:1474:C:H2'	1:1:1475:U:C6	2.53	0.43
1:1:2185:A:N6	46:B:898:G:H21	2.16	0.43
1:1:2431:U:H5'	1:1:2439:A:H5'	2.00	0.43
1:1:2545:C:O2'	1:1:2547:G:H1'	2.18	0.43
1:1:3323:U:H2'	1:1:3324:A:H8	1.82	0.43
2:3:19:C:H2'	2:3:20:A:C8	2.53	0.43
6:l:143:VAL:O	6:l:143:VAL:HG12	2.18	0.43
38:AK:69:HIS:O	38:AK:73:ARG:HG3	2.17	0.43
45:i:101:LYS:NZ	46:B:579:U:OP1	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:446:C:H2'	46:B:447:C:C6	2.53	0.43
46:B:787:A:C4	54:J:100:ARG:HD2	2.53	0.43
46:B:836:U:H2'	46:B:837:C:C6	2.53	0.43
46:B:1648:U:H2'	46:B:1649:G:C8	2.52	0.43
46:B:1725:U:H2'	46:B:1726:C:C6	2.53	0.43
60:Q:52:PRO:HB3	60:Q:95:SER:OG	2.18	0.43
64:U:96:LYS:HB2	64:U:98:TYR:HE1	1.83	0.43
65:V:35:ASP:OD1	65:V:35:ASP:N	2.43	0.43
71:b:54:VAL:HA	71:b:57:TYR:CD2	2.53	0.43
78:AR:202:SER:C	78:AR:204:ASP:H	2.26	0.43
1:AS:206:U:H2'	1:AS:207:C:H6	1.82	0.43
1:AS:413:U:H2'	1:AS:414:U:C6	2.53	0.43
1:AS:1303:G:H4'	1:AS:1304:A:O5'	2.19	0.43
1:AS:1589:A:OP1	35:CB:60:ARG:NH1	2.51	0.43
1:AS:1651:G:OP1	35:CB:40:SER:OG	2.31	0.43
1:AS:1662:G:H1	1:AS:1779:U:H3	1.66	0.43
1:AS:2220:A:H5"	4:AW:244:GLY:HA3	1.99	0.43
1:AS:2236:U:C2	1:AS:2237:A:C8	3.06	0.43
1:AS:2407:G:H2'	1:AS:2408:A:C8	2.53	0.43
1:AS:2771:A:H5"	1:AS:2772:G:O5'	2.17	0.43
1:AS:2911:G:OP2	5:AX:3:HIS:HD2	2.01	0.43
5:AX:80:ASP:OD1	5:AX:82:PRO:HD3	2.18	0.43
10:BC:53:TRP:NE1	10:BC:61:ARG:HH12	2.15	0.43
13:BF:6:GLN:OE1	13:BF:6:GLN:N	2.51	0.43
15:BH:14:GLU:HB3	21:BN:149:LYS:HG2	1.99	0.43
16:BI:177:GLY:O	16:BI:184:LYS:NZ	2.51	0.43
17:BJ:23:ILE:HD11	17:BJ:123:GLN:HG3	2.00	0.43
21:BN:164:GLN:HG2	21:BN:166:THR:H	1.83	0.43
46:CM:151:G:C6	46:CM:160:A:C6	3.06	0.43
46:CM:826:U:C6	46:CM:827:C:H5	2.36	0.43
46:CM:908:A:H2'	46:CM:909:A:C8	2.53	0.43
46:CM:1062:C:H2'	46:CM:1063:C:H6	1.83	0.43
46:CM:1066:A:O2'	46:CM:1068:G:N7	2.44	0.43
46:CM:1378:U:H2'	46:CM:1379:C:C6	2.53	0.43
52:CS:63:GLN:HE22	52:CS:66:ASN:HB2	1.83	0.43
56:CW:126:ARG:HE	76:DR:33:ARG:HD3	1.83	0.43
78:DT:110:ASP:O	78:DT:112:LEU:HD22	2.18	0.43
81:12:133:LEU:HB3	81:12:152:ILE:CD1	2.48	0.43
82:l1:41:TYR:HE1	82:l1:195:LYS:N	2.15	0.43
82:l1:183:ILE:H	82:l1:183:ILE:HG13	1.69	0.43
80:p0:36:GLN:O	80:p0:40:GLU:HG3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:48:A:N7	16:v:187:ARG:HD2	2.33	0.43
1:1:345:G:O6	86:1:4101:HOH:O	2.20	0.43
1:1:353:G:N2	1:1:364:G:H2'	2.33	0.43
1:1:563:U:H2'	1:1:564:G:H8	1.83	0.43
1:1:1163:U:H2'	1:1:1164:U:O4'	2.19	0.43
1:1:1443:G:N7	18:x:25:SER:OG	2.47	0.43
1:1:1621:A:H4'	1:1:1639:A:C5	2.53	0.43
1:1:2876:U:H2'	1:1:2877:U:H6	1.82	0.43
1:1:3013:U:H2'	1:1:3014:U:C6	2.53	0.43
13:s:134:ALA:O	13:s:152:HIS:NE2	2.45	0.43
14:t:115:ARG:NH2	14:t:147:PHE:O	2.51	0.43
17:w:187:ALA:O	17:w:188:GLU:HG2	2.17	0.43
20:z:162:ARG:HD2	46:B:799:G:O4'	2.17	0.43
32:AE:3:LEU:O	32:AE:3:LEU:HD23	2.17	0.43
46:B:339:A:H2'	46:B:340:C:H6	1.83	0.43
46:B:1485:G:H4'	65:V:121:GLY:H	1.83	0.43
47:C:84:ARG:NE	63:T:82:ASP:OD1	2.51	0.43
52:H:44:ASN:HB2	62:S:45:PHE:CZ	2.54	0.43
56:L:108:ARG:NH1	56:L:110:GLN:OE1	2.50	0.43
64:U:126:ARG:HB2	64:U:133:VAL:HG12	1.99	0.43
78:AR:12:THR:O	78:AR:53:ASN:HA	2.18	0.43
1:AS:79:G:H2'	1:AS:80:C:H6	1.82	0.43
1:AS:571:C:H2'	1:AS:572:U:C6	2.54	0.43
1:AS:1151:C:H2'	1:AS:1152:C:C6	2.53	0.43
1:AS:1165:A:H2'	1:AS:1166:A:C8	2.52	0.43
1:AS:1233:G:C4	1:AS:1234:C:C5	3.06	0.43
1:AS:1238:G:H2'	1:AS:1239:G:H5'	2.00	0.43
1:AS:1317:G:N2	21:BN:112:ALA:HB2	2.33	0.43
1:AS:1705:C:H2'	1:AS:1706:C:H6	1.82	0.43
1:AS:1791:U:H2'	4:AW:50:HIS:CD2	2.53	0.43
1:AS:2183:U:O4	1:AS:2216:G:N1	2.51	0.43
1:AS:2504:C:H2'	1:AS:2505:G:H8	1.84	0.43
1:AS:2621:G:H4'	1:AS:2668:A:O4'	2.18	0.43
1:AS:2890:G:C2	1:AS:2891:A:N7	2.86	0.43
1:AS:3150:A:C4	17:BJ:115:LYS:HA	2.53	0.43
3:AU:156:U:H2'	3:AU:157:U:C6	2.53	0.43
15:BH:47:ARG:NH1	15:BH:69:SER:O	2.41	0.43
24:BQ:15:LEU:HD13	24:BQ:51:ALA:HB3	1.99	0.43
28:BU:34:LYS:O	28:BU:36:HIS:N	2.46	0.43
38:CE:21:ARG:HD3	38:CE:44:MET:SD	2.59	0.43
39:CF:8:ILE:HG23	39:CF:65:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:302:U:H2'	46:CM:303:C:H6	1.83	0.43
46:CM:821:U:H2'	46:CM:822:G:C8	2.53	0.43
46:CM:1636:C:H2'	46:CM:1637:U:C6	2.53	0.43
48:CO:97:LEU:HD11	48:CO:228:LEU:HD21	1.99	0.43
53:CT:75:LEU:C	53:CT:94:ARG:HD3	2.43	0.43
65:DG:70:GLN:HB2	65:DG:120:GLY:O	2.18	0.43
65:DG:118:PRO:O	65:DG:120:GLY:N	2.48	0.43
68:DJ:75:ILE:HD12	68:DJ:125:ILE:CD1	2.48	0.43
81:12:154:ALA:HB1	81:12:159:GLU:HB2	1.99	0.43
1:1:437:G:O2'	1:1:438:A:H5"	2.19	0.43
1:1:1252:G:C5	1:1:1253:C:C4	3.07	0.43
1:1:1606:G:H2'	1:1:1607:G:O4'	2.19	0.43
1:1:1747:G:H5'	39:AL:26:LYS:HE2	2.01	0.43
1:1:2686:G:OP2	43:AP:10:THR:HG22	2.18	0.43
1:1:3262:U:O4	5:k:124:LYS:NZ	2.50	0.43
2:3:19:C:H2'	2:3:20:A:H8	1.82	0.43
10:p:163:LEU:HA	16:v:7:LEU:HD21	2.00	0.43
46:B:818:U:H3'	46:B:819:G:H5'	2.00	0.43
46:B:1376:U:C5	63:T:3:ARG:HG3	2.54	0.43
46:B:1457:A:H2	46:B:1460:G:N3	2.16	0.43
46:B:1548:U:H2'	46:B:1549:G:H8	1.83	0.43
54:J:109:PRO:HG2	54:J:112:ARG:HD3	2.00	0.43
63:T:99:GLN:HB2	63:T:118:PRO:O	2.19	0.43
74:e:18:ARG:HD2	74:e:26:THR:HG22	2.00	0.43
1:AS:403:C:O2'	1:AS:404:G:OP1	2.23	0.43
1:AS:787:A:H2'	1:AS:788:G:C8	2.54	0.43
1:AS:912:G:H5'	1:AS:913:A:OP1	2.19	0.43
1:AS:1225:G:H2'	1:AS:1226:G:H8	1.83	0.43
1:AS:2480:A:H4'	1:AS:2481:G:C8	2.54	0.43
4:AW:4:VAL:HG13	4:AW:8:GLN:HB2	1.99	0.43
5:AX:117:ARG:NH2	5:AX:175:LYS:HD3	2.33	0.43
5:AX:214:MET:CE	5:AX:350:ALA:HA	2.48	0.43
37:CD:69:LYS:HB2	37:CD:69:LYS:HE3	1.77	0.43
46:CM:383:A:H2'	46:CM:384:G:C8	2.54	0.43
46:CM:518:A:HO2'	46:CM:519:A:P	2.41	0.43
46:CM:849:U:O2	73:DO:21:LEU:HB3	2.18	0.43
46:CM:1161:G:C6	46:CM:1450:G:C6	3.05	0.43
56:CW:68:LYS:HE2	56:CW:68:LYS:HB3	1.77	0.43
60:DB:24:HIS:CD2	60:DB:36:ARG:HB2	2.53	0.43
60:DB:88:THR:HA	60:DB:89:PRO:HD3	1.92	0.43
63:DE:80:ARG:HA	63:DE:83:GLN:NE2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:370:U:C4'	1:1:403:C:H2'	2.49	0.43
1:1:409:A:H61	3:4:15:G:H1'	1.84	0.43
1:1:623:A:H2'	1:1:624:U:H6	1.81	0.43
1:1:690:A:O4'	6:l:47:LYS:HG3	2.18	0.43
1:1:892:A:H5'	4:j:183:GLY:CA	2.49	0.43
1:1:1142:C:H4'	1:1:1327:U:C4	2.52	0.43
1:1:1235:C:C2	1:1:1236:A:C8	3.06	0.43
1:1:1255:A:N6	80:P0:53:MET:HE2	2.33	0.43
3:4:38:U:O2'	36:AI:83:LYS:NZ	2.38	0.43
13:s:148:ILE:HG23	13:s:152:HIS:HB3	2.00	0.43
15:u:14:GLU:OE2	15:u:17:ARG:HD3	2.18	0.43
20:z:165:ARG:CD	46:B:835:A:H5'	2.48	0.43
21:0:106:MET:HE3	21:0:106:MET:HB3	1.95	0.43
22:2:77:ASN:OD1	30:AC:24:PRO:HG3	2.18	0.43
38:AK:25:ARG:HD2	40:AM:50:GLY:O	2.18	0.43
46:B:324:G:H2'	46:B:325:U:C6	2.53	0.43
46:B:391:C:H2'	46:B:392:C:C6	2.53	0.43
46:B:824:U:OP2	58:N:27:ALA:HA	2.17	0.43
46:B:1105:U:H2'	46:B:1106:C:C6	2.53	0.43
46:B:1414:G:H3'	46:B:1414:G:OP2	2.17	0.43
46:B:1515:U:OP1	52:H:109:LYS:HB2	2.18	0.43
47:C:55:GLU:HB3	67:X:79:LEU:HD22	2.00	0.43
51:G:122:LYS:HG2	51:G:162:ILE:HB	2.00	0.43
61:R:50:ASP:N	61:R:50:ASP:OD1	2.51	0.43
78:AR:9:LEU:HB2	78:AR:310:TRP:CZ3	2.54	0.43
78:AR:40:LYS:HG2	78:AR:67:HIS:O	2.19	0.43
1:AS:480:G:OP2	1:AS:480:G:C8	2.71	0.43
1:AS:713:A:H8	29:BV:115:LYS:HG3	1.83	0.43
1:AS:798:C:C2	1:AS:799:C:C5	3.07	0.43
1:AS:1459:U:H2'	1:AS:1460:G:O4'	2.18	0.43
1:AS:1853:C:O2	35:CB:4:ARG:HB3	2.19	0.43
1:AS:2419:A:C2	1:AS:2420:G:C4	3.06	0.43
1:AS:2432:G:N3	1:AS:2432:G:H2'	2.34	0.43
1:AS:2718:A:H2'	1:AS:2719:A:O4'	2.19	0.43
1:AS:3208:A:H4'	5:AX:95:THR:HG22	2.00	0.43
1:AS:3344:U:H4'	5:AX:315:GLY:HA2	1.99	0.43
5:AX:160:VAL:HG12	5:AX:181:ILE:O	2.18	0.43
7:AZ:4:GLN:HG3	7:AZ:5:LYS:N	2.32	0.43
14:BG:57:VAL:HG22	14:BG:69:VAL:HG22	1.99	0.43
22:BO:136:ARG:HD3	22:BO:139:ARG:CZ	2.49	0.43
45:CL:53:LYS:O	45:CL:55:LYS:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1539:U:O2'	46:CM:1584:A:N3	2.48	0.43
47:CN:92:HIS:ND1	47:CN:202:TYR:OH	2.35	0.43
48:CO:23:PRO:O	48:CO:27:LYS:NZ	2.51	0.43
55:CV:37:LYS:NZ	55:CV:93:THR:HB	2.33	0.43
61:DC:52:LYS:HB2	61:DC:53:PRO:HD3	2.00	0.43
78:DT:46:LYS:O	78:DT:56:GLY:HA2	2.17	0.43
1:1:690:A:C4	1:1:691:A:C8	3.06	0.43
1:1:1347:U:O2'	1:1:1348:U:OP2	2.29	0.43
1:1:1377:A:H2'	1:1:1378:G:C8	2.52	0.43
1:1:2221:A:H3'	4:j:244:GLY:HA2	2.01	0.43
1:1:2525:A:H2'	1:1:2526:C:O4'	2.18	0.43
3:4:8:C:H2'	3:4:9:A:C8	2.53	0.43
5:k:369:ARG:HD2	25:7:11:SER:HB3	2.00	0.43
12:r:86:HIS:HB3	12:r:139:ARG:CG	2.48	0.43
33:AF:67:LEU:HD23	33:AF:73:LYS:HG3	2.00	0.43
46:B:97:C:H2'	46:B:98:U:C6	2.54	0.43
46:B:184:C:H2'	46:B:185:G:O4'	2.19	0.43
46:B:857:G:H2'	46:B:858:U:O4'	2.19	0.43
46:B:953:U:H2'	46:B:954:C:O4'	2.17	0.43
46:B:1282:G:C4	46:B:1284:G:OP2	2.72	0.43
46:B:1365:C:H1'	62:S:18:VAL:HG21	2.00	0.43
46:B:1654:A:H2'	46:B:1655:G:H8	1.84	0.43
48:D:103:LEU:HD13	48:D:188:LEU:HD13	1.99	0.43
57:M:17:GLN:O	57:M:18:GLU:HB2	2.18	0.43
1:AS:180:U:H4'	38:CE:75:LYS:CG	2.49	0.43
1:AS:277:G:H2'	1:AS:278:U:H6	1.83	0.43
1:AS:441:U:C4	33:BZ:117:GLY:HA3	2.54	0.43
1:AS:1344:U:OP2	19:BL:38:ARG:NH2	2.43	0.43
1:AS:1661:U:H2'	1:AS:1662:G:H8	1.83	0.43
1:AS:2134:U:OP1	4:AW:241:ARG:NH2	2.51	0.43
1:AS:2193:A:C4	1:AS:2194:G:C8	3.06	0.43
1:AS:2650:A:H8	45:CL:56:SER:OG	2.01	0.43
1:AS:2967:A:H2'	1:AS:2968:U:O4'	2.18	0.43
1:AS:3216:U:H2'	1:AS:3217:G:C8	2.53	0.43
2:AT:45:A:H2'	2:AT:46:A:C8	2.53	0.43
5:AX:92:TYR:HB2	5:AX:157:VAL:HB	2.00	0.43
5:AX:123:TYR:CZ	5:AX:124:LYS:HG3	2.53	0.43
27:BT:5:SER:HB3	27:BT:8:VAL:HG23	2.01	0.43
36:CC:12:LYS:HD3	36:CC:16:GLN:HB3	2.01	0.43
43:CJ:47:GLN:HE22	43:CJ:53:GLN:CD	2.26	0.43
46:CM:3:U:O2	56:CW:17:ARG:NH2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:167:A:OP2	46:CM:167:A:H8	2.02	0.43
46:CM:975:C:H5'	60:DB:124:LYS:HB2	2.00	0.43
46:CM:1239:U:H5'	77:DS:185:LYS:HG3	2.00	0.43
46:CM:1263:G:H1	46:CM:1416:U:H5	1.67	0.43
46:CM:1293:G:H2'	46:CM:1294:C:C6	2.53	0.43
46:CM:1416:U:H1'	66:DH:71:ASN:HB3	2.00	0.43
46:CM:1517:C:O5'	71:DM:96:SER:OG	2.36	0.43
46:CM:1577:G:OP1	65:DG:91:HIS:HB2	2.18	0.43
46:CM:1700:G:H5'	46:CM:1701:A:OP2	2.19	0.43
51:CR:249:ILE:HD12	56:CW:71:PHE:CD2	2.54	0.43
52:CS:225:ARG:NH1	74:DP:58:GLU:OE1	2.49	0.43
55:CV:158:ILE:HA	58:CY:24:LYS:HD3	1.99	0.43
82:l1:41:TYR:HD1	82:l1:200:ASN:ND2	2.17	0.43
80:p0:64:ARG:HD2	80:p0:64:ARG:HA	1.86	0.43
1:1:28:C:H4'	1:1:61:A:H4'	2.01	0.43
1:1:93:G:H2'	1:1:94:A:H8	1.82	0.43
1:1:206:U:H2'	1:1:207:C:H6	1.84	0.43
1:1:788:G:H2'	1:1:789:C:H6	1.84	0.43
1:1:1580:U:H2'	1:1:1581:C:C6	2.54	0.43
1:1:1690:U:O2'	1:1:1691:U:H5'	2.18	0.43
1:1:2204:U:H2'	1:1:2205:C:C6	2.53	0.43
1:1:3079:U:H2'	1:1:3080:G:H8	1.84	0.43
2:3:11:A:N6	7:m:16:PHE:O	2.49	0.43
3:4:23:U:OP1	27:9:16:ARG:NH1	2.51	0.43
14:t:143:VAL:HG13	14:t:147:PHE:HD2	1.83	0.43
28:AA:85:TYR:OH	35:AH:97:GLU:OE2	2.24	0.43
38:AK:25:ARG:NH1	40:AM:50:GLY:HA2	2.34	0.43
45:i:60:ASN:O	45:i:62:ALA:N	2.49	0.43
46:B:398:A:H5"	55:K:25:ARG:HA	2.00	0.43
46:B:695:C:H4'	46:B:695:C:OP1	2.17	0.43
46:B:1414:G:C2'	46:B:1415:G:H5'	2.48	0.43
46:B:1675:U:O2'	46:B:1700:G:N7	2.41	0.43
47:C:98:ILE:HG12	47:C:116:LYS:NZ	2.33	0.43
49:E:133:PRO:HB2	49:E:217:TYR:HE2	1.84	0.43
52:H:98:MET:HB2	52:H:103:ASN:O	2.19	0.43
52:H:145:ASP:OD1	52:H:146:SER:N	2.51	0.43
57:M:32:HIS:O	57:M:32:HIS:CG	2.72	0.43
60:Q:65:LYS:O	60:Q:69:VAL:HG23	2.18	0.43
62:S:53:LEU:HD11	62:S:111:TYR:CD2	2.53	0.43
78:AR:40:LYS:HD2	78:AR:65:HIS:O	2.18	0.43
1:AS:120:A:N6	10:BC:127:SER:OG	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:200:A:H2'	1:AS:201:G:C8	2.54	0.43
1:AS:383:G:N2	1:AS:386:A:OP2	2.37	0.43
1:AS:429:U:H4'	34:CA:88:ASN:O	2.18	0.43
1:AS:582:G:H2'	1:AS:583:A:C8	2.52	0.43
1:AS:583:A:H2'	1:AS:584:C:H6	1.81	0.43
1:AS:661:C:H2'	1:AS:662:U:C6	2.53	0.43
1:AS:1094:A:OP2	22:BO:130:ARG:NE	2.32	0.43
1:AS:1216:U:H5"	1:AS:1218:G:C4	2.53	0.43
1:AS:1227:A:H8	1:AS:1227:A:O5'	2.01	0.43
1:AS:1255:A:C2	80:p0:53:MET:HG3	2.53	0.43
1:AS:2434:A:H2'	1:AS:2435:G:C8	2.54	0.43
1:AS:2460:U:H2'	1:AS:2461:G:C8	2.53	0.43
21:BN:27:MET:HE2	21:BN:27:MET:HB3	1.86	0.43
46:CM:690:C:H2'	46:CM:691:U:O4'	2.18	0.43
46:CM:696:U:C2'	46:CM:697:U:H5'	2.48	0.43
46:CM:1032:G:H2'	46:CM:1033:U:H6	1.84	0.43
46:CM:1783:C:OP1	72:DN:87:ARG:NE	2.52	0.43
49:CP:171:LYS:HE2	56:CW:57:ARG:CZ	2.49	0.43
52:CS:108:LEU:HD21	62:DD:43:LEU:HD11	2.01	0.43
57:CX:92:LEU:HD23	57:CX:92:LEU:HA	1.80	0.43
64:DF:6:GLN:OE1	64:DF:6:GLN:N	2.52	0.43
69:DK:103:LEU:HD22	69:DK:126:LYS:NZ	2.34	0.43
71:DM:84:GLU:HG3	71:DM:91:PRO:HD3	2.00	0.43
78:DT:88:ARG:HG2	78:DT:109:GLY:C	2.43	0.43
82:l1:138:VAL:HG22	82:l1:147:LYS:HE2	2.00	0.43
80:p0:64:ARG:O	80:p0:68:SER:N	2.50	0.43
1:1:588:G:C2	1:1:608:G:H2'	2.53	0.43
1:1:816:A:H2'	1:1:817:U:C6	2.54	0.43
1:1:1660:G:H2'	1:1:1661:U:H6	1.84	0.43
1:1:1921:U:O2'	1:1:1923:G:N7	2.51	0.43
1:1:2933:G:H2'	1:1:2934:U:H6	1.82	0.43
1:1:3064:C:O2'	1:1:3066:A:OP2	2.30	0.43
1:1:3162:U:C4	1:1:3163:U:H1'	2.53	0.43
10:p:114:ALA:HA	10:p:117:ILE:HG22	2.00	0.43
13:s:19:LEU:O	13:s:68:HIS:HA	2.18	0.43
13:s:62:ASN:HB2	43:AP:103:ALA:HA	2.01	0.43
28:AA:12:ILE:HB	28:AA:81:MET:HB3	2.00	0.43
31:AD:11:ASN:O	31:AD:14:SER:OG	2.33	0.43
34:AG:20:LYS:HE2	34:AG:20:LYS:HB2	1.62	0.43
35:AH:109:GLN:OE1	35:AH:113:LYS:NZ	2.51	0.43
46:B:154:A:H2'	46:B:155:A:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:303:C:H2'	46:B:304:U:C6	2.53	0.43
46:B:676:G:N3	46:B:676:G:H2'	2.34	0.43
46:B:875:C:H2'	46:B:876:A:C8	2.54	0.43
46:B:1542:A:OP2	61:R:47:ARG:NH2	2.33	0.43
46:B:1546:G:N7	64:U:134:ARG:HD3	2.33	0.43
46:B:1757:U:H2'	46:B:1758:U:C6	2.53	0.43
48:D:115:ARG:HA	48:D:115:ARG:HD3	1.62	0.43
63:T:93:LEU:O	63:T:93:LEU:HD12	2.18	0.43
1:AS:35:C:H4'	1:AS:804:A:C2	2.53	0.43
1:AS:786:U:H5"	6:AY:113:LYS:HD3	2.01	0.43
1:AS:1177:U:O4	17:BJ:22:SER:OG	2.36	0.43
1:AS:1456:A:H5'	32:BY:50:LEU:O	2.18	0.43
1:AS:1517:G:C6	26:BS:116:PRO:HG2	2.54	0.43
1:AS:2115:U:C6	1:AS:2119:U:C4	3.07	0.43
1:AS:2156:A:H5"	4:AW:129:THR:OG1	2.18	0.43
1:AS:2815:U:O4	41:CH:52:LYS:NZ	2.38	0.43
1:AS:3240:U:H5"	34:CA:68:TRP:HZ2	1.84	0.43
5:AX:283:TYR:CE1	5:AX:354:VAL:HG21	2.53	0.43
8:BA:39:LEU:HB3	8:BA:83:VAL:CG1	2.49	0.43
11:BD:47:LYS:HE2	15:BH:3:SER:HB3	2.00	0.43
11:BD:113:GLU:CD	11:BD:115:ARG:HE	2.27	0.43
13:BF:47:GLN:OE1	13:BF:64:LYS:HD3	2.17	0.43
14:BG:31:LYS:O	14:BG:35:ARG:HB2	2.18	0.43
16:BI:180:PHE:O	16:BI:184:LYS:HG3	2.18	0.43
31:BX:53:LEU:HD13	35:CB:91:ARG:HD3	2.00	0.43
45:CL:82:LYS:HD2	46:CM:1163:G:H4'	2.00	0.43
46:CM:66:U:H5"	53:CT:172:ALA:C	2.43	0.43
46:CM:265:U:H2'	46:CM:266:C:C6	2.54	0.43
46:CM:647:C:O2'	46:CM:648:U:C6	2.71	0.43
46:CM:857:G:N2	46:CM:1032:G:H4'	2.33	0.43
46:CM:1518:G:H21	65:DG:48:GLN:NE2	2.16	0.43
46:CM:1670:U:O2'	46:CM:1671:G:O5'	2.31	0.43
55:CV:78:ILE:HD13	55:CV:104:ILE:HG22	2.01	0.43
71:DM:60:VAL:HG23	71:DM:101:TYR:HB2	2.01	0.43
77:DS:181:GLN:O	77:DS:189:THR:HA	2.19	0.43
82:L1:2:SER:HA	82:L1:198:TRP:CD2	2.54	0.43
82:L1:212:PRO:HB2	82:L1:213:SER:H	1.53	0.43
79:O:55:ARG:HH22	79:O:81:GLU:CD	2.27	0.43
1:1:29:G:C6	1:1:54:G:C6	3.07	0.43
1:1:179:C:H2'	1:1:180:U:C6	2.53	0.43
1:1:780:A:HO2'	1:1:781:G:P	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1045:C:H2'	1:1:1046:U:C6	2.53	0.43
1:1:1278:G:C5	1:1:1279:C:C5	3.06	0.43
1:1:1600:A:H4'	1:1:1831:A:H4'	2.00	0.43
1:1:1616:U:H2'	1:1:1617:A:C8	2.53	0.43
1:1:2404:U:H2'	1:1:2405:U:H6	1.83	0.43
7:m:19:PRO:HG2	7:m:24:GLN:HB2	2.00	0.43
46:B:627:U:C2	46:B:628:A:C8	3.07	0.43
46:B:653:G:O2'	46:B:672:U:N3	2.49	0.43
46:B:1435:U:H2'	46:B:1436:U:C6	2.53	0.43
46:B:1477:U:H4'	46:B:1478:A:H5'	2.00	0.43
46:B:1512:A:H2'	46:B:1513:A:C8	2.54	0.43
49:E:152:LYS:NZ	68:Y:91:ASP:O	2.47	0.43
52:H:57:SER:HA	74:e:53:ILE:HB	2.00	0.43
53:I:21:GLU:OE2	53:I:28:TYR:OH	2.31	0.43
59:P:5:HIS:CE1	59:P:121:ARG:HG3	2.54	0.43
60:Q:15:PHE:HE1	60:Q:81:THR:HA	1.83	0.43
64:U:49:LYS:HD3	64:U:49:LYS:HA	1.70	0.43
1:AS:435:C:O2'	1:AS:1397:G:H4'	2.19	0.43
1:AS:641:U:O2'	1:AS:1149:A:N1	2.51	0.43
1:AS:942:U:H2'	1:AS:943:G:H8	1.84	0.43
1:AS:1113:G:OP1	30:BW:4:SER:HB2	2.19	0.43
1:AS:1808:G:N7	28:BU:64:LYS:NZ	2.53	0.43
1:AS:2194:G:H22	1:AS:2207:A:H2	1.63	0.43
1:AS:2583:U:H2'	1:AS:2584:U:H6	1.83	0.43
1:AS:2738:U:H2'	1:AS:2739:U:C6	2.54	0.43
1:AS:2796:G:H2'	1:AS:2797:C:H6	1.83	0.43
1:AS:2801:U:C2	1:AS:2802:G:C8	3.06	0.43
1:AS:3139:U:N3	1:AS:3247:A:C2	2.87	0.43
1:AS:3218:U:H2'	1:AS:3219:G:C8	2.54	0.43
2:AT:81:U:H2'	2:AT:82:G:H8	1.84	0.43
11:BD:12:ILE:HD11	11:BD:53:ILE:HG13	2.01	0.43
16:BI:38:ARG:HD2	16:BI:62:TYR:HE1	1.82	0.43
42:CI:7:LYS:HE2	42:CI:11:ARG:NH2	2.34	0.43
43:CJ:83:LEU:HD23	43:CJ:83:LEU:HA	1.92	0.43
44:CK:5:THR:HB	44:CK:8:VAL:HG22	2.01	0.43
46:CM:718:A:H5'	46:CM:719:A:OP1	2.19	0.43
46:CM:720:C:O2'	46:CM:721:C:OP2	2.37	0.43
46:CM:1235:U:O2'	77:DS:177:MET:HE2	2.19	0.43
46:CM:1648:U:H2'	46:CM:1649:G:C8	2.53	0.43
54:CU:134:LYS:C	54:CU:135:ARG:HD2	2.43	0.43
56:CW:88:GLU:OE1	56:CW:88:GLU:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:DF:41:ARG:HH11	65:DG:46:PRO:HD3	1.84	0.43
71:DM:61:SER:H	71:DM:64:VAL:HB	1.83	0.43
73:DO:47:PHE:HE2	73:DO:49:HIS:HB2	1.83	0.43
82:L1:191:VAL:HA	82:L1:194:LEU:HB2	2.01	0.43
80:p0:39:HIS:O	80:p0:43:LYS:HG2	2.19	0.43
80:p0:45:LEU:CD1	80:p0:49:ALA:HB3	2.49	0.43
79:O:67:THR:C	79:O:69:GLU:H	2.27	0.43
1:1:79:G:H2'	1:1:80:C:C6	2.53	0.43
1:1:856:G:O2'	1:1:891:A:H4'	2.19	0.43
1:1:1262:G:N2	1:1:1272:U:H1'	2.33	0.43
1:1:1491:U:H5	1:1:1831:A:N1	2.17	0.43
1:1:1672:A:H4'	23:5:103:GLN:HE22	1.84	0.43
1:1:2628:A:C4	1:1:2630:G:N7	2.87	0.43
1:1:2956:C:C2	1:1:2957:C:C5	3.06	0.43
3:4:85:G:H4'	3:4:86:U:OP1	2.19	0.43
7:m:41:LYS:HD3	7:m:41:LYS:HA	1.82	0.43
8:n:44:GLY:O	8:n:47:ARG:NH1	2.43	0.43
19:y:67:ILE:HG23	19:y:81:ILE:HG13	2.01	0.43
20:z:62:ARG:O	20:z:66:LEU:HD23	2.19	0.43
21:0:41:TYR:O	21:0:45:LEU:HD23	2.19	0.43
27:9:109:LEU:HD22	27:9:115:ARG:NH2	2.34	0.43
31:AD:23:GLY:HA3	31:AD:96:ASP:O	2.19	0.43
36:AI:3:GLY:HA3	36:AI:50:ASN:OD1	2.18	0.43
46:B:1238:U:H2'	46:B:1239:U:C6	2.54	0.43
46:B:1594:G:C2	46:B:1595:U:C5	3.07	0.43
50:F:158:MET:SD	50:F:188:LYS:HD2	2.59	0.43
63:T:5:ARG:O	63:T:10:LYS:HE3	2.19	0.43
1:AS:196:G:N2	1:AS:372:A:C8	2.86	0.43
1:AS:206:U:H2'	1:AS:207:C:C6	2.53	0.43
1:AS:1321:U:H2'	1:AS:1322:A:O4'	2.19	0.43
1:AS:1347:U:O2	1:AS:1347:U:H2'	2.18	0.43
1:AS:1494:A:H2'	1:AS:1495:U:H6	1.83	0.43
1:AS:1632:C:O2'	28:BU:79:HIS:ND1	2.42	0.43
1:AS:1690:U:O2'	1:AS:1691:U:H5'	2.18	0.43
1:AS:3049:A:N6	1:AS:3052:G:C5	2.87	0.43
1:AS:3153:A:H2'	1:AS:3154:A:C8	2.54	0.43
1:AS:3197:G:H2'	1:AS:3198:C:C6	2.53	0.43
2:AT:81:U:H2'	2:AT:82:G:C8	2.54	0.43
3:AU:143:U:H2'	3:AU:144:G:O4'	2.17	0.43
11:BD:48:ILE:HG22	11:BD:49:ASN:ND2	2.33	0.43
15:BH:26:LEU:HD11	15:BH:87:TRP:CG	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BR:108:LYS:HA	25:BR:111:LYS:HD2	1.99	0.43
46:CM:283:G:H2'	46:CM:284:C:C6	2.54	0.43
46:CM:681:C:C4	46:CM:682:A:C5	3.07	0.43
46:CM:740:A:O2'	46:CM:741:A:OP1	2.34	0.43
46:CM:871:U:H2'	46:CM:872:A:H8	1.84	0.43
46:CM:886:G:H2'	46:CM:887:G:C8	2.54	0.43
46:CM:1454:U:O2'	65:DG:87:GLY:O	2.35	0.43
46:CM:1484:U:C4	46:CM:1498:G:C2	3.06	0.43
46:CM:1664:C:H2'	46:CM:1665:C:C6	2.54	0.43
51:CR:87:MET:O	51:CR:122:LYS:HE3	2.19	0.43
55:CV:39:GLY:O	55:CV:61:GLU:HG3	2.19	0.43
77:DS:160:ARG:NH1	77:DS:176:ASN:H	2.16	0.43
78:DT:12:THR:O	78:DT:53:ASN:HA	2.19	0.43
82:l1:140:HIS:O	82:l1:142:ASP:N	2.52	0.43
1:1:4:G:C6	3:4:155:G:O6	2.72	0.43
1:1:25:A:C4	1:1:330:G:C8	3.07	0.43
1:1:437:G:N2	1:1:620:A:H62	2.16	0.43
1:1:1242:G:C8	1:1:1260:G:C6	3.07	0.43
2:3:103:A:H2'	2:3:104:A:O4'	2.19	0.43
15:u:14:GLU:HG2	15:u:17:ARG:CG	2.48	0.43
21:0:109:ASP:OD2	21:0:113:ARG:NH1	2.51	0.43
25:7:101:ARG:HA	25:7:101:ARG:HD3	1.90	0.43
46:B:593:G:H5'	56:L:40:ARG:HH22	1.83	0.43
46:B:653:G:N2	46:B:654:G:O6	2.52	0.43
46:B:1191:U:OP2	46:B:1192:C:O2'	2.22	0.43
46:B:1318:C:H2'	46:B:1319:U:H6	1.83	0.43
48:D:32:ILE:HA	48:D:96:LEU:HB2	2.00	0.43
51:G:118:GLU:HA	51:G:121:TYR:HE1	1.83	0.43
54:J:11:THR:HG23	54:J:14:GLU:H	1.84	0.43
57:M:46:LEU:HD23	57:M:66:TYR:CG	2.53	0.43
59:P:16:LEU:HG	59:P:17:PRO:HD2	2.01	0.43
63:T:36:SER:OG	63:T:47:ARG:NH1	2.48	0.43
77:h:160:ARG:CG	77:h:173:PHE:HB3	2.48	0.43
1:AS:208:A:H4'	1:AS:210:A:C8	2.54	0.43
1:AS:269:G:OP2	16:BI:44:ARG:NH1	2.51	0.43
1:AS:792:U:H2'	1:AS:793:U:C6	2.54	0.43
1:AS:1560:U:H2'	1:AS:1561:U:C6	2.54	0.43
1:AS:1789:C:OP1	4:AW:177:LYS:NZ	2.48	0.43
1:AS:3219:G:H2'	1:AS:3220:C:C6	2.54	0.43
11:BD:129:HIS:H	11:BD:157:ASN:HD21	1.65	0.43
39:CF:8:ILE:O	39:CF:12:VAL:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:400:C:OP1	51:CR:3:ARG:NH1	2.52	0.43
46:CM:717:G:O2'	46:CM:718:A:O4'	2.32	0.43
46:CM:1323:C:H1'	46:CM:1396:A:C5	2.53	0.43
46:CM:1515:U:OP1	52:CS:109:LYS:HG3	2.18	0.43
55:CV:37:LYS:HA	55:CV:37:LYS:HD2	1.91	0.43
55:CV:201:ARG:HH12	58:CY:11:ARG:HA	1.83	0.43
79:CZ:82:PRO:HB2	79:CZ:83:GLU:H	1.27	0.43
64:DF:49:LYS:HA	64:DF:49:LYS:HD3	1.71	0.43
69:DK:79:ASN:OD1	69:DK:79:ASN:N	2.52	0.43
74:DP:43:ASN:HD22	74:DP:66:LEU:HD13	1.83	0.43
80:P0:19:LEU:HD21	80:P0:73:PHE:HZ	1.83	0.43
80:p0:11:TYR:CE2	80:p0:58:MET:HG2	2.44	0.43
1:1:180:U:H4'	38:AK:75:LYS:CG	2.49	0.42
1:1:380:U:H2'	1:1:381:U:C6	2.54	0.42
1:1:478:G:H2'	1:1:479:C:C6	2.54	0.42
1:1:582:G:H2'	1:1:583:A:C8	2.52	0.42
1:1:929:A:C2	6:l:99:ARG:NH2	2.87	0.42
1:1:1046:U:OP2	22:2:13:TYR:OH	2.22	0.42
1:1:1591:U:C2	1:1:1592:C:C5	3.07	0.42
1:1:2465:U:H1'	1:1:2466:A:OP1	2.19	0.42
1:1:2713:C:O2	43:AP:20:HIS:HE1	2.02	0.42
1:1:2871:C:N3	11:q:173:ARG:NH2	2.67	0.42
3:4:132:G:H5"	26:8:94:GLN:HE21	1.83	0.42
5:k:183:ILE:HG22	5:k:191:LYS:HG2	2.01	0.42
6:l:60:GLN:O	38:AK:52:LYS:NZ	2.42	0.42
9:o:186:ILE:HD11	9:o:196:VAL:HG12	2.01	0.42
16:v:37:HIS:NE2	16:v:63:ARG:HB3	2.34	0.42
17:w:76:ALA:HB1	17:w:107:GLU:OE2	2.19	0.42
46:B:21:U:O2'	56:L:16:LYS:O	2.36	0.42
46:B:404:U:H2'	46:B:405:A:C8	2.54	0.42
46:B:989:U:H3'	46:B:990:A:H5"	2.01	0.42
46:B:1202:A:C2	57:M:27:PHE:HD2	2.37	0.42
46:B:1515:U:H2'	46:B:1516:C:C6	2.53	0.42
46:B:1673:U:H3'	46:B:1674:U:C6	2.54	0.42
53:I:64:LYS:HB2	53:I:97:VAL:HG21	2.01	0.42
65:V:109:GLN:OE1	65:V:122:ARG:NE	2.52	0.42
77:h:157:GLU:HG2	77:h:159:LEU:HG	2.00	0.42
77:h:160:ARG:O	77:h:162:GLU:N	2.52	0.42
77:h:182:TYR:HH	77:h:187:HIS:HD1	1.62	0.42
78:AR:118:LYS:HE2	78:AR:118:LYS:HB3	1.79	0.42
1:AS:212:A:O4'	27:BT:2:ALA:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:225:C:H2'	1:AS:226:G:O4'	2.19	0.42
1:AS:438:A:N1	1:AS:489:G:O2'	2.39	0.42
1:AS:785:A:H2'	1:AS:786:U:C6	2.54	0.42
1:AS:2131:U:OP1	4:AW:246:LEU:HB2	2.19	0.42
1:AS:2329:U:H2'	1:AS:2330:A:H8	1.84	0.42
1:AS:2434:A:HO2'	1:AS:2435:G:P	2.39	0.42
1:AS:2659:G:P	7:AZ:8:ARG:HH12	2.41	0.42
1:AS:3091:U:H4'	41:CH:28:PRO:HG2	2.01	0.42
1:AS:3159:A:O2'	1:AS:3160:C:OP1	2.30	0.42
8:BA:53:TYR:CE1	8:BA:62:LEU:HB3	2.54	0.42
21:BN:23:LYS:HD3	21:BN:23:LYS:HA	1.85	0.42
25:BR:85:ALA:HB2	53:CT:158:VAL:HG23	2.00	0.42
26:BS:73:MET:O	26:BS:77:GLU:HG2	2.18	0.42
35:CB:107:GLU:O	35:CB:111:LYS:NZ	2.50	0.42
36:CC:31:LEU:HD22	36:CC:41:LEU:HD21	2.01	0.42
46:CM:479:A:H2'	46:CM:480:U:H6	1.84	0.42
46:CM:496:G:C6	46:CM:497:U:C2	3.07	0.42
46:CM:915:A:H2'	48:CO:114:VAL:HG11	2.00	0.42
46:CM:1234:U:C4	46:CM:1235:U:C4	3.07	0.42
46:CM:1330:A:H1'	66:DH:55:VAL:HG22	2.01	0.42
46:CM:1431:G:N7	77:DS:131:LYS:HD3	2.33	0.42
46:CM:1452:G:H2'	46:CM:1453:C:C6	2.53	0.42
46:CM:1552:C:OP1	64:DF:41:ARG:HD3	2.19	0.42
46:CM:1709:A:H2'	46:CM:1710:G:O4'	2.18	0.42
47:CN:157:ASP:O	67:DI:66:ASP:HA	2.18	0.42
51:CR:173:ILE:HD11	51:CR:236:TRP:CE2	2.54	0.42
53:CT:39:ASP:OD1	53:CT:46:LYS:HG3	2.18	0.42
54:CU:90:ALA:HB3	54:CU:92:ARG:NH1	2.33	0.42
63:DE:99:GLN:OE1	63:DE:120:GLN:NE2	2.52	0.42
64:DF:27:LYS:HA	64:DF:57:ARG:HA	2.01	0.42
68:DJ:8:ALA:HB2	68:DJ:74:VAL:HG21	2.01	0.42
68:DJ:115:GLU:O	68:DJ:119:LYS:HG2	2.19	0.42
70:DL:34:ASN:OD1	70:DL:34:ASN:N	2.52	0.42
71:DM:54:VAL:N	71:DM:55:PRO:HD2	2.35	0.42
82:L1:148:VAL:O	82:L1:152:LYS:N	2.51	0.42
82:L1:174:MET:HE3	82:L1:178:VAL:HG21	2.00	0.42
1:1:495:C:H2'	1:1:496:A:H8	1.84	0.42
1:1:730:A:H8	1:1:733:A:H62	1.67	0.42
1:1:912:G:H5'	1:1:913:A:OP1	2.19	0.42
1:1:1303:G:HO2'	1:1:2345:A:HO2'	1.68	0.42
1:1:1907:A:C2	1:1:2100:G:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2442:U:O2'	1:1:2443:G:C8	2.70	0.42
1:1:2644:G:H1'	13:s:97:SER:HB3	2.01	0.42
1:1:2666:A:O2'	1:1:2667:A:H5'	2.19	0.42
1:1:2699:A:OP2	1:1:2700:G:N2	2.47	0.42
1:1:2852:U:O2	5:k:250:ALA:HB3	2.18	0.42
1:1:3197:G:H2'	1:1:3198:C:C6	2.54	0.42
2:3:7:G:O3'	7:m:33:ARG:NH2	2.52	0.42
3:4:27:U:H2'	3:4:28:C:C6	2.54	0.42
4:j:117:GLU:HB2	4:j:162:ALA:HB1	1.99	0.42
46:B:94:U:H2'	46:B:95:G:O4'	2.19	0.42
46:B:151:G:O6	70:a:128:ARG:NH2	2.51	0.42
46:B:1205:C:H5'	57:M:51:SER:OG	2.19	0.42
46:B:1432:A:O2'	46:B:1433:C:H3'	2.18	0.42
50:F:77:ARG:HB2	57:M:22:VAL:HG11	2.01	0.42
64:U:33:THR:HA	64:U:38:VAL:O	2.20	0.42
64:U:69:ILE:HG22	64:U:73:MET:HE2	2.02	0.42
78:AR:136:ASN:OD1	78:AR:136:ASN:N	2.47	0.42
78:AR:173:LYS:HZ3	78:AR:194:GLY:HA2	1.83	0.42
78:AR:261:LYS:HZ2	78:AR:268:LEU:HD13	1.84	0.42
1:AS:67:C:N4	1:AS:314:U:O2'	2.51	0.42
1:AS:800:C:OP1	6:AY:99:ARG:NH2	2.52	0.42
1:AS:849:G:OP2	44:CK:2:THR:HG21	2.20	0.42
1:AS:1466:U:H2'	1:AS:1467:U:C6	2.54	0.42
1:AS:1676:G:H2'	1:AS:1677:U:H6	1.83	0.42
1:AS:2367:C:H2'	1:AS:2368:A:C8	2.54	0.42
1:AS:2466:A:H5'	1:AS:2467:C:C2	2.54	0.42
1:AS:2790:U:H6	1:AS:2790:U:H5'	1.84	0.42
2:AT:96:U:H4'	21:BN:119:ARG:HB2	2.01	0.42
3:AU:5:U:H2'	3:AU:6:U:C6	2.54	0.42
3:AU:19:C:H2'	3:AU:20:U:C6	2.53	0.42
3:AU:85:G:O6	27:BT:114:ASP:N	2.48	0.42
7:AZ:55:PHE:H	7:AZ:151:GLN:HE22	1.66	0.42
13:BF:87:LYS:HB2	13:BF:87:LYS:HE2	1.80	0.42
19:BL:76:ALA:HA	19:BL:79:LYS:HG3	1.99	0.42
21:BN:98:THR:HG22	21:BN:100:VAL:H	1.84	0.42
28:BU:41:ALA:HB2	28:BU:77:TYR:HE1	1.84	0.42
32:BY:95:VAL:HG12	32:BY:97:VAL:HG13	2.01	0.42
44:CK:47:VAL:HA	44:CK:56:ASN:O	2.18	0.42
45:CL:155:LEU:HA	57:CX:92:LEU:HD21	2.01	0.42
46:CM:93:A:O2'	51:CR:4:GLY:HA3	2.18	0.42
46:CM:510:A:O2'	56:CW:133:HIS:NE2	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:512:G:O2'	46:CM:513:A:H8	2.02	0.42
46:CM:946:U:H2'	46:CM:947:C:H6	1.84	0.42
46:CM:992:C:OP1	60:DB:130:ARG:HA	2.19	0.42
46:CM:1188:A:C2	46:CM:1543:A:C4	3.07	0.42
46:CM:1276:G:H22	46:CM:1309:G:H21	1.67	0.42
46:CM:1518:G:H21	65:DG:48:GLN:CD	2.27	0.42
46:CM:1581:G:H2'	46:CM:1582:U:O4'	2.18	0.42
52:CS:43:PHE:CD1	52:CS:115:LYS:HD3	2.55	0.42
52:CS:99:MET:HB2	52:CS:180:ARG:NH1	2.34	0.42
60:DB:65:LYS:O	60:DB:69:VAL:HG23	2.20	0.42
72:DN:37:LYS:O	72:DN:38:ARG:NH1	2.52	0.42
78:DT:34:LEU:HB3	78:DT:74:ILE:HD11	2.00	0.42
78:DT:145:LEU:HD11	78:DT:178:TRP:CD2	2.53	0.42
1:1:696:U:H2'	1:1:697:A:O4'	2.19	0.42
1:1:907:C:OP1	4:j:14:SER:OG	2.37	0.42
1:1:943:G:H2'	1:1:944:C:H6	1.85	0.42
1:1:1448:A:N3	1:1:2324:C:O2'	2.48	0.42
1:1:1459:U:H2'	1:1:1460:G:O4'	2.19	0.42
1:1:1642:G:H1'	1:1:1805:A:N6	2.33	0.42
1:1:2078:A:N3	1:1:2078:A:H3'	2.35	0.42
1:1:2915:G:H2'	1:1:2916:U:O4'	2.19	0.42
1:1:3095:A:OP1	17:w:135:LYS:NZ	2.32	0.42
4:j:147:ARG:HG2	4:j:157:ILE:HG12	2.00	0.42
7:m:41:LYS:HB2	22:2:68:THR:O	2.20	0.42
24:6:110:LYS:HB2	24:6:110:LYS:HE3	1.82	0.42
29:AB:94:SER:HB3	29:AB:121:VAL:HG13	2.01	0.42
46:B:67:A:O2'	46:B:69:G:OP1	2.34	0.42
46:B:382:G:H2'	46:B:383:A:C8	2.54	0.42
46:B:442:C:OP1	70:a:102:LYS:NZ	2.31	0.42
46:B:590:A:O2'	46:B:594:C:OP1	2.36	0.42
46:B:673:A:C6	46:B:674:C:C2	3.07	0.42
46:B:702:G:H4'	46:B:703:U:H4'	2.01	0.42
46:B:887:G:H1	60:Q:46:ASP:CG	2.28	0.42
46:B:1002:U:H2'	46:B:1003:U:C6	2.53	0.42
46:B:1064:U:H2'	46:B:1065:U:H6	1.82	0.42
46:B:1670:U:O2'	46:B:1671:G:H8	2.00	0.42
51:G:45:VAL:HA	51:G:61:VAL:HG21	2.01	0.42
61:R:8:LYS:NZ	61:R:10:ARG:HH21	2.16	0.42
78:AR:240:LEU:HD22	78:AR:249:LEU:HD11	2.00	0.42
1:AS:602:A:H2'	1:AS:603:C:H6	1.84	0.42
1:AS:607:G:C8	6:AY:311:SER:HA	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:788:G:H2'	1:AS:789:C:C6	2.53	0.42
1:AS:796:G:H22	6:AY:102:ALA:HA	1.84	0.42
1:AS:879:A:H5'	18:BK:133:HIS:HA	2.02	0.42
1:AS:988:A:O2'	1:AS:989:G:H5'	2.19	0.42
1:AS:1756:A:C6	1:AS:1762:G:C5	3.07	0.42
1:AS:2744:C:H4'	1:AS:2745:C:H5'	2.02	0.42
7:AZ:143:LYS:HE3	7:AZ:145:PHE:HZ	1.84	0.42
28:BU:42:ILE:HD11	28:BU:74:LEU:HD12	2.00	0.42
31:BX:12:ILE:HD12	31:BX:12:ILE:H	1.84	0.42
31:BX:55:LYS:O	31:BX:59:GLU:HG2	2.19	0.42
46:CM:584:G:H2'	46:CM:585:C:C6	2.54	0.42
46:CM:684:C:H2'	46:CM:685:C:C6	2.54	0.42
46:CM:885:A:H2'	46:CM:886:G:H8	1.84	0.42
46:CM:1414:G:H3'	46:CM:1414:G:OP2	2.19	0.42
47:CN:55:GLU:HB3	67:DI:79:LEU:HD22	2.02	0.42
48:CO:29:TRP:HA	48:CO:46:THR:O	2.18	0.42
50:CQ:24:GLU:OE1	75:DQ:23:HIS:CE1	2.64	0.42
79:CZ:33:ARG:O	79:CZ:34:THR:HG23	2.19	0.42
60:DB:47:ARG:HG3	60:DB:48:ASP:OD1	2.19	0.42
78:DT:113:SER:CB	78:DT:154:ALA:HA	2.49	0.42
82:L1:3:LYS:HD3	82:L1:3:LYS:HA	1.66	0.42
82:L1:86:SER:O	82:L1:89:ASP:HB2	2.19	0.42
1:1:214:G:H5"	27:9:12:ARG:HG3	2.01	0.42
1:1:547:U:H2'	1:1:548:G:C8	2.54	0.42
1:1:595:G:H21	6:l:323:GLN:CD	2.27	0.42
1:1:647:A:OP2	1:1:2840:U:O2'	2.36	0.42
1:1:908:G:N7	4:j:9:ARG:NH2	2.67	0.42
1:1:939:U:H3'	29:AB:13:GLY:HA2	2.00	0.42
1:1:949:G:O2'	1:1:1111:G:H4'	2.19	0.42
1:1:976:A:H2	1:1:1100:G:H21	1.67	0.42
1:1:983:U:H2'	1:1:984:U:C6	2.53	0.42
1:1:1036:A:H1'	12:r:198:LYS:NZ	2.34	0.42
1:1:1141:G:H5'	33:AF:47:PHE:CE1	2.53	0.42
1:1:1180:A:C6	1:1:1319:G:C6	3.07	0.42
1:1:1239:G:H2'	1:1:1240:A:H5'	2.01	0.42
1:1:1274:A:H3'	1:1:1275:C:C6	2.54	0.42
1:1:1277:G:OP1	80:P0:55:LYS:HD2	2.19	0.42
1:1:1639:A:H2'	1:1:1640:C:C2	2.54	0.42
1:1:2256:C:OP1	42:AO:23:ARG:NH2	2.52	0.42
1:1:2397:A:H2'	1:1:2398:C:H6	1.84	0.42
1:1:2520:A:H1'	1:1:2521:C:C5	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2687:A:O2'	43:AP:8:ARG:NH2	2.40	0.42
1:1:2766:G:N3	83:1:3401:3K5:H1	2.35	0.42
1:1:3005:A:H2'	1:1:3006:C:C6	2.55	0.42
1:1:3236:G:O6	8:n:128:LYS:NZ	2.53	0.42
1:1:3264:C:H2'	1:1:3265:U:C6	2.55	0.42
2:3:85:G:O3'	9:o:215:ARG:NH2	2.51	0.42
5:k:217:VAL:HG11	5:k:328:ILE:HB	2.00	0.42
36:AI:4:VAL:HG11	36:AI:9:LEU:HD21	2.01	0.42
45:i:67:LYS:HZ1	61:R:124:THR:HA	1.83	0.42
45:i:92:SER:HA	46:B:1259:C:C5	2.54	0.42
46:B:141:G:H2'	46:B:142:G:C8	2.54	0.42
46:B:672:U:O2	46:B:673:A:C6	2.72	0.42
46:B:781:G:H4'	58:N:69:LYS:NZ	2.35	0.42
46:B:1393:U:H2'	46:B:1394:G:C8	2.55	0.42
46:B:1649:G:H2'	46:B:1650:G:C8	2.52	0.42
46:B:1727:A:H2'	46:B:1728:U:H6	1.84	0.42
48:D:129:THR:OG1	48:D:131:ASP:OD1	2.34	0.42
59:P:83:GLU:OE1	59:P:83:GLU:N	2.47	0.42
74:e:34:GLU:OE1	74:e:34:GLU:N	2.41	0.42
75:f:12:ARG:HB2	75:f:12:ARG:NH1	2.35	0.42
77:h:123:LYS:HA	77:h:123:LYS:HD3	1.87	0.42
77:h:182:TYR:CE2	77:h:184:GLY:HA2	2.55	0.42
1:AS:477:U:O5'	1:AS:477:U:H6	2.01	0.42
1:AS:1189:A:OP1	17:BJ:50:ARG:NH2	2.48	0.42
1:AS:1189:A:P	17:BJ:50:ARG:HH22	2.42	0.42
1:AS:1348:U:O2'	1:AS:1350:G:OP2	2.37	0.42
1:AS:2310:A:H2'	1:AS:2311:C:O4'	2.19	0.42
1:AS:2628:A:C4	1:AS:2630:G:N7	2.87	0.42
1:AS:3135:A:H2'	1:AS:3136:C:H6	1.84	0.42
1:AS:3160:C:N4	1:AS:3161:U:C4	2.88	0.42
2:AT:107:A:H2'	2:AT:108:U:C6	2.54	0.42
4:AW:68:LYS:HE3	4:AW:68:LYS:HB2	1.87	0.42
16:BI:27:CYS:SG	16:BI:124:ASP:HB3	2.59	0.42
21:BN:125:LYS:HG2	21:BN:127:VAL:HG23	2.00	0.42
23:BP:56:ILE:HG12	23:BP:66:VAL:HG22	2.02	0.42
46:CM:65:A:H8	46:CM:65:A:H5"	1.84	0.42
46:CM:137:A:O4'	46:CM:139:U:H5'	2.19	0.42
46:CM:649:G:N7	46:CM:650:G:C4	2.87	0.42
46:CM:669:G:N2	46:CM:671:G:C2	2.87	0.42
46:CM:1130:U:O2'	49:CP:84:GLN:O	2.37	0.42
46:CM:1423:U:O2'	50:CQ:182:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:1648:U:H2'	46:CM:1649:G:H8	1.83	0.42
48:CO:46:THR:HG22	48:CO:47:LEU:H	1.84	0.42
54:CU:37:LEU:HD11	54:CU:69:VAL:HG21	2.01	0.42
54:CU:72:ARG:HG2	54:CU:75:ARG:HH21	1.85	0.42
56:CW:38:ASN:HD21	56:CW:40:ARG:NH1	2.17	0.42
72:DN:41:ILE:HG12	72:DN:68:TYR:CD2	2.54	0.42
78:DT:71:ASP:HB3	78:DT:113:SER:HA	2.01	0.42
82:L1:136:THR:OG1	82:L1:137:PRO:HD2	2.20	0.42
1:1:913:A:C6	1:1:914:C:C4	3.07	0.42
1:1:1222:G:H2'	1:1:1223:C:H6	1.85	0.42
1:1:1258:G:H3'	1:1:1258:G:OP2	2.20	0.42
1:1:2603:U:H2'	1:1:2604:G:H8	1.83	0.42
1:1:2890:G:C2	1:1:2891:A:N7	2.87	0.42
1:1:3027:U:H1'	1:1:3029:U:OP2	2.19	0.42
1:1:3136:C:H2'	1:1:3137:A:H8	1.85	0.42
1:1:3256:G:C2	1:1:3257:A:C5	3.08	0.42
5:k:212:ASP:OD2	5:k:354:VAL:N	2.27	0.42
5:k:283:TYR:CE2	5:k:325:LYS:HB2	2.55	0.42
9:o:233:ILE:HD12	9:o:233:ILE:HA	1.94	0.42
12:r:53:VAL:HG21	12:r:166:ILE:HD12	2.01	0.42
14:t:182:LYS:HE3	14:t:186:GLU:OE2	2.20	0.42
27:9:71:ASN:ND2	27:9:83:ASP:HA	2.34	0.42
45:i:102:LYS:HE3	46:B:574:G:OP1	2.20	0.42
45:i:114:GLU:HG3	50:F:117:ARG:CZ	2.50	0.42
46:B:216:A:N6	46:B:829:A:O2'	2.51	0.42
46:B:226:G:C6	46:B:819:G:C8	3.08	0.42
46:B:706:C:H2'	46:B:707:C:H3'	2.01	0.42
46:B:1127:A:H2'	46:B:1128:A:H8	1.83	0.42
46:B:1150:G:H2'	46:B:1151:A:C8	2.55	0.42
46:B:1325:U:O4'	46:B:1364:U:H5"	2.20	0.42
46:B:1399:U:O2'	46:B:1402:G:OP1	2.35	0.42
46:B:1669:U:O2'	46:B:1670:U:O5'	2.38	0.42
54:J:169:TYR:OH	54:J:175:LYS:HE3	2.19	0.42
1:AS:157:G:H2'	1:AS:158:A:H8	1.83	0.42
1:AS:166:U:H2'	1:AS:167:U:H6	1.85	0.42
1:AS:1427:G:N7	29:BV:9:ARG:NH2	2.68	0.42
1:AS:1552:C:O2'	10:BC:55:GLU:OE2	2.38	0.42
1:AS:1767:G:H2'	1:AS:1768:U:O4'	2.19	0.42
1:AS:2333:G:OP1	18:BK:141:SER:OG	2.20	0.42
1:AS:2339:A:H2'	1:AS:2340:C:C6	2.54	0.42
1:AS:2434:A:N1	1:AS:2464:A:N6	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3199:G:H2'	1:AS:3200:C:H6	1.84	0.42
3:AU:26:U:O2'	6:AY:52:ALA:O	2.36	0.42
5:AX:159:ARG:HG2	5:AX:182:GLN:HA	2.01	0.42
5:AX:284:ARG:NH1	5:AX:356:LEU:HD12	2.32	0.42
7:AZ:179:ARG:HD3	7:AZ:179:ARG:HA	1.80	0.42
27:BT:63:LYS:HA	27:BT:63:LYS:HD3	1.85	0.42
46:CM:443:A:H1'	46:CM:523:A:H5'	2.01	0.42
46:CM:598:U:P	69:DK:108:GLY:HA2	2.60	0.42
46:CM:814:A:H2'	46:CM:814:A:OP2	2.19	0.42
46:CM:929:A:OP2	72:DN:19:LYS:NZ	2.52	0.42
46:CM:1157:G:H2'	46:CM:1158:C:C6	2.55	0.42
46:CM:1529:G:N2	46:CM:1555:C:H1'	2.34	0.42
46:CM:1571:G:H22	46:CM:1598:A:P	2.40	0.42
46:CM:1763:A:H2'	46:CM:1764:G:H8	1.83	0.42
47:CN:79:ARG:NH2	47:CN:165:LYS:HG2	2.35	0.42
50:CQ:60:LEU:HB3	50:CQ:64:GLY:HA2	2.01	0.42
50:CQ:73:LEU:CD2	57:CX:20:VAL:HB	2.49	0.42
52:CS:120:ILE:HG12	71:DM:100:ILE:HG12	2.00	0.42
53:CT:206:ALA:O	53:CT:210:GLN:HG2	2.20	0.42
79:CZ:93:ASP:OD1	79:CZ:93:ASP:N	2.51	0.42
63:DE:78:ARG:HH11	63:DE:81:LYS:CD	2.28	0.42
67:DI:79:LEU:HD13	67:DI:82:VAL:HG11	2.02	0.42
76:DR:51:ASN:C	76:DR:53:LYS:H	2.27	0.42
78:DT:102:GLN:HG2	78:DT:103:ARG:N	2.33	0.42
1:1:35:C:H41	1:1:46:C:H6	1.67	0.42
1:1:277:G:H2'	1:1:278:U:H6	1.84	0.42
1:1:291:C:H2'	1:1:292:U:H6	1.83	0.42
1:1:787:A:H2'	1:1:788:G:C8	2.55	0.42
1:1:1619:G:H2'	1:1:1620:G:O4'	2.19	0.42
1:1:2070:A:H5"	1:1:2072:C:H1'	2.01	0.42
1:1:3067:U:H2'	1:1:3068:C:H6	1.85	0.42
2:3:107:A:H2'	2:3:108:U:C6	2.54	0.42
3:4:40:A:H2'	3:4:41:A:C8	2.54	0.42
6:l:260:ASP:OD1	6:l:265:SER:HB3	2.20	0.42
11:q:21:LYS:HD2	15:u:6:LYS:HD3	2.02	0.42
17:w:116:LYS:O	17:w:118:ARG:NH1	2.52	0.42
19:y:78:GLU:OE1	19:y:78:GLU:N	2.52	0.42
26:8:62:ILE:HD13	26:8:94:GLN:HB3	2.02	0.42
28:AA:87:LEU:HD11	28:AA:121:LYS:HD2	2.01	0.42
28:AA:90:GLU:OE1	28:AA:90:GLU:HA	2.19	0.42
44:AQ:84:ARG:O	44:AQ:88:GLU:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:286:A:H2'	46:B:287:U:O4'	2.20	0.42
46:B:1318:C:H2'	46:B:1319:U:C6	2.55	0.42
46:B:1432:A:O2'	46:B:1433:C:H5"	2.20	0.42
59:P:55:ARG:O	73:d:47:PHE:HB2	2.19	0.42
62:S:68:VAL:HG11	62:S:80:ILE:HD11	2.02	0.42
77:h:155:ASN:HA	79:O:77:ALA:HB1	2.01	0.42
77:h:167:THR:HG23	77:h:168:CYS:SG	2.59	0.42
1:AS:76:A:H5'	14:BG:100:ARG:CZ	2.49	0.42
1:AS:278:U:H2'	1:AS:279:U:C6	2.54	0.42
1:AS:706:G:N2	1:AS:709:A:OP2	2.40	0.42
1:AS:1282:A:H2'	1:AS:1282:A:N3	2.35	0.42
1:AS:1347:U:O2'	1:AS:1348:U:OP2	2.31	0.42
1:AS:1678:U:H4'	1:AS:1680:U:O4	2.20	0.42
1:AS:1923:G:N7	44:CK:16:VAL:HG13	2.35	0.42
1:AS:2557:G:N3	1:AS:2557:G:H2'	2.35	0.42
1:AS:3262:U:H2'	1:AS:3263:C:H6	1.85	0.42
3:AU:13:A:C6	3:AU:14:C:C4	3.08	0.42
3:AU:102:U:H2'	3:AU:103:G:C8	2.54	0.42
6:AY:65:SER:HA	6:AY:76:PRO:HA	2.01	0.42
6:AY:303:ALA:CA	19:BL:39:ARG:HH12	2.32	0.42
9:BB:39:ARG:HA	9:BB:42:ILE:HG12	2.00	0.42
18:BK:123:PRO:O	18:BK:143:PRO:HG2	2.19	0.42
33:BZ:14:TYR:CE2	33:BZ:16:LYS:HB2	2.55	0.42
46:CM:327:G:H2'	46:CM:328:G:H8	1.85	0.42
46:CM:449:G:H3'	46:CM:451:C:H41	1.85	0.42
46:CM:498:C:O2'	46:CM:499:U:H5'	2.19	0.42
46:CM:740:A:H2'	46:CM:741:A:H8	1.85	0.42
46:CM:964:A:C4	46:CM:965:G:C8	3.08	0.42
46:CM:1212:A:C2	79:CZ:43:ARG:HB3	2.55	0.42
46:CM:1331:A:OP1	66:DH:52:LYS:NZ	2.51	0.42
46:CM:1584:A:C8	75:DQ:14:PHE:HD1	2.38	0.42
46:CM:1672:G:C2	46:CM:1704:C:C2	3.06	0.42
46:CM:1763:A:H2'	46:CM:1764:G:C8	2.55	0.42
51:CR:103:TYR:CD1	51:CR:189:LEU:HD21	2.54	0.42
64:DF:82:PRO:HG2	65:DG:36:ILE:HG21	2.00	0.42
78:DT:75:SER:OG	78:DT:76:ALA:N	2.50	0.42
80:P0:43:LYS:HD2	80:P0:43:LYS:HA	1.77	0.42
82:L1:189:PHE:O	82:L1:193:LEU:HD12	2.20	0.42
80:p0:16:ARG:HA	80:p0:16:ARG:HD3	1.84	0.42
1:1:99:A:H2'	1:1:100:G:N3	2.35	0.42
1:1:273:A:H2'	1:1:274:G:C8	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1208:A:O3'	21:0:92:LYS:NZ	2.52	0.42
1:1:1496:G:H2'	1:1:1497:U:O4'	2.19	0.42
1:1:1696:G:H2'	1:1:1697:C:C6	2.54	0.42
1:1:2516:U:O2'	1:1:2519:A:N6	2.52	0.42
1:1:3108:G:C5	1:1:3109:C:C5	3.07	0.42
1:1:3313:G:H2'	1:1:3314:C:H6	1.84	0.42
3:4:6:U:H2'	3:4:7:U:H6	1.84	0.42
3:4:26:U:H2'	3:4:27:U:C6	2.54	0.42
3:4:81:A:H2'	3:4:82:U:C6	2.54	0.42
18:x:122:ALA:HA	18:x:145:HIS:CE1	2.54	0.42
28:AA:71:PHE:HA	28:AA:111:LYS:HE2	2.02	0.42
46:B:997:U:H2'	46:B:998:A:H8	1.84	0.42
46:B:1283:U:H2'	46:B:1284:G:C8	2.54	0.42
46:B:1308:C:H2'	46:B:1309:G:C8	2.54	0.42
46:B:1345:A:N1	46:B:1349:G:C6	2.88	0.42
46:B:1571:G:N2	46:B:1598:A:OP2	2.42	0.42
50:F:60:LEU:HD12	50:F:60:LEU:O	2.20	0.42
51:G:103:TYR:CD1	51:G:189:LEU:HD21	2.54	0.42
51:G:123:LEU:HD13	51:G:237:VAL:HG13	2.01	0.42
52:H:122:HIS:HB2	52:H:129:PRO:HG3	2.01	0.42
54:J:60:PRO:N	54:J:61:PRO:HD2	2.34	0.42
57:M:76:LEU:O	57:M:80:LEU:HB2	2.19	0.42
62:S:128:PHE:O	62:S:136:ARG:NH1	2.48	0.42
63:T:67:ARG:HE	63:T:67:ARG:HB3	1.70	0.42
66:W:56:ARG:HG3	66:W:88:ARG:NH1	2.34	0.42
68:Y:111:MET:SD	68:Y:115:GLU:HG2	2.59	0.42
78:AR:145:LEU:HD13	78:AR:178:TRP:CD2	2.55	0.42
1:AS:297:G:H5'	37:CD:84:ARG:HH21	1.85	0.42
1:AS:452:A:HO2'	1:AS:453:U:H6	1.64	0.42
1:AS:561:U:H2'	1:AS:562:C:C6	2.54	0.42
1:AS:662:U:H5'	6:AY:108:ARG:HA	2.01	0.42
1:AS:756:G:H1'	1:AS:767:A:N6	2.35	0.42
1:AS:1050:A:H5"	1:AS:2609:A:H61	1.84	0.42
1:AS:1145:G:H2'	1:AS:1148:G:O6	2.20	0.42
1:AS:1227:A:H5"	1:AS:1228:C:C5'	2.50	0.42
1:AS:1762:G:HO2'	1:AS:1763:C:P	2.42	0.42
1:AS:2262:C:C4	1:AS:2286:C:O4'	2.72	0.42
1:AS:3023:U:H2'	1:AS:3024:G:H8	1.85	0.42
2:AT:13:A:C2	7:AZ:21:ARG:HB2	2.54	0.42
14:BG:57:VAL:HG23	14:BG:149:VAL:HG13	2.02	0.42
41:CH:22:LYS:HB3	41:CH:22:LYS:HE3	1.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:298:A:H2'	46:CM:299:A:C8	2.55	0.42
46:CM:656:C:H2'	46:CM:657:C:O4'	2.20	0.42
46:CM:806:A:OP1	46:CM:806:A:H3'	2.20	0.42
46:CM:826:U:C2'	46:CM:827:C:H5'	2.49	0.42
46:CM:943:U:H2'	59:DA:14:SER:OG	2.19	0.42
46:CM:962:A:H2'	46:CM:963:A:O4'	2.19	0.42
46:CM:976:G:P	60:DB:124:LYS:HD2	2.59	0.42
46:CM:1017:G:C6	46:CM:1089:U:C4	3.08	0.42
46:CM:1063:C:H2'	46:CM:1064:U:C6	2.54	0.42
46:CM:1226:G:C8	61:DC:79:HIS:HE1	2.37	0.42
46:CM:1278:U:C2	46:CM:1279:G:C8	3.07	0.42
46:CM:1676:A:H2	46:CM:1701:A:C6	2.38	0.42
46:CM:1740:A:H2'	46:CM:1741:A:C8	2.55	0.42
48:CO:30:PHE:HZ	48:CO:64:ARG:NH1	2.17	0.42
50:CQ:176:VAL:HB	50:CQ:183:LEU:CD2	2.50	0.42
51:CR:65:MET:SD	51:CR:80:THR:HA	2.59	0.42
51:CR:192:VAL:HG23	51:CR:244:GLY:HA3	2.01	0.42
56:CW:34:TYR:CD2	56:CW:105:LEU:HD22	2.55	0.42
61:DC:60:LEU:HD23	61:DC:60:LEU:HA	1.90	0.42
1:1:293:C:H2'	1:1:294:U:O4'	2.19	0.42
1:1:313:A:H2'	1:1:314:U:C6	2.55	0.42
1:1:520:G:P	15:u:70:ARG:HH22	2.43	0.42
1:1:615:G:H5"	18:x:170:SER:OG	2.19	0.42
1:1:1696:G:H5'	39:AL:3:ARG:HH12	1.84	0.42
1:1:2145:A:H2'	1:1:2146:A:C8	2.54	0.42
1:1:2156:A:H5"	4:j:129:THR:OG1	2.20	0.42
1:1:2380:A:H5"	6:l:68:THR:OG1	2.19	0.42
1:1:2618:C:H5"	12:r:119:TRP:CG	2.55	0.42
1:1:2814:U:O2	1:1:2814:U:H2'	2.19	0.42
1:1:2956:C:H2'	1:1:2957:C:C6	2.53	0.42
1:1:2979:U:H2'	1:1:2980:A:H8	1.85	0.42
1:1:3133:G:H2'	1:1:3134:C:O4'	2.20	0.42
1:1:3207:G:H5'	1:1:3210:A:N3	2.35	0.42
35:AH:54:ILE:HD11	35:AH:78:GLY:HA2	2.02	0.42
41:AN:19:ILE:HA	41:AN:25:ALA:O	2.20	0.42
45:i:61:GLU:OE2	45:i:66:ASN:ND2	2.53	0.42
45:i:101:LYS:HD3	46:B:573:C:O3'	2.20	0.42
46:B:137:A:O4'	46:B:139:U:H5'	2.20	0.42
46:B:1102:U:H2'	46:B:1103:G:H8	1.84	0.42
46:B:1227:A:O2'	46:B:1229:A:OP1	2.34	0.42
46:B:1335:U:H2'	46:B:1336:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:G:199:GLU:OE2	51:G:201:HIS:NE2	2.52	0.42
54:J:67:ARG:HD2	54:J:127:PHE:CD1	2.54	0.42
61:R:15:PHE:CE1	61:R:110:GLU:HG3	2.55	0.42
71:b:60:VAL:HG23	71:b:101:TYR:HB2	2.01	0.42
78:AR:152:VAL:HA	78:AR:170:SER:HA	2.02	0.42
78:AR:173:LYS:NZ	78:AR:194:GLY:HA2	2.35	0.42
1:AS:229:C:H2'	1:AS:230:G:O4'	2.20	0.42
1:AS:338:A:OP1	6:AY:48:ARG:HA	2.20	0.42
1:AS:407:A:C2	3:AU:17:A:H1'	2.55	0.42
1:AS:445:A:C2	1:AS:446:U:C2	3.07	0.42
1:AS:995:G:N3	1:AS:998:A:N6	2.68	0.42
1:AS:1814:U:O2'	1:AS:1815:U:O5'	2.38	0.42
1:AS:2145:A:H2'	1:AS:2146:A:C8	2.55	0.42
1:AS:2385:C:C2	1:AS:2386:U:C5	3.07	0.42
1:AS:2393:C:H5"	4:AW:207:VAL:HG12	2.02	0.42
1:AS:2990:C:C4	1:AS:2991:U:C4	3.08	0.42
1:AS:3044:C:H2'	1:AS:3045:A:O4'	2.20	0.42
3:AU:40:A:H2'	3:AU:41:A:H8	1.83	0.42
3:AU:56:G:H2'	3:AU:57:C:O4'	2.19	0.42
10:BC:35:PHE:CD1	10:BC:43:PRO:HD3	2.54	0.42
15:BH:23:ASN:HD22	15:BH:23:ASN:C	2.18	0.42
16:BI:91:GLN:O	16:BI:93:LYS:NZ	2.52	0.42
23:BP:102:LYS:HE3	23:BP:102:LYS:HB2	1.86	0.42
46:CM:246:U:H5'	58:CY:36:LYS:HG3	2.01	0.42
46:CM:861:G:H2'	46:CM:921:G:N2	2.35	0.42
46:CM:1105:U:H2'	46:CM:1106:C:H6	1.83	0.42
46:CM:1187:A:N6	46:CM:1443:C:O5'	2.53	0.42
46:CM:1238:U:H2'	46:CM:1239:U:H6	1.84	0.42
46:CM:1238:U:C2	46:CM:1239:U:C5	3.08	0.42
46:CM:1238:U:O2'	77:DS:185:LYS:HG3	2.20	0.42
46:CM:1326:A:H1'	78:DT:66:SER:OG	2.20	0.42
69:DK:29:TYR:HA	69:DK:32:ARG:NH1	2.35	0.42
71:DM:43:ASP:CG	71:DM:44:GLN:N	2.78	0.42
74:DP:60:GLU:CD	74:DP:60:GLU:H	2.27	0.42
78:DT:33:LEU:O	78:DT:45:TRP:HD1	2.02	0.42
82:L1:113:SER:HA	82:L1:138:VAL:HB	2.00	0.42
82:l1:22:GLU:HG2	82:l1:23:THR:H	1.84	0.42
82:l1:144:LEU:HA	82:l1:144:LEU:HD23	1.59	0.42
1:1:260:C:H2'	1:1:261:U:C6	2.55	0.42
1:1:276:U:O2	16:v:93:LYS:HE2	2.20	0.42
1:1:314:U:H2'	1:1:315:C:H6	1.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:988:A:O2'	1:1:989:G:H5'	2.20	0.42
1:1:1466:U:H2'	1:1:1467:U:H6	1.85	0.42
1:1:1559:C:HO2'	1:1:1560:U:P	2.42	0.42
1:1:2557:G:C6	26:8:24:LEU:HD21	2.54	0.42
1:1:2749:G:C2	29:AB:60:TYR:CE2	3.08	0.42
1:1:2812:C:H41	1:1:2817:A:HO2'	1.65	0.42
1:1:3042:A:OP1	20:z:62:ARG:NH1	2.51	0.42
1:1:3139:U:OP2	34:AG:63:LYS:NZ	2.38	0.42
3:4:75:G:H2'	3:4:76:C:C6	2.55	0.42
6:l:40:PHE:CD1	6:l:243:ALA:HB2	2.55	0.42
7:m:95:TRP:CD1	7:m:158:ARG:HA	2.54	0.42
7:m:200:PHE:HB3	7:m:237:GLU:HG2	2.02	0.42
26:8:142:ILE:HD12	26:8:142:ILE:HA	1.86	0.42
46:B:404:U:H2'	46:B:405:A:H8	1.85	0.42
46:B:512:G:N3	46:B:513:A:C8	2.88	0.42
46:B:672:U:H4'	46:B:673:A:N9	2.35	0.42
46:B:1335:U:O2'	46:B:1336:G:OP1	2.33	0.42
46:B:1457:A:H5'	52:H:185:ARG:HG2	2.02	0.42
56:L:65:LYS:HA	56:L:70:LEU:HD11	2.02	0.42
59:P:102:LEU:HD23	59:P:102:LEU:HA	1.84	0.42
62:S:76:GLN:O	62:S:80:ILE:HG13	2.19	0.42
66:W:25:LEU:HD23	66:W:113:VAL:HG22	2.00	0.42
72:c:41:ILE:HG12	72:c:68:TYR:CD2	2.55	0.42
78:AR:71:ASP:CB	78:AR:113:SER:HA	2.49	0.42
1:AS:480:G:C2	1:AS:481:G:C8	3.08	0.42
1:AS:756:G:O2'	1:AS:766:G:N2	2.53	0.42
1:AS:868:U:H2'	1:AS:869:C:C6	2.54	0.42
1:AS:961:A:O2'	29:BV:44:ASN:HB2	2.20	0.42
1:AS:1028:C:H2'	1:AS:1029:U:O4'	2.20	0.42
1:AS:1255:A:H61	80:p0:33:VAL:CG1	2.33	0.42
1:AS:1882:A:O2'	5:AX:226:PHE:O	2.33	0.42
1:AS:2590:G:C8	1:AS:2837:U:H5"	2.55	0.42
1:AS:2631:G:H4'	1:AS:2723:G:O2'	2.19	0.42
1:AS:3056:C:H2'	1:AS:3057:G:O4'	2.20	0.42
3:AU:27:U:H2'	3:AU:28:C:H6	1.85	0.42
3:AU:122:U:O2	3:AU:131:G:N2	2.41	0.42
12:BE:56:GLU:HB3	12:BE:58:GLU:HG3	2.01	0.42
18:BK:94:LEU:HA	18:BK:94:LEU:HD23	1.81	0.42
21:BN:66:GLU:OE2	21:BN:73:LYS:HE2	2.20	0.42
21:BN:99:ARG:NH1	21:BN:126:VAL:O	2.35	0.42
24:BQ:95:PHE:HE2	24:BQ:117:PRO:HB2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CI:1:MET:HB2	46:CM:1770:C:OP2	2.20	0.42
46:CM:30:G:H2'	46:CM:31:C:H6	1.85	0.42
46:CM:53:G:H2'	46:CM:54:C:C6	2.55	0.42
46:CM:289:G:H2'	46:CM:290:U:C6	2.54	0.42
46:CM:451:C:O2	46:CM:451:C:H2'	2.19	0.42
46:CM:602:A:H2'	46:CM:603:A:O4'	2.20	0.42
46:CM:684:C:H2'	46:CM:685:C:H6	1.85	0.42
46:CM:1377:A:H2'	46:CM:1378:U:C6	2.55	0.42
46:CM:1677:G:H3'	46:CM:1679:A:N6	2.35	0.42
50:CQ:172:ALA:HB1	50:CQ:174:ARG:HH11	1.83	0.42
51:CR:59:ARG:NH2	70:DL:87:PRO:HG3	2.34	0.42
53:CT:32:MET:HE2	53:CT:100:CYS:HB2	2.02	0.42
58:CY:26:LYS:CG	58:CY:29:LYS:HE2	2.50	0.42
79:CZ:41:LEU:HD22	79:CZ:123:VAL:HG22	2.01	0.42
67:DI:58:TYR:OH	68:DJ:20:THR:HA	2.20	0.42
82:l1:9:VAL:HB	82:l1:180:VAL:HG13	2.01	0.42
82:l1:196:LYS:HB2	82:l1:199:GLN:HB3	2.02	0.42
1:1:259:C:H2'	1:1:260:C:H6	1.85	0.42
1:1:269:G:H5'	16:v:120:TRP:CE3	2.55	0.42
1:1:304:G:OP2	1:1:304:G:H3'	2.20	0.42
1:1:815:U:H2'	1:1:816:A:C8	2.54	0.42
1:1:1077:U:H5'	1:1:1078:U:H5	1.85	0.42
1:1:1126:A:N1	1:1:2836:A:O2'	2.53	0.42
1:1:2418:A:H2'	1:1:2419:A:C8	2.54	0.42
1:1:2426:G:H22	1:1:2478:A:H1'	1.85	0.42
1:1:2919:G:C2	5:k:250:ALA:HB1	2.54	0.42
1:1:3025:G:H2'	1:1:3026:U:H6	1.85	0.42
1:1:3165:U:C2	1:1:3166:A:N7	2.88	0.42
5:k:292:ALA:HB1	5:k:295:ALA:HB3	2.02	0.42
9:o:36:LYS:HE2	9:o:36:LYS:HB2	1.89	0.42
20:z:72:ALA:O	20:z:74:ARG:NH1	2.53	0.42
26:8:43:SER:O	26:8:43:SER:OG	2.22	0.42
46:B:567:C:H41	69:Z:69:ARG:NH2	2.18	0.42
46:B:653:G:O2'	46:B:672:U:C2	2.60	0.42
46:B:915:A:H2'	48:D:114:VAL:HG11	2.02	0.42
47:C:201:LEU:O	47:C:202:TYR:HB2	2.19	0.42
57:M:70:ASP:HB3	57:M:91:ARG:NH2	2.34	0.42
61:R:10:ARG:HG2	61:R:13:LYS:HE2	2.02	0.42
64:U:57:ARG:NH1	71:b:40:VAL:HB	2.35	0.42
71:b:65:LEU:O	71:b:69:LEU:HB2	2.20	0.42
78:AR:257:ILE:HB	78:AR:271:LEU:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1110:U:OP1	29:BV:23:GLY:N	2.37	0.42
1:AS:1232:G:H1'	1:AS:1241:A:O4'	2.20	0.42
1:AS:1284:U:H2'	1:AS:1285:G:C8	2.54	0.42
1:AS:1380:U:H5'	6:AY:139:ARG:NH1	2.35	0.42
1:AS:1611:U:H2'	1:AS:1612:U:H6	1.82	0.42
1:AS:2560:U:OP1	10:BC:242:LYS:NZ	2.47	0.42
1:AS:2646:A:C2	13:BF:124:GLY:HA3	2.55	0.42
1:AS:3129:C:H2'	1:AS:3130:C:H6	1.85	0.42
3:AU:4:C:H2'	3:AU:5:U:H6	1.85	0.42
3:AU:75:G:H2'	3:AU:76:C:C6	2.54	0.42
3:AU:95:G:O2'	38:CE:81:GLY:O	2.26	0.42
6:AY:12:VAL:HG12	6:AY:157:PHE:HB2	2.01	0.42
14:BG:64:LYS:HD3	29:BV:66:ASN:OD1	2.19	0.42
17:BJ:131:LYS:HB3	17:BJ:134:ARG:HG2	2.02	0.42
21:BN:81:TYR:CE1	21:BN:90:MET:HE3	2.55	0.42
22:BO:41:ASP:N	22:BO:97:LYS:O	2.47	0.42
34:CA:57:LYS:HB3	34:CA:57:LYS:HE2	1.86	0.42
46:CM:161:G:O2'	53:CT:110:ALA:HB1	2.20	0.42
46:CM:699:U:C2	46:CM:723:G:N2	2.88	0.42
46:CM:1220:C:H5	77:DS:180:ARG:NE	2.16	0.42
48:CO:87:ARG:HE	48:CO:89:ASP:CG	2.26	0.42
52:CS:145:ASP:OD1	52:CS:146:SER:N	2.53	0.42
73:DO:38:GLN:HB2	73:DO:76:GLY:O	2.20	0.42
78:DT:273:PRO:HG3	78:DT:302:TYR:CE1	2.55	0.42
80:P0:38:MET:HE1	80:P0:53:MET:HG3	2.02	0.42
82:L1:32:VAL:HA	82:L1:208:SER:HA	2.01	0.42
82:L1:63:MET:HG2	82:L1:65:ILE:HG12	2.01	0.42
82:l1:32:VAL:HB	82:l1:169:VAL:O	2.19	0.42
1:1:171:G:H2'	1:1:172:C:C6	2.55	0.41
1:1:755:U:H2'	1:1:756:G:O4'	2.20	0.41
1:1:981:U:H2'	1:1:982:U:H6	1.84	0.41
1:1:1251:C:C2	1:1:1252:G:C8	3.08	0.41
1:1:2470:C:OP1	82:l1:212:PRO:HB3	2.20	0.41
1:1:2766:G:C2	83:1:3401:3K5:H1	2.55	0.41
1:1:2902:A:H2'	1:1:2903:C:C6	2.54	0.41
6:l:16:GLN:NE2	6:l:147:LYS:HD2	2.34	0.41
7:m:290:ILE:HG13	12:r:206:LEU:HD21	2.02	0.41
20:z:134:HIS:CE1	20:z:136:ARG:HB2	2.55	0.41
23:5:34:VAL:HG21	23:5:58:ALA:HB2	2.01	0.41
25:7:57:ARG:HH21	25:7:63:ILE:HG13	1.85	0.41
31:AD:12:ILE:H	31:AD:12:ILE:HD12	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AL:24:ILE:HB	39:AL:44:LYS:HB2	2.02	0.41
42:AO:1:MET:HB2	46:B:1770:C:OP2	2.19	0.41
46:B:1608:U:H2'	46:B:1609:G:C8	2.55	0.41
50:F:72:SER:HB2	57:M:20:VAL:HG21	2.02	0.41
51:G:100:ARG:HG2	51:G:102:VAL:HG13	2.02	0.41
62:S:128:PHE:CE2	66:W:77:THR:HA	2.54	0.41
77:h:168:CYS:HB2	77:h:169:GLY:H	1.72	0.41
1:AS:528:A:O2'	1:AS:529:A:H5'	2.20	0.41
1:AS:623:A:H2'	1:AS:624:U:H6	1.83	0.41
1:AS:712:G:N7	29:BV:111:LYS:HE2	2.35	0.41
1:AS:1302:G:O6	1:AS:2344:C:O2'	2.30	0.41
1:AS:1559:C:O2'	1:AS:1560:U:OP1	2.29	0.41
1:AS:1615:A:H2'	1:AS:1616:U:O4'	2.20	0.41
1:AS:1691:U:O2'	1:AS:1745:A:N1	2.42	0.41
1:AS:1695:A:C6	1:AS:1743:G:C6	3.07	0.41
1:AS:2480:A:H4'	1:AS:2481:G:H8	1.84	0.41
1:AS:2681:C:H2'	1:AS:2682:C:C6	2.55	0.41
