Full wwPDB X-ray Structure Validation Report ⓘ

Mar 20, 2026 – 01:59 AM UTC

PDB ID	:	8P4V / pdb_00008p4v
Title	:	80S yeast ribosome in complex with HaterumaimideQ
Authors	:	Terrosu, S.; Yusupov, M.
Deposited on	:	2023-05-23
Resolution	:	3.16 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:

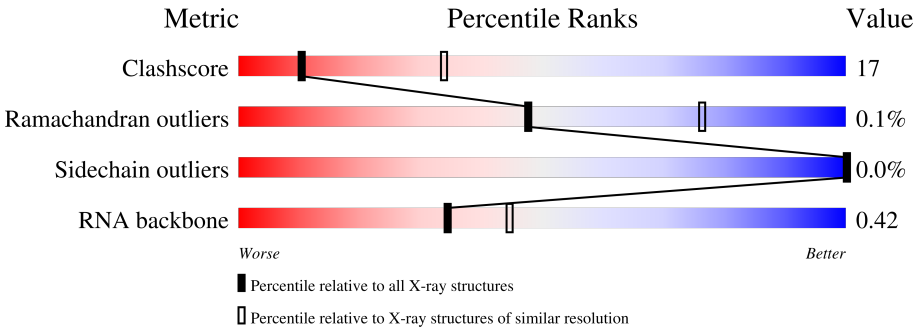
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	FAILED
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.16 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))
Clashscore	190562	2486 (3.20-3.12)
Ramachandran outliers	187476	2405 (3.20-3.12)
Sidechain outliers	187428	2404 (3.20-3.12)
RNA backbone	3983	1113 (3.42-2.90)

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

Note EDS failed to run properly.

Mol	Chain	Length	Quality of chain
1	1	3396	42% 41% 10% 7%
1	AR	3396	43% 39% 10% 7%
2	3	121	52% 39% 9%
2	AS	121	46% 46% 7%
3	4	158	42% 45% 13%
3	AT	158	55% 37% 8%

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Mol	Chain	Length	Quality of chain
4	CD	254	58% 41%
4	j	254	60% 39%
5	CE	387	64% 35%
5	k	387	60% 39%
6	CF	362	62% 37%
6	l	362	61% 39%
7	CG	297	66% 34%
7	m	297	60% 39%
8	CH	176	62% 26% 11%
8	n	176	64% 24% 11%
9	CI	244	60% 30% 9%
9	o	244	60% 30% 9%
10	CJ	256	57% 32% 9%
10	p	256	57% 33% 9%
11	CK	191	64% 36%
11	q	191	55% 45%
12	CL	221	55% 40% 5%
12	r	221	62% 33% 5%
13	CM	174	62% 34%
13	s	174	48% 48%
14	CN	199	58% 37%
14	t	199	60% 34%
15	CO	138	64% 35%
15	u	138	64% 33%
16	CP	204	64% 35%

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Mol	Chain	Length	Quality of chain
16	v	204	60% 39%
17	CQ	199	69% 30%
17	w	199	63% 36%
18	CR	184	61% 39%
18	x	184	69% 30%
19	CS	186	62% 37%
19	y	186	59% 40%
20	CT	189	61% 38%
20	z	189	59% 40%
21	0	172	66% 34%
21	CU	172	63% 37%
22	2	160	63% 36%
22	CV	160	69% 30%
23	5	121	41% 41% 17%
23	CW	121	52% 31% 17%
24	6	137	60% 39%
24	CX	137	69% 30%
25	7	155	46% 17% 37%
25	CY	155	66% 13% 20%
26	8	142	56% 30% 15%
26	CZ	142	52% 33% 15%
27	9	127	63% 36%
27	DA	127	64% 34%
28	AA	136	57% 41%
28	DB	136	50% 48%

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Mol	Chain	Length	Quality of chain
29	AB	149	56% 42%
29	DC	149	57% 41%
30	AC	59	80% 19%
30	DD	59	61% 37%
31	AD	105	59% 33% 8%
31	DE	105	63% 30% 8%
32	AE	113	72% 25%
32	DF	113	62% 35%
33	AF	130	70% 28%
33	DG	130	70% 28%
34	AG	107	61% 38%
34	DH	107	74% 25%
35	AH	121	49% 44% 7%
35	DI	121	60% 31% 7%
36	AI	120	64% 34%
36	DJ	120	73% 26%
37	AJ	100	57% 42%
37	DK	100	53% 46%
38	AK	88	64% 35%
38	DL	88	77% 22%
39	AL	78	53% 46%
39	DM	78	72% 26%
40	AM	51	63% 35%
40	DN	51	71% 27%
41	AN	128	27% 13% 59%

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Mol	Chain	Length	Quality of chain
41	DO	128	30% 11% 59%
42	AO	25	72% 28%
42	DP	25	60% 40%
43	AP	106	63% 34%
43	DQ	106	52% 46%
44	AQ	92	48% 50%
44	DR	92	63% 35%
45	i	273	42% 16% 42%
45	sM	273	12% 11% 77%
46	p0	311	30% 16% 54%
47	A	1800	35% 47% 18%
47	sR	1800	40% 45% 14%
48	B	252	33% 47% 18%
48	s0	252	39% 43% 18%
49	C	255	33% 47% 16%
49	s1	255	44% 40% 15%
50	D	254	46% 39% 15%
50	s2	254	55% 31% 15%
51	E	240	53% 40% 7%
51	s3	240	51% 42% 7%
52	F	261	56% 43%
52	s4	261	60% 39%
53	G	225	41% 48% 8%
53	s5	225	46% 45% 8%
54	H	236	59% 35%

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Mol	Chain	Length	Quality of chain
54	s6	236	56% 36% 8%
55	I	190	52% 44%
55	s7	190	47% 47%
56	J	200	44% 50% 6%
56	s8	200	62% 32% 6%
57	K	197	49% 44% 6%
57	s9	197	55% 38% 6%
58	L	105	59% 32% 9%
58	c0	105	60% 31% 9%
59	M	156	67% 32%
59	c1	156	61% 32% 6%
60	N	143	42% 41% 13%
60	c2	143	36% 45% 5% 13%
61	O	151	64% 35%
61	c3	151	68% 30%
62	P	138	42% 48% 8%
62	c4	138	46% 47% 7%
63	Q	142	37% 49% 13%
63	c5	142	46% 48% 5%
64	R	143	45% 52%
64	c6	143	42% 55%
65	S	136	51% 36% 12%
66	T	146	41% 57%
66	c8	146	42% 56%
67	U	144	35% 62%

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Mol	Chain	Length	Quality of chain
67	c9	144	47% 53%
68	V	121	33% 53% 12%
68	d0	121	45% 42% 9%
69	W	87	55% 45%
69	d1	87	53% 47%
70	X	130	58% 39%
70	d2	130	58% 41%
71	Y	145	52% 46%
71	d3	145	63% 35%
72	Z	135	60% 39%
72	d4	135	57% 40%
73	a	108	28% 36% 35%
73	d5	108	38% 25% 36%
74	b	119	37% 44% 18%
74	d6	119	52% 27% 18%
75	c	82	54% 44%
75	d7	82	54% 45%
76	d	67	39% 52% 6%
76	d8	67	54% 37% 6%
77	d9	56	61% 34% 5%
77	e	56	66% 27% 5%
78	e0	63	56% 41%
78	f	63	56% 40% 5%
79	e1	152	15% 17% 66%
79	g	152	21% 23% 53%

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Mol	Chain	Length	Quality of chain
80	Rb	319	45% 54%
80	h	319	44% 55%
81	c7	136	46% 40% 14%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
82	OHX	1	3455	-	-	X	-
82	OHX	1	4080	-	-	X	-
82	OHX	A	2121	-	-	X	-
82	OHX	A	2127	-	-	X	-
82	OHX	AK	102	-	-	X	-
82	OHX	AR	3401	-	-	X	-
82	OHX	AR	3604	-	-	X	-
82	OHX	AR	3642	-	-	X	-
82	OHX	AR	4160	-	-	X	-
82	OHX	sR	1990	-	-	X	-

2 Entry composition

There are 89 unique types of molecules in this entry. The entry contains 409267 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 25S ribosomal RNA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 13 is a protein called Large ribosomal subunit protein uL5B.

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	u	136	Total	C	N	O	S	0	0	0
			1053	675	199	177	2			
15	CO	136	Total	C	N	O	S	0	0	0
			1053	675	199	177	2			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
28	AA	135	Total	C	N	O	0	0	0
			1092	710	202	180			
28	DB	135	Total	C	N	O	0	0	0
			1087	706	201	180			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 45 is a protein called Suppressor protein STM1.

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	A	1781	Total	C	N	O	P	0	0	0
			37948	16965	6715	12487	1781			
47	sR	1783	Total	C	N	O	P	0	0	0
			37990	16984	6723	12500	1783			

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

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

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

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

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

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

- Molecule 51 is a protein called Small ribosomal subunit protein uS3.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
62	P	127	Total	C	N	O	S	0	0	0
			886	541	182	162	1			
62	c4	128	Total	C	N	O	S	0	0	0
			949	582	188	176	3			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
65	S	120	Total	C	N	O	S	0	0	0
			926	577	177	170	2			

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

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

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

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

- Molecule 68 is a protein called Small ribosomal subunit protein uS10.

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

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

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

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

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

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

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

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

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

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

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

- Molecule 74 is a protein called Small ribosomal subunit protein eS26B.

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

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

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

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

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

- Molecule 77 is a protein called Small ribosomal subunit protein uS14A.

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

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

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

- Molecule 79 is a protein called Ubiquitin.

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

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

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

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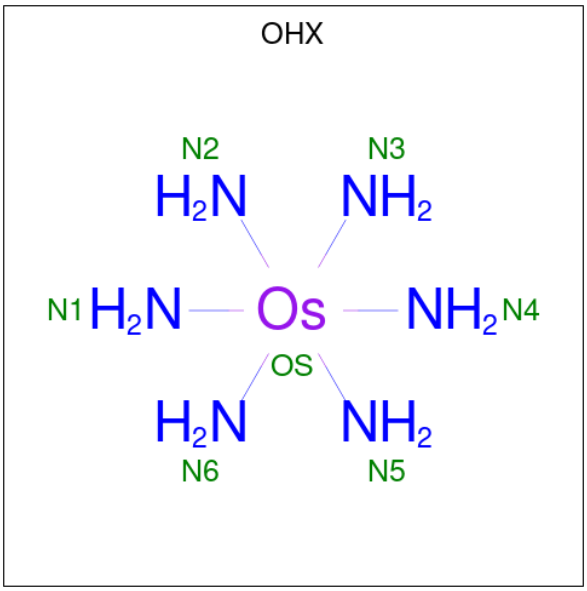
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
80	Rb	318	Total	C	N	O	S	0	0	0
			2442	1544	418	472	8			

- Molecule 81 is a protein called 40S ribosomal protein S17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
81	c7	117	Total	C	N	O	S	0	0	0
			906	563	174	167	2			

- Molecule 82 is osmium (III) hexammine (CCD ID: OHX) (formula: $H_{12}N_6Os$).



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

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

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

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

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

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

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

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 14 12 2	0	1
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0

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

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

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

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

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 6 5 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
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82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 14 12 2	0	1
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0

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

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 7 6 1	0	0
82	1	1	Total N Os 6 5 1	0	0
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82	3	1	Total N Os 7 6 1	0	0
82	3	1	Total N Os 7 6 1	0	0
82	3	1	Total N Os 7 6 1	0	0
82	3	1	Total N Os 7 6 1	0	0
82	3	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
82	3	1	Total N Os 7 6 1	0	0
82	3	1	Total N Os 7 6 1	0	0
82	3	1	Total N Os 7 6 1	0	0
82	3	1	Total N Os 7 6 1	0	0
82	3	1	Total N Os 7 6 1	0	0
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82	4	1	Total N Os 7 6 1	0	0
82	4	1	Total N Os 7 6 1	0	0
82	4	1	Total N Os 7 6 1	0	0
82	4	1	Total N Os 7 6 1	0	0
82	k	1	Total N Os 7 6 1	0	0
82	k	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
82	r	1	Total	N	Os	0	0
			7	6	1		
82	v	1	Total	N	Os	0	0
			7	6	1		
82	z	1	Total	N	Os	0	0
			7	6	1		
82	2	1	Total	N	Os	0	0
			7	6	1		
82	AC	1	Total	N	Os	0	0
			7	6	1		
82	AG	1	Total	N	Os	0	0
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82	AK	1	Total	N	Os	0	0
			7	6	1		
82	AK	1	Total	N	Os	0	0
			7	6	1		
82	AP	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
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82	AR	1	Total	N	Os	0	0
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82	AR	1	Total	N	Os	0	0
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82	AR	1	Total	N	Os	0	0
			7	6	1		
82	AR	1	Total	N	Os	0	0
			7	6	1		

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

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

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 6	N 5	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 6	N 5	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 6	N 5	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0
82	AR	1	Total 7	N 6	Os 1	0	0

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	AT	1	Total 7	N 6	Os 1	0	0
82	CE	1	Total 7	N 6	Os 1	0	0
82	CE	1	Total 7	N 6	Os 1	0	0
82	CG	1	Total 7	N 6	Os 1	0	0
82	CG	1	Total 7	N 6	Os 1	0	0
82	CG	1	Total 7	N 6	Os 1	0	0
82	CH	1	Total 7	N 6	Os 1	0	0
82	CK	1	Total 7	N 6	Os 1	0	0
82	CL	1	Total 7	N 6	Os 1	0	0
82	CL	1	Total 7	N 6	Os 1	0	0
82	CP	1	Total 7	N 6	Os 1	0	0
82	CS	1	Total 7	N 6	Os 1	0	0
82	CV	1	Total 7	N 6	Os 1	0	0
82	CX	1	Total 7	N 6	Os 1	0	0
82	DD	1	Total 7	N 6	Os 1	0	0
82	DH	1	Total 7	N 6	Os 1	0	0
82	DL	1	Total 7	N 6	Os 1	0	0
82	DQ	1	Total 7	N 6	Os 1	0	0
82	A	1	Total 7	N 6	Os 1	0	0
82	A	1	Total 7	N 6	Os 1	0	0
82	A	1	Total 7	N 6	Os 1	0	0

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

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 14 12 2	0	1
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 6 5 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0

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

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 14 12 2	0	1
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0
82	A	1	Total N Os 7 6 1	0	0

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

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 14 12 2	0	1
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0
82	sR	1	Total N Os 7 6 1	0	0

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

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

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	sR	1	Total	N	Os	0	0
			7	6	1		
82	Rb	1	Total	N	Os	0	0
			7	6	1		
82	s1	1	Total	N	Os	0	0
			7	6	1		
82	s4	1	Total	N	Os	0	0
			7	6	1		
82	s8	1	Total	N	Os	0	0
			7	6	1		
82	c3	1	Total	N	Os	0	0
			7	6	1		
82	c5	1	Total	N	Os	0	0
			7	6	1		
82	c7	1	Total	N	Os	0	0
			7	6	1		
82	c8	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
82	d4	1	Total N Os 7 6 1	0	0

- Molecule 83 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
83	1	486	Total Mg 486 486	0	0
83	3	12	Total Mg 12 12	0	0
83	4	18	Total Mg 18 18	0	0
83	j	2	Total Mg 2 2	0	0
83	k	2	Total Mg 2 2	0	0
83	l	4	Total Mg 4 4	0	0
83	m	1	Total Mg 1 1	0	0
83	o	3	Total Mg 3 3	0	0
83	r	2	Total Mg 2 2	0	0
83	s	1	Total Mg 1 1	0	0
83	t	2	Total Mg 2 2	0	0
83	u	1	Total Mg 1 1	0	0
83	v	4	Total Mg 4 4	0	0
83	w	1	Total Mg 1 1	0	0
83	x	8	Total Mg 8 8	0	0
83	y	1	Total Mg 1 1	0	0
83	z	1	Total Mg 1 1	0	0
83	6	3	Total Mg 3 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
83	9	1	Total Mg 1 1	0	0
83	AB	5	Total Mg 5 5	0	0
83	AC	1	Total Mg 1 1	0	0
83	AF	2	Total Mg 2 2	0	0
83	AG	1	Total Mg 1 1	0	0
83	AH	2	Total Mg 2 2	0	0
83	AI	1	Total Mg 1 1	0	0
83	AP	1	Total Mg 1 1	0	0
83	i	1	Total Mg 1 1	0	0
83	AR	498	Total Mg 498 498	0	0
83	AS	19	Total Mg 19 19	0	0
83	AT	19	Total Mg 19 19	0	0
83	CD	1	Total Mg 1 1	0	0
83	CE	3	Total Mg 3 3	0	0
83	CF	5	Total Mg 5 5	0	0
83	CG	1	Total Mg 1 1	0	0
83	CI	2	Total Mg 2 2	0	0
83	CJ	1	Total Mg 1 1	0	0
83	CK	1	Total Mg 1 1	0	0
83	CL	2	Total Mg 2 2	0	0
83	CM	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
83	CO	1	Total Mg 1 1	0	0
83	CP	5	Total Mg 5 5	0	0
83	CQ	3	Total Mg 3 3	0	0
83	CR	8	Total Mg 8 8	0	0
83	CU	1	Total Mg 1 1	0	0
83	CX	1	Total Mg 1 1	0	0
83	DA	2	Total Mg 2 2	0	0
83	DC	2	Total Mg 2 2	0	0
83	DD	1	Total Mg 1 1	0	0
83	DH	2	Total Mg 2 2	0	0
83	DI	3	Total Mg 3 3	0	0
83	DL	2	Total Mg 2 2	0	0
83	DO	2	Total Mg 2 2	0	0
83	DP	1	Total Mg 1 1	0	0
83	DQ	2	Total Mg 2 2	0	0
83	sM	2	Total Mg 2 2	0	0
83	A	135	Total Mg 135 135	0	0
83	D	2	Total Mg 2 2	0	0
83	F	1	Total Mg 1 1	0	0
83	O	1	Total Mg 1 1	0	0
83	P	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
83	S	1	Total Mg 1 1	0	0
83	X	1	Total Mg 1 1	0	0
83	Y	1	Total Mg 1 1	0	0
83	b	1	Total Mg 1 1	0	0
83	sR	149	Total Mg 149 149	0	0
83	s1	1	Total Mg 1 1	0	0
83	s2	1	Total Mg 1 1	0	0
83	s4	1	Total Mg 1 1	0	0
83	s6	1	Total Mg 1 1	0	0
83	s8	2	Total Mg 2 2	0	0
83	s9	1	Total Mg 1 1	0	0
83	c1	1	Total Mg 1 1	0	0
83	c3	1	Total Mg 1 1	0	0
83	c4	2	Total Mg 2 2	0	0
83	c6	1	Total Mg 1 1	0	0
83	c8	1	Total Mg 1 1	0	0
83	c9	2	Total Mg 2 2	0	0
83	d3	3	Total Mg 3 3	0	0
83	d4	3	Total Mg 3 3	0	0
83	d5	1	Total Mg 1 1	0	0
83	d6	2	Total Mg 2 2	0	0

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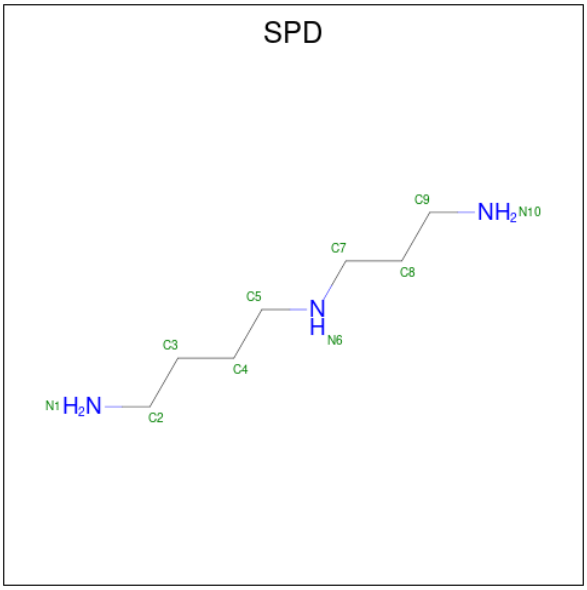
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
83	d9	1	Total Mg 1 1	0	0

- Molecule 84 is POTASSIUM ION (CCD ID: K) (formula: K).

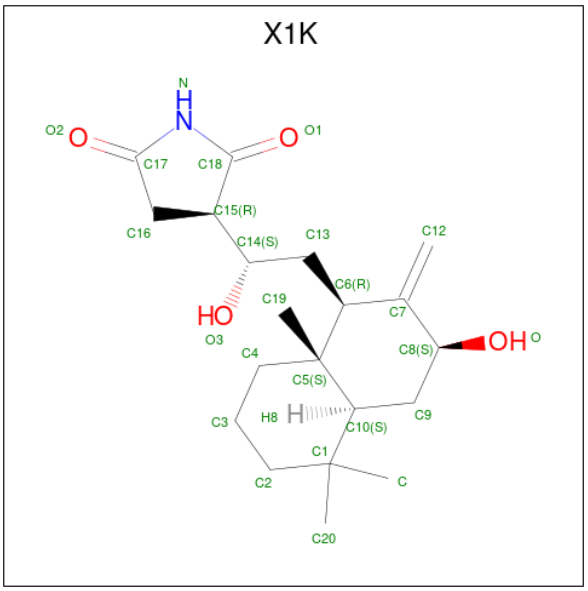
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
84	1	1	Total K 1 1	0	0
84	j	1	Total K 1 1	0	0
84	AR	4	Total K 4 4	0	0
84	sR	1	Total K 1 1	0	0

- Molecule 85 is SPERMIDINE (CCD ID: SPD) (formula: $C_7H_{19}N_3$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
85	1	1	Total C N 10 7 3	0	0
85	AR	1	Total C N 10 7 3	0	0

- Molecule 86 is (3 {R})-3-[(1 {S})-2-[(1 {R},3 {S},4 {a} {S},8 {a} {S})-5,5,8 {a}-trimethyl-2-methylidene-3-oxidanyl-3,4,4 {a},6,7,8-hexahydro-1 {H}-naphthalen-1-yl]-1-oxidanyl-ethyl]pyrrolidine-2,5-dione (CCD ID: X1K) (formula: $C_{20}H_{31}NO_4$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
86	1	1	Total C N O 25 20 1 4	0	0
86	AR	1	Total C N O 25 20 1 4	0	0

- Molecule 87 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
87	AK	1	Total Zn 1 1	0	0
87	AN	1	Total Zn 1 1	0	0
87	AP	1	Total Zn 1 1	0	0
87	AQ	1	Total Zn 1 1	0	0
87	DL	1	Total Zn 1 1	0	0
87	DO	1	Total Zn 1 1	0	0
87	DQ	1	Total Zn 1 1	0	0
87	DR	1	Total Zn 1 1	0	0
87	b	1	Total Zn 1 1	0	0
87	c	1	Total Zn 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
87	e	1	Total Zn 1 1	0	0
87	g	1	Total Zn 1 1	0	0
87	d6	1	Total Zn 1 1	0	0
87	d7	1	Total Zn 1 1	0	0
87	d9	1	Total Zn 1 1	0	0

- Molecule 88 is OSMIUM ION (CCD ID: OS) (formula: Os).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
88	A	1	Total Os 1 1	0	0

- Molecule 89 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
89	1	148	Total O 148 148	0	0
89	4	14	Total O 14 14	0	0
89	j	1	Total O 1 1	0	0
89	x	4	Total O 4 4	0	0
89	AE	2	Total O 2 2	0	0
89	AO	1	Total O 1 1	0	0
89	AR	210	Total O 210 210	0	0
89	CD	1	Total O 1 1	0	0
89	CF	7	Total O 7 7	0	0
89	CI	1	Total O 1 1	0	0
89	CP	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
89	CR	1	Total O 1 1	0	0
89	CT	1	Total O 1 1	0	0
89	DG	1	Total O 1 1	0	0
89	A	57	Total O 57 57	0	0
89	R	1	Total O 1 1	0	0
89	S	6	Total O 6 6	0	0
89	Y	1	Total O 1 1	0	0
89	sR	41	Total O 41 41	0	0
89	s8	1	Total O 1 1	0	0
89	c1	1	Total O 1 1	0	0
89	c7	2	Total O 2 2	0	0

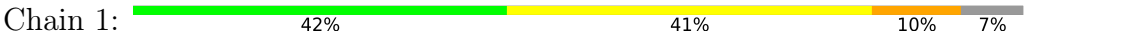
3 Residue-property plots (i)

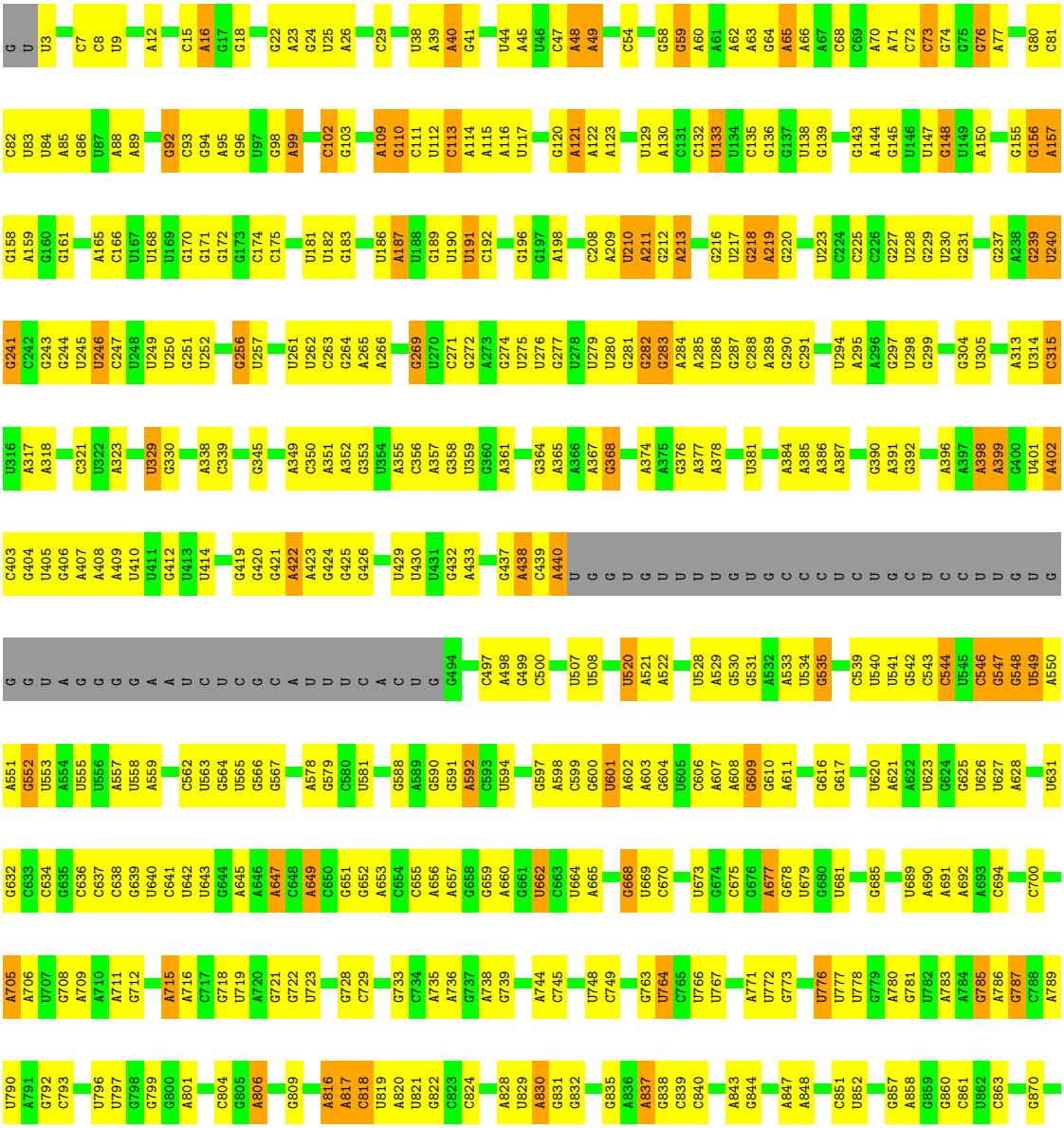
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded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

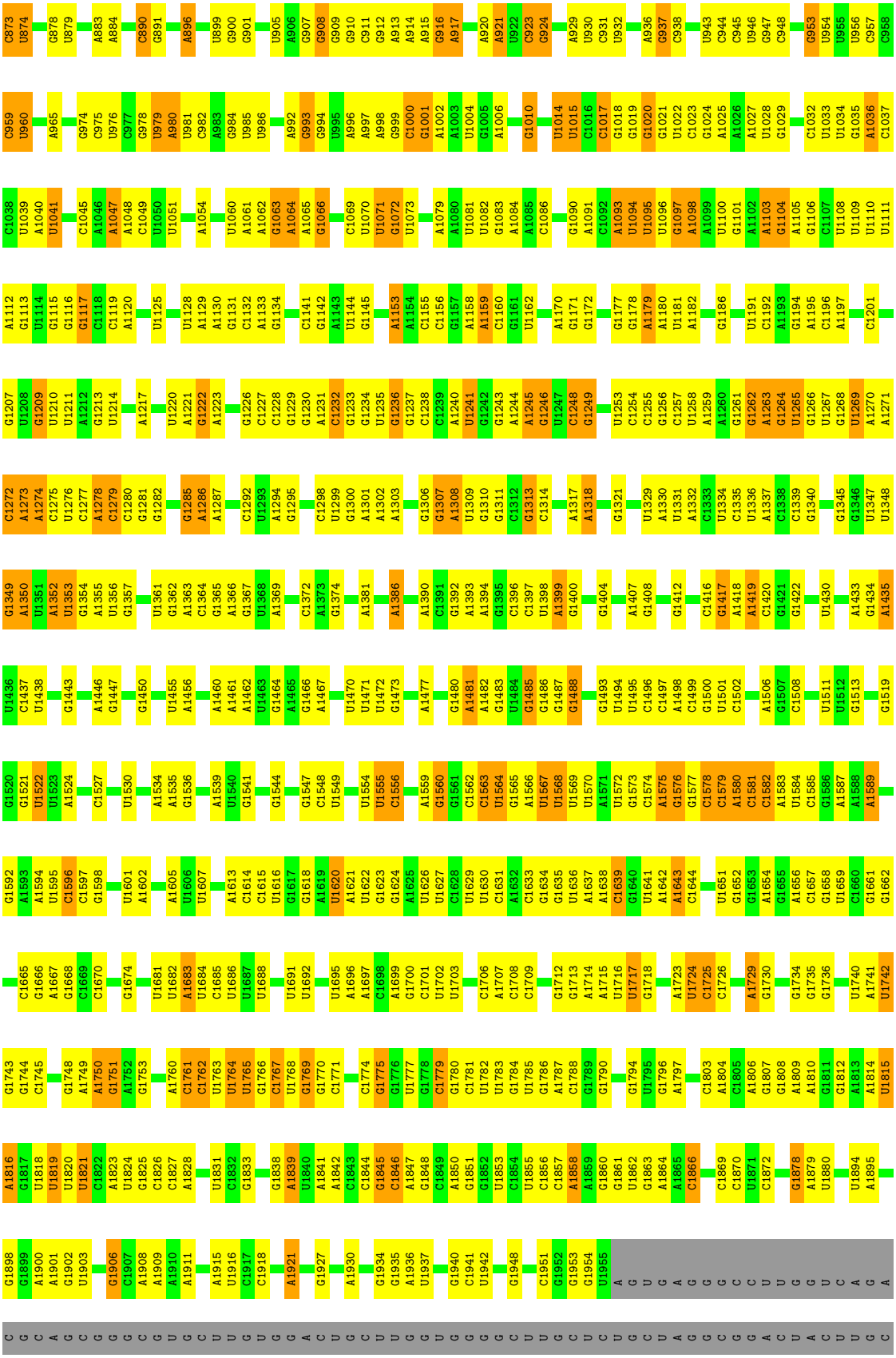
Note EDS failed to run properly.

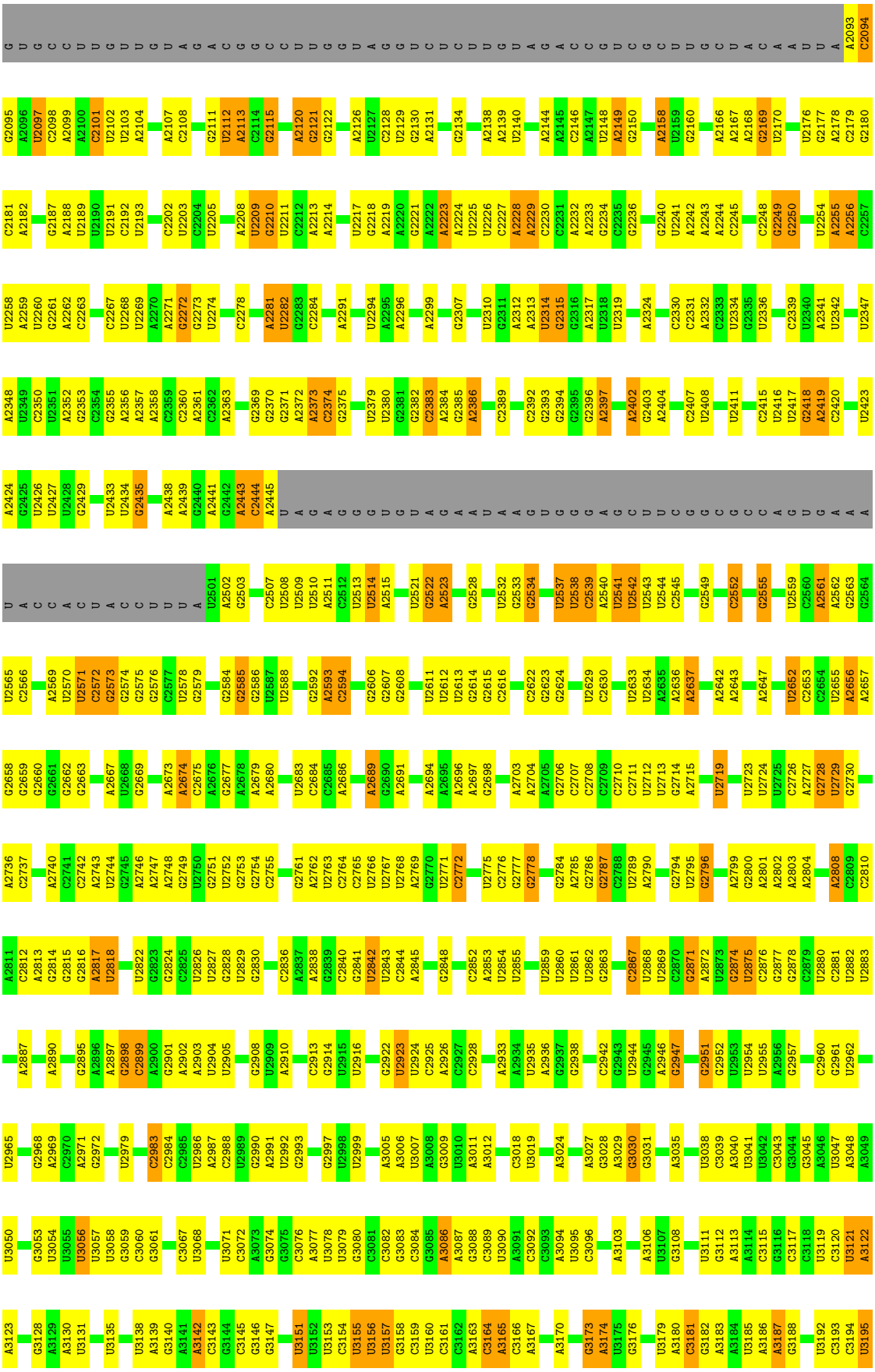
- Molecule 1: 25S ribosomal RNA

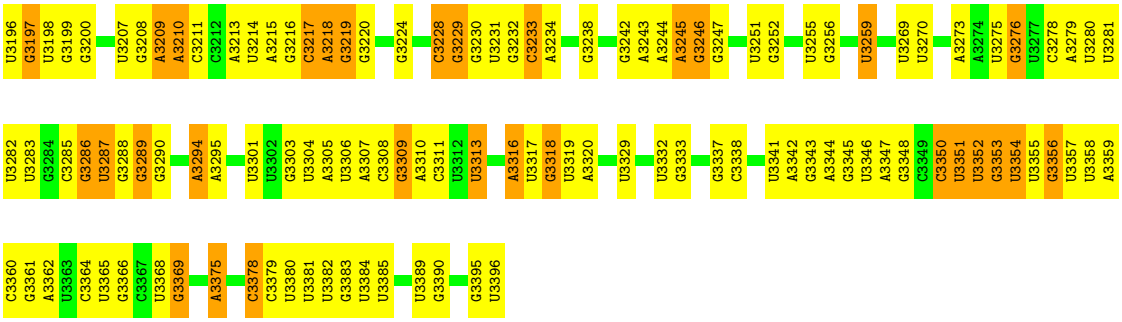
Chain 1:





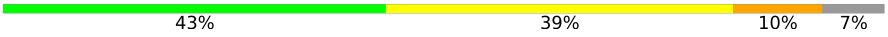


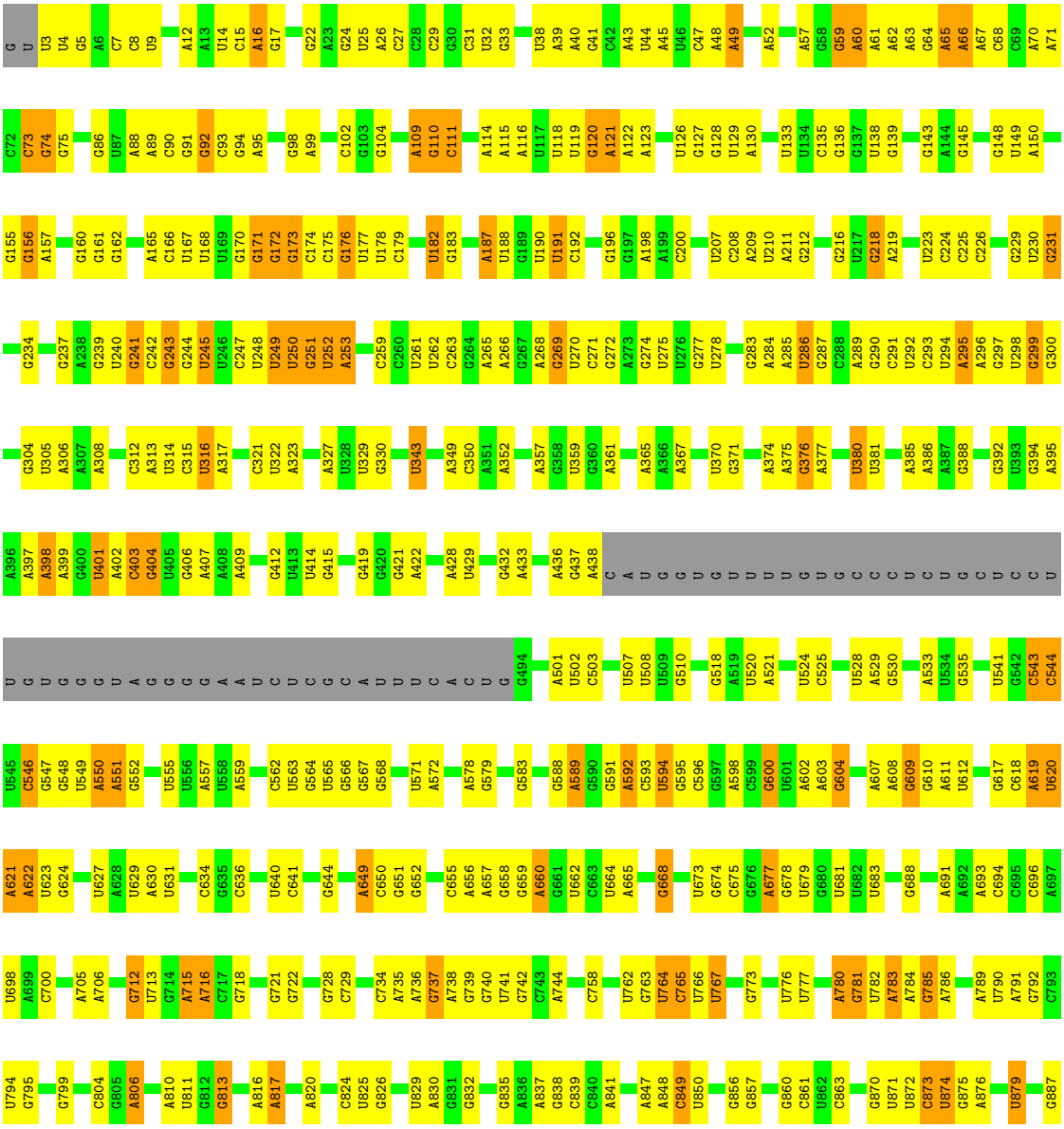


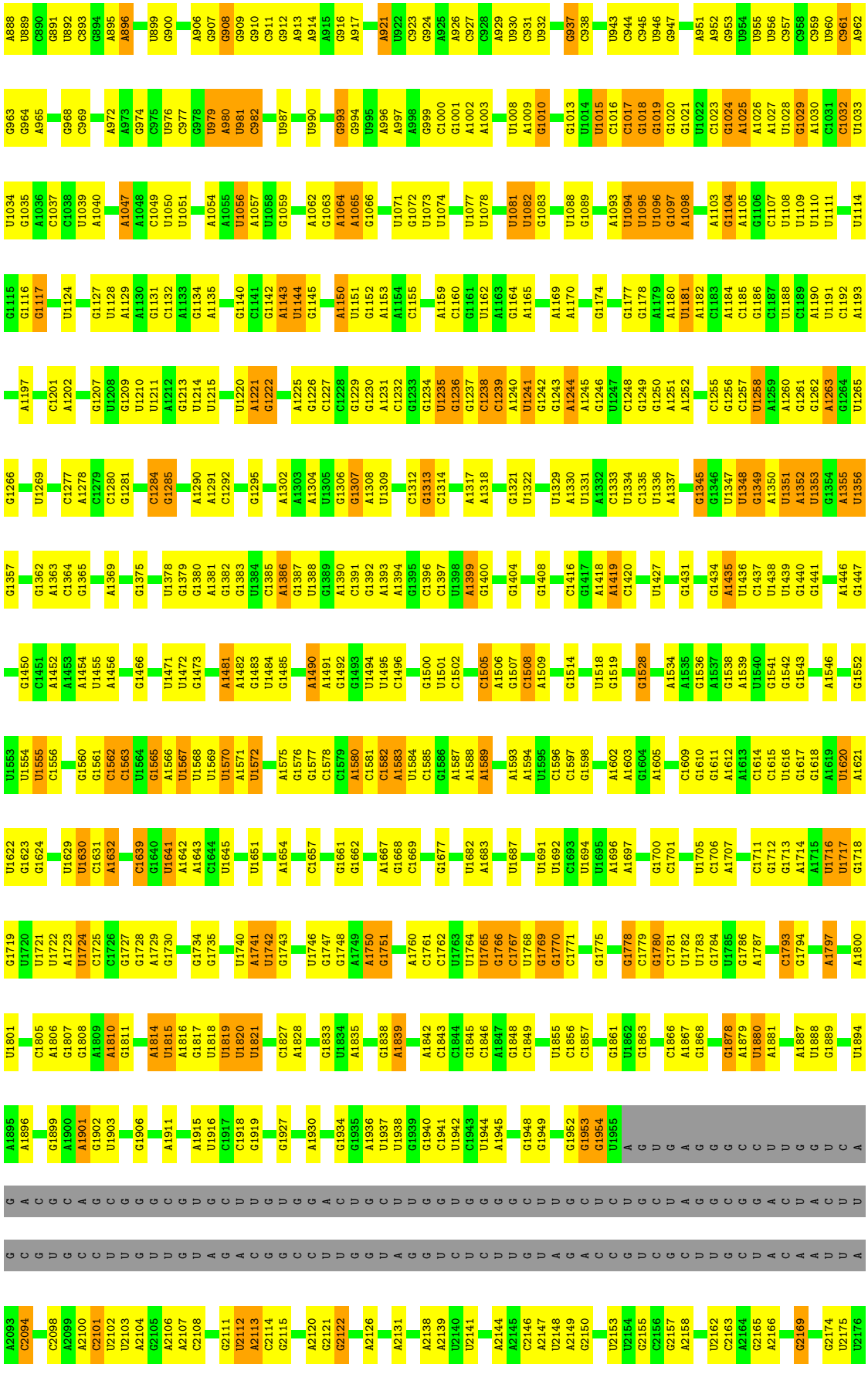


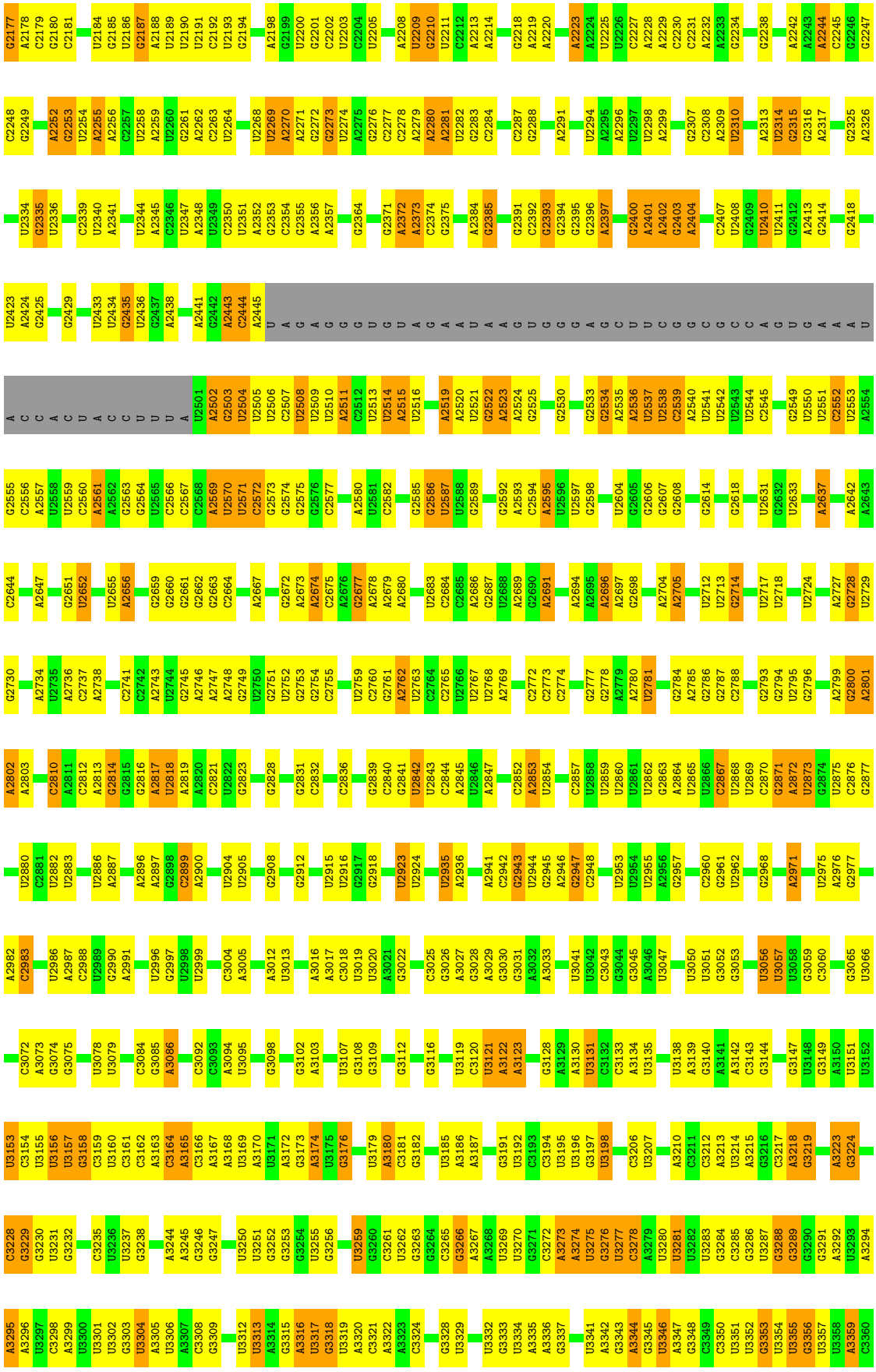
• Molecule 1: 25S ribosomal RNA

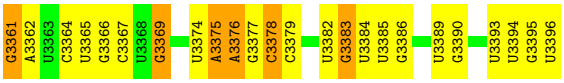
Chain AR:









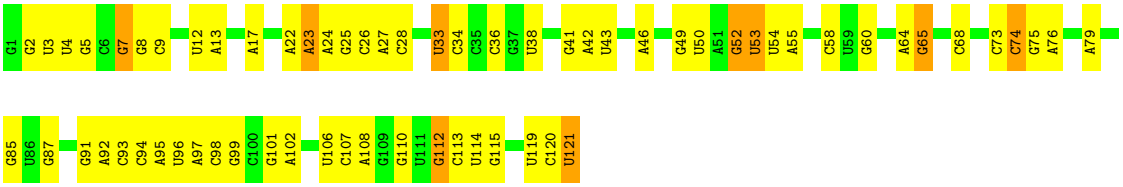


• Molecule 2: 5S ribosomal RNA

Chain 3:

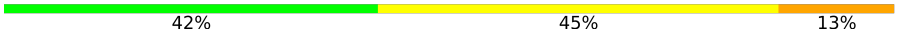
• Molecule 2: 5S ribosomal RNA

Chain AS:



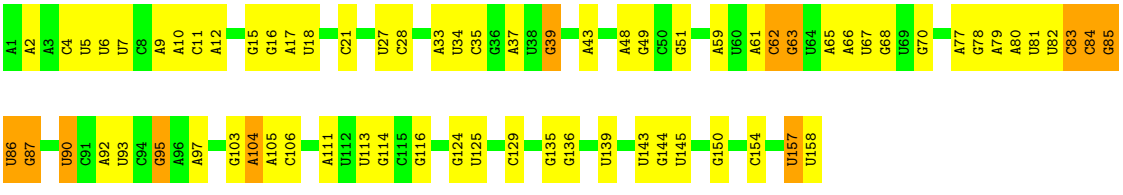
• Molecule 3: 5.8S ribosomal RNA

Chain 4:



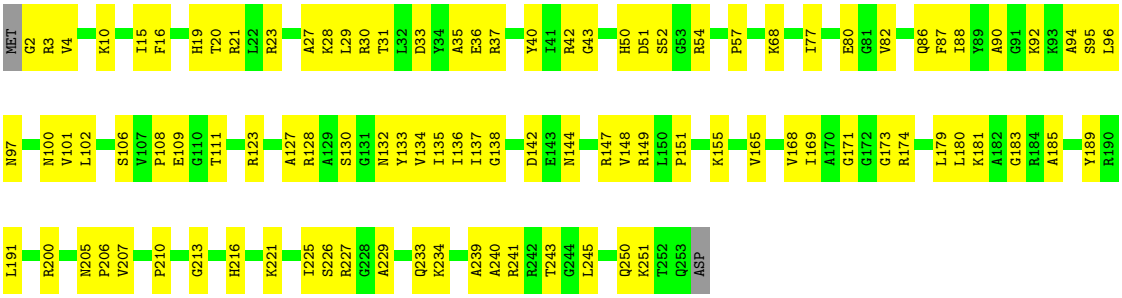
• Molecule 3: 5.8S ribosomal RNA

Chain AT:



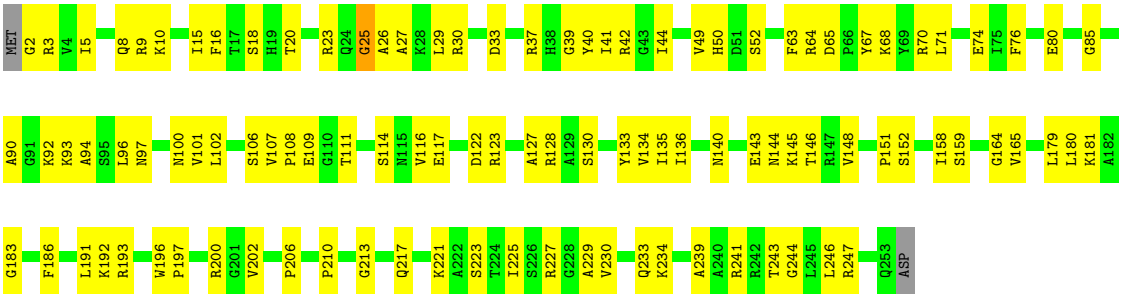
• Molecule 4: 60S ribosomal protein L2-A

Chain j:



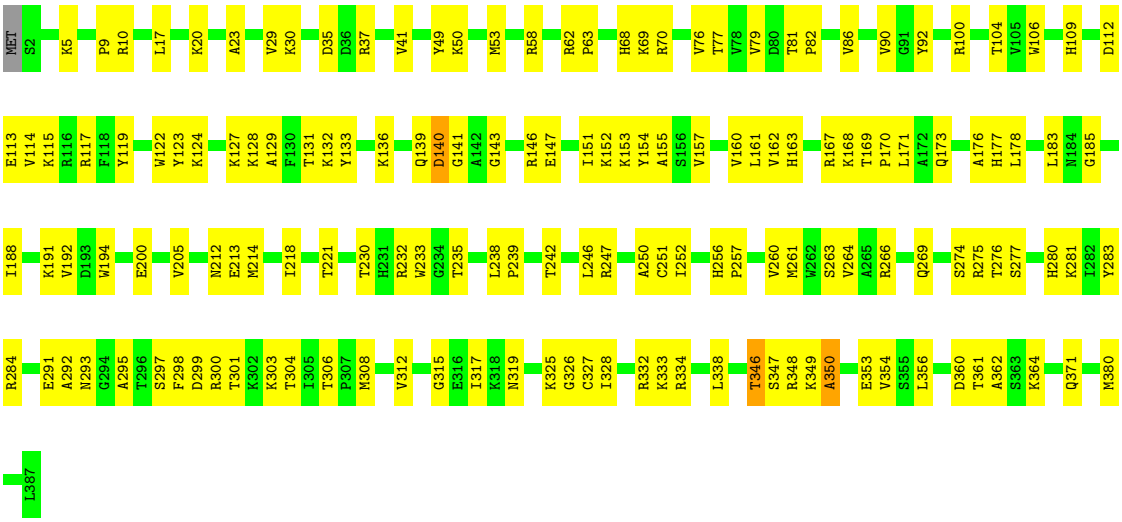
• Molecule 4: 60S ribosomal protein L2-A

Chain CD:



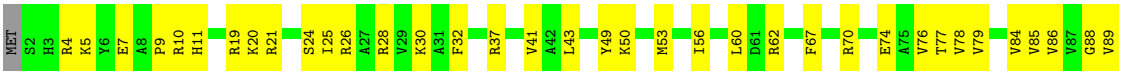
• Molecule 5: 60S ribosomal protein L3

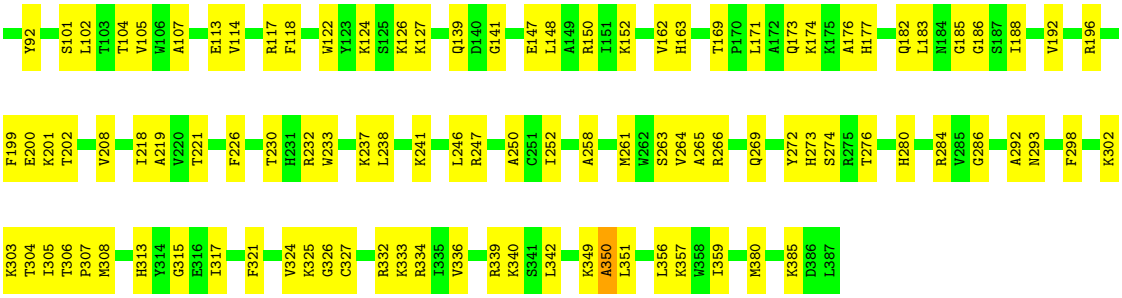
Chain k:



• Molecule 5: 60S ribosomal protein L3

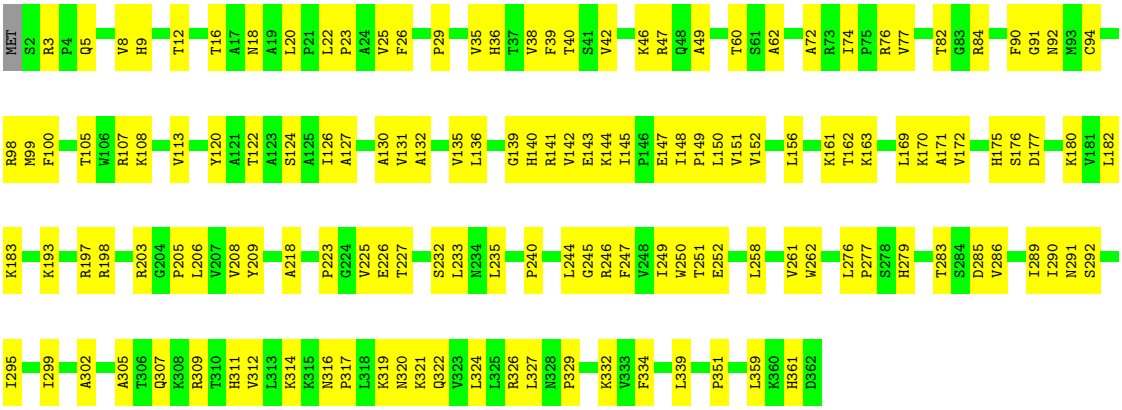
Chain CE:





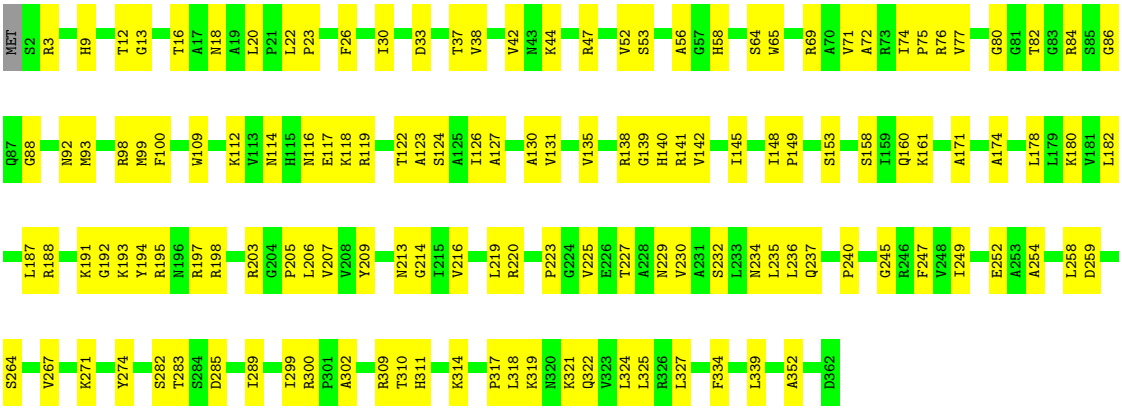
• Molecule 6: 60S ribosomal protein L4-A

Chain l:



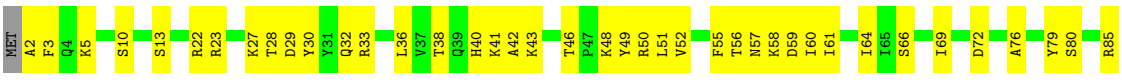
• Molecule 6: 60S ribosomal protein L4-A

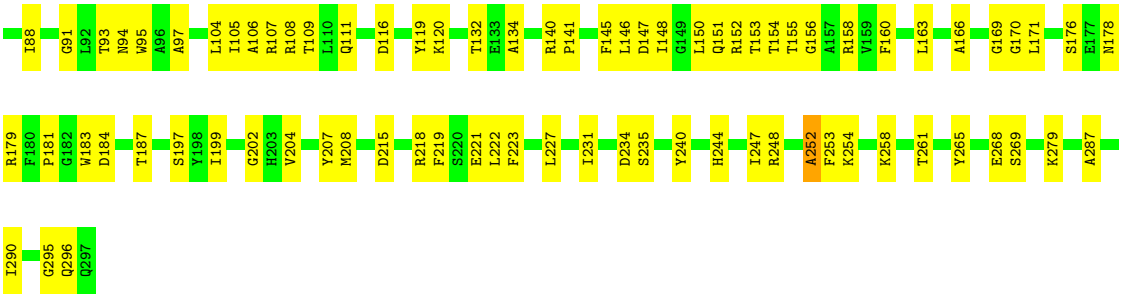
Chain CF:



• Molecule 7: 60S ribosomal protein L5

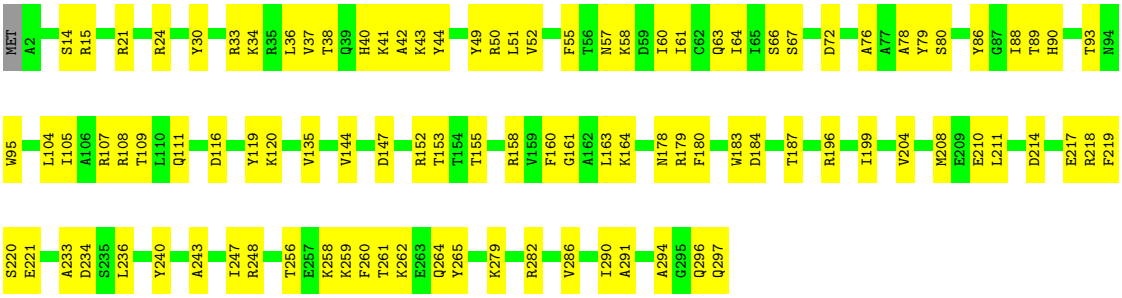
Chain m:





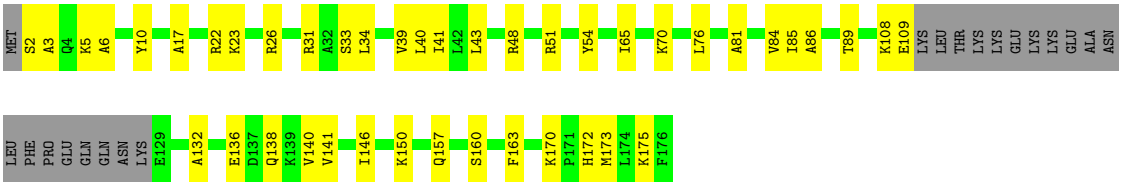
• Molecule 7: 60S ribosomal protein L5

Chain CG:



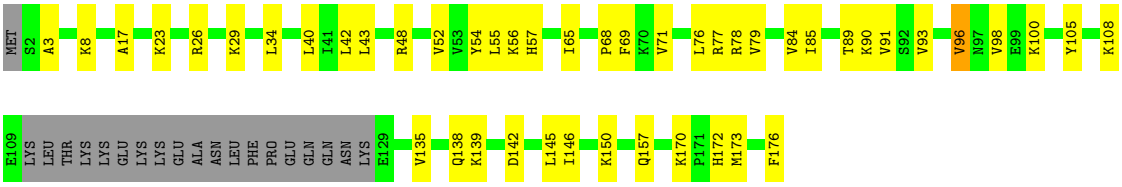
• Molecule 8: 60S ribosomal protein L6-A

Chain n:



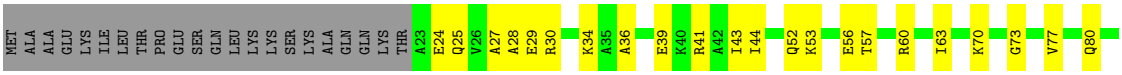
• Molecule 8: 60S ribosomal protein L6-A

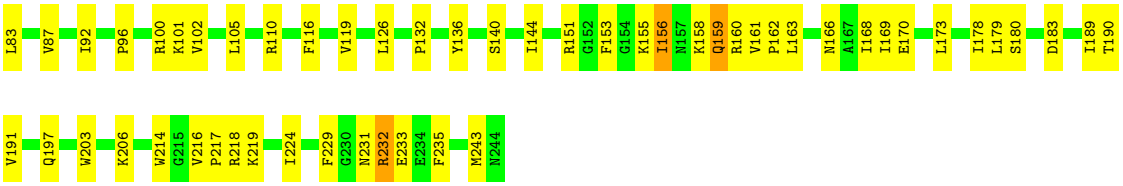
Chain CH:



• Molecule 9: 60S ribosomal protein L7-A

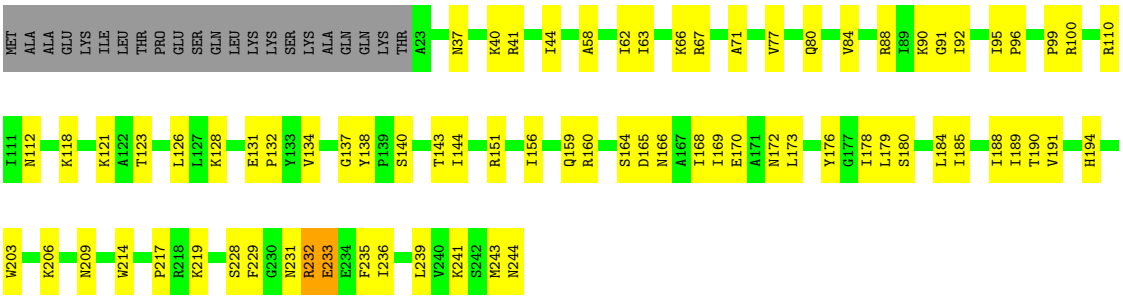
Chain o:





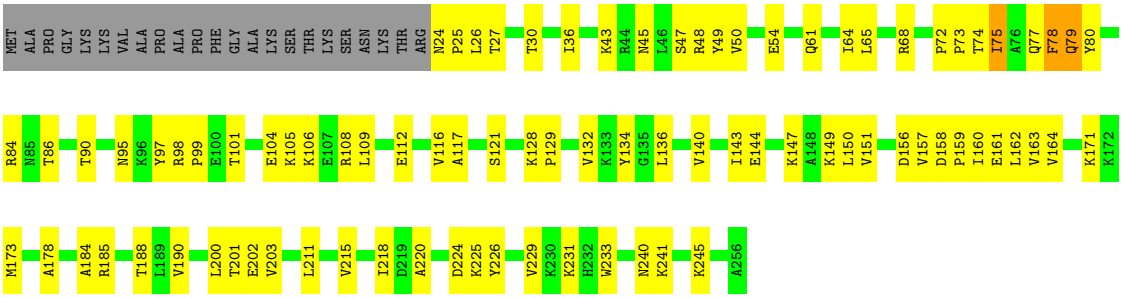
• Molecule 9: 60S ribosomal protein L7-A

Chain CI:



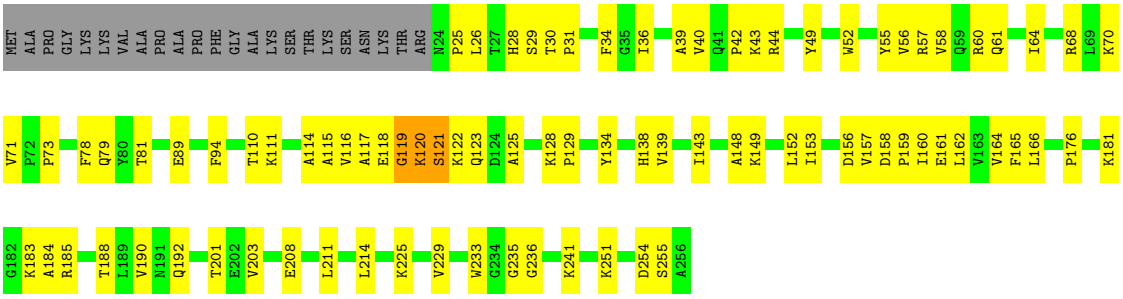
• Molecule 10: 60S ribosomal protein L8-A

Chain p:



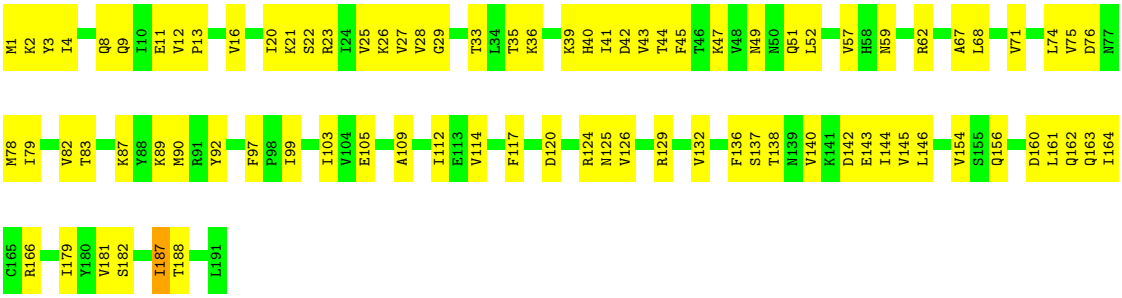
• Molecule 10: 60S ribosomal protein L8-A

Chain CJ:



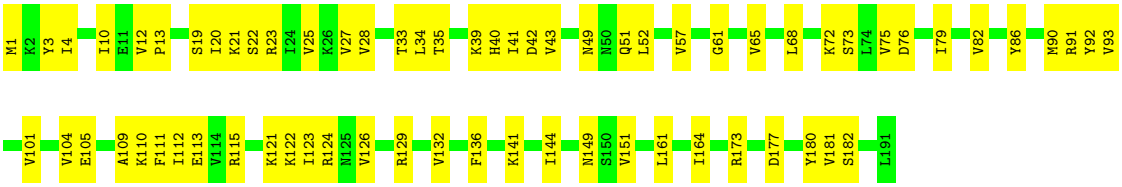
• Molecule 11: 60S ribosomal protein L9-A

Chain q:



• Molecule 11: 60S ribosomal protein L9-A

Chain CK:

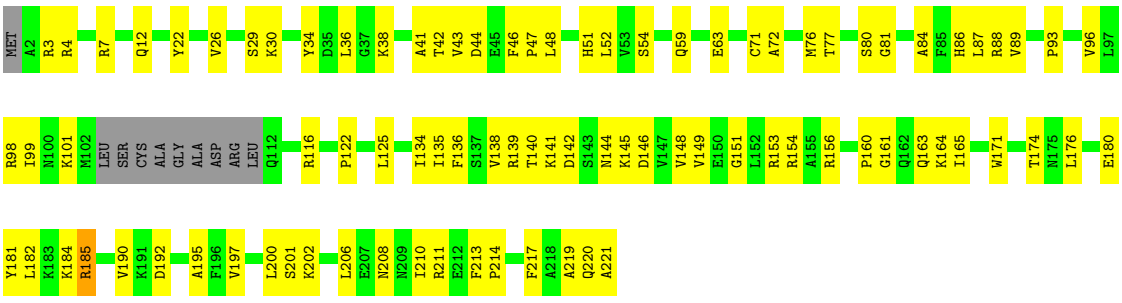


• Molecule 12: 60S ribosomal protein L10

Chain r:

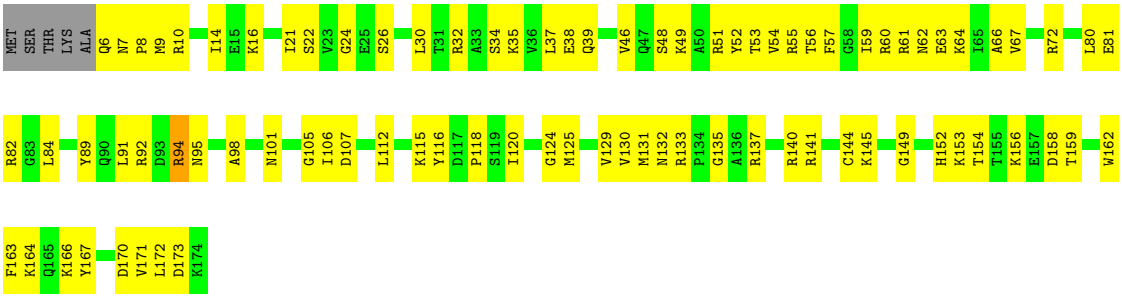
• Molecule 12: 60S ribosomal protein L10

Chain CL:



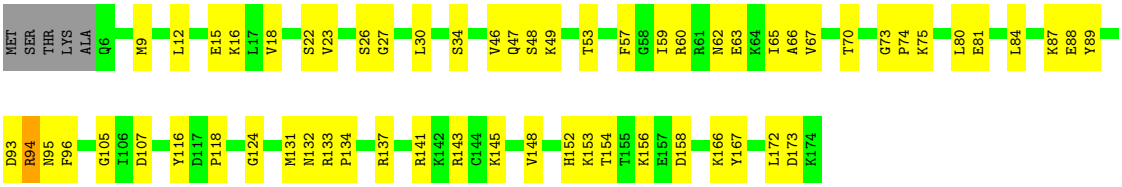
• Molecule 13: Large ribosomal subunit protein uL5B

Chain s:



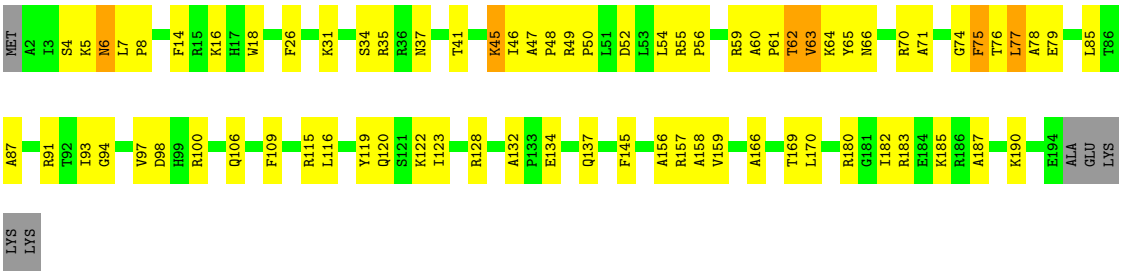
• Molecule 13: Large ribosomal subunit protein uL5B

Chain CM:



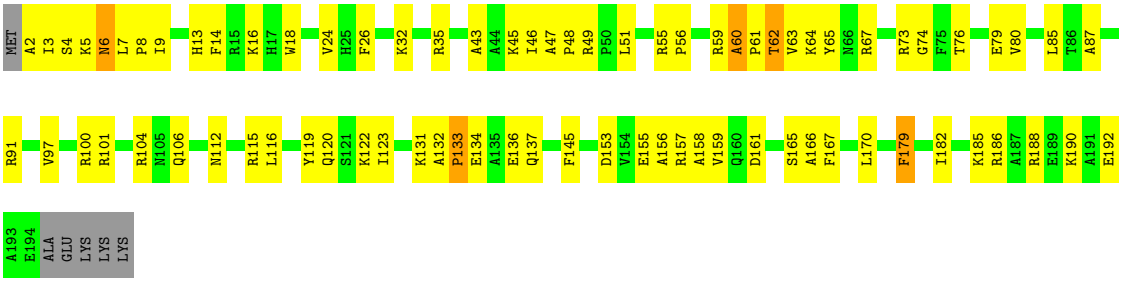
• Molecule 14: 60S ribosomal protein L13-A

Chain t:



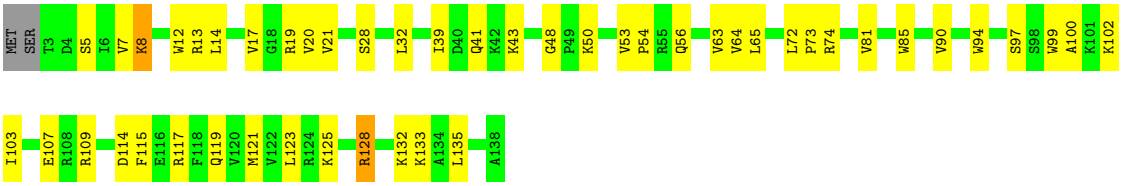
• Molecule 14: 60S ribosomal protein L13-A

Chain CN:



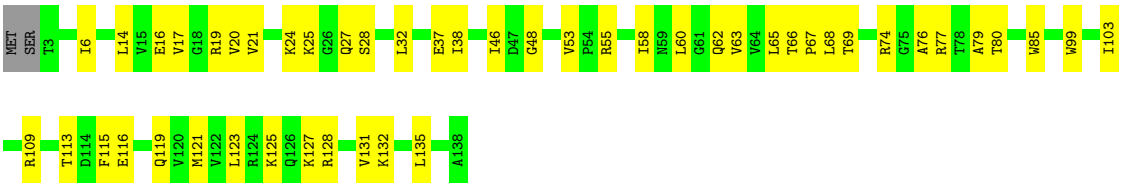
• Molecule 15: 60S ribosomal protein L14-A

Chain u:



• Molecule 15: 60S ribosomal protein L14-A

Chain CO:

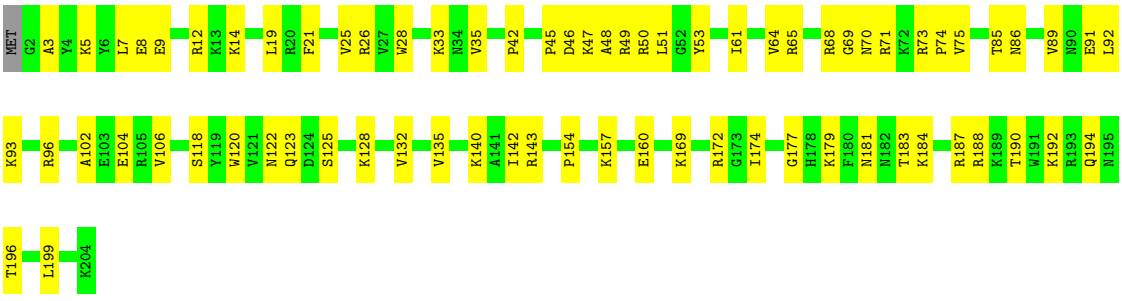


• Molecule 16: 60S ribosomal protein L15-A

Chain v:

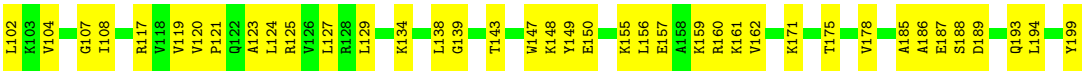
• Molecule 16: 60S ribosomal protein L15-A

Chain CP:



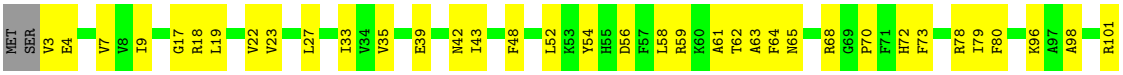
• Molecule 17: 60S ribosomal protein L16-A

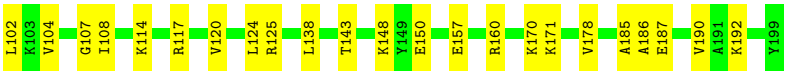
Chain w:



• Molecule 17: 60S ribosomal protein L16-A

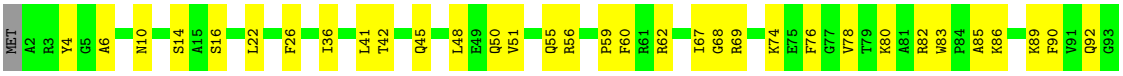
Chain CQ:

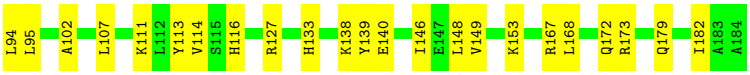




• Molecule 18: 60S ribosomal protein L17-A

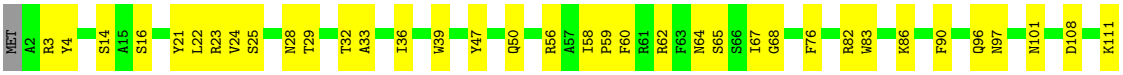
Chain x:





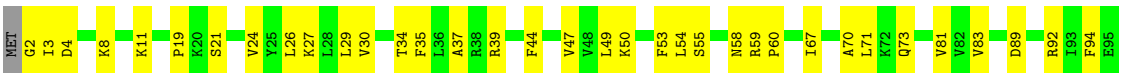
• Molecule 18: 60S ribosomal protein L17-A

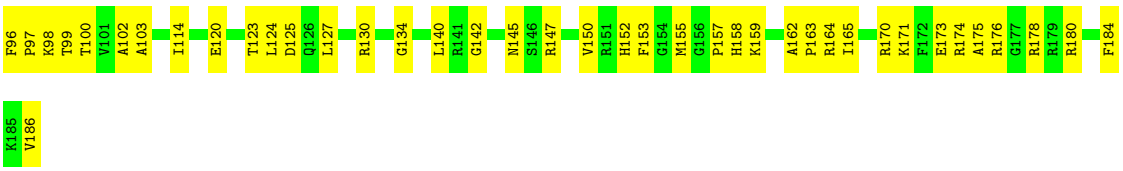
Chain CR:



• Molecule 19: 60S ribosomal protein L18-A

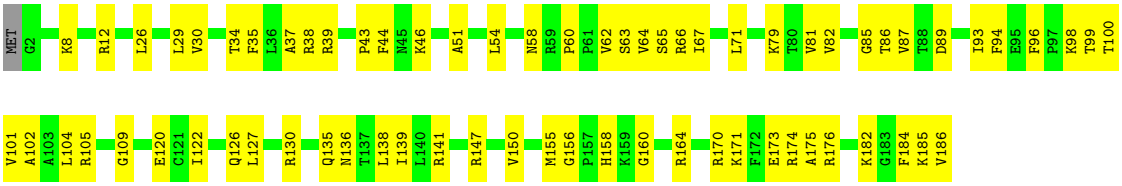
Chain y:





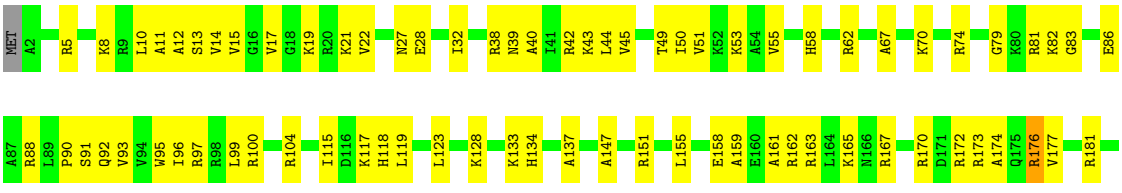
• Molecule 19: 60S ribosomal protein L18-A

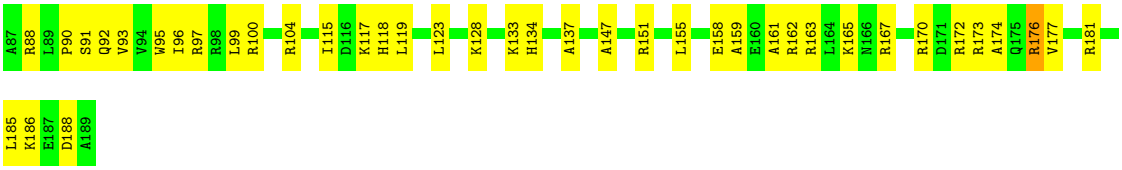
Chain CS:



• Molecule 20: 60S ribosomal protein L19-A

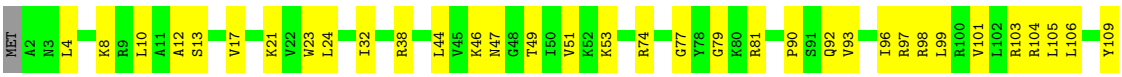
Chain z:





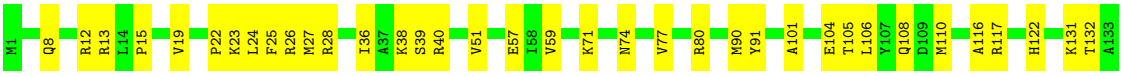
• Molecule 20: 60S ribosomal protein L19-A

Chain CT:



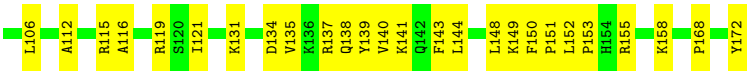
• Molecule 21: 60S ribosomal protein L20-A

Chain 0:



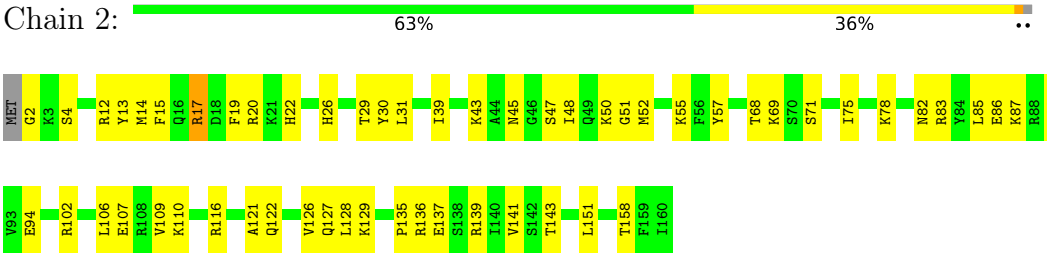
• Molecule 21: 60S ribosomal protein L20-A

Chain CU:



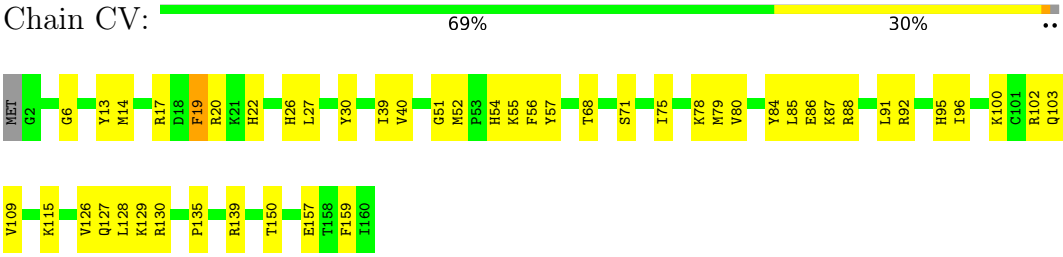
• Molecule 22: 60S ribosomal protein L21-A

Chain 2:



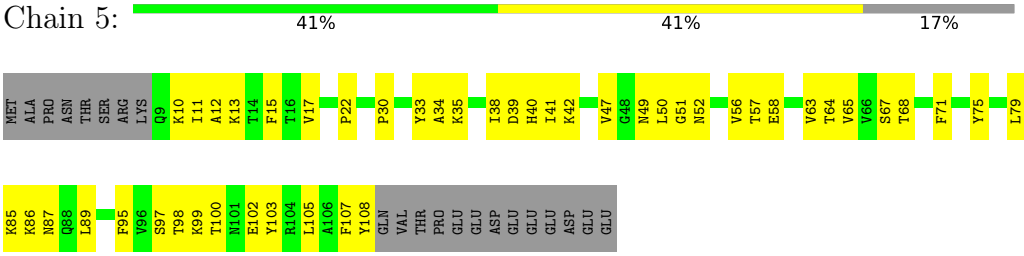
• Molecule 22: 60S ribosomal protein L21-A

Chain CV:



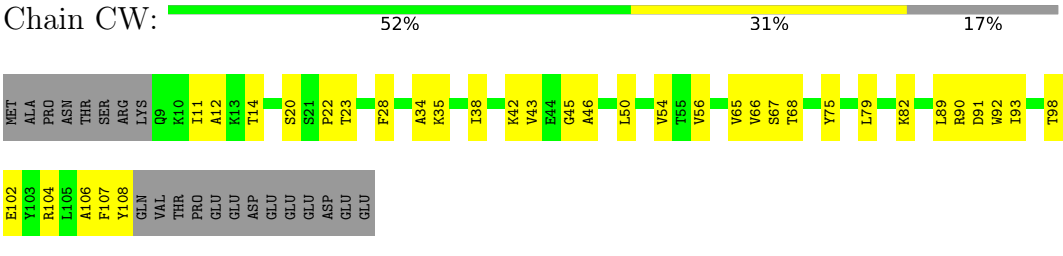
• Molecule 23: 60S ribosomal protein L22-A

Chain 5:



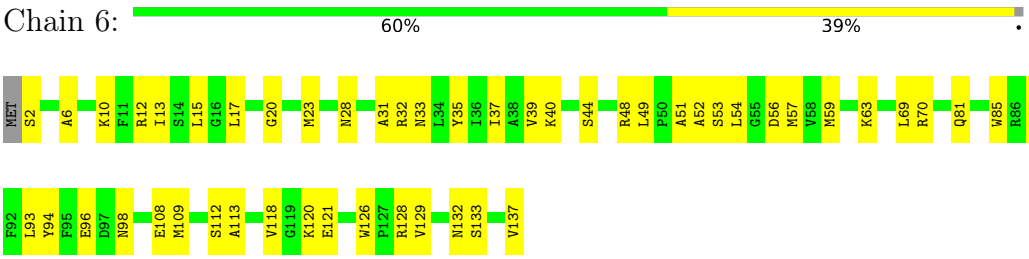
• Molecule 23: 60S ribosomal protein L22-A

Chain CW:



