



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 11:24 PM UTC

PDB ID : 8OI5 / pdb_00008oi5
Title : Crystal structure of the Candida albicans 80S ribosome in complex with Paromomycin (2mM)
Authors : Kolosova, O.; Zgadzay, Y.; Yusupov, M.
Deposited on : 2023-03-22
Resolution : 2.90 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

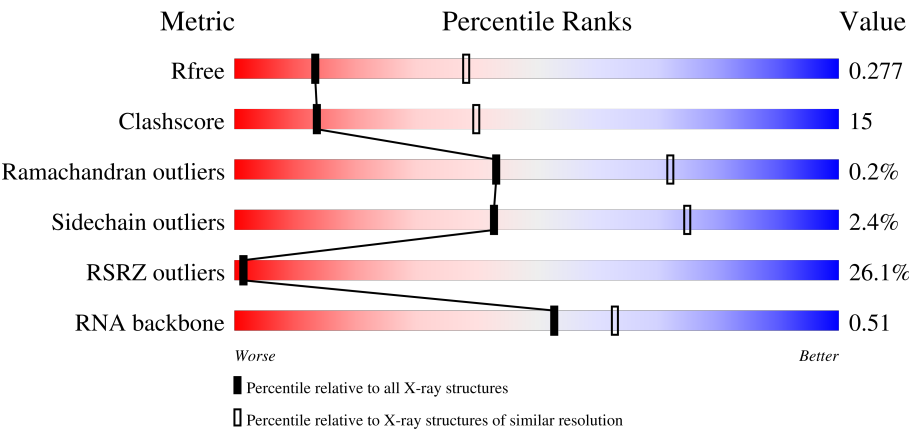
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.90 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	2481 (2.90-2.90)
Clashscore	190562	2690 (2.90-2.90)
Ramachandran outliers	187476	2623 (2.90-2.90)
Sidechain outliers	187428	2625 (2.90-2.90)
RSRZ outliers	180081	2481 (2.90-2.90)
RNA backbone	3983	1120 (3.10-2.70)

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

Mol	Chain	Length	Quality of chain
1	1	3359	5% 49%37%8%6%
1	AS	3359	10% 46%38%7%9%
2	3	121	% 60%36%.
2	AT	121	3% 54%43%.

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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	
16	BI	204	
16	v	204	
17	BJ	200	
17	w	200	
18	BK	185	
18	x	185	
19	BL	186	
19	y	186	
20	BM	190	
20	z	190	
21	0	172	
21	BN	172	
22	2	160	
22	BO	160	
23	5	124	
23	BP	124	
24	6	137	
24	BQ	137	
25	7	155	
25	BR	155	
26	8	142	
26	BS	142	
27	9	127	
27	BT	127	

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Mol	Chain	Length	Quality of chain
28	AA	136	
28	BU	136	
29	AB	149	
29	BV	149	
30	AC	63	
30	BW	63	
31	AD	106	
31	BX	106	
32	AE	112	
32	BY	112	
33	AF	131	
33	BZ	131	
34	AG	107	
34	CA	107	
35	AH	122	
35	CB	122	
36	AI	120	
36	CC	120	
37	AJ	99	
37	CD	99	
38	AK	90	
38	CE	90	
39	AL	78	
39	CF	78	
40	AM	51	

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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	B	1787	
45	CM	1787	
46	C	261	
46	CN	261	
47	CO	256	
47	D	256	
48	CP	249	
48	E	249	
49	CQ	251	
49	F	251	
50	CR	262	
50	G	262	
51	CS	225	
51	H	225	
52	CT	236	
52	I	236	

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Mol	Chain	Length	Quality of chain
53	CU	186	
53	J	186	
54	CV	206	
54	K	206	
55	CW	189	
55	L	189	
56	CX	118	
56	M	118	
57	CY	155	
57	N	155	
58	CZ	143	
58	O	143	
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	
66	DH	119	
66	W	119	
67	DI	87	
67	X	87	
68	DJ	130	
68	Y	130	
69	DK	145	
69	Z	145	
70	DL	135	
70	a	135	
71	DM	105	
71	b	105	
72	DN	119	
72	c	119	
73	DO	82	
73	d	82	
74	DP	67	
74	e	67	
75	DQ	56	
75	f	56	
76	DR	63	
76	g	63	
77	h	193	
78	AR	317	

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Mol	Chain	Length	Quality of chain
79	CL	267	
79	i	267	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
82	MG	1	3490	-	-	-	X
82	MG	AS	3469	-	-	-	X
82	MG	AS	3685	-	-	-	X
82	MG	AW	303	-	-	-	X
82	MG	B	1830	-	-	-	X
82	MG	B	1849	-	-	-	X
82	MG	B	1925	-	-	-	X

2 Entry composition [i](#)

There are 83 unique types of molecules in this entry. The entry contains 397530 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	3171	Total	C	N	O	P	0	0	0
			67782	30282	12183	22146	3171			
1	AS	3065	Total	C	N	O	P	0	0	0
			65508	29266	11762	21415	3065			

- 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	156	Total	C	N	O	P	0	0	0
			3313	1482	581	1094	156			
3	AU	156	Total	C	N	O	P	0	0	0
			3313	1482	581	1094	156			

- 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	1	0
			1894	1185	377	330	2			
4	AW	249	Total	C	N	O	S	0	1	0
			1894	1185	377	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	360	Total	C	N	O	S	0	0	0
			2745	1726	528	488	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	234	Total	C	N	O	S	0	0	0
			1885	1208	345	331	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	230	Total	C	N	O	S	0	0	0
			1790	1147	318	322	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	BC	231	Total	C	N	O	S	0	0	0
			1795	1150	319	323	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	206	Total	C	N	O	S	0	0	0
			1671	1057	320	287	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	128	Total	C	N	O	S	0	0	0
			1015	651	190	173	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	171	Total	C	N	O	0	0	0
			1372	846	278	248			
18	BK	174	Total	C	N	O	0	0	0
			1396	862	282	252			

- 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	77	Total	C	N	O	S	0	0	0
			632	402	124	105	1			
25	BR	109	Total	C	N	O	S	0	0	0
			877	549	178	149	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	8	121	Total	C	N	O	S	0	0	0
			974	622	175	176	1			

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

- Molecule 27 is a protein called Ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	9	125	Total	C	N	O		0	0	0
			980	613	189	178				
27	BT	126	Total	C	N	O		0	0	0
			989	618	190	181				

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

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

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

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

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

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

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

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

- 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	117	Total	C	N	O	0	1	0
			981	624	193	164			
36	CC	118	Total	C	N	O	0	1	0
			985	626	194	165			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	AJ	97	Total	C	N	O	S	0	0	0
			758	471	156	130	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	1	0
			446	280	100	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	25	Total	C	N	O	S	0	0	0
			236	144	63	28	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 RNA chain called 18S.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	B	1725	Total	C	N	O	P	0	0	0
			36771	16437	6521	12088	1725			
45	CM	1778	Total	C	N	O	P	0	0	0
			37902	16943	6724	12457	1778			

- Molecule 46 is a protein called 40S ribosomal protein S0.

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

- Molecule 47 is a protein called 40S ribosomal protein S1.

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

- Molecule 48 is a protein called Ribosomal protein S5.

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

- Molecule 49 is a protein called Ribosomal protein S3.

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

- Molecule 50 is a protein called 40S ribosomal protein S4.

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

- Molecule 51 is a protein called Ribosomal protein S7.

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

- Molecule 52 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	I	222	Total	C	N	O	S	0	0	0
			1787	1113	344	324	6			
52	CT	236	Total	C	N	O	S	0	0	0
			1904	1184	369	345	6			

- Molecule 53 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
53	J	181	Total	C	N	O	0	0	0
			1462	937	263	262			
53	CU	183	Total	C	N	O	0	0	0
			1475	944	265	266			

- Molecule 54 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	K	202	Total	C	N	O	S	0	0	0
			1574	970	321	282	1			
54	CV	203	Total	C	N	O	S	0	0	0
			1579	973	322	283	1			

- Molecule 55 is a protein called Ribosomal protein S4.

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

- Molecule 56 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	M	98	Total	C	N	O	S	0	0	0
			817	531	135	150	1			
56	CX	94	Total	C	N	O	S	0	0	0
			791	515	131	144	1			

- Molecule 57 is a protein called 40S ribosomal protein S11A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	N	141	Total	C	N	O	S	0	0	0
			1128	721	210	194	3			
57	CY	141	Total	C	N	O	S	0	0	0
			1129	722	212	192	3			

- Molecule 58 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	O	116	Total	C	N	O	S	0	0	0
			885	550	158	172	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	CZ	119	Total	C	N	O	S	0	0	0
			913	566	163	179	5			

- 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	122	Total	C	N	O	S	0	0	0
			963	612	176	168	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	135	Total	C	N	O	S	0	0	0
			1053	675	192	185	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	139	Total	C	N	O	S	0	0	0
			1089	682	208	198	1			

- Molecule 66 is a protein called Ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
66	W	99	Total	C	N	O	S	0	0	0
			782	493	145	142	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	68	Total	C	N	O		0	0	0
			545	351	95	99				

- 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	54	Total	C	N	O	S	0	0	0
			431	271	88	70	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			

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

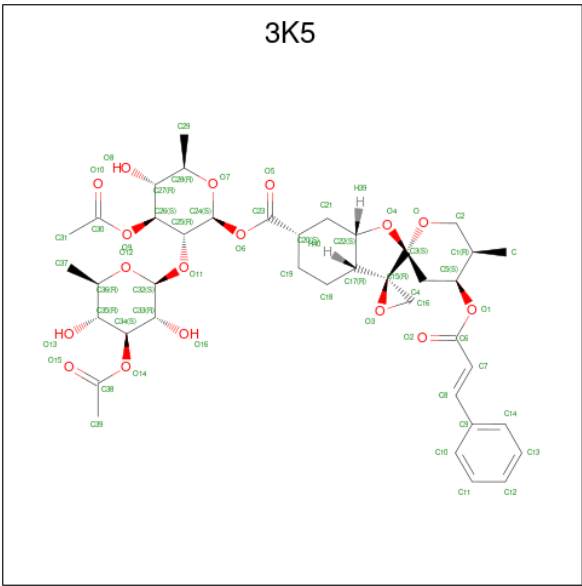
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
78	AR	311	Total	C	N	O	S	0	0	0
			2398	1519	412	462	5			

- Molecule 79 is a protein called 60S ribosomal protein CAALFM_C304810CA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
79	i	120	Total	C	N	O		0	0	0
			918	554	165	199				
79	CL	121	Total	C	N	O		0	0	0
			930	563	166	201				

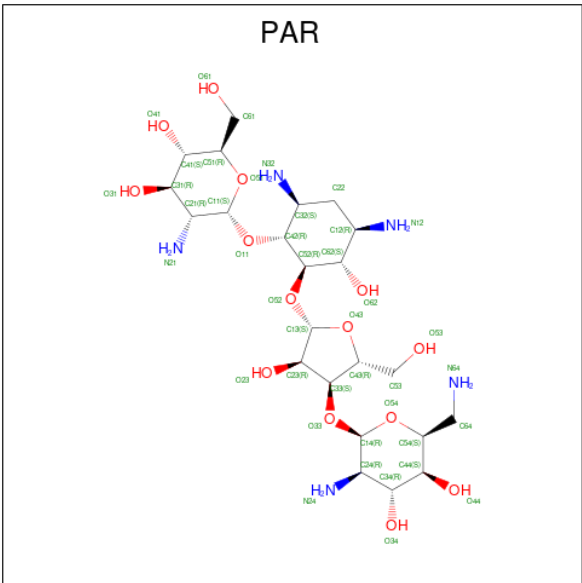
- Molecule 80 is 3-O-acetyl-2-O-(3-O-acetyl-6-deoxy-beta-D-glucopyranosyl)-6-deoxy-1-O-{{[(2R,2'S,3a'R,4''S,5''R,6'S,7a'S)-5''-methyl-4''-{[(2E)-3-phenylprop-2-enoyl]oxy}decahydrodispiro[oxirane-2,3'-[1]benzofuran-2',2''-pyran]-6'-yl]carbonyl}-beta-D-glucopyranose (CCD ID:

3K5) (formula: C₄₀H₅₂O₁₇).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
80	1	1	Total	C	O	0	0
			57	40	17		

- Molecule 81 is PAROMOMYCIN (CCD ID: PAR) (formula: C₂₃H₄₅N₅O₁₄) (labeled as "Lig- and of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
81	1	1	Total	C	N	O	0	0
			42	23	5	14		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		
81	1	1	Total	C	N	O	0	0
			42	23	5	14		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
81	1	1	Total 42	C 23	N 5	O 14	0	0
81	1	1	Total 42	C 23	N 5	O 14	0	0
81	1	1	Total 42	C 23	N 5	O 14	0	0
81	1	1	Total 42	C 23	N 5	O 14	0	0
81	1	1	Total 42	C 23	N 5	O 14	0	0
81	1	1	Total 42	C 23	N 5	O 14	0	0
81	1	1	Total 42	C 23	N 5	O 14	0	0
81	4	1	Total 42	C 23	N 5	O 14	0	0
81	4	1	Total 42	C 23	N 5	O 14	0	0
81	B	1	Total 42	C 23	N 5	O 14	0	0
81	B	1	Total 42	C 23	N 5	O 14	0	0
81	B	1	Total 42	C 23	N 5	O 14	0	0
81	B	1	Total 42	C 23	N 5	O 14	0	0
81	B	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	AS	1	Total 42	C 23	N 5	O 14	0	0
81	CM	1	Total 42	C 23	N 5	O 14	0	0
81	CM	1	Total 42	C 23	N 5	O 14	0	0
81	CM	1	Total 42	C 23	N 5	O 14	0	0
81	CM	1	Total 42	C 23	N 5	O 14	0	0
81	CM	1	Total 42	C 23	N 5	O 14	0	0
81	CM	1	Total 42	C 23	N 5	O 14	0	0

- Molecule 82 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
82	1	346	Total 346	Mg 346	0	0
82	3	1	Total 1	Mg 1	0	0
82	4	7	Total 7	Mg 7	0	0
82	j	1	Total 1	Mg 1	0	0
82	p	1	Total 1	Mg 1	0	0
82	v	5	Total 5	Mg 5	0	0
82	w	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
82	x	1	Total 1	Mg 1	0	0
82	6	2	Total 2	Mg 2	0	0
82	AB	1	Total 1	Mg 1	0	0
82	AL	1	Total 1	Mg 1	0	0
82	AP	2	Total 2	Mg 2	0	0
82	B	140	Total 140	Mg 140	0	0
82	C	1	Total 1	Mg 1	0	0
82	E	1	Total 1	Mg 1	0	0
82	F	1	Total 1	Mg 1	0	0
82	G	1	Total 1	Mg 1	0	0
82	K	1	Total 1	Mg 1	0	0
82	f	1	Total 1	Mg 1	0	0
82	AS	334	Total 334	Mg 334	0	0
82	AT	1	Total 1	Mg 1	0	0
82	AU	1	Total 1	Mg 1	0	0
82	AW	3	Total 3	Mg 3	0	0
82	AX	1	Total 1	Mg 1	0	0
82	AY	1	Total 1	Mg 1	0	0
82	CJ	1	Total 1	Mg 1	0	0
82	CM	139	Total 139	Mg 139	0	0
82	CR	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
82	DG	1	Total	Mg	0	0
			1	1		
82	DJ	1	Total	Mg	0	0
			1	1		
82	DK	1	Total	Mg	0	0
			1	1		
82	CL	1	Total	Mg	0	0
			1	1		

- Molecule 83 is ZINC ION (CCD ID: ZN) (formula: Zn).

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

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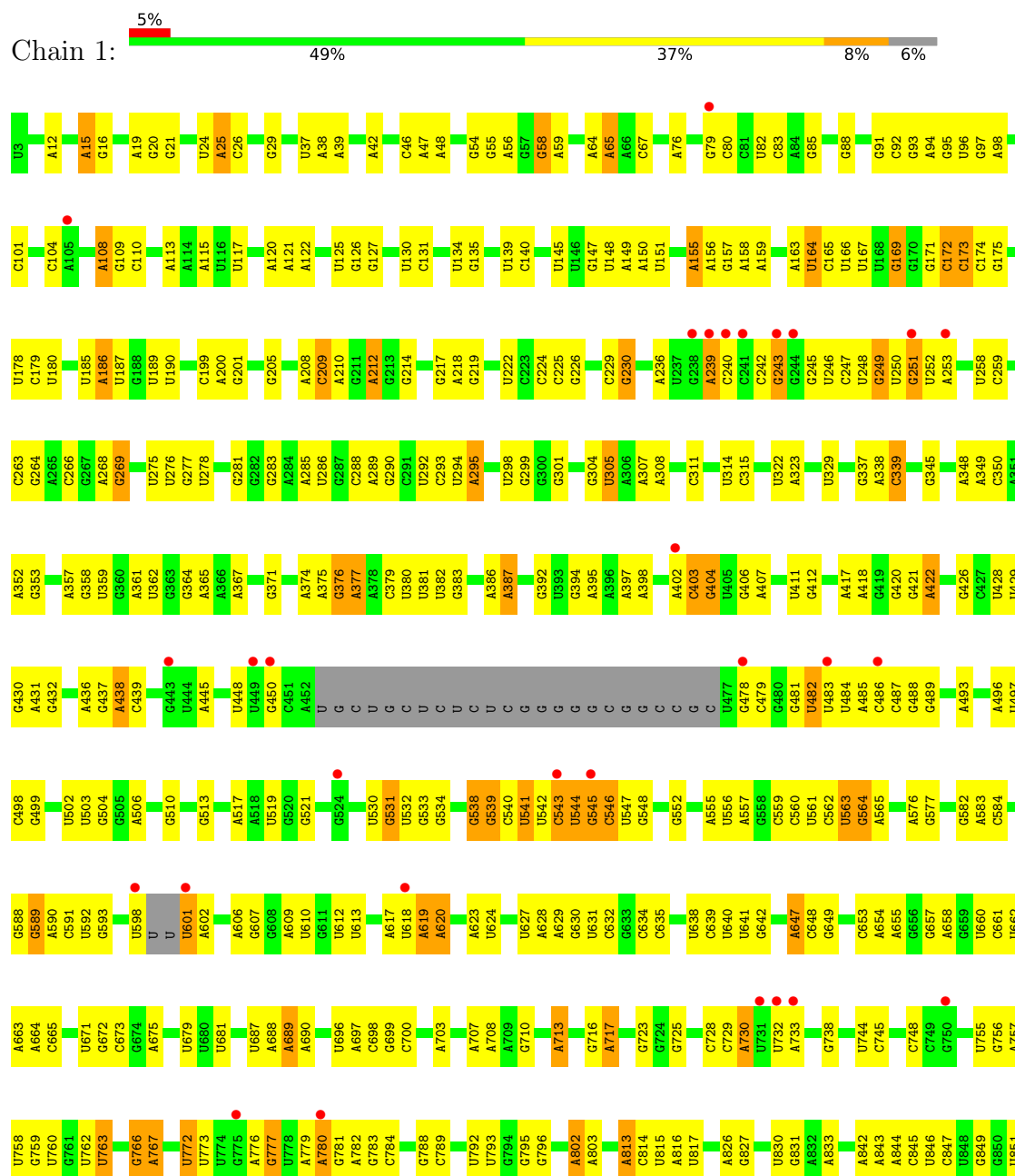
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
83	DO	1	Total 1	Zn 1	0	0
83	DQ	1	Total 1	Zn 1	0	0

3 Residue-property plots

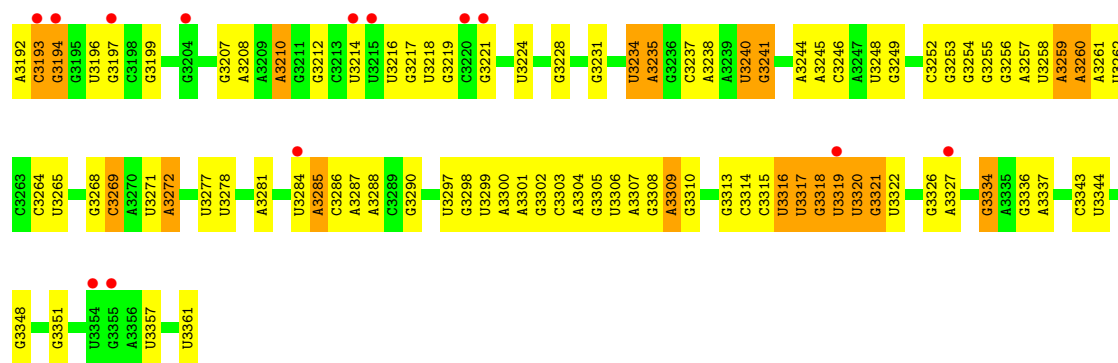
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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

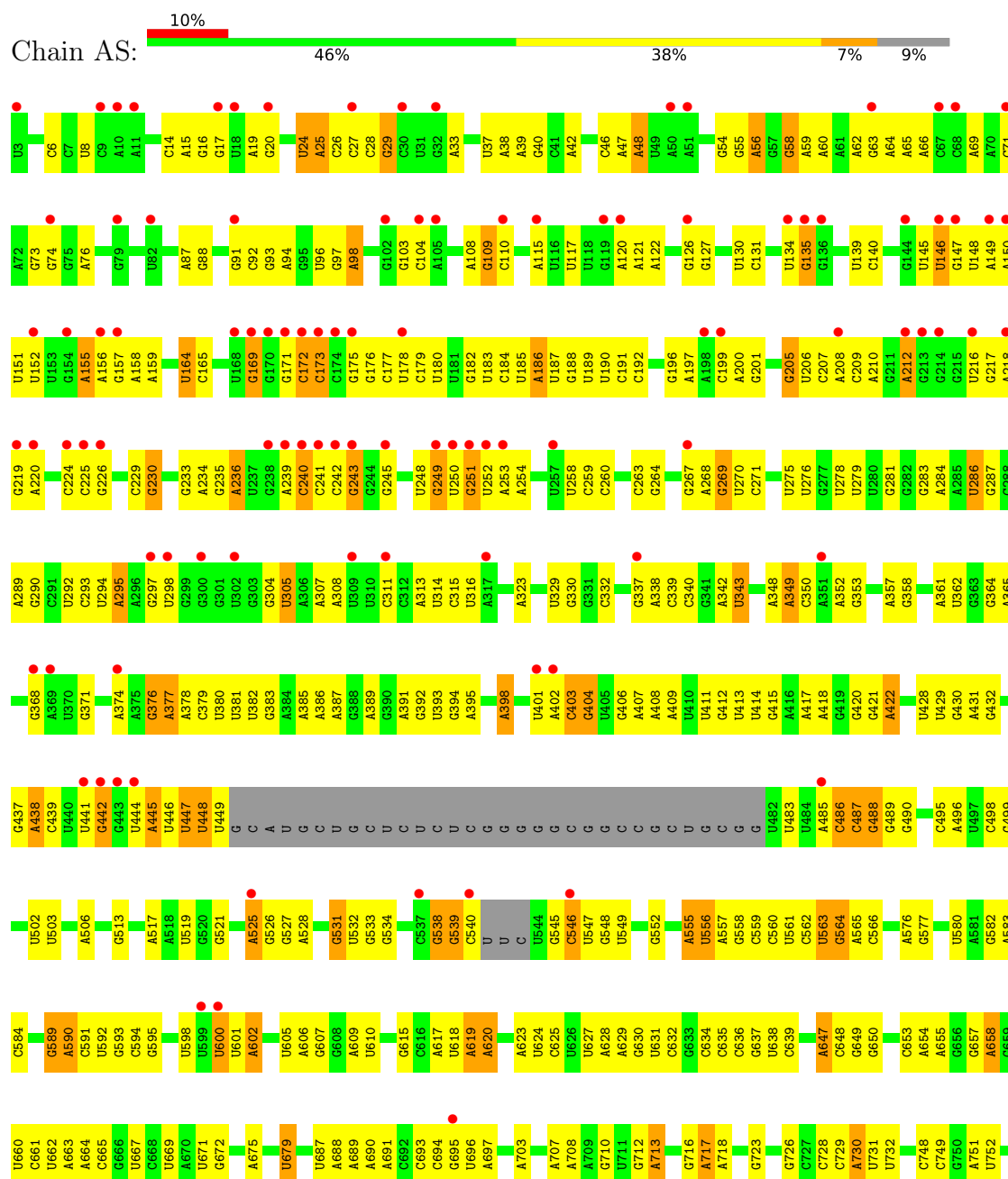






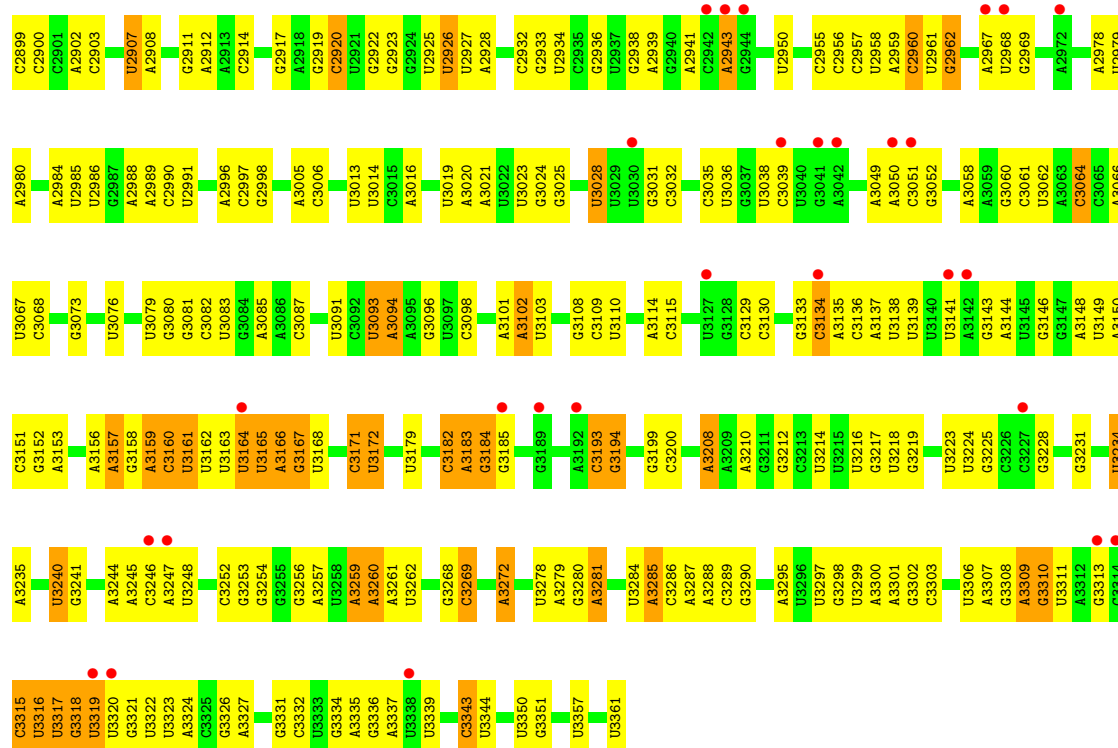


• Molecule 1: 25S





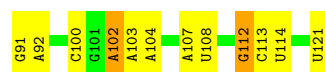
C1777	U1849	U	U	C2079	G2147	G2299	G2322	G2396	A	U2531	G2630	A2719	C2808
U1778	U1850	G	U	U2080	U2148	U2232	A2323	A2897	A	A2532	G2634	A2720	A2810
U1779	U1851	G	A	U2081	A2233	A2233	A2330	C2398	U	G2533	G2635	G2721	U2810
A1780	U1852	G	C	A2084	U2151	A2235	C2331	U2404	A	C2534	C2636	U2724	U2814
G1781	C1853	C	C	A2085	U2152	U2236	C2332	U2405	C	U2535	G2641	U2725	U2815
G1782	C1854	C	C	C2086	G2155	U2237	C2333	U2406	C	U2536	G2642	U2726	C2816
A1783	U1854	U	U	U2087	G2156	A2238	A2334	G2407	A	U2537	C2643	U2729	U2817
U1787	A1861	U	U	G2088	C2158	U2239	A2335	A2408	C	A2538	A2644	U2735	C2818
C1788	C1862	G	C	U2090	C2159	A2240	A2336	C2409	U	U2539	A2645	U2736	A2819
C1789	A1863	U	U	A2091	G2163	C2241	A2339	A2410	C	U2540	U2646	C2737	U2822
U1790	G1864	G	G	C2092	U2164	U2242	C2340	G2413	C	U2544	G2649	C2738	G2826
U1791	C1865	U	U	G2093	U2171	C2243	C2341	U2414	U	C2545	A2650	U2739	U2829
G1792	G1866	A	A	U2094	C2172	U2244	C2342	G2415	C	U2546	A2651	U2740	C2829
A1793	A1870	G	G	C2095	C2173	C2245	A2343	A2418	A	U2547	U2652	A2741	U2832
A1794	G1871	C	C	A2096	C2174	U2248	A2344	A	U	C2548	C2654	C2744	U2833
A1795	A1872	C	C	U2097	G2175	A2249	A2345	G	A	C2549	U2655	C2745	A2836
A1796	G1874	C	C	A2098	C2176	G2250	A2346	U	U	C2550	G2656	U2747	U2839
U1797	A1875	G	G	U2099	G2177	U2251	G2347	C	U	G2551	G2657	U2748	U2840
C1798	U1876	C	C	G2100	U2180	A2252	G2348	A	U	U2552	U2658	C2749	C2843
U1801	C1801	U	U	G2101	C2181	G2253	A2351	U	U	C2553	U2659	G2750	A2844
G1803	A1802	G	G	U2102	U2182	U2254	C2352	G	U	C2554	A2660	U2753	U2845
A1805	A1803	U	U	G2107	C2183	A2257	C2353	A	A	U2555	G2661	U2754	G2846
A1806	G1807	C	C	U2108	U2184	A2258	G2354	G	U	U2556	C2662	G2758	U2847
G1808	C1900	A	A	G2109	G2185	A2259	G2355	G	A	A2489	A2666	U2759	U2848
A1809	G1901	U	U	U2112	U2186	U2260	C2356	U	U	U2492	U2667	A2762	U2852
A1810	G1902	C	C	C2114	U2187	C2262	G2363	G	U	A2493	A2668	G2768	C2853
U1811	C1903	U	U	U2115	G2188	C2263	U2361	U	A	U2498	A2669	U2771	U2854
A1812	A1907	G	G	U2116	U2189	U2264	C2362	A	U	U2499	U2670	U2772	C2855
G1813	U1908	C	C	A2117	A2190	U2276	A2363	A	U	G2500	A2675	U2773	U2856
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G1825	C1922	U	U	C2123	G2196	C2287	C2372	A	U	U2510	U2687	U2779	C2867
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G1844	U	U	U	A2142	A2221	U2313	C2390	C	U	U2526	U2629		
C1845	U	U	U	G2143	A2222	U2314	A2391	C	U	G2527	U2630		
				A2144	G2227	U2318	C2392	G	U	U2528	U2631		
				A2145	G2228		C2393	U	U	U2529	U2632		
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• Molecule 2: 5S

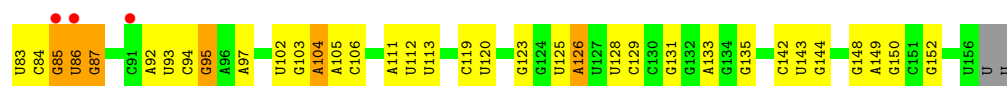


• Molecule 2: 5S

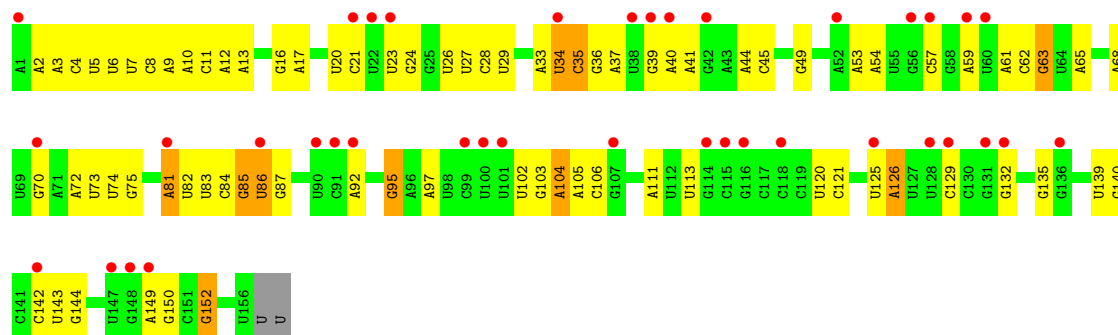


• Molecule 3: 5.8S

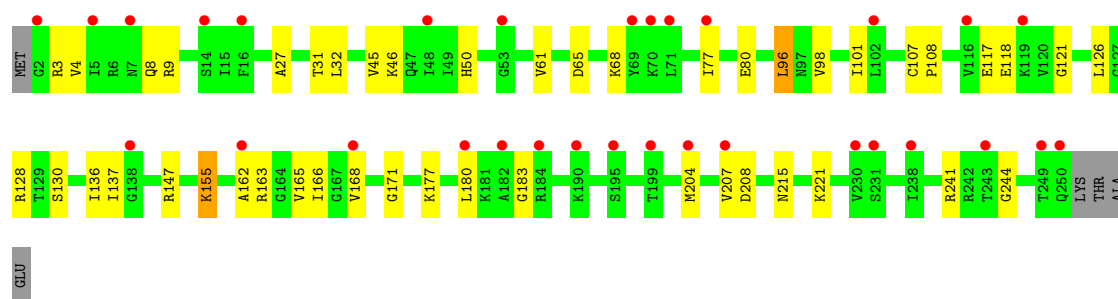
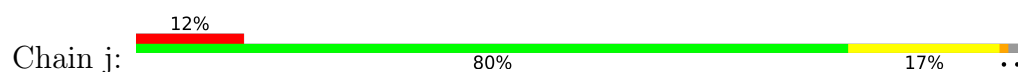




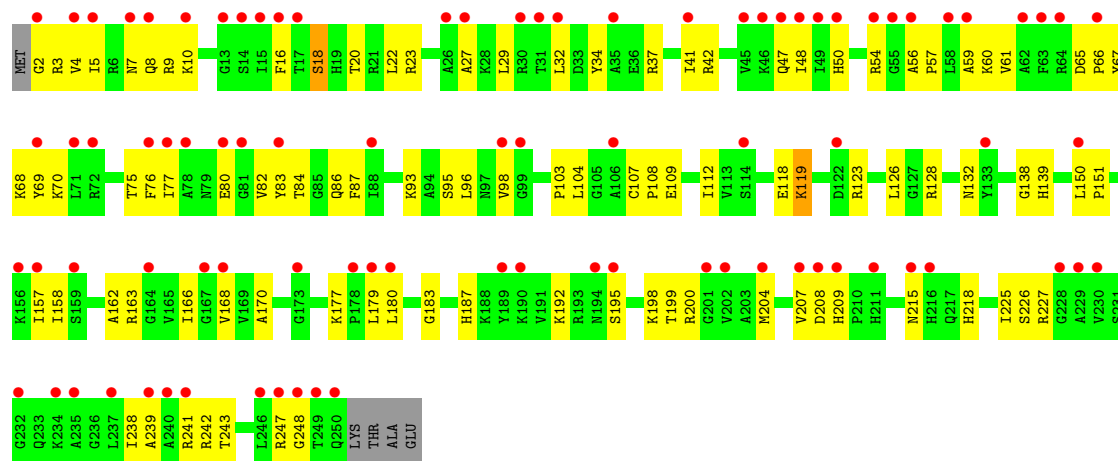
• Molecule 3: 5.8S



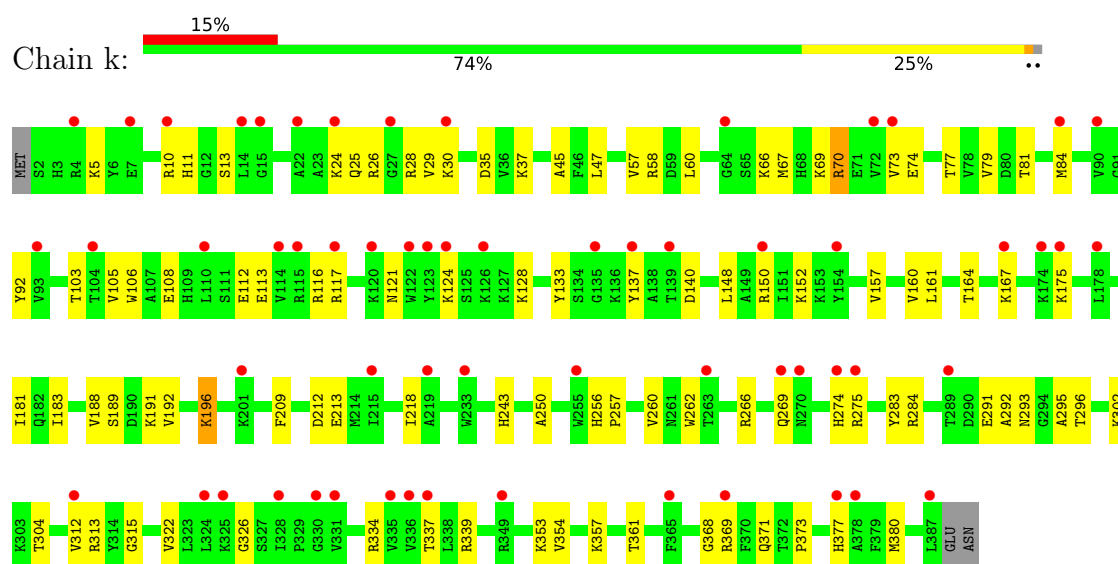
• Molecule 4: 60S ribosomal protein L2-B



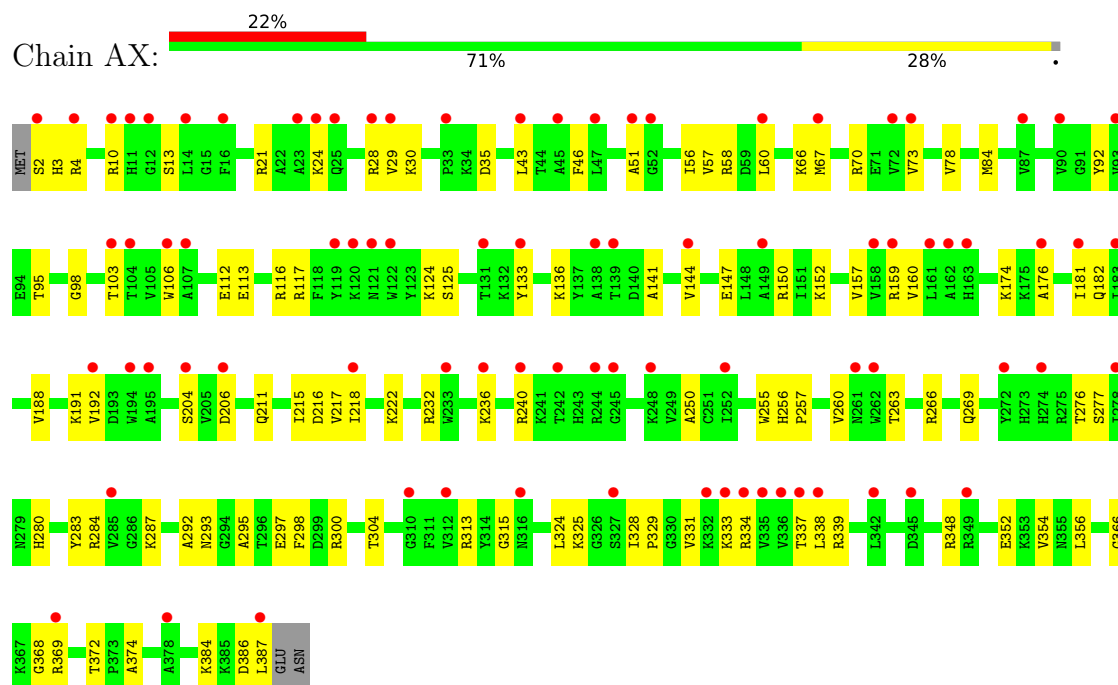
• Molecule 4: 60S ribosomal protein L2-B



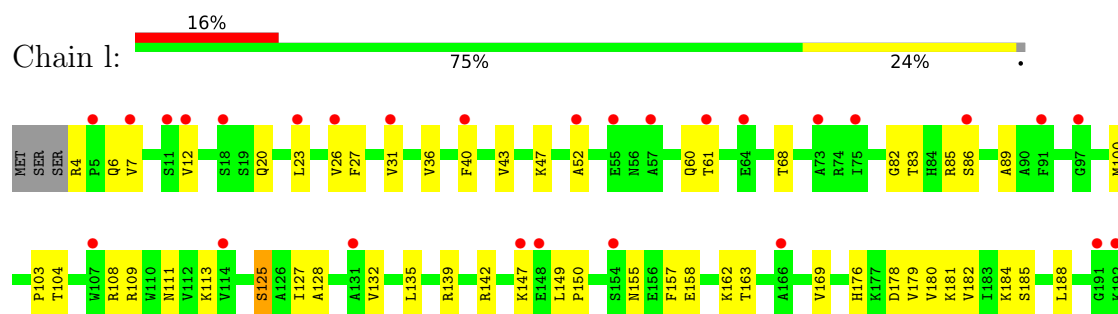
• Molecule 5: 60S ribosomal protein L3

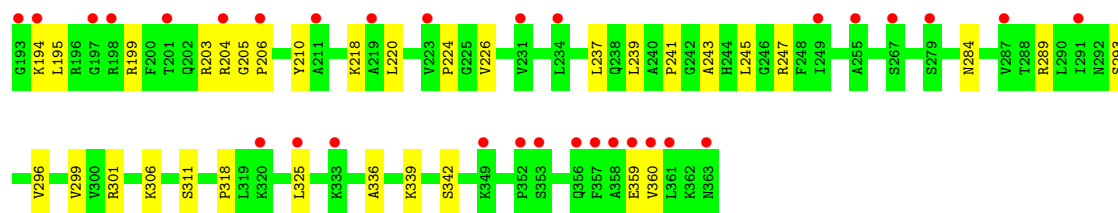


• Molecule 5: 60S ribosomal protein L3



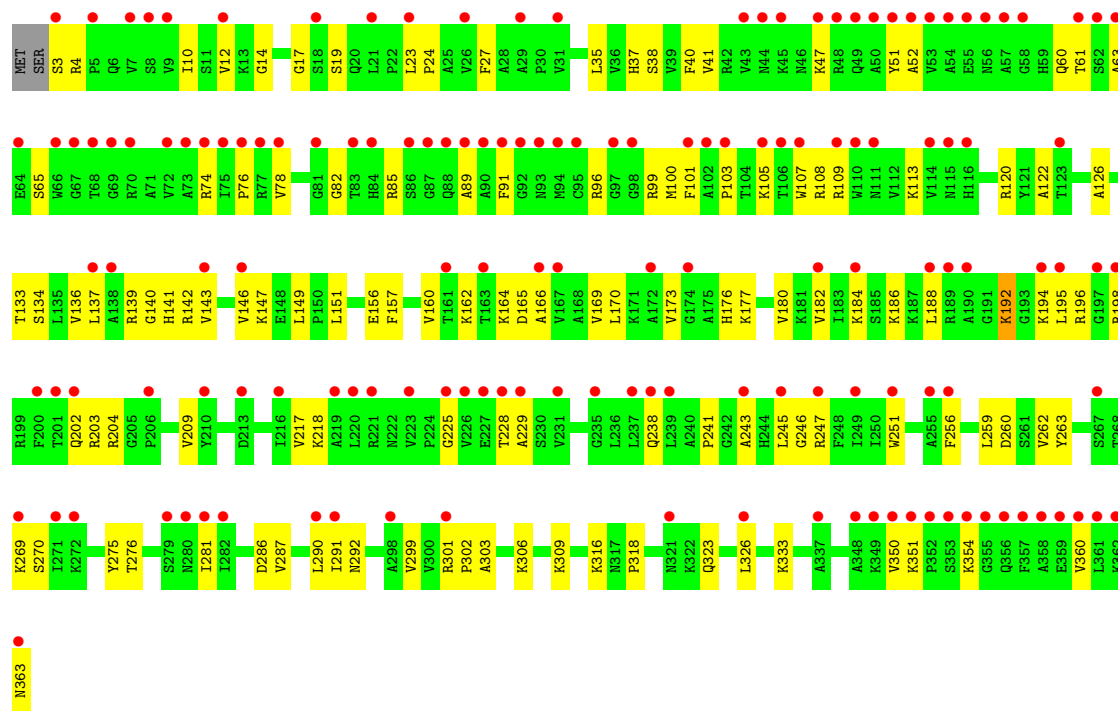
• Molecule 6: 60S ribosomal protein L4-B





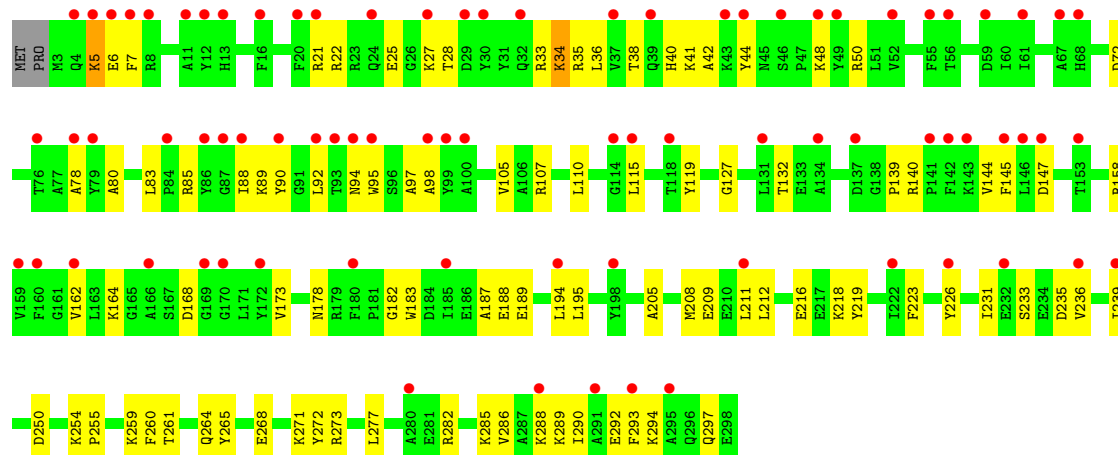
• Molecule 6: 60S ribosomal protein L4-B

Chain AY: 41% 65% 34% .

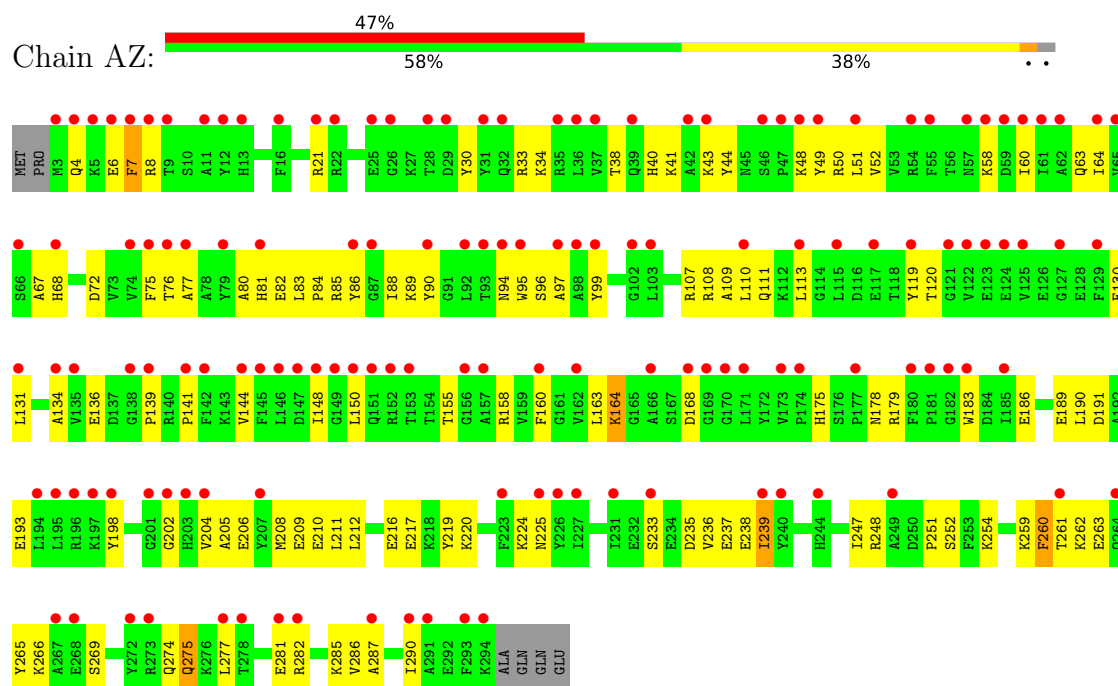


• Molecule 7: Uncharacterized protein CaJ7.0206

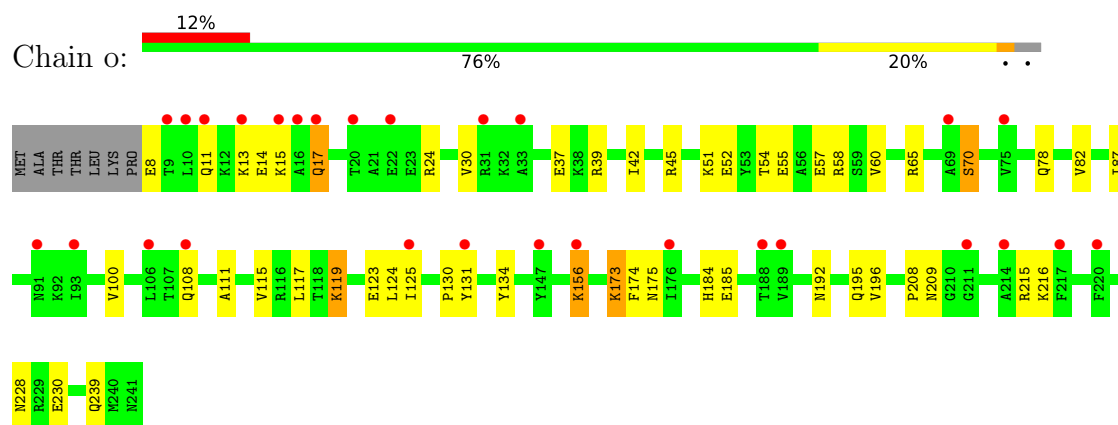
Chain m: 27% 67% 31% ..



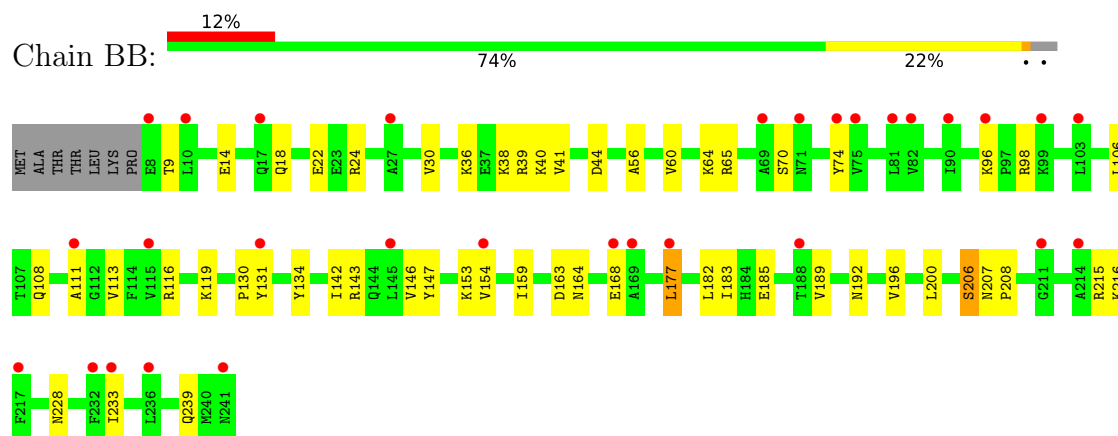
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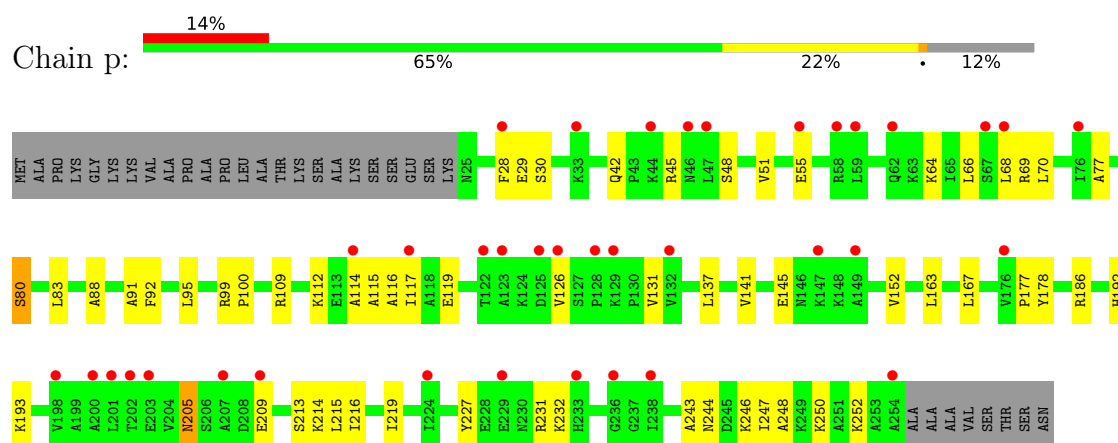
• Molecule 9: 60S ribosomal protein L7-A



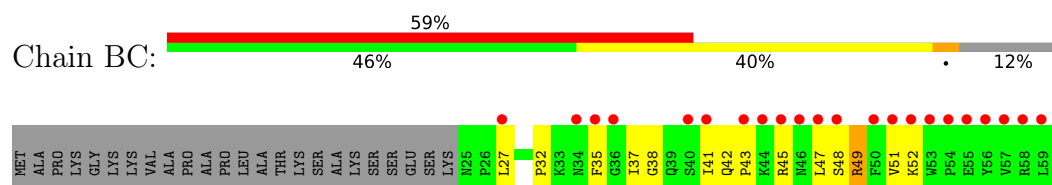
• Molecule 9: 60S ribosomal protein L7-A

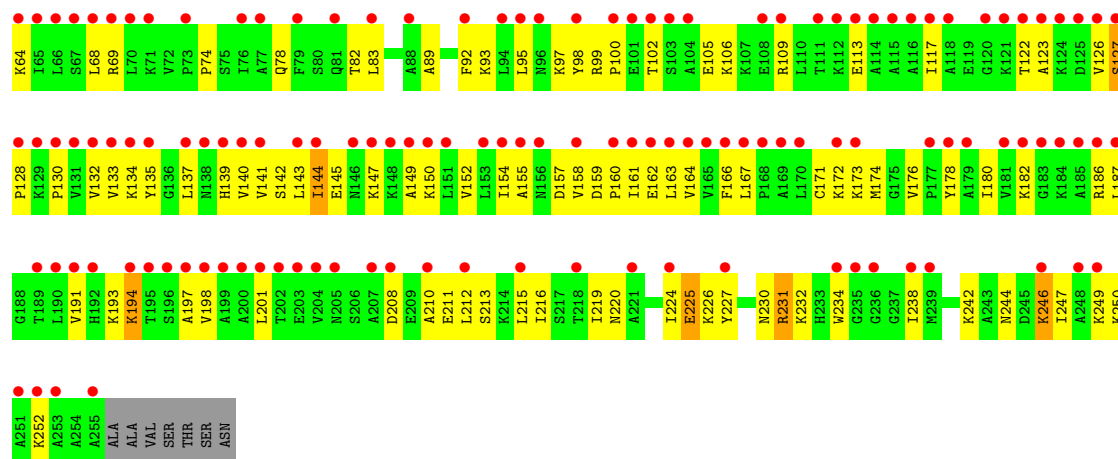


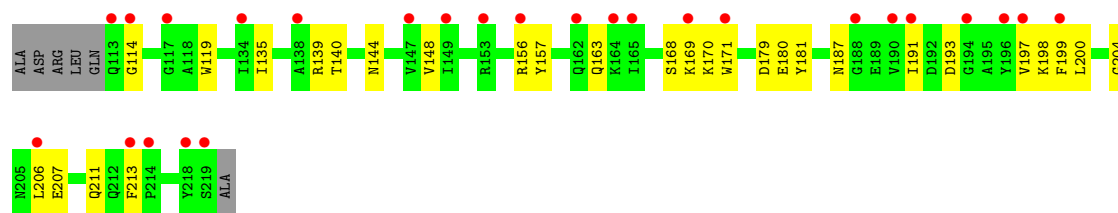
• Molecule 10: 60S ribosomal protein L8



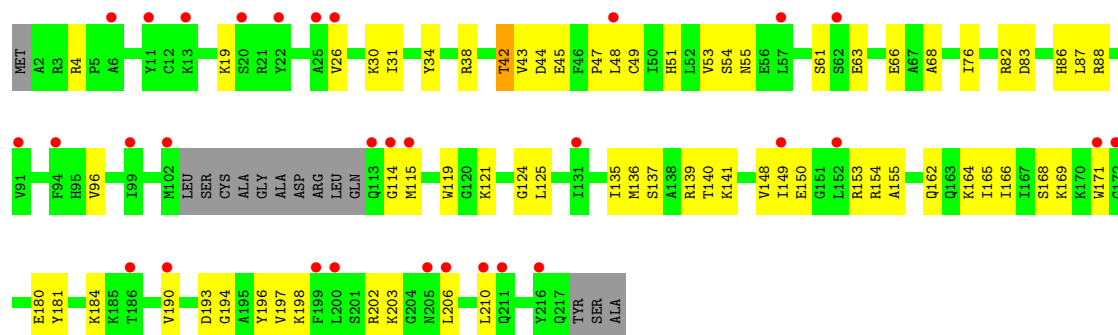
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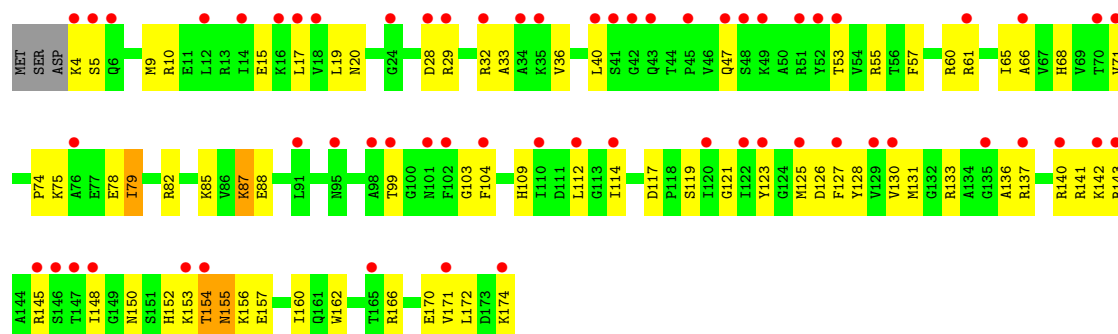




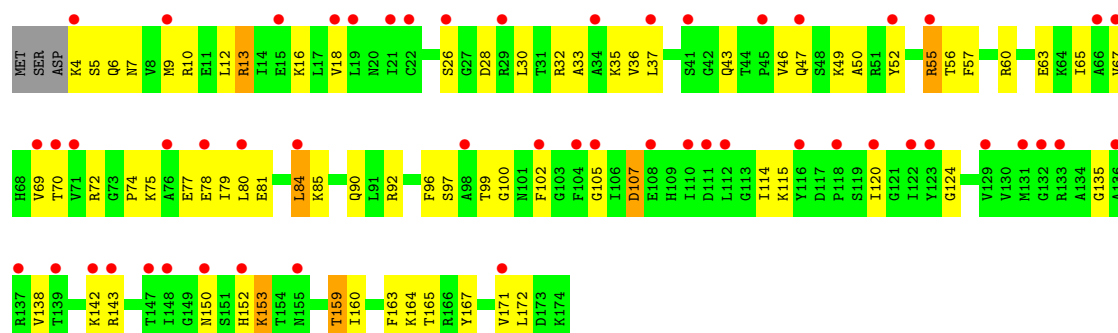
• Molecule 12: 60S ribosomal protein L10



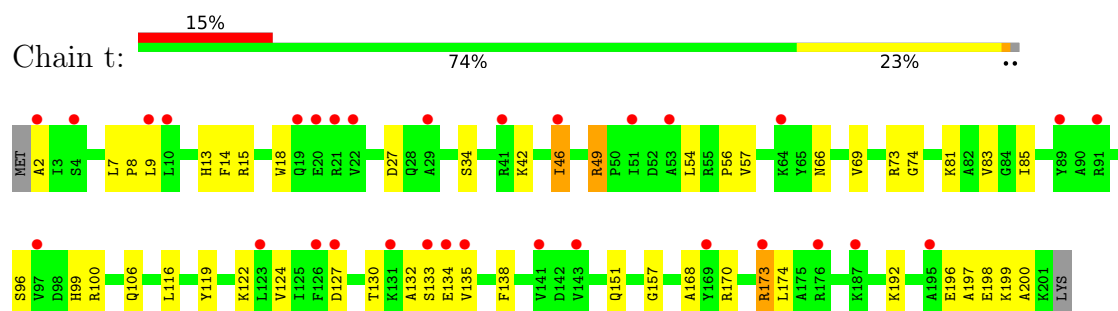
• Molecule 13: 60S ribosomal protein L11-B



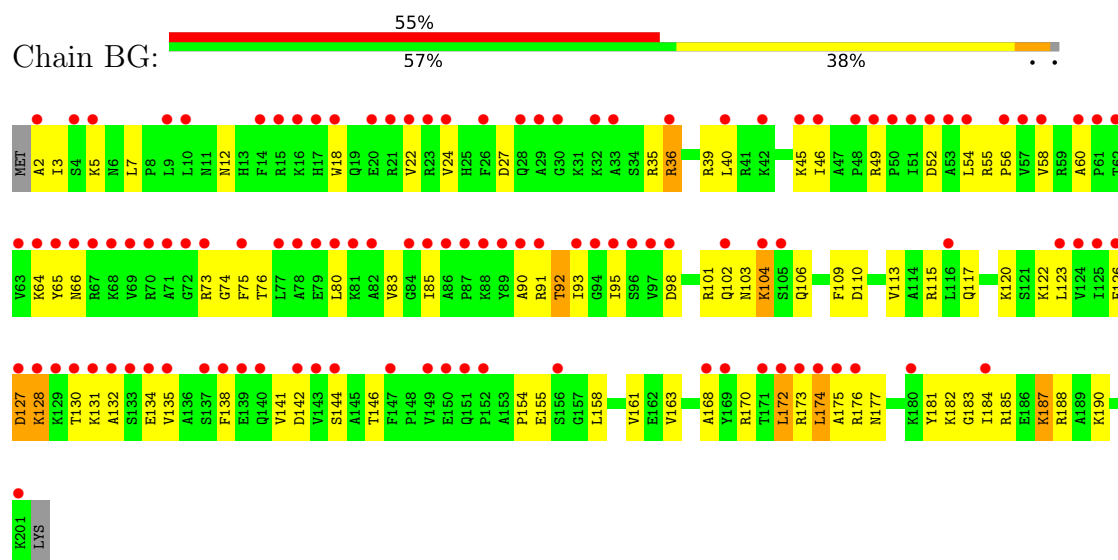
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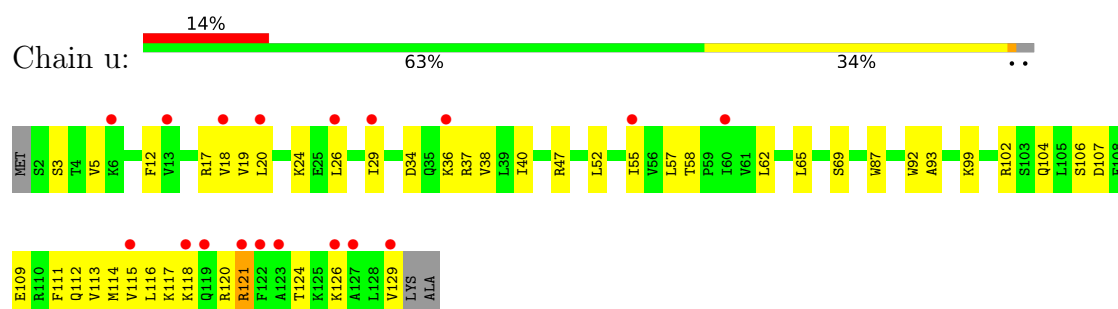
- Molecule 14: 60S ribosomal protein L13



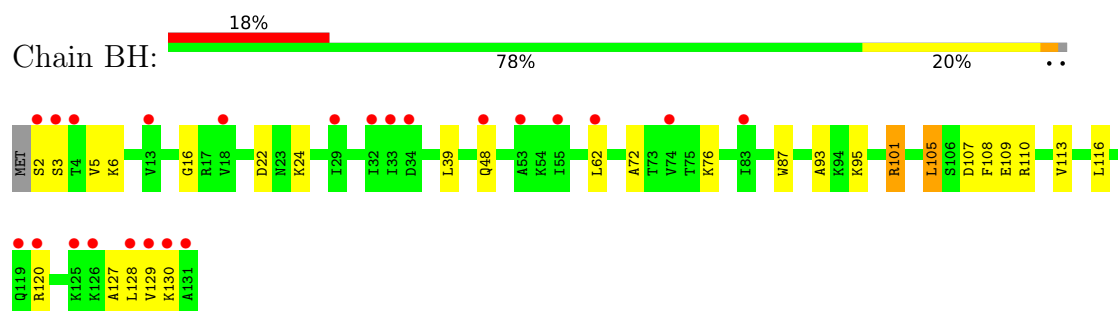
- Molecule 14: 60S ribosomal protein L13



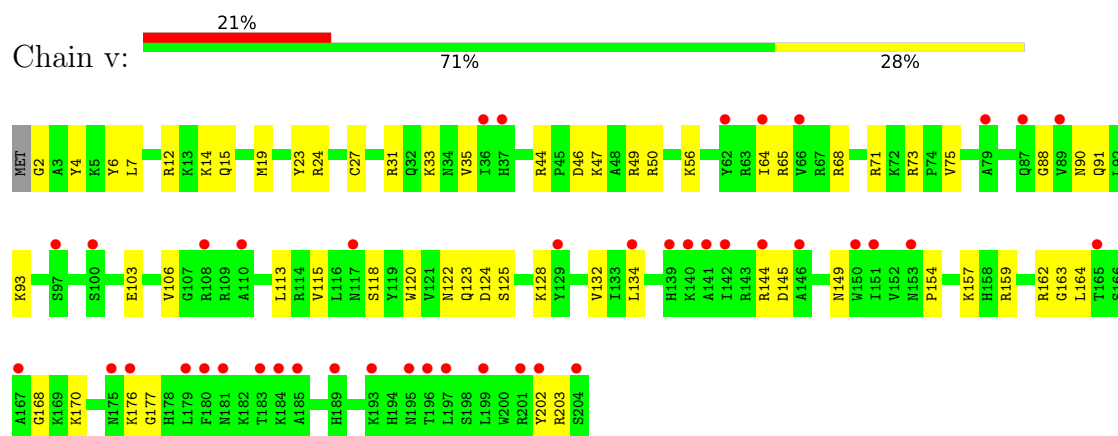
- Molecule 15: 60S ribosomal protein L14-B



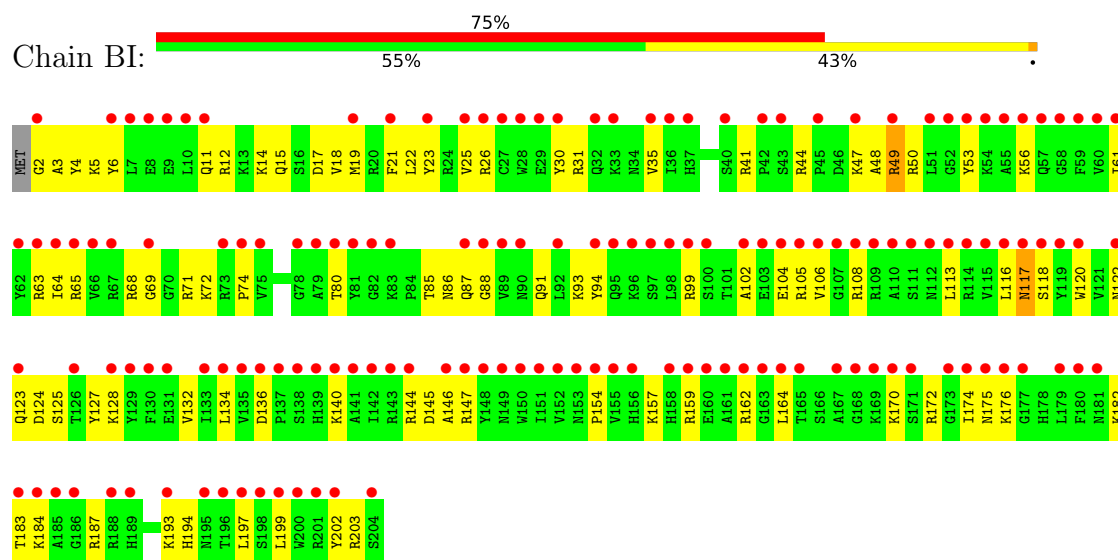
- Molecule 15: 60S ribosomal protein L14-B



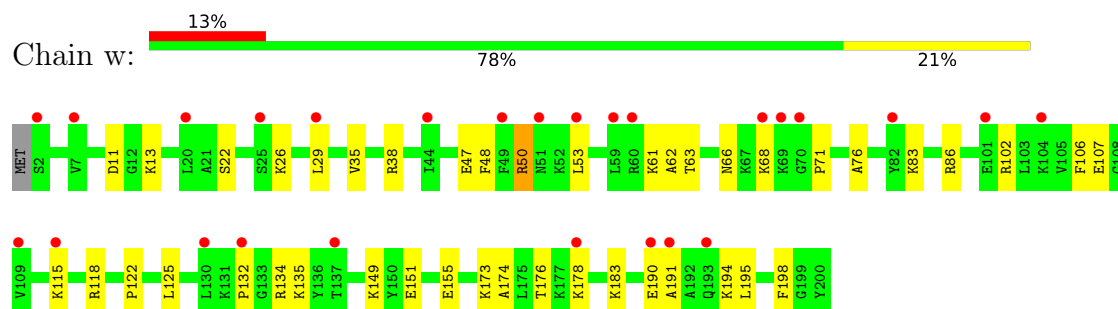
- Molecule 16: 60S ribosomal protein L15-A



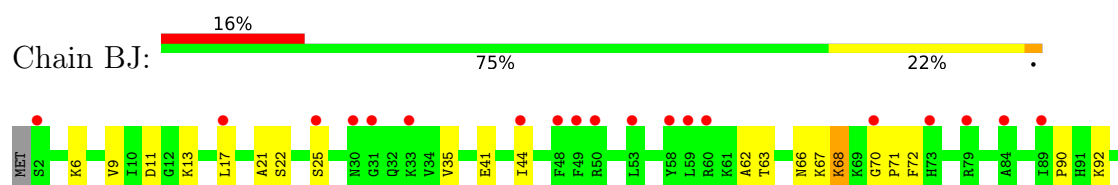
- Molecule 16: 60S ribosomal protein L15-A

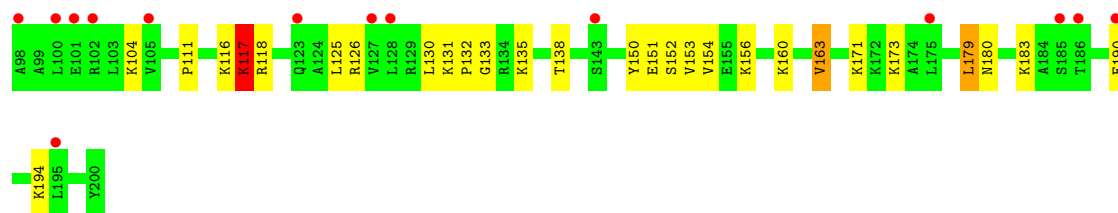


- Molecule 17: Ribosomal protein L13

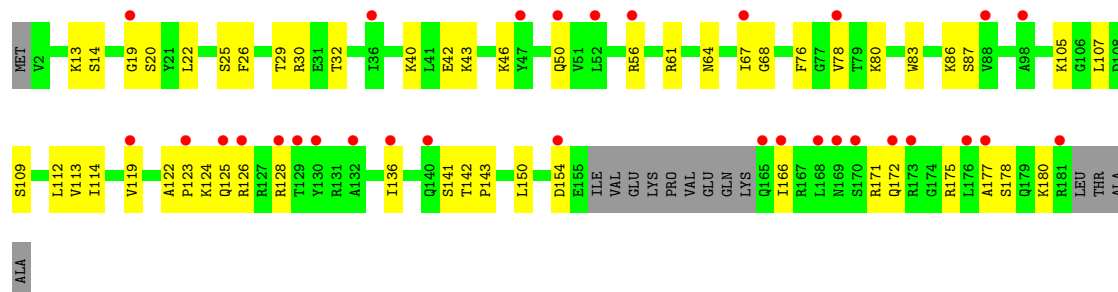


- Molecule 17: Ribosomal protein L13

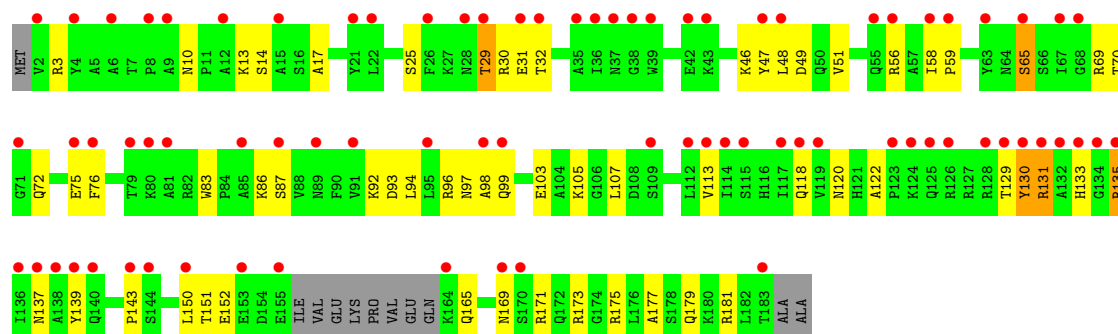
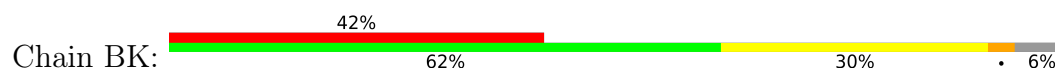




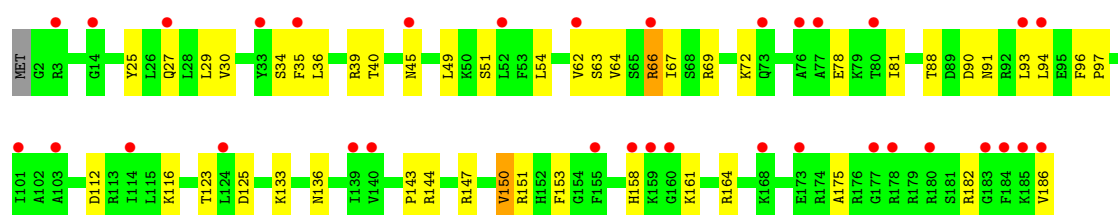
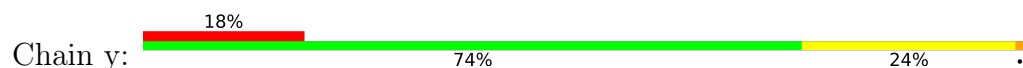
• Molecule 18: Ribosomal protein L22



• Molecule 18: Ribosomal protein L22

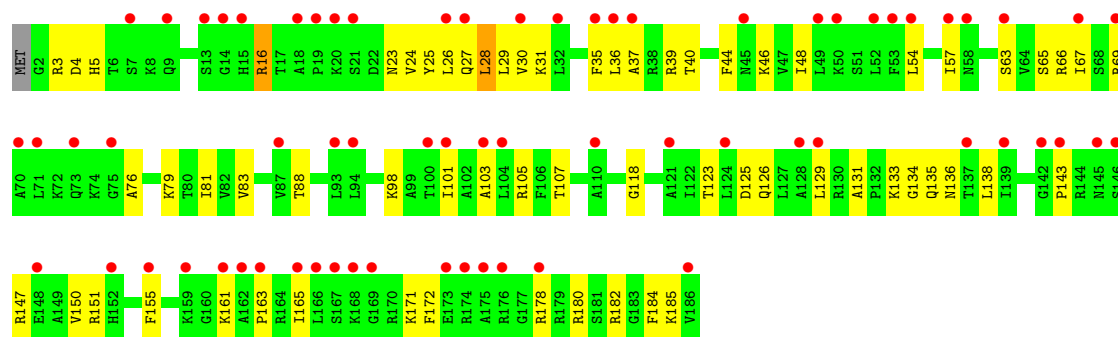


• Molecule 19: 60S ribosomal protein L18-A

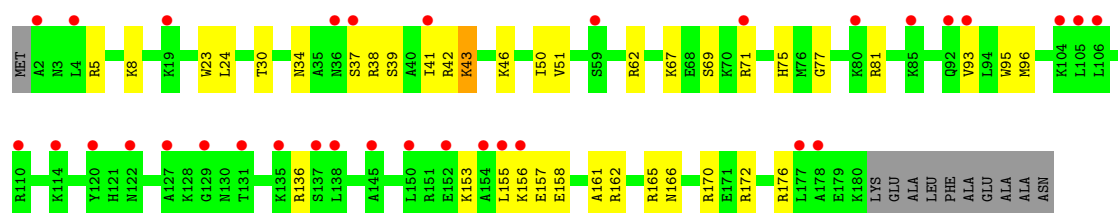


• Molecule 19: 60S ribosomal protein L18-A

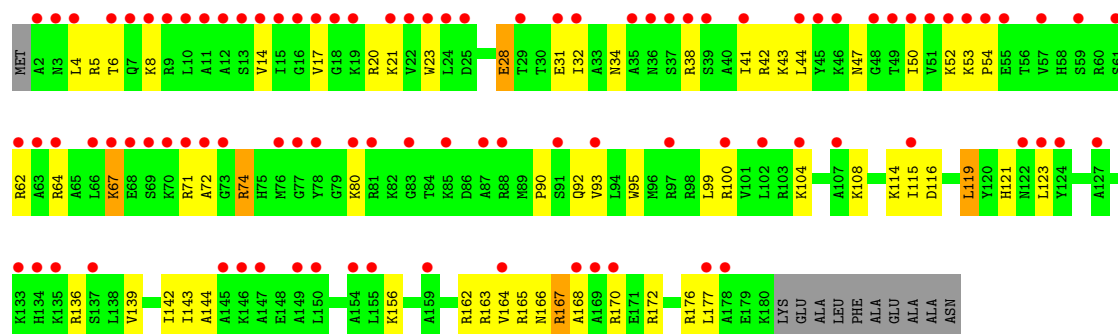




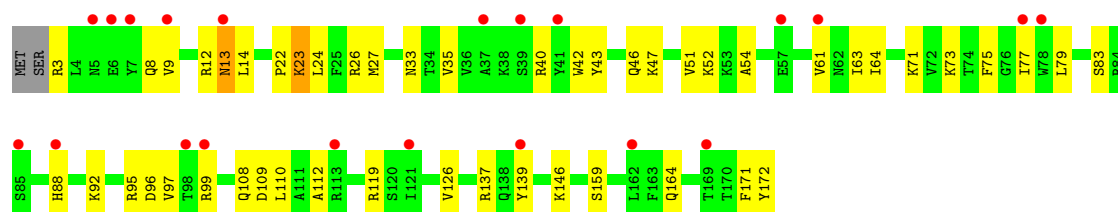
• Molecule 20: 60S ribosomal protein L19-A



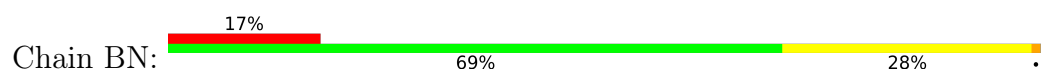
• Molecule 20: 60S ribosomal protein L19-A

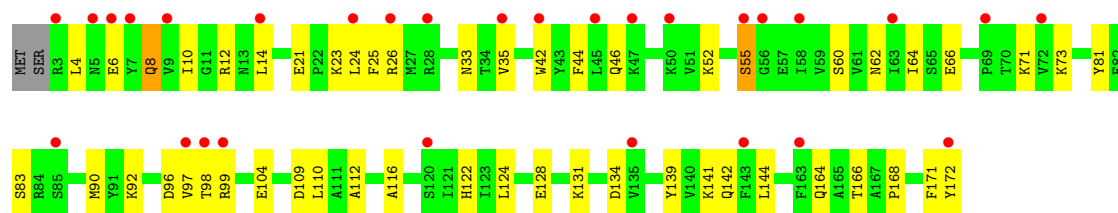


• Molecule 21: 60S ribosomal protein L20

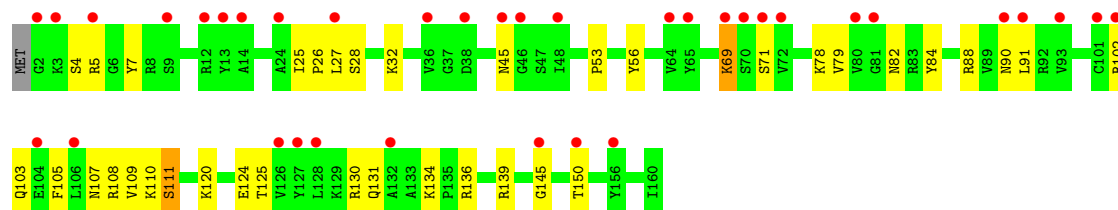
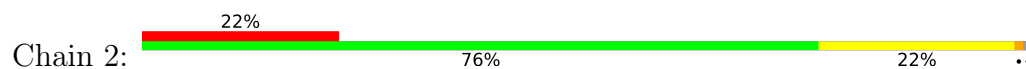


• Molecule 21: 60S ribosomal protein L20

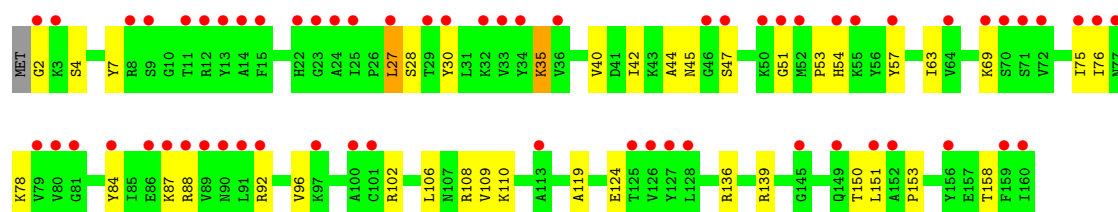
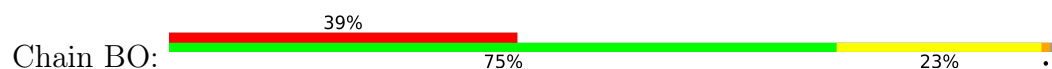




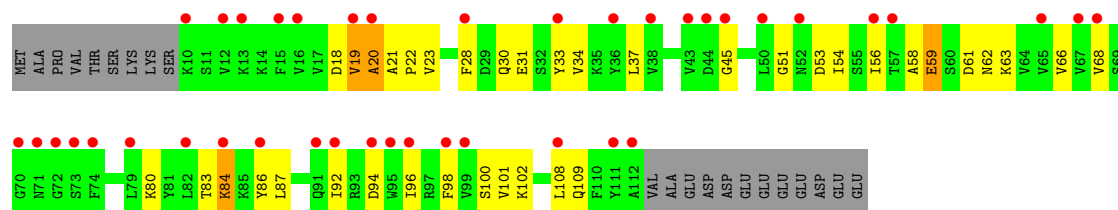
• Molecule 22: 60S ribosomal protein L21-A



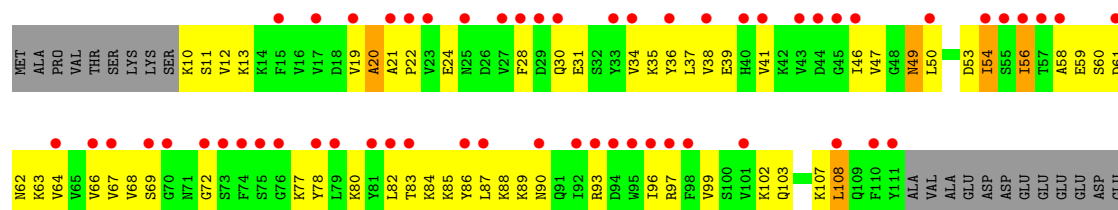
• Molecule 22: 60S ribosomal protein L21-A



• Molecule 23: 60S ribosomal protein L22-B



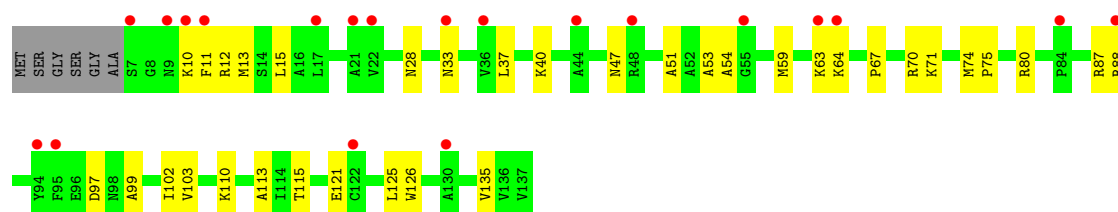
• Molecule 23: 60S ribosomal protein L22-B



GLU

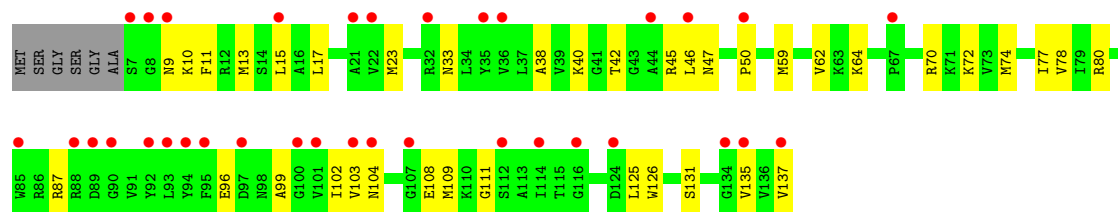
- Molecule 24: 60S ribosomal protein L23-A

Chain 6: 



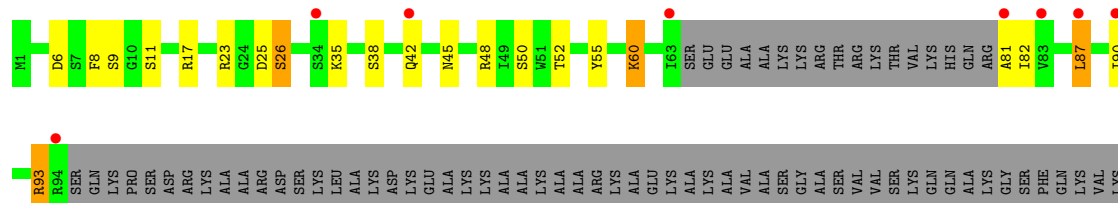
- Molecule 24: 60S ribosomal protein L23-A

Chain BQ: 



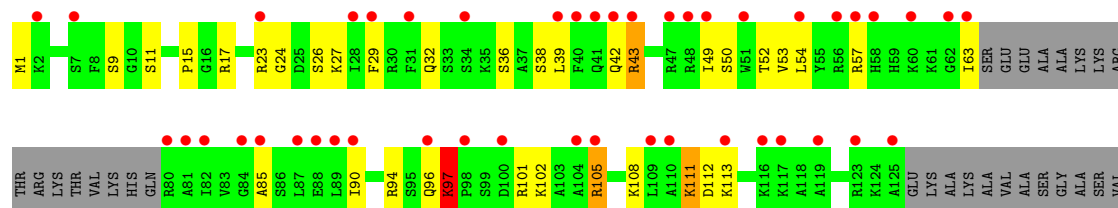
- Molecule 25: 60S ribosomal protein L24-A

Chain 7: 

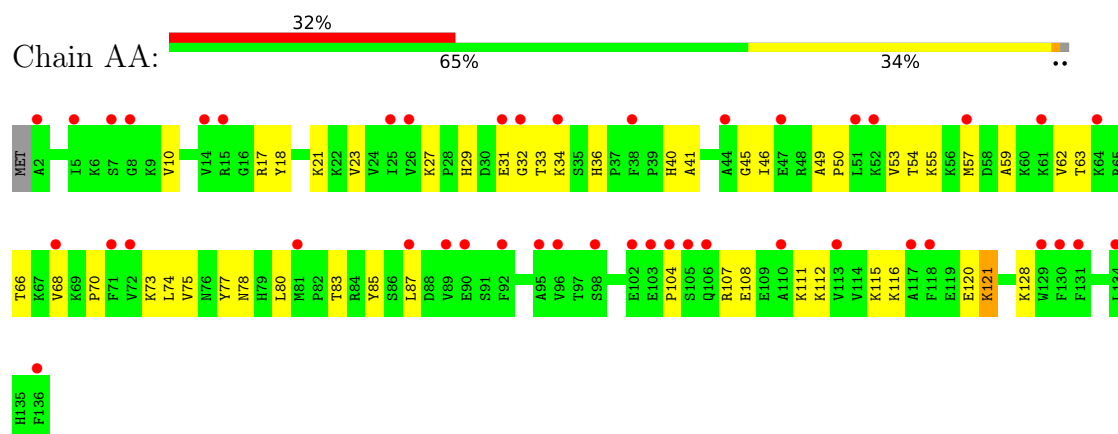
ALA
THR
SER
ARG

- Molecule 25: 60S ribosomal protein L24-A

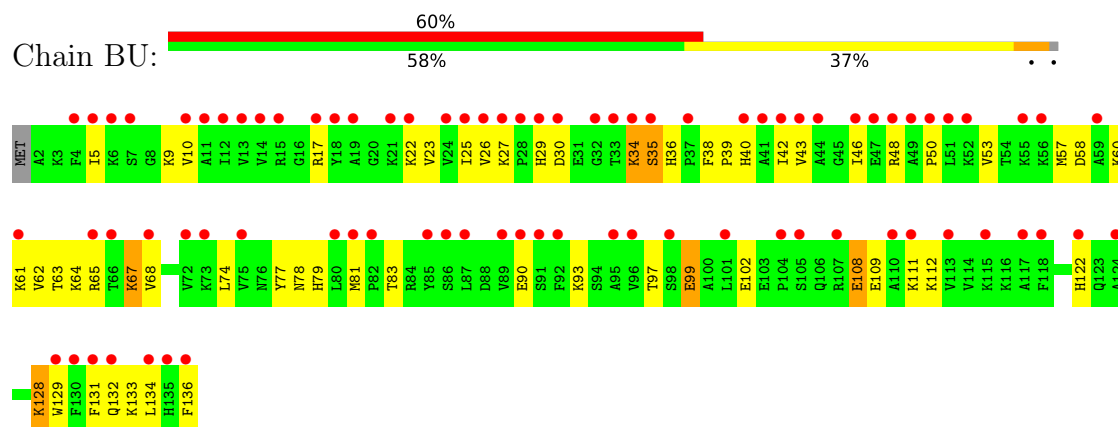
Chain BR: 



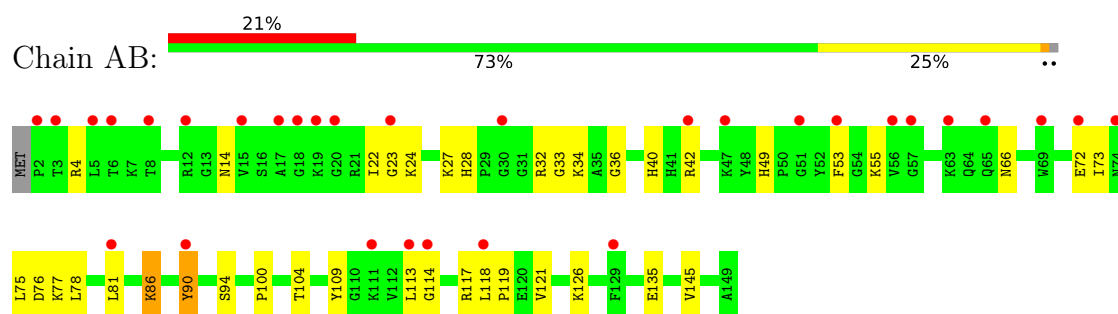
● Molecule 28: 60S ribosomal protein L27



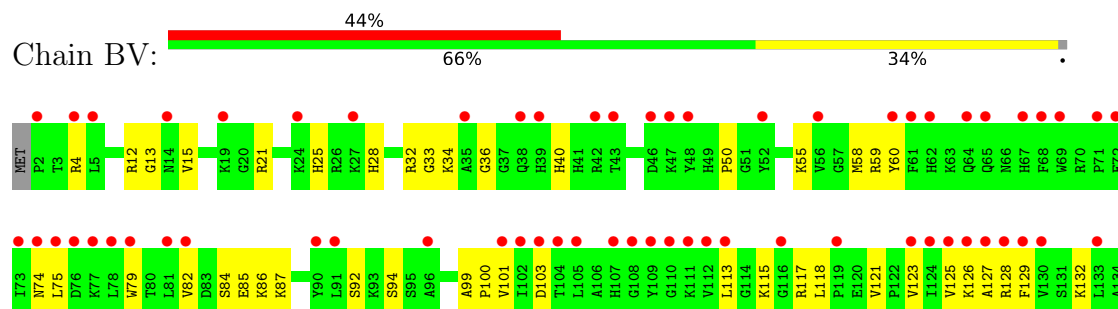
● Molecule 28: 60S ribosomal protein L27

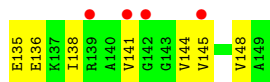


● Molecule 29: 60S ribosomal protein L28



● Molecule 29: 60S ribosomal protein L28

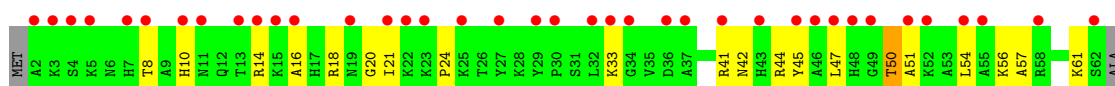




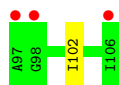
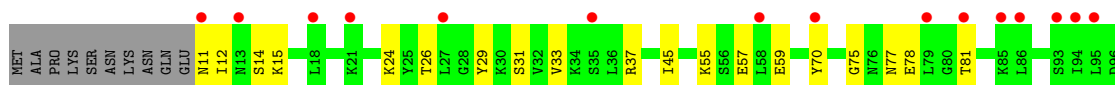
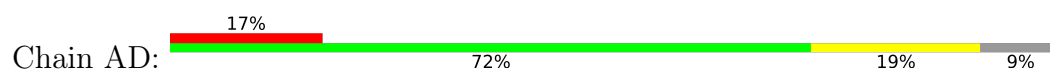
- Molecule 30: 60S ribosomal protein L29



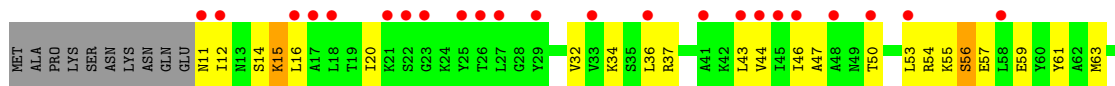
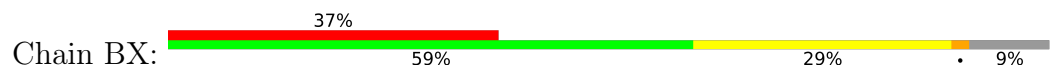
- Molecule 30: 60S ribosomal protein L29



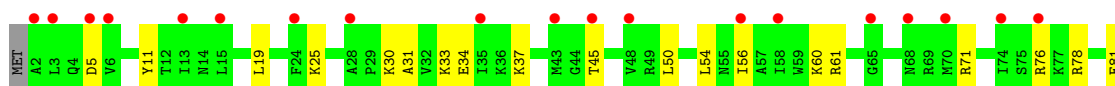
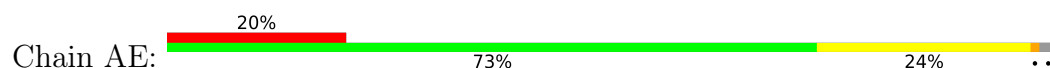
- Molecule 31: 60S ribosomal protein L30



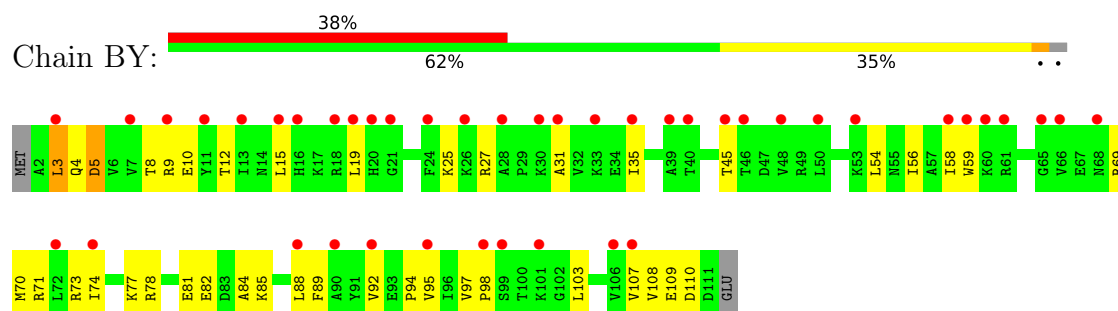
- Molecule 31: 60S ribosomal protein L30



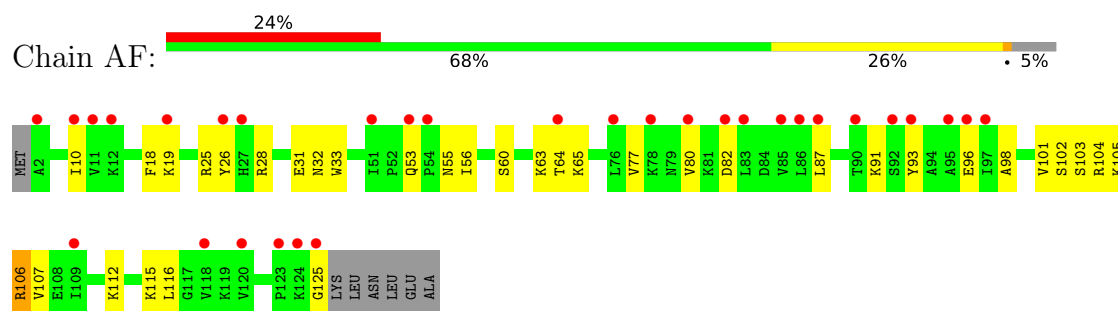
- Molecule 32: 60S ribosomal protein L31-B



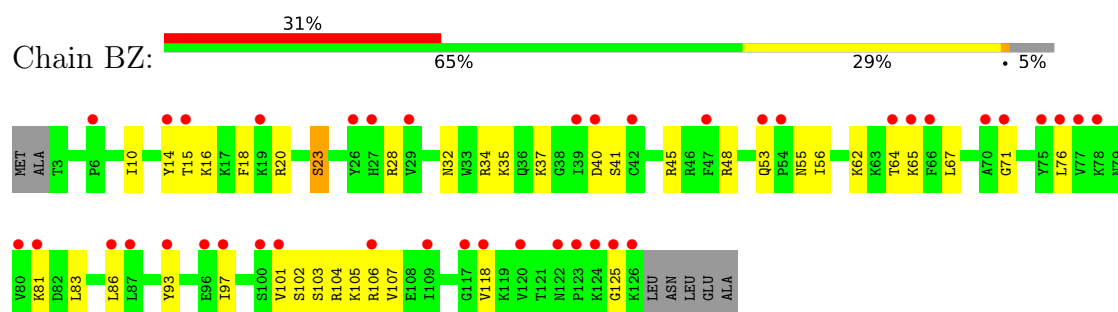
- Molecule 32: 60S ribosomal protein L31-B



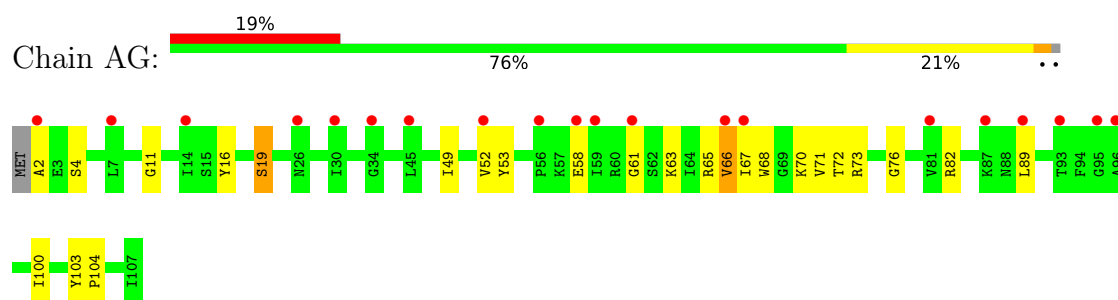
- Molecule 33: 60S ribosomal protein L32



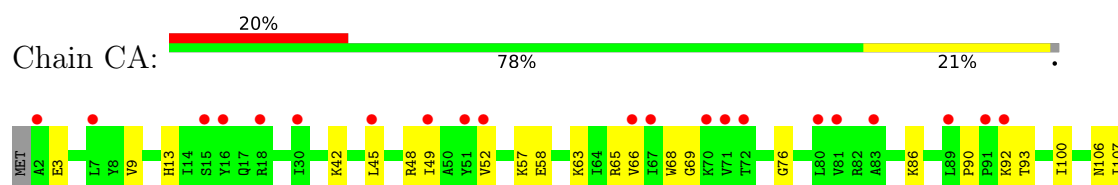
- Molecule 33: 60S ribosomal protein L32



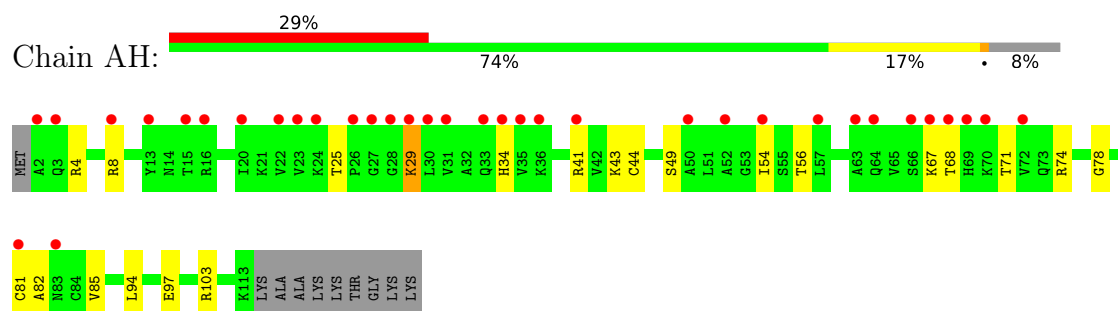
- Molecule 34: 60S ribosomal protein L33-A



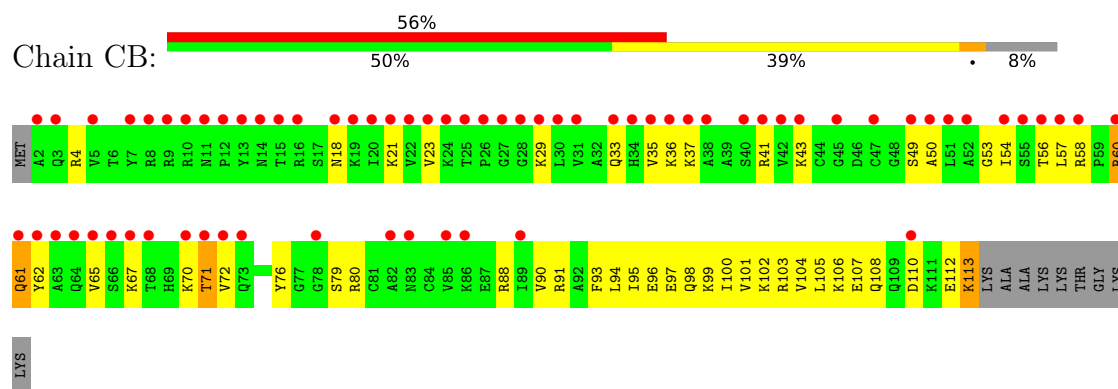
- Molecule 34: 60S ribosomal protein L33-A



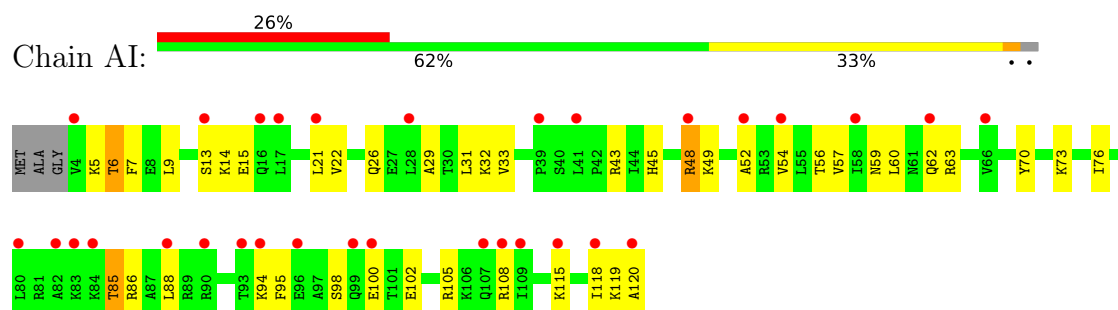
- Molecule 35: 60S ribosomal protein L34-B



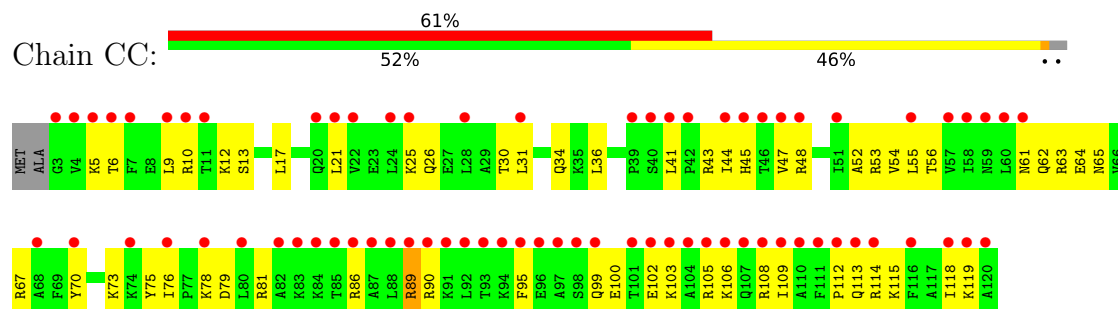
- Molecule 35: 60S ribosomal protein L34-B



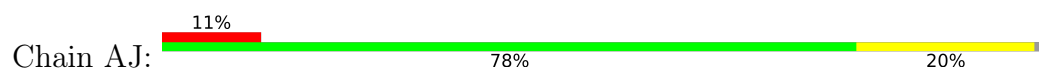
- Molecule 36: Ribosomal protein L29

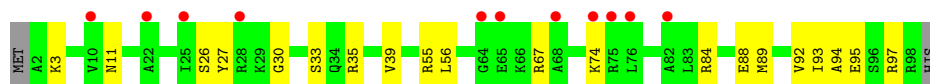


- Molecule 36: Ribosomal protein L29

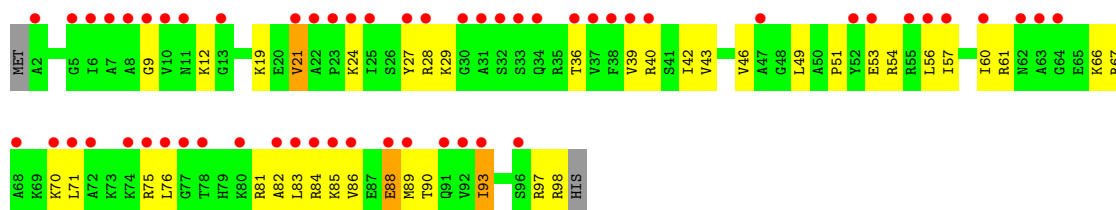


- Molecule 37: 60S ribosomal protein L36

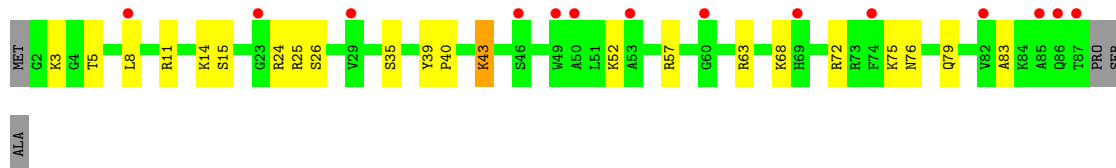
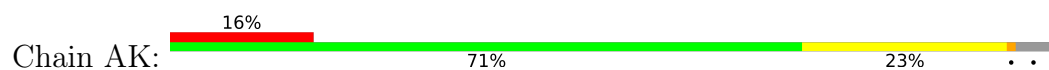




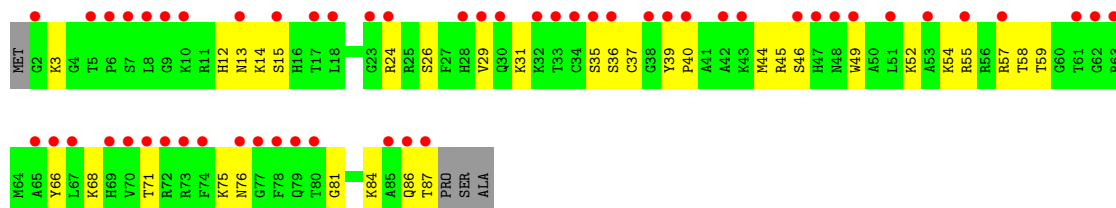
- Molecule 37: 60S ribosomal protein L36



- Molecule 38: 60S ribosomal protein L37-B



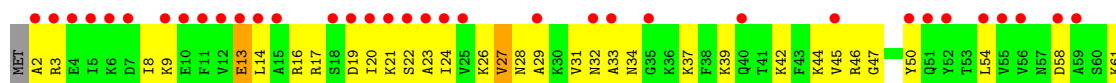
- Molecule 38: 60S ribosomal protein L37-B



- Molecule 39: 60S ribosomal protein L38

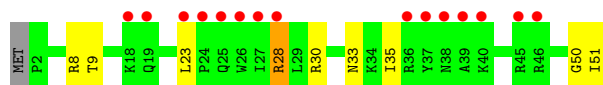
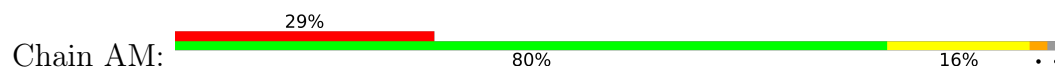


- Molecule 39: 60S ribosomal protein L38





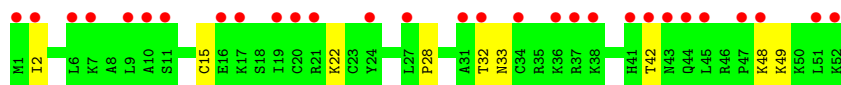
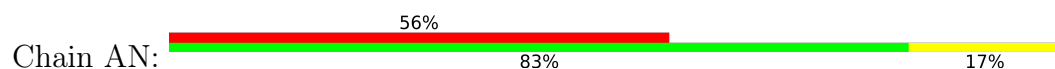
- Molecule 40: 60S ribosomal protein L39



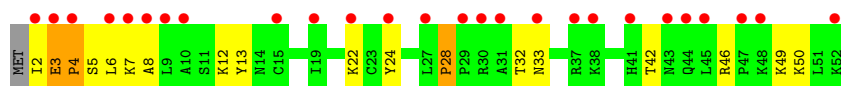
- Molecule 40: 60S ribosomal protein L39



- Molecule 41: 60S ribosomal protein L40-B



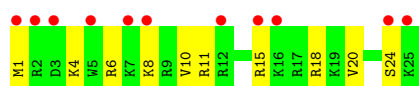
- Molecule 41: 60S ribosomal protein L40-B



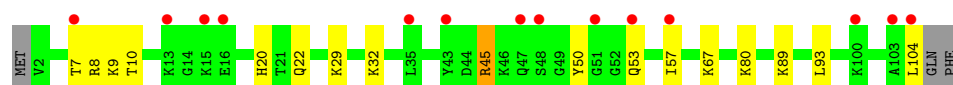
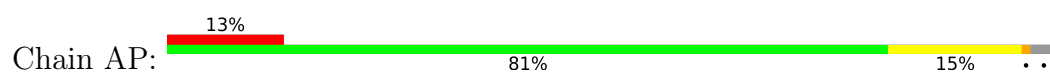
- Molecule 42: 60S ribosomal protein L41



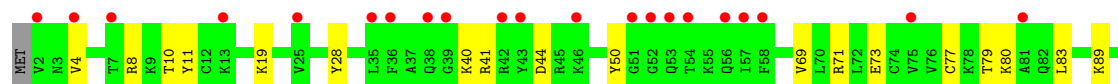
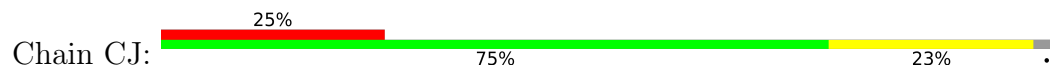
- Molecule 42: 60S ribosomal protein L41



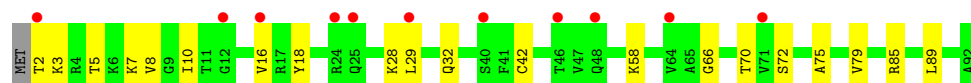
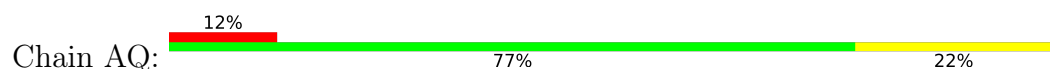
- Molecule 43: 60S ribosomal protein L42-B



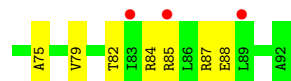
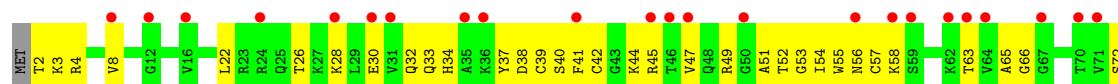
• Molecule 43: 60S ribosomal protein L42-B



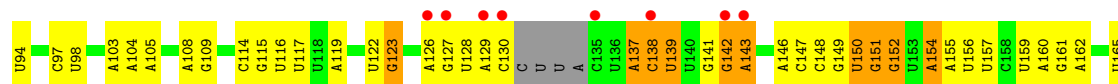
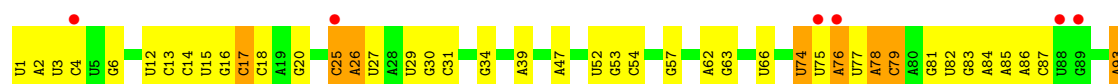
• Molecule 44: 60S ribosomal protein L43-A



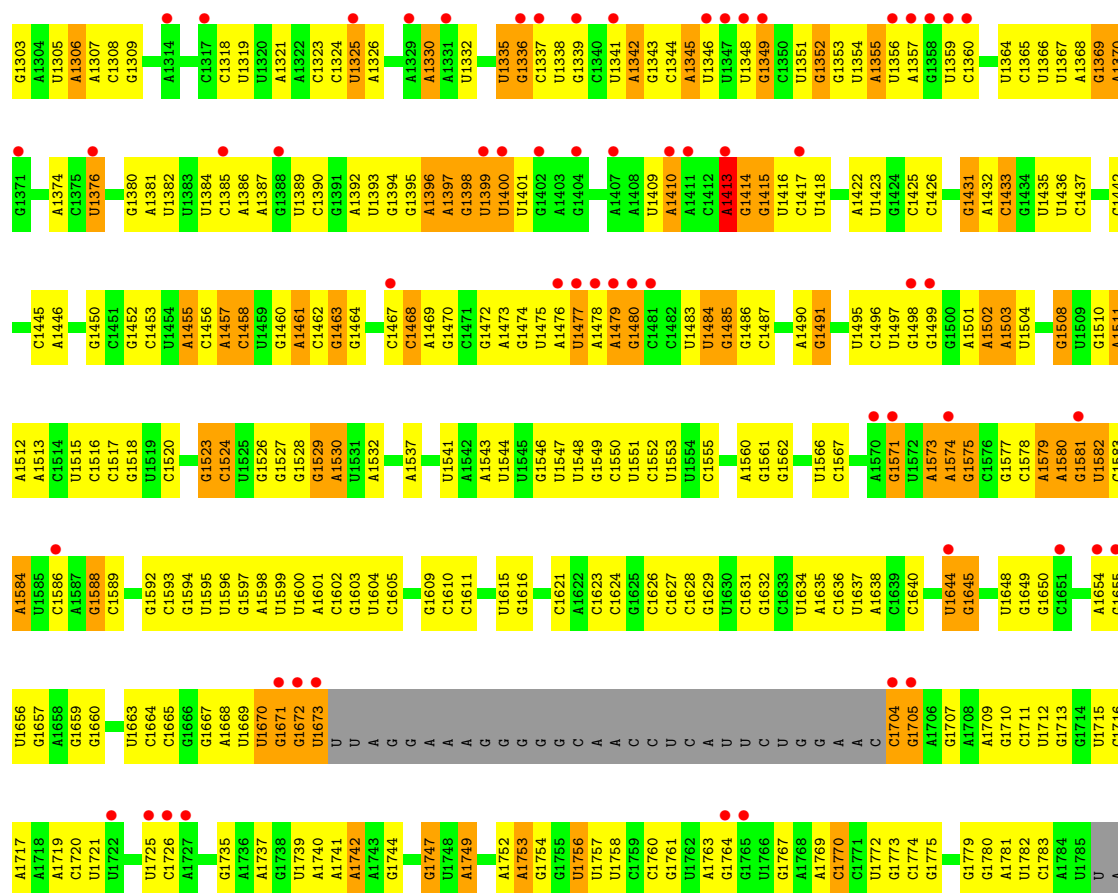
• Molecule 44: 60S ribosomal protein L43-A



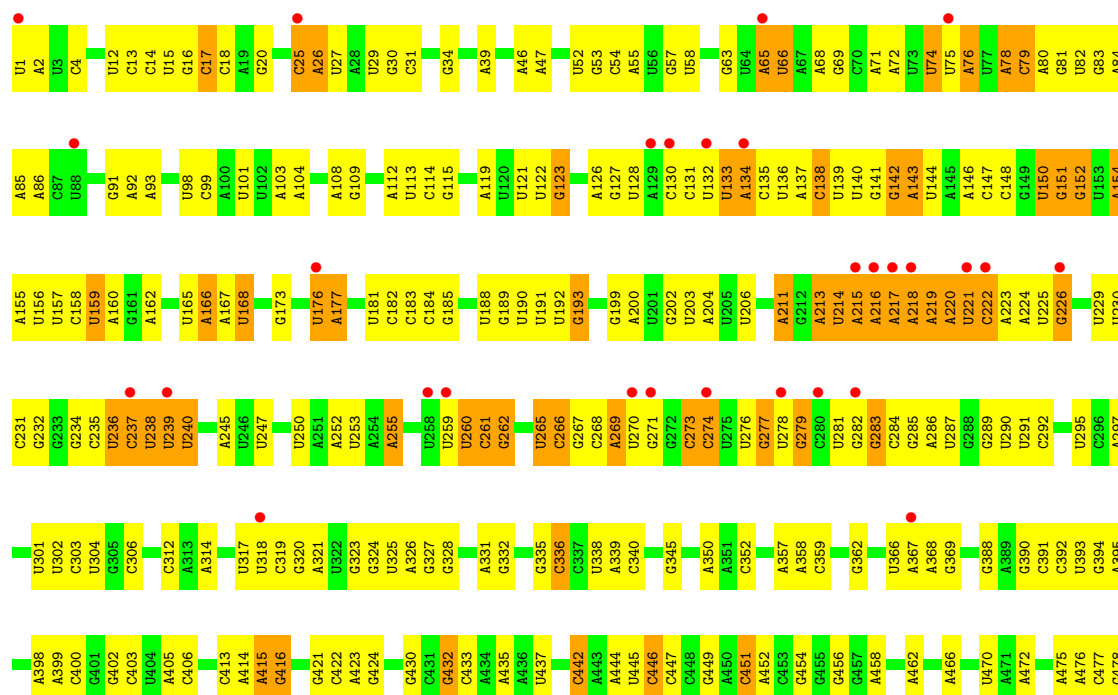
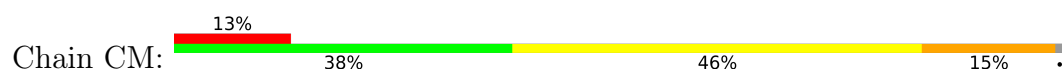
• Molecule 45: 18S

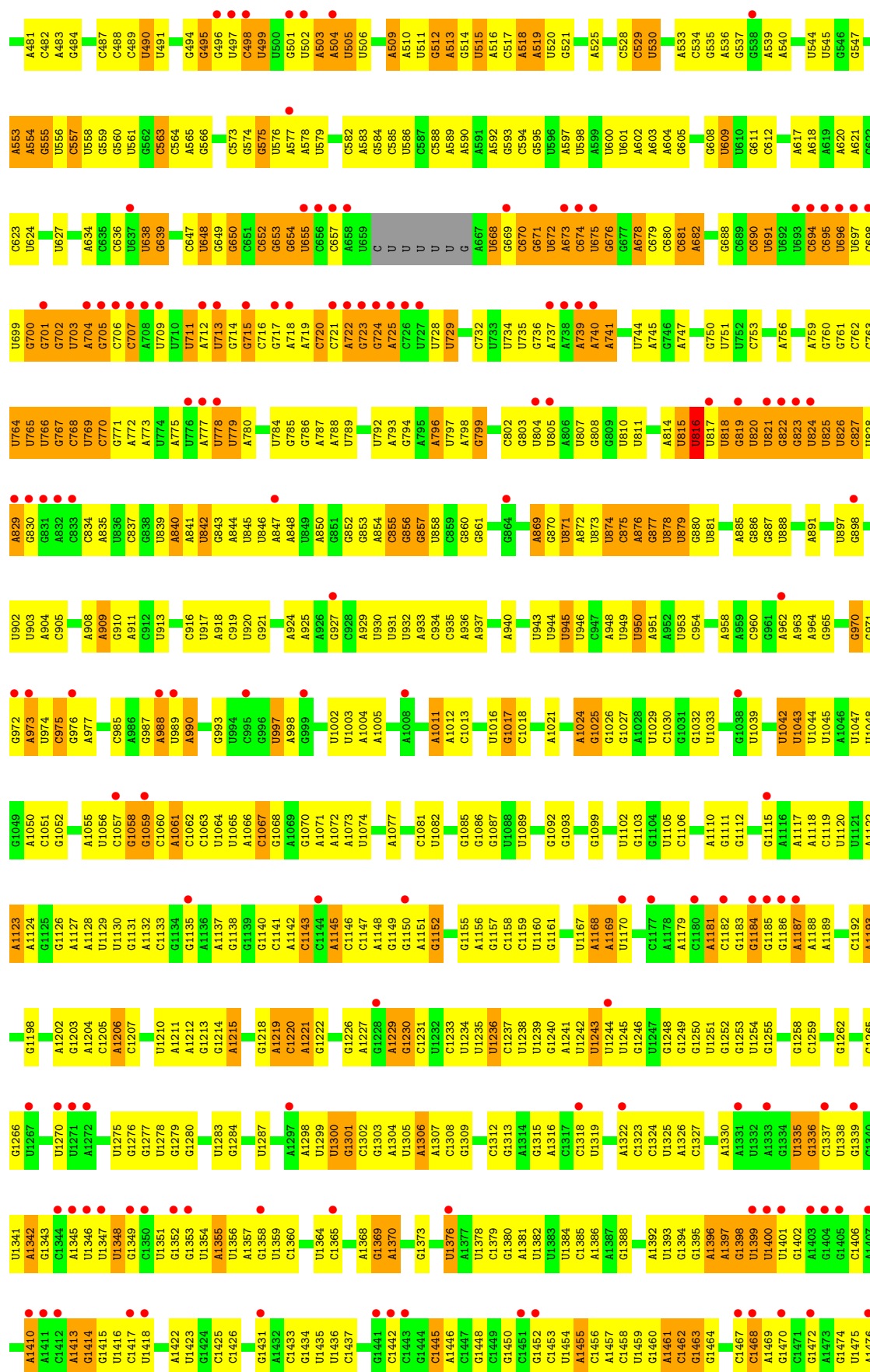


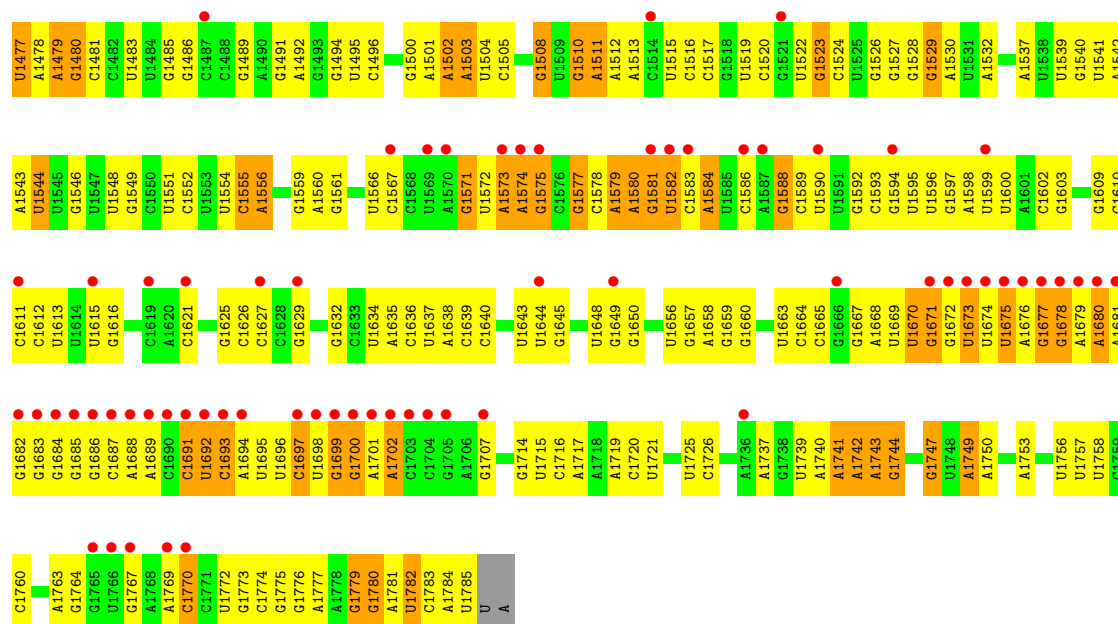




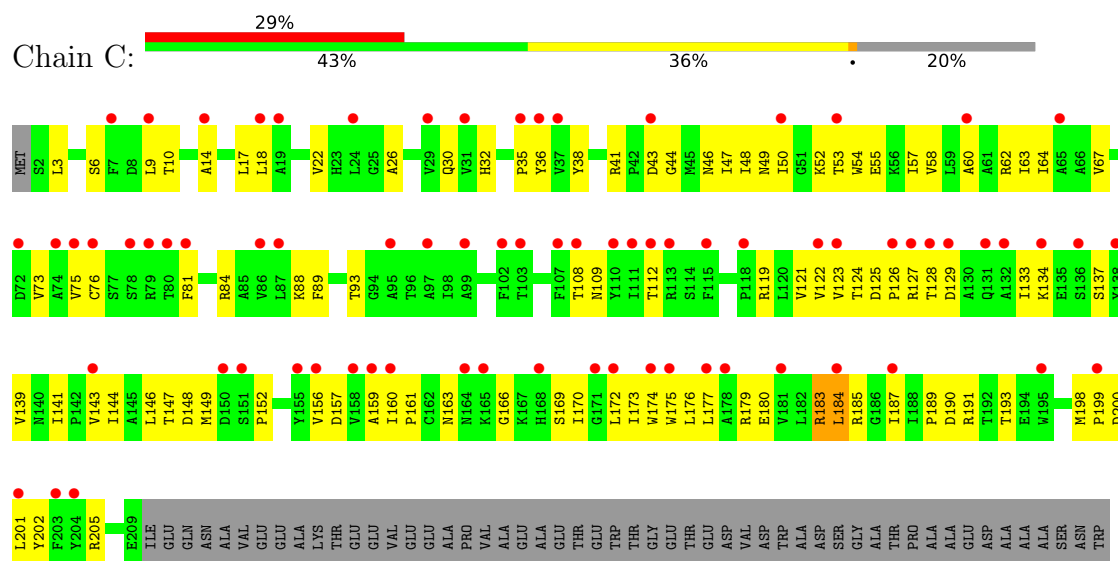
- Molecule 45: 18S



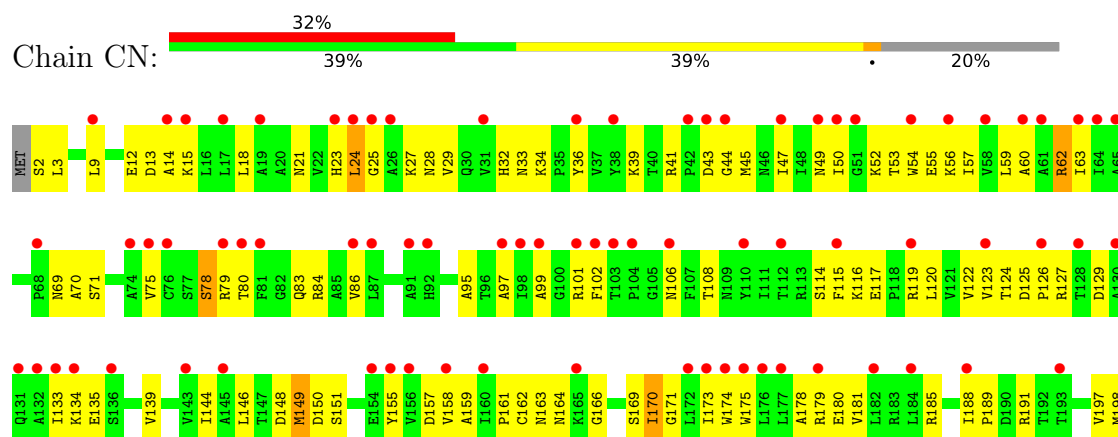


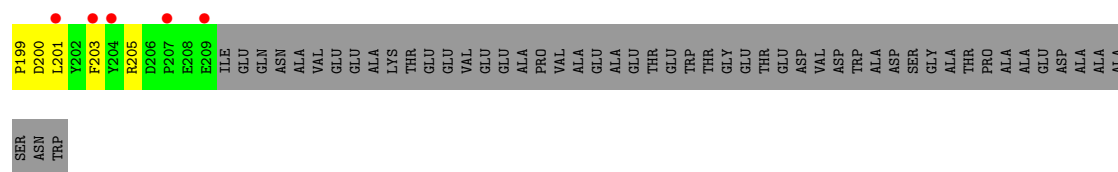


• Molecule 46: 40S ribosomal protein S0

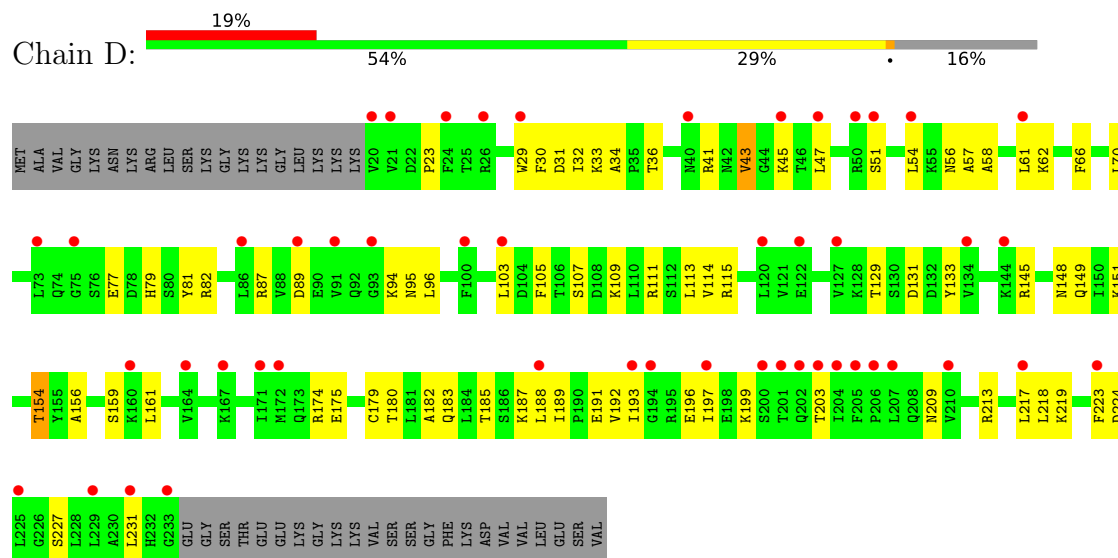


• Molecule 46: 40S ribosomal protein S0

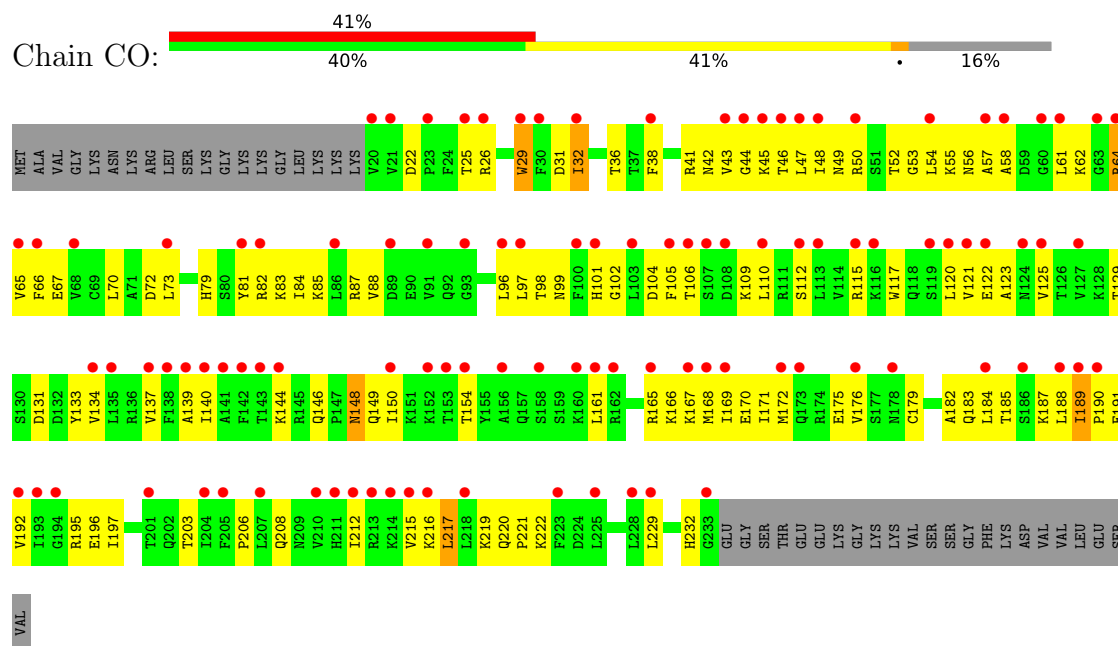




• Molecule 47: 40S ribosomal protein S1

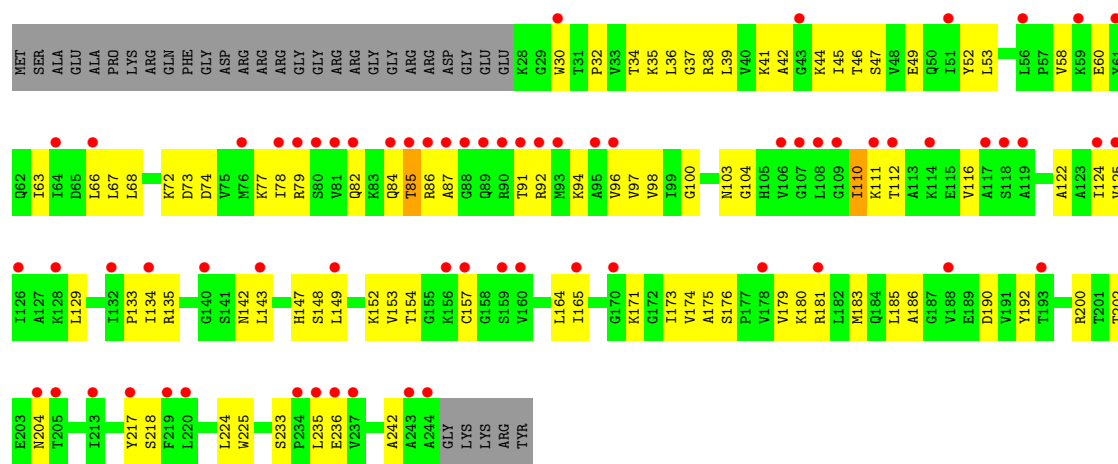


• Molecule 47: 40S ribosomal protein S1

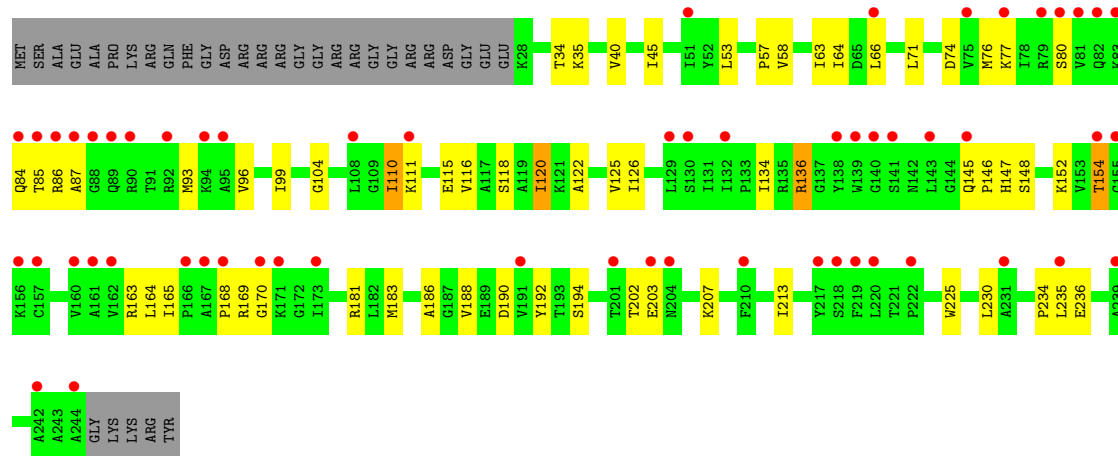


• Molecule 48: Ribosomal protein S5

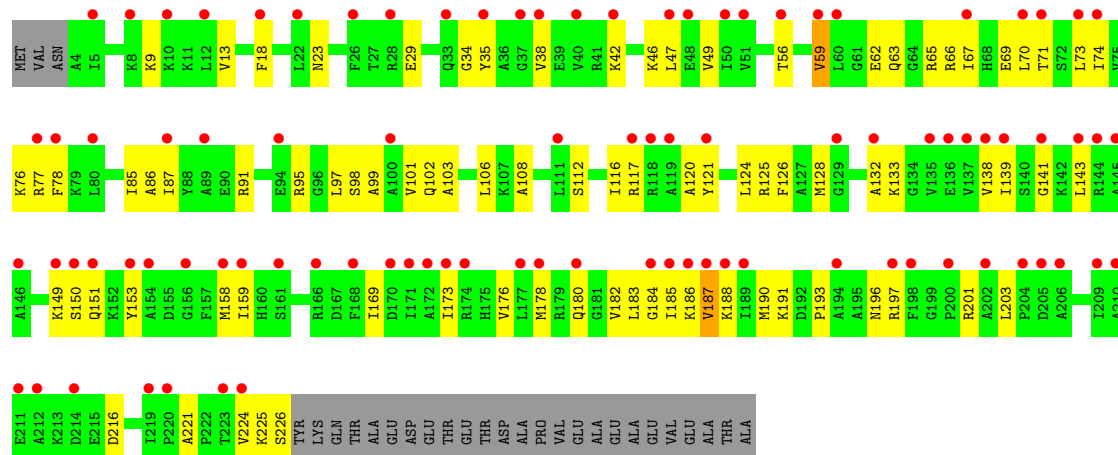




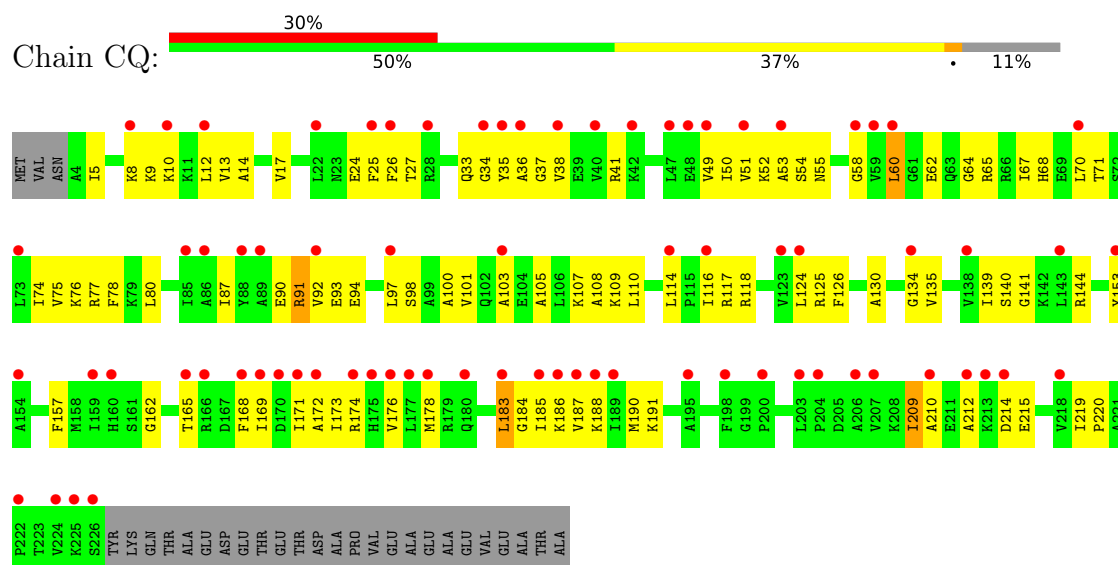
• Molecule 48: Ribosomal protein S5

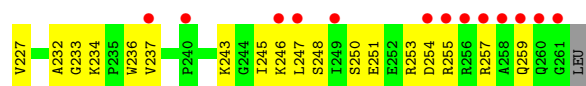


• Molecule 49: Ribosomal protein S3

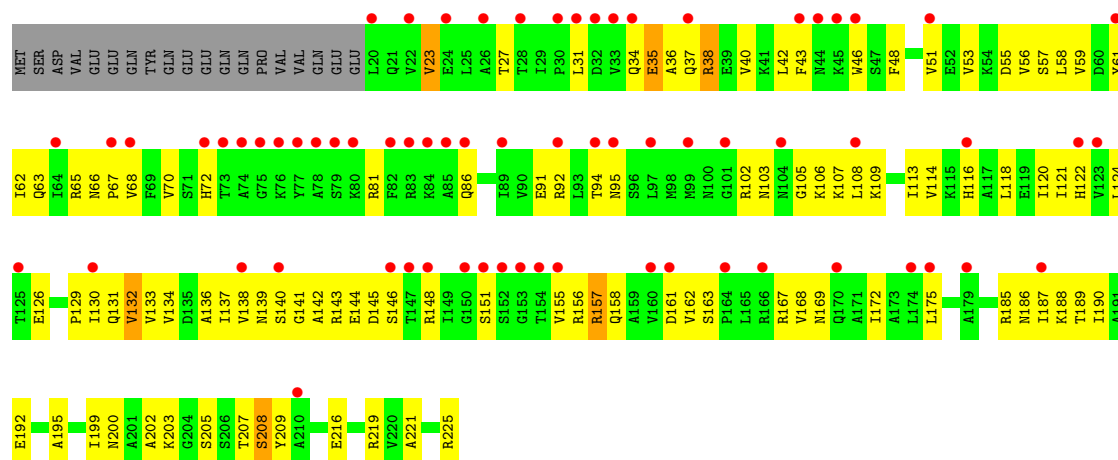


• Molecule 49: Ribosomal protein S3

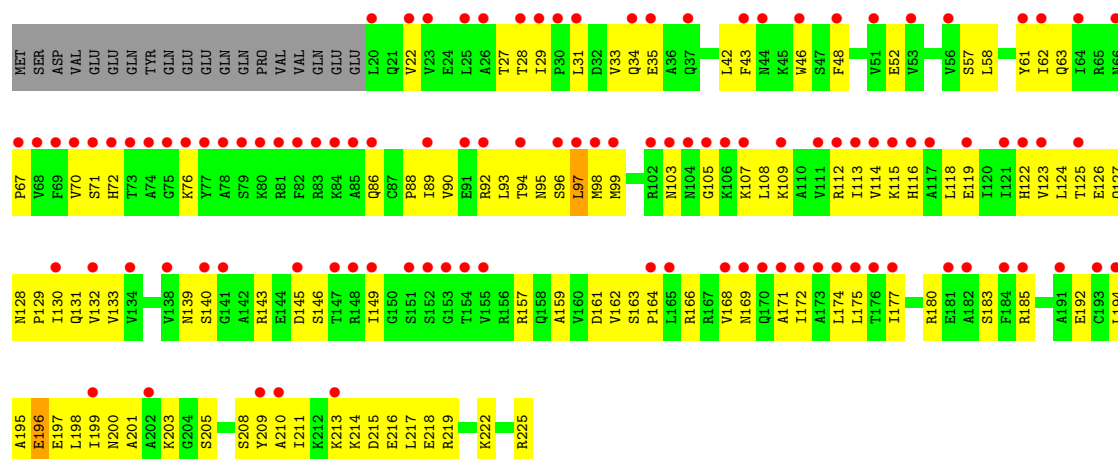




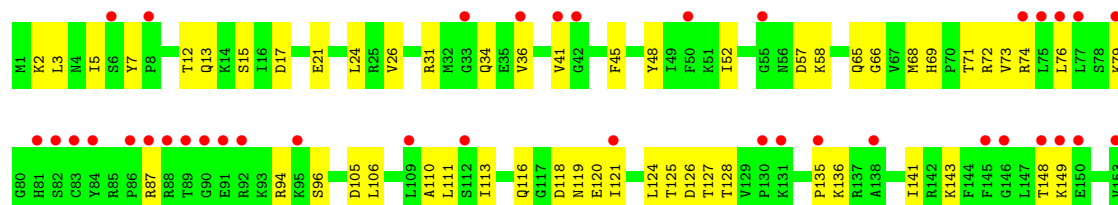
• Molecule 51: Ribosomal protein S7

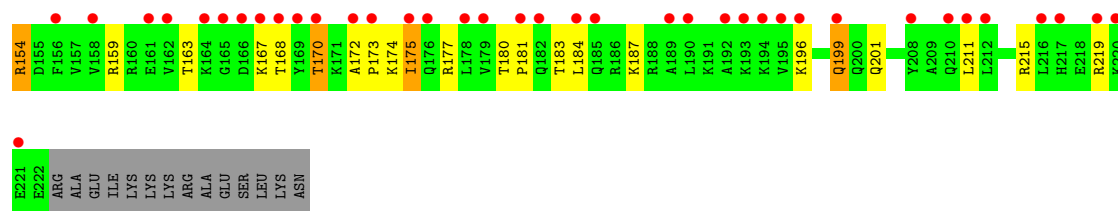


• Molecule 51: Ribosomal protein S7



• Molecule 52: 40S ribosomal protein S6

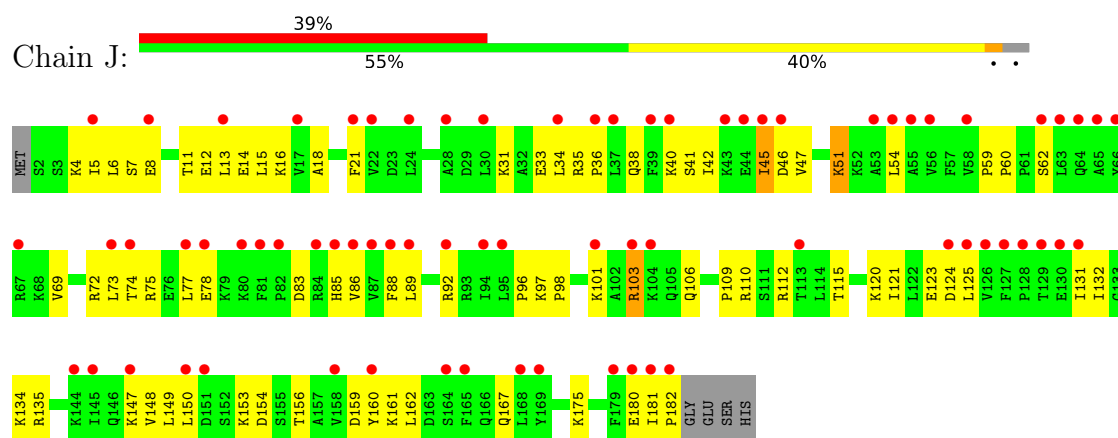




• Molecule 52: 40S ribosomal protein S6

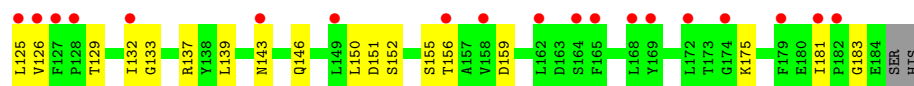


• Molecule 53: 40S ribosomal protein S7

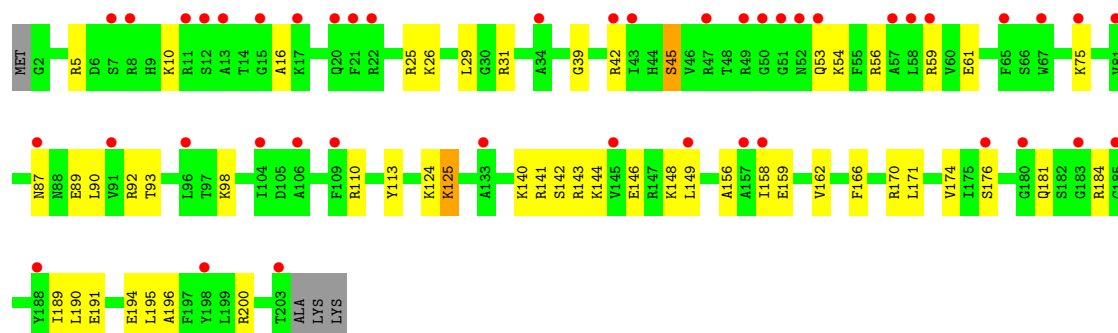
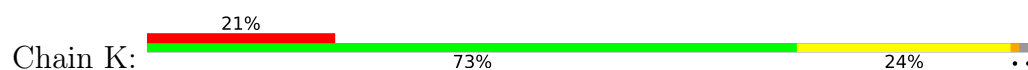


• Molecule 53: 40S ribosomal protein S7

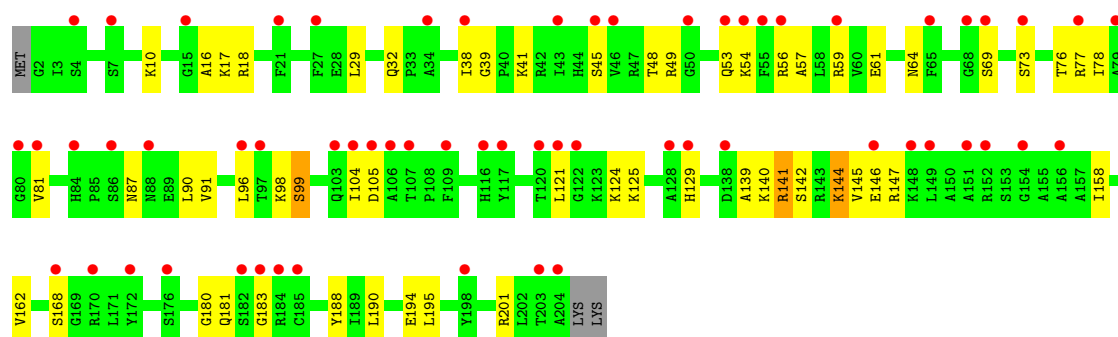
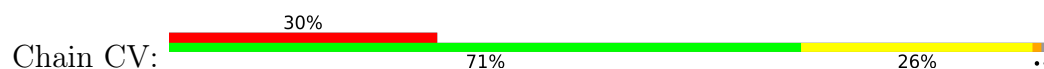




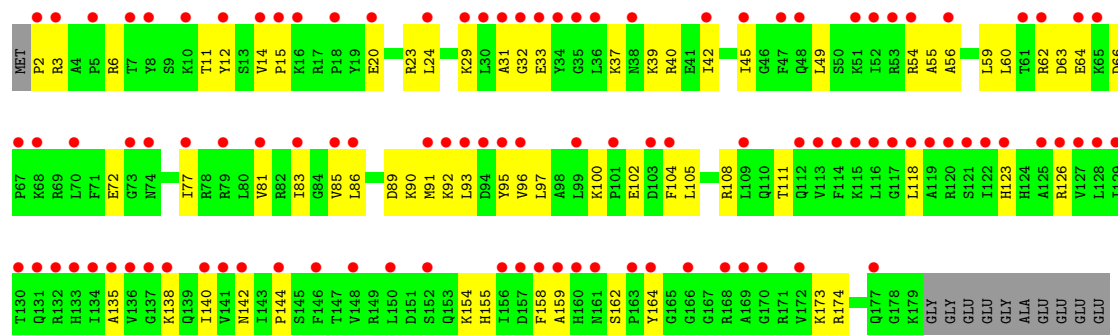
• Molecule 54: 40S ribosomal protein S8



• Molecule 54: 40S ribosomal protein S8

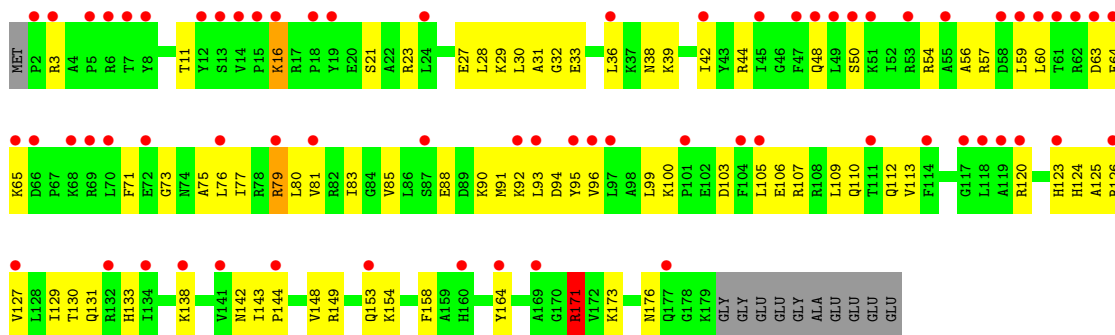


• Molecule 55: Ribosomal protein S4

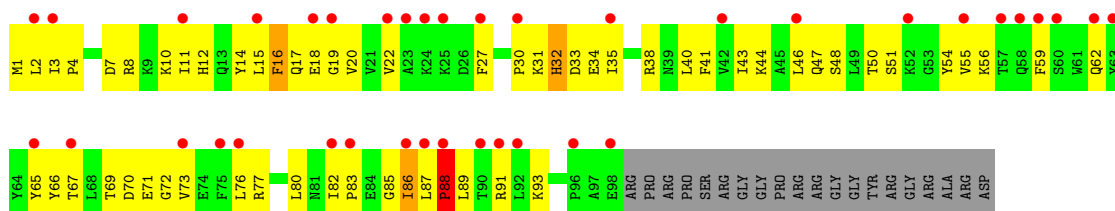


• Molecule 55: Ribosomal protein S4

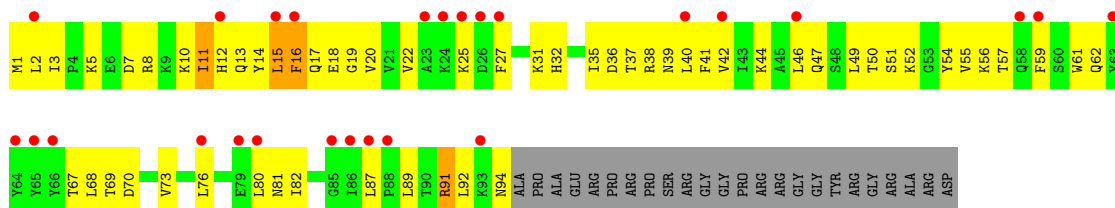




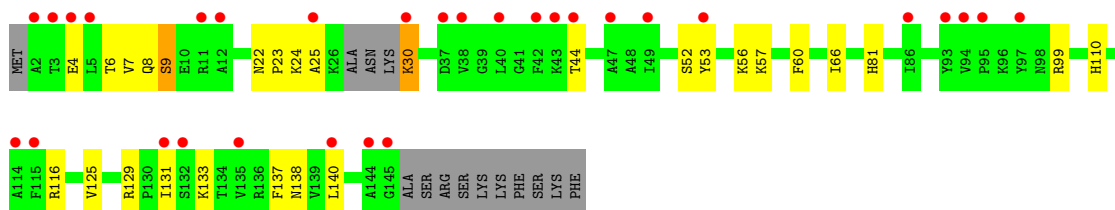
- Molecule 56: 40S ribosomal protein S10-A



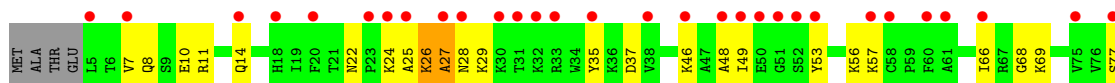
- Molecule 56: 40S ribosomal protein S10-A

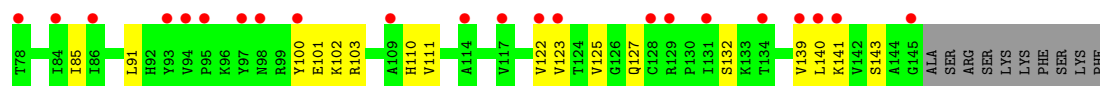


- Molecule 57: 40S ribosomal protein S11A

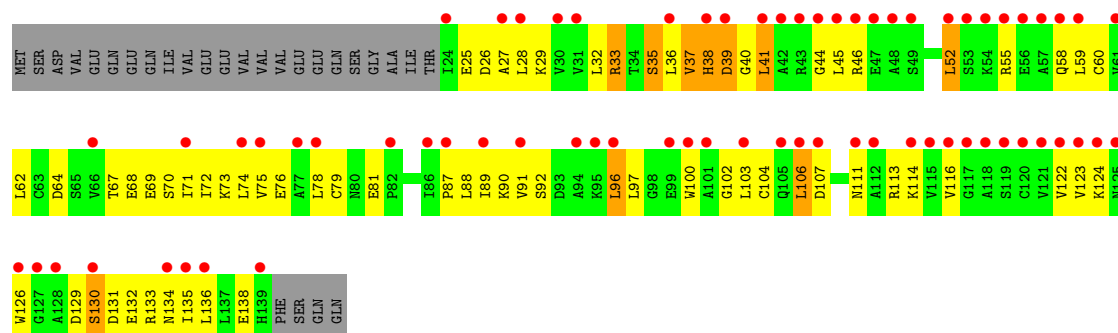


- Molecule 57: 40S ribosomal protein S11A

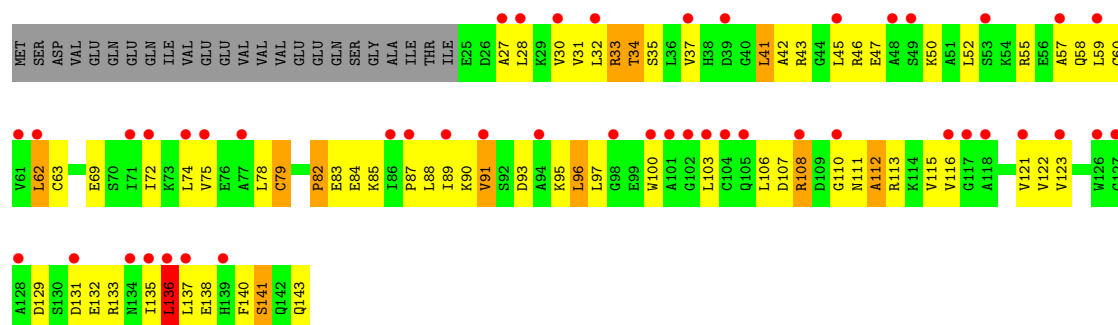




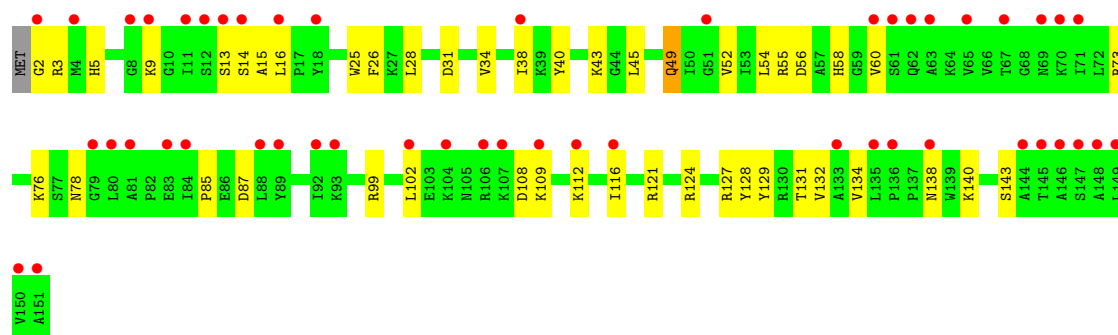
• Molecule 58: 40S ribosomal protein S12



• Molecule 58: 40S ribosomal protein S12

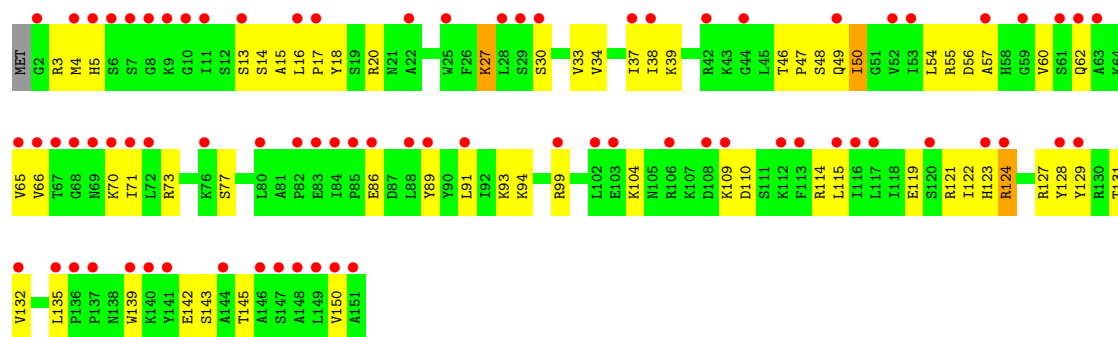


• Molecule 59: 40S ribosomal protein S13

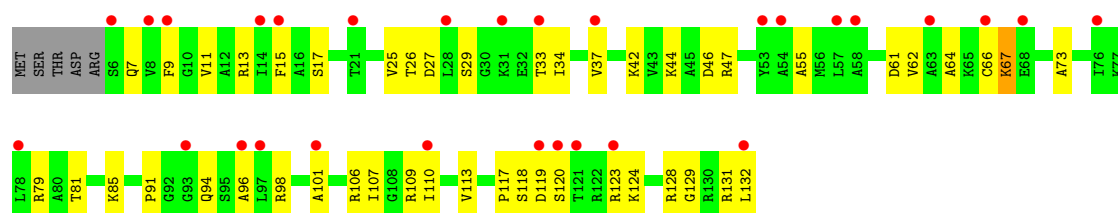


• Molecule 59: 40S ribosomal protein S13

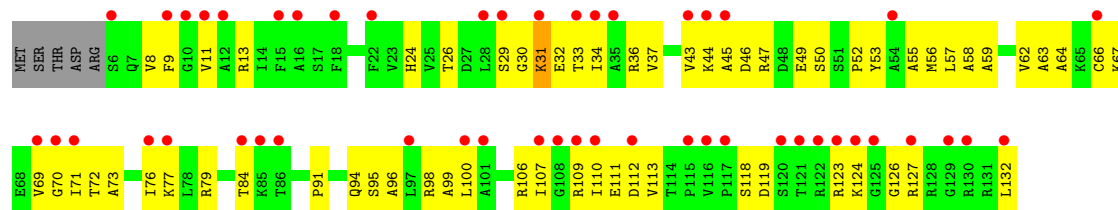
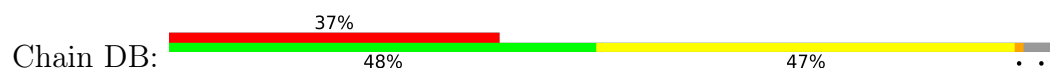




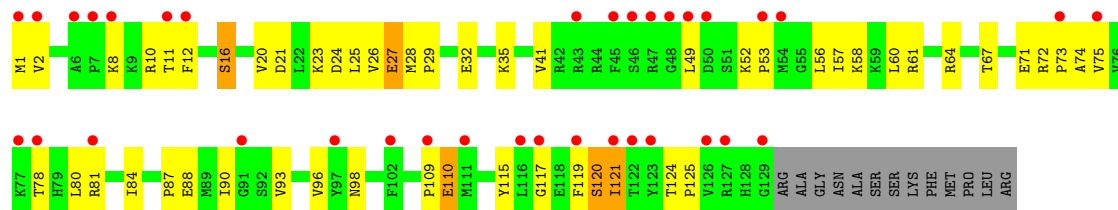
• Molecule 60: 40S ribosomal protein S14-A



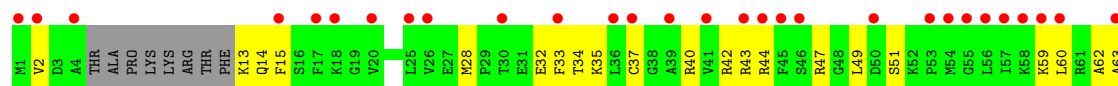
• Molecule 60: 40S ribosomal protein S14-A

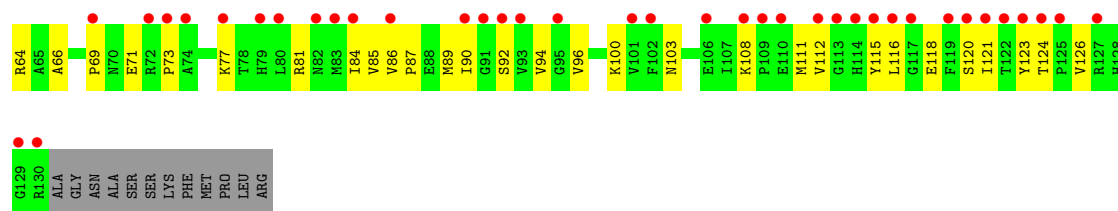


• Molecule 61: 40S ribosomal protein S15

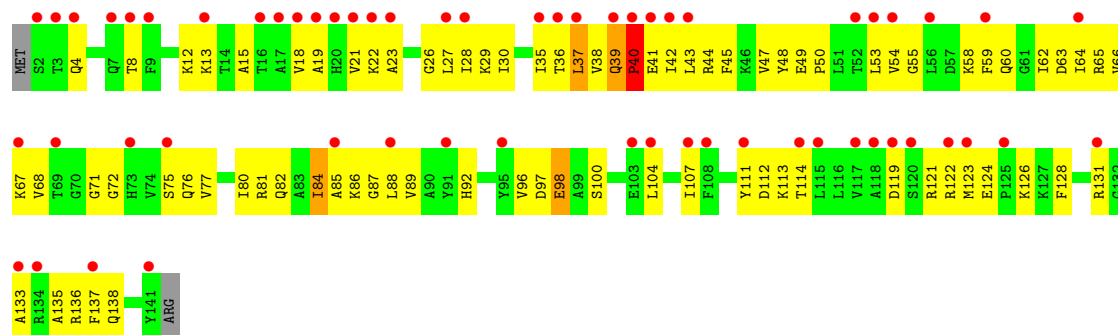
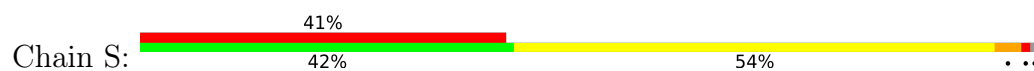


• Molecule 61: 40S ribosomal protein S15

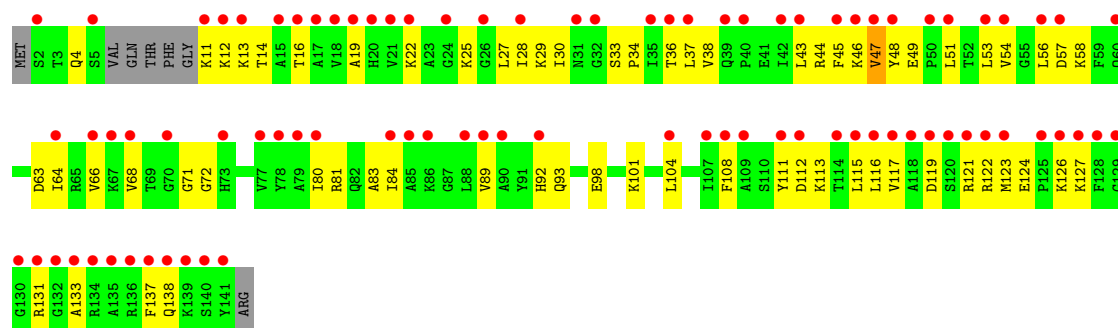




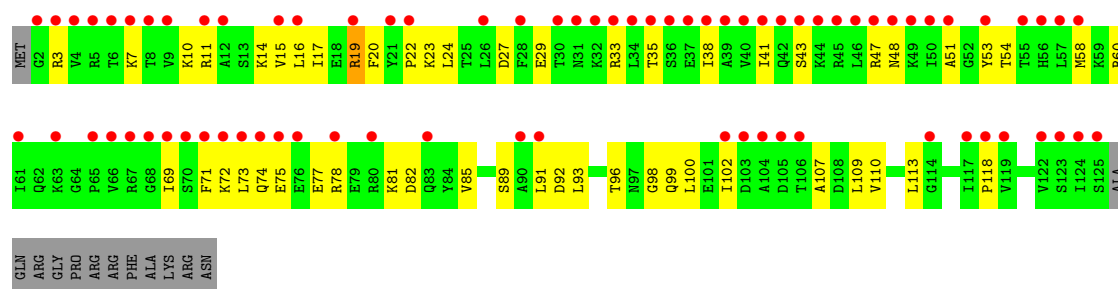
• Molecule 62: 40S ribosomal protein S16



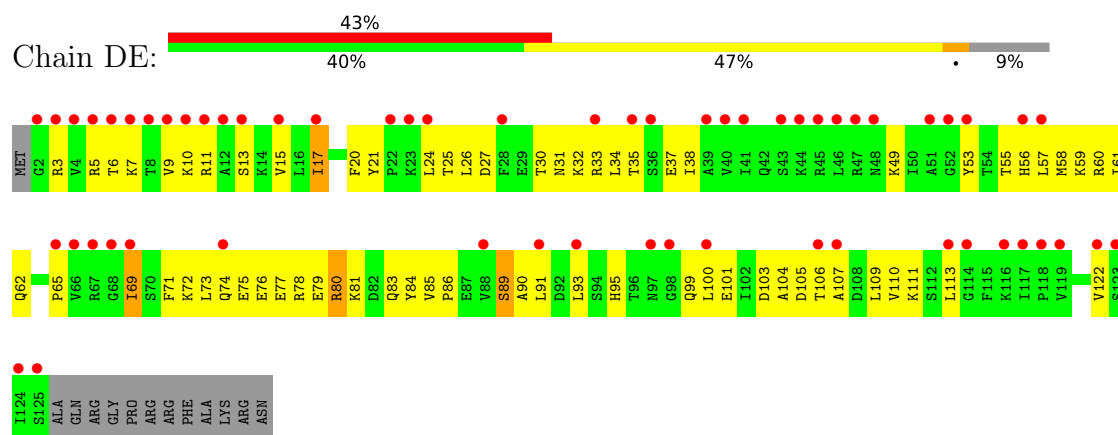
• Molecule 62: 40S ribosomal protein S16



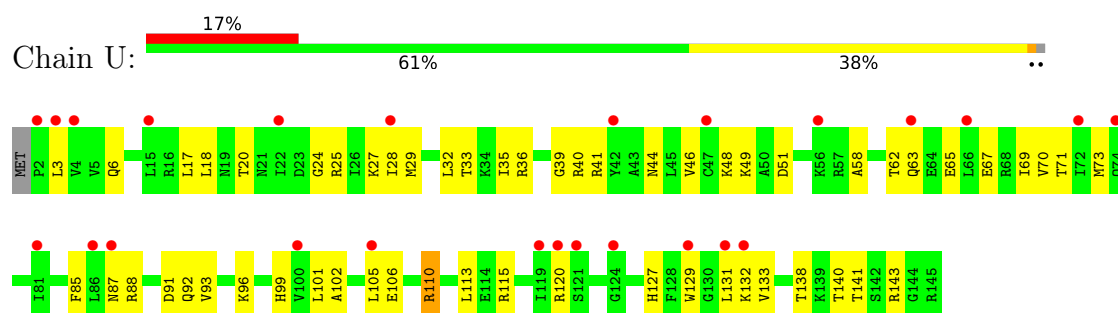
• Molecule 63: 40S ribosomal protein S17-B



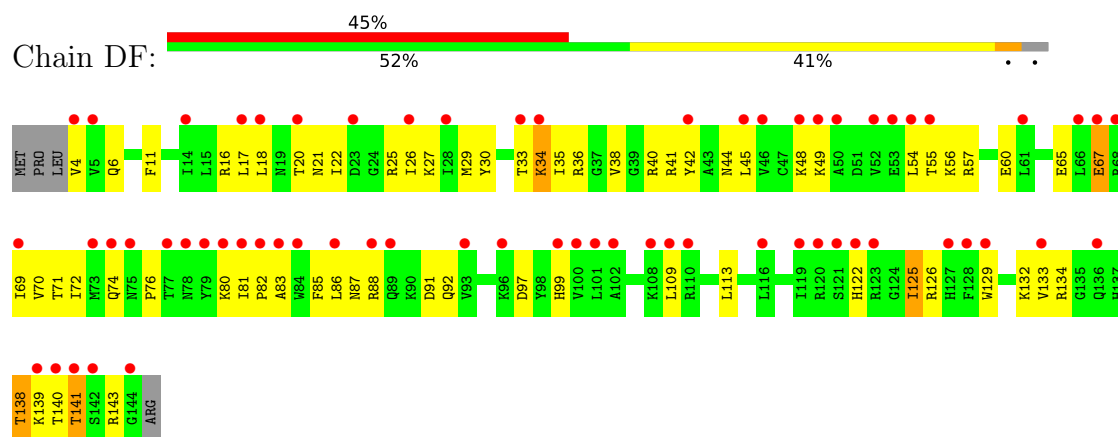
• Molecule 63: 40S ribosomal protein S17-B



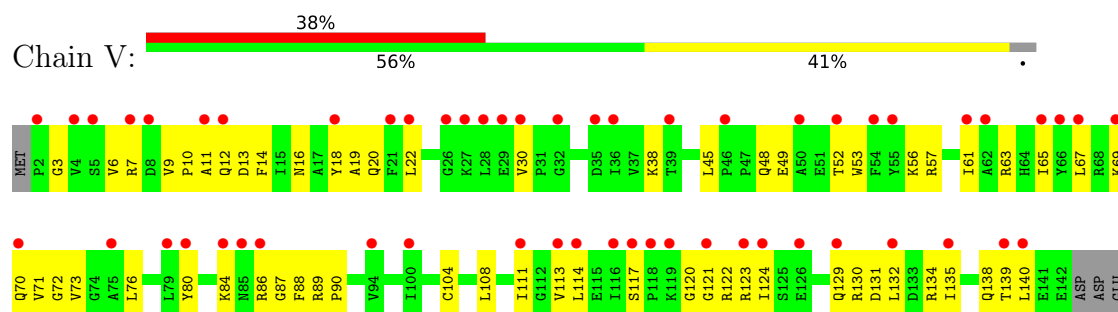
- Molecule 64: 40S ribosomal protein S18-B



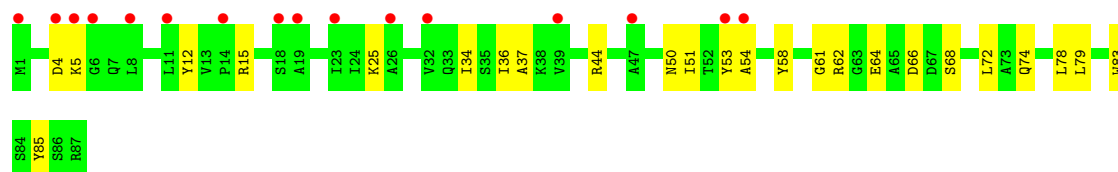
- Molecule 64: 40S ribosomal protein S18-B



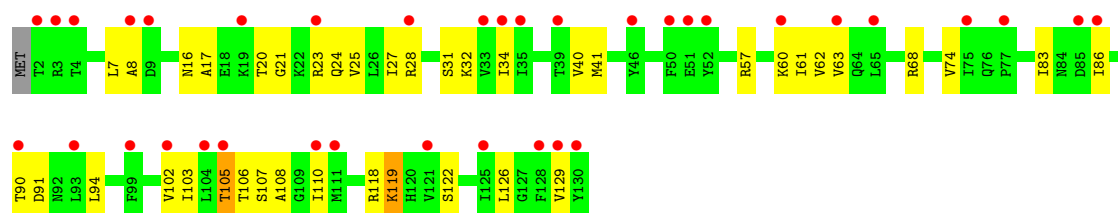
- Molecule 65: 40S ribosomal protein S19-A



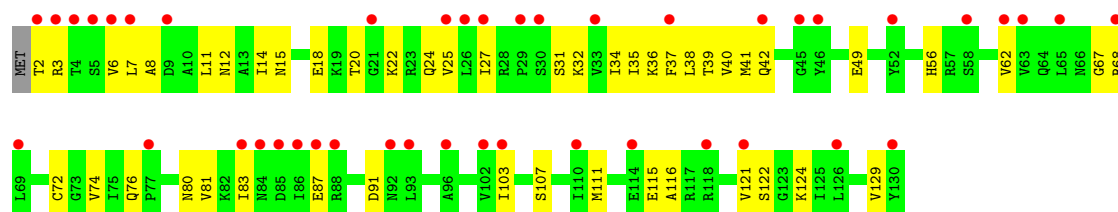
- Molecule 65: 40S ribosomal protein S19-A



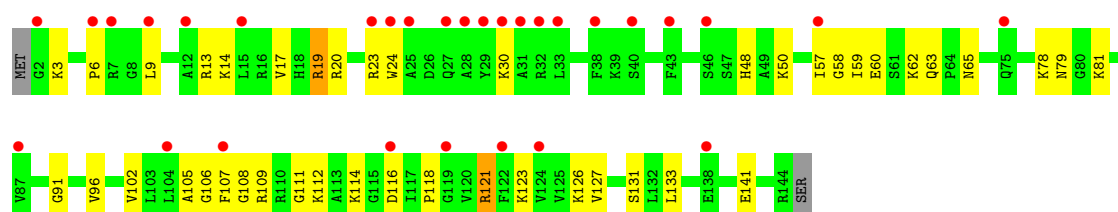
- Molecule 68: 40S ribosomal protein S22-A



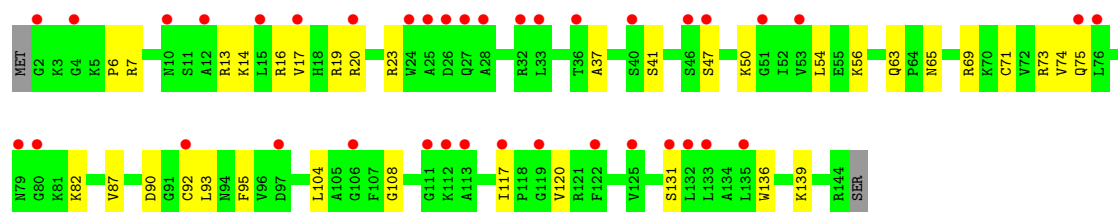
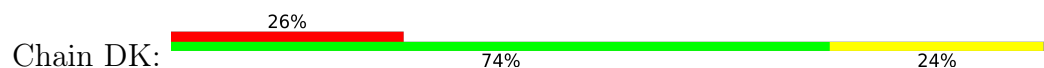
- Molecule 68: 40S ribosomal protein S22-A



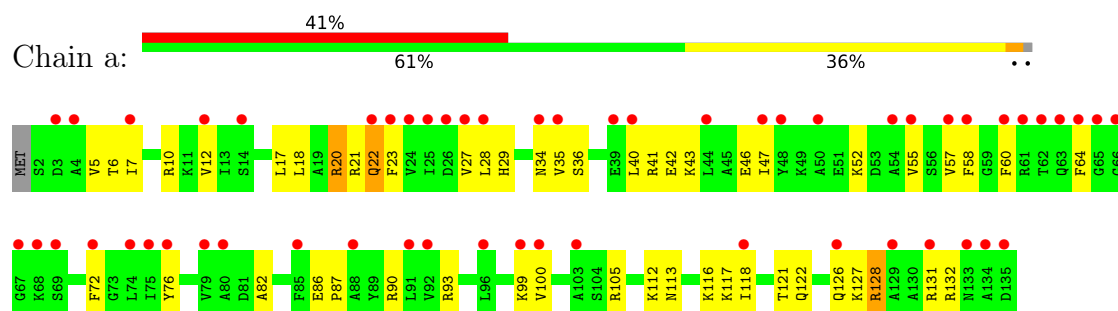
- Molecule 69: Ribosomal protein S23 (S12)



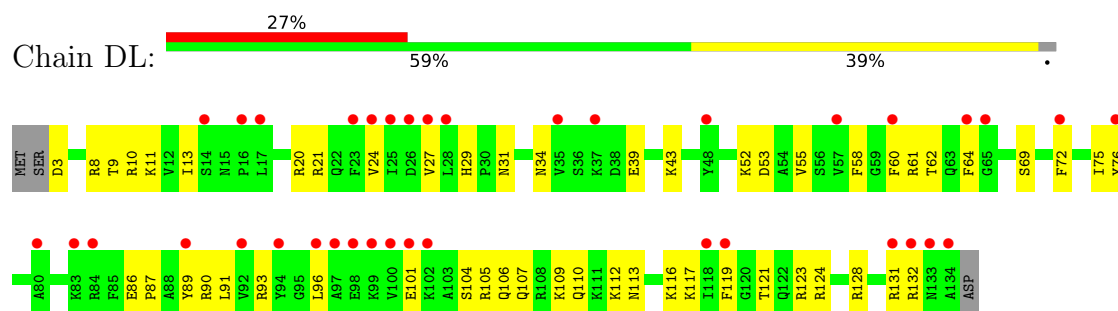
- Molecule 69: Ribosomal protein S23 (S12)



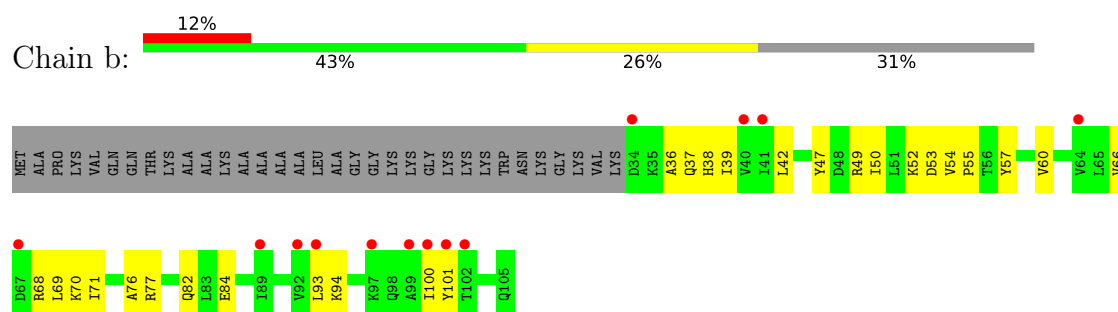
- Molecule 70: 40S ribosomal protein S24



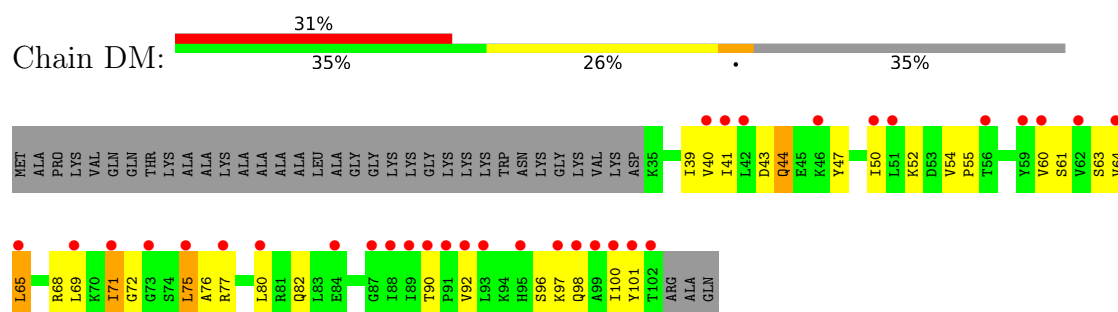
- Molecule 70: 40S ribosomal protein S24



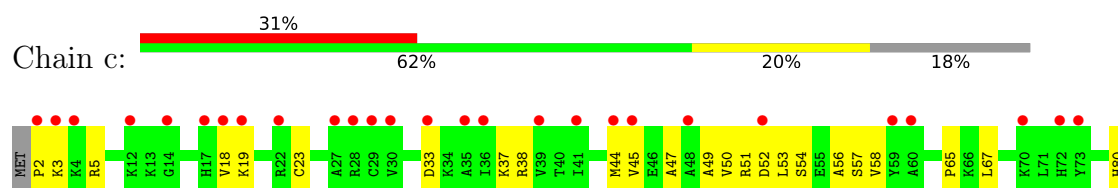
- Molecule 71: 40S ribosomal protein S25

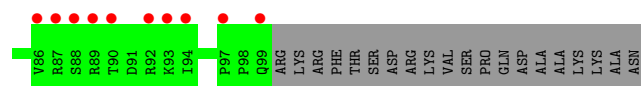


- Molecule 71: 40S ribosomal protein S25

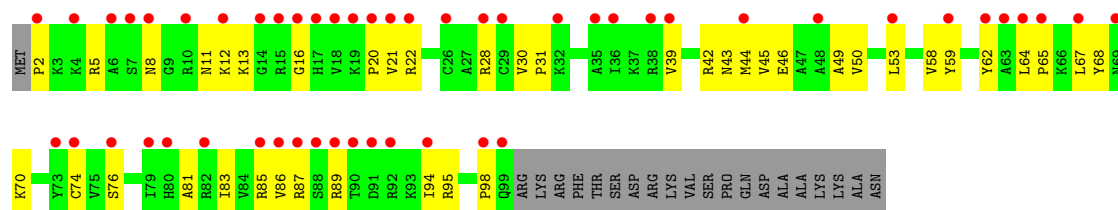
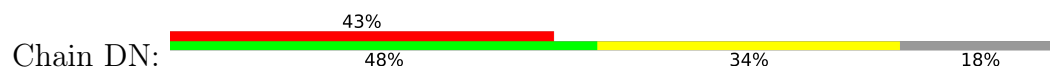


- Molecule 72: 40S ribosomal protein S26

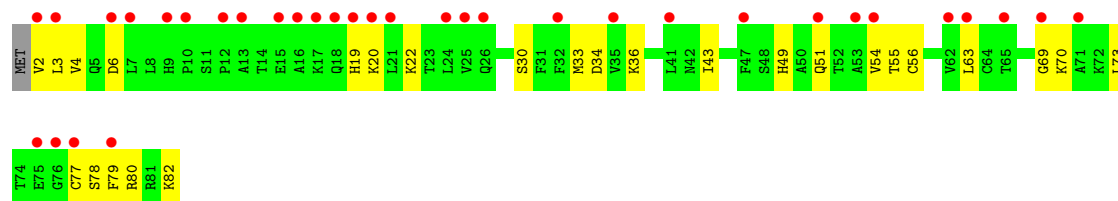
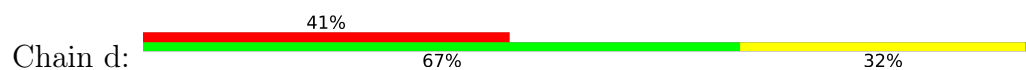




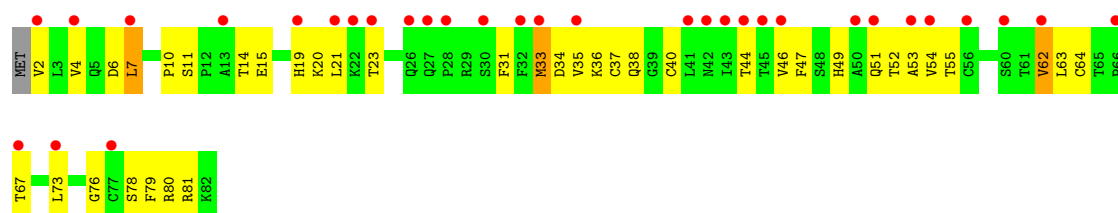
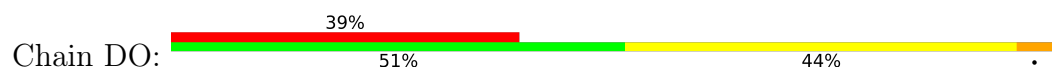
- Molecule 72: 40S ribosomal protein S26



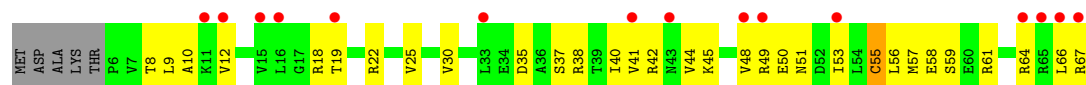
- Molecule 73: 40S ribosomal protein S27



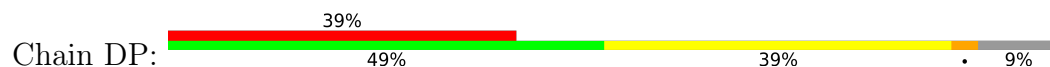
- Molecule 73: 40S ribosomal protein S27



- Molecule 74: 40S ribosomal protein S28-B



- Molecule 74: 40S ribosomal protein S28-B



Chain AR: 48% 47% 46%

[illegible]

4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	297.30Å 292.54Å 442.98Å 90.00° 99.37° 90.00°	Depositor
Resolution (Å)	163.00 – 2.90 163.00 – 2.90	Depositor EDS
% Data completeness (in resolution range)	99.2 (163.00-2.90) 82.8 (163.00-2.90)	Depositor EDS
R_{merge}	0.56	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.52 (at 2.91Å)	Xtriage
Refinement program	PHENIX 1.19rc4_4035	Depositor
R, R_{free}	0.257 , 0.283 0.266 , 0.277	Depositor DCC
R_{free} test set	2000 reflections (0.12%)	wwPDB-VP
Wilson B-factor (Å ²)	47.7	Xtriage
Anisotropy	0.168	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 50.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.87	EDS
Total number of atoms	397530	wwPDB-VP
Average B, all atoms (Å ²)	84.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.43% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: 3K5, ZN, PAR, 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	0.20	0/75861	0.45	3/118257 (0.0%)
1	AS	0.19	0/73312	0.45	6/114279 (0.0%)
2	3	0.16	0/2884	0.34	0/4492
2	AT	0.20	0/2884	0.42	1/4492 (0.0%)
3	4	0.19	0/3702	0.43	0/5764
3	AU	0.18	0/3702	0.42	0/5764
4	AW	0.29	0/1931	0.72	1/2592 (0.0%)
4	j	0.26	0/1931	0.58	2/2592 (0.1%)
5	AX	0.27	0/3145	0.66	0/4231
5	k	0.27	0/3156	0.65	2/4246 (0.0%)
6	AY	0.28	0/2799	0.69	0/3777
6	l	0.29	0/2793	0.66	0/3769
7	AZ	0.34	0/2447	0.83	3/3294 (0.1%)
7	m	0.34	0/2479	0.75	2/3337 (0.1%)
8	BA	0.30	0/1231	0.68	1/1662 (0.1%)
8	n	0.30	0/1263	0.66	1/1703 (0.1%)
9	BB	0.27	0/1918	0.60	0/2575
9	o	0.33	0/1918	0.68	3/2575 (0.1%)
10	BC	0.39	0/1825	0.90	1/2458 (0.0%)
10	p	0.34	0/1820	0.67	0/2451
11	BD	0.37	0/1537	0.85	1/2067 (0.0%)
11	q	0.32	0/1537	0.73	0/2067
12	BE	0.31	0/1705	0.69	0/2288
12	r	0.29	0/1724	0.66	0/2314
13	BF	0.38	0/1390	0.87	4/1861 (0.2%)
13	s	0.37	0/1390	0.94	4/1861 (0.2%)
14	BG	0.37	0/1637	0.87	4/2195 (0.2%)
14	t	0.31	0/1637	0.77	5/2195 (0.2%)
15	BH	0.32	0/1044	0.78	3/1407 (0.2%)
15	u	0.37	0/1030	0.73	0/1389
16	BI	0.31	0/1753	0.79	2/2347 (0.1%)
16	v	0.25	0/1753	0.59	0/2347

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	BJ	0.48	1/1620 (0.1%)	0.71	4/2167 (0.2%)
17	w	0.34	0/1620	0.69	1/2167 (0.0%)
18	BK	0.32	0/1419	0.74	1/1906 (0.1%)
18	x	0.29	0/1395	0.71	1/1874 (0.1%)
19	BL	0.33	0/1482	0.71	0/1985
19	y	0.32	0/1482	0.71	1/1985 (0.1%)
20	BM	0.36	0/1475	0.89	4/1961 (0.2%)
20	z	0.29	0/1475	0.72	0/1961
21	0	0.28	0/1457	0.63	2/1962 (0.1%)
21	BN	0.31	0/1457	0.62	0/1962
22	2	0.30	0/1285	0.68	0/1723
22	BO	0.32	0/1285	0.70	0/1723
23	5	0.32	0/846	0.77	1/1140 (0.1%)
23	BP	0.32	0/857	0.85	0/1156
24	6	0.24	0/993	0.58	0/1339
24	BQ	0.30	0/993	0.72	1/1339 (0.1%)
25	7	0.20	0/643	0.40	0/853
25	BR	0.29	0/889	0.52	0/1175
26	8	0.29	0/990	0.67	0/1337
26	BS	0.37	0/976	0.80	0/1319
27	9	0.32	0/990	0.68	0/1322
27	BT	0.38	0/999	0.84	0/1334
28	AA	0.39	0/1112	0.75	0/1488
28	BU	0.42	0/1112	0.98	5/1488 (0.3%)
29	AB	0.28	0/1199	0.64	1/1607 (0.1%)
29	BV	0.31	0/1199	0.72	0/1607
30	AC	0.36	0/498	0.97	3/661 (0.5%)
30	BW	0.34	0/498	0.76	0/661
31	AD	0.29	0/738	0.71	0/994
31	BX	0.33	0/738	0.84	0/994
32	AE	0.32	0/907	0.83	2/1219 (0.2%)
32	BY	0.37	0/907	0.85	0/1219
33	AF	0.34	0/1021	0.68	0/1368
33	BZ	0.33	0/1025	0.72	1/1372 (0.1%)
34	AG	0.27	0/866	0.59	1/1165 (0.1%)
34	CA	0.33	0/866	0.69	0/1165
35	AH	0.32	0/896	0.75	1/1195 (0.1%)
35	CB	0.34	0/896	0.82	0/1195
36	AI	0.30	0/995	0.82	1/1325 (0.1%)
36	CC	0.38	0/999	0.90	2/1330 (0.2%)
37	AJ	0.29	0/763	0.70	1/1012 (0.1%)
37	CD	0.27	0/763	0.84	2/1012 (0.2%)
38	AK	0.31	0/690	0.68	1/916 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	CE	0.32	0/690	0.68	1/916 (0.1%)
39	AL	0.31	0/623	0.71	1/831 (0.1%)
39	CF	0.32	0/623	0.74	0/831
40	AM	0.28	0/447	0.64	0/594
40	CG	0.24	0/458	0.65	0/609
41	AN	0.66	1/425 (0.2%)	0.82	1/563 (0.2%)
41	CH	0.38	1/417 (0.2%)	0.74	2/553 (0.4%)
42	AO	0.32	0/237	0.84	0/304
42	CI	0.29	0/237	0.95	0/304
43	AP	0.27	0/840	0.62	0/1110
43	CJ	0.31	0/840	0.67	0/1110
44	AQ	0.34	0/705	0.70	0/940
44	CK	0.34	0/705	0.78	0/940
45	B	0.20	0/41128	0.49	4/64084 (0.0%)
45	CM	0.21	0/42397	0.50	6/66069 (0.0%)
46	C	0.44	0/1666	0.90	2/2273 (0.1%)
46	CN	0.36	0/1666	0.85	4/2273 (0.2%)
47	CO	0.39	0/1750	0.94	1/2354 (0.0%)
47	D	0.32	0/1750	0.74	0/2354
48	CP	0.33	0/1657	0.74	1/2248 (0.0%)
48	E	0.37	0/1657	0.78	2/2248 (0.1%)
49	CQ	0.37	0/1731	0.92	5/2324 (0.2%)
49	F	0.33	0/1731	0.82	0/2324
50	CR	0.36	1/2096 (0.0%)	0.74	2/2822 (0.1%)
50	G	0.36	0/2092	0.77	1/2817 (0.0%)
51	CS	0.31	0/1631	0.81	2/2199 (0.1%)
51	H	0.32	0/1631	0.70	0/2199
52	CT	0.37	0/1929	0.86	1/2571 (0.0%)
52	I	0.31	0/1812	0.78	1/2420 (0.0%)
53	CU	0.31	0/1499	0.87	2/2016 (0.1%)
53	J	0.38	0/1486	0.85	0/1999
54	CV	0.27	0/1606	0.71	0/2150
54	K	0.28	0/1601	0.70	0/2143
55	CW	0.40	0/1478	0.87	4/1978 (0.2%)
55	L	0.29	0/1478	0.69	1/1978 (0.1%)
56	CX	0.37	0/809	0.96	2/1092 (0.2%)
56	M	0.35	0/836	0.89	2/1130 (0.2%)
57	CY	0.32	0/1154	0.70	0/1553
57	N	0.30	0/1152	0.65	1/1550 (0.1%)
58	CZ	0.32	0/921	1.12	5/1240 (0.4%)
58	O	0.41	0/892	1.01	2/1203 (0.2%)
59	DA	0.35	0/1210	0.79	2/1631 (0.1%)
59	P	0.36	0/1210	0.76	0/1631

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
60	DB	0.39	0/953	0.86	2/1279 (0.2%)
60	Q	0.34	0/953	0.81	1/1279 (0.1%)
61	DC	0.27	0/980	0.79	0/1315
61	R	0.35	0/1038	0.83	1/1395 (0.1%)
62	DD	0.29	0/1069	0.69	0/1430
62	S	0.37	0/1109	0.86	2/1486 (0.1%)
63	DE	0.37	0/1009	0.93	2/1354 (0.1%)
63	T	0.33	0/1009	0.80	0/1354
64	DF	0.34	0/1178	0.85	3/1579 (0.2%)
64	U	0.42	0/1205	0.92	3/1615 (0.2%)
65	DG	0.26	0/1108	0.76	0/1492
65	V	0.39	0/1120	0.82	0/1508
66	DH	0.32	0/772	0.77	0/1045
66	W	0.35	0/792	0.85	0/1071
67	DI	0.31	0/683	0.80	1/918 (0.1%)
67	X	0.35	0/683	0.76	0/918
68	DJ	0.38	0/1049	0.74	0/1412
68	Y	0.34	0/1049	0.74	1/1412 (0.1%)
69	DK	0.29	0/1128	0.75	1/1505 (0.1%)
69	Z	0.31	0/1128	0.85	1/1505 (0.1%)
70	DL	0.28	0/1086	0.73	0/1447
70	a	0.31	0/1100	0.88	3/1466 (0.2%)
71	DM	0.32	0/552	0.87	1/745 (0.1%)
71	b	0.32	0/585	0.76	0/789
72	DN	0.42	0/791	0.82	1/1060 (0.1%)
72	c	0.28	0/791	0.71	0/1060
73	DO	0.37	0/624	0.91	3/843 (0.4%)
73	d	0.28	0/624	0.68	0/843
74	DP	0.37	0/478	0.96	3/640 (0.5%)
74	e	0.29	0/489	0.94	0/654
75	DQ	0.26	0/461	0.63	0/613
75	f	0.31	0/466	0.67	0/620
76	DR	0.29	0/469	0.72	0/626
76	g	0.41	0/438	1.00	3/581 (0.5%)
77	h	0.36	0/585	1.11	3/778 (0.4%)
78	AR	0.36	0/2451	0.86	3/3337 (0.1%)
79	CL	0.43	1/941 (0.1%)	0.98	2/1257 (0.2%)
79	i	0.44	0/928	1.26	4/1239 (0.3%)
All	All	0.26	5/423231 (0.0%)	0.60	188/621279 (0.0%)

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	BJ	111	PRO	CA-C	-14.95	1.43	1.51
41	AN	28	PRO	CA-C	-11.10	1.45	1.51
79	CL	107	TRP	CA-C	7.53	1.57	1.53
50	CR	149	TYR	C-O	-6.46	1.21	1.23
41	CH	28	PRO	CA-C	5.16	1.54	1.51

All (188) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	BJ	111	PRO	O-C-N	-11.14	116.19	121.31
49	CQ	183	LEU	CB-CG-CD2	-8.74	84.49	110.70
41	AN	28	PRO	O-C-N	-8.20	117.54	121.31
53	CU	73	LEU	CA-CB-CG	8.12	144.72	116.30
46	CN	62	ARG	CG-CD-NE	7.82	129.20	112.00
79	i	134	GLU	N-CA-C	-7.49	103.09	112.90
9	o	119	LYS	N-CA-C	-7.45	104.16	113.55
14	BG	36	ARG	CA-CB-CG	7.33	128.77	114.10
64	DF	138	THR	CA-CB-OG1	-7.19	98.82	109.60
59	DA	50	ILE	CG1-CB-CG2	-7.10	89.40	110.70
14	t	49	ARG	CG-CD-NE	7.09	127.59	112.00
59	DA	124	ARG	CG-CD-NE	-7.00	96.60	112.00
47	CO	64	ARG	CB-CG-CD	6.88	127.12	111.30
20	BM	32	ILE	CG1-CB-CG2	-6.86	90.12	110.70
17	BJ	117	LYS	CB-CG-CD	6.83	127.02	111.30
45	CM	950	U	C2'-C3'-O3'	-6.75	103.58	113.70
64	U	138	THR	CA-CB-OG1	-6.73	99.50	109.60
74	DP	22	ARG	CA-CB-CG	6.73	127.57	114.10
52	I	154	ARG	CG-CD-NE	6.70	126.74	112.00
49	CQ	91	ARG	CG-CD-NE	-6.68	97.30	112.00
78	AR	271	LEU	CB-CG-CD1	-6.68	90.65	110.70
67	DI	44	ARG	CA-CB-CG	6.63	127.35	114.10
60	DB	47	ARG	CB-CG-CD	-6.61	96.10	111.30
36	CC	43	ARG	CA-CB-CG	6.56	127.23	114.10
13	s	79	ILE	CG1-CB-CG2	-6.56	91.02	110.70
74	DP	22	ARG	CB-CG-CD	-6.55	96.23	111.30
50	CR	179	ARG	CA-CB-CG	-6.54	101.02	114.10
13	BF	13	ARG	CA-CB-CG	6.52	127.15	114.10
28	BU	29	HIS	N-CA-CB	6.50	122.86	110.82
45	B	824	U	P-O5'-C5'	-6.50	111.15	120.90
78	AR	142	MET	CB-CG-SD	-6.50	93.20	112.70
33	BZ	28	ARG	CD-NE-CZ	6.50	133.50	124.40
56	CX	16	PHE	N-CA-C	-6.49	99.63	109.95
14	t	49	ARG	CB-CG-CD	6.46	126.16	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	x	126	ARG	CA-CB-CG	6.44	126.98	114.10
1	AS	145	U	OP2-P-O3'	-6.42	88.72	108.00
56	CX	91	ARG	CA-CB-CG	6.37	126.84	114.10
70	a	126	GLN	CA-CB-CG	6.36	126.82	114.10
49	CQ	60	LEU	CA-CB-CG	6.36	138.55	116.30
2	AT	51	A	C4'-C3'-O3'	-6.35	103.47	113.00
32	AE	84	ALA	CA-C-N	6.34	133.65	121.54
32	AE	84	ALA	C-N-CA	6.34	133.65	121.54
45	CM	725	A	O5'-C5'-C4'	-6.34	101.99	111.50
13	BF	84	LEU	CB-CG-CD1	-6.31	91.78	110.70
46	CN	24	LEU	CA-CB-CG	6.30	138.35	116.30
79	i	72	ASP	N-CA-C	6.29	119.71	109.59
15	BH	101	ARG	CA-CB-CG	-6.21	101.68	114.10
14	t	66	ASN	CB-CA-C	-6.17	100.94	110.81
56	M	16	PHE	N-CA-C	-6.13	99.92	109.72
45	CM	816	U	O3'-P-O5'	6.12	113.18	104.00
45	CM	970	G	O3'-P-O5'	6.11	113.16	104.00
1	1	601	U	C2'-C3'-O3'	6.10	118.64	109.50
20	BM	74	ARG	CG-CD-NE	-6.08	98.61	112.00
1	AS	151	U	OP2-P-O3'	-6.08	89.75	108.00
1	1	1012	U	C4'-C3'-O3'	6.06	118.49	109.40
30	AC	20	GLY	CA-C-N	6.05	132.85	121.97
30	AC	20	GLY	C-N-CA	6.05	132.85	121.97
70	a	20	ARG	N-CA-CB	-6.04	102.19	111.56
41	CH	2	ILE	CA-C-N	6.03	136.50	121.80
41	CH	2	ILE	C-N-CA	6.03	136.50	121.80
16	BI	49	ARG	CG-CD-NE	-5.98	98.84	112.00
17	BJ	68	LYS	CA-CB-CG	-5.96	102.18	114.10
76	g	23	LYS	CA-C-N	5.96	129.17	120.71
76	g	23	LYS	C-N-CA	5.96	129.17	120.71
7	AZ	239	ILE	CG1-CB-CG2	-5.88	93.05	110.70
72	DN	89	ARG	CG-CD-NE	-5.88	99.06	112.00
35	AH	103	ARG	CB-CA-C	-5.88	100.91	110.79
79	CL	113	ARG	N-CA-C	-5.86	104.07	113.28
58	CZ	136	LEU	CA-CB-CG	5.86	136.81	116.30
64	U	110	ARG	N-CA-CB	5.84	118.48	110.01
79	CL	53	LYS	CA-CB-CG	5.80	125.70	114.10
7	AZ	210	GLU	CA-CB-CG	-5.78	102.55	114.10
49	CQ	183	LEU	N-CA-CB	5.78	119.64	110.57
28	BU	34	LYS	N-CA-C	-5.76	103.09	110.53
73	DO	33	MET	N-CA-CB	-5.76	101.22	111.08
45	B	1413	A	O4'-C1'-N9	5.75	116.82	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	CT	43	ASP	N-CA-C	-5.73	105.55	112.54
1	AS	1576	A	O4'-C1'-N9	5.72	117.09	108.50
57	N	116	ARG	CB-CG-CD	5.71	124.44	111.30
14	t	106	GLN	CB-CG-CD	-5.71	102.90	112.60
14	t	46	ILE	CG1-CB-CG2	-5.71	93.58	110.70
46	CN	123	VAL	CG1-CB-CG2	-5.69	98.27	110.80
29	AB	90	TYR	CA-CB-CG	5.69	124.15	113.90
55	L	54	ARG	CG-CD-NE	5.68	124.50	112.00
14	BG	187	LYS	CA-CB-CG	-5.67	102.76	114.10
9	o	156	LYS	CB-CG-CD	-5.67	98.27	111.30
60	DB	118	SER	N-CA-C	-5.66	105.02	112.72
24	BQ	72	LYS	CA-CB-CG	-5.66	102.79	114.10
51	CS	92	ARG	CA-CB-CG	5.64	125.39	114.10
64	DF	125	ILE	CG1-CB-CG2	-5.63	93.81	110.70
18	BK	131	ARG	CB-CG-CD	-5.62	98.36	111.30
68	Y	119	LYS	N-CA-CB	-5.62	101.84	110.44
49	CQ	60	LEU	CB-CA-C	-5.61	109.60	117.23
8	BA	76	ARG	CG-CD-NE	5.60	124.33	112.00
13	BF	159	THR	OG1-CB-CG2	-5.60	98.10	109.30
7	AZ	164	LYS	CD-CE-NZ	-5.57	94.07	111.90
73	DO	7	LEU	CD1-CG-CD2	-5.57	98.54	110.80
62	S	37	LEU	CA-CB-CG	5.56	135.75	116.30
55	CW	171	ARG	CB-CA-C	-5.55	101.57	110.79
10	BC	144	ILE	CG1-CB-CG2	-5.53	94.11	110.70
55	CW	113	VAL	CG1-CB-CG2	-5.51	98.67	110.80
34	AG	66	VAL	CG1-CB-CG2	-5.50	98.70	110.80
30	AC	20	GLY	N-CA-C	5.48	120.44	112.60
19	y	78	GLU	N-CA-CB	5.48	119.69	110.92
5	k	70	ARG	CG-CD-NE	5.47	124.04	112.00
37	AJ	74	LYS	CA-CB-CG	-5.47	103.16	114.10
1	AS	1576	A	C4-N9-C1'	5.44	142.63	126.30
53	CU	37	LEU	CA-CB-CG	5.44	135.33	116.30
45	CM	555	G	C5'-C4'-O4'	5.43	117.94	109.80
46	CN	149	MET	CA-CB-CG	-5.43	103.24	114.10
69	DK	20	ARG	CG-CD-NE	5.42	123.91	112.00
64	DF	125	ILE	CA-CB-CG2	-5.41	101.30	110.50
58	CZ	112	ALA	N-CA-C	5.40	122.30	110.80
60	Q	47	ARG	CG-CD-NE	5.39	123.87	112.00
28	BU	99	GLU	N-CA-C	-5.38	105.84	112.90
7	m	34	LYS	CG-CD-CE	5.38	123.68	111.30
21	o	13	ASN	N-CA-CB	-5.35	102.18	110.04
58	O	96	LEU	CB-CG-CD2	-5.34	94.67	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	C	127	ARG	CB-CG-CD	-5.34	99.01	111.30
38	CE	31	LYS	CG-CD-CE	5.33	123.56	111.30
13	s	154	THR	OG1-CB-CG2	-5.32	98.66	109.30
58	O	52	LEU	CA-CB-CG	5.31	134.87	116.30
37	CD	28	ARG	CB-CG-CD	5.30	123.48	111.30
48	E	79	ARG	CB-CA-C	-5.30	98.31	109.38
45	CM	725	A	C5'-C4'-C3'	-5.27	108.09	116.00
17	w	50	ARG	N-CA-CB	5.27	117.86	110.12
38	AK	43	LYS	CG-CD-CE	-5.27	99.19	111.30
13	s	87	LYS	CB-CG-CD	5.26	123.39	111.30
50	G	89	VAL	CG1-CB-CG2	-5.26	99.24	110.80
51	CS	92	ARG	CB-CG-CD	-5.25	99.22	111.30
55	CW	36	LEU	CD1-CG-CD2	-5.25	99.26	110.80
79	i	66	ASN	CA-C-N	-5.24	113.95	122.34
79	i	66	ASN	C-N-CA	-5.24	113.95	122.34
74	DP	56	LEU	CA-CB-CG	5.24	134.63	116.30
50	CR	26	THR	OG1-CB-CG2	-5.24	98.83	109.30
64	U	110	ARG	CG-CD-NE	5.23	123.51	112.00
21	0	23	LYS	CA-CB-CG	-5.23	103.64	114.10
16	BI	140	LYS	CB-CG-CD	5.23	123.32	111.30
69	Z	121	ARG	CG-CD-NE	-5.22	100.52	112.00
1	AS	525	A	C5'-C4'-C3'	5.21	123.82	116.00
77	h	177	MET	N-CA-CB	-5.21	102.36	110.39
13	BF	55	ARG	CB-CG-CD	5.21	123.28	111.30
13	s	153	LYS	CB-CG-CD	-5.19	99.36	111.30
48	E	110	ILE	CG1-CB-CG2	-5.19	95.14	110.70
78	AR	40	LYS	CG-CD-CE	-5.19	99.37	111.30
5	k	196	LYS	CA-CB-CG	-5.18	103.73	114.10
7	m	140	ARG	CG-CD-NE	5.18	123.39	112.00
70	a	128	ARG	CA-CB-CG	-5.18	103.75	114.10
4	j	46	LYS	CA-CB-CG	5.17	124.44	114.10
28	BU	29	HIS	N-CA-C	-5.16	95.67	107.48
36	AI	85	THR	N-CA-CB	5.15	119.40	111.46
1	1	3169	C	O3'-P-O5'	-5.15	96.27	104.00
15	BH	6	LYS	CA-CB-CG	-5.15	103.80	114.10
36	CC	43	ARG	CB-CA-C	5.13	121.15	110.32
28	BU	67	LYS	CA-CB-CG	5.13	124.36	114.10
20	BM	119	LEU	CA-CB-CG	5.12	134.22	116.30
58	CZ	136	LEU	CB-CG-CD1	-5.12	95.34	110.70
4	AW	247	ARG	CB-CA-C	5.12	119.08	109.71
63	DE	80	ARG	CA-C-N	5.12	131.31	121.54
63	DE	80	ARG	C-N-CA	5.12	131.31	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	R	121	ILE	CG1-CB-CG2	-5.10	95.41	110.70
9	o	17	GLN	N-CA-CB	5.09	117.70	110.16
37	CD	88	GLU	N-CA-C	5.08	116.90	111.36
14	BG	154	PRO	CA-C-N	-5.08	113.84	120.95
14	BG	154	PRO	C-N-CA	-5.08	113.84	120.95
39	AL	8	ILE	CG1-CB-CG2	-5.08	95.48	110.70
46	C	183	ARG	CB-CG-CD	-5.07	99.63	111.30
45	B	1259	C	C2'-C3'-O3'	-5.07	101.89	109.50
20	BM	167	ARG	CG-CD-NE	5.07	123.16	112.00
58	CZ	111	ASN	CA-C-N	5.07	131.21	121.54
58	CZ	111	ASN	C-N-CA	5.07	131.21	121.54
15	BH	105	LEU	CA-CB-CG	5.06	134.01	116.30
23	5	84	LYS	CB-CA-C	-5.06	102.40	110.79
73	DO	7	LEU	CB-CG-CD2	-5.04	95.57	110.70
11	BD	132	VAL	CG1-CB-CG2	5.04	121.89	110.80
17	BJ	68	LYS	CG-CD-CE	-5.04	99.71	111.30
56	M	88	PRO	N-CA-C	-5.03	102.11	112.47
71	DM	52	LYS	CB-CG-CD	5.03	122.86	111.30
76	g	13	LYS	CD-CE-NZ	-5.02	95.85	111.90
1	AS	146	U	O5'-P-OP2	5.02	123.05	108.00
45	B	217	A	O4'-C1'-N9	5.01	116.02	108.50
55	CW	154	LYS	CA-CB-CG	5.01	124.12	114.10
8	n	7	LYS	CB-CG-CD	5.01	122.83	111.30
62	S	40	PRO	N-CA-C	-5.01	102.15	112.47
77	h	178	LYS	CA-C-N	5.01	131.10	121.54
77	h	178	LYS	C-N-CA	5.01	131.10	121.54
48	CP	120	ILE	CG1-CB-CG2	-5.00	95.68	110.70
4	j	46	LYS	CG-CD-CE	5.00	122.80	111.30

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	67782	0	34070	1080	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AS	65508	0	32926	1276	0
2	3	2579	0	1304	40	0
2	AT	2579	0	1304	48	0
3	4	3313	0	1674	68	0
3	AU	3313	0	1674	73	0
4	AW	1894	0	1975	97	0
4	j	1894	0	1975	36	0
5	AX	3077	0	3166	82	0
5	k	3084	0	3173	81	0
6	AY	2751	0	2879	114	0
6	l	2745	0	2874	75	0
7	AZ	2394	0	2361	111	0
7	m	2426	0	2389	93	0
8	BA	1210	0	1285	62	0
8	n	1242	0	1321	43	0
9	BB	1885	0	1977	34	0
9	o	1885	0	1977	37	0
10	BC	1795	0	1915	119	0
10	p	1790	0	1910	40	0
11	BD	1519	0	1588	73	0
11	q	1519	0	1588	39	0
12	BE	1671	0	1717	53	0
12	r	1689	0	1731	42	0
13	BF	1371	0	1410	62	0
13	s	1371	0	1410	67	0
14	BG	1610	0	1686	98	0
14	t	1610	0	1686	41	0
15	BH	1029	0	1116	25	0
15	u	1015	0	1098	47	0
16	BI	1713	0	1764	95	0
16	v	1713	0	1764	54	0
17	BJ	1590	0	1705	41	0
17	w	1590	0	1705	39	0
18	BK	1396	0	1421	52	0
18	x	1372	0	1390	45	0
19	BL	1458	0	1556	64	0
19	y	1458	0	1556	41	0
20	BM	1457	0	1564	57	0
20	z	1457	0	1564	37	0
21	0	1423	0	1480	44	0
21	BN	1423	0	1480	45	0
22	2	1262	0	1314	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	BO	1262	0	1314	36	0
23	5	831	0	848	36	0
23	BP	837	0	853	59	0
24	6	977	0	1026	28	0
24	BQ	977	0	1026	32	0
25	7	632	0	666	17	0
25	BR	877	0	939	31	0
26	8	974	0	1032	21	0
26	BS	960	0	1014	55	0
27	9	980	0	1058	32	0
27	BT	989	0	1064	63	0
28	AA	1087	0	1154	48	0
28	BU	1087	0	1154	56	0
29	AB	1170	0	1203	40	0
29	BV	1170	0	1203	43	0
30	AC	488	0	515	13	0
30	BW	488	0	515	16	0
31	AD	729	0	775	15	0
31	BX	729	0	775	30	0
32	AE	894	0	941	20	0
32	BY	894	0	941	44	0
33	AF	1000	0	1069	30	0
33	BZ	1004	0	1077	37	0
34	AG	847	0	893	19	0
34	CA	847	0	893	26	0
35	AH	887	0	947	16	0
35	CB	887	0	947	59	0
36	AI	981	0	1086	45	0
36	CC	985	0	1089	68	0
37	AJ	758	0	838	16	0
37	CD	758	0	838	39	0
38	AK	677	0	697	26	0
38	CE	677	0	697	39	0
39	AL	617	0	674	14	0
39	CF	617	0	675	36	0
40	AM	438	0	475	9	0
40	CG	446	0	488	17	0
41	AN	419	0	460	6	0
41	CH	411	0	448	13	0
42	AO	236	0	285	9	0
42	CI	236	0	285	9	0
43	AP	828	0	893	18	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	CJ	828	0	893	18	0
44	AQ	698	0	734	17	0
44	CK	698	0	734	40	0
45	B	36771	0	18501	822	0
45	CM	37902	0	19064	976	0
46	C	1627	0	1644	110	0
46	CN	1627	0	1644	124	0
47	CO	1724	0	1805	105	0
47	D	1724	0	1805	60	0
48	CP	1629	0	1728	59	0
48	E	1629	0	1728	89	0
49	CQ	1707	0	1807	107	0
49	F	1707	0	1807	84	0
50	CR	2055	0	2137	80	0
50	G	2051	0	2134	102	0
51	CS	1614	0	1688	114	0
51	H	1614	0	1688	112	0
52	CT	1904	0	1994	84	0
52	I	1787	0	1861	68	0
53	CU	1475	0	1567	80	0
53	J	1462	0	1558	67	0
54	CV	1579	0	1602	47	0
54	K	1574	0	1597	51	0
55	CW	1453	0	1532	86	0
55	L	1453	0	1532	59	0
56	CX	791	0	805	68	0
56	M	817	0	828	53	0
57	CY	1129	0	1183	35	0
57	N	1128	0	1176	20	0
58	CZ	913	0	934	65	0
58	O	885	0	915	63	0
59	DA	1187	0	1249	63	0
59	P	1187	0	1249	37	0
60	DB	942	0	981	72	0
60	Q	942	0	981	42	0
61	DC	963	0	1003	44	0
61	R	1018	0	1065	60	0
62	DD	1053	0	1118	72	0
62	S	1091	0	1155	86	0
63	DE	997	0	1053	77	0
63	T	997	0	1053	53	0
64	DF	1161	0	1205	67	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
64	U	1187	0	1237	46	0
65	DG	1089	0	1103	62	0
65	V	1100	0	1114	64	0
66	DH	763	0	824	42	0
66	W	782	0	844	48	0
67	DI	676	0	677	28	0
67	X	676	0	677	55	0
68	DJ	1032	0	1066	53	0
68	Y	1032	0	1066	44	0
69	DK	1110	0	1182	26	0
69	Z	1110	0	1182	39	0
70	DL	1072	0	1123	48	0
70	a	1086	0	1132	45	0
71	DM	545	0	583	35	0
71	b	578	0	613	18	0
72	DN	779	0	833	39	0
72	c	779	0	832	20	0
73	DO	614	0	630	33	0
73	d	614	0	628	25	0
74	DP	476	0	510	30	0
74	e	487	0	523	38	0
75	DQ	449	0	426	10	0
75	f	454	0	431	16	0
76	DR	461	0	499	25	0
76	g	431	0	467	28	0
77	h	574	0	606	43	0
78	AR	2398	0	2374	161	0
79	CL	930	0	905	72	0
79	i	918	0	896	63	0
80	1	57	0	52	3	0
81	1	1218	0	1305	46	0
81	4	84	0	90	2	0
81	AS	546	0	585	28	0
81	B	210	0	225	12	0
81	CM	252	0	270	9	0
82	1	346	0	0	0	0
82	3	1	0	0	0	0
82	4	7	0	0	0	0
82	6	2	0	0	0	0
82	AB	1	0	0	0	0
82	AL	1	0	0	0	0
82	AP	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
82	AS	334	0	0	0	0
82	AT	1	0	0	0	0
82	AU	1	0	0	0	0
82	AW	3	0	0	0	0
82	AX	1	0	0	0	0
82	AY	1	0	0	0	0
82	B	140	0	0	0	0
82	C	1	0	0	0	0
82	CJ	1	0	0	0	0
82	CL	1	0	0	0	0
82	CM	139	0	0	0	0
82	CR	1	0	0	0	0
82	DG	1	0	0	0	0
82	DJ	1	0	0	0	0
82	DK	1	0	0	0	0
82	E	1	0	0	0	0
82	F	1	0	0	0	0
82	G	1	0	0	0	0
82	K	1	0	0	0	0
82	f	1	0	0	0	0
82	j	1	0	0	0	0
82	p	1	0	0	0	0
82	v	5	0	0	0	0
82	w	1	0	0	0	0
82	x	1	0	0	0	0
83	AH	1	0	0	0	0
83	AK	1	0	0	0	0
83	AN	1	0	0	0	0
83	AP	1	0	0	0	0
83	AQ	1	0	0	0	0
83	CB	1	0	0	0	0
83	CE	1	0	0	0	0
83	CH	1	0	0	0	0
83	CJ	1	0	0	0	0
83	CK	1	0	0	0	0
83	DN	1	0	0	0	0
83	DO	1	0	0	0	0
83	DQ	1	0	0	0	0
83	c	1	0	0	0	0
83	d	1	0	0	0	0
83	f	1	0	0	0	0
83	h	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	397530	0	295439	10019	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 15.