1:AS:3199:G:H2'	1:AS:3200:C:C6	2.55	0.41
3:AU:51:G:C8	40:CG:27:ILE:HD11	2.55	0.41
36:CC:56:THR:O	36:CC:60:LEU:HG	2.19	0.41
39:CF:63:LYS:NZ	39:CF:67:GLN:HE22	2.18	0.41
45:CL:67:LYS:HG3	45:CL:69:PHE:HD2	1.83	0.41
46:CM:121:U:H1'	51:CR:33:ALA:HB3	2.02	0.41
46:CM:483:A:C2	46:CM:501:G:C2	3.08	0.41
46:CM:756:A:H4'	56:CW:7:THR:O	2.20	0.41
46:CM:1237:C:H5'	77:DS:147:TYR:OH	2.20	0.41
46:CM:1495:U:H2'	46:CM:1496:C:C6	2.55	0.41
46:CM:1575:G:H5'	46:CM:1576:C:OP2	2.20	0.41
49:CP:213:ILE:HD12	49:CP:213:ILE:HA	1.93	0.41
51:CR:112:HIS:NE2	51:CR:238:SER:O	2.53	0.41
63:DE:16:LEU:HD12	63:DE:54:THR:HG21	2.01	0.41
74:DP:43:ASN:ND2	74:DP:66:LEU:HD13	2.35	0.41
78:DT:118:LYS:HD3	78:DT:118:LYS:HA	1.81	0.41
81:12:120:SER:HB2	81:12:131:GLU:CD	2.45	0.41
1:1:37:U:H2'	1:1:38:A:O4'	2.19	0.41
1:1:74:G:H5'	14:t:58:VAL:HB	2.02	0.41
1:1:279:U:H2'	1:1:280:U:C6	2.54	0.41
1:1:357:A:O4'	6:l:82:GLY:HA3	2.21	0.41
1:1:990:G:N2	1:1:991:U:O4	2.42	0.41
1:1:1021:A:C2	1:1:1022:A:H1'	2.55	0.41
1:1:1231:U:H1'	1:1:1233:G:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1232:G:H1'	1:1:1241:A:O4'	2.20	0.41
1:1:1454:U:H2'	1:1:1455:C:C6	2.54	0.41
1:1:1467:U:H2'	1:1:1468:U:C6	2.55	0.41
1:1:1767:G:H2'	1:1:1768:U:O4'	2.20	0.41
1:1:1809:A:OP1	1:1:1813:G:O2'	2.34	0.41
1:1:2199:G:H2'	1:1:2201:A:OP2	2.21	0.41
1:1:2352:C:OP1	1:1:2795:G:O2'	2.36	0.41
1:1:2482:U:C2'	1:1:2483:U:H5'	2.50	0.41
5:k:262:TRP:CD1	5:k:262:TRP:H	2.38	0.41
5:k:283:TYR:CZ	5:k:325:LYS:HB2	2.55	0.41
9:o:174:PHE:HB3	9:o:192:ASN:ND2	2.35	0.41
14:t:60:ALA:HB3	14:t:65:TYR:O	2.20	0.41
19:y:55:SER:O	19:y:59:ARG:HG2	2.20	0.41
27:9:112:ASP:OD1	27:9:115:ARG:HG2	2.19	0.41
46:B:139:U:P	53:I:149:LYS:HZ1	2.37	0.41
46:B:217:A:N7	46:B:218:A:C8	2.89	0.41
46:B:283:G:H2'	46:B:284:C:C6	2.56	0.41
46:B:344:G:C2	46:B:345:G:C8	3.08	0.41
46:B:734:U:H2'	46:B:735:U:C6	2.55	0.41
46:B:1307:A:H2'	46:B:1308:C:C6	2.55	0.41
47:C:147:THR:CG2	47:C:159:ALA:HB1	2.50	0.41
52:H:156:ARG:HH22	74:e:67:ARG:CB	2.33	0.41
54:J:40:LYS:HG3	54:J:59:PRO:HD3	2.02	0.41
60:Q:76:ILE:HB	60:Q:110:ILE:HG12	2.02	0.41
62:S:28:ILE:HA	62:S:64:ILE:O	2.19	0.41
1:AS:36:U:O3'	1:AS:931:U:H4'	2.20	0.41
1:AS:1918:A:H2'	1:AS:1919:C:O4'	2.20	0.41
1:AS:2184:G:H5'	1:AS:2185:A:C2	2.55	0.41
1:AS:2285:G:O2'	1:AS:2288:U:OP2	2.31	0.41
1:AS:2332:C:H2'	1:AS:2333:G:O4'	2.20	0.41
1:AS:2361:C:H5'	17:BJ:72:PHE:CE2	2.55	0.41
1:AS:2649:G:H2'	1:AS:2649:G:N3	2.34	0.41
1:AS:2747:U:H2'	1:AS:2748:C:C6	2.55	0.41
1:AS:3249:G:H2'	1:AS:3250:C:C6	2.55	0.41
4:AW:201:GLY:HA2	4:AW:204:MET:SD	2.60	0.41
22:BO:116:LYS:O	22:BO:120:LYS:HG3	2.19	0.41
25:BR:80:ARG:HD2	53:CT:131:LYS:HE3	2.02	0.41
26:BS:142:ILE:HD12	26:BS:142:ILE:HA	1.91	0.41
27:BT:69:LYS:HE2	27:BT:69:LYS:HB3	1.85	0.41
28:BU:34:LYS:HD2	28:BU:35:SER:H	1.84	0.41
35:CB:17:SER:O	35:CB:17:SER:OG	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CC:70:TYR:HA	36:CC:73:LYS:HG3	2.02	0.41
45:CL:37:LYS:H	45:CL:37:LYS:HD2	1.85	0.41
46:CM:69:G:H2'	46:CM:70:C:C6	2.56	0.41
46:CM:189:G:H1'	46:CM:193:G:N2	2.35	0.41
46:CM:638:U:HO2'	46:CM:639:G:P	2.42	0.41
46:CM:945:U:H2'	46:CM:946:U:H6	1.85	0.41
46:CM:1518:G:N2	65:DG:48:GLN:OE1	2.53	0.41
46:CM:1601:A:H2'	46:CM:1602:C:O4'	2.20	0.41
46:CM:1699:G:C6	46:CM:1700:G:C8	3.09	0.41
47:CN:201:LEU:O	47:CN:202:TYR:HB2	2.20	0.41
49:CP:233:SER:OG	49:CP:236:GLU:HG2	2.20	0.41
62:DD:45:PHE:HA	62:DD:48:TYR:HB2	2.02	0.41
69:DK:60:GLU:HG3	76:DR:5:HIS:NE2	2.35	0.41
78:DT:113:SER:HB3	78:DT:154:ALA:HA	2.02	0.41
80:P0:71:PRO:HB2	80:P0:72:GLU:H	1.65	0.41
82:L1:130:LYS:C	82:L1:132:GLY:H	2.27	0.41
82:l1:118:LYS:HB3	82:l1:118:LYS:HE3	1.87	0.41
1:1:75:G:H3'	14:t:73:ARG:HD2	2.01	0.41
1:1:289:A:H2'	1:1:290:G:C8	2.53	0.41
1:1:430:G:H2'	1:1:431:A:C8	2.55	0.41
1:1:691:A:O2'	6:l:235:GLY:HA3	2.20	0.41
1:1:922:A:H2'	1:1:923:C:C6	2.55	0.41
1:1:1069:U:H2'	1:1:1070:U:C6	2.56	0.41
1:1:1299:A:O4'	1:1:2857:C:O2'	2.38	0.41
1:1:1321:U:H2'	1:1:1322:A:O4'	2.21	0.41
1:1:2651:A:H1'	45:i:50:LYS:HE2	2.02	0.41
1:1:2913:A:O5'	1:1:2915:G:H4'	2.20	0.41
2:3:13:A:C2	7:m:21:ARG:HB2	2.54	0.41
5:k:214:MET:CE	5:k:350:ALA:HA	2.51	0.41
8:n:59:ASP:HB2	8:n:102:VAL:CG2	2.51	0.41
22:2:88:ARG:NH1	30:AC:33:LYS:O	2.53	0.41
26:8:67:ILE:CD1	26:8:121:LYS:HG3	2.51	0.41
44:AQ:13:LYS:NZ	44:AQ:30:GLU:OE2	2.38	0.41
44:AQ:32:GLN:O	44:AQ:37:TYR:OH	2.33	0.41
46:B:326:A:H2'	46:B:327:G:O4'	2.21	0.41
46:B:767:G:O2'	46:B:768:C:H6	2.03	0.41
46:B:1074:U:O2'	46:B:1078:A:N1	2.47	0.41
46:B:1167:U:H2'	46:B:1168:A:O3'	2.19	0.41
46:B:1508:G:O2'	46:B:1510:G:OP2	2.28	0.41
46:B:1511:A:N3	46:B:1577:G:O2'	2.43	0.41
47:C:157:ASP:O	67:X:66:ASP:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:F:105:ALA:O	50:F:109:LYS:HG2	2.19	0.41
62:S:22:LYS:HG2	62:S:23:ALA:N	2.35	0.41
63:T:71:PHE:HD1	63:T:72:LYS:N	2.16	0.41
77:h:156:VAL:HG22	77:h:158:ARG:HG2	2.02	0.41
78:AR:145:LEU:HD23	78:AR:145:LEU:HA	1.87	0.41
1:AS:126:G:H2'	1:AS:127:G:H8	1.85	0.41
1:AS:487:C:H2'	1:AS:488:G:O4'	2.20	0.41
1:AS:539:G:H8	1:AS:539:G:O5'	2.02	0.41
1:AS:982:U:O2'	9:BB:120:ALA:O	2.38	0.41
1:AS:1444:U:H2'	1:AS:1445:A:C8	2.55	0.41
1:AS:1790:U:C2	4:AW:187:HIS:HD2	2.39	0.41
1:AS:2493:A:H5"	16:BI:28:TRP:CD1	2.55	0.41
1:AS:2514:G:C4	1:AS:2515:G:N2	2.88	0.41
3:AU:7:U:H2'	3:AU:8:C:C6	2.55	0.41
4:AW:66:PRO:HG2	4:AW:67:TYR:CD2	2.56	0.41
9:BB:174:PHE:CZ	9:BB:195:GLN:HG2	2.54	0.41
11:BD:13:PRO:HG2	11:BD:16:VAL:CG2	2.50	0.41
17:BJ:86:ARG:HG3	17:BJ:100:LEU:HD11	2.01	0.41
20:BM:10:LEU:HD23	20:BM:10:LEU:HA	1.93	0.41
24:BQ:77:ILE:HD13	24:BQ:126:TRP:CE2	2.55	0.41
46:CM:267:G:H2'	46:CM:268:C:H6	1.84	0.41
46:CM:680:C:O2'	46:CM:681:C:H5"	2.19	0.41
46:CM:683:G:C6	46:CM:684:C:C4	3.09	0.41
46:CM:816:U:H2'	46:CM:817:U:C5	2.55	0.41
46:CM:1071:A:H2'	46:CM:1072:A:C8	2.55	0.41
46:CM:1357:A:H4'	46:CM:1358:G:OP1	2.20	0.41
48:CO:58:ALA:HB1	48:CO:91:VAL:HG11	2.03	0.41
48:CO:97:LEU:CD1	48:CO:228:LEU:HD11	2.50	0.41
54:CU:6:LEU:HB2	54:CU:40:LYS:HA	2.01	0.41
57:CX:80:LEU:HB3	57:CX:82:ILE:HG23	2.02	0.41
62:DD:30:ILE:HG12	62:DD:35:ILE:CD1	2.51	0.41
70:DL:55:VAL:HG22	70:DL:75:ILE:HG12	2.02	0.41
74:DP:14:LYS:HB3	74:DP:29:ARG:HB3	2.00	0.41
78:DT:201:LEU:HD23	78:DT:201:LEU:H	1.84	0.41
78:DT:229:TYR:OH	78:DT:262:LEU:HD22	2.20	0.41
82:l1:149:THR:HG23	82:l1:152:LYS:NZ	2.35	0.41
80:p0:61:ARG:HG2	80:p0:64:ARG:HG3	2.03	0.41
1:1:25:A:H2'	1:1:26:C:C6	2.54	0.41
1:1:69:A:N1	1:1:313:A:O2'	2.49	0.41
1:1:1322:A:H2'	1:1:1323:C:O4'	2.20	0.41
1:1:1761:U:C6	20:z:43:LYS:HE3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2126:U:H2'	1:1:2127:A:C5	2.55	0.41
1:1:2967:A:H2'	1:1:2968:U:O4'	2.20	0.41
1:1:3040:U:OP2	20:z:62:ARG:NH2	2.54	0.41
1:1:3056:C:H2'	1:1:3057:G:O4'	2.20	0.41
7:m:7:PHE:CD1	7:m:7:PHE:C	2.98	0.41
8:n:22:LYS:HD3	8:n:22:LYS:HA	1.74	0.41
10:p:167:LEU:HD23	10:p:167:LEU:HA	1.90	0.41
17:w:29:LEU:HD23	17:w:29:LEU:HA	1.95	0.41
17:w:100:LEU:HD23	17:w:100:LEU:HA	1.95	0.41
17:w:125:LEU:HD13	21:0:168:PRO:HG3	2.02	0.41
23:5:19:VAL:HG12	23:5:108:LEU:HG	2.03	0.41
24:6:32:ARG:NH2	24:6:64:LYS:HD3	2.34	0.41
26:8:86:VAL:HG11	26:8:95:ILE:HG12	2.02	0.41
33:AF:97:ILE:HG21	33:AF:106:ARG:HG3	2.03	0.41
43:AP:35:LEU:HA	43:AP:40:LYS:HD3	2.02	0.41
45:i:112:LYS:HG2	45:i:113:ARG:N	2.34	0.41
46:B:67:A:N6	46:B:83:G:O2'	2.49	0.41
46:B:470:U:H2'	46:B:471:A:C8	2.54	0.41
46:B:517:C:H6	46:B:517:C:H2'	1.67	0.41
46:B:850:A:H61	46:B:948:A:H2	1.68	0.41
46:B:872:A:H2'	46:B:873:U:C6	2.56	0.41
49:E:139:TRP:CE2	68:Y:97:ARG:HD2	2.55	0.41
57:M:35:ILE:HG22	57:M:37:THR:HG22	2.02	0.41
78:AR:37:SER:HB3	78:AR:39:ASP:OD1	2.21	0.41
78:AR:91:ARG:NH1	78:AR:103:ARG:HH11	2.19	0.41
1:AS:138:G:H2'	1:AS:139:U:C6	2.54	0.41
1:AS:427:C:OP1	33:BZ:14:TYR:OH	2.33	0.41
1:AS:614:G:H2'	1:AS:615:G:C8	2.56	0.41
1:AS:740:A:H1'	19:BL:141:ARG:HE	1.85	0.41
1:AS:815:U:H2'	1:AS:816:A:H8	1.86	0.41
1:AS:1239:G:N2	1:AS:1266:A:O2'	2.53	0.41
1:AS:2429:G:N3	1:AS:2429:G:H2'	2.35	0.41
5:AX:85:VAL:HB	5:AX:163:HIS:NE2	2.36	0.41
15:BH:111:PHE:O	15:BH:114:MET:HB3	2.21	0.41
20:BM:70:LYS:HB3	20:BM:76:MET:HE2	2.01	0.41
21:BN:46:GLN:HG2	21:BN:51:VAL:O	2.20	0.41
21:BN:139:TYR:CD1	21:BN:140:VAL:HG13	2.55	0.41
27:BT:106:ILE:HG21	27:BT:109:LEU:HD23	2.02	0.41
28:BU:34:LYS:C	28:BU:36:HIS:N	2.78	0.41
45:CL:53:LYS:C	45:CL:55:LYS:N	2.79	0.41
46:CM:588:C:H2'	46:CM:589:A:C8	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:593:G:H2'	46:CM:594:C:C6	2.55	0.41
46:CM:649:G:C8	46:CM:681:C:C4	3.08	0.41
46:CM:975:C:H2'	46:CM:976:G:O4'	2.20	0.41
46:CM:1142:A:H2'	46:CM:1145:A:N7	2.36	0.41
46:CM:1300:U:O2'	46:CM:1301:G:H8	2.03	0.41
53:CT:14:LYS:HB2	53:CT:124:LEU:HD13	2.02	0.41
62:DD:124:GLU:HG3	62:DD:125:PRO:HD2	2.02	0.41
64:DF:72:ILE:HD13	64:DF:79:TYR:CG	2.56	0.41
64:DF:127:HIS:CE1	64:DF:133:VAL:HG11	2.56	0.41
82:l1:49:PHE:CD1	82:l1:193:LEU:HD13	2.55	0.41
80:p0:18:LEU:HD12	80:p0:52:LEU:HD12	2.03	0.41
1:1:426:G:H2'	1:1:427:C:H6	1.86	0.41
1:1:708:A:H2'	1:1:709:A:C8	2.56	0.41
1:1:778:U:H2'	1:1:779:A:O4'	2.21	0.41
1:1:1075:A:H4'	7:m:140:ARG:O	2.20	0.41
1:1:1141:G:OP1	33:AF:45:ARG:HD2	2.20	0.41
1:1:1170:G:N2	17:w:88:MET:HE2	2.35	0.41
1:1:2497:A:H2'	1:1:2498:A:C8	2.56	0.41
1:1:2874:A:H2'	1:1:2875:A:O4'	2.20	0.41
6:l:182:VAL:HG11	6:l:225:GLY:HA3	2.03	0.41
9:o:100:VAL:HG13	9:o:124:LEU:HD22	2.03	0.41
45:i:96:LYS:HA	46:B:575:G:C6	2.56	0.41
46:B:67:A:HO2'	46:B:69:G:P	2.43	0.41
46:B:189:G:H1'	46:B:193:G:C2	2.55	0.41
46:B:1220:C:N4	77:h:177:MET:HE1	2.35	0.41
46:B:1248:G:H2'	46:B:1249:G:O4'	2.20	0.41
52:H:102:ARG:O	52:H:106:LYS:NZ	2.46	0.41
52:H:216:GLU:HG3	52:H:219:ARG:HH21	1.86	0.41
54:J:33:GLU:HG2	54:J:34:LEU:HD12	2.01	0.41
54:J:33:GLU:O	54:J:37:LEU:HG	2.21	0.41
62:S:72:GLY:H	62:S:75:SER:HB3	1.85	0.41
68:Y:24:GLN:HA	68:Y:63:VAL:O	2.20	0.41
1:AS:117:U:C5	1:AS:122:A:N6	2.88	0.41
1:AS:273:A:H2'	1:AS:274:G:H8	1.85	0.41
1:AS:314:U:H2'	1:AS:315:C:H6	1.84	0.41
1:AS:870:U:H5"	1:AS:2922:G:OP1	2.21	0.41
1:AS:935:U:O2'	1:AS:2380:A:N1	2.48	0.41
1:AS:1065:C:H2'	1:AS:1066:U:H6	1.85	0.41
1:AS:1656:C:H2'	1:AS:1657:G:C8	2.55	0.41
1:AS:1746:A:OP2	39:CF:28:ASN:ND2	2.50	0.41
1:AS:1911:A:H2'	1:AS:1912:U:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1949:G:N1	1:AS:2070:A:H2'	2.36	0.41
1:AS:2130:A:H2'	1:AS:2131:U:C6	2.56	0.41
3:AU:41:A:H4'	38:CE:59:THR:HG23	2.01	0.41
6:AY:4:ARG:NH2	6:AY:24:PRO:O	2.54	0.41
8:BA:39:LEU:CD1	8:BA:53:TYR:HB2	2.50	0.41
24:BQ:104:ASN:HD22	24:BQ:108:GLU:HB2	1.83	0.41
27:BT:77:LYS:HE3	40:CG:31:THR:HG21	2.02	0.41
45:CL:77:GLN:HG3	46:CM:1446:A:H62	1.85	0.41
45:CL:82:LYS:HG3	45:CL:83:HIS:N	2.34	0.41
46:CM:415:A:H5'	46:CM:416:G:C4	2.56	0.41
46:CM:1205:C:H4'	57:CX:52:LYS:HG2	2.01	0.41
46:CM:1244:U:C2	46:CM:1245:U:C5	3.09	0.41
46:CM:1503:A:O2'	46:CM:1504:U:H5'	2.20	0.41
46:CM:1579:A:O2'	46:CM:1580:A:OP1	2.36	0.41
46:CM:1601:A:H5'	74:DP:47:PRO:HG3	2.02	0.41
53:CT:56:ASN:ND2	53:CT:60:GLY:O	2.52	0.41
62:DD:82:GLN:HG2	62:DD:114:THR:O	2.20	0.41
65:DG:117:SER:HB2	65:DG:123:ARG:H	1.84	0.41
69:DK:59:ILE:HD12	69:DK:71:CYS:SG	2.60	0.41
78:DT:130:LYS:HG2	78:DT:150:ASP:C	2.45	0.41
78:DT:257:ILE:HB	78:DT:271:LEU:HB3	2.02	0.41
82:L1:53:LEU:HD23	82:L1:155:ILE:HD11	2.03	0.41
82:L1:126:PRO:HA	82:L1:129:SER:HB2	2.02	0.41
82:L1:206:ILE:HB	82:L1:216:ILE:CD1	2.51	0.41
80:p0:64:ARG:HA	80:p0:67:LEU:HB2	2.01	0.41
1:1:6:C:H2'	1:1:7:C:C6	2.55	0.41
1:1:641:U:O2'	1:1:1149:A:N1	2.37	0.41
1:1:787:A:H2'	1:1:788:G:H8	1.85	0.41
1:1:1233:G:O6	1:1:1259:A:O2'	2.35	0.41
1:1:1477:A:H1'	1:1:1854:A:N3	2.36	0.41
1:1:1705:C:H2'	1:1:1706:C:C6	2.56	0.41
1:1:1761:U:H2'	1:1:1762:G:C4'	2.51	0.41
1:1:2176:A:C2	1:1:2177:G:C8	3.08	0.41
1:1:2801:U:C2	1:1:2802:G:C8	3.08	0.41
1:1:2979:U:H2'	1:1:2980:A:C8	2.55	0.41
1:1:3335:A:H2'	1:1:3336:G:C8	2.54	0.41
3:4:39:G:H1'	3:4:104:A:N6	2.35	0.41
11:q:77:ASN:HA	11:q:80:THR:HG22	2.02	0.41
18:x:4:TYR:CZ	18:x:18:ARG:HG3	2.56	0.41
20:z:39:SER:HA	20:z:42:ARG:HH11	1.86	0.41
21:0:24:LEU:HD21	22:2:141:ILE:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AC:17:HIS:NE2	30:AC:21:ILE:HG13	2.35	0.41
46:B:602:A:H2'	46:B:603:A:O4'	2.20	0.41
46:B:727:U:O2	54:J:103:ARG:NH2	2.53	0.41
46:B:1278:U:C2	46:B:1279:G:C8	3.08	0.41
46:B:1537:A:C6	46:B:1549:G:C6	3.08	0.41
46:B:1581:G:H2'	46:B:1582:U:O4'	2.20	0.41
46:B:1709:A:H2'	46:B:1710:G:O4'	2.20	0.41
49:E:108:LEU:HD11	49:E:206:LEU:HB3	2.01	0.41
53:I:84:TYR:CE1	53:I:93:LYS:HB2	2.55	0.41
56:L:34:TYR:HA	56:L:122:ILE:HD13	2.03	0.41
61:R:1:MET:CB	64:U:18:LEU:H	2.34	0.41
61:R:41:VAL:HG13	61:R:84:ILE:HG21	2.01	0.41
61:R:81:ARG:NH1	61:R:98:ASN:HA	2.36	0.41
74:e:42:ARG:NH1	74:e:58:GLU:O	2.52	0.41
78:AR:200:THR:HG21	78:AR:242:PHE:H	1.86	0.41
1:AS:234:A:H2'	1:AS:235:G:O4'	2.21	0.41
1:AS:1025:G:N2	1:AS:1026:A:H1'	2.36	0.41
1:AS:1151:C:O2'	1:AS:1193:A:N1	2.46	0.41
1:AS:1165:A:H4'	9:BB:216:LYS:HD2	2.02	0.41
1:AS:1720:U:H1'	1:AS:1721:C:C6	2.56	0.41
1:AS:2108:G:O4'	1:AS:2122:A:H4'	2.21	0.41
1:AS:2184:G:H4'	1:AS:2185:A:C5	2.56	0.41
1:AS:2427:A:C6	1:AS:2428:G:C4	3.09	0.41
1:AS:3058:A:H3'	1:AS:3059:A:H8	1.86	0.41
2:AT:59:U:H2'	2:AT:60:G:C8	2.56	0.41
3:AU:6:U:H2'	3:AU:7:U:C6	2.55	0.41
3:AU:156:U:H2'	3:AU:157:U:C5	2.55	0.41
4:AW:30:ARG:NH1	4:AW:36:GLU:HG3	2.36	0.41
6:AY:236:LEU:HD12	6:AY:236:LEU:HA	1.91	0.41
10:BC:215:LEU:HD23	10:BC:215:LEU:HA	1.90	0.41
23:BP:12:VAL:HB	23:BP:68:VAL:O	2.20	0.41
28:BU:73:LYS:CD	28:BU:75:VAL:HG22	2.50	0.41
46:CM:151:G:HO2'	46:CM:152:G:P	2.42	0.41
46:CM:269:A:C2	46:CM:283:G:C6	3.08	0.41
46:CM:330:U:OP1	55:CV:31:ARG:HD2	2.21	0.41
46:CM:366:U:H2'	46:CM:367:A:O4'	2.20	0.41
46:CM:935:C:H2'	46:CM:936:A:C8	2.54	0.41
46:CM:1102:U:H2'	46:CM:1103:G:C8	2.54	0.41
46:CM:1143:C:H6	46:CM:1143:C:H2'	1.74	0.41
46:CM:1741:A:H2'	46:CM:1742:A:C8	2.56	0.41
53:CT:58:LYS:HG2	53:CT:105:ASP:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CZ:74:LEU:HD12	77:DS:145:LEU:HD23	2.02	0.41
71:DM:69:LEU:HD23	71:DM:69:LEU:HA	1.93	0.41
82:l1:40:ASN:HB2	82:l1:200:ASN:HA	2.02	0.41
80:p0:16:ARG:NH1	80:p0:66:PHE:CD1	2.89	0.41
1:1:243:G:H2'	1:1:244:G:C8	2.55	0.41
1:1:283:G:O6	1:1:304:G:H1'	2.20	0.41
1:1:412:G:H5'	18:x:26:PHE:HZ	1.85	0.41
1:1:781:G:N2	1:1:782:A:H62	2.17	0.41
1:1:1014:G:N2	1:1:1030:U:O2	2.51	0.41
1:1:1760:U:P	20:z:43:LYS:HE2	2.61	0.41
1:1:2195:U:H2'	1:1:2196:G:H8	1.85	0.41
3:4:28:C:H2'	3:4:29:U:C6	2.55	0.41
8:n:7:LYS:HG3	8:n:9:TYR:CZ	2.55	0.41
8:n:135:VAL:O	8:n:139:LYS:HD3	2.21	0.41
8:n:166:LYS:NZ	34:AG:4:SER:HB3	2.36	0.41
18:x:42:GLU:HG2	18:x:43:LYS:N	2.35	0.41
24:6:45:ARG:HG2	24:6:48:ARG:CZ	2.50	0.41
26:8:108:LEU:N	26:8:125:ARG:O	2.49	0.41
45:i:55:LYS:HB3	45:i:55:LYS:HE3	1.91	0.41
45:i:101:LYS:HD3	46:B:573:C:H4'	2.01	0.41
46:B:149:G:N2	53:I:13:GLN:OE1	2.31	0.41
46:B:975:C:H2'	46:B:976:G:O4'	2.21	0.41
47:C:200:ASP:O	47:C:203:PHE:HB2	2.20	0.41
50:F:116:ILE:HD12	50:F:151:GLN:OE1	2.20	0.41
56:L:63:ASP:OD1	56:L:64:GLU:N	2.53	0.41
60:Q:73:ALA:HB2	60:Q:106:ARG:HB2	2.03	0.41
63:T:71:PHE:O	63:T:72:LYS:HD2	2.21	0.41
78:AR:59:LYS:HD3	78:AR:59:LYS:HA	1.65	0.41
1:AS:412:G:H2'	1:AS:413:U:H6	1.85	0.41
1:AS:498:C:H2'	1:AS:499:G:H8	1.85	0.41
1:AS:849:G:N7	44:CK:2:THR:HG23	2.35	0.41
1:AS:922:A:H2'	1:AS:923:C:C6	2.56	0.41
1:AS:1336:G:H2'	1:AS:1337:U:H6	1.86	0.41
1:AS:1610:C:H2'	1:AS:1611:U:C6	2.55	0.41
1:AS:1755:U:O4	1:AS:1762:G:O6	2.39	0.41
1:AS:1852:C:H2'	1:AS:1853:C:C6	2.55	0.41
1:AS:1922:C:H5"	44:CK:8:VAL:CG1	2.51	0.41
1:AS:2668:A:N7	1:AS:2730:A:N6	2.69	0.41
1:AS:3139:U:OP2	34:CA:63:LYS:NZ	2.43	0.41
1:AS:3162:U:H3'	1:AS:3163:U:C6	2.56	0.41
1:AS:3194:G:H4'	15:BH:129:VAL:HG11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3318:G:C6	1:AS:3321:G:C5	3.09	0.41
5:AX:108:GLU:HG2	5:AX:109:HIS:CE1	2.54	0.41
8:BA:172:HIS:CD2	8:BA:173:LEU:HG	2.56	0.41
37:CD:87:GLU:HG2	82:L1:199:GLN:NE2	2.35	0.41
45:CL:70:ASN:OD1	45:CL:70:ASN:N	2.54	0.41
46:CM:325:U:H2'	46:CM:326:A:C8	2.55	0.41
46:CM:638:U:C4	54:CU:114:LEU:HD21	2.55	0.41
46:CM:961:G:N1	46:CM:1008:A:O2'	2.41	0.41
46:CM:1305:U:O2	46:CM:1307:A:H5'	2.21	0.41
46:CM:1519:U:OP2	71:DM:77:ARG:HD2	2.21	0.41
46:CM:1626:C:H2'	46:CM:1627:C:O4'	2.20	0.41
46:CM:1746:C:H2'	46:CM:1747:G:O4'	2.21	0.41
47:CN:164:ASN:O	47:CN:170:ILE:HD11	2.20	0.41
48:CO:34:ALA:O	48:CO:232:HIS:HE1	2.03	0.41
49:CP:177:PRO:CG	56:CW:17:ARG:HH12	2.33	0.41
50:CQ:105:ALA:O	50:CQ:109:LYS:HG2	2.20	0.41
52:CS:148:ARG:HA	52:CS:157:ARG:HA	2.03	0.41
56:CW:44:ARG:O	56:CW:48:GLN:HG3	2.20	0.41
79:CZ:63:CYS:CB	79:CZ:97:LEU:HD11	2.51	0.41
62:DD:93:GLN:HB2	62:DD:101:LYS:HG3	2.02	0.41
81:12:137:GLN:HA	81:12:148:PRO:HG2	2.03	0.41
82:l1:42:ASP:OD1	82:l1:45:ARG:NH2	2.52	0.41
82:l1:179:LEU:O	82:l1:181:ASN:N	2.53	0.41
1:1:200:A:H2'	1:1:201:G:C8	2.56	0.41
1:1:649:G:O2'	1:1:1431:A:OP1	2.38	0.41
1:1:1198:A:C2	1:1:2829:C:H5'	2.56	0.41
1:1:1499:A:C4	1:1:1500:A:C8	3.08	0.41
1:1:1526:U:O2'	3:4:114:G:O2'	2.33	0.41
1:1:2451:C:H3'	1:1:2452:G:O4'	2.20	0.41
3:4:29:U:H5"	14:t:27:ASP:HB3	2.02	0.41
3:4:104:A:C8	3:4:105:A:C8	3.09	0.41
3:4:143:U:H2'	3:4:144:G:O4'	2.20	0.41
6:l:105:LYS:HA	6:l:105:LYS:HD3	1.95	0.41
6:l:236:LEU:HD12	6:l:236:LEU:HA	1.89	0.41
6:l:299:VAL:HG21	19:y:133:LYS:HG3	2.03	0.41
17:w:52:LYS:HE2	17:w:56:HIS:HE1	1.86	0.41
21:0:10:ILE:HG12	21:0:26:ARG:HB2	2.03	0.41
28:AA:50:PRO:HD3	28:AA:68:VAL:HG22	2.03	0.41
34:AG:49:ILE:HG12	34:AG:100:ILE:HD13	2.03	0.41
45:i:52:LYS:HG3	45:i:53:LYS:N	2.36	0.41
46:B:390:G:H5"	46:B:1716:C:O2'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:444:A:C6	46:B:445:U:C4	3.09	0.41
46:B:445:U:H2'	46:B:446:C:O4'	2.20	0.41
46:B:452:A:O4'	51:G:66:MET:HG3	2.20	0.41
46:B:793:A:H2'	46:B:794:G:C8	2.56	0.41
46:B:903:U:H2'	46:B:904:A:H8	1.78	0.41
46:B:1243:U:C6	46:B:1244:U:H5	2.38	0.41
50:F:46:LYS:HD2	50:F:86:ALA:HB2	2.03	0.41
50:F:176:VAL:HG11	50:F:178:MET:HE2	2.03	0.41
1:AS:489:G:C2	1:AS:490:G:C8	3.09	0.41
1:AS:710:G:OP1	14:BG:176:ARG:NH1	2.53	0.41
1:AS:2564:G:H4'	1:AS:2566:C:C2	2.56	0.41
1:AS:2569:U:H2'	1:AS:2570:G:H8	1.83	0.41
1:AS:2956:C:C2	1:AS:2957:C:C5	3.08	0.41
1:AS:3068:C:H2'	1:AS:3069:U:C6	2.56	0.41
1:AS:3315:C:H4'	1:AS:3316:U:OP1	2.21	0.41
1:AS:3336:G:H2'	1:AS:3337:A:C8	2.56	0.41
3:AU:57:C:H4'	3:AU:63:G:N7	2.36	0.41
5:AX:50:LYS:NZ	5:AX:328:ILE:O	2.47	0.41
13:BF:37:LEU:HD23	13:BF:37:LEU:HA	1.86	0.41
13:BF:96:PHE:CD2	13:BF:102:PHE:HB3	2.56	0.41
45:CL:120:GLU:HG2	50:CQ:118:ARG:NE	2.35	0.41
46:CM:282:G:N7	53:CT:188:ARG:NH2	2.48	0.41
46:CM:286:A:H2'	46:CM:287:U:O4'	2.21	0.41
46:CM:289:G:H2'	46:CM:290:U:C5	2.55	0.41
46:CM:496:G:C2	46:CM:497:U:H1'	2.56	0.41
46:CM:671:G:C2	46:CM:672:U:C2	3.09	0.41
46:CM:1494:G:H2'	46:CM:1495:U:C6	2.56	0.41
46:CM:1503:A:OP2	66:DH:60:LYS:NZ	2.26	0.41
46:CM:1566:U:H2'	46:CM:1567:C:H6	1.85	0.41
51:CR:112:HIS:NE2	51:CR:238:SER:OG	2.52	0.41
56:CW:61:THR:HG22	68:DJ:97:ARG:HH12	1.86	0.41
59:DA:132:VAL:HG23	59:DA:134:VAL:HG23	2.03	0.41
62:DD:46:LYS:HD2	62:DD:46:LYS:HA	1.76	0.41
63:DE:66:VAL:CG1	63:DE:69:ILE:HG12	2.51	0.41
73:DO:57:ASP:OD1	73:DO:58:SER:N	2.53	0.41
78:DT:24:ALA:HB1	78:DT:74:ILE:HG13	2.03	0.41
78:DT:110:ASP:OD2	78:DT:128:ARG:NH1	2.52	0.41
80:P0:30:VAL:HB	80:P0:33:VAL:HG21	2.02	0.41
82:l1:76:ARG:HG3	82:l1:144:LEU:HD21	2.02	0.41
1:1:380:U:H2'	1:1:381:U:H6	1.84	0.41
1:1:426:G:H2'	1:1:427:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:480:G:H2'	1:1:481:G:C8	2.56	0.41
1:1:626:U:H2'	1:1:627:U:O4'	2.21	0.41
1:1:1286:A:H2'	1:1:1287:A:C8	2.56	0.41
1:1:1434:U:H4'	6:l:89:ALA:HB3	2.03	0.41
1:1:1456:A:H5'	32:AE:50:LEU:O	2.21	0.41
1:1:1463:A:C6	1:1:1507:U:C2	3.09	0.41
1:1:2174:C:H2'	1:1:2220:A:H61	1.84	0.41
1:1:2181:U:H2'	1:1:2182:C:C6	2.56	0.41
1:1:2232:U:H2'	1:1:2239:G:H22	1.85	0.41
1:1:2361:C:H5'	17:w:72:PHE:CE2	2.56	0.41
1:1:2663:A:H2'	1:1:2664:A:C8	2.56	0.41
1:1:3067:U:H2'	1:1:3068:C:C6	2.56	0.41
2:3:99:G:OP1	21:0:53:LYS:HD3	2.20	0.41
3:4:27:U:H2'	3:4:28:C:H6	1.86	0.41
4:j:201:GLY:O	4:j:204:MET:HG3	2.21	0.41
5:k:339:ARG:CZ	5:k:342:LEU:HD11	2.50	0.41
6:l:156:GLU:HB3	10:BC:119:GLU:O	2.21	0.41
11:q:90:MET:HE3	11:q:181:VAL:CG2	2.51	0.41
22:2:12:ARG:O	22:2:16:GLN:HG3	2.21	0.41
22:2:136:ARG:HD3	22:2:139:ARG:NH2	2.35	0.41
25:7:38:SER:O	25:7:42:GLN:HG3	2.19	0.41
32:AE:61:ARG:HB2	32:AE:65:GLY:HA3	2.02	0.41
34:AG:51:TYR:HD2	34:AG:67:ILE:HD12	1.85	0.41
45:i:63:ALA:C	45:i:65:LYS:N	2.77	0.41
45:i:86:LYS:HG3	45:i:93:ARG:NH1	2.35	0.41
46:B:150:U:O2'	53:I:15:SER:HB3	2.21	0.41
46:B:161:G:O2'	53:I:110:ALA:HB1	2.21	0.41
46:B:451:C:O2	46:B:451:C:H2'	2.21	0.41
46:B:478:G:H1	46:B:506:U:H3	1.68	0.41
46:B:674:C:C4	46:B:675:U:C2	3.09	0.41
46:B:696:U:H3'	46:B:697:U:H4'	2.02	0.41
46:B:718:A:H4'	46:B:719:A:C5	2.56	0.41
46:B:792:U:H2'	46:B:793:A:C8	2.55	0.41
46:B:904:A:H2'	46:B:905:C:H6	1.85	0.41
46:B:1220:C:H5	77:h:180:ARG:NE	2.19	0.41
46:B:1470:G:H2'	46:B:1471:C:C6	2.55	0.41
46:B:1570:A:N1	46:B:1598:A:H5"	2.36	0.41
46:B:1579:A:O2'	46:B:1580:A:OP1	2.37	0.41
47:C:41:ARG:HB3	47:C:43:ASP:OD1	2.21	0.41
48:D:168:MET:O	48:D:172:MET:HG3	2.21	0.41
49:E:135:ARG:HB3	49:E:216:THR:HB	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:F:8:LYS:HD3	50:F:8:LYS:HA	1.80	0.41
52:H:99:MET:O	52:H:103:ASN:HB2	2.21	0.41
56:L:126:ARG:HD2	76:g:33:ARG:HD3	2.03	0.41
58:N:28:ASN:O	58:N:30:LYS:N	2.50	0.41
66:W:54:PRO:HG2	66:W:56:ARG:NH1	2.35	0.41
66:W:98:THR:O	66:W:102:ILE:HG13	2.20	0.41
68:Y:40:VAL:HG11	68:Y:103:ILE:HD12	2.02	0.41
71:b:54:VAL:N	71:b:55:PRO:HD2	2.36	0.41
1:AS:291:C:H2'	1:AS:292:U:H6	1.86	0.41
1:AS:365:A:OP1	6:AY:85:ARG:NH1	2.54	0.41
1:AS:491:C:H2'	1:AS:492:C:C6	2.56	0.41
1:AS:629:A:C2	34:CA:91:PRO:HG2	2.56	0.41
1:AS:726:G:H5"	19:BL:43:PRO:HB2	2.03	0.41
1:AS:744:U:H2'	1:AS:745:C:C6	2.56	0.41
1:AS:814:C:H2'	1:AS:815:U:O4'	2.20	0.41
1:AS:903:G:H2'	1:AS:922:A:H62	1.86	0.41
1:AS:983:U:H2'	1:AS:984:U:H6	1.85	0.41
1:AS:1255:A:OP1	80:p0:42:ARG:NE	2.54	0.41
1:AS:1268:C:H3'	1:AS:1269:A:C8	2.56	0.41
1:AS:1448:A:H1'	1:AS:2325:U:O5'	2.20	0.41
1:AS:1562:G:OP1	1:AS:1562:G:O4'	2.38	0.41
1:AS:1625:U:C5	28:BU:112:LYS:HE2	2.56	0.41
1:AS:1743:G:N2	39:CF:2:ALA:HB3	2.35	0.41
1:AS:1852:C:C2	1:AS:1853:C:C5	3.08	0.41
1:AS:2407:G:H2'	1:AS:2408:A:H8	1.86	0.41
1:AS:2463:A:OP1	82:L1:101:LYS:NZ	2.42	0.41
1:AS:2584:U:H2'	1:AS:2585:U:O4'	2.21	0.41
1:AS:2594:C:N4	12:BE:116:ARG:HH12	2.19	0.41
1:AS:3138:U:C2	1:AS:3139:U:C5	3.08	0.41
1:AS:3157:A:OP1	11:BD:23:ARG:HG3	2.21	0.41
1:AS:3316:U:O2'	1:AS:3317:U:OP1	2.36	0.41
2:AT:47:C:OP2	7:AZ:158:ARG:HD3	2.21	0.41
4:AW:101:ILE:HG13	4:AW:165:VAL:HG22	2.03	0.41
5:AX:217:VAL:HG11	5:AX:328:ILE:HB	2.03	0.41
9:BB:119:LYS:HB2	22:BO:133:ALA:HB3	2.02	0.41
11:BD:13:PRO:HG2	11:BD:16:VAL:HG21	2.02	0.41
16:BI:146:ALA:HA	16:BI:149:ASN:OD1	2.21	0.41
21:BN:154:HIS:HA	21:BN:170:THR:HB	2.02	0.41
22:BO:16:GLN:HG2	22:BO:17:ARG:O	2.21	0.41
25:BR:42:GLN:HB3	25:BR:44:LYS:HE2	2.03	0.41
31:BX:63:MET:HE3	31:BX:63:MET:HB3	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CJ:28:TYR:HB3	43:CJ:69:VAL:HB	2.02	0.41
46:CM:78:A:H5'	53:CT:154:ARG:O	2.21	0.41
46:CM:368:A:H2'	46:CM:369:G:C8	2.56	0.41
46:CM:382:G:H2'	46:CM:383:A:C8	2.56	0.41
46:CM:444:A:C6	46:CM:445:U:C4	3.09	0.41
46:CM:524:A:H2'	46:CM:525:A:O4'	2.21	0.41
46:CM:638:U:O2	54:CU:175:LYS:HE3	2.20	0.41
46:CM:916:C:OP2	72:DN:70:LYS:NZ	2.50	0.41
46:CM:1131:G:C6	46:CM:1132:A:C6	3.08	0.41
46:CM:1140:G:H2'	46:CM:1141:C:C6	2.55	0.41
46:CM:1602:C:H5"	46:CM:1603:G:O5'	2.21	0.41
46:CM:1611:C:H2'	46:CM:1612:C:H6	1.86	0.41
46:CM:1720:C:H2'	46:CM:1721:U:H6	1.85	0.41
46:CM:1785:U:C4	72:DN:98:PRO:HG2	2.55	0.41
47:CN:3:LEU:HD22	47:CN:62:ARG:HH22	1.86	0.41
47:CN:3:LEU:HD12	47:CN:3:LEU:HA	1.94	0.41
47:CN:43:ASP:OD1	47:CN:44:GLY:N	2.53	0.41
48:CO:30:PHE:CG	48:CO:96:LEU:HD21	2.56	0.41
50:CQ:77:ARG:HB2	57:CX:22:VAL:HG11	2.02	0.41
52:CS:119:GLU:HB3	71:DM:100:ILE:HD13	2.02	0.41
54:CU:155:SER:O	54:CU:157:ALA:N	2.47	0.41
55:CV:17:LYS:HA	55:CV:17:LYS:HD3	1.84	0.41
57:CX:61:TRP:NE1	75:DQ:23:HIS:CE1	2.89	0.41
79:CZ:50:LYS:HE3	79:CZ:54:LYS:HE3	2.02	0.41
61:DC:130:ARG:HD3	61:DC:130:ARG:N	2.35	0.41
62:DD:4:GLN:HG2	62:DD:95:TYR:CE1	2.55	0.41
63:DE:76:GLU:O	63:DE:80:ARG:NE	2.51	0.41
64:DF:29:MET:HB2	64:DF:54:LEU:HD23	2.02	0.41
65:DG:131:ASP:OD1	65:DG:134:ARG:NH2	2.53	0.41
80:P0:49:ALA:HB1	80:P0:87:ILE:HG22	2.03	0.41
1:1:92:C:OP1	1:1:2736:C:H1'	2.21	0.41
1:1:149:A:C5	1:1:150:A:N7	2.88	0.41
1:1:232:U:H2'	1:1:233:G:H8	1.85	0.41
1:1:306:A:C2	1:1:2756:G:H1'	2.56	0.41
1:1:408:A:N3	1:1:653:C:O2'	2.53	0.41
1:1:1740:G:H2'	1:1:1741:C:C6	2.56	0.41
1:1:2117:A:C4	38:AK:3:LYS:HE2	2.56	0.41
1:1:2386:U:O2'	1:1:2387:G:H5'	2.21	0.41
1:1:2492:U:H5'	10:p:69:ARG:HG3	2.03	0.41
1:1:3006:C:H1'	11:q:120:GLU:OE1	2.21	0.41
1:1:3285:A:H2'	1:1:3286:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:142:C:H2'	3:4:143:U:H6	1.86	0.41
4:j:68:LYS:HE3	4:j:68:LYS:HB2	1.94	0.41
9:o:149:ARG:HD2	9:o:205:LEU:HD23	2.02	0.41
11:q:47:LYS:HB2	15:u:5:VAL:HB	2.03	0.41
14:t:2:ALA:HB3	29:AB:41:HIS:HE1	1.86	0.41
19:y:40:THR:C	19:y:42:ALA:H	2.29	0.41
46:B:484:G:H3'	46:B:485:G:H8	1.85	0.41
46:B:638:U:C4	54:J:114:LEU:HD11	2.56	0.41
46:B:644:U:H1'	46:B:687:A:C2	2.55	0.41
46:B:669:G:H2'	46:B:671:G:H1'	2.03	0.41
46:B:894:U:H2'	46:B:895:C:C6	2.56	0.41
46:B:1039:U:H2'	46:B:1040:U:C6	2.56	0.41
46:B:1377:A:H2'	46:B:1378:U:C6	2.55	0.41
46:B:1380:G:OP1	78:AR:281:ALA:N	2.51	0.41
46:B:1470:G:H2'	46:B:1471:C:H6	1.85	0.41
46:B:1520:C:H4'	46:B:1526:G:O6	2.21	0.41
46:B:1634:U:H2'	46:B:1635:A:C8	2.56	0.41
46:B:1642:A:N6	46:B:1732:G:O2'	2.53	0.41
50:F:139:ILE:HG12	50:F:185:ILE:HG22	2.02	0.41
62:S:25:LYS:H	62:S:25:LYS:HG2	1.64	0.41
1:AS:87:A:H2'	1:AS:88:G:O4'	2.21	0.41
1:AS:291:C:H2'	1:AS:292:U:C6	2.56	0.41
1:AS:299:G:C8	37:CD:30:GLY:HA3	2.56	0.41
1:AS:393:U:H2'	1:AS:394:G:O4'	2.21	0.41
1:AS:426:G:H2'	1:AS:427:C:C6	2.56	0.41
1:AS:539:G:H2'	1:AS:540:C:O4'	2.21	0.41
1:AS:630:G:H2'	1:AS:631:U:C6	2.56	0.41
1:AS:725:G:N2	19:BL:139:ILE:HB	2.36	0.41
1:AS:845:C:H2'	1:AS:846:U:C6	2.56	0.41
1:AS:1218:G:OP1	80:p0:58:MET:HA	2.20	0.41
1:AS:1236:A:H3'	1:AS:1237:U:C6	2.55	0.41
1:AS:1244:C:C4	1:AS:1245:G:N7	2.89	0.41
1:AS:1434:U:H2'	1:AS:1435:U:C6	2.56	0.41
1:AS:1692:A:N6	1:AS:1744:G:H2'	2.36	0.41
1:AS:2467:C:H2'	1:AS:2468:C:C2	2.55	0.41
1:AS:2710:A:H5'	30:BW:36:ASP:OD1	2.21	0.41
1:AS:3084:G:O6	1:AS:3092:C:H5"	2.21	0.41
1:AS:3313:G:H2'	1:AS:3314:C:C6	2.56	0.41
3:AU:142:C:H2'	3:AU:143:U:H6	1.86	0.41
4:AW:186:PHE:HB2	4:AW:196:TRP:CZ3	2.56	0.41
9:BB:15:LYS:HE3	9:BB:15:LYS:HB3	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BJ:63:THR:HG22	17:BJ:70:GLY:N	2.36	0.41
23:BP:19:VAL:HG12	23:BP:108:LEU:HG	2.03	0.41
45:CL:93:ARG:HG2	46:CM:1259:C:N3	2.36	0.41
46:CM:135:C:H6	46:CM:135:C:H2'	1.68	0.41
46:CM:1330:A:OP1	66:DH:53:GLY:N	2.54	0.41
50:CQ:158:MET:HE2	50:CQ:158:MET:HB2	1.88	0.41
53:CT:220:LYS:HD2	53:CT:220:LYS:HA	1.81	0.41
58:CY:22:ASN:HB3	58:CY:25:ALA:HB3	2.02	0.41
62:DD:12:LYS:HD2	62:DD:12:LYS:HA	1.95	0.41
62:DD:96:VAL:HG12	62:DD:97:ASP:N	2.36	0.41
63:DE:61:ILE:HD11	63:DE:69:ILE:HD11	2.02	0.41
80:P0:52:LEU:HD23	80:P0:86:PHE:CD1	2.56	0.41
81:12:105:PRO:O	81:12:108:GLU:HG2	2.21	0.41
82:L1:44:GLN:C	82:L1:45:ARG:HG2	2.46	0.41
82:l1:12:ASN:HB3	82:l1:206:ILE:HG13	2.03	0.41
1:1:379:C:H2'	1:1:380:U:H6	1.87	0.40
1:1:665:C:H1'	14:t:10:LEU:HD21	2.03	0.40
1:1:1030:U:H2'	1:1:1031:A:C8	2.57	0.40
1:1:1627:C:H5"	1:1:1628:A:H5"	2.03	0.40
1:1:1791:U:H2'	4:j:50:HIS:CD2	2.56	0.40
1:1:2296:U:H2'	1:1:2297:U:O4'	2.21	0.40
1:1:2383:C:O2	1:1:2791:A:N1	2.54	0.40
1:1:3162:U:H2'	1:1:3163:U:C4'	2.51	0.40
1:1:3176:C:H2'	1:1:3177:C:C6	2.56	0.40
1:1:3184:G:H4'	1:1:3185:G:H5'	2.03	0.40
1:1:3264:C:H2'	1:1:3265:U:H6	1.86	0.40
3:4:6:U:H2'	3:4:7:U:C6	2.56	0.40
5:k:236:LYS:HB2	5:k:236:LYS:HE2	1.95	0.40
21:0:4:LEU:HD12	21:0:104:GLU:HG3	2.03	0.40
45:i:158:LEU:O	45:i:162:LYS:HG2	2.21	0.40
46:B:4:C:OP1	49:E:195:SER:OG	2.37	0.40
46:B:260:U:O2'	46:B:261:C:H5'	2.21	0.40
46:B:588:C:H2'	46:B:589:A:H8	1.86	0.40
46:B:701:G:C2'	46:B:702:G:H2'	2.33	0.40
47:C:18:LEU:HD22	63:T:102:ILE:HG21	2.03	0.40
60:Q:76:ILE:HG21	60:Q:97:LEU:HD13	2.02	0.40
65:V:69:LYS:HB2	65:V:70:GLN:OE1	2.22	0.40
70:a:55:VAL:HG22	70:a:75:ILE:HG12	2.03	0.40
78:AR:121:ARG:HA	78:AR:137:THR:OG1	2.21	0.40
78:AR:132:VAL:O	78:AR:145:LEU:HB2	2.21	0.40
1:AS:62:A:OP1	16:BI:169:LYS:HE3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:406:G:H1'	3:AU:16:G:N2	2.36	0.40
1:AS:592:U:H2'	1:AS:607:G:O6	2.21	0.40
1:AS:716:G:OP1	29:BV:117:ARG:NH2	2.54	0.40
1:AS:781:G:N2	1:AS:782:A:H62	2.19	0.40
1:AS:2117:A:C4	38:CE:3:LYS:HE2	2.55	0.40
1:AS:2299:A:H2'	1:AS:2300:C:O4'	2.20	0.40
1:AS:3185:G:C6	1:AS:3231:G:C6	3.09	0.40
1:AS:3300:A:H2'	1:AS:3301:A:H8	1.84	0.40
3:AU:45:C:H3'	40:CG:15:LYS:NZ	2.35	0.40
4:AW:107:CYS:O	4:AW:139:HIS:NE2	2.53	0.40
12:BE:156:ARG:HD2	12:BE:163:GLN:O	2.21	0.40
17:BJ:53:LEU:HD23	17:BJ:53:LEU:HA	1.88	0.40
22:BO:44:ALA:HB2	22:BO:53:PRO:HG2	2.04	0.40
23:BP:10:LYS:HE3	23:BP:10:LYS:HB3	1.96	0.40
35:CB:111:LYS:HB3	35:CB:112:GLU:H	1.64	0.40
38:CE:64:MET:O	38:CE:68:LYS:HB2	2.20	0.40
45:CL:101:LYS:HD3	46:CM:573:C:H4'	2.03	0.40
46:CM:335:G:H3'	58:CY:133:LYS:HB2	2.02	0.40
46:CM:445:U:H2'	46:CM:446:C:O4'	2.21	0.40
46:CM:680:C:O2'	46:CM:681:C:H6	2.03	0.40
46:CM:700:G:C6	46:CM:722:A:N6	2.89	0.40
46:CM:976:G:O3'	46:CM:1773:G:H4'	2.21	0.40
46:CM:1183:G:O4'	66:DH:72:GLY:HA3	2.19	0.40
46:CM:1233:C:C2	46:CM:1234:U:C5	3.09	0.40
48:CO:34:ALA:O	48:CO:41:ARG:HB3	2.21	0.40
50:CQ:60:LEU:HD23	50:CQ:67:ILE:HG21	2.02	0.40
55:CV:107:THR:N	55:CV:108:PRO:HD2	2.37	0.40
79:CZ:32:LEU:HB3	79:CZ:100:TRP:O	2.21	0.40
69:DK:132:LEU:HD12	69:DK:132:LEU:HA	1.95	0.40
82:l1:4:ILE:HD13	82:l1:4:ILE:HA	1.90	0.40
82:l1:160:LYS:HB2	82:l1:161:LYS:H	1.73	0.40
1:1:166:U:H2'	1:1:167:U:H6	1.86	0.40
1:1:188:G:C6	1:1:205:G:C5	3.10	0.40
1:1:751:A:C5	1:1:752:U:C5	3.09	0.40
1:1:999:A:N1	1:1:1045:C:O2'	2.53	0.40
1:1:1247:A:N7	1:1:1248:A:C8	2.90	0.40
1:1:1503:G:H1'	18:x:139:TYR:CE2	2.56	0.40
1:1:1870:A:OP2	20:z:21:LYS:NZ	2.53	0.40
1:1:1944:G:H2'	1:1:1945:A:H8	1.85	0.40
1:1:2077:A:O2'	1:1:2078:A:H5'	2.21	0.40
1:1:2203:U:H2'	1:1:2204:U:C6	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2385:C:C2	1:1:2386:U:C5	3.09	0.40
1:1:2536:U:H5"	10:p:41:ILE:HD12	2.03	0.40
1:1:2749:G:H5"	1:1:2750:G:OP1	2.21	0.40
1:1:3043:U:C4	1:1:3044:C:C4	3.09	0.40
1:1:3270:A:H2'	1:1:3271:U:O4'	2.22	0.40
1:1:3277:U:H4'	5:k:25:GLN:OE1	2.21	0.40
5:k:214:MET:HE2	5:k:350:ALA:HA	2.02	0.40
18:x:51:VAL:HA	18:x:56:ARG:O	2.21	0.40
45:i:118:GLU:HG2	50:F:121:TYR:CE2	2.57	0.40
46:B:44:U:OP2	46:B:435:A:N6	2.52	0.40
46:B:393:U:H2'	46:B:394:G:O4'	2.21	0.40
46:B:569:G:H5"	69:Z:114:LYS:CE	2.51	0.40
46:B:573:C:H41	69:Z:65:ASN:ND2	2.19	0.40
46:B:670:C:H3'	46:B:671:G:C4'	2.51	0.40
46:B:1067:C:H4'	67:X:58:TYR:CE2	2.57	0.40
46:B:1424:G:H2'	46:B:1425:C:C6	2.57	0.40
46:B:1486:G:OP1	65:V:122:ARG:NH1	2.54	0.40
47:C:3:LEU:HD12	47:C:3:LEU:HA	1.97	0.40
57:M:27:PHE:N	57:M:27:PHE:CD1	2.89	0.40
65:V:64:HIS:CE1	65:V:68:ARG:HE	2.39	0.40
65:V:124:ILE:HD11	65:V:132:LEU:HD12	2.04	0.40
67:X:71:ARG:O	67:X:75:GLN:HG3	2.21	0.40
78:AR:80:TYR:HD2	78:AR:92:LEU:HD21	1.86	0.40
78:AR:169:ALA:HB2	78:AR:199:ILE:HD12	2.03	0.40
1:AS:40:G:N2	1:AS:2775:A:H62	2.19	0.40
1:AS:95:G:H2'	1:AS:96:U:O4'	2.21	0.40
1:AS:425:G:H2'	1:AS:426:G:H8	1.87	0.40
1:AS:1415:A:OP1	3:AU:20:U:O2'	2.39	0.40
1:AS:2397:A:H1'	1:AS:2776:A:O4'	2.20	0.40
1:AS:3270:A:H2'	1:AS:3271:U:O4'	2.22	0.40
1:AS:3339:U:H2'	1:AS:3343:C:H41	1.86	0.40
83:AS:3401:3K5:H21	43:CJ:43:TYR:CE2	2.57	0.40
3:AU:63:G:H22	3:AU:97:A:H2	1.67	0.40
3:AU:85:G:H4'	3:AU:86:U:OP1	2.20	0.40
7:AZ:107:ARG:NH1	7:AZ:110:LEU:HD12	2.36	0.40
12:BE:75:TYR:CZ	12:BE:79:VAL:HG21	2.55	0.40
13:BF:53:THR:HG23	13:BF:60:ARG:HA	2.03	0.40
21:BN:49:HIS:CD2	21:BN:50:LYS:H	2.38	0.40
45:CL:62:ALA:C	45:CL:64:LEU:N	2.79	0.40
46:CM:182:C:H2'	46:CM:183:C:H6	1.86	0.40
46:CM:205:U:H2'	46:CM:206:U:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CM:818:U:H3'	46:CM:819:G:H5'	2.02	0.40
46:CM:849:U:H3'	68:DJ:28:ARG:NH2	2.36	0.40
46:CM:872:A:H2'	46:CM:873:U:H6	1.85	0.40
46:CM:1205:C:H5'	57:CX:51:SER:HB3	2.03	0.40
46:CM:1342:A:H3'	46:CM:1343:G:H8	1.86	0.40
46:CM:1419:G:H2'	46:CM:1420:U:C6	2.56	0.40
48:CO:26:ARG:C	48:CO:50:ARG:HG2	2.46	0.40
61:DC:79:HIS:CD2	61:DC:97:TYR:CD2	3.10	0.40
78:DT:29:HIS:CD2	78:DT:32:LEU:HD23	2.56	0.40
80:P0:86:PHE:O	80:P0:87:ILE:HD13	2.21	0.40
1:1:1099:A:N3	1:1:1099:A:H2'	2.37	0.40
1:1:1209:G:H5'	21:0:137:ARG:HH21	1.86	0.40
1:1:1242:G:H2'	1:1:1243:U:C6	2.55	0.40
1:1:2210:A:H2'	1:1:2211:A:H8	1.84	0.40
1:1:2864:A:H2'	1:1:2865:C:C6	2.56	0.40
5:k:67:MET:SD	5:k:70:ARG:HD2	2.62	0.40
6:l:272:LYS:HB2	6:l:275:TYR:HB3	2.03	0.40
7:m:55:PHE:H	7:m:151:GLN:HE22	1.68	0.40
8:n:28:LYS:HE3	8:n:28:LYS:HB3	1.82	0.40
10:p:35:PHE:CD1	10:p:43:PRO:HD3	2.57	0.40
10:p:162:GLU:OE2	16:v:26:ARG:NH1	2.46	0.40
24:6:137:VAL:HG11	25:7:22:VAL:HG21	2.04	0.40
25:7:24:GLY:C	25:7:26:SER:H	2.29	0.40
27:9:82:VAL:HG12	27:9:83:ASP:H	1.85	0.40
35:AH:106:LYS:HB2	35:AH:106:LYS:HE2	1.84	0.40
46:B:55:A:N6	46:B:401:G:H1'	2.36	0.40
46:B:94:U:O2'	51:G:7:LYS:HB2	2.20	0.40
46:B:189:G:H1'	46:B:193:G:N2	2.37	0.40
46:B:496:G:C2	46:B:497:U:H1'	2.56	0.40
46:B:644:U:H5"	46:B:645:G:OP1	2.20	0.40
46:B:1038:G:H5"	46:B:1038:G:N3	2.36	0.40
46:B:1105:U:H2'	46:B:1106:C:H6	1.86	0.40
46:B:1140:G:H2'	46:B:1141:C:H6	1.85	0.40
46:B:1263:G:H1	46:B:1416:U:H5	1.70	0.40
48:D:174:ARG:NH2	48:D:196:GLU:OE2	2.55	0.40
49:E:148:SER:OG	49:E:149:LEU:N	2.55	0.40
55:K:34:ALA:HB2	55:K:56:ARG:HD2	2.02	0.40
58:N:73:GLY:HA3	58:N:86:ILE:HD12	2.03	0.40
59:P:25:TRP:CE3	73:d:82:LYS:HE3	2.56	0.40
64:U:6:GLN:OE1	64:U:6:GLN:N	2.53	0.40
65:V:30:VAL:HG13	65:V:34:VAL:HG11	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:h:172:ILE:C	77:h:173:PHE:HD1	2.29	0.40
78:AR:42:LEU:HD11	78:AR:83:SER:HB3	2.02	0.40
78:AR:231:LEU:HD23	78:AR:231:LEU:H	1.86	0.40
1:AS:259:C:H2'	1:AS:260:C:H6	1.86	0.40
1:AS:438:A:C8	33:BZ:3:THR:HG23	2.56	0.40
1:AS:787:A:H2'	1:AS:788:G:H8	1.87	0.40
1:AS:803:A:H61	1:AS:930:G:H22	1.70	0.40
1:AS:3247:A:H2'	1:AS:3248:U:C6	2.56	0.40
3:AU:87:G:OP2	36:CC:5:LYS:HD2	2.20	0.40
13:BF:64:LYS:HE2	45:CL:34:THR:CG2	2.52	0.40
17:BJ:23:ILE:HD13	17:BJ:121:VAL:HG11	2.03	0.40
27:BT:39:LEU:HD22	27:BT:43:TYR:CE2	2.48	0.40
34:CA:16:TYR:OH	34:CA:89:LEU:O	2.24	0.40
37:CD:56:LEU:HD23	37:CD:56:LEU:HA	1.95	0.40
47:CN:23:HIS:O	47:CN:48:ILE:HD12	2.21	0.40
54:CU:6:LEU:HD21	54:CU:38:GLN:OE1	2.21	0.40
61:DC:60:LEU:HD22	61:DC:92:SER:HB3	2.02	0.40
64:DF:16:ARG:NH1	64:DF:21:ASN:OD1	2.54	0.40
65:DG:105:VAL:HB	65:DG:122:ARG:HD3	2.04	0.40
71:DM:100:ILE:C	71:DM:101:TYR:HD1	2.29	0.40
78:DT:23:LEU:HD23	78:DT:23:LEU:HA	1.99	0.40
82:l1:25:LYS:HB2	82:l1:26:ARG:HH11	1.86	0.40
82:l1:87:VAL:HB	82:l1:91:LYS:HZ1	1.86	0.40
1:1:27:C:C2	1:1:56:A:C6	3.10	0.40
1:1:178:U:H2'	1:1:179:C:H6	1.86	0.40
1:1:259:C:H2'	1:1:260:C:C6	2.56	0.40
1:1:1257:G:H4'	1:1:1274:A:H2	1.85	0.40
1:1:1298:A:N7	1:1:2829:C:O2'	2.51	0.40
1:1:2401:U:H2'	1:1:2402:A:C8	2.56	0.40
1:1:2687:A:HO2'	43:AP:8:ARG:HH22	1.62	0.40
2:3:16:U:H2'	2:3:17:A:H8	1.84	0.40
4:j:140:ASN:ND2	4:j:143:GLU:OE1	2.54	0.40
10:p:201:LEU:HD21	10:p:204:VAL:HG13	2.03	0.40
13:s:112:LEU:HD23	13:s:112:LEU:HA	1.96	0.40
24:6:61:THR:OG1	24:6:63:LYS:NZ	2.54	0.40
28:AA:3:LYS:NZ	28:AA:30:ASP:OD1	2.54	0.40
38:AK:28:HIS:ND1	38:AK:31:LYS:HB2	2.36	0.40
46:B:58:U:OP1	46:B:454:G:O2'	2.29	0.40
46:B:384:G:H2'	46:B:385:A:C8	2.56	0.40
46:B:449:G:H2'	46:B:451:C:C5	2.56	0.40
46:B:588:C:H2'	46:B:589:A:C8	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B:795:A:N6	54:J:109:PRO:HD3	2.37	0.40
46:B:861:G:H2'	46:B:921:G:N2	2.36	0.40
46:B:1068:G:HO2'	46:B:1079:G:HO2'	1.57	0.40
46:B:1092:G:O2'	46:B:1093:G:H5'	2.21	0.40
46:B:1189:A:N3	75:f:10:HIS:HE1	2.18	0.40
46:B:1423:U:H2'	46:B:1424:G:C8	2.56	0.40
50:F:158:MET:HE2	50:F:158:MET:HB2	1.90	0.40
66:W:99:VAL:O	66:W:103:THR:HG23	2.22	0.40
69:Z:3:LYS:HD2	69:Z:7:ARG:HH21	1.87	0.40
78:AR:113:SER:OG	78:AR:155:VAL:N	2.55	0.40
78:AR:118:LYS:HD2	78:AR:159:PRO:C	2.47	0.40
1:AS:99:A:H3'	1:AS:100:G:H21	1.86	0.40
1:AS:290:G:H2'	1:AS:291:C:C6	2.56	0.40
1:AS:291:C:C2	1:AS:292:U:C5	3.10	0.40
1:AS:531:G:O2'	1:AS:552:G:N1	2.50	0.40
1:AS:830:U:H2'	1:AS:831:G:O4'	2.22	0.40
1:AS:851:U:H5"	20:BM:95:TRP:CG	2.56	0.40
1:AS:1374:U:H2'	1:AS:1375:G:H8	1.85	0.40
1:AS:1575:A:OP1	1:AS:2500:G:N2	2.54	0.40
1:AS:1639:A:H2'	1:AS:1640:C:C2	2.56	0.40
1:AS:2136:A:H5'	1:AS:2138:G:O4'	2.21	0.40
1:AS:2363:G:N7	1:AS:3115:C:O2'	2.54	0.40
1:AS:2426:G:O6	1:AS:2477:U:O2	2.39	0.40
1:AS:2623:G:H5"	1:AS:2624:U:O4'	2.21	0.40
1:AS:2684:U:O2'	1:AS:2715:A:O2'	2.20	0.40
1:AS:3108:G:C5	1:AS:3109:C:C5	3.09	0.40
4:AW:3:ARG:HG2	4:AW:4:VAL:N	2.36	0.40
9:BB:19:LYS:HE3	9:BB:23:GLU:OE2	2.22	0.40
10:BC:95:LEU:HD23	10:BC:95:LEU:HA	1.93	0.40
11:BD:47:LYS:HZ1	15:BH:3:SER:HA	1.87	0.40
17:BJ:40:GLU:HG2	17:BJ:41:GLU:HG2	2.03	0.40
22:BO:39:ILE:HG12	22:BO:63:ILE:CD1	2.51	0.40
32:BY:54:LEU:HA	32:BY:94:PRO:HG3	2.03	0.40
39:CF:70:PRO:O	39:CF:73:LEU:HG	2.21	0.40
46:CM:520:U:O3'	70:DL:60:PHE:HB2	2.21	0.40
46:CM:558:U:H2'	46:CM:559:G:C8	2.55	0.40
46:CM:627:U:C2	46:CM:628:A:C8	3.09	0.40
46:CM:953:U:H5"	46:CM:1018:C:O2'	2.22	0.40
46:CM:1063:C:H2'	46:CM:1064:U:H6	1.86	0.40
46:CM:1260:A:C2	46:CM:1424:G:C4	3.09	0.40
52:CS:213:LYS:HD3	52:CS:213:LYS:HA	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CU:169:TYR:CE2	54:CU:175:LYS:HB2	2.56	0.40
56:CW:36:LEU:HD11	56:CW:105:LEU:CD2	2.51	0.40
79:CZ:139:HIS:O	79:CZ:139:HIS:CG	2.74	0.40
60:DB:53:TYR:CE2	60:DB:57:LEU:HD11	2.56	0.40
73:DO:36:LYS:HB2	73:DO:78:SER:OG	2.21	0.40
78:DT:156:ARG:HA	78:DT:156:ARG:HD3	1.82	0.40
82:l1:143:ASP:HB3	82:l1:147:LYS:HB3	2.03	0.40
1:1:163:A:H2'	1:1:164:U:O4'	2.22	0.40
1:1:429:U:H4'	34:AG:88:ASN:O	2.21	0.40
1:1:934:C:C2'	1:1:935:U:H5"	2.48	0.40
1:1:2079:C:O2'	1:1:2080:U:H5"	2.22	0.40
1:1:2182:C:H2'	1:1:2183:U:C6	2.56	0.40
1:1:3038:U:H2'	1:1:3039:C:H6	1.87	0.40
1:1:3129:C:H4'	1:1:3360:G:C4	2.57	0.40
1:1:3135:A:H2'	1:1:3136:C:C6	2.57	0.40
2:3:77:G:H3'	21:0:46:GLN:O	2.22	0.40
3:4:28:C:H2'	3:4:29:U:H6	1.87	0.40
11:q:7:ASP:OD1	11:q:56:THR:HG23	2.21	0.40
13:s:23:VAL:HG11	13:s:30:LEU:HA	2.03	0.40
15:u:14:GLU:CB	21:0:149:LYS:HG2	2.52	0.40
15:u:116:LEU:HD22	17:w:191:ALA:HA	2.01	0.40
16:v:155:VAL:O	16:v:162:ARG:NH2	2.37	0.40
17:w:126:ARG:HG2	17:w:130:LEU:HD12	2.04	0.40
19:y:64:VAL:HG23	19:y:88:THR:O	2.21	0.40
23:5:29:ASP:HB3	23:5:32:SER:OG	2.22	0.40
24:6:38:ALA:O	24:6:58:VAL:HG13	2.20	0.40
30:AC:21:ILE:O	30:AC:21:ILE:HG22	2.22	0.40
45:i:88:PHE:HB3	45:i:91:HIS:HD2	1.86	0.40
46:B:62:A:H8	46:B:285:G:H21	1.69	0.40
46:B:232:G:C2	46:B:233:G:H1'	2.56	0.40
46:B:887:G:H2'	46:B:888:U:C6	2.57	0.40
46:B:907:G:O2'	46:B:908:A:H5'	2.22	0.40
46:B:1378:U:H2'	46:B:1379:C:C6	2.57	0.40
47:C:79:ARG:O	47:C:83:GLN:HG3	2.21	0.40
54:J:59:PRO:HG2	54:J:62:SER:HB3	2.03	0.40
55:K:39:GLY:O	55:K:61:GLU:HG3	2.21	0.40
57:M:26:ASP:OD2	57:M:29:GLN:NE2	2.51	0.40
59:P:45:LEU:HB3	59:P:49:GLN:HB2	2.03	0.40
68:Y:55:ASP:OD1	68:Y:55:ASP:N	2.55	0.40
78:AR:224:LYS:HE3	78:AR:226:LYS:HE3	2.03	0.40
1:AS:426:G:H2'	1:AS:427:C:H6	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:479:C:C2	1:AS:480:G:C8	3.09	0.40
1:AS:690:A:C4	1:AS:691:A:C8	3.09	0.40
1:AS:999:A:N1	1:AS:1045:C:O2'	2.53	0.40
1:AS:2210:A:H2'	1:AS:2211:A:H8	1.84	0.40
1:AS:2385:C:H1'	1:AS:2790:U:O2	2.21	0.40
5:AX:183:ILE:HG22	5:AX:191:LYS:HG2	2.03	0.40
5:AX:214:MET:HE2	5:AX:281:LYS:HD2	2.04	0.40
6:AY:140:GLY:O	6:AY:142:ARG:NH1	2.55	0.40
6:AY:303:ALA:HB2	19:BL:39:ARG:HH12	1.87	0.40
8:BA:55:LYS:NZ	8:BA:97:VAL:O	2.40	0.40
10:BC:68:LEU:HD22	10:BC:238:ILE:HD12	2.03	0.40
15:BH:62:LEU:HD21	15:BH:77:LYS:HB3	2.03	0.40
20:BM:95:TRP:HE3	20:BM:98:ARG:HH21	1.70	0.40
23:BP:68:VAL:HG12	23:BP:69:SER:N	2.30	0.40
25:BR:105:ARG:O	25:BR:109:LEU:HG	2.21	0.40
29:BV:90:TYR:O	29:BV:94:SER:HB2	2.22	0.40
35:CB:57:LEU:HB3	35:CB:61:GLN:HB2	2.03	0.40
40:CG:41:ARG:HD2	40:CG:41:ARG:HA	1.85	0.40
46:CM:31:C:O2'	46:CM:545:U:OP1	2.39	0.40
46:CM:378:U:H4'	56:CW:2:PRO:HD2	2.03	0.40
46:CM:529:C:O2'	46:CM:530:U:OP1	2.35	0.40
46:CM:600:U:H2'	46:CM:601:U:C6	2.57	0.40
46:CM:673:A:H2'	46:CM:674:C:H6	1.81	0.40
46:CM:872:A:C4	46:CM:873:U:C5	3.09	0.40
46:CM:1354:U:C2'	46:CM:1355:A:H5'	2.51	0.40
46:CM:1378:U:H2'	46:CM:1379:C:H6	1.86	0.40
46:CM:1508:G:O2'	46:CM:1510:G:OP2	2.31	0.40
46:CM:1720:C:H2'	46:CM:1721:U:C6	2.56	0.40
46:CM:1721:U:H2'	46:CM:1722:U:C6	2.57	0.40
51:CR:19:MET:SD	51:CR:108:LYS:HD2	2.61	0.40
53:CT:64:LYS:HB2	53:CT:97:VAL:HG21	2.04	0.40
61:DC:55:GLY:O	61:DC:58:LYS:HG2	2.21	0.40
68:DJ:75:ILE:HD12	68:DJ:125:ILE:HD13	2.04	0.40
69:DK:46:SER:OG	69:DK:78:LYS:NZ	2.54	0.40
77:DS:134:LYS:HD2	77:DS:134:LYS:HA	1.82	0.40
82:L1:60:ARG:HE	82:L1:63:MET:HE3	1.85	0.40
79:O:62:LEU:HD22	79:O:75:VAL:HG11	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	AW	247/254 (97%)	239 (97%)	8 (3%)	0	100	100
4	j	247/254 (97%)	239 (97%)	8 (3%)	0	100	100
5	AX	384/389 (99%)	371 (97%)	13 (3%)	0	100	100
5	k	385/389 (99%)	372 (97%)	13 (3%)	0	100	100
6	AY	359/363 (99%)	349 (97%)	10 (3%)	0	100	100
6	l	359/363 (99%)	348 (97%)	11 (3%)	0	100	100
7	AZ	290/298 (97%)	278 (96%)	12 (4%)	0	100	100
7	m	294/298 (99%)	282 (96%)	12 (4%)	0	100	100
8	BA	149/176 (85%)	147 (99%)	2 (1%)	0	100	100
8	n	153/176 (87%)	150 (98%)	3 (2%)	0	100	100
9	BB	232/241 (96%)	226 (97%)	5 (2%)	1 (0%)	30	62
9	o	229/241 (95%)	222 (97%)	6 (3%)	1 (0%)	30	62
10	BC	231/262 (88%)	219 (95%)	10 (4%)	2 (1%)	14	47
10	p	236/262 (90%)	227 (96%)	8 (3%)	1 (0%)	30	62
11	BD	188/191 (98%)	181 (96%)	7 (4%)	0	100	100
11	q	188/191 (98%)	184 (98%)	4 (2%)	0	100	100
12	BE	204/220 (93%)	199 (98%)	5 (2%)	0	100	100
12	r	204/220 (93%)	201 (98%)	3 (2%)	0	100	100
13	BF	169/174 (97%)	162 (96%)	7 (4%)	0	100	100
13	s	169/174 (97%)	161 (95%)	8 (5%)	0	100	100
14	BG	198/202 (98%)	194 (98%)	4 (2%)	0	100	100
14	t	198/202 (98%)	196 (99%)	2 (1%)	0	100	100
15	BH	128/131 (98%)	124 (97%)	4 (3%)	0	100	100
15	u	128/131 (98%)	125 (98%)	3 (2%)	0	100	100
16	BI	201/204 (98%)	198 (98%)	3 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
16	v	201/204 (98%)	197 (98%)	4 (2%)	0	100	100
17	BJ	197/200 (98%)	195 (99%)	2 (1%)	0	100	100
17	w	197/200 (98%)	195 (99%)	2 (1%)	0	100	100
18	BK	172/185 (93%)	167 (97%)	5 (3%)	0	100	100
18	x	169/185 (91%)	166 (98%)	3 (2%)	0	100	100
19	BL	183/186 (98%)	179 (98%)	4 (2%)	0	100	100
19	y	183/186 (98%)	179 (98%)	4 (2%)	0	100	100
20	BM	177/190 (93%)	173 (98%)	4 (2%)	0	100	100
20	z	177/190 (93%)	174 (98%)	3 (2%)	0	100	100
21	0	168/172 (98%)	166 (99%)	2 (1%)	0	100	100
21	BN	168/172 (98%)	166 (99%)	2 (1%)	0	100	100
22	2	157/160 (98%)	154 (98%)	3 (2%)	0	100	100
22	BO	157/160 (98%)	154 (98%)	3 (2%)	0	100	100
23	5	101/124 (82%)	95 (94%)	5 (5%)	1 (1%)	12	45
23	BP	101/124 (82%)	88 (87%)	11 (11%)	2 (2%)	6	31
24	6	129/137 (94%)	126 (98%)	3 (2%)	0	100	100
24	BQ	129/137 (94%)	126 (98%)	3 (2%)	0	100	100
25	7	114/155 (74%)	102 (90%)	11 (10%)	1 (1%)	14	47
25	BR	94/155 (61%)	90 (96%)	4 (4%)	0	100	100
26	8	118/142 (83%)	116 (98%)	2 (2%)	0	100	100
26	BS	117/142 (82%)	115 (98%)	2 (2%)	0	100	100
27	9	124/127 (98%)	123 (99%)	1 (1%)	0	100	100
27	BT	124/127 (98%)	123 (99%)	1 (1%)	0	100	100
28	AA	133/136 (98%)	132 (99%)	1 (1%)	0	100	100
28	BU	133/136 (98%)	131 (98%)	2 (2%)	0	100	100
29	AB	146/149 (98%)	138 (94%)	8 (6%)	0	100	100
29	BV	146/149 (98%)	139 (95%)	7 (5%)	0	100	100
30	AC	57/63 (90%)	54 (95%)	1 (2%)	2 (4%)	3	20
30	BW	59/63 (94%)	58 (98%)	1 (2%)	0	100	100
31	AD	94/106 (89%)	93 (99%)	1 (1%)	0	100	100
31	BX	94/106 (89%)	92 (98%)	2 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
32	AE	108/112 (96%)	106 (98%)	2 (2%)	0	100 100
32	BY	108/112 (96%)	103 (95%)	3 (3%)	2 (2%)	6 33
33	AF	122/131 (93%)	122 (100%)	0	0	100 100
33	BZ	122/131 (93%)	122 (100%)	0	0	100 100
34	AG	104/107 (97%)	102 (98%)	2 (2%)	0	100 100
34	CA	104/107 (97%)	102 (98%)	2 (2%)	0	100 100
35	AH	110/122 (90%)	108 (98%)	2 (2%)	0	100 100
35	CB	110/122 (90%)	107 (97%)	3 (3%)	0	100 100
36	AI	118/120 (98%)	114 (97%)	4 (3%)	0	100 100
36	CC	116/120 (97%)	114 (98%)	2 (2%)	0	100 100
37	AJ	93/99 (94%)	92 (99%)	1 (1%)	0	100 100
37	CD	95/99 (96%)	94 (99%)	1 (1%)	0	100 100
38	AK	84/90 (93%)	81 (96%)	3 (4%)	0	100 100
38	CE	84/90 (93%)	81 (96%)	3 (4%)	0	100 100
39	AL	75/78 (96%)	70 (93%)	5 (7%)	0	100 100
39	CF	75/78 (96%)	67 (89%)	8 (11%)	0	100 100
40	AM	48/51 (94%)	46 (96%)	1 (2%)	1 (2%)	5 31
40	CG	48/51 (94%)	46 (96%)	2 (4%)	0	100 100
41	AN	50/52 (96%)	49 (98%)	1 (2%)	0	100 100
41	CH	49/52 (94%)	45 (92%)	1 (2%)	3 (6%)	1 9
42	AO	23/25 (92%)	22 (96%)	1 (4%)	0	100 100
42	CI	22/25 (88%)	22 (100%)	0	0	100 100
43	AP	101/106 (95%)	100 (99%)	1 (1%)	0	100 100
43	CJ	101/106 (95%)	100 (99%)	1 (1%)	0	100 100
44	AQ	89/92 (97%)	85 (96%)	4 (4%)	0	100 100
44	CK	89/92 (97%)	85 (96%)	4 (4%)	0	100 100
45	CL	117/267 (44%)	91 (78%)	23 (20%)	3 (3%)	4 26
45	i	117/267 (44%)	93 (80%)	20 (17%)	4 (3%)	3 20
47	C	206/261 (79%)	201 (98%)	5 (2%)	0	100 100
47	CN	206/261 (79%)	198 (96%)	8 (4%)	0	100 100
48	CO	212/256 (83%)	204 (96%)	8 (4%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
48	D	212/256 (83%)	207 (98%)	5 (2%)	0	100	100
49	CP	215/249 (86%)	209 (97%)	6 (3%)	0	100	100
49	E	215/249 (86%)	210 (98%)	5 (2%)	0	100	100
50	CQ	221/251 (88%)	211 (96%)	10 (4%)	0	100	100
50	F	221/251 (88%)	213 (96%)	8 (4%)	0	100	100
51	CR	258/262 (98%)	251 (97%)	7 (3%)	0	100	100
51	G	257/262 (98%)	253 (98%)	4 (2%)	0	100	100
52	CS	204/225 (91%)	197 (97%)	7 (3%)	0	100	100
52	H	204/225 (91%)	193 (95%)	11 (5%)	0	100	100
53	CT	234/236 (99%)	230 (98%)	4 (2%)	0	100	100
53	I	224/236 (95%)	220 (98%)	4 (2%)	0	100	100
54	CU	181/186 (97%)	171 (94%)	9 (5%)	1 (1%)	21	56
54	J	183/186 (98%)	171 (93%)	12 (7%)	0	100	100
55	CV	201/206 (98%)	199 (99%)	2 (1%)	0	100	100
55	K	201/206 (98%)	200 (100%)	1 (0%)	0	100	100
56	CW	176/189 (93%)	175 (99%)	1 (1%)	0	100	100
56	L	176/189 (93%)	175 (99%)	1 (1%)	0	100	100
57	CX	92/118 (78%)	86 (94%)	6 (6%)	0	100	100
57	M	90/118 (76%)	78 (87%)	12 (13%)	0	100	100
58	CY	139/155 (90%)	133 (96%)	5 (4%)	1 (1%)	18	52
58	N	142/155 (92%)	137 (96%)	5 (4%)	0	100	100
59	DA	148/151 (98%)	146 (99%)	2 (1%)	0	100	100
59	P	148/151 (98%)	146 (99%)	2 (1%)	0	100	100
60	DB	125/132 (95%)	120 (96%)	4 (3%)	1 (1%)	16	50
60	Q	125/132 (95%)	119 (95%)	5 (4%)	1 (1%)	16	50
61	DC	128/142 (90%)	108 (84%)	20 (16%)	0	100	100
61	R	127/142 (89%)	115 (91%)	11 (9%)	1 (1%)	16	50
62	DD	138/142 (97%)	134 (97%)	4 (3%)	0	100	100
62	S	138/142 (97%)	133 (96%)	4 (3%)	1 (1%)	18	52
63	DE	122/137 (89%)	119 (98%)	3 (2%)	0	100	100
63	T	122/137 (89%)	118 (97%)	4 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
64	DF	139/145 (96%)	132 (95%)	6 (4%)	1 (1%)	18 52
64	U	142/145 (98%)	137 (96%)	5 (4%)	0	100 100
65	DG	139/145 (96%)	133 (96%)	5 (4%)	1 (1%)	18 52
65	V	139/145 (96%)	136 (98%)	3 (2%)	0	100 100
66	DH	95/119 (80%)	93 (98%)	2 (2%)	0	100 100
66	W	100/119 (84%)	97 (97%)	3 (3%)	0	100 100
67	DI	85/87 (98%)	83 (98%)	2 (2%)	0	100 100
67	X	85/87 (98%)	83 (98%)	2 (2%)	0	100 100
68	DJ	127/130 (98%)	125 (98%)	2 (2%)	0	100 100
68	Y	127/130 (98%)	125 (98%)	2 (2%)	0	100 100
69	DK	141/145 (97%)	139 (99%)	2 (1%)	0	100 100
69	Z	141/145 (97%)	138 (98%)	3 (2%)	0	100 100
70	DL	130/135 (96%)	130 (100%)	0	0	100 100
70	a	132/135 (98%)	130 (98%)	2 (2%)	0	100 100
71	DM	69/105 (66%)	64 (93%)	5 (7%)	0	100 100
71	b	70/105 (67%)	69 (99%)	1 (1%)	0	100 100
72	DN	96/119 (81%)	94 (98%)	2 (2%)	0	100 100
72	c	96/119 (81%)	94 (98%)	2 (2%)	0	100 100
73	DO	79/82 (96%)	73 (92%)	6 (8%)	0	100 100
73	d	79/82 (96%)	75 (95%)	4 (5%)	0	100 100
74	DP	59/67 (88%)	52 (88%)	7 (12%)	0	100 100
74	e	60/67 (90%)	57 (95%)	3 (5%)	0	100 100
75	DQ	52/56 (93%)	50 (96%)	2 (4%)	0	100 100
75	f	53/56 (95%)	51 (96%)	2 (4%)	0	100 100
76	DR	56/63 (89%)	50 (89%)	6 (11%)	0	100 100
76	g	58/63 (92%)	55 (95%)	3 (5%)	0	100 100
77	DS	68/193 (35%)	57 (84%)	10 (15%)	1 (2%)	8 37
77	h	68/193 (35%)	54 (79%)	13 (19%)	1 (2%)	8 37
78	AR	309/317 (98%)	292 (94%)	16 (5%)	1 (0%)	36 68
78	DT	309/317 (98%)	284 (92%)	23 (7%)	2 (1%)	21 56
79	CZ	117/143 (82%)	89 (76%)	23 (20%)	5 (4%)	2 16