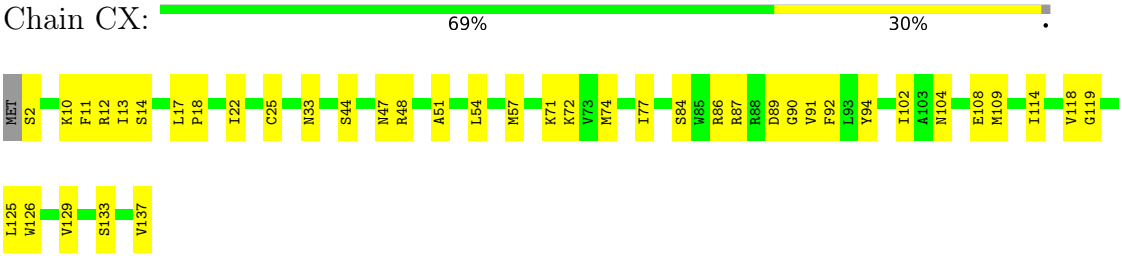
• Molecule 24: 60S ribosomal protein L23-A

Chain 6:



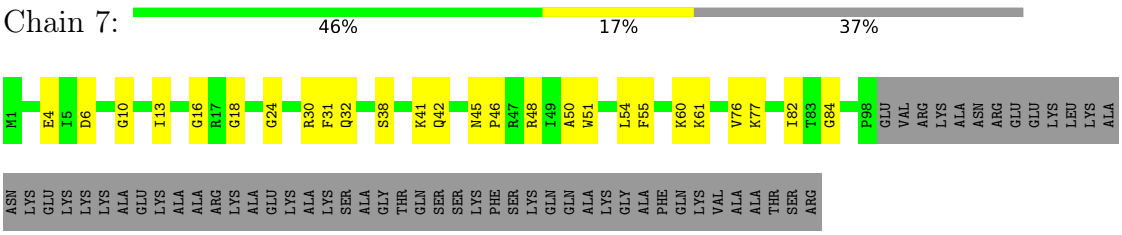
• Molecule 24: 60S ribosomal protein L23-A

Chain CX:



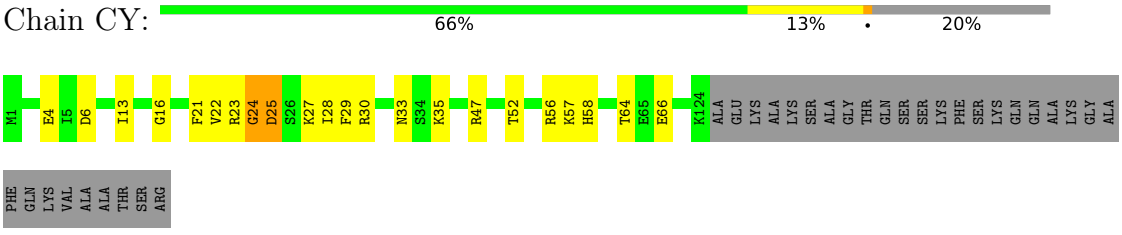
• Molecule 25: 60S ribosomal protein L24-A

Chain 7:



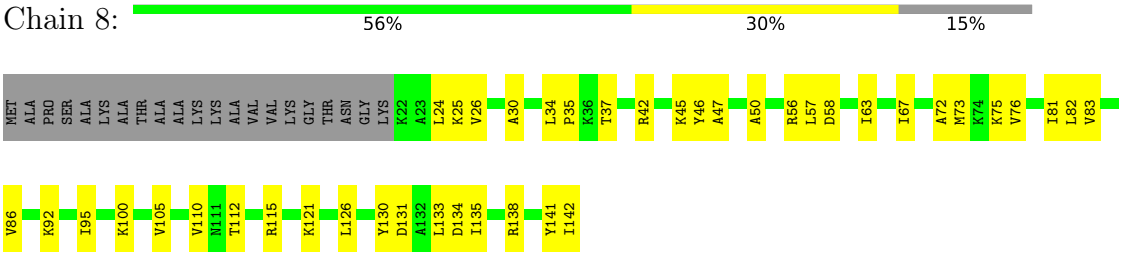
• Molecule 25: 60S ribosomal protein L24-A

Chain CY:



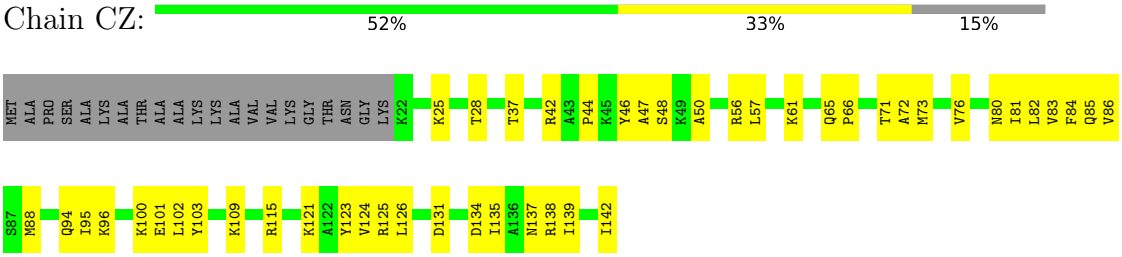
• Molecule 26: 60S ribosomal protein L25

Chain 8:



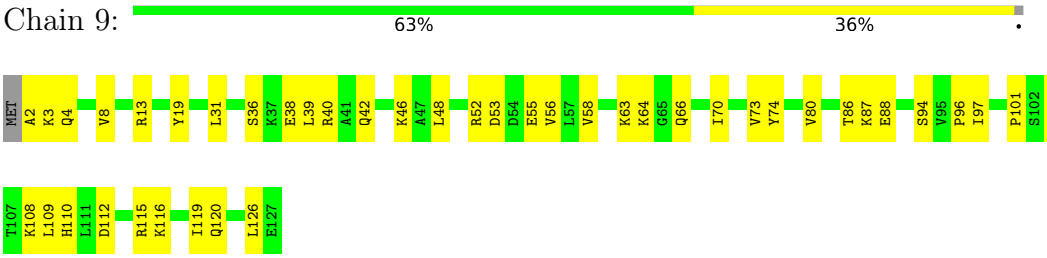
• Molecule 26: 60S ribosomal protein L25

Chain CZ:



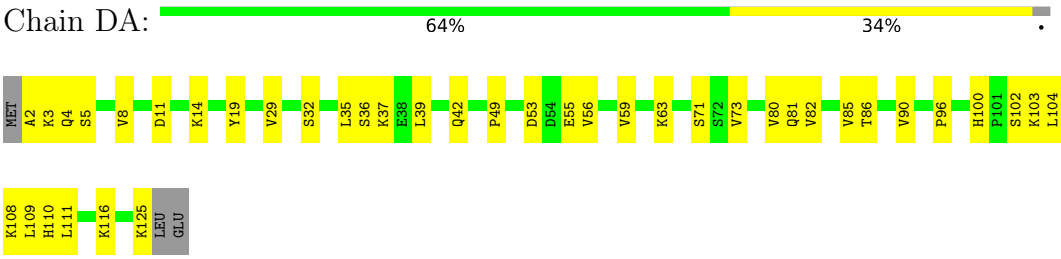
• Molecule 27: 60S ribosomal protein L26-A

Chain 9:



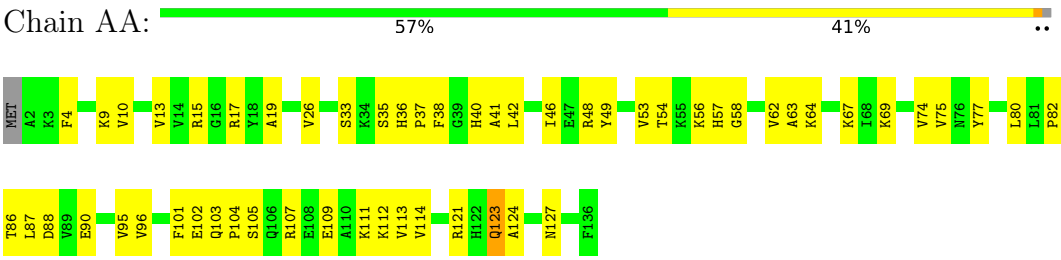
• Molecule 27: 60S ribosomal protein L26-A

Chain DA:



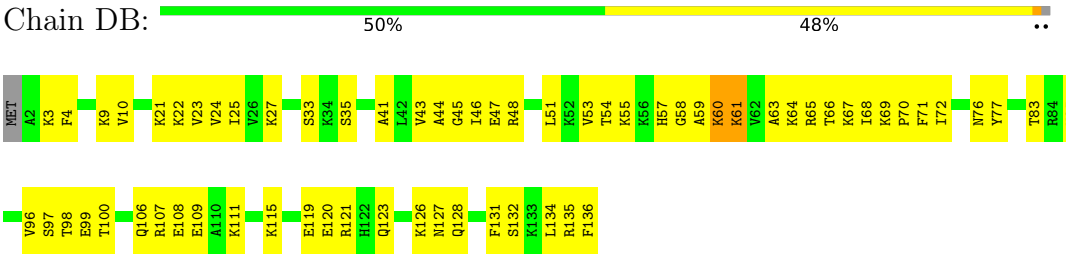
• Molecule 28: 60S ribosomal protein L27-A

Chain AA:



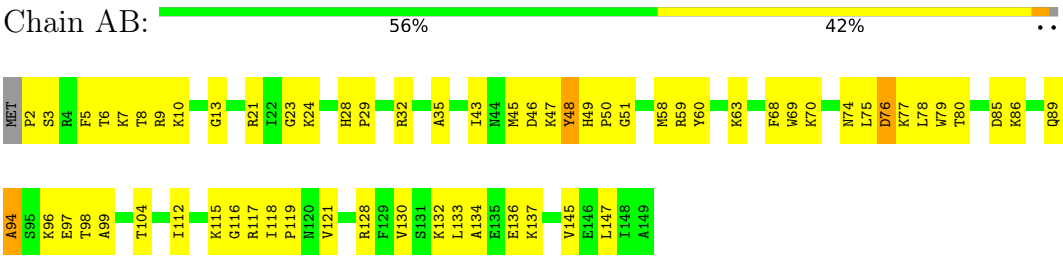
• Molecule 28: 60S ribosomal protein L27-A

Chain DB:



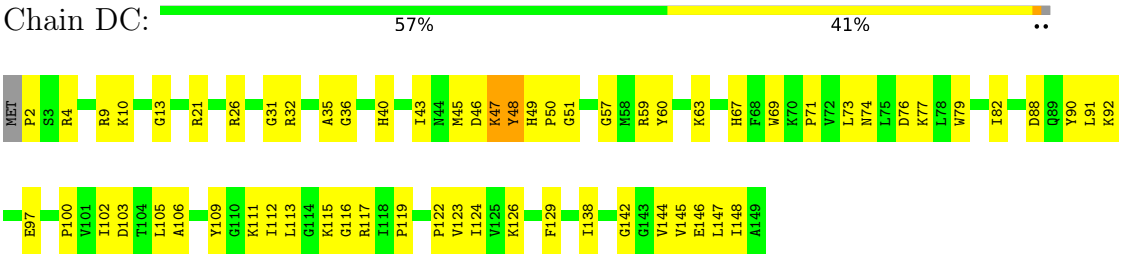
• Molecule 29: 60S ribosomal protein L28

Chain AB:



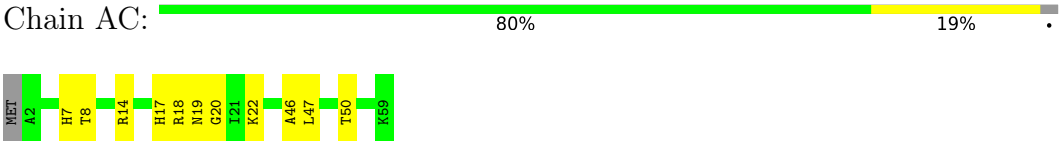
• Molecule 29: 60S ribosomal protein L28

Chain DC:



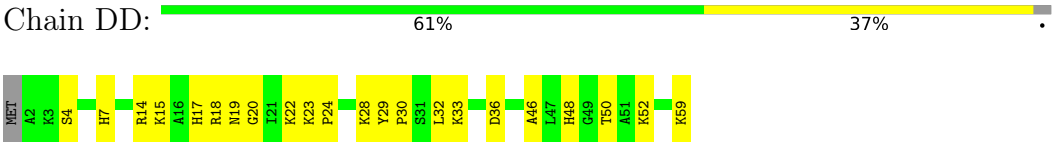
• Molecule 30: 60S ribosomal protein L29

Chain AC:



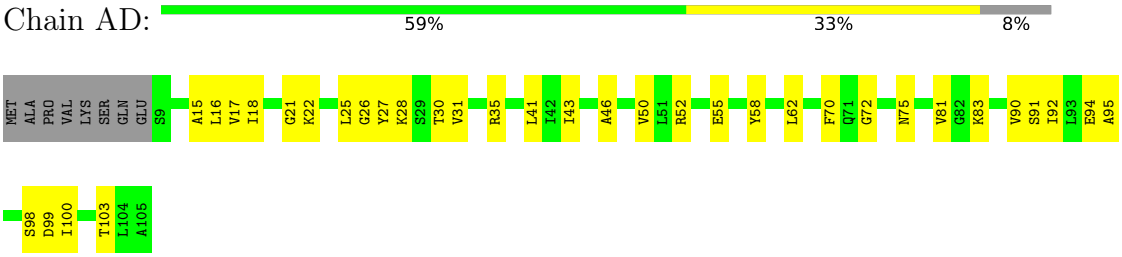
• Molecule 30: 60S ribosomal protein L29

Chain DD:



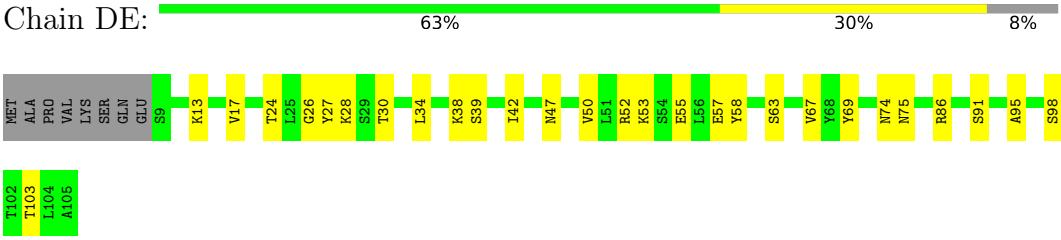
• Molecule 31: 60S ribosomal protein L30

Chain AD:



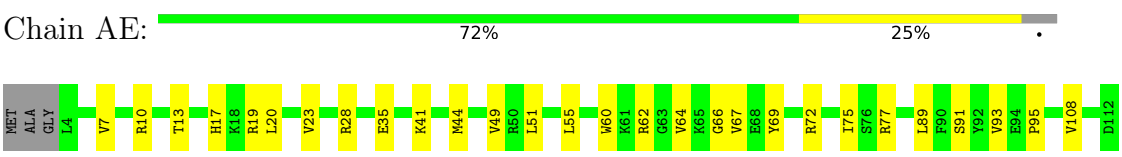
• Molecule 31: 60S ribosomal protein L30

Chain DE:



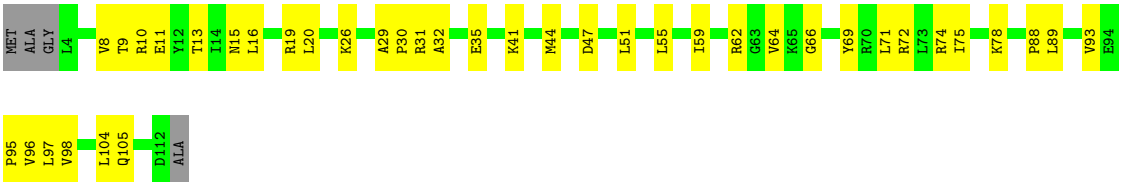
• Molecule 32: 60S ribosomal protein L31-A

Chain AE:



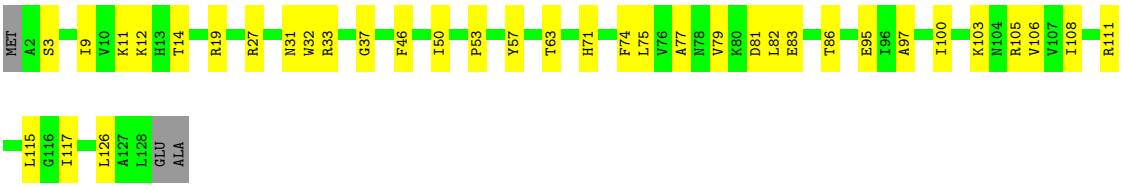
• Molecule 32: 60S ribosomal protein L31-A

Chain DF:



• Molecule 33: 60S ribosomal protein L32

Chain AF:

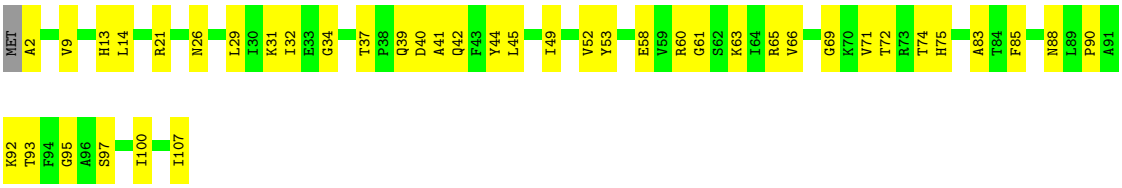


• Molecule 33: 60S ribosomal protein L32

Chain DG:

• Molecule 34: 60S ribosomal protein L33-A

Chain AG:

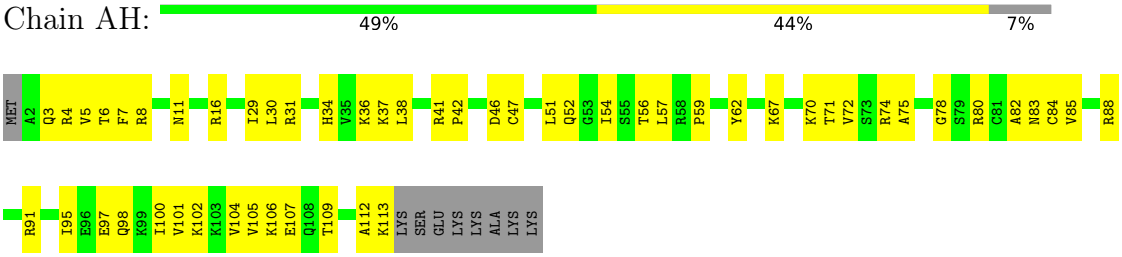


• Molecule 34: 60S ribosomal protein L33-A

Chain DH:

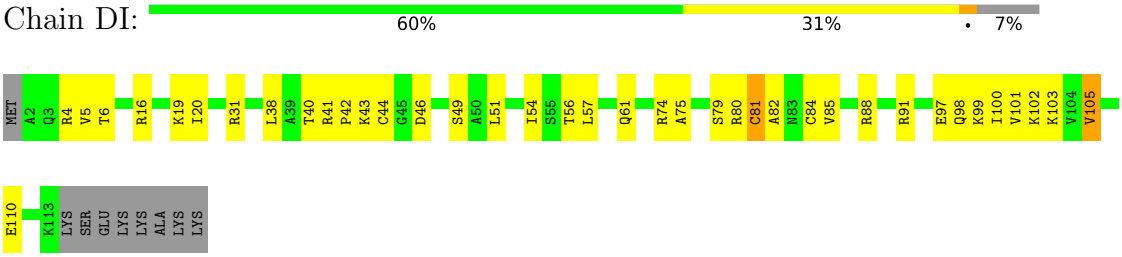
• Molecule 35: 60S ribosomal protein L34-A

Chain AH:



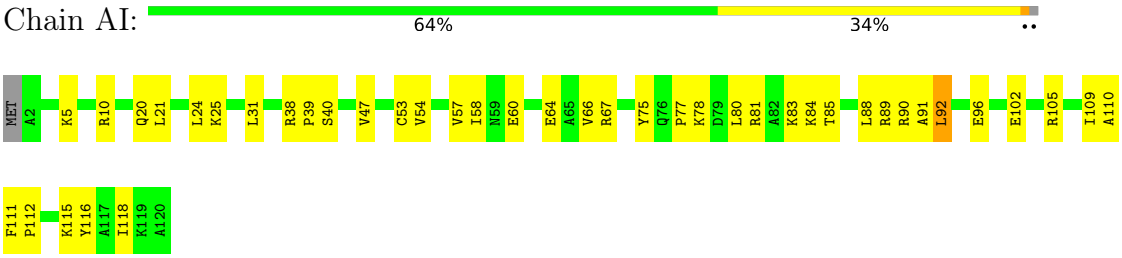
• Molecule 35: 60S ribosomal protein L34-A

Chain DI:



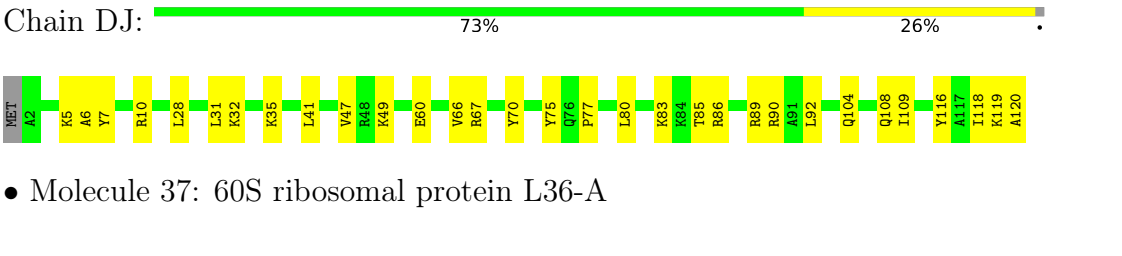
• Molecule 36: 60S ribosomal protein L35-A

Chain AI:



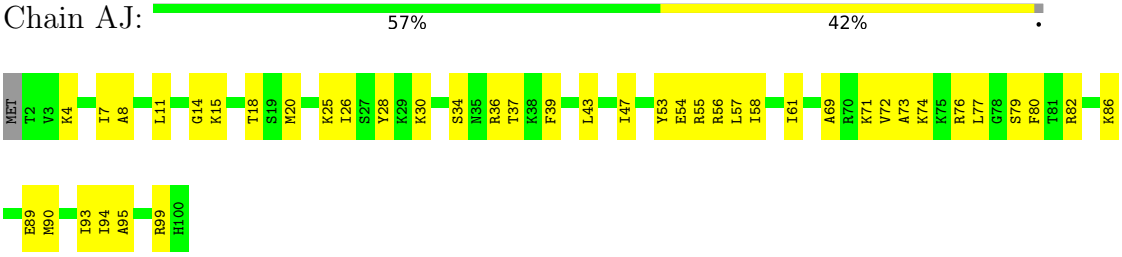
• Molecule 36: 60S ribosomal protein L35-A

Chain DJ:



• Molecule 37: 60S ribosomal protein L36-A

Chain AJ:

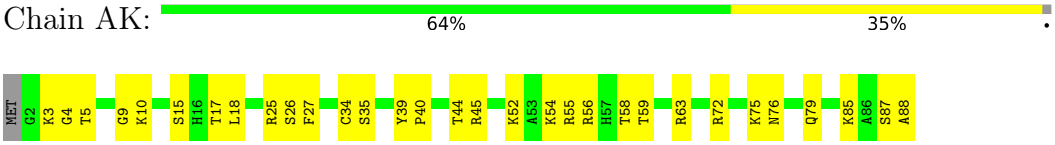


• Molecule 37: 60S ribosomal protein L36-A

Chain DK:

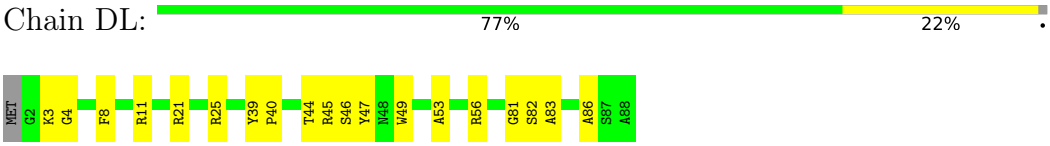
• Molecule 38: 60S ribosomal protein L37-A

Chain AK:



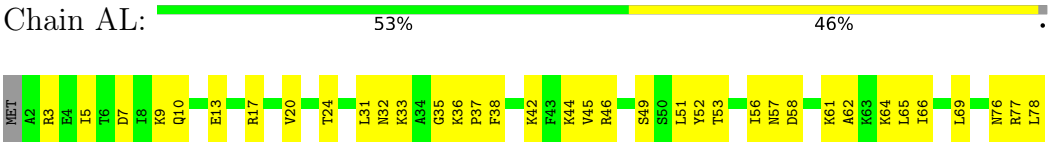
• Molecule 38: 60S ribosomal protein L37-A

Chain DL:



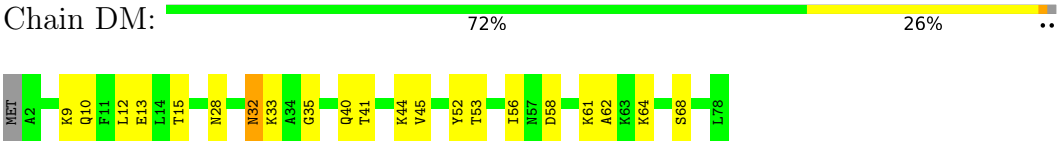
• Molecule 39: 60S ribosomal protein L38

Chain AL:



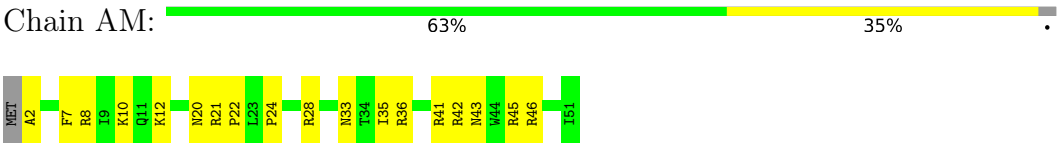
• Molecule 39: 60S ribosomal protein L38

Chain DM:



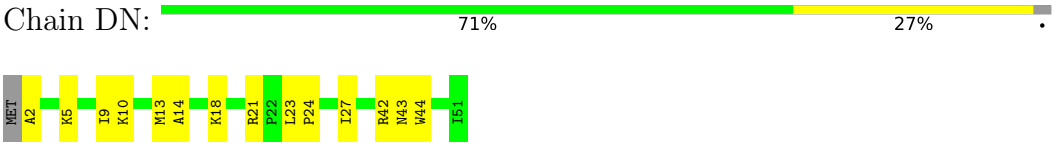
• Molecule 40: 60S ribosomal protein L39

Chain AM:



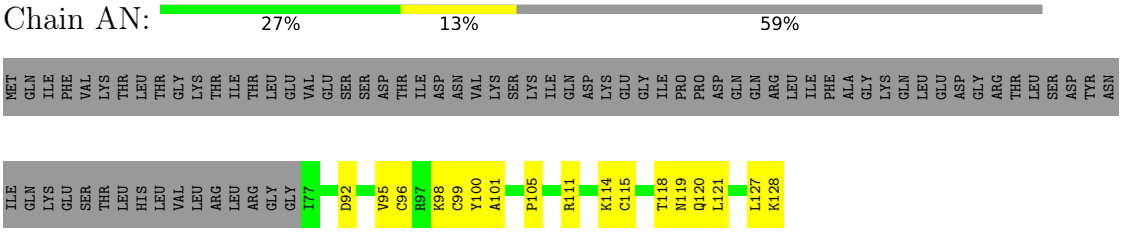
• Molecule 40: 60S ribosomal protein L39

Chain DN:



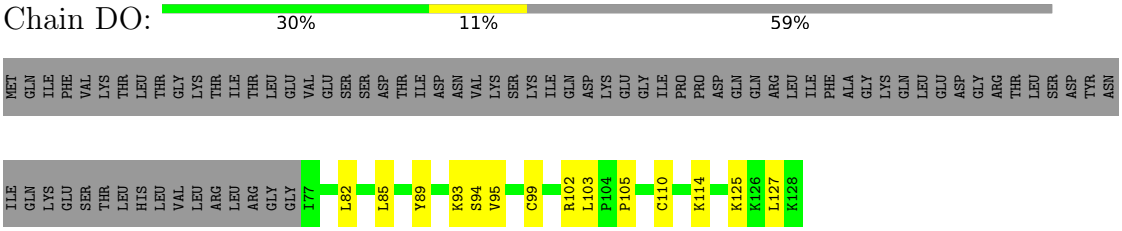
• Molecule 41: Ubiquitin-60S ribosomal protein L40

Chain AN:



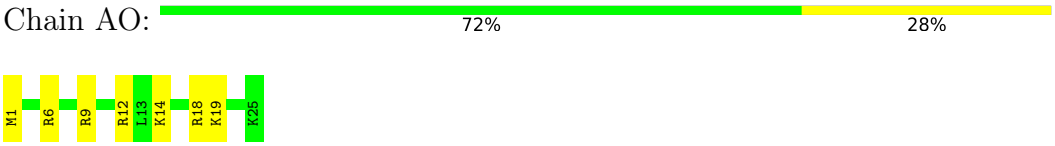
• Molecule 41: Ubiquitin-60S ribosomal protein L40

Chain DO:



• Molecule 42: 60S ribosomal protein L41-A

Chain AO:

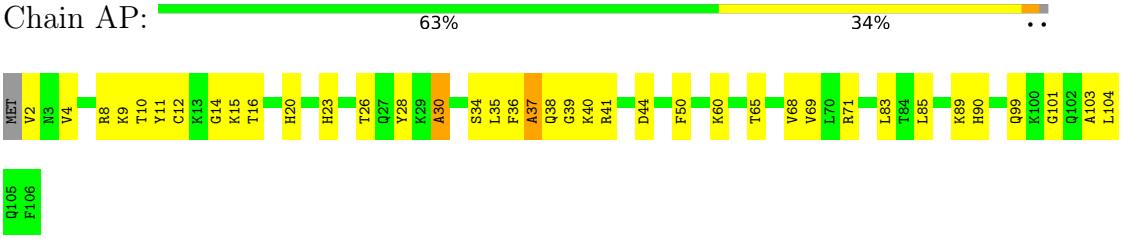


• Molecule 42: 60S ribosomal protein L41-A

Chain DP:

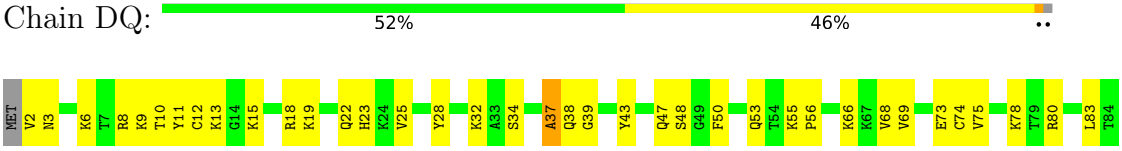
• Molecule 43: 60S ribosomal protein L42-A

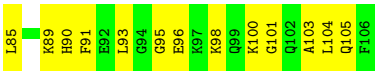
Chain AP:



• Molecule 43: 60S ribosomal protein L42-A

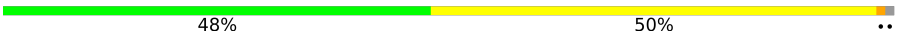
Chain DQ:





• Molecule 44: 60S ribosomal protein L43-A

Chain AQ:

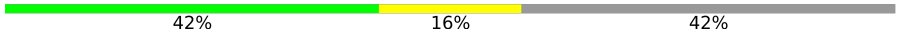


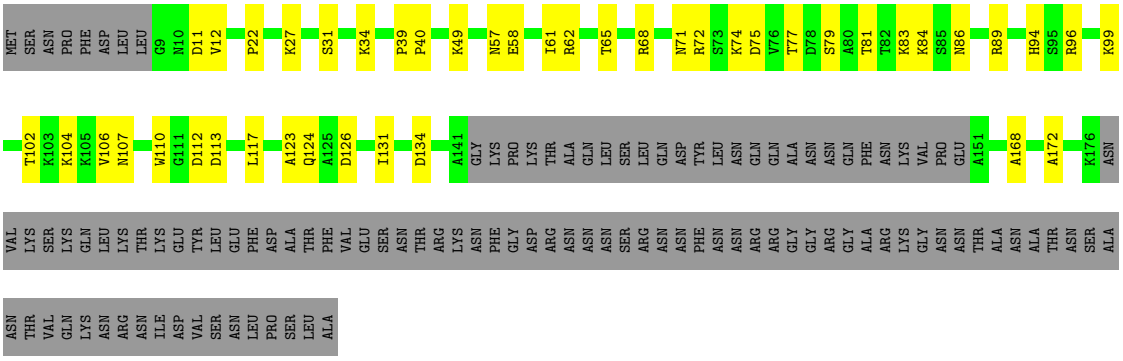
• Molecule 44: 60S ribosomal protein L43-A

Chain DR:

• Molecule 45: Suppressor protein STM1

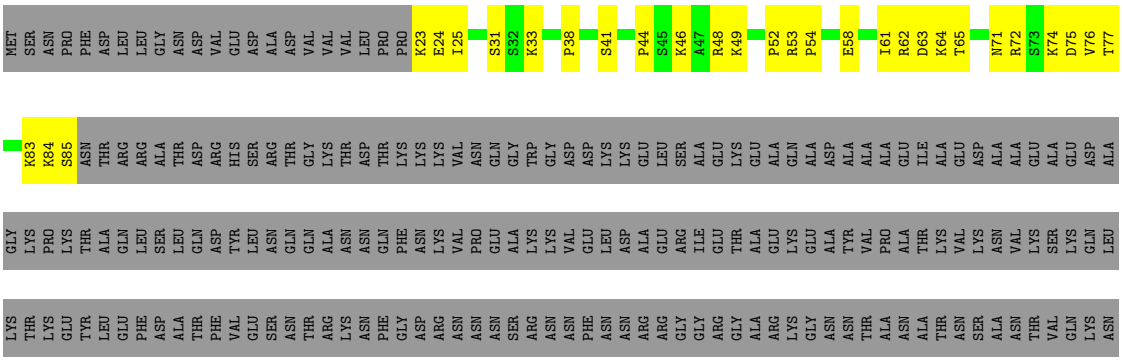
Chain i:

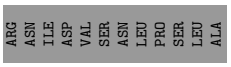




• Molecule 45: Suppressor protein STM1

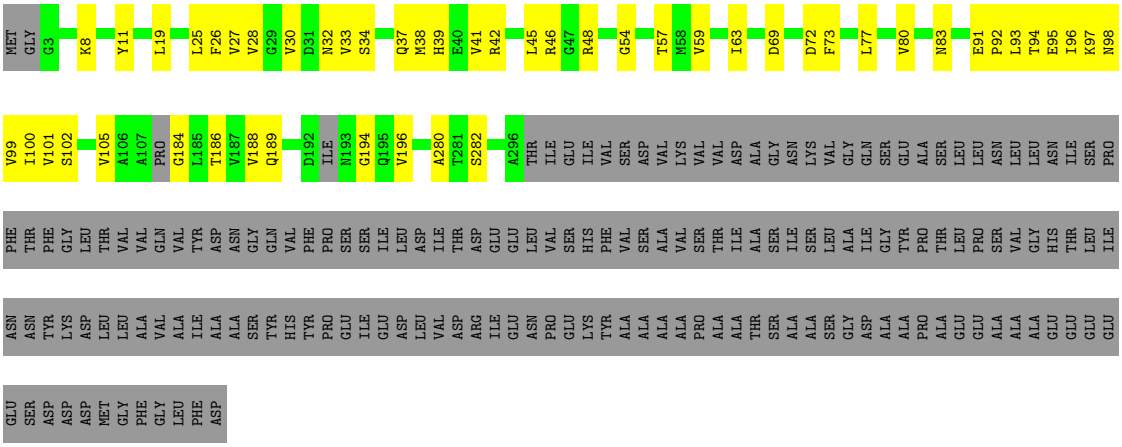
Chain sM:





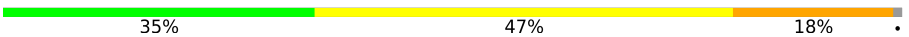
• Molecule 46: 60S acidic protein P0

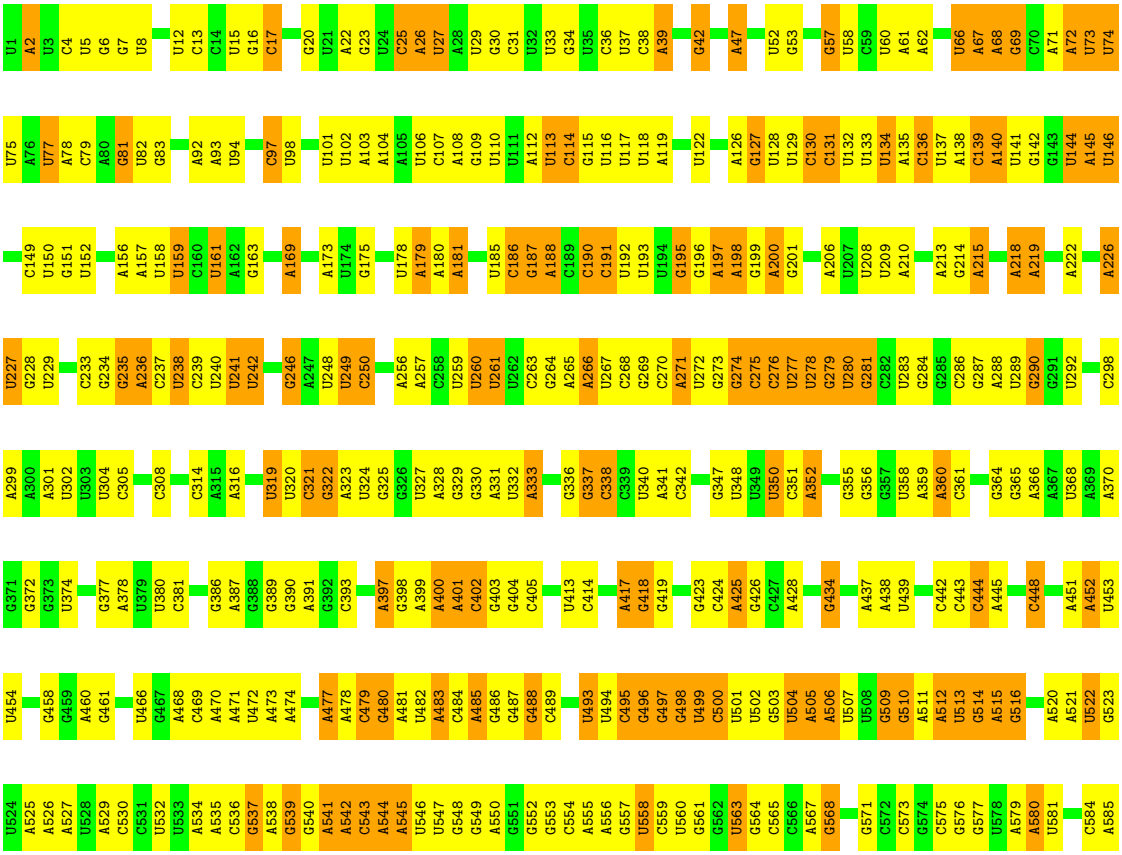
Chain p0:

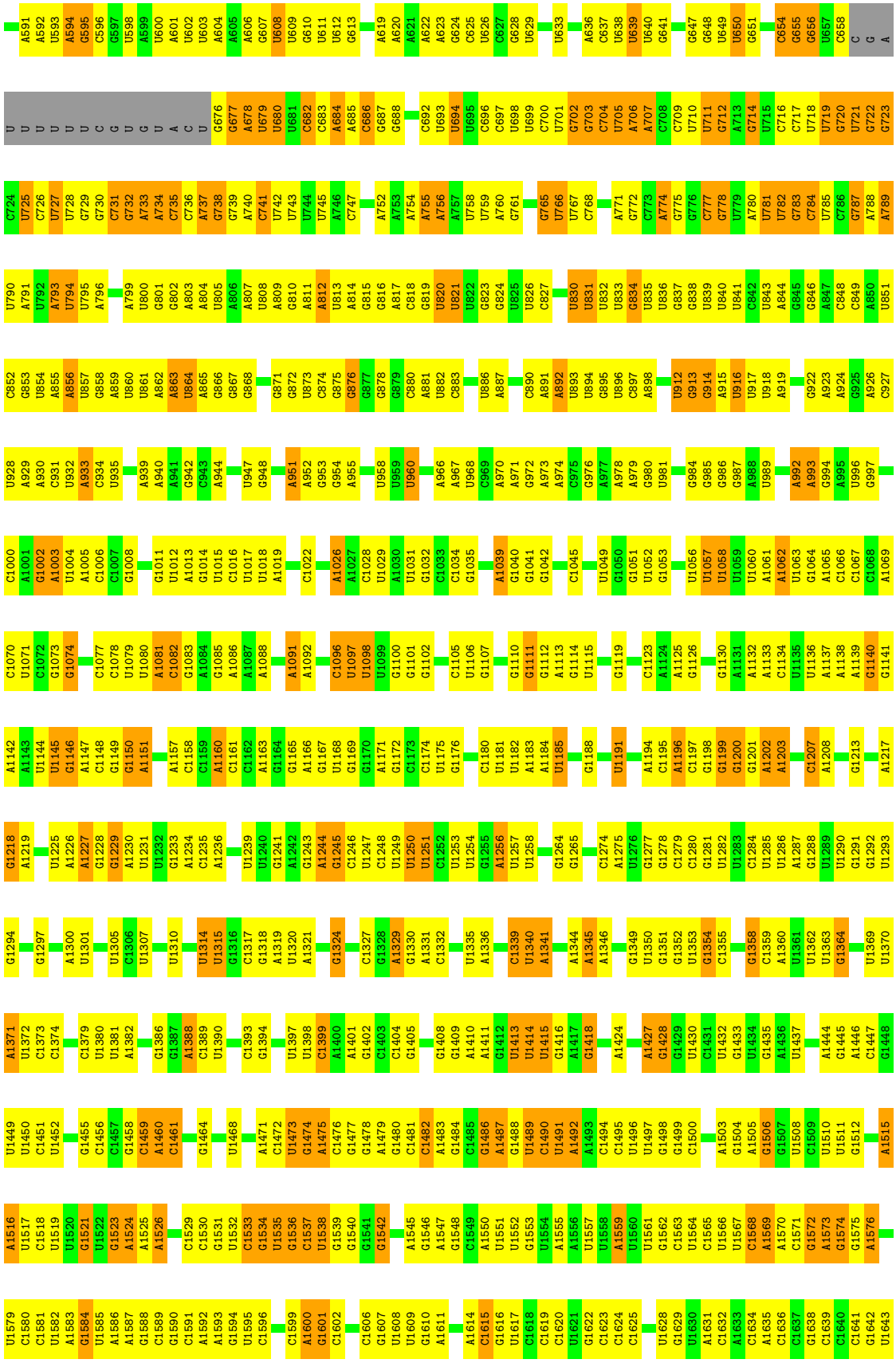


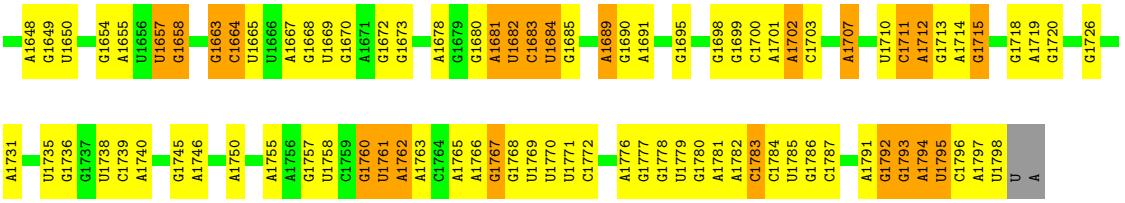
• Molecule 47: 18S ribosomal RNA

Chain A:



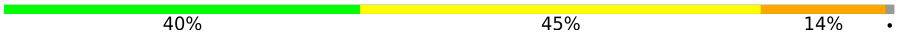


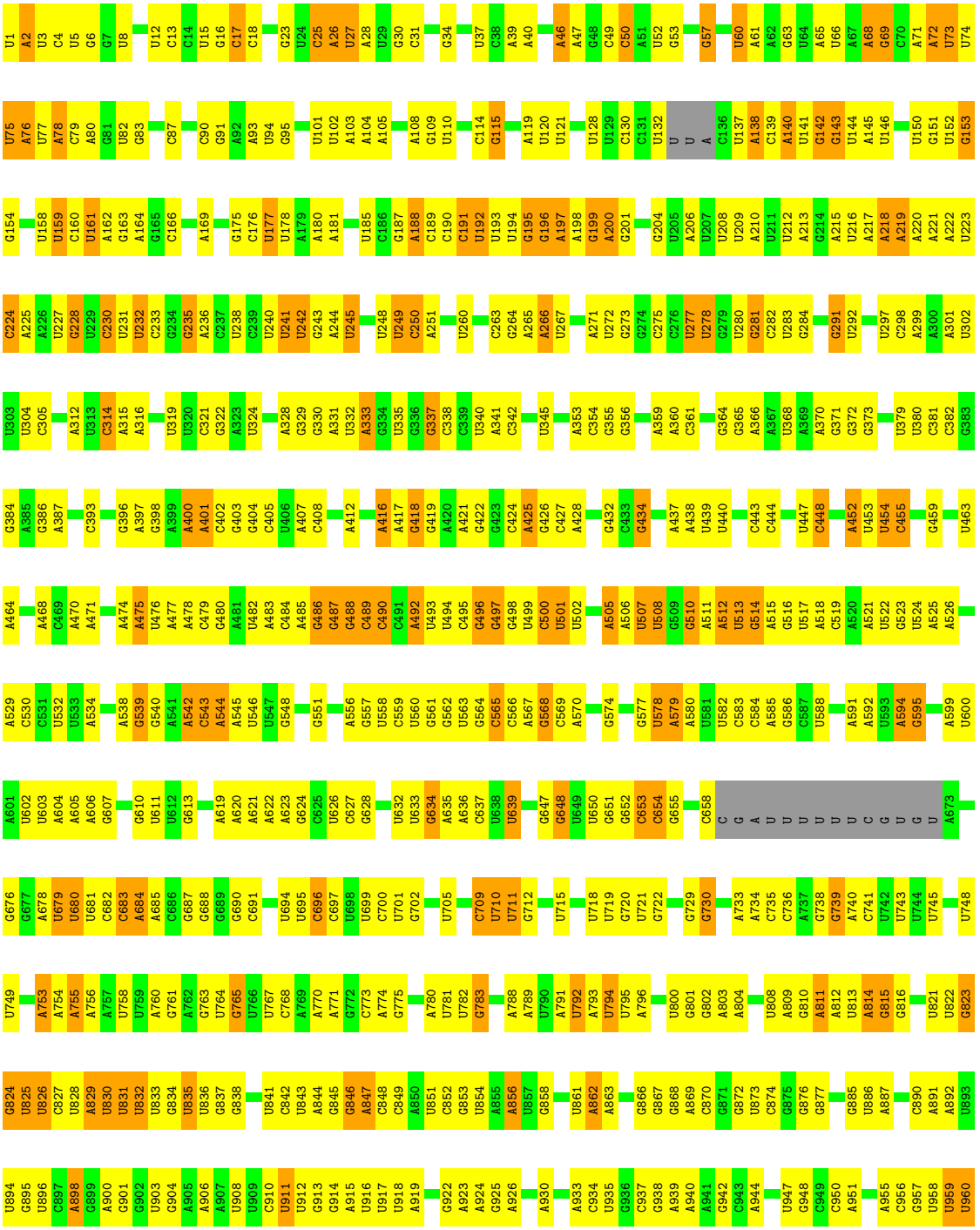


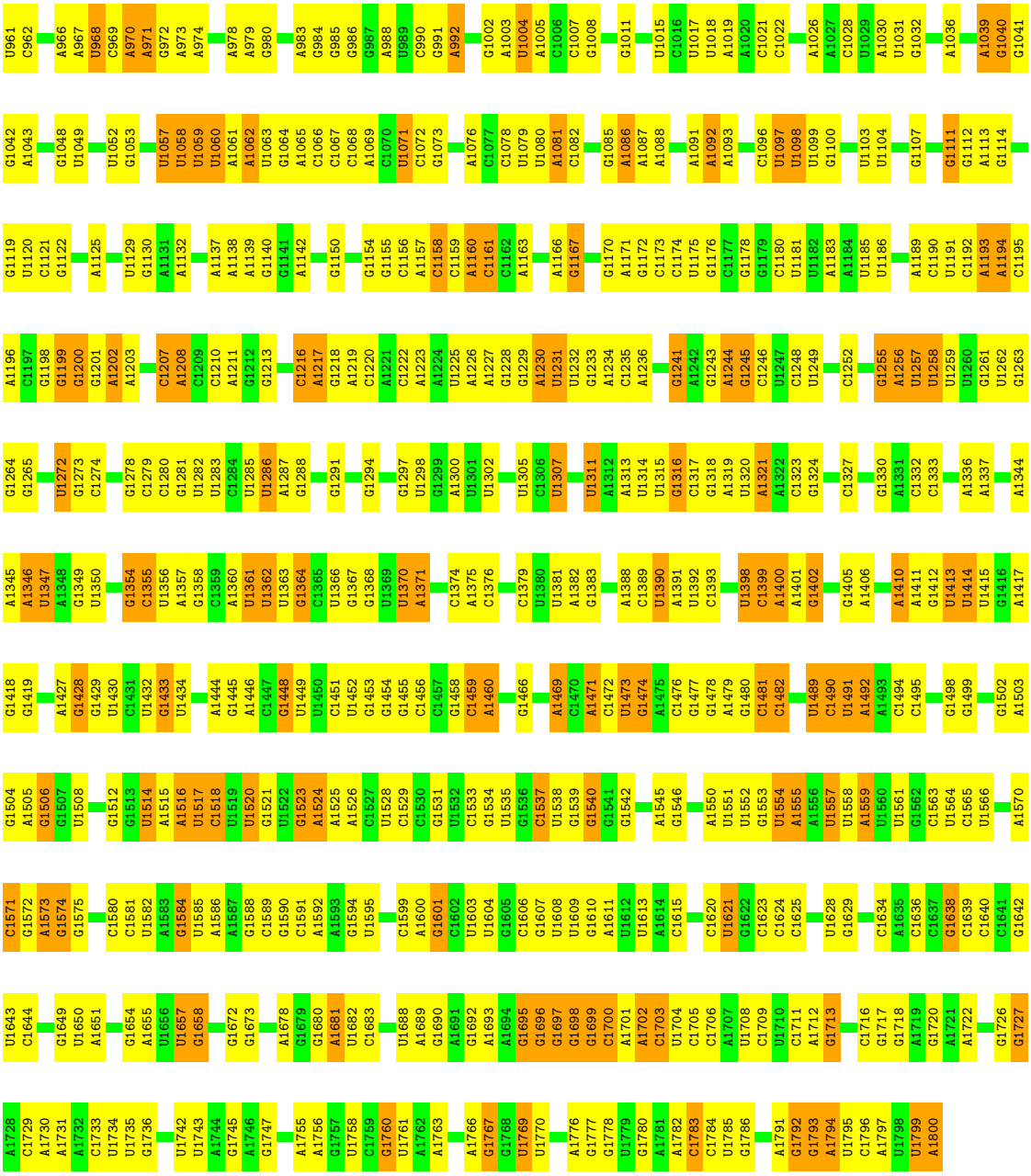


• Molecule 47: 18S ribosomal RNA

Chain sR:

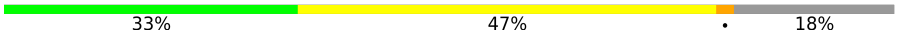


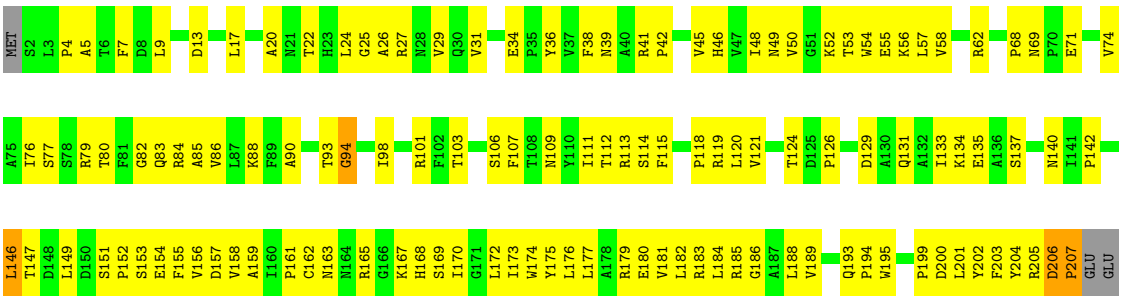


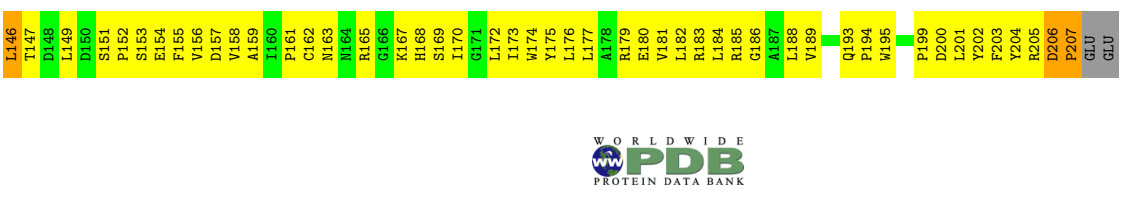


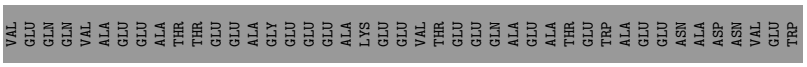
• Molecule 48: 40S ribosomal protein S0-A

Chain B:



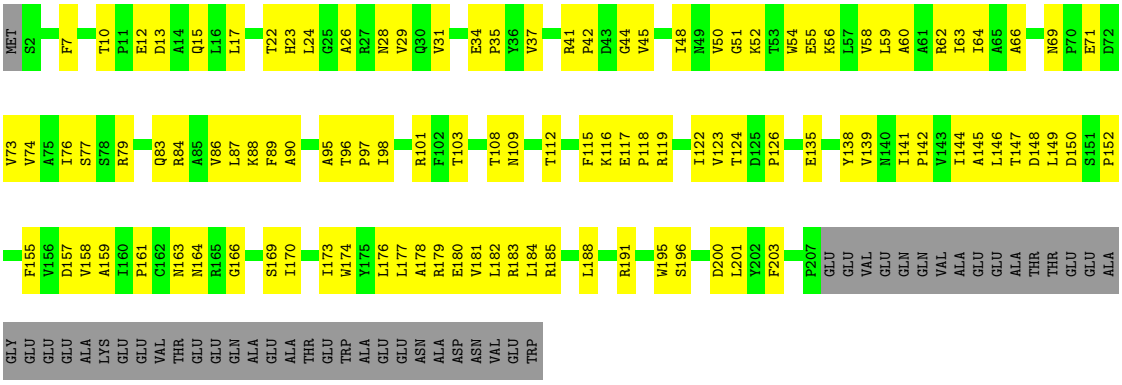






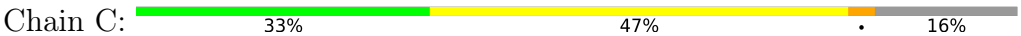
• Molecule 48: 40S ribosomal protein S0-A

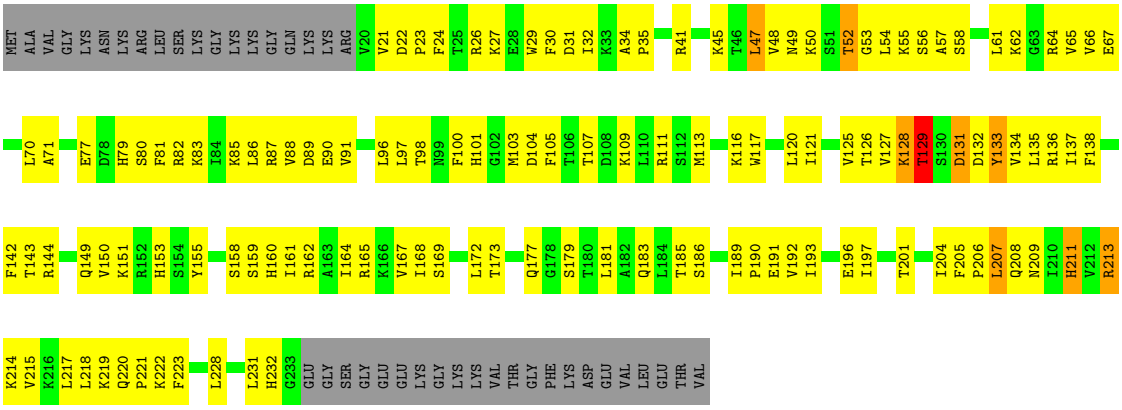
Chain s0:



• Molecule 49: 40S ribosomal protein S1-A

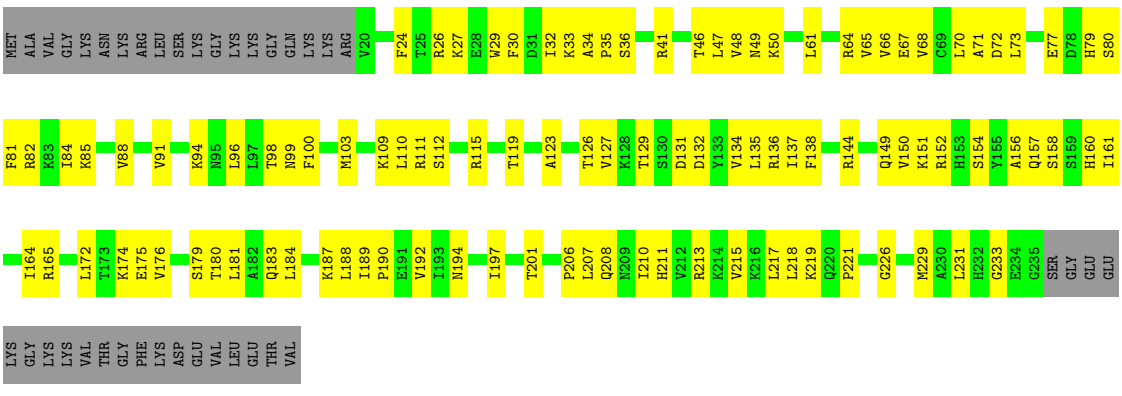
Chain C:





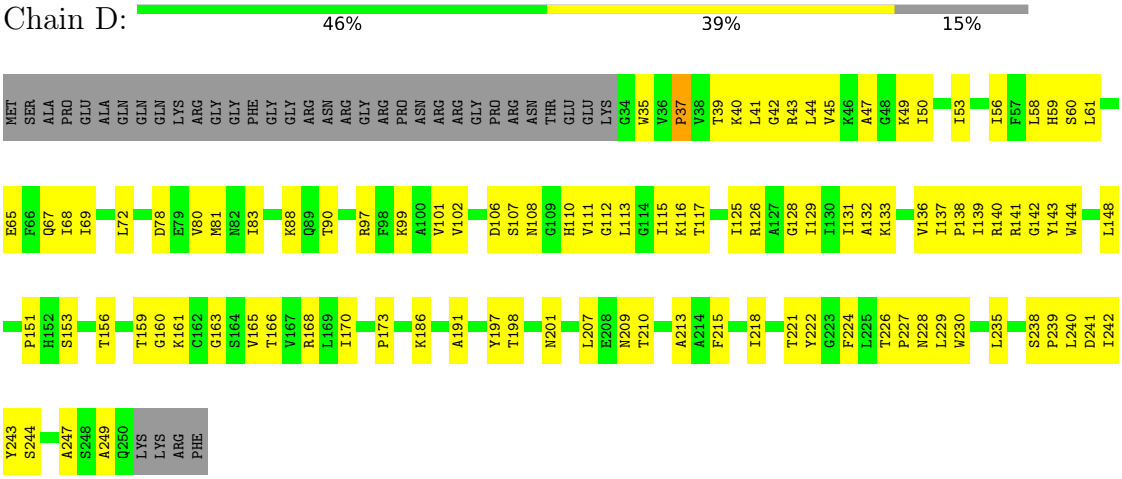
• Molecule 49: 40S ribosomal protein S1-A

Chain s1:



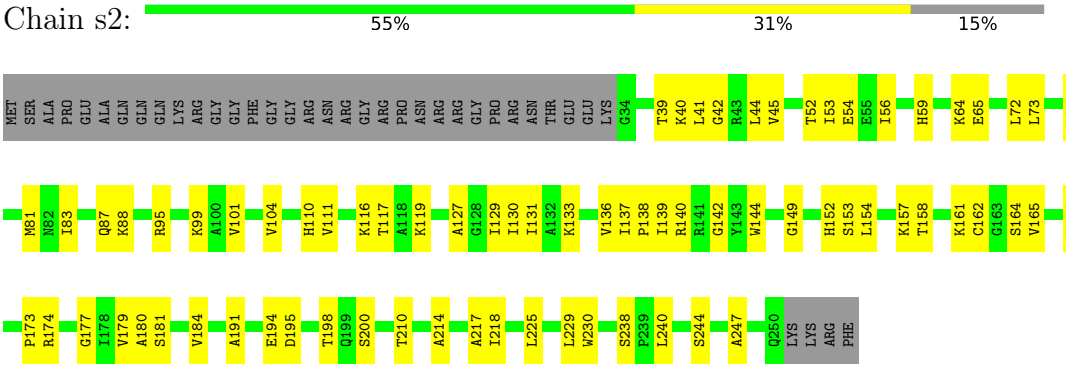
• Molecule 50: 40S ribosomal protein S2

Chain D:



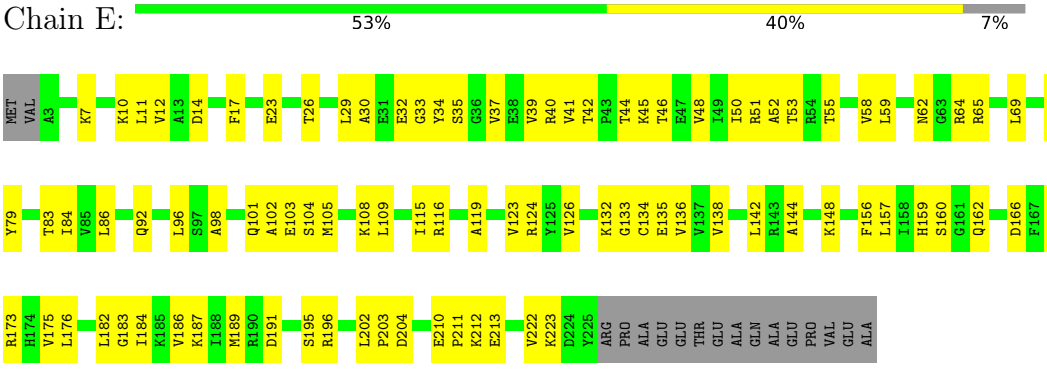
• Molecule 50: 40S ribosomal protein S2

Chain s2:



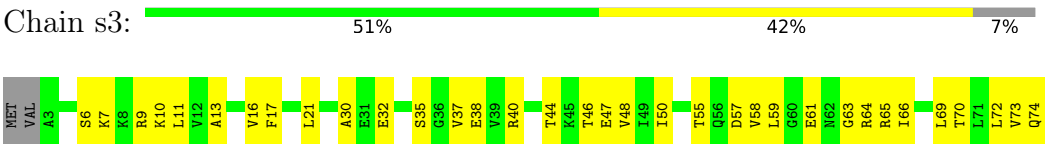
• Molecule 51: Small ribosomal subunit protein uS3

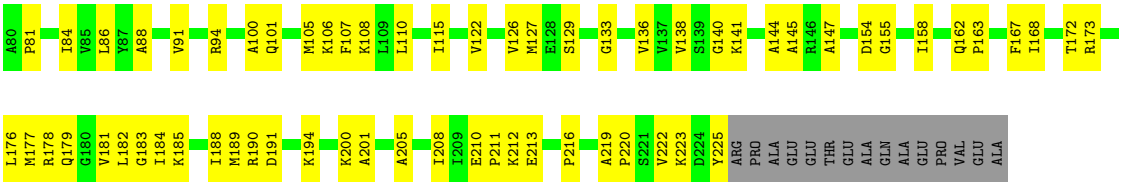
Chain E:



• Molecule 51: Small ribosomal subunit protein uS3

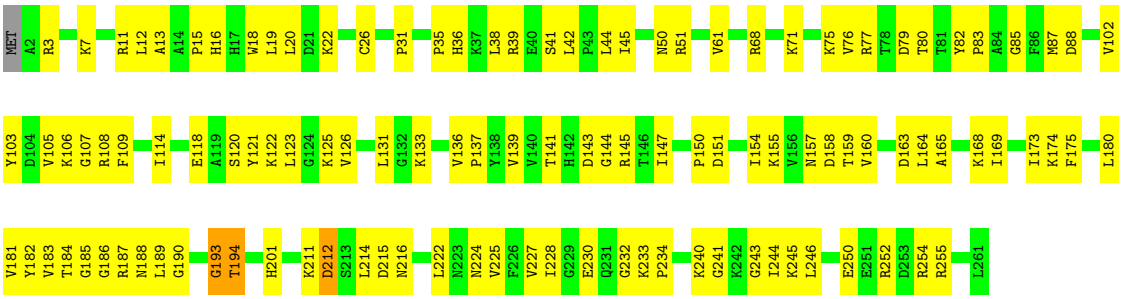
Chain s3:





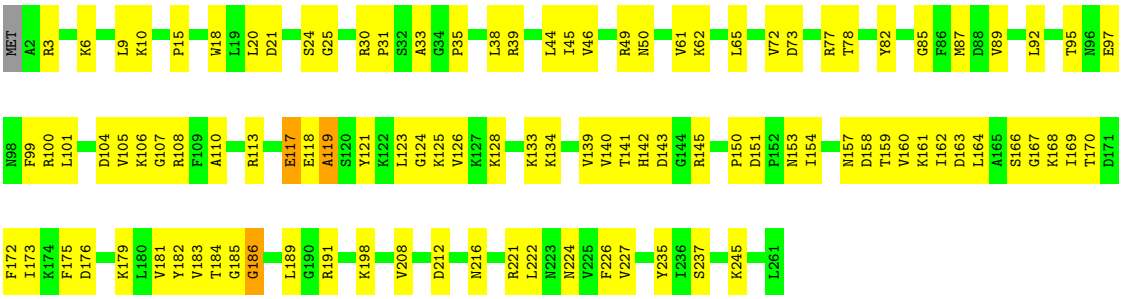
• Molecule 52: 40S ribosomal protein S4-A

Chain F:



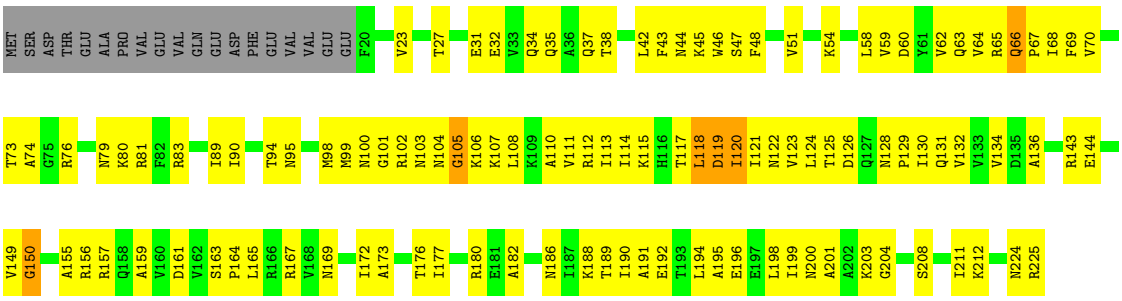
• Molecule 52: 40S ribosomal protein S4-A

Chain s4:



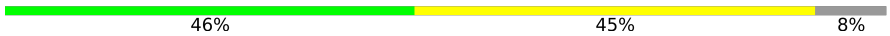
• Molecule 53: 40S ribosomal protein S5

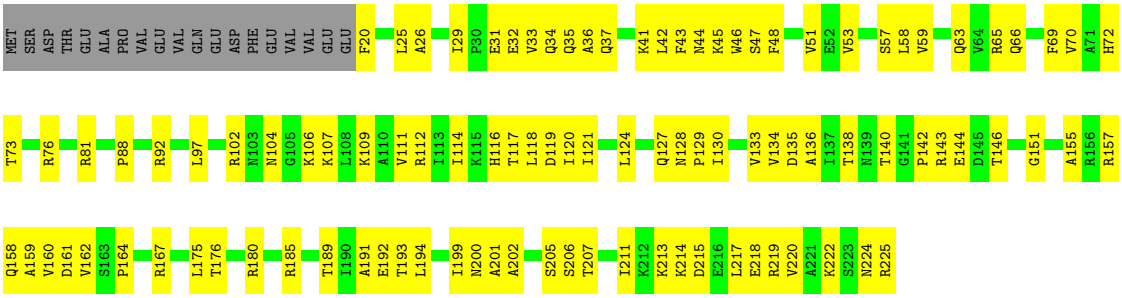
Chain G:



• Molecule 53: 40S ribosomal protein S5

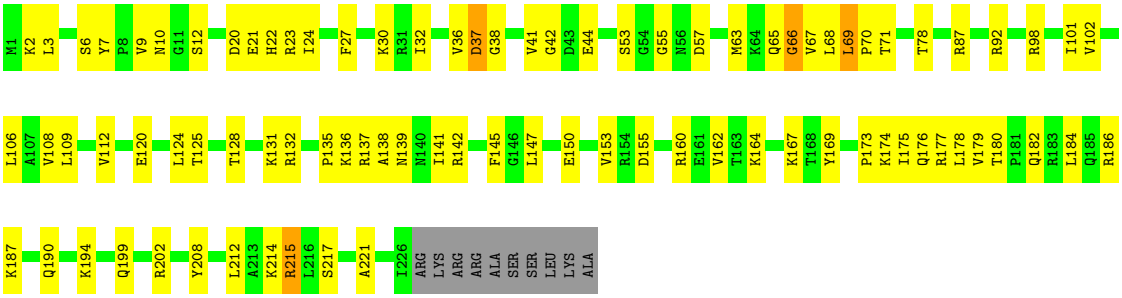
Chain s5:





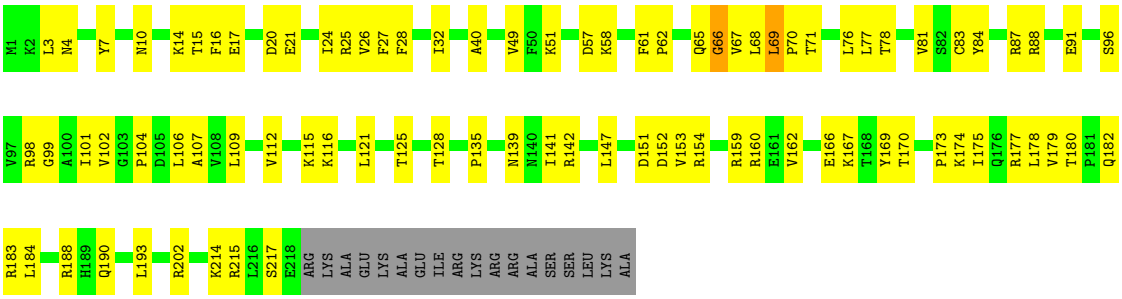
• Molecule 54: 40S ribosomal protein S6-A

Chain H:



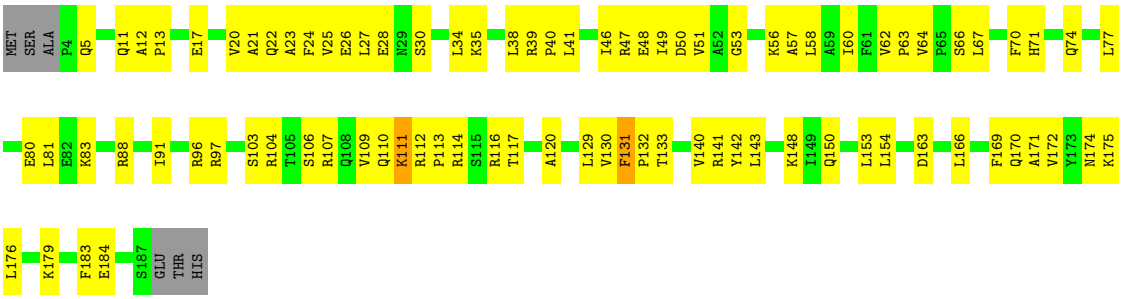
• Molecule 54: 40S ribosomal protein S6-A

Chain s6:



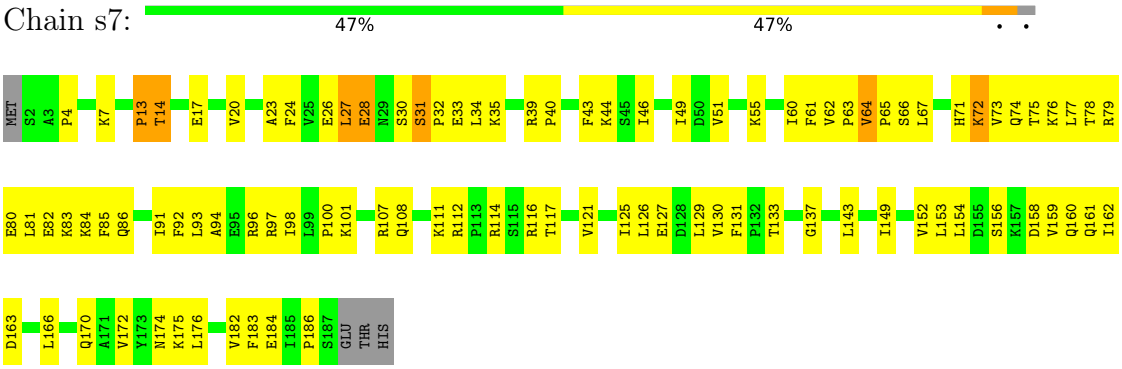
• Molecule 55: 40S ribosomal protein S7-A

Chain I:



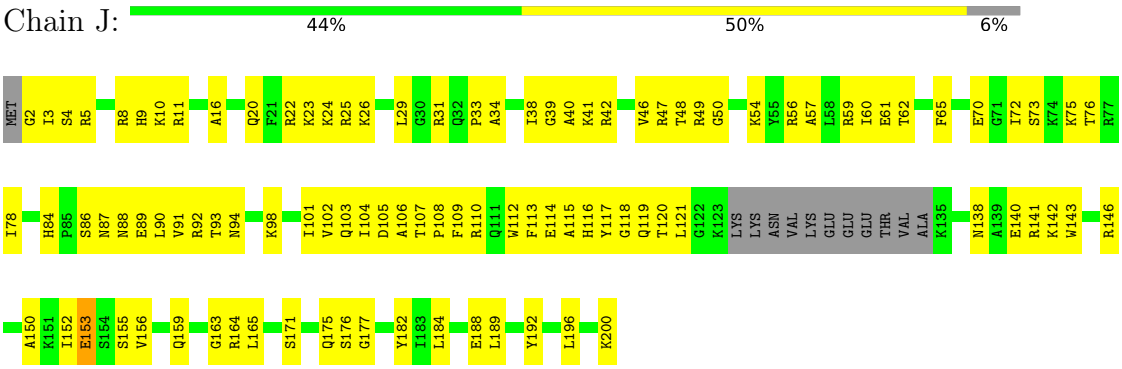
• Molecule 55: 40S ribosomal protein S7-A

Chain s7:



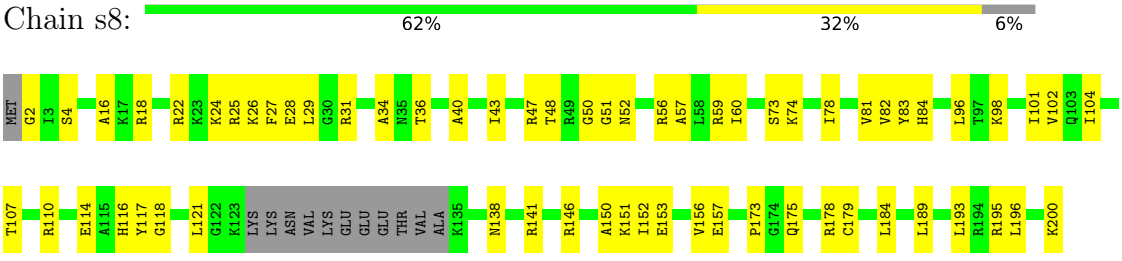
• Molecule 56: 40S ribosomal protein S8-A

Chain J:



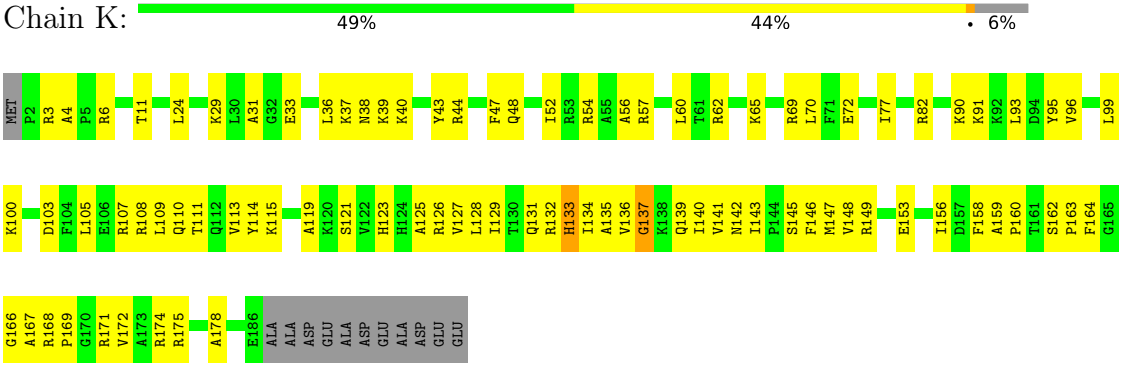
• Molecule 56: 40S ribosomal protein S8-A

Chain s8:



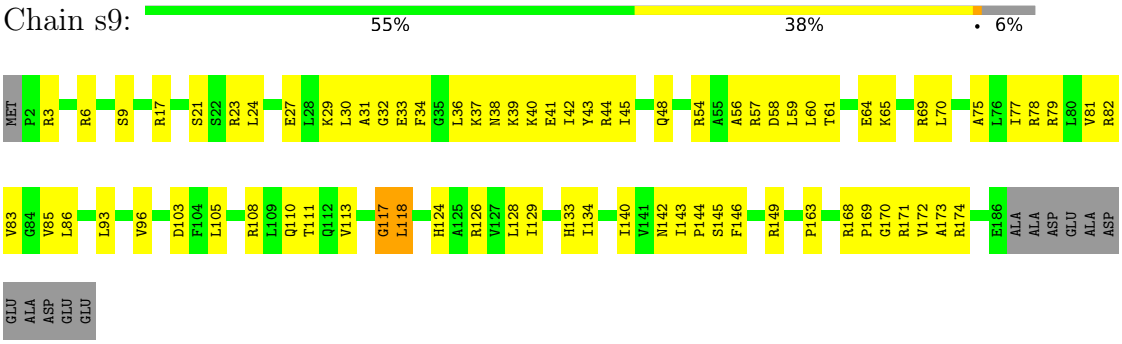
• Molecule 57: 40S ribosomal protein S9-A

Chain K:



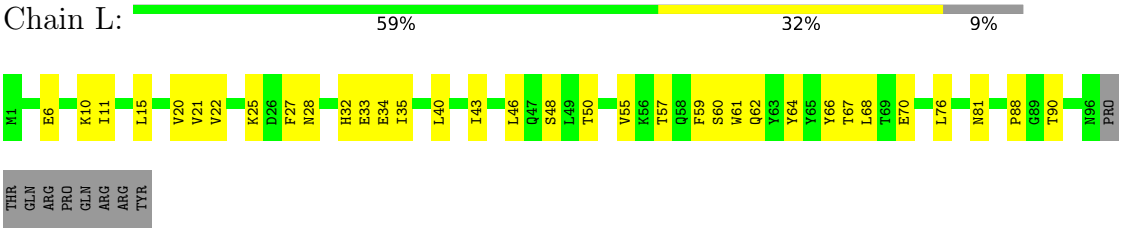
• Molecule 57: 40S ribosomal protein S9-A

Chain s9:



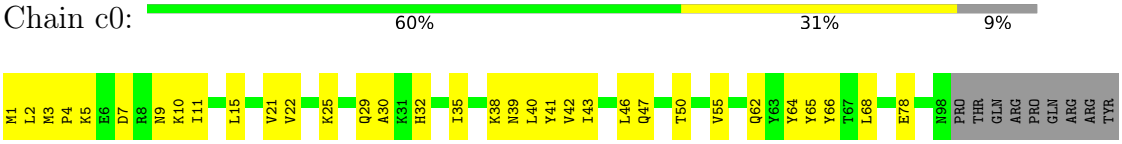
• Molecule 58: 40S ribosomal protein S10-A

Chain L:



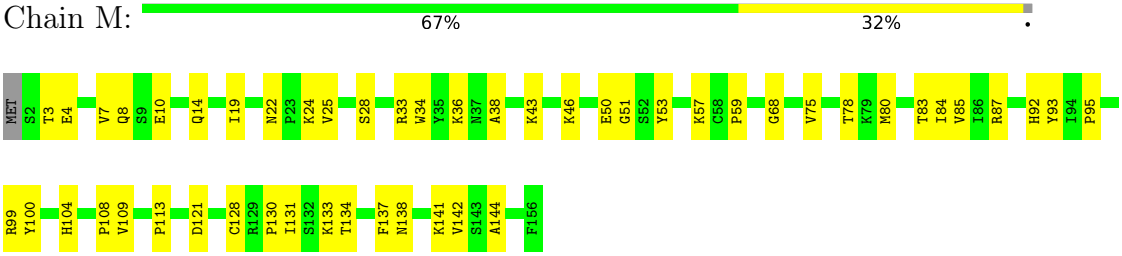
• Molecule 58: 40S ribosomal protein S10-A

Chain c0:



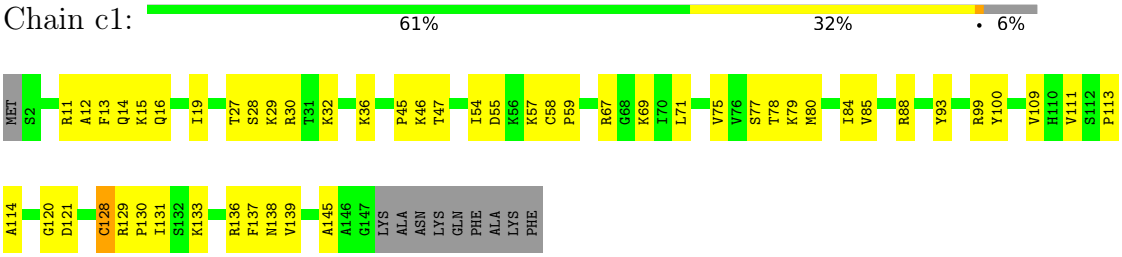
• Molecule 59: 40S ribosomal protein S11-A

Chain M:



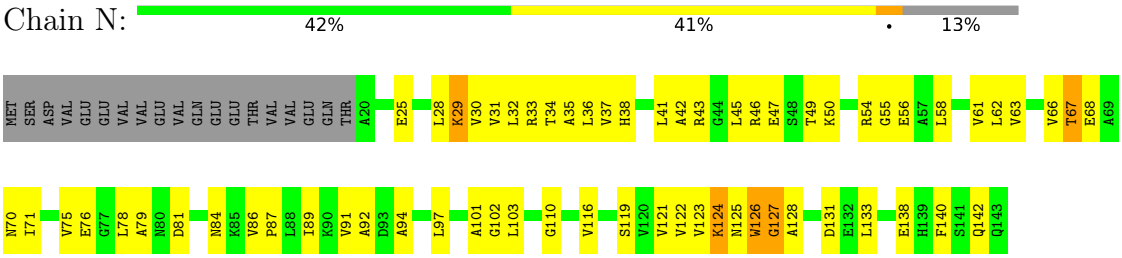
• Molecule 59: 40S ribosomal protein S11-A

Chain c1:



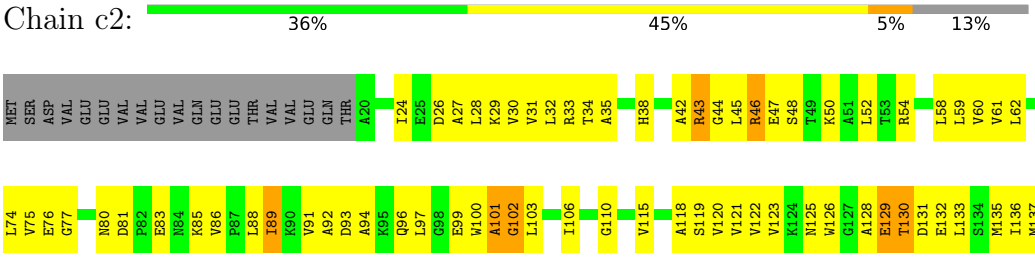
• Molecule 60: 40S ribosomal protein S12

Chain N:



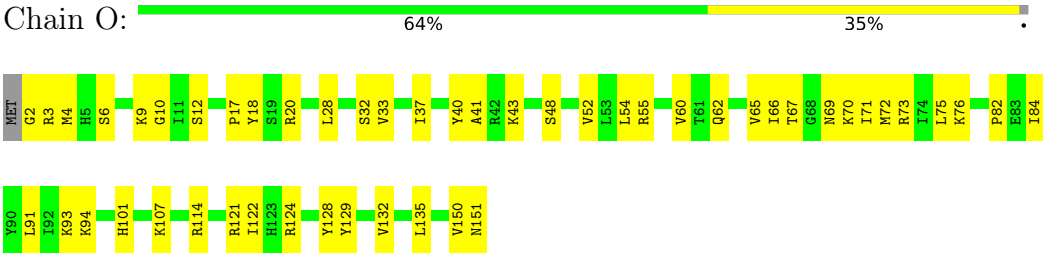
• Molecule 60: 40S ribosomal protein S12

Chain c2:



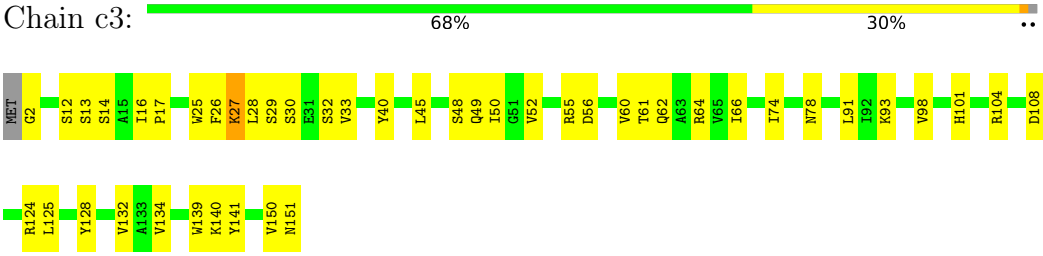
• Molecule 61: 40S ribosomal protein S13

Chain O:



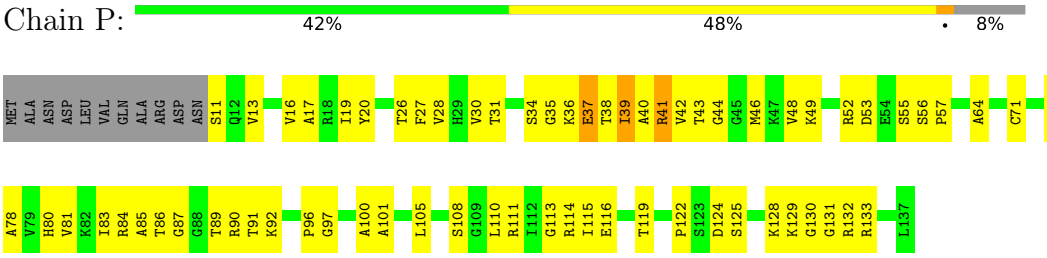
• Molecule 61: 40S ribosomal protein S13

Chain c3:



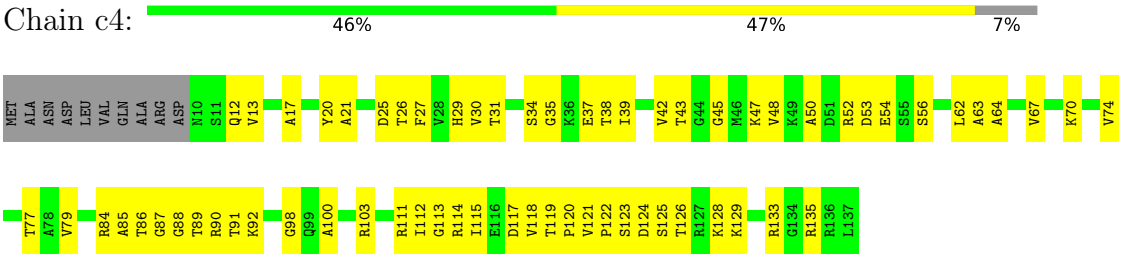
• Molecule 62: 40S ribosomal protein S14-B

Chain P:



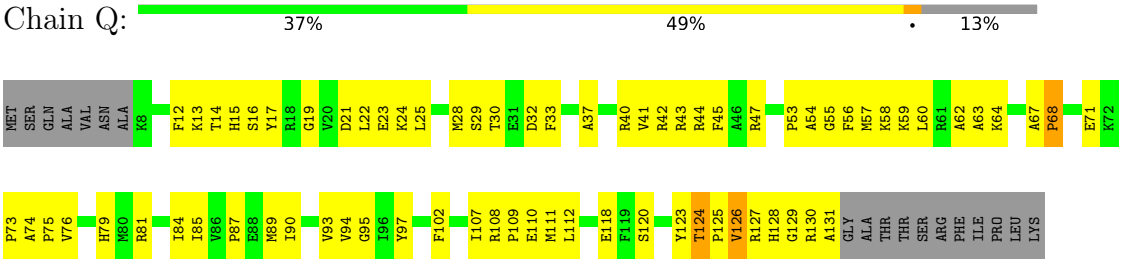
• Molecule 62: 40S ribosomal protein S14-B