All (10019) 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)
51:CS:143:ARG:NH1	74:DP:57:MET:SD	2.24	1.10
4:AW:126:LEU:HD23	4:AW:150:LEU:HD21	1.35	1.07
63:DE:5:ARG:HD2	63:DE:49:LYS:HD2	1.23	1.07
20:BM:72:ALA:HB3	20:BM:74:ARG:HH22	1.13	1.06
51:CS:70:VAL:HB	62:DD:46:LYS:HZ2	1.20	1.05
10:BC:137:LEU:HD11	10:BC:197:ALA:HB3	1.34	1.04
45:CM:218:A:H3'	45:CM:219:A:H5''	1.37	1.03
4:AW:126:LEU:HD23	4:AW:150:LEU:CD2	1.89	1.03
45:B:671:G:H3'	45:B:672:U:H5'	1.42	1.01
45:B:484:G:H1	45:B:499:U:H3	1.08	1.01
51:H:58:LEU:HD12	51:H:138:VAL:HG23	1.43	1.01
24:6:40:LYS:HE2	24:6:59:MET:HE3	1.43	1.00
20:BM:172:ARG:HE	45:CM:837:C:P	1.85	1.00
45:CM:1138:G:H5'	72:DN:85:ARG:NH1	1.80	0.97
45:CM:697:U:H3	45:CM:724:G:H1	1.00	0.97
63:DE:5:ARG:HD3	63:DE:9:VAL:HG11	1.44	0.97
1:AS:1870:A:N7	20:BM:20:ARG:NH1	2.11	0.96
1:AS:412:G:H21	18:BK:118:GLN:HE22	1.12	0.96
65:DG:117:SER:HB2	65:DG:123:ARG:HG3	1.46	0.96
45:CM:1042:U:H3'	45:CM:1043:U:H2'	1.47	0.96
51:CS:63:GLN:NE2	51:CS:88:PRO:HA	1.80	0.96
49:F:62:GLU:HB3	49:F:65:ARG:HD3	1.47	0.95
61:R:121:ILE:HG13	79:i:65:LYS:HE3	1.49	0.95
46:CN:24:LEU:HD12	46:CN:45:MET:HE2	1.46	0.95
1:AS:241:C:O2'	14:BG:45:LYS:HE2	1.66	0.94
7:m:205:ALA:HA	7:m:208:MET:HE3	1.49	0.94
70:DL:128:ARG:HH21	70:DL:131:ARG:HH22	1.11	0.94
8:BA:3:GLN:HG2	33:BZ:76:LEU:H	1.32	0.93
64:DF:29:MET:SD	64:DF:44:ASN:ND2	2.41	0.93
45:CM:694:C:H3'	45:CM:695:C:H5''	1.50	0.93
1:AS:564:G:H2'	1:AS:565:A:C8	2.04	0.92
74:e:8:THR:HG21	74:e:59:SER:HB3	1.51	0.92
1:1:531:G:HO2'	1:1:552:G:H1	1.17	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:DH:33:LEU:HD11	66:DH:88:ARG:HD3	1.52	0.92
1:AS:184:C:H5'	27:BT:121:ARG:HH12	1.33	0.92
49:CQ:125:ARG:HG3	79:CL:122:THR:HG22	1.51	0.92
11:BD:50:ASN:C	11:BD:51:ARG:HE	1.78	0.91
45:B:701:G:H2'	45:B:702:G:H2'	1.51	0.91
7:AZ:205:ALA:HB2	7:AZ:236:VAL:HG11	1.52	0.91
23:BP:19:VAL:HG12	23:BP:108:LEU:HD21	1.52	0.91
11:BD:28:THR:HG22	11:BD:33:GLU:HG2	1.53	0.91
62:DD:89:VAL:HG13	62:DD:101:LYS:HD2	1.51	0.91
13:BF:164:LYS:HD3	13:BF:171:VAL:HG22	1.53	0.91
45:B:880:G:H1	45:B:902:U:H3	1.19	0.91
58:O:113:ARG:HG3	58:O:114:LYS:H	1.35	0.91
51:CS:94:THR:HG22	51:CS:114:VAL:HG21	1.54	0.90
1:AS:538:G:H1	1:AS:547:U:H3	0.92	0.90
45:CM:1410:A:H2'	48:CP:87:ALA:HB3	1.51	0.90
51:CS:99:MET:HB2	51:CS:180:ARG:HH22	1.37	0.90
62:DD:11:LYS:HG2	62:DD:16:THR:HG22	1.53	0.90
26:BS:72:ALA:HB1	26:BS:83:VAL:HG21	1.52	0.90
26:BS:57:LEU:HD22	26:BS:62:ILE:HG13	1.54	0.90
62:DD:89:VAL:HA	62:DD:101:LYS:HZ2	1.37	0.89
14:BG:3:ILE:HD11	29:BV:34:LYS:HA	1.53	0.89
45:B:685:C:H5''	68:Y:119:LYS:HG3	1.52	0.89
1:AS:689:A:OP1	6:AY:47:LYS:NZ	2.05	0.89
46:CN:36:TYR:HB2	46:CN:149:MET:HE1	1.54	0.89
1:1:1738:U:O4	81:1:3412:PAR:N12	2.06	0.89
1:AS:3199:G:H1	1:AS:3218:U:H3	1.16	0.89
60:DB:13:ARG:HD3	60:DB:77:LYS:HD2	1.55	0.89
69:Z:107:PHE:HD2	69:Z:114:LYS:HB3	1.36	0.89
77:h:182:TYR:HH	77:h:187:HIS:HD1	1.17	0.89
45:CM:1460:G:N7	71:DM:97:LYS:NZ	2.21	0.89
45:CM:477:C:O2'	55:CW:120:ARG:NH1	2.06	0.88
3:AU:97:A:OP1	36:CC:67:ARG:NH2	2.06	0.88
45:CM:1236:U:O2'	45:CM:1237:C:O2	1.91	0.88
1:AS:88:G:N7	19:BL:171:LYS:NZ	2.22	0.88
6:l:4:ARG:HE	6:l:23:LEU:HD22	1.38	0.88
56:CX:81:ASN:HD22	58:CZ:37:VAL:HG22	1.37	0.88
57:CY:122:VAL:HG23	57:CY:143:SER:HB2	1.55	0.88
45:B:1042:U:H3'	45:B:1043:U:H2'	1.54	0.88
39:CF:69:LEU:HD11	39:CF:75:ILE:HD11	1.55	0.88
14:t:49:ARG:HD3	36:AI:115:LYS:HG3	1.56	0.88
55:CW:110:GLN:HE21	55:CW:126:ARG:HB2	1.38	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:26:LYS:HB3	57:CY:29:LYS:HE3	1.56	0.88
56:M:69:THR:HG23	56:M:72:GLY:H	1.39	0.88
18:BK:56:ARG:NH2	18:BK:75:GLU:OE2	2.06	0.88
20:BM:72:ALA:HB3	20:BM:74:ARG:NH2	1.89	0.88
3:AU:135:G:OP1	26:BS:49:LYS:NZ	2.06	0.87
49:CQ:117:ARG:NH1	79:CL:114:GLU:OE1	2.07	0.87
11:q:12:ILE:HG23	11:q:16:VAL:HG23	1.54	0.87
9:BB:14:GLU:HG3	9:BB:18:GLN:HE21	1.39	0.87
32:BY:10:GLU:OE2	32:BY:73:ARG:NH2	2.06	0.87
46:CN:205:ARG:HH12	63:DE:84:TYR:HD2	1.21	0.87
20:BM:72:ALA:CB	20:BM:74:ARG:HH22	1.87	0.87
46:CN:62:ARG:HD3	67:DI:37:ALA:O	1.75	0.87
1:AS:447:U:H2'	1:AS:448:U:H5''	1.55	0.87
36:CC:78:LYS:HA	36:CC:81:ARG:HD2	1.56	0.87
11:BD:50:ASN:ND2	15:BH:3:SER:OG	2.06	0.87
35:CB:41:ARG:HH11	35:CB:50:ALA:HB1	1.40	0.87
1:AS:1791:U:H2'	4:AW:50:HIS:HD2	1.40	0.86
26:BS:67:ILE:HD11	26:BS:85:GLN:HB2	1.58	0.86
1:1:2708:A:H1'	22:2:90:ASN:HD22	1.40	0.86
17:BJ:180:ASN:OD1	17:BJ:183:LYS:NZ	2.08	0.86
45:B:257:U:OP1	54:K:75:LYS:NZ	2.08	0.86
67:X:5:LYS:HD2	67:X:7:GLN:HE22	1.38	0.86
1:AS:940:C:H4'	33:BZ:34:ARG:HE	1.39	0.86
50:G:241:LYS:H	50:G:241:LYS:HD2	1.40	0.86
13:BF:18:VAL:HG22	13:BF:70:THR:HG23	1.58	0.86
39:CF:29:ALA:HB1	39:CF:37:LYS:HZ1	1.40	0.86
45:B:853:G:H1	45:B:945:U:H3	1.23	0.86
10:BC:178:TYR:H	10:BC:224:ILE:HD11	1.39	0.86
1:1:2436:A:O2'	1:1:2437:A:O4'	1.94	0.85
45:CM:1240:G:N7	58:CZ:46:ARG:NH2	2.24	0.85
70:a:20:ARG:NH1	70:a:22:GLN:OE1	2.09	0.85
1:AS:1014:G:H1	1:AS:1030:U:H3	0.89	0.85
45:CM:1373:G:OP1	63:DE:32:LYS:NZ	2.09	0.85
46:C:81:PHE:HB3	46:C:170:ILE:HD13	1.57	0.85
27:9:58:VAL:HG12	27:9:64:LYS:HA	1.58	0.85
1:AS:184:C:H5'	27:BT:121:ARG:NH1	1.91	0.85
58:CZ:106:LEU:HB2	58:CZ:110:GLY:HA2	1.57	0.85
76:g:24:GLN:H	76:g:24:GLN:CD	1.84	0.85
12:BE:190:VAL:HG13	12:BE:197:VAL:HG11	1.59	0.85
47:CO:189:ILE:HG13	47:CO:190:PRO:HD3	1.59	0.85
49:CQ:97:LEU:HB3	49:CQ:191:LYS:HE3	1.56	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:m:83:LEU:HD23	7:m:88:ILE:HD12	1.59	0.85
45:B:157:U:O2'	52:I:87:ARG:NH1	2.09	0.85
4:AW:27:ALA:O	4:AW:128:ARG:NH2	2.09	0.85
13:BF:49:LYS:NZ	43:CJ:101:GLY:O	2.09	0.85
34:CA:13:HIS:HD1	34:CA:93:THR:HG1	1.23	0.85
28:BU:5:ILE:HD11	28:BU:30:ASP:OD1	1.77	0.84
78:AR:126:ALA:HB2	78:AR:155:VAL:HG13	1.59	0.84
78:AR:167:ILE:HD11	78:AR:201:LEU:HD21	1.58	0.84
1:AS:1798:C:H5'	35:CB:60:ARG:HH21	1.39	0.84
79:i:155:LEU:HD12	79:i:158:LEU:HD11	1.59	0.84
45:CM:1400:U:H5''	63:DE:3:ARG:HE	1.42	0.84
55:CW:81:VAL:HG11	55:CW:91:MET:HE2	1.58	0.84
1:1:3207:G:O6	5:k:150:ARG:NH1	2.11	0.84
45:B:848:A:P	68:Y:57:ARG:HH12	2.01	0.84
5:k:58:ARG:HD2	5:k:354:VAL:HG23	1.58	0.84
50:CR:148:ARG:HH21	52:CT:201:GLN:HE21	1.24	0.84
1:AS:2534:C:P	35:CB:88:ARG:HH21	2.00	0.84
58:CZ:41:LEU:HD22	58:CZ:123:VAL:HG22	1.59	0.84
11:q:27:VAL:HG21	11:q:78:LEU:HB3	1.60	0.84
45:CM:1137:A:O2'	72:DN:85:ARG:NH1	2.10	0.84
46:CN:180:GLU:OE1	46:CN:191:ARG:NH2	2.10	0.84
67:X:15:ARG:NH1	67:X:33:GLN:OE1	2.11	0.84
11:q:173:ARG:HB2	11:q:173:ARG:HH11	1.43	0.83
45:CM:902:U:O2	60:DB:36:ARG:NH2	2.10	0.83
49:F:47:LEU:HB3	49:F:85:ILE:HD12	1.61	0.83
49:F:116:ILE:O	49:F:120:ALA:N	2.10	0.83
52:CT:26:VAL:O	52:CT:30:LYS:NZ	2.11	0.83
61:DC:85:VAL:HA	61:DC:89:MET:HE3	1.60	0.83
36:AI:100:GLU:OE1	36:AI:108:ARG:NH2	2.11	0.83
21:BN:6:GLU:OE2	21:BN:99:ARG:NH1	2.11	0.83
49:CQ:8:LYS:O	49:CQ:12:LEU:HG	1.79	0.83
74:DP:57:MET:H	74:DP:57:MET:HE2	1.43	0.83
41:CH:32:THR:OG1	41:CH:33:ASN:ND2	2.11	0.83
63:T:96:THR:HG23	63:T:98:GLY:H	1.43	0.83
1:AS:437:G:H22	1:AS:620:A:H61	1.25	0.83
7:m:219:TYR:CD1	7:m:223:PHE:HB2	2.13	0.83
49:F:91:ARG:NH1	79:i:135:GLU:OE2	2.12	0.83
64:U:88:ARG:NH1	64:U:91:ASP:OD1	2.10	0.83
15:u:116:LEU:CD2	17:w:194:LYS:HD2	2.08	0.83
55:CW:110:GLN:NE2	55:CW:126:ARG:HB2	1.93	0.82
61:DC:64:ARG:HD3	61:DC:73:PRO:HB3	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:m:260:PHE:HB3	7:m:264:GLN:HG3	1.61	0.82
30:AC:8:THR:HG22	30:AC:10:HIS:H	1.44	0.82
24:BQ:17:LEU:HD13	24:BQ:23:MET:HE2	1.62	0.82
45:CM:1218:G:H1	45:CM:1237:C:H5	1.23	0.82
62:DD:43:LEU:HA	62:DD:46:LYS:HE3	1.59	0.82
69:Z:59:ILE:HG23	76:g:4:VAL:HG11	1.62	0.82
7:m:205:ALA:HB2	7:m:236:VAL:HG21	1.59	0.82
46:C:121:VAL:HG23	46:C:141:ILE:HG21	1.62	0.82
46:C:147:THR:HG21	46:C:159:ALA:HB1	1.61	0.82
58:O:70:SER:O	58:O:74:LEU:HD13	1.78	0.82
49:CQ:52:LYS:HG3	49:CQ:92:VAL:HG22	1.60	0.82
45:B:869:A:H62	45:B:913:U:H3	1.26	0.82
51:H:34:GLN:HG3	51:H:37:GLN:HE21	1.45	0.82
45:CM:487:C:O2	45:CM:496:G:N2	2.12	0.82
65:V:131:ASP:HA	65:V:134:ARG:HE	1.43	0.82
27:BT:110:HIS:O	27:BT:115:ARG:NH1	2.13	0.82
1:AS:558:G:OP1	15:BH:76:LYS:NZ	2.13	0.81
10:BC:109:ARG:NH1	10:BC:113:GLU:OE1	2.12	0.81
76:g:54:ARG:HH12	76:g:56:MET:HE2	1.42	0.81
1:1:185:U:OP1	27:9:122:LYS:HE3	1.80	0.81
15:u:116:LEU:HD21	17:w:194:LYS:HD2	1.62	0.81
69:Z:6:PRO:HG3	69:Z:14:LYS:HD3	1.63	0.81
1:AS:1599:A:H61	26:BS:71:THR:HG21	1.44	0.81
18:BK:70:THR:HG22	18:BK:72:GLN:H	1.45	0.81
26:BS:75:LYS:HB3	26:BS:81:THR:HG23	1.61	0.81
50:CR:253:ARG:NH1	50:CR:254:ASP:OD1	2.13	0.81
55:CW:109:LEU:HD22	55:CW:129:ILE:HG12	1.63	0.81
11:BD:31:ARG:NH1	11:BD:149:ASN:OD1	2.13	0.81
45:CM:456:G:OP1	70:DL:109:LYS:NZ	2.13	0.81
48:E:152:LYS:HG2	48:E:165:ILE:HD12	1.62	0.81
1:1:716:G:OP1	29:AB:117:ARG:NH2	2.13	0.81
20:BM:164:VAL:HA	20:BM:167:ARG:HD3	1.60	0.81
23:BP:19:VAL:HG23	23:BP:20:ALA:H	1.45	0.81
66:DH:43:ASN:HD21	66:DH:105:ILE:HG21	1.44	0.81
72:DN:12:LYS:NZ	72:DN:16:GLY:O	2.14	0.81
36:AI:85:THR:OG1	36:AI:88:LEU:HD12	1.81	0.80
1:AS:2534:C:OP1	35:CB:88:ARG:NH2	2.14	0.80
51:CS:70:VAL:HB	62:DD:46:LYS:NZ	1.94	0.80
35:CB:98:GLN:O	35:CB:102:LYS:HG3	1.81	0.80
58:CZ:31:VAL:HG21	58:CZ:136:LEU:HD11	1.62	0.80
70:DL:21:ARG:HB3	70:DL:75:ILE:HG13	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:y:35:PHE:HE1	19:y:39:ARG:HH21	1.29	0.80
58:O:32:LEU:HD12	58:O:100:TRP:HD1	1.46	0.80
45:CM:216:A:N6	45:CM:829:A:O2'	2.14	0.80
63:DE:103:ASP:OD1	63:DE:104:ALA:N	2.14	0.80
46:C:84:ARG:HH12	46:C:201:LEU:HD12	1.45	0.80
70:a:127:LYS:O	70:a:131:ARG:NE	2.12	0.80
59:P:55:ARG:NH2	73:d:51:GLN:OE1	2.15	0.80
69:Z:102:VAL:HG12	69:Z:127:VAL:HG22	1.63	0.80
1:AS:521:G:H5''	15:BH:72:ALA:HB2	1.63	0.80
24:BQ:77:ILE:HD12	24:BQ:103:VAL:HG11	1.63	0.80
1:AS:3165:U:C2	1:AS:3166:A:H1'	2.17	0.80
1:1:54:G:OP1	38:AK:43:LYS:NZ	2.15	0.80
43:AP:7:THR:OG1	43:AP:22:GLN:NE2	2.14	0.80
71:b:57:TYR:OH	71:b:68:ARG:NH1	2.15	0.80
1:AS:607:G:OP2	6:AY:316:LYS:NZ	2.15	0.80
1:AS:1335:C:OP1	33:BZ:62:LYS:HG2	1.82	0.80
47:CO:32:ILE:HG22	47:CO:96:LEU:HD11	1.62	0.80
40:CG:20:ASN:HD21	40:CG:42:ARG:H	1.28	0.80
62:DD:27:LEU:HB3	62:DD:63:ASP:HB2	1.64	0.80
5:k:35:ASP:OD2	5:k:191:LYS:NZ	2.11	0.79
52:I:45:PHE:HA	52:I:48:TYR:HD2	1.47	0.79
52:I:159:ARG:HG2	52:I:172:ALA:HB2	1.62	0.79
52:CT:159:ARG:HB2	52:CT:170:THR:HB	1.63	0.79
9:o:8:GLU:HB2	9:o:11:GLN:HE22	1.47	0.79
9:BB:14:GLU:HG3	9:BB:18:GLN:NE2	1.96	0.79
45:CM:476:A:OP1	76:DR:37:ARG:NH1	2.15	0.79
45:CM:704:A:O2'	45:CM:705:G:O5'	2.00	0.79
45:CM:855:C:O2	73:DO:51:GLN:NE2	2.11	0.79
69:DK:74:VAL:HG11	69:DK:104:LEU:HD11	1.62	0.79
68:DJ:2:THR:HG22	68:DJ:3:ARG:H	1.47	0.79
45:B:814:A:O2'	45:B:815:U:OP2	2.00	0.79
66:W:23:ILE:HG22	66:W:115:VAL:HG12	1.64	0.79
11:BD:110:ASP:HB3	11:BD:128:ILE:HD12	1.65	0.79
46:C:84:ARG:NH2	63:T:82:ASP:OD1	2.15	0.79
40:CG:28:ARG:HH11	40:CG:36:ARG:HG3	1.46	0.79
1:1:3199:G:H1	1:1:3218:U:H3	1.26	0.79
49:F:97:LEU:O	49:F:191:LYS:NZ	2.14	0.79
1:AS:292:U:OP2	16:BI:68:ARG:NH2	2.15	0.79
20:BM:172:ARG:NE	45:CM:837:C:OP1	2.15	0.79
78:AR:68:ILE:O	78:AR:86:TRP:N	2.15	0.79
1:AS:183:U:O2'	27:BT:121:ARG:NH1	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2628:A:H4'	43:CJ:98:LYS:HE2	1.65	0.79
7:AZ:90:TYR:CE1	7:AZ:225:ASN:HB3	2.17	0.79
45:CM:1052:G:H5''	47:CO:150:ILE:HG22	1.63	0.79
60:DB:79:ARG:HB3	60:DB:113:VAL:HG23	1.64	0.79
1:l:2380:A:H2'	6:l:68:THR:HG21	1.65	0.79
68:DJ:37:PHE:HE1	68:DJ:103:ILE:HG13	1.46	0.79
1:AS:1827:U:OP2	26:BS:92:LYS:NZ	2.16	0.79
10:BC:143:LEU:HD13	10:BC:149:ALA:HB2	1.64	0.79
19:BL:67:ILE:HG21	19:BL:101:ILE:HD11	1.65	0.78
50:CR:48:LEU:HD13	50:CR:64:ILE:HD11	1.65	0.78
16:BI:183:THR:HG22	16:BI:187:ARG:HB2	1.66	0.78
26:BS:92:LYS:HB3	26:BS:110:VAL:HG13	1.63	0.78
45:CM:845:U:H1'	53:CU:110:ARG:HD3	1.63	0.78
52:CT:22:HIS:HA	52:CT:25:ARG:HH12	1.47	0.78
5:AX:211:GLN:NE2	5:AX:283:TYR:O	2.15	0.78
45:CM:1156:A:H2'	45:CM:1157:G:C8	2.18	0.78
46:CN:80:THR:HA	46:CN:83:GLN:HE21	1.46	0.78
1:AS:780:A:N7	19:BL:69:ARG:NH1	2.31	0.78
28:BU:46:ILE:HG23	28:BU:68:VAL:HG13	1.64	0.78
9:o:87:ILE:O	9:o:216:LYS:NZ	2.13	0.78
45:B:853:G:OP1	59:P:121:ARG:NH1	2.15	0.78
54:K:42:ARG:HH11	54:K:42:ARG:HG3	1.48	0.78
45:CM:326:A:OP2	57:CY:56:LYS:NZ	2.16	0.78
45:CM:766:U:H4'	45:CM:767:G:H5''	1.64	0.78
66:DH:21:ILE:N	66:DH:92:LEU:O	2.16	0.78
7:m:208:MET:HE1	7:m:236:VAL:HG11	1.64	0.78
45:B:512:G:H1	45:B:541:C:H5	1.31	0.78
62:S:98:GLU:OE1	78:AR:61:SER:N	2.16	0.78
51:CS:95:ASN:OD1	51:CS:107:LYS:NZ	2.16	0.78
70:a:20:ARG:HD2	70:a:76:TYR:CE2	2.18	0.78
1:AS:2932:C:H2'	1:AS:2933:G:H8	1.48	0.78
45:CM:1512:A:H5'	65:DG:93:HIS:HB2	1.66	0.78
49:CQ:38:VAL:HG23	49:CQ:51:VAL:HG12	1.65	0.78
1:l:2736:C:H42	80:l:3401:3K5:H2	1.48	0.78
51:H:121:ILE:HG21	51:H:132:VAL:HG11	1.65	0.78
78:AR:9:LEU:HB2	78:AR:310:TRP:CZ3	2.19	0.78
45:CM:501:G:O2'	76:DR:46:ASN:ND2	2.17	0.78
47:CO:171:ILE:HD12	47:CO:197:ILE:HG12	1.66	0.78
1:AS:1657:G:H2'	1:AS:1658:G:C8	2.19	0.78
7:AZ:120:THR:O	7:AZ:248:ARG:NH2	2.14	0.78
7:AZ:178:ASN:HA	7:AZ:183:TRP:CD1	2.19	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AZ:286:VAL:HG13	12:BE:206:LEU:HD22	1.66	0.78
33:BZ:101:VAL:O	33:BZ:106:ARG:NH2	2.16	0.78
45:CM:352:C:H5''	54:CV:16:ALA:HB2	1.65	0.78
53:CU:81:PHE:HB3	53:CU:84:ARG:HD2	1.66	0.78
79:CL:103:LEU:HB3	79:CL:109:GLN:HG3	1.65	0.78
1:AS:1561:U:O2'	1:AS:1562:G:OP1	2.01	0.77
43:CJ:92:GLU:OE1	43:CJ:95:GLY:HA3	1.82	0.77
7:m:212:LEU:HB2	7:m:219:TYR:HD2	1.49	0.77
19:y:182:ARG:NH1	29:AB:55:LYS:O	2.17	0.77
66:W:29:LYS:HE3	66:W:31:LYS:HB2	1.65	0.77
64:DF:4:VAL:N	71:DM:82:GLN:OE1	2.17	0.77
61:R:121:ILE:H	79:i:65:LYS:HZ1	1.32	0.77
67:X:1:MET:HE2	67:X:10:GLU:HG3	1.65	0.77
1:AS:1870:A:OP2	20:BM:21:LYS:NZ	2.17	0.77
16:BI:118:SER:HB3	16:BI:132:VAL:HG23	1.65	0.77
1:1:2200:A:H2'	1:1:2201:A:C8	2.20	0.77
11:BD:4:ILE:H	21:BN:142:GLN:HE22	1.32	0.77
11:BD:12:ILE:HG22	11:BD:16:VAL:HG13	1.66	0.77
30:BW:8:THR:HG22	30:BW:10:HIS:H	1.48	0.77
55:CW:23:ARG:NH1	55:CW:27:GLU:OE2	2.17	0.77
1:1:3157:A:OP1	11:q:23:ARG:NH1	2.17	0.77
45:B:1551:U:OP1	65:V:38:LYS:NZ	2.18	0.77
45:B:1594:G:C8	62:S:123:MET:HE1	2.20	0.77
61:R:90:ILE:HD13	61:R:109:PRO:HA	1.65	0.77
14:BG:35:ARG:HG2	14:BG:39:ARG:HH12	1.50	0.77
70:DL:121:THR:HG23	70:DL:124:ARG:H	1.50	0.77
49:F:71:THR:HG22	49:F:87:ILE:HD12	1.66	0.77
45:CM:1410:A:H2'	48:CP:87:ALA:CB	2.13	0.77
45:B:850:A:N6	45:B:950:U:O4	2.17	0.77
48:E:165:ILE:HB	48:E:192:TYR:HB2	1.66	0.77
73:d:34:ASP:HB2	73:d:80:ARG:HG3	1.67	0.77
8:n:54:LEU:HD21	8:n:145:LEU:HD11	1.66	0.77
1:AS:834:G:O6	44:CK:4:ARG:NH2	2.18	0.77
6:l:26:VAL:HG22	6:l:127:ILE:HD11	1.66	0.77
78:AR:156:ARG:HD3	78:AR:199:ILE:HG23	1.65	0.77
1:AS:1792:G:H5''	4:AW:22:LEU:HD22	1.65	0.77
45:CM:484:G:H1	45:CM:499:U:H3	0.81	0.77
46:CN:198:MET:HE3	63:DE:85:VAL:HG22	1.65	0.77
55:CW:23:ARG:HG2	55:CW:27:GLU:OE2	1.85	0.77
37:AJ:94:ALA:HA	37:AJ:97:ARG:HD2	1.67	0.77
45:B:1230:G:H1	45:B:1235:U:H3	1.31	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:U:36:ARG:HG3	64:U:102:ALA:HA	1.67	0.77
1:AS:3280:G:OP1	5:AX:174:LYS:NZ	2.17	0.77
27:BT:82:VAL:HG23	27:BT:85:LEU:HB2	1.67	0.77
46:CN:9:LEU:HD11	46:CN:13:ASP:HB2	1.66	0.77
79:CL:58:THR:HG22	79:CL:59:GLY:H	1.50	0.77
1:1:564:G:H2'	1:1:565:A:C8	2.20	0.76
45:B:1598:A:OP1	51:H:107:LYS:NZ	2.18	0.76
51:CS:195:ALA:O	51:CS:199:ILE:HG13	1.84	0.76
53:CU:34:LEU:HA	53:CU:37:LEU:HG	1.67	0.76
37:CD:97:ARG:HB2	37:CD:98:ARG:HH21	1.49	0.76
45:CM:78:A:C8	52:CT:154:ARG:HG2	2.20	0.76
47:CO:144:LYS:HD2	47:CO:208:GLN:HB3	1.65	0.76
51:CS:200:ASN:HB2	51:CS:208:SER:HB2	1.66	0.76
66:DH:83:MET:HE3	66:DH:85:ILE:HD11	1.66	0.76
13:s:140:ARG:HH11	13:s:140:ARG:HG2	1.50	0.76
6:AY:4:ARG:HD2	6:AY:23:LEU:O	1.86	0.76
28:BU:90:GLU:HA	28:BU:93:LYS:HD2	1.67	0.76
6:l:127:ILE:HD12	6:l:128:ALA:N	2.01	0.76
22:2:84:TYR:HB2	30:AC:24:PRO:HD3	1.66	0.76
28:BU:34:LYS:HD2	28:BU:35:SER:H	1.49	0.76
35:CB:79:SER:OG	35:CB:80:ARG:NH1	2.17	0.76
7:m:289:LYS:HA	7:m:292:GLU:HG2	1.66	0.76
45:B:847:A:H5''	59:P:16:LEU:HD13	1.68	0.76
45:B:1236:U:O2'	45:B:1237:C:O2	2.02	0.76
1:1:1131:A:OP2	30:AC:5:LYS:NZ	2.18	0.76
34:CA:13:HIS:ND1	34:CA:93:THR:OG1	2.12	0.76
45:CM:1469:A:OP2	45:CM:1508:G:N2	2.19	0.76
1:AS:563:U:H2'	1:AS:564:G:C8	2.20	0.76
1:AS:617:A:H5'	1:AS:619:A:H1'	1.68	0.76
81:CM:1802:PAR:HN22	70:DL:117:LYS:HE2	1.50	0.76
42:CI:6:ARG:O	42:CI:8:LYS:N	2.18	0.76
68:Y:57:ARG:HG2	68:Y:57:ARG:HH11	1.50	0.76
77:h:175:ALA:HB1	77:h:177:MET:HE3	1.67	0.76
19:BL:23:ASN:HD22	19:BL:26:LEU:H	1.31	0.76
23:5:28:PHE:HE1	23:5:86:TYR:HE2	1.32	0.75
61:R:41:VAL:HG12	61:R:84:ILE:HD13	1.68	0.75
1:AS:2700:G:O6	22:BO:78:LYS:NZ	2.15	0.75
15:BH:128:LEU:HD12	17:BJ:179:LEU:HD23	1.68	0.75
7:m:219:TYR:CE1	7:m:223:PHE:HB2	2.21	0.75
1:AS:437:G:N2	1:AS:620:A:H61	1.85	0.75
1:AS:662:U:H2'	1:AS:663:A:C8	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BE:196:TYR:HD2	12:BE:197:VAL:H	1.30	0.75
51:CS:99:MET:HB2	51:CS:180:ARG:NH2	1.99	0.75
60:DB:24:HIS:CE1	60:DB:36:ARG:HH21	2.04	0.75
1:1:617:A:H5'	1:1:619:A:H1'	1.68	0.75
62:S:119:ASP:OD1	62:S:121:ARG:HD3	1.86	0.75
46:CN:49:ASN:HD22	46:CN:52:LYS:H	1.32	0.75
53:CU:133:GLY:HA2	59:DA:18:TYR:CE1	2.22	0.75
55:CW:125:ALA:O	55:CW:129:ILE:HD12	1.85	0.75
1:1:1182:G:OP2	15:u:36:LYS:NZ	2.20	0.75
68:DJ:37:PHE:CE1	68:DJ:103:ILE:HG13	2.22	0.75
7:m:233:SER:O	7:m:236:VAL:HG22	1.86	0.75
46:CN:55:GLU:HB3	67:DI:79:LEU:HD22	1.68	0.75
45:B:848:A:O5'	68:Y:57:ARG:NH1	2.19	0.75
67:X:7:GLN:OE1	67:X:7:GLN:N	2.17	0.75
10:BC:78:GLN:HG2	10:BC:230:ASN:HD22	1.52	0.75
62:DD:113:LYS:H	62:DD:113:LYS:HE2	1.51	0.75
45:B:1156:A:H2'	45:B:1157:G:C8	2.22	0.75
16:BI:116:LEU:O	16:BI:117:ASN:ND2	2.20	0.75
27:BT:31:LEU:HB3	27:BT:101:PRO:HG2	1.69	0.75
45:CM:271:G:H1	45:CM:281:U:H3	1.32	0.75
1:1:483:U:H2'	1:1:484:U:C6	2.22	0.75
65:V:65:ILE:HG12	65:V:71:VAL:HG21	1.67	0.75
45:CM:1460:G:H2'	45:CM:1461:A:H8	1.52	0.75
51:CS:161:ASP:OD2	74:DP:56:LEU:HD12	1.85	0.75
60:DB:34:ILE:HG21	60:DB:71:ILE:HD11	1.68	0.75
1:1:3087:C:O2	1:1:3089:C:N4	2.20	0.75
1:AS:1744:G:OP2	39:CF:42:LYS:NZ	2.17	0.75
1:AS:2516:U:O2'	1:AS:2519:A:N1	2.19	0.75
45:CM:565:A:H1'	76:DR:14:VAL:HG13	1.69	0.75
2:3:63:A:OP2	7:m:282:ARG:NH1	2.20	0.74
4:j:65:ASP:OD1	4:j:68:LYS:HD2	1.87	0.74
11:q:80:THR:HA	11:q:83:THR:HG22	1.68	0.74
58:O:107:ASP:HA	58:O:113:ARG:HH21	1.51	0.74
48:CP:116:VAL:HG11	79:CL:115:LEU:HA	1.67	0.74
45:B:564:C:O2	76:g:13:LYS:NZ	2.20	0.74
58:O:129:ASP:O	58:O:131:ASP:N	2.19	0.74
35:CB:41:ARG:HD3	35:CB:50:ALA:HB1	1.67	0.74
47:CO:38:PHE:HB3	47:CO:73:LEU:HB3	1.69	0.74
10:BC:191:VAL:HG23	10:BC:193:LYS:HD2	1.69	0.74
45:CM:1485:G:H5''	65:DG:72:GLY:HA3	1.69	0.74
48:CP:230:LEU:HD21	67:DI:54:ALA:HB2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CS:72:HIS:CD2	51:CS:107:LYS:HD3	2.22	0.74
1:1:662:U:H2'	1:1:663:A:C8	2.21	0.74
39:AL:46:ARG:HH21	39:AL:50:TYR:C	1.95	0.74
45:B:211:A:H62	45:B:250:U:H3	1.35	0.74
51:H:62:ILE:HG21	51:H:134:VAL:HG23	1.70	0.74
53:J:89:LEU:HD11	53:J:125:LEU:HD23	1.69	0.74
46:CN:170:ILE:HD12	46:CN:171:GLY:H	1.51	0.74
65:DG:11:ALA:HA	65:DG:63:ARG:HH12	1.51	0.74
1:1:2086:C:H1'	1:1:3309:A:C8	2.23	0.74
45:B:327:G:H5''	54:K:98:LYS:HB3	1.70	0.74
1:AS:3335:A:H5'	5:AX:384:LYS:HE3	1.69	0.74
45:CM:853:G:H1	45:CM:945:U:H3	1.34	0.74
56:CX:50:THR:HG22	56:CX:55:VAL:O	1.88	0.74
16:v:145:ASP:O	16:v:149:ASN:ND2	2.20	0.74
45:B:1704:C:O2'	45:B:1705:G:O4'	2.06	0.74
64:U:63:GLN:O	64:U:67:GLU:HG3	1.87	0.74
1:AS:28:C:O2'	16:BI:172:ARG:NH1	2.21	0.74
1:AS:764:C:H4'	14:BG:181:TYR:HE1	1.50	0.74
45:CM:327:G:H5''	54:CV:98:LYS:HB3	1.69	0.74
45:CM:1698:U:H2'	45:CM:1699:G:H4'	1.68	0.74
3:4:63:G:O2'	36:AI:49:LYS:NZ	2.18	0.74
61:R:26:VAL:HG23	61:R:27:GLU:HG3	1.69	0.74
61:R:52:LYS:HB3	61:R:80:LEU:HD11	1.68	0.74
5:AX:66:LYS:HZ1	24:BQ:9:ASN:H	1.35	0.74
6:AY:107:TRP:CE3	14:BG:22:VAL:HG11	2.22	0.74
13:BF:80:LEU:HD23	13:BF:84:LEU:HD11	1.69	0.74
4:j:137:ILE:HD11	4:j:147:ARG:HG2	1.70	0.74
45:B:881:U:H5'	47:D:23:PRO:HG2	1.70	0.74
55:CW:50:SER:O	55:CW:54:ARG:HG2	1.87	0.74
74:DP:12:VAL:HG22	74:DP:52:ASP:H	1.52	0.74
5:k:152:LYS:HG2	5:k:189:SER:HA	1.69	0.74
7:m:182:GLY:HA2	7:m:194:LEU:HD23	1.67	0.74
39:AL:64:LYS:HE2	39:AL:64:LYS:HA	1.69	0.74
55:L:126:ARG:HD3	76:g:33:ARG:HH11	1.52	0.74
1:1:3207:G:N2	1:1:3210:A:OP2	2.20	0.74
1:AS:624:U:OP1	33:BZ:15:THR:OG1	2.06	0.74
59:P:99:ARG:NH1	59:P:143:SER:HB2	2.03	0.73
1:AS:2932:C:H2'	1:AS:2933:G:C8	2.22	0.73
7:AZ:164:LYS:NZ	7:AZ:168:ASP:OD1	2.19	0.73
45:CM:1529:G:N2	45:CM:1556:A:OP2	2.21	0.73
51:CS:58:LEU:O	51:CS:62:ILE:HG13	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:R:56:LEU:O	61:R:60:LEU:HD22	1.88	0.73
63:DE:31:ASN:ND2	63:DE:55:THR:OG1	2.16	0.73
66:DH:39:ASN:HB3	66:DH:106:THR:HG21	1.70	0.73
1:1:2932:C:H2'	1:1:2933:G:H8	1.53	0.73
67:X:79:LEU:HD13	67:X:82:VAL:HG11	1.71	0.73
7:AZ:282:ARG:O	7:AZ:286:VAL:HG23	1.88	0.73
14:BG:185:ARG:HG3	14:BG:188:ARG:HH21	1.54	0.73
27:BT:82:VAL:HB	27:BT:85:LEU:HD23	1.70	0.73
45:CM:1515:U:OP1	51:CS:109:LYS:HG3	1.88	0.73
13:BF:49:LYS:HE3	79:CL:34:THR:HG21	1.68	0.73
19:BL:37:ALA:O	19:BL:46:LYS:NZ	2.20	0.73
45:CM:502:U:H2'	45:CM:503:A:H8	1.53	0.73
7:m:290:ILE:HG13	12:r:206:LEU:HD21	1.70	0.73
45:B:592:A:OP2	55:L:37:LYS:HE2	1.88	0.73
45:B:1145:A:H2'	45:B:1146:C:H6	1.54	0.73
49:F:67:ILE:O	49:F:71:THR:HG23	1.87	0.73
51:H:72:HIS:CD2	51:H:107:LYS:HD3	2.24	0.73
5:AX:103:THR:HG21	5:AX:147:GLU:HB3	1.70	0.73
1:1:1326:A:OP1	34:AG:19:SER:OG	2.07	0.73
13:s:61:ARG:HH22	79:i:45:SER:HA	1.51	0.73
53:J:77:LEU:HD13	53:J:86:VAL:HG21	1.70	0.73
14:BG:35:ARG:HG2	14:BG:39:ARG:NH1	2.04	0.73
14:BG:117:GLN:HA	14:BG:120:LYS:HG2	1.70	0.73
52:CT:22:HIS:C	52:CT:25:ARG:HH12	1.96	0.73
55:CW:31:ALA:HB2	55:CW:42:ILE:HD11	1.69	0.73
46:C:67:VAL:HG21	46:C:73:VAL:HG23	1.71	0.73
1:AS:1422:C:OP2	29:BV:4:ARG:NH2	2.21	0.73
1:AS:1713:U:H2'	1:AS:1714:G:C8	2.22	0.73
7:AZ:90:TYR:CD1	7:AZ:225:ASN:HB3	2.23	0.73
55:CW:44:ARG:O	55:CW:48:GLN:HG3	1.89	0.73
1:1:2443:G:O2'	1:1:2444:G:O5'	2.04	0.73
48:E:53:LEU:HA	67:X:12:TYR:HE1	1.54	0.73
48:E:58:VAL:HG12	48:E:129:LEU:HD23	1.70	0.73
53:J:51:LYS:HD2	53:J:83:ASP:HA	1.71	0.73
1:AS:3102:A:OP2	81:AS:3401:PAR:N32	2.20	0.73
1:AS:3280:G:P	5:AX:174:LYS:HZ2	2.11	0.73
45:CM:921:G:OP1	45:CM:1059:G:N2	2.19	0.73
53:CU:126:VAL:HG12	53:CU:129:THR:HG22	1.71	0.73
65:V:131:ASP:HB2	65:V:134:ARG:HH21	1.52	0.73
51:CS:192:GLU:OE2	71:DM:63:SER:OG	2.07	0.73
63:DE:26:LEU:HD23	63:DE:59:LYS:HG3	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:n:71:ASN:HB3	8:n:73:VAL:HG12	1.68	0.73
45:B:189:G:O6	54:K:143:ARG:NH1	2.22	0.73
45:B:766:U:H4'	45:B:767:G:H5''	1.70	0.73
45:B:856:G:H2'	45:B:857:G:C8	2.23	0.73
45:B:1518:G:H21	65:V:48:GLN:HE22	1.36	0.73
70:a:112:LYS:HD2	70:a:112:LYS:O	1.89	0.73
1:AS:3162:U:H3	1:AS:3166:A:H2	1.37	0.73
26:BS:92:LYS:HD3	26:BS:112:THR:HG22	1.71	0.73
51:CS:99:MET:H	51:CS:180:ARG:HH12	1.37	0.73
63:DE:5:ARG:HA	63:DE:5:ARG:NE	2.03	0.73
63:DE:21:TYR:HD2	63:DE:58:MET:HE1	1.52	0.73
1:1:1713:U:H2'	1:1:1714:G:C8	2.24	0.72
15:u:18:VAL:O	15:u:58:THR:OG1	2.07	0.72
1:AS:1072:C:C6	30:BW:42:ASN:ND2	2.57	0.72
1:AS:1575:A:OP1	1:AS:2500:G:N2	2.14	0.72
1:AS:1871:G:OP2	20:BM:20:ARG:HG2	1.88	0.72
45:CM:1327:C:N4	45:CM:1369:G:O6	2.19	0.72
68:DJ:11:LEU:HD21	68:DJ:37:PHE:HE2	1.51	0.72
1:1:1936:G:H21	1:1:3327:A:H8	1.38	0.72
1:1:2932:C:H2'	1:1:2933:G:C8	2.24	0.72
23:5:83:THR:O	23:5:87:LEU:HD12	1.88	0.72
50:G:102:VAL:HG21	50:G:240:PRO:HD3	1.71	0.72
14:BG:66:ASN:HD21	29:BV:128:ARG:HH21	1.35	0.72
1:1:1091:U:H4'	1:1:1092:U:H5'	1.69	0.72
45:B:585:C:OP1	76:g:24:GLN:NE2	2.21	0.72
45:B:1511:A:H2'	45:B:1512:A:C8	2.24	0.72
1:AS:429:U:H2'	1:AS:430:G:H8	1.53	0.72
4:AW:126:LEU:CD2	4:AW:150:LEU:HD21	2.15	0.72
45:CM:211:A:H62	45:CM:250:U:H3	1.35	0.72
47:CO:129:THR:OG1	47:CO:131:ASP:OD1	2.08	0.72
1:1:185:U:H3	1:1:229:C:H42	1.36	0.72
81:1:3422:PAR:O23	81:1:3422:PAR:N24	2.21	0.72
1:AS:2699:A:OP2	1:AS:2700:G:N2	2.21	0.72
1:AS:3156:A:O2'	11:BD:23:ARG:NH1	2.22	0.72
19:BL:66:ARG:HE	19:BL:143:PRO:HD3	1.54	0.72
45:CM:1156:A:H2'	45:CM:1157:G:H8	1.52	0.72
45:CM:1520:C:OP2	71:DM:77:ARG:NH2	2.21	0.72
62:DD:46:LYS:N	62:DD:46:LYS:HE2	2.05	0.72
51:H:157:ARG:H	51:H:157:ARG:HD3	1.52	0.72
1:AS:1791:U:H2'	4:AW:50:HIS:CD2	2.24	0.72
10:BC:92:PHE:CE1	10:BC:186:ARG:HG2	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BP:37:LEU:O	23:BP:41:VAL:HG23	1.89	0.72
45:CM:946:U:H5''	59:DA:71:ILE:HD12	1.71	0.72
60:DB:76:ILE:HD13	60:DB:110:ILE:HG12	1.70	0.72
70:a:42:GLU:HG3	70:a:52:LYS:HE3	1.72	0.72
6:AY:105:LYS:HE2	6:AY:107:TRP:CZ2	2.25	0.72
28:BU:5:ILE:HD12	28:BU:5:ILE:O	1.89	0.72
55:CW:127:VAL:O	55:CW:131:GLN:HG3	1.89	0.72
62:DD:101:LYS:HE2	62:DD:101:LYS:HA	1.72	0.72
54:K:45:SER:OG	54:K:53:GLN:NE2	2.22	0.72
10:BC:89:ALA:O	10:BC:93:LYS:HG3	1.89	0.72
68:DJ:15:ASN:ND2	68:DJ:72:CYS:O	2.23	0.72
1:1:1657:G:H2'	1:1:1658:G:C8	2.24	0.72
1:1:3316:U:H3	54:K:110:ARG:NH1	1.87	0.72
45:B:1043:U:O2'	45:B:1045:U:OP2	2.07	0.72
1:AS:1408:G:N7	81:AS:3411:PAR:O34	2.22	0.72
7:AZ:94:ASN:HB2	7:AZ:97:ALA:H	1.53	0.72
51:CS:93:LEU:HA	51:CS:172:ILE:HD11	1.72	0.72
21:O:73:LYS:NZ	21:O:97:VAL:O	2.22	0.72
45:B:524:A:P	70:a:93:ARG:HH21	2.13	0.72
45:CM:218:A:H3'	45:CM:219:A:C5'	2.18	0.72
45:CM:1598:A:OP1	51:CS:107:LYS:NZ	2.23	0.72
58:CZ:42:ALA:HB1	58:CZ:47:GLU:HB3	1.71	0.72
66:DH:61:VAL:HG12	66:DH:84:ARG:HG3	1.71	0.72
68:DJ:62:VAL:HG13	73:DO:7:LEU:HD12	1.72	0.72
16:BI:174:ILE:O	16:BI:175:ASN:ND2	2.23	0.72
23:BP:53:ASP:OD1	23:BP:69:SER:HB3	1.90	0.72
58:CZ:138:GLU:HA	58:CZ:141:SER:HB3	1.72	0.72
60:DB:8:VAL:HG11	60:DB:70:GLY:O	1.89	0.72
4:j:27:ALA:O	4:j:128:ARG:NH2	2.21	0.71
27:9:51:ARG:HG2	27:9:52:GLN:H	1.55	0.71
1:AS:3313:G:H1	1:AS:3322:U:H3	1.39	0.71
51:CS:63:GLN:HE21	51:CS:88:PRO:HA	1.55	0.71
59:DA:16:LEU:HD12	59:DA:17:PRO:HD2	1.72	0.71
17:w:190:GLU:HG2	17:w:194:LYS:HE2	1.72	0.71
45:B:1668:A:H8	52:I:65:GLN:HG3	1.54	0.71
56:M:72:GLY:O	56:M:76:LEU:HD12	1.89	0.71
1:AS:1014:G:N2	1:AS:1030:U:O2	2.19	0.71
45:CM:672:U:H1'	45:CM:673:A:C5	2.24	0.71
71:DM:61:SER:H	71:DM:64:VAL:HG12	1.54	0.71
74:DP:57:MET:HE2	74:DP:57:MET:N	2.05	0.71
1:1:2653:U:H5'	13:s:65:ILE:HD11	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AZ:164:LYS:HZ1	7:AZ:168:ASP:CG	1.97	0.71
26:BS:135:ILE:O	26:BS:139:ILE:HD12	1.91	0.71
45:CM:829:A:H2'	45:CM:830:G:H8	1.56	0.71
60:DB:56:MET:HG3	60:DB:95:SER:HB2	1.70	0.71
1:AS:1091:U:H4'	1:AS:1092:U:H5'	1.72	0.71
19:BL:163:PRO:HG3	19:BL:178:ARG:HH12	1.54	0.71
46:CN:83:GLN:HB3	46:CN:99:ALA:HB1	1.71	0.71
49:CQ:157:PHE:HE2	49:CQ:190:MET:HE1	1.55	0.71
45:B:1265:C:H5'	75:f:44:ARG:HH12	1.55	0.71
61:R:57:ILE:HA	61:R:60:LEU:HD23	1.73	0.71
36:CC:89:ARG:HH21	36:CC:90:ARG:HH12	1.37	0.71
61:DC:85:VAL:HG13	61:DC:112:VAL:HA	1.72	0.71
79:CL:37:LYS:HD3	79:CL:38:LYS:N	2.05	0.71
1:1:483:U:H2'	1:1:484:U:H6	1.53	0.71
1:1:1089:A:OP2	22:2:120:LYS:NZ	2.23	0.71
28:AA:53:VAL:HA	28:AA:57:MET:HE1	1.71	0.71
45:B:1460:G:H2'	45:B:1461:A:H8	1.55	0.71
8:BA:39:LEU:HD13	8:BA:83:VAL:HG11	1.73	0.71
35:CB:41:ARG:HH11	35:CB:50:ALA:CB	2.03	0.71
45:CM:148:C:H42	45:CM:162:A:H61	1.36	0.71
45:CM:1511:A:H2'	45:CM:1512:A:C8	2.24	0.71
20:z:30:THR:O	20:z:34:ASN:ND2	2.23	0.71
45:B:194:G:N7	54:K:144:LYS:HE3	2.05	0.71
45:B:1043:U:OP2	47:D:199:LYS:HE2	1.91	0.71
65:V:57:ARG:O	65:V:61:ILE:HG13	1.91	0.71
1:AS:3279:A:H5''	5:AX:174:LYS:HG3	1.72	0.71
6:AY:100:MET:SD	6:AY:103:PRO:HA	2.31	0.71
6:AY:287:VAL:HA	6:AY:290:LEU:HD12	1.71	0.71
51:CS:122:HIS:HB2	51:CS:129:PRO:HG3	1.73	0.71
61:DC:108:LYS:H	61:DC:111:MET:HE2	1.55	0.71
70:DL:39:GLU:O	70:DL:43:LYS:HG2	1.90	0.71
1:1:628:A:H2'	1:1:629:A:C8	2.25	0.71
45:B:1218:G:H1	45:B:1237:C:H5	1.38	0.71
46:C:30:GLN:HE21	46:C:32:HIS:HB2	1.55	0.71
1:AS:627:U:H2'	1:AS:628:A:C8	2.25	0.71
23:BP:108:LEU:HD23	23:BP:108:LEU:H	1.54	0.71
49:CQ:65:ARG:HD2	56:CX:91:ARG:HD2	1.72	0.71
62:DD:12:LYS:HG2	62:DD:13:LYS:H	1.54	0.71
1:AS:389:A:N6	81:AS:3405:PAR:O53	2.24	0.71
45:CM:636:C:OP2	68:DJ:32:LYS:NZ	2.23	0.71
63:DE:21:TYR:CD2	63:DE:58:MET:HE1	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:DG:132:LEU:HA	65:DG:135:ILE:HD12	1.72	0.71
72:DN:45:VAL:HG13	72:DN:50:VAL:HG22	1.71	0.71
47:D:82:ARG:NH2	47:D:188:LEU:O	2.24	0.71
63:T:15:VAL:O	63:T:19:ARG:HG3	1.91	0.71
1:AS:1631:G:N2	1:AS:1634:A:OP2	2.22	0.71
3:AU:103:G:OP2	3:AU:105:A:O2'	2.08	0.71
6:AY:186:LYS:HG3	6:AY:202:GLN:HB3	1.72	0.71
14:BG:109:PHE:O	14:BG:113:VAL:HG23	1.90	0.71
27:BT:56:VAL:HG12	27:BT:106:ILE:HA	1.73	0.71
35:CB:21:LYS:HG3	35:CB:35:VAL:HG21	1.73	0.71
39:CF:29:ALA:HB1	39:CF:37:LYS:NZ	2.05	0.71
45:CM:701:G:H2'	45:CM:702:G:H5'	1.72	0.71
45:CM:847:A:O2'	45:CM:948:A:N1	2.22	0.71
46:CN:126:PRO:HA	46:CN:133:ILE:HD11	1.73	0.71
55:CW:76:LEU:O	55:CW:80:LEU:HD12	1.90	0.71
23:5:54:ILE:HD11	23:5:68:VAL:HG23	1.72	0.70
29:AB:73:ILE:CD1	29:AB:81:LEU:HD21	2.21	0.70
60:Q:42:LYS:NZ	60:Q:61:ASP:OD1	2.19	0.70
1:AS:307:A:H2'	1:AS:308:A:C8	2.26	0.70
1:AS:1735:U:C1'	35:CB:41:ARG:HH21	2.03	0.70
43:CJ:77:CYS:SG	43:CJ:79:THR:HG23	2.31	0.70
45:CM:12:U:H2'	45:CM:13:C:C6	2.25	0.70
45:CM:1468:C:H5''	45:CM:1508:G:H22	1.56	0.70
45:B:1744:G:OP2	81:B:1801:PAR:N32	2.24	0.70
1:AS:1936:G:H21	1:AS:3327:A:H8	1.37	0.70
19:BL:123:THR:OG1	19:BL:125:ASP:OD1	2.09	0.70
45:CM:1341:U:H1'	45:CM:1353:G:N2	2.05	0.70
72:DN:44:MET:HE1	72:DN:65:PRO:HG2	1.73	0.70
1:1:628:A:H2'	1:1:629:A:H8	1.57	0.70
45:B:1131:G:H2'	45:B:1132:A:C8	2.26	0.70
7:AZ:217:GLU:HA	7:AZ:220:LYS:HD2	1.72	0.70
45:CM:1459:U:O3'	51:CS:109:LYS:NZ	2.23	0.70
62:DD:54:VAL:HG22	62:DD:58:LYS:HD3	1.73	0.70
63:DE:5:ARG:HA	63:DE:5:ARG:HE	1.55	0.70
66:DH:21:ILE:HD12	66:DH:117:ILE:HG22	1.73	0.70
1:1:647:A:OP2	1:1:2840:U:O2'	2.10	0.70
1:1:2191:A:H2'	1:1:2192:A:C8	2.25	0.70
78:AR:90:LEU:HB2	78:AR:104:PHE:HB2	1.73	0.70
1:AS:1006:G:N2	12:BE:193:ASP:O	2.23	0.70
1:AS:1443:G:OP1	18:BK:65:SER:OG	2.09	0.70
6:AY:10:ILE:HG21	6:AY:173:VAL:HG13	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1282:G:N2	45:B:1285:A:OP2	2.22	0.70
45:B:1579:A:H2'	45:B:1580:A:H8	1.57	0.70
1:AS:592:U:O2'	6:AY:309:LYS:NZ	2.24	0.70
1:1:482:U:H2'	1:1:483:U:C6	2.27	0.70
1:1:1663:A:H2'	1:1:1664:G:C8	2.26	0.70
36:AI:6:THR:HA	36:AI:9:LEU:HD13	1.73	0.70
45:B:722:A:HO2'	45:B:723:G:H8	1.38	0.70
46:C:189:PRO:HG2	46:C:193:THR:HG21	1.73	0.70
56:M:47:GLN:O	56:M:51:SER:OG	2.10	0.70
75:f:15:GLY:H	75:f:18:SER:HB3	1.57	0.70
52:CT:67:VAL:HG13	52:CT:99:GLY:HA2	1.72	0.70
65:DG:117:SER:CB	65:DG:123:ARG:HG3	2.20	0.70
1:1:362:U:O4	38:AK:24:ARG:NH2	2.24	0.70
45:B:1719:A:H2'	45:B:1720:C:C6	2.27	0.70
47:D:58:ALA:O	47:D:62:LYS:HG3	1.92	0.70
1:AS:764:C:H4'	14:BG:181:TYR:CE1	2.26	0.70
12:BE:190:VAL:HG13	12:BE:197:VAL:CG1	2.20	0.70
30:BW:16:ALA:HB1	30:BW:21:ILE:HD11	1.72	0.70
56:CX:56:LYS:HE3	56:CX:67:THR:HB	1.73	0.70
1:1:2655:U:H2'	1:1:2656:C:C6	2.26	0.70
29:AB:94:SER:HB3	29:AB:121:VAL:HG13	1.73	0.70
45:B:1:U:H1'	48:E:174:VAL:HG13	1.73	0.70
52:I:45:PHE:HA	52:I:48:TYR:CD2	2.27	0.70
1:AS:1422:C:H4'	6:AY:41:VAL:HG23	1.74	0.70
8:BA:54:LEU:HD21	8:BA:145:LEU:HD11	1.74	0.70
45:CM:511:U:H2'	45:CM:512:G:C8	2.27	0.70
45:CM:1669:U:O4	45:CM:1707:G:N2	2.24	0.70
1:1:1692:A:H2'	1:1:1693:A:C8	2.27	0.70
17:w:35:VAL:HG13	17:w:106:PHE:HE2	1.57	0.70
78:AR:82:LEU:HG	78:AR:92:LEU:HD12	1.72	0.70
1:AS:498:C:H5''	8:BA:25:ARG:NH2	2.06	0.70
1:AS:1943:G:OP1	20:BM:136:ARG:HD2	1.92	0.70
7:AZ:131:LEU:HD21	7:AZ:175:HIS:HD2	1.57	0.70
45:CM:55:A:OP1	70:DL:112:LYS:NZ	2.25	0.70
6:l:336:ALA:O	6:l:339:LYS:HE2	1.90	0.70
21:0:12:ARG:HB3	21:0:24:LEU:HD23	1.73	0.70
1:AS:628:A:H2'	1:AS:629:A:C8	2.27	0.70
1:AS:1653:C:O2'	1:AS:1793:A:OP2	2.06	0.70
14:BG:185:ARG:CG	14:BG:188:ARG:HH21	2.05	0.70
29:BV:75:LEU:HD22	29:BV:118:LEU:HD11	1.72	0.70
45:CM:1368:A:H1'	66:DH:56:ARG:HD2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:r:80:SER:OG	12:r:144:ASN:OD1	2.08	0.69
45:B:635:C:O2	53:J:110:ARG:NH2	2.24	0.69
39:CF:19:ASP:O	39:CF:21:LYS:NZ	2.20	0.69
45:CM:869:A:H62	45:CM:913:U:H3	1.38	0.69
45:B:903:U:H2'	45:B:904:A:C8	2.27	0.69
66:W:21:ILE:HD13	66:W:117:ILE:HG13	1.74	0.69
3:AU:57:C:OP2	38:CE:68:LYS:NZ	2.25	0.69
10:BC:158:VAL:O	10:BC:161:ILE:HD12	1.92	0.69
25:BR:96:GLN:O	25:BR:97:LYS:HE2	1.92	0.69
31:BX:12:ILE:O	31:BX:16:LEU:HD22	1.92	0.69
57:CY:111:VAL:HG23	57:CY:139:VAL:HG21	1.73	0.69
1:1:3316:U:H3	54:K:110:ARG:HH12	1.37	0.69
20:z:176:ARG:NH1	45:B:837:C:OP1	2.25	0.69
43:AP:8:ARG:HH11	43:AP:10:THR:CG2	2.04	0.69
53:J:89:LEU:HD12	53:J:124:ASP:HB2	1.72	0.69
78:AR:42:LEU:HB2	78:AR:62:PHE:HB2	1.74	0.69
78:AR:112:LEU:N	78:AR:126:ALA:O	2.21	0.69
7:AZ:216:GLU:O	7:AZ:220:LYS:HG3	1.92	0.69
13:BF:160:ILE:HG23	13:BF:171:VAL:HG11	1.73	0.69
22:BO:84:TYR:HB2	30:BW:24:PRO:HD3	1.73	0.69
49:CQ:12:LEU:CD1	66:DH:85:ILE:HD12	2.22	0.69
58:CZ:103:LEU:HD11	58:CZ:116:VAL:HG13	1.73	0.69
64:DF:29:MET:HB2	64:DF:54:LEU:HD23	1.74	0.69
1:1:831:G:O2'	1:1:853:G:N2	2.22	0.69
1:1:2155:G:OP2	4:j:128:ARG:NH1	2.25	0.69
45:B:653:G:N1	45:B:677:G:O6	2.25	0.69
62:S:27:LEU:HB3	62:S:63:ASP:HB2	1.73	0.69
1:AS:316:U:O2'	37:CD:29:LYS:NZ	2.25	0.69
1:AS:2580:G:OP1	4:AW:2:GLY:N	2.25	0.69
1:AS:2678:G:O2'	79:CL:40:ASP:OD2	2.09	0.69
1:AS:3234:U:H5''	8:BA:76:ARG:HH21	1.57	0.69
7:AZ:86:TYR:CE2	7:AZ:247:ILE:HA	2.27	0.69
45:CM:63:G:O2'	45:CM:168:U:OP1	2.10	0.69
45:CM:573:C:N4	69:DK:65:ASN:OD1	2.23	0.69
71:DM:60:VAL:HA	71:DM:64:VAL:HG11	1.73	0.69
1:1:3039:C:H3'	20:z:62:ARG:HH22	1.56	0.69
15:u:52:LEU:HD23	15:u:55:ILE:HD11	1.74	0.69
45:B:12:U:H2'	45:B:13:C:C6	2.27	0.69
50:G:100:ARG:NH2	50:G:121:TYR:O	2.26	0.69
60:Q:106:ARG:HG2	72:c:56:ALA:O	1.93	0.69
70:a:127:LYS:HA	70:a:131:ARG:HH21	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:AR:218:ILE:HG12	78:AR:230:THR:HG23	1.74	0.69
32:BY:97:VAL:HG11	32:BY:103:LEU:HD21	1.73	0.69
39:CF:37:LYS:HZ3	39:CF:37:LYS:HB3	1.58	0.69
48:CP:74:ASP:OD1	48:CP:181:ARG:NE	2.23	0.69
1:1:653:C:H2'	1:1:654:A:H8	1.57	0.69
18:x:32:THR:HG21	18:x:87:SER:HB3	1.74	0.69
45:B:1026:G:H2'	45:B:1027:G:C8	2.27	0.69
1:AS:2244:U:H2'	1:AS:2245:C:C6	2.28	0.69
49:CQ:65:ARG:HD2	56:CX:91:ARG:HH11	1.56	0.69
1:1:1642:G:O2'	1:1:1804:G:N2	2.24	0.69
45:B:1167:U:H4'	61:R:124:THR:OG1	1.93	0.69
1:AS:3161:U:H2'	1:AS:3162:U:C6	2.28	0.69
10:BC:27:LEU:HD12	28:BU:53:VAL:HG21	1.74	0.69
13:BF:77:GLU:OE2	13:BF:167:TYR:OH	2.07	0.69
52:CT:234:LEU:HB3	52:CT:235:LYS:HE2	1.74	0.69
53:CU:133:GLY:HA2	59:DA:18:TYR:HE1	1.57	0.69
1:1:780:A:H2	19:y:69:ARG:HE	1.40	0.69
5:k:79:VAL:HB	5:k:322:VAL:HG23	1.74	0.69
14:t:192:LYS:HD3	14:t:196:GLU:HG3	1.75	0.69
16:v:46:ASP:OD2	16:v:50:ARG:NH2	2.23	0.69
45:B:653:G:N2	45:B:676:G:N7	2.41	0.69
45:B:813:U:H2'	45:B:814:A:C8	2.28	0.69
48:E:175:ALA:HB1	48:E:179:VAL:HG13	1.74	0.69
52:I:2:LYS:HA	52:I:17:ASP:HA	1.74	0.69
52:I:118:ASP:OD1	52:I:119:ASN:N	2.25	0.69
56:M:54:TYR:HD1	56:M:72:GLY:HA2	1.56	0.69
70:a:27:VAL:HG11	70:a:35:VAL:HG11	1.75	0.69
1:AS:780:A:HO2'	19:BL:65:SER:HG	1.39	0.69
11:BD:37:ASP:OD1	11:BD:39:LYS:HG2	1.91	0.69
45:CM:1486:G:OP2	65:DG:73:VAL:HG12	1.92	0.69
45:CM:1679:A:H2'	45:CM:1680:A:C8	2.26	0.69
72:DN:28:ARG:HB3	72:DN:74:CYS:SG	2.33	0.69
24:6:74:MET:HE2	24:6:102:ILE:HG21	1.75	0.69
45:B:585:C:P	76:g:24:GLN:HE22	2.14	0.69
48:E:111:LYS:HE3	48:E:112:THR:H	1.58	0.69
66:W:33:LEU:HD22	66:W:88:ARG:NH2	2.08	0.69
10:BC:95:LEU:HD21	10:BC:201:LEU:HD12	1.73	0.69
45:CM:1026:G:H2'	45:CM:1027:G:C8	2.28	0.69
49:CQ:76:LYS:HZ1	56:CX:18:GLU:CD	2.01	0.69
79:CL:66:ASN:O	79:CL:67:LYS:HD3	1.93	0.69
3:4:21:C:H5''	6:l:195:LEU:HD21	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C:63:ILE:HG12	67:X:36:ILE:HG12	1.75	0.69
66:W:33:LEU:HA	66:W:111:VAL:HG21	1.75	0.69
14:BG:132:ALA:HA	14:BG:135:VAL:HG22	1.75	0.69
45:CM:940:A:H4'	45:CM:1058:G:O2'	1.93	0.69
45:CM:1678:G:H1	45:CM:1698:U:H3	1.40	0.69
45:CM:1742:A:H2'	45:CM:1743:A:H1'	1.75	0.69
1:1:2191:A:H2'	1:1:2192:A:H8	1.59	0.68
1:1:2432:G:O2'	1:1:2433:U:OP1	2.11	0.68
15:u:120:ARG:O	15:u:124:THR:OG1	2.11	0.68
45:B:1276:G:H1	45:B:1309:G:H22	1.41	0.68
49:F:197:ARG:HA	49:F:201:ARG:HH21	1.58	0.68
63:T:89:SER:C	63:T:91:LEU:H	2.00	0.68
78:AR:13:LEU:HD11	78:AR:307:ILE:HB	1.75	0.68
4:AW:80:GLU:HG3	44:CK:66:GLY:HA2	1.74	0.68
6:AY:360:VAL:HG22	21:BN:64:ILE:HG12	1.75	0.68
45:CM:1353:G:H5''	65:DG:69:LYS:HE3	1.75	0.68
47:CO:112:SER:HB2	72:DN:68:TYR:CZ	2.26	0.68
51:CS:52:GLU:O	51:CS:131:GLN:NE2	2.26	0.68
60:DB:13:ARG:HE	60:DB:26:THR:HG21	1.58	0.68
68:DJ:41:MET:HG2	68:DJ:129:VAL:HG21	1.75	0.68
79:CL:37:LYS:HD3	79:CL:38:LYS:H	1.56	0.68
1:1:627:U:H2'	1:1:628:A:C8	2.28	0.68
1:1:2171:U:H5'	1:1:2172:G:H5'	1.75	0.68
7:m:34:LYS:O	7:m:38:THR:HG23	1.93	0.68
45:B:1474:G:H3'	45:B:1502:A:H61	1.56	0.68
55:L:31:ALA:HB2	55:L:42:ILE:HD11	1.75	0.68
58:O:132:GLU:HG3	58:O:133:ARG:H	1.58	0.68
77:h:157:GLU:OE1	77:h:159:LEU:HB2	1.93	0.68
24:BQ:104:ASN:ND2	24:BQ:108:GLU:O	2.23	0.68
45:CM:1395:G:N2	45:CM:1398:G:OP2	2.25	0.68
62:DD:92:HIS:HB2	62:DD:101:LYS:HE3	1.74	0.68
79:CL:82:LYS:HD2	79:CL:83:HIS:H	1.57	0.68
13:s:47:GLN:HB2	79:i:34:THR:HG22	1.75	0.68
55:L:55:ALA:O	55:L:59:LEU:HD12	1.93	0.68
61:R:121:ILE:H	79:i:65:LYS:NZ	1.91	0.68
27:BT:50:ILE:HD11	27:BT:70:VAL:HG11	1.76	0.68
47:CO:70:LEU:HB2	47:CO:84:ILE:HD11	1.74	0.68
58:CZ:31:VAL:CG2	58:CZ:136:LEU:HD11	2.22	0.68
74:DP:25:VAL:HG11	74:DP:66:LEU:HD22	1.75	0.68
76:DR:55:LYS:HB2	76:DR:58:PRO:HG3	1.75	0.68
3:4:95:G:OP2	38:AK:72:ARG:NH1	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:s:19:LEU:O	13:s:68:HIS:HA	1.94	0.68
36:CC:10:ARG:HE	36:CC:61:ASN:HD21	1.38	0.68
49:F:97:LEU:HD22	49:F:132:ALA:HB2	1.75	0.68
5:AX:331:VAL:HG22	5:AX:334:ARG:HG3	1.75	0.68
7:AZ:211:LEU:HG	7:AZ:219:TYR:HB2	1.75	0.68
28:BU:5:ILE:HD13	28:BU:77:TYR:HE2	1.59	0.68
45:CM:1145:A:H2'	45:CM:1146:C:H6	1.57	0.68
46:CN:163:ASN:OD1	46:CN:166:GLY:N	2.26	0.68
66:DH:26:THR:HG22	66:DH:87:LYS:HG3	1.76	0.68
1:1:429:U:H2'	1:1:430:G:H8	1.55	0.68
24:6:63:LYS:O	24:6:70:ARG:NH2	2.27	0.68
45:B:122:U:H2'	45:B:123:G:H5''	1.76	0.68
45:B:1160:U:H2'	45:B:1161:G:H8	1.58	0.68
50:G:168:LYS:NZ	50:G:169:ILE:HG22	2.08	0.68
23:BP:22:PRO:HB2	23:BP:28:PHE:HB2	1.75	0.68
40:CG:23:LEU:HD12	40:CG:24:PRO:HD2	1.74	0.68
57:CY:7:VAL:HG23	57:CY:8:GLN:HG2	1.76	0.68
52:I:135:PRO:HB2	52:I:141:ILE:HG12	1.76	0.68
64:U:62:THR:HG22	64:U:65:GLU:OE1	1.94	0.68
1:AS:93:G:H2'	1:AS:94:A:C8	2.29	0.68
1:AS:1424:A:OP1	81:AS:3409:PAR:O61	2.12	0.68
8:BA:45:ARG:HG2	8:BA:45:ARG:HH11	1.58	0.68
11:BD:17:THR:HG23	11:BD:28:THR:OG1	1.93	0.68
21:BN:164:GLN:NE2	21:BN:166:THR:O	2.26	0.68
45:CM:945:U:H5'	59:DA:55:ARG:HD3	1.75	0.68
56:CX:50:THR:HG21	56:CX:57:THR:OG1	1.92	0.68
62:DD:89:VAL:HA	62:DD:101:LYS:NZ	2.07	0.68
6:l:12:VAL:HG13	6:l:169:VAL:HG22	1.75	0.68
8:n:6:PRO:HB3	33:AF:93:TYR:CE1	2.29	0.68
45:B:912:C:O2'	60:Q:119:ASP:OD2	2.10	0.68
45:CM:1276:G:H22	45:CM:1309:G:N2	1.92	0.68
51:CS:97:LEU:O	51:CS:180:ARG:NH1	2.27	0.68
65:DG:124:ILE:H	65:DG:124:ILE:HD12	1.58	0.68
1:AS:437:G:H22	1:AS:620:A:N6	1.91	0.68
1:AS:1063:U:O3'	22:BO:110:LYS:NZ	2.27	0.68
1:AS:1663:A:H2'	1:AS:1664:G:C8	2.29	0.68
14:BG:102:GLN:HB3	37:CD:21:VAL:HG21	1.76	0.68
26:BS:60:HIS:HB2	36:CC:25:LYS:NZ	2.08	0.68
47:CO:82:ARG:NH2	47:CO:188:LEU:O	2.26	0.68
18:x:122:ALA:HB3	18:x:143:PRO:HB2	1.75	0.68
45:B:775:A:OP2	50:G:187:ARG:NH2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E:34:THR:HG23	48:E:37:GLY:H	1.59	0.68
78:AR:206:SER:OG	78:AR:223:ASN:OD1	2.12	0.68
46:CN:173:ILE:HD12	46:CN:174:TRP:H	1.58	0.68
53:CU:38:GLN:O	53:CU:66:TYR:OH	2.12	0.68
79:CL:50:LYS:HD3	79:CL:50:LYS:H	1.59	0.68
45:B:1543:A:OP1	61:R:115:TYR:OH	2.10	0.67
58:O:25:GLU:HG2	58:O:26:ASP:N	2.08	0.67
61:R:87:PRO:HA	61:R:90:ILE:HG13	1.76	0.67
62:S:82:GLN:O	62:S:86:LYS:HG3	1.93	0.67
1:AS:693:C:OP1	6:AY:120:ARG:NE	2.21	0.67
28:BU:57:MET:HE2	28:BU:61:LYS:HD2	1.76	0.67
47:CO:53:GLY:O	47:CO:55:LYS:N	2.24	0.67
54:CV:57:ALA:HB2	54:CV:183:GLY:HA2	1.74	0.67
55:CW:28:LEU:HD21	76:DR:40:TYR:HA	1.76	0.67
45:B:1410:A:H2'	48:E:87:ALA:CB	2.23	0.67
46:C:190:ASP:OD1	46:C:193:THR:HG23	1.94	0.67
1:AS:1488:G:OP1	38:CE:14:LYS:NZ	2.27	0.67
1:AS:2867:G:O2'	41:CH:24:TYR:O	2.10	0.67
19:BL:23:ASN:ND2	19:BL:26:LEU:H	1.92	0.67
45:CM:1410:A:C2'	48:CP:87:ALA:HB3	2.24	0.67
53:CU:150:LEU:HB2	53:CU:181:ILE:HG12	1.76	0.67
45:B:1354:U:N3	45:B:1355:A:N7	2.43	0.67
49:F:117:ARG:NH1	79:i:114:GLU:HB3	2.09	0.67
51:H:53:VAL:HG22	51:H:134:VAL:HG21	1.76	0.67
59:P:99:ARG:HH12	59:P:143:SER:HB2	1.58	0.67
74:e:41:VAL:HG11	74:e:64:ARG:HH21	1.57	0.67
1:AS:185:U:H3	1:AS:229:C:H42	1.42	0.67
55:CW:29:LYS:O	55:CW:33:GLU:HG3	1.94	0.67
51:H:199:ILE:O	51:H:203:LYS:HG3	1.94	0.67
1:AS:2144:A:O3'	16:BI:72:LYS:NZ	2.26	0.67
1:1:1021:A:H2	61:R:75:VAL:HG23	1.59	0.67
48:E:36:LEU:HD12	48:E:63:ILE:HD13	1.76	0.67
53:J:72:ARG:O	53:J:75:ARG:HG3	1.95	0.67
1:AS:298:U:N3	37:CD:27:TYR:O	2.26	0.67
1:AS:1562:G:N2	1:AS:1564:U:O4	2.27	0.67
45:CM:122:U:H2'	45:CM:123:G:H5''	1.75	0.67
54:CV:56:ARG:NH2	54:CV:180:GLY:O	2.27	0.67
55:CW:126:ARG:HD3	76:DR:33:ARG:HH11	1.59	0.67
28:AA:54:THR:H	28:AA:57:MET:HE3	1.60	0.67
45:B:1219:A:O2'	77:h:187:HIS:ND1	2.28	0.67
46:C:55:GLU:HB3	67:X:79:LEU:CD2	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D:32:ILE:HG13	47:D:96:LEU:HD13	1.76	0.67
48:E:92:ARG:NH2	48:E:112:THR:OG1	2.28	0.67
78:AR:142:MET:N	78:AR:142:MET:SD	2.66	0.67
1:AS:2655:U:H2'	1:AS:2656:C:C6	2.30	0.67
47:CO:170:GLU:OE2	47:CO:171:ILE:HG13	1.95	0.67
51:CS:70:VAL:CB	62:DD:46:LYS:HZ2	2.02	0.67
52:CT:1:MET:HE2	52:CT:106:LEU:HB2	1.75	0.67
56:CX:46:LEU:HD23	56:CX:49:LEU:HD12	1.77	0.67
79:CL:63:ALA:HB1	79:CL:65:LYS:HZ1	1.60	0.67
9:o:185:GLU:HG2	9:o:196:VAL:HG21	1.77	0.67
13:s:28:ASP:O	13:s:32:ARG:HG3	1.95	0.67
51:H:23:VAL:HG13	51:H:34:GLN:OE1	1.94	0.67
1:AS:447:U:O2'	1:AS:448:U:OP1	2.13	0.67
1:AS:2244:U:H2'	1:AS:2245:C:H6	1.60	0.67
5:AX:292:ALA:HB1	5:AX:295:ALA:HB3	1.75	0.67
10:BC:117:ILE:HG12	10:BC:123:ALA:HA	1.75	0.67
45:CM:854:A:H61	45:CM:943:U:H5	1.40	0.67
45:CM:903:U:H2'	45:CM:904:A:C8	2.30	0.67
47:CO:29:TRP:HB3	47:CO:45:LYS:HE2	1.76	0.67
1:1:1662:G:H2'	1:1:1663:A:C8	2.30	0.67
28:AA:33:THR:N	28:AA:36:HIS:O	2.27	0.67
44:AQ:58:LYS:HA	44:AQ:58:LYS:HE3	1.77	0.67
45:B:326:A:OP2	57:N:56:LYS:NZ	2.23	0.67
61:R:56:LEU:HG	61:R:60:LEU:CD2	2.25	0.67
65:V:131:ASP:HA	65:V:134:ARG:NE	2.10	0.67
1:AS:525:A:H2'	1:AS:526:G:H8	1.60	0.67
3:AU:83:U:O2	27:BT:51:ARG:NH2	2.26	0.67
7:AZ:99:TYR:HE2	7:AZ:164:LYS:HD2	1.60	0.67
27:BT:50:ILE:HD13	27:BT:80:ILE:HG21	1.76	0.67
45:CM:1503:A:OP1	66:DH:87:LYS:NZ	2.27	0.67
50:CR:100:ARG:NH2	50:CR:121:TYR:O	2.28	0.67
60:DB:126:GLY:O	72:DN:22:ARG:NH2	2.27	0.67
1:1:665:C:OP2	81:1:3415:PAR:O34	2.07	0.67
46:C:60:ALA:O	46:C:64:ILE:HG13	1.93	0.67
67:X:2:GLU:OE1	67:X:6:GLY:HA2	1.95	0.67
1:AS:297:G:H1	16:BI:12:ARG:HH12	1.43	0.67
7:AZ:131:LEU:HD21	7:AZ:175:HIS:CD2	2.30	0.67
45:CM:856:G:H2'	45:CM:857:G:C8	2.30	0.67
45:CM:1159:C:OP2	64:DF:141:THR:HG21	1.94	0.67
45:CM:1742:A:H2'	45:CM:1743:A:C1'	2.25	0.67
50:CR:191:ARG:HD3	50:CR:246:LYS:HB2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:93:G:H2'	1:1:94:A:C8	2.30	0.67
1:1:2484:U:H2'	1:1:2485:U:C6	2.29	0.67
56:M:16:PHE:HB2	56:M:76:LEU:HD22	1.77	0.67
1:AS:653:C:H2'	1:AS:654:A:H8	1.59	0.67
1:AS:896:G:H1'	1:AS:1585:A:N6	2.10	0.67
47:CO:182:ALA:O	47:CO:185:THR:OG1	2.12	0.67
58:CZ:32:LEU:O	58:CZ:35:SER:OG	2.12	0.67
62:DD:45:PHE:O	62:DD:49:GLU:HG3	1.95	0.67
58:O:55:ARG:NH1	58:O:81:GLU:OE1	2.22	0.66
25:BR:39:LEU:HD13	25:BR:49:ILE:HD13	1.77	0.66
45:CM:826:U:H2'	45:CM:827:C:H5'	1.76	0.66
45:CM:1579:A:H2'	45:CM:1580:A:H8	1.59	0.66
71:DM:77:ARG:HA	71:DM:80:LEU:HD12	1.78	0.66
21:O:23:LYS:NZ	22:2:145:GLY:O	2.26	0.66
46:C:126:PRO:HA	46:C:133:ILE:HD11	1.77	0.66
65:V:13:ASP:HA	65:V:16:ASN:OD1	1.95	0.66
71:b:93:LEU:HB3	71:b:100:ILE:HD12	1.77	0.66
72:c:18:VAL:HG21	72:c:33:ASP:OD1	1.94	0.66
1:AS:976:A:H2'	1:AS:977:U:H5'	1.77	0.66
1:AS:1701:U:O2	1:AS:1783:A:H5'	1.95	0.66
7:AZ:183:TRP:HZ3	7:AZ:190:LEU:N	1.92	0.66
16:BI:18:VAL:O	16:BI:22:LEU:HD12	1.95	0.66
45:CM:778:U:O2'	45:CM:779:U:O2	2.13	0.66
51:CS:116:HIS:HD2	71:DM:98:GLN:HB3	1.59	0.66
55:CW:100:LYS:N	55:CW:103:ASP:OD2	2.20	0.66
58:CZ:30:VAL:HB	58:CZ:132:GLU:HG2	1.77	0.66
62:DD:38:VAL:HG12	62:DD:44:ARG:HG3	1.77	0.66
3:4:112:U:P	40:AM:8:ARG:HH21	2.17	0.66
9:o:82:VAL:HG21	9:o:134:TYR:HD2	1.60	0.66
38:AK:76:ASN:HD22	38:AK:79:GLN:HE22	1.42	0.66
45:B:1552:C:H5''	64:U:41:ARG:HG2	1.78	0.66
55:L:62:ARG:HD2	55:L:66:ASP:CG	2.20	0.66
1:AS:2331:G:H5''	18:BK:86:LYS:HB2	1.77	0.66
10:BC:173:LYS:HG3	10:BC:174:MET:HE3	1.77	0.66
45:CM:1474:G:H3'	45:CM:1502:A:H61	1.59	0.66
48:CP:40:VAL:HG11	48:CP:63:ILE:HG12	1.76	0.66
63:DE:10:LYS:HG2	63:DE:53:TYR:CE2	2.30	0.66
1:1:662:U:H2'	1:1:663:A:H8	1.59	0.66
45:B:123:G:OP1	50:G:77:ARG:NH2	2.25	0.66
45:B:784:U:H2'	45:B:785:G:C8	2.31	0.66
58:O:103:LEU:HD11	58:O:116:VAL:HB	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:148:U:O3'	16:BI:56:LYS:HE3	1.95	0.66
1:AS:1452:A:O5'	32:BY:25:LYS:HE3	1.95	0.66
1:AS:1662:G:H2'	1:AS:1663:A:C8	2.31	0.66
1:AS:2669:A:H2'	1:AS:2670:G:C8	2.31	0.66
45:CM:261:C:H4'	45:CM:290:U:H5'	1.78	0.66
1:1:2937:U:O2	4:j:221:LYS:NZ	2.25	0.66
1:1:3014:U:OP2	1:1:3064:C:N4	2.28	0.66
1:1:3318:G:OP1	54:K:170:ARG:NH2	2.21	0.66
40:AM:28:ARG:HG2	40:AM:28:ARG:HH11	1.59	0.66
45:B:317:U:H4'	45:B:321:A:C8	2.29	0.66
45:B:1602:C:OP1	51:H:81:ARG:NH2	2.28	0.66
51:H:57:SER:HA	74:e:53:ILE:HG13	1.76	0.66
1:AS:2174:C:O2'	1:AS:2248:A:N3	2.25	0.66
33:BZ:97:ILE:HG21	33:BZ:106:ARG:HG3	1.78	0.66
33:BZ:103:SER:O	33:BZ:107:VAL:HG23	1.96	0.66
46:CN:148:ASP:H	46:CN:151:SER:HB2	1.61	0.66
47:CO:179:CYS:HB2	47:CO:183:GLN:HG2	1.77	0.66
1:1:699:G:O2'	81:1:3416:PAR:N64	2.29	0.66
20:z:153:LYS:O	20:z:157:GLU:HG3	1.96	0.66
45:B:224:A:N6	45:B:821:U:O4	2.28	0.66
45:B:480:U:H2'	45:B:481:A:C8	2.30	0.66
45:B:1409:U:O2	48:E:86:ARG:NH2	2.20	0.66
62:S:128:PHE:O	62:S:136:ARG:NH2	2.28	0.66
64:U:40:ARG:HH11	64:U:40:ARG:HG3	1.61	0.66
1:AS:3165:U:H2'	1:AS:3166:A:O4'	1.96	0.66
1:AS:3240:U:OP2	34:CA:66:VAL:HG21	1.95	0.66
23:BP:83:THR:O	23:BP:87:LEU:HD12	1.94	0.66
45:CM:1715:U:H2'	45:CM:1716:C:C6	2.31	0.66
50:CR:123:LEU:HD23	50:CR:159:THR:HG21	1.77	0.66
52:CT:10:ASN:ND2	52:CT:127:THR:O	2.29	0.66
61:DC:43:ARG:HH11	61:DC:43:ARG:HG3	1.60	0.66
1:1:1761:U:C5	20:z:43:LYS:HE3	2.31	0.66
1:1:3269:C:O2	5:k:25:GLN:NE2	2.28	0.66
28:AA:62:VAL:O	28:AA:66:THR:HG23	1.95	0.66
52:I:3:LEU:HB3	52:I:5:ILE:HD11	1.78	0.66
57:N:66:ILE:HG13	57:N:140:LEU:HD21	1.77	0.66
60:Q:91:PRO:O	60:Q:94:GLN:NE2	2.29	0.66
1:AS:398:A:H5'	18:BK:3:ARG:HH11	1.59	0.66
1:AS:3350:U:H4'	32:BY:9:ARG:HH22	1.61	0.66
28:BU:39:PRO:C	28:BU:77:TYR:HD1	2.04	0.66
29:BV:135:GLU:HG3	29:BV:145:VAL:HG11	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:CE:35:SER:O	38:CE:45:ARG:NH1	2.29	0.66
45:CM:1559:G:O2'	51:CS:185:ARG:NH2	2.29	0.66
52:CT:57:ASP:HA	52:CT:106:LEU:HA	1.78	0.66
13:s:28:ASP:OD2	13:s:32:ARG:NH1	2.29	0.66
21:0:77:ILE:HG12	21:0:126:VAL:HG22	1.78	0.66
35:AH:81:CYS:SG	35:AH:82:ALA:N	2.69	0.66
61:R:1:MET:HA	64:U:70:VAL:HG11	1.77	0.66
78:AR:42:LEU:HD11	78:AR:83:SER:HB3	1.76	0.66
45:CM:1265:C:H2'	45:CM:1266:G:H8	1.61	0.66
45:CM:1459:U:OP1	51:CS:183:SER:OG	2.14	0.66
48:CP:96:VAL:HG22	48:CP:110:ILE:HG22	1.78	0.66
26:8:82:LEU:CD1	26:8:132:ALA:HB1	2.26	0.66
45:B:418:A:OP1	52:I:96:SER:OG	2.08	0.66
45:B:1156:A:H2'	45:B:1157:G:H8	1.59	0.66
48:E:53:LEU:O	67:X:15:ARG:NE	2.28	0.66
62:S:26:GLY:HA2	62:S:62:ILE:O	1.96	0.66
1:AS:1493:C:H2'	1:AS:1494:A:H8	1.61	0.66
8:BA:71:ASN:ND2	8:BA:160:ALA:HA	2.11	0.66
46:CN:119:ARG:HG3	48:CP:236:GLU:OE2	1.96	0.66
52:CT:22:HIS:CA	52:CT:25:ARG:HH12	2.07	0.66
60:DB:8:VAL:HG13	60:DB:72:THR:H	1.58	0.66
74:DP:18:ARG:HD2	74:DP:26:THR:HG22	1.78	0.66
1:1:1774:G:O2'	1:1:1776:G:OP2	2.14	0.66
7:m:94:ASN:HB2	7:m:97:ALA:H	1.60	0.66
45:B:1275:U:H2'	45:B:1276:G:C8	2.31	0.66
1:AS:2530:C:N4	31:BX:59:GLU:OE2	2.29	0.66
14:BG:126:PHE:HZ	14:BG:138:PHE:HD2	1.44	0.66
12:r:140:THR:HG21	12:r:148:VAL:HG21	1.78	0.65
21:0:8:GLN:HB2	21:0:64:ILE:HD11	1.79	0.65
45:B:784:U:H2'	45:B:785:G:H8	1.59	0.65
45:B:1584:A:OP1	75:f:19:ARG:NH2	2.28	0.65
51:H:42:LEU:HD23	51:H:46:TRP:HD1	1.60	0.65
56:M:3:ILE:HG12	56:M:41:PHE:CD1	2.31	0.65
66:W:107:ILE:HD12	66:W:107:ILE:O	1.96	0.65
1:AS:538:G:N2	1:AS:547:U:O2	2.25	0.65
1:AS:2163:G:O2'	1:AS:2292:U:OP2	2.13	0.65
12:BE:169:LYS:NZ	22:BO:158:THR:OG1	2.28	0.65
39:CF:58:ASP:HB3	39:CF:61:LYS:HG3	1.77	0.65
55:CW:23:ARG:O	55:CW:27:GLU:HG3	1.96	0.65
55:CW:27:GLU:OE1	55:CW:39:LYS:HD2	1.96	0.65
63:DE:105:ASP:OD1	63:DE:106:THR:N	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:DO:35:VAL:HG11	73:DO:63:LEU:CD1	2.24	0.65
14:t:127:ASP:O	14:t:130:THR:OG1	2.14	0.65
14:t:133:SER:OG	14:BG:134:GLU:OE1	2.07	0.65
45:B:1486:G:OP2	65:V:73:VAL:HG12	1.96	0.65
45:B:1588:G:P	65:V:86:ARG:HH12	2.19	0.65
51:H:95:ASN:OD1	51:H:107:LYS:NZ	2.20	0.65
58:O:74:LEU:HA	77:h:150:VAL:HG11	1.76	0.65
64:U:28:ILE:O	64:U:32:LEU:HD12	1.97	0.65
1:AS:1295:U:OP2	81:AS:3407:PAR:N12	2.28	0.65
1:AS:1452:A:P	32:BY:25:LYS:HE3	2.35	0.65
20:BM:119:LEU:O	20:BM:123:LEU:HD12	1.94	0.65
34:CA:65:ARG:HD2	34:CA:66:VAL:H	1.60	0.65
45:CM:1131:G:H2'	45:CM:1132:A:C8	2.31	0.65
45:CM:1776:G:OP2	60:DB:127:ARG:NH2	2.25	0.65
62:DD:57:ASP:OD1	62:DD:58:LYS:HD2	1.97	0.65
1:1:252:U:H5'	1:1:253:A:C8	2.31	0.65
4:j:101:ILE:HG12	4:j:165:VAL:HG22	1.78	0.65
15:u:117:LYS:NZ	15:u:121:ARG:HB2	2.11	0.65
49:F:133:LYS:HB3	49:F:190:MET:HE2	1.77	0.65
51:H:23:VAL:HG23	62:S:60:GLN:NE2	2.12	0.65
1:AS:1662:G:H2'	1:AS:1663:A:H8	1.61	0.65
6:AY:113:LYS:HE2	16:BI:202:TYR:HB3	1.79	0.65
45:CM:647:C:O2'	45:CM:648:U:O5'	2.09	0.65
56:CX:16:PHE:HD1	56:CX:17:GLN:H	1.44	0.65
19:y:35:PHE:HE1	19:y:39:ARG:NH2	1.94	0.65
22:2:105:PHE:O	22:2:109:VAL:HG23	1.95	0.65
45:B:654:G:H3'	45:B:655:U:C6	2.32	0.65
45:B:1475:U:O2'	45:B:1501:A:N6	2.28	0.65
48:E:98:VAL:HG13	48:E:185:LEU:HD22	1.79	0.65
49:F:141:GLY:HA3	49:F:183:LEU:HD23	1.78	0.65
70:a:86:GLU:OE2	70:a:90:ARG:NE	2.29	0.65
1:AS:376:G:P	27:BT:89:LYS:HE2	2.36	0.65
1:AS:763:U:H4'	14:BG:188:ARG:NH1	2.12	0.65
1:AS:3309:A:H2	1:AS:3326:G:H21	1.43	0.65
3:AU:97:A:OP1	36:CC:63:ARG:NH1	2.28	0.65
48:CP:170:GLY:HA3	55:CW:57:ARG:HH21	1.61	0.65
50:CR:70:VAL:HG12	50:CR:92:LEU:HD21	1.78	0.65
57:CY:101:GLU:OE1	69:DK:16:ARG:NH2	2.29	0.65
64:DF:132:LYS:NZ	64:DF:141:THR:OG1	2.29	0.65
45:B:578:A:O2'	45:B:580:U:OP1	2.15	0.65
45:B:589:A:H2'	45:B:590:A:C8	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1578:C:H2'	45:B:1579:A:H8	1.62	0.65
48:E:85:THR:HG22	48:E:86:ARG:HD3	1.78	0.65
1:AS:1735:U:HO2'	35:CB:56:THR:HG1	1.44	0.65
1:AS:2634:G:H2'	1:AS:2635:A:H8	1.59	0.65
1:AS:2650:A:C8	79:CL:56:SER:HB3	2.31	0.65
1:AS:2988:A:H2'	1:AS:2989:A:H8	1.61	0.65
14:BG:122:LYS:HE2	36:CC:119:LYS:HA	1.78	0.65
16:BI:104:GLU:O	16:BI:108:ARG:HG3	1.96	0.65
36:CC:78:LYS:HA	36:CC:81:ARG:CD	2.25	0.65
46:CN:170:ILE:HD12	46:CN:171:GLY:N	2.11	0.65
52:CT:12:THR:HG23	52:CT:124:LEU:HD12	1.79	0.65
62:DD:45:PHE:HA	62:DD:48:TYR:HB2	1.76	0.65
67:DI:74:GLN:NE2	67:DI:83:TRP:O	2.30	0.65
28:AA:33:THR:HG23	28:AA:40:HIS:NE2	2.11	0.65
30:AC:32:LEU:O	30:AC:35:VAL:HG12	1.97	0.65
49:F:95:ARG:HH21	79:i:132:GLU:HB3	1.61	0.65
60:Q:79:ARG:HB3	60:Q:113:VAL:HG23	1.78	0.65
64:U:29:MET:HE3	64:U:44:ASN:HB2	1.79	0.65
78:AR:76:ALA:HB3	78:AR:120:LEU:HD11	1.77	0.65
1:AS:364:G:OP1	6:AY:61:THR:HG23	1.97	0.65
18:BK:169:ASN:O	18:BK:173:ARG:HG2	1.97	0.65
27:BT:55:GLU:HB3	27:BT:108:LYS:HB3	1.78	0.65
46:CN:70:ALA:HB2	46:CN:185:ARG:HH22	1.60	0.65
48:CP:134:ILE:HD13	48:CP:186:ALA:HB1	1.79	0.65
13:s:87:LYS:O	13:s:88:GLU:HG2	1.97	0.65
56:M:62:GLN:NE2	75:f:23:HIS:O	2.27	0.65
72:c:45:VAL:HG21	72:c:53:LEU:HD21	1.78	0.65
1:AS:628:A:H2'	1:AS:629:A:H8	1.61	0.65
1:AS:647:A:OP2	1:AS:2840:U:O2'	2.14	0.65
1:AS:2634:G:H2'	1:AS:2635:A:C8	2.31	0.65
3:AU:21:C:OP1	6:AY:194:LYS:NZ	2.28	0.65
23:BP:86:TYR:O	23:BP:90:ASN:ND2	2.30	0.65
45:CM:1280:G:H1	45:CM:1287:U:H3	1.44	0.65
47:CO:189:ILE:HG13	47:CO:190:PRO:CD	2.27	0.65
60:DB:98:ARG:HD2	72:DN:49:ALA:HB2	1.79	0.65
68:DJ:14:ILE:HG12	68:DJ:25:VAL:HG11	1.78	0.65
1:1:948:A:H4'	1:1:964:G:N2	2.12	0.65
1:1:1630:G:N7	28:AA:17:ARG:NH2	2.44	0.65
1:1:1841:G:H5''	1:1:1842:C:H5'	1.79	0.65
14:BG:184:ILE:O	14:BG:188:ARG:HG3	1.96	0.65
16:BI:159:ARG:HB2	16:BI:164:LEU:HB2	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BR:108:LYS:NZ	25:BR:112:ASP:OD2	2.19	0.65
45:CM:1517:C:OP2	71:DM:96:SER:OG	2.13	0.65
54:CV:54:LYS:HD3	54:CV:181:GLN:NE2	2.12	0.65
45:B:480:U:H2'	45:B:481:A:H8	1.61	0.65
45:B:829:A:H2'	45:B:830:G:H8	1.62	0.65
53:J:54:LEU:HD23	53:J:86:VAL:HG22	1.79	0.65
78:AR:155:VAL:HG12	78:AR:168:SER:OG	1.97	0.65
1:AS:2347:G:H2'	1:AS:2348:G:C8	2.31	0.65
5:AX:372:THR:HG22	5:AX:374:ALA:H	1.62	0.65
36:CC:52:ALA:O	36:CC:56:THR:OG1	2.12	0.65
59:DA:46:THR:CG2	59:DA:49:GLN:HG3	2.27	0.65
6:l:176:HIS:O	6:l:180:VAL:HG23	1.97	0.65
15:u:19:VAL:HG12	15:u:57:LEU:HA	1.79	0.65
23:5:22:PRO:HB2	23:5:28:PHE:HB2	1.79	0.65
25:7:45:ASN:HB3	25:7:48:ARG:HG3	1.78	0.65
46:C:17:LEU:O	46:C:22:VAL:HG22	1.96	0.65
63:T:19:ARG:HB2	63:T:20:PHE:CD2	2.32	0.65
1:AS:1718:U:H5''	20:BM:99:LEU:HD23	1.79	0.65
1:AS:2533:G:O2'	35:CB:88:ARG:HG2	1.97	0.65
27:BT:100:HIS:HD2	27:BT:102:SER:H	1.43	0.65
36:CC:102:GLU:HA	36:CC:105:ARG:HE	1.61	0.65
45:CM:518:A:H2'	45:CM:519:A:C8	2.31	0.65
55:CW:56:ALA:HA	55:CW:59:LEU:HD12	1.78	0.65
1:1:563:U:H2'	1:1:564:G:C8	2.32	0.64
1:1:654:A:H2'	1:1:655:A:C8	2.31	0.64
13:s:75:LYS:O	13:s:79:ILE:HD12	1.97	0.64
45:B:1518:G:H21	65:V:48:GLN:NE2	1.94	0.64
58:O:69:GLU:HA	58:O:72:ILE:HD12	1.78	0.64
62:S:28:ILE:HD12	62:S:64:ILE:HB	1.78	0.64
67:X:5:LYS:HD2	67:X:7:GLN:NE2	2.10	0.64
1:AS:1755:U:H3	1:AS:1762:G:H1	1.45	0.64
9:BB:185:GLU:HG2	9:BB:196:VAL:HG21	1.79	0.64
36:CC:9:LEU:HA	36:CC:12:LYS:HD2	1.78	0.64
45:CM:255:A:N3	54:CV:64:ASN:ND2	2.45	0.64
45:CM:696:U:H6	45:CM:696:U:OP1	1.80	0.64
45:CM:701:G:H2'	45:CM:702:G:C5'	2.27	0.64
74:DP:22:ARG:HB3	74:DP:22:ARG:CZ	2.19	0.64
45:B:1030:C:OP2	81:B:1804:PAR:N12	2.31	0.64
49:F:125:ARG:HG3	79:i:122:THR:HG22	1.78	0.64
49:F:143:LEU:HD11	49:F:183:LEU:HD11	1.77	0.64
78:AR:165:THR:OG1	78:AR:178:TRP:O	2.09	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:290:G:H1'	16:BI:93:LYS:HD2	1.79	0.64
11:BD:61:ASP:O	11:BD:65:VAL:HG12	1.98	0.64
45:CM:932:U:H2'	45:CM:933:A:H8	1.62	0.64
53:CU:155:SER:OG	53:CU:159:ASP:OD2	2.08	0.64
67:DI:85:TYR:CE2	73:DO:6:ASP:HB3	2.32	0.64
73:DO:47:PHE:HE1	73:DO:49:HIS:HB2	1.62	0.64
3:4:65:A:H5''	36:AI:6:THR:HG21	1.79	0.64
5:k:284:ARG:NH1	5:k:293:ASN:O	2.31	0.64
45:B:1715:U:H2'	45:B:1716:C:C6	2.32	0.64
61:R:56:LEU:HG	61:R:60:LEU:HD21	1.78	0.64
62:S:4:GLN:HB2	62:S:23:ALA:HB2	1.79	0.64
63:T:19:ARG:HB2	63:T:20:PHE:CE2	2.32	0.64
72:c:49:ALA:O	72:c:53:LEU:HG	1.97	0.64
78:AR:45:TRP:CZ3	78:AR:58:PRO:HG3	2.32	0.64
6:AY:176:HIS:O	6:AY:180:VAL:HG23	1.97	0.64
13:BF:47:GLN:OE1	79:CL:32:LYS:NZ	2.30	0.64
39:CF:8:ILE:HG21	39:CF:65:LEU:HD21	1.79	0.64
45:CM:741:A:H5'	50:CR:16:SER:OG	1.96	0.64
45:CM:747:A:P	55:CW:79:ARG:HH22	2.21	0.64
45:CM:985:C:H5	45:CM:988:A:H5''	1.61	0.64
45:CM:1147:C:C4'	74:DP:22:ARG:HD2	2.28	0.64
1:1:115:A:OP2	16:v:2:GLY:N	2.30	0.64
1:1:1400:G:N2	1:1:1403:A:OP2	2.27	0.64
1:1:2079:C:HO2'	1:1:2080:U:H6	1.46	0.64
1:1:2391:A:H2'	1:1:2392:G:H8	1.62	0.64
1:1:2709:C:O2'	30:AC:36:ASP:OD1	2.16	0.64
18:x:30:ARG:HA	18:x:119:VAL:HG21	1.80	0.64
50:G:107:GLY:HA2	50:G:189:LEU:HD22	1.79	0.64
1:AS:332:C:H4'	38:CE:71:THR:HG21	1.77	0.64
1:AS:3136:C:H2'	1:AS:3137:A:C8	2.32	0.64
24:BQ:62:VAL:O	24:BQ:70:ARG:HG2	1.97	0.64
25:BR:105:ARG:O	25:BR:105:ARG:HG2	1.97	0.64
45:CM:924:A:H2'	45:CM:925:A:C8	2.32	0.64
45:CM:1472:G:N2	45:CM:1580:A:OP1	2.28	0.64
45:CM:1578:C:H2'	45:CM:1579:A:H8	1.61	0.64
50:CR:15:PRO:HG3	50:CR:39:ARG:HE	1.62	0.64
12:r:44:ASP:OD2	12:r:181:TYR:OH	2.16	0.64
29:AB:73:ILE:HD11	29:AB:81:LEU:HD21	1.80	0.64
45:B:1365:C:H1'	62:S:18:VAL:HG11	1.78	0.64
73:d:34:ASP:OD1	73:d:82:LYS:NZ	2.30	0.64
1:AS:1672:A:H4'	23:BP:103:GLN:HG3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BQ:135:VAL:HG11	25:BR:26:SER:HB3	1.79	0.64
45:CM:142:G:O2'	45:CM:143:A:O5'	2.15	0.64
45:CM:1399:U:O2'	45:CM:1402:G:OP1	2.14	0.64
47:CO:101:HIS:HA	47:CO:217:LEU:HD21	1.80	0.64
53:CU:25:GLU:CD	53:CU:34:LEU:HB2	2.22	0.64
65:DG:89:ARG:H	65:DG:89:ARG:HD3	1.62	0.64
66:DH:33:LEU:HD11	66:DH:88:ARG:CD	2.26	0.64
1:1:660:U:H2'	1:1:661:C:C6	2.33	0.64
7:m:50:ARG:NH2	7:m:72:ASP:OD2	2.30	0.64
16:v:106:VAL:HG11	16:v:132:VAL:HG21	1.78	0.64
45:B:1145:A:H2'	45:B:1146:C:C6	2.32	0.64
78:AR:234:LYS:HG2	78:AR:258:LYS:HZ2	1.62	0.64
1:AS:169:G:H5''	36:CC:109:ILE:HD13	1.79	0.64
1:AS:563:U:H2'	1:AS:564:G:H8	1.61	0.64
1:AS:2191:A:H2'	1:AS:2192:A:C8	2.33	0.64
1:AS:2650:A:H8	79:CL:56:SER:HB3	1.62	0.64
32:BY:58:ILE:HA	32:BY:70:MET:HE1	1.79	0.64
45:CM:324:G:OP1	57:CY:57:LYS:NZ	2.25	0.64
45:CM:768:C:H2'	45:CM:769:U:O4'	1.98	0.64
54:CV:141:ARG:HB3	54:CV:145:VAL:CG1	2.28	0.64
52:I:57:ASP:HA	52:I:106:LEU:HA	1.80	0.64
55:L:105:LEU:O	55:L:108:ARG:HG2	1.97	0.64
16:BI:26:ARG:HG3	16:BI:30:TYR:CZ	2.31	0.64
18:BK:122:ALA:HB3	18:BK:143:PRO:HB2	1.79	0.64
45:CM:671:G:H3'	45:CM:672:U:H5'	1.77	0.64
45:CM:722:A:HO2'	45:CM:723:G:H8	1.44	0.64
45:CM:1719:A:H2'	45:CM:1720:C:C6	2.33	0.64
15:u:117:LYS:O	15:u:117:LYS:HD3	1.98	0.64
36:AI:56:THR:O	36:AI:60:LEU:HD13	1.98	0.64
44:AQ:28:LYS:O	44:AQ:32:GLN:HG3	1.98	0.64
50:G:168:LYS:HZ2	50:G:169:ILE:HG22	1.62	0.64
62:S:68:VAL:HG11	62:S:80:ILE:HD11	1.80	0.64
78:AR:16:HIS:CE1	78:AR:37:SER:HB2	2.33	0.64
1:AS:267:G:O4'	16:BI:50:ARG:HD2	1.98	0.64
1:AS:431:A:H2'	1:AS:432:G:C8	2.33	0.64
1:AS:1903:C:O2	5:AX:240:ARG:NH1	2.31	0.64
6:AY:166:ALA:O	6:AY:170:LEU:HD23	1.97	0.64
11:BD:92:PHE:HB2	11:BD:142:ASP:HB3	1.79	0.64
16:BI:106:VAL:HG11	16:BI:132:VAL:HG11	1.80	0.64
45:CM:1592:G:OP2	62:DD:126:LYS:NZ	2.30	0.64
48:CP:169:ARG:HA	48:CP:190:ASP:OD2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:253:ARG:HH11	50:CR:253:ARG:HG2	1.63	0.64
59:DA:54:LEU:HB3	59:DA:60:VAL:CG1	2.28	0.64
63:DE:24:LEU:HD12	63:DE:34:LEU:HD21	1.78	0.64
70:DL:86:GLU:CD	70:DL:90:ARG:HH21	2.06	0.64
1:1:654:A:H2'	1:1:655:A:H8	1.63	0.64
1:1:1080:A:H2'	1:1:1081:A:C8	2.32	0.64
1:1:2322:U:H2'	1:1:2323:A:C8	2.33	0.64
62:S:47:VAL:HG12	62:S:81:ARG:HB3	1.79	0.64
63:T:75:GLU:HA	63:T:78:ARG:HB2	1.80	0.64
66:W:34:GLU:OE1	66:W:56:ARG:NH1	2.30	0.64
73:d:19:HIS:HB3	73:d:22:LYS:HD2	1.80	0.64
1:AS:242:C:HO2'	1:AS:243:G:H8	1.46	0.64
1:AS:2171:U:H5'	1:AS:2172:G:H5'	1.79	0.64
9:BB:38:LYS:O	9:BB:41:VAL:HG12	1.96	0.64
26:BS:110:VAL:HB	26:BS:124:ILE:HD13	1.80	0.64
40:CG:43:HIS:HB3	40:CG:46:ARG:HG2	1.79	0.64
53:CU:12:GLU:HA	53:CU:15:LEU:HD12	1.80	0.64
1:1:1021:A:N1	61:R:74:ALA:HA	2.12	0.64
1:1:2634:G:H2'	1:1:2635:A:C8	2.33	0.64
23:5:34:VAL:HG21	23:5:58:ALA:HB2	1.78	0.64
45:B:650:G:H3'	45:B:678:A:H61	1.61	0.64
46:C:126:PRO:HB2	46:C:152:PRO:HD2	1.80	0.64
47:D:77:GLU:OE2	60:Q:109:ARG:NH1	2.28	0.64
67:X:5:LYS:HB2	67:X:7:GLN:HE22	1.61	0.64
1:AS:833:A:OP2	44:CK:4:ARG:NH1	2.31	0.64
10:BC:126:VAL:O	10:BC:127:SER:OG	2.11	0.64
14:BG:170:ARG:O	14:BG:174:LEU:HD23	1.98	0.64
16:BI:145:ASP:OD1	16:BI:147:ARG:HB2	1.97	0.64
46:CN:146:LEU:HD22	46:CN:162:CYS:SG	2.38	0.64
55:CW:93:LEU:HA	55:CW:96:VAL:HG12	1.80	0.64
58:CZ:107:ASP:HB3	58:CZ:113:ARG:HH21	1.62	0.64
1:1:15:A:OP1	26:8:42:ARG:HG2	1.98	0.63
1:1:606:A:C6	8:n:21:ARG:HD3	2.32	0.63
1:1:3277:U:H4'	5:k:25:GLN:OE1	1.97	0.63
47:D:187:LYS:O	47:D:192:VAL:HG12	1.97	0.63
1:AS:3208:A:OP1	17:BJ:160:LYS:NZ	2.28	0.63
5:AX:46:PHE:CZ	5:AX:84:MET:HG2	2.33	0.63
6:AY:12:VAL:HG21	6:AY:156:GLU:HB2	1.80	0.63
18:BK:175:ARG:HG2	18:BK:179:GLN:NE2	2.13	0.63
21:BN:33:ASN:HD22	21:BN:35:VAL:H	1.45	0.63
29:BV:74:ASN:ND2	29:BV:115:LYS:HB3	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:829:A:H2'	45:CM:830:G:C8	2.33	0.63
45:CM:1672:G:O2'	45:CM:1673:U:H5'	1.98	0.63
58:CZ:74:LEU:O	58:CZ:78:LEU:HG	1.98	0.63
65:DG:128:GLY:O	65:DG:132:LEU:HD23	1.97	0.63
1:1:1923:G:C8	44:AQ:16:VAL:HG12	2.34	0.63
45:B:1160:U:H2'	45:B:1161:G:C8	2.33	0.63
45:B:1326:A:H1'	78:AR:66:SER:HB2	1.80	0.63
46:C:36:TYR:CD1	46:C:161:PRO:HG3	2.33	0.63
1:AS:2836:A:H5''	12:BE:114:GLY:HA2	1.79	0.63
4:AW:96:LEU:HD11	4:AW:108:PRO:HD2	1.80	0.63
23:BP:12:VAL:CG1	23:BP:67:VAL:HG13	2.28	0.63
45:CM:1245:U:H2'	45:CM:1246:G:H8	1.64	0.63
55:CW:73:GLY:O	55:CW:77:ILE:HG12	1.98	0.63
66:DH:37:SER:O	66:DH:41:ILE:HG23	1.98	0.63
79:i:37:LYS:HD2	79:i:37:LYS:C	2.23	0.63
1:1:358:G:N2	1:1:361:A:OP2	2.31	0.63
1:1:2163:G:O2'	1:1:2292:U:OP2	2.15	0.63
1:1:2436:A:C5	1:1:2437:A:C2	2.85	0.63
1:1:2481:G:H2'	1:1:2482:U:C6	2.34	0.63
1:1:2741:A:O3'	43:AP:80:LYS:HB2	1.98	0.63
45:B:77:U:H1'	52:I:159:ARG:HH12	1.63	0.63
45:B:1245:U:H2'	45:B:1246:G:H8	1.62	0.63
62:S:88:LEU:HD21	62:S:104:LEU:HD22	1.79	0.63
9:BB:168:GLU:HG3	9:BB:177:LEU:HD12	1.79	0.63
19:BL:178:ARG:HA	19:BL:185:LYS:HG3	1.80	0.63
31:BX:78:GLU:O	31:BX:82:VAL:HG23	1.98	0.63
45:CM:960:C:H5''	59:DA:109:LYS:HD3	1.81	0.63
45:CM:1127:A:H5''	72:DN:2:PRO:HB3	1.80	0.63
47:CO:70:LEU:HD12	47:CO:79:HIS:CB	2.28	0.63
47:CO:171:ILE:HD13	47:CO:196:GLU:OE1	1.99	0.63
49:CQ:173:ILE:HG22	49:CQ:186:LYS:HG2	1.79	0.63
63:DE:71:PHE:O	63:DE:72:LYS:HG3	1.98	0.63
1:1:627:U:H2'	1:1:628:A:H8	1.64	0.63
1:1:1611:U:H2'	1:1:1612:U:C6	2.34	0.63
1:1:2366:U:O3'	18:x:80:LYS:NZ	2.28	0.63
31:AD:11:ASN:O	31:AD:14:SER:OG	2.16	0.63
45:B:1592:G:OP2	62:S:126:LYS:NZ	2.27	0.63
45:B:1649:G:H2'	45:B:1650:G:H8	1.63	0.63
50:G:139:VAL:HG23	50:G:150:PRO:HG3	1.80	0.63
61:R:81:ARG:NH1	61:R:98:ASN:HA	2.12	0.63
1:AS:412:G:N2	18:BK:118:GLN:HE22	1.92	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3234:U:OP1	8:BA:76:ARG:NE	2.26	0.63
45:CM:340:C:O2'	57:CY:11:ARG:NH1	2.31	0.63
55:CW:50:SER:O	55:CW:54:ARG:NH1	2.31	0.63
56:CX:12:HIS:HB3	56:CX:80:LEU:HD11	1.80	0.63
1:1:1635:C:OP2	35:AH:74:ARG:NH1	2.31	0.63
1:1:2347:G:H2'	1:1:2348:G:C8	2.34	0.63
17:w:151:GLU:O	17:w:155:GLU:HG2	1.97	0.63
52:I:136:LYS:NZ	52:I:174:LYS:O	2.31	0.63
53:J:5:ILE:HG22	53:J:7:SER:H	1.62	0.63
1:AS:679:U:O2'	1:AS:695:G:O6	2.13	0.63
2:AT:77:G:N2	2:AT:102:A:OP2	2.28	0.63
12:BE:30:LYS:HG3	12:BE:63:GLU:HG3	1.80	0.63
23:BP:99:VAL:HG12	23:BP:107:LYS:O	1.98	0.63
45:CM:1668:A:H1'	52:CT:66:GLY:HA2	1.80	0.63
47:CO:26:ARG:HD3	47:CO:49:ASN:OD1	1.98	0.63
1:1:687:U:O4	6:l:210:TYR:OH	2.15	0.63
8:n:65:SER:HB2	8:n:75:LEU:HD23	1.78	0.63
11:q:8:GLN:HB3	11:q:72:LYS:HD2	1.80	0.63
36:AI:102:GLU:HA	36:AI:105:ARG:HG2	1.81	0.63
1:AS:62:A:H5''	16:BI:174:ILE:HG21	1.79	0.63
8:BA:137:ASP:O	8:BA:141:VAL:HG22	1.98	0.63
12:BE:206:LEU:O	12:BE:210:LEU:HD22	1.98	0.63
17:BJ:63:THR:HG23	17:BJ:70:GLY:HA2	1.79	0.63
35:CB:107:GLU:HA	35:CB:110:ASP:HB3	1.80	0.63
45:CM:1300:U:OP1	45:CM:1313:G:N2	2.26	0.63
46:CN:33:ASN:HB3	46:CN:149:MET:SD	2.38	0.63
1:1:1663:A:H2'	1:1:1664:G:H8	1.64	0.63
45:B:1472:G:N2	45:B:1580:A:OP1	2.30	0.63
49:F:73:LEU:HD11	56:M:67:THR:HG22	1.80	0.63
56:M:69:THR:HG23	56:M:72:GLY:N	2.13	0.63
1:AS:3073:G:N7	81:AS:3401:PAR:N21	2.47	0.63
47:CO:67:GLU:OE2	47:CO:83:LYS:NZ	2.30	0.63
51:CS:62:ILE:HG23	51:CS:89:ILE:HD13	1.80	0.63
58:CZ:41:LEU:CD2	58:CZ:123:VAL:HG22	2.29	0.63
1:1:307:A:H2'	1:1:308:A:C8	2.34	0.63
7:m:219:TYR:HD1	7:m:223:PHE:HB2	1.63	0.63
28:AA:59:ALA:O	28:AA:63:THR:HG23	1.98	0.63
45:B:63:G:O2'	45:B:168:U:OP1	2.17	0.63
45:B:653:G:N2	45:B:654:G:O6	2.32	0.63
51:H:61:TYR:OH	74:e:49:ARG:NH1	2.31	0.63
53:J:150:LEU:HB2	53:J:181:ILE:HG12	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:660:U:H2'	1:AS:661:C:C6	2.33	0.63
1:AS:662:U:H2'	1:AS:663:A:H8	1.61	0.63
1:AS:1678:U:O2	23:BP:85:LYS:HG3	1.99	0.63
21:BN:12:ARG:HB3	21:BN:24:LEU:HD23	1.80	0.63
44:CK:47:VAL:HG12	44:CK:57:CYS:HB2	1.81	0.63
45:CM:327:G:H5'	54:CV:99:SER:HB3	1.80	0.63
45:CM:1478:A:O2'	45:CM:1479:A:O4'	2.16	0.63
1:1:212:A:OP1	27:9:2:ALA:N	2.32	0.63
4:j:96:LEU:HD11	4:j:108:PRO:HD2	1.80	0.63
46:C:55:GLU:HB3	67:X:79:LEU:HD22	1.81	0.63
46:C:173:ILE:O	46:C:177:LEU:HD12	1.99	0.63
48:E:122:ALA:O	48:E:125:VAL:HG12	1.98	0.63
53:J:12:GLU:O	53:J:16:LYS:HG3	1.99	0.63
78:AR:167:ILE:HD11	78:AR:201:LEU:CD2	2.29	0.63
2:AT:39:U:H5'	79:CL:33:ASN:HD22	1.64	0.63
16:BI:21:PHE:O	16:BI:25:VAL:HG23	1.97	0.63
23:BP:61:ASP:HB2	23:BP:63:LYS:NZ	2.14	0.63
31:BX:36:LEU:HD23	31:BX:61:TYR:HB3	1.80	0.63
44:CK:28:LYS:O	44:CK:32:GLN:HG3	1.99	0.63
45:CM:405:A:H2'	45:CM:406:C:H6	1.64	0.63
45:CM:690:C:H2'	45:CM:691:U:C6	2.34	0.63
46:CN:12:GLU:HA	46:CN:15:LYS:HD2	1.81	0.63
1:1:498:C:H2'	1:1:499:G:H8	1.64	0.62
1:1:2380:A:H5''	6:l:68:THR:HG22	1.80	0.62
13:s:141:ARG:O	13:s:145:ARG:HG3	1.99	0.62
21:0:96:ASP:OD1	21:0:97:VAL:N	2.31	0.62
45:B:965:G:H4'	45:B:1763:A:H4'	1.81	0.62
58:O:32:LEU:HD12	58:O:100:TRP:CD1	2.33	0.62
1:AS:1336:G:H4'	33:BZ:56:ILE:HD11	1.81	0.62
4:AW:57:PRO:HB3	44:CK:54:ILE:HD11	1.80	0.62
7:AZ:275:GLN:OE1	7:AZ:275:GLN:N	2.29	0.62
28:BU:26:VAL:HG12	28:BU:42:ILE:O	1.98	0.62
45:CM:317:U:H4'	45:CM:321:A:C8	2.33	0.62
53:CU:73:LEU:O	53:CU:77:LEU:HD12	1.99	0.62
54:CV:190:LEU:HB3	54:CV:195:LEU:HB2	1.80	0.62
69:DK:69:ARG:HG3	69:DK:117:ILE:HG12	1.80	0.62
1:1:3161:U:C4	1:1:3162:U:C2	2.87	0.62
9:o:13:LYS:O	9:o:17:GLN:OE1	2.17	0.62
45:B:878:U:H5'	45:B:879:U:OP2	1.99	0.62
45:B:1458:C:OP1	51:H:102:ARG:NH2	2.30	0.62
48:E:96:VAL:HG23	48:E:110:ILE:HG12	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:H:23:VAL:HG23	62:S:60:GLN:HE21	1.62	0.62
66:W:33:LEU:HD22	66:W:88:ARG:HH21	1.63	0.62
1:AS:627:U:H2'	1:AS:628:A:H8	1.63	0.62
1:AS:897:G:OP1	38:CE:13:ASN:ND2	2.26	0.62
1:AS:2694:U:O2'	22:BO:88:ARG:O	2.17	0.62
1:AS:3350:U:O3'	32:BY:9:ARG:NH2	2.31	0.62
33:BZ:14:TYR:CD2	33:BZ:18:PHE:HE2	2.17	0.62
45:CM:784:U:H2'	45:CM:785:G:H8	1.64	0.62
45:CM:784:U:H2'	45:CM:785:G:C8	2.34	0.62
57:CY:69:LYS:H	57:CY:127:GLN:HE21	1.47	0.62
59:DA:91:LEU:HB3	59:DA:122:ILE:HG12	1.81	0.62
71:DM:43:ASP:OD1	71:DM:44:GLN:N	2.31	0.62
1:1:269:G:H5''	16:v:14:LYS:HE2	1.79	0.62
16:v:159:ARG:HB2	16:v:164:LEU:HB2	1.81	0.62
45:B:1460:G:H2'	45:B:1461:A:C8	2.35	0.62
46:C:26:ALA:O	46:C:46:ASN:ND2	2.26	0.62
62:S:131:ARG:HG3	62:S:137:PHE:HE1	1.63	0.62
78:AR:155:VAL:C	78:AR:156:ARG:HD2	2.24	0.62
1:AS:1611:U:H2'	1:AS:1612:U:C6	2.34	0.62
1:AS:2501:A:O4'	10:BC:52:LYS:NZ	2.32	0.62
7:AZ:183:TRP:CZ3	7:AZ:189:GLU:C	2.78	0.62
59:DA:47:PRO:HA	59:DA:50:ILE:HD12	1.80	0.62
1:1:583:A:H5''	34:AG:70:LYS:HD3	1.80	0.62
1:1:1099:A:H62	1:1:1338:G:H21	1.46	0.62
1:1:1199:A:H2'	1:1:1200:A:C8	2.34	0.62
1:1:1216:U:OP1	1:1:1217:A:O2'	2.08	0.62
10:p:115:ALA:O	10:p:119:GLU:HG2	1.99	0.62
45:B:2:A:OP1	48:E:171:LYS:NZ	2.32	0.62
45:B:736:G:H2'	45:B:737:A:H8	1.64	0.62
45:B:786:G:H21	68:Y:107:SER:HB3	1.64	0.62
52:I:116:GLN:NE2	52:I:120:GLU:OE1	2.33	0.62
78:AR:13:LEU:CD1	78:AR:307:ILE:HB	2.28	0.62
78:AR:67:HIS:ND1	78:AR:68:ILE:HG13	2.14	0.62
2:AT:39:U:H5'	79:CL:33:ASN:ND2	2.13	0.62
5:AX:24:LYS:HE2	5:AX:28:ARG:HH22	1.65	0.62
10:BC:160:PRO:HB2	10:BC:162:GLU:OE1	1.99	0.62
10:BC:231:ARG:NH2	37:CD:46:VAL:O	2.32	0.62
32:BY:9:ARG:HG2	32:BY:107:VAL:HA	1.82	0.62
45:CM:847:A:N1	59:DA:70:LYS:NZ	2.44	0.62
45:CM:965:G:H4'	45:CM:1763:A:H4'	1.80	0.62
46:CN:102:PHE:CE1	46:CN:106:ASN:HB2	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CP:116:VAL:O	48:CP:120:ILE:HD12	1.99	0.62
51:CS:130:ILE:HA	51:CS:133:VAL:HG12	1.81	0.62
1:1:2443:G:HO2'	1:1:2444:G:P	2.22	0.62
1:1:2808:C:H5	1:1:2824:C:H42	1.46	0.62
8:n:129:GLU:HG3	8:n:130:ILE:H	1.65	0.62
45:B:17:C:H2'	45:B:18:C:C6	2.34	0.62
45:B:673:A:H2'	45:B:674:C:O4'	1.99	0.62
50:G:50:ASN:O	50:G:53:LYS:NZ	2.17	0.62
50:G:88:ASP:OD1	50:G:122:LYS:NZ	2.32	0.62
51:H:205:SER:OG	51:H:207:THR:HG22	1.99	0.62
53:J:34:LEU:HD12	53:J:34:LEU:N	2.15	0.62
5:AX:218:ILE:HB	5:AX:337:THR:HB	1.82	0.62
45:CM:413:C:O2'	45:CM:416:G:O6	2.12	0.62
45:CM:1526:G:H4'	64:DF:40:ARG:NH2	2.14	0.62
58:CZ:90:LYS:H	58:CZ:90:LYS:HD2	1.63	0.62
70:DL:10:ARG:HG3	70:DL:24:VAL:HG13	1.80	0.62
1:1:3260:A:H2'	1:1:3261:A:C8	2.35	0.62
6:l:132:VAL:HG21	6:l:135:LEU:HD12	1.80	0.62
19:y:153:PHE:O	19:y:161:LYS:HE3	1.99	0.62
45:B:952:A:OP2	59:P:124:ARG:NH2	2.29	0.62
63:T:11:ARG:O	63:T:15:VAL:HG22	2.00	0.62
78:AR:44:LYS:HE2	78:AR:59:LYS:HD3	1.80	0.62
1:AS:224:C:H5'	27:BT:34:PRO:HD3	1.81	0.62
1:AS:1795:A:H2'	1:AS:1796:A:C8	2.34	0.62
1:AS:2669:A:H2'	1:AS:2670:G:H8	1.64	0.62
5:AX:67:MET:HE2	5:AX:67:MET:HA	1.82	0.62
55:CW:126:ARG:HD3	76:DR:33:ARG:NH1	2.14	0.62
1:1:2244:U:H2'	1:1:2245:C:C6	2.34	0.62
1:1:2669:A:H2'	1:1:2670:G:C8	2.34	0.62
7:m:231:ILE:HD12	7:m:235:ASP:OD1	1.99	0.62
45:B:1463:G:H2'	45:B:1464:G:H8	1.64	0.62
47:D:180:THR:HG22	47:D:183:GLN:HG3	1.82	0.62
56:M:10:LYS:HG3	56:M:35:ILE:HG23	1.80	0.62
23:BP:102:LYS:HD3	23:BP:103:GLN:H	1.64	0.62
45:CM:1600:U:OP1	51:CS:169:ASN:HB2	2.00	0.62
47:CO:217:LEU:HD23	47:CO:217:LEU:H	1.65	0.62
50:CR:126:VAL:HG13	50:CR:139:VAL:HG13	1.81	0.62
65:DG:69:LYS:O	65:DG:71:VAL:N	2.32	0.62
6:l:60:GLN:O	38:AK:52:LYS:NZ	2.25	0.62
7:m:282:ARG:O	7:m:286:VAL:HG13	2.00	0.62
29:AB:86:LYS:HD2	29:AB:90:TYR:CZ	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1300:U:HO2'	45:B:1301:G:H8	1.48	0.62
64:U:129:TRP:CZ3	79:i:71:LYS:HE3	2.35	0.62
1:AS:498:C:H2'	1:AS:499:G:H8	1.64	0.62
1:AS:525:A:H2'	1:AS:526:G:C8	2.33	0.62
1:AS:1030:U:H2'	1:AS:1031:A:C8	2.35	0.62
1:AS:1493:C:H2'	1:AS:1494:A:C8	2.34	0.62
18:BK:51:VAL:HG21	18:BK:58:ILE:HG12	1.81	0.62
26:BS:130:TYR:HB3	26:BS:135:ILE:HD11	1.81	0.62
45:CM:1230:G:H1	45:CM:1235:U:H3	1.47	0.62
68:DJ:7:LEU:HD11	68:DJ:37:PHE:HD2	1.65	0.62
7:m:212:LEU:HB2	7:m:219:TYR:CD2	2.33	0.62
45:B:1669:U:O4	45:B:1707:G:N2	2.33	0.62
48:E:82:GLN:HG2	48:E:91:THR:HG23	1.80	0.62
50:G:11:ARG:HA	50:G:28:ALA:HB2	1.81	0.62
51:H:156:ARG:HH12	74:e:67:ARG:HG3	1.65	0.62
3:AU:132:G:H4'	26:BS:94:GLN:OE1	1.99	0.62
27:BT:16:ARG:HB3	27:BT:20:PHE:HE2	1.65	0.62
28:BU:50:PRO:HD3	28:BU:68:VAL:HG22	1.82	0.62
33:BZ:83:LEU:HD22	33:BZ:118:VAL:HG21	1.82	0.62
45:CM:1138:G:H5'	72:DN:85:ARG:HH12	1.59	0.62
45:CM:1399:U:OP2	63:DE:3:ARG:NH2	2.32	0.62
49:CQ:94:GLU:HB3	49:CQ:97:LEU:HD23	1.81	0.62
57:CY:102:LYS:O	69:DK:13:ARG:NH2	2.33	0.62
66:DH:39:ASN:HB3	66:DH:106:THR:CG2	2.29	0.62
1:1:290:G:H1'	16:v:93:LYS:HD2	1.82	0.62
1:1:2852:U:OP1	24:6:47:ASN:ND2	2.33	0.62
7:m:34:LYS:HD3	7:m:38:THR:HG21	1.80	0.62
62:S:92:HIS:HA	62:S:96:VAL:HG22	1.81	0.62
78:AR:258:LYS:HB3	78:AR:267:LEU:HD21	1.80	0.62
1:AS:1122:G:H5''	12:BE:119:TRP:HZ3	1.64	0.62
4:AW:109:GLU:HG3	4:AW:138:GLY:HA2	1.80	0.62
21:BN:8:GLN:HE21	21:BN:26:ARG:HH11	1.48	0.62
45:CM:433:C:H5''	69:DK:50:LYS:HE2	1.80	0.62
46:CN:9:LEU:HB2	46:CN:54:TRP:CG	2.34	0.62
70:DL:55:VAL:HG22	70:DL:75:ILE:HG22	1.82	0.62
1:1:2334:A:H61	1:1:2955:C:H5	1.45	0.61
1:1:2789:A:H4'	1:1:2790:U:OP2	1.99	0.61
1:1:3309:A:H2	1:1:3326:G:H21	1.48	0.61
45:B:826:U:H2'	45:B:827:C:O4'	2.00	0.61
50:G:126:VAL:HG13	50:G:139:VAL:HG13	1.81	0.61
78:AR:18:GLY:N	78:AR:39:ASP:OD2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3162:U:N3	1:AS:3166:A:H2	1.98	0.61
45:CM:1445:C:N4	64:DF:139:LYS:HD2	2.15	0.61
81:CM:1804:PAR:H43	81:CM:1804:PAR:H241	1.64	0.61
47:CO:88:VAL:HB	47:CO:98:THR:HG22	1.81	0.61
63:DE:55:THR:O	63:DE:59:LYS:HD2	2.00	0.61
1:1:252:U:H5'	1:1:253:A:H8	1.64	0.61
19:y:30:VAL:O	19:y:34:SER:N	2.27	0.61
45:B:138:C:OP2	52:I:187:LYS:NZ	2.25	0.61
45:B:216:A:N7	45:B:829:A:O2'	2.32	0.61
49:F:59:VAL:O	49:F:66:ARG:HB3	2.00	0.61
50:G:134:LYS:HG3	50:G:134:LYS:O	2.00	0.61
56:M:4:PRO:HG2	56:M:7:ASP:HB2	1.81	0.61
58:O:103:LEU:HD23	58:O:104:CYS:N	2.15	0.61
66:W:81:TYR:HB3	75:f:52:PHE:HB3	1.82	0.61
72:c:54:SER:O	72:c:57:SER:OG	2.18	0.61
1:AS:981:U:H5''	9:BB:96:LYS:HE2	1.81	0.61
2:AT:23:A:H2'	2:AT:24:A:C8	2.34	0.61
4:AW:225:ILE:HD11	4:AW:238:ILE:HA	1.81	0.61
15:BH:110:ARG:O	15:BH:113:VAL:HG22	2.00	0.61
17:BJ:179:LEU:HD13	17:BJ:183:LYS:HZ1	1.64	0.61
35:CB:57:LEU:HB2	35:CB:62:TYR:CE1	2.35	0.61
45:CM:1479:A:H4'	45:CM:1480:G:O5'	2.00	0.61
48:CP:165:ILE:HB	48:CP:192:TYR:HB2	1.81	0.61
62:DD:68:VAL:HG11	62:DD:80:ILE:HD11	1.83	0.61
68:DJ:36:LYS:O	68:DJ:40:VAL:HG23	2.00	0.61
76:DR:13:LYS:O	76:DR:17:GLN:HG2	2.00	0.61
13:s:75:LYS:HG3	13:s:79:ILE:HD11	1.82	0.61
26:8:82:LEU:HD13	26:8:132:ALA:HB1	1.81	0.61
45:B:1276:G:H22	45:B:1309:G:N2	1.99	0.61
45:B:1324:C:O2'	45:B:1326:A:N7	2.32	0.61
1:AS:1197:C:N4	1:AS:2829:C:OP1	2.32	0.61
6:AY:169:VAL:O	6:AY:173:VAL:HG23	2.00	0.61
10:BC:42:GLN:HE21	10:BC:45:ARG:HH22	1.49	0.61
11:BD:166:ARG:HA	11:BD:166:ARG:NE	2.15	0.61
15:BH:22:ASP:HB3	15:BH:24:LYS:NZ	2.15	0.61
22:BO:109:VAL:HG13	22:BO:110:LYS:HD3	1.81	0.61
27:BT:58:VAL:HA	27:BT:104:VAL:HG12	1.81	0.61
32:BY:12:THR:HG23	32:BY:71:ARG:NH1	2.15	0.61
45:CM:405:A:H2'	45:CM:406:C:C6	2.35	0.61
45:CM:1659:G:H2'	45:CM:1660:G:C8	2.35	0.61
46:CN:173:ILE:HD12	46:CN:174:TRP:N	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:DD:19:ALA:HB2	62:DD:83:ALA:HB1	1.82	0.61
73:DO:34:ASP:N	73:DO:80:ARG:O	2.23	0.61
1:1:1779:U:H2'	1:1:1780:A:C8	2.35	0.61
1:1:2941:A:N7	4:j:215:ASN:ND2	2.48	0.61
7:m:212:LEU:HD12	7:m:216:GLU:HA	1.80	0.61
45:B:686:G:P	68:Y:119:LYS:HG2	2.41	0.61
45:B:778:U:O2'	45:B:779:U:O2	2.15	0.61
47:D:36:THR:HG23	47:D:231:LEU:O	2.00	0.61
60:Q:27:ASP:OD2	60:Q:29:SER:N	2.34	0.61
71:b:84:GLU:OE2	71:b:94:LYS:NZ	2.34	0.61
77:h:175:ALA:CB	77:h:177:MET:HE3	2.30	0.61
7:AZ:95:TRP:CD1	7:AZ:158:ARG:HA	2.35	0.61
27:BT:86:GLN:HB3	27:BT:94:SER:HB3	1.81	0.61
32:BY:5:ASP:HB3	32:BY:88:LEU:HD11	1.82	0.61
45:CM:701:G:N2	45:CM:721:C:O2	2.34	0.61
47:CO:139:ALA:HB1	47:CO:168:MET:HE2	1.83	0.61
53:CU:59:PRO:HG2	53:CU:62:SER:OG	2.00	0.61
55:CW:76:LEU:O	55:CW:79:ARG:HG3	2.00	0.61
58:CZ:27:ALA:O	58:CZ:31:VAL:HG23	1.99	0.61
1:1:437:G:N2	1:1:620:A:H62	1.99	0.61
1:1:631:U:H2'	1:1:632:C:C6	2.35	0.61
1:1:1701:U:O2	1:1:1783:A:H5'	2.00	0.61
13:s:136:ALA:HA	13:s:148:ILE:HD11	1.82	0.61
28:AA:112:LYS:O	28:AA:112:LYS:HD2	1.99	0.61
39:AL:16:ARG:HG2	39:AL:70:PRO:HG3	1.82	0.61
45:B:515:U:H2'	45:B:516:A:H8	1.66	0.61
45:B:1575:G:H1	45:B:1595:U:H3	1.46	0.61
46:C:54:TRP:HA	46:C:57:ILE:CD1	2.31	0.61
56:M:22:VAL:O	56:M:32:HIS:NE2	2.29	0.61
58:O:36:LEU:HD13	58:O:102:GLY:HA3	1.81	0.61
1:AS:1134:U:O4	30:BW:10:HIS:NE2	2.33	0.61
1:AS:1592:C:H2'	1:AS:1593:C:C6	2.35	0.61
2:AT:9:C:OP1	22:BO:28:SER:OG	2.11	0.61
45:CM:1211:A:O2'	45:CM:1241:A:N1	2.32	0.61
45:CM:1680:A:H3'	45:CM:1681:A:H8	1.65	0.61
52:CT:31:ARG:H	52:CT:34:GLN:HE21	1.47	0.61
70:DL:105:ARG:HG2	70:DL:109:LYS:HE2	1.83	0.61
1:1:653:C:H2'	1:1:654:A:C8	2.35	0.61
1:1:1632:C:OP1	28:AA:36:HIS:NE2	2.34	0.61
11:q:18:VAL:HG22	11:q:27:VAL:HG12	1.82	0.61
15:u:117:LYS:HZ3	15:u:121:ARG:HB2	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:H:42:LEU:HD13	51:H:130:ILE:HD11	1.82	0.61
51:H:137:ILE:HD13	51:H:172:ILE:HG22	1.81	0.61
55:L:56:ALA:O	55:L:60:LEU:HD23	2.00	0.61
60:Q:81:THR:HG21	60:Q:85:LYS:NZ	2.15	0.61
78:AR:84:ALA:HA	78:AR:90:LEU:CD2	2.31	0.61
1:AS:763:U:H4'	14:BG:188:ARG:HH12	1.66	0.61
8:BA:67:PRO:HG2	8:BA:70:VAL:HG12	1.83	0.61
31:BX:32:VAL:O	31:BX:36:LEU:HD13	2.00	0.61
45:CM:564:C:O3'	76:DR:10:ARG:NH1	2.33	0.61
46:CN:79:ARG:HH12	46:CN:164:ASN:HB3	1.65	0.61
48:CP:170:GLY:HA3	55:CW:57:ARG:HE	1.66	0.61
62:DD:46:LYS:HE2	62:DD:46:LYS:H	1.65	0.61
73:DO:33:MET:HG2	73:DO:46:VAL:O	1.99	0.61
13:s:88:GLU:HB2	61:R:10:ARG:HD2	1.83	0.61
45:B:1332:U:P	66:W:22:ARG:HH12	2.23	0.61
45:B:1469:A:H2'	45:B:1470:G:C8	2.35	0.61
45:B:1600:U:OP1	51:H:169:ASN:HB2	2.01	0.61
49:F:225:LYS:HD3	49:F:226:SER:N	2.16	0.61
78:AR:228:LEU:HG	78:AR:229:TYR:CD2	2.36	0.61
6:AY:105:LYS:HE2	6:AY:107:TRP:CH2	2.35	0.61
10:BC:100:PRO:HA	10:BC:132:VAL:HG21	1.82	0.61
44:CK:79:VAL:HA	44:CK:82:THR:OG1	2.00	0.61
45:CM:484:G:N2	45:CM:499:U:O2	2.29	0.61
45:CM:823:G:O2'	45:CM:824:U:OP1	2.15	0.61
45:CM:1537:A:P	61:DC:42:ARG:HH22	2.23	0.61
46:CN:53:THR:HG22	46:CN:57:ILE:HD11	1.83	0.61
1:1:1493:C:H2'	1:1:1494:A:C8	2.36	0.61
1:1:3133:G:H2'	1:1:3134:C:H6	1.65	0.61
5:k:37:LYS:H	5:k:37:LYS:HD3	1.66	0.61
5:k:67:MET:HE3	5:k:70:ARG:HG2	1.83	0.61
8:n:38:VAL:CG1	8:n:88:THR:HB	2.30	0.61
12:r:54:SER:HB2	12:r:135:ILE:HD11	1.81	0.61
31:AD:75:GLY:N	31:AD:78:GLU:OE2	2.33	0.61
56:M:16:PHE:O	56:M:17:GLN:HB3	2.01	0.61
60:Q:131:ARG:HG3	60:Q:131:ARG:HH11	1.66	0.61
69:Z:13:ARG:O	69:Z:17:VAL:HG22	2.01	0.61
10:BC:211:GLU:O	10:BC:215:LEU:HD12	2.00	0.61
19:BL:155:PHE:HD1	19:BL:161:LYS:HB2	1.66	0.61
45:CM:1204:A:N3	56:CX:51:SER:OG	2.31	0.61
50:CR:123:LEU:HD13	50:CR:237:VAL:HG13	1.83	0.61
65:DG:108:LEU:HA	65:DG:111:ILE:HG22	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2634:G:H2'	1:1:2635:A:H8	1.65	0.61
78:AR:33:LEU:HB3	78:AR:45:TRP:HB2	1.82	0.61
78:AR:40:LYS:HZ1	78:AR:66:SER:C	2.09	0.61
78:AR:67:HIS:CE1	78:AR:68:ILE:HG13	2.35	0.61
1:AS:600:U:C2	1:AS:602:A:H1'	2.34	0.61
1:AS:2603:U:OP2	22:BO:4:SER:OG	2.19	0.61
14:BG:74:GLY:O	14:BG:101:ARG:NH1	2.32	0.61
14:BG:92:THR:HG22	36:CC:114:ARG:H	1.66	0.61
17:BJ:62:ALA:HA	17:BJ:71:PRO:HD2	1.81	0.61
21:BN:96:ASP:OD1	21:BN:97:VAL:N	2.34	0.61
28:BU:5:ILE:HD13	28:BU:77:TYR:CE2	2.35	0.61
36:CC:34:GLN:OE1	36:CC:34:GLN:N	2.33	0.61
45:CM:652:C:H5'	45:CM:653:G:OP2	2.00	0.61
45:CM:1460:G:H2'	45:CM:1461:A:C8	2.35	0.61
47:CO:48:ILE:HG21	47:CO:61:LEU:HD21	1.83	0.61
49:CQ:183:LEU:N	49:CQ:183:LEU:HD23	2.16	0.61
51:CS:90:VAL:O	51:CS:94:THR:HG23	2.01	0.61
59:DA:34:VAL:O	59:DA:38:ILE:HD12	2.00	0.61
1:1:3194:G:H5'	15:u:129:VAL:HG21	1.83	0.61
45:B:1024:A:O2'	45:B:1025:G:O5'	2.19	0.61
47:D:70:LEU:HD22	47:D:79:HIS:HB3	1.83	0.61
1:AS:348:A:N3	1:AS:352:A:O2'	2.33	0.61
1:AS:795:G:O2'	14:BG:18:TRP:NE1	2.26	0.61
45:CM:16:G:H2'	45:CM:17:C:C6	2.36	0.61
45:CM:119:A:H1'	45:CM:395:A:C5	2.36	0.61
47:CO:57:ALA:O	47:CO:61:LEU:HD23	2.00	0.61
53:CU:4:LYS:HA	53:CU:38:GLN:OE1	2.01	0.61
58:CZ:129:ASP:HA	58:CZ:133:ARG:HD3	1.81	0.61
79:i:51:ALA:O	79:i:53:LYS:N	2.25	0.61
1:1:541:U:N3	1:1:543:C:O2'	2.32	0.60
1:1:1100:G:OP2	9:o:156:LYS:NZ	2.30	0.60
13:s:32:ARG:HB2	13:s:123:TYR:OH	2.01	0.60
45:B:405:A:H2'	45:B:406:C:C6	2.35	0.60
46:C:198:MET:HG2	46:C:200:ASP:H	1.65	0.60
60:Q:117:PRO:HB2	60:Q:120:SER:HB3	1.83	0.60
1:AS:1715:G:N7	20:BM:121:HIS:HE1	1.99	0.60
11:BD:89:LYS:HB2	11:BD:183:GLU:HB3	1.83	0.60
45:CM:17:C:H2'	45:CM:18:C:C6	2.36	0.60
45:CM:488:C:O2	45:CM:495:G:N2	2.34	0.60
49:CQ:183:LEU:HD23	49:CQ:183:LEU:H	1.66	0.60
60:DB:111:GLU:HG2	60:DB:112:ASP:N	2.14	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:DJ:11:LEU:HD21	68:DJ:37:PHE:CE2	2.34	0.60
1:1:1592:C:H2'	1:1:1593:C:C6	2.37	0.60
7:m:254:LYS:HD3	7:m:255:PRO:HD2	1.82	0.60
15:u:12:PHE:O	15:u:17:ARG:HD3	2.01	0.60
45:B:573:C:N4	69:Z:65:ASN:OD1	2.34	0.60
1:AS:771:A:P	30:BW:44:ARG:HH22	2.24	0.60
45:CM:1143:C:H42	45:CM:1148:A:H61	1.49	0.60
51:CS:42:LEU:HB3	51:CS:46:TRP:HB2	1.82	0.60
12:r:38:ARG:NH2	12:r:45:GLU:OE1	2.31	0.60
48:E:147:HIS:ND1	48:E:190:ASP:OD2	2.32	0.60
50:G:79:ASP:HB3	50:G:82:TYR:HB2	1.82	0.60
52:I:7:TYR:HB2	52:I:124:LEU:HD21	1.82	0.60
68:Y:94:LEU:HD11	68:Y:102:VAL:HG23	1.83	0.60
1:AS:235:G:H5'	38:CE:84:LYS:HD3	1.82	0.60
1:AS:1115:C:H2'	1:AS:1116:A:H8	1.64	0.60
16:BI:113:LEU:HB2	16:BI:134:LEU:HD23	1.83	0.60
17:BJ:17:LEU:HD22	17:BJ:44:ILE:HD11	1.83	0.60
35:CB:36:LYS:HD3	35:CB:37:LYS:H	1.64	0.60
45:CM:140:U:P	52:CT:139:ASN:HD21	2.24	0.60
45:CM:824:U:N3	45:CM:825:U:O4	2.34	0.60
1:1:1530:A:H2'	1:1:1531:A:C8	2.37	0.60
2:3:46:A:OP1	7:m:158:ARG:HD3	2.01	0.60
7:m:95:TRP:CD1	7:m:158:ARG:HA	2.37	0.60
18:x:177:ALA:O	18:x:180:LYS:HD3	2.01	0.60
45:B:605:G:H5'	45:B:611:G:N2	2.16	0.60
45:B:671:G:H5''	45:B:672:U:C6	2.37	0.60
45:B:1579:A:H2'	45:B:1580:A:C8	2.36	0.60
46:C:36:TYR:HD1	46:C:161:PRO:HB3	1.65	0.60
1:AS:843:A:H2'	1:AS:844:A:C8	2.36	0.60
1:AS:3102:A:P	81:AS:3401:PAR:H321	2.25	0.60
4:AW:225:ILE:CD1	4:AW:238:ILE:HA	2.31	0.60
7:AZ:38:THR:HG22	22:BO:30:TYR:HB3	1.84	0.60
7:AZ:52:VAL:HG22	7:AZ:63:GLN:HB2	1.82	0.60
45:CM:589:A:H2'	45:CM:590:A:C8	2.37	0.60
45:CM:1064:U:H2'	45:CM:1065:U:C6	2.36	0.60
45:CM:1684:G:N2	45:CM:1692:U:OP2	2.35	0.60
50:CR:107:GLY:HA2	50:CR:189:LEU:HD23	1.83	0.60
53:CU:146:GLN:OE1	53:CU:175:LYS:NZ	2.34	0.60
67:DI:68:SER:C	67:DI:72:LEU:HD12	2.25	0.60
1:1:2384:C:H2'	1:1:2385:C:C6	2.37	0.60
27:9:51:ARG:HG2	27:9:52:GLN:N	2.15	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:W:26:THR:HG22	66:W:87:LYS:HG3	1.81	0.60
78:AR:12:THR:O	78:AR:53:ASN:HA	2.01	0.60
1:AS:1018:U:H2'	1:AS:1019:U:H5''	1.82	0.60
1:AS:1692:A:H2'	1:AS:1693:A:C8	2.37	0.60
1:AS:2873:G:O2'	1:AS:2996:A:N1	2.32	0.60
27:BT:74:TYR:CE2	27:BT:77:LYS:HE2	2.36	0.60
32:BY:15:LEU:HD11	32:BY:35:ILE:HD11	1.83	0.60
37:CD:61:ARG:HH21	37:CD:93:ILE:HB	1.67	0.60
45:CM:1615:U:H2'	45:CM:1616:G:C8	2.37	0.60
52:CT:52:ILE:HA	52:CT:111:LEU:HD23	1.84	0.60
59:DA:4:MET:HE3	59:DA:124:ARG:NH1	2.16	0.60
79:CL:37:LYS:HD3	79:CL:39:SER:H	1.67	0.60
79:CL:71:LYS:O	79:CL:73:VAL:N	2.34	0.60
1:1:1493:C:H2'	1:1:1494:A:H8	1.67	0.60
11:q:90:MET:HE3	11:q:181:VAL:HG23	1.83	0.60
13:s:88:GLU:O	61:R:10:ARG:NH1	2.35	0.60
51:H:35:GLU:OE2	51:H:38:ARG:HD2	2.02	0.60
59:P:132:VAL:HG23	59:P:134:VAL:HG23	1.84	0.60
1:AS:496:A:H4'	8:BA:27:GLN:HG3	1.83	0.60
1:AS:1208:A:O3'	21:BN:92:LYS:NZ	2.34	0.60
16:BI:105:ARG:HG2	16:BI:108:ARG:NH2	2.17	0.60
45:CM:1220:C:H3'	45:CM:1221:A:H8	1.66	0.60
45:CM:1368:A:O3'	66:DH:88:ARG:NH2	2.34	0.60
48:CP:76:MET:HE2	48:CP:76:MET:HA	1.83	0.60
53:CU:25:GLU:OE2	53:CU:34:LEU:HB2	2.00	0.60
65:DG:9:VAL:HG23	65:DG:140:LEU:HG	1.83	0.60
65:DG:65:ILE:O	65:DG:124:ILE:HD11	2.02	0.60
1:1:1408:G:H5''	33:AF:125:GLY:HA3	1.84	0.60
3:4:21:C:OP1	6:l:194:LYS:NZ	2.31	0.60
6:l:139:ARG:HG2	6:l:139:ARG:HH11	1.66	0.60
12:r:187:ASN:O	12:r:187:ASN:ND2	2.29	0.60
49:F:99:ALA:HB1	49:F:187:VAL:HG13	1.82	0.60
1:AS:538:G:H2'	1:AS:539:G:C8	2.37	0.60
1:AS:547:U:H2'	1:AS:548:G:H8	1.65	0.60
1:AS:2852:U:H1'	5:AX:250:ALA:HB3	1.84	0.60
18:BK:10:ASN:ND2	18:BK:13:LYS:HB2	2.17	0.60
18:BK:175:ARG:O	18:BK:179:GLN:HG3	2.01	0.60
45:CM:702:G:H4'	45:CM:703:U:OP1	2.00	0.60
45:CM:1659:G:H2'	45:CM:1660:G:H8	1.66	0.60
45:CM:1739:U:H2'	45:CM:1740:A:C8	2.37	0.60
49:CQ:214:ASP:OD1	49:CQ:215:GLU:N	2.29	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:214:ASP:CG	49:CQ:215:GLU:H	2.10	0.60
56:CX:10:LYS:HE3	56:CX:36:ASP:HB3	1.84	0.60
1:1:403:C:O2'	1:1:404:G:OP1	2.20	0.60
5:k:105:VAL:HG21	5:k:148:LEU:HD21	1.84	0.60
10:p:42:GLN:OE1	10:p:45:ARG:NH2	2.35	0.60
49:F:76:LYS:HZ1	56:M:18:GLU:HG2	1.66	0.60
78:AR:257:ILE:HD11	78:AR:286:ALA:CB	2.32	0.60
1:AS:1696:G:H5'	39:CF:3:ARG:NH1	2.16	0.60
1:AS:3350:U:H4'	32:BY:9:ARG:NH2	2.16	0.60
3:AU:139:U:H2'	3:AU:140:G:H8	1.67	0.60
14:BG:168:ALA:O	14:BG:172:LEU:HD12	2.01	0.60
35:CB:98:GLN:O	35:CB:101:VAL:HG22	2.02	0.60
39:CF:16:ARG:HD3	39:CF:70:PRO:HG3	1.84	0.60
40:CG:28:ARG:HD2	40:CG:36:ARG:HG3	1.83	0.60
45:CM:151:G:H2'	45:CM:152:G:C8	2.36	0.60
64:DF:20:THR:OG1	64:DF:35:ILE:HD12	2.02	0.60
67:DI:68:SER:O	67:DI:72:LEU:HD12	2.02	0.60
1:1:1115:C:H2'	1:1:1116:A:H8	1.67	0.60
1:1:1739:G:N7	81:1:3412:PAR:H221	2.16	0.60
1:1:2669:A:H2'	1:1:2670:G:H8	1.67	0.60
1:1:3064:C:C2'	24:6:12:ARG:HH21	2.15	0.60
7:m:187:ALA:O	7:m:189:GLU:N	2.34	0.60
44:AQ:85:ARG:O	44:AQ:89:LEU:HD12	2.01	0.60
45:B:261:C:H4'	45:B:290:U:H5'	1.83	0.60
46:C:14:ALA:O	46:C:18:LEU:HD13	2.02	0.60
65:V:65:ILE:HG12	65:V:71:VAL:CG2	2.31	0.60
69:Z:60:GLU:H	76:g:4:VAL:HG12	1.67	0.60
1:AS:1774:G:H4'	1:AS:2078:A:H4'	1.84	0.60
1:AS:1795:A:H2'	1:AS:1796:A:H8	1.67	0.60
1:AS:3318:G:H5''	1:AS:3319:U:H4'	1.83	0.60
27:BT:84:LYS:H	27:BT:85:LEU:HD22	1.65	0.60
31:BX:15:LYS:HB3	31:BX:102:ILE:HD13	1.84	0.60
45:CM:267:G:H2'	45:CM:268:C:C6	2.36	0.60
45:CM:654:G:H8	45:CM:654:G:O5'	1.84	0.60
46:CN:106:ASN:ND2	46:CN:114:SER:O	2.35	0.60
63:DE:73:LEU:HD21	63:DE:77:GLU:CD	2.26	0.60
1:1:248:U:H2'	1:1:249:G:H4'	1.84	0.60
15:u:34:ASP:OD2	15:u:37:ARG:NH2	2.33	0.60
33:AF:112:LYS:HE2	33:AF:116:LEU:HD11	1.84	0.60
45:B:944:U:OP1	73:d:30:SER:OG	2.17	0.60
54:K:158:ILE:HG13	54:K:159:GLU:H	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:383:G:N2	1:AS:386:A:OP2	2.30	0.60
21:BN:164:GLN:HG2	21:BN:166:THR:H	1.65	0.60
29:BV:36:GLY:HA3	29:BV:40:HIS:CE1	2.37	0.60
45:CM:932:U:H2'	45:CM:933:A:C8	2.37	0.60
46:CN:205:ARG:NH1	63:DE:84:TYR:HD2	1.96	0.60
53:CU:29:ASP:OD2	53:CU:72:ARG:NH2	2.28	0.60
53:CU:37:LEU:O	53:CU:38:GLN:NE2	2.35	0.60
79:i:37:LYS:HZ1	79:i:42:ALA:HB2	1.67	0.60
1:1:1662:G:H2'	1:1:1663:A:H8	1.65	0.59
1:1:2583:U:H2'	1:1:2584:U:C6	2.37	0.59
10:p:248:ALA:O	10:p:252:LYS:HG2	2.02	0.59
39:AL:66:GLN:O	39:AL:69:LEU:HG	2.02	0.59
45:B:1245:U:H2'	45:B:1246:G:C8	2.37	0.59
55:L:118:LEU:HD23	55:L:158:PHE:CE2	2.37	0.59
65:V:19:ALA:HB2	65:V:56:LYS:HA	1.83	0.59
66:W:56:ARG:HG2	66:W:88:ARG:HH11	1.67	0.59
69:Z:107:PHE:CD2	69:Z:114:LYS:HB3	2.28	0.59
74:e:41:VAL:HG11	74:e:64:ARG:NH2	2.16	0.59
78:AR:19:TRP:HB2	78:AR:38:ARG:HG3	1.84	0.59
78:AR:202:SER:HA	78:AR:242:PHE:HD2	1.67	0.59
1:AS:654:A:H2'	1:AS:655:A:C8	2.37	0.59
1:AS:1530:A:H2'	1:AS:1531:A:C8	2.37	0.59
25:BR:53:VAL:O	25:BR:57:ARG:HG2	2.02	0.59
44:CK:82:THR:HG22	44:CK:85:ARG:NH2	2.17	0.59
54:CV:87:ASN:HB3	54:CV:90:LEU:HD12	1.83	0.59
54:CV:141:ARG:HB3	54:CV:145:VAL:HG11	1.84	0.59
58:CZ:90:LYS:HD2	58:CZ:90:LYS:N	2.17	0.59
63:DE:35:THR:HA	63:DE:38:ILE:HG12	1.84	0.59
67:DI:51:ILE:HD12	67:DI:78:LEU:HD11	1.82	0.59
74:DP:19:THR:HG22	74:DP:20:GLY:H	1.65	0.59
1:1:907:C:N4	4:j:3:ARG:HD3	2.18	0.59
45:B:575:G:C6	79:i:96:LYS:HA	2.36	0.59
45:B:1230:G:N2	45:B:1235:U:O4	2.33	0.59
45:B:1635:A:H2'	45:B:1636:C:C6	2.37	0.59
47:D:185:THR:O	47:D:189:ILE:HD12	2.02	0.59
51:H:108:LEU:HD21	62:S:43:LEU:HD11	1.83	0.59
54:K:142:SER:O	54:K:146:GLU:HG3	2.02	0.59
56:M:17:GLN:OE1	79:i:157:GLU:N	2.35	0.59
62:S:37:LEU:HD21	65:V:10:PRO:HA	1.82	0.59
67:X:5:LYS:HB2	67:X:7:GLN:NE2	2.17	0.59
1:AS:1106:U:H2'	1:AS:1107:U:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BG:52:ASP:OD2	14:BG:144:SER:OG	2.20	0.59
45:CM:668:U:H3'	45:CM:669:G:H8	1.67	0.59
45:CM:1579:A:H2'	45:CM:1580:A:C8	2.37	0.59
46:CN:75:VAL:HG22	46:CN:97:ALA:HA	1.83	0.59
47:CO:72:ASP:OD2	72:DN:59:TYR:OH	2.21	0.59
47:CO:84:ILE:HD12	47:CO:84:ILE:N	2.16	0.59
51:CS:157:ARG:HD3	51:CS:157:ARG:H	1.67	0.59
60:DB:13:ARG:N	60:DB:24:HIS:O	2.32	0.59
66:DH:38:ALA:O	66:DH:41:ILE:HG12	2.02	0.59
1:1:438:A:N1	1:1:489:G:O2'	2.33	0.59
1:1:3256:G:H2'	1:1:3257:A:H8	1.67	0.59
18:x:29:THR:HG22	18:x:119:VAL:HG11	1.84	0.59
23:5:19:VAL:HG22	23:5:20:ALA:H	1.67	0.59
45:B:654:G:H3'	45:B:655:U:H6	1.68	0.59
67:X:68:SER:O	67:X:72:LEU:HD23	2.01	0.59
76:g:25:GLU:OE1	76:g:25:GLU:N	2.34	0.59
78:AR:50:GLY:H	78:AR:55:TYR:HA	1.66	0.59
1:AS:765:G:H5'	14:BG:177:ASN:ND2	2.17	0.59
1:AS:2869:A:H2'	1:AS:2871:C:H5''	1.83	0.59
1:AS:3081:G:H21	11:BD:156:GLN:NE2	1.99	0.59
1:AS:3260:A:H2'	1:AS:3261:A:C8	2.37	0.59
3:AU:21:C:H5''	6:AY:195:LEU:HD11	1.84	0.59
16:BI:105:ARG:HG2	16:BI:108:ARG:HH22	1.66	0.59
23:BP:102:LYS:CD	23:BP:103:GLN:H	2.15	0.59
24:BQ:125:LEU:HD22	24:BQ:126:TRP:CE2	2.37	0.59
28:BU:57:MET:HE2	28:BU:61:LYS:HB3	1.83	0.59
45:CM:220:A:C8	45:CM:221:U:H5	2.21	0.59
45:CM:902:U:O2	60:DB:36:ARG:NH1	2.34	0.59
47:CO:87:ARG:N	47:CO:99:ASN:O	2.30	0.59
48:CP:163:ARG:HD3	48:CP:165:ILE:HD11	1.84	0.59
49:CQ:219:ILE:CG1	49:CQ:220:PRO:HD2	2.32	0.59
50:CR:11:ARG:HA	50:CR:28:ALA:HB2	1.83	0.59
56:CX:76:LEU:HB3	56:CX:80:LEU:HD13	1.83	0.59
65:DG:42:GLY:HA2	65:DG:84:LYS:HG3	1.83	0.59
45:B:30:G:H4'	69:Z:131:SER:HB2	1.84	0.59
45:B:1130:U:O2'	48:E:84:GLN:O	2.16	0.59
45:B:1719:A:H2'	45:B:1720:C:H6	1.64	0.59
7:AZ:99:TYR:CE2	7:AZ:164:LYS:HD2	2.37	0.59
18:BK:107:LEU:HD23	18:BK:152:GLU:HG3	1.83	0.59
27:BT:51:ARG:HG2	27:BT:52:GLN:H	1.66	0.59
28:BU:57:MET:HG2	28:BU:62:VAL:HG13	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CA:49:ILE:HG12	34:CA:100:ILE:HD13	1.84	0.59
45:CM:17:C:O2'	45:CM:1122:A:N1	2.34	0.59
45:CM:69:G:P	70:DL:123:ARG:HH12	2.24	0.59
45:CM:515:U:H2'	45:CM:516:A:H8	1.67	0.59
45:CM:703:U:H2'	45:CM:704:A:N7	2.17	0.59
45:CM:1413:A:OP2	79:CL:90:ARG:NE	2.35	0.59
57:CY:10:GLU:HB2	57:CY:14:GLN:HE21	1.66	0.59
79:i:37:LYS:HD3	79:i:39:SER:O	2.02	0.59
1:1:1561:U:H2'	1:1:1562:G:C8	2.37	0.59
1:1:2273:A:N3	1:1:2901:C:O2'	2.35	0.59
7:m:144:VAL:HG22	7:m:173:VAL:HG22	1.85	0.59
13:s:53:THR:HG22	13:s:61:ARG:HH21	1.67	0.59
51:H:186:ASN:OD1	51:H:188:LYS:HB2	2.02	0.59
1:AS:619:A:H2'	1:AS:620:A:C8	2.38	0.59
1:AS:2199:G:N2	1:AS:2202:A:OP2	2.24	0.59
47:CO:72:ASP:OD1	60:DB:109:ARG:NH2	2.29	0.59
79:CL:66:ASN:C	79:CL:67:LYS:HD3	2.28	0.59
7:m:285:LYS:O	7:m:289:LYS:HG2	2.02	0.59
16:v:90:ASN:O	43:AP:50:TYR:OH	2.16	0.59
46:C:201:LEU:HB2	63:T:85:VAL:CG1	2.32	0.59
49:F:159:ILE:HG13	49:F:190:MET:SD	2.43	0.59
53:J:73:LEU:O	53:J:77:LEU:HG	2.02	0.59
64:U:92:GLN:HG2	64:U:115:ARG:NH1	2.18	0.59
1:AS:1415:A:OP1	3:AU:20:U:O2'	2.21	0.59
6:AY:262:VAL:HG13	6:AY:263:TYR:CD2	2.37	0.59
7:AZ:208:MET:HE2	7:AZ:233:SER:HA	1.83	0.59
20:BM:139:VAL:O	20:BM:142:ILE:HG13	2.03	0.59
26:BS:92:LYS:HB3	26:BS:110:VAL:CG1	2.33	0.59
1:1:2836:A:H5''	12:r:114:GLY:HA2	1.84	0.59
3:4:37:A:OP2	36:AI:86:ARG:HD2	2.02	0.59
6:l:6:GLN:HB3	6:l:20:GLN:HB3	1.84	0.59
45:B:518:A:H2'	45:B:519:A:C8	2.38	0.59
45:B:940:A:H4'	45:B:1058:G:O2'	2.02	0.59
46:C:175:TRP:HE3	46:C:176:LEU:HD23	1.66	0.59
53:J:11:THR:O	53:J:15:LEU:HD22	2.02	0.59
54:K:89:GLU:OE1	54:K:92:ARG:NH1	2.36	0.59
58:O:40:GLY:HA3	58:O:124:LYS:HB2	1.84	0.59
65:V:72:GLY:O	65:V:76:LEU:HD13	2.02	0.59
78:AR:155:VAL:O	78:AR:156:ARG:HD2	2.03	0.59
1:AS:756:G:O2'	1:AS:766:G:N2	2.33	0.59
13:BF:12:LEU:H	13:BF:12:LEU:HD12	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BF:33:ALA:O	13:BF:36:VAL:HG22	2.02	0.59
45:CM:723:G:H2'	45:CM:724:G:C4'	2.33	0.59
45:CM:1021:A:H4'	68:DJ:3:ARG:NH2	2.17	0.59
45:CM:1681:A:H2'	45:CM:1682:G:C8	2.38	0.59
70:DL:106:GLN:O	70:DL:110:GLN:HG3	2.03	0.59
1:1:619:A:H2'	1:1:620:A:C8	2.37	0.59
1:1:2391:A:H2'	1:1:2392:G:C8	2.38	0.59
19:y:51:SER:HA	19:y:54:LEU:HD13	1.84	0.59
45:B:1066:A:O2'	45:B:1068:G:N7	2.32	0.59
49:F:76:LYS:NZ	56:M:18:GLU:HG2	2.17	0.59
62:S:12:LYS:HG3	62:S:13:LYS:H	1.68	0.59
62:S:45:PHE:HA	62:S:48:TYR:HB2	1.84	0.59
1:AS:653:C:H2'	1:AS:654:A:C8	2.38	0.59
4:AW:27:ALA:HA	4:AW:75:THR:HG22	1.85	0.59
8:BA:42:LEU:HD11	8:BA:84:ILE:HG12	1.84	0.59
24:BQ:74:MET:HE3	24:BQ:102:ILE:HG12	1.84	0.59
29:BV:74:ASN:OD1	29:BV:113:LEU:HB2	2.02	0.59
45:CM:1024:A:O2'	45:CM:1025:G:O5'	2.21	0.59
45:CM:1245:U:H2'	45:CM:1246:G:C8	2.38	0.59
45:CM:1335:U:H2'	45:CM:1336:G:C8	2.38	0.59
49:CQ:114:LEU:HD13	49:CQ:118:ARG:HD3	1.84	0.59
1:1:496:A:H4'	8:n:27:GLN:HG3	1.83	0.59
6:l:360:VAL:HG22	21:0:64:ILE:HG12	1.85	0.59
45:B:4:C:H4'	48:E:176:SER:HB3	1.85	0.59
45:B:788:A:C8	68:Y:107:SER:HA	2.37	0.59
48:E:133:PRO:HB2	48:E:217:TYR:HE2	1.66	0.59
50:G:45:VAL:HG13	50:G:80:THR:O	2.03	0.59
59:P:138:ASN:O	59:P:140:LYS:HE3	2.03	0.59
68:Y:16:ASN:O	68:Y:20:THR:HG22	2.02	0.59
1:AS:589:G:N2	1:AS:610:U:OP1	2.36	0.59
1:AS:1080:A:H2'	1:AS:1081:A:C8	2.37	0.59
1:AS:2135:G:N2	1:AS:2155:G:O2'	2.35	0.59
1:AS:2260:U:O2	1:AS:2288:U:H4'	2.03	0.59
45:CM:721:C:H42	45:CM:722:A:H62	1.51	0.59
45:CM:903:U:H2'	45:CM:904:A:H8	1.65	0.59
52:CT:127:THR:HG22	52:CT:128:THR:H	1.67	0.59
1:1:1560:U:H3	1:1:1571:G:H1	1.49	0.59
1:1:2239:G:O2'	1:1:2241:C:N4	2.35	0.59
5:k:45:ALA:HB3	5:k:181:ILE:HG23	1.85	0.59
63:T:69:ILE:HD12	63:T:69:ILE:O	2.03	0.59
76:g:55:LYS:HB2	76:g:58:PRO:HG3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:398:A:C5	18:BK:3:ARG:NH2	2.70	0.59
10:BC:137:LEU:CD1	10:BC:197:ALA:HB3	2.21	0.59
39:CF:69:LEU:HD11	39:CF:75:ILE:CD1	2.32	0.59
45:CM:415:A:H4'	45:CM:416:G:O5'	2.03	0.59
45:CM:1265:C:H2'	45:CM:1266:G:C8	2.37	0.59
51:CS:114:VAL:O	51:CS:118:LEU:HD23	2.03	0.59
60:DB:77:LYS:HG2	60:DB:113:VAL:HG21	1.85	0.59
63:DE:55:THR:HG22	63:DE:59:LYS:NZ	2.18	0.59
66:DH:81:TYR:HB3	75:DQ:52:PHE:HB3	1.84	0.59
68:DJ:7:LEU:O	68:DJ:11:LEU:HD13	2.03	0.59
1:1:2876:U:H2'	1:1:2877:U:C6	2.38	0.58
1:1:3254:G:H2'	1:1:3255:G:C8	2.38	0.58
1:1:3254:G:H2'	1:1:3255:G:H8	1.67	0.58
45:B:189:G:N7	54:K:143:ARG:NH2	2.50	0.58
63:T:109:LEU:O	63:T:113:LEU:HG	2.03	0.58
1:AS:2526:C:OP1	4:AW:93:LYS:HE3	2.03	0.58
1:AS:2941:A:N7	4:AW:215:ASN:ND2	2.50	0.58
13:BF:74:PRO:O	13:BF:78:GLU:HG3	2.02	0.58
23:BP:10:LYS:HD2	23:BP:11:SER:O	2.02	0.58
45:CM:147:C:OP1	70:DL:121:THR:HG22	2.03	0.58
45:CM:1452:G:O2'	45:CM:1589:C:OP1	2.19	0.58
45:CM:1593:C:H2'	45:CM:1594:G:C8	2.38	0.58
49:CQ:219:ILE:HG12	49:CQ:220:PRO:HD2	1.84	0.58
55:CW:32:GLY:HA3	76:DR:40:TYR:CD2	2.38	0.58
62:DD:113:LYS:O	62:DD:117:VAL:HG22	2.03	0.58
1:1:208:A:H4'	1:1:210:A:C8	2.38	0.58
1:1:2686:G:OP2	43:AP:10:THR:HG22	2.03	0.58
14:t:122:LYS:HB3	36:AI:119:LYS:H	1.68	0.58
19:y:64:VAL:HG13	19:y:88:THR:O	2.03	0.58
20:z:69:SER:HB3	20:z:75:HIS:CE1	2.38	0.58
45:B:405:A:H2'	45:B:406:C:H6	1.67	0.58
45:B:1241:A:H5'	45:B:1242:U:C5	2.38	0.58
48:E:153:VAL:HG22	48:E:164:LEU:HB2	1.84	0.58
1:AS:2628:A:O5'	43:CJ:98:LYS:HD3	2.02	0.58
1:AS:2650:A:C6	79:CL:53:LYS:HD2	2.38	0.58
14:BG:141:VAL:HG11	36:CC:118:ILE:HB	1.84	0.58
23:BP:54:ILE:HG22	23:BP:68:VAL:HG23	1.86	0.58
45:CM:1584:A:C8	75:DQ:14:PHE:HD1	2.20	0.58
49:CQ:171:ILE:HG12	49:CQ:188:LYS:HG3	1.84	0.58
1:1:1625:U:H5'	28:AA:112:LYS:HD3	1.84	0.58
1:1:2744:C:H5	81:1:3427:PAR:H31	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1410:A:H2'	48:E:87:ALA:HB3	1.83	0.58
46:C:180:GLU:O	46:C:184:LEU:HG	2.03	0.58
50:G:254:ASP:HA	50:G:257:ARG:HG2	1.84	0.58
1:AS:441:U:O2'	1:AS:442:G:H5''	2.03	0.58
1:AS:2656:C:H1'	13:BF:99:THR:HG21	1.85	0.58
1:AS:2718:A:H5'	7:AZ:178:ASN:OD1	2.02	0.58
7:AZ:64:ILE:HG23	7:AZ:75:PHE:HB3	1.86	0.58
7:AZ:183:TRP:HZ3	7:AZ:189:GLU:C	2.11	0.58
14:BG:49:ARG:NH2	36:CC:115:LYS:HE2	2.18	0.58
45:CM:669:G:H2'	45:CM:671:G:C8	2.38	0.58
64:DF:45:LEU:HD23	64:DF:49:LYS:HG3	1.85	0.58
1:1:308:A:H1'	1:1:2200:A:N3	2.18	0.58
1:1:3287:A:H2'	1:1:3288:A:C8	2.39	0.58
11:q:161:ILE:HG22	11:q:179:ILE:HD11	1.85	0.58
32:AE:45:THR:OG1	32:AE:86:GLU:OE2	2.20	0.58
38:AK:8:LEU:O	38:AK:11:ARG:HD3	2.02	0.58
54:K:89:GLU:O	54:K:93:THR:HG22	2.02	0.58
54:K:171:LEU:HD12	54:K:189:ILE:HD13	1.85	0.58
58:O:113:ARG:HG3	58:O:114:LYS:N	2.11	0.58
63:T:89:SER:HB3	63:T:92:ASP:H	1.68	0.58
65:V:10:PRO:HB2	65:V:13:ASP:OD1	2.02	0.58
73:d:56:CYS:H	73:d:63:LEU:HD21	1.69	0.58
1:AS:365:A:OP1	6:AY:85:ARG:NH1	2.37	0.58
1:AS:606:A:C6	8:BA:21:ARG:HD3	2.38	0.58
7:AZ:50:ARG:NH2	7:AZ:72:ASP:OD2	2.36	0.58
10:BC:137:LEU:HD11	10:BC:197:ALA:CB	2.22	0.58
17:BJ:179:LEU:HD13	17:BJ:183:LYS:NZ	2.18	0.58
45:CM:574:G:OP1	79:CL:101:LYS:NZ	2.35	0.58
45:CM:673:A:H2'	45:CM:674:C:C6	2.38	0.58
45:CM:676:G:OP1	45:CM:676:G:H4'	2.01	0.58
45:CM:1259:C:O2	79:CL:94:THR:HG23	2.04	0.58
45:CM:1784:A:H5'	72:DN:95:ARG:HG2	1.84	0.58
55:CW:96:VAL:O	55:CW:99:LEU:HD12	2.03	0.58
1:1:498:C:H2'	1:1:499:G:C8	2.39	0.58
45:B:1335:U:H2'	45:B:1336:G:C8	2.38	0.58
45:B:1549:G:OP1	65:V:89:ARG:NH1	2.37	0.58
46:C:172:LEU:O	46:C:176:LEU:HG	2.03	0.58
51:H:109:LYS:O	51:H:113:ILE:HG13	2.04	0.58
51:H:121:ILE:CG2	51:H:132:VAL:HG11	2.32	0.58
63:T:89:SER:C	63:T:91:LEU:N	2.61	0.58
78:AR:13:LEU:HD13	78:AR:45:TRP:CZ2	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:117:U:O4	1:AS:147:G:N2	2.35	0.58
1:AS:765:G:H5'	14:BG:177:ASN:HD22	1.67	0.58
1:AS:2492:U:OP2	1:AS:2558:G:N2	2.36	0.58
1:AS:2925:U:H2'	1:AS:2926:U:H2'	1.85	0.58
14:BG:66:ASN:HD21	29:BV:128:ARG:NH2	2.00	0.58
35:CB:65:VAL:O	35:CB:70:LYS:NZ	2.37	0.58
45:CM:1147:C:H4'	74:DP:22:ARG:HD2	1.85	0.58
68:DJ:8:ALA:HB2	68:DJ:74:VAL:HG11	1.85	0.58
71:DM:61:SER:H	71:DM:64:VAL:CG1	2.16	0.58
1:1:2873:G:O2'	1:1:2996:A:N1	2.37	0.58
5:k:106:TRP:HB2	5:k:133:TYR:CE2	2.38	0.58
45:B:770:C:H1'	50:G:256:ARG:HH21	1.69	0.58
45:B:1265:C:O2'	66:W:69:THR:HG22	2.02	0.58
45:B:1593:C:H2'	45:B:1594:G:C8	2.38	0.58
54:K:196:ALA:O	54:K:200:ARG:HG3	2.03	0.58
62:S:27:LEU:HD11	62:S:29:LYS:HD2	1.86	0.58
1:AS:25:A:H2'	1:AS:26:C:H6	1.67	0.58
1:AS:647:A:H2'	1:AS:648:C:C6	2.39	0.58
1:AS:907:C:N4	4:AW:3:ARG:HD3	2.18	0.58
1:AS:948:A:H4'	1:AS:964:G:N2	2.19	0.58
1:AS:1774:G:O2'	1:AS:1776:G:OP2	2.20	0.58
2:AT:4:U:H2'	2:AT:5:G:H8	1.67	0.58
4:AW:204:MET:HB3	4:AW:208:ASP:HB2	1.86	0.58
8:BA:65:SER:HB2	8:BA:75:LEU:CD2	2.34	0.58
11:BD:171:ASP:OD1	11:BD:173:ARG:HG3	2.03	0.58
15:BH:109:GLU:O	15:BH:113:VAL:HG13	2.03	0.58
46:CN:49:ASN:ND2	46:CN:52:LYS:HG3	2.18	0.58
47:CO:123:ALA:HB2	47:CO:165:ARG:HG3	1.86	0.58
48:CP:122:ALA:O	48:CP:125:VAL:HG22	2.04	0.58
14:t:7:LEU:O	29:AB:49:HIS:NE2	2.37	0.58
16:v:31:ARG:NH1	16:v:124:ASP:OD2	2.34	0.58
23:5:19:VAL:O	23:5:21:ALA:N	2.36	0.58
31:AD:57:GLU:HB2	35:AH:94:LEU:HD11	1.85	0.58
45:B:671:G:C3'	45:B:672:U:H5'	2.26	0.58
45:B:924:A:H2'	45:B:925:A:C8	2.38	0.58
45:B:1578:C:H2'	45:B:1579:A:C8	2.38	0.58
52:I:136:LYS:HG3	52:I:173:PRO:HB2	1.86	0.58
65:V:134:ARG:C	65:V:138:GLN:HE21	2.11	0.58
68:Y:106:THR:HG23	68:Y:108:ALA:H	1.67	0.58
1:AS:2384:C:H2'	1:AS:2385:C:C6	2.39	0.58
1:AS:3234:U:P	8:BA:76:ARG:HH21	2.27	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BG:54:LEU:HD13	14:BG:75:PHE:HE1	1.69	0.58
16:BI:154:PRO:HB3	16:BI:157:LYS:HE3	1.84	0.58
18:BK:59:PRO:HG3	18:BK:76:PHE:CG	2.38	0.58
39:CF:46:ARG:NE	39:CF:47:GLY:O	2.36	0.58
45:CM:711:U:OP1	45:CM:713:U:N3	2.36	0.58
45:CM:736:G:H2'	45:CM:737:A:H8	1.69	0.58
45:CM:880:G:O2'	60:DB:33:THR:N	2.36	0.58
1:1:2988:A:H2'	1:1:2989:A:H8	1.66	0.58
2:3:23:A:H2'	2:3:24:A:C8	2.38	0.58
2:3:62:U:H5''	7:m:277:LEU:HD22	1.86	0.58
10:p:243:ALA:O	10:p:247:ILE:HG23	2.04	0.58
19:y:35:PHE:CE1	19:y:39:ARG:NH2	2.71	0.58
36:AI:29:ALA:O	36:AI:33:VAL:HG23	2.04	0.58
65:V:18:TYR:CZ	65:V:22:LEU:HD11	2.39	0.58
77:h:163:CYS:HA	77:h:174:MET:HE1	1.84	0.58
1:AS:1489:G:C4	40:CG:13:LEU:HD21	2.39	0.58
17:BJ:190:GLU:O	17:BJ:194:LYS:HG3	2.04	0.58
36:CC:64:GLU:HA	36:CC:67:ARG:HB2	1.85	0.58
45:CM:1463:G:H2'	45:CM:1464:G:H8	1.69	0.58
55:CW:77:ILE:O	55:CW:81:VAL:HG13	2.04	0.58
57:CY:46:LYS:HD3	57:CY:46:LYS:H	1.69	0.58
60:DB:77:LYS:HG2	60:DB:113:VAL:HG11	1.85	0.58
12:r:38:ARG:NH1	12:r:45:GLU:OE1	2.37	0.58
12:r:169:LYS:HE3	12:r:170:LYS:HE2	1.86	0.58
23:5:28:PHE:CE1	23:5:86:TYR:HE2	2.18	0.58
27:9:38:GLU:HG2	27:9:39:LEU:HD12	1.86	0.58
45:B:515:U:H2'	45:B:516:A:C8	2.38	0.58
45:B:848:A:P	68:Y:57:ARG:NH1	2.76	0.58
51:H:92:ARG:HH22	51:H:169:ASN:HB3	1.69	0.58
53:J:156:THR:HA	53:J:159:ASP:OD1	2.04	0.58
62:S:135:ALA:C	62:S:136:ARG:HD2	2.29	0.58
67:X:4:ASP:OD1	67:X:5:LYS:N	2.37	0.58
78:AR:102:GLN:NE2	78:AR:103:ARG:O	2.37	0.58
1:AS:665:C:OP2	81:AS:3409:PAR:N64	2.36	0.58
1:AS:1060:A:H4'	1:AS:1061:A:O5'	2.03	0.58
16:BI:147:ARG:HH11	16:BI:147:ARG:HG2	1.69	0.58
45:CM:271:G:N2	45:CM:281:U:O2	2.34	0.58
45:CM:1637:U:H2'	45:CM:1638:A:C8	2.39	0.58
49:CQ:14:ALA:HA	49:CQ:17:VAL:HG12	1.86	0.58
49:CQ:65:ARG:HD2	56:CX:91:ARG:CD	2.33	0.58
1:1:25:A:H2'	1:1:26:C:H6	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:85:G:H4'	3:4:86:U:OP1	2.04	0.58
7:m:285:LYS:HG2	7:m:289:LYS:NZ	2.19	0.58
19:y:91:ASN:OD1	29:AB:77:LYS:NZ	2.37	0.58
21:0:92:LYS:HE2	21:0:109:ASP:OD2	2.04	0.58
25:7:60:LYS:O	25:7:60:LYS:HD3	2.03	0.58
45:B:1129:U:H2'	45:B:1130:U:C6	2.38	0.58
62:S:36:THR:O	62:S:44:ARG:NH1	2.37	0.58
62:S:85:ALA:O	62:S:89:VAL:HG23	2.03	0.58
1:AS:1936:G:OP1	20:BM:80:LYS:NZ	2.36	0.58
1:AS:2234:A:C6	45:CM:1744:G:H5'	2.39	0.58
3:AU:36:G:OP1	38:CE:66:TYR:OH	2.18	0.58
7:AZ:83:LEU:HD13	7:AZ:88:ILE:HD12	1.86	0.58
15:BH:101:ARG:NH1	15:BH:105:LEU:HD12	2.19	0.58
28:BU:9:LYS:NZ	28:BU:83:THR:O	2.35	0.58
45:CM:496:G:H2'	45:CM:497:U:O4'	2.03	0.58
45:CM:1597:G:H5''	51:CS:107:LYS:HD2	1.86	0.58
45:CM:1719:A:H2'	45:CM:1720:C:H6	1.67	0.58
60:DB:55:ALA:HB1	60:DB:96:ALA:HB2	1.85	0.58
63:DE:20:PHE:O	63:DE:24:LEU:HD13	2.04	0.58
1:1:3166:A:H2'	1:1:3167:G:H8	1.69	0.57
81:1:3405:PAR:H241	81:1:3405:PAR:H43	1.68	0.57
8:n:176:PHE:O	15:u:106:SER:OG	2.20	0.57
28:AA:41:ALA:HB2	28:AA:77:TYR:HE1	1.69	0.57
45:B:1163:G:O2'	79:i:81:THR:HA	2.04	0.57
45:B:1431:G:N2	77:h:129:THR:O	2.33	0.57
46:C:129:ASP:O	46:C:133:ILE:HG13	2.04	0.57
69:Z:141:GLU:OE1	69:Z:141:GLU:HA	2.04	0.57
1:AS:1479:G:O6	35:CB:4:ARG:NH2	2.37	0.57
1:AS:2138:G:H2'	1:AS:2139:G:H8	1.69	0.57
1:AS:2391:A:H2'	1:AS:2392:G:H8	1.69	0.57
1:AS:2503:G:H1	10:BC:42:GLN:NE2	2.01	0.57
1:AS:2601:U:O4	22:BO:2:GLY:N	2.37	0.57
1:AS:2888:U:H5	1:AS:2907:U:HO2'	1.50	0.57
7:AZ:259:LYS:HG3	7:AZ:260:PHE:CE1	2.39	0.57
27:BT:52:GLN:O	27:BT:70:VAL:HG23	2.04	0.57
45:CM:1275:U:H2'	45:CM:1276:G:C8	2.40	0.57
45:CM:1369:G:H5''	66:DH:56:ARG:HD3	1.86	0.57
53:CU:25:GLU:OE2	53:CU:31:LYS:HA	2.03	0.57
1:1:1099:A:H62	1:1:1338:G:N2	2.01	0.57
1:1:1432:U:O4	6:l:68:THR:HG23	2.04	0.57
1:1:2405:U:H2'	1:1:2406:U:C6	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:37:A:H5''	3:4:39:G:O4'	2.03	0.57
29:AB:72:GLU:HG2	29:AB:113:LEU:HD11	1.86	0.57
32:AE:33:LYS:O	32:AE:37:LYS:HG2	2.04	0.57
50:G:73:ASP:N	50:G:89:VAL:O	2.25	0.57
63:T:17:ILE:HG12	63:T:58:MET:HE1	1.85	0.57
67:X:21:ASN:O	67:X:21:ASN:ND2	2.34	0.57
1:AS:73:G:H5''	14:BG:104:LYS:HD2	1.86	0.57
1:AS:1663:A:H2'	1:AS:1664:G:H8	1.66	0.57
35:CB:103:ARG:HA	35:CB:106:LYS:HE2	1.86	0.57
36:CC:70:TYR:HA	36:CC:73:LYS:HG3	1.86	0.57
36:CC:100:GLU:OE2	36:CC:105:ARG:HB3	2.04	0.57
45:CM:1324:C:O2'	45:CM:1326:A:N7	2.36	0.57
47:CO:104:ASP:OD1	47:CO:105:PHE:N	2.37	0.57
58:CZ:55:ARG:HH12	58:CZ:82:PRO:HA	1.70	0.57
64:DF:126:ARG:HB2	64:DF:133:VAL:HG12	1.86	0.57
1:1:21:G:H5''	38:AK:43:LYS:HG2	1.86	0.57
2:3:121:U:OP2	7:m:265:TYR:OH	2.19	0.57
5:k:218:ILE:HB	5:k:337:THR:HB	1.85	0.57
10:p:64:LYS:O	10:p:68:LEU:HD13	2.04	0.57
29:AB:73:ILE:HB	29:AB:109:TYR:CD2	2.40	0.57
45:B:558:U:H2'	45:B:559:G:H8	1.69	0.57
45:B:1216:U:H3	45:B:1239:U:H3	1.52	0.57
45:B:1341:U:H2'	45:B:1342:A:H8	1.69	0.57
47:D:129:THR:OG1	47:D:131:ASP:OD1	2.20	0.57
53:J:134:LYS:O	53:J:135:ARG:HD3	2.05	0.57
57:N:125:VAL:CG1	57:N:137:PHE:HB3	2.34	0.57
62:S:27:LEU:O	62:S:28:ILE:HD13	2.04	0.57
1:AS:2322:U:H2'	1:AS:2323:A:C8	2.40	0.57
1:AS:3096:G:OP2	17:BJ:135:LYS:NZ	2.37	0.57
1:AS:3287:A:H2'	1:AS:3288:A:C8	2.39	0.57
6:AY:38:SER:O	6:AY:41:VAL:HG12	2.04	0.57
11:BD:83:THR:HG23	11:BD:84:LYS:HG3	1.86	0.57
19:BL:66:ARG:HH21	19:BL:143:PRO:HD3	1.70	0.57
20:BM:172:ARG:NE	45:CM:837:C:P	2.68	0.57
45:CM:919:C:H1'	72:DN:11:ASN:OD1	2.04	0.57
51:CS:61:TYR:OH	74:DP:52:ASP:OD1	2.12	0.57
58:CZ:28:LEU:HB2	58:CZ:100:TRP:HZ3	1.70	0.57
71:DM:92:VAL:HG22	71:DM:100:ILE:O	2.04	0.57
1:1:730:A:H4'	1:1:730:A:OP1	2.04	0.57
1:1:1035:U:H2'	1:1:1036:A:C8	2.39	0.57
1:1:1921:U:O2'	1:1:1923:G:N7	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:l:132:VAL:HG23	6:l:135:LEU:HB2	1.87	0.57
9:o:51:LYS:HE2	9:o:55:GLU:OE2	2.03	0.57
28:AA:54:THR:HG22	28:AA:57:MET:HE2	1.86	0.57
34:AG:49:ILE:HD11	34:AG:71:VAL:HG22	1.85	0.57
50:G:254:ASP:N	50:G:254:ASP:OD1	2.34	0.57
54:K:158:ILE:HG13	54:K:159:GLU:N	2.19	0.57
61:R:52:LYS:HE3	61:R:80:LEU:HD21	1.85	0.57
78:AR:20:VAL:HG11	78:AR:307:ILE:HD11	1.86	0.57
1:AS:146:U:N3	10:BC:159:ASP:O	2.36	0.57
1:AS:172:C:O2'	1:AS:173:C:OP1	2.22	0.57
1:AS:1841:G:H5''	1:AS:1842:C:H5'	1.85	0.57
11:BD:51:ARG:HH22	15:BH:2:SER:HB2	1.70	0.57
36:CC:6:THR:HG22	36:CC:53:ARG:HD3	1.87	0.57
37:CD:90:THR:O	37:CD:93:ILE:HG13	2.04	0.57
45:CM:1351:U:O2'	65:DG:7:ARG:NH1	2.37	0.57
45:CM:1551:U:H2'	45:CM:1552:C:C6	2.39	0.57
46:CN:146:LEU:HD21	46:CN:173:ILE:HD13	1.87	0.57
49:CQ:12:LEU:HD12	66:DH:85:ILE:HD12	1.86	0.57
49:CQ:165:THR:HA	49:CQ:169:ILE:HD12	1.86	0.57
63:DE:93:LEU:HD11	63:DE:100:LEU:HG	1.85	0.57
69:DK:37:ALA:O	69:DK:41:SER:OG	2.21	0.57
73:DO:20:LYS:HG3	73:DO:21:LEU:HD22	1.85	0.57
1:1:849:G:OP2	44:AQ:2:THR:HG21	2.03	0.57
1:1:1202:G:OP1	12:r:157:TYR:OH	2.20	0.57
1:1:2649:G:O2'	1:1:2651:A:N1	2.32	0.57
22:2:25:ILE:HD11	22:2:45:ASN:HD21	1.69	0.57
22:2:103:GLN:OE1	22:2:103:GLN:HA	2.03	0.57
25:7:50:SER:HA	25:7:55:TYR:CD2	2.40	0.57
27:9:31:LEU:HB3	27:9:101:PRO:HG2	1.86	0.57
46:C:9:LEU:HD11	46:C:14:ALA:HB2	1.85	0.57
56:M:32:HIS:CG	56:M:32:HIS:O	2.57	0.57
56:M:70:ASP:OD1	56:M:71:GLU:N	2.37	0.57
78:AR:242:PHE:CE1	78:AR:249:LEU:HD13	2.40	0.57
1:AS:547:U:H2'	1:AS:548:G:C8	2.39	0.57
1:AS:1668:U:OP1	20:BM:64:ARG:NH1	2.27	0.57
1:AS:2086:C:H1'	1:AS:3309:A:C8	2.40	0.57
1:AS:3020:A:OP2	5:AX:222:LYS:NZ	2.36	0.57
8:BA:40:ILE:HB	8:BA:84:ILE:HB	1.86	0.57
16:BI:65:ARG:HG2	16:BI:127:TYR:CD2	2.39	0.57
26:BS:100:LYS:HD2	26:BS:104:ASP:HA	1.86	0.57
36:CC:89:ARG:HH21	36:CC:90:ARG:NH1	2.02	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:653:G:O2'	45:CM:655:U:O4	2.22	0.57
46:CN:120:LEU:HD21	46:CN:144:ILE:HD12	1.85	0.57
49:CQ:68:HIS:NE2	56:CX:94:ASN:HB3	2.19	0.57
55:CW:112:GLN:HG3	55:CW:148:VAL:HG11	1.86	0.57
1:1:896:G:H1'	1:1:1585:A:N6	2.20	0.57
1:1:2244:U:H2'	1:1:2245:C:H6	1.69	0.57
1:1:2457:C:H5''	1:1:2458:G:H21	1.68	0.57
1:1:2852:U:H1'	5:k:250:ALA:HB3	1.86	0.57
1:1:3133:G:H2'	1:1:3134:C:C6	2.40	0.57
6:l:179:VAL:O	6:l:182:VAL:HG22	2.04	0.57
35:AH:41:ARG:HG2	35:AH:56:THR:HG21	1.86	0.57
45:B:966:U:O2'	45:B:1108:C:N3	2.33	0.57
45:B:1219:A:HO2'	77:h:187:HIS:HD1	1.53	0.57
45:B:1463:G:H2'	45:B:1464:G:C8	2.40	0.57
60:Q:117:PRO:CB	60:Q:120:SER:HB3	2.35	0.57
1:AS:690:A:O4'	6:AY:47:LYS:HG3	2.05	0.57
13:BF:107:ASP:OD1	13:BF:107:ASP:N	2.37	0.57
23:BP:88:LYS:HD3	23:BP:93:ARG:HD3	1.86	0.57
37:CD:82:ALA:C	37:CD:84:ARG:H	2.13	0.57
1:1:612:U:H2'	1:1:613:U:C6	2.40	0.57
13:s:85:LYS:HE2	61:R:8:LYS:O	2.03	0.57
38:AK:39:TYR:CD1	38:AK:40:PRO:HA	2.40	0.57
45:B:1453:C:O2'	65:V:88:PHE:O	2.14	0.57
78:AR:257:ILE:HD11	78:AR:286:ALA:HB3	1.87	0.57
1:AS:730:A:H4'	1:AS:730:A:OP1	2.04	0.57
1:AS:1079:G:H2'	1:AS:1080:A:H8	1.69	0.57
1:AS:1564:U:N3	1:AS:1568:U:O4	2.38	0.57
6:AY:299:VAL:HG21	19:BL:133:LYS:HG3	1.87	0.57
11:BD:80:THR:HA	11:BD:83:THR:HG22	1.87	0.57
31:BX:46:ILE:CG2	31:BX:50:THR:HG21	2.35	0.57
49:CQ:76:LYS:NZ	56:CX:18:GLU:CD	2.62	0.57
52:CT:48:TYR:CD2	52:CT:117:GLY:HA3	2.39	0.57
55:CW:123:HIS:ND1	76:DR:33:ARG:HD2	2.19	0.57
56:CX:92:LEU:HD13	79:CL:155:LEU:HD22	1.85	0.57
59:DA:129:TYR:HB3	59:DA:135:LEU:HD13	1.86	0.57
64:DF:129:TRP:CZ2	79:CL:67:LYS:HE3	2.39	0.57
65:DG:4:VAL:HG11	65:DG:137:ALA:HB2	1.86	0.57
65:DG:11:ALA:HA	65:DG:63:ARG:NH1	2.19	0.57
1:1:513:G:OP1	9:o:65:ARG:NH2	2.36	0.57
1:1:538:G:H2'	1:1:539:G:C8	2.39	0.57
3:4:126:A:O2'	3:4:128:U:OP2	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:t:83:VAL:HG23	14:t:85:ILE:HG13	1.87	0.57
16:v:123:GLN:HG3	16:v:128:LYS:HG2	1.86	0.57
21:0:42:TRP:O	21:0:46:GLN:HG3	2.04	0.57
23:5:54:ILE:CD1	23:5:68:VAL:HG23	2.35	0.57
51:H:142:ALA:O	51:H:162:VAL:HG11	2.04	0.57
69:Z:79:ASN:ND2	69:Z:81:LYS:HE2	2.19	0.57
70:a:6:THR:HG22	70:a:28:LEU:HB2	1.85	0.57
1:AS:252:U:H5'	1:AS:253:A:H8	1.69	0.57
1:AS:1469:G:OP2	20:BM:8:LYS:NZ	2.30	0.57
1:AS:1720:U:H1'	1:AS:1721:C:C6	2.40	0.57
1:AS:2747:U:O2'	1:AS:2749:G:N1	2.37	0.57
14:BG:36:ARG:HB3	14:BG:39:ARG:NH2	2.19	0.57
20:BM:172:ARG:O	20:BM:176:ARG:HB3	2.04	0.57
24:BQ:23:MET:HE1	24:BQ:78:VAL:HG22	1.87	0.57
35:CB:58:ARG:O	35:CB:61:GLN:HG3	2.05	0.57
45:CM:1214:G:O2'	45:CM:1240:G:N2	2.22	0.57
46:CN:9:LEU:HD13	46:CN:54:TRP:CD2	2.39	0.57
46:CN:102:PHE:HE1	46:CN:106:ASN:HB2	1.69	0.57
49:CQ:134:GLY:HA3	49:CQ:157:PHE:O	2.05	0.57
1:1:1106:U:H2'	1:1:1107:U:C6	2.40	0.57
1:1:2206:A:H2'	1:1:2207:A:C8	2.40	0.57
81:1:3424:PAR:H23	81:1:3425:PAR:H54	1.86	0.57
9:o:108:GLN:HG3	9:o:111:ALA:HB2	1.86	0.57
12:r:207:GLU:HG2	12:r:211:GLN:OE1	2.04	0.57
45:B:52:U:H2'	45:B:53:G:C8	2.39	0.57
45:B:722:A:O2'	45:B:723:G:H8	1.86	0.57
45:B:829:A:H2'	45:B:830:G:C8	2.40	0.57
56:M:14:TYR:CE2	56:M:34:GLU:HB3	2.39	0.57
60:Q:25:VAL:HG13	60:Q:34:ILE:HB	1.87	0.57
67:X:74:GLN:OE1	67:X:82:VAL:HG12	2.05	0.57
1:AS:638:U:H2'	1:AS:639:C:C6	2.39	0.57
1:AS:2090:U:H4'	1:AS:2091:A:O5'	2.04	0.57
1:AS:2142:A:N7	81:AS:3403:PAR:N12	2.52	0.57
6:AY:24:PRO:HB3	6:AY:260:ASP:HB2	1.87	0.57
19:BL:125:ASP:OD1	19:BL:126:GLN:N	2.37	0.57
28:BU:5:ILE:CD1	28:BU:77:TYR:HE2	2.18	0.57
33:BZ:104:ARG:HG2	33:BZ:105:LYS:N	2.20	0.57
45:CM:1149:G:H2'	45:CM:1150:G:H8	1.68	0.57
62:DD:89:VAL:HA	62:DD:101:LYS:CE	2.33	0.57
73:DO:15:GLU:HG2	73:DO:23:THR:HG22	1.87	0.57
73:DO:36:LYS:HG3	73:DO:78:SER:OG	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:783:G:H2'	1:1:784:C:C6	2.39	0.57
1:1:1059:G:N7	1:1:1093:G:O2'	2.33	0.57
1:1:1099:A:N6	1:1:1359:A:H1'	2.20	0.57
9:o:45:ARG:NH2	9:o:175:ASN:OD1	2.36	0.57
16:v:115:VAL:HA	16:v:134:LEU:HG	1.87	0.57
45:B:511:U:H2'	45:B:512:G:C8	2.39	0.57
45:B:1026:G:H2'	45:B:1027:G:H8	1.69	0.57
62:S:97:ASP:OD1	62:S:98:GLU:N	2.38	0.57
78:AR:82:LEU:HD13	78:AR:114:VAL:HG21	1.86	0.57
1:AS:783:G:H2'	1:AS:784:C:C6	2.40	0.57
1:AS:1597:U:P	20:BM:42:ARG:HH22	2.28	0.57
11:BD:50:ASN:O	11:BD:51:ARG:NH2	2.38	0.57
50:CR:128:LYS:NZ	50:CR:129:VAL:O	2.30	0.57
1:1:15:A:H4'	26:8:45:LYS:HE2	1.87	0.56
1:1:2345:A:H2'	1:1:2346:A:C8	2.39	0.56
1:1:2587:G:H2'	1:1:2588:C:H6	1.69	0.56
3:4:26:U:O2'	6:l:52:ALA:O	2.22	0.56
7:m:208:MET:HE1	7:m:236:VAL:CG1	2.34	0.56
45:B:821:U:H2'	45:B:822:G:C8	2.40	0.56
45:B:1132:A:OP1	48:E:86:ARG:HB3	2.05	0.56
45:B:1582:U:H5'	45:B:1583:C:OP2	2.03	0.56
48:E:39:LEU:CD1	48:E:242:ALA:HB2	2.35	0.56
49:F:56:THR:H	49:F:91:ARG:HE	1.52	0.56
49:F:65:ARG:HG2	49:F:65:ARG:HH11	1.69	0.56
66:W:42:ARG:NE	66:W:42:ARG:HA	2.20	0.56
1:AS:649:G:O2'	1:AS:1431:A:OP1	2.23	0.56
1:AS:910:A:N1	4:AW:204:MET:HE2	2.20	0.56
1:AS:1787:U:H2'	1:AS:1788:C:C6	2.40	0.56
7:AZ:164:LYS:C	7:AZ:164:LYS:HD3	2.30	0.56
13:BF:37:LEU:HD12	13:BF:67:VAL:HG12	1.87	0.56
24:BQ:42:THR:HG21	24:BQ:50:PRO:HB3	1.87	0.56
25:BR:43:ARG:HB3	25:BR:43:ARG:HH11	1.69	0.56
44:CK:82:THR:HG22	44:CK:85:ARG:HH22	1.70	0.56
45:CM:515:U:H2'	45:CM:516:A:C8	2.40	0.56
46:CN:49:ASN:ND2	46:CN:52:LYS:H	2.01	0.56
49:CQ:212:ALA:HA	63:DE:20:PHE:HE2	1.70	0.56
51:CS:98:MET:HB2	51:CS:103:ASN:O	2.04	0.56
63:DE:58:MET:O	63:DE:61:ILE:HG13	2.05	0.56
74:DP:49:ARG:N	74:DP:52:ASP:OD2	2.36	0.56
1:1:1467:U:OP1	20:z:5:ARG:NH1	2.38	0.56
6:l:182:VAL:HG21	6:l:224:PRO:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:n:64:VAL:O	8:m:75:LEU:HA	2.05	0.56
11:q:173:ARG:HB2	11:q:173:ARG:NH1	2.16	0.56
22:2:124:GLU:HG2	22:2:125:THR:H	1.70	0.56
45:B:479:A:H2'	45:B:480:U:C6	2.40	0.56
45:B:1007:C:H4'	45:B:1110:A:H61	1.70	0.56
45:B:1609:G:H2'	45:B:1610:C:C6	2.40	0.56
47:D:224:ASP:OD2	47:D:227:SER:OG	2.10	0.56
49:F:176:VAL:HB	49:F:183:LEU:HB2	1.87	0.56
51:H:138:VAL:HG13	51:H:139:ASN:HD22	1.70	0.56
78:AR:126:ALA:HB2	78:AR:155:VAL:CG1	2.34	0.56
4:AW:47:GLN:OE1	4:AW:48:ILE:N	2.37	0.56
19:BL:67:ILE:HG23	19:BL:81:ILE:HG13	1.87	0.56
45:CM:157:U:H5'	70:DL:117:LYS:HB3	1.86	0.56
45:CM:1519:U:P	71:DM:77:ARG:HH11	2.28	0.56
54:CV:142:SER:O	54:CV:146:GLU:HG3	2.06	0.56
73:DO:35:VAL:HG11	73:DO:63:LEU:HD11	1.85	0.56
74:DP:19:THR:OG1	74:DP:27:GLN:HG3	2.05	0.56
1:1:647:A:H2'	1:1:648:C:C6	2.40	0.56
1:1:1199:A:H2'	1:1:1200:A:H8	1.69	0.56
1:1:1491:U:H5	1:1:1831:A:N1	2.03	0.56
1:1:2457:C:H5''	1:1:2458:G:N2	2.20	0.56
1:1:2836:A:N6	81:1:3419:PAR:H54	2.19	0.56
1:1:2876:U:H2'	1:1:2877:U:H6	1.68	0.56
2:3:19:C:H2'	2:3:20:A:C8	2.40	0.56
4:j:117:GLU:OE2	4:j:163:ARG:NE	2.38	0.56
7:m:164:LYS:NZ	7:m:168:ASP:OD1	2.38	0.56
13:s:60:ARG:NH1	43:AP:104:LEU:O	2.38	0.56
18:x:125:GLN:HB2	18:x:141:SER:OG	2.05	0.56
20:z:69:SER:HB3	20:z:75:HIS:HE1	1.69	0.56
27:9:5:SER:HB3	27:9:8:VAL:HG23	1.86	0.56
45:B:1040:U:H3	45:B:1049:G:H1	1.53	0.56
45:B:1321:A:O2'	62:S:122:ARG:HG3	2.05	0.56
45:B:1368:A:H1'	66:W:56:ARG:HD2	1.86	0.56
48:E:67:LEU:O	48:E:68:LEU:HD23	2.05	0.56
48:E:225:TRP:CG	68:Y:68:ARG:HD2	2.40	0.56
49:F:124:LEU:HD11	49:F:153:TYR:HB3	1.85	0.56
51:H:34:GLN:C	51:H:36:ALA:H	2.13	0.56
51:H:63:GLN:NE2	51:H:66:ASN:H	2.03	0.56
56:M:14:TYR:OH	56:M:34:GLU:OE1	2.18	0.56
61:R:23:LYS:N	61:R:23:LYS:HD3	2.20	0.56
65:V:16:ASN:O	65:V:20:GLN:HG2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:W:26:THR:CG2	66:W:87:LYS:HG3	2.36	0.56
1:AS:428:U:H2'	1:AS:429:U:C6	2.40	0.56
1:AS:565:A:H2'	1:AS:566:C:O4'	2.05	0.56
1:AS:2702:G:H4'	19:BL:184:PHE:CG	2.40	0.56
3:AU:57:C:H4'	3:AU:63:G:N7	2.20	0.56
4:AW:10:LYS:HA	4:AW:16:PHE:CD2	2.40	0.56
6:AY:360:VAL:HA	21:BN:8:GLN:HE22	1.69	0.56
16:BI:88:GLY:HA3	43:CJ:50:TYR:CD1	2.41	0.56
21:BN:8:GLN:NE2	21:BN:26:ARG:HH11	2.03	0.56
21:BN:171:PHE:O	21:BN:172:TYR:HB2	2.04	0.56
29:BV:28:HIS:CD2	29:BV:32:ARG:HG2	2.41	0.56
32:BY:19:LEU:HD11	32:BY:31:ALA:HB2	1.86	0.56
32:BY:54:LEU:HA	32:BY:94:PRO:HG3	1.87	0.56
45:CM:1315:G:H2'	45:CM:1316:A:H8	1.70	0.56
45:CM:1739:U:H2'	45:CM:1740:A:H8	1.70	0.56
46:CN:200:ASP:O	46:CN:203:PHE:HB2	2.05	0.56
48:CP:122:ALA:O	48:CP:126:ILE:HD12	2.05	0.56
60:DB:66:CYS:HB2	60:DB:71:ILE:HD12	1.87	0.56
62:DD:4:GLN:OE1	62:DD:4:GLN:N	2.38	0.56
64:DF:44:ASN:OD1	64:DF:48:LYS:HE3	2.05	0.56
64:DF:91:ASP:OD1	64:DF:92:GLN:N	2.38	0.56
65:DG:6:VAL:HG11	65:DG:66:TYR:CD1	2.41	0.56
68:DJ:35:ILE:O	68:DJ:39:THR:HG23	2.04	0.56
73:DO:64:CYS:HB3	73:DO:73:LEU:HD23	1.86	0.56
1:1:258:U:OP1	14:t:81:LYS:NZ	2.39	0.56
1:1:1794:A:H2'	1:1:1795:A:C8	2.41	0.56
1:1:2196:G:H2'	1:1:2197:A:H8	1.69	0.56
1:1:2431:U:H5'	1:1:2438:U:H1'	1.87	0.56
5:k:92:TYR:HB2	5:k:157:VAL:HB	1.86	0.56
13:s:157:GLU:O	13:s:160:ILE:HG13	2.04	0.56
28:AA:54:THR:H	28:AA:57:MET:CE	2.17	0.56
39:AL:43:PHE:HE1	39:AL:56:VAL:HG21	1.71	0.56
45:B:1219:A:O2'	77:h:182:TYR:OH	2.17	0.56
56:M:15:LEU:O	56:M:19:GLY:HA2	2.06	0.56
61:R:121:ILE:N	79:i:65:LYS:HZ1	2.00	0.56
68:Y:86:ILE:O	68:Y:90:THR:HG23	2.04	0.56
1:AS:2206:A:H2'	1:AS:2207:A:C8	2.41	0.56
1:AS:2385:C:H2'	1:AS:2386:U:H6	1.70	0.56
5:AX:188:VAL:O	5:AX:192:VAL:HG23	2.05	0.56
15:BH:101:ARG:O	15:BH:101:ARG:HD3	2.06	0.56
24:BQ:102:ILE:HD12	24:BQ:102:ILE:H	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:605:G:H5'	45:CM:611:G:N2	2.20	0.56
45:CM:826:U:C2'	45:CM:827:C:H5'	2.35	0.56
45:CM:1067:C:H4'	67:DI:58:TYR:HE1	1.71	0.56
48:CP:93:MET:HE2	79:CL:114:GLU:HG2	1.88	0.56
49:CQ:139:ILE:HG23	49:CQ:185:ILE:HG22	1.87	0.56
55:CW:96:VAL:HA	55:CW:99:LEU:HD12	1.86	0.56
56:CX:10:LYS:HA	56:CX:13:GLN:HG2	1.87	0.56
59:DA:46:THR:HG23	59:DA:49:GLN:HG3	1.87	0.56
60:DB:37:VAL:HG11	60:DB:58:ALA:O	2.04	0.56
64:DF:6:GLN:HB2	71:DM:43:ASP:O	2.05	0.56
70:DL:128:ARG:HE	70:DL:131:ARG:HH21	1.52	0.56
79:CL:82:LYS:CD	79:CL:83:HIS:H	2.18	0.56
1:1:1568:U:C4	1:1:1569:C:H1'	2.41	0.56
1:1:1617:A:H2'	1:1:1618:U:C6	2.41	0.56
1:1:3064:C:H2'	24:6:12:ARG:HH21	1.71	0.56
4:j:32:LEU:HD13	4:j:163:ARG:HD3	1.87	0.56
45:B:822:G:H3'	45:B:823:G:C5'	2.36	0.56
46:C:166:GLY:O	46:C:170:ILE:HD12	2.05	0.56
58:O:74:LEU:HD12	77:h:150:VAL:HG11	1.87	0.56
73:d:34:ASP:O	73:d:79:PHE:HA	2.04	0.56
1:AS:271:C:O2	37:CD:81:ARG:NH2	2.30	0.56
1:AS:3261:A:H2'	1:AS:3262:U:H6	1.71	0.56
6:AY:140:GLY:O	6:AY:142:ARG:NH1	2.38	0.56
26:BS:92:LYS:HD2	26:BS:110:VAL:O	2.06	0.56
29:BV:103:ASP:HA	29:BV:126:LYS:HG3	1.87	0.56
45:CM:15:U:H2'	45:CM:16:G:O4'	2.06	0.56
45:CM:823:G:H4'	45:CM:824:U:OP2	2.04	0.56
46:CN:24:LEU:HD12	46:CN:45:MET:CE	2.30	0.56
49:CQ:71:THR:HG22	49:CQ:87:ILE:HG12	1.88	0.56
55:CW:30:LEU:HD21	55:CW:105:LEU:CD1	2.36	0.56
56:CX:39:ASN:O	56:CX:42:VAL:HG22	2.05	0.56
58:CZ:79:CYS:SG	58:CZ:88:LEU:HD13	2.45	0.56
64:DF:41:ARG:NH2	65:DG:36:ILE:O	2.28	0.56
79:i:135:GLU:HA	79:i:138:GLU:OE1	2.06	0.56
1:1:699:G:H2'	1:1:700:C:C6	2.40	0.56
1:1:1029:U:H2'	1:1:1030:U:C6	2.41	0.56
1:1:2084:A:H2'	1:1:2085:A:C8	2.41	0.56
1:1:3135:A:H2'	1:1:3136:C:C6	2.41	0.56
9:o:14:GLU:HA	9:o:17:GLN:OE1	2.06	0.56
45:B:1306:A:H61	46:C:108:THR:HG21	1.70	0.56
45:B:1374:A:H5''	63:T:48:ASN:HD22	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B:1801:PAR:O44	81:B:1801:PAR:N64	2.38	0.56
46:C:6:SER:O	46:C:191:ARG:CZ	2.54	0.56
50:G:241:LYS:H	50:G:241:LYS:CD	2.16	0.56
66:W:102:ILE:HA	66:W:105:ILE:HG22	1.87	0.56
78:AR:263:GLN:O	78:AR:264:GLU:HG2	2.05	0.56
1:AS:14:C:OP1	26:BS:42:ARG:NE	2.30	0.56
1:AS:1620:G:O2'	1:AS:1639:A:N1	2.29	0.56
1:AS:1782:G:H2'	1:AS:1783:A:C8	2.41	0.56
4:AW:118:GLU:HG3	4:AW:126:LEU:HD11	1.87	0.56
6:AY:3:SER:OG	6:AY:4:ARG:N	2.38	0.56
10:BC:64:LYS:O	10:BC:68:LEU:HG	2.06	0.56
17:BJ:179:LEU:O	17:BJ:183:LYS:HG3	2.05	0.56
45:CM:1070:G:N2	45:CM:1073:A:OP2	2.31	0.56
45:CM:1214:G:HO2'	45:CM:1240:G:H22	1.52	0.56
45:CM:1578:C:H2'	45:CM:1579:A:C8	2.40	0.56
45:CM:1691:C:O5'	45:CM:1691:C:H6	1.89	0.56
48:CP:230:LEU:HD21	67:DI:54:ALA:CB	2.33	0.56
1:1:486:C:H2'	1:1:487:C:C6	2.40	0.56
1:1:3138:U:H2'	1:1:3139:U:C6	2.40	0.56
81:1:3419:PAR:N64	81:1:3419:PAR:O44	2.38	0.56
14:t:49:ARG:HD3	36:AI:115:LYS:CG	2.31	0.56
27:9:116:LYS:O	27:9:120:GLN:HG2	2.05	0.56
33:AF:60:SER:HB2	33:AF:65:LYS:HG3	1.87	0.56
45:B:39:A:P	55:L:6:ARG:HH21	2.29	0.56
45:B:700:G:O2'	45:B:701:G:O4'	2.18	0.56
49:F:197:ARG:HA	49:F:201:ARG:NH2	2.20	0.56
66:W:39:ASN:OD1	66:W:40:ILE:N	2.38	0.56
70:a:18:LEU:HB3	70:a:20:ARG:HD3	1.85	0.56
1:AS:498:C:H2'	1:AS:499:G:C8	2.41	0.56
1:AS:940:C:H4'	33:BZ:34:ARG:NE	2.17	0.56
1:AS:1789:C:N4	4:AW:177:LYS:O	2.36	0.56
1:AS:2718:A:C6	7:AZ:148:ILE:HD11	2.41	0.56
1:AS:3093:U:H1'	1:AS:3094:A:H5''	1.87	0.56
7:AZ:30:TYR:HD1	22:BO:27:LEU:HD21	1.70	0.56
14:BG:54:LEU:HD13	14:BG:75:PHE:CE1	2.40	0.56
51:CS:161:ASP:OD2	74:DP:56:LEU:CD1	2.53	0.56
52:CT:180:THR:O	52:CT:184:LEU:HD12	2.04	0.56
57:CY:101:GLU:OE2	57:CY:103:ARG:NH2	2.35	0.56
73:DO:10:PRO:HG2	73:DO:15:GLU:OE1	2.05	0.56
1:1:155:A:OP2	37:AJ:26:SER:OG	2.21	0.56
14:t:54:LEU:O	14:t:96:SER:OG	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:u:87:TRP:CE2	15:u:93:ALA:HB2	2.41	0.56
45:B:524:A:OP2	70:a:93:ARG:NH2	2.38	0.56
45:B:1452:G:O2'	45:B:1589:C:OP1	2.22	0.56
49:F:66:ARG:HA	49:F:69:GLU:HG2	1.87	0.56
1:AS:417:A:H2'	1:AS:418:A:C8	2.41	0.56
1:AS:1723:G:P	44:CK:44:LYS:NZ	2.79	0.56
1:AS:1761:U:H5	20:BM:43:LYS:HD2	1.71	0.56
1:AS:2196:G:H2'	1:AS:2197:A:H8	1.71	0.56
1:AS:2740:U:H2'	1:AS:2741:A:H8	1.71	0.56
4:AW:132:ASN:OD1	4:AW:151:PRO:HB3	2.06	0.56
5:AX:35:ASP:OD2	5:AX:191:LYS:NZ	2.21	0.56
7:AZ:191:ASP:OD2	7:AZ:193:GLU:HG2	2.06	0.56
11:BD:91:ARG:HG2	11:BD:182:SER:HB3	1.86	0.56
12:BE:47:PRO:HB3	12:BE:171:TRP:CZ2	2.41	0.56
14:BG:103:ASN:ND2	14:BG:109:PHE:HD1	2.04	0.56
23:BP:34:VAL:O	23:BP:38:VAL:HG13	2.06	0.56
27:BT:36:SER:OG	27:BT:39:LEU:HD13	2.05	0.56
45:CM:238:U:O2'	45:CM:239:U:OP1	2.24	0.56
45:CM:336:C:H5''	54:CV:10:LYS:HD2	1.88	0.56
45:CM:654:G:O5'	45:CM:654:G:C8	2.59	0.56
45:CM:1145:A:H2'	45:CM:1146:C:C6	2.40	0.56
49:CQ:141:GLY:HA3	49:CQ:183:LEU:HA	1.88	0.56
49:CQ:178:MET:CE	49:CQ:183:LEU:HD21	2.35	0.56
51:CS:63:GLN:NE2	51:CS:63:GLN:O	2.39	0.56
1:1:1172:C:H2'	1:1:1173:G:N2	2.21	0.56
1:1:2539:A:H2	10:p:30:SER:HG	1.54	0.56
1:1:2650:A:C5	79:i:52:LYS:HA	2.40	0.56
1:1:2850:G:H5''	5:k:5:LYS:HE2	1.87	0.56
7:m:219:TYR:CE1	7:m:223:PHE:CB	2.88	0.56
10:p:145:GLU:OE2	37:AJ:35:ARG:NH1	2.39	0.56
14:t:69:VAL:O	14:t:151:GLN:NE2	2.39	0.56
20:z:38:ARG:O	20:z:42:ARG:HG3	2.05	0.56
25:7:23:ARG:HD2	25:7:25:ASP:OD1	2.05	0.56
45:B:770:C:C1'	50:G:256:ARG:HH21	2.19	0.56
45:B:854:A:H61	45:B:943:U:H5	1.54	0.56
45:B:1241:A:H5'	45:B:1242:U:C6	2.41	0.56
45:B:1495:U:H2'	45:B:1496:C:C6	2.40	0.56
45:B:1584:A:C8	75:f:14:PHE:HD1	2.24	0.56
49:F:196:ASN:O	49:F:201:ARG:NE	2.39	0.56
51:H:55:ASP:OD2	51:H:57:SER:N	2.39	0.56
52:I:68:MET:O	52:I:69:HIS:ND1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:M:83:PRO:C	56:M:85:GLY:H	2.14	0.56
64:U:69:ILE:O	64:U:73:MET:HG2	2.06	0.56
1:AS:1007:A:H2'	1:AS:1008:A:C8	2.40	0.56
1:AS:1539:G:P	16:BI:35:VAL:HG23	2.45	0.56
1:AS:2370:C:H1'	5:AX:266:ARG:NH2	2.21	0.56
1:AS:2787:G:N2	1:AS:2790:U:O2	2.38	0.56
4:AW:67:TYR:O	4:AW:68:LYS:HD2	2.06	0.56
4:AW:242:ARG:NH2	4:AW:243:THR:O	2.39	0.56
6:AY:238:GLN:O	6:AY:247:ARG:HD2	2.06	0.56
13:BF:85:LYS:HZ2	61:DC:13:LYS:N	2.04	0.56
14:BG:126:PHE:CZ	14:BG:138:PHE:HD2	2.22	0.56
45:CM:1143:C:H42	45:CM:1148:A:N6	2.04	0.56
45:CM:1218:G:N1	45:CM:1237:C:H5	2.00	0.56
45:CM:1242:U:C1'	56:CX:8:ARG:HH21	2.19	0.56
45:CM:1399:U:O2'	45:CM:1400:U:OP1	2.24	0.56
49:CQ:91:ARG:HH21	49:CQ:93:GLU:CD	2.13	0.56
50:CR:45:VAL:HG23	50:CR:61:VAL:HG11	1.86	0.56
56:CX:15:LEU:HD22	56:CX:46:LEU:HD21	1.87	0.56
59:DA:27:LYS:H	59:DA:27:LYS:CD	2.19	0.56
1:1:3300:A:H2'	1:1:3301:A:C8	2.41	0.56
45:B:1468:C:H5''	45:B:1508:G:H22	1.71	0.56
50:G:19:MET:HE3	50:G:108:LYS:HE2	1.88	0.56
51:H:103:ASN:HA	51:H:106:LYS:HD2	1.88	0.56
54:K:159:GLU:HB3	54:K:162:VAL:HG12	1.87	0.56
78:AR:241:ALA:HB3	78:AR:289:LEU:HD12	1.88	0.56
1:AS:389:A:N7	81:AS:3405:PAR:N21	2.36	0.56
1:AS:487:C:O2'	1:AS:488:G:OP1	2.22	0.56
1:AS:1599:A:H61	26:BS:71:THR:CG2	2.18	0.56
1:AS:1755:U:O4	1:AS:1762:G:O6	2.23	0.56
1:AS:2239:G:O2'	1:AS:2241:C:N4	2.39	0.56
5:AX:368:GLY:O	25:BR:17:ARG:NH2	2.35	0.56
7:AZ:85:ARG:HD3	7:AZ:86:TYR:CE1	2.41	0.56
10:BC:132:VAL:HG22	10:BC:133:VAL:N	2.20	0.56
13:BF:80:LEU:CD2	13:BF:84:LEU:HD11	2.35	0.56
14:BG:120:LYS:HA	14:BG:123:LEU:HG	1.88	0.56
28:BU:81:MET:HE2	28:BU:81:MET:HA	1.87	0.56
37:CD:60:ILE:HD12	37:CD:86:VAL:HG13	1.87	0.56
44:CK:75:ALA:O	44:CK:79:VAL:HG22	2.06	0.56
45:CM:561:U:O2'	76:DR:13:LYS:NZ	2.36	0.56
47:CO:165:ARG:O	47:CO:169:ILE:HG23	2.06	0.56
66:DH:67:ARG:NH1	66:DH:76:LYS:HA	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:DH:97:SER:O	66:DH:101:ARG:HD2	2.06	0.56
79:CL:42:ALA:O	79:CL:44:ALA:N	2.39	0.56
1:1:2432:G:H2'	1:1:2433:U:O4'	2.07	0.55
1:1:2437:A:O2'	1:1:2438:U:H5'	2.06	0.55
1:1:2699:A:OP2	1:1:2700:G:N2	2.37	0.55
19:y:25:TYR:O	19:y:29:LEU:HD12	2.06	0.55
32:AE:34:GLU:HA	32:AE:37:LYS:HE2	1.87	0.55
46:C:157:ASP:O	67:X:66:ASP:HA	2.06	0.55
46:C:198:MET:HE2	63:T:89:SER:HA	1.89	0.55
50:G:179:ARG:NH1	50:G:230:THR:OG1	2.39	0.55
52:I:79:LYS:HD3	52:I:79:LYS:H	1.71	0.55
60:Q:15:PHE:CE1	60:Q:17:SER:HB3	2.41	0.55
63:T:99:GLN:OE1	63:T:99:GLN:N	2.39	0.55
1:AS:2583:U:H2'	1:AS:2584:U:C6	2.42	0.55
10:BC:95:LEU:HD22	10:BC:133:VAL:CG2	2.36	0.55
31:BX:53:LEU:HD13	35:CB:91:ARG:HG3	1.87	0.55
45:CM:483:A:H2'	45:CM:484:G:H8	1.71	0.55
45:CM:1148:A:H2'	45:CM:1149:G:O4'	2.06	0.55
45:CM:1354:U:N3	45:CM:1355:A:N7	2.54	0.55
46:CN:59:LEU:HD13	46:CN:63:ILE:HD11	1.87	0.55
46:CN:124:THR:HG23	46:CN:174:TRP:HE1	1.71	0.55
49:CQ:12:LEU:HD13	66:DH:85:ILE:HD12	1.88	0.55
52:CT:22:HIS:HA	52:CT:25:ARG:NH1	2.17	0.55
1:1:437:G:H21	1:1:620:A:H62	1.51	0.55
1:1:2130:A:H2'	1:1:2131:U:H6	1.71	0.55
6:l:31:VAL:HA	6:l:125:SER:OG	2.06	0.55
13:s:61:ARG:HH12	79:i:44:ALA:C	2.14	0.55
13:s:85:LYS:C	13:s:85:LYS:HD3	2.31	0.55
45:B:470:U:H5''	55:L:11:THR:HG23	1.88	0.55
45:B:768:C:H2'	45:B:769:U:O4'	2.07	0.55
45:B:985:C:H5	45:B:988:A:H5''	1.71	0.55
52:I:121:ILE:HB	52:I:125:THR:HG23	1.88	0.55
73:d:54:VAL:O	73:d:63:LEU:HG	2.06	0.55
76:g:54:ARG:NH1	76:g:56:MET:HE2	2.19	0.55
1:AS:1079:G:H2'	1:AS:1080:A:C8	2.40	0.55
1:AS:1674:G:OP2	23:BP:80:LYS:NZ	2.38	0.55
1:AS:2107:U:H2'	1:AS:2108:G:C8	2.40	0.55
1:AS:2191:A:H2'	1:AS:2192:A:H8	1.71	0.55
1:AS:2531:U:C5	35:CB:95:ILE:HD13	2.41	0.55
1:AS:3166:A:C2	1:AS:3167:G:N7	2.75	0.55
7:AZ:277:LEU:HD23	7:AZ:281:GLU:HB3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:141:THR:OG1	50:CR:143:ASP:OD1	2.17	0.55
53:CU:45:ILE:HD12	53:CU:46:ASP:H	1.72	0.55
70:DL:87:PRO:HD2	70:DL:90:ARG:CZ	2.37	0.55
79:CL:157:GLU:OE1	79:CL:160:LEU:HB2	2.07	0.55
1:1:172:C:O2'	1:1:173:C:OP1	2.24	0.55
1:1:2158:A:H2'	1:1:2159:C:C6	2.40	0.55
6:l:306:LYS:HD3	6:l:306:LYS:H	1.71	0.55
12:r:67:ALA:O	12:r:70:ILE:HG13	2.06	0.55
45:B:352:C:H5''	54:K:16:ALA:HB2	1.89	0.55
55:L:154:LYS:HG3	55:L:155:HIS:CE1	2.42	0.55
69:Z:107:PHE:CE1	69:Z:123:LYS:HB3	2.41	0.55
1:AS:117:U:O2	1:AS:120:A:H5''	2.07	0.55
1:AS:783:G:H2'	1:AS:784:C:H6	1.71	0.55
1:AS:1059:G:C6	22:BO:109:VAL:HG23	2.42	0.55
1:AS:1563:A:N7	1:AS:1565:U:O2	2.38	0.55
4:AW:112:ILE:HG13	44:CK:79:VAL:HG12	1.87	0.55
7:AZ:96:SER:OG	7:AZ:198:TYR:O	2.24	0.55
10:BC:98:TYR:OH	10:BC:208:ASP:OD2	2.20	0.55
12:BE:76:ILE:HD13	12:BE:148:VAL:HG22	1.87	0.55
29:BV:125:VAL:HG21	29:BV:138:ILE:HD13	1.88	0.55
34:CA:49:ILE:O	34:CA:69:GLY:N	2.39	0.55
45:CM:1155:G:C2	45:CM:1156:A:C8	2.95	0.55
45:CM:1532:A:H3'	64:DF:134:ARG:HH21	1.71	0.55
45:CM:1677:G:H2'	45:CM:1678:G:N7	2.21	0.55
47:CO:122:GLU:HG2	47:CO:140:ILE:HD12	1.88	0.55
60:DB:24:HIS:CD2	60:DB:36:ARG:HE	2.24	0.55
65:DG:65:ILE:HG12	65:DG:71:VAL:HG21	1.89	0.55
73:DO:33:MET:HE2	73:DO:79:PHE:HB2	1.88	0.55
1:1:1575:A:O2'	1:1:1578:C:N4	2.39	0.55
2:3:19:C:H2'	2:3:20:A:H8	1.70	0.55
11:q:61:ASP:O	11:q:65:VAL:HG13	2.07	0.55
12:r:200:LEU:HA	12:r:213:PHE:CE1	2.41	0.55
15:u:116:LEU:HB2	17:w:195:LEU:HD11	1.87	0.55
50:G:121:TYR:OH	50:G:236:TRP:O	2.18	0.55
58:O:52:LEU:HB3	58:O:78:LEU:CD2	2.37	0.55
59:P:99:ARG:HH12	59:P:143:SER:CB	2.18	0.55
67:X:64:GLU:OE2	73:d:2:VAL:N	2.40	0.55
1:AS:281:G:N7	16:BI:182:LYS:NZ	2.36	0.55
1:AS:1713:U:H2'	1:AS:1714:G:H8	1.72	0.55
1:AS:2345:A:H2'	1:AS:2346:A:C8	2.41	0.55
1:AS:2826:U:OP1	12:BE:61:SER:OG	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:BB:116:ARG:HD3	9:BB:189:VAL:HG11	1.88	0.55
23:BP:89:LYS:O	23:BP:89:LYS:HD3	2.05	0.55
45:CM:1149:G:H2'	45:CM:1150:G:C8	2.41	0.55
46:CN:54:TRP:HA	46:CN:57:ILE:HD12	1.88	0.55
47:CO:166:LYS:O	47:CO:169:ILE:HG13	2.05	0.55
1:1:428:U:H2'	1:1:429:U:C6	2.42	0.55
1:1:3256:G:H2'	1:1:3257:A:C8	2.41	0.55
45:B:675:U:O2'	45:B:677:G:O6	2.18	0.55
53:J:4:LYS:NZ	53:J:35:ARG:HA	2.21	0.55
71:b:42:LEU:HD11	71:b:47:TYR:HB2	1.89	0.55
1:AS:2988:A:H2'	1:AS:2989:A:C8	2.42	0.55
9:BB:142:ILE:O	9:BB:146:VAL:HG23	2.07	0.55
13:BF:80:LEU:HD23	13:BF:84:LEU:CD1	2.37	0.55
16:BI:31:ARG:NH1	16:BI:124:ASP:OD2	2.40	0.55
39:CF:24:ILE:HB	39:CF:44:LYS:HB2	1.88	0.55
45:CM:203:U:C2	45:CM:204:A:C8	2.95	0.55
45:CM:1086:G:H4'	68:DJ:76:GLN:HG3	1.89	0.55
45:CM:1315:G:H2'	45:CM:1316:A:O4'	2.05	0.55
1:1:813:A:H8	38:AK:15:SER:HG	1.55	0.55
1:1:1104:U:H2'	1:1:1105:U:C6	2.41	0.55
1:1:3162:U:C4	1:1:3163:U:H1'	2.41	0.55
2:3:59:U:O2'	7:m:273:ARG:NH1	2.38	0.55
30:AC:17:HIS:CE1	30:AC:21:ILE:HD12	2.42	0.55
45:B:669:G:H2'	45:B:671:G:C8	2.41	0.55
45:B:1192:C:N3	45:B:1442:C:H5	2.05	0.55
45:B:1220:C:H5	77:h:180:ARG:NE	2.03	0.55
47:D:32:ILE:HB	47:D:43:VAL:HG23	1.88	0.55
78:AR:131:THR:HG21	78:AR:133:LYS:HE3	1.89	0.55
1:AS:126:G:H2'	1:AS:127:G:H8	1.72	0.55
1:AS:252:U:H5'	1:AS:253:A:C8	2.42	0.55
1:AS:371:G:N1	1:AS:374:A:OP2	2.34	0.55
1:AS:976:A:N6	1:AS:1100:G:O2'	2.36	0.55
1:AS:2093:G:H22	1:AS:2098:A:H1'	1.70	0.55
1:AS:2126:U:H2'	1:AS:2127:A:C8	2.42	0.55
1:AS:2370:C:H1'	5:AX:266:ARG:HH21	1.71	0.55
3:AU:95:G:OP1	38:CE:76:ASN:ND2	2.37	0.55
6:AY:65:SER:HA	6:AY:76:PRO:HA	1.89	0.55
7:AZ:60:ILE:HB	7:AZ:80:ALA:HB2	1.88	0.55
8:BA:59:ASP:HB2	8:BA:102:VAL:HG22	1.89	0.55
13:BF:28:ASP:OD2	13:BF:32:ARG:NH1	2.40	0.55
28:BU:39:PRO:C	28:BU:77:TYR:CD1	2.83	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:302:U:H2'	45:CM:303:C:C6	2.42	0.55
45:CM:1413:A:O2'	45:CM:1414:G:OP1	2.23	0.55
45:CM:1464:G:O2'	65:DG:56:LYS:HE3	2.06	0.55
47:CO:53:GLY:C	47:CO:55:LYS:H	2.14	0.55
52:CT:22:HIS:HA	52:CT:25:ARG:HH22	1.72	0.55
54:CV:77:ARG:HG2	54:CV:78:ILE:N	2.22	0.55
63:DE:71:PHE:CE2	63:DE:73:LEU:HB3	2.41	0.55
1:1:2370:C:H1'	5:k:266:ARG:NH2	2.22	0.55
1:1:3319:U:H5''	1:1:3320:U:H3'	1.86	0.55
6:l:139:ARG:HG2	6:l:139:ARG:O	2.06	0.55
17:w:11:ASP:HB2	17:w:118:ARG:HB3	1.89	0.55
27:9:73:VAL:HA	27:9:80:ILE:HG22	1.87	0.55
45:B:413:C:O2'	45:B:416:G:O6	2.25	0.55
45:B:486:G:H2'	45:B:487:C:O4'	2.07	0.55
45:B:733:U:O2'	68:Y:122:SER:O	2.20	0.55
45:B:1238:U:H5''	77:h:172:ILE:HG23	1.89	0.55
46:C:143:VAL:CG1	46:C:156:VAL:HA	2.36	0.55
47:D:180:THR:HG22	47:D:183:GLN:CD	2.32	0.55
49:F:106:LEU:HD23	49:F:185:ILE:HG21	1.88	0.55
58:O:67:THR:HG22	58:O:68:GLU:H	1.72	0.55
1:AS:835:C:H4'	1:AS:1720:U:H2'	1.89	0.55
1:AS:1779:U:H2'	1:AS:1780:A:C8	2.41	0.55
1:AS:2404:U:H2'	1:AS:2405:U:C6	2.42	0.55
1:AS:2557:G:C6	26:BS:24:LEU:HD11	2.41	0.55
1:AS:2852:U:OP1	24:BQ:47:ASN:ND2	2.38	0.55
11:BD:180:TYR:CD1	41:CH:13:TYR:HD2	2.24	0.55
12:BE:43:VAL:HG21	12:BE:197:VAL:HG23	1.88	0.55
16:BI:22:LEU:HD12	16:BI:22:LEU:H	1.72	0.55
19:BL:76:ALA:HA	19:BL:79:LYS:HG3	1.88	0.55
45:CM:886:G:H2'	45:CM:887:G:C8	2.41	0.55
45:CM:970:G:H2'	45:CM:971:G:C8	2.41	0.55
45:CM:1459:U:C4	51:CS:180:ARG:HD3	2.41	0.55
46:CN:13:ASP:OD1	46:CN:179:ARG:NH1	2.38	0.55
47:CO:81:TYR:HB3	47:CO:109:LYS:HG3	1.87	0.55
49:CQ:77:ARG:NH1	49:CQ:78:PHE:CE1	2.75	0.55
54:CV:54:LYS:HD3	54:CV:181:GLN:HE22	1.72	0.55
55:CW:109:LEU:CD2	55:CW:129:ILE:HG12	2.36	0.55
63:DE:17:ILE:O	63:DE:21:TYR:HB2	2.07	0.55
70:DL:128:ARG:HH21	70:DL:131:ARG:NH2	1.93	0.55
72:DN:64:LEU:H	72:DN:64:LEU:HD23	1.72	0.55
1:1:1625:U:H5'	28:AA:112:LYS:CD	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:p:99:ARG:HH21	10:p:192:HIS:CD2	2.25	0.55
10:p:247:ILE:HA	10:p:250:LYS:HE3	1.88	0.55
13:s:19:LEU:HD22	13:s:127:PHE:HE1	1.72	0.55
18:x:46:LYS:O	18:x:50:GLN:HG3	2.07	0.55
22:2:82:ASN:HB2	30:AC:20:GLY:HA3	1.89	0.55
45:B:15:U:H2'	45:B:16:G:O4'	2.06	0.55
45:B:1485:G:H2'	45:B:1486:G:H8	1.72	0.55
51:H:55:ASP:HB2	51:H:138:VAL:HG21	1.88	0.55
55:L:92:LYS:HD3	55:L:95:TYR:CE2	2.42	0.55
78:AR:134:VAL:HG23	78:AR:142:MET:HB2	1.88	0.55
1:AS:429:U:H2'	1:AS:430:G:C8	2.40	0.55
1:AS:730:A:H2'	1:AS:731:U:H2'	1.88	0.55
1:AS:813:A:H8	38:CE:15:SER:HG	1.55	0.55
1:AS:1632:C:O2'	28:BU:79:HIS:ND1	2.35	0.55
7:AZ:259:LYS:C	7:AZ:260:PHE:HD1	2.15	0.55
11:BD:139:THR:OG1	11:BD:140:GLN:N	2.39	0.55
11:BD:180:TYR:HB3	41:CH:13:TYR:CE2	2.42	0.55
45:CM:155:A:P	70:DL:132:ARG:HH12	2.30	0.55
45:CM:530:U:OP1	70:DL:64:PHE:HA	2.07	0.55
45:CM:1590:U:OP1	62:DD:131:ARG:NH2	2.40	0.55
45:CM:1743:A:H5'	45:CM:1744:G:OP2	2.06	0.55
46:CN:50:ILE:HA	46:CN:53:THR:HB	1.89	0.55
47:CO:26:ARG:O	47:CO:50:ARG:N	2.40	0.55
48:CP:45:ILE:HD11	48:CP:234:PRO:HB3	1.89	0.55
50:CR:87:MET:O	50:CR:100:ARG:NH1	2.40	0.55
50:CR:157:ASN:OD1	50:CR:222:LEU:HD21	2.07	0.55
79:CL:125:ALA:HA	79:CL:128:GLU:OE1	2.07	0.55
1:1:1172:C:OP1	17:w:26:LYS:NZ	2.39	0.55
1:1:2210:A:H2'	1:1:2211:A:C8	2.41	0.55
1:1:3136:C:H2'	1:1:3137:A:C8	2.42	0.55
13:s:74:PRO:O	13:s:78:GLU:HG3	2.06	0.55
45:B:78:A:C8	52:I:154:ARG:HB3	2.42	0.55
45:B:885:A:H2'	45:B:886:G:H8	1.72	0.55
45:B:1341:U:H2'	45:B:1342:A:C8	2.41	0.55
45:B:1400:U:H5''	63:T:3:ARG:HE	1.71	0.55
48:E:152:LYS:NZ	68:Y:91:ASP:O	2.32	0.55
69:Z:19:ARG:NE	69:Z:19:ARG:HA	2.22	0.55
1:AS:92:C:OP2	1:AS:2736:C:O2'	2.21	0.55
1:AS:638:U:OP1	29:BV:21:ARG:NH1	2.36	0.55
1:AS:1011:C:H4'	1:AS:1012:U:H6	1.71	0.55
1:AS:1543:G:OP1	16:BI:108:ARG:NH2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2138:G:H2'	1:AS:2139:G:C8	2.42	0.55
3:AU:29:U:H5''	14:BG:27:ASP:HB3	1.89	0.55
4:AW:4:VAL:HG13	4:AW:8:GLN:HB2	1.89	0.55
6:AY:61:THR:HB	6:AY:91:PHE:HE1	1.72	0.55
7:AZ:99:TYR:HE2	7:AZ:164:LYS:CD	2.20	0.55
7:AZ:202:GLY:O	7:AZ:206:GLU:HG3	2.07	0.55
10:BC:172:LYS:HD2	10:BC:227:TYR:CD2	2.42	0.55
11:BD:89:LYS:HG2	11:BD:145:ILE:HD13	1.89	0.55
12:BE:196:TYR:CD2	12:BE:197:VAL:N	2.69	0.55
32:BY:58:ILE:HG22	32:BY:70:MET:HE1	1.88	0.55
36:CC:115:LYS:HB3	36:CC:115:LYS:NZ	2.22	0.55
42:CI:6:ARG:C	42:CI:8:LYS:H	2.11	0.55
45:CM:1527:G:OP2	64:DF:40:ARG:NH2	2.40	0.55
61:DC:43:ARG:CZ	61:DC:47:ARG:HD2	2.36	0.55
64:DF:76:PRO:HB3	64:DF:81:ILE:HD12	1.88	0.55
79:i:37:LYS:NZ	79:i:42:ALA:HB2	2.22	0.55
1:1:487:C:H2'	1:1:488:G:O4'	2.06	0.55
1:1:1404:A:OP2	33:AF:32:ASN:ND2	2.37	0.55
1:1:2366:U:H4'	18:x:80:LYS:NZ	2.22	0.55
19:y:36:LEU:O	19:y:40:THR:HG23	2.06	0.55
38:AK:76:ASN:HD22	38:AK:79:GLN:NE2	2.04	0.55
45:B:149:G:N2	52:I:13:GLN:OE1	2.29	0.55
45:B:738:A:OP1	50:G:187:ARG:N	2.39	0.55
45:B:1479:A:H4'	45:B:1480:G:O5'	2.07	0.55
49:F:178:MET:HB3	49:F:180:GLN:NE2	2.21	0.55
50:G:122:LYS:HG3	50:G:162:ILE:HD13	1.89	0.55
53:J:14:GLU:OE2	53:J:41:SER:HA	2.07	0.55
61:R:41:VAL:HG12	61:R:84:ILE:CD1	2.37	0.55
74:e:8:THR:HG23	74:e:56:LEU:HB2	1.89	0.55
1:AS:1151:C:O2'	1:AS:1193:A:N1	2.36	0.55
1:AS:1755:U:H2'	1:AS:1756:A:H5''	1.89	0.55
1:AS:3082:C:H2'	1:AS:3083:U:C6	2.42	0.55
4:AW:168:VAL:HG23	44:CK:79:VAL:HG21	1.89	0.55
10:BC:42:GLN:HG3	10:BC:45:ARG:NH2	2.22	0.55
15:BH:127:ALA:O	15:BH:130:LYS:HG3	2.07	0.55
19:BL:24:VAL:O	19:BL:28:LEU:HD13	2.07	0.55
23:BP:46:ILE:HD12	23:BP:47:VAL:H	1.72	0.55
26:BS:54:TYR:CE2	36:CC:55:LEU:HD21	2.42	0.55
44:CK:33:GLN:HG3	44:CK:34:HIS:ND1	2.21	0.55
45:CM:245:A:O2'	57:CY:37:ASP:O	2.23	0.55
45:CM:405:A:O2'	45:CM:1658:A:N3	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:509:A:OP2	55:CW:176:ASN:ND2	2.32	0.55
48:CP:147:HIS:ND1	48:CP:190:ASP:OD2	2.34	0.55
49:CQ:55:ASN:OD1	49:CQ:58:GLY:N	2.30	0.55
49:CQ:75:VAL:HA	49:CQ:80:LEU:HB2	1.89	0.55
50:CR:243:LYS:HB2	50:CR:245:ILE:CD1	2.36	0.55
50:CR:248:SER:HB3	50:CR:251:GLU:HG3	1.88	0.55
54:CV:140:LYS:HD3	54:CV:140:LYS:N	2.22	0.55
60:DB:26:THR:OG1	60:DB:30:GLY:HA2	2.06	0.55
65:DG:64:HIS:CE1	65:DG:68:ARG:HD2	2.41	0.55
1:1:1473:A:OP1	1:1:3047:G:O2'	2.16	0.54
1:1:1801:C:H2'	1:1:1802:A:H8	1.72	0.54
1:1:2650:A:N6	79:i:52:LYS:HD3	2.22	0.54
12:r:32:ARG:HH11	12:r:32:ARG:HG3	1.71	0.54
19:y:66:ARG:HA	19:y:69:ARG:HG2	1.88	0.54
45:B:157:U:H5	81:B:1805:PAR:HN21	1.52	0.54
47:D:218:LEU:C	47:D:219:LYS:HD2	2.32	0.54
61:R:81:ARG:NH2	61:R:117:GLY:O	2.40	0.54
61:R:120:SER:O	61:R:120:SER:OG	2.25	0.54
74:e:8:THR:O	74:e:56:LEU:N	2.33	0.54
77:h:168:CYS:HB2	77:h:172:ILE:HD13	1.89	0.54
1:AS:2899:C:H2'	1:AS:2900:C:C6	2.42	0.54
1:AS:2912:A:OP2	5:AX:2:SER:N	2.40	0.54
2:AT:84:A:H2'	2:AT:85:G:C8	2.42	0.54
10:BC:97:LYS:HE2	10:BC:98:TYR:CZ	2.42	0.54
17:BJ:13:LYS:HG3	17:BJ:41:GLU:HB3	1.90	0.54
40:CG:15:LYS:O	40:CG:19:GLN:HG3	2.07	0.54
45:CM:17:C:H2'	45:CM:18:C:H6	1.72	0.54
45:CM:558:U:H2'	45:CM:559:G:H8	1.73	0.54
45:CM:638:U:H2'	45:CM:639:G:O4'	2.07	0.54
45:CM:1129:U:H2'	45:CM:1130:U:C6	2.42	0.54
45:CM:1168:A:C6	61:DC:100:LYS:HB2	2.43	0.54
1:1:294:U:P	16:v:15:GLN:HE22	2.30	0.54
1:1:1631:G:N2	1:1:1634:A:OP2	2.34	0.54
1:1:2385:C:H2'	1:1:2386:U:H6	1.72	0.54
81:1:3422:PAR:H33	81:1:3423:PAR:H31	1.89	0.54
2:3:52:G:N2	13:s:9:MET:SD	2.76	0.54
3:4:31:G:OP1	14:t:34:SER:OG	2.19	0.54
5:k:108:GLU:HG3	5:k:137:TYR:CG	2.42	0.54
16:v:19:MET:HE3	16:v:19:MET:HA	1.88	0.54
25:7:9:SER:HA	25:7:52:THR:HG22	1.88	0.54
45:B:746:G:H4'	55:L:72:GLU:OE1	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1117:A:OP1	69:Z:30:LYS:HE3	2.07	0.54
45:B:1193:A:H4'	45:B:1255:G:P	2.47	0.54
50:G:100:ARG:HG2	50:G:102:VAL:HG13	1.88	0.54
56:M:8:ARG:O	56:M:12:HIS:ND1	2.39	0.54
64:U:36:ARG:NH2	64:U:106:GLU:OE2	2.39	0.54
1:AS:431:A:H2'	1:AS:432:G:H8	1.69	0.54
1:AS:935:U:O2'	1:AS:2380:A:N1	2.38	0.54
1:AS:1632:C:H4'	28:BU:74:LEU:O	2.08	0.54
1:AS:1794:A:H2'	1:AS:1795:A:C8	2.42	0.54
1:AS:3240:U:H5''	34:CA:68:TRP:HZ2	1.73	0.54
81:AS:3404:PAR:H51	81:AS:3404:PAR:H322	1.72	0.54
3:AU:9:A:H2'	3:AU:10:A:C8	2.42	0.54
3:AU:41:A:C2	38:CE:44:MET:HE2	2.42	0.54
20:BM:17:VAL:HG11	20:BM:52:LYS:HG3	1.90	0.54
37:CD:40:ARG:HA	37:CD:43:VAL:HG12	1.88	0.54
38:CE:84:LYS:NZ	38:CE:86:GLN:OE1	2.40	0.54
45:CM:52:U:H2'	45:CM:53:G:C8	2.42	0.54
45:CM:590:A:O2'	45:CM:594:C:OP1	2.24	0.54
54:CV:38:ILE:HG12	54:CV:96:LEU:HD11	1.88	0.54
54:CV:158:ILE:HD12	54:CV:162:VAL:HG13	1.89	0.54
64:DF:57:ARG:HD2	71:DM:40:VAL:CG2	2.37	0.54
64:DF:109:LEU:O	64:DF:113:LEU:HD13	2.08	0.54
1:1:766:G:P	14:t:173:ARG:HH12	2.31	0.54
1:1:1060:A:H4'	1:1:1061:A:O5'	2.07	0.54
1:1:2836:A:OP2	81:1:3419:PAR:O61	2.24	0.54
1:1:3162:U:H2'	1:1:3163:U:H4'	1.87	0.54
5:k:58:ARG:NH1	5:k:283:TYR:OH	2.39	0.54
23:5:23:VAL:HG11	23:5:62:ASN:CG	2.32	0.54
45:B:671:G:H5''	45:B:672:U:H6	1.72	0.54
52:I:163:THR:HA	52:I:168:THR:HG22	1.88	0.54
62:S:21:VAL:HG13	62:S:64:ILE:HD11	1.87	0.54
1:AS:164:U:H2'	1:AS:165:C:C6	2.43	0.54
1:AS:248:U:H2'	1:AS:249:G:H4'	1.87	0.54
1:AS:1116:A:H2'	1:AS:1117:U:H6	1.72	0.54
1:AS:2232:U:H2'	1:AS:2239:G:N2	2.23	0.54
5:AX:106:TRP:HB2	5:AX:133:TYR:CE1	2.42	0.54
28:BU:34:LYS:HD2	28:BU:35:SER:N	2.22	0.54
45:CM:222:C:H2'	45:CM:223:A:C8	2.43	0.54
45:CM:787:A:O2'	53:CU:100:ARG:NE	2.40	0.54
45:CM:869:A:N6	45:CM:913:U:H3	2.05	0.54
45:CM:1072:A:H2'	45:CM:1073:A:C8	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:DF:22:ILE:HD11	64:DF:35:ILE:HD13	1.88	0.54
73:DO:47:PHE:CE1	73:DO:49:HIS:HB2	2.41	0.54
1:1:1094:A:OP2	22:2:130:ARG:HD3	2.07	0.54
6:l:109:ARG:HG2	16:v:203:ARG:HG3	1.89	0.54
9:o:70:SER:O	9:o:70:SER:OG	2.21	0.54
45:B:151:G:H2'	45:B:152:G:C8	2.43	0.54
45:B:1205:C:H2'	45:B:1206:A:C8	2.42	0.54
45:B:1413:A:O2'	45:B:1414:G:OP1	2.21	0.54
68:Y:28:ARG:HB2	68:Y:60:LYS:HD3	1.88	0.54
1:AS:1630:G:N7	28:BU:17:ARG:NH2	2.52	0.54
1:AS:2158:A:H2'	1:AS:2159:C:C6	2.42	0.54
45:CM:695:C:O2'	45:CM:696:U:OP1	2.24	0.54
46:CN:129:ASP:O	46:CN:133:ILE:HG13	2.08	0.54
49:CQ:105:ALA:O	49:CQ:109:LYS:HG3	2.07	0.54
51:CS:93:LEU:HD12	51:CS:172:ILE:HG13	1.88	0.54
65:DG:15:ILE:HD13	65:DG:60:SER:HA	1.88	0.54
67:DI:37:ALA:HA	67:DI:50:ASN:OD1	2.08	0.54
72:DN:42:ARG:NH1	72:DN:43:ASN:HB2	2.23	0.54
1:1:169:G:C6	1:1:249:G:H1'	2.42	0.54
1:1:496:A:H2'	1:1:497:U:C6	2.42	0.54
8:n:128:LYS:HE3	8:n:129:GLU:H	1.73	0.54
24:6:67:PRO:HA	24:6:70:ARG:HG2	1.88	0.54
28:AA:50:PRO:HD3	28:AA:68:VAL:HG22	1.90	0.54
45:B:1127:A:H2'	45:B:1128:A:C8	2.43	0.54
45:B:1670:U:O2'	45:B:1671:G:O5'	2.24	0.54
46:C:54:TRP:HA	46:C:57:ILE:HD12	1.90	0.54
60:Q:98:ARG:HD2	72:c:49:ALA:HB2	1.90	0.54
63:T:33:ARG:HG3	78:AR:86:TRP:HZ3	1.72	0.54
65:V:11:ALA:HA	65:V:63:ARG:NH1	2.22	0.54
65:V:111:ILE:HG13	65:V:113:VAL:HG23	1.90	0.54
71:b:54:VAL:HA	71:b:57:TYR:CD2	2.43	0.54
78:AR:84:ALA:HA	78:AR:90:LEU:HD23	1.88	0.54
1:AS:1481:G:N2	35:CB:4:ARG:HD2	2.21	0.54
4:AW:168:VAL:CG2	44:CK:79:VAL:HG21	2.38	0.54
45:CM:391:C:H2'	45:CM:392:C:C6	2.43	0.54
45:CM:857:G:N2	45:CM:1032:G:H4'	2.22	0.54
46:CN:56:LYS:HZ3	46:CN:159:ALA:H	1.55	0.54
51:CS:159:ALA:HB3	51:CS:225:ARG:HB3	1.88	0.54
53:CU:13:LEU:O	53:CU:17:VAL:HG22	2.07	0.54
53:CU:139:LEU:HD12	53:CU:143:ASN:HD21	1.72	0.54
62:DD:112:ASP:HB3	62:DD:115:LEU:HG	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1795:A:H2'	1:1:1796:A:C8	2.42	0.54
1:1:2138:G:H2'	1:1:2139:G:H8	1.71	0.54
1:1:2311:C:H2'	1:1:2312:U:O4'	2.08	0.54
1:1:3317:U:O2'	54:K:170:ARG:NE	2.41	0.54
8:n:75:LEU:HD21	8:n:141:VAL:HG21	1.87	0.54
9:o:52:GLU:OE2	9:o:184:HIS:NE2	2.40	0.54
15:u:112:GLN:O	15:u:116:LEU:HD12	2.07	0.54
16:v:91:GLN:O	16:v:93:LYS:NZ	2.40	0.54
28:AA:87:LEU:HD11	28:AA:121:LYS:HD3	1.90	0.54
30:AC:41:ARG:HA	30:AC:44:ARG:NH2	2.23	0.54
42:AO:13:LEU:HA	42:AO:16:LYS:HD2	1.89	0.54
45:B:1218:G:N1	45:B:1237:C:H5	2.04	0.54
46:C:109:ASN:O	46:C:112:THR:HG22	2.08	0.54
48:E:30:TRP:CZ2	48:E:32:PRO:HB3	2.43	0.54
50:G:192:VAL:HG23	50:G:244:GLY:HA3	1.90	0.54
77:h:178:LYS:HG2	77:h:179:ASP:H	1.71	0.54
78:AR:13:LEU:HD13	78:AR:45:TRP:CH2	2.43	0.54
1:AS:1352:C:P	19:BL:31:LYS:HZ1	2.29	0.54
1:AS:2587:G:H2'	1:AS:2588:C:H6	1.73	0.54
7:AZ:205:ALA:HB2	7:AZ:236:VAL:CG1	2.34	0.54
27:BT:85:LEU:HD22	27:BT:85:LEU:N	2.22	0.54
45:CM:970:G:H2'	45:CM:971:G:H8	1.72	0.54
45:CM:1276:G:H1	45:CM:1309:G:H22	1.56	0.54
45:CM:1368:A:H4'	66:DH:88:ARG:HH22	1.73	0.54
46:CN:21:ASN:HA	46:CN:23:HIS:CE1	2.42	0.54
49:CQ:9:LYS:O	49:CQ:13:VAL:HG13	2.07	0.54
49:CQ:116:ILE:HD12	49:CQ:153:TYR:OH	2.07	0.54
52:CT:85:ARG:HB3	52:CT:87:ARG:HH21	1.71	0.54
53:CU:34:LEU:HG	53:CU:37:LEU:HD11	1.89	0.54
63:DE:25:THR:HG23	63:DE:27:ASP:H	1.72	0.54
79:CL:65:LYS:O	79:CL:67:LYS:NZ	2.34	0.54
1:1:158:A:H2'	1:1:159:A:C8	2.43	0.54
1:1:1057:A:O2'	22:2:102:ARG:NH2	2.40	0.54
1:1:2482:U:C2'	1:1:2483:U:H5'	2.37	0.54
81:1:3408:PAR:O61	9:o:123:GLU:OE1	2.26	0.54
14:t:124:VAL:HG21	14:t:138:PHE:CZ	2.43	0.54
23:5:19:VAL:HA	23:5:108:LEU:HD13	1.90	0.54
23:5:33:TYR:CZ	23:5:37:LEU:HD11	2.43	0.54
23:5:56:ILE:HG12	23:5:66:VAL:HG22	1.88	0.54
49:F:225:LYS:HD3	49:F:226:SER:H	1.70	0.54
50:G:64:ILE:O	50:G:67:GLN:HG3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:H:43:PHE:HE1	51:H:70:VAL:HG13	1.73	0.54
51:H:132:VAL:HG23	51:H:202:ALA:CB	2.38	0.54
58:O:103:LEU:CD2	58:O:116:VAL:H	2.20	0.54
59:P:85:PRO:HG2	59:P:129:TYR:CE1	2.42	0.54
61:R:1:MET:HB3	64:U:17:LEU:HA	1.89	0.54
63:T:22:PRO:HG2	63:T:23:LYS:NZ	2.22	0.54
65:V:124:ILE:HD11	65:V:132:LEU:HD12	1.90	0.54
1:AS:94:A:H5''	29:BV:34:LYS:HB2	1.89	0.54
1:AS:2498:A:H2'	1:AS:2499:U:C6	2.42	0.54
1:AS:2739:U:H2'	1:AS:2740:U:C6	2.42	0.54
1:AS:3148:A:C2	17:BJ:116:LYS:HD2	2.42	0.54
3:AU:139:U:H2'	3:AU:140:G:C8	2.42	0.54
12:BE:96:VAL:HG22	12:BE:125:LEU:CD2	2.38	0.54
21:BN:21:GLU:HA	21:BN:21:GLU:OE2	2.07	0.54
38:CE:54:LYS:O	38:CE:58:THR:OG1	2.19	0.54
44:CK:37:TYR:HB2	44:CK:47:VAL:CG2	2.38	0.54
45:CM:108:A:H2'	45:CM:109:G:C8	2.43	0.54
45:CM:1480:G:H5'	81:CM:1806:PAR:H51	1.90	0.54
45:CM:1551:U:H2'	45:CM:1552:C:H6	1.72	0.54
50:CR:60:GLU:O	50:CR:64:ILE:HG23	2.07	0.54
53:CU:113:THR:O	53:CU:117:VAL:HG13	2.08	0.54
65:DG:131:ASP:O	65:DG:134:ARG:HG3	2.08	0.54
73:DO:54:VAL:O	73:DO:63:LEU:HB3	2.08	0.54
1:1:158:A:H2'	1:1:159:A:H8	1.72	0.54
1:1:641:U:O2'	1:1:1149:A:N1	2.40	0.54
1:1:783:G:H2'	1:1:784:C:H6	1.73	0.54
1:1:2408:A:H2'	1:1:2409:C:C6	2.43	0.54
1:1:2869:A:OP2	41:AN:48:LYS:NZ	2.34	0.54
81:1:3406:PAR:H241	81:1:3406:PAR:H33	1.73	0.54
5:k:212:ASP:OD2	5:k:354:VAL:HG12	2.08	0.54
6:l:139:ARG:HH21	6:l:241:PRO:HB2	1.73	0.54
20:z:161:ALA:O	20:z:165:ARG:HD3	2.07	0.54
31:AD:29:TYR:OH	31:AD:57:GLU:OE2	2.22	0.54
45:B:397:A:H4'	50:G:3:ARG:HG2	1.90	0.54
45:B:1083:U:OP1	48:E:154:THR:OG1	2.23	0.54
50:G:128:LYS:HD3	50:G:130:GLN:OE1	2.08	0.54
52:I:180:THR:HG22	52:I:181:PRO:HD2	1.90	0.54
55:L:81:VAL:HG21	55:L:91:MET:SD	2.48	0.54
61:R:56:LEU:C	61:R:60:LEU:HD22	2.32	0.54
61:R:67:THR:HG21	61:R:73:PRO:HA	1.90	0.54
78:AR:16:HIS:ND1	78:AR:20:VAL:HG22	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:AR:117:ALA:HA	78:AR:157:ILE:HD13	1.89	0.54
1:AS:183:U:O3'	27:BT:121:ARG:NH1	2.40	0.54
1:AS:1104:U:H2'	1:AS:1105:U:C6	2.43	0.54
1:AS:2141:C:H5'	4:AW:7:ASN:OD1	2.08	0.54
3:AU:8:C:H2'	3:AU:9:A:H8	1.73	0.54
3:AU:135:G:H5''	26:BS:49:LYS:NZ	2.23	0.54
12:BE:44:ASP:OD1	12:BE:181:TYR:OH	2.20	0.54
14:BG:76:THR:O	14:BG:80:LEU:HD12	2.08	0.54
24:BQ:40:LYS:HD3	24:BQ:59:MET:HE2	1.90	0.54
30:BW:56:LYS:C	30:BW:56:LYS:HD2	2.32	0.54
32:BY:97:VAL:HG12	32:BY:98:PRO:HD2	1.89	0.54
33:BZ:104:ARG:HG2	33:BZ:105:LYS:H	1.73	0.54
45:CM:1072:A:H5'	45:CM:1283:U:C5	2.43	0.54
45:CM:1305:U:H3'	46:CN:101:ARG:HH21	1.72	0.54
45:CM:1610:C:H2'	45:CM:1611:C:H6	1.73	0.54
46:CN:32:HIS:HE1	67:DI:62:ARG:O	1.90	0.54
48:CP:225:TRP:CG	68:DJ:68:ARG:HD3	2.43	0.54
51:CS:157:ARG:HD3	51:CS:157:ARG:N	2.23	0.54
57:CY:110:HIS:O	57:CY:139:VAL:HG13	2.08	0.54
58:CZ:43:ARG:O	58:CZ:47:GLU:HB2	2.08	0.54
62:DD:101:LYS:HZ1	62:DD:104:LEU:HD12	1.71	0.54
1:1:1746:A:OP1	39:AL:44:LYS:NZ	2.33	0.54
3:4:126:A:O2'	3:4:129:C:N4	2.41	0.54
5:k:292:ALA:HB1	5:k:295:ALA:HB3	1.90	0.54
7:m:205:ALA:O	7:m:209:GLU:HG2	2.08	0.54
31:AD:12:ILE:HG23	31:AD:102:ILE:HD11	1.90	0.54
45:B:156:U:O2'	45:B:157:U:H3'	2.07	0.54
45:B:848:A:OP1	68:Y:57:ARG:NH1	2.40	0.54
45:B:886:G:H2'	45:B:887:G:C8	2.42	0.54
45:B:1432:A:O2'	45:B:1433:C:H5''	2.08	0.54
64:U:87:ASN:HB2	64:U:99:HIS:CE1	2.43	0.54
70:a:29:HIS:CE1	70:a:34:ASN:HA	2.43	0.54
78:AR:41:THR:CG2	78:AR:61:SER:HB2	2.38	0.54
78:AR:75:SER:HA	78:AR:116:ILE:HD11	1.88	0.54
1:AS:634:C:O2	1:AS:2355:G:O2'	2.21	0.54
1:AS:2546:U:H5'	1:AS:2547:G:O4'	2.07	0.54
1:AS:3234:U:OP2	8:BA:76:ARG:NH2	2.41	0.54
2:AT:113:C:H2'	2:AT:114:U:O4'	2.08	0.54
7:AZ:6:GLU:OE1	7:AZ:7:PHE:N	2.40	0.54
12:BE:42:THR:HG23	12:BE:45:GLU:HG3	1.90	0.54
28:BU:128:LYS:H	28:BU:128:LYS:HD3	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:176:U:O4	52:CT:191:LYS:HE2	2.08	0.54
45:CM:878:U:H5'	45:CM:879:U:OP2	2.07	0.54
47:CO:134:VAL:CG2	47:CO:219:LYS:HB3	2.38	0.54
49:CQ:97:LEU:HB3	49:CQ:191:LYS:CE	2.33	0.54
52:CT:48:TYR:CE2	52:CT:121:ILE:HD11	2.42	0.54
64:DF:22:ILE:CD1	64:DF:34:LYS:HB3	2.38	0.54
68:DJ:36:LYS:HB2	68:DJ:36:LYS:NZ	2.22	0.54
1:1:239:A:H2	36:AI:94:LYS:HD3	1.72	0.54
6:1:155:ASN:O	6:1:158:GLU:HB2	2.07	0.54
21:0:8:GLN:HE21	21:0:26:ARG:HD2	1.72	0.54
23:5:19:VAL:CG2	23:5:20:ALA:H	2.20	0.54
36:AI:94:LYS:O	36:AI:98:SER:OG	2.19	0.54
45:B:736:G:H2'	45:B:737:A:C8	2.43	0.54
45:B:1147:C:H4'	74:e:22:ARG:HD3	1.89	0.54
45:B:1739:U:H2'	45:B:1740:A:H8	1.72	0.54
46:C:139:VAL:O	46:C:139:VAL:HG12	2.08	0.54
48:E:96:VAL:HG23	48:E:110:ILE:CG1	2.37	0.54
48:E:225:TRP:CD2	68:Y:68:ARG:HD2	2.43	0.54
52:I:215:ARG:O	52:I:219:ARG:HG2	2.08	0.54
71:b:49:ARG:HG2	71:b:53:ASP:OD2	2.08	0.54
78:AR:92:LEU:HB2	78:AR:104:PHE:HE1	1.73	0.54
78:AR:302:TYR:CE2	78:AR:308:ARG:HD2	2.43	0.54
1:AS:782:A:H4'	1:AS:783:G:H5'	1.89	0.54
1:AS:2680:C:H5'	79:CL:37:LYS:HB3	1.90	0.54
1:AS:2876:U:H2'	1:AS:2877:U:C6	2.42	0.54
1:AS:3256:G:H2'	1:AS:3257:A:C8	2.43	0.54
6:AY:134:SER:HA	6:AY:137:LEU:HD12	1.89	0.54
23:BP:19:VAL:O	23:BP:21:ALA:N	2.33	0.54
28:BU:57:MET:HG3	28:BU:61:LYS:HB2	1.89	0.54
39:CF:27:VAL:HG23	39:CF:39:LYS:HG2	1.90	0.54
44:CK:38:ASP:HA	44:CK:45:ARG:HA	1.89	0.54
45:CM:740:A:O2'	45:CM:741:A:OP1	2.25	0.54
45:CM:815:U:O2'	45:CM:816:U:O5'	2.25	0.54
45:CM:1495:U:H2'	45:CM:1496:C:C6	2.43	0.54
45:CM:1656:U:H2'	45:CM:1657:G:O4'	2.08	0.54
45:CM:1679:A:H2	45:CM:1696:U:H3	1.54	0.54
46:CN:169:SER:O	46:CN:173:ILE:HG13	2.07	0.54
46:CN:198:MET:HB3	63:DE:85:VAL:HG21	1.90	0.54
50:CR:42:LEU:N	50:CR:84:ALA:O	2.39	0.54
52:CT:55:GLY:O	52:CT:63:MET:HG3	2.07	0.54
56:CX:8:ARG:HA	56:CX:11:ILE:HD11	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:CZ:131:ASP:O	58:CZ:135:ILE:HG13	2.08	0.54
58:CZ:132:GLU:O	58:CZ:136:LEU:HB2	2.08	0.54
62:DD:93:GLN:NE2	62:DD:98:GLU:OE1	2.41	0.54
68:DJ:83:ILE:HD11	68:DJ:121:VAL:C	2.33	0.54
1:1:1762:G:O2'	1:1:1763:C:OP1	2.25	0.53
1:1:2370:C:H1'	5:k:266:ARG:HH21	1.73	0.53
1:1:3192:A:H4'	15:u:126:LYS:NZ	2.23	0.53
1:1:3192:A:O2'	15:u:126:LYS:HD2	2.08	0.53
10:p:77:ALA:O	10:p:80:SER:OG	2.25	0.53
13:s:61:ARG:HH22	79:i:45:SER:CA	2.19	0.53
45:B:433:C:H5''	69:Z:50:LYS:HE2	1.90	0.53
45:B:1351:U:O3'	65:V:7:ARG:NE	2.39	0.53
46:C:147:THR:CG2	46:C:159:ALA:HB1	2.36	0.53
53:J:12:GLU:HA	53:J:15:LEU:HD23	1.89	0.53
58:O:28:LEU:O	58:O:32:LEU:HG	2.07	0.53
65:V:63:ARG:HE	65:V:67:LEU:HD11	1.73	0.53
78:AR:68:ILE:HB	78:AR:86:TRP:CG	2.43	0.53
78:AR:234:LYS:H	78:AR:258:LYS:HZ1	1.56	0.53
1:AS:729:C:H3'	1:AS:730:A:H5''	1.90	0.53
1:AS:856:G:O2'	1:AS:891:A:H4'	2.08	0.53
1:AS:1122:G:H5''	12:BE:119:TRP:CZ3	2.43	0.53
1:AS:2370:C:O2'	5:AX:266:ARG:NH2	2.41	0.53
1:AS:3136:C:H2'	1:AS:3137:A:H8	1.71	0.53
6:AY:126:ALA:HA	6:AY:245:LEU:HD22	1.90	0.53
6:AY:303:ALA:HA	19:BL:39:ARG:HH12	1.73	0.53
9:BB:70:SER:O	9:BB:70:SER:OG	2.23	0.53
12:BE:87:LEU:HD11	12:BE:136:MET:HE3	1.91	0.53
36:CC:10:ARG:NE	36:CC:10:ARG:O	2.42	0.53
45:CM:150:U:O2	52:CT:4:ASN:ND2	2.27	0.53
45:CM:700:G:O2'	45:CM:701:G:O5'	2.27	0.53
45:CM:704:A:O2'	45:CM:705:G:O4'	2.25	0.53
46:CN:146:LEU:HD11	46:CN:173:ILE:HD11	1.91	0.53
47:CO:46:THR:HG21	47:CO:66:PHE:CE1	2.43	0.53
51:CS:219:ARG:HA	51:CS:222:LYS:HZ3	1.74	0.53
58:CZ:32:LEU:HD22	58:CZ:41:LEU:HD13	1.89	0.53
60:DB:123:ARG:O	72:DN:22:ARG:NH1	2.41	0.53
61:DC:44:ARG:O	61:DC:49:LEU:HD23	2.07	0.53
66:DH:42:ARG:NE	66:DH:42:ARG:HA	2.23	0.53
79:i:88:PHE:HB3	79:i:91:HIS:ND1	2.22	0.53
1:1:214:G:H5''	27:9:12:ARG:HG3	1.91	0.53
1:1:364:G:OP1	6:l:61:THR:HG22	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1385:G:N2	1:1:1386:A:N1	2.57	0.53
1:1:2446:A:OP1	1:1:2448:C:N4	2.28	0.53
1:1:3164:U:H1'	1:1:3165:U:C4	2.43	0.53
45:B:142:G:O2'	45:B:143:A:O5'	2.21	0.53
46:C:163:ASN:OD1	46:C:166:GLY:N	2.42	0.53
47:D:56:ASN:OD1	47:D:57:ALA:N	2.41	0.53
50:G:183:VAL:CG2	50:G:220:THR:HG21	2.39	0.53
62:S:22:LYS:HB3	62:S:63:ASP:OD1	2.08	0.53
66:W:34:GLU:CD	66:W:88:ARG:HH22	2.16	0.53
78:AR:33:LEU:HB2	78:AR:47:LEU:HD21	1.90	0.53
1:AS:307:A:H2'	1:AS:308:A:H8	1.70	0.53
1:AS:1059:G:N1	22:BO:109:VAL:HG23	2.23	0.53
1:AS:2529:U:O4	4:AW:95:SER:N	2.35	0.53
10:BC:132:VAL:HG22	10:BC:133:VAL:H	1.73	0.53
10:BC:135:TYR:OH	10:BC:193:LYS:HE2	2.08	0.53
10:BC:178:TYR:CE1	10:BC:224:ILE:HG13	2.44	0.53
26:BS:70:GLU:O	26:BS:74:LYS:HG2	2.08	0.53
36:CC:5:LYS:HD3	36:CC:5:LYS:N	2.23	0.53
39:CF:37:LYS:NZ	39:CF:37:LYS:HB3	2.23	0.53
45:CM:151:G:H2'	45:CM:152:G:H8	1.73	0.53
45:CM:975:C:H5'	60:DB:124:LYS:HB2	1.91	0.53
45:CM:1489:G:N2	45:CM:1492:A:OP2	2.41	0.53
45:CM:1678:G:H3'	45:CM:1679:A:H8	1.73	0.53
46:CN:25:GLY:O	46:CN:45:MET:HE3	2.08	0.53
46:CN:79:ARG:HH22	46:CN:164:ASN:HB3	1.73	0.53
51:CS:71:SER:OG	51:CS:94:THR:HG21	2.09	0.53
62:DD:27:LEU:HD11	62:DD:29:LYS:HE2	1.90	0.53
1:1:2972:A:H2'	1:1:2973:U:C6	2.43	0.53
1:1:3161:U:H3'	1:1:3162:U:O4'	2.09	0.53
5:k:77:THR:OG1	5:k:326:GLY:O	2.27	0.53
13:s:29:ARG:HD2	13:s:123:TYR:OH	2.08	0.53
23:5:101:VAL:HG23	23:5:102:LYS:H	1.74	0.53
42:AO:1:MET:HB2	45:B:1770:C:OP2	2.09	0.53
45:B:150:U:O2'	52:I:15:SER:HB3	2.08	0.53
45:B:518:A:O2'	45:B:519:A:OP1	2.24	0.53
45:B:1127:A:H5''	72:c:2:PRO:HB3	1.89	0.53
49:F:128:MET:HA	49:F:128:MET:HE2	1.90	0.53
1:AS:964:G:H2'	1:AS:965:C:C6	2.44	0.53
1:AS:1777:C:H2'	1:AS:1778:U:C6	2.43	0.53
1:AS:2530:C:N4	31:BX:56:SER:OG	2.42	0.53
1:AS:2933:G:H2'	1:AS:2934:U:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BD:146:VAL:HG12	11:BD:154:VAL:HG22	1.90	0.53
63:DE:80:ARG:HA	63:DE:83:GLN:NE2	2.23	0.53
66:DH:70:PRO:O	75:DQ:41:GLN:NE2	2.35	0.53
1:1:1177:U:O4	17:w:22:SER:OG	2.23	0.53
3:4:36:G:OP2	36:AI:85:THR:HB	2.08	0.53
5:k:212:ASP:OD2	5:k:353:LYS:HA	2.09	0.53
7:m:290:ILE:HG12	12:r:206:LEU:HD11	1.91	0.53
20:z:172:ARG:HH21	45:B:837:C:P	2.32	0.53
24:6:13:MET:HE2	24:6:53:ALA:HB1	1.90	0.53
36:AI:13:SER:OG	36:AI:15:GLU:OE1	2.23	0.53
46:C:3:LEU:HD11	67:X:39:VAL:HG11	1.88	0.53
48:E:47:SER:OG	48:E:49:GLU:OE1	2.25	0.53
48:E:94:LYS:HG3	48:E:112:THR:HG22	1.90	0.53
48:E:103:ASN:OD1	48:E:103:ASN:O	2.25	0.53
55:L:102:GLU:CD	55:L:102:GLU:H	2.17	0.53
58:O:96:LEU:HD23	58:O:96:LEU:H	1.73	0.53
64:U:20:THR:HG21	64:U:35:ILE:HD13	1.91	0.53
71:b:50:ILE:HG12	71:b:69:LEU:HD13	1.89	0.53
1:AS:148:U:H4'	16:BI:56:LYS:HG2	1.89	0.53
1:AS:591:C:OP2	8:BA:18:LYS:HG2	2.08	0.53
1:AS:1660:G:H2'	1:AS:1661:U:C6	2.43	0.53
1:AS:1895:G:O2'	1:AS:2312:U:O4	2.18	0.53
1:AS:2080:U:H2'	1:AS:2081:U:C6	2.43	0.53
5:AX:260:VAL:HG11	5:AX:266:ARG:NH1	2.24	0.53
7:AZ:160:PHE:HA	7:AZ:163:LEU:HB3	1.90	0.53
33:BZ:35:LYS:NZ	33:BZ:53:GLN:OE1	2.38	0.53
38:CE:58:THR:HG22	38:CE:59:THR:N	2.23	0.53
45:CM:723:G:H2'	45:CM:724:G:O4'	2.08	0.53
45:CM:897:U:OP1	45:CM:898:G:O2'	2.25	0.53
45:CM:1742:A:O4'	69:DK:63:GLN:NE2	2.42	0.53
50:CR:48:LEU:HD11	50:CR:70:VAL:HG11	1.91	0.53
50:CR:139:VAL:HG23	50:CR:150:PRO:HG3	1.91	0.53
52:CT:2:LYS:HE3	52:CT:17:ASP:OD2	2.08	0.53
66:DH:52:LYS:HB3	66:DH:91:ASP:HB2	1.90	0.53
67:DI:64:GLU:OE2	73:DO:2:VAL:N	2.40	0.53
1:1:803:A:H61	1:1:930:G:H22	1.56	0.53
1:1:1018:U:H3	1:1:1026:A:H61	1.57	0.53
1:1:1344:U:OP1	19:y:39:ARG:NH2	2.41	0.53
1:1:2134:U:OP2	4:j:241:ARG:NH2	2.41	0.53
1:1:3241:G:O6	18:x:171:ARG:NH2	2.42	0.53
1:1:3314:C:H2'	1:1:3315:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:66:A:H61	3:4:93:U:H3	1.57	0.53
7:m:89:LYS:O	7:m:92:LEU:HD11	2.07	0.53
22:2:79:VAL:HG22	22:2:84:TYR:CE2	2.43	0.53
30:AC:19:ASN:OD1	30:AC:19:ASN:N	2.39	0.53
45:B:119:A:H1'	45:B:395:A:C5	2.43	0.53
45:B:810:U:H2'	45:B:811:U:O4'	2.08	0.53
45:B:1214:G:C6	58:O:44:GLY:HA3	2.44	0.53
45:B:1399:U:O2'	45:B:1400:U:OP1	2.27	0.53
48:E:39:LEU:HD11	48:E:242:ALA:HB2	1.91	0.53
50:G:129:VAL:HG22	50:G:139:VAL:HG22	1.89	0.53
78:AR:70:GLN:HB2	78:AR:86:TRP:HE1	1.73	0.53
1:AS:2142:A:H62	81:AS:3403:PAR:HO62	1.53	0.53
1:AS:2405:U:H2'	1:AS:2406:U:C6	2.43	0.53
3:AU:142:C:H2'	3:AU:143:U:C6	2.44	0.53
7:AZ:89:LYS:C	7:AZ:90:TYR:CD2	2.86	0.53
13:BF:16:LYS:HB3	13:BF:72:ARG:NH1	2.23	0.53
13:BF:75:LYS:O	13:BF:79:ILE:HG13	2.09	0.53
21:BN:73:LYS:NZ	21:BN:97:VAL:O	2.41	0.53
35:CB:96:GLU:O	35:CB:100:ILE:HG13	2.08	0.53
45:CM:495:G:H2'	45:CM:496:G:C8	2.43	0.53
45:CM:824:U:OP2	57:CY:28:ASN:HB2	2.09	0.53
45:CM:1187:A:H1'	45:CM:1192:C:H42	1.73	0.53
45:CM:1669:U:HO2'	45:CM:1670:U:H6	1.57	0.53
46:CN:175:TRP:CE3	46:CN:199:PRO:HG3	2.43	0.53
50:CR:104:ASP:OD2	50:CR:108:LYS:HG2	2.08	0.53
50:CR:253:ARG:HD3	55:CW:71:PHE:CE1	2.43	0.53
59:DA:56:ASP:OD2	73:DO:52:THR:HG23	2.08	0.53
61:DC:85:VAL:HG23	61:DC:89:MET:HG3	1.91	0.53
61:DC:126:VAL:O	79:CL:71:LYS:NZ	2.36	0.53
1:1:222:U:O4	81:1:3402:PAR:O62	2.24	0.53
1:1:1616:U:H2'	1:1:1617:A:C8	2.44	0.53
1:1:2958:U:H2'	1:1:2959:A:C8	2.44	0.53
3:4:57:C:H4'	3:4:63:G:N7	2.23	0.53
7:m:260:PHE:HB3	7:m:264:GLN:CG	2.34	0.53
11:q:110:ASP:HB3	11:q:128:ILE:HD12	1.91	0.53
19:y:150:VAL:HA	19:y:153:PHE:CD2	2.43	0.53
45:B:234:G:H2'	45:B:235:C:C6	2.43	0.53
1:AS:120:A:O2'	10:BC:106:LYS:NZ	2.39	0.53
1:AS:158:A:H2'	1:AS:159:A:H8	1.72	0.53
1:AS:1625:U:P	28:BU:112:LYS:NZ	2.82	0.53
1:AS:2210:A:H2'	1:AS:2211:A:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BL:182:ARG:NH1	29:BV:55:LYS:O	2.42	0.53
36:CC:63:ARG:O	36:CC:67:ARG:HG3	2.08	0.53