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
79	O	37/143 (26%)	32 (86%)	5 (14%)	0	100 100
80	P0	105/312 (34%)	81 (77%)	20 (19%)	4 (4%)	2 18
80	p0	55/312 (18%)	34 (62%)	19 (34%)	2 (4%)	2 19
81	12	60/165 (36%)	37 (62%)	23 (38%)	0	100 100
82	L1	215/217 (99%)	163 (76%)	48 (22%)	4 (2%)	6 33
82	l1	207/217 (95%)	118 (57%)	80 (39%)	9 (4%)	2 16
All	All	22661/25499 (89%)	21655 (96%)	945 (4%)	61 (0%)	36 68

All (61) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
10	p	205	ASN
30	AC	21	ILE
40	AM	49	LEU
45	i	55	LYS
45	i	64	LEU
60	Q	119	ASP
77	h	161	ARG
10	BC	125	ASP
41	CH	3	GLU
45	CL	43	PRO
45	CL	72	ASP
79	CZ	82	PRO
79	CZ	112	ALA
64	DF	57	ARG
65	DG	119	LYS
78	DT	75	SER
80	P0	24	SER
80	P0	71	PRO
80	P0	72	GLU
82	L1	45	ARG
82	l1	71	ALA
82	l1	74	VAL
82	l1	129	SER
82	l1	157	PHE
82	l1	179	LEU
82	l1	212	PRO
80	p0	46	ARG
45	i	63	ALA
61	R	2	VAL

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Mol	Chain	Res	Type
32	BY	83	ASP
41	CH	4	PRO
58	CY	26	LYS
79	CZ	34	THR
78	DT	28	ALA
82	L1	56	PRO
82	L1	212	PRO
82	l1	59	PRO
82	l1	87	VAL
82	l1	180	VAL
80	p0	41	ILE
23	5	20	ALA
9	BB	230	GLU
10	BC	128	PRO
23	BP	20	ALA
32	BY	110	ASP
79	CZ	108	ARG
60	DB	119	ASP
80	P0	102	SER
82	L1	59	PRO
23	BP	24	GLU
79	CZ	103	LEU
77	DS	126	VAL
78	AR	203	PRO
41	CH	6	LEU
45	CL	48	PRO
54	CU	156	THR
9	o	230	GLU
30	AC	3	LYS
45	i	44	ALA
62	S	40	PRO
25	7	98	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	AW	190/194 (98%)	190 (100%)	0	100	100
4	j	190/194 (98%)	190 (100%)	0	100	100
5	AX	325/328 (99%)	325 (100%)	0	100	100
5	k	326/328 (99%)	326 (100%)	0	100	100
6	AY	290/292 (99%)	290 (100%)	0	100	100
6	l	290/292 (99%)	290 (100%)	0	100	100
7	AZ	247/252 (98%)	247 (100%)	0	100	100
7	m	250/252 (99%)	250 (100%)	0	100	100
8	BA	132/154 (86%)	132 (100%)	0	100	100
8	n	136/154 (88%)	136 (100%)	0	100	100
9	BB	198/204 (97%)	198 (100%)	0	100	100
9	o	195/204 (96%)	195 (100%)	0	100	100
10	BC	193/216 (89%)	190 (98%)	3 (2%)	55	75
10	p	198/216 (92%)	198 (100%)	0	100	100
11	BD	169/170 (99%)	169 (100%)	0	100	100
11	q	169/170 (99%)	169 (100%)	0	100	100
12	BE	178/186 (96%)	178 (100%)	0	100	100
12	r	178/186 (96%)	178 (100%)	0	100	100
13	BF	146/149 (98%)	146 (100%)	0	100	100
13	s	146/149 (98%)	146 (100%)	0	100	100
14	BG	166/168 (99%)	166 (100%)	0	100	100
14	t	166/168 (99%)	166 (100%)	0	100	100
15	BH	108/109 (99%)	108 (100%)	0	100	100
15	u	108/109 (99%)	108 (100%)	0	100	100
16	BI	177/178 (99%)	177 (100%)	0	100	100
16	v	177/178 (99%)	177 (100%)	0	100	100
17	BJ	166/167 (99%)	166 (100%)	0	100	100
17	w	166/167 (99%)	166 (100%)	0	100	100
18	BK	145/154 (94%)	145 (100%)	0	100	100
18	x	144/154 (94%)	144 (100%)	0	100	100
19	BL	153/154 (99%)	153 (100%)	0	100	100
19	y	153/154 (99%)	153 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
20	BM	146/153 (95%)	145 (99%)	1 (1%)	76	83
20	z	146/153 (95%)	145 (99%)	1 (1%)	76	83
21	0	155/157 (99%)	155 (100%)	0	100	100
21	BN	155/157 (99%)	155 (100%)	0	100	100
22	2	133/134 (99%)	133 (100%)	0	100	100
22	BO	133/134 (99%)	133 (100%)	0	100	100
23	5	93/112 (83%)	93 (100%)	0	100	100
23	BP	94/112 (84%)	94 (100%)	0	100	100
24	6	101/104 (97%)	101 (100%)	0	100	100
24	BQ	101/104 (97%)	101 (100%)	0	100	100
25	7	97/127 (76%)	97 (100%)	0	100	100
25	BR	86/127 (68%)	86 (100%)	0	100	100
26	8	107/121 (88%)	107 (100%)	0	100	100
26	BS	107/121 (88%)	107 (100%)	0	100	100
27	9	111/112 (99%)	111 (100%)	0	100	100
27	BT	111/112 (99%)	111 (100%)	0	100	100
28	AA	117/118 (99%)	117 (100%)	0	100	100
28	BU	117/118 (99%)	117 (100%)	0	100	100
29	AB	120/121 (99%)	120 (100%)	0	100	100
29	BV	120/121 (99%)	120 (100%)	0	100	100
30	AC	46/49 (94%)	46 (100%)	0	100	100
30	BW	48/49 (98%)	48 (100%)	0	100	100
31	AD	81/90 (90%)	81 (100%)	0	100	100
31	BX	81/90 (90%)	81 (100%)	0	100	100
32	AE	98/100 (98%)	98 (100%)	0	100	100
32	BY	98/100 (98%)	98 (100%)	0	100	100
33	AF	109/115 (95%)	109 (100%)	0	100	100
33	BZ	110/115 (96%)	110 (100%)	0	100	100
34	AG	91/92 (99%)	91 (100%)	0	100	100
34	CA	91/92 (99%)	91 (100%)	0	100	100
35	AH	95/102 (93%)	95 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
35	CB	95/102 (93%)	95 (100%)	0	100	100
36	AI	106/106 (100%)	106 (100%)	0	100	100
36	CC	105/106 (99%)	105 (100%)	0	100	100
37	AJ	75/79 (95%)	75 (100%)	0	100	100
37	CD	77/79 (98%)	77 (100%)	0	100	100
38	AK	70/73 (96%)	70 (100%)	0	100	100
38	CE	70/73 (96%)	70 (100%)	0	100	100
39	AL	68/69 (99%)	68 (100%)	0	100	100
39	CF	68/69 (99%)	68 (100%)	0	100	100
40	AM	46/47 (98%)	46 (100%)	0	100	100
40	CG	46/47 (98%)	45 (98%)	1 (2%)	45	71
41	AN	47/47 (100%)	47 (100%)	0	100	100
41	CH	46/47 (98%)	45 (98%)	1 (2%)	45	71
42	AO	24/24 (100%)	24 (100%)	0	100	100
42	CI	23/24 (96%)	23 (100%)	0	100	100
43	AP	88/91 (97%)	88 (100%)	0	100	100
43	CJ	88/91 (97%)	88 (100%)	0	100	100
44	AQ	72/73 (99%)	72 (100%)	0	100	100
44	CK	72/73 (99%)	72 (100%)	0	100	100
45	CL	100/212 (47%)	100 (100%)	0	100	100
45	i	100/212 (47%)	100 (100%)	0	100	100
47	C	176/215 (82%)	176 (100%)	0	100	100
47	CN	176/215 (82%)	176 (100%)	0	100	100
48	CO	194/229 (85%)	194 (100%)	0	100	100
48	D	194/229 (85%)	194 (100%)	0	100	100
49	CP	175/198 (88%)	175 (100%)	0	100	100
49	E	175/198 (88%)	175 (100%)	0	100	100
50	CQ	174/196 (89%)	174 (100%)	0	100	100
50	F	174/196 (89%)	174 (100%)	0	100	100
51	CR	218/220 (99%)	217 (100%)	1 (0%)	81	85
51	G	218/220 (99%)	218 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
52	CS	178/197 (90%)	178 (100%)	0	100	100
52	H	178/197 (90%)	178 (100%)	0	100	100
53	CT	204/204 (100%)	204 (100%)	0	100	100
53	I	195/204 (96%)	195 (100%)	0	100	100
54	CU	164/167 (98%)	164 (100%)	0	100	100
54	J	166/167 (99%)	166 (100%)	0	100	100
55	CV	157/160 (98%)	157 (100%)	0	100	100
55	K	157/160 (98%)	157 (100%)	0	100	100
56	CW	153/160 (96%)	153 (100%)	0	100	100
56	L	153/160 (96%)	153 (100%)	0	100	100
57	CX	88/104 (85%)	88 (100%)	0	100	100
57	M	86/104 (83%)	86 (100%)	0	100	100
58	CY	122/134 (91%)	122 (100%)	0	100	100
58	N	124/134 (92%)	124 (100%)	0	100	100
59	DA	129/130 (99%)	129 (100%)	0	100	100
59	P	129/130 (99%)	129 (100%)	0	100	100
60	DB	97/102 (95%)	97 (100%)	0	100	100
60	Q	97/102 (95%)	94 (97%)	3 (3%)	35	66
61	DC	112/121 (93%)	112 (100%)	0	100	100
61	R	111/121 (92%)	111 (100%)	0	100	100
62	DD	114/116 (98%)	114 (100%)	0	100	100
62	S	114/116 (98%)	111 (97%)	3 (3%)	40	69
63	DE	112/122 (92%)	112 (100%)	0	100	100
63	T	112/122 (92%)	112 (100%)	0	100	100
64	DF	125/129 (97%)	125 (100%)	0	100	100
64	U	128/129 (99%)	126 (98%)	2 (2%)	55	75
65	DG	113/117 (97%)	113 (100%)	0	100	100
65	V	113/117 (97%)	113 (100%)	0	100	100
66	DH	87/105 (83%)	87 (100%)	0	100	100
66	W	92/105 (88%)	92 (100%)	0	100	100
67	DI	71/71 (100%)	71 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
67	X	71/71 (100%)	71 (100%)	0	100	100
68	DJ	112/113 (99%)	112 (100%)	0	100	100
68	Y	112/113 (99%)	112 (100%)	0	100	100
69	DK	116/118 (98%)	116 (100%)	0	100	100
69	Z	116/118 (98%)	116 (100%)	0	100	100
70	DL	109/112 (97%)	109 (100%)	0	100	100
70	a	111/112 (99%)	111 (100%)	0	100	100
71	DM	63/85 (74%)	63 (100%)	0	100	100
71	b	64/85 (75%)	64 (100%)	0	100	100
72	DN	84/102 (82%)	84 (100%)	0	100	100
72	c	84/102 (82%)	84 (100%)	0	100	100
73	DO	72/73 (99%)	72 (100%)	0	100	100
73	d	72/73 (99%)	72 (100%)	0	100	100
74	DP	53/58 (91%)	53 (100%)	0	100	100
74	e	54/58 (93%)	54 (100%)	0	100	100
75	DQ	47/48 (98%)	47 (100%)	0	100	100
75	f	47/48 (98%)	47 (100%)	0	100	100
76	DR	50/54 (93%)	47 (94%)	3 (6%)	17	50
76	g	51/54 (94%)	49 (96%)	2 (4%)	28	62
77	DS	62/175 (35%)	58 (94%)	4 (6%)	15	47
77	h	62/175 (35%)	61 (98%)	1 (2%)	55	75
78	AR	259/263 (98%)	259 (100%)	0	100	100
78	DT	259/263 (98%)	257 (99%)	2 (1%)	73	82
79	CZ	101/123 (82%)	101 (100%)	0	100	100
79	O	34/123 (28%)	34 (100%)	0	100	100
80	P0	92/247 (37%)	92 (100%)	0	100	100
80	p0	52/247 (21%)	52 (100%)	0	100	100
81	12	52/137 (38%)	51 (98%)	1 (2%)	50	73
82	L1	196/196 (100%)	196 (100%)	0	100	100
82	l1	190/196 (97%)	190 (100%)	0	100	100
All	All	19461/21471 (91%)	19432 (100%)	29 (0%)	88	91

All (29) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
20	z	114	LYS
60	Q	119	ASP
60	Q	120	SER
60	Q	121	THR
62	S	38	VAL
62	S	39	GLN
62	S	42	ILE
64	U	138	THR
64	U	139	LYS
76	g	49	LEU
76	g	50	THR
77	h	168	CYS
10	BC	203	GLU
10	BC	204	VAL
10	BC	208	ASP
20	BM	130	ASN
40	CG	21	ARG
41	CH	22	LYS
51	CR	90	ILE
76	DR	31	GLN
76	DR	49	LEU
76	DR	51	ASN
77	DS	128	THR
77	DS	129	THR
77	DS	183	CYS
77	DS	186	CYS
78	DT	118	LYS
78	DT	119	ASN
81	12	104	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (174) such sidechains are listed below:

Mol	Chain	Res	Type
4	j	205	ASN
5	k	259	ASN
5	k	316	ASN
6	l	16	GLN
6	l	49	GLN
6	l	56	ASN
6	l	321	ASN
7	m	17	GLN

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Mol	Chain	Res	Type
7	m	45	ASN
9	o	50	GLN
9	o	91	ASN
9	o	144	GLN
9	o	192	ASN
9	o	228	ASN
10	p	192	HIS
11	q	102	ASN
11	q	116	ASN
12	r	59	GLN
12	r	100	ASN
15	u	112	GLN
16	v	123	GLN
16	v	158	HIS
17	w	51	ASN
17	w	91	HIS
17	w	123	GLN
23	5	103	GLN
23	5	105	GLN
25	7	42	GLN
25	7	59	HIS
27	9	42	GLN
27	9	86	GLN
28	AA	122	HIS
29	AB	40	HIS
29	AB	65	GLN
31	AD	73	GLN
34	AG	24	ASN
34	AG	31	GLN
36	AI	26	GLN
36	AI	45	HIS
36	AI	107	GLN
36	AI	113	GLN
38	AK	69	HIS
39	AL	40	GLN
39	AL	51	GLN
39	AL	57	ASN
40	AM	33	ASN
44	AQ	32	GLN
45	i	83	HIS
47	C	21	ASN
49	E	84	GLN

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Mol	Chain	Res	Type
51	G	17	HIS
51	G	57	ASN
51	G	67	GLN
51	G	197	HIS
52	H	37	GLN
52	H	116	HIS
54	J	85	HIS
55	K	116	HIS
57	M	58	GLN
58	N	14	GLN
59	P	123	HIS
60	Q	75	HIS
61	R	103	ASN
62	S	93	GLN
63	T	62	GLN
64	U	63	GLN
64	U	137	HIS
65	V	23	GLN
66	W	35	ASN
67	X	29	HIS
68	Y	42	GLN
68	Y	80	ASN
69	Z	94	ASN
70	a	22	GLN
78	AR	53	ASN
78	AR	102	GLN
4	AW	132	ASN
4	AW	205	ASN
5	AX	182	GLN
5	AX	198	HIS
5	AX	259	ASN
5	AX	279	ASN
5	AX	316	ASN
6	AY	117	ASN
6	AY	321	ASN
6	AY	347	GLN
7	AZ	151	GLN
8	BA	56	ASN
9	BB	50	GLN
9	BB	78	GLN
9	BB	144	GLN
9	BB	155	ASN

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Mol	Chain	Res	Type
9	BB	184	HIS
9	BB	209	ASN
10	BC	146	ASN
10	BC	205	ASN
11	BD	102	ASN
12	BE	55	ASN
12	BE	59	GLN
12	BE	162	GLN
12	BE	187	ASN
13	BF	43	GLN
13	BF	95	ASN
13	BF	109	HIS
13	BF	161	GLN
16	BI	175	ASN
17	BJ	56	HIS
18	BK	118	GLN
18	BK	120	ASN
18	BK	133	HIS
18	BK	137	ASN
19	BL	27	GLN
20	BM	130	ASN
20	BM	134	HIS
20	BM	174	GLN
20	BM	175	GLN
22	BO	66	ASN
22	BO	77	ASN
23	BP	103	GLN
24	BQ	104	ASN
25	BR	59	HIS
27	BT	81	GLN
27	BT	98	ASN
30	BW	6	ASN
30	BW	12	GLN
31	BX	73	GLN
32	BY	55	ASN
33	BZ	36	GLN
34	CA	24	ASN
36	CC	59	ASN
38	CE	69	HIS
38	CE	76	ASN
38	CE	79	GLN
39	CF	67	GLN

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Mol	Chain	Res	Type
41	CH	44	GLN
43	CJ	22	GLN
45	CL	33	ASN
47	CN	21	ASN
47	CN	33	ASN
47	CN	140	ASN
48	CO	40	ASN
48	CO	118	GLN
48	CO	232	HIS
49	CP	54	HIS
49	CP	84	GLN
51	CR	98	HIS
51	CR	188	ASN
52	CS	34	GLN
53	CT	22	HIS
53	CT	81	HIS
53	CT	139	ASN
55	CV	32	GLN
57	CX	17	GLN
58	CY	18	HIS
58	CY	92	HIS
62	DD	138	GLN
64	DF	44	ASN
65	DG	12	GLN
67	DI	21	ASN
67	DI	33	GLN
68	DJ	64	GLN
69	DK	18	HIS
71	DM	38	HIS
73	DO	9	HIS
74	DP	27	GLN
75	DQ	23	HIS
78	DT	4	GLN
78	DT	311	GLN
80	P0	103	ASN
82	L1	35	GLN
82	L1	40	ASN
82	L1	182	GLN
82	L1	200	ASN
82	l1	181	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1	3212/3359 (95%)	614 (19%)	45 (1%)
1	AS	3219/3359 (95%)	618 (19%)	50 (1%)
2	3	120/121 (99%)	9 (7%)	0
2	AT	120/121 (99%)	9 (7%)	0
3	4	156/158 (98%)	23 (14%)	3 (1%)
3	AU	157/158 (99%)	23 (14%)	3 (1%)
46	B	1753/1787 (98%)	447 (25%)	45 (2%)
46	CM	1762/1787 (98%)	454 (25%)	54 (3%)
All	All	10499/10850 (96%)	2197 (20%)	200 (1%)

All (2197) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1	15	A
1	1	24	U
1	1	25	A
1	1	29	G
1	1	39	A
1	1	42	A
1	1	48	A
1	1	56	A
1	1	58	G
1	1	59	A
1	1	64	A
1	1	65	A
1	1	91	G
1	1	92	C
1	1	98	A
1	1	104	C
1	1	108	A
1	1	109	G
1	1	110	C
1	1	121	A
1	1	134	U
1	1	135	G
1	1	155	A
1	1	156	A
1	1	164	U
1	1	169	G
1	1	172	C
1	1	173	C
1	1	175	G
1	1	186	A

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Mol	Chain	Res	Type
1	1	189	U
1	1	190	U
1	1	199	C
1	1	205	G
1	1	209	C
1	1	212	A
1	1	217	G
1	1	218	A
1	1	219	G
1	1	230	G
1	1	236	A
1	1	239	A
1	1	240	C
1	1	243	G
1	1	245	G
1	1	249	G
1	1	250	U
1	1	269	G
1	1	286	U
1	1	295	A
1	1	305	U
1	1	311	C
1	1	323	A
1	1	329	U
1	1	337	G
1	1	338	A
1	1	339	C
1	1	349	A
1	1	350	C
1	1	376	G
1	1	377	A
1	1	387	A
1	1	395	A
1	1	398	A
1	1	402	A
1	1	403	C
1	1	404	G
1	1	420	G
1	1	421	G
1	1	422	A
1	1	438	A
1	1	439	C

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Mol	Chain	Res	Type
1	1	447	U
1	1	448	U
1	1	450	G
1	1	451	C
1	1	482	U
1	1	485	A
1	1	506	A
1	1	517	A
1	1	519	U
1	1	531	G
1	1	532	U
1	1	538	G
1	1	539	G
1	1	540	C
1	1	541	U
1	1	542	U
1	1	543	C
1	1	544	U
1	1	545	G
1	1	546	C
1	1	555	A
1	1	556	U
1	1	557	A
1	1	564	G
1	1	576	A
1	1	577	G
1	1	589	G
1	1	590	A
1	1	598	U
1	1	603	C
1	1	604	C
1	1	609	A
1	1	618	U
1	1	619	A
1	1	620	A
1	1	635	C
1	1	647	A
1	1	658	A
1	1	675	A
1	1	679	U
1	1	681	U
1	1	688	A

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Mol	Chain	Res	Type
1	1	689	A
1	1	703	A
1	1	710	G
1	1	713	A
1	1	717	A
1	1	723	G
1	1	730	A
1	1	732	U
1	1	760	U
1	1	763	U
1	1	772	U
1	1	773	U
1	1	776	A
1	1	777	G
1	1	780	A
1	1	781	G
1	1	802	A
1	1	813	A
1	1	826	A
1	1	845	C
1	1	857	C
1	1	861	U
1	1	870	U
1	1	875	U
1	1	903	G
1	1	904	G
1	1	910	A
1	1	912	G
1	1	913	A
1	1	914	C
1	1	917	A
1	1	919	C
1	1	921	A
1	1	933	G
1	1	935	U
1	1	940	C
1	1	949	G
1	1	955	C
1	1	956	U
1	1	958	A
1	1	959	G
1	1	977	U

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Mol	Chain	Res	Type
1	1	990	G
1	1	991	U
1	1	996	C
1	1	997	G
1	1	998	A
1	1	1006	G
1	1	1011	C
1	1	1012	U
1	1	1013	U
1	1	1014	G
1	1	1018	U
1	1	1019	U
1	1	1020	G
1	1	1021	A
1	1	1022	A
1	1	1023	A
1	1	1024	U
1	1	1025	G
1	1	1027	C
1	1	1030	U
1	1	1033	C
1	1	1043	A
1	1	1045	C
1	1	1060	A
1	1	1061	A
1	1	1068	G
1	1	1077	U
1	1	1078	U
1	1	1089	A
1	1	1090	A
1	1	1091	U
1	1	1092	U
1	1	1094	A
1	1	1099	A
1	1	1100	G
1	1	1113	G
1	1	1127	G
1	1	1140	U
1	1	1149	A
1	1	1150	A
1	1	1151	C
1	1	1155	A

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Mol	Chain	Res	Type
1	1	1156	C
1	1	1164	U
1	1	1174	G
1	1	1176	A
1	1	1177	U
1	1	1178	G
1	1	1188	C
1	1	1189	A
1	1	1192	C
1	1	1197	C
1	1	1204	U
1	1	1205	G
1	1	1218	G
1	1	1223	C
1	1	1224	C
1	1	1231	U
1	1	1232	G
1	1	1237	U
1	1	1239	G
1	1	1240	A
1	1	1241	A
1	1	1242	G
1	1	1244	C
1	1	1245	G
1	1	1246	G
1	1	1247	A
1	1	1249	U
1	1	1250	C
1	1	1252	G
1	1	1254	U
1	1	1255	A
1	1	1257	G
1	1	1258	G
1	1	1259	A
1	1	1261	U
1	1	1262	G
1	1	1263	U
1	1	1264	G
1	1	1265	U
1	1	1266	A
1	1	1267	A
1	1	1270	A

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Mol	Chain	Res	Type
1	1	1271	C
1	1	1273	C
1	1	1274	A
1	1	1278	G
1	1	1280	C
1	1	1282	A
1	1	1303	G
1	1	1304	A
1	1	1305	U
1	1	1309	G
1	1	1312	C
1	1	1326	A
1	1	1345	G
1	1	1346	U
1	1	1347	U
1	1	1348	U
1	1	1349	U
1	1	1382	A
1	1	1395	U
1	1	1415	A
1	1	1417	G
1	1	1421	U
1	1	1427	G
1	1	1430	G
1	1	1433	C
1	1	1442	A
1	1	1446	G
1	1	1465	C
1	1	1471	A
1	1	1477	A
1	1	1484	G
1	1	1498	C
1	1	1504	C
1	1	1520	A
1	1	1523	C
1	1	1525	A
1	1	1526	U
1	1	1532	G
1	1	1535	A
1	1	1552	C
1	1	1556	G
1	1	1558	G

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Mol	Chain	Res	Type
1	1	1559	C
1	1	1560	U
1	1	1561	U
1	1	1562	G
1	1	1563	A
1	1	1565	U
1	1	1566	U
1	1	1567	U
1	1	1568	U
1	1	1569	C
1	1	1571	G
1	1	1572	G
1	1	1574	C
1	1	1576	A
1	1	1577	C
1	1	1585	A
1	1	1589	A
1	1	1601	A
1	1	1603	U
1	1	1624	C
1	1	1625	U
1	1	1635	C
1	1	1638	A
1	1	1639	A
1	1	1641	U
1	1	1648	G
1	1	1653	C
1	1	1654	G
1	1	1679	A
1	1	1720	U
1	1	1721	C
1	1	1732	G
1	1	1746	A
1	1	1747	G
1	1	1755	U
1	1	1756	A
1	1	1757	A
1	1	1758	U
1	1	1760	U
1	1	1761	U
1	1	1762	G
1	1	1763	C

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Mol	Chain	Res	Type
1	1	1776	G
1	1	1793	A
1	1	1804	G
1	1	1809	A
1	1	1810	A
1	1	1811	U
1	1	1812	A
1	1	1814	U
1	1	1815	U
1	1	1816	U
1	1	1817	U
1	1	1837	A
1	1	1838	A
1	1	1842	C
1	1	1845	C
1	1	1862	C
1	1	1874	G
1	1	1882	A
1	1	1889	A
1	1	1902	G
1	1	1944	G
1	1	1949	G
1	1	2068	U
1	1	2069	U
1	1	2070	A
1	1	2071	A
1	1	2078	A
1	1	2088	G
1	1	2089	G
1	1	2091	A
1	1	2092	C
1	1	2099	G
1	1	2100	G
1	1	2109	A
1	1	2118	U
1	1	2122	A
1	1	2136	A
1	1	2147	G
1	1	2149	G
1	1	2183	U
1	1	2184	G
1	1	2185	A

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Mol	Chain	Res	Type
1	1	2186	A
1	1	2187	U
1	1	2188	G
1	1	2222	A
1	1	2227	G
1	1	2234	A
1	1	2235	C
1	1	2250	G
1	1	2251	G
1	1	2259	A
1	1	2260	U
1	1	2276	U
1	1	2285	G
1	1	2286	C
1	1	2288	U
1	1	2291	A
1	1	2292	U
1	1	2293	G
1	1	2313	G
1	1	2314	U
1	1	2341	A
1	1	2351	A
1	1	2352	C
1	1	2353	G
1	1	2363	G
1	1	2366	U
1	1	2371	G
1	1	2372	G
1	1	2375	A
1	1	2380	A
1	1	2381	G
1	1	2382	A
1	1	2389	U
1	1	2396	G
1	1	2397	A
1	1	2413	G
1	1	2415	G
1	1	2420	G
1	1	2421	A
1	1	2422	C
1	1	2423	A
1	1	2427	A

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Mol	Chain	Res	Type
1	1	2430	G
1	1	2431	U
1	1	2432	G
1	1	2433	U
1	1	2437	A
1	1	2438	U
1	1	2439	A
1	1	2440	A
1	1	2441	G
1	1	2442	U
1	1	2443	G
1	1	2444	G
1	1	2445	G
1	1	2446	A
1	1	2447	G
1	1	2448	C
1	1	2449	U
1	1	2450	U
1	1	2452	G
1	1	2454	C
1	1	2455	G
1	1	2456	C
1	1	2457	C
1	1	2459	G
1	1	2460	U
1	1	2464	A
1	1	2465	U
1	1	2466	A
1	1	2467	C
1	1	2468	C
1	1	2470	C
1	1	2471	U
1	1	2472	A
1	1	2473	C
1	1	2475	U
1	1	2476	C
1	1	2477	U
1	1	2480	A
1	1	2482	U
1	1	2483	U
1	1	2484	U
1	1	2485	U

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Mol	Chain	Res	Type
1	1	2489	A
1	1	2492	U
1	1	2493	A
1	1	2511	G
1	1	2513	A
1	1	2515	G
1	1	2516	U
1	1	2517	C
1	1	2518	A
1	1	2519	A
1	1	2520	A
1	1	2521	C
1	1	2529	U
1	1	2530	C
1	1	2533	G
1	1	2536	U
1	1	2538	A
1	1	2545	C
1	1	2546	U
1	1	2554	C
1	1	2557	G
1	1	2565	A
1	1	2566	C
1	1	2578	G
1	1	2579	G
1	1	2586	G
1	1	2598	A
1	1	2623	G
1	1	2624	U
1	1	2628	A
1	1	2638	C
1	1	2644	G
1	1	2646	A
1	1	2649	G
1	1	2661	A
1	1	2662	G
1	1	2663	A
1	1	2664	A
1	1	2666	A
1	1	2668	A
1	1	2676	A
1	1	2677	A

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Mol	Chain	Res	Type
1	1	2686	G
1	1	2691	U
1	1	2699	A
1	1	2700	G
1	1	2701	U
1	1	2724	U
1	1	2725	G
1	1	2734	A
1	1	2745	C
1	1	2749	G
1	1	2750	G
1	1	2768	G
1	1	2771	A
1	1	2772	G
1	1	2773	A
1	1	2774	A
1	1	2782	C
1	1	2786	G
1	1	2789	A
1	1	2790	U
1	1	2808	C
1	1	2814	U
1	1	2815	U
1	1	2817	A
1	1	2833	U
1	1	2839	C
1	1	2843	G
1	1	2844	A
1	1	2847	U
1	1	2859	A
1	1	2861	C
1	1	2866	C
1	1	2870	G
1	1	2871	C
1	1	2886	G
1	1	2895	U
1	1	2907	U
1	1	2908	A
1	1	2911	G
1	1	2914	C
1	1	2919	G
1	1	2920	C

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Mol	Chain	Res	Type
1	1	2923	G
1	1	2926	U
1	1	2943	A
1	1	2955	C
1	1	2962	G
1	1	2969	G
1	1	2984	A
1	1	3021	A
1	1	3028	U
1	1	3031	G
1	1	3050	A
1	1	3051	C
1	1	3052	G
1	1	3058	A
1	1	3064	C
1	1	3073	G
1	1	3094	A
1	1	3101	A
1	1	3102	A
1	1	3103	U
1	1	3114	A
1	1	3115	C
1	1	3125	U
1	1	3126	U
1	1	3127	U
1	1	3128	G
1	1	3143	G
1	1	3144	A
1	1	3146	G
1	1	3149	U
1	1	3151	C
1	1	3157	A
1	1	3160	C
1	1	3161	U
1	1	3162	U
1	1	3163	U
1	1	3164	U
1	1	3165	U
1	1	3166	A
1	1	3167	G
1	1	3171	C
1	1	3172	U

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Mol	Chain	Res	Type
1	1	3182	C
1	1	3183	A
1	1	3184	G
1	1	3194	G
1	1	3208	A
1	1	3210	A
1	1	3212	G
1	1	3214	U
1	1	3221	G
1	1	3224	U
1	1	3228	G
1	1	3235	A
1	1	3241	G
1	1	3246	C
1	1	3252	C
1	1	3259	A
1	1	3260	A
1	1	3268	G
1	1	3269	C
1	1	3272	A
1	1	3278	U
1	1	3281	A
1	1	3284	U
1	1	3285	A
1	1	3306	U
1	1	3307	A
1	1	3309	A
1	1	3310	G
1	1	3316	U
1	1	3317	U
1	1	3318	G
1	1	3319	U
1	1	3320	U
1	1	3321	G
1	1	3334	G
1	1	3343	C
1	1	3351	G
1	1	3361	U
2	3	7	G
2	3	22	A
2	3	54	U
2	3	55	A

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Mol	Chain	Res	Type
2	3	65	G
2	3	73	C
2	3	76	A
2	3	102	A
2	3	112	G
3	4	23	U
3	4	34	U
3	4	35	C
3	4	59	A
3	4	62	C
3	4	63	G
3	4	81	A
3	4	84	C
3	4	85	G
3	4	86	U
3	4	87	G
3	4	92	A
3	4	95	G
3	4	102	U
3	4	104	A
3	4	106	C
3	4	111	A
3	4	113	U
3	4	125	U
3	4	126	A
3	4	148	G
3	4	152	G
3	4	157	U
46	B	17	C
46	B	25	C
46	B	26	A
46	B	27	U
46	B	34	G
46	B	47	A
46	B	57	G
46	B	66	U
46	B	74	U
46	B	75	U
46	B	76	A
46	B	78	A
46	B	79	C
46	B	81	G

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Mol	Chain	Res	Type
46	B	84	A
46	B	93	A
46	B	104	A
46	B	114	C
46	B	115	G
46	B	123	G
46	B	126	A
46	B	127	G
46	B	128	U
46	B	129	A
46	B	130	C
46	B	131	C
46	B	132	U
46	B	133	U
46	B	134	A
46	B	135	C
46	B	138	C
46	B	139	U
46	B	142	G
46	B	143	A
46	B	150	U
46	B	151	G
46	B	152	G
46	B	154	A
46	B	159	U
46	B	166	A
46	B	168	U
46	B	173	G
46	B	174	C
46	B	176	U
46	B	177	A
46	B	179	A
46	B	190	U
46	B	191	U
46	B	193	G
46	B	199	G
46	B	200	A
46	B	202	G
46	B	206	U
46	B	211	A
46	B	213	A
46	B	214	U

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Mol	Chain	Res	Type
46	B	215	A
46	B	216	A
46	B	217	A
46	B	218	A
46	B	220	A
46	B	221	U
46	B	224	A
46	B	226	G
46	B	229	U
46	B	230	U
46	B	231	C
46	B	233	G
46	B	237	C
46	B	238	U
46	B	247	U
46	B	255	A
46	B	259	U
46	B	260	U
46	B	261	C
46	B	262	G
46	B	266	C
46	B	269	A
46	B	270	U
46	B	274	C
46	B	276	U
46	B	277	G
46	B	278	U
46	B	279	G
46	B	283	G
46	B	285	G
46	B	297	A
46	B	312	C
46	B	314	A
46	B	318	U
46	B	319	C
46	B	320	G
46	B	335	G
46	B	336	C
46	B	350	A
46	B	357	A
46	B	358	A
46	B	359	C

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Mol	Chain	Res	Type
46	B	388	G
46	B	398	A
46	B	400	C
46	B	402	G
46	B	414	A
46	B	416	G
46	B	421	G
46	B	422	C
46	B	423	A
46	B	424	G
46	B	432	G
46	B	437	U
46	B	442	C
46	B	446	C
46	B	452	A
46	B	458	A
46	B	466	A
46	B	475	A
46	B	480	U
46	B	482	C
46	B	483	A
46	B	485	G
46	B	487	C
46	B	489	C
46	B	490	U
46	B	491	U
46	B	493	U
46	B	498	C
46	B	499	U
46	B	503	A
46	B	505	U
46	B	506	U
46	B	509	A
46	B	512	G
46	B	513	A
46	B	515	U
46	B	518	A
46	B	519	A
46	B	525	A
46	B	530	U
46	B	534	C
46	B	536	A

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Mol	Chain	Res	Type
46	B	537	G
46	B	539	A
46	B	540	A
46	B	547	G
46	B	553	A
46	B	554	A
46	B	555	G
46	B	556	U
46	B	557	C
46	B	563	C
46	B	566	G
46	B	575	G
46	B	576	U
46	B	580	U
46	B	592	A
46	B	593	G
46	B	604	A
46	B	609	U
46	B	617	A
46	B	618	A
46	B	620	A
46	B	621	A
46	B	639	G
46	B	643	U
46	B	645	G
46	B	648	U
46	B	649	G
46	B	650	G
46	B	651	C
46	B	652	C
46	B	654	G
46	B	657	C
46	B	670	C
46	B	671	G
46	B	672	U
46	B	673	A
46	B	674	C
46	B	677	G
46	B	678	A
46	B	679	C
46	B	680	C
46	B	681	C

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Mol	Chain	Res	Type
46	B	685	C
46	B	688	G
46	B	695	C
46	B	696	U
46	B	697	U
46	B	698	C
46	B	700	G
46	B	701	G
46	B	702	G
46	B	703	U
46	B	704	A
46	B	705	G
46	B	706	C
46	B	707	C
46	B	708	A
46	B	709	U
46	B	710	U
46	B	711	U
46	B	712	A
46	B	713	U
46	B	714	G
46	B	715	G
46	B	716	C
46	B	717	G
46	B	718	A
46	B	719	A
46	B	721	C
46	B	723	G
46	B	729	U
46	B	739	A
46	B	740	A
46	B	741	A
46	B	750	G
46	B	751	U
46	B	756	A
46	B	759	A
46	B	760	G
46	B	762	C
46	B	764	U
46	B	765	U
46	B	766	U
46	B	767	G

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Mol	Chain	Res	Type
46	B	768	C
46	B	770	C
46	B	771	G
46	B	773	A
46	B	775	A
46	B	778	U
46	B	779	U
46	B	796	A
46	B	798	A
46	B	799	G
46	B	802	C
46	B	803	G
46	B	804	U
46	B	805	U
46	B	807	U
46	B	808	G
46	B	813	U
46	B	815	U
46	B	817	U
46	B	819	G
46	B	820	U
46	B	821	U
46	B	822	G
46	B	823	G
46	B	824	U
46	B	825	U
46	B	826	U
46	B	828	U
46	B	829	A
46	B	831	G
46	B	840	A
46	B	842	U
46	B	847	A
46	B	848	A
46	B	856	G
46	B	857	G
46	B	869	A
46	B	871	U
46	B	875	C
46	B	877	G
46	B	878	U
46	B	879	U

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Mol	Chain	Res	Type
46	B	881	U
46	B	891	A
46	B	909	A
46	B	910	G
46	B	911	A
46	B	918	A
46	B	920	U
46	B	927	G
46	B	945	U
46	B	951	A
46	B	973	A
46	B	975	C
46	B	977	A
46	B	988	A
46	B	989	U
46	B	990	A
46	B	997	U
46	B	998	A
46	B	1004	A
46	B	1005	A
46	B	1011	A
46	B	1013	C
46	B	1017	G
46	B	1024	A
46	B	1025	G
46	B	1039	U
46	B	1042	U
46	B	1043	U
46	B	1044	U
46	B	1045	U
46	B	1047	U
46	B	1055	A
46	B	1056	U
46	B	1057	C
46	B	1058	G
46	B	1059	G
46	B	1060	C
46	B	1061	A
46	B	1067	C
46	B	1077	A
46	B	1081	C
46	B	1085	G