Chain c4:



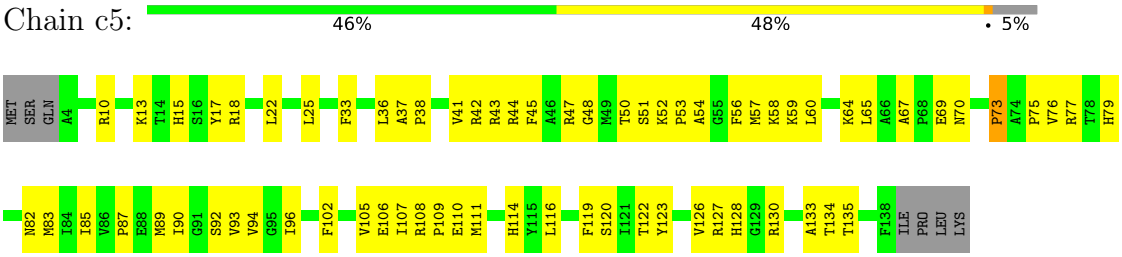
• Molecule 63: 40S ribosomal protein S15

Chain Q:



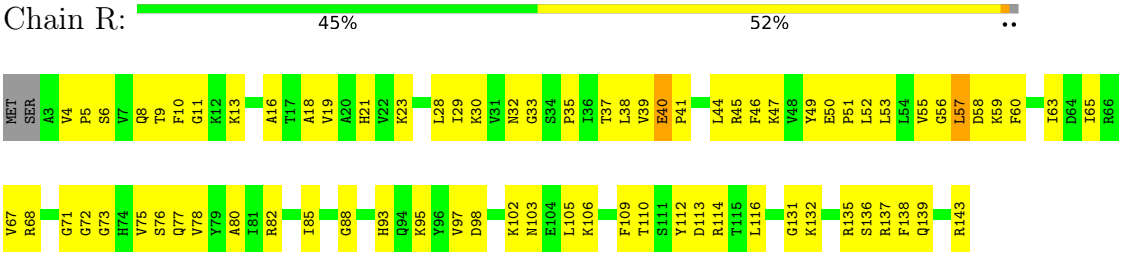
• Molecule 63: 40S ribosomal protein S15

Chain c5:



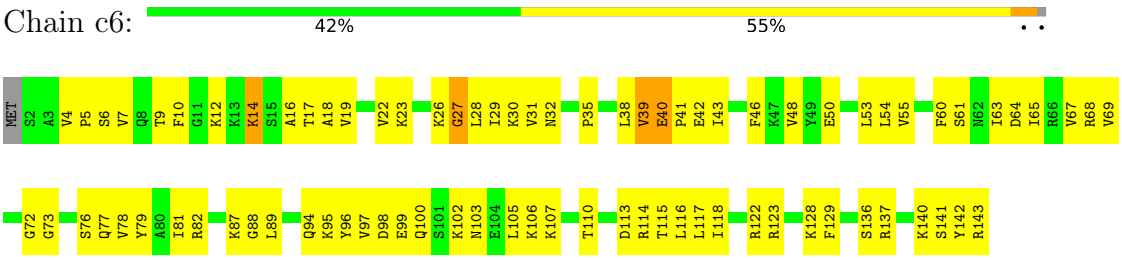
• Molecule 64: 40S ribosomal protein S16-A

Chain R:



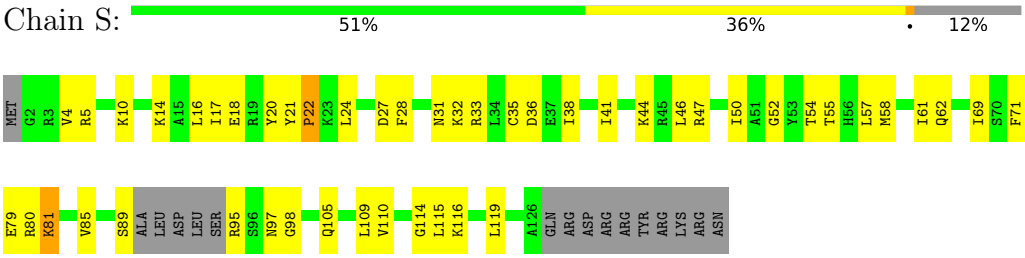
• Molecule 64: 40S ribosomal protein S16-A

Chain c6:



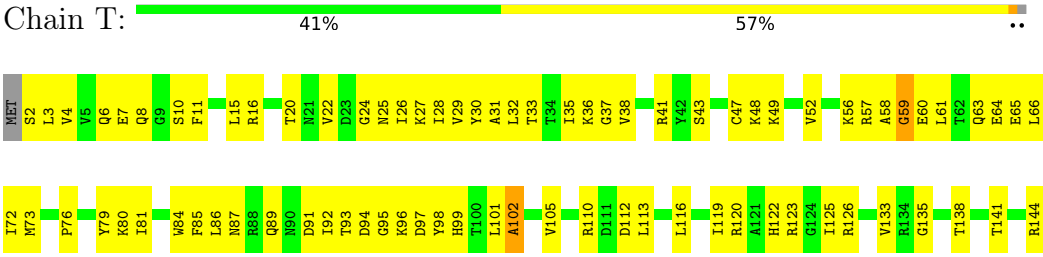
• Molecule 65: 40S ribosomal protein S17-B

Chain S:



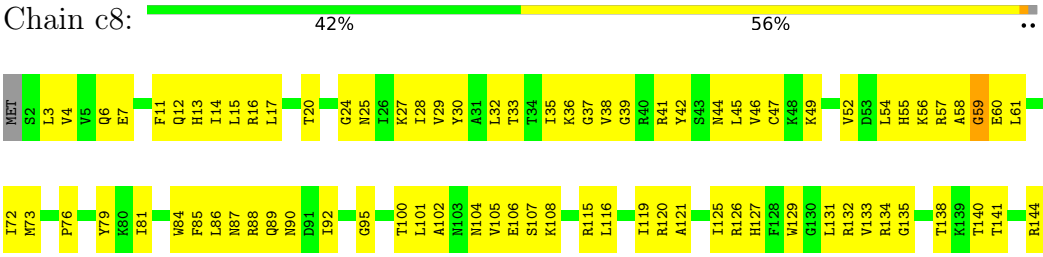
• Molecule 66: 40S ribosomal protein S18-A

Chain T:



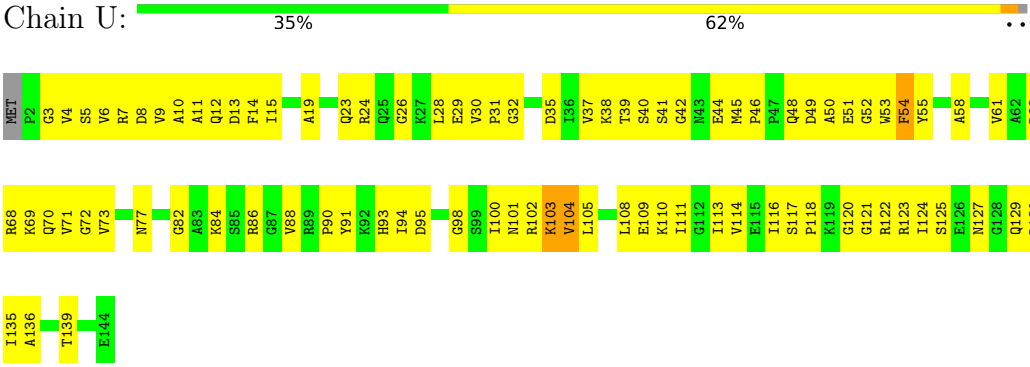
• Molecule 66: 40S ribosomal protein S18-A

Chain c8:



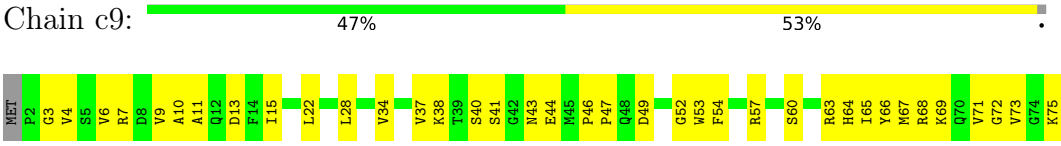
• Molecule 67: 40S ribosomal protein S19-A

Chain U:



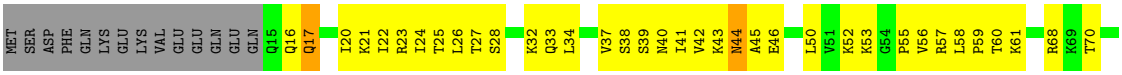
• Molecule 67: 40S ribosomal protein S19-A

Chain c9:



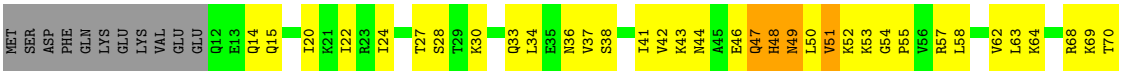
• Molecule 68: Small ribosomal subunit protein uS10

Chain V:



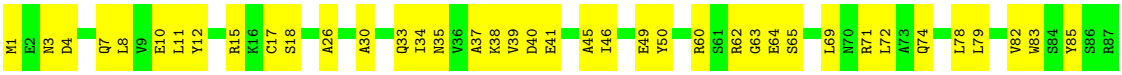
• Molecule 68: Small ribosomal subunit protein uS10

Chain d0:



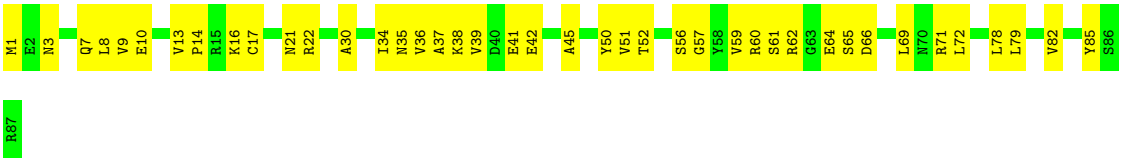
• Molecule 69: 40S ribosomal protein S21-A

Chain W:



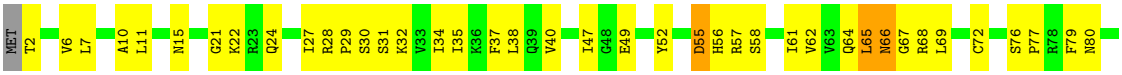
• Molecule 69: 40S ribosomal protein S21-A

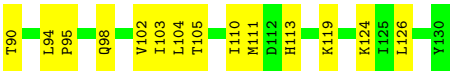
Chain d1:



• Molecule 70: 40S ribosomal protein S22-A

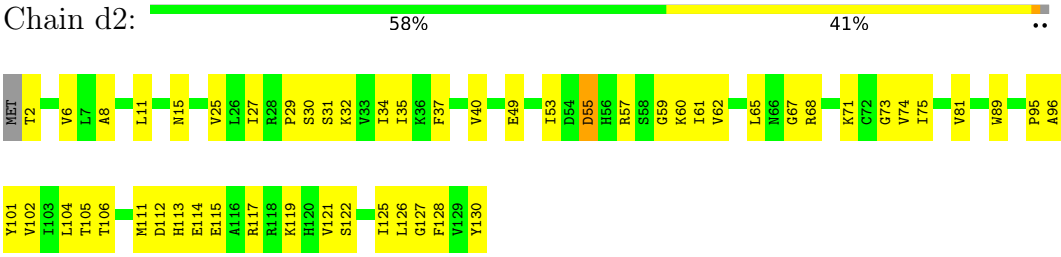
Chain X:





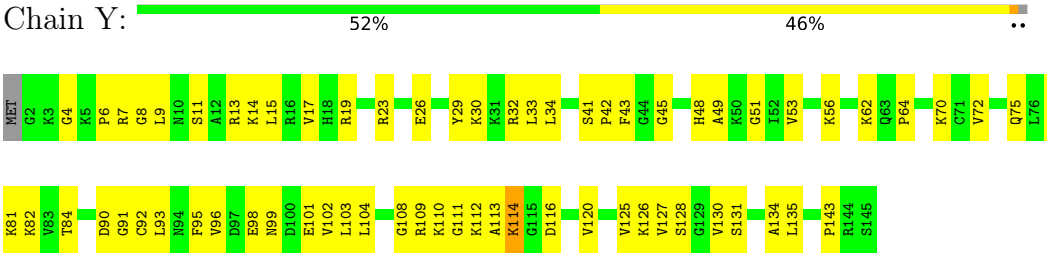
• Molecule 70: 40S ribosomal protein S22-A

Chain d2:



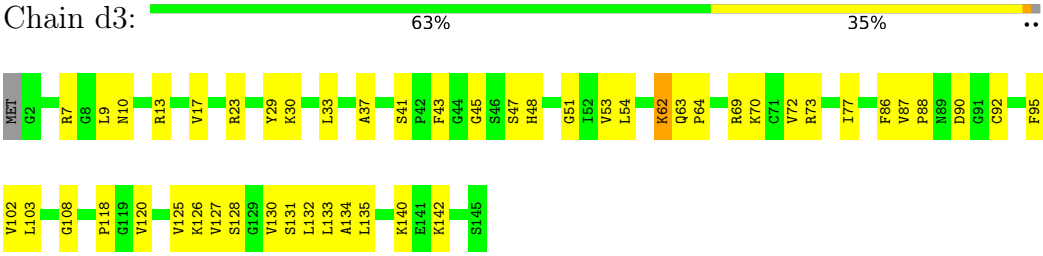
• Molecule 71: 40S ribosomal protein S23-A

Chain Y:



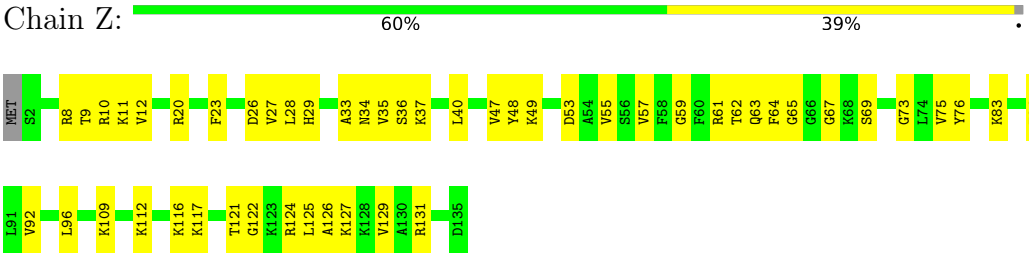
• Molecule 71: 40S ribosomal protein S23-A

Chain d3:



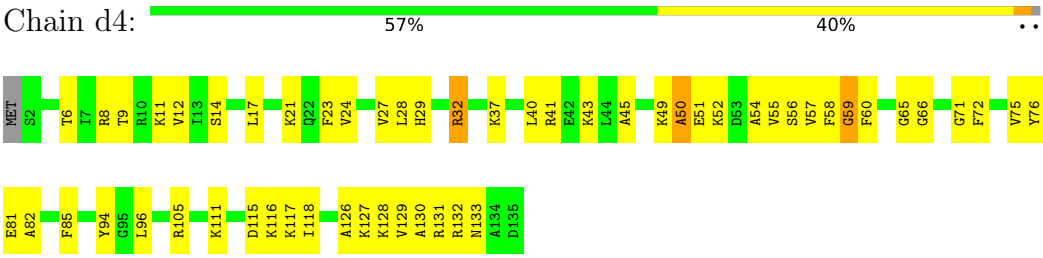
• Molecule 72: 40S ribosomal protein S24-A

Chain Z:



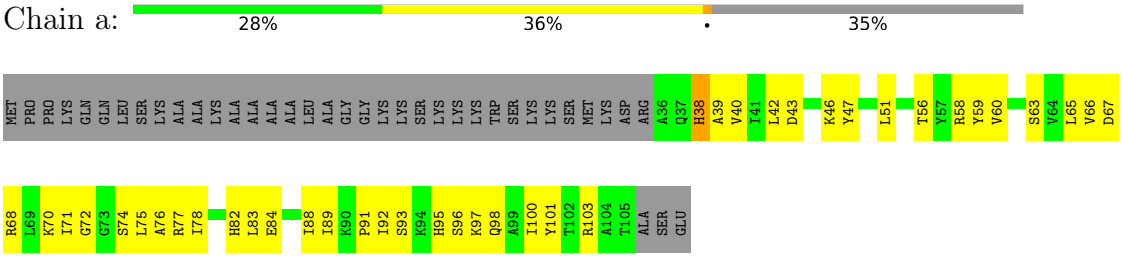
• Molecule 72: 40S ribosomal protein S24-A

Chain d4:



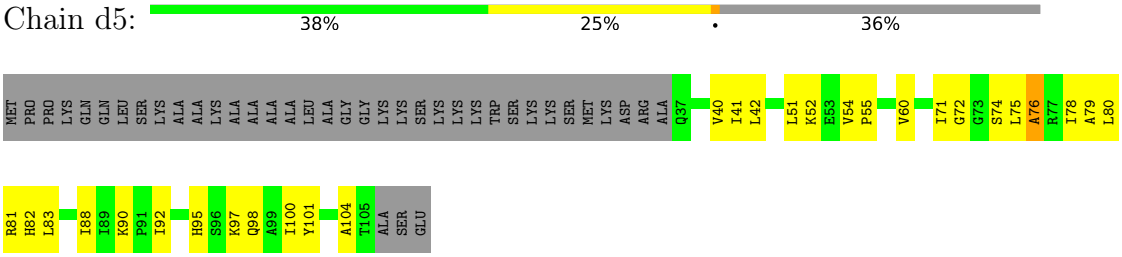
• Molecule 73: 40S ribosomal protein S25-A

Chain a:



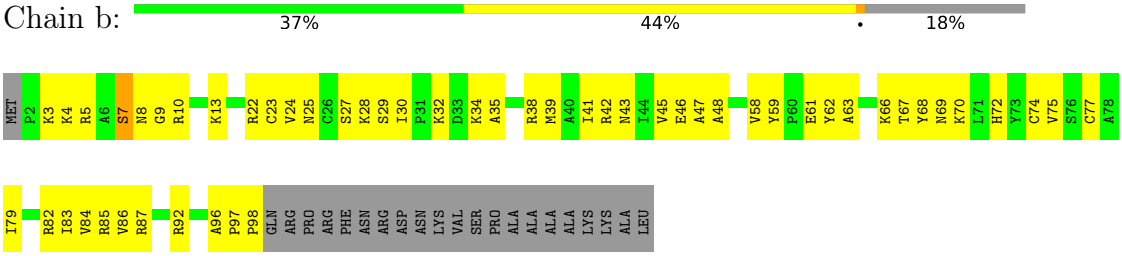
• Molecule 73: 40S ribosomal protein S25-A

Chain d5:



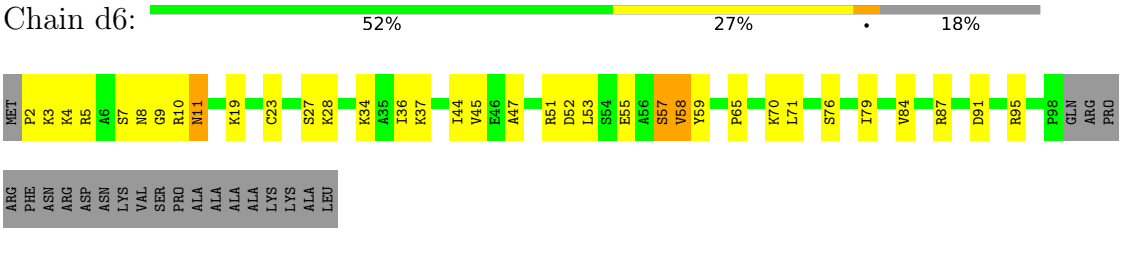
• Molecule 74: Small ribosomal subunit protein eS26B

Chain b:



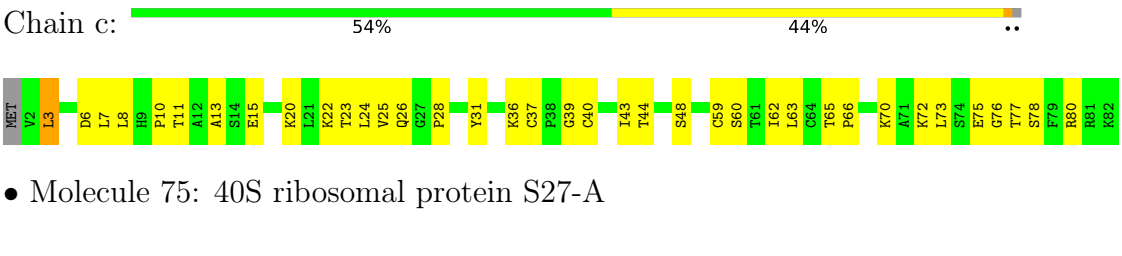
• Molecule 74: Small ribosomal subunit protein eS26B

Chain d6:



• Molecule 75: 40S ribosomal protein S27-A

Chain c:



• Molecule 75: 40S ribosomal protein S27-A

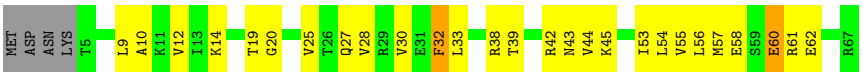
Chain d7:

• Molecule 76: 40S ribosomal protein S28-A

Chain d:

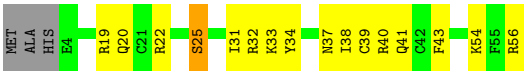
• Molecule 76: 40S ribosomal protein S28-A

Chain d8:



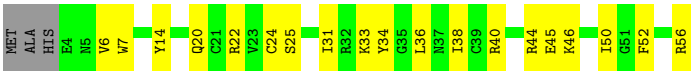
• Molecule 77: Small ribosomal subunit protein uS14A

Chain e:



• Molecule 77: Small ribosomal subunit protein uS14A

Chain d9:

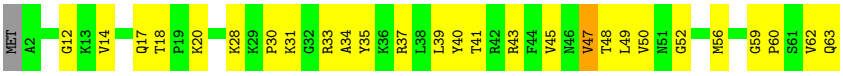


• Molecule 78: 40S ribosomal protein S30-A

Chain f:

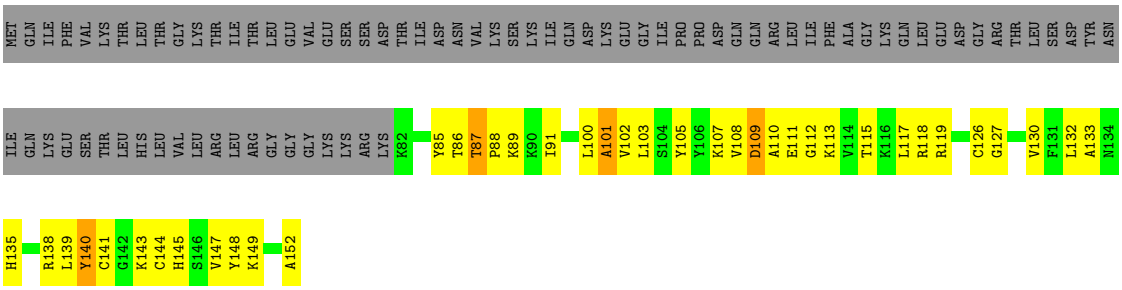
• Molecule 78: 40S ribosomal protein S30-A

Chain e0:



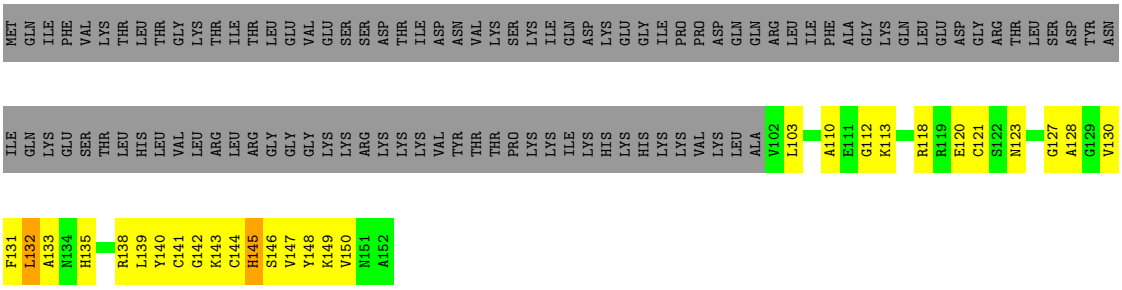
• Molecule 79: Ubiquitin

Chain g:



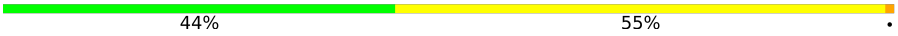
• Molecule 79: Ubiquitin

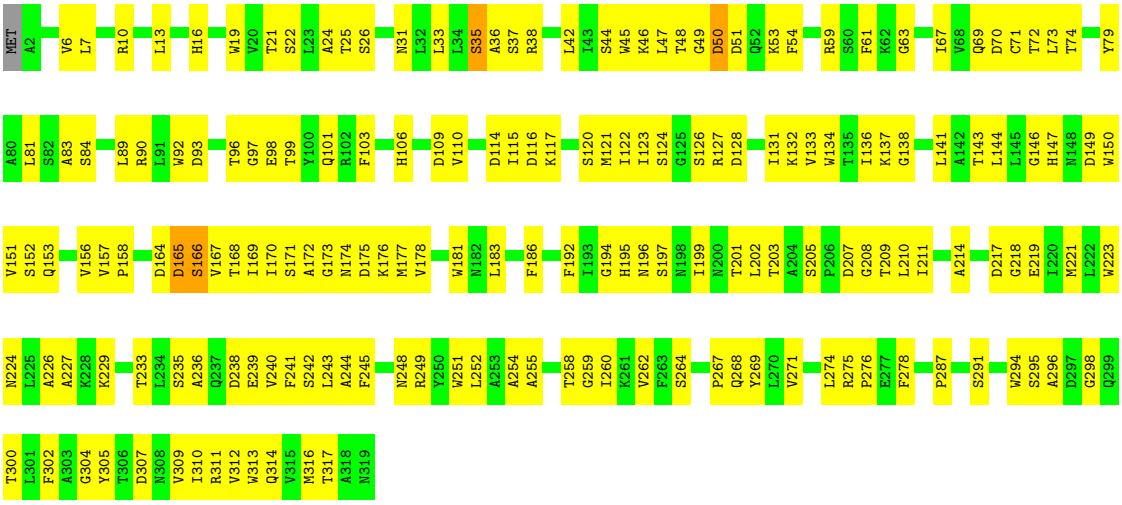
Chain e1:



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

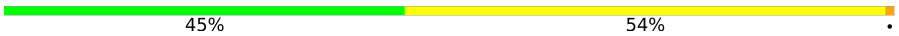
Chain h:

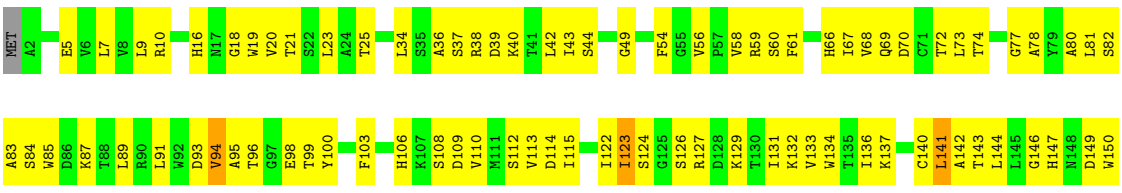


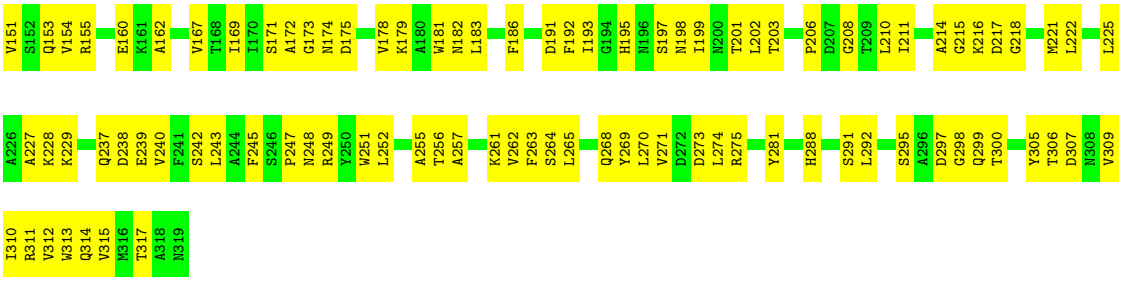


• Molecule 80: Guanine nucleotide-binding protein subunit beta-like protein

Chain Rb:

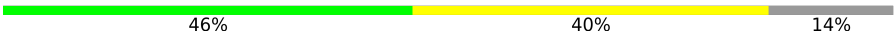


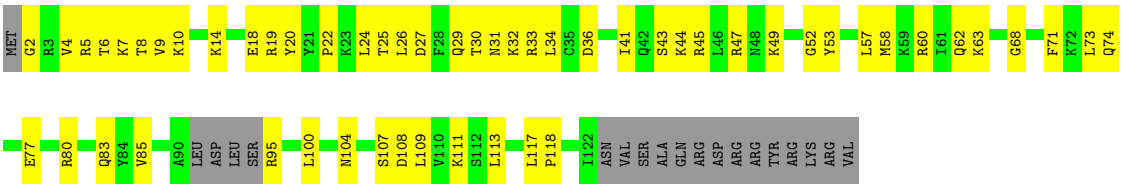




• Molecule 81: 40S ribosomal protein S17-A

Chain c7:





4 Data and refinement statistics (i)

EDS failed to run properly - this section is therefore incomplete.

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	302.58Å 285.05Å 433.72Å 90.00° 98.89° 90.00°	Depositor
Resolution (Å)	206.30 – 3.16	Depositor
% Data completeness (in resolution range)	98.1 (206.30-3.16)	Depositor
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.52 (at 3.13Å)	Xtriage
Refinement program	PHENIX 1.20.1_4487, PHENIX 1.20.1_4487	Depositor
R, R_{free}	0.223 , 0.251	Depositor
Wilson B-factor (Å^2)	72.9	Xtriage
Anisotropy	0.178	Xtriage
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	409267	wwPDB-VP
Average B, all atoms (Å^2)	103.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.46% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: K, SPD, X1K, MG, ZN, OHX, OS

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	0.13	0/75394	0.36	0/117545
1	AR	0.13	0/75347	0.35	0/117472
2	3	0.13	0/2883	0.32	0/4491
2	AS	0.12	0/2883	0.33	0/4491
3	4	0.12	0/3746	0.33	0/5832
3	AT	0.12	0/3746	0.32	0/5832
4	CD	0.20	0/1948	0.70	1/2617 (0.0%)
4	j	0.17	0/1948	0.68	0/2617
5	CE	0.19	0/3146	0.69	2/4228 (0.0%)
5	k	0.20	0/3146	0.72	5/4228 (0.1%)
6	CF	0.19	0/2800	0.70	3/3790 (0.1%)
6	l	0.20	0/2800	0.73	4/3790 (0.1%)
7	CG	0.20	0/2425	0.76	2/3271 (0.1%)
7	m	0.19	0/2425	0.75	1/3271 (0.0%)
8	CH	0.17	0/1260	0.64	2/1694 (0.1%)
8	n	0.16	0/1260	0.63	0/1694
9	CI	0.17	0/1821	0.69	6/2451 (0.2%)
9	o	0.18	0/1821	0.81	6/2451 (0.2%)
10	CJ	0.21	0/1836	0.79	9/2481 (0.4%)
10	p	0.20	0/1836	0.78	9/2481 (0.4%)
11	CK	0.19	0/1539	0.69	0/2073
11	q	0.19	0/1539	0.70	1/2073 (0.0%)
12	CL	0.20	0/1741	0.69	0/2335
12	r	0.19	0/1741	0.63	2/2335 (0.1%)
13	CM	0.21	0/1374	0.74	2/1842 (0.1%)
13	s	0.23	0/1374	0.83	3/1842 (0.2%)
14	CN	0.24	0/1568	0.89	10/2106 (0.5%)
14	t	0.23	0/1568	0.85	9/2106 (0.4%)
15	CO	0.20	0/1068	0.60	0/1438
15	u	0.20	0/1068	0.62	0/1438
16	CP	0.17	0/1757	0.57	0/2354
16	v	0.17	0/1757	0.60	0/2354

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	CQ	0.17	0/1585	0.62	0/2128
17	w	0.16	0/1585	0.59	0/2128
18	CR	0.23	0/1443	0.73	0/1944
18	x	0.17	0/1443	0.66	0/1944
19	CS	0.18	0/1465	0.70	2/1965 (0.1%)
19	y	0.18	0/1465	0.64	2/1965 (0.1%)
20	CT	0.19	0/1538	0.75	0/2050
20	z	0.16	0/1538	0.67	1/2050 (0.0%)
21	0	0.22	0/1481	0.71	0/1990
21	CU	0.18	0/1481	0.66	0/1990
22	2	0.23	0/1300	0.67	1/1743 (0.1%)
22	CV	0.19	0/1300	0.72	2/1743 (0.1%)
23	5	0.19	0/812	0.73	0/1099
23	CW	0.23	0/812	0.80	0/1099
24	6	0.18	0/1018	0.66	0/1369
24	CX	0.17	0/1018	0.60	0/1369
25	7	0.20	0/712	0.84	3/958 (0.3%)
25	CY	0.19	0/848	0.73	4/1146 (0.3%)
26	8	0.15	0/979	0.70	0/1321
26	CZ	0.18	0/979	0.64	0/1321
27	9	0.18	0/1004	0.64	0/1341
27	DA	0.18	0/987	0.61	0/1318
28	AA	0.25	0/1118	0.91	3/1497 (0.2%)
28	DB	0.21	0/1113	0.81	5/1491 (0.3%)
29	AB	0.25	0/1204	1.07	12/1612 (0.7%)
29	DC	0.24	0/1204	0.91	10/1612 (0.6%)
30	AC	0.17	0/473	0.68	0/629
30	DD	0.19	0/473	0.78	0/629
31	AD	0.17	0/751	0.54	0/1008
31	DE	0.17	0/751	0.61	0/1008
32	AE	0.17	0/890	0.63	0/1196
32	DF	0.17	0/890	0.66	0/1196
33	AF	0.15	0/1041	0.67	2/1394 (0.1%)
33	DG	0.15	0/1041	0.61	2/1394 (0.1%)
34	AG	0.20	0/868	0.75	0/1168
34	DH	0.22	0/868	0.79	1/1168 (0.1%)
35	AH	0.22	0/890	0.75	1/1189 (0.1%)
35	DI	0.32	0/890	0.87	2/1189 (0.2%)
36	AI	0.21	0/978	0.86	9/1301 (0.7%)
36	DJ	0.17	0/978	0.64	0/1301
37	AJ	0.19	0/778	0.62	0/1034
37	DK	0.18	0/778	0.69	0/1034
38	AK	0.19	0/696	0.67	0/923

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	DL	0.16	0/696	0.59	0/923
39	AL	0.22	0/618	0.73	2/826 (0.2%)
39	DM	0.22	0/618	0.97	5/826 (0.6%)
40	AM	0.18	0/443	0.72	0/588
40	DN	0.18	0/443	0.70	0/588
41	AN	0.20	0/423	0.56	0/562
41	DO	0.21	0/423	0.59	0/562
42	AO	0.16	0/234	0.79	0/300
42	DP	0.19	0/234	0.70	0/300
43	AP	0.57	0/860	1.03	4/1136 (0.4%)
43	DQ	0.55	0/860	0.99	1/1136 (0.1%)
44	AQ	0.16	0/701	0.79	1/934 (0.1%)
44	DR	0.18	0/701	0.75	1/934 (0.1%)
45	i	0.24	0/1113	0.76	0/1502
45	sM	0.39	1/480 (0.2%)	1.06	3/642 (0.5%)
46	p0	0.19	0/1091	0.85	0/1472
47	A	0.14	0/42443	0.38	0/66134
47	sR	0.14	0/42490	0.37	0/66207
48	B	0.26	0/1617	1.04	7/2215 (0.3%)
48	s0	0.22	0/1623	0.84	3/2222 (0.1%)
49	C	0.30	0/1735	1.24	20/2335 (0.9%)
49	s1	0.18	0/1748	0.71	0/2352
50	D	0.22	0/1665	0.76	4/2263 (0.2%)
50	s2	0.20	0/1665	0.75	3/2263 (0.1%)
51	E	0.20	0/1759	0.78	1/2368 (0.0%)
51	s3	0.23	0/1759	0.91	3/2368 (0.1%)
52	F	0.29	0/2109	0.86	6/2839 (0.2%)
52	s4	0.21	0/2109	0.79	5/2839 (0.2%)
53	G	0.26	0/1629	1.06	9/2202 (0.4%)
53	s5	0.20	0/1629	0.80	0/2202
54	H	0.22	0/1823	0.94	6/2439 (0.2%)
54	s6	0.19	0/1779	0.77	3/2379 (0.1%)
55	I	0.26	0/1506	0.96	4/2028 (0.2%)
55	s7	0.26	0/1516	0.94	11/2043 (0.5%)
56	J	0.20	0/1514	0.91	5/2021 (0.2%)
56	s8	0.16	0/1514	0.70	1/2021 (0.0%)
57	K	0.23	0/1519	0.89	6/2035 (0.3%)
57	s9	0.20	0/1519	0.78	2/2035 (0.1%)
58	L	0.22	0/789	0.87	2/1067 (0.2%)
58	c0	0.26	0/776	0.98	3/1047 (0.3%)
59	M	0.19	0/1239	0.74	2/1673 (0.1%)
59	c1	0.20	0/1194	0.77	2/1610 (0.1%)
60	N	0.31	0/898	1.31	13/1220 (1.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
60	c2	0.33	0/898	1.63	20/1220 (1.6%)
61	O	0.16	0/1215	0.58	0/1638
61	c3	0.19	0/1215	0.68	2/1638 (0.1%)
62	P	0.56	3/896 (0.3%)	1.24	10/1210 (0.8%)
62	c4	0.19	0/960	0.88	0/1290
63	Q	0.26	0/998	0.98	7/1341 (0.5%)
63	c5	0.24	0/1060	0.94	1/1426 (0.1%)
64	R	0.23	0/1125	0.84	3/1510 (0.2%)
64	c6	0.20	0/1131	0.93	6/1518 (0.4%)
65	S	0.27	0/935	0.91	5/1254 (0.4%)
66	T	0.23	0/1211	0.95	6/1628 (0.4%)
66	c8	0.25	0/1211	1.02	5/1628 (0.3%)
67	U	0.25	0/1130	0.95	6/1517 (0.4%)
67	c9	0.17	0/1130	0.64	0/1517
68	V	0.30	0/865	1.09	6/1169 (0.5%)
68	d0	0.23	0/892	1.05	10/1205 (0.8%)
69	W	0.20	0/693	0.87	2/935 (0.2%)
69	d1	0.20	0/693	0.91	3/935 (0.3%)
70	X	0.22	0/1038	0.92	6/1395 (0.4%)
70	d2	0.19	0/1038	0.72	1/1395 (0.1%)
71	Y	0.23	0/1139	0.97	5/1518 (0.3%)
71	d3	0.19	0/1139	0.75	2/1518 (0.1%)
72	Z	0.19	0/1087	0.78	0/1449
72	d4	0.25	0/1087	1.08	7/1449 (0.5%)
73	a	0.25	0/571	1.01	1/768 (0.1%)
73	d5	0.21	0/566	0.84	1/761 (0.1%)
74	b	0.27	0/782	0.98	2/1047 (0.2%)
74	d6	0.23	0/782	1.08	8/1047 (0.8%)
75	c	0.22	0/620	0.90	1/838 (0.1%)
75	d7	0.20	0/620	0.95	2/838 (0.2%)
76	d	0.20	0/499	1.29	5/670 (0.7%)
76	d8	0.29	0/499	1.10	4/670 (0.6%)
77	d9	0.18	0/452	0.74	0/600
77	e	0.18	0/452	0.71	0/600
78	e0	0.21	0/499	0.96	1/665 (0.2%)
78	f	0.19	0/483	0.79	0/643
79	e1	0.39	0/404	1.26	1/542 (0.2%)
79	g	0.36	0/577	1.36	8/770 (1.0%)
80	Rb	0.25	0/2495	0.96	12/3395 (0.4%)
80	h	0.22	0/2490	0.87	6/3389 (0.2%)
81	c7	0.18	0/914	0.80	2/1224 (0.2%)
All	All	0.18	4/430026 (0.0%)	0.58	444/631405 (0.1%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
15	u	0	1
49	C	0	1
All	All	0	2

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	P	38	THR	C-N	6.99	1.43	1.33
45	sM	38	PRO	CA-C	-6.50	1.48	1.51
62	P	40	ALA	CA-CB	5.51	1.62	1.53
62	P	39	ILE	CA-C	-5.01	1.46	1.52

All (444) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	G	120	ILE	CA-C-N	18.25	154.54	121.70
53	G	120	ILE	C-N-CA	18.25	154.54	121.70
49	C	129	THR	CA-C-N	16.98	153.97	121.54
49	C	129	THR	C-N-CA	16.98	153.97	121.54
72	d4	32	ARG	CA-C-N	16.86	152.05	121.70
72	d4	32	ARG	C-N-CA	16.86	152.05	121.70
76	d	39	THR	CA-C-N	16.41	151.23	121.70
76	d	39	THR	C-N-CA	16.41	151.23	121.70
60	c2	44	GLY	CA-C-N	13.52	147.37	121.54
60	c2	44	GLY	C-N-CA	13.52	147.37	121.54
62	P	38	THR	CA-C-N	12.74	144.91	121.97
62	P	38	THR	C-N-CA	12.74	144.91	121.97
10	CJ	119	GLY	CA-C-N	11.68	143.84	121.54
10	CJ	119	GLY	C-N-CA	11.68	143.84	121.54
9	o	156	ILE	CA-C-N	11.48	143.46	121.54
9	o	156	ILE	C-N-CA	11.48	143.46	121.54
60	c2	24	ILE	CA-C-N	11.39	143.29	121.54
60	c2	24	ILE	C-N-CA	11.39	143.29	121.54
66	c8	101	LEU	CA-C-N	11.31	143.14	121.54
66	c8	101	LEU	C-N-CA	11.31	143.14	121.54
5	k	140	ASP	CA-C-N	11.22	143.39	121.41
5	k	140	ASP	C-N-CA	11.22	143.39	121.41
29	AB	116	GLY	N-CA-C	11.16	139.64	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	H	66	GLY	CA-C-N	-10.97	102.23	121.97
54	H	66	GLY	C-N-CA	-10.97	102.23	121.97
80	Rb	162	ALA	N-CA-C	-10.77	96.74	111.28
39	DM	35	GLY	CA-C-N	10.76	138.08	120.86
39	DM	35	GLY	C-N-CA	10.76	138.08	120.86
13	s	170	ASP	CA-C-N	-10.11	103.77	121.97
13	s	170	ASP	C-N-CA	-10.11	103.77	121.97
74	d6	7	SER	CA-C-N	10.06	140.75	121.54
74	d6	7	SER	C-N-CA	10.06	140.75	121.54
64	R	57	LEU	CA-C-N	-10.02	105.86	120.89
64	R	57	LEU	C-N-CA	-10.02	105.86	120.89
69	d1	8	LEU	CA-C-N	9.89	139.77	121.97
69	d1	8	LEU	C-N-CA	9.89	139.77	121.97
76	d8	32	PHE	CA-C-N	9.84	140.33	121.54
76	d8	32	PHE	C-N-CA	9.84	140.33	121.54
54	H	69	LEU	N-CA-C	9.78	131.41	109.81
75	d7	58	SER	CA-C-N	9.77	140.20	121.54
75	d7	58	SER	C-N-CA	9.77	140.20	121.54
79	g	111	GLU	CA-C-N	9.45	138.71	121.70
79	g	111	GLU	C-N-CA	9.45	138.71	121.70
54	s6	66	GLY	CA-C-N	-9.41	105.03	121.97
54	s6	66	GLY	C-N-CA	-9.41	105.03	121.97
54	s6	69	LEU	N-CA-C	9.41	130.60	109.81
71	Y	91	GLY	N-CA-C	-9.33	91.06	113.18
55	s7	72	LYS	CA-C-N	-9.13	105.53	121.97
55	s7	72	LYS	C-N-CA	-9.13	105.53	121.97
56	J	115	ALA	CA-C-N	9.07	138.86	121.54
56	J	115	ALA	C-N-CA	9.07	138.86	121.54
60	N	124	LYS	CA-C-N	8.92	138.58	121.54
60	N	124	LYS	C-N-CA	8.92	138.58	121.54
63	Q	125	PRO	N-CA-C	8.78	130.56	112.47
35	DI	81	CYS	CA-CB-SG	-8.77	94.24	114.40
64	c6	41	PRO	CA-C-N	8.61	137.98	121.54
64	c6	41	PRO	C-N-CA	8.61	137.98	121.54
60	N	29	LYS	N-CA-C	-8.52	100.42	113.89
60	c2	43	ARG	CA-C-N	8.50	138.07	121.41
60	c2	43	ARG	C-N-CA	8.50	138.07	121.41
63	c5	73	PRO	N-CA-C	8.48	123.45	111.33
29	DC	47	LYS	CA-C-N	8.48	139.91	124.82
29	DC	47	LYS	C-N-CA	8.48	139.91	124.82
50	s2	149	GLY	N-CA-C	8.47	133.26	113.18
80	h	50	ASP	CA-C-N	8.44	137.66	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
80	h	50	ASP	C-N-CA	8.44	137.66	121.54
49	C	129	THR	N-CA-C	8.41	124.43	111.56
29	AB	47	LYS	CA-C-N	8.39	141.18	125.66
29	AB	47	LYS	C-N-CA	8.39	141.18	125.66
51	s3	216	PRO	N-CA-C	8.38	125.45	113.47
50	D	37	PRO	CA-C-N	8.23	136.78	121.97
50	D	37	PRO	C-N-CA	8.23	136.78	121.97
67	U	104	VAL	N-CA-C	-8.05	101.55	113.39
60	c2	26	ASP	CA-C-N	-8.00	107.47	122.27
60	c2	26	ASP	C-N-CA	-8.00	107.47	122.27
80	Rb	141	LEU	CA-C-N	-7.94	108.98	120.89
80	Rb	141	LEU	C-N-CA	-7.94	108.98	120.89
80	Rb	160	GLU	N-CA-C	-7.91	93.11	107.98
39	DM	32	ASN	CA-C-N	7.90	136.63	121.54
39	DM	32	ASN	C-N-CA	7.90	136.63	121.54
66	T	101	LEU	CA-C-N	7.85	136.53	121.54
66	T	101	LEU	C-N-CA	7.85	136.53	121.54
54	H	37	ASP	CA-C-N	7.79	136.69	121.41
54	H	37	ASP	C-N-CA	7.79	136.69	121.41
80	h	165	ASP	CA-C-N	7.66	136.18	121.54
80	h	165	ASP	C-N-CA	7.66	136.18	121.54
54	H	215	ARG	N-CA-C	-7.66	104.08	113.50
62	P	41	ARG	N-CA-C	7.65	125.35	113.72
79	g	87	THR	N-CA-C	7.65	126.72	109.81
52	F	193	GLY	N-CA-C	7.48	125.91	112.22
14	CN	179	PHE	CA-C-N	-7.47	108.44	122.27
14	CN	179	PHE	C-N-CA	-7.47	108.44	122.27
36	AI	91	ALA	CA-C-N	7.47	132.44	121.31
36	AI	91	ALA	C-N-CA	7.47	132.44	121.31
60	N	127	GLY	CA-C-N	7.42	139.24	122.19
60	N	127	GLY	C-N-CA	7.42	139.24	122.19
80	h	166	SER	N-CA-C	7.41	126.59	110.80
6	CF	13	GLY	N-CA-C	-7.35	95.76	113.18
55	I	111	LYS	N-CA-C	7.32	126.39	110.80
68	d0	49	ASN	N-CA-C	7.30	121.31	111.24
60	c2	102	GLY	N-CA-C	7.28	130.44	113.18
56	J	153	GLU	CA-C-N	-7.28	108.81	122.27
56	J	153	GLU	C-N-CA	-7.28	108.81	122.27
5	k	346	THR	CA-C-N	7.27	135.43	121.54
5	k	346	THR	C-N-CA	7.27	135.43	121.54
50	s2	52	THR	CA-C-N	7.26	129.97	120.60
50	s2	52	THR	C-N-CA	7.26	129.97	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	s7	30	SER	CA-C-N	-7.20	104.24	121.80
55	s7	30	SER	C-N-CA	-7.20	104.24	121.80
57	K	163	PRO	CA-C-N	7.18	132.97	121.98
57	K	163	PRO	C-N-CA	7.18	132.97	121.98
9	CI	232	ARG	CA-C-N	7.18	131.59	120.82
9	CI	232	ARG	C-N-CA	7.18	131.59	120.82
60	c2	130	THR	N-CA-C	7.16	123.10	111.37
80	Rb	162	ALA	CA-C-N	7.12	132.67	121.56
80	Rb	162	ALA	C-N-CA	7.12	132.67	121.56
62	P	39	ILE	CB-CA-C	-7.09	99.66	111.29
5	CE	349	LYS	N-CA-C	-7.09	104.26	113.12
74	d6	58	VAL	N-CA-C	-7.06	100.20	108.82
60	N	84	ASN	N-CA-C	7.06	119.17	110.91
60	N	126	TRP	CA-C-N	-7.06	107.57	121.41
60	N	126	TRP	C-N-CA	-7.06	107.57	121.41
76	d8	60	GLU	CA-C-N	7.06	135.02	121.54
76	d8	60	GLU	C-N-CA	7.06	135.02	121.54
62	P	90	ARG	CA-C-N	7.02	134.96	121.54
62	P	90	ARG	C-N-CA	7.02	134.96	121.54
29	DC	116	GLY	N-CA-C	7.02	129.81	113.18
72	d4	51	GLU	CA-C-N	7.01	134.93	121.54
72	d4	51	GLU	C-N-CA	7.01	134.93	121.54
49	C	211	HIS	CA-C-N	6.98	134.54	121.97
49	C	211	HIS	C-N-CA	6.98	134.54	121.97
60	c2	92	ALA	N-CA-C	6.90	120.14	111.24
45	sM	41	SER	CA-C-N	6.87	133.19	121.86
45	sM	41	SER	C-N-CA	6.87	133.19	121.86
68	d0	48	HIS	CA-C-N	6.86	132.76	122.68
68	d0	48	HIS	C-N-CA	6.86	132.76	122.68
6	l	292	SER	N-CA-C	6.85	125.39	110.80
25	CY	24	GLY	CA-C-N	-6.84	108.47	121.54
25	CY	24	GLY	C-N-CA	-6.84	108.47	121.54
10	CJ	122	LYS	CA-C-N	6.78	136.95	125.02
10	CJ	122	LYS	C-N-CA	6.78	136.95	125.02
74	d6	57	SER	CA-C-N	6.76	133.21	123.27
74	d6	57	SER	C-N-CA	6.76	133.21	123.27
57	s9	118	LEU	CA-CB-CG	6.76	139.95	116.30
25	7	77	LYS	N-CA-C	6.76	127.09	113.31
49	C	52	THR	CA-C-N	-6.71	108.26	121.41
49	C	52	THR	C-N-CA	-6.71	108.26	121.41
29	AB	46	ASP	CA-C-N	-6.68	112.84	122.93
29	AB	46	ASP	C-N-CA	-6.68	112.84	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	DB	60	LYS	CA-C-N	6.67	134.22	122.42
28	DB	60	LYS	C-N-CA	6.67	134.22	122.42
70	X	65	LEU	CA-C-N	-6.67	110.89	120.89
70	X	65	LEU	C-N-CA	-6.67	110.89	120.89
68	d0	51	VAL	CA-C-N	-6.66	112.57	122.56
68	d0	51	VAL	C-N-CA	-6.66	112.57	122.56
6	l	291	ASN	CA-C-N	-6.65	108.84	121.54
6	l	291	ASN	C-N-CA	-6.65	108.84	121.54
60	N	127	GLY	N-CA-C	6.61	128.84	113.18
49	C	55	LYS	N-CA-C	-6.61	96.19	107.23
4	CD	25	GLY	N-CA-C	6.60	128.81	113.18
36	AI	92	LEU	CA-CB-CG	6.60	139.38	116.30
9	o	159	GLN	N-CA-C	6.56	118.58	110.91
53	G	105	GLY	N-CA-C	-6.55	97.65	113.18
10	p	77	GLN	N-CA-C	-6.55	105.25	113.18
5	k	350	ALA	N-CA-C	-6.55	102.09	110.53
51	E	96	LEU	N-CA-C	-6.53	105.94	114.04
10	p	77	GLN	CA-C-N	6.53	133.61	122.12
10	p	77	GLN	C-N-CA	6.53	133.61	122.12
14	t	45	LYS	CA-C-N	-6.52	110.24	121.97
14	t	45	LYS	C-N-CA	-6.52	110.24	121.97
49	C	128	LYS	CA-C-N	-6.52	109.88	121.81
49	C	128	LYS	C-N-CA	-6.52	109.88	121.81
36	AI	89	ARG	CA-C-N	6.51	133.58	122.12
36	AI	89	ARG	C-N-CA	6.51	133.58	122.12
81	c7	95	ARG	CA-C-N	6.51	133.42	121.70
81	c7	95	ARG	C-N-CA	6.51	133.42	121.70
49	C	207	LEU	N-CA-C	6.50	120.05	111.28
19	y	174	ARG	CA-C-N	6.49	133.55	122.12
19	y	174	ARG	C-N-CA	6.49	133.55	122.12
10	p	117	ALA	N-CA-C	-6.46	104.33	112.93
36	AI	90	ARG	N-CA-C	-6.46	99.85	109.86
48	B	206	ASP	C-N-CD	-6.46	98.53	125.00
66	c8	101	LEU	N-CA-C	6.46	119.24	108.13
55	s7	28	GLU	N-CA-C	-6.45	102.52	111.81
74	d6	9	GLY	CA-C-N	6.45	133.65	122.82
74	d6	9	GLY	C-N-CA	6.45	133.65	122.82
19	CS	174	ARG	CA-C-N	6.42	133.43	122.12
19	CS	174	ARG	C-N-CA	6.42	133.43	122.12
55	s7	13	PRO	CA-C-N	6.42	133.80	121.54
55	s7	13	PRO	C-N-CA	6.42	133.80	121.54
35	AH	83	ASN	N-CA-C	-6.42	105.46	113.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	P	44	GLY	N-CA-C	6.34	128.20	113.18
60	N	67	THR	CA-C-N	6.32	133.61	121.54
60	N	67	THR	C-N-CA	6.32	133.61	121.54
55	s7	32	PRO	N-CA-C	-6.30	105.43	114.18
64	R	56	GLY	N-CA-C	-6.28	98.29	113.18
52	F	188	ASN	N-CA-C	-6.27	105.63	113.28
60	c2	110	GLY	N-CA-C	-6.27	98.32	113.18
68	d0	49	ASN	CA-C-N	-6.27	112.70	122.42
68	d0	49	ASN	C-N-CA	-6.27	112.70	122.42
67	U	51	GLU	N-CA-C	-6.27	94.39	107.37
14	CN	133	PRO	CA-C-N	6.24	132.77	121.97
14	CN	133	PRO	C-N-CA	6.24	132.77	121.97
60	c2	44	GLY	N-CA-C	6.24	127.97	113.18
53	G	66	GLN	N-CA-C	6.24	128.46	111.00
59	c1	128	CYS	N-CA-C	6.23	117.79	107.20
64	c6	39	VAL	CA-C-N	-6.23	106.61	121.80
64	c6	39	VAL	C-N-CA	-6.23	106.61	121.80
9	CI	231	ASN	CA-C-N	6.22	133.28	122.95
9	CI	231	ASN	C-N-CA	6.22	133.28	122.95
65	S	81	LYS	CA-C-N	6.21	133.41	121.54
65	S	81	LYS	C-N-CA	6.21	133.41	121.54
61	c3	27	LYS	CA-C-N	-6.19	109.69	121.15
61	c3	27	LYS	C-N-CA	-6.19	109.69	121.15
49	C	54	LEU	CA-C-N	6.19	131.25	121.72
49	C	54	LEU	C-N-CA	6.19	131.25	121.72
71	Y	111	GLY	N-CA-C	-6.17	100.87	111.47
53	G	118	LEU	CA-CB-CG	6.16	137.87	116.30
48	s0	170	ILE	N-CA-C	-6.16	105.69	111.48
10	p	78	PHE	N-CA-C	-6.13	100.36	109.86
60	c2	46	ARG	CA-CB-CG	6.11	126.33	114.10
29	DC	46	ASP	CA-C-N	-6.10	113.72	122.93
29	DC	46	ASP	C-N-CA	-6.10	113.72	122.93
70	d2	55	ASP	N-CA-C	-6.09	101.46	110.48
68	d0	48	HIS	N-CA-C	-6.09	104.35	112.94
29	AB	46	ASP	N-CA-C	-6.09	102.92	110.41
10	CJ	120	LYS	N-CA-C	6.08	123.76	110.80
5	CE	350	ALA	N-CA-C	-6.08	102.34	110.55
76	d	38	ARG	CA-C-N	6.06	132.33	122.39
76	d	38	ARG	C-N-CA	6.06	132.33	122.39
28	AA	101	PHE	CA-C-N	-6.04	113.81	122.93
28	AA	101	PHE	C-N-CA	-6.04	113.81	122.93
14	t	62	THR	CA-C-N	6.04	132.84	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	t	62	THR	C-N-CA	6.04	132.84	121.97
28	DB	58	GLY	CA-C-N	6.01	131.78	121.86
28	DB	58	GLY	C-N-CA	6.01	131.78	121.86
49	C	131	ASP	N-CA-C	-6.00	97.06	108.17
29	AB	117	ARG	N-CA-C	6.00	119.51	111.24
29	AB	76	ASP	CA-C-N	-5.99	113.14	122.42
29	AB	76	ASP	C-N-CA	-5.99	113.14	122.42
59	c1	29	LYS	N-CA-C	-5.97	95.86	107.62
65	S	85	VAL	N-CA-C	5.96	121.75	108.88
79	g	109	ASP	N-CA-C	5.96	115.96	108.45
67	U	49	ASP	CA-C-N	5.95	132.90	121.54
67	U	49	ASP	C-N-CA	5.95	132.90	121.54
76	d	39	THR	N-CA-C	-5.92	100.58	108.34
73	d5	76	ALA	N-CA-C	-5.92	104.95	111.82
69	W	8	LEU	CA-C-N	5.91	132.61	121.97
69	W	8	LEU	C-N-CA	5.91	132.61	121.97
60	c2	77	GLY	N-CA-C	-5.89	107.03	114.16
29	AB	94	ALA	CA-C-N	5.89	132.32	122.20
29	AB	94	ALA	C-N-CA	5.89	132.32	122.20
57	K	133	HIS	CA-C-N	5.88	132.56	121.97
57	K	133	HIS	C-N-CA	5.88	132.56	121.97
9	CI	233	GLU	CA-C-N	-5.88	112.08	122.26
9	CI	233	GLU	C-N-CA	-5.88	112.08	122.26
29	DC	76	ASP	CA-C-N	-5.87	113.75	122.56
29	DC	76	ASP	C-N-CA	-5.87	113.75	122.56
71	Y	114	LYS	N-CA-C	5.87	117.37	110.97
7	m	252	ALA	N-CA-C	5.85	123.27	110.80
48	B	114	SER	N-CA-C	-5.83	105.36	112.88
66	T	59	GLY	CA-C-N	5.82	131.46	121.86
66	T	59	GLY	C-N-CA	5.82	131.46	121.86
52	s4	186	GLY	CA-C-N	-5.80	110.72	122.31
52	s4	186	GLY	C-N-CA	-5.80	110.72	122.31
28	DB	61	LYS	N-CA-C	-5.79	106.86	114.04
62	P	40	ALA	N-CA-C	-5.79	106.25	113.55
59	M	3	THR	N-CA-CB	-5.79	107.58	114.17
55	s7	31	SER	N-CA-C	5.77	122.57	109.81
9	o	232	ARG	N-CA-C	-5.77	101.08	110.20
10	CJ	121	SER	CA-C-N	-5.77	113.67	122.21
10	CJ	121	SER	C-N-CA	-5.77	113.67	122.21
14	t	75	PHE	N-CA-C	5.76	119.62	112.59
71	Y	98	GLU	CA-C-N	5.75	132.78	123.93
71	Y	98	GLU	C-N-CA	5.75	132.78	123.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	CJ	117	ALA	CA-C-N	5.75	132.23	122.12
10	CJ	117	ALA	C-N-CA	5.75	132.23	122.12
60	c2	89	ILE	N-CA-C	5.75	121.29	109.34
25	CY	25	ASP	CA-C-N	5.74	130.06	120.70
25	CY	25	ASP	C-N-CA	5.74	130.06	120.70
60	c2	46	ARG	CB-CG-CD	-5.74	98.10	111.30
29	DC	46	ASP	N-CA-C	-5.74	103.13	110.53
57	K	137	GLY	N-CA-C	-5.72	99.62	113.18
7	CG	42	ALA	CA-C-N	5.70	132.88	123.25
7	CG	42	ALA	C-N-CA	5.70	132.88	123.25
52	s4	107	GLY	N-CA-C	5.69	126.67	113.18
34	DH	90	PRO	N-CA-C	5.68	123.70	113.70
63	Q	124	THR	N-CA-C	-5.67	98.31	108.47
6	CF	318	LEU	CA-C-N	5.67	132.17	121.69
6	CF	318	LEU	C-N-CA	5.67	132.17	121.69
13	s	94	ARG	N-CA-C	-5.66	100.95	109.79
57	K	166	GLY	N-CA-C	5.65	126.58	113.18
35	DI	105	VAL	N-CA-C	-5.65	104.13	112.04
33	DG	11	LYS	CA-C-N	5.64	132.31	121.54
33	DG	11	LYS	C-N-CA	5.64	132.31	121.54
70	X	55	ASP	N-CA-C	-5.64	102.94	110.55
78	e0	49	LEU	N-CA-C	-5.64	104.03	112.54
52	F	212	ASP	N-CA-CB	5.63	119.35	110.23
64	c6	40	GLU	N-CA-C	5.63	122.25	109.81
25	7	76	VAL	CA-C-N	5.62	134.83	124.82
25	7	76	VAL	C-N-CA	5.62	134.83	124.82
49	C	213	ARG	CA-C-N	-5.62	113.36	122.36
49	C	213	ARG	C-N-CA	-5.62	113.36	122.36
55	I	131	PHE	N-CA-C	5.62	122.24	109.81
52	s4	119	ALA	N-CA-C	-5.62	106.47	113.38
48	B	194	PRO	N-CA-C	-5.61	100.92	112.47
63	Q	126	VAL	N-CA-C	5.60	120.99	109.34
48	B	207	PRO	CA-N-CD	-5.60	104.17	112.00
11	q	187	ILE	N-CA-C	-5.57	97.75	109.34
48	B	94	GLY	N-CA-C	-5.55	100.03	113.18
49	C	133	TYR	N-CA-C	-5.54	99.00	110.80
74	b	7	SER	CA-C-N	5.54	132.12	121.54
74	b	7	SER	C-N-CA	5.54	132.12	121.54
57	s9	117	GLY	N-CA-C	-5.54	102.58	112.22
14	CN	62	THR	CA-C-N	5.54	131.94	121.97
14	CN	62	THR	C-N-CA	5.54	131.94	121.97
14	t	75	PHE	CA-C-N	-5.53	114.58	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	t	75	PHE	C-N-CA	-5.53	114.58	122.93
49	C	47	LEU	CA-C-N	-5.53	112.02	121.97
49	C	47	LEU	C-N-CA	-5.53	112.02	121.97
43	AP	99	GLN	CA-C-N	5.52	130.97	121.86
43	AP	99	GLN	C-N-CA	5.52	130.97	121.86
13	CM	94	ARG	N-CA-C	-5.52	101.18	109.79
70	X	55	ASP	CA-C-N	-5.52	111.28	122.31
70	X	55	ASP	C-N-CA	-5.52	111.28	122.31
69	d1	8	LEU	N-CA-C	5.50	117.27	108.41
20	z	176	ARG	N-CA-C	-5.50	106.41	113.23
44	AQ	50	GLY	N-CA-C	-5.50	100.15	113.18
71	d3	62	LYS	CA-C-N	-5.50	116.04	123.96
71	d3	62	LYS	C-N-CA	-5.50	116.04	123.96
67	U	103	LYS	CA-CB-CG	5.49	125.08	114.10
58	c0	78	GLU	N-CA-C	-5.49	105.71	112.90
79	e1	110	ALA	N-CA-C	-5.49	101.78	109.96
56	s8	51	GLY	N-CA-C	-5.48	100.19	113.18
55	s7	27	LEU	CA-CB-CG	5.47	135.44	116.30
66	T	102	ALA	N-CA-C	5.47	122.44	110.80
55	I	111	LYS	N-CA-CB	-5.46	101.27	110.49
53	G	119	ASP	N-CA-C	-5.45	105.42	111.36
59	M	4	GLU	N-CA-C	5.45	118.85	111.17
50	D	37	PRO	N-CA-C	5.43	122.39	111.69
43	AP	37	ALA	N-CA-C	-5.43	101.81	109.96
60	c2	129	GLU	CA-C-N	5.42	129.81	121.19
60	c2	129	GLU	C-N-CA	5.42	129.81	121.19
8	CH	96	VAL	CA-C-N	5.40	131.62	122.65
8	CH	96	VAL	C-N-CA	5.40	131.62	122.65
68	V	32	LYS	N-CA-C	-5.40	107.34	114.04
68	V	105	GLN	CA-C-N	-5.40	116.58	121.65
68	V	105	GLN	C-N-CA	-5.40	116.58	121.65
52	F	194	THR	N-CA-C	5.39	118.56	111.28
51	s3	44	THR	CA-C-N	5.39	131.80	122.32
51	s3	44	THR	C-N-CA	5.39	131.80	122.32
14	CN	6	ASN	CA-C-N	5.38	130.87	122.26
14	CN	6	ASN	C-N-CA	5.38	130.87	122.26
29	AB	48	TYR	CB-CA-C	-5.37	100.10	110.35
66	c8	59	GLY	CA-C-N	5.36	130.70	121.86
66	c8	59	GLY	C-N-CA	5.36	130.70	121.86
74	d6	11	ASN	N-CA-C	5.35	116.86	109.15
14	CN	60	ALA	CA-C-N	5.35	126.53	119.84
14	CN	60	ALA	C-N-CA	5.35	126.53	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	s0	166	GLY	CA-C-N	5.34	130.67	121.86
48	s0	166	GLY	C-N-CA	5.34	130.67	121.86
55	s7	30	SER	N-CA-C	-5.34	97.95	107.98
56	J	9	HIS	N-CA-C	-5.33	101.47	109.79
80	Rb	160	GLU	CA-C-N	5.33	130.66	121.86
80	Rb	160	GLU	C-N-CA	5.33	130.66	121.86
80	Rb	94	VAL	CA-C-N	-5.32	114.09	122.76
80	Rb	94	VAL	C-N-CA	-5.32	114.09	122.76
43	DQ	37	ALA	N-CA-C	-5.32	103.00	110.50
52	F	186	GLY	CA-C-N	-5.31	114.13	122.79
52	F	186	GLY	C-N-CA	-5.31	114.13	122.79
29	DC	48	TYR	N-CA-C	5.31	124.14	113.31
79	g	86	THR	CA-C-N	5.31	134.75	121.80
79	g	86	THR	C-N-CA	5.31	134.75	121.80
68	d0	47	GLN	N-CA-C	-5.30	106.75	114.12
60	N	102	GLY	N-CA-C	5.29	125.73	113.18
29	DC	48	TYR	CB-CA-C	-5.28	99.24	110.76
33	AF	11	LYS	CA-C-N	5.27	131.61	121.54
33	AF	11	LYS	C-N-CA	5.27	131.61	121.54
55	I	74	GLN	N-CA-C	5.27	120.07	111.37
60	c2	101	ALA	N-CA-C	-5.27	103.50	111.56
22	CV	19	PHE	CA-C-N	5.26	131.51	123.47
22	CV	19	PHE	C-N-CA	5.26	131.51	123.47
52	s4	117	GLU	N-CA-C	-5.25	102.22	110.36
72	d4	59	GLY	N-CA-C	5.25	125.63	113.18
53	G	64	VAL	N-CA-C	-5.24	100.31	108.81
36	AI	92	LEU	CB-CA-C	-5.24	101.34	109.61
39	AL	35	GLY	CA-C-N	5.23	129.23	120.86
39	AL	35	GLY	C-N-CA	5.23	129.23	120.86
75	c	3	LEU	N-CA-CB	-5.23	108.21	114.17
60	N	110	GLY	N-CA-C	-5.22	100.80	113.18
63	Q	125	PRO	CA-C-N	-5.22	112.58	121.97
63	Q	125	PRO	C-N-CA	-5.22	112.58	121.97
9	o	155	LYS	CA-C-N	-5.22	112.58	121.97
9	o	155	LYS	C-N-CA	-5.22	112.58	121.97
45	sM	63	ASP	N-CA-C	-5.21	99.26	108.23
68	V	17	GLN	N-CA-C	5.20	118.30	111.28
39	DM	35	GLY	N-CA-C	5.20	125.50	113.18
22	2	17	ARG	N-CA-C	5.19	118.43	112.57
28	AA	123	GLN	N-CA-C	-5.19	103.18	110.50
10	p	117	ALA	CA-C-N	5.18	129.68	121.18
10	p	117	ALA	C-N-CA	5.18	129.68	121.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	c6	27	GLY	N-CA-C	5.17	125.44	113.18
68	V	44	ASN	CA-C-N	5.16	133.27	122.58
68	V	44	ASN	C-N-CA	5.16	133.27	122.58
80	Rb	123	ILE	CA-C-N	5.16	130.37	121.86
80	Rb	123	ILE	C-N-CA	5.16	130.37	121.86
72	d4	50	ALA	CA-C-N	-5.16	115.15	122.93
72	d4	50	ALA	C-N-CA	-5.16	115.15	122.93
53	G	120	ILE	N-CA-C	-5.15	104.44	110.05
58	c0	78	GLU	CA-C-N	5.15	128.14	120.31
58	c0	78	GLU	C-N-CA	5.15	128.14	120.31
68	d0	54	GLY	N-CA-C	5.14	122.83	112.34
63	Q	68	PRO	N-CA-C	5.14	119.66	112.26
10	p	79	GLN	CA-CB-CG	5.13	124.37	114.10
65	S	22	PRO	CA-C-N	5.13	131.15	122.12
65	S	22	PRO	C-N-CA	5.13	131.15	122.12
70	X	66	ASN	N-CA-C	5.11	118.96	111.04
43	AP	30	ALA	N-CA-C	5.11	116.53	110.97
49	C	213	ARG	N-CA-C	5.11	119.79	111.37
80	h	35	SER	N-CA-C	5.10	117.81	111.24
73	a	38	HIS	N-CA-C	5.09	118.16	111.28
62	P	36	LYS	CA-C-N	5.09	131.26	121.54
62	P	36	LYS	C-N-CA	5.09	131.26	121.54
63	Q	28	MET	N-CA-C	5.09	119.13	107.48
10	p	75	ILE	N-CA-C	-5.08	102.44	109.46
50	D	47	ALA	N-CA-C	-5.08	102.12	109.59
58	L	43	ILE	CA-C-N	-5.07	112.17	122.31
58	L	43	ILE	C-N-CA	-5.07	112.17	122.31
6	l	139	GLY	N-CA-C	-5.06	103.69	111.24
44	DR	50	GLY	N-CA-C	-5.06	101.19	113.18
53	G	150	GLY	N-CA-C	-5.06	101.19	113.18
67	U	54	PHE	N-CA-C	-5.06	106.80	113.12
36	AI	90	ARG	CA-C-N	-5.04	115.31	122.93
36	AI	90	ARG	C-N-CA	-5.04	115.31	122.93
79	g	148	TYR	N-CA-C	5.04	118.20	111.24
13	CM	172	LEU	N-CA-C	5.04	118.08	111.28
48	B	146	LEU	N-CA-C	-5.03	102.25	110.20
66	T	84	TRP	N-CA-C	-5.03	106.30	114.09
48	B	186	GLY	N-CA-C	-5.03	101.27	113.18
79	g	101	ALA	N-CA-C	-5.02	100.10	110.80
14	t	6	ASN	CA-C-N	5.02	130.30	122.26
14	t	6	ASN	C-N-CA	5.02	130.30	122.26
12	r	23	ASN	CA-C-N	5.01	131.11	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	r	23	ASN	C-N-CA	5.01	131.11	121.54

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
49	C	129	THR	Peptide
15	u	128	ARG	Sidechain

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	67355	0	33847	1365	0
1	AR	67313	0	33823	1348	1
2	3	2579	0	1303	59	0
2	AS	2579	0	1304	57	1
3	4	3353	0	1695	82	0
3	AT	3353	0	1695	56	0
4	CD	1914	0	1981	88	0
4	j	1914	0	1981	79	0
5	CE	3075	0	3142	120	0
5	k	3075	0	3142	124	0
6	CF	2748	0	2859	107	0
6	l	2748	0	2858	118	0
7	CG	2375	0	2325	85	0
7	m	2375	0	2325	105	0
8	CH	1239	0	1326	42	0
8	n	1239	0	1326	39	0
9	CI	1784	0	1862	64	0
9	o	1784	0	1862	69	0
10	CJ	1804	0	1877	65	1
10	p	1804	0	1877	76	0
11	CK	1518	0	1587	60	0
11	q	1518	0	1587	81	0
12	CL	1705	0	1736	67	0
12	r	1705	0	1736	69	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	CM	1353	0	1383	48	0
13	s	1353	0	1383	78	0
14	CN	1543	0	1608	87	0
14	t	1543	0	1608	90	0
15	CO	1053	0	1149	46	0
15	u	1053	0	1149	48	0
16	CP	1720	0	1779	63	0
16	v	1720	0	1779	74	0
17	CQ	1555	0	1659	47	0
17	w	1555	0	1659	60	0
18	CR	1420	0	1437	65	1
18	x	1420	0	1437	48	0
19	CS	1441	0	1543	62	0
19	y	1441	0	1543	72	0
20	CT	1521	0	1617	61	0
20	z	1521	0	1617	65	0
21	0	1445	0	1487	61	0
21	CU	1445	0	1487	55	0
22	2	1276	0	1323	65	0
22	CV	1276	0	1323	48	0
23	5	796	0	812	40	0
23	CW	796	0	812	26	0
24	6	1003	0	1048	48	0
24	CX	1003	0	1048	38	0
25	7	699	0	640	21	0
25	CY	836	0	721	18	0
26	8	964	0	1025	37	0
26	CZ	964	0	1025	40	0
27	9	993	0	1081	38	0
27	DA	976	0	1064	36	0
28	AA	1092	0	1155	52	0
28	DB	1087	0	1143	54	0
29	AB	1173	0	1215	74	0
29	DC	1173	0	1215	66	0
30	AC	462	0	491	12	0
30	DD	462	0	491	23	0
31	AD	743	0	797	29	0
31	DE	743	0	797	30	0
32	AE	876	0	912	21	0
32	DF	876	0	912	30	0
33	AF	1020	0	1090	27	0
33	DG	1020	0	1090	26	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
34	AG	850	0	880	35	0
34	DH	850	0	880	20	0
35	AH	880	0	943	53	0
35	DI	880	0	942	37	0
36	AI	969	0	1078	41	0
36	DJ	969	0	1078	33	0
37	AJ	771	0	849	38	0
37	DK	771	0	849	39	0
38	AK	681	0	682	33	0
38	DL	681	0	683	16	0
39	AL	612	0	682	30	0
39	DM	612	0	682	18	0
40	AM	436	0	475	19	0
40	DN	436	0	475	13	0
41	AN	417	0	455	13	0
41	DO	417	0	455	12	0
42	AO	233	0	284	8	0
42	DP	233	0	284	8	0
43	AP	847	0	915	33	0
43	DQ	847	0	915	42	0
44	AQ	694	0	735	37	0
44	DR	694	0	735	27	0
45	i	1104	0	1002	54	0
45	sM	475	0	492	30	0
46	p0	1076	0	1076	37	1
47	A	37948	0	19094	1099	1
47	sR	37990	0	19116	914	2
48	B	1577	0	1567	123	0
48	s0	1583	0	1578	102	0
49	C	1709	0	1784	142	0
49	s1	1722	0	1793	97	0
50	D	1635	0	1723	82	0
50	s2	1635	0	1723	67	0
51	E	1734	0	1817	87	0
51	s3	1734	0	1817	90	0
52	F	2068	0	2154	112	0
52	s4	2068	0	2154	95	0
53	G	1609	0	1674	129	0
53	s5	1609	0	1675	100	0
54	H	1799	0	1879	97	0
54	s6	1755	0	1846	76	0
55	I	1481	0	1572	82	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	s7	1491	0	1578	80	0
56	J	1489	0	1525	98	0
56	s8	1489	0	1525	53	0
57	K	1494	0	1573	85	0
57	s9	1494	0	1573	66	0
58	L	772	0	727	35	0
58	c0	761	0	698	29	0
59	M	1213	0	1257	36	0
59	c1	1168	0	1233	42	0
60	N	890	0	887	65	0
60	c2	890	0	887	67	0
61	O	1192	0	1255	52	0
61	c3	1192	0	1255	40	0
62	P	886	0	869	70	0
62	c4	949	0	985	59	0
63	Q	977	0	1002	66	0
63	c5	1039	0	1050	73	0
64	R	1105	0	1166	83	0
64	c6	1111	0	1171	79	0
65	S	926	0	930	49	0
66	T	1192	0	1222	87	0
66	c8	1192	0	1222	84	0
67	U	1112	0	1124	95	0
67	c9	1112	0	1124	70	0
68	V	855	0	917	74	0
68	d0	882	0	939	50	0
69	W	684	0	672	39	0
69	d1	684	0	672	39	0
70	X	1021	0	1060	55	0
70	d2	1021	0	1060	47	0
71	Y	1121	0	1196	61	0
71	d3	1121	0	1196	42	0
72	Z	1073	0	1132	53	0
72	d4	1073	0	1132	53	0
73	a	563	0	603	49	0
73	d5	558	0	598	36	0
74	b	769	0	814	64	0
74	d6	769	0	814	38	0
75	c	610	0	633	34	0
75	d7	610	0	632	34	0
76	d	497	0	535	36	0
76	d8	497	0	535	31	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
77	d9	442	0	429	21	0
77	e	442	0	428	16	0
78	e0	491	0	542	28	0
78	f	475	0	525	29	0
79	e1	397	0	399	38	0
79	g	566	0	603	40	0
80	Rb	2442	0	2392	184	0
80	h	2437	0	2386	160	0
81	c7	906	0	909	53	0
82	1	2078	0	0	220	0
82	2	7	0	0	1	0
82	3	70	0	0	4	0
82	4	98	0	0	11	0
82	A	874	0	0	113	0
82	AC	7	0	0	2	0
82	AG	7	0	0	1	0
82	AK	14	0	0	6	0
82	AP	7	0	0	3	0
82	AR	2111	0	0	206	1
82	AS	63	0	0	4	0
82	AT	112	0	0	11	0
82	CE	14	0	0	1	0
82	CG	21	0	0	1	1
82	CH	7	0	0	3	0
82	CK	7	0	0	0	0
82	CL	14	0	0	2	0
82	CP	7	0	0	0	0
82	CS	7	0	0	0	0
82	CV	7	0	0	1	0
82	CX	7	0	0	1	0
82	DD	7	0	0	1	0
82	DH	7	0	0	1	0
82	DL	7	0	0	0	0
82	DQ	7	0	0	3	0
82	J	7	0	0	1	0
82	O	7	0	0	0	0
82	Q	7	0	0	1	0
82	Rb	7	0	0	1	0
82	T	7	0	0	2	0
82	U	7	0	0	0	0
82	c3	7	0	0	1	0
82	c5	7	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
82	c7	7	0	0	1	0
82	c8	7	0	0	1	0
82	d4	7	0	0	0	0
82	h	7	0	0	0	0
82	k	14	0	0	3	0
82	l	7	0	0	1	0
82	r	7	0	0	1	0
82	s1	7	0	0	3	0
82	s4	7	0	0	0	0
82	s8	7	0	0	0	0
82	sR	980	0	0	118	0
82	v	7	0	0	0	0
82	z	7	0	0	2	0
83	1	486	0	0	0	0
83	3	12	0	0	0	0
83	4	18	0	0	0	0
83	6	3	0	0	0	0
83	9	1	0	0	0	0
83	A	135	0	0	0	0
83	AB	5	0	0	0	0
83	AC	1	0	0	0	0
83	AF	2	0	0	0	0
83	AG	1	0	0	0	0
83	AH	2	0	0	0	0
83	AI	1	0	0	0	0
83	AP	1	0	0	0	0
83	AR	498	0	0	0	0
83	AS	19	0	0	0	0
83	AT	19	0	0	0	0
83	CD	1	0	0	0	0
83	CE	3	0	0	0	0
83	CF	5	0	0	0	0
83	CG	1	0	0	0	0
83	CI	2	0	0	0	0
83	CJ	1	0	0	0	0
83	CK	1	0	0	0	0
83	CL	2	0	0	0	0
83	CM	2	0	0	0	0
83	CO	1	0	0	0	0
83	CP	5	0	0	0	0
83	CQ	3	0	0	0	0
83	CR	8	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
83	CU	1	0	0	0	0
83	CX	1	0	0	0	0
83	D	2	0	0	0	0
83	DA	2	0	0	0	0
83	DC	2	0	0	0	0
83	DD	1	0	0	0	0
83	DH	2	0	0	0	0
83	DI	3	0	0	0	0
83	DL	2	0	0	0	0
83	DO	2	0	0	0	0
83	DP	1	0	0	0	0
83	DQ	2	0	0	0	0
83	F	1	0	0	0	0
83	O	1	0	0	0	0
83	P	1	0	0	0	0
83	S	1	0	0	0	0
83	X	1	0	0	0	0
83	Y	1	0	0	0	0
83	b	1	0	0	0	0
83	c1	1	0	0	0	0
83	c3	1	0	0	0	0
83	c4	2	0	0	0	0
83	c6	1	0	0	0	0
83	c8	1	0	0	0	0
83	c9	2	0	0	0	0
83	d3	3	0	0	0	0
83	d4	3	0	0	0	0
83	d5	1	0	0	0	0
83	d6	2	0	0	0	0
83	d9	1	0	0	0	0
83	i	1	0	0	0	0
83	j	2	0	0	0	0
83	k	2	0	0	0	0
83	l	4	0	0	0	0
83	m	1	0	0	0	0
83	o	3	0	0	0	0
83	r	2	0	0	0	0
83	s	1	0	0	0	0
83	s1	1	0	0	0	0
83	s2	1	0	0	0	0
83	s4	1	0	0	0	0
83	s6	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
83	s8	2	0	0	0	0
83	s9	1	0	0	0	0
83	sM	2	0	0	0	0
83	sR	149	0	0	0	0
83	t	2	0	0	0	0
83	u	1	0	0	0	0
83	v	4	0	0	0	0
83	w	1	0	0	0	0
83	x	8	0	0	0	0
83	y	1	0	0	0	0
83	z	1	0	0	0	0
84	1	1	0	0	0	0
84	AR	4	0	0	0	0
84	j	1	0	0	0	0
84	sR	1	0	0	0	0
85	1	10	0	19	0	0
85	AR	10	0	19	0	0
86	1	25	0	0	1	0
86	AR	25	0	0	4	0
87	AK	1	0	0	0	0
87	AN	1	0	0	0	0
87	AP	1	0	0	0	0
87	AQ	1	0	0	0	0
87	DL	1	0	0	0	0
87	DO	1	0	0	0	0
87	DQ	1	0	0	0	0
87	DR	1	0	0	0	0
87	b	1	0	0	0	0
87	c	1	0	0	0	0
87	d6	1	0	0	0	0
87	d7	1	0	0	0	0
87	d9	1	0	0	0	0
87	e	1	0	0	0	0
87	g	1	0	0	0	0
88	A	1	0	0	0	0
89	1	148	0	0	9	0
89	4	14	0	0	0	0
89	A	57	0	0	3	0
89	AE	2	0	0	0	0
89	AO	1	0	0	0	0
89	AR	210	0	0	12	0
89	CD	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
89	CF	7	0	0	0	0
89	CI	1	0	0	0	0
89	CP	1	0	0	0	0
89	CR	1	0	0	1	0
89	CT	1	0	0	0	0
89	DG	1	0	0	0	0
89	R	1	0	0	1	0
89	S	6	0	0	0	0
89	Y	1	0	0	0	0
89	c1	1	0	0	0	0
89	c7	2	0	0	0	0
89	j	1	0	0	1	0
89	s8	1	0	0	0	0
89	sR	41	0	0	0	0
89	x	4	0	0	1	0
All	All	409267	0	296731	11547	5

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 17.