45:CM:165:U:H2'	45:CM:166:A:H5''	1.91	0.53
45:CM:191:U:H4'	45:CM:192:U:H5'	1.90	0.53
63:DE:73:LEU:O	63:DE:73:LEU:HD13	2.08	0.53
1:1:407:A:C2	3:4:17:A:H1'	2.43	0.53
1:1:782:A:H4'	1:1:783:G:H5'	1.91	0.53
1:1:892:A:H5'	4:j:183:GLY:HA2	1.89	0.53
1:1:1007:A:H2'	1:1:1008:A:C8	2.44	0.53
1:1:2958:U:H2'	1:1:2959:A:H8	1.73	0.53
1:1:3320:U:H5''	1:1:3321:G:OP1	2.07	0.53
21:0:171:PHE:O	21:0:172:TYR:HB2	2.08	0.53
45:B:415:A:H4'	45:B:416:G:O5'	2.08	0.53
45:B:870:G:H2'	45:B:871:U:C6	2.44	0.53
52:I:21:GLU:HA	52:I:24:LEU:HD12	1.91	0.53
56:M:44:LYS:NZ	56:M:47:GLN:HE22	2.06	0.53
57:N:125:VAL:HG12	57:N:137:PHE:HB3	1.91	0.53
66:W:56:ARG:HA	66:W:88:ARG:HG3	1.90	0.53
74:e:35:ASP:O	74:e:37:SER:N	2.40	0.53
78:AR:214:ASP:OD1	78:AR:214:ASP:N	2.41	0.53
1:AS:314:U:H2'	1:AS:315:C:C6	2.44	0.53
1:AS:401:U:H1'	1:AS:403:C:C4	2.44	0.53
1:AS:1029:U:H2'	1:AS:1030:U:C6	2.44	0.53
1:AS:1130:G:O2'	1:AS:2614:A:N3	2.37	0.53
1:AS:2145:A:H2'	1:AS:2146:A:C8	2.44	0.53
5:AX:117:ARG:O	5:AX:117:ARG:HD3	2.09	0.53
10:BC:220:ASN:OD1	10:BC:224:ILE:HD13	2.09	0.53
21:BN:71:LYS:O	21:BN:73:LYS:NZ	2.35	0.53
26:BS:100:LYS:HD2	26:BS:100:LYS:O	2.09	0.53
45:CM:1219:A:OP2	45:CM:1230:G:O2'	2.23	0.53
46:CN:148:ASP:OD1	46:CN:149:MET:N	2.35	0.53
49:CQ:25:PHE:HE2	49:CQ:70:LEU:HD11	1.74	0.53
58:CZ:62:LEU:HG	58:CZ:63:CYS:N	2.23	0.53
1:1:1456:A:H2'	1:1:1457:A:C8	2.44	0.53
1:1:2116:A:C4	38:AK:3:LYS:HB3	2.43	0.53
16:v:106:VAL:HG21	16:v:132:VAL:HG21	1.91	0.53
45:B:17:C:H2'	45:B:18:C:H6	1.73	0.53
46:C:183:ARG:NH1	46:C:191:ARG:HA	2.24	0.53
60:Q:25:VAL:HG11	60:Q:66:CYS:SG	2.49	0.53
70:a:43:LYS:O	70:a:46:GLU:HG2	2.09	0.53
1:AS:411:U:H2'	1:AS:412:G:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:853:G:N7	20:BM:92:GLN:NE2	2.56	0.53
2:AT:1:G:C4	7:AZ:266:LYS:HA	2.44	0.53
2:AT:39:U:N3	13:BF:70:THR:OG1	2.37	0.53
2:AT:121:U:OP2	7:AZ:265:TYR:OH	2.25	0.53
22:BO:63:ILE:HG13	22:BO:75:ILE:HB	1.89	0.53
45:CM:219:A:C6	45:CM:220:A:N6	2.77	0.53
45:CM:818:U:H3'	45:CM:819:G:H5'	1.90	0.53
45:CM:1782:U:P	72:DN:5:ARG:HH22	2.31	0.53
53:CU:73:LEU:C	53:CU:77:LEU:HD12	2.33	0.53
1:1:582:G:H2'	1:1:583:A:H8	1.74	0.53
1:1:588:G:OP1	33:AF:63:LYS:NZ	2.37	0.53
1:1:629:A:H2'	1:1:630:G:C8	2.44	0.53
1:1:638:U:H2'	1:1:639:C:C6	2.44	0.53
1:1:729:C:H3'	1:1:730:A:H5''	1.91	0.53
1:1:1593:C:H2'	1:1:1594:G:C8	2.43	0.53
26:8:88:ILE:HD11	26:8:114:ILE:HD13	1.91	0.53
29:AB:36:GLY:HA3	29:AB:40:HIS:CE1	2.44	0.53
40:AM:9:THR:HG23	40:AM:51:ILE:HG21	1.91	0.53
45:B:4:C:H5	45:B:20:G:H1	1.57	0.53
45:B:530:U:OP1	70:a:64:PHE:HA	2.09	0.53
45:B:560:G:H2'	45:B:561:U:O2	2.08	0.53
45:B:876:A:H2'	45:B:877:G:H8	1.73	0.53
45:B:1551:U:H2'	45:B:1552:C:H6	1.74	0.53
49:F:49:VAL:CG2	49:F:87:ILE:HG12	2.38	0.53
66:W:62:LEU:HB2	66:W:83:MET:HB3	1.90	0.53
1:AS:2384:C:H2'	1:AS:2385:C:H6	1.74	0.53
1:AS:2814:U:OP1	1:AS:2816:C:N4	2.42	0.53
10:BC:42:GLN:HE21	10:BC:45:ARG:NH2	2.06	0.53
11:BD:50:ASN:O	11:BD:51:ARG:NE	2.41	0.53
16:BI:85:THR:HG23	16:BI:86:ASN:ND2	2.24	0.53
24:BQ:96:GLU:OE1	25:BR:24:GLY:N	2.36	0.53
34:CA:9:VAL:HB	34:CA:100:ILE:HB	1.90	0.53
45:CM:92:A:H61	52:CT:89:THR:HG22	1.74	0.53
45:CM:902:U:O2	60:DB:36:ARG:CZ	2.56	0.53
45:CM:1302:C:H2'	45:CM:1303:G:O4'	2.09	0.53
51:CS:43:PHE:CG	51:CS:115:LYS:HD3	2.44	0.53
53:CU:18:ALA:O	53:CU:22:VAL:HG23	2.09	0.53
56:CX:11:ILE:HG22	56:CX:35:ILE:HD13	1.90	0.53
1:1:180:U:H4'	38:AK:75:LYS:HG2	1.89	0.53
1:1:345:G:O2'	3:4:25:G:N3	2.41	0.53
1:1:847:C:OP2	44:AQ:3:LYS:HD2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:1:3406:PAR:H531	81:1:3406:PAR:H11	1.90	0.53
4:j:80:GLU:HG3	44:AQ:66:GLY:HA2	1.91	0.53
23:5:80:LYS:O	23:5:84:LYS:HG2	2.08	0.53
43:AP:29:LYS:HG3	43:AP:29:LYS:O	2.09	0.53
45:B:138:C:H5'	52:I:184:LEU:HD21	1.91	0.53
45:B:671:G:H3'	45:B:672:U:C5'	2.27	0.53
49:F:35:TYR:OH	49:F:38:VAL:HB	2.09	0.53
50:G:211:LYS:HD2	50:G:217:THR:HG22	1.91	0.53
51:H:144:GLU:HG3	51:H:221:ALA:HB3	1.91	0.53
52:I:7:TYR:CD1	52:I:113:ILE:HB	2.44	0.53
52:I:127:THR:HG22	52:I:128:THR:H	1.74	0.53
61:R:20:VAL:HG12	61:R:25:LEU:HB2	1.91	0.53
65:V:49:GLU:HG3	65:V:52:THR:CG2	2.38	0.53
1:AS:1190:G:H2'	1:AS:1191:A:C8	2.45	0.53
1:AS:2520:A:H1'	1:AS:2521:C:C5	2.44	0.53
81:AS:3404:PAR:H241	81:AS:3404:PAR:H532	1.73	0.53
3:AU:8:C:H2'	3:AU:9:A:C8	2.44	0.53
4:AW:65:ASP:HB3	4:AW:68:LYS:O	2.09	0.53
4:AW:104:LEU:HD23	4:AW:162:ALA:HB3	1.91	0.53
14:BG:83:VAL:HG13	14:BG:120:LYS:HE3	1.91	0.53
45:CM:598:U:OP2	69:DK:108:GLY:HA2	2.09	0.53
45:CM:1575:G:H1	45:CM:1595:U:H3	1.56	0.53
45:CM:1680:A:H3'	45:CM:1681:A:C8	2.43	0.53
53:CU:2:SER:O	53:CU:5:ILE:HG13	2.09	0.53
53:CU:52:LYS:HG2	53:CU:84:ARG:NH1	2.24	0.53
54:CV:81:VAL:O	54:CV:91:VAL:HG23	2.09	0.53
56:CX:38:ARG:HG3	56:CX:41:PHE:CG	2.44	0.53
62:DD:93:GLN:OE1	62:DD:93:GLN:HA	2.08	0.53
72:DN:42:ARG:HD3	72:DN:43:ASN:O	2.09	0.53
1:1:541:U:O4	1:1:546:C:N4	2.42	0.52
1:1:2452:G:H2'	1:1:2454:C:H42	1.73	0.52
1:1:3132:U:H3	1:1:3253:G:H1	1.57	0.52
2:3:112:G:O6	7:m:21:ARG:HD3	2.09	0.52
13:s:19:LEU:HD22	13:s:127:PHE:CE1	2.43	0.52
38:AK:76:ASN:HB3	38:AK:79:GLN:NE2	2.23	0.52
45:B:12:U:H2'	45:B:13:C:H6	1.74	0.52
45:B:205:U:O2	54:K:184:ARG:NH2	2.39	0.52
50:G:106:LYS:NZ	50:G:252:GLU:OE2	2.41	0.52
52:I:5:ILE:HG13	52:I:111:LEU:HB2	1.91	0.52
52:I:180:THR:O	52:I:183:THR:OG1	2.26	0.52
1:AS:1753:G:H5''	23:BP:97:ARG:HH22	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AY:269:LYS:HD3	6:AY:269:LYS:N	2.23	0.52
20:BM:14:VAL:HG11	20:BM:41:ILE:HG22	1.89	0.52
23:BP:11:SER:OG	23:BP:12:VAL:N	2.42	0.52
26:BS:70:GLU:CD	26:BS:70:GLU:H	2.17	0.52
37:CD:60:ILE:HD13	37:CD:90:THR:CG2	2.39	0.52
45:CM:101:U:OP1	81:CM:1803:PAR:N21	2.42	0.52
45:CM:133:U:H4'	45:CM:134:A:OP2	2.06	0.52
45:CM:502:U:H2'	45:CM:503:A:C8	2.39	0.52
45:CM:560:G:H2'	45:CM:561:U:O2	2.09	0.52
47:CO:64:ARG:HD2	60:DB:31:LYS:HD2	1.90	0.52
56:CX:7:ASP:O	56:CX:11:ILE:HG12	2.09	0.52
64:DF:122:HIS:HE1	64:DF:126:ARG:HD2	1.72	0.52
1:1:1791:U:H2'	4:j:50:HIS:CD2	2.44	0.52
1:1:2084:A:H2'	1:1:2085:A:H8	1.74	0.52
1:1:2397:A:H2'	1:1:2398:C:C6	2.45	0.52
3:4:8:C:H2'	3:4:9:A:C8	2.44	0.52
45:B:822:G:H3'	45:B:823:G:H5''	1.90	0.52
45:B:943:U:OP2	73:d:20:LYS:NZ	2.36	0.52
45:B:1485:G:H5''	65:V:72:GLY:HA3	1.90	0.52
45:B:1516:C:H2'	45:B:1517:C:C6	2.44	0.52
45:B:1551:U:H2'	45:B:1552:C:C6	2.43	0.52
45:B:1594:G:O5'	62:S:123:MET:HE2	2.09	0.52
47:D:31:ASP:OD1	47:D:45:LYS:HG2	2.09	0.52
52:I:12:THR:OG1	52:I:124:LEU:O	2.24	0.52
53:J:4:LYS:HZ1	53:J:35:ARG:HA	1.74	0.52
66:W:32:GLN:HB3	66:W:108:GLU:HG2	1.91	0.52
71:b:39:ILE:HG22	71:b:70:LYS:O	2.09	0.52
1:AS:1116:A:H2'	1:AS:1117:U:C6	2.43	0.52
1:AS:2502:A:H1'	1:AS:2503:G:C8	2.44	0.52
1:AS:2504:C:H2'	1:AS:2505:G:H8	1.73	0.52
1:AS:2958:U:H2'	1:AS:2959:A:H8	1.74	0.52
11:BD:50:ASN:HB3	11:BD:51:ARG:NH2	2.24	0.52
11:BD:98:PRO:O	11:BD:116:ASN:HB3	2.09	0.52
15:BH:116:LEU:HD21	17:BJ:194:LYS:HD2	1.91	0.52
16:BI:17:ASP:CG	37:CD:54:ARG:HH22	2.17	0.52
25:BR:105:ARG:HA	25:BR:108:LYS:HB3	1.91	0.52
28:BU:22:LYS:HE2	28:BU:129:TRP:CH2	2.43	0.52
28:BU:27:LYS:O	28:BU:27:LYS:HD2	2.09	0.52
32:BY:74:ILE:HG12	32:BY:92:VAL:HG13	1.90	0.52
33:BZ:18:PHE:HE1	33:BZ:53:GLN:C	2.17	0.52
45:CM:1635:A:H2'	45:CM:1636:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:198:MET:HE1	63:DE:86:PRO:O	2.09	0.52
59:DA:127:ARG:O	59:DA:131:THR:HG23	2.09	0.52
1:1:941:C:H2'	1:1:942:U:C6	2.45	0.52
1:1:1115:C:H2'	1:1:1116:A:C8	2.44	0.52
1:1:2335:A:H2'	1:1:2336:A:H8	1.74	0.52
1:1:2587:G:H2'	1:1:2588:C:C6	2.44	0.52
3:4:8:C:H2'	3:4:9:A:H8	1.73	0.52
6:l:204:ARG:CZ	6:l:241:PRO:HB3	2.40	0.52
6:l:359:GLU:OE2	21:0:8:GLN:NE2	2.39	0.52
7:m:48:LYS:HG2	7:m:145:PHE:HE2	1.74	0.52
9:o:230:GLU:CD	21:0:35:VAL:HG12	2.35	0.52
11:q:47:LYS:HE3	15:u:3:SER:HB2	1.92	0.52
45:B:151:G:H2'	45:B:152:G:H8	1.74	0.52
45:B:575:G:O6	79:i:97:THR:N	2.43	0.52
45:B:752:U:H5	55:L:142:ASN:OD1	1.93	0.52
45:B:1064:U:H2'	45:B:1065:U:C6	2.44	0.52
61:R:81:ARG:HB2	61:R:117:GLY:HA3	1.92	0.52
62:S:64:ILE:HG21	62:S:84:ILE:HG22	1.90	0.52
68:Y:31:SER:N	68:Y:34:ILE:HD12	2.25	0.52
71:b:69:LEU:O	71:b:70:LYS:HG2	2.10	0.52
1:AS:374:A:N3	1:AS:376:G:H5''	2.24	0.52
1:AS:447:U:C2'	1:AS:448:U:H5''	2.35	0.52
1:AS:1172:C:H4'	17:BJ:90:PRO:HD3	1.92	0.52
1:AS:2876:U:H2'	1:AS:2877:U:H6	1.75	0.52
1:AS:2917:G:O2'	1:AS:2920:C:OP2	2.23	0.52
1:AS:3256:G:H2'	1:AS:3257:A:H8	1.75	0.52
3:AU:61:A:H3'	36:CC:48:ARG:HH22	1.73	0.52
3:AU:126:A:O2'	3:AU:129:C:N4	2.42	0.52
9:BB:56:ALA:O	9:BB:60:VAL:HG13	2.09	0.52
10:BC:215:LEU:O	10:BC:219:ILE:HG13	2.09	0.52
15:BH:22:ASP:HB3	15:BH:24:LYS:HZ2	1.73	0.52
15:BH:22:ASP:O	15:BH:24:LYS:HD2	2.10	0.52
17:BJ:63:THR:OG1	17:BJ:66:ASN:O	2.26	0.52
45:CM:885:A:H2'	45:CM:886:G:H8	1.75	0.52
45:CM:1265:C:O2'	66:DH:69:THR:HG22	2.10	0.52
45:CM:1582:U:H5'	45:CM:1583:C:OP2	2.10	0.52
46:CN:9:LEU:HD13	46:CN:54:TRP:CE3	2.44	0.52
47:CO:190:PRO:HG2	47:CO:192:VAL:CG2	2.39	0.52
48:CP:53:LEU:O	67:DI:15:ARG:NE	2.43	0.52
49:CQ:140:SER:O	49:CQ:184:GLY:N	2.41	0.52
51:CS:48:PHE:CD1	51:CS:67:PRO:HB3	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:DC:86:VAL:HG22	61:DC:89:MET:HE2	1.92	0.52
63:DE:27:ASP:HB3	63:DE:30:THR:OG1	2.10	0.52
64:DF:87:ASN:HB2	64:DF:99:HIS:ND1	2.25	0.52
70:DL:58:PHE:CE1	70:DL:72:PHE:HB3	2.45	0.52
1:1:371:G:N1	1:1:374:A:OP2	2.41	0.52
1:1:1275:C:H2'	1:1:1276:C:C6	2.43	0.52
1:1:1374:U:H2'	1:1:1375:G:H8	1.73	0.52
1:1:1699:U:N3	81:1:3412:PAR:N12	2.58	0.52
1:1:2474:C:H5'	1:1:2475:U:OP2	2.10	0.52
1:1:2719:A:H2'	1:1:2720:A:C8	2.44	0.52
1:1:3194:G:H4'	15:u:129:VAL:HG11	1.92	0.52
5:k:274:HIS:O	5:k:275:ARG:NH1	2.43	0.52
14:t:170:ARG:HG3	14:t:174:LEU:CD1	2.39	0.52
17:w:35:VAL:HG13	17:w:106:PHE:CE2	2.41	0.52
21:0:52:LYS:HE3	21:0:54:ALA:HB3	1.91	0.52
45:B:489:C:N4	45:B:490:U:O2	2.42	0.52
45:B:509:A:OP1	55:L:173:LYS:NZ	2.37	0.52
45:B:671:G:C5'	45:B:672:U:H2'	2.40	0.52
45:B:932:U:H2'	45:B:933:A:H8	1.75	0.52
45:B:1187:A:H1'	45:B:1192:C:N4	2.23	0.52
45:B:1609:G:H2'	45:B:1610:C:H6	1.73	0.52
45:B:1635:A:H2'	45:B:1636:C:H6	1.72	0.52
49:F:169:ILE:HG12	49:F:190:MET:HG3	1.92	0.52
55:L:92:LYS:HD3	55:L:95:TYR:HE2	1.75	0.52
60:Q:101:ALA:HA	60:Q:107:ILE:HD11	1.92	0.52
69:Z:109:ARG:CZ	69:Z:112:LYS:HD3	2.38	0.52
78:AR:200:THR:HG21	78:AR:242:PHE:H	1.75	0.52
1:AS:240:C:H5'	1:AS:241:C:H5''	1.91	0.52
1:AS:590:A:H5'	8:BA:16:ALA:O	2.09	0.52
1:AS:654:A:H2'	1:AS:655:A:H8	1.72	0.52
9:BB:143:ARG:HG3	9:BB:183:ILE:HD13	1.90	0.52
18:BK:30:ARG:HH11	18:BK:31:GLU:CD	2.17	0.52
33:BZ:41:SER:O	33:BZ:45:ARG:HD3	2.10	0.52
45:CM:789:U:O4	53:CU:100:ARG:NH2	2.37	0.52
45:CM:1626:C:H2'	45:CM:1627:C:O4'	2.09	0.52
46:CN:69:ASN:OD1	46:CN:71:SER:OG	2.17	0.52
49:CQ:110:LEU:HD21	49:CQ:116:ILE:HG22	1.92	0.52
50:CR:100:ARG:HG2	50:CR:102:VAL:HG23	1.91	0.52
58:CZ:107:ASP:HB3	58:CZ:113:ARG:NH2	2.25	0.52
58:CZ:140:PHE:HA	58:CZ:143:GLN:HB2	1.91	0.52
1:1:157:G:H2'	1:1:158:A:H8	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1079:G:H2'	1:1:1080:A:C8	2.45	0.52
1:1:1691:U:O2'	1:1:1745:A:N1	2.36	0.52
1:1:2354:G:H2'	1:1:2355:G:C8	2.43	0.52
1:1:2869:A:H2'	1:1:2871:C:H5''	1.90	0.52
1:1:3174:G:O2'	15:u:99:LYS:HE2	2.10	0.52
46:C:22:VAL:HG11	46:C:173:ILE:HD11	1.92	0.52
51:H:58:LEU:HD22	51:H:168:VAL:HG23	1.92	0.52
56:M:54:TYR:O	56:M:69:THR:HG22	2.10	0.52
62:S:30:ILE:HG12	62:S:35:ILE:HG22	1.90	0.52
64:U:120:ARG:O	79:i:65:LYS:HD2	2.10	0.52
78:AR:200:THR:HG21	78:AR:241:ALA:HA	1.91	0.52
1:AS:17:G:OP1	36:CC:81:ARG:NH2	2.43	0.52
1:AS:158:A:H2'	1:AS:159:A:C8	2.44	0.52
1:AS:1380:U:P	6:AY:203:ARG:HD3	2.50	0.52
1:AS:1404:A:OP2	33:BZ:32:ASN:ND2	2.38	0.52
13:BF:92:ARG:HG2	13:BF:172:LEU:O	2.10	0.52
14:BG:35:ARG:CG	14:BG:39:ARG:HH12	2.18	0.52
15:BH:95:LYS:N	15:BH:95:LYS:HD3	2.23	0.52
18:BK:48:LEU:HA	18:BK:51:VAL:HG12	1.92	0.52
24:BQ:131:SER:HA	45:CM:415:A:C2	2.44	0.52
29:BV:85:GLU:C	29:BV:86:LYS:HD3	2.33	0.52
46:CN:14:ALA:O	46:CN:18:LEU:HD23	2.10	0.52
47:CO:191:GLU:O	47:CO:195:ARG:HD2	2.09	0.52
48:CP:53:LEU:HA	67:DI:12:TYR:HE1	1.75	0.52
50:CR:259:GLN:HA	50:CR:259:GLN:OE1	2.09	0.52
51:CS:128:ASN:O	51:CS:132:VAL:HG23	2.08	0.52
53:CU:17:VAL:HG21	53:CU:42:ILE:HD13	1.91	0.52
63:DE:73:LEU:HD13	63:DE:77:GLU:HB2	1.91	0.52
70:DL:53:ASP:OD1	70:DL:96:LEU:HD21	2.10	0.52
72:DN:81:ALA:HB3	72:DN:83:ILE:HG12	1.91	0.52
73:DO:36:LYS:HG2	73:DO:78:SER:O	2.09	0.52
1:1:671:U:H2'	1:1:672:G:C8	2.45	0.52
1:1:1318:U:O2'	21:0:108:GLN:OE1	2.20	0.52
1:1:2736:C:O2	80:1:3401:3K5:H36	2.10	0.52
45:B:1121:U:C5	69:Z:112:LYS:HE2	2.44	0.52
45:B:1668:A:H2'	45:B:1669:U:H5'	1.92	0.52
46:C:119:ARG:NH1	48:E:235:LEU:HB2	2.25	0.52
47:D:66:PHE:CE1	60:Q:29:SER:HB3	2.45	0.52
1:AS:164:U:H2'	1:AS:165:C:H6	1.75	0.52
1:AS:667:U:HO2'	1:AS:1105:U:HO2'	1.58	0.52
1:AS:945:C:O2'	1:AS:967:G:OP1	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1556:G:O2'	1:AS:1557:U:H5'	2.08	0.52
1:AS:2130:A:H2'	1:AS:2131:U:H6	1.73	0.52
1:AS:2650:A:N6	79:CL:53:LYS:HD2	2.24	0.52
1:AS:2747:U:H4'	1:AS:2749:G:H22	1.75	0.52
1:AS:3290:G:OP2	32:BY:69:ARG:NH1	2.42	0.52
7:AZ:58:LYS:O	7:AZ:58:LYS:HD3	2.08	0.52
8:BA:50:ARG:NH2	15:BH:107:ASP:OD2	2.40	0.52
12:BE:55:ASN:OD1	12:BE:164:LYS:HE3	2.09	0.52
21:BN:10:ILE:HG12	21:BN:26:ARG:HG3	1.91	0.52
45:CM:528:C:O2	70:DL:61:ARG:NH2	2.43	0.52
45:CM:557:C:OP1	76:DR:59:SER:OG	2.20	0.52
45:CM:908:A:H2'	45:CM:909:A:C8	2.44	0.52
45:CM:1474:G:OP2	49:CQ:9:LYS:HD2	2.09	0.52
46:CN:155:TYR:CE1	67:DI:61:GLY:HA2	2.45	0.52
49:CQ:49:VAL:HB	49:CQ:87:ILE:HD12	1.90	0.52
49:CQ:93:GLU:OE2	79:CL:136:ASN:ND2	2.43	0.52
50:CR:128:LYS:NZ	50:CR:130:GLN:HB3	2.25	0.52
51:CS:109:LYS:O	51:CS:113:ILE:HG13	2.09	0.52
59:DA:104:LYS:O	59:DA:104:LYS:HD3	2.10	0.52
79:CL:118:GLU:O	79:CL:122:THR:HG23	2.10	0.52
1:1:417:A:H2'	1:1:418:A:C8	2.45	0.52
1:1:1079:G:H2'	1:1:1080:A:H8	1.75	0.52
1:1:2484:U:H2'	1:1:2485:U:H6	1.72	0.52
13:s:87:LYS:O	13:s:87:LYS:HG3	2.10	0.52
13:s:140:ARG:HG2	13:s:140:ARG:NH1	2.20	0.52
13:s:172:LEU:HG	13:s:174:LYS:HG2	1.92	0.52
45:B:108:A:H2'	45:B:109:G:C8	2.45	0.52
45:B:533:A:O3'	55:L:174:ARG:NH2	2.42	0.52
45:B:1220:C:H5	77:h:180:ARG:HE	1.57	0.52
45:B:1398:G:H4'	45:B:1399:U:O5'	2.08	0.52
64:U:88:ARG:HH12	64:U:92:GLN:H	1.58	0.52
74:e:10:ALA:HB1	74:e:30:VAL:HB	1.91	0.52
78:AR:92:LEU:O	78:AR:101:THR:N	2.35	0.52
1:AS:1007:A:H2'	1:AS:1008:A:H8	1.74	0.52
1:AS:1467:U:P	20:BM:5:ARG:HH21	2.32	0.52
1:AS:2145:A:OP1	16:BI:72:LYS:NZ	2.42	0.52
1:AS:3261:A:H2'	1:AS:3262:U:C6	2.45	0.52
7:AZ:287:ALA:O	7:AZ:290:ILE:HG13	2.09	0.52
10:BC:220:ASN:HB3	10:BC:225:GLU:OE1	2.10	0.52
12:BE:68:ALA:HB1	12:BE:155:ALA:HB1	1.92	0.52
13:BF:135:GLY:O	13:BF:138:VAL:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:BI:17:ASP:OD1	37:CD:54:ARG:NH2	2.35	0.52
25:BR:27:LYS:HB3	25:BR:29:PHE:HE1	1.75	0.52
43:CJ:71:ARG:CZ	43:CJ:80:LYS:HE2	2.40	0.52
45:CM:30:G:H2'	45:CM:31:C:C6	2.45	0.52
45:CM:870:G:H2'	45:CM:871:U:C6	2.45	0.52
1:1:21:G:H1'	3:4:104:A:N3	2.25	0.52
1:1:208:A:H4'	1:1:210:A:N7	2.24	0.52
1:1:2107:U:H2'	1:1:2108:G:C8	2.45	0.52
81:1:3404:PAR:O53	81:1:3404:PAR:N21	2.33	0.52
16:v:27:CYS:HB2	16:v:122:ASN:ND2	2.25	0.52
19:y:94:LEU:HD22	29:AB:119:PRO:HG3	1.91	0.52
19:y:158:HIS:CD2	19:y:186:VAL:HA	2.45	0.52
33:AF:80:VAL:HG12	33:AF:112:LYS:HD2	1.91	0.52
36:AI:59:ASN:O	36:AI:63:ARG:HG3	2.09	0.52
45:B:116:U:H2'	45:B:117:U:C6	2.44	0.52
45:B:643:U:H2'	45:B:644:U:O4'	2.09	0.52
45:B:1485:G:H4'	65:V:121:GLY:H	1.75	0.52
50:G:10:LYS:HD3	50:G:11:ARG:N	2.25	0.52
53:J:74:THR:HA	53:J:77:LEU:HD11	1.92	0.52
1:AS:268:A:OP1	16:BI:47:LYS:NZ	2.41	0.52
1:AS:1593:C:H2'	1:AS:1594:G:C8	2.43	0.52
1:AS:2855:U:H2'	1:AS:2856:C:C6	2.44	0.52
1:AS:2943:A:H2'	1:AS:2943:A:N3	2.25	0.52
9:BB:182:LEU:HD21	9:BB:200:LEU:HD11	1.91	0.52
32:BY:3:LEU:O	32:BY:4:GLN:HG2	2.09	0.52
34:CA:42:LYS:HA	34:CA:45:LEU:HG	1.92	0.52
35:CB:112:GLU:HG2	35:CB:113:LYS:HG3	1.91	0.52
39:CF:9:LYS:O	39:CF:13:GLU:HG2	2.10	0.52
45:CM:193:G:N7	54:CV:144:LYS:NZ	2.58	0.52
45:CM:1082:U:O2'	48:CP:154:THR:HG21	2.09	0.52
45:CM:1152:G:H21	62:DD:138:GLN:HE22	1.57	0.52
45:CM:1435:U:H2'	45:CM:1436:U:C6	2.45	0.52
45:CM:1435:U:H2'	45:CM:1436:U:H6	1.75	0.52
47:CO:48:ILE:HG12	47:CO:49:ASN:N	2.24	0.52
50:CR:100:ARG:HH11	50:CR:100:ARG:HG3	1.75	0.52
53:CU:126:VAL:HG12	53:CU:129:THR:CG2	2.38	0.52
54:CV:139:ALA:N	54:CV:141:ARG:HH21	2.08	0.52
64:DF:83:ALA:HB1	64:DF:97:ASP:OD2	2.09	0.52
73:DO:53:ALA:HB1	73:DO:62:VAL:HG23	1.91	0.52
2:3:23:A:H1'	2:3:121:U:H2'	1.92	0.52
45:B:391:C:H2'	45:B:392:C:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1262:G:O3'	49:F:184:GLY:HA3	2.10	0.52
51:H:144:GLU:CD	74:e:57:MET:HG3	2.35	0.52
63:T:107:ALA:HA	63:T:110:VAL:HG12	1.90	0.52
67:X:71:ARG:NH2	73:d:4:VAL:HG21	2.25	0.52
69:Z:24:TRP:O	69:Z:30:LYS:HD3	2.10	0.52
69:Z:57:ILE:O	76:g:8:LEU:HD21	2.09	0.52
1:AS:870:U:N3	1:AS:2950:U:OP1	2.34	0.52
1:AS:875:U:O2'	18:BK:135:ARG:NH2	2.43	0.52
1:AS:2397:A:H2'	1:AS:2398:C:C6	2.44	0.52
1:AS:3350:U:C4'	32:BY:9:ARG:HH22	2.22	0.52
8:BA:39:LEU:HD11	8:BA:53:TYR:HB2	1.91	0.52
8:BA:146:LEU:O	8:BA:150:LYS:HG3	2.10	0.52
14:BG:5:LYS:HB2	14:BG:7:LEU:HD13	1.91	0.52
19:BL:178:ARG:C	19:BL:185:LYS:HG3	2.35	0.52
27:BT:53:ASN:HA	27:BT:69:LYS:HE3	1.92	0.52
28:BU:26:VAL:HG13	28:BU:27:LYS:HG3	1.92	0.52
35:CB:103:ARG:NH2	35:CB:107:GLU:OE1	2.42	0.52
45:CM:1143:C:N3	45:CM:1147:C:N4	2.57	0.52
45:CM:1648:U:H2'	45:CM:1649:G:C8	2.45	0.52
46:CN:9:LEU:HD11	46:CN:13:ASP:CB	2.38	0.52
46:CN:148:ASP:HB3	46:CN:150:ASP:OD1	2.09	0.52
46:CN:166:GLY:O	46:CN:170:ILE:HG13	2.10	0.52
52:CT:164:LYS:HE3	52:CT:169:TYR:HE1	1.75	0.52
59:DA:54:LEU:HB3	59:DA:60:VAL:HG12	1.90	0.52
62:DD:89:VAL:CA	62:DD:101:LYS:HZ2	2.15	0.52
79:CL:114:GLU:O	79:CL:118:GLU:HG3	2.09	0.52
1:1:3261:A:H2'	1:1:3262:U:H6	1.74	0.52
6:l:7:VAL:HG21	6:l:150:PRO:HD2	1.92	0.52
7:m:261:THR:H	7:m:264:GLN:NE2	2.08	0.52
18:x:19:GLY:HA3	18:x:22:LEU:HD11	1.92	0.52
45:B:219:A:H2'	45:B:220:A:C8	2.45	0.52
45:B:585:C:C5'	76:g:24:GLN:NE2	2.73	0.52
45:B:673:A:H8	45:B:673:A:O5'	1.93	0.52
45:B:744:U:C2	45:B:745:A:C8	2.98	0.52
45:B:1220:C:H3'	45:B:1221:A:H8	1.75	0.52
45:B:1306:A:H4'	45:B:1307:A:O5'	2.10	0.52
45:B:1672:G:O2'	45:B:1673:U:H5'	2.10	0.52
52:I:58:LYS:HE3	52:I:105:ASP:HA	1.91	0.52
52:I:69:HIS:HD2	52:I:73:VAL:HG11	1.75	0.52
56:M:50:THR:HG22	56:M:55:VAL:O	2.09	0.52
67:X:41:GLU:OE1	67:X:41:GLU:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:a:41:ARG:HD2	70:a:55:VAL:O	2.09	0.52
1:AS:269:G:N2	1:AS:295:A:OP2	2.41	0.52
1:AS:487:C:H3'	1:AS:488:G:C8	2.45	0.52
1:AS:1291:G:OP1	21:BN:83:SER:OG	2.26	0.52
1:AS:3171:C:H5''	1:AS:3172:U:O5'	2.10	0.52
16:BI:19:MET:HA	16:BI:22:LEU:HD13	1.92	0.52
26:BS:68:ALA:HB2	36:CC:36:LEU:HD11	1.91	0.52
45:CM:484:G:O6	45:CM:499:U:O4	2.28	0.52
45:CM:668:U:H3'	45:CM:669:G:C8	2.45	0.52
45:CM:944:U:H5'	59:DA:15:ALA:O	2.10	0.52
55:CW:126:ARG:O	55:CW:130:THR:OG1	2.22	0.52
58:CZ:59:LEU:HD11	58:CZ:123:VAL:HG23	1.92	0.52
58:CZ:103:LEU:HD23	58:CZ:103:LEU:O	2.10	0.52
66:DH:32:GLN:OE1	66:DH:32:GLN:N	2.43	0.52
1:1:780:A:OP2	19:y:69:ARG:NH2	2.43	0.51
1:1:1632:C:OP1	28:AA:36:HIS:CD2	2.63	0.51
1:1:2117:A:C4	38:AK:3:LYS:HE2	2.45	0.51
1:1:2655:U:H2'	1:1:2656:C:H6	1.70	0.51
1:1:3235:A:N6	18:x:178:SER:OG	2.43	0.51
7:m:85:ARG:NH2	7:m:250:ASP:OD2	2.42	0.51
31:AD:55:LYS:O	31:AD:59:GLU:HG2	2.09	0.51
45:B:338:U:H2'	45:B:339:A:C8	2.45	0.51
45:B:701:G:C2'	45:B:702:G:H2'	2.34	0.51
45:B:880:G:H21	60:Q:33:THR:HG21	1.74	0.51
45:B:1668:A:H1'	52:I:66:GLY:HA2	1.91	0.51
45:B:1739:U:H2'	45:B:1740:A:C8	2.46	0.51
47:D:81:TYR:HB2	47:D:109:LYS:HG2	1.91	0.51
51:H:145:ASP:OD1	51:H:146:SER:N	2.42	0.51
51:H:156:ARG:HH22	74:e:67:ARG:HB2	1.75	0.51
55:L:100:LYS:HB3	55:L:102:GLU:OE2	2.10	0.51
59:P:5:HIS:CE1	59:P:121:ARG:HG3	2.44	0.51
60:Q:119:ASP:O	60:Q:120:SER:OG	2.26	0.51
61:R:49:LEU:HD12	61:R:49:LEU:O	2.10	0.51
64:U:67:GLU:O	64:U:71:THR:HG22	2.10	0.51
64:U:101:LEU:O	64:U:105:LEU:N	2.42	0.51
65:V:108:LEU:HB3	65:V:114:LEU:HD21	1.90	0.51
66:W:54:PRO:HA	66:W:90:ILE:HG12	1.91	0.51
1:AS:1323:C:O2'	34:CA:76:GLY:HA2	2.10	0.51
1:AS:2625:C:OP1	43:CJ:89:LYS:HB2	2.10	0.51
1:AS:3285:A:H2'	1:AS:3286:C:C6	2.45	0.51
4:AW:27:ALA:HB1	4:AW:77:ILE:HG13	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:BC:212:LEU:O	10:BC:216:ILE:HG22	2.10	0.51
18:BK:93:ASP:O	18:BK:96:ARG:HG3	2.10	0.51
20:BM:14:VAL:HG11	20:BM:41:ILE:CG2	2.40	0.51
21:BN:141:LYS:HA	21:BN:144:LEU:HD12	1.92	0.51
23:BP:36:TYR:OH	23:BP:85:LYS:HD3	2.10	0.51
30:BW:41:ARG:HE	30:BW:45:TYR:HE2	1.57	0.51
31:BX:43:LEU:HB3	31:BX:94:ILE:HD12	1.92	0.51
33:BZ:10:ILE:HG12	33:BZ:64:THR:HB	1.91	0.51
45:CM:323:G:OP1	57:CY:132:SER:OG	2.22	0.51
45:CM:446:C:N4	50:CR:59:ARG:HH21	2.08	0.51
45:CM:839:U:O4	45:CM:840:A:N6	2.42	0.51
45:CM:1192:C:N3	45:CM:1442:C:H5	2.07	0.51
45:CM:1500:G:H1'	45:CM:1505:C:O2	2.11	0.51
46:CN:41:ARG:HB2	46:CN:47:ILE:HD11	1.91	0.51
49:CQ:91:ARG:NH2	49:CQ:93:GLU:OE1	2.43	0.51
51:CS:98:MET:HG3	51:CS:98:MET:O	2.10	0.51
51:CS:145:ASP:OD1	51:CS:146:SER:N	2.43	0.51
64:DF:129:TRP:HZ2	79:CL:67:LYS:HE3	1.74	0.51
1:1:289:A:H2'	1:1:290:G:H8	1.75	0.51
1:1:976:A:H2	1:1:1100:G:H21	1.57	0.51
1:1:1650:A:OP1	35:AH:43:LYS:HD2	2.10	0.51
1:1:2855:U:H2'	1:1:2856:C:C6	2.46	0.51
5:k:25:GLN:NE2	5:k:334:ARG:HH11	2.08	0.51
7:m:21:ARG:NH1	7:m:25:GLU:OE2	2.43	0.51
21:0:46:GLN:HG2	21:0:51:VAL:O	2.11	0.51
35:AH:25:THR:OG1	35:AH:29:LYS:HG3	2.09	0.51
45:B:504:A:H5''	45:B:505:U:O5'	2.10	0.51
48:E:180:LYS:NZ	55:L:23:ARG:HH22	2.08	0.51
55:L:89:ASP:OD1	55:L:89:ASP:O	2.29	0.51
58:O:135:ILE:O	58:O:136:LEU:HD23	2.10	0.51
62:S:27:LEU:C	62:S:28:ILE:HD13	2.35	0.51
69:Z:107:PHE:HE1	69:Z:123:LYS:HB3	1.75	0.51
1:AS:14:C:H5''	26:BS:42:ARG:HG3	1.92	0.51
1:AS:1556:G:C2	1:AS:1575:A:C8	2.97	0.51
1:AS:3234:U:H5''	8:BA:76:ARG:NH2	2.22	0.51
5:AX:10:ARG:NH2	5:AX:263:THR:O	2.43	0.51
9:BB:106:LEU:HD21	9:BB:113:VAL:HG22	1.92	0.51
13:BF:9:MET:HE2	13:BF:9:MET:HA	1.92	0.51
14:BG:92:THR:CG2	36:CC:113:GLN:HA	2.40	0.51
33:BZ:67:LEU:HD23	33:BZ:71:GLY:O	2.10	0.51
35:CB:67:LYS:HA	35:CB:70:LYS:HE2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:215:A:H4'	45:CM:216:A:OP2	2.10	0.51
48:CP:183:MET:SD	48:CP:188:VAL:HG21	2.51	0.51
51:CS:22:VAL:HG23	51:CS:34:GLN:HE22	1.75	0.51
56:CX:1:MET:HE2	56:CX:44:LYS:HG3	1.92	0.51
58:CZ:108:ARG:H	58:CZ:108:ARG:HD2	1.75	0.51
60:DB:24:HIS:CD2	60:DB:36:ARG:HG3	2.46	0.51
60:DB:76:ILE:HD11	60:DB:107:ILE:HG23	1.91	0.51
70:DL:128:ARG:NH2	70:DL:131:ARG:HH22	1.93	0.51
1:1:200:A:H2'	1:1:201:G:H8	1.76	0.51
1:1:513:G:H5''	9:o:65:ARG:HH21	1.75	0.51
1:1:3064:C:H2'	24:6:12:ARG:NH2	2.26	0.51
3:4:103:G:OP2	3:4:105:A:O2'	2.28	0.51
6:l:180:VAL:O	6:l:184:LYS:HG2	2.10	0.51
11:q:47:LYS:HB2	15:u:5:VAL:HB	1.92	0.51
45:B:97:C:H2'	45:B:98:U:C6	2.45	0.51
46:C:67:VAL:HG21	46:C:73:VAL:CG2	2.40	0.51
46:C:175:TRP:CE3	46:C:176:LEU:HD23	2.45	0.51
51:H:92:ARG:NH2	51:H:169:ASN:HB3	2.25	0.51
51:H:116:HIS:O	51:H:120:ILE:HG13	2.11	0.51
52:I:71:THR:OG1	52:I:72:ARG:N	2.44	0.51
54:K:190:LEU:HB3	54:K:195:LEU:HB2	1.92	0.51
61:R:109:PRO:HG2	61:R:110:GLU:OE2	2.09	0.51
70:a:112:LYS:HD2	70:a:112:LYS:C	2.35	0.51
78:AR:234:LYS:HG2	78:AR:258:LYS:NZ	2.25	0.51
1:AS:24:U:OP1	38:CE:58:THR:HG21	2.10	0.51
1:AS:430:G:H2'	1:AS:431:A:H8	1.76	0.51
1:AS:771:A:OP1	30:BW:44:ARG:NH2	2.43	0.51
1:AS:1443:G:N7	18:BK:25:SER:OG	2.38	0.51
1:AS:2641:G:H4'	7:AZ:4:GLN:OE1	2.10	0.51
1:AS:3350:U:C3'	32:BY:9:ARG:HH22	2.24	0.51
2:AT:13:A:H2	7:AZ:21:ARG:HB2	1.75	0.51
3:AU:37:A:H5''	3:AU:39:G:O4'	2.09	0.51
16:BI:91:GLN:O	16:BI:93:LYS:NZ	2.43	0.51
19:BL:165:ILE:HD11	19:BL:172:PHE:HB3	1.92	0.51
20:BM:162:ARG:NH1	45:CM:799:G:N3	2.58	0.51
23:BP:59:GLU:N	23:BP:63:LYS:O	2.44	0.51
26:BS:95:ILE:HG22	26:BS:124:ILE:HD11	1.92	0.51
28:BU:64:LYS:HA	28:BU:67:LYS:HD3	1.91	0.51
32:BY:77:LYS:HB2	32:BY:89:PHE:CE1	2.46	0.51
35:CB:108:GLN:O	35:CB:113:LYS:HE2	2.10	0.51
45:CM:732:C:O2'	68:DJ:80:ASN:ND2	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:850:A:H62	45:CM:950:U:H5	1.57	0.51
45:CM:1714:G:H21	54:CV:32:GLN:HE21	1.58	0.51
48:CP:164:LEU:HD13	48:CP:183:MET:HE1	1.91	0.51
51:CS:122:HIS:O	51:CS:126:GLU:HA	2.11	0.51
60:DB:94:GLN:OE1	72:DN:46:GLU:N	2.43	0.51
1:1:1174:G:N3	1:1:1324:U:O2'	2.42	0.51
1:1:1317:G:N2	21:0:112:ALA:HB2	2.26	0.51
1:1:1456:A:H2'	1:1:1457:A:H8	1.76	0.51
1:1:2090:U:H4'	1:1:2091:A:O5'	2.11	0.51
2:3:96:U:H4'	21:0:119:ARG:HB2	1.92	0.51
6:l:23:LEU:HD21	6:l:27:PHE:HB2	1.92	0.51
7:m:78:ALA:HB3	7:m:105:VAL:HB	1.92	0.51
8:n:137:ASP:O	8:n:141:VAL:HG13	2.10	0.51
9:o:82:VAL:HG21	9:o:134:TYR:CD2	2.43	0.51
15:u:115:VAL:O	15:u:118:LYS:HB2	2.11	0.51
26:8:105:VAL:HG21	26:8:126:LEU:HD13	1.92	0.51
36:AI:52:ALA:O	36:AI:56:THR:OG1	2.23	0.51
45:B:82:U:H2'	45:B:83:G:O4'	2.10	0.51
45:B:302:U:H2'	45:B:303:C:C6	2.46	0.51
45:B:1435:U:H2'	45:B:1436:U:H6	1.76	0.51
45:B:1623:C:O2	45:B:1752:A:N6	2.43	0.51
46:C:88:LYS:HE2	46:C:201:LEU:HD11	1.92	0.51
48:E:100:GLY:HA3	48:E:185:LEU:HB3	1.91	0.51
51:H:113:ILE:HD13	51:H:190:ILE:CG2	2.41	0.51
58:O:72:ILE:O	58:O:76:GLU:HG3	2.10	0.51
65:V:108:LEU:CB	65:V:114:LEU:HD21	2.40	0.51
77:h:189:THR:O	77:h:190:LEU:HD13	2.11	0.51
78:AR:253:THR:HG22	78:AR:256:GLY:O	2.10	0.51
1:AS:1628:A:P	28:BU:48:ARG:HH12	2.33	0.51
1:AS:2183:U:O2'	1:AS:2184:G:OP1	2.24	0.51
1:AS:2587:G:H2'	1:AS:2588:C:C6	2.45	0.51
1:AS:3179:U:H6	8:BA:166:LYS:HE2	1.74	0.51
11:BD:170:LYS:HB3	11:BD:175:PHE:CD1	2.45	0.51
13:BF:81:GLU:HA	13:BF:84:LEU:HD12	1.93	0.51
29:BV:100:PRO:HG2	29:BV:123:VAL:HG13	1.92	0.51
40:CG:43:HIS:HB2	40:CG:46:ARG:HE	1.76	0.51
44:CK:28:LYS:HG2	44:CK:32:GLN:HE21	1.75	0.51
45:CM:736:G:H2'	45:CM:737:A:C8	2.45	0.51
45:CM:815:U:HO2'	45:CM:816:U:H6	1.58	0.51
46:CN:119:ARG:HD2	46:CN:119:ARG:O	2.10	0.51
1:1:1713:U:H2'	1:1:1714:G:H8	1.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2694:U:O2'	22:2:88:ARG:O	2.24	0.51
13:s:55:ARG:HG2	13:s:55:ARG:HH11	1.74	0.51
37:AJ:88:GLU:O	37:AJ:92:VAL:HG13	2.10	0.51
45:B:78:A:H2'	45:B:79:C:H6	1.76	0.51
45:B:330:U:O2'	54:K:5:ARG:NH2	2.43	0.51
45:B:975:C:H5'	60:Q:124:LYS:HB2	1.93	0.51
49:F:62:GLU:HB3	49:F:65:ARG:CD	2.32	0.51
53:J:8:GLU:H	53:J:8:GLU:CD	2.19	0.51
53:J:160:TYR:CE2	53:J:161:LYS:HD3	2.45	0.51
54:K:10:LYS:HD3	57:N:133:LYS:HE2	1.93	0.51
55:L:77:ILE:HG21	55:L:91:MET:HB3	1.91	0.51
70:a:127:LYS:HG3	70:a:131:ARG:NH2	2.26	0.51
1:AS:186:A:H2'	1:AS:187:U:C6	2.45	0.51
1:AS:559:C:H2'	1:AS:560:C:H6	1.76	0.51
1:AS:2762:A:OP1	19:BL:180:ARG:NE	2.44	0.51
1:AS:2853:C:H2'	1:AS:2854:U:C6	2.45	0.51
3:AU:36:G:C5	36:CC:86:ARG:HD3	2.45	0.51
7:AZ:67:ALA:O	7:AZ:68:HIS:ND1	2.44	0.51
10:BC:130:PRO:O	10:BC:132:VAL:HG12	2.11	0.51
10:BC:149:ALA:O	10:BC:176:VAL:HG13	2.10	0.51
13:BF:150:ASN:HA	13:BF:153:LYS:HE3	1.92	0.51
45:CM:295:U:O2'	50:CR:33:ALA:HA	2.10	0.51
45:CM:497:U:H2'	45:CM:498:C:C6	2.45	0.51
45:CM:1543:A:OP1	61:DC:115:TYR:OH	2.27	0.51
45:CM:1701:A:H2'	45:CM:1702:A:C8	2.45	0.51
46:CN:9:LEU:HD22	46:CN:54:TRP:HB2	1.92	0.51
47:CO:32:ILE:HG12	47:CO:44:GLY:O	2.10	0.51
48:CP:104:GLY:HA3	48:CP:136:ARG:NH1	2.26	0.51
49:CQ:169:ILE:HG12	49:CQ:190:MET:HB2	1.92	0.51
50:CR:11:ARG:HD3	50:CR:21:ASP:O	2.10	0.51
53:CU:42:ILE:HA	53:CU:55:ALA:O	2.11	0.51
56:CX:31:LYS:HA	56:CX:37:THR:O	2.10	0.51
64:DF:67:GLU:O	64:DF:71:THR:HG23	2.11	0.51
65:DG:51:GLU:HG3	65:DG:52:THR:HG23	1.93	0.51
1:1:294:U:OP2	16:v:15:GLN:NE2	2.39	0.51
1:1:2650:A:H2	79:i:50:LYS:HG3	1.75	0.51
8:n:20:THR:HG22	8:n:22:LYS:H	1.76	0.51
9:o:192:ASN:O	9:o:196:VAL:HG23	2.10	0.51
13:s:82:ARG:HH22	13:s:114:ILE:HG12	1.75	0.51
24:6:74:MET:HE2	24:6:102:ILE:CG2	2.39	0.51
24:6:121:GLU:OE1	24:6:121:GLU:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:598:U:OP2	69:Z:108:GLY:HA2	2.11	0.51
45:B:1456:C:OP1	45:B:1527:G:O2'	2.29	0.51
45:B:1624:C:O5'	45:B:1624:C:H6	1.94	0.51
47:D:103:LEU:HD22	47:D:188:LEU:HD13	1.92	0.51
47:D:174:ARG:NH1	47:D:175:GLU:OE2	2.44	0.51
49:F:77:ARG:HD2	49:F:78:PHE:CE1	2.46	0.51
51:H:155:VAL:HG13	51:H:157:ARG:NE	2.25	0.51
58:O:106:LEU:HA	58:O:111:ASN:OD1	2.11	0.51
1:AS:1715:G:H4'	1:AS:1728:U:H4'	1.92	0.51
1:AS:1735:U:O4'	35:CB:41:ARG:NH2	2.36	0.51
1:AS:2080:U:H2'	1:AS:2081:U:H6	1.75	0.51
1:AS:2739:U:H2'	1:AS:2740:U:H6	1.75	0.51
1:AS:2753:U:H2'	1:AS:2754:U:C6	2.45	0.51
1:AS:2802:G:H1'	1:AS:2833:U:C2	2.46	0.51
3:AU:65:A:OP1	36:CC:53:ARG:NE	2.26	0.51
8:BA:10:GLN:HE22	33:BZ:93:TYR:HE1	1.58	0.51
32:BY:54:LEU:O	32:BY:58:ILE:HG23	2.11	0.51
35:CB:99:LYS:HE2	35:CB:102:LYS:HD2	1.91	0.51
45:CM:52:U:H2'	45:CM:53:G:H8	1.75	0.51
45:CM:723:G:C4	45:CM:724:G:H1'	2.46	0.51
45:CM:1021:A:H2	68:DJ:12:ASN:OD1	1.94	0.51
45:CM:1469:A:N3	45:CM:1594:G:O2'	2.28	0.51
45:CM:1596:U:O2'	51:CS:105:GLY:O	2.17	0.51
46:CN:70:ALA:O	46:CN:95:ALA:HA	2.11	0.51
46:CN:80:THR:HA	46:CN:83:GLN:HG3	1.91	0.51
51:CS:29:ILE:CD1	62:DD:56:LEU:HD21	2.40	0.51
56:CX:47:GLN:HA	56:CX:47:GLN:NE2	2.25	0.51
63:DE:81:LYS:N	63:DE:83:GLN:OE1	2.43	0.51
68:DJ:2:THR:HG22	68:DJ:3:ARG:N	2.22	0.51
79:CL:52:LYS:HB2	79:CL:55:LYS:HG3	1.93	0.51
1:1:431:A:H2'	1:1:432:G:C8	2.46	0.51
1:1:2978:A:OP2	17:w:149:LYS:NZ	2.43	0.51
1:1:3237:C:OP2	8:n:77:ARG:HD3	2.10	0.51
14:t:2:ALA:HB1	29:AB:33:GLY:O	2.10	0.51
26:8:105:VAL:HG23	26:8:130:TYR:CG	2.46	0.51
27:9:111:LEU:HD23	27:9:116:LYS:HE2	1.92	0.51
37:AJ:35:ARG:O	37:AJ:39:VAL:HG23	2.10	0.51
45:B:863:G:O2'	59:P:108:ASP:OD1	2.22	0.51
81:B:1803:PAR:H612	69:Z:20:ARG:NH2	2.26	0.51
64:U:132:LYS:NZ	64:U:141:THR:OG1	2.44	0.51
78:AR:253:THR:HG23	78:AR:255:SER:H	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:58:G:H2'	3:AU:33:A:O2'	2.10	0.51
1:AS:726:G:H21	19:BL:138:LEU:HD12	1.74	0.51
1:AS:1140:U:OP1	1:AS:1363:G:O2'	2.24	0.51
1:AS:1165:A:H2'	1:AS:1166:A:C8	2.45	0.51
1:AS:3138:U:H2'	1:AS:3139:U:C6	2.45	0.51
2:AT:29:C:H2'	2:AT:51:A:H61	1.76	0.51
7:AZ:119:TYR:OH	7:AZ:139:PRO:O	2.19	0.51
16:BI:106:VAL:HG11	16:BI:132:VAL:CG1	2.41	0.51
28:BU:78:ASN:OD1	31:BX:37:ARG:NH2	2.44	0.51
45:CM:498:C:O2'	45:CM:499:U:H5'	2.11	0.51
45:CM:815:U:O2'	45:CM:816:U:H6	1.93	0.51
45:CM:1140:G:H2'	45:CM:1141:C:C6	2.45	0.51
45:CM:1341:U:H1'	45:CM:1353:G:H22	1.74	0.51
47:CO:190:PRO:HG2	47:CO:192:VAL:HG22	1.91	0.51
48:CP:148:SER:OG	48:CP:190:ASP:O	2.14	0.51
55:CW:83:ILE:HA	55:CW:149:ARG:HA	1.91	0.51
56:CX:37:THR:HG1	56:CX:41:PHE:HD2	1.59	0.51
60:DB:56:MET:HG2	60:DB:99:ALA:HB2	1.93	0.51
61:DC:69:PRO:HB2	61:DC:71:GLU:OE1	2.10	0.51
63:DE:5:ARG:O	63:DE:10:LYS:HE2	2.11	0.51
1:1:314:U:H2'	1:1:315:C:C6	2.46	0.51
1:1:699:G:H2'	1:1:700:C:H6	1.75	0.51
1:1:983:U:H2'	1:1:984:U:C6	2.45	0.51
1:1:1217:A:H3'	1:1:1218:G:H5'	1.93	0.51
1:1:1519:U:H5'	26:8:113:LEU:HD12	1.93	0.51
1:1:1655:U:H2'	1:1:1656:C:C6	2.46	0.51
1:1:1689:C:O2'	1:1:1768:U:O2'	2.20	0.51
1:1:2384:C:H2'	1:1:2385:C:H6	1.75	0.51
1:1:2557:G:H2'	1:1:2557:G:N3	2.26	0.51
1:1:2679:U:H4'	79:i:37:LYS:HE3	1.92	0.51
1:1:2734:A:H2'	1:1:2735:U:H6	1.76	0.51
1:1:3166:A:N6	1:1:3167:G:O6	2.43	0.51
1:1:3244:A:O2'	1:1:3245:A:H5'	2.11	0.51
2:3:7:G:OP1	7:m:33:ARG:NH1	2.44	0.51
8:n:5:ALA:O	8:n:7:LYS:NZ	2.27	0.51
13:s:103:GLY:HA3	13:s:128:TYR:HD2	1.75	0.51
31:AD:45:ILE:HD13	31:AD:70:TYR:HB3	1.92	0.51
33:AF:104:ARG:O	33:AF:107:VAL:HG22	2.11	0.51
45:B:870:G:N2	60:Q:118:SER:O	2.44	0.51
45:B:903:U:H2'	45:B:904:A:H8	1.75	0.51
45:B:1168:A:N3	45:B:1195:C:O2'	2.37	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1214:G:O2'	45:B:1240:G:N2	2.36	0.51
45:B:1435:U:H2'	45:B:1436:U:C6	2.45	0.51
45:B:1515:U:H2'	45:B:1516:C:C6	2.46	0.51
45:B:1596:U:O2'	51:H:105:GLY:O	2.22	0.51
45:B:1659:G:H2'	45:B:1660:G:C8	2.46	0.51
46:C:76:CYS:O	46:C:124:THR:OG1	2.27	0.51
48:E:143:LEU:HD21	55:L:95:TYR:OH	2.11	0.51
51:H:195:ALA:O	51:H:199:ILE:HG23	2.10	0.51
58:O:33:ARG:HE	58:O:36:LEU:HD23	1.74	0.51
63:T:33:ARG:HG3	78:AR:86:TRP:CZ3	2.46	0.51
69:Z:57:ILE:HG23	69:Z:58:GLY:H	1.75	0.51
77:h:178:LYS:CG	77:h:179:ASP:H	2.21	0.51
78:AR:68:ILE:HD12	78:AR:86:TRP:CD2	2.46	0.51
78:AR:132:VAL:O	78:AR:145:LEU:HB2	2.10	0.51
1:AS:55:G:N3	16:BI:162:ARG:HD3	2.26	0.51
1:AS:208:A:H4'	1:AS:210:A:C8	2.46	0.51
1:AS:1182:G:N3	21:BN:112:ALA:HB1	2.25	0.51
1:AS:1302:G:O6	1:AS:2344:C:O2'	2.25	0.51
4:AW:3:ARG:HG2	4:AW:4:VAL:N	2.25	0.51
7:AZ:183:TRP:CZ3	7:AZ:190:LEU:HB2	2.46	0.51
7:AZ:237:GLU:OE1	7:AZ:238:GLU:HG2	2.11	0.51
7:AZ:259:LYS:HG3	7:AZ:260:PHE:CD1	2.46	0.51
11:BD:3:TYR:H	11:BD:3:TYR:HD1	1.58	0.51
17:BJ:21:ALA:O	17:BJ:25:SER:OG	2.24	0.51
19:BL:36:LEU:O	19:BL:40:THR:HG23	2.10	0.51
25:BR:97:LYS:NZ	52:CT:151:ASP:OD2	2.44	0.51
45:CM:78:A:H2'	45:CM:79:C:H6	1.74	0.51
45:CM:226:G:C6	45:CM:819:G:C4	2.98	0.51
45:CM:267:G:H2'	45:CM:268:C:H6	1.76	0.51
45:CM:671:G:H5'	45:CM:672:U:OP2	2.11	0.51
45:CM:1454:U:O2'	65:DG:87:GLY:O	2.27	0.51
46:CN:49:ASN:HD22	46:CN:52:LYS:HG3	1.74	0.51
46:CN:79:ARG:CZ	46:CN:125:ASP:HB2	2.41	0.51
49:CQ:9:LYS:HB2	66:DH:62:LEU:HD21	1.93	0.51
57:CY:125:VAL:HG12	57:CY:139:VAL:HA	1.92	0.51
58:CZ:135:ILE:HA	58:CZ:138:GLU:OE1	2.11	0.51
66:DH:43:ASN:ND2	66:DH:105:ILE:HG21	2.20	0.51
69:DK:92:CYS:HG	69:DK:136:TRP:CD1	2.28	0.51
79:i:113:ARG:HG2	79:i:113:ARG:HH11	1.76	0.51
1:1:258:U:H2'	1:1:259:C:C6	2.46	0.51
1:1:357:A:O4'	6:l:82:GLY:HA3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:394:G:N1	1:1:397:A:OP2	2.44	0.51
1:1:795:G:O2'	14:t:18:TRP:NE1	2.33	0.51
1:1:1059:G:N1	22:2:109:VAL:HG13	2.26	0.51
1:1:1787:U:H2'	1:1:1788:C:C6	2.46	0.51
1:1:2380:A:H5''	6:l:68:THR:CG2	2.40	0.51
1:1:2978:A:H2'	1:1:2979:U:O4'	2.11	0.51
1:1:3235:A:N7	18:x:178:SER:HB3	2.26	0.51
13:s:17:LEU:HD12	13:s:128:TYR:O	2.11	0.51
17:w:191:ALA:O	17:w:195:LEU:HD13	2.11	0.51
28:AA:104:PRO:O	28:AA:108:GLU:HG3	2.11	0.51
45:B:62:A:H8	45:B:285:G:H21	1.58	0.51
45:B:521:G:H5'	70:a:60:PHE:O	2.11	0.51
45:B:1553:U:H5''	64:U:39:GLY:H	1.76	0.51
46:C:122:VAL:HG23	46:C:174:TRP:HH2	1.76	0.51
49:F:95:ARG:CD	49:F:95:ARG:H	2.24	0.51
49:F:117:ARG:CB	79:i:117:GLY:HA3	2.41	0.51
51:H:55:ASP:O	51:H:59:VAL:HG23	2.11	0.51
68:Y:126:LEU:C	68:Y:126:LEU:HD23	2.36	0.51
70:a:7:ILE:HD12	70:a:43:LYS:HD2	1.92	0.51
70:a:58:PHE:CE2	70:a:72:PHE:HB3	2.46	0.51
70:a:82:ALA:O	70:a:86:GLU:HB2	2.11	0.51
78:AR:216:VAL:HA	78:AR:232:GLU:HA	1.92	0.51
1:AS:1691:U:O2'	1:AS:1745:A:N1	2.36	0.51
1:AS:3079:U:H2'	1:AS:3080:G:C8	2.46	0.51
5:AX:293:ASN:HB2	5:AX:304:THR:HA	1.92	0.51
13:BF:97:SER:OG	13:BF:99:THR:HG22	2.11	0.51
38:CE:14:LYS:HZ2	40:CG:51:ILE:C	2.18	0.51
45:CM:1406:C:P	75:DQ:54:LYS:HZ1	2.34	0.51
50:CR:15:PRO:HA	50:CR:39:ARG:HH21	1.76	0.51
50:CR:71:GLN:HG2	50:CR:75:LYS:C	2.36	0.51
51:CS:93:LEU:O	51:CS:97:LEU:HD22	2.11	0.51
53:CU:69:VAL:HG12	53:CU:73:LEU:HD12	1.92	0.51
54:CV:190:LEU:HD22	54:CV:194:GLU:HG2	1.93	0.51
59:DA:119:GLU:HA	59:DA:122:ILE:HD12	1.93	0.51
71:DM:100:ILE:O	71:DM:101:TYR:HD1	1.94	0.51
1:1:1358:C:H2'	1:1:1359:A:C8	2.46	0.51
1:1:1611:U:H2'	1:1:1612:U:H6	1.76	0.51
1:1:2720:A:N3	7:m:36:LEU:HD23	2.27	0.51
1:1:2740:U:H2'	1:1:2741:A:H8	1.76	0.51
5:k:260:VAL:HG11	5:k:266:ARG:NH1	2.25	0.51
15:u:58:THR:HG22	15:u:92:TRP:CZ3	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:8:96:LYS:HG3	26:8:107:ALA:HB3	1.92	0.51
45:B:484:G:O6	45:B:499:U:O4	2.29	0.51
45:B:1753:A:N1	72:c:80:HIS:ND1	2.57	0.51
47:D:193:ILE:O	47:D:197:ILE:HG13	2.11	0.51
60:Q:123:ARG:NH1	72:c:23:CYS:O	2.44	0.51
61:R:61:ARG:HD3	61:R:88:GLU:OE2	2.11	0.51
1:AS:1616:U:H2'	1:AS:1617:A:C8	2.45	0.51
3:AU:152:G:O4'	10:BC:60:GLN:HG2	2.11	0.51
7:AZ:109:ALA:O	7:AZ:113:LEU:HD12	2.11	0.51
14:BG:103:ASN:HD22	14:BG:109:PHE:HB2	1.76	0.51
28:BU:109:GLU:HA	28:BU:112:LYS:HG3	1.92	0.51
28:BU:134:LEU:HD12	28:BU:136:PHE:HD1	1.75	0.51
32:BY:78:ARG:HA	32:BY:88:LEU:HD23	1.93	0.51
36:CC:100:GLU:OE2	36:CC:108:ARG:NH2	2.44	0.51
45:CM:283:G:H2'	45:CM:284:C:C6	2.46	0.51
45:CM:608:G:H21	69:DK:19:ARG:NH2	2.08	0.51
47:CO:88:VAL:HA	47:CO:98:THR:HA	1.93	0.51
49:CQ:62:GLU:O	49:CQ:65:ARG:HB2	2.10	0.51
51:CS:31:LEU:HD23	51:CS:31:LEU:H	1.74	0.51
60:DB:59:ALA:O	60:DB:100:LEU:HD21	2.11	0.51
71:DM:64:VAL:CG2	71:DM:68:ARG:HH21	2.24	0.51
1:1:815:U:H2'	1:1:816:A:H8	1.76	0.50
1:1:2854:U:H2'	1:1:2855:U:C6	2.46	0.50
1:1:2985:U:H2'	1:1:2986:U:C6	2.46	0.50
7:m:22:ARG:NH2	7:m:27:LYS:HD2	2.26	0.50
7:m:40:HIS:CE1	22:2:69:LYS:HA	2.46	0.50
7:m:260:PHE:HB2	7:m:265:TYR:CZ	2.46	0.50
8:n:100:PHE:CD1	8:n:104:TYR:CE2	2.99	0.50
33:AF:77:VAL:HG13	33:AF:82:ASP:HB2	1.93	0.50
45:B:766:U:C2	70:a:21:ARG:NH2	2.79	0.50
45:B:1369:G:O2'	45:B:1370:A:H8	1.94	0.50
45:B:1566:U:H1'	62:S:138:GLN:HG3	1.93	0.50
45:B:1566:U:H2'	45:B:1567:C:C6	2.46	0.50
45:B:1649:G:H2'	45:B:1650:G:C8	2.45	0.50
47:D:182:ALA:O	47:D:185:THR:OG1	2.27	0.50
56:M:40:LEU:HA	56:M:43:ILE:HD12	1.92	0.50
61:R:53:PRO:O	61:R:57:ILE:HG23	2.11	0.50
1:AS:216:U:H4'	27:BT:100:HIS:ND1	2.26	0.50
1:AS:242:C:O2'	1:AS:243:G:H8	1.94	0.50
1:AS:422:A:C2	1:AS:2341:A:H4'	2.46	0.50
1:AS:713:A:HO2'	1:AS:748:C:HO2'	1.55	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1199:A:H2'	1:AS:1200:A:C8	2.45	0.50
1:AS:1204:U:O2	1:AS:3087:C:N4	2.44	0.50
1:AS:2181:U:O2'	4:AW:241:ARG:HG2	2.11	0.50
1:AS:2206:A:H2'	1:AS:2207:A:H8	1.75	0.50
1:AS:3164:U:H1'	1:AS:3165:U:C5	2.46	0.50
3:AU:41:A:H2	38:CE:44:MET:HE2	1.75	0.50
4:AW:225:ILE:HD11	4:AW:238:ILE:HG13	1.93	0.50
8:BA:71:ASN:HD21	8:BA:160:ALA:HA	1.72	0.50
16:BI:26:ARG:NE	16:BI:30:TYR:OH	2.44	0.50
35:CB:36:LYS:CD	35:CB:37:LYS:H	2.24	0.50
43:CJ:71:ARG:NH2	43:CJ:80:LYS:HE2	2.26	0.50
45:CM:728:U:P	53:CU:103:ARG:HA	2.51	0.50
45:CM:1131:G:H2'	45:CM:1132:A:H8	1.76	0.50
45:CM:1677:G:H3'	45:CM:1679:A:N6	2.26	0.50
45:CM:1682:G:C4	45:CM:1683:G:H1'	2.46	0.50
45:CM:1693:C:H3'	45:CM:1694:A:C8	2.47	0.50
48:CP:35:LYS:CD	48:CP:235:LEU:HD11	2.41	0.50
49:CQ:65:ARG:HH11	56:CX:91:ARG:NH1	2.08	0.50
53:CU:13:LEU:HD21	53:CU:54:LEU:HD11	1.93	0.50
73:DO:35:VAL:HG11	73:DO:63:LEU:HD13	1.92	0.50
73:DO:37:CYS:SG	73:DO:40:CYS:HB2	2.51	0.50
79:CL:50:LYS:H	79:CL:50:LYS:CD	2.23	0.50
1:1:208:A:OP1	6:l:162:LYS:NZ	2.37	0.50
1:1:437:G:H21	1:1:620:A:N6	2.10	0.50
1:1:2196:G:H2'	1:1:2197:A:C8	2.46	0.50
81:1:3415:PAR:N21	81:1:3415:PAR:O43	2.43	0.50
81:1:3425:PAR:H11	81:1:3425:PAR:H23	1.93	0.50
5:k:369:ARG:HD2	25:7:11:SER:HB3	1.92	0.50
6:l:139:ARG:HG2	6:l:139:ARG:NH1	2.25	0.50
9:o:134:TYR:CZ	9:o:228:ASN:HB2	2.46	0.50
22:2:110:LYS:HD2	22:2:111:SER:N	2.27	0.50
45:B:482:C:H2'	45:B:483:A:H5''	1.93	0.50
45:B:1478:A:O2'	45:B:1479:A:O4'	2.27	0.50
45:B:1523:G:O2'	45:B:1524:C:OP1	2.26	0.50
48:E:74:ASP:CG	48:E:181:ARG:HE	2.18	0.50
50:G:100:ARG:HH12	50:G:118:GLU:HG2	1.75	0.50
54:K:113:TYR:OH	54:K:156:ALA:O	2.24	0.50
59:P:128:TYR:O	59:P:132:VAL:HG22	2.11	0.50
68:Y:126:LEU:HD23	68:Y:126:LEU:O	2.11	0.50
70:a:18:LEU:CB	70:a:20:ARG:HD3	2.41	0.50
78:AR:82:LEU:HD13	78:AR:114:VAL:CG2	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:669:U:OP2	19:BL:57:ILE:HD11	2.12	0.50
1:AS:877:C:H5''	18:BK:130:TYR:HE2	1.76	0.50
1:AS:2330:A:H5''	18:BK:83:TRP:O	2.11	0.50
5:AX:217:VAL:HG23	5:AX:277:SER:HB3	1.92	0.50
13:BF:96:PHE:CD1	13:BF:102:PHE:HB3	2.46	0.50
24:BQ:102:ILE:HD12	24:BQ:102:ILE:N	2.27	0.50
27:BT:27:ARG:HA	27:BT:30:LEU:HD12	1.92	0.50
42:CI:6:ARG:C	42:CI:8:LYS:N	2.65	0.50
45:CM:442:C:OP2	70:DL:105:ARG:HD2	2.12	0.50
45:CM:1453:C:O2'	65:DG:88:PHE:O	2.18	0.50
45:CM:1580:A:O3'	75:DQ:33:LYS:NZ	2.44	0.50
45:CM:1594:G:C8	62:DD:123:MET:HE1	2.46	0.50
62:DD:33:SER:HB3	62:DD:37:LEU:HD11	1.93	0.50
63:DE:93:LEU:HD21	63:DE:99:GLN:HA	1.92	0.50
63:DE:107:ALA:O	63:DE:110:VAL:HG22	2.11	0.50
1:1:649:G:O2'	1:1:1431:A:OP1	2.30	0.50
1:1:1493:C:O2'	1:1:1598:A:N3	2.36	0.50
1:1:2420:G:H1	1:1:2483:U:H3	1.59	0.50
1:1:2919:G:N3	5:k:250:ALA:HB1	2.27	0.50
1:1:2995:U:H2'	1:1:2996:A:H8	1.76	0.50
1:1:3357:U:H4'	18:x:56:ARG:NH1	2.25	0.50
5:k:47:LEU:HB2	5:k:84:MET:SD	2.52	0.50
7:m:294:LYS:O	7:m:297:GLN:HG3	2.11	0.50
10:p:131:VAL:HG21	10:p:205:ASN:OD1	2.10	0.50
45:B:74:U:O2'	45:B:76:A:OP1	2.27	0.50
45:B:191:U:H4'	45:B:192:U:H5'	1.92	0.50
45:B:338:U:H2'	45:B:339:A:H8	1.76	0.50
45:B:509:A:H4'	55:L:173:LYS:HD2	1.92	0.50
45:B:944:U:H5'	59:P:15:ALA:O	2.12	0.50
45:B:1131:G:H2'	45:B:1132:A:H8	1.72	0.50
45:B:1198:G:H1	45:B:1436:U:H3	1.58	0.50
46:C:36:TYR:OH	67:X:70:ASN:ND2	2.29	0.50
49:F:173:ILE:HD12	49:F:186:LYS:HG2	1.92	0.50
62:S:124:GLU:HG2	62:S:133:ALA:HB1	1.93	0.50
66:W:54:PRO:HB3	66:W:90:ILE:HD11	1.93	0.50
77:h:156:VAL:HG22	77:h:158:ARG:HG3	1.94	0.50
78:AR:233:ALA:HB1	78:AR:258:LYS:NZ	2.26	0.50
1:AS:275:U:H2'	1:AS:276:U:C6	2.46	0.50
1:AS:539:G:H2'	1:AS:540:C:O4'	2.12	0.50
1:AS:970:G:OP1	19:BL:16:ARG:HD3	2.10	0.50
1:AS:1598:A:H2'	1:AS:1599:A:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2391:A:H2'	1:AS:2392:G:C8	2.45	0.50
1:AS:2506:G:O3'	10:BC:249:LYS:HE3	2.10	0.50
1:AS:3032:C:H1'	1:AS:3297:U:H1'	1.93	0.50
1:AS:3193:C:H4'	1:AS:3194:G:O5'	2.11	0.50
7:AZ:130:GLU:OE1	7:AZ:130:GLU:HA	2.10	0.50
13:BF:16:LYS:HD3	13:BF:72:ARG:HH22	1.77	0.50
14:BG:175:ALA:HB1	37:CD:9:GLY:HA3	1.94	0.50
18:BK:118:GLN:OE1	18:BK:120:ASN:ND2	2.44	0.50
37:CD:57:ILE:O	37:CD:61:ARG:HG3	2.10	0.50
45:CM:39:A:OP1	55:CW:3:ARG:NH1	2.42	0.50
45:CM:265:U:H2'	45:CM:266:C:H6	1.76	0.50
45:CM:916:C:OP2	72:DN:70:LYS:NZ	2.44	0.50
45:CM:953:U:H5''	45:CM:1018:C:O2'	2.11	0.50
45:CM:1369:G:O2'	45:CM:1370:A:O5'	2.28	0.50
45:CM:1595:U:O3'	62:DD:72:GLY:HA3	2.11	0.50
45:CM:1673:U:H2'	45:CM:1674:U:O4'	2.11	0.50
46:CN:79:ARG:HH12	46:CN:164:ASN:CB	2.25	0.50
46:CN:198:MET:SD	63:DE:89:SER:HB3	2.51	0.50
48:CP:110:ILE:O	48:CP:110:ILE:HD12	2.11	0.50
49:CQ:25:PHE:C	49:CQ:25:PHE:CD2	2.89	0.50
58:CZ:90:LYS:O	58:CZ:91:VAL:HB	2.11	0.50
60:DB:43:VAL:HG12	60:DB:45:ALA:H	1.76	0.50
63:DE:107:ALA:HA	63:DE:110:VAL:HG22	1.92	0.50
65:DG:49:GLU:HB2	65:DG:56:LYS:NZ	2.27	0.50
79:CL:100:LYS:H	79:CL:100:LYS:HD2	1.76	0.50
1:1:58:G:H2'	3:4:33:A:O2'	2.11	0.50
1:1:713:A:O2'	1:1:748:C:O2'	2.27	0.50
1:1:1396:U:H2'	1:1:1397:G:O4'	2.11	0.50
5:k:140:ASP:OD2	5:k:140:ASP:N	2.43	0.50
10:p:244:ASN:HA	10:p:247:ILE:HG12	1.93	0.50
12:r:179:ASP:OD2	12:r:180:GLU:N	2.44	0.50
21:0:43:TYR:CZ	21:0:47:LYS:HE2	2.46	0.50
26:8:47:GLN:HG2	36:AI:70:TYR:OH	2.11	0.50
35:AH:67:LYS:O	35:AH:71:THR:HG22	2.12	0.50
81:B:1804:PAR:H532	81:B:1804:PAR:N21	2.27	0.50
46:C:6:SER:O	46:C:191:ARG:NH2	2.45	0.50
46:C:35:PRO:O	46:C:52:LYS:NZ	2.41	0.50
49:F:169:ILE:CG1	49:F:190:MET:HG3	2.41	0.50
50:G:160:VAL:HG12	50:G:169:ILE:HD12	1.93	0.50
56:M:17:GLN:OE1	79:i:156:ALA:HB3	2.11	0.50
58:O:37:VAL:O	58:O:38:HIS:C	2.54	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:P:38:ILE:HD11	59:P:78:ASN:ND2	2.26	0.50
63:T:27:ASP:OD2	78:AR:38:ARG:NH1	2.34	0.50
74:e:64:ARG:CZ	74:e:64:ARG:HA	2.42	0.50
1:AS:71:C:OP2	37:CD:12:LYS:HE3	2.12	0.50
1:AS:408:A:N3	1:AS:653:C:O2'	2.44	0.50
1:AS:830:U:H2'	1:AS:831:G:O4'	2.11	0.50
1:AS:843:A:H5'	59:DA:123:HIS:CE1	2.46	0.50
1:AS:2504:C:H2'	1:AS:2505:G:C8	2.47	0.50
1:AS:2855:U:H2'	1:AS:2856:C:H6	1.76	0.50
1:AS:3152:G:OP1	17:BJ:118:ARG:NH2	2.44	0.50
2:AT:62:U:H5''	7:AZ:277:LEU:HD13	1.93	0.50
4:AW:48:ILE:HD11	4:AW:82:VAL:HG12	1.94	0.50
4:AW:98:VAL:HA	4:AW:166:ILE:HG22	1.93	0.50
5:AX:147:GLU:OE1	5:AX:150:ARG:NH1	2.44	0.50
12:BE:19:LYS:HG2	12:BE:26:VAL:HG21	1.94	0.50
31:BX:44:VAL:CG2	31:BX:69:VAL:HG22	2.41	0.50
34:CA:90:PRO:O	34:CA:93:THR:HG23	2.11	0.50
45:CM:1238:U:H2'	45:CM:1239:U:H6	1.76	0.50
49:CQ:93:GLU:OE2	49:CQ:93:GLU:HA	2.11	0.50
50:CR:183:VAL:HG22	50:CR:220:THR:HG21	1.93	0.50
51:CS:112:ARG:HH11	51:CS:112:ARG:HB3	1.76	0.50
52:CT:50:PHE:HB3	52:CT:111:LEU:HD22	1.93	0.50
55:CW:38:ASN:HA	76:DR:36:MET:HE1	1.93	0.50
58:CZ:132:GLU:N	58:CZ:132:GLU:OE1	2.44	0.50
59:DA:142:GLU:HB2	59:DA:145:THR:HG22	1.94	0.50
62:DD:101:LYS:O	62:DD:101:LYS:HD3	2.11	0.50
1:1:208:A:N9	6:l:163:THR:HG21	2.27	0.50
1:1:1736:U:H2'	1:1:1737:A:H5'	1.94	0.50
1:1:1937:C:H2'	1:1:1938:U:C6	2.47	0.50
1:1:2385:C:H2'	1:1:2386:U:C6	2.47	0.50
45:B:16:G:H2'	45:B:17:C:C6	2.47	0.50
45:B:147:C:OP1	70:a:121:THR:HG23	2.11	0.50
45:B:634:A:H5''	68:Y:31:SER:HB2	1.94	0.50
45:B:1772:U:H2'	45:B:1773:G:H8	1.76	0.50
49:F:70:LEU:O	49:F:74:ILE:HD12	2.12	0.50
51:H:156:ARG:HH22	74:e:67:ARG:CB	2.23	0.50
61:R:16:SER:OG	64:U:93:VAL:O	2.30	0.50
77:h:160:ARG:O	77:h:162:GLU:N	2.45	0.50
1:AS:268:A:N1	1:AS:295:A:H5'	2.26	0.50
1:AS:2385:C:H2'	1:AS:2386:U:C6	2.46	0.50
3:AU:9:A:H2'	3:AU:10:A:H8	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AZ:204:VAL:O	7:AZ:208:MET:HG3	2.11	0.50
11:BD:4:ILE:N	21:BN:142:GLN:HE22	2.06	0.50
13:BF:57:PHE:N	13:BF:57:PHE:CD1	2.79	0.50
24:BQ:74:MET:CE	24:BQ:102:ILE:HG12	2.41	0.50
28:BU:25:ILE:HA	28:BU:43:VAL:HG12	1.92	0.50
29:BV:79:TRP:O	29:BV:82:VAL:HG22	2.12	0.50
34:CA:52:VAL:HG12	34:CA:66:VAL:HG12	1.92	0.50
35:CB:18:ASN:O	35:CB:18:ASN:ND2	2.45	0.50
36:CC:62:GLN:OE1	36:CC:62:GLN:O	2.29	0.50
41:CH:22:LYS:HD2	41:CH:42:THR:HG21	1.93	0.50
45:CM:518:A:O2'	45:CM:519:A:OP1	2.27	0.50
45:CM:650:G:H1	45:CM:678:A:H2'	1.76	0.50
45:CM:1066:A:O2'	45:CM:1068:G:N7	2.43	0.50
45:CM:1099:G:O2'	45:CM:1115:G:O6	2.25	0.50
45:CM:1254:U:H5'	45:CM:1418:U:OP2	2.12	0.50
46:CN:144:ILE:HG23	46:CN:158:VAL:HG23	1.94	0.50
49:CQ:33:GLN:HB3	49:CQ:55:ASN:HB3	1.94	0.50
49:CQ:107:LYS:HG3	49:CQ:108:ALA:N	2.26	0.50
50:CR:247:LEU:HD13	50:CR:255:ARG:HD2	1.93	0.50
53:CU:17:VAL:HG21	53:CU:42:ILE:CD1	2.41	0.50
60:DB:53:TYR:CZ	60:DB:57:LEU:HD11	2.46	0.50
63:DE:69:ILE:HD12	63:DE:69:ILE:O	2.11	0.50
71:DM:65:LEU:HD13	71:DM:76:ALA:HB1	1.94	0.50
79:CL:37:LYS:CD	79:CL:39:SER:H	2.23	0.50
1:1:1188:C:N4	1:1:1297:A:O2'	2.44	0.50
1:1:1407:U:OP2	81:1:3430:PAR:N64	2.40	0.50
1:1:1795:A:H2'	1:1:1796:A:H8	1.77	0.50
1:1:2899:C:H2'	1:1:2900:C:C6	2.46	0.50
7:m:83:LEU:HB3	7:m:88:ILE:HB	1.94	0.50
10:p:247:ILE:HG13	10:p:248:ALA:N	2.27	0.50
12:r:80:SER:HG	12:r:144:ASN:CG	2.12	0.50
25:7:81:ALA:C	25:7:82:ILE:HG13	2.36	0.50
29:AB:135:GLU:HG3	29:AB:145:VAL:HG21	1.94	0.50
45:B:261:C:O2'	45:B:262:G:H5'	2.12	0.50
45:B:446:C:OP1	50:G:29:PRO:HD3	2.12	0.50
45:B:788:A:N3	68:Y:105:THR:HG22	2.27	0.50
45:B:1437:C:OP1	75:f:12:ARG:NH1	2.43	0.50
45:B:1503:A:OP1	66:W:87:LYS:NZ	2.45	0.50
45:B:1581:G:H2'	45:B:1582:U:O4'	2.12	0.50
64:U:85:PHE:O	64:U:85:PHE:CD2	2.65	0.50
70:a:12:VAL:HG22	70:a:23:PHE:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1302:G:C6	17:BJ:63:THR:HA	2.46	0.50
1:AS:1580:U:H2'	1:AS:1581:C:H6	1.77	0.50
1:AS:2261:G:H1'	1:AS:2263:C:N4	2.27	0.50
5:AX:57:VAL:HG22	5:AX:73:VAL:HG22	1.92	0.50
6:AY:60:GLN:O	38:CE:52:LYS:NZ	2.30	0.50
7:AZ:51:LEU:HB2	7:AZ:144:VAL:CG1	2.42	0.50
8:BA:54:LEU:HB2	8:BA:63:LEU:HD23	1.93	0.50
19:BL:44:PHE:O	19:BL:48:ILE:HG12	2.11	0.50
22:BO:57:TYR:HD1	22:BO:76:ILE:HD12	1.75	0.50
45:CM:703:U:OP1	45:CM:703:U:H4'	2.07	0.50
47:CO:53:GLY:O	47:CO:54:LEU:HB2	2.12	0.50
53:CU:121:ILE:HD12	53:CU:122:LEU:N	2.26	0.50
72:DN:21:VAL:N	72:DN:30:VAL:O	2.33	0.50
1:1:37:U:H2'	1:1:38:A:O4'	2.11	0.50
1:1:374:A:N3	1:1:376:G:H5''	2.26	0.50
1:1:484:U:C2	1:1:485:A:C8	2.99	0.50
1:1:657:G:H2'	1:1:1428:C:H42	1.77	0.50
1:1:1338:G:H2'	1:1:1339:A:O4'	2.11	0.50
1:1:1406:C:O2'	33:AF:96:GLU:OE1	2.29	0.50
1:1:2093:G:H22	1:1:2098:A:H1'	1.77	0.50
1:1:2636:C:OP2	13:s:142:LYS:HE3	2.10	0.50
7:m:212:LEU:HD13	7:m:219:TYR:CD2	2.47	0.50
18:x:154:ASP:OD1	18:x:154:ASP:N	2.45	0.50
24:6:80:ARG:HG2	24:6:99:ALA:HB3	1.93	0.50
45:B:195:A:N6	54:K:144:LYS:HD3	2.27	0.50
45:B:816:U:H5'	45:B:817:U:OP2	2.10	0.50
45:B:859:C:OP1	47:D:159:SER:OG	2.20	0.50
45:B:874:U:H2'	45:B:875:C:H6	1.77	0.50
45:B:1664:C:H42	45:B:1711:C:H42	1.60	0.50
47:D:149:GLN:HE22	47:D:154:THR:HG23	1.77	0.50
49:F:103:ALA:HB2	49:F:187:VAL:HG11	1.93	0.50
58:O:58:GLN:O	58:O:87:PRO:HG2	2.12	0.50
78:AR:69:VAL:HA	78:AR:85:SER:HA	1.93	0.50
1:AS:139:U:H2'	1:AS:140:C:C6	2.47	0.50
1:AS:629:A:H2'	1:AS:630:G:C8	2.46	0.50
1:AS:712:G:O2'	1:AS:749:C:O2'	2.27	0.50
1:AS:849:G:OP2	44:CK:2:THR:HG21	2.11	0.50
1:AS:1723:G:OP1	44:CK:44:LYS:NZ	2.37	0.50
1:AS:1758:U:H5	1:AS:1759:U:O2'	1.94	0.50
1:AS:2958:U:H2'	1:AS:2959:A:C8	2.47	0.50
2:AT:59:U:H2'	2:AT:60:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AU:26:U:H2'	3:AU:27:U:C6	2.46	0.50
4:AW:77:ILE:HD13	4:AW:128:ARG:HB3	1.94	0.50
4:AW:204:MET:SD	4:AW:209:HIS:HB2	2.51	0.50
5:AX:328:ILE:HD12	5:AX:329:PRO:O	2.12	0.50
7:AZ:89:LYS:C	7:AZ:90:TYR:HD2	2.19	0.50
14:BG:131:LYS:HG2	14:BG:132:ALA:H	1.76	0.50
21:BN:25:PHE:CD1	22:BO:151:LEU:HD11	2.47	0.50
27:BT:69:LYS:HG2	27:BT:70:VAL:O	2.12	0.50
36:CC:25:LYS:HZ2	36:CC:25:LYS:HB3	1.76	0.50
45:CM:217:A:O5'	45:CM:217:A:H8	1.95	0.50
45:CM:1205:C:H2'	45:CM:1206:A:C8	2.46	0.50
45:CM:1672:G:H2'	45:CM:1673:U:C6	2.47	0.50
50:CR:191:ARG:CD	50:CR:246:LYS:HB2	2.41	0.50
51:CS:71:SER:CB	51:CS:90:VAL:HG13	2.41	0.50
52:CT:2:LYS:O	52:CT:108:VAL:HA	2.11	0.50
54:CV:45:SER:OG	54:CV:53:GLN:OE1	2.29	0.50
54:CV:48:THR:OG1	54:CV:49:ARG:N	2.45	0.50
59:DA:128:TYR:HE1	59:DA:132:VAL:HG11	1.76	0.50
1:1:411:U:H2'	1:1:412:G:H8	1.77	0.50
1:1:591:C:O2	9:o:24:ARG:NH1	2.44	0.50
1:1:896:G:H1'	1:1:1585:A:H61	1.75	0.50
1:1:3135:A:H2'	1:1:3136:C:H6	1.75	0.50
2:3:9:C:OP1	22:2:28:SER:OG	2.19	0.50
10:p:141:VAL:HG22	10:p:167:LEU:HD21	1.92	0.50
12:r:82:ARG:H	12:r:82:ARG:HD3	1.76	0.50
24:6:11:PHE:CE2	24:6:88:ARG:HD2	2.47	0.50
31:AD:29:TYR:O	31:AD:33:VAL:HG22	2.11	0.50
39:AL:9:LYS:O	39:AL:9:LYS:HD2	2.12	0.50
45:B:217:A:H2'	45:B:218:A:O4'	2.12	0.50
45:B:792:U:H2'	45:B:793:A:C8	2.46	0.50
45:B:1330:A:OP1	66:W:53:GLY:N	2.45	0.50
48:E:116:VAL:HB	79:i:118:GLU:OE2	2.12	0.50
50:G:157:ASN:ND2	50:G:222:LEU:HD21	2.26	0.50
53:J:6:LEU:HD21	53:J:38:GLN:OE1	2.12	0.50
53:J:47:VAL:HG23	53:J:167:GLN:NE2	2.26	0.50
55:L:62:ARG:CZ	55:L:62:ARG:HB2	2.42	0.50
62:S:50:PRO:HG3	62:S:84:ILE:HD11	1.94	0.50
64:U:24:GLY:HA2	64:U:58:ALA:HB3	1.93	0.50
77:h:159:LEU:HD22	77:h:160:ARG:HH12	1.77	0.50
78:AR:90:LEU:HD21	78:AR:111:VAL:HG11	1.94	0.50
78:AR:168:SER:HB2	78:AR:178:TRP:HE1	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:200:A:H2'	1:AS:201:G:H8	1.76	0.50
1:AS:216:U:O2'	27:BT:103:LYS:HD3	2.11	0.50
1:AS:1496:G:H2'	1:AS:1497:U:O4'	2.12	0.50
1:AS:1695:A:O2'	39:CF:3:ARG:NH1	2.45	0.50
81:AS:3401:PAR:H322	81:AS:3401:PAR:H612	1.77	0.50
2:AT:19:C:H2'	2:AT:20:A:C8	2.47	0.50
10:BC:99:ARG:HG3	10:BC:99:ARG:O	2.12	0.50
20:BM:53:LYS:HG2	20:BM:54:PRO:HD2	1.94	0.50
23:BP:39:GLU:O	23:BP:47:VAL:HG21	2.11	0.50
27:BT:116:LYS:HD2	27:BT:127:GLU:CB	2.41	0.50
30:BW:47:LEU:O	30:BW:50:THR:HG22	2.12	0.50
31:BX:55:LYS:O	31:BX:59:GLU:HG2	2.11	0.50
38:CE:24:ARG:HG3	38:CE:24:ARG:O	2.12	0.50
45:CM:144:U:H5	45:CM:166:A:N7	2.10	0.50
45:CM:876:A:H2'	45:CM:877:G:H8	1.75	0.50
45:CM:1061:A:O5'	72:DN:13:LYS:HB3	2.11	0.50
45:CM:1127:A:H2'	45:CM:1128:A:C8	2.46	0.50
48:CP:71:LEU:HB3	48:CP:99:ILE:HD11	1.93	0.50
50:CR:176:ASP:OD1	50:CR:177:THR:N	2.45	0.50
52:CT:28:TYR:CZ	52:CT:104:GLN:HG3	2.47	0.50
54:CV:121:LEU:O	54:CV:129:HIS:NE2	2.45	0.50
56:CX:76:LEU:O	56:CX:80:LEU:HB2	2.11	0.50
59:DA:48:SER:OG	59:DA:86:GLU:OE2	2.24	0.50
64:DF:27:LYS:HE2	64:DF:55:THR:HA	1.93	0.50
66:DH:66:THR:C	66:DH:78:TRP:CE3	2.89	0.50
1:1:65:A:N3	16:v:176:LYS:HE2	2.27	0.50
1:1:629:A:H2'	1:1:630:G:H8	1.77	0.50
1:1:1199:A:N3	1:1:2827:U:O2'	2.42	0.50
1:1:1852:C:H2'	1:1:1853:C:H6	1.77	0.50
3:4:9:A:H2'	3:4:10:A:H8	1.77	0.50
6:l:306:LYS:HD3	6:l:306:LYS:N	2.27	0.50
13:s:71:VAL:HG21	13:s:79:ILE:HD13	1.93	0.50
18:x:105:LYS:HB2	18:x:107:LEU:HD12	1.93	0.50
19:y:66:ARG:NH1	19:y:143:PRO:HD3	2.27	0.50
34:AG:11:GLY:HA3	34:AG:100:ILE:HD11	1.93	0.50
37:AJ:84:ARG:HG3	37:AJ:84:ARG:HH11	1.76	0.50
45:B:653:G:O2'	45:B:672:U:N3	2.45	0.50
47:D:70:LEU:HD22	47:D:79:HIS:CB	2.41	0.50
58:O:67:THR:C	58:O:69:GLU:H	2.20	0.50
65:V:6:VAL:O	65:V:9:VAL:HG22	2.12	0.50
1:AS:403:C:O2'	1:AS:404:G:OP1	2.22	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:527:G:H2'	1:AS:528:A:C8	2.47	0.50
1:AS:925:A:O2'	38:CE:49:TRP:O	2.29	0.50
1:AS:1611:U:H2'	1:AS:1612:U:H6	1.75	0.50
1:AS:3061:C:H2'	1:AS:3062:U:O4'	2.12	0.50
1:AS:3300:A:H2'	1:AS:3301:A:C8	2.46	0.50
2:AT:100:C:OP2	21:BN:52:LYS:NZ	2.43	0.50
11:BD:57:VAL:HG23	11:BD:68:LEU:HD12	1.94	0.50
13:BF:30:LEU:HD11	13:BF:67:VAL:HG23	1.92	0.50
26:BS:60:HIS:HB2	36:CC:25:LYS:HZ1	1.76	0.50
45:CM:12:U:H2'	45:CM:13:C:H6	1.71	0.50
45:CM:1393:U:H2'	45:CM:1394:G:C8	2.47	0.50
49:CQ:126:PHE:O	49:CQ:126:PHE:HD1	1.94	0.50
50:CR:70:VAL:HA	50:CR:92:LEU:HD23	1.94	0.50
60:DB:69:VAL:HG23	60:DB:71:ILE:HG13	1.93	0.50
1:1:2079:C:O2'	1:1:2080:U:H6	1.94	0.49
1:1:2145:A:H2'	1:1:2146:A:C8	2.47	0.49
1:1:2339:A:H2'	1:1:2340:C:H6	1.77	0.49
12:r:82:ARG:H	12:r:82:ARG:CD	2.25	0.49
16:v:47:LYS:HG2	16:v:50:ARG:HH21	1.76	0.49
17:w:62:ALA:HA	17:w:71:PRO:HD2	1.94	0.49
22:2:25:ILE:HD11	22:2:45:ASN:ND2	2.27	0.49
42:AO:22:ALA:O	42:AO:25:LYS:HB2	2.12	0.49
45:B:54:C:H41	81:B:1805:PAR:H642	1.76	0.49
81:B:1802:PAR:O43	81:B:1802:PAR:O62	2.26	0.49
47:D:180:THR:HG22	47:D:183:GLN:CG	2.42	0.49
51:H:120:ILE:O	51:H:124:LEU:HD12	2.11	0.49
58:O:62:LEU:CD2	58:O:75:VAL:HG21	2.41	0.49
65:V:57:ARG:HH22	65:V:80:TYR:HB2	1.77	0.49
69:Z:59:ILE:HA	76:g:4:VAL:HB	1.93	0.49
1:AS:289:A:H2'	1:AS:290:G:H8	1.76	0.49
1:AS:657:G:H2'	1:AS:1428:C:H42	1.76	0.49
1:AS:1586:G:O2'	1:AS:1793:A:N6	2.45	0.49
1:AS:1658:G:H22	1:AS:1783:A:H2	1.60	0.49
1:AS:1705:C:H2'	1:AS:1706:C:H6	1.77	0.49
10:BC:78:GLN:HG2	10:BC:230:ASN:ND2	2.25	0.49
10:BC:134:LYS:HD2	10:BC:139:HIS:HE1	1.76	0.49
11:BD:127:LYS:HE2	11:BD:128:ILE:O	2.12	0.49
24:BQ:109:MET:HG2	24:BQ:111:GLY:H	1.77	0.49
28:BU:34:LYS:C	28:BU:36:HIS:H	2.20	0.49
33:BZ:34:ARG:HG2	33:BZ:34:ARG:HH11	1.76	0.49
43:CJ:73:GLU:HG3	43:CJ:80:LYS:HE3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:86:A:H5'	70:DL:119:PHE:CE1	2.46	0.49
45:CM:1181:A:OP2	45:CM:1450:G:N2	2.36	0.49
45:CM:1306:A:H4'	45:CM:1307:A:O5'	2.12	0.49
45:CM:1323:C:H1'	45:CM:1396:A:C5	2.46	0.49
45:CM:1672:G:C2'	45:CM:1673:U:H5'	2.42	0.49
49:CQ:49:VAL:HB	49:CQ:87:ILE:CD1	2.42	0.49
62:DD:66:VAL:HG11	62:DD:80:ILE:HG23	1.93	0.49
64:DF:69:ILE:O	64:DF:72:ILE:HG22	2.11	0.49
66:DH:23:ILE:HG12	66:DH:115:VAL:HG22	1.94	0.49
68:DJ:111:MET:CE	68:DJ:116:ALA:HA	2.41	0.49
72:DN:20:PRO:HA	72:DN:31:PRO:HA	1.92	0.49
1:1:788:G:H2'	1:1:789:C:C6	2.47	0.49
1:1:843:A:H2'	1:1:844:A:C8	2.46	0.49
1:1:1165:A:H2'	1:1:1166:A:C8	2.48	0.49
5:k:84:MET:HG2	5:k:164:THR:HA	1.94	0.49
10:p:232:LYS:O	10:p:232:LYS:HD2	2.13	0.49
16:v:73:ARG:NH2	16:v:88:GLY:O	2.44	0.49
22:2:28:SER:O	22:2:32:LYS:HG3	2.12	0.49
45:B:483:A:C4	45:B:501:G:N2	2.80	0.49
45:B:1386:A:H4'	63:T:60:ARG:NH2	2.27	0.49
45:B:1659:G:H2'	45:B:1660:G:H8	1.75	0.49
50:G:115:SER:OG	50:G:117:GLU:OE1	2.30	0.49
50:G:160:VAL:HB	50:G:169:ILE:HD12	1.94	0.49
53:J:120:LYS:NZ	53:J:123:GLU:OE2	2.32	0.49
63:T:16:LEU:HD22	63:T:38:ILE:HG21	1.94	0.49
65:V:11:ALA:HA	65:V:63:ARG:HH12	1.77	0.49
70:a:117:LYS:C	70:a:118:ILE:HD12	2.37	0.49
1:AS:1422:C:H4'	6:AY:41:VAL:CG2	2.41	0.49
1:AS:2196:G:H2'	1:AS:2197:A:C8	2.47	0.49
1:AS:2557:G:N3	1:AS:2557:G:H2'	2.28	0.49
2:AT:19:C:H2'	2:AT:20:A:H8	1.76	0.49
5:AX:217:VAL:HG22	5:AX:280:HIS:CD2	2.47	0.49
8:BA:76:ARG:HG2	8:BA:77:ARG:H	1.77	0.49
11:BD:17:THR:O	11:BD:28:THR:OG1	2.31	0.49
11:BD:180:TYR:HB3	41:CH:13:TYR:HE2	1.77	0.49
16:BI:15:GLN:O	37:CD:51:PRO:HD3	2.12	0.49
19:BL:44:PHE:CD2	19:BL:134:GLY:HA3	2.47	0.49
28:BU:57:MET:HE1	28:BU:65:ARG:HD2	1.94	0.49
35:CB:103:ARG:HG2	35:CB:106:LYS:HE2	1.94	0.49
36:CC:62:GLN:O	36:CC:65:ASN:OD1	2.30	0.49
45:CM:282:G:N7	52:CT:188:ARG:NH2	2.56	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:721:C:H2'	45:CM:722:A:H5'	1.94	0.49
45:CM:1305:U:O2	45:CM:1307:A:H5'	2.12	0.49
45:CM:1369:G:O2'	45:CM:1370:A:H8	1.95	0.49
45:CM:1398:G:H4'	45:CM:1399:U:O5'	2.11	0.49
46:CN:53:THR:O	46:CN:57:ILE:HD12	2.12	0.49
46:CN:139:VAL:O	46:CN:139:VAL:HG12	2.11	0.49
57:CY:35:TYR:CD2	57:CY:49:ILE:HG12	2.47	0.49
59:DA:62:GLN:O	59:DA:65:VAL:HG12	2.12	0.49
61:DC:96:VAL:N	61:DC:103:ASN:O	2.30	0.49
64:DF:88:ARG:HH22	64:DF:109:LEU:HB2	1.77	0.49
68:DJ:87:GLU:OE1	68:DJ:87:GLU:N	2.39	0.49
79:CL:47:ASP:OD2	79:CL:51:ALA:HB2	2.12	0.49
1:1:239:A:C2	36:AI:94:LYS:HD3	2.47	0.49
1:1:292:U:OP2	16:v:68:ARG:NH2	2.42	0.49
1:1:429:U:H2'	1:1:430:G:C8	2.43	0.49
1:1:662:U:H5'	6:l:108:ARG:HA	1.94	0.49
1:1:1434:U:H4'	6:l:89:ALA:HB3	1.95	0.49
1:1:3093:U:H1'	1:1:3094:A:H5''	1.93	0.49
1:1:3179:U:C6	15:u:114:MET:HE2	2.47	0.49
1:1:3260:A:H2'	1:1:3261:A:H8	1.75	0.49
3:4:85:G:C8	3:4:85:G:H3'	2.47	0.49
4:j:77:ILE:CD1	4:j:128:ARG:HB3	2.43	0.49
5:k:293:ASN:HB2	5:k:304:THR:HA	1.94	0.49
11:q:57:VAL:HG23	11:q:68:LEU:HD13	1.94	0.49
14:t:132:ALA:HA	14:t:135:VAL:HG22	1.95	0.49
33:AF:98:ALA:O	33:AF:101:VAL:HG22	2.12	0.49
37:AJ:89:MET:O	37:AJ:92:VAL:HG22	2.11	0.49
45:B:540:A:OP1	76:g:28:LYS:NZ	2.44	0.49
58:O:89:ILE:O	58:O:91:VAL:N	2.44	0.49
62:S:58:LYS:HE2	62:S:92:HIS:NE2	2.27	0.49
68:Y:57:ARG:HH11	68:Y:57:ARG:CG	2.21	0.49
78:AR:90:LEU:O	78:AR:104:PHE:HD1	1.96	0.49
78:AR:92:LEU:HB2	78:AR:104:PHE:CE1	2.47	0.49
78:AR:112:LEU:HD11	78:AR:128:ARG:HG3	1.93	0.49
1:AS:15:A:P	26:BS:42:ARG:HG2	2.52	0.49
1:AS:357:A:O4'	6:AY:82:GLY:HA3	2.12	0.49
1:AS:358:G:N2	1:AS:361:A:OP2	2.43	0.49
1:AS:941:C:H2'	1:AS:942:U:C6	2.47	0.49
1:AS:1166:A:OP1	9:BB:215:ARG:HA	2.12	0.49
1:AS:1317:G:N2	21:BN:112:ALA:HB2	2.27	0.49
3:AU:37:A:OP2	36:CC:86:ARG:HD2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BF:30:LEU:HD13	13:BF:65:ILE:O	2.12	0.49
15:BH:101:ARG:HD3	15:BH:101:ARG:C	2.37	0.49
20:BM:90:PRO:O	20:BM:93:VAL:HG22	2.12	0.49
23:BP:19:VAL:C	23:BP:21:ALA:H	2.20	0.49
28:BU:10:VAL:O	28:BU:83:THR:OG1	2.23	0.49
39:CF:65:LEU:HA	39:CF:68:SER:OG	2.11	0.49
41:CH:3:GLU:O	41:CH:7:LYS:HG3	2.12	0.49
45:CM:302:U:H2'	45:CM:303:C:H6	1.77	0.49
45:CM:609:U:OP1	69:DK:19:ARG:NH1	2.43	0.49
45:CM:728:U:P	53:CU:104:LYS:H	2.35	0.49
45:CM:1463:G:H2'	45:CM:1464:G:C8	2.48	0.49
46:CN:175:TRP:CZ3	46:CN:199:PRO:HG3	2.47	0.49
47:CO:217:LEU:HD12	47:CO:220:GLN:HG2	1.95	0.49
50:CR:128:LYS:HE3	50:CR:130:GLN:HB3	1.94	0.49
54:CV:76:THR:HG21	54:CV:104:ILE:HD12	1.93	0.49
54:CV:87:ASN:HB3	54:CV:90:LEU:CD1	2.43	0.49
57:CY:91:LEU:HB3	57:CY:100:TYR:HB3	1.94	0.49
61:DC:94:VAL:HG21	61:DC:116:LEU:HD11	1.95	0.49
79:CL:63:ALA:HB1	79:CL:65:LYS:NZ	2.26	0.49
1:1:1552:C:O2'	10:p:55:GLU:OE1	2.29	0.49
1:1:2138:G:H2'	1:1:2139:G:C8	2.46	0.49
1:1:2367:C:O2'	1:1:3272:A:N1	2.45	0.49
1:1:2870:G:N7	41:AN:49:LYS:HE2	2.27	0.49
1:1:3336:G:H2'	1:1:3337:A:H8	1.76	0.49
13:s:10:ARG:O	13:s:133:ARG:HD3	2.12	0.49
28:AA:75:VAL:HG21	28:AA:80:LEU:HD21	1.93	0.49
45:B:291:U:H2'	45:B:292:C:H6	1.77	0.49
45:B:515:U:C2	45:B:516:A:C8	3.00	0.49
45:B:577:A:N1	49:F:180:GLN:OE1	2.46	0.49
48:E:104:GLY:HA2	48:E:134:ILE:HG12	1.93	0.49
48:E:173:ILE:HG21	48:E:180:LYS:HA	1.93	0.49
51:H:55:ASP:CB	51:H:138:VAL:HG21	2.42	0.49
51:H:65:ARG:HH22	51:H:86:GLN:HE22	1.61	0.49
57:N:22:ASN:HB3	57:N:25:ALA:HB3	1.94	0.49
72:c:44:MET:CE	72:c:65:PRO:HG2	2.41	0.49
1:AS:559:C:H2'	1:AS:560:C:C6	2.48	0.49
1:AS:628:A:H2	34:CA:92:LYS:HZ1	1.61	0.49
1:AS:648:C:H2'	1:AS:649:G:C8	2.47	0.49
1:AS:947:A:H5''	1:AS:1139:A:N1	2.28	0.49
1:AS:995:G:N3	1:AS:998:A:N6	2.60	0.49
1:AS:1456:A:H2'	1:AS:1457:A:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1617:A:H2'	1:AS:1618:U:C6	2.47	0.49
1:AS:1754:G:H2'	1:AS:1755:U:O4'	2.12	0.49
1:AS:2720:A:O2'	7:AZ:48:LYS:NZ	2.45	0.49
81:AS:3403:PAR:N21	81:AS:3403:PAR:O43	2.45	0.49
81:AS:3412:PAR:O31	12:BE:162:GLN:HB2	2.12	0.49
7:AZ:52:VAL:CG2	7:AZ:63:GLN:HB2	2.41	0.49
9:BB:130:PRO:HG2	9:BB:131:TYR:CE1	2.47	0.49
23:BP:80:LYS:O	23:BP:84:LYS:HG3	2.12	0.49
34:CA:65:ARG:CD	34:CA:66:VAL:H	2.25	0.49
45:CM:553:A:H2'	45:CM:554:A:C8	2.47	0.49
45:CM:673:A:C5	45:CM:674:C:C4	3.00	0.49
45:CM:846:U:O2'	68:DJ:56:HIS:O	2.23	0.49
45:CM:1067:C:H4'	67:DI:58:TYR:CE1	2.47	0.49
45:CM:1315:G:H2'	45:CM:1316:A:C8	2.47	0.49
45:CM:1668:A:H2'	45:CM:1669:U:H5'	1.94	0.49
45:CM:1785:U:C4	72:DN:98:PRO:HG2	2.48	0.49
46:CN:122:VAL:HG23	46:CN:174:TRP:HH2	1.76	0.49
47:CO:144:LYS:HB3	47:CO:206:PRO:HB2	1.94	0.49
51:CS:125:THR:C	51:CS:126:GLU:HG2	2.38	0.49
55:CW:93:LEU:O	55:CW:93:LEU:HD23	2.13	0.49
56:CX:3:ILE:HB	56:CX:8:ARG:CG	2.42	0.49
61:DC:43:ARG:HG3	61:DC:43:ARG:NH1	2.27	0.49
1:1:1303:G:H5'	17:w:61:LYS:HE3	1.94	0.49
1:1:3193:C:H4'	1:1:3194:G:O5'	2.11	0.49
1:1:3313:G:H1	1:1:3322:U:H3	1.59	0.49
9:o:115:VAL:HG11	9:o:125:ILE:HD11	1.94	0.49
10:p:66:LEU:O	10:p:70:LEU:HD12	2.13	0.49
10:p:114:ALA:HA	10:p:117:ILE:HG22	1.94	0.49
24:6:80:ARG:HD2	24:6:97:ASP:OD1	2.13	0.49
29:AB:104:THR:OG1	29:AB:126:LYS:O	2.30	0.49
45:B:265:U:H2'	45:B:266:C:H6	1.76	0.49
45:B:575:G:N1	79:i:95:GLY:O	2.45	0.49
45:B:721:C:H2'	45:B:722:A:C8	2.48	0.49
45:B:1529:G:H5''	65:V:87:GLY:C	2.38	0.49
46:C:147:THR:O	46:C:161:PRO:HA	2.12	0.49
47:D:29:TRP:CZ2	47:D:47:LEU:HD23	2.48	0.49
49:F:117:ARG:HB3	79:i:117:GLY:HA3	1.94	0.49
50:G:148:ARG:NH2	52:I:201:GLN:OE1	2.44	0.49
51:H:113:ILE:HD13	51:H:190:ILE:HG21	1.94	0.49
64:U:127:HIS:CE1	64:U:133:VAL:HG11	2.47	0.49
76:g:40:TYR:HD1	76:g:44:PHE:CD1	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:AR:13:LEU:O	78:AR:13:LEU:HD12	2.12	0.49
1:AS:1807:G:H2'	1:AS:1808:G:O4'	2.12	0.49
6:AY:182:VAL:HG21	6:AY:225:GLY:HA3	1.93	0.49
6:AY:251:TRP:CZ3	6:AY:259:LEU:HD11	2.47	0.49
10:BC:99:ARG:HG3	10:BC:99:ARG:HH11	1.76	0.49
10:BC:230:ASN:N	10:BC:230:ASN:OD1	2.45	0.49
13:BF:100:GLY:O	13:BF:159:THR:HG21	2.11	0.49
19:BL:23:ASN:HD21	19:BL:25:TYR:HB2	1.78	0.49
21:BN:131:LYS:HD2	21:BN:134:ASP:OD2	2.13	0.49
26:BS:59:ALA:HB1	26:BS:102:LEU:CD1	2.42	0.49
27:BT:21:THR:HG22	27:BT:21:THR:O	2.13	0.49
36:CC:63:ARG:NH2	36:CC:79:ASP:HB2	2.28	0.49
45:CM:511:U:H4'	55:CW:131:GLN:HB3	1.93	0.49
45:CM:701:G:N2	45:CM:721:C:C2	2.80	0.49
45:CM:1678:G:H3'	45:CM:1679:A:C8	2.48	0.49
51:CS:128:ASN:OD1	51:CS:130:ILE:HG12	2.12	0.49
51:CS:169:ASN:HA	51:CS:172:ILE:HG22	1.95	0.49
52:CT:144:PHE:HD2	52:CT:145:PHE:CD1	2.31	0.49
58:CZ:137:LEU:HA	58:CZ:140:PHE:CE1	2.48	0.49
67:DI:58:TYR:OH	68:DJ:20:THR:HA	2.13	0.49
1:1:972:U:H2'	1:1:973:C:O4'	2.12	0.49
1:1:1562:G:C4	1:1:1563:A:H1'	2.48	0.49
2:3:9:C:OP1	22:2:26:PRO:HB2	2.13	0.49
5:k:373:PRO:O	5:k:377[B]:HIS:ND1	2.35	0.49
7:m:236:VAL:O	7:m:239:ILE:HG13	2.13	0.49
13:s:162:TRP:CZ2	13:s:166:ARG:HD2	2.47	0.49
14:t:138:PHE:HE1	36:AI:120:ALA:HB2	1.77	0.49
31:AD:75:GLY:H	31:AD:78:GLU:CD	2.20	0.49
45:B:681:C:H3'	45:B:682:A:C8	2.47	0.49
45:B:1615:U:H2'	45:B:1616:G:C8	2.47	0.49
47:D:133:TYR:HD1	47:D:217:LEU:HD11	1.76	0.49
48:E:30:TRP:HZ3	48:E:66:LEU:HD11	1.76	0.49
48:E:111:LYS:CE	48:E:112:THR:H	2.26	0.49
49:F:158:MET:SD	49:F:188:LYS:HD2	2.53	0.49
55:L:56:ALA:HB3	55:L:97:LEU:HD21	1.94	0.49
62:S:38:VAL:HG12	62:S:40:PRO:HD2	1.94	0.49
62:S:49:GLU:O	62:S:53:LEU:HD13	2.13	0.49
62:S:54:VAL:HG12	62:S:107:ILE:HG21	1.95	0.49
64:U:92:GLN:HG2	64:U:115:ARG:HH12	1.78	0.49
66:W:37:SER:O	66:W:41:ILE:HG23	2.12	0.49
76:g:13:LYS:O	76:g:17:GLN:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:AR:44:LYS:HD2	78:AR:95:LEU:HD12	1.93	0.49
78:AR:149:ASN:OD1	78:AR:149:ASN:N	2.44	0.49
1:AS:135:G:H5'	36:CC:95:PHE:CD2	2.48	0.49
1:AS:411:U:H2'	1:AS:412:G:C8	2.48	0.49
1:AS:437:G:O2'	1:AS:438:A:OP1	2.28	0.49
1:AS:631:U:H2'	1:AS:632:C:C6	2.48	0.49
1:AS:1124:U:OP1	12:BE:4:ARG:NH1	2.39	0.49
1:AS:1456:A:H2'	1:AS:1457:A:H8	1.78	0.49
1:AS:1678:U:C4	23:BP:88:LYS:HG3	2.47	0.49
1:AS:2117:A:C4	38:CE:3:LYS:HE2	2.48	0.49
1:AS:2345:A:H2'	1:AS:2346:A:H8	1.77	0.49
3:AU:49:G:OP1	36:CC:45:HIS:HB2	2.12	0.49
8:BA:58:GLU:OE2	8:BA:102:VAL:HG23	2.12	0.49
10:BC:140:VAL:O	10:BC:143:LEU:HD12	2.12	0.49
12:BE:150:GLU:O	12:BE:154:ARG:HG3	2.13	0.49
12:BE:180:GLU:O	12:BE:184:LYS:HD3	2.13	0.49
21:BN:6:GLU:CD	21:BN:99:ARG:NH1	2.70	0.49
22:BO:45:ASN:OD1	22:BO:47:SER:OG	2.24	0.49
33:BZ:14:TYR:CD2	33:BZ:18:PHE:CE2	2.98	0.49
43:CJ:40:LYS:HD3	43:CJ:44:ASP:OD1	2.12	0.49
44:CK:37:TYR:HB2	44:CK:47:VAL:HG22	1.94	0.49
45:CM:535:G:C4	55:CW:171:ARG:NH1	2.81	0.49
45:CM:824:U:OP1	57:CY:27:ALA:HB1	2.11	0.49
47:CO:70:LEU:HD23	47:CO:84:ILE:HD11	1.94	0.49
64:DF:11:PHE:HZ	64:DF:25:ARG:HG2	1.77	0.49
69:DK:90:ASP:OD2	76:DR:14:VAL:HG22	2.12	0.49
70:DL:128:ARG:HE	70:DL:131:ARG:NH2	2.10	0.49
1:1:437:G:O2'	1:1:438:A:OP1	2.31	0.49
1:1:583:A:H2'	1:1:584:C:C6	2.47	0.49
1:1:1562:G:C2	1:1:1563:A:H1'	2.48	0.49
1:1:2130:A:H2'	1:1:2131:U:C6	2.46	0.49
1:1:2933:G:H2'	1:1:2934:U:C6	2.48	0.49
1:1:2942:C:H4'	1:1:2943:A:C6	2.48	0.49
1:1:2988:A:H2'	1:1:2989:A:C8	2.45	0.49
4:j:180:LEU:HD22	44:AQ:18:TYR:HB3	1.93	0.49
7:m:6:GLU:OE1	7:m:7:PHE:N	2.45	0.49
7:m:212:LEU:CB	7:m:219:TYR:HD2	2.22	0.49
24:6:10:LYS:NZ	24:6:54:ALA:O	2.46	0.49
33:AF:10:ILE:HG12	33:AF:64:THR:HB	1.95	0.49
36:AI:31:LEU:HD11	36:AI:43:ARG:HG2	1.95	0.49
45:B:441:C:OP2	70:a:105:ARG:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:485:G:C2	45:B:486:G:C8	3.01	0.49
45:B:1277:G:H2'	45:B:1278:U:C6	2.48	0.49
45:B:1573:A:H2'	45:B:1574:A:O4'	2.12	0.49
45:B:1610:C:H2'	45:B:1611:C:H6	1.77	0.49
46:C:53:THR:HG23	46:C:161:PRO:O	2.13	0.49
58:O:132:GLU:C	58:O:134:ASN:H	2.20	0.49
62:S:54:VAL:HG11	62:S:104:LEU:HD23	1.93	0.49
63:T:41:ILE:HD13	63:T:47:ARG:HA	1.93	0.49
66:W:40:ILE:HD11	66:W:90:ILE:HD13	1.95	0.49
70:a:87:PRO:HD2	70:a:90:ARG:NE	2.28	0.49
72:c:44:MET:HE1	72:c:65:PRO:HG2	1.94	0.49
1:AS:1309:G:O2'	1:AS:1314:A:N1	2.44	0.49
1:AS:1336:G:H4'	33:BZ:56:ILE:CD1	2.42	0.49
1:AS:2650:A:C6	1:AS:2651:A:C6	3.01	0.49
1:AS:2961:U:O2'	5:AX:232:ARG:NH1	2.44	0.49
10:BC:48:SER:O	10:BC:51:VAL:HG22	2.12	0.49
16:BI:19:MET:HA	16:BI:19:MET:HE3	1.94	0.49
39:CF:39:LYS:O	39:CF:39:LYS:HD2	2.13	0.49
45:CM:338:U:H2'	45:CM:339:A:H8	1.77	0.49
45:CM:1147:C:O4'	74:DP:22:ARG:HD2	2.12	0.49
46:CN:53:THR:OG1	46:CN:161:PRO:HG2	2.12	0.49
52:CT:232:GLU:CD	52:CT:232:GLU:N	2.71	0.49
56:CX:16:PHE:HD1	56:CX:17:GLN:N	2.07	0.49
61:DC:62:ALA:O	61:DC:66:ALA:N	2.45	0.49
66:DH:67:ARG:HG2	66:DH:78:TRP:CH2	2.48	0.49
79:i:155:LEU:O	79:i:157:GLU:N	2.43	0.49
79:CL:110:SER:OG	79:CL:112:LYS:HG2	2.12	0.49
1:1:964:G:H2'	1:1:965:C:C6	2.48	0.49
1:1:1265:U:H5'	1:1:1266:A:OP2	2.12	0.49
1:1:1303:G:H4'	1:1:1304:A:O5'	2.12	0.49
1:1:1683:U:O4	23:5:45:GLY:N	2.44	0.49
1:1:2407:G:H2'	1:1:2408:A:C8	2.48	0.49
11:q:36:LYS:HE2	11:q:74:LEU:HD13	1.95	0.49
23:5:19:VAL:HB	23:5:108:LEU:HD22	1.93	0.49
28:AA:27:LYS:HB3	28:AA:29:HIS:HE1	1.78	0.49
45:B:122:U:C2'	45:B:123:G:H5''	2.43	0.49
45:B:1219:A:OP2	45:B:1230:G:O2'	2.27	0.49
45:B:1226:G:H4'	61:R:78:THR:HA	1.95	0.49
45:B:1279:G:O2'	45:B:1306:A:N1	2.41	0.49
45:B:1520:C:OP1	64:U:27:LYS:HE3	2.13	0.49
45:B:1774:C:H2'	45:B:1775:G:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C:121:VAL:HG23	46:C:141:ILE:CG2	2.37	0.49
48:E:176:SER:OG	48:E:179:VAL:HG12	2.12	0.49
53:J:75:ARG:O	53:J:78:GLU:HG3	2.13	0.49
59:P:40:TYR:HB3	59:P:45:LEU:HD12	1.95	0.49
68:Y:7:LEU:CD2	68:Y:126:LEU:HD21	2.42	0.49
77:h:160:ARG:HH11	77:h:160:ARG:HA	1.77	0.49
1:AS:671:U:H2'	1:AS:672:G:C8	2.48	0.49
1:AS:1842:C:OP1	1:AS:1845:C:N4	2.43	0.49
1:AS:2533:G:H4'	35:CB:88:ARG:HG3	1.95	0.49
1:AS:2978:A:H2'	1:AS:2979:U:O4'	2.13	0.49
7:AZ:136:GLU:H	7:AZ:136:GLU:CD	2.20	0.49
11:BD:89:LYS:O	11:BD:182:SER:N	2.38	0.49
16:BI:11:GLN:OE1	16:BI:44:ARG:NE	2.45	0.49
41:CH:8:ALA:O	41:CH:12:LYS:HD3	2.12	0.49
42:CI:6:ARG:NH2	45:CM:1099:G:OP2	2.46	0.49
45:CM:1305:U:H3'	46:CN:101:ARG:NH2	2.28	0.49
46:CN:126:PRO:HD2	46:CN:151:SER:OG	2.13	0.49
47:CO:26:ARG:HA	47:CO:50:ARG:NH1	2.28	0.49
47:CO:125:VAL:HG21	47:CO:169:ILE:HB	1.94	0.49
51:CS:63:GLN:CD	51:CS:63:GLN:C	2.81	0.49
58:CZ:103:LEU:CD2	58:CZ:115:VAL:HG13	2.42	0.49
59:DA:142:GLU:HB2	59:DA:145:THR:CG2	2.43	0.49
64:DF:42:TYR:HD1	64:DF:85:PHE:HE2	1.59	0.49
64:DF:129:TRP:HZ2	79:CL:67:LYS:HG2	1.78	0.49
79:i:37:LYS:HD2	79:i:38:LYS:N	2.28	0.49
1:1:1130:G:O2'	1:1:2614:A:N3	2.32	0.49
1:1:1429:A:H4'	33:AF:28:ARG:HD2	1.94	0.49
1:1:1593:C:H2'	1:1:1594:G:H8	1.78	0.49
1:1:2853:C:H2'	1:1:2854:U:C6	2.47	0.49
18:x:29:THR:HA	18:x:32:THR:HG22	1.94	0.49
24:6:125:LEU:HD22	24:6:126:TRP:CE2	2.47	0.49
25:7:38:SER:O	25:7:42:GLN:HG3	2.12	0.49
25:7:60:LYS:HD3	25:7:60:LYS:C	2.38	0.49
25:7:87:LEU:HD13	25:7:90:ILE:HD12	1.94	0.49
31:AD:78:GLU:CD	31:AD:78:GLU:H	2.20	0.49
45:B:673:A:C6	45:B:674:C:C2	3.01	0.49
46:C:43:ASP:OD1	46:C:44:GLY:N	2.45	0.49
46:C:89:PHE:O	46:C:93:THR:HG23	2.13	0.49
53:J:121:ILE:O	53:J:125:LEU:HG	2.13	0.49
55:L:105:LEU:O	55:L:111:THR:HG21	2.12	0.49
60:Q:55:ALA:HB1	60:Q:96:ALA:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:S:8:THR:HG22	62:S:19:ALA:HB3	1.95	0.49
63:T:71:PHE:CZ	63:T:74:GLN:HB2	2.48	0.49
1:AS:445:A:H2'	1:AS:446:U:C6	2.48	0.49
1:AS:1115:C:H2'	1:AS:1116:A:C8	2.45	0.49
1:AS:1692:A:H2'	1:AS:1693:A:H8	1.78	0.49
1:AS:2183:U:O4	1:AS:2216:G:N1	2.46	0.49
1:AS:2980:A:H1'	17:BJ:68:LYS:HE3	1.95	0.49
1:AS:3260:A:H2'	1:AS:3261:A:H8	1.77	0.49
2:AT:3:U:H2'	2:AT:4:U:H6	1.77	0.49
24:BQ:125:LEU:O	24:BQ:125:LEU:HD23	2.13	0.49
45:CM:634:A:H5''	68:DJ:31:SER:HB2	1.95	0.49
45:CM:1276:G:N2	45:CM:1309:G:H22	2.10	0.49
50:CR:36:HIS:CG	50:CR:85:GLY:HA3	2.48	0.49
50:CR:194:VAL:HG11	50:CR:232:ALA:HB2	1.93	0.49
51:CS:200:ASN:HB2	51:CS:208:SER:CB	2.37	0.49
54:CV:39:GLY:O	54:CV:61:GLU:HG3	2.11	0.49
56:CX:35:ILE:HG22	56:CX:37:THR:HG22	1.95	0.49
65:DG:77:ASN:HB3	65:DG:95:ASP:HB3	1.95	0.49
1:1:386:A:C5	1:1:387:A:H1'	2.48	0.49
1:1:696:U:H2'	1:1:697:A:O4'	2.12	0.49
1:1:2520:A:H1'	1:1:2521:C:C5	2.48	0.49
13:s:40:LEU:HD23	13:s:125:MET:HE1	1.93	0.49
14:t:9:LEU:HB3	29:AB:34:LYS:HE2	1.94	0.49
45:B:1396:A:O2'	45:B:1397:A:OP1	2.29	0.49
45:B:1749:A:H1'	45:B:1770:C:H5'	1.94	0.49
46:C:10:THR:CG2	46:C:191:ARG:NH2	2.76	0.49
46:C:84:ARG:CZ	63:T:82:ASP:OD1	2.61	0.49
49:F:97:LEU:CD2	49:F:132:ALA:HB2	2.43	0.49
50:G:86:PHE:HZ	50:G:182:MET:HE3	1.78	0.49
50:G:181:VAL:HG12	50:G:227:VAL:HA	1.95	0.49
53:J:34:LEU:HD12	53:J:34:LEU:H	1.76	0.49
53:J:149:LEU:HA	53:J:180:GLU:O	2.12	0.49
59:P:102:LEU:HD11	59:P:112:LYS:HA	1.95	0.49
62:S:19:ALA:HA	62:S:66:VAL:HG12	1.93	0.49
64:U:44:ASN:OD1	64:U:48:LYS:HE2	2.13	0.49
66:W:107:ILE:HD12	66:W:107:ILE:C	2.38	0.49
68:Y:41:MET:HG2	68:Y:129:VAL:HG21	1.95	0.49
1:AS:269:G:H5'	16:BI:120:TRP:CE3	2.48	0.49
1:AS:1058:A:O2'	22:BO:108:ARG:NH2	2.45	0.49
1:AS:1489:G:N2	1:AS:1489:G:OP2	2.46	0.49
2:AT:27:A:H2'	2:AT:28:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BF:81:GLU:HA	13:BF:84:LEU:CD1	2.42	0.49
32:BY:58:ILE:HG13	32:BY:59:TRP:CD1	2.47	0.49
44:CK:49:ARG:HB2	44:CK:55:TRP:CZ3	2.48	0.49
45:CM:1143:C:N4	45:CM:1148:A:H61	2.11	0.49
45:CM:1238:U:H2'	45:CM:1239:U:C6	2.48	0.49
45:CM:1544:U:H5'	61:DC:115:TYR:CD2	2.48	0.49
47:CO:70:LEU:CB	47:CO:84:ILE:HD11	2.43	0.49
53:CU:109:PRO:HG2	53:CU:112:ARG:HD3	1.94	0.49
56:CX:49:LEU:HB3	56:CX:55:VAL:HG23	1.94	0.49
1:1:200:A:H2'	1:1:201:G:C8	2.48	0.48
1:1:2855:U:H2'	1:1:2856:C:H6	1.77	0.48
27:9:11:SER:HB3	27:9:14:LYS:HB2	1.94	0.48
35:AH:82:ALA:O	35:AH:85:VAL:HG22	2.13	0.48
45:B:1644:U:O5'	45:B:1645:G:H5''	2.13	0.48
46:C:48:ILE:HD11	46:C:149:MET:SD	2.53	0.48
46:C:52:LYS:HB3	67:X:82:VAL:HG23	1.94	0.48
48:E:78:ILE:HD12	48:E:78:ILE:O	2.13	0.48
50:G:247:LEU:HD13	50:G:255:ARG:HE	1.77	0.48
58:O:103:LEU:HD21	58:O:116:VAL:H	1.77	0.48
68:Y:27:ILE:HB	68:Y:61:ILE:HB	1.95	0.48
72:c:33:ASP:OD1	72:c:33:ASP:N	2.45	0.48
1:AS:169:G:C6	1:AS:249:G:H1'	2.48	0.48
1:AS:582:G:H2'	1:AS:583:A:H8	1.78	0.48
1:AS:1302:G:C5	17:BJ:63:THR:HA	2.48	0.48
1:AS:1743:G:H5''	39:CF:42:LYS:HE2	1.95	0.48
1:AS:2959:A:H2'	1:AS:2960:C:H6	1.78	0.48
1:AS:3098:C:H1'	11:BD:156:GLN:HE22	1.77	0.48
1:AS:3110:U:OP2	5:AX:30:LYS:HG3	2.12	0.48
1:AS:3316:U:H4'	54:CV:124:LYS:NZ	2.28	0.48
5:AX:95:THR:OG1	5:AX:98:GLY:O	2.25	0.48
9:BB:192:ASN:O	9:BB:196:VAL:HG23	2.13	0.48
12:BE:96:VAL:HG22	12:BE:125:LEU:HD21	1.95	0.48
22:BO:119:ALA:HB1	22:BO:124:GLU:O	2.13	0.48
23:BP:88:LYS:HD2	23:BP:88:LYS:HA	1.62	0.48
26:BS:68:ALA:HA	26:BS:73:MET:CE	2.43	0.48
35:CB:104:VAL:CG2	35:CB:105:LEU:HD12	2.42	0.48
45:CM:953:U:H2'	45:CM:954:C:O4'	2.12	0.48
45:CM:1092:G:O2'	45:CM:1093:G:H5'	2.13	0.48
45:CM:1187:A:H1'	45:CM:1192:C:N4	2.28	0.48
47:CO:32:ILE:HG13	47:CO:43:VAL:HB	1.94	0.48
49:CQ:118:ARG:NH1	79:CL:124:ASP:OD2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CT:61:PHE:CE2	52:CT:96:SER:HB2	2.49	0.48
70:DL:29:HIS:ND1	70:DL:29:HIS:O	2.44	0.48
1:1:169:G:N1	1:1:249:G:H1'	2.28	0.48
1:1:664:A:OP2	81:1:3415:PAR:N24	2.35	0.48
1:1:777:G:OP1	19:y:151:ARG:HD2	2.14	0.48
1:1:1029:U:O2'	1:1:1030:U:OP1	2.28	0.48
1:1:2236:U:C2	1:1:2237:A:C8	3.01	0.48
1:1:2260:U:O2	1:1:2288:U:H4'	2.13	0.48
6:l:100:MET:SD	6:l:103:PRO:HA	2.52	0.48
23:5:23:VAL:HG11	23:5:62:ASN:OD1	2.13	0.48
45:B:233:G:H2'	45:B:234:G:C8	2.47	0.48
45:B:740:A:O2'	45:B:741:A:OP1	2.29	0.48
45:B:821:U:H2'	45:B:822:G:H8	1.77	0.48
45:B:1417:C:O2'	45:B:1423:U:O4	2.16	0.48
45:B:1716:C:H2'	45:B:1717:A:O4'	2.13	0.48
46:C:36:TYR:CD2	46:C:36:TYR:N	2.80	0.48
49:F:178:MET:HE2	49:F:180:GLN:HE22	1.78	0.48
51:H:40:VAL:HG13	51:H:67:PRO:HB2	1.95	0.48
51:H:91:GLU:HA	51:H:94:THR:HG22	1.95	0.48
64:U:91:ASP:OD1	64:U:92:GLN:N	2.46	0.48
68:Y:40:VAL:HG11	68:Y:103:ILE:HD12	1.95	0.48
1:AS:46:C:OP2	1:AS:47:A:O2'	2.24	0.48
1:AS:1439:G:H2'	1:AS:1440:G:C8	2.48	0.48
1:AS:2186:A:O2'	1:AS:2187:U:H5'	2.12	0.48
1:AS:2196:G:OP2	37:CD:67:ARG:NH1	2.46	0.48
1:AS:3259:A:H2'	1:AS:3260:A:O4'	2.13	0.48
5:AX:369:ARG:CZ	25:BR:11:SER:HB3	2.43	0.48
7:AZ:64:ILE:HG23	7:AZ:76:THR:H	1.78	0.48
18:BK:10:ASN:OD1	18:BK:10:ASN:N	2.46	0.48
26:BS:62:ILE:HD13	26:BS:94:GLN:HB3	1.95	0.48
26:BS:132:ALA:HA	26:BS:135:ILE:HD12	1.95	0.48
27:BT:32:SER:HA	27:BT:49:PRO:HA	1.95	0.48
27:BT:53:ASN:HB2	27:BT:110:HIS:CG	2.47	0.48
29:BV:138:ILE:O	29:BV:141:VAL:HG22	2.13	0.48
32:BY:97:VAL:CG1	32:BY:98:PRO:HD2	2.43	0.48
45:CM:150:U:O2'	52:CT:15:SER:HB2	2.13	0.48
51:CS:109:LYS:HE2	51:CS:109:LYS:HB3	1.55	0.48
64:DF:87:ASN:HB2	64:DF:99:HIS:CG	2.48	0.48
1:1:1302:G:O6	1:1:2344:C:O2'	2.32	0.48
1:1:1617:A:H2'	1:1:1618:U:H6	1.78	0.48
1:1:2335:A:H2'	1:1:2336:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2832:U:O2	1:1:2910:G:H4'	2.13	0.48
13:s:155:ASN:C	13:s:155:ASN:OD1	2.55	0.48
17:w:190:GLU:O	17:w:194:LYS:HG3	2.13	0.48
36:AI:118:ILE:HG22	36:AI:119:LYS:N	2.28	0.48
45:B:154:A:H2'	45:B:155:A:O4'	2.13	0.48
45:B:472:A:H5''	55:L:144:PRO:HD2	1.95	0.48
45:B:558:U:H2'	45:B:559:G:C8	2.48	0.48
45:B:638:U:O2	53:J:175:LYS:HE2	2.12	0.48
45:B:885:A:H2'	45:B:886:G:C8	2.48	0.48
45:B:932:U:H2'	45:B:933:A:C8	2.48	0.48
45:B:1214:G:H3'	77:h:139:LYS:HE3	1.96	0.48
45:B:1588:G:N2	65:V:88:PHE:HB3	2.28	0.48
48:E:157:CYS:SG	48:E:204:ASN:ND2	2.87	0.48
52:I:58:LYS:HG3	52:I:105:ASP:O	2.14	0.48
62:S:49:GLU:OE1	62:S:81:ARG:NH2	2.42	0.48
63:T:72:LYS:HD3	63:T:72:LYS:HA	1.52	0.48
66:W:22:ARG:HD2	66:W:89:VAL:HB	1.95	0.48
73:d:34:ASP:CG	73:d:82:LYS:NZ	2.72	0.48
78:AR:211:ALA:HB2	78:AR:217:ILE:HG12	1.95	0.48
1:AS:1191:A:H62	81:AS:3407:PAR:H642	1.78	0.48
1:AS:1610:C:OP1	39:CF:50:TYR:OH	2.29	0.48
1:AS:3153:A:H2	1:AS:3158:G:H4'	1.78	0.48
4:AW:107:CYS:O	4:AW:139:HIS:NE2	2.45	0.48
26:BS:115:ARG:NE	26:BS:119:THR:OG1	2.46	0.48
36:CC:118:ILE:HG22	36:CC:119:LYS:N	2.29	0.48
45:CM:217:A:O5'	45:CM:217:A:C8	2.66	0.48
45:CM:872:A:H2'	45:CM:873:U:H6	1.78	0.48
45:CM:1160:U:H2'	45:CM:1161:G:H8	1.79	0.48
45:CM:1519:U:P	71:DM:77:ARG:NH1	2.86	0.48
45:CM:1580:A:H2'	45:CM:1581:G:H8	1.78	0.48
45:CM:1581:G:H2'	45:CM:1582:U:O4'	2.14	0.48
46:CN:3:LEU:HD12	46:CN:3:LEU:HA	1.65	0.48
46:CN:27:LYS:NZ	46:CN:44:GLY:HA3	2.28	0.48
46:CN:63:ILE:HG13	67:DI:36:ILE:HG22	1.95	0.48
50:CR:233:GLY:O	50:CR:234:LYS:HD3	2.13	0.48
56:CX:16:PHE:CE2	56:CX:82:ILE:HD11	2.47	0.48
58:CZ:28:LEU:HB2	58:CZ:100:TRP:CZ3	2.48	0.48
59:DA:5:HIS:CE1	59:DA:121:ARG:HB2	2.48	0.48
62:DD:53:LEU:HD11	62:DD:111:TYR:CD2	2.49	0.48
79:CL:82:LYS:CG	79:CL:83:HIS:H	2.27	0.48
1:1:831:G:HO2'	1:1:853:G:H22	1.58	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1116:A:H2'	1:1:1117:U:H6	1.78	0.48
1:1:1907:A:OP1	81:1:3426:PAR:H13	2.14	0.48
1:1:2826:U:P	12:r:3:ARG:HH22	2.37	0.48
1:1:3060:G:OP1	5:k:313:ARG:NH1	2.45	0.48
3:4:142:C:H2'	3:4:143:U:C6	2.47	0.48
16:v:118:SER:HB3	16:v:132:VAL:HG12	1.96	0.48
39:AL:11:PHE:CD2	39:AL:54:LEU:HD22	2.48	0.48
45:B:891:A:P	60:Q:46:ASP:HB2	2.54	0.48
45:B:989:U:H3'	45:B:990:A:H5''	1.94	0.48
45:B:1149:G:H2'	45:B:1150:G:C8	2.49	0.48
45:B:1393:U:H2'	45:B:1394:G:C8	2.49	0.48
61:R:96:VAL:HG23	61:R:120:SER:HB3	1.94	0.48
67:X:58:TYR:OH	68:Y:20:THR:HA	2.13	0.48
68:Y:24:GLN:HA	68:Y:63:VAL:O	2.14	0.48
76:g:24:GLN:CD	76:g:24:GLN:N	2.63	0.48
78:AR:21:THR:HG22	78:AR:37:SER:HA	1.95	0.48
1:AS:148:U:P	16:BI:49:ARG:HH22	2.36	0.48
1:AS:185:U:OP1	27:BT:122:LYS:NZ	2.22	0.48
1:AS:546:C:H2'	1:AS:547:U:O4'	2.13	0.48
1:AS:1303:G:H4'	1:AS:1304:A:O5'	2.14	0.48
1:AS:2151:U:O4	81:AS:3403:PAR:H44	2.14	0.48
1:AS:2408:A:H2'	1:AS:2409:C:C6	2.48	0.48
1:AS:3336:G:H2'	1:AS:3337:A:C8	2.49	0.48
11:BD:157:ASN:O	11:BD:161:ILE:HG13	2.13	0.48
21:BN:73:LYS:HB3	21:BN:128:GLU:HG3	1.95	0.48
35:CB:102:LYS:O	35:CB:106:LYS:HG2	2.13	0.48
37:CD:56:LEU:HA	37:CD:56:LEU:HD12	1.69	0.48
45:CM:1672:G:H2'	45:CM:1673:U:H6	1.77	0.48
61:DC:43:ARG:NH2	61:DC:47:ARG:HD2	2.29	0.48
68:DJ:14:ILE:HD11	68:DJ:27:ILE:HD11	1.95	0.48
79:CL:42:ALA:O	79:CL:43:PRO:C	2.55	0.48
1:1:907:C:H42	4:j:3:ARG:HD3	1.79	0.48
1:1:1434:U:H2'	1:1:1435:U:C6	2.48	0.48
1:1:2196:G:OP1	37:AJ:67:ARG:NH1	2.47	0.48
5:k:81:THR:O	5:k:81:THR:OG1	2.26	0.48
8:n:38:VAL:HG11	8:n:88:THR:HB	1.95	0.48
10:p:92:PHE:CE1	10:p:186:ARG:HG2	2.48	0.48
14:t:99:HIS:CE1	14:t:100:ARG:HG3	2.48	0.48
16:v:44:ARG:CZ	16:v:47:LYS:HG3	2.44	0.48
20:z:24:LEU:HD22	20:z:50:ILE:HG12	1.95	0.48
24:6:12:ARG:HH11	24:6:12:ARG:HG3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:9:59:VAL:C	27:9:64:LYS:HG3	2.38	0.48
45:B:30:G:H2'	45:B:31:C:C6	2.48	0.48
45:B:583:A:H2'	45:B:584:G:C8	2.48	0.48
45:B:960:C:H5''	59:P:109:LYS:HD3	1.95	0.48
45:B:1637:U:H2'	45:B:1638:A:C8	2.48	0.48
46:C:134:LYS:O	46:C:137:SER:OG	2.28	0.48
46:C:179:ARG:O	46:C:183:ARG:HG3	2.13	0.48
46:C:205:ARG:HD2	46:C:205:ARG:O	2.14	0.48
48:E:134:ILE:HD13	48:E:186:ALA:HB1	1.95	0.48
54:K:190:LEU:HA	54:K:190:LEU:HD23	1.68	0.48
56:M:3:ILE:HG12	56:M:41:PHE:HD1	1.76	0.48
58:O:60:CYS:HB3	58:O:122:VAL:HG22	1.95	0.48
61:R:64:ARG:HG2	61:R:73:PRO:HB3	1.95	0.48
65:V:131:ASP:CA	65:V:134:ARG:HE	2.22	0.48
72:c:44:MET:HB2	72:c:67:LEU:HG	1.95	0.48
1:AS:619:A:H2'	1:AS:620:A:N7	2.28	0.48
1:AS:3216:U:H2'	1:AS:3217:G:C8	2.48	0.48
2:AT:4:U:H2'	2:AT:5:G:C8	2.47	0.48
2:AT:47:C:OP2	7:AZ:158:ARG:HD3	2.13	0.48
6:AY:107:TRP:CZ3	14:BG:22:VAL:HG11	2.48	0.48
9:BB:64:LYS:HD3	9:BB:74:TYR:HB3	1.96	0.48
12:BE:86:HIS:ND1	12:BE:139:ARG:HD3	2.28	0.48
19:BL:98:LYS:HG3	19:BL:118:GLY:O	2.13	0.48
24:BQ:96:GLU:HB2	25:BR:23:ARG:HA	1.95	0.48
39:CF:8:ILE:HD13	39:CF:65:LEU:HD11	1.93	0.48
45:CM:159:U:OP2	52:CT:87:ARG:NH2	2.39	0.48
45:CM:331:A:H2'	45:CM:332:G:C8	2.49	0.48
45:CM:1515:U:H2'	45:CM:1516:C:C6	2.48	0.48
59:DA:18:TYR:CE2	68:DJ:56:HIS:CE1	3.01	0.48
59:DA:34:VAL:O	59:DA:37:ILE:HG12	2.12	0.48
63:DE:37:GLU:OE1	63:DE:37:GLU:N	2.45	0.48
71:DM:54:VAL:N	71:DM:55:PRO:HD2	2.29	0.48
1:1:538:G:O2'	1:1:539:G:OP1	2.29	0.48
1:1:3132:U:H2'	1:1:3133:G:C8	2.49	0.48
1:1:3175:A:OP1	15:u:102:ARG:NH1	2.47	0.48
81:1:3419:PAR:H32	81:1:3419:PAR:H11	1.66	0.48
28:AA:18:TYR:CE2	28:AA:73:LYS:HD3	2.49	0.48
32:AE:84:ALA:C	32:AE:86:GLU:H	2.21	0.48
38:AK:8:LEU:HD23	38:AK:11:ARG:HD2	1.96	0.48
45:B:382:G:H2'	45:B:383:A:C8	2.49	0.48
50:G:141:THR:OG1	50:G:145:ARG:HB2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:I:120:GLU:OE1	52:I:125:THR:OG1	2.19	0.48
58:O:59:LEU:HD22	58:O:123:VAL:HG21	1.96	0.48
63:T:93:LEU:O	63:T:98:GLY:HA2	2.12	0.48
68:Y:105:THR:OG1	68:Y:110:ILE:HG12	2.13	0.48
77:h:149:LYS:HB3	77:h:157:GLU:HG3	1.96	0.48
1:AS:362:U:C5	38:CE:24:ARG:NH2	2.81	0.48
1:AS:2650:A:H61	79:CL:53:LYS:NZ	2.11	0.48
1:AS:3024:G:H2'	1:AS:3025:G:H8	1.79	0.48
2:AT:3:U:H2'	2:AT:4:U:C6	2.48	0.48
6:AY:24:PRO:HD2	6:AY:27:PHE:CD2	2.48	0.48
11:BD:99:ILE:HG22	11:BD:101:VAL:HG23	1.95	0.48
22:BO:102:ARG:HA	22:BO:102:ARG:HD2	1.60	0.48
27:BT:82:VAL:CB	27:BT:85:LEU:HD23	2.43	0.48
31:BX:16:LEU:HD13	31:BX:102:ILE:HD12	1.94	0.48
37:CD:36:THR:HB	37:CD:40:ARG:NH1	2.28	0.48
39:CF:32:ASN:C	39:CF:34:ASN:H	2.20	0.48
42:CI:1:MET:HB3	45:CM:1629:G:H5'	1.96	0.48
45:CM:561:U:H4'	76:DR:17:GLN:OE1	2.13	0.48
45:CM:764:U:O2'	70:DL:8:ARG:HD3	2.14	0.48
46:CN:27:LYS:HZ2	46:CN:44:GLY:HA3	1.78	0.48
47:CO:47:LEU:HD12	60:DB:32:GLU:OE1	2.13	0.48
47:CO:82:ARG:HH21	47:CO:188:LEU:HD13	1.77	0.48
50:CR:103:TYR:O	50:CR:182:MET:HE1	2.14	0.48
61:DC:60:LEU:HD22	61:DC:92:SER:HB3	1.96	0.48
1:1:1093:G:H2'	1:1:1093:G:N3	2.28	0.48
1:1:1379:G:H5'	6:l:204:ARG:HH21	1.79	0.48
1:1:1911:A:H2'	1:1:1912:U:C6	2.49	0.48
1:1:2972:A:H2'	1:1:2973:U:H6	1.77	0.48
2:3:6:C:P	13:s:143:ARG:HH22	2.37	0.48
3:4:81:A:H2'	3:4:82:U:C6	2.49	0.48
4:j:147:ARG:NH2	4:j:155:LYS:HD2	2.29	0.48
13:s:104:PHE:CE1	13:s:127:PHE:HD2	2.32	0.48
28:AA:75:VAL:CG2	28:AA:80:LEU:HD11	2.43	0.48
28:AA:85:TYR:OH	35:AH:97:GLU:OE2	2.26	0.48
28:AA:116:LYS:O	28:AA:120:GLU:HG2	2.14	0.48
38:AK:26:SER:HB3	38:AK:35:SER:OG	2.14	0.48
45:B:25:C:H4'	45:B:26:A:O5'	2.14	0.48
45:B:222:C:H2'	45:B:223:A:H8	1.79	0.48
45:B:1512:A:H2'	45:B:1513:A:C8	2.49	0.48
45:B:1756:U:H4'	60:Q:132:LEU:C	2.38	0.48
46:C:17:LEU:HD23	46:C:172:LEU:HD11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F:102:GLN:HE22	49:F:126:PHE:HB3	1.79	0.48
49:F:225:LYS:HG3	78:AR:225:ASN:ND2	2.28	0.48
55:L:138:LYS:N	55:L:138:LYS:HD2	2.28	0.48
58:O:38:HIS:O	58:O:39:ASP:C	2.56	0.48
63:T:100:LEU:HB3	63:T:102:ILE:HG23	1.95	0.48
66:W:39:ASN:HD21	66:W:106:THR:HB	1.79	0.48
67:X:73:ALA:HB1	67:X:78:LEU:HB2	1.95	0.48
70:a:127:LYS:CA	70:a:131:ARG:HH21	2.23	0.48
74:e:9:LEU:HG	74:e:55:CYS:HB3	1.96	0.48
78:AR:255:SER:OG	78:AR:270:GLU:OE2	2.26	0.48
1:AS:1191:A:H2'	1:AS:1305:U:O2	2.14	0.48
1:AS:1863:A:H2'	1:AS:1864:G:H8	1.79	0.48
2:AT:49:G:H4'	2:AT:50:U:C5'	2.44	0.48
4:AW:34:TYR:HA	4:AW:37:ARG:NH2	2.29	0.48
10:BC:249:LYS:NZ	10:BC:252:LYS:HE3	2.29	0.48
13:BF:50:ALA:HB2	13:BF:65:ILE:HG13	1.96	0.48
13:BF:114:ILE:HD12	13:BF:115:LYS:H	1.79	0.48
16:BI:132:VAL:HG13	16:BI:134:LEU:CD1	2.43	0.48
17:BJ:11:ASP:HB2	17:BJ:118:ARG:HB3	1.95	0.48
17:BJ:35:VAL:HG22	17:BJ:104:LYS:HB2	1.95	0.48
23:BP:58:ALA:HA	23:BP:64:VAL:HA	1.96	0.48
37:CD:53:GLU:OE2	37:CD:89:MET:HE3	2.14	0.48
43:CJ:8:ARG:HH12	43:CJ:83:LEU:HD23	1.78	0.48
45:CM:79:C:H1'	52:CT:174:LYS:HB2	1.95	0.48
45:CM:154:A:H2'	45:CM:155:A:O4'	2.14	0.48
45:CM:627:U:OP1	59:DA:127:ARG:NH2	2.47	0.48
45:CM:1516:C:H2'	45:CM:1517:C:C6	2.47	0.48
45:CM:1716:C:H2'	45:CM:1717:A:O4'	2.14	0.48
47:CO:97:LEU:HD22	47:CO:232:HIS:CE1	2.49	0.48
51:CS:95:ASN:O	51:CS:98:MET:HG2	2.13	0.48
51:CS:219:ARG:HA	51:CS:222:LYS:NZ	2.28	0.48
53:CU:18:ALA:HA	53:CU:21:PHE:HB2	1.95	0.48
58:CZ:33:ARG:HD2	58:CZ:34:THR:HG23	1.96	0.48
59:DA:18:TYR:HD2	59:DA:18:TYR:O	1.96	0.48
68:DJ:111:MET:SD	68:DJ:115:GLU:HG2	2.54	0.48
1:1:93:G:H2'	1:1:94:A:H8	1.78	0.48
1:1:1598:A:H2'	1:1:1599:A:C8	2.49	0.48
1:1:3013:U:H2'	1:1:3014:U:C6	2.48	0.48
3:4:9:A:H2'	3:4:10:A:C8	2.49	0.48
3:4:75:G:OP2	27:9:74:TYR:OH	2.27	0.48
3:4:85:G:H3'	3:4:85:G:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:n:100:PHE:CD1	8:n:104:TYR:HE2	2.32	0.48
14:t:119:TYR:CE1	36:AI:118:ILE:HD11	2.48	0.48
19:y:96:PHE:CD1	19:y:97:PRO:HD2	2.49	0.48
23:5:61:ASP:O	23:5:63:LYS:HG3	2.13	0.48
29:AB:72:GLU:HB3	29:AB:113:LEU:CD1	2.44	0.48
36:AI:5:LYS:O	36:AI:9:LEU:HD12	2.12	0.48
41:AN:32:THR:O	41:AN:33:ASN:ND2	2.45	0.48
45:B:155:A:OP1	70:a:132:ARG:HD3	2.13	0.48
45:B:223:A:N6	45:B:822:G:O6	2.46	0.48
45:B:495:G:H2'	45:B:496:G:C8	2.49	0.48
45:B:961:G:N1	45:B:1008:A:O2'	2.33	0.48
45:B:1016:U:H4'	45:B:1017:G:OP2	2.14	0.48
45:B:1039:U:H1'	47:D:148:ASN:ND2	2.29	0.48
45:B:1395:G:N2	45:B:1398:G:OP2	2.45	0.48
46:C:159:ALA:HB3	67:X:66:ASP:OD1	2.13	0.48
48:E:72:LYS:HE3	48:E:73:ASP:O	2.14	0.48
49:F:95:ARG:H	49:F:95:ARG:HD3	1.79	0.48
50:G:160:VAL:CB	50:G:169:ILE:HD12	2.43	0.48
51:H:129:PRO:O	51:H:133:VAL:HG23	2.14	0.48
53:J:18:ALA:HA	53:J:21:PHE:HB2	1.95	0.48
69:Z:19:ARG:O	69:Z:23:ARG:HG3	2.14	0.48
77:h:178:LYS:HG2	77:h:179:ASP:N	2.28	0.48
1:AS:353:G:O6	38:CE:55:ARG:NH2	2.46	0.48
1:AS:430:G:H2'	1:AS:431:A:C8	2.48	0.48
1:AS:911:A:H8	1:AS:2114:C:O2'	1.96	0.48
1:AS:1020:G:H4'	1:AS:1020:G:OP1	2.14	0.48
1:AS:1477:A:HO2'	1:AS:1854:A:HO2'	1.62	0.48
1:AS:1563:A:N7	1:AS:1565:U:C2	2.82	0.48
1:AS:1761:U:C5	20:BM:43:LYS:HD2	2.48	0.48
1:AS:1852:C:H2'	1:AS:1853:C:H6	1.77	0.48
1:AS:1871:G:N7	20:BM:20:ARG:HD2	2.28	0.48
1:AS:2155:G:OP2	4:AW:128:ARG:NH1	2.40	0.48
1:AS:2696:U:H4'	22:BO:54:HIS:NE2	2.29	0.48
2:AT:50:U:H4'	7:AZ:224:LYS:HE3	1.95	0.48
15:BH:39:LEU:HD12	15:BH:48:GLN:O	2.13	0.48
19:BL:147:ARG:HB3	19:BL:150:VAL:HG23	1.96	0.48
45:CM:515:U:C2	45:CM:516:A:C8	3.01	0.48
45:CM:1193:A:H4'	45:CM:1255:G:P	2.54	0.48
45:CM:1368:A:H2	66:DH:56:ARG:HH21	1.62	0.48
45:CM:1772:U:H2'	45:CM:1773:G:H8	1.78	0.48
51:CS:215:ASP:O	51:CS:219:ARG:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CV:99:SER:O	54:CV:99:SER:OG	2.28	0.48
63:DE:6:THR:HG22	63:DE:7:LYS:N	2.29	0.48
63:DE:89:SER:C	63:DE:91:LEU:H	2.21	0.48
79:CL:50:LYS:HA	79:CL:55:LYS:NZ	2.29	0.48
1:1:1302:G:C6	17:w:63:THR:HA	2.49	0.48
1:1:1697:C:H5	81:1:3413:PAR:HN62	1.61	0.48
1:1:1782:G:H2'	1:1:1783:A:C8	2.49	0.48
1:1:2322:U:H2'	1:1:2323:A:H8	1.75	0.48
24:6:15:LEU:HD13	24:6:51:ALA:HB3	1.96	0.48
33:AF:19:LYS:HG2	33:AF:31:GLU:HG2	1.95	0.48
45:B:974:U:H2'	45:B:975:C:C6	2.48	0.48
45:B:1532:A:OP1	64:U:133:VAL:N	2.41	0.48
47:D:33:LYS:HE3	47:D:33:LYS:HB3	1.45	0.48
48:E:233:SER:HB3	48:E:236:GLU:OE1	2.13	0.48
55:L:63:ASP:OD1	55:L:64:GLU:N	2.47	0.48
57:N:7:VAL:HG11	57:N:52:SER:O	2.13	0.48
58:O:72:ILE:O	58:O:76:GLU:CG	2.61	0.48
58:O:138:GLU:N	58:O:138:GLU:OE1	2.47	0.48
66:W:19:HIS:O	66:W:93:GLN:HA	2.14	0.48
66:W:68:LYS:HE2	66:W:79:ASP:OD1	2.14	0.48
78:AR:68:ILE:HD12	78:AR:86:TRP:CE3	2.49	0.48
78:AR:132:VAL:HB	78:AR:145:LEU:HB2	1.96	0.48
1:AS:148:U:P	16:BI:49:ARG:HH12	2.36	0.48
1:AS:583:A:H2'	1:AS:584:C:C6	2.48	0.48
1:AS:1746:A:OP2	39:CF:28:ASN:ND2	2.47	0.48
3:AU:68:A:H5''	38:CE:86:GLN:HG2	1.95	0.48
5:AX:113:GLU:HG3	5:AX:176:ALA:HB2	1.95	0.48
5:AX:218:ILE:HD12	5:AX:276:THR:HG23	1.96	0.48
8:BA:34:VAL:O	8:BA:37:THR:OG1	2.21	0.48
10:BC:74:PRO:HB2	10:BC:231:ARG:NH1	2.29	0.48
10:BC:226:LYS:NZ	10:BC:230:ASN:HB3	2.29	0.48
11:BD:134:MET:SD	11:BD:144:LEU:HD21	2.54	0.48
13:BF:114:ILE:CD1	13:BF:115:LYS:HD3	2.44	0.48
15:BH:39:LEU:HD12	15:BH:48:GLN:C	2.39	0.48
19:BL:178:ARG:CA	19:BL:185:LYS:HG3	2.42	0.48
24:BQ:33:ASN:HB2	24:BQ:64:LYS:H	1.79	0.48
45:CM:650:G:H2'	45:CM:678:A:N1	2.29	0.48
45:CM:1050:A:N3	47:CO:146:GLN:NE2	2.54	0.48
46:CN:59:LEU:O	46:CN:63:ILE:HD12	2.14	0.48
46:CN:127:ARG:NE	46:CN:127:ARG:HA	2.28	0.48
46:CN:157:ASP:O	67:DI:66:ASP:HA	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:162:ILE:HG22	50:CR:164:LEU:H	1.78	0.48
51:CS:140:SER:HB2	51:CS:171:ALA:HB1	1.95	0.48
56:CX:68:LEU:HD12	56:CX:73:VAL:HG12	1.96	0.48
66:DH:101:ARG:O	66:DH:105:ILE:HG12	2.13	0.48
74:DP:44:VAL:HG11	74:DP:48:VAL:HG11	1.95	0.48
1:1:298:U:N3	37:AJ:27:TYR:O	2.36	0.48
1:1:478:G:H2'	1:1:479:C:C6	2.49	0.48
1:1:907:C:OP2	4:j:9:ARG:HD2	2.13	0.48
1:1:1176:A:C4	1:1:1178:G:C8	3.01	0.48
1:1:2435:G:C6	1:1:2437:A:H5'	2.49	0.48
1:1:2583:U:H2'	1:1:2584:U:H6	1.78	0.48
1:1:3023:U:C2	1:1:3024:G:C8	3.01	0.48
1:1:3153:A:H2'	1:1:3154:A:C8	2.49	0.48
1:1:3241:G:O2'	18:x:175:ARG:HD3	2.13	0.48
24:6:125:LEU:O	24:6:125:LEU:HD23	2.14	0.48
28:AA:18:TYR:HA	28:AA:21:LYS:HD3	1.95	0.48
28:AA:32:GLY:HA2	28:AA:40:HIS:CD2	2.49	0.48
28:AA:46:ILE:HG23	28:AA:68:VAL:HG13	1.96	0.48
37:AJ:95:GLU:N	37:AJ:95:GLU:OE2	2.47	0.48
40:AM:28:ARG:HH11	40:AM:28:ARG:CG	2.26	0.48
45:B:219:A:H3'	45:B:818:U:O2	2.14	0.48
45:B:470:U:O2'	45:B:754:A:N3	2.42	0.48
45:B:1154:G:N1	45:B:1562:G:OP2	2.32	0.48
49:F:103:ALA:HB2	49:F:187:VAL:CG1	2.44	0.48
50:G:251:GLU:O	50:G:255:ARG:HG3	2.13	0.48
51:H:42:LEU:CD2	51:H:46:TRP:HD1	2.26	0.48
52:I:159:ARG:HB3	52:I:170:THR:HB	1.95	0.48
62:S:41:GLU:C	62:S:43:LEU:N	2.68	0.48
1:AS:787:A:H2'	1:AS:788:G:H8	1.79	0.48
1:AS:1176:A:C4	1:AS:1178:G:C8	3.02	0.48
8:BA:6:PRO:HG3	33:BZ:86:LEU:HD23	1.96	0.48
13:BF:35:LYS:NZ	13:BF:120:ILE:HD11	2.29	0.48
17:BJ:152:SER:O	17:BJ:156:LYS:HG3	2.14	0.48
17:BJ:180:ASN:HA	17:BJ:183:LYS:NZ	2.28	0.48
23:BP:49:ASN:O	23:BP:49:ASN:ND2	2.37	0.48
45:CM:66:U:H5''	52:CT:172:ALA:C	2.39	0.48
45:CM:510:A:O2'	55:CW:133:HIS:NE2	2.43	0.48
45:CM:963:A:H2'	45:CM:964:A:O4'	2.14	0.48
45:CM:1205:C:H2'	45:CM:1206:A:H8	1.79	0.48
45:CM:1276:G:H22	45:CM:1309:G:H22	1.59	0.48
45:CM:1774:C:H2'	45:CM:1775:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:127:ARG:HA	46:CN:127:ARG:HE	1.78	0.48
46:CN:144:ILE:HG12	46:CN:158:VAL:CG2	2.44	0.48
47:CO:120:LEU:HD12	47:CO:121:VAL:N	2.28	0.48
49:CQ:41:ARG:HD2	66:DH:109:PRO:HB3	1.96	0.48
53:CU:110:ARG:HA	53:CU:113:THR:HG23	1.96	0.48
59:DA:30:SER:O	59:DA:34:VAL:HG23	2.14	0.48
73:DO:54:VAL:HG23	73:DO:63:LEU:HD23	1.96	0.48
76:DR:43:ARG:NH1	76:DR:56:MET:SD	2.87	0.48
1:1:546:C:H2'	1:1:547:U:O4'	2.14	0.47
1:1:1705:C:H2'	1:1:1706:C:H6	1.79	0.47
1:1:2126:U:H2'	1:1:2127:A:C8	2.49	0.47
1:1:2195:U:H2'	1:1:2196:G:H8	1.79	0.47
1:1:2645:A:O2'	13:s:126:ASP:OD1	2.27	0.47
1:1:2915:G:H2'	1:1:2916:U:O4'	2.13	0.47
1:1:3061:C:H2'	1:1:3062:U:O4'	2.14	0.47
2:3:27:A:H2'	2:3:28:C:C6	2.49	0.47
5:k:368:GLY:O	25:7:17:ARG:NH1	2.38	0.47
7:m:98:ALA:HB1	7:m:162:VAL:HG23	1.96	0.47
14:t:69:VAL:H	14:t:151:GLN:HE22	1.61	0.47
14:t:124:VAL:HG11	36:AI:120:ALA:HB3	1.96	0.47
20:z:67:LYS:HA	20:z:67:LYS:HD3	1.61	0.47
45:B:861:G:H2'	45:B:921:G:N2	2.29	0.47
45:B:1092:G:O2'	45:B:1093:G:H5'	2.14	0.47
45:B:1341:U:H1'	45:B:1353:G:N2	2.29	0.47
45:B:1457:A:OP1	51:H:185:ARG:NH1	2.47	0.47
45:B:1628:C:H2'	45:B:1629:G:C8	2.49	0.47
50:G:124:GLY:O	50:G:160:VAL:HG22	2.14	0.47
56:M:46:LEU:HD23	56:M:66:TYR:CG	2.50	0.47
63:T:51:ALA:HA	63:T:54:THR:OG1	2.14	0.47
1:AS:122:A:C6	1:AS:149:A:C5	3.02	0.47
1:AS:148:U:OP2	16:BI:49:ARG:NH2	2.45	0.47
1:AS:438:A:N1	1:AS:489:G:O2'	2.37	0.47
1:AS:762:U:H4'	1:AS:763:U:O4'	2.13	0.47
1:AS:1542:A:N7	16:BI:71:ARG:NH1	2.62	0.47
1:AS:1810:A:H4'	1:AS:1811:U:O4'	2.13	0.47
1:AS:2959:A:H2'	1:AS:2960:C:C6	2.49	0.47
3:AU:21:C:C5'	6:AY:195:LEU:HD11	2.43	0.47
7:AZ:34:LYS:HE2	7:AZ:38:THR:HG21	1.96	0.47
21:BN:42:TRP:O	21:BN:46:GLN:HG3	2.14	0.47
27:BT:51:ARG:HG2	27:BT:52:GLN:N	2.27	0.47
32:BY:9:ARG:NH1	32:BY:107:VAL:HG22	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:78:A:H2'	45:CM:79:C:C6	2.48	0.47
45:CM:138:C:C2	52:CT:184:LEU:HD21	2.49	0.47
53:CU:126:VAL:HG11	53:CU:150:LEU:HG	1.96	0.47
53:CU:132:ILE:HD11	53:CU:151:ASP:HB2	1.96	0.47
70:DL:20:ARG:HA	70:DL:76:TYR:HA	1.96	0.47
1:1:1312:C:H5'	1:1:1313:A:C2	2.48	0.47
1:1:1620:G:O2'	1:1:1639:A:N1	2.44	0.47
1:1:2273:A:OP2	24:6:71:LYS:HG2	2.14	0.47
1:1:2732:C:N4	1:1:2768:G:O6	2.45	0.47
1:1:2992:U:H2'	1:1:3005:A:N6	2.29	0.47
5:k:84:MET:HE1	5:k:181:ILE:CD1	2.43	0.47
5:k:112:GLU:O	5:k:116:ARG:HG3	2.13	0.47
10:p:116:ALA:HB2	10:p:126:VAL:HG21	1.95	0.47
16:v:144:ARG:HD2	36:AI:95:PHE:HE1	1.79	0.47
18:x:42:GLU:HG2	18:x:43:LYS:N	2.29	0.47
34:AG:53:TYR:HE1	34:AG:67:ILE:HG13	1.80	0.47
37:AJ:3:LYS:HA	37:AJ:11:ASN:OD1	2.13	0.47
38:AK:25:ARG:NH1	40:AM:50:GLY:HA2	2.29	0.47
51:H:65:ARG:NH2	51:H:86:GLN:OE1	2.46	0.47
60:Q:9:PHE:HA	60:Q:73:ALA:O	2.14	0.47
65:V:49:GLU:O	65:V:53:TRP:HB3	2.14	0.47
67:X:74:GLN:HG3	67:X:79:LEU:O	2.13	0.47
1:AS:1035:U:H2'	1:AS:1036:A:C8	2.49	0.47
1:AS:1345:G:N2	6:AY:292:ASN:O	2.47	0.47
4:AW:157:ILE:HG13	4:AW:157:ILE:O	2.14	0.47
4:AW:227:ARG:HB2	4:AW:239:ALA:HB2	1.96	0.47
6:AY:10:ILE:HG23	6:AY:14:GLY:HA2	1.97	0.47
6:AY:146:VAL:HG11	6:AY:149:LEU:HD21	1.95	0.47
14:BG:55:ARG:O	14:BG:115:ARG:NE	2.47	0.47
23:BP:35:LYS:HG2	23:BP:39:GLU:OE1	2.13	0.47
29:BV:132:LYS:HG2	29:BV:136:GLU:OE1	2.13	0.47
45:CM:544:U:H2'	45:CM:545:U:C6	2.48	0.47
45:CM:563:C:O2'	45:CM:575:G:N2	2.47	0.47
45:CM:1198:G:H1	45:CM:1436:U:H3	1.62	0.47
45:CM:1674:U:H2'	45:CM:1675:U:O2	2.14	0.47
49:CQ:110:LEU:HA	49:CQ:110:LEU:HD23	1.74	0.47
51:CS:29:ILE:HD12	62:DD:56:LEU:HD21	1.95	0.47
52:CT:230:ARG:O	52:CT:234:LEU:HD23	2.15	0.47
56:CX:59:PHE:CZ	56:CX:62:GLN:HA	2.49	0.47
58:CZ:93:ASP:OD1	58:CZ:93:ASP:N	2.45	0.47
65:DG:58:ALA:O	65:DG:61:ILE:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:DI:58:TYR:CZ	67:DI:62:ARG:HD2	2.49	0.47
68:DJ:81:VAL:O	68:DJ:122:SER:OG	2.18	0.47
71:DM:50:ILE:O	71:DM:54:VAL:HG12	2.14	0.47
1:1:381:U:H2'	1:1:382:U:C6	2.50	0.47
1:1:665:C:OP1	81:1:3416:PAR:H14	2.14	0.47
1:1:934:C:H2'	1:1:935:U:H5''	1.95	0.47
1:1:1148:G:N2	1:1:1148:G:OP2	2.46	0.47
1:1:1219:A:OP2	1:1:1281:G:N2	2.46	0.47
1:1:1313:A:O2'	1:1:1314:A:H3'	2.15	0.47
1:1:2888:U:H5	1:1:2907:U:HO2'	1.61	0.47
1:1:3039:C:H3'	20:z:62:ARG:NH2	2.27	0.47
1:1:3171:C:H5''	1:1:3172:U:O5'	2.14	0.47
1:1:3172:U:N3	21:0:164:GLN:OE1	2.43	0.47
8:n:166:LYS:HB2	8:n:166:LYS:HE3	1.60	0.47
19:y:34:SER:HA	19:y:49:LEU:HD22	1.95	0.47
23:5:19:VAL:CG2	23:5:20:ALA:N	2.77	0.47
36:AI:22:VAL:O	36:AI:26:GLN:HG3	2.13	0.47
45:B:216:A:N6	45:B:829:A:O3'	2.47	0.47
45:B:512:G:N1	45:B:541:C:H5	2.06	0.47
45:B:1567:C:H4'	62:S:136:ARG:HB2	1.95	0.47
45:B:1740:A:H2'	45:B:1741:A:C8	2.49	0.47
53:J:153:LYS:HD2	53:J:154:ASP:H	1.79	0.47
61:R:119:PHE:O	79:i:65:LYS:HG2	2.15	0.47
64:U:129:TRP:HB3	64:U:131:LEU:CD1	2.44	0.47
65:V:130:ARG:NH1	65:V:134:ARG:HD3	2.29	0.47
75:f:19:ARG:CD	75:f:32:ARG:HD3	2.43	0.47
78:AR:195:TYR:O	78:AR:212:GLY:HA3	2.14	0.47
1:AS:179:C:H2'	1:AS:180:U:H6	1.78	0.47
1:AS:349:A:C4	3:AU:24:G:H1'	2.48	0.47
1:AS:1528:C:H2'	1:AS:1529:U:C6	2.49	0.47
1:AS:1593:C:H2'	1:AS:1594:G:H8	1.78	0.47
1:AS:2287:A:N3	1:AS:2933:G:O2'	2.42	0.47
1:AS:2556:G:H1	10:BC:49:ARG:HH12	1.61	0.47
4:AW:29:LEU:HD12	4:AW:123:ARG:HA	1.95	0.47
7:AZ:49:TYR:HB3	7:AZ:64:ILE:HD11	1.95	0.47
8:BA:45:ARG:HH11	8:BA:45:ARG:CG	2.27	0.47
20:BM:28:GLU:HG3	20:BM:31:GLU:HB3	1.95	0.47
22:BO:78:LYS:HZ3	22:BO:87:LYS:HE2	1.80	0.47
45:CM:223:A:H2'	45:CM:224:A:O4'	2.15	0.47
46:CN:148:ASP:HB2	46:CN:164:ASN:OD1	2.14	0.47
47:CO:61:LEU:O	47:CO:64:ARG:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CP:35:LYS:HB3	48:CP:235:LEU:HD11	1.96	0.47
55:CW:60:LEU:HG	55:CW:93:LEU:HD22	1.96	0.47
58:CZ:27:ALA:HB1	58:CZ:132:GLU:HG3	1.95	0.47
61:DC:115:TYR:HB2	61:DC:118:GLU:HG3	1.96	0.47
62:DD:119:ASP:OD1	62:DD:121:ARG:HD3	2.13	0.47
76:DR:29:LYS:O	76:DR:31:GLN:NE2	2.47	0.47
1:1:85:G:N7	14:t:13:HIS:ND1	2.63	0.47
1:1:502:U:H2'	1:1:503:U:C6	2.49	0.47
1:1:868:U:H2'	1:1:869:C:C6	2.48	0.47
1:1:2408:A:H2'	1:1:2409:C:H6	1.79	0.47
1:1:2739:U:H2'	1:1:2740:U:C6	2.49	0.47
1:1:3129:C:H2'	1:1:3130:C:H6	1.78	0.47
1:1:3153:A:H2'	1:1:3154:A:H8	1.79	0.47
1:1:3240:U:H5''	34:AG:68:TRP:HZ2	1.79	0.47
3:4:58:G:O6	38:AK:63:ARG:NH1	2.45	0.47
6:l:205:GLY:O	6:l:247:ARG:NH2	2.39	0.47
13:s:4:LYS:HZ3	13:s:5:SER:H	1.60	0.47
35:AH:54:ILE:HD11	35:AH:78:GLY:HA2	1.96	0.47
36:AI:108:ARG:HG3	36:AI:108:ARG:HH11	1.80	0.47
45:B:336:C:H5''	54:K:10:LYS:HD2	1.96	0.47
45:B:874:U:H2'	45:B:875:C:C6	2.50	0.47
45:B:1238:U:H2'	45:B:1239:U:H6	1.79	0.47
50:G:73:ASP:HB3	50:G:164:LEU:HD11	1.95	0.47
50:G:188:ASN:N	50:G:188:ASN:HD22	2.10	0.47
52:I:31:ARG:O	52:I:34:GLN:HG2	2.14	0.47
56:M:27:PHE:O	56:M:40:LEU:HB2	2.14	0.47
62:S:37:LEU:HD11	65:V:9:VAL:C	2.39	0.47
68:Y:8:ALA:HB2	68:Y:74:VAL:HG21	1.97	0.47
74:e:19:THR:HG23	74:e:25:VAL:HG13	1.96	0.47
1:AS:2182:C:H2'	1:AS:2183:U:C6	2.48	0.47
1:AS:2525:A:H2'	1:AS:2526:C:O4'	2.13	0.47
1:AS:3244:A:O2'	1:AS:3245:A:H5'	2.15	0.47
2:AT:60:G:H2'	2:AT:61:C:C6	2.49	0.47
3:AU:34:U:H3	38:CE:71:THR:HG22	1.79	0.47
10:BC:152:VAL:HG21	10:BC:171:CYS:SG	2.54	0.47
14:BG:158:LEU:HD23	29:BV:99:ALA:CA	2.45	0.47
21:BN:4:LEU:HD13	21:BN:104:GLU:HG2	1.95	0.47
28:BU:5:ILE:CD1	28:BU:77:TYR:CE2	2.94	0.47
30:BW:57:ALA:O	30:BW:61:LYS:HD3	2.15	0.47
45:CM:590:A:OP1	55:CW:39:LYS:NZ	2.38	0.47
45:CM:1308:C:H2'	45:CM:1309:G:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:52:LYS:CG	49:CQ:92:VAL:HG22	2.38	0.47
59:DA:99:ARG:NH2	59:DA:143:SER:O	2.47	0.47
60:DB:64:ALA:HA	60:DB:67:LYS:HD3	1.97	0.47
1:1:1069:U:H2'	1:1:1070:U:C6	2.49	0.47
1:1:1684:U:H2'	1:1:1685:U:C6	2.49	0.47
1:1:1735:U:OP1	81:1:3413:PAR:H222	2.12	0.47
1:1:1852:C:H2'	1:1:1853:C:C6	2.49	0.47
1:1:2220:A:H5''	4:j:244:GLY:HA3	1.96	0.47
1:1:2351:A:N3	1:1:2796:G:O2'	2.41	0.47
5:k:37:LYS:H	5:k:37:LYS:CD	2.27	0.47
12:r:197:VAL:HG23	12:r:199:PHE:CE2	2.49	0.47
16:v:113:LEU:HB2	16:v:134:LEU:HD23	1.96	0.47
19:y:67:ILE:HG12	19:y:81:ILE:HG21	1.95	0.47
45:B:310:A:O2'	81:B:1803:PAR:O31	2.32	0.47
45:B:1656:U:H2'	45:B:1657:G:O4'	2.14	0.47
47:D:54:LEU:H	47:D:54:LEU:HD12	1.79	0.47
47:D:179:CYS:HB2	47:D:183:GLN:OE1	2.14	0.47
48:E:116:VAL:HG11	79:i:115:LEU:HG	1.96	0.47
50:G:100:ARG:NH1	50:G:118:GLU:OE2	2.47	0.47
61:R:8:LYS:HD3	61:R:8:LYS:H	1.80	0.47
61:R:64:ARG:HG2	61:R:73:PRO:CB	2.45	0.47
65:V:117:SER:HB2	65:V:123:ARG:H	1.78	0.47
68:Y:23:ARG:HD3	73:d:4:VAL:HG13	1.96	0.47
77:h:182:TYR:OH	77:h:187:HIS:ND1	2.19	0.47
78:AR:171:TRP:CG	78:AR:195:TYR:HB2	2.49	0.47
1:AS:580:U:OP1	8:BA:28:LYS:NZ	2.42	0.47
1:AS:726:G:N2	19:BL:138:LEU:HD12	2.29	0.47
1:AS:2415:G:C6	1:AS:2489:A:C5	3.03	0.47
5:AX:215:ILE:HD11	5:AX:324:LEU:HD11	1.95	0.47
5:AX:217:VAL:HG22	5:AX:280:HIS:HD2	1.79	0.47
5:AX:369:ARG:HB3	25:BR:32:GLN:NE2	2.28	0.47
7:AZ:164:LYS:NZ	7:AZ:168:ASP:CG	2.69	0.47
20:BM:72:ALA:CA	20:BM:74:ARG:HH22	2.27	0.47
22:BO:51:GLY:HA3	22:BO:92:ARG:HG3	1.96	0.47
28:BU:64:LYS:O	28:BU:64:LYS:HD3	2.14	0.47
40:CG:28:ARG:NH1	40:CG:36:ARG:HG3	2.23	0.47
43:CJ:28:TYR:HB3	43:CJ:69:VAL:HB	1.96	0.47
45:CM:770:C:OP1	45:CM:770:C:H6	1.97	0.47
45:CM:834:C:H2'	45:CM:835:A:C8	2.50	0.47
45:CM:924:A:H2'	45:CM:925:A:H8	1.76	0.47
45:CM:937:A:H5'	59:DA:94:LYS:HE3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:1168:A:C5	61:DC:100:LYS:HB2	2.50	0.47
45:CM:1635:A:H2'	45:CM:1636:C:H6	1.79	0.47
51:CS:208:SER:OG	51:CS:209:TYR:O	2.32	0.47
52:CT:127:THR:HG22	52:CT:128:THR:N	2.30	0.47
58:CZ:87:PRO:O	58:CZ:88:LEU:HD12	2.14	0.47
63:DE:7:LYS:O	63:DE:11:ARG:HG2	2.15	0.47
65:DG:57:ARG:O	65:DG:61:ILE:HG23	2.14	0.47
71:DM:71:ILE:HD13	71:DM:76:ALA:HB2	1.96	0.47
74:DP:32:PHE:HB2	74:DP:35:ASP:O	2.15	0.47
1:1:430:G:H2'	1:1:431:A:H8	1.79	0.47
1:1:1019:U:H4'	1:1:1019:U:OP1	2.15	0.47
1:1:1330:U:H2'	1:1:1331:U:C6	2.49	0.47
1:1:1382:A:H5''	6:l:142:ARG:HH21	1.79	0.47
1:1:1651:G:O2'	1:1:1796:A:N6	2.44	0.47
7:m:219:TYR:HE1	7:m:223:PHE:CB	2.27	0.47
9:o:100:VAL:HG13	9:o:124:LEU:HD22	1.96	0.47
9:o:130:PRO:HG2	9:o:131:TYR:CE2	2.48	0.47
15:u:57:LEU:HG	21:0:172:TYR:OH	2.14	0.47
28:AA:23:VAL:HG12	28:AA:45:GLY:HA3	1.96	0.47
32:AE:97:VAL:HG23	32:AE:98:PRO:HD2	1.95	0.47
45:B:671:G:H5'	45:B:672:U:H2'	1.97	0.47
45:B:1349:G:H21	65:V:3:GLY:H	1.62	0.47
78:AR:231:LEU:HD21	78:AR:260:PHE:CG	2.49	0.47
1:AS:234:A:H2'	1:AS:235:G:O4'	2.14	0.47
1:AS:267:G:C1'	16:BI:50:ARG:HD2	2.45	0.47
1:AS:690:A:C1'	6:AY:47:LYS:HE3	2.45	0.47
1:AS:1153:G:H2'	1:AS:1154:A:O4'	2.15	0.47
1:AS:2142:A:N6	81:AS:3403:PAR:O62	2.25	0.47
1:AS:2236:U:C2	1:AS:2237:A:C8	3.03	0.47
81:AS:3402:PAR:H24	81:AS:3402:PAR:H33	1.66	0.47
5:AX:284:ARG:NH2	5:AX:295:ALA:O	2.47	0.47
6:AY:160:VAL:HG23	6:AY:165:ASP:HB2	1.96	0.47
8:BA:50:ARG:HB3	8:BA:159:LEU:HD23	1.96	0.47
10:BC:41:ILE:HD12	10:BC:41:ILE:O	2.14	0.47
12:BE:124:GLY:O	12:BE:125:LEU:HD23	2.15	0.47
18:BK:165:GLN:OE1	18:BK:165:GLN:N	2.48	0.47
27:BT:109:LEU:HD22	27:BT:115:ARG:NH2	2.29	0.47
31:BX:54:ARG:HH12	35:CB:90:VAL:HG21	1.79	0.47
34:CA:65:ARG:HG2	34:CA:65:ARG:HH11	1.79	0.47
36:CC:21:LEU:HG	36:CC:25:LYS:HD3	1.97	0.47
45:CM:29:U:H2'	45:CM:30:G:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:82:U:H2'	45:CM:83:G:O4'	2.14	0.47
45:CM:156:U:O2'	45:CM:157:U:H3'	2.14	0.47
45:CM:623:C:H2'	45:CM:624:U:C6	2.50	0.47
45:CM:767:G:HO2'	45:CM:768:C:H6	1.63	0.47
45:CM:904:A:H2'	45:CM:905:C:C6	2.49	0.47
45:CM:1262:G:O3'	49:CQ:184:GLY:HA3	2.15	0.47
45:CM:1529:G:H5''	65:DG:87:GLY:C	2.40	0.47
45:CM:1566:U:H2'	45:CM:1567:C:C6	2.50	0.47
47:CO:46:THR:HG21	47:CO:66:PHE:HE1	1.80	0.47
58:CZ:41:LEU:HA	58:CZ:122:VAL:O	2.15	0.47
58:CZ:41:LEU:HB3	58:CZ:121:VAL:CG2	2.44	0.47
62:DD:108:PHE:HB3	62:DD:116:LEU:HD23	1.96	0.47
63:DE:32:LYS:HE3	63:DE:33:ARG:HH11	1.79	0.47
66:DH:57:MET:HB2	66:DH:87:LYS:HB3	1.95	0.47
66:DH:96:ALA:O	66:DH:100:LYS:HD3	2.15	0.47
70:DL:20:ARG:HB3	70:DL:76:TYR:CD2	2.49	0.47
71:DM:39:ILE:HB	71:DM:71:ILE:HA	1.96	0.47
72:DN:87:ARG:NH2	72:DN:94:ILE:O	2.47	0.47
1:1:46:C:OP2	1:1:47:A:O2'	2.20	0.47
1:1:85:G:O2'	1:1:97:G:O6	2.25	0.47
1:1:348:A:N3	1:1:352:A:O2'	2.47	0.47
1:1:377:A:H1'	1:1:392:G:N2	2.29	0.47
1:1:437:G:O2'	1:1:438:A:H5''	2.15	0.47
1:1:744:U:H2'	1:1:745:C:C6	2.49	0.47
1:1:772:U:H5	1:1:2691:U:O2	1.97	0.47
1:1:883:G:H2'	1:1:884:A:C8	2.50	0.47
1:1:1380:U:OP2	6:l:203:ARG:HA	2.15	0.47
1:1:1559:C:O2'	1:1:1560:U:OP1	2.26	0.47
1:1:1692:A:H2'	1:1:1693:A:H8	1.78	0.47
1:1:1908:U:H2'	1:1:1909:A:O4'	2.15	0.47
1:1:1945:A:H2'	1:1:1946:U:C6	2.50	0.47
1:1:2492:U:H5'	10:p:69:ARG:HG3	1.96	0.47
1:1:2525:A:H2'	1:1:2526:C:O4'	2.15	0.47
1:1:3162:U:C5	1:1:3163:U:H1'	2.49	0.47
1:1:3164:U:H4'	1:1:3165:U:C2	2.49	0.47
1:1:3336:G:H2'	1:1:3337:A:C8	2.50	0.47
2:3:65:G:O3'	12:r:204:GLY:HA2	2.14	0.47
3:4:29:U:H5''	14:t:27:ASP:HB3	1.96	0.47
3:4:119:C:H2'	3:4:120:U:C6	2.50	0.47
4:j:4:VAL:HG13	4:j:8:GLN:HB2	1.96	0.47
11:q:173:ARG:HG2	41:AN:15:CYS:SG	2.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:s:33:ALA:HA	13:s:36:VAL:HG12	1.97	0.47
27:9:82:VAL:HG12	27:9:83:ASP:H	1.79	0.47
29:AB:76:ASP:OD1	29:AB:76:ASP:N	2.45	0.47
34:AG:58:GLU:HG2	34:AG:63:LYS:HG3	1.96	0.47
39:AL:42:LYS:HG2	39:AL:55:VAL:HG12	1.95	0.47
45:B:366:U:H2'	45:B:367:A:O4'	2.15	0.47
45:B:1067:C:H4'	67:X:58:TYR:CE2	2.50	0.47
45:B:1149:G:O2'	45:B:1599:U:O2	2.33	0.47
45:B:1205:C:H2'	45:B:1206:A:H8	1.80	0.47
45:B:1242:U:O2	45:B:1242:U:H2'	2.13	0.47
45:B:1455:A:H2'	45:B:1456:C:C6	2.49	0.47
45:B:1486:G:OP1	65:V:122:ARG:NH1	2.47	0.47
45:B:1648:U:H2'	45:B:1649:G:H8	1.80	0.47
45:B:1754:G:OP2	45:B:1757:U:O2'	2.29	0.47
46:C:64:ILE:O	46:C:67:VAL:HG22	2.15	0.47
48:E:34:THR:CG2	48:E:37:GLY:H	2.26	0.47
50:G:48:LEU:HD11	50:G:70:VAL:HG21	1.95	0.47
50:G:183:VAL:HG21	50:G:220:THR:HG21	1.96	0.47
50:G:188:ASN:OD1	50:G:218:PHE:HB2	2.15	0.47
51:H:208:SER:OG	51:H:209:TYR:O	2.33	0.47
56:M:11:ILE:HA	56:M:35:ILE:HD13	1.96	0.47
61:R:71:GLU:HG3	61:R:72:ARG:H	1.78	0.47
62:S:76:GLN:O	62:S:80:ILE:HG13	2.15	0.47
67:X:71:ARG:HB2	67:X:83:TRP:CE2	2.50	0.47
68:Y:17:ALA:HA	68:Y:20:THR:HG22	1.96	0.47
74:e:42:ARG:HD2	74:e:56:LEU:HD21	1.97	0.47
78:AR:41:THR:HG22	78:AR:42:LEU:H	1.80	0.47
78:AR:146:THR:OG1	78:AR:147:GLY:N	2.47	0.47
1:AS:87:A:H2'	1:AS:88:G:O4'	2.15	0.47
1:AS:340:C:OP2	6:AY:196:ARG:NH1	2.38	0.47
1:AS:1625:U:P	28:BU:112:LYS:HZ3	2.38	0.47
1:AS:1695:A:C6	1:AS:1743:G:C6	3.03	0.47
1:AS:1863:A:H2'	1:AS:1864:G:C8	2.50	0.47
1:AS:2095:A:N7	1:AS:3036:U:O2'	2.47	0.47
1:AS:2197:A:H2'	1:AS:2198:A:C8	2.49	0.47
1:AS:2520:A:H1'	1:AS:2521:C:H5	1.79	0.47
1:AS:3234:U:C5'	8:BA:76:ARG:HH21	2.24	0.47
1:AS:3299:U:OP2	25:BR:50:SER:OG	2.24	0.47
1:AS:3302:G:H2'	1:AS:3303:C:C6	2.49	0.47
1:AS:3357:U:H4'	18:BK:56:ARG:NH1	2.29	0.47
5:AX:256:HIS:HA	5:AX:257:PRO:C	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AY:136:VAL:HA	6:AY:246:GLY:O	2.15	0.47
7:AZ:85:ARG:HD3	7:AZ:86:TYR:HE1	1.79	0.47
8:BA:58:GLU:H	8:BA:58:GLU:CD	2.22	0.47
8:BA:170:ARG:HB3	8:BA:172:HIS:CE1	2.49	0.47
12:BE:82:ARG:O	12:BE:82:ARG:HG2	2.15	0.47
18:BK:17:ALA:HB2	18:BK:98:ALA:HB2	1.97	0.47
18:BK:99:GLN:O	18:BK:103:GLU:HG2	2.14	0.47
19:BL:66:ARG:NE	19:BL:143:PRO:HD3	2.28	0.47
21:BN:81:TYR:CE1	21:BN:90:MET:HE3	2.49	0.47
22:BO:40:VAL:HB	22:BO:96:VAL:HG13	1.97	0.47
23:BP:61:ASP:HB2	23:BP:63:LYS:HZ1	1.78	0.47
26:BS:59:ALA:HB1	26:BS:102:LEU:HD12	1.97	0.47
29:BV:59:ARG:HH11	29:BV:59:ARG:HG3	1.79	0.47
36:CC:41:LEU:CD1	36:CC:44:ILE:HG12	2.44	0.47
45:CM:338:U:H2'	45:CM:339:A:C8	2.50	0.47
45:CM:489:C:C5	45:CM:490:U:H1'	2.49	0.47
45:CM:636:C:O2'	53:CU:108:ARG:NH2	2.48	0.47
45:CM:769:U:O2'	45:CM:770:C:OP2	2.30	0.47
45:CM:974:U:H2'	45:CM:975:C:C6	2.49	0.47
45:CM:1258:G:N7	45:CM:1416:U:H3'	2.29	0.47
45:CM:1470:G:H5'	62:DD:14:THR:HG21	1.97	0.47
45:CM:1485:G:H2'	45:CM:1486:G:H8	1.79	0.47
45:CM:1512:A:H2'	45:CM:1513:A:C8	2.50	0.47
45:CM:1676:A:H2'	45:CM:1677:G:H1'	1.96	0.47
46:CN:148:ASP:N	46:CN:151:SER:HB2	2.27	0.47
49:CQ:14:ALA:HA	49:CQ:17:VAL:CG1	2.44	0.47
50:CR:161:LYS:HD3	50:CR:170:ASP:HB2	1.97	0.47
50:CR:185:GLY:HA3	50:CR:224:ASN:OD1	2.15	0.47
56:CX:15:LEU:HD11	56:CX:76:LEU:HG	1.95	0.47
61:DC:14:GLN:HB3	61:DC:15:PHE:H	1.50	0.47
62:DD:25:LYS:O	62:DD:63:ASP:HB3	2.14	0.47
64:DF:87:ASN:HB2	64:DF:99:HIS:CE1	2.50	0.47
1:1:92:C:OP2	1:1:2736:C:O2'	2.23	0.47
1:1:530:U:O2	21:0:146:LYS:HA	2.15	0.47
1:1:788:G:H2'	1:1:789:C:H6	1.80	0.47
1:1:1895:G:O2'	1:1:2312:U:O4	2.20	0.47
1:1:3287:A:H2'	1:1:3288:A:H8	1.80	0.47
11:q:120:GLU:OE1	11:q:124:ARG:NH1	2.44	0.47
17:w:122:PRO:HA	17:w:125:LEU:HD12	1.97	0.47
24:6:87:ARG:NH2	24:6:121:GLU:OE1	2.44	0.47
33:AF:87:LEU:HD21	33:AF:116:LEU:HD13	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:AI:70:TYR:HB3	36:AI:76:ILE:HG22	1.97	0.47
45:B:85:A:N3	45:B:146:A:O2'	2.38	0.47
45:B:767:G:HO2'	45:B:768:C:H6	1.63	0.47
45:B:857:G:N2	45:B:1032:G:H4'	2.30	0.47
45:B:1243:U:C6	45:B:1244:U:H5	2.32	0.47
45:B:1396:A:HO2'	45:B:1397:A:P	2.37	0.47
45:B:1626:C:H2'	45:B:1627:C:O4'	2.14	0.47
58:O:73:LYS:HA	58:O:76:GLU:HG3	1.97	0.47
62:S:45:PHE:O	62:S:49:GLU:HG3	2.15	0.47
78:AR:311:GLN:CD	78:AR:313:MET:HE1	2.40	0.47
1:AS:687:U:N3	6:AY:228:THR:OG1	2.40	0.47
1:AS:787:A:H2'	1:AS:788:G:C8	2.50	0.47
1:AS:1029:U:O2'	1:AS:1030:U:OP1	2.28	0.47
1:AS:1434:U:H2'	1:AS:1435:U:C6	2.50	0.47
1:AS:2270:U:HO2'	45:CM:1643:U:HO2'	1.55	0.47
1:AS:2642:G:H2'	1:AS:2643:A:C8	2.49	0.47
1:AS:2853:C:H2'	1:AS:2854:U:H6	1.79	0.47
3:AU:81:A:H2'	3:AU:82:U:C6	2.50	0.47
3:AU:142:C:H2'	3:AU:143:U:H6	1.79	0.47
5:AX:283:TYR:CE1	5:AX:325:LYS:HB2	2.50	0.47
10:BC:113:GLU:O	10:BC:117:ILE:HG13	2.14	0.47
11:BD:144:LEU:HD23	11:BD:145:ILE:N	2.30	0.47
11:BD:146:VAL:HG12	11:BD:154:VAL:CG2	2.45	0.47
18:BK:32:THR:HG21	18:BK:87:SER:HB3	1.96	0.47
45:CM:483:A:H2'	45:CM:484:G:C8	2.50	0.47
45:CM:788:A:C8	68:DJ:107:SER:HA	2.50	0.47
48:CP:80:SER:HB3	79:CL:111:ASP:OD1	2.15	0.47
50:CR:32:SER:OG	50:CR:81:THR:HG23	2.15	0.47
50:CR:253:ARG:HD3	55:CW:71:PHE:HE1	1.80	0.47
56:CX:27:PHE:O	56:CX:40:LEU:HB2	2.15	0.47
56:CX:68:LEU:HD13	56:CX:69:THR:O	2.15	0.47
62:DD:101:LYS:HA	62:DD:101:LYS:CE	2.39	0.47
64:DF:17:LEU:O	64:DF:20:THR:OG1	2.33	0.47
65:DG:61:ILE:HD11	65:DG:108:LEU:HD22	1.97	0.47
65:DG:69:LYS:HB2	65:DG:123:ARG:HH11	1.79	0.47
68:DJ:18:GLU:OE2	68:DJ:67:GLY:HA2	2.15	0.47
72:DN:44:MET:CE	72:DN:65:PRO:HG2	2.42	0.47
1:1:277:G:H2'	1:1:278:U:C6	2.49	0.47
1:1:430:G:H2'	1:1:431:A:C8	2.50	0.47
1:1:559:C:H2'	1:1:560:C:H6	1.80	0.47
1:1:762:U:H4'	1:1:763:U:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:833:A:O2'	44:AQ:10:ILE:HD13	2.15	0.47
1:1:983:U:H2'	1:1:984:U:H6	1.80	0.47
1:1:1189:A:H5'	81:1:3417:PAR:O62	2.14	0.47
1:1:2424:U:H2'	1:1:2425:G:C8	2.49	0.47
1:1:3207:G:O4'	1:1:3210:A:H1'	2.14	0.47
9:o:82:VAL:CG2	9:o:134:TYR:HD2	2.27	0.47
13:s:157:GLU:OE1	13:s:157:GLU:HA	2.15	0.47
14:t:168:ALA:N	29:AB:135:GLU:OE2	2.37	0.47
23:5:33:TYR:O	23:5:37:LEU:HD12	2.15	0.47
45:B:904:A:H2'	45:B:905:C:C6	2.50	0.47
58:O:35:SER:HB3	58:O:41:LEU:HD13	1.96	0.47
60:Q:81:THR:HG21	60:Q:85:LYS:HZ2	1.79	0.47
62:S:39:GLN:HG2	65:V:12:GLN:HE22	1.80	0.47
69:Z:133:LEU:HA	69:Z:133:LEU:HD12	1.45	0.47
1:AS:37:U:H2'	1:AS:38:A:O4'	2.15	0.47
1:AS:386:A:C5	1:AS:387:A:H1'	2.49	0.47
1:AS:663:A:N3	14:BG:12:ASN:ND2	2.63	0.47
1:AS:1163:U:H2'	1:AS:1164:U:O4'	2.14	0.47
1:AS:1434:U:H4'	6:AY:89:ALA:HB3	1.95	0.47
1:AS:1922:C:H5''	44:CK:8:VAL:CG1	2.45	0.47
1:AS:2199:G:O6	37:CD:70:LYS:NZ	2.35	0.47
1:AS:3269:C:O2	5:AX:334:ARG:HG2	2.15	0.47
2:AT:112:G:H2'	2:AT:113:C:C6	2.50	0.47
4:AW:118:GLU:O	4:AW:119:LYS:HD2	2.14	0.47
5:AX:92:TYR:HB2	5:AX:157:VAL:HB	1.96	0.47
6:AY:151:LEU:HD21	6:AY:173:VAL:HG12	1.95	0.47
17:BJ:151:GLU:O	17:BJ:154:VAL:HG22	2.15	0.47
17:BJ:171:LYS:HE3	17:BJ:171:LYS:HB3	1.66	0.47
42:CI:15:ARG:O	42:CI:18:ARG:HG2	2.14	0.47
45:CM:25:C:H4'	45:CM:26:A:O5'	2.14	0.47
45:CM:670:C:H3'	45:CM:671:G:O4'	2.15	0.47
45:CM:1445:C:H2'	64:DF:138:THR:OG1	2.14	0.47
45:CM:1448:G:N7	64:DF:143:ARG:NH2	2.63	0.47
46:CN:29:VAL:HG13	46:CN:34:LYS:NZ	2.30	0.47
47:CO:73:LEU:HD12	47:CO:73:LEU:N	2.30	0.47
48:CP:170:GLY:CA	55:CW:57:ARG:HH21	2.26	0.47
50:CR:254:ASP:O	50:CR:257:ARG:HG3	2.14	0.47
54:CV:158:ILE:HG22	57:CY:24:LYS:HD2	1.95	0.47
59:DA:5:HIS:HB2	59:DA:121:ARG:HH21	1.80	0.47
61:DC:35:LYS:HE3	61:DC:35:LYS:HB3	1.71	0.47
63:DE:90:ALA:HA	63:DE:95:HIS:CE1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:12:A:H4'	26:8:39:LYS:HG2	1.96	0.47
1:1:1153:G:H2'	1:1:1154:A:O4'	2.15	0.47
1:1:1632:C:H4'	28:AA:74:LEU:O	2.15	0.47
1:1:2567:A:H3'	1:1:2568:U:H6	1.80	0.47
1:1:3066:A:H2'	1:1:3067:U:C6	2.50	0.47
1:1:3136:C:H2'	1:1:3137:A:H8	1.80	0.47
1:1:3216:U:H2'	1:1:3217:G:C8	2.50	0.47
2:3:56:A:H4'	13:s:152:HIS:HB2	1.97	0.47
2:3:70:A:H2'	2:3:71:U:C6	2.50	0.47
6:l:220:LEU:HD22	6:l:226:VAL:HG11	1.97	0.47
7:m:254:LYS:HD3	7:m:254:LYS:HA	1.62	0.47
8:n:6:PRO:HB3	33:AF:93:TYR:CD1	2.50	0.47
8:n:97:VAL:HA	8:n:100:PHE:CE2	2.50	0.47
10:p:177:PRO:HG2	10:p:216:ILE:HD13	1.97	0.47
11:q:9:ILE:O	11:q:72:LYS:HE2	2.15	0.47
30:AC:43:HIS:CE1	30:AC:47:LEU:HD11	2.50	0.47
45:B:326:A:H2'	45:B:327:G:O4'	2.15	0.47
45:B:637:U:OP2	53:J:115:THR:HG23	2.15	0.47
45:B:795:A:N6	53:J:109:PRO:HD3	2.30	0.47
46:C:146:LEU:HD23	46:C:160:ILE:HB	1.97	0.47
50:G:71:GLN:HB2	50:G:91:THR:OG1	2.15	0.47
51:H:131:GLN:O	51:H:134:VAL:HG12	2.15	0.47
62:S:15:ALA:HB2	62:S:71:GLY:HA3	1.96	0.47
70:a:52:LYS:O	70:a:55:VAL:HG12	2.15	0.47
78:AR:16:HIS:CD2	78:AR:43:ILE:HD12	2.50	0.47
1:AS:1503:G:H1'	18:BK:139:TYR:CE2	2.50	0.47
1:AS:2810:A:N6	1:AS:2822:G:O2'	2.41	0.47
4:AW:195:SER:O	4:AW:198:LYS:HE2	2.15	0.47
5:AX:66:LYS:NZ	24:BQ:9:ASN:H	2.10	0.47
7:AZ:84:PRO:HG3	7:AZ:89:LYS:HA	1.97	0.47
7:AZ:155:THR:HB	7:AZ:179:ARG:HH11	1.80	0.47
11:BD:2:LYS:HB3	11:BD:59:ASN:ND2	2.30	0.47
16:BI:88:GLY:HA3	43:CJ:50:TYR:CE1	2.49	0.47
17:BJ:6:LYS:N	17:BJ:6:LYS:HD2	2.30	0.47
20:BM:166:ASN:O	20:BM:170:ARG:HG2	2.15	0.47
22:BO:35:LYS:HE3	22:BO:35:LYS:HB3	1.63	0.47
45:CM:184:C:H2'	45:CM:185:G:O4'	2.14	0.47
45:CM:518:A:H2'	45:CM:519:A:H8	1.78	0.47
45:CM:880:G:H1	45:CM:902:U:H3	1.61	0.47
45:CM:1012:A:OP1	45:CM:1776:G:O2'	2.30	0.47
45:CM:1016:U:H4'	45:CM:1017:G:OP2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:1105:U:H2'	45:CM:1106:C:C6	2.51	0.47
45:CM:1167:U:H4'	61:DC:124:THR:OG1	2.15	0.47
45:CM:1215:A:H2	45:CM:1243:U:O2	1.98	0.47
45:CM:1242:U:H1'	56:CX:8:ARG:HH21	1.80	0.47
45:CM:1259:C:N3	79:CL:93:ARG:HG2	2.30	0.47
47:CO:65:VAL:H	60:DB:31:LYS:HZ3	1.61	0.47
55:CW:158:PHE:CD2	55:CW:164:TYR:HB2	2.50	0.47
63:DE:21:TYR:HD1	63:DE:71:PHE:CD2	2.33	0.47
65:DG:57:ARG:HH22	65:DG:80:TYR:HB2	1.80	0.47
66:DH:26:THR:CG2	66:DH:87:LYS:HG3	2.43	0.47
70:DL:62:THR:HG22	70:DL:69:SER:OG	2.14	0.47
70:DL:86:GLU:OE2	70:DL:90:ARG:NH2	2.45	0.47
1:1:150:A:C5	1:1:151:U:C5	3.02	0.46
1:1:1163:U:H2'	1:1:1164:U:O4'	2.16	0.46
1:1:1402:A:H5'	33:AF:18:PHE:CD1	2.50	0.46
1:1:1639:A:OP2	35:AH:68:THR:HG21	2.15	0.46
1:1:2182:C:H2'	1:1:2183:U:C6	2.49	0.46
1:1:2375:A:H8	1:1:2913:A:N1	2.12	0.46
1:1:2383:C:O2	1:1:2791:A:N1	2.48	0.46
1:1:2504:C:H2'	1:1:2505:G:H8	1.80	0.46
5:k:291:GLU:HB3	5:k:302:LYS:HE3	1.96	0.46
6:l:157:PHE:CD1	6:l:169:VAL:HG11	2.50	0.46
10:p:163:LEU:HA	16:v:7:LEU:HD21	1.97	0.46
19:y:36:LEU:HB3	19:y:45:ASN:OD1	2.14	0.46
20:z:39:SER:HA	20:z:42:ARG:HH11	1.79	0.46
21:0:26:ARG:O	22:2:150:THR:HA	2.15	0.46
22:2:56:TYR:CZ	22:2:78:LYS:HG3	2.50	0.46
29:AB:86:LYS:HG2	29:AB:86:LYS:O	2.14	0.46
45:B:1520:C:H4'	45:B:1526:G:O6	2.15	0.46
49:F:29:GLU:CD	49:F:66:ARG:HH21	2.23	0.46
49:F:46:LYS:HE2	49:F:86:ALA:HB2	1.97	0.46
49:F:91:ARG:HD3	49:F:91:ARG:HA	1.80	0.46
50:G:107:GLY:HA2	50:G:189:LEU:CD2	2.45	0.46
51:H:43:PHE:CE1	51:H:70:VAL:HG13	2.50	0.46
55:L:29:LYS:O	55:L:33:GLU:HG3	2.15	0.46
56:M:88:PRO:O	56:M:89:LEU:HD12	2.15	0.46
61:R:75:VAL:HG22	61:R:93:VAL:HG12	1.97	0.46
78:AR:40:LYS:HZ1	78:AR:67:HIS:N	2.13	0.46
78:AR:90:LEU:HD11	78:AR:125:SER:OG	2.14	0.46
1:AS:66:A:O2'	1:AS:315:C:O2	2.28	0.46
1:AS:910:A:N7	4:AW:199:THR:HG21	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:997:G:O2'	1:AS:1037:U:OP2	2.31	0.46
1:AS:1343:C:O2'	6:AY:306:LYS:HD3	2.15	0.46
1:AS:1427:G:P	29:BV:12:ARG:HH21	2.39	0.46
1:AS:1513:A:P	40:CG:41:ARG:HH22	2.37	0.46
1:AS:2116:A:C4	38:CE:3:LYS:HB3	2.49	0.46
1:AS:2182:C:H2'	1:AS:2183:U:H6	1.80	0.46
1:AS:2538:A:H2	10:BC:32:PRO:HA	1.79	0.46
1:AS:2641:G:H2'	1:AS:2642:G:C8	2.50	0.46
3:AU:143:U:H2'	3:AU:144:G:O4'	2.14	0.46
5:AX:3:HIS:ND1	5:AX:4:ARG:O	2.45	0.46
8:BA:3:GLN:HG2	33:BZ:76:LEU:N	2.15	0.46
10:BC:83:LEU:HA	10:BC:83:LEU:HD23	1.40	0.46
12:BE:196:TYR:HD2	12:BE:197:VAL:N	2.04	0.46
16:BI:113:LEU:HD22	16:BI:136:ASP:HA	1.96	0.46
21:BN:92:LYS:HE2	21:BN:109:ASP:OD2	2.15	0.46
26:BS:73:MET:O	26:BS:76:VAL:HG22	2.14	0.46
27:BT:113:LYS:HA	27:BT:116:LYS:HE2	1.97	0.46
33:BZ:14:TYR:CG	33:BZ:18:PHE:HE2	2.33	0.46
34:CA:3:GLU:OE1	34:CA:3:GLU:N	2.47	0.46
44:CK:56:ASN:OD1	44:CK:63:THR:HB	2.15	0.46
45:CM:4:C:H5	45:CM:20:G:H1	1.63	0.46
45:CM:76:A:N6	45:CM:80:A:O2'	2.48	0.46
45:CM:695:C:N3	53:CU:103:ARG:NH2	2.63	0.46
45:CM:698:C:H2'	45:CM:699:U:C6	2.50	0.46
45:CM:1386:A:P	63:DE:60:ARG:HE	2.38	0.46
45:CM:1580:A:H2'	45:CM:1581:G:C8	2.50	0.46
47:CO:52:THR:HG23	47:CO:53:GLY:O	2.14	0.46
48:CP:152:LYS:NZ	68:DJ:91:ASP:O	2.39	0.46
49:CQ:103:ALA:HB2	49:CQ:187:VAL:CG1	2.45	0.46
51:CS:119:GLU:O	51:CS:123:VAL:HG23	2.15	0.46
52:CT:155:ASP:C	52:CT:156:PHE:HD1	2.22	0.46
53:CU:152:SER:HB3	53:CU:183:GLY:HA2	1.96	0.46
55:CW:138:LYS:CG	55:CW:138:LYS:O	2.62	0.46
63:DE:55:THR:C	63:DE:59:LYS:HZ2	2.23	0.46
70:DL:101:GLU:HA	70:DL:101:GLU:OE1	2.15	0.46
73:DO:55:THR:HG22	73:DO:62:VAL:HA	1.97	0.46
1:1:125:U:OP1	16:v:144:ARG:NH1	2.48	0.46
1:1:640:U:O2'	1:1:642:G:N7	2.47	0.46
1:1:716:G:H3'	1:1:717:A:H5''	1.97	0.46
81:1:3421:PAR:H51	81:1:3421:PAR:H322	1.81	0.46
2:3:112:G:H2'	2:3:113:C:C6	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:l:111:ASN:HB3	16:v:202:TYR:CE1	2.49	0.46
8:n:95:VAL:HG22	8:n:144:ALA:HB3	1.97	0.46
10:p:178:TYR:O	10:p:219:ILE:HD13	2.15	0.46
13:s:99:THR:O	13:s:154:THR:OG1	2.33	0.46
21:0:13:ASN:HB2	21:0:22:PRO:CB	2.45	0.46
27:9:28:ARG:HG2	27:9:49:PRO:HB3	1.96	0.46
45:B:583:A:H2'	45:B:584:G:H8	1.80	0.46
45:B:1432:A:O2'	45:B:1433:C:H3'	2.15	0.46
45:B:1477:U:H4'	45:B:1478:A:H5'	1.97	0.46
46:C:55:GLU:O	46:C:58:VAL:HG22	2.16	0.46
46:C:179:ARG:NH2	46:C:183:ARG:HH22	2.13	0.46
51:H:27:THR:HG23	62:S:27:LEU:HD22	1.97	0.46
63:T:14:LYS:HB2	63:T:69:ILE:CG2	2.45	0.46
68:Y:27:ILE:N	68:Y:61:ILE:O	2.40	0.46
1:AS:178:U:H2'	1:AS:179:C:H6	1.81	0.46
1:AS:212:A:O4'	27:BT:2:ALA:HA	2.15	0.46
1:AS:284:A:OP2	43:CJ:41:ARG:HD2	2.15	0.46
1:AS:362:U:H5	38:CE:24:ARG:NH2	2.13	0.46
1:AS:910:A:C2	4:AW:204:MET:HE2	2.50	0.46
1:AS:939:U:H3'	29:BV:13:GLY:HA2	1.97	0.46
1:AS:1481:G:O2'	1:AS:1870:A:O2'	2.30	0.46
1:AS:2195:U:H2'	1:AS:2196:G:H8	1.79	0.46
1:AS:2653:U:OP1	13:BF:50:ALA:HA	2.15	0.46
1:AS:3019:U:O2'	1:AS:3020:A:H5'	2.13	0.46
2:AT:7:G:OP1	7:AZ:33:ARG:NH1	2.47	0.46
4:AW:84:THR:HG23	44:CK:63:THR:O	2.15	0.46
5:AX:112:GLU:O	5:AX:116:ARG:HG3	2.15	0.46
6:AY:61:THR:HG21	6:AY:78:VAL:HG22	1.97	0.46
6:AY:204:ARG:NH1	6:AY:241:PRO:HB3	2.31	0.46
26:BS:68:ALA:CB	36:CC:36:LEU:HD11	2.46	0.46
37:CD:85:LYS:HA	37:CD:85:LYS:HD2	1.45	0.46
45:CM:167:A:OP2	45:CM:167:A:H8	1.98	0.46
45:CM:181:U:H2'	45:CM:182:C:H6	1.80	0.46
45:CM:327:G:H2'	45:CM:328:G:H8	1.79	0.46
45:CM:732:C:H4'	68:DJ:80:ASN:ND2	2.30	0.46
45:CM:852:G:OP2	59:DA:3:ARG:NH1	2.47	0.46
47:CO:148:ASN:HD22	47:CO:148:ASN:H	1.64	0.46
48:CP:230:LEU:CD2	67:DI:54:ALA:HB2	2.43	0.46
56:CX:14:TYR:CD2	56:CX:35:ILE:HG13	2.50	0.46
56:CX:15:LEU:O	56:CX:19:GLY:HA2	2.14	0.46
61:DC:60:LEU:HA	61:DC:60:LEU:HD23	1.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:DE:6:THR:HG22	63:DE:7:LYS:H	1.80	0.46
63:DE:109:LEU:O	63:DE:113:LEU:HG	2.15	0.46
64:DF:49:LYS:HE3	64:DF:80:LYS:O	2.14	0.46
65:DG:53:TRP:HA	65:DG:56:LYS:CE	2.45	0.46
67:DI:36:ILE:HG13	67:DI:51:ILE:HB	1.97	0.46
68:DJ:83:ILE:CD1	68:DJ:122:SER:HB2	2.45	0.46
1:1:623:A:H2'	1:1:624:U:C6	2.51	0.46
1:1:779:A:H5''	1:1:780:A:H5''	1.97	0.46
1:1:1865:C:H4'	1:1:3049:A:O2'	2.15	0.46
7:m:272:TYR:O	7:m:273:ARG:HB2	2.15	0.46
8:n:71:ASN:CB	8:n:73:VAL:HG12	2.42	0.46
12:r:32:ARG:HB3	12:r:32:ARG:CZ	2.44	0.46
12:r:156:ARG:HG3	12:r:163:GLN:HB2	1.98	0.46
19:y:67:ILE:HG23	19:y:81:ILE:HG13	1.96	0.46
22:2:53:PRO:HB3	22:2:91:LEU:HD21	1.96	0.46
23:5:59:GLU:HA	23:5:59:GLU:OE2	2.15	0.46
28:AA:53:VAL:HA	28:AA:57:MET:CE	2.44	0.46
28:AA:70:PRO:HG3	28:AA:115:LYS:HB2	1.97	0.46
45:B:180:A:H2'	45:B:181:U:H6	1.80	0.46
45:B:592:A:OP1	55:L:40:ARG:NH2	2.48	0.46
45:B:1258:G:N7	45:B:1416:U:H3'	2.31	0.46
45:B:1399:U:OP2	63:T:3:ARG:NH2	2.49	0.46
48:E:86:ARG:HD3	48:E:86:ARG:H	1.80	0.46
53:J:120:LYS:HE2	53:J:120:LYS:HA	1.96	0.46
56:M:59:PHE:CZ	56:M:62:GLN:HA	2.50	0.46
60:Q:129:GLY:O	60:Q:131:ARG:NH1	2.48	0.46
75:f:46:LYS:O	75:f:50:ILE:HG12	2.14	0.46
78:AR:23:LEU:HD21	78:AR:307:ILE:CD1	2.45	0.46
78:AR:41:THR:HG22	78:AR:42:LEU:N	2.30	0.46
78:AR:253:THR:HG22	78:AR:256:GLY:H	1.81	0.46
78:AR:271:LEU:HA	78:AR:271:LEU:HD13	1.79	0.46
1:AS:289:A:O2'	16:BI:94:TYR:O	2.21	0.46
1:AS:293:C:H2'	1:AS:294:U:O4'	2.16	0.46
1:AS:664:A:H3'	81:AS:3409:PAR:HN62	1.80	0.46
1:AS:815:U:O2'	1:AS:914:C:O2'	2.31	0.46
1:AS:851:U:H5''	20:BM:95:TRP:CG	2.51	0.46
1:AS:970:G:H5'	19:BL:16:ARG:HG2	1.98	0.46
1:AS:1184:U:OP1	1:AS:1206:U:O2'	2.22	0.46
1:AS:1377:A:OP1	6:AY:198:ARG:NH1	2.48	0.46
1:AS:2174:C:H2'	1:AS:2220:A:H61	1.80	0.46
1:AS:2339:A:H2'	1:AS:2340:C:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:2367:C:O2'	1:AS:3272:A:N1	2.46	0.46
1:AS:2583:U:H2'	1:AS:2584:U:H6	1.80	0.46
2:AT:46:A:OP1	7:AZ:158:ARG:N	2.46	0.46
6:AY:61:THR:HG22	6:AY:63:ALA:N	2.31	0.46
8:BA:37:THR:HA	8:BA:89:LYS:HD3	1.97	0.46
10:BC:157:ASP:OD2	10:BC:157:ASP:N	2.47	0.46
14:BG:155:GLU:HG2	29:BV:101:VAL:HG11	1.97	0.46
17:BJ:126:ARG:HG2	17:BJ:130:LEU:HD12	1.97	0.46
20:BM:168:ALA:O	20:BM:172:ARG:HD2	2.16	0.46
23:BP:19:VAL:HA	23:BP:108:LEU:CD2	2.46	0.46
23:BP:19:VAL:HG22	23:BP:62:ASN:O	2.15	0.46
27:BT:16:ARG:HB3	27:BT:20:PHE:CE2	2.49	0.46
45:CM:181:U:H2'	45:CM:182:C:C6	2.51	0.46
45:CM:470:U:H5''	55:CW:11:THR:HG23	1.97	0.46
45:CM:723:G:H2'	45:CM:724:G:H4'	1.97	0.46
46:CN:115:PHE:C	46:CN:116:LYS:HD3	2.39	0.46
46:CN:198:MET:HE3	63:DE:85:VAL:CG2	2.42	0.46
58:CZ:35:SER:CB	58:CZ:41:LEU:HD21	2.45	0.46
61:DC:121:ILE:HD11	61:DC:123:TYR:CZ	2.51	0.46
63:DE:75:GLU:HG3	63:DE:76:GLU:OE1	2.15	0.46
69:DK:82:LYS:HG2	69:DK:82:LYS:O	2.15	0.46
79:i:48:PRO:O	79:i:50:LYS:N	2.38	0.46
5:k:84:MET:HE1	5:k:181:ILE:HD11	1.97	0.46
10:p:28:PHE:N	10:p:28:PHE:CD2	2.83	0.46
15:u:47:ARG:NH1	15:u:69:SER:O	2.37	0.46
21:0:99:ARG:NH1	21:0:126:VAL:O	2.45	0.46
27:9:28:ARG:HB2	27:9:75:ARG:NH2	2.31	0.46
45:B:1484:U:C4	45:B:1498:G:C2	3.04	0.46
66:W:104:GLN:HA	66:W:107:ILE:CG2	2.46	0.46
67:X:79:LEU:HD23	67:X:79:LEU:HA	1.77	0.46
78:AR:97:THR:C	78:AR:99:GLU:H	2.23	0.46
1:AS:6:C:OP1	10:BC:194:LYS:HD2	2.16	0.46
1:AS:269:G:OP2	16:BI:44:ARG:NH1	2.49	0.46
1:AS:437:G:O2'	1:AS:438:A:H5''	2.16	0.46
1:AS:1481:G:HO2'	1:AS:1870:A:HO2'	1.61	0.46
7:AZ:107:ARG:NH1	7:AZ:110:LEU:HD12	2.30	0.46
8:BA:158:TYR:CE2	15:BH:108:PHE:HA	2.50	0.46
10:BC:37:ILE:H	10:BC:37:ILE:HD12	1.80	0.46
13:BF:80:LEU:O	13:BF:84:LEU:HD12	2.16	0.46
16:BI:85:THR:HG23	16:BI:86:ASN:HD22	1.81	0.46
25:BR:52:THR:HG22	25:BR:54:LEU:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BS:75:LYS:HB3	26:BS:81:THR:CG2	2.38	0.46
45:CM:588:C:H2'	45:CM:589:A:H8	1.81	0.46
45:CM:1051:C:O3'	47:CO:149:GLN:HG3	2.15	0.46
45:CM:1475:U:O2'	45:CM:1501:A:N6	2.43	0.46
46:CN:200:ASP:HB2	63:DE:85:VAL:HG23	1.98	0.46
52:CT:169:TYR:HE2	52:CT:171:LYS:HD3	1.80	0.46
54:CV:140:LYS:C	54:CV:141:ARG:HG3	2.39	0.46
59:DA:33:VAL:O	59:DA:37:ILE:HG23	2.15	0.46
59:DA:46:THR:O	59:DA:50:ILE:HG13	2.15	0.46
60:DB:26:THR:C	60:DB:34:ILE:HD12	2.40	0.46
64:DF:11:PHE:CZ	64:DF:25:ARG:HG2	2.51	0.46
64:DF:33:THR:HA	64:DF:38:VAL:HG12	1.97	0.46
79:CL:62:ALA:C	79:CL:64:LEU:H	2.24	0.46
1:1:164:U:H2'	1:1:165:C:C6	2.51	0.46
1:1:756:G:H1'	1:1:767:A:N6	2.30	0.46
1:1:1208:A:OP1	11:q:1:MET:HB2	2.15	0.46
1:1:2516:U:O2'	1:1:2519:A:N1	2.48	0.46
1:1:2690:U:H2'	1:1:2691:U:O4'	2.15	0.46
1:1:3253:G:H2'	1:1:3254:G:C8	2.50	0.46
19:y:64:VAL:HG23	19:y:93:LEU:HD11	1.98	0.46
32:AE:19:LEU:HD11	32:AE:31:ALA:HB2	1.97	0.46
45:B:795:A:C4	53:J:106:GLN:OE1	2.69	0.46
45:B:1305:U:O2	45:B:1307:A:H5'	2.16	0.46
45:B:1548:U:H4'	45:B:1586:C:H4'	1.97	0.46
50:G:123:LEU:HD22	50:G:159:THR:HG22	1.97	0.46
50:G:172:PHE:C	50:G:172:PHE:CD2	2.93	0.46
55:L:49:LEU:HD12	55:L:104:PHE:CE1	2.50	0.46
56:M:70:ASP:O	56:M:73:VAL:HG22	2.16	0.46
72:c:51:ARG:HG3	72:c:52:ASP:N	2.29	0.46
76:g:33:ARG:CZ	76:g:33:ARG:HB3	2.45	0.46
1:AS:548:G:H2'	1:AS:549:U:C6	2.50	0.46
1:AS:716:G:OP1	29:BV:117:ARG:NH2	2.49	0.46
1:AS:1723:G:P	44:CK:44:LYS:HZ1	2.38	0.46
1:AS:2152:G:OP2	4:AW:18:SER:OG	2.27	0.46
1:AS:2342:G:H22	1:AS:2374:G:H1'	1.80	0.46
1:AS:3159:A:C6	1:AS:3160:C:N4	2.83	0.46
1:AS:3160:C:H5'	17:BJ:173:LYS:HE2	1.97	0.46
4:AW:104:LEU:HD22	4:AW:162:ALA:O	2.15	0.46
8:BA:65:SER:HB2	8:BA:75:LEU:HD23	1.98	0.46
8:BA:67:PRO:HG2	8:BA:70:VAL:CG1	2.45	0.46
35:CB:104:VAL:HG22	35:CB:105:LEU:HD12	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:CF:16:ARG:HD3	39:CF:70:PRO:CG	2.45	0.46
45:CM:93:A:O2'	50:CR:4:GLY:HA3	2.16	0.46
45:CM:1160:U:H2'	45:CM:1161:G:C8	2.50	0.46
45:CM:1520:C:H4'	45:CM:1526:G:N7	2.30	0.46
45:CM:1577:G:OP1	65:DG:91:HIS:HB2	2.15	0.46
45:CM:1670:U:O2'	45:CM:1671:G:O5'	2.32	0.46
45:CM:1757:U:H2'	45:CM:1758:U:C6	2.50	0.46
46:CN:9:LEU:HB2	46:CN:54:TRP:CD1	2.50	0.46
46:CN:56:LYS:HZ3	46:CN:159:ALA:N	2.13	0.46
46:CN:56:LYS:HD3	46:CN:159:ALA:O	2.16	0.46
49:CQ:78:PHE:HB2	49:CQ:80:LEU:HG	1.98	0.46
51:CS:42:LEU:HD23	51:CS:130:ILE:HG21	1.98	0.46
55:CW:125:ALA:C	55:CW:129:ILE:HD12	2.40	0.46
58:CZ:137:LEU:O	58:CZ:141:SER:N	2.48	0.46
59:DA:27:LYS:H	59:DA:27:LYS:HD3	1.81	0.46
60:DB:52:PRO:HB3	60:DB:95:SER:HB3	1.97	0.46
62:DD:14:THR:HB	62:DD:71:GLY:HA2	1.97	0.46
62:DD:46:LYS:HA	62:DD:49:GLU:OE2	2.15	0.46
64:DF:60:GLU:OE2	71:DM:41:ILE:HG12	2.15	0.46
65:DG:69:LYS:O	65:DG:71:VAL:HG13	2.15	0.46
1:1:148:U:P	16:v:49:ARG:HH12	2.38	0.46
1:1:593:G:C8	1:1:607:G:C6	3.03	0.46
1:1:713:A:HO2'	1:1:748:C:HO2'	1.61	0.46
1:1:951:U:H2'	1:1:952:U:C6	2.51	0.46
1:1:3259:A:H2'	1:1:3260:A:O4'	2.15	0.46
4:j:77:ILE:HD12	4:j:128:ARG:HB3	1.98	0.46
7:m:5:LYS:HE2	7:m:5:LYS:HB2	1.71	0.46
8:n:58:GLU:OE2	8:n:58:GLU:N	2.29	0.46
15:u:29:ILE:HD13	15:u:38:VAL:HG11	1.96	0.46
18:x:128:ARG:HD3	18:x:136:ILE:HD12	1.97	0.46
28:AA:46:ILE:HG21	28:AA:49:ALA:HA	1.97	0.46
43:AP:10:THR:O	43:AP:20:HIS:HA	2.15	0.46
45:B:141:G:H2'	45:B:142:G:C8	2.50	0.46
45:B:584:G:H2'	45:B:585:C:C6	2.51	0.46
45:B:809:G:H2'	45:B:810:U:C6	2.50	0.46
45:B:867:U:H2'	45:B:868:C:C6	2.51	0.46
45:B:1043:U:O2	45:B:1045:U:N3	2.42	0.46
45:B:1354:U:C2	45:B:1355:A:N7	2.83	0.46
46:C:18:LEU:HD23	63:T:102:ILE:HD13	1.97	0.46
51:H:109:LYS:HB2	51:H:109:LYS:HE2	1.55	0.46
51:H:157:ARG:H	51:H:157:ARG:CD	2.25	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:O:64:ASP:H	58:O:92:SER:HB2	1.81	0.46
78:AR:221:ASP:OD1	78:AR:223:ASN:ND2	2.49	0.46
78:AR:253:THR:HG23	78:AR:255:SER:N	2.31	0.46
1:AS:259:C:H2'	1:AS:260:C:H6	1.81	0.46
1:AS:971:C:H5''	19:BL:54:LEU:CD2	2.45	0.46
1:AS:1440:G:H2'	1:AS:1441:U:O4'	2.16	0.46
1:AS:1704:C:H2'	1:AS:1705:C:H6	1.81	0.46
1:AS:1832:C:O2'	1:AS:1838:A:N1	2.47	0.46
1:AS:2335:A:H2'	1:AS:2336:A:H8	1.81	0.46
1:AS:3218:U:H2'	1:AS:3219:G:C8	2.51	0.46
1:AS:3336:G:H2'	1:AS:3337:A:H8	1.81	0.46
5:AX:67:MET:HE2	5:AX:70:ARG:HD3	1.98	0.46
8:BA:138:GLN:HE21	8:BA:142:ASP:CG	2.23	0.46
10:BC:35:PHE:CD1	10:BC:43:PRO:HD3	2.51	0.46
10:BC:219:ILE:HD12	10:BC:220:ASN:N	2.31	0.46
17:BJ:131:LYS:HD3	17:BJ:132:PRO:N	2.30	0.46
32:BY:58:ILE:HG13	32:BY:59:TRP:N	2.31	0.46
33:BZ:20:ARG:O	33:BZ:23:SER:OG	2.31	0.46
38:CE:24:ARG:NH1	38:CE:36:SER:OG	2.49	0.46
38:CE:26:SER:HB3	38:CE:35:SER:OG	2.16	0.46
38:CE:37:CYS:C	38:CE:45:ARG:HB2	2.40	0.46
45:CM:222:C:N3	45:CM:823:G:N2	2.63	0.46
45:CM:446:C:OP1	50:CR:29:PRO:HD3	2.16	0.46
45:CM:529:C:O2'	45:CM:530:U:OP1	2.25	0.46
45:CM:1183:G:OP1	45:CM:1184:G:O2'	2.27	0.46
45:CM:1243:U:C6	45:CM:1244:U:H5	2.33	0.46
45:CM:1542:A:OP2	61:DC:47:ARG:NH1	2.48	0.46
45:CM:1750:A:H5''	45:CM:1758:U:H5''	1.97	0.46
47:CO:115:ARG:HD3	47:CO:115:ARG:HA	1.76	0.46
51:CS:99:MET:N	51:CS:180:ARG:HH12	2.09	0.46
51:CS:197:GLU:OE1	51:CS:208:SER:OG	2.23	0.46
51:CS:201:ALA:CB	51:CS:211:ILE:HD11	2.45	0.46
63:DE:11:ARG:O	63:DE:15:VAL:HG23	2.16	0.46
63:DE:61:ILE:C	63:DE:61:ILE:HD12	2.40	0.46
69:DK:90:ASP:OD1	76:DR:12:GLY:HA2	2.15	0.46
1:1:242:C:O2'	1:1:243:G:H8	1.99	0.46
1:1:671:U:H2'	1:1:672:G:H8	1.80	0.46
1:1:1323:C:O2'	34:AG:76:GLY:HA2	2.15	0.46
1:1:1466:U:H2'	1:1:1467:U:C6	2.50	0.46
1:1:1695:A:C6	1:1:1743:G:C6	3.04	0.46
1:1:1923:G:N7	44:AQ:16:VAL:HG12	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2331:G:H5''	18:x:86:LYS:HB2	1.98	0.46
1:1:2477:U:H2'	1:1:2478:A:H8	1.79	0.46
1:1:3126:U:H2'	1:1:3128:G:H1'	1.96	0.46
1:1:3166:A:C5	1:1:3167:G:N7	2.84	0.46
1:1:3261:A:H2'	1:1:3262:U:C6	2.50	0.46
3:4:83:U:O2	27:9:51:ARG:NH2	2.49	0.46
4:j:3:ARG:HB2	4:j:207:VAL:HG22	1.96	0.46
12:r:191:ILE:HG22	12:r:213:PHE:HE2	1.80	0.46
16:v:35:VAL:HA	16:v:65:ARG:HG2	1.97	0.46
22:2:131:GLN:OE1	22:2:134:LYS:NZ	2.47	0.46
23:5:87:LEU:HD23	23:5:92:ILE:HD12	1.97	0.46
45:B:846:U:H5'	45:B:847:A:OP2	2.14	0.46
45:B:953:U:H2'	45:B:954:C:O4'	2.15	0.46
45:B:1530:A:N6	45:B:1555:C:O4'	2.49	0.46
50:G:11:ARG:HD3	50:G:21:ASP:O	2.16	0.46
53:J:31:LYS:HE3	53:J:35:ARG:HH21	1.79	0.46
53:J:51:LYS:HD2	53:J:83:ASP:CA	2.45	0.46
54:K:190:LEU:HD22	54:K:194:GLU:HG2	1.98	0.46
59:P:40:TYR:HB3	59:P:45:LEU:CD1	2.46	0.46
61:R:24:ASP:O	61:R:28:MET:HG3	2.16	0.46
61:R:81:ARG:HH12	61:R:98:ASN:HA	1.81	0.46
65:V:61:ILE:HD12	65:V:104:CYS:SG	2.56	0.46
66:W:38:ALA:O	66:W:41:ILE:HG12	2.15	0.46
70:a:57:VAL:HB	70:a:60:PHE:HE2	1.81	0.46
78:AR:200:THR:OG1	78:AR:240:LEU:O	2.31	0.46
1:AS:146:U:OP2	10:BC:137:LEU:HD13	2.16	0.46
1:AS:249:G:H2'	1:AS:251:G:OP2	2.16	0.46
1:AS:2698:C:O2'	1:AS:2699:A:H2'	2.15	0.46
1:AS:2734:A:H2'	1:AS:2735:U:H6	1.79	0.46
1:AS:3135:A:H2'	1:AS:3136:C:C6	2.50	0.46
5:AX:216:ASP:OD2	5:AX:339:ARG:NH1	2.48	0.46
9:BB:134:TYR:CZ	9:BB:228:ASN:HB2	2.50	0.46
11:BD:86:TYR:CE2	11:BD:151:LEU:HB2	2.51	0.46
13:BF:47:GLN:HG2	13:BF:67:VAL:HG22	1.98	0.46
16:BI:35:VAL:HA	16:BI:65:ARG:NH2	2.31	0.46
18:BK:29:THR:HA	18:BK:32:THR:HG22	1.98	0.46
36:CC:65:ASN:OD1	36:CC:65:ASN:N	2.48	0.46
45:CM:494:G:H3'	45:CM:495:G:H5''	1.98	0.46
45:CM:1141:C:H2'	45:CM:1142:A:C8	2.51	0.46
45:CM:1230:G:N2	45:CM:1235:U:O4	2.43	0.46
45:CM:1648:U:H2'	45:CM:1649:G:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:1649:G:H2'	45:CM:1650:G:H8	1.80	0.46
81:CM:1802:PAR:H41	70:DL:113:ASN:HB3	1.96	0.46
61:DC:81:ARG:NH2	61:DC:120:SER:OG	2.49	0.46
79:i:165:LEU:HD23	79:i:166:GLU:H	1.80	0.46
1:l:436:A:H2'	1:l:437:G:C8	2.51	0.46
1:l:1269:A:C2	1:l:1270:A:H1'	2.51	0.46
5:k:81:THR:HG21	5:k:322:VAL:HG22	1.98	0.46
6:l:36:VAL:HG11	6:l:245:LEU:HD11	1.98	0.46
7:m:285:LYS:HG2	7:m:289:LYS:HZ2	1.81	0.46
8:n:38:VAL:HG13	8:n:86:THR:OG1	2.15	0.46
12:r:197:VAL:HG23	12:r:199:PHE:HE2	1.81	0.46
20:z:37:SER:O	20:z:41:ILE:HG12	2.16	0.46
20:z:69:SER:CB	20:z:75:HIS:HE1	2.29	0.46
23:5:23:VAL:HG11	23:5:62:ASN:ND2	2.30	0.46
37:AJ:89:MET:O	37:AJ:93:ILE:HG13	2.15	0.46
45:B:686:G:OP1	68:Y:119:LYS:HG2	2.16	0.46
45:B:769:U:O2'	45:B:770:C:OP2	2.30	0.46
45:B:770:C:H6	45:B:770:C:OP1	1.98	0.46
45:B:1199:U:HO2'	75:f:3:HIS:HD1	1.52	0.46
46:C:3:LEU:HD11	67:X:39:VAL:CG1	2.46	0.46
50:G:87:MET:O	50:G:122:LYS:HE3	2.16	0.46
50:G:103:TYR:CG	50:G:189:LEU:HD21	2.50	0.46
53:J:85:HIS:HD2	53:J:161:LYS:HE2	1.81	0.46
55:L:83:ILE:HD12	55:L:85:VAL:H	1.81	0.46
59:P:49:GLN:HA	59:P:52:VAL:HG22	1.97	0.46
59:P:127:ARG:O	59:P:131:THR:HG23	2.16	0.46
62:S:72:GLY:H	62:S:75:SER:HB3	1.79	0.46
63:T:16:LEU:HD12	63:T:54:THR:HG21	1.98	0.46
66:W:30:VAL:O	66:W:34:GLU:HG2	2.16	0.46
66:W:56:ARG:HH11	66:W:88:ARG:NH1	2.13	0.46
73:d:56:CYS:N	73:d:63:LEU:HD21	2.31	0.46
1:AS:293:C:O2'	37:CD:75:ARG:HA	2.15	0.46
1:AS:2532:A:H5'	4:AW:87:PHE:HE1	1.81	0.46
1:AS:2573:A:OP2	16:BI:91:GLN:NE2	2.40	0.46
1:AS:2623:G:H5''	1:AS:2624:U:O4'	2.15	0.46
1:AS:3023:U:C2	1:AS:3024:G:C8	3.03	0.46
1:AS:3281:A:C6	5:AX:124:LYS:HG2	2.51	0.46
5:AX:58:ARG:NH1	5:AX:352:GLU:OE2	2.49	0.46
6:AY:262:VAL:O	6:AY:270:SER:OG	2.31	0.46
10:BC:194:LYS:HD3	10:BC:194:LYS:HA	1.74	0.46
13:BF:7:ASN:HB3	13:BF:10:ARG:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BN:44:PHE:HE1	21:BN:122:HIS:ND1	2.14	0.46
21:BN:55:SER:O	21:BN:55:SER:OG	2.34	0.46
21:BN:60:SER:OG	21:BN:62:ASN:OD1	2.33	0.46
22:BO:44:ALA:HB2	22:BO:53:PRO:HG2	1.97	0.46
31:BX:12:ILE:HG22	31:BX:16:LEU:CD2	2.46	0.46
45:CM:444:A:C6	45:CM:445:U:C4	3.03	0.46
45:CM:860:G:H5'	45:CM:861:G:P	2.55	0.46
45:CM:1149:G:O2'	45:CM:1599:U:O2	2.31	0.46
45:CM:1678:G:C8	45:CM:1679:A:C8	3.03	0.46
45:CM:1698:U:C2'	45:CM:1699:G:H4'	2.40	0.46
48:CP:53:LEU:HD11	67:DI:15:ARG:HG3	1.97	0.46
51:CS:196:GLU:O	51:CS:200:ASN:OD1	2.34	0.46
52:CT:214:LYS:O	52:CT:218:GLU:HG3	2.15	0.46
52:CT:230:ARG:HD3	52:CT:230:ARG:HA	1.52	0.46
64:DF:34:LYS:HD2	64:DF:34:LYS:HA	1.45	0.46
70:DL:89:TYR:HE2	70:DL:93:ARG:HH21	1.62	0.46
1:1:521:G:H22	1:1:565:A:H2	1.64	0.46
1:1:561:U:H2'	1:1:562:C:C6	2.51	0.46
1:1:988:A:O2'	1:1:989:G:H5'	2.15	0.46
1:1:1736:U:O4'	35:AH:56:THR:OG1	2.32	0.46
1:1:1754:G:OP1	23:5:109:GLN:NE2	2.49	0.46
7:m:208:MET:HG2	7:m:223:PHE:CE2	2.49	0.46
7:m:261:THR:OG1	7:m:264:GLN:OE1	2.34	0.46
9:o:39:ARG:HA	9:o:42:ILE:HG12	1.96	0.46
21:0:83:SER:OG	21:0:88:HIS:NE2	2.40	0.46
22:2:124:GLU:CG	22:2:125:THR:H	2.29	0.46
27:9:16:ARG:HH11	27:9:16:ARG:HD3	1.61	0.46
34:AG:73:ARG:HD3	34:AG:82:ARG:HD2	1.97	0.46
44:AQ:5:THR:HB	44:AQ:8:VAL:HG22	1.97	0.46
45:B:700:G:C2	45:B:701:G:C5	3.03	0.46
45:B:840:A:O2'	45:B:841:A:H3'	2.16	0.46
45:B:987:G:N2	45:B:1747:G:O3'	2.47	0.46
45:B:1149:G:H2'	45:B:1150:G:H8	1.80	0.46
46:C:175:TRP:CE3	46:C:199:PRO:HG3	2.51	0.46
46:C:201:LEU:HB2	63:T:85:VAL:HG11	1.98	0.46
52:I:177:ARG:HG2	52:I:177:ARG:O	2.14	0.46
54:K:87:ASN:HB3	54:K:90:LEU:HG	1.98	0.46
54:K:200:ARG:HB3	54:K:200:ARG:CZ	2.45	0.46
57:N:7:VAL:HG12	57:N:53:TYR:HA	1.98	0.46
62:S:131:ARG:HG3	62:S:137:PHE:CE1	2.48	0.46
72:c:3:LYS:NZ	72:c:5:ARG:O	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:f:8:PHE:CE1	75:f:12:ARG:HD2	2.51	0.46
1:AS:120:A:C2	10:BC:130:PRO:HG3	2.51	0.46
1:AS:254:A:O2'	36:CC:106:LYS:HD2	2.16	0.46
1:AS:975:U:H4'	1:AS:976:A:O4'	2.15	0.46
1:AS:1725:A:C6	44:CK:42:CYS:HA	2.51	0.46
1:AS:2084:A:H2'	1:AS:2085:A:H8	1.81	0.46
1:AS:2628:A:C4	1:AS:2630:G:N7	2.84	0.46
1:AS:3016:A:H4'	5:AX:13:SER:HB2	1.97	0.46
1:AS:3317:U:H3'	54:CV:168:SER:HA	1.98	0.46
3:AU:26:U:O2'	6:AY:52:ALA:O	2.32	0.46
3:AU:44:A:H2'	3:AU:45:C:C6	2.51	0.46
12:BE:19:LYS:HE2	12:BE:19:LYS:HB3	1.74	0.46
12:BE:86:HIS:HB3	12:BE:139:ARG:HG3	1.97	0.46
13:BF:46:VAL:HG12	79:CL:33:ASN:HB2	1.98	0.46
18:BK:94:LEU:HD23	18:BK:94:LEU:HA	1.72	0.46
28:BU:133:LYS:HZ2	28:BU:134:LEU:HG	1.81	0.46
45:CM:1181:A:H4'	45:CM:1182:C:H5''	1.98	0.46
45:CM:1636:C:H2'	45:CM:1637:U:C6	2.51	0.46
45:CM:1725:U:H2'	45:CM:1726:C:C6	2.50	0.46
49:CQ:52:LYS:HA	49:CQ:90:GLU:O	2.16	0.46
52:CT:145:PHE:HB2	52:CT:147:LEU:HG	1.97	0.46
53:CU:78:GLU:OE2	53:CU:86:VAL:HB	2.16	0.46
56:CX:54:TYR:O	56:CX:68:LEU:HD22	2.16	0.46
70:DL:29:HIS:CD2	70:DL:34:ASN:HA	2.51	0.46
1:1:95:G:H5'	14:t:15:ARG:CZ	2.46	0.46
1:1:122:A:C6	1:1:149:A:C5	3.04	0.46
1:1:493:A:O2'	1:1:3238:A:N1	2.48	0.46
1:1:744:U:H5''	30:AC:31:SER:HA	1.96	0.46
1:1:932:A:OP2	29:AB:27:LYS:HG2	2.16	0.46
1:1:1937:C:O2'	1:1:3309:A:N6	2.48	0.46
1:1:2370:C:O2'	5:k:266:ARG:NH2	2.49	0.46
1:1:2401:U:H2'	1:1:2402:A:C8	2.51	0.46
1:1:3064:C:O2'	1:1:3066:A:OP2	2.30	0.46
2:3:7:G:OP1	7:m:33:ARG:HD2	2.15	0.46
5:k:57:VAL:HG22	5:k:73:VAL:HG22	1.98	0.46
6:l:318:PRO:O	6:l:325:LEU:HB2	2.16	0.46
8:n:95:VAL:HG12	8:n:97:VAL:HG13	1.98	0.46
8:n:150:LYS:HD3	8:n:150:LYS:N	2.30	0.46
11:q:90:MET:HE3	11:q:181:VAL:CG2	2.46	0.46
20:z:46:LYS:HD2	20:z:46:LYS:HA	1.48	0.46
29:AB:119:PRO:O	29:AB:121:VAL:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:87:C:H1'	45:B:166:A:N1	2.31	0.46
45:B:150:U:O4	70:a:128:ARG:NH2	2.49	0.46
45:B:1122:A:OP2	69:Z:112:LYS:NZ	2.48	0.46
45:B:1457:A:H2	45:B:1460:G:N3	2.13	0.46
45:B:1742:A:OP1	69:Z:63:GLN:HG2	2.15	0.46
46:C:36:TYR:HD1	46:C:161:PRO:CB	2.29	0.46
48:E:34:THR:HG22	48:E:60:GLU:OE2	2.15	0.46
48:E:133:PRO:HG2	48:E:217:TYR:HD2	1.81	0.46
49:F:193:PRO:HG3	49:F:203:LEU:CD1	2.46	0.46
50:G:92:LEU:HD12	50:G:92:LEU:N	2.31	0.46
62:S:27:LEU:H	62:S:63:ASP:HB3	1.81	0.46
62:S:112:ASP:OD1	62:S:114:THR:OG1	2.34	0.46
63:T:89:SER:O	63:T:91:LEU:N	2.49	0.46
66:W:23:ILE:HD11	66:W:90:ILE:HB	1.98	0.46
78:AR:41:THR:HG23	78:AR:61:SER:HB2	1.96	0.46
1:AS:69:A:N1	1:AS:313:A:O2'	2.43	0.46
1:AS:96:U:H2'	1:AS:97:G:C8	2.51	0.46
1:AS:155:A:OP2	37:CD:24:LYS:HB3	2.16	0.46
1:AS:690:A:C4	1:AS:691:A:C8	3.04	0.46
1:AS:911:A:OP1	1:AS:2123:A:O2'	2.32	0.46
1:AS:1080:A:H4'	7:AZ:44:TYR:CE1	2.51	0.46
1:AS:1468:U:H5'	20:BM:4:LEU:HB2	1.98	0.46
2:AT:40:C:H4'	13:BF:43:GLN:NE2	2.31	0.46
2:AT:90:A:H2'	2:AT:91:G:O4'	2.16	0.46
5:AX:160:VAL:HG12	5:AX:181:ILE:O	2.17	0.46
6:AY:209:VAL:HA	6:AY:229:ALA:O	2.16	0.46
10:BC:27:LEU:HD23	10:BC:27:LEU:H	1.79	0.46
22:BO:136:ARG:HB2	22:BO:139:ARG:NH2	2.31	0.46
49:CQ:178:MET:HE2	49:CQ:183:LEU:HD21	1.98	0.46
58:CZ:32:LEU:HD13	58:CZ:121:VAL:HG11	1.98	0.46
68:DJ:2:THR:CG2	68:DJ:3:ARG:H	2.25	0.46
69:DK:54:LEU:HD11	69:DK:75:GLN:HB2	1.97	0.46
79:CL:39:SER:OG	79:CL:40:ASP:N	2.48	0.46
1:1:246:U:H2'	1:1:247:C:C6	2.51	0.45
1:1:564:G:H2'	1:1:565:A:H8	1.74	0.45
1:1:1186:A:H2'	17:w:50:ARG:HH12	1.81	0.45
1:1:1834:C:H4'	1:1:1835:A:O4'	2.16	0.45
1:1:1922:C:H3'	44:AQ:7:LYS:HG2	1.98	0.45
1:1:2290:A:O2'	1:1:2293:G:N3	2.44	0.45
1:1:2345:A:H2'	1:1:2346:A:H8	1.80	0.45
1:1:2771:A:N3	29:AB:42:ARG:NH2	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3308:G:H21	1:1:3327:A:H2	1.63	0.45
81:1:3419:PAR:H43	81:1:3419:PAR:H14	1.38	0.45
2:3:3:U:H2'	2:3:4:U:C6	2.52	0.45
3:4:94:C:H5''	38:AK:76:ASN:ND2	2.32	0.45
4:j:117:GLU:OE1	4:j:121:GLY:N	2.28	0.45
6:l:83:THR:O	6:l:86:SER:OG	2.31	0.45
6:l:181:LYS:O	6:l:185:SER:HB3	2.17	0.45
18:x:67:ILE:HG12	18:x:80:LYS:HD2	1.98	0.45
26:8:87:ASP:OD1	26:8:88:ILE:N	2.49	0.45
27:9:82:VAL:HB	27:9:85:LEU:HD13	1.98	0.45
28:AA:107:ARG:O	28:AA:111:LYS:HG3	2.17	0.45
45:B:4:C:H5	45:B:20:G:N1	2.13	0.45
45:B:29:U:H2'	45:B:30:G:H8	1.81	0.45
45:B:766:U:H1'	70:a:21:ARG:NH1	2.31	0.45
48:E:143:LEU:HD21	55:L:95:TYR:CZ	2.51	0.45
51:H:27:THR:CG2	62:S:28:ILE:H	2.30	0.45
51:H:225:ARG:HD2	74:e:61:ARG:NH1	2.31	0.45
53:J:51:LYS:HE3	53:J:85:HIS:NE2	2.30	0.45
57:N:44:THR:HG23	57:N:60:PHE:CD1	2.51	0.45
59:P:25:TRP:CD2	73:d:82:LYS:HD3	2.50	0.45
73:d:33:MET:HE1	73:d:73:LEU:HD21	1.98	0.45
1:AS:27:C:O2'	1:AS:60:A:N3	2.48	0.45
1:AS:447:U:OP2	1:AS:447:U:H6	1.99	0.45
1:AS:942:U:H2'	1:AS:943:G:H8	1.81	0.45
1:AS:972:U:H2'	1:AS:973:C:O4'	2.15	0.45
1:AS:1014:G:H2'	1:AS:1015:G:H8	1.81	0.45
1:AS:1562:G:OP1	1:AS:1562:G:O4'	2.34	0.45
1:AS:1617:A:H2'	1:AS:1618:U:H6	1.81	0.45
1:AS:2933:G:H2'	1:AS:2934:U:H6	1.81	0.45
1:AS:2956:C:H2'	1:AS:2957:C:H6	1.81	0.45
1:AS:3159:A:O2'	1:AS:3160:C:OP1	2.30	0.45
1:AS:3289:C:H4'	32:BY:12:THR:OG1	2.16	0.45
2:AT:61:C:H1'	7:AZ:274:GLN:OE1	2.16	0.45
3:AU:2:A:C4	3:AU:3:A:C8	3.04	0.45
3:AU:149:A:H2'	3:AU:150:G:C8	2.52	0.45
20:BM:100:ARG:O	20:BM:104:LYS:HG2	2.15	0.45
27:BT:108:LYS:HZ2	27:BT:109:LEU:C	2.24	0.45
31:BX:11:ASN:O	31:BX:14:SER:OG	2.34	0.45
36:CC:86:ARG:O	36:CC:90:ARG:HD2	2.16	0.45
45:CM:399:A:H4'	50:CR:3:ARG:HD3	1.97	0.45
45:CM:510:A:H4'	55:CW:164:TYR:HE1	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:810:U:H2'	45:CM:811:U:O4'	2.16	0.45
45:CM:1279:G:O2'	45:CM:1306:A:N1	2.44	0.45
45:CM:1779:G:OP1	72:DN:8:ASN:ND2	2.49	0.45
48:CP:203:GLU:O	48:CP:207:LYS:HG3	2.16	0.45
49:CQ:8:LYS:C	49:CQ:12:LEU:HG	2.40	0.45
49:CQ:67:ILE:HD11	49:CQ:87:ILE:HG22	1.97	0.45
53:CU:60:PRO:N	53:CU:61:PRO:HD2	2.30	0.45
64:DF:25:ARG:CD	71:DM:40:VAL:HG11	2.46	0.45
65:DG:111:ILE:HG23	65:DG:113:VAL:HG23	1.99	0.45
1:1:88:G:H21	1:1:281:G:C4'	2.29	0.45
1:1:186:A:H2'	1:1:187:U:C6	2.51	0.45
1:1:249:G:H2'	1:1:251:G:OP2	2.16	0.45
1:1:533:G:H2'	1:1:534:G:O4'	2.16	0.45
1:1:563:U:H2'	1:1:564:G:H8	1.78	0.45
1:1:816:A:H2'	1:1:817:U:C6	2.52	0.45
1:1:1104:U:H2'	1:1:1105:U:H6	1.81	0.45
1:1:1286:A:H2'	1:1:1287:A:C8	2.51	0.45
1:1:1344:U:P	19:y:39:ARG:NH2	2.89	0.45
1:1:3150:A:C4	17:w:115:LYS:HA	2.52	0.45
3:4:26:U:H2'	3:4:27:U:C6	2.52	0.45
3:4:123:G:C6	3:4:131:G:C6	3.04	0.45
5:k:296:THR:HG21	5:k:357:LYS:C	2.41	0.45
9:o:57:GLU:O	9:o:60:VAL:HG12	2.16	0.45
17:w:47:GLU:HG2	17:w:48:PHE:N	2.31	0.45
23:5:83:THR:HG21	23:5:98:PHE:CD2	2.52	0.45
45:B:520:U:H2'	45:B:521:G:O4'	2.16	0.45
45:B:809:G:H2'	45:B:810:U:H6	1.80	0.45
45:B:1159:C:OP2	64:U:141:THR:HG21	2.16	0.45
45:B:1325:U:O4	62:S:8:THR:HA	2.17	0.45
48:E:142:ASN:HB2	67:X:3:ASN:HA	1.97	0.45
51:H:132:VAL:HG23	51:H:202:ALA:HB2	1.97	0.45
52:I:26:VAL:HG12	52:I:36:VAL:HB	1.98	0.45
54:K:140:LYS:HD2	54:K:140:LYS:N	2.32	0.45
57:N:30:LYS:HB3	57:N:30:LYS:HE3	1.32	0.45
64:U:40:ARG:HG3	64:U:40:ARG:NH1	2.29	0.45
70:a:35:VAL:HG11	70:a:40:LEU:HD21	1.98	0.45
77:h:160:ARG:CG	77:h:173:PHE:HB3	2.46	0.45
1:AS:269:G:N3	16:BI:14:LYS:NZ	2.52	0.45
1:AS:294:U:H4'	37:CD:76:LEU:HD23	1.98	0.45
1:AS:624:U:H2'	1:AS:625:C:C6	2.51	0.45
1:AS:1209:G:OP1	21:BN:139:TYR:OH	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1351:A:O2'	19:BL:31:LYS:NZ	2.31	0.45
1:AS:1580:U:H2'	1:AS:1581:C:C6	2.51	0.45
1:AS:1801:C:H2'	1:AS:1802:A:H8	1.81	0.45
1:AS:2130:A:H2'	1:AS:2131:U:C6	2.51	0.45
1:AS:2558:G:O2'	10:BC:242:LYS:HE3	2.15	0.45
1:AS:2719:A:H5'	7:AZ:175:HIS:HA	1.99	0.45
11:BD:13:PRO:HG2	11:BD:16:VAL:HG11	1.97	0.45
14:BG:126:PHE:O	14:BG:127:ASP:O	2.34	0.45
16:BI:146:ALA:HB2	36:CC:99:GLN:HB3	1.97	0.45
19:BL:27:GLN:O	19:BL:30:VAL:HG22	2.16	0.45
20:BM:108:LYS:HD2	20:BM:108:LYS:HA	1.78	0.45
20:BM:163:ARG:NH2	45:CM:797:U:O2	2.49	0.45
45:CM:58:U:OP1	45:CM:454:G:O2'	2.28	0.45
45:CM:236:U:O2'	45:CM:237:C:H5''	2.16	0.45
45:CM:237:C:O2'	45:CM:820:U:OP1	2.30	0.45
45:CM:1105:U:H2'	45:CM:1106:C:H6	1.80	0.45
47:CO:58:ALA:O	47:CO:62:LYS:HG3	2.16	0.45
49:CQ:60:LEU:HD23	49:CQ:67:ILE:CG2	2.45	0.45
51:CS:166:ARG:HB2	74:DP:47:PRO:HD2	1.98	0.45
53:CU:5:ILE:O	53:CU:5:ILE:HD12	2.17	0.45
55:CW:63:ASP:OD1	55:CW:64:GLU:N	2.49	0.45
56:CX:32:HIS:HB2	56:CX:39:ASN:HA	1.98	0.45
56:CX:56:LYS:HE3	56:CX:56:LYS:HB3	1.75	0.45
59:DA:46:THR:HG22	59:DA:49:GLN:HG3	1.97	0.45
60:DB:84:THR:O	60:DB:123:ARG:HD2	2.15	0.45
66:DH:36:VAL:HG22	66:DH:108:GLU:HG3	1.99	0.45
68:DJ:80:ASN:ND2	68:DJ:124:LYS:HG2	2.32	0.45
76:DR:37:ARG:O	76:DR:41:THR:HG23	2.17	0.45
79:i:113:ARG:HA	79:i:116:GLU:HB2	1.99	0.45
79:CL:103:LEU:HA	79:CL:107:TRP:HD1	1.81	0.45
1:1:283:G:OP2	1:1:285:A:O2'	2.30	0.45
1:1:792:U:H2'	1:1:793:U:C6	2.51	0.45
1:1:1007:A:H2'	1:1:1008:A:H8	1.80	0.45
1:1:1198:A:C2	1:1:2829:C:H5'	2.52	0.45
1:1:1556:G:O2'	1:1:1557:U:H5'	2.16	0.45
1:1:3304:A:H2'	1:1:3305:G:C8	2.51	0.45
7:m:119:TYR:OH	7:m:139:PRO:O	2.28	0.45
13:s:29:ARG:HD3	13:s:32:ARG:HD2	1.98	0.45
15:u:120:ARG:NH2	17:w:183:LYS:O	2.50	0.45
18:x:105:LYS:HB2	18:x:107:LEU:CD1	2.46	0.45
20:z:43:LYS:N	20:z:43:LYS:HD3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AL:21:LYS:HD3	39:AL:21:LYS:HA	1.61	0.45
45:B:137:A:O4'	45:B:139:U:H5'	2.17	0.45
45:B:165:U:H2'	45:B:166:A:H5''	1.98	0.45
45:B:286:A:H2'	45:B:287:U:O4'	2.17	0.45
45:B:291:U:H2'	45:B:292:C:C6	2.51	0.45
45:B:638:U:H2'	45:B:639:G:O4'	2.16	0.45
45:B:655:U:H2'	45:B:656:C:O4'	2.16	0.45
45:B:721:C:H2'	45:B:722:A:H8	1.81	0.45
45:B:1369:G:O2'	45:B:1370:A:O5'	2.28	0.45
46:C:125:ASP:HB3	46:C:128:THR:OG1	2.15	0.45
48:E:217:TYR:CE2	67:X:12:TYR:HD2	2.33	0.45
51:H:55:ASP:OD2	51:H:57:SER:OG	2.24	0.45
51:H:148:ARG:HG2	51:H:157:ARG:HG3	1.99	0.45
52:I:163:THR:O	52:I:163:THR:OG1	2.34	0.45
52:I:211:LEU:HD12	52:I:211:LEU:HA	1.50	0.45
53:J:13:LEU:HD22	53:J:13:LEU:H	1.81	0.45
78:AR:16:HIS:NE2	78:AR:37:SER:HB2	2.32	0.45
78:AR:262:LEU:HD13	78:AR:263:GLN:OE1	2.17	0.45
1:AS:694:C:H2'	1:AS:695:G:C8	2.51	0.45
1:AS:1377:A:C2	1:AS:1422:C:C2	3.04	0.45
1:AS:1421:U:O2'	6:AY:37:HIS:NE2	2.47	0.45
1:AS:1425:G:C5	6:AY:100:MET:HE1	2.52	0.45
1:AS:1671:G:H2'	1:AS:1672:A:H8	1.80	0.45
1:AS:2957:C:H2'	1:AS:2958:U:H6	1.82	0.45
7:AZ:40:HIS:HB3	7:AZ:43:LYS:HD2	1.99	0.45
13:BF:37:LEU:HD22	13:BF:69:VAL:HG12	1.98	0.45
18:BK:131:ARG:HB2	18:BK:135:ARG:HB2	1.98	0.45
27:BT:35:LEU:HD13	27:BT:45:VAL:O	2.15	0.45
35:CB:53:GLY:O	35:CB:54:ILE:HD13	2.16	0.45
39:CF:39:LYS:HD2	39:CF:39:LYS:C	2.42	0.45
44:CK:22:LEU:O	44:CK:26:THR:OG1	2.31	0.45
44:CK:51:ALA:HB3	44:CK:54:ILE:HD13	1.98	0.45
45:CM:1743:A:OP1	81:CM:1801:PAR:H31	2.16	0.45
81:CM:1802:PAR:O61	70:DL:116:LYS:NZ	2.48	0.45
51:CS:116:HIS:CD2	71:DM:98:GLN:HB3	2.47	0.45
60:DB:94:GLN:OE1	72:DN:46:GLU:HB2	2.16	0.45
62:DD:30:ILE:HD12	62:DD:80:ILE:HD13	1.98	0.45
65:DG:6:VAL:O	65:DG:9:VAL:HG12	2.16	0.45
76:DR:50:THR:HB	76:DR:53:LYS:HD3	1.97	0.45
79:CL:112:LYS:C	79:CL:114:GLU:H	2.23	0.45
1:1:19:A:H2'	1:1:20:G:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:108:A:N1	1:1:322:U:O2'	2.50	0.45
1:1:163:A:H2'	1:1:164:U:O4'	2.17	0.45
1:1:171:G:H2'	1:1:172:C:C6	2.51	0.45
1:1:1488:G:OP1	38:AK:14:LYS:NZ	2.44	0.45
1:1:1594:G:OP1	35:AH:29:LYS:HE2	2.17	0.45
1:1:2853:C:H2'	1:1:2854:U:H6	1.80	0.45
1:1:2959:A:H2'	1:1:2960:C:C6	2.51	0.45
2:3:90:A:H2'	2:3:91:G:O4'	2.16	0.45
3:4:63:G:H22	3:4:97:A:H2	1.63	0.45
34:AG:53:TYR:CZ	34:AG:65:ARG:HB2	2.51	0.45
36:AI:14:LYS:HE3	36:AI:62:GLN:OE1	2.17	0.45
43:AP:8:ARG:HH11	43:AP:10:THR:HG23	1.79	0.45
43:AP:32:LYS:HB3	43:AP:32:LYS:HE3	1.74	0.45
45:B:649:G:N7	45:B:650:G:C4	2.84	0.45
45:B:1048:U:O2'	47:D:203:THR:OG1	2.31	0.45
45:B:1470:G:H21	45:B:1593:C:H1'	1.81	0.45
47:D:113:LEU:HD23	47:D:209:ASN:HB3	1.99	0.45
49:F:95:ARG:HE	79:i:132:GLU:CG	2.29	0.45
49:F:124:LEU:HD21	49:F:153:TYR:O	2.17	0.45
50:G:233:GLY:C	50:G:234:LYS:HD2	2.41	0.45
51:H:56:VAL:O	74:e:53:ILE:HD11	2.16	0.45
54:K:26:LYS:HG2	54:K:29:LEU:HD23	1.97	0.45
57:N:125:VAL:HG11	57:N:137:PHE:HB3	1.99	0.45
58:O:28:LEU:HD13	58:O:100:TRP:CD1	2.52	0.45
58:O:74:LEU:HA	77:h:150:VAL:CG1	2.46	0.45
58:O:97:LEU:HA	58:O:100:TRP:CZ2	2.50	0.45
61:R:96:VAL:CG2	61:R:120:SER:HB3	2.46	0.45
78:AR:21:THR:HA	78:AR:287:ILE:HG13	1.97	0.45
78:AR:175:VAL:HB	78:AR:189:PHE:HB2	1.98	0.45
1:AS:879:A:O4'	18:BK:133:HIS:HA	2.17	0.45
1:AS:2870:G:P	11:BD:173:ARG:HH22	2.39	0.45
1:AS:3166:A:C2'	1:AS:3167:G:H5'	2.47	0.45
2:AT:91:G:H2'	2:AT:92:A:C8	2.52	0.45
4:AW:80:GLU:HB2	4:AW:170:ALA:HA	1.98	0.45
4:AW:158:ILE:HD12	4:AW:158:ILE:N	2.32	0.45
6:AY:326:LEU:O	9:BB:39:ARG:NH2	2.47	0.45
7:AZ:212:LEU:HB2	7:AZ:219:TYR:CD2	2.52	0.45
9:BB:98:ARG:NH2	19:BL:4:ASP:OD1	2.47	0.45
11:BD:141:LYS:HD3	11:BD:141:LYS:HA	1.45	0.45
14:BG:187:LYS:HD3	14:BG:187:LYS:HA	1.28	0.45
16:BI:14:LYS:HB3	16:BI:23:TYR:HE2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BK:129:THR:CG2	18:BK:137:ASN:HB2	2.46	0.45
19:BL:98:LYS:HG3	19:BL:118:GLY:C	2.42	0.45
20:BM:143:ILE:HG13	20:BM:144:ALA:N	2.32	0.45
25:BR:9:SER:HA	25:BR:52:THR:HG23	1.99	0.45
28:BU:38:PHE:CE1	28:BU:40:HIS:HB3	2.52	0.45
32:BY:12:THR:HG23	32:BY:71:ARG:HH11	1.81	0.45
45:CM:260:U:C2'	45:CM:261:C:H5'	2.46	0.45
45:CM:449:G:H2'	45:CM:451:C:C5	2.52	0.45
45:CM:497:U:O2'	45:CM:498:C:H5'	2.16	0.45
45:CM:971:G:H2'	45:CM:972:G:O4'	2.17	0.45
45:CM:1300:U:O2'	45:CM:1301:G:H8	2.00	0.45
45:CM:1469:A:H2'	45:CM:1470:G:C8	2.51	0.45
45:CM:1526:G:H22	64:DF:26:ILE:HD12	1.81	0.45
45:CM:1548:U:H4'	45:CM:1586:C:H4'	1.98	0.45
48:CP:116:VAL:HG22	48:CP:120:ILE:HD11	1.96	0.45
56:CX:20:VAL:HG12	56:CX:67:THR:HG23	1.98	0.45
63:DE:56:HIS:HA	63:DE:59:LYS:NZ	2.32	0.45
64:DF:22:ILE:HD12	64:DF:34:LYS:HB3	1.98	0.45
1:1:365:A:OP1	6:l:85:ARG:NH1	2.50	0.45
1:1:689:A:N1	3:4:28:C:O2'	2.48	0.45
1:1:814:C:H2'	1:1:815:U:O4'	2.17	0.45
1:1:1415:A:OP1	3:4:20:U:O2'	2.35	0.45
1:1:2232:U:H2'	1:1:2239:G:N2	2.31	0.45
1:1:2404:U:H2'	1:1:2405:U:C6	2.51	0.45
1:1:2628:A:C8	1:1:2630:G:C8	3.05	0.45
5:k:106:TRP:CH2	5:k:161:LEU:HD13	2.51	0.45
15:u:111:PHE:O	15:u:115:VAL:HG23	2.16	0.45
16:v:163:GLY:HA2	16:v:168:GLY:HA3	1.97	0.45
20:z:156:LYS:HD3	20:z:156:LYS:HA	1.76	0.45
23:5:19:VAL:C	23:5:21:ALA:H	2.22	0.45
27:9:36:SER:OG	27:9:39:LEU:HD13	2.16	0.45
45:B:78:A:H2'	45:B:79:C:C6	2.52	0.45
45:B:216:A:H62	45:B:830:G:H5'	1.81	0.45
45:B:480:U:C2	45:B:481:A:C8	3.04	0.45
45:B:1126:G:H2'	45:B:1127:A:C8	2.52	0.45
45:B:1218:G:N2	45:B:1238:U:H1'	2.32	0.45
45:B:1293:G:H2'	45:B:1294:C:C6	2.52	0.45
45:B:1473:A:OP1	75:f:34:TYR:OH	2.30	0.45
45:B:1516:C:H2'	45:B:1517:C:H6	1.81	0.45
51:H:151:SER:OG	51:H:156:ARG:NH2	2.48	0.45
52:I:148:THR:HG22	52:I:149:LYS:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:M:7:ASP:O	56:M:11:ILE:HG13	2.15	0.45
58:O:26:ASP:OD1	58:O:29:LYS:HB2	2.16	0.45
59:P:13:SER:OG	59:P:14:SER:N	2.49	0.45
60:Q:26:THR:OG1	60:Q:27:ASP:O	2.35	0.45
78:AR:301:GLY:HA2	78:AR:307:ILE:HG12	1.98	0.45
1:AS:109:G:H5'	14:BG:91:ARG:HE	1.80	0.45
1:AS:636:C:N4	1:AS:637:G:O6	2.50	0.45
1:AS:976:A:C2'	1:AS:977:U:H5'	2.46	0.45
1:AS:2514:G:C4	1:AS:2515:G:N2	2.85	0.45
1:AS:2854:U:H2'	1:AS:2855:U:C6	2.52	0.45
5:AX:386:ASP:O	5:AX:387:LEU:HG	2.16	0.45
7:AZ:99:TYR:CE2	7:AZ:164:LYS:CD	2.97	0.45
7:AZ:254:LYS:HD3	7:AZ:254:LYS:HA	1.84	0.45
20:BM:114:LYS:HD3	20:BM:114:LYS:HA	1.53	0.45
37:CD:85:LYS:NZ	37:CD:88:GLU:OE1	2.39	0.45
45:CM:30:G:H2'	45:CM:31:C:H6	1.82	0.45
45:CM:66:U:O2	52:CT:160:ARG:NE	2.49	0.45
45:CM:366:U:H2'	45:CM:367:A:O4'	2.16	0.45
45:CM:792:U:H2'	45:CM:793:A:C8	2.51	0.45
45:CM:1062:C:H2'	45:CM:1063:C:H6	1.82	0.45
45:CM:1347:U:H1'	45:CM:1348:U:O2	2.17	0.45
47:CO:216:LYS:HD2	47:CO:216:LYS:HA	1.75	0.45
53:CU:29:ASP:CG	53:CU:72:ARG:HH12	2.25	0.45
53:CU:76:GLU:OE1	53:CU:76:GLU:N	2.49	0.45
58:CZ:52:LEU:HD11	58:CZ:78:LEU:HD13	1.98	0.45
66:DH:55:VAL:O	66:DH:88:ARG:HA	2.16	0.45
72:DN:45:VAL:HG21	72:DN:53:LEU:CD2	2.47	0.45
72:DN:58:VAL:HG23	72:DN:59:TYR:CD1	2.51	0.45
74:DP:58:GLU:HG3	74:DP:58:GLU:O	2.15	0.45
1:1:698:C:H2'	1:1:699:G:H8	1.81	0.45
1:1:757:A:H2'	1:1:758:U:C6	2.51	0.45
1:1:1725:A:N6	44:AQ:42:CYS:HA	2.32	0.45
1:1:2234:A:N1	76:g:3:LYS:NZ	2.63	0.45
1:1:2628:A:C4	1:1:2630:G:N7	2.85	0.45
1:1:3019:U:O2'	1:1:3020:A:H5'	2.17	0.45
1:1:3038:U:H2'	1:1:3039:C:C6	2.51	0.45
3:4:133:A:OP2	81:4:202:PAR:H532	2.16	0.45
3:4:142:C:H2'	3:4:143:U:H6	1.81	0.45
12:r:66:GLU:O	12:r:70:ILE:HG23	2.17	0.45
17:w:135:LYS:HB3	17:w:135:LYS:HE3	1.71	0.45
20:z:162:ARG:NH1	45:B:799:G:N3	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:8:90:SER:HA	26:8:94:GLN:OE1	2.16	0.45
29:AB:135:GLU:HG3	29:AB:145:VAL:CG2	2.47	0.45
42:AO:1:MET:HB3	45:B:1629:G:H5'	1.99	0.45
42:AO:9:ARG:NH2	45:B:1769:A:OP1	2.44	0.45
45:B:6:G:OP2	48:E:200:ARG:NE	2.50	0.45
45:B:331:A:H2'	45:B:332:G:C8	2.52	0.45
45:B:331:A:OP2	54:K:31:ARG:NH2	2.47	0.45
45:B:461:U:H2'	45:B:462:A:C8	2.51	0.45
45:B:649:G:H3'	45:B:650:G:C8	2.52	0.45
45:B:872:A:H2'	45:B:873:U:H6	1.81	0.45
45:B:1308:C:H2'	45:B:1309:G:O4'	2.16	0.45
45:B:1720:C:H2'	45:B:1721:U:C6	2.52	0.45
48:E:135:ARG:HD2	48:E:217:TYR:CE1	2.51	0.45
50:G:63:ALA:O	50:G:67:GLN:HG2	2.17	0.45
51:H:148:ARG:HG2	51:H:157:ARG:HD2	1.99	0.45
56:M:1:MET:HG3	56:M:44:LYS:HB3	1.97	0.45
58:O:71:ILE:H	58:O:71:ILE:HD12	1.81	0.45
59:P:31:ASP:O	59:P:34:VAL:HG22	2.16	0.45
63:T:99:GLN:HB2	63:T:118:PRO:O	2.17	0.45
65:V:70:GLN:HB3	65:V:120:GLY:O	2.17	0.45
67:X:85:TYR:CD2	73:d:6:ASP:HB2	2.51	0.45
71:b:54:VAL:N	71:b:55:PRO:HD2	2.32	0.45
74:e:64:ARG:HA	74:e:64:ARG:NE	2.30	0.45
1:AS:103:G:H4'	1:AS:696:U:O2	2.17	0.45
1:AS:385:A:H2'	1:AS:386:A:C8	2.52	0.45
1:AS:1211:U:H2'	1:AS:1212:C:C6	2.52	0.45
1:AS:1211:U:H2'	1:AS:1212:C:H6	1.82	0.45
1:AS:1358:C:H2'	1:AS:1359:A:C8	2.52	0.45
1:AS:1486:A:O2'	38:CE:12:HIS:O	2.31	0.45
1:AS:1589:A:N3	1:AS:1611:U:O2'	2.49	0.45
1:AS:1925:G:OP2	1:AS:1926:A:O2'	2.24	0.45
1:AS:2084:A:H2'	1:AS:2085:A:C8	2.52	0.45
4:AW:238:ILE:HD12	4:AW:238:ILE:N	2.32	0.45
6:AY:143:VAL:O	6:AY:146:VAL:HG12	2.17	0.45
8:BA:7:LYS:H	8:BA:10:GLN:CD	2.24	0.45
21:BN:110:LEU:HB3	21:BN:116:ALA:HB3	1.98	0.45
23:BP:12:VAL:HG11	23:BP:67:VAL:HG13	1.97	0.45
30:BW:51:ALA:O	30:BW:54:LEU:HD12	2.17	0.45
32:BY:71:ARG:O	32:BY:95:VAL:HG22	2.17	0.45
45:CM:53:G:H2'	45:CM:54:C:C6	2.51	0.45
45:CM:239:U:O2'	45:CM:240:U:OP1	2.26	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:950:U:H1'	59:DA:128:TYR:CD2	2.52	0.45
45:CM:1694:A:H2'	45:CM:1695:U:O4'	2.17	0.45
49:CQ:36:ALA:HB3	49:CQ:52:LYS:HG2	1.99	0.45
52:CT:57:ASP:O	52:CT:107:SER:OG	2.30	0.45
53:CU:52:LYS:HB3	53:CU:84:ARG:HG2	1.98	0.45
53:CU:94:ILE:HD11	53:CU:117:VAL:HG21	1.99	0.45
55:CW:23:ARG:CG	55:CW:27:GLU:OE2	2.62	0.45
55:CW:54:ARG:HG2	55:CW:54:ARG:NH1	2.31	0.45
58:CZ:90:LYS:H	58:CZ:90:LYS:CD	2.28	0.45
58:CZ:106:LEU:HD12	58:CZ:106:LEU:O	2.17	0.45
62:DD:49:GLU:OE1	62:DD:111:TYR:HE2	2.00	0.45
63:DE:32:LYS:HE3	63:DE:33:ARG:NH1	2.32	0.45
65:DG:65:ILE:HG12	65:DG:71:VAL:CG2	2.46	0.45
1:1:547:U:H2'	1:1:548:G:H8	1.81	0.45
1:1:2584:U:H2'	1:1:2585:U:O4'	2.16	0.45
1:1:2666:A:H2'	1:1:2667:A:C8	2.52	0.45
1:1:2801:U:C2	1:1:2802:G:C8	3.04	0.45
1:1:2959:A:H2'	1:1:2960:C:H6	1.81	0.45
5:k:24:LYS:HB3	5:k:24:LYS:HE2	1.79	0.45
10:p:83:LEU:HB3	10:p:88:ALA:HB2	1.97	0.45
10:p:116:ALA:CB	10:p:126:VAL:HG21	2.46	0.45
13:s:40:LEU:HD21	13:s:112:LEU:HD13	1.99	0.45
19:y:175:ALA:HB3	29:AB:53:PHE:O	2.16	0.45
45:B:1:U:C2	45:B:3:U:C4	3.05	0.45
45:B:398:A:H5''	54:K:25:ARG:HA	1.98	0.45
51:H:48:PHE:O	51:H:51:VAL:HG22	2.16	0.45
54:K:42:ARG:HG3	54:K:42:ARG:NH1	2.20	0.45
1:AS:236:A:P	3:AU:95:G:H22	2.40	0.45
1:AS:981:U:H2'	1:AS:982:U:H6	1.82	0.45
1:AS:1148:G:N2	1:AS:1148:G:OP2	2.48	0.45
1:AS:1199:A:H2'	1:AS:1200:A:H8	1.82	0.45
1:AS:1396:U:H2'	1:AS:1397:G:O4'	2.17	0.45
1:AS:1783:A:OP2	81:AS:3406:PAR:H24	2.16	0.45
1:AS:2354:G:H2'	1:AS:2355:G:C8	2.51	0.45
1:AS:3038:U:H2'	1:AS:3039:C:C6	2.52	0.45
1:AS:3350:U:O2'	32:BY:9:ARG:NH2	2.49	0.45
4:AW:112:ILE:HG13	44:CK:79:VAL:CG1	2.46	0.45
7:AZ:30:TYR:CD1	22:BO:27:LEU:HD21	2.51	0.45
10:BC:69:ARG:HD3	10:BC:238:ILE:O	2.17	0.45
28:BU:122:HIS:O	28:BU:122:HIS:ND1	2.50	0.45
39:CF:21:LYS:O	39:CF:74:LYS:NZ	2.33	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:78:A:H8	52:CT:154:ARG:HG2	1.75	0.45
45:CM:291:U:H2'	45:CM:292:C:C6	2.52	0.45
45:CM:498:C:C2	45:CM:499:U:C5	3.03	0.45
45:CM:721:C:N4	45:CM:722:A:H62	2.14	0.45
45:CM:786:G:H21	68:DJ:107:SER:HB3	1.82	0.45
45:CM:935:C:H2'	45:CM:936:A:C8	2.52	0.45
45:CM:1126:G:H2'	45:CM:1127:A:C8	2.51	0.45
45:CM:1396:A:O2'	45:CM:1397:A:OP1	2.30	0.45
45:CM:1477:U:H4'	45:CM:1478:A:H5'	1.98	0.45
49:CQ:97:LEU:HD22	49:CQ:130:ALA:HB1	1.97	0.45
50:CR:59:ARG:HD3	50:CR:59:ARG:HA	1.64	0.45
51:CS:43:PHE:CD1	51:CS:115:LYS:HD3	2.52	0.45
58:CZ:69:GLU:HA	58:CZ:72:ILE:HG13	1.99	0.45
62:DD:22:LYS:HB3	62:DD:63:ASP:OD1	2.17	0.45
79:CL:85:LYS:HE3	79:CL:85:LYS:HB3	1.47	0.45
1:1:185:U:H3	1:1:229:C:N4	2.11	0.45
1:1:359:U:H4'	1:1:813:A:N6	2.32	0.45
1:1:383:G:N2	1:1:386:A:OP2	2.29	0.45
1:1:538:G:C6	1:1:548:G:C6	3.05	0.45
1:1:1190:G:H2'	1:1:1191:A:C8	2.51	0.45
1:1:1542:A:N7	16:v:71:ARG:NH1	2.64	0.45
1:1:1601:A:O2'	1:1:1603:U:OP2	2.32	0.45
1:1:1800:A:H2'	1:1:1801:C:C6	2.52	0.45
1:1:2482:U:H2'	1:1:2483:U:H5'	1.99	0.45
1:1:2779:U:O3'	1:1:2780:A:H3'	2.17	0.45
1:1:3271:U:OP1	5:k:269:GLN:NE2	2.49	0.45
1:1:3290:G:O3'	32:AE:102:GLY:HA2	2.16	0.45
1:1:3348:G:N2	32:AE:104:GLN:OE1	2.42	0.45
6:l:43:VAL:HG12	6:l:237:LEU:HD11	1.99	0.45
7:m:211:LEU:HD21	7:m:218:LYS:HG2	1.98	0.45
7:m:289:LYS:HZ3	7:m:289:LYS:HG3	1.29	0.45
24:6:75:PRO:HG2	24:6:103:VAL:O	2.17	0.45
45:B:14:C:H2'	45:B:15:U:C6	2.51	0.45
45:B:509:A:H5'	55:L:173:LYS:HD2	1.98	0.45
45:B:1019:C:OP1	59:P:9:LYS:NZ	2.45	0.45