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Mol	Chain	Res	Type
46	B	1123	A
46	B	1135	G
46	B	1143	C
46	B	1145	A
46	B	1152	G
46	B	1168	A
46	B	1169	A
46	B	1170	U
46	B	1179	A
46	B	1181	A
46	B	1184	G
46	B	1185	G
46	B	1187	A
46	B	1193	A
46	B	1202	A
46	B	1203	G
46	B	1206	A
46	B	1207	C
46	B	1212	A
46	B	1215	A
46	B	1219	A
46	B	1220	C
46	B	1221	A
46	B	1229	A
46	B	1230	G
46	B	1231	C
46	B	1236	U
46	B	1243	U
46	B	1250	G
46	B	1270	U
46	B	1299	U
46	B	1300	U
46	B	1301	G
46	B	1306	A
46	B	1325	U
46	B	1330	A
46	B	1336	G
46	B	1339	G
46	B	1342	A
46	B	1343	G
46	B	1345	A
46	B	1346	U

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Mol	Chain	Res	Type
46	B	1348	U
46	B	1349	G
46	B	1352	G
46	B	1355	A
46	B	1356	U
46	B	1357	A
46	B	1359	U
46	B	1360	C
46	B	1364	U
46	B	1369	G
46	B	1370	A
46	B	1376	U
46	B	1380	G
46	B	1381	A
46	B	1382	U
46	B	1384	U
46	B	1385	C
46	B	1392	A
46	B	1397	A
46	B	1398	G
46	B	1399	U
46	B	1400	U
46	B	1401	U
46	B	1410	A
46	B	1413	A
46	B	1414	G
46	B	1415	G
46	B	1422	A
46	B	1431	G
46	B	1433	C
46	B	1445	C
46	B	1446	A
46	B	1455	A
46	B	1457	A
46	B	1458	C
46	B	1461	A
46	B	1462	C
46	B	1463	G
46	B	1468	C
46	B	1476	A
46	B	1477	U
46	B	1480	G

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Mol	Chain	Res	Type
46	B	1483	U
46	B	1485	G
46	B	1491	G
46	B	1502	A
46	B	1503	A
46	B	1508	G
46	B	1510	G
46	B	1511	A
46	B	1523	G
46	B	1524	C
46	B	1529	G
46	B	1530	A
46	B	1541	U
46	B	1544	U
46	B	1546	G
46	B	1560	A
46	B	1561	G
46	B	1571	G
46	B	1574	A
46	B	1575	G
46	B	1577	G
46	B	1580	A
46	B	1582	U
46	B	1584	A
46	B	1588	G
46	B	1621	C
46	B	1644	U
46	B	1645	G
46	B	1665	C
46	B	1667	G
46	B	1670	U
46	B	1671	G
46	B	1672	G
46	B	1673	U
46	B	1674	U
46	B	1696	U
46	B	1697	C
46	B	1699	G
46	B	1700	G
46	B	1701	A
46	B	1702	A
46	B	1704	C

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Mol	Chain	Res	Type
46	B	1737	A
46	B	1743	A
46	B	1747	G
46	B	1749	A
46	B	1753	A
46	B	1756	U
46	B	1767	G
46	B	1770	C
46	B	1779	G
46	B	1780	G
46	B	1781	A
46	B	1782	U
46	B	1783	C
1	AS	24	U
1	AS	25	A
1	AS	29	G
1	AS	39	A
1	AS	42	A
1	AS	48	A
1	AS	56	A
1	AS	58	G
1	AS	59	A
1	AS	64	A
1	AS	65	A
1	AS	91	G
1	AS	98	A
1	AS	104	C
1	AS	108	A
1	AS	109	G
1	AS	110	C
1	AS	121	A
1	AS	134	U
1	AS	135	G
1	AS	155	A
1	AS	156	A
1	AS	164	U
1	AS	169	G
1	AS	172	C
1	AS	173	C
1	AS	175	G
1	AS	186	A
1	AS	189	U

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Mol	Chain	Res	Type
1	AS	190	U
1	AS	199	C
1	AS	205	G
1	AS	209	C
1	AS	212	A
1	AS	217	G
1	AS	218	A
1	AS	219	G
1	AS	230	G
1	AS	236	A
1	AS	239	A
1	AS	240	C
1	AS	243	G
1	AS	245	G
1	AS	249	G
1	AS	250	U
1	AS	251	G
1	AS	269	G
1	AS	286	U
1	AS	295	A
1	AS	305	U
1	AS	311	C
1	AS	323	A
1	AS	329	U
1	AS	337	G
1	AS	338	A
1	AS	339	C
1	AS	343	U
1	AS	349	A
1	AS	350	C
1	AS	376	G
1	AS	377	A
1	AS	395	A
1	AS	398	A
1	AS	402	A
1	AS	403	C
1	AS	404	G
1	AS	420	G
1	AS	421	G
1	AS	422	A
1	AS	438	A
1	AS	439	C

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Mol	Chain	Res	Type
1	AS	441	U
1	AS	442	G
1	AS	445	A
1	AS	447	U
1	AS	448	U
1	AS	449	U
1	AS	450	G
1	AS	451	C
1	AS	453	U
1	AS	454	G
1	AS	474	C
1	AS	476	C
1	AS	479	C
1	AS	480	G
1	AS	481	G
1	AS	482	U
1	AS	483	U
1	AS	484	U
1	AS	486	C
1	AS	487	C
1	AS	488	G
1	AS	506	A
1	AS	517	A
1	AS	519	U
1	AS	531	G
1	AS	532	U
1	AS	538	G
1	AS	539	G
1	AS	541	U
1	AS	542	U
1	AS	543	C
1	AS	544	U
1	AS	545	G
1	AS	546	C
1	AS	555	A
1	AS	556	U
1	AS	557	A
1	AS	564	G
1	AS	577	G
1	AS	589	G
1	AS	590	A
1	AS	598	U

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Mol	Chain	Res	Type
1	AS	600	U
1	AS	601	U
1	AS	602	A
1	AS	609	A
1	AS	618	U
1	AS	619	A
1	AS	620	A
1	AS	635	C
1	AS	647	A
1	AS	658	A
1	AS	675	A
1	AS	679	U
1	AS	688	A
1	AS	689	A
1	AS	703	A
1	AS	710	G
1	AS	713	A
1	AS	717	A
1	AS	723	G
1	AS	730	A
1	AS	732	U
1	AS	760	U
1	AS	763	U
1	AS	772	U
1	AS	773	U
1	AS	776	A
1	AS	777	G
1	AS	780	A
1	AS	781	G
1	AS	802	A
1	AS	813	A
1	AS	826	A
1	AS	845	C
1	AS	857	C
1	AS	861	U
1	AS	870	U
1	AS	875	U
1	AS	892	A
1	AS	893	U
1	AS	903	G
1	AS	904	G
1	AS	910	A

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Mol	Chain	Res	Type
1	AS	912	G
1	AS	913	A
1	AS	917	A
1	AS	919	C
1	AS	921	A
1	AS	933	G
1	AS	940	C
1	AS	949	G
1	AS	955	C
1	AS	956	U
1	AS	959	G
1	AS	970	G
1	AS	976	A
1	AS	977	U
1	AS	990	G
1	AS	991	U
1	AS	996	C
1	AS	997	G
1	AS	998	A
1	AS	1006	G
1	AS	1011	C
1	AS	1012	U
1	AS	1014	G
1	AS	1017	G
1	AS	1019	U
1	AS	1020	G
1	AS	1022	A
1	AS	1023	A
1	AS	1024	U
1	AS	1025	G
1	AS	1026	A
1	AS	1027	C
1	AS	1030	U
1	AS	1033	C
1	AS	1043	A
1	AS	1045	C
1	AS	1060	A
1	AS	1061	A
1	AS	1068	G
1	AS	1077	U
1	AS	1078	U
1	AS	1089	A

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Mol	Chain	Res	Type
1	AS	1090	A
1	AS	1091	U
1	AS	1092	U
1	AS	1094	A
1	AS	1099	A
1	AS	1100	G
1	AS	1113	G
1	AS	1127	G
1	AS	1140	U
1	AS	1149	A
1	AS	1150	A
1	AS	1151	C
1	AS	1155	A
1	AS	1156	C
1	AS	1164	U
1	AS	1174	G
1	AS	1176	A
1	AS	1177	U
1	AS	1178	G
1	AS	1188	C
1	AS	1189	A
1	AS	1192	C
1	AS	1197	C
1	AS	1204	U
1	AS	1205	G
1	AS	1218	G
1	AS	1219	A
1	AS	1228	C
1	AS	1231	U
1	AS	1232	G
1	AS	1233	G
1	AS	1237	U
1	AS	1238	G
1	AS	1239	G
1	AS	1240	A
1	AS	1241	A
1	AS	1242	G
1	AS	1243	U
1	AS	1244	C
1	AS	1246	G
1	AS	1248	A
1	AS	1249	U

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Mol	Chain	Res	Type
1	AS	1250	C
1	AS	1252	G
1	AS	1254	U
1	AS	1255	A
1	AS	1256	A
1	AS	1258	G
1	AS	1259	A
1	AS	1260	G
1	AS	1261	U
1	AS	1263	U
1	AS	1264	G
1	AS	1265	U
1	AS	1266	A
1	AS	1270	A
1	AS	1271	C
1	AS	1273	C
1	AS	1278	G
1	AS	1281	G
1	AS	1282	A
1	AS	1283	A
1	AS	1303	G
1	AS	1304	A
1	AS	1305	U
1	AS	1309	G
1	AS	1326	A
1	AS	1345	G
1	AS	1346	U
1	AS	1347	U
1	AS	1348	U
1	AS	1349	U
1	AS	1382	A
1	AS	1395	U
1	AS	1415	A
1	AS	1417	G
1	AS	1421	U
1	AS	1427	G
1	AS	1430	G
1	AS	1433	C
1	AS	1442	A
1	AS	1446	G
1	AS	1465	C
1	AS	1471	A

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Mol	Chain	Res	Type
1	AS	1477	A
1	AS	1484	G
1	AS	1498	C
1	AS	1504	C
1	AS	1520	A
1	AS	1523	C
1	AS	1532	G
1	AS	1535	A
1	AS	1552	C
1	AS	1556	G
1	AS	1558	G
1	AS	1559	C
1	AS	1560	U
1	AS	1561	U
1	AS	1562	G
1	AS	1563	A
1	AS	1564	U
1	AS	1565	U
1	AS	1566	U
1	AS	1567	U
1	AS	1568	U
1	AS	1569	C
1	AS	1571	G
1	AS	1572	G
1	AS	1574	C
1	AS	1576	A
1	AS	1585	A
1	AS	1589	A
1	AS	1601	A
1	AS	1603	U
1	AS	1624	C
1	AS	1625	U
1	AS	1635	C
1	AS	1638	A
1	AS	1639	A
1	AS	1641	U
1	AS	1648	G
1	AS	1654	G
1	AS	1679	A
1	AS	1720	U
1	AS	1721	C
1	AS	1732	G

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Mol	Chain	Res	Type
1	AS	1746	A
1	AS	1747	G
1	AS	1755	U
1	AS	1756	A
1	AS	1757	A
1	AS	1758	U
1	AS	1759	U
1	AS	1761	U
1	AS	1762	G
1	AS	1763	C
1	AS	1776	G
1	AS	1793	A
1	AS	1804	G
1	AS	1809	A
1	AS	1810	A
1	AS	1811	U
1	AS	1812	A
1	AS	1814	U
1	AS	1815	U
1	AS	1816	U
1	AS	1817	U
1	AS	1835	A
1	AS	1838	A
1	AS	1842	C
1	AS	1845	C
1	AS	1862	C
1	AS	1874	G
1	AS	1882	A
1	AS	1889	A
1	AS	1902	G
1	AS	1944	G
1	AS	1949	G
1	AS	2070	A
1	AS	2071	A
1	AS	2078	A
1	AS	2088	G
1	AS	2089	G
1	AS	2091	A
1	AS	2092	C
1	AS	2099	G
1	AS	2100	G
1	AS	2109	A

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Mol	Chain	Res	Type
1	AS	2118	U
1	AS	2122	A
1	AS	2136	A
1	AS	2147	G
1	AS	2149	G
1	AS	2183	U
1	AS	2184	G
1	AS	2185	A
1	AS	2186	A
1	AS	2187	U
1	AS	2188	G
1	AS	2201	A
1	AS	2222	A
1	AS	2227	G
1	AS	2234	A
1	AS	2250	G
1	AS	2251	G
1	AS	2259	A
1	AS	2260	U
1	AS	2276	U
1	AS	2285	G
1	AS	2286	C
1	AS	2288	U
1	AS	2291	A
1	AS	2292	U
1	AS	2293	G
1	AS	2312	U
1	AS	2313	G
1	AS	2314	U
1	AS	2351	A
1	AS	2352	C
1	AS	2353	G
1	AS	2363	G
1	AS	2366	U
1	AS	2371	G
1	AS	2372	G
1	AS	2375	A
1	AS	2380	A
1	AS	2381	G
1	AS	2382	A
1	AS	2389	U
1	AS	2396	G

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Mol	Chain	Res	Type
1	AS	2397	A
1	AS	2413	G
1	AS	2421	A
1	AS	2422	C
1	AS	2425	G
1	AS	2426	G
1	AS	2427	A
1	AS	2428	G
1	AS	2429	G
1	AS	2430	G
1	AS	2431	U
1	AS	2432	G
1	AS	2433	U
1	AS	2434	A
1	AS	2435	G
1	AS	2436	A
1	AS	2437	A
1	AS	2439	A
1	AS	2440	A
1	AS	2441	G
1	AS	2442	U
1	AS	2443	G
1	AS	2444	G
1	AS	2445	G
1	AS	2446	A
1	AS	2447	G
1	AS	2448	C
1	AS	2449	U
1	AS	2450	U
1	AS	2452	G
1	AS	2453	G
1	AS	2455	G
1	AS	2456	C
1	AS	2457	C
1	AS	2458	G
1	AS	2459	G
1	AS	2464	A
1	AS	2465	U
1	AS	2466	A
1	AS	2467	C
1	AS	2468	C
1	AS	2469	A

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Mol	Chain	Res	Type
1	AS	2471	U
1	AS	2472	A
1	AS	2473	C
1	AS	2474	C
1	AS	2475	U
1	AS	2476	C
1	AS	2477	U
1	AS	2478	A
1	AS	2480	A
1	AS	2481	G
1	AS	2483	U
1	AS	2484	U
1	AS	2489	A
1	AS	2492	U
1	AS	2493	A
1	AS	2510	U
1	AS	2511	G
1	AS	2513	A
1	AS	2515	G
1	AS	2516	U
1	AS	2517	C
1	AS	2518	A
1	AS	2519	A
1	AS	2520	A
1	AS	2521	C
1	AS	2529	U
1	AS	2530	C
1	AS	2533	G
1	AS	2536	U
1	AS	2538	A
1	AS	2545	C
1	AS	2546	U
1	AS	2554	C
1	AS	2557	G
1	AS	2565	A
1	AS	2566	C
1	AS	2578	G
1	AS	2579	G
1	AS	2586	G
1	AS	2598	A
1	AS	2623	G
1	AS	2624	U

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Mol	Chain	Res	Type
1	AS	2628	A
1	AS	2646	A
1	AS	2649	G
1	AS	2661	A
1	AS	2662	G
1	AS	2663	A
1	AS	2666	A
1	AS	2668	A
1	AS	2676	A
1	AS	2677	A
1	AS	2686	G
1	AS	2699	A
1	AS	2700	G
1	AS	2701	U
1	AS	2724	U
1	AS	2725	G
1	AS	2734	A
1	AS	2745	C
1	AS	2749	G
1	AS	2750	G
1	AS	2768	G
1	AS	2771	A
1	AS	2772	G
1	AS	2773	A
1	AS	2774	A
1	AS	2782	C
1	AS	2786	G
1	AS	2789	A
1	AS	2790	U
1	AS	2814	U
1	AS	2815	U
1	AS	2817	A
1	AS	2833	U
1	AS	2839	C
1	AS	2843	G
1	AS	2844	A
1	AS	2847	U
1	AS	2859	A
1	AS	2861	C
1	AS	2866	C
1	AS	2870	G
1	AS	2871	C

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Mol	Chain	Res	Type
1	AS	2886	G
1	AS	2895	U
1	AS	2907	U
1	AS	2908	A
1	AS	2911	G
1	AS	2914	C
1	AS	2919	G
1	AS	2920	C
1	AS	2923	G
1	AS	2926	U
1	AS	2943	A
1	AS	2955	C
1	AS	2960	C
1	AS	2962	G
1	AS	2969	G
1	AS	2984	A
1	AS	3021	A
1	AS	3028	U
1	AS	3031	G
1	AS	3050	A
1	AS	3051	C
1	AS	3052	G
1	AS	3058	A
1	AS	3064	C
1	AS	3076	U
1	AS	3094	A
1	AS	3101	A
1	AS	3102	A
1	AS	3103	U
1	AS	3114	A
1	AS	3115	C
1	AS	3134	C
1	AS	3143	G
1	AS	3144	A
1	AS	3146	G
1	AS	3149	U
1	AS	3151	C
1	AS	3157	A
1	AS	3160	C
1	AS	3161	U
1	AS	3162	U
1	AS	3163	U

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Mol	Chain	Res	Type
1	AS	3164	U
1	AS	3165	U
1	AS	3166	A
1	AS	3167	G
1	AS	3171	C
1	AS	3172	U
1	AS	3182	C
1	AS	3183	A
1	AS	3184	G
1	AS	3194	G
1	AS	3208	A
1	AS	3210	A
1	AS	3212	G
1	AS	3214	U
1	AS	3224	U
1	AS	3228	G
1	AS	3235	A
1	AS	3241	G
1	AS	3246	C
1	AS	3252	C
1	AS	3259	A
1	AS	3260	A
1	AS	3268	G
1	AS	3269	C
1	AS	3272	A
1	AS	3278	U
1	AS	3281	A
1	AS	3284	U
1	AS	3285	A
1	AS	3306	U
1	AS	3307	A
1	AS	3309	A
1	AS	3310	G
1	AS	3316	U
1	AS	3317	U
1	AS	3318	G
1	AS	3319	U
1	AS	3320	U
1	AS	3321	G
1	AS	3334	G
1	AS	3343	C
1	AS	3351	G

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Mol	Chain	Res	Type
1	AS	3361	U
2	AT	7	G
2	AT	22	A
2	AT	54	U
2	AT	55	A
2	AT	65	G
2	AT	73	C
2	AT	76	A
2	AT	102	A
2	AT	112	G
3	AU	23	U
3	AU	34	U
3	AU	35	C
3	AU	59	A
3	AU	62	C
3	AU	63	G
3	AU	81	A
3	AU	84	C
3	AU	85	G
3	AU	86	U
3	AU	87	G
3	AU	92	A
3	AU	95	G
3	AU	102	U
3	AU	104	A
3	AU	105	A
3	AU	106	C
3	AU	111	A
3	AU	113	U
3	AU	125	U
3	AU	126	A
3	AU	152	G
3	AU	157	U
46	CM	17	C
46	CM	25	C
46	CM	26	A
46	CM	27	U
46	CM	34	G
46	CM	47	A
46	CM	57	G
46	CM	66	U
46	CM	74	U

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Mol	Chain	Res	Type
46	CM	75	U
46	CM	76	A
46	CM	78	A
46	CM	79	C
46	CM	81	G
46	CM	84	A
46	CM	104	A
46	CM	114	C
46	CM	115	G
46	CM	123	G
46	CM	126	A
46	CM	127	G
46	CM	128	U
46	CM	129	A
46	CM	130	C
46	CM	131	C
46	CM	132	U
46	CM	133	U
46	CM	134	A
46	CM	135	C
46	CM	138	C
46	CM	139	U
46	CM	142	G
46	CM	143	A
46	CM	150	U
46	CM	151	G
46	CM	152	G
46	CM	154	A
46	CM	159	U
46	CM	166	A
46	CM	168	U
46	CM	173	G
46	CM	176	U
46	CM	177	A
46	CM	190	U
46	CM	193	G
46	CM	199	G
46	CM	200	A
46	CM	201	U
46	CM	202	G
46	CM	206	U
46	CM	211	A

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Mol	Chain	Res	Type
46	CM	213	A
46	CM	214	U
46	CM	215	A
46	CM	216	A
46	CM	217	A
46	CM	218	A
46	CM	219	A
46	CM	220	A
46	CM	221	U
46	CM	222	C
46	CM	223	A
46	CM	226	G
46	CM	229	U
46	CM	230	U
46	CM	231	C
46	CM	232	G
46	CM	236	U
46	CM	237	C
46	CM	238	U
46	CM	239	U
46	CM	240	U
46	CM	247	U
46	CM	255	A
46	CM	259	U
46	CM	260	U
46	CM	261	C
46	CM	262	G
46	CM	266	C
46	CM	269	A
46	CM	270	U
46	CM	273	C
46	CM	274	C
46	CM	275	U
46	CM	276	U
46	CM	278	U
46	CM	279	G
46	CM	280	C
46	CM	283	G
46	CM	285	G
46	CM	297	A
46	CM	312	C
46	CM	314	A

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Mol	Chain	Res	Type
46	CM	318	U
46	CM	319	C
46	CM	320	G
46	CM	335	G
46	CM	336	C
46	CM	350	A
46	CM	357	A
46	CM	358	A
46	CM	359	C
46	CM	388	G
46	CM	398	A
46	CM	400	C
46	CM	402	G
46	CM	414	A
46	CM	416	G
46	CM	421	G
46	CM	422	C
46	CM	423	A
46	CM	424	G
46	CM	432	G
46	CM	437	U
46	CM	442	C
46	CM	446	C
46	CM	452	A
46	CM	458	A
46	CM	462	A
46	CM	466	A
46	CM	475	A
46	CM	481	A
46	CM	486	G
46	CM	489	C
46	CM	490	U
46	CM	491	U
46	CM	493	U
46	CM	495	G
46	CM	497	U
46	CM	498	C
46	CM	499	U
46	CM	503	A
46	CM	504	A
46	CM	505	U
46	CM	506	U

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Mol	Chain	Res	Type
46	CM	509	A
46	CM	512	G
46	CM	513	A
46	CM	515	U
46	CM	518	A
46	CM	519	A
46	CM	525	A
46	CM	530	U
46	CM	534	C
46	CM	536	A
46	CM	537	G
46	CM	539	A
46	CM	540	A
46	CM	547	G
46	CM	553	A
46	CM	554	A
46	CM	555	G
46	CM	556	U
46	CM	557	C
46	CM	563	C
46	CM	566	G
46	CM	576	U
46	CM	592	A
46	CM	593	G
46	CM	604	A
46	CM	609	U
46	CM	617	A
46	CM	618	A
46	CM	620	A
46	CM	621	A
46	CM	639	G
46	CM	645	G
46	CM	648	U
46	CM	649	G
46	CM	650	G
46	CM	652	C
46	CM	653	G
46	CM	654	G
46	CM	659	U
46	CM	668	U
46	CM	670	C
46	CM	671	G

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Mol	Chain	Res	Type
46	CM	672	U
46	CM	673	A
46	CM	674	C
46	CM	675	U
46	CM	676	G
46	CM	678	A
46	CM	679	C
46	CM	680	C
46	CM	681	C
46	CM	682	A
46	CM	688	G
46	CM	691	U
46	CM	694	C
46	CM	695	C
46	CM	696	U
46	CM	697	U
46	CM	700	G
46	CM	701	G
46	CM	702	G
46	CM	703	U
46	CM	704	A
46	CM	705	G
46	CM	706	C
46	CM	707	C
46	CM	709	U
46	CM	711	U
46	CM	712	A
46	CM	714	G
46	CM	716	C
46	CM	717	G
46	CM	719	A
46	CM	720	C
46	CM	722	A
46	CM	723	G
46	CM	724	G
46	CM	729	U
46	CM	739	A
46	CM	740	A
46	CM	741	A
46	CM	750	G
46	CM	751	U
46	CM	756	A

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Mol	Chain	Res	Type
46	CM	759	A
46	CM	760	G
46	CM	762	C
46	CM	764	U
46	CM	765	U
46	CM	766	U
46	CM	767	G
46	CM	768	C
46	CM	770	C
46	CM	771	G
46	CM	773	A
46	CM	775	A
46	CM	778	U
46	CM	779	U
46	CM	796	A
46	CM	798	A
46	CM	799	G
46	CM	802	C
46	CM	803	G
46	CM	804	U
46	CM	805	U
46	CM	807	U
46	CM	808	G
46	CM	812	C
46	CM	814	A
46	CM	815	U
46	CM	816	U
46	CM	818	U
46	CM	819	G
46	CM	820	U
46	CM	821	U
46	CM	822	G
46	CM	823	G
46	CM	824	U
46	CM	825	U
46	CM	826	U
46	CM	827	C
46	CM	828	U
46	CM	829	A
46	CM	840	A
46	CM	842	U
46	CM	848	A

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Mol	Chain	Res	Type
46	CM	856	G
46	CM	857	G
46	CM	869	A
46	CM	871	U
46	CM	875	C
46	CM	877	G
46	CM	878	U
46	CM	879	U
46	CM	881	U
46	CM	891	A
46	CM	909	A
46	CM	910	G
46	CM	911	A
46	CM	918	A
46	CM	920	U
46	CM	927	G
46	CM	945	U
46	CM	951	A
46	CM	973	A
46	CM	975	C
46	CM	977	A
46	CM	988	A
46	CM	989	U
46	CM	990	A
46	CM	997	U
46	CM	998	A
46	CM	1004	A
46	CM	1005	A
46	CM	1011	A
46	CM	1013	C
46	CM	1017	G
46	CM	1024	A
46	CM	1025	G
46	CM	1039	U
46	CM	1042	U
46	CM	1043	U
46	CM	1044	U
46	CM	1047	U
46	CM	1055	A
46	CM	1056	U
46	CM	1057	C
46	CM	1058	G

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Mol	Chain	Res	Type
46	CM	1059	G
46	CM	1060	C
46	CM	1061	A
46	CM	1067	C
46	CM	1074	U
46	CM	1077	A
46	CM	1081	C
46	CM	1085	G
46	CM	1123	A
46	CM	1135	G
46	CM	1143	C
46	CM	1145	A
46	CM	1152	G
46	CM	1168	A
46	CM	1169	A
46	CM	1170	U
46	CM	1179	A
46	CM	1181	A
46	CM	1184	G
46	CM	1185	G
46	CM	1186	G
46	CM	1187	A
46	CM	1193	A
46	CM	1202	A
46	CM	1203	G
46	CM	1206	A
46	CM	1207	C
46	CM	1212	A
46	CM	1215	A
46	CM	1219	A
46	CM	1220	C
46	CM	1221	A
46	CM	1229	A
46	CM	1230	G
46	CM	1231	C
46	CM	1236	U
46	CM	1243	U
46	CM	1250	G
46	CM	1270	U
46	CM	1284	G
46	CM	1299	U
46	CM	1300	U

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Mol	Chain	Res	Type
46	CM	1301	G
46	CM	1306	A
46	CM	1325	U
46	CM	1330	A
46	CM	1336	G
46	CM	1339	G
46	CM	1342	A
46	CM	1343	G
46	CM	1345	A
46	CM	1346	U
46	CM	1348	U
46	CM	1349	G
46	CM	1352	G
46	CM	1355	A
46	CM	1356	U
46	CM	1357	A
46	CM	1358	G
46	CM	1359	U
46	CM	1360	C
46	CM	1364	U
46	CM	1365	C
46	CM	1369	G
46	CM	1370	A
46	CM	1376	U
46	CM	1380	G
46	CM	1381	A
46	CM	1382	U
46	CM	1384	U
46	CM	1385	C
46	CM	1392	A
46	CM	1397	A
46	CM	1398	G
46	CM	1399	U
46	CM	1400	U
46	CM	1401	U
46	CM	1410	A
46	CM	1413	A
46	CM	1414	G
46	CM	1415	G
46	CM	1422	A
46	CM	1431	G
46	CM	1433	C

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Mol	Chain	Res	Type
46	CM	1445	C
46	CM	1446	A
46	CM	1455	A
46	CM	1457	A
46	CM	1458	C
46	CM	1461	A
46	CM	1462	C
46	CM	1463	G
46	CM	1468	C
46	CM	1476	A
46	CM	1477	U
46	CM	1480	G
46	CM	1483	U
46	CM	1491	G
46	CM	1502	A
46	CM	1503	A
46	CM	1508	G
46	CM	1510	G
46	CM	1511	A
46	CM	1523	G
46	CM	1524	C
46	CM	1529	G
46	CM	1530	A
46	CM	1541	U
46	CM	1544	U
46	CM	1546	G
46	CM	1556	A
46	CM	1560	A
46	CM	1561	G
46	CM	1571	G
46	CM	1574	A
46	CM	1575	G
46	CM	1577	G
46	CM	1580	A
46	CM	1582	U
46	CM	1584	A
46	CM	1588	G
46	CM	1621	C
46	CM	1644	U
46	CM	1645	G
46	CM	1665	C
46	CM	1667	G

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Mol	Chain	Res	Type
46	CM	1670	U
46	CM	1671	G
46	CM	1673	U
46	CM	1675	U
46	CM	1677	G
46	CM	1680	A
46	CM	1697	C
46	CM	1699	G
46	CM	1700	G
46	CM	1701	A
46	CM	1702	A
46	CM	1704	C
46	CM	1737	A
46	CM	1743	A
46	CM	1747	G
46	CM	1749	A
46	CM	1753	A
46	CM	1756	U
46	CM	1767	G
46	CM	1770	C
46	CM	1779	G
46	CM	1780	G
46	CM	1781	A
46	CM	1782	U
46	CM	1783	C

All (200) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1	172	C
1	1	403	C
1	1	538	G
1	1	563	U
1	1	759	G
1	1	912	G
1	1	1012	U
1	1	1029	U
1	1	1060	A
1	1	1099	A
1	1	1256	A
1	1	1346	U
1	1	1347	U

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Mol	Chain	Res	Type
1	1	1559	C
1	1	1561	U
1	1	1576	A
1	1	1762	G
1	1	1815	U
1	1	1943	G
1	1	2090	U
1	1	2182	C
1	1	2183	U
1	1	2441	G
1	1	2442	U
1	1	2447	G
1	1	2455	G
1	1	2465	U
1	1	2476	C
1	1	2515	G
1	1	2519	A
1	1	2545	C
1	1	2663	A
1	1	2789	A
1	1	2790	U
1	1	2807	U
1	1	3093	U
1	1	3127	U
1	1	3164	U
1	1	3165	U
1	1	3193	C
1	1	3234	U
1	1	3240	U
1	1	3284	U
1	1	3309	A
1	1	3317	U
3	4	85	G
3	4	125	U
3	4	156	U
46	B	25	C
46	B	78	A
46	B	133	U
46	B	137	A
46	B	151	G
46	B	176	U
46	B	215	A

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Mol	Chain	Res	Type
46	B	216	A
46	B	259	U
46	B	265	U
46	B	278	U
46	B	415	A
46	B	451	C
46	B	505	U
46	B	514	G
46	B	518	A
46	B	529	C
46	B	533	A
46	B	553	A
46	B	556	U
46	B	638	U
46	B	695	C
46	B	711	U
46	B	740	A
46	B	763	C
46	B	769	U
46	B	814	A
46	B	820	U
46	B	855	C
46	B	874	U
46	B	876	A
46	B	1168	A
46	B	1335	U
46	B	1369	G
46	B	1396	A
46	B	1398	G
46	B	1457	A
46	B	1467	C
46	B	1479	A
46	B	1484	U
46	B	1523	G
46	B	1573	A
46	B	1579	A
46	B	1581	G
46	B	1703	C
1	AS	172	C
1	AS	403	C
1	AS	452	A
1	AS	453	U

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Mol	Chain	Res	Type
1	AS	481	G
1	AS	487	C
1	AS	538	G
1	AS	563	U
1	AS	601	U
1	AS	759	G
1	AS	912	G
1	AS	1029	U
1	AS	1060	A
1	AS	1099	A
1	AS	1217	A
1	AS	1245	G
1	AS	1346	U
1	AS	1347	U
1	AS	1559	C
1	AS	1762	G
1	AS	1815	U
1	AS	1943	G
1	AS	2090	U
1	AS	2182	C
1	AS	2183	U
1	AS	2430	G
1	AS	2431	U
1	AS	2434	A
1	AS	2447	G
1	AS	2448	C
1	AS	2449	U
1	AS	2452	G
1	AS	2455	G
1	AS	2458	G
1	AS	2465	U
1	AS	2476	C
1	AS	2515	G
1	AS	2519	A
1	AS	2545	C
1	AS	2789	A
1	AS	2790	U
1	AS	3093	U
1	AS	3159	A
1	AS	3193	C
1	AS	3234	U
1	AS	3240	U

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Mol	Chain	Res	Type
1	AS	3284	U
1	AS	3309	A
1	AS	3315	C
1	AS	3317	U
3	AU	85	G
3	AU	125	U
3	AU	156	U
46	CM	25	C
46	CM	65	A
46	CM	78	A
46	CM	133	U
46	CM	137	A
46	CM	151	G
46	CM	176	U
46	CM	214	U
46	CM	216	A
46	CM	237	C
46	CM	238	U
46	CM	259	U
46	CM	265	U
46	CM	415	A
46	CM	451	C
46	CM	505	U
46	CM	514	G
46	CM	518	A
46	CM	529	C
46	CM	533	A
46	CM	553	A
46	CM	556	U
46	CM	638	U
46	CM	678	A
46	CM	680	C
46	CM	681	C
46	CM	690	C
46	CM	695	C
46	CM	700	G
46	CM	702	G
46	CM	711	U
46	CM	740	A
46	CM	763	C
46	CM	769	U
46	CM	814	A

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Mol	Chain	Res	Type
46	CM	817	U
46	CM	823	G
46	CM	855	C
46	CM	874	U
46	CM	876	A
46	CM	1168	A
46	CM	1335	U
46	CM	1359	U
46	CM	1369	G
46	CM	1396	A
46	CM	1398	G
46	CM	1457	A
46	CM	1467	C
46	CM	1479	A
46	CM	1523	G
46	CM	1555	C
46	CM	1573	A
46	CM	1579	A
46	CM	1581	G

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1676 ligands modelled in this entry, 1674 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
83	3K5	AS	3401	-	63,63,63	2.81	29 (46%)	84,95,95	1.68	13 (15%)
83	3K5	1	3401	-	63,63,63	2.83	28 (44%)	84,95,95	1.67	18 (21%)

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
83	3K5	AS	3401	-	-	11/29/121/121	0/7/7/7
83	3K5	1	3401	-	-	11/29/121/121	0/7/7/7

All (57) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	1	3401	3K5	C17-C22	-8.42	1.36	1.53
83	1	3401	3K5	O4-C22	7.33	1.59	1.43
83	AS	3401	3K5	C17-C22	-7.28	1.38	1.53
83	AS	3401	3K5	O4-C22	7.09	1.59	1.43
83	1	3401	3K5	C21-C22	5.93	1.63	1.52
83	AS	3401	3K5	C21-C22	5.43	1.62	1.52
83	AS	3401	3K5	O6-C23	5.25	1.46	1.34
83	1	3401	3K5	O6-C23	5.03	1.45	1.34
83	AS	3401	3K5	O1-C6	4.74	1.44	1.34
83	AS	3401	3K5	O12-C36	4.67	1.55	1.44
83	1	3401	3K5	O1-C6	4.63	1.44	1.34
83	AS	3401	3K5	C18-C17	4.61	1.61	1.53
83	1	3401	3K5	O12-C36	4.45	1.54	1.44
83	1	3401	3K5	C20-C23	4.44	1.62	1.51
83	1	3401	3K5	C37-C36	-4.35	1.41	1.51
83	AS	3401	3K5	C37-C36	-4.29	1.41	1.51
83	AS	3401	3K5	C20-C23	4.15	1.61	1.51
83	AS	3401	3K5	O4-C3	-4.14	1.32	1.42
83	AS	3401	3K5	O-C2	4.08	1.49	1.43
83	1	3401	3K5	O-C2	4.07	1.49	1.43
83	1	3401	3K5	O7-C28	3.96	1.53	1.44
83	1	3401	3K5	C29-C28	-3.96	1.42	1.51
83	AS	3401	3K5	O9-C26	3.92	1.50	1.44
83	AS	3401	3K5	O9-C30	3.91	1.43	1.35
83	AS	3401	3K5	C29-C28	-3.90	1.42	1.51
83	AS	3401	3K5	O7-C28	3.82	1.53	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	1	3401	3K5	C18-C17	3.81	1.60	1.53
83	1	3401	3K5	C7-C6	3.70	1.56	1.48
83	1	3401	3K5	O4-C3	-3.63	1.33	1.42
83	AS	3401	3K5	C21-C20	-3.60	1.46	1.53
83	1	3401	3K5	O9-C30	3.42	1.42	1.35
83	1	3401	3K5	O9-C26	3.40	1.49	1.44
83	AS	3401	3K5	O14-C38	3.40	1.42	1.35
83	AS	3401	3K5	C7-C6	3.38	1.55	1.48
83	1	3401	3K5	C21-C20	-3.19	1.46	1.53
83	1	3401	3K5	O14-C38	3.16	1.42	1.35
83	1	3401	3K5	C26-C25	-3.08	1.45	1.52
83	AS	3401	3K5	O14-C34	3.05	1.49	1.44
83	AS	3401	3K5	C26-C25	-2.93	1.46	1.52
83	1	3401	3K5	C9-C8	2.92	1.55	1.47
83	AS	3401	3K5	C9-C8	2.78	1.55	1.47
83	AS	3401	3K5	C4-C3	2.66	1.57	1.52
83	1	3401	3K5	C15-C3	2.62	1.61	1.52
83	1	3401	3K5	O14-C34	2.58	1.48	1.44
83	AS	3401	3K5	C15-C3	2.50	1.61	1.52
83	1	3401	3K5	O-C3	2.37	1.45	1.42
83	AS	3401	3K5	C1-C5	-2.36	1.47	1.52
83	AS	3401	3K5	C2-C1	2.30	1.55	1.51
83	1	3401	3K5	C4-C3	2.23	1.56	1.52
83	AS	3401	3K5	O11-C25	2.23	1.49	1.43
83	1	3401	3K5	C1-C5	-2.23	1.47	1.52
83	1	3401	3K5	C2-C1	2.10	1.55	1.51
83	1	3401	3K5	O11-C25	2.06	1.49	1.43
83	1	3401	3K5	O12-C32	2.05	1.47	1.41
83	AS	3401	3K5	O12-C32	2.04	1.47	1.41
83	AS	3401	3K5	C27-C28	2.04	1.57	1.52
83	AS	3401	3K5	C-C1	2.01	1.58	1.53

All (31) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	AS	3401	3K5	O14-C38-C39	5.58	121.04	111.09
83	AS	3401	3K5	C2-O-C3	-5.12	110.21	113.51
83	1	3401	3K5	O14-C38-C39	5.08	120.15	111.09
83	AS	3401	3K5	O9-C30-C31	5.03	120.07	111.09
83	AS	3401	3K5	C8-C7-C6	-4.70	108.84	122.28
83	1	3401	3K5	O9-C30-C31	4.46	119.05	111.09
83	1	3401	3K5	O6-C23-C20	4.14	119.48	111.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	1	3401	3K5	C32-O11-C25	-3.53	109.62	117.98
83	1	3401	3K5	C9-C8-C7	-3.52	119.23	126.92
83	AS	3401	3K5	C21-C20-C23	-3.36	103.69	111.43
83	1	3401	3K5	O1-C6-C7	3.27	118.51	111.39
83	AS	3401	3K5	C32-O11-C25	-3.24	110.31	117.98
83	AS	3401	3K5	C-C1-C5	-2.86	107.83	112.62
83	1	3401	3K5	C18-C19-C20	2.84	116.19	111.18
83	1	3401	3K5	O4-C22-C21	2.66	118.46	111.53
83	1	3401	3K5	C4-C3-C15	-2.51	110.08	114.34
83	1	3401	3K5	C26-C27-C28	2.49	115.53	110.12
83	1	3401	3K5	C37-C36-C35	-2.47	108.57	113.08
83	1	3401	3K5	C24-O6-C23	-2.42	113.39	116.93
83	1	3401	3K5	C21-C20-C19	2.34	114.25	109.96
83	AS	3401	3K5	O-C3-C4	2.33	112.99	110.75
83	1	3401	3K5	C-C1-C5	-2.20	108.94	112.62
83	1	3401	3K5	C34-O14-C38	-2.18	114.33	117.72
83	1	3401	3K5	C24-O7-C28	-2.15	109.96	113.63
83	AS	3401	3K5	O4-C22-C21	2.15	117.13	111.53
83	AS	3401	3K5	C26-C27-C28	2.12	114.73	110.12
83	AS	3401	3K5	C18-C17-C22	2.05	111.93	107.43
83	1	3401	3K5	O-C3-C4	2.04	112.72	110.75
83	AS	3401	3K5	O6-C23-C20	2.04	115.58	111.79
83	1	3401	3K5	O6-C23-O5	-2.03	120.28	123.95
83	AS	3401	3K5	C10-C9-C8	-2.02	114.02	121.29

There are no chirality outliers.

All (22) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
83	1	3401	3K5	C4-C5-O1-C6
83	1	3401	3K5	C7-C6-O1-C5
83	1	3401	3K5	C39-C38-O14-C34
83	AS	3401	3K5	C39-C38-O14-C34
83	AS	3401	3K5	C35-C34-O14-C38
83	1	3401	3K5	O15-C38-O14-C34
83	1	3401	3K5	C31-C30-O9-C26
83	AS	3401	3K5	C31-C30-O9-C26
83	AS	3401	3K5	O15-C38-O14-C34
83	AS	3401	3K5	O10-C30-O9-C26
83	1	3401	3K5	O10-C30-O9-C26
83	1	3401	3K5	O2-C6-O1-C5
83	AS	3401	3K5	C7-C8-C9-C10

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Mol	Chain	Res	Type	Atoms
83	AS	3401	3K5	C7-C8-C9-C14
83	AS	3401	3K5	O1-C6-C7-C8
83	AS	3401	3K5	O2-C6-O1-C5
83	1	3401	3K5	O7-C24-O6-C23
83	AS	3401	3K5	O2-C6-C7-C8
83	1	3401	3K5	O2-C6-C7-C8
83	1	3401	3K5	O1-C6-C7-C8
83	AS	3401	3K5	C7-C6-O1-C5
83	1	3401	3K5	C25-C24-O6-C23

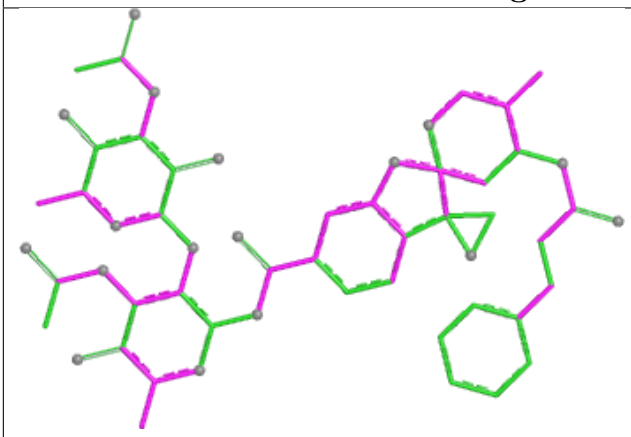
There are no ring outliers.

2 monomers are involved in 6 short contacts:

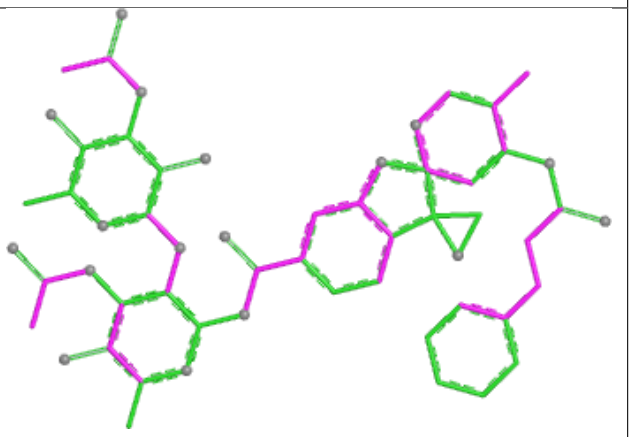
Mol	Chain	Res	Type	Clashes	Symm-Clashes
83	AS	3401	3K5	2	0
83	1	3401	3K5	4	0

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

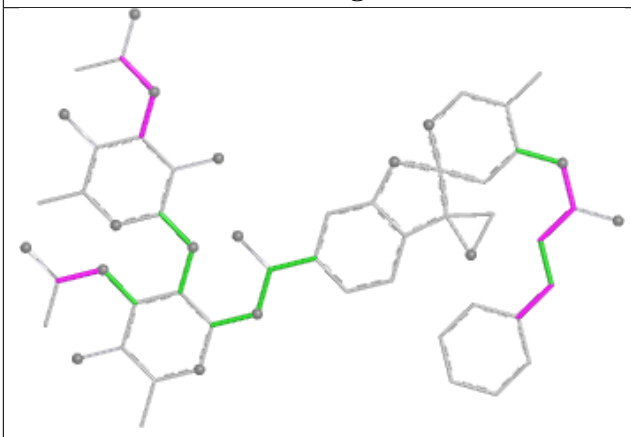
Ligand 3K5 AS 3401



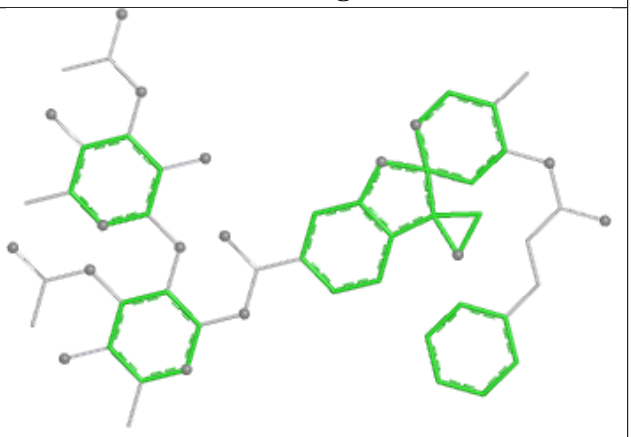
Bond lengths



Bond angles

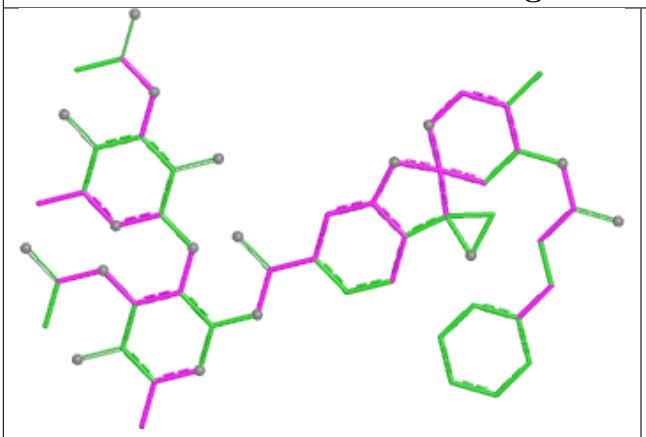


Torsions

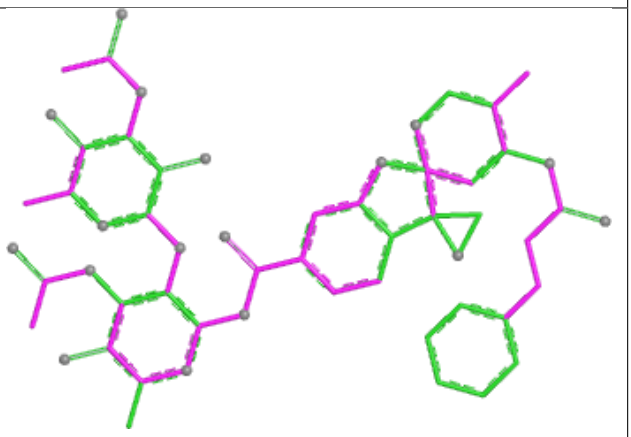


Rings

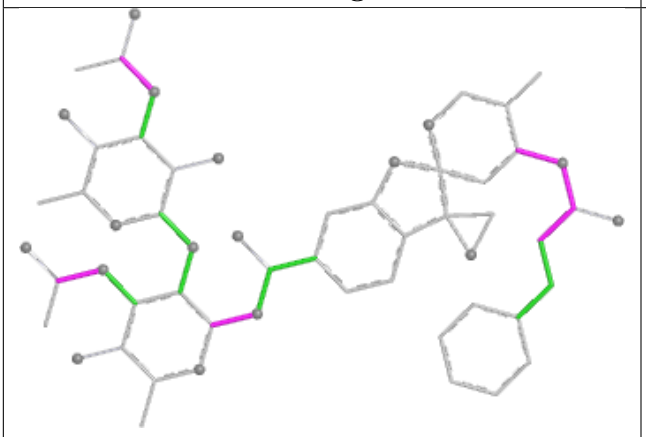
Ligand 3K5 1 3401



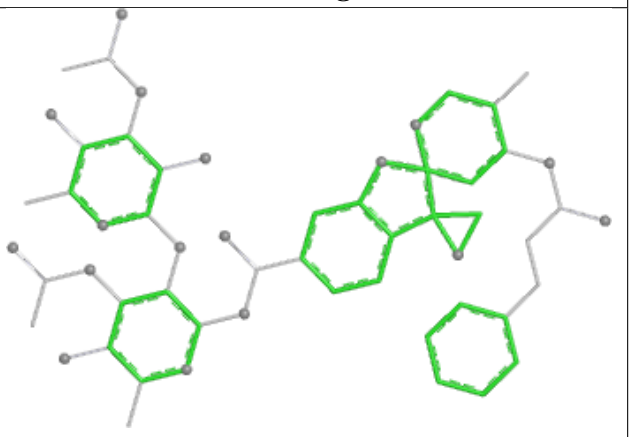
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	1	3216/3359 (95%)	0.29	181 (5%) 30 19	36, 65, 187, 389	0
1	AS	3222/3359 (95%)	0.54	249 (7%) 19 13	44, 79, 214, 339	0
2	3	121/121 (100%)	0.01	0 100 100	44, 80, 102, 135	0
2	AT	121/121 (100%)	0.42	4 (3%) 49 30	45, 79, 104, 152	0
3	4	157/158 (99%)	-0.00	2 (1%) 75 55	50, 69, 125, 185	0
3	AU	158/158 (100%)	0.65	10 (6%) 26 17	65, 101, 152, 231	0
4	AW	249/254 (98%)	1.03	40 (16%) 4 3	45, 83, 111, 135	0
4	j	249/254 (98%)	0.75	20 (8%) 18 12	35, 56, 84, 174	0
5	AX	386/389 (99%)	0.59	19 (4%) 35 22	45, 69, 103, 162	0
5	k	386/389 (99%)	0.57	19 (4%) 35 22	34, 60, 83, 137	1 (0%)
6	AY	361/363 (99%)	1.88	111 (30%) 1 1	54, 85, 119, 141	0
6	l	361/363 (99%)	0.95	37 (10%) 12 8	34, 73, 112, 147	0
7	AZ	292/298 (97%)	1.70	91 (31%) 1 1	52, 105, 142, 169	0
7	m	296/298 (99%)	1.35	64 (21%) 2 2	56, 92, 128, 151	0
8	BA	153/176 (86%)	0.85	15 (9%) 13 9	60, 84, 116, 152	0
8	n	157/176 (89%)	0.87	18 (11%) 9 7	55, 80, 115, 153	0
9	BB	234/241 (97%)	0.65	19 (8%) 18 11	45, 66, 125, 183	0
9	o	231/241 (95%)	0.53	9 (3%) 43 27	44, 61, 113, 169	0
10	BC	233/262 (88%)	1.56	66 (28%) 1 1	100, 135, 171, 191	0
10	p	238/262 (90%)	1.04	35 (14%) 6 4	60, 86, 141, 178	0
11	BD	190/191 (99%)	1.14	36 (18%) 3 2	66, 88, 121, 160	0
11	q	190/191 (99%)	0.62	9 (4%) 36 23	56, 81, 111, 143	0
12	BE	208/220 (94%)	0.73	15 (7%) 21 14	40, 62, 116, 155	0
12	r	208/220 (94%)	0.93	24 (11%) 9 7	39, 64, 104, 125	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	BF	171/174 (98%)	1.32	29 (16%) 4 3	64, 95, 130, 147	0
13	s	171/174 (98%)	1.08	26 (15%) 5 4	62, 95, 119, 138	0
14	BG	200/202 (99%)	1.30	38 (19%) 3 2	51, 105, 142, 162	0
14	t	200/202 (99%)	0.89	23 (11%) 9 7	47, 79, 127, 156	0
15	BH	130/131 (99%)	0.60	11 (8%) 16 11	59, 79, 110, 133	0
15	u	130/131 (99%)	0.34	4 (3%) 51 32	54, 71, 102, 124	0
16	BI	203/204 (99%)	1.60	54 (26%) 1 1	62, 96, 118, 126	0
16	v	203/204 (99%)	0.62	13 (6%) 25 16	36, 60, 78, 92	0
17	BJ	199/200 (99%)	0.64	15 (7%) 20 13	44, 60, 105, 139	0
17	w	199/200 (99%)	0.38	8 (4%) 42 26	39, 55, 93, 122	0
18	BK	176/185 (95%)	1.01	23 (13%) 7 6	49, 73, 105, 148	0
18	x	173/185 (93%)	0.83	13 (7%) 20 13	42, 63, 105, 130	0
19	BL	185/186 (99%)	1.19	29 (15%) 5 4	57, 80, 99, 112	0
19	y	185/186 (99%)	0.95	23 (12%) 8 6	44, 67, 88, 102	0
20	BM	179/190 (94%)	0.93	16 (8%) 15 10	67, 94, 154, 187	0
20	z	179/190 (94%)	0.95	24 (13%) 7 6	55, 75, 141, 155	0
21	0	170/172 (98%)	0.40	7 (4%) 41 25	49, 61, 87, 153	0
21	BN	170/172 (98%)	0.54	7 (4%) 41 25	50, 68, 93, 127	0
22	2	159/160 (99%)	0.76	14 (8%) 15 10	47, 63, 131, 153	0
22	BO	159/160 (99%)	1.04	22 (13%) 6 5	46, 67, 128, 158	0
23	5	103/124 (83%)	1.12	15 (14%) 6 4	93, 123, 153, 170	0
23	BP	102/124 (82%)	1.34	22 (21%) 2 2	99, 143, 163, 177	1 (0%)
24	6	131/137 (95%)	0.57	11 (8%) 17 11	42, 55, 84, 103	0
24	BQ	131/137 (95%)	0.85	11 (8%) 17 11	42, 61, 98, 112	0
25	7	118/155 (76%)	0.73	13 (11%) 10 7	43, 82, 135, 146	0
25	BR	98/155 (63%)	1.05	11 (11%) 10 7	57, 83, 141, 152	0
26	8	120/142 (84%)	0.88	12 (10%) 12 8	60, 78, 103, 121	0
26	BS	119/142 (83%)	1.29	22 (18%) 3 3	76, 109, 131, 142	0
27	9	126/127 (99%)	1.15	20 (15%) 5 3	53, 82, 109, 134	0
27	BT	126/127 (99%)	1.42	27 (21%) 2 2	67, 106, 142, 162	0
28	AA	135/136 (99%)	1.29	22 (16%) 4 3	66, 96, 118, 153	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	BU	135/136 (99%)	1.62	44 (32%) 1 1	103, 132, 155, 181	0
29	AB	148/149 (99%)	0.70	10 (6%) 23 15	41, 65, 100, 127	0
29	BV	148/149 (99%)	1.40	34 (22%) 2 2	52, 85, 114, 133	0
30	AC	59/63 (93%)	1.34	15 (25%) 1 2	46, 77, 125, 141	0
30	BW	61/63 (96%)	1.90	20 (32%) 1 1	47, 86, 141, 156	0
31	AD	96/106 (90%)	0.56	1 (1%) 79 63	62, 84, 109, 129	0
31	BX	96/106 (90%)	1.01	12 (12%) 8 6	87, 125, 150, 159	0
32	AE	110/112 (98%)	0.82	7 (6%) 25 16	51, 71, 124, 159	0
32	BY	110/112 (98%)	1.02	12 (10%) 10 7	56, 88, 129, 160	0
33	AF	124/131 (94%)	1.02	13 (10%) 11 8	42, 65, 86, 97	0
33	BZ	124/131 (94%)	1.50	31 (25%) 2 2	45, 75, 102, 119	0
34	AG	106/107 (99%)	0.59	6 (5%) 29 19	48, 61, 79, 95	0
34	CA	106/107 (99%)	0.53	5 (4%) 36 23	48, 64, 80, 99	0
35	AH	112/122 (91%)	1.32	25 (22%) 2 2	53, 77, 130, 148	0
35	CB	112/122 (91%)	1.72	34 (30%) 1 1	72, 111, 154, 174	0
36	AI	120/120 (100%)	1.04	17 (14%) 6 5	68, 89, 119, 150	0
36	CC	118/120 (98%)	1.74	36 (30%) 1 1	92, 117, 142, 151	0
37	AJ	95/99 (95%)	0.49	3 (3%) 50 31	60, 76, 105, 144	0
37	CD	97/99 (97%)	1.37	23 (23%) 2 2	90, 110, 148, 165	0
38	AK	86/90 (95%)	0.84	10 (11%) 9 7	44, 58, 102, 122	0
38	CE	86/90 (95%)	1.44	21 (24%) 2 2	53, 78, 122, 147	0
39	AL	77/78 (98%)	1.21	12 (15%) 5 4	86, 106, 146, 169	0
39	CF	77/78 (98%)	1.83	26 (33%) 1 1	102, 133, 167, 176	0
40	AM	50/51 (98%)	0.89	4 (8%) 18 12	53, 66, 92, 97	0
40	CG	50/51 (98%)	1.54	11 (22%) 2 2	70, 87, 104, 113	0
41	AN	52/52 (100%)	1.81	21 (40%) 0 1	104, 134, 149, 158	0
41	CH	51/52 (98%)	2.25	32 (62%) 0 0	109, 139, 156, 162	0
42	AO	25/25 (100%)	1.07	4 (16%) 5 3	60, 69, 83, 84	0
42	CI	24/25 (96%)	0.93	1 (4%) 40 25	55, 65, 79, 92	0
43	AP	103/106 (97%)	0.76	12 (11%) 9 6	36, 65, 116, 130	0
43	CJ	103/106 (97%)	0.95	13 (12%) 8 6	51, 77, 128, 139	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	AQ	91/92 (98%)	0.86	11 (12%) 8 6	43, 63, 102, 130	0
44	CK	91/92 (98%)	0.91	10 (10%) 10 7	58, 89, 124, 136	0
45	CL	121/267 (45%)	2.28	58 (47%) 0 1	66, 107, 141, 150	0
45	i	121/267 (45%)	1.64	38 (31%) 1 1	71, 111, 146, 151	0
46	B	1756/1787 (98%)	0.66	163 (9%) 14 9	45, 91, 186, 461	0
46	CM	1765/1787 (98%)	0.51	109 (6%) 26 17	42, 87, 190, 469	0
47	C	208/261 (79%)	1.43	44 (21%) 2 2	90, 123, 151, 168	0
47	CN	208/261 (79%)	1.25	35 (16%) 4 3	67, 109, 142, 181	0
48	CO	214/256 (83%)	1.40	43 (20%) 3 2	82, 131, 155, 182	0
48	D	214/256 (83%)	0.96	20 (9%) 14 9	72, 100, 123, 135	0
49	CP	217/249 (87%)	1.00	24 (11%) 10 7	51, 78, 111, 133	0
49	E	217/249 (87%)	1.63	53 (24%) 2 2	74, 102, 127, 150	0
50	CQ	223/251 (88%)	0.99	26 (11%) 9 6	60, 84, 150, 174	0
50	F	223/251 (88%)	1.57	62 (27%) 1 1	82, 112, 162, 180	0
51	CR	260/262 (99%)	1.27	47 (18%) 3 3	70, 95, 120, 158	0
51	G	259/262 (98%)	1.66	68 (26%) 1 2	71, 105, 131, 161	0
52	CS	206/225 (91%)	1.58	52 (25%) 1 2	82, 112, 155, 202	0
52	H	206/225 (91%)	1.18	33 (16%) 5 3	78, 107, 145, 178	0
53	CT	236/236 (100%)	1.33	46 (19%) 3 2	66, 109, 153, 171	0
53	I	226/236 (95%)	1.27	39 (17%) 4 3	63, 107, 150, 195	0
54	CU	183/186 (98%)	1.29	38 (20%) 2 2	74, 142, 181, 195	0
54	J	185/186 (99%)	1.65	59 (31%) 1 1	73, 140, 167, 181	0
55	CV	203/206 (98%)	1.56	65 (32%) 1 1	47, 79, 139, 171	0
55	K	203/206 (98%)	1.39	44 (21%) 2 2	51, 88, 132, 159	0
56	CW	178/189 (94%)	1.76	55 (30%) 1 1	73, 103, 132, 149	0
56	L	178/189 (94%)	2.14	80 (44%) 0 1	82, 115, 136, 153	0
57	CX	94/118 (79%)	0.90	11 (11%) 9 6	61, 103, 143, 162	0
57	M	94/118 (79%)	1.60	28 (29%) 1 1	86, 124, 148, 163	0
58	CY	141/155 (90%)	0.79	17 (12%) 8 6	47, 72, 107, 163	0
58	N	144/155 (92%)	1.09	17 (11%) 9 6	57, 84, 122, 155	0
59	DA	150/151 (99%)	0.97	17 (11%) 10 7	60, 99, 132, 157	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
59	P	150/151 (99%)	0.96	17 (11%) 10 7	62, 100, 122, 137	0
60	DB	127/132 (96%)	1.18	19 (14%) 5 4	61, 109, 139, 148	0
60	Q	127/132 (96%)	0.84	12 (9%) 14 9	56, 87, 110, 117	0
61	DC	130/142 (91%)	1.29	27 (20%) 2 2	69, 108, 136, 162	0
61	R	129/142 (90%)	1.16	21 (16%) 4 3	73, 101, 141, 161	0
62	DD	140/142 (98%)	1.44	29 (20%) 2 2	65, 109, 142, 157	0
62	S	140/142 (98%)	1.61	43 (30%) 1 1	76, 114, 150, 161	0
63	DE	124/137 (90%)	1.49	34 (27%) 1 1	71, 130, 174, 183	0
63	T	124/137 (90%)	1.56	32 (25%) 1 2	89, 132, 176, 183	0
64	DF	141/145 (97%)	1.39	25 (17%) 4 3	61, 109, 142, 171	0
64	U	144/145 (99%)	1.04	22 (15%) 5 4	69, 89, 124, 149	0
65	DG	141/145 (97%)	1.29	27 (19%) 3 2	69, 107, 138, 160	0
65	V	141/145 (97%)	1.04	17 (12%) 8 6	82, 106, 142, 164	0
66	DH	97/119 (81%)	1.10	9 (9%) 14 9	57, 109, 133, 152	0
66	W	102/119 (85%)	1.51	29 (28%) 1 1	76, 132, 155, 163	0
67	DI	87/87 (100%)	0.96	10 (11%) 9 7	72, 94, 129, 159	0
67	X	87/87 (100%)	0.97	7 (8%) 18 12	85, 113, 136, 147	0
68	DJ	129/130 (99%)	0.98	15 (11%) 9 7	57, 74, 95, 107	0
68	Y	129/130 (99%)	1.29	28 (21%) 2 2	75, 92, 115, 123	0
69	DK	143/145 (98%)	0.82	9 (6%) 26 17	47, 72, 98, 133	0
69	Z	143/145 (98%)	1.36	32 (22%) 2 2	64, 77, 96, 122	0
70	DL	132/135 (97%)	1.22	24 (18%) 3 3	89, 118, 145, 190	0
70	a	134/135 (99%)	1.55	38 (28%) 1 1	82, 121, 140, 154	0
71	DM	71/105 (67%)	1.38	16 (22%) 2 2	104, 137, 155, 161	0
71	b	72/105 (68%)	0.99	10 (13%) 6 5	93, 114, 141, 156	0
72	DN	98/119 (82%)	1.39	22 (22%) 2 2	69, 89, 146, 156	0
72	c	98/119 (82%)	1.48	24 (24%) 2 2	71, 92, 132, 153	0
73	DO	81/82 (98%)	1.29	17 (20%) 2 2	82, 112, 180, 193	0
73	d	81/82 (98%)	1.16	14 (17%) 4 3	84, 108, 165, 181	0
74	DP	61/67 (91%)	1.41	12 (19%) 3 2	90, 117, 147, 169	0
74	e	62/67 (92%)	1.80	19 (30%) 1 1	90, 117, 146, 156	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
75	DQ	54/56 (96%)	1.10	6 (11%) 10 7	54, 74, 106, 129	0
75	f	55/56 (98%)	1.05	7 (12%) 8 6	77, 92, 120, 142	0
76	DR	58/63 (92%)	1.44	15 (25%) 1 2	73, 109, 178, 188	0
76	g	60/63 (95%)	1.75	23 (38%) 1 1	82, 114, 166, 177	0
77	DS	70/193 (36%)	2.05	30 (42%) 0 1	106, 185, 202, 224	0
77	h	70/193 (36%)	1.66	24 (34%) 1 1	133, 179, 195, 202	0
78	AR	311/317 (98%)	1.42	75 (24%) 2 2	132, 165, 186, 202	0
78	DT	311/317 (98%)	1.70	108 (34%) 1 1	112, 162, 187, 201	0
79	CZ	119/143 (83%)	1.52	32 (26%) 1 1	142, 174, 188, 196	0
79	O	39/143 (27%)	1.64	13 (33%) 1 1	167, 186, 197, 206	0
80	P0	107/312 (34%)	1.94	45 (42%) 0 1	109, 124, 138, 165	0
80	p0	61/312 (19%)	2.57	34 (55%) 0 0	112, 126, 141, 145	0
81	12	62/165 (37%)	1.69	21 (33%) 1 1	103, 127, 146, 153	0
82	L1	217/217 (100%)	1.11	39 (17%) 3 3	101, 128, 165, 236	0
82	l1	211/217 (97%)	1.32	50 (23%) 2 2	111, 135, 155, 205	0
All	All	33513/36349 (92%)	0.95	4787 (14%) 6 5	34, 89, 165, 469	2 (0%)

All (4787) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
49	E	86	ARG	17.1
49	CP	86	ARG	14.4
6	AY	66	TRP	13.2
6	AY	82	GLY	11.9
56	L	138	LYS	11.4
6	AY	70	ARG	10.9
1	AS	3319	U	10.3
49	E	87	ALA	10.0
6	AY	64	GLU	9.8
64	DF	120	ARG	9.5
45	CL	81	THR	9.3
14	t	2	ALA	9.2
50	F	154	ALA	9.2
12	BE	102	MET	9.0
6	AY	80	GLY	9.0
54	J	179	PHE	8.9
3	AU	111	A	8.8

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Mol	Chain	Res	Type	RSRZ
7	AZ	82	GLU	8.8
30	BW	10	HIS	8.8
47	C	99	ALA	8.8
35	CB	8	ARG	8.7
1	1	2453	G	8.6
14	BG	2	ALA	8.6
55	K	20	GLN	8.5
6	AY	69	GLY	8.4
6	AY	65	SER	8.4
1	1	2454	C	8.1
46	B	1135	G	8.1
48	CO	156	ALA	8.1
6	AY	61	THR	8.0
77	DS	127	TYR	7.9
6	AY	68	THR	7.9
1	AS	545	G	7.8
49	E	90	ARG	7.8
72	DN	6	ALA	7.7
1	AS	2943	A	7.7
6	AY	72	VAL	7.7
1	AS	1204	U	7.7
72	c	29	CYS	7.6
6	AY	87	GLY	7.5
49	E	114	LYS	7.5
1	AS	2396	G	7.5
48	D	156	ALA	7.5
36	AI	120	ALA	7.4
4	AW	235	ALA	7.3
12	r	162	GLN	7.3
56	CW	10	LYS	7.3
30	BW	14	ARG	7.3
1	AS	2382	A	7.3
13	BF	115	LYS	7.3
27	BT	26	GLU	7.3
6	AY	67	GLY	7.3
35	CB	28	GLY	7.3
55	K	17	LYS	7.3
80	P0	26	PHE	7.2
48	CO	120	LEU	7.2
33	BZ	31	GLU	7.2
6	AY	84	HIS	7.1
72	c	2	PRO	7.1

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Mol	Chain	Res	Type	RSRZ
46	CM	114	C	7.1
53	I	79	LYS	7.0
57	M	30	PRO	7.0
45	CL	98	ASP	7.0
56	CW	58	ASP	7.0
45	i	88	PHE	7.0
72	c	90	THR	7.0
62	S	67	LYS	6.9
63	DE	91	LEU	6.9
51	CR	200	LYS	6.8
21	0	162	LEU	6.8
56	L	116	LEU	6.8
8	n	169	ASP	6.8
6	AY	55	GLU	6.8
1	AS	356	C	6.8
51	G	39	ARG	6.8
50	F	153	TYR	6.8
45	CL	84	SER	6.8
6	AY	88	GLN	6.7
54	J	146	GLN	6.7
54	J	148	VAL	6.7
6	AY	73	ALA	6.7
56	CW	48	GLN	6.7
48	CO	205	PHE	6.7
59	P	7	SER	6.7
80	P0	85	GLY	6.7
6	AY	86	SER	6.7
33	BZ	27	HIS	6.7
55	CV	20	GLN	6.7
1	AS	2379	A	6.7
46	B	1339	G	6.7
50	F	136	GLU	6.7
48	CO	119	SER	6.6
40	CG	12	LYS	6.6
1	1	2157	C	6.6
30	BW	11	ASN	6.6
39	CF	57	ASN	6.5
62	DD	36	THR	6.5
55	CV	18	ARG	6.5
14	t	20	GLU	6.5
14	t	4	SER	6.5
50	F	188	LYS	6.5

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Mol	Chain	Res	Type	RSRZ
56	CW	12	TYR	6.5
6	AY	89	ALA	6.4
45	CL	60	ASN	6.4
62	S	31	ASN	6.4
47	C	97	ALA	6.4
6	AY	83	THR	6.4
70	a	72	PHE	6.4
7	AZ	212	LEU	6.4
50	F	171	ILE	6.4
51	CR	39	ARG	6.3
47	CN	19	ALA	6.3
51	G	110	ALA	6.3
6	AY	75	ILE	6.3
44	AQ	28	LYS	6.3
63	T	68	GLY	6.3
7	AZ	7	PHE	6.3
20	z	136	ARG	6.3
56	L	172	VAL	6.3
52	CS	71	SER	6.2
7	m	12	TYR	6.2
50	F	202	ALA	6.2
1	1	2436	A	6.2
35	CB	3	GLN	6.2
48	CO	155	TYR	6.2
7	m	8	ARG	6.2
50	F	152	LYS	6.2
7	AZ	55	PHE	6.2
51	CR	198	ARG	6.1
35	AH	61	GLN	6.1
50	F	151	GLN	6.1
52	CS	82	PHE	6.1
46	B	1047	U	6.1
35	CB	10	ARG	6.1
1	AS	1352	C	6.1
49	E	77	LYS	6.1
55	CV	17	LYS	6.1
10	BC	67	SER	6.0
56	L	151	ASP	6.0
80	p0	59	VAL	6.0
82	l1	68	PHE	6.0
29	BV	52	TYR	6.0
51	G	40	GLU	6.0

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Mol	Chain	Res	Type	RSRZ
35	AH	33	GLN	6.0
54	J	178	VAL	6.0
45	CL	62	ALA	5.9
45	CL	59	GLY	5.9
56	CW	62	ARG	5.9
20	z	133	LYS	5.9
36	CC	102	GLU	5.9
1	AS	2450	U	5.9
1	1	1127	G	5.9
49	CP	87	ALA	5.9
4	AW	232	GLY	5.8
53	CT	54	GLY	5.8
53	CT	96	SER	5.8
55	CV	19	ALA	5.8
46	B	1044	U	5.8
6	AY	81	GLY	5.8
45	CL	65	LYS	5.8
65	V	69	LYS	5.8
6	AY	76	PRO	5.8
56	L	154	LYS	5.7
38	CE	23	GLY	5.7
60	DB	85	LYS	5.7
51	G	47	PHE	5.7
66	W	81	TYR	5.7
77	DS	128	THR	5.7
46	CM	1679	A	5.7
6	AY	62	SER	5.7
30	AC	21	ILE	5.7
81	12	104	ILE	5.7
76	g	39	LEU	5.7
11	BD	7	ASP	5.7
64	DF	94	ASP	5.7
7	m	24	GLN	5.6
36	AI	84	LYS	5.6
53	I	135	PRO	5.6
62	S	32	GLY	5.6
16	BI	146	ALA	5.6
19	BL	166	LEU	5.6
45	i	116	GLU	5.6
14	BG	10	LEU	5.6
1	AS	2784	C	5.6
46	B	1618	A	5.6