All (11547) 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)
47:sR:568:G:H4'	71:d3:90:ASP:HB2	1.23	1.18
47:A:568:G:H4'	71:Y:90:ASP:HB2	1.27	1.10
52:F:181:VAL:H	52:F:193:GLY:HA2	1.16	1.04
67:c9:117:SER:HB2	67:c9:123:ARG:HB2	1.39	1.04
1:1:2232:A:OP2	82:1:4102:OHX:N4	1.92	1.03
80:Rb:9:LEU:HG	80:Rb:10:ARG:H	1.25	1.00
47:sR:115:G:H1	47:sR:302:U:HO2'	1.09	0.99
26:CZ:72:ALA:HB1	26:CZ:83:VAL:HG21	1.44	0.99
47:sR:1588:G:H1	47:sR:1608:U:H3	1.03	0.98
31:DE:13:LYS:HB3	31:DE:100:ILE:HG22	1.46	0.97
60:N:33:ARG:HA	60:N:36:LEU:HB2	1.45	0.97
68:d0:51:VAL:HG21	68:d0:94:GLU:H	1.27	0.96
51:s3:105:MET:HE1	51:s3:136:VAL:HG21	1.47	0.95
80:Rb:81:LEU:HD11	80:Rb:91:LEU:HG	1.48	0.95
79:g:109:ASP:HB2	79:g:113:LYS:H	1.29	0.95
80:Rb:178:VAL:HB	80:Rb:192:PHE:HB2	1.48	0.95
50:D:111:VAL:HG22	50:D:139:ILE:HD11	1.49	0.95
49:s1:189:ILE:HG13	49:s1:190:PRO:HD3	1.46	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:F:240:LYS:HD2	52:F:240:LYS:H	1.31	0.93
80:h:172:ALA:HB2	80:h:202:LEU:HD12	1.49	0.93
1:1:891:G:OP1	82:1:3413:OHX:N5	2.02	0.93
1:1:1073:U:H1'	30:AC:50:THR:HG22	1.50	0.93
76:d8:9:LEU:HB2	76:d8:33:LEU:HD22	1.50	0.93
80:Rb:124:SER:HB3	80:Rb:134:TRP:HE1	1.33	0.92
62:P:85:ALA:H	62:P:119:THR:HG22	1.34	0.92
48:B:55:GLU:HB3	69:W:79:LEU:HD22	1.49	0.92
47:A:1672:G:N7	82:A:1950:OHX:N6	2.18	0.91
6:l:122:THR:HG22	6:l:235:LEU:HB2	1.52	0.91
35:AH:104:VAL:HA	35:AH:107:GLU:HG2	1.50	0.91
7:CG:64:ILE:HD12	7:CG:109:THR:HG21	1.50	0.91
57:K:168:ARG:HH12	57:K:171:ARG:HH12	1.20	0.90
48:B:84:ARG:HG3	48:B:204:TYR:HA	1.51	0.90
1:AR:2836:C:H5	1:AR:2852:C:H42	1.17	0.90
7:m:40:HIS:HB3	7:m:43:LYS:HG3	1.54	0.90
1:AR:1603:A:H61	26:CZ:71:THR:HG21	1.35	0.90
37:AJ:4:LYS:HD3	37:AJ:14:GLY:HA3	1.54	0.89
47:sR:1726:G:N7	82:sR:1916[A]:OHX:N6	2.20	0.89
80:h:171:SER:HB3	80:h:181:TRP:HE1	1.32	0.89
35:DI:44:CYS:SG	35:DI:81:CYS:N	2.45	0.89
62:P:128:LYS:H	74:b:22:ARG:HH12	1.19	0.89
47:sR:1361:U:H2'	47:sR:1362:U:H3'	1.55	0.89
47:sR:1572:G:H1'	53:s5:185:ARG:HH12	1.37	0.89
23:CW:22:PRO:HB2	23:CW:28:PHE:HB2	1.55	0.89
79:e1:130:VAL:HG22	79:e1:143:LYS:HE3	1.54	0.89
64:c6:103:ASN:HA	64:c6:106:LYS:HB3	1.56	0.88
47:A:992:A:H2	47:A:1012:U:H3	1.16	0.88
48:B:17:LEU:HD22	48:B:172:LEU:HD12	1.55	0.88
77:e:19:ARG:HD3	77:e:32:ARG:HD3	1.55	0.88
44:AQ:8:VAL:O	44:AQ:11:THR:HG22	1.73	0.88
28:AA:83:THR:HG23	28:AA:85:TYR:H	1.39	0.87
57:K:109:LEU:HB2	57:K:146:PHE:HB3	1.54	0.87
21:0:12:ARG:HH12	21:0:15:PRO:HG3	1.40	0.87
47:A:22:A:OP2	82:A:2125:OHX:N2	2.07	0.87
1:AR:3346:U:O4	1:AR:3359:A:N6	2.07	0.87
1:AR:3214:U:OP2	15:CO:128:ARG:NH2	2.07	0.87
66:c8:92:ILE:HG12	66:c8:115:ARG:HH12	1.38	0.87
5:CE:221:THR:HG22	5:CE:273:HIS:H	1.39	0.87
75:d7:56:CYS:HB3	75:d7:59:CYS:HB2	1.56	0.87
79:e1:112:GLY:O	79:e1:113:LYS:NZ	2.08	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3289:G:N7	82:1:4108:OHX:N1	2.23	0.86
12:CL:43:VAL:HG21	12:CL:197:VAL:HB	1.57	0.86
44:DR:46:THR:HB	44:DR:58:SER:HB3	1.57	0.86
70:X:6:VAL:HG23	70:X:29:PRO:HD2	1.56	0.86
16:v:106:VAL:HG11	16:v:132:VAL:HG11	1.56	0.86
1:AR:2261:G:O2'	1:AR:2263:C:N4	2.08	0.86
5:k:303:LYS:HD2	5:k:361:THR:HG21	1.56	0.86
1:AR:617:G:H5"	18:CR:170:SER:HB3	1.58	0.86
35:DI:41:ARG:HG2	35:DI:56:THR:HG21	1.57	0.86
54:H:70:PRO:HB3	54:H:101:ILE:HB	1.57	0.86
11:q:92:TYR:HB3	11:q:99:ILE:HD11	1.57	0.86
5:CE:139:GLN:HG3	5:CE:141:GLY:H	1.41	0.86
47:A:329:G:N7	82:A:2142:OHX:N3	2.22	0.85
57:K:134:ILE:HG22	57:K:158:PHE:HA	1.56	0.85
53:G:51:VAL:HG11	53:G:130:ILE:HG13	1.58	0.85
12:r:36:LEU:HD11	12:r:69:ARG:HE	1.39	0.85
29:AB:75:LEU:HD22	29:AB:78:LEU:HD22	1.59	0.85
43:DQ:48:SER:O	82:DQ:502:OHX:N6	2.10	0.85
57:K:128:LEU:O	57:K:133:HIS:HB2	1.77	0.85
1:AR:90:C:OP1	29:DC:59:ARG:NH1	2.09	0.85
74:b:79:ILE:HA	74:b:84:VAL:HG11	1.57	0.85
1:1:1824:U:H4'	39:AL:17:ARG:HH12	1.42	0.85
47:A:702:G:O6	47:A:736:C:N4	2.09	0.85
80:Rb:89:LEU:HB2	80:Rb:103:PHE:HB2	1.58	0.85
49:C:129:THR:HG22	49:C:179:SER:O	1.77	0.84
16:v:110:ALA:HB1	16:v:113:LEU:HD23	1.57	0.84
25:7:60:LYS:HD2	25:7:60:LYS:O	1.77	0.84
47:sR:1358:G:H5"	67:c9:130:ARG:HE	1.41	0.84
81:c7:74:GLN:HA	81:c7:77:GLU:HB2	1.59	0.84
7:m:60:ILE:HB	7:m:80:SER:HB3	1.59	0.84
43:AP:10:THR:C	43:AP:20:HIS:HD2	1.85	0.84
1:AR:2444:C:N3	1:AR:2503:G:N2	2.24	0.84
66:T:95:GLY:O	82:T:201:OHX:N1	2.10	0.84
1:AR:1718:G:H4'	20:CT:117:LYS:HE2	1.58	0.84
8:CH:56:LYS:HE3	8:CH:98:VAL:HG22	1.58	0.84
47:A:992:A:O2'	47:A:1785:U:O2	1.95	0.84
55:s7:154:LEU:HD11	55:s7:183:PHE:HD2	1.43	0.84
47:A:1297:G:N2	47:A:1300:A:OP2	2.11	0.84
47:sR:687:G:H5"	70:d2:119:LYS:HG2	1.57	0.84
49:s1:64:ARG:H	49:s1:88:VAL:HG22	1.42	0.84
1:AR:1235:U:H4'	1:AR:1236:G:H5'	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:237:C:H5"	47:A:238:U:H5'	1.60	0.83
54:s6:135:PRO:HB2	54:s6:141:ILE:HG13	1.58	0.83
35:DI:98:GLN:HA	35:DI:101:VAL:HG22	1.59	0.83
66:T:49:LYS:NZ	66:T:79:TYR:O	2.11	0.83
47:A:186:C:H42	47:A:199:G:H1	1.22	0.83
20:CT:167:ARG:HH12	47:sR:814:A:H5'	1.43	0.83
56:s8:36:THR:HG21	56:s8:173:PRO:HB2	1.61	0.83
1:AR:2673:A:OP1	13:CM:95:ASN:ND2	2.11	0.83
1:AR:2392:C:O2'	5:CE:266:ARG:NH2	2.08	0.83
68:V:43:LYS:HB2	68:V:46:GLU:HB3	1.59	0.83
66:c8:12:GLN:HE21	66:c8:15:LEU:HD11	1.44	0.83
1:1:240:U:H4'	1:1:241:G:H5'	1.60	0.83
47:A:732:G:O6	82:A:2127:OHX:N2	2.12	0.83
79:e1:118:ARG:HB3	79:e1:132:LEU:HD21	1.58	0.83
54:H:137:ARG:HD3	54:H:177:ARG:HD2	1.61	0.83
1:1:863:C:OP1	82:1:3413:OHX:N6	2.10	0.82
14:t:5:LYS:O	14:t:7:LEU:HG	1.79	0.82
76:d8:12:VAL:HG12	76:d8:30:VAL:HG12	1.61	0.82
14:t:6:ASN:HB2	29:AB:48:TYR:CD2	2.14	0.82
1:AR:1748:G:O6	82:AR:4148:OHX:N3	2.12	0.82
1:1:2296:A:OP1	82:1:4149:OHX:N6	2.13	0.82
60:N:62:LEU:HD11	60:N:75:VAL:HG21	1.61	0.82
47:A:790:U:OP1	52:F:187:ARG:NH2	2.12	0.82
49:C:131:ASP:HB3	49:C:181:LEU:HD13	1.60	0.82
1:AR:651:G:O2'	1:AR:1435:A:OP1	1.98	0.82
39:DM:10:GLN:HA	39:DM:13:GLU:OE2	1.77	0.82
70:X:69:LEU:HD21	70:X:72:CYS:HB3	1.58	0.82
48:s0:182:LEU:HD12	48:s0:188:LEU:HB2	1.61	0.82
51:s3:191:ASP:HB3	51:s3:194:LYS:HB2	1.61	0.82
1:1:917:A:OP2	82:1:3592:OHX:N6	2.13	0.82
1:1:1790:G:O6	82:1:4136:OHX:N3	2.11	0.82
64:R:39:VAL:H	64:R:45:ARG:HH12	1.23	0.82
49:s1:26:ARG:HD3	49:s1:50:LYS:HE2	1.61	0.82
49:s1:110:LEU:HD11	49:s1:213:ARG:HD2	1.62	0.82
1:1:2417:U:OP1	89:1:4201:HOH:O	1.97	0.82
1:AR:783:A:OP2	82:AR:4143:OHX:N4	2.13	0.82
47:A:1533:C:H4'	47:A:1539:G:H1	1.45	0.82
50:D:207:LEU:HA	50:D:210:THR:HG22	1.60	0.81
56:J:61:GLU:HG3	56:J:62:THR:HG23	1.60	0.81
16:v:42:PRO:HG3	16:v:61:ILE:HG13	1.62	0.81
14:CN:6:ASN:HB2	29:DC:48:TYR:CD2	2.16	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:48:GLY:HA3	15:CO:53:VAL:HB	1.60	0.81
1:1:965:A:H5"	14:t:4:SER:HB3	1.60	0.81
48:B:49:ASN:HA	65:S:109:LEU:HD11	1.62	0.81
47:sR:647:G:N2	47:sR:687:G:H22	1.77	0.81
1:AR:3194:C:O2	1:AR:3197:G:N2	2.14	0.81
57:K:139:GLN:OE1	72:Z:63:GLN:NE2	2.14	0.81
1:1:1345:G:N7	82:1:3474:OHX:N6	2.27	0.81
5:k:300:ARG:HD2	54:H:22:HIS:HD2	1.46	0.81
47:A:227:U:O2	47:A:834:G:N2	2.10	0.81
47:A:322:G:O2'	56:J:10:LYS:NZ	2.12	0.81
66:c8:11:PHE:CE2	66:c8:59:GLY:HA3	2.16	0.81
47:A:190:C:N4	47:A:196:G:O6	2.14	0.81
47:sR:1609:U:OP2	64:c6:14:LYS:NZ	2.14	0.81
2:3:26:C:H5'	7:m:56:THR:HB	1.63	0.80
13:s:141:ARG:HH21	13:s:144:CYS:HB2	1.44	0.80
47:A:1690:G:N2	47:A:1711:C:O2	2.14	0.80
78:e0:41:THR:HA	78:e0:45:VAL:HG22	1.63	0.80
1:1:1420:C:OP2	6:l:193:LYS:NZ	2.14	0.80
14:CN:47:ALA:HB3	14:CN:49:ARG:HB2	1.64	0.80
47:A:650:U:O4	47:A:684:A:N6	2.13	0.80
60:c2:32:LEU:HD23	60:c2:100:TRP:HB3	1.62	0.80
60:c2:62:LEU:HB2	60:c2:89:ILE:HG21	1.61	0.80
1:1:2274:U:OP2	82:1:3478:OHX:N4	2.15	0.80
1:AR:2736:A:OP1	22:CV:92:ARG:NH1	2.14	0.80
1:AR:3198:U:H1'	11:CK:21:LYS:HG3	1.60	0.80
12:CL:174:THR:HG23	12:CL:176:LEU:H	1.45	0.80
47:sR:870:C:O2	75:d7:51:GLN:NE2	2.14	0.80
1:1:2703:A:OP2	7:m:23:ARG:NH1	2.14	0.80
20:CT:163:ARG:O	20:CT:166:ASN:ND2	2.14	0.80
24:CX:133:SER:O	82:sR:1901:OHX:N3	2.14	0.80
1:1:1483:G:O6	35:AH:4:ARG:NH2	2.14	0.80
16:v:33:LYS:O	16:v:65:ARG:NH2	2.14	0.80
14:CN:158:ALA:HA	29:DC:97:GLU:HA	1.63	0.80
70:X:30:SER:HB2	70:X:61:ILE:HG13	1.62	0.80
47:A:126:A:H2'	54:H:194:LYS:HE2	1.62	0.80
47:sR:513:U:OP1	57:s9:133:HIS:NE2	2.14	0.80
49:s1:27:LYS:HG2	49:s1:47:LEU:HD13	1.64	0.80
19:y:158:HIS:H	19:y:186:VAL:HG12	1.45	0.80
1:AR:2534:G:H21	1:AR:2535:A:H62	1.30	0.80
47:A:487:G:O6	47:A:498:G:N1	2.14	0.80
76:d8:10:ALA:HB1	76:d8:30:VAL:HB	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:0:161:LYS:HD3	21:0:162:THR:H	1.44	0.80
52:F:19:LEU:HD11	52:F:108:ARG:HD2	1.64	0.80
47:sR:1030:A:OP1	74:d6:3:LYS:NZ	2.14	0.80
5:k:152:LYS:HG2	5:k:192:VAL:HG11	1.63	0.80
31:AD:30:THR:HG23	31:AD:91:SER:HB2	1.62	0.80
49:C:135:LEU:HD11	49:C:215:VAL:HG23	1.62	0.80
80:Rb:171:SER:HB2	80:Rb:181:TRP:HE1	1.46	0.80
1:AR:357:A:H1'	6:CF:80:GLY:HA3	1.64	0.79
52:F:194:THR:OG1	52:F:211:LYS:O	2.00	0.79
47:sR:75:U:O2'	47:sR:76:A:O4'	2.00	0.79
1:1:1878:G:OP1	82:1:3450:OHX:N6	2.15	0.79
1:1:2534:G:H1	1:1:2545:C:H42	1.30	0.79
49:C:218:LEU:HD23	49:C:219:LYS:H	1.47	0.79
47:sR:1418:G:N7	82:sR:1904:OHX:N3	2.29	0.79
1:1:1130:A:H61	12:r:115:MET:HE1	1.47	0.79
3:AT:83:C:H1'	3:AT:85:G:H21	1.44	0.79
80:Rb:19:TRP:HB2	80:Rb:38:ARG:HG3	1.64	0.79
1:1:409:A:OP2	82:1:4103:OHX:N2	2.16	0.79
14:CN:55:ARG:O	14:CN:115:ARG:NH1	2.16	0.79
47:A:810:G:C4	55:I:111:LYS:HD2	2.17	0.79
54:s6:49:VAL:HB	54:s6:115:LYS:HB2	1.64	0.79
66:c8:46:VAL:HG21	66:c8:73:MET:HG2	1.64	0.79
1:1:2895:G:O2'	41:AN:100:TYR:O	2.01	0.79
11:q:90:MET:HE2	11:q:146:LEU:HD11	1.65	0.79
47:A:169:A:H5"	54:H:176:GLN:HG2	1.65	0.79
62:c4:20:TYR:HB3	62:c4:27:PHE:HB2	1.63	0.79
23:CW:54:VAL:HG12	23:CW:67:SER:HB2	1.65	0.79
70:d2:6:VAL:HG12	70:d2:34:ILE:HD11	1.65	0.79
1:AR:1845:G:H5'	1:AR:1846:C:H5"	1.65	0.79
1:AR:1019:G:H22	1:AR:1033:U:H3	1.28	0.79
20:CT:13:SER:OG	20:CT:38:ARG:NH2	2.16	0.79
47:A:641:G:H1	47:A:693:U:H3	1.29	0.79
55:I:56:LYS:HB2	55:I:88:ARG:HG2	1.63	0.79
1:1:430:U:OP2	82:1:3502:OHX:N4	2.16	0.78
49:C:144:ARG:HB2	49:C:208:GLN:HG3	1.64	0.78
70:d2:25:VAL:HG23	70:d2:65:LEU:HD11	1.65	0.78
71:d3:125:VAL:HG23	71:d3:126:LYS:HG2	1.63	0.78
47:A:1726:G:N7	82:A:2143:OHX:N6	2.31	0.78
68:V:17:GLN:HA	68:V:97:VAL:HG12	1.65	0.78
51:s3:140:GLY:HA3	51:s3:182:LEU:HD22	1.65	0.78
60:c2:42:ALA:HB1	60:c2:47:GLU:HG3	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:d0:51:VAL:HG21	68:d0:94:GLU:N	1.98	0.78
1:AR:1764:U:H3'	1:AR:1765:U:H4'	1.66	0.78
48:B:26:ALA:HB3	48:B:149:LEU:HB2	1.65	0.78
3:4:95:G:OP2	38:AK:72:ARG:NH1	2.16	0.78
35:DI:42:PRO:HB2	35:DI:51:LEU:HD21	1.66	0.78
47:A:1695:G:H1'	47:A:1707:A:H61	1.48	0.78
49:C:26:ARG:HG3	49:C:27:LYS:HG2	1.64	0.78
80:Rb:133:VAL:HG21	80:Rb:186:PHE:HE2	1.48	0.78
63:c5:44:ARG:NH1	63:c5:82:ASN:O	2.16	0.78
17:w:61:ALA:HA	17:w:70:PRO:HD2	1.66	0.78
1:AR:2284:C:O2	82:AR:4139:OHX:N5	2.17	0.78
5:CE:292:ALA:HA	5:CE:303:LYS:H	1.46	0.78
47:A:720:G:H1'	47:A:721:U:H5"	1.64	0.78
47:A:1130:G:OP2	82:A:1932:OHX:N2	2.16	0.78
53:G:43:PHE:N	53:G:46:TRP:O	2.14	0.78
20:CT:176:ARG:NH2	47:sR:852:C:OP1	2.16	0.78
6:CF:327:LEU:HA	9:CI:166:ASN:HD21	1.49	0.78
80:Rb:210:LEU:HD12	80:Rb:222:LEU:HD12	1.66	0.78
1:AR:3182:G:OP1	17:CQ:160:ARG:NH2	2.16	0.78
48:B:172:LEU:HD23	48:B:173:ILE:H	1.48	0.78
50:s2:39:THR:HG23	50:s2:42:GLY:H	1.48	0.78
51:s3:70:THR:HG22	51:s3:86:LEU:HD13	1.64	0.78
68:d0:44:ASN:O	68:d0:48:HIS:NE2	2.16	0.78
45:i:168:ALA:O	60:N:125:ASN:ND2	2.16	0.78
68:V:21:LYS:HZ3	68:V:119:ALA:HB1	1.47	0.78
47:sR:1370:U:H4'	47:sR:1371:A:H4'	1.64	0.78
16:CP:118:SER:HB3	16:CP:132:VAL:HG23	1.66	0.78
43:DQ:50:PHE:O	82:DQ:502:OHX:N3	2.16	0.77
47:A:927:C:O2'	62:P:124:ASP:O	2.02	0.77
20:z:185:LEU:HD12	20:z:186:LYS:HG2	1.66	0.77
28:DB:22:LYS:NZ	28:DB:132:SER:O	2.17	0.77
47:A:301:A:OP2	82:A:1925:OHX:N2	2.17	0.77
80:Rb:34:LEU:HD22	80:Rb:80:ALA:HB1	1.66	0.77
80:Rb:300:THR:HA	80:Rb:314:GLN:HB2	1.64	0.77
56:s8:36:THR:OG1	56:s8:96:LEU:O	2.02	0.77
47:A:324:U:OP1	59:M:133:LYS:NZ	2.17	0.77
81:c7:32:LYS:HG2	81:c7:47:ARG:HH12	1.50	0.77
1:1:2314:U:O4	82:1:4075:OHX:N2	2.18	0.77
3:4:58:G:N7	38:AK:63:ARG:NH2	2.32	0.77
1:AR:891:G:OP1	82:AR:3417:OHX:N2	2.17	0.77
1:AR:1639:C:OP2	35:DI:74:ARG:NH2	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:479:C:N3	47:A:509:G:N2	2.32	0.77
47:A:1791:A:H3'	74:b:8:ASN:HB3	1.65	0.77
49:C:61:LEU:O	49:C:64:ARG:NE	2.16	0.77
47:sR:329:G:H5"	56:s8:98:LYS:HB3	1.65	0.77
1:1:2675:C:N4	13:s:22:SER:OG	2.18	0.77
1:1:860:G:OP1	44:AQ:17:ARG:NH1	2.18	0.77
6:l:334:PHE:HA	6:l:339:LEU:HD13	1.67	0.77
39:AL:58:ASP:HB3	39:AL:61:LYS:HB2	1.66	0.77
16:CP:73:ARG:HB3	16:CP:89:VAL:HG13	1.64	0.77
47:A:705:U:O4	47:A:730:G:N2	2.17	0.77
52:F:122:LYS:HB2	52:F:164:LEU:HD11	1.65	0.77
60:N:63:VAL:HG11	60:N:94:ALA:H	1.50	0.77
72:Z:53:ASP:HB3	72:Z:96:LEU:HD11	1.66	0.77
59:c1:109:VAL:HG12	59:c1:137:PHE:HB2	1.66	0.77
1:AR:1473:G:OP2	20:CT:8:LYS:NZ	2.18	0.77
1:AR:2539:C:N4	49:s1:233:GLY:O	2.16	0.77
49:C:82:ARG:HH12	49:C:191:GLU:HB3	1.50	0.77
56:J:39:GLY:HA2	56:J:61:GLU:HB3	1.67	0.77
42:AO:6:ARG:HH22	47:A:1113:A:H5"	1.48	0.77
55:I:154:LEU:HD21	55:I:183:PHE:HD2	1.49	0.77
50:s2:53:ILE:HG13	50:s2:72:LEU:HB3	1.64	0.77
1:AR:1587:A:OP1	82:AR:3490:OHX:N6	2.18	0.77
6:CF:300:ARG:O	19:CS:39:ARG:NH1	2.17	0.77
80:Rb:115:ILE:HG23	80:Rb:122:ILE:HD12	1.67	0.77
60:c2:97:LEU:HB2	60:c2:118:ALA:HB3	1.67	0.77
1:1:3041:U:OP1	24:6:12:ARG:NH1	2.18	0.77
47:sR:284:G:N7	54:s6:188:ARG:NH1	2.33	0.76
14:t:48:PRO:HA	14:t:137:GLN:HB2	1.65	0.76
18:x:116:HIS:HB3	18:x:149:VAL:HG22	1.67	0.76
33:DG:22:SER:HA	33:DG:28:VAL:HB	1.68	0.76
45:i:96:ARG:H	47:A:1274:C:H5	1.33	0.76
13:CM:153:LYS:HD2	13:CM:154:THR:H	1.50	0.76
47:A:1358:G:H4'	67:U:130:ARG:HA	1.66	0.76
47:sR:1699:G:O2'	47:sR:1702:A:N6	2.18	0.76
80:Rb:124:SER:OG	80:Rb:132:LYS:N	2.18	0.76
48:s0:124:THR:HG22	48:s0:174:TRP:HE1	1.50	0.76
5:CE:232:ARG:NH1	5:CE:269:GLN:O	2.19	0.76
74:b:84:VAL:HG13	74:b:85:ARG:H	1.49	0.76
30:AC:17:HIS:O	82:AC:102:OHX:N6	2.18	0.76
1:AR:2608:G:OP1	4:CD:2:GLY:N	2.18	0.76
50:D:108:ASN:O	50:D:141:ARG:NH2	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:n:43:LEU:HD11	8:n:85:ILE:HG13	1.68	0.76
33:AF:19:ARG:HD2	33:AF:33:ARG:HB2	1.67	0.76
45:i:61:ILE:HG23	66:T:125:ILE:HD13	1.67	0.76
6:CF:26:PHE:HD2	6:CF:130:ALA:HB2	1.49	0.76
64:c6:16:ALA:HB2	64:c6:72:GLY:HA3	1.68	0.76
72:d4:37:LYS:HA	72:d4:40:LEU:HB2	1.68	0.76
5:k:23:ALA:O	82:k:403:OHX:N2	2.19	0.76
1:AR:2185:G:O2'	1:AR:2314:U:OP2	2.04	0.76
1:AR:3353:G:H1'	1:AR:3356:G:H5'	1.67	0.76
20:CT:168:ALA:O	20:CT:172:ARG:HG2	1.86	0.76
49:C:77:GLU:HB2	49:C:80:SER:HB2	1.65	0.76
75:c:59:CYS:SG	75:c:60:SER:N	2.58	0.76
4:j:27:ALA:O	4:j:128:ARG:NH2	2.19	0.76
6:l:16:THR:HG22	6:l:18:ASN:H	1.50	0.76
19:y:123:THR:OG1	19:y:125:ASP:OD1	2.02	0.76
1:AR:392:G:N7	82:AR:3567:OHX:N1	2.34	0.76
47:A:1599:C:O2	82:A:2123:OHX:N2	2.19	0.76
48:s0:69:ASN:OD1	50:s2:244:SER:OG	2.04	0.76
47:A:1339:C:O2'	47:A:1341:A:N7	2.18	0.76
55:I:56:LYS:HD2	55:I:88:ARG:HH21	1.50	0.76
49:s1:36:SER:HA	49:s1:41:ARG:HE	1.51	0.76
35:AH:46:ASP:OD1	35:AH:80:ARG:NH1	2.19	0.75
1:1:1623:G:OP2	82:1:4101:OHX:N6	2.19	0.75
1:1:2840:C:OP1	82:1:4152:OHX:N4	2.19	0.75
19:CS:82:VAL:HG22	19:CS:127:LEU:HD11	1.66	0.75
21:CU:10:ILE:HG12	21:CU:26:ARG:HB2	1.69	0.75
25:CY:22:VAL:HG12	25:CY:28:ILE:HG13	1.67	0.75
49:C:127:VAL:O	49:C:135:LEU:N	2.18	0.75
53:G:124:LEU:HA	73:a:58:ARG:HD3	1.67	0.75
47:sR:68:A:O2'	47:sR:69:G:OP2	2.03	0.75
60:c2:46:ARG:HH12	79:e1:103:LEU:HB2	1.50	0.75
6:l:144:LYS:HD3	6:l:176:SER:HB3	1.65	0.75
14:t:74:GLY:HA3	14:t:98:ASP:HB2	1.68	0.75
1:AR:1207:G:N7	82:AR:3581:OHX:N2	2.33	0.75
1:AR:3329:U:H5"	5:CE:308:MET:HE2	1.67	0.75
51:E:212:LYS:HD3	51:E:213:GLU:H	1.49	0.75
53:s5:162:VAL:HA	76:d8:45:LYS:HB3	1.69	0.75
68:d0:51:VAL:HG11	68:d0:94:GLU:HB2	1.69	0.75
57:K:169:PRO:HD2	57:K:174:ARG:HH21	1.50	0.75
47:sR:1480:G:OP1	67:c9:60:SER:OG	2.03	0.75
1:1:1334:U:O2'	9:o:151:ARG:NH2	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:112:G:OP2	82:3:204:OHX:N3	2.19	0.75
1:AR:66:A:OP2	14:CN:100:ARG:NH1	2.19	0.75
28:DB:25:ILE:HA	28:DB:43:VAL:HG12	1.68	0.75
33:DG:19:ARG:HD2	33:DG:33:ARG:HB2	1.68	0.75
47:A:273:G:H1	47:A:283:U:H3	1.33	0.75
52:F:143:ASP:OD1	52:F:144:GLY:N	2.19	0.75
54:H:70:PRO:HD3	54:H:101:ILE:HD12	1.68	0.75
56:J:11:ARG:O	59:M:133:LYS:NZ	2.20	0.75
47:sR:486:G:N2	47:sR:487:G:N7	2.35	0.75
1:1:1010:G:N2	12:r:193:ASP:OD1	2.19	0.75
47:A:866:G:H5"	61:O:2:GLY:HA2	1.67	0.75
61:O:17:PRO:HG3	75:c:28:PRO:HG3	1.69	0.75
6:CF:142:VAL:HB	6:CF:145:ILE:HG12	1.69	0.75
47:sR:654:C:H2'	47:sR:655:G:H8	1.51	0.75
1:AR:640:U:OP1	29:DC:21:ARG:NH2	2.20	0.75
47:A:1531:G:N2	67:U:48:GLN:OE1	2.20	0.75
50:D:81:MET:HE1	50:D:186:LYS:HB3	1.68	0.75
63:Q:29:SER:O	63:Q:32:ASP:N	2.20	0.75
56:s8:48:THR:OG1	56:s8:52:ASN:O	2.05	0.75
1:AR:2141:U:HO2'	1:AR:2976:A:HO2'	1.35	0.74
47:A:370:A:H4'	57:K:54:ARG:HH12	1.51	0.74
63:c5:65:LEU:O	82:c5:201:OHX:N2	2.20	0.74
7:m:91:GLY:O	7:m:94:ASN:ND2	2.19	0.74
12:r:14:ASN:O	12:r:128:ARG:NH2	2.20	0.74
23:5:99:LYS:HG3	23:5:102:GLU:HB2	1.67	0.74
1:AR:1919:G:N7	82:AR:3572:OHX:N1	2.35	0.74
47:A:73:U:O2'	47:A:74:U:O5'	2.06	0.74
49:C:34:ALA:H	49:C:41:ARG:HB2	1.52	0.74
47:sR:868:G:H1	47:sR:960:U:H3	1.35	0.74
62:c4:47:LYS:HD3	62:c4:62:LEU:HB3	1.67	0.74
1:1:3005:A:OP2	82:1:4131:OHX:N5	2.19	0.74
9:o:160:ARG:HB2	9:o:203:TRP:CD2	2.22	0.74
53:G:37:GLN:HB2	64:R:53:LEU:HB3	1.69	0.74
65:S:17:ILE:HG23	65:S:58:MET:HE3	1.69	0.74
79:g:119:ARG:HH21	79:g:139:LEU:HD21	1.51	0.74
47:sR:140:A:H1'	54:s6:179:VAL:HG11	1.69	0.74
74:d6:57:SER:OG	74:d6:58:VAL:O	2.04	0.74
40:AM:21:ARG:HE	40:AM:24:PRO:HG3	1.52	0.74
14:CN:6:ASN:HB2	29:DC:48:TYR:CG	2.23	0.74
47:sR:448:C:OP2	52:s4:49:ARG:NH2	2.20	0.74
80:Rb:56:VAL:HG23	64:c6:100:GLN:HG3	1.66	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:Rb:81:LEU:HD22	80:Rb:122:ILE:HD13	1.69	0.74
60:c2:43:ARG:HA	60:c2:121:VAL:HG21	1.69	0.74
1:AR:437:G:H21	1:AR:622:A:H62	1.34	0.74
45:sM:71:ASN:HD21	63:c5:128:HIS:HD2	1.36	0.74
80:Rb:131:ILE:HD11	80:Rb:151:VAL:HG11	1.69	0.74
1:1:129:U:O4	82:1:3418:OHX:N5	2.20	0.74
1:1:1112:A:OP1	14:t:5:LYS:NZ	2.18	0.74
1:1:2234:G:O6	82:1:4102:OHX:N3	2.21	0.74
5:k:169:THR:HG22	5:k:171:LEU:H	1.51	0.74
47:A:438:A:OP1	82:A:1908:OHX:N4	2.21	0.74
78:e0:50:VAL:HG13	78:e0:52:GLY:H	1.52	0.74
1:AR:838:G:O6	44:DR:4:ARG:NH2	2.20	0.74
1:AR:3075:G:O6	82:AR:3604:OHX:N6	2.20	0.74
7:CG:296:GLN:HB2	12:CL:219:ALA:HB3	1.69	0.74
53:G:182:ALA:O	53:G:186:ASN:ND2	2.20	0.74
1:1:2707:C:OP1	45:i:34:LYS:NZ	2.21	0.74
1:1:2767:U:OP1	43:AP:34:SER:HB3	1.87	0.74
21:0:141:LYS:HA	21:0:144:LEU:HD12	1.70	0.74
23:5:51:GLY:O	23:5:52:ASN:ND2	2.21	0.74
1:AR:1427:U:OP2	29:DC:4:ARG:NH2	2.20	0.74
2:AS:28:C:OP1	13:CM:137:ARG:NH1	2.20	0.74
15:CO:55:ARG:NH2	15:CO:76:ALA:O	2.21	0.74
33:DG:100:ILE:O	33:DG:105:ARG:NH1	2.21	0.74
45:sM:61:ILE:HG21	66:c8:120:ARG:HG3	1.69	0.74
47:A:895:G:H1	47:A:917:U:H3	1.33	0.74
47:A:1711:C:H2'	47:A:1712:A:H5"	1.70	0.74
80:Rb:123:ILE:HD11	80:Rb:169:ILE:HG21	1.70	0.74
1:AR:651:G:OP1	82:AR:3607:OHX:N2	2.20	0.74
1:AR:1095:U:H4'	1:AR:1096:U:H5"	1.69	0.74
53:G:149:VAL:HA	76:d:66:LEU:HD11	1.69	0.74
80:h:72:THR:HG21	80:h:114:ASP:HA	1.69	0.74
52:s4:181:VAL:HG12	52:s4:227:VAL:HA	1.70	0.74
1:AR:269:G:N2	1:AR:295:A:OP2	2.20	0.73
47:A:1525:A:H5'	67:U:93:HIS:HB2	1.70	0.73
1:1:1443:G:N7	82:1:4082:OHX:N1	2.36	0.73
1:1:2784:G:N7	89:1:4204:HOH:O	2.21	0.73
25:7:6:ASP:HB3	25:7:10:GLY:H	1.52	0.73
1:AR:2759:U:H5"	1:AR:2760:C:H5'	1.70	0.73
71:Y:93:LEU:HD21	78:f:8:LEU:HD23	1.70	0.73
78:f:49:LEU:HD21	78:f:51:ASN:HB3	1.70	0.73
54:s6:152:ASP:HB3	54:s6:154:ARG:HH12	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3108:G:N3	11:q:163:GLN:NE2	2.36	0.73
1:AR:2945:G:O2'	1:AR:2948:C:OP2	2.06	0.73
24:CX:104:ASN:HD21	24:CX:108:GLU:HB2	1.53	0.73
47:A:1459:C:OP1	66:T:126:ARG:NH2	2.21	0.73
49:C:62:LYS:HG3	49:C:89:ASP:O	1.87	0.73
72:Z:83:LYS:HD2	72:Z:96:LEU:HD22	1.71	0.73
80:h:146:GLY:HA3	80:h:181:TRP:HH2	1.52	0.73
63:c5:44:ARG:O	63:c5:48:GLY:N	2.20	0.73
1:1:1298:C:OP2	82:1:3477:OHX:N5	2.20	0.73
7:m:120:LYS:O	7:m:248:ARG:NH2	2.21	0.73
1:AR:70:A:N1	1:AR:313:A:O2'	2.21	0.73
1:AR:295:A:H1'	37:DK:82:ARG:HD3	1.70	0.73
1:AR:899:U:O4	82:AR:3463:OHX:N5	2.21	0.73
1:AR:2774:C:O2	1:AR:2786:G:N2	2.18	0.73
5:CE:85:VAL:HB	5:CE:202:THR:HG22	1.70	0.73
21:CU:6:GLU:OE2	21:CU:99:ARG:NH2	2.21	0.73
68:d0:64:LYS:HG2	68:d0:83:GLU:HG2	1.71	0.73
69:d1:71:ARG:HE	75:d7:4:VAL:HG21	1.52	0.73
31:AD:41:LEU:HB3	31:AD:92:ILE:HD11	1.70	0.73
35:AH:3:GLN:HB3	35:AH:30:LEU:HD12	1.69	0.73
1:AR:2982:A:OP1	82:AR:3667:OHX:N3	2.21	0.73
70:X:15:ASN:ND2	70:X:72:CYS:O	2.21	0.73
80:Rb:9:LEU:HD13	80:Rb:314:GLN:HG2	1.69	0.73
71:d3:48:HIS:HB3	71:d3:103:LEU:HD11	1.69	0.73
12:r:100:ASN:HD21	12:r:118:ALA:HB1	1.53	0.73
16:CP:181:ASN:HA	16:CP:184:LYS:HE3	1.70	0.73
59:c1:14:GLN:HB3	59:c1:54:ILE:HG13	1.69	0.73
1:1:419:G:N7	82:1:3406:OHX:N3	2.37	0.73
5:k:70:ARG:HH22	24:6:120:LYS:HE2	1.54	0.73
21:0:91:TYR:O	21:0:137:ARG:NH1	2.22	0.73
28:AA:88:ASP:HB3	28:AA:121:ARG:HH12	1.52	0.73
1:AR:277:G:OP1	82:AR:3422:OHX:N6	2.22	0.73
47:A:1523:G:N7	67:U:64:HIS:NE2	2.33	0.73
1:1:2836:C:H5	1:1:2852:C:H42	1.35	0.73
1:1:3230:G:H4'	15:u:132:LYS:HD3	1.70	0.73
32:AE:23:VAL:O	32:AE:28:ARG:NH1	2.22	0.73
1:AR:3128:G:OP2	82:AR:3642:OHX:N2	2.22	0.73
1:AR:3157:U:H4'	1:AR:3158:G:H5'	1.69	0.73
47:A:933:A:OP1	74:b:70:LYS:NZ	2.22	0.73
47:A:1085:G:N2	47:A:1088:A:OP2	2.18	0.73
54:H:142:ARG:HG2	54:H:153:VAL:HG11	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:b:43:ASN:HA	74:b:66:LYS:HB3	1.69	0.73
47:sR:1525:A:H5'	67:c9:93:HIS:HB2	1.71	0.73
53:s5:206:SER:H	53:s5:211:ILE:HD11	1.53	0.73
47:sR:332:U:P	56:s8:56:ARG:HH22	2.11	0.73
47:sR:895:G:H1	47:sR:917:U:H3	1.34	0.73
66:c8:36:LYS:HB3	66:c8:105:VAL:HG11	1.69	0.73
1:1:367:A:OP1	82:1:4076:OHX:N2	2.22	0.73
1:1:3354:U:H3	56:J:110:ARG:HH21	1.37	0.73
7:m:76:ALA:HB3	7:m:109:THR:HG22	1.71	0.73
11:q:9:GLN:HB3	11:q:52:LEU:HD11	1.70	0.73
1:AR:2274:U:OP2	82:AR:3484:OHX:N2	2.21	0.73
47:A:134:U:OP1	47:A:136:C:N4	2.22	0.73
47:A:389:G:O2'	82:A:2141:OHX:N3	2.22	0.73
47:sR:1459:C:OP2	66:c8:138:THR:OG1	2.06	0.73
1:1:651:G:O2'	1:1:1435:A:OP1	2.06	0.72
5:k:76:VAL:HG12	5:k:325:LYS:HA	1.71	0.72
1:AR:2705:A:OP2	82:AR:3401:OHX:N2	2.22	0.72
47:A:1498:G:H5"	67:U:72:GLY:HA3	1.69	0.72
67:U:63:ARG:HG2	67:U:67:MET:HE2	1.71	0.72
53:s5:42:LEU:HD22	53:s5:48:PHE:H	1.54	0.72
37:AJ:74:LYS:HD2	37:AJ:80:PHE:HD1	1.53	0.72
1:AR:1304:A:OP1	82:AR:4162:OHX:N1	2.21	0.72
47:A:782:U:H5"	47:A:783:G:H5"	1.70	0.72
6:l:327:LEU:HA	9:o:166:ASN:HD21	1.53	0.72
1:AR:1078:U:O4	82:AR:3498:OHX:N5	2.22	0.72
47:A:926:A:OP1	47:A:1016:C:O2'	2.07	0.72
47:A:1096:C:O2'	47:A:1097:U:OP2	2.08	0.72
55:I:51:VAL:HG23	55:I:53:GLY:H	1.53	0.72
47:sR:218:A:H2'	47:sR:219:A:H5"	1.71	0.72
48:s0:183:ARG:NH1	48:s0:191:ARG:HG3	2.04	0.72
1:1:978:G:O2'	1:1:979:U:O2	2.05	0.72
1:1:1119:C:OP2	82:1:3470:OHX:N4	2.23	0.72
1:1:1851:G:OP2	82:1:3487:OHX:N1	2.23	0.72
6:l:295:ILE:O	6:l:299:ILE:HG12	1.89	0.72
47:A:698:U:H1'	55:I:107:ARG:HD3	1.71	0.72
55:I:67:LEU:HA	55:I:70:PHE:HB2	1.70	0.72
19:y:11:LYS:H	19:y:11:LYS:HD3	1.54	0.72
49:C:57:ALA:HA	49:C:61:LEU:HD13	1.71	0.72
54:H:212:LEU:HA	54:H:215:ARG:HB2	1.69	0.72
67:U:14:PHE:HE1	67:U:135:ILE:HD13	1.54	0.72
68:V:99:ILE:HG13	68:V:102:ARG:HB3	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:s1:132:ASP:HB2	49:s1:221:PRO:HB3	1.70	0.72
1:1:1563:C:O2	1:1:1577:G:N2	2.19	0.72
62:P:17:ALA:HB3	62:P:81:VAL:HA	1.72	0.72
47:sR:356:G:OP2	82:sR:1923:OHX:N6	2.23	0.72
47:sR:1533:C:H4'	47:sR:1539:G:N1	2.05	0.72
64:c6:97:VAL:HG12	64:c6:98:ASP:H	1.53	0.72
1:AR:1542:G:N7	82:AR:3592:OHX:N6	2.37	0.72
14:CN:62:THR:O	14:CN:65:TYR:N	2.13	0.72
53:s5:117:THR:HG21	53:s5:194:LEU:HD11	1.72	0.72
1:1:1245:A:N6	1:1:1272:C:O2'	2.22	0.72
1:AR:2754:G:OP2	82:AR:3546:OHX:N3	2.22	0.72
1:AR:3019:U:O4	82:AR:4136:OHX:N6	2.22	0.72
35:DI:85:VAL:HA	35:DI:88:ARG:HG2	1.71	0.72
1:1:1639:C:OP2	35:AH:74:ARG:NH2	2.23	0.72
1:1:3348:G:H1	1:1:3357:U:H3	1.38	0.72
28:DB:10:VAL:HG12	28:DB:24:VAL:HG22	1.70	0.72
47:sR:40:A:O2'	82:sR:1964:OHX:N4	2.22	0.72
47:sR:1063:U:H2'	47:sR:1064:G:H8	1.55	0.72
47:sR:1791:A:H3'	74:d6:8:ASN:HB3	1.72	0.72
49:s1:111:ARG:HH22	62:c4:121:VAL:HG11	1.54	0.72
3:4:39:G:O2'	82:4:205:OHX:N4	2.22	0.72
19:y:175:ALA:O	29:AB:51:GLY:HA2	1.90	0.72
80:h:262:VAL:HG13	80:h:271:VAL:HB	1.72	0.72
80:Rb:133:VAL:HG23	80:Rb:141:LEU:HB3	1.71	0.72
52:s4:118:GLU:OE2	52:s4:237:SER:N	2.22	0.72
21:0:74:ASN:HD21	21:0:144:LEU:HD21	1.54	0.71
1:AR:2169:G:O6	82:AR:3454:OHX:N2	2.23	0.71
1:AR:2513:U:OP2	82:AR:3465:OHX:N6	2.22	0.71
1:AR:2574:G:H2'	1:AR:2575:G:H8	1.54	0.71
2:AS:5:G:OP1	13:CM:143:ARG:NH2	2.23	0.71
52:F:211:LYS:HE3	52:F:215:ASP:HA	1.72	0.71
80:h:153:GLN:O	80:h:172:ALA:HB3	1.90	0.71
80:h:302:PHE:HA	80:h:312:VAL:HG12	1.72	0.71
80:Rb:133:VAL:HG21	80:Rb:186:PHE:CE2	2.24	0.71
1:1:1524:A:OP1	26:8:92:LYS:NZ	2.19	0.71
1:1:2659:G:N7	82:1:3411:OHX:N1	2.38	0.71
47:A:1300:A:OP1	50:D:99:LYS:NZ	2.23	0.71
47:sR:454:U:H5'	47:sR:455:C:C5	2.24	0.71
47:sR:867:G:N7	82:sR:1914:OHX:N4	2.37	0.71
53:s5:136:ALA:HA	53:s5:202:ALA:HA	1.71	0.71
1:1:1631:C:OP2	28:AA:48:ARG:NH2	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:142:G:H22	47:A:173:A:H2	1.35	0.71
1:1:2960:C:H2'	1:1:2961:G:H8	1.55	0.71
1:1:3199:G:O6	82:1:4107:OHX:N3	2.23	0.71
43:AP:40:LYS:NZ	43:AP:44:ASP:OD1	2.19	0.71
1:AR:3312:U:OP1	82:AR:3519:OHX:N4	2.23	0.71
12:CL:208:ASN:HB3	12:CL:211:ARG:HH21	1.53	0.71
49:C:21:VAL:HG13	49:C:23:PRO:HD3	1.72	0.71
53:G:44:ASN:ND2	53:G:69:PHE:O	2.23	0.71
53:G:90:ILE:HD12	53:G:130:ILE:HG22	1.73	0.71
69:W:60:ARG:HA	69:W:65:SER:HB2	1.72	0.71
47:sR:478:A:OP1	78:e0:37:ARG:NH1	2.22	0.71
1:1:1086:C:H1'	30:AC:47:LEU:HD21	1.72	0.71
1:1:1587:A:OP1	82:1:4086:OHX:N2	2.24	0.71
16:v:192:LYS:O	16:v:196:THR:HG23	1.91	0.71
1:AR:1878:G:OP1	82:AR:3457:OHX:N5	2.23	0.71
47:A:443:C:O2	47:A:445:A:N6	2.23	0.71
1:1:837:A:OP2	44:AQ:4:ARG:NH1	2.23	0.71
31:AD:75:ASN:ND2	44:AQ:43:GLY:O	2.22	0.71
43:AP:68:VAL:HG23	43:AP:85:LEU:HB2	1.72	0.71
47:A:151:G:O6	72:Z:124:ARG:NH1	2.24	0.71
53:G:115:LYS:NZ	53:G:119:ASP:OD2	2.23	0.71
63:Q:67:ALA:O	82:Q:201:OHX:N2	2.24	0.71
1:1:86:G:O2'	1:1:98:G:O6	2.07	0.71
1:1:2187:G:OP2	82:1:3504:OHX:N2	2.23	0.71
1:AR:2687:G:N7	82:AR:3419:OHX:N1	2.39	0.71
47:A:711:U:H1'	47:A:712:G:H8	1.55	0.71
47:A:1228:G:H5'	60:N:45:LEU:HG	1.73	0.71
47:A:1239:U:O4	82:A:2112:OHX:N6	2.24	0.71
52:F:114:ILE:HD12	52:F:118:GLU:HG2	1.72	0.71
53:G:143:ARG:HB2	76:d:57:MET:HE1	1.72	0.71
51:s3:59:LEU:HA	51:s3:66:ILE:HG12	1.73	0.71
81:c7:58:MET:O	81:c7:62:GLN:NE2	2.24	0.71
24:6:108:GLU:HG2	24:6:128:ARG:HD3	1.71	0.71
1:AR:2842:U:OP1	1:AR:2844:C:N4	2.24	0.71
1:AR:3214:U:H4'	34:DH:3:GLU:HG2	1.72	0.71
13:CM:30:LEU:HD11	13:CM:67:VAL:HG13	1.72	0.71
53:G:143:ARG:H	53:G:143:ARG:HD3	1.54	0.71
47:sR:482:U:H3	47:sR:505:A:H61	1.39	0.71
47:sR:886:U:O2'	62:c4:121:VAL:O	2.08	0.71
3:4:137:C:OP2	82:4:212:OHX:N5	2.24	0.71
44:AQ:49:ARG:HG2	44:AQ:50:GLY:H	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:965:A:H5"	14:CN:4:SER:HB3	1.72	0.71
24:CX:54:LEU:HD21	24:CX:119:GLY:HA3	1.73	0.71
28:DB:46:ILE:HD13	28:DB:68:ILE:HG23	1.72	0.71
47:A:732:G:O6	82:A:2127:OHX:N6	2.23	0.71
53:G:62:VAL:HA	53:G:89:ILE:HG21	1.73	0.71
66:T:36:LYS:HB2	66:T:102:ALA:HA	1.72	0.71
67:U:37:VAL:HG12	67:U:39:THR:H	1.55	0.71
79:e1:127:GLY:HA2	79:e1:130:VAL:HG22	1.73	0.71
1:1:900:G:H1'	1:1:1589:A:N6	2.06	0.70
1:1:3242:G:N2	1:1:3245:A:OP2	2.24	0.70
17:w:12:LYS:O	21:0:167:ARG:NH2	2.23	0.70
1:AR:969:C:OP1	30:DD:19:ASN:ND2	2.24	0.70
1:AR:2659:G:N7	82:AR:3409:OHX:N4	2.39	0.70
62:P:128:LYS:N	74:b:22:ARG:HH12	1.89	0.70
80:Rb:38:ARG:HA	80:Rb:67:ILE:HG23	1.72	0.70
58:c0:25:LYS:HB2	58:c0:64:TYR:CE2	2.26	0.70
7:m:50:ARG:NH1	7:m:72:ASP:OD2	2.24	0.70
13:s:49:LYS:HB3	13:s:62:ASN:HA	1.73	0.70
1:AR:39:A:H5"	29:DC:35:ALA:HB2	1.72	0.70
1:AR:600:G:N7	82:AR:3618:OHX:N4	2.38	0.70
1:AR:900:G:H1'	1:AR:1589:A:N6	2.06	0.70
47:A:930:A:OP1	74:b:32:LYS:NZ	2.24	0.70
47:A:1445:G:N2	79:g:88:PRO:O	2.25	0.70
47:sR:419:G:N7	82:sR:1901:OHX:N2	2.39	0.70
80:Rb:133:VAL:CG2	80:Rb:141:LEU:HB3	2.21	0.70
81:c7:36:ASP:O	82:c7:201:OHX:N4	2.24	0.70
1:1:368:G:OP1	82:1:4076:OHX:N6	2.23	0.70
1:1:1363:A:OP2	82:1:4138:OHX:N6	2.25	0.70
15:u:20:VAL:HG11	15:u:90:VAL:HG21	1.72	0.70
1:AR:110:G:OP2	14:CN:73:ARG:NH2	2.24	0.70
1:AR:1565:G:H2'	1:AR:1566:A:H8	1.55	0.70
40:DN:5:LYS:HD3	40:DN:13:MET:HE1	1.73	0.70
47:sR:486:G:H22	47:sR:501:U:H3	1.37	0.70
51:s3:127:MET:HE3	51:s3:154:ASP:HB3	1.71	0.70
54:s6:67:VAL:HG23	54:s6:68:LEU:H	1.55	0.70
62:c4:13:VAL:N	62:c4:77:THR:OG1	2.24	0.70
1:1:2392:C:O2'	5:k:266:ARG:NH2	2.25	0.70
1:1:2433:U:H1'	16:v:125:SER:HB3	1.73	0.70
5:k:41:VAL:HA	5:k:185:GLY:HA3	1.74	0.70
1:AR:718:G:C2	1:AR:721:G:H1'	2.26	0.70
1:AR:2667:A:O2'	1:AR:2691:A:OP1	2.07	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:94:ALA:HB3	4:CD:102:LEU:HG	1.72	0.70
47:A:788:A:N1	52:F:51:ARG:NH2	2.39	0.70
52:F:13:ALA:O	52:F:39:ARG:NH2	2.24	0.70
68:V:39:SER:HA	68:V:42:VAL:HB	1.72	0.70
52:s4:92:LEU:HD23	72:d4:17:LEU:HD11	1.73	0.70
75:d7:61:THR:HG22	75:d7:62:ILE:H	1.55	0.70
1:1:275:U:O4	82:1:4096:OHX:N5	2.25	0.70
24:6:10:LYS:NZ	24:6:56:ASP:OD1	2.25	0.70
47:A:550:A:OP2	82:A:2104:OHX:N2	2.24	0.70
63:Q:87:PRO:HA	63:Q:90:ILE:HG13	1.72	0.70
47:sR:241:U:H2'	47:sR:242:U:H5	1.55	0.70
47:sR:1207:C:H42	47:sR:1456:C:H5	1.40	0.70
40:AM:43:ASN:HB3	40:AM:46:ARG:HB2	1.72	0.70
16:CP:42:PRO:HG3	16:CP:61:ILE:HG13	1.73	0.70
48:B:185:ARG:H	69:W:45:ALA:H	1.36	0.70
60:N:91:VAL:HG12	60:N:92:ALA:H	1.57	0.70
68:V:20:ILE:HB	68:V:22:ILE:HG12	1.72	0.70
80:h:195:HIS:CE1	80:h:197:SER:HB2	2.27	0.70
80:Rb:243:LEU:HD22	80:Rb:252:LEU:HD21	1.74	0.70
51:s3:50:ILE:HD11	51:s3:86:LEU:HD23	1.74	0.70
55:s7:20:VAL:HA	55:s7:23:ALA:HB3	1.73	0.70
3:4:69:U:OP2	82:AK:102:OHX:N6	2.24	0.70
5:k:232:ARG:NH1	5:k:269:GLN:O	2.24	0.70
1:AR:2354:C:N4	89:AR:4312:HOH:O	2.25	0.70
8:CH:29:LYS:O	82:CH:201:OHX:N2	2.25	0.70
11:CK:91:ARG:NH2	11:CK:141:LYS:O	2.24	0.70
28:DB:70:PRO:HG3	28:DB:115:LYS:HB2	1.73	0.70
47:sR:919:A:H4'	62:c4:35:GLY:HA3	1.73	0.70
61:c3:91:LEU:HD12	61:c3:125:LEU:HD12	1.73	0.70
66:c8:24:GLY:HA2	66:c8:58:ALA:HB3	1.73	0.70
17:w:65:ASN:OD1	17:w:67:THR:OG1	2.09	0.70
45:i:89:ARG:NH1	47:A:1191:U:OP1	2.24	0.70
1:AR:412:G:OP1	18:CR:62:ARG:NH1	2.25	0.70
17:CQ:22:VAL:HG21	17:CQ:120:VAL:HG11	1.72	0.70
40:DN:10:LYS:HA	40:DN:13:MET:HE3	1.73	0.70
49:C:134:VAL:O	49:C:217:LEU:HD11	1.91	0.70
80:h:214:ALA:HB1	80:h:240:VAL:HB	1.73	0.70
58:c0:11:ILE:HD13	58:c0:35:ILE:HG21	1.73	0.70
72:d4:45:ALA:HA	72:d4:50:ALA:HB3	1.72	0.70
1:1:76:G:O2'	14:t:100:ARG:NH1	2.25	0.70
1:1:213:A:OP1	27:9:2:ALA:N	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:392:G:N7	82:1:3527:OHX:N2	2.40	0.70
1:AR:1552:G:OP2	82:AR:3505:OHX:N5	2.25	0.70
1:AR:2273:G:O6	82:AR:4160:OHX:N3	2.25	0.70
1:AR:2897:A:H5"	41:DO:125:LYS:HG3	1.74	0.70
3:AT:43:A:OP1	82:AT:202:OHX:N3	2.25	0.70
47:A:953:G:H5'	61:O:114:ARG:HD3	1.74	0.70
47:A:1474:G:H2'	47:A:1475:A:C8	2.27	0.70
49:C:189:ILE:HG13	49:C:190:PRO:HD3	1.74	0.70
66:T:28:ILE:HD13	66:T:61:LEU:HD13	1.74	0.70
47:sR:1222:C:H42	47:sR:1261:G:H1	1.39	0.70
49:s1:70:LEU:HB3	49:s1:79:HIS:HB3	1.74	0.70
54:s6:152:ASP:HB3	54:s6:154:ARG:NH1	2.07	0.70
1:1:901:G:N7	82:1:3458:OHX:N2	2.40	0.70
1:1:2843:U:OP1	82:1:4152:OHX:N3	2.24	0.70
5:k:169:THR:O	82:k:404:OHX:N5	2.25	0.70
16:CP:192:LYS:O	16:CP:196:THR:OG1	2.10	0.70
37:DK:70:ARG:HD3	37:DK:84:LYS:HG2	1.74	0.70
47:A:699:U:OP2	47:A:733:A:N6	2.25	0.70
47:A:1797:A:N6	74:b:84:VAL:O	2.25	0.70
48:s0:116:LYS:HD3	48:s0:117:GLU:H	1.56	0.70
67:c9:6:VAL:HG21	67:c9:132:LEU:HB3	1.74	0.70
73:d5:92:ILE:HG13	73:d5:100:ILE:HG13	1.73	0.70
1:1:623:U:OP2	82:1:4139:OHX:N1	2.25	0.69
7:m:64:ILE:HD12	7:m:109:THR:HG21	1.74	0.69
3:AT:16:G:O6	82:AT:206:OHX:N6	2.24	0.69
20:CT:109:TYR:HB3	20:CT:115:ILE:HG12	1.73	0.69
47:A:103:A:OP2	82:A:2116:OHX:N3	2.25	0.69
48:B:52:LYS:HG2	69:W:82:VAL:HA	1.73	0.69
47:sR:1683:C:O2	47:sR:1718:G:N2	2.20	0.69
55:s7:17:GLU:HB3	55:s7:43:PHE:HZ	1.56	0.69
67:c9:68:ARG:HG3	67:c9:69:LYS:H	1.56	0.69
1:1:2674:A:H5"	13:s:105:GLY:HA3	1.74	0.69
1:1:3054:U:OP2	82:1:3415:OHX:N3	2.25	0.69
22:2:136:ARG:HD2	22:2:139:ARG:HH22	1.56	0.69
45:i:102:THR:HG21	47:A:575:C:H5'	1.73	0.69
1:AR:343:U:OP2	82:AR:3425:OHX:N6	2.25	0.69
7:CG:211:LEU:HB3	7:CG:219:PHE:HB2	1.74	0.69
7:CG:217:GLU:O	7:CG:220:SER:OG	2.10	0.69
28:DB:96:VAL:HA	28:DB:100:THR:HG21	1.74	0.69
31:DE:75:ASN:OD1	31:DE:86:ARG:NH1	2.25	0.69
40:DN:9:ILE:HG22	40:DN:13:MET:HE2	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:487:G:H1	47:A:500:C:H42	1.39	0.69
66:T:35:ILE:HG22	66:T:102:ALA:HB2	1.73	0.69
47:sR:1539:G:H5'	47:sR:1539:G:H8	1.55	0.69
80:Rb:149:ASP:HB2	80:Rb:175:ASP:HB3	1.73	0.69
1:1:1310:G:N7	82:1:4137:OHX:N2	2.40	0.69
1:1:1748:G:O6	82:1:4151:OHX:N4	2.25	0.69
4:j:101:VAL:HB	4:j:165:VAL:HG12	1.73	0.69
1:AR:785:G:N7	29:DC:77:LYS:NZ	2.39	0.69
1:AR:2436:U:H4'	10:CJ:70:LYS:HD2	1.73	0.69
6:CF:16:THR:HG22	6:CF:18:ASN:H	1.58	0.69
47:A:58:U:O2'	47:A:451:A:N3	2.25	0.69
47:A:1314:U:OP1	82:A:1977:OHX:N5	2.25	0.69
54:H:69:LEU:O	54:H:71:THR:N	2.26	0.69
56:J:5:ARG:NH1	56:J:29:LEU:O	2.24	0.69
47:sR:1316:G:OP1	81:c7:7:LYS:N	2.25	0.69
56:s8:34:ALA:HB2	56:s8:56:ARG:HD3	1.72	0.69
23:5:98:THR:HG23	23:5:99:LYS:HG2	1.73	0.69
28:AA:102:GLU:O	28:AA:103:GLN:HG2	1.92	0.69
1:AR:1023:C:H42	1:AR:1029:G:H1	1.38	0.69
1:AR:2392:C:HO2'	5:CE:266:ARG:HH22	1.38	0.69
1:AR:2823:G:O6	82:AR:3453:OHX:N4	2.25	0.69
35:DI:79:SER:HB3	35:DI:80:ARG:HH11	1.57	0.69
66:T:24:GLY:HA2	66:T:58:ALA:HB3	1.73	0.69
47:sR:79:C:OP1	54:s6:159:ARG:NH2	2.25	0.69
47:sR:741:C:O2	55:s7:107:ARG:NH2	2.26	0.69
72:d4:128:LYS:HZ3	72:d4:131:ARG:HD3	1.56	0.69
78:e0:47:VAL:HG12	78:e0:48:THR:H	1.56	0.69
1:1:1233:G:O2'	1:1:1256:G:N2	2.26	0.69
1:1:3060:C:OP1	82:1:4125:OHX:N1	2.26	0.69
1:1:3290:G:N7	82:1:4108:OHX:N5	2.40	0.69
4:j:20:THR:HA	4:j:23:ARG:HD2	1.74	0.69
1:AR:2162:U:O4	82:AR:4163:OHX:N6	2.25	0.69
10:CJ:43:LYS:HD3	26:CZ:28:THR:HB	1.75	0.69
60:N:54:ARG:HH21	79:g:127:GLY:HA3	1.58	0.69
80:h:149:ASP:HB2	80:h:175:ASP:HB3	1.75	0.69
47:sR:453:U:O4	82:sR:1918:OHX:N1	2.25	0.69
1:1:1580:A:H4'	1:1:1581:C:H5'	1.73	0.69
1:AR:2880:U:H1'	5:CE:250:ALA:HB3	1.75	0.69
80:Rb:199:ILE:HA	80:Rb:215:GLY:HA2	1.75	0.69
67:c9:132:LEU:HA	67:c9:135:ILE:HG22	1.75	0.69
1:AR:196:G:N7	82:AR:3444:OHX:N3	2.41	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:239:G:N2	1:AR:241:G:O6	2.25	0.69
1:AR:2146:C:OP1	4:CD:200:ARG:NH2	2.24	0.69
1:AR:2269:U:HO2'	1:AR:2270:A:H8	1.40	0.69
82:AR:4155:OHX:N5	33:DG:14:THR:O	2.25	0.69
6:CF:122:THR:HG22	6:CF:235:LEU:HB2	1.75	0.69
47:A:584:C:H1'	78:f:18:THR:HG21	1.75	0.69
68:V:20:ILE:HD12	68:V:22:ILE:HB	1.75	0.69
1:1:1898:G:OP2	82:1:4083:OHX:N3	2.26	0.69
1:1:2415:C:OP1	4:j:2:GLY:N	2.26	0.69
1:1:2680:A:C2	13:s:57:PHE:HB3	2.27	0.69
1:1:3364:C:OP1	82:1:3451:OHX:N2	2.26	0.69
6:l:12:THR:HA	6:l:171:ALA:HB1	1.73	0.69
11:q:99:ILE:HG22	11:q:117:PHE:HA	1.73	0.69
14:t:76:THR:O	14:t:79:GLU:N	2.26	0.69
20:z:27:ASN:O	82:z:202:OHX:N5	2.26	0.69
1:AR:2988:C:O2	5:CE:266:ARG:NH1	2.26	0.69
44:DR:46:THR:OG1	44:DR:57:CYS:SG	2.50	0.69
47:A:567:A:H1'	78:f:14:VAL:HG13	1.73	0.69
47:A:1508:U:O4	82:A:1971:OHX:N2	2.24	0.69
80:h:120:SER:HA	80:h:136:ILE:HG12	1.74	0.69
47:sR:788:A:OP2	52:s4:108:ARG:NH2	2.26	0.69
47:sR:877:G:OP1	82:sR:1970:OHX:N6	2.26	0.69
47:sR:1690:G:H1	47:sR:1711:C:H42	1.41	0.69
48:s0:23:HIS:HA	48:s0:48:ILE:HG22	1.73	0.69
60:c2:76:GLU:HB3	60:c2:80:ASN:HB2	1.74	0.69
82:1:4080:OHX:N1	16:v:32:GLN:O	2.26	0.69
29:AB:89:GLN:O	29:AB:93:SER:OG	2.09	0.69
36:DJ:83:LYS:HG3	36:DJ:83:LYS:O	1.92	0.69
47:A:878:G:N7	82:A:1937:OHX:N2	2.41	0.69
47:A:1320:U:H3'	48:B:101:ARG:HH22	1.58	0.69
68:V:37:VAL:HA	68:V:40:ASN:HB3	1.75	0.69
47:sR:353:A:OP2	82:sR:1908:OHX:N3	2.26	0.69
47:sR:1191:U:O2'	64:c6:142:TYR:O	2.11	0.69
50:s2:152:HIS:CD2	50:s2:152:HIS:H	2.10	0.69
56:s8:152:ILE:HD12	56:s8:156:VAL:HG13	1.75	0.69
72:d4:128:LYS:NZ	72:d4:131:ARG:HD3	2.07	0.69
1:1:655:C:H2'	1:1:656:A:C8	2.29	0.69
1:AR:820:A:OP1	82:AR:3471:OHX:N4	2.24	0.69
47:A:676:G:O6	47:A:677:G:N2	2.26	0.69
48:B:56:LYS:HG3	48:B:159:ALA:O	1.93	0.69
1:1:2169:G:O6	82:1:4080:OHX:N5	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3174:A:OP1	34:AG:97:SER:OG	2.11	0.68
9:o:233:GLU:OE2	21:0:38:LYS:NZ	2.24	0.68
36:AI:78:LYS:HA	36:AI:81:ARG:HD2	1.75	0.68
22:CV:13:TYR:O	82:CV:201:OHX:N6	2.26	0.68
44:DR:83:ILE:HD12	44:DR:87:ARG:HH12	1.57	0.68
49:C:58:SER:OG	49:C:62:LYS:NZ	2.26	0.68
61:O:4:MET:HE2	61:O:124:ARG:HH21	1.58	0.68
47:sR:861:U:OP1	61:c3:64:ARG:NH1	2.26	0.68
11:q:57:VAL:HG23	11:q:68:LEU:HD13	1.75	0.68
13:s:115:LYS:HD2	13:s:115:LYS:H	1.58	0.68
1:AR:3174:A:N1	34:DH:54:ARG:NH2	2.41	0.68
47:A:968:U:O3'	47:A:1032:G:N2	2.25	0.68
47:A:1011:G:N7	82:A:1944:OHX:N5	2.41	0.68
47:A:1150:G:H4'	47:A:1151:A:OP2	1.93	0.68
63:c5:67:ALA:HB2	63:c5:73:PRO:HA	1.75	0.68
64:c6:110:THR:HA	64:c6:113:ASP:HB2	1.75	0.68
72:d4:57:VAL:HB	72:d4:60:PHE:HE1	1.57	0.68
1:1:1095:U:O2	22:2:129:LYS:N	2.26	0.68
1:1:2768:U:H2'	1:1:2769:A:H8	1.59	0.68
3:4:124:G:OP2	82:4:210:OHX:N4	2.26	0.68
18:x:55:GLN:NE2	89:x:301:HOH:O	2.26	0.68
44:AQ:46:THR:HB	44:AQ:58:SER:HB2	1.75	0.68
1:AR:2793:G:H5"	43:DQ:66:LYS:HG2	1.75	0.68
3:AT:124:G:OP2	82:AT:214:OHX:N2	2.26	0.68
32:DF:72:ARG:NH1	32:DF:105:GLN:O	2.21	0.68
47:A:734:A:H5"	47:A:735:C:OP1	1.93	0.68
47:A:1477:G:N2	47:A:1530:C:O2	2.19	0.68
68:V:80:GLU:HG3	77:e:54:LYS:HE2	1.74	0.68
53:s5:58:LEU:HD11	53:s5:167:ARG:HH21	1.58	0.68
1:1:23:A:OP1	82:1:3404:OHX:N5	2.26	0.68
14:t:76:THR:OG1	14:t:79:GLU:OE1	2.12	0.68
1:AR:644:G:OP2	89:AR:4302:HOH:O	2.11	0.68
9:CI:173:LEU:HB3	9:CI:178:ILE:HB	1.74	0.68
47:A:594:A:P	57:K:38:ASN:HD21	2.16	0.68
50:D:137:ILE:HG13	50:D:138:PRO:HD2	1.75	0.68
80:h:158:PRO:HD2	80:h:208:GLY:HA2	1.76	0.68
60:c2:29:LYS:HZ1	60:c2:33:ARG:HB2	1.55	0.68
1:1:3035:A:OP2	82:1:3558:OHX:N3	2.27	0.68
39:AL:31:LEU:HA	39:AL:37:PRO:HA	1.73	0.68
3:AT:136:G:OP1	26:CZ:48:SER:OG	2.12	0.68
21:CU:12:ARG:HB3	21:CU:24:LEU:HD23	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D:170:ILE:HB	50:D:197:TYR:HB2	1.76	0.68
80:h:300:THR:HG22	80:h:314:GLN:HB3	1.74	0.68
47:sR:584:C:H1'	78:e0:18:THR:HG21	1.76	0.68
47:sR:990:C:OP2	82:sR:1976:OHX:N6	2.27	0.68
47:sR:1350:U:OP1	64:c6:68:ARG:NH1	2.27	0.68
47:sR:1745:G:O6	82:sR:1934:OHX:N1	2.27	0.68
17:w:77:SER:HB2	17:w:104:VAL:HG12	1.76	0.68
14:CN:67:ARG:HB3	29:DC:105:LEU:HD21	1.74	0.68
36:DJ:66:VAL:HG23	36:DJ:80:LEU:HD11	1.74	0.68
47:A:365:G:N7	89:A:2203:HOH:O	2.26	0.68
47:A:1247:U:OP2	82:A:2130:OHX:N1	2.26	0.68
47:A:1684:U:H2'	47:A:1685:G:H8	1.56	0.68
54:H:57:ASP:HA	54:H:106:LEU:HA	1.76	0.68
10:p:74:THR:HG21	16:v:18:VAL:HB	1.76	0.68
1:AR:371:G:O6	82:AR:3661:OHX:N5	2.26	0.68
7:CG:107:ARG:HH22	7:CG:120:LYS:HA	1.58	0.68
47:A:461:G:H4'	52:F:26:CYS:SG	2.33	0.68
49:C:29:TRP:HE1	49:C:47:LEU:HD12	1.58	0.68
47:sR:228:G:H1	47:sR:236:A:H61	1.40	0.68
47:sR:530:C:OP1	82:sR:1958:OHX:N1	2.27	0.68
51:s3:91:VAL:HG21	51:s3:94:ARG:HB3	1.75	0.68
1:1:2730:G:OP2	82:1:4079:OHX:N4	2.27	0.68
7:m:178:ASN:HA	7:m:183:TRP:CD2	2.29	0.68
27:DA:56:VAL:HG11	27:DA:104:LEU:HB3	1.76	0.68
47:A:1533:C:H4'	47:A:1539:G:N1	2.08	0.68
54:H:214:LYS:HG2	54:H:217:SER:HB3	1.74	0.68
57:K:110:GLN:HE21	57:K:126:ARG:HB2	1.57	0.68
58:L:25:LYS:HD2	58:L:59:PHE:HZ	1.59	0.68
72:Z:12:VAL:HG13	72:Z:23:PHE:HB3	1.76	0.68
79:g:109:ASP:CB	79:g:113:LYS:H	2.04	0.68
80:h:101:GLN:NE2	80:h:137:LYS:O	2.26	0.68
47:sR:103:A:OP1	82:sR:1923:OHX:N1	2.27	0.68
47:sR:438:A:OP1	82:sR:1920:OHX:N6	2.26	0.68
47:sR:1368:G:O6	82:sR:1941:OHX:N1	2.27	0.68
47:sR:1557:U:OP2	47:sR:1559:A:O2'	2.11	0.68
80:Rb:25:THR:HG21	80:Rb:295:SER:HA	1.75	0.68
60:c2:45:LEU:HB2	60:c2:119:SER:HB2	1.75	0.68
79:e1:133:ALA:HB3	79:e1:140:TYR:HD2	1.59	0.68
1:1:45:A:OP1	82:AP:502:OHX:N1	2.26	0.68
1:1:2341:A:OP2	5:k:247:ARG:NH2	2.27	0.68
32:AE:13:THR:HG23	32:AE:72:ARG:HH11	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:175:GLN:HG3	20:CT:178:ALA:HB3	1.76	0.68
47:A:591:A:OP1	78:f:43:ARG:NH2	2.24	0.68
47:A:714:G:H22	47:A:725:U:H3	1.41	0.68
47:A:863:A:OP1	70:X:57:ARG:NH1	2.27	0.68
47:A:1535:U:O2'	47:A:1536:G:N3	2.22	0.68
47:sR:653:C:N4	47:sR:676:G:O6	2.26	0.68
47:sR:1795:U:OP2	74:d6:4:LYS:NZ	2.27	0.68
48:s0:76:ILE:HB	48:s0:123:VAL:HG23	1.75	0.68
71:d3:63:GLN:HB2	71:d3:64:PRO:HA	1.76	0.68
1:1:353:G:N7	38:AK:55:ARG:HD3	2.09	0.68
1:AR:2268:U:H3'	1:AR:2269:U:H5"	1.76	0.68
16:CP:9:GLU:OE1	37:DK:41:ARG:NH1	2.25	0.68
29:DC:126:LYS:HB3	29:DC:148:ILE:HD13	1.75	0.68
49:C:201:THR:HA	49:C:204:ILE:HG22	1.75	0.68
60:N:62:LEU:CD1	60:N:75:VAL:HG21	2.23	0.68
47:sR:1011:G:OP2	82:sR:1976:OHX:N5	2.27	0.68
47:sR:1181:U:H4'	63:c5:130:ARG:HH21	1.59	0.68
47:sR:1226:A:O2'	47:sR:1256:A:N6	2.27	0.68
48:s0:79:ARG:NH2	48:s0:164:ASN:O	2.27	0.68
1:AR:524:U:OP1	15:CO:77:ARG:NH2	2.26	0.67
1:AR:618:C:O2'	1:AR:620:U:O2	2.12	0.67
1:AR:3128:G:OP2	82:AR:3642:OHX:N5	2.27	0.67
10:CJ:157:VAL:O	10:CJ:160:ILE:HG13	1.95	0.67
14:CN:132:ALA:O	14:CN:134:GLU:N	2.27	0.67
52:F:212:ASP:C	52:F:214:LEU:H	2.02	0.67
60:N:63:VAL:HB	60:N:94:ALA:HB2	1.76	0.67
66:T:36:LYS:HB3	66:T:105:VAL:HG11	1.76	0.67
76:d:64:ARG:HG2	76:d:65:ARG:H	1.59	0.67
80:h:169:ILE:HG23	80:h:183:LEU:HD11	1.76	0.67
47:sR:512:A:H2'	47:sR:513:U:H6	1.58	0.67
80:Rb:173:GLY:N	80:Rb:199:ILE:HD11	2.09	0.67
4:j:251:LYS:NZ	47:A:986:G:OP2	2.24	0.67
8:n:31:ARG:NH2	34:AG:107:ILE:O	2.28	0.67
13:s:16:LYS:HB3	13:s:72:ARG:HG2	1.74	0.67
27:9:88:GLU:HG3	27:9:94:SER:HB2	1.75	0.67
39:AL:24:THR:HG22	39:AL:76:ASN:HB3	1.76	0.67
1:AR:1651:U:H5'	4:CD:71:LEU:HD13	1.76	0.67
35:DI:46:ASP:HB2	35:DI:84:CYS:HB3	1.76	0.67
62:P:113:GLY:O	62:P:115:ILE:HG23	1.94	0.67
67:U:117:SER:HB2	67:U:123:ARG:HB2	1.76	0.67
80:Rb:9:LEU:HG	80:Rb:10:ARG:N	2.04	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1592:G:OP2	35:AH:37:LYS:NZ	2.21	0.67
3:4:77:A:OP2	82:4:206:OHX:N4	2.27	0.67
12:r:161:GLY:O	12:r:163:GLN:OE1	2.13	0.67
14:t:50:PRO:HG3	36:AI:118:ILE:HD11	1.76	0.67
1:AR:1814:A:OP1	82:AR:3650:OHX:N3	2.27	0.67
1:AR:1833:G:H5"	40:DN:10:LYS:HD3	1.75	0.67
4:CD:101:VAL:HG12	4:CD:165:VAL:HB	1.76	0.67
48:B:85:ALA:HA	48:B:202:TYR:HD2	1.59	0.67
59:M:108:PRO:HG2	59:M:134:THR:HB	1.76	0.67
63:Q:68:PRO:HG2	63:Q:71:GLU:HB3	1.75	0.67
47:sR:578:U:O2	82:sR:2003:OHX:N1	2.27	0.67
47:sR:957:G:N7	61:c3:12:SER:OG	2.27	0.67
1:1:2686:A:OP2	82:1:3426:OHX:N4	2.28	0.67
6:l:62:ALA:HB3	6:l:90:PHE:HE1	1.59	0.67
45:i:68:ARG:NH2	47:A:1461:C:OP2	2.26	0.67
1:AR:1063:G:C6	22:CV:109:VAL:HG23	2.29	0.67
1:AR:3197:G:H2'	1:AR:3198:U:H5"	1.77	0.67
47:A:320:U:H3'	47:A:321:C:H5"	1.76	0.67
47:A:1136:U:OP1	71:Y:62:LYS:NZ	2.28	0.67
47:A:1794:A:H1'	74:b:79:ILE:HD12	1.76	0.67
73:a:65:LEU:HD23	73:a:76:ALA:HB1	1.76	0.67
55:s7:73:VAL:HG23	55:s7:74:GLN:H	1.59	0.67
1:1:330:G:OP2	82:1:3537:OHX:N6	2.27	0.67
1:1:993:G:OP1	82:2:201:OHX:N3	2.27	0.67
12:r:101:LYS:O	82:r:303:OHX:N3	2.27	0.67
30:AC:17:HIS:HA	30:AC:20:GLY:HA2	1.77	0.67
1:AR:289:A:H2'	1:AR:290:G:H8	1.60	0.67
1:AR:2402:A:OP2	82:AR:3607:OHX:N6	2.28	0.67
23:CW:42:LYS:HG2	23:CW:46:ALA:HA	1.76	0.67
31:DE:99:ASP:O	31:DE:103:THR:OG1	2.13	0.67
37:DK:59:ASP:O	37:DK:63:ASN:ND2	2.21	0.67
47:A:1213:G:O6	82:A:2105:OHX:N5	2.27	0.67
62:P:53:ASP:O	62:P:56:SER:OG	2.08	0.67
47:sR:373:G:N7	82:sR:2176:OHX:N4	2.43	0.67
47:sR:1085:G:N7	82:sR:1907:OHX:N1	2.43	0.67
80:Rb:142:ALA:O	80:Rb:143:THR:OG1	2.13	0.67
50:s2:137:ILE:HG13	50:s2:138:PRO:HD2	1.74	0.67
1:1:1257:C:H42	1:1:1261:G:H22	1.39	0.67
5:k:168:LYS:O	5:k:319:ASN:ND2	2.20	0.67
1:AR:24:G:OP2	82:AR:3408:OHX:N3	2.27	0.67
12:CL:26:VAL:HG11	12:CL:96:VAL:HG21	1.74	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:b:79:ILE:HA	74:b:84:VAL:CG1	2.24	0.67
72:d4:56:SER:OG	72:d4:94:TYR:OH	2.09	0.67
1:1:2771:U:O2'	1:1:2772:C:H4'	1.95	0.67
1:1:3139:A:OP1	5:k:274:SER:OG	2.13	0.67
1:AR:744:A:OP1	19:CS:66:ARG:NH2	2.27	0.67
1:AR:2341:A:OP2	5:CE:247:ARG:NH2	2.27	0.67
82:AR:3422:OHX:N1	16:CP:91:GLU:OE2	2.27	0.67
11:CK:10:ILE:HD13	11:CK:75:VAL:HG21	1.77	0.67
28:DB:21:LYS:NZ	28:DB:47:GLU:O	2.27	0.67
47:A:1767:G:OP2	47:A:1770:U:O2'	2.12	0.67
56:J:120:THR:O	82:J:301:OHX:N3	2.27	0.67
47:sR:1202:A:OP1	82:sR:1984:OHX:N1	2.27	0.67
59:c1:57:LYS:HD3	59:c1:131:ILE:HG23	1.76	0.67
67:c9:40:SER:HB2	67:c9:96:ALA:HA	1.75	0.67
1:1:2179:C:N3	4:j:173:GLY:N	2.41	0.67
11:q:47:LYS:NZ	15:u:5:SER:O	2.20	0.67
14:t:75:PHE:H	14:t:97:VAL:HA	1.59	0.67
1:AR:239:G:N7	82:AR:3624:OHX:N3	2.42	0.67
1:AR:832:G:OP1	82:AR:3504:OHX:N5	2.27	0.67
1:AR:3280:U:O2'	1:AR:3281:U:O5'	2.11	0.67
6:CF:182:LEU:HD21	6:CF:223:PRO:HG2	1.75	0.67
7:CG:260:PHE:HB2	7:CG:265:TYR:CE1	2.30	0.67
21:CU:9:VAL:CG1	21:CU:58:ILE:HD11	2.24	0.67
28:DB:33:SER:OG	28:DB:35:SER:O	2.13	0.67
47:A:278:U:OP1	47:A:279:G:N2	2.28	0.67
49:C:128:LYS:HA	49:C:133:TYR:O	1.94	0.67
63:Q:54:ALA:C	63:Q:56:PHE:H	2.01	0.67
70:X:40:VAL:HG11	70:X:103:ILE:HD12	1.75	0.67
80:h:126:SER:OG	80:h:128:ASP:OD1	2.13	0.67
47:sR:628:G:N1	47:sR:970:A:OP2	2.24	0.67
47:sR:1158:C:OP2	82:sR:1994:OHX:N1	2.28	0.67
80:Rb:60:SER:N	64:c6:99:GLU:OE1	2.28	0.67
10:p:95:ASN:OD1	10:p:98:ARG:NH1	2.28	0.67
1:AR:12:A:H1'	26:CZ:37:THR:HG21	1.77	0.67
1:AR:2400:G:O2'	1:AR:2401:A:OP1	2.07	0.67
9:CI:88:ARG:HA	9:CI:134:VAL:HG12	1.77	0.67
29:DC:82:ILE:HD11	29:DC:102:ILE:HG12	1.77	0.67
47:A:803:A:C4	55:I:104:ARG:HD3	2.30	0.67
51:E:44:THR:O	51:E:45:LYS:HD3	1.95	0.67
63:Q:75:PRO:HA	63:Q:93:VAL:HB	1.76	0.67
47:sR:337:G:H3'	59:c1:133:LYS:HB2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:355:G:OP2	82:sR:1923:OHX:N2	2.27	0.67
47:sR:412:A:H2	47:sR:421:A:H61	1.43	0.67
1:1:2221:G:N2	1:1:2224:A:OP2	2.26	0.67
27:9:86:THR:HG22	27:9:96:PRO:HA	1.76	0.67
1:AR:128:G:O6	82:AR:3433:OHX:N1	2.28	0.67
1:AR:655:C:H2'	1:AR:656:A:C8	2.30	0.67
1:AR:912:G:OP2	4:CD:9:ARG:NH2	2.27	0.67
39:DM:58:ASP:HB3	39:DM:61:LYS:HG3	1.77	0.67
47:A:706:A:N1	47:A:734:A:N6	2.42	0.67
52:F:75:LYS:HB3	52:F:77:ARG:HD3	1.76	0.67
52:F:87:MET:SD	52:F:123:LEU:HB2	2.35	0.67
55:I:130:VAL:HB	55:I:133:THR:HG21	1.75	0.67
47:sR:187:G:O3'	56:s8:138:ASN:ND2	2.20	0.67
51:s3:105:MET:HE2	51:s3:122:VAL:HG21	1.77	0.67
1:1:792:G:N7	89:1:4212:HOH:O	2.28	0.66
1:1:3058:U:OP1	32:AE:28:ARG:NH2	2.28	0.66
10:p:50:VAL:HA	26:8:30:ALA:HB1	1.76	0.66
14:t:6:ASN:HB2	29:AB:48:TYR:CG	2.29	0.66
1:AR:1717:U:H2'	1:AR:1718:G:C8	2.30	0.66
47:A:1110:G:N7	82:A:1929:OHX:N3	2.42	0.66
58:L:68:LEU:HD11	58:L:76:LEU:HD21	1.75	0.66
47:sR:488:G:H21	47:sR:499:U:H3	1.42	0.66
50:s2:53:ILE:HD12	50:s2:53:ILE:H	1.60	0.66
52:s4:9:LEU:HB2	52:s4:30:ARG:HB2	1.77	0.66
1:1:2768:U:H2'	1:1:2769:A:C8	2.30	0.66
1:1:2890:A:O2'	1:1:2933:A:N3	2.28	0.66
2:3:49:G:N7	7:m:58:LYS:HG3	2.10	0.66
5:k:58:ARG:HD2	5:k:354:VAL:HG23	1.76	0.66
34:AG:37:THR:HG23	34:AG:40:ASP:H	1.58	0.66
1:AR:2211:U:O4	82:AR:3462:OHX:N1	2.27	0.66
1:AR:3377:G:O6	82:AR:3587:OHX:N4	2.28	0.66
71:Y:95:PHE:HD2	71:Y:135:LEU:HD23	1.60	0.66
47:sR:604:A:OP2	82:sR:2000:OHX:N1	2.28	0.66
52:s4:9:LEU:HD12	52:s4:30:ARG:HA	1.77	0.66
52:s4:105:VAL:HG21	52:s4:245:LYS:H	1.60	0.66
66:c8:87:ASN:HD21	66:c8:100:THR:HG22	1.59	0.66
10:p:101:THR:HG23	10:p:104:GLU:H	1.60	0.66
1:AR:1554:U:H4'	1:AR:1555:U:H5'	1.77	0.66
47:A:38:C:H4'	57:K:6:ARG:HH21	1.60	0.66
47:A:1588:G:H1	47:A:1608:U:H3	1.40	0.66
62:P:11:SER:HB2	62:P:111:ARG:HH22	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:h:302:PHE:HD1	80:h:312:VAL:HG11	1.61	0.66
27:9:40:ARG:HG3	27:9:46:LYS:HA	1.77	0.66
1:AR:549:U:H2'	1:AR:550:A:C8	2.31	0.66
47:A:1497:U:OP2	82:A:1971:OHX:N4	2.28	0.66
80:Rb:143:THR:HG22	80:Rb:144:LEU:N	2.11	0.66
79:e1:140:TYR:HA	79:e1:149:LYS:HE3	1.76	0.66
1:1:2353:G:H5"	18:x:86:LYS:HB2	1.77	0.66
23:5:42:LYS:HG2	23:5:47:VAL:HG12	1.78	0.66
1:AR:518:G:O6	82:AR:4144:OHX:N4	2.28	0.66
1:AR:2865:U:O4	82:AR:3453:OHX:N6	2.29	0.66
3:AT:84:C:H5"	3:AT:85:G:C5	2.30	0.66
4:CD:80:GLU:HG3	44:DR:66:GLY:HA2	1.78	0.66
25:CY:27:LYS:HB3	25:CY:29:PHE:HE1	1.60	0.66
47:A:1201:G:N2	47:A:1600:A:H5"	2.10	0.66
47:A:1720:G:O6	82:A:1938:OHX:N3	2.28	0.66
50:D:142:GLY:N	50:D:153:SER:O	2.28	0.66
60:N:87:PRO:HA	60:N:140:PHE:HZ	1.61	0.66
55:s7:153:LEU:HD22	55:s7:184:GLU:HB3	1.77	0.66
61:c3:60:VAL:HG23	61:c3:66:ILE:HG13	1.77	0.66
1:1:1783:U:H2'	1:1:1784:G:H8	1.60	0.66
1:1:3056:U:OP2	82:1:3457:OHX:N1	2.28	0.66
2:AS:79:A:OP2	82:AS:203:OHX:N3	2.28	0.66
47:A:1559:A:H5"	66:T:135:GLY:HA3	1.77	0.66