45:B:1072:A:H5'	45:B:1283:U:O4	2.17	0.45
45:B:1655:G:H2'	45:B:1656:U:C6	2.52	0.45
46:C:9:LEU:HD23	46:C:54:TRP:CD2	2.52	0.45
48:E:133:PRO:HB2	48:E:217:TYR:CE2	2.49	0.45
48:E:217:TYR:OH	67:X:11:LEU:O	2.31	0.45
49:F:34:GLY:O	49:F:101:VAL:HG22	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:O:59:LEU:HD22	58:O:123:VAL:CG2	2.47	0.45
78:AR:130:LYS:HB2	78:AR:130:LYS:HE3	1.56	0.45
1:AS:29:G:C6	1:AS:54:G:C6	3.05	0.45
1:AS:308:A:H1'	1:AS:2200:A:N3	2.32	0.45
1:AS:766:G:P	14:BG:173:ARG:HH21	2.40	0.45
1:AS:912:G:N1	4:AW:207:VAL:HG11	2.32	0.45
1:AS:1108:A:P	14:BG:5:LYS:HZ1	2.39	0.45
1:AS:1330:U:H2'	1:AS:1331:U:C6	2.52	0.45
1:AS:2145:A:P	16:BI:72:LYS:NZ	2.90	0.45
3:AU:75:G:OP2	27:BT:74:TYR:OH	2.29	0.45
4:AW:48:ILE:HG12	4:AW:59:ALA:HB2	1.97	0.45
4:AW:54:ARG:HD2	4:AW:56:ALA:O	2.17	0.45
7:AZ:82:GLU:OE1	7:AZ:108:ARG:NH2	2.50	0.45
9:BB:134:TYR:HA	9:BB:233:ILE:HD12	1.98	0.45
10:BC:231:ARG:HA	10:BC:231:ARG:HD2	1.40	0.45
23:BP:31:GLU:HA	23:BP:34:VAL:HG22	1.99	0.45
26:BS:92:LYS:HD3	26:BS:112:THR:CG2	2.45	0.45
26:BS:100:LYS:HA	26:BS:105:VAL:H	1.82	0.45
29:BV:15:VAL:HG21	29:BV:21:ARG:NH1	2.32	0.45
45:CM:277:G:C6	45:CM:279:G:C5	3.05	0.45
45:CM:707:C:H42	45:CM:715:G:H2'	1.81	0.45
45:CM:724:G:C4	45:CM:725:A:C8	3.05	0.45
45:CM:779:U:C2	45:CM:780:A:C8	3.05	0.45
45:CM:840:A:C2	45:CM:842:U:H1'	2.52	0.45
45:CM:916:C:H4'	47:CO:115:ARG:O	2.16	0.45
45:CM:1205:C:H4'	56:CX:52:LYS:HG3	1.99	0.45
45:CM:1681:A:H2'	45:CM:1682:G:H8	1.82	0.45
51:CS:143:ARG:HB3	74:DP:57:MET:HE1	1.99	0.45
52:CT:31:ARG:HG3	52:CT:31:ARG:HH11	1.82	0.45
52:CT:67:VAL:CG1	52:CT:99:GLY:HA2	2.46	0.45
62:DD:47:VAL:O	62:DD:51:LEU:HD13	2.17	0.45
64:DF:55:THR:O	64:DF:55:THR:OG1	2.34	0.45
79:i:113:ARG:HG2	79:i:113:ARG:NH1	2.31	0.45
1:1:79:G:H2'	1:1:80:C:H6	1.82	0.45
1:1:113:A:N1	1:1:266:C:O2'	2.48	0.45
1:1:661:C:H2'	1:1:662:U:C6	2.52	0.45
1:1:1451:U:H1'	32:AE:25:LYS:HE3	1.98	0.45
1:1:1863:A:H2'	1:1:1864:G:H8	1.81	0.45
1:1:2663:A:H2'	1:1:2664:A:C8	2.52	0.45
1:1:2796:G:H2'	1:1:2797:C:H6	1.82	0.45
7:m:293:PHE:HZ	12:r:211:GLN:HG3	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:p:100:PRO:O	10:p:192:HIS:HE1	2.00	0.45
23:5:18:ASP:HB2	23:5:63:LYS:HE3	1.98	0.45
26:8:108:LEU:HD22	26:8:109:TYR:HD1	1.82	0.45
45:B:933:A:H2'	45:B:934:C:C6	2.52	0.45
45:B:1183:G:OP1	45:B:1184:G:O2'	2.22	0.45
47:D:57:ALA:O	47:D:61:LEU:HB2	2.17	0.45
54:K:191:GLU:HB3	57:N:23:PRO:HG3	1.99	0.45
63:T:77:GLU:O	63:T:81:LYS:HB2	2.17	0.45
64:U:3:LEU:HB2	71:b:82:GLN:HG3	1.99	0.45
69:Z:96:VAL:HG22	69:Z:127:VAL:HG21	1.98	0.45
70:a:43:LYS:O	70:a:47:ILE:HG13	2.17	0.45
78:AR:126:ALA:HB1	78:AR:152:VAL:O	2.17	0.45
78:AR:133:LYS:HD3	78:AR:141:CYS:SG	2.57	0.45
1:AS:171:G:H2'	1:AS:172:C:C6	2.52	0.45
1:AS:178:U:H2'	1:AS:179:C:C6	2.52	0.45
1:AS:275:U:H2'	1:AS:276:U:H6	1.81	0.45
1:AS:290:G:H4'	16:BI:69:GLY:O	2.17	0.45
1:AS:513:G:OP1	9:BB:65:ARG:NH2	2.47	0.45
1:AS:531:G:O2'	1:AS:552:G:N1	2.45	0.45
1:AS:983:U:H4'	9:BB:119:LYS:HG3	1.99	0.45
1:AS:1104:U:H2'	1:AS:1105:U:H6	1.81	0.45
1:AS:1313:A:O2'	1:AS:1314:A:H3'	2.17	0.45
1:AS:1322:A:H2'	1:AS:1323:C:O4'	2.16	0.45
1:AS:2702:G:H4'	19:BL:184:PHE:CD1	2.52	0.45
1:AS:2957:C:H2'	1:AS:2958:U:C6	2.52	0.45
1:AS:3028:U:O2	32:BY:27:ARG:NH2	2.49	0.45
1:AS:3167:G:C6	1:AS:3168:U:C4	3.04	0.45
2:AT:47:C:H2'	2:AT:48:C:C6	2.51	0.45
3:AU:28:C:H2'	3:AU:29:U:C6	2.52	0.45
4:AW:42:ARG:CD	4:AW:87:PHE:HD2	2.30	0.45
12:BE:194:GLY:C	12:BE:196:TYR:H	2.25	0.45
14:BG:60:ALA:HB3	14:BG:65:TYR:O	2.17	0.45
14:BG:185:ARG:HG3	14:BG:188:ARG:NH2	2.28	0.45
17:BJ:131:LYS:HD3	17:BJ:133:GLY:H	1.82	0.45
19:BL:88:THR:HA	19:BL:107:THR:OG1	2.17	0.45
20:BM:38:ARG:O	20:BM:42:ARG:HG3	2.16	0.45
20:BM:67:LYS:HB3	20:BM:67:LYS:HE2	1.88	0.45
23:BP:77:LYS:HG3	23:BP:78:TYR:N	2.31	0.45
35:CB:36:LYS:HD3	35:CB:37:LYS:N	2.29	0.45
45:CM:85:A:N3	45:CM:146:A:O2'	2.40	0.45
45:CM:558:U:H2'	45:CM:559:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:1140:G:H2'	45:CM:1141:C:H6	1.82	0.45
45:CM:1341:U:H2'	45:CM:1342:A:C8	2.52	0.45
45:CM:1554:U:O3'	64:DF:36:ARG:NH2	2.50	0.45
46:CN:39:LYS:HB2	46:CN:39:LYS:HE2	1.67	0.45
46:CN:106:ASN:O	46:CN:115:PHE:HD1	1.99	0.45
48:CP:86:ARG:CZ	48:CP:86:ARG:HB2	2.46	0.45
55:CW:107:ARG:NH2	55:CW:148:VAL:HG13	2.32	0.45
57:CY:68:GLY:HA3	57:CY:127:GLN:NE2	2.32	0.45
58:CZ:62:LEU:HD22	58:CZ:75:VAL:HG11	1.99	0.45
65:DG:124:ILE:HD12	65:DG:124:ILE:N	2.28	0.45
66:DH:42:ARG:HA	66:DH:42:ARG:HE	1.82	0.45
1:1:730:A:H8	1:1:733:A:H62	1.63	0.45
1:1:911:A:H8	1:1:2114:C:O2'	1.98	0.45
1:1:1301:U:C2	5:k:257:PRO:HG3	2.52	0.45
1:1:1469:G:H5''	20:z:23:TRP:CD1	2.52	0.45
1:1:2442:U:H4'	1:1:2443:G:OP2	2.16	0.45
1:1:2445:G:H5''	1:1:2446:A:C6	2.52	0.45
1:1:3248:U:H2'	1:1:3249:G:C8	2.52	0.45
8:n:170:ARG:HB3	8:n:172:HIS:CE1	2.52	0.45
13:s:109:HIS:HE1	13:s:121:GLY:O	2.00	0.45
20:z:39:SER:O	20:z:43:LYS:HD3	2.17	0.45
20:z:176:ARG:NH1	45:B:837:C:H5''	2.31	0.45
29:AB:81:LEU:H	29:AB:81:LEU:HD22	1.81	0.45
31:AD:12:ILE:HG23	31:AD:102:ILE:CD1	2.47	0.45
35:AH:44:CYS:N	35:AH:49:SER:O	2.50	0.45
38:AK:25:ARG:O	38:AK:25:ARG:HG2	2.17	0.45
45:B:52:U:H2'	45:B:53:G:H8	1.80	0.45
45:B:302:U:H2'	45:B:303:C:H6	1.82	0.45
45:B:681:C:H3'	45:B:682:A:H8	1.81	0.45
47:D:223:PHE:CD2	47:D:224:ASP:N	2.85	0.45
48:E:35:LYS:O	48:E:39:LEU:HD13	2.17	0.45
48:E:224:LEU:HD21	67:X:14:PRO:HD2	1.98	0.45
65:V:45:LEU:HD23	65:V:45:LEU:HA	1.86	0.45
70:a:113:ASN:HA	70:a:116:LYS:HD3	1.99	0.45
1:AS:276:U:O2	16:BI:93:LYS:HE2	2.17	0.45
1:AS:381:U:H2'	1:AS:382:U:C6	2.51	0.45
1:AS:693:C:C5'	6:AY:120:ARG:HH21	2.30	0.45
1:AS:1494:A:H2'	1:AS:1495:U:C6	2.52	0.45
1:AS:1647:U:OP2	4:AW:70[B]:LYS:NZ	2.50	0.45
1:AS:1937:C:O2'	1:AS:3309:A:N6	2.50	0.45
1:AS:2758:G:N2	29:BV:58:MET:SD	2.89	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3199:G:H2'	1:AS:3200:C:C6	2.52	0.45
4:AW:225:ILE:HD12	4:AW:225:ILE:O	2.17	0.45
6:AY:133:THR:O	6:AY:137:LEU:HD12	2.16	0.45
6:AY:303:ALA:CA	19:BL:39:ARG:HH12	2.30	0.45
9:BB:18:GLN:O	9:BB:22:GLU:HG3	2.17	0.45
9:BB:40:LYS:HD3	9:BB:44:ASP:OD2	2.16	0.45
14:BG:24:VAL:HG12	16:BI:199:LEU:HB2	1.99	0.45
16:BI:23:TYR:O	16:BI:122:ASN:ND2	2.43	0.45
22:BO:57:TYR:CD1	22:BO:76:ILE:HD12	2.52	0.45
23:BP:53:ASP:OD2	23:BP:72:GLY:N	2.50	0.45
23:BP:108:LEU:HD23	23:BP:108:LEU:N	2.25	0.45
31:BX:16:LEU:O	31:BX:20:ILE:HG12	2.17	0.45
32:BY:71:ARG:HD2	32:BY:103:LEU:HD22	1.99	0.45
45:CM:46:A:N1	45:CM:430:G:O2'	2.45	0.45
45:CM:98:U:H2'	45:CM:99:C:C6	2.52	0.45
45:CM:393:U:H2'	45:CM:394:G:O4'	2.17	0.45
45:CM:504:A:H5''	45:CM:505:U:P	2.57	0.45
45:CM:608:G:H2'	45:CM:612:C:C5	2.52	0.45
45:CM:1445:C:C4'	61:DC:126:VAL:HG11	2.46	0.45
45:CM:1462:C:O2'	65:DG:45:LEU:HD13	2.16	0.45
46:CN:59:LEU:O	46:CN:62:ARG:HB3	2.16	0.45
47:CO:189:ILE:CG1	47:CO:190:PRO:HD3	2.37	0.45
50:CR:104:ASP:HB3	50:CR:110:ALA:HB2	1.99	0.45
50:CR:128:LYS:CE	50:CR:130:GLN:HB3	2.47	0.45
50:CR:210:ILE:O	50:CR:217:THR:HA	2.17	0.45
67:DI:4:ASP:OD1	67:DI:5:LYS:N	2.50	0.45
1:1:947:A:H5''	1:1:1139:A:N1	2.32	0.44
1:1:1043:A:N3	1:1:2605:U:O2'	2.45	0.44
1:1:2675:A:N6	7:m:28:THR:O	2.48	0.44
1:1:3102:A:OP1	81:1:3422:PAR:H42	2.17	0.44
1:1:3269:C:O2'	5:k:334:ARG:NH1	2.50	0.44
3:4:143:U:H2'	3:4:144:G:O4'	2.16	0.44
5:k:29:VAL:HG13	5:k:339:ARG:HD3	1.98	0.44
7:m:80:ALA:HA	7:m:83:LEU:HD13	1.99	0.44
9:o:54:THR:O	9:o:58:ARG:HG2	2.16	0.44
11:q:162:GLN:HG3	11:q:179:ILE:O	2.16	0.44
13:s:131:MET:HA	13:s:131:MET:HE3	1.99	0.44
16:v:106:VAL:HG11	16:v:132:VAL:CG2	2.45	0.44
16:v:154:PRO:HB3	16:v:157:LYS:HE3	1.99	0.44
32:AE:76:ARG:HD2	32:AE:88:LEU:HD13	1.99	0.44
36:AI:119:LYS:HD2	36:AI:119:LYS:HA	1.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:78:A:H8	52:I:154:ARG:HB3	1.81	0.44
45:B:674:C:H3'	45:B:675:U:C6	2.52	0.44
45:B:881:U:H1'	60:Q:33:THR:OG1	2.16	0.44
45:B:1204:A:O2'	56:M:48:SER:HA	2.17	0.44
45:B:1654:A:H2'	45:B:1655:G:C8	2.51	0.44
46:C:36:TYR:HB2	46:C:149:MET:HE1	2.00	0.44
48:E:97:VAL:HG21	48:E:124:ILE:HG12	1.99	0.44
53:J:132:ILE:HD11	53:J:182:PRO:HG3	1.99	0.44
55:L:20:GLU:H	55:L:24:LEU:HD12	1.82	0.44
68:Y:106:THR:HG23	68:Y:108:ALA:N	2.33	0.44
1:AS:343:U:H1'	6:AY:96:ARG:HG3	1.99	0.44
1:AS:615:G:H4'	18:BK:171:ARG:NH1	2.31	0.44
1:AS:1377:A:H2'	1:AS:1378:G:H8	1.82	0.44
1:AS:1852:C:H2'	1:AS:1853:C:C6	2.52	0.44
1:AS:2290:A:OP1	1:AS:2292:U:H5	2.00	0.44
1:AS:2641:G:H2'	1:AS:2642:G:H8	1.82	0.44
1:AS:3091:U:H4'	41:CH:28:PRO:HG2	1.99	0.44
7:AZ:81:HIS:O	7:AZ:84:PRO:HD2	2.17	0.44
7:AZ:239:ILE:HD13	7:AZ:239:ILE:HG21	1.66	0.44
12:BE:203:LYS:N	12:BE:203:LYS:HD2	2.32	0.44
13:BF:60:ARG:HD2	43:CJ:104:LEU:HD21	1.99	0.44
19:BL:178:ARG:HG3	29:BV:50:PRO:C	2.42	0.44
21:BN:33:ASN:HD21	21:BN:35:VAL:HB	1.82	0.44
23:BP:82:LEU:HA	23:BP:82:LEU:HD23	1.62	0.44
23:BP:87:LEU:HD22	23:BP:96:ILE:HB	1.99	0.44
25:BR:111:LYS:HB3	25:BR:111:LYS:HE2	1.82	0.44
33:BZ:65:LYS:O	33:BZ:67:LEU:HD12	2.17	0.44
35:CB:103:ARG:NH2	35:CB:104:VAL:HG12	2.32	0.44
42:CI:8:LYS:NZ	45:CM:1764:G:O6	2.45	0.44
45:CM:30:G:H4'	69:DK:131:SER:HB2	1.98	0.44
45:CM:476:A:HO2'	55:CW:124:HIS:HD1	1.63	0.44
45:CM:885:A:H2'	45:CM:886:G:C8	2.52	0.44
45:CM:975:C:H2'	45:CM:976:G:O4'	2.18	0.44
45:CM:1157:G:H2'	45:CM:1158:C:C6	2.52	0.44
45:CM:1239:U:H2'	45:CM:1240:G:C8	2.52	0.44
45:CM:1276:G:N2	45:CM:1309:G:N2	2.61	0.44
45:CM:1354:U:C2'	45:CM:1355:A:H5'	2.47	0.44
45:CM:1474:G:O2'	45:CM:1481:C:O2	2.26	0.44
45:CM:1540:G:N1	45:CM:1543:A:OP2	2.50	0.44
52:CT:223:ARG:HA	52:CT:223:ARG:HE	1.82	0.44
57:CY:66:ILE:HG21	57:CY:140:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:DK:13:ARG:O	69:DK:17:VAL:HG13	2.17	0.44
70:DL:104:SER:OG	70:DL:107:GLN:HG3	2.17	0.44
1:1:166:U:H2'	1:1:167:U:H6	1.81	0.44
1:1:352:A:N1	1:1:365:A:H5''	2.32	0.44
1:1:412:G:H5'	18:x:26:PHE:HZ	1.82	0.44
1:1:856:G:O2'	1:1:891:A:H4'	2.17	0.44
1:1:976:A:N6	1:1:1100:G:O2'	2.39	0.44
1:1:2708:A:O3'	22:2:71:SER:OG	2.31	0.44
1:1:2925:U:H2'	1:1:2926:U:H2'	1.99	0.44
1:1:3160:C:N3	1:1:3161:U:C4	2.84	0.44
3:4:5:U:H2'	3:4:6:U:C6	2.53	0.44
5:k:291:GLU:HB3	5:k:302:LYS:CE	2.47	0.44
10:p:91:ALA:O	10:p:95:LEU:HD13	2.17	0.44
18:x:114:ILE:HD13	18:x:150:LEU:CD2	2.48	0.44
45:B:203:U:C2	45:B:204:A:C8	3.04	0.44
45:B:220:A:H8	45:B:220:A:OP2	2.00	0.44
45:B:854:A:N6	45:B:943:U:H5	2.15	0.44
45:B:873:U:H2'	45:B:874:U:C6	2.52	0.44
45:B:1332:U:C2	45:B:1504:U:C5	3.05	0.44
45:B:1469:A:N3	45:B:1594:G:O2'	2.32	0.44
50:G:242:GLY:C	50:G:243:LYS:HG3	2.41	0.44
55:L:23:ARG:HD2	55:L:23:ARG:N	2.33	0.44
58:O:62:LEU:HD21	58:O:75:VAL:HG11	1.99	0.44
59:P:54:LEU:HD23	59:P:54:LEU:HA	1.85	0.44
66:W:82:GLU:OE1	66:W:84:ARG:NH2	2.49	0.44
67:X:71:ARG:CZ	73:d:4:VAL:HG21	2.47	0.44
74:e:25:VAL:HG11	74:e:66:LEU:HD22	1.99	0.44
76:g:24:GLN:H	76:g:24:GLN:NE2	2.13	0.44
78:AR:213:LYS:HA	78:AR:236:GLU:HB2	1.98	0.44
78:AR:257:ILE:N	78:AR:257:ILE:HD12	2.32	0.44
1:AS:63:G:O2'	1:AS:76:A:N3	2.43	0.44
1:AS:716:G:O2'	1:AS:717:A:OP1	2.30	0.44
1:AS:999:A:N1	1:AS:1045:C:O2'	2.43	0.44
1:AS:1591:U:C2	1:AS:1592:C:C5	3.05	0.44
1:AS:1911:A:H2'	1:AS:1912:U:C6	2.51	0.44
1:AS:2790:U:H6	1:AS:2790:U:H5'	1.82	0.44
6:AY:157:PHE:CD1	6:AY:169:VAL:HG11	2.52	0.44
7:AZ:83:LEU:HB3	7:AZ:88:ILE:HB	1.98	0.44
10:BC:150:LYS:HD3	10:BC:150:LYS:HA	1.42	0.44
14:BG:73:ARG:HH11	14:BG:73:ARG:HG3	1.82	0.44
14:BG:76:THR:HG22	14:BG:101:ARG:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BY:81:GLU:HG2	32:BY:82:GLU:N	2.33	0.44
44:CK:84:ARG:O	44:CK:88:GLU:HG3	2.18	0.44
45:CM:74:U:O2'	45:CM:76:A:OP1	2.30	0.44
45:CM:503:A:H2'	45:CM:505:U:C5	2.52	0.44
45:CM:588:C:H2'	45:CM:589:A:C8	2.53	0.44
45:CM:1540:G:N2	45:CM:1542:A:H3'	2.32	0.44
45:CM:1555:C:H4'	45:CM:1556:A:O5'	2.17	0.44
45:CM:1573:A:H2'	45:CM:1574:A:O4'	2.17	0.44
45:CM:1741:A:H62	81:CM:1801:PAR:H531	1.82	0.44
50:CR:58:GLY:HA2	50:CR:61:VAL:HG12	1.97	0.44
51:CS:124:LEU:HD12	51:CS:124:LEU:HA	1.89	0.44
58:CZ:97:LEU:O	58:CZ:97:LEU:HD23	2.18	0.44
64:DF:45:LEU:CD2	64:DF:49:LYS:HG3	2.47	0.44
65:DG:7:ARG:NH2	65:DG:67:LEU:O	2.50	0.44
65:DG:28:LEU:HD12	65:DG:55:TYR:CE1	2.52	0.44
72:DN:12:LYS:NZ	72:DN:16:GLY:C	2.75	0.44
79:CL:72:ASP:C	79:CL:72:ASP:OD1	2.61	0.44
1:1:67:C:O3'	16:v:177:GLY:HA2	2.16	0.44
1:1:582:G:H2'	1:1:583:A:C8	2.51	0.44
1:1:2466:A:H5'	1:1:2467:C:H5''	1.98	0.44
1:1:2686:G:H4'	1:1:2687:A:H5''	2.00	0.44
1:1:2992:U:H2'	1:1:3005:A:H61	1.81	0.44
1:1:3162:U:H2'	1:1:3163:U:C4'	2.46	0.44
1:1:3302:G:H2'	1:1:3303:C:C6	2.53	0.44
3:4:60:U:OP1	26:8:54:TYR:OH	2.25	0.44
3:4:119:C:H2'	3:4:120:U:H6	1.81	0.44
4:j:98:VAL:HA	4:j:166:ILE:HG22	2.00	0.44
11:q:44:THR:HG23	11:q:56:THR:HB	1.98	0.44
14:t:157:GLY:O	29:AB:100:PRO:HA	2.17	0.44
21:0:73:LYS:HD2	21:0:75:PHE:CZ	2.52	0.44
45:B:685:C:H5'	68:Y:118:ARG:HB3	2.00	0.44
45:B:853:G:C2	45:B:854:A:C8	3.06	0.44
50:G:179:ARG:NH1	50:G:230:THR:O	2.38	0.44
52:I:167:LYS:HD2	52:I:167:LYS:HA	1.59	0.44
54:K:149:LEU:HD23	54:K:149:LEU:HA	1.70	0.44
56:M:44:LYS:HA	56:M:44:LYS:HD3	1.87	0.44
58:O:59:LEU:HB3	58:O:123:VAL:HB	2.00	0.44
58:O:73:LYS:HE3	58:O:73:LYS:HB3	1.83	0.44
67:X:37:ALA:HA	67:X:50:ASN:OD1	2.17	0.44
1:AS:157:G:H2'	1:AS:158:A:H8	1.82	0.44
1:AS:663:A:H2'	1:AS:664:A:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1747:G:H5'	39:CF:26:LYS:HE2	1.99	0.44
1:AS:2627:U:H4'	1:AS:2628:A:O4'	2.17	0.44
1:AS:2646:A:H5''	13:BF:105:GLY:HA3	1.99	0.44
1:AS:2785:A:H2'	1:AS:2786:G:O4'	2.16	0.44
1:AS:2902:A:H2'	1:AS:2903:C:C6	2.53	0.44
1:AS:3199:G:H2'	1:AS:3200:C:H6	1.82	0.44
1:AS:3295:A:H4'	5:AX:366:GLY:HA3	1.99	0.44
3:AU:97:A:P	36:CC:63:ARG:NH1	2.90	0.44
3:AU:104:A:C8	3:AU:105:A:C8	3.05	0.44
6:AY:318:PRO:HG2	9:BB:147:TYR:HB3	1.98	0.44
25:BR:85:ALA:HB2	52:CT:158:VAL:CG1	2.48	0.44
45:CM:91:G:H2'	45:CM:92:A:O4'	2.17	0.44
45:CM:579:U:P	49:CQ:144:ARG:HH12	2.40	0.44
45:CM:728:U:OP1	53:CU:103:ARG:HA	2.17	0.44
45:CM:740:A:HO2'	45:CM:741:A:P	2.41	0.44
45:CM:1102:U:H2'	45:CM:1103:G:C8	2.53	0.44
45:CM:1238:U:C2	45:CM:1239:U:C5	3.06	0.44
45:CM:1251:U:H2'	45:CM:1252:G:C8	2.53	0.44
45:CM:1414:G:H3'	45:CM:1414:G:OP2	2.17	0.44
45:CM:1749:A:H1'	45:CM:1770:C:H5'	1.98	0.44
49:CQ:60:LEU:HB3	49:CQ:64:GLY:HA2	1.98	0.44
53:CU:11:THR:HG23	53:CU:14:GLU:H	1.81	0.44
53:CU:43:LYS:HA	53:CU:43:LYS:HD2	1.79	0.44
62:DD:47:VAL:HG23	62:DD:84:ILE:HD13	1.99	0.44
73:DO:34:ASP:O	73:DO:80:ARG:N	2.50	0.44
1:1:163:A:N1	1:1:258:U:C4	2.85	0.44
1:1:634:C:O2	1:1:2355:G:O2'	2.27	0.44
1:1:725:G:O6	1:1:738:G:O2'	2.32	0.44
1:1:1312:C:N4	17:w:132:PRO:HD3	2.32	0.44
1:1:1705:C:H2'	1:1:1706:C:C6	2.53	0.44
1:1:2956:C:H2'	1:1:2957:C:H6	1.83	0.44
3:4:104:A:C8	3:4:105:A:C8	3.05	0.44
5:k:25:GLN:HE21	5:k:334:ARG:HH11	1.65	0.44
13:s:156:LYS:O	13:s:160:ILE:HG23	2.18	0.44
16:v:56:LYS:NZ	16:v:145:ASP:OD2	2.47	0.44
18:x:61:ARG:NH2	18:x:76:PHE:HB3	2.33	0.44
18:x:78:VAL:HG22	18:x:80:LYS:H	1.82	0.44
19:y:27:GLN:O	19:y:30:VAL:HG22	2.17	0.44
45:B:501:G:H2'	45:B:502:U:C6	2.51	0.44
45:B:1102:U:H2'	45:B:1103:G:C8	2.53	0.44
45:B:1265:C:H2'	45:B:1266:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1345:A:N1	45:B:1349:G:C6	2.86	0.44
45:B:1475:U:H2'	45:B:1501:A:N7	2.33	0.44
45:B:1515:U:H2'	45:B:1516:C:H6	1.82	0.44
81:B:1803:PAR:O43	81:B:1803:PAR:H11	2.18	0.44
47:D:51:SER:HB2	47:D:57:ALA:CB	2.48	0.44
47:D:87:ARG:NH1	47:D:89:ASP:HB3	2.32	0.44
61:R:10:ARG:HG2	61:R:11:THR:N	2.32	0.44
62:S:50:PRO:CG	62:S:84:ILE:HD11	2.47	0.44
62:S:53:LEU:HD21	62:S:111:TYR:CG	2.52	0.44
64:U:25:ARG:H	64:U:25:ARG:HG2	1.47	0.44
69:Z:111:GLY:O	69:Z:121:ARG:HD3	2.18	0.44
1:AS:407:A:C2	3:AU:17:A:H1'	2.53	0.44
1:AS:728:C:H5'	19:BL:136:ASN:HA	1.99	0.44
1:AS:892:A:H5'	4:AW:183:GLY:HA2	2.00	0.44
1:AS:989:G:N3	1:AS:2609:A:H2'	2.33	0.44
1:AS:1374:U:H2'	1:AS:1375:G:H8	1.82	0.44
1:AS:1560:U:H2'	1:AS:1561:U:C6	2.53	0.44
1:AS:2809:A:H2'	1:AS:2817:A:C6	2.51	0.44
1:AS:2967:A:H2'	1:AS:2968:U:O4'	2.18	0.44
1:AS:3166:A:H2'	1:AS:3167:G:H5'	2.00	0.44
1:AS:3299:U:C5	25:BR:50:SER:HB2	2.52	0.44
3:AU:95:G:O2'	38:CE:81:GLY:O	2.29	0.44
4:AW:61:VAL:HG11	4:AW:76:PHE:CD2	2.53	0.44
6:AY:35:LEU:HD23	6:AY:122:ALA:HB2	2.00	0.44
8:BA:76:ARG:HG2	8:BA:77:ARG:N	2.32	0.44
9:BB:154:VAL:HB	9:BB:159:ILE:HD12	2.00	0.44
11:BD:136:ILE:HD13	11:BD:136:ILE:HA	1.88	0.44
16:BI:5:LYS:HE2	37:CD:36:THR:HG22	2.00	0.44
26:BS:68:ALA:HA	26:BS:73:MET:HE3	2.00	0.44
29:BV:84:SER:O	29:BV:87:LYS:HG2	2.18	0.44
34:CA:65:ARG:HD2	34:CA:65:ARG:HA	1.78	0.44
45:CM:93:A:H1'	50:CR:3:ARG:HB3	2.00	0.44
45:CM:324:G:H2'	45:CM:325:U:C6	2.53	0.44
45:CM:403:C:O2'	52:CT:92:ARG:O	2.27	0.44
45:CM:744:U:C2	45:CM:745:A:C8	3.05	0.44
45:CM:824:U:P	57:CY:27:ALA:HB1	2.57	0.44
45:CM:1682:G:H1'	45:CM:1694:A:C2	2.52	0.44
47:CO:70:LEU:O	47:CO:70:LEU:HD13	2.17	0.44
47:CO:88:VAL:HG21	47:CO:96:LEU:HD13	1.99	0.44
49:CQ:114:LEU:HD23	49:CQ:114:LEU:HA	1.72	0.44
50:CR:118:GLU:HA	50:CR:121:TYR:CE1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CS:118:LEU:HD12	51:CS:129:PRO:HB2	1.99	0.44
53:CU:120:LYS:HD3	53:CU:120:LYS:HA	1.84	0.44
55:CW:88:GLU:HA	55:CW:91:MET:HE3	1.99	0.44
55:CW:129:ILE:HG22	55:CW:142:ASN:HA	1.99	0.44
58:CZ:35:SER:HB2	58:CZ:41:LEU:HD21	2.00	0.44
59:DA:62:GLN:HB3	59:DA:65:VAL:HG12	2.00	0.44
63:DE:17:ILE:HG21	63:DE:57:LEU:HD11	1.99	0.44
73:DO:34:ASP:HB2	73:DO:80:ARG:HB2	1.98	0.44
1:1:730:A:H8	1:1:733:A:N6	2.16	0.44
1:1:882:C:OP1	81:1:3403:PAR:N64	2.50	0.44
1:1:1023:A:C6	1:1:1025:G:H1'	2.52	0.44
1:1:1312:C:OP2	17:w:134:ARG:HG3	2.18	0.44
1:1:1800:A:H2'	1:1:1801:C:H6	1.82	0.44
1:1:1863:A:H2'	1:1:1864:G:C8	2.52	0.44
1:1:2150:A:N6	81:1:3406:PAR:O44	2.50	0.44
1:1:2366:U:H4'	18:x:80:LYS:HZ3	1.81	0.44
81:1:3422:PAR:H532	81:1:3423:PAR:H51	1.99	0.44
2:3:64:A:H61	12:r:200:LEU:HD21	1.82	0.44
4:j:204:MET:HB3	4:j:208:ASP:HB2	2.00	0.44
6:l:296:VAL:O	6:l:299:VAL:HG12	2.18	0.44
7:m:41:LYS:HD3	7:m:41:LYS:HA	1.75	0.44
11:q:3:TYR:HD1	11:q:3:TYR:H	1.64	0.44
15:u:124:THR:HG21	17:w:183:LYS:HG3	1.98	0.44
21:0:71:LYS:HE3	21:0:73:LYS:HG2	2.00	0.44
24:6:28:ASN:OD1	24:6:113:ALA:N	2.49	0.44
27:9:36:SER:HG	27:9:39:LEU:HD13	1.82	0.44
28:AA:40:HIS:ND1	28:AA:74:LEU:HD11	2.32	0.44
42:AO:13:LEU:HD23	42:AO:17:ARG:HE	1.83	0.44
45:B:488:C:C2	45:B:496:G:N2	2.86	0.44
45:B:501:G:C2	45:B:502:U:C2	3.05	0.44
45:B:1236:U:H5	77:h:138:ARG:HH22	1.63	0.44
45:B:1414:G:C2'	45:B:1415:G:H5'	2.48	0.44
47:D:87:ARG:HG2	47:D:87:ARG:HH11	1.83	0.44
49:F:201:ARG:HG2	49:F:201:ARG:HH11	1.83	0.44
51:H:200:ASN:HB3	51:H:208:SER:HB2	2.00	0.44
53:J:77:LEU:HD11	53:J:86:VAL:HG11	1.99	0.44
57:N:99:ARG:HG2	69:Z:9:LEU:HD12	2.00	0.44
73:d:36:LYS:O	73:d:77:CYS:HA	2.18	0.44
1:AS:259:C:H2'	1:AS:260:C:C6	2.53	0.44
1:AS:629:A:H2'	1:AS:630:G:H8	1.82	0.44
1:AS:707:A:H2'	1:AS:708:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:951:U:H2'	1:AS:952:U:C6	2.52	0.44
1:AS:1615:A:H2'	1:AS:1616:U:O4'	2.18	0.44
1:AS:1662:G:H1	1:AS:1779:U:H3	1.66	0.44
1:AS:2159:C:OP1	4:AW:192:LYS:NZ	2.49	0.44
1:AS:2191:A:N3	1:AS:2573:A:O2'	2.47	0.44
1:AS:2361:C:H5'	17:BJ:72:PHE:CE2	2.52	0.44
1:AS:2717:G:N2	1:AS:2720:A:OP2	2.37	0.44
1:AS:3035:C:H2'	1:AS:3036:U:H6	1.82	0.44
2:AT:107:A:H2'	2:AT:108:U:C6	2.53	0.44
6:AY:286:ASP:O	6:AY:290:LEU:HD12	2.18	0.44
6:AY:351:LYS:O	6:AY:354:LYS:HG3	2.17	0.44
10:BC:201:LEU:HD23	10:BC:201:LEU:HA	1.51	0.44
13:BF:49:LYS:HE3	79:CL:34:THR:CG2	2.43	0.44
14:BG:92:THR:HG21	36:CC:112:PRO:O	2.17	0.44
18:BK:49:ASP:OD1	18:BK:92:LYS:NZ	2.48	0.44
20:BM:176:ARG:HH21	20:BM:177:LEU:HG	1.82	0.44
23:BP:56:ILE:HB	23:BP:66:VAL:HG22	2.00	0.44
24:BQ:13:MET:O	24:BQ:15:LEU:HD23	2.17	0.44
24:BQ:38:ALA:HB3	24:BQ:59:MET:HB2	2.00	0.44
25:BR:111:LYS:NZ	52:CT:154:ARG:HH12	2.14	0.44
38:CE:39:TYR:CD1	38:CE:40:PRO:HA	2.52	0.44
45:CM:931:U:H2'	45:CM:932:U:C6	2.51	0.44
45:CM:1559:G:HO2'	51:CS:185:ARG:NH2	2.12	0.44
46:CN:36:TYR:CB	46:CN:149:MET:HE1	2.36	0.44
49:CQ:65:ARG:HD2	56:CX:91:ARG:NH1	2.27	0.44
52:CT:214:LYS:HD2	52:CT:214:LYS:HA	1.65	0.44
59:DA:89:TYR:CE2	59:DA:150:VAL:HG12	2.52	0.44
60:DB:53:TYR:O	60:DB:57:LEU:HG	2.17	0.44
65:DG:89:ARG:HD3	65:DG:89:ARG:N	2.31	0.44
71:DM:39:ILE:HB	71:DM:71:ILE:HG22	2.00	0.44
79:CL:52:LYS:HD3	79:CL:52:LYS:N	2.33	0.44
1:1:67:C:OP2	1:1:301:G:N2	2.51	0.44
1:1:1943:G:OP1	20:z:136:ARG:HG3	2.18	0.44
1:1:2296:U:H2'	1:1:2297:U:O4'	2.18	0.44
1:1:2404:U:H2'	1:1:2405:U:H6	1.83	0.44
1:1:2638:C:O2'	79:i:40:ASP:HB2	2.17	0.44
1:1:2713:C:O2	43:AP:20:HIS:HE1	2.00	0.44
2:3:43:U:OP1	13:s:137:ARG:HD2	2.18	0.44
2:3:84:A:H2'	2:3:85:G:C8	2.53	0.44
12:r:19:LYS:HB3	12:r:19:LYS:HE2	1.43	0.44
28:AA:68:VAL:O	28:AA:115:LYS:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:147:C:C2	45:B:148:C:C5	3.06	0.44
45:B:740:A:H2'	45:B:741:A:H8	1.82	0.44
45:B:1219:A:H5''	45:B:1230:G:H2'	1.99	0.44
45:B:1302:C:H2'	45:B:1303:G:O4'	2.17	0.44
47:D:34:ALA:HB3	47:D:41:ARG:HA	2.00	0.44
47:D:70:LEU:HD22	47:D:79:HIS:CG	2.53	0.44
48:E:41:LYS:HD2	48:E:41:LYS:HA	1.54	0.44
49:F:23:ASN:HD22	49:F:38:VAL:HG12	1.83	0.44
53:J:7:SER:HB2	53:J:40:LYS:NZ	2.32	0.44
54:K:124:LYS:HD2	54:K:125:LYS:H	1.81	0.44
55:L:32:GLY:HA3	76:g:40:TYR:CD2	2.53	0.44
56:M:33:ASP:OD1	56:M:33:ASP:N	2.51	0.44
58:O:27:ALA:HB1	58:O:132:GLU:OE1	2.18	0.44
60:Q:7:GLN:NE2	60:Q:106:ARG:HE	2.15	0.44
60:Q:67:LYS:H	60:Q:67:LYS:HG2	1.49	0.44
65:V:16:ASN:OD1	65:V:16:ASN:N	2.45	0.44
65:V:18:TYR:CE1	65:V:22:LEU:HD11	2.52	0.44
65:V:49:GLU:HG3	65:V:52:THR:HG23	1.99	0.44
66:W:102:ILE:HA	66:W:105:ILE:CG2	2.47	0.44
72:c:37:LYS:O	72:c:38:ARG:NH1	2.50	0.44
74:e:12:VAL:HG12	74:e:50:GLU:HA	2.00	0.44
1:AS:120:A:N3	10:BC:130:PRO:HG3	2.32	0.44
1:AS:502:U:H2'	1:AS:503:U:C6	2.52	0.44
1:AS:1385:G:H5''	33:BZ:102:SER:HB3	2.00	0.44
1:AS:1827:U:P	26:BS:92:LYS:NZ	2.90	0.44
1:AS:1865:C:H4'	1:AS:3049:A:O2'	2.17	0.44
1:AS:2184:G:H4'	1:AS:2185:A:C5	2.52	0.44
1:AS:2778:U:H2'	1:AS:2779:U:C6	2.53	0.44
1:AS:3308:G:O2'	1:AS:3327:A:N6	2.48	0.44
3:AU:10:A:H2'	3:AU:11:C:C6	2.53	0.44
5:AX:348:ARG:HG3	5:AX:348:ARG:NH1	2.33	0.44
12:BE:86:HIS:HB3	12:BE:139:ARG:CG	2.48	0.44
18:BK:105:LYS:HB2	18:BK:107:LEU:CD1	2.47	0.44
19:BL:66:ARG:HH21	19:BL:143:PRO:CD	2.29	0.44
25:BR:111:LYS:HZ1	52:CT:154:ARG:HH12	1.64	0.44
28:BU:63:THR:C	28:BU:67:LYS:HZ2	2.26	0.44
34:CA:65:ARG:HD2	34:CA:66:VAL:N	2.28	0.44
45:CM:112:A:C2	45:CM:301:U:H1'	2.53	0.44
45:CM:291:U:H2'	45:CM:292:C:H6	1.82	0.44
45:CM:583:A:H2'	45:CM:584:G:C8	2.53	0.44
45:CM:734:U:H2'	45:CM:735:U:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:753:C:C2	55:CW:143:ILE:HG21	2.52	0.44
45:CM:988:A:H2'	45:CM:990:A:N7	2.33	0.44
45:CM:1337:C:H2'	45:CM:1338:U:O4'	2.17	0.44
45:CM:1571:G:O2'	62:DD:123:MET:HG2	2.18	0.44
47:CO:133:TYR:CE1	47:CO:221:PRO:HD2	2.53	0.44
48:CP:213:ILE:HD12	48:CP:213:ILE:HA	1.91	0.44
49:CQ:36:ALA:HA	49:CQ:100:ALA:HB3	2.00	0.44
50:CR:65:MET:HE2	50:CR:65:MET:HB3	1.63	0.44
57:CY:111:VAL:HA	57:CY:139:VAL:HG22	2.00	0.44
58:CZ:95:LYS:HD3	58:CZ:95:LYS:HA	1.78	0.44
61:DC:84:ILE:HD11	61:DC:115:TYR:CE1	2.52	0.44
62:DD:13:LYS:O	62:DD:122:ARG:NH2	2.50	0.44
1:1:96:U:H2'	1:1:97:G:C8	2.52	0.44
1:1:117:U:O2	1:1:120:A:H5''	2.17	0.44
1:1:426:G:H1	1:1:631:U:H3	1.64	0.44
1:1:484:U:N3	1:1:485:A:N7	2.66	0.44
1:1:952:U:H2'	1:1:953:C:C6	2.52	0.44
1:1:1660:G:H2'	1:1:1661:U:C6	2.52	0.44
1:1:1690:U:O2'	1:1:1691:U:H5'	2.18	0.44
1:1:2330:A:H5''	18:x:83:TRP:O	2.17	0.44
1:1:2919:G:C2	5:k:250:ALA:HB1	2.52	0.44
2:3:38:U:N3	2:3:41:G:OP2	2.32	0.44
3:4:5:U:H2'	3:4:6:U:H6	1.83	0.44
4:j:45:VAL:HG22	4:j:61:VAL:HG22	2.00	0.44
4:j:130:SER:HB2	4:j:171:GLY:C	2.43	0.44
5:k:10:ARG:HG2	5:k:10:ARG:HH11	1.82	0.44
6:l:188:LEU:HD11	6:l:199:ARG:HH21	1.83	0.44
9:o:173:LYS:H	9:o:173:LYS:HG2	1.56	0.44
15:u:112:GLN:O	15:u:113:VAL:C	2.61	0.44
21:0:43:TYR:OH	21:0:47:LYS:HE2	2.18	0.44
22:2:4:SER:O	22:2:5:ARG:HD3	2.17	0.44
27:9:69:LYS:HB3	27:9:69:LYS:HE3	1.66	0.44
27:9:120:GLN:OE1	38:CE:87:THR:HG22	2.18	0.44
32:AE:56:ILE:O	32:AE:60:LYS:HB2	2.17	0.44
37:AJ:55:ARG:HH11	37:AJ:55:ARG:HB2	1.83	0.44
44:AQ:28:LYS:HG2	44:AQ:29:LEU:HG	2.00	0.44
45:B:770:C:P	45:B:770:C:O4'	2.76	0.44
45:B:1214:G:OP1	77:h:141:LYS:HD2	2.18	0.44
45:B:1366:U:H2'	45:B:1367:U:H6	1.83	0.44
46:C:3:LEU:HA	46:C:3:LEU:HD12	1.41	0.44
50:G:250:SER:O	50:G:254:ASP:OD1	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:P:55:ARG:NH1	59:P:56:ASP:OD1	2.50	0.44
60:Q:37:VAL:HB	60:Q:62:VAL:HG23	2.00	0.44
61:R:96:VAL:HG23	61:R:120:SER:CB	2.48	0.44
62:S:39:GLN:O	62:S:41:GLU:N	2.50	0.44
65:V:19:ALA:CB	65:V:56:LYS:HA	2.48	0.44
68:Y:21:GLY:C	73:d:3:LEU:HD23	2.43	0.44
70:a:20:ARG:HB3	70:a:76:TYR:CD2	2.53	0.44
71:b:60:VAL:HG23	71:b:101:TYR:HB2	1.99	0.44
77:h:160:ARG:O	77:h:161:ARG:C	2.60	0.44
78:AR:233:ALA:HB1	78:AR:258:LYS:HZ1	1.81	0.44
1:AS:376:G:OP2	27:BT:89:LYS:HE2	2.17	0.44
1:AS:414:U:H2'	1:AS:415:G:H8	1.82	0.44
1:AS:561:U:H2'	1:AS:562:C:H6	1.83	0.44
1:AS:868:U:H2'	1:AS:869:C:C6	2.53	0.44
1:AS:1808:G:N7	28:BU:64:LYS:NZ	2.65	0.44
1:AS:3318:G:H3'	1:AS:3319:U:O3'	2.17	0.44
7:AZ:6:GLU:OE1	7:AZ:8:ARG:N	2.41	0.44
7:AZ:86:TYR:HE2	7:AZ:247:ILE:HA	1.76	0.44
8:BA:39:LEU:HB3	8:BA:83:VAL:CG1	2.47	0.44
12:BE:54:SER:HB2	12:BE:135:ILE:HD11	1.99	0.44
14:BG:64:LYS:HE2	14:BG:65:TYR:CZ	2.53	0.44
29:BV:94:SER:HB2	29:BV:121:VAL:HG13	2.00	0.44
30:BW:33:LYS:HB3	30:BW:33:LYS:HE2	1.52	0.44
31:BX:15:LYS:HB3	31:BX:102:ILE:CD1	2.46	0.44
31:BX:44:VAL:HG23	31:BX:69:VAL:HG22	1.99	0.44
38:CE:58:THR:CG2	38:CE:59:THR:N	2.81	0.44
45:CM:222:C:C2	45:CM:823:G:N2	2.86	0.44
45:CM:345:G:OP1	57:CY:77:SER:OG	2.31	0.44
45:CM:583:A:H2'	45:CM:584:G:H8	1.82	0.44
45:CM:840:A:O2'	45:CM:841:A:H3'	2.18	0.44
45:CM:845:U:C1'	53:CU:110:ARG:HD3	2.39	0.44
45:CM:1120:U:HO2'	45:CM:1740:A:H5'	1.82	0.44
45:CM:1219:A:H5'	45:CM:1220:C:OP1	2.18	0.44
45:CM:1302:C:O2'	45:CM:1386:A:N3	2.45	0.44
45:CM:1494:G:H2'	45:CM:1495:U:C6	2.52	0.44
45:CM:1580:A:O2'	45:CM:1581:G:H5'	2.18	0.44
45:CM:1584:A:C8	75:DQ:14:PHE:CD1	3.04	0.44
45:CM:1609:G:H2'	45:CM:1610:C:C6	2.53	0.44
46:CN:9:LEU:HD12	46:CN:9:LEU:HA	1.65	0.44
46:CN:79:ARG:HH21	46:CN:124:THR:HG22	1.82	0.44
53:CU:33:GLU:O	53:CU:36:PRO:HD2	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CV:17:LYS:HD2	54:CV:18:ARG:H	1.82	0.44
55:CW:93:LEU:HA	55:CW:96:VAL:CG1	2.46	0.44
55:CW:109:LEU:O	55:CW:109:LEU:HD23	2.18	0.44
55:CW:153:GLN:HG2	55:CW:153:GLN:O	2.16	0.44
57:CY:48:ALA:HA	57:CY:53:TYR:HE1	1.83	0.44
62:DD:54:VAL:O	62:DD:58:LYS:HE2	2.18	0.44
63:DE:21:TYR:CD1	63:DE:71:PHE:CD2	3.06	0.44
65:DG:22:LEU:HD23	65:DG:28:LEU:HG	1.99	0.44
68:DJ:111:MET:HE3	68:DJ:116:ALA:HA	2.00	0.44
70:DL:3:ASP:HB3	70:DL:31:ASN:OD1	2.17	0.44
73:DO:31:PHE:CD2	73:DO:81:ARG:HG3	2.52	0.44
1:1:171:G:H2'	1:1:172:C:H6	1.83	0.44
1:1:1761:U:H2'	1:1:1762:G:C4'	2.48	0.44
1:1:2457:C:H2'	1:1:2458:G:H5'	2.00	0.44
1:1:2753:U:H2'	1:1:2754:U:C6	2.52	0.44
1:1:2771:A:H5''	1:1:2772:G:O5'	2.18	0.44
3:4:85:G:H5'	27:BT:113:LYS:HD3	1.98	0.44
3:4:112:U:OP2	40:AM:8:ARG:NH2	2.50	0.44
11:q:84:LYS:HG2	11:q:188:VAL:HG21	2.00	0.44
18:x:109:SER:HA	18:x:112:LEU:HG	1.99	0.44
23:5:34:VAL:HG13	23:5:56:ILE:HG22	2.00	0.44
32:AE:11:TYR:O	32:AE:71:ARG:HD2	2.17	0.44
45:B:151:G:C6	45:B:160:A:C6	3.06	0.44
45:B:674:C:H2'	45:B:675:U:O4'	2.18	0.44
45:B:1604:U:H2'	45:B:1605:C:C6	2.53	0.44
45:B:1725:U:H2'	45:B:1726:C:C6	2.52	0.44
50:G:21:ASP:OD2	50:G:24:SER:HB2	2.17	0.44
50:G:174:LYS:HZ1	50:G:176:ASP:CG	2.26	0.44
51:H:37:GLN:OE1	62:S:55:GLY:HA2	2.18	0.44
51:H:122:HIS:O	51:H:126:GLU:HA	2.18	0.44
53:J:92:ARG:NH1	53:J:120:LYS:HB3	2.32	0.44
59:P:58:HIS:HB2	59:P:60:VAL:HG23	1.98	0.44
62:S:122:ARG:H	62:S:122:ARG:HD3	1.82	0.44
75:f:6:VAL:O	75:f:9:SER:HB3	2.18	0.44
78:AR:22:SER:HB2	78:AR:71:ASP:HA	1.99	0.44
1:AS:115:A:OP2	16:BI:2:GLY:N	2.51	0.44
1:AS:361:A:H4'	38:CE:45:ARG:HH12	1.82	0.44
1:AS:413:U:H2'	1:AS:414:U:H6	1.83	0.44
1:AS:1133:C:H2'	1:AS:1134:U:O4'	2.18	0.44
1:AS:1562:G:N1	1:AS:1563:A:N3	2.66	0.44
81:AS:3404:PAR:H14	81:AS:3404:PAR:H43	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AY:143:VAL:HG22	6:AY:146:VAL:CG1	2.48	0.44
7:AZ:86:TYR:CD2	7:AZ:247:ILE:HA	2.53	0.44
11:BD:91:ARG:NH1	11:BD:143:GLU:HB2	2.33	0.44
11:BD:93:VAL:HG11	11:BD:180:TYR:CE2	2.53	0.44
11:BD:135:GLU:OE1	11:BD:136:ILE:N	2.50	0.44
12:BE:140:THR:HG21	12:BE:148:VAL:HG21	2.00	0.44
15:BH:16:GLY:O	15:BH:62:LEU:N	2.30	0.44
18:BK:13:LYS:HD3	18:BK:152:GLU:CD	2.42	0.44
21:BN:97:VAL:HG23	21:BN:98:THR:HG23	1.99	0.44
28:BU:122:HIS:HB2	28:BU:131:PHE:CD2	2.53	0.44
34:CA:57:LYS:HA	34:CA:57:LYS:HD2	1.80	0.44
35:CB:41:ARG:O	35:CB:43:LYS:NZ	2.48	0.44
38:CE:37:CYS:HB3	38:CE:57:ARG:NH2	2.33	0.44
45:CM:432:G:N1	45:CM:435:A:OP2	2.45	0.44
45:CM:1210:U:H2'	45:CM:1211:A:O4'	2.18	0.44
45:CM:1227:A:O2'	45:CM:1229:A:OP1	2.34	0.44
45:CM:1537:A:OP2	61:DC:42:ARG:NH2	2.47	0.44
45:CM:1539:U:O4	61:DC:40:ARG:NH2	2.47	0.44
48:CP:136:ARG:HB3	48:CP:146:PRO:HB2	2.00	0.44
49:CQ:24:GLU:CD	56:CX:61:TRP:HE1	2.25	0.44
52:CT:56:ASN:HB2	52:CT:108:VAL:HG12	2.00	0.44
53:CU:75:ARG:O	53:CU:79:LYS:HG3	2.17	0.44
54:CV:201:ARG:HA	54:CV:201:ARG:HE	1.83	0.44
56:CX:37:THR:OG1	56:CX:41:PHE:HD2	2.01	0.44
57:CY:24:LYS:HB3	57:CY:24:LYS:HE3	1.72	0.44
60:DB:9:PHE:HA	60:DB:73:ALA:O	2.18	0.44
64:DF:30:TYR:O	64:DF:33:THR:OG1	2.34	0.44
79:i:67:LYS:HD2	79:i:69:PHE:CD2	2.53	0.44
1:1:88:G:H21	1:1:281:G:H4'	1.82	0.44
1:1:422:A:C2	1:1:2341:A:H4'	2.53	0.44
1:1:1140:U:OP1	1:1:1363:G:O2'	2.32	0.44
1:1:2455:G:H21	1:1:2466:A:H2	1.66	0.44
1:1:2936:G:N2	1:1:2939:A:OP2	2.46	0.44
1:1:3196:U:H2'	1:1:3197:G:H8	1.83	0.44
1:1:3256:G:C2	1:1:3257:A:C5	3.06	0.44
1:1:3299:U:C5	25:7:50:SER:HB3	2.53	0.44
2:3:35:C:N3	2:3:45:A:O2'	2.48	0.44
11:q:134:MET:SD	11:q:146:VAL:HG22	2.58	0.44
15:u:117:LYS:HD3	15:u:117:LYS:C	2.42	0.44
28:AA:18:TYR:HE2	28:AA:73:LYS:HD3	1.82	0.44
28:AA:78:ASN:OD1	31:AD:37:ARG:NH2	2.37	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AB:28:HIS:CD2	29:AB:32:ARG:HG2	2.53	0.44
34:AG:52:VAL:HG22	34:AG:66:VAL:HG22	1.99	0.44
36:AI:9:LEU:HB3	36:AI:57:VAL:HG21	2.00	0.44
45:B:97:C:H2'	45:B:98:U:H6	1.83	0.44
45:B:600:U:H2'	45:B:601:U:C6	2.53	0.44
45:B:770:C:O2'	50:G:256:ARG:NE	2.49	0.44
45:B:1155:G:C2	45:B:1156:A:C8	3.06	0.44
45:B:1344:C:O2	65:V:3:GLY:HA3	2.18	0.44
45:B:1543:A:H1'	45:B:1547:U:OP2	2.18	0.44
45:B:1550:C:OP1	65:V:84:LYS:NZ	2.36	0.44
51:H:27:THR:HG21	62:S:28:ILE:H	1.82	0.44
56:M:77:ARG:HA	56:M:82:ILE:CG1	2.48	0.44
62:S:135:ALA:O	62:S:136:ARG:HD2	2.17	0.44
67:X:69:LEU:HD23	67:X:69:LEU:HA	1.78	0.44
68:Y:57:ARG:NH1	68:Y:57:ARG:CG	2.81	0.44
78:AR:126:ALA:HB1	78:AR:152:VAL:HG23	2.00	0.44
78:AR:298:LEU:O	78:AR:309:VAL:HA	2.18	0.44
1:AS:632:C:O3'	33:BZ:48:ARG:NH2	2.47	0.44
1:AS:716:G:H3'	1:AS:717:A:H5''	2.00	0.44
1:AS:1011:C:H4'	1:AS:1012:U:C6	2.53	0.44
1:AS:1494:A:OP1	20:BM:6:THR:HG23	2.18	0.44
1:AS:1651:G:H5''	35:CB:58:ARG:NH1	2.33	0.44
1:AS:1695:A:H2'	1:AS:1696:G:H8	1.83	0.44
1:AS:2393:C:H5''	4:AW:207:VAL:HG12	2.00	0.44
1:AS:2538:A:C2	10:BC:32:PRO:HA	2.53	0.44
1:AS:2695:U:H2'	1:AS:2696:U:C6	2.52	0.44
3:AU:13:A:H1'	18:BK:120:ASN:OD1	2.18	0.44
5:AX:141:ALA:O	5:AX:144:VAL:HG22	2.18	0.44
10:BC:144:ILE:CG2	10:BC:176:VAL:HG21	2.47	0.44
10:BC:166:PHE:HA	37:CD:46:VAL:HG21	2.00	0.44
11:BD:100:ASN:HB3	11:BD:115:ARG:HB2	1.98	0.44
14:BG:45:LYS:HA	14:BG:45:LYS:HD2	1.31	0.44
23:BP:13:LYS:HA	23:BP:13:LYS:HD3	1.45	0.44
25:BR:38:SER:O	25:BR:42:GLN:HG3	2.17	0.44
27:BT:16:ARG:O	27:BT:20:PHE:CD2	2.70	0.44
33:BZ:14:TYR:CE2	33:BZ:16:LYS:HB2	2.53	0.44
34:CA:49:ILE:HD13	34:CA:49:ILE:HG21	1.82	0.44
36:CC:31:LEU:CD1	36:CC:47:VAL:HG11	2.47	0.44
39:CF:31:VAL:HG12	39:CF:33:ALA:H	1.83	0.44
45:CM:58:U:O2'	45:CM:449:G:N3	2.49	0.44
45:CM:193:G:N7	54:CV:147:ARG:NH2	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:267:G:OP2	52:CT:186:ARG:NH2	2.48	0.44
45:CM:695:C:H1'	45:CM:696:U:P	2.58	0.44
45:CM:1120:U:O2'	45:CM:1740:A:H5'	2.18	0.44
46:CN:43:ASP:OD1	46:CN:44:GLY:N	2.51	0.44
47:CO:81:TYR:CB	47:CO:109:LYS:HG3	2.47	0.44
47:CO:172:MET:O	47:CO:176:VAL:HG23	2.18	0.44
48:CP:77:LYS:HE3	48:CP:202:THR:HG21	2.00	0.44
51:CS:162:VAL:HG13	51:CS:166:ARG:NH1	2.32	0.44
51:CS:166:ARG:NH1	74:DP:45:LYS:HB3	2.33	0.44
51:CS:171:ALA:O	51:CS:175:LEU:HD13	2.18	0.44
51:CS:200:ASN:HB3	51:CS:205:SER:HB3	2.00	0.44
55:CW:50:SER:OG	55:CW:54:ARG:NH1	2.51	0.44
58:CZ:50:LYS:HB3	58:CZ:50:LYS:HE3	1.68	0.44
59:DA:18:TYR:CD2	68:DJ:56:HIS:CE1	3.06	0.44
69:DK:19:ARG:O	69:DK:23:ARG:HG3	2.18	0.44
70:DL:87:PRO:HD2	70:DL:90:ARG:NH2	2.33	0.44
1:1:201:G:OP1	81:1:3402:PAR:O41	2.25	0.43
1:1:1900:C:H2'	1:1:1901:G:O4'	2.18	0.43
1:1:1905:A:H2'	1:1:1906:A:C8	2.53	0.43
1:1:2407:G:H2'	1:1:2408:A:H8	1.82	0.43
2:3:70:A:H2'	2:3:71:U:H6	1.82	0.43
6:l:147:LYS:HA	6:l:147:LYS:HD2	1.63	0.43
8:n:100:PHE:CE1	8:n:104:TYR:HE2	2.36	0.43
10:p:48:SER:HA	10:p:51:VAL:HG23	2.00	0.43
12:r:86:HIS:HB3	12:r:139:ARG:CG	2.47	0.43
14:t:49:ARG:H	14:t:49:ARG:HG3	1.66	0.43
17:w:174:ALA:O	17:w:178:LYS:HD2	2.18	0.43
45:B:184:C:H2'	45:B:185:G:O4'	2.18	0.43
45:B:587:C:H1'	76:g:57:ASN:HD22	1.82	0.43
45:B:734:U:H2'	45:B:735:U:C6	2.53	0.43
81:B:1805:PAR:H62	81:B:1805:PAR:H13	1.89	0.43
46:C:63:ILE:CG1	67:X:36:ILE:HG12	2.43	0.43
47:D:30:PHE:HB3	47:D:96:LEU:HD11	2.00	0.43
51:H:56:VAL:HG12	74:e:53:ILE:CD1	2.48	0.43
53:J:85:HIS:CD2	53:J:161:LYS:HD2	2.53	0.43
58:O:68:GLU:C	58:O:70:SER:H	2.26	0.43
63:T:23:LYS:HD3	63:T:23:LYS:N	2.33	0.43
68:Y:94:LEU:CD1	68:Y:102:VAL:HG23	2.46	0.43
1:AS:883:G:H2'	1:AS:884:A:C8	2.53	0.43
1:AS:2740:U:H2'	1:AS:2741:A:C8	2.51	0.43
1:AS:3141:U:H3	1:AS:3245:A:H62	1.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AW:66:PRO:HG2	4:AW:67:TYR:CE2	2.53	0.43
4:AW:119:LYS:HD2	4:AW:119:LYS:HA	1.64	0.43
5:AX:298:PHE:N	5:AX:298:PHE:CD2	2.85	0.43
8:BA:75:LEU:HD21	8:BA:141:VAL:HG21	2.00	0.43
8:BA:135:VAL:HG12	8:BA:139:LYS:HE2	2.00	0.43
9:BB:163:ASP:OD1	9:BB:164:ASN:N	2.51	0.43
10:BC:99:ARG:HG3	10:BC:99:ARG:NH1	2.33	0.43
13:BF:114:ILE:HD12	13:BF:115:LYS:HD3	1.98	0.43
14:BG:122:LYS:HB3	36:CC:119:LYS:H	1.82	0.43
14:BG:185:ARG:HG2	14:BG:188:ARG:HH21	1.81	0.43
16:BI:6:TYR:CZ	37:CD:39:VAL:HG22	2.54	0.43
23:BP:88:LYS:HD3	23:BP:93:ARG:CB	2.48	0.43
24:BQ:80:ARG:HG2	24:BQ:99:ALA:HB3	1.99	0.43
25:BR:90:ILE:O	25:BR:94:ARG:HD3	2.18	0.43
31:BX:47:ALA:O	31:BX:50:THR:HG22	2.17	0.43
45:CM:103:A:O3'	45:CM:306:C:N4	2.51	0.43
45:CM:477:C:HO2'	55:CW:120:ARG:HH11	1.61	0.43
45:CM:873:U:H2'	45:CM:874:U:C6	2.52	0.43
45:CM:1262:G:H4'	49:CQ:184:GLY:N	2.33	0.43
45:CM:1335:U:H2'	45:CM:1336:G:H8	1.81	0.43
47:CO:85:LYS:HG2	47:CO:101:HIS:ND1	2.32	0.43
53:CU:38:GLN:C	53:CU:66:TYR:HH	2.22	0.43
53:CU:95:LEU:HD23	53:CU:95:LEU:HA	1.66	0.43
56:CX:8:ARG:HH11	56:CX:8:ARG:HD2	1.64	0.43
63:DE:111:LYS:C	63:DE:111:LYS:HD3	2.42	0.43
65:DG:66:TYR:HA	65:DG:124:ILE:CD1	2.48	0.43
70:DL:27:VAL:HG13	70:DL:69:SER:HB2	2.00	0.43
71:DM:60:VAL:HG23	71:DM:101:TYR:HB2	1.99	0.43
1:1:275:U:H2'	1:1:276:U:C6	2.53	0.43
1:1:3344:U:H4'	5:k:315:GLY:HA2	1.99	0.43
3:4:83:U:H4'	3:4:85:G:N3	2.33	0.43
4:j:118:GLU:HG3	4:j:126:LEU:HD21	2.00	0.43
7:m:90:TYR:HB2	7:m:226:TYR:HE1	1.83	0.43
8:n:99:LYS:HB2	8:n:99:LYS:HE3	1.60	0.43
15:u:26:LEU:HD11	15:u:87:TRP:CG	2.53	0.43
16:v:27:CYS:HB2	16:v:122:ASN:HD21	1.83	0.43
23:5:28:PHE:HE1	23:5:86:TYR:CE2	2.22	0.43
38:AK:57:ARG:HH11	38:AK:57:ARG:HG3	1.83	0.43
45:B:303:C:H2'	45:B:304:U:C6	2.53	0.43
45:B:608:G:H2'	45:B:612:C:C5	2.54	0.43
45:B:1337:C:H2'	45:B:1338:U:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1663:U:H2'	45:B:1664:C:C6	2.53	0.43
45:B:1773:G:OP2	60:Q:128:ARG:NH2	2.43	0.43
50:G:160:VAL:CG1	50:G:169:ILE:HD12	2.48	0.43
51:H:158:GLN:HG2	74:e:66:LEU:HD11	1.99	0.43
51:H:216:GLU:HA	51:H:219:ARG:HG2	2.00	0.43
51:H:225:ARG:HD2	74:e:61:ARG:HH12	1.83	0.43
53:J:103:ARG:HD3	53:J:103:ARG:HA	1.65	0.43
62:S:58:LYS:O	62:S:58:LYS:HE3	2.18	0.43
77:h:158:ARG:NH2	77:h:162:GLU:OE1	2.48	0.43
78:AR:243:SER:HA	78:AR:291:TRP:CD1	2.53	0.43
1:AS:130:U:H2'	1:AS:131:C:H6	1.83	0.43
1:AS:379:C:H2'	1:AS:380:U:H6	1.82	0.43
1:AS:1028:C:H2'	1:AS:1029:U:O4'	2.18	0.43
1:AS:1434:U:H4'	6:AY:89:ALA:CB	2.48	0.43
1:AS:1767:G:H2'	1:AS:1768:U:O4'	2.18	0.43
1:AS:1852:C:C2	1:AS:1853:C:C5	3.07	0.43
1:AS:2194:G:H1	1:AS:2207:A:H61	1.65	0.43
1:AS:2332:C:H2'	1:AS:2333:G:O4'	2.18	0.43
1:AS:2651:A:C5	13:BF:57:PHE:CZ	3.06	0.43
1:AS:2655:U:H2'	1:AS:2656:C:H6	1.79	0.43
1:AS:2658:A:H2'	1:AS:2659:G:O4'	2.18	0.43
1:AS:2857:C:O2'	1:AS:2858:U:H5'	2.17	0.43
1:AS:3067:U:H2'	1:AS:3068:C:H6	1.83	0.43
1:AS:3129:C:H2'	1:AS:3130:C:H6	1.83	0.43
1:AS:3183:A:H5''	1:AS:3184:G:C5	2.53	0.43
1:AS:3253:G:H2'	1:AS:3254:G:H8	1.84	0.43
6:AY:164:LYS:HG3	6:AY:165:ASP:OD1	2.17	0.43
6:AY:165:ASP:O	6:AY:169:VAL:HG23	2.18	0.43
10:BC:74:PRO:HB3	10:BC:230:ASN:O	2.18	0.43
10:BC:74:PRO:HD3	10:BC:234:TRP:CE2	2.53	0.43
10:BC:155:ALA:HB2	10:BC:187:LEU:HD12	1.99	0.43
27:BT:16:ARG:HE	27:BT:20:PHE:HE2	1.65	0.43
34:CA:106:ASN:ND2	34:CA:106:ASN:O	2.51	0.43
45:CM:273:C:H2'	45:CM:274:C:O4'	2.18	0.43
45:CM:1147:C:H2'	45:CM:1148:A:C8	2.52	0.43
45:CM:1527:G:C5	45:CM:1528:G:C5	3.06	0.43
47:CO:22:ASP:O	47:CO:25:THR:HG22	2.19	0.43
50:CR:100:ARG:NH1	50:CR:100:ARG:HG3	2.34	0.43
50:CR:184:THR:O	50:CR:184:THR:OG1	2.33	0.43
53:CU:125:LEU:HA	53:CU:125:LEU:HD23	1.67	0.43
54:CV:78:ILE:HG21	54:CV:96:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CW:83:ILE:HG13	55:CW:85:VAL:HG22	2.00	0.43
63:DE:78:ARG:O	63:DE:81:LYS:HB3	2.18	0.43
79:CL:60:ASN:OD1	79:CL:60:ASN:N	2.51	0.43
1:1:126:G:H2'	1:1:127:G:H8	1.83	0.43
1:1:130:U:H2'	1:1:131:C:C6	2.53	0.43
1:1:164:U:H2'	1:1:165:C:H6	1.82	0.43
1:1:1479:G:O6	35:AH:4:ARG:NH2	2.44	0.43
1:1:1633:A:N3	1:1:1705:C:O2'	2.44	0.43
1:1:2394:U:H2'	1:1:2395:U:C6	2.53	0.43
1:1:2681:C:H2'	1:1:2682:C:C6	2.53	0.43
81:1:3415:PAR:O44	81:1:3415:PAR:N64	2.50	0.43
3:4:95:G:N7	38:AK:83:ALA:HB2	2.33	0.43
6:l:149:LEU:HA	6:l:150:PRO:C	2.42	0.43
13:s:19:LEU:CD2	13:s:127:PHE:CE1	3.01	0.43
27:9:86:GLN:HB3	27:9:94:SER:HB3	1.99	0.43
29:AB:72:GLU:HB3	29:AB:113:LEU:HD12	1.99	0.43
34:AG:72:THR:OG1	34:AG:73:ARG:HG2	2.19	0.43
43:AP:53:GLN:HG2	43:AP:57:ILE:HD11	2.01	0.43
44:AQ:70:THR:HG22	44:AQ:72:SER:H	1.83	0.43
45:B:31:C:O2'	45:B:545:U:OP1	2.35	0.43
45:B:86:A:H1'	45:B:146:A:H1'	2.00	0.43
45:B:93:A:C6	45:B:396:G:C6	3.07	0.43
45:B:1132:A:H5'	48:E:86:ARG:HA	1.99	0.43
45:B:1389:U:H2'	45:B:1390:C:H6	1.82	0.43
45:B:1520:C:OP2	71:b:77:ARG:NH1	2.44	0.43
46:C:170:ILE:HD12	46:C:170:ILE:H	1.83	0.43
47:D:156:ALA:HB3	47:D:161:LEU:HD21	1.99	0.43
48:E:52:TYR:CE1	48:E:133:PRO:HD3	2.52	0.43
49:F:9:LYS:O	49:F:13:VAL:HG13	2.18	0.43
50:G:31:PRO:HG3	50:G:43:PRO:HG3	1.99	0.43
50:G:32:SER:HG	50:G:81:THR:HG1	1.66	0.43
50:G:64:ILE:HA	50:G:67:GLN:HE21	1.82	0.43
51:H:137:ILE:HG12	51:H:175:LEU:CD1	2.48	0.43
53:J:59:PRO:HG2	53:J:62:SER:OG	2.18	0.43
57:N:110:HIS:HB2	57:N:131:ILE:HD11	2.00	0.43
58:O:60:CYS:O	58:O:88:LEU:HA	2.17	0.43
60:Q:11:VAL:HG12	60:Q:13:ARG:HG3	2.00	0.43
68:Y:31:SER:OG	68:Y:32:LYS:N	2.51	0.43
70:a:122:GLN:H	70:a:122:GLN:CD	2.25	0.43
74:e:30:VAL:HG22	74:e:40:ILE:O	2.19	0.43
77:h:157:GLU:CD	77:h:159:LEU:HB2	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:AR:5:GLU:HA	78:AR:313:MET:O	2.19	0.43
1:AS:258:U:H2'	1:AS:259:C:C6	2.53	0.43
1:AS:637:G:OP1	33:BZ:41:SER:HB2	2.18	0.43
1:AS:798:C:H2'	1:AS:799:C:C6	2.54	0.43
1:AS:912:G:H5'	1:AS:913:A:OP1	2.19	0.43
1:AS:2404:U:H2'	1:AS:2405:U:H6	1.82	0.43
3:AU:65:A:P	36:CC:53:ARG:HE	2.40	0.43
6:AY:192:LYS:HE2	6:AY:192:LYS:HB2	1.76	0.43
6:AY:360:VAL:HA	21:BN:8:GLN:NE2	2.34	0.43
9:BB:208:PRO:HB3	9:BB:239:GLN:HB3	2.00	0.43
10:BC:135:TYR:CZ	10:BC:193:LYS:HE2	2.53	0.43
10:BC:210:ALA:HA	10:BC:213:SER:OG	2.18	0.43
11:BD:151:LEU:HA	11:BD:154:VAL:HG12	1.99	0.43
13:BF:52:TYR:CE2	79:CL:47:ASP:HB2	2.53	0.43
16:BI:48:ALA:HB1	16:BI:53:TYR:HB3	1.98	0.43
40:CG:15:LYS:HA	40:CG:18:LYS:HE3	2.00	0.43
45:CM:151:G:C6	45:CM:160:A:C6	3.06	0.43
45:CM:260:U:O2'	45:CM:261:C:H5'	2.19	0.43
45:CM:1316:A:H61	49:CQ:162:GLY:HA3	1.82	0.43
45:CM:1353:G:C2	45:CM:1354:U:C2	3.06	0.43
45:CM:1602:C:H5''	45:CM:1603:G:O5'	2.19	0.43
46:CN:108:THR:HG23	46:CN:135:GLU:OE2	2.17	0.43
46:CN:175:TRP:HE1	46:CN:197:VAL:HG23	1.83	0.43
49:CQ:173:ILE:C	49:CQ:174:ARG:HD2	2.44	0.43
50:CR:133:LYS:HE2	50:CR:133:LYS:HB2	1.50	0.43
52:CT:229:LYS:HD3	52:CT:229:LYS:HA	1.79	0.43
58:CZ:132:GLU:O	58:CZ:136:LEU:HD12	2.18	0.43
62:DD:28:ILE:HG22	62:DD:64:ILE:HB	2.00	0.43
63:DE:84:TYR:CD1	63:DE:85:VAL:N	2.87	0.43
67:DI:34:ILE:N	67:DI:53:TYR:O	2.50	0.43
68:DJ:111:MET:HE3	68:DJ:115:GLU:C	2.43	0.43
79:i:67:LYS:HD3	79:i:67:LYS:HA	1.38	0.43
1:1:149:A:C5	1:1:150:A:C8	3.06	0.43
1:1:379:C:H2'	1:1:380:U:H6	1.83	0.43
1:1:981:U:H2'	1:1:982:U:H6	1.83	0.43
1:1:2469:A:H2'	1:1:2470:C:C2	2.54	0.43
2:3:113:C:H2'	2:3:114:U:O4'	2.17	0.43
7:m:127:GLY:O	7:m:195:LEU:HD23	2.19	0.43
8:n:41:LEU:HD23	8:n:83:VAL:HG12	2.00	0.43
10:p:109:ARG:O	10:p:112:LYS:HG2	2.19	0.43
11:q:1:MET:HG3	21:0:139:TYR:HB3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:9:58:VAL:HA	27:9:104:VAL:HG12	2.01	0.43
27:9:117:ALA:HA	27:9:120:GLN:HG3	2.01	0.43
28:AA:10:VAL:CG1	28:AA:85:TYR:HB2	2.48	0.43
31:AD:12:ILE:HA	31:AD:15:LYS:HG3	2.00	0.43
36:AI:9:LEU:HD12	36:AI:9:LEU:H	1.83	0.43
45:B:283:G:H2'	45:B:284:C:C6	2.54	0.43
45:B:696:U:OP1	45:B:696:U:H6	2.01	0.43
45:B:795:A:C2	45:B:843:G:H1'	2.54	0.43
45:B:1221:A:H2'	45:B:1222:G:C8	2.53	0.43
45:B:1601:A:H2'	45:B:1602:C:O4'	2.19	0.43
46:C:55:GLU:HB3	67:X:79:LEU:HD21	1.98	0.43
46:C:89:PHE:CE1	46:C:93:THR:HG21	2.53	0.43
60:Q:79:ARG:HB3	60:Q:113:VAL:CG2	2.47	0.43
63:T:24:LEU:HD23	63:T:24:LEU:HA	1.89	0.43
64:U:96:LYS:HD3	64:U:96:LYS:HA	1.58	0.43
78:AR:40:LYS:HZ2	78:AR:40:LYS:HG3	1.41	0.43
1:AS:413:U:H2'	1:AS:414:U:C6	2.54	0.43
1:AS:696:U:H2'	1:AS:697:A:O4'	2.17	0.43
1:AS:1547:C:H2'	1:AS:1548:G:C8	2.52	0.43
1:AS:3323:U:H2'	1:AS:3324:A:H8	1.83	0.43
3:AU:72:A:P	27:BT:52:GLN:HB2	2.58	0.43
5:AX:206:ASP:OD2	5:AX:287:LYS:NZ	2.41	0.43
7:AZ:134:ALA:HA	7:AZ:141:PRO:HD3	2.00	0.43
10:BC:174:MET:HA	10:BC:174:MET:HE2	1.99	0.43
12:BE:45:GLU:O	12:BE:141:LYS:HG2	2.18	0.43
14:BG:22:VAL:HG23	16:BI:197:LEU:HB3	2.01	0.43
14:BG:163:VAL:HA	29:BV:144:VAL:HG11	2.00	0.43
16:BI:80:THR:OG1	16:BI:87:GLN:HA	2.18	0.43
20:BM:156:LYS:O	20:BM:156:LYS:HD2	2.18	0.43
22:BO:106:LEU:O	22:BO:109:VAL:HG12	2.18	0.43
25:BR:1:MET:HE2	25:BR:15:PRO:HG2	1.99	0.43
28:BU:63:THR:O	28:BU:67:LYS:HD2	2.18	0.43
37:CD:49:LEU:HD23	37:CD:49:LEU:HA	1.81	0.43
45:CM:53:G:H2'	45:CM:54:C:H6	1.83	0.43
45:CM:182:C:H2'	45:CM:183:C:C6	2.52	0.43
45:CM:327:G:H2'	45:CM:328:G:C8	2.53	0.43
45:CM:445:U:H2'	45:CM:446:C:O4'	2.18	0.43
45:CM:553:A:N3	45:CM:588:C:O2'	2.35	0.43
45:CM:739:A:H2'	45:CM:777:A:C2	2.54	0.43
45:CM:887:G:H2'	45:CM:888:U:C6	2.54	0.43
45:CM:1396:A:HO2'	45:CM:1397:A:P	2.40	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CO:85:LYS:HB3	47:CO:102:GLY:N	2.34	0.43
47:CO:110:LEU:HD12	47:CO:110:LEU:HA	1.76	0.43
48:CP:58:VAL:HG11	48:CP:64:ILE:HD11	2.00	0.43
51:CS:58:LEU:HB2	51:CS:62:ILE:HD11	2.00	0.43
58:CZ:79:CYS:HB2	58:CZ:88:LEU:HD22	2.00	0.43
59:DA:60:VAL:HG13	59:DA:60:VAL:O	2.17	0.43
62:DD:27:LEU:HB3	62:DD:63:ASP:CB	2.42	0.43
64:DF:56:LYS:HE2	64:DF:60:GLU:HB3	2.00	0.43
65:DG:12:GLN:HG2	65:DG:13:ASP:OD1	2.19	0.43
69:DK:56:LYS:HD3	69:DK:93:LEU:HG	2.01	0.43
71:DM:41:ILE:HD12	71:DM:41:ILE:HA	1.90	0.43
74:DP:22:ARG:CZ	74:DP:22:ARG:CB	2.91	0.43
79:i:54:LYS:HB2	79:i:54:LYS:NZ	2.33	0.43
1:1:544:U:H5'	1:1:546:C:H5''	1.99	0.43
1:1:640:U:OP1	29:AB:22:ILE:HG23	2.18	0.43
1:1:2608:A:H5''	1:1:2609:A:H5'	2.01	0.43
1:1:2718:A:H2'	1:1:2719:A:O4'	2.17	0.43
1:1:2740:U:H2'	1:1:2741:A:C8	2.53	0.43
1:1:3241:G:N2	18:x:172:GLN:HE21	2.17	0.43
5:k:121:ASN:CB	5:k:124:LYS:HD3	2.48	0.43
5:k:260:VAL:HG11	5:k:266:ARG:HH11	1.82	0.43
6:l:23:LEU:HD21	6:l:27:PHE:CB	2.49	0.43
6:l:301:ARG:HH11	6:l:301:ARG:HG3	1.82	0.43
11:q:62:ARG:O	11:q:65:VAL:HG22	2.19	0.43
14:t:198:GLU:OE2	14:t:199:LYS:HB3	2.19	0.43
28:AA:73:LYS:HG3	28:AA:74:LEU:N	2.34	0.43
32:AE:110:ASP:OD1	32:AE:110:ASP:N	2.48	0.43
39:AL:24:ILE:HD13	39:AL:76:THR:HB	1.99	0.43
44:AQ:75:ALA:O	44:AQ:79:VAL:HG23	2.18	0.43
45:B:767:G:O2'	45:B:768:C:H6	2.02	0.43
45:B:857:G:H2'	45:B:858:U:O4'	2.18	0.43
45:B:988:A:H2'	45:B:990:A:N7	2.33	0.43
46:C:147:THR:HG21	46:C:159:ALA:CB	2.41	0.43
46:C:148:ASP:OD1	46:C:149:MET:N	2.44	0.43
47:D:131:ASP:OD1	47:D:131:ASP:N	2.44	0.43
49:F:56:THR:HG23	49:F:91:ARG:HD3	2.00	0.43
49:F:221:ALA:HB3	78:AR:227:THR:HG21	1.99	0.43
53:J:161:LYS:HB2	53:J:162:LEU:H	1.36	0.43
54:K:174:VAL:HG23	54:K:190:LEU:HD11	2.00	0.43
55:L:86:LEU:HD21	55:L:90:LYS:O	2.18	0.43
61:R:10:ARG:NE	61:R:12:PHE:H	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:U:49:LYS:HD3	64:U:49:LYS:HA	1.78	0.43
65:V:9:VAL:HG12	65:V:140:LEU:CD2	2.48	0.43
77:h:191:LYS:HE2	77:h:191:LYS:HB3	1.88	0.43
78:AR:18:GLY:HA3	78:AR:39:ASP:HB3	1.99	0.43
78:AR:259:ILE:CD1	78:AR:268:LEU:HD23	2.49	0.43
1:AS:33:A:N3	1:AS:806:A:O2'	2.48	0.43
1:AS:130:U:H2'	1:AS:131:C:C6	2.54	0.43
1:AS:764:C:C4'	14:BG:181:TYR:HE1	2.25	0.43
1:AS:1030:U:H2'	1:AS:1031:A:H8	1.80	0.43
1:AS:2174:C:O2	1:AS:2248:A:H2	2.01	0.43
1:AS:2504:C:N3	10:BC:49:ARG:NH1	2.66	0.43
12:BE:150:GLU:OE1	12:BE:153:ARG:HD3	2.19	0.43
17:BJ:180:ASN:HA	17:BJ:183:LYS:HZ2	1.83	0.43
32:BY:25:LYS:HB2	32:BY:25:LYS:HE2	1.72	0.43
45:CM:269:A:C2	45:CM:283:G:C6	3.06	0.43
45:CM:577:A:H2'	49:CQ:144:ARG:NH2	2.34	0.43
45:CM:600:U:H2'	45:CM:601:U:C6	2.54	0.43
45:CM:861:G:H2'	45:CM:921:G:N2	2.33	0.43
45:CM:874:U:HO2'	45:CM:875:C:P	2.42	0.43
45:CM:1129:U:H2'	45:CM:1130:U:H6	1.82	0.43
45:CM:1469:A:C2	45:CM:1594:G:H1'	2.53	0.43
45:CM:1508:G:O6	65:DG:68:ARG:NH1	2.51	0.43
45:CM:1636:C:H2'	45:CM:1637:U:H6	1.84	0.43
46:CN:80:THR:HA	46:CN:83:GLN:NE2	2.25	0.43
46:CN:146:LEU:O	46:CN:164:ASN:ND2	2.51	0.43
64:DF:86:LEU:HD12	64:DF:97:ASP:HB3	2.00	0.43
65:DG:62:ALA:HB2	65:DG:108:LEU:HD21	2.00	0.43
73:DO:19:HIS:CD2	73:DO:21:LEU:HD23	2.53	0.43
1:1:375:A:OP2	27:9:89:LYS:NZ	2.41	0.43
1:1:1539:G:P	16:v:35:VAL:HG22	2.58	0.43
1:1:2079:C:O2'	1:1:2080:U:H5''	2.18	0.43
1:1:2627:U:H4'	1:1:2628:A:O4'	2.18	0.43
1:1:3181:G:OP2	34:AG:2:ALA:N	2.52	0.43
2:3:40:C:H2'	2:3:42:A:N7	2.33	0.43
6:l:284:ASN:HD21	6:l:289:ARG:HH21	1.65	0.43
8:n:5:ALA:HB3	8:n:7:LYS:HZ1	1.84	0.43
16:v:35:VAL:O	16:v:64:ILE:HA	2.18	0.43
18:x:124:LYS:HE2	18:x:142:THR:HG23	2.00	0.43
22:2:136:ARG:HB2	22:2:139:ARG:NH2	2.33	0.43
25:7:93:ARG:HD3	25:7:93:ARG:HA	1.76	0.43
34:AG:103:TYR:HA	34:AG:104:PRO:C	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AL:56:VAL:HG23	39:AL:56:VAL:O	2.18	0.43
45:B:444:A:C6	45:B:445:U:C4	3.06	0.43
45:B:700:G:H2'	45:B:701:G:H8	1.82	0.43
45:B:741:A:H5'	50:G:16:SER:HB3	2.00	0.43
45:B:904:A:H2'	45:B:905:C:H6	1.84	0.43
45:B:1072:A:H5'	45:B:1283:U:C5	2.54	0.43
45:B:1455:A:H4'	45:B:1528:G:H4'	2.01	0.43
45:B:1529:G:N2	45:B:1555:C:H1'	2.33	0.43
45:B:1669:U:O2'	45:B:1670:U:O5'	2.37	0.43
46:C:36:TYR:N	46:C:36:TYR:HD2	2.16	0.43
47:D:180:THR:CG2	47:D:183:GLN:HG3	2.46	0.43
48:E:38:ARG:NH1	48:E:242:ALA:O	2.51	0.43
50:G:87:MET:SD	50:G:123:LEU:HB2	2.59	0.43
50:G:107:GLY:C	50:G:108:LYS:HD3	2.43	0.43
51:H:199:ILE:HG13	51:H:200:ASN:N	2.33	0.43
57:N:57:LYS:O	57:N:138:ASN:ND2	2.52	0.43
66:W:82:GLU:O	75:f:52:PHE:HA	2.19	0.43
76:g:26:LYS:HB3	76:g:26:LYS:HE2	1.89	0.43
1:AS:756:G:H1'	1:AS:767:A:N6	2.34	0.43
1:AS:1513:A:OP1	40:CG:41:ARG:NH2	2.48	0.43
1:AS:1569:C:H2'	1:AS:1570:A:C8	2.54	0.43
1:AS:2176:A:C2	1:AS:2177:G:C8	3.07	0.43
1:AS:2397:A:H2'	1:AS:2398:C:H6	1.84	0.43
1:AS:2528:U:O2	10:BC:38:GLY:HA3	2.18	0.43
1:AS:2628:A:C8	1:AS:2630:G:C8	3.07	0.43
1:AS:2692:G:H22	1:AS:2708:A:H2	1.65	0.43
1:AS:2729:U:H4'	22:BO:7:TYR:HB3	2.00	0.43
1:AS:3285:A:H2'	1:AS:3286:C:H6	1.84	0.43
5:AX:283:TYR:CD2	5:AX:354:VAL:HG11	2.54	0.43
10:BC:154:ILE:HA	10:BC:198:VAL:HG12	2.01	0.43
11:BD:163:GLN:O	11:BD:166:ARG:HG2	2.19	0.43
14:BG:127:ASP:HB3	14:BG:128:LYS:H	1.59	0.43
29:BV:135:GLU:HG3	29:BV:145:VAL:CG1	2.47	0.43
37:CD:36:THR:HB	37:CD:40:ARG:HH12	1.82	0.43
45:CM:203:U:H2'	45:CM:204:A:H8	1.83	0.43
45:CM:234:G:H2'	45:CM:235:C:C6	2.54	0.43
45:CM:472:A:H5''	55:CW:144:PRO:HD2	1.99	0.43
45:CM:509:A:H5'	55:CW:173:LYS:HB2	2.01	0.43
45:CM:702:G:H1'	45:CM:703:U:O2'	2.18	0.43
45:CM:1219:A:H3'	45:CM:1230:G:C8	2.53	0.43
45:CM:1522:U:H4'	45:CM:1523:G:H5'	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CO:31:ASP:O	47:CO:96:LEU:HG	2.18	0.43
47:CO:64:ARG:HA	60:DB:31:LYS:HE2	2.00	0.43
48:CP:145:GLN:OE1	48:CP:145:GLN:HA	2.19	0.43
55:CW:16:LYS:H	55:CW:16:LYS:HG3	1.44	0.43
56:CX:2:LEU:HD12	56:CX:2:LEU:O	2.18	0.43
56:CX:81:ASN:CB	58:CZ:37:VAL:HG13	2.48	0.43
57:CY:101:GLU:OE2	57:CY:103:ARG:NE	2.50	0.43
58:CZ:96:LEU:HD21	58:CZ:100:TRP:CE2	2.53	0.43
59:DA:93:LYS:HG3	59:DA:150:VAL:HG21	1.99	0.43
60:DB:13:ARG:O	60:DB:24:HIS:HB3	2.18	0.43
60:DB:44:LYS:HA	60:DB:44:LYS:HD2	1.51	0.43
68:DJ:42:GLN:NE2	68:DJ:49:GLU:HA	2.34	0.43
71:DM:43:ASP:O	71:DM:44:GLN:HB2	2.19	0.43
1:1:16:G:P	26:8:48:ARG:HH22	2.42	0.43
1:1:1006:G:N2	12:r:193:ASP:O	2.44	0.43
1:1:1166:A:OP1	9:o:215:ARG:HA	2.19	0.43
1:1:1402:A:H5'	33:AF:18:PHE:HD1	1.83	0.43
1:1:1423:U:C5	29:AB:4:ARG:HD3	2.53	0.43
1:1:1528:C:H2'	1:1:1529:U:C6	2.54	0.43
1:1:2625:C:OP1	43:AP:89:LYS:HB2	2.19	0.43
1:1:2652:A:C2	13:s:57:PHE:HB3	2.54	0.43
1:1:2766:G:H1'	1:1:2767:U:C6	2.54	0.43
2:3:59:U:H2'	2:3:60:G:C8	2.54	0.43
4:j:107:CYS:HB2	4:j:136:ILE:HD12	2.00	0.43
7:m:107:ARG:NH1	7:m:110:LEU:HD22	2.34	0.43
13:s:4:LYS:NZ	13:s:5:SER:H	2.16	0.43
13:s:65:ILE:HG13	13:s:66:ALA:N	2.32	0.43
13:s:150:ASN:HD22	13:s:150:ASN:HA	1.62	0.43
15:u:116:LEU:HD21	17:w:194:LYS:CD	2.42	0.43
18:x:14:SER:HA	18:x:150:LEU:O	2.19	0.43
36:AI:118:ILE:CG2	36:AI:119:LYS:N	2.82	0.43
45:B:589:A:H5''	55:L:24:LEU:HD22	2.01	0.43
53:J:135:ARG:O	53:J:147:LYS:N	2.49	0.43
58:O:135:ILE:C	58:O:136:LEU:HD23	2.43	0.43
65:V:135:ILE:O	65:V:139:THR:OG1	2.30	0.43
78:AR:296:GLN:HG3	78:AR:296:GLN:O	2.18	0.43
1:AS:19:A:H2'	1:AS:20:G:C8	2.53	0.43
1:AS:487:C:H3'	1:AS:488:G:H8	1.83	0.43
1:AS:1559:C:O2'	1:AS:1560:U:OP1	2.29	0.43
1:AS:1900:C:H2'	1:AS:1901:G:O4'	2.18	0.43
1:AS:2749:G:C2	29:BV:60:TYR:CE1	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AU:27:U:H2'	3:AU:28:C:C6	2.54	0.43
6:AY:133:THR:C	6:AY:137:LEU:HD12	2.44	0.43
13:BF:57:PHE:N	13:BF:57:PHE:HD1	2.16	0.43
14:BG:93:ILE:HG13	14:BG:95:ILE:CD1	2.49	0.43
21:BN:23:LYS:HD3	21:BN:23:LYS:HA	1.83	0.43
24:BQ:135:VAL:HG11	25:BR:26:SER:CB	2.47	0.43
31:BX:46:ILE:HG23	31:BX:50:THR:HG21	2.00	0.43
35:CB:71:THR:HG22	35:CB:72:VAL:H	1.83	0.43
45:CM:165:U:C2'	45:CM:166:A:H5''	2.48	0.43
45:CM:681:C:H2'	45:CM:682:A:C8	2.54	0.43
45:CM:793:A:H2'	45:CM:794:G:C8	2.53	0.43
45:CM:872:A:H2'	45:CM:873:U:C6	2.52	0.43
45:CM:913:U:H2'	45:CM:930:U:OP2	2.19	0.43
45:CM:1318:C:H2'	45:CM:1319:U:H6	1.82	0.43
47:CO:85:LYS:O	47:CO:101:HIS:N	2.37	0.43
49:CQ:53:ALA:C	49:CQ:92:VAL:HG23	2.43	0.43
51:CS:27:THR:OG1	62:DD:27:LEU:HA	2.18	0.43
55:CW:106:GLU:OE2	55:CW:106:GLU:HA	2.18	0.43
56:CX:15:LEU:C	56:CX:15:LEU:HD12	2.43	0.43
59:DA:20:ARG:O	59:DA:65:VAL:HG23	2.19	0.43
60:DB:77:LYS:HE2	60:DB:113:VAL:HG21	2.01	0.43
62:DD:34:PRO:HB2	62:DD:36:THR:HG22	2.00	0.43
65:DG:54:PHE:HE1	65:DG:104:CYS:HG	1.66	0.43
69:DK:117:ILE:HG22	69:DK:120:VAL:HB	2.00	0.43
1:1:269:G:N2	1:1:295:A:OP2	2.41	0.43
1:1:411:U:H2'	1:1:412:G:C8	2.53	0.43
1:1:851:U:H5''	20:z:95:TRP:CG	2.54	0.43
1:1:1477:A:H1'	1:1:1854:A:N3	2.34	0.43
1:1:1761:U:H6	20:z:43:LYS:HZ1	1.66	0.43
1:1:2504:C:H2'	1:1:2505:G:C8	2.54	0.43
1:1:2946:U:H2'	1:1:2947:U:C6	2.54	0.43
11:q:57:VAL:HG13	11:q:64:HIS:CE1	2.53	0.43
22:2:124:GLU:HG2	22:2:125:THR:N	2.34	0.43
45:B:180:A:H2'	45:B:181:U:C6	2.54	0.43
45:B:260:U:C2'	45:B:261:C:H5'	2.49	0.43
45:B:697:U:H3	45:B:724:G:H1	1.66	0.43
45:B:1127:A:H2'	45:B:1128:A:H8	1.83	0.43
45:B:1233:C:OP2	77:h:135:HIS:HB2	2.19	0.43
48:E:103:ASN:O	48:E:103:ASN:CG	2.62	0.43
50:G:112:HIS:HA	50:G:241:LYS:NZ	2.34	0.43
51:H:35:GLU:CD	51:H:38:ARG:HD2	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:J:160:TYR:CD2	53:J:161:LYS:HD3	2.53	0.43
56:M:38:ARG:HB3	56:M:41:PHE:CD2	2.54	0.43
56:M:91:ARG:C	56:M:93:LYS:H	2.27	0.43
62:S:47:VAL:HG13	62:S:77:VAL:HG13	2.00	0.43
67:X:41:GLU:N	67:X:41:GLU:CD	2.76	0.43
71:b:37:GLN:NE2	71:b:37:GLN:H	2.17	0.43
78:AR:66:SER:N	78:AR:87:ASP:OD2	2.52	0.43
1:AS:595:G:H21	6:AY:323:GLN:CD	2.25	0.43
1:AS:1328:A:H2'	1:AS:1329:C:H6	1.84	0.43
1:AS:1521:G:N3	1:AS:1521:G:H2'	2.34	0.43
1:AS:1597:U:OP2	20:BM:42:ARG:NH2	2.50	0.43
1:AS:1756:A:C6	1:AS:1762:G:C5	3.06	0.43
1:AS:2185:A:C6	45:CM:898:G:C2	3.07	0.43
1:AS:3066:A:H2'	1:AS:3067:U:C6	2.54	0.43
1:AS:3318:G:OP2	1:AS:3318:G:C4	2.72	0.43
2:AT:26:C:H2'	2:AT:27:A:O4'	2.18	0.43
3:AU:27:U:H2'	3:AU:28:C:H6	1.83	0.43
5:AX:56:ILE:HD13	5:AX:356:LEU:HD23	2.01	0.43
6:AY:275:TYR:CD2	6:AY:276:THR:N	2.87	0.43
10:BC:74:PRO:HB2	10:BC:231:ARG:HH11	1.84	0.43
10:BC:102:THR:HG22	10:BC:105:GLU:H	1.82	0.43
10:BC:158:VAL:HG21	10:BC:164:VAL:HG22	2.01	0.43
10:BC:164:VAL:O	10:BC:167:LEU:HB2	2.18	0.43
11:BD:161:ILE:HD13	11:BD:161:ILE:HG21	1.86	0.43
12:BE:51:HIS:ND1	12:BE:137:SER:OG	2.49	0.43
46:CN:49:ASN:HD22	46:CN:52:LYS:N	2.07	0.43
46:CN:114:SER:HB2	46:CN:116:LYS:HE2	2.01	0.43
50:CR:31:PRO:HG2	50:CR:38:LEU:HG	2.00	0.43
50:CR:173:ILE:HD11	50:CR:236:TRP:CD2	2.53	0.43
51:CS:57:SER:HA	74:DP:53:ILE:HB	2.00	0.43
51:CS:108:LEU:CD2	62:DD:43:LEU:HD11	2.49	0.43
51:CS:139:ASN:O	51:CS:214:LYS:HE2	2.19	0.43
59:DA:99:ARG:HD3	59:DA:115:LEU:HD21	2.01	0.43
60:DB:11:VAL:HG12	60:DB:13:ARG:HG2	2.00	0.43
60:DB:77:LYS:HG2	60:DB:113:VAL:CG1	2.48	0.43
71:DM:47:TYR:CD1	71:DM:47:TYR:C	2.96	0.43
1:1:513:G:H5''	9:o:65:ARG:NH2	2.32	0.43
1:1:561:U:H2'	1:1:562:C:H6	1.83	0.43
1:1:663:A:H1'	14:t:14:PHE:CZ	2.53	0.43
1:1:892:A:H5'	4:j:183:GLY:CA	2.49	0.43
1:1:1478:A:H4'	1:1:1479:G:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1575:A:H5''	1:1:1576:A:H2	1.84	0.43
1:1:2578:G:H2'	1:1:2578:G:N3	2.33	0.43
1:1:3165:U:H4'	1:1:3166:A:OP1	2.18	0.43
1:1:3285:A:H2'	1:1:3286:C:C6	2.53	0.43
2:3:26:C:H2'	2:3:27:A:O4'	2.18	0.43
6:l:127:ILE:HG23	6:l:239:LEU:HD13	2.00	0.43
7:m:259:LYS:HD2	7:m:259:LYS:N	2.34	0.43
18:x:166:ILE:HD12	34:AG:61:GLY:H	1.84	0.43
19:y:63:SER:OG	19:y:90:ASP:HB2	2.19	0.43
32:AE:5:ASP:HB2	32:AE:78:ARG:NH2	2.34	0.43
32:AE:81:GLU:HA	32:AE:81:GLU:OE2	2.19	0.43
33:AF:19:LYS:HG2	33:AF:31:GLU:CG	2.49	0.43
33:AF:103:SER:O	33:AF:107:VAL:HG13	2.19	0.43
45:B:222:C:H2'	45:B:223:A:C8	2.52	0.43
45:B:933:A:H2'	45:B:934:C:H6	1.84	0.43
45:B:1238:U:C2	45:B:1239:U:C5	3.06	0.43
45:B:1301:G:OP1	63:T:7:LYS:N	2.43	0.43
46:C:187:ILE:H	46:C:187:ILE:HD12	1.84	0.43
48:E:44:LYS:HD3	48:E:44:LYS:HA	1.83	0.43
48:E:72:LYS:HA	48:E:72:LYS:HD2	1.70	0.43
49:F:95:ARG:NE	79:i:132:GLU:HG2	2.34	0.43
50:G:245:ILE:O	50:G:245:ILE:HG13	2.19	0.43
61:R:57:ILE:HG13	61:R:58:LYS:N	2.33	0.43
1:AS:25:A:C4	1:AS:330:G:C8	3.07	0.43
1:AS:278:U:H3	1:AS:287:G:H1	1.67	0.43
1:AS:624:U:H2'	1:AS:625:C:H6	1.83	0.43
1:AS:925:A:H2'	1:AS:926:U:C6	2.54	0.43
1:AS:941:C:H2'	1:AS:942:U:H6	1.84	0.43
1:AS:1204:U:H2'	41:CH:33:ASN:ND2	2.34	0.43
1:AS:1328:A:H2'	1:AS:1329:C:C6	2.54	0.43
1:AS:2410:A:C2	16:BI:125:SER:HB2	2.53	0.43
1:AS:2646:A:C2	13:BF:124:GLY:HA3	2.54	0.43
1:AS:2961:U:H2'	1:AS:2962:G:O4'	2.19	0.43
1:AS:3013:U:H2'	1:AS:3014:U:C6	2.54	0.43
1:AS:3194:G:H4'	15:BH:129:VAL:HG11	2.01	0.43
3:AU:40:A:H2'	3:AU:41:A:C8	2.54	0.43
3:AU:73:U:H2'	3:AU:74:U:O4'	2.19	0.43
3:AU:120:U:H2'	3:AU:121:C:H6	1.84	0.43
4:AW:3:ARG:HG2	4:AW:4:VAL:H	1.82	0.43
5:AX:21:ARG:HE	5:AX:269:GLN:HG3	1.82	0.43
5:AX:43:LEU:HD23	5:AX:43:LEU:HA	1.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AX:152:LYS:HE2	5:AX:192:VAL:HB	2.00	0.43
5:AX:297:GLU:O	5:AX:300:ARG:NH2	2.52	0.43
7:AZ:235:ASP:OD1	7:AZ:235:ASP:N	2.47	0.43
10:BC:142:SER:O	10:BC:145:GLU:HG2	2.19	0.43
10:BC:164:VAL:HA	10:BC:167:LEU:HG	1.99	0.43
11:BD:76:ALA:O	11:BD:80:THR:HG22	2.18	0.43
30:BW:14:ARG:O	30:BW:18:ARG:HG2	2.19	0.43
31:BX:57:GLU:HA	35:CB:94:LEU:HD22	2.00	0.43
34:CA:58:GLU:HG2	34:CA:63:LYS:HG3	2.01	0.43
39:CF:8:ILE:CG2	39:CF:65:LEU:HD21	2.49	0.43
45:CM:390:G:H5''	45:CM:1716:C:O2'	2.18	0.43
45:CM:1011:A:N3	45:CM:1777:A:O2'	2.48	0.43
45:CM:1265:C:H5'	75:DQ:44:ARG:HH12	1.84	0.43
47:CO:137:VAL:HG12	47:CO:215:VAL:HG22	2.01	0.43
51:CS:225:ARG:HD2	74:DP:58:GLU:CD	2.44	0.43
53:CU:28:ALA:HA	53:CU:31:LYS:HD3	2.01	0.43
54:CV:190:LEU:HD23	54:CV:190:LEU:HA	1.82	0.43
61:DC:87:PRO:HA	61:DC:90:ILE:HG13	2.01	0.43
63:DE:61:ILE:HD12	63:DE:62:GLN:N	2.34	0.43
65:DG:54:PHE:O	65:DG:54:PHE:HD1	2.02	0.43
1:1:802:A:N3	1:1:2784:C:O2'	2.43	0.43
1:1:842:A:N6	45:B:956:A:N1	2.66	0.43
1:1:1124:U:H2'	1:1:1125:A:O4'	2.19	0.43
1:1:1182:G:N3	21:0:112:ALA:HB1	2.34	0.43
1:1:2397:A:H2'	1:1:2398:C:H6	1.84	0.43
1:1:2810:A:O2'	12:r:74:LYS:HE2	2.19	0.43
1:1:3016:A:H4'	5:k:13:SER:HB2	2.01	0.43
1:1:3067:U:H2'	1:1:3068:C:H6	1.84	0.43
1:1:3185:G:C6	1:1:3231:G:C6	3.07	0.43
1:1:3316:U:H3	54:K:110:ARG:CZ	2.32	0.43
81:1:3422:PAR:O31	81:1:3422:PAR:H531	2.19	0.43
3:4:7:U:H2'	3:4:8:C:C6	2.53	0.43
5:k:74:GLU:OE1	5:k:283:TYR:OH	2.30	0.43
5:k:209:PHE:HA	5:k:213:GLU:OE2	2.19	0.43
5:k:262:TRP:CD1	5:k:262:TRP:H	2.36	0.43
7:m:212:LEU:HD12	7:m:216:GLU:CA	2.48	0.43
8:n:12:GLU:OE2	33:AF:91:LYS:HB2	2.18	0.43
11:q:37:ASP:OD1	11:q:39:LYS:HG2	2.19	0.43
18:x:40:LYS:HD2	18:x:113:VAL:HG22	2.01	0.43
19:y:45:ASN:HD22	19:y:45:ASN:N	2.16	0.43
43:AP:93:LEU:HA	43:AP:93:LEU:HD23	1.68	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:227:C:H2'	45:B:228:C:O4'	2.19	0.43
45:B:446:C:H2'	45:B:447:C:H6	1.83	0.43
45:B:1161:G:C6	45:B:1450:G:C6	3.06	0.43
45:B:1342:A:C6	45:B:1352:G:C6	3.07	0.43
45:B:1387:A:O3'	63:T:10:LYS:NZ	2.47	0.43
47:D:145:ARG:NH2	47:D:151:LYS:O	2.48	0.43
48:E:173:ILE:HB	48:E:180:LYS:HG3	2.01	0.43
56:M:86:ILE:HG23	56:M:87:LEU:N	2.34	0.43
60:Q:9:PHE:HZ	72:c:58:VAL:HG21	1.83	0.43
60:Q:107:ILE:HD12	60:Q:107:ILE:N	2.34	0.43
74:e:42:ARG:NH1	74:e:56:LEU:HD23	2.34	0.43
77:h:136:LYS:HD2	77:h:136:LYS:HA	1.78	0.43
1:AS:19:A:OP2	36:CC:90:ARG:NH2	2.41	0.43
1:AS:229:C:H2'	1:AS:230:G:O4'	2.18	0.43
1:AS:270:U:H2'	1:AS:271:C:H6	1.84	0.43
1:AS:844:A:N3	45:CM:958:A:H4'	2.34	0.43
1:AS:1407:U:C4	81:AS:3411:PAR:H34	2.53	0.43
1:AS:1471:A:H4'	32:BY:56:ILE:HD12	2.00	0.43
1:AS:1762:G:HO2'	1:AS:1763:C:P	2.42	0.43
1:AS:2540:G:H2'	1:AS:2541:C:H6	1.83	0.43
1:AS:2554:C:H2'	1:AS:2555:C:C6	2.54	0.43
1:AS:2641:G:OP2	79:CL:50:LYS:NZ	2.47	0.43
1:AS:3038:U:H2'	1:AS:3039:C:H6	1.83	0.43
16:BI:5:LYS:CE	37:CD:36:THR:HG22	2.48	0.43
27:BT:116:LYS:HD2	27:BT:127:GLU:HB2	2.00	0.43
37:CD:56:LEU:HD13	37:CD:71:LEU:HD23	2.01	0.43
40:CG:13:LEU:O	40:CG:17:GLN:HG3	2.19	0.43
42:CI:11:ARG:NH2	45:CM:1112:G:OP1	2.52	0.43
44:CK:39:CYS:SG	44:CK:41:PHE:HB2	2.58	0.43
45:CM:1189:A:N3	75:DQ:10:HIS:NE2	2.67	0.43
45:CM:1237:C:H2'	45:CM:1238:U:O4'	2.19	0.43
45:CM:1588:G:N2	65:DG:88:PHE:HB3	2.34	0.43
49:CQ:74:ILE:O	49:CQ:78:PHE:HD2	2.01	0.43
50:CR:100:ARG:HG2	50:CR:102:VAL:CG2	2.48	0.43
53:CU:5:ILE:HG22	53:CU:39:PHE:CE1	2.54	0.43
54:CV:76:THR:OG1	54:CV:105:ASP:HB3	2.18	0.43
59:DA:57:ALA:HB2	73:DO:54:VAL:HG12	1.99	0.43
60:DB:59:ALA:O	60:DB:62:VAL:HG12	2.19	0.43
1:1:422:A:N1	1:1:2340:C:O2'	2.42	0.42
1:1:1036:A:H1'	12:r:198:LYS:NZ	2.33	0.42
1:1:1569:C:H2'	1:1:1570:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1630:G:C6	1:1:1636:G:C6	3.07	0.42
1:1:1829:G:P	26:8:114:ILE:HD12	2.59	0.42
1:1:2449:U:O2'	1:1:2453:G:O6	2.26	0.42
1:1:2483:U:H2'	1:1:2484:U:C6	2.53	0.42
81:1:3422:PAR:H611	81:1:3423:PAR:O61	2.18	0.42
6:l:339:LYS:HD3	6:l:339:LYS:HA	1.74	0.42
7:m:178:ASN:HA	7:m:183:TRP:CG	2.53	0.42
13:s:148:ILE:CG2	13:s:152:HIS:HB3	2.49	0.42
14:t:42:LYS:O	14:t:46:ILE:HG23	2.19	0.42
16:v:103:GLU:HA	16:v:132:VAL:HG11	2.01	0.42
29:AB:94:SER:HB3	29:AB:121:VAL:CG1	2.44	0.42
32:AE:78:ARG:HA	32:AE:88:LEU:HD23	2.00	0.42
45:B:824:U:H2'	45:B:825:U:C6	2.53	0.42
45:B:1631:C:H2'	45:B:1632:G:H8	1.83	0.42
48:E:224:LEU:O	67:X:16:LYS:NZ	2.50	0.42
51:H:188:LYS:HB3	51:H:188:LYS:HE3	1.81	0.42
52:I:74:ARG:HG2	52:I:96:SER:HB3	2.00	0.42
53:J:153:LYS:HE3	53:J:154:ASP:OD1	2.19	0.42
56:M:30:PRO:O	56:M:38:ARG:HA	2.19	0.42
58:O:88:LEU:HA	58:O:88:LEU:HD23	1.78	0.42
62:S:53:LEU:HD21	62:S:111:TYR:CD2	2.54	0.42
78:AR:95:LEU:HA	78:AR:95:LEU:HD13	1.77	0.42
78:AR:296:GLN:HG3	78:AR:311:GLN:HG3	2.01	0.42
1:AS:409:A:H1'	1:AS:653:C:H1'	2.01	0.42
1:AS:605:U:OP1	8:BA:23:THR:HB	2.19	0.42
1:AS:798:C:H5	29:BV:25:HIS:ND1	2.16	0.42
1:AS:1017:G:H2'	1:AS:1018:U:C6	2.54	0.42
1:AS:1108:A:OP2	14:BG:5:LYS:NZ	2.51	0.42
1:AS:1153:G:O2'	1:AS:1165:A:N3	2.47	0.42
1:AS:1283:A:P	1:AS:1283:A:H8	2.42	0.42
1:AS:1558:G:H5'	1:AS:1559:C:OP2	2.19	0.42
1:AS:1767:G:H5'	23:BP:102:LYS:NZ	2.34	0.42
1:AS:1829:G:H5''	40:CG:10:LYS:HD2	2.01	0.42
1:AS:2330:A:H2'	1:AS:2331:G:H8	1.83	0.42
1:AS:2956:C:C2	1:AS:2957:C:C5	3.07	0.42
1:AS:3134:C:H2'	1:AS:3135:A:C8	2.53	0.42
1:AS:3313:G:N2	1:AS:3322:U:O2	2.42	0.42
3:AU:85:G:H4'	3:AU:86:U:OP1	2.19	0.42
6:AY:217:VAL:HG23	6:AY:218:LYS:HD2	2.00	0.42
7:AZ:183:TRP:CE3	7:AZ:190:LEU:HB2	2.54	0.42
8:BA:27:GLN:OE1	8:BA:60:ASN:ND2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BG:2:ALA:HB1	29:BV:33:GLY:O	2.18	0.42
14:BG:127:ASP:O	14:BG:128:LYS:HD3	2.19	0.42
14:BG:182:LYS:HG3	14:BG:183:GLY:N	2.34	0.42
24:BQ:62:VAL:HG23	24:BQ:74:MET:HE2	2.00	0.42
31:BX:54:ARG:HD2	31:BX:54:ARG:HA	1.72	0.42
40:CG:21[B]:ARG:HG3	40:CG:22:PRO:O	2.18	0.42
44:CK:30:GLU:HA	44:CK:33:GLN:HG2	2.00	0.42
45:CM:122:U:C2'	45:CM:123:G:H5''	2.45	0.42
45:CM:136:U:H6	45:CM:136:U:H2'	1.69	0.42
45:CM:261:C:O2'	45:CM:262:G:H5'	2.18	0.42
45:CM:289:G:H2'	45:CM:290:U:C6	2.54	0.42
45:CM:728:U:H2'	45:CM:729:U:C6	2.54	0.42
45:CM:845:U:H1'	53:CU:110:ARG:HH11	1.84	0.42
45:CM:1072:A:H5'	45:CM:1283:U:H5	1.82	0.42
45:CM:1248:G:H2'	45:CM:1249:G:O4'	2.19	0.42
45:CM:1579:A:O2'	45:CM:1580:A:OP1	2.33	0.42
45:CM:1632:G:H22	81:CM:1801:PAR:H611	1.83	0.42
45:CM:1720:C:H2'	45:CM:1721:U:H6	1.84	0.42
45:CM:1720:C:H2'	45:CM:1721:U:C6	2.54	0.42
45:CM:1742:A:H8	45:CM:1742:A:H3'	1.84	0.42
46:CN:139:VAL:HA	48:CP:57:PRO:HG2	2.01	0.42
48:CP:35:LYS:HD3	48:CP:235:LEU:HD11	2.01	0.42
49:CQ:10:LYS:HA	49:CQ:13:VAL:HG22	2.00	0.42
49:CQ:172:ALA:HB1	49:CQ:174:ARG:NH1	2.34	0.42
51:CS:174:LEU:HD13	51:CS:210:ALA:HA	2.01	0.42
55:CW:38:ASN:CA	76:DR:36:MET:HE1	2.49	0.42
79:CL:63:ALA:O	79:CL:65:LYS:NZ	2.52	0.42
1:1:173:C:H2'	1:1:174:C:C6	2.53	0.42
1:1:276:U:O2	16:v:93:LYS:HE2	2.19	0.42
1:1:283:G:O6	1:1:304:G:H1'	2.19	0.42
1:1:1638:A:N3	1:1:1818:C:O2'	2.50	0.42
1:1:1761:U:C6	20:z:43:LYS:HE3	2.54	0.42
1:1:3207:G:N2	1:1:3210:A:H5''	2.34	0.42
3:4:49:G:OP1	36:AI:45:HIS:HB2	2.19	0.42
11:q:16:VAL:HA	11:q:28:THR:O	2.19	0.42
14:t:83:VAL:HG21	14:t:116:LEU:HD13	2.01	0.42
21:0:27:MET:HE2	21:0:27:MET:HB3	1.78	0.42
25:7:17:ARG:HH11	25:7:17:ARG:HG3	1.84	0.42
42:AO:7:LYS:O	42:AO:10:VAL:HG22	2.17	0.42
45:B:39:A:OP1	55:L:6:ARG:NH2	2.43	0.42
45:B:176:U:O2'	45:B:177:A:OP2	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:368:A:H2'	45:B:369:G:C8	2.54	0.42
45:B:392:C:H2'	45:B:393:U:C6	2.55	0.42
45:B:671:G:H5''	45:B:672:U:H2'	2.01	0.42
45:B:796:A:N6	45:B:843:G:H2'	2.34	0.42
45:B:1537:A:C6	45:B:1549:G:C6	3.07	0.42
45:B:1595:U:O3'	62:S:72:GLY:HA3	2.18	0.42
45:B:1720:C:H2'	45:B:1721:U:H6	1.84	0.42
45:B:1763:A:H2'	45:B:1764:G:C8	2.54	0.42
46:C:122:VAL:HG12	46:C:144:ILE:HD12	2.01	0.42
47:D:36:THR:HB	47:D:41:ARG:HH21	1.83	0.42
49:F:138:VAL:HA	49:F:151:GLN:O	2.19	0.42
49:F:149:LYS:HE3	49:F:149:LYS:HB3	1.88	0.42
49:F:193:PRO:HG3	49:F:203:LEU:HD12	2.01	0.42
50:G:100:ARG:NH2	50:G:122:LYS:HA	2.34	0.42
51:H:34:GLN:HG3	51:H:37:GLN:NE2	2.22	0.42
51:H:68:VAL:HA	62:S:111:TYR:OH	2.19	0.42
51:H:114:VAL:O	51:H:118:LEU:HG	2.19	0.42
55:L:123:HIS:ND1	76:g:33:ARG:HD2	2.33	0.42
64:U:33:THR:HG22	64:U:39:GLY:C	2.45	0.42
73:d:49:HIS:NE2	73:d:70:LYS:HG2	2.33	0.42
78:AR:22:SER:HB2	78:AR:70:GLN:O	2.19	0.42
1:AS:8:U:OP1	16:BI:41:ARG:NH1	2.53	0.42
1:AS:242:C:O2'	1:AS:243:G:H5'	2.19	0.42
1:AS:378:A:OP2	81:AS:3405:PAR:H14	2.19	0.42
1:AS:538:G:O6	1:AS:547:U:O4	2.36	0.42
1:AS:649:G:C6	1:AS:650:G:C6	3.07	0.42
1:AS:1018:U:C2'	1:AS:1019:U:H5''	2.48	0.42
1:AS:1469:G:H5''	20:BM:23:TRP:CD1	2.55	0.42
1:AS:1575:A:H2'	26:BS:33:ARG:HH21	1.83	0.42
1:AS:1660:G:H2'	1:AS:1661:U:H6	1.83	0.42
1:AS:1798:C:H5'	35:CB:60:ARG:NH2	2.20	0.42
1:AS:2367:C:H2'	1:AS:2368:A:C8	2.54	0.42
1:AS:2979:U:H2'	1:AS:2980:A:C8	2.54	0.42
1:AS:2985:U:H2'	1:AS:2986:U:C6	2.54	0.42
1:AS:3005:A:H2'	1:AS:3006:C:H6	1.84	0.42
1:AS:3160:C:N4	1:AS:3161:U:C4	2.87	0.42
3:AU:28:C:H2'	3:AU:29:U:H6	1.84	0.42
3:AU:150:G:OP1	26:BS:27:ARG:NH2	2.52	0.42
6:AY:291:ILE:HG23	19:BL:35:PHE:CE2	2.54	0.42
8:BA:53:TYR:CE1	8:BA:62:LEU:HB3	2.54	0.42
11:BD:78:LEU:O	11:BD:82:VAL:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BE:82:ARG:NH1	12:BE:83:ASP:OD1	2.51	0.42
13:BF:4:LYS:HG3	13:BF:6:GLN:H	1.83	0.42
13:BF:63:GLU:O	13:BF:65:ILE:HG12	2.19	0.42
28:BU:58:ASP:O	28:BU:62:VAL:HG22	2.18	0.42
31:BX:32:VAL:HG22	31:BX:93:SER:HB2	2.01	0.42
34:CA:52:VAL:HG12	34:CA:66:VAL:CG1	2.49	0.42
45:CM:71:A:H2'	45:CM:72:A:C8	2.54	0.42
45:CM:368:A:H2'	45:CM:369:G:C8	2.54	0.42
45:CM:700:G:C6	45:CM:722:A:N6	2.87	0.42
45:CM:739:A:H5''	45:CM:740:A:H5'	2.01	0.42
45:CM:825:U:O2'	45:CM:826:U:H5''	2.18	0.42
45:CM:834:C:H2'	45:CM:835:A:H8	1.83	0.42
45:CM:1335:U:O2'	45:CM:1336:G:OP1	2.32	0.42
45:CM:1669:U:O2'	45:CM:1670:U:H6	2.02	0.42
46:CN:60:ALA:HA	46:CN:63:ILE:HD12	2.01	0.42
48:CP:111:LYS:HE2	48:CP:126:ILE:HD13	2.01	0.42
49:CQ:35:TYR:HE1	49:CQ:37:GLY:C	2.27	0.42
49:CQ:50:ILE:HD12	49:CQ:50:ILE:O	2.19	0.42
49:CQ:176:VAL:HG22	49:CQ:183:LEU:O	2.18	0.42
52:CT:226:ILE:HD13	52:CT:226:ILE:HA	1.89	0.42
58:CZ:83:GLU:HG3	58:CZ:84:GLU:HG3	2.01	0.42
59:DA:73:ARG:O	59:DA:77:SER:OG	2.35	0.42
60:DB:77:LYS:HG2	60:DB:113:VAL:CG2	2.49	0.42
68:DJ:111:MET:HE2	68:DJ:121:VAL:CG2	2.49	0.42
71:DM:72:GLY:O	71:DM:75:LEU:HD12	2.18	0.42
1:1:648:C:H2'	1:1:649:G:C8	2.54	0.42
1:1:830:U:H2'	1:1:831:G:O4'	2.19	0.42
1:1:941:C:H2'	1:1:942:U:H6	1.82	0.42
1:1:2090:U:H1'	1:1:2091:A:OP2	2.19	0.42
1:1:2785:A:H2'	1:1:2786:G:O4'	2.20	0.42
1:1:2917:G:O2'	1:1:2920:C:OP2	2.24	0.42
6:l:100:MET:HE1	6:l:104:THR:HG23	2.01	0.42
7:m:50:ARG:NH1	7:m:147:ASP:OD2	2.46	0.42
10:p:246:LYS:O	10:p:250:LYS:HG2	2.19	0.42
11:q:95:ALA:HB2	41:AN:2:ILE:HD11	2.01	0.42
16:v:144:ARG:HD2	36:AI:95:PHE:CE1	2.53	0.42
17:w:83:LYS:HB2	17:w:83:LYS:HE2	1.28	0.42
18:x:30:ARG:CA	18:x:119:VAL:HG21	2.47	0.42
30:AC:37:ALA:O	30:AC:41:ARG:HG2	2.20	0.42
45:B:39:A:OP1	55:L:3:ARG:NH1	2.52	0.42
45:B:279:G:P	45:B:279:G:H8	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:390:G:H5''	45:B:1716:C:O2'	2.19	0.42
45:B:671:G:H5'	45:B:672:U:OP2	2.18	0.42
45:B:1205:C:OP1	56:M:48:SER:HB2	2.19	0.42
45:B:1571:G:H22	45:B:1598:A:P	2.42	0.42
81:B:1803:PAR:HN21	81:B:1803:PAR:H52	1.84	0.42
46:C:205:ARG:HD2	46:C:205:ARG:C	2.44	0.42
50:G:92:LEU:HB2	50:G:95:THR:HG22	2.00	0.42
52:I:126:ASP:OD1	52:I:127:THR:N	2.52	0.42
52:I:148:THR:HG22	52:I:149:LYS:H	1.84	0.42
53:J:42:ILE:HD12	53:J:42:ILE:HG23	1.79	0.42
61:R:32:GLU:OE2	61:R:35:LYS:NZ	2.46	0.42
65:V:86:ARG:HD3	65:V:90:PRO:O	2.19	0.42
67:X:71:ARG:O	67:X:75:GLN:HG2	2.20	0.42
68:Y:57:ARG:HG2	68:Y:57:ARG:NH1	2.26	0.42
78:AR:70:GLN:OE1	78:AR:112:LEU:O	2.38	0.42
78:AR:81:ALA:HB2	78:AR:95:LEU:CD2	2.49	0.42
1:AS:98:A:OP1	16:BI:194:HIS:HB3	2.19	0.42
1:AS:1575:A:H5''	1:AS:1576:A:H2	1.84	0.42
1:AS:1655:U:H2'	1:AS:1656:C:C6	2.53	0.42
1:AS:2318:U:OP1	5:AX:236:LYS:HD3	2.18	0.42
1:AS:2996:A:H4'	11:BD:97:PHE:CE2	2.53	0.42
6:AY:259:LEU:HA	6:AY:262:VAL:HG12	2.01	0.42
7:AZ:111:GLN:OE1	7:AZ:251:PRO:HG2	2.19	0.42
7:AZ:274:GLN:H	7:AZ:274:GLN:HG3	1.71	0.42
8:BA:30:ARG:NE	34:CA:107:ILE:O	2.49	0.42
10:BC:95:LEU:HA	10:BC:95:LEU:HD23	1.36	0.42
12:BE:31:ILE:HA	12:BE:66:GLU:OE1	2.19	0.42
16:BI:176:LYS:HA	16:BI:176:LYS:HD3	1.93	0.42
16:BI:193:LYS:HE2	16:BI:193:LYS:HB3	1.84	0.42
20:BM:90:PRO:HB2	20:BM:93:VAL:HG13	2.01	0.42
23:BP:12:VAL:O	23:BP:68:VAL:O	2.38	0.42
23:BP:19:VAL:CG1	23:BP:108:LEU:HD21	2.36	0.42
28:BU:133:LYS:NZ	28:BU:134:LEU:H	2.16	0.42
32:BY:8:THR:C	32:BY:9:ARG:HG3	2.44	0.42
32:BY:71:ARG:NH1	32:BY:71:ARG:HG3	2.35	0.42
36:CC:41:LEU:HD12	36:CC:44:ILE:HG12	2.01	0.42
41:CH:4:PRO:HD2	41:CH:6:LEU:HD12	2.00	0.42
43:CJ:10:THR:OG1	43:CJ:11:TYR:N	2.52	0.42
45:CM:216:A:HO2'	45:CM:815:U:H5	1.64	0.42
45:CM:303:C:H2'	45:CM:304:U:C6	2.53	0.42
45:CM:521:G:H5'	70:DL:60:PHE:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:818:U:C3'	45:CM:819:G:H5'	2.49	0.42
45:CM:933:A:H2'	45:CM:934:C:H6	1.84	0.42
45:CM:1161:G:C6	45:CM:1450:G:C6	3.07	0.42
45:CM:1571:G:O2'	45:CM:1597:G:O6	2.34	0.42
46:CN:79:ARG:NH1	46:CN:164:ASN:HB3	2.32	0.42
46:CN:84:ARG:NH2	46:CN:201:LEU:HA	2.34	0.42
47:CO:26:ARG:HD3	47:CO:49:ASN:CG	2.44	0.42
48:CP:96:VAL:HG21	48:CP:203:GLU:HG3	2.01	0.42
50:CR:152:PRO:HG3	52:CT:212:LEU:HD23	2.00	0.42
51:CS:71:SER:HB3	51:CS:90:VAL:HG13	2.00	0.42
52:CT:116:GLN:NE2	52:CT:120:GLU:OE2	2.52	0.42
52:CT:235:LYS:HD3	52:CT:235:LYS:HA	1.66	0.42
53:CU:69:VAL:HG12	53:CU:69:VAL:O	2.19	0.42
55:CW:92:LYS:C	55:CW:94:ASP:H	2.27	0.42
59:DA:18:TYR:CD2	59:DA:18:TYR:C	2.98	0.42
61:DC:28:MET:CG	61:DC:32:GLU:HB2	2.49	0.42
61:DC:49:LEU:HA	61:DC:49:LEU:HD13	1.74	0.42
63:DE:56:HIS:N	63:DE:59:LYS:HZ2	2.16	0.42
64:DF:17:LEU:HB3	64:DF:18:LEU:HD22	2.01	0.42
74:DP:10:ALA:HB3	74:DP:56:LEU:HD21	2.00	0.42
79:i:32:LYS:HD3	79:i:32:LYS:HA	1.63	0.42
79:i:40:ASP:C	79:i:42:ALA:H	2.27	0.42
1:1:25:A:H2'	1:1:26:C:C6	2.52	0.42
1:1:224:C:H5'	27:9:34:PRO:HD3	2.00	0.42
1:1:589:G:N2	1:1:610:U:OP1	2.47	0.42
1:1:1149:A:O2'	1:1:1150:A:H5'	2.18	0.42
1:1:1209:G:H5'	21:0:137:ARG:HH21	1.83	0.42
1:1:1591:U:C2	1:1:1592:C:C5	3.07	0.42
1:1:1780:A:H2'	1:1:1781:C:C6	2.55	0.42
1:1:2248:A:H2'	1:1:2249:A:C8	2.54	0.42
1:1:2436:A:C6	1:1:2437:A:C2	3.07	0.42
1:1:2848:C:O5'	1:1:2848:C:H6	2.03	0.42
8:n:51:VAL:HG12	8:n:73:VAL:HG11	2.01	0.42
15:u:106:SER:OG	15:u:107:ASP:N	2.52	0.42
18:x:124:LYS:HD3	18:x:141:SER:O	2.19	0.42
39:AL:20:ILE:HD12	39:AL:45:VAL:HG12	2.01	0.42
45:B:536:A:H1'	45:B:539:A:C8	2.54	0.42
45:B:670:C:H3'	45:B:671:G:H4'	2.00	0.42
45:B:1062:C:H2'	45:B:1063:C:H6	1.84	0.42
45:B:1221:A:H2'	45:B:1222:G:H8	1.82	0.42
45:B:1318:C:H2'	45:B:1319:U:H6	1.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1352:G:N1	45:B:1353:G:C5	2.88	0.42
45:B:1468:C:H5''	45:B:1508:G:N2	2.33	0.42
45:B:1760:C:H2'	45:B:1761:G:C8	2.53	0.42
50:G:36:HIS:CG	50:G:85:GLY:HA3	2.55	0.42
59:P:3:ARG:NE	59:P:3:ARG:HA	2.35	0.42
61:R:25:LEU:HG	61:R:87:PRO:HB3	2.00	0.42
64:U:110:ARG:O	64:U:113:LEU:N	2.52	0.42
66:W:108:GLU:HG3	66:W:109:PRO:HD2	2.02	0.42
78:AR:32:LEU:HA	78:AR:45:TRP:O	2.19	0.42
1:AS:109:G:C5'	14:BG:91:ARG:HE	2.32	0.42
1:AS:150:A:H5''	36:CC:102:GLU:HB3	2.02	0.42
1:AS:406:G:H1'	3:AU:16:G:N2	2.34	0.42
1:AS:591:C:O2	9:BB:24:ARG:NH1	2.52	0.42
1:AS:1336:G:H2'	1:AS:1337:U:C6	2.54	0.42
1:AS:2077:A:O2'	1:AS:2078:A:H5'	2.19	0.42
1:AS:2096:C:H2'	1:AS:2097:A:O4'	2.20	0.42
1:AS:2182:C:C2	1:AS:2183:U:C5	3.07	0.42
1:AS:3060:G:OP1	5:AX:313:ARG:NH1	2.52	0.42
1:AS:3315:C:H4'	1:AS:3316:U:OP1	2.19	0.42
4:AW:20:THR:HA	4:AW:23:ARG:HG3	2.02	0.42
4:AW:248:GLY:HA3	45:CM:997:U:H5''	2.01	0.42
6:AY:17:GLY:C	6:AY:19:SER:H	2.28	0.42
8:BA:7:LYS:HG3	8:BA:9:TYR:OH	2.19	0.42
16:BI:64:ILE:HG21	16:BI:102:ALA:HB1	2.01	0.42
26:BS:25:LYS:HD2	26:BS:25:LYS:HA	1.69	0.42
26:BS:46:TYR:CD1	36:CC:75:TYR:HB3	2.54	0.42
26:BS:135:ILE:HG22	26:BS:139:ILE:HD11	2.01	0.42
33:BZ:40:ASP:HA	33:BZ:45:ARG:HH11	1.83	0.42
35:CB:100:ILE:HD13	35:CB:100:ILE:HG21	1.84	0.42
45:CM:65:A:H8	45:CM:65:A:H5''	1.85	0.42
45:CM:74:U:O2'	45:CM:76:A:P	2.78	0.42
45:CM:176:U:O2'	45:CM:177:A:OP2	2.31	0.42
45:CM:222:C:N3	45:CM:223:A:N6	2.68	0.42
45:CM:1127:A:H2'	45:CM:1128:A:H8	1.83	0.42
45:CM:1226:G:H4'	61:DC:77:LYS:O	2.19	0.42
45:CM:1303:G:H2'	45:CM:1304:A:C8	2.55	0.42
45:CM:1436:U:H2'	45:CM:1437:C:C6	2.54	0.42
47:CO:85:LYS:HB3	47:CO:101:HIS:HB3	2.02	0.42
48:CP:74:ASP:HB3	48:CP:76:MET:HE3	2.01	0.42
49:CQ:26:PHE:HB2	49:CQ:35:TYR:CE2	2.55	0.42
54:CV:69:SER:HB2	57:CY:24:LYS:HD3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CV:78:ILE:N	54:CV:78:ILE:HD12	2.35	0.42
54:CV:188:TYR:OH	54:CV:194:GLU:OE2	2.31	0.42
60:DB:24:HIS:CG	60:DB:36:ARG:HE	2.37	0.42
61:DC:59:LYS:O	61:DC:63:ALA:N	2.42	0.42
63:DE:65:PRO:HB3	63:DE:74:GLN:OE1	2.18	0.42
65:DG:31:PRO:HD2	65:DG:54:PHE:CE2	2.55	0.42
68:DJ:6:VAL:HG23	68:DJ:34:ILE:HD11	2.00	0.42
71:DM:69:LEU:HD23	71:DM:69:LEU:HA	1.82	0.42
74:DP:11:LYS:HG3	74:DP:31:GLU:O	2.19	0.42
1:1:2194:G:H22	1:1:2207:A:H2	1.67	0.42
1:1:2330:A:H2'	1:1:2331:G:C8	2.55	0.42
1:1:2438:U:H6	1:1:2438:U:H2'	1.67	0.42
1:1:2739:U:H2'	1:1:2740:U:H6	1.84	0.42
1:1:2978:A:C2	1:1:3113:A:C4	3.07	0.42
1:1:3125:U:H5	1:1:3258:U:HO2'	1.63	0.42
3:4:36:G:C5	36:AI:86:ARG:HD3	2.54	0.42
5:k:66:LYS:HG3	24:6:11:PHE:HE1	1.84	0.42
10:p:152:VAL:O	10:p:178:TYR:HA	2.18	0.42
15:u:116:LEU:CB	17:w:195:LEU:HD11	2.49	0.42
17:w:29:LEU:HD23	17:w:29:LEU:HA	1.91	0.42
18:x:64:ASN:OD1	18:x:80:LYS:HE3	2.19	0.42
20:z:77:GLY:O	20:z:81:ARG:HG3	2.19	0.42
34:AG:16:TYR:OH	34:AG:89:LEU:O	2.32	0.42
36:AI:9:LEU:HD23	36:AI:54:VAL:HA	2.00	0.42
45:B:208:A:OP1	54:K:176:SER:OG	2.37	0.42
45:B:473:A:OP2	55:L:126:ARG:NH2	2.47	0.42
45:B:762:C:H5	70:a:10:ARG:HH21	1.67	0.42
45:B:787:A:H8	45:B:787:A:OP2	2.02	0.42
45:B:883:A:N3	45:B:884:G:H1'	2.35	0.42
45:B:1515:U:OP1	51:H:109:LYS:HB2	2.20	0.42
49:F:73:LEU:HD21	56:M:20:VAL:HB	2.01	0.42
49:F:224:VAL:HG22	78:AR:188:ASP:OD1	2.19	0.42
51:H:138:VAL:CG1	51:H:139:ASN:HD22	2.32	0.42
53:J:51:LYS:HG3	53:J:83:ASP:O	2.19	0.42
58:O:52:LEU:HB3	58:O:78:LEU:HD21	2.01	0.42
58:O:130:SER:C	58:O:132:GLU:H	2.26	0.42
63:T:38:ILE:HD13	63:T:38:ILE:HA	1.73	0.42
63:T:96:THR:HG21	63:T:99:GLN:O	2.19	0.42
71:b:69:LEU:HA	71:b:69:LEU:HD23	1.73	0.42
78:AR:298:LEU:HD23	78:AR:310:TRP:CD1	2.54	0.42
1:AS:179:C:H2'	1:AS:180:U:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:623:A:H2'	1:AS:624:U:C6	2.55	0.42
1:AS:662:U:H5'	6:AY:108:ARG:HA	2.00	0.42
1:AS:870:U:H5''	1:AS:2922:G:OP1	2.18	0.42
1:AS:1499:A:C4	1:AS:1500:A:C8	3.07	0.42
1:AS:1676:G:H2'	1:AS:1677:U:H6	1.84	0.42
1:AS:2322:U:H2'	1:AS:2323:A:H8	1.84	0.42
1:AS:3039:C:H3'	20:BM:62:ARG:HH22	1.84	0.42
1:AS:3297:U:H2'	1:AS:3298:G:O4'	2.20	0.42
1:AS:3339:U:H2'	1:AS:3343:C:N4	2.34	0.42
2:AT:13:A:C2	7:AZ:21:ARG:HB2	2.54	0.42
4:AW:207:VAL:HG23	4:AW:208:ASP:OD1	2.20	0.42
6:AY:333:LYS:HB3	6:AY:333:LYS:HE3	1.89	0.42
11:BD:89:LYS:HE2	11:BD:183:GLU:HB3	2.00	0.42
14:BG:46:ILE:O	14:BG:46:ILE:HG22	2.20	0.42
37:CD:75:ARG:HA	37:CD:75:ARG:HD2	1.68	0.42
45:CM:446:C:H41	50:CR:59:ARG:HH21	1.68	0.42
45:CM:535:G:H2'	55:CW:171:ARG:HH12	1.84	0.42
45:CM:721:C:C2'	45:CM:722:A:H5'	2.50	0.42
45:CM:1158:C:H2'	45:CM:1159:C:H6	1.83	0.42
45:CM:1572:U:OP1	62:DD:124:GLU:N	2.42	0.42
45:CM:1610:C:H2'	45:CM:1611:C:C6	2.52	0.42
45:CM:1625:G:H2'	45:CM:1626:C:O4'	2.19	0.42
45:CM:1780:G:N2	72:DN:76:SER:OG	2.50	0.42
51:CS:112:ARG:HB3	51:CS:112:ARG:NH1	2.34	0.42
51:CS:149:ILE:HG22	74:DP:66:LEU:HD21	2.01	0.42
51:CS:164:PRO:O	51:CS:168:VAL:HG12	2.20	0.42
52:CT:115:LYS:HD3	52:CT:116:GLN:O	2.19	0.42
53:CU:78:GLU:HG2	53:CU:84:ARG:O	2.20	0.42
59:DA:110:ASP:O	59:DA:114:ARG:HG2	2.19	0.42
60:DB:46:ASP:HA	60:DB:49:GLU:HG3	2.00	0.42
60:DB:63:ALA:HA	60:DB:66:CYS:SG	2.59	0.42
64:DF:122:HIS:HA	64:DF:125:ILE:HD12	2.02	0.42
65:DG:49:GLU:O	65:DG:53:TRP:HB3	2.20	0.42
68:DJ:20:THR:CB	68:DJ:22:LYS:HZ3	2.32	0.42
1:1:269:G:N2	1:1:294:U:H2'	2.34	0.42
1:1:305:U:C5	1:1:2748:C:H1'	2.55	0.42
1:1:307:A:H2'	1:1:308:A:H8	1.83	0.42
1:1:353:G:O2'	1:1:364:G:O6	2.29	0.42
1:1:1518:U:O2'	26:8:113:LEU:HD11	2.20	0.42
1:1:2411:U:H1'	16:v:125:SER:HB3	2.01	0.42
81:1:3416:PAR:O54	81:1:3416:PAR:O53	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:1:3420:PAR:H322	81:1:3420:PAR:HN21	1.68	0.42
3:4:12:A:C6	3:4:13:A:N7	2.87	0.42
3:4:27:U:H2'	3:4:28:C:H6	1.84	0.42
6:l:289:ARG:O	6:l:293:SER:HB3	2.19	0.42
7:m:34:LYS:HA	22:2:27:LEU:HD21	2.01	0.42
7:m:40:HIS:CE1	7:m:42:ALA:HB3	2.54	0.42
11:q:17:THR:OG1	11:q:28:THR:HB	2.20	0.42
11:q:92:PHE:HB2	11:q:142:ASP:HB3	2.01	0.42
21:0:40:ARG:HA	21:0:40:ARG:HD2	1.87	0.42
25:7:6:ASP:C	25:7:8:PHE:H	2.27	0.42
45:B:404:U:H2'	45:B:405:A:C8	2.55	0.42
45:B:432:G:OP1	69:Z:78:LYS:HA	2.18	0.42
45:B:451:C:O2	45:B:451:C:H2'	2.19	0.42
45:B:702:G:H1'	45:B:703:U:H1'	2.02	0.42
45:B:1033:U:O3'	73:d:69:GLY:HA3	2.18	0.42
45:B:1099:G:O2'	45:B:1115:G:O6	2.31	0.42
45:B:1640:C:C2	45:B:1735:G:C2	3.07	0.42
49:F:42:LYS:HB2	49:F:42:LYS:HE2	1.65	0.42
50:G:26:THR:HG23	55:L:2:PRO:C	2.45	0.42
51:H:102:ARG:O	51:H:106:LYS:NZ	2.45	0.42
54:K:166:PHE:CZ	54:K:171:LEU:HD11	2.54	0.42
57:N:9:SER:O	57:N:9:SER:OG	2.37	0.42
59:P:40:TYR:O	59:P:45:LEU:HD12	2.19	0.42
62:S:88:LEU:HD23	62:S:88:LEU:C	2.44	0.42
63:T:33:ARG:HD2	63:T:33:ARG:HA	1.84	0.42
64:U:140:THR:HA	64:U:143:ARG:HH21	1.84	0.42
72:c:47:ALA:O	72:c:50:VAL:HG12	2.20	0.42
1:AS:851:U:H4'	20:BM:95:TRP:CE2	2.54	0.42
1:AS:888:U:H4'	1:AS:2112:G:OP1	2.19	0.42
1:AS:981:U:H4'	9:BB:96:LYS:HG3	2.02	0.42
1:AS:2115:U:OP2	1:AS:2120:A:N6	2.45	0.42
1:AS:2718:A:H2'	1:AS:2719:A:O4'	2.20	0.42
1:AS:2819:A:H5'	41:CH:49:LYS:HE3	2.00	0.42
1:AS:2979:U:H2'	1:AS:2980:A:H8	1.84	0.42
2:AT:38:U:N3	2:AT:41:G:OP2	2.32	0.42
4:AW:32:LEU:HD13	4:AW:163:ARG:HD3	2.00	0.42
8:BA:34:VAL:HB	8:BA:89:LYS:HE3	2.02	0.42
10:BC:249:LYS:HA	10:BC:249:LYS:HD3	1.60	0.42
13:BF:55:ARG:HG3	13:BF:56:THR:N	2.34	0.42
16:BI:65:ARG:CZ	16:BI:65:ARG:HB3	2.49	0.42
19:BL:3:ARG:HB2	19:BL:5:HIS:CE1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BM:163:ARG:O	20:BM:167:ARG:CD	2.68	0.42
31:BX:98:GLY:O	31:BX:100:SER:N	2.47	0.42
39:CF:16:ARG:CD	39:CF:70:PRO:HG3	2.47	0.42
44:CK:52:THR:O	44:CK:54:ILE:HD12	2.20	0.42
45:CM:188:U:H2'	45:CM:189:G:C8	2.54	0.42
45:CM:451:C:O2	45:CM:451:C:H2'	2.20	0.42
45:CM:478:G:O5'	55:CW:120:ARG:NH1	2.53	0.42
45:CM:767:G:O2'	45:CM:768:C:H6	2.02	0.42
45:CM:1110:A:C5	45:CM:1111:G:H1'	2.55	0.42
45:CM:1566:U:H1'	62:DD:138:GLN:OE1	2.19	0.42
45:CM:1782:U:H3'	72:DN:5:ARG:HH21	1.84	0.42
46:CN:75:VAL:HG23	46:CN:86:VAL:HB	2.01	0.42
47:CO:55:LYS:HG2	47:CO:56:ASN:N	2.35	0.42
47:CO:106:THR:HG23	47:CO:109:LYS:H	1.85	0.42
47:CO:176:VAL:HG13	47:CO:184:LEU:HD13	2.01	0.42
47:CO:222:LYS:HE3	47:CO:222:LYS:HB2	1.82	0.42
49:CQ:65:ARG:CD	56:CX:91:ARG:HH11	2.29	0.42
49:CQ:124:LEU:HD21	49:CQ:153:TYR:O	2.20	0.42
52:CT:48:TYR:OH	52:CT:121:ILE:HG12	2.19	0.42
52:CT:65:GLN:OE1	52:CT:66:GLY:N	2.53	0.42
53:CU:57:PHE:HB3	53:CU:91:GLU:HG3	2.02	0.42
57:CY:22:ASN:HB3	57:CY:25:ALA:HB3	2.01	0.42
59:DA:128:TYR:CD1	59:DA:128:TYR:C	2.97	0.42
62:DD:131:ARG:HG3	62:DD:137:PHE:HE1	1.84	0.42
65:DG:64:HIS:O	65:DG:68:ARG:HG2	2.19	0.42
69:DK:92:CYS:HA	69:DK:95:PHE:HD2	1.84	0.42
1:1:139:U:H2'	1:1:140:C:C6	2.54	0.42
1:1:755:U:H2'	1:1:756:G:O4'	2.20	0.42
1:1:1810:A:H4'	1:1:1811:U:O4'	2.20	0.42
1:1:2509:C:C4	1:1:2510:U:C4	3.08	0.42
1:1:2956:C:H2'	1:1:2957:C:C6	2.54	0.42
1:1:3161:U:C5	1:1:3162:U:C2	3.07	0.42
1:1:3248:U:H2'	1:1:3249:G:H8	1.85	0.42
3:4:6:U:H2'	3:4:7:U:H6	1.85	0.42
8:n:145:LEU:HD23	8:n:145:LEU:HA	1.88	0.42
8:n:146:LEU:HB3	8:n:150:LYS:HZ1	1.84	0.42
15:u:40:ILE:O	15:u:47:ARG:HA	2.19	0.42
20:z:172:ARG:HD2	20:z:176:ARG:NH2	2.35	0.42
22:2:107:ASN:HA	22:2:110:LYS:HG3	2.01	0.42
24:6:33:ASN:ND2	24:6:64:LYS:HB2	2.35	0.42
29:AB:75:LEU:HD22	29:AB:118:LEU:HD11	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:152:G:OP1	52:I:2:LYS:HD2	2.20	0.42
45:B:445:U:H2'	45:B:446:C:O4'	2.19	0.42
45:B:1425:C:H2'	45:B:1426:C:H6	1.85	0.42
45:B:1648:U:H2'	45:B:1649:G:C8	2.54	0.42
46:C:75:VAL:HG12	46:C:122:VAL:CG2	2.49	0.42
47:D:36:THR:HA	47:D:41:ARG:NH2	2.34	0.42
51:H:48:PHE:CD2	51:H:67:PRO:HB3	2.55	0.42
55:L:135:ALA:HA	55:L:140:ILE:HA	2.02	0.42
67:X:5:LYS:HB2	67:X:7:GLN:CD	2.44	0.42
67:X:5:LYS:HB2	67:X:7:GLN:OE1	2.20	0.42
67:X:87:ARG:CZ	73:d:2:VAL:HG21	2.49	0.42
71:b:71:ILE:HD11	71:b:76:ALA:HB2	2.02	0.42
74:e:58:GLU:OE1	74:e:61:ARG:NH1	2.52	0.42
77:h:177:MET:HB3	77:h:177:MET:HE2	1.42	0.42
78:AR:302:TYR:CD2	78:AR:308:ARG:HD2	2.55	0.42
1:AS:16:G:P	26:BS:48:ARG:HH22	2.43	0.42
1:AS:180:U:H4'	38:CE:75:LYS:HG2	2.01	0.42
1:AS:1045:C:H2'	1:AS:1046:U:C6	2.54	0.42
1:AS:1099:A:N6	1:AS:1359:A:H1'	2.35	0.42
1:AS:1474:C:H2'	1:AS:1475:U:C6	2.54	0.42
1:AS:1723:G:OP2	44:CK:44:LYS:NZ	2.53	0.42
1:AS:1790:U:C2	4:AW:187:HIS:CD2	3.08	0.42
1:AS:1943:G:O2'	1:AS:1944:G:OP1	2.29	0.42
1:AS:2899:C:H2'	1:AS:2900:C:H6	1.85	0.42
1:AS:3067:U:H2'	1:AS:3068:C:C6	2.54	0.42
2:AT:59:U:H2'	2:AT:60:G:H8	1.85	0.42
6:AY:109:ARG:HG2	16:BI:203:ARG:HG3	2.02	0.42
8:BA:104:TYR:OH	8:BA:134:ARG:HG2	2.20	0.42
8:BA:149:ILE:HG23	8:BA:155:LEU:HD22	2.01	0.42
11:BD:84:LYS:O	11:BD:187:ILE:HB	2.20	0.42
20:BM:116:ASP:OD1	20:BM:119:LEU:HD23	2.20	0.42
28:BU:60:LYS:HG3	28:BU:61:LYS:N	2.34	0.42
32:BY:95:VAL:HG23	32:BY:97:VAL:CG2	2.50	0.42
36:CC:21:LEU:HD12	36:CC:54:VAL:HG13	2.02	0.42
45:CM:324:G:H2'	45:CM:325:U:H6	1.84	0.42
45:CM:482:C:H2'	45:CM:483:A:C8	2.54	0.42
45:CM:489:C:N4	45:CM:494:G:O6	2.53	0.42
45:CM:823:G:HO2'	45:CM:824:U:P	2.39	0.42
45:CM:1118:A:H2'	45:CM:1119:C:O4'	2.19	0.42
45:CM:1354:U:C2	45:CM:1355:A:N7	2.87	0.42
45:CM:1388:G:OP1	63:DE:10:LYS:NZ	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:1455:A:H2'	45:CM:1456:C:C6	2.55	0.42
45:CM:1571:G:H22	45:CM:1598:A:P	2.43	0.42
45:CM:1634:U:H2'	45:CM:1635:A:H8	1.85	0.42
46:CN:124:THR:O	46:CN:146:LEU:HB2	2.20	0.42
47:CO:64:ARG:HD2	60:DB:31:LYS:CD	2.49	0.42
47:CO:167:LYS:HA	47:CO:170:GLU:HG3	2.01	0.42
53:CU:54:LEU:HD21	53:CU:84:ARG:HD3	2.01	0.42
56:CX:70:ASP:HA	56:CX:91:ARG:NH2	2.35	0.42
59:DA:20:ARG:NH2	68:DJ:56:HIS:CD2	2.88	0.42
64:DF:65:GLU:O	64:DF:69:ILE:HG13	2.20	0.42
1:1:880:A:OP1	38:AK:5:THR:OG1	2.27	0.42
1:1:936:G:OP2	29:AB:24:LYS:NZ	2.52	0.42
1:1:1080:A:H4'	7:m:44:TYR:CE1	2.55	0.42
1:1:1170:G:H2'	1:1:1171:C:C6	2.55	0.42
1:1:1272:U:H2'	1:1:1273:C:O4'	2.20	0.42
1:1:1298:A:N7	1:1:2829:C:O2'	2.51	0.42
1:1:1309:G:O2'	1:1:1314:A:N1	2.44	0.42
1:1:1491:U:H2'	1:1:1838:A:C2	2.55	0.42
1:1:1499:A:C4	1:1:1500:A:C8	3.06	0.42
1:1:2339:A:H2'	1:1:2340:C:C6	2.54	0.42
1:1:3088:G:H2'	1:1:3088:G:N3	2.35	0.42
1:1:3253:G:H2'	1:1:3254:G:H8	1.84	0.42
1:1:3297:U:H2'	1:1:3298:G:O4'	2.19	0.42
6:l:23:LEU:CD2	6:l:27:PHE:HB2	2.49	0.42
7:m:268:GLU:O	7:m:271:LYS:HB2	2.20	0.42
9:o:15:LYS:HE3	9:o:15:LYS:HB2	1.88	0.42
16:v:122:ASN:OD1	16:v:123:GLN:N	2.48	0.42
19:y:62:VAL:HA	19:y:66:ARG:HH21	1.84	0.42
26:8:43:SER:O	26:8:43:SER:OG	2.22	0.42
36:AI:7:PHE:HZ	27:BT:127:GLU:HA	1.85	0.42
38:AK:63:ARG:O	38:AK:68:LYS:HD2	2.19	0.42
41:AN:22:LYS:HD3	41:AN:42:THR:HG21	2.02	0.42
43:AP:8:ARG:HH11	43:AP:10:THR:HG21	1.81	0.42
45:B:584:G:H2'	45:B:585:C:H6	1.85	0.42
45:B:1259:C:N4	79:i:91:HIS:O	2.52	0.42
45:B:1369:G:H5''	66:W:56:ARG:HD3	2.00	0.42
45:B:1498:G:H2'	45:B:1499:G:H8	1.84	0.42
50:G:255:ARG:HB2	50:G:255:ARG:CZ	2.49	0.42
50:G:256:ARG:HD3	50:G:256:ARG:HA	1.88	0.42
54:K:54:LYS:NZ	54:K:181:GLN:HE22	2.17	0.42
56:M:55:VAL:HG13	56:M:67:THR:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:M:87:LEU:HB3	56:M:91:ARG:HB3	2.01	0.42
59:P:26:PHE:CE2	59:P:28:LEU:HB2	2.55	0.42
61:R:56:LEU:HG	61:R:60:LEU:HD22	2.01	0.42
61:R:125:PRO:HB3	64:U:129:TRP:CZ2	2.55	0.42
62:S:30:ILE:HD12	62:S:80:ILE:HG21	2.02	0.42
69:Z:48:HIS:CD2	69:Z:105:ALA:HB2	2.53	0.42
77:h:182:TYR:CE2	77:h:184:GLY:HA2	2.55	0.42
1:AS:342:A:N1	1:AS:349:A:O2'	2.47	0.42
1:AS:393:U:H2'	1:AS:394:G:O4'	2.20	0.42
1:AS:619:A:H8	1:AS:619:A:OP2	2.03	0.42
1:AS:718:A:OP1	19:BL:69:ARG:NH2	2.52	0.42
1:AS:1478:A:H4'	1:AS:1479:G:OP2	2.20	0.42
1:AS:2373:G:H5''	5:AX:255:TRP:CD1	2.55	0.42
1:AS:2997:C:H2'	1:AS:2998:G:O4'	2.20	0.42
1:AS:3133:G:H2'	1:AS:3134:C:O4'	2.19	0.42
5:AX:58:ARG:NH1	5:AX:60:LEU:HD12	2.35	0.42
7:AZ:89:LYS:O	7:AZ:90:TYR:HD2	2.02	0.42
8:BA:145:LEU:HD23	8:BA:145:LEU:HA	1.75	0.42
10:BC:141:VAL:HG21	16:BI:3:ALA:HB2	2.01	0.42
12:BE:38:ARG:NH2	12:BE:45:GLU:OE1	2.52	0.42
14:BG:83:VAL:HG13	14:BG:120:LYS:CE	2.49	0.42
14:BG:141:VAL:HG22	14:BG:146:THR:OG1	2.20	0.42
26:BS:59:ALA:HB2	26:BS:101:GLU:OE1	2.19	0.42
28:BU:22:LYS:NZ	28:BU:132:GLN:O	2.52	0.42
42:CI:4:LYS:HB2	45:CM:1760:C:OP2	2.20	0.42
45:CM:391:C:H2'	45:CM:392:C:H6	1.83	0.42
45:CM:582:C:C4	45:CM:583:A:N7	2.87	0.42
45:CM:874:U:H2'	45:CM:875:C:C6	2.55	0.42
45:CM:904:A:H2'	45:CM:905:C:H6	1.84	0.42
45:CM:1042:U:C5	45:CM:1048:U:C4	3.08	0.42
45:CM:1063:C:H2'	45:CM:1064:U:C6	2.55	0.42
45:CM:1070:G:N2	45:CM:1072:A:H3'	2.35	0.42
45:CM:1102:U:H2'	45:CM:1103:G:H8	1.84	0.42
52:CT:202:ARG:HB2	52:CT:202:ARG:HH11	1.85	0.42
60:DB:13:ARG:HE	60:DB:26:THR:CG2	2.31	0.42
60:DB:98:ARG:CD	72:DN:49:ALA:HB2	2.47	0.42
1:1:179:C:H2'	1:1:180:U:H6	1.85	0.42
1:1:268:A:C4	16:v:12:ARG:HG2	2.55	0.42
1:1:486:C:H2'	1:1:487:C:H6	1.81	0.42
1:1:1385:G:H5''	33:AF:102:SER:HB3	2.02	0.42
1:1:1605:C:OP1	26:8:109:TYR:OH	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2195:U:H2'	1:1:2196:G:C8	2.55	0.42
1:1:2446:A:H4'	1:1:2466:A:H61	1.85	0.42
1:1:2857:C:O2'	1:1:2858:U:H5'	2.19	0.42
1:1:3259:A:H5'	5:k:128:LYS:HG3	2.01	0.42
1:1:3297:U:P	25:7:35:LYS:HE3	2.60	0.42
2:3:96:U:H2'	2:3:97:A:H8	1.84	0.42
3:4:10:A:H2'	3:4:11:C:C6	2.54	0.42
10:p:29:GLU:OE1	28:AA:128:LYS:NZ	2.40	0.42
11:q:159:ALA:O	11:q:163:GLN:HG2	2.20	0.42
15:u:37:ARG:NH2	21:0:95:ARG:O	2.49	0.42
18:x:128:ARG:HG3	18:x:136:ILE:HG23	2.02	0.42
36:AI:29:ALA:HA	36:AI:32:LYS:HE3	2.02	0.42
37:AJ:56:LEU:HD23	37:AJ:56:LEU:HA	1.77	0.42
45:B:123:G:P	50:G:77:ARG:HH22	2.39	0.42
45:B:162:A:H1'	52:I:13:GLN:NE2	2.34	0.42
45:B:223:A:C6	45:B:224:A:N7	2.87	0.42
45:B:484:G:H3'	45:B:485:G:H8	1.85	0.42
45:B:835:A:H2'	45:B:836:U:C6	2.54	0.42
45:B:872:A:H2'	45:B:873:U:C6	2.55	0.42
45:B:943:U:P	73:d:20:LYS:HZ1	2.42	0.42
45:B:946:U:C2	45:B:947:C:C5	3.08	0.42
45:B:1214:G:C3'	77:h:139:LYS:HE3	2.50	0.42
45:B:1634:U:H2'	45:B:1635:A:H8	1.83	0.42
45:B:1669:U:O2'	45:B:1670:U:H6	2.02	0.42
48:E:52:TYR:CD1	48:E:133:PRO:HD3	2.55	0.42
48:E:135:ARG:HD2	48:E:217:TYR:CD1	2.54	0.42
49:F:18:PHE:HD1	49:F:78:PHE:CE2	2.38	0.42
49:F:108:ALA:O	49:F:112:SER:OG	2.33	0.42
51:H:124:LEU:C	51:H:126:GLU:H	2.27	0.42
61:R:29:PRO:HG2	61:R:32:GLU:HB2	2.01	0.42
63:T:89:SER:OG	63:T:91:LEU:HB3	2.19	0.42
65:V:86:ARG:HB3	65:V:89:ARG:HB2	2.02	0.42
71:b:36:ALA:HB1	71:b:38:HIS:CE1	2.55	0.42
78:AR:122:GLN:OE1	78:AR:122:GLN:HA	2.20	0.42
1:AS:200:A:H2'	1:AS:201:G:C8	2.54	0.42
1:AS:485:A:C6	1:AS:486:C:C4	3.08	0.42
1:AS:788:G:H2'	1:AS:789:C:C6	2.54	0.42
1:AS:964:G:H2'	1:AS:965:C:H6	1.82	0.42
1:AS:1065:C:H2'	1:AS:1066:U:C6	2.55	0.42
1:AS:1303:G:H1'	1:AS:1304:A:C8	2.54	0.42
1:AS:2530:C:OP1	35:CB:102:LYS:NZ	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:3064:C:HO2'	1:AS:3066:A:P	2.41	0.42
3:AU:12:A:C6	3:AU:13:A:N7	2.88	0.42
4:AW:4:VAL:CG1	4:AW:8:GLN:HB2	2.50	0.42
4:AW:179:LEU:O	4:AW:180:LEU:HB2	2.18	0.42
5:AX:313:ARG:O	5:AX:333:LYS:HE3	2.20	0.42
7:AZ:41:LYS:HD3	7:AZ:41:LYS:HA	1.81	0.42
10:BC:49:ARG:O	10:BC:49:ARG:HD3	2.19	0.42
10:BC:249:LYS:HZ2	10:BC:252:LYS:HE3	1.84	0.42
11:BD:140:GLN:HB3	11:BD:143:GLU:OE2	2.19	0.42
14:BG:83:VAL:HG23	14:BG:113:VAL:HG13	2.02	0.42
14:BG:85:ILE:CG2	14:BG:90:ALA:HB2	2.50	0.42
14:BG:158:LEU:HD23	29:BV:99:ALA:HA	2.01	0.42
15:BH:108:PHE:C	15:BH:108:PHE:CD2	2.98	0.42
16:BI:68:ARG:HG2	16:BI:128:LYS:HG3	2.00	0.42
21:BN:14:LEU:HD23	21:BN:14:LEU:HA	1.84	0.42
27:BT:116:LYS:HD2	27:BT:127:GLU:HB3	2.00	0.42
30:BW:42:ASN:OD1	30:BW:42:ASN:C	2.61	0.42
31:BX:59:GLU:OE1	31:BX:71:TYR:OH	2.35	0.42
45:CM:1032:G:H2'	45:CM:1033:U:H6	1.85	0.42
45:CM:1132:A:H2'	45:CM:1133:C:C6	2.55	0.42
45:CM:1214:G:N2	45:CM:1240:G:O2'	2.52	0.42
45:CM:1243:U:H6	45:CM:1244:U:H5	1.67	0.42
45:CM:1501:A:N6	49:CQ:5:ILE:HD12	2.35	0.42
45:CM:1594:G:C2	45:CM:1595:U:C5	3.08	0.42
47:CO:36:THR:HA	47:CO:41:ARG:HD2	2.02	0.42
56:CX:87:LEU:HD23	56:CX:87:LEU:HA	1.85	0.42
58:CZ:35:SER:OG	58:CZ:41:LEU:HD21	2.20	0.42
60:DB:50:SER:O	60:DB:91:PRO:HG2	2.20	0.42
64:DF:16:ARG:NE	64:DF:21:ASN:OD1	2.53	0.42
64:DF:17:LEU:HA	64:DF:17:LEU:HD23	1.51	0.42
68:DJ:24:GLN:OE1	73:DO:4:VAL:HA	2.19	0.42
1:1:1303:G:H1'	1:1:1304:A:C8	2.55	0.42
1:1:1443:G:N7	18:x:25:SER:OG	2.40	0.42
1:1:1456:A:H5'	32:AE:50:LEU:O	2.20	0.42
1:1:1789:C:N4	4:j:177:LYS:O	2.42	0.42
1:1:2403:G:H2'	1:1:2404:U:O4'	2.20	0.42
1:1:2424:U:H2'	1:1:2425:G:H8	1.85	0.42
1:1:2729:U:H4'	22:2:7:TYR:HB3	2.01	0.42
1:1:2738:U:H2'	1:1:2739:U:C6	2.55	0.42
1:1:2764:A:H5''	43:AP:67:LYS:HD3	2.02	0.42
1:1:3038:U:H2'	1:1:3039:C:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3056:C:H2'	1:1:3057:G:O4'	2.19	0.42
1:1:3067:U:H2'	1:1:3068:C:C6	2.55	0.42
1:1:3142:A:H1'	17:w:102:ARG:HH21	1.85	0.42
1:1:3334:G:C5	5:k:380:MET:HE3	2.55	0.42
2:3:3:U:H2'	2:3:4:U:H6	1.84	0.42
5:k:196:LYS:O	5:k:196:LYS:HG2	2.17	0.42
5:k:256:HIS:HA	5:k:257:PRO:C	2.45	0.42
8:n:149:ILE:HA	8:n:155:LEU:HD23	2.02	0.42
12:r:19:LYS:HG2	12:r:26:VAL:HG21	2.02	0.42
13:s:15:GLU:HB2	13:s:130:VAL:HG12	2.01	0.42
15:u:109:GLU:HG2	17:w:198:PHE:CE1	2.54	0.42
17:w:13:LYS:HD2	17:w:38:ARG:NH2	2.35	0.42
18:x:123:PRO:O	18:x:143:PRO:HG2	2.20	0.42
42:AO:13:LEU:O	42:AO:17:ARG:HG3	2.19	0.42
45:B:167:A:OP1	52:I:177:ARG:NH1	2.53	0.42
45:B:402:G:H2'	45:B:403:C:C6	2.54	0.42
45:B:446:C:H2'	45:B:447:C:C6	2.54	0.42
45:B:517:C:H6	45:B:517:C:H2'	1.70	0.42
45:B:585:C:H5'	76:g:24:GLN:NE2	2.35	0.42
45:B:739:A:H5''	45:B:740:A:H5'	2.02	0.42
45:B:860:G:H5'	45:B:861:G:P	2.59	0.42
45:B:887:G:H2'	45:B:888:U:C6	2.55	0.42
45:B:948:A:H8	45:B:948:A:OP2	2.02	0.42
45:B:1496:C:H2'	45:B:1497:U:C6	2.55	0.42
45:B:1634:U:H2'	45:B:1635:A:C8	2.54	0.42
47:D:105:PHE:CE1	47:D:213:ARG:HA	2.55	0.42
48:E:148:SER:OG	48:E:149:LEU:N	2.53	0.42
52:I:26:VAL:HG21	52:I:41:VAL:HG22	2.00	0.42
52:I:135:PRO:HB2	52:I:141:ILE:CG1	2.48	0.42
53:J:69:VAL:HG12	53:J:69:VAL:O	2.18	0.42
53:J:112:ARG:HG2	53:J:112:ARG:HH11	1.84	0.42
55:L:159:ALA:O	55:L:162:SER:OG	2.36	0.42
69:Z:126:LYS:HG2	69:Z:131:SER:HA	2.02	0.42
78:AR:202:SER:OG	78:AR:204:ASP:OD1	2.28	0.42
78:AR:256:GLY:C	78:AR:257:ILE:HD12	2.44	0.42
1:AS:147:G:OP2	16:BI:4:TYR:OH	2.30	0.42
1:AS:206:U:H2'	1:AS:207:C:H6	1.85	0.42
1:AS:447:U:HO2'	1:AS:448:U:P	2.40	0.42
1:AS:489:G:C2	1:AS:490:G:C8	3.08	0.42
1:AS:533:G:H2'	1:AS:534:G:O4'	2.20	0.42
1:AS:768:U:H2'	1:AS:769:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:814:C:H2'	1:AS:815:U:O4'	2.20	0.42
1:AS:907:C:OP2	4:AW:9:ARG:HD2	2.19	0.42
1:AS:2125:A:OP2	4:AW:200:ARG:NH2	2.41	0.42
1:AS:2180:C:H5''	4:AW:226:SER:N	2.35	0.42
1:AS:2361:C:N4	17:BJ:92:LYS:HG2	2.35	0.42
1:AS:2636:C:OP2	13:BF:142:LYS:HE3	2.19	0.42
1:AS:3253:G:H2'	1:AS:3254:G:C8	2.55	0.42
6:AY:160:VAL:CG2	6:AY:165:ASP:HB2	2.50	0.42
10:BC:132:VAL:CG2	10:BC:133:VAL:H	2.32	0.42
12:BE:48:LEU:O	12:BE:139:ARG:HA	2.20	0.42
12:BE:197:VAL:CG1	12:BE:198:LYS:N	2.82	0.42
13:BF:12:LEU:O	13:BF:13:ARG:HB3	2.18	0.42
19:BL:28:LEU:HA	19:BL:31:LYS:HB2	2.02	0.42
24:BQ:11:PHE:N	24:BQ:11:PHE:CD1	2.88	0.42
31:BX:11:ASN:OD1	31:BX:12:ILE:N	2.53	0.42
36:CC:10:ARG:O	36:CC:10:ARG:CZ	2.68	0.42
36:CC:30:THR:O	36:CC:34:GLN:OE1	2.37	0.42
45:CM:30:G:C6	45:CM:595:G:C6	3.08	0.42
45:CM:598:U:P	69:DK:108:GLY:HA2	2.60	0.42
45:CM:670:C:H3'	45:CM:671:G:C4'	2.50	0.42
45:CM:761:G:O6	70:DL:11:LYS:HE2	2.20	0.42
46:CN:83:GLN:HA	46:CN:86:VAL:HG22	2.02	0.42
50:CR:168:LYS:HG2	50:CR:169:ILE:H	1.85	0.42
51:CS:29:ILE:HG12	51:CS:34:GLN:HG3	2.02	0.42
53:CU:58:VAL:HG22	53:CU:66:TYR:HE2	1.85	0.42
61:DC:108:LYS:N	61:DC:111:MET:HE2	2.27	0.42
62:DD:81:ARG:HA	62:DD:84:ILE:HG12	2.01	0.42
1:1:1382:A:H5''	6:l:142:ARG:NH2	2.35	0.41
1:1:2499:U:H5'	4:j:31:THR:HG21	2.02	0.41
1:1:3234:U:H4'	1:1:3235:A:O5'	2.19	0.41
4:j:117:GLU:HB2	4:j:162:ALA:HB1	2.01	0.41
9:o:124:LEU:HD23	9:o:124:LEU:HA	1.84	0.41
10:p:219:ILE:HD12	10:p:219:ILE:C	2.45	0.41
12:r:193:ASP:OD2	12:r:198:LYS:HE3	2.20	0.41
14:t:8:PRO:HD3	19:y:164:ARG:HB3	2.02	0.41
15:u:24:LYS:HE3	15:u:24:LYS:HB2	1.66	0.41
17:w:86:ARG:HE	17:w:86:ARG:HB3	1.53	0.41
21:0:9:VAL:HG22	21:0:61:VAL:HG22	2.02	0.41
26:8:100:LYS:O	26:8:104:ASP:HA	2.20	0.41
28:AA:31:GLU:OE1	28:AA:31:GLU:N	2.53	0.41
40:AM:30:ARG:HE	40:AM:30:ARG:HB2	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:404:U:H2'	45:B:405:A:H8	1.85	0.41
45:B:409:C:H2'	45:B:410:A:O4'	2.20	0.41
45:B:672:U:OP2	45:B:672:U:H3'	2.19	0.41
45:B:1486:G:H2'	45:B:1487:C:H6	1.85	0.41
50:G:163:ASP:C	50:G:165:ALA:H	2.27	0.41
51:H:57:SER:HA	74:e:53:ILE:CG1	2.46	0.41
54:K:39:GLY:O	54:K:61:GLU:HG2	2.20	0.41
57:N:129:ARG:O	57:N:131:ILE:HG23	2.20	0.41
66:W:105:ILE:HG23	66:W:106:THR:HG23	2.02	0.41
78:AR:259:ILE:HD11	78:AR:268:LEU:HD23	2.01	0.41
78:AR:298:LEU:HB3	78:AR:310:TRP:HB2	2.01	0.41
1:AS:48:A:C4	1:AS:279:U:H4'	2.55	0.41
1:AS:263:C:H2'	1:AS:264:G:O4'	2.20	0.41
1:AS:377:A:H1'	1:AS:392:G:N2	2.35	0.41
1:AS:398:A:H5'	18:BK:3:ARG:NH1	2.29	0.41
1:AS:763:U:C2	1:AS:764:C:C5	3.08	0.41
1:AS:1149:A:O2'	1:AS:1150:A:H5'	2.20	0.41
1:AS:1336:G:H2'	1:AS:1337:U:H6	1.85	0.41
1:AS:1338:G:H2'	1:AS:1339:A:O4'	2.20	0.41
1:AS:1753:G:OP1	23:BP:97:ARG:NH2	2.53	0.41
1:AS:1756:A:N7	1:AS:1757:A:C5	2.88	0.41
1:AS:2383:C:C4	1:AS:2384:C:C5	3.08	0.41
4:AW:83:TYR:CZ	4:AW:86:GLN:HB2	2.55	0.41
6:AY:139:ARG:HE	6:AY:141:HIS:CD2	2.38	0.41
6:AY:303:ALA:CB	19:BL:39:ARG:HH12	2.32	0.41
9:BB:108:GLN:HG3	9:BB:111:ALA:HB2	2.01	0.41
10:BC:173:LYS:HE3	37:CD:42:ILE:CD1	2.50	0.41
10:BC:180:ILE:N	10:BC:180:ILE:HD12	2.35	0.41
16:BI:144:ARG:HE	16:BI:144:ARG:HB3	1.32	0.41
16:BI:154:PRO:CB	16:BI:157:LYS:HE3	2.50	0.41
17:BJ:67:LYS:HA	17:BJ:67:LYS:HD3	1.81	0.41
23:BP:31:GLU:O	23:BP:34:VAL:HG22	2.19	0.41
23:BP:59:GLU:OE1	23:BP:63:LYS:HE2	2.19	0.41
26:BS:102:LEU:HB2	26:BS:103:TYR:CD1	2.54	0.41
39:CF:8:ILE:HG12	39:CF:54:LEU:HD21	2.01	0.41
44:CK:53:GLY:O	44:CK:65:ALA:HA	2.20	0.41
45:CM:69:G:H1	45:CM:82:U:H3	1.68	0.41
45:CM:112:A:O2'	45:CM:113:U:H5'	2.20	0.41
45:CM:362:G:O2'	45:CM:741:A:N6	2.53	0.41
45:CM:597:A:H2'	45:CM:598:U:C6	2.55	0.41
45:CM:770:C:P	45:CM:770:C:O4'	2.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:945:U:H5'	59:DA:55:ARG:CD	2.48	0.41
45:CM:1417:C:O2'	45:CM:1423:U:O4	2.25	0.41
45:CM:1436:U:H2'	45:CM:1437:C:H6	1.84	0.41
45:CM:1445:C:OP1	64:DF:126:ARG:NH2	2.34	0.41
45:CM:1503:A:O2'	45:CM:1504:U:H5'	2.20	0.41
50:CR:42:LEU:HD11	50:CR:46:VAL:HB	2.02	0.41
51:CS:70:VAL:CB	62:DD:46:LYS:NZ	2.72	0.41
52:CT:155:ASP:O	52:CT:156:PHE:HD1	2.02	0.41
59:DA:13:SER:OG	59:DA:14:SER:N	2.52	0.41
60:DB:59:ALA:HA	60:DB:62:VAL:HG12	2.01	0.41
60:DB:96:ALA:O	60:DB:100:LEU:HG	2.19	0.41
60:DB:132:LEU:HD23	60:DB:132:LEU:HA	1.92	0.41
62:DD:53:LEU:HD11	62:DD:111:TYR:CG	2.55	0.41
62:DD:124:GLU:HG2	62:DD:133:ALA:HB1	2.01	0.41
67:DI:25:LYS:HE2	67:DI:25:LYS:HB3	1.57	0.41
73:DO:38:GLN:HB2	73:DO:76:GLY:O	2.20	0.41
1:1:76:A:H5'	14:t:100:ARG:CZ	2.50	0.41
1:1:180:U:H4'	38:AK:75:LYS:CG	2.50	0.41
1:1:225:C:H2'	1:1:226:G:O4'	2.19	0.41
1:1:975:U:H4'	1:1:976:A:O4'	2.20	0.41
1:1:1852:C:C2	1:1:1853:C:C5	3.08	0.41
1:1:2658:A:H2'	1:1:2659:G:O4'	2.19	0.41
1:1:2685:U:OP1	43:AP:9:LYS:HD3	2.20	0.41
1:1:2974:C:OP1	5:k:26:ARG:NH1	2.52	0.41
1:1:2979:U:H2'	1:1:2980:A:H8	1.84	0.41
5:k:25:GLN:HE21	5:k:334:ARG:HD3	1.84	0.41
7:m:110:LEU:HD23	7:m:115:LEU:O	2.20	0.41
7:m:226:TYR:N	7:m:226:TYR:CD1	2.87	0.41
7:m:288:LYS:HA	7:m:288:LYS:HD2	1.81	0.41
17:w:66:ASN:OD1	17:w:68:LYS:HE2	2.20	0.41
19:y:123:THR:OG1	19:y:125:ASP:OD1	2.34	0.41
21:0:14:LEU:HD23	21:0:14:LEU:HA	1.89	0.41
28:AA:40:HIS:CE1	28:AA:74:LEU:HD11	2.55	0.41
32:AE:54:LEU:HA	32:AE:94:PRO:HG3	2.02	0.41
45:B:157:U:C2'	52:I:87:ARG:HH12	2.31	0.41
45:B:584:G:H5'	76:g:21:VAL:HG23	2.02	0.41
45:B:1214:G:OP1	77:h:141:LYS:HA	2.21	0.41
45:B:1237:C:H2'	45:B:1238:U:H6	1.85	0.41
45:B:1414:G:H3'	45:B:1414:G:OP2	2.21	0.41
46:C:53:THR:O	46:C:57:ILE:HD12	2.20	0.41
51:H:53:VAL:HB	51:H:59:VAL:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:L:20:GLU:O	55:L:24:LEU:HD12	2.20	0.41
58:O:62:LEU:HD21	58:O:75:VAL:HG21	2.02	0.41
59:P:43:LYS:HE2	59:P:43:LYS:HB3	1.79	0.41
60:Q:64:ALA:HA	60:Q:67:LYS:HZ2	1.84	0.41
63:T:27:ASP:OD1	63:T:29:GLU:N	2.52	0.41
70:a:18:LEU:HD23	70:a:18:LEU:HA	1.88	0.41
78:AR:10:ARG:HA	78:AR:10:ARG:HD2	1.90	0.41
78:AR:90:LEU:HD23	78:AR:90:LEU:HA	1.83	0.41
1:AS:152:U:H4'	1:AS:157:G:H4'	2.02	0.41
1:AS:314:U:H2'	1:AS:315:C:H6	1.83	0.41
1:AS:391:A:N7	81:AS:3405:PAR:O61	2.52	0.41
1:AS:495:C:H4'	8:BA:79:ASN:OD1	2.19	0.41
1:AS:593:G:H2'	1:AS:594:C:H6	1.85	0.41
1:AS:796:G:C2	1:AS:929:A:N6	2.88	0.41
1:AS:1014:G:C6	1:AS:1031:A:C2	3.08	0.41
1:AS:1561:U:H6	1:AS:1561:U:H5''	1.84	0.41
1:AS:1646:G:H4'	4:AW:69:TYR:HD2	1.85	0.41
1:AS:2367:C:H1'	18:BK:69:ARG:CZ	2.50	0.41
1:AS:2745:C:C2	1:AS:2746:C:C5	3.08	0.41
1:AS:2806:G:C4	1:AS:2807:U:C5	3.08	0.41
1:AS:3182:C:O4'	1:AS:3231:G:N2	2.53	0.41
3:AU:35:C:O3'	38:CE:66:TYR:HE2	2.02	0.41
6:AY:180:VAL:O	6:AY:184:LYS:HG2	2.19	0.41
6:AY:363:ASN:OD1	22:BO:150:THR:OG1	2.30	0.41
10:BC:68:LEU:HG	10:BC:68:LEU:H	1.76	0.41
10:BC:246:LYS:HZ1	10:BC:250:LYS:NZ	2.18	0.41
11:BD:23:ARG:NH1	11:BD:41:ILE:O	2.54	0.41
11:BD:129:HIS:ND1	11:BD:157:ASN:ND2	2.68	0.41
14:BG:142:ASP:O	14:BG:146:THR:OG1	2.28	0.41
16:BI:122:ASN:OD1	16:BI:123:GLN:N	2.48	0.41
18:BK:113:VAL:HG22	18:BK:151:THR:O	2.20	0.41
18:BK:177:ALA:O	18:BK:181:ARG:HG3	2.20	0.41
21:BN:66:GLU:OE2	21:BN:73:LYS:HE2	2.20	0.41
35:CB:93:PHE:CE1	35:CB:97:GLU:HG3	2.54	0.41
37:CD:66:LYS:HG2	37:CD:70:LYS:HE2	2.02	0.41
45:CM:224:A:H3'	45:CM:225:U:C6	2.55	0.41
45:CM:696:U:OP1	45:CM:696:U:C6	2.67	0.41
45:CM:857:G:H2'	45:CM:858:U:O4'	2.20	0.41
45:CM:1168:A:O2'	45:CM:1169:A:OP1	2.35	0.41
45:CM:1378:U:H2'	45:CM:1379:C:C6	2.54	0.41
45:CM:1413:A:H5''	79:CL:90:ARG:HE	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:1552:C:H5''	64:DF:41:ARG:HG2	2.03	0.41
45:CM:1697:C:H2'	45:CM:1698:U:C2	2.55	0.41
49:CQ:27:THR:HA	49:CQ:35:TYR:HD2	1.85	0.41
52:CT:7:TYR:HD1	52:CT:113:ILE:HB	1.84	0.41
52:CT:10:ASN:HB3	52:CT:128:THR:HA	2.01	0.41
53:CU:4:LYS:NZ	53:CU:35:ARG:O	2.53	0.41
56:CX:25:LYS:O	56:CX:25:LYS:HD3	2.19	0.41
61:DC:34:THR:HA	61:DC:37:CYS:SG	2.60	0.41
63:DE:101:GLU:O	63:DE:122:VAL:HG12	2.20	0.41
68:DJ:87:GLU:H	68:DJ:87:GLU:CD	2.25	0.41
79:i:91:HIS:ND1	79:i:91:HIS:N	2.68	0.41
79:CL:82:LYS:CG	79:CL:83:HIS:N	2.83	0.41
1:1:1058:A:H4'	22:2:105:PHE:CE1	2.56	0.41
1:1:1459:U:H2'	1:1:1460:G:O4'	2.20	0.41
1:1:1545:U:H2'	1:1:1546:C:C6	2.55	0.41
1:1:1579:A:H2'	1:1:1580:U:O4'	2.20	0.41
5:k:218:ILE:HD13	5:k:218:ILE:HA	1.92	0.41
17:w:76:ALA:HB1	17:w:107:GLU:OE2	2.20	0.41
19:y:147:ARG:O	19:y:150:VAL:HG22	2.20	0.41
36:AI:21:LEU:HD13	36:AI:54:VAL:CG1	2.50	0.41
45:B:231:C:H4'	45:B:232:G:C2	2.56	0.41
45:B:426:A:H2'	45:B:427:G:O4'	2.20	0.41
45:B:551:G:OP2	45:B:552:C:O2'	2.33	0.41
45:B:612:C:OP1	69:Z:3:LYS:HE2	2.20	0.41
45:B:649:G:C8	45:B:681:C:N4	2.88	0.41
45:B:876:A:H2'	45:B:877:G:C8	2.54	0.41
45:B:1351:U:OP1	62:S:65:ARG:HD3	2.20	0.41
45:B:1389:U:H2'	45:B:1390:C:C6	2.54	0.41
45:B:1603:G:H4'	74:e:18:ARG:HE	1.84	0.41
47:D:31:ASP:O	47:D:95:ASN:HA	2.21	0.41
47:D:111:ARG:NH2	47:D:114:VAL:HG21	2.35	0.41
50:G:112:HIS:NE2	50:G:238:SER:O	2.51	0.41
51:H:31:LEU:HD22	51:H:31:LEU:H	1.85	0.41
51:H:163:SER:HB3	74:e:48:VAL:CG2	2.50	0.41
52:I:3:LEU:HB3	52:I:5:ILE:CD1	2.48	0.41
53:J:33:GLU:C	53:J:36:PRO:HD2	2.45	0.41
55:L:118:LEU:H	55:L:118:LEU:HD12	1.85	0.41
55:L:158:PHE:CD1	55:L:164:TYR:HB2	2.56	0.41
66:W:79:ASP:OD2	75:f:44:ARG:NE	2.53	0.41
67:X:38:LYS:C	67:X:46:ILE:HD12	2.46	0.41
69:Z:62:LYS:HE2	69:Z:118:PRO:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:f:23:HIS:HB3	75:f:42:CYS:SG	2.59	0.41
78:AR:151:TRP:C	78:AR:170:SER:HG	2.23	0.41
78:AR:167:ILE:HD13	78:AR:167:ILE:HG21	1.80	0.41
78:AR:246:ARG:HB3	78:AR:248:TRP:CD1	2.55	0.41
1:AS:196:G:H2'	1:AS:197:A:C8	2.55	0.41
1:AS:538:G:C2	1:AS:539:G:C6	3.08	0.41
1:AS:946:G:N7	1:AS:1363:G:C6	2.89	0.41
1:AS:988:A:O2'	1:AS:989:G:H5'	2.20	0.41
1:AS:1756:A:C6	1:AS:1762:G:C4	3.08	0.41
1:AS:2182:C:H5''	4:AW:241:ARG:NH1	2.36	0.41
1:AS:2408:A:H2'	1:AS:2409:C:H6	1.84	0.41
3:AU:5:U:H2'	3:AU:6:U:C6	2.56	0.41
5:AX:24:LYS:HE2	5:AX:28:ARG:HH12	1.84	0.41
6:AY:113:LYS:HG3	16:BI:202:TYR:HB3	2.03	0.41
6:AY:301:ARG:HD3	6:AY:302:PRO:HD2	2.03	0.41
13:BF:84:LEU:HD21	13:BF:163:PHE:HE1	1.85	0.41
17:BJ:160:LYS:O	17:BJ:163:VAL:HG12	2.21	0.41
19:BL:26:LEU:HD12	19:BL:29:LEU:HD12	2.01	0.41
24:BQ:45:ARG:HD3	24:BQ:46:LEU:N	2.35	0.41
32:BY:84:ALA:O	32:BY:85:LYS:HG3	2.20	0.41
33:BZ:34:ARG:HD3	33:BZ:34:ARG:HA	1.86	0.41
40:CG:20:ASN:ND2	40:CG:42:ARG:H	2.08	0.41
45:CM:14:C:H2'	45:CM:15:U:C6	2.55	0.41
45:CM:652:C:C5	45:CM:676:G:N1	2.87	0.41
45:CM:876:A:H2'	45:CM:877:G:C8	2.55	0.41
45:CM:1021:A:C2	68:DJ:12:ASN:OD1	2.74	0.41
45:CM:1070:G:H2'	45:CM:1072:A:OP2	2.20	0.41
45:CM:1242:U:O4'	56:CX:8:ARG:NH2	2.54	0.41
45:CM:1277:G:H2'	45:CM:1278:U:C6	2.56	0.41
45:CM:1741:A:H8	45:CM:1741:A:OP2	2.03	0.41
45:CM:1774:C:H2'	45:CM:1775:G:H8	1.85	0.41
49:CQ:157:PHE:CE2	49:CQ:190:MET:HE1	2.45	0.41
51:CS:159:ALA:O	74:DP:61:ARG:NH2	2.40	0.41
57:CY:77:SER:HB3	57:CY:85:ILE:HB	2.02	0.41
63:DE:84:TYR:CD1	63:DE:84:TYR:C	2.99	0.41
1:1:149:A:C4	1:1:150:A:C8	3.09	0.41
1:1:229:C:H2'	1:1:230:G:O4'	2.21	0.41
1:1:288:C:OP1	16:v:170:LYS:NZ	2.53	0.41
1:1:912:G:H5'	1:1:913:A:OP1	2.20	0.41
1:1:2492:U:OP2	1:1:2558:G:N2	2.53	0.41
1:1:3167:G:C6	1:1:3168:U:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:85:G:O3'	9:o:215:ARG:NH2	2.54	0.41
5:k:117:ARG:NH1	5:k:175:LYS:HD3	2.35	0.41
11:q:84:LYS:HG2	11:q:188:VAL:CG2	2.50	0.41
23:5:22:PRO:HB3	23:5:96:ILE:HD11	2.02	0.41
23:5:51:GLY:C	23:5:53:ASP:H	2.28	0.41
30:AC:11:ASN:O	30:AC:15:LYS:HG3	2.20	0.41
32:AE:30:LYS:HA	32:AE:30:LYS:HD3	1.76	0.41
36:AI:70:TYR:HA	36:AI:73:LYS:HG3	2.02	0.41
45:B:236:U:H1'	45:B:237:C:C5	2.55	0.41
45:B:1237:C:O2'	77:h:184:GLY:N	2.50	0.41
45:B:1238:U:H2'	45:B:1239:U:C6	2.56	0.41
45:B:1580:A:O2'	45:B:1581:G:H5'	2.19	0.41
50:G:207:LEU:HD13	50:G:219:VAL:HG11	2.02	0.41
52:I:76:LEU:HB2	52:I:94:ARG:NH1	2.35	0.41
53:J:45:ILE:HD12	53:J:46:ASP:H	1.86	0.41
55:L:12:TYR:CE2	55:L:40:ARG:HD3	2.56	0.41
62:S:39:GLN:HG2	65:V:12:GLN:NE2	2.35	0.41
67:X:3:ASN:HD21	67:X:7:GLN:NE2	2.18	0.41
77:h:158:ARG:HH21	77:h:162:GLU:CD	2.28	0.41
1:AS:182:G:C5	1:AS:233:G:C6	3.09	0.41
1:AS:1158:U:H5'	33:BZ:55:ASN:OD1	2.20	0.41
1:AS:1690:U:O2'	1:AS:1691:U:H5'	2.20	0.41
1:AS:1735:U:H1'	35:CB:41:ARG:HE	1.85	0.41
1:AS:1762:G:O2'	1:AS:1763:C:OP1	2.31	0.41
1:AS:2700:G:N7	22:BO:87:LYS:NZ	2.67	0.41
1:AS:2738:U:H2'	1:AS:2739:U:C6	2.56	0.41
1:AS:2786:G:OP1	6:AY:74:ARG:NH1	2.42	0.41
1:AS:2902:A:H2'	1:AS:2903:C:H6	1.85	0.41
1:AS:3223:U:O2'	1:AS:3225:G:OP1	2.29	0.41
1:AS:3310:G:H2'	1:AS:3311:U:C6	2.55	0.41
3:AU:72:A:OP1	27:BT:52:GLN:N	2.54	0.41
5:AX:24:LYS:HE2	5:AX:28:ARG:NH2	2.34	0.41
5:AX:217:VAL:HG12	5:AX:338:LEU:HD23	2.01	0.41
7:AZ:205:ALA:O	7:AZ:209:GLU:HG2	2.20	0.41
8:BA:64:VAL:O	8:BA:75:LEU:HA	2.21	0.41
9:BB:206:SER:OG	9:BB:207:ASN:N	2.54	0.41
10:BC:158:VAL:HG23	10:BC:161:ILE:HA	2.02	0.41
10:BC:232:LYS:HD2	10:BC:232:LYS:O	2.19	0.41
10:BC:244:ASN:HA	10:BC:247:ILE:HG22	2.02	0.41
12:BE:49:CYS:HB3	12:BE:168:SER:HB3	2.02	0.41
12:BE:53:VAL:HG21	12:BE:166:ILE:HD12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BF:90:GLN:CD	13:BF:172:LEU:HD11	2.46	0.41
19:BL:31:LYS:HD2	19:BL:31:LYS:HA	1.73	0.41
22:BO:42:ILE:HD12	22:BO:76:ILE:HD11	2.02	0.41
27:BT:84:LYS:N	27:BT:85:LEU:HD22	2.34	0.41
36:CC:31:LEU:HD22	36:CC:41:LEU:HD11	2.02	0.41
39:CF:22:SER:OG	39:CF:23:ALA:N	2.51	0.41
44:CK:3:LYS:HA	44:CK:3:LYS:HD3	1.82	0.41
45:CM:158:C:N4	70:DL:128:ARG:HH12	2.19	0.41
45:CM:182:C:H2'	45:CM:183:C:H6	1.85	0.41
45:CM:653:G:O2'	45:CM:655:U:C4	2.74	0.41
45:CM:690:C:H4'	45:CM:691:U:OP1	2.20	0.41
45:CM:871:U:C2	45:CM:872:A:C8	3.08	0.41
45:CM:1156:A:C2	45:CM:1157:G:C5	3.08	0.41
45:CM:1532:A:P	64:DF:134:ARG:HG3	2.60	0.41
45:CM:1612:C:H2'	45:CM:1613:U:H6	1.86	0.41
50:CR:180:LEU:HD12	50:CR:193:GLY:O	2.20	0.41
51:CS:127:GLN:CD	51:CS:128:ASN:H	2.29	0.41
52:CT:223:ARG:HA	52:CT:223:ARG:NE	2.35	0.41
55:CW:54:ARG:HG2	55:CW:54:ARG:HH11	1.85	0.41
56:CX:18:GLU:H	56:CX:89:LEU:H	1.68	0.41
75:DQ:17:GLY:HA2	75:DQ:27:HIS:ND1	2.36	0.41
1:1:178:U:H2'	1:1:179:C:H6	1.86	0.41
1:1:269:G:H5'	16:v:120:TRP:CE3	2.56	0.41
1:1:796:G:C2	1:1:929:A:N6	2.88	0.41
1:1:1149:A:HO2'	1:1:1150:A:H5'	1.86	0.41
1:1:1496:G:H2'	1:1:1497:U:O4'	2.20	0.41
1:1:1571:G:H2'	1:1:1572:G:C8	2.55	0.41
1:1:1606:G:H2'	1:1:1607:G:O4'	2.21	0.41
1:1:1627:C:H5''	1:1:1628:A:H5''	2.02	0.41
1:1:1760:U:C5	1:1:1761:U:H1'	2.54	0.41
1:1:2551:G:OP2	1:1:2552:A:O2'	2.29	0.41
1:1:3319:U:H5''	1:1:3320:U:C6	2.55	0.41
81:1:3403:PAR:H43	81:1:3403:PAR:H14	1.17	0.41
81:1:3406:PAR:H43	81:1:3406:PAR:H14	1.71	0.41
81:1:3422:PAR:H241	81:1:3422:PAR:HO23	1.63	0.41
5:k:188:VAL:O	5:k:192:VAL:HG23	2.20	0.41
6:l:299:VAL:HG21	19:y:133:LYS:HG3	2.01	0.41
7:m:188:GLU:H	7:m:188:GLU:HG3	1.68	0.41
10:p:137:LEU:HD21	10:p:163:LEU:HB3	2.01	0.41
19:y:112:ASP:O	19:y:116:LYS:HB2	2.21	0.41
23:5:30:GLN:NE2	23:5:62:ASN:HA	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:5:94:ASP:OD1	23:5:94:ASP:N	2.52	0.41
27:9:82:VAL:HG12	27:9:83:ASP:N	2.35	0.41
29:AB:14:ASN:OD1	29:AB:14:ASN:N	2.53	0.41
29:AB:78:LEU:HD12	29:AB:78:LEU:HA	1.92	0.41
45:B:484:G:H2'	45:B:485:G:C8	2.55	0.41
45:B:566:G:OP1	69:Z:91:GLY:N	2.46	0.41
45:B:1164:G:OP1	79:i:82:LYS:HE3	2.20	0.41
45:B:1397:A:OP2	62:S:113:LYS:NZ	2.52	0.41
45:B:1712:U:H2'	45:B:1713:G:C8	2.56	0.41
48:E:111:LYS:HA	48:E:111:LYS:HD2	1.38	0.41
48:E:173:ILE:HG12	48:E:183:MET:HB2	2.02	0.41
48:E:175:ALA:HB1	48:E:179:VAL:CG1	2.47	0.41
49:F:201:ARG:HG2	49:F:201:ARG:NH1	2.35	0.41
51:H:157:ARG:HD3	51:H:157:ARG:N	2.25	0.41
51:H:187:ILE:HD13	71:b:66:VAL:HG11	2.02	0.41
53:J:88:PHE:O	53:J:89:LEU:HD13	2.20	0.41
57:N:4:GLU:HG2	57:N:81:HIS:NE2	2.36	0.41
62:S:30:ILE:CG1	62:S:35:ILE:HG22	2.50	0.41
63:T:10:LYS:HG2	63:T:53:TYR:CE2	2.56	0.41
78:AR:9:LEU:HD12	78:AR:309:VAL:O	2.21	0.41
1:AS:243:G:O3'	14:BG:132:ALA:HB2	2.20	0.41
1:AS:555:A:O2'	1:AS:556:U:H2'	2.21	0.41
1:AS:798:C:H2'	1:AS:799:C:H6	1.86	0.41
1:AS:2354:G:C6	1:AS:2355:G:C6	3.08	0.41
1:AS:2528:U:C4	10:BC:37:ILE:HB	2.55	0.41
1:AS:2936:G:N2	1:AS:2939:A:OP2	2.43	0.41
6:AY:40:PHE:CD2	6:AY:243:ALA:HB2	2.56	0.41
6:AY:51:TYR:HE2	6:AY:108:ARG:NH2	2.18	0.41
10:BC:102:THR:CG2	10:BC:105:GLU:H	2.33	0.41
10:BC:173:LYS:HG3	10:BC:174:MET:CE	2.49	0.41
14:BG:132:ALA:HA	14:BG:135:VAL:CG2	2.48	0.41
15:BH:87:TRP:CE2	15:BH:93:ALA:HB2	2.55	0.41
16:BI:35:VAL:O	16:BI:64:ILE:HA	2.19	0.41
18:BK:14:SER:HA	18:BK:150:LEU:O	2.21	0.41
24:BQ:87:ARG:HH22	24:BQ:137:VAL:C	2.27	0.41
26:BS:112:THR:OG1	26:BS:113:LEU:N	2.50	0.41
28:BU:23:VAL:HB	28:BU:43:VAL:HB	2.02	0.41
38:CE:15:SER:O	38:CE:29:VAL:HG12	2.20	0.41
45:CM:66:U:H5''	52:CT:172:ALA:O	2.20	0.41
45:CM:121:U:H1'	50:CR:33:ALA:HB3	2.03	0.41
45:CM:188:U:H2'	45:CM:189:G:H8	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:286:A:H2'	45:CM:287:U:O4'	2.20	0.41
45:CM:917:U:OP2	47:CO:117:TRP:N	2.46	0.41
45:CM:1376:U:P	63:DE:49:LYS:NZ	2.93	0.41
47:CO:70:LEU:HD12	47:CO:79:HIS:HB2	2.02	0.41
48:CP:115:GLU:OE2	49:CQ:125:ARG:NH2	2.54	0.41
51:CS:29:ILE:HD11	51:CS:33:VAL:HG13	2.03	0.41
54:CV:41:LYS:HA	54:CV:59:ARG:O	2.20	0.41
58:CZ:60:CYS:HB3	58:CZ:88:LEU:CD2	2.51	0.41
61:DC:64:ARG:HD3	61:DC:64:ARG:HA	1.87	0.41
64:DF:57:ARG:HD2	71:DM:40:VAL:HG22	2.02	0.41
64:DF:70:VAL:HG22	64:DF:74:GLN:OE1	2.19	0.41
71:DM:65:LEU:HB3	71:DM:71:ILE:HD11	2.02	0.41
75:DQ:15:GLY:O	75:DQ:18:SER:HB2	2.20	0.41
79:i:58:THR:CB	79:i:61:GLU:HB2	2.50	0.41
1:1:348:A:H4'	1:1:367:A:N6	2.35	0.41
1:1:870:U:H5''	1:1:2922:G:OP1	2.21	0.41
1:1:1491:U:C5	1:1:1831:A:N1	2.86	0.41
1:1:3264:C:H2'	1:1:3265:U:C6	2.56	0.41
81:1:3406:PAR:H322	81:1:3406:PAR:H51	1.86	0.41
8:n:50:ARG:O	8:n:71:ASN:ND2	2.50	0.41
13:s:171:VAL:O	13:s:171:VAL:HG23	2.20	0.41
14:t:56:PRO:HG3	14:t:74:GLY:O	2.20	0.41
18:x:13:LYS:C	18:x:107:LEU:HD21	2.45	0.41
18:x:166:ILE:HD12	34:AG:61:GLY:N	2.35	0.41
21:0:79:LEU:HD13	21:0:110:LEU:HD21	2.01	0.41
24:6:135:VAL:HG11	25:7:26:SER:HB3	2.01	0.41
31:AD:26:THR:HB	31:AD:31:SER:HB2	2.02	0.41
36:AI:7:PHE:CZ	27:BT:127:GLU:HA	2.55	0.41
45:B:327:G:H2'	45:B:328:G:H8	1.86	0.41
45:B:590:A:OP1	55:L:39:LYS:HG3	2.20	0.41
45:B:647:C:H2'	45:B:648:U:O4'	2.19	0.41
45:B:1102:U:H2'	45:B:1103:G:H8	1.85	0.41
45:B:1254:U:H5'	45:B:1418:U:OP2	2.21	0.41
46:C:50:ILE:HA	46:C:53:THR:OG1	2.20	0.41
46:C:183:ARG:HH11	46:C:191:ARG:HA	1.85	0.41
49:F:46:LYS:HD2	49:F:46:LYS:HA	1.82	0.41
50:G:101:LEU:HB3	50:G:109:PHE:CE1	2.55	0.41
51:H:189:THR:OG1	51:H:192:GLU:HG2	2.21	0.41
56:M:80:LEU:HB3	56:M:82:ILE:HG23	2.01	0.41
62:S:27:LEU:HB3	62:S:63:ASP:CB	2.48	0.41
62:S:44:ARG:HG2	62:S:44:ARG:HH11	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:V:108:LEU:HB3	65:V:114:LEU:CD2	2.50	0.41
78:AR:249:LEU:O	78:AR:259:ILE:HA	2.21	0.41
1:AS:48:A:C2	1:AS:279:U:H4'	2.56	0.41
1:AS:169:G:H5''	36:CC:109:ILE:HG21	2.01	0.41
1:AS:188:G:C6	1:AS:205:G:C5	3.09	0.41
1:AS:1210:U:H2'	1:AS:1211:U:C6	2.55	0.41
1:AS:1949:G:C6	1:AS:2070:A:H2'	2.56	0.41
1:AS:2293:G:C2	1:AS:2294:G:N7	2.88	0.41
1:AS:2515:G:H1'	1:AS:2516:U:O4'	2.21	0.41
2:AT:24:A:H2'	2:AT:25:G:C8	2.55	0.41
4:AW:109:GLU:CG	4:AW:138:GLY:HA2	2.47	0.41
10:BC:178:TYR:CD1	10:BC:224:ILE:HG13	2.56	0.41
14:BG:106:GLN:NE2	14:BG:110:ASP:OD2	2.53	0.41
17:BJ:9:VAL:HG12	17:BJ:118:ARG:HG3	2.02	0.41
18:BK:47:TYR:CE1	18:BK:56:ARG:NE	2.89	0.41
18:BK:48:LEU:O	18:BK:51:VAL:HG12	2.21	0.41
27:BT:39:LEU:HD22	27:BT:106:ILE:O	2.20	0.41
28:BU:27:LYS:HZ1	28:BU:42:ILE:HG13	1.86	0.41
28:BU:83:THR:HG22	35:CB:93:PHE:CZ	2.56	0.41
30:BW:20:GLY:HA3	30:BW:21:ILE:HA	1.71	0.41
36:CC:119:LYS:HG2	36:CC:119:LYS:O	2.20	0.41
39:CF:20:ILE:HD12	39:CF:45:VAL:HG12	2.02	0.41
45:CM:561:U:C5	45:CM:578:A:N7	2.89	0.41
45:CM:672:U:O3'	45:CM:673:A:C8	2.74	0.41
45:CM:674:C:N4	45:CM:675:U:H1'	2.35	0.41
45:CM:1137:A:O3'	72:DN:85:ARG:NH1	2.35	0.41
45:CM:1244:U:C2	45:CM:1245:U:C5	3.09	0.41
45:CM:1318:C:H2'	45:CM:1319:U:C6	2.55	0.41
45:CM:1639:C:H2'	45:CM:1640:C:C6	2.56	0.41
45:CM:1663:U:H2'	45:CM:1664:C:C6	2.55	0.41
45:CM:1700:G:H5'	45:CM:1701:A:OP2	2.21	0.41
46:CN:54:TRP:HA	46:CN:57:ILE:CD1	2.51	0.41
47:CO:50:ARG:CZ	47:CO:50:ARG:HB3	2.51	0.41
47:CO:187:LYS:O	47:CO:192:VAL:HG23	2.20	0.41
49:CQ:77:ARG:HB2	56:CX:22:VAL:HG11	2.02	0.41
51:CS:177:ILE:HD11	51:CS:209:TYR:CE1	2.56	0.41
51:CS:209:TYR:O	51:CS:210:ALA:HB3	2.21	0.41
52:CT:27:PHE:HB3	52:CT:102:VAL:HG11	2.02	0.41
54:CV:144:LYS:HE2	54:CV:144:LYS:HB2	1.84	0.41
58:CZ:82:PRO:HG3	58:CZ:85:LYS:HA	2.03	0.41
60:DB:76:ILE:HD12	60:DB:76:ILE:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:DE:89:SER:C	63:DE:91:LEU:N	2.79	0.41
69:DK:71:CYS:HA	69:DK:87:VAL:HG23	2.02	0.41
79:i:76:PRO:HB2	79:i:77:GLN:H	1.44	0.41
79:CL:129:LEU:O	79:CL:133:ALA:N	2.49	0.41
1:1:263:C:H2'	1:1:264:G:O4'	2.20	0.41
1:1:504:G:OP2	9:o:209:ASN:ND2	2.51	0.41
1:1:1099:A:N3	1:1:1099:A:H2'	2.35	0.41
1:1:1469:G:OP2	20:z:8:LYS:NZ	2.49	0.41
1:1:2085:A:C2	1:1:3309:A:C8	3.09	0.41
1:1:2197:A:H2'	1:1:2198:A:C8	2.56	0.41
1:1:2621:G:H4'	1:1:2668:A:O4'	2.21	0.41
1:1:3046:G:H4'	32:AE:61:ARG:HE	1.85	0.41
1:1:3162:U:H4'	1:1:3162:U:OP1	2.21	0.41
3:4:149:A:H2'	3:4:150:G:C8	2.56	0.41
7:m:144:VAL:CG2	7:m:173:VAL:HG22	2.49	0.41
7:m:260:PHE:HB2	7:m:265:TYR:CE2	2.56	0.41
10:p:28:PHE:CE1	28:AA:55:LYS:HA	2.56	0.41
17:w:173:LYS:HA	17:w:176:THR:OG1	2.21	0.41
20:z:23:TRP:CE3	20:z:51:VAL:HG23	2.56	0.41
21:0:13:ASN:HB2	21:0:22:PRO:HB3	2.03	0.41
29:AB:75:LEU:HG	29:AB:114:GLY:HA2	2.03	0.41
34:AG:53:TYR:CE1	34:AG:67:ILE:HG13	2.56	0.41
45:B:4:C:H4'	48:E:176:SER:CB	2.51	0.41
45:B:167:A:H8	45:B:167:A:OP2	2.03	0.41
45:B:215:A:H8	45:B:215:A:O5'	2.03	0.41
45:B:938:G:H2'	45:B:939:G:C8	2.56	0.41
45:B:963:A:H2'	45:B:964:A:O4'	2.20	0.41
47:D:30:PHE:CB	47:D:96:LEU:HD11	2.51	0.41
48:E:45:ILE:HD13	48:E:45:ILE:HG21	1.73	0.41
49:F:56:THR:HA	49:F:59:VAL:CG2	2.51	0.41
51:H:63:GLN:HE22	51:H:66:ASN:HB2	1.85	0.41
55:L:14:VAL:HG12	55:L:15:PRO:HD2	2.02	0.41
56:M:54:TYR:C	56:M:69:THR:HG22	2.45	0.41
57:N:4:GLU:O	57:N:6:THR:N	2.54	0.41
60:Q:44:LYS:HA	60:Q:44:LYS:HD3	1.92	0.41
62:S:100:SER:O	62:S:104:LEU:HD12	2.20	0.41
1:AS:27:C:C2	1:AS:56:A:C6	3.09	0.41
1:AS:220:A:N6	27:BT:103:LYS:NZ	2.69	0.41
1:AS:414:U:H2'	1:AS:415:G:C8	2.55	0.41
1:AS:538:G:O2'	1:AS:539:G:OP1	2.32	0.41
1:AS:728:C:P	19:BL:136:ASN:H	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1213:A:H2'	1:AS:1214:U:H6	1.86	0.41
1:AS:1410:G:C6	1:AS:1411:U:C4	3.09	0.41
1:AS:1493:C:C2	1:AS:1516:G:N2	2.89	0.41
1:AS:1586:G:C2	1:AS:1587:G:C8	3.09	0.41
1:AS:1647:U:OP2	4:AW:70[A]:LYS:NZ	2.50	0.41
1:AS:2197:A:H2'	1:AS:2198:A:H8	1.85	0.41
1:AS:2938:G:OP1	4:AW:218:HIS:HE1	2.02	0.41
1:AS:3108:G:C5	1:AS:3109:C:C5	3.08	0.41
1:AS:3135:A:H2'	1:AS:3136:C:H6	1.84	0.41
2:AT:24:A:H2'	2:AT:25:G:O4'	2.20	0.41
2:AT:61:C:H2'	2:AT:62:U:H6	1.86	0.41
7:AZ:110:LEU:HA	7:AZ:113:LEU:HD12	2.02	0.41
14:BG:158:LEU:HD23	29:BV:99:ALA:C	2.46	0.41
15:BH:127:ALA:O	15:BH:130:LYS:HE3	2.21	0.41
22:BO:75:ILE:HD13	22:BO:88:ARG:HD2	2.02	0.41
23:BP:30:GLN:O	23:BP:34:VAL:HG13	2.20	0.41
29:BV:103:ASP:HA	29:BV:126:LYS:CG	2.50	0.41
36:CC:63:ARG:HH21	36:CC:79:ASP:CG	2.29	0.41
45:CM:29:U:H2'	45:CM:30:G:C8	2.56	0.41
45:CM:68:A:N6	52:CT:132:ARG:HG2	2.35	0.41
45:CM:165:U:H4'	52:CT:134:GLY:O	2.20	0.41
45:CM:707:C:N4	45:CM:715:G:H2'	2.36	0.41
45:CM:765:U:H5''	70:DL:9:THR:O	2.20	0.41
45:CM:932:U:P	47:CO:165:ARG:HH11	2.44	0.41
45:CM:1205:C:H5'	56:CX:51:SER:HB3	2.02	0.41
45:CM:1312:C:C2	45:CM:1313:G:C8	3.09	0.41
45:CM:1425:C:H2'	45:CM:1426:C:H6	1.86	0.41
47:CO:48:ILE:CG1	47:CO:49:ASN:N	2.83	0.41
47:CO:81:TYR:CD1	47:CO:82:ARG:HG3	2.56	0.41
47:CO:175:GLU:HA	47:CO:175:GLU:OE2	2.20	0.41
47:CO:229:LEU:HD12	47:CO:229:LEU:HA	1.75	0.41
49:CQ:52:LYS:HD2	49:CQ:92:VAL:HG13	2.03	0.41
49:CQ:91:ARG:NH2	49:CQ:93:GLU:CD	2.78	0.41
50:CR:121:TYR:CD2	50:CR:161:LYS:HE2	2.55	0.41
50:CR:181:VAL:HG12	50:CR:227:VAL:HA	2.03	0.41
51:CS:214:LYS:HD3	51:CS:218:GLU:OE2	2.21	0.41
51:CS:216:GLU:HA	51:CS:219:ARG:HB2	2.02	0.41
53:CU:30:LEU:HD13	53:CU:72:ARG:HG2	2.02	0.41
60:DB:100:LEU:HD23	60:DB:100:LEU:HA	1.59	0.41
69:DK:6:PRO:HG3	69:DK:14:LYS:HG2	2.02	0.41
72:DN:67:LEU:HD23	72:DN:67:LEU:HA	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:209:C:C2	1:1:229:C:H4'	2.56	0.41
1:1:716:G:O2'	1:1:717:A:OP1	2.31	0.41
1:1:728:C:H5'	19:y:136:ASN:HA	2.02	0.41
1:1:815:U:H2'	1:1:816:A:C8	2.55	0.41
1:1:1777:C:H2'	1:1:1778:U:C6	2.55	0.41
1:1:2115:U:C6	1:1:2119:U:C4	3.09	0.41
1:1:2333:G:OP1	18:x:141:SER:HB3	2.20	0.41
1:1:2571:U:H2'	1:1:2572:C:C6	2.55	0.41
1:1:2745:C:C2	1:1:2746:C:C5	3.08	0.41
1:1:2766:G:C4	80:1:3401:3K5:H1	2.56	0.41
1:1:2927:U:H2'	1:1:2928:A:O4'	2.21	0.41
2:3:13:A:H2	7:m:21:ARG:HB3	1.86	0.41
2:3:91:G:H2'	2:3:92:A:C8	2.56	0.41
3:4:70:G:C2	3:4:87:G:C4	3.09	0.41
6:l:40:PHE:CD1	6:l:243:ALA:HB2	2.56	0.41
9:o:78:GLN:OE1	22:2:136:ARG:HG2	2.19	0.41
15:u:62:LEU:HD22	15:u:65:LEU:HB2	2.03	0.41
16:v:73:ARG:HG2	16:v:75:VAL:HG13	2.03	0.41
21:0:8:GLN:HG3	21:0:26:ARG:HD2	2.02	0.41
40:AM:28:ARG:HA	40:AM:33:ASN:OD1	2.20	0.41
45:B:252:A:H2'	45:B:253:U:H6	1.85	0.41
45:B:827:C:H5''	45:B:828:U:OP2	2.21	0.41
45:B:894:U:H2'	45:B:895:C:C6	2.55	0.41
45:B:1071:A:H2'	45:B:1072:A:C8	2.55	0.41
45:B:1520:C:H4'	45:B:1526:G:C6	2.56	0.41
46:C:62:ARG:NH1	67:X:78:LEU:HD22	2.36	0.41
46:C:124:THR:HG23	46:C:174:TRP:HE1	1.86	0.41
46:C:179:ARG:HH21	46:C:183:ARG:HH22	1.67	0.41
46:C:185:ARG:HA	46:C:185:ARG:HD3	1.91	0.41
47:D:82:ARG:NH2	47:D:191:GLU:OE2	2.53	0.41
51:H:51:VAL:HG12	51:H:131:GLN:HB2	2.01	0.41
53:J:47:VAL:HG23	53:J:167:GLN:HE22	1.85	0.41
53:J:74:THR:HG22	53:J:86:VAL:HG12	2.01	0.41
58:O:68:GLU:O	58:O:70:SER:N	2.54	0.41
64:U:46:VAL:CG1	64:U:69:ILE:HG23	2.50	0.41
78:AR:26:THR:OG1	78:AR:27:PRO:HD2	2.20	0.41
78:AR:136:ASN:N	78:AR:142:MET:HE1	2.36	0.41
1:AS:208:A:O2'	1:AS:210:A:OP2	2.29	0.41
1:AS:269:G:C5	16:BI:14:LYS:HD2	2.55	0.41
1:AS:794:G:H2'	1:AS:795:G:O4'	2.21	0.41
1:AS:976:A:H2	1:AS:1100:G:H21	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:1377:A:H2'	1:AS:1378:G:C8	2.55	0.41
1:AS:1490:U:H1'	1:AS:1492:C:C5	2.56	0.41
1:AS:1561:U:C6	1:AS:1561:U:H5''	2.55	0.41
1:AS:1753:G:C6	1:AS:1765:G:C6	3.09	0.41
1:AS:2191:A:N7	1:AS:2210:A:N6	2.69	0.41
1:AS:2195:U:H2'	1:AS:2196:G:C8	2.56	0.41
1:AS:2299:A:H2'	1:AS:2300:C:O4'	2.20	0.41
1:AS:2376:A:OP1	1:AS:2845:U:H4'	2.21	0.41
1:AS:2395:U:OP2	1:AS:2578:G:O2'	2.34	0.41
1:AS:2544:U:H1'	1:AS:2545:C:H2'	2.02	0.41
1:AS:2871:C:O2	11:BD:173:ARG:NH2	2.54	0.41
1:AS:3150:A:H4'	17:BJ:117:LYS:HA	2.02	0.41
2:AT:103:A:H2'	2:AT:104:A:O4'	2.20	0.41
3:AU:70:G:H5''	27:BT:28:ARG:CZ	2.50	0.41
4:AW:5:ILE:HG13	4:AW:7:ASN:HB3	2.02	0.41
4:AW:103:PRO:HA	4:AW:162:ALA:O	2.21	0.41
5:AX:51:ALA:HB3	5:AX:78:VAL:HG12	2.02	0.41
6:AY:99:ARG:O	6:AY:99:ARG:HG3	2.11	0.41
8:BA:57:LEU:HD11	8:BA:63:LEU:HB2	2.03	0.41
14:BG:98:ASP:OD2	14:BG:101:ARG:HG3	2.21	0.41
17:BJ:125:LEU:HD13	21:BN:168:PRO:HG3	2.01	0.41
24:BQ:11:PHE:H	24:BQ:11:PHE:HD1	1.68	0.41
25:BR:63:ILE:HD12	25:BR:63:ILE:HA	1.94	0.41
27:BT:106:ILE:HG21	27:BT:109:LEU:CD2	2.51	0.41
35:CB:110:ASP:O	35:CB:110:ASP:CG	2.64	0.41
41:CH:50:LYS:HD3	41:CH:50:LYS:HA	1.82	0.41
45:CM:147:C:C2	45:CM:148:C:C5	3.08	0.41
45:CM:158:C:H2'	45:CM:159:U:O4'	2.20	0.41
45:CM:512:G:O2'	45:CM:513:A:H8	2.03	0.41
45:CM:565:A:N3	76:DR:14:VAL:HG11	2.35	0.41
45:CM:747:A:OP1	55:CW:79:ARG:NH1	2.53	0.41
45:CM:794:G:C5	53:CU:107:LYS:HD2	2.55	0.41
45:CM:902:U:C2	45:CM:903:U:C5	3.09	0.41
45:CM:1071:A:H2'	45:CM:1072:A:C8	2.55	0.41
45:CM:1123:A:H2'	45:CM:1124:A:H8	1.85	0.41
45:CM:1508:G:O2'	45:CM:1510:G:OP2	2.30	0.41
45:CM:1682:G:H1'	45:CM:1694:A:N1	2.36	0.41
45:CM:1692:U:H6	45:CM:1692:U:H2'	1.74	0.41
45:CM:1697:C:H2'	45:CM:1698:U:N1	2.35	0.41
49:CQ:34:GLY:O	49:CQ:101:VAL:HG22	2.20	0.41
52:CT:22:HIS:HA	52:CT:25:ARG:NH2	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:DG:15:ILE:CD1	65:DG:60:SER:HA	2.51	0.41
1:1:76:A:N7	14:t:73:ARG:NH2	2.69	0.41
1:1:209:C:O2	6:l:218:LYS:HE2	2.20	0.41
1:1:510:G:O2'	6:l:342:SER:HB3	2.20	0.41
1:1:690:A:O4'	6:l:47:LYS:HG3	2.21	0.41
1:1:728:C:P	19:y:136:ASN:H	2.44	0.41
1:1:846:U:H2'	1:1:847:C:H6	1.86	0.41
1:1:1042:A:H2'	1:1:1045:C:C5	2.55	0.41
1:1:1277:G:H2'	1:1:1278:G:H8	1.86	0.41
1:1:1673:G:H5'	23:5:100:SER:CB	2.51	0.41
1:1:1714:G:H2'	1:1:1715:G:C8	2.56	0.41
1:1:1779:U:H2'	1:1:1780:A:H8	1.82	0.41
1:1:2077:A:O2'	1:1:2078:A:H5'	2.21	0.41
1:1:2079:C:OP2	20:z:71:ARG:HD3	2.21	0.41
1:1:2085:A:H2	1:1:3309:A:C8	2.39	0.41
1:1:2096:C:H2'	1:1:2097:A:O4'	2.21	0.41
1:1:2310:A:H2'	1:1:2311:C:O4'	2.21	0.41
1:1:2484:U:H2'	1:1:2485:U:C5	2.55	0.41
1:1:2512:G:H2'	1:1:2513:A:O4'	2.20	0.41
1:1:2607:A:H4'	1:1:2608:A:O5'	2.21	0.41
81:1:3410:PAR:H23	81:1:3410:PAR:H14	1.93	0.41
3:4:13:A:C6	3:4:14:C:C4	3.09	0.41
4:j:168:VAL:CG2	44:AQ:79:VAL:HG21	2.51	0.41
5:k:10:ARG:NH1	5:k:11:HIS:O	2.54	0.41
5:k:28:ARG:NH2	5:k:30:LYS:HE2	2.36	0.41
6:l:178:ASP:OD2	6:l:206:PRO:HD3	2.20	0.41
7:m:35:ARG:HG3	7:m:35:ARG:NH1	2.35	0.41
7:m:236:VAL:HA	7:m:239:ILE:HG13	2.03	0.41
8:n:35:PRO:HB3	8:n:54:LEU:O	2.21	0.41
9:o:174:PHE:CZ	9:o:195:GLN:HG2	2.55	0.41
9:o:208:PRO:HB3	9:o:239:GLN:HB3	2.03	0.41
10:p:91:ALA:HB2	10:p:215:LEU:HD11	2.03	0.41
11:q:161:ILE:HG22	11:q:179:ILE:CD1	2.50	0.41
12:r:43:VAL:HG11	12:r:197:VAL:HG11	2.01	0.41
13:s:85:LYS:HE3	61:R:8:LYS:HB2	2.03	0.41
14:t:57:VAL:HG22	14:t:69:VAL:CG1	2.50	0.41
14:t:130:THR:HG22	14:t:134:GLU:OE1	2.21	0.41
16:v:6:TYR:CD1	37:AJ:39:VAL:HG13	2.56	0.41
16:v:33:LYS:O	16:v:65:ARG:NH1	2.41	0.41
20:z:93:VAL:HA	20:z:96:MET:HE2	2.03	0.41
20:z:155:LEU:HA	20:z:158:GLU:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:O:63:ILE:HD12	21:O:63:ILE:N	2.35	0.41
22:2:108:ARG:CD	22:2:130:ARG:HD2	2.51	0.41
28:AA:10:VAL:HG13	28:AA:83:THR:OG1	2.21	0.41
28:AA:34:LYS:HB3	28:AA:34:LYS:HE3	1.89	0.41
29:AB:81:LEU:HD22	29:AB:81:LEU:N	2.35	0.41
43:AP:45:ARG:HH11	43:AP:45:ARG:CG	2.34	0.41
45:B:93:A:H4'	45:B:94:U:OP2	2.21	0.41
45:B:103:A:H4'	45:B:105:A:C8	2.55	0.41
45:B:461:U:H2'	45:B:462:A:H8	1.86	0.41
45:B:649:G:H3'	45:B:650:G:H8	1.86	0.41
45:B:681:C:H5''	45:B:682:A:OP2	2.21	0.41
45:B:691:U:H5'	45:B:692:U:H5''	2.03	0.41
45:B:698:C:C2	45:B:724:G:C2	3.09	0.41
45:B:847:A:H4'	45:B:848:A:O5'	2.21	0.41
45:B:871:U:H2'	45:B:872:A:H8	1.85	0.41
45:B:928:C:OP2	72:c:19:LYS:NZ	2.54	0.41
45:B:1140:G:H2'	45:B:1141:C:C6	2.56	0.41
45:B:1219:A:H5'	45:B:1220:C:OP1	2.20	0.41
45:B:1654:A:H2'	45:B:1655:G:H8	1.86	0.41
45:B:1757:U:H2'	45:B:1758:U:C6	2.55	0.41
46:C:38:TYR:CG	63:T:109:LEU:HD12	2.55	0.41
48:E:42:ALA:C	48:E:44:LYS:H	2.28	0.41
49:F:73:LEU:HD13	56:M:65:TYR:HB3	2.02	0.41
49:F:117:ARG:HH12	79:i:114:GLU:HB3	1.81	0.41
50:G:45:VAL:HG13	50:G:80:THR:C	2.45	0.41
52:I:136:LYS:O	52:I:175:ILE:HG23	2.21	0.41
52:I:143:LYS:CE	52:I:143:LYS:HA	2.50	0.41
52:I:199:GLN:O	52:I:199:GLN:HG2	2.16	0.41
53:J:34:LEU:N	53:J:34:LEU:CD1	2.83	0.41
53:J:97:LYS:HA	53:J:98:PRO:HD3	1.97	0.41
53:J:131:ILE:HG23	53:J:148:VAL:HG13	2.03	0.41
54:K:26:LYS:HE2	54:K:29:LEU:HD21	2.02	0.41
55:L:45:ILE:HD12	55:L:105:LEU:CD2	2.50	0.41
55:L:118:LEU:HD23	55:L:158:PHE:CD2	2.55	0.41
58:O:124:LYS:NZ	58:O:126:TRP:HZ3	2.19	0.41
62:S:135:ALA:O	62:S:136:ARG:NH1	2.51	0.41
64:U:85:PHE:O	64:U:85:PHE:HD2	2.04	0.41
69:Z:106:GLY:O	69:Z:123:LYS:HD3	2.21	0.41
73:d:43:ILE:H	73:d:43:ILE:HD12	1.86	0.41
77:h:134:LYS:HB3	77:h:134:LYS:HE2	1.79	0.41
78:AR:246:ARG:HG2	78:AR:248:TRP:CE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:40:G:N2	1:AS:2775:A:H62	2.18	0.41
1:AS:658:A:H5''	6:AY:101:PHE:CD2	2.56	0.41
1:AS:877:C:H5''	18:BK:130:TYR:CE2	2.56	0.41
1:AS:1015:G:H2'	1:AS:1016:G:C8	2.56	0.41
1:AS:1165:A:H4'	9:BB:216:LYS:HD2	2.02	0.41
1:AS:1652:A:O2'	81:AS:3413:PAR:H221	2.21	0.41
1:AS:1777:C:H2'	1:AS:1778:U:H6	1.86	0.41
1:AS:2200:A:H2'	1:AS:2201:A:C8	2.56	0.41
1:AS:2335:A:H2'	1:AS:2336:A:C8	2.56	0.41
1:AS:2721:G:P	7:AZ:48:LYS:HZ1	2.43	0.41
1:AS:3024:G:H2'	1:AS:3025:G:C8	2.56	0.41
1:AS:3308:G:H21	1:AS:3327:A:H2	1.69	0.41
2:AT:56:A:H4'	13:BF:152:HIS:HB2	2.02	0.41
2:AT:60:G:H2'	2:AT:61:C:H6	1.85	0.41
3:AU:6:U:H2'	3:AU:7:U:H6	1.86	0.41
4:AW:77:ILE:CD1	4:AW:128:ARG:HB3	2.50	0.41
5:AX:133:TYR:O	5:AX:136:LYS:HB2	2.20	0.41
6:AY:61:THR:HG22	6:AY:63:ALA:H	1.86	0.41
6:AY:290:LEU:HD23	19:BL:129:LEU:HD11	2.03	0.41
7:AZ:277:LEU:HB3	7:AZ:281:GLU:HB2	2.03	0.41
10:BC:82:THR:OG1	10:BC:182:LYS:HG3	2.20	0.41
10:BC:147:LYS:HE2	10:BC:147:LYS:HB2	1.82	0.41
11:BD:85:GLY:HA3	11:BD:187:ILE:HD12	2.02	0.41
14:BG:126:PHE:O	14:BG:127:ASP:C	2.64	0.41
14:BG:131:LYS:HG2	14:BG:132:ALA:N	2.35	0.41
20:BM:44:LEU:HB2	20:BM:50:ILE:HD12	2.03	0.41
20:BM:115:ILE:HB	20:BM:119:LEU:HD11	2.02	0.41
23:BP:41:VAL:O	23:BP:47:VAL:HG23	2.21	0.41
25:BR:90:ILE:HG22	25:BR:94:ARG:NE	2.36	0.41
26:BS:73:MET:CE	26:BS:141:TYR:HE1	2.34	0.41
27:BT:111:LEU:HD12	27:BT:111:LEU:HA	1.40	0.41
28:BU:108:GLU:O	28:BU:112:LYS:HG3	2.20	0.41
29:BV:13:GLY:O	33:BZ:37:LYS:HD2	2.21	0.41
31:BX:57:GLU:HA	35:CB:94:LEU:CD2	2.51	0.41
35:CB:23:VAL:HG21	35:CB:33:GLN:NE2	2.35	0.41
35:CB:93:PHE:CE1	35:CB:97:GLU:CG	3.04	0.41
45:CM:222:C:H6	45:CM:222:C:OP2	2.04	0.41
45:CM:498:C:C2	45:CM:499:U:C6	3.08	0.41
45:CM:584:G:H2'	45:CM:585:C:C6	2.56	0.41
45:CM:772:A:H61	50:CR:51:ARG:CZ	2.34	0.41
45:CM:908:A:H2'	45:CM:909:A:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:913:U:H3'	45:CM:929:A:O2'	2.21	0.41
45:CM:987:G:N2	45:CM:1747:G:O3'	2.51	0.41
45:CM:993:G:OP1	60:DB:124:LYS:NZ	2.46	0.41
45:CM:1063:C:H2'	45:CM:1064:U:H6	1.86	0.41
45:CM:1150:G:H2'	45:CM:1151:A:C8	2.56	0.41
45:CM:1537:A:C6	45:CM:1549:G:C6	3.08	0.41
46:CN:78:SER:HB2	46:CN:129:ASP:OD1	2.21	0.41
48:CP:77:LYS:HD2	48:CP:202:THR:OG1	2.19	0.41
48:CP:154:THR:HG23	48:CP:163:ARG:HG3	2.03	0.41
48:CP:168:PRO:HG2	55:CW:57:ARG:HD3	2.03	0.41
49:CQ:103:ALA:HB2	49:CQ:187:VAL:HG12	2.03	0.41
50:CR:39:ARG:HA	50:CR:39:ARG:HD2	1.79	0.41
50:CR:92:LEU:HB2	50:CR:95:THR:HG22	2.03	0.41
51:CS:174:LEU:HB3	51:CS:210:ALA:HB2	2.03	0.41
52:CT:126:ASP:OD1	52:CT:127:THR:N	2.54	0.41
52:CT:163:THR:O	52:CT:163:THR:OG1	2.28	0.41
53:CU:81:PHE:CB	53:CU:84:ARG:HD2	2.44	0.41
58:CZ:57:ALA:O	58:CZ:58:GLN:HG3	2.21	0.41
59:DA:37:ILE:HG22	59:DA:54:LEU:HD11	2.02	0.41
65:DG:21:PHE:CE1	65:DG:25:GLN:HG3	2.56	0.41
67:DI:36:ILE:CG1	67:DI:51:ILE:HB	2.51	0.41
73:DO:11:SER:OG	73:DO:14:THR:OG1	2.39	0.41
79:i:138:GLU:H	79:i:138:GLU:CD	2.29	0.41
1:1:995:G:O2'	1:1:996:C:H5'	2.21	0.41
1:1:1466:U:H2'	1:1:1467:U:H6	1.86	0.41
1:1:1695:A:H2'	1:1:1696:G:H8	1.85	0.41
1:1:1714:G:H2'	1:1:1715:G:H8	1.86	0.41
1:1:2279:U:H2'	1:1:2280:G:H8	1.86	0.41
1:1:2329:U:H2'	1:1:2330:A:H8	1.85	0.41
1:1:2436:A:C6	1:1:2437:A:H2	2.39	0.41
1:1:2749:G:H5''	1:1:2750:G:OP1	2.21	0.41
1:1:2961:U:H2'	1:1:2962:G:O4'	2.21	0.41
1:1:3056:C:O2'	1:1:3297:U:OP1	2.37	0.41
1:1:3079:U:H2'	1:1:3080:G:C8	2.56	0.41
3:4:135:G:N7	81:4:202:PAR:N32	2.69	0.41
17:w:53:LEU:HD23	17:w:53:LEU:HA	1.85	0.41
20:z:43:LYS:N	20:z:43:LYS:CD	2.84	0.41
33:AF:25:ARG:HD3	33:AF:26:TYR:CZ	2.55	0.41
33:AF:33:TRP:HH2	33:AF:53:GLN:HG2	1.86	0.41
45:B:30:G:H2'	45:B:31:C:H6	1.85	0.41
45:B:78:A:C4	52:I:175:ILE:HD12	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:265:U:H2'	45:B:266:C:C6	2.56	0.41
45:B:1188:A:C2	45:B:1543:A:C4	3.09	0.41
45:B:1487:C:P	65:V:122:ARG:HH22	2.44	0.41
45:B:1490:A:H2'	45:B:1491:G:O4'	2.20	0.41
45:B:1610:C:H2'	45:B:1611:C:C6	2.56	0.41
46:C:62:ARG:NH2	67:X:39:VAL:HG12	2.36	0.41
46:C:84:ARG:NH1	46:C:201:LEU:HD12	2.23	0.41
47:D:196:GLU:O	47:D:196:GLU:HG2	2.21	0.41
48:E:97:VAL:HG21	48:E:124:ILE:CG1	2.51	0.41
50:G:65:MET:HG2	50:G:70:VAL:HG21	2.03	0.41
50:G:121:TYR:HD2	50:G:161:LYS:HG3	1.86	0.41
51:H:141:GLY:HA3	51:H:167:ARG:HG2	2.02	0.41
51:H:143:ARG:O	51:H:162:VAL:HG12	2.21	0.41
52:I:52:ILE:HA	52:I:111:LEU:HD23	2.03	0.41
55:L:62:ARG:HD2	55:L:66:ASP:OD2	2.20	0.41
57:N:7:VAL:HG23	57:N:8:GLN:HG2	2.02	0.41
58:O:79:CYS:SG	58:O:88:LEU:HD21	2.61	0.41
60:Q:9:PHE:CE2	60:Q:73:ALA:HB1	2.56	0.41
61:R:1:MET:CB	64:U:18:LEU:H	2.34	0.41
69:Z:116:ASP:O	69:Z:118:PRO:HD3	2.21	0.41
78:AR:257:ILE:HD11	78:AR:286:ALA:HB2	2.01	0.41
78:AR:311:GLN:HG2	78:AR:312:VAL:N	2.35	0.41
1:AS:74:G:H5'	14:BG:58:VAL:HB	2.03	0.41
1:AS:412:G:H2'	1:AS:413:U:C6	2.56	0.41
1:AS:444:U:O4	1:AS:445:A:N6	2.54	0.41
1:AS:751:A:C5	1:AS:752:U:C5	3.09	0.41
1:AS:908:G:H2'	1:AS:910:A:C5	2.56	0.41
1:AS:1400:G:N2	1:AS:1403:A:OP2	2.43	0.41
1:AS:1808:G:O6	28:BU:64:LYS:NZ	2.49	0.41
1:AS:2164:U:OP2	4:AW:200:ARG:HD2	2.20	0.41
1:AS:2603:U:H4'	1:AS:2669:A:H2	1.86	0.41
1:AS:3085:A:O2'	11:BD:66:ALA:O	2.31	0.41
1:AS:3109:C:H5''	5:AX:276:THR:HG21	2.03	0.41
1:AS:3157:A:N1	21:BN:171:PHE:HB3	2.36	0.41
1:AS:3185:G:C6	1:AS:3231:G:C6	3.09	0.41
4:AW:132:ASN:CG	4:AW:151:PRO:HB3	2.46	0.41
7:AZ:76:THR:HG22	7:AZ:77:ALA:H	1.86	0.41
10:BC:135:TYR:CE2	10:BC:193:LYS:HE2	2.56	0.41
11:BD:91:ARG:HG2	11:BD:182:SER:CB	2.49	0.41
12:BE:149:ILE:HD12	12:BE:165:ILE:HG21	2.03	0.41
14:BG:56:PRO:HG3	14:BG:74:GLY:C	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BL:63:SER:O	19:BL:67:ILE:HD12	2.20	0.41
19:BL:131:ALA:HA	19:BL:135:GLN:OE1	2.21	0.41
27:BT:27:ARG:O	27:BT:31:LEU:HD22	2.21	0.41
35:CB:103:ARG:O	35:CB:106:LYS:HG3	2.20	0.41
44:CK:84:ARG:HG2	44:CK:87:ARG:NH2	2.35	0.41
45:CM:255:A:H1'	54:CV:73:SER:HB2	2.03	0.41
45:CM:902:U:C2	60:DB:36:ARG:NH1	2.82	0.41
45:CM:1087:G:OP2	69:DK:7:ARG:NH1	2.49	0.41
45:CM:1221:A:H2'	45:CM:1222:G:C8	2.56	0.41
45:CM:1298:A:N3	45:CM:1300:U:H5'	2.36	0.41
45:CM:1303:G:H2'	45:CM:1304:A:H8	1.86	0.41
45:CM:1682:G:C5	45:CM:1683:G:H1'	2.56	0.41
45:CM:1684:G:N7	45:CM:1691:C:N4	2.68	0.41
46:CN:188:ILE:HA	46:CN:189:PRO:HD3	1.98	0.41
47:CO:149:GLN:HE22	47:CO:154:THR:HG22	1.86	0.41
51:CS:194:LEU:HG	51:CS:198:LEU:HD12	2.02	0.41
55:CW:60:LEU:HD23	55:CW:60:LEU:HA	1.87	0.41
55:CW:75:ALA:O	55:CW:79:ARG:HG2	2.21	0.41
55:CW:93:LEU:CA	55:CW:96:VAL:HG12	2.48	0.41
60:DB:73:ALA:HB2	60:DB:106:ARG:HB2	2.03	0.41
60:DB:109:ARG:HH11	72:DN:62:TYR:HE1	1.68	0.41
79:i:65:LYS:HD3	79:i:65:LYS:HA	1.24	0.41
1:1:82:U:H2'	1:1:83:C:O4'	2.21	0.40
1:1:101:C:H1'	29:AB:66:ASN:ND2	2.36	0.40
1:1:145:U:C5	10:p:193:LYS:HE2	2.57	0.40
1:1:299:G:C8	37:AJ:30:GLY:HA3	2.55	0.40
1:1:1077:U:H5'	1:1:1078:U:C5	2.56	0.40
1:1:1377:A:H2'	1:1:1378:G:C8	2.57	0.40
1:1:1609:A:OP1	39:AL:51:GLN:N	2.41	0.40
1:1:1638:A:O2'	1:1:1639:A:C8	2.74	0.40
1:1:2206:A:H2'	1:1:2207:A:H8	1.84	0.40
1:1:2814:U:O2	1:1:2814:U:H2'	2.20	0.40
3:4:62:C:H4'	3:4:63:G:O5'	2.21	0.40
5:k:160:VAL:HB	5:k:183:ILE:HD11	2.04	0.40
8:n:164:SER:HG	34:AG:4:SER:HG	1.67	0.40
11:q:53:ILE:HD13	15:u:5:VAL:HG21	2.04	0.40
14:t:197:ALA:HA	14:t:200:ALA:HB3	2.03	0.40
19:y:182:ARG:HA	19:y:182:ARG:HD3	1.78	0.40
21:0:33:ASN:OD1	21:0:33:ASN:C	2.63	0.40
28:AA:75:VAL:HG21	28:AA:80:LEU:HD11	2.03	0.40
33:AF:115:LYS:HE2	33:AF:115:LYS:HB2	1.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:585:C:H5''	76:g:24:GLN:NE2	2.36	0.40
45:B:700:G:C3'	45:B:701:G:H5''	2.51	0.40
45:B:844:A:C5	59:P:73:ARG:HD3	2.56	0.40
45:B:871:U:C2	45:B:872:A:C8	3.10	0.40
45:B:1571:G:O2'	45:B:1597:G:O6	2.34	0.40
45:B:1709:A:H2'	45:B:1710:G:O4'	2.20	0.40
46:C:49:ASN:HA	63:T:109:LEU:HD11	2.02	0.40
46:C:75:VAL:HA	46:C:122:VAL:HG22	2.03	0.40
46:C:139:VAL:O	46:C:139:VAL:CG1	2.69	0.40
47:D:29:TRP:CH2	47:D:47:LEU:HD23	2.55	0.40
49:F:121:TYR:CZ	79:i:118:GLU:HG3	2.56	0.40
50:G:19:MET:HE3	50:G:108:LYS:CE	2.50	0.40
50:G:205:PHE:N	50:G:205:PHE:CD1	2.88	0.40
51:H:161:ASP:O	74:e:45:LYS:N	2.50	0.40
62:S:27:LEU:H	62:S:63:ASP:CB	2.33	0.40
65:V:9:VAL:HG21	65:V:14:PHE:CD2	2.56	0.40
70:a:35:VAL:HG22	70:a:40:LEU:HG	2.02	0.40
74:e:44:VAL:HG11	74:e:48:VAL:HG21	2.02	0.40
1:AS:120:A:HO2'	10:BC:106:LYS:NZ	2.18	0.40
1:AS:191:C:H2'	1:AS:192:C:H6	1.86	0.40
1:AS:225:C:H2'	1:AS:226:G:O4'	2.21	0.40
1:AS:286:U:H2'	1:AS:287:G:C8	2.57	0.40
1:AS:379:C:H2'	1:AS:380:U:C6	2.56	0.40
1:AS:1059:G:N7	1:AS:1093:G:O2'	2.44	0.40
1:AS:1347:U:O2	1:AS:1347:U:H2'	2.21	0.40
1:AS:1409:G:OP1	33:BZ:125:GLY:HA2	2.22	0.40
1:AS:1695:A:H2'	1:AS:1696:G:C8	2.56	0.40
1:AS:1762:G:H2'	1:AS:1763:C:H6	1.86	0.40
1:AS:1787:U:OP1	44:CK:34:HIS:CD2	2.74	0.40
1:AS:1921:U:O2'	1:AS:1923:G:N7	2.49	0.40
1:AS:2144:A:H1'	16:BI:74:PRO:HB3	2.03	0.40
1:AS:2181:U:H2'	1:AS:2182:C:C6	2.56	0.40
1:AS:2385:C:C2	1:AS:2386:U:C5	3.09	0.40
1:AS:2681:C:H2'	1:AS:2682:C:C6	2.57	0.40
1:AS:3247:A:H2'	1:AS:3248:U:C6	2.56	0.40
6:AY:281:ILE:HG22	19:BL:105:ARG:HG3	2.03	0.40
11:BD:3:TYR:CD1	11:BD:3:TYR:N	2.89	0.40
17:BJ:150:TYR:HB3	17:BJ:153:VAL:CG1	2.51	0.40
23:BP:59:GLU:HG2	23:BP:60:SER:H	1.85	0.40
25:BR:23:ARG:HD3	25:BR:29:PHE:CE1	2.57	0.40
27:BT:16:ARG:O	27:BT:20:PHE:HD2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BY:109:GLU:O	32:BY:110:ASP:HB2	2.21	0.40
45:CM:65:A:O2'	45:CM:66:U:OP1	2.39	0.40
45:CM:252:A:H2'	45:CM:253:U:H6	1.87	0.40
45:CM:446:C:H2'	45:CM:447:C:H6	1.86	0.40
45:CM:517:C:H6	45:CM:517:C:H2'	1.70	0.40
45:CM:602:A:H2'	45:CM:603:A:O4'	2.21	0.40
45:CM:821:U:H2'	45:CM:822:G:C8	2.56	0.40
45:CM:871:U:H2'	45:CM:872:A:H8	1.86	0.40
45:CM:872:A:C4	45:CM:873:U:C5	3.08	0.40
45:CM:873:U:O2	45:CM:973:A:O2'	2.38	0.40
45:CM:1043:U:O2'	45:CM:1045:U:OP2	2.38	0.40
45:CM:1117:A:H2'	45:CM:1118:A:H8	1.85	0.40
45:CM:1213:G:OP2	58:CZ:45:LEU:N	2.53	0.40
45:CM:1233:C:C2	45:CM:1234:U:C5	3.09	0.40
45:CM:1253:G:O2'	45:CM:1434:G:H5''	2.22	0.40
46:CN:117:GLU:OE1	48:CP:34:THR:HA	2.20	0.40
49:CQ:178:MET:HE3	49:CQ:183:LEU:HD21	2.03	0.40
49:CQ:209:ILE:HG22	49:CQ:210:ALA:O	2.22	0.40
51:CS:161:ASP:OD1	51:CS:161:ASP:N	2.53	0.40
52:CT:48:TYR:CE2	52:CT:117:GLY:HA3	2.56	0.40
54:CV:29:LEU:C	54:CV:29:LEU:HD12	2.46	0.40
59:DA:145:THR:O	59:DA:145:THR:OG1	2.33	0.40
64:DF:33:THR:HG21	64:DF:40:ARG:HG3	2.03	0.40
1:1:592:U:H2'	1:1:607:G:O6	2.21	0.40
1:1:934:C:O2	1:1:2785:A:O2'	2.38	0.40
1:1:1110:U:OP1	29:AB:23:GLY:N	2.32	0.40
1:1:1185:C:H42	1:1:1311:U:H1'	1.86	0.40
1:1:1575:A:H5''	1:1:1576:A:C2	2.56	0.40
1:1:1767:G:H2'	1:1:1768:U:O4'	2.21	0.40
1:1:2273:A:C6	24:6:37:LEU:HB2	2.56	0.40
1:1:2425:G:C6	1:1:2426:G:N7	2.89	0.40
1:1:2546:U:H5'	1:1:2547:G:O4'	2.21	0.40
1:1:2920:C:H5''	5:k:243:HIS:HB3	2.03	0.40
1:1:3218:U:H2'	1:1:3219:G:C8	2.56	0.40
3:4:72:A:C5	3:4:73:U:C5	3.09	0.40
5:k:60:LEU:O	5:k:69:LYS:N	2.48	0.40
12:r:49:CYS:HB3	12:r:168:SER:HB3	2.01	0.40
15:u:104:GLN:HA	15:u:104:GLN:NE2	2.36	0.40
27:9:39:LEU:HD22	27:9:106:ILE:O	2.21	0.40
28:AA:10:VAL:HG11	28:AA:85:TYR:HB2	2.02	0.40
31:AD:77:ASN:O	31:AD:81:THR:HG23	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AF:106:ARG:HG3	33:AF:107:VAL:N	2.35	0.40
40:AM:23:LEU:CD1	40:AM:35:ILE:HG22	2.51	0.40
42:AO:8:LYS:HE3	42:AO:12:ARG:NH2	2.36	0.40
45:B:206:U:H2'	45:B:207:U:H6	1.85	0.40
45:B:266:C:O2'	45:B:267:G:H5'	2.21	0.40
45:B:588:C:H2'	45:B:589:A:H8	1.87	0.40
45:B:736:G:C2	45:B:737:A:C5	3.09	0.40
45:B:795:A:N3	45:B:843:G:H1'	2.35	0.40
45:B:1020:G:OP1	59:P:2:GLY:N	2.54	0.40
45:B:1206:A:H2'	45:B:1207:C:O4'	2.21	0.40
45:B:1266:G:OP1	66:W:68:LYS:HD2	2.21	0.40
45:B:1318:C:H2'	45:B:1319:U:C6	2.56	0.40
45:B:1342:A:H2'	65:V:129:GLN:HE22	1.86	0.40
45:B:1457:A:H5'	51:H:185:ARG:HG2	2.03	0.40
46:C:41:ARG:HE	46:C:47:ILE:HD11	1.85	0.40
46:C:126:PRO:HA	46:C:133:ILE:CD1	2.49	0.40
47:D:30:PHE:CD2	47:D:94:LYS:HA	2.56	0.40
48:E:77:LYS:HD2	48:E:202:THR:OG1	2.21	0.40
50:G:69:HIS:ND1	70:a:17:LEU:HD13	2.36	0.40
50:G:220:THR:CG2	50:G:224:ASN:HB2	2.52	0.40
51:H:163:SER:HB3	74:e:48:VAL:HG22	2.04	0.40
51:H:169:ASN:O	51:H:172:ILE:HG12	2.20	0.40
54:K:148:LYS:HD3	54:K:148:LYS:O	2.21	0.40
55:L:93:LEU:HA	55:L:96:VAL:HG12	2.03	0.40
59:P:112:LYS:O	59:P:116:ILE:HG13	2.21	0.40
61:R:21:ASP:OD2	61:R:21:ASP:N	2.55	0.40
62:S:59:PHE:CE1	62:S:88:LEU:HD12	2.56	0.40
67:X:38:LYS:O	67:X:46:ILE:HD12	2.22	0.40
74:e:38:ARG:O	74:e:40:ILE:HG13	2.21	0.40
78:AR:87:ASP:O	78:AR:89:THR:HG23	2.21	0.40
1:AS:224:C:OP1	27:BT:34:PRO:HB3	2.21	0.40
1:AS:304:G:H5'	1:AS:304:G:N3	2.36	0.40
1:AS:305:U:O4	1:AS:2758:G:H1'	2.21	0.40
1:AS:886:C:O2'	1:AS:2302:A:N3	2.41	0.40
1:AS:993:A:C4	1:AS:994:A:C8	3.10	0.40
1:AS:1186:A:N3	1:AS:1186:A:H2'	2.37	0.40
1:AS:1443:G:N2	1:AS:2334:A:OP2	2.45	0.40
1:AS:3165:U:H2'	1:AS:3166:A:C4'	2.51	0.40
81:AS:3409:PAR:C51	81:AS:3409:PAR:H322	2.35	0.40
5:AX:159:ARG:HG2	5:AX:182:GLN:HA	2.03	0.40
7:AZ:259:LYS:HG3	7:AZ:260:PHE:HE1	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:BC:132:VAL:CG2	10:BC:133:VAL:N	2.83	0.40
11:BD:91:ARG:HH11	11:BD:143:GLU:HB2	1.86	0.40
12:BE:115:MET:HE2	12:BE:115:MET:HB2	1.86	0.40
12:BE:121:LYS:HB2	12:BE:121:LYS:HE2	1.60	0.40
16:BI:99:ARG:NH2	16:BI:118:SER:O	2.54	0.40
16:BI:184:LYS:HB2	16:BI:184:LYS:HE3	1.83	0.40
18:BK:13:LYS:C	18:BK:107:LEU:HD21	2.46	0.40
18:BK:46:LYS:HD3	18:BK:46:LYS:HA	1.95	0.40
32:BY:73:ARG:HB2	32:BY:95:VAL:CG1	2.51	0.40
43:CJ:4:VAL:HG23	43:CJ:93:LEU:CD1	2.51	0.40
45:CM:219:A:N6	45:CM:220:A:N6	2.69	0.40
45:CM:586:U:OP2	76:DR:26:LYS:HE2	2.21	0.40
45:CM:647:C:O2'	45:CM:648:U:H6	2.05	0.40
45:CM:962:A:H2'	45:CM:963:A:O4'	2.21	0.40
46:CN:28:ASN:O	46:CN:150:ASP:HB3	2.21	0.40
49:CQ:124:LEU:CD2	49:CQ:135:VAL:HG13	2.51	0.40
51:CS:112:ARG:O	51:CS:116:HIS:ND1	2.54	0.40
53:CU:14:GLU:HG2	53:CU:42:ILE:HD12	2.03	0.40
53:CU:67:ARG:HA	53:CU:67:ARG:HD3	1.81	0.40
55:CW:96:VAL:CA	55:CW:99:LEU:HD12	2.52	0.40
63:DE:79:GLU:OE2	63:DE:80:ARG:HB2	2.21	0.40
68:DJ:38:LEU:HD23	68:DJ:41:MET:CE	2.51	0.40
70:DL:13:ILE:HD13	70:DL:13:ILE:HG21	1.91	0.40
74:DP:30:VAL:HG22	74:DP:40:ILE:O	2.21	0.40
1:1:147:G:OP2	16:v:4:TYR:OH	2.28	0.40
1:1:293:C:H2'	1:1:294:U:O4'	2.21	0.40
1:1:339:C:OP1	1:1:1376:G:O2'	2.33	0.40
1:1:545:G:H5'	1:1:546:C:H4'	2.02	0.40
1:1:623:A:H2'	1:1:624:U:H6	1.85	0.40
1:1:672:G:H2'	1:1:673:C:C6	2.55	0.40
1:1:1077:U:H5'	1:1:1078:U:H5	1.87	0.40
1:1:1094:A:OP2	22:2:130:ARG:NH1	2.53	0.40
1:1:1303:G:C4	17:w:61:LYS:HD3	2.55	0.40
1:1:3078:A:H2'	1:1:3079:U:O4'	2.22	0.40
5:k:113:GLU:HB3	5:k:167:LYS:HE2	2.02	0.40
7:m:89:LYS:HE3	7:m:90:TYR:CZ	2.55	0.40
13:s:20:ASN:HB3	13:s:126:ASP:HB3	2.04	0.40
13:s:40:LEU:HD13	13:s:114:ILE:HD11	2.03	0.40
13:s:117:ASP:OD1	13:s:119:SER:N	2.54	0.40
21:0:3:ARG:HD3	21:0:3:ARG:C	2.46	0.40
33:AF:105:LYS:HE3	33:AF:105:LYS:HB2	1.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:AH:8:ARG:HB2	35:AH:34:HIS:CD2	2.56	0.40
36:AI:48:ARG:HH11	36:AI:48:ARG:HD2	1.76	0.40
45:B:161:G:O2'	52:I:110:ALA:HB1	2.21	0.40
45:B:256:C:H5''	54:K:75:LYS:HB2	2.04	0.40
45:B:330:U:P	54:K:56:ARG:HH22	2.45	0.40
45:B:623:C:H2'	45:B:624:U:C6	2.56	0.40
45:B:795:A:C2	53:J:106:GLN:OE1	2.74	0.40
45:B:916:C:H4'	47:D:115:ARG:O	2.21	0.40
45:B:989:U:H3'	45:B:990:A:C5'	2.51	0.40
45:B:1240:G:O6	58:O:46:ARG:NH1	2.55	0.40
45:B:1588:G:C2	65:V:88:PHE:HB3	2.57	0.40
46:C:35:PRO:HB2	46:C:36:TYR:HD2	1.87	0.40
46:C:123:VAL:HG13	46:C:129:ASP:HB2	2.03	0.40
49:F:159:ILE:HD12	49:F:169:ILE:HD11	2.03	0.40
53:J:59:PRO:HA	53:J:60:PRO:HD3	1.95	0.40
56:M:56:LYS:HD3	56:M:56:LYS:HA	1.94	0.40
59:P:87:ASP:N	59:P:87:ASP:OD1	2.54	0.40
60:Q:15:PHE:HE2	60:Q:79:ARG:NH2	2.19	0.40
65:V:57:ARG:HH22	65:V:80:TYR:CB	2.33	0.40
67:X:51:ILE:HD13	67:X:78:LEU:HD11	2.02	0.40
70:a:99:LYS:HE2	70:a:100:VAL:O	2.21	0.40
74:e:22:ARG:H	74:e:22:ARG:HG3	1.68	0.40
78:AR:110:ASP:O	78:AR:127:SER:HA	2.21	0.40
1:AS:171:G:H2'	1:AS:172:C:H6	1.86	0.40
1:AS:342:A:C4	1:AS:368:G:N7	2.90	0.40
1:AS:777:G:OP1	19:BL:151:ARG:HD2	2.21	0.40
1:AS:1415:A:C8	6:AY:188:LEU:HD23	2.56	0.40
1:AS:1517:G:C6	26:BS:116:PRO:HG2	2.57	0.40
1:AS:1801:C:O2'	35:CB:76:TYR:HA	2.21	0.40
1:AS:2181:U:HO2'	4:AW:241:ARG:HG2	1.85	0.40
1:AS:2514:G:N7	1:AS:2515:G:N1	2.68	0.40
1:AS:2642:G:H2'	1:AS:2643:A:H8	1.86	0.40
1:AS:2927:U:H2'	1:AS:2928:A:O4'	2.21	0.40
1:AS:3315:C:O2'	1:AS:3316:U:O5'	2.27	0.40
2:AT:63:A:H5''	7:AZ:285:LYS:HE2	2.04	0.40
6:AY:143:VAL:HG22	6:AY:146:VAL:HG12	2.03	0.40
10:BC:52:LYS:HB2	10:BC:52:LYS:HZ3	1.86	0.40
10:BC:134:LYS:HB3	10:BC:139:HIS:CE1	2.57	0.40
11:BD:50:ASN:HB3	11:BD:51:ARG:CZ	2.51	0.40
24:BQ:40:LYS:HD3	24:BQ:59:MET:CE	2.51	0.40
32:BY:108:VAL:HG12	32:BY:110:ASP:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CC:102:GLU:HA	36:CC:105:ARG:NE	2.30	0.40
45:CM:415:A:H5'	45:CM:416:G:C4	2.56	0.40
45:CM:520:U:H2'	45:CM:521:G:O4'	2.22	0.40
45:CM:652:C:H3'	45:CM:653:G:H4'	2.03	0.40
45:CM:1017:G:C6	45:CM:1089:U:C4	3.10	0.40
45:CM:1322:A:H5''	62:DD:122:ARG:NH1	2.37	0.40
45:CM:1354:U:H2'	45:CM:1355:A:H8	1.87	0.40
48:CP:96:VAL:HG22	48:CP:110:ILE:CG2	2.49	0.40
56:CX:25:LYS:HE2	56:CX:27:PHE:CE2	2.56	0.40
57:CY:27:ALA:O	57:CY:29:LYS:HD2	2.22	0.40
60:DB:53:TYR:CE1	60:DB:57:LEU:HD21	2.57	0.40
64:DF:81:ILE:HA	64:DF:82:PRO:HD3	1.96	0.40
64:DF:122:HIS:CE1	64:DF:126:ARG:HD2	2.54	0.40
70:DL:91:LEU:HD22	70:DL:96:LEU:HD12	2.03	0.40
73:DO:54:VAL:HG22	73:DO:64:CYS:SG	2.61	0.40
1:1:55:G:N3	16:v:162:ARG:HD3	2.37	0.40
1:1:922:A:H2'	1:1:923:C:C6	2.57	0.40
1:1:1012:U:H4'	1:1:1013:U:O5'	2.22	0.40
1:1:1754:G:H2'	1:1:1755:U:O4'	2.21	0.40
1:1:2181:U:H2'	1:1:2182:C:C6	2.57	0.40
1:1:2328:C:O3'	18:x:68:GLY:HA3	2.21	0.40
1:1:2436:A:OP1	1:1:2436:A:H2'	2.22	0.40
1:1:3172:U:O4	21:0:159:SER:HB3	2.20	0.40
2:3:22:A:H2'	2:3:23:A:C8	2.57	0.40
3:4:6:U:H2'	3:4:7:U:C6	2.56	0.40
5:k:361:THR:N	5:k:371:GLN:OE1	2.50	0.40
8:n:131:LYS:HE2	8:n:134:ARG:NH1	2.36	0.40
10:p:227:TYR:O	10:p:231:ARG:HG3	2.22	0.40
11:q:55:ILE:HG22	11:q:68:LEU:HD11	2.04	0.40
12:r:66:GLU:OE2	12:r:69:ARG:NH1	2.54	0.40
13:s:157:GLU:OE1	13:s:160:ILE:HG12	2.22	0.40
19:y:66:ARG:CZ	19:y:143:PRO:HD3	2.51	0.40
24:6:80:ARG:NH2	24:6:115:THR:O	2.48	0.40
28:AA:112:LYS:HD2	28:AA:112:LYS:C	2.45	0.40
33:AF:33:TRP:CH2	33:AF:53:GLN:HG2	2.56	0.40
33:AF:104:ARG:HH11	33:AF:104:ARG:HD2	1.79	0.40
45:B:53:G:H2'	45:B:54:C:C6	2.56	0.40
45:B:273:C:H2'	45:B:274:C:O4'	2.22	0.40
45:B:280:C:H2'	45:B:281:U:O4'	2.20	0.40
45:B:393:U:H2'	45:B:394:G:O4'	2.21	0.40
45:B:433:C:H2'	45:B:434:A:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:1237:C:H2'	45:B:1238:U:C6	2.57	0.40
45:B:1243:U:H6	45:B:1244:U:H5	1.68	0.40
45:B:1300:U:O2'	45:B:1301:G:H8	2.02	0.40
45:B:1436:U:H2'	45:B:1437:C:C6	2.56	0.40
46:C:22:VAL:HG12	46:C:169:SER:HB3	2.02	0.40
46:C:201:LEU:O	46:C:202:TYR:HB2	2.21	0.40
47:D:32:ILE:HB	47:D:43:VAL:CG2	2.51	0.40
49:F:139:ILE:O	49:F:150:SER:HA	2.21	0.40
50:G:254:ASP:O	50:G:257:ARG:HG2	2.21	0.40
52:I:45:PHE:CA	52:I:48:TYR:HD2	2.26	0.40
54:K:141:ARG:HB2	54:K:146:GLU:OE2	2.22	0.40
62:S:8:THR:HG21	62:S:87:GLY:N	2.36	0.40
64:U:6:GLN:N	64:U:6:GLN:OE1	2.55	0.40
66:W:40:ILE:HG22	66:W:106:THR:HG21	2.03	0.40
74:e:50:GLU:O	74:e:51:ASN:OD1	2.39	0.40
1:AS:126:G:H2'	1:AS:127:G:C8	2.54	0.40
1:AS:191:C:H2'	1:AS:192:C:C6	2.56	0.40
1:AS:283:G:O6	1:AS:304:G:H1'	2.21	0.40
1:AS:1575:A:H3'	26:BS:33:ARG:NH2	2.36	0.40
1:AS:1678:U:O4	23:BP:93:ARG:NH1	2.55	0.40
1:AS:1757:A:H8	1:AS:1757:A:OP2	2.04	0.40
1:AS:1820:U:H4'	39:CF:17:ARG:NH1	2.36	0.40
1:AS:2199:G:N2	1:AS:2201:A:H3'	2.36	0.40
1:AS:2242:U:H2'	1:AS:2243:C:H6	1.85	0.40
1:AS:2990:C:C4	1:AS:2991:U:C4	3.10	0.40
1:AS:3331:G:H2'	1:AS:3332:C:C6	2.56	0.40
1:AS:3344:U:H4'	5:AX:315:GLY:HA2	2.03	0.40
2:AT:1:G:C1'	7:AZ:266:LYS:HG2	2.51	0.40
2:AT:70:A:H2'	2:AT:71:U:C6	2.56	0.40
3:AU:3:A:C5	3:AU:4:C:C5	3.09	0.40
4:AW:41:ILE:HD12	4:AW:42:ARG:H	1.87	0.40
6:AY:24:PRO:HD3	6:AY:256:PHE:CE2	2.56	0.40
6:AY:165:ASP:OD1	6:AY:165:ASP:N	2.54	0.40
6:AY:177:LYS:HA	6:AY:180:VAL:HG23	2.03	0.40
11:BD:151:LEU:O	11:BD:154:VAL:HG12	2.22	0.40
12:BE:34:TYR:O	12:BE:88:ARG:HA	2.22	0.40
14:BG:46:ILE:HG22	14:BG:49:ARG:HB2	2.03	0.40
14:BG:126:PHE:CD2	14:BG:135:VAL:HG12	2.56	0.40
14:BG:176:ARG:NH2	29:BV:129:PHE:CE1	2.89	0.40
19:BL:83:VAL:O	19:BL:103:ALA:HA	2.22	0.40
21:BN:124:LEU:HD22	22:BO:153:PRO:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CA:49:ILE:HG12	34:CA:100:ILE:CD1	2.50	0.40
35:CB:107:GLU:HA	35:CB:110:ASP:CB	2.50	0.40
45:CM:483:A:C2	45:CM:484:G:C5	3.10	0.40
45:CM:1029:U:H2'	45:CM:1030:C:C6	2.55	0.40
45:CM:1240:G:OP1	56:CX:5:LYS:NZ	2.55	0.40
45:CM:1378:U:H2'	45:CM:1379:C:H6	1.87	0.40
45:CM:1676:A:H2'	45:CM:1677:G:C1'	2.50	0.40
47:CO:161:LEU:HD23	47:CO:161:LEU:HA	1.74	0.40
49:CQ:168:PHE:O	49:CQ:190:MET:HA	2.22	0.40
51:CS:213:LYS:O	51:CS:217:LEU:HD12	2.21	0.40
55:CW:90:LYS:HB3	55:CW:95:TYR:CB	2.52	0.40
55:CW:126:ARG:CD	76:DR:33:ARG:HH11	2.30	0.40
56:CX:46:LEU:HD23	56:CX:46:LEU:HA	1.90	0.40
57:CY:123:VAL:HG13	57:CY:141:LYS:O	2.22	0.40
59:DA:60:VAL:HG23	59:DA:66:VAL:HG21	2.02	0.40
60:DB:77:LYS:CE	60:DB:113:VAL:HG21	2.50	0.40
68:DJ:83:ILE:HD13	68:DJ:122:SER:HB2	2.04	0.40
79:i:47:ASP:OD1	79:i:48:PRO:N	2.54	0.40
79:i:118:GLU:O	79:i:122:THR:HG23	2.22	0.40
79:CL:88:PHE:HB3	79:CL:91:HIS:ND1	2.36	0.40
1:1:379:C:H2'	1:1:380:U:C6	2.57	0.40
1:1:406:G:H1'	3:4:16:G:N2	2.36	0.40
1:1:707:A:H2'	1:1:708:A:O4'	2.21	0.40
1:1:756:G:N2	1:1:766:G:C4	2.90	0.40
1:1:827:G:O2'	1:1:1860:A:N3	2.49	0.40
1:1:1158:U:H5'	33:AF:55:ASN:OD1	2.21	0.40
1:1:1184:U:OP1	1:1:1206:U:O2'	2.24	0.40
1:1:1651:G:O6	81:1:3410:PAR:H12	2.22	0.40
1:1:2618:C:H5''	12:r:119:TRP:CG	2.57	0.40
1:1:2649:G:N3	1:1:2649:G:H2'	2.36	0.40
1:1:2734:A:H2'	1:1:2735:U:C6	2.56	0.40
1:1:2874:A:H2'	1:1:2875:A:O4'	2.22	0.40
1:1:3000:G:H2'	1:1:3001:A:C8	2.56	0.40
3:4:21:C:C5'	6:l:195:LEU:HD21	2.48	0.40
8:n:100:PHE:HD1	8:n:104:TYR:CE2	2.40	0.40
12:r:47:PRO:HB3	12:r:171:TRP:CZ2	2.56	0.40
15:u:20:LEU:HD23	15:u:26:LEU:HD23	2.02	0.40
16:v:23:TYR:O	16:v:122:ASN:ND2	2.43	0.40
20:z:166:ASN:O	20:z:170:ARG:HG2	2.20	0.40
45:B:13:C:H4'	45:B:1283:U:O2	2.21	0.40
45:B:79:C:H1'	52:I:174:LYS:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B:400:C:OP1	50:G:3:ARG:NH1	2.55	0.40
45:B:626:G:OP1	59:P:124:ARG:HD2	2.22	0.40
45:B:637:U:N3	53:J:96:PRO:HA	2.37	0.40
45:B:1301:G:HO2'	45:B:1387:A:HO2'	1.68	0.40
45:B:1323:C:H1'	45:B:1396:A:C5	2.57	0.40
45:B:1376:U:O4'	63:T:3:ARG:NH1	2.55	0.40
45:B:1423:U:O2'	49:F:182:VAL:HG23	2.22	0.40
51:H:136:ALA:O	51:H:140:SER:OG	2.35	0.40
54:K:42:ARG:HD2	54:K:59:ARG:HD2	2.03	0.40
62:S:18:VAL:HG23	62:S:67:LYS:HB3	2.03	0.40
66:W:25:LEU:CD2	66:W:113:VAL:HG22	2.51	0.40
68:Y:25:VAL:O	68:Y:62:VAL:HA	2.21	0.40
72:c:45:VAL:HG11	72:c:53:LEU:HD21	2.02	0.40
1:AS:176:G:H2'	1:AS:177:C:H6	1.86	0.40
1:AS:971:C:OP1	19:BL:16:ARG:HG3	2.21	0.40
1:AS:1494:A:H2'	1:AS:1495:U:H6	1.85	0.40
1:AS:1743:G:H21	39:CF:2:ALA:HB3	1.86	0.40
1:AS:1863:A:C4	1:AS:1864:G:C8	3.09	0.40
1:AS:2095:A:C8	1:AS:3036:U:H1'	2.57	0.40
1:AS:2236:U:H2'	1:AS:2237:A:H8	1.86	0.40
1:AS:2339:A:H2'	1:AS:2340:C:C6	2.56	0.40
1:AS:2796:G:H2'	1:AS:2797:C:H6	1.86	0.40
3:AU:53:A:C4	3:AU:54:A:C8	3.10	0.40
7:AZ:150:LEU:HD12	13:BF:143:ARG:NH1	2.37	0.40
7:AZ:262:LYS:HD3	7:AZ:263:GLU:H	1.87	0.40
8:BA:155:LEU:O	8:BA:155:LEU:HD23	2.21	0.40
10:BC:106:LYS:HE3	10:BC:109:ARG:HH21	1.86	0.40
11:BD:90:MET:O	11:BD:143:GLU:HA	2.21	0.40
14:BG:109:PHE:CE2	37:CD:19:LYS:HE3	2.57	0.40
14:BG:161:VAL:HB	29:BV:144:VAL:HG23	2.03	0.40
18:BK:96:ARG:HD2	18:BK:97:ASN:N	2.36	0.40
20:BM:43:LYS:O	20:BM:47:ASN:N	2.44	0.40
23:BP:61:ASP:HB2	23:BP:63:LYS:HZ2	1.85	0.40
25:BR:54:LEU:HA	25:BR:57:ARG:HG2	2.02	0.40
29:BV:127:ALA:C	29:BV:148:VAL:HG22	2.46	0.40
31:BX:63:MET:HE3	31:BX:63:MET:HB3	1.77	0.40
34:CA:48:ARG:HH12	34:CA:86:LYS:NZ	2.19	0.40
35:CB:29:LYS:HD3	35:CB:29:LYS:HA	1.85	0.40
36:CC:17:LEU:HD23	36:CC:17:LEU:HA	1.93	0.40
36:CC:70:TYR:HB3	36:CC:76:ILE:HG22	2.04	0.40
44:CK:58:LYS:C	44:CK:58:LYS:HD3	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:CM:213:A:C4	45:CM:214:U:C5	3.09	0.40
45:CM:561:U:H5	45:CM:578:A:N7	2.20	0.40
45:CM:681:C:O2'	45:CM:682:A:OP1	2.31	0.40
45:CM:720:C:O2'	45:CM:721:C:OP2	2.33	0.40
45:CM:796:A:N6	45:CM:843:G:H2'	2.36	0.40
45:CM:844:A:C8	59:DA:73:ARG:NH2	2.90	0.40
45:CM:933:A:H2'	45:CM:934:C:C6	2.56	0.40
45:CM:1002:U:H2'	45:CM:1003:U:C6	2.56	0.40
45:CM:1188:A:C2	45:CM:1543:A:C4	3.09	0.40
45:CM:1571:G:C8	62:DD:13:LYS:HD3	2.57	0.40
46:CN:178:ALA:HA	46:CN:181:VAL:HG12	2.04	0.40
51:CS:199:ILE:HG13	51:CS:199:ILE:H	1.74	0.40
53:CU:24:LEU:HD23	53:CU:24:LEU:HA	1.53	0.40
53:CU:137:ARG:HE	53:CU:139:LEU:HD21	1.86	0.40
56:CX:44:LYS:HD3	56:CX:44:LYS:HA	1.90	0.40
59:DA:135:LEU:HD23	59:DA:139:TRP:CD2	2.57	0.40
61:DC:33:PHE:CZ	61:DC:112:VAL:HG22	2.56	0.40
62:DD:27:LEU:HD11	62:DD:29:LYS:CE	2.52	0.40
63:DE:103:ASP:OD1	63:DE:103:ASP:C	2.63	0.40
63:DE:113:LEU:HG	63:DE:113:LEU:H	1.73	0.40
64:DF:80:LYS:HA	64:DF:80:LYS:HD3	1.86	0.40
64:DF:140:THR:HA	64:DF:143:ARG:NH1	2.36	0.40
65:DG:50:ALA:HA	65:DG:53:TRP:HD1	1.86	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	248/254 (98%)	238 (96%)	10 (4%)	0	100	100
4	j	248/254 (98%)	240 (97%)	8 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	AX	384/389 (99%)	371 (97%)	13 (3%)	0	100	100
5	k	385/389 (99%)	373 (97%)	12 (3%)	0	100	100
6	AY	359/363 (99%)	349 (97%)	10 (3%)	0	100	100
6	l	358/363 (99%)	347 (97%)	11 (3%)	0	100	100
7	AZ	290/298 (97%)	277 (96%)	13 (4%)	0	100	100
7	m	294/298 (99%)	283 (96%)	11 (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%)	225 (97%)	7 (3%)	0	100	100
9	o	232/241 (96%)	225 (97%)	7 (3%)	0	100	100
10	BC	229/262 (87%)	220 (96%)	7 (3%)	2 (1%)	14	41
10	p	228/262 (87%)	220 (96%)	7 (3%)	1 (0%)	30	59
11	BD	188/191 (98%)	183 (97%)	5 (3%)	0	100	100
11	q	188/191 (98%)	184 (98%)	4 (2%)	0	100	100
12	BE	202/220 (92%)	198 (98%)	4 (2%)	0	100	100
12	r	204/220 (93%)	202 (99%)	2 (1%)	0	100	100
13	BF	169/174 (97%)	163 (96%)	6 (4%)	0	100	100
13	s	169/174 (97%)	162 (96%)	7 (4%)	0	100	100
14	BG	198/202 (98%)	194 (98%)	3 (2%)	1 (0%)	24	54
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	126/131 (96%)	122 (97%)	4 (3%)	0	100	100
16	BI	201/204 (98%)	197 (98%)	4 (2%)	0	100	100
16	v	201/204 (98%)	198 (98%)	3 (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	170/185 (92%)	166 (98%)	4 (2%)	0	100	100
18	x	167/185 (90%)	163 (98%)	4 (2%)	0	100	100
19	BL	183/186 (98%)	179 (98%)	4 (2%)	0	100	100
19	y	183/186 (98%)	180 (98%)	3 (2%)	0	100	100
20	BM	177/190 (93%)	172 (97%)	5 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
20	z	177/190 (93%)	175 (99%)	2 (1%)	0	100	100
21	0	168/172 (98%)	166 (99%)	2 (1%)	0	100	100
21	BN	168/172 (98%)	167 (99%)	1 (1%)	0	100	100
22	2	157/160 (98%)	153 (98%)	4 (2%)	0	100	100
22	BO	157/160 (98%)	154 (98%)	3 (2%)	0	100	100
23	5	101/124 (82%)	94 (93%)	6 (6%)	1 (1%)	12	39
23	BP	101/124 (82%)	90 (89%)	9 (9%)	2 (2%)	6	22
24	6	129/137 (94%)	127 (98%)	2 (2%)	0	100	100
24	BQ	129/137 (94%)	126 (98%)	3 (2%)	0	100	100
25	7	73/155 (47%)	69 (94%)	3 (4%)	1 (1%)	9	30
25	BR	105/155 (68%)	97 (92%)	7 (7%)	1 (1%)	12	39
26	8	119/142 (84%)	118 (99%)	1 (1%)	0	100	100
26	BS	117/142 (82%)	116 (99%)	1 (1%)	0	100	100
27	9	123/127 (97%)	122 (99%)	1 (1%)	0	100	100
27	BT	124/127 (98%)	122 (98%)	2 (2%)	0	100	100
28	AA	133/136 (98%)	132 (99%)	1 (1%)	0	100	100
28	BU	133/136 (98%)	128 (96%)	5 (4%)	0	100	100
29	AB	146/149 (98%)	139 (95%)	7 (5%)	0	100	100
29	BV	146/149 (98%)	139 (95%)	7 (5%)	0	100	100
30	AC	59/63 (94%)	56 (95%)	1 (2%)	2 (3%)	3	12
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%)	91 (97%)	3 (3%)	0	100	100
32	AE	108/112 (96%)	106 (98%)	2 (2%)	0	100	100
32	BY	108/112 (96%)	103 (95%)	4 (4%)	1 (1%)	14	41
33	AF	122/131 (93%)	122 (100%)	0	0	100	100
33	BZ	122/131 (93%)	119 (98%)	3 (2%)	0	100	100
34	AG	104/107 (97%)	101 (97%)	3 (3%)	0	100	100
34	CA	104/107 (97%)	101 (97%)	3 (3%)	0	100	100
35	AH	110/122 (90%)	108 (98%)	2 (2%)	0	100	100
35	CB	110/122 (90%)	106 (96%)	4 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
36	AI	116/120 (97%)	112 (97%)	4 (3%)	0	100	100
36	CC	117/120 (98%)	114 (97%)	3 (3%)	0	100	100
37	AJ	95/99 (96%)	94 (99%)	1 (1%)	0	100	100
37	CD	95/99 (96%)	93 (98%)	1 (1%)	1 (1%)	11	36
38	AK	84/90 (93%)	81 (96%)	3 (4%)	0	100	100
38	CE	84/90 (93%)	82 (98%)	2 (2%)	0	100	100
39	AL	75/78 (96%)	70 (93%)	5 (7%)	0	100	100
39	CF	75/78 (96%)	71 (95%)	4 (5%)	0	100	100
40	AM	48/51 (94%)	46 (96%)	2 (4%)	0	100	100
40	CG	49/51 (96%)	49 (100%)	0	0	100	100
41	AN	50/52 (96%)	50 (100%)	0	0	100	100
41	CH	49/52 (94%)	45 (92%)	2 (4%)	2 (4%)	2	9
42	AO	23/25 (92%)	23 (100%)	0	0	100	100
42	CI	23/25 (92%)	21 (91%)	2 (9%)	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
46	C	206/261 (79%)	200 (97%)	6 (3%)	0	100	100
46	CN	206/261 (79%)	198 (96%)	8 (4%)	0	100	100
47	CO	212/256 (83%)	205 (97%)	6 (3%)	1 (0%)	24	54
47	D	212/256 (83%)	207 (98%)	5 (2%)	0	100	100
48	CP	215/249 (86%)	209 (97%)	6 (3%)	0	100	100
48	E	215/249 (86%)	212 (99%)	3 (1%)	0	100	100
49	CQ	221/251 (88%)	211 (96%)	10 (4%)	0	100	100
49	F	221/251 (88%)	215 (97%)	6 (3%)	0	100	100
50	CR	258/262 (98%)	254 (98%)	4 (2%)	0	100	100
50	G	257/262 (98%)	253 (98%)	4 (2%)	0	100	100
51	CS	204/225 (91%)	195 (96%)	9 (4%)	0	100	100
51	H	204/225 (91%)	195 (96%)	8 (4%)	1 (0%)	24	54
52	CT	234/236 (99%)	229 (98%)	5 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
52	I	220/236 (93%)	215 (98%)	5 (2%)	0	100	100
53	CU	181/186 (97%)	173 (96%)	7 (4%)	1 (1%)	21	51
53	J	179/186 (96%)	168 (94%)	11 (6%)	0	100	100
54	CV	201/206 (98%)	200 (100%)	1 (0%)	0	100	100
54	K	200/206 (97%)	199 (100%)	1 (0%)	0	100	100
55	CW	176/189 (93%)	174 (99%)	2 (1%)	0	100	100
55	L	176/189 (93%)	175 (99%)	1 (1%)	0	100	100
56	CX	92/118 (78%)	87 (95%)	5 (5%)	0	100	100
56	M	96/118 (81%)	81 (84%)	12 (12%)	3 (3%)	3	14
57	CY	139/155 (90%)	133 (96%)	4 (3%)	2 (1%)	9	30
57	N	137/155 (88%)	133 (97%)	4 (3%)	0	100	100
58	CZ	117/143 (82%)	91 (78%)	21 (18%)	5 (4%)	2	8
58	O	114/143 (80%)	91 (80%)	17 (15%)	6 (5%)	1	5
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%)	121 (97%)	3 (2%)	1 (1%)	16	44
60	Q	125/132 (95%)	120 (96%)	5 (4%)	0	100	100
61	DC	118/142 (83%)	102 (86%)	16 (14%)	0	100	100
61	R	127/142 (89%)	115 (91%)	11 (9%)	1 (1%)	16	44
62	DD	131/142 (92%)	128 (98%)	3 (2%)	0	100	100
62	S	138/142 (97%)	134 (97%)	3 (2%)	1 (1%)	18	48
63	DE	122/137 (89%)	117 (96%)	5 (4%)	0	100	100
63	T	122/137 (89%)	117 (96%)	5 (4%)	0	100	100
64	DF	139/145 (96%)	133 (96%)	6 (4%)	0	100	100
64	U	142/145 (98%)	136 (96%)	6 (4%)	0	100	100
65	DG	137/145 (94%)	133 (97%)	3 (2%)	1 (1%)	18	48
65	V	139/145 (96%)	136 (98%)	3 (2%)	0	100	100
66	DH	95/119 (80%)	94 (99%)	1 (1%)	0	100	100
66	W	97/119 (82%)	94 (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