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Mol	Chain	Res	Type	RSRZ
63	T	66	VAL	5.6
50	F	149	LYS	5.6
56	CW	14	VAL	5.6
25	BR	27	LYS	5.6
46	B	1624	C	5.6
6	l	353	SER	5.6
80	p0	41	ILE	5.6
52	H	86	GLN	5.5
51	G	78	THR	5.5
33	BZ	36	GLN	5.5
1	AS	2472	A	5.5
49	E	93	MET	5.5
27	BT	20	PHE	5.5
8	n	174	LEU	5.5
35	AH	35	VAL	5.5
6	AY	79	GLY	5.5
6	AY	91	PHE	5.5
46	CM	1680	A	5.5
18	BK	135	ARG	5.5
33	BZ	35	LYS	5.4
1	AS	1487	A	5.4
54	J	141	GLY	5.4
60	Q	120	SER	5.4
73	DO	30	SER	5.4
50	F	173	ILE	5.4
57	M	25	LYS	5.4
56	L	15	PRO	5.4
46	CM	1703	C	5.4
56	L	13	SER	5.4
1	AS	664	A	5.4
36	CC	75	TYR	5.4
6	AY	245	LEU	5.4
80	P0	77	LEU	5.4
1	AS	655	A	5.4
78	AR	260	PHE	5.4
14	t	17	HIS	5.4
6	AY	77	ARG	5.4
1	1	3284	U	5.3
56	L	14	VAL	5.3
72	c	89	ARG	5.3
64	DF	118	LYS	5.3
50	CQ	149	LYS	5.3

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Mol	Chain	Res	Type	RSRZ
22	BO	81	GLY	5.3
56	L	35	GLY	5.3
49	CP	89	GLN	5.3
20	z	68	GLU	5.3
45	i	90	ARG	5.3
49	E	79	ARG	5.3
41	CH	52	LYS	5.3
43	AP	40	LYS	5.3
52	CS	152	SER	5.3
54	J	136	VAL	5.3
6	AY	74	ARG	5.3
50	CQ	150	SER	5.3
49	E	115	GLU	5.3
52	H	72	HIS	5.3
52	H	177	ILE	5.3
10	p	62	GLN	5.2
18	BK	2	VAL	5.2
66	DH	81	TYR	5.2
35	CB	30	LEU	5.2
28	AA	34	LYS	5.2
51	G	44	LEU	5.2
51	CR	205	PHE	5.2
29	BV	7	LYS	5.2
55	K	62	THR	5.2
71	DM	37	GLN	5.2
69	Z	17	VAL	5.2
46	CM	724	G	5.2
6	l	64	GLU	5.2
39	CF	2	ALA	5.2
44	AQ	25	GLN	5.1
26	BS	48	ARG	5.1
56	CW	51	LYS	5.1
4	AW	2	GLY	5.1
29	BV	20	GLY	5.1
6	l	71	ALA	5.1
56	CW	47	PHE	5.1
52	H	70	VAL	5.1
12	r	55	ASN	5.1
69	Z	21	ASN	5.1
1	AS	2480	A	5.1
47	C	80	THR	5.1
50	F	168	PHE	5.1

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Mol	Chain	Res	Type	RSRZ
35	CB	17	SER	5.1
28	BU	14	VAL	5.1
74	e	15	VAL	5.1
45	CL	75	PRO	5.1
26	BS	36	LYS	5.1
45	CL	100	LYS	5.1
45	CL	103	LEU	5.1
6	AY	363	ASN	5.1
36	CC	91	LYS	5.1
69	Z	16	ARG	5.1
70	DL	99	LYS	5.1
74	DP	49	ARG	5.1
38	CE	18	LEU	5.1
46	B	1359	U	5.0
6	l	80	GLY	5.0
16	v	6	TYR	5.0
58	N	93	TYR	5.0
1	AS	357	A	5.0
6	AY	63	ALA	5.0
41	AN	16	GLU	5.0
1	AS	2847	U	5.0
35	AH	19	LYS	5.0
54	J	149	LEU	5.0
6	l	352	PRO	5.0
1	AS	1584	A	5.0
73	d	27	GLN	5.0
5	k	330	GLY	5.0
53	I	131	LYS	5.0
80	p0	55	LYS	5.0
45	CL	73	VAL	5.0
74	e	50	GLU	5.0
6	AY	71	ALA	5.0
46	CM	1698	U	5.0
35	CB	29	LYS	5.0
47	C	174	TRP	5.0
27	BT	18	ALA	4.9
64	DF	117	LYS	4.9
74	e	45	LYS	4.9
52	CS	59	VAL	4.9
78	DT	245	ASN	4.9
69	Z	31	ALA	4.9
1	AS	2378	G	4.9

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Mol	Chain	Res	Type	RSRZ
77	DS	145	LEU	4.9
16	BI	6	TYR	4.9
14	t	21	ARG	4.9
51	G	43	PRO	4.9
54	J	127	PHE	4.9
1	AS	2926	U	4.9
48	CO	143	THR	4.9
72	c	19	LYS	4.9
49	E	78	ILE	4.8
80	p0	35	SER	4.8
40	CG	9	THR	4.8
45	i	103	LEU	4.8
62	DD	48	TYR	4.8
80	p0	58	MET	4.8
1	AS	1489	G	4.8
6	AY	361	LEU	4.8
27	BT	30	LEU	4.8
53	CT	69	HIS	4.8
78	DT	294	ASP	4.8
16	BI	204	SER	4.8
1	1	1188	C	4.8
1	AS	917	A	4.8
3	AU	21	C	4.8
54	J	21	PHE	4.8
45	CL	61	GLU	4.8
49	E	210	PHE	4.8
49	E	80	SER	4.8
47	CN	15	LYS	4.8
1	AS	1842	C	4.8
30	BW	33	LYS	4.8
18	x	136	ILE	4.7
50	CQ	173	ILE	4.7
19	y	169	GLY	4.7
12	r	12	CYS	4.7
78	AR	208	CYS	4.7
7	m	6	GLU	4.7
6	l	154	SER	4.7
39	CF	22	SER	4.7
51	CR	157	ASN	4.7
74	DP	53	ILE	4.7
74	e	46	GLY	4.7
24	6	88	ARG	4.7

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Mol	Chain	Res	Type	RSRZ
7	AZ	156	GLY	4.7
45	CL	66	ASN	4.7
49	E	220	LEU	4.7
69	Z	57	ILE	4.7
49	E	178	VAL	4.7
7	AZ	151	GLN	4.7
10	BC	100	PRO	4.7
41	CH	49	LYS	4.7
45	CL	85	LYS	4.7
53	I	208	TYR	4.7
68	Y	26	LEU	4.7
18	x	2	VAL	4.7
46	CM	1743	A	4.7
1	1	1552	C	4.7
36	CC	84	LYS	4.6
22	BO	2	GLY	4.6
54	J	135	ARG	4.6
46	CM	247	U	4.6
1	AS	801	G	4.6
46	CM	1135	G	4.6
12	r	164	LYS	4.6
56	L	32	GLY	4.6
7	AZ	59	ASP	4.6
77	DS	191	LYS	4.6
56	L	150	LEU	4.6
46	B	1410	A	4.6
77	DS	146	THR	4.6
45	i	41	ALA	4.6
49	E	161	ALA	4.6
49	CP	174	VAL	4.6
54	J	88	PHE	4.6
58	N	60	PHE	4.6
59	P	57	ALA	4.6
72	DN	21	VAL	4.6
13	s	125	MET	4.6
15	u	130	LYS	4.6
46	CM	988	A	4.6
54	J	147	LYS	4.6
4	AW	247	ARG	4.6
19	BL	12	ARG	4.6
40	CG	51	ILE	4.6
56	CW	74	ASN	4.6

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Mol	Chain	Res	Type	RSRZ
55	CV	103	GLN	4.6
74	e	17	GLY	4.6
7	AZ	81	HIS	4.6
6	AY	85	ARG	4.5
44	AQ	24	ARG	4.5
80	P0	25	ILE	4.5
56	L	18	PRO	4.5
46	CM	725	A	4.5
46	CM	1081	C	4.5
46	CM	1480	G	4.5
69	Z	36	THR	4.5
19	BL	20	LYS	4.5
20	z	67	LYS	4.5
44	AQ	27	LYS	4.5
47	C	127	ARG	4.5
73	DO	29	ARG	4.5
76	g	47	VAL	4.5
29	BV	21	ARG	4.5
52	CS	62	ILE	4.5
80	P0	78	PRO	4.5
59	DA	62	GLN	4.5
6	l	363	ASN	4.5
7	AZ	58	LYS	4.5
35	AH	36	LYS	4.5
53	CT	74	ARG	4.5
46	B	1005	A	4.5
64	DF	119	ILE	4.5
8	n	165	LEU	4.5
8	n	171	PRO	4.5
55	CV	137	ALA	4.4
6	AY	59	HIS	4.4
56	L	123	HIS	4.4
56	CW	11	THR	4.4
53	CT	77	LEU	4.4
1	1	1263	U	4.4
46	B	724	G	4.4
35	AH	21	LYS	4.4
49	E	92	ARG	4.4
44	AQ	29	LEU	4.4
53	I	212	LEU	4.4
1	AS	2473	C	4.4
46	B	1081	C	4.4

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Mol	Chain	Res	Type	RSRZ
68	DJ	74	VAL	4.4
39	CF	29	ALA	4.4
69	Z	27	GLN	4.4
69	Z	58	GLY	4.4
50	F	116	ILE	4.4
30	AC	4	SER	4.4
47	CN	128	THR	4.4
13	BF	116	TYR	4.4
72	c	20	PRO	4.4
1	1	1197	C	4.4
1	1	1561	U	4.4
36	CC	36	LEU	4.4
19	BL	7	SER	4.4
1	1	545	G	4.4
1	1	2089	G	4.4
80	p0	11	TYR	4.4
69	Z	28	ALA	4.4
52	CS	112	ARG	4.4
50	F	137	VAL	4.4
33	BZ	30	ALA	4.3
1	AS	1829	G	4.3
30	BW	23	LYS	4.3
54	CU	168	LEU	4.3
56	CW	70	LEU	4.3
44	CK	25	GLN	4.3
77	DS	181	GLN	4.3
55	K	22	ARG	4.3
62	S	65	ARG	4.3
1	AS	2783	A	4.3
80	p0	51	VAL	4.3
7	m	233	SER	4.3
17	w	2	SER	4.3
24	6	35	TYR	4.3
15	u	131	ALA	4.3
6	AY	186	LYS	4.3
7	m	150	LEU	4.3
53	I	80	GLY	4.3
78	DT	231	LEU	4.3
7	m	283	GLN	4.3
25	BR	41	GLN	4.3
70	DL	122	GLN	4.3
10	BC	132	VAL	4.3

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Mol	Chain	Res	Type	RSRZ
77	h	126	VAL	4.3
5	k	96	PRO	4.3
6	l	91	PHE	4.3
76	g	56	MET	4.3
7	AZ	226	TYR	4.3
12	r	11	TYR	4.3
19	y	159	LYS	4.3
47	C	134	LYS	4.3
10	p	238	ILE	4.3
19	y	95	GLU	4.3
70	a	63	GLN	4.3
52	CS	70	VAL	4.3
19	BL	168	LYS	4.3
51	G	205	PHE	4.3
74	DP	45	LYS	4.3
39	CF	78	LEU	4.3
51	G	2	ALA	4.3
56	L	12	TYR	4.3
64	U	30	TYR	4.3
79	O	78	LEU	4.3
14	BG	12	ASN	4.3
41	AN	34	CYS	4.3
46	B	1038	G	4.3
67	DI	41	GLU	4.3
46	B	1045	U	4.3
72	c	18	VAL	4.3
69	Z	39	LYS	4.3
80	P0	79	PHE	4.3
80	p0	15	LEU	4.3
52	CS	85	ALA	4.3
7	AZ	119	TYR	4.3
18	BK	136	ILE	4.3
68	Y	27	ILE	4.3
47	CN	171	GLY	4.3
6	AY	112	VAL	4.3
47	C	87	LEU	4.2
52	CS	97	LEU	4.2
78	DT	244	PRO	4.2
5	AX	139	THR	4.2
6	AY	90	ALA	4.2
30	BW	8	THR	4.2
38	AK	41	ALA	4.2

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Mol	Chain	Res	Type	RSRZ
49	E	113	ALA	4.2
31	BX	106	ILE	4.2
10	BC	183	GLY	4.2
56	CW	19	TYR	4.2
26	8	36	LYS	4.2
26	BS	25	LYS	4.2
56	L	153	GLN	4.2
82	L1	13	VAL	4.2
46	B	1614	U	4.2
32	BY	26	LYS	4.2
6	l	107	TRP	4.2
74	e	16	LEU	4.2
56	CW	61	THR	4.2
78	AR	101	THR	4.2
1	AS	1024	U	4.2
51	G	56	LEU	4.2
82	l1	165	LEU	4.2
27	9	78	PHE	4.2
18	x	133	HIS	4.2
43	CJ	84	PRO	4.2
54	CU	132	ILE	4.2
81	12	109	ILE	4.2
38	AK	2	GLY	4.2
78	DT	80	TYR	4.2
16	BI	198	SER	4.2
49	CP	159	SER	4.2
80	P0	35	SER	4.2
62	DD	30	ILE	4.2
6	AY	58	GLY	4.2
56	L	137	GLY	4.2
60	Q	88	THR	4.2
80	p0	33	VAL	4.1
26	8	108	LEU	4.1
45	i	64	LEU	4.1
14	t	11	ASN	4.1
52	H	170	GLN	4.1
50	F	150	SER	4.1
1	1	2950	U	4.1
7	AZ	84	PRO	4.1
22	BO	3	LYS	4.1
28	BU	82	PRO	4.1
55	CV	185	CYS	4.1

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Mol	Chain	Res	Type	RSRZ
56	CW	18	PRO	4.1
72	DN	3	LYS	4.1
14	BG	73	ARG	4.1
7	AZ	219	TYR	4.1
64	U	54	LEU	4.1
52	H	71	SER	4.1
52	H	145	ASP	4.1
63	DE	123	SER	4.1
5	k	377[A]	HIS	4.1
16	BI	158	HIS	4.1
70	a	67	GLY	4.1
7	m	38	THR	4.1
51	CR	184	THR	4.1
16	BI	81	TYR	4.1
67	X	58	TYR	4.1
7	m	7	PHE	4.1
18	x	128	ARG	4.1
38	CE	2	GLY	4.1
1	AS	2447	G	4.1
36	AI	88	LEU	4.1
55	CV	188	TYR	4.1
1	AS	1602	U	4.1
28	BU	31	GLU	4.1
7	m	16	PHE	4.1
7	m	289	LYS	4.1
46	B	1348	U	4.1
49	CP	83	LYS	4.1
50	F	191	LYS	4.1
52	CS	76	LYS	4.1
53	CT	79	LYS	4.1
74	e	53	ILE	4.1
4	j	250	GLN	4.1
35	CB	33	GLN	4.1
30	AC	6	ASN	4.1
7	AZ	269	SER	4.1
13	BF	124	GLY	4.1
23	BP	15	PHE	4.1
1	1	1264	G	4.1
67	DI	47	ALA	4.1
81	12	113	ALA	4.1
55	K	18	ARG	4.1
46	CM	1652	U	4.1

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Mol	Chain	Res	Type	RSRZ
80	p0	2	GLY	4.1
23	BP	17	VAL	4.0
27	9	29	VAL	4.0
72	DN	18	VAL	4.0
77	h	150	VAL	4.0
33	AF	50	THR	4.0
78	DT	299	PHE	4.0
72	DN	89	ARG	4.0
4	j	246	LEU	4.0
14	t	9	LEU	4.0
14	BG	9	LEU	4.0
19	y	118	GLY	4.0
51	G	153	LEU	4.0
19	BL	5	HIS	4.0
46	CM	113	U	4.0
46	CM	1099	G	4.0
56	L	16	LYS	4.0
57	M	26	ASP	4.0
33	BZ	18	PHE	4.0
50	F	206	ALA	4.0
51	G	60	GLU	4.0
48	CO	207	LEU	4.0
62	S	51	LEU	4.0
30	AC	22	LYS	4.0
41	AN	52	LYS	4.0
45	CL	95	GLY	4.0
80	P0	28	VAL	4.0
45	CL	83	HIS	4.0
39	CF	43	PHE	4.0
48	CO	30	PHE	4.0
53	CT	61	PHE	4.0
48	CO	154	THR	4.0
80	p0	57	THR	4.0
53	CT	224	ALA	4.0
22	BO	101	CYS	4.0
24	BQ	64	LYS	4.0
33	AF	9	LYS	4.0
52	CS	168	VAL	4.0
1	AS	402	A	4.0
46	B	726	C	4.0
46	CM	1697	C	4.0
6	AY	109	ARG	4.0

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Mol	Chain	Res	Type	RSRZ
77	h	148	TYR	4.0
78	AR	280	THR	4.0
46	B	1091	U	4.0
10	BC	184	LYS	4.0
1	AS	2453	G	4.0
45	i	107	TRP	4.0
13	BF	114	ILE	4.0
55	K	21	PHE	4.0
74	DP	51	ASN	4.0
37	CD	47	ALA	4.0
1	1	2467	C	4.0
46	B	1090	C	4.0
63	T	21	TYR	4.0
12	r	58	GLU	4.0
16	BI	176	LYS	4.0
44	CK	28	LYS	4.0
26	BS	35	PRO	3.9
62	DD	68	VAL	3.9
1	1	1816	U	3.9
43	CJ	51	GLY	3.9
8	n	1	MET	3.9
76	DR	56	MET	3.9
66	W	78	TRP	3.9
6	AY	105	LYS	3.9
16	v	153	ASN	3.9
20	z	66	LEU	3.9
35	AH	30	LEU	3.9
78	DT	228	LEU	3.9
10	BC	162	GLU	3.9
1	1	2341	A	3.9
1	AS	1256	A	3.9
46	CM	1357	A	3.9
56	L	82	ARG	3.9
48	D	157	GLN	3.9
54	CU	146	GLN	3.9
64	DF	73	MET	3.9
1	AS	792	U	3.9
47	C	102	PHE	3.9
53	CT	144	PHE	3.9
5	k	5	LYS	3.9
28	AA	11	ALA	3.9
44	CK	13	LYS	3.9

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Mol	Chain	Res	Type	RSRZ
61	R	97	TYR	3.9
51	G	26	THR	3.9
56	L	111	THR	3.9
58	CY	63	THR	3.9
43	AP	44	ASP	3.9
1	1	2336	A	3.9
46	CM	1765	G	3.9
63	T	69	ILE	3.9
51	CR	175	PHE	3.9
49	CP	151	CYS	3.9
26	BS	38	LEU	3.9
38	AK	51	LEU	3.9
38	CE	13	ASN	3.9
48	CO	122	GLU	3.9
12	r	114	GLY	3.9
35	AH	79	SER	3.9
55	K	169	GLY	3.9
14	t	3	ILE	3.9
56	L	48	GLN	3.9
10	p	166	PHE	3.9
56	L	29	LYS	3.9
81	12	121	PHE	3.9
69	Z	18	HIS	3.9
62	S	37	LEU	3.9
70	a	28	LEU	3.9
1	AS	155	A	3.9
18	BK	128	ARG	3.9
1	1	1562	G	3.9
10	BC	133	VAL	3.9
46	CM	632	G	3.9
52	CS	53	VAL	3.9
17	w	155	GLU	3.9
52	CS	154	THR	3.9
4	j	175	ILE	3.9
5	AX	256	HIS	3.9
6	AY	78	VAL	3.8
31	BX	44	VAL	3.8
78	DT	6	VAL	3.8
52	H	28	THR	3.8
45	CL	96	LYS	3.8
60	DB	125	GLY	3.8
51	G	157	ASN	3.8

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Mol	Chain	Res	Type	RSRZ
62	S	30	ILE	3.8
80	P0	80	ILE	3.8
82	L1	111	ILE	3.8
1	AS	2470	C	3.8
1	AS	2744	C	3.8
11	BD	45	PHE	3.8
20	z	132	PHE	3.8
45	i	109	GLN	3.8
46	B	1292	U	3.8
75	DQ	8	PHE	3.8
66	W	79	ASP	3.8
45	CL	115	LEU	3.8
67	DI	45	ALA	3.8
76	g	54	ARG	3.8
78	DT	290	ALA	3.8
29	BV	10	LYS	3.8
45	i	65	LYS	3.8
52	CS	77	TYR	3.8
65	DG	92	LYS	3.8
7	AZ	169	GLY	3.8
82	l1	100	ILE	3.8
63	T	42	GLN	3.8
80	P0	19	LEU	3.8
1	AS	802	A	3.8
1	AS	1478	A	3.8
64	DF	121	SER	3.8
1	AS	1192	C	3.8
1	AS	2454	C	3.8
10	BC	131	VAL	3.8
61	DC	52	LYS	3.8
53	CT	29	GLU	3.8
45	CL	97	THR	3.8
80	p0	3	GLY	3.8
64	DF	128	PHE	3.8
13	BF	145	ARG	3.8
65	DG	50	ALA	3.8
45	i	84	SER	3.8
40	AM	32	ASP	3.8
63	DE	108	ASP	3.8
30	BW	22	LYS	3.8
72	c	3	LYS	3.8
46	B	1340	C	3.8

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Mol	Chain	Res	Type	RSRZ
46	CM	726	C	3.8
10	p	236	GLY	3.8
47	C	170	ILE	3.8
57	M	85	GLY	3.8
81	12	112	ILE	3.8
12	BE	199	PHE	3.8
27	BT	21	THR	3.8
31	BX	95	LEU	3.8
63	DE	8	THR	3.8
70	a	23	PHE	3.8
77	DS	190	LEU	3.8
10	BC	243	ALA	3.8
41	CH	25	ALA	3.8
50	CQ	202	ALA	3.8
10	BC	152	VAL	3.8
57	CX	12	HIS	3.8
12	r	130	SER	3.8
32	BY	30	LYS	3.8
45	CL	36	SER	3.8
51	G	6	LYS	3.8
53	I	193	LYS	3.8
61	R	85	VAL	3.8
61	DC	111	MET	3.8
50	F	185	ILE	3.8
7	m	226	TYR	3.8
12	r	132	GLY	3.8
23	BP	98	PHE	3.8
82	l1	124	LEU	3.8
1	AS	1918	A	3.8
25	7	41	GLN	3.7
40	CG	4	GLN	3.7
49	E	83	LYS	3.7
49	CP	84	GLN	3.7
18	BK	89	ASN	3.7
78	AR	138	ILE	3.7
36	CC	48	ARG	3.7
76	g	37	ARG	3.7
11	BD	178	GLY	3.7
68	DJ	77	PRO	3.7
78	DT	207	LEU	3.7
22	BO	19	PHE	3.7
47	C	155	TYR	3.7

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Mol	Chain	Res	Type	RSRZ
7	AZ	80	ALA	3.7
20	z	63	ALA	3.7
41	AN	12	LYS	3.7
14	BG	102	GLN	3.7
27	9	120	GLN	3.7
78	DT	296	GLN	3.7
1	AS	1197	C	3.7
12	r	166	ILE	3.7
45	CL	92	SER	3.7
69	Z	40	SER	3.7
51	G	79	ASP	3.7
53	CT	222	GLU	3.7
57	M	88	PRO	3.7
1	1	3034	G	3.7
1	AS	2455	G	3.7
10	BC	202	THR	3.7
45	CL	34	THR	3.7
63	DE	90	ALA	3.7
18	BK	126	ARG	3.7
49	CP	90	ARG	3.7
46	CM	1766	U	3.7
29	BV	5	LEU	3.7
45	i	115	LEU	3.7
54	CU	89	LEU	3.7
80	p0	18	LEU	3.7
81	12	125	LEU	3.7
48	D	158	SER	3.7
49	E	88	GLY	3.7
50	CQ	205	ASP	3.7
55	CV	80	GLY	3.7
13	BF	74	PRO	3.7
33	BZ	9	LYS	3.7
78	DT	247	TYR	3.7
7	AZ	109	ALA	3.7
37	CD	8	ALA	3.7
65	DG	41	ALA	3.7
77	h	170	ALA	3.7
28	BU	123	GLN	3.7
50	F	189	ILE	3.7
1	1	1556	G	3.7
1	AS	2387	G	3.7
4	j	96	LEU	3.7

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Mol	Chain	Res	Type	RSRZ
6	AY	56	ASN	3.7
14	t	10	LEU	3.7
6	l	58	GLY	3.7
28	BU	133	LYS	3.7
29	BV	34	LYS	3.7
51	CR	127	LYS	3.7
57	M	24	LYS	3.7
1	1	1545	U	3.7
24	BQ	112	SER	3.7
46	B	779	U	3.7
46	B	1615	U	3.7
59	DA	61	SER	3.7
72	c	33	ASP	3.7
51	G	103	TYR	3.7
54	CU	90	ALA	3.7
74	e	48	VAL	3.7
53	CT	72	ARG	3.7
13	BF	122	ILE	3.7
48	CO	161	LEU	3.7
74	e	55	CYS	3.7
41	CH	14	ASN	3.7
54	CU	88	PHE	3.7
53	CT	70	PRO	3.6
4	j	154	ALA	3.6
7	m	217	GLU	3.6
10	p	67	SER	3.6
45	i	61	GLU	3.6
48	D	159	SER	3.6
52	CS	52	GLU	3.6
46	B	1480	G	3.6
65	DG	55	TYR	3.6
78	DT	241	ALA	3.6
80	P0	22	TYR	3.6
46	CM	1459	U	3.6
32	BY	46	THR	3.6
16	BI	197	LEU	3.6
25	7	79	GLN	3.6
46	B	708	A	3.6
46	B	725	A	3.6
46	B	1621	C	3.6
10	BC	166	PHE	3.6
5	AX	259	ASN	3.6

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Mol	Chain	Res	Type	RSRZ
51	G	58	GLY	3.6
50	F	200	PRO	3.6
7	m	287	ALA	3.6
13	s	51	ARG	3.6
28	AA	35	SER	3.6
59	DA	33	VAL	3.6
74	DP	15	VAL	3.6
76	g	42	ARG	3.6
77	DS	144	VAL	3.6
43	CJ	83	LEU	3.6
47	CN	16	LEU	3.6
50	F	203	LEU	3.6
78	DT	259	ILE	3.6
50	F	186	LYS	3.6
1	1	3298	G	3.6
6	l	59	HIS	3.6
46	B	715	G	3.6
46	CM	723	G	3.6
63	DE	11	ARG	3.6
70	a	8	ARG	3.6
10	BC	155	ALA	3.6
35	CB	39	ALA	3.6
55	K	19	ALA	3.6
78	DT	216	VAL	3.6
13	BF	125	MET	3.6
4	AW	49	ILE	3.6
11	BD	176	LEU	3.6
53	I	190	LEU	3.6
54	CU	54	LEU	3.6
61	DC	50	ASP	3.6
78	DT	262	LEU	3.6
82	L1	120	ILE	3.6
82	l1	136	THR	3.6
6	AY	202	GLN	3.6
49	E	89	GLN	3.6
54	CU	176	GLN	3.6
82	L1	211	GLY	3.6
56	CW	69	ARG	3.6
6	AY	352	PRO	3.6
53	CT	179	VAL	3.6
79	CZ	120	CYS	3.6
46	CM	701	G	3.6

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Mol	Chain	Res	Type	RSRZ
1	1	1116	A	3.6
46	CM	814	A	3.6
47	CN	155	TYR	3.6
49	E	76	MET	3.6
27	BT	76	LEU	3.6
60	DB	124	LYS	3.6
69	Z	34	LEU	3.6
80	p0	52	LEU	3.6
45	CL	79	THR	3.6
52	CS	170	GLN	3.6
65	DG	20	GLN	3.6
38	CE	24	ARG	3.6
51	G	59	ARG	3.6
7	AZ	135	VAL	3.6
14	BG	48	PRO	3.6
1	1	1204	U	3.6
1	1	1560	U	3.6
74	e	14	LYS	3.6
10	p	68	LEU	3.6
70	DL	118	ILE	3.6
39	CF	41	THR	3.6
64	U	140	THR	3.6
82	l1	23	THR	3.6
78	AR	269	ASP	3.6
82	L1	173	ASP	3.6
1	1	1099	A	3.5
1	AS	1262	G	3.5
1	AS	1889	A	3.5
46	B	357	A	3.5
46	B	1134	G	3.5
46	CM	1618	A	3.5
46	CM	1702	A	3.5
48	CO	100	PHE	3.5
54	CU	179	PHE	3.5
25	BR	108	LYS	3.5
79	CZ	36	LEU	3.5
36	CC	109	ILE	3.5
78	DT	257	ILE	3.5
1	AS	2471	U	3.5
45	CL	110	SER	3.5
49	E	85	THR	3.5
49	E	202	THR	3.5

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Mol	Chain	Res	Type	RSRZ
72	DN	22	ARG	3.5
8	BA	3	GLN	3.5
12	r	59	GLN	3.5
57	M	19	GLY	3.5
32	AE	33	LYS	3.5
52	H	76	LYS	3.5
54	J	134	LYS	3.5
72	c	30	VAL	3.5
77	h	143	ALA	3.5
1	AS	1369	A	3.5
46	B	350	A	3.5
26	BS	108	LEU	3.5
39	CF	14	LEU	3.5
2	AT	87	G	3.5
12	r	102	MET	3.5
57	CX	2	LEU	3.5
80	p0	38	MET	3.5
14	BG	6	ASN	3.5
65	V	18	TYR	3.5
39	AL	49	ARG	3.5
56	L	71	PHE	3.5
1	AS	1890	U	3.5
14	t	19	GLN	3.5
45	CL	99	SER	3.5
46	B	711	U	3.5
53	I	210	GLN	3.5
10	BC	150	LYS	3.5
19	BL	169	GLY	3.5
25	BR	60	LYS	3.5
51	CR	37	LYS	3.5
57	M	72	GLY	3.5
61	R	99	GLY	3.5
36	CC	57	VAL	3.5
64	U	48	LYS	3.5
7	AZ	78	ALA	3.5
52	CS	110	ALA	3.5
78	AR	251	ALA	3.5
6	AY	24	PRO	3.5
57	M	46	LEU	3.5
79	CZ	28	LEU	3.5
8	n	170	ARG	3.5
52	H	166	ARG	3.5

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Mol	Chain	Res	Type	RSRZ
56	L	171	ARG	3.5
64	U	145	ARG	3.5
58	N	100	TYR	3.5
18	BK	137	ASN	3.5
57	M	41	PHE	3.5
7	m	9	THR	3.5
23	BP	57	THR	3.5
24	6	64	LYS	3.5
46	B	714	G	3.5
46	CM	1546	G	3.5
76	g	3	LYS	3.5
7	AZ	125	VAL	3.5
11	BD	5	GLN	3.5
63	DE	119	VAL	3.5
68	Y	127	GLY	3.5
77	h	171	GLY	3.5
82	l1	79	SER	3.5
40	CG	49	LEU	3.5
62	S	119	ASP	3.5
46	CM	1359	U	3.5
53	CT	62	PRO	3.5
73	d	24	LEU	3.5
79	O	74	LEU	3.5
46	B	1043	U	3.5
53	CT	63	MET	3.5
56	L	83	ILE	3.5
10	p	162	GLU	3.5
54	J	66	TYR	3.5
77	h	127	TYR	3.5
45	i	33	ASN	3.5
4	AW	47	GLN	3.5
16	BI	163	GLY	3.5
38	CE	29	VAL	3.5
4	j	180	LEU	3.5
6	AY	195	LEU	3.5
41	CH	41	HIS	3.5
70	a	22	GLN	3.5
69	Z	33	LEU	3.5
76	DR	60	PRO	3.5
49	CP	78	ILE	3.5
51	G	154	ILE	3.5
78	DT	161	ASP	3.5

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Mol	Chain	Res	Type	RSRZ
1	AS	85	G	3.5
46	CM	1085	G	3.5
10	BC	119	GLU	3.4
28	BU	109	GLU	3.4
48	CO	163	GLU	3.4
36	CC	78	LYS	3.4
73	DO	47	PHE	3.4
24	BQ	9	ASN	3.4
53	I	4	ASN	3.4
74	e	51	ASN	3.4
13	BF	39	GLN	3.4
17	BJ	123	GLN	3.4
19	y	94	LEU	3.4
82	L1	136	THR	3.4
28	BU	37	PRO	3.4
51	G	223	SER	3.4
13	BF	107	ASP	3.4
22	2	19	PHE	3.4
35	CB	31	VAL	3.4
46	B	713	U	3.4
46	CM	1	U	3.4
46	CM	1270	U	3.4
55	CV	145	VAL	3.4
49	CP	88	GLY	3.4
61	R	80	LEU	3.4
62	S	53	LEU	3.4
29	BV	6	THR	3.4
66	W	69	THR	3.4
70	a	9	THR	3.4
18	x	135	ARG	3.4
32	BY	18	ARG	3.4
52	CS	86	GLN	3.4
55	K	11	ARG	3.4
66	DH	93	GLN	3.4
55	K	43	ILE	3.4
6	AY	353	SER	3.4
52	CS	79	SER	3.4
52	CS	96	SER	3.4
56	CW	65	LYS	3.4
70	a	68	LYS	3.4
70	a	135	ASP	3.4
55	K	65	PHE	3.4

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Mol	Chain	Res	Type	RSRZ
1	AS	1023	A	3.4
53	CT	28	TYR	3.4
25	BR	5	VAL	3.4
49	E	58	VAL	3.4
54	J	87	VAL	3.4
41	AN	51	LEU	3.4
80	p0	45	LEU	3.4
6	AY	264	GLY	3.4
16	BI	58	GLY	3.4
46	B	1612	C	3.4
27	9	79	ALA	3.4
48	D	162	ARG	3.4
78	DT	38	ARG	3.4
48	D	143	THR	3.4
66	W	66	THR	3.4
77	DS	177	MET	3.4
1	AS	544	U	3.4
5	k	274	HIS	3.4
72	c	17	HIS	3.4
78	DT	162	GLN	3.4
56	L	2	PRO	3.4
35	CB	36	LYS	3.4
36	AI	91	LYS	3.4
56	CW	16	LYS	3.4
65	DG	84	LYS	3.4
1	1	3174	G	3.4
1	AS	1257	G	3.4
1	AS	1436	G	3.4
46	CM	1086	G	3.4
46	CM	1650	G	3.4
14	BG	20	GLU	3.4
82	l1	110	PHE	3.4
11	BD	3	TYR	3.4
41	CH	51	LEU	3.4
47	CN	184	LEU	3.4
52	CS	61	TYR	3.4
53	CT	102	VAL	3.4
61	R	116	LEU	3.4
63	DE	66	VAL	3.4
66	W	61	VAL	3.4
67	DI	39	VAL	3.4
71	DM	40	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
76	DR	49	LEU	3.4
69	DK	16	ARG	3.4
12	BE	2	ALA	3.4
73	DO	53	ALA	3.4
1	1	1576	A	3.4
54	J	131	ILE	3.4
9	BB	92	LYS	3.4
12	BE	113	GLN	3.4
56	L	147	THR	3.4
14	t	68	LYS	3.4
18	BK	59	PRO	3.4
49	E	94	LYS	3.4
53	I	197	ASN	3.4
63	DE	14	LYS	3.4
3	4	91	C	3.4
46	B	1356	U	3.4
9	BB	212	PHE	3.4
76	DR	7	SER	3.4
80	P0	86	PHE	3.4
22	BO	86	GLU	3.4
38	CE	25	ARG	3.4
45	CL	111	ASP	3.4
48	D	192	VAL	3.4
49	E	48	VAL	3.4
49	E	162	VAL	3.4
50	F	124	LEU	3.4
53	I	153	VAL	3.4
54	J	139	LEU	3.4
70	DL	20	ARG	3.4
1	AS	249	G	3.4
46	CM	1678	G	3.4
27	BT	22	ALA	3.4
35	AH	32	ALA	3.4
51	CR	25	GLY	3.4
61	R	113	GLY	3.4
54	J	132	ILE	3.4
56	CW	68	LYS	3.4
58	CY	32	LYS	3.4
41	AN	28	PRO	3.4
16	BI	175	ASN	3.3
3	4	21	C	3.3
27	9	45	VAL	3.3

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Mol	Chain	Res	Type	RSRZ
45	i	45	SER	3.3
48	CO	54	LEU	3.3
54	J	34	LEU	3.3
51	CR	202	GLU	3.3
55	CV	102	VAL	3.3
59	P	16	LEU	3.3
71	DM	42	LEU	3.3
78	DT	201	LEU	3.3
56	CW	64	GLU	3.3
61	DC	110	GLU	3.3
14	BG	98	ASP	3.3
43	CJ	44	ASP	3.3
78	DT	94	ASP	3.3
11	q	174	LYS	3.3
21	BN	160	LYS	3.3
56	L	115	LYS	3.3
51	G	249	ILE	3.3
63	T	25	THR	3.3
76	g	50	THR	3.3
1	1	1262	G	3.3
1	1	2428	G	3.3
1	AS	1226	G	3.3
1	AS	1277	G	3.3
55	CV	201	ARG	3.3
19	BL	129	LEU	3.3
54	J	177	VAL	3.3
62	DD	38	VAL	3.3
79	CZ	115	VAL	3.3
20	z	152	GLU	3.3
26	8	97	SER	3.3
32	AE	37	LYS	3.3
37	CD	24	LYS	3.3
45	CL	37	LYS	3.3
53	I	191	LYS	3.3
53	CT	82	SER	3.3
60	Q	31	LYS	3.3
72	c	12	LYS	3.3
79	CZ	119	SER	3.3
11	BD	48	ILE	3.3
22	2	18	ASP	3.3
22	BO	84	TYR	3.3
44	CK	12	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
53	I	205	ALA	3.3
46	CM	246	U	3.3
1	1	2114	C	3.3
1	1	2337	C	3.3
2	AT	73	C	3.3
46	B	1406	C	3.3
35	AH	3	GLN	3.3
35	CB	64	GLN	3.3
49	E	84	GLN	3.3
77	h	128	THR	3.3
11	q	176	LEU	3.3
78	DT	33	LEU	3.3
78	DT	34	LEU	3.3
56	L	37	LYS	3.3
66	W	76	LYS	3.3
12	r	165	ILE	3.3
20	BM	143	ILE	3.3
46	CM	115	G	3.3
46	CM	1700	G	3.3
78	DT	115	SER	3.3
16	BI	119	TYR	3.3
7	AZ	147	ASP	3.3
6	AY	33	PRO	3.3
46	B	215	A	3.3
64	U	2	PRO	3.3
7	AZ	54	ARG	3.3
55	K	53	GLN	3.3
76	g	48	THR	3.3
1	1	2474	C	3.3
1	AS	2782	C	3.3
7	m	92	LEU	3.3
26	BS	34	LEU	3.3
57	M	27	PHE	3.3
81	12	162	VAL	3.3
16	BI	181	ASN	3.3
49	E	110	ILE	3.3
54	J	123	GLU	3.3
59	DA	63	ALA	3.3
78	DT	28	ALA	3.3
22	BO	10	GLY	3.3
52	H	75	GLY	3.3
78	AR	106	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
16	BI	30	TYR	3.3
19	BL	167	SER	3.3
27	9	32	SER	3.3
37	AJ	96	SER	3.3
47	C	204	TYR	3.3
50	F	7	SER	3.3
56	L	152	SER	3.3
16	BI	108	ARG	3.3
36	CC	108	ARG	3.3
4	j	71	LEU	3.3
4	AW	8	GLN	3.3
10	p	167	LEU	3.3
20	z	141	HIS	3.3
43	CJ	35	LEU	3.3
46	B	1700	G	3.3
56	L	130	THR	3.3
51	CR	6	LYS	3.3
62	DD	139	LYS	3.3
72	DN	19	LYS	3.3
49	CP	139	TRP	3.3
52	H	169	ASN	3.3
69	Z	10	ASN	3.3
1	1	1577	C	3.3
1	AS	2474	C	3.3
63	DE	117	ILE	3.3
72	c	6	ALA	3.3
72	c	63	ALA	3.3
43	AP	39	GLY	3.3
55	K	8	ARG	3.2
55	K	25	ARG	3.2
76	DR	35	TYR	3.2
45	i	39	SER	3.2
7	AZ	150	LEU	3.2
49	E	68	LEU	3.2
74	e	33	LEU	3.2
23	5	107	LYS	3.2
38	AK	10	LYS	3.2
39	CF	30	LYS	3.2
39	CF	40	GLN	3.2
45	CL	82	LYS	3.2
48	D	205	PHE	3.2
57	M	17	GLN	3.2

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Mol	Chain	Res	Type	RSRZ
57	CX	41	PHE	3.2
59	P	5	HIS	3.2
38	CE	17	THR	3.2
80	P0	38	MET	3.2
8	n	168	GLY	3.2
46	B	512	G	3.2
1	AS	1219	A	3.2
40	AM	21	ARG	3.2
47	CN	41	ARG	3.2
26	BS	109	TYR	3.2
1	AS	2284	C	3.2
1	AS	2448	C	3.2
6	l	13	LYS	3.2
10	p	153	LEU	3.2
10	BC	97	LYS	3.2
35	AH	57	LEU	3.2
52	CS	84	LYS	3.2
54	J	125	LEU	3.2
58	CY	36	LYS	3.2
82	L1	179	LEU	3.2
6	AY	200	PHE	3.2
7	m	151	GLN	3.2
7	AZ	68	HIS	3.2
54	CU	86	VAL	3.2
55	CV	82	VAL	3.2
63	T	8	THR	3.2
16	v	185	ALA	3.2
10	BC	49	ARG	3.2
22	BO	5	ARG	3.2
55	K	70	GLU	3.2
55	K	201	ARG	3.2
78	DT	223	ASN	3.2
14	BG	131	LYS	3.2
27	9	31	LEU	3.2
43	AP	43	TYR	3.2
46	B	1114	U	3.2
46	CM	243	U	3.2
4	AW	210	PRO	3.2
1	AS	1021	A	3.2
1	AS	2459	G	3.2
7	m	37	VAL	3.2
8	n	163	PHE	3.2

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Mol	Chain	Res	Type	RSRZ
8	n	176	PHE	3.2
8	BA	4	VAL	3.2
13	BF	8	VAL	3.2
21	BN	163	PHE	3.2
28	BU	98	SER	3.2
35	AH	23	VAL	3.2
37	CD	46	VAL	3.2
58	CY	60	PHE	3.2
59	P	6	SER	3.2
79	CZ	116	VAL	3.2
54	CU	105	GLN	3.2
61	DC	114	HIS	3.2
73	d	26	GLN	3.2
7	AZ	137	ASP	3.2
47	C	96	THR	3.2
66	DH	66	THR	3.2
78	AR	253	THR	3.2
31	BX	102	ILE	3.2
67	X	1	MET	3.2
82	l1	120	ILE	3.2
45	CL	42	ALA	3.2
68	DJ	8	ALA	3.2
10	p	237	GLY	3.2
59	P	8	GLY	3.2
64	DF	124	GLY	3.2
69	Z	4	GLY	3.2
36	CC	18	GLU	3.2
7	m	34	LYS	3.2
64	U	87	ASN	3.2
80	p0	56	ASN	3.2
10	p	27	LEU	3.2
30	BW	32	LEU	3.2
56	L	28	LEU	3.2
7	AZ	172	TYR	3.2
30	BW	24	PRO	3.2
49	E	160	VAL	3.2
1	AS	1557	U	3.2
1	AS	2743	U	3.2
20	BM	131	THR	3.2
11	BD	61	ASP	3.2
43	AP	42	ARG	3.2
56	L	3	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
14	t	153	ALA	3.2
33	AF	42	CYS	3.2
45	CL	80	ALA	3.2
46	B	1046	A	3.2
1	AS	2373	G	3.2
1	AS	2429	G	3.2
6	AY	320	LYS	3.2
7	AZ	170	GLY	3.2
46	B	1779	G	3.2
48	CO	55	LYS	3.2
62	DD	46	LYS	3.2
69	Z	24	TRP	3.2
78	AR	248	TRP	3.2
80	p0	47	GLY	3.2
1	AS	800	C	3.2
1	AS	2451	C	3.2
7	m	292	GLU	3.2
35	CB	57	LEU	3.2
14	BG	87	PRO	3.2
53	I	114	VAL	3.2
54	J	128	PRO	3.2
82	l1	43	PRO	3.2
5	AX	143	GLN	3.2
8	n	2	SER	3.2
61	R	120	SER	3.2
80	p0	36	GLN	3.2
39	AL	29	ALA	3.2
50	F	165	THR	3.2
70	a	134	ALA	3.2
1	1	1557	U	3.1
3	AU	113	U	3.1
18	BK	53	ASP	3.1
20	z	128	LYS	3.1
46	B	1	U	3.1
70	DL	127	LYS	3.1
5	k	253	GLY	3.1
54	J	133	GLY	3.1
77	DS	168	CYS	3.1
11	BD	10	LEU	3.1
48	D	54	LEU	3.1
64	DF	114	GLU	3.1
1	1	2466	A	3.1

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Mol	Chain	Res	Type	RSRZ
46	B	1411	A	3.1
28	BU	78	ASN	3.1
53	I	56	ASN	3.1
53	I	108	VAL	3.1
55	CV	172	TYR	3.1
66	W	50	VAL	3.1
82	L1	68	PHE	3.1
1	AS	1370	G	3.1
3	AU	45	C	3.1
46	B	374	C	3.1
19	y	180	ARG	3.1
20	z	71	ARG	3.1
25	BR	47	ARG	3.1
14	BG	3	ILE	3.1
70	a	7	ILE	3.1
53	I	201	GLN	3.1
78	DT	263	GLN	3.1
16	v	184	LYS	3.1
22	2	3	LYS	3.1
32	AE	36	LYS	3.1
28	BU	35	SER	3.1
36	CC	117	ALA	3.1
52	CS	115	LYS	3.1
66	W	60	LYS	3.1
55	K	168	SER	3.1
76	g	41	THR	3.1
4	AW	236	GLY	3.1
6	AY	260	ASP	3.1
45	CL	129	LEU	3.1
78	DT	32	LEU	3.1
82	L1	202	GLY	3.1
7	AZ	95	TRP	3.1
52	H	181	GLU	3.1
53	CT	83	CYS	3.1
54	J	130	GLU	3.1
1	AS	1849	U	3.1
46	B	493	U	3.1
7	AZ	162	VAL	3.1
51	G	45	VAL	3.1
56	L	104	PHE	3.1
24	6	70	ARG	3.1
50	F	174	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
56	L	176	ASN	3.1
58	N	95	PRO	3.1
1	1	2078	A	3.1
1	AS	3166	A	3.1
74	DP	11	LYS	3.1
80	P0	39	HIS	3.1
17	BJ	27	GLN	3.1
28	BU	95	ALA	3.1
33	AF	53	GLN	3.1
63	DE	104	ALA	3.1
82	L1	182	GLN	3.1
1	1	1610	C	3.1
6	l	3	SER	3.1
7	AZ	146	LEU	3.1
11	BD	6	THR	3.1
48	CO	37	THR	3.1
54	J	150	LEU	3.1
55	CV	171	LEU	3.1
64	U	55	THR	3.1
78	AR	42	LEU	3.1
1	1	2447	G	3.1
55	K	6	ASP	3.1
5	k	7	GLU	3.1
15	BH	129	VAL	3.1
33	BZ	42	CYS	3.1
56	CW	104	PHE	3.1
60	DB	23	VAL	3.1
68	Y	37	PHE	3.1
77	DS	156	VAL	3.1
82	l1	167	VAL	3.1
69	Z	23	ARG	3.1
78	DT	229	TYR	3.1
1	1	1817	U	3.1
3	AU	18	U	3.1
27	9	44	ASN	3.1
28	BU	22	LYS	3.1
41	AN	36	LYS	3.1
47	C	98	ILE	3.1
53	I	226	ILE	3.1
66	W	48	ASN	3.1
70	DL	111	LYS	3.1
76	g	36	MET	3.1

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Mol	Chain	Res	Type	RSRZ
80	P0	63	ILE	3.1
80	p0	63	ILE	3.1
6	l	90	ALA	3.1
10	BC	192	HIS	3.1
18	BK	133	HIS	3.1
45	CL	125	ALA	3.1
65	DG	62	ALA	3.1
43	AP	104	LEU	3.1
1	AS	813	A	3.1
43	CJ	49	GLY	3.1
34	AG	62	SER	3.1
79	O	49	SER	3.1
38	CE	45	ARG	3.1
44	CK	24	ARG	3.1
47	C	81	PHE	3.1
50	CQ	217	GLU	3.1
56	L	141	VAL	3.1
78	AR	38	ARG	3.1
7	AZ	145	PHE	3.1
78	DT	8	VAL	3.1
82	L1	169	VAL	3.1
6	AY	218	LYS	3.1
10	BC	130	PRO	3.1
53	I	86	PRO	3.1
54	CU	128	PRO	3.1
63	T	63	LYS	3.1
69	Z	14	LYS	3.1
72	DN	32	LYS	3.1
16	v	62	TYR	3.1
28	BU	18	TYR	3.1
36	CC	70	TYR	3.1
46	B	717	G	3.1
6	l	56	ASN	3.1
19	BL	128	ALA	3.1
35	AH	38	ALA	3.1
38	CE	42	ALA	3.1
7	m	17	GLN	3.1
46	B	1065	U	3.1
58	CY	16	GLN	3.1
28	AA	20	GLY	3.1
32	BY	12	THR	3.1
52	CS	81	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
47	C	158	VAL	3.1
62	S	2	SER	3.1
80	p0	68	SER	3.1
82	L1	201	VAL	3.1
7	m	55	PHE	3.1
13	BF	78	GLU	3.1
51	CR	109	PHE	3.1
53	I	144	PHE	3.1
1	1	2427	A	3.1
42	AO	8	LYS	3.1
47	C	167	LYS	3.1
78	AR	39	ASP	3.1
61	R	109	PRO	3.1
63	T	38	ILE	3.1
81	12	155	ILE	3.1
82	l1	217	TYR	3.1
1	AS	3051	C	3.0
46	B	307	C	3.0
46	CM	248	C	3.0
7	AZ	171	LEU	3.0
28	BU	80	LEU	3.0
50	F	183	LEU	3.0
62	S	43	LEU	3.0
76	g	46	ASN	3.0
76	g	51	ASN	3.0
78	AR	82	LEU	3.0
80	P0	15	LEU	3.0
1	AS	2452	G	3.0
3	AU	15	G	3.0
6	AY	215	GLY	3.0
38	CE	57	ARG	3.0
66	W	88	ARG	3.0
5	k	337	THR	3.0
70	a	70	THR	3.0
78	DT	314	THR	3.0
1	AS	1434	U	3.0
2	AT	78	U	3.0
27	BT	105	VAL	3.0
28	BU	13	VAL	3.0
50	CQ	218	VAL	3.0
54	J	86	VAL	3.0
39	CF	6	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
41	CH	48	LYS	3.0
51	G	134	LYS	3.0
56	L	146	PHE	3.0
73	d	31	PHE	3.0
73	DO	31	PHE	3.0
28	AA	98	SER	3.0
28	AA	102	GLU	3.0
55	CV	142	SER	3.0
61	R	1	MET	3.0
65	DG	46	PRO	3.0
13	s	126	ASP	3.0
51	G	82	TYR	3.0
78	DT	55	TYR	3.0
10	BC	153	LEU	3.0
20	z	94	LEU	3.0
56	CW	55	ALA	3.0
80	p0	4	ALA	3.0
7	m	244	HIS	3.0
29	BV	11	HIS	3.0
56	L	155	HIS	3.0
27	BT	28	ARG	3.0
70	DL	131	ARG	3.0
1	AS	1279	C	3.0
24	BQ	8	GLY	3.0
46	B	1627	C	3.0
62	DD	71	GLY	3.0
4	j	177	LYS	3.0
5	AX	66	LYS	3.0
17	BJ	186	THR	3.0
26	8	112	THR	3.0
51	CR	246	LYS	3.0
62	S	68	VAL	3.0
69	Z	5	LYS	3.0
74	e	44	VAL	3.0
47	C	89	PHE	3.0
69	DK	107	PHE	3.0
32	AE	67	GLU	3.0
47	CN	175	TRP	3.0
1	1	1024	U	3.0
1	AS	1091	U	3.0
10	BC	196	SER	3.0
16	v	198	SER	3.0

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Mol	Chain	Res	Type	RSRZ
46	CM	944	U	3.0
52	CS	151	SER	3.0
53	CT	68	MET	3.0
56	L	122	ILE	3.0
56	CW	42	ILE	3.0
78	DT	243	SER	3.0
1	1	2441	G	3.0
1	1	3033	G	3.0
1	AS	1278	G	3.0
1	AS	1488	G	3.0
46	CM	1431	G	3.0
53	CT	75	LEU	3.0
61	DC	49	LEU	3.0
66	DH	25	LEU	3.0
73	DO	3	LEU	3.0
77	DS	142	LEU	3.0
21	BN	167	ALA	3.0
27	9	33	ALA	3.0
65	V	55	TYR	3.0
65	V	66	TYR	3.0
76	g	35	TYR	3.0
76	DR	34	ALA	3.0
56	L	6	ARG	3.0
62	DD	131	ARG	3.0
35	CB	34	HIS	3.0
56	L	160	HIS	3.0
39	AL	57	ASN	3.0
51	G	186	GLY	3.0
55	CV	111	GLN	3.0
79	CZ	90	LYS	3.0
18	BK	51	VAL	3.0
23	BP	64	VAL	3.0
62	S	96	VAL	3.0
74	e	25	VAL	3.0
76	g	14	VAL	3.0
77	DS	150	VAL	3.0
82	l1	36	VAL	3.0
11	BD	44	THR	3.0
19	BL	172	PHE	3.0
49	E	219	PHE	3.0
58	N	115	PHE	3.0
73	d	79	PHE	3.0

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Mol	Chain	Res	Type	RSRZ
8	n	58	GLU	3.0
20	BM	152	GLU	3.0
46	B	308	C	3.0
50	F	190	MET	3.0
78	DT	199	ILE	3.0
10	p	26	PRO	3.0
71	b	55	PRO	3.0
13	BF	19	LEU	3.0
56	L	21	SER	3.0
78	AR	249	LEU	3.0
13	BF	123	TYR	3.0
16	BI	162	ARG	3.0
29	AB	52	TYR	3.0
30	BW	18	ARG	3.0
37	CD	55	ARG	3.0
52	H	65	ARG	3.0
59	P	15	ALA	3.0
72	DN	15	ARG	3.0
82	L1	112	ALA	3.0
1	AS	1560	U	3.0
4	j	176	ASP	3.0
46	B	727	U	3.0
33	AF	35	LYS	3.0
69	DK	70	LYS	3.0
1	1	2374	G	3.0
1	AS	1264	G	3.0
1	AS	2611	G	3.0
1	AS	2944	G	3.0
33	BZ	43	VAL	3.0
35	CB	61	GLN	3.0
66	W	99	VAL	3.0
72	DN	29	CYS	3.0
78	AR	11	GLY	3.0
46	B	1352	G	3.0
46	CM	1672	G	3.0
51	G	46	VAL	3.0
78	AR	105	VAL	3.0
73	DO	32	PHE	3.0
41	CH	2	ILE	3.0
77	DS	174	MET	3.0
53	I	222	GLU	3.0
57	CX	79	GLU	3.0

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Mol	Chain	Res	Type	RSRZ
1	1	2437	A	3.0
14	BG	50	PRO	3.0
46	B	968	A	3.0
46	CM	215	A	3.0
30	AC	18	ARG	3.0
52	CS	92	ARG	3.0
10	p	179	ALA	3.0
21	BN	60	SER	3.0
35	CB	38	ALA	3.0
42	CI	24	SER	3.0
45	CL	133	ALA	3.0
78	DT	293	ALA	3.0
80	p0	34	SER	3.0
6	AY	164	LYS	3.0
8	BA	139	LYS	3.0
10	BC	98	TYR	3.0
23	5	77	LYS	3.0
51	G	149	TYR	3.0
53	CT	143	LYS	3.0
62	DD	78	TYR	3.0
52	H	161	ASP	3.0
13	BF	109	HIS	3.0
22	BO	79	VAL	3.0
39	CF	27	VAL	3.0
56	CW	172	VAL	3.0
78	AR	16	HIS	3.0
4	AW	250	GLN	3.0
45	CL	109	GLN	3.0
45	i	69	PHE	3.0
63	DE	115	PHE	3.0
10	p	25	ASN	3.0
18	x	169	ASN	3.0
47	C	173	ILE	3.0
47	CN	133	ILE	3.0
54	J	145	ILE	3.0
79	O	71	ILE	3.0
14	BG	77	LEU	2.9
16	BI	22	LEU	2.9
6	l	109	ARG	2.9
7	m	25	GLU	2.9
19	BL	180	ARG	2.9
37	CD	65	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
55	K	28	GLU	2.9
55	CV	159	GLU	2.9
1	AS	1218	G	2.9
1	AS	2342	G	2.9
1	AS	2458	G	2.9
46	B	1099	G	2.9
69	Z	6	PRO	2.9
78	AR	135	TRP	2.9
78	DT	248	TRP	2.9
6	AY	184	LYS	2.9
10	BC	199	ALA	2.9
24	6	63	LYS	2.9
39	AL	33	ALA	2.9
55	CV	144	LYS	2.9
69	Z	25	ALA	2.9
76	DR	55	LYS	2.9
56	L	43	TYR	2.9
65	V	5	SER	2.9
70	a	69	SER	2.9
1	AS	423	A	2.9
46	B	578	A	2.9
46	B	1136	A	2.9
46	CM	367	A	2.9
14	BG	84	GLY	2.9
14	BG	97	VAL	2.9
19	BL	150	VAL	2.9
33	BZ	38	GLY	2.9
51	CR	261	GLY	2.9
80	p0	30	VAL	2.9
45	i	40	ASP	2.9
52	CS	60	ASP	2.9
44	AQ	32	GLN	2.9
54	J	176	GLN	2.9
78	AR	116	ILE	2.9
78	DT	167	ILE	2.9
22	2	101	CYS	2.9
1	AS	1263	U	2.9
1	AS	1561	U	2.9
10	BC	27	LEU	2.9
48	D	154	THR	2.9
51	G	42	LEU	2.9
54	CU	150	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
60	DB	132	LEU	2.9
72	DN	25	ASN	2.9
78	DT	17	ASN	2.9
10	BC	122	THR	2.9
38	CE	87	THR	2.9
45	i	113	ARG	2.9
66	W	84	ARG	2.9
7	m	58	LYS	2.9
7	AZ	174	PRO	2.9
20	z	19	LYS	2.9
33	AF	123	PRO	2.9
41	CH	29	PRO	2.9
55	K	75	LYS	2.9
55	CV	41	LYS	2.9
78	DT	291	TRP	2.9
79	CZ	100	TRP	2.9
4	AW	62	ALA	2.9
79	CZ	48	ALA	2.9
50	CQ	140	SER	2.9
65	DG	18	TYR	2.9
82	l1	213	SER	2.9
20	BM	129	GLY	2.9
45	i	108	GLY	2.9
1	AS	863	G	2.9
46	B	1017	G	2.9
48	CO	38	PHE	2.9
7	m	4	GLN	2.9
11	BD	19	ASP	2.9
51	G	130	GLN	2.9
61	R	121	ILE	2.9
81	12	132	ILE	2.9
31	BX	43	LEU	2.9
46	CM	112	A	2.9
56	CW	54	ARG	2.9
79	CZ	136	LEU	2.9
7	AZ	89	LYS	2.9
10	BC	71	LYS	2.9
49	CP	85	THR	2.9
51	G	133	LYS	2.9
53	I	196	LYS	2.9
1	AS	1392	C	2.9
1	AS	2956	C	2.9

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Mol	Chain	Res	Type	RSRZ
12	r	56	GLU	2.9
28	BU	47	GLU	2.9
72	DN	2	PRO	2.9
45	i	51	ALA	2.9
78	DT	181	ALA	2.9
1	AS	1435	U	2.9
46	B	258	U	2.9
4	AW	189	TYR	2.9
23	BP	19	VAL	2.9
35	CB	35	VAL	2.9
52	CS	114	VAL	2.9
68	Y	52	TYR	2.9
78	DT	166	VAL	2.9
79	CZ	31	VAL	2.9
82	l1	138	VAL	2.9
5	k	12	GLY	2.9
28	AA	125	GLY	2.9
48	CO	159	SER	2.9
51	CR	204	GLY	2.9
52	CS	57	SER	2.9
29	BV	41	HIS	2.9
19	BL	3	ARG	2.9
56	CW	156	ILE	2.9
48	CO	208	GLN	2.9
50	F	117	ARG	2.9
50	CQ	116	ILE	2.9
51	G	49	ARG	2.9
52	H	64	ILE	2.9
63	T	41	ILE	2.9
55	CV	53	GLN	2.9
63	T	120	GLN	2.9
78	AR	263	GLN	2.9
79	O	45	LEU	2.9
62	DD	13	LYS	2.9
67	X	27	LYS	2.9
1	AS	1437	G	2.9
1	AS	1479	G	2.9
1	AS	879	A	2.9
1	AS	1248	A	2.9
1	AS	1283	A	2.9
35	AH	31	VAL	2.9
1	1	1544	C	2.9

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Mol	Chain	Res	Type	RSRZ
1	1	2470	C	2.9
46	B	131	C	2.9
1	1	2482	U	2.9
46	CM	311	U	2.9
50	CQ	184	GLY	2.9
52	CS	153	GLY	2.9
55	CV	198	TYR	2.9
78	AR	80	TYR	2.9
60	Q	9	PHE	2.9
64	U	115	ARG	2.9
80	P0	88	PHE	2.9
7	AZ	231	ILE	2.9
22	BO	116	LYS	2.9
28	AA	80	LEU	2.9
35	AH	34	HIS	2.9
42	AO	24	SER	2.9
43	CJ	70	LEU	2.9
58	N	40	LEU	2.9
62	S	27	LEU	2.9
68	Y	30	SER	2.9
78	DT	157	ILE	2.9
45	i	37	LYS	2.9
7	m	275	GLN	2.9
14	t	146	THR	2.9
54	CU	55	ALA	2.9
71	DM	79	ALA	2.9
76	DR	61	ALA	2.9
70	DL	98	GLU	2.9
6	l	66	TRP	2.9
14	t	18	TRP	2.9
19	y	11	VAL	2.9
31	BX	69	VAL	2.9
39	CF	55	VAL	2.9
53	CT	73	VAL	2.9
37	CD	9	GLY	2.9
40	CG	50	GLY	2.9
1	AS	862	A	2.9
7	AZ	293	PHE	2.9
10	BC	236	GLY	2.9
47	C	51	GLY	2.9
53	CT	80	GLY	2.9
68	DJ	3	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
82	L1	170	GLY	2.9
1	AS	2390	G	2.9
19	y	138	LEU	2.9
25	7	49	ILE	2.9
30	AC	33	LYS	2.9
34	AG	32	ILE	2.9
35	CB	19	LYS	2.9
38	CE	10	LYS	2.9
44	CK	27	LYS	2.9
46	B	22	A	2.9
46	CM	216	A	2.9
51	CR	195	ILE	2.9
64	DF	116	LEU	2.9
66	W	49	ILE	2.9
76	g	49	LEU	2.9
78	AR	262	LEU	2.9
1	1	3035	C	2.8
1	AS	601	U	2.8
46	CM	815	U	2.8
37	CD	7	ALA	2.8
50	F	132	ALA	2.8
54	J	82	PRO	2.8
60	DB	84	THR	2.8
19	BL	83	VAL	2.8
57	M	28	ASN	2.8
60	DB	19	ASN	2.8
5	k	387	LEU	2.8
22	BO	159	PHE	2.8
33	BZ	47	PHE	2.8
38	AK	43	LYS	2.8
61	DC	108	LYS	2.8
11	BD	9	ILE	2.8
56	L	118	LEU	2.8
57	M	64	TYR	2.8
71	b	59	TYR	2.8
78	DT	42	LEU	2.8
80	P0	11	TYR	2.8
16	v	57	GLN	2.8
22	BO	16	GLN	2.8
1	AS	422	A	2.8
1	AS	2954	A	2.8
30	BW	4	SER	2.8

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Mol	Chain	Res	Type	RSRZ
38	CE	36	SER	2.8
57	M	13	GLN	2.8
7	AZ	166	ALA	2.8
16	BI	3	ALA	2.8
36	CC	71	ALA	2.8
36	CC	82	ALA	2.8
45	CL	156	ALA	2.8
55	CV	133	ALA	2.8
70	a	54	ALA	2.8
1	1	1815	U	2.8
46	CM	278	U	2.8
62	DD	50	PRO	2.8
12	r	128	ARG	2.8
17	w	101	GLU	2.8
33	BZ	20	ARG	2.8
54	CU	148	VAL	2.8
66	DH	55	VAL	2.8
70	a	55	VAL	2.8
73	DO	35	VAL	2.8
77	h	156	VAL	2.8
82	L1	162	VAL	2.8
12	r	15	LYS	2.8
36	AI	119	LYS	2.8
45	CL	70	ASN	2.8
63	DE	116	LYS	2.8
78	DT	258	LYS	2.8
6	AY	290	LEU	2.8
13	s	106	ILE	2.8
16	BI	59	PHE	2.8
23	BP	74	PHE	2.8
49	CP	56	LEU	2.8
53	CT	76	LEU	2.8
54	CU	39	PHE	2.8
60	Q	28	LEU	2.8
78	DT	190	ILE	2.8
79	O	44	GLY	2.8
16	BI	62	TYR	2.8
61	R	115	TYR	2.8
69	Z	29	TYR	2.8
56	CW	160	HIS	2.8
15	BH	131	ALA	2.8
55	CV	134	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
65	DG	5	SER	2.8
70	DL	134	ALA	2.8
27	BT	16	ARG	2.8
55	K	200	ARG	2.8
66	W	67	ARG	2.8
6	l	12	VAL	2.8
49	E	81	VAL	2.8
20	z	140	GLU	2.8
47	CN	165	LYS	2.8
50	CQ	188	LYS	2.8
51	G	171	ASP	2.8
54	J	180	GLU	2.8
63	DE	79	GLU	2.8
64	DF	132	LYS	2.8
78	DT	165	THR	2.8
1	1	1021	A	2.8
1	1	2117	A	2.8
1	1	2462	A	2.8
1	1	2480	A	2.8
1	AS	2785	A	2.8
1	1	2832	U	2.8
1	1	2947	U	2.8
36	CC	17	LEU	2.8
7	m	156	GLY	2.8
24	BQ	132	ASN	2.8
30	BW	19	ASN	2.8
39	CF	75	ILE	2.8
45	CL	69	PHE	2.8
65	DG	28	LEU	2.8
77	h	190	LEU	2.8
79	CZ	41	LEU	2.8
52	H	66	ASN	2.8
82	l1	111	ILE	2.8
1	1	249	G	2.8
1	1	2444	G	2.8
1	1	2455	G	2.8
22	2	30	TYR	2.8
45	i	83	HIS	2.8
8	BA	106	ALA	2.8
19	y	42	ALA	2.8
20	BM	87	ALA	2.8
47	CN	65	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
50	F	172	ALA	2.8
55	K	13	ALA	2.8
56	L	110	GLN	2.8
62	S	39	GLN	2.8
64	DF	74	GLN	2.8
36	CC	105	ARG	2.8
7	m	5	LYS	2.8
7	AZ	53	VAL	2.8
9	BB	32	LYS	2.8
29	BV	130	VAL	2.8
41	CH	28	PRO	2.8
50	F	182	VAL	2.8
54	J	126	VAL	2.8
78	AR	58	PRO	2.8
78	DT	261	LYS	2.8
80	p0	8	LYS	2.8
23	BP	108	LEU	2.8
41	CH	6	LEU	2.8
62	DD	43	LEU	2.8
79	CZ	96	LEU	2.8
82	L1	128	LEU	2.8
6	AY	249	ILE	2.8
7	m	290	ILE	2.8
13	s	127	PHE	2.8
37	CD	38	PHE	2.8
50	F	155	ASP	2.8
50	CQ	219	ILE	2.8
7	AZ	161	GLY	2.8
63	DE	68	GLY	2.8
1	1	449	U	2.8
46	B	1613	U	2.8
55	K	172	TYR	2.8
75	DQ	23	HIS	2.8
74	DP	55	CYS	2.8
79	O	63	CYS	2.8
4	AW	64	ARG	2.8
35	CB	9	ARG	2.8
1	1	2797	C	2.8
1	AS	1275	C	2.8
6	AY	243	ALA	2.8
47	CN	127	ARG	2.8
50	F	166	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
55	CV	22	ARG	2.8
30	BW	5	LYS	2.8
44	AQ	7	LYS	2.8
46	CM	306	C	2.8
50	CQ	151	GLN	2.8
62	DD	93	GLN	2.8
1	1	960	G	2.8
1	1	2547	G	2.8
1	AS	943	G	2.8
1	AS	2579	G	2.8
46	B	1115	G	2.8
46	CM	244	G	2.8
52	H	23	VAL	2.8
65	V	2	PRO	2.8
68	Y	29	PRO	2.8
73	DO	4	VAL	2.8
55	CV	176	SER	2.8
62	DD	140	SER	2.8
82	L1	165	LEU	2.8
11	BD	125	GLU	2.8
50	F	104	GLU	2.8
56	L	41	GLU	2.8
12	BE	99	ILE	2.8
24	6	102	ILE	2.8
53	I	49	ILE	2.8
58	N	42	PHE	2.7
66	DH	28	THR	2.8
66	DH	69	THR	2.8
71	DM	39	ILE	2.8
80	p0	25	ILE	2.8
61	DC	89	MET	2.7
6	l	69	GLY	2.7
6	l	140	GLY	2.7
29	BV	142	GLY	2.7
33	AF	38	GLY	2.7
34	AG	11	GLY	2.7
62	DD	32	GLY	2.7
70	DL	67	GLY	2.7
78	AR	15	GLY	2.7
22	BO	56	TYR	2.7
27	9	74	TYR	2.7
25	7	43	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
53	CT	219	ARG	2.7
55	CV	129	HIS	2.7
77	h	137	HIS	2.7
14	t	122	LYS	2.7
17	w	68	LYS	2.7
18	BK	185	ALA	2.7
19	y	77	ALA	2.7
54	J	90	ALA	2.7
76	g	34	ALA	2.7
1	1	2310	A	2.7
1	AS	654	A	2.7
27	BT	104	VAL	2.7
28	BU	23	VAL	2.7
40	CG	11	GLN	2.7
46	B	276	U	2.7
55	K	185	CYS	2.7
46	CM	245	A	2.7
46	CM	1219	A	2.7
43	AP	35	LEU	2.7
77	h	188	LEU	2.7
1	1	1789	C	2.7
1	AS	2745	C	2.7
4	AW	231	SER	2.7
6	l	19	SER	2.7
7	AZ	148	ILE	2.7
41	CH	19	ILE	2.7
18	BK	32	THR	2.7
36	CC	46	THR	2.7
46	B	319	C	2.7
51	CR	93	GLU	2.7
51	CR	245	ILE	2.7
52	H	62	ILE	2.7
55	CV	99	SER	2.7
68	Y	128	PHE	2.7
77	h	173	PHE	2.7
52	CS	94	THR	2.7
6	l	87	GLY	2.7
12	BE	114	GLY	2.7
70	a	66	GLY	2.7
1	1	2342	G	2.7
1	1	2443	G	2.7
1	AS	420	G	2.7