53:G:115:LYS:HA	53:G:118:LEU:HD23	1.78	0.66
57:K:65:LYS:HD3	57:K:70:LEU:HD21	1.76	0.66
67:U:42:GLY:HA3	67:U:94:ILE:HD11	1.78	0.66
47:sR:1058:U:H4'	47:sR:1059:U:OP1	1.94	0.66
1:1:3165:A:H61	1:1:3285:C:H42	1.44	0.66
1:1:3346:U:H3	1:1:3359:A:N6	1.93	0.66
8:n:31:ARG:NH1	8:n:81:ALA:O	2.29	0.66
24:6:54:LEU:HD13	24:6:81:GLN:HG2	1.76	0.66
1:AR:415:G:OP2	82:AR:3664:OHX:N4	2.29	0.66
1:AR:1064:A:H4'	1:AR:1065:A:O5'	1.95	0.66
5:CE:10:ARG:NH2	5:CE:263:SER:O	2.29	0.66
47:sR:405:C:OP1	82:sR:1913:OHX:N5	2.28	0.66
47:sR:489:C:H5	47:sR:498:G:H22	1.43	0.66
54:s6:57:ASP:HA	54:s6:106:LEU:HA	1.77	0.66
57:s9:29:LYS:HE2	57:s9:33:GLU:HG3	1.77	0.66
74:d6:10:ARG:HG3	74:d6:34:LYS:HG3	1.78	0.66
1:1:552:G:O6	82:1:4088:OHX:N5	2.29	0.66
1:1:3375:A:O2'	1:1:3378:C:OP2	2.14	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:m:41:LYS:HB2	22:2:68:THR:O	1.96	0.66
47:A:1171:A:H2'	47:A:1172:G:C8	2.31	0.66
47:A:1280:C:H2'	47:A:1281:G:C8	2.31	0.66
48:B:140:ASN:ND2	50:D:60:SER:OG	2.28	0.66
53:G:165:LEU:O	53:G:169:ASN:ND2	2.26	0.66
63:Q:123:TYR:OH	66:T:126:ARG:NH1	2.29	0.66
1:1:1530:U:OP1	82:1:4086:OHX:N6	2.29	0.66
5:k:284:ARG:NH2	5:k:295:ALA:O	2.28	0.66
7:m:57:ASN:OD1	7:m:58:LYS:NZ	2.29	0.66
11:q:12:VAL:HB	11:q:51:GLN:HA	1.77	0.66
16:v:143:ARG:CZ	36:AI:92:LEU:HD23	2.25	0.66
11:CK:105:GLU:HB2	11:CK:110:LYS:H	1.58	0.66
47:A:767:U:H3	72:Z:64:PHE:HD2	1.41	0.66
61:O:67:THR:OG1	61:O:69:ASN:O	2.13	0.66
72:Z:127:LYS:O	72:Z:131:ARG:HD3	1.95	0.66
47:sR:1015:U:OP1	82:sR:1912:OHX:N3	2.29	0.66
47:sR:1558:U:H3	63:c5:122:THR:HG22	1.61	0.66
78:e0:20:LYS:H	78:e0:20:LYS:HD2	1.59	0.66
1:1:522:A:OP1	82:1:3462:OHX:N5	2.28	0.66
1:1:3343:G:H21	1:1:3362:A:H2	1.42	0.66
14:t:56:PRO:HG3	14:t:74:GLY:O	1.95	0.66
22:2:26:HIS:CE1	22:2:29:THR:HG23	2.31	0.66
43:AP:50:PHE:O	82:AP:502:OHX:N2	2.29	0.66
1:AR:65:A:H4'	1:AR:66:A:O5'	1.95	0.66
1:AR:1447:G:H3'	18:CR:67:ILE:HD11	1.78	0.66
5:CE:41:VAL:HA	5:CE:185:GLY:HA3	1.78	0.66
10:CJ:52:TRP:HB3	10:CJ:56:VAL:CG1	2.25	0.66
12:CL:76:MET:HE3	12:CL:151:GLY:HA3	1.78	0.66
24:CX:89:ASP:OD1	24:CX:91:VAL:HG12	1.96	0.66
47:A:42:G:O6	82:A:1908:OHX:N6	2.28	0.66
47:A:218:A:N6	47:A:844:A:H1'	2.11	0.66
47:A:513:U:H2'	47:A:514:G:C8	2.30	0.66
47:A:603:U:H2'	47:A:604:A:H8	1.61	0.66
48:B:206:ASP:N	48:B:207:PRO:HD2	2.09	0.66
62:P:42:VAL:HB	62:P:46:MET:SD	2.36	0.66
64:R:41:PRO:HB2	64:R:44:LEU:HB2	1.77	0.66
47:sR:333:A:OP1	56:s8:31:ARG:NH2	2.29	0.66
51:s3:105:MET:HA	51:s3:108:LYS:HB2	1.77	0.66
1:1:1027:A:H2'	1:1:1029:G:H5"	1.77	0.65
1:1:1235:U:O4	1:1:1263:A:N6	2.28	0.65
1:1:1276:U:OP1	82:1:3566:OHX:N1	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:i:110:TRP:HA	51:E:115:ILE:HG21	1.77	0.65
10:CJ:26:LEU:HD11	28:DB:123:GLN:HA	1.78	0.65
47:A:1022:C:OP2	82:A:2113:OHX:N4	2.28	0.65
60:c2:128:ALA:HB3	60:c2:133:LEU:HD21	1.78	0.65
64:c6:69:VAL:HG21	64:c6:81:ILE:HG12	1.77	0.65
1:1:12:A:H1'	26:8:37:THR:HG21	1.78	0.65
1:1:2790:A:O2'	82:1:4094:OHX:N6	2.29	0.65
1:1:2965:U:O2	4:j:221:LYS:NZ	2.29	0.65
10:p:134:TYR:CG	10:p:190:VAL:HG11	2.31	0.65
11:q:20:ILE:HD12	15:u:7:VAL:HG22	1.78	0.65
1:AR:27:C:O2'	1:AR:327:A:N3	2.29	0.65
1:AR:2108:C:H1'	1:AR:3344:A:C8	2.31	0.65
6:CF:26:PHE:CD2	6:CF:130:ALA:HB2	2.31	0.65
12:CL:12:GLN:HA	12:CL:59:GLN:HE21	1.61	0.65
47:A:741:C:O2	55:I:107:ARG:NH1	2.29	0.65
47:A:810:G:C5	55:I:111:LYS:HD2	2.31	0.65
48:B:107:PHE:HB2	48:B:135:GLU:HG2	1.79	0.65
72:Z:64:PHE:HD1	72:Z:65:GLY:H	1.39	0.65
80:Rb:123:ILE:HG22	80:Rb:133:VAL:HA	1.79	0.65
1:1:1493:G:O6	40:AM:2:ALA:N	2.29	0.65
2:3:48:U:O4	7:m:58:LYS:HE2	1.96	0.65
1:AR:2234:G:N7	82:AR:3462:OHX:N2	2.45	0.65
1:AR:2244:A:OP1	4:CD:243:THR:OG1	2.14	0.65
45:sM:49:LYS:O	45:sM:53:ARG:NH2	2.29	0.65
47:A:1291:G:N2	47:A:1324:G:H22	1.95	0.65
53:G:31:GLU:HA	53:G:34:GLN:HB2	1.78	0.65
59:c1:59:PRO:HD3	59:c1:138:ASN:ND2	2.11	0.65
76:d8:42:ARG:NH1	76:d8:58:GLU:O	2.28	0.65
1:1:297:G:OP2	1:1:297:G:N2	2.29	0.65
1:1:1497:C:O2'	1:1:1602:A:N3	2.28	0.65
1:1:3082:C:OP2	82:1:3457:OHX:N2	2.29	0.65
1:AR:49:A:OP1	14:CN:16:LYS:NZ	2.27	0.65
1:AR:837:A:OP2	44:DR:4:ARG:NH1	2.30	0.65
1:AR:3192:U:O4	82:AR:3633:OHX:N6	2.29	0.65
5:CE:53:MET:HE2	5:CE:77:THR:HG22	1.78	0.65
8:CH:42:LEU:HD22	8:CH:79:VAL:HG21	1.76	0.65
47:A:161:U:OP2	54:H:87:ARG:NH2	2.29	0.65
47:A:952:A:O2'	61:O:114:ARG:HD2	1.96	0.65
47:A:1546:G:OP1	66:T:123:ARG:NH1	2.29	0.65
48:B:83:GLN:HA	48:B:86:VAL:HG12	1.78	0.65
48:B:101:ARG:HD3	48:B:103:THR:H	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Z:29:HIS:ND1	72:Z:33:ALA:HA	2.11	0.65
74:b:23:CYS:HB2	74:b:74:CYS:HB3	1.78	0.65
51:s3:70:THR:O	51:s3:73:VAL:HG12	1.95	0.65
1:AR:119:U:H4'	1:AR:120:G:H3'	1.79	0.65
1:AR:300:G:O6	82:AR:3656:OHX:N2	2.30	0.65
47:A:800:U:H2'	47:A:801:G:H8	1.59	0.65
47:sR:826:U:O4	82:sR:1922:OHX:N1	2.29	0.65
47:sR:894:U:H2'	47:sR:895:G:C8	2.31	0.65
47:sR:1570:A:O2'	66:c8:144:ARG:NH1	2.29	0.65
48:s0:84:ARG:HH21	48:s0:201:LEU:HD12	1.62	0.65
52:s4:161:LYS:HB3	52:s4:170:THR:O	1.97	0.65
1:1:1001:G:O2'	1:1:1041:U:OP2	2.14	0.65
1:1:1222:G:HO2'	1:1:1223:A:P	2.20	0.65
1:1:3113:A:OP2	82:1:3526:OHX:N5	2.29	0.65
2:3:118:A:H5"	7:m:253:PHE:CZ	2.31	0.65
3:4:43:A:OP1	82:4:213:OHX:N2	2.30	0.65
11:q:90:MET:HG2	11:q:181:VAL:HA	1.77	0.65
20:z:155:LEU:HA	20:z:158:GLU:HG2	1.78	0.65
1:AR:102:C:HO2'	14:CN:62:THR:HG1	1.42	0.65
1:AR:252:U:H5'	1:AR:253:A:H5'	1.79	0.65
1:AR:1806:A:OP2	82:AR:3524:OHX:N6	2.30	0.65
1:AR:2836:C:H5	1:AR:2852:C:N4	1.94	0.65
12:CL:192:ASP:HA	12:CL:197:VAL:HG23	1.78	0.65
39:DM:10:GLN:HA	39:DM:13:GLU:CD	2.22	0.65
47:A:474:A:OP2	57:K:44:ARG:NH1	2.26	0.65
47:A:1292:G:H21	48:B:111:ILE:HD11	1.62	0.65
47:A:1482:C:OP2	47:A:1521:G:N1	2.30	0.65
47:sR:1114:G:O6	82:sR:1969:OHX:N2	2.30	0.65
1:1:410:U:O4	82:1:4103:OHX:N2	2.29	0.65
1:1:2178:A:H3'	4:j:132:ASN:HD21	1.62	0.65
1:AR:530:G:N7	82:AR:3449:OHX:N6	2.45	0.65
1:AR:764:U:H3'	1:AR:765:C:H5"	1.79	0.65
1:AR:860:G:OP1	44:DR:17:ARG:NH1	2.29	0.65
26:CZ:109:LYS:HE3	26:CZ:125:ARG:HB2	1.79	0.65
31:DE:24:THR:HG22	31:DE:91:SER:HB3	1.77	0.65
74:b:43:ASN:HB3	74:b:45:VAL:HG22	1.79	0.65
47:sR:1786:G:OP2	62:c4:133:ARG:NH1	2.30	0.65
66:c8:3:LEU:HD21	66:c8:56:LYS:HD3	1.78	0.65
1:1:821:U:H2'	1:1:822:G:H8	1.61	0.65
1:1:2652:U:OP1	43:AP:65:THR:OG1	2.12	0.65
1:1:2763:U:H5'	19:y:176:ARG:HG3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:l:193:LYS:HA	6:l:198:ARG:HA	1.78	0.65
11:q:49:ASN:HD22	11:q:51:GLN:H	1.44	0.65
1:AR:1213:G:H4'	21:CU:90:MET:HG3	1.78	0.65
18:CR:33:ALA:HB1	18:CR:117:ILE:HG12	1.79	0.65
47:A:119:A:N1	52:F:7:LYS:NZ	2.38	0.65
49:C:71:ALA:HB3	62:P:114:ARG:HH21	1.60	0.65
66:T:6:GLN:HG2	73:a:42:LEU:HD13	1.79	0.65
68:V:25:THR:HA	68:V:90:TYR:HA	1.78	0.65
47:sR:235:G:H2'	47:sR:236:A:C8	2.32	0.65
50:s2:225:LEU:HD13	70:d2:68:ARG:HA	1.78	0.65
81:c7:71:PHE:CZ	81:c7:74:GLN:HB3	2.31	0.65
1:1:70:A:N1	1:1:313:A:O2'	2.26	0.65
14:t:74:GLY:CA	14:t:98:ASP:HB2	2.26	0.65
15:u:99:TRP:O	15:u:103:ILE:HG13	1.96	0.65
8:CH:55:LEU:HD21	8:CH:145:LEU:HD11	1.79	0.65
15:CO:16:GLU:HB3	21:CU:149:LYS:HB3	1.78	0.65
27:DA:56:VAL:HG22	27:DA:106:ILE:HA	1.79	0.65
47:A:101:U:OP1	82:A:1942:OHX:N4	2.30	0.65
47:A:399:A:OP1	56:J:49:ARG:NH1	2.30	0.65
53:G:94:THR:HG22	53:G:114:ILE:HG12	1.77	0.65
67:U:5:SER:HA	67:U:133:ASP:OD2	1.97	0.65
50:s2:157:LYS:HG2	50:s2:170:ILE:HG23	1.79	0.65
60:c2:35:ALA:HA	60:c2:38:HIS:HB3	1.78	0.65
76:d8:54:LEU:HD22	76:d8:56:LEU:HD23	1.78	0.65
1:1:1381:A:OP1	6:l:197:ARG:NH1	2.30	0.65
2:3:4:U:H2'	2:3:5:G:C8	2.32	0.65
1:AR:1151:U:OP1	89:AR:4303:HOH:O	2.13	0.65
3:AT:83:C:H1'	3:AT:85:G:N2	2.12	0.65
16:CP:172:ARG:O	16:CP:183:THR:OG1	2.14	0.65
42:DP:17:ARG:HA	42:DP:20:VAL:HG12	1.76	0.65
47:A:337:G:H3'	59:M:133:LYS:HB2	1.79	0.65
47:A:1201:G:H22	47:A:1600:A:H5"	1.62	0.65
47:sR:422:G:OP1	82:sR:1913:OHX:N1	2.30	0.65
47:sR:486:G:O6	47:sR:499:U:N3	2.30	0.65
47:sR:1213:G:O6	82:sR:1929:OHX:N3	2.30	0.65
47:sR:1703:C:H2'	47:sR:1704:U:H6	1.62	0.65
58:c0:15:LEU:HD23	58:c0:68:LEU:HD21	1.79	0.65
70:d2:6:VAL:HG13	70:d2:29:PRO:HD2	1.79	0.65
1:AR:968:G:O6	82:AR:4150:OHX:N5	2.30	0.64
1:AR:1019:G:N2	1:AR:1033:U:H3	1.94	0.64
1:AR:1661:G:O6	82:AR:3420:OHX:N1	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:163:ARG:HD2	47:sR:813:U:C2	2.32	0.64
47:A:79:C:H1'	54:H:174:LYS:HG3	1.79	0.64
49:C:82:ARG:HH22	49:C:191:GLU:CD	2.04	0.64
51:E:64:ARG:HH12	58:L:70:GLU:HG3	1.63	0.64
53:G:189:THR:HG23	53:G:192:GLU:H	1.61	0.64
63:Q:44:ARG:HD2	63:Q:84:ILE:HD11	1.77	0.64
64:R:35:PRO:HB2	64:R:37:THR:HG23	1.79	0.64
70:X:76:SER:HB2	70:X:77:PRO:HD3	1.78	0.64
11:q:41:ILE:HD11	11:q:67:ALA:HB1	1.79	0.64
13:s:62:ASN:ND2	43:AP:101:GLY:O	2.30	0.64
1:AR:863:C:OP1	82:AR:3417:OHX:N3	2.30	0.64
1:AR:1142:G:O2'	89:AR:4305:HOH:O	2.15	0.64
1:AR:1861:G:O6	82:AR:3553:OHX:N1	2.31	0.64
6:CF:271:LYS:HB2	6:CF:274:TYR:HB3	1.79	0.64
33:DG:89:THR:HG22	33:DG:117:ILE:HG12	1.78	0.64
45:sM:84:LYS:HD2	45:sM:85:SER:N	2.12	0.64
54:H:67:VAL:HG23	54:H:68:LEU:H	1.60	0.64
63:Q:85:ILE:HG22	63:Q:112:LEU:HD23	1.78	0.64
68:V:17:GLN:H	68:V:97:VAL:HG12	1.63	0.64
47:sR:499:U:O2	47:sR:500:C:N4	2.31	0.64
80:Rb:172:ALA:HB1	80:Rb:199:ILE:HD13	1.80	0.64
8:n:40:LEU:HD13	8:n:84:VAL:HG11	1.79	0.64
10:p:201:THR:HG23	10:p:202:GLU:HG3	1.79	0.64
1:AR:990:U:H4'	22:CV:100:LYS:HB3	1.79	0.64
1:AR:2831:G:N7	89:AR:4316:HOH:O	2.30	0.64
26:CZ:80:ASN:ND2	26:CZ:126:LEU:O	2.31	0.64
47:A:139:C:O2'	54:H:187:LYS:NZ	2.30	0.64
47:A:739:G:O6	82:A:1948:OHX:N4	2.30	0.64
54:H:67:VAL:O	54:H:68:LEU:HD23	1.97	0.64
60:N:28:LEU:HB2	60:N:31:VAL:HB	1.79	0.64
80:h:195:HIS:HE1	80:h:197:SER:HB2	1.60	0.64
47:sR:161:U:OP2	54:s6:87:ARG:NH2	2.30	0.64
47:sR:900:A:OP1	62:c4:43:THR:OG1	2.14	0.64
60:c2:61:VAL:HG13	60:c2:91:VAL:HG21	1.80	0.64
72:d4:8:ARG:HD2	72:d4:28:LEU:HD11	1.79	0.64
1:1:157:A:C8	37:AJ:26:ILE:HD13	2.33	0.64
1:1:2754:G:OP2	82:1:3509:OHX:N6	2.30	0.64
9:o:214:TRP:CD2	9:o:219:LYS:HD2	2.32	0.64
12:r:47:PRO:HD2	12:r:141:LYS:HA	1.80	0.64
1:AR:2717:U:OP1	82:AR:3568:OHX:N5	2.30	0.64
1:AR:2999:U:OP2	82:AR:4156:OHX:N5	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CX:87:ARG:HH12	24:CX:137:VAL:HG21	1.62	0.64
47:A:727:U:O2'	47:A:728:U:H5"	1.96	0.64
53:G:121:ILE:HD11	53:G:132:VAL:HG21	1.78	0.64
56:J:57:ALA:HB2	56:J:177:GLY:HA2	1.80	0.64
47:sR:792:U:OP1	82:sR:2025:OHX:N4	2.30	0.64
47:sR:1402:G:OP2	81:c7:5:ARG:NH1	2.31	0.64
47:sR:1539:G:H5'	47:sR:1539:G:C8	2.33	0.64
47:sR:1600:A:H4'	47:sR:1601:G:OP1	1.96	0.64
47:sR:1678:A:OP1	56:s8:59:ARG:NH2	2.30	0.64
53:s5:219:ARG:HH11	53:s5:220:VAL:HA	1.62	0.64
57:s9:23:ARG:NE	57:s9:27:GLU:OE2	2.29	0.64
57:s9:34:PHE:HD2	57:s9:111:THR:HG21	1.62	0.64
1:1:420:G:O6	82:1:3427:OHX:N6	2.31	0.64
1:1:1554:U:H4'	1:1:1555:U:H5'	1.79	0.64
1:1:2211:U:OP2	82:1:4154:OHX:N6	2.31	0.64
1:1:3119:U:OP2	82:1:3419:OHX:N3	2.30	0.64
21:0:161:LYS:HD3	21:0:162:THR:N	2.12	0.64
29:AB:94:ALA:HB3	29:AB:121:VAL:HG13	1.79	0.64
37:AJ:58:ILE:HA	37:AJ:61:ILE:HD12	1.79	0.64
1:AR:2094:C:OP2	89:AR:4304:HOH:O	2.14	0.64
1:AR:2534:G:H1	1:AR:2545:C:H42	1.46	0.64
46:p0:30:VAL:HG22	46:p0:33:VAL:HB	1.78	0.64
46:p0:92:PRO:HG2	46:p0:95:GLU:HB3	1.78	0.64
47:A:647:G:H22	47:A:687:G:H1	1.44	0.64
47:A:732:G:O2'	47:A:733:A:O4'	2.16	0.64
47:A:793:A:H5'	47:A:794:U:C6	2.33	0.64
48:B:182:LEU:HB2	48:B:188:LEU:HD22	1.77	0.64
51:E:41:VAL:HG21	68:V:112:VAL:H	1.62	0.64
60:N:79:ALA:O	60:N:86:VAL:HB	1.97	0.64
62:P:80:HIS:HB3	62:P:114:ARG:O	1.98	0.64
47:sR:140:A:N6	47:sR:281:G:OP1	2.31	0.64
47:sR:143:G:N7	54:s6:177:ARG:NH2	2.46	0.64
80:Rb:112:SER:HB3	80:Rb:153:GLN:HA	1.79	0.64
80:Rb:281:TYR:O	82:Rb:401:OHX:N1	2.30	0.64
48:s0:147:THR:HG21	48:s0:159:ALA:HB1	1.80	0.64
53:s5:118:LEU:HA	53:s5:121:ILE:HG12	1.79	0.64
1:1:544:C:H1'	1:1:548:G:H22	1.61	0.64
1:1:821:U:H2'	1:1:822:G:C8	2.32	0.64
10:p:26:LEU:HD12	28:AA:53:VAL:HG11	1.80	0.64
12:r:36:LEU:HD21	12:r:69:ARG:HH21	1.61	0.64
19:y:96:PHE:HE2	19:y:114:ILE:HA	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2675:C:N4	13:CM:22:SER:OG	2.30	0.64
1:AR:3385:U:O4	89:AR:4301:HOH:O	2.09	0.64
33:DG:86:THR:HG22	33:DG:115:LEU:HD23	1.79	0.64
47:A:1628:U:H2'	47:A:1629:G:C8	2.32	0.64
50:D:235:LEU:HG	69:W:33:GLN:HE22	1.63	0.64
63:c5:108:ARG:H	63:c5:111:MET:HE3	1.63	0.64
67:c9:57:ARG:NH2	67:c9:101:ASN:OD1	2.30	0.64
67:c9:92:LYS:HE3	67:c9:94:ILE:HD11	1.79	0.64
6:l:140:HIS:H	6:l:180:LYS:HE2	1.62	0.64
7:m:56:THR:OG1	7:m:59:ASP:HB3	1.98	0.64
26:8:67:ILE:HD12	26:8:121:LYS:HG3	1.79	0.64
49:C:89:ASP:HB2	49:C:228:LEU:HD11	1.79	0.64
68:V:20:ILE:HD11	68:V:95:ALA:H	1.63	0.64
72:Z:126:ALA:HA	72:Z:129:VAL:HG22	1.79	0.64
74:b:97:PRO:N	74:b:98:PRO:HD2	2.12	0.64
47:sR:1413:U:O2'	82:sR:1943:OHX:N6	2.31	0.64
63:c5:53:PRO:HB2	63:c5:57:MET:HG2	1.80	0.64
64:c6:115:THR:OG1	64:c6:118:ILE:O	2.15	0.64
75:d7:67:THR:OG1	75:d7:70:LYS:O	2.12	0.64
76:d8:12:VAL:HG12	76:d8:30:VAL:CG1	2.28	0.64
1:1:1481:A:O2'	1:1:1858:A:N3	2.26	0.64
8:n:170:LYS:HD2	34:AG:34:GLY:HA3	1.79	0.64
36:AI:78:LYS:HG2	36:AI:81:ARG:HH11	1.63	0.64
15:CO:14:LEU:HB2	15:CO:19:ARG:HH21	1.62	0.64
47:A:33:U:O4	82:A:1919:OHX:N1	2.30	0.64
47:A:393:C:OP2	56:J:2:GLY:N	2.31	0.64
47:A:859:A:N7	61:O:69:ASN:ND2	2.46	0.64
67:U:61:VAL:O	67:U:65:ILE:HG13	1.98	0.64
60:c2:54:ARG:HA	79:e1:128:ALA:HB1	1.80	0.64
1:1:824:C:H5"	4:j:21:ARG:HD3	1.79	0.64
1:1:1230:G:OP2	82:1:3566:OHX:N4	2.31	0.64
1:1:1498:A:H5'	1:1:1602:A:H1'	1.78	0.64
2:3:118:A:H5"	7:m:253:PHE:HZ	1.62	0.64
6:l:283:THR:HG22	6:l:285:ASP:H	1.63	0.64
1:AR:2268:U:H3'	1:AR:2269:U:C5'	2.27	0.64
12:CL:176:LEU:HD21	12:CL:184:LYS:HD2	1.80	0.64
49:C:97:LEU:HD13	49:C:232:HIS:NE2	2.13	0.64
50:D:45:VAL:HG11	50:D:68:ILE:HG23	1.80	0.64
50:D:144:TRP:O	70:X:98:GLN:NE2	2.30	0.64
53:G:200:ASN:O	53:G:204:GLY:HA2	1.98	0.64
56:J:91:VAL:O	56:J:94:ASN:ND2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1203:A:OP2	82:sR:1984:OHX:N1	2.31	0.64
48:s0:41:ARG:HE	81:c7:104:ASN:HB2	1.62	0.64
70:d2:71:LYS:HB3	70:d2:130:TYR:CE1	2.33	0.64
1:1:911:C:H42	4:j:3:ARG:HD3	1.63	0.64
1:1:1918:C:OP2	82:1:3515:OHX:N4	2.31	0.64
1:1:2213:A:H2'	1:1:2214:A:C8	2.33	0.64
1:1:2571:U:H1'	1:1:2572:C:H2'	1.80	0.64
9:o:163:LEU:HD13	9:o:169:ILE:HD11	1.78	0.64
1:AR:437:G:H21	1:AR:622:A:N6	1.95	0.64
1:AR:2916:U:H1'	24:CX:44:SER:HB3	1.80	0.64
1:AR:3355:U:H3'	1:AR:3356:G:H5"	1.79	0.64
47:A:1714:A:H2'	47:A:1715:G:C8	2.33	0.64
49:C:104:ASP:OD1	49:C:105:PHE:N	2.31	0.64
52:F:185:GLY:HA3	52:F:224:ASN:CG	2.23	0.64
64:R:29:ILE:HA	64:R:65:ILE:O	1.98	0.64
66:T:2:SER:OG	66:T:3:LEU:N	2.30	0.64
68:V:117:VAL:HG12	68:V:118:VAL:H	1.61	0.64
80:h:132:LYS:HD3	80:h:143:THR:HG22	1.78	0.64
47:sR:1230:A:C5	47:sR:1231:U:H1'	2.33	0.64
47:sR:1482:C:OP2	47:sR:1521:G:N1	2.31	0.64
63:c5:67:ALA:O	82:c5:201:OHX:N5	2.30	0.64
1:1:2356:A:H5'	18:x:138:LYS:HE3	1.78	0.63
1:1:2827:U:OP1	82:1:3521:OHX:N5	2.31	0.63
1:1:3329:U:H5"	5:k:308:MET:HE2	1.78	0.63
82:1:4118:OHX:N3	9:o:217:PRO:O	2.30	0.63
39:AL:38:PHE:CE2	39:AL:57:ASN:HB3	2.33	0.63
1:AR:64:G:OP2	16:CP:169:LYS:NZ	2.31	0.63
43:DQ:2:VAL:N	43:DQ:90:HIS:O	2.31	0.63
47:A:952:A:OP1	61:O:94:LYS:NZ	2.31	0.63
47:A:1745:G:O6	82:A:1940[A]:OHX:N1	2.31	0.63
49:C:87:ARG:HB2	49:C:101:HIS:CG	2.33	0.63
74:b:82:ARG:HA	74:b:82:ARG:HE	1.63	0.63
47:sR:542:A:O2'	47:sR:543:C:O5'	2.16	0.63
55:s7:76:LYS:HA	55:s7:79:ARG:HB3	1.80	0.63
77:d9:22:ARG:HB2	77:d9:38:ILE:HG13	1.78	0.63
1:1:1094:U:O2'	1:1:1095:U:O5'	2.14	0.63
29:AB:118:ILE:O	29:AB:137:LYS:NZ	2.30	0.63
34:AG:85:PHE:O	82:AG:202:OHX:N1	2.31	0.63
1:AR:90:C:H2'	1:AR:91:G:H5'	1.79	0.63
17:CQ:157:GLU:OE1	17:CQ:160:ARG:NH1	2.31	0.63
47:A:1795:U:H3'	74:b:5:ARG:HH12	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B:82:GLY:HA2	48:B:170:ILE:HD13	1.79	0.63
52:F:180:LEU:HG	52:F:228:ILE:HG13	1.80	0.63
64:R:136:SER:O	64:R:137:ARG:NH1	2.32	0.63
47:sR:1389:C:O2'	81:c7:52:GLY:HA3	1.98	0.63
55:s7:67:LEU:HD11	55:s7:94:ALA:HB2	1.80	0.63
1:1:1246:G:H1'	1:1:1264:G:H2'	1.80	0.63
1:1:1779:C:O5'	20:z:97:ARG:NH2	2.31	0.63
28:AA:38:PHE:O	28:AA:40:HIS:ND1	2.31	0.63
1:AR:518:G:OP2	1:AR:518:G:N2	2.25	0.63
1:AR:2516:U:O2'	1:AR:2595:A:N6	2.30	0.63
1:AR:3255:U:H2'	1:AR:3256:G:C8	2.33	0.63
36:DJ:31:LEU:HD13	36:DJ:47:VAL:HG11	1.80	0.63
47:A:68:A:H5"	54:H:162:VAL:HG21	1.79	0.63
68:V:17:GLN:NE2	68:V:98:GLN:HB2	2.13	0.63
78:f:14:VAL:O	78:f:18:THR:HG23	1.98	0.63
69:d1:39:VAL:HG22	69:d1:45:ALA:HA	1.78	0.63
72:d4:128:LYS:HA	72:d4:131:ARG:HB3	1.81	0.63
1:1:2786:G:N2	29:AB:58:MET:SD	2.69	0.63
29:AB:75:LEU:HA	29:AB:78:LEU:HB2	1.80	0.63
1:AR:1334:U:O2'	9:CI:151:ARG:NH2	2.32	0.63
6:CF:52:VAL:HG11	6:CF:99:MET:HE1	1.81	0.63
10:CJ:128:LYS:HD2	10:CJ:129:PRO:HD2	1.80	0.63
40:DN:23:LEU:HD22	40:DN:24:PRO:HD2	1.80	0.63
47:A:68:A:OP1	54:H:160:ARG:NH2	2.28	0.63
47:A:1667:A:OP2	82:A:1918:OHX:N3	2.32	0.63
61:O:55:ARG:HA	61:O:60:VAL:O	1.98	0.63
47:sR:1173:C:OP1	66:c8:132:ARG:NH1	2.20	0.63
56:s8:153:GLU:HG3	56:s8:156:VAL:HG12	1.80	0.63
57:s9:81:VAL:HG12	57:s9:86:LEU:HB3	1.80	0.63
6:l:72:ALA:O	6:l:76:ARG:NH1	2.31	0.63
23:5:40:HIS:HA	23:5:47:VAL:HB	1.79	0.63
38:AK:52:LYS:HA	38:AK:55:ARG:HD2	1.80	0.63
1:AR:1729:A:H62	31:DE:47:ASN:HD22	1.46	0.63
1:AR:2228:A:H2'	1:AR:2229:A:C8	2.34	0.63
47:A:1280:C:H2'	47:A:1281:G:H8	1.62	0.63
48:B:205:ARG:C	48:B:207:PRO:HD2	2.22	0.63
49:C:103:MET:HG2	49:C:104:ASP:N	2.13	0.63
49:C:144:ARG:CB	49:C:208:GLN:HG3	2.28	0.63
51:E:115:ILE:HD11	51:E:138:VAL:HG11	1.81	0.63
62:P:28:VAL:HB	62:P:43:THR:HG21	1.80	0.63
71:Y:56:LYS:HE2	71:Y:96:VAL:HG23	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:s3:176:LEU:HD23	51:s3:181:VAL:HB	1.81	0.63
1:1:412:G:OP1	18:x:62:ARG:NH1	2.32	0.63
1:1:830:A:OP1	82:1:3512:OHX:N1	2.32	0.63
1:1:1236:G:N2	1:1:1272:C:OP1	2.30	0.63
5:k:35:ASP:OD2	5:k:37:ARG:NH1	2.31	0.63
18:x:172:GLN:NE2	34:AG:61:GLY:HA3	2.13	0.63
1:AR:2111:G:OP1	82:AR:3442:OHX:N2	2.32	0.63
1:AR:2704:A:OP2	82:AR:3401:OHX:N4	2.31	0.63
82:AR:3501:OHX:N3	9:CI:217:PRO:O	2.30	0.63
9:CI:37:ASN:HA	9:CI:40:LYS:HG2	1.80	0.63
11:CK:91:ARG:HG2	11:CK:182:SER:HB3	1.81	0.63
27:DA:82:VAL:HB	27:DA:85:VAL:HG22	1.81	0.63
47:A:1041:G:OP1	82:A:1972:OHX:N6	2.30	0.63
65:S:69:ILE:HG13	65:S:74:GLN:HE22	1.64	0.63
68:V:28:SER:HB2	68:V:112:VAL:HA	1.81	0.63
47:sR:40:A:O2'	82:sR:1964:OHX:N1	2.32	0.63
47:sR:1217:A:H5"	58:c0:1:MET:HE3	1.81	0.63
80:Rb:197:SER:OG	80:Rb:216:LYS:HB3	1.98	0.63
76:d8:12:VAL:HB	76:d8:28:VAL:HG21	1.80	0.63
17:w:62:THR:H	17:w:69:GLY:HA3	1.63	0.63
20:z:177:VAL:O	20:z:181:ARG:HB2	1.99	0.63
27:9:73:VAL:HA	27:9:80:VAL:HG23	1.81	0.63
1:AR:2503:G:N2	1:AR:2504:U:O4	2.27	0.63
1:AR:3328:G:OP1	5:CE:385:LYS:NZ	2.31	0.63
3:AT:70:G:O6	82:AT:207:OHX:N5	2.31	0.63
7:CG:58:LYS:HD3	7:CG:93:THR:HG21	1.80	0.63
10:CJ:52:TRP:HB3	10:CJ:56:VAL:HG11	1.81	0.63
26:CZ:47:ALA:HB3	36:DJ:77:PRO:HG3	1.80	0.63
46:p0:93:LEU:HD12	46:p0:94:THR:HG23	1.81	0.63
47:A:469:C:O2	82:A:2121:OHX:N3	2.31	0.63
47:A:523:G:O6	82:A:1916:OHX:N1	2.31	0.63
64:R:16:ALA:HB2	64:R:72:GLY:HA3	1.80	0.63
58:c0:3:MET:HE2	58:c0:7:ASP:HB2	1.81	0.63
1:1:2848:G:OP1	41:AN:100:TYR:OH	2.14	0.63
2:3:40:C:O2	13:s:72:ARG:NH1	2.30	0.63
1:AR:2818:U:H6	1:AR:2818:U:H5'	1.63	0.63
48:B:185:ARG:N	69:W:45:ALA:H	1.95	0.63
52:F:123:LEU:HA	52:F:160:VAL:O	1.99	0.63
74:b:84:VAL:HG13	74:b:85:ARG:N	2.13	0.63
47:sR:729:G:O2'	47:sR:730:G:O5'	2.16	0.63
47:sR:1695:G:H21	47:sR:1706:C:H41	1.44	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:Rb:136:ILE:HG13	80:Rb:137:LYS:HG2	1.80	0.63
53:s5:121:ILE:HB	53:s5:199:ILE:HD11	1.81	0.63
63:c5:111:MET:HG2	63:c5:119:PHE:CZ	2.33	0.63
67:c9:86:ARG:HD2	67:c9:92:LYS:HG2	1.81	0.63
1:1:2339:C:P	24:6:48:ARG:HG3	2.39	0.63
1:1:2962:U:OP1	82:1:4075:OHX:N3	2.32	0.63
2:3:27:A:OP2	7:m:57:ASN:HB2	1.97	0.63
17:w:98:ALA:HA	17:w:101:ARG:HH11	1.63	0.63
23:5:57:THR:HG23	23:5:64:THR:HB	1.80	0.63
35:AH:109:THR:HA	35:AH:112:ALA:HB3	1.81	0.63
39:AL:66:ILE:O	39:AL:69:LEU:HD22	1.99	0.63
45:i:71:ASN:OD1	63:Q:128:HIS:HB2	1.99	0.63
1:AR:1807:G:H5"	28:DB:135:ARG:HE	1.63	0.63
1:AR:3224:G:N7	82:AR:3497:OHX:N5	2.47	0.63
7:CG:40:HIS:HB3	7:CG:43:LYS:HD2	1.79	0.63
27:DA:3:LYS:HD2	27:DA:8:VAL:HG13	1.81	0.63
28:DB:121:ARG:HG2	28:DB:126:LYS:HB2	1.80	0.63
37:DK:35:ASN:HA	37:DK:38:LYS:HE2	1.81	0.63
47:A:924:A:O2'	47:A:987:G:OP1	2.16	0.63
50:D:59:HIS:CD2	50:D:238:SER:HB3	2.34	0.63
56:J:78:ILE:HG23	56:J:102:VAL:HG11	1.81	0.63
56:J:114:GLU:HA	56:J:118:GLY:HA2	1.81	0.63
79:g:107:LYS:HB3	79:g:115:THR:OG1	1.99	0.63
80:h:89:LEU:HD11	80:h:124:SER:HB3	1.80	0.63
47:sR:366:A:OP1	47:sR:758:U:O2'	2.13	0.63
47:sR:895:G:H21	62:c4:38:THR:HG21	1.64	0.63
48:s0:90:ALA:HA	48:s0:95:ALA:HB3	1.81	0.63
50:s2:142:GLY:N	50:s2:153:SER:O	2.22	0.63
57:s9:29:LYS:O	57:s9:33:GLU:HG2	1.99	0.63
1:1:1214:U:OP2	21:0:137:ARG:NH2	2.29	0.62
3:4:141:C:OP1	16:v:109:ARG:NH1	2.32	0.62
9:o:44:ILE:HD13	9:o:180:SER:HB2	1.80	0.62
11:q:3:TYR:HA	21:0:142:GLN:NE2	2.13	0.62
28:AA:41:ALA:HB2	28:AA:77:TYR:HE1	1.63	0.62
1:AR:1351:U:O2'	1:AR:1352:A:H5'	1.99	0.62
45:sM:58:GLU:HA	45:sM:61:ILE:HG22	1.80	0.62
47:A:405:C:O2'	54:H:92:ARG:O	2.12	0.62
52:F:147:ILE:HG21	52:F:169:ILE:HG23	1.80	0.62
73:a:89:ILE:HD13	73:a:91:PRO:HD3	1.81	0.62
47:sR:393:C:OP2	56:s8:2:GLY:N	2.32	0.62
80:Rb:143:THR:HG22	80:Rb:144:LEU:H	1.62	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:s1:144:ARG:HB2	49:s1:208:GLN:HB3	1.81	0.62
51:s3:168:ILE:HG12	51:s3:189:MET:HB2	1.80	0.62
60:c2:131:ASP:O	60:c2:135:MET:HG2	1.99	0.62
1:1:520:U:OP2	9:o:70:LYS:NZ	2.33	0.62
13:s:106:ILE:HD13	13:s:112:LEU:HD21	1.81	0.62
39:AL:32:ASN:ND2	39:AL:36:LYS:O	2.33	0.62
36:DJ:85:THR:O	36:DJ:89:ARG:HG3	1.98	0.62
47:A:228:G:N2	47:A:834:G:O2'	2.31	0.62
69:W:1:MET:HB3	69:W:10:GLU:HB2	1.81	0.62
71:Y:53:VAL:HG13	71:Y:99:ASN:H	1.63	0.62
47:sR:200:A:H2'	47:sR:201:G:C8	2.34	0.62
47:sR:241:U:H2'	47:sR:242:U:C5	2.34	0.62
47:sR:565:C:O2	82:sR:2005:OHX:N1	2.32	0.62
47:sR:1208:A:N1	47:sR:1455:G:N2	2.48	0.62
63:c5:51:SER:HB2	63:c5:53:PRO:HG3	1.80	0.62
81:c7:20:TYR:O	81:c7:24:LEU:HG	1.99	0.62
1:1:223:U:OP1	1:1:225:C:N4	2.26	0.62
1:1:1574:C:H2'	1:1:1575:A:H8	1.64	0.62
1:1:3185:U:H5"	11:q:23:ARG:HH22	1.65	0.62
1:AR:2915:U:C5	5:CE:7:GLU:HG2	2.34	0.62
1:AR:3098:G:N7	82:AR:3421:OHX:N6	2.46	0.62
11:CK:1:MET:HE1	21:CU:138:GLN:HB3	1.81	0.62
11:CK:41:ILE:HG23	11:CK:43:VAL:HG13	1.82	0.62
26:CZ:131:ASP:HB3	26:CZ:134:ASP:HB2	1.80	0.62
47:A:488:G:N7	47:A:498:G:N2	2.47	0.62
49:C:57:ALA:HB1	49:C:61:LEU:HD22	1.81	0.62
58:L:88:PRO:C	58:L:90:THR:H	2.06	0.62
62:P:27:PHE:HA	62:P:43:THR:OG1	1.99	0.62
67:U:52:GLY:HA2	67:U:55:TYR:CD1	2.34	0.62
47:sR:1235:C:H2'	47:sR:1236:A:H8	1.64	0.62
80:Rb:72:THR:HG21	80:Rb:114:ASP:HA	1.82	0.62
60:c2:62:LEU:HD21	60:c2:75:VAL:HG11	1.80	0.62
1:1:1712:G:O6	31:AD:28:LYS:NZ	2.30	0.62
1:1:3074:G:O6	82:1:4109:OHX:N4	2.32	0.62
1:1:3316:A:OP1	1:1:3318:G:N2	2.32	0.62
37:AJ:77:LEU:HD11	37:AJ:86:LYS:HD2	1.82	0.62
1:AR:621:A:O2'	1:AR:623:U:O4	2.17	0.62
1:AR:2269:U:O2'	1:AR:2270:A:H8	1.82	0.62
1:AR:2537:U:O2'	1:AR:2538:U:O5'	2.18	0.62
2:AS:64:A:H5'	2:AS:65:G:H5"	1.82	0.62
47:A:1413:U:O2'	82:A:2118:OHX:N2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:F:102:VAL:HG13	52:F:182:TYR:HE2	1.63	0.62
47:sR:158:U:O2'	47:sR:160:C:OP2	2.13	0.62
47:sR:1193:A:OP1	82:sR:1990:OHX:N6	2.32	0.62
47:sR:1358:G:O3'	67:c9:130:ARG:HB3	2.00	0.62
49:s1:172:LEU:O	49:s1:176:VAL:HG12	1.98	0.62
50:s2:116:LYS:HE2	50:s2:116:LYS:HA	1.81	0.62
58:c0:5:LYS:O	58:c0:9:ASN:ND2	2.31	0.62
26:8:50:ALA:HB2	36:AI:77:PRO:HG2	1.81	0.62
40:AM:41:ARG:HH11	40:AM:41:ARG:HG2	1.62	0.62
6:CF:3:ARG:HD3	6:CF:22:LEU:O	2.00	0.62
8:CH:40:LEU:HB3	8:CH:84:VAL:HG11	1.80	0.62
14:CN:47:ALA:C	14:CN:49:ARG:H	2.05	0.62
47:A:347:G:O6	82:A:2126[A]:OHX:N5	2.31	0.62
47:A:1105:C:N4	71:Y:4:GLY:HA2	2.14	0.62
47:A:1282:U:OP1	82:A:1958:OHX:N2	2.32	0.62
82:A:2110:OHX:N6	71:Y:64:PRO:O	2.32	0.62
57:K:114:TYR:HA	57:K:119:ALA:HB3	1.80	0.62
52:s4:73:ASP:HA	52:s4:164:LEU:HD11	1.82	0.62
72:d4:78:SER:OG	72:d4:81:GLU:HG3	1.98	0.62
79:e1:133:ALA:CB	79:e1:140:TYR:HD2	2.12	0.62
1:1:1695:U:O2'	82:1:4151:OHX:N3	2.32	0.62
1:1:2169:G:O6	82:1:4080:OHX:N6	2.33	0.62
3:4:150:G:N7	82:4:207:OHX:N1	2.47	0.62
11:q:13:PRO:HD2	11:q:16:VAL:HG22	1.80	0.62
1:AR:541:U:O4	82:AR:3512:OHX:N1	2.33	0.62
1:AR:1034:U:H2'	1:AR:1035:G:C8	2.34	0.62
1:AR:1404:G:N7	82:AR:4155:OHX:N4	2.47	0.62
2:AS:49:G:C5	7:CG:58:LYS:HG3	2.33	0.62
3:AT:68:G:O6	82:AT:235:OHX:N2	2.33	0.62
7:CG:119:TYR:CZ	7:CG:135:VAL:HG13	2.34	0.62
32:DF:55:LEU:O	32:DF:59:ILE:HG12	1.99	0.62
47:A:1586:A:H1'	47:A:1611:A:N6	2.15	0.62
48:B:172:LEU:O	48:B:176:LEU:HG	1.98	0.62
67:U:30:VAL:HG23	67:U:32:GLY:H	1.65	0.62
47:sR:452:A:OP2	82:sR:1918:OHX:N5	2.33	0.62
47:sR:831:U:O2'	47:sR:832:U:H5'	2.00	0.62
47:sR:1607:G:H2'	47:sR:1608:U:C6	2.35	0.62
48:s0:76:ILE:HD13	48:s0:98:ILE:HB	1.81	0.62
72:d4:130:ALA:O	72:d4:133:ASN:ND2	2.20	0.62
1:1:839:C:O2'	1:1:1724:U:OP1	2.17	0.62
1:1:1555:U:H5	1:1:1559:A:H61	1.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2260:U:O4	82:1:3455:OHX:N1	2.32	0.62
9:o:160:ARG:HD2	9:o:203:TRP:CD1	2.34	0.62
12:r:100:ASN:ND2	12:r:118:ALA:HB1	2.14	0.62
13:s:32:ARG:HD2	13:s:120:ILE:HA	1.82	0.62
24:6:118:VAL:O	24:6:137:VAL:N	2.25	0.62
1:AR:1534:A:OP1	82:AR:3423:OHX:N4	2.33	0.62
1:AR:1618:G:H4'	3:AT:129:C:H1'	1.82	0.62
1:AR:2534:G:O6	82:AR:3541:OHX:N4	2.32	0.62
1:AR:2841:G:OP2	82:AR:3629:OHX:N2	2.33	0.62
3:AT:61:A:OP1	36:DJ:49:LYS:NZ	2.29	0.62
47:A:1594:G:H5'	77:e:33:LYS:HE3	1.80	0.62
52:F:11:ARG:HH12	52:F:20:LEU:HB3	1.64	0.62
56:J:11:ARG:HB3	56:J:16:ALA:O	1.99	0.62
57:K:90:LYS:HD3	57:K:95:TYR:CD2	2.35	0.62
64:R:93:HIS:HA	64:R:97:VAL:HG12	1.82	0.62
67:U:50:ALA:H	67:U:53:TRP:HD1	1.48	0.62
73:a:38:HIS:ND1	73:a:38:HIS:O	2.33	0.62
80:h:207:ASP:OD1	80:h:209:THR:OG1	2.16	0.62
47:sR:768:C:C2	57:s9:143:ILE:HD13	2.35	0.62
47:sR:1213:G:O2'	47:sR:1244:A:N6	2.32	0.62
47:sR:1526:A:N1	47:sR:1608:U:O2'	2.28	0.62
51:s3:48:VAL:HB	51:s3:86:LEU:HG	1.82	0.62
81:c7:80:ARG:HA	81:c7:83:GLN:HG2	1.82	0.62
79:e1:118:ARG:HB3	79:e1:132:LEU:CD2	2.28	0.62
1:1:581:U:O4	82:1:4097:OHX:N1	2.33	0.62
1:1:1412:G:OP1	33:AF:105:ARG:NH2	2.33	0.62
1:1:2312:A:H5"	89:1:4256:HOH:O	1.99	0.62
2:3:94:C:H2'	2:3:95:A:C8	2.34	0.62
6:l:299:ILE:HD12	19:y:39:ARG:HB2	1.81	0.62
1:AR:25:U:O4	82:AR:3408:OHX:N5	2.33	0.62
1:AR:1598:G:OP2	35:DI:31:ARG:NH2	2.33	0.62
1:AR:1631:C:H5"	1:AR:1632:A:H5"	1.80	0.62
1:AR:3284:G:OP2	82:AR:3651:OHX:N6	2.32	0.62
39:DM:9:LYS:O	39:DM:12:LEU:HD23	1.99	0.62
48:B:180:GLU:HA	48:B:183:ARG:HB2	1.81	0.62
50:D:240:LEU:HD23	50:D:241:ASP:H	1.65	0.62
65:S:50:ILE:O	65:S:54:THR:HG23	1.99	0.62
67:U:52:GLY:HA2	67:U:55:TYR:CE1	2.35	0.62
71:Y:6:PRO:HG3	71:Y:14:LYS:HD3	1.81	0.62
47:sR:1:U:C4	57:s9:54:ARG:HG3	2.34	0.62
47:sR:68:A:HO2'	47:sR:69:G:P	2.21	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1098:U:OP2	50:s2:168:ARG:NE	2.32	0.62
49:s1:127:VAL:HG11	49:s1:176:VAL:HG11	1.80	0.62
52:s4:100:ARG:HH22	52:s4:118:GLU:HG2	1.64	0.62
1:1:287:G:H5'	16:v:179:LYS:O	1.99	0.62
1:1:2960:C:H2'	1:1:2961:G:C8	2.34	0.62
18:x:167:ARG:O	34:AG:60:ARG:HB2	1.99	0.62
45:i:86:ASN:HD21	45:i:89:ARG:HB3	1.65	0.62
7:CG:234:ASP:OD1	7:CG:234:ASP:N	2.32	0.62
11:CK:124:ARG:HB3	11:CK:164:ILE:HG12	1.81	0.62
47:A:355:G:OP1	82:A:2108:OHX:N4	2.33	0.62
52:F:222:LEU:O	52:F:225:VAL:HG12	2.00	0.62
71:Y:79:ASN:HD21	71:Y:81:LYS:HE2	1.64	0.62
72:Z:8:ARG:HB2	72:Z:26:ASP:HB3	1.82	0.62
80:h:147:HIS:NE2	80:h:171:SER:HB2	2.15	0.62
47:sR:470:A:OP2	82:sR:1959:OHX:N4	2.33	0.62
47:sR:800:U:H2'	47:sR:801:G:H8	1.65	0.62
47:sR:827:C:H2'	47:sR:828:U:H6	1.65	0.62
47:sR:1063:U:H2'	47:sR:1064:G:C8	2.35	0.62
80:Rb:109:ASP:OD1	81:c7:33:ARG:NH1	2.33	0.62
62:c4:25:ASP:OD1	62:c4:26:THR:N	2.33	0.62
1:1:2960:C:OP1	82:1:3504:OHX:N3	2.33	0.62
1:1:3163:A:N1	1:1:3164:C:N4	2.48	0.62
1:1:3231:U:H2'	1:1:3232:G:H8	1.65	0.62
2:3:26:C:H2'	2:3:57:G:H22	1.65	0.62
7:m:69:ILE:HG13	22:2:31:LEU:HB3	1.80	0.62
14:t:123:ILE:HG22	36:AI:118:ILE:HG23	1.82	0.62
1:AR:565:U:H2'	1:AR:566:G:H8	1.64	0.62
1:AR:829:U:H3	1:AR:895:A:H62	1.48	0.62
1:AR:1251:A:H2'	1:AR:1252:A:H8	1.64	0.62
8:CH:43:LEU:HD13	34:DH:102:LEU:HB2	1.81	0.62
39:DM:9:LYS:O	39:DM:13:GLU:OE1	2.18	0.62
44:DR:49:ARG:HB2	44:DR:55:TRP:CZ3	2.35	0.62
47:A:57:G:OP1	72:Z:112:LYS:NZ	2.32	0.62
47:A:479:C:OP1	57:K:121:SER:OG	2.11	0.62
47:A:523:G:OP2	72:Z:37:LYS:NZ	2.27	0.62
47:A:788:A:H2'	52:F:19:LEU:HD22	1.82	0.62
47:A:856:A:C8	55:I:64:VAL:HG21	2.35	0.62
47:A:1150:G:H2'	47:A:1768:G:H21	1.64	0.62
47:A:1600:A:H4'	47:A:1601:G:OP1	1.98	0.62
47:A:1658:G:N7	82:A:1940[B]:OHX:N1	2.48	0.62
49:C:27:LYS:HD3	49:C:49:ASN:HA	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C:70:LEU:HD22	49:C:79:HIS:HB3	1.81	0.62
49:C:91:VAL:HG12	49:C:96:LEU:HA	1.81	0.62
50:D:45:VAL:HG21	50:D:68:ILE:HD13	1.81	0.62
51:E:175:VAL:HG13	51:E:182:LEU:HB2	1.80	0.62
56:J:22:ARG:HG3	56:J:22:ARG:O	1.98	0.62
60:N:63:VAL:HG11	60:N:94:ALA:N	2.14	0.62
61:O:33:VAL:HG21	61:O:60:VAL:HG21	1.81	0.62
80:h:259:GLY:HA3	80:h:275:ARG:HG2	1.82	0.62
47:sR:1142:A:H5"	74:d6:2:PRO:HB3	1.81	0.62
47:sR:1370:U:O4	82:sR:1995:OHX:N6	2.33	0.62
66:c8:52:VAL:HG13	66:c8:61:LEU:HD11	1.81	0.62
66:c8:52:VAL:HG21	66:c8:69:ILE:HD11	1.82	0.62
82:1:3501:OHX:N1	28:AA:56:LYS:O	2.32	0.61
18:x:16:SER:HB3	18:x:149:VAL:HG12	1.81	0.61
22:2:12:ARG:HD3	22:2:13:TYR:CZ	2.35	0.61
1:AR:162:G:N2	1:AR:259:C:O2	2.16	0.61
1:AR:1953:G:H3'	1:AR:1954:G:H5"	1.82	0.61
6:CF:65:TRP:HB3	6:CF:69:ARG:HD3	1.81	0.61
12:CL:140:THR:HG21	12:CL:148:VAL:HG11	1.82	0.61
16:CP:160:GLU:OE1	16:CP:160:GLU:N	2.32	0.61
54:H:12:SER:HB3	54:H:124:LEU:HG	1.82	0.61
56:J:8:ARG:HD3	56:J:20:GLN:HA	1.82	0.61
61:O:3:ARG:HG3	61:O:6:SER:HB2	1.80	0.61
66:T:26:ILE:HG23	66:T:31:ALA:HB2	1.81	0.61
67:U:70:GLN:NE2	67:U:120:GLY:O	2.33	0.61
68:d0:28:SER:OG	68:d0:112:VAL:HA	1.99	0.61
1:1:1658:G:O6	82:1:4136:OHX:N4	2.33	0.61
1:1:3074:G:OP1	82:1:4125:OHX:N2	2.33	0.61
29:AB:147:LEU:HB3	37:AJ:7:ILE:HG22	1.82	0.61
1:AR:591:G:N2	1:AR:612:U:OP1	2.33	0.61
1:AR:1238:C:H2'	1:AR:1239:C:C6	2.35	0.61
1:AR:2522:G:O6	4:CD:70:ARG:NH1	2.34	0.61
5:CE:76:VAL:HG12	5:CE:325:LYS:HA	1.81	0.61
20:CT:103:ARG:HD2	20:CT:124:TYR:CE2	2.34	0.61
21:CU:2:ALA:HB3	21:CU:32:SER:HB3	1.81	0.61
47:A:69:G:H1	47:A:82:U:H3	1.48	0.61
50:s2:165:VAL:HG11	50:s2:210:THR:HG22	1.82	0.61
53:s5:206:SER:N	53:s5:211:ILE:HD11	2.15	0.61
61:c3:25:TRP:HZ3	75:d7:45:THR:HG21	1.65	0.61
1:1:1278:A:O2'	1:1:1279:C:O5'	2.17	0.61
1:1:1549:U:O4	82:1:4099:OHX:N3	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2427:U:OP1	82:1:4145:OHX:N4	2.33	0.61
9:o:214:TRP:CE2	9:o:219:LYS:HD2	2.34	0.61
19:y:67:ILE:HD13	19:y:140:LEU:HD12	1.81	0.61
44:AQ:49:ARG:HB2	44:AQ:55:TRP:CZ3	2.35	0.61
1:AR:291:C:OP1	16:CP:68:ARG:HB3	1.99	0.61
1:AR:2433:U:H1'	16:CP:125:SER:HB3	1.81	0.61
1:AR:3198:U:C1'	11:CK:21:LYS:HG3	2.28	0.61
47:A:755:A:H2'	47:A:756:A:C8	2.35	0.61
47:A:768:C:H1'	57:K:143:ILE:HG21	1.82	0.61
47:A:848:C:H2'	47:A:849:C:C6	2.36	0.61
47:A:1073:G:H2'	47:A:1074:G:H5"	1.81	0.61
47:A:1555:A:OP1	63:Q:47:ARG:NH1	2.33	0.61
47:A:1758:U:O4	82:A:2124:OHX:N1	2.33	0.61
55:I:91:ILE:HD13	55:I:129:LEU:O	2.00	0.61
60:N:38:HIS:HD2	60:N:127:GLY:HA3	1.65	0.61
47:sR:1479:A:H2'	47:sR:1480:G:H8	1.65	0.61
60:c2:48:SER:O	60:c2:52:LEU:N	2.32	0.61
23:5:41:ILE:HD13	23:5:79:LEU:HD13	1.82	0.61
33:AF:3:SER:HB2	33:AF:71:HIS:CE1	2.35	0.61
1:AR:655:C:H2'	1:AR:656:A:H8	1.64	0.61
1:AR:1740:U:H1'	1:AR:1741:A:H2	1.65	0.61
8:CH:43:LEU:HD11	8:CH:85:ILE:HG13	1.83	0.61
47:A:702:G:O6	47:A:737:A:N6	2.33	0.61
47:A:887:A:H1'	62:P:122:PRO:HB3	1.80	0.61
49:C:23:PRO:HA	49:C:26:ARG:HB2	1.81	0.61
67:U:11:ALA:O	67:U:15:ILE:HG12	2.01	0.61
71:Y:51:GLY:HA2	71:Y:77:ILE:HG23	1.83	0.61
47:sR:679:U:H2'	47:sR:680:U:C4'	2.30	0.61
47:sR:959:U:H5"	75:d7:28:PRO:HB3	1.83	0.61
47:sR:1122:G:N7	82:sR:2172:OHX:N2	2.48	0.61
48:s0:74:VAL:HG23	48:s0:118:PRO:HB3	1.81	0.61
55:s7:77:LEU:O	55:s7:81:LEU:HG	2.01	0.61
1:1:209:A:OP1	6:l:161:LYS:NZ	2.33	0.61
1:1:1014:U:H3	1:1:1036:A:H61	1.47	0.61
1:1:2263:C:OP1	82:1:3493:OHX:N5	2.33	0.61
22:2:126:VAL:HG22	22:2:128:LEU:HG	1.82	0.61
1:AR:2680:A:C2	13:CM:57:PHE:HB3	2.34	0.61
47:A:1235:C:N3	79:g:138:ARG:NH2	2.49	0.61
64:R:71:GLY:O	64:R:77:GLN:NE2	2.31	0.61
68:V:20:ILE:CD1	68:V:95:ALA:H	2.14	0.61
74:b:75:VAL:O	74:b:79:ILE:HG13	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:h:278:PHE:CE1	80:h:287:PRO:HD2	2.35	0.61
47:sR:828:U:O4	47:sR:829:A:N6	2.34	0.61
56:s8:22:ARG:HD2	56:s8:25:ARG:HH11	1.64	0.61
76:d8:19:THR:HG22	76:d8:20:GLY:H	1.65	0.61
1:1:271:C:O2	37:AJ:82:ARG:NH2	2.33	0.61
1:1:1863:G:H4'	20:z:82:LYS:HG3	1.82	0.61
37:AJ:95:ALA:O	37:AJ:99:ARG:HB2	2.01	0.61
1:AR:1571:A:H2'	1:AR:1572:U:O4'	2.01	0.61
9:CI:44:ILE:HG12	9:CI:180:SER:HB3	1.81	0.61
75:c:77:THR:OG1	75:c:78:SER:N	2.32	0.61
49:s1:157:GLN:OE1	82:s1:301:OHX:N3	2.34	0.61
1:1:64:G:N7	89:1:4213:HOH:O	2.31	0.61
1:1:1349:G:O2'	1:1:1350:A:O4'	2.15	0.61
1:1:2794:G:N7	82:1:4084:OHX:N6	2.47	0.61
6:l:351:PRO:HB3	9:o:70:LYS:HB3	1.80	0.61
9:o:232:ARG:HB2	9:o:235:PHE:HB2	1.82	0.61
20:z:172:ARG:O	20:z:176:ARG:HG2	2.01	0.61
1:AR:296:A:N3	1:AR:299:G:O2'	2.32	0.61
1:AR:1114:U:O4	82:AR:4150:OHX:N1	2.33	0.61
27:DA:11:ASP:HB3	27:DA:14:LYS:HG3	1.83	0.61
35:DI:110:GLU:N	35:DI:110:GLU:OE1	2.34	0.61
47:A:1199:G:C5	77:e:40:ARG:HD3	2.36	0.61
52:F:105:VAL:HA	52:F:190:GLY:HA3	1.83	0.61
49:s1:27:LYS:NZ	49:s1:49:ASN:OD1	2.28	0.61
49:s1:134:VAL:HG23	49:s1:218:LEU:HB2	1.83	0.61
1:1:1602:A:H5"	20:z:38:ARG:HG3	1.82	0.61
1:1:2373:A:N7	1:1:2867:C:H1'	2.16	0.61
5:k:257:PRO:HG2	5:k:261:MET:HE3	1.83	0.61
21:0:135:VAL:O	21:0:141:LYS:NZ	2.31	0.61
1:AR:870:G:N7	82:AR:3467:OHX:N5	2.49	0.61
1:AR:1104:G:H2'	1:AR:1105:A:H8	1.65	0.61
16:CP:140:LYS:HA	16:CP:143:ARG:HB2	1.83	0.61
25:CY:23:ARG:HG2	25:CY:24:GLY:H	1.64	0.61
27:DA:37:LYS:HE2	27:DA:37:LYS:H	1.64	0.61
47:A:482:U:H2'	47:A:483:A:C8	2.36	0.61
47:A:1459:C:OP2	66:T:138:THR:OG1	2.19	0.61
52:F:151:ASP:HB3	52:F:154:ILE:HG13	1.81	0.61
60:N:42:ALA:HB3	60:N:122:VAL:HG22	1.83	0.61
71:Y:126:LYS:HB3	71:Y:131:SER:H	1.65	0.61
47:sR:1097:U:H6	50:s2:168:ARG:HD2	1.65	0.61
68:d0:43:LYS:HB2	68:d0:47:GLN:HG3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3128:G:OP2	82:1:4127:OHX:N6	2.34	0.61
1:AR:1594:A:H1'	1:AR:1615:C:H1'	1.82	0.61
1:AR:2667:A:H5"	45:sM:33:LYS:HE2	1.83	0.61
6:CF:64:SER:HA	6:CF:75:PRO:HA	1.82	0.61
12:CL:161:GLY:O	12:CL:163:GLN:NE2	2.32	0.61
18:CR:108:ASP:N	18:CR:152:GLU:OE2	2.33	0.61
24:CX:126:TRP:HB2	24:CX:129:VAL:HG12	1.83	0.61
35:DI:102:LYS:HA	35:DI:105:VAL:HG13	1.83	0.61
47:A:1015:U:OP1	82:A:2111:OHX:N1	2.34	0.61
47:A:1689:A:H2'	47:A:1690:G:C8	2.36	0.61
74:b:4:LYS:HE2	74:b:5:ARG:HH21	1.66	0.61
47:sR:188:A:H2'	47:sR:189:C:O4'	2.01	0.61
47:sR:1499:G:OP1	67:c9:122:ARG:NH1	2.34	0.61
47:sR:1672:G:H2'	47:sR:1673:G:C8	2.36	0.61
69:d1:3:ASN:HD21	69:d1:7:GLN:HB3	1.65	0.61
71:d3:51:GLY:HA2	71:d3:77:ILE:HG13	1.81	0.61
1:1:329:U:OP2	82:1:3537:OHX:N4	2.34	0.61
1:1:508:U:O4	82:1:3506:OHX:N3	2.33	0.61
34:AG:58:GLU:HG3	34:AG:63:LYS:HG2	1.82	0.61
1:AR:728:G:OP1	82:AR:4141:OHX:N1	2.34	0.61
2:AS:68:C:OP1	7:CG:14:SER:OG	2.19	0.61
5:CE:43:LEU:HB2	5:CE:208:VAL:HG11	1.82	0.61
6:CF:53:SER:HB3	6:CF:56:ALA:HB2	1.83	0.61
35:DI:16:ARG:HA	35:DI:19:LYS:HE3	1.81	0.61
43:DQ:15:LYS:HA	43:DQ:18:ARG:HG3	1.83	0.61
47:A:927:C:H2'	47:A:928:U:H6	1.65	0.61
48:s0:180:GLU:HA	48:s0:183:ARG:HB2	1.83	0.61
64:c6:9:THR:HG21	64:c6:88:GLY:HA2	1.82	0.61
81:c7:27:ASP:O	81:c7:31:ASN:ND2	2.33	0.61
1:1:1764:U:H3'	1:1:1765:U:H4'	1.82	0.60
1:1:2103:U:H2'	1:1:2104:A:C8	2.36	0.60
7:CG:60:ILE:HB	7:CG:80:SER:HB3	1.82	0.60
47:A:238:U:OP1	47:A:834:G:H4'	2.01	0.60
68:V:17:GLN:CA	68:V:97:VAL:HG12	2.31	0.60
80:Rb:20:VAL:O	80:Rb:291:SER:OG	2.17	0.60
51:s3:46:THR:HG23	51:s3:84:ILE:HD13	1.82	0.60
60:c2:129:GLU:HG2	60:c2:130:THR:HG23	1.83	0.60
1:1:1862:U:OP2	82:1:3600:OHX:N1	2.34	0.60
1:1:2357:A:H2'	1:1:2358:A:C8	2.36	0.60
1:1:2384:A:OP1	82:1:4060:OHX:N6	2.34	0.60
1:1:2443:A:O2'	1:1:2444:C:OP2	2.19	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3120:C:H3'	41:AN:111:ARG:NH1	2.16	0.60
17:w:33:ILE:O	17:w:102:LEU:HA	2.01	0.60
1:AR:44:U:H5"	16:CP:85:THR:HG23	1.83	0.60
7:CG:178:ASN:HA	7:CG:183:TRP:CG	2.36	0.60
26:CZ:86:VAL:HG11	26:CZ:95:ILE:HG12	1.82	0.60
47:A:1564:U:H2'	47:A:1565:C:C6	2.35	0.60
48:B:27:ARG:HD3	48:B:165:ARG:HH22	1.66	0.60
57:K:126:ARG:HA	57:K:129:ILE:HD12	1.82	0.60
47:sR:986:G:OP2	82:sR:1975:OHX:N2	2.35	0.60
47:sR:1067:C:H5"	49:s1:150:VAL:HG12	1.84	0.60
47:sR:1085:G:N2	47:sR:1088:A:OP2	2.31	0.60
49:s1:180:THR:HG23	49:s1:183:GLN:H	1.67	0.60
52:s4:89:VAL:HG22	52:s4:100:ARG:HG3	1.83	0.60
53:s5:42:LEU:HD13	53:s5:47:SER:HA	1.83	0.60
70:d2:81:VAL:O	70:d2:122:SER:OG	2.19	0.60
1:1:1942:U:OP2	20:z:74:ARG:NH1	2.34	0.60
3:4:151:C:C4	26:8:24:LEU:HD21	2.36	0.60
4:j:229:ALA:HB3	4:j:234:LYS:HG3	1.82	0.60
18:x:92:GLN:HA	18:x:95:LEU:HD12	1.83	0.60
24:6:13:ILE:HG13	24:6:85:TRP:CD1	2.37	0.60
1:AR:104:G:O2'	1:AR:698:U:O2	2.16	0.60
1:AR:1454:A:OP2	82:AR:3671:OHX:N1	2.34	0.60
1:AR:3231:U:H2'	1:AR:3232:G:C8	2.35	0.60
47:A:332:U:OP2	56:J:175:GLN:NE2	2.27	0.60
51:E:41:VAL:HG22	68:V:111:GLY:H	1.65	0.60
53:G:99:MET:HB2	53:G:180:ARG:HH22	1.66	0.60
47:sR:72:A:N1	82:sR:2180:OHX:N4	2.49	0.60
47:sR:354:C:H5"	56:s8:16:ALA:HB2	1.83	0.60
47:sR:1471:A:OP1	53:s5:185:ARG:NH1	2.34	0.60
62:c4:47:LYS:HB2	62:c4:62:LEU:HD23	1.83	0.60
1:1:3045:G:O3'	5:k:275:ARG:NH1	2.33	0.60
5:k:252:ILE:HD11	5:k:266:ARG:CZ	2.31	0.60
27:9:3:LYS:HG3	27:9:8:VAL:HG13	1.84	0.60
1:AR:1251:A:H2'	1:AR:1252:A:C8	2.37	0.60
1:AR:2957:G:OP2	82:AR:3412:OHX:N5	2.35	0.60
1:AR:3228:C:H4'	1:AR:3229:G:O5'	2.02	0.60
4:CD:27:ALA:O	4:CD:128:ARG:NH2	2.30	0.60
9:CI:166:ASN:HA	9:CI:169:ILE:HD12	1.82	0.60
26:CZ:101:GLU:HG2	26:CZ:102:LEU:HD23	1.81	0.60
32:DF:62:ARG:HB2	32:DF:66:GLY:O	2.01	0.60
33:DG:103:LYS:O	33:DG:106:VAL:HG22	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:67:A:O2'	47:A:69:G:OP1	2.12	0.60
47:A:68:A:H5'	54:H:160:ARG:HH12	1.67	0.60
47:A:1065:A:OP1	82:A:1906:OHX:N3	2.35	0.60
47:A:1530:C:OP1	73:a:95:HIS:HB2	2.01	0.60
59:M:99:ARG:NH1	71:Y:7:ARG:O	2.33	0.60
80:h:84:SER:O	80:h:110:VAL:HG22	2.00	0.60
47:sR:1140:G:OP2	82:sR:1928:OHX:N6	2.35	0.60
60:c2:62:LEU:N	60:c2:89:ILE:HG12	2.17	0.60
64:c6:32:ASN:N	64:c6:67:VAL:O	2.31	0.60
1:1:113:C:OP1	16:v:147:ARG:NE	2.34	0.60
6:l:132:ALA:HB2	6:l:148:ILE:HG21	1.82	0.60
9:o:159:GLN:O	9:o:161:VAL:HG23	2.02	0.60
9:o:160:ARG:HB2	9:o:203:TRP:CE3	2.36	0.60
19:y:35:PHE:CE1	19:y:39:ARG:HD3	2.36	0.60
27:9:87:LYS:HB2	27:9:97:ILE:HD11	1.82	0.60
1:AR:1238:C:H2'	1:AR:1239:C:H6	1.66	0.60
8:CH:3:ALA:HB2	33:DG:77:ALA:HB2	1.83	0.60
10:CJ:121:SER:C	10:CJ:123:GLN:H	2.09	0.60
18:CR:131:ARG:HG3	18:CR:137:ASN:ND2	2.15	0.60
26:CZ:103:TYR:HE2	26:CZ:139:ILE:HG12	1.66	0.60
43:DQ:11:TYR:HE1	43:DQ:13:LYS:HB3	1.64	0.60
47:A:401:A:H5"	89:A:2223:HOH:O	2.01	0.60
47:A:1533:C:H6	73:a:77:ARG:HH21	1.49	0.60
52:F:181:VAL:O	52:F:193:GLY:N	2.21	0.60
62:P:16:VAL:HG21	62:P:31:THR:HG22	1.82	0.60
47:sR:427:C:O2'	47:sR:459:G:N3	2.33	0.60
47:sR:1727:G:O6	82:sR:1916[B]:OHX:N6	2.34	0.60
52:s4:151:ASP:HB3	52:s4:154:ILE:HG13	1.84	0.60
6:l:35:VAL:HG21	6:l:244:LEU:HD21	1.82	0.60
10:p:24:ASN:N	10:p:27:THR:HG22	2.17	0.60
20:z:188:ASP:HB2	55:I:39:ARG:HH21	1.67	0.60
26:8:75:LYS:HB3	26:8:81:ILE:HB	1.84	0.60
39:AL:38:PHE:HE2	39:AL:57:ASN:HB3	1.64	0.60
45:i:74:LYS:HE2	63:Q:129:GLY:HA3	1.83	0.60
1:AR:980:A:H2'	1:AR:981:U:C2	2.36	0.60
1:AR:1778:G:O2'	1:AR:1780:G:OP2	2.15	0.60
1:AR:1949:G:OP1	20:CT:104:ARG:NH1	2.34	0.60
1:AR:2762:A:OP2	82:AR:3488:OHX:N6	2.34	0.60
19:CS:158:HIS:H	19:CS:186:VAL:HG12	1.65	0.60
47:A:542:A:H3'	47:A:543:C:H5'	1.84	0.60
47:A:545:A:N1	47:A:593:U:O2'	2.29	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:598:U:OP2	82:A:2125:OHX:N3	2.34	0.60
47:A:927:C:H2'	47:A:928:U:C6	2.37	0.60
47:A:927:C:H1'	62:P:125:SER:HB2	1.82	0.60
49:C:31:ASP:HA	49:C:45:LYS:HG2	1.83	0.60
50:D:222:TYR:OH	69:W:11:LEU:O	2.20	0.60
60:N:70:ASN:OD1	79:g:108:VAL:HG21	2.01	0.60
68:d0:109:GLU:O	68:d0:112:VAL:HG22	2.02	0.60
1:1:566:G:N7	82:1:3505:OHX:N6	2.50	0.60
1:1:899:U:O4	82:1:4085:OHX:N3	2.33	0.60
1:1:2357:A:H2'	1:1:2358:A:H8	1.65	0.60
1:1:3117:C:OP1	82:1:3526:OHX:N3	2.35	0.60
1:1:3255:U:H2'	1:1:3256:G:C8	2.36	0.60
4:j:206:PRO:O	89:j:401:HOH:O	2.16	0.60
1:AR:3166:C:H42	1:AR:3284:G:H1	1.49	0.60
13:CM:47:GLN:HG2	13:CM:67:VAL:HG12	1.82	0.60
21:CU:73:LYS:NZ	21:CU:97:VAL:O	2.33	0.60
47:A:1218:G:N2	47:A:1444:A:OP2	2.29	0.60
48:B:9:LEU:HD22	48:B:54:TRP:HB2	1.84	0.60
57:K:162:SER:C	57:K:164:PHE:H	2.09	0.60
62:P:16:VAL:CG2	62:P:31:THR:HG22	2.32	0.60
80:Rb:9:LEU:HD22	80:Rb:312:VAL:O	2.01	0.60
80:Rb:191:ASP:HB2	51:s3:223:LYS:HD3	1.83	0.60
55:s7:44:LYS:HZ2	55:s7:63:PRO:HG3	1.66	0.60
56:s8:43:ILE:HD11	56:s8:60:ILE:HD11	1.84	0.60
1:1:675:C:O2'	1:1:679:U:OP1	2.20	0.60
1:1:921:A:N6	1:1:1846:C:OP2	2.34	0.60
5:k:171:LEU:HD21	5:k:333:LYS:HB3	1.84	0.60
13:s:6:GLN:HG3	13:s:8:PRO:HD3	1.83	0.60
16:v:104:GLU:HA	16:v:160:GLU:HG3	1.82	0.60
34:AG:52:VAL:HG13	34:AG:66:VAL:HG22	1.84	0.60
1:AR:979:U:H1'	1:AR:980:A:C8	2.37	0.60
1:AR:1220:U:OP1	1:AR:1221:A:O2'	2.15	0.60
1:AR:1348:U:O2	1:AR:1349:G:N2	2.34	0.60
1:AR:2209:U:O2'	1:AR:2210:G:OP2	2.13	0.60
1:AR:3160:U:OP1	82:AR:3651:OHX:N5	2.35	0.60
1:AR:3230:G:H4'	15:CO:132:LYS:HD3	1.84	0.60
19:CS:94:PHE:CZ	29:DC:119:PRO:HD3	2.36	0.60
29:DC:73:LEU:HB2	29:DC:109:TYR:CD2	2.37	0.60
47:A:505:A:H3'	47:A:506:A:H5"	1.84	0.60
47:A:1202:A:H1'	47:A:1207:C:H42	1.65	0.60
47:A:1290:U:H2'	47:A:1291:G:C8	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:T:123:ARG:HB2	66:T:133:VAL:HG23	1.83	0.60
69:W:40:ASP:HB3	69:W:46:ILE:HD11	1.83	0.60
47:sR:833:U:O4	82:sR:1957:OHX:N5	2.34	0.60
66:c8:95:GLY:O	82:c8:201:OHX:N1	2.34	0.60
1:1:911:C:N4	4:j:3:ARG:HD3	2.16	0.60
1:1:1160:C:OP1	19:y:2:GLY:N	2.35	0.60
1:1:1230:G:H1	1:1:1279:C:H42	1.48	0.60
1:1:1601:U:OP1	20:z:42:ARG:NH2	2.34	0.60
6:l:359:LEU:O	21:0:26:ARG:NH2	2.35	0.60
20:z:170:ARG:O	20:z:174:ALA:HB2	2.02	0.60
24:6:28:ASN:HD21	24:6:112:SER:H	1.49	0.60
1:AR:272:G:OP2	82:AR:3573:OHX:N3	2.34	0.60
1:AR:1010:G:H1'	12:CL:195:ALA:HB2	1.84	0.60
11:CK:23:ARG:HD2	11:CK:39:LYS:HA	1.84	0.60
11:CK:49:ASN:OD1	11:CK:52:LEU:N	2.34	0.60
47:A:1341:A:OP1	80:h:63:GLY:HA2	2.01	0.60
48:s0:139:VAL:HG13	48:s0:141:ILE:HG23	1.83	0.60
51:s3:74:GLN:HE22	51:s3:81:PRO:HD3	1.67	0.60
63:c5:75:PRO:HA	63:c5:93:VAL:HG13	1.83	0.60
68:d0:70:THR:O	77:d9:40:ARG:NH2	2.34	0.60
72:d4:52:LYS:HA	72:d4:55:VAL:HG12	1.84	0.60
72:d4:81:GLU:O	72:d4:85:PHE:HB2	2.02	0.60
1:1:49:A:OP1	14:t:16:LYS:NZ	2.28	0.60
1:1:155:G:H4'	1:1:156:G:H2'	1.84	0.60
1:1:1281:G:H2'	1:1:1282:G:H8	1.67	0.60
1:1:1362:G:O2'	9:o:159:GLN:HA	2.02	0.60
1:1:1541:G:OP2	82:1:3520:OHX:N6	2.35	0.60
1:1:2880:U:H1'	5:k:250:ALA:HB3	1.84	0.60
5:k:277:SER:HB3	5:k:280:HIS:NE2	2.17	0.60
24:6:96:GLU:OE1	25:7:24:GLY:N	2.33	0.60
43:AP:26:THR:HB	43:AP:71:ARG:HB3	1.83	0.60
1:AR:1094:U:H4'	1:AR:1095:U:OP1	2.02	0.60
1:AR:1095:U:O4'	22:CV:129:LYS:HD2	2.01	0.60
1:AR:1347:U:H5"	6:CF:302:ALA:HB1	1.84	0.60
1:AR:1610:G:OP1	26:CZ:125:ARG:NH2	2.33	0.60
20:CT:90:PRO:HB2	20:CT:93:VAL:HG23	1.84	0.60
20:CT:122:VAL:O	20:CT:126:GLU:HG3	2.02	0.60
47:A:67:A:N6	47:A:83:G:O2'	2.35	0.60
47:A:1235:C:O2'	79:g:149:LYS:HD3	2.02	0.60
49:C:160:HIS:O	49:C:164:ILE:HG13	2.02	0.60
68:V:17:GLN:HG3	68:V:96:PRO:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:g:102:VAL:HG22	79:g:103:LEU:H	1.67	0.60
47:sR:837:G:H2'	47:sR:838:G:H8	1.66	0.60
53:s5:127:GLN:HG2	53:s5:128:ASN:H	1.67	0.60
57:s9:59:LEU:HD22	57:s9:69:ARG:HA	1.82	0.60
62:c4:48:VAL:HG11	62:c4:53:ASP:HB2	1.84	0.60
1:1:58:G:OP1	16:v:157:LYS:NZ	2.32	0.59
1:1:138:U:H2'	1:1:139:G:C8	2.37	0.59
1:1:2728:G:N7	22:2:87:LYS:NZ	2.48	0.59
4:j:136:ILE:HA	4:j:148:VAL:HG12	1.83	0.59
29:AB:130:VAL:HG21	29:AB:145:VAL:HG11	1.83	0.59
39:AL:20:VAL:HG11	39:AL:45:VAL:HG13	1.84	0.59
1:AR:1110:U:H2'	1:AR:1111:U:C6	2.38	0.59
1:AR:1750:A:H4'	1:AR:1751:G:H5'	1.84	0.59
1:AR:2209:U:HO2'	1:AR:2210:G:P	2.25	0.59
10:CJ:139:VAL:O	10:CJ:143:ILE:HG13	2.02	0.59
22:CV:106:LEU:O	22:CV:109:VAL:HG12	2.01	0.59
47:A:761:G:O6	82:A:1922:OHX:N4	2.35	0.59
47:A:1034:C:HO2'	70:X:2:THR:N	1.99	0.59
47:A:1668:G:OP2	82:A:1918:OHX:N6	2.35	0.59
49:C:67:GLU:OE1	49:C:67:GLU:N	2.34	0.59
54:H:2:LYS:O	54:H:108:VAL:HA	2.02	0.59
62:P:89:THR:O	62:P:128:LYS:HE2	2.02	0.59
64:R:60:PHE:CD1	64:R:63:ILE:HD11	2.37	0.59
47:sR:340:U:H2'	47:sR:341:A:C8	2.37	0.59
47:sR:512:A:OP2	57:s9:172:VAL:HG13	2.02	0.59
47:sR:1216:C:O2'	47:sR:1444:A:N1	2.28	0.59
47:sR:1525:A:OP1	67:c9:93:HIS:ND1	2.35	0.59
61:c3:139:TRP:CZ3	61:c3:141:TYR:HB2	2.37	0.59
64:c6:60:PHE:HA	64:c6:63:ILE:HG12	1.84	0.59
7:m:258:LYS:CG	7:m:261:THR:HG22	2.32	0.59
14:t:79:GLU:HG3	14:t:109:PHE:CD2	2.37	0.59
27:9:58:VAL:HG23	27:9:64:LYS:HA	1.84	0.59
29:AB:78:LEU:HD23	29:AB:118:ILE:HG21	1.84	0.59
1:AR:1306:G:C6	17:CQ:62:THR:HA	2.37	0.59
1:AR:1863:G:O6	82:AR:3494:OHX:N5	2.35	0.59
1:AR:3140:G:N7	5:CE:28:ARG:NH2	2.48	0.59
16:CP:5:LYS:HG3	37:DK:40:VAL:HG21	1.85	0.59
47:A:118:U:OP1	82:A:2136:OHX:N4	2.35	0.59
47:A:472:U:H5"	57:K:11:THR:HG23	1.84	0.59
47:A:479:C:O2	47:A:510:G:N2	2.32	0.59
47:A:595:G:OP2	82:A:2120:OHX:N5	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B:109:ASN:O	48:B:112:THR:HG22	2.02	0.59
51:E:34:TYR:CE1	51:E:37:VAL:HG13	2.37	0.59
71:Y:30:LYS:HE2	71:Y:34:LEU:HD11	1.83	0.59
76:d:40:ILE:HG21	76:d:62:GLU:HB2	1.84	0.59
80:h:194:GLY:HA3	80:h:223:TRP:CH2	2.36	0.59
47:sR:151:G:H2'	47:sR:152:U:H6	1.68	0.59
47:sR:738:G:O6	82:sR:1930:OHX:N4	2.35	0.59
54:s6:162:VAL:HB	54:s6:169:TYR:H	1.68	0.59
68:d0:57:ARG:HA	68:d0:89:ARG:HG3	1.82	0.59
74:d6:57:SER:OG	74:d6:58:VAL:N	2.35	0.59
1:1:132:C:H2'	1:1:133:U:H5"	1.82	0.59
1:1:277:G:OP1	82:1:4058:OHX:N3	2.35	0.59
1:1:2541:U:H1'	1:1:2542:U:H4'	1.83	0.59
82:1:3404:OHX:N2	38:AK:44:THR:O	2.34	0.59
2:3:44:C:OP2	13:s:137:ARG:NH2	2.31	0.59
13:s:14:ILE:HD12	13:s:14:ILE:O	2.03	0.59
28:AA:13:VAL:HG13	28:AA:19:ALA:HA	1.84	0.59
34:AG:72:THR:HG23	34:AG:83:ALA:HA	1.84	0.59
1:AR:767:U:OP1	14:CN:186:ARG:NH2	2.35	0.59
1:AR:2219:A:H2'	1:AR:2220:A:C8	2.37	0.59
1:AR:2821:C:H42	1:AR:2869:U:H3	1.50	0.59
1:AR:3288:G:O2'	1:AR:3289:G:OP2	2.13	0.59
15:CO:46:ILE:HD13	15:CO:58:ILE:HG21	1.85	0.59
47:A:58:U:O4	82:A:1912:OHX:N1	2.35	0.59
47:A:206:A:OP2	82:A:1952:OHX:N2	2.35	0.59
47:A:603:U:H2'	47:A:604:A:C8	2.38	0.59
47:A:868:G:OP1	61:O:121:ARG:NH1	2.35	0.59
47:A:1234:A:H1'	79:g:145:HIS:HB2	1.84	0.59
49:C:144:ARG:HB3	49:C:206:PRO:CB	2.32	0.59
50:D:101:VAL:HG23	50:D:115:ILE:HG12	1.84	0.59
52:F:15:PRO:HG2	52:F:18:TRP:CE2	2.37	0.59
57:K:31:ALA:HA	57:K:36:LEU:HD12	1.82	0.59
59:M:128:CYS:SG	59:M:138:ASN:HB2	2.41	0.59
47:sR:454:U:H5"	47:sR:454:U:H6	1.67	0.59
47:sR:1349:G:O2'	47:sR:1379:C:N3	2.29	0.59
47:sR:1524:A:H2'	47:sR:1525:A:C8	2.37	0.59
49:s1:30:PHE:HB3	49:s1:96:LEU:HD22	1.84	0.59
57:s9:110:GLN:HB2	57:s9:144:PRO:HB3	1.83	0.59
75:d7:54:VAL:HG23	75:d7:63:LEU:HB2	1.83	0.59
1:1:1786:G:H2'	1:1:1787:A:C8	2.38	0.59
1:1:2284:C:O2'	82:1:3601:OHX:N1	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2534:G:O6	82:1:3500:OHX:N4	2.35	0.59
1:1:2746:A:OP1	7:m:179:ARG:HD2	2.01	0.59
8:n:170:LYS:HB3	8:n:172:HIS:CE1	2.37	0.59
31:AD:81:VAL:HG13	31:AD:83:LYS:HG2	1.84	0.59
32:AE:60:TRP:HZ3	32:AE:64:VAL:HG22	1.66	0.59
1:AR:367:A:OP1	82:AR:3425:OHX:N3	2.35	0.59
1:AR:2514:U:OP2	1:AR:2586:G:N2	2.36	0.59
1:AR:2660:G:H2'	1:AR:2661:G:H8	1.67	0.59
11:CK:104:VAL:O	11:CK:111:PHE:N	2.34	0.59
37:DK:95:ALA:HA	37:DK:99:ARG:HH11	1.68	0.59
47:A:768:C:C2	57:K:143:ILE:HG12	2.37	0.59
49:C:116:LYS:HE3	49:C:117:TRP:HZ3	1.67	0.59
51:E:142:LEU:HG	51:E:182:LEU:HD21	1.85	0.59
52:F:241:GLY:O	52:F:244:ILE:HD12	2.02	0.59
58:L:25:LYS:HD2	58:L:59:PHE:CZ	2.36	0.59
63:Q:37:ALA:HB1	63:Q:41:VAL:HG11	1.85	0.59
47:sR:1561:U:H4'	47:sR:1599:C:H4'	1.83	0.59
80:Rb:251:TRP:HD1	80:Rb:264:SER:HB2	1.66	0.59
48:s0:24:LEU:O	48:s0:163:ASN:ND2	2.33	0.59
48:s0:183:ARG:HA	48:s0:188:LEU:HB3	1.84	0.59
52:s4:121:TYR:OH	52:s4:235:TYR:O	2.19	0.59
52:s4:139:VAL:HG13	52:s4:150:PRO:HG3	1.85	0.59
53:s5:26:ALA:H	64:c6:27:GLY:HA3	1.67	0.59
55:s7:13:PRO:O	55:s7:14:THR:HG22	2.02	0.59
1:1:158:G:H2'	1:1:159:A:H8	1.67	0.59
1:1:507:U:H2'	1:1:508:U:C6	2.38	0.59
1:1:1808:G:O6	82:1:4093:OHX:N4	2.35	0.59
1:1:2747:A:H2'	1:1:2748:A:C8	2.38	0.59
10:p:156:ASP:OD1	10:p:156:ASP:N	2.35	0.59
21:0:12:ARG:HH11	21:0:22:PRO:HD2	1.68	0.59