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
68	DJ	127/130 (98%)	125 (98%)	2 (2%)	0	100	100
68	Y	127/130 (98%)	126 (99%)	1 (1%)	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%)	131 (99%)	1 (1%)	0	100	100
71	DM	66/105 (63%)	62 (94%)	3 (4%)	1 (2%)	8	28
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%)	55 (93%)	4 (7%)	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%)	5 (9%)	1 (2%)	6	25
76	g	50/63 (79%)	48 (96%)	2 (4%)	0	100	100
77	h	68/193 (35%)	56 (82%)	11 (16%)	1 (2%)	8	28
78	AR	309/317 (98%)	293 (95%)	16 (5%)	0	100	100
79	CL	117/267 (44%)	91 (78%)	22 (19%)	4 (3%)	3	12
79	i	116/267 (43%)	90 (78%)	21 (18%)	5 (4%)	2	8
All	All	21638/23766 (91%)	20895 (97%)	693 (3%)	50 (0%)	43	72

All (50) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
10	p	205	ASN
56	M	86	ILE
58	O	38	HIS
58	O	39	ASP
58	O	90	LYS
58	O	130	SER
77	h	161	ARG

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Mol	Chain	Res	Type
14	BG	127	ASP
32	BY	3	LEU
41	CH	3	GLU
41	CH	4	PRO
58	CZ	82	PRO
58	CZ	91	VAL
58	CZ	108	ARG
58	CZ	112	ALA
65	DG	70	GLN
79	i	51	ALA
79	i	52	LYS
79	i	76	PRO
79	CL	43	PRO
79	CL	68	ASN
56	M	88	PRO
10	BC	128	PRO
57	CY	26	LYS
58	CZ	34	THR
71	DM	44	GLN
79	i	64	LEU
23	5	20	ALA
61	R	2	VAL
23	BP	20	ALA
25	BR	97	LYS
37	CD	83	LEU
53	CU	156	THR
60	DB	119	ASP
79	CL	48	PRO
56	M	32	HIS
10	BC	127	SER
23	BP	24	GLU
79	i	63	ALA
79	CL	50	LYS
25	7	60	LYS
62	S	40	PRO
30	AC	3	LYS
51	H	35	GLU
58	O	41	LEU
47	CO	29	TRP
57	CY	27	ALA
76	DR	7	SER
58	O	37	VAL

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Mol	Chain	Res	Type
30	AC	21	ILE

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	AW	191/194 (98%)	188 (98%)	3 (2%)	55	83
4	j	191/194 (98%)	189 (99%)	2 (1%)	68	89
5	AX	325/328 (99%)	322 (99%)	3 (1%)	70	90
5	k	326/328 (99%)	324 (99%)	2 (1%)	78	93
6	AY	290/292 (99%)	286 (99%)	4 (1%)	59	85
6	l	289/292 (99%)	286 (99%)	3 (1%)	68	89
7	AZ	247/252 (98%)	240 (97%)	7 (3%)	38	72
7	m	250/252 (99%)	248 (99%)	2 (1%)	73	90
8	BA	132/154 (86%)	128 (97%)	4 (3%)	36	70
8	n	136/154 (88%)	134 (98%)	2 (2%)	57	84
9	BB	198/204 (97%)	192 (97%)	6 (3%)	36	70
9	o	198/204 (97%)	192 (97%)	6 (3%)	36	70
10	BC	193/216 (89%)	185 (96%)	8 (4%)	27	61
10	p	193/216 (89%)	189 (98%)	4 (2%)	47	77
11	BD	169/170 (99%)	164 (97%)	5 (3%)	36	70
11	q	169/170 (99%)	166 (98%)	3 (2%)	51	80
12	BE	176/186 (95%)	174 (99%)	2 (1%)	65	88
12	r	178/186 (96%)	177 (99%)	1 (1%)	78	93
13	BF	146/149 (98%)	141 (97%)	5 (3%)	32	66
13	s	146/149 (98%)	144 (99%)	2 (1%)	59	85
14	BG	166/168 (99%)	158 (95%)	8 (5%)	23	55
14	t	166/168 (99%)	165 (99%)	1 (1%)	78	93
15	BH	108/109 (99%)	106 (98%)	2 (2%)	50	79

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	u	107/109 (98%)	106 (99%)	1 (1%)	70	90
16	BI	177/178 (99%)	173 (98%)	4 (2%)	44	76
16	v	177/178 (99%)	176 (99%)	1 (1%)	78	93
17	BJ	166/167 (99%)	161 (97%)	5 (3%)	36	70
17	w	166/167 (99%)	166 (100%)	0	100	100
18	BK	145/154 (94%)	141 (97%)	4 (3%)	38	72
18	x	142/154 (92%)	141 (99%)	1 (1%)	76	92
19	BL	153/154 (99%)	151 (99%)	2 (1%)	61	86
19	y	153/154 (99%)	149 (97%)	4 (3%)	40	73
20	BM	146/153 (95%)	141 (97%)	5 (3%)	32	66
20	z	146/153 (95%)	145 (99%)	1 (1%)	76	92
21	0	155/157 (99%)	155 (100%)	0	100	100
21	BN	155/157 (99%)	153 (99%)	2 (1%)	61	86
22	2	133/134 (99%)	131 (98%)	2 (2%)	57	84
22	BO	133/134 (99%)	130 (98%)	3 (2%)	44	76
23	5	93/112 (83%)	90 (97%)	3 (3%)	34	68
23	BP	94/112 (84%)	89 (95%)	5 (5%)	20	52
24	6	101/104 (97%)	100 (99%)	1 (1%)	68	89
24	BQ	101/104 (97%)	100 (99%)	1 (1%)	68	89
25	7	68/127 (54%)	65 (96%)	3 (4%)	25	59
25	BR	91/127 (72%)	83 (91%)	8 (9%)	9	29
26	8	108/121 (89%)	106 (98%)	2 (2%)	50	79
26	BS	107/121 (88%)	103 (96%)	4 (4%)	30	64
27	9	110/112 (98%)	109 (99%)	1 (1%)	70	90
27	BT	111/112 (99%)	103 (93%)	8 (7%)	13	39
28	AA	117/118 (99%)	116 (99%)	1 (1%)	70	90
28	BU	117/118 (99%)	110 (94%)	7 (6%)	17	47
29	AB	120/121 (99%)	119 (99%)	1 (1%)	73	90
29	BV	120/121 (99%)	119 (99%)	1 (1%)	73	90
30	AC	48/49 (98%)	46 (96%)	2 (4%)	26	60
30	BW	48/49 (98%)	47 (98%)	1 (2%)	47	77

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	AD	81/90 (90%)	80 (99%)	1 (1%)	63	86
31	BX	81/90 (90%)	77 (95%)	4 (5%)	22	54
32	AE	98/100 (98%)	98 (100%)	0	100	100
32	BY	98/100 (98%)	96 (98%)	2 (2%)	48	78
33	AF	109/115 (95%)	107 (98%)	2 (2%)	51	80
33	BZ	110/115 (96%)	108 (98%)	2 (2%)	51	80
34	AG	91/92 (99%)	90 (99%)	1 (1%)	65	88
34	CA	91/92 (99%)	91 (100%)	0	100	100
35	AH	95/102 (93%)	94 (99%)	1 (1%)	65	88
35	CB	95/102 (93%)	90 (95%)	5 (5%)	20	52
36	AI	106/106 (100%)	104 (98%)	2 (2%)	50	79
36	CC	106/106 (100%)	102 (96%)	4 (4%)	29	64
37	AJ	77/79 (98%)	76 (99%)	1 (1%)	61	86
37	CD	77/79 (98%)	75 (97%)	2 (3%)	40	73
38	AK	70/73 (96%)	70 (100%)	0	100	100
38	CE	70/73 (96%)	69 (99%)	1 (1%)	59	85
39	AL	68/69 (99%)	66 (97%)	2 (3%)	37	71
39	CF	68/69 (99%)	65 (96%)	3 (4%)	25	59
40	AM	46/47 (98%)	45 (98%)	1 (2%)	45	77
40	CG	47/47 (100%)	47 (100%)	0	100	100
41	AN	47/47 (100%)	47 (100%)	0	100	100
41	CH	46/47 (98%)	44 (96%)	2 (4%)	26	60
42	AO	24/24 (100%)	23 (96%)	1 (4%)	26	60
42	CI	24/24 (100%)	21 (88%)	3 (12%)	4	15
43	AP	88/91 (97%)	87 (99%)	1 (1%)	65	88
43	CJ	88/91 (97%)	87 (99%)	1 (1%)	65	88
44	AQ	72/73 (99%)	72 (100%)	0	100	100
44	CK	72/73 (99%)	70 (97%)	2 (3%)	38	72
46	C	176/215 (82%)	175 (99%)	1 (1%)	78	93
46	CN	176/215 (82%)	172 (98%)	4 (2%)	44	76
47	CO	194/229 (85%)	187 (96%)	7 (4%)	31	65