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Mol	Chain	Res	Type	RSRZ
1	AS	2381	G	2.7
7	m	147	ASP	2.7
35	CB	16	ARG	2.7
41	AN	26	ARG	2.7
41	CH	30	ARG	2.7
72	c	15	ARG	2.7
5	AX	302	LYS	2.7
7	m	31	TYR	2.7
10	BC	135	TYR	2.7
23	BP	52	ASN	2.7
41	AN	14	ASN	2.7
41	AN	49	LYS	2.7
45	i	85	LYS	2.7
51	CR	243	LYS	2.7
10	BC	114	ALA	2.7
18	BK	85	ALA	2.7
20	z	145	ALA	2.7
63	T	90	ALA	2.7
70	DL	125	ALA	2.7
78	DT	211	ALA	2.7
21	BN	138	GLN	2.7
36	CC	107	GLN	2.7
48	CO	121	VAL	2.7
51	G	227	VAL	2.7
53	CT	97	VAL	2.7
63	T	62	GLN	2.7
66	W	93	GLN	2.7
67	X	39	VAL	2.7
80	P0	84	VAL	2.7
5	AX	387	LEU	2.7
8	BA	6	PRO	2.7
25	BR	89	LEU	2.7
27	BT	35	LEU	2.7
37	CD	49	LEU	2.7
41	AN	27	LEU	2.7
51	CR	9	LEU	2.7
56	CW	36	LEU	2.7
74	e	47	PRO	2.7
82	l1	123	LEU	2.7
1	AS	918	U	2.7
1	AS	2260	U	2.7
12	BE	131	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
14	t	14	PHE	2.7
20	BM	132	PHE	2.7
44	CK	14	PHE	2.7
46	B	238	U	2.7
54	CU	81	PHE	2.7
56	CW	45	ILE	2.7
61	R	119	PHE	2.7
70	a	85	PHE	2.7
78	DT	123	ILE	2.7
79	CZ	86	ILE	2.7
81	12	110	PHE	2.7
41	CH	16	GLU	2.7
1	1	2882	A	2.7
35	AH	78	GLY	2.7
45	i	117	GLY	2.7
45	CL	56	SER	2.7
46	CM	1701	A	2.7
49	E	194	SER	2.7
49	E	205	THR	2.7
54	CU	164	SER	2.7
60	DB	108	GLY	2.7
82	l1	69	GLY	2.7
78	DT	19	TRP	2.7
5	AX	369	ARG	2.7
12	r	10	ARG	2.7
33	BZ	45	ARG	2.7
39	AL	3	ARG	2.7
56	CW	57	ARG	2.7
64	U	120	ARG	2.7
9	BB	12	LYS	2.7
14	t	5	LYS	2.7
37	CD	69	LYS	2.7
76	g	29	LYS	2.7
79	CZ	114	LYS	2.7
46	B	1623	C	2.7
46	CM	1651	C	2.7
5	AX	258	ALA	2.7
18	BK	57	ALA	2.7
28	AA	95	ALA	2.7
34	CA	84	ASN	2.7
48	CO	141	ALA	2.7
66	W	44	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
78	DT	209	ALA	2.7
47	C	123	VAL	2.7
59	DA	60	VAL	2.7
65	DG	71	VAL	2.7
76	DR	4	VAL	2.7
77	h	144	VAL	2.7
8	BA	75	LEU	2.7
62	S	56	LEU	2.7
69	DK	133	LEU	2.7
1	AS	2363	G	2.7
7	m	274	GLN	2.7
7	m	231	ILE	2.7
18	BK	58	ILE	2.7
51	G	109	PHE	2.7
52	CS	177	ILE	2.7
55	K	175	ILE	2.7
55	CV	197	PHE	2.7
65	DG	21	PHE	2.7
78	DT	260	PHE	2.7
82	l1	157	PHE	2.7
5	AX	253	GLY	2.7
7	m	149	GLY	2.7
7	AZ	136	GLU	2.7
14	BG	176	ARG	2.7
20	z	16	GLY	2.7
22	2	81	GLY	2.7
45	CL	132	GLU	2.7
53	CT	55	GLY	2.7
53	CT	225	GLU	2.7
49	E	91	THR	2.7
51	CR	146	THR	2.7
52	CS	125	THR	2.7
57	M	38	ARG	2.7
64	DF	115	ARG	2.7
65	DG	38	LYS	2.7
71	b	56	THR	2.7
73	d	81	ARG	2.7
77	DS	125	LYS	2.7
78	DT	41	THR	2.7
80	P0	16	ARG	2.7
19	y	8	LYS	2.7
27	9	116	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
28	BU	91	SER	2.7
72	DN	4	LYS	2.7
1	1	1551	U	2.7
46	B	21	U	2.7
46	B	944	U	2.7
46	B	1400	U	2.7
46	B	1728	U	2.7
1	AS	1255	A	2.7
46	B	536	A	2.7
12	BE	25	ALA	2.7
39	AL	2	ALA	2.7
52	H	61	TYR	2.7
53	CT	84	TYR	2.7
56	L	56	ALA	2.7
63	T	103	ASP	2.7
64	DF	42	TYR	2.7
65	V	62	ALA	2.7
71	DM	101	TYR	2.7
11	BD	43	VAL	2.7
11	BD	58	HIS	2.7
22	2	154	VAL	2.7
27	BT	8	VAL	2.7
51	CR	207	LEU	2.7
51	CR	222	LEU	2.7
53	I	195	VAL	2.7
53	CT	81	HIS	2.7
59	P	60	VAL	2.7
59	DA	28	LEU	2.7
70	a	5	VAL	2.7
79	CZ	121	VAL	2.7
82	l1	148	VAL	2.7
1	AS	1224	C	2.7
10	BC	160	PRO	2.7
41	CH	47	PRO	2.7
45	i	87	PRO	2.7
46	B	1113	C	2.7
53	CT	173	PRO	2.7
56	L	112	GLN	2.7
56	L	129	ILE	2.7
62	S	42	ILE	2.7
65	V	116	ILE	2.7
67	X	14	PRO	2.7

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Mol	Chain	Res	Type	RSRZ
13	s	102	PHE	2.7
4	AW	184	ARG	2.7
55	CV	59	ARG	2.7
10	p	183	GLY	2.7
12	BE	101	LYS	2.7
26	BS	118	GLY	2.7
65	DG	27	LYS	2.7
79	CZ	68	GLU	2.7
82	L1	69	GLY	2.7
18	x	32	THR	2.7
41	CH	32	THR	2.7
46	B	683	G	2.7
46	B	1293	G	2.7
48	CO	29	TRP	2.7
55	K	67	TRP	2.7
5	k	51	ALA	2.7
18	BK	184	ALA	2.7
53	I	192	ALA	2.7
70	DL	54	ALA	2.7
77	DS	175	ALA	2.7
1	1	732	U	2.7
1	1	2465	U	2.7
1	1	2968	U	2.7
1	AS	2486	U	2.7
6	AY	135	LEU	2.7
6	AY	263	TYR	2.7
7	AZ	105	VAL	2.7
16	v	197	LEU	2.7
31	BX	103	LEU	2.7
45	i	119	VAL	2.7
48	D	207	LEU	2.7
49	E	108	LEU	2.7
51	G	194	VAL	2.7
56	CW	118	LEU	2.7
72	c	86	VAL	2.7
78	DT	82	LEU	2.7
79	CZ	62	LEU	2.7
82	L1	172	VAL	2.7
1	AS	355	A	2.6
1	AS	1917	A	2.6
6	AY	22	PRO	2.6
10	p	65	ILE	2.6

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Mol	Chain	Res	Type	RSRZ
12	r	5	PRO	2.6
30	BW	21	ILE	2.6
46	B	1407	A	2.6
47	C	152	PRO	2.6
47	CN	187	ILE	2.6
56	CW	140	ILE	2.6
64	U	26	ILE	2.6
77	DS	164	PRO	2.6
80	P0	99	ILE	2.6
6	AY	189	ARG	2.6
33	AF	45	ARG	2.6
38	CE	11	ARG	2.6
39	CF	38	PHE	2.6
50	F	144	ARG	2.6
19	BL	8	LYS	2.6
26	BS	49	LYS	2.6
33	BZ	12	LYS	2.6
33	BZ	37	LYS	2.6
38	CE	14	LYS	2.6
45	i	67	LYS	2.6
27	BT	65	GLY	2.6
1	1	2308	C	2.6
1	1	2476	C	2.6
46	CM	1704	C	2.6
55	CV	146	GLU	2.6
6	AY	95	CYS	2.6
11	BD	165	CYS	2.6
36	CC	6	THR	2.6
41	CH	15	CYS	2.6
47	C	76	CYS	2.6
48	D	29	TRP	2.6
48	CO	117	TRP	2.6
6	AY	287	VAL	2.6
8	n	41	LEU	2.6
10	p	163	LEU	2.6
11	q	182	SER	2.6
14	BG	60	ALA	2.6
23	5	19	VAL	2.6
44	AQ	31	VAL	2.6
54	CU	56	VAL	2.6
62	DD	6	VAL	2.6
65	DG	34	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
71	DM	93	LEU	2.6
78	AR	8	VAL	2.6
78	DT	124	VAL	2.6
78	DT	271	LEU	2.6
79	O	53	SER	2.6
9	BB	187	TYR	2.6
22	2	156	TYR	2.6
61	R	114	HIS	2.6
1	1	91	G	2.6
9	BB	93	ILE	2.6
14	BG	125	ILE	2.6
15	u	22	ASP	2.6
46	CM	1038	G	2.6
52	H	120	ILE	2.6
52	CS	137	ILE	2.6
56	CW	63	ASP	2.6
81	12	152	ILE	2.6
82	l1	117	ILE	2.6
1	1	2471	U	2.6
7	AZ	32	GLN	2.6
7	AZ	75	PHE	2.6
18	BK	55	GLN	2.6
22	BO	15	PHE	2.6
33	AF	47	PHE	2.6
45	i	68	ASN	2.6
45	CL	50	LYS	2.6
47	CN	134	LYS	2.6
49	CP	79	ARG	2.6
57	M	29	GLN	2.6
64	U	139	LYS	2.6
80	p0	32	ASN	2.6
72	DN	14	GLY	2.6
1	1	1043	A	2.6
1	1	1563	A	2.6
46	B	682	A	2.6
46	CM	847	A	2.6
10	BC	195	THR	2.6
32	BY	105	THR	2.6
7	m	157	ALA	2.6
7	AZ	92	LEU	2.6
15	BH	128	LEU	2.6
17	BJ	20	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
21	0	116	ALA	2.6
30	AC	2	ALA	2.6
33	BZ	11	VAL	2.6
50	CQ	40	VAL	2.6
50	CQ	177	LEU	2.6
51	CR	70	VAL	2.6
58	CY	114	ALA	2.6
62	S	21	VAL	2.6
73	DO	2	VAL	2.6
79	O	51	ALA	2.6
80	p0	50	VAL	2.6
82	L1	16	LEU	2.6
1	1	1192	C	2.6
1	AS	2321	C	2.6
16	BI	118	SER	2.6
46	CM	131	C	2.6
55	K	69	SER	2.6
61	DC	120	SER	2.6
66	W	37	SER	2.6
4	j	70	LYS	2.6
18	BK	54	HIS	2.6
57	M	63	TYR	2.6
41	AN	35	ARG	2.6
47	C	50	ILE	2.6
50	F	219	ILE	2.6
53	I	175	ILE	2.6
54	CU	45	ILE	2.6
58	CY	15	LYS	2.6
61	DC	84	ILE	2.6
76	g	55	LYS	2.6
80	P0	41	ILE	2.6
82	L1	206	ILE	2.6
7	AZ	223	PHE	2.6
41	AN	29	PRO	2.6
45	i	43	PRO	2.6
45	CL	43	PRO	2.6
52	H	82	PHE	2.6
58	N	59	PRO	2.6
71	DM	91	PRO	2.6
18	x	53	ASP	2.6
22	2	16	GLN	2.6
31	AD	73	GLN	2.6

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Mol	Chain	Res	Type	RSRZ
70	DL	133	ASN	2.6
71	DM	98	GLN	2.6
1	1	1012	U	2.6
1	1	2477	U	2.6
36	AI	64	GLU	2.6
46	B	492	U	2.6
46	B	1338	U	2.6
46	CM	1696	U	2.6
1	1	2128	G	2.6
1	AS	980	G	2.6
1	AS	2428	G	2.6
1	AS	2445	G	2.6
46	B	1349	G	2.6
46	B	1775	G	2.6
6	AY	259	LEU	2.6
9	BB	10	LEU	2.6
19	y	166	LEU	2.6
6	AY	110	TRP	2.6
7	m	241	ALA	2.6
7	m	284	ALA	2.6
10	p	197	ALA	2.6
10	BC	111	THR	2.6
14	BG	135	VAL	2.6
26	BS	37	THR	2.6
30	AC	47	LEU	2.6
17	BJ	37	VAL	2.6
27	9	8	VAL	2.6
28	AA	72	VAL	2.6
31	BX	26	THR	2.6
54	J	73	LEU	2.6
79	CZ	97	LEU	2.6
80	p0	67	LEU	2.6
72	c	21	VAL	2.6
78	DT	277	VAL	2.6
1	AS	1099	A	2.6
4	AW	234	LYS	2.6
6	l	70	ARG	2.6
7	m	288	LYS	2.6
9	BB	88	LYS	2.6
10	BC	186	ARG	2.6
14	BG	129	LYS	2.6
15	BH	120	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
45	CL	55	LYS	2.6
46	B	513	A	2.6
46	CM	408	A	2.6
46	CM	1479	A	2.6
73	d	72	LYS	2.6
7	AZ	79	TYR	2.6
12	r	54	SER	2.6
15	BH	2	SER	2.6
53	I	6	SER	2.6
60	DB	24	HIS	2.6
72	c	62	TYR	2.6
75	DQ	28	SER	2.6
36	CC	116	PHE	2.6
48	CO	142	PHE	2.6
61	R	7	PRO	2.6
69	Z	107	PHE	2.6
81	12	148	PRO	2.6
1	1	2448	C	2.6
1	1	2456	C	2.6
1	AS	1228	C	2.6
64	U	23	ASP	2.6
68	Y	55	ASP	2.6
4	j	232	GLY	2.6
4	j	248	GLY	2.6
30	BW	6	ASN	2.6
50	F	181	GLY	2.6
68	DJ	127	GLY	2.6
24	6	68	GLU	2.6
27	9	26	GLU	2.6
47	C	16	LEU	2.6
49	E	143	LEU	2.6
55	CV	121	LEU	2.6
56	L	33	GLU	2.6
74	DP	66	LEU	2.6
79	CZ	103	LEU	2.6
10	BC	118	ALA	2.6
53	I	158	VAL	2.6
56	L	85	VAL	2.6
61	DC	93	VAL	2.6
78	AR	124	VAL	2.6
79	CZ	94	ALA	2.6
82	l1	169	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
1	1	2305	U	2.6
1	1	2306	U	2.6
5	AX	237	LYS	2.6
10	BC	147	LYS	2.6
14	BG	180	LYS	2.6
36	AI	74	LYS	2.6
45	CL	54	LYS	2.6
46	B	101	U	2.6
46	CM	1722	U	2.6
59	P	121	ARG	2.6
77	DS	178	LYS	2.6
78	AR	282	LYS	2.6
48	CO	150	ILE	2.6
55	CV	189	ILE	2.6
1	1	450	G	2.6
1	1	796	G	2.6
1	1	3194	G	2.6
9	BB	178	SER	2.6
29	AB	53	PHE	2.6
34	CA	4	SER	2.6
46	CM	387	G	2.6
46	CM	1228	G	2.6
59	P	17	PRO	2.6
62	DD	33	SER	2.6
78	DT	203	PRO	2.6
1	1	2382	A	2.6
4	AW	233	GLN	2.6
7	AZ	275	GLN	2.6
46	B	1004	A	2.6
46	CM	658	A	2.6
78	AR	122	GLN	2.6
11	q	169	ASN	2.6
29	BV	46	ASP	2.6
33	BZ	49	GLY	2.6
41	CH	40	GLY	2.6
10	p	66	LEU	2.6
26	8	82	LEU	2.6
50	CQ	143	LEU	2.6
56	CW	60	LEU	2.6
76	DR	8	LEU	2.6
80	P0	52	LEU	2.6
1	AS	67	C	2.6

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Mol	Chain	Res	Type	RSRZ
16	BI	8	GLU	2.6
6	AY	138	ALA	2.6
11	q	69	ARG	2.6
16	BI	155	VAL	2.6
18	BK	3	ARG	2.6
39	CF	56	VAL	2.6
48	CO	152	LYS	2.6
51	CR	2	ALA	2.6
55	CV	79	ALA	2.6
61	DC	126	VAL	2.6
64	DF	93	VAL	2.6
73	d	35	VAL	2.6
33	BZ	73	LYS	2.6
36	CC	74	LYS	2.6
43	AP	15	LYS	2.6
72	c	13	LYS	2.6
78	AR	258	LYS	2.6
80	p0	7	LYS	2.6
11	BD	56	THR	2.6
62	S	69	THR	2.6
63	DE	30	THR	2.6
68	Y	2	THR	2.6
78	DT	230	THR	2.6
11	BD	99	ILE	2.5
12	r	167	ILE	2.5
21	0	87	ILE	2.5
61	DC	57	ILE	2.5
64	U	14	ILE	2.5
74	DP	13	ILE	2.5
7	AZ	160	PHE	2.5
16	BI	21	PHE	2.5
51	G	86	PHE	2.5
54	J	81	PHE	2.5
54	J	165	PHE	2.5
55	CV	27	PHE	2.5
68	Y	79	PHE	2.5
1	1	1623	U	2.5
1	AS	1916	U	2.5
1	AS	2475	U	2.5
13	s	52	TYR	2.5
16	BI	194	HIS	2.5
29	AB	25	HIS	2.5

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Mol	Chain	Res	Type	RSRZ
46	B	259	U	2.5
46	CM	116	U	2.5
35	CB	59	PRO	2.5
47	C	162	CYS	2.5
4	j	95	SER	2.5
38	AK	46	SER	2.5
61	DC	92	SER	2.5
78	DT	153	SER	2.5
49	CP	37	GLY	2.5
53	I	55	GLY	2.5
59	P	62	GLN	2.5
29	AB	91	LEU	2.5
52	H	20	LEU	2.5
54	CU	34	LEU	2.5
56	CW	76	LEU	2.5
68	DJ	7	LEU	2.5
78	AR	32	LEU	2.5
1	AS	421	G	2.5
1	AS	1222	G	2.5
1	AS	2374	G	2.5
1	AS	2443	G	2.5
6	AY	213	ASP	2.5
9	BB	91	ASN	2.5
41	AN	50	LYS	2.5
41	CH	17	LYS	2.5
46	CM	1149	G	2.5
49	CP	77	LYS	2.5
50	F	138	VAL	2.5
55	CV	200	ARG	2.5
56	L	132	ARG	2.5
69	DK	21	ASN	2.5
1	AS	76	A	2.5
1	AS	2336	A	2.5
7	AZ	77	ALA	2.5
7	AZ	237	GLU	2.5
29	AB	149	ALA	2.5
43	CJ	73	GLU	2.5
46	B	1078	A	2.5
46	CM	104	A	2.5
47	CN	130	ALA	2.5
56	L	169	ALA	2.5
58	CY	47	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
60	Q	12	ALA	2.5
9	o	93	ILE	2.5
23	5	96	ILE	2.5
24	BQ	115	THR	2.5
32	AE	40	THR	2.5
51	G	147	ILE	2.5
59	DA	67	THR	2.5
1	1	2338	C	2.5
1	1	3051	C	2.5
82	l1	214	PHE	2.5
11	BD	64	HIS	2.5
16	BI	42	PRO	2.5
20	z	134	HIS	2.5
47	CN	152	PRO	2.5
49	CP	222	PRO	2.5
41	AN	15	CYS	2.5
1	AS	2389	U	2.5
4	j	53	GLY	2.5
4	AW	179	LEU	2.5
7	m	182	GLY	2.5
7	m	212	LEU	2.5
9	o	178	SER	2.5
10	BC	110	LEU	2.5
23	5	37	LEU	2.5
27	9	35	LEU	2.5
38	CE	8	LEU	2.5
47	CN	44	GLY	2.5
49	E	67	LEU	2.5
54	CU	49	GLY	2.5
56	L	84	GLY	2.5
61	DC	91	GLY	2.5
63	DE	114	GLY	2.5
74	e	54	LEU	2.5
78	DT	191	GLY	2.5
78	DT	202	SER	2.5
46	B	778	U	2.5
7	m	270	LYS	2.5
20	z	98	ARG	2.5
35	CB	41	ARG	2.5
41	CH	22	LYS	2.5
45	CL	71	LYS	2.5
55	CV	8	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
56	CW	132	ARG	2.5
58	CY	33	ARG	2.5
78	AR	40	LYS	2.5
14	t	22	VAL	2.5
56	L	127	VAL	2.5
66	W	113	VAL	2.5
4	AW	115	ASN	2.5
51	CR	55	ALA	2.5
57	M	18	GLU	2.5
57	M	45	ALA	2.5
77	h	155	ASN	2.5
48	CO	48	ILE	2.5
51	G	90	ILE	2.5
7	AZ	155	THR	2.5
78	DT	12	THR	2.5
10	p	28	PHE	2.5
45	CL	88	PHE	2.5
61	R	17	PHE	2.5
61	R	102	PHE	2.5
1	1	2959	A	2.5
46	B	620	A	2.5
1	1	1130	G	2.5
1	AS	2184	G	2.5
46	B	514	G	2.5
46	CM	1103	G	2.5
14	BG	169	TYR	2.5
16	BI	45	PRO	2.5
25	7	98	PRO	2.5
32	BY	16	HIS	2.5
35	CB	13	TYR	2.5
51	G	5	PRO	2.5
54	CU	169	TYR	2.5
55	CV	83	TYR	2.5
62	DD	20	HIS	2.5
77	DS	148	TYR	2.5
82	L1	137	PRO	2.5
4	j	184	ARG	2.5
4	AW	71	LEU	2.5
1	1	3193	C	2.5
7	AZ	294	LYS	2.5
10	BC	151	LEU	2.5
10	BC	246	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
16	BI	77	LYS	2.5
48	CO	160	LYS	2.5
48	CO	218	LEU	2.5
50	F	122	GLY	2.5
54	J	72	ARG	2.5
55	K	41	LYS	2.5
64	DF	113	LEU	2.5
61	DC	99	GLY	2.5
62	S	129	GLY	2.5
72	c	28	ARG	2.5
80	P0	93	LEU	2.5
82	l1	144	LEU	2.5
33	BZ	125	GLY	2.5
79	CZ	44	GLY	2.5
9	BB	11	GLN	2.5
27	9	47	SER	2.5
78	AR	83	SER	2.5
81	12	129	SER	2.5
19	BL	82	VAL	2.5
29	BV	123	VAL	2.5
54	J	140	VAL	2.5
54	CU	87	VAL	2.5
60	Q	25	VAL	2.5
70	a	79	VAL	2.5
82	L1	32	VAL	2.5
63	T	104	ALA	2.5
6	l	55	GLU	2.5
55	CV	193	GLU	2.5
65	DG	51	GLU	2.5
11	BD	114	ILE	2.5
45	CL	40	ASP	2.5
49	E	63	ILE	2.5
52	H	100	ASN	2.5
56	L	142	ASN	2.5
59	DA	31	ASP	2.5
78	AR	199	ILE	2.5
78	DT	31	ASP	2.5
79	CZ	125	ASN	2.5
6	AY	107	TRP	2.5
14	t	167	THR	2.5
28	AA	97	THR	2.5
28	BU	92	PHE	2.5

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Mol	Chain	Res	Type	RSRZ
53	I	50	PHE	2.5
55	K	55	PHE	2.5
6	l	199	ARG	2.5
6	AY	96	ARG	2.5
7	AZ	218	LYS	2.5
7	AZ	244	HIS	2.5
8	n	172	HIS	2.5
27	BT	19	TYR	2.5
41	AN	47	PRO	2.5
53	I	181	PRO	2.5
47	C	177	LEU	2.5
48	D	161	LEU	2.5
52	H	77	TYR	2.5
81	12	105	PRO	2.5
28	BU	15	ARG	2.5
33	BZ	76	LEU	2.5
35	CB	37	LYS	2.5
56	L	36	LEU	2.5
56	L	68	LYS	2.5
58	N	15	LYS	2.5
63	T	23	LYS	2.5
67	DI	44	ARG	2.5
78	DT	249	LEU	2.5
80	P0	76	LEU	2.5
82	L1	163	LEU	2.5
1	1	1126	A	2.5
1	1	2091	A	2.5
1	1	2362	A	2.5
1	1	2439	A	2.5
1	AS	2844	A	2.5
6	AY	174	GLY	2.5
7	AZ	87	GLY	2.5
68	DJ	48	GLY	2.5
69	Z	35	GLY	2.5
26	BS	26	VAL	2.5
62	S	18	VAL	2.5
1	AS	419	G	2.5
1	AS	904	G	2.5
1	AS	1086	G	2.5
7	AZ	221	SER	2.5
8	BA	65	SER	2.5
24	BQ	113	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
37	AJ	94	ALA	2.5
46	B	1776	G	2.5
46	CM	1087	G	2.5
52	CS	26	ALA	2.5
55	CV	45	SER	2.5
6	l	75	ILE	2.5
7	m	69	ILE	2.5
1	AS	241	C	2.5
1	AS	1276	C	2.5
3	AU	91	C	2.5
20	z	55	GLU	2.5
20	BM	31	GLU	2.5
28	BU	5	ILE	2.5
35	CB	20	ILE	2.5
48	CO	67	GLU	2.5
28	BU	118	PHE	2.5
32	BY	83	ASP	2.5
36	CC	111	PHE	2.5
47	C	164	ASN	2.5
53	CT	156	PHE	2.5
60	DB	9	PHE	2.5
1	AS	1758	U	2.5
1	AS	3320	U	2.5
30	BW	13	THR	2.5
46	B	1048	U	2.5
61	R	124	THR	2.5
78	AR	137	THR	2.5
80	P0	57	THR	2.5
16	BI	47	LYS	2.5
36	CC	83	LYS	2.5
38	AK	84	LYS	2.5
44	CK	6	LYS	2.5
50	F	47	LEU	2.5
51	CR	38	LEU	2.5
53	I	223	ARG	2.5
56	CW	120	ARG	2.5
80	p0	43	LYS	2.5
4	AW	178	PRO	2.5
10	BC	47	LEU	2.5
28	BU	134	LEU	2.5
29	BV	2	PRO	2.5
58	N	140	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
78	DT	92	LEU	2.5
81	12	133	LEU	2.5
82	l1	121	PRO	2.5
23	BP	81	TYR	2.5
28	BU	77	TYR	2.5
30	BW	7	HIS	2.5
44	AQ	18	TYR	2.5
51	CR	103	TYR	2.5
77	DS	147	TYR	2.5
78	AR	238	HIS	2.5
79	CZ	117	GLY	2.5
6	AY	226	VAL	2.5
11	BD	112	VAL	2.5
13	s	130	VAL	2.5
23	BP	47	VAL	2.5
35	AH	22	VAL	2.5
50	F	176	VAL	2.5
71	DM	62	VAL	2.5
79	O	61	VAL	2.5
82	L1	87	VAL	2.5
29	BV	65	GLN	2.5
78	DT	70	GLN	2.5
6	l	348	ALA	2.4
10	p	123	ALA	2.4
10	BC	123	ALA	2.4
29	BV	35	ALA	2.4
53	I	138	ALA	2.4
80	P0	106	ALA	2.4
10	BC	76	ILE	2.4
27	9	4	ILE	2.4
31	BX	104	SER	2.4
37	CD	60	ILE	2.4
49	CP	196	SER	2.4
50	F	226	SER	2.4
54	J	185	SER	2.4
56	CW	152	SER	2.4
63	T	43	SER	2.4
78	AR	266	SER	2.4
78	AR	307	ILE	2.4
79	CZ	70	SER	2.4
1	1	2464	A	2.4
1	AS	2377	A	2.4

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Mol	Chain	Res	Type	RSRZ
1	AS	2427	A	2.4
28	BU	81	MET	2.4
46	B	504	A	2.4
56	L	72	GLU	2.4
61	DC	54	MET	2.4
23	5	74	PHE	2.4
6	AY	111	ASN	2.4
9	o	99	LYS	2.4
10	BC	222	ASN	2.4
24	6	72	LYS	2.4
24	6	106	LYS	2.4
28	AA	27	LYS	2.4
45	i	112	LYS	2.4
45	CL	33	ASN	2.4
45	CL	68	ASN	2.4
54	J	144	LYS	2.4
59	DA	78	ASN	2.4
61	DC	98	ASN	2.4
65	V	86	ARG	2.4
68	Y	43	LYS	2.4
69	DK	90	ASP	2.4
78	DT	246	ARG	2.4
1	1	866	G	2.4
1	1	1128	C	2.4
1	AS	1252	G	2.4
17	BJ	179	LEU	2.4
25	7	109	LEU	2.4
28	AA	54	THR	2.4
30	AC	8	THR	2.4
46	CM	939	G	2.4
47	C	184	LEU	2.4
54	J	95	LEU	2.4
63	DE	46	LEU	2.4
68	Y	11	LEU	2.4
71	DM	90	THR	2.4
72	DN	90	THR	2.4
77	h	159	LEU	2.4
78	AR	145	LEU	2.4
78	DT	25	THR	2.4
6	AY	5	PRO	2.4
54	J	182	PRO	2.4
56	L	101	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
62	S	50	PRO	2.4
65	DG	2	PRO	2.4
80	P0	108	PRO	2.4
26	BS	46	TYR	2.4
58	CY	18	HIS	2.4
59	P	40	TYR	2.4
7	m	52	VAL	2.4
11	BD	126	VAL	2.4
17	BJ	35	VAL	2.4
33	AF	85	VAL	2.4
50	F	135	VAL	2.4
52	H	160	VAL	2.4
56	L	117	GLY	2.4
62	S	66	VAL	2.4
77	DS	169	GLY	2.4
34	AG	31	GLN	2.4
39	CF	51	GLN	2.4
43	AP	56	GLN	2.4
50	F	120	ALA	2.4
26	BS	88	ILE	2.4
33	AF	51	ILE	2.4
78	AR	123	ILE	2.4
78	DT	217	ILE	2.4
78	DT	307	ILE	2.4
7	AZ	281	GLU	2.4
16	BI	43	SER	2.4
16	BI	111	SER	2.4
21	0	39	SER	2.4
22	2	157	GLU	2.4
78	AR	210	SER	2.4
5	AX	379	PHE	2.4
29	BV	129	PHE	2.4
6	l	74	ARG	2.4
6	l	349	LYS	2.4
6	AY	199	ARG	2.4
8	BA	131	LYS	2.4
10	p	69	ARG	2.4
10	BC	242	LYS	2.4
11	BD	2	LYS	2.4
26	BS	27	ARG	2.4
35	CB	43	LYS	2.4
37	CD	81	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
41	CH	36	LYS	2.4
51	G	145	ARG	2.4
52	CS	109	LYS	2.4
56	L	92	LYS	2.4
71	DM	77	ARG	2.4
43	CJ	72	LEU	2.4
56	L	76	LEU	2.4
57	M	15	LEU	2.4
72	c	67	LEU	2.4
77	h	145	LEU	2.4
77	DS	159	LEU	2.4
78	AR	120	LEU	2.4
79	CZ	52	LEU	2.4
82	l1	128	LEU	2.4
10	p	262	ASN	2.4
16	BI	90	ASN	2.4
52	CS	147	THR	2.4
62	S	63	ASP	2.4
65	DG	44	ASP	2.4
82	L1	70	ASP	2.4
51	G	150	PRO	2.4
6	l	72	VAL	2.4
7	AZ	26	GLY	2.4
18	BK	134	GLY	2.4
20	z	83	GLY	2.4
22	2	79	VAL	2.4
33	AF	43	VAL	2.4
34	AG	46	GLY	2.4
35	CB	62	TYR	2.4
51	CR	209	HIS	2.4
52	CS	75	GLY	2.4
55	CV	169	GLY	2.4
61	R	112	VAL	2.4
61	DC	129	GLY	2.4
63	T	53	TYR	2.4
76	DR	52	GLY	2.4
1	1	2468	C	2.4
1	1	3056	C	2.4
1	AS	101	C	2.4
1	AS	350	C	2.4
1	AS	487	C	2.4
1	AS	343	U	2.4

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Mol	Chain	Res	Type	RSRZ
1	AS	1888	G	2.4
7	AZ	222	ILE	2.4
13	s	21	ILE	2.4
16	BI	36	ILE	2.4
17	w	44	ILE	2.4
17	w	191	ALA	2.4
25	7	63	ILE	2.4
28	BU	19	ALA	2.4
46	B	25	C	2.4
54	J	55	ALA	2.4
55	CV	13	ALA	2.4
46	CM	989	U	2.4
46	CM	1671	G	2.4
46	CM	1673	U	2.4
48	CO	157	GLN	2.4
57	M	3	ILE	2.4
57	CX	3	ILE	2.4
59	DA	84	ILE	2.4
60	DB	45	ALA	2.4
63	T	74	GLN	2.4
71	DM	71	ILE	2.4
80	P0	96	ILE	2.4
15	BH	114	MET	2.4
73	DO	33	MET	2.4
8	BA	156	LYS	2.4
11	BD	21	LYS	2.4
27	9	37	LYS	2.4
50	CQ	95	ARG	2.4
53	I	219	ARG	2.4
63	T	67	ARG	2.4
80	P0	81	LYS	2.4
7	AZ	180	PHE	2.4
15	BH	122	PHE	2.4
20	BM	171	GLU	2.4
45	CL	135	GLU	2.4
63	DE	101	GLU	2.4
69	DK	86	PHE	2.4
80	P0	12	PHE	2.4
21	0	85	SER	2.4
28	BU	105	SER	2.4
35	CB	40	SER	2.4
36	CC	19	SER	2.4

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Mol	Chain	Res	Type	RSRZ
56	CW	13	SER	2.4
70	a	14	SER	2.4
78	DT	164	SER	2.4
51	G	38	LEU	2.4
54	J	77	LEU	2.4
62	DD	51	LEU	2.4
70	a	44	LEU	2.4
39	CF	76	THR	2.4
64	DF	44	ASN	2.4
70	a	16	PRO	2.4
72	c	8	ASN	2.4
78	AR	41	THR	2.4
80	P0	56	ASN	2.4
80	P0	89	THR	2.4
81	12	163	PRO	2.4
5	k	331	VAL	2.4
9	BB	237	VAL	2.4
10	p	140	VAL	2.4
20	BM	139	VAL	2.4
23	BP	23	VAL	2.4
47	CN	22	VAL	2.4
64	U	51	ASP	2.4
64	DF	4	VAL	2.4
69	Z	90	ASP	2.4
28	BU	16	GLY	2.4
34	CA	103	TYR	2.4
35	AH	7	TYR	2.4
47	C	100	GLY	2.4
55	CV	9	HIS	2.4
72	DN	17	HIS	2.4
78	AR	278	GLY	2.4
61	DC	6	ALA	2.4
1	1	452	A	2.4
1	1	2469	A	2.4
1	AS	398	A	2.4
81	12	160	ILE	2.4
6	l	60	GLN	2.4
5	k	4	ARG	2.4
7	m	21	ARG	2.4
7	AZ	270	LYS	2.4
16	BI	73	ARG	2.4
19	BL	174	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
36	CC	12	LYS	2.4
41	AN	38	LYS	2.4
73	DO	51	GLN	2.4
82	L1	210	MET	2.4
41	CH	46	ARG	2.4
50	CQ	174	ARG	2.4
74	e	49	ARG	2.4
24	BQ	11	PHE	2.4
48	D	24	PHE	2.4
1	1	881	U	2.4
1	1	2129	C	2.4
1	1	2486	U	2.4
1	AS	1013	U	2.4
1	AS	3132	U	2.4
9	o	14	GLU	2.4
36	CC	92	LEU	2.4
46	B	1611	C	2.4
46	B	1644	U	2.4
48	CO	231	LEU	2.4
51	G	12	LEU	2.4
53	I	178	LEU	2.4
54	CU	122	LEU	2.4
56	L	20	GLU	2.4
57	CX	80	LEU	2.4
64	DF	54	LEU	2.4
70	a	18	LEU	2.4
78	DT	270	GLU	2.4
48	CO	186	SER	2.4
1	1	2459	G	2.4
1	AS	2577	G	2.4
1	AS	2813	G	2.4
46	B	535	G	2.4
50	CQ	222	PRO	2.4
51	G	89	VAL	2.4
53	CT	36	VAL	2.4
57	M	83	PRO	2.4
79	CZ	126	TRP	2.4
4	AW	199	THR	2.4
10	p	204	VAL	2.4
13	BF	99	THR	2.4
19	BL	11	VAL	2.4
60	Q	121	THR	2.4

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Mol	Chain	Res	Type	RSRZ
61	R	94	VAL	2.4
63	DE	110	VAL	2.4
68	DJ	4	THR	2.4
68	DJ	33	VAL	2.4
70	a	24	VAL	2.4
70	DL	57	VAL	2.4
6	AY	317	ASN	2.4
16	BI	149	ASN	2.4
69	Z	22	ASN	2.4
78	AR	17	ASN	2.4
78	DT	278	GLY	2.4
4	AW	136	ILE	2.4
7	AZ	90	TYR	2.4
10	BC	56	TYR	2.4
47	C	178	ALA	2.4
49	CP	173	ILE	2.4
51	CR	258	ALA	2.4
54	J	138	TYR	2.4
62	S	78	TYR	2.4
80	P0	92	ASP	2.4
20	z	65	ALA	2.4
22	2	160	ILE	2.4
23	5	54	ILE	2.4
28	BU	46	ILE	2.4
30	BW	57	ALA	2.4
35	CB	82	ALA	2.4
36	CC	110	ALA	2.4
39	CF	15	ALA	2.4
65	V	124	ILE	2.4
79	CZ	42	ALA	2.4
80	P0	87	ILE	2.4
19	y	168	LYS	2.4
51	G	127	LYS	2.4
51	CR	128	LYS	2.4
54	CU	40	LYS	2.4
59	P	109	LYS	2.4
78	AR	59	LYS	2.4
16	BI	26	ARG	2.4
27	BT	121	ARG	2.4
30	AC	14	ARG	2.4
55	CV	25	ARG	2.4
7	AZ	4	GLN	2.4

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Mol	Chain	Res	Type	RSRZ
45	CL	104	GLN	2.4
59	DA	36	GLN	2.4
63	DE	42	GLN	2.4
11	BD	92	PHE	2.4
39	AL	38	PHE	2.4
70	a	64	PHE	2.4
78	AR	62	PHE	2.4
16	BI	51	LEU	2.4
17	BJ	175	LEU	2.4
43	AP	83	LEU	2.4
52	CS	93	LEU	2.4
63	T	93	LEU	2.4
64	DF	101	LEU	2.4
73	DO	73	LEU	2.4
78	AR	267	LEU	2.4
78	DT	47	LEU	2.4
1	1	880	A	2.4
1	1	1590	A	2.4
1	1	2675	A	2.4
1	AS	1149	A	2.4
1	AS	1563	A	2.4
1	AS	2439	A	2.4
5	AX	210	GLU	2.4
36	AI	18	GLU	2.4
46	CM	242	A	2.4
33	BZ	23	SER	2.4
37	CD	41	SER	2.4
63	DE	125	SER	2.4
78	AR	35	SER	2.4
78	AR	243	SER	2.4
78	DT	210	SER	2.4
1	1	2487	U	2.4
1	AS	132	U	2.4
10	BC	26	PRO	2.4
17	BJ	122	PRO	2.4
21	0	36	VAL	2.4
25	7	51	TRP	2.4
26	BS	116	PRO	2.4
28	BU	68	VAL	2.4
46	B	556	U	2.4
46	B	1335	U	2.4
46	CM	1047	U	2.4

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Mol	Chain	Res	Type	RSRZ
51	G	225	VAL	2.4
60	DB	37	VAL	2.4
70	DL	24	VAL	2.4
82	L1	9	VAL	2.4
1	1	1195	C	2.3
1	AS	2309	C	2.3
1	AS	2383	C	2.3
4	AW	228	GLY	2.3
38	AK	9	GLY	2.3
52	CS	28	THR	2.3
4	AW	125	ALA	2.3
7	AZ	290	ILE	2.3
10	BC	182	LYS	2.3
10	BC	178	TYR	2.3
14	BG	41	ARG	2.3
14	BG	46	ILE	2.3
14	BG	85	ILE	2.3
16	v	55	ALA	2.3
30	AC	56	LYS	2.3
47	CN	61	ALA	2.3
54	CU	144	LYS	2.3
62	S	106	LYS	2.3
68	DJ	10	ALA	2.3
75	f	3	HIS	2.3
29	BV	48	TYR	2.3
36	AI	75	TYR	2.3
70	a	41	ARG	2.3
78	DT	116	ILE	2.3
79	CZ	89	ILE	2.3
52	CS	99	MET	2.3
1	AS	1085	G	2.3
1	AS	2786	G	2.3
46	B	1755	G	2.3
46	CM	831	G	2.3
7	AZ	113	LEU	2.3
13	s	39	GLN	2.3
21	BN	162	LEU	2.3
39	AL	40	GLN	2.3
41	CH	44	GLN	2.3
47	CN	203	PHE	2.3
49	E	206	LEU	2.3
50	F	114	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
62	DD	82	GLN	2.3
68	DJ	126	LEU	2.3
70	DL	74	LEU	2.3
78	AR	207	LEU	2.3
82	L1	17	LEU	2.3
82	l1	53	LEU	2.3
82	l1	119	GLN	2.3
8	BA	108	GLU	2.3
13	BF	108	GLU	2.3
73	d	75	GLU	2.3
6	AY	36	VAL	2.3
6	AY	160	VAL	2.3
7	m	286	VAL	2.3
10	p	165	VAL	2.3
19	y	140	VAL	2.3
28	AA	62	VAL	2.3
50	F	187	VAL	2.3
50	F	207	VAL	2.3
77	DS	126	VAL	2.3
82	l1	13	VAL	2.3
5	AX	63	PRO	2.3
52	CS	30	PRO	2.3
46	CM	410	A	2.3
56	CW	50	SER	2.3
71	DM	55	PRO	2.3
1	1	2948	A	2.3
1	AS	1227	A	2.3
13	s	70	THR	2.3
13	BF	147	THR	2.3
16	BI	88	GLY	2.3
46	B	509	A	2.3
46	B	847	A	2.3
55	K	180	GLY	2.3
59	DA	9	LYS	2.3
45	CL	113	ARG	2.3
61	DC	124	THR	2.3
62	DD	130	GLY	2.3
63	T	106	THR	2.3
65	DG	65	ILE	2.3
78	DT	101	THR	2.3
80	p0	60	ARG	2.3
82	l1	149	THR	2.3

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Mol	Chain	Res	Type	RSRZ
7	m	267	ALA	2.3
10	p	210	ALA	2.3
10	BC	115	ALA	2.3
28	BU	117	ALA	2.3
52	H	85	ALA	2.3
53	I	206	ALA	2.3
55	CV	130	ALA	2.3
69	DK	71	CYS	2.3
80	p0	49	ALA	2.3
1	1	2690	U	2.3
4	AW	7	ASN	2.3
10	BC	174	MET	2.3
14	t	12	ASN	2.3
24	BQ	104	ASN	2.3
35	AH	14	ASN	2.3
46	B	609	U	2.3
46	CM	556	U	2.3
65	DG	66	TYR	2.3
75	f	53	ASN	2.3
1	1	800	C	2.3
42	AO	3	ASP	2.3
9	BB	139	LEU	2.3
13	s	17	LEU	2.3
17	w	20	LEU	2.3
26	BS	40	LEU	2.3
36	AI	41	LEU	2.3
39	CF	65	LEU	2.3
44	AQ	22	LEU	2.3
46	B	222	C	2.3
46	B	706	C	2.3
46	B	1019	C	2.3
79	CZ	39	ASP	2.3
47	CN	182	LEU	2.3
49	E	53	LEU	2.3
51	CR	123	LEU	2.3
55	CV	149	LEU	2.3
63	DE	34	LEU	2.3
78	DT	7	LEU	2.3
78	DT	90	LEU	2.3
33	BZ	53	GLN	2.3
65	DG	23	GLN	2.3
6	l	156	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
6	AY	346	GLU	2.3
20	BM	68	GLU	2.3
37	CD	20	GLU	2.3
14	BG	22	VAL	2.3
46	B	23	G	2.3
46	B	1111	G	2.3
46	CM	856	G	2.3
53	I	157	VAL	2.3
55	CV	174	VAL	2.3
70	DL	35	VAL	2.3
74	DP	48	VAL	2.3
78	DT	20	VAL	2.3
80	P0	104	VAL	2.3
16	v	192	LYS	2.3
22	BO	55	LYS	2.3
27	9	77	LYS	2.3
33	BZ	119	LYS	2.3
45	CL	102	LYS	2.3
58	CY	29	LYS	2.3
11	q	168	ARG	2.3
16	BI	63	ARG	2.3
55	K	74	ARG	2.3
75	f	12	ARG	2.3
4	AW	77	ILE	2.3
7	AZ	154	THR	2.3
9	o	197	SER	2.3
15	BH	4	THR	2.3
26	8	29	SER	2.3
33	BZ	39	ILE	2.3
48	D	186	SER	2.3
49	E	172	GLY	2.3
49	E	233	SER	2.3
56	L	134	ILE	2.3
78	DT	163	SER	2.3
78	DT	178	TRP	2.3
43	AP	103	ALA	2.3
60	DB	35	ALA	2.3
62	DD	3	THR	2.3
82	l1	127	THR	2.3
30	AC	7	HIS	2.3
72	DN	80	HIS	2.3
7	m	219	TYR	2.3

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Mol	Chain	Res	Type	RSRZ
78	DT	208	CYS	2.3
6	l	111	ASN	2.3
16	BI	117	ASN	2.3
18	x	176	LEU	2.3
18	BK	150	LEU	2.3
24	BQ	69	LEU	2.3
26	8	34	LEU	2.3
28	BU	127	ASN	2.3
29	AB	78	LEU	2.3
47	CN	201	LEU	2.3
49	E	129	LEU	2.3
52	CS	95	ASN	2.3
54	CU	95	LEU	2.3
78	AR	13	LEU	2.3
78	AR	268	LEU	2.3
78	DT	145	LEU	2.3
1	1	2446	A	2.3
1	AS	932	A	2.3
1	AS	1486	A	2.3
1	AS	3050	A	2.3
9	BB	114	PHE	2.3
28	BU	4	PHE	2.3
46	B	1357	A	2.3
54	CU	165	PHE	2.3
80	p0	26	PHE	2.3
1	1	2484	U	2.3
1	1	2544	U	2.3
1	1	2691	U	2.3
1	AS	1830	U	2.3
6	AY	60	GLN	2.3
10	BC	62	GLN	2.3
46	B	1270	U	2.3
46	CM	506	U	2.3
70	DL	126	GLN	2.3
13	s	15	GLU	2.3
28	AA	31	GLU	2.3
36	CC	100	GLU	2.3
39	AL	4	GLU	2.3
62	S	103	GLU	2.3
4	AW	190	LYS	2.3
7	AZ	159	VAL	2.3
45	i	53	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
46	B	763	C	2.3
46	CM	319	C	2.3
47	C	86	VAL	2.3
52	CS	162	VAL	2.3
63	DE	122	VAL	2.3
72	DN	93	LYS	2.3
82	l1	151	VAL	2.3
4	AW	6	ARG	2.3
68	Y	57	ARG	2.3
75	DQ	12	ARG	2.3
10	BC	154	ILE	2.3
40	CG	24	PRO	2.3
50	CQ	200	PRO	2.3
54	J	109	PRO	2.3
50	CQ	141	GLY	2.3
51	CR	4	GLY	2.3
55	K	167	GLY	2.3
57	CX	86	ILE	2.3
61	R	73	PRO	2.3
29	AB	116	GLY	2.3
73	d	68	GLY	2.3
74	e	24	GLY	2.3
5	k	292	ALA	2.3
10	BC	197	ALA	2.3
31	BX	97	ALA	2.3
47	C	65	ALA	2.3
78	DT	169	ALA	2.3
6	AY	154	SER	2.3
6	AY	293	SER	2.3
7	AZ	70	THR	2.3
13	BF	119	SER	2.3
16	v	196	THR	2.3
56	CW	130	THR	2.3
68	Y	41	MET	2.3
54	J	85	HIS	2.3
60	DB	120	SER	2.3
75	DQ	18	SER	2.3
11	BD	151	LEU	2.3
57	CX	40	LEU	2.3
76	g	38	LEU	2.3
78	AR	9	LEU	2.3
78	AR	180	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
78	DT	29	HIS	2.3
1	1	188	G	2.3
1	1	1015	G	2.3
23	5	111	TYR	2.3
41	CH	13	TYR	2.3
46	B	1358	G	2.3
46	CM	677	G	2.3
47	C	202	TYR	2.3
54	J	169	TYR	2.3
58	N	97	TYR	2.3
6	l	200	PHE	2.3
29	BV	68	PHE	2.3
55	CV	109	PHE	2.3
62	S	45	PHE	2.3
7	m	178	ASN	2.3
68	Y	80	ASN	2.3
9	BB	239	GLN	2.3
20	BM	174	GLN	2.3
58	CY	37	ASP	2.3
27	BT	122	LYS	2.3
70	a	11	LYS	2.3
76	DR	53	LYS	2.3
1	1	1129	A	2.3
7	m	186	GLU	2.3
10	BC	99	ARG	2.3
13	s	38	GLU	2.3
25	7	47	ARG	2.3
29	BV	144	VAL	2.3
46	B	216	A	2.3
46	B	577	A	2.3
49	CP	178	VAL	2.3
51	CR	252	GLU	2.3
55	K	72	VAL	2.3
57	M	42	VAL	2.3
62	DD	124	GLU	2.3
78	AR	6	VAL	2.3
1	1	3320	U	2.3
1	AS	1833	U	2.3
1	AS	2815	U	2.3
46	CM	659	U	2.3
7	AZ	88	ILE	2.3
9	o	125	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
11	BD	172	ILE	2.3
39	CF	8	ILE	2.3
51	CR	249	ILE	2.3
59	P	84	ILE	2.3
82	l1	135	PRO	2.3
6	AY	166	ALA	2.3
12	BE	132	GLY	2.3
19	y	183	GLY	2.3
45	i	49	ALA	2.3
47	CN	20	ALA	2.3
54	CU	53	ALA	2.3
55	K	183	GLY	2.3
63	DE	107	ALA	2.3
69	DK	108	GLY	2.3
78	AR	56	GLY	2.3
82	L1	84	ALA	2.3
46	B	1412	C	2.3
47	C	175	TRP	2.3
4	AW	32	LEU	2.3
7	AZ	93	THR	2.3
30	BW	50	THR	2.3
38	CE	80	THR	2.3
58	N	5	LEU	2.3
63	T	73	LEU	2.3
64	DF	18	LEU	2.3
72	c	53	LEU	2.3
80	P0	18	LEU	2.3
8	BA	163	PHE	2.3
24	6	7	SER	2.3
51	G	250	SER	2.3
51	CR	223	SER	2.3
56	L	47	PHE	2.3
56	CW	158	PHE	2.3
66	W	27	SER	2.3
66	DH	27	SER	2.3
68	Y	122	SER	2.3
70	a	48	TYR	2.3
75	f	43	PHE	2.3
78	DT	242	PHE	2.3
18	x	140	GLN	2.3
28	BU	34	LYS	2.3
31	BX	30	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
41	CH	34	CYS	2.3
41	CH	38	LYS	2.3
56	L	39	LYS	2.3
59	DA	69	ASN	2.3
64	DF	104	ASN	2.3
66	W	71	ASN	2.3
78	AR	4	GLN	2.3
6	AY	208	VAL	2.3
45	i	98	ASP	2.3
48	CO	108	ASP	2.3
51	G	212	ASP	2.3
51	G	219	VAL	2.3
52	H	162	VAL	2.3
78	DT	134	VAL	2.3
53	CT	122	GLU	2.2
80	P0	20	GLU	2.2
1	1	421	G	2.2
1	1	1949	G	2.2
1	1	2371	G	2.2
1	1	2548	G	2.2
1	AS	358	G	2.2
1	AS	424	G	2.2
1	AS	1371	G	2.2
1	AS	2444	G	2.2
1	AS	3000	G	2.2
46	B	676	G	2.2
10	BC	224	ILE	2.2
26	8	88	ILE	2.2
56	CW	134	ILE	2.2
65	DG	111	ILE	2.2
66	DH	23	ILE	2.2
78	AR	257	ILE	2.2
9	o	223	GLY	2.2
13	s	45	PRO	2.2
13	BF	113	GLY	2.2
28	BU	39	PRO	2.2
70	a	71	GLY	2.2
71	b	91	PRO	2.2
34	AG	36	ALA	2.2
36	AI	1	MET	2.2
45	i	80	ALA	2.2
45	i	133	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
48	CO	57	ALA	2.2
51	CR	94	ALA	2.2
74	DP	63	ALA	2.2
76	g	2	GLY	2.2
77	DS	143	ALA	2.2
1	1	1013	U	2.2
1	1	2438	U	2.2
1	1	2479	U	2.2
1	AS	1907	A	2.2
6	AY	319	LEU	2.2
7	AZ	51	LEU	2.2
10	BC	68	LEU	2.2
46	B	139	U	2.2
46	B	311	U	2.2
46	B	373	U	2.2
46	B	624	U	2.2
46	B	1727	A	2.2
54	J	162	LEU	2.2
56	CW	128	LEU	2.2
60	DB	28	LEU	2.2
61	DC	80	LEU	2.2
63	T	34	LEU	2.2
51	CR	18	TRP	2.2
78	AR	310	TRP	2.2
6	l	141	HIS	2.2
7	m	223	PHE	2.2
21	BN	34	THR	2.2
26	BS	84	PHE	2.2
28	AA	63	THR	2.2
38	CE	12	HIS	2.2
51	CR	26	THR	2.2
54	J	71	THR	2.2
58	N	63	THR	2.2
64	U	138	THR	2.2
67	X	20	THR	2.2
78	DT	65	HIS	2.2
82	l1	134	PHE	2.2
7	AZ	49	TYR	2.2
10	p	80	SER	2.2
27	BT	46	LYS	2.2
36	AI	115	LYS	2.2
36	CC	13	SER	2.2

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Mol	Chain	Res	Type	RSRZ
45	CL	38	LYS	2.2
56	L	95	TYR	2.2
62	DD	105	LYS	2.2
71	DM	63	SER	2.2
1	1	2309	C	2.2
13	s	145	ARG	2.2
19	BL	147	ARG	2.2
46	CM	482	C	2.2
68	Y	97	ARG	2.2
70	DL	128	ARG	2.2
6	AY	217	VAL	2.2
6	AY	299	VAL	2.2
12	BE	55	ASN	2.2
15	u	13	VAL	2.2
23	BP	65	VAL	2.2
23	BP	71	ASN	2.2
35	AH	64	GLN	2.2
36	AI	16	GLN	2.2
41	CH	33	ASN	2.2
48	CO	118	GLN	2.2
48	CO	209	ASN	2.2
50	F	33	GLN	2.2
62	S	89	VAL	2.2
65	V	70	GLN	2.2
65	DG	25	GLN	2.2
70	DL	31	ASN	2.2
78	AR	155	VAL	2.2
82	l1	197	ASN	2.2
69	Z	71	CYS	2.2
19	y	112	ASP	2.2
48	D	196	GLU	2.2
78	AR	294	ASP	2.2
7	AZ	239	ILE	2.2
15	BH	32	ILE	2.2
51	G	245	ILE	2.2
62	S	64	ILE	2.2
70	a	75	ILE	2.2
82	l1	216	ILE	2.2
5	k	295	ALA	2.2
7	AZ	100	ALA	2.2
10	BC	32	PRO	2.2
11	BD	1	MET	2.2

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Mol	Chain	Res	Type	RSRZ
11	BD	98	PRO	2.2
16	BI	78	GLY	2.2
20	z	123	LEU	2.2
23	BP	48	GLY	2.2
28	BU	49	ALA	2.2
35	AH	63	ALA	2.2
50	F	204	PRO	2.2
47	CN	87	LEU	2.2
47	CN	177	LEU	2.2
51	G	25	GLY	2.2
58	N	68	GLY	2.2
64	U	37	GLY	2.2
68	Y	21	GLY	2.2
72	DN	49	ALA	2.2
78	AR	284	PRO	2.2
80	P0	62	ALA	2.2
10	BC	53	TRP	2.2
6	AY	157	PHE	2.2
1	AS	238	G	2.2
1	AS	1558	G	2.2
1	AS	2461	G	2.2
13	s	142	LYS	2.2
16	BI	33	LYS	2.2
19	BL	53	PHE	2.2
23	5	15	PHE	2.2
28	AA	122	HIS	2.2
28	BU	29	HIS	2.2
33	BZ	19	LYS	2.2
50	CQ	168	PHE	2.2
46	B	702	G	2.2
62	S	22	LYS	2.2
77	h	139	LYS	2.2
82	l1	209	THR	2.2
1	AS	250	U	2.2
1	AS	1254	U	2.2
1	AS	2442	U	2.2
1	AS	2465	U	2.2
10	p	58	ARG	2.2
54	J	137	ARG	2.2
56	L	164	TYR	2.2
1	1	2463	A	2.2
1	AS	156	A	2.2

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Mol	Chain	Res	Type	RSRZ
1	AS	1429	A	2.2
1	AS	1906	A	2.2
6	AY	125	SER	2.2
33	BZ	100	SER	2.2
46	B	1132	A	2.2
46	CM	712	A	2.2
54	J	164	SER	2.2
13	s	129	VAL	2.2
23	5	66	VAL	2.2
52	CS	111	VAL	2.2
71	b	40	VAL	2.2
14	t	166	GLN	2.2
14	BG	166	GLN	2.2
25	7	42	GLN	2.2
27	BT	6	GLN	2.2
27	BT	81	GLN	2.2
8	BA	71	ASN	2.2
27	BT	98	ASN	2.2
51	CR	96	ASN	2.2
4	AW	73	GLU	2.2
14	BG	134	GLU	2.2
36	CC	64	GLU	2.2
39	CF	20	ILE	2.2
40	AM	51	ILE	2.2
41	CH	20	CYS	2.2
41	CH	23	CYS	2.2
52	H	199	ILE	2.2
63	DE	102	ILE	2.2
77	DS	172	ILE	2.2
78	AR	140	GLU	2.2
1	1	1578	C	2.2
1	AS	247	C	2.2
1	AS	2468	C	2.2
1	AS	3246	C	2.2
6	AY	165	ASP	2.2
28	BU	30	ASP	2.2
46	B	274	C	2.2
46	B	1610	C	2.2
7	AZ	157	ALA	2.2
19	BL	97	PRO	2.2
29	BV	116	GLY	2.2
35	AH	59	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
36	CC	88	LEU	2.2
59	DA	87	ASP	2.2
63	DE	82	ASP	2.2
37	AJ	2	ALA	2.2
49	E	222	PRO	2.2
50	F	220	PRO	2.2
53	CT	198	ALA	2.2
64	U	29	MET	2.2
66	W	80	ALA	2.2
78	AR	201	LEU	2.2
78	DT	222	LEU	2.2
78	DT	279	ALA	2.2
78	DT	286	ALA	2.2
79	O	82	PRO	2.2
4	j	190	LYS	2.2
13	BF	174	LYS	2.2
19	BL	171	LYS	2.2
39	AL	21	LYS	2.2
59	P	9	LYS	2.2
65	V	119	LYS	2.2
69	Z	3	LYS	2.2
78	AR	60	LYS	2.2
80	P0	55	LYS	2.2
82	L1	207	LYS	2.2
17	BJ	106	PHE	2.2
55	CV	166	PHE	2.2
56	L	114	PHE	2.2
82	L1	28	PHE	2.2
35	AH	16	ARG	2.2
36	CC	114	ARG	2.2
55	CV	74	ARG	2.2
56	L	126	ARG	2.2
56	CW	3	ARG	2.2
56	CW	79	ARG	2.2
56	CW	126	ARG	2.2
33	BZ	3	THR	2.2
82	l1	31	THR	2.2
35	CB	7	TYR	2.2
10	BC	165	VAL	2.2
16	BI	132	VAL	2.2
23	BP	38	VAL	2.2
50	F	224	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
52	CS	155	VAL	2.2
54	CU	69	VAL	2.2
67	X	13	VAL	2.2
4	AW	195	SER	2.2
13	s	48	SER	2.2
23	5	100	SER	2.2
55	CV	12	SER	2.2
59	DA	6	SER	2.2
1	1	1550	U	2.2
1	1	3163	U	2.2
1	AS	1623	U	2.2
1	AS	2925	U	2.2
46	B	318	U	2.2
46	B	764	U	2.2
46	B	1037	U	2.2
46	B	1064	U	2.2
46	CM	1044	U	2.2
53	CT	34	GLN	2.2
16	BI	174	ILE	2.2
49	E	173	ILE	2.2
53	CT	16	ILE	2.2
73	DO	43	ILE	2.2
1	1	1245	G	2.2
1	1	2130	A	2.2
1	AS	353	G	2.2
1	AS	425	G	2.2
1	AS	794	G	2.2
46	B	1650	G	2.2
47	CN	21	ASN	2.2
52	CS	100	ASN	2.2
1	AS	2186	A	2.2
46	B	1743	A	2.2
46	CM	537	G	2.2
10	BC	163	LEU	2.2
47	C	12	GLU	2.2
50	F	177	LEU	2.2
61	DC	56	LEU	2.2
75	f	30	LEU	2.2
13	s	34	ALA	2.2
29	BV	127	ALA	2.2
47	C	95	ALA	2.2
51	G	107	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
60	Q	10	GLY	2.2
77	h	169	GLY	2.2
78	DT	76	ALA	2.2
81	12	141	CYS	2.2
11	q	37	ASP	2.2
11	BD	54	LYS	2.2
14	BG	52	ASP	2.2
19	BL	50	LYS	2.2
23	5	14	LYS	2.2
39	AL	36	LYS	2.2
54	J	151	ASP	2.2
54	J	175	LYS	2.2
55	CV	125	LYS	2.2
65	V	44	ASP	2.2
67	DI	42	ASP	2.2
81	12	161	ASP	2.2
6	AY	196	ARG	2.2
12	r	159	PHE	2.2
17	w	4	PHE	2.2
21	0	118	PHE	2.2
26	8	33	ARG	2.2
43	AP	36	PHE	2.2
43	CJ	8	ARG	2.2
47	CN	185	ARG	2.2
57	M	16	PHE	2.2
62	S	128	PHE	2.2
62	DD	45	PHE	2.2
1	1	798	C	2.2
1	1	1224	C	2.2
1	1	1624	C	2.2
1	AS	1360	C	2.2
45	CL	107	TRP	2.2
47	CN	174	TRP	2.2
55	CV	67	TRP	2.2
25	BR	58	HIS	2.2
35	CB	68	THR	2.2
41	AN	42	THR	2.2
48	CO	101	HIS	2.2
62	DD	92	HIS	2.2
65	V	39	THR	2.2
66	W	116	THR	2.2
6	AY	31	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
7	AZ	286	VAL	2.2
16	BI	18	VAL	2.2
16	BI	148	TYR	2.2
22	BO	13	TYR	2.2
28	AA	18	TYR	2.2
33	BZ	29	VAL	2.2
33	BZ	118	VAL	2.2
38	CE	39	TYR	2.2
41	CH	24	TYR	2.2
51	CR	208	VAL	2.2
62	S	38	VAL	2.2
71	b	101	TYR	2.2
7	AZ	185	ILE	2.2
11	q	172	ILE	2.2
23	BP	109	GLN	2.2
25	7	28	ILE	2.2
36	CC	20	GLN	2.2
53	CT	6	SER	2.2
23	BP	50	LEU	2.2
57	M	89	LEU	2.2
66	W	25	LEU	2.2
73	DO	24	LEU	2.2
7	m	263	GLU	2.2
4	j	188	LYS	2.2
5	k	179	ALA	2.2
7	AZ	280	ALA	2.2
10	p	185	ALA	2.2
10	p	211	GLU	2.2
10	BC	104	ALA	2.2
15	BH	118	LYS	2.2
17	BJ	92	LYS	2.2
22	BO	77	ASN	2.2
30	AC	60	GLU	2.2
49	E	203	GLU	2.2
51	G	65	MET	2.2
50	F	103	ALA	2.2
55	CV	61	GLU	2.2
61	DC	106	GLU	2.2
1	1	2450	U	2.2
1	AS	790	U	2.2
1	AS	1814	U	2.2
1	AS	2479	U	2.2

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Mol	Chain	Res	Type	RSRZ
6	AY	150	PRO	2.2
7	AZ	127	GLY	2.2
7	AZ	139	PRO	2.2
9	BB	112	GLY	2.2
14	t	187	LYS	2.2
29	BV	30	GLY	2.2
45	CL	101	LYS	2.2
78	AR	136	ASN	2.2
78	AR	250	ALA	2.2
79	CZ	118	ALA	2.2
46	CM	696	U	2.2
54	CU	59	PRO	2.2
56	CW	144	PRO	2.2
72	DN	16	GLY	2.2
82	L1	212	PRO	2.2
16	BI	50	ARG	2.2
47	C	101	ARG	2.2
55	CV	110	ARG	2.2
57	CX	38	ARG	2.2
76	g	43	ARG	2.2
10	BC	245	ASP	2.2
48	CO	24	PHE	2.2
63	T	71	PHE	2.2
63	DE	71	PHE	2.2
67	DI	67	ASP	2.2
1	1	1022	A	2.2
1	1	1589	A	2.2
1	1	1810	A	2.2
1	AS	506	A	2.2
1	AS	1589	A	2.2
1	AS	2436	A	2.2
1	1	2452	G	2.2
1	1	2458	G	2.2
1	1	2500	G	2.2
1	AS	791	G	2.2
1	AS	1130	G	2.2
1	AS	3217	G	2.2
46	B	1441	G	2.2
46	CM	702	G	2.2
47	C	58	VAL	2.1
65	V	71	VAL	2.1
70	DL	100	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
13	BF	52	TYR	2.1
27	BT	43	TYR	2.1
1	1	1555	C	2.1
4	AW	5	ILE	2.1
39	CF	24	ILE	2.1
46	B	1006	C	2.1
50	F	139	ILE	2.1
60	Q	34	ILE	2.1
63	DE	124	ILE	2.1
68	Y	34	ILE	2.1
78	AR	43	ILE	2.1
82	L1	216	ILE	2.1
7	m	63	GLN	2.1
7	m	146	LEU	2.1
11	BD	8	GLN	2.1
12	BE	133	GLN	2.1
18	x	45	GLN	2.1
43	CJ	104	LEU	2.1
51	G	52	LEU	2.1
51	G	189	LEU	2.1
51	CR	239	LEU	2.1
54	J	37	LEU	2.1
55	CV	202	LEU	2.1
56	CW	49	LEU	2.1
78	DT	120	LEU	2.1
78	DT	240	LEU	2.1
79	O	52	LEU	2.1
4	AW	198	LYS	2.1
6	AY	8	SER	2.1
6	AY	113	LYS	2.1
7	m	27	LYS	2.1
9	o	15	LYS	2.1
16	BI	13	LYS	2.1
20	z	89	MET	2.1
7	AZ	62	ALA	2.1
22	2	4	SER	2.1
40	CG	48	LYS	2.1
47	CN	167	LYS	2.1
56	L	10	LYS	2.1
67	DI	1	MET	2.1
71	b	46	LYS	2.1
7	AZ	292	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
36	AI	2	ALA	2.1
36	AI	97	ALA	2.1
47	C	159	ALA	2.1
6	AY	98	GLY	2.1
27	BT	115	ARG	2.1
12	BE	205	ASN	2.1
29	BV	122	PRO	2.1
36	CC	90	ARG	2.1
49	E	163	ARG	2.1
52	H	216	GLU	2.1
56	L	120	ARG	2.1
56	CW	15	PRO	2.1
59	P	59	GLY	2.1
68	Y	88	ARG	2.1
7	AZ	260	PHE	2.1
19	y	172	PHE	2.1
28	AA	71	PHE	2.1
29	BV	53	PHE	2.1
32	BY	24	PHE	2.1
51	CR	99	PHE	2.1
1	1	1117	U	2.1
1	AS	1568	U	2.1
1	AS	2818	U	2.1
27	9	7	ASP	2.1
29	AB	46	ASP	2.1
46	B	1102	U	2.1
52	CS	87	CYS	2.1
54	CU	119	ASP	2.1
57	M	33	ASP	2.1
19	BL	84	VAL	2.1
22	BO	109	VAL	2.1
23	BP	34	VAL	2.1
49	E	96	VAL	2.1
50	F	175	HIS	2.1
51	G	69	HIS	2.1
51	G	126	VAL	2.1
65	DG	37	VAL	2.1
68	Y	89	TRP	2.1
41	AN	41	HIS	2.1
59	DA	5	HIS	2.1
66	W	86	HIS	2.1
70	a	35	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
76	DR	47	VAL	2.1
78	DT	72	VAL	2.1
28	BU	97	THR	2.1
50	F	56	THR	2.1
62	S	36	THR	2.1
1	1	1023	A	2.1
1	AS	824	A	2.1
1	AS	2319	A	2.1
7	AZ	227	ILE	2.1
22	BO	160	ILE	2.1
46	B	712	A	2.1
68	Y	86	ILE	2.1
5	k	47	LEU	2.1
5	AX	246	LEU	2.1
6	AY	47	LYS	2.1
6	AY	236	LEU	2.1
7	AZ	104	LEU	2.1
8	n	42	LEU	2.1
14	BG	7	LEU	2.1
27	9	46	LYS	2.1
37	CD	44	LYS	2.1
37	CD	76	LEU	2.1
42	AO	16	LYS	2.1
44	CK	29	LEU	2.1
47	CN	172	LEU	2.1
48	D	167	LYS	2.1
48	CO	217	LEU	2.1
53	CT	190	LEU	2.1
54	J	107	LYS	2.1
55	CV	124	LYS	2.1
56	CW	92	LYS	2.1
56	CW	173	LYS	2.1
58	N	29	LYS	2.1
63	T	14	LYS	2.1
77	h	142	LEU	2.1
82	l1	16	LEU	2.1
1	1	171	G	2.1
1	1	420	G	2.1
1	AS	1017	G	2.1
1	AS	1484	G	2.1
1	AS	2570	G	2.1
5	AX	300	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
6	l	356	GLN	2.1
6	AY	297	GLN	2.1
7	m	15	ARG	2.1
8	BA	5	ALA	2.1
23	BP	58	ALA	2.1
29	BV	26	ARG	2.1
35	AH	41	ARG	2.1
38	CE	79	GLN	2.1
46	B	723	G	2.1
46	B	1672	G	2.1
46	B	1744	G	2.1
53	I	104	GLN	2.1
49	CP	239	ALA	2.1
53	CT	230	ARG	2.1
55	CV	173	ALA	2.1
60	Q	128	ARG	2.1
73	DO	27	GLN	2.1
32	AE	39	ALA	2.1
29	BV	94	SER	2.1
1	1	753	C	2.1
1	1	3032	C	2.1
1	AS	1011	C	2.1
1	AS	1223	C	2.1
3	AU	115	C	2.1
7	m	255	PRO	2.1
12	BE	56	GLU	2.1
49	CP	197	GLY	2.1
51	CR	199	GLU	2.1
52	H	79	SER	2.1
52	CS	206	SER	2.1
63	T	13	SER	2.1
69	Z	111	GLY	2.1
73	d	69	GLY	2.1
46	B	1602	C	2.1
46	CM	695	C	2.1
46	CM	1505	C	2.1
8	n	46	PHE	2.1
51	G	224	ASN	2.1
63	T	28	PHE	2.1
68	DJ	128	PHE	2.1
75	f	14	PHE	2.1
4	j	168	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
5	AX	205	VAL	2.1
6	AY	296	VAL	2.1
8	n	4	VAL	2.1
8	BA	8	TRP	2.1
35	CB	23	VAL	2.1
55	CV	6	ASP	2.1
61	DC	26	VAL	2.1
62	S	54	VAL	2.1
68	Y	121	VAL	2.1
73	DO	40	CYS	2.1
80	P0	100	VAL	2.1
80	P0	105	VAL	2.1
16	BI	37	HIS	2.1
25	7	78	HIS	2.1
77	DS	137	HIS	2.1
1	1	1118	U	2.1
1	1	2546	U	2.1
1	AS	1432	U	2.1
1	AS	3218	U	2.1
4	AW	225	ILE	2.1
6	AY	161	THR	2.1
7	m	278	THR	2.1
17	BJ	104	LYS	2.1
17	BJ	195	LEU	2.1
19	BL	122	ILE	2.1
20	BM	128	LYS	2.1
25	BR	102	LYS	2.1
27	BT	109	LEU	2.1
30	AC	5	LYS	2.1
30	AC	13	THR	2.1
36	AI	6	THR	2.1
37	CD	66	LYS	2.1
44	AQ	26	THR	2.1
46	B	1014	U	2.1
46	B	1341	U	2.1
46	B	1675	U	2.1
51	G	27	TYR	2.1
55	K	23	LYS	2.1
58	N	31	THR	2.1
56	L	19	TYR	2.1
56	L	51	LYS	2.1
57	M	66	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
57	CX	15	LEU	2.1
63	T	121	THR	2.1
68	DJ	75	ILE	2.1
76	DR	48	THR	2.1
82	l1	4	ILE	2.1
7	m	208	MET	2.1
22	2	5	ARG	2.1
47	C	119	ARG	2.1
70	a	20	ARG	2.1
70	DL	132	ARG	2.1
77	h	122	ARG	2.1
9	BB	16	ALA	2.1
12	BE	195	ALA	2.1
14	BG	37	GLN	2.1
22	BO	113	ALA	2.1
23	5	21	ALA	2.1
29	BV	17	ALA	2.1
34	CA	31	GLN	2.1
41	AN	44	GLN	2.1
45	i	127	ALA	2.1
47	C	14	ALA	2.1
58	CY	61	ALA	2.1
65	V	83	ALA	2.1
1	AS	2464	A	2.1
10	BC	101	GLU	2.1
13	BF	105	GLY	2.1
16	BI	131	GLU	2.1
29	AB	23	GLY	2.1
37	CD	88	GLU	2.1
46	CM	469	A	2.1
53	CT	146	GLY	2.1
55	K	30	GLY	2.1
64	DF	24	GLY	2.1
73	d	28	PRO	2.1
82	L1	59	PRO	2.1
19	y	96	PHE	2.1
19	y	167	SER	2.1
26	BS	32	PHE	2.1
27	BT	102	SER	2.1
29	BV	95	SER	2.1
39	CF	68	SER	2.1
48	CO	200	SER	2.1