26:8:46:TYR:HB3	36:AI:75:TYR:O	2.02	0.59
29:AB:74:ASN:HB2	29:AB:76:ASP:HB2	1.84	0.59
34:AG:9:VAL:HG21	34:AG:44:TYR:HE2	1.68	0.59
1:AR:2150:G:O2'	1:AR:2189:U:OP1	2.16	0.59
1:AR:3232:G:H1	1:AR:3255:U:H3	1.48	0.59
1:AR:3312:U:H4'	5:CE:25:ILE:HD13	1.83	0.59
2:AS:4:U:H2'	2:AS:5:G:C8	2.38	0.59
3:AT:150:G:O2'	10:CJ:56:VAL:HG23	2.02	0.59
16:CP:120:TRP:HE1	16:CP:123:GLN:HB3	1.67	0.59
20:CT:167:ARG:NH1	47:sR:814:A:H5'	2.17	0.59
47:A:458:G:OP1	72:Z:109:LYS:NZ	2.26	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1610:G:O3'	53:G:98:MET:HE1	2.03	0.59
64:R:9:THR:HG21	64:R:88:GLY:HA2	1.84	0.59
65:S:33:ARG:HG3	80:h:109:ASP:OD2	2.03	0.59
80:h:146:GLY:HA3	80:h:181:TRP:CH2	2.37	0.59
80:h:218:GLY:HA2	80:h:240:VAL:HG23	1.85	0.59
47:sR:159:U:O2'	54:s6:87:ARG:NH1	2.35	0.59
47:sR:523:G:O2'	47:sR:529:A:N6	2.35	0.59
47:sR:1154:G:N7	82:sR:1989:OHX:N2	2.51	0.59
1:1:3:U:C2	3:4:157:U:H1'	2.38	0.59
1:1:1667:A:H2'	1:1:1668:G:C8	2.38	0.59
1:1:2808:A:O2'	1:1:2969:A:OP1	2.16	0.59
1:1:3255:U:H2'	1:1:3256:G:H8	1.66	0.59
3:4:135:G:N7	82:4:228:OHX:N4	2.50	0.59
10:p:65:LEU:HD23	16:v:25:VAL:HG13	1.84	0.59
11:q:76:ASP:O	11:q:79:ILE:HG12	2.02	0.59
45:i:104:LYS:N	47:A:575:C:OP1	2.32	0.59
1:AR:297:G:N2	1:AR:297:G:OP2	2.35	0.59
1:AR:1295:G:O2'	21:CU:115:ARG:NH1	2.32	0.59
1:AR:2534:G:N2	1:AR:2535:A:H62	1.98	0.59
4:CD:202:VAL:HG22	4:CD:217:GLN:HG2	1.83	0.59
5:CE:286:GLY:HA3	5:CE:321:PHE:CE2	2.38	0.59
28:DB:128:GLN:HA	28:DB:131:PHE:HD2	1.67	0.59
33:DG:85:LEU:HB2	33:DG:117:ILE:HD13	1.83	0.59
47:A:918:U:H2'	47:A:919:A:H8	1.67	0.59
47:A:1345:A:H5'	68:V:53:LYS:HG2	1.84	0.59
47:A:1585:U:H3	47:A:1611:A:H2	1.51	0.59
50:D:238:SER:OG	50:D:240:LEU:HD22	2.02	0.59
60:N:75:VAL:HA	60:N:78:LEU:HG	1.84	0.59
62:P:26:THR:HG21	62:P:97:GLY:HA3	1.85	0.59
79:g:105:TYR:O	79:g:117:LEU:HD11	2.02	0.59
47:sR:263:C:H4'	47:sR:292:U:H5'	1.85	0.59
47:sR:992:A:OP1	82:sR:1910:OHX:N5	2.36	0.59
47:sR:1178:G:H5'	47:sR:1190:C:H42	1.68	0.59
47:sR:1454:G:O3'	63:c5:122:THR:OG1	2.19	0.59
47:sR:1553:G:O2'	77:d9:14:TYR:OH	2.19	0.59
48:s0:124:THR:HG22	48:s0:174:TRP:NE1	2.16	0.59
48:s0:185:ARG:HB2	69:d1:45:ALA:HB3	1.85	0.59
1:1:640:U:OP1	29:AB:21:ARG:NH2	2.34	0.59
1:1:1494:U:OP1	40:AM:42:ARG:NH2	2.36	0.59
82:1:4118:OHX:N6	9:o:216:VAL:O	2.35	0.59
7:m:106:ALA:HB2	7:m:166:ALA:HA	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:n:33:SER:HB3	8:n:86:ALA:HB3	1.84	0.59
1:AR:275:U:O4	82:AR:3565:OHX:N2	2.36	0.59
1:AR:2155:G:OP1	4:CD:241:ARG:NE	2.35	0.59
43:DQ:22:GLN:O	43:DQ:75:VAL:HG22	2.02	0.59
47:A:350:U:H5"	47:A:352:A:H5'	1.84	0.59
47:A:377:G:O6	82:A:1934:OHX:N2	2.35	0.59
49:C:111:ARG:HG2	74:b:68:TYR:HB2	1.83	0.59
63:Q:16:SER:OG	63:Q:21:ASP:OD1	2.18	0.59
65:S:57:LEU:O	65:S:61:ILE:HG13	2.03	0.59
47:sR:1018:U:OP1	82:sR:1965:OHX:N1	2.36	0.59
80:Rb:199:ILE:HA	80:Rb:215:GLY:CA	2.32	0.59
80:Rb:249:ARG:NH1	80:Rb:298:GLY:O	2.35	0.59
1:1:402:A:OP1	40:AM:36:ARG:NH2	2.35	0.59
1:1:2259:A:OP2	82:1:3455:OHX:N4	2.36	0.59
13:s:171:VAL:HG13	13:s:172:LEU:H	1.67	0.59
45:i:113:ASP:OD1	51:E:116:ARG:NH2	2.36	0.59
1:AR:118:U:O2	1:AR:121:A:H5'	2.03	0.59
1:AR:1129:A:N6	1:AR:2864:A:O2'	2.31	0.59
1:AR:2310:U:OP1	82:AR:4160:OHX:N6	2.35	0.59
1:AR:3022:G:O2'	1:AR:3031:G:O6	2.14	0.59
27:DA:86:THR:HG22	27:DA:96:PRO:HA	1.85	0.59
50:D:148:LEU:HA	69:W:4:ASP:HB2	1.84	0.59
64:R:113:ASP:OD1	64:R:116:LEU:N	2.28	0.59
67:U:86:ARG:NH1	67:U:90:PRO:O	2.36	0.59
68:V:41:ILE:HA	68:V:44:ASN:HB2	1.82	0.59
70:X:90:THR:O	70:X:94:LEU:HB2	2.03	0.59
74:b:87:ARG:NE	74:b:92:ARG:HA	2.18	0.59
47:sR:105:A:OP1	56:s8:18:ARG:NH1	2.36	0.59
47:sR:868:G:O6	82:sR:1914:OHX:N1	2.36	0.59
48:s0:200:ASP:HA	48:s0:203:PHE:CZ	2.38	0.59
51:s3:7:LYS:HE2	68:d0:27:THR:HG21	1.84	0.59
51:s3:66:ILE:O	51:s3:70:THR:HG23	2.00	0.59
55:s7:154:LEU:HD11	55:s7:183:PHE:CD2	2.32	0.59
74:d6:10:ARG:HB2	74:d6:34:LYS:HA	1.85	0.59
1:1:1580:A:H5"	1:1:2522:G:C2	2.38	0.59
1:1:2697:A:H2'	1:1:2698:G:C8	2.38	0.59
15:u:65:LEU:HD12	21:0:172:TYR:CE2	2.38	0.59
26:8:73:MET:HA	26:8:76:VAL:HG23	1.84	0.59
28:AA:48:ARG:HB3	28:AA:69:LYS:HB3	1.85	0.59
1:AR:911:C:N4	4:CD:3:ARG:HD2	2.17	0.59
1:AR:2535:A:H2'	1:AR:2536:A:H5'	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:79:VAL:HG21	21:CU:106:LEU:HD11	1.85	0.59
47:A:973:A:H2'	47:A:974:A:H8	1.67	0.59
47:A:1078:C:H2'	47:A:1079:U:H6	1.67	0.59
47:A:1235:C:O2	79:g:138:ARG:NE	2.36	0.59
51:E:202:LEU:HG	51:E:204:ASP:HB2	1.83	0.59
54:H:3:LEU:HD22	54:H:109:LEU:HB2	1.85	0.59
60:N:62:LEU:HD23	60:N:63:VAL:N	2.18	0.59
71:Y:42:PRO:HB3	71:Y:81:LYS:HD2	1.84	0.59
73:a:71:ILE:HD11	73:a:75:LEU:HB2	1.85	0.59
47:sR:1799:U:O2'	49:s1:152:ARG:NH2	2.34	0.59
48:s0:17:LEU:HD23	48:s0:22:THR:HG21	1.83	0.59
69:d1:36:VAL:HB	69:d1:51:VAL:HB	1.84	0.59
69:d1:69:LEU:HA	69:d1:72:LEU:HB2	1.85	0.59
1:1:2871:G:H5"	1:1:2872:A:H5"	1.84	0.59
4:j:10:LYS:HA	4:j:16:PHE:CD2	2.37	0.59
5:k:133:TYR:O	5:k:136:LYS:HG2	2.02	0.59
1:AR:1561:G:O6	1:AR:1578:C:N4	2.36	0.59
1:AR:2139:A:H62	38:DL:4:GLY:HA3	1.68	0.59
1:AR:2748:A:H1'	7:CG:36:LEU:HD23	1.83	0.59
1:AR:3065:G:O6	82:AR:3604:OHX:N3	2.36	0.59
12:CL:29:SER:HB2	12:CL:125:LEU:HD22	1.84	0.59
23:CW:14:THR:HG22	23:CW:66:VAL:HB	1.84	0.59
34:DH:85:PHE:O	82:DH:202:OHX:N4	2.36	0.59
47:A:651:G:H1	47:A:683:C:H42	1.50	0.59
47:A:932:U:OP2	49:C:155:TYR:OH	2.18	0.59
80:h:90:ARG:HE	80:h:99:THR:HG21	1.68	0.59
51:s3:211:PRO:HD3	81:c7:19:ARG:HB2	1.85	0.59
52:s4:104:ASP:N	52:s4:108:ARG:O	2.33	0.59
55:s7:17:GLU:HB3	55:s7:43:PHE:CZ	2.38	0.59
55:s7:44:LYS:HD2	55:s7:63:PRO:HA	1.84	0.59
71:d3:13:ARG:O	71:d3:17:VAL:HG22	2.02	0.59
72:d4:12:VAL:HG12	72:d4:23:PHE:HB3	1.84	0.59
1:1:1853:U:O4	82:1:3487:OHX:N5	2.36	0.58
82:1:4117:OHX:N5	33:AF:14:THR:O	2.35	0.58
14:t:47:ALA:HB3	14:t:49:ARG:HD3	1.84	0.58
19:y:37:ALA:HB3	19:y:49:LEU:HD12	1.84	0.58
25:7:46:PRO:HB2	25:7:54:LEU:HD11	1.84	0.58
26:8:100:LYS:HG2	26:8:105:VAL:O	2.03	0.58
39:AL:5:ILE:HG22	39:AL:7:ASP:H	1.68	0.58
1:AR:2604:U:OP2	82:AR:3515:OHX:N1	2.36	0.58
1:AR:3374:U:O4	82:AR:3535:OHX:N6	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DI:99:LYS:O	35:DI:103:LYS:HB2	2.02	0.58
47:A:1435:G:O6	58:L:64:TYR:OH	2.18	0.58
48:B:162:CYS:SG	48:B:173:ILE:HD13	2.43	0.58
55:I:22:GLN:HA	55:I:25:VAL:HG12	1.85	0.58
60:N:128:ALA:O	60:N:133:LEU:HD22	2.03	0.58
64:R:39:VAL:H	64:R:45:ARG:NH1	2.00	0.58
71:Y:75:GLN:HG3	71:Y:82:LYS:HG3	1.85	0.58
78:f:52:GLY:O	78:f:53:LYS:HD3	2.02	0.58
47:sR:142:G:H5'	47:sR:142:G:N3	2.18	0.58
47:sR:711:U:H3'	47:sR:712:G:H8	1.68	0.58
47:sR:1002:G:N2	47:sR:1760:G:O3'	2.36	0.58
47:sR:1317:C:H2'	47:sR:1318:G:O4'	2.02	0.58
47:sR:1552:U:OP2	63:c5:43:ARG:NH2	2.35	0.58
49:s1:77:GLU:HG3	49:s1:80:SER:HB2	1.83	0.58
52:s4:124:GLY:HA2	52:s4:142:HIS:CE1	2.37	0.58
6:l:205:PRO:HG2	6:l:225:VAL:HG22	1.85	0.58
9:o:156:ILE:C	9:o:158:LYS:H	2.08	0.58
10:p:78:PHE:C	10:p:80:TYR:H	2.11	0.58
26:8:34:LEU:HD22	26:8:35:PRO:HD2	1.84	0.58
28:AA:26:VAL:HG21	28:AA:96:VAL:HG22	1.85	0.58
1:AR:297:G:O6	16:CP:12:ARG:NH2	2.36	0.58
1:AR:3026:G:N7	82:AR:3440:OHX:N3	2.50	0.58
1:AR:3164:C:H1'	1:AR:3165:A:H5'	1.84	0.58
7:CG:196:ARG:HA	7:CG:199:ILE:HD12	1.84	0.58
14:CN:24:VAL:HG12	16:CP:199:LEU:HB2	1.85	0.58
15:CO:19:ARG:HA	15:CO:69:THR:HG22	1.84	0.58
25:CY:27:LYS:HB3	25:CY:29:PHE:CE1	2.38	0.58
47:A:637:C:OP1	70:X:32:LYS:N	2.33	0.58
47:A:851:U:H2'	47:A:852:C:C6	2.38	0.58
47:A:1231:U:H4'	47:A:1258:U:H6	1.68	0.58
47:A:1291:G:H22	47:A:1324:G:H1	1.51	0.58
48:B:126:PRO:HG2	48:B:152:PRO:HD2	1.85	0.58
47:sR:250:C:H2'	47:sR:251:A:C8	2.38	0.58
49:s1:144:ARG:HD2	49:s1:206:PRO:HB3	1.85	0.58
53:s5:189:THR:O	53:s5:193:THR:OG1	2.18	0.58
64:c6:113:ASP:OD1	64:c6:116:LEU:N	2.36	0.58
1:1:2438:A:H2'	1:1:2439:A:C8	2.38	0.58
37:AJ:69:ALA:HA	37:AJ:72:VAL:HG12	1.85	0.58
1:AR:314:U:H2'	1:AR:315:C:C6	2.39	0.58
1:AR:972:A:OP1	19:CS:12:ARG:NH2	2.36	0.58
2:AS:26:C:H2'	2:AS:27:A:O4'	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:808:U:H2'	47:A:809:A:C8	2.38	0.58
47:A:1553:G:O6	63:Q:40:ARG:NH2	2.35	0.58
50:D:40:LYS:HB2	50:D:247:ALA:HB1	1.85	0.58
51:E:168:ILE:HG21	51:E:187:LYS:HE3	1.83	0.58
56:J:76:THR:HG22	56:J:108:PRO:HG2	1.86	0.58
62:P:92:LYS:HD2	74:b:69:ASN:HD22	1.68	0.58
67:U:14:PHE:CE1	67:U:135:ILE:HD13	2.35	0.58
79:g:132:LEU:HD23	79:g:141:CYS:N	2.18	0.58
47:sR:138:A:H61	47:sR:266:A:H61	1.48	0.58
47:sR:1680:G:O6	82:sR:2023:OHX:N1	2.36	0.58
80:Rb:171:SER:HB2	80:Rb:181:TRP:NE1	2.15	0.58
80:Rb:274:LEU:HB3	80:Rb:311:ARG:HH12	1.68	0.58
53:s5:114:ILE:HA	53:s5:117:THR:HG22	1.85	0.58
63:c5:18:ARG:NH1	66:c8:90:ASN:OD1	2.36	0.58
1:1:1921:A:OP2	1:1:1930:A:N6	2.33	0.58
1:1:2217:U:H2'	1:1:2218:G:C8	2.38	0.58
82:1:4131:OHX:N6	5:k:30:LYS:O	2.35	0.58
6:l:152:VAL:HG21	6:l:156:LEU:HD12	1.85	0.58
11:q:28:VAL:HG13	11:q:33:THR:HB	1.84	0.58
15:u:48:GLY:HA3	15:u:53:VAL:HB	1.85	0.58
18:x:59:PRO:HG3	18:x:76:PHE:CD2	2.38	0.58
21:0:110:MET:HB3	21:0:116:ALA:HB3	1.84	0.58
4:CD:111:THR:HG22	44:DR:86:LEU:HD13	1.84	0.58
44:DR:84:ARG:O	44:DR:88:GLU:HG2	2.03	0.58
47:A:1202:A:OP1	82:A:2123:OHX:N5	2.37	0.58
49:C:164:ILE:HG22	49:C:168:ILE:HD11	1.86	0.58
54:H:136:LYS:HG3	54:H:173:PRO:HB2	1.85	0.58
65:S:27:ASP:O	65:S:31:ASN:ND2	2.36	0.58
79:g:108:VAL:HG12	79:g:109:ASP:H	1.68	0.58
80:h:304:GLY:HA2	80:h:310:ILE:HG22	1.84	0.58
47:sR:647:G:N2	47:sR:687:G:N2	2.50	0.58
80:Rb:70:ASP:HB3	80:Rb:113:VAL:HG12	1.85	0.58
48:s0:41:ARG:HG2	48:s0:45:VAL:HG13	1.85	0.58
59:c1:75:VAL:HG13	59:c1:120:GLY:H	1.69	0.58
67:c9:11:ALA:HA	67:c9:63:ARG:HH12	1.68	0.58
1:1:103:G:OP1	14:t:70:ARG:NH2	2.37	0.58
1:1:266:A:H2'	37:AJ:30:LYS:HE3	1.85	0.58
6:l:170:LYS:HG2	6:l:175:HIS:HB2	1.86	0.58
19:y:100:THR:HG23	19:y:120:GLU:HB3	1.86	0.58
45:i:77:THR:HG22	45:i:79:SER:H	1.68	0.58
45:i:172:ALA:HB3	60:N:55:GLY:HA3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2175:U:O2	4:CD:25:GLY:HA2	2.03	0.58
29:DC:59:ARG:NH2	43:DQ:38:GLN:OE1	2.36	0.58
47:A:179:A:H2'	47:A:180:A:O4'	2.01	0.58
47:A:1532:U:H1'	67:U:48:GLN:HE22	1.68	0.58
47:A:1533:C:H5	73:a:77:ARG:HE	1.51	0.58
64:R:38:LEU:HD22	67:U:10:ALA:HB2	1.84	0.58
70:X:10:ALA:HB1	70:X:27:ILE:HD12	1.85	0.58
80:h:96:THR:HG23	80:h:98:GLU:H	1.68	0.58
47:sR:119:A:H1'	47:sR:397:A:C5	2.38	0.58
47:sR:522:U:H5"	72:d4:37:LYS:HG3	1.86	0.58
47:sR:1564:U:H2'	47:sR:1565:C:C6	2.39	0.58
80:Rb:69:GLN:N	80:Rb:83:ALA:O	2.36	0.58
51:s3:35:SER:HB2	51:s3:100:ALA:HB2	1.86	0.58
59:c1:58:CYS:SG	59:c1:59:PRO:HD2	2.42	0.58
62:c4:88:GLY:O	62:c4:92:LYS:HE3	2.02	0.58
63:c5:15:HIS:H	63:c5:22:LEU:HD22	1.67	0.58
1:1:1485:G:N2	35:AH:4:ARG:HD2	2.19	0.58
1:1:2748:A:H1'	7:m:36:LEU:HD23	1.85	0.58
3:4:100:U:OP2	82:4:205:OHX:N5	2.37	0.58
2:AS:58:C:OP2	82:AS:202:OHX:N5	2.36	0.58
11:CK:23:ARG:HB2	11:CK:39:LYS:HG2	1.84	0.58
19:CS:175:ALA:HB3	29:DC:51:GLY:O	2.03	0.58
47:A:259:U:OP1	56:J:75:LYS:NZ	2.35	0.58
50:D:43:ARG:NH2	50:D:249:ALA:HB2	2.19	0.58
58:L:60:SER:O	58:L:61:TRP:HB2	2.03	0.58
80:h:201:THR:HB	80:h:242:SER:HA	1.86	0.58
47:sR:159:U:H5'	72:d4:117:LYS:HG2	1.85	0.58
47:sR:485:A:C5	47:sR:486:G:H1'	2.39	0.58
47:sR:794:U:H4'	47:sR:795:U:OP2	2.03	0.58
47:sR:1520:U:H5'	67:c9:75:LYS:HE2	1.86	0.58
69:d1:35:ASN:OD1	69:d1:52:THR:OG1	2.20	0.58
1:1:18:G:OP1	36:AI:81:ARG:NH2	2.37	0.58
1:1:291:C:OP1	16:v:68:ARG:HB3	2.04	0.58
1:1:1695:U:O2'	1:1:1749:A:N1	2.30	0.58
1:1:1824:U:H4'	39:AL:17:ARG:NH1	2.13	0.58
14:t:45:LYS:O	14:t:45:LYS:HG2	2.02	0.58
15:u:135:LEU:HD11	17:w:178:VAL:HG12	1.84	0.58
22:2:14:MET:HE1	22:2:55:LYS:HB2	1.86	0.58
1:AR:1952:G:H3'	1:AR:1953:G:H5"	1.84	0.58
1:AR:3085:G:OP2	82:AR:3407:OHX:N1	2.37	0.58
7:CG:34:LYS:HA	22:CV:27:LEU:HD11	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:28:HIS:NE2	28:DB:128:GLN:OE1	2.36	0.58
32:DF:75:ILE:HG12	32:DF:93:VAL:HG13	1.85	0.58
47:A:1530:C:OP2	73:a:95:HIS:ND1	2.30	0.58
48:B:80:THR:HA	48:B:83:GLN:HG3	1.84	0.58
49:C:197:ILE:O	49:C:201:THR:HG23	2.03	0.58
52:F:107:GLY:HA2	52:F:189:LEU:HD23	1.85	0.58
53:G:159:ALA:HB3	76:d:61:ARG:NH2	2.19	0.58
59:M:19:ILE:HG12	59:M:34:TRP:HB2	1.86	0.58
66:T:47:CYS:O	66:T:52:VAL:HG22	2.03	0.58
73:a:39:ALA:O	73:a:71:ILE:HA	2.03	0.58
47:sR:837:G:H2'	47:sR:838:G:C8	2.38	0.58
47:sR:1458:G:H5"	47:sR:1459:C:OP2	2.04	0.58
50:s2:152:HIS:HA	50:s2:194:GLU:HG3	1.86	0.58
66:c8:57:ARG:HH22	73:d5:75:LEU:HD21	1.69	0.58
1:1:1598:G:OP2	35:AH:31:ARG:NH2	2.36	0.58
4:j:80:GLU:HG3	44:AQ:66:GLY:HA2	1.85	0.58
9:o:197:GLN:OE1	9:o:197:GLN:N	2.36	0.58
35:AH:54:ILE:HD11	35:AH:78:GLY:HA2	1.84	0.58
1:AR:1047:A:N3	1:AR:2633:U:O2'	2.35	0.58
1:AR:1104:G:H2'	1:AR:1105:A:C8	2.39	0.58
1:AR:1609:C:OP1	26:CZ:125:ARG:NH1	2.36	0.58
1:AR:1814:A:H4'	1:AR:1815:U:H5'	1.84	0.58
1:AR:3375:A:O2'	1:AR:3378:C:OP2	2.22	0.58
2:AS:92:A:C5	2:AS:93:C:H1'	2.39	0.58
14:CN:48:PRO:HA	14:CN:137:GLN:HB2	1.84	0.58
24:CX:118:VAL:O	24:CX:137:VAL:N	2.33	0.58
38:DL:25:ARG:O	38:DL:25:ARG:HD2	2.03	0.58
43:DQ:68:VAL:HG13	43:DQ:85:LEU:HB2	1.85	0.58
47:A:108:A:H2'	47:A:109:G:C8	2.39	0.58
47:A:364:G:O2'	47:A:756:A:N6	2.36	0.58
47:A:470:A:OP2	82:A:2120:OHX:N4	2.37	0.58
47:A:1105:C:H41	71:Y:4:GLY:HA2	1.69	0.58
52:F:68:ARG:NH1	52:F:76:VAL:HG21	2.19	0.58
68:V:27:THR:HG23	68:V:113:ASP:HB3	1.84	0.58
47:sR:482:U:H3	47:sR:505:A:N6	2.01	0.58
47:sR:973:A:H2'	47:sR:974:A:C8	2.39	0.58
48:s0:116:LYS:HD3	48:s0:117:GLU:N	2.18	0.58
50:s2:116:LYS:HD3	50:s2:117:THR:H	1.69	0.58
1:1:102:C:HO2'	14:t:62:THR:HG1	1.47	0.58
1:1:1062:A:H5"	1:1:1063:G:H5'	1.86	0.58
1:1:2539:C:H5'	1:1:2541:U:O4	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:m:221:GLU:HG3	7:m:222:LEU:HD12	1.86	0.58
29:AB:79:TRP:HE1	29:AB:119:PRO:HD2	1.68	0.58
19:CS:64:VAL:HB	19:CS:96:PHE:HE1	1.67	0.58
43:DQ:28:TYR:HB3	43:DQ:69:VAL:HB	1.84	0.58
47:A:71:A:H1'	47:A:81:G:H22	1.69	0.58
47:A:1473:U:O2'	53:G:103:ASN:OD1	2.15	0.58
47:A:1503:A:H2'	47:A:1504:G:O4'	2.04	0.58
47:A:1776:A:H2'	47:A:1777:G:C8	2.39	0.58
50:D:42:GLY:HA3	50:D:65:GLU:OE2	2.04	0.58
52:F:184:THR:C	52:F:189:LEU:HD12	2.29	0.58
65:S:31:ASN:HD22	65:S:55:THR:HG22	1.69	0.58
47:sR:1398:U:H3'	47:sR:1399:C:H4'	1.85	0.58
67:c9:6:VAL:CG2	67:c9:132:LEU:HB3	2.33	0.58
67:c9:38:LYS:HA	67:c9:46:PRO:HA	1.85	0.58
4:j:35:ALA:HA	10:p:36:ILE:HD13	1.85	0.58
9:o:80:GLN:HB2	22:2:135:PRO:HB2	1.85	0.58
16:v:46:ASP:OD2	16:v:50:ARG:NH2	2.36	0.58
19:y:34:THR:HA	19:y:49:LEU:HD11	1.86	0.58
29:AB:85:ASP:OD1	29:AB:86:LYS:N	2.33	0.58
1:AR:283:G:OP2	1:AR:285:A:O2'	2.13	0.58
1:AR:1896:A:OP2	89:AR:4306:HOH:O	2.17	0.58
1:AR:1930:A:O2'	82:AR:3428:OHX:N6	2.37	0.58
1:AR:2218:G:H2'	1:AR:2219:A:H8	1.69	0.58
11:CK:20:ILE:HG12	11:CK:25:VAL:HG22	1.86	0.58
17:CQ:61:ALA:HA	17:CQ:70:PRO:HD2	1.85	0.58
28:DB:54:THR:HG22	28:DB:57:HIS:CE1	2.39	0.58
49:C:105:PHE:CD1	49:C:213:ARG:HA	2.39	0.58
51:E:34:TYR:HE1	51:E:37:VAL:HG13	1.69	0.58
57:K:135:ALA:HB2	57:K:140:ILE:HA	1.86	0.58
67:U:108:LEU:O	67:U:111:ILE:HG22	2.03	0.58
80:h:260:ILE:HD11	80:h:274:LEU:HB2	1.86	0.58
80:h:276:PRO:HB2	80:h:311:ARG:HH11	1.69	0.58
47:sR:919:A:C4'	62:c4:35:GLY:HA3	2.34	0.58
47:sR:1198:G:OP1	47:sR:1199:G:O2'	2.13	0.58
48:s0:63:ILE:HG22	69:d1:36:VAL:HG22	1.84	0.58
49:s1:47:LEU:HD11	62:c4:37:GLU:HB3	1.86	0.58
53:s5:214:LYS:O	53:s5:218:GLU:HG2	2.04	0.58
61:c3:40:TYR:HB3	61:c3:45:LEU:HD12	1.85	0.58
67:c9:100:ILE:O	67:c9:104:VAL:HG13	2.04	0.58
79:e1:133:ALA:HB3	79:e1:140:TYR:CD2	2.38	0.58
1:1:610:G:O6	6:l:309:ARG:NH2	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2121:G:O6	82:1:4077:OHX:N1	2.37	0.57
15:u:50:LYS:HE2	15:u:85:TRP:CD1	2.39	0.57
29:AB:60:TYR:CD2	29:AB:63:LYS:HE3	2.38	0.57
47:A:289:U:H2'	47:A:290:G:O4'	2.04	0.57
52:F:180:LEU:O	52:F:228:ILE:N	2.21	0.57
61:O:87:ASP:OD1	61:O:88:LEU:N	2.36	0.57
47:sR:57:G:OP2	72:d4:116:LYS:NZ	2.34	0.57
47:sR:1555:A:P	63:c5:47:ARG:HH21	2.27	0.57
47:sR:1584:G:N2	47:sR:1611:A:OP2	2.28	0.57
50:s2:140:ARG:NH1	69:d1:10:GLU:OE2	2.37	0.57
60:c2:129:GLU:HG2	60:c2:130:THR:H	1.69	0.57
71:d3:96:VAL:HG12	71:d3:127:VAL:HB	1.85	0.57
1:1:29:C:H4'	1:1:62:A:H4'	1.85	0.57
1:1:172:G:N7	82:1:3497:OHX:N2	2.53	0.57
1:1:2818:U:H6	1:1:2818:U:H5'	1.68	0.57
7:m:153:THR:HB	7:m:160:PHE:HZ	1.69	0.57
26:8:50:ALA:HB1	36:AI:66:VAL:HG11	1.87	0.57
45:i:61:ILE:HG13	45:i:62:ARG:H	1.69	0.57
1:AR:359:U:H4'	1:AR:817:A:N6	2.19	0.57
1:AR:1236:G:N2	1:AR:1244:A:OP1	2.37	0.57
1:AR:1388:U:O2'	33:DG:99:ASN:O	2.22	0.57
1:AR:1603:A:OP1	20:CT:38:ARG:NH1	2.37	0.57
1:AR:1611:G:H2'	1:AR:1612:A:H8	1.69	0.57
1:AR:3251:U:H2'	1:AR:3252:G:C8	2.39	0.57
10:CJ:134:TYR:CG	10:CJ:190:VAL:HG21	2.38	0.57
47:A:699:U:O4	82:A:1948:OHX:N1	2.37	0.57
55:I:67:LEU:HD12	55:I:71:HIS:HE1	1.69	0.57
57:K:140:ILE:CG1	72:Z:65:GLY:HA2	2.34	0.57
71:Y:62:LYS:N	71:Y:116:ASP:O	2.29	0.57
47:sR:190:C:N4	47:sR:196:G:O6	2.37	0.57
49:s1:70:LEU:HG	49:s1:84:ILE:HD11	1.84	0.57
57:s9:44:ARG:HG2	57:s9:45:ILE:HD12	1.86	0.57
61:c3:139:TRP:HZ3	61:c3:141:TYR:HB2	1.69	0.57
68:d0:30:LYS:HB2	68:d0:33:GLN:HB2	1.87	0.57
1:1:1618:G:O2'	3:4:126:A:N1	2.37	0.57
1:1:1634:G:N7	28:AA:17:ARG:NH2	2.52	0.57
1:1:2822:U:OP2	82:1:3430:OHX:N2	2.37	0.57
10:p:147:LYS:O	10:p:201:THR:OG1	2.21	0.57
11:q:138:THR:O	11:q:140:VAL:HG12	2.03	0.57
19:y:175:ALA:C	29:AB:51:GLY:HA2	2.29	0.57
23:5:56:VAL:HG23	23:5:65:VAL:HG22	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AA:75:VAL:HG21	28:AA:80:LEU:HD21	1.86	0.57
38:AK:88:ALA:O	82:AK:102:OHX:N4	2.37	0.57
1:AR:187:A:OP2	82:AR:3411:OHX:N2	2.37	0.57
1:AR:1239:C:H42	1:AR:1249:G:H1	1.52	0.57
1:AR:2108:C:H1'	1:AR:3344:A:H8	1.70	0.57
1:AR:2232:A:OP2	82:AR:3462:OHX:N3	2.38	0.57
1:AR:3276:G:H5'	8:CH:48:ARG:NH2	2.20	0.57
4:CD:39:GLY:HA3	10:CJ:36:ILE:HD12	1.86	0.57
28:DB:106:GLN:HA	28:DB:109:GLU:HG2	1.86	0.57
32:DF:88:PRO:HG2	32:DF:89:LEU:HD12	1.85	0.57
46:p0:28:VAL:HG23	46:p0:186:THR:O	2.05	0.57
47:A:417:A:H4'	47:A:418:G:O5'	2.03	0.57
47:A:512:A:OP2	57:K:172:VAL:HG13	2.05	0.57
47:A:1364:G:N2	67:U:3:GLY:HA3	2.20	0.57
50:D:227:PRO:HA	50:D:230:TRP:CE2	2.39	0.57
52:F:182:TYR:HB2	52:F:228:ILE:HD13	1.84	0.57
60:N:56:GLU:HB3	60:N:124:LYS:HG3	1.86	0.57
61:O:91:LEU:HB3	61:O:122:ILE:HG12	1.85	0.57
66:T:48:LYS:HG3	66:T:48:LYS:O	2.03	0.57
66:T:69:ILE:O	66:T:72:ILE:HG22	2.03	0.57
69:W:41:GLU:CD	69:W:41:GLU:H	2.12	0.57
80:h:38:ARG:HG2	80:h:67:ILE:HG23	1.85	0.57
80:h:264:SER:O	80:h:268:GLN:HA	2.04	0.57
47:sR:153:G:C8	72:d4:128:LYS:HE3	2.38	0.57
47:sR:741:C:OP2	82:sR:2181:OHX:N6	2.36	0.57
47:sR:1173:C:HO2'	47:sR:1601:G:H1	1.51	0.57
53:s5:200:ASN:OD1	53:s5:201:ALA:N	2.37	0.57
54:s6:180:THR:HG22	54:s6:183:ARG:HG3	1.86	0.57
61:c3:104:ARG:NE	61:c3:104:ARG:HA	2.19	0.57
81:c7:22:PRO:HB3	81:c7:73:LEU:HD11	1.85	0.57
68:d0:115:GLU:HG2	68:d0:116:VAL:H	1.68	0.57
1:1:121:A:C2	10:p:129:PRO:HB3	2.40	0.57
1:1:364:G:OP1	6:l:60:THR:HG23	2.04	0.57
1:1:3067:C:H5"	20:z:58:HIS:CD2	2.39	0.57
3:4:71:A:O2'	27:9:52:ARG:NH2	2.37	0.57
6:l:36:HIS:O	6:l:40:THR:HG23	2.04	0.57
10:p:184:ALA:O	10:p:188:THR:HG23	2.05	0.57
13:s:92:ARG:HA	13:s:172:LEU:HB2	1.87	0.57
1:AR:330:G:N7	82:AR:3549:OHX:N1	2.52	0.57
6:CF:114:ASN:HB2	6:CF:117:GLU:HB2	1.87	0.57
16:CP:8:GLU:HG3	16:CP:9:GLU:N	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:105:LEU:HD12	20:CT:135:LYS:HG3	1.85	0.57
23:CW:43:VAL:C	23:CW:45:GLY:H	2.10	0.57
47:A:200:A:H2'	47:A:201:G:C8	2.40	0.57
47:A:544:A:H1'	78:f:28:LYS:HE2	1.86	0.57
49:C:87:ARG:HB2	49:C:101:HIS:ND1	2.19	0.57
53:G:27:THR:HG23	64:R:28:LEU:HD12	1.86	0.57
53:G:114:ILE:HA	53:G:117:THR:OG1	2.03	0.57
64:R:47:LYS:NZ	64:R:50:GLU:OE2	2.28	0.57
68:V:20:ILE:HG12	68:V:95:ALA:O	2.05	0.57
73:a:93:SER:CB	73:a:100:ILE:H	2.17	0.57
47:sR:364:G:OP1	82:sR:1988:OHX:N5	2.37	0.57
47:sR:1113:A:O2'	82:sR:2020:OHX:N3	2.38	0.57
49:s1:149:GLN:HE21	49:s1:151:LYS:HE2	1.70	0.57
53:s5:32:GLU:O	53:s5:36:ALA:HB3	2.03	0.57
64:c6:107:LYS:HA	64:c6:110:THR:HG22	1.86	0.57
71:d3:102:VAL:HG12	71:d3:127:VAL:HA	1.85	0.57
79:e1:131:PHE:O	79:e1:132:LEU:O	2.23	0.57
1:1:39:A:H5"	29:AB:35:ALA:HB2	1.87	0.57
1:1:1134:G:N7	82:1:3470:OHX:N5	2.53	0.57
5:k:171:LEU:O	82:k:404:OHX:N2	2.37	0.57
6:l:261:VAL:HG13	6:l:262:TRP:CD1	2.40	0.57
14:t:54:LEU:HD12	14:t:119:TYR:CG	2.39	0.57
16:v:183:THR:HG22	16:v:187:ARG:HB2	1.87	0.57
1:AR:145:G:O6	82:AR:3517:OHX:N3	2.38	0.57
1:AR:943:U:H3'	29:DC:13:GLY:HA2	1.85	0.57
1:AR:1018:G:H2'	1:AR:1019:G:O4'	2.04	0.57
1:AR:1808:G:O6	82:AR:3524:OHX:N4	2.38	0.57
1:AR:3163:A:H2'	1:AR:3164:C:H5'	1.86	0.57
5:CE:218:ILE:HG12	5:CE:276:THR:HG23	1.85	0.57
47:A:1175:U:H3	47:A:1464:G:H1	1.52	0.57
47:A:1315:U:O2	65:S:4:VAL:HG21	2.04	0.57
47:A:1585:U:N3	47:A:1611:A:H2	2.02	0.57
57:K:110:GLN:NE2	57:K:126:ARG:HB2	2.20	0.57
47:sR:1533:C:H4'	47:sR:1539:G:H1	1.69	0.57
62:c4:103:ARG:HA	74:d6:53:LEU:HD21	1.86	0.57
1:1:284:A:OP2	43:AP:41:ARG:NH1	2.38	0.57
1:1:733:G:O6	82:1:3552:OHX:N4	2.38	0.57
1:1:1265:U:N3	1:1:1277:C:O2	2.37	0.57
1:1:1639:C:H5'	35:AH:52:GLN:HG3	1.87	0.57
1:1:2150:G:H4'	44:AQ:22:LEU:HD21	1.86	0.57
1:1:2254:U:H2'	1:1:2261:G:N2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3057:U:H5'	1:1:3086:A:H61	1.70	0.57
1:1:3060:C:H2'	1:1:3061:G:C8	2.39	0.57
3:4:11:C:H1'	18:x:6:ALA:HB2	1.87	0.57
6:l:203:ARG:HE	6:l:240:PRO:HB3	1.70	0.57
8:n:3:ALA:HB2	33:AF:77:ALA:HB2	1.87	0.57
12:r:53:VAL:HG12	12:r:134:ILE:HG13	1.86	0.57
1:AR:155:G:H21	37:DK:26:ILE:HD11	1.69	0.57
1:AR:188:U:C4	1:AR:223:U:H4'	2.39	0.57
1:AR:2373:A:N7	1:AR:2867:C:H1'	2.20	0.57
21:CU:116:ALA:HB1	21:CU:121:ILE:HD11	1.85	0.57
26:CZ:50:ALA:HB2	36:DJ:77:PRO:CB	2.34	0.57
44:DR:73:THR:HG23	44:DR:76:ALA:H	1.68	0.57
47:A:27:U:OP2	82:A:2121:OHX:N1	2.38	0.57
47:A:218:A:H61	47:A:844:A:H1'	1.69	0.57
47:A:1253:U:H4'	79:g:143:LYS:N	2.19	0.57
52:F:180:LEU:HD12	52:F:193:GLY:HA3	1.87	0.57
55:I:174:ASN:OD1	55:I:175:LYS:N	2.37	0.57
60:N:63:VAL:HG13	60:N:92:ALA:HA	1.86	0.57
63:Q:33:PHE:CD2	63:Q:87:PRO:HD3	2.39	0.57
73:a:93:SER:HB2	73:a:100:ILE:H	1.70	0.57
74:b:62:TYR:CG	74:b:63:ALA:N	2.72	0.57
47:sR:887:A:H1'	62:c4:122:PRO:HB3	1.86	0.57
47:sR:1696:G:O2'	47:sR:1698:G:N7	2.37	0.57
51:s3:162:GLN:N	51:s3:163:PRO:HD2	2.20	0.57
53:s5:222:LYS:HD2	76:d8:57:MET:HG3	1.86	0.57
59:c1:71:LEU:HB3	59:c1:88:ARG:NH1	2.19	0.57
62:c4:42:VAL:HG23	62:c4:63:ALA:HB1	1.87	0.57
63:c5:130:ARG:HG2	63:c5:133:ALA:HB3	1.85	0.57
66:c8:35:ILE:HB	66:c8:38:VAL:HG22	1.85	0.57
1:1:1771:C:H5'	23:5:100:THR:HG21	1.85	0.57
1:1:1794:G:H4'	4:j:191:LEU:HD13	1.86	0.57
1:1:2528:G:N7	82:1:4147:OHX:N1	2.52	0.57
2:3:95:A:OP2	82:3:220:OHX:N3	2.38	0.57
5:k:92:TYR:HB2	5:k:157:VAL:CG2	2.34	0.57
7:m:184:ASP:CG	7:m:187:THR:HG22	2.30	0.57
9:o:60:ARG:HA	9:o:63:ILE:HD12	1.85	0.57
20:z:185:LEU:O	55:I:39:ARG:NH1	2.37	0.57
29:AB:45:MET:O	29:AB:49:HIS:N	2.37	0.57
40:AM:28:ARG:HA	40:AM:33:ASN:ND2	2.18	0.57
42:AO:12:ARG:NH2	47:A:1779:U:O4	2.38	0.57
1:AR:1336:U:H2'	1:AR:1337:A:H8	1.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:210:GLU:O	7:CG:214:ASP:HB2	2.05	0.57
18:CR:60:PHE:HB3	18:CR:64:ASN:HB3	1.86	0.57
47:A:1533:C:P	73:a:77:ARG:HH22	2.28	0.57
50:D:140:ARG:NH1	69:W:1:MET:SD	2.78	0.57
62:P:81:VAL:HG22	62:P:115:ILE:HB	1.86	0.57
63:Q:56:PHE:CE1	63:Q:60:LEU:HD21	2.40	0.57
63:Q:110:GLU:OE1	63:Q:110:GLU:N	2.35	0.57
66:T:97:ASP:OD2	82:T:201:OHX:N4	2.38	0.57
49:s1:34:ALA:HB3	49:s1:41:ARG:HA	1.87	0.57
49:s1:158:SER:HA	49:s1:161:ILE:HD12	1.87	0.57
54:s6:26:VAL:HG11	54:s6:40:ALA:HB1	1.85	0.57
1:1:1438:U:H5"	6:l:74:ILE:HD11	1.85	0.57
1:1:1768:U:H2'	1:1:1769:G:O4'	2.05	0.57
1:1:2674:A:OP2	82:1:3540:OHX:N3	2.38	0.57
1:AR:394:G:N7	82:AR:3452:OHX:N1	2.52	0.57
1:AR:1239:C:H42	1:AR:1249:G:H22	1.52	0.57
6:CF:12:THR:HA	6:CF:171:ALA:HB1	1.87	0.57
8:CH:170:LYS:HB3	8:CH:172:HIS:CE1	2.40	0.57
15:CO:14:LEU:H	15:CO:19:ARG:NH2	2.01	0.57
16:CP:9:GLU:HG3	37:DK:44:VAL:HG21	1.86	0.57
20:CT:74:ARG:N	20:CT:74:ARG:HD2	2.19	0.57
23:CW:75:TYR:O	23:CW:79:LEU:HD12	2.05	0.57
31:DE:47:ASN:OD1	31:DE:74:ASN:N	2.32	0.57
44:DR:49:ARG:HG2	44:DR:50:GLY:H	1.69	0.57
47:A:438:A:OP1	82:A:1908:OHX:N1	2.37	0.57
47:A:811:A:N6	55:I:113:PRO:HD3	2.19	0.57
47:A:1665:U:O4	82:A:1967:OHX:N1	2.37	0.57
48:B:41:ARG:HG3	48:B:45:VAL:O	2.05	0.57
48:B:77:SER:OG	48:B:79:ARG:O	2.23	0.57
56:J:87:ASN:HB3	56:J:90:LEU:HG	1.86	0.57
57:K:123:HIS:CE1	78:f:37:ARG:HD2	2.39	0.57
63:Q:22:LEU:HD23	63:Q:109:PRO:HB3	1.87	0.57
80:h:35:SER:HB3	80:h:45:TRP:CH2	2.40	0.57
47:sR:930:A:H5"	74:d6:70:LYS:HD3	1.85	0.57
47:sR:960:U:H1'	61:c3:52:VAL:HG12	1.86	0.57
79:e1:133:ALA:N	79:e1:140:TYR:O	2.38	0.57
1:1:1103:A:H1'	1:1:1104:G:OP1	2.04	0.57
1:1:1601:U:P	20:z:42:ARG:HH22	2.27	0.57
1:1:2230:C:OP2	82:1:4154:OHX:N4	2.38	0.57
1:1:3159:C:OP1	82:1:3594:OHX:N5	2.38	0.57
1:1:3182:G:OP1	17:w:160:ARG:NH2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:75:G:OP2	27:9:74:TYR:OH	2.22	0.57
10:p:86:THR:O	10:p:90:THR:OG1	2.19	0.57
12:r:159:PHE:HB2	12:r:163:GLN:NE2	2.20	0.57
14:t:180:ARG:HD2	37:AJ:11:LEU:HD11	1.87	0.57
28:AA:111:LYS:HA	28:AA:114:VAL:HG22	1.86	0.57
45:i:65:THR:O	63:Q:130:ARG:NH2	2.36	0.57
1:AR:937:G:N2	1:AR:961:C:OP1	2.38	0.57
1:AR:1805:C:H2'	1:AR:1806:A:C8	2.40	0.57
1:AR:2356:A:OP1	18:CR:138:LYS:NZ	2.37	0.57
1:AR:3162:C:H2'	1:AR:3163:A:H8	1.69	0.57
4:CD:65:ASP:HB3	4:CD:68:LYS:O	2.05	0.57
31:DE:30:THR:OG1	31:DE:91:SER:HB2	2.05	0.57
48:B:20:ALA:O	48:B:169:SER:HB3	2.05	0.57
53:G:110:ALA:HA	53:G:113:ILE:HD12	1.87	0.57
55:I:30:SER:HB3	55:I:34:LEU:HD22	1.87	0.57
69:W:79:LEU:HD12	69:W:82:VAL:HG11	1.87	0.57
47:sR:152:U:C2	47:sR:163:G:N2	2.73	0.57
47:sR:1537:C:O2'	47:sR:1540:G:O6	2.22	0.57
60:c2:103:LEU:HB3	60:c2:115:VAL:HG13	1.87	0.57
68:d0:24:ILE:HG22	68:d0:116:VAL:HG12	1.86	0.57
71:d3:70:LYS:HD2	71:d3:70:LYS:N	2.19	0.57
1:1:651:G:OP1	82:1:3567:OHX:N1	2.36	0.57
1:1:2261:G:O2'	1:1:2263:C:N4	2.38	0.57
32:AE:62:ARG:HB2	32:AE:66:GLY:O	2.05	0.57
36:AI:77:PRO:HB2	36:AI:80:LEU:HD12	1.86	0.57
1:AR:1221:A:O3'	46:p0:8:LYS:NZ	2.37	0.57
1:AR:1235:U:O2'	82:AR:3451:OHX:N2	2.38	0.57
1:AR:1793:C:OP2	44:DR:33:GLN:NE2	2.38	0.57
1:AR:3364:C:OP1	82:AR:3442:OHX:N3	2.38	0.57
48:B:68:PRO:HD2	48:B:119:ARG:HH21	1.70	0.57
49:C:132:ASP:O	49:C:221:PRO:HD3	2.05	0.57
53:G:150:GLY:O	53:G:155:ALA:HB2	2.04	0.57
47:sR:386:G:H2'	47:sR:387:A:C8	2.40	0.57
47:sR:856:A:O2'	55:s7:116:ARG:NH2	2.38	0.57
47:sR:895:G:H2'	47:sR:896:U:C6	2.39	0.57
47:sR:1392:U:H2'	47:sR:1393:C:C6	2.40	0.57
48:s0:73:VAL:O	48:s0:95:ALA:HA	2.05	0.57
51:s3:210:GLU:HG2	81:c7:19:ARG:HD3	1.87	0.57
63:c5:48:GLY:C	63:c5:50:THR:H	2.13	0.57
68:d0:20:ILE:HG22	68:d0:95:ALA:O	2.05	0.57
1:1:1564:U:H2'	1:1:1565:G:C8	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1818:U:H2'	1:1:1819:U:O4'	2.05	0.56
1:1:2352:A:H5"	18:x:83:TRP:O	2.05	0.56
1:1:3050:U:OP2	89:1:4202:HOH:O	2.18	0.56
10:p:30:THR:O	10:p:30:THR:OG1	2.23	0.56
14:t:159:VAL:HB	29:AB:96:LYS:HG3	1.85	0.56
17:w:55:HIS:HA	17:w:58:LEU:HD12	1.87	0.56
27:9:38:GLU:HG2	27:9:39:LEU:HD12	1.87	0.56
35:AH:67:LYS:HA	35:AH:70:LYS:HE2	1.86	0.56
45:i:68:ARG:HD3	66:T:146:ALA:HB2	1.87	0.56
1:AR:849:C:H2'	1:AR:850:U:C6	2.40	0.56
1:AR:2587:U:H4'	10:CJ:49:TYR:HD1	1.70	0.56
1:AR:2697:A:H2'	1:AR:2698:G:C8	2.40	0.56
20:CT:173:ARG:HA	20:CT:176:ARG:HH11	1.70	0.56
47:A:810:G:N3	55:I:111:LYS:HB2	2.20	0.56
47:A:1022:C:O2'	47:A:1125:A:N1	2.37	0.56
47:A:1404:C:H2'	47:A:1405:G:H8	1.70	0.56
48:B:50:VAL:HA	48:B:53:THR:HG23	1.87	0.56
67:U:6:VAL:O	67:U:9:VAL:HG12	2.05	0.56
69:W:74:GLN:OE1	69:W:74:GLN:HA	2.05	0.56
47:sR:103:A:OP2	82:sR:1931:OHX:N1	2.38	0.56
47:sR:1503:A:H2'	47:sR:1504:G:O4'	2.05	0.56
80:Rb:131:ILE:HB	80:Rb:144:LEU:HB2	1.87	0.56
57:s9:64:GLU:O	57:s9:65:LYS:HB2	2.05	0.56
62:c4:53:ASP:O	62:c4:56:SER:OG	2.13	0.56
66:c8:27:LYS:HE2	66:c8:54:LEU:O	2.05	0.56
67:c9:135:ILE:HA	67:c9:138:GLN:HG3	1.88	0.56
75:d7:75:GLU:HG2	75:d7:76:GLY:N	2.19	0.56
76:d8:25:VAL:CG2	76:d8:43:ASN:HB3	2.35	0.56
1:1:82:C:H5"	16:v:200:TRP:HE1	1.70	0.56
1:1:627:U:H2'	1:1:628:A:C8	2.40	0.56
1:1:1723:A:OP1	20:z:128:LYS:NZ	2.37	0.56
2:3:112:G:H2'	2:3:113:C:C6	2.40	0.56
11:q:44:THR:HG21	15:u:12:TRP:CH2	2.40	0.56
27:9:53:ASP:HB2	27:9:110:HIS:ND1	2.20	0.56
45:i:168:ALA:C	60:N:125:ASN:HD22	2.09	0.56
1:AR:1127:G:OP2	12:CL:98:ARG:NH1	2.38	0.56
1:AR:1562:C:O2'	1:AR:1563:C:O5'	2.21	0.56
1:AR:2397:A:H8	1:AR:2941:A:N1	2.03	0.56
14:CN:79:GLU:OE2	14:CN:112:ASN:ND2	2.34	0.56
24:CX:10:LYS:HB2	24:CX:125:LEU:HD11	1.87	0.56
45:sM:61:ILE:HD13	66:c8:125:ILE:HA	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:222:A:N6	47:A:840:U:O4	2.38	0.56
47:A:1401:A:O3'	65:S:10:LYS:NZ	2.38	0.56
47:A:1678:A:OP1	56:J:59:ARG:NH2	2.35	0.56
51:E:72:LEU:HD21	58:L:20:VAL:HB	1.87	0.56
54:H:38:GLY:O	54:H:41:VAL:HG22	2.05	0.56
80:h:171:SER:HB3	80:h:181:TRP:NE1	2.12	0.56
47:sR:564:G:N2	47:sR:577:G:OP1	2.38	0.56
47:sR:1769:U:OP2	82:sR:1996:OHX:N2	2.37	0.56
48:s0:62:ARG:HH22	69:d1:38:LYS:HD2	1.70	0.56
52:s4:45:ILE:HA	52:s4:61:VAL:HG11	1.87	0.56
62:c4:85:ALA:H	62:c4:119:THR:HG22	1.70	0.56
67:c9:123:ARG:HG2	67:c9:124:ILE:H	1.70	0.56
74:d6:10:ARG:NH1	74:d6:36:ILE:HG13	2.20	0.56
1:1:361:A:H5'	38:AK:35:SER:OG	2.04	0.56
1:1:1301:A:H4'	1:1:1302:A:O5'	2.05	0.56
6:l:316:ASN:HB3	6:l:319:LYS:HG2	1.87	0.56
9:o:173:LEU:HB3	9:o:178:ILE:HB	1.86	0.56
11:q:23:ARG:HD2	11:q:39:LYS:HA	1.86	0.56
15:u:94:TRP:CE2	15:u:100:ALA:HB2	2.40	0.56
20:z:28:GLU:OE1	82:z:202:OHX:N2	2.38	0.56
24:6:87:ARG:HH22	24:6:137:VAL:HG22	1.70	0.56
1:AR:650:C:H2'	1:AR:651:G:C8	2.40	0.56
1:AR:1034:U:H2'	1:AR:1035:G:H8	1.69	0.56
1:AR:1365:G:OP2	82:AR:3529:OHX:N3	2.37	0.56
1:AR:1472:U:H5"	20:CT:24:LEU:HD12	1.87	0.56
1:AR:1747:G:O3'	39:DM:53:THR:HG21	2.04	0.56
1:AR:1899:G:N7	82:AR:3445:OHX:N6	2.53	0.56
1:AR:1938:U:O4	82:AR:3450:OHX:N4	2.39	0.56
1:AR:1940:G:H21	1:AR:3362:A:H8	1.51	0.56
1:AR:2163:C:H4'	4:CD:8:GLN:HA	1.87	0.56
1:AR:2765:C:O3'	43:DQ:39:GLY:HA3	2.05	0.56
1:AR:2960:C:OP1	82:AR:3472:OHX:N6	2.38	0.56
5:CE:5:LYS:HG3	5:CE:5:LYS:O	2.05	0.56
10:CJ:121:SER:O	10:CJ:123:GLN:N	2.29	0.56
11:CK:73:SER:HA	11:CK:76:ASP:HB2	1.87	0.56
14:CN:32:LYS:HA	14:CN:35:ARG:NH1	2.20	0.56
19:CS:63:SER:HG	19:CS:65:SER:HG	1.52	0.56
21:CU:131:LYS:O	21:CU:134:ASP:HB2	2.05	0.56
23:CW:56:VAL:HG23	23:CW:65:VAL:HG22	1.87	0.56
29:DC:74:ASN:OD1	29:DC:113:LEU:HB2	2.04	0.56
47:A:175:G:N7	82:A:2106:OHX:N1	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:209:U:H2'	47:A:210:A:C8	2.40	0.56
48:B:147:THR:HG21	48:B:159:ALA:HB1	1.87	0.56
49:C:158:SER:HA	49:C:161:ILE:HG12	1.86	0.56
51:E:41:VAL:HG21	68:V:112:VAL:N	2.20	0.56
55:I:23:ALA:O	55:I:26:GLU:HG2	2.06	0.56
55:I:25:VAL:HA	55:I:28:GLU:HB2	1.87	0.56
62:P:48:VAL:HG21	62:P:53:ASP:HB2	1.86	0.56
63:Q:29:SER:HB3	63:Q:32:ASP:HB2	1.87	0.56
65:S:71:PHE:CD2	65:S:73:LEU:HB3	2.41	0.56
67:U:65:ILE:HG12	67:U:71:VAL:HG21	1.86	0.56
68:V:17:GLN:N	68:V:97:VAL:HG12	2.20	0.56
70:X:65:LEU:HD23	70:X:65:LEU:H	1.69	0.56
80:h:33:LEU:HB2	80:h:47:LEU:HD11	1.87	0.56
47:sR:1360:A:C3'	47:sR:1361:U:H4'	2.36	0.56
47:sR:1428:G:H5'	47:sR:1428:G:H8	1.69	0.56
55:s7:137:GLY:HA3	55:s7:153:LEU:HD12	1.87	0.56
60:c2:62:LEU:O	60:c2:91:VAL:HB	2.04	0.56
61:c3:29:SER:O	61:c3:32:SER:N	2.35	0.56
64:c6:77:GLN:O	64:c6:81:ILE:HG13	2.06	0.56
75:d7:40:CYS:SG	75:d7:42:ASN:N	2.74	0.56
1:1:2916:U:H1'	24:6:44:SER:HB2	1.86	0.56
1:1:3011:A:N1	1:1:3043:C:O2'	2.32	0.56
1:1:3282:U:H2'	1:1:3283:U:O4'	2.05	0.56
27:9:70:ILE:HD13	27:9:80:VAL:HG21	1.86	0.56
37:AJ:90:MET:HA	37:AJ:93:ILE:HD12	1.87	0.56
39:AL:56:ILE:HD12	39:AL:57:ASN:H	1.71	0.56
1:AR:631:U:O2'	34:DH:91:ALA:O	2.22	0.56
1:AR:1447:G:O2'	1:AR:2355:G:O6	2.20	0.56
1:AR:1734:G:O6	82:AR:3469:OHX:N5	2.39	0.56
1:AR:3255:U:H2'	1:AR:3256:G:H8	1.68	0.56
16:CP:96:ARG:NH2	16:CP:104:GLU:OE2	2.37	0.56
18:CR:36:ILE:O	18:CR:39:TRP:HB2	2.05	0.56
19:CS:37:ALA:O	19:CS:46:LYS:NZ	2.39	0.56
23:CW:43:VAL:HG11	23:CW:50:LEU:HA	1.87	0.56
45:sM:71:ASN:HD21	63:c5:128:HIS:CD2	2.21	0.56
45:sM:72:ARG:HA	47:sR:1460:A:H1'	1.87	0.56
47:A:1191:U:H4'	64:R:143:ARG:HB3	1.86	0.56
47:A:1494:C:H2'	47:A:1495:C:H6	1.71	0.56
47:A:1632:C:HO2'	47:A:1638:G:HO2'	1.52	0.56
52:F:158:ASP:HB3	52:F:173:ILE:O	2.05	0.56
53:G:90:ILE:O	53:G:94:THR:HG23	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:G:103:ASN:HA	53:G:106:LYS:HG3	1.86	0.56
65:S:89:SER:HA	65:S:95:ARG:HA	1.86	0.56
47:sR:1615:C:H2'	53:s5:81:ARG:HG3	1.87	0.56
47:sR:1797:A:N6	74:d6:84:VAL:HB	2.20	0.56
53:s5:151:GLY:HA3	53:s5:155:ALA:HB2	1.86	0.56
57:s9:163:PRO:HB3	57:s9:169:PRO:HA	1.85	0.56
59:c1:128:CYS:SG	59:c1:138:ASN:HB2	2.46	0.56
1:1:73:C:C4	37:AJ:15:LYS:HD3	2.40	0.56
5:k:291:GLU:OE1	5:k:292:ALA:N	2.29	0.56
28:AA:90:GLU:OE1	28:AA:90:GLU:N	2.39	0.56
1:AR:1150:A:OP1	1:AR:1151:U:H5	1.88	0.56
1:AR:1420:C:OP2	6:CF:193:LYS:NZ	2.39	0.56
1:AR:2869:U:O2'	1:AR:2873:U:OP1	2.22	0.56
4:CD:96:LEU:HD11	4:CD:108:PRO:HD2	1.88	0.56
5:CE:84:VAL:HG22	5:CE:162:VAL:HB	1.88	0.56
47:A:241:U:H5'	47:A:242:U:OP2	2.05	0.56
47:A:1191:U:H5'	64:R:143:ARG:HH11	1.69	0.56
47:A:1473:U:OP2	53:G:189:THR:HA	2.05	0.56
49:C:144:ARG:HA	49:C:208:GLN:HG3	1.87	0.56
64:R:32:ASN:N	64:R:67:VAL:O	2.35	0.56
65:S:35:CYS:HA	65:S:38:ILE:HG22	1.87	0.56
71:Y:127:VAL:O	71:Y:130:VAL:HG22	2.05	0.56
80:Rb:68:VAL:HA	80:Rb:84:SER:HA	1.86	0.56
49:s1:103:MET:HB3	49:s1:215:VAL:HG12	1.87	0.56
67:c9:73:VAL:O	67:c9:77:ASN:ND2	2.39	0.56
1:1:597:G:H2'	1:1:598:A:H8	1.70	0.56
1:1:838:G:O6	44:AQ:4:ARG:NH2	2.39	0.56
1:1:1110:U:H2'	1:1:1111:U:C6	2.41	0.56
1:1:2250:G:N7	82:1:3452:OHX:N3	2.53	0.56
1:1:2767:U:H2'	1:1:2768:U:C6	2.40	0.56
9:o:25:GLN:HG3	9:o:29:GLU:HB2	1.87	0.56
19:y:178:ARG:HD3	19:y:186:VAL:HG22	1.87	0.56
35:AH:102:LYS:HA	35:AH:105:VAL:HG22	1.88	0.56
38:AK:17:THR:HG22	38:AK:18:LEU:H	1.71	0.56
1:AR:229:G:H5"	27:DA:4:GLN:HB2	1.88	0.56
1:AR:2738:A:H5'	30:DD:36:ASP:OD1	2.06	0.56
18:CR:122:ALA:HB3	18:CR:143:PRO:HB2	1.87	0.56
28:DB:47:GLU:HB2	28:DB:71:PHE:HB3	1.86	0.56
47:A:787:G:OP1	52:F:255:ARG:NH2	2.39	0.56
47:A:1648:A:H2'	47:A:1649:G:C8	2.40	0.56
54:H:186:ARG:O	54:H:190:GLN:HG2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:S:16:LEU:HD12	65:S:17:ILE:HG13	1.87	0.56
65:S:69:ILE:O	65:S:74:GLN:NE2	2.38	0.56
80:h:101:GLN:HE21	80:h:138:GLY:HA3	1.71	0.56
80:h:149:ASP:CB	80:h:175:ASP:HB3	2.36	0.56
47:sR:1472:C:H5'	47:sR:1474:G:O4'	2.06	0.56
80:Rb:305:TYR:HE1	80:Rb:311:ARG:HD3	1.71	0.56
48:s0:74:VAL:HG22	48:s0:96:THR:HG23	1.88	0.56
55:s7:49:ILE:HG12	55:s7:175:LYS:HD2	1.88	0.56
1:1:92:G:OP2	1:1:93:C:H5"	2.05	0.56
1:1:1240:A:H3'	1:1:1241:U:H5'	1.88	0.56
1:1:2177:G:O6	82:1:4081:OHX:N5	2.39	0.56
7:m:38:THR:HG22	22:2:30:TYR:HB3	1.88	0.56
23:5:10:LYS:HD2	23:5:68:THR:O	2.06	0.56
1:AR:138:U:H2'	1:AR:139:G:H8	1.69	0.56
1:AR:1307:G:O2'	1:AR:1308:A:N7	2.36	0.56
1:AR:2187:G:OP2	82:AR:3472:OHX:N1	2.38	0.56
1:AR:2569:A:O2'	1:AR:2570:U:O5'	2.24	0.56
1:AR:3004:C:H42	1:AR:3144:G:H1	1.53	0.56
1:AR:3103:A:OP2	82:AR:3642:OHX:N4	2.38	0.56
8:CH:40:LEU:HB3	8:CH:84:VAL:CG1	2.35	0.56
12:CL:93:PRO:HB2	12:CL:125:LEU:HB3	1.87	0.56
17:CQ:79:ILE:HG21	17:CQ:138:LEU:HD11	1.87	0.56
26:CZ:46:TYR:HB3	36:DJ:75:TYR:O	2.06	0.56
47:A:732:G:H1'	47:A:734:A:N6	2.21	0.56
48:B:134:LYS:O	48:B:137:SER:OG	2.24	0.56
49:C:97:LEU:HD13	49:C:232:HIS:CD2	2.40	0.56
50:D:53:ILE:N	50:D:72:LEU:HD23	2.21	0.56
53:G:48:PHE:CG	53:G:67:PRO:HB3	2.40	0.56
74:b:10:ARG:NH2	74:b:35:ALA:O	2.36	0.56
47:sR:647:G:H22	47:sR:687:G:H22	1.51	0.56
47:sR:947:U:H2'	47:sR:948:G:C8	2.41	0.56
47:sR:1302:U:O4	82:sR:1925:OHX:N1	2.38	0.56
80:Rb:42:LEU:HD11	80:Rb:82:SER:HB3	1.88	0.56
51:s3:65:ARG:O	51:s3:69:LEU:HD13	2.06	0.56
51:s3:141:LYS:HE2	51:s3:179:GLN:HG2	1.88	0.56
53:s5:65:ARG:NH1	53:s5:65:ARG:O	2.39	0.56
66:c8:30:TYR:O	66:c8:33:THR:OG1	2.23	0.56
1:1:1767:C:H2'	1:1:1768:U:C6	2.41	0.56
1:1:2347:U:O4	82:1:4115:OHX:N4	2.38	0.56
1:1:2419:A:H2'	1:1:2420:C:H6	1.70	0.56
5:k:37:ARG:HA	5:k:185:GLY:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:r:170:LYS:HA	12:r:177:ASP:HA	1.88	0.56
14:t:49:ARG:HG2	36:AI:116:TYR:CD1	2.41	0.56
28:AA:95:VAL:HG11	28:AA:113:VAL:HG11	1.88	0.56
1:AR:138:U:H2'	1:AR:139:G:C8	2.41	0.56
1:AR:1466:G:O6	82:AR:3413:OHX:N5	2.39	0.56
7:CG:89:THR:HG23	7:CG:90:HIS:CD2	2.41	0.56
8:CH:54:TYR:HA	8:CH:65:ILE:HG22	1.88	0.56
18:CR:32:THR:HG22	18:CR:58:ILE:HG21	1.88	0.56
19:CS:175:ALA:O	29:DC:51:GLY:HA2	2.06	0.56
47:A:471:A:N7	82:A:2120:OHX:N6	2.54	0.56
56:J:40:ALA:O	56:J:42:ARG:HG2	2.06	0.56
56:J:89:GLU:OE2	56:J:92:ARG:NH2	2.39	0.56
60:N:94:ALA:HA	60:N:97:LEU:HD23	1.87	0.56
63:Q:63:ALA:HB1	63:Q:74:ALA:HB3	1.86	0.56
75:c:40:CYS:HB2	75:c:43:ILE:CD1	2.35	0.56
79:g:85:TYR:CE1	79:g:87:THR:HG21	2.41	0.56
47:sR:78:A:O2'	54:s6:173:PRO:O	2.22	0.56
80:Rb:262:VAL:HG23	80:Rb:271:VAL:HB	1.88	0.56
55:s7:63:PRO:O	55:s7:64:VAL:HB	2.05	0.56
55:s7:81:LEU:O	55:s7:84:LYS:HG3	2.06	0.56
57:s9:21:SER:HA	57:s9:24:LEU:HG	1.88	0.56
60:c2:46:ARG:HH22	79:e1:103:LEU:H	1.54	0.56
76:d8:57:MET:N	76:d8:57:MET:SD	2.79	0.56
6:l:8:VAL:HG22	6:l:20:LEU:HD11	1.87	0.56
17:w:121:PRO:HB2	21:0:159:SER:HB2	1.86	0.56
24:6:37:ILE:HG12	24:6:59:MET:O	2.05	0.56
28:AA:4:PHE:CZ	31:AD:35:ARG:HA	2.41	0.56
31:AD:22:LYS:HB2	31:AD:94:GLU:HB2	1.88	0.56
41:AN:99:CYS:HB2	41:AN:114:LYS:HE2	1.87	0.56
1:AR:525:C:H5"	15:CO:79:ALA:HB2	1.87	0.56
1:AR:2111:G:H4'	1:AR:2112:U:OP2	2.05	0.56
1:AR:3056:U:OP2	82:AR:3441:OHX:N2	2.39	0.56
8:CH:100:LYS:HE3	8:CH:105:TYR:HE2	1.70	0.56
19:CS:71:LEU:HD22	19:CS:99:THR:HG21	1.87	0.56
35:DI:74:ARG:HG2	35:DI:75:ALA:N	2.20	0.56
47:A:398:G:OP2	56:J:47:ARG:NH2	2.34	0.56
47:A:703:G:H2'	47:A:704:C:H5'	1.88	0.56
47:A:1792:G:O5'	74:b:3:LYS:HA	2.05	0.56
48:B:41:ARG:HD2	48:B:42:PRO:O	2.06	0.56
80:h:59:ARG:NH2	80:h:96:THR:O	2.39	0.56
80:h:194:GLY:HA3	80:h:223:TRP:HH2	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:632:U:H5"	71:d3:10:ASN:O	2.06	0.56
47:sR:1608:U:O3'	64:c6:73:GLY:HA3	2.06	0.56
48:s0:185:ARG:O	48:s0:185:ARG:HG2	2.06	0.56
56:s8:50:GLY:O	56:s8:52:ASN:ND2	2.38	0.56
57:s9:77:ILE:HG23	57:s9:86:LEU:HD23	1.86	0.56
60:c2:132:GLU:H	60:c2:132:GLU:CD	2.14	0.56
64:c6:26:LYS:HA	64:c6:61:SER:O	2.05	0.56
67:c9:54:PHE:CZ	67:c9:104:VAL:HG12	2.40	0.56
69:d1:36:VAL:O	69:d1:51:VAL:N	2.37	0.56
73:d5:90:LYS:HG2	73:d5:104:ALA:O	2.06	0.56
1:1:900:G:H1'	1:1:1589:A:H61	1.71	0.56
1:1:1317:A:O2'	1:1:1318:A:H3'	2.06	0.56
1:1:1845:G:O2'	38:AK:5:THR:HG22	2.06	0.56
1:1:2146:C:OP1	4:j:200:ARG:NH2	2.39	0.56
6:l:29:PRO:O	6:l:124:SER:OG	2.19	0.56
14:t:47:ALA:HB1	14:t:48:PRO:HD2	1.88	0.56
38:AK:18:LEU:HD23	38:AK:25:ARG:HB2	1.88	0.56
1:AR:198:A:N3	1:AR:218:G:O2'	2.39	0.56
1:AR:209:A:H4'	1:AR:211:A:C8	2.41	0.56
1:AR:565:U:H2'	1:AR:566:G:C8	2.41	0.56
2:AS:8:G:OP2	7:CG:30:TYR:OH	2.22	0.56
9:CI:88:ARG:NH2	9:CI:92:ILE:HA	2.21	0.56
67:U:6:VAL:HG23	67:U:132:LEU:HD23	1.87	0.56
72:Z:64:PHE:CD1	72:Z:65:GLY:N	2.72	0.56
47:sR:512:A:H2'	47:sR:513:U:C6	2.40	0.56
47:sR:1502:G:N7	67:c9:102:ARG:NH2	2.54	0.56
49:s1:32:ILE:HD11	49:s1:46:THR:OG1	2.06	0.56
55:s7:78:THR:O	55:s7:82:GLU:HG2	2.05	0.56
63:c5:37:ALA:HB1	63:c5:41:VAL:HG21	1.87	0.56
1:1:2294:U:OP1	24:6:70:ARG:NH2	2.39	0.55
1:1:3246:G:O6	82:1:4105:OHX:N1	2.39	0.55
13:s:55:ARG:HG2	13:s:55:ARG:O	2.05	0.55
22:2:50:LYS:O	22:2:92:ARG:HD2	2.06	0.55
23:5:107:PHE:HD1	23:5:108:TYR:H	1.54	0.55
1:AR:2404:A:N7	1:AR:2872:A:N6	2.53	0.55
1:AR:3309:G:O6	5:CE:21:ARG:NH2	2.39	0.55
5:CE:113:GLU:HB3	5:CE:176:ALA:HB2	1.88	0.55
9:CI:143:THR:HG22	9:CI:241:LYS:HG3	1.88	0.55
24:CX:74:MET:HG3	24:CX:102:ILE:HG23	1.88	0.55
27:DA:32:SER:HA	27:DA:49:PRO:HA	1.88	0.55
27:DA:55:GLU:HB2	27:DA:108:LYS:HB3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DI:57:LEU:HB3	35:DI:61:GLN:HG3	1.88	0.55
40:DN:42:ARG:HG2	40:DN:43:ASN:H	1.70	0.55
42:DP:11:ARG:NH1	47:sR:1776:A:OP2	2.40	0.55
47:A:145:A:O2'	47:A:146:U:O5'	2.21	0.55
54:H:78:THR:HG22	54:H:92:ARG:HG2	1.87	0.55
60:N:46:ARG:O	60:N:49:THR:HG22	2.06	0.55
79:g:117:LEU:HD13	79:g:118:ARG:HD2	1.88	0.55
80:h:74:THR:HG21	80:h:79:TYR:HB2	1.87	0.55
80:h:258:THR:HG23	80:h:259:GLY:H	1.71	0.55
47:sR:1160:A:H2'	47:sR:1161:C:C6	2.41	0.55
47:sR:1391:A:H2'	47:sR:1392:U:C6	2.41	0.55
51:s3:74:GLN:HB2	51:s3:79:TYR:O	2.07	0.55
53:s5:42:LEU:HD22	53:s5:47:SER:HA	1.88	0.55
64:c6:19:VAL:HG22	64:c6:68:ARG:HG2	1.88	0.55
66:c8:72:ILE:HA	66:c8:79:TYR:CD2	2.41	0.55
1:1:678:G:O6	82:1:4092:OHX:N5	2.39	0.55
1:1:1015:U:O2'	1:1:1017:C:OP2	2.17	0.55
1:1:1635:G:N2	1:1:1638:A:OP2	2.34	0.55
1:1:2254:U:H2'	1:1:2261:G:H22	1.71	0.55
13:s:133:ARG:NH1	13:s:153:LYS:O	2.39	0.55
15:u:13:ARG:NH1	15:u:65:LEU:O	2.34	0.55
21:0:77:VAL:HG11	21:0:106:LEU:HD22	1.86	0.55
27:9:120:GLN:HG3	27:9:126:LEU:HD12	1.88	0.55
35:AH:84:CYS:O	35:AH:88:ARG:HG3	2.06	0.55
1:AR:773:G:O6	82:AR:3438:OHX:N5	2.39	0.55
1:AR:1682:U:O4	23:CW:90:ARG:NH2	2.39	0.55
1:AR:1722:U:H5"	20:CT:99:LEU:HD23	1.87	0.55
1:AR:2213:A:H2'	1:AR:2214:A:C8	2.42	0.55
1:AR:2801:A:O2'	1:AR:2802:A:H2'	2.07	0.55
1:AR:3066:U:O4	82:AR:3604:OHX:N6	2.39	0.55
3:AT:62:C:O2	82:AT:211:OHX:N4	2.40	0.55
9:CI:84:VAL:HG12	9:CI:138:TYR:HD1	1.71	0.55
15:CO:123:LEU:HD23	17:CQ:190:VAL:HG23	1.87	0.55
28:DB:48:ARG:HB3	28:DB:69:LYS:HB3	1.87	0.55
47:A:654:C:H3'	47:A:655:G:H5"	1.88	0.55
49:C:105:PHE:CE1	49:C:213:ARG:HA	2.41	0.55
57:K:29:LYS:O	57:K:33:GLU:HB2	2.06	0.55
58:L:11:ILE:HG22	58:L:35:ILE:HD13	1.88	0.55
58:L:46:LEU:HD13	58:L:66:TYR:CE2	2.42	0.55
64:R:50:GLU:OE2	64:R:112:TYR:OH	2.24	0.55
66:T:110:ARG:HA	66:T:113:LEU:HB2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:848:C:H2'	47:sR:849:C:C6	2.42	0.55
47:sR:1171:A:H2'	47:sR:1172:G:C8	2.40	0.55
49:s1:174:LYS:HG3	49:s1:175:GLU:N	2.21	0.55
63:c5:69:GLU:HG2	63:c5:70:ASN:ND2	2.21	0.55
64:c6:102:LYS:O	64:c6:105:LEU:HD23	2.06	0.55
72:d4:57:VAL:HB	72:d4:60:PHE:CE1	2.41	0.55
1:1:1934:G:N7	82:1:4077:OHX:N2	2.54	0.55
12:r:185:ARG:HG3	12:r:186:GLU:N	2.20	0.55
15:u:14:LEU:O	15:u:19:ARG:NE	2.39	0.55
1:AR:510:G:O6	82:AR:3523:OHX:N2	2.40	0.55
3:AT:87:G:OP2	36:DJ:7:TYR:OH	2.23	0.55
5:CE:284:ARG:NH1	5:CE:293:ASN:O	2.39	0.55
7:CG:256:THR:OG1	7:CG:258:LYS:NZ	2.38	0.55
15:CO:20:VAL:HG23	15:CO:66:THR:CG2	2.37	0.55
19:CS:64:VAL:HB	19:CS:96:PHE:CE1	2.42	0.55
27:DA:35:LEU:HD21	27:DA:109:LEU:HD21	1.87	0.55
40:DN:24:PRO:HB2	40:DN:27:ILE:HD12	1.87	0.55
46:p0:96:ILE:O	46:p0:99:VAL:HG12	2.06	0.55
47:A:976:G:O6	82:A:2113:OHX:N5	2.39	0.55
47:A:1474:G:H2'	47:A:1475:A:H8	1.69	0.55
49:C:143:THR:HG23	49:C:205:PHE:HE2	1.72	0.55
53:G:172:ILE:O	53:G:176:THR:HG23	2.05	0.55
62:P:17:ALA:CB	62:P:81:VAL:HA	2.34	0.55
66:T:32:LEU:HD11	66:T:43:SER:HB2	1.87	0.55
47:sR:87:C:O2'	47:sR:169:A:N1	2.36	0.55
47:sR:176:C:H3'	47:sR:177:U:H6	1.70	0.55
47:sR:1057:U:H3'	47:sR:1058:U:O4'	2.06	0.55
47:sR:1469:A:OP2	82:sR:2013:OHX:N1	2.38	0.55
51:s3:32:GLU:HG2	51:s3:57:ASP:HB2	1.89	0.55
69:d1:1:MET:HG2	69:d1:9:VAL:HG23	1.87	0.55
1:1:429:U:H4'	34:AG:88:ASN:O	2.07	0.55
12:r:208:ASN:HA	12:r:211:ARG:HD3	1.87	0.55
18:x:85:ALA:O	18:x:89:LYS:HG3	2.06	0.55
20:z:28:GLU:HG3	20:z:49:THR:HG22	1.89	0.55
28:AA:9:LYS:HA	28:AA:86:THR:HG22	1.87	0.55
1:AR:68:C:O3'	16:CP:177:GLY:HA2	2.05	0.55
1:AR:3157:U:H4'	1:AR:3158:G:C5'	2.36	0.55
1:AR:3344:A:H2	1:AR:3361:G:H21	1.55	0.55
1:AR:3383:G:H2'	1:AR:3384:U:H6	1.71	0.55
39:DM:64:LYS:NZ	39:DM:64:LYS:O	2.40	0.55
47:A:558:U:OP1	78:f:55:ARG:NH2	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1450:U:H2'	47:A:1451:C:C6	2.41	0.55
49:C:81:PHE:CE1	49:C:109:LYS:HE3	2.42	0.55
49:C:142:PHE:O	49:C:207:LEU:HA	2.07	0.55
50:D:78:ASP:HB2	50:D:129:ILE:HD11	1.88	0.55
57:K:169:PRO:HD2	57:K:174:ARG:NH2	2.19	0.55
60:N:87:PRO:HA	60:N:140:PHE:CZ	2.41	0.55
47:sR:604:A:OP1	82:sR:2000:OHX:N5	2.40	0.55
47:sR:1062:A:OP2	82:sR:2170:OHX:N3	2.39	0.55
47:sR:1518:C:OP2	82:sR:1995:OHX:N4	2.39	0.55
80:Rb:195:HIS:NE2	80:Rb:221:MET:HG3	2.22	0.55
49:s1:180:THR:H	49:s1:183:GLN:HB2	1.70	0.55
58:c0:55:VAL:HG21	58:c0:66:TYR:HB3	1.88	0.55
62:c4:87:GLY:HA3	62:c4:120:PRO:HG2	1.86	0.55
79:e1:147:VAL:O	79:e1:149:LYS:NZ	2.37	0.55
1:1:764:U:O4	82:1:3476:OHX:N3	2.39	0.55
1:1:1488:G:H5"	1:1:1838:G:O6	2.06	0.55
1:1:2538:U:H4'	1:1:2539:C:OP2	2.06	0.55
34:AG:37:THR:OG1	34:AG:39:GLN:OE1	2.25	0.55
34:AG:90:PRO:HG2	34:AG:93:THR:HG23	1.88	0.55
1:AR:47:C:OP2	1:AR:48:A:O2'	2.25	0.55
1:AR:207:U:H2'	1:AR:208:C:H6	1.71	0.55
1:AR:665:A:H1'	14:CN:14:PHE:CE2	2.42	0.55
1:AR:1317:A:O2'	1:AR:1318:A:H3'	2.07	0.55
1:AR:2138:A:C4	38:DL:3:LYS:HB3	2.40	0.55
1:AR:2550:U:N3	10:CJ:36:ILE:HG13	2.21	0.55
1:AR:3376:A:H5'	1:AR:3377:G:H5"	1.89	0.55
13:CM:49:LYS:HB2	13:CM:62:ASN:HA	1.87	0.55
23:CW:35:LYS:HA	23:CW:38:ILE:HG12	1.87	0.55
47:A:521:A:N3	72:Z:34:ASN:ND2	2.55	0.55
47:A:1078:C:H2'	47:A:1079:U:C6	2.42	0.55
47:A:1174:C:OP2	66:T:141:THR:HG21	2.07	0.55
47:A:1397:U:C4	47:A:1399:C:H1'	2.40	0.55
51:E:92:GLN:CD	51:E:92:GLN:H	2.14	0.55
52:F:105:VAL:HG21	52:F:245:LYS:H	1.70	0.55
52:F:181:VAL:N	52:F:193:GLY:HA2	2.02	0.55
56:J:107:THR:OG1	56:J:108:PRO:HD3	2.06	0.55
58:L:81:ASN:CG	60:N:37:VAL:HG11	2.32	0.55
71:Y:109:ARG:HD3	71:Y:114:LYS:HA	1.89	0.55
75:c:43:ILE:HG22	75:c:44:THR:H	1.72	0.55
80:h:24:ALA:HB1	80:h:73:LEU:H	1.72	0.55
47:sR:381:C:O2'	47:sR:755:A:N1	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:709:C:O2	47:sR:730:G:N2	2.40	0.55
47:sR:1516:A:C8	68:d0:58:LEU:HD23	2.41	0.55
51:s3:76:ARG:HG3	58:c0:22:VAL:HG21	1.88	0.55
66:c8:29:VAL:HG13	66:c8:30:TYR:CD2	2.41	0.55
70:d2:102:VAL:HG13	70:d2:113:HIS:HB3	1.89	0.55
78:e0:39:LEU:O	78:e0:43:ARG:HB2	2.07	0.55
1:1:1576:G:H3'	1:1:1577:G:C8	2.41	0.55
1:1:2177:G:OP2	4:j:128:ARG:NH1	2.38	0.55
1:1:2299:A:OP1	82:1:3465:OHX:N3	2.39	0.55
1:1:3173:G:O6	34:AG:92:LYS:HG2	2.06	0.55
7:m:88:ILE:HG12	7:m:240:TYR:CE1	2.42	0.55
10:p:75:ILE:HD11	16:v:18:VAL:HG23	1.88	0.55
1:AR:993:G:N3	1:AR:2637:A:H2'	2.22	0.55
1:AR:1284:C:O2'	1:AR:1285:G:H5'	2.06	0.55
1:AR:3291:G:H2'	1:AR:3292:A:C8	2.40	0.55
19:CS:170:ARG:HH11	29:DC:57:GLY:H	1.55	0.55
26:CZ:115:ARG:HD3	26:CZ:121:LYS:HE3	1.89	0.55
37:DK:86:LYS:O	37:DK:90:MET:HG2	2.07	0.55
47:A:495:C:H3'	47:A:496:G:C4'	2.37	0.55
47:A:714:G:N2	47:A:725:U:H3	2.03	0.55
47:A:1277:G:H2'	47:A:1278:G:O4'	2.05	0.55
53:G:23:VAL:HG21	64:R:58:ASP:HB3	1.87	0.55
55:I:169:PHE:HA	55:I:172:VAL:HG22	1.89	0.55
57:K:175:ARG:HA	57:K:178:ALA:HB3	1.89	0.55
62:P:26:THR:HG23	62:P:55:SER:HA	1.88	0.55
67:U:116:ILE:HA	67:U:122:ARG:HG3	1.88	0.55
47:sR:523:G:H5'	72:d4:60:PHE:O	2.06	0.55
47:sR:877:G:H5'	47:sR:937:C:H1'	1.89	0.55
48:s0:157:ASP:O	69:d1:66:ASP:HA	2.07	0.55
66:c8:49:LYS:HB2	66:c8:72:ILE:HD13	1.88	0.55
68:d0:22:ILE:HG13	68:d0:117:VAL:O	2.07	0.55
79:e1:127:GLY:N	79:e1:143:LYS:HE2	2.21	0.55
1:1:2108:C:H1'	1:1:3344:A:C8	2.42	0.55
1:1:2828:G:P	12:r:7:ARG:HH12	2.30	0.55
3:4:23:U:H5"	27:9:13:ARG:HG2	1.89	0.55
11:q:3:TYR:HA	21:0:142:GLN:HE22	1.71	0.55
13:s:156:LYS:O	13:s:159:THR:HG22	2.06	0.55
1:AR:1059:G:OP2	82:AR:3637:OHX:N1	2.40	0.55
1:AR:2208:A:O2'	1:AR:2209:U:OP2	2.23	0.55
82:AR:3501:OHX:N6	9:CI:217:PRO:HA	2.21	0.55
5:CE:293:ASN:HB2	5:CE:304:THR:HA	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:299:ILE:HB	19:CS:39:ARG:HB3	1.87	0.55
9:CI:138:TYR:CE2	9:CI:233:GLU:HB2	2.41	0.55
14:CN:157:ARG:NH2	29:DC:146:GLU:OE2	2.39	0.55
19:CS:35:PHE:CE1	19:CS:39:ARG:HG3	2.41	0.55
47:A:119:A:H1'	47:A:397:A:C4	2.41	0.55
47:A:514:G:O2'	47:A:515:A:H5'	2.07	0.55
47:A:1570:A:OP1	82:A:2139:OHX:N1	2.39	0.55
50:D:44:LEU:O	50:D:50:ILE:HG12	2.07	0.55
62:P:114:ARG:HA	74:b:62:TYR:CZ	2.41	0.55
63:Q:29:SER:O	63:Q:30:THR:C	2.48	0.55
65:S:21:TYR:O	65:S:21:TYR:HD1	1.90	0.55
76:d:49:ARG:HG3	76:d:52:ASP:OD1	2.07	0.55
47:sR:485:A:N6	47:sR:486:G:N3	2.54	0.55
47:sR:583:C:OP1	82:sR:1906:OHX:N6	2.39	0.55
47:sR:1040:G:H5"	48:s0:31:VAL:HG21	1.88	0.55
47:sR:1478:G:H5'	67:c9:47:PRO:HB3	1.89	0.55
48:s0:34:GLU:O	48:s0:37:VAL:HG12	2.06	0.55
49:s1:164:ILE:HD13	49:s1:207:LEU:HD11	1.89	0.55
51:s3:40:ARG:HH12	68:d0:108:ILE:HB	1.71	0.55
52:s4:73:ASP:C	52:s4:164:LEU:HD21	2.32	0.55
54:s6:61:PHE:CE2	54:s6:96:SER:HB2	2.40	0.55
55:s7:114:ARG:HH11	55:s7:114:ARG:HG3	1.71	0.55
59:c1:13:PHE:HE2	59:c1:15:LYS:HG3	1.71	0.55
61:c3:25:TRP:O	61:c3:27:LYS:NZ	2.33	0.55
64:c6:79:TYR:HA	64:c6:82:ARG:HG2	1.88	0.55
64:c6:113:ASP:HA	64:c6:116:LEU:HD12	1.89	0.55
64:c6:129:PHE:O	64:c6:137:ARG:NH2	2.40	0.55
66:c8:76:PRO:HB2	66:c8:81:ILE:HD11	1.87	0.55
76:d8:32:PHE:O	76:d8:33:LEU:HG	2.06	0.55
79:e1:123:ASN:HD22	79:e1:143:LYS:NZ	2.05	0.55
1:1:1090:G:H2'	1:1:1091:A:H8	1.70	0.55
1:1:1129:A:N3	1:1:2826:U:O2'	2.39	0.55
1:1:2373:A:N3	1:1:2824:G:O2'	2.25	0.55
1:1:2742:C:C4'	43:AP:20:HIS:HD1	2.20	0.55
3:4:103:G:OP2	3:4:105:A:O2'	2.24	0.55
4:j:94:ALA:HB3	4:j:102:LEU:HG	1.88	0.55
9:o:136:TYR:CZ	9:o:231:ASN:HB2	2.42	0.55