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
47	D	194/229 (85%)	191 (98%)	3 (2%)	57	84
48	CP	175/198 (88%)	167 (95%)	8 (5%)	24	57
48	E	175/198 (88%)	172 (98%)	3 (2%)	53	82
49	CQ	174/196 (89%)	171 (98%)	3 (2%)	53	82
49	F	174/196 (89%)	169 (97%)	5 (3%)	37	71
50	CR	218/220 (99%)	210 (96%)	8 (4%)	30	64
50	G	218/220 (99%)	215 (99%)	3 (1%)	59	85
51	CS	178/197 (90%)	169 (95%)	9 (5%)	21	53
51	H	178/197 (90%)	173 (97%)	5 (3%)	38	72
52	CT	204/204 (100%)	191 (94%)	13 (6%)	16	44
52	I	192/204 (94%)	188 (98%)	4 (2%)	47	77
53	CU	164/167 (98%)	160 (98%)	4 (2%)	43	75
53	J	163/167 (98%)	159 (98%)	4 (2%)	42	74
54	CV	157/160 (98%)	153 (98%)	4 (2%)	42	74
54	K	157/160 (98%)	155 (99%)	2 (1%)	61	86
55	CW	153/160 (96%)	148 (97%)	5 (3%)	33	67
55	L	153/160 (96%)	153 (100%)	0	100	100
56	CX	88/104 (85%)	86 (98%)	2 (2%)	44	76
56	M	90/104 (86%)	88 (98%)	2 (2%)	45	77
57	CY	122/134 (91%)	122 (100%)	0	100	100
57	N	122/134 (91%)	119 (98%)	3 (2%)	42	74
58	CZ	101/123 (82%)	93 (92%)	8 (8%)	11	34
58	O	98/123 (80%)	94 (96%)	4 (4%)	27	61
59	DA	129/130 (99%)	127 (98%)	2 (2%)	55	83
59	P	129/130 (99%)	127 (98%)	2 (2%)	55	83
60	DB	97/102 (95%)	95 (98%)	2 (2%)	47	77
60	Q	97/102 (95%)	95 (98%)	2 (2%)	47	77
61	DC	105/121 (87%)	103 (98%)	2 (2%)	50	79
61	R	111/121 (92%)	107 (96%)	4 (4%)	31	65
62	DD	110/116 (95%)	108 (98%)	2 (2%)	51	80
62	S	114/116 (98%)	110 (96%)	4 (4%)	32	66

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
63	DE	112/122 (92%)	108 (96%)	4 (4%)	31	65
63	T	112/122 (92%)	108 (96%)	4 (4%)	31	65
64	DF	125/129 (97%)	122 (98%)	3 (2%)	43	75
64	U	128/129 (99%)	127 (99%)	1 (1%)	73	90
65	DG	112/117 (96%)	104 (93%)	8 (7%)	13	40
65	V	113/117 (97%)	111 (98%)	2 (2%)	51	80
66	DH	87/105 (83%)	84 (97%)	3 (3%)	32	66
66	W	89/105 (85%)	86 (97%)	3 (3%)	32	66
67	DI	71/71 (100%)	71 (100%)	0	100	100
67	X	71/71 (100%)	70 (99%)	1 (1%)	59	85
68	DJ	112/113 (99%)	112 (100%)	0	100	100
68	Y	112/113 (99%)	110 (98%)	2 (2%)	51	80
69	DK	116/118 (98%)	113 (97%)	3 (3%)	40	73
69	Z	116/118 (98%)	115 (99%)	1 (1%)	70	90
70	DL	109/112 (97%)	108 (99%)	1 (1%)	70	90
70	a	111/112 (99%)	108 (97%)	3 (3%)	39	73
71	DM	61/85 (72%)	57 (93%)	4 (7%)	15	43
71	b	64/85 (75%)	63 (98%)	1 (2%)	55	83
72	DN	84/102 (82%)	82 (98%)	2 (2%)	43	75
72	c	84/102 (82%)	84 (100%)	0	100	100
73	DO	72/73 (99%)	69 (96%)	3 (4%)	26	60
73	d	72/73 (99%)	70 (97%)	2 (3%)	38	72
74	DP	53/58 (91%)	52 (98%)	1 (2%)	50	79
74	e	54/58 (93%)	53 (98%)	1 (2%)	50	79
75	DQ	47/48 (98%)	46 (98%)	1 (2%)	47	77
75	f	47/48 (98%)	47 (100%)	0	100	100
76	DR	50/54 (93%)	48 (96%)	2 (4%)	28	62
76	g	46/54 (85%)	46 (100%)	0	100	100
77	h	62/175 (35%)	60 (97%)	2 (3%)	34	68
78	AR	259/263 (98%)	245 (95%)	14 (5%)	20	51
79	CL	99/212 (47%)	93 (94%)	6 (6%)	17	46

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
79	i	98/212 (46%)	84 (86%)	14 (14%)	3 11
All	All	18570/20010 (93%)	18131 (98%)	439 (2%)	43 75

All (439) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	j	96	LEU
4	j	155	LYS
5	k	103	THR
5	k	312	VAL
6	l	113	LYS
6	l	125	SER
6	l	311	SER
7	m	5	LYS
7	m	132	THR
8	n	28	LYS
8	n	99	LYS
9	o	30	VAL
9	o	37	GLU
9	o	70	SER
9	o	117	LEU
9	o	119	LYS
9	o	173	LYS
10	p	80	SER
10	p	209	GLU
10	p	213	SER
10	p	214	LYS
11	q	21	LYS
11	q	157	ASN
11	q	188	VAL
12	r	3	ARG
13	s	155	ASN
13	s	170	GLU
14	t	173	ARG
15	u	121	ARG
16	v	24	ARG
18	x	20	SER
19	y	66	ARG
19	y	72	LYS
19	y	144	ARG
19	y	150	VAL
20	z	43	LYS

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Mol	Chain	Res	Type
22	2	69	LYS
22	2	111	SER
23	5	19	VAL
23	5	31	GLU
23	5	59	GLU
24	6	110	LYS
25	7	26	SER
25	7	87	LEU
25	7	93	ARG
26	8	29	SER
26	8	113	LEU
27	9	120	GLN
28	AA	121	LYS
29	AB	86	LYS
30	AC	19	ASN
30	AC	21	ILE
31	AD	24	LYS
33	AF	56	ILE
33	AF	106	ARG
34	AG	19	SER
35	AH	29	LYS
36	AI	6	THR
36	AI	48	ARG
37	AJ	33	SER
39	AL	16	ARG
39	AL	60	SER
40	AM	28	ARG
42	AO	24	SER
43	AP	45	ARG
46	C	184	LEU
47	D	43	VAL
47	D	107	SER
47	D	154	THR
48	E	46	THR
48	E	85	THR
48	E	218	SER
49	F	59	VAL
49	F	63	GLN
49	F	98	SER
49	F	187	VAL
49	F	216	ASP
50	G	211	LYS

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Mol	Chain	Res	Type
50	G	220	THR
50	G	241	LYS
51	H	23	VAL
51	H	38	ARG
51	H	132	VAL
51	H	157	ARG
51	H	208	SER
52	I	170	THR
52	I	175	ILE
52	I	196	LYS
52	I	199	GLN
53	J	45	ILE
53	J	51	LYS
53	J	101	LYS
53	J	103	ARG
54	K	45	SER
54	K	125	LYS
56	M	2	LEU
56	M	31	LYS
57	N	9	SER
57	N	24	LYS
57	N	30	LYS
58	O	33	ARG
58	O	35	SER
58	O	45	LEU
58	O	106	LEU
59	P	49	GLN
59	P	76	LYS
60	Q	67	LYS
60	Q	110	ILE
61	R	16	SER
61	R	27	GLU
61	R	110	GLU
61	R	120	SER
62	S	39	GLN
62	S	42	ILE
62	S	84	ILE
62	S	98	GLU
63	T	19	ARG
63	T	35	THR
63	T	43	SER
63	T	73	LEU

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Mol	Chain	Res	Type
64	U	51	ASP
65	V	30	VAL
65	V	69	LYS
66	W	24	THR
66	W	93	GLN
66	W	107	ILE
67	X	39	VAL
68	Y	83	ILE
68	Y	105	THR
69	Z	19	ARG
70	a	5	VAL
70	a	22	GLN
70	a	36	SER
71	b	52	LYS
73	d	55	THR
73	d	78	SER
74	e	55	CYS
77	h	150	VAL
77	h	174	MET
78	AR	16	HIS
78	AR	96	GLU
78	AR	112	LEU
78	AR	121	ARG
78	AR	130	LYS
78	AR	145	LEU
78	AR	146	THR
78	AR	149	ASN
78	AR	210	SER
78	AR	213	LYS
78	AR	223	ASN
78	AR	253	THR
78	AR	262	LEU
78	AR	289	LEU
4	AW	18	SER
4	AW	60	LYS
4	AW	119	LYS
5	AX	29	VAL
5	AX	125	SER
5	AX	204	SER
6	AY	147	LYS
6	AY	162	LYS
6	AY	192	LYS

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Mol	Chain	Res	Type
6	AY	350	VAL
7	AZ	7	PHE
7	AZ	186	GLU
7	AZ	252	SER
7	AZ	260	PHE
7	AZ	261	THR
7	AZ	269	SER
7	AZ	275	GLN
8	BA	4	VAL
8	BA	20	THR
8	BA	45	ARG
8	BA	90	VAL
9	BB	9	THR
9	BB	30	VAL
9	BB	36	LYS
9	BB	153	LYS
9	BB	177	LEU
9	BB	206	SER
10	BC	47	LEU
10	BC	49	ARG
10	BC	122	THR
10	BC	163	LEU
10	BC	194	LYS
10	BC	225	GLU
10	BC	231	ARG
10	BC	246	LYS
11	BD	16	VAL
11	BD	17	THR
11	BD	109	GLN
11	BD	141	LYS
11	BD	188	VAL
12	BE	42	THR
12	BE	202	ARG
13	BF	5	SER
13	BF	26	SER
13	BF	107	ASP
13	BF	153	LYS
13	BF	165	THR
14	BG	40	LEU
14	BG	92	THR
14	BG	104	LYS
14	BG	128	LYS

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Mol	Chain	Res	Type
14	BG	130	THR
14	BG	172	LEU
14	BG	174	LEU
14	BG	190	LYS
15	BH	5	VAL
15	BH	120	ARG
16	BI	61	ILE
16	BI	63	ARG
16	BI	117	ASN
16	BI	170	LYS
17	BJ	22	SER
17	BJ	117	LYS
17	BJ	138	THR
17	BJ	163	VAL
17	BJ	179	LEU
18	BK	29	THR
18	BK	65	SER
18	BK	130	TYR
18	BK	135	ARG
19	BL	16	ARG
19	BL	28	LEU
20	BM	28	GLU
20	BM	34	ASN
20	BM	67	LYS
20	BM	71	ARG
20	BM	165	ARG
21	BN	8	GLN
21	BN	55	SER
22	BO	27	LEU
22	BO	35	LYS
22	BO	69	LYS
23	BP	49	ASN
23	BP	50	LEU
23	BP	54	ILE
23	BP	56	ILE
23	BP	108	LEU
24	BQ	10	LYS
25	BR	36	SER
25	BR	43	ARG
25	BR	97	LYS
25	BR	101	ARG
25	BR	102	LYS

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Mol	Chain	Res	Type
25	BR	105	ARG
25	BR	111	LYS
25	BR	113	LYS
26	BS	71	THR
26	BS	81	THR
26	BS	83	VAL
26	BS	138	ARG
27	BT	5	SER
27	BT	11	SER
27	BT	13	SER
27	BT	23	SER
27	BT	47	SER
27	BT	106	ILE
27	BT	111	LEU
27	BT	125	LYS
28	BU	35	SER
28	BU	97	THR
28	BU	99	GLU
28	BU	102	GLU
28	BU	108	GLU
28	BU	111	LYS
28	BU	128	LYS
29	BV	92	SER
30	BW	50	THR
31	BX	15	LYS
31	BX	34	LYS
31	BX	56	SER
31	BX	101	ASP
32	BY	5	ASP
32	BY	45	THR
33	BZ	23	SER
33	BZ	81	LYS
35	CB	49	SER
35	CB	60	ARG
35	CB	61	GLN
35	CB	71	THR
35	CB	113	LYS
36	CC	13	SER
36	CC	26	GLN
36	CC	89	ARG
36	CC	103	LYS
37	CD	21	VAL

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Mol	Chain	Res	Type
37	CD	93	ILE
38	CE	46	SER
39	CF	13	GLU
39	CF	14	LEU
39	CF	27	VAL
41	CH	5	SER
41	CH	46	ARG
42	CI	10	VAL
42	CI	20	VAL
42	CI	24	SER
43	CJ	19	LYS
44	CK	40	SER
44	CK	72	SER
46	CN	2	SER
46	CN	78	SER
46	CN	134	LYS
46	CN	170	ILE
47	CO	32	ILE
47	CO	42	ASN
47	CO	148	ASN
47	CO	189	ILE
47	CO	203	THR
47	CO	212	ILE
47	CO	217	LEU
48	CP	66	LEU
48	CP	84	GLN
48	CP	85	THR
48	CP	110	ILE
48	CP	118	SER
48	CP	136	ARG
48	CP	154	THR
48	CP	194	SER
49	CQ	54	SER
49	CQ	98	SER
49	CQ	209	ILE
50	CR	16	SER
50	CR	37	LYS
50	CR	62	LYS
50	CR	91	THR
50	CR	111	VAL
50	CR	174	LYS
50	CR	187	ARG

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Mol	Chain	Res	Type
50	CR	250	SER
51	CS	28	THR
51	CS	35	GLU
51	CS	76	LYS
51	CS	86	GLN
51	CS	96	SER
51	CS	97	LEU
51	CS	163	SER
51	CS	196	GLU
51	CS	203	LYS
52	CT	40	SER
52	CT	41	VAL
52	CT	43	ASP
52	CT	78	SER
52	CT	112	SER
52	CT	145	PHE
52	CT	149	LYS
52	CT	167	LYS
52	CT	168	THR
52	CT	200	GLN
52	CT	214	LYS
52	CT	230	ARG
52	CT	232	GLU
53	CU	30	LEU
53	CU	40	LYS
53	CU	71	THR
53	CU	111	SER
54	CV	99	SER
54	CV	125	LYS
54	CV	141	ARG
54	CV	144	LYS
55	CW	16	LYS
55	CW	21	SER
55	CW	65	LYS
55	CW	79	ARG
55	CW	171	ARG
56	CX	11	ILE
56	CX	15	LEU
58	CZ	33	ARG
58	CZ	41	LEU
58	CZ	62	LEU
58	CZ	79	CYS

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Mol	Chain	Res	Type
58	CZ	89	ILE
58	CZ	96	LEU
58	CZ	136	LEU
58	CZ	141	SER
59	DA	27	LYS
59	DA	39	LYS
60	DB	29	SER
60	DB	31	LYS
61	DC	2	VAL
61	DC	51	SER
62	DD	47	VAL
62	DD	127	LYS
63	DE	13	SER
63	DE	17	ILE
63	DE	69	ILE
63	DE	89	SER
64	DF	34	LYS
64	DF	67	GLU
64	DF	141	THR
65	DG	28	LEU
65	DG	68	ARG
65	DG	70	GLN
65	DG	104	CYS
65	DG	111	ILE
65	DG	114	LEU
65	DG	124	ILE
65	DG	132	LEU
66	DH	21	ILE
66	DH	28	THR
66	DH	113	VAL
69	DK	47	SER
69	DK	73	ARG
69	DK	139	LYS
70	DL	52	LYS
71	DM	65	LEU
71	DM	71	ILE
71	DM	75	LEU
71	DM	90	THR
72	DN	39	VAL
72	DN	86	VAL
73	DO	44	THR
73	DO	62	VAL

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Mol	Chain	Res	Type
73	DO	67	THR
74	DP	55	CYS
75	DQ	54	LYS
76	DR	26	LYS
76	DR	50	THR
79	i	39	SER
79	i	53	LYS
79	i	54	LYS
79	i	55	LYS
79	i	56	SER
79	i	64	LEU
79	i	65	LYS
79	i	78	SER
79	i	96	LYS
79	i	100	LYS
79	i	109	GLN
79	i	113	ARG
79	i	160	LEU
79	i	163	GLN
79	CL	36	SER
79	CL	37	LYS
79	CL	60	ASN
79	CL	85	LYS
79	CL	104	GLN
79	CL	155	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (254) such sidechains are listed below:

Mol	Chain	Res	Type
4	j	132	ASN
4	j	205	ASN
5	k	25	GLN
5	k	316	ASN
5	k	355	ASN
6	l	6	GLN
6	l	117	ASN
6	l	321	ASN
7	m	45	ASN
7	m	81	HIS
7	m	111	GLN
7	m	296	GLN
9	o	11	GLN

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Mol	Chain	Res	Type
9	o	71	ASN
9	o	110	ASN
9	o	144	GLN
9	o	192	ASN
9	o	207	ASN
9	o	239	GLN
10	p	62	GLN
10	p	81	GLN
10	p	192	HIS
10	p	222	ASN
11	q	100	ASN
11	q	102	ASN
11	q	109	GLN
11	q	157	ASN
12	r	59	GLN
12	r	100	ASN
13	s	101	ASN
13	s	150	ASN
15	u	48	GLN
15	u	98	ASN
15	u	104	GLN
15	u	112	GLN
16	v	15	GLN
16	v	57	GLN
16	v	90	ASN
16	v	95	GLN
16	v	149	ASN
17	w	51	ASN
18	x	10	ASN
18	x	34	GLN
18	x	137	ASN
18	x	172	GLN
19	y	5	HIS
19	y	9	GLN
19	y	15	HIS
20	z	75	HIS
20	z	134	HIS
21	0	8	GLN
21	0	46	GLN
22	2	16	GLN
22	2	54	HIS
22	2	90	ASN

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Mol	Chain	Res	Type
23	5	104	ASN
24	6	104	ASN
26	8	111	ASN
27	9	81	GLN
27	9	98	ASN
28	AA	127	ASN
30	AC	17	HIS
32	AE	20	HIS
36	AI	20	GLN
36	AI	113	GLN
37	AJ	62	ASN
38	AK	76	ASN
39	AL	51	GLN
40	AM	17	GLN
40	AM	25	GLN
41	AN	33	ASN
46	C	21	ASN
46	C	33	ASN
47	D	202	GLN
47	D	208	GLN
48	E	54	HIS
48	E	84	GLN
48	E	145	GLN
48	E	204	ASN
49	F	163	GLN
49	F	180	GLN
50	G	8	HIS
50	G	71	GLN
50	G	188	ASN
51	H	37	GLN
51	H	127	GLN
51	H	139	ASN
52	I	197	ASN
53	J	19	GLN
53	J	48	ASN
53	J	106	GLN
53	J	167	GLN
54	K	52	ASN
54	K	53	GLN
54	K	181	GLN
55	L	48	GLN
55	L	131	GLN

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Mol	Chain	Res	Type
55	L	155	HIS
56	M	47	GLN
57	N	14	GLN
57	N	92	HIS
58	O	38	HIS
59	P	49	GLN
62	S	4	GLN
64	U	12	GLN
64	U	21	ASN
64	U	92	GLN
64	U	103	ASN
65	V	48	GLN
65	V	127	ASN
65	V	129	GLN
65	V	138	GLN
67	X	3	ASN
67	X	75	GLN
68	Y	15	ASN
68	Y	70	ASN
69	Z	63	GLN
69	Z	75	GLN
69	Z	94	ASN
70	a	110	GLN
71	b	44	GLN
72	c	25	ASN
75	f	53	ASN
76	g	17	GLN
76	g	24	GLN
4	AW	86	GLN
4	AW	97	ASN
4	AW	205	ASN
4	AW	211	HIS
5	AX	25	GLN
5	AX	259	ASN
6	AY	117	ASN
6	AY	176	HIS
6	AY	212	GLN
6	AY	214	ASN
6	AY	312	HIS
8	BA	56	ASN
8	BA	60	ASN
8	BA	71	ASN

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Mol	Chain	Res	Type
9	BB	50	GLN
9	BB	144	GLN
9	BB	184	HIS
10	BC	42	GLN
10	BC	192	HIS
11	BD	8	GLN
11	BD	50	ASN
11	BD	156	GLN
11	BD	157	ASN
12	BE	59	GLN
12	BE	100	ASN
12	BE	209	ASN
13	BF	39	GLN
14	BG	106	GLN
14	BG	151	GLN
17	BJ	164	GLN
18	BK	118	GLN
18	BK	120	ASN
18	BK	140	GLN
18	BK	179	GLN
19	BL	23	ASN
19	BL	136	ASN
20	BM	7	GLN
20	BM	118	HIS
21	BN	8	GLN
21	BN	33	ASN
21	BN	142	GLN
22	BO	77	ASN
22	BO	122	ASN
23	BP	30	GLN
24	BQ	132	ASN
26	BS	60	HIS
26	BS	137	ASN
27	BT	86	GLN
27	BT	100	HIS
28	BU	132	GLN
29	BV	40	HIS
29	BV	107	HIS
30	BW	17	HIS
32	BY	79	ASN
32	BY	104	GLN
33	BZ	36	GLN

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Mol	Chain	Res	Type
34	CA	106	ASN
35	CB	33	GLN
36	CC	61	ASN
36	CC	99	GLN
36	CC	113	GLN
37	CD	79	HIS
38	CE	69	HIS
38	CE	79	GLN
39	CF	51	GLN
40	CG	20	ASN
41	CH	33	ASN
41	CH	44	GLN
43	CJ	23	HIS
43	CJ	59	HIS
43	CJ	99	GLN
46	CN	46	ASN
46	CN	49	ASN
46	CN	83	GLN
46	CN	106	ASN
47	CO	118	GLN
47	CO	148	ASN
47	CO	202	GLN
48	CP	84	GLN
49	CQ	33	GLN
50	CR	68	GLN
50	CR	98	HIS
50	CR	197	HIS
51	CS	34	GLN
51	CS	63	GLN
51	CS	86	GLN
51	CS	116	HIS
52	CT	34	GLN
52	CT	139	ASN
52	CT	201	GLN
54	CV	181	GLN
56	CX	62	GLN
57	CY	14	GLN
57	CY	81	HIS
57	CY	92	HIS
57	CY	127	GLN
58	CZ	38	HIS
59	DA	36	GLN

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Mol	Chain	Res	Type
59	DA	49	GLN
59	DA	58	HIS
59	DA	78	ASN
60	DB	24	HIS
62	DD	39	GLN
63	DE	31	ASN
64	DF	19	ASN
64	DF	92	GLN
64	DF	122	HIS
65	DG	23	GLN
65	DG	43	ASN
66	DH	43	ASN
67	DI	21	ASN
67	DI	70	ASN
68	DJ	42	GLN
68	DJ	56	HIS
68	DJ	70	ASN
68	DJ	80	ASN
69	DK	99	ASN
70	DL	77	GLN
70	DL	107	GLN
70	DL	122	GLN
73	DO	18	GLN
73	DO	38	GLN
74	DP	51	ASN
76	DR	46	ASN
79	i	70	ASN
79	i	77	GLN
79	i	105	GLN
79	i	109	GLN
79	CL	109	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1	3166/3359 (94%)	579 (18%)	39 (1%)
1	AS	3058/3359 (91%)	504 (16%)	38 (1%)
2	3	120/121 (99%)	9 (7%)	0
2	AT	120/121 (99%)	9 (7%)	0
3	4	155/158 (98%)	22 (14%)	2 (1%)
3	AU	155/158 (98%)	21 (13%)	2 (1%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
45	B	1721/1787 (96%)	418 (24%)	42 (2%)
45	CM	1777/1787 (99%)	461 (25%)	57 (3%)
All	All	10272/10850 (94%)	2023 (19%)	180 (1%)

All (2023) 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	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
1	1	189	U
1	1	190	U
1	1	199	C
1	1	205	G
1	1	209	C
1	1	212	A

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Mol	Chain	Res	Type
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	251	G
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
1	1	445	A
1	1	448	U
1	1	450	G
1	1	481	G
1	1	482	U

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Mol	Chain	Res	Type
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	602	A
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
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

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Mol	Chain	Res	Type
1	1	732	U
1	1	760	U
1	1	763	U
1	1	766	G
1	1	767	A
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	892	A
1	1	903	G
1	1	904	G
1	1	910	A
1	1	912	G
1	1	913	A
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	990	G
1	1	991	U
1	1	996	C
1	1	997	G
1	1	998	A
1	1	1006	G

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Mol	Chain	Res	Type
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	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
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

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Mol	Chain	Res	Type
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	1265	U
1	1	1266	A
1	1	1271	C
1	1	1273	C
1	1	1278	G
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	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	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	1679	A
1	1	1720	U
1	1	1721	C
1	1	1732	G
1	1	1736	U
1	1	1737	A
1	1	1746	A
1	1	1747	G
1	1	1755	U
1	1	1757	A
1	1	1758	U
1	1	1759	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	2090	U
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

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Mol	Chain	Res	Type
1	1	2185	A
1	1	2186	A
1	1	2187	U
1	1	2188	G
1	1	2201	A
1	1	2222	A
1	1	2227	G
1	1	2233	A
1	1	2234	A
1	1	2235	C
1	1	2250	G
1	1	2251	G
1	1	2257	A
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	2312	U
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

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Mol	Chain	Res	Type
1	1	2420	G
1	1	2422	C
1	1	2426	G
1	1	2427	A
1	1	2431	U
1	1	2432	G
1	1	2433	U
1	1	2436	A
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	2451	C
1	1	2452	G
1	1	2453	G
1	1	2454	C
1	1	2456	C
1	1	2457	C
1	1	2458	G
1	1	2459	G
1	1	2460	U
1	1	2462	A
1	1	2464	A
1	1	2465	U
1	1	2466	A
1	1	2467	C
1	1	2468	C
1	1	2469	A
1	1	2470	C
1	1	2471	U
1	1	2473	C
1	1	2475	U

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Mol	Chain	Res	Type
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
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	2644	G
1	1	2646	A
1	1	2649	G
1	1	2661	A
1	1	2662	G

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Mol	Chain	Res	Type
1	1	2663	A
1	1	2664	A
1	1	2666	A
1	1	2676	A
1	1	2677	A
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	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	2900	C
1	1	2907	U

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Mol	Chain	Res	Type
1	1	2908	A
1	1	2911	G
1	1	2914	C
1	1	2919	G
1	1	2920	C
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	3127	U
1	1	3134	C
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	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

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Mol	Chain	Res	Type
1	1	3171	C
1	1	3172	U
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

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Mol	Chain	Res	Type
2	3	54	U
2	3	55	A
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
45	B	17	C
45	B	25	C
45	B	26	A
45	B	27	U
45	B	34	G
45	B	47	A
45	B	57	G
45	B	66	U
45	B	74	U
45	B	75	U
45	B	76	A
45	B	78	A
45	B	79	C

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Mol	Chain	Res	Type
45	B	81	G
45	B	84	A
45	B	93	A
45	B	104	A
45	B	114	C
45	B	115	G
45	B	123	G
45	B	126	A
45	B	127	G
45	B	128	U
45	B	129	A
45	B	130	C
45	B	138	C
45	B	139	U
45	B	142	G
45	B	143	A
45	B	150	U
45	B	151	G
45	B	152	G
45	B	154	A
45	B	159	U
45	B	166	A
45	B	168	U
45	B	173	G
45	B	174	C
45	B	176	U
45	B	177	A
45	B	179	A
45	B	190	U
45	B	191	U
45	B	193	G
45	B	199	G
45	B	200	A
45	B	202	G
45	B	206	U
45	B	211	A
45	B	213	A
45	B	214	U
45	B	215	A
45	B	216	A
45	B	217	A
45	B	218	A

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Mol	Chain	Res	Type
45	B	220	A
45	B	221	U
45	B	222	C
45	B	226	G
45	B	229	U
45	B	230	U
45	B	231	C
45	B	236	U
45	B	237	C
45	B	238	U
45	B	247	U
45	B	255	A
45	B	259	U
45	B	260	U
45	B	261	C
45	B	262	G
45	B	266	C
45	B	269	A
45	B	270	U
45	B	274	C
45	B	276	U
45	B	277	G
45	B	278	U
45	B	279	G
45	B	283	G
45	B	285	G
45	B	297	A
45	B	312	C
45	B	314	A
45	B	318	U
45	B	319	C
45	B	320	G
45	B	335	G
45	B	336	C
45	B	350	A
45	B	357	A
45	B	358	A
45	B	359	C
45	B	388	G
45	B	398	A
45	B	400	C
45	B	402	G

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Mol	Chain	Res	Type
45	B	414	A
45	B	416	G
45	B	421	G
45	B	422	C
45	B	423	A
45	B	424	G
45	B	432	G
45	B	437	U
45	B	442	C
45	B	446	C
45	B	452	A
45	B	458	A
45	B	466	A
45	B	475	A
45	B	480	U
45	B	482	C
45	B	483	A
45	B	485	G
45	B	487	C
45	B	490	U
45	B	491	U
45	B	498	C
45	B	499	U
45	B	503	A
45	B	505	U
45	B	506	U
45	B	509	A
45	B	512	G
45	B	513	A
45	B	515	U
45	B	518	A
45	B	519	A
45	B	525	A
45	B	530	U
45	B	534	C
45	B	536	A
45	B	537	G
45	B	539	A
45	B	540	A
45	B	547	G
45	B	553	A
45	B	554	A

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Mol	Chain	Res	Type
45	B	556	U
45	B	557	C
45	B	563	C
45	B	566	G
45	B	575	G
45	B	576	U
45	B	580	U
45	B	592	A
45	B	593	G
45	B	604	A
45	B	609	U
45	B	617	A
45	B	618	A
45	B	620	A
45	B	621	A
45	B	633	A
45	B	639	G
45	B	645	G
45	B	647	C
45	B	648	U
45	B	649	G
45	B	650	G
45	B	651	C
45	B	652	C
45	B	653	G
45	B	657	C
45	B	670	C
45	B	671	G
45	B	672	U
45	B	673	A
45	B	674	C
45	B	675	U
45	B	676	G
45	B	677	G
45	B	678	A
45	B	679	C
45	B	680	C
45	B	681	C
45	B	682	A
45	B	695	C
45	B	696	U
45	B	697	U

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Mol	Chain	Res	Type
45	B	698	C
45	B	700	G
45	B	701	G
45	B	702	G
45	B	703	U
45	B	721	C
45	B	723	G
45	B	727	U
45	B	728	U
45	B	729	U
45	B	739	A
45	B	740	A
45	B	741	A
45	B	750	G
45	B	751	U
45	B	756	A
45	B	759	A
45	B	760	G
45	B	762	C
45	B	764	U
45	B	765	U
45	B	766	U
45	B	767	G
45	B	768	C
45	B	770	C
45	B	771	G
45	B	773	A
45	B	775	A
45	B	778	U
45	B	779	U
45	B	796	A
45	B	798	A
45	B	799	G
45	B	802	C
45	B	803	G
45	B	804	U
45	B	805	U
45	B	807	U
45	B	808	G
45	B	813	U
45	B	815	U
45	B	816	U

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Mol	Chain	Res	Type
45	B	819	G
45	B	820	U
45	B	821	U
45	B	823	G
45	B	824	U
45	B	825	U
45	B	826	U
45	B	828	U
45	B	829	A
45	B	831	G
45	B	840	A
45	B	842	U
45	B	847	A
45	B	848	A
45	B	856	G
45	B	857	G
45	B	869	A
45	B	871	U
45	B	875	C
45	B	877	G
45	B	878	U
45	B	879	U
45	B	881	U
45	B	891	A
45	B	909	A
45	B	910	G
45	B	911	A
45	B	918	A
45	B	920	U
45	B	927	G
45	B	945	U
45	B	951	A
45	B	973	A
45	B	975	C
45	B	977	A
45	B	988	A
45	B	989	U
45	B	990	A
45	B	997	U
45	B	998	A
45	B	1004	A
45	B	1005	A

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Mol	Chain	Res	Type
45	B	1011	A
45	B	1013	C
45	B	1017	G
45	B	1024	A
45	B	1025	G
45	B	1039	U
45	B	1042	U
45	B	1043	U
45	B	1044	U
45	B	1047	U
45	B	1055	A
45	B	1056	U
45	B	1057	C
45	B	1058	G
45	B	1059	G
45	B	1060	C
45	B	1061	A
45	B	1067	C
45	B	1077	A
45	B	1081	C
45	B	1085	G
45	B	1123	A
45	B	1135	G
45	B	1143	C
45	B	1145	A
45	B	1152	G
45	B	1168	A
45	B	1169	A
45	B	1170	U
45	B	1179	A
45	B	1181	A
45	B	1184	G
45	B	1185	G
45	B	1187	A
45	B	1193	A
45	B	1202	A
45	B	1203	G
45	B	1206	A
45	B	1207	C
45	B	1212	A
45	B	1215	A
45	B	1219	A

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Mol	Chain	Res	Type
45	B	1220	C
45	B	1221	A
45	B	1229	A
45	B	1230	G
45	B	1231	C
45	B	1236	U
45	B	1243	U
45	B	1250	G
45	B	1270	U
45	B	1299	U
45	B	1300	U
45	B	1301	G
45	B	1306	A
45	B	1325	U
45	B	1330	A
45	B	1336	G
45	B	1339	G
45	B	1342	A
45	B	1343	G
45	B	1345	A
45	B	1346	U
45	B	1348	U
45	B	1349	G
45	B	1352	G
45	B	1355	A
45	B	1356	U
45	B	1357	A
45	B	1359	U
45	B	1360	C
45	B	1364	U
45	B	1369	G
45	B	1370	A
45	B	1376	U
45	B	1380	G
45	B	1381	A
45	B	1382	U
45	B	1384	U
45	B	1385	C
45	B	1392	A
45	B	1397	A
45	B	1398	G
45	B	1399	U

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Mol	Chain	Res	Type
45	B	1400	U
45	B	1401	U
45	B	1410	A
45	B	1413	A
45	B	1414	G
45	B	1415	G
45	B	1422	A
45	B	1431	G
45	B	1433	C
45	B	1445	C
45	B	1446	A
45	B	1455	A
45	B	1457	A
45	B	1458	C
45	B	1461	A
45	B	1462	C
45	B	1463	G
45	B	1468	C
45	B	1476	A
45	B	1477	U
45	B	1480	G
45	B	1483	U
45	B	1485	G
45	B	1491	G
45	B	1502	A
45	B	1503	A
45	B	1508	G
45	B	1510	G
45	B	1511	A
45	B	1523	G
45	B	1524	C
45	B	1529	G
45	B	1530	A
45	B	1541	U
45	B	1544	U
45	B	1546	G
45	B	1560	A
45	B	1561	G
45	B	1571	G
45	B	1574	A
45	B	1575	G
45	B	1577	G

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Mol	Chain	Res	Type
45	B	1580	A
45	B	1582	U
45	B	1584	A
45	B	1588	G
45	B	1621	C
45	B	1644	U
45	B	1645	G
45	B	1665	C
45	B	1667	G
45	B	1670	U
45	B	1671	G
45	B	1672	G
45	B	1673	U
45	B	1705	G
45	B	1737	A
45	B	1742	A
45	B	1747	G
45	B	1749	A
45	B	1753	A
45	B	1756	U
45	B	1767	G
45	B	1770	C
45	B	1779	G
45	B	1780	G
45	B	1781	A
45	B	1782	U
45	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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
1	AS	442	G
1	AS	445	A
1	AS	447	U
1	AS	448	U
1	AS	449	U
1	AS	483	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	545	G
1	AS	546	C
1	AS	555	A
1	AS	556	U
1	AS	557	A
1	AS	564	G
1	AS	576	A
1	AS	577	G
1	AS	589	G
1	AS	590	A
1	AS	598	U
1	AS	600	U

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Mol	Chain	Res	Type
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	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	893	U
1	AS	903	G
1	AS	904	G
1	AS	910	A
1	AS	912	G
1	AS	913	A
1	AS	917	A

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Mol	Chain	Res	Type
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	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	1019	U
1	AS	1020	G
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
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

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Mol	Chain	Res	Type
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	1303	G
1	AS	1304	A
1	AS	1305	U
1	AS	1309	G
1	AS	1326	A
1	AS	1346	U
1	AS	1347	U
1	AS	1348	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
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

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Mol	Chain	Res	Type
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	1577	C
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
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	1761	U

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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	2233	A
1	AS	2234	A
1	AS	2250	G
1	AS	2251	G
1	AS	2257	A
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	2341	A
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
1	AS	2397	A
1	AS	2413	G
1	AS	2415	G
1	AS	2489	A
1	AS	2492	U

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Mol	Chain	Res	Type
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
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	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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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	3163	U
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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	106	C
3	AU	111	A
3	AU	113	U
3	AU	125	U
3	AU	126	A
3	AU	152	G
45	CM	2	A
45	CM	17	C
45	CM	25	C
45	CM	26	A
45	CM	27	U
45	CM	34	G
45	CM	47	A
45	CM	57	G
45	CM	66	U
45	CM	74	U
45	CM	75	U
45	CM	76	A
45	CM	78	A
45	CM	79	C
45	CM	81	G
45	CM	84	A
45	CM	104	A
45	CM	114	C
45	CM	115	G
45	CM	123	G
45	CM	126	A
45	CM	127	G
45	CM	128	U
45	CM	130	C
45	CM	131	C
45	CM	132	U
45	CM	133	U

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Mol	Chain	Res	Type
45	CM	134	A
45	CM	135	C
45	CM	138	C
45	CM	139	U
45	CM	141	G
45	CM	142	G
45	CM	143	A
45	CM	150	U
45	CM	151	G
45	CM	152	G
45	CM	154	A
45	CM	159	U
45	CM	166	A
45	CM	168	U
45	CM	173	G
45	CM	176	U
45	CM	177	A
45	CM	190	U
45	CM	193	G
45	CM	199	G
45	CM	200	A
45	CM	202	G
45	CM	206	U
45	CM	211	A
45	CM	213	A
45	CM	214	U
45	CM	215	A
45	CM	216	A
45	CM	217	A
45	CM	218	A
45	CM	219	A
45	CM	220	A
45	CM	221	U
45	CM	222	C
45	CM	226	G
45	CM	229	U
45	CM	230	U
45	CM	231	C
45	CM	232	G
45	CM	236	U
45	CM	237	C
45	CM	238	U

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Mol	Chain	Res	Type
45	CM	239	U
45	CM	240	U
45	CM	247	U
45	CM	255	A
45	CM	259	U
45	CM	260	U
45	CM	261	C
45	CM	262	G
45	CM	266	C
45	CM	269	A
45	CM	270	U
45	CM	273	C
45	CM	274	C
45	CM	276	U
45	CM	277	G
45	CM	278	U
45	CM	279	G
45	CM	283	G
45	CM	285	G
45	CM	297	A
45	CM	312	C
45	CM	314	A
45	CM	318	U
45	CM	319	C
45	CM	320	G
45	CM	335	G
45	CM	336	C
45	CM	350	A
45	CM	357	A
45	CM	358	A
45	CM	359	C
45	CM	388	G
45	CM	398	A
45	CM	400	C
45	CM	402	G
45	CM	414	A
45	CM	416	G
45	CM	421	G
45	CM	422	C
45	CM	423	A
45	CM	424	G
45	CM	432	G

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Mol	Chain	Res	Type
45	CM	437	U
45	CM	442	C
45	CM	446	C
45	CM	452	A
45	CM	458	A
45	CM	462	A
45	CM	466	A
45	CM	475	A
45	CM	481	A
45	CM	490	U
45	CM	491	U
45	CM	495	G
45	CM	498	C
45	CM	499	U
45	CM	503	A
45	CM	504	A
45	CM	505	U
45	CM	506	U
45	CM	509	A
45	CM	512	G
45	CM	513	A
45	CM	515	U
45	CM	518	A
45	CM	519	A
45	CM	525	A
45	CM	530	U
45	CM	534	C
45	CM	536	A
45	CM	537	G
45	CM	539	A
45	CM	540	A
45	CM	547	G
45	CM	553	A
45	CM	554	A
45	CM	556	U
45	CM	557	C
45	CM	563	C
45	CM	566	G
45	CM	575	G
45	CM	576	U
45	CM	592	A
45	CM	593	G

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Mol	Chain	Res	Type
45	CM	604	A
45	CM	609	U
45	CM	617	A
45	CM	618	A
45	CM	620	A
45	CM	621	A
45	CM	639	G
45	CM	648	U
45	CM	649	G
45	CM	650	G
45	CM	652	C
45	CM	653	G
45	CM	654	G
45	CM	655	U
45	CM	657	C
45	CM	668	U
45	CM	670	C
45	CM	671	G
45	CM	672	U
45	CM	673	A
45	CM	674	C
45	CM	675	U
45	CM	676	G
45	CM	678	A
45	CM	679	C
45	CM	680	C
45	CM	681	C
45	CM	682	A
45	CM	688	G
45	CM	691	U
45	CM	694	C
45	CM	695	C
45	CM	696	U
45	CM	700	G
45	CM	701	G
45	CM	702	G
45	CM	703	U
45	CM	704	A
45	CM	705	G
45	CM	706	C
45	CM	707	C
45	CM	709	U

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Mol	Chain	Res	Type
45	CM	711	U
45	CM	712	A
45	CM	713	U
45	CM	714	G
45	CM	715	G
45	CM	716	C
45	CM	717	G
45	CM	718	A
45	CM	719	A
45	CM	720	C
45	CM	722	A
45	CM	723	G
45	CM	724	G
45	CM	729	U
45	CM	739	A
45	CM	740	A
45	CM	741	A
45	CM	750	G
45	CM	751	U
45	CM	756	A
45	CM	759	A
45	CM	760	G
45	CM	762	C
45	CM	764	U
45	CM	765	U
45	CM	766	U
45	CM	767	G
45	CM	768	C
45	CM	770	C
45	CM	771	G
45	CM	773	A
45	CM	775	A
45	CM	778	U
45	CM	779	U
45	CM	796	A
45	CM	798	A
45	CM	799	G
45	CM	802	C
45	CM	803	G
45	CM	804	U
45	CM	805	U
45	CM	807	U

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Mol	Chain	Res	Type
45	CM	808	G
45	CM	814	A
45	CM	815	U
45	CM	816	U
45	CM	818	U
45	CM	819	G
45	CM	820	U
45	CM	821	U
45	CM	822	G
45	CM	823	G
45	CM	824	U
45	CM	825	U
45	CM	826	U
45	CM	827	C
45	CM	828	U
45	CM	829	A
45	CM	840	A
45	CM	842	U
45	CM	848	A
45	CM	856	G
45	CM	857	G
45	CM	869	A
45	CM	871	U
45	CM	875	C
45	CM	877	G
45	CM	878	U
45	CM	879	U
45	CM	881	U
45	CM	891	A
45	CM	909	A
45	CM	910	G
45	CM	911	A
45	CM	918	A
45	CM	920	U
45	CM	927	G
45	CM	945	U
45	CM	949	U
45	CM	951	A
45	CM	973	A
45	CM	975	C
45	CM	977	A
45	CM	988	A

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Mol	Chain	Res	Type
45	CM	989	U
45	CM	990	A
45	CM	997	U
45	CM	998	A
45	CM	1004	A
45	CM	1005	A
45	CM	1011	A
45	CM	1013	C
45	CM	1017	G
45	CM	1024	A
45	CM	1025	G
45	CM	1039	U
45	CM	1042	U
45	CM	1043	U
45	CM	1044	U
45	CM	1047	U
45	CM	1055	A
45	CM	1056	U
45	CM	1057	C
45	CM	1058	G
45	CM	1059	G
45	CM	1060	C
45	CM	1061	A
45	CM	1067	C
45	CM	1074	U
45	CM	1077	A
45	CM	1081	C
45	CM	1085	G
45	CM	1123	A
45	CM	1135	G
45	CM	1143	C
45	CM	1145	A
45	CM	1152	G
45	CM	1168	A
45	CM	1169	A
45	CM	1170	U
45	CM	1179	A
45	CM	1181	A
45	CM	1184	G
45	CM	1185	G
45	CM	1186	G
45	CM	1187	A

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Mol	Chain	Res	Type
45	CM	1193	A
45	CM	1202	A
45	CM	1203	G
45	CM	1206	A
45	CM	1207	C
45	CM	1212	A
45	CM	1215	A
45	CM	1219	A
45	CM	1220	C
45	CM	1221	A
45	CM	1229	A
45	CM	1230	G
45	CM	1231	C
45	CM	1236	U
45	CM	1243	U
45	CM	1250	G
45	CM	1270	U
45	CM	1284	G
45	CM	1299	U
45	CM	1300	U
45	CM	1301	G
45	CM	1306	A
45	CM	1325	U
45	CM	1330	A
45	CM	1336	G
45	CM	1339	G
45	CM	1342	A
45	CM	1343	G
45	CM	1345	A
45	CM	1346	U
45	CM	1348	U
45	CM	1349	G
45	CM	1352	G
45	CM	1355	A
45	CM	1356	U
45	CM	1357	A
45	CM	1358	G
45	CM	1359	U
45	CM	1360	C
45	CM	1364	U
45	CM	1365	C
45	CM	1369	G

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Mol	Chain	Res	Type
45	CM	1370	A
45	CM	1376	U
45	CM	1380	G
45	CM	1381	A
45	CM	1382	U
45	CM	1384	U
45	CM	1385	C
45	CM	1392	A
45	CM	1397	A
45	CM	1398	G
45	CM	1399	U
45	CM	1400	U
45	CM	1401	U
45	CM	1410	A
45	CM	1413	A
45	CM	1414	G
45	CM	1415	G
45	CM	1422	A
45	CM	1431	G
45	CM	1433	C
45	CM	1445	C
45	CM	1446	A
45	CM	1455	A
45	CM	1457	A
45	CM	1458	C
45	CM	1461	A
45	CM	1462	C
45	CM	1463	G
45	CM	1468	C
45	CM	1476	A
45	CM	1477	U
45	CM	1480	G
45	CM	1483	U
45	CM	1491	G
45	CM	1502	A
45	CM	1503	A
45	CM	1508	G
45	CM	1510	G
45	CM	1511	A
45	CM	1523	G
45	CM	1524	C
45	CM	1529	G

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Mol	Chain	Res	Type
45	CM	1530	A
45	CM	1541	U
45	CM	1544	U
45	CM	1546	G
45	CM	1556	A
45	CM	1560	A
45	CM	1561	G
45	CM	1571	G
45	CM	1574	A
45	CM	1575	G
45	CM	1577	G
45	CM	1580	A
45	CM	1582	U
45	CM	1584	A
45	CM	1588	G
45	CM	1621	C
45	CM	1644	U
45	CM	1645	G
45	CM	1665	C
45	CM	1667	G
45	CM	1670	U
45	CM	1671	G
45	CM	1673	U
45	CM	1675	U
45	CM	1677	G
45	CM	1678	G
45	CM	1680	A
45	CM	1685	G
45	CM	1686	G
45	CM	1687	C
45	CM	1688	A
45	CM	1689	A
45	CM	1691	C
45	CM	1692	U
45	CM	1693	C
45	CM	1697	C
45	CM	1699	G
45	CM	1700	G
45	CM	1702	A
45	CM	1737	A
45	CM	1741	A
45	CM	1742	A

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Mol	Chain	Res	Type
45	CM	1743	A
45	CM	1744	G
45	CM	1747	G
45	CM	1749	A
45	CM	1753	A
45	CM	1756	U
45	CM	1767	G
45	CM	1769	A
45	CM	1770	C
45	CM	1779	G
45	CM	1780	G
45	CM	1781	A
45	CM	1782	U
45	CM	1783	C

All (180) 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	601	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	1559	C
1	1	1561	U
1	1	1762	G
1	1	1815	U
1	1	2090	U
1	1	2182	C
1	1	2183	U
1	1	2184	G
1	1	2432	G
1	1	2441	G
1	1	2442	U
1	1	2455	G
1	1	2465	U

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Mol	Chain	Res	Type
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	3093	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
45	B	25	C
45	B	78	A
45	B	137	A
45	B	151	G
45	B	176	U
45	B	235	C
45	B	259	U
45	B	265	U
45	B	278	U
45	B	415	A
45	B	450	A
45	B	451	C
45	B	452	A
45	B	505	U
45	B	514	G
45	B	518	A
45	B	529	C
45	B	533	A
45	B	553	A
45	B	638	U
45	B	695	C
45	B	740	A
45	B	763	C
45	B	769	U
45	B	814	A

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Mol	Chain	Res	Type
45	B	855	C
45	B	874	U
45	B	876	A
45	B	1168	A
45	B	1335	U
45	B	1369	G
45	B	1396	A
45	B	1398	G
45	B	1457	A
45	B	1467	C
45	B	1479	A
45	B	1484	U
45	B	1523	G
45	B	1573	A
45	B	1579	A
45	B	1581	G
45	B	1704	C
1	AS	172	C
1	AS	403	C
1	AS	447	U
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	1346	U
1	AS	1347	U
1	AS	1559	C
1	AS	1576	A
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	2234	A
1	AS	2515	G
1	AS	2519	A

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Mol	Chain	Res	Type
1	AS	2545	C
1	AS	2789	A
1	AS	2790	U
1	AS	3093	U
1	AS	3159	A
1	AS	3160	C
1	AS	3193	C
1	AS	3234	U
1	AS	3240	U
1	AS	3284	U
1	AS	3309	A
1	AS	3315	C
1	AS	3317	U
3	AU	85	G
3	AU	125	U
45	CM	1	U
45	CM	25	C
45	CM	65	A
45	CM	78	A
45	CM	133	U
45	CM	137	A
45	CM	151	G
45	CM	176	U
45	CM	214	U
45	CM	216	A
45	CM	237	C
45	CM	238	U
45	CM	239	U
45	CM	259	U
45	CM	265	U
45	CM	278	U
45	CM	415	A
45	CM	451	C
45	CM	505	U
45	CM	514	G
45	CM	518	A
45	CM	529	C
45	CM	533	A
45	CM	553	A
45	CM	555	G
45	CM	556	U
45	CM	638	U

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Mol	Chain	Res	Type
45	CM	678	A
45	CM	681	C
45	CM	690	C
45	CM	695	C
45	CM	702	G
45	CM	711	U
45	CM	740	A
45	CM	763	C
45	CM	769	U
45	CM	814	A
45	CM	817	U
45	CM	823	G
45	CM	855	C
45	CM	874	U
45	CM	876	A
45	CM	1168	A
45	CM	1335	U
45	CM	1359	U
45	CM	1369	G
45	CM	1396	A
45	CM	1398	G
45	CM	1457	A
45	CM	1467	C
45	CM	1479	A
45	CM	1523	G
45	CM	1555	C
45	CM	1573	A
45	CM	1579	A
45	CM	1581	G
45	CM	1741	A

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry

Of 1074 ligands modelled in this entry, 1018 are monoatomic - leaving 56 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$
81	PAR	B	1801	-	44,45,45	0.47	0	63,67,67	0.86	4 (6%)
81	PAR	1	3424	-	44,45,45	0.48	0	63,67,67	1.05	4 (6%)
81	PAR	AS	3410	-	44,45,45	0.50	0	63,67,67	0.97	5 (7%)
81	PAR	AS	3413	-	44,45,45	0.58	0	63,67,67	1.09	5 (7%)
81	PAR	1	3410	-	44,45,45	0.56	0	63,67,67	0.80	1 (1%)
81	PAR	AS	3411	-	44,45,45	0.45	0	63,67,67	1.11	4 (6%)
81	PAR	CM	1805	-	44,45,45	0.50	0	63,67,67	1.13	4 (6%)
81	PAR	B	1805	-	44,45,45	0.45	0	63,67,67	0.98	4 (6%)
81	PAR	AS	3407	-	44,45,45	0.49	0	63,67,67	1.06	4 (6%)
81	PAR	1	3420	-	44,45,45	0.46	0	63,67,67	0.76	2 (3%)
81	PAR	1	3402	-	44,45,45	0.48	0	63,67,67	0.68	2 (3%)
81	PAR	1	3405	-	44,45,45	0.48	0	63,67,67	1.13	5 (7%)
81	PAR	AS	3406	-	44,45,45	0.49	0	63,67,67	1.03	4 (6%)
81	PAR	1	3416	-	44,45,45	0.43	0	63,67,67	0.97	1 (1%)
81	PAR	1	3423	-	44,45,45	0.46	0	63,67,67	1.07	4 (6%)
81	PAR	4	201	-	44,45,45	0.62	1 (2%)	63,67,67	0.99	5 (7%)
81	PAR	1	3427	-	44,45,45	0.59	0	63,67,67	0.97	3 (4%)
81	PAR	4	202	-	44,45,45	0.50	0	63,67,67	1.30	3 (4%)
81	PAR	1	3428	-	44,45,45	0.51	0	63,67,67	0.88	2 (3%)
81	PAR	CM	1804	-	44,45,45	0.44	0	63,67,67	0.90	1 (1%)
81	PAR	1	3411	-	44,45,45	0.45	0	63,67,67	1.06	6 (9%)
81	PAR	1	3407	-	44,45,45	0.47	0	63,67,67	0.88	2 (3%)
81	PAR	1	3430	-	44,45,45	0.58	1 (2%)	63,67,67	1.54	11 (17%)
81	PAR	1	3422	-	44,45,45	0.64	1 (2%)	63,67,67	1.80	12 (19%)
81	PAR	AS	3404	-	44,45,45	0.53	0	63,67,67	0.70	1 (1%)
81	PAR	B	1803	-	44,45,45	0.49	0	63,67,67	1.12	4 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
81	PAR	1	3418	-	44,45,45	0.52	0	63,67,67	1.14	7 (11%)
81	PAR	B	1804	-	44,45,45	0.48	0	63,67,67	1.02	4 (6%)
81	PAR	AS	3405	-	44,45,45	0.44	0	63,67,67	0.72	1 (1%)
80	3K5	1	3401	-	63,63,63	2.84	28 (44%)	84,95,95	1.74	21 (25%)
81	PAR	1	3426	-	44,45,45	0.49	0	63,67,67	1.07	4 (6%)
81	PAR	AS	3402	-	44,45,45	0.45	0	63,67,67	0.83	3 (4%)
81	PAR	CM	1806	-	44,45,45	0.64	1 (2%)	63,67,67	0.83	1 (1%)
81	PAR	1	3429	-	44,45,45	0.51	0	63,67,67	0.95	3 (4%)
81	PAR	1	3403	-	44,45,45	0.44	0	63,67,67	0.94	2 (3%)
81	PAR	AS	3401	-	44,45,45	0.48	0	63,67,67	1.42	5 (7%)
81	PAR	1	3413	-	44,45,45	0.55	0	63,67,67	1.49	7 (11%)
81	PAR	AS	3408	-	44,45,45	0.52	0	63,67,67	0.92	4 (6%)
81	PAR	1	3417	82	44,45,45	0.56	1 (2%)	63,67,67	1.29	6 (9%)
81	PAR	1	3412	-	44,45,45	0.46	0	63,67,67	0.73	1 (1%)
81	PAR	CM	1803	-	44,45,45	0.44	0	63,67,67	0.73	2 (3%)
81	PAR	AS	3403	-	44,45,45	0.49	0	63,67,67	0.64	1 (1%)
81	PAR	1	3414	-	44,45,45	0.47	0	63,67,67	0.93	3 (4%)
81	PAR	1	3409	-	44,45,45	0.47	0	63,67,67	0.97	3 (4%)
81	PAR	1	3408	-	44,45,45	0.47	0	63,67,67	0.77	2 (3%)
81	PAR	1	3406	-	44,45,45	0.59	1 (2%)	63,67,67	1.15	5 (7%)
81	PAR	AS	3409	-	44,45,45	0.44	0	63,67,67	0.76	1 (1%)
81	PAR	1	3421	-	44,45,45	0.45	0	63,67,67	0.77	1 (1%)
81	PAR	AS	3412	-	44,45,45	0.45	0	63,67,67	0.99	3 (4%)
81	PAR	1	3419	-	44,45,45	0.46	0	63,67,67	0.68	2 (3%)
81	PAR	CM	1801	-	44,45,45	0.52	0	63,67,67	1.06	5 (7%)
81	PAR	B	1802	-	44,45,45	0.46	0	63,67,67	1.25	6 (9%)
81	PAR	CM	1802	-	44,45,45	0.46	0	63,67,67	0.82	2 (3%)
81	PAR	1	3404	-	44,45,45	0.49	0	63,67,67	0.90	3 (4%)
81	PAR	1	3425	-	44,45,45	0.46	0	63,67,67	0.94	2 (3%)
81	PAR	1	3415	-	44,45,45	0.47	0	63,67,67	0.84	2 (3%)

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
81	PAR	B	1801	-	-	2/18/94/94	0/4/4/4
81	PAR	1	3424	-	-	9/18/94/94	0/4/4/4
81	PAR	AS	3410	-	-	7/18/94/94	0/4/4/4
81	PAR	AS	3413	-	-	9/18/94/94	0/4/4/4
81	PAR	1	3410	-	-	9/18/94/94	1/4/4/4
81	PAR	AS	3411	-	-	9/18/94/94	1/4/4/4
81	PAR	CM	1805	-	-	7/18/94/94	0/4/4/4
81	PAR	B	1805	-	-	12/18/94/94	0/4/4/4
81	PAR	AS	3407	-	-	5/18/94/94	1/4/4/4
81	PAR	1	3420	-	-	6/18/94/94	0/4/4/4
81	PAR	1	3402	-	-	3/18/94/94	0/4/4/4
81	PAR	1	3405	-	-	9/18/94/94	0/4/4/4
81	PAR	AS	3406	-	-	9/18/94/94	0/4/4/4
81	PAR	1	3416	-	-	3/18/94/94	0/4/4/4
81	PAR	1	3423	-	-	3/18/94/94	0/4/4/4
81	PAR	4	201	-	-	4/18/94/94	0/4/4/4
81	PAR	1	3427	-	-	6/18/94/94	0/4/4/4
81	PAR	4	202	-	-	4/18/94/94	0/4/4/4
81	PAR	1	3428	-	-	7/18/94/94	0/4/4/4
81	PAR	CM	1804	-	-	9/18/94/94	0/4/4/4
81	PAR	1	3411	-	-	9/18/94/94	0/4/4/4
81	PAR	1	3407	-	-	8/18/94/94	0/4/4/4
81	PAR	1	3430	-	-	9/18/94/94	0/4/4/4
81	PAR	1	3422	-	-	5/18/94/94	0/4/4/4
81	PAR	AS	3404	-	-	6/18/94/94	0/4/4/4
81	PAR	B	1803	-	-	7/18/94/94	0/4/4/4
81	PAR	1	3418	-	-	6/18/94/94	0/4/4/4
81	PAR	B	1804	-	-	6/18/94/94	0/4/4/4
81	PAR	AS	3405	-	-	2/18/94/94	1/4/4/4
80	3K5	1	3401	-	-	9/29/121/121	0/7/7/7
81	PAR	1	3426	-	-	1/18/94/94	0/4/4/4
81	PAR	AS	3402	-	-	8/18/94/94	0/4/4/4
81	PAR	CM	1806	-	-	6/18/94/94	0/4/4/4
81	PAR	1	3429	-	-	4/18/94/94	0/4/4/4
81	PAR	1	3403	-	-	10/18/94/94	1/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
81	PAR	AS	3401	-	-	1/18/94/94	0/4/4/4
81	PAR	1	3413	-	-	8/18/94/94	0/4/4/4
81	PAR	AS	3408	-	-	7/18/94/94	0/4/4/4
81	PAR	1	3417	82	-	11/18/94/94	0/4/4/4
81	PAR	1	3412	-	-	5/18/94/94	0/4/4/4
81	PAR	CM	1803	-	-	2/18/94/94	0/4/4/4
81	PAR	AS	3403	-	-	3/18/94/94	0/4/4/4
81	PAR	1	3414	-	-	8/18/94/94	0/4/4/4
81	PAR	1	3409	-	-	6/18/94/94	0/4/4/4
81	PAR	1	3408	-	-	4/18/94/94	0/4/4/4
81	PAR	1	3406	-	-	8/18/94/94	0/4/4/4
81	PAR	AS	3409	-	-	9/18/94/94	0/4/4/4
81	PAR	1	3421	-	-	4/18/94/94	0/4/4/4
81	PAR	AS	3412	-	-	6/18/94/94	0/4/4/4
81	PAR	1	3419	-	-	6/18/94/94	0/4/4/4
81	PAR	CM	1801	-	-	5/18/94/94	0/4/4/4
81	PAR	B	1802	-	-	5/18/94/94	0/4/4/4
81	PAR	CM	1802	-	-	5/18/94/94	0/4/4/4
81	PAR	1	3404	-	-	8/18/94/94	1/4/4/4
81	PAR	1	3425	-	-	10/18/94/94	0/4/4/4
81	PAR	1	3415	-	-	3/18/94/94	0/4/4/4

All (34) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
80	1	3401	3K5	C17-C22	-8.43	1.36	1.53
80	1	3401	3K5	O4-C22	7.27	1.59	1.43
80	1	3401	3K5	C21-C22	5.81	1.63	1.52
80	1	3401	3K5	O6-C23	5.07	1.45	1.34
80	1	3401	3K5	C20-C23	4.65	1.62	1.51
80	1	3401	3K5	O12-C36	4.63	1.55	1.44
80	1	3401	3K5	O1-C6	4.49	1.43	1.34
80	1	3401	3K5	O-C2	4.25	1.49	1.43
80	1	3401	3K5	C37-C36	-4.20	1.41	1.51
80	1	3401	3K5	O7-C28	4.06	1.54	1.44
80	1	3401	3K5	C29-C28	-3.89	1.42	1.51
80	1	3401	3K5	C18-C17	3.75	1.59	1.53
80	1	3401	3K5	C7-C6	3.70	1.56	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
80	1	3401	3K5	O4-C3	-3.68	1.33	1.42
80	1	3401	3K5	O9-C30	3.41	1.42	1.35
80	1	3401	3K5	O9-C26	3.33	1.49	1.44
80	1	3401	3K5	C21-C20	-3.28	1.46	1.53
80	1	3401	3K5	C26-C25	-3.21	1.45	1.52
80	1	3401	3K5	O14-C38	3.11	1.42	1.35
80	1	3401	3K5	C9-C8	2.80	1.55	1.47
80	1	3401	3K5	C15-C3	2.61	1.61	1.52
81	CM	1806	PAR	C11-C21	-2.55	1.47	1.52
81	1	3406	PAR	C14-C24	2.48	1.57	1.52
80	1	3401	3K5	O-C3	2.41	1.45	1.42
80	1	3401	3K5	C4-C3	2.41	1.56	1.52
80	1	3401	3K5	C2-C1	2.38	1.55	1.51
80	1	3401	3K5	O14-C34	2.36	1.48	1.44
81	1	3430	PAR	C11-C21	-2.36	1.47	1.52
81	1	3417	PAR	C14-C24	-2.34	1.47	1.52
80	1	3401	3K5	C1-C5	-2.30	1.47	1.52
81	4	201	PAR	C14-C24	-2.18	1.48	1.52
81	1	3422	PAR	C14-C24	2.16	1.56	1.52
80	1	3401	3K5	C-C1	2.15	1.58	1.53
80	1	3401	3K5	O12-C32	2.08	1.47	1.41

All (215) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	1	3422	PAR	O33-C14-C24	8.72	122.36	108.08
81	4	202	PAR	O11-C11-C21	7.94	121.07	108.08
81	AS	3401	PAR	C32-C22-C12	6.80	122.67	111.02
81	CM	1805	PAR	O11-C11-C21	6.29	118.36	108.08
81	1	3416	PAR	O11-C11-C21	5.72	117.44	108.08
81	1	3422	PAR	O11-C42-C52	5.59	121.61	107.42
81	1	3430	PAR	O52-C52-C42	5.53	121.46	107.42
81	1	3417	PAR	O33-C14-C24	-5.47	99.12	108.08
81	1	3425	PAR	O11-C11-C21	5.36	116.86	108.08
81	AS	3401	PAR	O11-C11-C21	5.23	116.64	108.08
81	1	3405	PAR	O11-C11-C21	5.12	116.46	108.08
81	1	3406	PAR	O33-C14-C24	5.11	116.44	108.08
81	AS	3406	PAR	O11-C11-C21	5.04	116.32	108.08
80	1	3401	3K5	O9-C30-C31	4.97	119.95	111.09
80	1	3401	3K5	O14-C38-C39	4.95	119.91	111.09
81	1	3413	PAR	C32-C22-C12	4.94	119.49	111.02
81	B	1805	PAR	O11-C11-C21	4.94	116.16	108.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	1	3426	PAR	C32-C22-C12	4.89	119.40	111.02
81	1	3417	PAR	O11-C11-C21	4.86	116.04	108.08
81	AS	3413	PAR	C52-C42-C32	4.79	120.18	111.31
81	B	1802	PAR	O11-C11-C21	4.75	115.85	108.08
81	1	3430	PAR	O52-C52-C62	4.72	119.22	107.23
81	1	3409	PAR	O11-C11-C21	4.69	115.76	108.08
81	1	3413	PAR	C13-C23-C33	-4.67	96.49	102.10
81	AS	3409	PAR	O11-C11-C21	4.67	115.71	108.08
81	B	1803	PAR	O11-C11-C21	4.60	115.60	108.08
81	1	3428	PAR	O11-C11-C21	4.56	115.54	108.08
81	AS	3411	PAR	O54-C54-C64	4.56	114.83	106.07
81	AS	3412	PAR	O54-C54-C64	4.51	114.74	106.07
81	1	3421	PAR	O11-C11-C21	4.39	115.27	108.08
81	AS	3402	PAR	O11-C11-C21	4.36	115.21	108.08
81	1	3429	PAR	O54-C54-C64	4.36	114.44	106.07
81	CM	1802	PAR	O11-C11-C21	4.35	115.20	108.08
81	1	3422	PAR	O51-C11-C21	4.35	119.69	110.08
81	1	3423	PAR	O11-C11-C21	4.32	115.15	108.08
81	B	1802	PAR	O33-C33-C23	4.31	125.17	111.32
81	CM	1804	PAR	O51-C11-C21	4.29	119.58	110.08
81	1	3403	PAR	O11-C11-C21	4.28	115.08	108.08
81	AS	3401	PAR	C52-C42-C32	4.26	119.20	111.31
81	CM	1801	PAR	O54-C14-C24	4.23	119.44	110.08
81	1	3427	PAR	O11-C11-C21	4.15	114.88	108.08
81	1	3404	PAR	O11-C11-C21	4.14	114.86	108.08
81	1	3406	PAR	O11-C11-C21	4.14	114.85	108.08
81	4	202	PAR	O54-C54-C64	4.11	113.97	106.07
81	1	3413	PAR	O11-C42-C32	-4.04	99.53	109.18
80	1	3401	3K5	O6-C23-C20	4.03	119.27	111.79
81	B	1802	PAR	O52-C52-C62	4.02	117.46	107.23
81	1	3423	PAR	C13-C23-C33	-4.00	97.30	102.10
81	1	3424	PAR	O11-C11-C21	3.95	114.54	108.08
81	1	3415	PAR	O11-C11-C21	3.93	114.51	108.08
81	1	3412	PAR	O11-C11-C21	3.88	114.43	108.08
81	1	3430	PAR	O33-C14-C24	3.80	114.30	108.08
81	AS	3413	PAR	O11-C11-C21	3.79	114.27	108.08
81	AS	3410	PAR	O11-C11-C21	3.77	114.25	108.08
81	1	3413	PAR	O11-C11-C21	3.76	114.22	108.08
80	1	3401	3K5	C32-O11-C25	-3.70	109.20	117.98
81	1	3414	PAR	C32-C22-C12	-3.67	104.74	111.02
81	CM	1801	PAR	O51-C11-C21	3.67	118.19	110.08
81	1	3430	PAR	C13-O52-C52	3.66	126.65	117.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	AS	3407	PAR	O54-C54-C64	3.65	113.09	106.07
81	CM	1806	PAR	O11-C11-C21	3.60	113.97	108.08
80	1	3401	3K5	C9-C8-C7	-3.57	119.11	126.92
81	1	3411	PAR	O51-C11-C21	3.57	117.98	110.08
81	1	3413	PAR	C64-C54-C44	-3.55	104.50	112.80
81	1	3424	PAR	C32-C22-C12	-3.53	104.97	111.02
81	1	3403	PAR	O33-C14-C24	3.48	113.77	108.08
81	AS	3411	PAR	C13-C23-C33	-3.48	97.92	102.10
81	B	1803	PAR	O52-C52-C42	3.47	116.24	107.42
81	1	3419	PAR	O11-C11-C21	3.46	113.75	108.08
81	B	1804	PAR	O11-C42-C52	-3.42	98.74	107.42
81	AS	3405	PAR	O11-C11-C21	3.42	113.67	108.08
81	1	3418	PAR	C52-C42-C32	-3.40	105.01	111.31
81	1	3413	PAR	C62-C52-C42	3.39	119.34	111.72
81	1	3408	PAR	O11-C11-C21	3.34	113.54	108.08
81	AS	3407	PAR	C13-C23-C33	-3.33	98.10	102.10
81	CM	1803	PAR	O11-C11-C21	3.33	113.52	108.08
81	4	201	PAR	O11-C42-C32	-3.32	101.25	109.18
81	1	3422	PAR	O33-C14-O54	-3.29	102.03	110.69
81	1	3429	PAR	O11-C11-C21	3.27	113.43	108.08
81	1	3417	PAR	O51-C11-C21	3.27	117.30	110.08
81	1	3426	PAR	O11-C11-C21	3.26	113.41	108.08
81	AS	3401	PAR	O54-C54-C64	3.24	112.30	106.07
80	1	3401	3K5	O-C3-C4	3.22	113.85	110.75
80	1	3401	3K5	O1-C6-C7	3.16	118.27	111.39
81	B	1801	PAR	O11-C11-C21	3.13	113.19	108.08
81	1	3405	PAR	C32-C22-C12	3.08	116.31	111.02
81	1	3430	PAR	C32-C22-C12	3.08	116.29	111.02
81	AS	3408	PAR	O11-C42-C32	-3.07	101.85	109.18
81	1	3418	PAR	C32-C22-C12	-3.05	105.79	111.02
81	1	3423	PAR	O33-C14-C24	3.04	113.05	108.08
81	1	3418	PAR	O11-C11-C21	3.03	113.03	108.08
81	B	1803	PAR	O11-C42-C52	3.01	115.08	107.42
81	B	1804	PAR	C32-C22-C12	3.01	116.18	111.02
81	1	3411	PAR	O52-C52-C62	3.00	114.86	107.23
81	AS	3412	PAR	O11-C11-C21	3.00	112.98	108.08
81	1	3406	PAR	O54-C54-C64	2.99	111.81	106.07
81	AS	3407	PAR	O33-C14-C24	2.98	112.95	108.08
81	1	3411	PAR	O54-C54-C64	2.98	111.79	106.07
81	1	3420	PAR	O51-C11-C21	2.96	116.64	110.08
81	1	3427	PAR	C32-C22-C12	-2.94	105.98	111.02
81	B	1805	PAR	O54-C54-C64	2.93	111.70	106.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	1	3405	PAR	C64-C54-C44	-2.93	105.96	112.80
81	1	3409	PAR	O52-C52-C62	2.89	114.58	107.23
81	CM	1805	PAR	C64-C54-C44	-2.88	106.07	112.80
81	AS	3411	PAR	O11-C42-C52	2.88	114.72	107.42
81	AS	3403	PAR	O11-C11-C21	2.87	112.78	108.08
81	AS	3408	PAR	O51-C11-C21	2.86	116.41	110.08
81	1	3422	PAR	O52-C52-C42	2.86	114.67	107.42
81	AS	3406	PAR	O51-C11-C21	2.85	116.39	110.08
81	1	3430	PAR	C52-C42-C32	-2.85	106.02	111.31
80	1	3401	3K5	C34-O14-C38	-2.82	113.33	117.72
81	4	201	PAR	C52-C42-C32	2.80	116.49	111.31
81	1	3424	PAR	O54-C54-C64	2.79	111.44	106.07
81	B	1802	PAR	O23-C23-C33	2.79	118.99	111.19
81	1	3422	PAR	C41-C31-C21	2.78	115.60	110.99
80	1	3401	3K5	C18-C19-C20	2.72	115.97	111.18
81	AS	3410	PAR	C13-C23-C33	-2.71	98.84	102.10
81	AS	3406	PAR	C32-C22-C12	-2.68	106.43	111.02
81	B	1805	PAR	C52-C42-C32	2.66	116.23	111.31
81	1	3405	PAR	C52-C42-C32	-2.65	106.39	111.31
81	1	3417	PAR	C32-C22-C12	2.64	115.54	111.02
81	AS	3410	PAR	C32-C22-C12	-2.64	106.50	111.02
81	1	3414	PAR	O11-C11-C21	2.63	112.39	108.08
80	1	3401	3K5	O-C3-O4	-2.63	108.89	112.09
81	B	1802	PAR	O33-C14-C24	-2.61	103.81	108.08
81	1	3418	PAR	O51-C11-C21	2.60	115.84	110.08
81	B	1804	PAR	C52-C42-C32	-2.60	106.49	111.31
81	1	3407	PAR	O11-C42-C32	-2.60	102.99	109.18
80	1	3401	3K5	C26-C27-C28	2.59	115.74	110.12
80	1	3401	3K5	C2-O-C3	2.58	115.17	113.51
81	1	3422	PAR	C14-O33-C33	2.58	124.09	117.98
81	1	3409	PAR	O54-C54-C64	2.56	110.99	106.07
81	1	3420	PAR	O54-C54-C64	2.55	110.98	106.07
81	1	3406	PAR	C13-C23-C33	-2.55	99.03	102.10
81	B	1803	PAR	O51-C11-C21	-2.55	104.45	110.08
81	1	3418	PAR	O54-C14-C24	-2.54	104.45	110.08
81	AS	3413	PAR	C64-C54-C44	-2.54	106.87	112.80
81	AS	3402	PAR	O54-C54-C64	2.53	110.93	106.07
81	1	3413	PAR	O51-C11-C21	2.51	115.63	110.08
81	CM	1801	PAR	O11-C42-C32	-2.51	103.20	109.18
81	1	3422	PAR	C13-C23-C33	2.50	105.11	102.10
81	1	3414	PAR	O51-C11-C21	2.50	115.60	110.08
81	1	3408	PAR	C64-C54-C44	-2.48	107.01	112.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	1	3401	3K5	C26-O9-C30	-2.47	113.87	117.72
81	1	3406	PAR	C64-C54-C44	-2.46	107.04	112.80
81	CM	1805	PAR	O51-C11-C21	-2.46	104.64	110.08
81	1	3402	PAR	O11-C42-C32	-2.45	103.33	109.18
81	AS	3411	PAR	O51-C11-C21	2.44	115.48	110.08
81	CM	1802	PAR	C13-C23-C33	-2.44	99.17	102.10
81	1	3430	PAR	O51-C11-C21	-2.44	104.69	110.08
81	AS	3413	PAR	O11-C42-C32	-2.42	103.41	109.18
81	1	3430	PAR	C14-O33-C33	-2.41	112.26	117.98
81	B	1801	PAR	O33-C14-C24	-2.41	104.13	108.08
81	1	3430	PAR	C13-O43-C43	-2.41	96.57	105.76
80	1	3401	3K5	O4-C22-C21	2.40	117.78	111.53
81	1	3428	PAR	O54-C54-C64	2.40	110.68	106.07
81	AS	3410	PAR	C52-C42-C32	2.40	115.75	111.31
81	1	3402	PAR	O11-C11-C21	2.39	111.98	108.08
81	1	3422	PAR	C52-C42-C32	-2.37	106.91	111.31
81	B	1804	PAR	O11-C42-C32	2.36	114.82	109.18
80	1	3401	3K5	C4-C3-C15	-2.36	110.33	114.34
81	1	3426	PAR	C13-C23-C33	-2.35	99.27	102.10
81	CM	1801	PAR	C13-C23-C33	-2.35	99.28	102.10
81	B	1801	PAR	O11-C42-C32	-2.34	103.58	109.18
80	1	3401	3K5	C-C1-C5	-2.34	108.69	112.62
81	1	3405	PAR	O54-C54-C64	2.34	110.57	106.07
80	1	3401	3K5	O6-C23-O5	-2.34	119.73	123.95
81	CM	1803	PAR	O54-C54-C64	2.34	110.56	106.07
81	4	201	PAR	C44-C34-C24	2.34	114.87	110.99
81	B	1801	PAR	C32-C22-C12	-2.33	107.02	111.02
81	AS	3404	PAR	O11-C11-C21	2.33	111.89	108.08
81	AS	3408	PAR	C32-C22-C12	2.33	115.01	111.02
81	1	3411	PAR	O54-C14-C24	2.32	115.22	110.08
81	1	3430	PAR	O52-C13-O43	2.32	113.74	111.37
80	1	3401	3K5	C37-C36-C35	-2.31	108.85	113.08
81	AS	3408	PAR	O11-C11-C21	2.30	111.84	108.08
81	4	201	PAR	C32-C22-C12	-2.29	107.09	111.02
81	1	3424	PAR	C13-C23-C33	-2.29	99.34	102.10
81	1	3419	PAR	O54-C54-C64	2.29	110.47	106.07
81	1	3425	PAR	O54-C54-C64	2.29	110.47	106.07
81	1	3407	PAR	O54-C54-C64	2.29	110.46	106.07
81	1	3418	PAR	O11-C42-C52	2.28	113.22	107.42
81	1	3423	PAR	C64-C54-C44	-2.27	107.50	112.80
81	1	3417	PAR	O11-C42-C52	2.26	113.17	107.42
80	1	3401	3K5	O1-C5-C4	2.26	113.43	108.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	4	201	PAR	O54-C54-C64	2.24	110.38	106.07
81	AS	3413	PAR	O33-C14-C24	-2.22	104.44	108.08
81	B	1805	PAR	O52-C52-C62	2.21	112.85	107.23
81	1	3411	PAR	C14-O54-C54	2.20	118.01	113.72
80	1	3401	3K5	C29-C28-C27	-2.18	109.10	113.08
81	AS	3406	PAR	C13-C23-C33	-2.18	99.48	102.10
81	1	3422	PAR	C11-O11-C42	2.17	123.13	117.98
81	1	3430	PAR	C52-C62-C12	-2.13	104.78	109.93
81	1	3410	PAR	C13-C23-C33	-2.12	99.55	102.10
81	1	3426	PAR	C64-C54-C44	-2.12	107.84	112.80
81	B	1802	PAR	C13-O52-C52	2.11	122.99	117.98
81	1	3417	PAR	O52-C52-C42	2.11	112.78	107.42
81	CM	1805	PAR	O33-C14-C24	2.10	111.52	108.08
81	1	3427	PAR	C13-C23-C33	-2.10	99.58	102.10
81	1	3411	PAR	C13-C23-C33	-2.09	99.59	102.10
81	4	202	PAR	O54-C14-C24	2.09	114.70	110.08
81	CM	1801	PAR	C32-C22-C12	-2.08	107.45	111.02
81	AS	3407	PAR	O11-C42-C32	2.07	114.13	109.18
81	1	3429	PAR	C32-C22-C12	-2.05	107.50	111.02
81	1	3404	PAR	C13-C23-C33	-2.05	99.64	102.10
81	AS	3402	PAR	O33-C14-C24	2.05	111.42	108.08
81	1	3422	PAR	C62-C52-C42	-2.04	107.14	111.72
80	1	3401	3K5	C24-O6-C23	-2.04	113.95	116.93
81	AS	3401	PAR	C13-C23-C33	-2.03	99.66	102.10
81	1	3415	PAR	O33-C14-C24	-2.03	104.76	108.08
81	AS	3410	PAR	O51-C11-C21	2.02	114.55	110.08
81	1	3404	PAR	O51-C11-C21	2.01	114.53	110.08
81	AS	3412	PAR	O11-C42-C32	-2.01	104.39	109.18
81	1	3422	PAR	O11-C11-O51	-2.01	105.42	110.69
81	1	3418	PAR	O52-C52-C42	2.00	112.51	107.42

There are no chirality outliers.

All (352) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
80	1	3401	3K5	C4-C5-O1-C6
80	1	3401	3K5	C7-C6-O1-C5
80	1	3401	3K5	C39-C38-O14-C34
81	1	3403	PAR	O51-C11-O11-C42
81	1	3403	PAR	C23-C13-O52-C52
81	1	3403	PAR	O43-C13-O52-C52
81	1	3403	PAR	C43-C33-O33-C14

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Mol	Chain	Res	Type	Atoms
81	1	3403	PAR	C24-C14-O33-C33
81	1	3403	PAR	O54-C54-C64-N64
81	1	3404	PAR	C21-C11-O11-C42
81	1	3404	PAR	C32-C42-O11-C11
81	1	3404	PAR	C44-C54-C64-N64
81	1	3404	PAR	O54-C54-C64-N64
81	1	3405	PAR	C23-C13-O52-C52
81	1	3405	PAR	O43-C13-O52-C52
81	1	3405	PAR	O54-C14-O33-C33
81	1	3405	PAR	C44-C54-C64-N64
81	1	3405	PAR	O54-C54-C64-N64
81	1	3406	PAR	C23-C13-O52-C52
81	1	3406	PAR	O43-C13-O52-C52
81	1	3406	PAR	C43-C33-O33-C14
81	1	3406	PAR	C24-C14-O33-C33
81	1	3406	PAR	O54-C54-C64-N64
81	1	3407	PAR	C44-C54-C64-N64
81	1	3407	PAR	O54-C54-C64-N64
81	1	3408	PAR	C24-C14-O33-C33
81	1	3409	PAR	C24-C14-O33-C33
81	1	3409	PAR	O54-C14-O33-C33
81	1	3410	PAR	C23-C13-O52-C52
81	1	3410	PAR	O43-C13-O52-C52
81	1	3410	PAR	C23-C33-O33-C14
81	1	3410	PAR	C44-C54-C64-N64
81	1	3410	PAR	O54-C54-C64-N64
81	1	3411	PAR	C21-C11-O11-C42
81	1	3412	PAR	C24-C14-O33-C33
81	1	3414	PAR	C33-C43-C53-O53
81	1	3414	PAR	C44-C54-C64-N64
81	1	3414	PAR	O54-C54-C64-N64
81	1	3415	PAR	C23-C13-O52-C52
81	1	3415	PAR	O43-C13-O52-C52
81	1	3416	PAR	C21-C11-O11-C42
81	1	3417	PAR	C44-C54-C64-N64
81	1	3417	PAR	O54-C54-C64-N64
81	1	3418	PAR	C43-C33-O33-C14
81	1	3418	PAR	C44-C54-C64-N64
81	1	3418	PAR	O54-C54-C64-N64
81	1	3419	PAR	C32-C42-O11-C11
81	1	3419	PAR	C23-C13-O52-C52
81	1	3419	PAR	C43-C33-O33-C14

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Mol	Chain	Res	Type	Atoms
81	1	3420	PAR	C23-C13-O52-C52
81	1	3420	PAR	O43-C13-O52-C52
81	1	3420	PAR	C24-C14-O33-C33
81	1	3421	PAR	C23-C13-O52-C52
81	1	3422	PAR	C21-C11-O11-C42
81	1	3422	PAR	C24-C14-O33-C33
81	1	3423	PAR	C23-C13-O52-C52
81	1	3423	PAR	O43-C13-O52-C52
81	1	3424	PAR	C23-C13-O52-C52
81	1	3424	PAR	O43-C13-O52-C52
81	1	3424	PAR	C43-C33-O33-C14
81	1	3425	PAR	C23-C13-O52-C52
81	1	3425	PAR	O43-C13-O52-C52
81	1	3425	PAR	C43-C33-O33-C14
81	1	3425	PAR	C24-C14-O33-C33
81	1	3425	PAR	C44-C54-C64-N64
81	1	3425	PAR	O54-C54-C64-N64
81	1	3427	PAR	C23-C13-O52-C52
81	1	3428	PAR	C23-C13-O52-C52
81	1	3428	PAR	O43-C13-O52-C52
81	1	3429	PAR	C23-C13-O52-C52
81	1	3429	PAR	O43-C13-O52-C52
81	1	3430	PAR	C23-C13-O52-C52
81	1	3430	PAR	O43-C13-O52-C52
81	4	201	PAR	O54-C54-C64-N64
81	B	1802	PAR	C23-C33-O33-C14
81	B	1803	PAR	C21-C11-O11-C42
81	B	1803	PAR	C44-C54-C64-N64
81	B	1803	PAR	O54-C54-C64-N64
81	B	1804	PAR	C23-C13-O52-C52
81	B	1805	PAR	C21-C11-O11-C42
81	B	1805	PAR	C23-C13-O52-C52
81	B	1805	PAR	O43-C13-O52-C52
81	B	1805	PAR	C24-C14-O33-C33
81	B	1805	PAR	O54-C54-C64-N64
81	AS	3401	PAR	O54-C54-C64-N64
81	AS	3402	PAR	C23-C13-O52-C52
81	AS	3402	PAR	O43-C13-O52-C52
81	AS	3402	PAR	C24-C14-O33-C33
81	AS	3402	PAR	C44-C54-C64-N64
81	AS	3403	PAR	C23-C13-O52-C52
81	AS	3403	PAR	O43-C13-O52-C52

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Mol	Chain	Res	Type	Atoms
81	AS	3404	PAR	C43-C33-O33-C14
81	AS	3406	PAR	C23-C13-O52-C52
81	AS	3406	PAR	O43-C13-O52-C52
81	AS	3406	PAR	C33-C43-C53-O53
81	AS	3406	PAR	O43-C43-C53-O53
81	AS	3406	PAR	C44-C54-C64-N64
81	AS	3406	PAR	O54-C54-C64-N64
81	AS	3407	PAR	C24-C14-O33-C33
81	AS	3408	PAR	C24-C14-O33-C33
81	AS	3408	PAR	O54-C54-C64-N64
81	AS	3409	PAR	C23-C13-O52-C52
81	AS	3409	PAR	C43-C33-O33-C14
81	AS	3409	PAR	C24-C14-O33-C33
81	AS	3409	PAR	C33-C43-C53-O53
81	AS	3409	PAR	O43-C43-C53-O53
81	AS	3410	PAR	C23-C13-O52-C52
81	AS	3410	PAR	O54-C54-C64-N64
81	AS	3411	PAR	C21-C11-O11-C42
81	AS	3411	PAR	C44-C54-C64-N64
81	AS	3411	PAR	O54-C54-C64-N64
81	AS	3412	PAR	C23-C13-O52-C52
81	AS	3412	PAR	C44-C54-C64-N64
81	AS	3413	PAR	C23-C13-O52-C52
81	AS	3413	PAR	O43-C13-O52-C52
81	AS	3413	PAR	C33-C43-C53-O53
81	AS	3413	PAR	O43-C43-C53-O53
81	AS	3413	PAR	C44-C54-C64-N64
81	AS	3413	PAR	O54-C54-C64-N64
81	CM	1801	PAR	O54-C54-C64-N64
81	CM	1802	PAR	C23-C13-O52-C52
81	CM	1803	PAR	C23-C13-O52-C52
81	CM	1804	PAR	C23-C13-O52-C52
81	CM	1804	PAR	O43-C13-O52-C52
81	CM	1804	PAR	O54-C14-O33-C33
81	CM	1805	PAR	C23-C13-O52-C52
81	CM	1805	PAR	O43-C13-O52-C52
81	CM	1805	PAR	C24-C14-O33-C33
81	CM	1805	PAR	O54-C54-C64-N64
81	CM	1806	PAR	C23-C13-O52-C52
81	CM	1806	PAR	O43-C13-O52-C52
81	CM	1806	PAR	C33-C43-C53-O53
81	1	3411	PAR	C62-C52-O52-C13

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Mol	Chain	Res	Type	Atoms
81	1	3422	PAR	C52-C42-O11-C11
81	B	1802	PAR	C62-C52-O52-C13
81	B	1803	PAR	C52-C42-O11-C11
80	1	3401	3K5	O15-C38-O14-C34
81	1	3420	PAR	O51-C11-O11-C42
81	1	3425	PAR	O54-C14-O33-C33
81	AS	3406	PAR	O54-C14-O33-C33
81	CM	1801	PAR	O54-C14-O33-C33
81	1	3409	PAR	C62-C52-O52-C13
81	1	3407	PAR	O54-C14-O33-C33
81	1	3408	PAR	O54-C14-O33-C33
81	1	3420	PAR	O54-C14-O33-C33
81	1	3430	PAR	O54-C14-O33-C33
81	B	1805	PAR	O54-C14-O33-C33
81	AS	3407	PAR	O54-C14-O33-C33
81	1	3425	PAR	C62-C52-O52-C13
80	1	3401	3K5	C31-C30-O9-C26
81	1	3412	PAR	O54-C14-O33-C33
81	1	3414	PAR	O54-C14-O33-C33
81	1	3428	PAR	O54-C14-O33-C33
81	B	1801	PAR	O54-C14-O33-C33
81	B	1804	PAR	O54-C14-O33-C33
81	AS	3413	PAR	O54-C14-O33-C33
81	CM	1804	PAR	O51-C11-O11-C42
81	CM	1805	PAR	O54-C14-O33-C33
81	CM	1806	PAR	O54-C14-O33-C33
81	1	3427	PAR	O54-C14-O33-C33
81	1	3411	PAR	O43-C43-C53-O53
81	1	3413	PAR	O43-C43-C53-O53
81	1	3414	PAR	O43-C43-C53-O53
81	CM	1806	PAR	O43-C43-C53-O53
81	1	3413	PAR	C33-C43-C53-O53
81	AS	3410	PAR	C33-C43-C53-O53
81	B	1805	PAR	C62-C52-O52-C13
81	1	3402	PAR	O54-C14-O33-C33
81	4	202	PAR	O51-C11-O11-C42
81	AS	3410	PAR	O54-C14-O33-C33
81	AS	3404	PAR	C62-C52-O52-C13
81	AS	3411	PAR	C52-C42-O11-C11
81	AS	3411	PAR	C62-C52-O52-C13
81	AS	3410	PAR	O43-C43-C53-O53
81	1	3427	PAR	C41-C51-C61-O61

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Mol	Chain	Res	Type	Atoms
81	4	201	PAR	C33-C43-C53-O53
81	CM	1804	PAR	O51-C51-C61-O61
81	1	3404	PAR	O51-C11-O11-C42
81	1	3416	PAR	O43-C43-C53-O53
81	1	3425	PAR	O43-C43-C53-O53
81	AS	3402	PAR	O54-C14-O33-C33
81	1	3429	PAR	C33-C43-C53-O53
81	1	3430	PAR	C33-C43-C53-O53
81	AS	3408	PAR	O51-C51-C61-O61
81	AS	3409	PAR	C41-C51-C61-O61
80	1	3401	3K5	O10-C30-O9-C26
81	B	1803	PAR	O51-C51-C61-O61
81	CM	1804	PAR	C41-C51-C61-O61
81	1	3417	PAR	O51-C51-C61-O61
81	1	3427	PAR	O51-C51-C61-O61
81	1	3409	PAR	O43-C43-C53-O53
81	4	201	PAR	O43-C43-C53-O53
81	1	3411	PAR	O51-C51-C61-O61
81	1	3411	PAR	C33-C43-C53-O53
80	1	3401	3K5	O2-C6-O1-C5
81	1	3406	PAR	O54-C14-O33-C33
81	B	1803	PAR	O51-C11-O11-C42
81	1	3414	PAR	O51-C51-C61-O61
81	1	3424	PAR	O51-C51-C61-O61
81	AS	3409	PAR	O51-C51-C61-O61
81	CM	1801	PAR	O51-C51-C61-O61
81	B	1803	PAR	C41-C51-C61-O61
81	1	3417	PAR	C33-C43-C53-O53
81	4	202	PAR	C33-C43-C53-O53
81	1	3417	PAR	C41-C51-C61-O61
81	1	3429	PAR	O43-C43-C53-O53
81	CM	1801	PAR	C41-C51-C61-O61
81	1	3418	PAR	O51-C51-C61-O61
81	1	3424	PAR	C41-C51-C61-O61
81	AS	3408	PAR	C41-C51-C61-O61
81	CM	1802	PAR	C41-C51-C61-O61
81	1	3424	PAR	O51-C11-O11-C42
81	1	3412	PAR	O51-C11-O11-C42
81	1	3422	PAR	O54-C14-O33-C33
81	1	3430	PAR	O43-C43-C53-O53
81	1	3430	PAR	C52-C42-O11-C11
81	B	1805	PAR	O51-C51-C61-O61

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Mol	Chain	Res	Type	Atoms
81	1	3414	PAR	C41-C51-C61-O61
81	CM	1802	PAR	O51-C51-C61-O61
81	1	3409	PAR	C33-C43-C53-O53
81	1	3413	PAR	C62-C52-O52-C13
81	1	3417	PAR	O43-C43-C53-O53
80	1	3401	3K5	O1-C6-C7-C8
81	1	3405	PAR	C33-C43-C53-O53
81	1	3405	PAR	O43-C43-C53-O53
81	B	1804	PAR	C52-C42-O11-C11
81	1	3418	PAR	C41-C51-C61-O61
81	1	3430	PAR	C42-C52-O52-C13
81	1	3418	PAR	O51-C11-O11-C42
81	4	202	PAR	O43-C43-C53-O53
81	AS	3408	PAR	O43-C43-C53-O53
81	1	3426	PAR	O51-C51-C61-O61
81	1	3411	PAR	C41-C51-C61-O61
81	1	3416	PAR	C33-C43-C53-O53
81	AS	3408	PAR	O51-C11-O11-C42
81	AS	3412	PAR	C41-C51-C61-O61
81	AS	3407	PAR	O51-C11-O11-C42
81	1	3413	PAR	C42-C52-O52-C13
81	1	3419	PAR	O43-C13-O52-C52
81	1	3421	PAR	O43-C13-O52-C52
81	1	3427	PAR	O43-C13-O52-C52
81	B	1804	PAR	O43-C13-O52-C52
81	AS	3409	PAR	O43-C13-O52-C52
81	AS	3410	PAR	O43-C13-O52-C52
81	AS	3412	PAR	O43-C13-O52-C52
81	CM	1802	PAR	O43-C13-O52-C52
81	CM	1803	PAR	O43-C13-O52-C52
80	1	3401	3K5	O2-C6-C7-C8
81	1	3410	PAR	C42-C52-O52-C13
81	AS	3409	PAR	O54-C14-O33-C33
81	B	1802	PAR	O51-C51-C61-O61
81	AS	3407	PAR	C41-C51-C61-O61
81	B	1802	PAR	C41-C51-C61-O61
81	1	3404	PAR	O51-C51-C61-O61
81	1	3404	PAR	O54-C14-O33-C33
81	1	3410	PAR	O51-C51-C61-O61
81	1	3407	PAR	O43-C43-C53-O53
81	AS	3412	PAR	O51-C51-C61-O61
81	1	3403	PAR	C44-C54-C64-N64

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Mol	Chain	Res	Type	Atoms
81	CM	1804	PAR	C44-C54-C64-N64
81	1	3410	PAR	C62-C52-O52-C13
81	1	3414	PAR	O51-C11-O11-C42
81	AS	3403	PAR	O54-C14-O33-C33
81	1	3417	PAR	O51-C11-O11-C42
81	1	3413	PAR	C52-C42-O11-C11
81	AS	3411	PAR	C42-C52-O52-C13
81	1	3404	PAR	C52-C42-O11-C11
81	1	3413	PAR	C41-C51-C61-O61
81	1	3412	PAR	O43-C13-O52-C52
81	4	201	PAR	O43-C13-O52-C52
81	1	3419	PAR	C52-C42-O11-C11
81	1	3406	PAR	C42-C52-O52-C13
81	1	3425	PAR	C33-C43-C53-O53
81	1	3411	PAR	O54-C54-C64-N64
81	1	3420	PAR	O54-C54-C64-N64
81	1	3428	PAR	O54-C54-C64-N64
81	B	1802	PAR	O54-C54-C64-N64
81	AS	3402	PAR	O54-C54-C64-N64
81	AS	3404	PAR	O54-C54-C64-N64
81	CM	1804	PAR	O54-C54-C64-N64
81	1	3406	PAR	C62-C52-O52-C13
81	1	3402	PAR	C52-C42-O11-C11
81	1	3403	PAR	O54-C14-O33-C33
81	CM	1801	PAR	O51-C11-O11-C42
81	1	3407	PAR	O51-C51-C61-O61
81	AS	3408	PAR	C33-C43-C53-O53
81	B	1801	PAR	C52-C42-O11-C11
81	B	1805	PAR	C41-C51-C61-O61
81	1	3430	PAR	C62-C52-O52-C13
81	1	3403	PAR	C21-C11-O11-C42
81	1	3405	PAR	C24-C14-O33-C33
81	1	3413	PAR	C24-C14-O33-C33
81	1	3424	PAR	C24-C14-O33-C33
81	B	1804	PAR	C21-C11-O11-C42
81	AS	3404	PAR	C24-C14-O33-C33
81	AS	3406	PAR	C24-C14-O33-C33
81	1	3424	PAR	O43-C43-C53-O53
81	1	3417	PAR	O43-C13-O52-C52
81	AS	3404	PAR	C42-C52-O52-C13
81	1	3427	PAR	C23-C33-O33-C14
81	AS	3406	PAR	C23-C33-O33-C14

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Mol	Chain	Res	Type	Atoms
81	CM	1806	PAR	C23-C33-O33-C14
81	AS	3412	PAR	O51-C11-O11-C42
81	AS	3411	PAR	O43-C13-O52-C52
81	1	3407	PAR	C33-C43-C53-O53
81	1	3417	PAR	C52-C42-O11-C11
81	1	3424	PAR	C33-C43-C53-O53
81	1	3413	PAR	O51-C51-C61-O61
81	1	3422	PAR	O43-C43-C53-O53
81	1	3417	PAR	C23-C13-O52-C52
81	1	3428	PAR	O43-C43-C53-O53
81	1	3421	PAR	O51-C11-O11-C42
81	1	3408	PAR	C21-C11-O11-C42
81	1	3419	PAR	C21-C11-O11-C42
81	1	3423	PAR	C24-C14-O33-C33
81	B	1805	PAR	C44-C54-C64-N64
81	AS	3404	PAR	C44-C54-C64-N64
81	AS	3411	PAR	C24-C14-O33-C33
81	CM	1804	PAR	C24-C14-O33-C33
81	AS	3402	PAR	O51-C11-O11-C42
81	1	3410	PAR	C52-C42-O11-C11
81	AS	3405	PAR	O51-C11-O11-C42
81	AS	3407	PAR	O51-C51-C61-O61
81	AS	3405	PAR	O54-C14-O33-C33
81	1	3430	PAR	C32-C42-O11-C11
81	B	1805	PAR	C42-C52-O52-C13
81	1	3402	PAR	C23-C33-O33-C14
81	1	3403	PAR	C23-C33-O33-C14
81	1	3405	PAR	C23-C33-O33-C14
81	1	3407	PAR	C23-C33-O33-C14
81	1	3408	PAR	C43-C33-O33-C14
81	1	3411	PAR	C23-C33-O33-C14
81	1	3411	PAR	C43-C33-O33-C14
81	1	3412	PAR	C23-C33-O33-C14
81	1	3415	PAR	C43-C33-O33-C14
81	1	3417	PAR	C23-C33-O33-C14
81	1	3421	PAR	C43-C33-O33-C14
81	1	3428	PAR	C23-C33-O33-C14
81	1	3428	PAR	C43-C33-O33-C14
81	B	1804	PAR	C43-C33-O33-C14
81	B	1805	PAR	C23-C33-O33-C14
81	AS	3402	PAR	C43-C33-O33-C14
81	AS	3410	PAR	C23-C33-O33-C14

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Mol	Chain	Res	Type	Atoms
81	AS	3413	PAR	C23-C33-O33-C14
81	AS	3413	PAR	C43-C33-O33-C14
81	CM	1802	PAR	C23-C33-O33-C14
81	CM	1805	PAR	C23-C33-O33-C14
81	CM	1805	PAR	C43-C33-O33-C14
81	1	3409	PAR	O43-C13-O52-C52
81	4	202	PAR	O43-C13-O52-C52
81	1	3407	PAR	O51-C11-O11-C42
81	AS	3411	PAR	O51-C11-O11-C42

All (6) ring outliers are listed below:

Mol	Chain	Res	Type	Atoms
81	1	3410	PAR	C12-C22-C32-C42-C52-C62
81	AS	3407	PAR	C12-C22-C32-C42-C52-C62
81	1	3404	PAR	C12-C22-C32-C42-C52-C62
81	1	3403	PAR	C12-C22-C32-C42-C52-C62
81	AS	3405	PAR	C12-C22-C32-C42-C52-C62
81	AS	3411	PAR	C12-C22-C32-C42-C52-C62

45 monomers are involved in 100 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
81	B	1801	PAR	2	0
81	1	3424	PAR	1	0
81	AS	3413	PAR	1	0
81	1	3410	PAR	2	0
81	AS	3411	PAR	2	0
81	B	1805	PAR	3	0
81	AS	3407	PAR	2	0
81	1	3420	PAR	1	0
81	1	3402	PAR	2	0
81	1	3405	PAR	1	0
81	AS	3406	PAR	1	0
81	1	3416	PAR	3	0
81	1	3423	PAR	3	0
81	1	3427	PAR	1	0
81	4	202	PAR	2	0
81	CM	1804	PAR	1	0
81	1	3430	PAR	1	0
81	1	3422	PAR	7	0
81	AS	3404	PAR	3	0

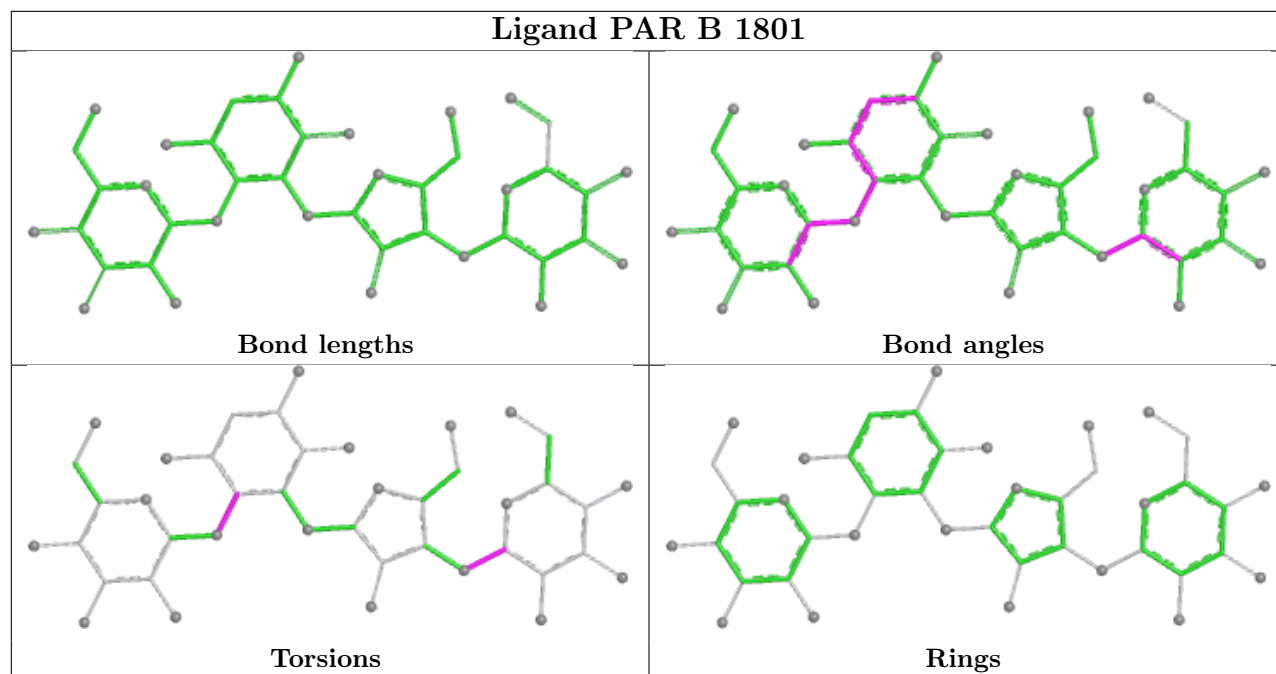
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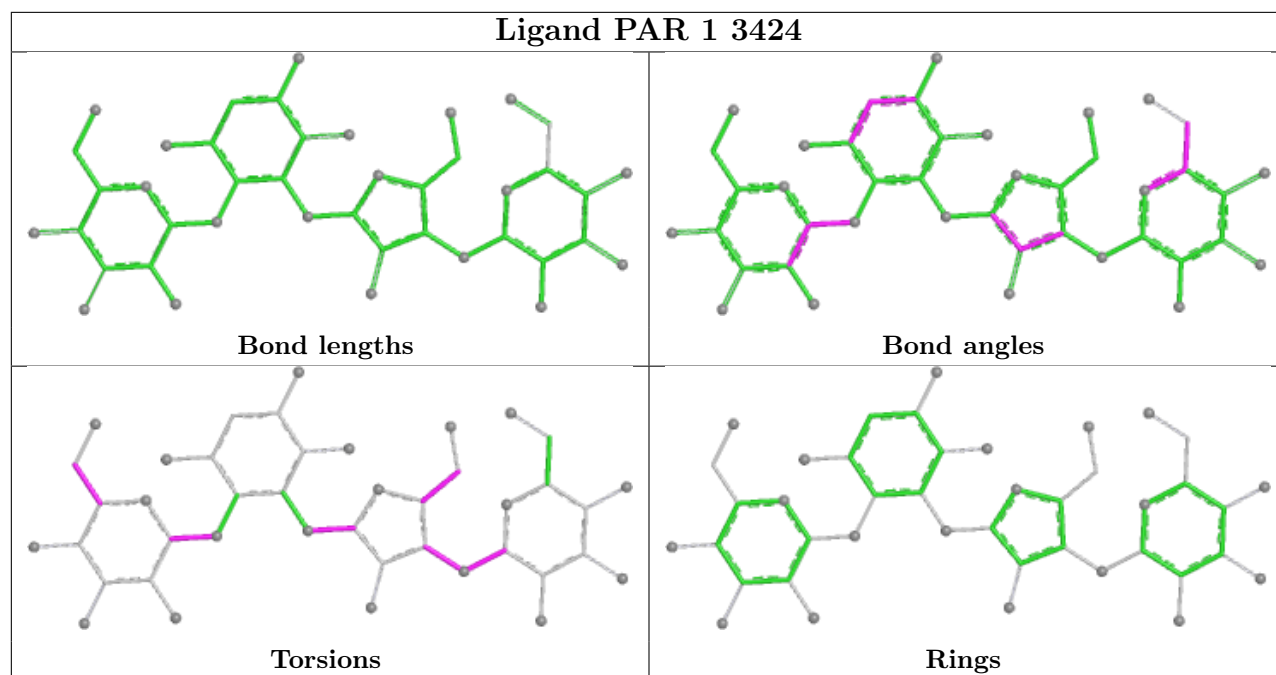
Mol	Chain	Res	Type	Clashes	Symm-Clashes
81	B	1803	PAR	4	0
81	B	1804	PAR	2	0
81	AS	3405	PAR	4	0
80	1	3401	3K5	3	0
81	1	3426	PAR	1	0
81	AS	3402	PAR	1	0
81	CM	1806	PAR	1	0
81	1	3403	PAR	2	0
81	AS	3401	PAR	4	0
81	1	3413	PAR	2	0
81	1	3417	PAR	1	0
81	1	3412	PAR	3	0
81	CM	1803	PAR	1	0
81	AS	3403	PAR	5	0
81	1	3408	PAR	1	0
81	1	3406	PAR	5	0
81	AS	3409	PAR	4	0
81	1	3421	PAR	1	0
81	AS	3412	PAR	1	0
81	1	3419	PAR	5	0
81	CM	1801	PAR	3	0
81	B	1802	PAR	1	0
81	CM	1802	PAR	3	0
81	1	3404	PAR	1	0
81	1	3425	PAR	2	0
81	1	3415	PAR	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 than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

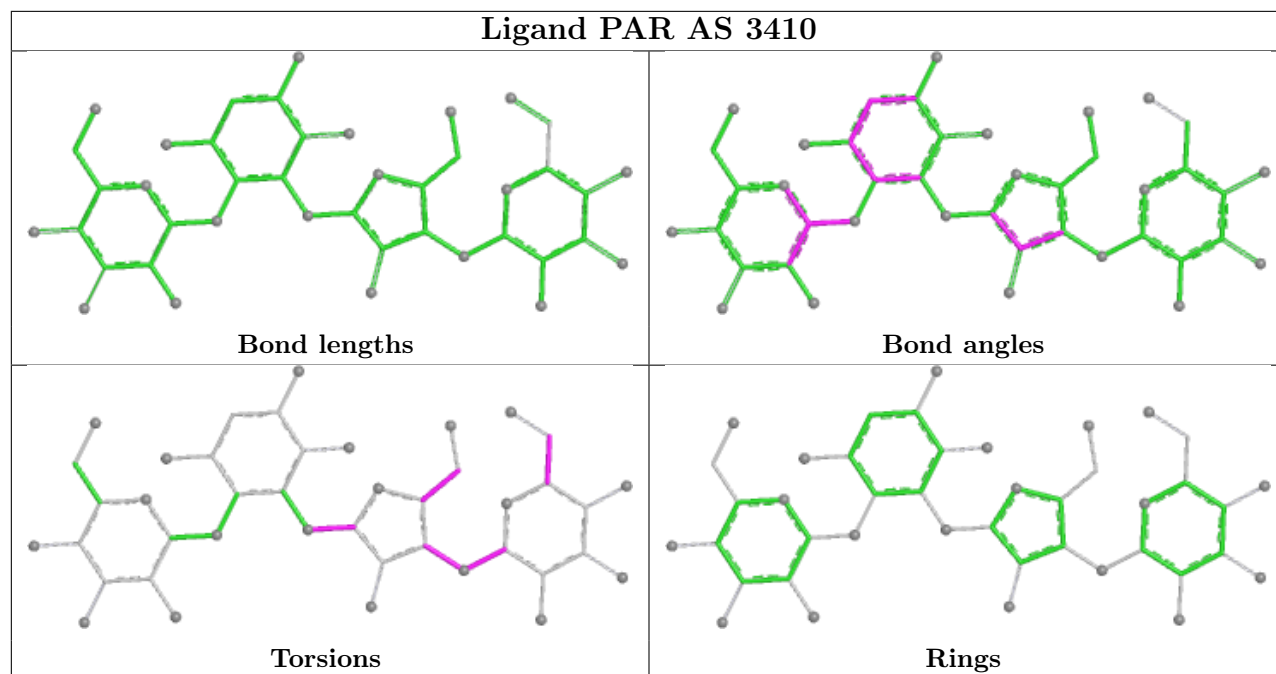
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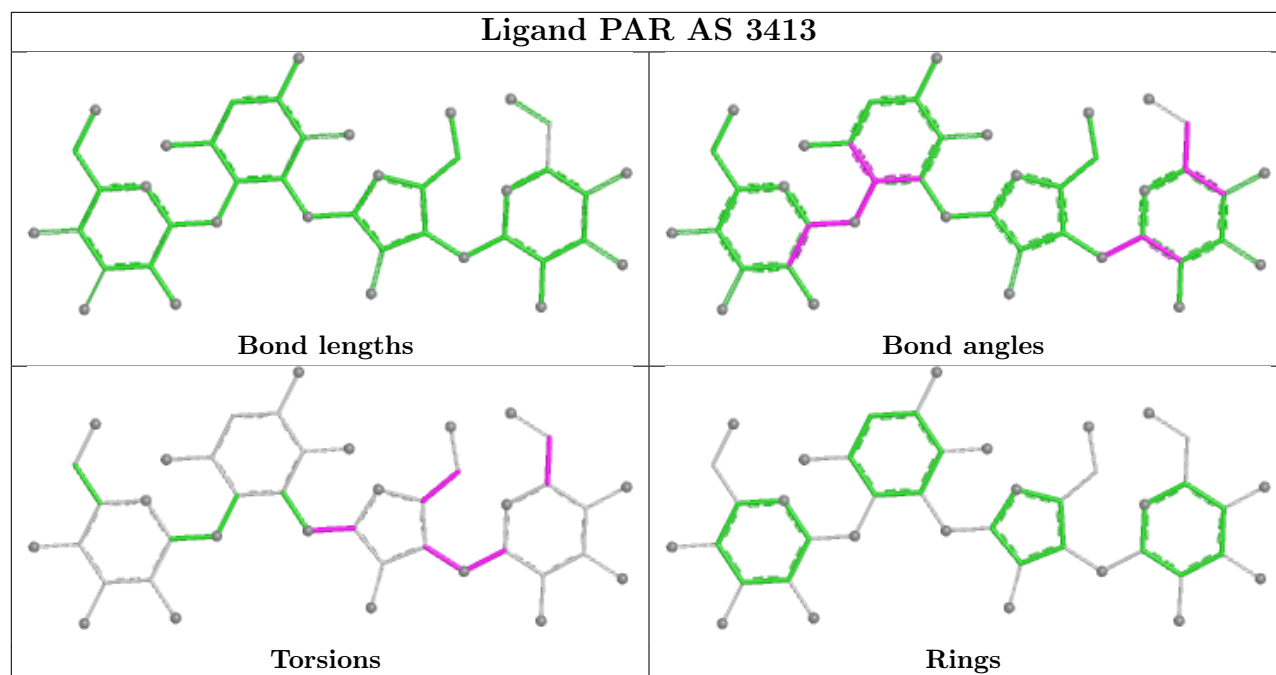
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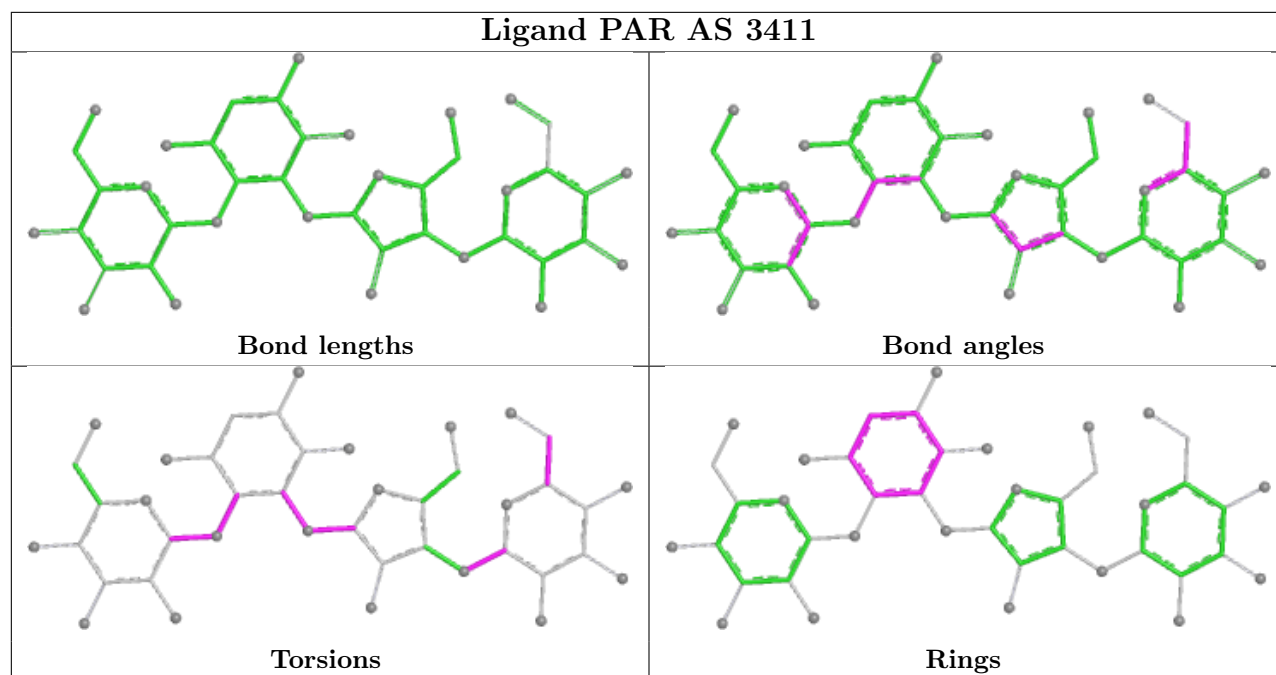
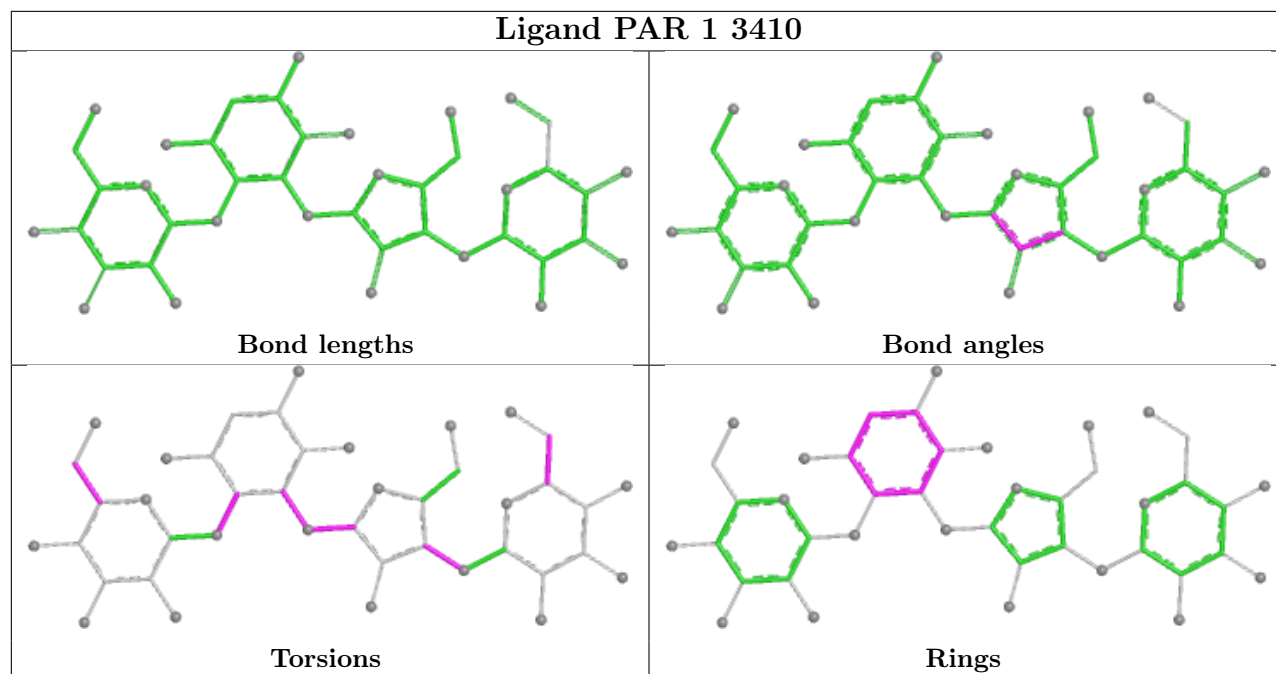


Ligand PAR AS 3410

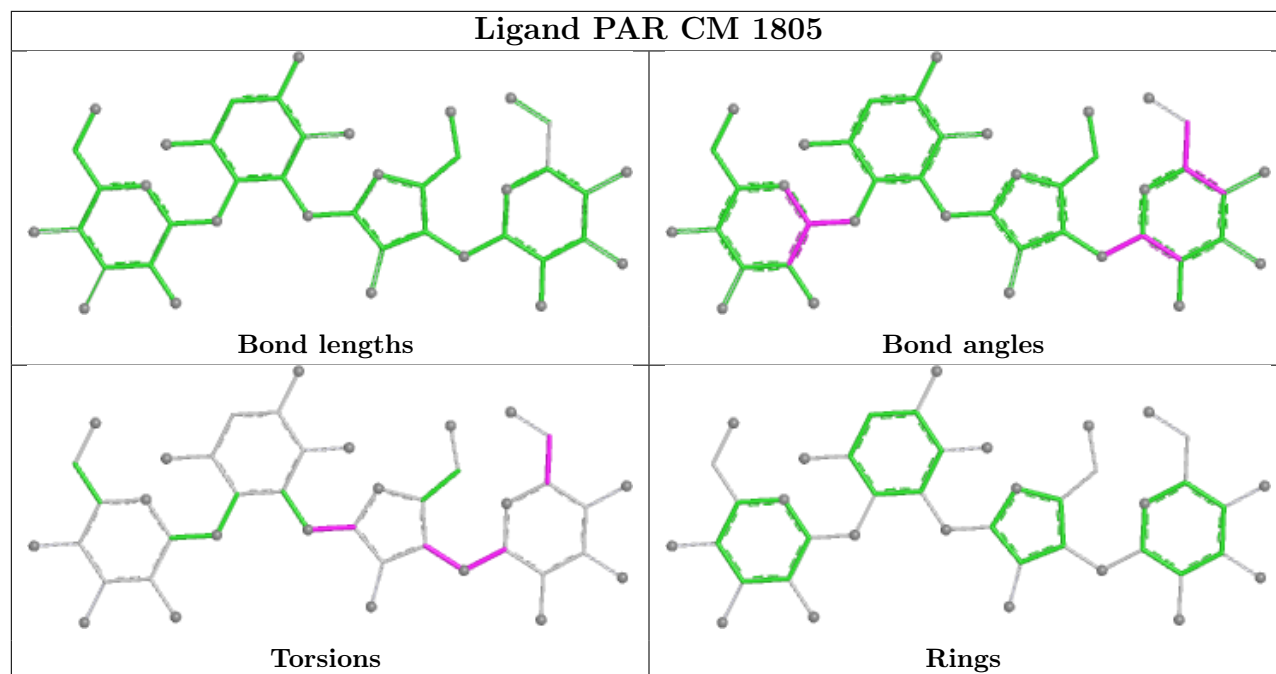


Ligand PAR AS 3413

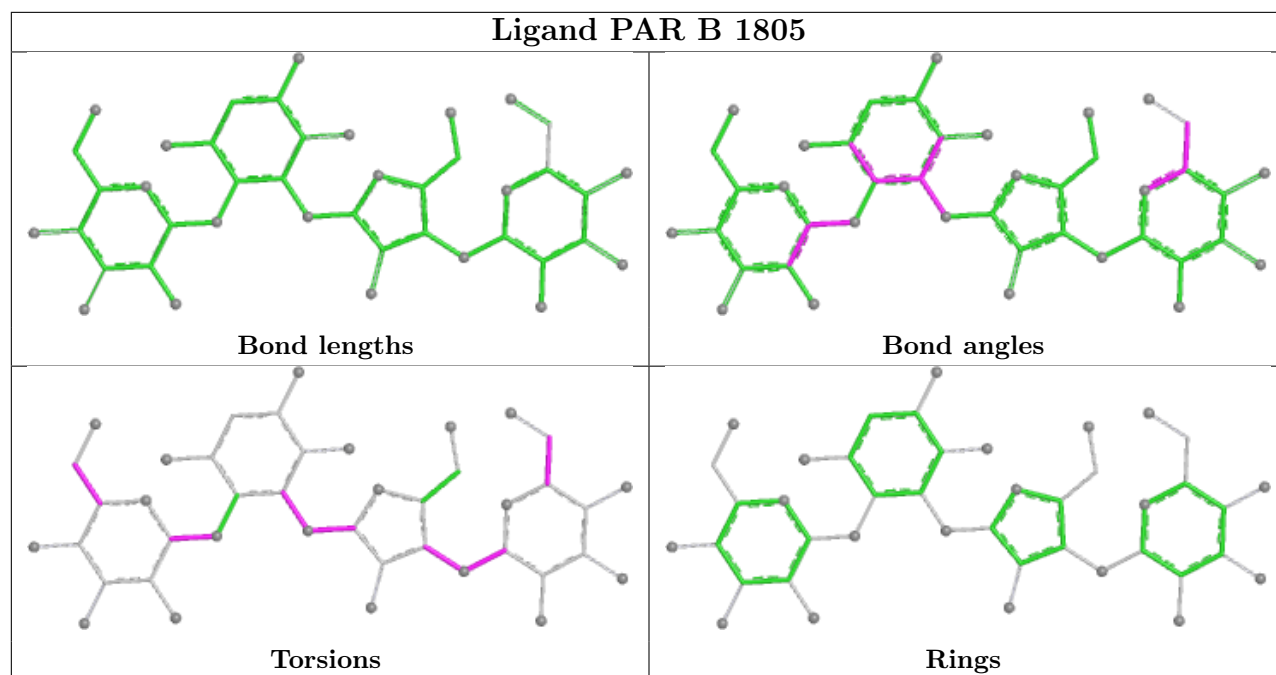




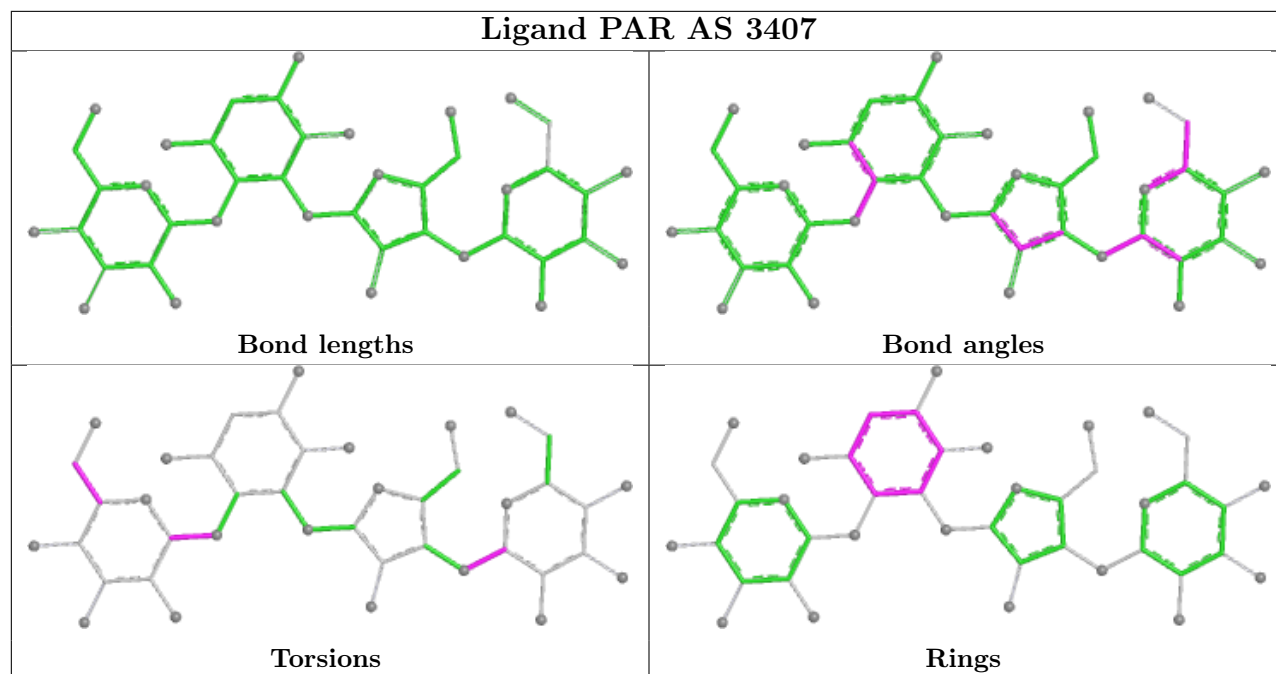
Ligand PAR CM 1805



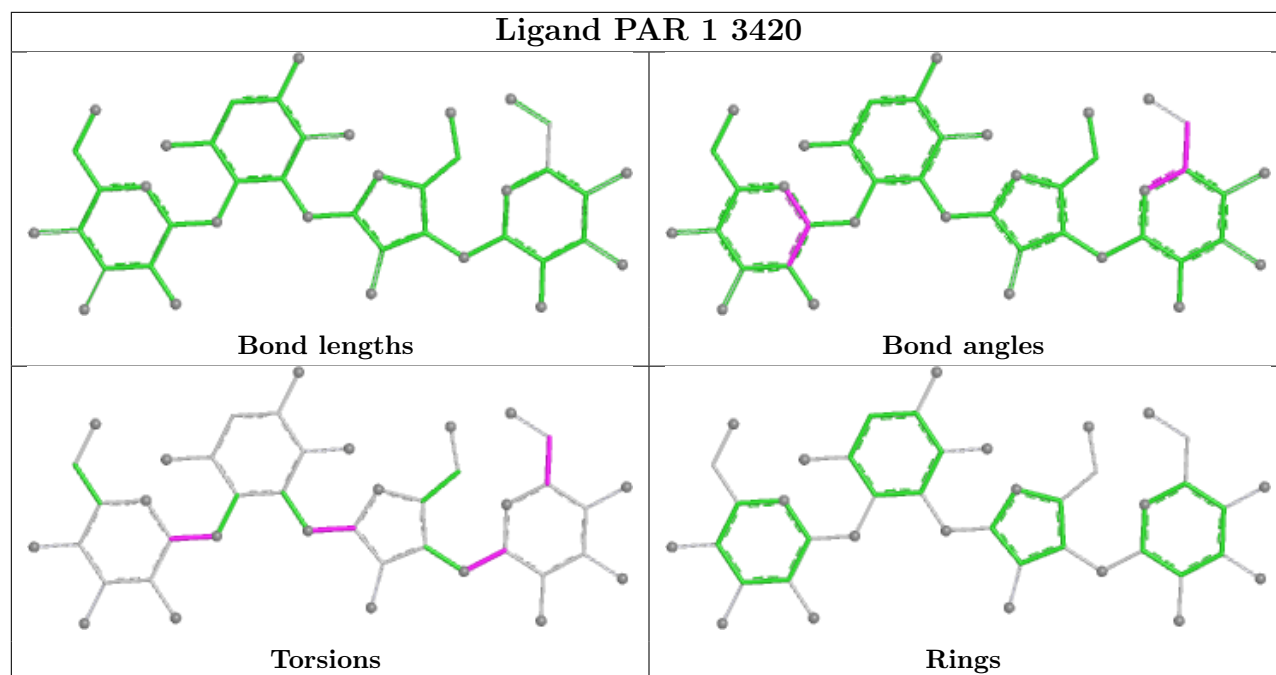
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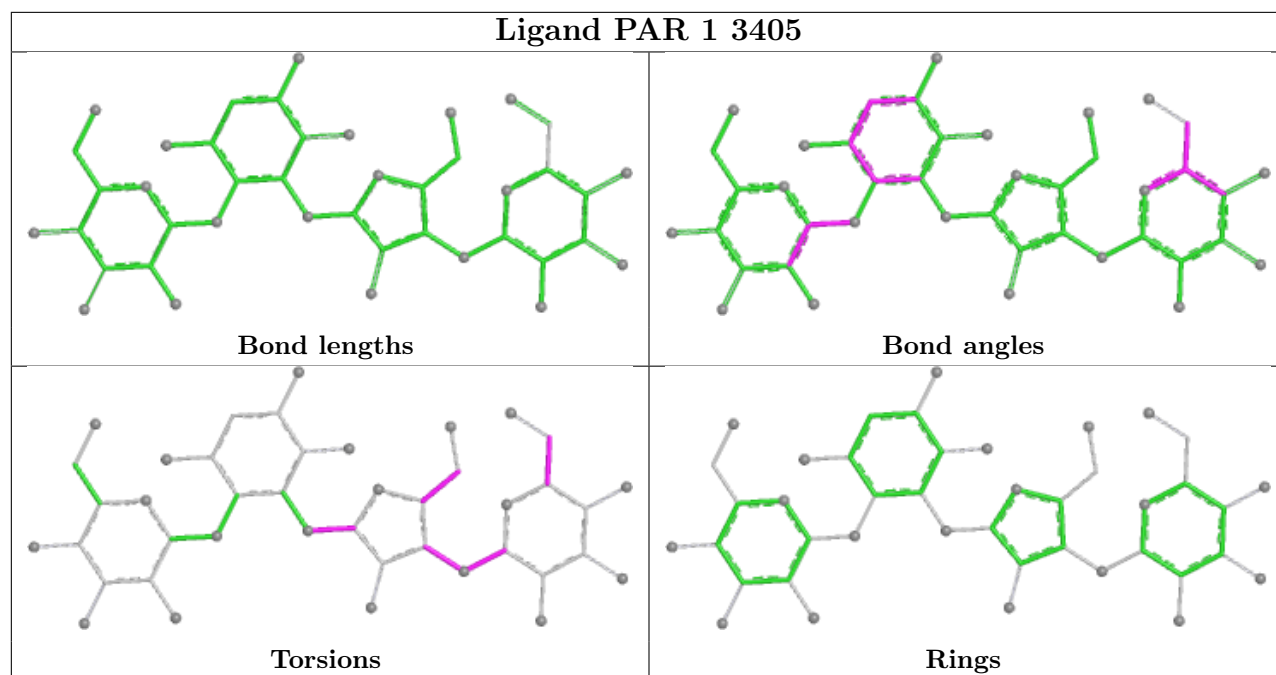
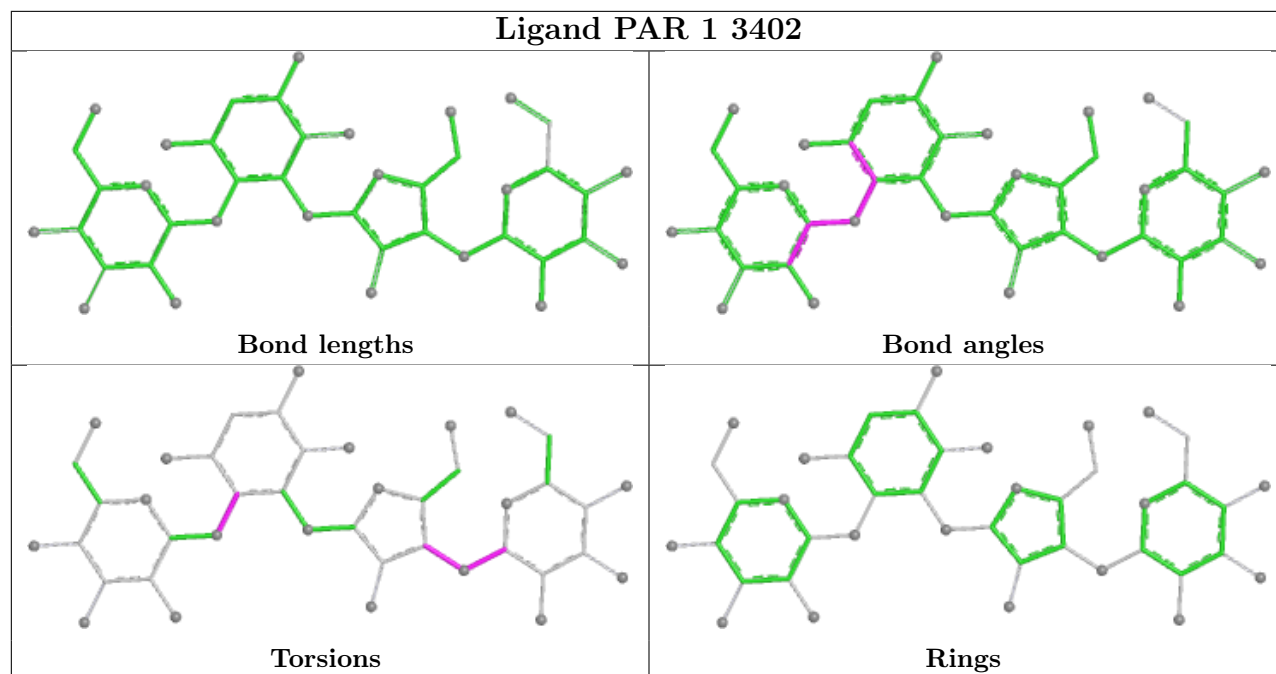


Ligand PAR AS 3407

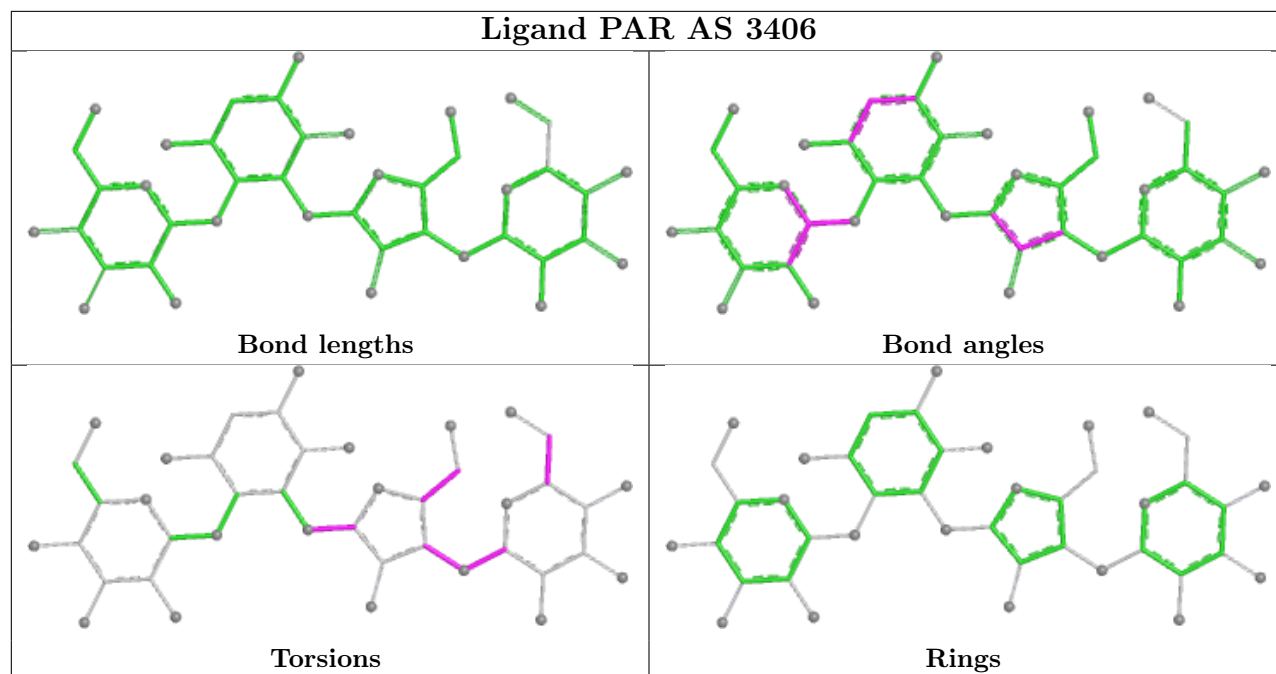


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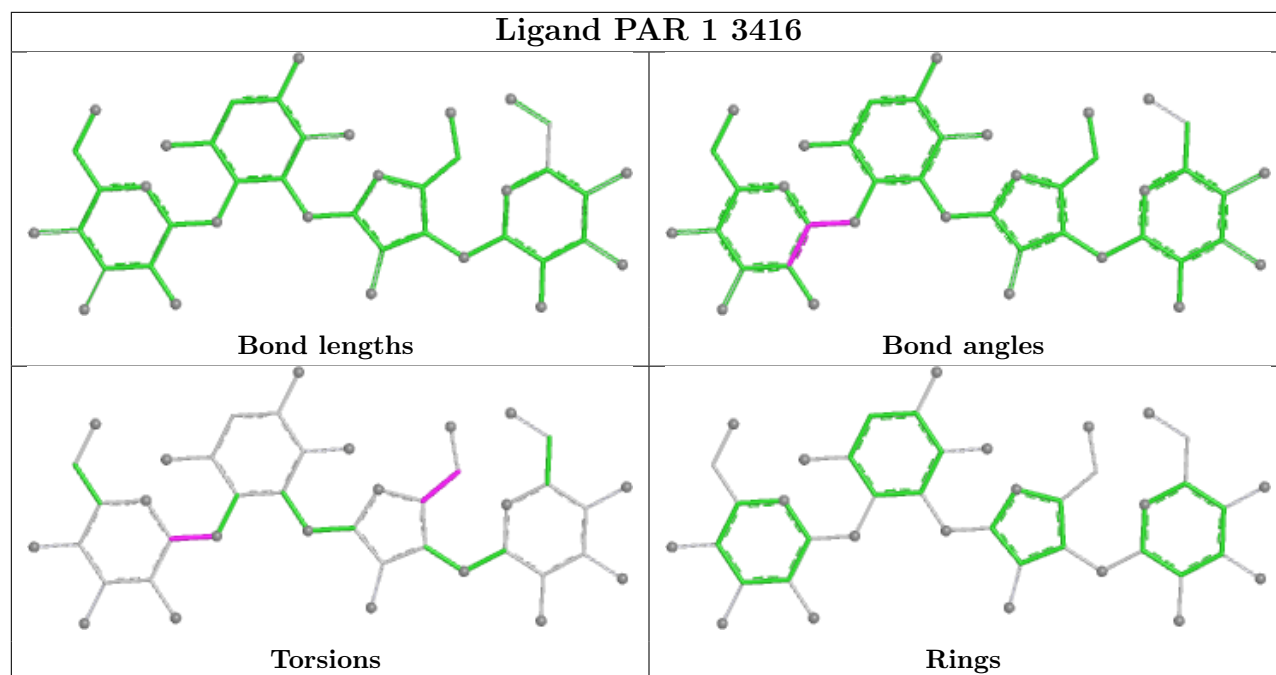




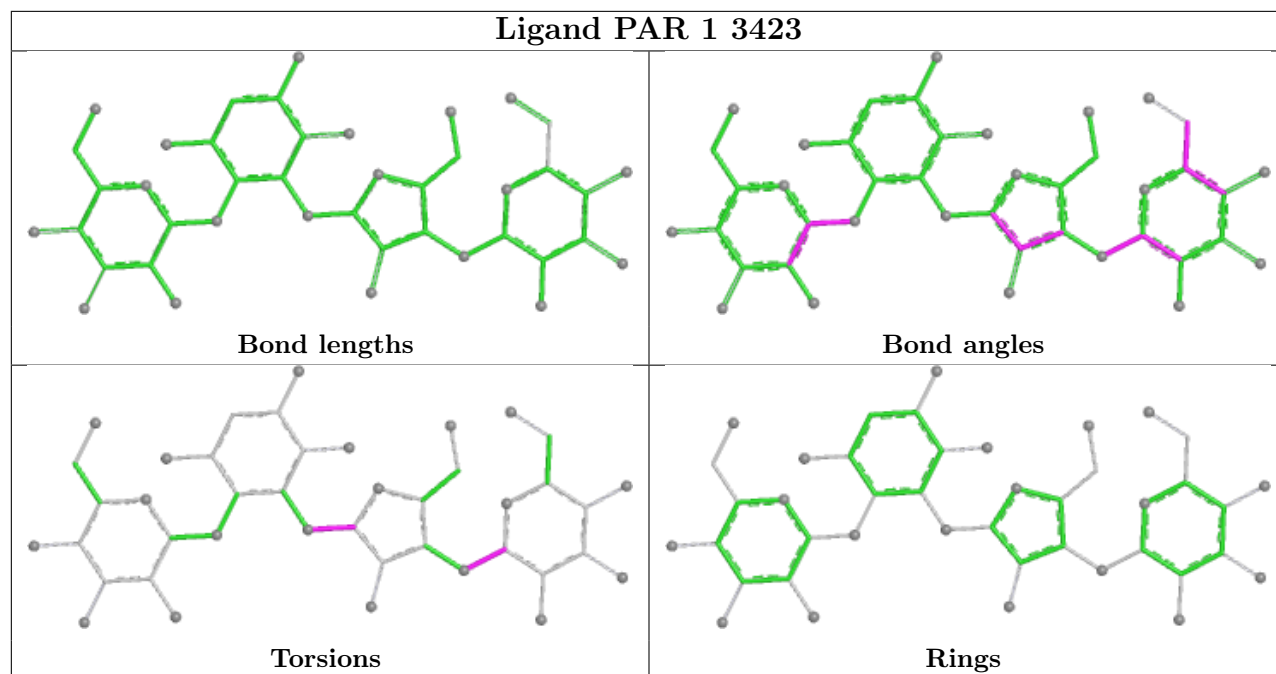
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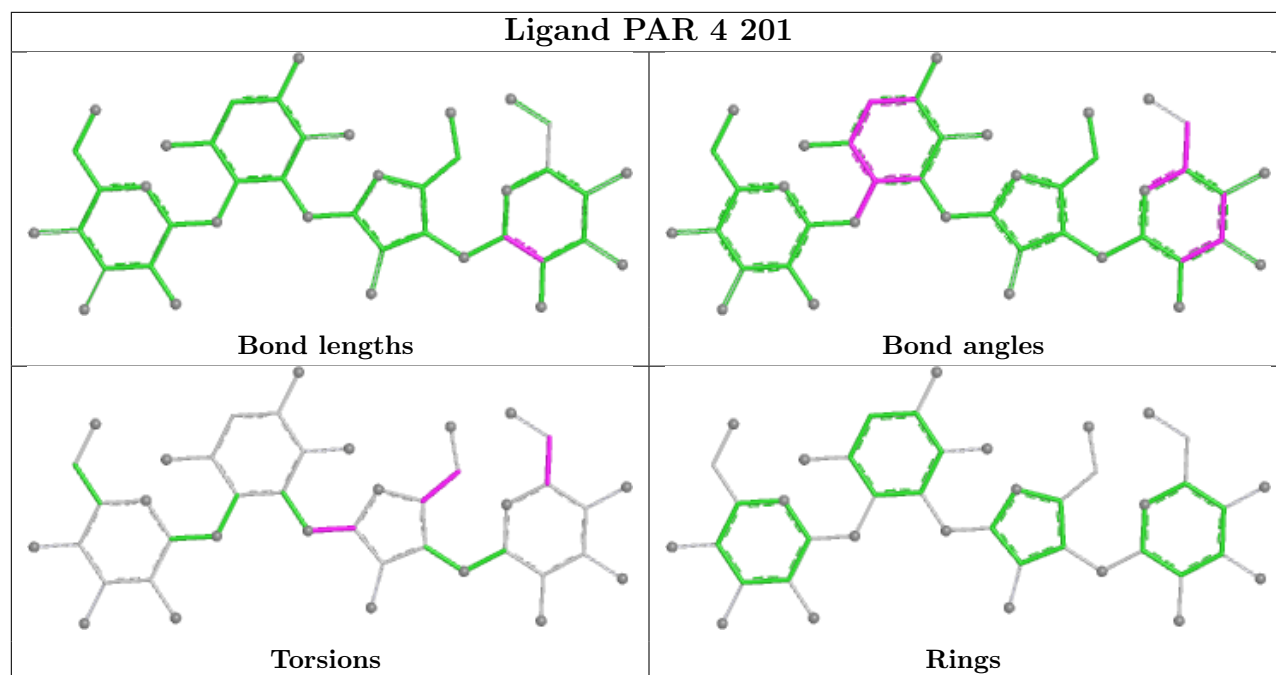
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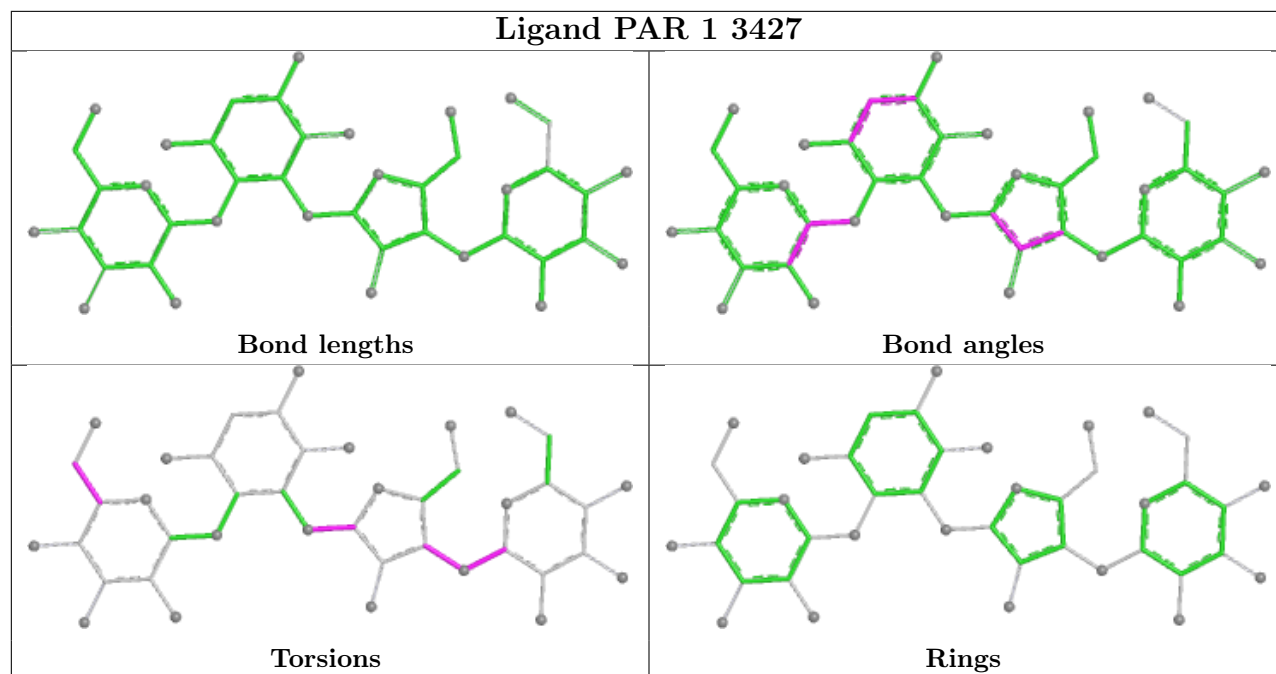
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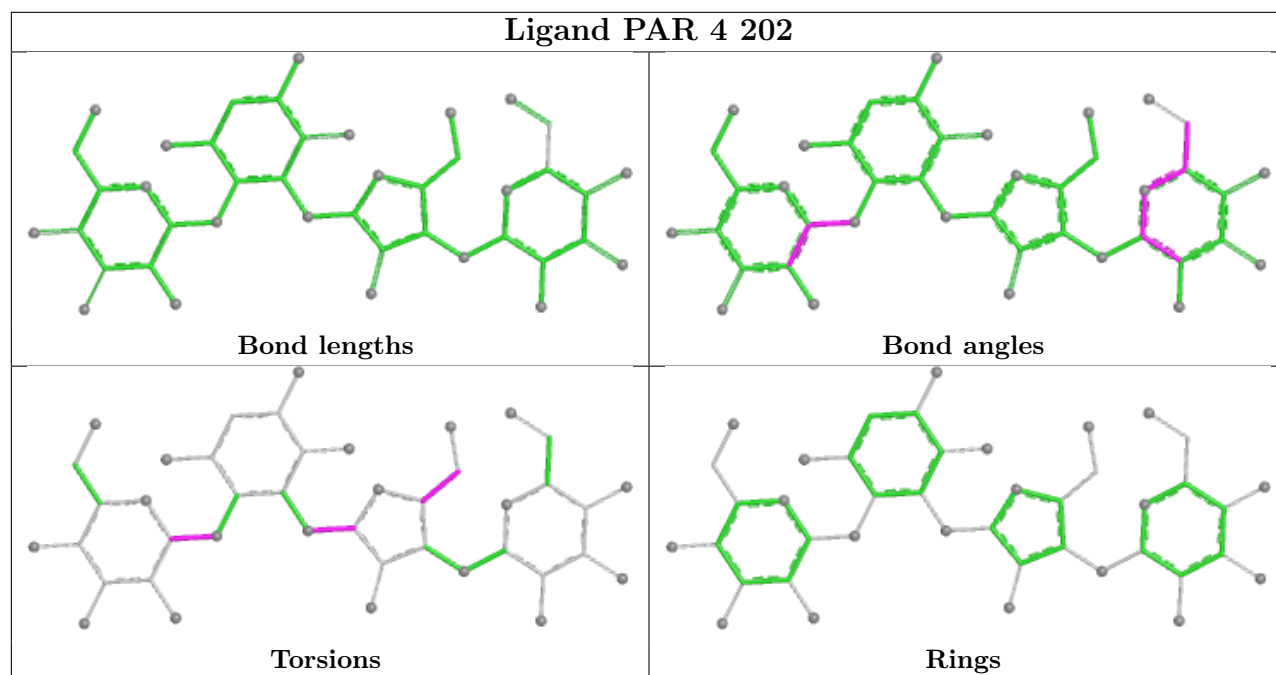
Ligand PAR 4 201

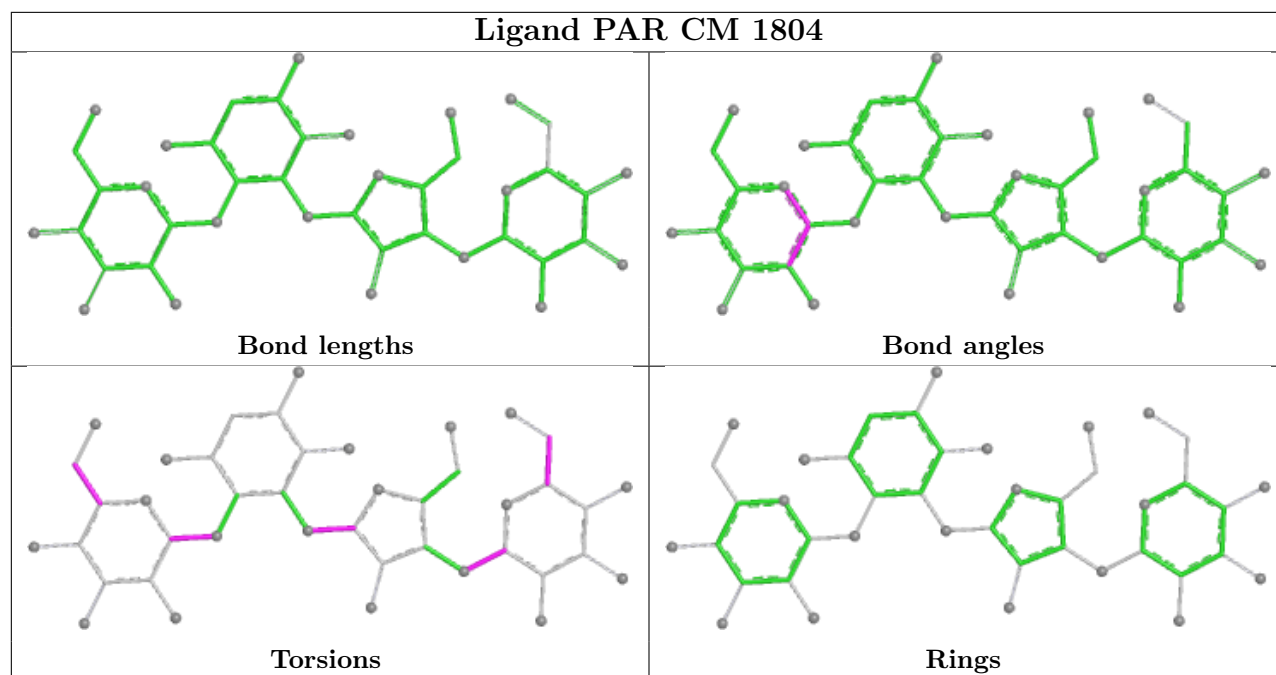
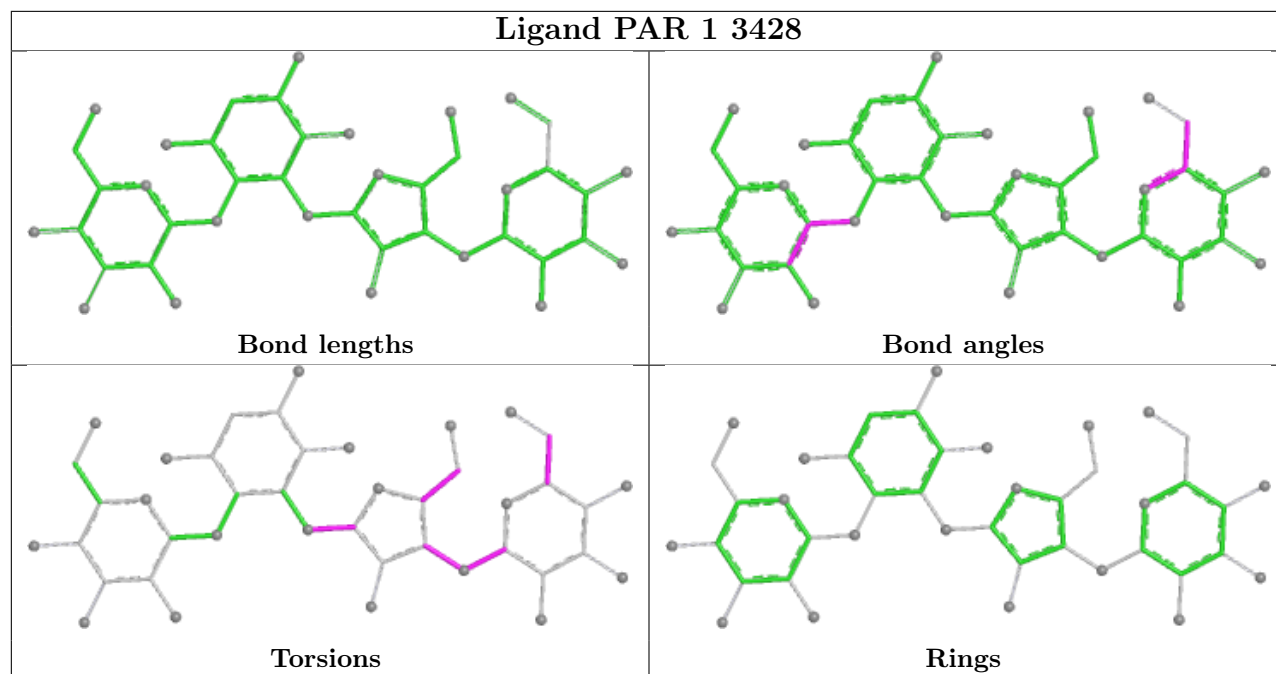


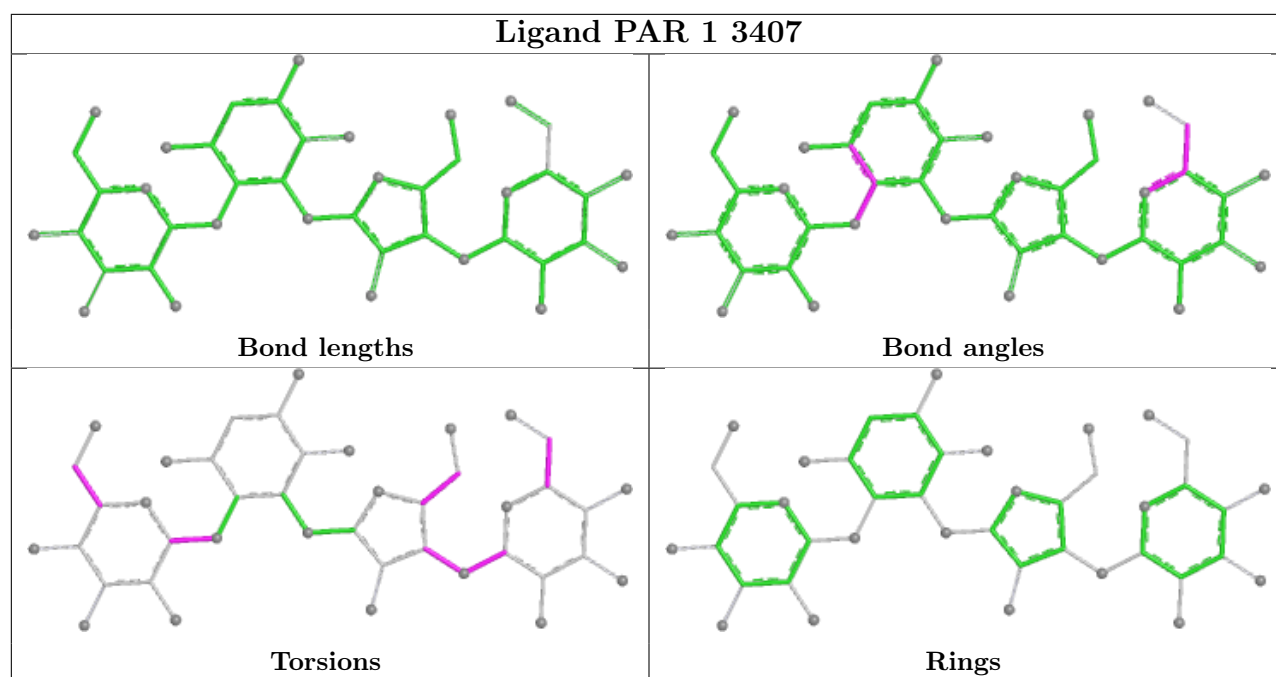
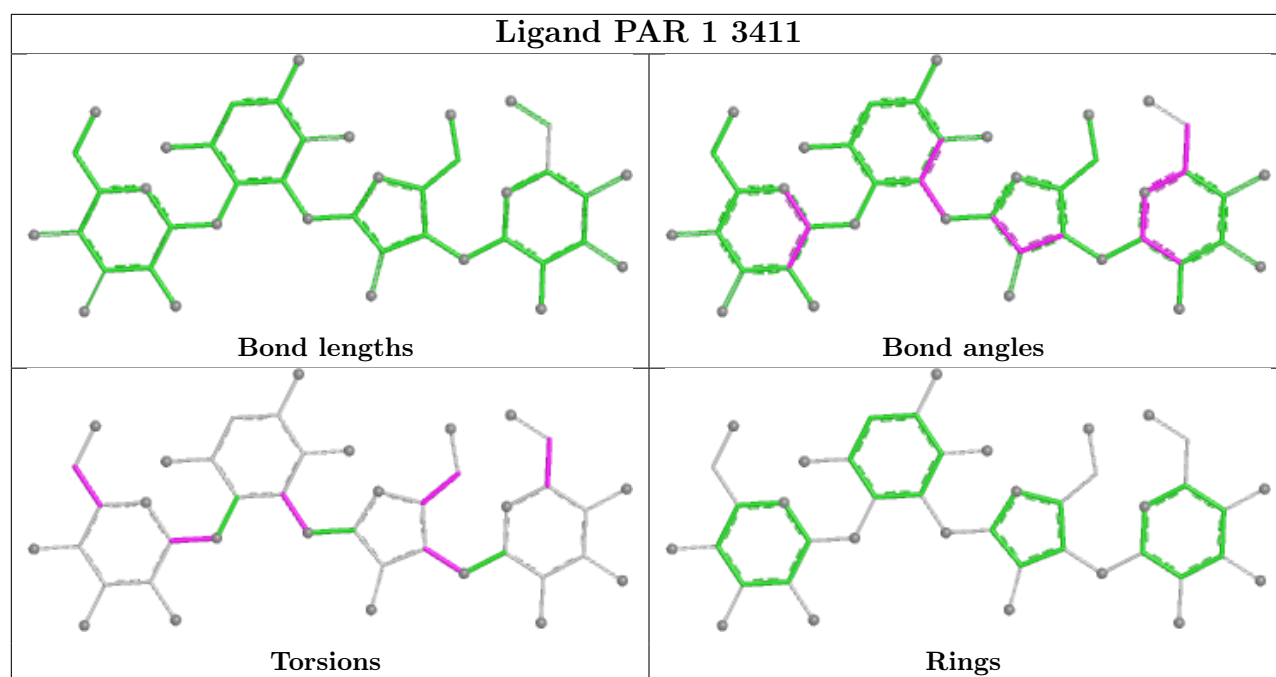
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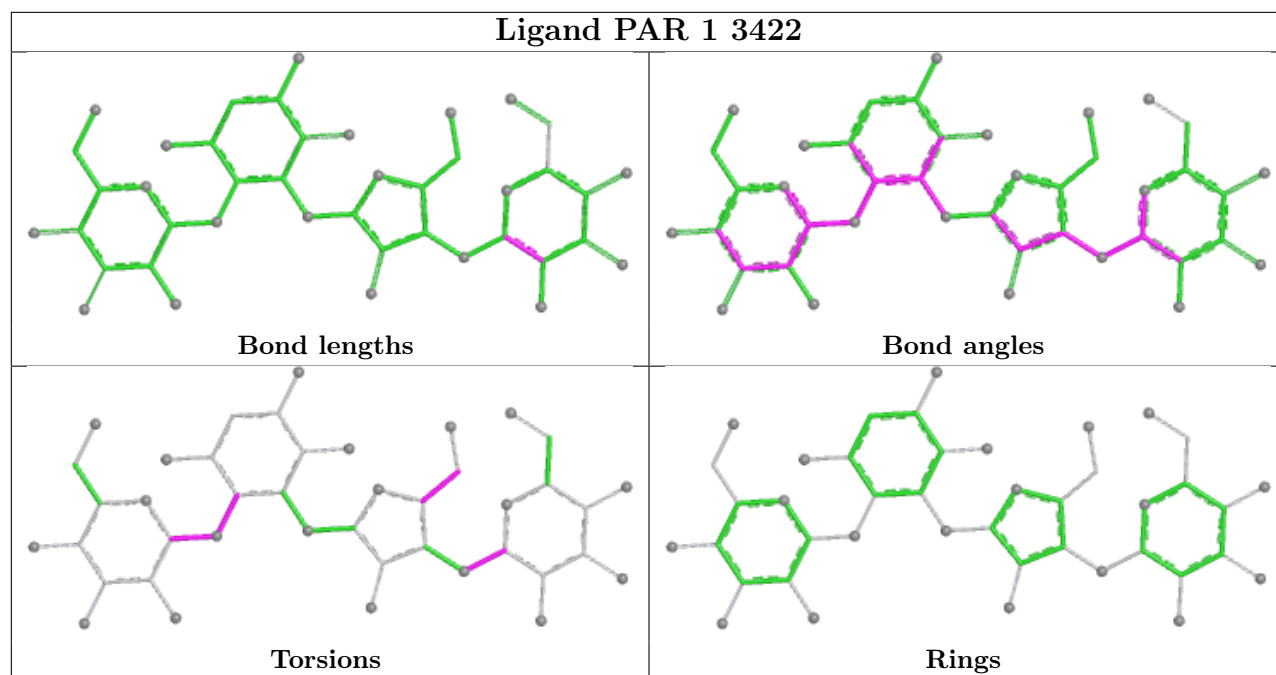
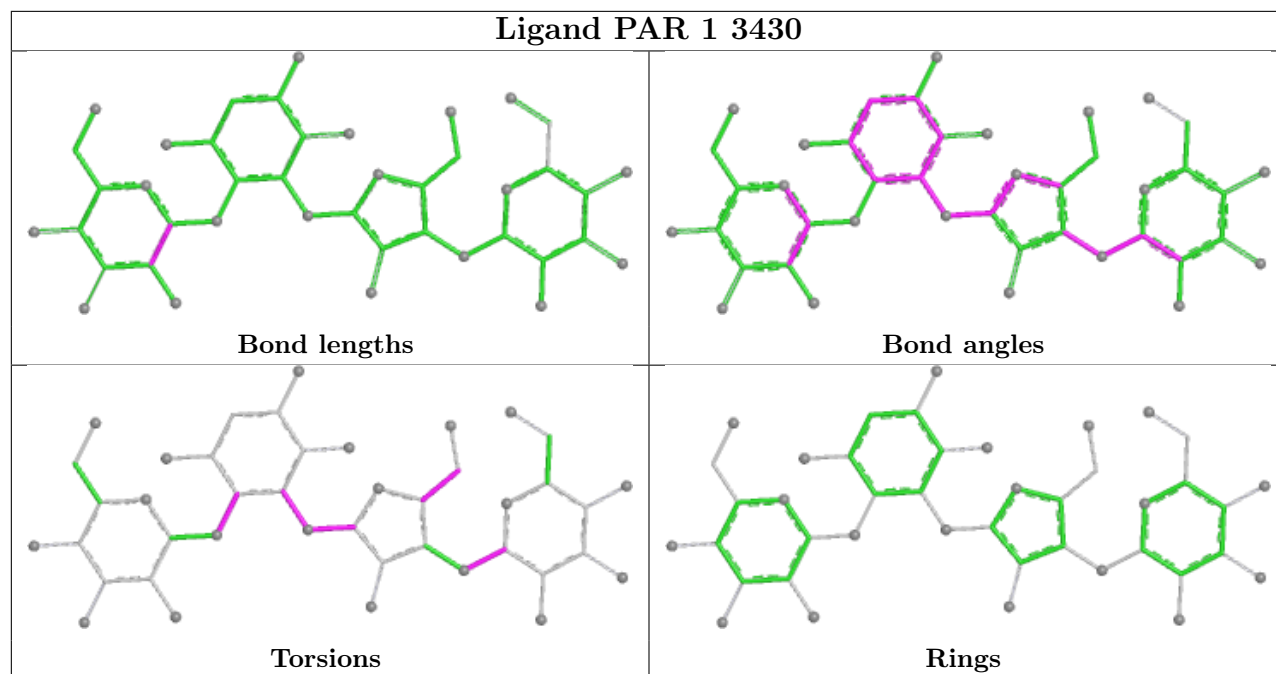


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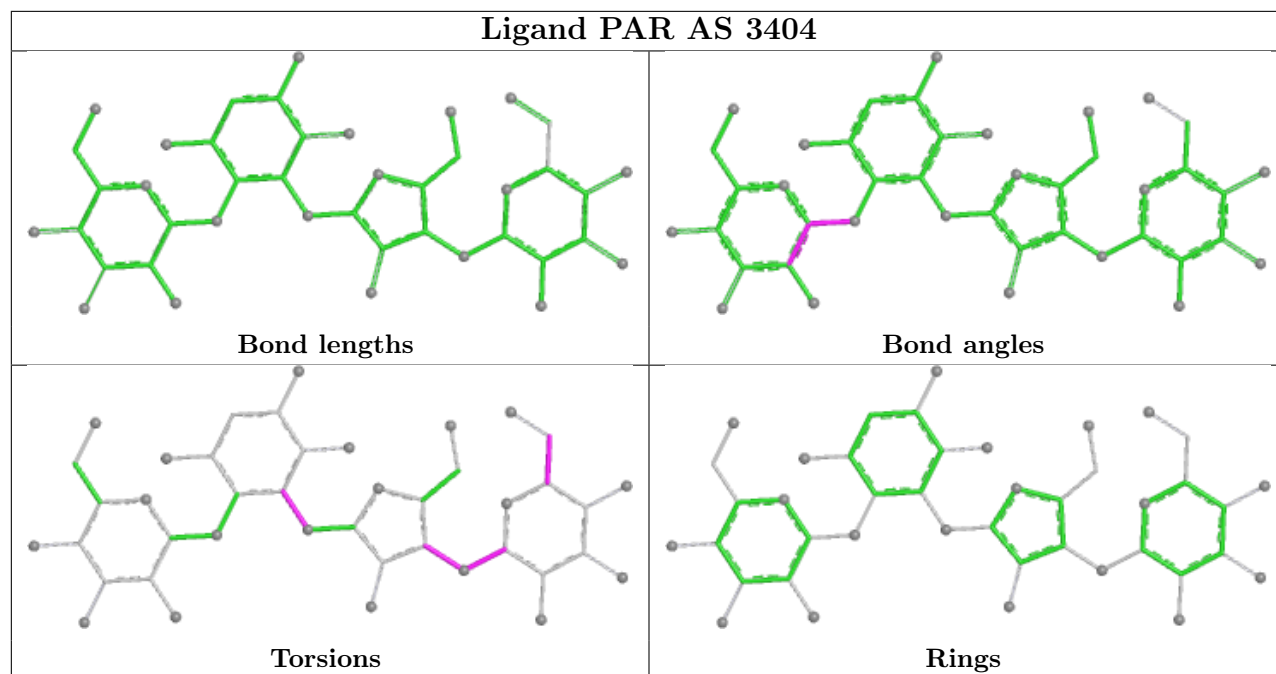




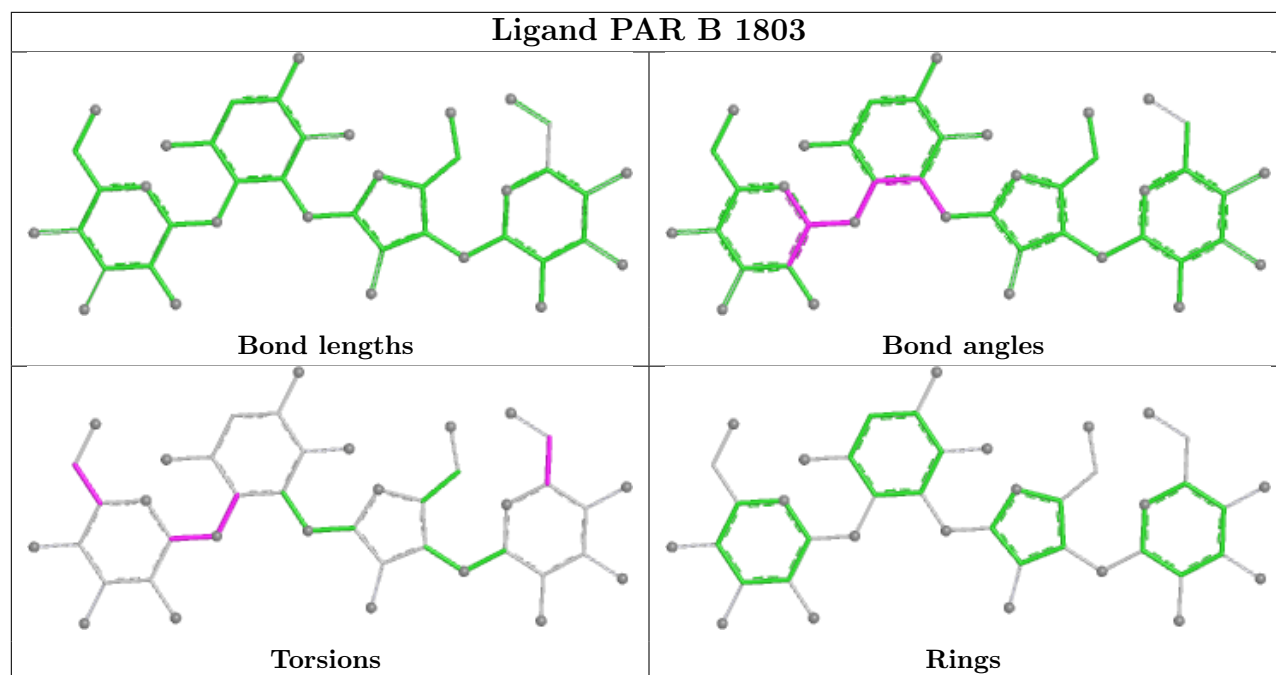


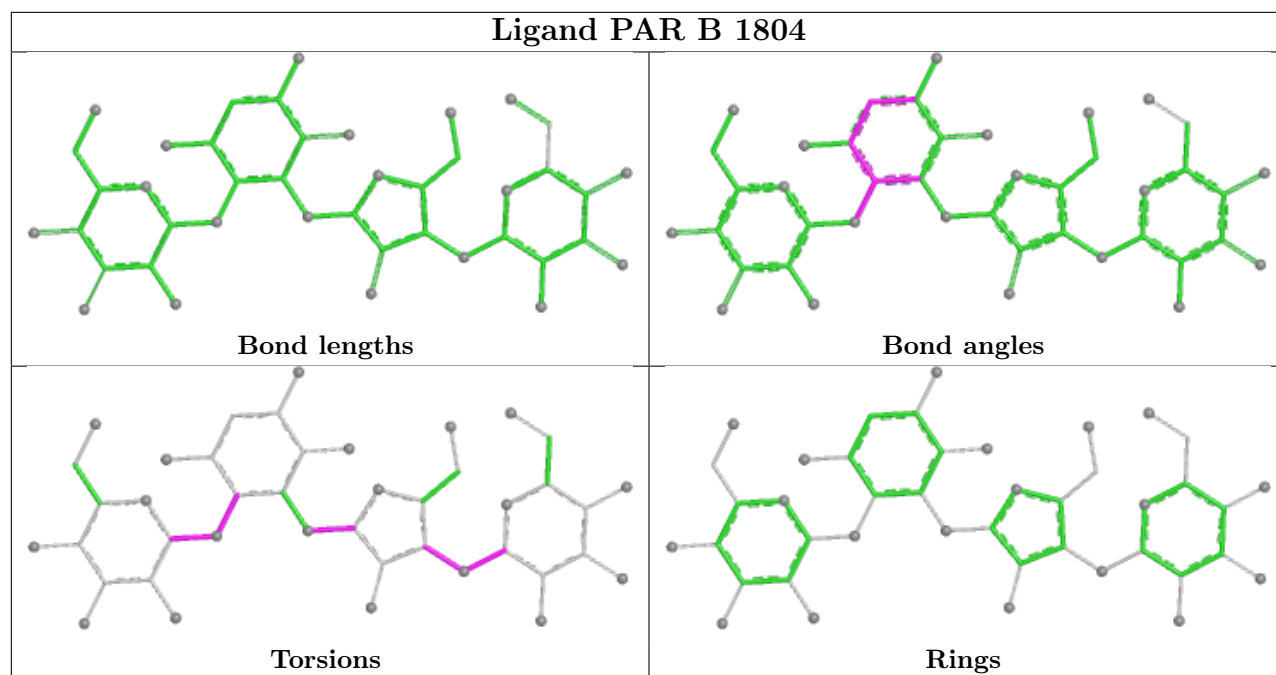
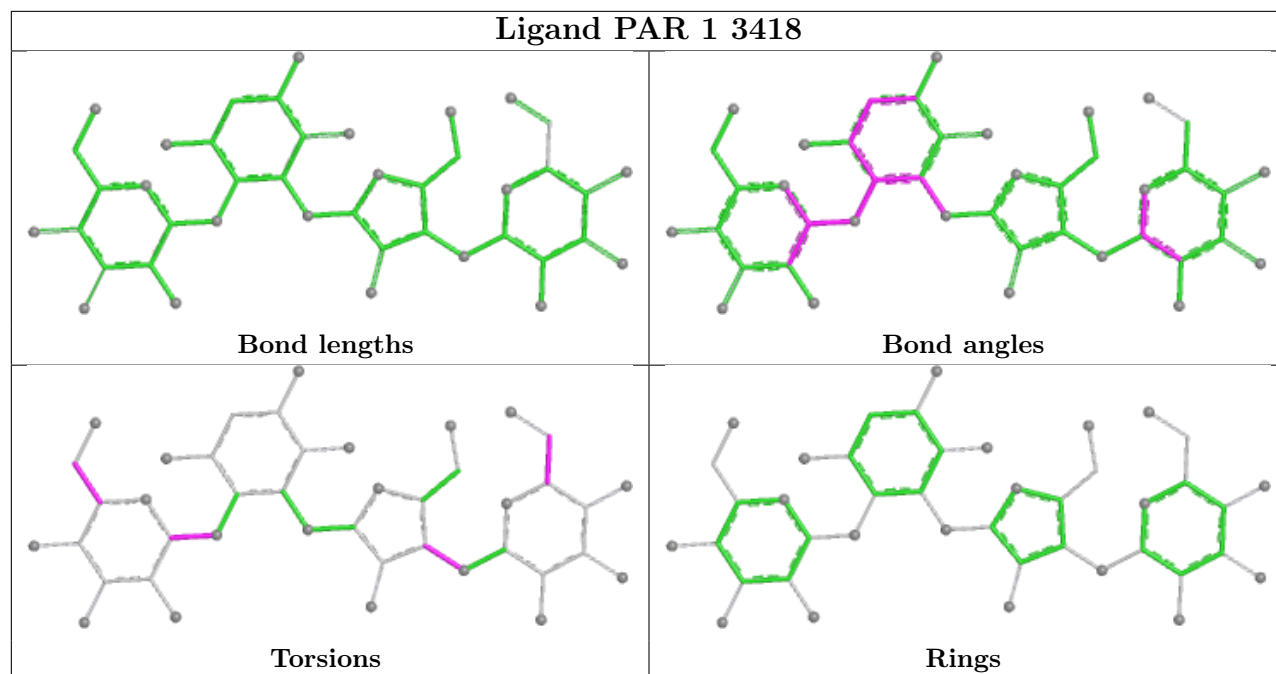


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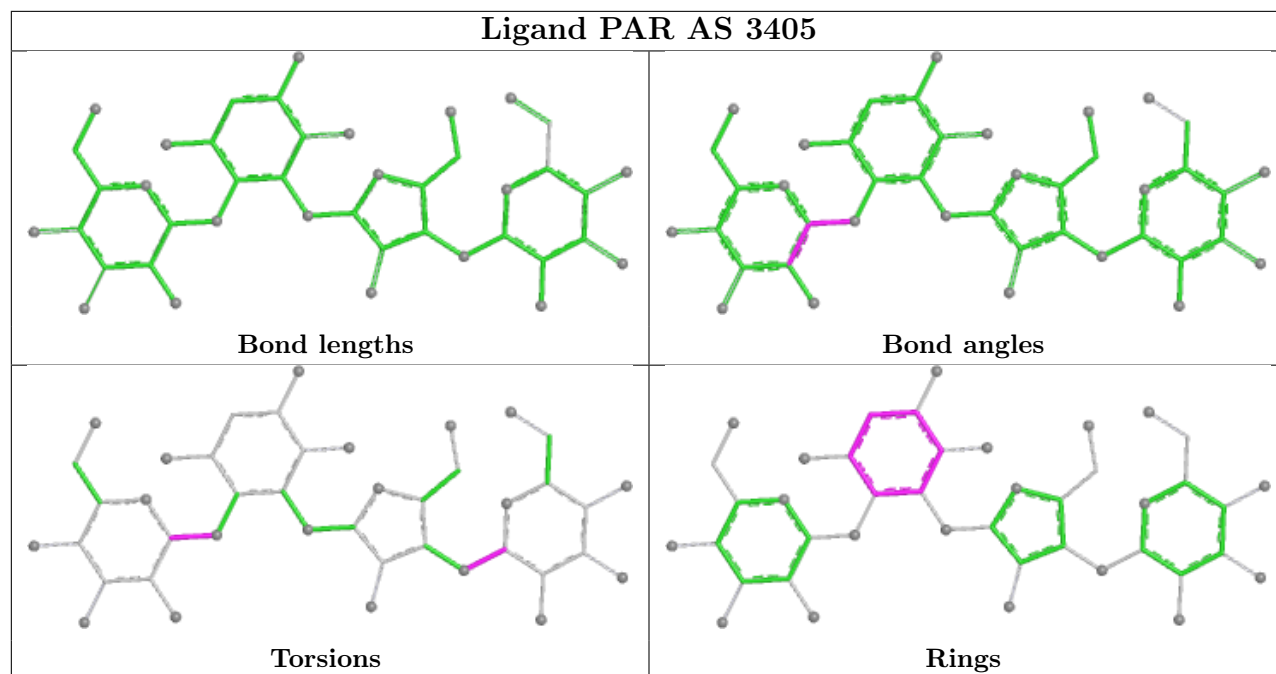


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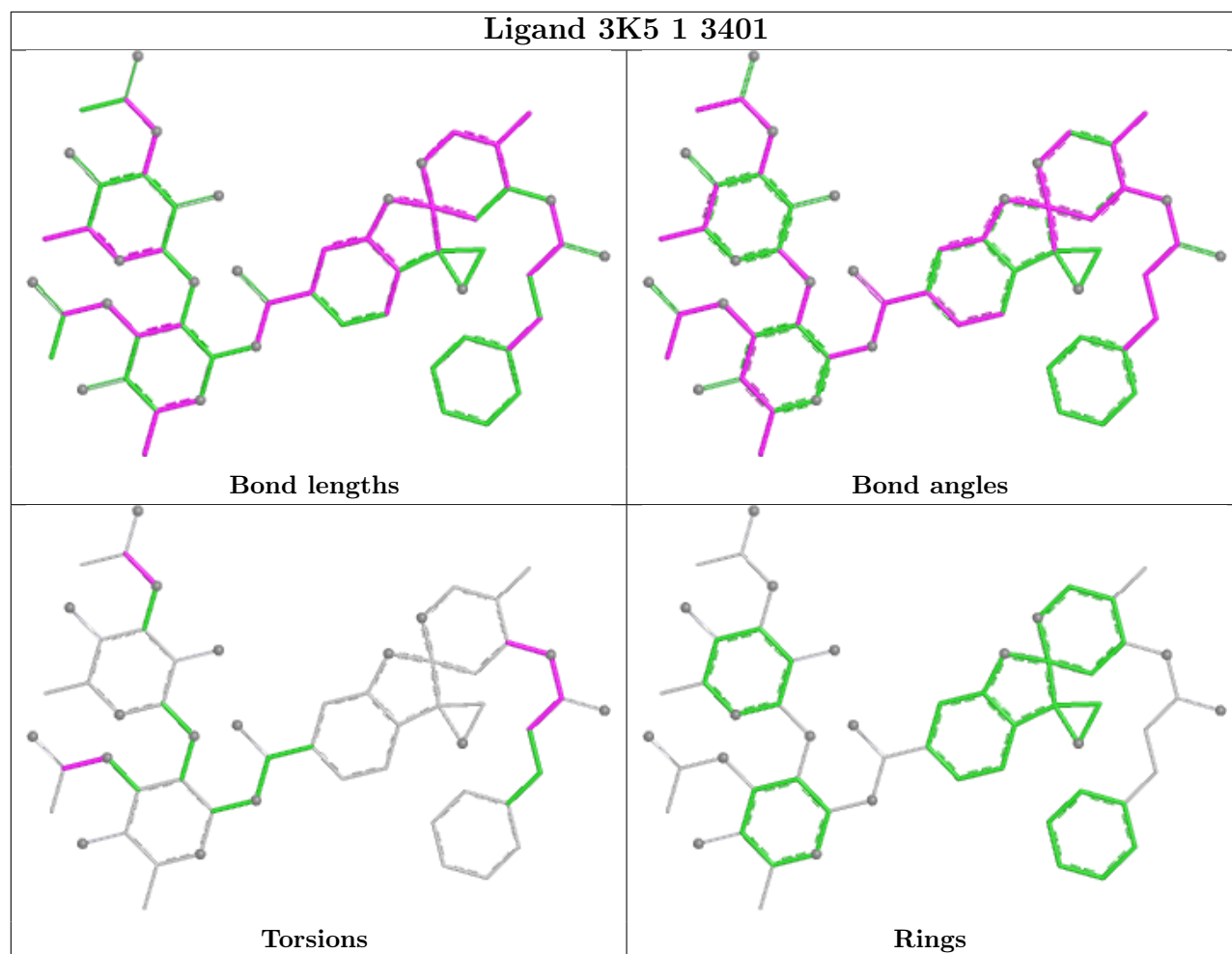


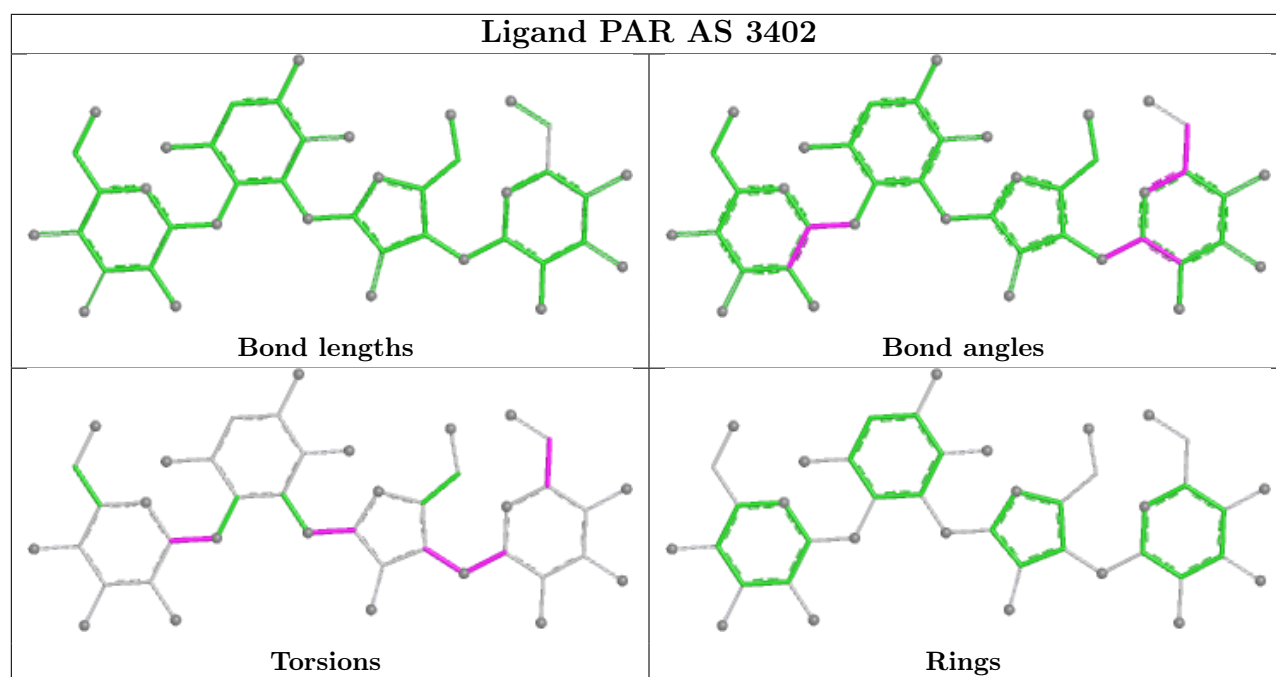
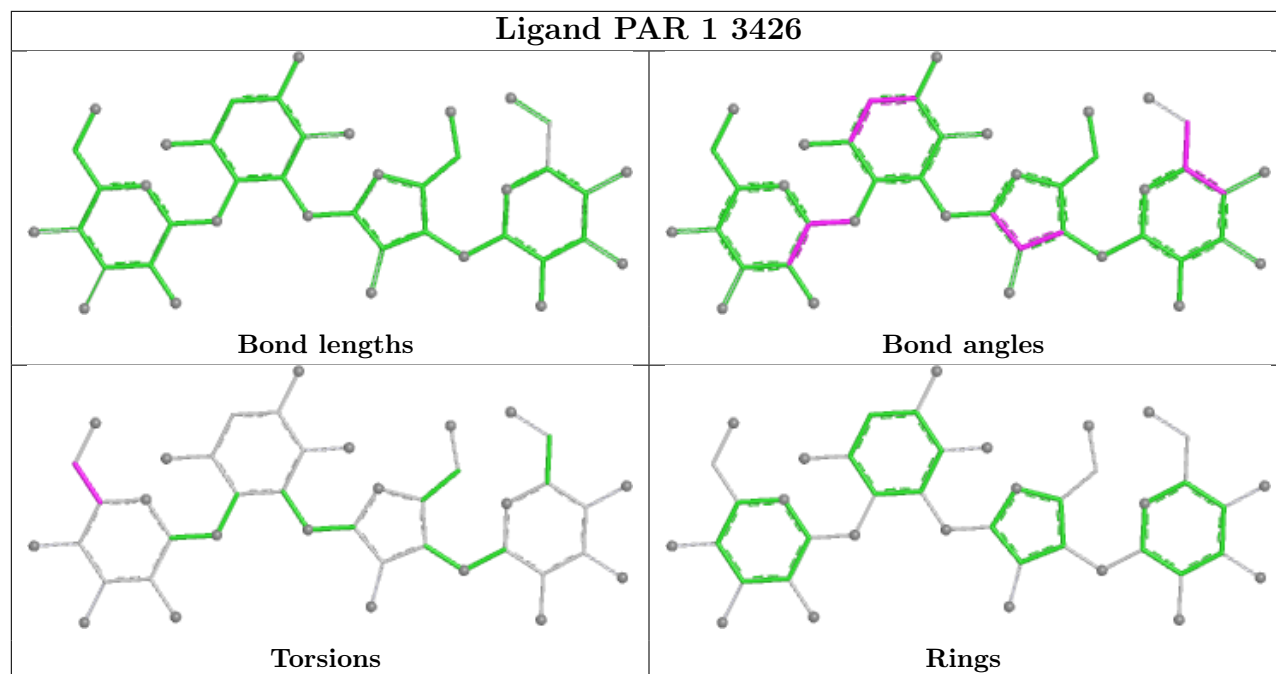


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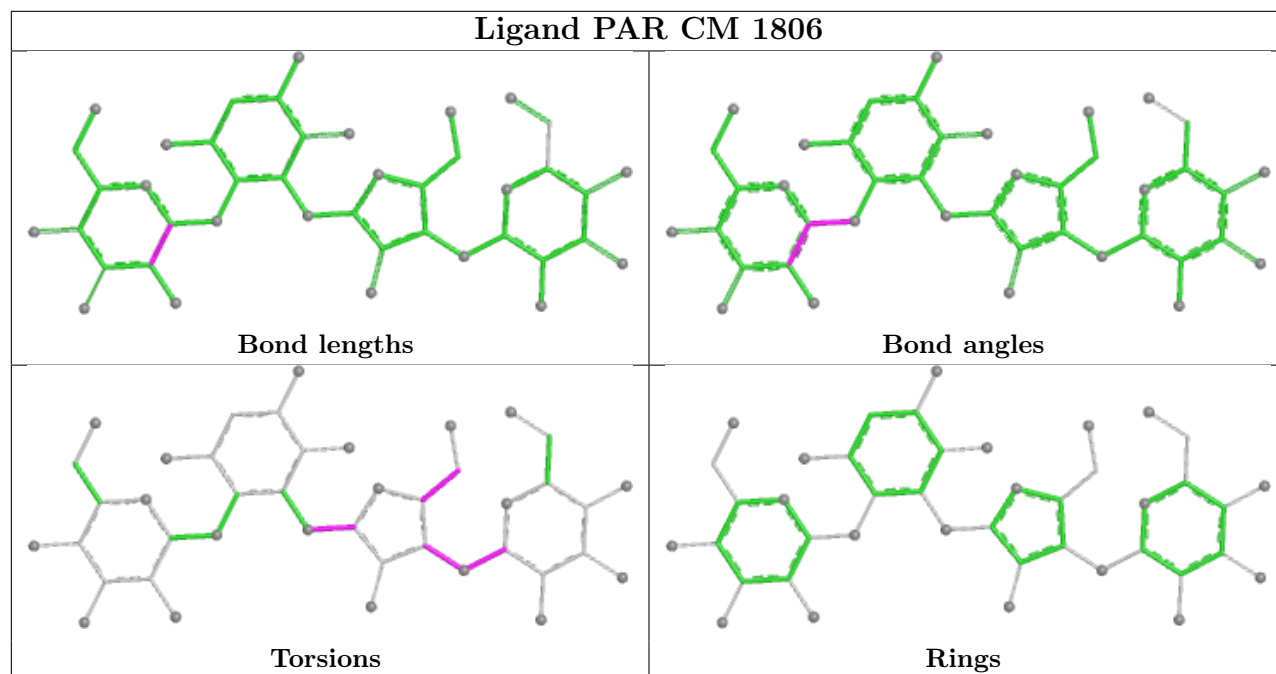


Ligand 3K5 1 3401

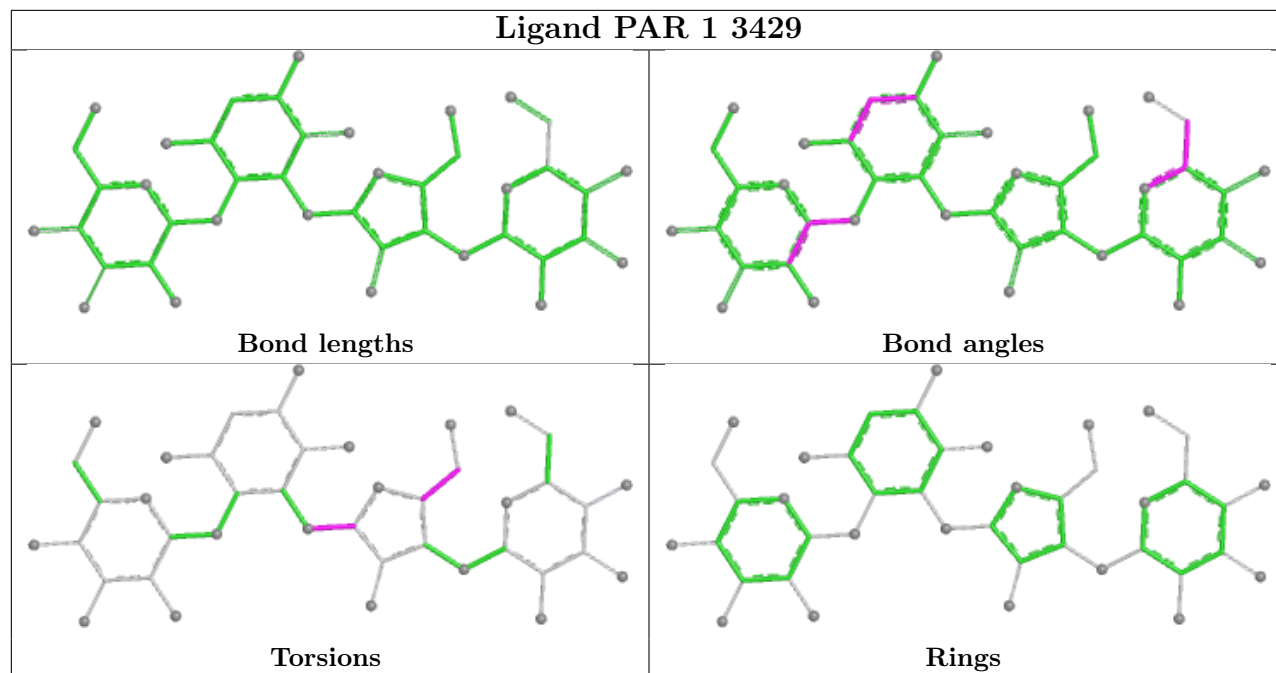




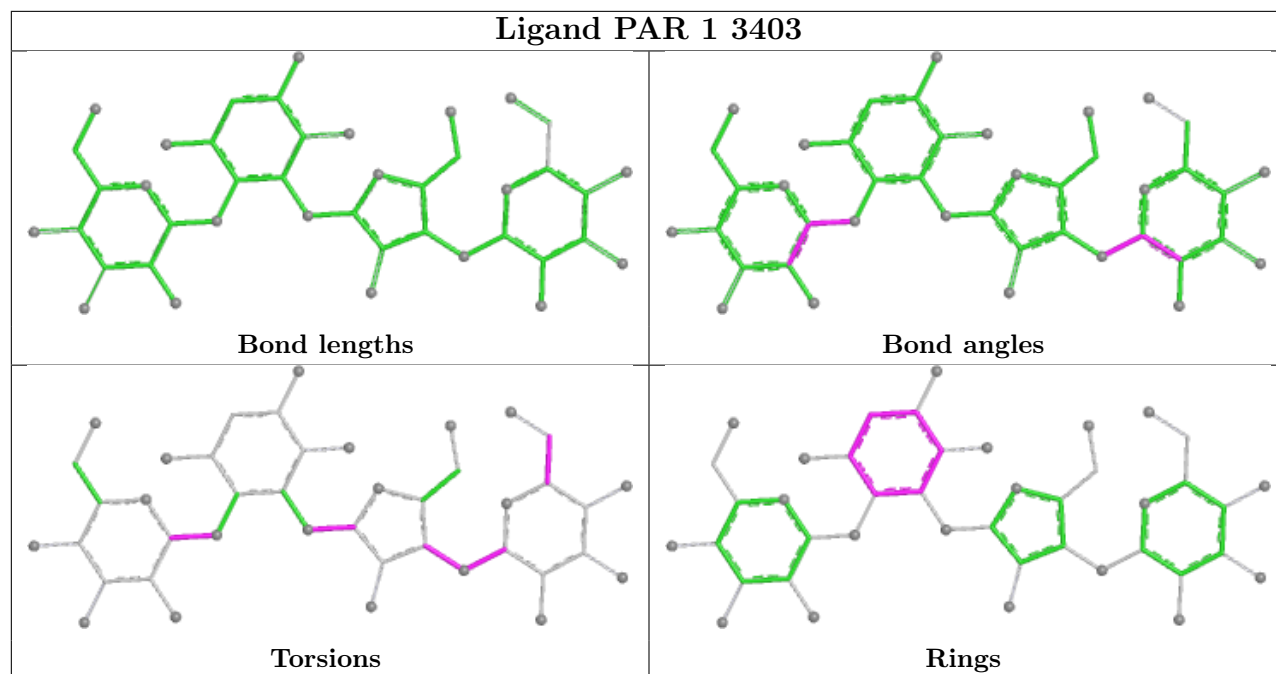
Ligand PAR CM 1806



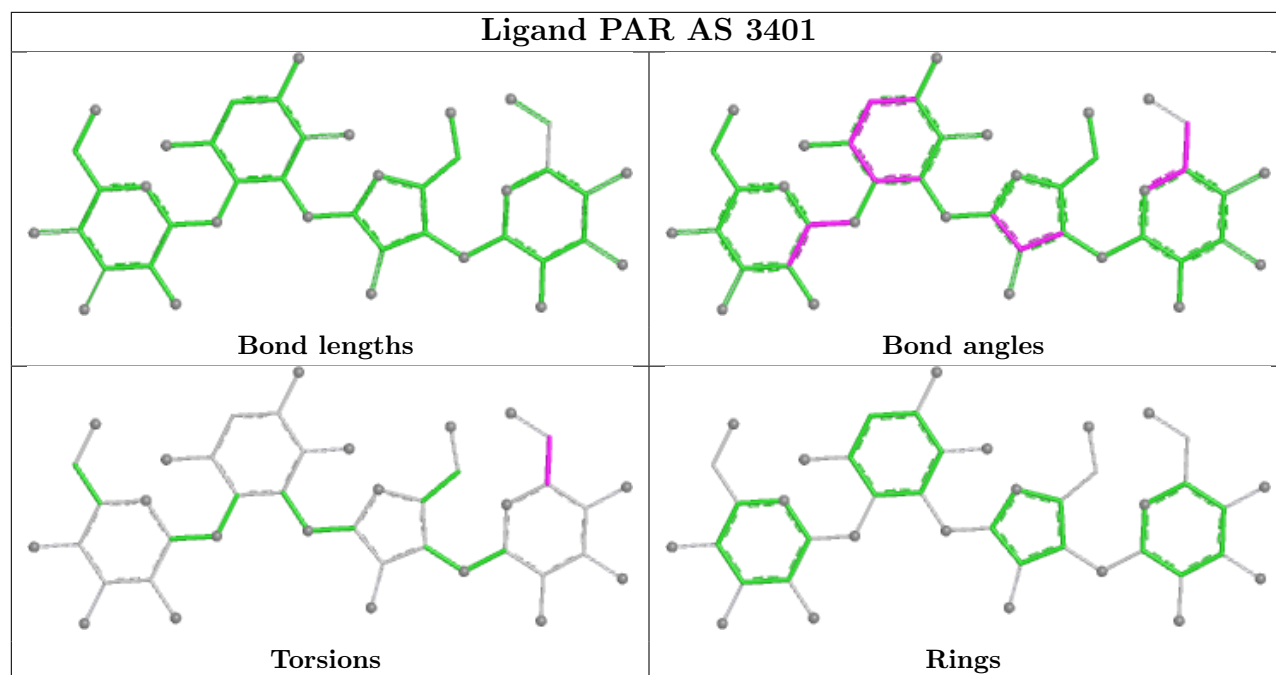
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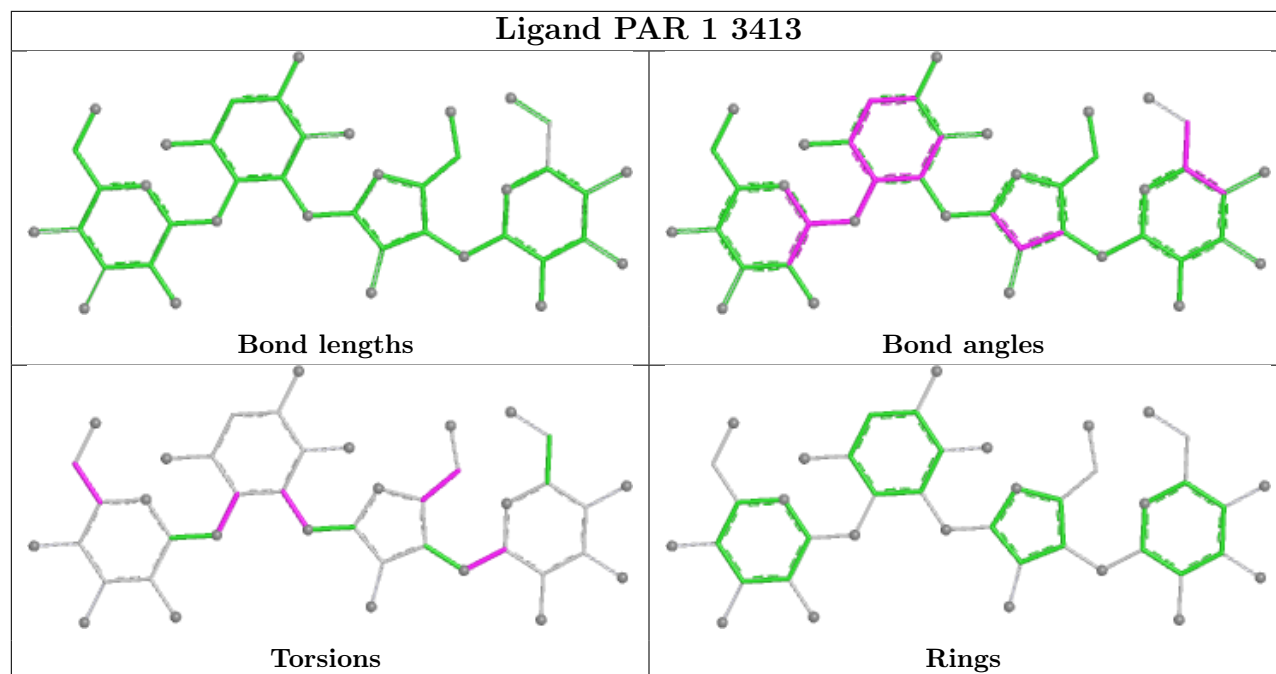
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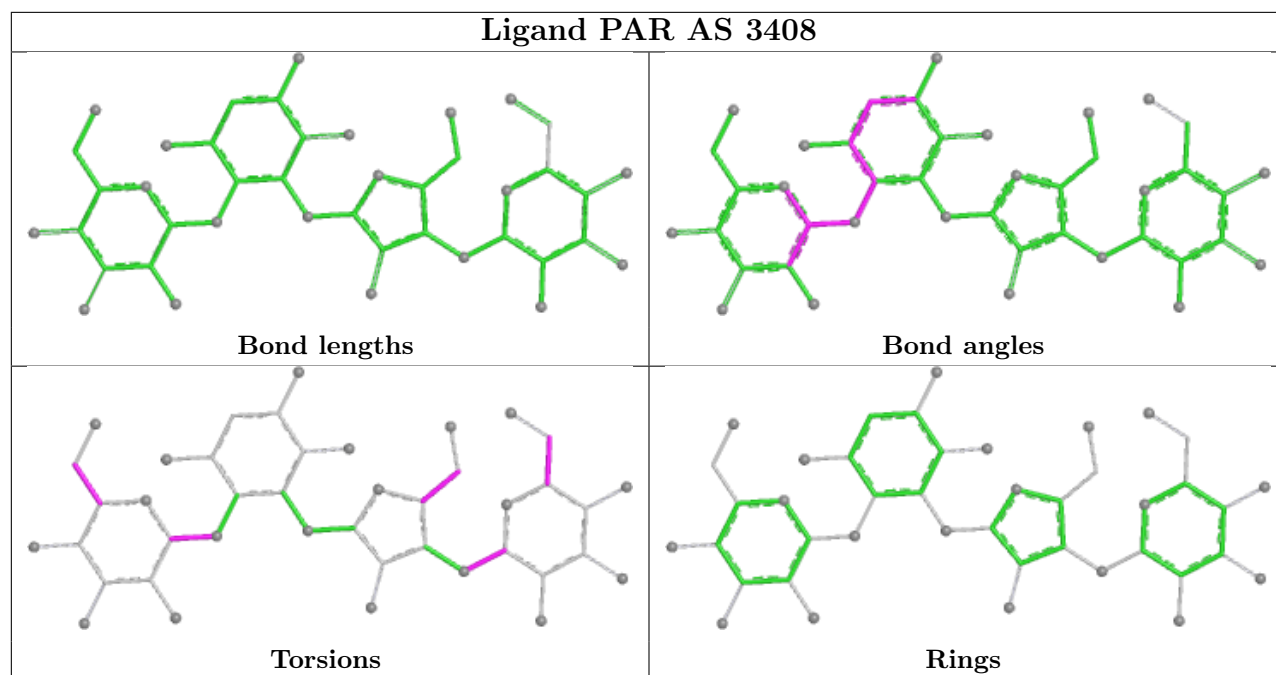
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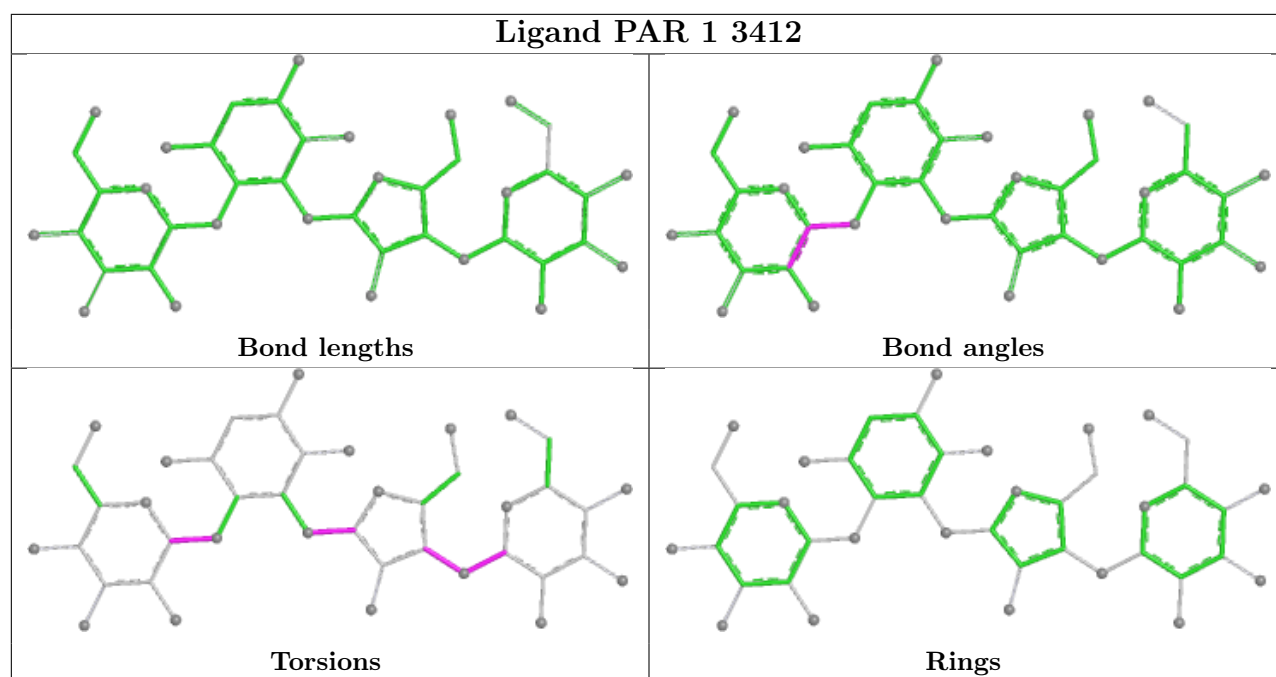
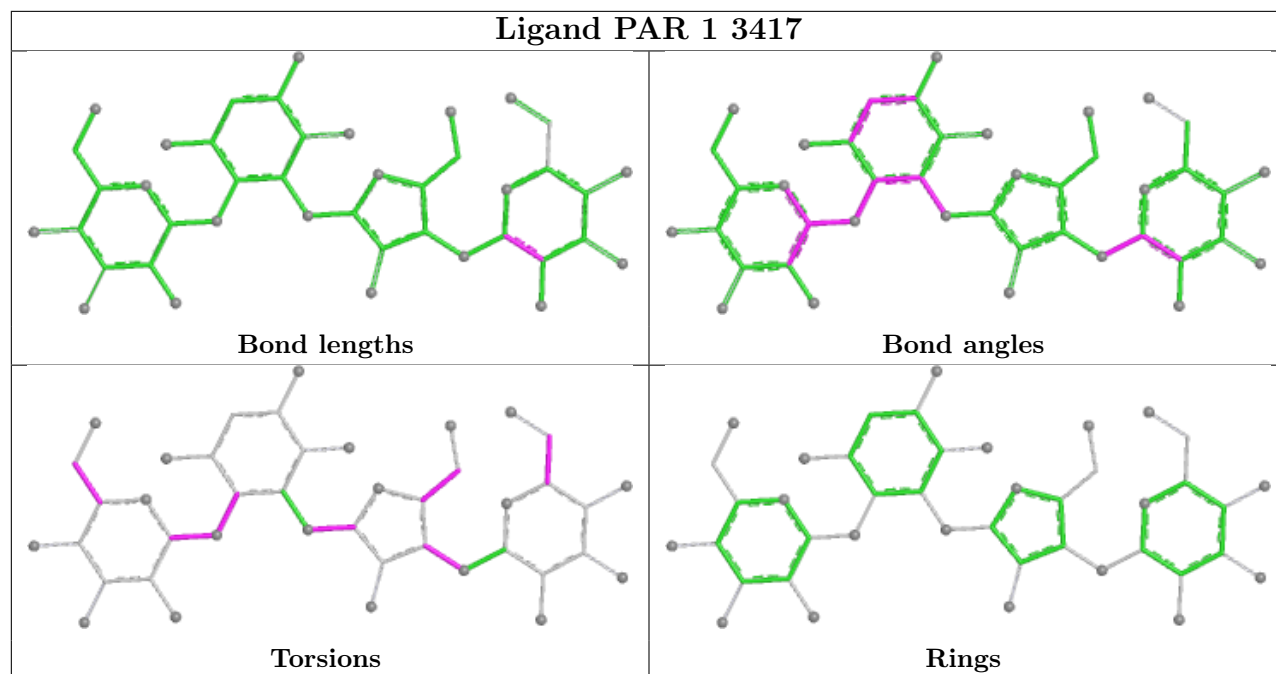


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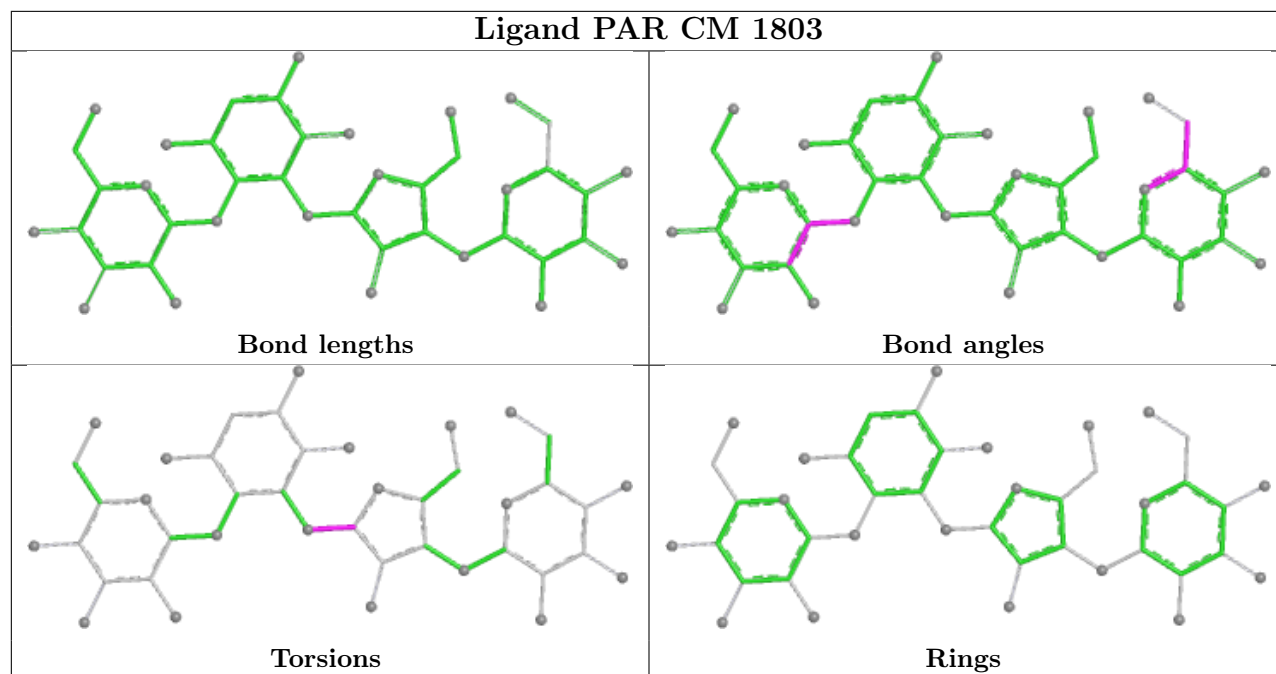