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Mol	Chain	Res	Type	RSRZ
59	DA	7	SER	2.1
62	S	9	PHE	2.1
62	S	59	PHE	2.1
29	AB	66	ASN	2.1
1	1	876	G	2.1
1	AS	188	G	2.1
1	AS	2998	G	2.1
6	AY	9	VAL	2.1
14	BG	149	VAL	2.1
46	B	1131	G	2.1
46	CM	1723	G	2.1
50	F	92	VAL	2.1
51	G	140	VAL	2.1
63	DE	9	VAL	2.1
78	DT	306	VAL	2.1
1	1	2543	C	2.1
1	1	2871	C	2.1
1	AS	1834	C	2.1
1	AS	2476	C	2.1
16	v	56	LYS	2.1
19	BL	185	LYS	2.1
33	AF	19	LYS	2.1
53	CT	95	LYS	2.1
54	J	43	LYS	2.1
51	CR	44	LEU	2.1
54	CU	154	ASP	2.1
55	K	124	LYS	2.1
72	c	93	LYS	2.1
6	AY	23	LEU	2.1
13	s	19	LEU	2.1
13	s	112	LEU	2.1
26	8	124	ILE	2.1
28	AA	12	ILE	2.1
34	CA	59	ILE	2.1
53	CT	101	ILE	2.1
54	J	13	LEU	2.1
57	CX	11	ILE	2.1
63	DE	73	LEU	2.1
68	Y	83	ILE	2.1
71	b	39	ILE	2.1
71	b	69	LEU	2.1
73	d	8	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
82	l1	90	LEU	2.1
5	AX	372	THR	2.1
6	AY	201	THR	2.1
33	BZ	25	ARG	2.1
39	CF	53	THR	2.1
55	CV	170	ARG	2.1
47	C	38	TYR	2.1
60	Q	21	THR	2.1
50	F	178	MET	2.1
51	G	54	TYR	2.1
52	H	125	THR	2.1
63	T	3	ARG	2.1
7	AZ	208	MET	2.1
7	AZ	272	TYR	2.1
65	DG	39	THR	2.1
66	W	98	THR	2.1
76	DR	50	THR	2.1
82	l1	52	THR	2.1
82	L1	85	MET	2.1
14	BG	86	ALA	2.1
51	G	13	ALA	2.1
78	AR	81	ALA	2.1
78	DT	251	ALA	2.1
1	1	2483	U	2.1
1	AS	1564	U	2.1
1	AS	1908	U	2.1
1	AS	3163	U	2.1
3	AU	22	U	2.1
9	o	17	GLN	2.1
46	B	75	U	2.1
46	B	491	U	2.1
46	CM	258	U	2.1
46	CM	1356	U	2.1
50	CQ	180	GLN	2.1
68	DJ	64	GLN	2.1
19	BL	177	GLY	2.1
36	AI	3	GLY	2.1
58	CY	62	GLY	2.1
6	AY	295	GLU	2.1
26	8	35	PRO	2.1
61	DC	33	PHE	2.1
63	T	65	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
68	Y	77	PRO	2.1
69	Z	38	PHE	2.1
5	k	327	SER	2.1
10	BC	241	SER	2.1
55	K	164	SER	2.1
56	L	145	SER	2.1
10	p	198	VAL	2.1
13	s	71	VAL	2.1
28	BU	96	VAL	2.1
64	U	133	VAL	2.1
71	b	54	VAL	2.1
81	12	143	VAL	2.1
1	1	2963	A	2.1
1	AS	1843	A	2.1
1	AS	2440	A	2.1
3	AU	17	A	2.1
10	BC	64	LYS	2.1
13	BF	4	LYS	2.1
16	BI	14	LYS	2.1
25	7	27	LYS	2.1
28	AA	78	ASN	2.1
32	BY	68	ASN	2.1
39	CF	21	LYS	2.1
46	B	510	A	2.1
46	CM	468	A	2.1
48	CO	45	LYS	2.1
49	CP	156	LYS	2.1
51	G	211	LYS	2.1
52	CS	128	ASN	2.1
54	J	80	LYS	2.1
62	DD	25	LYS	2.1
64	U	56	LYS	2.1
70	DL	11	LYS	2.1
77	h	125	LYS	2.1
82	l1	94	ASN	2.1
7	m	115	LEU	2.1
10	p	151	LEU	2.1
16	BI	92	LEU	2.1
23	5	50	LEU	2.1
25	BR	54	LEU	2.1
6	l	84	HIS	2.1
7	m	40	HIS	2.1

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Mol	Chain	Res	Type	RSRZ
14	BG	99	HIS	2.1
28	BU	48	ARG	2.1
29	BV	81	LEU	2.1
33	BZ	86	LEU	2.1
49	E	56	LEU	2.1
50	F	87	ILE	2.1
50	CQ	111	LEU	2.1
55	CV	141	ARG	2.1
60	DB	14	ILE	2.1
60	DB	123	ARG	2.1
64	U	35	ILE	2.1
74	e	29	ARG	2.1
82	l1	198	TRP	2.1
7	m	213	ASP	2.1
45	i	111	ASP	2.1
68	Y	54	ASP	2.1
70	a	26	ASP	2.1
82	L1	150	ASP	2.1
12	r	9	TYR	2.1
20	BM	6	THR	2.1
45	CL	94	THR	2.1
51	G	184	THR	2.1
60	DB	53	TYR	2.1
61	R	123	TYR	2.1
1	1	2457	C	2.1
1	1	2473	C	2.1
1	AS	1919	C	2.1
2	AT	47	C	2.1
1	1	1025	G	2.1
1	1	1503	G	2.1
1	1	2429	G	2.1
1	1	2430	G	2.1
1	1	2540	G	2.1
14	BG	136	ALA	2.1
16	BI	167	ALA	2.1
20	BM	154	ALA	2.1
32	BY	84	ALA	2.1
41	AN	31	ALA	2.1
46	CM	228	C	2.1
46	B	508	G	2.1
46	B	705	G	2.1
47	CN	159	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
52	H	26	ALA	2.1
56	L	119	ALA	2.1
56	L	125	ALA	2.1
58	N	114	ALA	2.1
6	AY	356	GLN	2.1
22	BO	6	GLY	2.1
23	BP	30	GLN	2.1
29	BV	114	GLY	2.1
43	CJ	101	GLY	2.1
47	CN	166	GLY	2.1
63	DE	62	GLN	2.1
70	a	122	GLN	2.1
75	f	20	GLN	2.1
80	P0	54	GLY	2.1
4	j	186	PHE	2.1
9	BB	8	GLU	2.1
16	v	104	GLU	2.1
26	BS	52	PRO	2.1
40	AM	2	PRO	2.1
48	D	100	PHE	2.1
78	DT	27	PRO	2.1
82	l1	72	PHE	2.1
1	1	2449	U	2.0
1	AS	2438	U	2.0
13	BF	87	LYS	2.0
29	BV	19	LYS	2.0
37	CD	43	VAL	2.0
43	CJ	76	VAL	2.0
51	G	7	LYS	2.0
55	K	123	LYS	2.0
60	DB	77	LYS	2.0
62	S	6	VAL	2.0
63	T	9	VAL	2.0
77	h	123	LYS	2.0
78	AR	132	VAL	2.0
6	AY	270	SER	2.0
7	AZ	96	SER	2.0
10	BC	48	SER	2.0
19	y	7	SER	2.0
20	z	69	SER	2.0
25	BR	26	SER	2.0
35	CB	79	SER	2.0

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Mol	Chain	Res	Type	RSRZ
37	CD	26	SER	2.0
44	CK	21	SER	2.0
55	K	66	SER	2.0
62	S	33	SER	2.0
72	DN	57	SER	2.0
11	BD	20	ILE	2.0
15	BH	23	ASN	2.0
18	BK	64	ASN	2.0
19	y	45	ASN	2.0
27	BT	44	ASN	2.0
35	AH	58	ARG	2.0
41	CH	35	ARG	2.0
45	CL	64	LEU	2.0
49	E	39	LEU	2.0
50	CQ	55	ASN	2.0
51	CR	30	ARG	2.0
53	CT	139	ASN	2.0
55	CV	143	ARG	2.0
56	L	23	ARG	2.0
66	W	85	ILE	2.0
67	DI	34	ILE	2.0
68	DJ	80	ASN	2.0
70	DL	18	LEU	2.0
71	DM	51	LEU	2.0
77	h	158	ARG	2.0
81	12	151	ILE	2.0
82	L1	38	LEU	2.0
82	l1	34	LEU	2.0
7	m	68	HIS	2.0
18	x	121	HIS	2.0
19	y	5	HIS	2.0
29	BV	79	TRP	2.0
59	P	25	TRP	2.0
78	AR	45	TRP	2.0
1	1	422	A	2.0
1	AS	313	A	2.0
1	AS	1382	A	2.0
1	AS	2466	A	2.0
1	AS	2519	A	2.0
7	AZ	187	ALA	2.0
10	BC	185	ALA	2.0
11	BD	177	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
13	BF	33	ALA	2.0
13	BF	154	THR	2.0
14	BG	127	ASP	2.0
16	BI	53	TYR	2.0
26	8	23	ALA	2.0
26	BS	59	ALA	2.0
32	BY	47	ASP	2.0
35	CB	50	ALA	2.0
36	CC	120	ALA	2.0
46	B	1753	A	2.0
46	CM	297	A	2.0
46	CM	518	A	2.0
47	C	74	ALA	2.0
50	F	121	TYR	2.0
58	CY	27	ALA	2.0
63	DE	103	ASP	2.0
65	V	8	ASP	2.0
70	a	6	THR	2.0
77	DS	129	THR	2.0
80	P0	48	ASP	2.0
64	U	47	CYS	2.0
82	l1	71	ALA	2.0
17	BJ	70	GLY	2.0
26	BS	44	PRO	2.0
28	AA	136	PHE	2.0
37	CD	64	GLY	2.0
38	AK	38	GLY	2.0
47	C	171	GLY	2.0
54	CU	21	PHE	2.0
56	L	131	GLN	2.0
37	CD	23	PRO	2.0
40	CG	2	PRO	2.0
62	S	108	PHE	2.0
69	Z	122	PHE	2.0
70	a	119	PHE	2.0
77	DS	166	PRO	2.0
78	DT	159	PRO	2.0
1	1	1781	C	2.0
1	AS	173	C	2.0
28	BU	52	LYS	2.0
40	CG	5	LYS	2.0
48	D	163	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
48	CO	191	GLU	2.0
46	B	1697	C	2.0
55	K	24	LYS	2.0
55	CV	70	GLU	2.0
65	DG	78	LYS	2.0
75	DQ	4	GLU	2.0
77	DS	141	LYS	2.0
78	DT	5	GLU	2.0
82	l1	22	GLU	2.0
11	BD	93	VAL	2.0
12	r	197	VAL	2.0
46	B	1018	C	2.0
50	F	40	VAL	2.0
54	CU	177	VAL	2.0
56	CW	148	VAL	2.0
1	AS	245	G	2.0
1	AS	1225	G	2.0
1	AS	1345	G	2.0
1	AS	2873	G	2.0
4	j	247	ARG	2.0
13	s	55	ARG	2.0
13	s	172	LEU	2.0
32	AE	69	ARG	2.0
41	CH	27	LEU	2.0
45	CL	155	LEU	2.0
46	B	562	G	2.0
46	B	1112	G	2.0
46	B	1723	G	2.0
47	CN	176	LEU	2.0
50	F	30	LEU	2.0
52	CS	83	ARG	2.0
54	CU	77	LEU	2.0
55	K	199	LEU	2.0
70	a	74	LEU	2.0
73	d	80	ARG	2.0
78	AR	271	LEU	2.0
82	l1	103	LEU	2.0
13	BF	106	ILE	2.0
17	BJ	185	SER	2.0
27	BT	106	ILE	2.0
28	BU	25	ILE	2.0
38	AK	7	SER	2.0