22:2:14:MET:HE3	22:2:15:PHE:CE1	2.42	0.55
28:AA:4:PHE:O	28:AA:9:LYS:HD2	2.07	0.55
33:AF:82:LEU:HD11	33:AF:117:ILE:HG21	1.89	0.55
1:AR:177:U:O2	1:AR:242:C:N4	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1188:U:OP1	1:AR:1210:U:O2'	2.21	0.55
1:AR:1348:U:H4'	1:AR:1349:G:OP1	2.05	0.55
1:AR:3041:U:OP1	24:CX:12:ARG:NH1	2.40	0.55
1:AR:3047:U:O2'	5:CE:53:MET:HE1	2.05	0.55
6:CF:38:VAL:O	6:CF:42:VAL:HG23	2.07	0.55
6:CF:47:ARG:NH2	6:CF:109:TRP:O	2.37	0.55
10:CJ:89:GLU:HB3	10:CJ:214:LEU:HD21	1.88	0.55
23:CW:90:ARG:C	23:CW:92:TRP:H	2.13	0.55
24:CX:87:ARG:NH1	24:CX:137:VAL:HG21	2.21	0.55
47:A:142:G:N2	47:A:173:A:H2	2.04	0.55
47:A:180:A:H2'	47:A:181:A:O4'	2.07	0.55
47:A:1006:C:OP1	82:A:2107:OHX:N3	2.40	0.55
47:A:1404:C:H2'	47:A:1405:G:C8	2.41	0.55
49:C:53:GLY:HA2	49:C:56:SER:HB3	1.88	0.55
53:G:121:ILE:O	53:G:125:THR:N	2.35	0.55
58:L:57:THR:HG22	58:L:66:TYR:CD1	2.41	0.55
66:T:144:ARG:HH11	66:T:145:ARG:HG2	1.72	0.55
67:U:101:ASN:O	67:U:104:VAL:HG12	2.07	0.55
72:Z:27:VAL:HG12	72:Z:29:HIS:HD2	1.72	0.55
47:sR:1018:U:H2'	47:sR:1019:A:C8	2.42	0.55
48:s0:179:ARG:NH1	48:s0:180:GLU:OE2	2.40	0.55
56:s8:4:SER:HB2	56:s8:24:LYS:HE2	1.89	0.55
67:c9:6:VAL:O	67:c9:9:VAL:HG12	2.07	0.55
70:d2:105:THR:OG1	70:d2:126:LEU:HG	2.07	0.55
1:1:186:U:OP2	82:1:3405:OHX:N2	2.40	0.55
1:1:835:G:O2'	1:1:857:G:N2	2.32	0.55
1:1:1502:C:OP2	82:1:4074:OHX:N1	2.40	0.55
3:4:79:A:C3'	3:4:80:A:H4'	2.36	0.55
4:j:108:PRO:O	4:j:111:THR:OG1	2.23	0.55
7:m:184:ASP:OD1	7:m:187:THR:N	2.39	0.55
14:t:47:ALA:C	14:t:49:ARG:N	2.64	0.55
1:AR:41:G:N2	1:AR:2803:A:N7	2.53	0.55
17:CQ:43:ILE:HD11	17:CQ:138:LEU:HD13	1.88	0.55
29:DC:100:PRO:HG2	29:DC:123:VAL:HG12	1.89	0.55
47:A:856:A:C6	55:I:116:ARG:HG2	2.41	0.55
47:A:894:U:H2'	47:A:895:G:C8	2.42	0.55
47:A:1479:A:H2'	47:A:1480:G:H8	1.72	0.55
48:B:55:GLU:O	48:B:58:VAL:HG22	2.07	0.55
49:C:134:VAL:O	49:C:218:LEU:HD22	2.06	0.55
51:E:65:ARG:O	51:E:69:LEU:HD12	2.07	0.55
54:H:164:LYS:HE3	54:H:167:LYS:HE3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:f:40:TYR:HD1	78:f:44:PHE:HD2	1.55	0.55
80:h:239:GLU:HG2	80:h:241:PHE:CZ	2.42	0.55
80:h:276:PRO:HG2	80:h:278:PHE:CZ	2.42	0.55
47:sR:1041:G:H2'	47:sR:1042:G:C8	2.42	0.55
49:s1:187:LYS:O	49:s1:192:VAL:HG12	2.07	0.55
61:c3:132:VAL:HG23	61:c3:134:VAL:HG23	1.89	0.55
66:c8:28:ILE:HG13	66:c8:57:ARG:HA	1.89	0.55
1:1:44:U:H5"	16:v:85:THR:HG23	1.88	0.55
1:1:158:G:H2'	1:1:159:A:C8	2.42	0.55
1:1:1725:C:H2'	1:1:1726:C:H6	1.71	0.55
5:k:346:THR:O	5:k:350:ALA:HB3	2.07	0.55
10:p:73:PRO:HG3	10:p:233:TRP:CD1	2.41	0.55
1:AR:567:G:H2'	1:AR:568:G:C8	2.42	0.55
1:AR:1013:G:O6	82:AR:3602:OHX:N3	2.40	0.55
1:AR:2899:C:O2	11:CK:173:ARG:NH2	2.40	0.55
47:A:358:U:O2'	47:A:360:A:OP1	2.24	0.55
47:A:838:G:N7	82:A:1907:OHX:N3	2.55	0.55
47:A:1606:C:H2'	47:A:1607:G:C8	2.42	0.55
52:F:41:SER:OG	52:F:42:LEU:N	2.38	0.55
52:F:118:GLU:HA	52:F:121:TYR:HE1	1.71	0.55
80:h:203:THR:HG21	80:h:244:ALA:HA	1.87	0.55
47:sR:488:G:O2'	47:sR:500:C:N4	2.38	0.55
47:sR:1360:A:H3'	47:sR:1361:U:H4'	1.88	0.55
52:s4:175:PHE:HZ	52:s4:208:VAL:HG11	1.72	0.55
53:s5:51:VAL:HG11	53:s5:130:ILE:HG13	1.89	0.55
62:c4:100:ALA:HA	62:c4:103:ARG:NE	2.22	0.55
63:c5:90:ILE:HA	63:c5:107:ILE:HG22	1.88	0.55
70:d2:27:ILE:HB	70:d2:61:ILE:HB	1.89	0.55
1:1:2244:A:OP1	4:j:243:THR:OG1	2.25	0.54
1:1:2946:A:H5"	1:1:2947:G:H5'	1.88	0.54
1:1:3121:U:H1'	1:1:3122:A:H5"	1.90	0.54
6:l:145:ILE:HG13	6:l:150:LEU:HD13	1.89	0.54
10:p:99:PRO:HG2	10:p:190:VAL:HG13	1.89	0.54
10:p:211:LEU:O	10:p:215:VAL:HG13	2.07	0.54
18:x:50:GLN:OE1	18:x:56:ARG:NH1	2.40	0.54
19:y:98:LYS:O	19:y:99:THR:HG23	2.07	0.54
24:6:33:ASN:HD21	24:6:63:LYS:HB2	1.70	0.54
32:AE:10:ARG:HG2	32:AE:108:VAL:HA	1.89	0.54
45:i:94:HIS:O	47:A:1274:C:N4	2.40	0.54
1:AR:149:U:P	16:CP:49:ARG:HH12	2.29	0.54
1:AR:528:U:H2'	1:AR:529:A:C8	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1050:U:OP2	22:CV:13:TYR:OH	2.18	0.54
1:AR:1104:G:P	1:AR:1104:G:H8	2.30	0.54
1:AR:1472:U:H5'	20:CT:4:LEU:HB2	1.88	0.54
1:AR:2882:U:H2'	1:AR:2883:U:C6	2.42	0.54
1:AR:3057:U:H5'	1:AR:3086:A:H61	1.72	0.54
18:CR:28:ASN:O	18:CR:32:THR:HG23	2.07	0.54
20:CT:159:ALA:O	20:CT:163:ARG:HB2	2.07	0.54
47:A:52:U:H2'	47:A:53:G:C8	2.42	0.54
47:A:260:U:H3'	47:A:261:U:C5'	2.38	0.54
47:A:327:U:H2'	47:A:328:A:C8	2.42	0.54
47:A:567:A:H4'	78:f:10:ARG:O	2.07	0.54
47:A:1166:A:H5"	53:G:101:GLY:N	2.23	0.54
53:G:196:GLU:HA	53:G:199:ILE:HG12	1.88	0.54
64:R:95:LYS:O	80:h:59:ARG:NH1	2.41	0.54
66:T:123:ARG:HB2	66:T:133:VAL:CG2	2.36	0.54
52:s4:118:GLU:HA	52:s4:121:TYR:HE1	1.71	0.54
53:s5:42:LEU:HB3	53:s5:46:TRP:O	2.08	0.54
71:d3:90:ASP:OD1	78:e0:12:GLY:HA2	2.07	0.54
72:d4:37:LYS:HD2	72:d4:57:VAL:HG23	1.87	0.54
75:d7:35:VAL:HG22	75:d7:79:PHE:HA	1.88	0.54
1:1:1162:U:H1'	33:AF:12:LYS:HE2	1.89	0.54
1:1:1783:U:H2'	1:1:1784:G:C8	2.41	0.54
1:1:2660:G:O3'	1:1:2749:G:N2	2.40	0.54
1:1:2749:G:N7	82:1:3581:OHX:N1	2.55	0.54
4:j:133:TYR:HB3	4:j:168:VAL:HG23	1.89	0.54
7:m:244:HIS:O	7:m:248:ARG:HG3	2.08	0.54
26:8:95:ILE:HG13	26:8:110:VAL:HG21	1.89	0.54
35:AH:8:ARG:HB2	35:AH:34:HIS:CD2	2.41	0.54
1:AR:2262:A:N1	47:sR:1758:U:O2'	2.30	0.54
1:AR:2714:G:OP2	43:DQ:10:THR:OG1	2.21	0.54
1:AR:3169:U:H2'	1:AR:3170:A:C8	2.42	0.54
1:AR:3299:A:H61	1:AR:3315:G:H1	1.54	0.54
14:CN:47:ALA:C	14:CN:49:ARG:N	2.62	0.54
18:CR:21:TYR:H	18:CR:145:HIS:CE1	2.24	0.54
28:DB:10:VAL:HG23	28:DB:83:THR:OG1	2.08	0.54
46:p0:91:GLU:HB3	46:p0:92:PRO:HD2	1.88	0.54
47:A:228:G:N1	47:A:834:G:N3	2.55	0.54
47:A:1160:A:H2'	47:A:1161:C:C6	2.42	0.54
52:F:35:PRO:HD2	52:F:83:PRO:HG2	1.89	0.54
55:I:109:VAL:HG12	55:I:110:GLN:H	1.72	0.54
64:R:58:ASP:O	64:R:60:PHE:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:U:10:ALA:HB3	67:U:13:ASP:OD1	2.07	0.54
80:h:127:ARG:HG2	80:h:150:TRP:CD2	2.42	0.54
47:sR:1555:A:OP2	63:c5:47:ARG:NH2	2.40	0.54
49:s1:66:VAL:HA	62:c4:34:SER:HB2	1.88	0.54
50:s2:111:VAL:HG13	50:s2:191:ALA:HA	1.89	0.54
51:s3:223:LYS:HE2	51:s3:225:TYR:HE1	1.71	0.54
66:c8:56:LYS:HG2	66:c8:60:GLU:CD	2.33	0.54
1:1:975:C:H2'	1:1:976:U:C6	2.42	0.54
1:1:1480:G:H4'	1:1:1481:A:OP1	2.08	0.54
1:1:2727:A:OP2	1:1:2728:G:N2	2.40	0.54
3:4:59:A:H5"	3:4:61:A:C8	2.42	0.54
28:AA:36:HIS:HB2	28:AA:40:HIS:CE1	2.42	0.54
1:AR:274:G:N7	82:AR:3565:OHX:N5	2.55	0.54
1:AR:664:U:H2'	1:AR:665:A:C8	2.42	0.54
1:AR:835:G:HO2'	1:AR:857:G:H22	1.55	0.54
1:AR:1333:C:H1'	9:CI:209:ASN:HD22	1.72	0.54
11:CK:129:ARG:O	11:CK:132:VAL:HG22	2.07	0.54
16:CP:33:LYS:O	16:CP:65:ARG:NH1	2.37	0.54
31:DE:24:THR:CG2	31:DE:91:SER:HB3	2.37	0.54
43:DQ:2:VAL:HG23	43:DQ:91:PHE:HD2	1.72	0.54
47:A:72:A:O2'	47:A:73:U:H5"	2.07	0.54
47:A:895:G:O2'	62:P:37:GLU:O	2.15	0.54
47:A:1188:G:O2'	47:A:1430:U:OP1	2.21	0.54
47:A:1783:C:H2'	47:A:1784:C:H6	1.73	0.54
53:G:136:ALA:HA	53:G:201:ALA:O	2.07	0.54
53:G:225:ARG:NH1	76:d:61:ARG:HD3	2.23	0.54
55:I:50:ASP:HB3	55:I:56:LYS:HD3	1.89	0.54
63:Q:54:ALA:C	63:Q:56:PHE:N	2.66	0.54
63:Q:94:VAL:HG23	63:Q:107:ILE:HD11	1.90	0.54
66:T:86:LEU:HD23	66:T:99:HIS:HB2	1.89	0.54
78:f:41:THR:HA	78:f:45:VAL:HG13	1.88	0.54
47:sR:958:U:H2'	61:c3:14:SER:OG	2.08	0.54
47:sR:973:A:H2'	47:sR:974:A:H8	1.72	0.54
50:s2:40:LYS:HG3	50:s2:247:ALA:HB1	1.89	0.54
50:s2:225:LEU:HD22	70:d2:68:ARG:HB2	1.88	0.54
70:d2:67:GLY:O	70:d2:68:ARG:HG2	2.07	0.54
1:1:24:G:OP2	82:1:3404:OHX:N4	2.40	0.54
1:1:665:A:OP1	16:v:203:ARG:HD2	2.07	0.54
1:1:831:G:O6	82:1:3417:OHX:N4	2.40	0.54
1:1:1487:G:H1	1:1:1855:U:H3	1.54	0.54
1:1:2218:G:H2'	1:1:2219:A:H8	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2394:G:H5'	5:k:252:ILE:HG22	1.89	0.54
6:l:38:VAL:O	6:l:42:VAL:HG23	2.07	0.54
7:m:197:SER:OG	7:m:202:GLY:HA3	2.08	0.54
27:9:56:VAL:CG2	27:9:104:LEU:HB3	2.37	0.54
32:AE:7:VAL:HG13	32:AE:77:ARG:O	2.07	0.54
82:AR:4145:OHX:N5	43:DQ:34:SER:OG	2.40	0.54
12:CL:213:PHE:N	12:CL:214:PRO:HD3	2.22	0.54
17:CQ:35:VAL:HG13	17:CQ:104:VAL:HG13	1.88	0.54
21:CU:8:GLN:HB2	21:CU:64:ILE:HD11	1.89	0.54
26:CZ:73:MET:O	26:CZ:76:VAL:HG22	2.08	0.54
42:DP:8:LYS:O	42:DP:12:ARG:HG3	2.07	0.54
47:A:504:U:H2'	47:A:505:A:H4'	1.88	0.54
47:A:591:A:H2'	47:A:592:A:C8	2.43	0.54
47:A:701:U:H3	47:A:737:A:H61	1.53	0.54
47:A:1175:U:H2'	47:A:1176:G:C8	2.42	0.54
51:E:133:GLY:HA3	51:E:156:PHE:O	2.06	0.54
53:G:23:VAL:HG11	64:R:58:ASP:HB3	1.90	0.54
53:G:129:PRO:HA	53:G:132:VAL:HG22	1.90	0.54
56:J:39:GLY:O	56:J:59:ARG:HB3	2.08	0.54
47:sR:804:A:N3	70:d2:105:THR:HG22	2.23	0.54
47:sR:825:U:O2'	47:sR:826:U:O4'	2.25	0.54
47:sR:1681:A:H1'	54:s6:66:GLY:HA3	1.88	0.54
80:Rb:237:GLN:HG2	80:Rb:237:GLN:O	2.07	0.54
48:s0:77:SER:HB3	48:s0:86:VAL:HG21	1.89	0.54
57:s9:31:ALA:HA	57:s9:36:LEU:HD12	1.88	0.54
59:c1:55:ASP:HB3	59:c1:58:CYS:HB2	1.88	0.54
68:d0:41:ILE:HA	68:d0:44:ASN:HB3	1.89	0.54
1:1:1565:G:H2'	1:1:1566:A:O4'	2.06	0.54
1:1:2662:G:O6	82:1:4072:OHX:N2	2.40	0.54
3:4:79:A:H3'	3:4:80:A:H4'	1.90	0.54
14:t:63:VAL:HG13	14:t:66:ASN:ND2	2.22	0.54
15:u:115:PHE:O	15:u:119:GLN:HG3	2.07	0.54
24:6:2:SER:N	24:6:56:ASP:HA	2.22	0.54
25:7:13:ILE:HG13	25:7:13:ILE:O	2.07	0.54
35:AH:91:ARG:O	35:AH:95:ILE:HG22	2.08	0.54
1:AR:610:G:O6	6:CF:309:ARG:NH2	2.40	0.54
1:AR:1602:A:H5"	20:CT:10:LEU:HD21	1.89	0.54
1:AR:2279:A:O5'	1:AR:2280:A:H5"	2.08	0.54
1:AR:3121:U:H1'	1:AR:3122:A:H5"	1.90	0.54
4:CD:134:VAL:HG12	4:CD:151:PRO:HD3	1.88	0.54
20:CT:32:ILE:HA	20:CT:44:LEU:HD21	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DB:46:ILE:CD1	28:DB:68:ILE:HG23	2.38	0.54
46:p0:77:LEU:HA	46:p0:80:VAL:HG12	1.88	0.54
47:A:122:U:O3'	52:F:77:ARG:NH2	2.40	0.54
47:A:323:A:OP2	56:J:10:LYS:HA	2.06	0.54
47:A:478:A:H4'	57:K:127:VAL:HG21	1.89	0.54
47:A:1101:G:H5"	70:X:76:SER:OG	2.07	0.54
47:A:1649:G:H2'	47:A:1650:U:C6	2.42	0.54
49:C:83:LYS:NZ	62:P:116:GLU:OE1	2.41	0.54
50:D:111:VAL:O	50:D:136:VAL:HA	2.08	0.54
55:I:30:SER:O	55:I:34:LEU:HB2	2.08	0.54
60:N:42:ALA:HB1	60:N:47:GLU:HG2	1.89	0.54
62:P:132:ARG:O	74:b:28:LYS:HG2	2.08	0.54
66:T:96:LYS:HB3	66:T:98:TYR:CE1	2.43	0.54
68:V:23:ARG:HD3	68:V:92:ASP:OD1	2.08	0.54
68:V:58:LEU:O	68:V:89:ARG:NH2	2.41	0.54
76:d:42:ARG:HG3	76:d:43:ASN:H	1.73	0.54
47:sR:332:U:OP1	56:s8:56:ARG:NH2	2.40	0.54
47:sR:1324:G:OP2	82:sR:1960:OHX:N2	2.40	0.54
52:s4:100:ARG:NH2	52:s4:118:GLU:HG2	2.23	0.54
55:s7:126:LEU:HD22	55:s7:152:VAL:HG11	1.89	0.54
69:d1:85:TYR:CD2	75:d7:6:ASP:HB2	2.43	0.54
1:1:109:A:H4'	1:1:110:G:OP1	2.07	0.54
1:1:2762:A:OP2	82:1:4084:OHX:N1	2.40	0.54
9:o:224:ILE:HD13	21:0:39:SER:HB2	1.90	0.54
38:AK:87:SER:O	82:AK:102:OHX:N3	2.41	0.54
1:AR:1088:U:H2'	1:AR:1089:G:H8	1.71	0.54
1:AR:1302:A:N7	1:AR:2857:C:O2'	2.38	0.54
1:AR:2371:G:O6	82:AR:3410:OHX:N2	2.41	0.54
6:CF:74:ILE:HD13	6:CF:88:GLY:HA2	1.89	0.54
10:CJ:156:ASP:HB2	10:CJ:183:LYS:HB3	1.90	0.54
18:CR:175:ARG:O	18:CR:179:GLN:HB2	2.06	0.54
35:DI:41:ARG:HG2	35:DI:41:ARG:HH11	1.73	0.54
37:DK:43:LEU:O	37:DK:47:ILE:HG13	2.08	0.54
47:A:190:C:O2'	47:A:191:C:H5'	2.07	0.54
47:A:434:G:H5'	71:Y:78:LYS:HB3	1.89	0.54
47:A:1530:C:P	73:a:95:HIS:HB2	2.48	0.54
47:A:1584:G:N2	47:A:1611:A:OP2	2.36	0.54
48:B:57:LEU:HD11	48:B:173:ILE:HG12	1.89	0.54
48:B:153:SER:O	48:B:156:VAL:HG22	2.08	0.54
48:B:163:ASN:ND2	48:B:165:ARG:O	2.41	0.54
52:F:103:TYR:CD2	52:F:189:LEU:HD21	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:I:148:LYS:HZ1	55:I:179:LYS:HE3	1.72	0.54
80:Rb:87:LYS:HG2	80:Rb:108:SER:C	2.33	0.54
58:c0:7:ASP:O	58:c0:11:ILE:HG12	2.06	0.54
59:c1:77:SER:HB3	59:c1:85:VAL:HB	1.90	0.54
1:1:22:G:H1'	3:4:104:A:N3	2.23	0.54
1:1:2592:G:H4'	1:1:2594:C:C2	2.43	0.54
7:m:22:ARG:HD3	7:m:28:THR:HG21	1.89	0.54
10:p:144:GLU:OE2	37:AJ:36:ARG:NH1	2.39	0.54
10:p:158:ASP:O	10:p:160:ILE:N	2.41	0.54
10:p:161:GLU:HA	10:p:164:VAL:HG22	1.90	0.54
27:9:58:VAL:HG12	27:9:104:LEU:CD2	2.37	0.54
1:AR:2429:G:OP2	82:AR:3545:OHX:N5	2.41	0.54
6:CF:207:VAL:HG12	6:CF:249:ILE:HB	1.88	0.54
12:CL:220:GLN:O	82:CL:302:OHX:N2	2.40	0.54
47:A:159:U:O2'	54:H:87:ARG:NH1	2.41	0.54
47:A:1119:G:O6	89:A:2201:HOH:O	2.19	0.54
50:D:112:GLY:HA3	50:D:132:ALA:O	2.08	0.54
52:F:107:GLY:HA2	52:F:189:LEU:CD2	2.38	0.54
55:I:48:GLU:HA	55:I:58:LEU:HB3	1.90	0.54
57:K:136:VAL:HG23	57:K:137:GLY:H	1.73	0.54
64:R:109:PHE:O	64:R:113:ASP:N	2.41	0.54
80:h:103:PHE:HB3	80:h:134:TRP:CE3	2.43	0.54
47:sR:1516:A:H5"	68:d0:58:LEU:HD22	1.89	0.54
47:sR:1701:A:H3'	47:sR:1702:A:O4'	2.08	0.54
51:s3:37:VAL:HG23	51:s3:50:ILE:HG13	1.89	0.54
53:s5:120:ILE:HD13	53:s5:192:GLU:HG3	1.90	0.54
69:d1:64:GLU:HB3	75:d7:3:LEU:HD12	1.88	0.54
1:1:41:G:N2	1:1:2803:A:N7	2.55	0.54
1:1:138:U:H2'	1:1:139:G:H8	1.71	0.54
1:1:1430:U:H2'	29:AB:9:ARG:HH22	1.73	0.54
1:1:2331:C:H2'	1:1:2332:A:O4'	2.08	0.54
1:1:2611:U:H2'	1:1:2612:U:C6	2.43	0.54
1:1:2715:A:H2	43:AP:85:LEU:HD21	1.72	0.54
5:k:238:LEU:HB2	5:k:246:LEU:HB2	1.90	0.54
6:l:26:PHE:HA	6:l:127:ALA:HA	1.90	0.54
6:l:140:HIS:HA	6:l:177:ASP:OD1	2.08	0.54
17:w:62:THR:HG22	17:w:65:ASN:H	1.72	0.54
1:AR:126:U:H2'	1:AR:127:G:O4'	2.07	0.54
1:AR:602:A:H2'	1:AR:603:A:C8	2.42	0.54
1:AR:1927:G:N7	44:DR:16:VAL:HG23	2.23	0.54
1:AR:2407:C:H1'	1:AR:2818:U:C2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AS:121:U:OP2	7:CG:265:TYR:OH	2.23	0.54
25:CY:6:ASP:HA	25:CY:13:ILE:HD11	1.89	0.54
47:A:393:C:H4'	47:A:1673:G:O2'	2.07	0.54
47:A:1331:A:H61	51:E:160:SER:C	2.16	0.54
52:F:103:TYR:O	52:F:182:TYR:OH	2.26	0.54
53:G:204:GLY:HA3	53:G:211:ILE:HG21	1.89	0.54
56:J:116:HIS:O	56:J:143:TRP:NE1	2.41	0.54
60:N:34:THR:HG21	60:N:133:LEU:HD21	1.90	0.54
70:X:37:PHE:O	70:X:40:VAL:HG12	2.07	0.54
76:d:40:ILE:CG2	76:d:62:GLU:HB2	2.38	0.54
47:sR:828:U:H2'	47:sR:829:A:H5"	1.90	0.54
47:sR:885:G:N2	62:c4:123:SER:O	2.41	0.54
47:sR:1195:C:N4	64:c6:143:ARG:O	2.36	0.54
80:Rb:9:LEU:HB3	80:Rb:313:TRP:HA	1.90	0.54
67:c9:109:GLU:HG3	67:c9:114:VAL:HG23	1.90	0.54
79:e1:142:GLY:HA2	79:e1:145:HIS:O	2.08	0.54
1:1:1596:C:H2'	1:1:1597:C:C6	2.42	0.54
1:1:1703:U:N3	1:1:1740:U:O2	2.41	0.54
1:1:3215:A:O5'	15:u:121:MET:HE1	2.08	0.54
1:1:3313:U:H4'	5:k:173:GLN:HG2	1.90	0.54
1:1:3365:U:H2'	1:1:3366:G:H8	1.72	0.54
7:m:56:THR:HG1	7:m:59:ASP:HB3	1.73	0.54
10:p:26:LEU:CD1	28:AA:53:VAL:HG11	2.38	0.54
10:p:78:PHE:O	10:p:79:GLN:HB2	2.08	0.54
11:q:49:ASN:ND2	11:q:51:GLN:H	2.05	0.54
1:AR:629:U:H2'	1:AR:630:A:C8	2.43	0.54
1:AR:1786:G:H2'	1:AR:1787:A:C8	2.43	0.54
1:AR:2403:G:N7	1:AR:2870:C:H4'	2.23	0.54
1:AR:2538:U:H3'	1:AR:2539:C:O4'	2.07	0.54
1:AR:3267:A:H2'	8:CH:69:PHE:CZ	2.43	0.54
5:CE:41:VAL:HA	5:CE:185:GLY:CA	2.37	0.54
10:CJ:118:GLU:C	10:CJ:120:LYS:H	2.13	0.54
12:CL:48:LEU:HB2	12:CL:142:ASP:OD1	2.08	0.54
38:DL:82:SER:OG	38:DL:83:ALA:N	2.38	0.54
47:A:800:U:H2'	47:A:801:G:C8	2.42	0.54
47:A:1382:A:H5"	68:V:60:THR:HG23	1.90	0.54
49:C:48:VAL:HG21	49:C:61:LEU:HG	1.90	0.54
51:E:48:VAL:HB	51:E:86:LEU:HG	1.90	0.54
52:F:102:VAL:HG13	52:F:182:TYR:CE2	2.41	0.54
55:I:17:GLU:HA	55:I:20:VAL:HG22	1.89	0.54
56:J:84:HIS:CE1	56:J:86:SER:HB2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:N:30:VAL:O	60:N:34:THR:HG23	2.08	0.54
74:b:42:ARG:O	74:b:67:THR:OG1	2.25	0.54
80:h:13:LEU:HB3	80:h:310:ILE:HG13	1.90	0.54
47:sR:678:A:H2'	47:sR:679:U:C2	2.42	0.54
49:s1:36:SER:H	49:s1:231:LEU:CD1	2.21	0.54
53:s5:25:LEU:HD12	64:c6:27:GLY:HA2	1.88	0.54
63:c5:111:MET:HE2	66:c8:119:ILE:HD11	1.89	0.54
13:s:14:ILE:HG22	13:s:131:MET:HE3	1.88	0.54
29:AB:75:LEU:HB3	29:AB:118:ILE:HG23	1.90	0.54
36:AI:38:ARG:HG3	36:AI:39:PRO:HD2	1.90	0.54
1:AR:93:C:OP1	86:AR:4205:X1K:N	2.41	0.54
1:AR:1562:C:H2'	1:AR:1563:C:C6	2.43	0.54
1:AR:1879:A:H4'	1:AR:1880:U:OP2	2.07	0.54
1:AR:2242:A:H5'	4:CD:243:THR:HG23	1.89	0.54
1:AR:2660:G:O3'	1:AR:2749:G:N2	2.41	0.54
3:AT:90:U:H6	3:AT:90:U:H5'	1.73	0.54
12:CL:54:SER:HB2	12:CL:135:ILE:HD11	1.89	0.54
18:CR:131:ARG:HG3	18:CR:137:ASN:HD22	1.73	0.54
24:CX:86:ARG:HB2	24:CX:92:PHE:CE1	2.42	0.54
44:DR:84:ARG:HE	44:DR:85:ARG:HH11	1.54	0.54
48:B:17:LEU:HD21	48:B:176:LEU:HD11	1.89	0.54
66:T:28:ILE:O	66:T:32:LEU:HD22	2.07	0.54
80:h:24:ALA:HB2	80:h:71:CYS:HB3	1.89	0.54
47:sR:151:G:H2'	47:sR:152:U:C6	2.43	0.54
47:sR:486:G:N2	47:sR:501:U:H3	2.02	0.54
47:sR:654:C:H2'	47:sR:655:G:C8	2.37	0.54
47:sR:1383:G:OP1	68:d0:87:HIS:ND1	2.39	0.54
47:sR:1481:C:H4'	47:sR:1482:C:OP1	2.08	0.54
80:Rb:16:HIS:CE1	80:Rb:37:SER:HB3	2.43	0.54
53:s5:135:ASP:O	53:s5:138:THR:OG1	2.26	0.54
54:s6:121:LEU:O	54:s6:125:THR:HG22	2.08	0.54
55:s7:182:VAL:HG12	55:s7:183:PHE:H	1.73	0.54
1:1:979:U:H1'	1:1:980:A:C8	2.43	0.53
1:1:1141:C:O2'	1:1:1153:A:N3	2.37	0.53
1:1:2248:C:OP2	82:1:4075:OHX:N1	2.41	0.53
1:1:2350:C:O3'	18:x:68:GLY:HA3	2.08	0.53
1:1:2419:A:H2'	1:1:2420:C:C6	2.44	0.53
1:1:2712:U:O2'	1:1:2743:A:O2'	2.13	0.53
1:1:2882:U:H2'	1:1:2883:U:C6	2.43	0.53
5:k:63:PRO:HB2	5:k:348:ARG:NH2	2.23	0.53
7:m:219:PHE:O	7:m:219:PHE:HD1	1.92	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:q:92:TYR:CD2	11:q:142:ASP:HB3	2.43	0.53
11:q:114:VAL:HB	11:q:124:ARG:HB2	1.90	0.53
35:AH:16:ARG:CZ	35:AH:37:LYS:HD2	2.38	0.53
1:AR:937:G:C6	1:AR:2410:U:H5"	2.43	0.53
1:AR:2169:G:O6	82:AR:3454:OHX:N4	2.41	0.53
1:AR:2516:U:O2	1:AR:2594:C:N4	2.41	0.53
1:AR:3051:U:H1'	24:CX:92:PHE:CE2	2.43	0.53
1:AR:3185:U:H5"	11:CK:23:ARG:HH22	1.73	0.53
5:CE:67:PHE:HA	5:CE:70:ARG:HD3	1.89	0.53
5:CE:292:ALA:HB2	5:CE:302:LYS:HA	1.88	0.53
7:CG:261:THR:O	7:CG:264:GLN:HB2	2.08	0.53
43:DQ:103:ALA:O	43:DQ:105:GLN:NE2	2.41	0.53
44:DR:78:THR:O	44:DR:82:THR:HG23	2.08	0.53
47:A:71:A:H1'	47:A:81:G:N2	2.23	0.53
47:A:1785:U:P	62:P:133:ARG:HH22	2.31	0.53
49:C:103:MET:HG2	49:C:104:ASP:H	1.71	0.53
53:G:123:VAL:HG12	73:a:92:ILE:HD11	1.89	0.53
57:K:90:LYS:HB3	57:K:95:TYR:HB2	1.91	0.53
58:L:59:PHE:CZ	58:L:62:GLN:HA	2.44	0.53
60:N:43:ARG:O	60:N:47:GLU:HB3	2.07	0.53
60:N:61:VAL:HG23	60:N:89:ILE:HD11	1.90	0.53
62:P:129:LYS:HG2	62:P:130:GLY:H	1.73	0.53
66:T:4:VAL:HB	73:a:82:HIS:CE1	2.43	0.53
72:Z:47:VAL:HG23	72:Z:48:TYR:CD2	2.43	0.53
47:sR:95:G:OP1	52:s4:6:LYS:HE2	2.08	0.53
47:sR:1091:A:H4'	47:sR:1092:A:O5'	2.08	0.53
80:Rb:54:PHE:HD2	80:Rb:312:VAL:HB	1.73	0.53
50:s2:225:LEU:HD21	50:s2:230:TRP:HD1	1.73	0.53
52:s4:97:GLU:HB3	52:s4:113:ARG:HH21	1.74	0.53
52:s4:118:GLU:HA	52:s4:121:TYR:CE1	2.43	0.53
55:s7:33:GLU:HG2	55:s7:34:LEU:HD12	1.90	0.53
58:c0:47:GLN:HA	58:c0:50:THR:HG22	1.89	0.53
59:c1:59:PRO:HD3	59:c1:138:ASN:HD21	1.71	0.53
81:c7:5:ARG:HB2	81:c7:10:LYS:HZ1	1.72	0.53
75:d7:36:LYS:HE2	75:d7:43:ILE:HG13	1.90	0.53
1:1:1108:U:H2'	1:1:1109:U:C6	2.43	0.53
1:1:1231:A:OP2	82:1:3566:OHX:N6	2.41	0.53
1:1:1682:U:C5	23:5:85:LYS:HD2	2.44	0.53
1:1:2584:G:O2'	10:p:240:ASN:ND2	2.41	0.53
4:j:137:ILE:HG13	4:j:147:ARG:HG2	1.89	0.53
1:AR:59:G:H4'	1:AR:60:A:H4'	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2647:A:H4'	12:CL:22:TYR:HB3	1.90	0.53
2:AS:112:G:O6	7:CG:21:ARG:HD3	2.08	0.53
21:CU:137:ARG:HG2	21:CU:139:TYR:CZ	2.43	0.53
21:CU:139:TYR:HD1	21:CU:140:VAL:HG13	1.73	0.53
26:CZ:131:ASP:O	26:CZ:135:ILE:HG12	2.09	0.53
26:CZ:137:ASN:HB3	26:CZ:142:ILE:HD11	1.90	0.53
29:DC:36:GLY:HA3	29:DC:40:HIS:CE1	2.44	0.53
30:DD:18:ARG:O	82:DD:102:OHX:N1	2.41	0.53
38:DL:8:PHE:O	38:DL:11:ARG:HG3	2.08	0.53
47:A:5:U:H2'	47:A:6:G:H8	1.73	0.53
47:A:1169:G:O2'	47:A:1576:A:N6	2.40	0.53
53:G:149:VAL:HG12	53:G:156:ARG:O	2.07	0.53
56:J:76:THR:HB	56:J:105:ASP:HB3	1.89	0.53
68:V:34:LEU:HD21	68:V:87:HIS:HB2	1.89	0.53
68:V:95:ALA:HB1	68:V:99:ILE:HG21	1.90	0.53
71:Y:90:ASP:OD1	78:f:12:GLY:HA2	2.08	0.53
77:e:22:ARG:HB2	77:e:38:ILE:HD11	1.89	0.53
47:sR:1609:U:OP1	64:c6:76:SER:N	2.41	0.53
48:s0:135:GLU:HA	48:s0:138:TYR:HD2	1.73	0.53
49:s1:112:SER:O	49:s1:115:ARG:HD3	2.07	0.53
52:s4:245:LYS:O	52:s4:245:LYS:HD3	2.09	0.53
70:d2:53:ILE:HB	70:d2:60:LYS:HB2	1.90	0.53
1:1:602:A:H2'	1:1:603:A:C8	2.43	0.53
1:1:2730:G:H4'	19:y:184:PHE:CG	2.43	0.53
1:1:2947:G:OP2	1:1:2947:G:H4'	2.07	0.53
1:1:3183:A:H2	1:1:3188:G:H4'	1.73	0.53
10:p:158:ASP:HB3	10:p:159:PRO:HD3	1.91	0.53
12:r:166:ILE:HG12	22:2:158:THR:HG21	1.90	0.53
18:x:42:THR:HA	18:x:45:GLN:HE21	1.73	0.53
19:y:70:ALA:O	19:y:73:GLN:HB2	2.08	0.53
24:6:31:ALA:HB2	24:6:69:LEU:HD23	1.91	0.53
1:AR:722:G:O6	82:AR:3511:OHX:N5	2.41	0.53
1:AR:1352:A:H4'	1:AR:1353:U:OP1	2.08	0.53
1:AR:2574:G:H2'	1:AR:2575:G:C8	2.41	0.53
1:AR:2674:A:H5"	13:CM:105:GLY:HA3	1.89	0.53
1:AR:2718:U:OP2	82:AR:3568:OHX:N2	2.41	0.53
2:AS:8:G:O6	7:CG:21:ARG:NH1	2.42	0.53
6:CF:138:ARG:HE	6:CF:240:PRO:HD2	1.72	0.53
6:CF:259:ASP:HB3	6:CF:267:VAL:HG11	1.91	0.53
7:CG:218:ARG:NH1	7:CG:221:GLU:OE2	2.41	0.53
14:CN:157:ARG:HG2	14:CN:158:ALA:H	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:21:LYS:O	20:CT:53:LYS:HB2	2.07	0.53
35:DI:46:ASP:CB	35:DI:84:CYS:HB3	2.38	0.53
47:A:992:A:OP1	82:A:2107:OHX:N6	2.41	0.53
47:A:1199:G:H1	77:e:31:ILE:HG12	1.73	0.53
50:D:125:ILE:O	50:D:129:ILE:HB	2.09	0.53
47:sR:382:C:P	52:s4:10:LYS:HD2	2.48	0.53
47:sR:647:G:H22	47:sR:687:G:N2	2.07	0.53
47:sR:1234:A:H2'	47:sR:1235:C:C5	2.44	0.53
47:sR:1795:U:O2	74:d6:10:ARG:NE	2.42	0.53
51:s3:158:ILE:HG12	51:s3:189:MET:HE1	1.90	0.53
53:s5:37:GLN:NE2	53:s5:43:PHE:O	2.42	0.53
75:d7:19:HIS:CD2	75:d7:21:LEU:H	2.26	0.53
1:1:915:A:H4'	1:1:2957:G:H4'	1.90	0.53
1:1:1651:U:H2'	1:1:1652:G:H8	1.73	0.53
1:1:2217:U:H2'	1:1:2218:G:H8	1.72	0.53
1:1:3103:A:OP2	82:1:4127:OHX:N5	2.42	0.53
4:j:130:SER:OG	4:j:171:GLY:O	2.27	0.53
18:x:67:ILE:HD11	18:x:80:LYS:HB3	1.90	0.53
19:y:26:LEU:HA	19:y:29:LEU:HD12	1.89	0.53
21:0:12:ARG:HB3	21:0:24:LEU:HD23	1.89	0.53
27:9:63:LYS:O	27:9:66:GLN:HG3	2.08	0.53
1:AR:269:G:H5'	16:CP:120:TRP:CE3	2.44	0.53
1:AR:953:G:N1	89:AR:4321:HOH:O	2.33	0.53
1:AR:2853:A:O5'	12:CL:63:GLU:HB3	2.09	0.53
2:AS:3:U:H2'	2:AS:4:U:C6	2.43	0.53
8:CH:146:ILE:O	8:CH:150:LYS:HG3	2.08	0.53
14:CN:56:PRO:HG3	14:CN:74:GLY:C	2.34	0.53
14:CN:157:ARG:HH21	29:DC:124:ILE:HG21	1.73	0.53
15:CO:127:LYS:O	15:CO:131:VAL:HG23	2.08	0.53
24:CX:126:TRP:O	24:CX:129:VAL:HG12	2.09	0.53
47:A:66:U:H5'	54:H:173:PRO:HA	1.89	0.53
47:A:780:A:H8	72:Z:8:ARG:HB3	1.73	0.53
47:A:890:C:OP2	82:A:2137:OHX:N5	2.41	0.53
47:A:1330:G:N2	51:E:204:ASP:OD2	2.39	0.53
47:A:1551:U:C5	63:Q:43:ARG:HD2	2.43	0.53
55:I:112:ARG:O	55:I:113:PRO:C	2.47	0.53
57:K:159:ALA:O	57:K:162:SER:OG	2.23	0.53
60:N:103:LEU:HD21	60:N:116:VAL:H	1.73	0.53
80:h:26:SER:HB2	80:h:73:LEU:HD23	1.91	0.53
47:sR:783:G:C8	72:d4:12:VAL:HG22	2.43	0.53
47:sR:1546:G:N2	66:c8:87:ASN:O	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1696:G:H22	47:sR:1704:U:H3	1.57	0.53
80:Rb:42:LEU:HD21	80:Rb:68:VAL:HG21	1.91	0.53
62:c4:84:ARG:HB2	62:c4:118:VAL:HG23	1.89	0.53
1:1:269:G:H5'	16:v:120:TRP:CE3	2.43	0.53
1:1:884:A:OP2	38:AK:4:GLY:HA3	2.08	0.53
1:1:1365:G:OP2	82:1:3479:OHX:N6	2.42	0.53
12:r:52:LEU:HB3	12:r:136:PHE:HB2	1.90	0.53
16:v:153:ASP:OD1	16:v:155:VAL:HG23	2.07	0.53
19:y:60:PRO:HG2	19:y:142:GLY:C	2.33	0.53
25:7:50:ALA:HA	25:7:55:PHE:CE1	2.43	0.53
1:AR:63:A:H5"	16:CP:174:ILE:HG21	1.89	0.53
1:AR:212:G:OP2	27:DA:2:ALA:N	2.42	0.53
1:AR:1222:G:OP2	1:AR:1222:G:H8	1.92	0.53
9:CI:128:LYS:HA	9:CI:131:GLU:HG3	1.90	0.53
28:DB:63:ALA:HA	28:DB:66:THR:HG22	1.91	0.53
47:A:1761:U:O2'	47:A:1762:A:OP2	2.24	0.53
48:B:169:SER:C	48:B:172:LEU:HD22	2.34	0.53
51:E:7:LYS:HA	51:E:10:LYS:HB3	1.90	0.53
55:I:62:VAL:HG22	55:I:63:PRO:HD2	1.91	0.53
60:N:29:LYS:O	60:N:33:ARG:NH1	2.41	0.53
66:T:30:TYR:O	66:T:33:THR:HG22	2.09	0.53
76:d:15:VAL:HG12	76:d:28:VAL:HG12	1.90	0.53
80:h:243:LEU:HD23	80:h:254:ALA:HA	1.90	0.53
47:sR:767:U:C5	57:s9:143:ILE:HD12	2.44	0.53
47:sR:908:U:O2	47:sR:1008:G:N2	2.42	0.53
80:Rb:211:ILE:HD11	80:Rb:225:LEU:HD22	1.89	0.53
48:s0:41:ARG:HB2	48:s0:42:PRO:HD2	1.91	0.53
60:c2:61:VAL:O	60:c2:120:VAL:HG23	2.09	0.53
60:c2:93:ASP:CG	60:c2:94:ALA:H	2.17	0.53
63:c5:37:ALA:O	63:c5:42:ARG:NH1	2.41	0.53
63:c5:85:ILE:HG12	63:c5:114:HIS:O	2.07	0.53
66:c8:27:LYS:HA	66:c8:57:ARG:HB3	1.90	0.53
67:c9:107:ALA:HA	67:c9:110:LYS:HE2	1.90	0.53
71:d3:97:ASP:OD2	71:d3:142:LYS:NZ	2.42	0.53
71:d3:126:LYS:HB3	71:d3:131:SER:H	1.73	0.53
1:1:148:G:OP2	16:v:4:TYR:OH	2.18	0.53
1:1:778:U:O4	82:1:3508:OHX:N2	2.42	0.53
1:1:1134:G:O2'	1:1:2642:A:N3	2.37	0.53
1:1:2663:G:H5"	7:m:152:ARG:HD2	1.90	0.53
1:1:2727:A:C2	29:AB:43:ILE:HG23	2.43	0.53
1:1:3231:U:H2'	1:1:3232:G:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:q:27:VAL:HG11	11:q:79:ILE:HA	1.91	0.53
14:t:62:THR:O	14:t:65:TYR:N	2.25	0.53
1:AR:148:G:O6	10:CJ:138:HIS:N	2.41	0.53
1:AR:716:A:C6	29:DC:117:ARG:HG3	2.43	0.53
1:AR:1016:C:H2'	1:AR:1017:C:H5'	1.90	0.53
3:AT:95:G:H1'	38:DL:81:GLY:O	2.08	0.53
4:CD:92:LYS:HG3	4:CD:106:SER:HG	1.73	0.53
14:CN:123:ILE:HG22	36:DJ:118:ILE:HG23	1.91	0.53
22:CV:91:LEU:HD12	22:CV:96:ILE:HD11	1.89	0.53
37:DK:86:LYS:NZ	37:DK:89:GLU:OE1	2.37	0.53
47:A:130:C:O2'	47:A:131:C:OP1	2.24	0.53
47:A:761:G:H4'	57:K:72:GLU:OE1	2.09	0.53
47:A:765:G:C6	57:K:149:ARG:HG2	2.44	0.53
47:A:789:A:O2'	52:F:106:LYS:NZ	2.41	0.53
47:A:1234:A:C1'	79:g:145:HIS:HB2	2.39	0.53
49:C:218:LEU:HD23	49:C:219:LYS:N	2.20	0.53
57:K:48:GLN:O	57:K:52:ILE:HG13	2.09	0.53
60:N:91:VAL:HG12	60:N:92:ALA:N	2.24	0.53
61:O:62:GLN:HB2	61:O:65:VAL:HG22	1.91	0.53
61:O:93:LYS:HG3	61:O:150:VAL:HG11	1.90	0.53
65:S:46:LEU:O	65:S:50:ILE:HG13	2.08	0.53
79:g:100:LEU:O	79:g:102:VAL:N	2.41	0.53
80:h:83:ALA:HB1	80:h:110:VAL:HG23	1.90	0.53
47:sR:683:C:H5'	47:sR:684:A:OP2	2.08	0.53
47:sR:1336:A:OP1	82:sR:2017:OHX:N5	2.41	0.53
47:sR:1356:U:H2'	47:sR:1357:A:C8	2.43	0.53
48:s0:163:ASN:HB3	48:s0:169:SER:OG	2.08	0.53
51:s3:133:GLY:HA2	51:s3:155:GLY:HA3	1.91	0.53
51:s3:141:LYS:HE2	51:s3:179:GLN:CG	2.39	0.53
52:s4:65:LEU:O	52:s4:78:THR:HG22	2.09	0.53
60:c2:42:ALA:HB1	60:c2:47:GLU:CG	2.37	0.53
72:d4:6:THR:HB	72:d4:28:LEU:HD13	1.91	0.53
1:1:607:A:OP1	8:n:26:ARG:NH2	2.42	0.53
1:1:1819:U:O4	82:1:4101:OHX:N1	2.41	0.53
1:1:2874:G:O2'	1:1:2875:U:OP1	2.22	0.53
1:1:3238:G:O6	82:1:3480:OHX:N4	2.42	0.53
1:1:3365:U:H2'	1:1:3366:G:C8	2.43	0.53
20:z:100:ARG:O	20:z:104:ARG:HD3	2.09	0.53
1:AR:370:U:H4'	1:AR:404:G:H5'	1.91	0.53
1:AR:535:G:O6	82:AR:3583:OHX:N2	2.41	0.53
1:AR:956:U:H2'	1:AR:957:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1393:A:N3	1:AR:1419:A:O2'	2.42	0.53
1:AR:1505:C:OP1	18:CR:23:ARG:NH2	2.42	0.53
1:AR:2810:C:OP2	1:AR:2955:U:O2'	2.27	0.53
1:AR:3348:G:H1	1:AR:3357:U:H3	1.56	0.53
6:CF:327:LEU:HA	9:CI:166:ASN:ND2	2.20	0.53
24:CX:10:LYS:HB2	24:CX:125:LEU:HD21	1.91	0.53
47:A:187:G:H4'	47:A:188:A:OP1	2.06	0.53
47:A:755:A:H2'	47:A:756:A:H8	1.73	0.53
47:A:1081:A:H2'	47:A:1083:G:N7	2.23	0.53
48:B:71:GLU:HA	48:B:94:GLY:O	2.07	0.53
57:K:109:LEU:HD13	57:K:141:VAL:HG11	1.91	0.53
71:Y:43:PHE:HZ	71:Y:104:LEU:HB2	1.74	0.53
76:d:29:ARG:HA	76:d:41:VAL:HA	1.90	0.53
80:h:110:VAL:HA	80:h:126:SER:HB2	1.91	0.53
47:sR:151:G:H1	47:sR:163:G:H1	1.55	0.53
47:sR:1573:A:H4'	47:sR:1574:G:H5'	1.89	0.53
66:c8:29:VAL:HG21	66:c8:44:ASN:HD22	1.73	0.53
72:d4:14:SER:HA	72:d4:21:LYS:HG3	1.90	0.53
72:d4:115:ASP:O	72:d4:118:ILE:HG13	2.08	0.53
1:1:398:A:O2'	1:1:1416:C:OP1	2.20	0.53
1:1:641:C:OP1	29:AB:21:ARG:HB3	2.08	0.53
1:1:2176:U:O4	82:1:4081:OHX:N1	2.42	0.53
1:1:2319:U:O4	82:1:3535[A]:OHX:N4	2.42	0.53
1:1:2924:U:O2'	82:1:4124:OHX:N3	2.42	0.53
3:4:62:C:H4'	3:4:63:G:O5'	2.08	0.53
6:l:60:THR:HG21	6:l:77:VAL:HG22	1.90	0.53
6:l:140:HIS:CD2	6:l:247:PHE:H	2.27	0.53
18:x:22:LEU:HD12	18:x:146:ILE:HG13	1.90	0.53
25:7:82:ILE:HA	54:H:131:LYS:O	2.09	0.53
29:AB:128:ARG:HG2	37:AJ:8:ALA:HB2	1.91	0.53
1:AR:269:G:H5"	16:CP:14:LYS:NZ	2.24	0.53
1:AR:312:C:H2'	1:AR:313:A:C8	2.44	0.53
1:AR:312:C:H2'	1:AR:313:A:H8	1.74	0.53
1:AR:634:C:H5'	34:DH:21:ARG:O	2.09	0.53
1:AR:956:U:H2'	1:AR:957:C:H6	1.74	0.53
1:AR:1190:A:C8	1:AR:1193:A:H1'	2.44	0.53
1:AR:1369:A:OP1	29:DC:21:ARG:NH1	2.42	0.53
1:AR:2862:U:O4	82:AR:3403:OHX:N3	2.41	0.53
10:CJ:39:ALA:O	10:CJ:40:VAL:C	2.51	0.53
10:CJ:254:ASP:OD1	10:CJ:255:SER:N	2.42	0.53
11:CK:101:VAL:HA	11:CK:113:GLU:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DQ:15:LYS:HA	43:DQ:18:ARG:HD3	1.91	0.53
47:A:356:G:OP2	82:A:2108:OHX:N1	2.42	0.53
47:A:515:A:N6	47:A:537:G:O2'	2.34	0.53
65:S:41:ILE:HG21	65:S:47:ARG:HB3	1.89	0.53
67:U:38:LYS:CD	67:U:38:LYS:H	2.21	0.53
67:U:38:LYS:HG2	67:U:40:SER:O	2.07	0.53
69:W:64:GLU:OE1	75:c:3:LEU:HB2	2.07	0.53
76:d:61:ARG:HD2	76:d:62:GLU:N	2.24	0.53
47:sR:73:U:H2'	47:sR:74:U:C6	2.44	0.53
47:sR:190:C:HO2'	47:sR:191:C:C5'	2.22	0.53
47:sR:847:A:H4'	59:c1:46:LYS:HE2	1.90	0.53
80:Rb:228:LYS:O	51:s3:222:VAL:HG21	2.09	0.53
48:s0:123:VAL:HG12	48:s0:145:ALA:HB2	1.91	0.53
50:s2:41:LEU:HD21	50:s2:56:ILE:HD13	1.91	0.53
66:c8:116:LEU:HA	66:c8:119:ILE:HG22	1.91	0.53
1:1:1493:G:OP2	1:1:1493:G:N2	2.41	0.53
4:j:135:ILE:HG12	4:j:149:ARG:HB3	1.90	0.53
1:AR:1071:U:O4	89:AR:4307:HOH:O	2.18	0.53
1:AR:1621:A:H2'	1:AR:1622:U:C6	2.44	0.53
1:AR:2103:U:H2'	1:AR:2104:A:C8	2.43	0.53
6:CF:82:THR:HG23	6:CF:84:ARG:H	1.73	0.53
18:CR:22:LEU:HB3	18:CR:90:PHE:CE2	2.43	0.53
34:DH:49:ILE:HD11	34:DH:71:VAL:HG22	1.91	0.53
47:A:494:U:O2'	47:A:495:C:O5'	2.27	0.53
47:A:1171:A:O2'	47:A:1570:A:O2'	2.22	0.53
47:A:1531:G:OP2	73:a:96:SER:HB2	2.09	0.53
48:B:124:THR:HA	48:B:146:LEU:HB2	1.91	0.53
50:D:144:TRP:CE2	50:D:173:PRO:HG3	2.44	0.53
53:G:63:GLN:H	53:G:89:ILE:HG23	1.73	0.53
53:G:192:GLU:OE2	73:a:63:SER:OG	2.27	0.53
58:L:59:PHE:CE2	58:L:62:GLN:HG2	2.44	0.53
61:O:28:LEU:HB3	61:O:32:SER:HB2	1.91	0.53
65:S:28:PHE:CZ	65:S:32:LYS:HD3	2.44	0.53
47:sR:512:A:P	57:s9:173:ALA:HB2	2.49	0.53
47:sR:595:G:OP2	82:sR:1959:OHX:N3	2.41	0.53
49:s1:123:ALA:HB2	49:s1:165:ARG:HG3	1.91	0.53
50:s2:152:HIS:HB2	50:s2:194:GLU:HB2	1.90	0.53
53:s5:73:THR:HG21	64:c6:114:ARG:HE	1.74	0.53
57:s9:44:ARG:O	57:s9:48:GLN:HG3	2.09	0.53
58:c0:62:GLN:NE2	77:d9:25:SER:OG	2.42	0.53
59:c1:121:ASP:OD1	59:c1:145:ALA:HA	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:c8:61:LEU:HD13	66:c8:65:GLU:HB3	1.90	0.53
1:1:649:A:OP2	1:1:2868:U:O2'	2.26	0.53
1:1:943:U:H3'	29:AB:13:GLY:HA2	1.89	0.53
11:q:59:ASN:HD21	15:u:41:GLN:CG	2.22	0.53
13:s:62:ASN:O	43:AP:103:ALA:HB2	2.09	0.53
14:t:47:ALA:C	14:t:49:ARG:H	2.17	0.53
32:AE:49:VAL:HG22	32:AE:91:SER:HB2	1.89	0.53
1:AR:14:U:H1'	26:CZ:42:ARG:HD2	1.91	0.53
1:AR:268:A:C4	16:CP:12:ARG:HG2	2.44	0.53
1:AR:412:G:H1'	18:CR:120:ASN:HB3	1.91	0.53
1:AR:662:U:O4	82:AR:3528:OHX:N2	2.42	0.53
1:AR:1239:C:H42	1:AR:1249:G:N2	2.07	0.53
1:AR:1867:A:H2'	1:AR:1868:G:C8	2.44	0.53
1:AR:2683:U:H2'	1:AR:2684:C:C6	2.44	0.53
1:AR:2696:A:H2'	1:AR:2697:A:C8	2.44	0.53
1:AR:3212:C:H2'	1:AR:3213:A:O4'	2.09	0.53
5:CE:56:ILE:HG22	5:CE:74:GLU:HB2	1.91	0.53
9:CI:137:GLY:CA	9:CI:233:GLU:HA	2.39	0.53
9:CI:137:GLY:HA2	9:CI:233:GLU:HA	1.89	0.53
13:CM:18:VAL:HG22	13:CM:70:THR:HG23	1.90	0.53
26:CZ:66:PRO:HA	26:CZ:84:PHE:HA	1.91	0.53
35:DI:51:LEU:HD23	35:DI:51:LEU:H	1.74	0.53
47:A:246:G:N2	59:M:38:ALA:O	2.41	0.53
47:A:980:G:O6	82:A:2111:OHX:N6	2.41	0.53
47:A:1654:G:O2'	47:A:1746:A:N6	2.40	0.53
64:R:93:HIS:HB3	64:R:102:LYS:HB2	1.91	0.53
70:X:22:LYS:HG2	75:c:3:LEU:HA	1.90	0.53
70:X:105:THR:OG1	70:X:126:LEU:HG	2.09	0.53
75:c:31:TYR:O	75:c:48:SER:OG	2.24	0.53
47:sR:139:C:H4'	47:sR:140:A:O5'	2.08	0.53
47:sR:482:U:H2'	47:sR:483:A:C8	2.44	0.53
47:sR:922:G:H2'	47:sR:923:A:H8	1.74	0.53
47:sR:984:G:H2'	47:sR:985:G:O4'	2.09	0.53
47:sR:1720:G:O6	82:sR:1950:OHX:N6	2.42	0.53
80:Rb:5:GLU:HA	80:Rb:317:THR:HA	1.90	0.53
52:s4:44:LEU:HG	52:s4:82:TYR:HB3	1.89	0.53
55:s7:172:VAL:O	55:s7:176:LEU:HD12	2.09	0.53
56:s8:107:THR:HA	56:s8:110:ARG:HG2	1.91	0.53
62:c4:47:LYS:CD	62:c4:62:LEU:HB3	2.37	0.53
1:1:652:G:OP1	82:1:3453:OHX:N6	2.42	0.52
1:1:1461:A:H2'	1:1:1462:A:H8	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2751:G:O6	82:1:4128:OHX:N6	2.42	0.52
1:1:2901:G:H1'	1:1:3030:G:N2	2.24	0.52
10:p:190:VAL:O	10:p:190:VAL:HG12	2.10	0.52
20:z:115:ILE:HD11	20:z:119:LEU:HG	1.90	0.52
21:0:57:GLU:OE1	22:2:139:ARG:NH2	2.36	0.52
37:AJ:53:TYR:O	37:AJ:57:LEU:HD23	2.09	0.52
43:AP:104:LEU:HD12	43:AP:104:LEU:H	1.73	0.52
45:i:106:VAL:HG12	51:E:144:ALA:HB2	1.91	0.52
1:AR:1381:A:OP1	6:CF:197:ARG:NH1	2.38	0.52
1:AR:1502:C:OP2	82:AR:3413:OHX:N1	2.42	0.52
1:AR:1620:U:H2'	1:AR:1621:A:C8	2.44	0.52
1:AR:2400:G:HO2'	1:AR:2401:A:P	2.30	0.52
1:AR:2413:A:H2'	1:AR:2414:G:H8	1.73	0.52
1:AR:2871:G:H5"	1:AR:2872:A:H5'	1.90	0.52
4:CD:247:ARG:HD2	4:CD:247:ARG:O	2.10	0.52
5:CE:122:TRP:CZ2	5:CE:127:LYS:HD3	2.44	0.52
7:CG:52:VAL:HA	7:CG:147:ASP:HB3	1.91	0.52
11:CK:57:VAL:HG23	11:CK:68:LEU:HG	1.89	0.52
16:CP:122:ASN:OD1	16:CP:123:GLN:N	2.41	0.52
26:CZ:134:ASP:O	26:CZ:138:ARG:HB2	2.08	0.52
47:A:1061:A:H2'	47:A:1062:A:H5'	1.90	0.52
47:A:1169:G:N1	47:A:1575:G:OP2	2.36	0.52
47:A:1229:G:H1'	47:A:1256:A:N6	2.24	0.52
50:D:35:TRP:NE1	50:D:37:PRO:HB3	2.24	0.52
50:D:143:TYR:CZ	50:D:151:PRO:HG3	2.44	0.52
51:E:64:ARG:HG3	58:L:90:THR:CB	2.39	0.52
52:F:155:LYS:H	52:F:174:LYS:HZ3	1.57	0.52
55:I:131:PHE:CB	55:I:132:PRO:HD3	2.39	0.52
47:sR:845:G:O6	82:sR:1922:OHX:N4	2.41	0.52
80:Rb:206:PRO:HG2	80:Rb:247:PRO:HA	1.91	0.52
80:Rb:229:LYS:HA	51:s3:222:VAL:HG21	1.91	0.52
49:s1:180:THR:HG22	49:s1:183:GLN:HG3	1.91	0.52
60:c2:58:LEU:HD13	60:c2:126:TRP:CZ2	2.44	0.52
68:d0:105:GLN:HA	68:d0:108:ILE:HG23	1.91	0.52
1:1:657:A:OP1	82:1:4143:OHX:N6	2.42	0.52
1:1:738:A:H2'	1:1:739:G:H8	1.74	0.52
1:1:1064:A:H4'	1:1:1065:A:O5'	2.08	0.52
1:1:3224:G:O6	82:1:3420:OHX:N4	2.42	0.52
1:1:3276:G:H5'	8:n:48:ARG:NH2	2.24	0.52
3:4:67:U:H2'	3:4:68:G:H8	1.75	0.52
5:k:17:LEU:HD21	5:k:233:TRP:HH2	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:l:82:THR:HG23	6:l:84:ARG:H	1.74	0.52
7:m:287:ALA:O	7:m:290:ILE:HG13	2.09	0.52
11:q:74:LEU:O	11:q:78:MET:HG3	2.09	0.52
12:r:47:PRO:HB3	12:r:171:TRP:CZ2	2.43	0.52
19:y:125:ASP:OD1	19:y:125:ASP:N	2.41	0.52
20:z:173:ARG:NH2	47:A:854:U:O4	2.41	0.52
34:AG:14:LEU:HD11	34:AG:31:LYS:HB2	1.90	0.52
1:AR:835:G:O2'	1:AR:857:G:N2	2.27	0.52
1:AR:906:A:OP1	82:AR:3577:OHX:N4	2.42	0.52
1:AR:1362:G:H1'	9:CI:159:GLN:HB3	1.90	0.52
1:AR:1546:A:N7	16:CP:71:ARG:NH1	2.57	0.52
1:AR:2686:A:OP2	82:AR:3419:OHX:N5	2.43	0.52
9:CI:239:LEU:O	9:CI:243:MET:HG3	2.09	0.52
10:CJ:29:SER:O	10:CJ:31:PRO:HD3	2.08	0.52
10:CJ:148:ALA:HA	10:CJ:201:THR:HG22	1.91	0.52
15:CO:66:THR:OG1	15:CO:67:PRO:HD2	2.09	0.52
20:CT:161:ALA:O	20:CT:165:LYS:N	2.34	0.52
21:CU:71:LYS:O	21:CU:73:LYS:NZ	2.42	0.52
23:CW:98:THR:OG1	23:CW:99:LYS:N	2.43	0.52
28:DB:86:THR:O	28:DB:127:ASN:ND2	2.42	0.52
47:A:140:A:H62	47:A:280:U:H3'	1.74	0.52
47:A:290:G:O6	82:A:1973:OHX:N6	2.42	0.52
47:A:413:U:H2'	47:A:414:C:C6	2.43	0.52
47:A:820:U:H2'	47:A:821:U:H4'	1.91	0.52
47:A:826:U:H2'	47:A:827:C:C6	2.44	0.52
47:A:868:G:H1	47:A:960:U:H3	1.55	0.52
47:A:1182:U:H4'	63:Q:124:THR:HB	1.90	0.52
47:A:1553:G:N2	47:A:1555:A:H3'	2.24	0.52
50:D:80:VAL:HA	50:D:102:VAL:HG22	1.91	0.52
51:E:75:LYS:NZ	58:L:20:VAL:HG23	2.23	0.52
57:K:100:LYS:HG3	57:K:103:ASP:OD1	2.09	0.52
60:N:35:ALA:HB2	60:N:126:TRP:HA	1.89	0.52
47:sR:890:C:H2'	47:sR:891:A:H8	1.75	0.52
47:sR:1697:G:H3'	47:sR:1698:G:H8	1.74	0.52
80:Rb:143:THR:CG2	80:Rb:144:LEU:H	2.22	0.52
50:s2:142:GLY:HA2	69:d1:1:MET:HE1	1.91	0.52
52:s4:104:ASP:OD1	52:s4:110:ALA:HB2	2.09	0.52
54:s6:69:LEU:O	54:s6:99:GLY:HA3	2.10	0.52
75:d7:75:GLU:HG2	75:d7:76:GLY:H	1.74	0.52
1:1:689:U:O4	6:l:209:TYR:HE1	1.92	0.52
1:1:847:A:N1	47:A:972:G:O2'	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2904:U:H2'	1:1:2905:U:C6	2.45	0.52
82:1:4080:OHX:N1	16:v:33:LYS:C	2.67	0.52
22:2:48:ILE:HD13	22:2:94:GLU:HB3	1.91	0.52
25:7:6:ASP:HB3	25:7:10:GLY:N	2.24	0.52
28:AA:104:PRO:O	28:AA:105:SER:C	2.52	0.52
1:AR:806:A:N3	1:AR:2812:C:O2'	2.34	0.52
1:AR:1580:A:H5'	1:AR:2522:G:N7	2.23	0.52
13:CM:60:ARG:O	13:CM:63:GLU:HB2	2.09	0.52
21:CU:73:LYS:HE2	21:CU:75:PHE:CZ	2.44	0.52
29:DC:88:ASP:O	29:DC:92:LYS:HG2	2.10	0.52
33:DG:105:ARG:NH1	33:DG:125:ARG:HD2	2.24	0.52
47:A:20:G:H5'	47:A:571:G:C8	2.44	0.52
47:A:62:A:OP1	82:A:1926:OHX:N4	2.42	0.52
47:A:649:U:O2'	47:A:650:U:O4'	2.27	0.52
47:A:874:C:OP1	82:A:1906:OHX:N5	2.43	0.52
47:A:1784:C:H2'	47:A:1785:U:C6	2.44	0.52
60:N:50:LYS:HZ2	60:N:54:ARG:HG2	1.74	0.52
47:sR:315:A:O2'	82:sR:2006:OHX:N1	2.41	0.52
47:sR:925:G:O6	82:sR:2173:OHX:N6	2.43	0.52
47:sR:1285:U:OP1	82:sR:1990:OHX:N5	2.42	0.52
47:sR:1585:U:H2'	47:sR:1586:A:H8	1.74	0.52
80:Rb:42:LEU:HB2	80:Rb:61:PHE:CD2	2.43	0.52
80:Rb:274:LEU:HD11	80:Rb:313:TRP:CE3	2.44	0.52
50:s2:99:LYS:HA	50:s2:117:THR:HA	1.91	0.52
52:s4:18:TRP:HE3	52:s4:20:LEU:HD11	1.75	0.52
52:s4:175:PHE:CE1	52:s4:198:LYS:HD3	2.44	0.52
52:s4:176:ASP:OD1	52:s4:179:LYS:HE2	2.09	0.52
60:c2:62:LEU:HB2	60:c2:89:ILE:CG2	2.34	0.52
71:d3:23:ARG:HG2	71:d3:29:TYR:CZ	2.44	0.52
72:d4:126:ALA:HA	72:d4:129:VAL:HB	1.92	0.52
1:1:168:U:O2'	14:t:128:ARG:NH2	2.43	0.52
1:1:1806:A:OP2	82:1:4093:OHX:N5	2.42	0.52
1:1:3344:A:H2	1:1:3361:G:H21	1.56	0.52
4:j:77:ILE:HG21	4:j:169:ILE:HD13	1.91	0.52
6:l:208:VAL:O	6:l:251:THR:HG23	2.09	0.52
13:s:131:MET:HE1	13:s:162:TRP:CH2	2.45	0.52
28:AA:104:PRO:O	28:AA:107:ARG:N	2.43	0.52
41:AN:95:VAL:HA	41:AN:101:ALA:O	2.09	0.52
1:AR:673:U:H2'	1:AR:674:G:C8	2.45	0.52
1:AR:2400:G:OP1	82:AR:3607:OHX:N1	2.43	0.52
18:CR:4:TYR:CE2	18:CR:16:SER:HB3	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:30:VAL:O	19:CS:34:THR:OG1	2.20	0.52
45:sM:44:PRO:C	45:sM:46:LYS:H	2.17	0.52
47:A:1017:U:H2'	47:A:1018:U:C6	2.44	0.52
47:A:1198:G:O3'	77:e:40:ARG:NH2	2.43	0.52
47:A:1505:A:C5	47:A:1506:G:H1'	2.45	0.52
52:F:180:LEU:HD12	52:F:193:GLY:CA	2.39	0.52
53:G:51:VAL:N	53:G:65:ARG:HH21	2.06	0.52
53:G:80:LYS:HD2	53:G:83:ARG:NH2	2.23	0.52
63:Q:79:HIS:HD2	63:Q:102:PHE:HE1	1.56	0.52
47:sR:228:G:H1	47:sR:236:A:N6	2.05	0.52
47:sR:1087:A:H2'	47:sR:1088:A:C8	2.45	0.52
51:s3:167:PHE:O	51:s3:190:ARG:HG3	2.09	0.52
59:c1:111:VAL:HG23	59:c1:139:VAL:HG11	1.90	0.52
60:c2:96:GLN:HB3	60:c2:100:TRP:CZ3	2.45	0.52
64:c6:18:ALA:HB2	64:c6:69:VAL:HG13	1.92	0.52
66:c8:84:TRP:HA	66:c8:89:GLN:OE1	2.10	0.52
1:1:528:U:H2'	1:1:529:A:C8	2.45	0.52
1:1:786:A:H4'	1:1:787:G:H5'	1.90	0.52
1:1:1408:G:OP2	33:AF:31:ASN:ND2	2.42	0.52
1:1:1566:A:N6	1:1:1567:U:O2	2.43	0.52
1:1:1856:C:H1'	35:AH:7:PHE:HE2	1.73	0.52
1:1:2178:A:H3'	4:j:132:ASN:ND2	2.23	0.52
1:1:2828:G:OP1	12:r:7:ARG:NH1	2.43	0.52
2:3:3:U:H2'	2:3:4:U:C6	2.44	0.52
6:l:135:VAL:HA	6:l:245:GLY:O	2.10	0.52
11:q:8:GLN:HG3	11:q:68:LEU:HG	1.92	0.52
14:t:64:LYS:HA	29:AB:69:TRP:CE3	2.44	0.52
24:6:91:VAL:HG23	24:6:93:LEU:HD22	1.91	0.52
29:AB:3:SER:O	29:AB:6:THR:HG22	2.10	0.52
1:AR:889:U:OP1	82:AR:3571:OHX:N2	2.43	0.52
1:AR:1566:A:H3'	1:AR:1567:U:H5"	1.90	0.52
1:AR:1767:C:H2'	1:AR:1768:U:O4'	2.10	0.52
2:AS:9:C:OP1	22:CV:26:HIS:HB2	2.09	0.52
10:CJ:190:VAL:HG13	10:CJ:192:GLN:HG3	1.91	0.52
14:CN:3:ILE:HG21	29:DC:45:MET:HE3	1.92	0.52
47:A:947:U:H2'	47:A:948:G:C8	2.44	0.52
50:D:227:PRO:HA	50:D:230:TRP:CD2	2.45	0.52
57:K:129:ILE:HG22	57:K:142:ASN:HA	1.91	0.52
57:K:134:ILE:HD12	57:K:134:ILE:O	2.09	0.52
61:O:20:ARG:HG3	70:X:56:HIS:CE1	2.44	0.52
47:sR:592:A:OP1	57:s9:39:LYS:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:Rb:172:ALA:HB1	80:Rb:199:ILE:CD1	2.39	0.52
80:Rb:193:ILE:O	51:s3:220:PRO:O	2.28	0.52
51:s3:17:PHE:CZ	51:s3:21:LEU:HD11	2.45	0.52
53:s5:159:ALA:HB3	53:s5:225:ARG:HH11	1.73	0.52
1:1:246:U:H2'	1:1:247:C:H6	1.74	0.52
1:1:1095:U:H4'	1:1:1096:U:H5"	1.92	0.52
1:1:1096:U:H5	22:2:116:ARG:HH22	1.57	0.52
1:1:1471:U:OP2	82:1:3450:OHX:N1	2.42	0.52
1:1:1724:U:OP2	20:z:128:LYS:NZ	2.36	0.52
1:1:1841:A:N3	40:AM:45:ARG:NH2	2.53	0.52
4:j:225:ILE:HD13	4:j:233:GLN:O	2.08	0.52
11:q:4:ILE:HD11	21:0:150:PHE:CD2	2.45	0.52
23:5:84:LEU:O	23:5:89:LEU:N	2.40	0.52
45:i:68:ARG:HH21	47:A:1461:C:P	2.33	0.52
1:AR:1039:U:H2'	1:AR:1040:A:C8	2.45	0.52
1:AR:1355:A:H4'	1:AR:1356:U:O5'	2.08	0.52
1:AR:2407:C:H2'	1:AR:2408:U:C6	2.45	0.52
3:AT:135:G:N7	82:AT:234:OHX:N4	2.58	0.52
4:CD:30:ARG:NH2	4:CD:33:ASP:OD1	2.42	0.52
6:CF:58:HIS:CD2	6:CF:98:ARG:HB2	2.45	0.52
8:CH:68:PRO:O	8:CH:71:VAL:HG22	2.09	0.52
9:CI:185:ILE:O	9:CI:189:ILE:HG22	2.09	0.52
10:CJ:158:ASP:HB3	10:CJ:159:PRO:HD3	1.92	0.52
15:CO:21:VAL:HB	15:CO:63:VAL:CG1	2.40	0.52
16:CP:45:PRO:O	16:CP:49:ARG:HG2	2.10	0.52
58:L:40:LEU:HD12	58:L:40:LEU:H	1.75	0.52
62:P:13:VAL:CG1	62:P:77:THR:H	2.22	0.52
64:R:10:PHE:HA	64:R:18:ALA:O	2.10	0.52
64:R:57:LEU:HD23	64:R:57:LEU:H	1.75	0.52
67:U:54:PHE:CE1	67:U:104:VAL:HG23	2.43	0.52
80:h:221:MET:HG3	80:h:233:THR:HG22	1.91	0.52
47:sR:224:C:H2'	47:sR:225:A:H8	1.74	0.52
47:sR:607:G:H5'	47:sR:613:G:N2	2.24	0.52
47:sR:832:U:H2'	47:sR:833:U:O4'	2.10	0.52
47:sR:1098:U:O2'	70:d2:71:LYS:HD3	2.09	0.52
47:sR:1429:G:H21	68:d0:72:ASN:HD21	1.57	0.52
47:sR:1477:G:H2'	47:sR:1478:G:C8	2.44	0.52
47:sR:1478:G:H2'	47:sR:1479:A:H8	1.75	0.52
49:s1:81:PHE:HB2	49:s1:109:LYS:HG2	1.91	0.52
51:s3:72:LEU:HD11	58:c0:65:TYR:HD1	1.75	0.52
57:s9:113:VAL:O	57:s9:117:GLY:O	2.26	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:c4:113:GLY:HA3	74:d6:59:TYR:CD2	2.45	0.52
77:d9:6:VAL:O	77:d9:7:TRP:CD2	2.63	0.52
1:1:94:G:H2'	1:1:95:A:C8	2.45	0.52
1:1:1422:G:H21	8:n:5:LYS:HE3	1.74	0.52
1:1:1566:A:H2'	1:1:1573:G:O6	2.10	0.52
1:1:1575:A:N6	1:1:1576:G:N7	2.58	0.52
1:1:3068:U:OP2	20:z:62:ARG:NH2	2.32	0.52
2:3:46:A:OP1	7:m:158:ARG:HG2	2.10	0.52
3:4:83:C:H4'	3:4:85:G:N3	2.24	0.52
7:m:153:THR:O	7:m:153:THR:OG1	2.27	0.52
13:s:94:ARG:O	13:s:95:ASN:HB2	2.09	0.52
15:u:17:VAL:HG21	15:u:74:ARG:HA	1.91	0.52
38:AK:25:ARG:HG3	38:AK:25:ARG:O	2.09	0.52
1:AR:1611:G:H2'	1:AR:1612:A:C8	2.44	0.52
1:AR:1729:A:N6	31:DE:47:ASN:HD22	2.07	0.52
1:AR:1888:U:OP1	5:CE:247:ARG:HD3	2.09	0.52
1:AR:2534:G:O2'	1:AR:2535:A:H8	1.93	0.52
5:CE:37:ARG:HA	5:CE:185:GLY:O	2.09	0.52
6:CF:264:SER:OG	6:CF:267:VAL:HG12	2.09	0.52
9:CI:40:LYS:HG3	9:CI:41:ARG:N	2.24	0.52
9:CI:90:LYS:HG3	9:CI:91:GLY:N	2.24	0.52
27:DA:111:LEU:HB3	27:DA:116:LYS:HG3	1.92	0.52
31:DE:27:TYR:OH	31:DE:55:GLU:OE1	2.27	0.52
32:DF:55:LEU:HB2	32:DF:95:PRO:HD3	1.92	0.52
37:DK:66:GLU:O	37:DK:70:ARG:HB2	2.10	0.52
46:p0:27:VAL:HB	46:p0:188:VAL:CG2	2.39	0.52
47:A:1460:A:OP1	63:Q:126:VAL:HG21	2.09	0.52
47:A:1797:A:OP1	74:b:10:ARG:HB3	2.10	0.52
56:J:22:ARG:HB2	56:J:25:ARG:NH2	2.24	0.52
56:J:182:TYR:OH	56:J:188:GLU:OE2	2.21	0.52
57:K:77:ILE:HD13	57:K:91:LYS:HB3	1.90	0.52
47:sR:838:G:O6	82:sR:1957:OHX:N1	2.42	0.52
47:sR:922:G:H2'	47:sR:923:A:C8	2.45	0.52
47:sR:1534:G:H2'	73:d5:72:GLY:O	2.10	0.52
47:sR:1702:A:H4'	47:sR:1702:A:OP1	2.10	0.52
80:Rb:126:SER:OG	80:Rb:127:ARG:N	2.42	0.52
80:Rb:299:GLN:O	80:Rb:314:GLN:HB2	2.10	0.52
80:Rb:305:TYR:CE1	80:Rb:311:ARG:HD3	2.45	0.52
48:s0:13:ASP:OD2	48:s0:179:ARG:NH2	2.43	0.52
54:s6:214:LYS:HA	54:s6:217:SER:HB2	1.91	0.52
73:d5:71:ILE:HG21	73:d5:76:ALA:HB2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:265:A:O3'	16:v:5:LYS:HE2	2.10	0.52
1:1:385:A:H2'	1:1:386:A:C8	2.45	0.52
1:1:616:G:H2'	1:1:617:G:C8	2.44	0.52
1:1:1233:G:H2'	1:1:1234:G:C8	2.45	0.52
1:1:3027:A:H2'	1:1:3028:G:O4'	2.09	0.52
1:1:3346:U:H3	1:1:3359:A:H61	1.57	0.52
12:r:46:PHE:CD1	12:r:140:THR:HA	2.44	0.52
12:r:66:GLU:O	12:r:70:ILE:HG23	2.10	0.52
17:w:35:VAL:HG21	17:w:80:PHE:HE2	1.75	0.52
27:9:39:LEU:HA	27:9:42:GLN:HG2	1.92	0.52
33:AF:97:ALA:HB3	33:AF:100:ILE:HG12	1.92	0.52
44:AQ:75:ALA:O	44:AQ:79:VAL:HG23	2.10	0.52
1:AR:65:A:H3'	1:AR:111:C:N4	2.25	0.52
1:AR:873:C:H5"	1:AR:874:U:O5'	2.10	0.52
1:AR:1764:U:H3'	1:AR:1765:U:C4'	2.37	0.52
1:AR:2571:U:OP1	1:AR:2571:U:H2'	2.09	0.52
4:CD:227:ARG:HD2	4:CD:239:ALA:HB2	1.92	0.52
5:CE:77:THR:HG23	5:CE:326:GLY:O	2.10	0.52
7:CG:233:ALA:HA	7:CG:236:LEU:HD13	1.92	0.52
11:CK:91:ARG:NH1	41:DO:82:LEU:HD21	2.24	0.52
16:CP:143:ARG:HE	36:DJ:92:LEU:HD23	1.75	0.52
18:CR:167:ARG:O	34:DH:60:ARG:HG3	2.10	0.52
20:CT:92:GLN:O	20:CT:96:ILE:HG23	2.10	0.52
20:CT:142:ILE:O	20:CT:146:LYS:HG2	2.09	0.52
33:DG:126:LEU:HD12	33:DG:128:LEU:H	1.74	0.52
34:DH:57:LYS:O	34:DH:65:ARG:NH2	2.43	0.52
47:A:113:U:H4'	47:A:114:C:H3'	1.91	0.52
47:A:256:A:H2'	47:A:257:A:O4'	2.10	0.52
47:A:1516:A:OP1	68:V:88:LYS:NZ	2.40	0.52
47:A:1572:G:H2'	47:A:1572:G:N3	2.24	0.52
48:B:27:ARG:O	48:B:29:VAL:N	2.38	0.52
52:F:158:ASP:OD2	52:F:174:LYS:NZ	2.30	0.52
66:T:41:ARG:NH1	67:U:46:PRO:HD3	2.25	0.52
67:U:28:LEU:HD22	67:U:55:TYR:HE2	1.74	0.52
71:Y:70:LYS:HB3	71:Y:93:LEU:HD22	1.91	0.52
74:b:39:MET:HE2	74:b:70:LYS:HE3	1.91	0.52
47:sR:74:U:H5"	47:sR:75:U:OP2	2.09	0.52
47:sR:176:C:OP1	82:sR:1952:OHX:N6	2.43	0.52
47:sR:542:A:N6	78:e0:28:LYS:HZ2	2.07	0.52
47:sR:1257:U:H1'	58:c0:2:LEU:O	2.10	0.52
47:sR:1263:G:H2'	47:sR:1264:G:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:s0:59:LEU:HD12	69:d1:79:LEU:HD22	1.92	0.52
54:s6:3:LEU:HD12	54:s6:16:PHE:O	2.10	0.52
63:c5:64:LYS:HG3	63:c5:73:PRO:HG2	1.91	0.52
63:c5:96:ILE:HB	63:c5:120:SER:HB2	1.92	0.52
73:d5:79:ALA:O	73:d5:83:LEU:HB2	2.10	0.52
1:1:722:G:N7	82:1:4098:OHX:N5	2.57	0.52
1:1:1334:U:H2'	1:1:1335:C:C6	2.45	0.52
1:1:1581:C:H2'	1:1:1582:C:H5'	1.92	0.52
1:1:1618:G:H4'	3:4:129:C:H1'	1.90	0.52
2:3:44:C:H4'	7:m:152:ARG:HD3	1.92	0.52
12:r:66:GLU:HA	12:r:69:ARG:HG2	1.90	0.52
16:v:28:TRP:O	16:v:32:GLN:HG2	2.10	0.52
22:2:57:TYR:OH	22:2:87:LYS:HD3	2.10	0.52
33:AF:103:LYS:O	33:AF:106:VAL:HG22	2.09	0.52
1:AR:121:A:C2	10:CJ:129:PRO:HB3	2.45	0.52
1:AR:546:C:H5'	1:AR:547:G:H5'	1.92	0.52
1:AR:1333:C:H1'	9:CI:209:ASN:ND2	2.25	0.52
1:AR:1696:A:OP2	82:AR:4148:OHX:N6	2.43	0.52
1:AR:1716:U:O2'	1:AR:1717:U:H4'	2.10	0.52
2:AS:96:U:OP1	21:CU:43:TYR:OH	2.24	0.52
32:DF:20:LEU:HD11	32:DF:32:ALA:HB2	1.92	0.52
47:A:978:A:H2'	47:A:979:A:O4'	2.09	0.52
47:A:1148:C:H2'	47:A:1149:G:H8	1.75	0.52
47:A:1208:A:N1	47:A:1455:G:N2	2.53	0.52
56:J:34:ALA:HB2	56:J:56:ARG:HG3	1.91	0.52
56:J:117:TYR:CD2	56:J:146:ARG:HG2	2.44	0.52
57:K:153:GLU:HA	57:K:156:ILE:HD11	1.91	0.52
70:X:30:SER:O	70:X:30:SER:OG	2.24	0.52
72:Z:62:THR:HA	72:Z:69:SER:HA	1.92	0.52
75:c:62:ILE:H	75:c:62:ILE:HD12	1.74	0.52
78:f:41:THR:O	78:f:45:VAL:HG22	2.10	0.52
47:sR:397:A:H4'	56:s8:50:GLY:HA2	1.92	0.52
47:sR:950:C:H2'	47:sR:951:A:C8	2.45	0.52
55:s7:80:GLU:HA	55:s7:83:LYS:HB3	1.92	0.52
55:s7:143:LEU:HD12	55:s7:149:ILE:HD11	1.92	0.52
59:c1:111:VAL:HA	59:c1:139:VAL:HG12	1.91	0.52
62:c4:30:VAL:O	62:c4:39:ILE:HG13	2.10	0.52
63:c5:18:ARG:HD3	66:c8:90:ASN:OD1	2.10	0.52
64:c6:30:LYS:HE3	64:c6:35:PRO:HD3	1.91	0.52
66:c8:6:GLN:HA	73:d5:42:LEU:HD12	1.92	0.52
66:c8:92:ILE:CG1	66:c8:115:ARG:HH12	2.15	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:d3:96:VAL:HA	71:d3:127:VAL:HG21	1.90	0.52
1:1:543:C:H42	1:1:548:G:H1	1.56	0.52
1:1:655:C:H2'	1:1:656:A:H8	1.73	0.52
1:1:670:C:OP1	19:y:147:ARG:NH1	2.36	0.52
1:1:1213:G:H4'	21:0:90:MET:HG2	1.92	0.52
1:1:2724:U:OP1	22:2:78:LYS:NZ	2.41	0.52
7:m:69:ILE:HD12	7:m:69:ILE:H	1.75	0.52
14:t:87:ALA:O	14:t:91:ARG:HG3	2.10	0.52
17:w:84:LEU:HD13	17:w:102:LEU:HD21	1.92	0.52
20:z:185:LEU:HD22	55:I:40:PRO:HG3	1.92	0.52
24:6:63:LYS:O	24:6:70:ARG:NH1	2.42	0.52
25:7:18:GLY:HA3	25:7:31:PHE:O	2.09	0.52
1:AR:388:G:N2	18:CR:101:ASN:OD1	2.43	0.52
1:AR:1064:A:H5"	1:AR:1066:G:O4'	2.10	0.52
1:AR:1152:G:OP2	1:AR:1152:G:N2	2.43	0.52
1:AR:2157:G:N7	4:CD:152:SER:HB3	2.24	0.52
1:AR:2534:G:H2'	1:AR:2536:A:N7	2.25	0.52
1:AR:2556:C:H5'	28:DB:136:PHE:C	2.34	0.52
1:AR:3259:U:H5"	1:AR:3261:C:H5	1.75	0.52
43:DQ:73:GLU:OE2	43:DQ:80:ARG:NE	2.33	0.52
45:sM:72:ARG:NH1	47:sR:1460:A:O2'	2.37	0.52
47:A:1073:G:H4'	61:O:10:GLY:HA2	1.92	0.52
47:A:1234:A:N3	79:g:140:TYR:OH	2.35	0.52
48:B:120:LEU:HD12	48:B:121:VAL:H	1.75	0.52
50:D:156:THR:HB	70:X:95:PRO:HB3	1.92	0.52
53:G:123:VAL:O	73:a:58:ARG:HG2	2.10	0.52
54:H:217:SER:O	54:H:221:ALA:N	2.37	0.52
56:J:142:LYS:HE2	56:J:146:ARG:HG3	1.91	0.52
57:K:93:LEU:O	57:K:96:VAL:HG12	2.10	0.52
60:N:41:LEU:HD23	60:N:123:VAL:HG23	1.92	0.52
60:N:101:ALA:HB2	60:N:121:VAL:HG21	1.92	0.52
61:O:84:ILE:HG22	61:O:135:LEU:HD21	1.91	0.52
63:Q:55:GLY:O	63:Q:58:LYS:HB2	2.10	0.52
67:U:100:ILE:H	67:U:100:ILE:HD12	1.73	0.52
67:U:105:LEU:O	67:U:109:GLU:N	2.41	0.52
80:h:172:ALA:HB2	80:h:202:LEU:CD1	2.31	0.52
47:sR:397:A:O3'	56:s8:50:GLY:HA2	2.09	0.52
47:sR:847:A:H2'	47:sR:848:C:O4'	2.10	0.52
47:sR:939:A:H2'	47:sR:940:A:C8	2.45	0.52
47:sR:1059:U:H1'	47:sR:1060:U:OP2	2.09	0.52
51:s3:30:ALA:HB1	51:s3:107:PHE:HZ	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:s6:84:TYR:OH	54:s6:91:GLU:O	2.25	0.52
68:d0:20:ILE:HG21	68:d0:100:VAL:HG21	1.91	0.52
79:e1:121:CYS:H	79:e1:130:VAL:HG21	1.75	0.52
1:1:839:C:H2'	1:1:840:C:C6	2.45	0.51
1:1:979:U:H1'	1:1:980:A:N7	2.25	0.51
1:1:1278:A:HO2'	1:1:1279:C:H6	1.57	0.51
1:1:1352:A:H4'	1:1:1353:U:H5'	1.90	0.51
1:1:2586:G:N7	10:p:241:LYS:HB2	2.25	0.51
3:4:29:U:H2'	3:4:30:C:H6	1.75	0.51