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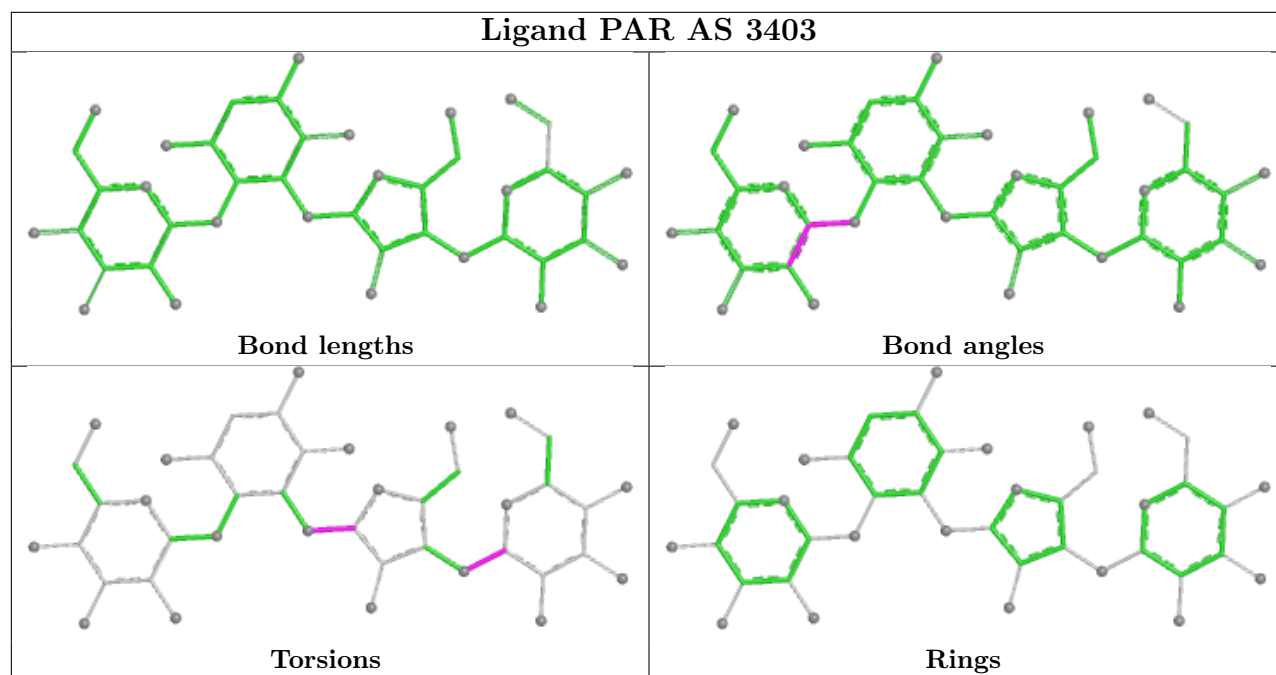


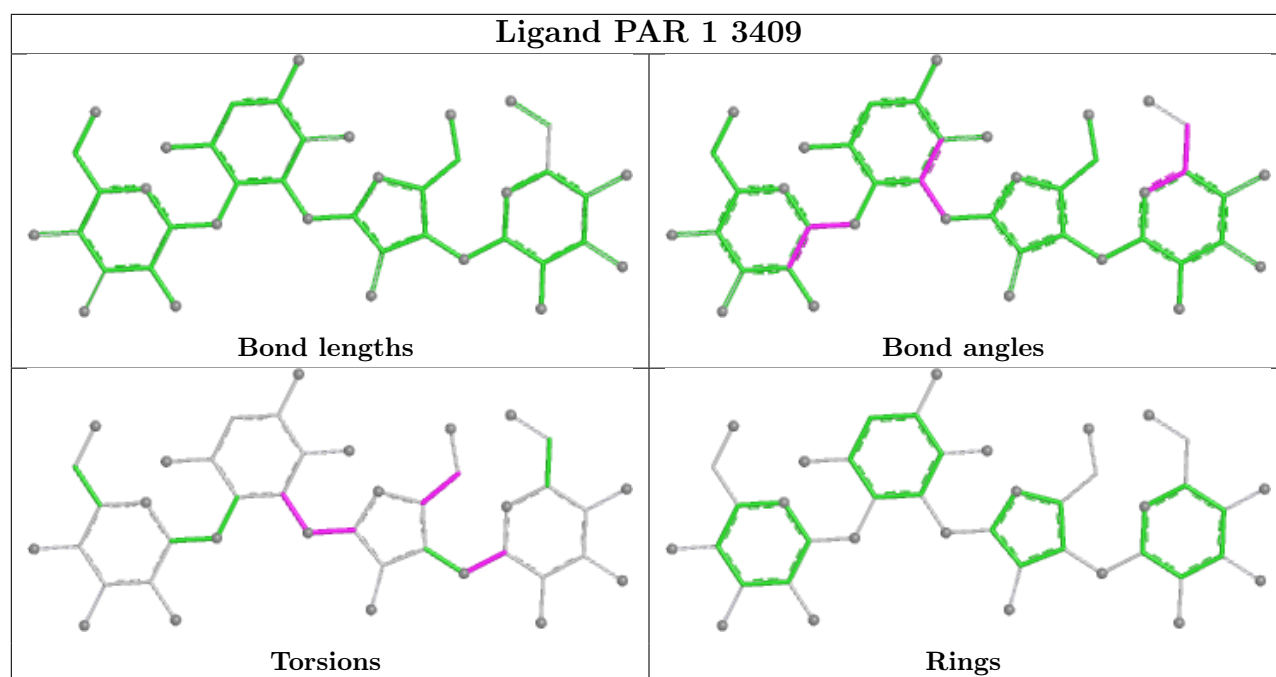
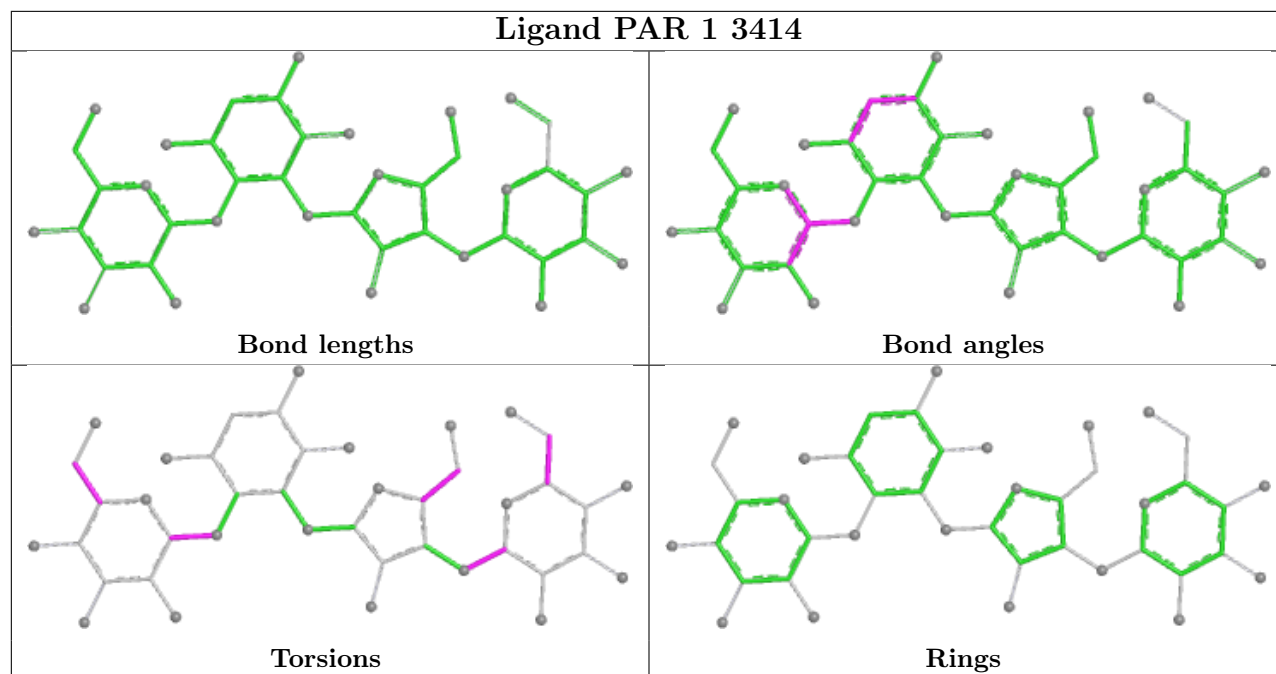


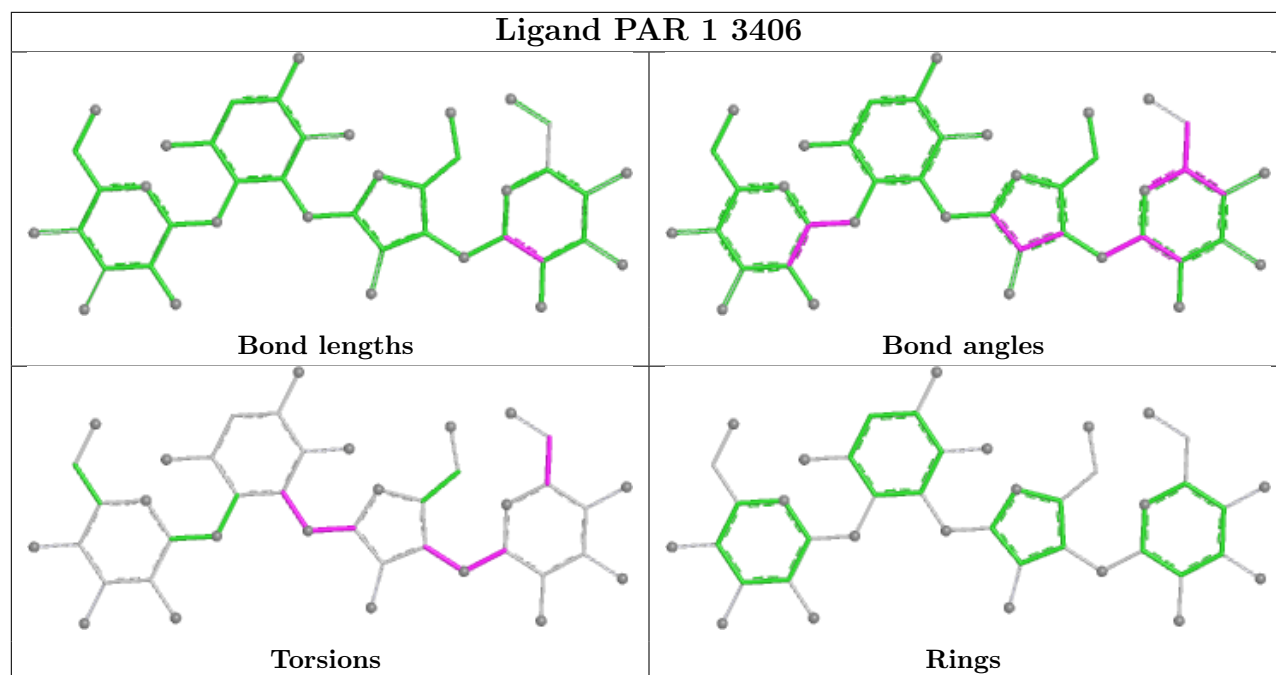
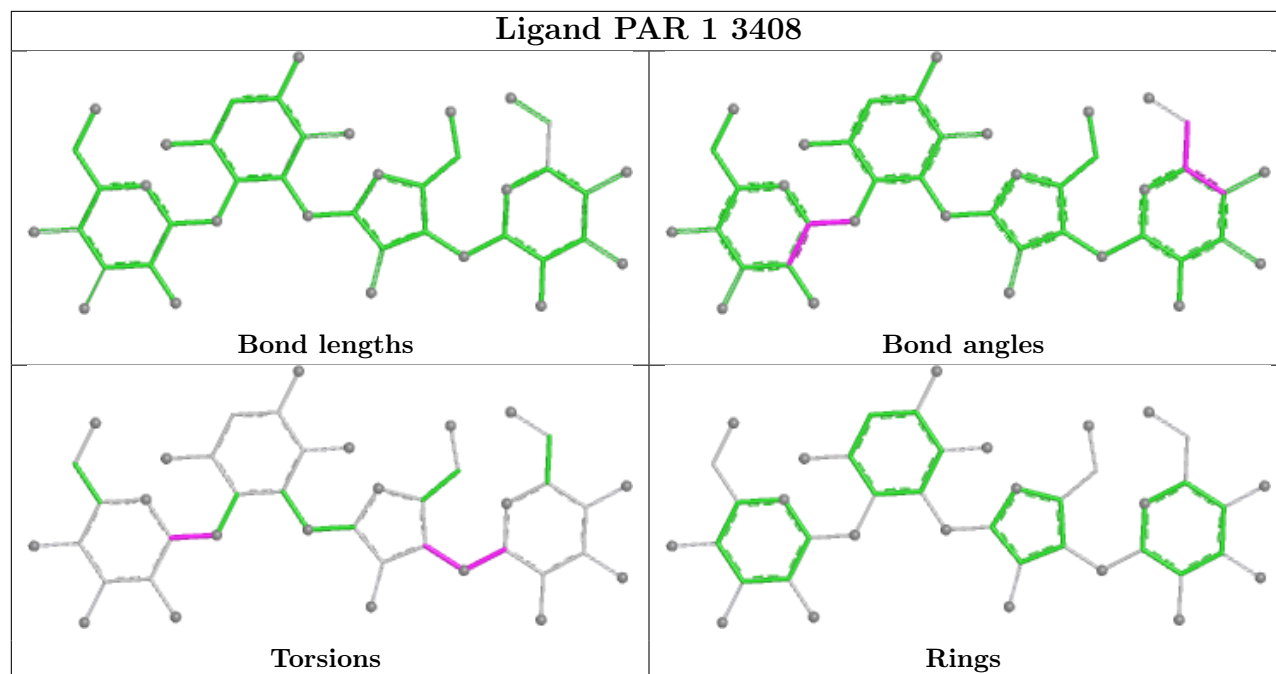
Ligand PAR CM 1803



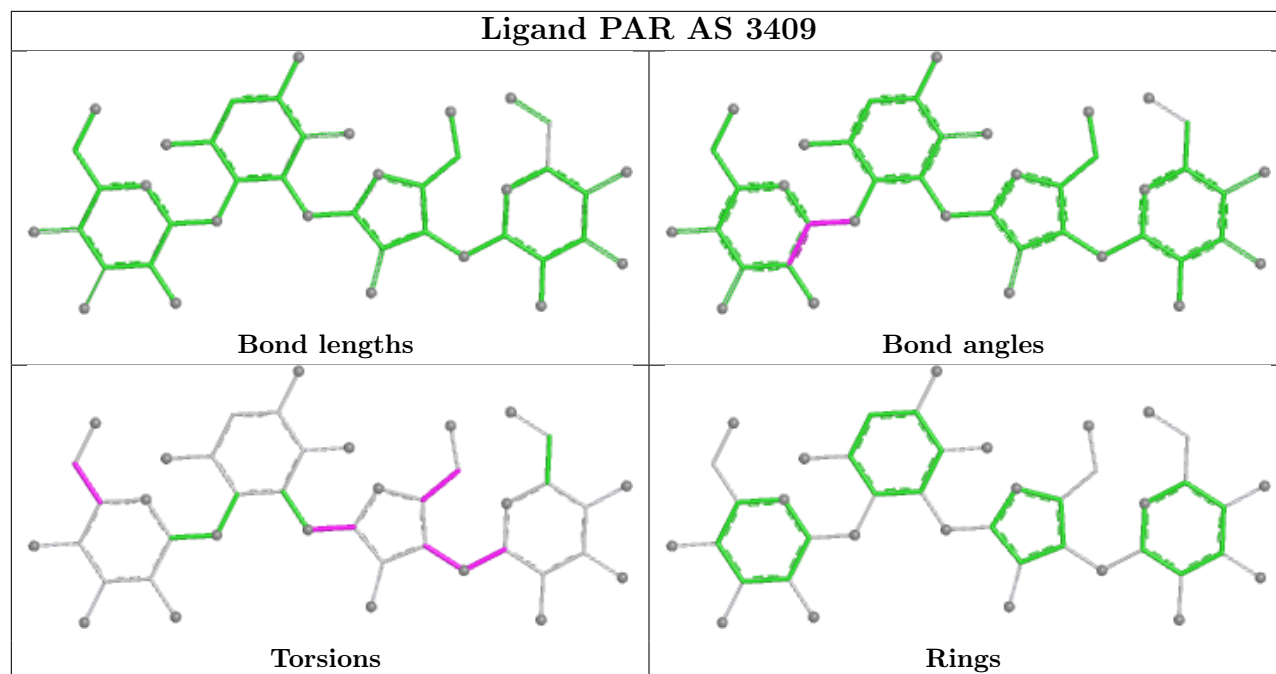
Ligand PAR AS 3403



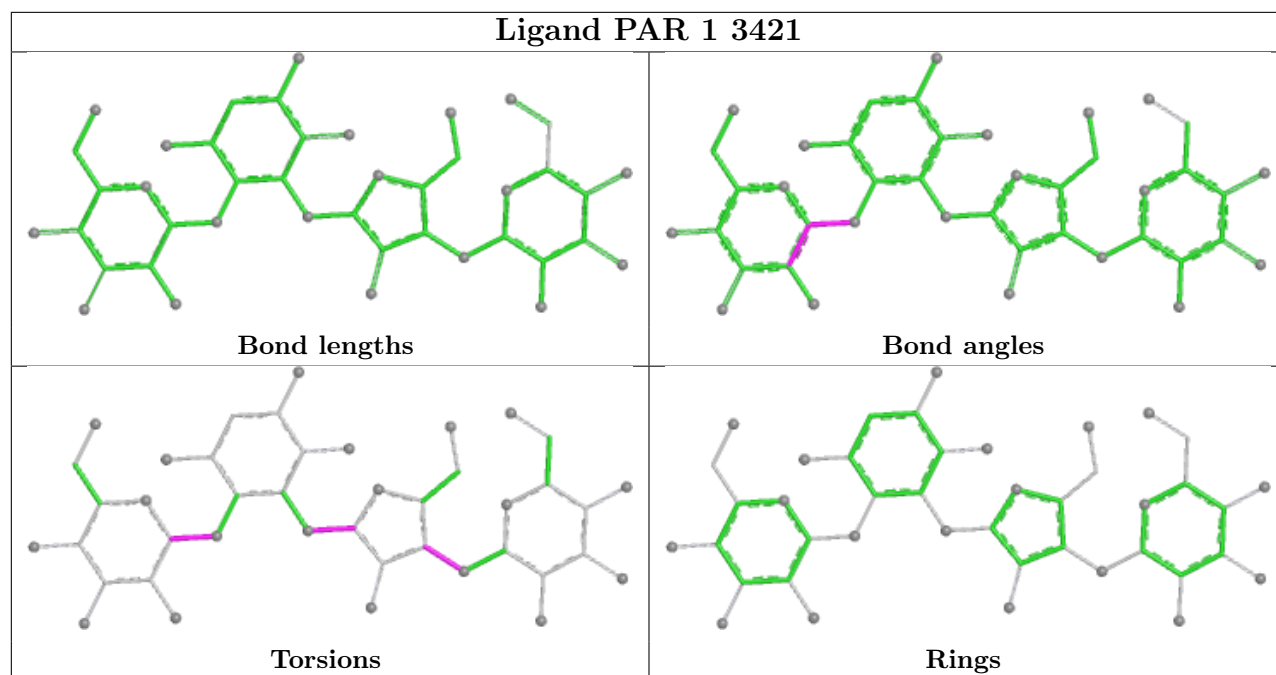




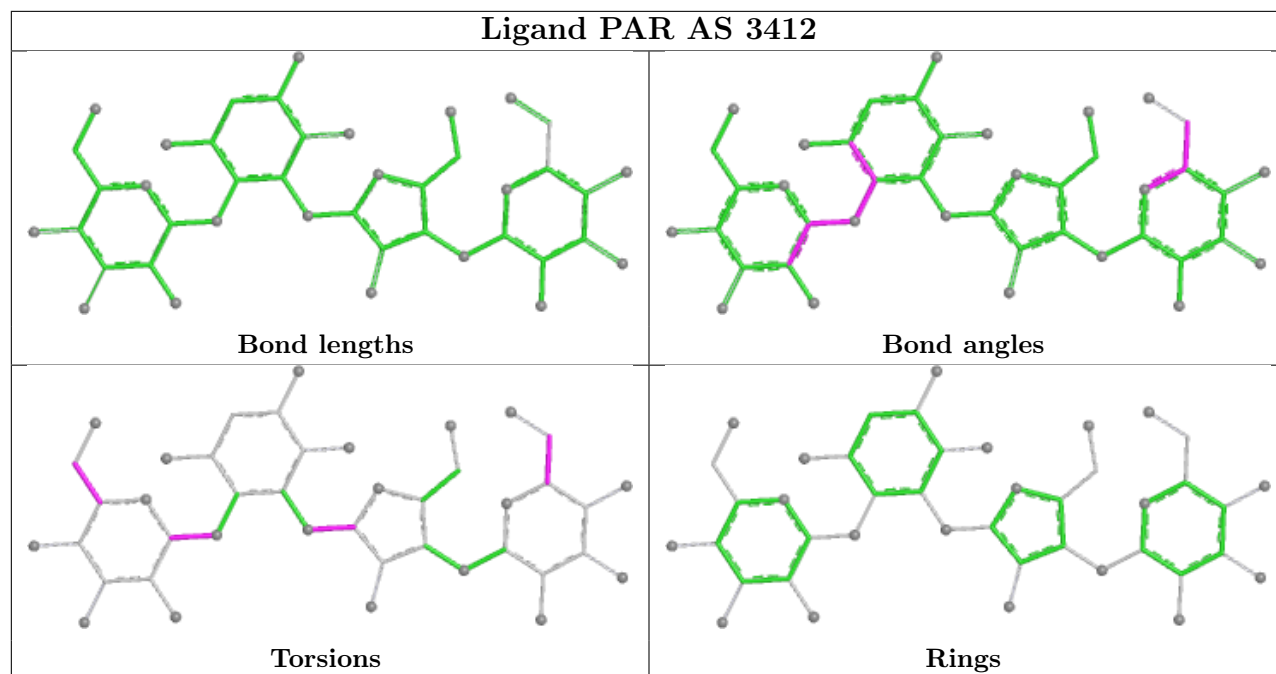
Ligand PAR AS 3409



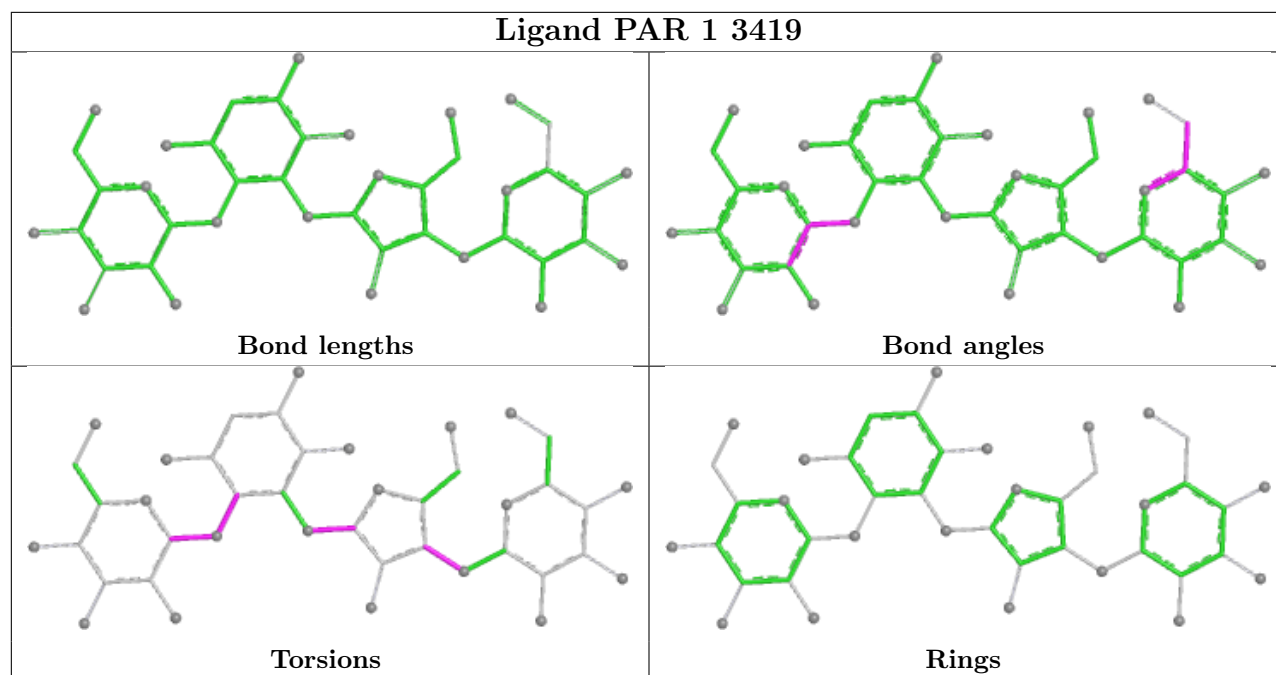
Ligand PAR 1 3421



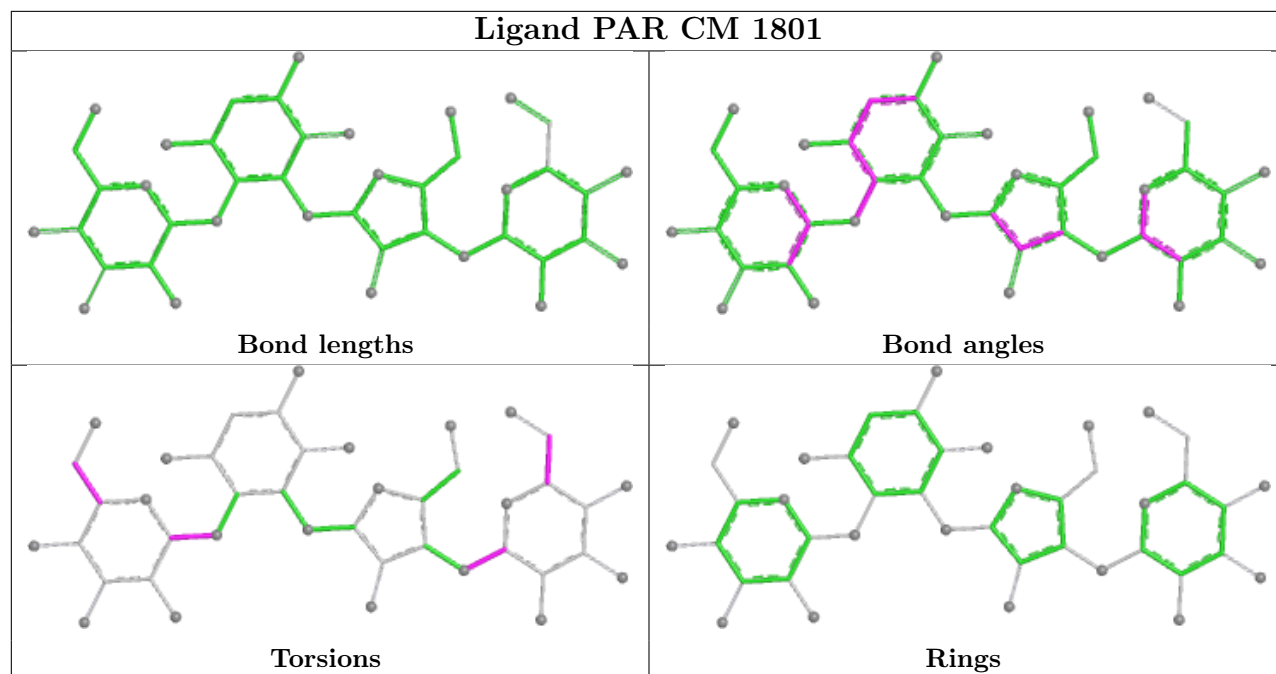
Ligand PAR AS 3412



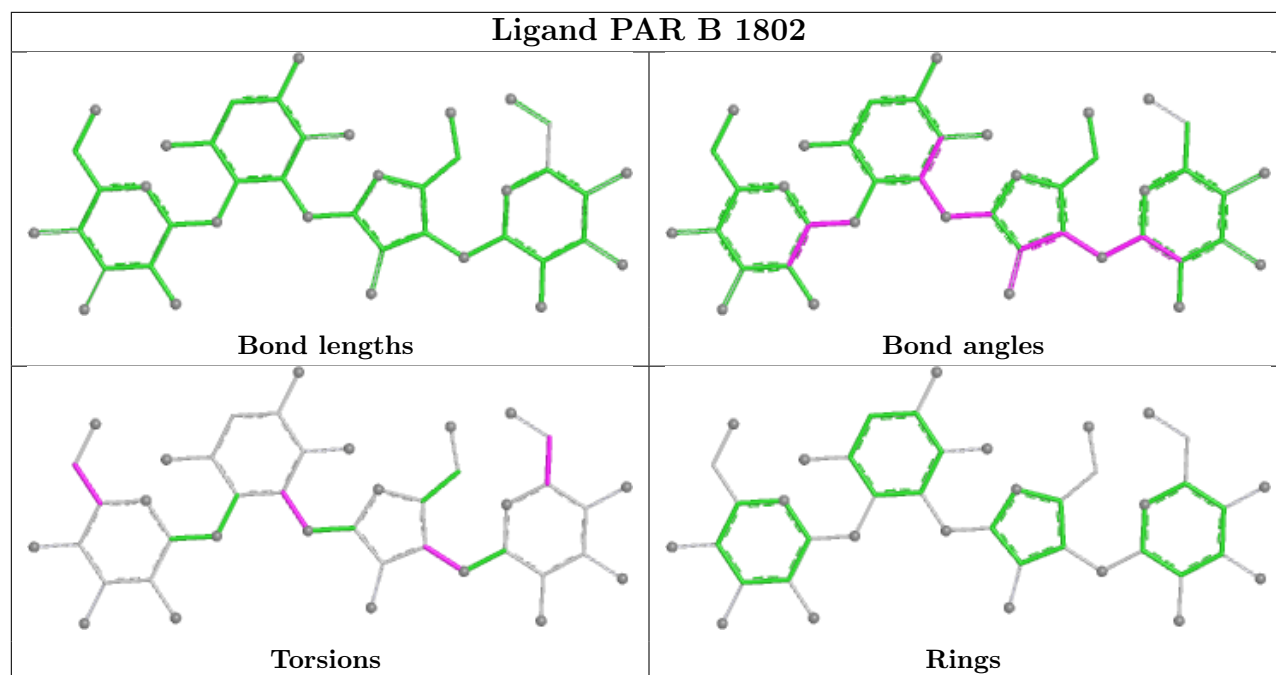
Ligand PAR 1 3419



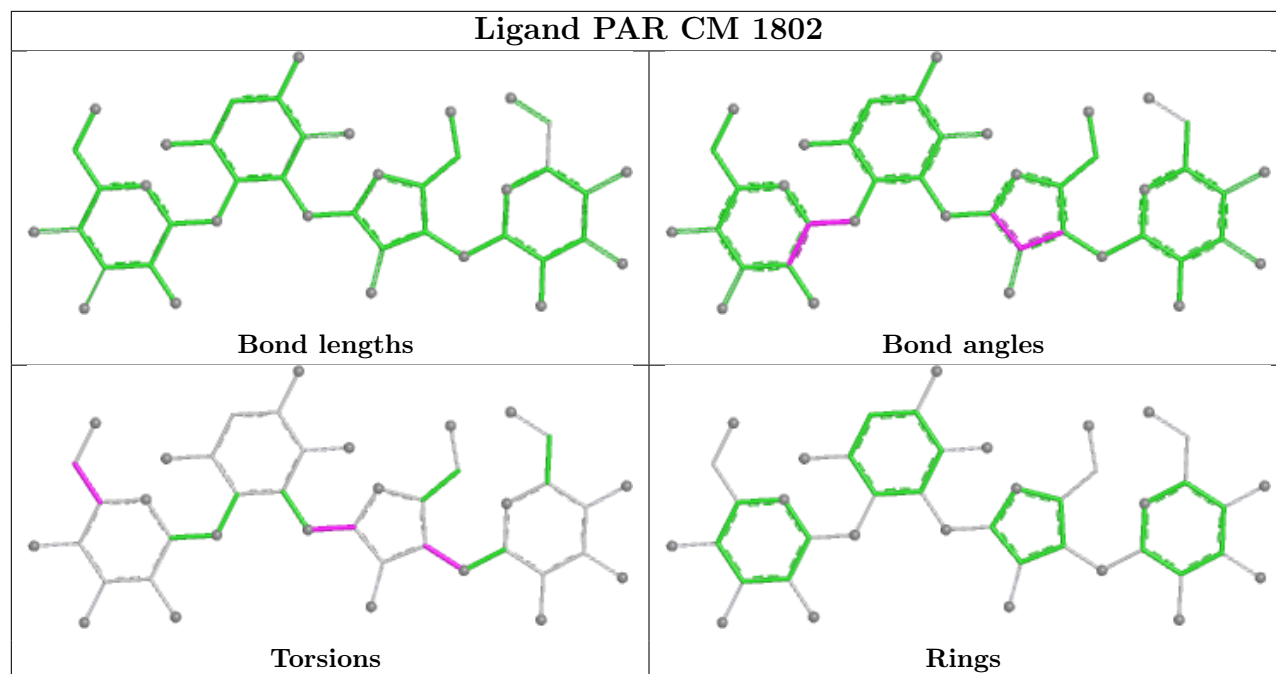
Ligand PAR CM 1801



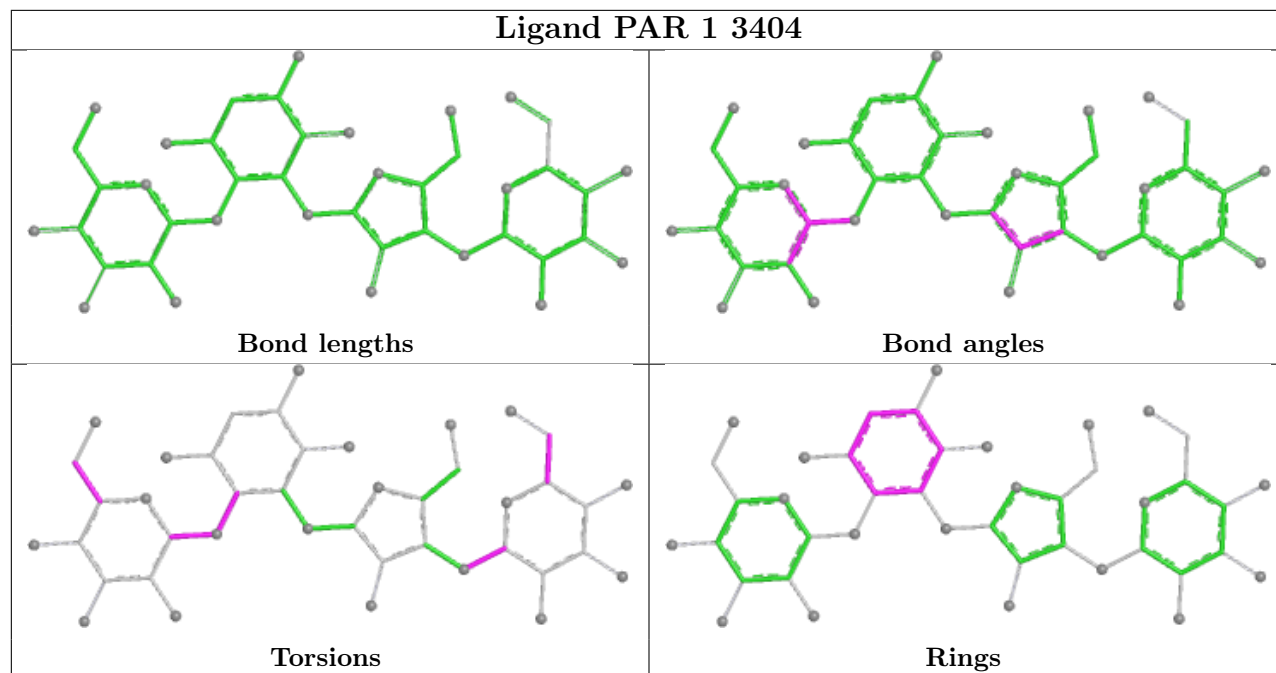
Ligand PAR B 1802

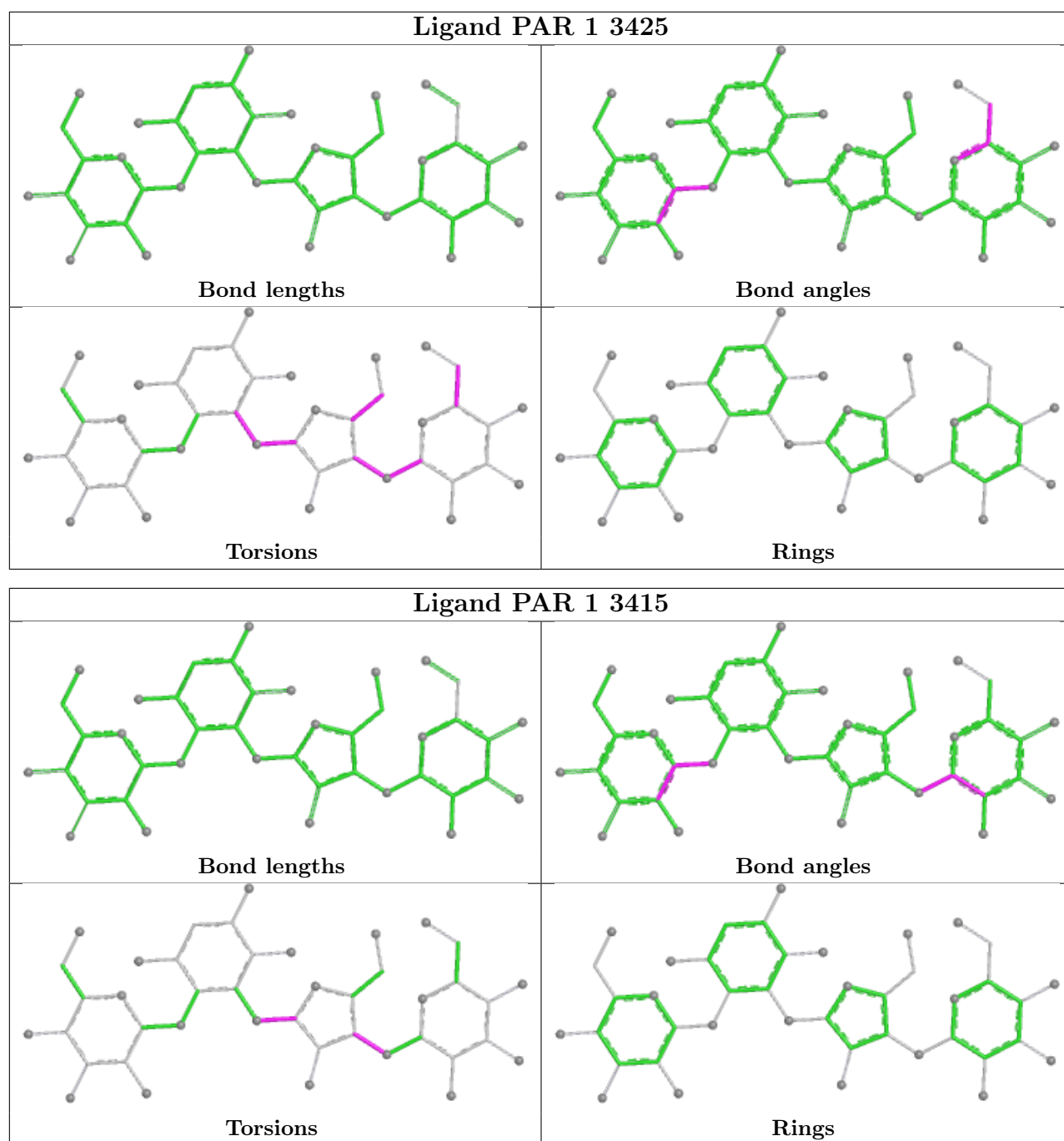


Ligand PAR CM 1802



Ligand PAR 1 3404





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ > 2			OWAB(Å ²)	Q < 0.9
1	1	3171/3359 (94%)	0.72	179 (5%)	30	23	29, 57, 169, 366	0
1	AS	3065/3359 (91%)	1.04	323 (10%)	11	10	38, 74, 167, 281	0
2	3	121/121 (100%)	0.57	1 (0%)	82	77	43, 75, 101, 132	0
2	AT	121/121 (100%)	0.76	4 (3%)	49	40	45, 80, 104, 137	0
3	4	156/158 (98%)	0.57	5 (3%)	50	41	39, 57, 131, 172	0
3	AU	156/158 (98%)	1.53	38 (24%)	2	1	57, 96, 147, 192	0
4	AW	249/254 (98%)	1.89	88 (35%)	1	1	44, 76, 102, 117	1 (0%)
4	j	249/254 (98%)	1.15	31 (12%)	8	7	27, 43, 67, 90	1 (0%)
5	AX	386/389 (99%)	1.42	84 (21%)	2	2	36, 67, 90, 165	0
5	k	386/389 (99%)	1.22	60 (15%)	5	4	32, 59, 82, 128	1 (0%)
6	AY	361/363 (99%)	1.93	149 (41%)	0	0	46, 75, 104, 131	0
6	l	360/363 (99%)	1.34	59 (16%)	4	3	29, 59, 94, 136	0
7	AZ	292/298 (97%)	2.17	141 (48%)	0	0	64, 99, 127, 136	0
7	m	296/298 (99%)	1.54	80 (27%)	1	1	54, 86, 114, 126	0
8	BA	153/176 (86%)	1.58	36 (23%)	2	2	50, 70, 98, 145	0
8	n	157/176 (89%)	1.28	25 (15%)	5	4	51, 70, 106, 139	0
9	BB	234/241 (97%)	1.17	30 (12%)	7	6	34, 58, 101, 154	0
9	o	234/241 (97%)	1.11	28 (11%)	9	7	41, 56, 120, 160	0
10	BC	231/262 (88%)	2.57	154 (66%)	0	0	87, 117, 150, 179	0
10	p	230/262 (87%)	1.27	37 (16%)	4	4	43, 64, 106, 129	0
11	BD	190/191 (99%)	1.53	51 (26%)	1	1	54, 75, 107, 140	0
11	q	190/191 (99%)	1.34	38 (20%)	3	2	51, 68, 89, 123	0
12	BE	206/220 (93%)	1.26	31 (15%)	5	4	44, 64, 101, 125	0
12	r	208/220 (94%)	1.35	42 (20%)	3	2	37, 63, 103, 117	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
13	BF	171/174 (98%)	1.64	53 (30%)	1	1	65, 87, 107, 121	0
13	s	171/174 (98%)	1.86	61 (35%)	1	0	67, 88, 110, 129	0
14	BG	200/202 (99%)	2.35	112 (56%)	0	0	50, 95, 130, 151	0
14	t	200/202 (99%)	1.23	31 (15%)	5	4	35, 66, 107, 146	0
15	BH	130/131 (99%)	1.26	23 (17%)	4	3	49, 65, 93, 117	0
15	u	128/131 (97%)	1.22	18 (14%)	6	5	45, 65, 85, 100	0
16	BI	203/204 (99%)	2.86	152 (74%)	0	0	57, 88, 107, 121	0
16	v	203/204 (99%)	1.42	43 (21%)	2	2	27, 47, 59, 82	0
17	BJ	199/200 (99%)	1.24	33 (16%)	4	3	40, 55, 89, 104	0
17	w	199/200 (99%)	1.16	26 (13%)	7	6	35, 52, 82, 102	0
18	BK	174/185 (94%)	1.91	78 (44%)	0	0	48, 74, 102, 124	0
18	x	171/185 (92%)	1.40	31 (18%)	3	3	39, 57, 122, 141	0
19	BL	185/186 (99%)	1.77	67 (36%)	1	0	47, 74, 90, 106	0
19	y	185/186 (99%)	1.35	34 (18%)	3	3	44, 58, 76, 88	0
20	BM	179/190 (94%)	2.40	95 (53%)	0	0	59, 86, 144, 167	0
20	z	179/190 (94%)	1.36	33 (18%)	3	3	44, 62, 121, 136	0
21	0	170/172 (98%)	1.17	21 (12%)	8	7	41, 56, 81, 121	0
21	BN	170/172 (98%)	1.35	29 (17%)	4	3	40, 60, 86, 107	0
22	2	159/160 (99%)	1.46	36 (22%)	2	2	41, 60, 111, 137	0
22	BO	159/160 (99%)	1.87	62 (38%)	1	0	47, 69, 116, 143	0
23	5	103/124 (83%)	1.84	40 (38%)	1	0	72, 112, 132, 156	0
23	BP	102/124 (82%)	2.12	57 (55%)	0	0	97, 129, 154, 178	1 (0%)
24	6	131/137 (95%)	1.26	20 (15%)	5	4	37, 51, 73, 102	0
24	BQ	131/137 (95%)	1.53	34 (25%)	1	1	39, 54, 71, 113	0
25	7	77/155 (49%)	1.08	8 (10%)	11	10	43, 60, 120, 137	0
25	BR	109/155 (70%)	1.84	45 (41%)	0	0	50, 82, 109, 124	0
26	8	121/142 (85%)	1.24	17 (14%)	6	5	38, 59, 83, 121	0
26	BS	119/142 (83%)	2.72	82 (68%)	0	0	64, 96, 114, 119	0
27	9	125/127 (98%)	1.74	41 (32%)	1	1	45, 72, 97, 116	0
27	BT	126/127 (99%)	2.80	83 (65%)	0	0	65, 96, 120, 140	0
28	AA	135/136 (99%)	1.60	44 (32%)	1	1	46, 72, 105, 121	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
28	BU	135/136 (99%)	2.39	81 (60%)	0	0	92, 119, 177, 219	0
29	AB	148/149 (99%)	1.56	31 (20%)	2	2	33, 56, 86, 111	0
29	BV	148/149 (99%)	2.13	66 (44%)	0	0	42, 79, 103, 118	0
30	AC	61/63 (96%)	1.84	19 (31%)	1	1	42, 71, 117, 139	0
30	BW	61/63 (96%)	2.39	38 (62%)	0	0	50, 84, 123, 141	0
31	AD	96/106 (90%)	1.23	18 (18%)	3	3	47, 62, 87, 101	0
31	BX	96/106 (90%)	1.84	39 (40%)	0	0	76, 103, 127, 134	0
32	AE	110/112 (98%)	1.33	22 (20%)	3	2	50, 67, 125, 135	0
32	BY	110/112 (98%)	1.93	43 (39%)	1	0	53, 84, 122, 133	0
33	AF	124/131 (94%)	1.51	31 (25%)	2	1	36, 57, 74, 87	0
33	BZ	124/131 (94%)	1.78	41 (33%)	1	1	40, 64, 85, 109	0
34	AG	106/107 (99%)	1.22	20 (18%)	3	3	40, 54, 84, 99	0
34	CA	106/107 (99%)	1.42	21 (19%)	3	2	41, 58, 78, 87	0
35	AH	112/122 (91%)	1.73	35 (31%)	1	1	38, 60, 104, 143	0
35	CB	112/122 (91%)	2.82	68 (60%)	0	0	61, 96, 135, 161	0
36	AI	117/120 (97%)	1.62	31 (26%)	1	1	46, 67, 99, 114	1 (0%)
36	CC	118/120 (98%)	2.76	73 (61%)	0	0	71, 103, 126, 132	1 (0%)
37	AJ	97/99 (97%)	1.03	11 (11%)	10	9	45, 62, 99, 142	0
37	CD	97/99 (97%)	2.35	57 (58%)	0	0	83, 104, 137, 147	0
38	AK	86/90 (95%)	1.31	14 (16%)	4	3	32, 45, 92, 128	0
38	CE	86/90 (95%)	2.31	54 (62%)	0	0	52, 73, 107, 135	0
39	AL	77/78 (98%)	1.67	27 (35%)	1	1	63, 87, 125, 151	0
39	CF	77/78 (98%)	2.21	39 (50%)	0	0	93, 121, 152, 173	0
40	AM	50/51 (98%)	1.63	15 (30%)	1	1	41, 56, 86, 90	0
40	CG	50/51 (98%)	2.53	34 (68%)	0	0	52, 82, 97, 102	1 (2%)
41	AN	52/52 (100%)	2.12	29 (55%)	0	0	60, 83, 107, 111	0
41	CH	51/52 (98%)	2.28	26 (50%)	0	0	63, 88, 108, 120	0
42	AO	25/25 (100%)	1.73	9 (36%)	1	0	49, 60, 84, 85	0
42	CI	25/25 (100%)	2.12	11 (44%)	0	0	51, 66, 79, 83	0
43	AP	103/106 (97%)	1.16	14 (13%)	7	5	35, 57, 90, 114	0
43	CJ	103/106 (97%)	1.49	26 (25%)	1	1	57, 81, 108, 121	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
44	AQ	91/92 (98%)	1.04	11 (12%)	8	7	34, 47, 80, 104	0
44	CK	91/92 (98%)	1.66	26 (28%)	1	1	52, 76, 106, 127	0
45	B	1725/1787 (96%)	1.06	203 (11%)	9	7	41, 78, 165, 331	0
45	CM	1778/1787 (99%)	1.18	232 (13%)	7	6	47, 92, 191, 459	0
46	C	208/261 (79%)	1.83	75 (36%)	1	0	72, 104, 130, 157	0
46	CN	208/261 (79%)	1.78	83 (39%)	1	0	73, 106, 137, 154	0
47	CO	214/256 (83%)	2.14	106 (49%)	0	0	88, 119, 143, 157	0
47	D	214/256 (83%)	1.39	49 (22%)	2	2	57, 84, 104, 112	0
48	CP	217/249 (87%)	1.65	58 (26%)	1	1	50, 81, 109, 128	0
48	E	217/249 (87%)	1.62	67 (30%)	1	1	44, 79, 109, 125	0
49	CQ	223/251 (88%)	1.74	76 (34%)	1	1	70, 99, 147, 166	0
49	F	223/251 (88%)	1.91	92 (41%)	0	0	62, 93, 147, 169	0
50	CR	260/262 (99%)	1.41	57 (21%)	2	2	53, 75, 102, 147	0
50	G	259/262 (98%)	1.81	84 (32%)	1	1	57, 84, 105, 144	0
51	CS	206/225 (91%)	2.13	109 (52%)	0	0	97, 120, 148, 194	0
51	H	206/225 (91%)	1.78	69 (33%)	1	1	64, 97, 131, 170	0
52	CT	236/236 (100%)	2.14	100 (42%)	0	0	59, 90, 123, 159	0
52	I	222/236 (94%)	1.80	76 (34%)	1	1	59, 97, 131, 165	0
53	CU	183/186 (98%)	1.92	83 (45%)	0	0	65, 125, 161, 174	0
53	J	181/186 (97%)	1.92	72 (39%)	1	0	60, 111, 145, 150	0
54	CV	203/206 (98%)	1.68	61 (30%)	1	1	40, 74, 132, 159	0
54	K	202/206 (98%)	1.45	44 (21%)	2	2	42, 69, 120, 137	0
55	CW	178/189 (94%)	1.87	68 (38%)	1	0	64, 88, 121, 152	0
55	L	178/189 (94%)	2.30	105 (58%)	0	0	67, 91, 119, 138	0
56	CX	94/118 (79%)	1.45	26 (27%)	1	1	78, 111, 138, 148	0
56	M	98/118 (83%)	1.82	38 (38%)	1	0	70, 105, 135, 141	0
57	CY	141/155 (90%)	1.82	52 (36%)	1	0	43, 64, 100, 155	0
57	N	141/155 (90%)	1.39	30 (21%)	2	2	43, 60, 94, 121	0
58	CZ	119/143 (83%)	1.88	47 (39%)	1	0	137, 165, 181, 188	0
58	O	116/143 (81%)	2.38	69 (59%)	0	0	141, 174, 191, 198	0
59	DA	150/151 (99%)	2.09	77 (51%)	0	0	63, 95, 117, 125	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
59	P	150/151 (99%)	1.76	49 (32%)	1	1	43, 74, 94, 109	0
60	DB	127/132 (96%)	1.75	49 (38%)	1	0	68, 108, 129, 138	0
60	Q	127/132 (96%)	1.44	29 (22%)	2	2	36, 76, 93, 105	0
61	DC	122/142 (85%)	2.23	67 (54%)	0	0	82, 109, 129, 154	0
61	R	129/142 (90%)	1.56	35 (27%)	1	1	66, 84, 133, 148	0
62	DD	135/142 (95%)	2.56	86 (63%)	0	0	89, 119, 141, 150	0
62	S	140/142 (98%)	2.04	58 (41%)	0	0	66, 99, 134, 157	0
63	DE	124/137 (90%)	2.25	59 (47%)	0	0	88, 123, 158, 180	0
63	T	124/137 (90%)	2.49	76 (61%)	0	0	79, 115, 158, 172	0
64	DF	141/145 (97%)	2.05	65 (46%)	0	0	70, 108, 132, 153	0
64	U	144/145 (99%)	1.45	25 (17%)	4	3	63, 83, 119, 146	0
65	DG	139/145 (95%)	2.65	99 (71%)	0	0	94, 116, 133, 144	0
65	V	141/145 (97%)	1.82	55 (39%)	1	0	69, 92, 123, 148	0
66	DH	97/119 (81%)	2.23	51 (52%)	0	0	81, 113, 136, 142	0
66	W	99/119 (83%)	2.16	53 (53%)	0	0	63, 112, 137, 143	0
67	DI	87/87 (100%)	1.42	16 (18%)	3	3	72, 93, 116, 140	0
67	X	87/87 (100%)	1.66	23 (26%)	1	1	63, 91, 113, 127	0
68	DJ	129/130 (99%)	1.73	43 (33%)	1	1	56, 73, 90, 97	0
68	Y	129/130 (99%)	1.62	36 (27%)	1	1	50, 68, 84, 94	0
69	DK	143/145 (98%)	1.61	38 (26%)	1	1	49, 62, 81, 102	0
69	Z	143/145 (98%)	1.41	30 (20%)	2	2	49, 64, 80, 115	0
70	DL	132/135 (97%)	1.56	37 (28%)	1	1	66, 95, 119, 153	0
70	a	134/135 (99%)	1.97	55 (41%)	0	0	66, 104, 125, 151	0
71	DM	68/105 (64%)	2.07	33 (48%)	0	0	109, 134, 148, 159	0
71	b	72/105 (68%)	1.40	13 (18%)	3	3	82, 107, 132, 143	0
72	DN	98/119 (82%)	2.28	51 (52%)	0	0	63, 88, 131, 137	0
72	c	98/119 (82%)	1.89	37 (37%)	1	0	50, 70, 109, 150	0
73	DO	81/82 (98%)	1.89	32 (39%)	1	0	75, 107, 156, 178	0
73	d	81/82 (98%)	1.88	34 (41%)	0	0	64, 85, 145, 164	0
74	DP	61/67 (91%)	1.99	26 (42%)	0	0	105, 125, 140, 151	0
74	e	62/67 (92%)	1.65	15 (24%)	2	1	84, 105, 132, 136	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
75	DQ	54/56 (96%)	1.90	26 (48%) 0 0	72, 91, 110, 125	0
75	f	55/56 (98%)	1.73	20 (36%) 1 0	57, 73, 101, 112	0
76	DR	58/63 (92%)	2.28	34 (58%) 0 0	65, 96, 154, 163	0
76	g	54/63 (85%)	2.26	26 (48%) 0 0	73, 97, 128, 136	0
77	h	70/193 (36%)	2.89	47 (67%) 0 0	122, 160, 179, 191	0
78	AR	311/317 (98%)	2.10	152 (48%) 0 0	101, 149, 177, 189	0
79	CL	121/267 (45%)	1.94	49 (40%) 0 0	68, 103, 129, 138	0
79	i	120/267 (44%)	2.48	64 (53%) 0 0	71, 104, 136, 146	0
All	All	32248/34616 (93%)	1.49	8404 (26%) 1 1	27, 79, 147, 459	7 (0%)

All (8404) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
6	AY	363	ASN	14.4
6	l	363	ASN	12.2
36	CC	120	ALA	11.4
51	H	152	SER	10.2
52	CT	80	GLY	9.8
59	P	151	ALA	9.7
45	CM	1686	G	9.5
6	AY	197	GLY	9.4
27	BT	76	LEU	8.8
72	DN	86	VAL	8.7
52	CT	78	SER	8.4
14	BG	137	SER	8.3
8	n	1	MET	8.3
36	CC	96	GLU	8.2
7	AZ	134	ALA	8.2
27	BT	79	ALA	8.1
16	BI	146	ALA	7.9
40	CG	21[A]	ARG	7.9
35	CB	34	HIS	7.8
59	DA	2	GLY	7.7
10	BC	149	ALA	7.7
16	BI	28	TRP	7.7
20	BM	16	GLY	7.6
52	CT	81	HIS	7.6
45	CM	1270	U	7.6
5	AX	139	THR	7.6

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Mol	Chain	Res	Type	RSRZ
6	AY	70	ARG	7.5
7	AZ	122	VAL	7.4
6	l	353	SER	7.2
35	CB	30	LEU	7.2
65	DG	124	ILE	7.2
70	a	64	PHE	7.2
63	T	22	PRO	7.2
45	CM	725	A	7.1
6	AY	353	SER	7.1
79	CL	64	LEU	7.1
45	CM	726	C	7.1
65	DG	66	TYR	7.0
52	CT	76	LEU	6.9
45	CM	1685	G	6.9
14	BG	2	ALA	6.9
59	P	144	ALA	6.9
14	BG	89	TYR	6.8
72	DN	73	TYR	6.8
10	BC	123	ALA	6.7
72	c	88	SER	6.6
1	AS	240	C	6.6
45	CM	1678	G	6.6
35	CB	7	TYR	6.6
52	CT	74	ARG	6.6
74	e	66	LEU	6.6
10	BC	134	LYS	6.5
14	BG	48	PRO	6.5
35	AH	28	GLY	6.5
20	BM	51	VAL	6.5
63	DE	4	VAL	6.5
7	AZ	149	GLY	6.5
10	BC	122	THR	6.5
72	DN	90	THR	6.5
26	BS	123	TYR	6.5
50	G	107	GLY	6.5
39	CF	7	ASP	6.5
48	E	87	ALA	6.4
65	DG	62	ALA	6.4
55	CW	62	ARG	6.4
52	CT	79	LYS	6.4
45	CM	1690	C	6.4
65	DG	118	PRO	6.4

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Mol	Chain	Res	Type	RSRZ
27	9	86	GLN	6.4
36	CC	106	LYS	6.4
47	CO	140	ILE	6.3
66	DH	80	ALA	6.3
16	BI	198	SER	6.3
20	BM	72	ALA	6.3
78	AR	101	THR	6.3
45	B	726	C	6.3
76	g	4	VAL	6.3
49	F	194	ALA	6.3
77	h	170	ALA	6.3
55	CW	61	THR	6.3
72	DN	14	GLY	6.3
14	BG	51	ILE	6.2
10	BC	162	GLU	6.2
79	i	33	ASN	6.2
35	CB	38	ALA	6.2
8	n	4	VAL	6.2
27	BT	81	GLN	6.2
16	BI	153	ASN	6.1
14	BG	149	VAL	6.1
14	BG	77	LEU	6.1
25	7	87	LEU	6.1
79	i	40	ASP	6.1
62	DD	141	TYR	6.0
76	g	2	GLY	6.0
13	s	47	GLN	6.0
18	x	172	GLN	6.0
27	BT	78	PHE	6.0
7	AZ	7	PHE	6.0
33	BZ	87	LEU	6.0
79	i	60	ASN	6.0
7	AZ	4	GLN	6.0
7	AZ	150	LEU	6.0
15	BH	128	LEU	6.0
35	CB	16	ARG	6.0
79	i	64	LEU	5.9
45	CM	722	A	5.9
58	O	59	LEU	5.9
68	Y	52	TYR	5.9
4	AW	164	GLY	5.9
14	BG	133	SER	5.9

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Mol	Chain	Res	Type	RSRZ
38	AK	87	THR	5.9
79	i	104	GLN	5.9
58	CZ	121	VAL	5.9
35	CB	28	GLY	5.8
74	DP	20	GLY	5.8
7	AZ	49	TYR	5.8
62	S	22	LYS	5.8
20	BM	122	ASN	5.8
27	BT	98	ASN	5.8
65	DG	114	LEU	5.8
30	BW	14	ARG	5.8
52	I	83	CYS	5.8
43	CJ	51	GLY	5.8
16	BI	87	GLN	5.8
16	BI	183	THR	5.8
36	CC	91	LYS	5.8
63	T	7	LYS	5.8
51	H	151	SER	5.8
23	5	38	VAL	5.8
63	DE	123	SER	5.8
36	CC	84[A]	LYS	5.8
58	O	122	VAL	5.7
64	DF	100	VAL	5.7
35	CB	22	VAL	5.7
55	L	74	ASN	5.7
63	T	70	SER	5.7
1	AS	239	A	5.7
26	BS	132	ALA	5.7
35	CB	60	ARG	5.7
20	BM	67	LYS	5.7
62	S	23	ALA	5.7
65	DG	123	ARG	5.7
78	AR	249	LEU	5.7
4	AW	250	GLN	5.7
33	BZ	126	LYS	5.7
36	CC	102	GLU	5.7
7	AZ	55	PHE	5.7
16	BI	204	SER	5.7
20	BM	7	GLN	5.6
20	BM	23	TRP	5.6
14	BG	93	ILE	5.6
20	BM	12	ALA	5.6

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Mol	Chain	Res	Type	RSRZ
28	BU	41	ALA	5.6
28	BU	95	ALA	5.6
76	g	30	PRO	5.6
20	BM	64	ARG	5.6
78	AR	207	LEU	5.6
45	CM	777	A	5.6
50	G	157	ASN	5.6
62	DD	139	LYS	5.5
79	i	61	GLU	5.5
12	BE	114	GLY	5.5
78	AR	260	PHE	5.5
13	s	45	PRO	5.5
36	CC	98	SER	5.5
29	BV	126	LYS	5.5
52	I	79	LYS	5.5
5	AX	144	VAL	5.5
76	DR	4	VAL	5.5
6	l	352	PRO	5.5
78	AR	243	SER	5.5
79	i	79	THR	5.5
36	CC	107	GLN	5.5
16	BI	149	ASN	5.5
35	CB	19	LYS	5.5
45	CM	1679	A	5.5
57	CY	7	VAL	5.5
27	BT	2	ALA	5.5
41	CH	31	ALA	5.5
50	G	55	ALA	5.5
15	u	119	GLN	5.5
65	V	70	GLN	5.5
4	AW	249	THR	5.4
28	BU	118	PHE	5.4
10	BC	47	LEU	5.4
45	CM	1691	C	5.4
26	BS	26	VAL	5.4
51	H	79	SER	5.4
51	CS	152	SER	5.4
79	i	84	SER	5.4
62	DD	131	ARG	5.4
4	AW	168	VAL	5.4
49	F	205	ASP	5.4
23	5	111	TYR	5.4

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Mol	Chain	Res	Type	RSRZ
10	BC	198	VAL	5.4
27	BT	65	GLY	5.4
16	BI	161	ALA	5.4
50	CR	27	TYR	5.4
35	AH	30	LEU	5.4
26	BS	32	PHE	5.3
26	BS	119	THR	5.3
66	W	78	TRP	5.3
28	BU	51	LEU	5.3
36	CC	92	LEU	5.3
45	CM	1703	C	5.3
51	CS	70	VAL	5.3
63	T	55	THR	5.3
29	BV	103	ASP	5.3
66	W	81	TYR	5.3
20	BM	9	ARG	5.3
26	BS	111	ASN	5.3
16	v	141	ALA	5.3
37	CD	6	ILE	5.3
53	J	63	LEU	5.3
15	u	129	VAL	5.3
7	AZ	26	GLY	5.3
23	5	72	GLY	5.3
77	h	162	GLU	5.3
30	AC	33	LYS	5.3
46	C	138	TYR	5.3
16	BI	59	PHE	5.3
1	1	2476	C	5.2
62	S	40	PRO	5.2
31	BX	25	TYR	5.2
4	AW	72	ARG	5.2
19	y	177	GLY	5.2
52	I	138	ALA	5.2
16	BI	112	ASN	5.2
52	I	95	LYS	5.2
77	h	148	TYR	5.2
62	DD	128	PHE	5.2
35	AH	27	GLY	5.2
43	AP	51	GLY	5.2
10	BC	197	ALA	5.2
12	BE	102	MET	5.2
60	Q	119	ASP	5.2

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Mol	Chain	Res	Type	RSRZ
8	n	2	SER	5.2
16	BI	167	ALA	5.2
16	BI	45	PRO	5.2
33	BZ	123	PRO	5.2
45	B	672	U	5.2
72	DN	29	CYS	5.2
20	BM	50	ILE	5.2
40	CG	35	ILE	5.2
30	BW	10	HIS	5.1
32	BY	95	VAL	5.1
45	CM	1684	G	5.1
27	BT	30	LEU	5.1
53	CU	114	LEU	5.1
64	DF	144	GLY	5.1
57	CY	97	TYR	5.1
52	CT	206	ALA	5.1
73	DO	50	ALA	5.1
45	B	740	A	5.1
16	BI	115	VAL	5.1
26	BS	24	LEU	5.1
45	CM	724	G	5.1
52	CT	103	ALA	5.1
52	CT	92	ARG	5.1
18	x	168	LEU	5.1
29	BV	113	LEU	5.1
36	CC	82	ALA	5.1
35	CB	62	TYR	5.1
79	i	43	PRO	5.1
18	BK	126	ARG	5.1
37	CD	40	ARG	5.1
20	BM	17	VAL	5.1
14	BG	138	PHE	5.1
16	BI	130	PHE	5.1
35	CB	18	ASN	5.1
63	T	51	ALA	5.1
30	AC	14	ARG	5.1
63	DE	3	ARG	5.1
50	G	7	LYS	5.0
65	DG	64	HIS	5.0
36	CC	116	PHE	5.0
62	DD	84	ILE	5.0
7	AZ	127	GLY	5.0

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Mol	Chain	Res	Type	RSRZ
55	L	117	GLY	5.0
50	G	14	ALA	5.0
63	DE	12	ALA	5.0
20	BM	19	LYS	5.0
66	DH	65	THR	5.0
6	l	64	GLU	5.0
20	BM	18	GLY	5.0
63	DE	2	GLY	5.0
70	a	67	GLY	5.0
52	CT	68	MET	5.0
14	BG	21	ARG	5.0
45	B	1726	C	5.0
57	N	37	ASP	5.0
60	DB	11	VAL	5.0
77	h	156	VAL	5.0
10	BC	153	LEU	5.0
73	d	63	LEU	5.0
10	BC	161	ILE	5.0
19	y	184	PHE	5.0
61	DC	45	PHE	5.0
63	DE	124	ILE	5.0
55	L	166	GLY	5.0
63	T	48	ASN	5.0
6	AY	89	ALA	5.0
35	CB	31	VAL	5.0
79	i	49	ALA	5.0
35	CB	21	LYS	5.0
55	CW	51	LYS	5.0
29	BV	109	TYR	5.0
62	S	56	LEU	5.0
63	DE	66	VAL	5.0
16	BI	142	ILE	4.9
45	CM	721	C	4.9
62	DD	42	ILE	4.9
16	BI	100	SER	4.9
30	BW	4	SER	4.9
79	i	45	SER	4.9
30	BW	37	ALA	4.9
38	CE	10	LYS	4.9
78	AR	248	TRP	4.9
20	BM	14	VAL	4.9
42	CI	1	MET	4.9

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Mol	Chain	Res	Type	RSRZ
26	BS	50	SER	4.9
50	G	24	SER	4.9
51	H	28	THR	4.9
55	CW	65	LYS	4.9
61	DC	91	GLY	4.9
64	DF	50	ALA	4.9
78	AR	241	ALA	4.9
43	CJ	36	PHE	4.9
48	CP	79	ARG	4.9
77	h	171	GLY	4.9
47	CO	211	HIS	4.9
16	BI	107	GLY	4.9
4	AW	14	SER	4.9
25	7	81	ALA	4.9
28	BU	11	ALA	4.9
28	BU	44	ALA	4.9
70	a	134	ALA	4.9
76	DR	27	PRO	4.9
10	BC	204	VAL	4.9
27	BT	82	VAL	4.9
63	T	124	ILE	4.9
6	AY	109	ARG	4.9
49	CQ	186	LYS	4.9
61	DC	44	ARG	4.9
63	T	28	PHE	4.9
72	DN	15	ARG	4.9
55	L	95	TYR	4.9
26	BS	37	THR	4.8
78	AR	79	ALA	4.8
27	BT	10	SER	4.8
51	CS	79	SER	4.8
4	AW	71	LEU	4.8
52	CT	77	LEU	4.8
72	c	29	CYS	4.8
63	DE	53	TYR	4.8
29	BV	127	ALA	4.8
31	BX	18	LEU	4.8
52	CT	75	LEU	4.8
23	5	92	ILE	4.8
12	r	162	GLN	4.8
35	CB	3	GLN	4.8
37	CD	7	ALA	4.8

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Mol	Chain	Res	Type	RSRZ
79	i	111	ASP	4.8
45	CM	1692	U	4.8
51	H	77	TYR	4.8
53	J	66	TYR	4.8
55	CW	8	TYR	4.8
76	DR	25	GLU	4.8
13	s	28	ASP	4.8
26	BS	40	LEU	4.8
47	CO	86	LEU	4.8
18	BK	2	VAL	4.8
28	BU	24	VAL	4.8
35	CB	35	VAL	4.8
35	CB	72	VAL	4.8
16	BI	144	ARG	4.8
7	AZ	124	GLU	4.8
27	BT	33	ALA	4.8
78	AR	76	ALA	4.8
10	BC	66	LEU	4.7
8	n	128	LYS	4.7
65	DG	113	VAL	4.7
67	X	32	VAL	4.7
55	L	104	PHE	4.7
52	CT	83	CYS	4.7
16	v	146	ALA	4.7
34	AG	2	ALA	4.7
39	CF	2	ALA	4.7
63	T	90	ALA	4.7
78	AR	286	ALA	4.7
35	CB	24	LYS	4.7
36	AI	84[A]	LYS	4.7
48	CP	83	LYS	4.7
27	BT	45	VAL	4.7
35	CB	15	THR	4.7
51	H	33	VAL	4.7
59	P	150	VAL	4.7
29	BV	107	HIS	4.7
13	s	48	SER	4.7
23	5	73	SER	4.7
48	E	80	SER	4.7
4	AW	32	LEU	4.7
16	BI	163	GLY	4.7
20	BM	135	LYS	4.7

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Mol	Chain	Res	Type	RSRZ
26	BS	61	LYS	4.7
36	CC	87	ALA	4.7
52	I	146	GLY	4.7
58	O	42	ALA	4.7
66	DH	74	GLY	4.7
77	h	164	PRO	4.7
79	CL	103	LEU	4.7
6	AY	66	TRP	4.7
10	BC	117	ILE	4.7
52	CT	84	TYR	4.7
7	m	7	PHE	4.7
37	CD	38	PHE	4.7
16	BI	43	SER	4.7
10	BC	121	LYS	4.7
19	BL	175	ALA	4.7
27	9	81	GLN	4.7
48	E	235	LEU	4.7
52	CT	70	PRO	4.7
26	BS	88	ILE	4.7
27	BT	99	ILE	4.7
48	E	64	ILE	4.7
31	BX	99	ASP	4.7
16	BI	184	LYS	4.7
63	DE	125	SER	4.7
49	CQ	22	LEU	4.7
58	O	106	LEU	4.7
79	i	115	LEU	4.7
10	p	149	ALA	4.7
54	K	15	GLY	4.7
78	AR	78	GLY	4.7
38	CE	57	ARG	4.7
48	CP	86	ARG	4.7
77	h	159	LEU	4.6
50	CR	2	ALA	4.6
51	CS	86	GLN	4.6
60	DB	108	GLY	4.6
69	DK	27	GLN	4.6
27	BT	80	ILE	4.6
6	AY	72	VAL	4.6
58	O	121	VAL	4.6
1	AS	1584	A	4.6
52	I	168	THR	4.6

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Mol	Chain	Res	Type	RSRZ
53	J	129	THR	4.6
76	g	41	THR	4.6
28	BU	92	PHE	4.6
7	AZ	92	LEU	4.6
65	DG	122	ARG	4.6
24	BQ	137	VAL	4.6
55	L	96	VAL	4.6
4	j	249	THR	4.6
52	I	220	LYS	4.6
77	h	123	LYS	4.6
1	1	1218	G	4.6
1	1	1264	G	4.6
1	AS	219	G	4.6
45	B	671	G	4.6
45	CM	1184	G	4.6
62	S	20	HIS	4.6
59	DA	4	MET	4.6
7	AZ	168	ASP	4.6
10	BC	59	LEU	4.6
36	CC	88	LEU	4.6
51	CS	112	ARG	4.6
48	CP	80	SER	4.6
63	DE	43	SER	4.6
16	v	153	ASN	4.6
13	BF	29	ARG	4.6
51	CS	102	ARG	4.6
72	c	89	ARG	4.6
48	E	117	ALA	4.6
62	DD	133	ALA	4.6
39	CF	4	GLU	4.6
6	AY	279	SER	4.6
22	BO	90	ASN	4.6
39	CF	9	LYS	4.6
59	DA	139	TRP	4.5
7	AZ	203	HIS	4.5
14	BG	130	THR	4.5
36	AI	17	LEU	4.5
71	DM	75	LEU	4.5
75	f	55	TYR	4.5
4	AW	62	ALA	4.5
19	BL	14	GLY	4.5
28	BU	28	PRO	4.5

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Mol	Chain	Res	Type	RSRZ
28	BU	91	SER	4.5
63	T	125	SER	4.5
16	BI	195	ASN	4.5
41	CH	43	ASN	4.5
32	BY	19	LEU	4.5
20	BM	78	TYR	4.5
51	CS	28	THR	4.5
63	T	53	TYR	4.5
78	AR	251	ALA	4.5
28	AA	102	GLU	4.5
29	AB	72	GLU	4.5
58	O	56	GLU	4.5
23	BP	73	SER	4.5
16	BI	199	LEU	4.5
55	CW	49	LEU	4.5
52	I	92	ARG	4.5
50	CR	26	THR	4.5
49	F	189	ILE	4.5
35	CB	2	ALA	4.5
64	U	2	PRO	4.5
12	r	114	GLY	4.5
14	BG	81	LYS	4.5
66	DH	76	LYS	4.5
27	BT	56	VAL	4.5
35	CB	42	VAL	4.5
36	AI	96	GLU	4.5
47	CO	108	ASP	4.5
20	BM	10	LEU	4.5
39	AL	11	PHE	4.5
64	DF	86	LEU	4.5
74	DP	66	LEU	4.5
55	L	122	ILE	4.5
57	CY	49	ILE	4.5
6	AY	219	ALA	4.5
16	BI	56	LYS	4.5
45	CM	723	G	4.5
8	n	3	GLN	4.5
41	CH	44	GLN	4.5
6	l	23	LEU	4.5
53	CU	21	PHE	4.5
1	1	2427	A	4.5
4	AW	48	ILE	4.4

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Mol	Chain	Res	Type	RSRZ
51	CS	46	TRP	4.4
71	DM	97	LYS	4.4
7	AZ	226	TYR	4.4
35	CB	12	PRO	4.4
45	CM	695	C	4.4
27	9	124	GLY	4.4
14	BG	134	GLU	4.4
29	AB	113	LEU	4.4
54	CV	109	PHE	4.4
13	s	70	THR	4.4
45	B	725	A	4.4
63	T	6	THR	4.4
6	AY	352	PRO	4.4
8	n	6	PRO	4.4
27	BT	101	PRO	4.4
37	CD	8	ALA	4.4
8	BA	4	VAL	4.4
10	BC	131	VAL	4.4
51	H	150	GLY	4.4
52	CT	158	VAL	4.4
40	CG	11	GLN	4.4
76	DR	36	MET	4.4
16	BI	134	LEU	4.4
48	E	86	ARG	4.4
56	M	2	LEU	4.4
62	DD	43	LEU	4.4
66	DH	79	ASP	4.4
77	h	158	ARG	4.4
4	AW	215	ASN	4.4
52	I	112	SER	4.4
62	DD	120	SER	4.4
79	CL	33	ASN	4.4
32	BY	59	TRP	4.4
33	AF	123	PRO	4.4
36	CC	68	ALA	4.4
44	CK	46	THR	4.4
76	g	32	GLY	4.4
4	j	250	GLN	4.4
36	CC	80	LEU	4.4
23	BP	28	PHE	4.4
24	BQ	116	GLY	4.4
33	BZ	125	GLY	4.4

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Mol	Chain	Res	Type	RSRZ
66	W	111	VAL	4.4
71	DM	87	GLY	4.4
71	DM	92	VAL	4.4
12	r	11	TYR	4.4
50	G	54	TYR	4.4
52	I	208	TYR	4.4
53	J	169	TYR	4.4
56	M	62	GLN	4.4
64	U	15	LEU	4.4
29	AB	47	LYS	4.4
61	DC	102	PHE	4.4
6	AY	282	ILE	4.4
45	B	1270	U	4.4
20	BM	63	ALA	4.3
40	AM	39	ALA	4.3
50	G	13	ALA	4.3
7	AZ	135	VAL	4.3
20	BM	22	VAL	4.3
61	DC	93	VAL	4.3
70	a	24	VAL	4.3
28	BU	35	SER	4.3
7	AZ	123	GLU	4.3
29	BV	69	TRP	4.3
72	DN	89	ARG	4.3
59	P	9	LYS	4.3
63	T	49	LYS	4.3
66	W	76	LYS	4.3
45	B	695	C	4.3
52	CT	100	CYS	4.3
8	BA	97	VAL	4.3
10	BC	126	VAL	4.3
65	DG	37	VAL	4.3
23	5	57	THR	4.3
10	BC	55	GLU	4.3
20	BM	55	GLU	4.3
49	F	136	GLU	4.3
55	L	128	LEU	4.3
59	P	12	SER	4.3
12	r	113	GLN	4.3
57	N	97	TYR	4.3
27	BT	110	HIS	4.3
62	DD	123	MET	4.3

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Mol	Chain	Res	Type	RSRZ
10	BC	221	ALA	4.3
19	y	186	VAL	4.3
28	BU	96	VAL	4.3
49	F	212	ALA	4.3
53	CU	99	ALA	4.3
62	DD	19	ALA	4.3
64	DF	5	VAL	4.3
68	DJ	88	ARG	4.3
77	h	142	LEU	4.3
1	1	1275	C	4.3
45	CM	694	C	4.3
49	F	18	PHE	4.3
61	DC	15	PHE	4.3
27	BT	4	ILE	4.3
65	V	116	ILE	4.3
30	BW	7	HIS	4.3
15	BH	34	ASP	4.3
67	X	4	ASP	4.3
6	l	231	VAL	4.3
16	BI	66	VAL	4.3
32	BY	106	VAL	4.3
46	C	65	ALA	4.3
58	CZ	128	ALA	4.3
60	DB	12	ALA	4.3
6	AY	69	GLY	4.3
51	CS	80	LYS	4.3
55	L	120	ARG	4.3
29	BV	133	LEU	4.3
47	CO	188	LEU	4.3
29	AB	65	GLN	4.3
66	W	32	GLN	4.3
28	AA	98	SER	4.3
1	1	1578	C	4.3
14	BG	126	PHE	4.3
52	CT	144	PHE	4.3
47	D	197	ILE	4.3
9	BB	69	ALA	4.3
14	BG	127	ASP	4.3
15	BH	131	ALA	4.3
75	f	56	ARG	4.3
14	BG	10	LEU	4.3
29	BV	81	LEU	4.3

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Mol	Chain	Res	Type	RSRZ
52	CT	190	LEU	4.3
55	CW	93	LEU	4.3
45	B	217	A	4.2
45	B	673	A	4.2
45	B	739	A	4.2
57	N	3	THR	4.2
34	AG	26	ASN	4.2
39	CF	51	GLN	4.2
54	K	53	GLN	4.2
7	AZ	160	PHE	4.2
10	BC	166	PHE	4.2
54	K	21	PHE	4.2
22	2	71	SER	4.2
64	U	28	ILE	4.2
7	AZ	79	TYR	4.2
12	r	102	MET	4.2
10	BC	124	LYS	4.2
13	BF	45	PRO	4.2
26	BS	36	LYS	4.2
36	CC	103	LYS	4.2
49	F	166	ARG	4.2
51	CS	78	ALA	4.2
35	CB	25	THR	4.2
35	CB	14	ASN	4.2
48	CP	210	PHE	4.2
18	BK	130	TYR	4.2
79	i	36	SER	4.2
48	CP	156	LYS	4.2
49	CQ	188	LYS	4.2
27	BT	73	VAL	4.2
13	BF	98	ALA	4.2
27	BT	126	ALA	4.2
59	P	148	ALA	4.2
65	DG	59	ALA	4.2
72	c	14	GLY	4.2
18	BK	114	ILE	4.2
20	BM	32	ILE	4.2
40	CG	51	ILE	4.2
52	CT	236	ASN	4.2
29	AB	69	TRP	4.2
16	BI	30	TYR	4.2
20	BM	45	TYR	4.2

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Mol	Chain	Res	Type	RSRZ
26	8	22	LYS	4.2
55	L	92	LYS	4.2
62	DD	13	LYS	4.2
76	DR	5	HIS	4.2
10	BC	130	PRO	4.2
10	BC	163	LEU	4.2
24	BQ	93	LEU	4.2
26	BS	51	VAL	4.2
30	BW	32	LEU	4.2
37	CD	10	VAL	4.2
59	P	149	LEU	4.2
5	AX	12	GLY	4.2
16	BI	58	GLY	4.2
45	B	1115	G	4.2
45	CM	705	G	4.2
17	BJ	49	PHE	4.2
22	BO	159	PHE	4.2
79	CL	34	THR	4.2
16	BI	193	LYS	4.2
53	J	43	LYS	4.2
1	1	1012	U	4.2
7	m	30	TYR	4.2
20	BM	24	LEU	4.2
26	BS	35	PRO	4.2
76	DR	60	PRO	4.2
10	BC	118	ALA	4.2
17	BJ	98	ALA	4.2
51	H	26	ALA	4.2
65	DG	41	ALA	4.2
22	2	2	GLY	4.2
52	I	90	GLY	4.2
10	BC	238	ILE	4.2
11	BD	92	PHE	4.2
1	1	2467	C	4.1
1	AS	241	C	4.1
6	l	61	THR	4.1
66	W	69	THR	4.1
79	CL	97	THR	4.1
1	AS	243	G	4.1
20	BM	104	LYS	4.1
4	AW	202	VAL	4.1
19	BL	124	LEU	4.1

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Mol	Chain	Res	Type	RSRZ
23	BP	36	TYR	4.1
26	BS	110	VAL	4.1
28	BU	75	VAL	4.1
30	BW	47	LEU	4.1
53	J	86	VAL	4.1
58	O	45	LEU	4.1
59	DA	72	LEU	4.1
77	h	127	TYR	4.1
53	J	164	SER	4.1
6	AY	54	ALA	4.1
7	m	67	ALA	4.1
30	BW	2	ALA	4.1
31	BX	97	ALA	4.1
6	AY	87	GLY	4.1
17	BJ	31	GLY	4.1
45	CM	1689	A	4.1
20	BM	41	ILE	4.1
39	AL	24	ILE	4.1
36	CC	119	LYS	4.1
70	a	68	LYS	4.1
77	h	181	GLN	4.1
35	AH	68	THR	4.1
52	I	89	THR	4.1
11	BD	166	ARG	4.1
14	BG	173	ARG	4.1
51	CS	83	ARG	4.1
50	CR	9	LEU	4.1
45	CM	1672	G	4.1
55	L	2	PRO	4.1
76	g	47	VAL	4.1
22	BO	84	TYR	4.1
55	L	12	TYR	4.1
10	BC	77	ALA	4.1
20	z	2	ALA	4.1
22	2	14	ALA	4.1
51	CS	85	ALA	4.1
62	DD	17	ALA	4.1
53	CU	26	SER	4.1
58	O	49	SER	4.1
45	B	727	U	4.1
45	CM	497	U	4.1
45	CM	776	U	4.1

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Mol	Chain	Res	Type	RSRZ
37	CD	25	ILE	4.1
59	DA	71	ILE	4.1
7	AZ	5	LYS	4.1
45	CM	704	A	4.1
79	i	102	LYS	4.1
7	AZ	145	PHE	4.1
21	BN	143	PHE	4.1
62	DD	45	PHE	4.1
77	h	189	THR	4.1
4	AW	58	LEU	4.1
6	AY	188	LEU	4.1
20	BM	66	LEU	4.1
60	DB	132	LEU	4.1
10	BC	165	VAL	4.1
46	C	174	TRP	4.1
1	1	1188	C	4.1
3	AU	99	C	4.1
14	BG	60	ALA	4.1
50	G	2	ALA	4.1
48	CP	88	GLY	4.1
30	BW	22	LYS	4.1
50	CR	22	LYS	4.1
59	P	11	ILE	4.1
72	DN	87	ARG	4.1
45	B	504	A	4.1
34	CA	71	VAL	4.1
44	CK	47	VAL	4.1
78	AR	290	ALA	4.1
79	i	42	ALA	4.1
79	i	51	ALA	4.1
16	BI	119	TYR	4.1
14	BG	85	ILE	4.1
16	BI	173	GLY	4.1
26	BS	62	ILE	4.1
57	CY	145	GLY	4.1
65	DG	111	ILE	4.1
78	AR	15	GLY	4.1
1	AS	3051	C	4.1
26	BS	90	SER	4.1
57	CY	58	CYS	4.1
1	AS	1557	U	4.1
35	CB	8	ARG	4.1

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Mol	Chain	Res	Type	RSRZ
62	DD	137	PHE	4.1
13	BF	47	GLN	4.1
38	CE	67	LEU	4.0
38	CE	71	THR	4.0
43	CJ	54	THR	4.0
56	CX	2	LEU	4.0
77	h	145	LEU	4.0
77	h	188	LEU	4.0
78	AR	97	THR	4.0
29	BV	39	HIS	4.0
79	CL	62	ALA	4.0
6	AY	107	TRP	4.0
12	BE	13	LYS	4.0
32	BY	68	ASN	4.0
35	CB	45	GLY	4.0
47	CO	169	ILE	4.0
48	CP	155	GLY	4.0
71	DM	88	ILE	4.0
14	BG	70	ARG	4.0
15	BH	2	SER	4.0
35	CB	9	ARG	4.0
59	DA	6	SER	4.0
32	AE	3	LEU	4.0
53	CU	24	LEU	4.0
63	DE	8	THR	4.0
59	DA	65	VAL	4.0
61	DC	2	VAL	4.0
1	AS	1548	G	4.0
7	m	43	LYS	4.0
10	BC	114	ALA	4.0
45	B	216	A	4.0
10	BC	183	GLY	4.0
25	BR	51	TRP	4.0
36	CC	118	ILE	4.0
47	CO	48	ILE	4.0
6	AY	55	GLU	4.0
55	L	8	TYR	4.0
76	DR	35	TYR	4.0
53	J	67	ARG	4.0
66	W	84	ARG	4.0
11	q	117	PHE	4.0
62	S	2	SER	4.0

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Mol	Chain	Res	Type	RSRZ
26	BS	38	LEU	4.0
47	D	202	GLN	4.0
54	K	185	CYS	4.0
63	DE	100	LEU	4.0
71	DM	93	LEU	4.0
1	AS	173	C	4.0
10	BC	51	VAL	4.0
47	CO	91	VAL	4.0
28	BU	50	PRO	4.0
46	C	199	PRO	4.0
63	DE	44	LYS	4.0
75	f	54	LYS	4.0
49	CQ	86	ALA	4.0
20	BM	15	ILE	4.0
22	2	46	GLY	4.0
45	CM	504	A	4.0
45	B	501	G	4.0
33	AF	87	LEU	4.0
58	O	52	LEU	4.0
59	DA	135	LEU	4.0
11	BD	165	CYS	4.0
10	BC	133	VAL	4.0
27	BT	25	VAL	4.0
28	AA	89	VAL	4.0
67	DI	5	LYS	4.0
79	CL	100	LYS	4.0
50	G	84	ALA	4.0
79	CL	111	ASP	4.0
45	B	657	C	4.0
45	CM	25	C	4.0
51	CS	177	ILE	4.0
13	s	140	ARG	4.0
31	BX	23	GLY	4.0
62	S	122	ARG	4.0
11	q	189	GLU	4.0
24	BQ	94	TYR	4.0
1	AS	2943	A	4.0
45	B	1272	A	4.0
53	CU	95	LEU	4.0
73	DO	73	LEU	4.0
78	AR	32	LEU	4.0
48	CP	89	GLN	4.0

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Mol	Chain	Res	Type	RSRZ
54	K	7	SER	4.0
55	L	48	GLN	4.0
19	y	168	LYS	4.0
42	AO	25	LYS	4.0
66	DH	63	LYS	4.0
50	G	102	VAL	4.0
63	DE	122	VAL	4.0
64	U	100	VAL	4.0
25	BR	98	PRO	4.0
76	g	36	MET	4.0
30	BW	8	THR	4.0
36	CC	101	THR	4.0
66	DH	77	THR	4.0
64	DF	81	ILE	3.9
7	AZ	147	ASP	3.9
68	Y	51	GLU	3.9
26	BS	84	PHE	3.9
58	O	100	TRP	3.9
78	AR	151	TRP	3.9
79	i	88	PHE	3.9
7	AZ	171	LEU	3.9
26	BS	113	LEU	3.9
29	AB	90	TYR	3.9
78	AR	80	TYR	3.9
1	1	402	A	3.9
28	BU	14	VAL	3.9
55	L	81	VAL	3.9
64	DF	121	SER	3.9
4	AW	66	PRO	3.9
58	O	89	ILE	3.9
61	R	122	THR	3.9
63	T	30	THR	3.9
27	9	126	ALA	3.9
33	AF	95	ALA	3.9
35	CB	82	ALA	3.9
47	CO	213	ARG	3.9
50	CR	3	ARG	3.9
66	W	67	ARG	3.9
62	DD	129	GLY	3.9
79	i	59	GLY	3.9
36	CC	111	PHE	3.9
47	CO	100	PHE	3.9

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Mol	Chain	Res	Type	RSRZ
52	CT	50	PHE	3.9
28	AA	87	LEU	3.9
40	CG	29	LEU	3.9
54	CV	149	LEU	3.9
61	DC	116	LEU	3.9
50	G	50	ASN	3.9
66	DH	78	TRP	3.9
13	s	49	LYS	3.9
51	CS	84	LYS	3.9
1	AS	1188	C	3.9
77	h	147	TYR	3.9
7	m	24	GLN	3.9
7	AZ	65	VAL	3.9
6	AY	103	PRO	3.9
1	1	1217	A	3.9
25	BR	28	ILE	3.9
8	BA	132	ALA	3.9
25	BR	47	ARG	3.9
26	8	30	THR	3.9
37	CD	31	ALA	3.9
46	C	19	ALA	3.9
51	H	85	ALA	3.9
54	K	34	ALA	3.9
63	T	106	THR	3.9
79	i	81	THR	3.9
1	1	2471	U	3.9
14	BG	139	GLU	3.9
29	BV	129	PHE	3.9
13	BF	142	LYS	3.9
41	CH	45	LEU	3.9
52	CT	161	GLU	3.9
72	c	19	LYS	3.9
77	h	190	LEU	3.9
78	AR	291	TRP	3.9
14	BG	169	TYR	3.9
62	DD	111	TYR	3.9
76	g	40	TYR	3.9
25	BR	42	GLN	3.9
47	CO	21	VAL	3.9
49	F	38	VAL	3.9
63	T	74	GLN	3.9
6	AY	84	HIS	3.9

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Mol	Chain	Res	Type	RSRZ
16	BI	64	ILE	3.9
36	CC	109	ILE	3.9
46	CN	50	ILE	3.9
47	CO	204	ILE	3.9
4	AW	27	ALA	3.9
20	BM	62	ARG	3.9
24	BQ	7	SER	3.9
74	DP	59	SER	3.9
78	AR	250	ALA	3.9
44	CK	70	THR	3.9
45	B	777	A	3.9
61	DC	117	GLY	3.9
63	DE	52	GLY	3.9
30	BW	5	LYS	3.9
3	AU	100	U	3.9
14	BG	20	GLU	3.9
69	Z	9	LEU	3.9
70	a	23	PHE	3.9
72	c	12	LYS	3.9
58	CZ	126	TRP	3.9
13	s	95	ASN	3.9
27	9	91	ASN	3.9
65	DG	77	ASN	3.9
1	AS	1730	G	3.9
26	BS	54	TYR	3.9
28	BU	72	VAL	3.9
33	AF	53	GLN	3.9
51	CS	37	GLN	3.9
65	DG	4	VAL	3.9
8	BA	130	ILE	3.9
63	DE	117	ILE	3.9
72	c	94	ILE	3.9
78	AR	138	ILE	3.9
37	AJ	82	ALA	3.9
55	CW	55	ALA	3.9
58	O	118	ALA	3.9
7	AZ	46	SER	3.9
26	BS	31	THR	3.9
32	BY	99	SER	3.9
45	B	498	C	3.9
46	CN	103	THR	3.9
4	AW	232	GLY	3.8

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Mol	Chain	Res	Type	RSRZ
6	AY	81	GLY	3.8
35	CB	67	LYS	3.8
79	i	85	LYS	3.8
63	DE	28	PHE	3.8
1	AS	1637	U	3.8
13	s	52	TYR	3.8
16	BI	109	ARG	3.8
19	BL	139	ILE	3.8
49	F	118	ARG	3.8
65	DG	18	TYR	3.8
27	BT	100	HIS	3.8
32	BY	28	ALA	3.8
33	BZ	70	ALA	3.8
1	AS	1826	G	3.8
16	BI	111	SER	3.8
20	BM	49	THR	3.8
25	BR	7	SER	3.8
7	AZ	169	GLY	3.8
10	BC	137	LEU	3.8
36	CC	9	LEU	3.8
36	CC	41	LEU	3.8
78	AR	34	LEU	3.8
78	AR	145	LEU	3.8
10	BC	35	PHE	3.8
50	G	47	PHE	3.8
51	CS	43	PHE	3.8
70	a	72	PHE	3.8
1	AS	1825	A	3.8
27	BT	105	VAL	3.8
47	CO	210	VAL	3.8
77	h	126	VAL	3.8
10	p	224	ILE	3.8
28	AA	106	GLN	3.8
58	O	58	GLN	3.8
63	T	5	ARG	3.8
10	BC	46	ASN	3.8
7	m	90	TYR	3.8
26	BS	66	PRO	3.8
28	BU	82	PRO	3.8
38	CE	13	ASN	3.8
67	X	50	ASN	3.8
16	BI	176	LYS	3.8

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Mol	Chain	Res	Type	RSRZ
18	x	176	LEU	3.8
23	BP	83	THR	3.8
26	BS	112	THR	3.8
29	BV	75	LEU	3.8
31	AD	86	LEU	3.8
35	CB	57	LEU	3.8
47	CO	47	LEU	3.8
72	DN	64	LEU	3.8
77	h	129	THR	3.8
10	BC	67	SER	3.8
16	BI	180	PHE	3.8
55	CW	47	PHE	3.8
1	AS	1020	G	3.8
45	B	1705	G	3.8
4	AW	4	VAL	3.8
14	BG	57	VAL	3.8
20	BM	25	ASP	3.8
22	BO	80	VAL	3.8
25	7	83	VAL	3.8
29	BV	46	ASP	3.8
52	I	153	VAL	3.8
63	DE	40	VAL	3.8
66	W	79	ASP	3.8
70	a	35	VAL	3.8
36	CC	90	ARG	3.8
58	O	55	ARG	3.8
70	a	61	ARG	3.8
64	U	119	ILE	3.8
65	DG	70	GLN	3.8
1	1	1274	A	3.8
38	CE	6	PRO	3.8
59	DA	5	HIS	3.8
79	i	83	HIS	3.8
28	BU	21	LYS	3.8
49	F	42	LYS	3.8
20	BM	2	ALA	3.8
26	8	23	ALA	3.8
37	CD	82	ALA	3.8
53	CU	32	ALA	3.8
57	N	12	ALA	3.8
41	CH	6	LEU	3.8
78	AR	268	LEU	3.8

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Mol	Chain	Res	Type	RSRZ
48	CP	85	THR	3.8
49	CQ	58	GLY	3.8
62	DD	132	GLY	3.8
66	DH	110	GLY	3.8
14	BG	63	VAL	3.8
27	BT	27	ARG	3.8
44	CK	45	ARG	3.8
46	C	113	ARG	3.8
49	CQ	138	VAL	3.8
55	L	136	VAL	3.8
62	DD	21	VAL	3.8
64	DF	68	ARG	3.8
78	AR	208	CYS	3.8
49	CQ	10	LYS	3.8
49	CQ	200	PRO	3.8
51	CS	106	LYS	3.8
64	DF	48	LYS	3.8
48	E	204	ASN	3.8
50	G	258	ALA	3.8
51	H	210	ALA	3.8
48	E	66	LEU	3.8
61	R	91	GLY	3.8
46	C	115	PHE	3.8
53	J	127	PHE	3.8
77	h	146	THR	3.8
4	AW	45	VAL	3.7
13	s	130	VAL	3.7
27	BT	8	VAL	3.7
63	T	66	VAL	3.7
71	DM	62	VAL	3.7
41	CH	2	ILE	3.7
36	CC	94	LYS	3.7
59	P	62	GLN	3.7
5	k	274	HIS	3.7
72	DN	80	HIS	3.7
10	BC	199	ALA	3.7
36	CC	110	ALA	3.7
27	BT	35	LEU	3.7
51	CS	103	ASN	3.7
53	J	54	LEU	3.7
55	L	70	LEU	3.7
67	DI	8	LEU	3.7

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Mol	Chain	Res	Type	RSRZ
1	AS	443	G	3.7
63	T	71	PHE	3.7
35	CB	71	THR	3.7
41	CH	3	GLU	3.7
78	AR	14	GLU	3.7
16	BI	26	ARG	3.7
19	BL	146	SER	3.7
23	5	56	ILE	3.7
37	CD	96	SER	3.7
50	G	219	VAL	3.7
47	D	193	ILE	3.7
48	E	126	ILE	3.7
52	CT	112	SER	3.7
74	e	15	VAL	3.7
49	F	149	LYS	3.7
52	CT	228	LYS	3.7
63	T	69	ILE	3.7
63	DE	69	ILE	3.7
5	AX	11	HIS	3.7
10	BC	192	HIS	3.7
33	AF	27	HIS	3.7
48	CP	84	GLN	3.7
54	CV	103	GLN	3.7
79	i	109	GLN	3.7
71	b	34	ASP	3.7
28	BU	101	LEU	3.7
30	BW	16	ALA	3.7
39	CF	15	ALA	3.7
46	C	97	ALA	3.7
48	CP	87	ALA	3.7
51	CS	74	ALA	3.7
59	DA	88	LEU	3.7
70	DL	134	ALA	3.7
35	AH	81	CYS	3.7
45	B	1725	U	3.7
21	BN	56	GLY	3.7
3	AU	91	C	3.7
45	B	1481	C	3.7
36	CC	93	THR	3.7
47	CO	122	GLU	3.7
66	DH	66	THR	3.7
79	i	58	THR	3.7

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Mol	Chain	Res	Type	RSRZ
4	AW	207	VAL	3.7
14	BG	97	VAL	3.7
20	BM	70	LYS	3.7
79	CL	54	LYS	3.7
36	AI	109	ILE	3.7
20	z	137	SER	3.7
65	DG	5	SER	3.7
36	CC	113	GLN	3.7
76	g	31	GLN	3.7
78	AR	244	PRO	3.7
7	m	92	LEU	3.7
9	o	16	ALA	3.7
10	BC	115	ALA	3.7
16	v	167	ALA	3.7
16	BI	113	LEU	3.7
22	BO	14	ALA	3.7
25	BR	85	ALA	3.7
66	DH	62	LEU	3.7
71	b	99	ALA	3.7
7	AZ	202	GLY	3.7
22	BO	15	PHE	3.7
46	CN	44	GLY	3.7
66	W	110	GLY	3.7
20	BM	100	ARG	3.7
27	BT	115	ARG	3.7
11	BD	121	LYS	3.7
18	BK	32	THR	3.7
27	BT	21	THR	3.7
46	CN	80	THR	3.7
51	H	80	LYS	3.7
62	DD	11	LYS	3.7
10	BC	154	ILE	3.7
16	BI	155	VAL	3.7
22	BO	75	ILE	3.7
26	BS	142	ILE	3.7
29	BV	112	VAL	3.7
50	G	105	VAL	3.7
74	DP	48	VAL	3.7
1	AS	2184	G	3.7
45	B	1672	G	3.7
63	T	65	PRO	3.7
70	a	69	SER	3.7

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Mol	Chain	Res	Type	RSRZ
16	BI	156	HIS	3.7
62	S	104	LEU	3.7
64	DF	54	LEU	3.7
14	t	2	ALA	3.7
54	CV	105	ASP	3.7
7	AZ	201	GLY	3.7
33	AF	125	GLY	3.7
53	J	179	PHE	3.7
69	DK	51	GLY	3.7
77	h	176	ASN	3.7
16	BI	140	LYS	3.7
36	AI	94	LYS	3.7
41	CH	38	LYS	3.7
42	CI	25	LYS	3.7
50	CR	10	LYS	3.7
20	BM	68	GLU	3.7
39	CF	13	GLU	3.7
19	BL	165	ILE	3.7
45	CM	727	U	3.7
45	CM	1346	U	3.7
32	BY	66	VAL	3.7
56	M	11	ILE	3.7
59	DA	67	THR	3.7
72	DN	36	ILE	3.7
53	J	182	PRO	3.6
65	DG	46	PRO	3.6
5	AX	387	LEU	3.6
20	z	155	LEU	3.6
37	CD	83	LEU	3.6
1	1	2943	A	3.6
6	AY	57	ALA	3.6
13	s	98	ALA	3.6
16	BI	102	ALA	3.6
19	y	103	ALA	3.6
45	B	1476	A	3.6
49	F	145	ALA	3.6
61	DC	54	MET	3.6
1	AS	1614	G	3.6
23	5	94	ASP	3.6
23	5	98	PHE	3.6
28	AA	118	PHE	3.6
46	CN	165	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
52	CT	87	ARG	3.6
59	DA	10	GLY	3.6
68	DJ	37	PHE	3.6
77	h	173	PHE	3.6
7	m	172	TYR	3.6
11	q	190	GLU	3.6
41	AN	24	TYR	3.6
47	CO	124	ASN	3.6
11	q	9	ILE	3.6
65	DG	9	VAL	3.6
26	BS	28	THR	3.6
13	BF	37	LEU	3.6
19	BL	94	LEU	3.6
53	J	24	LEU	3.6
53	J	95	LEU	3.6
56	M	87	LEU	3.6
7	AZ	81	HIS	3.6
18	x	140	GLN	3.6
43	AP	47	GLN	3.6
53	J	85	HIS	3.6
6	AY	348	ALA	3.6
14	t	4	SER	3.6
14	BG	78	ALA	3.6
49	F	150	SER	3.6
57	CY	25	ALA	3.6
58	O	27	ALA	3.6
62	S	17	ALA	3.6
63	DE	13	SER	3.6
66	W	75	SER	3.6
67	DI	18	SER	3.6
69	Z	28	ALA	3.6
79	i	46	ALA	3.6
1	AS	1523	C	3.6
20	BM	71	ARG	3.6
45	CM	1680	A	3.6
52	I	88	ARG	3.6
52	I	193	LYS	3.6
63	DE	11	ARG	3.6
76	g	33	ARG	3.6
4	AW	2	GLY	3.6
27	BT	20	PHE	3.6
28	BU	131	PHE	3.6

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Mol	Chain	Res	Type	RSRZ
36	CC	7	PHE	3.6
37	CD	9	GLY	3.6
47	CO	38	PHE	3.6
45	CM	717	G	3.6
46	CN	158	VAL	3.6
50	G	129	VAL	3.6
51	CS	155	VAL	3.6
56	CX	65	TYR	3.6
58	O	86	ILE	3.6
60	DB	34	ILE	3.6
61	DC	57	ILE	3.6
63	T	41	ILE	3.6
64	DF	67	GLU	3.6
68	DJ	110	ILE	3.6
77	h	133	ILE	3.6
64	DF	4	VAL	3.6
46	CN	76	CYS	3.6
49	CQ	165	THR	3.6
1	1	732	U	3.6
28	BU	87	LEU	3.6
52	I	77	LEU	3.6
55	L	18	PRO	3.6
62	DD	50	PRO	3.6
5	k	377[A]	HIS	3.6
35	AH	34	HIS	3.6
10	BC	155	ALA	3.6
19	BL	37	ALA	3.6
35	AH	50	ALA	3.6
35	CB	52	ALA	3.6
37	CD	63	ALA	3.6
46	C	131	GLN	3.6
62	DD	79	ALA	3.6
16	v	193	LYS	3.6
27	9	125	LYS	3.6
62	DD	126	LYS	3.6
13	BF	143	ARG	3.6
28	BU	65	ARG	3.6
59	P	106	ARG	3.6
23	5	74	PHE	3.6
29	BV	68	PHE	3.6
53	J	165	PHE	3.6
29	BV	108	GLY	3.6

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Mol	Chain	Res	Type	RSRZ
45	CM	1687	C	3.6
1	1	733	A	3.6
5	AX	262	TRP	3.6
16	BI	151	ILE	3.6
41	AN	19	ILE	3.6
45	B	719	A	3.6
45	B	1357	A	3.6
14	BG	124	VAL	3.6
23	BP	17	VAL	3.6
60	Q	68	GLU	3.6
62	DD	117	VAL	3.6
65	DG	34	VAL	3.6
51	CS	104	ASN	3.6
8	n	33	LEU	3.6
13	BF	131	MET	3.6
20	BM	102	LEU	3.6
26	BS	82	LEU	3.6
37	CD	56	LEU	3.6
65	DG	132	LEU	3.6
1	AS	442	G	3.6
26	BS	60	HIS	3.6
45	B	75	U	3.6
5	AX	45	ALA	3.6
12	BE	113	GLN	3.6
29	BV	96	ALA	3.6
62	S	19	ALA	3.6
62	DD	60	GLN	3.6
79	CL	63	ALA	3.6
16	BI	67	ARG	3.6
16	BI	21	PHE	3.6
25	BR	29	PHE	3.6
38	CE	35	SER	3.6
75	DQ	52	PHE	3.6
79	i	110	SER	3.6
16	BI	88	GLY	3.6
55	CW	117	GLY	3.6
63	T	2	GLY	3.6
18	BK	136	ILE	3.6
14	BG	135	VAL	3.6
16	BI	131	GLU	3.6
22	BO	86	GLU	3.6
64	DF	53	GLU	3.6

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Mol	Chain	Res	Type	RSRZ
65	DG	94	VAL	3.6
7	AZ	198	TYR	3.6
16	BI	81	TYR	3.6
22	2	90	ASN	3.6
48	CP	138	TYR	3.6
61	DC	82	ASN	3.6
66	DH	81	TYR	3.6
71	DM	101	TYR	3.6
6	AY	68	THR	3.6
14	BG	116	LEU	3.6
33	BZ	86	LEU	3.6
46	CN	177	LEU	3.6
55	L	36	LEU	3.6
63	T	34	LEU	3.6
63	T	73	LEU	3.6
66	DH	69	THR	3.6
8	BA	6	PRO	3.6
55	CW	18	PRO	3.6
27	BT	46	LYS	3.5
76	g	3	LYS	3.5
7	AZ	62	ALA	3.5
7	AZ	151	GLN	3.5
13	s	43	GLN	3.5
27	BT	15	ALA	3.5
28	BU	117	ALA	3.5
35	CB	50	ALA	3.5
53	CU	55	ALA	3.5
55	L	169	ALA	3.5
65	DG	58	ALA	3.5
1	AS	599	U	3.5
1	AS	1761	U	3.5
45	CM	1673	U	3.5
1	1	1014	G	3.5
54	CV	65	PHE	3.5
55	L	114	PHE	3.5
56	M	75	PHE	3.5
61	DC	119	PHE	3.5
75	f	14	PHE	3.5
22	BO	2	GLY	3.5
32	BY	35	ILE	3.5
47	CO	158	SER	3.5
53	CU	45	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
54	CV	68	GLY	3.5
54	CV	69	SER	3.5
65	DG	135	ILE	3.5
10	BC	203	GLU	3.5
22	2	93	VAL	3.5
32	BY	92	VAL	3.5
46	C	31	VAL	3.5
47	CO	20	VAL	3.5
52	CT	102	VAL	3.5
53	J	44	GLU	3.5
69	DK	53	VAL	3.5
54	CV	138	ASP	3.5
22	BO	151	LEU	3.5
26	8	24	LEU	3.5
79	i	103	LEU	3.5
79	i	155	LEU	3.5
12	BE	22	TYR	3.5
40	AM	37	TYR	3.5
55	L	164	TYR	3.5
55	CW	95	TYR	3.5
16	v	183	THR	3.5
27	BT	77	LYS	3.5
28	BU	73	LYS	3.5
36	CC	74	LYS	3.5
37	CD	36	THR	3.5
41	CH	7	LYS	3.5
44	CK	63	THR	3.5
65	DG	92	LYS	3.5
66	W	20	LYS	3.5
76	g	58	PRO	3.5
1	AS	1552	C	3.5
18	BK	133	HIS	3.5
45	CM	1411	A	3.5
18	x	125	GLN	3.5
20	BM	35	ALA	3.5
32	BY	39	ALA	3.5
62	DD	135	ALA	3.5
46	C	107	PHE	3.5
6	AY	355	GLY	3.5
33	AF	97	ILE	3.5
62	DD	28	ILE	3.5
67	X	51	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
6	AY	227	GLU	3.5
19	BL	30	VAL	3.5
33	BZ	77	VAL	3.5
40	CG	6	SER	3.5
46	C	123	VAL	3.5
46	CN	86	VAL	3.5
51	CS	71	SER	3.5
53	J	87	VAL	3.5
59	DA	66	VAL	3.5
63	T	76	GLU	3.5
1	AS	1729	G	3.5
45	B	1480	G	3.5
47	CO	54	LEU	3.5
49	F	22	LEU	3.5
78	AR	82	LEU	3.5
16	BI	200	TRP	3.5
19	y	159	LYS	3.5
36	CC	78	LYS	3.5
47	CO	152	LYS	3.5
50	G	133	LYS	3.5
66	DH	60	LYS	3.5
77	h	136	LYS	3.5
7	AZ	272	TYR	3.5
64	DF	79	TYR	3.5
7	AZ	93	THR	3.5
14	BG	66	ASN	3.5
26	BS	81	THR	3.5
47	CO	153	THR	3.5
68	Y	4	THR	3.5
79	CL	79	THR	3.5
49	F	172	ALA	3.5
61	DC	4	ALA	3.5
78	AR	252	ALA	3.5
52	I	210	GLN	3.5
1	1	1021	A	3.5
1	AS	402	A	3.5
3	4	91	C	3.5
45	B	721	C	3.5
23	BP	15	PHE	3.5
61	DC	121	ILE	3.5
65	V	36	ILE	3.5
79	i	69	PHE	3.5

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Mol	Chain	Res	Type	RSRZ
35	CB	78	GLY	3.5
38	AK	60	GLY	3.5
45	B	278	U	3.5
65	DG	112	GLY	3.5
5	AX	158	VAL	3.5
36	CC	57	VAL	3.5
39	CF	55	VAL	3.5
58	O	116	VAL	3.5
27	BT	127	GLU	3.5
59	P	83	GLU	3.5
21	BN	120	SER	3.5
32	BY	72	LEU	3.5
47	CO	135	LEU	3.5
65	DG	28	LEU	3.5
73	DO	21	LEU	3.5
4	AW	46	LYS	3.5
6	AY	105	LYS	3.5
13	s	153	LYS	3.5
39	CF	21	LYS	3.5
65	DG	38	LYS	3.5
10	BC	73	PRO	3.5
50	G	240	PRO	3.5
79	i	57	PRO	3.5
59	P	89	TYR	3.5
64	DF	120	ARG	3.5
31	AD	81	THR	3.5
51	H	154	THR	3.5
45	CM	1352	G	3.5
53	CU	143	ASN	3.5
78	AR	303	THR	3.5
13	s	76	ALA	3.5
20	z	154	ALA	3.5
49	CQ	154	ALA	3.5
49	CQ	206	ALA	3.5
4	AW	49	ILE	3.5
7	m	55	PHE	3.5
7	AZ	290	ILE	3.5
10	BC	50	PHE	3.5
16	BI	36	ILE	3.5
28	BU	130	PHE	3.5
30	AC	21	ILE	3.5
47	CO	150	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
51	CS	113	ILE	3.5
52	CT	113	ILE	3.5
55	CW	45	ILE	3.5
62	S	42	ILE	3.5
66	DH	64	ILE	3.5
71	DM	100	ILE	3.5
72	DN	79	ILE	3.5
74	DP	13	ILE	3.5
1	AS	2078	A	3.5
45	B	169	A	3.5
45	CM	988	A	3.5
47	D	233	GLY	3.5
52	CT	66	GLY	3.5
7	AZ	125	VAL	3.5
29	BV	101	VAL	3.5
29	BV	141	VAL	3.5
61	R	126	VAL	3.5
7	m	131	LEU	3.5
10	BC	70	LEU	3.5
22	BO	32	LYS	3.5
23	BP	82	LEU	3.5
30	AC	32	LEU	3.5
33	AF	86	LEU	3.5
39	CF	14	LEU	3.5
50	CR	20	LEU	3.5
55	CW	59	LEU	3.5
62	S	37	LEU	3.5
62	S	115	LEU	3.5
63	T	72	LYS	3.5
66	W	63	LYS	3.5
27	BT	94	SER	3.5
49	CQ	226	SER	3.5
53	CU	2	SER	3.5
79	CL	84	SER	3.5
5	k	4	ARG	3.5
16	BI	6	TYR	3.5
40	CG	47	THR	3.5
49	CQ	175	HIS	3.5
51	CS	94	THR	3.5
61	DC	74	ALA	3.5
63	T	56	HIS	3.5
78	AR	247	TYR	3.5

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Mol	Chain	Res	Type	RSRZ
9	BB	71	ASN	3.5
37	CD	2	ALA	3.5
46	C	99	ALA	3.5
46	CN	65	ALA	3.5
53	J	53	ALA	3.5
63	DE	51	ALA	3.5
68	DJ	92	ASN	3.5
41	AN	2	ILE	3.4
58	O	71	ILE	3.4
60	DB	110	ILE	3.4
45	CM	976	G	3.4
18	BK	134	GLY	3.4
10	BC	63	LYS	3.4
11	BD	57	VAL	3.4
13	BF	4	LYS	3.4
13	BF	18	VAL	3.4
14	t	64	LYS	3.4
16	BI	60	VAL	3.4
19	BL	161	LYS	3.4
27	9	45	VAL	3.4
27	9	82	VAL	3.4
39	CF	12	VAL	3.4
60	DB	125	GLY	3.4
62	DD	130	GLY	3.4
76	DR	56	MET	3.4
77	h	144	VAL	3.4
41	CH	27	LEU	3.4
50	CR	44	LEU	3.4
52	I	75	LEU	3.4
53	J	150	LEU	3.4
45	CM	1410	A	3.4
3	4	21	C	3.4
45	B	318	U	3.4
40	CG	42	ARG	3.4
79	CL	90	ARG	3.4
10	BC	168	PRO	3.4
49	F	161	SER	3.4
52	I	86	PRO	3.4
12	BE	216	TYR	3.4
30	BW	51	ALA	3.4
36	AI	93	THR	3.4
39	CF	29	ALA	3.4

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Mol	Chain	Res	Type	RSRZ
52	CT	138	ALA	3.4
73	d	53	ALA	3.4
78	AR	117	ALA	3.4
79	i	62	ALA	3.4
19	y	73	GLN	3.4
35	CB	61	GLN	3.4
79	i	66	ASN	3.4
10	BC	144	ILE	3.4
28	AA	25	ILE	3.4
58	O	24	ILE	3.4
13	s	104	PHE	3.4
32	BY	24	PHE	3.4
51	CS	82	PHE	3.4
53	J	21	PHE	3.4
7	AZ	58	LYS	3.4
10	BC	112	LYS	3.4
12	r	169	LYS	3.4
18	BK	38	GLY	3.4
38	CE	43	LYS	3.4
43	CJ	39	GLY	3.4
65	DG	84	LYS	3.4
70	DL	99	LYS	3.4
36	AI	41	LEU	3.4
37	CD	86	VAL	3.4
48	CP	143	LEU	3.4
58	O	123	VAL	3.4
61	DC	56	LEU	3.4
70	DL	35	VAL	3.4
73	d	21	LEU	3.4
1	1	2455	G	3.4
16	BI	114	ARG	3.4
36	CC	114	ARG	3.4
41	CH	37	ARG	3.4
45	CM	701	G	3.4
45	CM	1682	G	3.4
10	BC	100	PRO	3.4
5	AX	2	SER	3.4
16	BI	138	SER	3.4
24	6	7	SER	3.4
16	BI	79	ALA	3.4
5	AX	103	THR	3.4
48	E	85	THR	3.4

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Mol	Chain	Res	Type	RSRZ
55	L	157	ASP	3.4
7	AZ	207	TYR	3.4
10	BC	135	TYR	3.4
16	BI	202	TYR	3.4
66	W	65	THR	3.4
48	E	82	GLN	3.4
55	L	134	ILE	3.4
70	a	25	ILE	3.4
17	w	49	PHE	3.4
19	y	35	PHE	3.4
19	BL	168	LYS	3.4
22	BO	3	LYS	3.4
42	CI	8	LYS	3.4
48	CP	219	PHE	3.4
49	F	188	LYS	3.4
49	F	198	PHE	3.4
55	L	68	LYS	3.4
55	CW	104	PHE	3.4
65	DG	119	LYS	3.4
71	b	97	LYS	3.4
77	h	124	LYS	3.4
14	BG	22	VAL	3.4
25	BR	62	GLY	3.4
31	AD	18	LEU	3.4
31	BX	53	LEU	3.4
36	CC	4	VAL	3.4
38	CE	29	VAL	3.4
46	CN	172	LEU	3.4
47	CO	137	VAL	3.4
50	CR	131	LEU	3.4
53	CU	6	LEU	3.4
55	CW	96	VAL	3.4
64	U	4	VAL	3.4
61	DC	106	GLU	3.4
50	G	11	ARG	3.4
50	G	257	ARG	3.4
6	l	5	PRO	3.4
66	DH	54	PRO	3.4
45	B	1348	U	3.4
6	l	86	SER	3.4
22	2	70	SER	3.4
1	1	2426	G	3.4

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Mol	Chain	Res	Type	RSRZ
8	BA	5	ALA	3.4
26	BS	122	ALA	3.4
36	CC	97	ALA	3.4
58	O	48	ALA	3.4
66	DH	75	SER	3.4
78	AR	65	HIS	3.4
5	k	139	THR	3.4
33	AF	109	ILE	3.4
58	CZ	86	ILE	3.4
62	S	119	ASP	3.4
70	a	7	ILE	3.4
10	BC	62	GLN	3.4
21	0	7	TYR	3.4
37	CD	34	GLN	3.4
40	AM	40	LYS	3.4
45	CM	706	C	3.4
48	E	76	MET	3.4
48	E	84	GLN	3.4
50	G	27	TYR	3.4
64	U	56	LYS	3.4
75	DQ	54	LYS	3.4
65	DG	14	PHE	3.4
51	H	104	ASN	3.4
23	5	68	VAL	3.4
36	CC	55	LEU	3.4
43	CJ	35	LEU	3.4
50	CR	107	GLY	3.4
52	CT	97	VAL	3.4
63	DE	46	LEU	3.4
65	V	140	LEU	3.4
27	BT	124	GLY	3.4
13	s	51	ARG	3.4
64	DF	123	ARG	3.4
47	D	206	PRO	3.4
55	L	5	PRO	3.4
57	CY	95	PRO	3.4
7	m	291	ALA	3.4
20	BM	87	ALA	3.4
51	CS	191	ALA	3.4
75	DQ	3	HIS	3.4
1	1	1013	U	3.4
4	AW	10	LYS	3.4

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Mol	Chain	Res	Type	RSRZ
5	k	24	LYS	3.4
13	BF	41	SER	3.4
26	BS	25	LYS	3.4
31	AD	93	SER	3.4
51	H	64	ILE	3.4
53	J	131	ILE	3.4
58	CZ	71	ILE	3.4
79	CL	96	LYS	3.4
6	AY	91	PHE	3.4
16	BI	57	GLN	3.4
18	x	165	GLN	3.4
41	AN	42	THR	3.4
46	CN	174	TRP	3.4
50	CR	166	THR	3.4
53	CU	156	THR	3.4
77	h	167	THR	3.4
79	i	107	TRP	3.4
23	BP	74	PHE	3.4
79	CL	77	GLN	3.4
1	1	1266	A	3.4
40	CG	37	TYR	3.4
51	CS	61	TYR	3.4
51	CS	77	TYR	3.4
57	CY	53	TYR	3.4
65	DG	80	TYR	3.4
10	BC	215	LEU	3.3
20	z	106	LEU	3.3
28	BU	134	LEU	3.3
29	BV	105	LEU	3.3
31	BX	95	LEU	3.3
37	CD	76	LEU	3.3
51	CS	97	LEU	3.3
59	P	16	LEU	3.3
1	1	2428	G	3.3
4	AW	194	ASN	3.3
11	BD	27	VAL	3.3
15	u	13	VAL	3.3
18	BK	137	ASN	3.3
40	AM	38	ASN	3.3
46	CN	58	VAL	3.3
48	CP	81	VAL	3.3
63	DE	9	VAL	3.3

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Mol	Chain	Res	Type	RSRZ
22	BO	81	GLY	3.3
51	CS	75	GLY	3.3
54	CV	183	GLY	3.3
58	CZ	127	GLY	3.3
74	DP	17	GLY	3.3
16	BI	201	ARG	3.3
20	BM	97	ARG	3.3
26	BS	27	ARG	3.3
39	AL	3	ARG	3.3
69	DK	20	ARG	3.3
16	BI	42	PRO	3.3
48	CP	166	PRO	3.3
4	AW	209	HIS	3.3
13	BF	136	ALA	3.3
14	BG	104	LYS	3.3
16	BI	83	LYS	3.3
18	BK	124	LYS	3.3
22	2	3	LYS	3.3
35	AH	63	ALA	3.3
38	CE	65	ALA	3.3
46	CN	97	ALA	3.3
77	h	143	ALA	3.3
79	i	44	ALA	3.3
79	i	54	LYS	3.3
79	i	86	LYS	3.3
66	DH	40	ILE	3.3
1	1	2475	U	3.3
1	1	3163	U	3.3
4	j	16	PHE	3.3
9	o	188	THR	3.3
22	BO	11	THR	3.3
35	CB	33	GLN	3.3
38	CE	87	THR	3.3
39	CF	11	PHE	3.3
45	B	1359	U	3.3
52	CT	185	GLN	3.3
62	DD	5	SER	3.3
4	AW	179	LEU	3.3
8	BA	42	LEU	3.3
16	BI	164	LEU	3.3
46	CN	24	LEU	3.3
47	CO	61	LEU	3.3

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Mol	Chain	Res	Type	RSRZ
50	CR	23	LEU	3.3
13	s	18	VAL	3.3
34	CA	52	VAL	3.3
55	CW	164	TYR	3.3
66	W	55	VAL	3.3
70	a	135	ASP	3.3
76	DR	47	VAL	3.3
16	BI	90	ASN	3.3
26	BS	48	ARG	3.3
39	CF	3	ARG	3.3
51	H	83	ARG	3.3
52	CT	33	GLY	3.3
65	V	123	ARG	3.3
65	DG	57	ARG	3.3
66	DH	84	ARG	3.3
69	Z	23	ARG	3.3
76	DR	33	ARG	3.3
79	i	68	ASN	3.3
79	CL	60	ASN	3.3
3	AU	118	C	3.3
35	CB	26	PRO	3.3
52	CT	86	PRO	3.3
14	BG	64	LYS	3.3
29	AB	111	LYS	3.3
50	CR	246	LYS	3.3
60	DB	124	LYS	3.3
74	DP	14	LYS	3.3
7	AZ	3	MET	3.3
13	s	34	ALA	3.3
26	BS	93	HIS	3.3
39	CF	23	ALA	3.3
47	CO	193	ILE	3.3
51	CS	149	ILE	3.3
53	J	65	ALA	3.3
57	N	2	ALA	3.3
62	S	73	HIS	3.3
67	DI	1	MET	3.3
72	DN	74	CYS	3.3
10	BC	170	LEU	3.3
17	BJ	123	GLN	3.3
19	BL	93	LEU	3.3
26	BS	30	THR	3.3

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Mol	Chain	Res	Type	RSRZ
27	BT	86	GLN	3.3
31	BX	50	THR	3.3
38	CE	30	GLN	3.3
38	CE	78	PHE	3.3
39	CF	78	LEU	3.3
46	CN	87	LEU	3.3
53	CU	30	LEU	3.3
65	DG	108	LEU	3.3
1	1	601	U	3.3
1	AS	1816	U	3.3
12	r	197	VAL	3.3
16	BI	150	TRP	3.3
45	B	1341	U	3.3
47	CO	119	SER	3.3
62	DD	36	THR	3.3
21	BN	28	ARG	3.3
22	BO	33	VAL	3.3
55	CW	120	ARG	3.3
56	M	22	VAL	3.3
78	AR	19	TRP	3.3
35	CB	41	ARG	3.3
42	CI	12	ARG	3.3
75	f	12	ARG	3.3
14	BG	98	ASP	3.3
48	E	170	GLY	3.3
78	AR	98	GLY	3.3
79	i	70	ASN	3.3
18	BK	42	GLU	3.3
1	AS	2186	A	3.3
45	CM	216	A	3.3
45	CM	1688	A	3.3
26	BS	96	LYS	3.3
53	CU	101	LYS	3.3
53	CU	182	PRO	3.3
59	DA	112	LYS	3.3
72	c	4	LYS	3.3
79	CL	43	PRO	3.3
8	n	130	ILE	3.3
11	q	4	ILE	3.3
11	BD	104	ILE	3.3
50	G	19	MET	3.3
61	R	54	MET	3.3

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Mol	Chain	Res	Type	RSRZ
16	v	185	ALA	3.3
28	BU	29	HIS	3.3
34	CA	2	ALA	3.3
53	CU	90	ALA	3.3
62	DD	109	ALA	3.3
74	DP	53	ILE	3.3
78	AR	259	ILE	3.3
1	1	2396	G	3.3
45	CM	823	G	3.3
6	AY	290	LEU	3.3
16	BI	51	LEU	3.3
32	BY	50	LEU	3.3
49	F	70	LEU	3.3
52	I	212	LEU	3.3
62	DD	53	LEU	3.3
78	AR	201	LEU	3.3
5	AX	159	ARG	3.3
18	BK	140	GLN	3.3
23	5	67	VAL	3.3
28	BU	43	VAL	3.3
29	BV	104	THR	3.3
32	BY	46	THR	3.3
35	CB	5	VAL	3.3
35	CB	56	THR	3.3
37	CD	28	ARG	3.3
40	CG	46	ARG	3.3
72	c	99	GLN	3.3
46	C	143	VAL	3.3
51	H	94	THR	3.3
51	CS	147	THR	3.3
62	S	54	VAL	3.3
70	a	27	VAL	3.3
4	AW	13	GLY	3.3
12	r	194	GLY	3.3
60	DB	120	SER	3.3
70	a	65	GLY	3.3
10	BC	178	TYR	3.3
23	BP	33	TYR	3.3
46	C	155	TYR	3.3
44	CK	56	ASN	3.3
51	CS	76	LYS	3.3
61	DC	73	PRO	3.3

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Mol	Chain	Res	Type	RSRZ
73	d	10	PRO	3.3
7	AZ	61	ILE	3.3
18	x	36	ILE	3.3
71	DM	41	ILE	3.3
9	o	69	ALA	3.3
12	r	2	ALA	3.3
14	BG	29	ALA	3.3
20	BM	178	ALA	3.3
50	G	94	ALA	3.3
51	H	78	ALA	3.3
54	CV	116	HIS	3.3
62	DD	20	HIS	3.3
70	a	54	ALA	3.3
73	DO	53	ALA	3.3
77	h	137	HIS	3.3
27	BT	111	LEU	3.3
46	CN	176	LEU	3.3
58	O	74	LEU	3.3
73	d	24	LEU	3.3
1	1	3051	C	3.3
7	AZ	293	PHE	3.3
19	y	155	PHE	3.3
49	CQ	25	PHE	3.3
62	S	59	PHE	3.3
7	m	8	ARG	3.3
14	BG	91	ARG	3.3
55	L	3	ARG	3.3
69	Z	32	ARG	3.3
5	AX	72	VAL	3.3
6	AY	78	VAL	3.3
40	AM	25	GLN	3.3
46	CN	143	VAL	3.3
47	CO	192	VAL	3.3
50	G	45	VAL	3.3
51	CS	51	VAL	3.3
53	CU	86	VAL	3.3
65	DG	71	VAL	3.3
73	DO	46	VAL	3.3
7	AZ	76	THR	3.3
48	CP	157	CYS	3.3
4	AW	81	GLY	3.3
5	k	15	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
19	y	160	GLY	3.3
48	CP	139	TRP	3.3
48	CP	140	GLY	3.3
51	CS	105	GLY	3.3
58	O	126	TRP	3.3
47	CO	186	SER	3.3
51	H	140	SER	3.3
79	CL	110	SER	3.3
26	BS	103	TYR	3.2
39	CF	52	TYR	3.2
1	1	1024	U	3.2
1	AS	1625	U	3.2
14	BG	42	LYS	3.2
46	CN	110	TYR	3.2
49	F	94	GLU	3.2
50	CR	6	LYS	3.2
55	CW	68	LYS	3.2
62	DD	12	LYS	3.2
78	AR	261	LYS	3.2
79	i	112	LYS	3.2
31	AD	11	ASN	3.2
72	DN	8	ASN	3.2
14	BG	46	ILE	3.2
37	CD	93	ILE	3.2
54	K	43	ILE	3.2
62	DD	107	ILE	3.2
5	k	219	ALA	3.2
27	BT	18	ALA	3.2
36	AI	120	ALA	3.2
53	CU	102	ALA	3.2
54	K	57	ALA	3.2
63	DE	56	HIS	3.2
70	a	88	ALA	3.2
10	BC	83	LEU	3.2
18	BK	112	LEU	3.2
27	BT	48	LEU	3.2
47	D	188	LEU	3.2
55	L	86	LEU	3.2
70	a	44	LEU	3.2
78	AR	180	LEU	3.2
7	m	293	PHE	3.2
32	BY	18	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
36	CC	48	ARG	3.2
61	DC	127	ARG	3.2
63	DE	47	ARG	3.2
6	AY	88	GLN	3.2
7	m	52	VAL	3.2
10	BC	181	VAL	3.2
14	t	19	GLN	3.2
44	CK	16	VAL	3.2
78	AR	122	GLN	3.2
1	AS	1527	C	3.2
1	AS	1569	C	3.2
16	BI	78	GLY	3.2
39	AL	76	THR	3.2
48	CP	154	THR	3.2
63	T	8	THR	3.2
5	k	167	LYS	3.2
6	AY	45	LYS	3.2
16	v	140	LYS	3.2
16	BI	33	LYS	3.2
35	CB	29	LYS	3.2
55	L	138	LYS	3.2
55	CW	92	LYS	3.2
64	U	47	CYS	3.2
14	BG	4	SER	3.2
20	z	152	GLU	3.2
26	BS	109	TYR	3.2
28	BU	105	SER	3.2
35	CB	40	SER	3.2
48	CP	217	TYR	3.2
59	DA	7	SER	3.2
62	S	91	TYR	3.2
62	DD	140	SER	3.2
64	DF	142	SER	3.2
67	X	18	SER	3.2
29	BV	76	ASP	3.2
1	1	2459	G	3.2
1	AS	245	G	3.2
1	AS	805	G	3.2
14	BG	87	PRO	3.2
62	DD	125	PRO	3.2
73	DO	33	MET	3.2
78	AR	245	ASN	3.2

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Mol	Chain	Res	Type	RSRZ
4	AW	77	ILE	3.2
4	AW	157	ILE	3.2
31	BX	46	ILE	3.2
35	CB	20	ILE	3.2
35	CB	54	ILE	3.2
54	CV	38	ILE	3.2
56	M	86	ILE	3.2
65	DG	36	ILE	3.2
71	DM	89	ILE	3.2
73	DO	43	ILE	3.2
5	AX	162	ALA	3.2
7	AZ	249	ALA	3.2
10	BC	116	ALA	3.2
10	BC	143	LEU	3.2
36	AI	80	LEU	3.2
37	CD	68	ALA	3.2
46	C	87	LEU	3.2
49	CQ	177	LEU	3.2
61	R	49	LEU	3.2
70	a	28	LEU	3.2
78	AR	222	LEU	3.2
16	BI	147	ARG	3.2
19	BL	174	ARG	3.2
52	I	87	ARG	3.2
58	CZ	108	ARG	3.2
6	l	91	PHE	3.2
52	I	156	PHE	3.2
56	M	27	PHE	3.2
24	BQ	36	VAL	3.2
66	DH	61	VAL	3.2
43	CJ	56	GLN	3.2
62	DD	138	GLN	3.2
6	AY	351	LYS	3.2
35	CB	36	LYS	3.2
45	CM	215	A	3.2
4	AW	31	THR	3.2
7	m	153	THR	3.2
7	AZ	87	GLY	3.2
47	CO	143	THR	3.2
54	CV	154	GLY	3.2
59	P	109	LYS	3.2
67	DI	6	GLY	3.2

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Mol	Chain	Res	Type	RSRZ
74	DP	45	LYS	3.2
7	AZ	90	TYR	3.2
13	s	125	MET	3.2
16	v	62	TYR	3.2
23	BP	81	TYR	3.2
28	BU	18	TYR	3.2
37	CD	23	PRO	3.2
52	I	169	TYR	3.2
55	L	101	PRO	3.2
76	g	35	TYR	3.2
29	BV	102	ILE	3.2
49	F	209	ILE	3.2
50	G	249	ILE	3.2
60	DB	112	ASP	3.2
1	1	1551	U	3.2
1	AS	1797	U	3.2
64	DF	75	ASN	3.2
4	AW	59	ALA	3.2
27	BT	118	LEU	3.2
30	AC	54	LEU	3.2
6	AY	48	ARG	3.2
7	m	98	ALA	3.2
8	n	29	LEU	3.2
9	o	10	LEU	3.2
46	CN	184	LEU	3.2
47	CO	120	LEU	3.2
52	CT	172	ALA	3.2
55	L	135	ALA	3.2
61	R	116	LEU	3.2
33	BZ	27	HIS	3.2
68	DJ	118	ARG	3.2
76	g	42	ARG	3.2
1	1	1281	G	3.2
1	AS	32	G	3.2
45	CM	1581	G	3.2
4	AW	98	VAL	3.2
10	BC	141	VAL	3.2
35	AH	22	VAL	3.2
37	CD	92	VAL	3.2
65	DG	105	VAL	3.2
67	X	39	VAL	3.2
8	BA	139	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
14	BG	32	LYS	3.2
20	BM	21	LYS	3.2
26	BS	39	LYS	3.2
28	BU	27	LYS	3.2
29	BV	65	GLN	3.2
35	CB	64	GLN	3.2
50	G	260	GLN	3.2
63	T	42	GLN	3.2
61	R	129	GLY	3.2
62	DD	114	THR	3.2
1	AS	3050	A	3.2
5	AX	67	MET	3.2
10	BC	113	GLU	3.2
45	B	167	A	3.2
55	CW	64	GLU	3.2
10	BC	160	PRO	3.2
7	m	49	TYR	3.2
13	s	123	TYR	3.2
16	BI	133	ILE	3.2
28	BU	104	PRO	3.2
22	2	13	TYR	3.2
26	BS	141	TYR	3.2
27	BT	19	TYR	3.2
46	CN	98	ILE	3.2
49	CQ	169	ILE	3.2
51	CS	199	ILE	3.2
55	L	140	ILE	3.2
57	CY	52	SER	3.2
60	Q	120	SER	3.2
63	T	36	SER	3.2
18	x	52	LEU	3.2
19	BL	129	LEU	3.2
36	CC	31	LEU	3.2
1	AS	1013	U	3.2
10	BC	200	ALA	3.2
16	BI	110	ALA	3.2
26	BS	68	ALA	3.2
30	AC	2	ALA	3.2
36	CC	105	ARG	3.2
46	C	184	LEU	3.2
46	CN	182	LEU	3.2
47	CO	218	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
45	B	497	U	3.2
46	CN	14	ALA	3.2
49	F	77	ARG	3.2
52	I	211	LEU	3.2
55	L	93	LEU	3.2
55	CW	97	LEU	3.2
65	V	114	LEU	3.2
70	a	96	LEU	3.2
49	F	206	ALA	3.2
63	T	39	ALA	3.2
13	s	102	PHE	3.2
78	AR	62	PHE	3.2
78	AR	275	PHE	3.2
7	m	236	VAL	3.2
20	BM	52	LYS	3.2
28	AA	64	LYS	3.2
32	BY	48	VAL	3.2
50	G	111	VAL	3.2
51	CS	68	VAL	3.2
52	I	36	VAL	3.2
55	L	148	VAL	3.2
59	DA	150	VAL	3.2
1	1	3194	G	3.2
4	AW	201	GLY	3.2
7	AZ	170	GLY	3.2
36	CC	3	GLY	3.2
52	CT	11	GLY	3.2
6	AY	106	THR	3.2
7	m	118	THR	3.2
63	DE	6	THR	3.2
73	DO	45	THR	3.2
10	BC	101	GLU	3.2
21	BN	6	GLU	3.2
5	AX	181	ILE	3.2
6	AY	281	ILE	3.2
7	AZ	141	PRO	3.2
10	BC	128	PRO	3.2
22	BO	76	ILE	3.2
27	BT	49	PRO	3.2
28	BU	42	ILE	3.2
46	CN	104	PRO	3.2
59	P	38	ILE	3.2

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Mol	Chain	Res	Type	RSRZ
1	AS	2967	A	3.1
16	BI	148	TYR	3.1
17	BJ	100	LEU	3.1
21	BN	55	SER	3.1
26	BS	126	LEU	3.1
29	AB	5	LEU	3.1
29	BV	90	TYR	3.1
45	B	503	A	3.1
47	CO	225	LEU	3.1
50	G	44	LEU	3.1
50	G	149	TYR	3.1
50	CR	247	LEU	3.1
52	I	84	TYR	3.1
53	J	13	LEU	3.1
58	O	78	LEU	3.1
58	CZ	103	LEU	3.1
62	S	95	TYR	3.1
65	V	80	TYR	3.1
35	CB	10	ARG	3.1
68	DJ	126	LEU	3.1
69	DK	32	ARG	3.1
74	e	64	ARG	3.1
6	AY	115	ASN	3.1
12	BE	6	ALA	3.1
15	u	127	ALA	3.1
22	BO	100	ALA	3.1
58	O	101	ALA	3.1
58	CZ	48	ALA	3.1
67	X	26	ALA	3.1
79	i	47	ASP	3.1
20	z	114	LYS	3.1
50	G	10	LYS	3.1
51	H	84	LYS	3.1
1	1	449	U	3.1
1	1	1758	U	3.1
1	1	2474	C	3.1
1	1	3220	C	3.1
1	AS	1610	C	3.1
6	AY	350	VAL	3.1
8	BA	135	VAL	3.1
23	BP	27	VAL	3.1
38	CE	70	VAL	3.1

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Mol	Chain	Res	Type	RSRZ
61	DC	26	VAL	3.1
72	c	18	VAL	3.1
78	AR	6	VAL	3.1
35	AH	64	GLN	3.1
39	CF	40	GLN	3.1
20	BM	48	GLY	3.1
23	BP	76	GLY	3.1
50	G	144	GLY	3.1
77	h	174	MET	3.1
36	CC	85	THR	3.1
52	CT	71	THR	3.1
57	N	4	GLU	3.1
65	V	139	THR	3.1
7	AZ	60	ILE	3.1
10	BC	43	PRO	3.1
14	BG	50	PRO	3.1
19	BL	57	ILE	3.1
35	CB	89	ILE	3.1
60	DB	115	PRO	3.1
62	DD	40	PRO	3.1
1	AS	79	G	3.1
1	AS	238	G	3.1
10	BC	186	ARG	3.1
16	BI	73	ARG	3.1
40	CG	41	ARG	3.1
47	CO	110	LEU	3.1
53	J	168	LEU	3.1
53	CU	89	LEU	3.1
57	CY	5	LEU	3.1
61	DC	80	LEU	3.1
63	DE	5	ARG	3.1
71	DM	77	ARG	3.1
72	c	22	ARG	3.1
78	AR	262	LEU	3.1
59	DA	89	TYR	3.1
75	DQ	55	TYR	3.1
4	AW	156	LYS	3.1
6	AY	116	HIS	3.1
7	AZ	197	LYS	3.1
8	BA	147	SER	3.1
10	BC	253	ALA	3.1
15	BH	53	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
20	BM	85	LYS	3.1
28	BU	110	ALA	3.1
35	CB	47	CYS	3.1
43	AP	15	LYS	3.1
48	CP	95	ALA	3.1
52	CT	69	HIS	3.1
53	J	101	LYS	3.1
55	L	123	HIS	3.1
55	CW	16	LYS	3.1
61	DC	46	SER	3.1
69	DK	25	ALA	3.1
70	a	80	ALA	3.1
72	c	93	LYS	3.1
72	DN	35	ALA	3.1
75	DQ	28	SER	3.1
79	i	56	SER	3.1
4	AW	7	ASN	3.1
51	H	82	PHE	3.1
57	CY	60	PHE	3.1
61	R	45	PHE	3.1
79	CL	68	ASN	3.1
47	CO	134	VAL	3.1
68	Y	102	VAL	3.1
69	Z	124	VAL	3.1
1	AS	1612	U	3.1
1	AS	2252	U	3.1
45	B	175	U	3.1
45	B	699	U	3.1
45	B	1673	U	3.1
4	AW	47	GLN	3.1
7	AZ	32	GLN	3.1
41	AN	44	GLN	3.1
79	CL	109	GLN	3.1
1	AS	1828	C	3.1
24	BQ	134	GLY	3.1
45	B	182	C	3.1
54	K	180	GLY	3.1
61	DC	129	GLY	3.1
10	BC	65	ILE	3.1
25	7	90	ILE	3.1
34	CA	67	ILE	3.1
62	DD	16	THR	3.1

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Mol	Chain	Res	Type	RSRZ
64	DF	141	THR	3.1
71	b	41	ILE	3.1
78	AR	74	ILE	3.1
78	AR	99	GLU	3.1
7	m	141	PRO	3.1
24	6	84	PRO	3.1
66	DH	70	PRO	3.1
4	AW	64	ARG	3.1
13	s	17	LEU	3.1
35	CB	51	LEU	3.1
38	AK	8	LEU	3.1
40	AM	36	ARG	3.1
44	AQ	24	ARG	3.1
47	CO	115	ARG	3.1
47	CO	165	ARG	3.1
52	I	76	LEU	3.1
53	J	34	LEU	3.1
54	CV	121	LEU	3.1
63	DE	67	ARG	3.1
71	DM	51	LEU	3.1
74	e	65	ARG	3.1
75	DQ	30	LEU	3.1
77	h	180	ARG	3.1
14	t	187	LYS	3.1
16	BI	53	TYR	3.1
46	C	110	TYR	3.1
47	CO	139	ALA	3.1
65	DG	33	TYR	3.1
65	DG	107	ALA	3.1
76	g	61	ALA	3.1
16	v	139	HIS	3.1
52	I	81	HIS	3.1
19	BL	21	SER	3.1
22	BO	70	SER	3.1
8	BA	71	ASN	3.1
8	BA	96	ASP	3.1
9	o	189	VAL	3.1
10	BC	103	SER	3.1
52	CT	162	VAL	3.1
54	CV	21	PHE	3.1
59	DA	132	VAL	3.1
65	V	54	PHE	3.1

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Mol	Chain	Res	Type	RSRZ
45	B	724	G	3.1
45	B	972	G	3.1
72	DN	21	VAL	3.1
1	1	1023	A	3.1
1	1	3045	A	3.1
45	CM	1407	A	3.1
8	BA	3	GLN	3.1
65	V	129	GLN	3.1
38	CE	77	GLY	3.1
6	l	291	ILE	3.1
14	BG	125	ILE	3.1
46	C	160	ILE	3.1
51	CS	181	GLU	3.1
52	CT	91	GLU	3.1
1	1	2468	C	3.1
6	AY	228	THR	3.1
10	BC	190	LEU	3.1
11	BD	56	THR	3.1
16	BI	143	ARG	3.1
16	BI	179	LEU	3.1
18	x	128	ARG	3.1
28	BU	107	ARG	3.1
45	CM	1318	C	3.1
45	CM	1697	C	3.1
39	AL	78	LEU	3.1
44	AQ	29	LEU	3.1
48	E	56	LEU	3.1
51	H	125	THR	3.1
51	CS	154	THR	3.1
55	L	79	ARG	3.1
61	R	43	ARG	3.1
62	S	69	THR	3.1
63	DE	91	LEU	3.1
68	DJ	4	THR	3.1
10	BC	129	LYS	3.1
22	BO	69	LYS	3.1
27	BT	17	LYS	3.1
67	X	5	LYS	3.1
77	h	125	LYS	3.1
16	BI	141	ALA	3.1
35	CB	63	ALA	3.1
55	L	125	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
60	Q	96	ALA	3.1
63	T	12	ALA	3.1
16	BI	129	TYR	3.1
28	BU	40	HIS	3.1
28	BU	135	HIS	3.1
29	BV	48	TYR	3.1
38	CE	69	HIS	3.1
10	BC	158	VAL	3.1
22	BO	89	VAL	3.1
23	5	15	PHE	3.1
53	J	39	PHE	3.1
68	Y	130	TYR	3.1
23	BP	43	VAL	3.1
58	O	115	VAL	3.1
73	DO	62	VAL	3.1
78	AR	299	PHE	3.1
16	v	204	SER	3.1
6	AY	67	GLY	3.1
20	z	92	GLN	3.1
23	BP	70	GLY	3.1
29	AB	23	GLY	3.1
50	CR	135	GLY	3.1
51	CS	153	GLY	3.1
52	CT	55	GLY	3.1
52	CT	65	GLN	3.1
1	1	1022	A	3.1
1	AS	775	G	3.1
1	AS	2418	A	3.1
45	B	215	A	3.1
45	CM	1683	G	3.1
1	AS	441	U	3.1
14	t	51	ILE	3.1
27	BT	119	ILE	3.1
34	AG	30	ILE	3.1
47	CO	212	ILE	3.1
63	T	117	ILE	3.1
78	AR	287	ILE	3.1
6	AY	64	GLU	3.1
25	BR	105	ARG	3.1
43	AP	104	LEU	3.1
49	F	143	LEU	3.1
51	H	108	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
52	CT	35	GLU	3.1
61	R	127	ARG	3.1
63	T	47	ARG	3.1
7	AZ	139	PRO	3.1
7	AZ	194	LEU	3.1
10	BC	54	PRO	3.1
14	BG	61	PRO	3.1
14	BG	180	LYS	3.1
19	BL	166	LEU	3.1
18	BK	183	THR	3.1
25	BR	60	LYS	3.1
27	BT	116	LYS	3.1
47	CO	25	THR	3.1
51	CS	213	LYS	3.1
54	K	17	LYS	3.1
59	P	136	PRO	3.1
61	DC	36	LEU	3.1
64	DF	17	LEU	3.1
64	DF	82	PRO	3.1
66	DH	33	LEU	3.1
34	CA	72	THR	3.1
38	CE	5	THR	3.1
66	DH	68	LYS	3.1
66	DH	116	THR	3.1
77	h	185	LYS	3.1
1	AS	2079	C	3.1
1	AS	2545	C	3.1
3	AU	21	C	3.1
21	0	37	ALA	3.0
28	BU	124	ALA	3.0
45	B	274	C	3.1
45	CM	1467	C	3.1
54	K	157	ALA	3.0
60	Q	58	ALA	3.0
63	DE	39	ALA	3.0
16	v	89	VAL	3.0
47	CO	30	PHE	3.0
47	CO	65	VAL	3.0
47	CO	105	PHE	3.0
49	CQ	168	PHE	3.0
51	H	43	PHE	3.0
57	CY	20	PHE	3.0

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Mol	Chain	Res	Type	RSRZ
57	CY	139	VAL	3.0
62	DD	47	VAL	3.0
75	DQ	14	PHE	3.0
79	CL	69	PHE	3.0
26	BS	46	TYR	3.0
65	V	18	TYR	3.0
78	AR	55	TYR	3.0
10	BC	196	SER	3.0
16	v	195	ASN	3.0
19	BL	167	SER	3.0
22	2	45	ASN	3.0
65	V	8	ASP	3.0
58	O	120	CYS	3.0
6	l	191	GLY	3.0
23	5	45	GLY	3.0
43	AP	53	GLN	3.0
4	AW	5	ILE	3.0
15	u	121	ARG	3.0
28	BU	15	ARG	3.0
34	CA	49	ILE	3.0
50	G	51	ARG	3.0
58	O	46	ARG	3.0
65	DG	86	ARG	3.0
77	h	122	ARG	3.0
4	j	70[A]	LYS	3.0
4	j	190	LYS	3.0
6	l	361	LEU	3.0
10	BC	201	LEU	3.0
15	u	6	LYS	3.0
18	BK	95	LEU	3.0
19	y	52	LEU	3.0
19	BL	19	PRO	3.0
33	AF	96	GLU	3.0
39	AL	14	LEU	3.0
47	CO	167	LYS	3.0
52	CT	225	GLU	3.0
54	K	58	LEU	3.0
55	CW	72	GLU	3.0
64	DF	18	LEU	3.0
1	1	2436	A	3.0
45	CM	75	U	3.0
45	CM	1345	A	3.0

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Mol	Chain	Res	Type	RSRZ
14	BG	62	THR	3.0
61	DC	124	THR	3.0
1	1	1222	G	3.0
1	AS	226	G	3.0
45	CM	1186	G	3.0
14	BG	33	ALA	3.0
18	BK	12	ALA	3.0
18	BK	132	ALA	3.0
36	CC	104	ALA	3.0
46	C	132	ALA	3.0
65	DG	83	ALA	3.0
69	DK	28	ALA	3.0
12	r	147	VAL	3.0
21	BN	9	VAL	3.0
27	BT	58	VAL	3.0
50	G	109	PHE	3.0
51	CS	111	VAL	3.0
51	CS	114	VAL	3.0
60	Q	37	VAL	3.0
65	DG	6	VAL	3.0
74	DP	15	VAL	3.0
1	1	1552	C	3.0
1	AS	174	C	3.0
1	AS	1027	C	3.0
1	AS	1352	C	3.0
49	F	153	TYR	3.0
56	M	65	TYR	3.0
56	CX	63	TYR	3.0
6	AY	111	ASN	3.0
19	BL	13	SER	3.0
7	m	32	GLN	3.0
7	m	94	ASN	3.0
14	BG	52	ASP	3.0
20	z	122	ASN	3.0
38	CE	76	ASN	3.0
50	G	224	ASN	3.0
66	W	27	SER	3.0
4	AW	241	ARG	3.0
10	BC	36	GLY	3.0
15	BH	125	LYS	3.0
16	BI	27	CYS	3.0
17	BJ	89	ILE	3.0

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Mol	Chain	Res	Type	RSRZ
25	BR	117	LYS	3.0
26	BS	56	ARG	3.0
28	BU	46	ILE	3.0
32	BY	33	LYS	3.0
35	CB	37	LYS	3.0
35	CB	58	ARG	3.0
39	CF	24	ILE	3.0
48	E	157	CYS	3.0
50	CR	25	GLY	3.0
64	DF	89	GLN	3.0
41	AN	37	ARG	3.0
57	N	11	ARG	3.0
58	O	127	GLY	3.0
51	CS	109	LYS	3.0
59	P	112	LYS	3.0
59	DA	9	LYS	3.0
72	DN	19	LYS	3.0
79	CL	67	LYS	3.0
7	AZ	146	LEU	3.0
10	p	201	LEU	3.0
13	BF	84	LEU	3.0
29	BV	91	LEU	3.0
49	CQ	12	LEU	3.0
49	CQ	143	LEU	3.0
57	N	40	LEU	3.0
62	DD	116	LEU	3.0
59	DA	85	PRO	3.0
1	1	618	U	3.0
1	AS	146	U	3.0
3	AU	101	U	3.0
4	AW	17	THR	3.0
6	AY	61	THR	3.0
26	BS	41	THR	3.0
45	B	1399	U	3.0
45	CM	278	U	3.0
45	CM	1271	U	3.0
46	C	103	THR	3.0
63	DE	106	THR	3.0
35	AH	52	ALA	3.0
46	CN	61	ALA	3.0
48	CP	161	ALA	3.0
51	CS	173	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
52	CT	192	ALA	3.0
54	CV	128	ALA	3.0
59	DA	63	ALA	3.0
65	V	50	ALA	3.0
78	AR	209	ALA	3.0
6	AY	200	PHE	3.0
12	BE	115	MET	3.0
15	u	115	VAL	3.0
26	BS	64	VAL	3.0
29	BV	61	PHE	3.0
37	CD	89	MET	3.0
47	CO	205	PHE	3.0
48	E	81	VAL	3.0
49	F	187	VAL	3.0
53	CU	118	HIS	3.0
58	CZ	116	VAL	3.0
62	DD	68	VAL	3.0
62	DD	92	HIS	3.0
1	AS	808	G	3.0
2	AT	5	G	3.0
18	BK	39	TRP	3.0
26	8	123	TYR	3.0
46	CN	38	TYR	3.0
65	V	66	TYR	3.0
1	1	2448	C	3.0
4	AW	167	GLY	3.0
7	AZ	185	ILE	3.0
10	BC	34	ASN	3.0
16	BI	168	GLY	3.0
20	z	104	LYS	3.0
34	CA	92	LYS	3.0
35	AH	33	GLN	3.0
36	CC	44	ILE	3.0
51	H	89	ILE	3.0
52	I	74	ARG	3.0
52	I	164	LYS	3.0
52	I	196	LYS	3.0
53	CU	42	ILE	3.0
54	CV	104	ILE	3.0
62	S	131	ARG	3.0
65	DG	116	ILE	3.0
66	DH	21	ILE	3.0

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Mol	Chain	Res	Type	RSRZ
67	DI	4	ASP	3.0
69	Z	2	GLY	3.0
69	Z	30	LYS	3.0
39	AL	40	GLN	3.0
44	CK	59	SER	3.0
47	CO	73	LEU	3.0
47	CO	107	SER	3.0
58	O	125	ASN	3.0
58	O	134	ASN	3.0
10	BC	95	LEU	3.0
25	BR	109	LEU	3.0
56	M	46	LEU	3.0
58	CZ	32	LEU	3.0
64	U	66	LEU	3.0
64	DF	23	ASP	3.0
65	DG	133	ASP	3.0
8	n	108	GLU	3.0
29	AB	2	PRO	3.0
33	BZ	54	PRO	3.0
52	I	135	PRO	3.0
57	N	95	PRO	3.0
63	DE	22	PRO	3.0
66	W	108	GLU	3.0
66	DH	82	GLU	3.0
11	BD	70	THR	3.0
47	CO	46	THR	3.0
73	DO	23	THR	3.0
7	m	100	ALA	3.0
9	BB	214	ALA	3.0
32	AE	43	MET	3.0
45	B	502	U	3.0
65	V	62	ALA	3.0
6	l	114	VAL	3.0
10	BC	79	PHE	3.0
18	x	78	VAL	3.0
23	BP	67	VAL	3.0
24	6	36	VAL	3.0
35	AH	23	VAL	3.0
39	AL	43	PHE	3.0
48	CP	75	VAL	3.0
52	CT	22	HIS	3.0
52	CT	67	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
53	CU	88	PHE	3.0
54	K	65	PHE	3.0
65	DG	21	PHE	3.0
73	d	47	PHE	3.0
74	DP	41	VAL	3.0
45	B	367	A	3.0
16	v	176	LYS	3.0
32	BY	26	LYS	3.0
6	AY	221	ARG	3.0
18	x	166	ILE	3.0
19	BL	67	ILE	3.0
25	BR	56	ARG	3.0
37	CD	52	TYR	3.0
47	CO	214	LYS	3.0
53	J	160	TYR	3.0
70	DL	102	LYS	3.0
38	CE	73	ARG	3.0
51	CS	172	ILE	3.0
52	CT	101	ILE	3.0
58	O	43	ARG	3.0
58	CZ	89	ILE	3.0
62	DD	35	ILE	3.0
62	DD	64	ILE	3.0
62	DD	122	ARG	3.0
63	T	80	ARG	3.0
4	AW	237	LEU	3.0
5	AX	60	LEU	3.0
7	AZ	182	GLY	3.0
19	BL	26	LEU	3.0
27	BT	68	GLY	3.0
31	BX	43	LEU	3.0
50	G	203	GLY	3.0
50	CR	12	LEU	3.0
51	H	153	GLY	3.0
51	H	170	GLN	3.0
52	I	176	GLN	3.0
53	J	125	LEU	3.0
55	CW	36	LEU	3.0
60	DB	10	GLY	3.0
62	S	53	LEU	3.0
63	T	68	GLY	3.0
74	e	16	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
1	1	79	G	3.0
1	AS	119	G	3.0
45	CM	496	G	3.0
23	BP	94	ASP	3.0
28	AA	7	SER	3.0
31	BX	22	SER	3.0
55	CW	63	ASP	3.0
55	CW	66	ASP	3.0
59	DA	69	ASN	3.0
1	AS	242	C	3.0
29	BV	72	GLU	3.0
45	CM	1144	C	3.0
6	AY	172	ALA	3.0
60	DB	35	ALA	3.0
65	V	52	THR	3.0
5	AX	312	VAL	3.0
7	AZ	142	PHE	3.0
7	AZ	223	PHE	3.0
14	t	135	VAL	3.0
14	BG	58	VAL	3.0
17	w	109	VAL	3.0
22	2	80	VAL	3.0
22	BO	72	VAL	3.0
22	BO	126	VAL	3.0
23	BP	64	VAL	3.0
24	BQ	103	VAL	3.0
47	CO	223	PHE	3.0
51	H	155	VAL	3.0
52	I	145	PHE	3.0
53	CU	58	VAL	3.0
56	M	59	PHE	3.0
59	DA	113	PHE	3.0
61	DC	17	PHE	3.0
70	a	12	VAL	3.0
1	1	2450	U	3.0
14	BG	17	HIS	3.0
70	a	85	PHE	3.0
13	s	4	LYS	2.9
14	t	131	LYS	2.9
48	CP	94	LYS	2.9
7	m	21	ARG	2.9
10	BC	234	TRP	2.9

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Mol	Chain	Res	Type	RSRZ
20	BM	88	ARG	2.9
72	c	92	ARG	2.9
1	1	1283	A	2.9
1	1	1932	A	2.9
1	AS	1590	A	2.9
10	BC	76	ILE	2.9
25	BR	63	ILE	2.9
33	BZ	109	ILE	2.9
45	B	1407	A	2.9
45	CM	1681	A	2.9
68	Y	125	ILE	2.9
11	BD	10	LEU	2.9
18	BK	125	GLN	2.9
23	BP	72	GLY	2.9
31	AD	95	LEU	2.9
46	CN	155	TYR	2.9
27	BT	6	GLN	2.9
37	CD	64	GLY	2.9
38	CE	38	GLY	2.9
48	E	143	LEU	2.9
50	G	56	LEU	2.9
51	CS	25	LEU	2.9
53	J	30	LEU	2.9
64	DF	116	LEU	2.9
64	U	63	GLN	2.9
65	DG	42	GLY	2.9
65	DG	74	GLY	2.9
65	DG	81	GLY	2.9
66	W	72	GLY	2.9
76	DR	24	GLN	2.9
76	DR	32	GLY	2.9
27	9	96	PRO	2.9
35	CB	11	ASN	2.9
51	CS	169	ASN	2.9
52	CT	96	SER	2.9
55	L	33	GLU	2.9
55	CW	101	PRO	2.9
58	O	47	GLU	2.9
62	DD	119	ASP	2.9
63	DE	65	PRO	2.9
66	W	54	PRO	2.9
78	AR	58	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
8	BA	162	SER	2.9
17	BJ	25	SER	2.9
78	AR	163	SER	2.9
1	AS	949	G	2.9
45	B	1301	G	2.9
45	CM	1700	G	2.9
5	AX	23	ALA	2.9
19	BL	103	ALA	2.9
45	CM	498	C	2.9
49	CQ	172	ALA	2.9
53	CU	28	ALA	2.9
62	S	118	ALA	2.9
6	AY	226	VAL	2.9
8	BA	92	VAL	2.9
9	BB	75	VAL	2.9
22	BO	36	VAL	2.9
28	BU	26	VAL	2.9
46	CN	203	PHE	2.9
47	CO	127	VAL	2.9
51	H	123	VAL	2.9
51	CS	69	PHE	2.9
52	CT	168	THR	2.9
55	L	7	THR	2.9
62	DD	66	VAL	2.9
63	T	9	VAL	2.9
70	a	60	PHE	2.9
74	e	41	VAL	2.9
7	m	68	HIS	2.9
10	BC	44	LYS	2.9
13	s	142	LYS	2.9
36	CC	83	LYS	2.9
70	a	99	LYS	2.9
1	1	2068	U	2.9
1	AS	178	U	2.9
5	AX	10	ARG	2.9
13	BF	137	ARG	2.9
18	BK	56	ARG	2.9
19	BL	176	ARG	2.9
45	B	703	U	2.9
45	B	1356	U	2.9
45	CM	1399	U	2.9
49	F	28	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
52	CT	94	ARG	2.9
11	q	114	ILE	2.9
55	L	77	ILE	2.9
57	N	86	ILE	2.9
66	DH	117	ILE	2.9
78	AR	116	ILE	2.9
6	AY	237	LEU	2.9
12	r	36	LEU	2.9
20	BM	44	LEU	2.9
22	BO	91	LEU	2.9
34	CA	7	LEU	2.9
43	AP	35	LEU	2.9
49	F	47	LEU	2.9
58	CZ	45	LEU	2.9
63	T	46	LEU	2.9
63	T	91	LEU	2.9
71	DM	69	LEU	2.9
76	DR	38	LEU	2.9
79	CL	107	TRP	2.9
6	l	197	GLY	2.9
6	AY	225	GLY	2.9
22	BO	46	GLY	2.9
38	CE	39	TYR	2.9
40	CG	50	GLY	2.9
43	CJ	43	TYR	2.9
51	H	61	TYR	2.9
52	CT	34	GLN	2.9
69	Z	27	GLN	2.9
69	Z	29	TYR	2.9
6	AY	5	PRO	2.9
45	CM	739	A	2.9
51	CS	30	PRO	2.9
53	CU	10	PRO	2.9
72	DN	2	PRO	2.9
9	o	22	GLU	2.9
16	BI	104	GLU	2.9
71	DM	84	GLU	2.9
24	6	33	ASN	2.9
20	BM	13	SER	2.9
42	AO	3	ASP	2.9
52	I	6	SER	2.9
5	k	331	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
5	AX	51	ALA	2.9
6	AY	12	VAL	2.9
6	AY	29	ALA	2.9
19	BL	128	ALA	2.9
21	BN	72	VAL	2.9
59	P	133	ALA	2.9
63	T	104	ALA	2.9
68	DJ	102	VAL	2.9
73	d	54	VAL	2.9
79	CL	80	ALA	2.9
6	l	192	LYS	2.9
6	AY	349	LYS	2.9
7	AZ	294	LYS	2.9
8	BA	156	LYS	2.9
9	BB	188	THR	2.9
22	2	101	CYS	2.9
30	BW	25	LYS	2.9
34	AG	87	LYS	2.9
43	CJ	58	PHE	2.9
49	F	168	PHE	2.9
49	F	186	LYS	2.9
50	G	53	LYS	2.9
55	L	61	THR	2.9
73	DO	67	THR	2.9
76	DR	44	PHE	2.9
77	h	132	LYS	2.9
55	CW	160	HIS	2.9
1	AS	1798	C	2.9
1	AS	1842	C	2.9
1	AS	1862	C	2.9
3	AU	115	C	2.9
7	AZ	273	ARG	2.9
14	BG	36	ARG	2.9
20	z	71	ARG	2.9
20	BM	81	ARG	2.9
27	BT	28	ARG	2.9
29	BV	42	ARG	2.9
63	DE	45	ARG	2.9
72	DN	10	ARG	2.9
1	1	1277	G	2.9
1	1	2444	G	2.9
1	AS	1482	G	2.9

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Mol	Chain	Res	Type	RSRZ
1	AS	1524	G	2.9
3	AU	116	G	2.9
45	B	1339	G	2.9
45	B	1671	G	2.9
6	AY	271	ILE	2.9
23	BP	96	ILE	2.9
31	BX	12	ILE	2.9
39	CF	20	ILE	2.9
47	CO	189	ILE	2.9
49	CQ	85	ILE	2.9
53	J	45	ILE	2.9
62	S	107	ILE	2.9
70	a	47	ILE	2.9
78	AR	123	ILE	2.9
1	AS	3	U	2.9
17	BJ	53	LEU	2.9
32	AE	15	LEU	2.9
33	AF	76	LEU	2.9
36	AI	21	LEU	2.9
41	AN	9	LEU	2.9
45	CM	318	U	2.9
45	CM	1644	U	2.9
46	C	172	LEU	2.9
53	J	37	LEU	2.9
53	CU	34	LEU	2.9
56	M	15	LEU	2.9
57	N	140	LEU	2.9
62	DD	56	LEU	2.9
63	T	16	LEU	2.9
64	DF	101	LEU	2.9
65	DG	79	LEU	2.9
7	AZ	156	GLY	2.9
14	BG	84	GLY	2.9
37	CD	5	GLY	2.9
46	C	171	GLY	2.9
7	m	44	TYR	2.9
7	m	198	TYR	2.9
9	BB	131	TYR	2.9
18	BK	55	GLN	2.9
23	BP	78	TYR	2.9
37	CD	27	TYR	2.9
61	DC	123	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
68	DJ	46	TYR	2.9
71	DM	59	TYR	2.9
28	BU	37	PRO	2.9
61	R	73	PRO	2.9
68	Y	77	PRO	2.9
53	J	130	GLU	2.9
55	L	64	GLU	2.9
1	1	2078	A	2.9
1	AS	1554	A	2.9
16	v	181	ASN	2.9
45	B	126	A	2.9
55	L	38	ASN	2.9
6	AY	231	VAL	2.9
14	BG	129	LYS	2.9
14	BG	168	ALA	2.9
24	BQ	44	ALA	2.9
28	BU	98	SER	2.9
29	BV	125	VAL	2.9
32	BY	7	VAL	2.9
33	BZ	78	LYS	2.9
41	AN	10	ALA	2.9
43	AP	48	SER	2.9
43	CJ	100	LYS	2.9
49	CQ	210	ALA	2.9
53	J	62	SER	2.9
54	CV	204	ALA	2.9
59	DA	13	SER	2.9
59	DA	151	ALA	2.9
60	Q	101	ALA	2.9
69	Z	31	ALA	2.9
69	Z	46	SER	2.9
63	T	122	VAL	2.9
4	AW	76	PHE	2.9
28	AA	130	PHE	2.9
50	CR	47	PHE	2.9
55	L	146	PHE	2.9
56	CX	27	PHE	2.9
6	AY	198	ARG	2.9
11	q	168	ARG	2.9
17	BJ	79	ARG	2.9
18	x	173	ARG	2.9
25	BR	80	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
38	CE	72	ARG	2.9
38	CE	80	THR	2.9
53	CU	74	THR	2.9
54	K	203	THR	2.9
54	CV	152	ARG	2.9
55	CW	123	HIS	2.9
65	DG	39	THR	2.9
66	W	19	HIS	2.9
67	X	62	ARG	2.9
68	DJ	68	ARG	2.9
74	e	19	THR	2.9
77	h	161	ARG	2.9
78	AR	121	ARG	2.9
79	i	113	ARG	2.9
79	CL	81	THR	2.9
5	AX	183	ILE	2.9
6	AY	249	ILE	2.9
22	BO	160	ILE	2.9
34	AG	59	ILE	2.9
49	CQ	189	ILE	2.9
59	P	84	ILE	2.9
25	BR	89	LEU	2.9
50	CR	56	LEU	2.9
56	M	92	LEU	2.9
65	DG	76	LEU	2.9
66	W	33	LEU	2.9
28	BU	32	GLY	2.9
37	CD	77	GLY	2.9
45	B	670	C	2.9
45	B	827	C	2.9
45	CM	1412	C	2.9
45	B	500	U	2.9
45	B	797	U	2.9
45	B	1346	U	2.9
45	CM	697	U	2.9
45	CM	1675	U	2.9
1	AS	251	G	2.9
38	AK	86	GLN	2.9
59	DA	25	TRP	2.9
45	CM	1185	G	2.9
64	DF	136	GLN	2.9
7	AZ	47	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
14	t	89	TYR	2.9
16	BI	137	PRO	2.9
59	DA	141	TYR	2.9
10	p	55	GLU	2.9
14	t	134	GLU	2.9
59	DA	103	GLU	2.9
65	DG	126	GLU	2.9
22	BO	55	LYS	2.9
29	BV	47	LYS	2.9
50	CR	7	LYS	2.9
53	CU	107	LYS	2.9
60	DB	85	LYS	2.9
30	AC	11	ASN	2.9
78	AR	17	ASN	2.9
4	AW	229	ALA	2.9
6	AY	26	VAL	2.9
6	AY	50	ALA	2.9
7	AZ	204	VAL	2.9
14	t	97	VAL	2.9
15	BH	74	VAL	2.9
16	BI	136	ASP	2.9
18	BK	91	VAL	2.9
24	6	22	VAL	2.9
26	8	122	ALA	2.9
27	BT	83	ASP	2.9
40	CG	14	ALA	2.9
43	CJ	81	ALA	2.9
47	D	20	VAL	2.9
49	F	40	VAL	2.9
55	L	127	VAL	2.9
58	O	66	VAL	2.9
70	a	26	ASP	2.9
78	AR	111	VAL	2.9
16	BI	162	ARG	2.9
20	BM	69	SER	2.9
23	BP	98	PHE	2.9
22	2	12	ARG	2.9
24	BQ	112	SER	2.9
31	BX	93	SER	2.9
30	AC	7	HIS	2.9
35	AH	16	ARG	2.9
47	CO	64	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
53	CU	84	ARG	2.9
55	L	133	HIS	2.9
55	CW	6	ARG	2.9
57	CY	33	ARG	2.9
66	DH	27	SER	2.9
65	DG	93	HIS	2.9
75	DQ	40	ARG	2.9
76	g	54	ARG	2.9
6	AY	161	THR	2.9
11	BD	83	THR	2.9
18	BK	79	THR	2.9
41	AN	32	THR	2.9
68	Y	2	THR	2.9
7	m	61	ILE	2.9
13	s	114	ILE	2.9
16	BI	61	ILE	2.9
22	BO	101	CYS	2.9
27	9	85	LEU	2.9
39	CF	5	ILE	2.9
49	F	159	ILE	2.9
54	K	158	ILE	2.9
65	V	135	ILE	2.9
29	AB	57	GLY	2.8
63	T	114	GLY	2.8
69	DK	111	GLY	2.8
6	AY	202	GLN	2.8
26	BS	116	PRO	2.8
28	AA	104	PRO	2.8
38	CE	79	GLN	2.8
40	CG	26	TRP	2.8
55	CW	144	PRO	2.8
79	CL	87	PRO	2.8
1	AS	172	C	2.8
45	B	238	U	2.8
45	B	1047	U	2.8
45	CM	657	C	2.8
45	CM	1170	U	2.8
6	AY	51	TYR	2.8
7	m	48	LYS	2.8
10	p	129	LYS	2.8
12	r	196	TYR	2.8
31	BX	71	TYR	2.8

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Mol	Chain	Res	Type	RSRZ
41	CH	48	LYS	2.8
44	CK	30	GLU	2.8
53	J	180	GLU	2.8
54	CV	172	TYR	2.8
63	DE	7	LYS	2.8
73	d	15	GLU	2.8
1	AS	154	G	2.8
1	AS	169	G	2.8
1	AS	1483	G	2.8
4	j	168	VAL	2.8
10	BC	132	VAL	2.8
10	BC	140	VAL	2.8
18	BK	119	VAL	2.8
23	BP	41	VAL	2.8
27	BT	104	VAL	2.8
38	AK	82	VAL	2.8
45	B	669	G	2.8
45	B	1498	G	2.8
46	C	178	ALA	2.8
54	K	145	VAL	2.8
63	T	4	VAL	2.8
67	DI	39	VAL	2.8
12	BE	205	ASN	2.8
37	CD	55	ARG	2.8
55	L	54	ARG	2.8
55	L	158	PHE	2.8
65	V	85	ASN	2.8
7	AZ	59	ASP	2.8
5	AX	204	SER	2.8
16	BI	139	HIS	2.8
27	BT	24	SER	2.8
30	BW	62	SER	2.8
36	CC	40	SER	2.8
47	CO	112	SER	2.8
48	E	118	SER	2.8
58	CZ	49	SER	2.8
70	a	14	SER	2.8
78	AR	115	SER	2.8
78	AR	164	SER	2.8
79	CL	83	HIS	2.8
7	m	146	LEU	2.8
7	AZ	148	ILE	2.8

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Mol	Chain	Res	Type	RSRZ
8	BA	54	LEU	2.8
13	s	165	THR	2.8
13	BF	110	ILE	2.8
24	BQ	15	LEU	2.8
27	BT	106	ILE	2.8
34	AG	89	LEU	2.8
48	E	205	THR	2.8
49	CQ	183	LEU	2.8
51	H	31	LEU	2.8
53	CU	168	LEU	2.8
58	O	135	ILE	2.8
58	CZ	137	LEU	2.8
60	Q	21	THR	2.8
62	S	8	THR	2.8
64	DF	14	ILE	2.8
66	W	26	THR	2.8
68	Y	35	ILE	2.8
79	CL	165	LEU	2.8
5	k	330	GLY	2.8
26	BS	118	GLY	2.8
29	BV	116	GLY	2.8
33	BZ	117	GLY	2.8
34	AG	95	GLY	2.8
37	CD	30	GLY	2.8
47	CO	63	GLY	2.8
61	DC	95	GLY	2.8
72	c	44	MET	2.8
7	m	4	GLN	2.8
16	BI	95	GLN	2.8
18	BK	8	PRO	2.8
20	BM	54	PRO	2.8
53	CU	105	GLN	2.8
62	S	39	GLN	2.8
66	DH	109	PRO	2.8
68	DJ	29	PRO	2.8
72	c	97	PRO	2.8
73	DO	28	PRO	2.8
28	BU	34	LYS	2.8
28	BU	129	TRP	2.8
50	G	6	LYS	2.8
65	V	119	LYS	2.8
52	I	91	GLU	2.8

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Mol	Chain	Res	Type	RSRZ
53	CU	33	GLU	2.8
66	W	82	GLU	2.8
1	1	2968	U	2.8
1	AS	875	U	2.8
22	BO	156	TYR	2.8
27	BT	74	TYR	2.8
39	CF	50	TYR	2.8
47	CO	81	TYR	2.8
59	DA	128	TYR	2.8
62	S	141	TYR	2.8
1	1	2545	C	2.8
1	AS	224	C	2.8
1	AS	1192	C	2.8
5	k	10	ARG	2.8
6	l	26	VAL	2.8
11	BD	52	ALA	2.8
13	BF	76	ALA	2.8
14	BG	67	ARG	2.8
16	BI	99	ARG	2.8
18	BK	135	ARG	2.8
28	AA	96	VAL	2.8
28	BU	68	VAL	2.8
35	CB	65	VAL	2.8
36	CC	108	ARG	2.8
43	CJ	75	VAL	2.8
48	E	96	VAL	2.8
52	CT	195	VAL	2.8
53	J	92	ARG	2.8
53	CU	53	ALA	2.8
62	DD	77	VAL	2.8
63	T	119	VAL	2.8
64	DF	133	VAL	2.8
67	DI	47	ALA	2.8
29	AB	129	PHE	2.8
51	CS	184	PHE	2.8
4	AW	211	HIS	2.8
4	AW	216	HIS	2.8
7	AZ	29	ASP	2.8
10	p	125	ASP	2.8
17	BJ	73	HIS	2.8
51	H	44	ASN	2.8
10	BC	68	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
16	BI	98	LEU	2.8
23	BP	108	LEU	2.8
25	BR	90	ILE	2.8
27	BT	31	LEU	2.8
28	BU	12	ILE	2.8
36	CC	51	ILE	2.8
46	CN	173	ILE	2.8
49	F	67	ILE	2.8
51	CS	121	ILE	2.8
55	L	45	ILE	2.8
59	P	80	LEU	2.8
60	DB	28	LEU	2.8
61	DC	50	ASP	2.8
61	DC	60	LEU	2.8
62	DD	115	LEU	2.8
65	DG	35	ASP	2.8
67	X	34	ILE	2.8
78	AR	190	ILE	2.8
14	BG	96	SER	2.8
20	BM	137	SER	2.8
1	1	3088	G	2.8
1	1	3197	G	2.8
36	CC	6	THR	2.8
45	B	701	G	2.8
45	B	1349	G	2.8
45	CM	1349	G	2.8
47	CO	154	THR	2.8
48	E	193	THR	2.8
51	H	147	THR	2.8
52	I	170	THR	2.8
58	O	53	SER	2.8
58	CZ	53	SER	2.8
65	V	117	SER	2.8
66	DH	28	THR	2.8
6	AY	92	GLY	2.8
45	B	76	A	2.8
45	CM	708	A	2.8
47	CO	60	GLY	2.8
66	DH	72	GLY	2.8
33	BZ	81	LYS	2.8
46	C	76	CYS	2.8
59	DA	70	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
23	5	91	GLN	2.8
36	CC	99	GLN	2.8
40	CG	4	GLN	2.8
50	G	83	PRO	2.8
62	S	125	PRO	2.8
7	AZ	35	ARG	2.8
14	BG	65	TYR	2.8
1	1	2438	U	2.8
5	AX	192	VAL	2.8
18	x	88	VAL	2.8
22	BO	92	ARG	2.8
23	BP	38	VAL	2.8
26	BS	105	VAL	2.8
30	BW	27	TYR	2.8
31	BX	44	VAL	2.8
35	CB	13	TYR	2.8
36	AI	4	VAL	2.8
43	CJ	4	VAL	2.8
45	B	259	U	2.8
45	CM	778	U	2.8
45	CM	1615	U	2.8
45	CM	1698	U	2.8
47	CO	125	VAL	2.8
49	F	138	VAL	2.8
51	H	92	ARG	2.8
51	CS	148	ARG	2.8
52	CT	159	ARG	2.8
58	O	75	VAL	2.8
64	DF	46	VAL	2.8
66	DH	55	VAL	2.8
66	DH	111	VAL	2.8
68	DJ	52	TYR	2.8
71	b	40	VAL	2.8
74	e	67	ARG	2.8
6	l	211	ALA	2.8
20	z	127	ALA	2.8
38	CE	42	ALA	2.8
38	CE	85	ALA	2.8
47	D	24	PHE	2.8
47	CO	58	ALA	2.8
49	F	210	ALA	2.8
54	CV	27	PHE	2.8

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Mol	Chain	Res	Type	RSRZ
62	DD	108	PHE	2.8
70	a	4	ALA	2.8
72	DN	6	ALA	2.8
4	j	71	LEU	2.8
11	q	103	ILE	2.8
14	BG	123	LEU	2.8
18	BK	150	LEU	2.8
19	y	158	HIS	2.8
23	5	82	LEU	2.8
29	AB	118	LEU	2.8
29	BV	73	ILE	2.8
32	BY	15	LEU	2.8
36	CC	58	ILE	2.8
24	BQ	9	ASN	2.8
41	AN	45	LEU	2.8
46	C	50	ILE	2.8
46	C	111	ILE	2.8
46	CN	64	ILE	2.8
47	CO	96	LEU	2.8
48	E	51	ILE	2.8
49	F	5	ILE	2.8
51	CS	72	HIS	2.8
52	I	178	LEU	2.8
63	T	31	ASN	2.8
64	U	3	LEU	2.8
70	DL	17	LEU	2.8
71	b	89	ILE	2.8
71	b	100	ILE	2.8
72	c	17	HIS	2.8
55	L	142	ASN	2.8
74	DP	16	LEU	2.8
1	1	1276	C	2.8
4	AW	208	ASP	2.8
24	BQ	89	ASP	2.8
27	BT	112	ASP	2.8
42	CI	3	ASP	2.8
70	a	3	ASP	2.8
11	BD	80	THR	2.8
16	BI	171	SER	2.8
27	9	9	SER	2.8
40	CG	31	THR	2.8
43	CJ	7	THR	2.8

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Mol	Chain	Res	Type	RSRZ
56	M	90	THR	2.8
60	Q	6	SER	2.8
72	DN	76	SER	2.8
77	h	128	THR	2.8
78	AR	89	THR	2.8
7	AZ	48	LYS	2.8
16	BI	54	LYS	2.8
20	BM	146	LYS	2.8
35	AH	24	LYS	2.8
40	CG	18	LYS	2.8
51	H	45	LYS	2.8
55	L	10	LYS	2.8
61	DC	108	LYS	2.8
65	DG	27	LYS	2.8
76	g	55	LYS	2.8
79	CL	86	LYS	2.8
27	BT	123	GLY	2.8
35	CB	27	GLY	2.8
47	CO	233	GLY	2.8
49	CQ	134	GLY	2.8
51	CS	141	GLY	2.8
58	O	117	GLY	2.8
1	AS	171	G	2.8
1	AS	906	G	2.8
45	CM	1431	G	2.8
55	L	144	PRO	2.8
67	DI	14	PRO	2.8
10	BC	81	GLN	2.8
76	DR	31	GLN	2.8
1	1	2480	A	2.8
28	AA	47	GLU	2.8
45	B	1411	A	2.8
45	CM	658	A	2.8
7	m	95	TRP	2.8
16	v	150	TRP	2.8
38	CE	63	ARG	2.8
47	D	26	ARG	2.8
59	DA	106	ARG	2.8
68	DJ	3	ARG	2.8
11	q	82	VAL	2.8
11	q	132	VAL	2.8
11	BD	181	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
13	s	129	VAL	2.8
16	v	66	VAL	2.8
16	BI	135	VAL	2.8
28	AA	113	VAL	2.8
35	CB	85	VAL	2.8
37	CD	21	VAL	2.8
48	CP	160	VAL	2.8
55	L	172	VAL	2.8
58	O	30	VAL	2.8
62	DD	18	VAL	2.8
62	DD	54	VAL	2.8
68	Y	121	VAL	2.8
72	DN	39	VAL	2.8
78	AR	277	VAL	2.8
5	k	123	TYR	2.8
6	AY	52	ALA	2.8
6	AY	63	ALA	2.8
7	m	11	ALA	2.8
7	AZ	240	TYR	2.8
8	n	46	PHE	2.8
10	BC	104	ALA	2.8
18	BK	63	TYR	2.8
22	BO	152	ALA	2.8
25	BR	110	ALA	2.8
28	AA	92	PHE	2.8
38	CE	53	ALA	2.8
38	CE	74	PHE	2.8
47	CO	138	PHE	2.8
52	CT	169	TYR	2.8
55	CW	19	TYR	2.8
57	N	25	ALA	2.8
73	d	32	PHE	2.8
1	AS	1602	U	2.8
1	AS	3320	U	2.8
10	BC	27	LEU	2.8
12	r	99	ILE	2.8
13	s	112	LEU	2.8
13	BF	122	ILE	2.8
16	BI	197	LEU	2.8
21	BN	63	ILE	2.8
23	BP	46	ILE	2.8
26	BS	102	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
29	BV	124	ILE	2.8
33	BZ	97	ILE	2.8
43	CJ	57	ILE	2.8
50	G	52	LEU	2.8
58	CZ	28	LEU	2.8
58	CZ	135	ILE	2.8
64	U	72	ILE	2.8
71	DM	50	ILE	2.8
35	AH	69	HIS	2.8
64	DF	127	HIS	2.8
24	6	9	ASN	2.8
29	BV	74	ASN	2.8
78	AR	53	ASN	2.8
40	CG	32	ASP	2.8
5	AX	24	LYS	2.8
22	BO	97	LYS	2.8
60	DB	44	LYS	2.8
63	T	58	MET	2.8
78	AR	280	THR	2.8
1	1	1280	C	2.8
1	AS	1498	C	2.8
27	BT	13	SER	2.8
28	AA	105	SER	2.8
45	B	694	C	2.8
45	B	1207	C	2.8
45	B	1586	C	2.8
4	AW	99	GLY	2.8
63	DE	68	GLY	2.8
11	BD	13	PRO	2.8
13	BF	118	PRO	2.8
16	BI	11	GLN	2.7
59	DA	49	GLN	2.7
73	DO	26	GLN	2.7
73	DO	51	GLN	2.7
4	AW	247	ARG	2.7
33	BZ	106	ARG	2.7
54	CV	184	ARG	2.7
58	CZ	104	CYS	2.7
69	DK	92	CYS	2.7
23	5	65	VAL	2.7
28	AA	68	VAL	2.7
57	CY	94	VAL	2.7

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Mol	Chain	Res	Type	RSRZ
74	e	48	VAL	2.7
8	BA	160	ALA	2.7
19	BL	162	ALA	2.7
34	CA	83	ALA	2.7
1	1	2184	G	2.7
1	AS	220	A	2.7
1	AS	695	G	2.7
1	AS	904	G	2.7
1	AS	1415	A	2.7
1	AS	1478	A	2.7
45	B	723	G	2.7
45	B	847	A	2.7
45	B	1479	A	2.7
45	CM	718	A	2.7
46	C	203	PHE	2.7
49	F	26	PHE	2.7
53	J	88	PHE	2.7
62	DD	15	ALA	2.7
1	AS	2396	G	2.7
3	AU	148	G	2.7
7	m	79	TYR	2.7
10	BC	98	TYR	2.7
11	q	104	ILE	2.7
14	t	10	LEU	2.7
22	2	65	TYR	2.7
22	BO	25	ILE	2.7
23	BP	111	TYR	2.7
27	9	106	ILE	2.7
38	CE	18	LEU	2.7
46	CN	201	LEU	2.7
47	D	73	LEU	2.7
48	CP	220	LEU	2.7
49	F	121	TYR	2.7
49	F	171	ILE	2.7
49	F	177	LEU	2.7
50	G	169	ILE	2.7
50	CR	153	LEU	2.7
59	DA	53	ILE	2.7
78	AR	68	ILE	2.7
16	v	37	HIS	2.7
1	1	1760	U	2.7
1	AS	1591	U	2.7

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Mol	Chain	Res	Type	RSRZ
45	B	1243	U	2.7
45	B	1477	U	2.7
45	CM	221	U	2.7
45	CM	805	U	2.7
7	m	5	LYS	2.7
25	BR	2	LYS	2.7
27	BT	122	LYS	2.7
28	BU	61	LYS	2.7
46	CN	134	LYS	2.7
52	I	167	LYS	2.7
56	CX	25	LYS	2.7
78	AR	118	LYS	2.7
63	DE	48	ASN	2.7
11	BD	142	ASP	2.7
15	BH	4	THR	2.7
63	T	35	THR	2.7
66	W	112	ASP	2.7
5	AX	310	GLY	2.7
6	AY	86	SER	2.7
18	BK	115	SER	2.7
22	2	145	GLY	2.7
29	BV	110	GLY	2.7
44	AQ	12	GLY	2.7
50	G	34	GLY	2.7
65	DG	40	SER	2.7
66	W	53	GLY	2.7
12	r	214	PRO	2.7
55	CW	2	PRO	2.7
65	DG	10	PRO	2.7
72	DN	20	PRO	2.7
6	AY	77	ARG	2.7
14	BG	23	ARG	2.7
1	AS	199	C	2.7
1	AS	540	C	2.7
16	BI	123	GLN	2.7
18	x	50	GLN	2.7
18	BK	131	ARG	2.7
27	9	12	ARG	2.7
28	BU	17	ARG	2.7
32	BY	9	ARG	2.7
53	CU	92	ARG	2.7
45	B	25	C	2.7

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Mol	Chain	Res	Type	RSRZ
45	CM	674	C	2.7
45	CM	1451	C	2.7
59	DA	62	GLN	2.7
62	S	7	GLN	2.7
50	G	40	GLU	2.7
11	q	18	VAL	2.7
11	BD	18	VAL	2.7
16	BI	152	VAL	2.7
44	CK	31	VAL	2.7
48	E	160	VAL	2.7
48	CP	191	VAL	2.7
50	CR	45	VAL	2.7
60	DB	69	VAL	2.7
65	V	94	VAL	2.7
73	d	35	VAL	2.7
7	m	145	PHE	2.7
14	BG	53	ALA	2.7
22	BO	24	ALA	2.7
7	m	239	ILE	2.7
10	BC	224	ILE	2.7
11	q	92	PHE	2.7
15	u	20	LEU	2.7
15	u	123	ALA	2.7
23	5	79	LEU	2.7
37	CD	22	ALA	2.7
49	F	89	ALA	2.7
49	F	119	ALA	2.7
49	F	202	ALA	2.7
49	F	219	ILE	2.7
50	G	42	LEU	2.7
52	CT	109	LEU	2.7
55	CW	70	LEU	2.7
60	Q	15	PHE	2.7
60	DB	15	PHE	2.7
63	DE	24	LEU	2.7
65	V	79	LEU	2.7
66	DH	25	LEU	2.7
67	DI	26	ALA	2.7
23	BP	56	ILE	2.7
28	AA	129	TRP	2.7
70	DL	64	PHE	2.7
78	AR	92	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
7	AZ	12	TYR	2.7
7	AZ	99	TYR	2.7
28	BU	85	TYR	2.7
51	H	116	HIS	2.7
59	DA	129	TYR	2.7
76	DR	40	TYR	2.7
1	1	1267	A	2.7
3	AU	81	A	2.7
20	BM	8	LYS	2.7
25	BR	113	LYS	2.7
36	AI	115	LYS	2.7
41	AN	1	MET	2.7
48	CP	77	LYS	2.7
52	I	194	LYS	2.7
77	h	191	LYS	2.7
79	i	38	LYS	2.7
1	1	2425	G	2.7
1	AS	1849	U	2.7
2	AT	1	G	2.7
45	CM	1358	G	2.7
45	CM	1400	U	2.7
45	CM	1590	U	2.7
45	CM	1699	G	2.7
19	BL	45	ASN	2.7
36	CC	59	ASN	2.7
39	CF	32	ASN	2.7
51	CS	44	ASN	2.7
58	CZ	134	ASN	2.7
59	P	69	ASN	2.7
72	DN	69	ASN	2.7
40	CG	9	THR	2.7
61	DC	30	THR	2.7
62	S	16	THR	2.7
69	DK	36	THR	2.7
7	m	59	ASP	2.7
48	CP	170	GLY	2.7
50	CR	254	ASP	2.7
62	DD	24	GLY	2.7
70	a	66	GLY	2.7
73	d	76	GLY	2.7
75	f	51	GLY	2.7
6	l	18	SER	2.7

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Mol	Chain	Res	Type	RSRZ
18	BK	170	SER	2.7
19	BL	69	ARG	2.7
47	CO	23	PRO	2.7
49	F	204	PRO	2.7
54	K	11	ARG	2.7
55	L	53	ARG	2.7
56	M	96	PRO	2.7
60	DB	109	ARG	2.7
60	DB	127	ARG	2.7
65	V	2	PRO	2.7
72	c	2	PRO	2.7
27	BT	102	SER	2.7
37	CD	32	SER	2.7
49	F	180	GLN	2.7
13	BF	78	GLU	2.7
16	BI	103	GLU	2.7
50	G	202	GLU	2.7
53	CU	44	GLU	2.7
6	AY	223	VAL	2.7
21	0	9	VAL	2.7
26	BS	76	VAL	2.7
31	BX	89	VAL	2.7
33	AF	120	VAL	2.7
43	CJ	2	VAL	2.7
44	AQ	16	VAL	2.7
49	CQ	92	VAL	2.7
50	G	140	VAL	2.7
51	H	68	VAL	2.7
52	I	162	VAL	2.7
52	CT	129	VAL	2.7
55	L	113	VAL	2.7
55	CW	127	VAL	2.7
62	DD	89	VAL	2.7
65	V	30	VAL	2.7
65	V	113	VAL	2.7
1	1	1192	C	2.7
4	AW	63	PHE	2.7
6	AY	90	ALA	2.7
6	AY	166	ALA	2.7
10	p	207	ALA	2.7
10	BC	187	LEU	2.7
10	BC	207	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
14	BG	14	PHE	2.7
16	v	142	ILE	2.7
19	y	76	ALA	2.7
19	BL	155	PHE	2.7
27	9	30	LEU	2.7
31	BX	103	LEU	2.7
32	AE	35	ILE	2.7
37	CD	72	ALA	2.7
41	AN	6	LEU	2.7
41	AN	27	LEU	2.7
41	CH	8	ALA	2.7
45	B	1337	C	2.7
45	CM	1337	C	2.7
46	CN	99	ALA	2.7
47	CO	66	PHE	2.7
48	E	95	ALA	2.7
51	CS	48	PHE	2.7
53	CU	54	LEU	2.7
54	K	13	ALA	2.7
55	CW	76	LEU	2.7
56	CX	15	LEU	2.7
56	CX	86	ILE	2.7
58	O	112	ALA	2.7
58	CZ	118	ALA	2.7
59	P	63	ALA	2.7
59	P	135	LEU	2.7
63	DE	41	ILE	2.7
70	DL	25	ILE	2.7
79	CL	46	ALA	2.7
79	CL	158	LEU	2.7
6	AY	194	LYS	2.7
13	BF	22	CYS	2.7
20	BM	80	LYS	2.7
30	BW	15	LYS	2.7
38	AK	49	TRP	2.7
46	C	165	LYS	2.7
61	R	8	LYS	2.7
78	AR	135	TRP	2.7
78	AR	198	CYS	2.7
79	i	53	LYS	2.7
16	BI	62	TYR	2.7
32	BY	16	HIS	2.7

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Mol	Chain	Res	Type	RSRZ
47	CO	101	HIS	2.7
48	E	61	TYR	2.7
60	Q	53	TYR	2.7
64	DF	122	HIS	2.7
72	c	72	HIS	2.7
1	AS	1520	A	2.7
45	CM	1702	A	2.7
1	1	1736	U	2.7
1	1	2465	U	2.7
1	AS	1827	U	2.7
18	x	169	ASN	2.7
5	AX	369	ARG	2.7
9	o	20	THR	2.7
62	DD	31	ASN	2.7
10	BC	45	ARG	2.7
11	q	69	ARG	2.7
14	BG	49	ARG	2.7
21	BN	69	PRO	2.7
34	CA	91	PRO	2.7
51	CS	81	ARG	2.7
53	J	151	ASP	2.7
55	L	163	PRO	2.7
56	M	88	PRO	2.7
57	CY	23	PRO	2.7
58	O	44	GLY	2.7
61	DC	53	PRO	2.7
70	DL	131	ARG	2.7
74	DP	47	PRO	2.7
76	g	37	ARG	2.7
63	T	105	ASP	2.7
1	1	1278	G	2.7
3	AU	107	G	2.7
6	AY	62	SER	2.7
5	AX	335	VAL	2.7
8	n	102	VAL	2.7
15	BH	13	VAL	2.7
18	BK	153	GLU	2.7
27	BT	72	SER	2.7
28	BU	132	GLN	2.7
36	AI	107	GLN	2.7
45	CM	1521	G	2.7
47	D	200	SER	2.7

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Mol	Chain	Res	Type	RSRZ
51	CS	140	SER	2.7
53	CU	106	GLN	2.7
54	CV	7	SER	2.7
24	BQ	135	VAL	2.7
33	BZ	120	VAL	2.7
58	O	99	GLU	2.7
62	S	4	GLN	2.7
64	U	121	SER	2.7
69	DK	131	SER	2.7
46	C	181	VAL	2.7
51	CS	138	VAL	2.7
71	DM	40	VAL	2.7
73	d	25	VAL	2.7
78	AR	124	VAL	2.7
6	AY	21	LEU	2.7
7	m	194	LEU	2.7
19	y	124	LEU	2.7
21	BN	14	LEU	2.7
6	AY	337	ALA	2.7
12	BE	131	ILE	2.7
28	AA	131	PHE	2.7
32	BY	13	ILE	2.7
48	E	134	ILE	2.7
48	CP	66	LEU	2.7
49	CQ	73	LEU	2.7
49	CQ	171	ILE	2.7
52	I	190	LEU	2.7
53	J	77	LEU	2.7
53	CU	172	LEU	2.7
52	I	50	PHE	2.7
56	M	82	ILE	2.7
60	DB	100	LEU	2.7
59	P	146	ALA	2.7
63	T	38	ILE	2.7
78	AR	239	ALA	2.7
28	BU	22	LYS	2.7
35	AH	67	LYS	2.7
35	CB	43	LYS	2.7
41	AN	52	LYS	2.7
49	F	10	LYS	2.7
49	CQ	8	LYS	2.7
53	J	104	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
55	L	51	LYS	2.7
59	DA	109	LYS	2.7
72	c	70	LYS	2.7
76	DR	55	LYS	2.7
20	BM	76	MET	2.7
28	BU	81	MET	2.7
47	CO	172	MET	2.7
55	L	91	MET	2.7
10	BC	139	HIS	2.7
23	BP	40	HIS	2.7
36	CC	45	HIS	2.7
55	L	160	HIS	2.7
1	1	1279	C	2.7
1	AS	311	C	2.7
24	BQ	35	TYR	2.7
30	BW	29	TYR	2.7
33	BZ	75	TYR	2.7
50	CR	54	TYR	2.7
53	CU	169	TYR	2.7
54	CV	185	CYS	2.7
60	DB	66	CYS	2.7
65	V	55	TYR	2.7
7	AZ	22	ARG	2.7
10	BC	109	ARG	2.7
13	s	32	ARG	2.7
16	BI	108	ARG	2.7
25	BR	23	ARG	2.7
41	CH	30	ARG	2.7
62	DD	134	ARG	2.7
63	T	67	ARG	2.7
65	DG	89	ARG	2.7
5	k	337	THR	2.7
6	AY	201	THR	2.7
10	BC	195	THR	2.7
17	w	132	PRO	2.7
22	2	81	GLY	2.7
26	BS	71	THR	2.7
32	BY	65	GLY	2.7
47	CO	106	THR	2.7
52	I	165	GLY	2.7
52	CT	4	ASN	2.7
52	CT	170	THR	2.7

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Mol	Chain	Res	Type	RSRZ
52	CT	173	PRO	2.7
53	CU	82	PRO	2.7
54	K	51	GLY	2.7
55	CW	7	THR	2.7
56	M	83	PRO	2.7
65	DG	43	ASN	2.7
66	W	71	ASN	2.7
70	a	133	ASN	2.7
79	i	34	THR	2.7
1	AS	1589	A	2.7
1	AS	3142	A	2.7
45	B	988	A	2.7
70	DL	26	ASP	2.7
5	k	312	VAL	2.7
13	BF	15	GLU	2.7
14	BG	140	GLN	2.7
15	BH	119	GLN	2.7
16	BI	106	VAL	2.7
17	w	190	GLU	2.7
44	AQ	48	GLN	2.7
55	L	112	GLN	2.7
47	D	127	VAL	2.7
49	CQ	218	VAL	2.7
49	CQ	224	VAL	2.7
51	CS	91	GLU	2.7
65	V	126	GLU	2.7
68	DJ	42	GLN	2.7
27	9	70	VAL	2.7
28	AA	14	VAL	2.7
31	BX	33	VAL	2.7
7	m	46	SER	2.7
8	n	57	LEU	2.7
8	BA	149	ILE	2.6
16	v	100	SER	2.7
21	0	121	ILE	2.6
21	BN	24	LEU	2.7
25	BR	34	SER	2.7
27	9	109	LEU	2.7
28	BU	5	ILE	2.6
28	BU	7	SER	2.7
31	AD	94	ILE	2.6
36	AI	13	SER	2.7

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Mol	Chain	Res	Type	RSRZ
41	AN	11	SER	2.7
50	G	9	LEU	2.7
50	G	222	LEU	2.7
54	K	104	ILE	2.6
54	K	149	LEU	2.7
44	CK	28	LYS	2.6
44	CK	36	LYS	2.6
48	CP	171	LYS	2.6
55	L	156	ILE	2.6
57	CY	131	ILE	2.6
64	DF	26	ILE	2.6
65	V	5	SER	2.7
65	V	124	ILE	2.6
69	DK	132	LEU	2.7
71	DM	65	LEU	2.7
78	AR	95	LEU	2.7
33	BZ	124	LYS	2.6
5	AX	149	ALA	2.6
7	AZ	180	PHE	2.6
9	o	220	PHE	2.6
10	BC	148	LYS	2.6
76	DR	28	LYS	2.6
78	AR	157	ILE	2.6
14	t	126	PHE	2.6
20	BM	107	ALA	2.6
22	2	24	ALA	2.6
26	8	132	ALA	2.6
46	C	159	ALA	2.6
49	CQ	195	ALA	2.6
52	I	192	ALA	2.6
61	R	6	ALA	2.6
61	R	12	PHE	2.6
70	DL	119	PHE	2.6
1	AS	249	G	2.6
45	B	823	G	2.6
45	CM	1059	G	2.6
45	CM	1629	G	2.6
38	CE	28	HIS	2.6
51	H	122	HIS	2.6
5	k	233	TRP	2.6
16	BI	120	TRP	2.6
4	AW	83	TYR	2.6

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Mol	Chain	Res	Type	RSRZ
23	5	33	TYR	2.6
16	BI	65	ARG	2.6
47	CO	162	ARG	2.6
55	L	126	ARG	2.6
63	T	3	ARG	2.6
66	W	88	ARG	2.6
2	3	73	C	2.6
10	BC	120	GLY	2.6
27	BT	34	PRO	2.6
30	BW	34	GLY	2.6
36	CC	39	PRO	2.6
51	H	75	GLY	2.6
60	DB	129	GLY	2.6
68	DJ	45	GLY	2.6
69	Z	119	GLY	2.6
69	DK	80	GLY	2.6
78	AR	273	PRO	2.6
10	BC	218	THR	2.6
13	BF	139	THR	2.6
16	v	196	THR	2.6
19	BL	100	THR	2.6
26	8	119	THR	2.6
28	BU	66	THR	2.6
57	CY	78	THR	2.6
64	DF	33	THR	2.6
74	DP	19	THR	2.6
55	L	161	ASN	2.6
1	AS	444	U	2.6
4	AW	246	LEU	2.6
6	l	7	VAL	2.6
6	AY	220	LEU	2.6
7	AZ	144	VAL	2.6
7	AZ	195	LEU	2.6
8	BA	108	GLU	2.6
10	p	132	VAL	2.6
13	BF	69	VAL	2.6
14	t	127	ASP	2.6
14	BG	9	LEU	2.6
16	BI	35	VAL	2.6
16	BI	89	VAL	2.6
16	BI	96	LYS	2.6
20	z	85	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
27	9	31	LEU	2.6
27	9	95	VAL	2.6
29	BV	24	LYS	2.6
29	BV	64	GLN	2.6
32	BY	60	LYS	2.6
34	CA	45	LEU	2.6
35	AH	35	VAL	2.6
37	CD	71	LEU	2.6
39	CF	73	LEU	2.6
45	CM	1	U	2.6
46	CN	17	LEU	2.6
46	CN	56	LYS	2.6
46	CN	123	VAL	2.6
48	E	149	LEU	2.6
48	CP	203	GLU	2.6
49	F	51	VAL	2.6
49	F	151	GLN	2.6
50	G	23	LEU	2.6
50	CR	259	GLN	2.6
51	H	76	LYS	2.6
51	H	174	LEU	2.6
55	L	24	LEU	2.6
55	CW	24	LEU	2.6
55	CW	48	GLN	2.6
53	J	94	ILE	2.6
53	CU	43	LYS	2.6
58	CZ	91	VAL	2.6
59	DA	83	GLU	2.6
60	Q	8	VAL	2.6
62	S	43	LEU	2.6
60	Q	14	ILE	2.6
60	DB	107	ILE	2.6
62	S	67	LYS	2.6
62	S	103	GLU	2.6
62	DD	37	LEU	2.6
63	DE	74	GLN	2.6
63	DE	93	LEU	2.6
64	U	131	LEU	2.6
64	DF	93	VAL	2.6
68	Y	63	VAL	2.6
68	DJ	33	VAL	2.6
70	a	22	GLN	2.6

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Mol	Chain	Res	Type	RSRZ
79	i	73	VAL	2.6
1	AS	369	A	2.6
1	AS	2614	A	2.6
7	AZ	231	ILE	2.6
9	o	93	ILE	2.6
11	q	41	ILE	2.6
13	s	148	ILE	2.6
30	BW	21	ILE	2.6
40	CG	27	ILE	2.6
45	B	479	A	2.6
45	B	577	A	2.6
53	CU	132	ILE	2.6
4	AW	78	ALA	2.6
6	l	73	ALA	2.6
6	AY	102	ALA	2.6
8	n	106	ALA	2.6
18	BK	26	PHE	2.6
26	BS	29	SER	2.6
46	C	78	SER	2.6
47	CO	141	ALA	2.6
50	G	110	ALA	2.6
51	CS	26	ALA	2.6
55	CW	13	SER	2.6
55	CW	87	SER	2.6
58	O	57	ALA	2.6
58	O	128	ALA	2.6
60	DB	18	PHE	2.6
63	T	43	SER	2.6
16	BI	37	HIS	2.6
1	AS	337	G	2.6
1	AS	1821	G	2.6
3	AU	39	G	2.6
5	k	115	ARG	2.6
7	AZ	31	TYR	2.6
11	BD	115	ARG	2.6
21	0	113	ARG	2.6
21	BN	7	TYR	2.6
22	2	127	TYR	2.6
28	BU	48	ARG	2.6
45	CM	715	G	2.6
49	F	35	TYR	2.6
50	CR	221	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
55	CW	3	ARG	2.6
68	DJ	130	TYR	2.6
65	DG	104	CYS	2.6
7	AZ	181	PRO	2.6
10	BC	177	PRO	2.6
16	BI	2	GLY	2.6
23	BP	22	PRO	2.6
24	BQ	90	GLY	2.6
29	AB	30	GLY	2.6
41	CH	47	PRO	2.6
46	C	35	PRO	2.6
48	CP	168	PRO	2.6
52	I	55	GLY	2.6
55	L	73	GLY	2.6
55	CW	5	PRO	2.6
58	O	87	PRO	2.6
61	DC	69	PRO	2.6
65	DG	47	PRO	2.6
78	AR	56	GLY	2.6
79	i	75	PRO	2.6
10	BC	71	LYS	2.6
11	BD	141	LYS	2.6
13	s	53	THR	2.6
20	z	131	THR	2.6
29	AB	8	THR	2.6
5	AX	285	VAL	2.6
7	AZ	115	LEU	2.6
10	p	68	LEU	2.6
10	BC	96	ASN	2.6
11	BD	34	LEU	2.6
13	BF	71	VAL	2.6
30	AC	19	ASN	2.6
30	BW	33	LYS	2.6
33	AF	12	LYS	2.6
45	B	261	C	2.6
45	CM	1627	C	2.6
48	E	114	LYS	2.6
52	I	131	LYS	2.6
52	CT	183	THR	2.6
57	CY	32	LYS	2.6
62	DD	127	LYS	2.6
66	DH	24	THR	2.6

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Mol	Chain	Res	Type	RSRZ
72	c	90	THR	2.6
17	BJ	175	LEU	2.6
22	BO	27	LEU	2.6
15	BH	48	GLN	2.6
24	BQ	22	VAL	2.6
26	BS	57	LEU	2.6
36	CC	24	LEU	2.6
41	CH	33	ASN	2.6
73	d	20	LYS	2.6
77	h	134	LYS	2.6
49	F	137	VAL	2.6
51	CS	20	LEU	2.6
53	CU	158	VAL	2.6
58	O	136	LEU	2.6
63	DE	57	LEU	2.6
69	Z	33	LEU	2.6
69	DK	15	LEU	2.6
78	AR	186	ASN	2.6
78	AR	240	LEU	2.6
16	v	151	ILE	2.6
17	BJ	190	GLU	2.6
18	BK	67	ILE	2.6
28	AA	31	GLU	2.6
33	BZ	53	GLN	2.6
48	CP	132	ILE	2.6
58	O	105	GLN	2.6
73	d	18	GLN	2.6
75	DQ	31	ILE	2.6
1	AS	2486	U	2.6
11	BD	61	ASP	2.6
23	BP	61	ASP	2.6
4	j	182	ALA	2.6
11	BD	117	PHE	2.6
14	BG	90	ALA	2.6
28	AA	44	ALA	2.6
28	BU	49	ALA	2.6
30	AC	37	ALA	2.6
33	BZ	66	PHE	2.6
36	CC	95	PHE	2.6
45	CM	817	U	2.6
49	CQ	212	ALA	2.6
52	I	189	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
59	DA	148	ALA	2.6
72	DN	63	ALA	2.6
78	AR	242	PHE	2.6
78	AR	300	ALA	2.6
1	AS	156	A	2.6
1	AS	816	A	2.6
1	AS	900	A	2.6
1	AS	3247	A	2.6
16	BI	97	SER	2.6
20	BM	59	SER	2.6
31	AD	35	SER	2.6
45	B	1331	A	2.6
45	CM	367	A	2.6
45	CM	847	A	2.6
46	C	151	SER	2.6
76	DR	16	SER	2.6
54	CV	129	HIS	2.6
62	DD	73	HIS	2.6
22	2	102	ARG	2.6
49	F	197	ARG	2.6
52	I	219	ARG	2.6
54	K	49	ARG	2.6
57	CY	129	ARG	2.6
63	T	11	ARG	2.6
72	c	87	ARG	2.6
72	DN	92	ARG	2.6
46	CN	54	TRP	2.6
18	BK	21	TYR	2.6
49	CQ	88	TYR	2.6
54	CV	117	TYR	2.6
56	CX	64	TYR	2.6
67	DI	53	TYR	2.6
70	DL	89	TYR	2.6
8	BA	35	PRO	2.6
12	BE	172	GLY	2.6
29	AB	51	GLY	2.6
30	BW	30	PRO	2.6
37	AJ	64	GLY	2.6
41	AN	47	PRO	2.6
49	F	184	GLY	2.6
65	DG	120	GLY	2.6
6	AY	269	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
6	AY	272	LYS	2.6
18	BK	43	LYS	2.6
28	AA	52	LYS	2.6
31	AD	85	LYS	2.6
37	CD	85	LYS	2.6
53	J	80	LYS	2.6
62	S	13	LYS	2.6
1	1	876	G	2.6
1	AS	170	G	2.6
1	AS	3185	G	2.6
3	4	85	G	2.6
7	AZ	153	THR	2.6
11	BD	154	VAL	2.6
13	s	171	VAL	2.6
13	BF	147	THR	2.6
14	BG	40	LEU	2.6
17	w	53	LEU	2.6
21	BN	35	VAL	2.6
28	BU	113	VAL	2.6
30	AC	8	THR	2.6
38	CE	17	THR	2.6
38	CE	33	THR	2.6
31	BX	106	ILE	2.6
37	CD	60	ILE	2.6
6	AY	94	MET	2.6
7	AZ	25	GLU	2.6
9	o	176	ILE	2.6
11	BD	187	ILE	2.6
16	BI	25	VAL	2.6
44	CK	64	VAL	2.6
45	B	976	G	2.6
45	B	1764	G	2.6
45	CM	501	G	2.6
46	CN	112	THR	2.6
47	CO	201	THR	2.6
48	E	220	LEU	2.6
51	CS	165	LEU	2.6
49	CQ	159	ILE	2.6
52	CT	157	VAL	2.6
53	J	158	VAL	2.6
53	CU	77	LEU	2.6
58	O	103	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
58	CZ	61	VAL	2.6
65	V	67	LEU	2.6
65	DG	67	LEU	2.6
65	DG	140	LEU	2.6
66	W	62	LEU	2.6
66	W	77	THR	2.6
68	DJ	65	LEU	2.6
69	Z	87	VAL	2.6
70	a	62	THR	2.6
70	DL	96	LEU	2.6
48	E	165	ILE	2.6
65	DG	65	ILE	2.6
72	c	39	VAL	2.6
11	q	134	MET	2.6
16	BI	175	ASN	2.6
37	CD	88	GLU	2.6
49	F	211	GLU	2.6
75	DQ	45	GLU	2.6
78	AR	257	ILE	2.6
61	DC	1	MET	2.6
72	DN	99	GLN	2.6
7	m	16	PHE	2.6
7	AZ	42	ALA	2.6
13	BF	102	PHE	2.6
27	9	2	ALA	2.6
27	9	18	ALA	2.6
28	AA	110	ALA	2.6
47	CO	57	ALA	2.6
50	CR	99	PHE	2.6
53	CU	65	ALA	2.6
53	CU	179	PHE	2.6
54	K	109	PHE	2.6
55	L	56	ALA	2.6
56	M	23	ALA	2.6
57	CY	109	ALA	2.6
60	DB	101	ALA	2.6
74	DP	32	PHE	2.6
1	1	2657	C	2.6
1	AS	67	C	2.6
1	AS	1839	C	2.6
7	m	29	ASP	2.6
11	q	11	ASP	2.6

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Mol	Chain	Res	Type	RSRZ
45	B	1360	C	2.6
45	CM	237	C	2.6
45	CM	1182	C	2.6
71	b	67	ASP	2.6
1	1	3319	U	2.6
3	AU	38	U	2.6
45	B	290	U	2.6
45	B	778	U	2.6
45	CM	1582	U	2.6
6	AY	3	SER	2.6
11	q	182	SER	2.6
30	AC	62	SER	2.6
39	CF	18	SER	2.6
55	L	121	SER	2.6
55	CW	50	SER	2.6
69	DK	40	SER	2.6
7	AZ	8	ARG	2.6
24	6	88	ARG	2.6
46	C	79	ARG	2.6
60	DB	123	ARG	2.6
63	T	45	ARG	2.6
1	AS	105	A	2.6
45	CM	712	A	2.6
45	CM	740	A	2.6
65	DG	53	TRP	2.6
9	o	13	LYS	2.6
19	y	185	LYS	2.6
4	j	2	GLY	2.6
6	AY	98	GLY	2.6
14	BG	56	PRO	2.6
15	u	126	LYS	2.6
16	BI	186	GLY	2.6
19	y	14	GLY	2.6
28	AA	32	GLY	2.6
29	AB	18	GLY	2.6
29	BV	71	PRO	2.6
30	BW	45	TYR	2.6
46	C	134	LYS	2.6
58	CZ	102	GLY	2.6
59	DA	17	PRO	2.6
61	R	7	PRO	2.6
64	U	42	TYR	2.6

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Mol	Chain	Res	Type	RSRZ
65	V	69	LYS	2.6
66	W	68	LYS	2.6
78	AR	282	LYS	2.6
34	AG	34	GLY	2.6
46	CN	51	GLY	2.6
47	D	194	GLY	2.6
65	DG	121	GLY	2.6
78	AR	278	GLY	2.6
6	AY	361	LEU	2.6
10	BC	94	LEU	2.6
13	BF	112	LEU	2.6
19	BL	52	LEU	2.6
20	BM	4	LEU	2.6
27	9	35	LEU	2.6
47	D	54	LEU	2.6
47	D	61	LEU	2.6
55	L	109	LEU	2.6
56	CX	87	LEU	2.6
60	DB	97	LEU	2.6
62	DD	88	LEU	2.6
63	T	57	LEU	2.6
70	a	40	LEU	2.6
76	DR	8	LEU	2.6
5	k	114	VAL	2.6
5	AX	93	VAL	2.6
10	BC	191	VAL	2.6
13	s	154	THR	2.6
13	BF	70	THR	2.6
22	2	72	VAL	2.6
29	BV	145	VAL	2.6
32	BY	45	THR	2.6
37	AJ	10	VAL	2.6
39	AL	72	THR	2.6
46	C	108	THR	2.6
47	D	134	VAL	2.6
49	F	50	ILE	2.6
52	CT	73	VAL	2.6
53	CU	126	VAL	2.6
55	CW	14	VAL	2.6
58	CZ	75	VAL	2.6
64	DF	55	THR	2.6
65	V	65	ILE	2.6

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Mol	Chain	Res	Type	RSRZ
66	W	99	VAL	2.6
70	DL	100	VAL	2.6
71	DM	60	VAL	2.6
72	DN	94	ILE	2.6
10	p	203	GLU	2.6
16	BI	32	GLN	2.6
16	BI	160	GLU	2.6
37	AJ	65	GLU	2.6
50	CR	260	GLN	2.6
55	CW	153	GLN	2.6
63	T	75	GLU	2.6
5	k	22	ALA	2.6
7	AZ	16	PHE	2.6
9	BB	217	PHE	2.6
10	BC	255	ALA	2.6
11	BD	158	ALA	2.6
12	r	213	PHE	2.6
16	BI	185	ALA	2.6
19	BL	145	ASN	2.6
25	BR	40	PHE	2.6
38	CE	48	ASN	2.6
46	CN	102	PHE	2.6
47	CO	142	PHE	2.6
49	F	132	ALA	2.6
51	CS	66	ASN	2.6
51	CS	210	ALA	2.6
54	CV	151	ALA	2.6
57	CY	27	ALA	2.6
57	CY	98	ASN	2.6
58	CZ	77	ALA	2.6
59	DA	22	ALA	2.6
68	Y	8	ALA	2.6
68	Y	50	PHE	2.6
71	DM	99	ALA	2.6
1	1	238	G	2.5
1	1	243	G	2.5
1	AS	135	G	2.5
1	AS	213	G	2.5
1	AS	3041	G	2.5
45	B	89	G	2.5
1	1	1265	U	2.5
1	1	1550	U	2.5