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Mol	Chain	Res	Type	RSRZ
52	CS	113	ILE	2.0
54	CU	152	SER	2.0
55	K	158	ILE	2.0
55	CV	104	ILE	2.0
56	CW	83	ILE	2.0
58	CY	49	ILE	2.0
58	CY	65	SER	2.0
62	S	120	SER	2.0
78	DT	85	SER	2.0
79	CZ	71	ILE	2.0
79	O	70	SER	2.0
82	L1	183	ILE	2.0
1	1	246	U	2.0
1	1	2961	U	2.0
1	1	3297	U	2.0
1	AS	830	U	2.0
1	AS	2814	U	2.0
4	AW	204	MET	2.0
10	p	244	ASN	2.0
24	BQ	28	ASN	2.0
45	i	66	ASN	2.0
46	B	132	U	2.0
46	B	601	U	2.0
46	B	1016	U	2.0
46	B	1722	U	2.0
46	CM	281	U	2.0
46	CM	301	U	2.0
46	CM	697	U	2.0
46	CM	1048	U	2.0
77	DS	176	ASN	2.0
4	AW	209	HIS	2.0
20	BM	141	HIS	2.0
62	S	92	HIS	2.0
6	AY	57	ALA	2.0
6	AY	294	ALA	2.0
8	n	5	ALA	2.0
18	x	7	THR	2.0
19	y	128	ALA	2.0
31	BX	61	TYR	2.0
39	AL	41	THR	2.0
48	D	230	ALA	2.0
50	CQ	145	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
56	CW	159	ALA	2.0
66	W	28	THR	2.0
68	Y	39	THR	2.0
78	DT	73	THR	2.0
4	AW	208	ASP	2.0
8	BA	59	ASP	2.0
19	BL	4	ASP	2.0
51	G	151	ASP	2.0
56	CW	157	ASP	2.0
62	DD	119	ASP	2.0
67	DI	40	ASP	2.0
78	AR	214	ASP	2.0
82	l1	73	ASP	2.0
4	AW	201	GLY	2.0
10	p	175	GLY	2.0
11	BD	15	GLY	2.0
12	r	188	GLY	2.0
24	6	20	GLY	2.0
55	K	122	GLY	2.0
55	CV	68	GLY	2.0
63	DE	2	GLY	2.0
78	AR	104	PHE	2.0
4	AW	70	LYS	2.0
5	AX	248	LYS	2.0
14	t	117	GLN	2.0
20	BM	7	GLN	2.0
23	BP	85	LYS	2.0
28	BU	106	GLN	2.0
49	E	152	LYS	2.0
49	E	156	LYS	2.0
62	S	40	PRO	2.0
76	g	24	GLN	2.0
78	DT	30	PRO	2.0
1	AS	803	A	2.0
1	AS	1891	A	2.0
5	k	28	ARG	2.0
7	m	54	ARG	2.0
7	AZ	236	VAL	2.0
8	n	129	GLU	2.0
9	BB	213	ARG	2.0
13	s	69	VAL	2.0
23	5	68	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
46	B	367	A	2.0
46	B	599	A	2.0
46	B	1701	A	2.0
46	CM	1050	A	2.0
56	L	148	VAL	2.0
66	W	114	GLU	2.0
74	DP	50	GLU	2.0
78	DT	14	GLU	2.0
61	DC	127	ARG	2.0
64	DF	123	ARG	2.0
78	DT	156	ARG	2.0
80	P0	30	VAL	2.0
30	BW	54	LEU	2.0
47	CN	24	LEU	2.0
51	G	131	LEU	2.0
6	AY	291	ILE	2.0
11	q	75	ILE	2.0
13	BF	65	ILE	2.0
72	DN	94	ILE	2.0
1	AS	2467	C	2.0
1	AS	2848	C	2.0
46	B	482	C	2.0
46	B	1294	C	2.0
46	CM	498	C	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 oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3628	1/1	-0.00	0.26	175,175,175,175	0
84	MG	1	3801	1/1	0.25	0.31	118,118,118,118	0
84	MG	B	1928	1/1	0.28	0.26	131,131,131,131	0
84	MG	B	1943	1/1	0.46	0.32	87,87,87,87	0
84	MG	AS	3649	1/1	0.47	0.23	83,83,83,83	0
84	MG	AE	202	1/1	0.49	0.11	84,84,84,84	0
84	MG	AS	3590	1/1	0.53	0.35	96,96,96,96	0
84	MG	J	201	1/1	0.53	0.15	145,145,145,145	0
84	MG	1	3593	1/1	0.54	0.29	94,94,94,94	0
84	MG	AS	3597	1/1	0.54	0.17	78,78,78,78	0
84	MG	1	3938	1/1	0.54	0.30	69,69,69,69	0
84	MG	AS	3586	1/1	0.56	0.34	77,77,77,77	0
84	MG	2	201	1/1	0.56	0.35	95,95,95,95	0
84	MG	I	301	1/1	0.56	0.29	112,112,112,112	0
84	MG	B	1939	1/1	0.56	0.22	118,118,118,118	0
84	MG	k	404	1/1	0.57	0.30	76,76,76,76	0
84	MG	AT	210	1/1	0.57	0.41	71,71,71,71	0
84	MG	CM	1813	1/1	0.57	0.34	57,57,57,57	0
84	MG	B	1898	1/1	0.58	0.30	74,74,74,74	0
84	MG	AS	3628	1/1	0.59	0.17	49,49,49,49	0
84	MG	1	3808	1/1	0.59	0.28	102,102,102,102	0
85	ZN	DO	101	1/1	0.59	0.13	229,229,229,229	0
84	MG	AS	3636	1/1	0.60	0.26	67,67,67,67	0
84	MG	AS	3501	1/1	0.60	0.39	64,64,64,64	0
84	MG	AS	3662	1/1	0.60	0.26	88,88,88,88	0
84	MG	1	3726	1/1	0.61	0.23	61,61,61,61	0
84	MG	B	1824	1/1	0.62	0.30	67,67,67,67	0
84	MG	B	1946	1/1	0.63	0.28	78,78,78,78	0
84	MG	AS	3747	1/1	0.64	0.09	58,58,58,58	0
84	MG	3	202	1/1	0.64	0.24	83,83,83,83	0
84	MG	B	1836	1/1	0.65	0.20	287,287,287,287	0
84	MG	B	1923	1/1	0.65	0.11	70,70,70,70	0
84	MG	AS	3458	1/1	0.65	0.38	64,64,64,64	0
84	MG	AS	3634	1/1	0.66	0.31	69,69,69,69	0
84	MG	B	1949	1/1	0.66	0.19	79,79,79,79	0
84	MG	1	3874	1/1	0.66	0.27	57,57,57,57	0
84	MG	CM	1871	1/1	0.66	0.30	89,89,89,89	0
84	MG	1	3513	1/1	0.66	0.31	44,44,44,44	0
85	ZN	CJ	201	1/1	0.67	0.17	255,255,255,255	0
84	MG	CM	1808	1/1	0.67	0.31	99,99,99,99	0
84	MG	1	3826	1/1	0.68	0.15	43,43,43,43	0
84	MG	1	3609	1/1	0.68	0.10	48,48,48,48	0
84	MG	B	1903	1/1	0.68	0.22	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3927	1/1	0.68	0.24	76,76,76,76	0
84	MG	1	3584	1/1	0.69	0.23	52,52,52,52	0
84	MG	CM	1855	1/1	0.69	0.31	65,65,65,65	0
84	MG	1	3909	1/1	0.69	0.15	50,50,50,50	0
84	MG	B	1945	1/1	0.69	0.11	74,74,74,74	0
84	MG	1	3920	1/1	0.69	0.13	45,45,45,45	0
84	MG	1	3788	1/1	0.70	0.27	54,54,54,54	0
84	MG	B	1936	1/1	0.70	0.26	74,74,74,74	0
84	MG	AS	3661	1/1	0.70	0.41	75,75,75,75	0
84	MG	B	1907	1/1	0.71	0.10	47,47,47,47	0
84	MG	B	1831	1/1	0.71	0.32	65,65,65,65	0
84	MG	1	3558	1/1	0.71	0.27	61,61,61,61	0
84	MG	CM	1885	1/1	0.71	0.29	84,84,84,84	0
84	MG	1	3676	1/1	0.71	0.22	57,57,57,57	0
84	MG	1	3882	1/1	0.71	0.17	37,37,37,37	0
84	MG	AS	3666	1/1	0.72	0.21	47,47,47,47	0
84	MG	1	4032	1/1	0.72	0.11	46,46,46,46	0
84	MG	1	3906	1/1	0.72	0.22	65,65,65,65	0
84	MG	B	1855	1/1	0.72	0.33	58,58,58,58	0
84	MG	3	208	1/1	0.72	0.20	70,70,70,70	0
84	MG	1	3498	1/1	0.72	0.29	39,39,39,39	0
84	MG	1	3755	1/1	0.72	0.23	70,70,70,70	0
84	MG	AD	201	1/1	0.72	0.38	71,71,71,71	0
84	MG	1	3673	1/1	0.72	0.14	46,46,46,46	0
84	MG	1	3404	1/1	0.72	0.34	38,38,38,38	0
84	MG	1	3663	1/1	0.73	0.36	53,53,53,53	0
84	MG	AS	3815	1/1	0.73	0.15	49,49,49,49	0
84	MG	B	1860	1/1	0.73	0.22	67,67,67,67	0
84	MG	BZ	203	1/1	0.73	0.23	86,86,86,86	0
84	MG	3	214	1/1	0.73	0.28	74,74,74,74	0
84	MG	1	3921	1/1	0.73	0.18	80,80,80,80	0
84	MG	CM	1828	1/1	0.73	0.50	43,43,43,43	0
84	MG	B	1941	1/1	0.73	0.25	94,94,94,94	0
84	MG	AS	3494	1/1	0.73	0.30	50,50,50,50	0
84	MG	CM	1875	1/1	0.73	0.23	63,63,63,63	0
84	MG	B	1854	1/1	0.73	0.24	61,61,61,61	0
84	MG	DB	202	1/1	0.73	0.30	83,83,83,83	0
84	MG	AS	3533	1/1	0.73	0.37	60,60,60,60	0
84	MG	B	1915	1/1	0.73	0.24	62,62,62,62	0
84	MG	1	3758	1/1	0.74	0.40	60,60,60,60	0
84	MG	1	3847	1/1	0.74	0.23	59,59,59,59	0
84	MG	1	3563	1/1	0.74	0.20	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3455	1/1	0.74	0.26	64,64,64,64	0
84	MG	B	1816	1/1	0.74	0.15	64,64,64,64	0
84	MG	AS	3820	1/1	0.74	0.19	50,50,50,50	0
84	MG	CM	1919	1/1	0.74	0.23	49,49,49,49	0
84	MG	w	303	1/1	0.74	0.23	86,86,86,86	0
84	MG	B	1875	1/1	0.74	0.34	63,63,63,63	0
84	MG	AS	3506	1/1	0.74	0.21	49,49,49,49	0
84	MG	1	3722	1/1	0.75	0.09	28,28,28,28	0
84	MG	1	4020	1/1	0.75	0.16	57,57,57,57	0
84	MG	B	1861	1/1	0.75	0.23	76,76,76,76	0
84	MG	1	3422	1/1	0.75	0.26	46,46,46,46	0
84	MG	AU	205	1/1	0.75	0.21	44,44,44,44	0
84	MG	B	1891	1/1	0.75	0.25	62,62,62,62	0
84	MG	1	3686	1/1	0.75	0.17	57,57,57,57	0
84	MG	1	3688	1/1	0.75	0.21	57,57,57,57	0
84	MG	1	3779	1/1	0.75	0.21	44,44,44,44	0
84	MG	CM	1837	1/1	0.75	0.36	53,53,53,53	0
84	MG	B	1913	1/1	0.75	0.18	71,71,71,71	0
84	MG	a	201	1/1	0.75	0.26	86,86,86,86	0
84	MG	1	3925	1/1	0.75	0.10	49,49,49,49	0
84	MG	CM	1876	1/1	0.75	0.20	63,63,63,63	0
84	MG	CM	1879	1/1	0.75	0.23	63,63,63,63	0
84	MG	B	1839	1/1	0.75	0.32	68,68,68,68	0
84	MG	1	3786	1/1	0.75	0.16	69,69,69,69	0
84	MG	AS	3706	1/1	0.75	0.16	46,46,46,46	0
84	MG	AS	3715	1/1	0.75	0.12	49,49,49,49	0
84	MG	AS	3728	1/1	0.75	0.20	46,46,46,46	0
84	MG	1	3670	1/1	0.76	0.13	57,57,57,57	0
84	MG	AS	3671	1/1	0.76	0.28	55,55,55,55	0
84	MG	R	201	1/1	0.76	0.24	78,78,78,78	0
84	MG	1	3751	1/1	0.76	0.16	61,61,61,61	0
84	MG	B	1864	1/1	0.76	0.27	70,70,70,70	0
84	MG	1	3997	1/1	0.76	0.16	58,58,58,58	0
84	MG	AS	3749	1/1	0.76	0.19	57,57,57,57	0
84	MG	1	3892	1/1	0.76	0.19	53,53,53,53	0
84	MG	AS	3642	1/1	0.76	0.27	71,71,71,71	0
84	MG	B	1893	1/1	0.76	0.33	57,57,57,57	0
84	MG	CM	1889	1/1	0.76	0.33	47,47,47,47	0
84	MG	CM	1906	1/1	0.76	0.15	46,46,46,46	0
84	MG	B	1978	1/1	0.76	0.21	51,51,51,51	0
84	MG	BF	201	1/1	0.76	0.28	70,70,70,70	0
84	MG	BN	201	1/1	0.76	0.09	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3754	1/1	0.76	0.29	76,76,76,76	0
84	MG	AS	3816	1/1	0.77	0.27	48,48,48,48	0
84	MG	AS	3534	1/1	0.77	0.22	67,67,67,67	0
84	MG	AS	3829	1/1	0.77	0.20	43,43,43,43	0
84	MG	AS	3574	1/1	0.77	0.29	46,46,46,46	0
84	MG	1	3606	1/1	0.77	0.20	52,52,52,52	0
84	MG	1	3633	1/1	0.77	0.26	48,48,48,48	0
84	MG	1	3860	1/1	0.77	0.21	65,65,65,65	0
84	MG	1	4029	1/1	0.77	0.13	46,46,46,46	0
84	MG	1	3800	1/1	0.77	0.28	65,65,65,65	0
84	MG	1	3728	1/1	0.77	0.28	49,49,49,49	0
84	MG	DJ	201	1/1	0.77	0.14	53,53,53,53	0
84	MG	1	3660	1/1	0.77	0.31	35,35,35,35	0
84	MG	B	1940	1/1	0.77	0.16	78,78,78,78	0
84	MG	AS	3558	1/1	0.78	0.22	53,53,53,53	0
84	MG	y	202	1/1	0.78	0.10	63,63,63,63	0
84	MG	B	1849	1/1	0.78	0.13	56,56,56,56	0
84	MG	CM	1836	1/1	0.78	0.28	59,59,59,59	0
84	MG	AS	3725	1/1	0.78	0.19	45,45,45,45	0
84	MG	1	4036	1/1	0.78	0.27	20,20,20,20	0
84	MG	1	3980	1/1	0.78	0.13	34,34,34,34	0
84	MG	AS	3617	1/1	0.78	0.25	56,56,56,56	0
84	MG	1	3517	1/1	0.78	0.32	60,60,60,60	0
84	MG	3	211	1/1	0.78	0.35	58,58,58,58	0
84	MG	AS	3499	1/1	0.78	0.23	59,59,59,59	0
84	MG	B	1947	1/1	0.78	0.24	83,83,83,83	0
84	MG	AT	207	1/1	0.78	0.30	59,59,59,59	0
84	MG	CM	1916	1/1	0.78	0.21	48,48,48,48	0
84	MG	1	3694	1/1	0.78	0.31	29,29,29,29	0
84	MG	1	3720	1/1	0.78	0.27	97,97,97,97	0
84	MG	1	3757	1/1	0.78	0.32	69,69,69,69	0
84	MG	DJ	202	1/1	0.78	0.11	56,56,56,56	0
84	MG	AS	3535	1/1	0.78	0.24	66,66,66,66	0
84	MG	AS	3669	1/1	0.78	0.10	71,71,71,71	0
84	MG	AS	3479	1/1	0.79	0.28	68,68,68,68	0
84	MG	AS	3619	1/1	0.79	0.28	57,57,57,57	0
84	MG	1	3942	1/1	0.79	0.15	47,47,47,47	0
84	MG	1	3512	1/1	0.79	0.31	58,58,58,58	0
84	MG	CM	1866	1/1	0.79	0.20	73,73,73,73	0
84	MG	1	3597	1/1	0.79	0.25	68,68,68,68	0
84	MG	1	3876	1/1	0.79	0.16	46,46,46,46	0
84	MG	B	1967	1/1	0.79	0.22	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AT	203	1/1	0.79	0.22	63,63,63,63	0
84	MG	B	1924	1/1	0.79	0.17	50,50,50,50	0
84	MG	1	3736	1/1	0.79	0.15	31,31,31,31	0
84	MG	1	3829	1/1	0.79	0.19	51,51,51,51	0
84	MG	1	3930	1/1	0.79	0.18	59,59,59,59	0
84	MG	CM	1918	1/1	0.79	0.14	46,46,46,46	0
84	MG	B	1851	1/1	0.79	0.18	61,61,61,61	0
84	MG	CM	1978	1/1	0.79	0.08	42,42,42,42	0
84	MG	AS	3589	1/1	0.79	0.16	51,51,51,51	0
84	MG	CL	302	1/1	0.79	0.41	72,72,72,72	0
84	MG	B	1901	1/1	0.79	0.34	77,77,77,77	0
84	MG	CM	1810	1/1	0.79	0.21	39,39,39,39	0
84	MG	1	3618	1/1	0.79	0.23	72,72,72,72	0
84	MG	1	3923	1/1	0.80	0.10	56,56,56,56	0
84	MG	AS	3468	1/1	0.80	0.20	51,51,51,51	0
84	MG	AY	401	1/1	0.80	0.09	46,46,46,46	0
84	MG	B	1873	1/1	0.80	0.28	62,62,62,62	0
84	MG	1	3680	1/1	0.80	0.11	40,40,40,40	0
84	MG	B	1886	1/1	0.80	0.23	95,95,95,95	0
84	MG	1	3784	1/1	0.80	0.10	32,32,32,32	0
84	MG	CM	1807	1/1	0.80	0.28	48,48,48,48	0
84	MG	1	3696	1/1	0.80	0.15	200,200,200,200	0
84	MG	1	3581	1/1	0.80	0.23	45,45,45,45	0
84	MG	1	3843	1/1	0.80	0.21	53,53,53,53	0
84	MG	CM	1821	1/1	0.80	0.17	42,42,42,42	0
84	MG	AS	3697	1/1	0.80	0.14	42,42,42,42	0
84	MG	1	3963	1/1	0.80	0.20	48,48,48,48	0
84	MG	B	1958	1/1	0.80	0.09	43,43,43,43	0
84	MG	4	201	1/1	0.80	0.26	54,54,54,54	0
84	MG	AS	3585	1/1	0.80	0.24	52,52,52,52	0
84	MG	AS	3741	1/1	0.80	0.08	53,53,53,53	0
84	MG	AS	3742	1/1	0.80	0.21	42,42,42,42	0
84	MG	B	1912	1/1	0.80	0.31	58,58,58,58	0
84	MG	1	3846	1/1	0.80	0.24	57,57,57,57	0
84	MG	AS	3751	1/1	0.80	0.11	39,39,39,39	0
84	MG	AS	3770	1/1	0.80	0.12	56,56,56,56	0
84	MG	AS	3785	1/1	0.80	0.11	43,43,43,43	0
84	MG	AS	3790	1/1	0.80	0.12	43,43,43,43	0
84	MG	r	303	1/1	0.80	0.09	54,54,54,54	0
84	MG	1	3797	1/1	0.80	0.22	51,51,51,51	0
84	MG	CM	1942	1/1	0.80	0.13	46,46,46,46	0
84	MG	CM	1954	1/1	0.80	0.13	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	CM	1963	1/1	0.80	0.20	45,45,45,45	0
84	MG	1	4013	1/1	0.80	0.08	41,41,41,41	0
84	MG	AS	3827	1/1	0.80	0.10	44,44,44,44	0
84	MG	AS	3618	1/1	0.80	0.24	49,49,49,49	0
84	MG	AS	3419	1/1	0.80	0.55	47,47,47,47	0
85	ZN	AH	201	1/1	0.80	0.11	207,207,207,207	0
84	MG	AT	204	1/1	0.80	0.13	86,86,86,86	0
84	MG	1	3496	1/1	0.80	0.17	31,31,31,31	0
84	MG	1	4010	1/1	0.81	0.11	41,41,41,41	0
84	MG	1	3809	1/1	0.81	0.25	47,47,47,47	0
84	MG	AS	3784	1/1	0.81	0.10	44,44,44,44	0
84	MG	3	213	1/1	0.81	0.27	49,49,49,49	0
84	MG	AS	3644	1/1	0.81	0.28	56,56,56,56	0
84	MG	AS	3794	1/1	0.81	0.26	48,48,48,48	0
84	MG	CM	1858	1/1	0.81	0.25	51,51,51,51	0
84	MG	CM	1861	1/1	0.81	0.16	51,51,51,51	0
84	MG	AS	3797	1/1	0.81	0.22	49,49,49,49	0
84	MG	Z	201	1/1	0.81	0.15	48,48,48,48	0
84	MG	AS	3658	1/1	0.81	0.23	59,59,59,59	0
84	MG	AS	3539	1/1	0.81	0.29	54,54,54,54	0
84	MG	1	3523	1/1	0.81	0.40	51,51,51,51	0
84	MG	1	3748	1/1	0.81	0.27	40,40,40,40	0
84	MG	AS	3442	1/1	0.81	0.25	38,38,38,38	0
84	MG	4	210	1/1	0.81	0.23	38,38,38,38	0
84	MG	AT	206	1/1	0.81	0.34	42,42,42,42	0
84	MG	1	3469	1/1	0.81	0.33	45,45,45,45	0
84	MG	AT	208	1/1	0.81	0.24	57,57,57,57	0
84	MG	1	3682	1/1	0.81	0.24	68,68,68,68	0
84	MG	B	1838	1/1	0.81	0.44	60,60,60,60	0
84	MG	v	304	1/1	0.81	0.13	50,50,50,50	0
84	MG	AS	3726	1/1	0.81	0.25	50,50,50,50	0
84	MG	AS	3498	1/1	0.81	0.26	57,57,57,57	0
84	MG	AS	3733	1/1	0.81	0.14	53,53,53,53	0
84	MG	B	1977	1/1	0.81	0.24	45,45,45,45	0
84	MG	AS	3622	1/1	0.81	0.35	68,68,68,68	0
84	MG	1	3685	1/1	0.81	0.09	93,93,93,93	0
84	MG	AS	3631	1/1	0.81	0.30	51,51,51,51	0
84	MG	B	1815	1/1	0.82	0.28	68,68,68,68	0
84	MG	3	217	1/1	0.82	0.11	42,42,42,42	0
84	MG	B	1887	1/1	0.82	0.25	76,76,76,76	0
84	MG	AS	3491	1/1	0.82	0.22	50,50,50,50	0
84	MG	CM	1819	1/1	0.82	0.23	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3735	1/1	0.82	0.21	53,53,53,53	0
84	MG	1	3778	1/1	0.82	0.15	39,39,39,39	0
84	MG	1	3522	1/1	0.82	0.28	37,37,37,37	0
84	MG	B	1954	1/1	0.82	0.13	52,52,52,52	0
84	MG	CM	1851	1/1	0.82	0.26	78,78,78,78	0
84	MG	1	3698	1/1	0.82	0.20	37,37,37,37	0
84	MG	AS	3803	1/1	0.82	0.35	52,52,52,52	0
84	MG	v	303	1/1	0.82	0.16	49,49,49,49	0
84	MG	1	3750	1/1	0.82	0.11	49,49,49,49	0
84	MG	AS	3818	1/1	0.82	0.11	44,44,44,44	0
84	MG	1	3580	1/1	0.82	0.11	52,52,52,52	0
84	MG	AS	3825	1/1	0.82	0.15	45,45,45,45	0
84	MG	CM	1878	1/1	0.82	0.23	47,47,47,47	0
84	MG	1	3433	1/1	0.82	0.31	40,40,40,40	0
84	MG	1	3444	1/1	0.82	0.36	57,57,57,57	0
84	MG	1	3662	1/1	0.82	0.27	54,54,54,54	0
84	MG	AS	3683	1/1	0.82	0.22	43,43,43,43	0
84	MG	AS	3690	1/1	0.82	0.12	41,41,41,41	0
84	MG	3	215	1/1	0.82	0.20	65,65,65,65	0
84	MG	B	1803	1/1	0.82	0.37	56,56,56,56	0
84	MG	CM	1929	1/1	0.82	0.07	52,52,52,52	0
84	MG	B	1866	1/1	0.82	0.28	66,66,66,66	0
84	MG	AS	3428	1/1	0.82	0.27	36,36,36,36	0
84	MG	CM	1957	1/1	0.82	0.19	50,50,50,50	0
84	MG	B	1872	1/1	0.82	0.16	57,57,57,57	0
84	MG	AS	3611	1/1	0.82	0.20	54,54,54,54	0
84	MG	DA	201	1/1	0.82	0.13	61,61,61,61	0
84	MG	BH	201	1/1	0.82	0.15	50,50,50,50	0
84	MG	AS	3612	1/1	0.82	0.23	46,46,46,46	0
84	MG	BZ	202	1/1	0.82	0.24	68,68,68,68	0
84	MG	AS	3452	1/1	0.82	0.35	41,41,41,41	0
85	ZN	CB	201	1/1	0.82	0.09	237,237,237,237	0
84	MG	B	1808	1/1	0.82	0.24	45,45,45,45	0
84	MG	CM	1801	1/1	0.82	0.15	52,52,52,52	0
84	MG	B	1920	1/1	0.83	0.21	48,48,48,48	0
84	MG	CM	1850	1/1	0.83	0.20	44,44,44,44	0
84	MG	AS	3676	1/1	0.83	0.25	35,35,35,35	0
84	MG	1	3529	1/1	0.83	0.36	53,53,53,53	0
84	MG	4	205	1/1	0.83	0.53	48,48,48,48	0
84	MG	c	202	1/1	0.83	0.17	63,63,63,63	0
84	MG	1	3745	1/1	0.83	0.29	38,38,38,38	0
84	MG	4	211	1/1	0.83	0.14	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	CM	1873	1/1	0.83	0.18	56,56,56,56	0
84	MG	1	4035	1/1	0.83	0.14	53,53,53,53	0
84	MG	B	1826	1/1	0.83	0.22	47,47,47,47	0
84	MG	B	1829	1/1	0.83	0.24	53,53,53,53	0
84	MG	AS	3732	1/1	0.83	0.26	51,51,51,51	0
84	MG	1	3665	1/1	0.83	0.28	43,43,43,43	0
84	MG	1	3594	1/1	0.83	0.14	37,37,37,37	0
84	MG	1	3982	1/1	0.83	0.17	43,43,43,43	0
84	MG	1	3511	1/1	0.83	0.26	42,42,42,42	0
84	MG	1	3821	1/1	0.83	0.19	39,39,39,39	0
84	MG	BV	201	1/1	0.83	0.09	48,48,48,48	0
84	MG	CM	1928	1/1	0.83	0.14	44,44,44,44	0
84	MG	1	3583	1/1	0.83	0.11	56,56,56,56	0
84	MG	CM	1941	1/1	0.83	0.16	48,48,48,48	0
84	MG	B	1955	1/1	0.83	0.28	40,40,40,40	0
84	MG	B	1904	1/1	0.83	0.09	50,50,50,50	0
84	MG	CL	303	1/1	0.83	0.18	61,61,61,61	0
84	MG	CM	1961	1/1	0.83	0.10	46,46,46,46	0
84	MG	B	1852	1/1	0.83	0.29	42,42,42,42	0
84	MG	CM	1806	1/1	0.83	0.32	52,52,52,52	0
84	MG	AS	3789	1/1	0.83	0.14	40,40,40,40	0
84	MG	AS	3528	1/1	0.83	0.27	55,55,55,55	0
84	MG	B	1909	1/1	0.83	0.21	52,52,52,52	0
84	MG	1	3482	1/1	0.83	0.28	49,49,49,49	0
84	MG	B	1979	1/1	0.83	0.15	49,49,49,49	0
84	MG	AS	3809	1/1	0.83	0.07	45,45,45,45	0
84	MG	1	4027	1/1	0.83	0.21	56,56,56,56	0
84	MG	AG	202	1/1	0.83	0.11	57,57,57,57	0
84	MG	AS	3653	1/1	0.84	0.33	41,41,41,41	0
84	MG	1	3782	1/1	0.84	0.25	30,30,30,30	0
84	MG	AS	3438	1/1	0.84	0.35	54,54,54,54	0
84	MG	B	1805	1/1	0.84	0.41	54,54,54,54	0
84	MG	3	204	1/1	0.84	0.27	56,56,56,56	0
84	MG	1	3928	1/1	0.84	0.08	55,55,55,55	0
84	MG	3	210	1/1	0.84	0.16	72,72,72,72	0
84	MG	AS	3672	1/1	0.84	0.09	47,47,47,47	0
84	MG	1	3574	1/1	0.84	0.10	41,41,41,41	0
84	MG	1	3933	1/1	0.84	0.31	51,51,51,51	0
84	MG	CM	1804	1/1	0.84	0.32	40,40,40,40	0
84	MG	AS	3688	1/1	0.84	0.19	39,39,39,39	0
84	MG	AS	3487	1/1	0.84	0.31	39,39,39,39	0
84	MG	1	3586	1/1	0.84	0.37	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3702	1/1	0.84	0.40	50,50,50,50	0
84	MG	1	3464	1/1	0.84	0.22	40,40,40,40	0
84	MG	3	216	1/1	0.84	0.21	65,65,65,65	0
84	MG	B	1938	1/1	0.84	0.24	47,47,47,47	0
84	MG	1	3861	1/1	0.84	0.23	65,65,65,65	0
84	MG	AS	3502	1/1	0.84	0.19	45,45,45,45	0
84	MG	AS	3503	1/1	0.84	0.34	53,53,53,53	0
84	MG	CM	1840	1/1	0.84	0.39	56,56,56,56	0
84	MG	3	218	1/1	0.84	0.12	47,47,47,47	0
84	MG	1	3974	1/1	0.84	0.09	43,43,43,43	0
84	MG	4	202	1/1	0.84	0.26	57,57,57,57	0
84	MG	1	3979	1/1	0.84	0.17	45,45,45,45	0
84	MG	4	208	1/1	0.84	0.17	38,38,38,38	0
84	MG	1	3413	1/1	0.84	0.30	42,42,42,42	0
84	MG	AS	3753	1/1	0.84	0.07	55,55,55,55	0
84	MG	AS	3764	1/1	0.84	0.10	44,44,44,44	0
84	MG	AS	3548	1/1	0.84	0.24	42,42,42,42	0
84	MG	1	3672	1/1	0.84	0.08	52,52,52,52	0
84	MG	CM	1877	1/1	0.84	0.11	86,86,86,86	0
84	MG	B	1953	1/1	0.84	0.09	48,48,48,48	0
84	MG	AS	3580	1/1	0.84	0.34	58,58,58,58	0
84	MG	j	302	1/1	0.84	0.10	69,69,69,69	0
84	MG	1	3880	1/1	0.84	0.07	38,38,38,38	0
84	MG	1	3704	1/1	0.84	0.38	42,42,42,42	0
84	MG	1	3471	1/1	0.84	0.22	24,24,24,24	0
84	MG	B	1972	1/1	0.84	0.16	54,54,54,54	0
84	MG	1	3640	1/1	0.84	0.11	59,59,59,59	0
84	MG	1	3814	1/1	0.84	0.15	47,47,47,47	0
84	MG	1	3648	1/1	0.84	0.22	69,69,69,69	0
84	MG	1	4030	1/1	0.84	0.08	41,41,41,41	0
84	MG	8	201	1/1	0.84	0.23	50,50,50,50	0
84	MG	CM	1952	1/1	0.84	0.16	48,48,48,48	0
84	MG	AS	3621	1/1	0.84	0.24	65,65,65,65	0
84	MG	9	201	1/1	0.84	0.29	65,65,65,65	0
84	MG	AS	3833	1/1	0.84	0.08	42,42,42,42	0
84	MG	U	201	1/1	0.84	0.12	51,51,51,51	0
84	MG	CM	1968	1/1	0.84	0.08	48,48,48,48	0
84	MG	CM	1970	1/1	0.84	0.11	43,43,43,43	0
84	MG	CM	1975	1/1	0.84	0.18	48,48,48,48	0
84	MG	Y	202	1/1	0.84	0.21	76,76,76,76	0
84	MG	CN	301	1/1	0.84	0.30	67,67,67,67	0
84	MG	1	3652	1/1	0.84	0.25	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AE	201	1/1	0.84	0.12	79,79,79,79	0
84	MG	1	3604	1/1	0.84	0.26	33,33,33,33	0
84	MG	AT	209	1/1	0.84	0.30	47,47,47,47	0
84	MG	AS	3417	1/1	0.84	0.26	36,36,36,36	0
85	ZN	d	101	1/1	0.84	0.09	251,251,251,251	0
84	MG	AU	203	1/1	0.84	0.24	48,48,48,48	0
84	MG	AU	204	1/1	0.84	0.11	43,43,43,43	0
84	MG	1	3841	1/1	0.84	0.21	42,42,42,42	0
84	MG	AS	3646	1/1	0.85	0.05	43,43,43,43	0
84	MG	CM	1835	1/1	0.85	0.27	58,58,58,58	0
84	MG	1	3638	1/1	0.85	0.14	38,38,38,38	0
84	MG	AS	3511	1/1	0.85	0.22	48,48,48,48	0
84	MG	AS	3512	1/1	0.85	0.29	64,64,64,64	0
84	MG	CM	1845	1/1	0.85	0.10	31,31,31,31	0
84	MG	1	3853	1/1	0.85	0.18	54,54,54,54	0
84	MG	1	3508	1/1	0.85	0.20	43,43,43,43	0
84	MG	1	3781	1/1	0.85	0.24	48,48,48,48	0
84	MG	B	1862	1/1	0.85	0.22	54,54,54,54	0
84	MG	AS	3536	1/1	0.85	0.28	42,42,42,42	0
84	MG	CM	1862	1/1	0.85	0.11	64,64,64,64	0
84	MG	1	4017	1/1	0.85	0.11	51,51,51,51	0
84	MG	1	3926	1/1	0.85	0.41	64,64,64,64	0
84	MG	AS	3832	1/1	0.85	0.13	39,39,39,39	0
84	MG	AR	401	1/1	0.85	0.20	69,69,69,69	0
84	MG	1	3525	1/1	0.85	0.12	55,55,55,55	0
84	MG	AS	3579	1/1	0.85	0.21	53,53,53,53	0
84	MG	B	1804	1/1	0.85	0.32	61,61,61,61	0
84	MG	AS	3698	1/1	0.85	0.14	44,44,44,44	0
84	MG	AS	3425	1/1	0.85	0.26	46,46,46,46	0
84	MG	1	3622	1/1	0.85	0.29	44,44,44,44	0
84	MG	CM	1895	1/1	0.85	0.30	52,52,52,52	0
84	MG	AS	3712	1/1	0.85	0.18	45,45,45,45	0
84	MG	CM	1909	1/1	0.85	0.17	52,52,52,52	0
84	MG	CM	1911	1/1	0.85	0.22	47,47,47,47	0
84	MG	AT	213	1/1	0.85	0.24	44,44,44,44	0
84	MG	AS	3431	1/1	0.85	0.33	52,52,52,52	0
84	MG	AS	3718	1/1	0.85	0.14	43,43,43,43	0
84	MG	CM	1923	1/1	0.85	0.18	53,53,53,53	0
84	MG	B	1884	1/1	0.85	0.11	89,89,89,89	0
84	MG	1	3656	1/1	0.85	0.28	59,59,59,59	0
84	MG	CM	1940	1/1	0.85	0.12	46,46,46,46	0
84	MG	BB	305	1/1	0.85	0.40	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3931	1/1	0.85	0.17	61,61,61,61	0
84	MG	CM	1950	1/1	0.85	0.06	40,40,40,40	0
84	MG	AS	3729	1/1	0.85	0.26	48,48,48,48	0
84	MG	1	4033	1/1	0.85	0.19	42,42,42,42	0
84	MG	BO	201	1/1	0.85	0.09	48,48,48,48	0
84	MG	CM	1958	1/1	0.85	0.09	59,59,59,59	0
84	MG	AS	3614	1/1	0.85	0.14	46,46,46,46	0
84	MG	1	3475	1/1	0.85	0.20	26,26,26,26	0
84	MG	CM	1966	1/1	0.85	0.16	54,54,54,54	0
84	MG	1	3794	1/1	0.85	0.16	42,42,42,42	0
84	MG	1	3897	1/1	0.85	0.12	72,72,72,72	0
84	MG	CM	1974	1/1	0.85	0.08	43,43,43,43	0
84	MG	s	201	1/1	0.85	0.21	46,46,46,46	0
84	MG	CL	304	1/1	0.85	0.08	54,54,54,54	0
84	MG	1	3954	1/1	0.85	0.15	43,43,43,43	0
84	MG	CW	202	1/1	0.85	0.10	57,57,57,57	0
84	MG	AS	3627	1/1	0.85	0.15	54,54,54,54	0
84	MG	1	3898	1/1	0.85	0.12	40,40,40,40	0
84	MG	DB	203	1/1	0.85	0.27	58,58,58,58	0
84	MG	1	3426	1/1	0.85	0.28	22,22,22,22	0
84	MG	AS	3775	1/1	0.85	0.22	45,45,45,45	0
84	MG	1	3737	1/1	0.85	0.38	24,24,24,24	0
85	ZN	AP	201	1/1	0.85	0.10	226,226,226,226	0
84	MG	CM	1811	1/1	0.85	0.18	50,50,50,50	0
84	MG	1	3911	1/1	0.85	0.17	36,36,36,36	0
84	MG	D	302	1/1	0.85	0.09	35,35,35,35	0
84	MG	2	202	1/1	0.85	0.31	51,51,51,51	0
84	MG	AS	3492	1/1	0.86	0.33	56,56,56,56	0
84	MG	AS	3637	1/1	0.86	0.24	44,44,44,44	0
84	MG	AS	3804	1/1	0.86	0.14	67,67,67,67	0
84	MG	1	3753	1/1	0.86	0.17	33,33,33,33	0
84	MG	1	3655	1/1	0.86	0.12	58,58,58,58	0
84	MG	AS	3645	1/1	0.86	0.16	50,50,50,50	0
84	MG	1	3799	1/1	0.86	0.29	69,69,69,69	0
84	MG	CM	1869	1/1	0.86	0.14	46,46,46,46	0
84	MG	1	3431	1/1	0.86	0.12	53,53,53,53	0
84	MG	AS	3821	1/1	0.86	0.22	45,45,45,45	0
84	MG	1	3568	1/1	0.86	0.14	46,46,46,46	0
84	MG	AS	3655	1/1	0.86	0.09	46,46,46,46	0
84	MG	B	1980	1/1	0.86	0.09	49,49,49,49	0
84	MG	AS	3660	1/1	0.86	0.26	66,66,66,66	0
84	MG	B	1985	1/1	0.86	0.07	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	CM	1880	1/1	0.86	0.12	44,44,44,44	0
84	MG	CM	1883	1/1	0.86	0.23	42,42,42,42	0
84	MG	B	1992	1/1	0.86	0.11	45,45,45,45	0
84	MG	u	202	1/1	0.86	0.08	47,47,47,47	0
84	MG	1	3807	1/1	0.86	0.25	45,45,45,45	0
84	MG	1	3477	1/1	0.86	0.33	42,42,42,42	0
84	MG	K	301	1/1	0.86	0.14	72,72,72,72	0
84	MG	1	3608	1/1	0.86	0.11	71,71,71,71	0
84	MG	CM	1913	1/1	0.86	0.07	48,48,48,48	0
84	MG	1	3664	1/1	0.86	0.23	44,44,44,44	0
84	MG	0	201	1/1	0.86	0.15	41,41,41,41	0
84	MG	AS	3542	1/1	0.86	0.34	56,56,56,56	0
84	MG	1	3958	1/1	0.86	0.08	40,40,40,40	0
84	MG	B	1931	1/1	0.86	0.12	47,47,47,47	0
84	MG	AS	3568	1/1	0.86	0.24	42,42,42,42	0
84	MG	B	1932	1/1	0.86	0.13	36,36,36,36	0
84	MG	g	101	1/1	0.86	0.47	87,87,87,87	0
84	MG	1	3816	1/1	0.86	0.22	42,42,42,42	0
84	MG	AS	3404	1/1	0.86	0.38	34,34,34,34	0
84	MG	1	3780	1/1	0.86	0.18	40,40,40,40	0
84	MG	BS	202	1/1	0.86	0.11	58,58,58,58	0
84	MG	1	3822	1/1	0.86	0.18	46,46,46,46	0
84	MG	AB	202	1/1	0.86	0.16	53,53,53,53	0
84	MG	1	3480	1/1	0.86	0.32	36,36,36,36	0
84	MG	AS	3730	1/1	0.86	0.16	42,42,42,42	0
84	MG	AS	3598	1/1	0.86	0.15	41,41,41,41	0
84	MG	AS	3601	1/1	0.86	0.23	49,49,49,49	0
84	MG	1	3643	1/1	0.86	0.30	34,34,34,34	0
84	MG	AS	3437	1/1	0.86	0.33	54,54,54,54	0
84	MG	1	3989	1/1	0.86	0.07	35,35,35,35	0
84	MG	1	3914	1/1	0.86	0.28	59,59,59,59	0
84	MG	1	4003	1/1	0.86	0.10	48,48,48,48	0
84	MG	CW	201	1/1	0.86	0.08	41,41,41,41	0
84	MG	CM	1809	1/1	0.86	0.27	102,102,102,102	0
84	MG	1	3839	1/1	0.86	0.26	40,40,40,40	0
84	MG	DB	201	1/1	0.86	0.17	62,62,62,62	0
84	MG	AS	3760	1/1	0.86	0.07	36,36,36,36	0
84	MG	AS	3762	1/1	0.86	0.20	42,42,42,42	0
84	MG	1	3612	1/1	0.86	0.37	49,49,49,49	0
84	MG	1	3442	1/1	0.86	0.24	63,63,63,63	0
84	MG	AS	3470	1/1	0.86	0.23	46,46,46,46	0
84	MG	1	3716	1/1	0.86	0.10	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3630	1/1	0.86	0.11	59,59,59,59	0
84	MG	B	1956	1/1	0.86	0.28	46,46,46,46	0
84	MG	AS	3633	1/1	0.86	0.31	84,84,84,84	0
84	MG	1	4024	1/1	0.86	0.22	44,44,44,44	0
84	MG	AS	3592	1/1	0.87	0.09	42,42,42,42	0
84	MG	AS	3743	1/1	0.87	0.07	47,47,47,47	0
84	MG	B	1809	1/1	0.87	0.26	42,42,42,42	0
84	MG	1	3487	1/1	0.87	0.09	52,52,52,52	0
84	MG	B	1916	1/1	0.87	0.07	58,58,58,58	0
84	MG	AS	3752	1/1	0.87	0.20	47,47,47,47	0
84	MG	B	1919	1/1	0.87	0.22	61,61,61,61	0
84	MG	CM	1842	1/1	0.87	0.12	52,52,52,52	0
84	MG	1	3924	1/1	0.87	0.11	62,62,62,62	0
84	MG	AS	3426	1/1	0.87	0.19	28,28,28,28	0
84	MG	B	1819	1/1	0.87	0.17	40,40,40,40	0
84	MG	AS	3765	1/1	0.87	0.11	44,44,44,44	0
84	MG	1	3528	1/1	0.87	0.17	52,52,52,52	0
84	MG	4	209	1/1	0.87	0.15	39,39,39,39	0
84	MG	1	3866	1/1	0.87	0.09	52,52,52,52	0
84	MG	1	3503	1/1	0.87	0.19	49,49,49,49	0
84	MG	AS	3623	1/1	0.87	0.15	51,51,51,51	0
84	MG	4	212	1/1	0.87	0.14	44,44,44,44	0
84	MG	1	4019	1/1	0.87	0.20	42,42,42,42	0
84	MG	AS	3456	1/1	0.87	0.18	58,58,58,58	0
84	MG	1	3815	1/1	0.87	0.21	72,72,72,72	0
84	MG	AS	3461	1/1	0.87	0.23	33,33,33,33	0
84	MG	1	3543	1/1	0.87	0.16	41,41,41,41	0
84	MG	1	4025	1/1	0.87	0.10	40,40,40,40	0
84	MG	AS	3476	1/1	0.87	0.21	33,33,33,33	0
84	MG	AS	3638	1/1	0.87	0.10	39,39,39,39	0
84	MG	1	3582	1/1	0.87	0.20	58,58,58,58	0
84	MG	AS	3643	1/1	0.87	0.16	61,61,61,61	0
84	MG	1	3886	1/1	0.87	0.10	42,42,42,42	0
84	MG	1	3934	1/1	0.87	0.08	51,51,51,51	0
84	MG	1	3785	1/1	0.87	0.18	53,53,53,53	0
84	MG	1	3545	1/1	0.87	0.35	46,46,46,46	0
84	MG	z	201	1/1	0.87	0.13	74,74,74,74	0
84	MG	1	3944	1/1	0.87	0.09	39,39,39,39	0
84	MG	CM	1917	1/1	0.87	0.14	55,55,55,55	0
84	MG	AS	3500	1/1	0.87	0.24	50,50,50,50	0
84	MG	1	3555	1/1	0.87	0.20	60,60,60,60	0
84	MG	B	1867	1/1	0.87	0.20	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	B	1868	1/1	0.87	0.18	70,70,70,70	0
84	MG	1	3657	1/1	0.87	0.24	54,54,54,54	0
84	MG	1	3960	1/1	0.87	0.07	43,43,43,43	0
84	MG	1	3448	1/1	0.87	0.25	36,36,36,36	0
84	MG	B	1879	1/1	0.87	0.21	42,42,42,42	0
84	MG	AS	3673	1/1	0.87	0.11	49,49,49,49	0
84	MG	B	1882	1/1	0.87	0.34	57,57,57,57	0
84	MG	AS	3682	1/1	0.87	0.21	42,42,42,42	0
84	MG	BB	302	1/1	0.87	0.30	44,44,44,44	0
84	MG	AA	201	1/1	0.87	0.10	57,57,57,57	0
84	MG	BE	303	1/1	0.87	0.23	52,52,52,52	0
84	MG	B	1981	1/1	0.87	0.12	46,46,46,46	0
84	MG	CM	1965	1/1	0.87	0.18	53,53,53,53	0
84	MG	1	3968	1/1	0.87	0.09	45,45,45,45	0
84	MG	BI	301	1/1	0.87	0.07	45,45,45,45	0
84	MG	AS	3694	1/1	0.87	0.12	54,54,54,54	0
84	MG	1	3524	1/1	0.87	0.34	50,50,50,50	0
84	MG	1	3978	1/1	0.87	0.07	36,36,36,36	0
84	MG	CM	1976	1/1	0.87	0.19	55,55,55,55	0
84	MG	1	3912	1/1	0.87	0.15	36,36,36,36	0
84	MG	AS	3704	1/1	0.87	0.11	44,44,44,44	0
84	MG	CQ	303	1/1	0.87	0.07	39,39,39,39	0
84	MG	AS	3550	1/1	0.87	0.25	35,35,35,35	0
84	MG	CL	301	1/1	0.87	0.11	49,49,49,49	0
84	MG	B	1897	1/1	0.87	0.22	47,47,47,47	0
84	MG	AF	202	1/1	0.87	0.09	55,55,55,55	0
84	MG	1	3767	1/1	0.87	0.24	61,61,61,61	0
84	MG	AH	202	1/1	0.87	0.15	72,72,72,72	0
84	MG	1	3776	1/1	0.87	0.10	35,35,35,35	0
84	MG	AS	3582	1/1	0.87	0.28	47,47,47,47	0
84	MG	AS	3583	1/1	0.87	0.18	46,46,46,46	0
84	MG	1	3984	1/1	0.87	0.24	53,53,53,53	0
84	MG	1	3987	1/1	0.87	0.21	44,44,44,44	0
84	MG	B	1910	1/1	0.87	0.14	50,50,50,50	0
84	MG	AS	3734	1/1	0.87	0.21	43,43,43,43	0
84	MG	1	3564	1/1	0.87	0.38	54,54,54,54	0
84	MG	1	3432	1/1	0.88	0.12	54,54,54,54	0
84	MG	1	4021	1/1	0.88	0.08	47,47,47,47	0
84	MG	AS	3635	1/1	0.88	0.12	36,36,36,36	0
84	MG	CM	1848	1/1	0.88	0.21	39,39,39,39	0
84	MG	1	3624	1/1	0.88	0.17	55,55,55,55	0
84	MG	1	3589	1/1	0.88	0.20	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3729	1/1	0.88	0.30	43,43,43,43	0
84	MG	1	3419	1/1	0.88	0.22	18,18,18,18	0
84	MG	1	3859	1/1	0.88	0.08	43,43,43,43	0
84	MG	AS	3799	1/1	0.88	0.07	44,44,44,44	0
84	MG	1	3567	1/1	0.88	0.14	41,41,41,41	0
84	MG	1	3791	1/1	0.88	0.14	31,31,31,31	0
84	MG	AS	3805	1/1	0.88	0.19	45,45,45,45	0
84	MG	1	3466	1/1	0.88	0.19	37,37,37,37	0
84	MG	B	1962	1/1	0.88	0.09	46,46,46,46	0
84	MG	1	3795	1/1	0.88	0.14	40,40,40,40	0
84	MG	1	3953	1/1	0.88	0.10	38,38,38,38	0
84	MG	B	1877	1/1	0.88	0.23	62,62,62,62	0
84	MG	1	3738	1/1	0.88	0.21	35,35,35,35	0
84	MG	1	3955	1/1	0.88	0.09	41,41,41,41	0
84	MG	AS	3826	1/1	0.88	0.12	39,39,39,39	0
84	MG	1	3530	1/1	0.88	0.26	37,37,37,37	0
84	MG	1	3681	1/1	0.88	0.07	45,45,45,45	0
84	MG	1	3539	1/1	0.88	0.30	48,48,48,48	0
84	MG	CM	1900	1/1	0.88	0.22	47,47,47,47	0
84	MG	AS	3670	1/1	0.88	0.10	42,42,42,42	0
84	MG	1	3802	1/1	0.88	0.18	75,75,75,75	0
84	MG	B	1892	1/1	0.88	0.12	49,49,49,49	0
84	MG	AP	203	1/1	0.88	0.32	74,74,74,74	0
84	MG	AS	3547	1/1	0.88	0.17	41,41,41,41	0
84	MG	AS	3679	1/1	0.88	0.22	45,45,45,45	0
84	MG	1	3650	1/1	0.88	0.35	43,43,43,43	0
84	MG	1	3607	1/1	0.88	0.21	54,54,54,54	0
84	MG	AS	3685	1/1	0.88	0.12	44,44,44,44	0
84	MG	Q	201	1/1	0.88	0.09	34,34,34,34	0
84	MG	B	1899	1/1	0.88	0.21	60,60,60,60	0
84	MG	1	3654	1/1	0.88	0.18	52,52,52,52	0
84	MG	AU	208	1/1	0.88	0.07	42,42,42,42	0
84	MG	B	1902	1/1	0.88	0.12	63,63,63,63	0
84	MG	CM	1948	1/1	0.88	0.11	58,58,58,58	0
84	MG	1	3908	1/1	0.88	0.19	43,43,43,43	0
84	MG	AS	3699	1/1	0.88	0.12	50,50,50,50	0
84	MG	1	3689	1/1	0.88	0.11	42,42,42,42	0
84	MG	1	3693	1/1	0.88	0.14	47,47,47,47	0
84	MG	1	3434	1/1	0.88	0.22	23,23,23,23	0
84	MG	AS	3709	1/1	0.88	0.22	43,43,43,43	0
84	MG	CM	1962	1/1	0.88	0.20	53,53,53,53	0
84	MG	B	1817	1/1	0.88	0.24	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3438	1/1	0.88	0.19	34,34,34,34	0
84	MG	B	1822	1/1	0.88	0.28	47,47,47,47	0
84	MG	1	3995	1/1	0.88	0.08	45,45,45,45	0
84	MG	B	1825	1/1	0.88	0.23	47,47,47,47	0
84	MG	CM	1973	1/1	0.88	0.16	45,45,45,45	0
84	MG	1	3917	1/1	0.88	0.13	70,70,70,70	0
84	MG	AS	3599	1/1	0.88	0.19	48,48,48,48	0
84	MG	AS	3600	1/1	0.88	0.21	50,50,50,50	0
84	MG	B	1827	1/1	0.88	0.18	58,58,58,58	0
84	MG	CM	1981	1/1	0.88	0.21	45,45,45,45	0
84	MG	AS	3609	1/1	0.88	0.11	44,44,44,44	0
84	MG	B	1828	1/1	0.88	0.19	45,45,45,45	0
84	MG	AS	3737	1/1	0.88	0.05	36,36,36,36	0
84	MG	1	3611	1/1	0.88	0.25	31,31,31,31	0
84	MG	1	4004	1/1	0.88	0.08	48,48,48,48	0
84	MG	AS	3440	1/1	0.88	0.18	28,28,28,28	0
84	MG	1	3825	1/1	0.88	0.30	48,48,48,48	0
84	MG	AS	3748	1/1	0.88	0.12	36,36,36,36	0
84	MG	k	401	1/1	0.88	0.12	65,65,65,65	0
84	MG	B	1934	1/1	0.88	0.09	87,87,87,87	0
84	MG	1	3427	1/1	0.88	0.27	37,37,37,37	0
84	MG	B	1843	1/1	0.88	0.25	58,58,58,58	0
84	MG	1	4016	1/1	0.88	0.09	39,39,39,39	0
84	MG	1	3616	1/1	0.88	0.27	26,26,26,26	0
84	MG	1	3412	1/1	0.88	0.26	49,49,49,49	0
84	MG	AS	3472	1/1	0.88	0.22	40,40,40,40	0
84	MG	AS	3705	1/1	0.89	0.15	48,48,48,48	0
84	MG	AS	3551	1/1	0.89	0.25	43,43,43,43	0
84	MG	AS	3555	1/1	0.89	0.21	38,38,38,38	0
84	MG	AS	3710	1/1	0.89	0.24	48,48,48,48	0
84	MG	1	3629	1/1	0.89	0.24	32,32,32,32	0
84	MG	AS	3559	1/1	0.89	0.21	46,46,46,46	0
84	MG	AS	3565	1/1	0.89	0.30	35,35,35,35	0
84	MG	1	3992	1/1	0.89	0.10	40,40,40,40	0
84	MG	v	302	1/1	0.89	0.18	68,68,68,68	0
84	MG	AS	3727	1/1	0.89	0.15	51,51,51,51	0
84	MG	CM	1812	1/1	0.89	0.11	44,44,44,44	0
84	MG	1	3900	1/1	0.89	0.19	53,53,53,53	0
84	MG	CM	1817	1/1	0.89	0.23	34,34,34,34	0
84	MG	B	1870	1/1	0.89	0.18	50,50,50,50	0
84	MG	CM	1820	1/1	0.89	0.33	42,42,42,42	0
84	MG	1	3901	1/1	0.89	0.15	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	CM	1824	1/1	0.89	0.12	48,48,48,48	0
84	MG	1	3632	1/1	0.89	0.09	42,42,42,42	0
84	MG	CM	1833	1/1	0.89	0.24	49,49,49,49	0
84	MG	1	3675	1/1	0.89	0.15	54,54,54,54	0
84	MG	1	3743	1/1	0.89	0.15	32,32,32,32	0
84	MG	AS	3587	1/1	0.89	0.16	44,44,44,44	0
84	MG	AS	3738	1/1	0.89	0.08	54,54,54,54	0
84	MG	AS	3739	1/1	0.89	0.05	43,43,43,43	0
84	MG	1	3600	1/1	0.89	0.09	47,47,47,47	0
84	MG	B	1880	1/1	0.89	0.24	47,47,47,47	0
84	MG	1	3601	1/1	0.89	0.21	51,51,51,51	0
84	MG	AS	3745	1/1	0.89	0.07	62,62,62,62	0
84	MG	B	1883	1/1	0.89	0.14	37,37,37,37	0
84	MG	1	3602	1/1	0.89	0.08	53,53,53,53	0
84	MG	1	3916	1/1	0.89	0.15	75,75,75,75	0
84	MG	Z	202	1/1	0.89	0.31	55,55,55,55	0
84	MG	1	3416	1/1	0.89	0.17	46,46,46,46	0
84	MG	1	3684	1/1	0.89	0.29	78,78,78,78	0
84	MG	1	3644	1/1	0.89	0.14	34,34,34,34	0
84	MG	AC	102	1/1	0.89	0.06	42,42,42,42	0
84	MG	1	3647	1/1	0.89	0.22	48,48,48,48	0
84	MG	AS	3405	1/1	0.89	0.25	34,34,34,34	0
84	MG	1	4026	1/1	0.89	0.10	42,42,42,42	0
84	MG	1	3483	1/1	0.89	0.16	37,37,37,37	0
84	MG	1	3550	1/1	0.89	0.16	51,51,51,51	0
84	MG	1	3759	1/1	0.89	0.10	36,36,36,36	0
84	MG	1	3690	1/1	0.89	0.12	86,86,86,86	0
84	MG	AS	3626	1/1	0.89	0.12	45,45,45,45	0
84	MG	AP	202	1/1	0.89	0.21	33,33,33,33	0
84	MG	CM	1893	1/1	0.89	0.17	31,31,31,31	0
84	MG	AS	3795	1/1	0.89	0.07	41,41,41,41	0
84	MG	1	3838	1/1	0.89	0.20	67,67,67,67	0
84	MG	B	1802	1/1	0.89	0.31	34,34,34,34	0
84	MG	1	3929	1/1	0.89	0.20	52,52,52,52	0
84	MG	1	3770	1/1	0.89	0.14	33,33,33,33	0
84	MG	CM	1912	1/1	0.89	0.09	44,44,44,44	0
84	MG	1	3774	1/1	0.89	0.12	44,44,44,44	0
84	MG	1	3486	1/1	0.89	0.31	37,37,37,37	0
84	MG	1	3844	1/1	0.89	0.17	54,54,54,54	0
84	MG	B	1813	1/1	0.89	0.19	50,50,50,50	0
84	MG	1	3557	1/1	0.89	0.22	54,54,54,54	0
84	MG	1	3526	1/1	0.89	0.21	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3414	1/1	0.89	0.32	29,29,29,29	0
84	MG	1	3614	1/1	0.89	0.13	78,78,78,78	0
84	MG	B	1930	1/1	0.89	0.14	64,64,64,64	0
84	MG	1	3659	1/1	0.89	0.22	41,41,41,41	0
84	MG	AS	3828	1/1	0.89	0.09	47,47,47,47	0
84	MG	AS	3483	1/1	0.89	0.19	32,32,32,32	0
84	MG	CM	1949	1/1	0.89	0.07	52,52,52,52	0
84	MG	AS	3831	1/1	0.89	0.07	44,44,44,44	0
84	MG	1	3783	1/1	0.89	0.12	59,59,59,59	0
84	MG	1	3862	1/1	0.89	0.15	58,58,58,58	0
84	MG	B	1935	1/1	0.89	0.18	86,86,86,86	0
84	MG	1	3415	1/1	0.89	0.26	38,38,38,38	0
84	MG	1	3873	1/1	0.89	0.35	56,56,56,56	0
84	MG	1	3967	1/1	0.89	0.07	51,51,51,51	0
84	MG	1	3446	1/1	0.89	0.14	29,29,29,29	0
84	MG	1	3969	1/1	0.89	0.07	43,43,43,43	0
84	MG	1	3971	1/1	0.89	0.06	36,36,36,36	0
84	MG	1	3501	1/1	0.89	0.13	28,28,28,28	0
84	MG	1	3727	1/1	0.89	0.10	36,36,36,36	0
84	MG	B	1840	1/1	0.89	0.19	37,37,37,37	0
84	MG	AS	3674	1/1	0.89	0.29	65,65,65,65	0
84	MG	1	3573	1/1	0.89	0.10	50,50,50,50	0
84	MG	AW	304	1/1	0.89	0.08	62,62,62,62	0
84	MG	AX	1300	1/1	0.89	0.27	36,36,36,36	0
84	MG	B	1845	1/1	0.89	0.09	49,49,49,49	0
84	MG	AS	3681	1/1	0.89	0.11	33,33,33,33	0
84	MG	CQ	302	1/1	0.89	0.07	41,41,41,41	0
84	MG	j	301	1/1	0.89	0.13	35,35,35,35	0
84	MG	1	3627	1/1	0.89	0.18	40,40,40,40	0
84	MG	AS	3684	1/1	0.89	0.15	32,32,32,32	0
84	MG	1	3733	1/1	0.89	0.19	52,52,52,52	0
84	MG	AS	3687	1/1	0.89	0.30	44,44,44,44	0
84	MG	BK	201	1/1	0.89	0.26	36,36,36,36	0
84	MG	k	403	1/1	0.89	0.17	56,56,56,56	0
84	MG	DG	201	1/1	0.89	0.16	77,77,77,77	0
84	MG	1	3894	1/1	0.89	0.22	73,73,73,73	0
84	MG	BS	201	1/1	0.89	0.09	49,49,49,49	0
84	MG	AS	3540	1/1	0.89	0.28	47,47,47,47	0
84	MG	B	1966	1/1	0.89	0.16	46,46,46,46	0
84	MG	AS	3544	1/1	0.89	0.11	48,48,48,48	0
84	MG	o	305	1/1	0.89	0.11	42,42,42,42	0
84	MG	o	306	1/1	0.89	0.15	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3598	1/1	0.89	0.31	42,42,42,42	0
84	MG	AS	3448	1/1	0.90	0.28	38,38,38,38	0
84	MG	AS	3450	1/1	0.90	0.19	41,41,41,41	0
84	MG	1	3833	1/1	0.90	0.10	34,34,34,34	0
84	MG	AS	3454	1/1	0.90	0.30	34,34,34,34	0
84	MG	1	3996	1/1	0.90	0.21	40,40,40,40	0
84	MG	1	3678	1/1	0.90	0.08	55,55,55,55	0
84	MG	CM	1823	1/1	0.90	0.14	49,49,49,49	0
84	MG	1	3467	1/1	0.90	0.29	43,43,43,43	0
84	MG	CM	1827	1/1	0.90	0.20	51,51,51,51	0
84	MG	AS	3759	1/1	0.90	0.15	42,42,42,42	0
84	MG	CM	1830	1/1	0.90	0.22	36,36,36,36	0
84	MG	1	3730	1/1	0.90	0.21	32,32,32,32	0
84	MG	CM	1834	1/1	0.90	0.30	43,43,43,43	0
84	MG	1	3476	1/1	0.90	0.23	27,27,27,27	0
84	MG	1	4012	1/1	0.90	0.29	47,47,47,47	0
84	MG	1	3734	1/1	0.90	0.33	54,54,54,54	0
84	MG	CM	1838	1/1	0.90	0.13	53,53,53,53	0
84	MG	CM	1839	1/1	0.90	0.19	42,42,42,42	0
84	MG	1	3845	1/1	0.90	0.14	44,44,44,44	0
84	MG	AS	3772	1/1	0.90	0.20	46,46,46,46	0
84	MG	1	3653	1/1	0.90	0.18	48,48,48,48	0
84	MG	AS	3782	1/1	0.90	0.09	50,50,50,50	0
84	MG	1	3468	1/1	0.90	0.24	38,38,38,38	0
84	MG	AS	3484	1/1	0.90	0.23	40,40,40,40	0
84	MG	CM	1853	1/1	0.90	0.09	48,48,48,48	0
84	MG	CM	1854	1/1	0.90	0.10	37,37,37,37	0
84	MG	1	3848	1/1	0.90	0.38	55,55,55,55	0
84	MG	CM	1856	1/1	0.90	0.26	54,54,54,54	0
84	MG	B	1951	1/1	0.90	0.08	49,49,49,49	0
84	MG	AS	3792	1/1	0.90	0.08	64,64,64,64	0
84	MG	1	3849	1/1	0.90	0.14	38,38,38,38	0
84	MG	1	4022	1/1	0.90	0.06	40,40,40,40	0
84	MG	CM	1868	1/1	0.90	0.15	48,48,48,48	0
84	MG	1	3851	1/1	0.90	0.17	46,46,46,46	0
84	MG	1	3514	1/1	0.90	0.23	26,26,26,26	0
84	MG	1	3856	1/1	0.90	0.19	46,46,46,46	0
84	MG	1	3478	1/1	0.90	0.26	31,31,31,31	0
84	MG	1	3687	1/1	0.90	0.14	43,43,43,43	0
84	MG	AS	3807	1/1	0.90	0.04	42,42,42,42	0
84	MG	1	3521	1/1	0.90	0.09	32,32,32,32	0
84	MG	1	3499	1/1	0.90	0.23	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3509	1/1	0.90	0.23	37,37,37,37	0
84	MG	1	3865	1/1	0.90	0.11	56,56,56,56	0
84	MG	AS	3819	1/1	0.90	0.08	36,36,36,36	0
84	MG	CM	1888	1/1	0.90	0.11	39,39,39,39	0
84	MG	1	4034	1/1	0.90	0.07	58,58,58,58	0
84	MG	CM	1890	1/1	0.90	0.28	34,34,34,34	0
84	MG	1	3460	1/1	0.90	0.20	21,21,21,21	0
84	MG	AS	3530	1/1	0.90	0.23	38,38,38,38	0
84	MG	1	3867	1/1	0.90	0.12	94,94,94,94	0
84	MG	CM	1901	1/1	0.90	0.07	60,60,60,60	0
84	MG	CM	1905	1/1	0.90	0.28	35,35,35,35	0
84	MG	AI	201	1/1	0.90	0.08	54,54,54,54	0
84	MG	B	1983	1/1	0.90	0.06	56,56,56,56	0
84	MG	1	3949	1/1	0.90	0.06	48,48,48,48	0
84	MG	B	1990	1/1	0.90	0.11	54,54,54,54	0
84	MG	1	3462	1/1	0.90	0.27	50,50,50,50	0
84	MG	CM	1915	1/1	0.90	0.28	34,34,34,34	0
84	MG	B	1993	1/1	0.90	0.16	42,42,42,42	0
84	MG	AT	202	1/1	0.90	0.28	47,47,47,47	0
84	MG	AS	3543	1/1	0.90	0.21	60,60,60,60	0
84	MG	1	3507	1/1	0.90	0.26	32,32,32,32	0
84	MG	CM	1920	1/1	0.90	0.07	44,44,44,44	0
84	MG	AS	3546	1/1	0.90	0.16	42,42,42,42	0
84	MG	CM	1924	1/1	0.90	0.15	53,53,53,53	0
84	MG	1	3875	1/1	0.90	0.25	52,52,52,52	0
84	MG	1	3585	1/1	0.90	0.07	57,57,57,57	0
84	MG	CM	1939	1/1	0.90	0.14	45,45,45,45	0
84	MG	AS	3549	1/1	0.90	0.11	40,40,40,40	0
84	MG	1	3559	1/1	0.90	0.15	43,43,43,43	0
84	MG	AT	212	1/1	0.90	0.18	44,44,44,44	0
84	MG	1	3703	1/1	0.90	0.17	53,53,53,53	0
84	MG	AT	214	1/1	0.90	0.12	39,39,39,39	0
84	MG	Q	202	1/1	0.90	0.24	65,65,65,65	0
84	MG	1	3965	1/1	0.90	0.07	30,30,30,30	0
84	MG	1	3885	1/1	0.90	0.18	47,47,47,47	0
84	MG	1	3667	1/1	0.90	0.10	43,43,43,43	0
84	MG	B	1906	1/1	0.90	0.15	39,39,39,39	0
84	MG	AS	3571	1/1	0.90	0.13	61,61,61,61	0
84	MG	1	3708	1/1	0.90	0.20	40,40,40,40	0
84	MG	AS	3578	1/1	0.90	0.21	45,45,45,45	0
84	MG	BB	304	1/1	0.90	0.07	40,40,40,40	0
84	MG	B	1908	1/1	0.90	0.34	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	BB	306	1/1	0.90	0.13	42,42,42,42	0
84	MG	1	3714	1/1	0.90	0.21	42,42,42,42	0
84	MG	1	3896	1/1	0.90	0.12	46,46,46,46	0
84	MG	1	3976	1/1	0.90	0.06	40,40,40,40	0
84	MG	4	207	1/1	0.90	0.22	43,43,43,43	0
84	MG	BJ	303	1/1	0.90	0.21	41,41,41,41	0
84	MG	1	3768	1/1	0.90	0.14	28,28,28,28	0
84	MG	CM	1980	1/1	0.90	0.07	43,43,43,43	0
84	MG	AS	3717	1/1	0.90	0.11	39,39,39,39	0
84	MG	1	3610	1/1	0.90	0.12	28,28,28,28	0
84	MG	AS	3719	1/1	0.90	0.14	42,42,42,42	0
84	MG	AS	3724	1/1	0.90	0.10	38,38,38,38	0
84	MG	AS	3588	1/1	0.90	0.10	43,43,43,43	0
84	MG	1	3472	1/1	0.90	0.25	27,27,27,27	0
84	MG	1	3592	1/1	0.90	0.15	53,53,53,53	0
84	MG	1	3613	1/1	0.90	0.22	33,33,33,33	0
84	MG	AS	3593	1/1	0.90	0.16	52,52,52,52	0
84	MG	AS	3594	1/1	0.90	0.37	43,43,43,43	0
84	MG	AS	3595	1/1	0.90	0.17	53,53,53,53	0
84	MG	1	3827	1/1	0.90	0.18	52,52,52,52	0
84	MG	1	3649	1/1	0.90	0.11	65,65,65,65	0
84	MG	B	1929	1/1	0.90	0.16	45,45,45,45	0
84	MG	1	3910	1/1	0.90	0.10	69,69,69,69	0
84	MG	1	3993	1/1	0.90	0.12	40,40,40,40	0
84	MG	AS	3602	1/1	0.90	0.37	43,43,43,43	0
84	MG	1	3994	1/1	0.90	0.18	37,37,37,37	0
84	MG	AS	3446	1/1	0.90	0.20	36,36,36,36	0
85	ZN	DS	201	1/1	0.90	0.10	208,208,208,208	0
84	MG	AS	3736	1/1	0.91	0.07	35,35,35,35	0
84	MG	1	3516	1/1	0.91	0.08	45,45,45,45	0
84	MG	CM	1815	1/1	0.91	0.22	44,44,44,44	0
84	MG	AS	3406	1/1	0.91	0.44	32,32,32,32	0
84	MG	AS	3408	1/1	0.91	0.08	43,43,43,43	0
84	MG	1	3465	1/1	0.91	0.23	38,38,38,38	0
84	MG	1	3569	1/1	0.91	0.12	39,39,39,39	0
84	MG	CM	1822	1/1	0.91	0.15	47,47,47,47	0
84	MG	AS	3423	1/1	0.91	0.22	27,27,27,27	0
84	MG	1	3620	1/1	0.91	0.14	40,40,40,40	0
84	MG	CM	1825	1/1	0.91	0.15	34,34,34,34	0
84	MG	CM	1826	1/1	0.91	0.09	47,47,47,47	0
83	3K5	AS	3401	57/57	0.91	0.15	47,66,88,92	0
84	MG	B	1823	1/1	0.91	0.24	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	4002	1/1	0.91	0.11	39,39,39,39	0
84	MG	AS	3434	1/1	0.91	0.26	39,39,39,39	0
84	MG	1	3823	1/1	0.91	0.09	29,29,29,29	0
84	MG	4	213	1/1	0.91	0.13	43,43,43,43	0
84	MG	AS	3758	1/1	0.91	0.09	57,57,57,57	0
84	MG	AS	3439	1/1	0.91	0.32	44,44,44,44	0
84	MG	4	214	1/1	0.91	0.08	45,45,45,45	0
84	MG	AS	3606	1/1	0.91	0.10	59,59,59,59	0
84	MG	AS	3608	1/1	0.91	0.20	50,50,50,50	0
84	MG	1	3450	1/1	0.91	0.20	33,33,33,33	0
84	MG	1	3879	1/1	0.91	0.12	41,41,41,41	0
84	MG	1	3575	1/1	0.91	0.19	49,49,49,49	0
84	MG	AS	3773	1/1	0.91	0.11	41,41,41,41	0
84	MG	B	1833	1/1	0.91	0.12	34,34,34,34	0
84	MG	CM	1852	1/1	0.91	0.19	35,35,35,35	0
84	MG	AS	3451	1/1	0.91	0.27	51,51,51,51	0
84	MG	B	1834	1/1	0.91	0.14	43,43,43,43	0
84	MG	k	402	1/1	0.91	0.09	62,62,62,62	0
84	MG	AS	3788	1/1	0.91	0.12	49,49,49,49	0
84	MG	1	3881	1/1	0.91	0.17	44,44,44,44	0
84	MG	1	4015	1/1	0.91	0.06	38,38,38,38	0
84	MG	k	405	1/1	0.91	0.16	34,34,34,34	0
84	MG	CM	1863	1/1	0.91	0.22	58,58,58,58	0
84	MG	AS	3459	1/1	0.91	0.22	34,34,34,34	0
84	MG	B	1841	1/1	0.91	0.21	28,28,28,28	0
84	MG	AS	3463	1/1	0.91	0.10	54,54,54,54	0
84	MG	AS	3467	1/1	0.91	0.23	68,68,68,68	0
84	MG	o	302	1/1	0.91	0.24	34,34,34,34	0
84	MG	1	3936	1/1	0.91	0.15	70,70,70,70	0
84	MG	1	3418	1/1	0.91	0.23	31,31,31,31	0
84	MG	1	4018	1/1	0.91	0.23	39,39,39,39	0
84	MG	AS	3808	1/1	0.91	0.06	50,50,50,50	0
84	MG	AS	3478	1/1	0.91	0.09	40,40,40,40	0
84	MG	1	3939	1/1	0.91	0.08	35,35,35,35	0
84	MG	CM	1882	1/1	0.91	0.19	42,42,42,42	0
84	MG	1	3603	1/1	0.91	0.07	52,52,52,52	0
84	MG	1	3509	1/1	0.91	0.26	28,28,28,28	0
84	MG	B	1858	1/1	0.91	0.10	36,36,36,36	0
84	MG	1	3835	1/1	0.91	0.23	35,35,35,35	0
84	MG	1	3836	1/1	0.91	0.15	38,38,38,38	0
84	MG	w	302	1/1	0.91	0.12	53,53,53,53	0
84	MG	AS	3648	1/1	0.91	0.06	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	CM	1898	1/1	0.91	0.24	44,44,44,44	0
84	MG	1	3425	1/1	0.91	0.28	27,27,27,27	0
84	MG	B	1865	1/1	0.91	0.28	39,39,39,39	0
84	MG	B	1964	1/1	0.91	0.06	55,55,55,55	0
84	MG	B	1965	1/1	0.91	0.15	46,46,46,46	0
84	MG	CM	1908	1/1	0.91	0.18	49,49,49,49	0
84	MG	x	201	1/1	0.91	0.26	28,28,28,28	0
84	MG	1	3436	1/1	0.91	0.24	33,33,33,33	0
84	MG	AS	3834	1/1	0.91	0.24	30,30,30,30	0
84	MG	AS	3504	1/1	0.91	0.07	55,55,55,55	0
84	MG	CM	1914	1/1	0.91	0.11	54,54,54,54	0
84	MG	1	3957	1/1	0.91	0.10	44,44,44,44	0
84	MG	AS	3668	1/1	0.91	0.11	41,41,41,41	0
84	MG	AT	205	1/1	0.91	0.10	54,54,54,54	0
84	MG	B	1976	1/1	0.91	0.10	40,40,40,40	0
84	MG	1	3691	1/1	0.91	0.20	43,43,43,43	0
84	MG	0	202	1/1	0.91	0.13	59,59,59,59	0
84	MG	AS	3513	1/1	0.91	0.20	40,40,40,40	0
84	MG	AS	3514	1/1	0.91	0.25	33,33,33,33	0
84	MG	AS	3515	1/1	0.91	0.31	46,46,46,46	0
84	MG	AS	3523	1/1	0.91	0.09	27,27,27,27	0
84	MG	CM	1932	1/1	0.91	0.14	49,49,49,49	0
84	MG	CM	1933	1/1	0.91	0.07	45,45,45,45	0
84	MG	CM	1935	1/1	0.91	0.10	44,44,44,44	0
84	MG	1	3899	1/1	0.91	0.06	50,50,50,50	0
84	MG	AS	3680	1/1	0.91	0.11	49,49,49,49	0
84	MG	1	4031	1/1	0.91	0.07	43,43,43,43	0
84	MG	1	3527	1/1	0.91	0.20	38,38,38,38	0
84	MG	AU	206	1/1	0.91	0.09	42,42,42,42	0
84	MG	1	3964	1/1	0.91	0.12	44,44,44,44	0
84	MG	AW	303	1/1	0.91	0.20	52,52,52,52	0
84	MG	B	1984	1/1	0.91	0.08	62,62,62,62	0
84	MG	CM	1953	1/1	0.91	0.26	42,42,42,42	0
84	MG	1	3787	1/1	0.91	0.17	38,38,38,38	0
84	MG	1	3902	1/1	0.91	0.07	57,57,57,57	0
84	MG	BB	301	1/1	0.91	0.10	37,37,37,37	0
84	MG	B	1991	1/1	0.91	0.12	38,38,38,38	0
84	MG	1	3739	1/1	0.91	0.29	32,32,32,32	0
84	MG	1	3666	1/1	0.91	0.19	42,42,42,42	0
84	MG	CM	1964	1/1	0.91	0.10	49,49,49,49	0
84	MG	B	1994	1/1	0.91	0.10	58,58,58,58	0
84	MG	BE	301	1/1	0.91	0.15	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	BE	302	1/1	0.91	0.21	36,36,36,36	0
84	MG	B	1995	1/1	0.91	0.06	41,41,41,41	0
84	MG	1	3970	1/1	0.91	0.20	46,46,46,46	0
84	MG	AS	3700	1/1	0.91	0.07	37,37,37,37	0
84	MG	1	3561	1/1	0.91	0.17	43,43,43,43	0
84	MG	AS	3703	1/1	0.91	0.06	41,41,41,41	0
84	MG	1	3697	1/1	0.91	0.09	61,61,61,61	0
84	MG	1	3669	1/1	0.91	0.23	42,42,42,42	0
84	MG	K	302	1/1	0.91	0.14	47,47,47,47	0
84	MG	CM	1983	1/1	0.91	0.23	51,51,51,51	0
84	MG	3	212	1/1	0.91	0.13	60,60,60,60	0
84	MG	1	3699	1/1	0.91	0.12	40,40,40,40	0
84	MG	1	3700	1/1	0.91	0.14	28,28,28,28	0
84	MG	AS	3562	1/1	0.91	0.13	50,50,50,50	0
84	MG	1	3915	1/1	0.91	0.14	30,30,30,30	0
84	MG	BZ	204	1/1	0.91	0.18	43,43,43,43	0
84	MG	CA	202	1/1	0.91	0.07	46,46,46,46	0
84	MG	1	3562	1/1	0.91	0.18	37,37,37,37	0
84	MG	AS	3569	1/1	0.91	0.14	37,37,37,37	0
84	MG	Y	203	1/1	0.91	0.17	85,85,85,85	0
84	MG	AS	3572	1/1	0.91	0.20	36,36,36,36	0
84	MG	1	3481	1/1	0.91	0.25	34,34,34,34	0
84	MG	AS	3576	1/1	0.91	0.10	46,46,46,46	0
84	MG	1	3591	1/1	0.91	0.28	54,54,54,54	0
84	MG	3	219	1/1	0.91	0.09	46,46,46,46	0
85	ZN	h	201	1/1	0.91	0.08	238,238,238,238	0
84	MG	B	1806	1/1	0.91	0.14	34,34,34,34	0
84	MG	1	3711	1/1	0.91	0.08	31,31,31,31	0
84	MG	1	3500	1/1	0.91	0.17	36,36,36,36	0
84	MG	4	203	1/1	0.91	0.22	40,40,40,40	0
84	MG	CM	1859	1/1	0.92	0.10	40,40,40,40	0
84	MG	AS	3464	1/1	0.92	0.21	50,50,50,50	0
84	MG	1	3445	1/1	0.92	0.28	31,31,31,31	0
84	MG	1	3895	1/1	0.92	0.16	36,36,36,36	0
84	MG	1	3945	1/1	0.92	0.12	40,40,40,40	0
84	MG	CM	1867	1/1	0.92	0.17	74,74,74,74	0
84	MG	1	3437	1/1	0.92	0.19	26,26,26,26	0
84	MG	AS	3596	1/1	0.92	0.14	142,142,142,142	0
84	MG	1	3952	1/1	0.92	0.17	44,44,44,44	0
84	MG	AT	211	1/1	0.92	0.07	44,44,44,44	0
84	MG	AS	3713	1/1	0.92	0.12	54,54,54,54	0
84	MG	1	3447	1/1	0.92	0.24	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3749	1/1	0.92	0.26	39,39,39,39	0
84	MG	AS	3482	1/1	0.92	0.18	32,32,32,32	0
84	MG	B	1812	1/1	0.92	0.20	61,61,61,61	0
84	MG	1	3842	1/1	0.92	0.22	50,50,50,50	0
84	MG	1	3956	1/1	0.92	0.06	42,42,42,42	0
84	MG	B	1988	1/1	0.92	0.07	43,43,43,43	0
84	MG	AW	302	1/1	0.92	0.23	42,42,42,42	0
84	MG	1	3705	1/1	0.92	0.15	47,47,47,47	0
84	MG	1	3793	1/1	0.92	0.15	33,33,33,33	0
84	MG	1	3707	1/1	0.92	0.27	40,40,40,40	0
84	MG	AS	3613	1/1	0.92	0.07	44,44,44,44	0
84	MG	k	406	1/1	0.92	0.06	33,33,33,33	0
84	MG	CM	1897	1/1	0.92	0.25	31,31,31,31	0
84	MG	AS	3616	1/1	0.92	0.26	44,44,44,44	0
84	MG	BB	303	1/1	0.92	0.07	44,44,44,44	0
84	MG	o	301	1/1	0.92	0.20	38,38,38,38	0
84	MG	1	3752	1/1	0.92	0.16	37,37,37,37	0
84	MG	1	3615	1/1	0.92	0.16	40,40,40,40	0
84	MG	1	3531	1/1	0.92	0.27	26,26,26,26	0
84	MG	1	3533	1/1	0.92	0.14	31,31,31,31	0
84	MG	1	3430	1/1	0.92	0.24	34,34,34,34	0
84	MG	1	3542	1/1	0.92	0.30	40,40,40,40	0
84	MG	AS	3510	1/1	0.92	0.30	34,34,34,34	0
84	MG	AS	3744	1/1	0.92	0.06	55,55,55,55	0
84	MG	B	1830	1/1	0.92	0.24	34,34,34,34	0
84	MG	v	301	1/1	0.92	0.08	36,36,36,36	0
84	MG	1	3804	1/1	0.92	0.12	48,48,48,48	0
84	MG	B	1917	1/1	0.92	0.29	53,53,53,53	0
84	MG	1	3806	1/1	0.92	0.12	43,43,43,43	0
84	MG	AS	3520	1/1	0.92	0.23	51,51,51,51	0
84	MG	CM	1921	1/1	0.92	0.10	42,42,42,42	0
84	MG	CM	1922	1/1	0.92	0.07	43,43,43,43	0
84	MG	1	3505	1/1	0.92	0.21	32,32,32,32	0
84	MG	AS	3757	1/1	0.92	0.11	49,49,49,49	0
84	MG	AS	3526	1/1	0.92	0.16	40,40,40,40	0
84	MG	1	4037	1/1	0.92	0.37	30,30,30,30	0
84	MG	AS	3639	1/1	0.92	0.13	49,49,49,49	0
84	MG	CJ	202	1/1	0.92	0.20	55,55,55,55	0
84	MG	1	3761	1/1	0.92	0.26	24,24,24,24	0
84	MG	CM	1938	1/1	0.92	0.07	33,33,33,33	0
84	MG	B	1926	1/1	0.92	0.16	56,56,56,56	0
84	MG	3	203	1/1	0.92	0.26	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3769	1/1	0.92	0.14	47,47,47,47	0
84	MG	1	3765	1/1	0.92	0.14	33,33,33,33	0
84	MG	CM	1946	1/1	0.92	0.06	40,40,40,40	0
84	MG	CM	1947	1/1	0.92	0.32	44,44,44,44	0
84	MG	CM	1803	1/1	0.92	0.13	29,29,29,29	0
84	MG	AS	3771	1/1	0.92	0.17	42,42,42,42	0
84	MG	B	1842	1/1	0.92	0.19	35,35,35,35	0
84	MG	y	203	1/1	0.92	0.18	44,44,44,44	0
84	MG	1	3810	1/1	0.92	0.12	34,34,34,34	0
84	MG	B	1933	1/1	0.92	0.17	70,70,70,70	0
84	MG	CM	1955	1/1	0.92	0.21	42,42,42,42	0
84	MG	CM	1956	1/1	0.92	0.26	47,47,47,47	0
84	MG	B	1848	1/1	0.92	0.10	51,51,51,51	0
84	MG	AS	3410	1/1	0.92	0.29	32,32,32,32	0
84	MG	AS	3786	1/1	0.92	0.15	44,44,44,44	0
84	MG	AS	3416	1/1	0.92	0.28	22,22,22,22	0
84	MG	3	209	1/1	0.92	0.05	43,43,43,43	0
84	MG	1	3544	1/1	0.92	0.10	47,47,47,47	0
84	MG	AS	3665	1/1	0.92	0.31	51,51,51,51	0
84	MG	1	3506	1/1	0.92	0.29	43,43,43,43	0
84	MG	AS	3667	1/1	0.92	0.07	36,36,36,36	0
84	MG	1	3424	1/1	0.92	0.14	40,40,40,40	0
84	MG	1	3819	1/1	0.92	0.07	32,32,32,32	0
84	MG	1	3554	1/1	0.92	0.08	36,36,36,36	0
84	MG	1	3493	1/1	0.92	0.07	41,41,41,41	0
84	MG	1	3877	1/1	0.92	0.32	63,63,63,63	0
84	MG	1	3636	1/1	0.92	0.11	33,33,33,33	0
84	MG	1	3556	1/1	0.92	0.26	46,46,46,46	0
84	MG	AS	3675	1/1	0.92	0.14	49,49,49,49	0
84	MG	CM	1831	1/1	0.92	0.17	51,51,51,51	0
84	MG	AS	3811	1/1	0.92	0.04	38,38,38,38	0
84	MG	AS	3812	1/1	0.92	0.07	45,45,45,45	0
84	MG	AD	202	1/1	0.92	0.09	50,50,50,50	0
84	MG	1	3494	1/1	0.92	0.08	37,37,37,37	0
84	MG	AS	3570	1/1	0.92	0.06	29,29,29,29	0
84	MG	B	1952	1/1	0.92	0.09	42,42,42,42	0
84	MG	1	3668	1/1	0.92	0.10	45,45,45,45	0
84	MG	1	3935	1/1	0.92	0.20	60,60,60,60	0
84	MG	AS	3449	1/1	0.92	0.11	27,27,27,27	0
84	MG	CM	1843	1/1	0.92	0.22	42,42,42,42	0
84	MG	AG	201	1/1	0.92	0.08	57,57,57,57	0
84	MG	1	3456	1/1	0.92	0.26	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3937	1/1	0.92	0.13	70,70,70,70	0
84	MG	B	1874	1/1	0.92	0.19	38,38,38,38	0
84	MG	B	1963	1/1	0.92	0.19	59,59,59,59	0
84	MG	1	4009	1/1	0.92	0.06	43,43,43,43	0
84	MG	AM	101	1/1	0.92	0.30	45,45,45,45	0
84	MG	1	3411	1/1	0.92	0.32	32,32,32,32	0
84	MG	1	3587	1/1	0.92	0.22	41,41,41,41	0
84	MG	B	1970	1/1	0.92	0.18	47,47,47,47	0
84	MG	1	3854	1/1	0.93	0.05	29,29,29,29	0
84	MG	1	3918	1/1	0.93	0.04	53,53,53,53	0
84	MG	AS	3810	1/1	0.93	0.19	42,42,42,42	0
84	MG	AS	3659	1/1	0.93	0.24	45,45,45,45	0
84	MG	1	3919	1/1	0.93	0.11	41,41,41,41	0
84	MG	AS	3517	1/1	0.93	0.19	34,34,34,34	0
84	MG	AJ	101	1/1	0.93	0.13	68,68,68,68	0
84	MG	1	3985	1/1	0.93	0.07	34,34,34,34	0
84	MG	B	1996	1/1	0.93	0.05	40,40,40,40	0
84	MG	AS	3527	1/1	0.93	0.12	63,63,63,63	0
84	MG	AO	101	1/1	0.93	0.18	43,43,43,43	0
84	MG	AS	3824	1/1	0.93	0.13	48,48,48,48	0
84	MG	1	3578	1/1	0.93	0.14	40,40,40,40	0
84	MG	B	1896	1/1	0.93	0.09	58,58,58,58	0
84	MG	1	3858	1/1	0.93	0.13	45,45,45,45	0
84	MG	1	3552	1/1	0.93	0.06	56,56,56,56	0
84	MG	1	3671	1/1	0.93	0.05	44,44,44,44	0
84	MG	1	3803	1/1	0.93	0.14	40,40,40,40	0
84	MG	1	3470	1/1	0.93	0.18	26,26,26,26	0
84	MG	AS	3541	1/1	0.93	0.24	37,37,37,37	0
83	3K5	1	3401	57/57	0.93	0.13	40,55,74,85	0
84	MG	AT	201	1/1	0.93	0.22	24,24,24,24	0
84	MG	1	3756	1/1	0.93	0.17	47,47,47,47	0
84	MG	1	4000	1/1	0.93	0.11	35,35,35,35	0
84	MG	B	1811	1/1	0.93	0.18	39,39,39,39	0
84	MG	1	4001	1/1	0.93	0.13	43,43,43,43	0
84	MG	1	3645	1/1	0.93	0.11	34,34,34,34	0
84	MG	CM	1884	1/1	0.93	0.13	43,43,43,43	0
84	MG	1	3868	1/1	0.93	0.20	40,40,40,40	0
84	MG	B	1911	1/1	0.93	0.28	49,49,49,49	0
84	MG	4	215	1/1	0.93	0.15	30,30,30,30	0
84	MG	1	3502	1/1	0.93	0.24	46,46,46,46	0
84	MG	1	3417	1/1	0.93	0.12	45,45,45,45	0
84	MG	CM	1894	1/1	0.93	0.21	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3696	1/1	0.93	0.09	41,41,41,41	0
84	MG	CM	1896	1/1	0.93	0.23	36,36,36,36	0
84	MG	B	1820	1/1	0.93	0.35	48,48,48,48	0
84	MG	1	3406	1/1	0.93	0.28	33,33,33,33	0
84	MG	AU	201	1/1	0.93	0.22	28,28,28,28	0
84	MG	1	4011	1/1	0.93	0.09	37,37,37,37	0
84	MG	CM	1902	1/1	0.93	0.27	50,50,50,50	0
84	MG	CM	1903	1/1	0.93	0.18	51,51,51,51	0
84	MG	AS	3566	1/1	0.93	0.29	44,44,44,44	0
84	MG	1	3532	1/1	0.93	0.26	32,32,32,32	0
84	MG	B	1921	1/1	0.93	0.10	78,78,78,78	0
84	MG	AU	207	1/1	0.93	0.06	40,40,40,40	0
84	MG	CM	1910	1/1	0.93	0.07	53,53,53,53	0
84	MG	1	3724	1/1	0.93	0.11	33,33,33,33	0
84	MG	1	3560	1/1	0.93	0.11	27,27,27,27	0
84	MG	1	3820	1/1	0.93	0.20	39,39,39,39	0
84	MG	AS	3708	1/1	0.93	0.05	56,56,56,56	0
84	MG	1	3683	1/1	0.93	0.36	72,72,72,72	0
84	MG	1	3941	1/1	0.93	0.10	34,34,34,34	0
84	MG	1	3588	1/1	0.93	0.21	31,31,31,31	0
84	MG	AS	3432	1/1	0.93	0.22	32,32,32,32	0
84	MG	AS	3714	1/1	0.93	0.07	46,46,46,46	0
84	MG	1	3943	1/1	0.93	0.08	36,36,36,36	0
84	MG	1	3520	1/1	0.93	0.08	25,25,25,25	0
84	MG	1	3535	1/1	0.93	0.13	25,25,25,25	0
84	MG	u	201	1/1	0.93	0.07	37,37,37,37	0
84	MG	B	1837	1/1	0.93	0.19	38,38,38,38	0
84	MG	CM	1925	1/1	0.93	0.13	45,45,45,45	0
84	MG	1	3887	1/1	0.93	0.28	44,44,44,44	0
84	MG	AS	3443	1/1	0.93	0.07	48,48,48,48	0
84	MG	CM	1930	1/1	0.93	0.20	45,45,45,45	0
84	MG	CM	1931	1/1	0.93	0.09	43,43,43,43	0
84	MG	AS	3445	1/1	0.93	0.29	47,47,47,47	0
84	MG	B	1937	1/1	0.93	0.14	46,46,46,46	0
84	MG	1	3891	1/1	0.93	0.06	57,57,57,57	0
84	MG	BJ	304	1/1	0.93	0.10	50,50,50,50	0
84	MG	1	3732	1/1	0.93	0.15	32,32,32,32	0
84	MG	1	3617	1/1	0.93	0.12	40,40,40,40	0
84	MG	1	4028	1/1	0.93	0.08	46,46,46,46	0
84	MG	1	3409	1/1	0.93	0.23	22,22,22,22	0
84	MG	1	3540	1/1	0.93	0.15	35,35,35,35	0
84	MG	w	304	1/1	0.93	0.06	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3541	1/1	0.93	0.21	30,30,30,30	0
84	MG	B	1850	1/1	0.93	0.16	77,77,77,77	0
84	MG	x	202	1/1	0.93	0.14	38,38,38,38	0
84	MG	y	201	1/1	0.93	0.12	43,43,43,43	0
84	MG	AS	3605	1/1	0.93	0.11	40,40,40,40	0
84	MG	B	1853	1/1	0.93	0.06	58,58,58,58	0
84	MG	1	3661	1/1	0.93	0.20	39,39,39,39	0
84	MG	AS	3466	1/1	0.93	0.20	45,45,45,45	0
84	MG	AS	3610	1/1	0.93	0.08	41,41,41,41	0
84	MG	1	3595	1/1	0.93	0.20	31,31,31,31	0
84	MG	AS	3750	1/1	0.93	0.12	41,41,41,41	0
84	MG	1	3961	1/1	0.93	0.05	41,41,41,41	0
84	MG	1	3451	1/1	0.93	0.24	24,24,24,24	0
84	MG	AS	3471	1/1	0.93	0.15	30,30,30,30	0
84	MG	AS	3754	1/1	0.93	0.13	40,40,40,40	0
84	MG	B	1961	1/1	0.93	0.07	54,54,54,54	0
84	MG	1	3740	1/1	0.93	0.17	53,53,53,53	0
84	MG	CM	1969	1/1	0.93	0.04	43,43,43,43	0
84	MG	0	203	1/1	0.93	0.08	50,50,50,50	0
84	MG	CM	1971	1/1	0.93	0.10	42,42,42,42	0
84	MG	B	1863	1/1	0.93	0.06	87,87,87,87	0
84	MG	AS	3480	1/1	0.93	0.10	38,38,38,38	0
84	MG	1	3453	1/1	0.93	0.29	26,26,26,26	0
84	MG	1	3789	1/1	0.93	0.14	39,39,39,39	0
84	MG	1	3790	1/1	0.93	0.36	41,41,41,41	0
84	MG	AS	3485	1/1	0.93	0.32	35,35,35,35	0
84	MG	B	1969	1/1	0.93	0.07	46,46,46,46	0
84	MG	AS	3629	1/1	0.93	0.14	41,41,41,41	0
84	MG	AS	3489	1/1	0.93	0.22	40,40,40,40	0
84	MG	1	3744	1/1	0.93	0.16	47,47,47,47	0
84	MG	AS	3778	1/1	0.93	0.07	50,50,50,50	0
84	MG	3	207	1/1	0.93	0.06	39,39,39,39	0
84	MG	B	1869	1/1	0.93	0.17	72,72,72,72	0
84	MG	1	3792	1/1	0.93	0.23	34,34,34,34	0
84	MG	CM	1829	1/1	0.93	0.24	35,35,35,35	0
84	MG	B	1871	1/1	0.93	0.18	75,75,75,75	0
84	MG	1	3402	1/1	0.93	0.18	19,19,19,19	0
84	MG	1	3973	1/1	0.93	0.17	43,43,43,43	0
84	MG	1	3746	1/1	0.93	0.22	40,40,40,40	0
84	MG	B	1982	1/1	0.93	0.10	53,53,53,53	0
84	MG	1	3510	1/1	0.93	0.21	22,22,22,22	0
84	MG	1	3977	1/1	0.93	0.11	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3507	1/1	0.93	0.33	48,48,48,48	0
84	MG	AF	201	1/1	0.93	0.07	41,41,41,41	0
84	MG	B	1986	1/1	0.93	0.08	44,44,44,44	0
84	MG	1	3459	1/1	0.93	0.30	27,27,27,27	0
84	MG	1	3576	1/1	0.93	0.06	29,29,29,29	0
84	MG	AS	3654	1/1	0.93	0.12	33,33,33,33	0
84	MG	CM	1844	1/1	0.94	0.15	41,41,41,41	0
84	MG	AS	3796	1/1	0.94	0.22	43,43,43,43	0
84	MG	1	3831	1/1	0.94	0.16	44,44,44,44	0
84	MG	AS	3798	1/1	0.94	0.13	37,37,37,37	0
84	MG	AS	3531	1/1	0.94	0.14	38,38,38,38	0
84	MG	AS	3532	1/1	0.94	0.17	59,59,59,59	0
84	MG	AS	3656	1/1	0.94	0.07	35,35,35,35	0
84	MG	1	3473	1/1	0.94	0.32	19,19,19,19	0
84	MG	1	3474	1/1	0.94	0.18	31,31,31,31	0
84	MG	3	201	1/1	0.94	0.19	23,23,23,23	0
84	MG	AS	3411	1/1	0.94	0.04	29,29,29,29	0
84	MG	1	3658	1/1	0.94	0.13	27,27,27,27	0
84	MG	1	3621	1/1	0.94	0.06	58,58,58,58	0
84	MG	1	3488	1/1	0.94	0.07	41,41,41,41	0
84	MG	6	202	1/1	0.94	0.06	31,31,31,31	0
84	MG	CM	1865	1/1	0.94	0.21	51,51,51,51	0
84	MG	6	203	1/1	0.94	0.06	39,39,39,39	0
84	MG	AS	3817	1/1	0.94	0.05	42,42,42,42	0
84	MG	B	1857	1/1	0.94	0.09	47,47,47,47	0
84	MG	AS	3545	1/1	0.94	0.28	39,39,39,39	0
84	MG	1	3903	1/1	0.94	0.15	43,43,43,43	0
84	MG	CM	1872	1/1	0.94	0.20	32,32,32,32	0
84	MG	AS	3430	1/1	0.94	0.26	29,29,29,29	0
84	MG	1	3840	1/1	0.94	0.06	28,28,28,28	0
84	MG	B	1944	1/1	0.94	0.10	82,82,82,82	0
84	MG	1	3972	1/1	0.94	0.18	49,49,49,49	0
84	MG	AS	3435	1/1	0.94	0.14	33,33,33,33	0
84	MG	AS	3552	1/1	0.94	0.21	37,37,37,37	0
84	MG	1	3491	1/1	0.94	0.10	35,35,35,35	0
84	MG	AS	3556	1/1	0.94	0.17	46,46,46,46	0
84	MG	AS	3557	1/1	0.94	0.24	46,46,46,46	0
84	MG	AC	101	1/1	0.94	0.07	38,38,38,38	0
84	MG	B	1948	1/1	0.94	0.07	61,61,61,61	0
84	MG	CM	1887	1/1	0.94	0.18	74,74,74,74	0
84	MG	1	3546	1/1	0.94	0.21	44,44,44,44	0
84	MG	AS	3686	1/1	0.94	0.21	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3563	1/1	0.94	0.09	47,47,47,47	0
84	MG	CM	1891	1/1	0.94	0.07	54,54,54,54	0
84	MG	1	3547	1/1	0.94	0.20	35,35,35,35	0
84	MG	AS	3689	1/1	0.94	0.22	38,38,38,38	0
84	MG	1	3454	1/1	0.94	0.06	23,23,23,23	0
84	MG	AS	3691	1/1	0.94	0.08	47,47,47,47	0
84	MG	AS	3567	1/1	0.94	0.18	23,23,23,23	0
84	MG	AS	3695	1/1	0.94	0.25	34,34,34,34	0
84	MG	CM	1899	1/1	0.94	0.12	33,33,33,33	0
84	MG	1	3741	1/1	0.94	0.18	29,29,29,29	0
84	MG	1	3631	1/1	0.94	0.08	23,23,23,23	0
84	MG	1	3577	1/1	0.94	0.23	28,28,28,28	0
84	MG	1	3981	1/1	0.94	0.13	41,41,41,41	0
84	MG	B	1957	1/1	0.94	0.14	55,55,55,55	0
84	MG	AS	3701	1/1	0.94	0.07	42,42,42,42	0
84	MG	CM	1907	1/1	0.94	0.07	52,52,52,52	0
84	MG	AS	3573	1/1	0.94	0.06	41,41,41,41	0
84	MG	1	3408	1/1	0.94	0.15	22,22,22,22	0
84	MG	1	3579	1/1	0.94	0.08	55,55,55,55	0
84	MG	AS	3577	1/1	0.94	0.24	45,45,45,45	0
84	MG	1	3605	1/1	0.94	0.09	44,44,44,44	0
84	MG	1	3852	1/1	0.94	0.17	43,43,43,43	0
84	MG	1	3457	1/1	0.94	0.14	26,26,26,26	0
84	MG	AS	3457	1/1	0.94	0.28	32,32,32,32	0
84	MG	4	204	1/1	0.94	0.19	32,32,32,32	0
84	MG	AS	3584	1/1	0.94	0.16	36,36,36,36	0
84	MG	B	1878	1/1	0.94	0.27	38,38,38,38	0
84	MG	1	3706	1/1	0.94	0.17	38,38,38,38	0
84	MG	1	3855	1/1	0.94	0.10	39,39,39,39	0
84	MG	B	1881	1/1	0.94	0.17	64,64,64,64	0
84	MG	AS	3465	1/1	0.94	0.17	37,37,37,37	0
84	MG	AS	3721	1/1	0.94	0.09	47,47,47,47	0
84	MG	1	3641	1/1	0.94	0.22	29,29,29,29	0
84	MG	1	3497	1/1	0.94	0.22	29,29,29,29	0
84	MG	CM	1926	1/1	0.94	0.12	43,43,43,43	0
84	MG	CM	1927	1/1	0.94	0.10	33,33,33,33	0
84	MG	1	3709	1/1	0.94	0.13	39,39,39,39	0
84	MG	1	3710	1/1	0.94	0.10	32,32,32,32	0
84	MG	1	3458	1/1	0.94	0.19	35,35,35,35	0
84	MG	B	1889	1/1	0.94	0.19	36,36,36,36	0
84	MG	1	3713	1/1	0.94	0.24	32,32,32,32	0
84	MG	BJ	301	1/1	0.94	0.07	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3477	1/1	0.94	0.08	27,27,27,27	0
84	MG	1	3805	1/1	0.94	0.14	52,52,52,52	0
84	MG	1	3443	1/1	0.94	0.18	37,37,37,37	0
84	MG	1	3932	1/1	0.94	0.14	43,43,43,43	0
84	MG	BN	202	1/1	0.94	0.07	37,37,37,37	0
84	MG	1	4006	1/1	0.94	0.06	44,44,44,44	0
84	MG	BO	202	1/1	0.94	0.23	50,50,50,50	0
84	MG	1	4007	1/1	0.94	0.39	38,38,38,38	0
84	MG	B	1987	1/1	0.94	0.06	46,46,46,46	0
84	MG	1	3515	1/1	0.94	0.21	33,33,33,33	0
84	MG	1	3718	1/1	0.94	0.09	43,43,43,43	0
84	MG	AS	3488	1/1	0.94	0.17	36,36,36,36	0
84	MG	1	3872	1/1	0.94	0.09	54,54,54,54	0
84	MG	1	3760	1/1	0.94	0.20	33,33,33,33	0
84	MG	AS	3746	1/1	0.94	0.06	40,40,40,40	0
84	MG	1	3719	1/1	0.94	0.08	41,41,41,41	0
84	MG	1	3811	1/1	0.94	0.04	43,43,43,43	0
84	MG	AS	3615	1/1	0.94	0.13	47,47,47,47	0
84	MG	1	3812	1/1	0.94	0.14	48,48,48,48	0
84	MG	1	3813	1/1	0.94	0.08	62,62,62,62	0
84	MG	D	301	1/1	0.94	0.14	44,44,44,44	0
84	MG	1	3763	1/1	0.94	0.06	30,30,30,30	0
84	MG	CM	1805	1/1	0.94	0.26	34,34,34,34	0
84	MG	E	301	1/1	0.94	0.05	48,48,48,48	0
84	MG	CM	1967	1/1	0.94	0.06	60,60,60,60	0
84	MG	AS	3755	1/1	0.94	0.16	43,43,43,43	0
84	MG	AS	3756	1/1	0.94	0.15	35,35,35,35	0
84	MG	r	301	1/1	0.94	0.15	34,34,34,34	0
84	MG	1	3764	1/1	0.94	0.09	51,51,51,51	0
84	MG	AS	3625	1/1	0.94	0.11	65,65,65,65	0
84	MG	1	3420	1/1	0.94	0.16	42,42,42,42	0
84	MG	AS	3761	1/1	0.94	0.23	42,42,42,42	0
84	MG	1	3534	1/1	0.94	0.17	30,30,30,30	0
84	MG	AS	3763	1/1	0.94	0.09	41,41,41,41	0
84	MG	B	1914	1/1	0.94	0.14	46,46,46,46	0
84	MG	1	3435	1/1	0.94	0.20	27,27,27,27	0
84	MG	CM	1982	1/1	0.94	0.07	42,42,42,42	0
84	MG	1	3950	1/1	0.94	0.13	49,49,49,49	0
84	MG	1	3651	1/1	0.94	0.17	39,39,39,39	0
84	MG	CO	301	1/1	0.94	0.20	42,42,42,42	0
84	MG	CP	301	1/1	0.94	0.21	38,38,38,38	0
84	MG	CQ	301	1/1	0.94	0.24	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3632	1/1	0.94	0.14	40,40,40,40	0
84	MG	1	3771	1/1	0.94	0.13	38,38,38,38	0
84	MG	1	3888	1/1	0.94	0.12	44,44,44,44	0
84	MG	AS	3774	1/1	0.94	0.06	59,59,59,59	0
84	MG	CY	201	1/1	0.94	0.13	49,49,49,49	0
84	MG	1	3890	1/1	0.94	0.06	27,27,27,27	0
84	MG	AS	3516	1/1	0.94	0.27	35,35,35,35	0
84	MG	AS	3781	1/1	0.94	0.10	42,42,42,42	0
84	MG	1	3518	1/1	0.94	0.13	28,28,28,28	0
84	MG	AS	3518	1/1	0.94	0.23	28,28,28,28	0
84	MG	AS	3519	1/1	0.94	0.16	38,38,38,38	0
84	MG	1	3775	1/1	0.94	0.10	38,38,38,38	0
84	MG	AS	3521	1/1	0.94	0.33	43,43,43,43	0
85	ZN	AN	101	1/1	0.94	0.12	142,142,142,142	0
84	MG	1	3441	1/1	0.94	0.27	36,36,36,36	0
84	MG	1	3485	1/1	0.94	0.20	37,37,37,37	0
84	MG	AS	3791	1/1	0.94	0.08	47,47,47,47	0
84	MG	1	3566	1/1	0.94	0.12	22,22,22,22	0
84	MG	AS	3793	1/1	0.94	0.11	59,59,59,59	0
84	MG	1	3962	1/1	0.94	0.08	38,38,38,38	0
84	MG	AS	3529	1/1	0.94	0.29	52,52,52,52	0
84	MG	1	3679	1/1	0.95	0.20	30,30,30,30	0
84	MG	1	3549	1/1	0.95	0.15	40,40,40,40	0
84	MG	1	3966	1/1	0.95	0.05	33,33,33,33	0
84	MG	AS	3469	1/1	0.95	0.15	37,37,37,37	0
84	MG	AS	3560	1/1	0.95	0.10	32,32,32,32	0
84	MG	G	301	1/1	0.95	0.12	54,54,54,54	0
84	MG	1	3889	1/1	0.95	0.12	36,36,36,36	0
84	MG	CM	1892	1/1	0.95	0.14	43,43,43,43	0
84	MG	1	4014	1/1	0.95	0.09	43,43,43,43	0
84	MG	AS	3475	1/1	0.95	0.13	36,36,36,36	0
84	MG	AS	3663	1/1	0.95	0.05	94,94,94,94	0
84	MG	1	3452	1/1	0.95	0.07	32,32,32,32	0
84	MG	BJ	302	1/1	0.95	0.12	53,53,53,53	0
84	MG	1	3818	1/1	0.95	0.11	36,36,36,36	0
84	MG	1	3642	1/1	0.95	0.27	33,33,33,33	0
84	MG	AS	3767	1/1	0.95	0.10	53,53,53,53	0
84	MG	1	3893	1/1	0.95	0.16	39,39,39,39	0
84	MG	1	3590	1/1	0.95	0.19	50,50,50,50	0
84	MG	BN	203	1/1	0.95	0.10	39,39,39,39	0
84	MG	CM	1904	1/1	0.95	0.22	44,44,44,44	0
84	MG	AS	3481	1/1	0.95	0.10	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3551	1/1	0.95	0.23	52,52,52,52	0
84	MG	Y	201	1/1	0.95	0.06	30,30,30,30	0
84	MG	1	3762	1/1	0.95	0.11	38,38,38,38	0
84	MG	1	3857	1/1	0.95	0.11	29,29,29,29	0
84	MG	BZ	201	1/1	0.95	0.16	47,47,47,47	0
84	MG	AS	3486	1/1	0.95	0.11	44,44,44,44	0
84	MG	1	4023	1/1	0.95	0.16	48,48,48,48	0
84	MG	AS	3677	1/1	0.95	0.08	31,31,31,31	0
84	MG	CA	201	1/1	0.95	0.09	51,51,51,51	0
84	MG	AS	3783	1/1	0.95	0.07	46,46,46,46	0
84	MG	AS	3678	1/1	0.95	0.32	29,29,29,29	0
84	MG	B	1885	1/1	0.95	0.14	60,60,60,60	0
84	MG	Z	203	1/1	0.95	0.33	66,66,66,66	0
84	MG	AS	3490	1/1	0.95	0.13	39,39,39,39	0
84	MG	1	3428	1/1	0.95	0.28	27,27,27,27	0
84	MG	B	1832	1/1	0.95	0.25	38,38,38,38	0
84	MG	AS	3493	1/1	0.95	0.21	34,34,34,34	0
84	MG	f	102	1/1	0.95	0.07	61,61,61,61	0
84	MG	AS	3497	1/1	0.95	0.19	36,36,36,36	0
84	MG	B	1888	1/1	0.95	0.17	46,46,46,46	0
84	MG	1	3623	1/1	0.95	0.18	44,44,44,44	0
84	MG	AS	3403	1/1	0.95	0.21	22,22,22,22	0
84	MG	1	3565	1/1	0.95	0.20	26,26,26,26	0
84	MG	B	1835	1/1	0.95	0.26	43,43,43,43	0
84	MG	1	3490	1/1	0.95	0.09	50,50,50,50	0
84	MG	AS	3407	1/1	0.95	0.20	23,23,23,23	0
84	MG	AS	3505	1/1	0.95	0.14	63,63,63,63	0
84	MG	CM	1814	1/1	0.95	0.27	41,41,41,41	0
84	MG	CM	1934	1/1	0.95	0.06	53,53,53,53	0
84	MG	B	1894	1/1	0.95	0.16	40,40,40,40	0
84	MG	CM	1936	1/1	0.95	0.11	46,46,46,46	0
84	MG	CM	1937	1/1	0.95	0.11	49,49,49,49	0
84	MG	CM	1816	1/1	0.95	0.24	31,31,31,31	0
84	MG	AS	3806	1/1	0.95	0.06	34,34,34,34	0
84	MG	AS	3409	1/1	0.95	0.24	24,24,24,24	0
84	MG	AS	3508	1/1	0.95	0.23	29,29,29,29	0
84	MG	1	3828	1/1	0.95	0.15	40,40,40,40	0
84	MG	CM	1944	1/1	0.95	0.08	55,55,55,55	0
84	MG	1	3440	1/1	0.95	0.23	40,40,40,40	0
84	MG	AS	3604	1/1	0.95	0.17	26,26,26,26	0
84	MG	B	1959	1/1	0.95	0.20	52,52,52,52	0
84	MG	AS	3813	1/1	0.95	0.05	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3814	1/1	0.95	0.05	47,47,47,47	0
84	MG	CM	1951	1/1	0.95	0.12	41,41,41,41	0
84	MG	B	1960	1/1	0.95	0.24	41,41,41,41	0
84	MG	AS	3607	1/1	0.95	0.18	37,37,37,37	0
84	MG	1	3596	1/1	0.95	0.17	32,32,32,32	0
84	MG	AS	3707	1/1	0.95	0.23	33,33,33,33	0
84	MG	AS	3420	1/1	0.95	0.15	50,50,50,50	0
84	MG	CM	1832	1/1	0.95	0.27	31,31,31,31	0
84	MG	1	3519	1/1	0.95	0.27	57,57,57,57	0
84	MG	1	3834	1/1	0.95	0.07	35,35,35,35	0
84	MG	AS	3822	1/1	0.95	0.14	47,47,47,47	0
84	MG	1	3946	1/1	0.95	0.12	35,35,35,35	0
84	MG	1	3990	1/1	0.95	0.24	45,45,45,45	0
84	MG	B	1844	1/1	0.95	0.24	41,41,41,41	0
84	MG	1	3991	1/1	0.95	0.37	47,47,47,47	0
84	MG	1	3948	1/1	0.95	0.10	38,38,38,38	0
84	MG	CM	1841	1/1	0.95	0.17	49,49,49,49	0
84	MG	o	303	1/1	0.95	0.19	34,34,34,34	0
84	MG	1	3870	1/1	0.95	0.13	51,51,51,51	0
84	MG	AS	3720	1/1	0.95	0.07	46,46,46,46	0
84	MG	B	1974	1/1	0.95	0.14	56,56,56,56	0
84	MG	CM	1846	1/1	0.95	0.13	46,46,46,46	0
84	MG	CM	1847	1/1	0.95	0.14	45,45,45,45	0
84	MG	AS	3722	1/1	0.95	0.07	59,59,59,59	0
84	MG	CM	1977	1/1	0.95	0.13	56,56,56,56	0
84	MG	AS	3723	1/1	0.95	0.20	47,47,47,47	0
84	MG	1	3773	1/1	0.95	0.07	46,46,46,46	0
84	MG	1	3692	1/1	0.95	0.05	59,59,59,59	0
84	MG	1	3421	1/1	0.95	0.33	26,26,26,26	0
84	MG	1	3747	1/1	0.95	0.16	43,43,43,43	0
84	MG	i	301	1/1	0.95	0.05	40,40,40,40	0
84	MG	B	1801	1/1	0.95	0.19	38,38,38,38	0
84	MG	1	3403	1/1	0.95	0.17	46,46,46,46	0
84	MG	AS	3731	1/1	0.95	0.07	49,49,49,49	0
84	MG	AS	3447	1/1	0.95	0.21	43,43,43,43	0
84	MG	B	1859	1/1	0.95	0.09	71,71,71,71	0
84	MG	AS	3538	1/1	0.95	0.15	42,42,42,42	0
84	MG	B	1918	1/1	0.95	0.06	47,47,47,47	0
84	MG	1	3723	1/1	0.95	0.09	30,30,30,30	0
84	MG	1	3536	1/1	0.95	0.18	34,34,34,34	0
84	MG	1	3725	1/1	0.95	0.18	44,44,44,44	0
84	MG	1	3637	1/1	0.95	0.06	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	B	1989	1/1	0.95	0.06	42,42,42,42	0
84	MG	B	1807	1/1	0.95	0.08	82,82,82,82	0
84	MG	1	4005	1/1	0.95	0.11	42,42,42,42	0
84	MG	CM	1874	1/1	0.95	0.25	42,42,42,42	0
84	MG	B	1927	1/1	0.95	0.06	48,48,48,48	0
84	MG	1	3538	1/1	0.95	0.10	36,36,36,36	0
84	MG	1	3677	1/1	0.95	0.14	47,47,47,47	0
84	MG	AS	3462	1/1	0.95	0.14	31,31,31,31	0
84	MG	1	4008	1/1	0.95	0.07	47,47,47,47	0
84	MG	1	3639	1/1	0.95	0.17	26,26,26,26	0
84	MG	CM	1881	1/1	0.95	0.14	43,43,43,43	0
84	MG	B	1997	1/1	0.95	0.07	48,48,48,48	0
84	MG	AS	3652	1/1	0.95	0.12	44,44,44,44	0
84	MG	1	3429	1/1	0.96	0.10	35,35,35,35	0
84	MG	1	3712	1/1	0.96	0.16	32,32,32,32	0
84	MG	AS	3624	1/1	0.96	0.08	37,37,37,37	0
84	MG	4	206	1/1	0.96	0.16	30,30,30,30	0
84	MG	AS	3779	1/1	0.96	0.21	48,48,48,48	0
84	MG	AS	3780	1/1	0.96	0.11	47,47,47,47	0
84	MG	1	3635	1/1	0.96	0.11	26,26,26,26	0
84	MG	B	1846	1/1	0.96	0.17	36,36,36,36	0
84	MG	AS	3433	1/1	0.96	0.07	41,41,41,41	0
84	MG	B	1847	1/1	0.96	0.16	41,41,41,41	0
84	MG	AS	3496	1/1	0.96	0.05	31,31,31,31	0
84	MG	1	3504	1/1	0.96	0.06	26,26,26,26	0
84	MG	AS	3787	1/1	0.96	0.07	55,55,55,55	0
84	MG	1	3479	1/1	0.96	0.26	17,17,17,17	0
84	MG	AS	3564	1/1	0.96	0.21	50,50,50,50	0
84	MG	B	1895	1/1	0.96	0.09	52,52,52,52	0
84	MG	1	3766	1/1	0.96	0.18	45,45,45,45	0
84	MG	1	3904	1/1	0.96	0.21	46,46,46,46	0
84	MG	AS	3441	1/1	0.96	0.14	42,42,42,42	0
84	MG	1	3998	1/1	0.96	0.07	40,40,40,40	0
84	MG	CM	1860	1/1	0.96	0.06	52,52,52,52	0
84	MG	1	3905	1/1	0.96	0.05	36,36,36,36	0
84	MG	AS	3640	1/1	0.96	0.14	48,48,48,48	0
84	MG	B	1950	1/1	0.96	0.15	55,55,55,55	0
84	MG	CM	1864	1/1	0.96	0.10	43,43,43,43	0
84	MG	B	1900	1/1	0.96	0.16	63,63,63,63	0
84	MG	1	3717	1/1	0.96	0.15	43,43,43,43	0
84	MG	AS	3800	1/1	0.96	0.05	41,41,41,41	0
84	MG	AS	3801	1/1	0.96	0.11	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3907	1/1	0.96	0.14	30,30,30,30	0
84	MG	B	1856	1/1	0.96	0.13	38,38,38,38	0
84	MG	AS	3647	1/1	0.96	0.07	37,37,37,37	0
84	MG	1	3832	1/1	0.96	0.14	36,36,36,36	0
84	MG	1	3702	1/1	0.96	0.05	55,55,55,55	0
84	MG	AS	3650	1/1	0.96	0.06	30,30,30,30	0
84	MG	CM	1959	1/1	0.96	0.11	56,56,56,56	0
84	MG	CM	1960	1/1	0.96	0.07	50,50,50,50	0
84	MG	1	3883	1/1	0.96	0.17	42,42,42,42	0
84	MG	AS	3453	1/1	0.96	0.23	33,33,33,33	0
84	MG	1	3940	1/1	0.96	0.12	40,40,40,40	0
84	MG	B	1818	1/1	0.96	0.18	36,36,36,36	0
84	MG	1	3884	1/1	0.96	0.13	49,49,49,49	0
84	MG	AS	3657	1/1	0.96	0.07	47,47,47,47	0
84	MG	1	3492	1/1	0.96	0.22	22,22,22,22	0
84	MG	B	1821	1/1	0.96	0.21	31,31,31,31	0
84	MG	1	3410	1/1	0.96	0.29	25,25,25,25	0
84	MG	AS	3460	1/1	0.96	0.09	34,34,34,34	0
84	MG	CM	1886	1/1	0.96	0.12	53,53,53,53	0
84	MG	AB	201	1/1	0.96	0.19	25,25,25,25	0
84	MG	AS	3522	1/1	0.96	0.22	31,31,31,31	0
84	MG	AS	3664	1/1	0.96	0.05	80,80,80,80	0
84	MG	1	3975	1/1	0.96	0.04	37,37,37,37	0
84	MG	AS	3524	1/1	0.96	0.14	47,47,47,47	0
84	MG	AS	3525	1/1	0.96	0.11	65,65,65,65	0
84	MG	k	407	1/1	0.96	0.14	36,36,36,36	0
84	MG	1	3772	1/1	0.96	0.06	34,34,34,34	0
84	MG	1	3626	1/1	0.96	0.08	37,37,37,37	0
84	MG	1	3405	1/1	0.96	0.35	33,33,33,33	0
84	MG	o	304	1/1	0.96	0.15	41,41,41,41	0
84	MG	B	1973	1/1	0.96	0.07	44,44,44,44	0
84	MG	1	3537	1/1	0.96	0.16	42,42,42,42	0
84	MG	1	3864	1/1	0.96	0.10	51,51,51,51	0
84	MG	1	3599	1/1	0.96	0.14	43,43,43,43	0
84	MG	CM	1818	1/1	0.96	0.17	29,29,29,29	0
84	MG	B	1876	1/1	0.96	0.13	58,58,58,58	0
84	MG	AS	3474	1/1	0.96	0.12	33,33,33,33	0
84	MG	AS	3537	1/1	0.96	0.09	50,50,50,50	0
84	MG	1	3951	1/1	0.96	0.08	40,40,40,40	0
84	MG	1	3983	1/1	0.96	0.06	44,44,44,44	0
84	MG	1	3777	1/1	0.96	0.23	36,36,36,36	0
84	MG	AS	3412	1/1	0.96	0.33	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	1	3798	1/1	0.96	0.20	35,35,35,35	0
84	MG	DG	202	1/1	0.96	0.08	61,61,61,61	0
84	MG	1	3986	1/1	0.96	0.05	36,36,36,36	0
84	MG	AS	3418	1/1	0.96	0.10	17,17,17,17	0
84	MG	1	3742	1/1	0.96	0.15	33,33,33,33	0
84	MG	1	3455	1/1	0.96	0.09	29,29,29,29	0
84	MG	AS	3421	1/1	0.96	0.09	29,29,29,29	0
84	MG	1	3619	1/1	0.96	0.04	38,38,38,38	0
84	MG	AS	3768	1/1	0.96	0.10	39,39,39,39	0
84	MG	AS	3424	1/1	0.96	0.22	31,31,31,31	0
85	ZN	CH	101	1/1	0.96	0.12	150,150,150,150	0
84	MG	AS	3693	1/1	0.96	0.09	52,52,52,52	0
84	MG	AS	3620	1/1	0.96	0.16	37,37,37,37	0
84	MG	w	301	1/1	0.96	0.24	42,42,42,42	0
84	MG	AS	3716	1/1	0.97	0.07	33,33,33,33	0
84	MG	AS	3766	1/1	0.97	0.06	52,52,52,52	0
84	MG	1	3701	1/1	0.97	0.04	47,47,47,47	0
84	MG	1	3572	1/1	0.97	0.08	34,34,34,34	0
84	MG	1	3489	1/1	0.97	0.23	23,23,23,23	0
84	MG	AS	3823	1/1	0.97	0.18	43,43,43,43	0
84	MG	AS	3495	1/1	0.97	0.11	34,34,34,34	0
84	MG	AS	3413	1/1	0.97	0.23	25,25,25,25	0
84	MG	AS	3581	1/1	0.97	0.09	33,33,33,33	0
84	MG	AS	3414	1/1	0.97	0.06	58,58,58,58	0
84	MG	AS	3415	1/1	0.97	0.20	28,28,28,28	0
84	MG	1	3695	1/1	0.97	0.08	39,39,39,39	0
84	MG	AS	3777	1/1	0.97	0.22	42,42,42,42	0
84	MG	1	3863	1/1	0.97	0.04	57,57,57,57	0
84	MG	1	3830	1/1	0.97	0.04	37,37,37,37	0
84	MG	B	1905	1/1	0.97	0.04	39,39,39,39	0
84	MG	1	3999	1/1	0.97	0.03	53,53,53,53	0
84	MG	B	1968	1/1	0.97	0.12	58,58,58,58	0
84	MG	6	201	1/1	0.97	0.11	38,38,38,38	0
84	MG	AS	3591	1/1	0.97	0.20	47,47,47,47	0
84	MG	r	302	1/1	0.97	0.21	29,29,29,29	0
84	MG	B	1971	1/1	0.97	0.11	46,46,46,46	0
84	MG	AS	3735	1/1	0.97	0.04	31,31,31,31	0
84	MG	3	205	1/1	0.97	0.15	30,30,30,30	0
84	MG	AS	3427	1/1	0.97	0.17	30,30,30,30	0
84	MG	CM	1857	1/1	0.97	0.13	29,29,29,29	0
84	MG	3	206	1/1	0.97	0.07	63,63,63,63	0
84	MG	AS	3429	1/1	0.97	0.25	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	CM	1979	1/1	0.97	0.07	55,55,55,55	0
84	MG	CM	1802	1/1	0.97	0.38	29,29,29,29	0
84	MG	AS	3740	1/1	0.97	0.04	46,46,46,46	0
84	MG	1	3674	1/1	0.97	0.07	34,34,34,34	0
84	MG	B	1975	1/1	0.97	0.06	45,45,45,45	0
84	MG	B	1942	1/1	0.97	0.26	49,49,49,49	0
84	MG	AU	202	1/1	0.97	0.11	55,55,55,55	0
84	MG	1	3959	1/1	0.97	0.14	47,47,47,47	0
84	MG	1	3817	1/1	0.97	0.13	34,34,34,34	0
84	MG	AS	3603	1/1	0.97	0.11	38,38,38,38	0
84	MG	1	3715	1/1	0.97	0.07	30,30,30,30	0
84	MG	CM	1870	1/1	0.97	0.15	63,63,63,63	0
84	MG	AS	3651	1/1	0.97	0.08	54,54,54,54	0
84	MG	1	3463	1/1	0.97	0.09	33,33,33,33	0
84	MG	AU	209	1/1	0.97	0.04	33,33,33,33	0
84	MG	AW	301	1/1	0.97	0.11	37,37,37,37	0
84	MG	AS	3561	1/1	0.97	0.04	29,29,29,29	0
84	MG	1	3484	1/1	0.97	0.17	30,30,30,30	0
84	MG	B	1810	1/1	0.97	0.11	21,21,21,21	0
84	MG	B	1890	1/1	0.97	0.06	37,37,37,37	0
84	MG	1	3796	1/1	0.97	0.13	50,50,50,50	0
84	MG	1	3837	1/1	0.97	0.12	68,68,68,68	0
84	MG	1	3495	1/1	0.97	0.22	23,23,23,23	0
84	MG	B	1922	1/1	0.97	0.06	41,41,41,41	0
84	MG	1	3947	1/1	0.97	0.07	31,31,31,31	0
84	MG	1	3548	1/1	0.97	0.15	26,26,26,26	0
84	MG	CM	1943	1/1	0.97	0.13	48,48,48,48	0
84	MG	B	1925	1/1	0.97	0.10	54,54,54,54	0
84	MG	1	3824	1/1	0.97	0.08	46,46,46,46	0
84	MG	1	3731	1/1	0.97	0.11	34,34,34,34	0
85	ZN	DN	201	1/1	0.97	0.04	85,85,85,85	0
84	MG	1	3913	1/1	0.97	0.08	33,33,33,33	0
84	MG	AS	3575	1/1	0.97	0.08	40,40,40,40	0
84	MG	1	3922	1/1	0.98	0.17	48,48,48,48	0
84	MG	1	3449	1/1	0.98	0.20	44,44,44,44	0
84	MG	AS	3444	1/1	0.98	0.09	41,41,41,41	0
84	MG	AS	3641	1/1	0.98	0.04	41,41,41,41	0
84	MG	1	3553	1/1	0.98	0.06	50,50,50,50	0
84	MG	B	1814	1/1	0.98	0.07	45,45,45,45	0
84	MG	AS	3692	1/1	0.98	0.03	50,50,50,50	0
84	MG	1	3646	1/1	0.98	0.10	37,37,37,37	0
84	MG	1	3869	1/1	0.98	0.11	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
84	MG	AS	3553	1/1	0.98	0.09	29,29,29,29	0
84	MG	AS	3554	1/1	0.98	0.10	44,44,44,44	0
84	MG	AS	3802	1/1	0.98	0.03	48,48,48,48	0
84	MG	1	3769	1/1	0.98	0.11	27,27,27,27	0
84	MG	AS	3776	1/1	0.98	0.05	40,40,40,40	0
84	MG	1	3988	1/1	0.98	0.09	69,69,69,69	0
84	MG	1	3871	1/1	0.98	0.07	47,47,47,47	0
84	MG	CM	1849	1/1	0.98	0.05	46,46,46,46	0
84	MG	x	203	1/1	0.98	0.26	37,37,37,37	0
84	MG	AS	3473	1/1	0.98	0.13	28,28,28,28	0
84	MG	1	3630	1/1	0.98	0.05	44,44,44,44	0
84	MG	1	3423	1/1	0.98	0.27	24,24,24,24	0
84	MG	1	3721	1/1	0.98	0.06	40,40,40,40	0
84	MG	CM	1972	1/1	0.98	0.06	40,40,40,40	0
85	ZN	AQ	101	1/1	0.98	0.06	84,84,84,84	0
84	MG	1	3625	1/1	0.98	0.20	31,31,31,31	0
85	ZN	f	101	1/1	0.98	0.08	75,75,75,75	0
84	MG	j	303	1/1	0.98	0.10	26,26,26,26	0
84	MG	1	3570	1/1	0.98	0.14	29,29,29,29	0
85	ZN	CE	101	1/1	0.98	0.03	71,71,71,71	0
84	MG	CM	1945	1/1	0.98	0.07	40,40,40,40	0
84	MG	1	3634	1/1	0.98	0.07	33,33,33,33	0
84	MG	1	3878	1/1	0.98	0.03	35,35,35,35	0
84	MG	1	3571	1/1	0.98	0.04	26,26,26,26	0
85	ZN	DQ	101	1/1	0.98	0.09	51,51,51,51	0
84	MG	AS	3711	1/1	0.98	0.05	45,45,45,45	0
85	ZN	c	201	1/1	0.99	0.04	84,84,84,84	0
84	MG	1	3850	1/1	0.99	0.13	28,28,28,28	0
85	ZN	CK	101	1/1	0.99	0.03	116,116,116,116	0
84	MG	AS	3830	1/1	0.99	0.04	49,49,49,49	0
84	MG	AS	3422	1/1	0.99	0.06	28,28,28,28	0
84	MG	1	3461	1/1	0.99	0.17	19,19,19,19	0
84	MG	AS	3436	1/1	0.99	0.09	37,37,37,37	0
84	MG	AS	3402	1/1	1.00	0.04	39,39,39,39	0
84	MG	1	3407	1/1	1.00	0.03	42,42,42,42	0
84	MG	1	3439	1/1	1.00	0.07	28,28,28,28	0
85	ZN	AK	101	1/1	1.00	0.04	49,49,49,49	0

6.5 Other polymers (i)

There are no such residues in this entry.