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Mol	Chain	Res	Type	RSRZ
1	1	2479	U	2.5
1	AS	134	U	2.5
1	AS	1817	U	2.5
1	AS	2187	U	2.5
6	AY	74	ARG	2.5
12	r	156	ARG	2.5
16	BI	158	HIS	2.5
41	AN	21	ARG	2.5
45	B	270	U	2.5
45	CM	693	U	2.5
45	CM	1569	U	2.5
47	CO	50	ARG	2.5
48	CP	92	ARG	2.5
49	CQ	28	ARG	2.5
49	CQ	166	ARG	2.5
72	DN	82	ARG	2.5
1	1	241	C	2.5
1	1	486	C	2.5
1	AS	30	C	2.5
1	AS	1852	C	2.5
45	B	231	C	2.5
45	CM	1417	C	2.5
55	L	152	SER	2.5
59	DA	29	SER	2.5
61	DC	120	SER	2.5
69	Z	40	SER	2.5
78	AR	66	SER	2.5
79	CL	92	SER	2.5
8	BA	131	LYS	2.5
29	BV	111	LYS	2.5
50	G	127	LYS	2.5
57	CY	57	LYS	2.5
1	1	2437	A	2.5
1	AS	929	A	2.5
23	BP	95[A]	TRP	2.5
42	CI	5	TRP	2.5
45	B	129	A	2.5
45	B	1654	A	2.5
4	AW	180	LEU	2.5
5	AX	43	LEU	2.5
6	AY	23	LEU	2.5
7	m	170	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
8	BA	173	LEU	2.5
9	BB	10	LEU	2.5
9	BB	236	LEU	2.5
12	BE	57	LEU	2.5
13	s	40	LEU	2.5
16	BI	177	GLY	2.5
14	t	169	TYR	2.5
17	BJ	17	LEU	2.5
20	z	4	LEU	2.5
24	6	55	GLY	2.5
24	BQ	8	GLY	2.5
47	D	225	LEU	2.5
47	CO	97	LEU	2.5
49	F	156	GLY	2.5
57	CY	51	GLY	2.5
59	DA	137	PRO	2.5
61	DC	55	GLY	2.5
63	DE	118	PRO	2.5
22	BO	30	TYR	2.5
23	5	36	TYR	2.5
27	BT	39	LEU	2.5
29	BV	78	LEU	2.5
34	AG	45	LEU	2.5
38	CE	51	LEU	2.5
40	CG	49	LEU	2.5
41	CH	9	LEU	2.5
50	G	101	LEU	2.5
51	CS	175	LEU	2.5
53	CU	66	TYR	2.5
63	DE	113	LEU	2.5
65	DG	22	LEU	2.5
69	DK	135	LEU	2.5
78	AR	183	TYR	2.5
6	AY	114	VAL	2.5
12	r	190	VAL	2.5
14	t	22	VAL	2.5
28	BU	25	ILE	2.5
32	AE	74	ILE	2.5
38	AK	29	VAL	2.5
47	CO	176	VAL	2.5
48	E	78	ILE	2.5
51	H	22	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
56	CX	42	VAL	2.5
57	N	38	VAL	2.5
59	P	116	ILE	2.5
61	R	1	MET	2.5
61	DC	101	VAL	2.5
63	T	40	VAL	2.5
68	DJ	121	VAL	2.5
73	d	62	VAL	2.5
73	DO	54	VAL	2.5
77	h	150	VAL	2.5
78	AR	199	ILE	2.5
21	0	6	GLU	2.5
25	BR	41	GLN	2.5
31	BX	26	THR	2.5
35	AH	3	GLN	2.5
35	CB	73	GLN	2.5
46	C	74	ALA	2.5
46	C	102	PHE	2.5
47	D	100	PHE	2.5
49	F	33	GLN	2.5
49	CQ	198	PHE	2.5
55	CW	177	GLN	2.5
60	DB	33	THR	2.5
6	AY	73	ALA	2.5
6	AY	298	ALA	2.5
13	s	127	PHE	2.5
63	T	83	GLN	2.5
64	DF	74	GLN	2.5
70	a	58	PHE	2.5
77	h	163	CYS	2.5
18	BK	81	ALA	2.5
20	z	145	ALA	2.5
29	BV	35	ALA	2.5
49	F	146	ALA	2.5
56	CX	23	ALA	2.5
57	CY	114	ALA	2.5
78	AR	143	ALA	2.5
78	AR	293	ALA	2.5
31	BX	11	ASN	2.5
40	CG	33	ASN	2.5
63	DE	97	ASN	2.5
65	DG	101	ASN	2.5

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Mol	Chain	Res	Type	RSRZ
67	X	21	ASN	2.5
7	AZ	54	ARG	2.5
18	x	154	ASP	2.5
21	BN	3	ARG	2.5
22	BO	88	ARG	2.5
23	BP	44	ASP	2.5
40	CG	45	ARG	2.5
46	C	127	ARG	2.5
55	L	103	ASP	2.5
68	DJ	9	ASP	2.5
76	g	5	HIS	2.5
1	1	1091	U	2.5
1	1	1216	U	2.5
1	AS	152	U	2.5
1	AS	1758	U	2.5
1	AS	3338	U	2.5
12	r	164	LYS	2.5
14	t	133	SER	2.5
16	BI	40	SER	2.5
16	BI	170	LYS	2.5
20	BM	37	SER	2.5
26	8	25	LYS	2.5
27	9	11	SER	2.5
45	B	1376	U	2.5
50	CR	133	LYS	2.5
52	CT	136	LYS	2.5
59	P	13	SER	2.5
65	V	84	LYS	2.5
67	X	27	LYS	2.5
79	i	37	LYS	2.5
1	1	2443	G	2.5
1	AS	1138	G	2.5
1	AS	2099	G	2.5
1	AS	3313	G	2.5
45	B	1070	G	2.5
45	B	1765	G	2.5
1	1	1220	C	2.5
1	AS	104	C	2.5
1	AS	1592	C	2.5
45	B	1385	C	2.5
45	B	1704	C	2.5
4	AW	248	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
5	AX	161	LEU	2.5
20	BM	83	GLY	2.5
22	BO	128	LEU	2.5
23	BP	87	LEU	2.5
26	BS	108	LEU	2.5
31	BX	58	LEU	2.5
46	C	24	LEU	2.5
46	CN	207	PRO	2.5
47	D	207	LEU	2.5
47	CO	184	LEU	2.5
47	CO	190	PRO	2.5
54	K	96	LEU	2.5
56	CX	40	LEU	2.5
59	DA	117	LEU	2.5
61	DC	109	PRO	2.5
62	S	27	LEU	2.5
69	Z	104	LEU	2.5
69	DK	106	GLY	2.5
69	DK	133	LEU	2.5
71	DM	80	LEU	2.5
73	d	7	LEU	2.5
73	d	12	PRO	2.5
5	k	84	MET	2.5
6	AY	110	TRP	2.5
8	n	8	TRP	2.5
56	CX	85	GLY	2.5
76	DR	6	GLY	2.5
5	k	72	VAL	2.5
11	q	43	VAL	2.5
14	t	141	VAL	2.5
15	u	60	ILE	2.5
15	BH	129	VAL	2.5
18	x	47	TYR	2.5
22	BO	13	TYR	2.5
23	BP	34	VAL	2.5
33	BZ	39	ILE	2.5
44	AQ	64	VAL	2.5
46	C	29	VAL	2.5
48	E	132	ILE	2.5
61	DC	83	MET	2.5
58	O	31	VAL	2.5
62	DD	80	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
62	DD	48	TYR	2.5
65	DG	73	VAL	2.5
66	DH	89	VAL	2.5
71	b	92	VAL	2.5
72	c	36	ILE	2.5
72	c	73	TYR	2.5
1	1	2472	A	2.5
1	AS	1907	A	2.5
1	AS	2567	A	2.5
1	AS	2844	A	2.5
3	AU	92	A	2.5
45	CM	217	A	2.5
45	CM	973	A	2.5
45	CM	1574	A	2.5
18	BK	155	GLU	2.5
7	m	142	PHE	2.5
12	BE	94	PHE	2.5
24	BQ	95	PHE	2.5
27	9	120	GLN	2.5
27	BT	120	GLN	2.5
36	CC	46	THR	2.5
43	CJ	38	GLN	2.5
46	CN	193	THR	2.5
51	CS	170	GLN	2.5
60	DB	121	THR	2.5
62	S	114	THR	2.5
75	f	43	PHE	2.5
4	AW	35	ALA	2.5
9	BB	111	ALA	2.5
10	p	254	ALA	2.5
16	BI	55	ALA	2.5
46	CN	74	ALA	2.5
47	CO	156	ALA	2.5
53	CU	20	ALA	2.5
55	L	119	ALA	2.5
65	DG	19	ALA	2.5
10	BC	69	ARG	2.5
11	BD	169	ASN	2.5
12	r	73	ASN	2.5
18	BK	37	ASN	2.5
22	BO	12	ARG	2.5
24	BQ	104	ASN	2.5

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Mol	Chain	Res	Type	RSRZ
30	AC	6	ASN	2.5
36	CC	89	ARG	2.5
51	CS	193	CYS	2.5
39	AL	32	ASN	2.5
53	J	84	ARG	2.5
53	CU	93	ARG	2.5
55	L	132	ARG	2.5
61	DC	72	ARG	2.5
63	DE	33	ARG	2.5
41	AN	41	HIS	2.5
75	DQ	27	HIS	2.5
10	BC	147	LYS	2.5
26	BS	89	LYS	2.5
37	CD	24	LYS	2.5
44	CK	62	LYS	2.5
64	U	132	LYS	2.5
76	g	29	LYS	2.5
1	1	2477	U	2.5
1	1	3103	U	2.5
8	BA	11	SER	2.5
13	s	5	SER	2.5
18	x	170	SER	2.5
20	z	37	SER	2.5
59	P	147	SER	2.5
72	DN	7	SER	2.5
5	AX	33	PRO	2.5
8	BA	63	LEU	2.5
23	BP	79	LEU	2.5
26	BS	133	LEU	2.5
27	BT	109	LEU	2.5
28	AA	51	LEU	2.5
33	AF	54	PRO	2.5
35	AH	26	PRO	2.5
39	AL	69	LEU	2.5
41	AN	51	LEU	2.5
47	D	229	LEU	2.5
53	CU	149	LEU	2.5
55	CW	60	LEU	2.5
65	V	132	LEU	2.5
4	AW	15	ILE	2.5
10	p	238	ILE	2.5
11	BD	119	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
13	BF	132	GLY	2.5
16	BI	52	GLY	2.5
18	x	19	GLY	2.5
24	BQ	107	GLY	2.5
25	BR	49	ILE	2.5
26	BS	79	GLY	2.5
26	BS	139	ILE	2.5
32	BY	58	ILE	2.5
35	AH	54	ILE	2.5
37	CD	57	ILE	2.5
38	CE	2	GLY	2.5
38	CE	62	GLY	2.5
50	G	25	GLY	2.5
51	CS	89	ILE	2.5
54	K	50	GLY	2.5
54	K	183	GLY	2.5
65	DG	82	GLY	2.5
70	DL	65	GLY	2.5
75	f	35	GLY	2.5
5	AX	73	VAL	2.5
6	AY	360	VAL	2.5
10	p	176	VAL	2.5
10	BC	53	TRP	2.5
10	BC	57	VAL	2.5
13	s	71	VAL	2.5
14	BG	143	VAL	2.5
48	E	237	VAL	2.5
50	CR	129	VAL	2.5
52	CT	36	VAL	2.5
64	U	129	TRP	2.5
1	AS	537	C	2.5
1	AS	1697	C	2.5
1	AS	2284	C	2.5
1	1	1015	G	2.5
1	1	1930	G	2.5
1	AS	102	G	2.5
1	AS	818	G	2.5
1	AS	2147	G	2.5
1	AS	2254	G	2.5
1	AS	2547	G	2.5
7	m	226	TYR	2.5
26	8	141	TYR	2.5

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Mol	Chain	Res	Type	RSRZ
33	AF	93	TYR	2.5
45	CM	1693	C	2.5
45	CM	1770	C	2.5
45	B	1388	G	2.5
45	CM	830	G	2.5
45	CM	1666	G	2.5
72	DN	59	TYR	2.5
5	AX	138	ALA	2.5
10	BC	111	THR	2.5
14	BG	147	PHE	2.5
16	BI	29	GLU	2.5
16	BI	196	THR	2.5
21	0	169	THR	2.5
26	8	84	PHE	2.5
39	AL	13	GLU	2.5
28	BU	33	THR	2.5
28	BU	136	PHE	2.5
33	BZ	96	GLU	2.5
26	BS	85	GLN	2.5
29	BV	38	GLN	2.5
36	AI	82	ALA	2.5
37	CD	78	THR	2.5
55	CW	114	PHE	2.5
61	DC	33	PHE	2.5
57	N	114	ALA	2.5
62	DD	39	GLN	2.5
65	DG	54	PHE	2.5
41	AN	31	ALA	2.5
41	CH	10	ALA	2.5
46	CN	19	ALA	2.5
46	CN	130	ALA	2.5
51	CS	182	ALA	2.5
52	CT	231	ALA	2.5
62	DD	90	ALA	2.5
66	DH	59	THR	2.5
69	DK	12	ALA	2.5
71	DM	90	THR	2.5
1	1	105	A	2.5
1	AS	374	A	2.5
1	AS	1099	A	2.5
1	AS	2382	A	2.5
4	AW	30	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
16	v	108	ARG	2.5
25	7	94	ARG	2.5
30	AC	41	ARG	2.5
40	AM	46	ARG	2.5
45	B	829	A	2.5
45	CM	218	A	2.5
45	CM	832	A	2.5
45	CM	1272	A	2.5
45	CM	1701	A	2.5
48	E	79	ARG	2.5
52	CT	31	ARG	2.5
54	K	8	ARG	2.5
62	DD	136	ARG	2.5
4	j	7	ASN	2.5
20	BM	53	LYS	2.5
22	2	69	LYS	2.5
5	AX	274	HIS	2.5
6	AY	280	ASN	2.5
7	AZ	94	ASN	2.5
9	BB	241	ASN	2.5
13	s	16	LYS	2.5
22	BO	77	ASN	2.5
29	AB	74	ASN	2.5
37	AJ	74	LYS	2.5
41	CH	15	CYS	2.5
47	CO	45	LYS	2.5
48	CP	111	LYS	2.5
55	L	65	LYS	2.5
58	O	124	LYS	2.5
62	DD	67	LYS	2.5
73	d	17	LYS	2.5
74	DP	51	ASN	2.5
76	DR	26	LYS	2.5
49	CQ	160	HIS	2.5
73	DO	19	HIS	2.5
78	AR	238	HIS	2.5
30	BW	36	ASP	2.5
59	DA	108	ASP	2.5
62	DD	57	ASP	2.5
7	AZ	51	LEU	2.5
16	v	134	LEU	2.5
16	BI	10	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
30	BW	54	LEU	2.5
31	AD	79	LEU	2.5
39	AL	73	LEU	2.5
49	F	60	LEU	2.5
54	CV	96	LEU	2.5
58	CZ	59	LEU	2.5
58	CZ	74	LEU	2.5
59	DA	115	LEU	2.5
59	DA	149	LEU	2.5
73	DO	41	LEU	2.5
76	DR	49	LEU	2.5
18	x	123	PRO	2.5
18	BK	109	SER	2.5
24	BQ	67	PRO	2.5
1	1	483	U	2.5
1	1	1761	U	2.5
1	AS	168	U	2.5
1	AS	2832	U	2.5
1	AS	3030	U	2.5
3	AU	22	U	2.5
5	AX	52	GLY	2.5
10	BC	41	ILE	2.5
11	q	128	ILE	2.5
14	BG	156	SER	2.5
16	BI	69	GLY	2.5
18	BK	117	ILE	2.5
26	8	90	SER	2.5
38	CE	40	PRO	2.5
38	CE	46	SER	2.5
41	CH	29	PRO	2.5
51	CS	67	PRO	2.5
45	CM	1418	U	2.5
48	E	124	ILE	2.5
50	G	195	ILE	2.5
54	CV	122	GLY	2.5
54	CV	176	SER	2.5
58	CZ	117	GLY	2.5
59	P	61	SER	2.5
61	DC	92	SER	2.5
65	DG	72	GLY	2.5
67	X	77	GLY	2.5
71	DM	73	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
76	DR	59	SER	2.5
79	i	117	GLY	2.5
5	AX	90	VAL	2.5
5	AX	336	VAL	2.5
11	BD	93	VAL	2.5
14	BG	24	VAL	2.5
18	x	119	VAL	2.5
20	BM	57	VAL	2.5
21	BN	97	VAL	2.5
23	5	12	VAL	2.5
28	BU	13	VAL	2.5
35	AH	72	VAL	2.5
49	F	59	VAL	2.5
49	CQ	187	VAL	2.5
52	I	179	VAL	2.5
71	b	64	VAL	2.5
7	AZ	95	TRP	2.5
78	AR	86	TRP	2.5
7	AZ	119	TYR	2.5
10	p	28	PHE	2.5
16	v	180	PHE	2.5
18	BK	47	TYR	2.5
33	BZ	14	TYR	2.5
34	CA	51	TYR	2.5
48	E	217	TYR	2.5
50	CR	205	PHE	2.5
51	H	24	GLU	2.5
56	M	63	TYR	2.5
5	k	275	ARG	2.5
6	AY	238	GLN	2.5
7	AZ	152	ARG	2.5
19	y	178	ARG	2.5
4	j	199	THR	2.5
6	l	201	THR	2.5
7	AZ	166	ALA	2.5
9	BB	17	GLN	2.5
10	BC	88	ALA	2.5
13	s	29	ARG	2.5
14	t	176	ARG	2.5
14	BG	28	GLN	2.5
10	BC	189	THR	2.5
20	BM	154	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
22	2	150	THR	2.5
25	BR	119	ALA	2.5
28	AA	95	ALA	2.5
31	BX	17	ALA	2.5
31	BX	41	ALA	2.5
32	AE	28	ALA	2.5
36	AI	16	GLN	2.5
36	CC	11	THR	2.5
39	AL	33	ALA	2.5
42	CI	2	ARG	2.5
46	C	60	ALA	2.5
48	E	119	ALA	2.5
48	CP	82	GLN	2.5
45	B	319	C	2.5
45	CM	280	C	2.5
45	CM	707	C	2.5
45	CM	1487	C	2.5
45	CM	1621	C	2.5
46	C	112	THR	2.5
48	CP	244	ALA	2.5
51	H	34	GLN	2.5
55	CW	53	ARG	2.5
60	Q	54	ALA	2.5
60	Q	121	THR	2.5
60	DB	45	ALA	2.5
61	R	47	ARG	2.5
67	X	87	ARG	2.5
67	DI	54	ALA	2.5
70	a	50	ALA	2.5
70	a	129	ALA	2.5
72	c	28	ARG	2.5
73	d	51	GLN	2.5
60	DB	86	THR	2.5
62	S	3	THR	2.5
66	W	59	THR	2.5
78	AR	137	THR	2.5
78	AR	281	ALA	2.5
7	m	143	LYS	2.5
10	BC	52	LYS	2.5
10	BC	150	LYS	2.5
10	BC	194	LYS	2.5
22	BO	50	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
27	9	69	LYS	2.5
27	BT	3	LYS	2.5
51	CS	115	LYS	2.5
54	K	75	LYS	2.5
64	DF	34	LYS	2.5
1	AS	144	G	2.5
1	AS	368	G	2.5
1	AS	1606	G	2.5
45	B	1358	G	2.5
45	CM	1452	G	2.5
45	CM	1575	G	2.5
1	1	2439	A	2.5
1	AS	51	A	2.5
5	AX	261	ASN	2.5
18	BK	169	ASN	2.5
21	BN	5	ASN	2.5
23	5	52	ASN	2.5
30	BW	11	ASN	2.5
32	AE	68	ASN	2.5
45	B	738	A	2.5
45	CM	577	A	2.5
45	CM	1322	A	2.5
46	C	164	ASN	2.5
54	CV	88	ASN	2.5
69	DK	79	ASN	2.5
78	AR	119	ASN	2.5
79	CL	66	ASN	2.5
4	AW	204	MET	2.4
14	BG	54	LEU	2.4
22	2	27	LEU	2.4
23	5	108	LEU	2.4
28	AA	57	MET	2.4
39	AL	54	LEU	2.4
46	CN	9	LEU	2.4
47	CO	89	ASP	2.4
52	CT	111	LEU	2.4
61	R	111	MET	2.4
62	DD	104	LEU	2.4
64	DF	109	LEU	2.4
71	DM	42	LEU	2.4
74	DP	9	LEU	2.4
79	CL	98	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
5	k	328	ILE	2.4
7	m	88	ILE	2.4
18	BK	143	PRO	2.4
27	9	50	ILE	2.4
36	CC	42	PRO	2.4
46	CN	160	ILE	2.4
51	H	30	PRO	2.4
51	CS	130	ILE	2.4
52	I	175	ILE	2.4
55	L	67	PRO	2.4
55	CW	42	ILE	2.4
61	R	53	PRO	2.4
64	DF	69	ILE	2.4
65	DG	90	PRO	2.4
4	j	14	SER	2.4
5	k	336	VAL	2.4
5	AX	327	SER	2.4
6	l	287	VAL	2.4
7	AZ	37	VAL	2.4
10	BC	235	GLY	2.4
20	BM	61	SER	2.4
22	2	36	VAL	2.4
23	BP	66	VAL	2.4
23	BP	75	SER	2.4
27	BT	29	VAL	2.4
27	BT	32	SER	2.4
35	AH	66	SER	2.4
35	CB	23	VAL	2.4
48	CP	218	SER	2.4
49	CQ	38	VAL	2.4
50	G	136	VAL	2.4
52	I	82	SER	2.4
52	I	195	VAL	2.4
54	CV	46	VAL	2.4
55	L	14	VAL	2.4
55	L	141	VAL	2.4
55	CW	141	VAL	2.4
61	R	117	GLY	2.4
61	DC	86	VAL	2.4
61	DC	113	GLY	2.4
63	T	15	VAL	2.4
67	X	35	SER	2.4

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Mol	Chain	Res	Type	RSRZ
70	a	79	VAL	2.4
75	DQ	25	SER	2.4
76	DR	21	VAL	2.4
77	h	154	GLY	2.4
78	AR	36	GLY	2.4
65	DG	117	SER	2.4
1	AS	600	U	2.4
1	AS	1561	U	2.4
3	AU	86	U	2.4
45	B	1271	U	2.4
45	CM	239	U	2.4
45	CM	713	U	2.4
45	CM	1674	U	2.4
45	CM	1766	U	2.4
7	AZ	21	ARG	2.4
7	AZ	282	ARG	2.4
11	q	14	GLU	2.4
14	BG	176	ARG	2.4
17	BJ	60	ARG	2.4
18	BK	75	GLU	2.4
25	BR	48	ARG	2.4
27	9	16	ARG	2.4
36	AI	100	GLU	2.4
47	D	29	TRP	2.4
54	K	22	ARG	2.4
57	CY	50	GLU	2.4
62	S	41	GLU	2.4
70	DL	72	PHE	2.4
79	i	114	GLU	2.4
5	k	120	LYS	2.4
5	AX	133	TYR	2.4
6	l	131	ALA	2.4
6	l	166	ALA	2.4
6	l	219	ALA	2.4
7	m	39	GLN	2.4
10	BC	173	LYS	2.4
10	BC	252	LYS	2.4
13	BF	34	ALA	2.4
13	BF	66	ALA	2.4
16	BI	23	TYR	2.4
17	BJ	33	LYS	2.4
20	z	80	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
20	BM	159	ALA	2.4
23	5	13	LYS	2.4
23	BP	86	TYR	2.4
24	BQ	92	TYR	2.4
29	BV	52	TYR	2.4
37	CD	80	LYS	2.4
42	AO	16	LYS	2.4
42	CI	7	LYS	2.4
42	CI	16	LYS	2.4
48	E	89	GLN	2.4
49	CQ	89	ALA	2.4
51	H	86	GLN	2.4
54	CV	53	GLN	2.4
55	L	29	LYS	2.4
57	CY	35	TYR	2.4
62	S	133	ALA	2.4
62	DD	85	ALA	2.4
64	U	74	GLN	2.4
70	a	48	TYR	2.4
70	a	126	GLN	2.4
70	DL	94	TYR	2.4
79	i	65	LYS	2.4
10	BC	202	THR	2.4
16	BI	165	THR	2.4
21	0	98	THR	2.4
54	CV	97	THR	2.4
54	CV	107	THR	2.4
57	N	44	THR	2.4
68	DJ	2	THR	2.4
78	AR	100	THR	2.4
78	AR	200	THR	2.4
16	v	189	HIS	2.4
19	BL	15	HIS	2.4
25	BR	58	HIS	2.4
45	B	135	C	2.4
45	B	477	C	2.4
45	B	488	C	2.4
45	B	674	C	2.4
45	CM	1468	C	2.4
6	AY	93	ASN	2.4
4	j	180	LEU	2.4
13	s	12	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
17	w	29	LEU	2.4
19	BL	49	LEU	2.4
25	BR	39	LEU	2.4
29	BV	5	LEU	2.4
31	BX	36	LEU	2.4
47	D	217	LEU	2.4
48	CP	108	LEU	2.4
49	F	73	LEU	2.4
50	CR	19	MET	2.4
55	L	116	LEU	2.4
55	L	118	LEU	2.4
59	DA	16	LEU	2.4
68	DJ	7	LEU	2.4
68	DJ	93	LEU	2.4
73	d	77	CYS	2.4
73	DO	7	LEU	2.4
78	AR	228	LEU	2.4
1	AS	1585	A	2.4
1	AS	3042	A	2.4
45	B	722	A	2.4
45	B	741	A	2.4
45	CM	129	A	2.4
1	1	2458	G	2.4
1	AS	1620	G	2.4
1	AS	1762	G	2.4
4	j	77	ILE	2.4
10	BC	125	ASP	2.4
11	BD	9	ILE	2.4
13	s	110	ILE	2.4
13	BF	120	ILE	2.4
14	BG	152	PRO	2.4
16	BI	74	PRO	2.4
23	BP	92	ILE	2.4
24	BQ	97	ASP	2.4
33	BZ	6	PRO	2.4
40	AM	27	ILE	2.4
45	B	289	G	2.4
45	B	750	G	2.4
45	B	819	G	2.4
53	J	124	ASP	2.4
53	J	181	ILE	2.4
55	L	15	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
55	L	83	ILE	2.4
59	DA	82	PRO	2.4
70	a	118	ILE	2.4
77	h	179	ASP	2.4
9	BB	211	GLY	2.4
11	BD	167	VAL	2.4
12	r	79	VAL	2.4
12	r	188	GLY	2.4
14	BG	69	VAL	2.4
18	BK	68	GLY	2.4
25	BR	84	GLY	2.4
29	BV	82	VAL	2.4
36	CC	47	VAL	2.4
37	CD	39	VAL	2.4
47	D	21	VAL	2.4
50	G	237	VAL	2.4
54	CV	80	GLY	2.4
55	CW	81	VAL	2.4
57	N	135	VAL	2.4
59	P	2	GLY	2.4
60	DB	43	VAL	2.4
61	R	75	VAL	2.4
63	DE	114	GLY	2.4
67	X	57	GLY	2.4
69	DK	2	GLY	2.4
70	a	57	VAL	2.4
72	c	86	VAL	2.4
78	AR	191	GLY	2.4
6	AY	301	ARG	2.4
14	BG	105	SER	2.4
16	v	97	SER	2.4
16	v	144	ARG	2.4
17	w	60	ARG	2.4
24	6	48	ARG	2.4
27	BT	62	SER	2.4
29	AB	12	ARG	2.4
36	AI	48	ARG	2.4
42	AO	15	ARG	2.4
43	CJ	42	ARG	2.4
46	CN	119	ARG	2.4
51	H	148	ARG	2.4
54	CV	170	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
59	DA	30	SER	2.4
59	DA	124	ARG	2.4
1	1	2832	U	2.4
1	1	2847	U	2.4
1	AS	1760	U	2.4
1	AS	2613	U	2.4
3	AU	60	U	2.4
5	k	7	GLU	2.4
5	AX	333	LYS	2.4
6	l	320	LYS	2.4
6	AY	184	LYS	2.4
14	BG	131	LYS	2.4
33	BZ	47	PHE	2.4
35	AH	70	LYS	2.4
41	CH	22	LYS	2.4
43	CJ	46	LYS	2.4
45	B	221	U	2.4
45	B	1044	U	2.4
45	B	1644	U	2.4
49	F	48	GLU	2.4
50	G	134	LYS	2.4
53	J	40	LYS	2.4
53	CU	165	PHE	2.4
56	CX	59	PHE	2.4
63	DE	23	LYS	2.4
4	AW	240	ALA	2.4
6	AY	49	GLN	2.4
7	AZ	97	ALA	2.4
9	o	214	ALA	2.4
18	BK	9	ALA	2.4
19	BL	121	ALA	2.4
26	BS	136	ALA	2.4
28	BU	19	ALA	2.4
40	AM	26	TRP	2.4
9	BB	74	TYR	2.4
13	s	6	GLN	2.4
14	BG	86	ALA	2.4
36	CC	20	GLN	2.4
53	CU	64	GLN	2.4
60	Q	63	ALA	2.4
73	d	13	ALA	2.4
64	DF	42	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
17	w	137	THR	2.4
33	BZ	64	THR	2.4
46	C	53	THR	2.4
48	E	112	THR	2.4
51	CS	176	THR	2.4
54	CV	203	THR	2.4
57	CY	134	THR	2.4
74	DP	26	THR	2.4
46	C	168	HIS	2.4
10	p	47	LEU	2.4
18	BK	22	LEU	2.4
20	z	138	LEU	2.4
22	2	128	LEU	2.4
27	BT	57	LEU	2.4
27	BT	85	LEU	2.4
36	AI	28	LEU	2.4
50	G	189	LEU	2.4
52	CT	124	LEU	2.4
57	N	5	LEU	2.4
68	Y	93	LEU	2.4
78	AR	271	LEU	2.4
5	k	270	ASN	2.4
19	BL	58	ASN	2.4
31	AD	13	ASN	2.4
40	CG	20	ASN	2.4
64	U	87	ASN	2.4
65	DG	85	ASN	2.4
6	AY	216	ILE	2.4
27	BT	97	ILE	2.4
28	AA	5	ILE	2.4
49	F	185	ILE	2.4
52	CT	141	ILE	2.4
53	CU	181	ILE	2.4
58	CZ	72	ILE	2.4
60	DB	117	PRO	2.4
66	W	64	ILE	2.4
70	a	75	ILE	2.4
1	1	1011	C	2.4
11	q	165	CYS	2.4
45	CM	656	C	2.4
45	CM	1057	C	2.4
77	h	166	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
78	AR	30	PRO	2.4
4	AW	55	GLY	2.4
4	AW	122	ASP	2.4
5	AX	87	VAL	2.4
7	m	147	ASP	2.4
8	n	51	VAL	2.4
10	BC	164	VAL	2.4
12	r	96	VAL	2.4
12	BE	190	VAL	2.4
15	u	18	VAL	2.4
17	BJ	105	VAL	2.4
18	BK	113	VAL	2.4
20	z	129	GLY	2.4
22	BO	145	GLY	2.4
23	5	19	VAL	2.4
23	BP	45	GLY	2.4
23	BP	101	VAL	2.4
24	BQ	101	VAL	2.4
33	AF	82	ASP	2.4
33	BZ	80	VAL	2.4
38	AK	23	GLY	2.4
38	CE	23	GLY	2.4
44	CK	71	VAL	2.4
49	F	129	GLY	2.4
50	G	76	VAL	2.4
57	N	94	VAL	2.4
60	Q	93	GLY	2.4
63	DE	15	VAL	2.4
65	DG	95	ASP	2.4
66	DH	115	VAL	2.4
70	a	92	VAL	2.4
75	f	17	GLY	2.4
1	AS	10	A	2.4
1	AS	115	A	2.4
1	AS	1638	A	2.4
1	AS	1875	A	2.4
1	AS	2379	A	2.4
1	AS	2612	A	2.4
3	AU	1	A	2.4
45	B	1574	A	2.4
45	CM	1403	A	2.4
5	k	369	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
5	AX	28	ARG	2.4
7	m	27	LYS	2.4
10	p	147	LYS	2.4
10	BC	172	LYS	2.4
13	s	35	LYS	2.4
16	BI	169	LYS	2.4
18	x	126	ARG	2.4
35	CB	86	LYS	2.4
36	CC	5	LYS	2.4
40	CG	34	LYS	2.4
53	CU	100	ARG	2.4
55	CW	69	ARG	2.4
55	CW	132	ARG	2.4
56	CX	93	LYS	2.4
58	O	54	LYS	2.4
59	P	70	LYS	2.4
63	T	78	ARG	2.4
65	DG	134	ARG	2.4
75	DQ	44	ARG	2.4
1	1	244	G	2.4
1	1	750	G	2.4
1	AS	1437	G	2.4
1	AS	2503	G	2.4
4	AW	159	SER	2.4
4	AW	195	SER	2.4
8	n	11	SER	2.4
9	BB	8	GLU	2.4
10	BC	92	PHE	2.4
16	BI	8	GLU	2.4
17	BJ	101	GLU	2.4
20	z	59	SER	2.4
25	BR	31	PHE	2.4
25	BR	88	GLU	2.4
27	BT	36	SER	2.4
28	BU	90	GLU	2.4
29	AB	53	PHE	2.4
37	CD	53	GLU	2.4
39	CF	22	SER	2.4
45	B	496	G	2.4
45	B	508	G	2.4
45	B	1038	G	2.4
45	B	1402	G	2.4

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Mol	Chain	Res	Type	RSRZ
45	CM	898	G	2.4
45	CM	1649	G	2.4
45	CM	1705	G	2.4
49	F	78	PHE	2.4
60	Q	9	PHE	2.4
62	S	9	PHE	2.4
62	S	120	SER	2.4
5	AX	106	TRP	2.4
10	BC	210	ALA	2.4
20	BM	147	ALA	2.4
24	BQ	21	ALA	2.4
28	AA	117	ALA	2.4
43	AP	103	ALA	2.4
49	CQ	53	ALA	2.4
44	AQ	25	GLN	2.4
51	H	46	TRP	2.4
58	CZ	27	ALA	2.4
58	CZ	100	TRP	2.4
69	Z	24	TRP	2.4
73	DO	13	ALA	2.4
78	AR	28	ALA	2.4
7	AZ	39	GLN	2.4
52	I	199	GLN	2.4
52	CT	176	GLN	2.4
52	CT	210	GLN	2.4
1	1	3138	U	2.4
1	AS	2968	U	2.4
1	AS	3319	U	2.4
45	CM	1401	U	2.4
7	AZ	86	TYR	2.4
10	BC	56	TYR	2.4
13	BF	52	TYR	2.4
16	BI	94	TYR	2.4
33	BZ	26	TYR	2.4
49	CQ	153	TYR	2.4
61	DC	115	TYR	2.4
78	AR	302	TYR	2.4
35	CB	68	THR	2.4
39	CF	76	THR	2.4
53	J	74	THR	2.4
62	S	36	THR	2.4
65	V	39	THR	2.4

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Mol	Chain	Res	Type	RSRZ
78	AR	146	THR	2.4
10	p	233	HIS	2.4
13	BF	152	HIS	2.4
20	BM	134	HIS	2.4
29	BV	67	HIS	2.4
47	D	172	MET	2.4
59	P	4	MET	2.4
14	BG	174	LEU	2.4
20	BM	177	LEU	2.4
28	AA	134	LEU	2.4
31	BX	16	LEU	2.4
36	CC	28	LEU	2.4
48	CP	129	LEU	2.4
48	CP	235	LEU	2.4
51	CS	174	LEU	2.4
60	Q	78	LEU	2.4
4	AW	88	ILE	2.4
13	BF	148	ILE	2.4
41	CH	19	ILE	2.4
44	CK	83	ILE	2.4
48	E	213	ILE	2.4
49	CQ	185	ILE	2.4
55	L	52	ILE	2.4
61	DC	84	ILE	2.4
66	DH	102	ILE	2.4
68	DJ	86	ILE	2.4
68	DJ	103	ILE	2.4
69	Z	57	ILE	2.4
6	AY	56	ASN	2.4
20	BM	36	ASN	2.4
26	BS	91	ASN	2.4
29	BV	119	PRO	2.4
52	I	130	PRO	2.4
57	CY	28	ASN	2.4
76	g	60	PRO	2.4
6	AY	43	VAL	2.4
6	AY	143	VAL	2.4
13	s	24	GLY	2.4
19	BL	87	VAL	2.4
19	BL	169	GLY	2.4
20	BM	73	GLY	2.4
5	AX	345	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
9	o	31	ARG	2.4
14	BG	16	LYS	2.4
14	BG	30	GLY	2.4
11	BD	168	ARG	2.4
16	v	201	ARG	2.4
16	BI	159	ARG	2.4
17	w	104	LYS	2.4
17	BJ	50	ARG	2.4
18	x	181	ARG	2.4
18	BK	164	LYS	2.4
21	BN	47	LYS	2.4
22	BO	23	GLY	2.4
29	AB	20	GLY	2.4
29	BV	4	ARG	2.4
29	BV	77	LYS	2.4
32	BY	53	LYS	2.4
35	CB	70	LYS	2.4
39	AL	35	GLY	2.4
39	CF	56	VAL	2.4
43	CJ	94	GLY	2.4
44	CK	8	VAL	2.4
48	E	107	GLY	2.4
48	E	125	VAL	2.4
52	I	158	VAL	2.4
57	N	30	LYS	2.4
62	DD	112	ASP	2.4
63	T	103	ASP	2.4
63	DE	10	LYS	2.4
65	V	121	GLY	2.4
66	W	115	VAL	2.4
68	Y	33	VAL	2.4
72	c	30	VAL	2.4
26	BS	125	ARG	2.4
38	CE	24	ARG	2.4
56	CX	24	LYS	2.4
69	Z	7	ARG	2.4
72	c	52	ASP	2.4
75	DQ	16	LYS	2.4
1	1	1577	C	2.4
1	AS	225	C	2.4
1	AS	2736	C	2.4
1	AS	3314	C	2.4

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Mol	Chain	Res	Type	RSRZ
45	B	647	C	2.4
45	CM	1586	C	2.4
24	6	11	PHE	2.4
45	B	143	A	2.4
57	N	42	PHE	2.4
68	Y	128	PHE	2.4
34	AG	58	GLU	2.4
56	M	18	GLU	2.4
70	DL	101	GLU	2.4
6	l	255	ALA	2.4
14	BG	71	ALA	2.4
18	x	177	ALA	2.4
23	BP	58	ALA	2.4
39	CF	59	ALA	2.4
43	CJ	103	ALA	2.4
46	C	14	ALA	2.4
51	CS	171	ALA	2.4
54	CV	79	ALA	2.4
59	DA	144	ALA	2.4
60	DB	16	ALA	2.4
56	CX	58	GLN	2.4
58	O	119	SER	2.4
60	DB	29	SER	2.4
69	DK	24	TRP	2.4
73	d	26	GLN	2.4
76	g	7	SER	2.4
5	AX	233	TRP	2.4
31	BX	73	GLN	2.4
35	CB	49	SER	2.4
38	AK	46	SER	2.4
21	BN	42	TRP	2.4
23	5	95	TRP	2.4
1	1	2432	G	2.4
1	AS	147	G	2.4
1	AS	1619	G	2.4
7	AZ	261	THR	2.4
10	BC	102	THR	2.4
12	r	75	TYR	2.4
16	v	129	TYR	2.4
18	BK	139	TYR	2.4
24	6	94	TYR	2.4
30	AC	27	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
39	AL	50	TYR	2.4
45	B	1247	U	2.4
45	B	1300	U	2.4
45	B	1400	U	2.4
45	CM	258	U	2.4
45	CM	271	G	2.4
49	F	178	MET	2.4
50	G	65	MET	2.4
50	G	103	TYR	2.4
61	R	11	THR	2.4
71	b	101	TYR	2.4
72	DN	62	TYR	2.4
76	g	56	MET	2.4
13	BF	19	LEU	2.4
16	BI	189	HIS	2.4
17	BJ	59	LEU	2.4
21	0	162	LEU	2.4
21	BN	45	LEU	2.4
26	BS	53	HIS	2.4
32	BY	88	LEU	2.4
33	AF	83	LEU	2.4
38	CE	8	LEU	2.4
46	CN	92	HIS	2.4
49	F	111	LEU	2.4
50	CR	48	LEU	2.4
57	CY	140	LEU	2.4
60	Q	28	LEU	2.4
64	DF	99	HIS	2.4
69	DK	33	LEU	2.4
5	AX	252	ILE	2.4
9	BB	233	ILE	2.4
20	z	41	ILE	2.4
26	8	62	ILE	2.4
26	BS	63	ILE	2.4
47	D	204	ILE	2.4
51	CS	64	ILE	2.4
64	U	22	ILE	2.4
68	DJ	27	ILE	2.4
70	DL	118	ILE	2.4
72	c	41	ILE	2.4
18	BK	123	PRO	2.4
40	CG	2	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
76	DR	30	PRO	2.4
6	l	194	LYS	2.3
6	AY	362	LYS	2.3
9	o	75	VAL	2.3
16	BI	128	LYS	2.3
17	w	68	LYS	2.3
20	z	93	VAL	2.3
20	z	135	LYS	2.3
20	z	156	LYS	2.3
4	AW	228	GLY	2.3
6	AY	58	GLY	2.3
19	BL	142	GLY	2.3
19	BL	178	ARG	2.3
23	5	99	VAL	2.3
30	BW	23	LYS	2.3
33	BZ	118	VAL	2.3
34	AG	52	VAL	2.3
35	AH	41	ARG	2.3
36	AI	66	VAL	2.3
37	CD	74	LYS	2.3
40	CG	38	ASN	2.3
41	CH	52	LYS	2.3
42	CI	15	ARG	2.3
46	C	37	VAL	2.3
43	CJ	52	GLY	2.3
46	CN	179	ARG	2.3
49	F	144	ARG	2.3
49	CQ	59	VAL	2.3
50	CR	194	VAL	2.3
50	CR	257	ARG	2.3
51	H	160	VAL	2.3
52	CT	229	LYS	2.3
54	CV	15	GLY	2.3
55	CW	126	ARG	2.3
57	CY	117	VAL	2.3
59	DA	140	LYS	2.3
64	DF	80	LYS	2.3
69	DK	17	VAL	2.3
70	DL	27	VAL	2.3
74	DP	30	VAL	2.3
79	i	119	VAL	2.3
69	DK	4	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
6	AY	95	CYS	2.3
6	AY	101	PHE	2.3
14	BG	26	PHE	2.3
18	BK	76	PHE	2.3
23	5	28	PHE	2.3
46	C	43	ASP	2.3
53	CU	127	PHE	2.3
66	W	91	ASP	2.3
68	DJ	85	ASP	2.3
6	AY	190	ALA	2.3
6	AY	358	ALA	2.3
20	BM	145	ALA	2.3
20	BM	168	ALA	2.3
24	6	44	ALA	2.3
25	BR	81	ALA	2.3
31	AD	97	ALA	2.3
32	AE	2	ALA	2.3
32	BY	90	ALA	2.3
39	CF	10	GLU	2.3
46	CN	26	ALA	2.3
59	P	81	ALA	2.3
62	DD	118	ALA	2.3
65	DG	11	ALA	2.3
69	Z	138	GLU	2.3
79	CL	61	GLU	2.3
1	1	2457	C	2.3
45	B	1417	C	2.3
45	CM	222	C	2.3
45	CM	995	C	2.3
45	CM	1567	C	2.3
69	DK	75	GLN	2.3
1	AS	212	A	2.3
1	AS	218	A	2.3
1	AS	813	A	2.3
1	AS	823	A	2.3
1	AS	2675	A	2.3
6	l	11	SER	2.3
6	l	107	TRP	2.3
7	AZ	66	SER	2.3
7	AZ	183	TRP	2.3
10	BC	127	SER	2.3
17	w	2	SER	2.3

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Mol	Chain	Res	Type	RSRZ
17	w	25	SER	2.3
45	B	218	A	2.3
45	CM	1676	A	2.3
46	CN	175	TRP	2.3
54	CV	86	SER	2.3
59	DA	61	SER	2.3
79	i	99	SER	2.3
5	AX	242	THR	2.3
7	m	99	TYR	2.3
10	p	202	THR	2.3
12	r	206	LEU	2.3
14	BG	171	THR	2.3
16	BI	80	THR	2.3
16	BI	126	THR	2.3
19	BL	71	LEU	2.3
20	z	120	TYR	2.3
29	BV	60	TYR	2.3
31	AD	70	TYR	2.3
33	AF	64	THR	2.3
36	AI	88	LEU	2.3
36	CC	21	LEU	2.3
48	E	108	LEU	2.3
49	F	71	THR	2.3
50	G	146	THR	2.3
50	CR	38	LEU	2.3
51	H	72	HIS	2.3
62	S	52	THR	2.3
65	DG	55	TYR	2.3
70	a	91	LEU	2.3
70	DL	48	TYR	2.3
72	DN	53	LEU	2.3
1	1	598	U	2.3
1	1	1934	U	2.3
1	AS	1550	U	2.3
1	AS	3141	U	2.3
45	B	505	U	2.3
45	CM	1267	U	2.3
7	m	185	ILE	2.3
18	x	136	ILE	2.3
18	BK	36	ILE	2.3
27	BT	50	ILE	2.3
39	AL	5	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
48	CP	173	ILE	2.3
49	F	139	ILE	2.3
57	CY	84	ILE	2.3
62	S	35	ILE	2.3
65	DG	100	ILE	2.3
71	DM	71	ILE	2.3
4	AW	178	PRO	2.3
4	AW	234	LYS	2.3
6	l	333	LYS	2.3
7	AZ	177	PRO	2.3
9	BB	96	LYS	2.3
19	BL	50	LYS	2.3
29	BV	2	PRO	2.3
35	AH	29	LYS	2.3
53	J	144	LYS	2.3
58	O	95	LYS	2.3
58	CZ	87	PRO	2.3
63	T	32	LYS	2.3
63	DE	116	LYS	2.3
74	e	11	LYS	2.3
75	DQ	11	PRO	2.3
76	DR	58	PRO	2.3
79	i	48	PRO	2.3
79	CL	52	LYS	2.3
79	CL	82	LYS	2.3
1	AS	1571	G	2.3
3	AU	132	G	2.3
6	l	198	ARG	2.3
11	q	166	ARG	2.3
13	s	143	ARG	2.3
22	BO	64	VAL	2.3
28	AA	72	VAL	2.3
28	BU	89	VAL	2.3
32	BY	107	VAL	2.3
34	AG	81	VAL	2.3
36	CC	10	ARG	2.3
45	B	272	G	2.3
45	B	1099	G	2.3
45	B	1336	G	2.3
45	CM	282	G	2.3
45	CM	1115	G	2.3
45	CM	1677	G	2.3

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Mol	Chain	Res	Type	RSRZ
46	C	86	VAL	2.3
48	E	90	ARG	2.3
55	L	85	VAL	2.3
59	DA	99	ARG	2.3
62	S	18	VAL	2.3
64	DF	88	ARG	2.3
70	DL	132	ARG	2.3
72	DN	85	ARG	2.3
4	j	138	GLY	2.3
7	m	114	GLY	2.3
7	m	169	GLY	2.3
9	o	211	GLY	2.3
12	r	117	GLY	2.3
13	BF	150	ASN	2.3
29	BV	142	GLY	2.3
32	AE	65	GLY	2.3
55	L	32	GLY	2.3
73	DO	42	ASN	2.3
75	f	13	ASN	2.3
77	h	169	GLY	2.3
65	V	21	PHE	2.3
69	Z	43	PHE	2.3
73	d	79	PHE	2.3
26	BS	106	ASP	2.3
49	CQ	170	ASP	2.3
6	AY	138	ALA	2.3
6	AY	229	ALA	2.3
7	AZ	267	ALA	2.3
10	BC	248	ALA	2.3
26	BS	65	ALA	2.3
28	AA	90	GLU	2.3
28	BU	59	ALA	2.3
34	AG	96	ALA	2.3
36	AI	52	ALA	2.3
37	AJ	68	ALA	2.3
38	AK	50	ALA	2.3
52	I	161	GLU	2.3
57	N	144	ALA	2.3
57	CY	128	CYS	2.3
58	CZ	94	ALA	2.3
61	DC	39	ALA	2.3
68	DJ	96	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
76	DR	61	ALA	2.3
51	H	37	GLN	2.3
72	DN	44	MET	2.3
6	l	279	SER	2.3
18	BK	48	LEU	2.3
20	BM	155	LEU	2.3
8	BA	8	TRP	2.3
12	r	20	SER	2.3
12	r	219	SER	2.3
12	BE	200	LEU	2.3
30	AC	31	SER	2.3
33	BZ	100	SER	2.3
34	CA	80	LEU	2.3
34	CA	89	LEU	2.3
47	CO	103	LEU	2.3
46	C	175	TRP	2.3
48	CP	130	SER	2.3
51	CS	96	SER	2.3
53	CU	164	SER	2.3
55	CW	118	LEU	2.3
63	DE	36	SER	2.3
65	DG	125	SER	2.3
70	DL	14	SER	2.3
75	f	36	LEU	2.3
75	DQ	38	LEU	2.3
78	AR	255	SER	2.3
1	1	2454	C	2.3
1	AS	9	C	2.3
1	AS	1547	C	2.3
21	0	88	HIS	2.3
29	BV	62	HIS	2.3
8	BA	152	THR	2.3
1	1	976	A	2.3
1	1	2466	A	2.3
1	AS	149	A	2.3
1	AS	208	A	2.3
1	AS	1601	A	2.3
5	AX	119	TYR	2.3
7	m	86	TYR	2.3
11	BD	99	ILE	2.3
12	BE	99	ILE	2.3
15	BH	32	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
15	BH	33	ILE	2.3
17	BJ	44	ILE	2.3
18	x	130	TYR	2.3
18	BK	58	ILE	2.3
22	BO	29	THR	2.3
31	AD	106	ILE	2.3
38	CE	66	TYR	2.3
45	CM	274	C	2.3
45	CM	1704	C	2.3
57	CY	18	HIS	2.3
45	B	1570	A	2.3
45	CM	738	A	2.3
45	CM	1769	A	2.3
46	CN	188	ILE	2.3
50	CR	90	ILE	2.3
51	CS	209	TYR	2.3
59	DA	84	ILE	2.3
61	R	97	TYR	2.3
62	S	64	ILE	2.3
64	DF	140	THR	2.3
65	V	100	ILE	2.3
68	Y	34	ILE	2.3
68	Y	86	ILE	2.3
69	DK	117	ILE	2.3
70	a	76	TYR	2.3
72	c	59	TYR	2.3
76	DR	48	THR	2.3
6	AY	47	LYS	2.3
29	AB	19	LYS	2.3
60	Q	31	LYS	2.3
62	DD	22	LYS	2.3
63	T	63	LYS	2.3
70	DL	83	LYS	2.3
78	AR	226	LYS	2.3
79	i	100	LYS	2.3
1	AS	82	U	2.3
1	AS	216	U	2.3
1	AS	1596	U	2.3
1	AS	3164	U	2.3
5	AX	240	ARG	2.3
6	AY	247	ARG	2.3
13	s	61	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
16	BI	188	ARG	2.3
19	y	66	ARG	2.3
19	BL	143	PRO	2.3
23	BP	93	ARG	2.3
30	BW	58	ARG	2.3
40	CG	36	ARG	2.3
45	B	826	U	2.3
46	C	126	PRO	2.3
51	CS	164	PRO	2.3
52	CT	223	ARG	2.3
54	CV	77	ARG	2.3
60	DB	130	ARG	2.3
63	T	118	PRO	2.3
66	DH	67	ARG	2.3
74	e	49	ARG	2.3
75	f	22	ARG	2.3
17	w	7	VAL	2.3
33	AF	80	VAL	2.3
35	AH	31	VAL	2.3
39	AL	45	VAL	2.3
44	AQ	71	VAL	2.3
46	CN	156	VAL	2.3
47	D	210	VAL	2.3
47	CO	215	VAL	2.3
52	CT	114	VAL	2.3
53	J	22	VAL	2.3
62	S	117	VAL	2.3
7	AZ	121	GLY	2.3
14	BG	94	GLY	2.3
16	BI	82	GLY	2.3
38	CE	9	GLY	2.3
59	DA	44	GLY	2.3
10	BC	146	ASN	2.3
18	BK	28	ASN	2.3
26	8	111	ASN	2.3
46	CN	81	PHE	2.3
49	CQ	26	PHE	2.3
50	G	175	PHE	2.3
55	L	47	PHE	2.3
60	DB	9	PHE	2.3
1	1	3221	G	2.3
1	AS	1613	G	2.3

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Mol	Chain	Res	Type	RSRZ
4	AW	26	ALA	2.3
4	AW	106	ALA	2.3
5	k	378	ALA	2.3
7	AZ	98	ALA	2.3
7	AZ	291	ALA	2.3
11	BD	153	ALA	2.3
39	CF	33	ALA	2.3
45	B	226	G	2.3
45	B	381	G	2.3
45	CM	972	G	2.3
45	CM	1404	G	2.3
46	CN	60	ALA	2.3
48	E	244	ALA	2.3
51	CS	202	ALA	2.3
59	DA	146	ALA	2.3
63	T	37	GLU	2.3
69	Z	12	ALA	2.3
69	Z	25	ALA	2.3
70	a	39	GLU	2.3
72	c	60	ALA	2.3
78	AR	235	ALA	2.3
8	BA	59	ASP	2.3
24	BQ	124	ASP	2.3
28	AA	81	MET	2.3
31	BX	96	ASP	2.3
46	C	150	ASP	2.3
50	CR	170	ASP	2.3
58	CZ	39	ASP	2.3
72	c	33	ASP	2.3
4	AW	150	LEU	2.3
5	AX	25	GLN	2.3
5	AX	47	LEU	2.3
5	AX	338	LEU	2.3
6	l	356	GLN	2.3
6	AY	137	LEU	2.3
9	o	106	LEU	2.3
12	r	49	CYS	2.3
14	BG	151	GLN	2.3
18	BK	118	GLN	2.3
19	BL	9	GLN	2.3
22	BO	149	GLN	2.3
23	BP	50	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
25	BR	96	GLN	2.3
31	BX	86	LEU	2.3
40	CG	23	LEU	2.3
47	D	103	LEU	2.3
47	CO	113	LEU	2.3
58	O	36	LEU	2.3
59	DA	28	LEU	2.3
59	DA	102	LEU	2.3
60	Q	132	LEU	2.3
66	W	25	LEU	2.3
6	AY	251	TRP	2.3
7	AZ	227	ILE	2.3
9	o	156	LYS	2.3
11	q	20	ILE	2.3
11	BD	48	ILE	2.3
14	BG	88	LYS	2.3
17	w	115	LYS	2.3
19	y	101	ILE	2.3
19	BL	152	HIS	2.3
20	BM	46	LYS	2.3
21	BN	85	SER	2.3
22	2	9	SER	2.3
22	2	48	ILE	2.3
27	9	89	LYS	2.3
28	BU	86	SER	2.3
30	AC	15	LYS	2.3
33	BZ	19	LYS	2.3
35	AH	36	LYS	2.3
38	CE	47	HIS	2.3
38	CE	36	SER	2.3
41	AN	7	LYS	2.3
47	D	160	LYS	2.3
48	E	30	TRP	2.3
48	E	111	LYS	2.3
48	CP	51	ILE	2.3
50	CR	169	ILE	2.3
51	CS	116	HIS	2.3
52	CT	82	SER	2.3
52	CT	167	LYS	2.3
54	CV	45	SER	2.3
54	CV	148	LYS	2.3
55	L	42	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
58	O	139	HIS	2.3
59	DA	123	HIS	2.3
59	P	14	SER	2.3
59	P	92	ILE	2.3
60	DB	76	ILE	2.3
61	R	46	SER	2.3
63	T	123	SER	2.3
64	U	81	ILE	2.3
64	DF	84	TRP	2.3
67	DI	23	ILE	2.3
68	DJ	5	SER	2.3
68	DJ	58	SER	2.3
76	DR	29	LYS	2.3
78	AR	168	SER	2.3
7	m	76	THR	2.3
21	BN	98	THR	2.3
29	BV	43	THR	2.3
32	AE	100	THR	2.3
50	G	26	THR	2.3
52	CT	12	THR	2.3
60	DB	84	THR	2.3
66	W	116	THR	2.3
66	DH	26	THR	2.3
68	Y	90	THR	2.3
4	AW	133	TYR	2.3
5	k	117	ARG	2.3
13	s	137	ARG	2.3
14	t	173	ARG	2.3
22	2	5	ARG	2.3
22	BO	127	TYR	2.3
24	BQ	88	ARG	2.3
39	AL	16	ARG	2.3
48	CP	90	ARG	2.3
50	G	3	ARG	2.3
50	CR	256	ARG	2.3
75	DQ	12	ARG	2.3
78	AR	246	ARG	2.3
1	1	239	A	2.3
1	1	253	A	2.3
1	1	3193	C	2.3
1	AS	1465	C	2.3
19	BL	186	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
1	1	1815	U	2.3
1	AS	894	U	2.3
1	AS	901	U	2.3
1	AS	1032	A	2.3
1	AS	1579	A	2.3
1	AS	2536	U	2.3
1	AS	2972	A	2.3
6	AY	7	VAL	2.3
6	AY	53	VAL	2.3
45	B	222	C	2.3
45	B	379	C	2.3
45	B	720	C	2.3
45	B	1113	C	2.3
48	E	106	VAL	2.3
51	CS	134	VAL	2.3
53	CU	59	PRO	2.3
61	R	109	PRO	2.3
61	DC	112	VAL	2.3
63	DE	119	VAL	2.3
68	DJ	25	VAL	2.3
72	DN	98	PRO	2.3
45	B	1100	U	2.3
45	B	1101	A	2.3
45	B	1314	A	2.3
74	DP	12	VAL	2.3
3	AU	90	U	2.3
45	CM	88	U	2.3
6	AY	97	GLY	2.3
8	n	168	GLY	2.3
48	E	43	GLY	2.3
55	L	137	GLY	2.3
10	BC	205	ASN	2.3
37	CD	62	ASN	2.3
54	K	52	ASN	2.3
70	DL	133	ASN	2.3
7	AZ	11	ALA	2.3
7	AZ	77	ALA	2.3
7	AZ	157	ALA	2.3
10	BC	179	ALA	2.3
14	BG	82	ALA	2.3
18	BK	35	ALA	2.3
19	BL	110	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
22	BO	52	MET	2.3
23	5	112	ALA	2.3
33	AF	2	ALA	2.3
38	AK	85	ALA	2.3
48	CP	242	ALA	2.3
52	CT	221	GLU	2.3
53	CU	14	GLU	2.3
58	O	77	ALA	2.3
67	X	30	ALA	2.3
68	Y	111	MET	2.3
68	DJ	114	GLU	2.3
75	DQ	48	ALA	2.3
78	AR	236	GLU	2.3
7	m	137	ASP	2.3
9	BB	103	LEU	2.3
11	BD	176	LEU	2.3
16	v	87	GLN	2.3
20	z	150	LEU	2.3
25	BR	87	LEU	2.3
27	9	6	GLN	2.3
31	AD	58	LEU	2.3
37	AJ	76	LEU	2.3
47	CO	207	LEU	2.3
49	CQ	214	ASP	2.3
50	G	247	LEU	2.3
53	CU	125	LEU	2.3
54	K	20	GLN	2.3
58	O	96	LEU	2.3
59	DA	91	LEU	2.3
73	DO	27	GLN	2.3
6	AY	354	LYS	2.3
10	BC	182	LYS	2.3
14	BG	68	LYS	2.3
26	8	75	LYS	2.3
26	BS	120	LYS	2.3
29	AB	63	LYS	2.3
33	BZ	65	LYS	2.3
43	CJ	13	LYS	2.3
47	CO	216	LYS	2.3
1	1	524	G	2.3
1	1	2435	G	2.3
1	1	2461	G	2.3

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Mol	Chain	Res	Type	RSRZ
1	AS	175	G	2.3
1	AS	267	G	2.3
1	AS	1558	G	2.3
1	AS	1572	G	2.3
1	AS	1888	G	2.3
1	AS	1930	G	2.3
3	AU	42	G	2.3
5	AX	278	ILE	2.3
13	s	120	ILE	2.3
14	BG	95	ILE	2.3
16	v	64	ILE	2.3
24	BQ	114	ILE	2.3
27	9	4	ILE	2.3
28	BU	122	HIS	2.3
43	AP	57	ILE	2.3
45	B	702	G	2.3
45	CM	1135	G	2.3
45	CM	1470	G	2.3
45	CM	1671	G	2.3
66	DH	86	HIS	2.3
68	Y	75	ILE	2.3
74	e	53	ILE	2.3
75	DQ	23	HIS	2.3
4	AW	114	SER	2.3
5	AX	334	ARG	2.3
10	BC	48	SER	2.3
14	BG	15	ARG	2.3
17	BJ	2	SER	2.3
18	BK	144	SER	2.3
27	BT	12	ARG	2.3
38	CE	15	SER	2.3
44	CK	85	ARG	2.3
46	CN	79	ARG	2.3
47	D	201	THR	2.3
49	F	117	ARG	2.3
50	CR	255	ARG	2.3
51	CS	151	SER	2.3
51	CS	185	ARG	2.3
55	L	130	THR	2.3
59	DA	42	ARG	2.3
62	S	75	SER	2.3
62	DD	2	SER	2.3

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Mol	Chain	Res	Type	RSRZ
65	DG	139	THR	2.3
72	DN	28	ARG	2.3
78	AR	93	TRP	2.3
78	AR	61	SER	2.3
78	AR	75	SER	2.3
79	i	97	THR	2.3
11	BD	88	TYR	2.3
12	r	218	TYR	2.3
13	BF	123	TYR	2.3
16	v	202	TYR	2.3
20	BM	124	TYR	2.3
21	BN	172	TYR	2.3
36	CC	70	TYR	2.3
46	C	36	TYR	2.3
50	CR	240	PRO	2.3
53	CU	60	PRO	2.3
55	L	34	TYR	2.3
59	P	18	TYR	2.3
67	X	58	TYR	2.3
4	j	207	VAL	2.3
4	j	230	VAL	2.3
10	p	198	VAL	2.3
13	BF	171	VAL	2.3
19	y	140	VAL	2.3
20	BM	164	VAL	2.3
32	AE	48	VAL	2.3
34	AG	66	VAL	2.3
47	D	164	VAL	2.3
47	CO	43	VAL	2.3
48	E	188	VAL	2.3
54	K	81	VAL	2.3
56	M	55	VAL	2.3
57	CY	75	VAL	2.3
61	R	2	VAL	2.3
66	DH	99	VAL	2.3
70	DL	16	PRO	2.3
74	e	12	VAL	2.3
78	AR	237	VAL	2.3
6	l	97	GLY	2.3
19	BL	75	GLY	2.3
27	9	92	GLY	2.3
48	E	140	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
49	F	141	GLY	2.3
58	CZ	110	GLY	2.3
60	DB	70	GLY	2.3
65	V	26	GLY	2.3
1	1	1933	U	2.3
1	1	2838	U	2.3
1	1	3215	U	2.3
1	AS	252	U	2.3
1	AS	1851	U	2.3
3	4	80	U	2.3
3	AU	147	U	2.3
45	B	88	U	2.3
1	1	1099	A	2.2
1	1	1576	A	2.2
1	AS	150	A	2.2
1	AS	1608	A	2.2
1	AS	1850	C	2.2
1	AS	2185	A	2.2
1	AS	2942	C	2.2
3	AU	129	C	2.2
5	k	365	PHE	2.2
15	u	122	PHE	2.2
28	AA	136	PHE	2.2
38	AK	74	PHE	2.2
45	B	1081	C	2.2
45	B	1410	A	2.2
45	B	1651	C	2.2
45	CM	673	A	2.2
45	CM	1177	C	2.2
45	CM	1365	C	2.2
45	CM	1570	A	2.2
45	CM	1583	C	2.2
46	C	7	PHE	2.2
67	X	1	MET	2.2
4	AW	56	ALA	2.2
8	n	129	GLU	2.2
10	p	200	ALA	2.2
10	p	209	GLU	2.2
13	s	66	ALA	2.2
14	BG	132	ALA	2.2
14	BG	150	GLU	2.2
17	w	101	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
18	x	132	ALA	2.2
19	BL	70	ALA	2.2
21	0	57	GLU	2.2
35	AH	2	ALA	2.2
41	AN	43	ASN	2.2
46	C	95	ALA	2.2
47	D	40	ASN	2.2
51	CS	35	GLU	2.2
54	CV	156	ALA	2.2
56	CX	79	GLU	2.2
58	O	111	ASN	2.2
59	P	138	ASN	2.2
67	DI	19	ALA	2.2
74	e	43	ASN	2.2
76	DR	34	ALA	2.2
79	i	63	ALA	2.2
79	i	116	GLU	2.2
4	j	102	LEU	2.2
7	AZ	103	LEU	2.2
10	BC	151	LEU	2.2
10	BC	167	LEU	2.2
15	BH	62	LEU	2.2
49	CQ	47	LEU	2.2
49	CQ	114	LEU	2.2
50	G	48	LEU	2.2
78	AR	7	LEU	2.2
5	k	201	LYS	2.2
9	o	17	GLN	2.2
10	BC	64	LYS	2.2
14	BG	102	GLN	2.2
18	BK	99	GLN	2.2
21	BN	50	LYS	2.2
26	BS	75	LYS	2.2
27	BT	63	LYS	2.2
33	AF	78	LYS	2.2
34	CA	70	LYS	2.2
37	CD	91	GLN	2.2
40	AM	18	LYS	2.2
41	AN	38	LYS	2.2
47	CO	144	LYS	2.2
52	CT	59	GLN	2.2
52	CT	93	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
52	CT	199	GLN	2.2
65	V	27	LYS	2.2
72	c	3	LYS	2.2
72	DN	4	LYS	2.2
73	DO	22	LYS	2.2
79	CL	37	LYS	2.2
46	C	72	ASP	2.2
53	CU	23	ASP	2.2
78	AR	52	ASP	2.2
79	CL	40	ASP	2.2
7	AZ	239	ILE	2.2
14	t	46	ILE	2.2
18	x	67	ILE	2.2
33	AF	10	ILE	2.2
34	AG	67	ILE	2.2
49	F	173	ILE	2.2
51	H	130	ILE	2.2
52	CT	52	ILE	2.2
57	N	131	ILE	2.2
63	T	61	ILE	2.2
5	k	150	ARG	2.2
7	AZ	68	HIS	2.2
24	BQ	32	ARG	2.2
28	AA	15	ARG	2.2
30	BW	41	ARG	2.2
50	G	17	HIS	2.2
54	CV	59	ARG	2.2
68	Y	3	ARG	2.2
70	DL	84	ARG	2.2
73	d	19	HIS	2.2
5	k	122	TRP	2.2
5	AX	194	TRP	2.2
6	AY	163	THR	2.2
11	BD	44	THR	2.2
21	0	78	TRP	2.2
27	BT	107	THR	2.2
35	AH	15	THR	2.2
49	F	223	THR	2.2
5	k	335	VAL	2.2
6	AY	18	SER	2.2
6	AY	31	VAL	2.2
6	AY	146	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
6	AY	182	VAL	2.2
6	AY	210	TYR	2.2
7	m	12	TYR	2.2
7	AZ	233	SER	2.2
11	q	123	VAL	2.2
12	BE	26	VAL	2.2
12	BE	91	VAL	2.2
9	o	147	TYR	2.2
13	BF	26	SER	2.2
18	BK	65	SER	2.2
18	BK	87	SER	2.2
22	BO	79	VAL	2.2
31	BX	69	VAL	2.2
31	BX	29	TYR	2.2
32	BY	11	TYR	2.2
35	CB	66	SER	2.2
36	CC	22	VAL	2.2
39	AL	12	VAL	2.2
42	AO	24	SER	2.2
51	H	67	PRO	2.2
51	H	164	PRO	2.2
52	I	173	PRO	2.2
52	CT	128	THR	2.2
55	CW	111	THR	2.2
46	C	122	VAL	2.2
48	E	178	VAL	2.2
52	CT	179	VAL	2.2
53	CU	96	PRO	2.2
54	CV	81	VAL	2.2
46	CN	204	TYR	2.2
56	M	60	SER	2.2
60	DB	6	SER	2.2
68	DJ	30	SER	2.2
68	DJ	63	VAL	2.2
71	DM	91	PRO	2.2
72	DN	65	PRO	2.2
76	g	45	VAL	2.2
1	1	2441	G	2.2
1	1	2453	G	2.2
1	AS	1804	G	2.2
1	AS	3189	G	2.2
3	AU	131	G	2.2

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Mol	Chain	Res	Type	RSRZ
45	B	1276	G	2.2
45	B	1404	G	2.2
45	CM	1405	G	2.2
5	AX	245	GLY	2.2
50	G	58	GLY	2.2
50	CR	144	GLY	2.2
61	R	48	GLY	2.2
62	DD	32	GLY	2.2
72	DN	16	GLY	2.2
4	AW	16	PHE	2.2
6	AY	357	PHE	2.2
23	BP	110	PHE	2.2
42	AO	1	MET	2.2
48	E	93	MET	2.2
48	E	219	PHE	2.2
49	F	158	MET	2.2
53	CU	57	PHE	2.2
60	DB	22	PHE	2.2
1	1	2449	U	2.2
1	1	3354	U	2.2
1	AS	928	U	2.2
3	AU	34	U	2.2
45	B	697	U	2.2
45	B	779	U	2.2
45	B	1325	U	2.2
45	CM	176	U	2.2
45	CM	804	U	2.2
45	CM	824	U	2.2
7	m	280	ALA	2.2
7	AZ	281	GLU	2.2
8	n	5	ALA	2.2
10	p	114	ALA	2.2
10	BC	108	GLU	2.2
10	BC	169	ALA	2.2
10	BC	185	ALA	2.2
11	q	95	ALA	2.2
14	t	29	ALA	2.2
22	2	104	GLU	2.2
25	BR	104	ALA	2.2
39	AL	2	ALA	2.2
43	AP	16	GLU	2.2
51	H	74	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
58	CZ	101	ALA	2.2
62	S	85	ALA	2.2
66	W	96	ALA	2.2
69	DK	113	ALA	2.2
70	a	103	ALA	2.2
72	c	35	ALA	2.2
79	CL	49	ALA	2.2
1	1	2186	A	2.2
17	BJ	128	LEU	2.2
19	BL	54	LEU	2.2
19	BL	104	LEU	2.2
20	z	177	LEU	2.2
1	1	2745	C	2.2
1	AS	110	C	2.2
1	AS	797	A	2.2
5	k	175	LYS	2.2
5	AX	120	LYS	2.2
5	AX	236	LYS	2.2
6	l	234	LEU	2.2
6	l	349	LYS	2.2
6	AY	245	LEU	2.2
6	AY	321	ASN	2.2
10	p	44	LYS	2.2
10	BC	138	ASN	2.2
12	r	14	ASN	2.2
13	BF	80	LEU	2.2
16	v	179	LEU	2.2
16	v	197	LEU	2.2
16	BI	7	LEU	2.2
22	BO	87	LYS	2.2
23	5	10	LYS	2.2
25	BR	116	LYS	2.2
27	9	84	LYS	2.2
29	BV	14	ASN	2.2
33	BZ	122	ASN	2.2
39	CF	6	LYS	2.2
41	AN	48	LYS	2.2
45	B	171	A	2.2
47	D	47	LEU	2.2
45	B	237	C	2.2
45	B	273	C	2.2
45	CM	1344	C	2.2

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Mol	Chain	Res	Type	RSRZ
45	CM	1587	A	2.2
48	E	128	LYS	2.2
49	F	8	LYS	2.2
49	F	12	LEU	2.2
49	CQ	60	LEU	2.2
49	CQ	70	LEU	2.2
53	J	73	LEU	2.2
55	L	30	LEU	2.2
56	CX	76	LEU	2.2
57	CY	30	LYS	2.2
58	O	28	LEU	2.2
59	P	107	LYS	2.2
62	DD	46	LYS	2.2
62	DD	86	LYS	2.2
63	T	44	LYS	2.2
64	DF	45	LEU	2.2
65	DG	127	ASN	2.2
78	AR	44	LYS	2.2
78	AR	267	LEU	2.2
79	i	52	LYS	2.2
79	i	160	LEU	2.2
4	j	48	ILE	2.2
4	j	238	ILE	2.2
6	AY	75	ILE	2.2
7	AZ	64	ILE	2.2
11	BD	79	ILE	2.2
16	BI	174	ILE	2.2
19	y	27	GLN	2.2
19	y	114	ILE	2.2
21	BN	58	ILE	2.2
25	7	63	ILE	2.2
26	BS	124	ILE	2.2
32	AE	56	ILE	2.2
36	CC	76	ILE	2.2
40	AM	19	GLN	2.2
46	CN	131	GLN	2.2
47	CO	32	ILE	2.2
66	W	49	ILE	2.2
66	DH	49	ILE	2.2
71	DM	98	GLN	2.2
23	5	44	ASP	2.2
28	BU	30	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
29	AB	42	ARG	2.2
29	BV	128	ARG	2.2
37	CD	75	ARG	2.2
51	H	161	ASP	2.2
55	L	62	ARG	2.2
55	CW	58	ASP	2.2
56	M	91	ARG	2.2
58	O	38	HIS	2.2
68	Y	85	ASP	2.2
69	Z	116	ASP	2.2
72	DN	91	ASP	2.2
5	k	255	TRP	2.2
5	k	263	THR	2.2
5	AX	29	VAL	2.2
5	AX	104	THR	2.2
6	AY	9	VAL	2.2
6	AY	167	VAL	2.2
7	m	84	PRO	2.2
9	BB	154	VAL	2.2
11	q	71	VAL	2.2
11	BD	30	PRO	2.2
13	BF	67	VAL	2.2
20	BM	93	VAL	2.2
27	9	73	VAL	2.2
28	BU	10	VAL	2.2
32	BY	40	THR	2.2
34	CA	66	VAL	2.2
36	AI	39	PRO	2.2
46	C	80	THR	2.2
46	C	128	THR	2.2
46	CN	42	PRO	2.2
48	CP	162	VAL	2.2
49	CQ	40	VAL	2.2
52	I	41	VAL	2.2
52	CT	89	THR	2.2
53	J	126	VAL	2.2
53	CU	128	PRO	2.2
58	O	82	PRO	2.2
58	CZ	123	VAL	2.2
61	DC	41	VAL	2.2
70	a	100	VAL	2.2
73	DO	35	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
73	DO	66	PRO	2.2
4	j	195	SER	2.2
12	BE	62	SER	2.2
13	s	41	SER	2.2
14	BG	144	SER	2.2
17	BJ	185	SER	2.2
18	BK	4	TYR	2.2
23	5	86	TYR	2.2
27	BT	9	SER	2.2
35	AH	13	TYR	2.2
37	CD	33	SER	2.2
46	CN	136	SER	2.2
54	CV	198	TYR	2.2
59	DA	120	SER	2.2
62	DD	78	TYR	2.2
7	AZ	102	GLY	2.2
30	BW	49	GLY	2.2
48	E	88	GLY	2.2
48	E	109	GLY	2.2
54	CV	50	GLY	2.2
55	L	35	GLY	2.2
56	M	19	GLY	2.2
57	N	145	GLY	2.2
68	DJ	21	GLY	2.2
64	DF	73	MET	2.2
5	AX	16	PHE	2.2
7	m	160	PHE	2.2
8	BA	176	PHE	2.2
19	BL	35	PHE	2.2
19	BL	53	PHE	2.2
28	AA	71	PHE	2.2
65	DG	88	PHE	2.2
69	Z	122	PHE	2.2
73	DO	32	PHE	2.2
75	f	52	PHE	2.2
4	AW	190	LYS	2.2
9	o	15	LYS	2.2
3	AU	114	G	2.2
4	AW	239	ALA	2.2
5	k	324	LEU	2.2
5	k	387	LEU	2.2
5	AX	107	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
5	AX	248	LYS	2.2
1	1	478	G	2.2
1	1	545	G	2.2
1	AS	74	G	2.2
1	AS	1510	G	2.2
1	AS	1516	G	2.2
1	AS	2579	G	2.2
2	AT	49	G	2.2
6	l	57	ALA	2.2
6	AY	359	GLU	2.2
9	BB	168	GLU	2.2
10	BC	212	LEU	2.2
12	r	87	LEU	2.2
12	BE	25	ALA	2.2
14	BG	45	LYS	2.2
14	BG	128	LYS	2.2
13	BF	108	GLU	2.2
14	BG	172	LEU	2.2
17	w	20	LEU	2.2
19	BL	18	ALA	2.2
19	BL	20	LYS	2.2
19	BL	159	LYS	2.2
19	BL	173	GLU	2.2
23	5	20	ALA	2.2
24	6	130	ALA	2.2
28	AA	2	ALA	2.2
28	AA	61	LYS	2.2
29	BV	19	LYS	2.2
31	BX	21	LYS	2.2
39	AL	74	LYS	2.2
41	AN	36	LYS	2.2
42	AO	14	LYS	2.2
45	CM	1038	G	2.2
45	CM	1594	G	2.2
45	CM	1765	G	2.2
46	CN	154	GLU	2.2
47	D	86	LEU	2.2
48	E	243	ALA	2.2
49	CQ	36	ALA	2.2
51	H	179	ALA	2.2
51	CS	119	GLU	2.2
53	J	55	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
53	J	78	GLU	2.2
53	CU	8	GLU	2.2
53	CU	122	LEU	2.2
54	K	133	ALA	2.2
55	L	20	GLU	2.2
55	L	159	ALA	2.2
55	CW	119	ALA	2.2
56	M	24	LYS	2.2
56	M	76	LEU	2.2
57	CY	46	LYS	2.2
57	CY	61	ALA	2.2
58	CZ	62	LEU	2.2
59	DA	76	LYS	2.2
59	DA	80	LEU	2.2
60	DB	31	LYS	2.2
60	DB	77	LYS	2.2
59	DA	86	GLU	2.2
62	S	88	LEU	2.2
64	DF	61	LEU	2.2
64	DF	139	LYS	2.2
65	V	75	ALA	2.2
73	d	71	ALA	2.2
74	e	33	LEU	2.2
78	AR	90	LEU	2.2
1	1	1272	U	2.2
1	1	1816	U	2.2
1	1	2183	U	2.2
3	AU	128	U	2.2
45	CM	270	U	2.2
45	CM	696	U	2.2
45	CM	1244	U	2.2
45	CM	1347	U	2.2
10	p	46	ASN	2.2
21	0	13	ASN	2.2
23	5	71	ASN	2.2
36	CC	61	ASN	2.2
48	CP	204	ASN	2.2
54	K	87	ASN	2.2
69	DK	10	ASN	2.2
78	AR	225	ASN	2.2
4	j	184	ARG	2.2
6	l	204	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
7	m	222	ILE	2.2
9	o	125	ILE	2.2
10	p	58	ARG	2.2
10	BC	60	GLN	2.2
12	r	191	ILE	2.2
14	t	91	ARG	2.2
16	BI	49	ARG	2.2
18	x	56	ARG	2.2
23	BP	30	GLN	2.2
23	BP	97	ARG	2.2
34	CA	18	ARG	2.2
36	CC	86	ARG	2.2
37	AJ	28	ARG	2.2
39	AL	51	GLN	2.2
47	D	171	ILE	2.2
48	E	181	ARG	2.2
49	CQ	116	ILE	2.2
49	CQ	180	GLN	2.2
51	H	187	ILE	2.2
52	I	182	GLN	2.2
52	CT	175	ILE	2.2
52	CT	226	ILE	2.2
53	J	5	ILE	2.2
54	K	42	ARG	2.2
55	L	131	GLN	2.2
60	Q	76	ILE	2.2
60	DB	122	ARG	2.2
61	DC	43	ARG	2.2
65	DG	15	ILE	2.2
1	1	2091	A	2.2
1	AS	11	A	2.2
1	AS	910	A	2.2
1	AS	1692	A	2.2
1	1	2076	C	2.2
1	AS	546	C	2.2
1	AS	1578	C	2.2
1	AS	3134	C	2.2
5	AX	163	HIS	2.2
45	B	1098	A	2.2
45	B	1413	A	2.2
45	B	1478	A	2.2
45	CM	130	C	2.2

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Mol	Chain	Res	Type	RSRZ
71	DM	95	HIS	2.2
77	h	140	HIS	2.2
51	H	32	ASP	2.2
52	I	166	ASP	2.2
56	CX	26	ASP	2.2
58	O	39	ASP	2.2
69	DK	97	ASP	2.2
78	AR	283	ASP	2.2
6	l	31	VAL	2.2
7	AZ	174	PRO	2.2
8	BA	95	VAL	2.2
11	q	65	VAL	2.2
17	BJ	127	VAL	2.2
18	BK	59	PRO	2.2
23	5	43	VAL	2.2
29	BV	56	VAL	2.2
36	AI	54	VAL	2.2
36	CC	112	PRO	2.2
37	CD	37	VAL	2.2
46	C	156	VAL	2.2
46	CN	126	PRO	2.2
49	F	220	PRO	2.2
49	CQ	49	VAL	2.2
49	CQ	207	VAL	2.2
50	G	183	VAL	2.2
53	J	128	PRO	2.2
54	K	91	VAL	2.2
58	CZ	37	VAL	2.2
60	DB	116	VAL	2.2
65	V	46	PRO	2.2
67	X	14	PRO	2.2
69	Z	6	PRO	2.2
69	DK	125	VAL	2.2
78	AR	8	VAL	2.2
78	AR	132	VAL	2.2
10	p	122	THR	2.2
20	BM	6	THR	2.2
30	BW	13	THR	2.2
48	CP	201	THR	2.2
51	CS	125	THR	2.2
56	M	57	THR	2.2
60	Q	33	THR	2.2

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Mol	Chain	Res	Type	RSRZ
64	DF	77	THR	2.2
68	Y	39	THR	2.2
41	AN	20	CYS	2.2
78	AR	310	TRP	2.2
4	AW	69	TYR	2.2
5	k	154	TYR	2.2
6	AY	235	GLY	2.2
9	o	131	TYR	2.2
11	q	1	MET	2.2
11	BD	148	GLY	2.2
13	s	42	GLY	2.2
13	BF	9	MET	2.2
13	BF	116	TYR	2.2
20	BM	39	SER	2.2
34	AG	61	GLY	2.2
44	CK	50	GLY	2.2
46	CN	36	TYR	2.2
47	CO	44	GLY	2.2
47	CO	194	GLY	2.2
51	H	146	SER	2.2
52	I	42	GLY	2.2
52	CT	233	SER	2.2
54	CV	73	SER	2.2
59	DA	8	GLY	2.2
61	R	123	TYR	2.2
63	T	21	TYR	2.2
70	DL	76	TYR	2.2
78	AR	229	TYR	2.2
7	AZ	43	LYS	2.2
14	BG	75	PHE	2.2
18	BK	80	LYS	2.2
28	BU	56	LYS	2.2
36	AI	83	LYS	2.2
43	AP	13	LYS	2.2
49	CQ	213	LYS	2.2
57	N	43	LYS	2.2
61	DC	59	LYS	2.2
62	S	108	PHE	2.2
62	S	137	PHE	2.2
69	Z	38	PHE	2.2
78	AR	46	LYS	2.2
5	k	178	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
6	AY	195	LEU	2.2
7	AZ	36	LEU	2.2
7	AZ	131	LEU	2.2
8	n	42	LEU	2.2
11	BD	68	LEU	2.2
13	s	91	LEU	2.2
14	t	123	LEU	2.2
16	v	199	LEU	2.2
16	BI	116	LEU	2.2
19	BL	36	LEU	2.2
32	BY	3	LEU	2.2
44	CK	89	LEU	2.2
50	CR	214	LEU	2.2
52	I	184	LEU	2.2
61	DC	25	LEU	2.2
62	DD	51	LEU	2.2
65	V	22	LEU	2.2
68	DJ	69	LEU	2.2
7	m	295	ALA	2.2
11	q	67	ALA	2.2
11	BD	189	GLU	2.2
14	BG	79	GLU	2.2
14	BG	175	ALA	2.2
18	BK	138	ALA	2.2
22	BO	113	ALA	2.2
44	CK	35	ALA	2.2
46	CN	91	ALA	2.2
46	CN	132	ALA	2.2
49	F	100	ALA	2.2
55	CW	169	ALA	2.2
57	N	47	ALA	2.2
58	CZ	57	ALA	2.2
60	DB	54	ALA	2.2
66	DH	94	ALA	2.2
10	p	76	ILE	2.2
10	p	117	ILE	2.2
12	r	134	ILE	2.2
15	BH	29	ILE	2.2
33	AF	51	ILE	2.2
45	B	190	U	2.2
45	B	258	U	2.2
49	F	174	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
50	G	210	ILE	2.2
51	CS	29	ILE	2.2
53	J	145	ILE	2.2
53	CU	94	ILE	2.2
57	N	49	ILE	2.2
59	DA	38	ILE	2.2
63	DE	17	ILE	2.2
64	DF	28	ILE	2.2
65	V	111	ILE	2.2
1	1	2252	U	2.2
1	1	3214	U	2.2
1	AS	2537	U	2.2
1	AS	3127	U	2.2
3	AU	125	U	2.2
7	AZ	225	ASN	2.2
7	AZ	264	GLN	2.2
16	v	175	ASN	2.2
16	BI	117	ASN	2.2
25	7	42	GLN	2.2
37	CD	11	ASN	2.2
38	CE	86	GLN	2.2
47	CO	173	GLN	2.2
50	G	130	GLN	2.2
57	CY	14	GLN	2.2
64	DF	78	ASN	2.2
66	W	93	GLN	2.2
66	DH	48	ASN	2.2
1	1	443	G	2.2
1	1	450	G	2.2
1	1	2445	G	2.2
1	AS	63	G	2.2
1	AS	126	G	2.2
1	AS	300	G	2.2
1	AS	1562	G	2.2
1	AS	2089	G	2.2
22	BO	54	HIS	2.2
30	BW	43	HIS	2.2
30	BW	48	HIS	2.2
41	CH	41	HIS	2.2
45	CM	538	G	2.2
54	CV	84	HIS	2.2
58	CZ	139	HIS	2.2

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Mol	Chain	Res	Type	RSRZ
73	d	9	HIS	2.2
1	1	2071	A	2.2
1	1	2291	A	2.2
1	AS	1542	A	2.2
7	m	37	VAL	2.2
10	p	126	VAL	2.2
15	BH	18	VAL	2.2
23	BP	19	VAL	2.2
23	BP	29	ASP	2.2
33	AF	85	VAL	2.2
39	CF	45	VAL	2.2
39	CF	58	ASP	2.2
45	B	539	A	2.2
45	CM	134	A	2.2
45	CM	1297	A	2.2
45	CM	1694	A	2.2
46	CN	75	VAL	2.2
48	E	234	PRO	2.2
49	CQ	222	PRO	2.2
50	G	15	PRO	2.2
53	J	17	VAL	2.2
53	J	82	PRO	2.2
56	M	42	VAL	2.2
57	CY	38	VAL	2.2
58	CZ	131	ASP	2.2
61	R	50	ASP	2.2
61	DC	125	PRO	2.2
64	DF	52	VAL	2.2
65	V	35	ASP	2.2
69	DK	26	ASP	2.2
73	d	2	VAL	2.2
75	DQ	6	VAL	2.2
1	1	2079	C	2.2
1	1	2473	C	2.2
1	AS	27	C	2.2
1	AS	1686	C	2.2
6	AY	123	THR	2.2
7	AZ	278	THR	2.2
10	BC	239	MET	2.2
45	B	138	C	2.2
45	B	1317	C	2.2
45	CM	1611	C	2.2

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Mol	Chain	Res	Type	RSRZ
20	BM	29	THR	2.2
22	BO	125	THR	2.2
33	BZ	15	THR	2.2
39	CF	72	THR	2.2
43	AP	7	THR	2.2
52	I	148	THR	2.2
71	DM	56	THR	2.2
73	DO	44	THR	2.2
5	AX	122	TRP	2.2
12	BE	171	TRP	2.2
6	l	147	LYS	2.2
6	l	193	GLY	2.2
11	q	63	LYS	2.2
11	BD	170	LYS	2.2
15	BH	130	LYS	2.2
23	5	70	GLY	2.2
24	BQ	100	GLY	2.2
38	CE	49	TRP	2.2
27	BT	87	LYS	2.2
28	BU	52	LYS	2.2
32	BY	30	LYS	2.2
33	BZ	71	GLY	2.2
47	CO	29	TRP	2.2
59	P	79	GLY	2.2
64	DF	129	TRP	2.2
46	CN	15	LYS	2.2
49	CQ	225	LYS	2.2
54	CV	54	LYS	2.2
56	M	52	LYS	2.2
59	P	104	LYS	2.2
66	W	52	LYS	2.2
66	W	74	GLY	2.2
70	DL	37	LYS	2.2
4	j	69	TYR	2.2
5	k	137	TYR	2.2
22	2	156	TYR	2.2
31	BX	70	TYR	2.2
6	l	267	SER	2.2
7	AZ	129	PHE	2.2
9	o	217	PHE	2.2
12	BE	20	SER	2.2
17	w	59	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
19	y	94	LEU	2.2
19	BL	32	LEU	2.2
20	z	105	LEU	2.2
26	8	50	SER	2.2
35	CB	55	SER	2.2
40	CG	7	PHE	2.2
46	C	136	SER	2.2
46	CN	115	PHE	2.2
54	K	198	TYR	2.2
62	S	111	TYR	2.2
26	BS	34	LEU	2.2
46	C	201	LEU	2.2
47	CO	229	LEU	2.2
54	K	12	SER	2.2
54	CV	182	SER	2.2
59	P	102	LEU	2.2
65	V	28	LEU	2.2
69	Z	15	LEU	2.2
70	a	74	LEU	2.2
72	DN	88	SER	2.2
73	d	3	LEU	2.2
74	DP	33	LEU	2.2
79	i	78	SER	2.2
4	j	162	ALA	2.2
6	l	358	ALA	2.2
6	AY	243	ALA	2.2
6	AY	255	ALA	2.2
10	p	229	GLU	2.2
10	BC	251	ALA	2.2
16	v	79	ALA	2.2
17	BJ	84	ALA	2.2
18	BK	15	ALA	2.2
20	BM	31	GLU	2.2
20	BM	149	ALA	2.2
30	BW	55	ALA	2.2
46	CN	145	ALA	2.2
48	E	236	GLU	2.2
50	G	156	ALA	2.2
72	c	27	ALA	2.2
73	d	16	ALA	2.2
76	g	34	ALA	2.2
76	DR	22	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
78	AR	84	ALA	2.2
4	AW	41	ILE	2.1
4	AW	54	ARG	2.1
5	k	349	ARG	2.1
5	AX	4	ARG	2.1
13	s	145	ARG	2.1
14	BG	73	ARG	2.1
15	BH	83	ILE	2.1
18	BK	128	ARG	2.1
19	BL	101	ILE	2.1
20	z	110	ARG	2.1
21	BN	26	ARG	2.1
25	BR	57	ARG	2.1
26	BS	114	ILE	2.1
32	AE	58	ILE	2.1
40	AM	45	ARG	2.1
46	CN	101	ARG	2.1
51	CS	92	ARG	2.1
53	CU	67	ARG	2.1
54	K	59	ARG	2.1
59	P	71	ILE	2.1
62	S	28	ILE	2.1
63	T	102	ILE	2.1
68	Y	110	ILE	2.1
75	f	50	ILE	2.1
79	CL	113	ARG	2.1
6	AY	356	GLN	2.1
11	BD	162	GLN	2.1
19	BL	27	GLN	2.1
51	CS	34	GLN	2.1
52	I	185	GLN	2.1
55	L	177	GLN	2.1
56	M	58	GLN	2.1
78	AR	162	GLN	2.1
1	1	2442	U	2.1
1	AS	302	U	2.1
1	AS	309	U	2.1
1	AS	1077	U	2.1
3	AU	23	U	2.1
4	AW	50	HIS	2.1
11	q	50	ASN	2.1
11	BD	64	HIS	2.1

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Mol	Chain	Res	Type	RSRZ
11	BD	149	ASN	2.1
19	y	45	ASN	2.1
20	z	36	ASN	2.1
45	CM	675	U	2.1
61	DC	79	HIS	2.1
70	a	34	ASN	2.1
78	AR	67	HIS	2.1
6	AY	206	PRO	2.1
7	m	159	VAL	2.1
7	m	162	VAL	2.1
8	BA	51	VAL	2.1
9	BB	82	VAL	2.1
11	BD	25	VAL	2.1
27	9	8	VAL	2.1
29	BV	123	VAL	2.1
34	AG	56	PRO	2.1
39	AL	55	VAL	2.1
49	F	135	VAL	2.1
49	F	224	VAL	2.1
49	CQ	204	PRO	2.1
51	CS	53	VAL	2.1
56	CX	88	PRO	2.1
58	O	91	VAL	2.1
65	DG	31	PRO	2.1
68	Y	129	VAL	2.1
77	h	130	PRO	2.1
78	AR	69	VAL	2.1
6	AY	213	ASP	2.1
25	BR	100	ASP	2.1
26	BS	73	MET	2.1
49	F	214	ASP	2.1
51	CS	145	ASP	2.1
53	CU	46	ASP	2.1
65	DG	131	ASP	2.1
78	AR	77	ASP	2.1
78	AR	269	ASP	2.1
1	AS	157	G	2.1
10	BC	249	LYS	2.1
1	AS	804	A	2.1
1	AS	1350	G	2.1
1	AS	1425	G	2.1
1	AS	1469	G	2.1

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Mol	Chain	Res	Type	RSRZ
1	AS	1607	G	2.1
1	AS	1843	A	2.1
1	AS	2100	G	2.1
1	AS	2372	G	2.1
1	AS	2944	G	2.1
3	AU	136	G	2.1
5	k	30	LYS	2.1
5	k	64	GLY	2.1
5	k	104	THR	2.1
5	k	289	THR	2.1
7	AZ	138	GLY	2.1
13	s	99	THR	2.1
17	BJ	70	GLY	2.1
18	BK	129	THR	2.1
28	BU	111	LYS	2.1
30	BW	3	LYS	2.1
37	CD	70	LYS	2.1
44	CK	58	LYS	2.1
47	CO	160	LYS	2.1
44	CK	67	GLY	2.1
45	B	542	A	2.1
45	B	1246	G	2.1
45	B	1329	A	2.1
45	B	1499	G	2.1
45	B	1655	G	2.1
45	CM	669	G	2.1
45	CM	1150	G	2.1
45	CM	1228	G	2.1
45	CM	1472	G	2.1
53	CU	40	LYS	2.1
55	L	16	LYS	2.1
56	M	25	LYS	2.1
58	O	114	LYS	2.1
61	DC	58	LYS	2.1
62	DD	70	GLY	2.1
63	DE	35	THR	2.1
68	Y	60	LYS	2.1
72	DN	12	LYS	2.1
78	AR	12	THR	2.1
79	CL	102	LYS	2.1
19	y	183	GLY	2.1
32	BY	21	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
47	D	75	GLY	2.1
49	F	37	GLY	2.1
63	DE	98	GLY	2.1
64	U	124	GLY	2.1
1	1	1215	C	2.1
1	AS	927	C	2.1
1	AS	1627	C	2.1
1	AS	1640	C	2.1
3	AU	142	C	2.1
5	k	14	LEU	2.1
5	AX	342	LEU	2.1
7	m	20	PHE	2.1
8	n	62	LEU	2.1
12	r	199	PHE	2.1
12	BE	206	LEU	2.1
14	t	9	LEU	2.1
17	w	130	LEU	2.1
19	y	93	LEU	2.1
20	BM	150	LEU	2.1
22	2	91	LEU	2.1
25	BR	54	LEU	2.1
27	9	78	PHE	2.1
32	AE	24	PHE	2.1
39	CF	54	LEU	2.1
43	CJ	104	LEU	2.1
45	B	4	C	2.1
45	B	130	C	2.1
45	CM	1350	C	2.1
45	CM	1514	C	2.1
46	C	18	LEU	2.1
47	D	205	PHE	2.1
60	Q	57	LEU	2.1
60	Q	97	LEU	2.1
61	R	102	PHE	2.1
61	R	119	PHE	2.1
75	DQ	43	PHE	2.1
78	AR	178	TRP	2.1
47	D	231	LEU	2.1
47	CO	228	LEU	2.1
49	CQ	124	LEU	2.1
51	CS	194	LEU	2.1
52	I	216	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
52	CT	184	LEU	2.1
53	CU	63	LEU	2.1
53	CU	162	LEU	2.1
55	L	150	LEU	2.1
66	DH	92	LEU	2.1
72	DN	67	LEU	2.1
17	w	82	TYR	2.1
22	BO	34	TYR	2.1
57	N	53	TYR	2.1
6	l	52	ALA	2.1
11	q	66	ALA	2.1
12	r	138	ALA	2.1
15	BH	3	SER	2.1
16	BI	118	SER	2.1
18	BK	85	ALA	2.1
20	BM	91	SER	2.1
34	CA	15	SER	2.1
41	AN	34	CYS	2.1
20	BM	169	ALA	2.1
23	BP	21	ALA	2.1
54	K	176	SER	2.1
58	O	130	SER	2.1
59	DA	147	SER	2.1
60	Q	66	CYS	2.1
65	DG	75	ALA	2.1
72	DN	48	ALA	2.1
76	DR	7	SER	2.1
78	AR	154	ALA	2.1
78	AR	197	SER	2.1
79	CL	56	SER	2.1
6	AY	189	ARG	2.1
11	BD	91	ARG	2.1
14	t	21	ARG	2.1
19	y	173	GLU	2.1
20	BM	170	ARG	2.1
29	BV	139	ARG	2.1
32	AE	76	ARG	2.1
32	BY	61	ARG	2.1
47	D	122	GLU	2.1
47	CO	82	ARG	2.1
50	G	30	ARG	2.1
52	CT	232	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
53	J	8	GLU	2.1
53	CU	110	ARG	2.1
61	DC	110	GLU	2.1
63	T	19	ARG	2.1
68	Y	23	ARG	2.1
68	DJ	87	GLU	2.1
73	d	75	GLU	2.1
14	BG	184	ILE	2.1
23	5	96	ILE	2.1
51	CS	62	ILE	2.1
56	M	3	ILE	2.1
57	CY	66	ILE	2.1
60	Q	110	ILE	2.1
61	DC	90	ILE	2.1
66	W	117	ILE	2.1
12	BE	211	GLN	2.1
65	V	12	GLN	2.1
70	a	63	GLN	2.1
7	m	13	HIS	2.1
7	AZ	13	HIS	2.1
6	AY	44	ASN	2.1
7	AZ	57	ASN	2.1
9	o	91	ASN	2.1
16	BI	122	ASN	2.1
30	BW	19	ASN	2.1
51	H	95	ASN	2.1
65	DG	16	ASN	2.1
75	DQ	13	ASN	2.1
1	1	1349	U	2.1
1	1	2460	U	2.1
1	1	2546	U	2.1
1	AS	401	U	2.1
1	AS	1551	U	2.1
1	AS	1568	U	2.1
1	AS	1908	U	2.1
5	k	73	VAL	2.1
7	AZ	162	VAL	2.1
10	p	128	PRO	2.1
16	BI	154	PRO	2.1
19	BL	163	PRO	2.1
29	BV	130	VAL	2.1
32	BY	98	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
33	BZ	29	VAL	2.1
43	CJ	25	VAL	2.1
45	B	260	U	2.1
45	CM	502	U	2.1
45	CM	821	U	2.1
46	C	118	PRO	2.1
46	CN	31	VAL	2.1
49	F	200	PRO	2.1
49	CQ	51	VAL	2.1
49	CQ	123	VAL	2.1
51	CS	23	VAL	2.1
52	I	8	PRO	2.1
53	J	36	PRO	2.1
53	J	56	VAL	2.1
53	CU	69	VAL	2.1
58	O	61	VAL	2.1
63	DE	88	VAL	2.1
66	W	30	VAL	2.1
71	DM	64	VAL	2.1
72	c	45	VAL	2.1
5	k	174	LYS	2.1
10	BC	246	LYS	2.1
17	w	178	LYS	2.1
28	BU	55	LYS	2.1
31	AD	21	LYS	2.1
33	AF	19	LYS	2.1
33	AF	124	LYS	2.1
47	D	144	LYS	2.1
47	CO	116	LYS	2.1
53	CU	97	LYS	2.1
55	CW	138	LYS	2.1
61	R	77	LYS	2.1
65	DG	69	LYS	2.1
27	9	83	ASP	2.1
33	BZ	40	ASP	2.1
47	D	89	ASP	2.1
65	DG	8	ASP	2.1
4	j	53	GLY	2.1
6	AY	83	THR	2.1
7	m	56	THR	2.1
7	AZ	28	THR	2.1
10	p	236	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
18	x	129	THR	2.1
28	AA	8	GLY	2.1
47	CO	93	GLY	2.1
51	H	101	GLY	2.1
54	CV	120	THR	2.1
57	CY	31	THR	2.1
59	DA	59	GLY	2.1
59	DA	68	GLY	2.1
65	DG	87	GLY	2.1
71	DM	102	THR	2.1
79	i	106	GLY	2.1
79	CL	117	GLY	2.1
5	AX	14	LEU	2.1
6	l	325	LEU	2.1
7	AZ	75	PHE	2.1
7	AZ	113	LEU	2.1
7	AZ	277	LEU	2.1
8	n	63	LEU	2.1
8	BA	39	LEU	2.1
9	BB	232	PHE	2.1
17	BJ	195	LEU	2.1
29	AB	81	LEU	2.1
31	BX	27	LEU	2.1
33	BZ	76	LEU	2.1
34	AG	7	LEU	2.1
36	CC	60	LEU	2.1
42	AO	13	LEU	2.1
47	D	223	PHE	2.1
51	H	97	LEU	2.1
53	J	81	PHE	2.1
54	CV	55	PHE	2.1
56	CX	80	LEU	2.1
64	DF	66	LEU	2.1
70	DL	23	PHE	2.1
70	DL	28	LEU	2.1
73	d	41	LEU	2.1
78	AR	104	PHE	2.1
14	BG	18	TRP	2.1
46	C	195	TRP	2.1
1	1	1918	A	2.1
1	AS	351	A	2.1
1	AS	1414	A	2.1

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Mol	Chain	Res	Type	RSRZ
1	AS	1805	A	2.1
1	AS	2520	A	2.1
3	AU	149	A	2.1
4	AW	189	TYR	2.1
7	m	134	ALA	2.1
7	AZ	196	ARG	2.1
10	p	123	ALA	2.1
12	r	68	ALA	2.1
16	v	110	ALA	2.1
19	y	3	ARG	2.1
20	BM	11	ALA	2.1
45	CM	1008	A	2.1
45	CM	1476	A	2.1
48	E	92	ARG	2.1
50	G	28	ALA	2.1
50	G	138	TYR	2.1
53	J	103	ARG	2.1
54	K	188	TYR	2.1
55	L	31	ALA	2.1
61	R	81	ARG	2.1
61	DC	63	ALA	2.1
61	DC	130	ARG	2.1
62	S	134	ARG	2.1
63	DE	107	ALA	2.1
64	DF	83	ALA	2.1
65	V	11	ALA	2.1
75	f	40	ARG	2.1
1	1	3204	G	2.1
1	AS	17	G	2.1
1	AS	796	G	2.1
1	AS	2163	G	2.1
4	j	5	ILE	2.1
5	AX	218	ILE	2.1
6	AY	8	SER	2.1
7	m	6	GLU	2.1
7	AZ	268	GLU	2.1
19	y	139	ILE	2.1
1	1	543	C	2.1
1	1	1352	C	2.1
1	AS	68	C	2.1
1	AS	1215	C	2.1
1	AS	1573	C	2.1

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Mol	Chain	Res	Type	RSRZ
1	AS	2744	C	2.1
1	AS	3246	C	2.1
3	AU	57	C	2.1
10	p	67	SER	2.1
16	BI	9	GLU	2.1
19	BL	7	SER	2.1
19	BL	63	SER	2.1
21	0	39	SER	2.1
23	BP	55	SER	2.1
33	BZ	42	CYS	2.1
38	CE	7	SER	2.1
38	CE	34	CYS	2.1
46	CN	63	ILE	2.1
46	CN	133	ILE	2.1
45	B	753	C	2.1
45	CM	1442	C	2.1
47	D	51	SER	2.1
49	F	74	ILE	2.1
49	F	87	ILE	2.1
50	CR	215	GLU	2.1
50	CR	249	ILE	2.1
52	I	150	GLU	2.1
54	CV	43	ILE	2.1
59	DA	37	ILE	2.1
59	DA	116	ILE	2.1
61	R	121	ILE	2.1
61	DC	37	CYS	2.1
64	DF	119	ILE	2.1
66	W	40	ILE	2.1
66	DH	73	GLU	2.1
78	AR	83	SER	2.1
78	AR	160	SER	2.1
79	CL	45	SER	2.1
5	k	269	GLN	2.1
17	w	193	GLN	2.1
40	CG	25	GLN	2.1
48	CP	145	GLN	2.1
65	DG	109	GLN	2.1
69	Z	75	GLN	2.1
7	AZ	244	HIS	2.1
32	BY	20	HIS	2.1
38	AK	69	HIS	2.1

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Mol	Chain	Res	Type	RSRZ
5	k	124	LYS	2.1
5	k	126	LYS	2.1
6	l	12	VAL	2.1
7	AZ	74	VAL	2.1
6	AY	76	PRO	2.1
10	BC	184	LYS	2.1
11	BD	105	LYS	2.1
13	s	101	ASN	2.1
20	BM	3	ASN	2.1
21	BN	135	VAL	2.1
23	5	84	LYS	2.1
26	BS	83	VAL	2.1
27	BT	59	VAL	2.1
27	BT	103	LYS	2.1
30	BW	52	LYS	2.1
32	AE	70	MET	2.1
32	BY	101	LYS	2.1
35	CB	83	ASN	2.1
39	CF	25	VAL	2.1
46	CN	68	PRO	2.1
46	CN	106	ASN	2.1
47	D	167	LYS	2.1
49	CQ	176	VAL	2.1
50	CR	50	ASN	2.1
50	CR	237	VAL	2.1
51	H	138	VAL	2.1
51	CS	56	VAL	2.1
51	CS	123	VAL	2.1
52	CT	153	VAL	2.1
53	J	58	VAL	2.1
57	CY	122	VAL	2.1
61	DC	20	VAL	2.1
62	S	123	MET	2.1
64	DF	108	LYS	2.1
65	V	118	PRO	2.1
65	DG	103	LYS	2.1
66	DH	30	VAL	2.1
68	Y	19	LYS	2.1
70	DL	92	VAL	2.1
68	DJ	77	PRO	2.1
68	DJ	84	ASN	2.1
71	DM	46	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
75	f	53	ASN	2.1
78	AR	134	VAL	2.1
40	AM	24	PRO	2.1
56	M	30	PRO	2.1
78	AR	272	LYS	2.1
79	CL	70	ASN	2.1
79	CL	76	PRO	2.1
1	AS	250	U	2.1
1	AS	1012	U	2.1
45	B	1347	U	2.1
45	CM	637	U	2.1
45	CM	655	U	2.1
45	CM	989	U	2.1
4	AW	173	GLY	2.1
7	m	115	LEU	2.1
7	m	211	LEU	2.1
8	BA	48	GLY	2.1
8	BA	155	LEU	2.1
9	BB	177	LEU	2.1
10	p	59	LEU	2.1
10	BC	236	GLY	2.1
11	q	185	GLY	2.1
12	BE	48	LEU	2.1
15	u	26	LEU	2.1
17	w	70	GLY	2.1
20	BM	77	GLY	2.1
20	BM	123	LEU	2.1
22	2	106	LEU	2.1
24	BQ	46	LEU	2.1
26	8	34	LEU	2.1
4	j	243	THR	2.1
7	m	180	PHE	2.1
7	AZ	9	THR	2.1
13	BF	104	PHE	2.1
34	AG	93	THR	2.1
35	CB	110	ASP	2.1
37	CD	13	GLY	2.1
39	CF	35	GLY	2.1
40	CG	13	LEU	2.1
46	C	9	LEU	2.1
47	D	93	GLY	2.1
44	AQ	46	THR	2.1

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Mol	Chain	Res	Type	RSRZ
48	E	91	THR	2.1
49	F	56	THR	2.1
49	F	170	ASP	2.1
49	CQ	203	LEU	2.1
50	CR	92	LEU	2.1
52	I	33	GLY	2.1
52	CT	133	LEU	2.1
51	H	73	THR	2.1
51	CS	73	THR	2.1
52	CT	53	THR	2.1
53	J	46	ASP	2.1
53	CU	49	GLY	2.1
55	L	170	GLY	2.1
58	CZ	136	LEU	2.1
63	T	26	LEU	2.1
65	V	32	GLY	2.1
68	DJ	26	LEU	2.1
73	d	69	GLY	2.1
17	BJ	48	PHE	2.1
19	BL	137	THR	2.1
56	M	67	THR	2.1
64	DF	20	THR	2.1
64	DF	128	PHE	2.1
16	BI	63	ARG	2.1
21	BN	99	ARG	2.1
36	AI	108	ARG	2.1
40	AM	28	ARG	2.1
44	CK	24	ARG	2.1
54	CV	56	ARG	2.1
63	T	33	ARG	2.1
72	DN	22	ARG	2.1
74	DP	18	ARG	2.1
4	AW	235	ALA	2.1
17	w	191	ALA	2.1
20	z	178	ALA	2.1
4	AW	80	GLU	2.1
6	l	148	GLU	2.1
6	l	359	GLU	2.1
8	n	149	ILE	2.1
8	n	160	ALA	2.1
9	BB	169	ALA	2.1
7	AZ	6	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
12	BE	11	TYR	2.1
16	v	36	ILE	2.1
19	BL	148	GLU	2.1
20	BM	115	ILE	2.1
22	2	132	ALA	2.1
24	6	21	ALA	2.1
25	BR	82	ILE	2.1
25	BR	125	ALA	2.1
26	BS	107	ALA	2.1
29	AB	17	ALA	2.1
30	AC	55	ALA	2.1
31	BX	94	ILE	2.1
36	AI	118	ILE	2.1
37	AJ	22	ALA	2.1
38	AK	53	ALA	2.1
46	CN	47	ILE	2.1
48	CP	231	ALA	2.1
49	CQ	103	ALA	2.1
50	CR	13	ALA	2.1
52	I	121	ILE	2.1
52	CT	9	ALA	2.1
53	J	28	ALA	2.1
54	K	106	ALA	2.1
56	M	98	GLU	2.1
56	CX	66	TYR	2.1
57	CY	86	ILE	2.1
66	W	90	ILE	2.1
66	DH	90	ILE	2.1
68	DJ	83	ILE	2.1
78	AR	167	ILE	2.1
1	1	1917	A	2.1
1	1	2446	A	2.1
1	1	2464	A	2.1
1	AS	1861	A	2.1
1	AS	2502	A	2.1
3	AU	40	A	2.1
3	AU	59	A	2.1
6	l	154	SER	2.1
21	0	85	SER	2.1
22	BO	47	SER	2.1
26	BS	97	SER	2.1
45	B	1168	A	2.1

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Mol	Chain	Res	Type	RSRZ
45	CM	1331	A	2.1
48	E	159	SER	2.1
54	CV	4	SER	2.1
54	CV	168	SER	2.1
57	N	132	SER	2.1
57	CY	77	SER	2.1
69	DK	47	SER	2.1
73	DO	60	SER	2.1
73	DO	77	CYS	2.1
9	o	108	GLN	2.1
10	p	62	GLN	2.1
26	BS	94	GLN	2.1
36	AI	99	GLN	2.1
40	CG	19	GLN	2.1
43	CJ	99	GLN	2.1
53	J	64	GLN	2.1
1	1	1033	C	2.1
1	1	2447	G	2.1
1	1	2452	G	2.1
1	AS	136	G	2.1
1	AS	214	G	2.1
1	AS	1011	C	2.1
1	AS	1521	G	2.1
1	AS	1534	G	2.1
1	AS	1642	G	2.1
1	AS	1694	C	2.1
1	AS	2102	G	2.1
1	AS	3039	C	2.1
2	AT	6	C	2.1
3	AU	70	G	2.1
4	AW	230	VAL	2.1
5	k	90	VAL	2.1
5	k	325	LYS	2.1
14	BG	201	LYS	2.1
15	BH	126	LYS	2.1
16	BI	19	MET	2.1
19	y	62	VAL	2.1
20	z	19	LYS	2.1
22	BO	22	HIS	2.1
22	2	126	VAL	2.1
23	5	16	VAL	2.1
23	BP	23	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
27	9	113	LYS	2.1
28	AA	26	VAL	2.1
28	AA	34	LYS	2.1
29	AB	56	VAL	2.1
38	CE	32	LYS	2.1
45	B	127	G	2.1
45	B	394	G	2.1
45	B	656	C	2.1
45	CM	226	G	2.1
45	CM	1339	G	2.1
47	CO	168	MET	2.1
50	CR	197	HIS	2.1
51	H	99	MET	2.1
47	CO	68	VAL	2.1
50	G	227	VAL	2.1
51	CS	132	VAL	2.1
56	M	73	VAL	2.1
59	P	60	VAL	2.1
65	V	4	VAL	2.1
72	DN	32	LYS	2.1
73	DO	2	VAL	2.1
74	DP	28	VAL	2.1
48	CP	222	PRO	2.1
52	I	181	PRO	2.1
59	DA	136	PRO	2.1
78	AR	284	PRO	2.1
5	AX	121	ASN	2.1
16	BI	181	ASN	2.1
46	CN	49	ASN	2.1
53	CU	9	ASN	2.1
5	k	110	LEU	2.1
6	AY	239	LEU	2.1
6	AY	326	LEU	2.1
12	BE	210	LEU	2.1
14	BG	80	LEU	2.1
35	AH	57	LEU	2.1
49	CQ	97	LEU	2.1
51	H	175	LEU	2.1
52	I	109	LEU	2.1
55	L	99	LEU	2.1
58	O	41	LEU	2.1
59	P	88	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
64	U	86	LEU	2.1
68	Y	104	LEU	2.1
76	g	8	LEU	2.1
78	AR	298	LEU	2.1
1	1	731	U	2.1
1	1	2067	U	2.1
1	1	2537	U	2.1
1	AS	257	U	2.1
1	AS	298	U	2.1
12	BE	199	PHE	2.1
13	s	135	GLY	2.1
29	AB	114	GLY	2.1
31	AD	98	GLY	2.1
31	BX	72	PHE	2.1
44	CK	41	PHE	2.1
45	B	817	U	2.1
45	CM	132	U	2.1
45	CM	709	U	2.1
46	C	81	PHE	2.1
49	CQ	34	GLY	2.1
59	P	8	GLY	2.1
68	Y	99	PHE	2.1
69	DK	119	GLY	2.1
69	DK	122	PHE	2.1
5	AX	244	ARG	2.1
5	AX	337	THR	2.1
11	q	110	ASP	2.1
11	BD	51	ARG	2.1
14	t	41	ARG	2.1
14	BG	142	ASP	2.1
15	BH	120	ARG	2.1
16	BI	105	ARG	2.1
18	BK	29	THR	2.1
19	y	80	THR	2.1
22	2	38	ASP	2.1
26	BS	69	THR	2.1
29	AB	3	THR	2.1
29	AB	6	THR	2.1
36	AI	90	ARG	2.1
37	AJ	75	ARG	2.1
38	CE	61	THR	2.1
47	CO	26	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
49	CQ	174	ARG	2.1
55	CW	79	ARG	2.1
60	Q	123	ARG	2.1
64	DF	110	ARG	2.1
65	V	86	ARG	2.1
68	Y	105	THR	2.1
72	DN	38	ARG	2.1
74	DP	22	ARG	2.1
76	DR	42	ARG	2.1
78	AR	314	THR	2.1
5	AX	378	ALA	2.1
6	l	75	ILE	2.1
7	m	166	ALA	2.1
12	r	149	ILE	2.1
12	BE	149	ILE	2.1
18	BK	6	ALA	2.1
24	BQ	85	TRP	2.1
29	BV	79	TRP	2.1
32	AE	90	ALA	2.1
32	BY	31	ALA	2.1
35	AH	20	ILE	2.1
39	AL	62	ALA	2.1
46	C	187	ILE	2.1
51	CS	117	ALA	2.1
52	I	172	ALA	2.1
57	CY	48	ALA	2.1
64	DF	102	ALA	2.1
67	X	45	ALA	2.1
70	DL	97	ALA	2.1
72	c	48	ALA	2.1
79	i	74	ALA	2.1
7	m	232	GLU	2.1
52	I	221	GLU	2.1
54	CV	146	GLU	2.1
70	DL	98	GLU	2.1
12	r	22	TYR	2.1
19	y	33	TYR	2.1
27	9	19	TYR	2.1
33	AF	26	TYR	2.1
34	CA	16	TYR	2.1
49	CQ	35	TYR	2.1
55	CW	12	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
57	N	93	TYR	2.1
57	CY	93	TYR	2.1
9	BB	99	LYS	2.0
10	BC	40	SER	2.0
15	u	36	LYS	2.0
15	u	118	LYS	2.0
16	BI	47	LYS	2.0
17	BJ	143	SER	2.0
23	BP	69	SER	2.0
24	6	63	LYS	2.0
25	7	34	SER	2.0
24	6	122	CYS	2.0
26	BS	47	GLN	2.0
27	BT	37	LYS	2.0
28	BU	6	LYS	2.0
41	AN	17	LYS	2.0
42	CI	24	SER	2.0
44	AQ	40	SER	2.0
48	CP	141	SER	2.0
52	I	149	LYS	2.0
52	CT	227	LYS	2.0
53	J	147	LYS	2.0
57	CY	24	LYS	2.0
59	P	93	LYS	2.0
64	DF	49	LYS	2.0
67	X	84	SER	2.0
69	DK	46	SER	2.0
69	DK	112	LYS	2.0
73	DO	30	SER	2.0
50	CR	8	HIS	2.0
72	DN	26	CYS	2.0
1	1	780	A	2.0
1	1	2185	A	2.0
1	AS	253	A	2.0
1	AS	802	A	2.0
1	AS	1502	A	2.0
1	AS	1570	A	2.0
1	AS	2193	A	2.0
1	AS	3192	A	2.0
3	AU	52	A	2.0
4	j	116	VAL	2.0
8	BA	64	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
13	BF	129	VAL	2.0
14	t	143	VAL	2.0
16	BI	75	VAL	2.0
21	0	61	VAL	2.0
22	2	64	VAL	2.0
27	9	105	VAL	2.0
29	AB	15	VAL	2.0
32	AE	6	VAL	2.0
33	AF	11	VAL	2.0
33	AF	118	VAL	2.0
33	BZ	101	VAL	2.0
45	B	180	A	2.0
45	B	1727	A	2.0
45	CM	65	A	2.0
45	CM	829	A	2.0
45	CM	962	A	2.0
45	CM	1573	A	2.0
46	C	75	VAL	2.0
46	C	158	VAL	2.0
47	D	91	VAL	2.0
59	DA	52	VAL	2.0
66	W	89	VAL	2.0
66	W	113	VAL	2.0
78	AR	309	VAL	2.0
41	CH	4	PRO	2.0
50	G	5	PRO	2.0
52	CT	8	PRO	2.0
55	CW	15	PRO	2.0
66	W	58	PRO	2.0
1	1	240	C	2.0
1	1	1197	C	2.0
1	1	2456	C	2.0
1	AS	71	C	2.0
1	AS	820	C	2.0
1	AS	1593	C	2.0
1	AS	1866	C	2.0
1	AS	3227	C	2.0
7	AZ	110	LEU	2.0
10	BC	156	ASN	2.0
13	BF	155	ASN	2.0
17	w	51	ASN	2.0
17	BJ	30	ASN	2.0

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Mol	Chain	Res	Type	RSRZ
18	BK	89	ASN	2.0
21	0	5	ASN	2.0
23	5	50	LEU	2.0
23	BP	25	ASN	2.0
28	BU	80	LEU	2.0
31	AD	27	LEU	2.0
31	BX	92	LEU	2.0
45	B	380	C	2.0
45	B	1182	C	2.0
45	B	1259	C	2.0
45	B	1467	C	2.0
45	CM	1180	C	2.0
45	CM	1619	C	2.0
47	D	120	LEU	2.0
50	G	131	LEU	2.0
51	H	20	LEU	2.0
51	CS	31	LEU	2.0
55	CW	105	LEU	2.0
67	DI	11	LEU	2.0
68	Y	65	LEU	2.0
69	DK	76	LEU	2.0
78	AR	305	ASN	2.0
79	i	129	LEU	2.0
1	1	775	G	2.0
1	1	2429	G	2.0
1	AS	20	G	2.0
1	AS	1102	G	2.0
1	AS	1747	G	2.0
1	AS	1949	G	2.0
1	AS	2251	G	2.0
3	AU	56	G	2.0
5	k	135	GLY	2.0
5	AX	349	ARG	2.0
6	l	40	PHE	2.0
6	AY	174	GLY	2.0
6	AY	256	PHE	2.0
7	m	87	GLY	2.0
10	BC	58	ARG	2.0
12	r	153	ARG	2.0
13	BF	55	ARG	2.0
13	BF	105	GLY	2.0
14	BG	72	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
22	BO	51	GLY	2.0
24	6	95	PHE	2.0
25	BR	43	ARG	2.0
27	9	115	ARG	2.0
27	9	123	GLY	2.0
37	CD	84	ARG	2.0
38	CE	55	ARG	2.0
45	B	142	G	2.0
45	B	507	G	2.0
45	CM	822	G	2.0
45	CM	831	G	2.0
45	CM	999	G	2.0
45	CM	1353	G	2.0
45	CM	1441	G	2.0
45	CM	1767	G	2.0
47	D	50	ARG	2.0
50	CR	261	GLY	2.0
55	L	168	ARG	2.0
56	CX	16	PHE	2.0
57	N	115	PHE	2.0
58	CZ	98	GLY	2.0
59	P	51	GLY	2.0
64	U	120	ARG	2.0
65	V	7	ARG	2.0
65	DG	32	GLY	2.0
69	Z	107	PHE	2.0
70	a	131	ARG	2.0
75	DQ	56	ARG	2.0
78	AR	189	PHE	2.0
1	1	1557	U	2.0
1	AS	18	U	2.0
1	AS	1091	U	2.0
1	AS	1626	U	2.0
1	AS	2546	U	2.0
5	k	215	ILE	2.0
9	o	9	THR	2.0
11	q	136	ILE	2.0
12	r	165	ILE	2.0
12	BE	186	THR	2.0
13	s	122	ILE	2.0
17	BJ	186	THR	2.0
21	0	77	ILE	2.0

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Mol	Chain	Res	Type	RSRZ
23	BP	57	THR	2.0
5	AX	176	ALA	2.0
5	AX	195	ALA	2.0
5	AX	206	ASP	2.0
6	l	249	ILE	2.0
7	m	78	ALA	2.0
7	AZ	287	ALA	2.0
9	o	33	ALA	2.0
9	BB	27	ALA	2.0
26	BS	58	ASP	2.0
26	BS	95	ILE	2.0
31	BX	45	ILE	2.0
32	AE	13	ILE	2.0
32	BY	74	ILE	2.0
33	AF	90	THR	2.0
34	AG	14	ILE	2.0
37	AJ	25	ILE	2.0
44	AQ	2	THR	2.0
45	B	828	U	2.0
45	B	1043	U	2.0
45	CM	259	U	2.0
46	CN	128	THR	2.0
50	G	245	ILE	2.0
50	CR	195	ILE	2.0
53	J	113	THR	2.0
46	C	129	ASP	2.0
55	CW	134	ILE	2.0
61	DC	122	THR	2.0
65	V	61	ILE	2.0
66	W	21	ILE	2.0
66	W	23	ILE	2.0
58	O	94	ALA	2.0
58	O	107	ASP	2.0
59	DA	11	ILE	2.0
71	b	102	THR	2.0
18	x	98	ALA	2.0
18	BK	98	ALA	2.0
19	y	77	ALA	2.0
20	BM	127	ALA	2.0
39	CF	19	ASP	2.0
68	Y	9	ASP	2.0
74	DP	36	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
75	f	37	ASP	2.0
78	AR	307	ILE	2.0
40	CG	39	ALA	2.0
48	CP	167	ALA	2.0
50	CR	258	ALA	2.0
54	CV	34	ALA	2.0
54	CV	106	ALA	2.0
6	l	55	GLU	2.0
12	r	171	TRP	2.0
18	BK	31	GLU	2.0
41	AN	16	GLU	2.0
46	CN	209	GLU	2.0
54	K	67	TRP	2.0
65	V	29	GLU	2.0
5	AX	272	TYR	2.0
5	AX	332	LYS	2.0
8	BA	151	LYS	2.0
10	p	33	LYS	2.0
17	w	69	LYS	2.0
20	BM	133	LYS	2.0
21	0	41	TYR	2.0
28	BU	115	LYS	2.0
29	BV	27	LYS	2.0
41	CH	24	TYR	2.0
42	AO	19	LYS	2.0
43	AP	43	TYR	2.0
46	C	204	TYR	2.0
48	E	59	LYS	2.0
51	CS	107	LYS	2.0
52	CT	95	LYS	2.0
55	L	115	LYS	2.0
61	DC	18	LYS	2.0
64	DF	96	LYS	2.0
68	Y	46	TYR	2.0
79	CL	112	LYS	2.0
11	BD	1	MET	2.0
51	CS	98	MET	2.0
66	W	83	MET	2.0
4	j	231	SER	2.0
4	AW	8	GLN	2.0
5	k	93	VAL	2.0
6	AY	267	SER	2.0

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Mol	Chain	Res	Type	RSRZ
9	o	11	GLN	2.0
9	BB	115	VAL	2.0
11	q	138	SER	2.0
13	s	146	SER	2.0
19	BL	73	GLN	2.0
22	BO	9	SER	2.0
22	BO	71	SER	2.0
33	AF	92	SER	2.0
36	AI	62	GLN	2.0
43	CJ	53	GLN	2.0
46	CN	23	HIS	2.0
47	CO	121	VAL	2.0
51	CS	22	VAL	2.0
51	CS	122	HIS	2.0
52	I	217	HIS	2.0
53	CU	56	VAL	2.0
56	CX	12	HIS	2.0
57	CY	123	VAL	2.0
58	CZ	105	GLN	2.0
59	P	65	VAL	2.0
61	DC	114	HIS	2.0
62	S	21	VAL	2.0
67	DI	32	VAL	2.0
68	DJ	6	VAL	2.0
70	a	55	VAL	2.0
70	DL	24	VAL	2.0
70	DL	57	VAL	2.0
72	DN	17	HIS	2.0
72	DN	18	VAL	2.0
73	DO	4	VAL	2.0
75	f	28	SER	2.0
75	DQ	26	SER	2.0
78	AR	105	VAL	2.0
78	AR	185	VAL	2.0
79	CL	139	SER	2.0
6	l	206	PRO	2.0
24	BQ	50	PRO	2.0
53	CU	61	PRO	2.0
73	DO	56	CYS	2.0
75	f	11	PRO	2.0
1	1	1026	A	2.0
1	1	3327	A	2.0

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Mol	Chain	Res	Type	RSRZ
1	AS	50	A	2.0
1	AS	120	A	2.0
1	AS	198	A	2.0
1	AS	317	A	2.0
1	AS	485	A	2.0
1	AS	525	A	2.0
1	AS	826	A	2.0
1	AS	1854	A	2.0
9	BB	81	LEU	2.0
9	BB	145	LEU	2.0
12	BE	152	LEU	2.0
16	BI	92	LEU	2.0
24	6	17	LEU	2.0
40	AM	23	LEU	2.0
45	B	269	A	2.0
45	B	1298	A	2.0
45	CM	737	A	2.0
45	CM	1187	A	2.0
45	CM	1333	A	2.0
45	CM	1736	A	2.0
46	C	177	LEU	2.0
47	CO	161	LEU	2.0
49	F	80	LEU	2.0
53	J	89	LEU	2.0
56	CX	46	LEU	2.0
64	U	105	LEU	2.0
67	X	11	LEU	2.0
71	b	93	LEU	2.0
5	AX	316	ASN	2.0
13	BF	133	ARG	2.0
16	v	117	ASN	2.0
17	BJ	102	ARG	2.0
19	y	180	ARG	2.0
20	BM	38	ARG	2.0
21	0	99	ARG	2.0
22	BO	8	ARG	2.0
23	BP	90	ASN	2.0
25	BR	123	ARG	2.0
27	BT	44	ASN	2.0
35	AH	8	ARG	2.0
35	AH	83	ASN	2.0
39	AL	34	ASN	2.0

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Mol	Chain	Res	Type	RSRZ
47	CO	178	ASN	2.0
51	H	166	ARG	2.0
52	CT	98	ARG	2.0
54	K	47	ARG	2.0
62	DD	121	ARG	2.0
68	Y	28	ARG	2.0
75	f	5	ASN	2.0
5	k	27	GLY	2.0
6	l	357	PHE	2.0
11	q	85	GLY	2.0
18	BK	71	GLY	2.0
21	BN	163	PHE	2.0
28	AA	38	PHE	2.0
28	BU	4	PHE	2.0
44	CK	12	GLY	2.0
46	CN	25	GLY	2.0
52	CT	27	PHE	2.0
53	CU	174	GLY	2.0
62	DD	26	GLY	2.0
70	DL	60	PHE	2.0
74	DP	24	GLY	2.0
75	DQ	17	GLY	2.0
1	1	2470	C	2.0
6	AY	291	ILE	2.0
9	BB	90	ILE	2.0
13	s	14	ILE	2.0
13	BF	21	ILE	2.0
15	u	29	ILE	2.0
15	u	55	ILE	2.0
15	BH	55	ILE	2.0
17	w	44	ILE	2.0
23	BP	54	ILE	2.0
34	CA	30	ILE	2.0
36	AI	58	ILE	2.0
45	B	227	C	2.0
45	B	359	C	2.0
45	B	698	C	2.0
45	CM	698	C	2.0
45	CM	833	C	2.0
45	CM	1443	C	2.0
55	L	129	ILE	2.0
56	M	35	ILE	2.0

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Mol	Chain	Res	Type	RSRZ
60	DB	71	ILE	2.0
63	T	50	ILE	2.0
75	DQ	50	ILE	2.0
5	AX	131	THR	2.0
7	m	93	THR	2.0
12	r	42	THR	2.0
13	s	147	THR	2.0
14	t	53	ALA	2.0
14	t	195	ALA	2.0
16	v	165	THR	2.0
27	9	33	ALA	2.0
30	AC	57	ALA	2.0
30	BW	46	ALA	2.0
31	BX	48	ALA	2.0
32	AE	45	THR	2.0
37	CD	47	ALA	2.0
47	D	203	THR	2.0
48	CP	239	ALA	2.0
49	F	154	ALA	2.0
59	P	67	THR	2.0
59	P	145	THR	2.0
59	DA	57	ALA	2.0
61	R	78	THR	2.0
70	DL	80	ALA	2.0
73	d	65	THR	2.0
78	AR	81	ALA	2.0
1	1	977	U	2.0
1	1	1019	U	2.0
1	1	3284	U	2.0
1	AS	825	U	2.0
1	AS	1526	U	2.0
1	AS	1567	U	2.0
1	AS	1736	U	2.0
3	4	86	U	2.0
10	BC	208	ASP	2.0
13	BF	111	ASP	2.0
1	1	251	G	2.0
1	1	3355	G	2.0
1	AS	91	G	2.0
1	AS	297	G	2.0
1	AS	761	G	2.0
1	AS	1113	G	2.0

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Mol	Chain	Res	Type	RSRZ
1	AS	1841	G	2.0
1	AS	2229	G	2.0
1	AS	2582	G	2.0
4	j	119	LYS	2.0
7	m	288	LYS	2.0
7	AZ	117	GLU	2.0
13	s	174	LYS	2.0
14	t	20	GLU	2.0
14	BG	5	LYS	2.0
16	v	184	LYS	2.0
28	AA	103	GLU	2.0
28	BU	47	GLU	2.0
32	AE	5	ASP	2.0
45	B	1244	U	2.0
45	B	1722	U	2.0
45	CM	1376	U	2.0
45	CM	1599	U	2.0
46	CN	43	ASP	2.0
55	L	94	ASP	2.0
49	CQ	42	LYS	2.0
49	CQ	48	GLU	2.0
50	G	254	ASP	2.0
73	d	6	ASP	2.0
24	6	10	LYS	2.0
24	6	64	LYS	2.0
32	AE	101	LYS	2.0
36	CC	25	LYS	2.0
43	AP	100	LYS	2.0
45	B	1371	G	2.0
45	B	1571	G	2.0
45	B	1581	G	2.0
45	CM	819	G	2.0
45	CM	864	G	2.0
45	CM	927	G	2.0
45	CM	1707	G	2.0
47	D	45	LYS	2.0
48	E	156	LYS	2.0
50	G	62	LYS	2.0
52	CT	51	LYS	2.0
53	CU	104	LYS	2.0
57	CY	141	LYS	2.0
61	DC	77	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
65	DG	110	LYS	2.0
66	DH	31	LYS	2.0
4	j	204	MET	2.0
49	CQ	178	MET	2.0
51	CS	99	MET	2.0
10	BC	227	TYR	2.0
17	BJ	58	TYR	2.0
21	0	139	TYR	2.0
22	BO	57	TYR	2.0
33	BZ	93	TYR	2.0
57	CY	100	TYR	2.0
6	l	223	VAL	2.0
6	l	360	VAL	2.0
7	AZ	173	VAL	2.0
34	CA	81	VAL	2.0
51	H	51	VAL	2.0
51	CS	168	VAL	2.0
58	CZ	30	VAL	2.0
66	W	61	VAL	2.0
68	DJ	62	VAL	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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3654	1/1	0.20	0.33	72,72,72,72	0
82	MG	AS	3630	1/1	0.23	0.38	73,73,73,73	0
82	MG	B	1848	1/1	0.33	0.27	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	AS	3460	1/1	0.35	0.35	75,75,75,75	0
82	MG	B	1937	1/1	0.42	0.30	72,72,72,72	0
82	MG	AS	3720	1/1	0.44	0.22	51,51,51,51	0
82	MG	CM	1848	1/1	0.45	0.20	73,73,73,73	0
82	MG	B	1930	1/1	0.48	0.29	74,74,74,74	0
82	MG	B	1810	1/1	0.49	0.29	51,51,51,51	0
82	MG	CM	1884	1/1	0.51	0.23	60,60,60,60	0
82	MG	B	1925	1/1	0.53	0.43	81,81,81,81	0
82	MG	B	1866	1/1	0.53	0.28	58,58,58,58	0
82	MG	CM	1831	1/1	0.54	0.25	68,68,68,68	0
82	MG	AS	3442	1/1	0.54	0.17	52,52,52,52	0
82	MG	CM	1812	1/1	0.54	0.31	73,73,73,73	0
82	MG	CM	1932	1/1	0.54	0.31	75,75,75,75	0
82	MG	B	1910	1/1	0.55	0.25	71,71,71,71	0
82	MG	CM	1839	1/1	0.56	0.16	96,96,96,96	0
82	MG	1	3483	1/1	0.57	0.20	68,68,68,68	0
82	MG	AS	3489	1/1	0.57	0.22	58,58,58,58	0
82	MG	AS	3738	1/1	0.57	0.25	64,64,64,64	0
82	MG	AS	3467	1/1	0.58	0.14	67,67,67,67	0
82	MG	CM	1853	1/1	0.59	0.18	83,83,83,83	0
82	MG	1	3762	1/1	0.59	0.17	60,60,60,60	0
82	MG	AS	3716	1/1	0.59	0.26	51,51,51,51	0
82	MG	AS	3669	1/1	0.60	0.29	80,80,80,80	0
82	MG	1	3498	1/1	0.60	0.37	64,64,64,64	0
82	MG	CM	1851	1/1	0.60	0.29	80,80,80,80	0
82	MG	AS	3728	1/1	0.61	0.15	44,44,44,44	0
82	MG	AS	3450	1/1	0.61	0.21	59,59,59,59	0
82	MG	AS	3620	1/1	0.62	0.24	73,73,73,73	0
82	MG	AS	3628	1/1	0.62	0.17	52,52,52,52	0
82	MG	AS	3730	1/1	0.62	0.30	62,62,62,62	0
81	PAR	CM	1806	42/42	0.62	0.16	54,78,92,94	0
82	MG	CM	1869	1/1	0.62	0.27	50,50,50,50	0
82	MG	AS	3469	1/1	0.62	0.41	72,72,72,72	0
82	MG	CM	1900	1/1	0.62	0.22	63,63,63,63	0
82	MG	1	3649	1/1	0.62	0.24	56,56,56,56	0
82	MG	AS	3713	1/1	0.63	0.26	38,38,38,38	0
82	MG	1	3679	1/1	0.63	0.15	53,53,53,53	0
82	MG	AS	3639	1/1	0.64	0.17	44,44,44,44	0
82	MG	AS	3420	1/1	0.64	0.25	55,55,55,55	0
82	MG	B	1830	1/1	0.65	0.40	60,60,60,60	0
81	PAR	AS	3413	42/42	0.65	0.16	20,20,20,20	0
82	MG	AS	3424	1/1	0.65	0.26	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	B	1815	1/1	0.66	0.21	49,49,49,49	0
82	MG	B	1822	1/1	0.66	0.28	68,68,68,68	0
82	MG	AS	3662	1/1	0.66	0.11	52,52,52,52	0
82	MG	1	3584	1/1	0.66	0.18	44,44,44,44	0
82	MG	E	301	1/1	0.66	0.24	49,49,49,49	0
82	MG	AS	3414	1/1	0.66	0.17	57,57,57,57	0
82	MG	AS	3718	1/1	0.66	0.20	56,56,56,56	0
82	MG	AS	3732	1/1	0.67	0.33	70,70,70,70	0
82	MG	CM	1813	1/1	0.68	0.28	65,65,65,65	0
82	MG	B	1823	1/1	0.68	0.26	41,41,41,41	0
82	MG	CM	1876	1/1	0.68	0.28	76,76,76,76	0
82	MG	AS	3655	1/1	0.68	0.16	41,41,41,41	0
82	MG	AW	303	1/1	0.68	0.43	78,78,78,78	0
82	MG	AS	3670	1/1	0.68	0.20	77,77,77,77	0
82	MG	CR	301	1/1	0.68	0.21	51,51,51,51	0
82	MG	AS	3711	1/1	0.69	0.21	53,53,53,53	0
82	MG	B	1849	1/1	0.69	0.40	70,70,70,70	0
82	MG	AS	3493	1/1	0.69	0.14	55,55,55,55	0
82	MG	CM	1840	1/1	0.69	0.32	51,51,51,51	0
82	MG	1	3471	1/1	0.69	0.20	50,50,50,50	0
82	MG	B	1898	1/1	0.69	0.17	88,88,88,88	0
81	PAR	1	3407	42/42	0.69	0.24	63,82,96,104	0
82	MG	1	3451	1/1	0.69	0.15	46,46,46,46	0
82	MG	1	3535	1/1	0.69	0.16	34,34,34,34	0
82	MG	AS	3461	1/1	0.69	0.26	55,55,55,55	0
82	MG	1	3729	1/1	0.69	0.18	45,45,45,45	0
82	MG	CM	1809	1/1	0.69	0.26	60,60,60,60	0
82	MG	1	3541	1/1	0.69	0.17	43,43,43,43	0
82	MG	AS	3532	1/1	0.70	0.26	69,69,69,69	0
82	MG	AS	3564	1/1	0.70	0.27	60,60,60,60	0
82	MG	AS	3598	1/1	0.70	0.18	39,39,39,39	0
82	MG	1	3501	1/1	0.70	0.12	65,65,65,65	0
82	MG	CM	1832	1/1	0.70	0.21	56,56,56,56	0
82	MG	1	3485	1/1	0.70	0.21	64,64,64,64	0
82	MG	1	3479	1/1	0.70	0.20	66,66,66,66	0
82	MG	1	3660	1/1	0.70	0.15	42,42,42,42	0
82	MG	AS	3472	1/1	0.71	0.26	55,55,55,55	0
81	PAR	CM	1805	42/42	0.71	0.21	98,111,128,146	0
81	PAR	AS	3405	42/42	0.71	0.18	67,82,94,100	42
82	MG	CM	1881	1/1	0.71	0.29	62,62,62,62	0
82	MG	1	3431	1/1	0.71	0.36	60,60,60,60	0
82	MG	AS	3643	1/1	0.71	0.17	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3448	1/1	0.71	0.23	47,47,47,47	0
82	MG	B	1895	1/1	0.71	0.23	53,53,53,53	0
82	MG	AS	3567	1/1	0.72	0.20	60,60,60,60	0
82	MG	1	3432	1/1	0.72	0.16	51,51,51,51	0
82	MG	AS	3447	1/1	0.72	0.23	55,55,55,55	0
82	MG	AS	3415	1/1	0.72	0.20	65,65,65,65	0
82	MG	AS	3685	1/1	0.72	0.41	75,75,75,75	0
81	PAR	1	3413	42/42	0.72	0.39	50,82,99,113	42
81	PAR	AS	3408	42/42	0.72	0.14	83,105,119,123	0
82	MG	AS	3428	1/1	0.72	0.29	56,56,56,56	0
83	ZN	d	101	1/1	0.72	0.14	257,257,257,257	0
83	ZN	DO	101	1/1	0.72	0.16	206,206,206,206	0
82	MG	B	1873	1/1	0.73	0.19	53,53,53,53	0
82	MG	AS	3453	1/1	0.73	0.18	52,52,52,52	0
82	MG	AS	3723	1/1	0.73	0.18	46,46,46,46	0
82	MG	AS	3519	1/1	0.73	0.17	47,47,47,47	0
81	PAR	B	1805	42/42	0.73	0.18	60,85,96,102	0
82	MG	1	3437	1/1	0.73	0.15	54,54,54,54	0
82	MG	AS	3465	1/1	0.73	0.20	69,69,69,69	0
82	MG	AS	3679	1/1	0.73	0.15	68,68,68,68	0
82	MG	CM	1883	1/1	0.73	0.35	67,67,67,67	0
82	MG	B	1940	1/1	0.73	0.39	65,65,65,65	0
82	MG	CM	1810	1/1	0.73	0.16	90,90,90,90	0
82	MG	AS	3686	1/1	0.73	0.32	47,47,47,47	0
82	MG	B	1837	1/1	0.73	0.15	63,63,63,63	0
82	MG	B	1916	1/1	0.73	0.30	59,59,59,59	0
82	MG	AS	3486	1/1	0.73	0.23	60,60,60,60	0
82	MG	AS	3482	1/1	0.74	0.28	72,72,72,72	0
82	MG	B	1943	1/1	0.74	0.21	68,68,68,68	0
82	MG	CM	1842	1/1	0.74	0.26	56,56,56,56	0
82	MG	B	1831	1/1	0.74	0.14	46,46,46,46	0
82	MG	AS	3492	1/1	0.74	0.18	68,68,68,68	0
82	MG	AS	3645	1/1	0.74	0.36	60,60,60,60	0
82	MG	AS	3651	1/1	0.74	0.16	68,68,68,68	0
82	MG	AL	101	1/1	0.74	0.22	94,94,94,94	0
82	MG	AS	3516	1/1	0.74	0.31	58,58,58,58	0
82	MG	1	3469	1/1	0.74	0.29	67,67,67,67	0
82	MG	AS	3526	1/1	0.74	0.16	38,38,38,38	0
82	MG	1	3634	1/1	0.74	0.31	60,60,60,60	0
82	MG	1	3434	1/1	0.74	0.12	36,36,36,36	0
82	MG	CM	1938	1/1	0.74	0.18	46,46,46,46	0
82	MG	CM	1941	1/1	0.74	0.11	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3750	1/1	0.74	0.18	60,60,60,60	0
82	MG	AS	3432	1/1	0.74	0.20	52,52,52,52	0
81	PAR	1	3403	42/42	0.74	0.21	47,63,78,89	42
82	MG	CM	1862	1/1	0.75	0.18	58,58,58,58	0
82	MG	1	3668	1/1	0.75	0.20	37,37,37,37	0
81	PAR	1	3420	42/42	0.75	0.17	73,94,115,116	0
82	MG	AS	3438	1/1	0.75	0.10	39,39,39,39	0
82	MG	1	3683	1/1	0.75	0.22	56,56,56,56	0
82	MG	1	3718	1/1	0.75	0.14	42,42,42,42	0
82	MG	CM	1890	1/1	0.75	0.28	62,62,62,62	0
82	MG	CM	1892	1/1	0.75	0.29	67,67,67,67	0
82	MG	1	3722	1/1	0.75	0.15	41,41,41,41	0
81	PAR	1	3408	42/42	0.75	0.27	64,90,104,113	42
81	PAR	AS	3401	42/42	0.75	0.21	59,75,88,93	42
81	PAR	1	3414	42/42	0.75	0.20	51,85,92,99	0
82	MG	CM	1942	1/1	0.75	0.14	64,64,64,64	0
82	MG	AS	3703	1/1	0.75	0.26	59,59,59,59	0
82	MG	B	1839	1/1	0.75	0.20	82,82,82,82	0
82	MG	CM	1854	1/1	0.75	0.29	65,65,65,65	0
81	PAR	1	3405	42/42	0.76	0.29	41,67,84,99	42
82	MG	B	1845	1/1	0.76	0.18	61,61,61,61	0
82	MG	AS	3446	1/1	0.76	0.14	54,54,54,54	0
82	MG	1	3521	1/1	0.76	0.17	56,56,56,56	0
82	MG	AS	3501	1/1	0.76	0.38	53,53,53,53	0
82	MG	1	3458	1/1	0.76	0.20	56,56,56,56	0
82	MG	AS	3740	1/1	0.76	0.13	63,63,63,63	0
82	MG	1	3444	1/1	0.76	0.17	56,56,56,56	0
81	PAR	B	1804	42/42	0.76	0.20	76,105,123,126	0
82	MG	1	3675	1/1	0.76	0.31	63,63,63,63	0
82	MG	B	1827	1/1	0.76	0.16	64,64,64,64	0
82	MG	AS	3466	1/1	0.76	0.15	62,62,62,62	0
82	MG	CM	1818	1/1	0.76	0.39	70,70,70,70	0
82	MG	CM	1916	1/1	0.76	0.14	44,44,44,44	0
82	MG	CM	1820	1/1	0.76	0.20	46,46,46,46	0
82	MG	AS	3586	1/1	0.76	0.24	67,67,67,67	0
82	MG	1	3754	1/1	0.76	0.34	59,59,59,59	0
82	MG	CM	1835	1/1	0.76	0.16	64,64,64,64	0
82	MG	AS	3426	1/1	0.76	0.26	71,71,71,71	0
82	MG	1	3757	1/1	0.76	0.38	64,64,64,64	0
82	MG	1	3759	1/1	0.76	0.36	65,65,65,65	0
82	MG	1	3460	1/1	0.77	0.20	51,51,51,51	0
82	MG	B	1808	1/1	0.77	0.12	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3682	1/1	0.77	0.23	66,66,66,66	0
82	MG	AS	3499	1/1	0.77	0.12	48,48,48,48	0
82	MG	AS	3441	1/1	0.77	0.38	55,55,55,55	0
81	PAR	1	3425	42/42	0.77	0.21	52,74,87,97	42
82	MG	1	3701	1/1	0.77	0.14	50,50,50,50	0
82	MG	B	1920	1/1	0.77	0.27	71,71,71,71	0
81	PAR	1	3426	42/42	0.77	0.24	49,66,79,86	42
81	PAR	AS	3410	42/42	0.77	0.18	95,110,119,137	0
82	MG	CM	1857	1/1	0.77	0.14	42,42,42,42	0
82	MG	1	3637	1/1	0.77	0.15	50,50,50,50	0
82	MG	1	3733	1/1	0.77	0.18	56,56,56,56	0
82	MG	AS	3463	1/1	0.77	0.10	46,46,46,46	0
82	MG	AS	3614	1/1	0.77	0.16	54,54,54,54	0
81	PAR	1	3416	42/42	0.77	0.21	47,71,83,85	42
81	PAR	1	3409	42/42	0.77	0.18	45,81,100,109	42
82	MG	CM	1887	1/1	0.77	0.21	59,59,59,59	0
82	MG	AS	3736	1/1	0.77	0.10	41,41,41,41	0
82	MG	AS	3629	1/1	0.77	0.31	70,70,70,70	0
82	MG	CM	1897	1/1	0.77	0.15	57,57,57,57	0
82	MG	1	3755	1/1	0.77	0.21	46,46,46,46	0
82	MG	AS	3744	1/1	0.77	0.23	53,53,53,53	0
82	MG	AS	3636	1/1	0.77	0.19	92,92,92,92	0
81	PAR	1	3422	42/42	0.77	0.24	56,73,85,89	42
82	MG	1	3457	1/1	0.77	0.29	57,57,57,57	0
81	PAR	AS	3403	42/42	0.77	0.20	60,83,97,102	0
82	MG	B	1867	1/1	0.77	0.38	52,52,52,52	0
82	MG	AS	3488	1/1	0.77	0.13	69,69,69,69	0
82	MG	AS	3660	1/1	0.77	0.21	55,55,55,55	0
82	MG	AS	3474	1/1	0.78	0.26	43,43,43,43	0
82	MG	AS	3534	1/1	0.78	0.18	56,56,56,56	0
82	MG	AS	3743	1/1	0.78	0.15	44,44,44,44	0
82	MG	AS	3479	1/1	0.78	0.16	39,39,39,39	0
82	MG	CM	1874	1/1	0.78	0.32	73,73,73,73	0
81	PAR	AS	3409	42/42	0.78	0.21	51,66,89,100	42
82	MG	1	3771	1/1	0.78	0.13	49,49,49,49	0
82	MG	AS	3454	1/1	0.78	0.29	54,54,54,54	0
82	MG	AS	3602	1/1	0.78	0.37	59,59,59,59	0
82	MG	1	3477	1/1	0.78	0.19	57,57,57,57	0
82	MG	CM	1888	1/1	0.78	0.19	52,52,52,52	0
81	PAR	AS	3404	42/42	0.78	0.23	59,90,101,107	42
82	MG	AS	3627	1/1	0.78	0.37	77,77,77,77	0
82	MG	CM	1825	1/1	0.78	0.23	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	B	1892	1/1	0.78	0.28	79,79,79,79	0
82	MG	AS	3494	1/1	0.78	0.23	55,55,55,55	0
82	MG	1	3482	1/1	0.78	0.21	42,42,42,42	0
82	MG	B	1812	1/1	0.78	0.38	65,65,65,65	0
82	MG	AS	3638	1/1	0.78	0.15	71,71,71,71	0
82	MG	AS	3504	1/1	0.78	0.10	46,46,46,46	0
82	MG	G	301	1/1	0.78	0.15	56,56,56,56	0
82	MG	1	3728	1/1	0.78	0.26	62,62,62,62	0
82	MG	1	3657	1/1	0.78	0.20	61,61,61,61	0
82	MG	B	1914	1/1	0.79	0.13	47,47,47,47	0
82	MG	AS	3617	1/1	0.79	0.18	54,54,54,54	0
82	MG	B	1814	1/1	0.79	0.14	46,46,46,46	0
82	MG	AS	3440	1/1	0.79	0.17	55,55,55,55	0
81	PAR	1	3419	42/42	0.79	0.23	34,60,71,89	42
82	MG	1	3765	1/1	0.79	0.16	38,38,38,38	0
82	MG	B	1928	1/1	0.79	0.13	49,49,49,49	0
82	MG	CM	1864	1/1	0.79	0.17	79,79,79,79	0
82	MG	CM	1865	1/1	0.79	0.21	80,80,80,80	0
82	MG	B	1929	1/1	0.79	0.23	51,51,51,51	0
82	MG	1	3706	1/1	0.79	0.17	46,46,46,46	0
82	MG	4	203	1/1	0.79	0.12	77,77,77,77	0
82	MG	B	1871	1/1	0.79	0.18	52,52,52,52	0
82	MG	AS	3508	1/1	0.79	0.12	42,42,42,42	0
82	MG	1	3677	1/1	0.79	0.14	43,43,43,43	0
82	MG	B	1876	1/1	0.79	0.27	41,41,41,41	0
82	MG	B	1887	1/1	0.79	0.24	61,61,61,61	0
82	MG	1	3532	1/1	0.79	0.12	37,37,37,37	0
81	PAR	1	3423	42/42	0.79	0.28	53,68,80,84	42
82	MG	CM	1894	1/1	0.79	0.20	91,91,91,91	0
82	MG	CM	1895	1/1	0.79	0.19	76,76,76,76	0
82	MG	AS	3419	1/1	0.79	0.13	50,50,50,50	0
82	MG	AS	3674	1/1	0.79	0.12	49,49,49,49	0
82	MG	1	3440	1/1	0.79	0.22	50,50,50,50	0
82	MG	AS	3680	1/1	0.79	0.13	50,50,50,50	0
82	MG	CM	1827	1/1	0.79	0.23	37,37,37,37	0
82	MG	CM	1940	1/1	0.79	0.21	56,56,56,56	0
82	MG	AS	3682	1/1	0.79	0.10	31,31,31,31	0
82	MG	AS	3572	1/1	0.79	0.21	61,61,61,61	0
82	MG	B	1901	1/1	0.79	0.18	57,57,57,57	0
82	MG	B	1906	1/1	0.79	0.15	55,55,55,55	0
82	MG	B	1840	1/1	0.79	0.30	78,78,78,78	0
82	MG	AS	3681	1/1	0.80	0.12	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3507	1/1	0.80	0.11	45,45,45,45	0
82	MG	1	3510	1/1	0.80	0.22	55,55,55,55	0
82	MG	1	3726	1/1	0.80	0.19	32,32,32,32	0
82	MG	B	1891	1/1	0.80	0.11	47,47,47,47	0
82	MG	AS	3470	1/1	0.80	0.27	74,74,74,74	0
82	MG	1	3513	1/1	0.80	0.23	75,75,75,75	0
82	MG	CM	1855	1/1	0.80	0.15	47,47,47,47	0
82	MG	1	3656	1/1	0.80	0.18	62,62,62,62	0
82	MG	AS	3619	1/1	0.80	0.20	59,59,59,59	0
82	MG	AS	3423	1/1	0.80	0.13	49,49,49,49	0
82	MG	AS	3621	1/1	0.80	0.21	54,54,54,54	0
82	MG	AS	3724	1/1	0.80	0.28	51,51,51,51	0
82	MG	AS	3727	1/1	0.80	0.16	67,67,67,67	0
82	MG	AS	3623	1/1	0.80	0.26	65,65,65,65	0
82	MG	AS	3729	1/1	0.80	0.28	41,41,41,41	0
82	MG	AS	3626	1/1	0.80	0.21	59,59,59,59	0
82	MG	1	3520	1/1	0.80	0.12	59,59,59,59	0
82	MG	1	3737	1/1	0.80	0.29	44,44,44,44	0
81	PAR	1	3427	42/42	0.80	0.16	53,67,80,88	0
82	MG	AS	3430	1/1	0.80	0.36	63,63,63,63	0
82	MG	1	3751	1/1	0.80	0.32	54,54,54,54	0
82	MG	B	1913	1/1	0.80	0.19	59,59,59,59	0
82	MG	1	3663	1/1	0.80	0.26	52,52,52,52	0
82	MG	1	3525	1/1	0.80	0.24	49,49,49,49	0
82	MG	B	1918	1/1	0.80	0.26	41,41,41,41	0
82	MG	CM	1906	1/1	0.80	0.17	85,85,85,85	0
82	MG	CM	1912	1/1	0.80	0.20	98,98,98,98	0
81	PAR	CM	1802	42/42	0.80	0.19	71,86,101,105	0
82	MG	CM	1918	1/1	0.80	0.12	70,70,70,70	0
82	MG	1	3488	1/1	0.80	0.21	47,47,47,47	0
82	MG	CM	1933	1/1	0.80	0.18	84,84,84,84	0
82	MG	CM	1937	1/1	0.80	0.20	51,51,51,51	0
82	MG	1	3490	1/1	0.80	0.41	58,58,58,58	0
82	MG	CM	1939	1/1	0.80	0.12	57,57,57,57	0
82	MG	1	3578	1/1	0.80	0.23	25,25,25,25	0
82	MG	1	3770	1/1	0.80	0.17	42,42,42,42	0
81	PAR	1	3410	42/42	0.80	0.22	40,78,96,113	0
82	MG	1	3593	1/1	0.80	0.29	44,44,44,44	0
82	MG	1	3455	1/1	0.80	0.15	57,57,57,57	0
82	MG	AS	3565	1/1	0.80	0.18	48,48,48,48	0
82	MG	AS	3435	1/1	0.81	0.11	53,53,53,53	0
82	MG	B	1835	1/1	0.81	0.22	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	B	1836	1/1	0.81	0.28	53,53,53,53	0
82	MG	AU	201	1/1	0.81	0.24	71,71,71,71	0
82	MG	1	3749	1/1	0.81	0.22	51,51,51,51	0
82	MG	1	3693	1/1	0.81	0.15	39,39,39,39	0
82	MG	B	1942	1/1	0.81	0.18	56,56,56,56	0
82	MG	AS	3615	1/1	0.81	0.10	86,86,86,86	0
82	MG	1	3600	1/1	0.81	0.09	23,23,23,23	0
82	MG	CM	1816	1/1	0.81	0.13	46,46,46,46	0
82	MG	B	1902	1/1	0.81	0.19	63,63,63,63	0
82	MG	1	3752	1/1	0.81	0.22	43,43,43,43	0
82	MG	AS	3702	1/1	0.81	0.13	50,50,50,50	0
82	MG	B	1908	1/1	0.81	0.12	48,48,48,48	0
82	MG	1	3495	1/1	0.81	0.10	28,28,28,28	0
82	MG	1	3439	1/1	0.81	0.14	41,41,41,41	0
82	MG	AS	3505	1/1	0.81	0.21	64,64,64,64	0
82	MG	CM	1838	1/1	0.81	0.21	79,79,79,79	0
82	MG	1	3642	1/1	0.81	0.18	57,57,57,57	0
82	MG	CM	1919	1/1	0.81	0.27	46,46,46,46	0
82	MG	CM	1924	1/1	0.81	0.24	57,57,57,57	0
82	MG	AS	3514	1/1	0.81	0.15	49,49,49,49	0
82	MG	AS	3464	1/1	0.81	0.22	35,35,35,35	0
82	MG	CM	1844	1/1	0.81	0.09	83,83,83,83	0
82	MG	1	3516	1/1	0.81	0.10	49,49,49,49	0
82	MG	1	3454	1/1	0.81	0.16	52,52,52,52	0
82	MG	AS	3530	1/1	0.81	0.25	40,40,40,40	0
82	MG	1	3505	1/1	0.81	0.10	44,44,44,44	0
81	PAR	B	1802	42/42	0.81	0.19	55,81,98,105	0
82	MG	AS	3538	1/1	0.81	0.20	40,40,40,40	0
82	MG	B	1926	1/1	0.81	0.22	54,54,54,54	0
82	MG	1	3684	1/1	0.81	0.14	56,56,56,56	0
82	MG	1	3539	1/1	0.82	0.17	49,49,49,49	0
81	PAR	AS	3402	42/42	0.82	0.15	45,64,74,83	0
82	MG	1	3772	1/1	0.82	0.23	53,53,53,53	0
82	MG	B	1919	1/1	0.82	0.36	65,65,65,65	0
81	PAR	4	201	42/42	0.82	0.21	27,47,60,67	42
82	MG	B	1852	1/1	0.82	0.17	54,54,54,54	0
82	MG	x	201	1/1	0.82	0.18	26,26,26,26	0
82	MG	B	1927	1/1	0.82	0.24	52,52,52,52	0
81	PAR	1	3418	42/42	0.82	0.19	67,85,93,97	42
82	MG	1	3459	1/1	0.82	0.46	55,55,55,55	0
82	MG	1	3445	1/1	0.82	0.20	43,43,43,43	0
82	MG	CM	1885	1/1	0.82	0.37	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	B	1932	1/1	0.82	0.26	66,66,66,66	0
82	MG	B	1935	1/1	0.82	0.18	48,48,48,48	0
82	MG	AS	3654	1/1	0.82	0.22	55,55,55,55	0
82	MG	AS	3455	1/1	0.82	0.31	61,61,61,61	0
82	MG	AS	3456	1/1	0.82	0.20	42,42,42,42	0
82	MG	1	3463	1/1	0.82	0.38	61,61,61,61	0
81	PAR	B	1803	42/42	0.82	0.24	46,75,88,107	0
82	MG	B	1890	1/1	0.82	0.32	46,46,46,46	0
82	MG	AS	3552	1/1	0.82	0.18	53,53,53,53	0
82	MG	AS	3678	1/1	0.82	0.18	49,49,49,49	0
82	MG	1	3522	1/1	0.82	0.21	45,45,45,45	0
82	MG	1	3648	1/1	0.82	0.13	52,52,52,52	0
81	PAR	CM	1801	42/42	0.82	0.23	72,86,93,103	42
82	MG	1	3696	1/1	0.82	0.18	43,43,43,43	0
82	MG	AS	3580	1/1	0.82	0.22	42,42,42,42	0
82	MG	1	3697	1/1	0.82	0.29	49,49,49,49	0
82	MG	AS	3690	1/1	0.82	0.18	19,19,19,19	0
82	MG	1	3653	1/1	0.82	0.26	51,51,51,51	0
82	MG	1	3499	1/1	0.82	0.14	36,36,36,36	0
82	MG	CM	1843	1/1	0.82	0.17	59,59,59,59	0
82	MG	1	3764	1/1	0.82	0.10	34,34,34,34	0
82	MG	AS	3477	1/1	0.82	0.31	81,81,81,81	0
82	MG	CM	1943	1/1	0.82	0.13	61,61,61,61	0
81	PAR	AS	3406	42/42	0.82	0.14	62,85,101,104	0
82	MG	DG	201	1/1	0.82	0.30	74,74,74,74	0
82	MG	1	3767	1/1	0.82	0.24	48,48,48,48	0
82	MG	AS	3427	1/1	0.82	0.21	46,46,46,46	0
82	MG	AS	3497	1/1	0.83	0.18	69,69,69,69	0
82	MG	1	3734	1/1	0.83	0.29	42,42,42,42	0
82	MG	1	3736	1/1	0.83	0.13	41,41,41,41	0
82	MG	1	3633	1/1	0.83	0.26	55,55,55,55	0
82	MG	1	3742	1/1	0.83	0.21	56,56,56,56	0
82	MG	AS	3725	1/1	0.83	0.26	39,39,39,39	0
82	MG	1	3746	1/1	0.83	0.12	48,48,48,48	0
82	MG	4	209	1/1	0.83	0.24	56,56,56,56	0
82	MG	j	301	1/1	0.83	0.09	24,24,24,24	0
82	MG	1	3658	1/1	0.83	0.27	42,42,42,42	0
81	PAR	1	3411	42/42	0.83	0.23	43,64,77,84	0
82	MG	AS	3528	1/1	0.83	0.28	47,47,47,47	0
82	MG	B	1850	1/1	0.83	0.32	52,52,52,52	0
82	MG	1	3447	1/1	0.83	0.15	66,66,66,66	0
82	MG	AS	3742	1/1	0.83	0.28	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
81	PAR	B	1801	42/42	0.83	0.17	62,87,108,112	0
81	PAR	1	3428	42/42	0.83	0.16	48,62,70,102	0
82	MG	AS	3540	1/1	0.83	0.24	69,69,69,69	0
82	MG	AS	3659	1/1	0.83	0.18	30,30,30,30	0
82	MG	CM	1808	1/1	0.83	0.11	87,87,87,87	0
82	MG	B	1870	1/1	0.83	0.09	30,30,30,30	0
82	MG	AS	3563	1/1	0.83	0.29	55,55,55,55	0
82	MG	B	1813	1/1	0.83	0.23	59,59,59,59	0
82	MG	1	3453	1/1	0.83	0.24	54,54,54,54	0
82	MG	CM	1914	1/1	0.83	0.15	80,80,80,80	0
82	MG	1	3724	1/1	0.83	0.38	57,57,57,57	0
82	MG	AS	3481	1/1	0.83	0.12	42,42,42,42	0
82	MG	AS	3578	1/1	0.83	0.16	46,46,46,46	0
82	MG	B	1816	1/1	0.83	0.34	60,60,60,60	0
82	MG	CM	1926	1/1	0.83	0.14	52,52,52,52	0
82	MG	CM	1930	1/1	0.83	0.25	57,57,57,57	0
82	MG	AS	3581	1/1	0.83	0.10	32,32,32,32	0
82	MG	1	3651	1/1	0.83	0.16	28,28,28,28	0
82	MG	AS	3487	1/1	0.83	0.37	50,50,50,50	0
82	MG	B	1933	1/1	0.83	0.11	44,44,44,44	0
82	MG	1	3500	1/1	0.83	0.20	43,43,43,43	0
82	MG	AS	3693	1/1	0.83	0.12	77,77,77,77	0
82	MG	AS	3699	1/1	0.83	0.22	57,57,57,57	0
81	PAR	AS	3411	42/42	0.83	0.17	53,69,91,96	0
82	MG	1	3468	1/1	0.83	0.17	36,36,36,36	0
82	MG	AS	3710	1/1	0.83	0.16	57,57,57,57	0
82	MG	CM	1845	1/1	0.83	0.29	73,73,73,73	0
82	MG	AS	3618	1/1	0.83	0.22	27,27,27,27	0
82	MG	AS	3452	1/1	0.83	0.11	78,78,78,78	0
82	MG	AS	3709	1/1	0.84	0.20	38,38,38,38	0
82	MG	CM	1882	1/1	0.84	0.31	52,52,52,52	0
82	MG	CM	1815	1/1	0.84	0.14	50,50,50,50	0
82	MG	1	3615	1/1	0.84	0.22	34,34,34,34	0
82	MG	1	3761	1/1	0.84	0.18	54,54,54,54	0
82	MG	1	3712	1/1	0.84	0.33	50,50,50,50	0
82	MG	AS	3585	1/1	0.84	0.15	44,44,44,44	0
82	MG	1	3740	1/1	0.84	0.40	57,57,57,57	0
82	MG	CM	1830	1/1	0.84	0.17	55,55,55,55	0
82	MG	AS	3719	1/1	0.84	0.14	48,48,48,48	0
82	MG	AS	3657	1/1	0.84	0.17	42,42,42,42	0
82	MG	CM	1833	1/1	0.84	0.31	48,48,48,48	0
82	MG	1	3630	1/1	0.84	0.29	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	CM	1905	1/1	0.84	0.22	75,75,75,75	0
82	MG	1	3745	1/1	0.84	0.14	38,38,38,38	0
82	MG	B	1858	1/1	0.84	0.12	64,64,64,64	0
82	MG	AS	3667	1/1	0.84	0.18	39,39,39,39	0
82	MG	AS	3478	1/1	0.84	0.15	43,43,43,43	0
82	MG	1	3721	1/1	0.84	0.22	39,39,39,39	0
82	MG	1	3515	1/1	0.84	0.12	47,47,47,47	0
81	PAR	CM	1804	42/42	0.84	0.23	40,67,81,91	0
82	MG	3	201	1/1	0.84	0.17	36,36,36,36	0
82	MG	CM	1929	1/1	0.84	0.20	52,52,52,52	0
81	PAR	1	3417	42/42	0.84	0.16	49,70,84,91	0
82	MG	B	1874	1/1	0.84	0.26	50,50,50,50	0
82	MG	4	206	1/1	0.84	0.34	62,62,62,62	0
82	MG	AS	3557	1/1	0.84	0.25	60,60,60,60	0
82	MG	B	1880	1/1	0.84	0.21	61,61,61,61	0
82	MG	1	3464	1/1	0.84	0.09	28,28,28,28	0
82	MG	AS	3691	1/1	0.84	0.12	19,19,19,19	0
81	PAR	1	3415	42/42	0.84	0.19	30,66,80,91	0
82	MG	CM	1866	1/1	0.84	0.29	70,70,70,70	0
81	PAR	AS	3412	42/42	0.84	0.15	37,60,77,90	0
82	MG	CM	1873	1/1	0.84	0.21	71,71,71,71	0
82	MG	1	3484	1/1	0.84	0.14	47,47,47,47	0
82	MG	AS	3577	1/1	0.84	0.32	45,45,45,45	0
82	MG	CM	1879	1/1	0.84	0.13	82,82,82,82	0
82	MG	1	3739	1/1	0.85	0.12	46,46,46,46	0
82	MG	AS	3524	1/1	0.85	0.30	67,67,67,67	0
82	MG	1	3472	1/1	0.85	0.15	37,37,37,37	0
82	MG	1	3555	1/1	0.85	0.24	36,36,36,36	0
82	MG	v	305	1/1	0.85	0.11	39,39,39,39	0
82	MG	1	3743	1/1	0.85	0.22	65,65,65,65	0
82	MG	1	3574	1/1	0.85	0.22	39,39,39,39	0
82	MG	B	1941	1/1	0.85	0.15	41,41,41,41	0
81	PAR	1	3430	42/42	0.85	0.16	40,63,77,121	0
82	MG	B	1809	1/1	0.85	0.36	54,54,54,54	0
82	MG	AS	3553	1/1	0.85	0.12	41,41,41,41	0
82	MG	1	3698	1/1	0.85	0.18	35,35,35,35	0
82	MG	B	1884	1/1	0.85	0.29	54,54,54,54	0
81	PAR	1	3404	42/42	0.85	0.18	28,57,75,84	0
81	PAR	1	3412	42/42	0.85	0.24	60,78,89,98	42
82	MG	1	3442	1/1	0.85	0.24	38,38,38,38	0
82	MG	AS	3568	1/1	0.85	0.17	41,41,41,41	0
82	MG	CM	1891	1/1	0.85	0.15	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3753	1/1	0.85	0.34	58,58,58,58	0
82	MG	1	3611	1/1	0.85	0.25	35,35,35,35	0
82	MG	1	3465	1/1	0.85	0.20	51,51,51,51	0
82	MG	1	3661	1/1	0.85	0.21	42,42,42,42	0
82	MG	AS	3483	1/1	0.85	0.18	50,50,50,50	0
82	MG	CM	1902	1/1	0.85	0.17	57,57,57,57	0
82	MG	CM	1903	1/1	0.85	0.17	81,81,81,81	0
82	MG	1	3626	1/1	0.85	0.09	32,32,32,32	0
82	MG	1	3725	1/1	0.85	0.15	29,29,29,29	0
82	MG	CM	1909	1/1	0.85	0.20	79,79,79,79	0
82	MG	AS	3689	1/1	0.85	0.32	51,51,51,51	0
82	MG	CM	1829	1/1	0.85	0.24	53,53,53,53	0
82	MG	AS	3589	1/1	0.85	0.23	59,59,59,59	0
82	MG	AS	3592	1/1	0.85	0.17	50,50,50,50	0
82	MG	AS	3692	1/1	0.85	0.15	40,40,40,40	0
82	MG	1	3664	1/1	0.85	0.21	48,48,48,48	0
82	MG	1	3727	1/1	0.85	0.21	57,57,57,57	0
82	MG	AS	3490	1/1	0.85	0.24	73,73,73,73	0
82	MG	1	3530	1/1	0.85	0.25	50,50,50,50	0
82	MG	1	3531	1/1	0.85	0.27	53,53,53,53	0
82	MG	B	1838	1/1	0.85	0.19	59,59,59,59	0
82	MG	1	3768	1/1	0.85	0.16	59,59,59,59	0
82	MG	1	3731	1/1	0.85	0.12	50,50,50,50	0
81	PAR	AS	3407	42/42	0.85	0.18	49,75,90,103	0
82	MG	AS	3717	1/1	0.85	0.30	53,53,53,53	0
82	MG	CM	1850	1/1	0.85	0.20	50,50,50,50	0
81	PAR	1	3406	42/42	0.85	0.20	37,53,72,86	0
82	MG	CM	1852	1/1	0.85	0.17	73,73,73,73	0
82	MG	1	3775	1/1	0.85	0.21	49,49,49,49	0
82	MG	1	3638	1/1	0.85	0.14	29,29,29,29	0
81	PAR	1	3424	42/42	0.85	0.26	56,76,83,87	42
82	MG	B	1853	1/1	0.85	0.26	55,55,55,55	0
82	MG	CM	1875	1/1	0.86	0.12	57,57,57,57	0
82	MG	AS	3687	1/1	0.86	0.12	38,38,38,38	0
82	MG	AS	3536	1/1	0.86	0.10	39,39,39,39	0
82	MG	1	3572	1/1	0.86	0.18	35,35,35,35	0
82	MG	AS	3444	1/1	0.86	0.20	56,56,56,56	0
82	MG	1	3747	1/1	0.86	0.25	48,48,48,48	0
82	MG	B	1904	1/1	0.86	0.12	59,59,59,59	0
82	MG	AS	3449	1/1	0.86	0.35	47,47,47,47	0
82	MG	AS	3560	1/1	0.86	0.14	65,65,65,65	0
82	MG	CM	1822	1/1	0.86	0.27	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	AS	3632	1/1	0.86	0.20	51,51,51,51	0
82	MG	1	3692	1/1	0.86	0.18	50,50,50,50	0
81	PAR	1	3402	42/42	0.86	0.13	46,71,82,93	0
82	MG	1	3481	1/1	0.86	0.12	60,60,60,60	0
82	MG	1	3635	1/1	0.86	0.32	70,70,70,70	0
82	MG	CM	1896	1/1	0.86	0.23	59,59,59,59	0
82	MG	AS	3714	1/1	0.86	0.31	44,44,44,44	0
82	MG	1	3579	1/1	0.86	0.09	46,46,46,46	0
82	MG	AS	3647	1/1	0.86	0.21	64,64,64,64	0
82	MG	CM	1837	1/1	0.86	0.20	62,62,62,62	0
82	MG	AS	3650	1/1	0.86	0.13	49,49,49,49	0
81	PAR	4	202	42/42	0.86	0.14	44,60,80,87	0
82	MG	CM	1907	1/1	0.86	0.12	73,73,73,73	0
82	MG	B	1917	1/1	0.86	0.28	57,57,57,57	0
82	MG	CM	1841	1/1	0.86	0.15	66,66,66,66	0
82	MG	1	3503	1/1	0.86	0.23	50,50,50,50	0
82	MG	1	3756	1/1	0.86	0.16	45,45,45,45	0
82	MG	1	3518	1/1	0.86	0.27	30,30,30,30	0
82	MG	p	301	1/1	0.86	0.25	47,47,47,47	0
82	MG	v	302	1/1	0.86	0.25	36,36,36,36	0
82	MG	1	3461	1/1	0.86	0.20	37,37,37,37	0
82	MG	CM	1928	1/1	0.86	0.11	60,60,60,60	0
82	MG	1	3650	1/1	0.86	0.31	53,53,53,53	0
82	MG	1	3614	1/1	0.86	0.19	37,37,37,37	0
82	MG	AS	3671	1/1	0.86	0.13	56,56,56,56	0
82	MG	1	3763	1/1	0.86	0.10	32,32,32,32	0
82	MG	AS	3605	1/1	0.86	0.28	24,24,24,24	0
82	MG	CM	1856	1/1	0.86	0.28	72,72,72,72	0
82	MG	AS	3436	1/1	0.86	0.27	48,48,48,48	0
82	MG	AS	3475	1/1	0.86	0.15	37,37,37,37	0
82	MG	CM	1863	1/1	0.86	0.33	41,41,41,41	0
82	MG	AS	3529	1/1	0.86	0.07	34,34,34,34	0
82	MG	1	3462	1/1	0.86	0.22	40,40,40,40	0
82	MG	B	1896	1/1	0.86	0.09	48,48,48,48	0
82	MG	AY	401	1/1	0.86	0.34	57,57,57,57	0
82	MG	CJ	202	1/1	0.86	0.24	53,53,53,53	0
82	MG	1	3509	1/1	0.86	0.14	42,42,42,42	0
82	MG	B	1861	1/1	0.87	0.26	33,33,33,33	0
82	MG	1	3446	1/1	0.87	0.07	31,31,31,31	0
82	MG	CM	1811	1/1	0.87	0.26	54,54,54,54	0
82	MG	B	1912	1/1	0.87	0.20	42,42,42,42	0
82	MG	1	3603	1/1	0.87	0.20	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	B	1868	1/1	0.87	0.43	63,63,63,63	0
82	MG	1	3609	1/1	0.87	0.14	42,42,42,42	0
82	MG	1	3716	1/1	0.87	0.19	37,37,37,37	0
82	MG	B	1872	1/1	0.87	0.18	50,50,50,50	0
82	MG	1	3766	1/1	0.87	0.15	31,31,31,31	0
82	MG	CM	1823	1/1	0.87	0.27	60,60,60,60	0
82	MG	AS	3705	1/1	0.87	0.18	52,52,52,52	0
82	MG	B	1832	1/1	0.87	0.24	41,41,41,41	0
82	MG	AS	3550	1/1	0.87	0.18	44,44,44,44	0
82	MG	AS	3433	1/1	0.87	0.24	49,49,49,49	0
82	MG	B	1875	1/1	0.87	0.10	53,53,53,53	0
82	MG	1	3456	1/1	0.87	0.16	31,31,31,31	0
82	MG	6	202	1/1	0.87	0.14	20,20,20,20	0
82	MG	1	3735	1/1	0.87	0.16	34,34,34,34	0
82	MG	B	1885	1/1	0.87	0.27	54,54,54,54	0
82	MG	AS	3648	1/1	0.87	0.12	41,41,41,41	0
82	MG	B	1807	1/1	0.87	0.31	59,59,59,59	0
82	MG	1	3719	1/1	0.87	0.25	59,59,59,59	0
82	MG	1	3612	1/1	0.87	0.24	40,40,40,40	0
82	MG	1	3576	1/1	0.87	0.30	28,28,28,28	0
82	MG	AS	3574	1/1	0.87	0.23	30,30,30,30	0
82	MG	AS	3448	1/1	0.87	0.14	25,25,25,25	0
82	MG	B	1847	1/1	0.87	0.17	33,33,33,33	0
82	MG	CM	1847	1/1	0.87	0.11	38,38,38,38	0
82	MG	B	1938	1/1	0.87	0.22	39,39,39,39	0
82	MG	AS	3731	1/1	0.87	0.24	53,53,53,53	0
82	MG	1	3537	1/1	0.87	0.16	42,42,42,42	0
82	MG	AS	3735	1/1	0.87	0.09	35,35,35,35	0
82	MG	1	3776	1/1	0.87	0.21	63,63,63,63	0
82	MG	B	1900	1/1	0.87	0.33	41,41,41,41	0
81	PAR	1	3421	42/42	0.87	0.14	53,69,76,90	42
82	MG	1	3436	1/1	0.87	0.11	38,38,38,38	0
82	MG	AS	3459	1/1	0.87	0.27	62,62,62,62	0
82	MG	F	301	1/1	0.87	0.14	39,39,39,39	0
82	MG	AS	3604	1/1	0.87	0.24	46,46,46,46	0
82	MG	AW	301	1/1	0.87	0.11	50,50,50,50	0
82	MG	1	3491	1/1	0.87	0.20	48,48,48,48	0
82	MG	B	1820	1/1	0.87	0.15	53,53,53,53	0
82	MG	AS	3520	1/1	0.87	0.16	70,70,70,70	0
82	MG	CM	1870	1/1	0.87	0.27	41,41,41,41	0
82	MG	CM	1807	1/1	0.87	0.23	49,49,49,49	0
83	ZN	CJ	201	1/1	0.87	0.09	187,187,187,187	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	AS	3521	1/1	0.87	0.13	60,60,60,60	0
82	MG	B	1923	1/1	0.88	0.29	49,49,49,49	0
81	PAR	CM	1803	42/42	0.88	0.19	46,63,93,101	0
82	MG	CM	1880	1/1	0.88	0.25	54,54,54,54	0
82	MG	1	3738	1/1	0.88	0.15	55,55,55,55	0
82	MG	B	1886	1/1	0.88	0.27	46,46,46,46	0
82	MG	AS	3700	1/1	0.88	0.16	32,32,32,32	0
82	MG	AS	3434	1/1	0.88	0.24	83,83,83,83	0
82	MG	1	3558	1/1	0.88	0.19	52,52,52,52	0
82	MG	B	1842	1/1	0.88	0.19	45,45,45,45	0
82	MG	1	3641	1/1	0.88	0.16	50,50,50,50	0
82	MG	AS	3542	1/1	0.88	0.22	26,26,26,26	0
81	PAR	1	3429	42/42	0.88	0.14	37,61,77,89	0
82	MG	1	3665	1/1	0.88	0.12	54,54,54,54	0
82	MG	AS	3485	1/1	0.88	0.28	65,65,65,65	0
82	MG	1	3667	1/1	0.88	0.10	35,35,35,35	0
82	MG	1	3646	1/1	0.88	0.13	38,38,38,38	0
82	MG	1	3647	1/1	0.88	0.09	30,30,30,30	0
82	MG	AS	3646	1/1	0.88	0.15	66,66,66,66	0
82	MG	CM	1901	1/1	0.88	0.11	39,39,39,39	0
82	MG	1	3511	1/1	0.88	0.34	52,52,52,52	0
82	MG	AS	3721	1/1	0.88	0.31	71,71,71,71	0
82	MG	1	3536	1/1	0.88	0.12	54,54,54,54	0
82	MG	AS	3566	1/1	0.88	0.13	43,43,43,43	0
82	MG	1	3680	1/1	0.88	0.19	25,25,25,25	0
82	MG	1	3450	1/1	0.88	0.09	32,32,32,32	0
80	3K5	1	3401	57/57	0.88	0.19	42,65,85,102	0
82	MG	1	3452	1/1	0.88	0.12	46,46,46,46	0
82	MG	AS	3575	1/1	0.88	0.16	47,47,47,47	0
82	MG	CM	1917	1/1	0.88	0.21	58,58,58,58	0
82	MG	1	3588	1/1	0.88	0.10	28,28,28,28	0
82	MG	B	1829	1/1	0.88	0.25	36,36,36,36	0
82	MG	CM	1920	1/1	0.88	0.22	60,60,60,60	0
82	MG	CM	1922	1/1	0.88	0.20	45,45,45,45	0
82	MG	CM	1849	1/1	0.88	0.09	58,58,58,58	0
82	MG	1	3591	1/1	0.88	0.17	31,31,31,31	0
82	MG	AS	3417	1/1	0.88	0.15	50,50,50,50	0
82	MG	AS	3737	1/1	0.88	0.20	61,61,61,61	0
82	MG	B	1915	1/1	0.88	0.14	43,43,43,43	0
82	MG	AS	3509	1/1	0.88	0.18	44,44,44,44	0
82	MG	AS	3741	1/1	0.88	0.10	31,31,31,31	0
82	MG	AS	3511	1/1	0.88	0.13	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3551	1/1	0.88	0.18	45,45,45,45	0
82	MG	AS	3421	1/1	0.88	0.14	60,60,60,60	0
82	MG	AS	3518	1/1	0.88	0.11	27,27,27,27	0
82	MG	1	3594	1/1	0.88	0.24	54,54,54,54	0
82	MG	v	303	1/1	0.88	0.09	39,39,39,39	0
82	MG	AS	3683	1/1	0.88	0.22	39,39,39,39	0
82	MG	AS	3606	1/1	0.88	0.12	33,33,33,33	0
82	MG	AS	3425	1/1	0.88	0.15	44,44,44,44	0
82	MG	DK	201	1/1	0.88	0.18	44,44,44,44	0
82	MG	AS	3522	1/1	0.88	0.11	52,52,52,52	0
82	MG	1	3659	1/1	0.88	0.17	45,45,45,45	0
82	MG	w	301	1/1	0.88	0.27	52,52,52,52	0
82	MG	AS	3704	1/1	0.89	0.10	61,61,61,61	0
82	MG	1	3527	1/1	0.89	0.12	22,22,22,22	0
82	MG	AS	3707	1/1	0.89	0.21	50,50,50,50	0
82	MG	1	3542	1/1	0.89	0.32	40,40,40,40	0
82	MG	1	3662	1/1	0.89	0.09	48,48,48,48	0
82	MG	B	1939	1/1	0.89	0.13	41,41,41,41	0
82	MG	B	1879	1/1	0.89	0.26	51,51,51,51	0
82	MG	1	3489	1/1	0.89	0.23	34,34,34,34	0
82	MG	AS	3473	1/1	0.89	0.39	65,65,65,65	0
82	MG	1	3467	1/1	0.89	0.32	48,48,48,48	0
82	MG	AS	3653	1/1	0.89	0.11	28,28,28,28	0
82	MG	B	1851	1/1	0.89	0.09	49,49,49,49	0
82	MG	CM	1834	1/1	0.89	0.36	63,63,63,63	0
82	MG	B	1945	1/1	0.89	0.16	67,67,67,67	0
82	MG	CM	1899	1/1	0.89	0.24	43,43,43,43	0
82	MG	AS	3656	1/1	0.89	0.10	50,50,50,50	0
82	MG	C	301	1/1	0.89	0.35	66,66,66,66	0
82	MG	6	201	1/1	0.89	0.19	49,49,49,49	0
82	MG	AS	3595	1/1	0.89	0.21	60,60,60,60	0
82	MG	1	3688	1/1	0.89	0.10	32,32,32,32	0
82	MG	AS	3664	1/1	0.89	0.16	45,45,45,45	0
82	MG	AS	3601	1/1	0.89	0.30	41,41,41,41	0
82	MG	CM	1908	1/1	0.89	0.23	43,43,43,43	0
82	MG	B	1888	1/1	0.89	0.12	49,49,49,49	0
82	MG	AS	3603	1/1	0.89	0.19	43,43,43,43	0
82	MG	1	3557	1/1	0.89	0.22	26,26,26,26	0
82	MG	AS	3673	1/1	0.89	0.18	44,44,44,44	0
82	MG	B	1860	1/1	0.89	0.15	51,51,51,51	0
82	MG	1	3666	1/1	0.89	0.24	41,41,41,41	0
82	MG	AS	3418	1/1	0.89	0.14	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3695	1/1	0.89	0.12	36,36,36,36	0
82	MG	CM	1921	1/1	0.89	0.09	57,57,57,57	0
82	MG	1	3616	1/1	0.89	0.28	51,51,51,51	0
82	MG	4	204	1/1	0.89	0.15	51,51,51,51	0
82	MG	AS	3544	1/1	0.89	0.22	30,30,30,30	0
82	MG	AS	3684	1/1	0.89	0.12	85,85,85,85	0
82	MG	AS	3747	1/1	0.89	0.12	41,41,41,41	0
82	MG	CM	1858	1/1	0.89	0.13	45,45,45,45	0
82	MG	CM	1859	1/1	0.89	0.20	36,36,36,36	0
82	MG	AS	3546	1/1	0.89	0.26	31,31,31,31	0
82	MG	CM	1935	1/1	0.89	0.15	53,53,53,53	0
82	MG	CM	1936	1/1	0.89	0.16	64,64,64,64	0
82	MG	B	1899	1/1	0.89	0.13	42,42,42,42	0
82	MG	AS	3457	1/1	0.89	0.19	43,43,43,43	0
82	MG	AS	3458	1/1	0.89	0.18	40,40,40,40	0
82	MG	1	3496	1/1	0.89	0.22	39,39,39,39	0
82	MG	AS	3498	1/1	0.89	0.20	45,45,45,45	0
82	MG	1	3606	1/1	0.89	0.16	29,29,29,29	0
82	MG	B	1931	1/1	0.89	0.13	52,52,52,52	0
82	MG	AS	3697	1/1	0.89	0.24	46,46,46,46	0
82	MG	AS	3503	1/1	0.89	0.11	44,44,44,44	0
82	MG	1	3608	1/1	0.89	0.26	34,34,34,34	0
82	MG	CM	1877	1/1	0.89	0.09	53,53,53,53	0
82	MG	AS	3637	1/1	0.89	0.11	73,73,73,73	0
82	MG	1	3705	1/1	0.89	0.09	23,23,23,23	0
82	MG	AS	3531	1/1	0.90	0.17	72,72,72,72	0
82	MG	4	205	1/1	0.90	0.10	36,36,36,36	0
82	MG	1	3760	1/1	0.90	0.21	49,49,49,49	0
82	MG	AS	3480	1/1	0.90	0.13	28,28,28,28	0
82	MG	4	207	1/1	0.90	0.14	35,35,35,35	0
82	MG	AS	3437	1/1	0.90	0.19	63,63,63,63	0
82	MG	AS	3541	1/1	0.90	0.19	49,49,49,49	0
82	MG	CM	1821	1/1	0.90	0.12	61,61,61,61	0
82	MG	4	208	1/1	0.90	0.26	33,33,33,33	0
82	MG	B	1819	1/1	0.90	0.20	66,66,66,66	0
82	MG	CM	1824	1/1	0.90	0.20	68,68,68,68	0
82	MG	1	3670	1/1	0.90	0.17	41,41,41,41	0
82	MG	B	1857	1/1	0.90	0.16	39,39,39,39	0
82	MG	1	3550	1/1	0.90	0.14	21,21,21,21	0
82	MG	1	3589	1/1	0.90	0.29	36,36,36,36	0
82	MG	CM	1898	1/1	0.90	0.19	56,56,56,56	0
82	MG	v	301	1/1	0.90	0.06	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	AS	3491	1/1	0.90	0.18	55,55,55,55	0
82	MG	AS	3640	1/1	0.90	0.08	46,46,46,46	0
82	MG	AS	3561	1/1	0.90	0.21	32,32,32,32	0
82	MG	AS	3715	1/1	0.90	0.17	45,45,45,45	0
82	MG	AS	3644	1/1	0.90	0.10	56,56,56,56	0
82	MG	B	1863	1/1	0.90	0.17	74,74,74,74	0
82	MG	B	1828	1/1	0.90	0.23	48,48,48,48	0
82	MG	B	1905	1/1	0.90	0.31	42,42,42,42	0
82	MG	AS	3495	1/1	0.90	0.08	28,28,28,28	0
82	MG	CM	1910	1/1	0.90	0.12	67,67,67,67	0
82	MG	AS	3496	1/1	0.90	0.10	36,36,36,36	0
82	MG	CM	1913	1/1	0.90	0.29	46,46,46,46	0
82	MG	1	3476	1/1	0.90	0.13	38,38,38,38	0
82	MG	AS	3652	1/1	0.90	0.14	48,48,48,48	0
82	MG	B	1907	1/1	0.90	0.34	48,48,48,48	0
82	MG	1	3632	1/1	0.90	0.11	15,15,15,15	0
82	MG	1	3700	1/1	0.90	0.09	28,28,28,28	0
82	MG	1	3577	1/1	0.90	0.07	29,29,29,29	0
82	MG	1	3568	1/1	0.90	0.13	43,43,43,43	0
82	MG	AS	3579	1/1	0.90	0.20	49,49,49,49	0
82	MG	1	3569	1/1	0.90	0.16	35,35,35,35	0
82	MG	1	3710	1/1	0.90	0.09	37,37,37,37	0
82	MG	AS	3584	1/1	0.90	0.23	29,29,29,29	0
82	MG	1	3686	1/1	0.90	0.13	40,40,40,40	0
82	MG	1	3715	1/1	0.90	0.11	43,43,43,43	0
82	MG	CM	1931	1/1	0.90	0.29	55,55,55,55	0
82	MG	1	3548	1/1	0.90	0.12	33,33,33,33	0
82	MG	AS	3422	1/1	0.90	0.11	56,56,56,56	0
82	MG	1	3717	1/1	0.90	0.30	53,53,53,53	0
82	MG	B	1881	1/1	0.90	0.15	54,54,54,54	0
82	MG	B	1922	1/1	0.90	0.24	43,43,43,43	0
82	MG	AS	3745	1/1	0.90	0.29	49,49,49,49	0
82	MG	B	1882	1/1	0.90	0.21	36,36,36,36	0
82	MG	B	1883	1/1	0.90	0.27	37,37,37,37	0
82	MG	CM	1868	1/1	0.90	0.22	39,39,39,39	0
82	MG	B	1843	1/1	0.90	0.20	37,37,37,37	0
82	MG	AS	3429	1/1	0.90	0.10	38,38,38,38	0
82	MG	CM	1945	1/1	0.90	0.17	74,74,74,74	0
82	MG	AS	3527	1/1	0.90	0.29	59,59,59,59	0
82	MG	AS	3608	1/1	0.90	0.20	38,38,38,38	0
82	MG	AS	3609	1/1	0.90	0.14	57,57,57,57	0
82	MG	CL	301	1/1	0.90	0.15	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	B	1844	1/1	0.90	0.23	51,51,51,51	0
82	MG	1	3690	1/1	0.90	0.07	40,40,40,40	0
82	MG	1	3669	1/1	0.90	0.11	46,46,46,46	0
82	MG	1	3673	1/1	0.91	0.08	22,22,22,22	0
82	MG	1	3517	1/1	0.91	0.13	36,36,36,36	0
82	MG	1	3601	1/1	0.91	0.14	43,43,43,43	0
82	MG	B	1909	1/1	0.91	0.14	43,43,43,43	0
82	MG	AS	3462	1/1	0.91	0.12	54,54,54,54	0
82	MG	AS	3734	1/1	0.91	0.28	49,49,49,49	0
82	MG	1	3629	1/1	0.91	0.08	52,52,52,52	0
82	MG	AS	3547	1/1	0.91	0.19	25,25,25,25	0
82	MG	CM	1904	1/1	0.91	0.09	43,43,43,43	0
82	MG	AS	3549	1/1	0.91	0.14	32,32,32,32	0
82	MG	1	3556	1/1	0.91	0.15	25,25,25,25	0
82	MG	AS	3551	1/1	0.91	0.15	32,32,32,32	0
82	MG	1	3492	1/1	0.91	0.19	29,29,29,29	0
82	MG	B	1859	1/1	0.91	0.38	38,38,38,38	0
82	MG	AS	3502	1/1	0.91	0.14	39,39,39,39	0
82	MG	1	3512	1/1	0.91	0.12	27,27,27,27	0
82	MG	AS	3468	1/1	0.91	0.17	56,56,56,56	0
82	MG	AS	3746	1/1	0.91	0.07	40,40,40,40	0
82	MG	AS	3625	1/1	0.91	0.07	35,35,35,35	0
82	MG	AS	3562	1/1	0.91	0.08	37,37,37,37	0
82	MG	B	1811	1/1	0.91	0.29	49,49,49,49	0
82	MG	B	1944	1/1	0.91	0.20	30,30,30,30	0
82	MG	AS	3471	1/1	0.91	0.08	27,27,27,27	0
82	MG	AS	3510	1/1	0.91	0.17	40,40,40,40	0
82	MG	1	3474	1/1	0.91	0.13	27,27,27,27	0
82	MG	CM	1923	1/1	0.91	0.29	58,58,58,58	0
82	MG	1	3709	1/1	0.91	0.16	29,29,29,29	0
82	MG	AS	3569	1/1	0.91	0.17	36,36,36,36	0
82	MG	1	3546	1/1	0.91	0.22	43,43,43,43	0
82	MG	B	1893	1/1	0.91	0.31	51,51,51,51	0
82	MG	B	1921	1/1	0.91	0.17	38,38,38,38	0
82	MG	AS	3641	1/1	0.91	0.12	29,29,29,29	0
82	MG	AS	3642	1/1	0.91	0.18	49,49,49,49	0
82	MG	K	301	1/1	0.91	0.18	54,54,54,54	0
82	MG	f	102	1/1	0.91	0.10	55,55,55,55	0
82	MG	1	3732	1/1	0.91	0.20	39,39,39,39	0
82	MG	1	3534	1/1	0.91	0.15	16,16,16,16	0
82	MG	B	1924	1/1	0.91	0.24	32,32,32,32	0
82	MG	1	3435	1/1	0.91	0.19	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	AS	3451	1/1	0.91	0.14	59,59,59,59	0
82	MG	1	3639	1/1	0.91	0.20	56,56,56,56	0
82	MG	B	1821	1/1	0.91	0.15	55,55,55,55	0
82	MG	AS	3590	1/1	0.91	0.23	26,26,26,26	0
82	MG	CM	1944	1/1	0.91	0.26	63,63,63,63	0
82	MG	CM	1886	1/1	0.91	0.24	44,44,44,44	0
82	MG	AS	3591	1/1	0.91	0.22	38,38,38,38	0
82	MG	B	1846	1/1	0.91	0.28	52,52,52,52	0
82	MG	AS	3594	1/1	0.91	0.15	32,32,32,32	0
82	MG	1	3480	1/1	0.91	0.27	55,55,55,55	0
82	MG	AS	3596	1/1	0.91	0.17	65,65,65,65	0
82	MG	1	3694	1/1	0.91	0.13	37,37,37,37	0
82	MG	B	1826	1/1	0.91	0.17	64,64,64,64	0
82	MG	1	3599	1/1	0.92	0.18	20,20,20,20	0
82	MG	AS	3582	1/1	0.92	0.17	25,25,25,25	0
82	MG	1	3655	1/1	0.92	0.13	20,20,20,20	0
82	MG	AS	3708	1/1	0.92	0.24	38,38,38,38	0
82	MG	AS	3445	1/1	0.92	0.11	46,46,46,46	0
82	MG	v	304	1/1	0.92	0.22	50,50,50,50	0
82	MG	1	3486	1/1	0.92	0.18	36,36,36,36	0
82	MG	AS	3712	1/1	0.92	0.11	41,41,41,41	0
82	MG	1	3493	1/1	0.92	0.20	50,50,50,50	0
82	MG	1	3602	1/1	0.92	0.11	16,16,16,16	0
82	MG	1	3478	1/1	0.92	0.06	44,44,44,44	0
82	MG	1	3769	1/1	0.92	0.13	34,34,34,34	0
82	MG	AB	201	1/1	0.92	0.13	26,26,26,26	0
82	MG	AS	3539	1/1	0.92	0.14	31,31,31,31	0
82	MG	1	3582	1/1	0.92	0.22	31,31,31,31	0
82	MG	B	1878	1/1	0.92	0.16	41,41,41,41	0
82	MG	B	1806	1/1	0.92	0.16	38,38,38,38	0
82	MG	1	3562	1/1	0.92	0.19	29,29,29,29	0
82	MG	1	3586	1/1	0.92	0.25	30,30,30,30	0
82	MG	1	3773	1/1	0.92	0.11	49,49,49,49	0
82	MG	AS	3661	1/1	0.92	0.28	33,33,33,33	0
82	MG	1	3640	1/1	0.92	0.10	32,32,32,32	0
82	MG	CM	1911	1/1	0.92	0.12	70,70,70,70	0
82	MG	AS	3607	1/1	0.92	0.19	32,32,32,32	0
82	MG	1	3504	1/1	0.92	0.12	36,36,36,36	0
82	MG	1	3475	1/1	0.92	0.17	25,25,25,25	0
82	MG	AS	3612	1/1	0.92	0.07	51,51,51,51	0
82	MG	AS	3500	1/1	0.92	0.12	41,41,41,41	0
82	MG	1	3470	1/1	0.92	0.32	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3592	1/1	0.92	0.24	37,37,37,37	0
82	MG	AS	3676	1/1	0.92	0.06	43,43,43,43	0
82	MG	AS	3677	1/1	0.92	0.09	59,59,59,59	0
82	MG	1	3554	1/1	0.92	0.21	34,34,34,34	0
82	MG	1	3617	1/1	0.92	0.22	26,26,26,26	0
82	MG	B	1818	1/1	0.92	0.42	58,58,58,58	0
82	MG	CM	1925	1/1	0.92	0.24	34,34,34,34	0
82	MG	1	3623	1/1	0.92	0.17	36,36,36,36	0
82	MG	CM	1927	1/1	0.92	0.19	52,52,52,52	0
82	MG	AS	3622	1/1	0.92	0.32	38,38,38,38	0
82	MG	1	3671	1/1	0.92	0.09	53,53,53,53	0
82	MG	B	1894	1/1	0.92	0.15	39,39,39,39	0
82	MG	B	1854	1/1	0.92	0.14	37,37,37,37	0
82	MG	AT	201	1/1	0.92	0.12	37,37,37,37	0
82	MG	AS	3512	1/1	0.92	0.16	36,36,36,36	0
82	MG	CM	1867	1/1	0.92	0.16	49,49,49,49	0
82	MG	AS	3513	1/1	0.92	0.31	31,31,31,31	0
82	MG	AS	3688	1/1	0.92	0.20	45,45,45,45	0
82	MG	AX	401	1/1	0.92	0.25	43,43,43,43	0
82	MG	CM	1872	1/1	0.92	0.20	52,52,52,52	0
82	MG	1	3441	1/1	0.92	0.25	41,41,41,41	0
82	MG	1	3595	1/1	0.92	0.19	26,26,26,26	0
82	MG	B	1936	1/1	0.92	0.08	59,59,59,59	0
82	MG	AS	3634	1/1	0.92	0.09	42,42,42,42	0
82	MG	AS	3635	1/1	0.92	0.08	43,43,43,43	0
82	MG	AS	3694	1/1	0.92	0.20	53,53,53,53	0
82	MG	1	3707	1/1	0.92	0.22	34,34,34,34	0
82	MG	B	1824	1/1	0.92	0.19	25,25,25,25	0
82	MG	DJ	201	1/1	0.92	0.14	38,38,38,38	0
82	MG	B	1825	1/1	0.92	0.23	44,44,44,44	0
82	MG	AS	3701	1/1	0.92	0.19	34,34,34,34	0
83	ZN	AH	201	1/1	0.92	0.16	134,134,134,134	0
82	MG	B	1862	1/1	0.92	0.16	41,41,41,41	0
83	ZN	h	201	1/1	0.92	0.10	165,165,165,165	0
82	MG	1	3708	1/1	0.92	0.23	25,25,25,25	0
82	MG	CM	1819	1/1	0.92	0.30	58,58,58,58	0
82	MG	1	3561	1/1	0.93	0.23	23,23,23,23	0
82	MG	1	3627	1/1	0.93	0.14	34,34,34,34	0
82	MG	1	3652	1/1	0.93	0.13	35,35,35,35	0
82	MG	AS	3545	1/1	0.93	0.17	38,38,38,38	0
82	MG	AS	3649	1/1	0.93	0.08	63,63,63,63	0
82	MG	1	3674	1/1	0.93	0.18	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	1	3583	1/1	0.93	0.20	40,40,40,40	0
82	MG	B	1864	1/1	0.93	0.21	30,30,30,30	0
82	MG	AS	3706	1/1	0.93	0.37	49,49,49,49	0
82	MG	B	1934	1/1	0.93	0.20	30,30,30,30	0
82	MG	AS	3431	1/1	0.93	0.20	25,25,25,25	0
82	MG	CM	1915	1/1	0.93	0.08	42,42,42,42	0
82	MG	1	3524	1/1	0.93	0.15	32,32,32,32	0
82	MG	1	3604	1/1	0.93	0.25	24,24,24,24	0
82	MG	AS	3554	1/1	0.93	0.27	36,36,36,36	0
82	MG	1	3605	1/1	0.93	0.18	29,29,29,29	0
82	MG	CM	1814	1/1	0.93	0.24	56,56,56,56	0
82	MG	B	1833	1/1	0.93	0.20	38,38,38,38	0
82	MG	1	3508	1/1	0.93	0.17	27,27,27,27	0
82	MG	AP	203	1/1	0.93	0.14	33,33,33,33	0
82	MG	1	3741	1/1	0.93	0.14	46,46,46,46	0
82	MG	AS	3665	1/1	0.93	0.09	40,40,40,40	0
82	MG	AS	3439	1/1	0.93	0.13	50,50,50,50	0
82	MG	AS	3515	1/1	0.93	0.09	43,43,43,43	0
82	MG	1	3713	1/1	0.93	0.14	21,21,21,21	0
82	MG	1	3466	1/1	0.93	0.11	24,24,24,24	0
82	MG	CM	1878	1/1	0.93	0.24	42,42,42,42	0
82	MG	B	1911	1/1	0.93	0.17	58,58,58,58	0
82	MG	CM	1826	1/1	0.93	0.11	28,28,28,28	0
82	MG	1	3570	1/1	0.93	0.08	38,38,38,38	0
82	MG	CM	1934	1/1	0.93	0.23	53,53,53,53	0
82	MG	1	3685	1/1	0.93	0.12	43,43,43,43	0
82	MG	1	3514	1/1	0.93	0.22	45,45,45,45	0
82	MG	AS	3523	1/1	0.93	0.24	34,34,34,34	0
82	MG	AS	3576	1/1	0.93	0.14	42,42,42,42	0
82	MG	1	3748	1/1	0.93	0.15	55,55,55,55	0
82	MG	1	3687	1/1	0.93	0.24	22,22,22,22	0
82	MG	1	3438	1/1	0.93	0.10	35,35,35,35	0
82	MG	AS	3633	1/1	0.93	0.09	28,28,28,28	0
82	MG	1	3613	1/1	0.93	0.22	30,30,30,30	0
82	MG	1	3449	1/1	0.93	0.21	32,32,32,32	0
82	MG	CM	1893	1/1	0.93	0.14	51,51,51,51	0
82	MG	B	1817	1/1	0.93	0.16	48,48,48,48	0
82	MG	1	3544	1/1	0.93	0.12	26,26,26,26	0
82	MG	1	3643	1/1	0.93	0.09	39,39,39,39	0
82	MG	1	3523	1/1	0.93	0.08	28,28,28,28	0
82	MG	1	3560	1/1	0.93	0.17	16,16,16,16	0
82	MG	1	3581	1/1	0.93	0.10	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	CM	1846	1/1	0.93	0.06	44,44,44,44	0
82	MG	1	3730	1/1	0.93	0.22	42,42,42,42	0
82	MG	1	3625	1/1	0.93	0.20	24,24,24,24	0
82	MG	AS	3593	1/1	0.93	0.23	40,40,40,40	0
82	MG	1	3566	1/1	0.94	0.23	19,19,19,19	0
82	MG	1	3553	1/1	0.94	0.16	25,25,25,25	0
82	MG	1	3433	1/1	0.94	0.14	35,35,35,35	0
82	MG	B	1834	1/1	0.94	0.09	43,43,43,43	0
82	MG	CM	1861	1/1	0.94	0.09	46,46,46,46	0
82	MG	AS	3616	1/1	0.94	0.18	71,71,71,71	0
82	MG	B	1889	1/1	0.94	0.06	32,32,32,32	0
82	MG	AS	3570	1/1	0.94	0.11	66,66,66,66	0
82	MG	AS	3663	1/1	0.94	0.21	47,47,47,47	0
82	MG	AS	3571	1/1	0.94	0.17	23,23,23,23	0
82	MG	1	3607	1/1	0.94	0.19	29,29,29,29	0
82	MG	1	3543	1/1	0.94	0.19	20,20,20,20	0
82	MG	1	3590	1/1	0.94	0.09	35,35,35,35	0
82	MG	1	3571	1/1	0.94	0.23	18,18,18,18	0
82	MG	AS	3624	1/1	0.94	0.11	34,34,34,34	0
82	MG	AS	3535	1/1	0.94	0.17	39,39,39,39	0
82	MG	1	3529	1/1	0.94	0.15	28,28,28,28	0
82	MG	1	3473	1/1	0.94	0.20	59,59,59,59	0
82	MG	B	1869	1/1	0.94	0.19	38,38,38,38	0
82	MG	B	1897	1/1	0.94	0.26	59,59,59,59	0
82	MG	AS	3726	1/1	0.94	0.36	53,53,53,53	0
82	MG	CM	1828	1/1	0.94	0.17	29,29,29,29	0
82	MG	1	3744	1/1	0.94	0.22	47,47,47,47	0
82	MG	AS	3506	1/1	0.94	0.13	35,35,35,35	0
82	MG	AS	3543	1/1	0.94	0.13	31,31,31,31	0
82	MG	AS	3476	1/1	0.94	0.20	30,30,30,30	0
82	MG	1	3547	1/1	0.94	0.17	42,42,42,42	0
82	MG	1	3676	1/1	0.94	0.17	36,36,36,36	0
82	MG	1	3497	1/1	0.94	0.18	32,32,32,32	0
82	MG	1	3678	1/1	0.94	0.11	50,50,50,50	0
82	MG	1	3703	1/1	0.94	0.23	18,18,18,18	0
82	MG	CM	1889	1/1	0.94	0.08	50,50,50,50	0
82	MG	1	3443	1/1	0.94	0.09	36,36,36,36	0
82	MG	B	1877	1/1	0.94	0.24	42,42,42,42	0
82	MG	1	3533	1/1	0.94	0.07	22,22,22,22	0
82	MG	AS	3597	1/1	0.94	0.22	33,33,33,33	0
82	MG	AS	3517	1/1	0.94	0.08	34,34,34,34	0
82	MG	AS	3599	1/1	0.94	0.36	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	AS	3600	1/1	0.94	0.21	38,38,38,38	0
82	MG	AS	3696	1/1	0.94	0.19	42,42,42,42	0
82	MG	AS	3555	1/1	0.94	0.09	34,34,34,34	0
82	MG	AS	3698	1/1	0.94	0.21	42,42,42,42	0
82	MG	AS	3556	1/1	0.94	0.23	22,22,22,22	0
82	MG	1	3774	1/1	0.94	0.18	57,57,57,57	0
82	MG	1	3563	1/1	0.94	0.21	25,25,25,25	0
82	MG	AP	202	1/1	0.94	0.16	61,61,61,61	0
82	MG	1	3644	1/1	0.94	0.10	34,34,34,34	0
82	MG	1	3564	1/1	0.94	0.17	29,29,29,29	0
82	MG	1	3565	1/1	0.94	0.22	29,29,29,29	0
82	MG	1	3487	1/1	0.95	0.04	24,24,24,24	0
82	MG	1	3714	1/1	0.95	0.15	28,28,28,28	0
82	MG	AS	3675	1/1	0.95	0.06	38,38,38,38	0
82	MG	AS	3739	1/1	0.95	0.05	36,36,36,36	0
82	MG	AS	3587	1/1	0.95	0.08	20,20,20,20	0
82	MG	AS	3588	1/1	0.95	0.17	20,20,20,20	0
82	MG	1	3528	1/1	0.95	0.15	31,31,31,31	0
82	MG	1	3699	1/1	0.95	0.08	34,34,34,34	0
82	MG	1	3559	1/1	0.95	0.21	16,16,16,16	0
82	MG	1	3506	1/1	0.95	0.10	33,33,33,33	0
82	MG	1	3575	1/1	0.95	0.10	33,33,33,33	0
82	MG	1	3720	1/1	0.95	0.15	25,25,25,25	0
82	MG	B	1856	1/1	0.95	0.26	45,45,45,45	0
82	MG	AS	3416	1/1	0.95	0.12	55,55,55,55	0
82	MG	1	3704	1/1	0.95	0.06	19,19,19,19	0
82	MG	AW	302	1/1	0.95	0.11	31,31,31,31	0
82	MG	1	3549	1/1	0.95	0.14	39,39,39,39	0
82	MG	1	3723	1/1	0.95	0.21	27,27,27,27	0
82	MG	AS	3573	1/1	0.95	0.12	43,43,43,43	0
82	MG	AS	3658	1/1	0.95	0.12	51,51,51,51	0
82	MG	AS	3548	1/1	0.95	0.15	37,37,37,37	0
82	MG	1	3691	1/1	0.95	0.10	36,36,36,36	0
82	MG	1	3631	1/1	0.95	0.06	37,37,37,37	0
82	MG	1	3585	1/1	0.95	0.07	33,33,33,33	0
82	MG	AS	3484	1/1	0.95	0.13	39,39,39,39	0
82	MG	1	3526	1/1	0.95	0.19	22,22,22,22	0
82	MG	1	3597	1/1	0.95	0.17	26,26,26,26	0
82	MG	AS	3666	1/1	0.95	0.09	73,73,73,73	0
82	MG	1	3711	1/1	0.95	0.07	40,40,40,40	0
82	MG	1	3622	1/1	0.95	0.28	25,25,25,25	0
82	MG	AS	3733	1/1	0.95	0.09	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
83	ZN	CB	201	1/1	0.95	0.06	159,159,159,159	0
82	MG	AS	3533	1/1	0.95	0.11	39,39,39,39	0
82	MG	AS	3613	1/1	0.95	0.09	55,55,55,55	0
82	MG	1	3580	1/1	0.96	0.18	27,27,27,27	0
82	MG	1	3540	1/1	0.96	0.21	25,25,25,25	0
82	MG	1	3494	1/1	0.96	0.07	23,23,23,23	0
82	MG	1	3596	1/1	0.96	0.04	11,11,11,11	0
82	MG	AS	3443	1/1	0.96	0.10	18,18,18,18	0
82	MG	1	3573	1/1	0.96	0.17	31,31,31,31	0
82	MG	B	1865	1/1	0.96	0.15	31,31,31,31	0
82	MG	1	3610	1/1	0.96	0.20	41,41,41,41	0
82	MG	CM	1860	1/1	0.96	0.26	46,46,46,46	0
82	MG	AS	3558	1/1	0.96	0.22	26,26,26,26	0
82	MG	CM	1836	1/1	0.96	0.18	56,56,56,56	0
82	MG	AS	3559	1/1	0.96	0.16	39,39,39,39	0
82	MG	1	3619	1/1	0.96	0.28	22,22,22,22	0
82	MG	1	3689	1/1	0.96	0.06	28,28,28,28	0
82	MG	1	3702	1/1	0.96	0.15	23,23,23,23	0
82	MG	AS	3583	1/1	0.96	0.14	17,17,17,17	0
82	MG	CM	1817	1/1	0.96	0.18	43,43,43,43	0
82	MG	1	3620	1/1	0.96	0.20	25,25,25,25	0
82	MG	B	1903	1/1	0.96	0.14	48,48,48,48	0
82	MG	AS	3722	1/1	0.96	0.05	39,39,39,39	0
82	MG	B	1855	1/1	0.96	0.16	27,27,27,27	0
83	ZN	AP	201	1/1	0.96	0.08	153,153,153,153	0
82	MG	B	1841	1/1	0.96	0.15	40,40,40,40	0
82	MG	1	3621	1/1	0.96	0.18	23,23,23,23	0
82	MG	AS	3610	1/1	0.96	0.08	33,33,33,33	0
83	ZN	CE	101	1/1	0.96	0.05	68,68,68,68	0
82	MG	1	3645	1/1	0.96	0.22	22,22,22,22	0
83	ZN	CK	101	1/1	0.96	0.06	94,94,94,94	0
82	MG	1	3598	1/1	0.96	0.18	16,16,16,16	0
82	MG	1	3758	1/1	0.97	0.13	27,27,27,27	0
82	MG	AS	3672	1/1	0.97	0.10	34,34,34,34	0
82	MG	1	3552	1/1	0.97	0.05	19,19,19,19	0
82	MG	1	3502	1/1	0.97	0.16	36,36,36,36	0
82	MG	1	3519	1/1	0.97	0.07	37,37,37,37	0
82	MG	1	3624	1/1	0.97	0.05	23,23,23,23	0
82	MG	1	3587	1/1	0.97	0.09	23,23,23,23	0
82	MG	AS	3631	1/1	0.97	0.09	67,67,67,67	0
82	MG	AS	3695	1/1	0.97	0.28	36,36,36,36	0
83	ZN	AK	101	1/1	0.97	0.17	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
82	MG	AS	3507	1/1	0.97	0.18	48,48,48,48	0
82	MG	1	3672	1/1	0.97	0.25	27,27,27,27	0
82	MG	1	3618	1/1	0.97	0.23	19,19,19,19	0
82	MG	1	3567	1/1	0.97	0.11	16,16,16,16	0
82	MG	1	3628	1/1	0.97	0.08	34,34,34,34	0
82	MG	AS	3537	1/1	0.97	0.13	40,40,40,40	0
82	MG	1	3538	1/1	0.97	0.10	52,52,52,52	0
82	MG	AS	3525	1/1	0.97	0.11	52,52,52,52	0
83	ZN	DQ	101	1/1	0.97	0.05	98,98,98,98	0
83	ZN	AQ	101	1/1	0.98	0.08	47,47,47,47	0
82	MG	AS	3611	1/1	0.98	0.11	45,45,45,45	0
83	ZN	f	101	1/1	0.98	0.04	55,55,55,55	0
83	ZN	DN	201	1/1	0.98	0.05	98,98,98,98	0
82	MG	CM	1871	1/1	0.98	0.16	20,20,20,20	0
82	MG	AS	3668	1/1	0.98	0.05	35,35,35,35	0
83	ZN	CH	101	1/1	0.99	0.09	68,68,68,68	0
82	MG	1	3636	1/1	0.99	0.04	20,20,20,20	0
83	ZN	AN	101	1/1	0.99	0.10	64,64,64,64	0
82	MG	1	3681	1/1	0.99	0.05	19,19,19,19	0
82	MG	1	3545	1/1	0.99	0.12	20,20,20,20	0
83	ZN	c	201	1/1	0.99	0.04	73,73,73,73	0

6.5 Other polymers

There are no such residues in this entry.