5:k:281:LYS:NZ	5:k:350:ALA:HA	2.25	0.51
8:n:51:ARG:NH1	15:u:114:ASP:OD2	2.43	0.51
9:o:36:ALA:O	9:o:39:GLU:HG2	2.10	0.51
9:o:119:VAL:O	22:2:135:PRO:HD3	2.10	0.51
10:p:74:THR:CG2	16:v:18:VAL:HB	2.40	0.51
10:p:225:LYS:O	10:p:229:VAL:HG13	2.10	0.51
11:q:112:ILE:HG21	11:q:161:LEU:HD11	1.92	0.51
16:v:183:THR:O	16:v:183:THR:OG1	2.26	0.51
21:0:131:LYS:O	21:0:134:ASP:HB2	2.10	0.51
23:5:12:ALA:HA	23:5:67:SER:O	2.10	0.51
1:AR:2857:C:OP1	82:AR:3532:OHX:N5	2.43	0.51
3:AT:77:A:H2'	3:AT:78:G:O4'	2.11	0.51
4:CD:206:PRO:HG3	4:CD:213:GLY:HA3	1.93	0.51
9:CI:132:PRO:HA	9:CI:229:PHE:CG	2.46	0.51
13:CM:9:MET:O	13:CM:134:PRO:HG2	2.10	0.51
14:CN:5:LYS:O	14:CN:6:ASN:C	2.52	0.51
17:CQ:27:LEU:HD21	17:CQ:33:ILE:HB	1.92	0.51
19:CS:175:ALA:C	29:DC:51:GLY:HA2	2.35	0.51
28:DB:97:SER:O	28:DB:100:THR:HG22	2.10	0.51
34:DH:8:TYR:HB3	34:DH:101:PHE:CD1	2.45	0.51
36:DJ:31:LEU:HD23	36:DJ:41:LEU:HD21	1.92	0.51
45:sM:64:LYS:HD3	45:sM:64:LYS:H	1.75	0.51
47:A:195:G:H2'	47:A:196:G:H5"	1.91	0.51
47:A:486:G:C2	47:A:487:G:H1'	2.45	0.51
47:A:1389:C:O2'	65:S:52:GLY:HA3	2.10	0.51
47:A:1573:A:H4'	47:A:1574:G:H5'	1.92	0.51
47:A:1641:C:H2'	47:A:1642:G:C8	2.44	0.51
49:C:220:GLN:HG2	49:C:221:PRO:O	2.09	0.51
51:E:75:LYS:HZ2	58:L:20:VAL:HG23	1.73	0.51
55:I:63:PRO:O	55:I:66:SER:OG	2.28	0.51
57:K:107:ARG:O	57:K:147:MET:HA	2.10	0.51
65:S:5:ARG:O	65:S:10:LYS:HE3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:428:A:N3	47:sR:440:U:O2'	2.38	0.51
47:sR:955:A:H2'	47:sR:956:C:O4'	2.10	0.51
48:s0:118:PRO:HG2	48:s0:141:ILE:HD12	1.91	0.51
48:s0:119:ARG:HD2	50:s2:240:LEU:HB3	1.92	0.51
57:s9:145:SER:O	57:s9:145:SER:OG	2.26	0.51
59:c1:12:ALA:O	59:c1:14:GLN:NE2	2.38	0.51
63:c5:123:TYR:OH	66:c8:126:ARG:NH2	2.43	0.51
1:1:246:U:H2'	1:1:247:C:C6	2.45	0.51
1:1:1045:C:OP1	12:r:133:GLN:NE2	2.43	0.51
1:1:2144:A:H1'	1:1:2281:A:N6	2.25	0.51
1:1:3369:G:C6	5:k:380:MET:HG3	2.44	0.51
5:k:106:TRP:HB2	5:k:133:TYR:CE2	2.45	0.51
6:l:135:VAL:O	6:l:140:HIS:HB2	2.11	0.51
9:o:25:GLN:CB	9:o:28:ALA:HB3	2.40	0.51
13:s:16:LYS:HG3	13:s:130:VAL:CG1	2.40	0.51
14:t:166:ALA:HB1	29:AB:147:LEU:CD1	2.40	0.51
21:0:24:LEU:HD21	22:2:141:VAL:HG11	1.91	0.51
1:AR:16:A:H2'	1:AR:17:G:C8	2.45	0.51
1:AR:996:A:H2'	1:AR:997:A:O4'	2.11	0.51
1:AR:1721:U:OP2	20:CT:124:TYR:OH	2.27	0.51
2:AS:49:G:N7	7:CG:58:LYS:HG3	2.26	0.51
7:CG:51:LEU:HB2	7:CG:144:VAL:CG1	2.40	0.51
12:CL:12:GLN:HA	12:CL:59:GLN:NE2	2.24	0.51
14:CN:61:PRO:O	14:CN:62:THR:OG1	2.28	0.51
16:CP:46:ASP:OD2	16:CP:50:ARG:NH2	2.44	0.51
18:CR:174:GLY:O	18:CR:178:ALA:HB3	2.10	0.51
47:A:149:C:OP1	72:Z:121:THR:OG1	2.19	0.51
47:A:1590:G:OP1	67:U:91:TYR:HB2	2.11	0.51
52:F:126:VAL:HA	52:F:141:THR:HG22	1.93	0.51
76:d:9:LEU:O	76:d:32:PHE:HA	2.11	0.51
80:h:172:ALA:HB2	80:h:202:LEU:HB2	1.93	0.51
47:sR:1449:U:O4	82:sR:1929:OHX:N3	2.43	0.51
47:sR:1794:A:H1'	74:d6:79:ILE:HD12	1.92	0.51
48:s0:74:VAL:CG2	48:s0:118:PRO:HB3	2.40	0.51
49:s1:24:PHE:HA	49:s1:27:LYS:HD3	1.92	0.51
53:s5:144:GLU:HA	53:s5:161:ASP:HA	1.92	0.51
55:s7:160:GLN:HA	55:s7:163:ASP:CG	2.35	0.51
59:c1:99:ARG:HG2	71:d3:9:LEU:HA	1.91	0.51
60:c2:31:VAL:HA	60:c2:34:THR:HB	1.92	0.51
81:c7:31:ASN:HA	81:c7:34:LEU:HB3	1.92	0.51
76:d8:54:LEU:HD23	76:d8:55:VAL:N	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1651:U:H2'	1:1:1652:G:C8	2.45	0.51
2:3:22:A:H2'	2:3:23:A:C8	2.46	0.51
12:r:202:LYS:HE2	12:r:203:LYS:HE3	1.91	0.51
13:s:34:SER:HB3	13:s:67:VAL:HG21	1.92	0.51
19:y:170:ARG:O	19:y:171:LYS:HG2	2.10	0.51
28:AA:109:GLU:HA	28:AA:112:LYS:HD2	1.90	0.51
29:AB:92:LYS:O	29:AB:92:LYS:HD3	2.10	0.51
1:AR:73:C:OP1	37:DK:14:GLY:HA2	2.10	0.51
1:AR:2218:G:H2'	1:AR:2219:A:C8	2.45	0.51
1:AR:2986:U:H2'	1:AR:2987:A:C8	2.46	0.51
1:AR:3139:A:OP1	5:CE:274:SER:OG	2.27	0.51
1:AR:3275:U:H5	1:AR:3276:G:H21	1.57	0.51
1:AR:3277:U:OP2	1:AR:3278:C:N4	2.43	0.51
5:CE:313:HIS:O	5:CE:333:LYS:HE2	2.10	0.51
12:CL:77:THR:O	12:CL:81:GLY:N	2.39	0.51
14:CN:5:LYS:O	14:CN:7:LEU:HD13	2.11	0.51
18:CR:59:PRO:HG3	18:CR:76:PHE:CD1	2.45	0.51
18:CR:172:GLN:C	18:CR:174:GLY:H	2.18	0.51
47:A:333:A:N7	56:J:49:ARG:HD3	2.26	0.51
47:A:856:A:C4	55:I:64:VAL:HG11	2.46	0.51
47:A:860:U:C1'	55:I:114:ARG:HH21	2.23	0.51
49:C:144:ARG:CA	49:C:208:GLN:HG3	2.40	0.51
54:H:65:GLN:HG2	54:H:66:GLY:N	2.26	0.51
57:K:168:ARG:NH1	57:K:171:ARG:HH12	2.00	0.51
71:Y:103:LEU:HD22	71:Y:126:LYS:HD3	1.93	0.51
47:sR:696:C:H4'	47:sR:697:C:C6	2.45	0.51
47:sR:978:A:H2'	47:sR:979:A:O4'	2.10	0.51
47:sR:1282:U:OP1	82:sR:1990:OHX:N4	2.43	0.51
47:sR:1797:A:OP2	74:d6:10:ARG:NE	2.43	0.51
80:Rb:123:ILE:HD12	80:Rb:169:ILE:HD13	1.91	0.51
80:Rb:167:VAL:O	80:Rb:183:LEU:HB2	2.10	0.51
49:s1:35:PRO:HB3	49:s1:231:LEU:HD11	1.91	0.51
49:s1:127:VAL:HG11	49:s1:176:VAL:CG1	2.40	0.51
67:c9:73:VAL:HG11	67:c9:102:ARG:HB2	1.92	0.51
1:1:1386:A:N3	6:l:180:LYS:HA	2.26	0.51
1:1:2218:G:H2'	1:1:2219:A:C8	2.45	0.51
1:1:2243:A:C8	4:j:245:LEU:HB2	2.46	0.51
1:1:2611:U:O2'	1:1:2803:A:N1	2.41	0.51
3:4:79:A:O5'	3:4:79:A:H8	1.93	0.51
9:o:163:LEU:HD13	9:o:169:ILE:CD1	2.41	0.51
13:s:80:LEU:HD13	13:s:129:VAL:HG21	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:w:41:LEU:HD23	17:w:138:LEU:HD22	1.92	0.51
18:x:41:LEU:H	18:x:113:TYR:HA	1.76	0.51
29:AB:77:LYS:C	29:AB:79:TRP:H	2.18	0.51
32:AE:17:HIS:CG	32:AE:69:TYR:HD2	2.28	0.51
43:AP:28:TYR:HD2	43:AP:69:VAL:HB	1.76	0.51
1:AR:641:C:OP1	29:DC:21:ARG:HB3	2.10	0.51
1:AR:1440:G:N7	82:AR:3464:OHX:N4	2.59	0.51
1:AR:1506:A:H1'	1:AR:1848:G:O6	2.11	0.51
1:AR:2291:A:O2'	47:sR:1655:A:N1	2.42	0.51
1:AR:2298:U:O4	1:AR:2923:U:H5	1.94	0.51
1:AR:2678:A:OP1	45:sM:48:ARG:HG2	2.10	0.51
6:CF:311:HIS:CE1	6:CF:314:LYS:HA	2.45	0.51
12:CL:156:ARG:HD2	12:CL:163:GLN:O	2.11	0.51
12:CL:176:LEU:HD23	12:CL:181:TYR:HA	1.91	0.51
13:CM:88:GLU:HG2	63:c5:10:ARG:HA	1.92	0.51
19:CS:173:GLU:HA	29:DC:51:GLY:C	2.36	0.51
31:DE:13:LYS:HB3	31:DE:100:ILE:CG2	2.29	0.51
37:DK:95:ALA:O	37:DK:99:ARG:HB2	2.11	0.51
43:DQ:12:CYS:HB2	43:DQ:23:HIS:NE2	2.24	0.51
47:A:1254:U:OP2	60:N:46:ARG:NH2	2.43	0.51
47:A:1287:A:N6	47:A:1329:A:H5'	2.25	0.51
47:A:1358:G:H2'	47:A:1359:C:C6	2.46	0.51
47:A:1642:G:H2'	47:A:1643:U:H6	1.75	0.51
49:C:88:VAL:HG12	49:C:98:THR:HB	1.93	0.51
51:E:79:TYR:HB3	51:E:83:THR:HB	1.92	0.51
59:M:46:LYS:O	59:M:50:GLU:HG2	2.09	0.51
62:P:41:ARG:HG2	62:P:41:ARG:O	2.10	0.51
65:S:105:GLN:OE1	65:S:105:GLN:N	2.43	0.51
66:T:116:LEU:HD22	66:T:123:ARG:HG2	1.93	0.51
72:Z:36:SER:OG	72:Z:37:LYS:N	2.42	0.51
72:Z:49:LYS:N	72:Z:49:LYS:HD2	2.26	0.51
77:e:22:ARG:HG3	77:e:37:ASN:O	2.10	0.51
78:f:27:PRO:O	78:f:29:LYS:HE2	2.11	0.51
79:g:109:ASP:HB3	79:g:113:LYS:O	2.10	0.51
80:h:133:VAL:O	80:h:141:LEU:N	2.39	0.51
47:sR:545:A:H2'	78:e0:31:LYS:HE3	1.90	0.51
47:sR:835:U:H2'	47:sR:836:U:C6	2.45	0.51
47:sR:874:C:OP1	82:s1:301:OHX:N5	2.43	0.51
47:sR:1523:G:N7	67:c9:64:HIS:NE2	2.58	0.51
49:s1:129:THR:OG1	49:s1:131:ASP:OD1	2.26	0.51
51:s3:7:LYS:HA	51:s3:10:LYS:HB3	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:s3:17:PHE:O	51:s3:21:LEU:HD12	2.10	0.51
51:s3:115:ILE:H	51:s3:115:ILE:HD12	1.76	0.51
62:c4:21:ALA:HB2	62:c4:98:GLY:HA3	1.93	0.51
1:1:804:C:OP1	6:l:98:ARG:NH2	2.42	0.51
1:1:2541:U:O2'	1:1:2542:U:OP2	2.25	0.51
1:1:3353:G:O2'	1:1:3354:U:OP1	2.27	0.51
17:w:119:VAL:HG23	21:0:164:SER:HB3	1.91	0.51
24:6:113:ALA:HA	24:6:132:ASN:HB3	1.92	0.51
28:AA:36:HIS:HB3	28:AA:38:PHE:CZ	2.45	0.51
45:i:124:GLN:HG3	51:E:124:ARG:HH11	1.75	0.51
1:AR:75:G:H5'	14:CN:59:ARG:O	2.10	0.51
1:AR:2586:G:N7	10:CJ:241:LYS:HB2	2.26	0.51
4:CD:90:ALA:HB1	4:CD:101:VAL:HG22	1.93	0.51
5:CE:107:ALA:HB1	5:CE:200:GLU:HG3	1.92	0.51
6:CF:206:LEU:CD1	6:CF:237:GLN:HB3	2.41	0.51
8:CH:52:VAL:CG1	8:CH:65:ILE:HB	2.41	0.51
46:p0:42:ARG:O	46:p0:46:ARG:HD2	2.11	0.51
47:A:93:A:O2'	52:F:3:ARG:O	2.27	0.51
47:A:513:U:H5'	57:K:131:GLN:HB3	1.92	0.51
47:A:608:U:H5'	47:A:610:G:N7	2.25	0.51
47:A:647:G:N2	47:A:687:G:H1	2.05	0.51
47:A:679:U:H2'	47:A:680:U:C5	2.45	0.51
47:A:707:A:H61	47:A:730:G:H1	1.58	0.51
47:A:1150:G:H2'	47:A:1768:G:N2	2.25	0.51
47:A:1586:A:OP1	64:R:135:ARG:N	2.42	0.51
48:B:26:ALA:O	48:B:45:VAL:HG23	2.11	0.51
53:G:120:ILE:HG22	53:G:121:ILE:HA	1.92	0.51
58:L:28:ASN:H	58:L:40:LEU:HD11	1.74	0.51
60:N:33:ARG:HB3	60:N:36:LEU:HD12	1.92	0.51
61:O:150:VAL:O	61:O:151:ASN:ND2	2.43	0.51
62:P:16:VAL:O	62:P:30:VAL:HA	2.10	0.51
63:Q:81:ARG:NH1	63:Q:120:SER:OG	2.35	0.51
71:Y:102:VAL:HG12	71:Y:127:VAL:HA	1.92	0.51
47:sR:76:A:H2'	82:sR:2180:OHX:N3	2.25	0.51
47:sR:91:G:OP1	47:sR:397:A:N6	2.42	0.51
47:sR:416:A:H5'	47:sR:417:A:N7	2.26	0.51
47:sR:694:U:H3'	47:sR:695:U:O2	2.11	0.51
47:sR:760:A:OP2	82:sR:1940:OHX:N3	2.44	0.51
47:sR:1316:G:O2'	47:sR:1401:A:O2'	2.29	0.51
47:sR:1364:G:N2	67:c9:3:GLY:HA3	2.25	0.51
47:sR:1615:C:OP1	53:s5:81:ARG:NH2	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:289:A:H2'	1:1:290:G:C8	2.45	0.51
1:1:541:U:H2'	1:1:542:G:C8	2.46	0.51
1:1:905:U:O2'	1:1:910:G:O3'	2.26	0.51
1:1:1605:A:O2'	1:1:1607:U:OP2	2.27	0.51
1:1:2407:C:H1'	1:1:2818:U:O2	2.09	0.51
1:1:2724:U:OP1	22:2:57:TYR:OH	2.27	0.51
1:1:2746:A:H4'	7:m:176:SER:HB2	1.92	0.51
1:1:3224:G:N7	82:1:3420:OHX:N1	2.58	0.51
4:j:95:SER:OG	4:j:97:ASN:OD1	2.26	0.51
14:t:157:ARG:HG2	14:t:158:ALA:H	1.75	0.51
14:t:157:ARG:HG2	14:t:158:ALA:N	2.26	0.51
16:v:18:VAL:O	16:v:22:LEU:HD12	2.11	0.51
17:w:58:LEU:HA	17:w:72:HIS:CD2	2.45	0.51
19:y:55:SER:O	19:y:59:ARG:HG2	2.10	0.51
23:5:50:LEU:H	23:5:50:LEU:HD12	1.76	0.51
39:AL:44:LYS:HB3	39:AL:51:LEU:HD21	1.93	0.51
1:AR:172:G:H3'	1:AR:173:G:H5"	1.92	0.51
1:AR:656:A:H2'	1:AR:657:A:C8	2.45	0.51
1:AR:1597:C:H5'	1:AR:1696:A:H1'	1.93	0.51
1:AR:1820:U:H4'	1:AR:1821:U:O5'	2.10	0.51
1:AR:2667:A:OP1	45:sM:31:SER:OG	2.23	0.51
12:CL:72:ALA:O	12:CL:76:MET:HG2	2.11	0.51
47:A:257:A:H1'	56:J:73:SER:HB2	1.91	0.51
47:A:986:G:H2'	47:A:987:G:O4'	2.10	0.51
47:A:1445:G:C8	79:g:91:ILE:HD12	2.46	0.51
48:B:112:THR:HG23	48:B:115:PHE:HB2	1.92	0.51
50:D:230:TRP:CD2	70:X:68:ARG:HD3	2.46	0.51
57:K:162:SER:O	57:K:164:PHE:N	2.40	0.51
62:P:128:LYS:HB3	62:P:128:LYS:HZ3	1.74	0.51
70:X:62:VAL:HG13	75:c:7:LEU:HD12	1.93	0.51
80:h:195:HIS:ND1	80:h:196:ASN:N	2.57	0.51
47:sR:152:U:O2	47:sR:163:G:N2	2.43	0.51
47:sR:876:G:O2'	47:sR:944:A:H5'	2.11	0.51
47:sR:1255:G:H4'	47:sR:1256:A:OP1	2.11	0.51
47:sR:1354:G:H5'	47:sR:1355:C:OP2	2.11	0.51
47:sR:1642:G:O6	82:sR:1903:OHX:N2	2.43	0.51
48:s0:147:THR:CG2	48:s0:159:ALA:HB1	2.41	0.51
58:c0:3:MET:HA	58:c0:3:MET:HE3	1.93	0.51
63:c5:90:ILE:HG21	63:c5:109:PRO:HG3	1.93	0.51
66:c8:7:GLU:HB3	73:d5:41:ILE:HD11	1.93	0.51
70:d2:102:VAL:HG23	70:d2:127:GLY:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:269:G:P	16:v:44:ARG:HH12	2.34	0.51
1:1:269:G:H5"	16:v:14:LYS:HE2	1.93	0.51
1:1:3048:A:H4'	5:k:53:MET:HE2	1.91	0.51
1:1:3147:G:OP1	82:1:4105:OHX:N5	2.43	0.51
5:k:212:ASN:HD22	5:k:353:GLU:HA	1.75	0.51
5:k:264:VAL:HG12	5:k:266:ARG:HD2	1.93	0.51
6:l:205:PRO:HB3	6:l:247:PHE:CD2	2.46	0.51
14:t:122:LYS:HD3	14:t:145:PHE:HE1	1.75	0.51
14:t:156:ALA:HA	29:AB:99:ALA:O	2.11	0.51
14:t:170:LEU:HG	29:AB:147:LEU:HD21	1.93	0.51
15:u:12:TRP:CZ2	21:0:153:PRO:HB3	2.46	0.51
37:AJ:25:LYS:HB2	37:AJ:28:TYR:CD2	2.45	0.51
1:AR:1541:G:H2'	1:AR:1542:G:O4'	2.11	0.51
1:AR:3027:A:H2'	1:AR:3028:G:O4'	2.11	0.51
1:AR:3153:U:H5"	1:AR:3154:C:C5	2.46	0.51
5:CE:233:TRP:CD1	5:CE:265:ALA:HB1	2.46	0.51
11:CK:109:ALA:HB3	11:CK:111:PHE:CE1	2.46	0.51
15:CO:60:LEU:HD13	21:CU:152:LEU:HD11	1.93	0.51
24:CX:84:SER:HA	24:CX:94:TYR:HB3	1.92	0.51
47:A:820:U:O4	47:A:853:G:O2'	2.18	0.51
47:A:955:A:H4'	47:A:1073:G:O2'	2.11	0.51
47:A:1609:U:H5"	64:R:75:VAL:HG12	1.91	0.51
48:B:183:ARG:HG3	48:B:188:LEU:HD23	1.92	0.51
50:D:43:ARG:HH22	50:D:249:ALA:HB2	1.75	0.51
51:E:39:VAL:HB	51:E:48:VAL:HG22	1.93	0.51
52:F:133:LYS:O	52:F:136:VAL:HG12	2.09	0.51
55:I:49:ILE:HG13	55:I:57:ALA:O	2.10	0.51
57:K:108:ARG:HE	57:K:145:SER:HA	1.76	0.51
61:O:37:ILE:HD12	61:O:71:ILE:HG23	1.93	0.51
47:sR:569:C:H41	71:d3:69:ARG:NH2	2.08	0.51
47:sR:621:A:N3	47:sR:1107:G:H1'	2.25	0.51
47:sR:961:U:H2'	47:sR:962:C:C6	2.45	0.51
80:Rb:255:ALA:HB2	80:Rb:292:LEU:HD12	1.91	0.51
53:s5:69:PHE:CZ	64:c6:53:LEU:HD11	2.45	0.51
53:s5:214:LYS:HA	53:s5:217:LEU:HG	1.93	0.51
62:c4:112:ILE:HG22	62:c4:115:ILE:HD11	1.92	0.51
81:c7:24:LEU:HD23	81:c7:34:LEU:HD21	1.93	0.51
73:d5:78:ILE:HA	73:d5:81:ARG:HB3	1.92	0.51
1:1:297:G:O6	16:v:12:ARG:NH1	2.42	0.51
1:1:783:A:OP2	82:1:4104:OHX:N2	2.44	0.51
1:1:2636:A:H5"	1:1:2637:A:H5'	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3006:A:OP1	17:w:149:TYR:OH	2.27	0.51
1:1:3038:U:OP1	5:k:349:LYS:NZ	2.44	0.51
1:1:3155:U:H4'	1:1:3156:U:H4'	1.93	0.51
2:3:85:G:O6	82:3:219:OHX:N5	2.44	0.51
4:j:149:ARG:NH1	4:j:155:LYS:HE2	2.26	0.51
5:k:298:PHE:HA	54:H:22:HIS:HE2	1.76	0.51
10:p:24:ASN:HB3	10:p:25:PRO:HD3	1.92	0.51
15:u:19:ARG:HD2	15:u:65:LEU:HD22	1.93	0.51
17:w:15:LEU:HA	17:w:42:ASN:O	2.10	0.51
20:z:173:ARG:HH22	47:A:855:A:H62	1.59	0.51
23:5:58:GLU:O	23:5:58:GLU:HG3	2.10	0.51
23:5:97:SER:HB2	23:5:103:TYR:CD1	2.45	0.51
29:AB:76:ASP:N	29:AB:115:LYS:O	2.43	0.51
1:AR:598:A:H1'	6:CF:322:GLN:HE22	1.76	0.51
1:AR:1066:G:OP1	82:AR:3666:OHX:N2	2.44	0.51
1:AR:2180:G:H2'	1:AR:2181:C:C6	2.46	0.51
1:AR:2268:U:H2'	1:AR:2269:U:H6	1.75	0.51
17:CQ:33:ILE:O	17:CQ:102:LEU:HA	2.09	0.51
47:A:688:G:O6	82:A:2135:OHX:N1	2.44	0.51
47:A:1583:A:N1	47:A:1611:A:H5"	2.26	0.51
49:C:24:PHE:CD1	62:P:74:VAL:HA	2.46	0.51
51:E:11:LEU:HD12	68:V:86:ILE:HD13	1.93	0.51
53:G:122:ASN:HA	53:G:125:THR:O	2.11	0.51
71:Y:56:LYS:HE2	71:Y:96:VAL:CG2	2.41	0.51
47:sR:196:G:O2'	47:sR:197:A:O4'	2.29	0.51
47:sR:683:C:H3'	47:sR:684:A:H5"	1.92	0.51
47:sR:1130:G:OP2	82:sR:1969:OHX:N4	2.43	0.51
80:Rb:66:HIS:ND1	80:Rb:67:ILE:HG12	2.25	0.51
80:Rb:256:THR:HG21	80:Rb:261:LYS:HG3	1.91	0.51
48:s0:183:ARG:HG3	48:s0:188:LEU:HB3	1.92	0.51
49:s1:48:VAL:HG21	49:s1:61:LEU:HD13	1.93	0.51
53:s5:97:LEU:O	53:s5:180:ARG:NH1	2.42	0.51
54:s6:116:LYS:HE3	54:s6:125:THR:OG1	2.11	0.51
55:s7:156:SER:HB3	55:s7:186:PRO:HG2	1.93	0.51
68:d0:34:LEU:HD13	68:d0:89:ARG:HD3	1.92	0.51
72:d4:78:SER:HG	72:d4:81:GLU:H	1.57	0.51
75:d7:56:CYS:O	75:d7:57:GLU:C	2.54	0.51
1:1:975:C:H2'	1:1:976:U:H6	1.75	0.51
1:1:2552:C:H2'	31:AD:50:VAL:HG11	1.93	0.51
1:1:3275:U:O4'	34:AG:66:VAL:HG21	2.11	0.51
16:v:140:LYS:O	16:v:144:ARG:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:z:67:ALA:O	20:z:70:LYS:HG2	2.11	0.51
28:AA:53:VAL:HA	28:AA:57:HIS:CE1	2.46	0.51
1:AR:544:C:O2'	1:AR:547:G:N2	2.33	0.51
1:AR:911:C:H42	4:CD:3:ARG:HD2	1.74	0.51
1:AR:1944:U:H2'	1:AR:1945:A:H8	1.76	0.51
1:AR:2962:U:OP1	82:AR:4160:OHX:N5	2.44	0.51
5:CE:188:ILE:H	5:CE:188:ILE:HD12	1.75	0.51
10:CJ:52:TRP:CD1	10:CJ:60:ARG:HH12	2.28	0.51
13:CM:148:VAL:HG21	13:CM:153:LYS:HD3	1.92	0.51
14:CN:156:ALA:HB2	29:DC:90:TYR:HE2	1.76	0.51
20:CT:47:ASN:OD1	20:CT:49:THR:HG23	2.11	0.51
24:CX:18:PRO:HA	24:CX:51:ALA:HA	1.93	0.51
25:CY:52:THR:O	25:CY:56:ARG:HG3	2.10	0.51
39:DM:64:LYS:HZ1	39:DM:68:SER:HB3	1.75	0.51
47:A:197:A:H2'	47:A:198:A:C8	2.46	0.51
47:A:400:A:N6	56:J:29:LEU:HD12	2.26	0.51
47:A:1332:C:O2'	51:E:162:GLN:HB3	2.10	0.51
47:A:1664:C:H5'	47:A:1665:U:OP2	2.11	0.51
47:A:1683:C:O2'	47:A:1684:U:O5'	2.28	0.51
48:B:162:CYS:SG	48:B:173:ILE:CD1	2.98	0.51
49:C:65:VAL:HG21	49:C:85:LYS:HB3	1.92	0.51
54:H:139:ASN:HA	54:H:142:ARG:HG3	1.93	0.51
66:T:32:LEU:O	66:T:35:ILE:HG13	2.11	0.51
71:Y:93:LEU:O	71:Y:96:VAL:HG22	2.10	0.51
74:b:22:ARG:HG3	74:b:29:SER:HA	1.92	0.51
47:sR:31:C:OP1	71:d3:140:LYS:NZ	2.34	0.51
47:sR:489:C:O2'	47:sR:490:C:O4'	2.29	0.51
47:sR:1252:C:O5'	79:e1:103:LEU:HD21	2.11	0.51
47:sR:1688:U:H3	47:sR:1713:G:H1	1.57	0.51
80:Rb:173:GLY:H	80:Rb:199:ILE:HD11	1.76	0.51
49:s1:67:GLU:HG3	49:s1:85:LYS:HG2	1.93	0.51
49:s1:99:ASN:OD1	49:s1:100:PHE:N	2.40	0.51
51:s3:61:GLU:O	51:s3:64:ARG:HB3	2.11	0.51
51:s3:172:THR:HB	51:s3:185:LYS:HG2	1.92	0.51
52:s4:159:THR:HG22	52:s4:173:ILE:HB	1.93	0.51
53:s5:158:GLN:HE22	76:d8:61:ARG:NH1	2.09	0.51
55:s7:91:ILE:HG12	55:s7:129:LEU:HA	1.92	0.51
57:s9:171:ARG:HD2	57:s9:174:ARG:HB3	1.92	0.51
81:c7:32:LYS:HG2	81:c7:47:ARG:NH1	2.21	0.51
70:d2:11:LEU:HD12	70:d2:74:VAL:HB	1.91	0.51
71:d3:62:LYS:HD2	71:d3:118:PRO:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1071:U:O2'	1:1:1072:G:OP2	2.26	0.51
1:1:1544:G:H5'	16:v:67:ARG:HD2	1.94	0.51
1:1:2180:G:O6	82:1:3522:OHX:N1	2.44	0.51
1:1:2562:A:N3	10:p:30:THR:N	2.59	0.51
1:1:2608:G:OP1	4:j:2:GLY:HA3	2.11	0.51
4:j:92:LYS:HE3	4:j:106:SER:OG	2.11	0.51
5:k:117:ARG:HD3	5:k:176:ALA:O	2.11	0.51
12:r:26:VAL:HG21	12:r:96:VAL:HG21	1.93	0.51
14:t:134:GLU:HG3	36:AI:115:LYS:HZ2	1.75	0.51
17:w:27:LEU:HD21	17:w:102:LEU:HB2	1.92	0.51
29:AB:132:LYS:O	29:AB:136:GLU:HG3	2.10	0.51
30:AC:46:ALA:O	30:AC:50:THR:HG23	2.10	0.51
32:AE:19:ARG:HD3	32:AE:35:GLU:HG3	1.92	0.51
32:AE:60:TRP:CZ3	32:AE:64:VAL:HG22	2.44	0.51
43:AP:60:LYS:O	43:AP:60:LYS:HD3	2.11	0.51
1:AR:2882:U:O4	5:CE:4:ARG:HG2	2.11	0.51
1:AR:2904:U:H2'	1:AR:2905:U:C6	2.46	0.51
6:CF:33:ASP:O	6:CF:37:THR:HG23	2.11	0.51
9:CI:62:ILE:HG22	9:CI:66:LYS:HE3	1.92	0.51
21:CU:26:ARG:O	22:CV:150:THR:HA	2.10	0.51
24:CX:2:SER:N	24:CX:57:MET:H	2.08	0.51
29:DC:111:LYS:HA	29:DC:129:PHE:O	2.11	0.51
29:DC:138:ILE:HD11	29:DC:145:VAL:CG1	2.41	0.51
47:A:547:U:O2'	47:A:596:C:O2'	2.23	0.51
47:A:1235:C:H4'	79:g:149:LYS:HE2	1.93	0.51
49:C:193:ILE:HA	49:C:196:GLU:HB2	1.93	0.51
50:D:116:LYS:HG2	50:D:117:THR:H	1.76	0.51
57:K:127:VAL:HG12	57:K:131:GLN:OE1	2.11	0.51
57:K:143:ILE:HG22	57:K:145:SER:H	1.76	0.51
47:sR:600:U:OP2	71:d3:108:GLY:HA2	2.11	0.51
47:sR:1062:A:H5"	47:sR:1063:U:C5	2.46	0.51
47:sR:1505:A:C5	47:sR:1506:G:H1'	2.46	0.51
48:s0:109:ASN:O	48:s0:112:THR:OG1	2.29	0.51
50:s2:41:LEU:O	50:s2:45:VAL:HG23	2.11	0.51
54:s6:58:LYS:HA	54:s6:107:ALA:HB2	1.93	0.51
55:s7:73:VAL:C	55:s7:75:THR:H	2.19	0.51
60:c2:27:ALA:O	60:c2:136:ILE:HD11	2.11	0.51
61:c3:150:VAL:O	61:c3:151:ASN:HB2	2.10	0.51
63:c5:15:HIS:O	63:c5:22:LEU:N	2.43	0.51
1:1:279:U:H2'	1:1:280:U:H6	1.76	0.50
1:1:692:A:H1'	6:l:46:LYS:HD2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:718:G:N2	1:1:721:G:H1'	2.27	0.50
1:1:817:A:H2'	1:1:920:A:C2	2.45	0.50
1:1:1233:G:N2	1:1:1255:C:H42	2.08	0.50
1:1:1730:G:C6	31:AD:26:GLY:HA3	2.46	0.50
1:1:2513:U:OP2	82:1:3434:OHX:N5	2.44	0.50
1:1:3151:U:H4'	1:1:3294:A:H1'	1.92	0.50
2:3:49:G:C5	7:m:58:LYS:HG3	2.46	0.50
14:t:182:ILE:HG13	14:t:183:ARG:N	2.24	0.50
26:8:141:TYR:O	26:8:142:ILE:HG12	2.10	0.50
1:AR:1805:C:H2'	1:AR:1806:A:H8	1.75	0.50
1:AR:2571:U:H1'	1:AR:2572:C:H5'	1.93	0.50
1:AR:3119:U:OP2	82:AR:3418:OHX:N5	2.44	0.50
14:CN:131:LYS:NZ	14:CN:133:PRO:HD3	2.25	0.50
19:CS:135:GLN:OE1	19:CS:135:GLN:N	2.43	0.50
27:DA:42:GLN:O	27:DA:125:LYS:HD2	2.11	0.50
37:DK:32:ALA:O	37:DK:33:ALA:C	2.53	0.50
47:A:859:A:C5	61:O:73:ARG:HD3	2.45	0.50
47:A:1139:A:OP2	82:A:2117:OHX:N5	2.44	0.50
47:A:1525:A:OP1	67:U:82:GLY:HA2	2.11	0.50
47:A:1792:G:OP1	74:b:8:ASN:ND2	2.39	0.50
49:C:30:PHE:HD2	49:C:96:LEU:HD13	1.76	0.50
73:a:68:ARG:HB2	73:a:70:LYS:HZ2	1.76	0.50
73:a:89:ILE:HB	73:a:101:TYR:HB3	1.93	0.50
76:d:12:VAL:HA	76:d:30:VAL:HG12	1.92	0.50
47:sR:1066:C:O3'	49:s1:149:GLN:HG3	2.11	0.50
47:sR:1603:U:H2'	47:sR:1604:U:C6	2.46	0.50
49:s1:144:ARG:HB2	49:s1:208:GLN:CB	2.41	0.50
52:s4:182:TYR:N	52:s4:226:PHE:O	2.38	0.50
52:s4:183:VAL:HG12	52:s4:191:ARG:O	2.11	0.50
64:c6:6:SER:HB2	64:c6:23:LYS:HB3	1.93	0.50
78:e0:47:VAL:HG12	78:e0:48:THR:N	2.24	0.50
1:1:272:G:H1'	37:AJ:82:ARG:HH22	1.77	0.50
1:1:924:G:OP1	82:1:3592:OHX:N3	2.43	0.50
1:1:1481:A:H2'	1:1:1481:A:N3	2.26	0.50
1:1:1911:A:O5'	1:1:1911:A:H8	1.93	0.50
1:1:1941:C:H1'	1:1:3362:A:C8	2.45	0.50
1:1:2094:C:H2'	1:1:2095:G:H8	1.75	0.50
1:1:2269:U:O2'	1:1:2271:A:N7	2.34	0.50
1:1:2841:G:N2	1:1:2898:G:O6	2.43	0.50
1:1:2999:U:O4	82:1:4126:OHX:N6	2.44	0.50
1:1:3278:C:H2'	1:1:3278:C:O2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:3:3:U:O2'	2:3:25:G:H1'	2.11	0.50
2:3:97:A:H2'	2:3:98:C:C6	2.46	0.50
3:4:24:G:OP2	27:9:13:ARG:HD3	2.11	0.50
7:m:40:HIS:CE1	7:m:42:ALA:HB3	2.46	0.50
12:r:26:VAL:CG1	12:r:125:LEU:HD21	2.41	0.50
12:r:141:LYS:HG3	12:r:143:SER:H	1.76	0.50
16:v:94:TYR:CE2	16:v:96:ARG:HB2	2.46	0.50
17:w:15:LEU:HD11	17:w:125:ARG:HA	1.92	0.50
1:AR:109:A:N1	1:AR:322:U:O2'	2.42	0.50
1:AR:1024:G:N2	1:AR:1027:A:OP2	2.44	0.50
1:AR:1827:C:H2'	1:AR:1828:A:C8	2.45	0.50
1:AR:2572:C:O5'	28:DB:59:ALA:HB2	2.10	0.50
1:AR:3383:G:H2'	1:AR:3384:U:C6	2.47	0.50
5:CE:88:GLY:HA2	5:CE:199:PHE:CZ	2.46	0.50
6:CF:77:VAL:O	6:CF:86:GLY:N	2.33	0.50
7:CG:111:GLN:HA	7:CG:116:ASP:HB3	1.92	0.50
36:DJ:6:ALA:O	36:DJ:10:ARG:HG3	2.11	0.50
37:DK:74:LYS:HA	37:DK:83:ALA:HB2	1.93	0.50
47:A:333:A:OP1	56:J:31:ARG:NH2	2.45	0.50
47:A:607:G:H5'	47:A:613:G:N2	2.26	0.50
47:A:1445:G:C5	79:g:91:ILE:HB	2.46	0.50
47:A:1524:A:N3	47:A:1590:G:O2'	2.36	0.50
47:A:1529:C:O2'	67:U:12:GLN:OE1	2.21	0.50
48:B:74:VAL:HG23	48:B:118:PRO:HB3	1.93	0.50
51:E:33:GLY:HA3	51:E:53:THR:HG22	1.93	0.50
57:K:167:ALA:O	57:K:168:ARG:HG3	2.11	0.50
60:N:63:VAL:HA	60:N:91:VAL:O	2.11	0.50
60:N:94:ALA:HB1	60:N:119:SER:HA	1.91	0.50
61:O:33:VAL:HG21	61:O:60:VAL:CG2	2.42	0.50
67:U:66:TYR:CE1	67:U:132:LEU:HD11	2.46	0.50
71:Y:41:SER:O	71:Y:43:PHE:O	2.30	0.50
74:b:82:ARG:HA	74:b:82:ARG:NE	2.26	0.50
80:h:192:PHE:HD2	80:h:223:TRP:CE3	2.29	0.50
47:sR:189:C:H41	56:s8:138:ASN:HB3	1.76	0.50
47:sR:1092:A:O2'	47:sR:1093:A:H3'	2.10	0.50
47:sR:1512:G:O2'	47:sR:1518:C:O4'	2.28	0.50
51:s3:91:VAL:CG2	51:s3:94:ARG:HB3	2.41	0.50
67:c9:105:LEU:HB3	67:c9:122:ARG:HE	1.76	0.50
1:1:294:U:H5'	37:AJ:76:ARG:HG3	1.93	0.50
1:1:1116:G:N2	1:1:2817:A:O4'	2.45	0.50
1:1:1268:G:N2	1:1:1269:U:O4	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1396:C:H2'	1:1:1397:C:C6	2.46	0.50
1:1:2168:A:C6	1:1:2170:U:H1'	2.47	0.50
1:1:2180:G:H2'	1:1:2181:C:C6	2.47	0.50
1:1:2209:U:O2'	1:1:2210:G:OP1	2.26	0.50
1:1:2383:C:OP2	17:w:85:ARG:NH2	2.44	0.50
1:1:2683:U:H2'	1:1:2684:C:C6	2.46	0.50
1:1:2986:U:H2'	1:1:2987:A:C8	2.46	0.50
1:1:3067:C:H3'	20:z:62:ARG:NH2	2.27	0.50
3:4:41:A:O2'	38:AK:59:THR:HG22	2.10	0.50
11:q:11:GLU:O	11:q:79:ILE:HD12	2.11	0.50
13:s:7:ASN:HD21	13:s:10:ARG:HH11	1.58	0.50
26:8:76:VAL:HG12	26:8:133:LEU:HA	1.93	0.50
28:AA:33:SER:HB3	28:AA:40:HIS:HE1	1.75	0.50
35:AH:5:VAL:HG22	35:AH:6:THR:H	1.76	0.50
1:AR:45:A:P	16:CP:85:THR:HG21	2.51	0.50
1:AR:1506:A:OP1	1:AR:1507:G:H5"	2.11	0.50
1:AR:1944:U:H2'	1:AR:1945:A:C8	2.47	0.50
1:AR:2355:G:H4'	18:CR:139:TYR:CE1	2.47	0.50
1:AR:3180:A:OP1	17:CQ:171:LYS:NZ	2.44	0.50
6:CF:135:VAL:O	6:CF:140:HIS:HB2	2.11	0.50
7:CG:204:VAL:O	7:CG:208:MET:HG3	2.10	0.50
18:CR:174:GLY:C	18:CR:178:ALA:HB3	2.36	0.50
19:CS:102:ALA:HA	19:CS:122:ILE:O	2.11	0.50
20:CT:162:ARG:NH2	47:sR:849:C:O2'	2.44	0.50
39:DM:12:LEU:O	39:DM:15:THR:OG1	2.26	0.50
47:A:916:U:H3	62:P:41:ARG:NH2	2.09	0.50
47:A:922:G:H2'	47:A:923:A:C8	2.45	0.50
51:E:12:VAL:HG11	77:e:34:TYR:HB3	1.93	0.50
51:E:98:ALA:N	51:E:169:ASP:OD2	2.43	0.50
53:G:98:MET:HE2	53:G:107:LYS:HD2	1.93	0.50
54:H:23:ARG:HB3	54:H:41:VAL:O	2.11	0.50
55:I:56:LYS:HB2	55:I:88:ARG:HE	1.77	0.50
47:sR:204:G:N7	82:sR:1983:OHX:N4	2.59	0.50
47:sR:1478:G:H2'	47:sR:1479:A:C8	2.47	0.50
80:Rb:93:ASP:HB3	80:Rb:96:THR:CG2	2.42	0.50
57:s9:110:GLN:OE1	57:s9:126:ARG:HG2	2.12	0.50
67:c9:76:LEU:O	67:c9:80:TYR:HD1	1.94	0.50
72:d4:12:VAL:HG12	72:d4:23:PHE:CB	2.42	0.50
1:1:217:U:O2'	27:9:103:LYS:HE2	2.10	0.50
1:1:1372:C:OP2	29:AB:7:LYS:HD3	2.11	0.50
1:1:1404:G:N7	82:1:4117:OHX:N4	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2947:G:C2	5:k:250:ALA:HB1	2.46	0.50
1:1:3228:C:H4'	1:1:3229:G:O5'	2.12	0.50
1:1:3310:A:OP1	18:x:74:LYS:NZ	2.31	0.50
5:k:86:VAL:HG22	5:k:162:VAL:HG12	1.93	0.50
12:r:193:ASP:OD1	12:r:194:GLY:N	2.43	0.50
14:t:166:ALA:HB1	29:AB:147:LEU:HD13	1.94	0.50
17:w:15:LEU:HD21	17:w:129:LEU:HG	1.92	0.50
18:x:116:HIS:O	18:x:148:LEU:HA	2.11	0.50
20:z:13:SER:OG	20:z:38:ARG:NH2	2.44	0.50
28:AA:4:PHE:CD2	31:AD:62:LEU:HB3	2.47	0.50
28:AA:58:GLY:O	28:AA:62:VAL:HG23	2.11	0.50
1:AR:1054:A:H5"	1:AR:2637:A:H61	1.76	0.50
1:AR:2661:G:H2'	1:AR:2662:G:H8	1.77	0.50
1:AR:2697:A:H2'	1:AR:2698:G:H8	1.76	0.50
7:CG:41:LYS:HB2	22:CV:68:THR:O	2.12	0.50
7:CG:260:PHE:O	7:CG:261:THR:C	2.55	0.50
9:CI:233:GLU:OE1	21:CU:38:LYS:NZ	2.42	0.50
10:CJ:81:THR:HG21	10:CJ:181:LYS:HG3	1.94	0.50
15:CO:135:LEU:HD11	17:CQ:178:VAL:HG12	1.93	0.50
19:CS:122:ILE:HG23	19:CS:126:GLN:HB2	1.93	0.50
27:DA:56:VAL:CG1	27:DA:104:LEU:HB3	2.41	0.50
47:A:722:G:H3'	47:A:723:G:C5'	2.42	0.50
47:A:871:G:O2'	75:c:66:PRO:HB2	2.11	0.50
47:A:1547:A:H1'	66:T:87:ASN:O	2.11	0.50
47:A:1738:U:H2'	47:A:1739:C:C6	2.45	0.50
48:B:85:ALA:HA	48:B:202:TYR:CD2	2.44	0.50
53:G:98:MET:HB2	53:G:105:GLY:O	2.11	0.50
63:Q:79:HIS:CD2	63:Q:102:PHE:HE1	2.29	0.50
72:Z:86:GLU:OE1	72:Z:90:ARG:NH1	2.41	0.50
80:h:19:TRP:HB2	80:h:38:ARG:HG3	1.94	0.50
80:h:61:PHE:HB3	80:h:92:TRP:CE3	2.46	0.50
47:sR:579:A:N1	51:s3:144:ALA:HA	2.27	0.50
47:sR:633:U:H2'	47:sR:634:G:O4'	2.11	0.50
47:sR:895:G:H22	47:sR:917:U:H3	1.60	0.50
47:sR:1498:G:H5"	67:c9:72:GLY:HA3	1.91	0.50
47:sR:1747:G:N7	82:sR:1981:OHX:N1	2.59	0.50
47:sR:1761:U:O4	82:sR:2175:OHX:N3	2.44	0.50
52:s4:125:LYS:HE3	52:s4:157:ASN:HA	1.94	0.50
73:d5:60:VAL:HG13	73:d5:101:TYR:HB2	1.94	0.50
74:d6:58:VAL:O	74:d6:59:TYR:HB2	2.11	0.50
77:d9:20:GLN:N	77:d9:20:GLN:OE1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:530:G:H2'	1:1:531:G:O4'	2.12	0.50
1:1:616:G:H2'	1:1:617:G:H8	1.75	0.50
1:1:723:U:O4	82:1:4098:OHX:N3	2.44	0.50
1:1:1686:U:OP1	23:5:42:LYS:NZ	2.45	0.50
1:1:2854:U:O3'	12:r:160:PRO:HB3	2.12	0.50
1:1:3094:A:H2'	1:1:3095:U:C6	2.47	0.50
6:l:289:ILE:O	6:l:295:ILE:HD12	2.11	0.50
9:o:132:PRO:HA	9:o:229:PHE:CG	2.47	0.50
12:r:207:GLU:HG3	12:r:208:ASN:N	2.26	0.50
15:u:123:LEU:HB3	17:w:194:LEU:HG	1.94	0.50
19:y:34:THR:HA	19:y:49:LEU:CD1	2.42	0.50
26:8:25:LYS:HE3	26:8:26:VAL:H	1.77	0.50
34:AG:26:ASN:HA	34:AG:88:ASN:OD1	2.12	0.50
40:AM:8:ARG:O	40:AM:12:LYS:HG3	2.11	0.50
1:AR:1097:G:O5'	22:CV:129:LYS:HE3	2.12	0.50
1:AR:1508:C:H2'	1:AR:1509:A:O4'	2.11	0.50
1:AR:2423:U:H2'	1:AR:2424:A:C8	2.47	0.50
1:AR:3277:U:P	18:CR:175:ARG:HH21	2.34	0.50
6:CF:206:LEU:HD11	6:CF:237:GLN:HB3	1.94	0.50
9:CI:131:GLU:O	9:CI:229:PHE:HB2	2.11	0.50
9:CI:160:ARG:HH11	9:CI:203:TRP:CD1	2.30	0.50
12:CL:185:ARG:HA	12:CL:190:VAL:CG1	2.42	0.50
13:CM:153:LYS:HD2	13:CM:154:THR:N	2.24	0.50
15:CO:55:ARG:NH1	21:CU:70:THR:O	2.45	0.50
27:DA:73:VAL:HA	27:DA:80:VAL:HG23	1.93	0.50
47:A:93:A:H1'	52:F:3:ARG:HB3	1.93	0.50
47:A:398:G:P	56:J:47:ARG:HH22	2.33	0.50
47:A:567:A:H5'	78:f:10:ARG:HB2	1.93	0.50
49:C:31:ASP:O	49:C:96:LEU:HB2	2.11	0.50
53:G:164:PRO:HG3	76:d:52:ASP:HB3	1.94	0.50
54:H:27:PHE:HB3	54:H:102:VAL:HG11	1.94	0.50
59:M:8:GLN:NE2	59:M:14:GLN:O	2.42	0.50
59:M:33:ARG:NH1	59:M:51:GLY:O	2.44	0.50
64:R:33:GLY:HA3	67:U:7:ARG:HH11	1.75	0.50
80:h:10:ARG:HD2	80:h:51:ASP:HA	1.93	0.50
47:sR:15:U:H2'	47:sR:16:G:O4'	2.12	0.50
47:sR:542:A:H61	78:e0:28:LYS:HZ2	1.59	0.50
47:sR:918:U:H2'	47:sR:919:A:H8	1.76	0.50
47:sR:1174:C:OP2	66:c8:141:THR:HG21	2.12	0.50
47:sR:1183:A:N3	47:sR:1210:C:O2'	2.42	0.50
47:sR:1283:U:OP1	82:sR:1990:OHX:N3	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1453:G:H2'	47:sR:1454:G:H8	1.76	0.50
80:Rb:197:SER:OG	80:Rb:198:ASN:N	2.44	0.50
54:s6:32:ILE:HG22	54:s6:65:GLN:HE21	1.76	0.50
63:c5:60:LEU:HG	63:c5:76:VAL:HG11	1.93	0.50
64:c6:28:LEU:N	64:c6:64:ASP:OD1	2.40	0.50
66:c8:57:ARG:HH22	73:d5:75:LEU:CD2	2.25	0.50
66:c8:104:ASN:HA	66:c8:107:SER:OG	2.11	0.50
67:c9:41:SER:O	67:c9:84:LYS:NZ	2.39	0.50
68:d0:52:LYS:O	68:d0:53:LYS:C	2.53	0.50
1:1:93:C:OP1	86:1:4181:X1K:N	2.45	0.50
1:1:2138:A:C4	38:AK:3:LYS:HB3	2.47	0.50
1:1:2541:U:C1'	1:1:2542:U:H4'	2.41	0.50
1:1:3009:G:N7	82:1:4078:OHX:N2	2.59	0.50
6:l:22:LEU:HD22	6:l:26:PHE:CD2	2.47	0.50
11:q:89:LYS:HG2	11:q:145:VAL:HG22	1.94	0.50
13:s:91:LEU:O	13:s:171:VAL:O	2.29	0.50
13:s:172:LEU:HD22	13:s:173:ASP:H	1.76	0.50
21:0:80:ARG:HB3	21:0:122:HIS:HB2	1.94	0.50
21:0:104:GLU:O	21:0:108:GLN:HG2	2.11	0.50
22:2:51:GLY:HA3	22:2:92:ARG:HG3	1.94	0.50
33:AF:32:TRP:CZ2	33:AF:53:PRO:HD2	2.47	0.50
38:AK:76:ASN:HB3	38:AK:79:GLN:HG3	1.94	0.50
44:AQ:28:LYS:O	44:AQ:32:GLN:HG3	2.11	0.50
1:AR:52:A:N3	1:AR:811:U:O2'	2.42	0.50
1:AR:209:A:OP1	6:CF:161:LYS:NZ	2.37	0.50
1:AR:286:U:H2'	1:AR:287:G:C8	2.47	0.50
1:AR:287:G:OP1	16:CP:179:LYS:HD3	2.12	0.50
1:AR:2947:G:C2	5:CE:250:ALA:HB1	2.46	0.50
1:AR:3301:U:O4	82:AR:3427:OHX:N3	2.45	0.50
3:AT:103:G:OP2	3:AT:105:A:O2'	2.29	0.50
12:CL:93:PRO:O	12:CL:125:LEU:HD23	2.12	0.50
27:DA:56:VAL:HG13	27:DA:105:VAL:O	2.11	0.50
33:DG:83:GLU:O	33:DG:86:THR:HG23	2.12	0.50
46:p0:27:VAL:HB	46:p0:188:VAL:HG22	1.92	0.50
47:A:1002:G:N2	47:A:1760:G:O3'	2.45	0.50
47:A:1278:G:H2'	47:A:1279:C:O4'	2.12	0.50
47:A:1310:U:O2'	47:A:1402:G:O2'	2.10	0.50
47:A:1352:G:H2'	47:A:1353:U:O4'	2.11	0.50
56:J:41:LYS:HA	56:J:59:ARG:O	2.12	0.50
56:J:88:ASN:O	56:J:91:VAL:HG22	2.11	0.50
57:K:135:ALA:HB1	57:K:139:GLN:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:L:20:VAL:HG12	58:L:67:THR:HA	1.93	0.50
65:S:16:LEU:HD11	65:S:54:THR:CG2	2.41	0.50
67:U:105:LEU:HD11	67:U:122:ARG:HG2	1.93	0.50
76:d:36:THR:OG1	76:d:37:SER:N	2.45	0.50
80:h:90:ARG:HH21	80:h:99:THR:HG21	1.77	0.50
47:sR:217:A:H61	47:sR:845:G:H1'	1.77	0.50
47:sR:514:G:HO2'	47:sR:515:A:H8	1.58	0.50
47:sR:1022:C:O2'	47:sR:1125:A:N1	2.37	0.50
47:sR:1414:U:O2'	82:sR:1904:OHX:N2	2.44	0.50
80:Rb:37:SER:OG	80:Rb:38:ARG:N	2.45	0.50
80:Rb:182:ASN:O	80:Rb:186:PHE:HA	2.11	0.50
48:s0:108:THR:HB	50:s2:64:LYS:HZ1	1.76	0.50
50:s2:44:LEU:HD11	50:s2:247:ALA:HB2	1.93	0.50
50:s2:179:VAL:O	50:s2:198:THR:HG22	2.12	0.50
52:s4:154:ILE:HG12	52:s4:172:PHE:CG	2.47	0.50
1:1:283:G:O6	1:1:304:G:H1'	2.11	0.50
1:1:860:G:C5	4:j:181:LYS:HB2	2.47	0.50
1:1:1366:A:H2'	1:1:1367:G:C8	2.47	0.50
1:1:3233:C:H2'	1:1:3234:A:C8	2.46	0.50
2:3:121:U:OP2	7:m:265:TYR:OH	2.23	0.50
3:4:41:A:H61	3:4:103:G:C2'	2.25	0.50
3:4:68:G:OP1	82:AK:102:OHX:N3	2.45	0.50
3:4:121:U:H2'	3:4:122:U:C6	2.47	0.50
8:n:31:ARG:NH1	8:n:34:LEU:HD11	2.27	0.50
11:q:129:ARG:O	11:q:132:VAL:HG22	2.12	0.50
21:0:165:TYR:O	21:0:166:LYS:HD2	2.11	0.50
23:5:87:ASN:HB2	23:5:89:LEU:HD23	1.93	0.50
24:6:53:SER:O	24:6:81:GLN:NE2	2.45	0.50
27:9:56:VAL:HG21	27:9:104:LEU:HB3	1.94	0.50
1:AR:3276:G:C6	18:CR:172:GLN:HB3	2.46	0.50
6:CF:138:ARG:HH21	6:CF:240:PRO:HB2	1.76	0.50
6:CF:160:GLN:HG2	6:CF:214:GLY:HA3	1.93	0.50
7:CG:184:ASP:OD1	7:CG:187:THR:N	2.42	0.50
10:CJ:30:THR:O	10:CJ:30:THR:OG1	2.30	0.50
14:CN:119:TYR:O	14:CN:123:ILE:HG23	2.11	0.50
16:CP:73:ARG:HG2	16:CP:75:VAL:HG13	1.94	0.50
18:CR:141:SER:O	18:CR:143:PRO:HD3	2.12	0.50
19:CS:79:LYS:HA	19:CS:136:ASN:OD1	2.12	0.50
26:CZ:82:LEU:HB2	26:CZ:124:VAL:HG23	1.93	0.50
32:DF:72:ARG:HG2	32:DF:96:VAL:HG21	1.93	0.50
37:DK:35:ASN:OD1	37:DK:36:ARG:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:20:G:H5'	47:A:571:G:N7	2.27	0.50
47:A:38:C:C2'	47:A:39:A:H5'	2.42	0.50
47:A:196:G:O2'	47:A:197:A:H8	1.94	0.50
47:A:279:G:H2'	47:A:281:G:H5'	1.93	0.50
47:A:366:A:OP1	47:A:758:U:O2'	2.20	0.50
47:A:480:G:N1	47:A:509:G:H1'	2.26	0.50
47:A:1475:A:H2'	47:A:1476:C:O4'	2.12	0.50
47:A:1538:U:HO2'	47:A:1539:G:H8	1.59	0.50
48:B:17:LEU:HB3	48:B:22:THR:CG2	2.42	0.50
56:J:3:ILE:H	56:J:3:ILE:HD12	1.77	0.50
57:K:40:LYS:HA	57:K:43:TYR:HB2	1.92	0.50
64:R:30:LYS:HG2	64:R:35:PRO:HA	1.93	0.50
67:U:63:ARG:O	67:U:67:MET:HG3	2.12	0.50
71:Y:19:ARG:O	71:Y:23:ARG:HG3	2.11	0.50
75:c:65:THR:CG2	75:c:72:LYS:HB3	2.42	0.50
80:h:201:THR:CB	80:h:242:SER:HA	2.42	0.50
47:sR:3:U:N3	57:s9:17:ARG:HD2	2.25	0.50
47:sR:119:A:H1'	47:sR:397:A:C4	2.46	0.50
47:sR:304:U:O2'	59:c1:69:LYS:HG3	2.11	0.50
47:sR:891:A:H2'	47:sR:892:A:C8	2.47	0.50
47:sR:1515:A:O2'	47:sR:1518:C:N4	2.45	0.50
47:sR:1792:G:OP1	74:d6:8:ASN:HB3	2.11	0.50
52:s4:117:GLU:C	52:s4:119:ALA:H	2.18	0.50
55:s7:158:ASP:HB3	55:s7:161:GLN:HE22	1.76	0.50
60:c2:129:GLU:O	60:c2:133:LEU:HB2	2.12	0.50
64:c6:97:VAL:HG12	64:c6:98:ASP:N	2.26	0.50
71:d3:54:LEU:HD12	71:d3:73:ARG:HG2	1.93	0.50
73:d5:78:ILE:HG13	73:d5:81:ARG:HD2	1.93	0.50
1:1:63:A:H5"	16:v:174:ILE:HG21	1.93	0.50
1:1:318:A:OP1	82:1:3435:OHX:N2	2.45	0.50
1:1:425:G:O6	82:1:3408:OHX:N6	2.45	0.50
1:1:668:G:H1'	14:t:7:LEU:HD22	1.94	0.50
1:1:1725:C:H2'	1:1:1726:C:C6	2.47	0.50
1:1:1740:U:H1'	1:1:1741:A:H2	1.76	0.50
1:1:3379:C:H4'	5:k:315:GLY:HA2	1.92	0.50
2:3:53:U:H5'	82:3:222:OHX:N2	2.27	0.50
2:3:90:U:H2'	2:3:91:G:O4'	2.11	0.50
3:4:155:A:OP2	10:p:84:ARG:NH2	2.45	0.50
5:k:79:VAL:HG11	5:k:338:LEU:HD11	1.92	0.50
5:k:306:THR:HG22	5:k:317:ILE:H	1.77	0.50
9:o:73:GLY:O	22:2:143:THR:OG1	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:o:140:SER:O	9:o:144:ILE:HG13	2.12	0.50
11:q:90:MET:HA	11:q:182:SER:H	1.77	0.50
13:s:107:ASP:HA	13:s:124:GLY:HA2	1.92	0.50
17:w:27:LEU:HD22	17:w:101:ARG:HB2	1.94	0.50
19:y:152:HIS:ND1	19:y:162:ALA:O	2.42	0.50
21:0:27:MET:HG2	22:2:151:LEU:O	2.12	0.50
35:AH:74:ARG:NH2	35:AH:82:ALA:HB2	2.27	0.50
42:AO:6:ARG:NH2	47:A:1113:A:H5"	2.24	0.50
1:AR:90:C:C2'	1:AR:91:G:H5'	2.42	0.50
1:AR:678:G:O6	82:AR:3514:OHX:N2	2.44	0.50
1:AR:1375:G:O6	29:DC:10:LYS:HE2	2.11	0.50
1:AR:2107:A:H2	1:AR:3344:A:C8	2.29	0.50
5:CE:350:ALA:O	5:CE:351:LEU:HB2	2.11	0.50
6:CF:148:ILE:HA	6:CF:149:PRO:C	2.37	0.50
6:CF:209:TYR:C	6:CF:254:ALA:HB2	2.36	0.50
9:CI:214:TRP:CE2	9:CI:219:LYS:HD2	2.46	0.50
10:CJ:149:LYS:O	10:CJ:176:PRO:HG2	2.11	0.50
13:CM:96:PHE:HB3	13:CM:156:LYS:HG3	1.94	0.50
17:CQ:3:VAL:HG13	17:CQ:4:GLU:HG3	1.94	0.50
47:A:83:G:N7	82:A:1926:OHX:N5	2.60	0.50
47:A:248:U:H4'	59:M:36:LYS:HD3	1.94	0.50
47:A:705:U:H2'	47:A:706:A:N7	2.26	0.50
47:A:862:A:P	61:O:20:ARG:HE	2.35	0.50
47:A:1018:U:H2'	47:A:1019:A:H8	1.77	0.50
48:B:9:LEU:HD13	48:B:54:TRP:CD2	2.46	0.50
49:C:27:LYS:CD	49:C:49:ASN:HA	2.42	0.50
49:C:70:LEU:HD22	49:C:79:HIS:CB	2.41	0.50
49:C:81:PHE:CD1	49:C:109:LYS:HE3	2.46	0.50
51:E:30:ALA:HB1	51:E:103:GLU:OE1	2.11	0.50
52:F:118:GLU:HA	52:F:121:TYR:CE1	2.47	0.50
53:G:143:ARG:HG3	53:G:167:ARG:NH1	2.27	0.50
53:G:199:ILE:HG13	53:G:200:ASN:N	2.27	0.50
53:G:225:ARG:HH22	74:b:48:ALA:CB	2.24	0.50
54:H:98:ARG:NH1	54:H:101:ILE:O	2.31	0.50
55:I:170:GLN:HG3	55:I:171:ALA:N	2.26	0.50
56:J:31:ARG:NH2	56:J:48:THR:HA	2.27	0.50
70:X:37:PHE:CZ	70:X:103:ILE:HG21	2.47	0.50
80:h:37:SER:OG	80:h:38:ARG:N	2.44	0.50
47:sR:138:A:N6	47:sR:266:A:H61	2.09	0.50
47:sR:542:A:N1	78:e0:28:LYS:HD3	2.26	0.50
47:sR:1265:G:N7	82:sR:2177:OHX:N4	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1410:A:H3'	47:sR:1411:A:H8	1.77	0.50
80:Rb:273:ASP:O	80:Rb:275:ARG:NH1	2.36	0.50
55:s7:93:LEU:HD11	55:s7:129:LEU:HD23	1.94	0.50
66:c8:127:HIS:CD2	66:c8:133:VAL:HG21	2.47	0.50
73:d5:75:LEU:O	73:d5:78:ILE:HG22	2.12	0.50
1:1:59:G:H2'	3:4:33:A:O2'	2.11	0.50
1:1:1565:G:O5'	1:1:1565:G:H8	1.95	0.50
1:1:1584:U:H2'	1:1:1585:C:C6	2.47	0.50
1:1:1742:U:H2'	1:1:1743:G:C8	2.46	0.50
1:1:1826:C:H2'	1:1:1827:C:C6	2.47	0.50
1:1:1869:C:H4'	1:1:3077:A:O2'	2.12	0.50
2:3:67:G:H5'	7:m:10:SER:HB2	1.93	0.50
11:q:120:ASP:OD2	11:q:124:ARG:NH2	2.45	0.50
14:t:5:LYS:O	14:t:6:ASN:C	2.55	0.50
16:v:70:ASN:HB3	16:v:92:LEU:O	2.12	0.50
23:5:22:PRO:HA	23:5:107:PHE:CE2	2.47	0.50
35:AH:74:ARG:CZ	35:AH:82:ALA:HB2	2.42	0.50
35:AH:82:ALA:HA	35:AH:85:VAL:HB	1.94	0.50
37:AJ:57:LEU:HD11	37:AJ:73:ALA:HB2	1.94	0.50
1:AR:67:A:O2'	1:AR:315:C:O2	2.28	0.50
1:AR:696:C:OP2	6:CF:119:ARG:NH2	2.44	0.50
1:AR:792:G:H5"	29:DC:2:PRO:HD3	1.93	0.50
1:AR:1240:A:N6	1:AR:1241:U:O4	2.45	0.50
1:AR:1706:C:H2'	1:AR:1707:A:O4'	2.11	0.50
1:AR:2228:A:H2'	1:AR:2229:A:H8	1.74	0.50
1:AR:2724:U:H4'	22:CV:54:HIS:CD2	2.47	0.50
1:AR:2812:C:H2'	1:AR:2813:A:C8	2.47	0.50
1:AR:2975:U:OP1	82:AR:3588:OHX:N6	2.45	0.50
1:AR:3289:G:O6	82:AR:3600:OHX:N3	2.44	0.50
1:AR:3317:U:H4'	1:AR:3318:G:O5'	2.12	0.50
3:AT:9:A:H2'	3:AT:10:A:C8	2.47	0.50
10:CJ:71:VAL:HG23	10:CJ:235:GLY:HA3	1.92	0.50
13:CM:141:ARG:O	13:CM:145:LYS:HE2	2.12	0.50
15:CO:20:VAL:CG2	15:CO:68:LEU:HB2	2.41	0.50
24:CX:114:ILE:HD12	24:CX:133:SER:HA	1.93	0.50
47:A:641:G:N2	47:A:693:U:O2	2.41	0.50
47:A:647:G:N2	47:A:687:G:H22	2.09	0.50
47:A:912:U:H4'	47:A:913:G:O5'	2.10	0.50
47:A:919:A:H4'	62:P:35:GLY:HA3	1.93	0.50
47:A:992:A:H2'	47:A:993:A:H5'	1.94	0.50
47:A:1418:G:N7	82:A:1901:OHX:N3	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1542:G:N2	47:A:1569:A:OP2	2.44	0.50
48:B:48:ILE:HG21	48:B:161:PRO:HB2	1.94	0.50
49:C:113:MET:HE2	49:C:142:PHE:HE1	1.76	0.50
49:C:138:PHE:CD2	49:C:214:LYS:HB3	2.47	0.50
52:F:181:VAL:HG12	52:F:227:VAL:HA	1.94	0.50
53:G:163:SER:O	53:G:167:ARG:HB2	2.11	0.50
54:H:36:VAL:HG22	54:H:37:ASP:H	1.77	0.50
56:J:184:LEU:HD13	56:J:192:TYR:HD2	1.77	0.50
62:P:20:TYR:HB3	62:P:27:PHE:HB2	1.93	0.50
63:Q:76:VAL:O	63:Q:94:VAL:HA	2.12	0.50
64:R:110:THR:HA	64:R:113:ASP:HB3	1.94	0.50
66:T:70:VAL:O	66:T:73:MET:HG2	2.12	0.50
69:W:71:ARG:HB2	69:W:83:TRP:CD2	2.46	0.50
71:Y:131:SER:O	71:Y:134:ALA:N	2.43	0.50
79:g:139:LEU:HD22	79:g:152:ALA:HB3	1.92	0.50
80:h:156:VAL:HG23	80:h:169:ILE:HG22	1.94	0.50
47:sR:328:A:H2'	47:sR:329:G:C8	2.47	0.50
47:sR:1217:A:H5"	58:c0:1:MET:HG2	1.93	0.50
47:sR:1316:G:OP2	81:c7:7:LYS:NZ	2.45	0.50
47:sR:1620:C:O2'	47:sR:1621:U:OP1	2.27	0.50
47:sR:1797:A:H4'	74:d6:95:ARG:HG3	1.93	0.50
80:Rb:21:THR:N	80:Rb:36:ALA:O	2.45	0.50
80:Rb:60:SER:O	64:c6:94:GLN:NE2	2.45	0.50
52:s4:72:VAL:HG12	52:s4:77:ARG:HG3	1.94	0.50
64:c6:6:SER:OG	64:c6:7:VAL:N	2.44	0.50
1:1:631:U:H2'	1:1:632:G:C8	2.47	0.49
1:1:1574:C:H2'	1:1:1575:A:C8	2.47	0.49
11:q:36:LYS:HZ1	11:q:74:LEU:HD22	1.76	0.49
17:w:22:VAL:HG11	17:w:120:VAL:HG11	1.93	0.49
20:z:161:ALA:O	20:z:165:LYS:N	2.45	0.49
27:9:53:ASP:O	27:9:110:HIS:HB2	2.12	0.49
29:AB:2:PRO:HG2	29:AB:5:PHE:CD2	2.47	0.49
31:AD:17:VAL:HG13	31:AD:95:ALA:HA	1.93	0.49
31:AD:25:LEU:HD21	31:AD:81:VAL:HG21	1.94	0.49
39:AL:3:ARG:HD3	39:AL:52:TYR:CE2	2.47	0.49
1:AR:734:C:H2'	1:AR:735:A:O4'	2.12	0.49
1:AR:1713:G:O6	31:DE:28:LYS:HE2	2.11	0.49
1:AR:1728:G:H4'	1:AR:1729:A:H5"	1.94	0.49
1:AR:3324:C:H4'	32:DF:13:THR:HG23	1.92	0.49
3:AT:139:U:O4	82:AT:213:OHX:N5	2.45	0.49
5:CE:298:PHE:CD2	5:CE:357:LYS:HG2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:86:TYR:CD2	7:CG:247:ILE:HG12	2.47	0.49
10:CJ:115:ALA:O	10:CJ:118:GLU:HB2	2.12	0.49
23:CW:98:THR:HG22	23:CW:104:ARG:HD3	1.93	0.49
47:A:331:A:H5'	56:J:33:PRO:HA	1.94	0.49
47:A:434:G:OP1	71:Y:78:LYS:HA	2.12	0.49
47:A:460:A:H3'	47:A:461:G:H8	1.77	0.49
47:A:755:A:O2'	47:A:756:A:OP1	2.29	0.49
47:A:918:U:H2'	47:A:919:A:C8	2.47	0.49
47:A:1545:A:H2'	47:A:1546:G:C8	2.47	0.49
55:I:35:LYS:HZ1	55:I:39:ARG:N	2.10	0.49
55:I:172:VAL:O	55:I:176:LEU:HG	2.12	0.49
56:J:26:LYS:HE2	56:J:29:LEU:HD13	1.94	0.49
66:T:7:GLU:HG3	66:T:10:SER:HB3	1.92	0.49
47:sR:417:A:H4'	47:sR:418:G:O5'	2.12	0.49
47:sR:602:U:H2'	47:sR:603:U:C6	2.47	0.49
47:sR:876:G:H1'	47:sR:944:A:O4'	2.12	0.49
47:sR:1379:C:H1'	64:c6:19:VAL:HG11	1.93	0.49
47:sR:1606:C:H2'	47:sR:1607:G:C8	2.47	0.49
53:s5:140:THR:HG21	53:s5:175:LEU:HD11	1.93	0.49
64:c6:35:PRO:O	64:c6:38:LEU:HD23	2.11	0.49
1:1:1748:G:OP2	39:AL:42:LYS:NZ	2.45	0.49
1:1:2242:A:H5'	4:j:243:THR:HG23	1.94	0.49
1:1:2723:U:OP1	22:2:87:LYS:HE3	2.12	0.49
2:3:11:A:N1	2:3:67:G:O2'	2.41	0.49
2:3:97:A:H2'	2:3:98:C:H6	1.77	0.49
4:j:28:LYS:HB3	4:j:123:ARG:HB3	1.93	0.49
5:k:161:LEU:HD22	5:k:178:LEU:HD11	1.94	0.49
36:AI:10:ARG:NH1	36:AI:60:GLU:OE1	2.45	0.49
1:AR:908:G:OP1	82:AR:3544:OHX:N3	2.45	0.49
1:AR:1911:A:H2	1:AR:2122:G:C8	2.31	0.49
1:AR:2672:G:O3'	13:CM:95:ASN:HA	2.11	0.49
6:CF:188:ARG:NE	6:CF:197:ARG:HB3	2.27	0.49
15:CO:25:LYS:HE2	15:CO:62:GLN:HA	1.94	0.49
17:CQ:7:VAL:HB	17:CQ:33:ILE:HD13	1.95	0.49
32:DF:11:GLU:OE2	32:DF:74:ARG:NH1	2.38	0.49
36:DJ:70:TYR:CE2	36:DJ:77:PRO:HD3	2.47	0.49
47:A:25:C:O2	82:A:2121:OHX:N6	2.45	0.49
47:A:78:A:N3	54:H:175:ILE:HG22	2.28	0.49
47:A:341:A:H1'	56:J:86:SER:O	2.12	0.49
47:A:592:A:H2'	47:A:593:U:O4'	2.11	0.49
47:A:855:A:C2	47:A:857:U:H1'	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:967:A:H2'	47:A:968:U:O4'	2.13	0.49
47:A:1056:U:H1'	47:A:1064:G:H22	1.77	0.49
47:A:1494:C:H2'	47:A:1495:C:C6	2.48	0.49
47:A:1572:G:OP1	47:A:1574:G:N2	2.42	0.49
48:B:57:LEU:CD2	48:B:176:LEU:HB2	2.43	0.49
53:G:199:ILE:HG13	53:G:200:ASN:H	1.77	0.49
54:H:70:PRO:HB3	54:H:101:ILE:O	2.11	0.49
62:P:92:LYS:NZ	74:b:70:LYS:O	2.45	0.49
63:Q:118:GLU:O	66:T:122:HIS:N	2.43	0.49
65:S:16:LEU:HD11	65:S:54:THR:HG21	1.94	0.49
80:h:238:ASP:OD2	80:h:258:THR:HG22	2.12	0.49
47:sR:324:U:O2'	59:c1:80:MET:SD	2.70	0.49
47:sR:710:U:H1'	47:sR:729:G:H22	1.77	0.49
47:sR:826:U:H2'	47:sR:827:C:C6	2.47	0.49
47:sR:1546:G:P	66:c8:127:HIS:HE2	2.35	0.49
48:s0:155:PHE:O	69:d1:60:ARG:NH2	2.45	0.49
55:s7:112:ARG:HD2	55:s7:112:ARG:C	2.37	0.49
56:s8:78:ILE:HA	56:s8:104:ILE:HG22	1.93	0.49
66:c8:121:ALA:O	66:c8:125:ILE:HG13	2.12	0.49
68:d0:115:GLU:HG2	68:d0:116:VAL:N	2.26	0.49
72:d4:11:LYS:HB3	72:d4:24:VAL:HG23	1.94	0.49
79:e1:123:ASN:HD22	79:e1:143:LYS:HZ3	1.60	0.49
1:1:406:G:H1'	3:4:16:G:N2	2.26	0.49
1:1:700:C:OP1	14:t:65:TYR:OH	2.22	0.49
1:1:1019:G:H5"	45:i:49:LYS:HB2	1.94	0.49
1:1:1093:A:N3	1:1:1096:U:N3	2.60	0.49
1:1:1764:U:H3'	1:1:1765:U:C4'	2.42	0.49
1:1:3350:C:O2'	1:1:3351:U:OP1	2.30	0.49
19:y:102:ALA:CB	19:y:127:LEU:HD12	2.42	0.49
21:0:12:ARG:NH1	21:0:15:PRO:HG3	2.19	0.49
28:AA:26:VAL:HG11	28:AA:96:VAL:HG11	1.93	0.49
44:AQ:38:ASP:HA	44:AQ:45:LYS:HA	1.94	0.49
1:AR:98:G:N7	14:CN:13:HIS:NE2	2.53	0.49
1:AR:938:C:O2'	1:AR:2814:G:O2'	2.31	0.49
1:AR:1182:A:OP2	21:CU:158:LYS:HD2	2.12	0.49
1:AR:1213:G:OP1	21:CU:139:TYR:OH	2.23	0.49
1:AR:1302:A:N1	1:AR:2832:C:O2'	2.42	0.49
1:AR:2767:U:H2'	1:AR:2768:U:C6	2.48	0.49
13:CM:22:SER:HA	13:CM:66:ALA:HB2	1.94	0.49
18:CR:155:GLU:O	18:CR:155:GLU:HG2	2.11	0.49
22:CV:57:TYR:OH	22:CV:87:LYS:HD2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:138:A:N6	47:A:266:A:H61	2.09	0.49
47:A:374:U:O2'	47:A:603:U:H5"	2.12	0.49
47:A:1591:C:H2'	47:A:1592:A:C8	2.47	0.49
82:A:2131:OHX:N4	54:H:155:ASP:OD1	2.46	0.49
48:B:184:LEU:HB3	69:W:45:ALA:HB2	1.95	0.49
69:W:12:TYR:CG	69:W:12:TYR:O	2.64	0.49
72:Z:89:TYR:O	72:Z:92:VAL:HG12	2.11	0.49
47:sR:836:U:H2'	47:sR:837:G:C8	2.47	0.49
47:sR:1294:G:O2'	47:sR:1321:A:N1	2.39	0.49
47:sR:1419:G:O4'	77:d9:56:ARG:HA	2.13	0.49
80:Rb:106:HIS:CE1	80:Rb:124:SER:HB2	2.47	0.49
49:s1:36:SER:H	49:s1:231:LEU:HD13	1.76	0.49
57:s9:117:GLY:O	57:s9:118:LEU:HB2	2.12	0.49
66:c8:100:THR:OG1	66:c8:104:ASN:O	2.24	0.49
68:d0:14:GLN:HG2	68:d0:15:GLN:H	1.77	0.49
1:1:627:U:H4'	1:1:1399:A:O2'	2.12	0.49
1:1:2317:A:OP2	82:1:3535[B]:OHX:N2	2.45	0.49
5:k:139:GLN:HG2	5:k:141:GLY:H	1.76	0.49
5:k:299:ASP:OD2	5:k:301:THR:HG22	2.12	0.49
27:9:116:LYS:HB2	27:9:126:LEU:HD11	1.94	0.49
35:AH:57:LEU:O	35:AH:62:TYR:HE1	1.95	0.49
1:AR:3135:U:OP1	17:CQ:148:LYS:NZ	2.44	0.49
11:CK:10:ILE:HG12	11:CK:72:LYS:HG2	1.94	0.49
11:CK:86:TYR:CD1	11:CK:151:VAL:HG22	2.47	0.49
11:CK:112:ILE:HB	11:CK:126:VAL:HG22	1.94	0.49
22:CV:17:ARG:HB3	22:CV:22:HIS:CE1	2.47	0.49
25:CY:47:ARG:HH11	25:CY:58:HIS:HB2	1.78	0.49
26:CZ:57:LEU:HD23	26:CZ:94:GLN:NE2	2.28	0.49
45:sM:77:THR:HG21	47:sR:1180:C:H5'	1.93	0.49
47:A:600:U:OP2	71:Y:108:GLY:HA2	2.12	0.49
47:A:955:A:H5"	61:O:10:GLY:HA3	1.93	0.49
47:A:1500:C:P	67:U:122:ARG:HH12	2.35	0.49
47:A:1515:A:H1'	47:A:1518:C:N4	2.27	0.49
48:B:27:ARG:HD2	48:B:45:VAL:HB	1.94	0.49
53:G:159:ALA:HB3	76:d:61:ARG:HH22	1.76	0.49
55:I:97:ARG:O	55:I:116:ARG:HB3	2.13	0.49
56:J:117:TYR:CE2	56:J:146:ARG:HG2	2.48	0.49
57:K:90:LYS:HD3	57:K:95:TYR:CG	2.46	0.49
63:Q:17:TYR:O	66:T:93:THR:HA	2.12	0.49
64:R:35:PRO:HD2	67:U:7:ARG:O	2.13	0.49
65:S:28:PHE:HA	65:S:55:THR:HG21	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:U:30:VAL:HA	67:U:54:PHE:HE2	1.77	0.49
73:a:84:GLU:CB	73:a:89:ILE:HD11	2.42	0.49
75:c:3:LEU:HD23	75:c:3:LEU:O	2.12	0.49
47:sR:93:A:C6	47:sR:398:G:C6	3.01	0.49
47:sR:1244:A:O2'	47:sR:1245:G:O5'	2.22	0.49
51:s3:58:VAL:O	51:s3:66:ILE:HG23	2.13	0.49
53:s5:176:THR:O	53:s5:180:ARG:HB2	2.12	0.49
55:s7:174:ASN:HD22	55:s7:174:ASN:C	2.21	0.49
57:s9:82:ARG:HE	57:s9:149:ARG:HG2	1.77	0.49
76:d8:25:VAL:HG23	76:d8:44:VAL:O	2.13	0.49
77:d9:31:ILE:HG22	77:d9:38:ILE:O	2.13	0.49
1:1:721:G:H2'	1:1:722:G:H8	1.78	0.49
1:1:1230:G:N2	1:1:1279:C:N3	2.52	0.49
1:1:1750:A:H4'	1:1:1751:G:H5'	1.93	0.49
1:1:1838:G:H4'	1:1:1839:A:N3	2.27	0.49
1:1:2223:A:O5'	37:AJ:71:LYS:NZ	2.46	0.49
1:1:3181:C:OP2	17:w:171:LYS:NZ	2.39	0.49
1:1:3356:G:H2'	1:1:3357:U:C6	2.47	0.49
7:m:104:LEU:HA	7:m:247:ILE:HG21	1.94	0.49
9:o:161:VAL:HG12	9:o:162:PRO:O	2.11	0.49
12:r:31:ILE:HG22	12:r:62:SER:HB2	1.95	0.49
12:r:193:ASP:HB3	12:r:196:PHE:O	2.13	0.49
13:s:37:LEU:HD12	13:s:67:VAL:HG12	1.95	0.49
17:w:7:VAL:HB	17:w:33:ILE:HD13	1.95	0.49
1:AR:172:G:H5'	1:AR:173:G:OP2	2.13	0.49
1:AR:306:A:C2	1:AR:2784:G:H1'	2.48	0.49
1:AR:583:G:OP1	82:CH:201:OHX:N1	2.46	0.49
1:AR:892:U:H2'	1:AR:893:C:O4'	2.12	0.49
1:AR:1380:G:OP1	6:CF:191:LYS:N	2.42	0.49
1:AR:2781:U:H4'	14:CN:185:LYS:HG3	1.94	0.49
2:AS:4:U:H2'	2:AS:5:G:H8	1.74	0.49
4:CD:49:VAL:HG22	4:CD:50:HIS:H	1.78	0.49
14:CN:136:GLU:HG2	14:CN:137:GLN:N	2.28	0.49
35:DI:97:GLU:O	35:DI:101:VAL:HG13	2.13	0.49
47:A:1235:C:H2'	47:A:1236:A:C8	2.47	0.49
47:A:1648:A:H2'	47:A:1649:G:H8	1.76	0.49
47:A:1739:C:H2'	47:A:1740:A:C8	2.46	0.49
47:A:1783:C:H2'	47:A:1784:C:C6	2.48	0.49
57:K:39:LYS:HG2	78:f:36:LYS:HE2	1.95	0.49
59:M:142:VAL:HG22	59:M:144:ALA:O	2.11	0.49
66:T:57:ARG:HD2	73:a:75:LEU:HD21	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:V:16:GLN:HB3	68:V:17:GLN:NE2	2.28	0.49
80:h:93:ASP:O	80:h:97:GLY:N	2.30	0.49
80:h:172:ALA:CB	80:h:202:LEU:HD12	2.34	0.49
80:h:242:SER:H	80:h:255:ALA:HB3	1.78	0.49
80:h:295:SER:OG	80:h:296:ALA:N	2.45	0.49
47:sR:1337:A:H5'	64:c6:123:ARG:HE	1.77	0.49
80:Rb:131:ILE:O	80:Rb:144:LEU:HB2	2.12	0.49
48:s0:60:ALA:O	48:s0:64:ILE:HG13	2.12	0.49
53:s5:112:ARG:HB2	64:c6:43:ILE:HD11	1.93	0.49
55:s7:78:THR:HB	55:s7:92:PHE:HE1	1.77	0.49
57:s9:108:ARG:HH21	57:s9:110:GLN:HG2	1.78	0.49
59:c1:55:ASP:OD2	59:c1:113:PRO:HD3	2.12	0.49
63:c5:13:LYS:HA	63:c5:13:LYS:HE2	1.93	0.49
66:c8:126:ARG:HD3	66:c8:132:ARG:O	2.12	0.49
70:d2:30:SER:HB3	70:d2:59:GLY:HA3	1.93	0.49
71:d3:126:LYS:CB	71:d3:131:SER:H	2.24	0.49
1:1:230:U:H2'	1:1:231:G:O4'	2.11	0.49
1:1:290:G:H5"	16:v:98:LEU:HD13	1.95	0.49
1:1:1706:C:H2'	1:1:1707:A:O4'	2.11	0.49
10:p:173:MET:HE3	37:AJ:39:PHE:CZ	2.47	0.49
1:AR:2854:U:O3'	12:CL:160:PRO:HB3	2.12	0.49
1:AR:2854:U:P	12:CL:3:ARG:HH22	2.35	0.49
4:CD:29:LEU:HA	4:CD:76:PHE:HE1	1.76	0.49
4:CD:40:TYR:HA	4:CD:90:ALA:O	2.12	0.49
5:CE:261:MET:HE3	17:CQ:63:ALA:O	2.12	0.49
6:CF:118:LYS:O	6:CF:122:THR:HG23	2.13	0.49
12:CL:30:LYS:HG3	12:CL:63:GLU:HG3	1.93	0.49
12:CL:71:CYS:SG	12:CL:154:ARG:HG2	2.53	0.49
14:CN:153:ASP:OD1	14:CN:157:ARG:NH1	2.45	0.49
19:CS:176:ARG:HA	19:CS:182:LYS:O	2.12	0.49
21:CU:143:PHE:HA	21:CU:148:LEU:HD22	1.95	0.49
27:DA:36:SER:HB3	27:DA:106:ILE:O	2.12	0.49
43:DQ:53:GLN:NE2	43:DQ:55:LYS:H	2.11	0.49
47:A:249:U:H3'	47:A:250:C:H5'	1.95	0.49
47:A:973:A:H2'	47:A:974:A:C8	2.46	0.49
47:A:1600:A:HO2'	47:A:1602:C:N4	2.10	0.49
53:G:63:GLN:HE22	53:G:66:GLN:NE2	2.11	0.49
59:M:75:VAL:HG12	59:M:121:ASP:O	2.13	0.49
61:O:3:ARG:CG	61:O:6:SER:HB2	2.43	0.49
63:Q:68:PRO:CG	63:Q:71:GLU:HB3	2.41	0.49
68:V:27:THR:HA	68:V:88:LYS:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:h:6:VAL:HG22	80:h:7:LEU:H	1.76	0.49
80:h:7:LEU:HB3	80:h:313:TRP:HB3	1.94	0.49
80:h:72:THR:HG22	80:h:115:ILE:HG13	1.95	0.49
47:sR:39:A:OP1	57:s9:6:ARG:NH1	2.45	0.49
47:sR:71:A:N6	54:s6:169:TYR:OH	2.44	0.49
47:sR:1067:C:H2'	47:sR:1068:C:C6	2.46	0.49
47:sR:1324:G:O5'	47:sR:1324:G:H8	1.95	0.49
52:s4:128:LYS:HB2	52:s4:140:VAL:CG1	2.42	0.49
55:s7:101:LYS:HA	55:s7:112:ARG:NH2	2.27	0.49
64:c6:55:VAL:HG21	64:c6:105:LEU:HD12	1.93	0.49
1:1:77:A:H5'	14:t:100:ARG:NH1	2.27	0.49
1:1:748:U:H2'	1:1:749:C:C6	2.48	0.49
1:1:1861:G:N7	82:1:4091:OHX:N3	2.60	0.49
1:1:1915:A:H2'	1:1:1916:U:C6	2.48	0.49
1:1:2245:C:H4'	4:j:221:LYS:O	2.12	0.49
1:1:2407:C:H1'	1:1:2818:U:C2	2.47	0.49
1:1:2534:G:N2	1:1:2545:C:N3	2.44	0.49
1:1:2747:A:OP1	82:1:3481:OHX:N6	2.45	0.49
2:3:7:G:O3'	7:m:33:ARG:NH2	2.46	0.49
3:4:70:G:O6	82:AK:102:OHX:N2	2.46	0.49
5:k:92:TYR:O	5:k:155:ALA:HA	2.13	0.49
6:l:145:ILE:O	82:l:405:OHX:N2	2.46	0.49
8:n:146:ILE:HG22	8:n:150:LYS:HE3	1.95	0.49
10:p:134:TYR:CD1	10:p:190:VAL:HG11	2.48	0.49
15:u:72:LEU:HD11	15:u:81:VAL:HG22	1.94	0.49
22:2:71:SER:HB2	22:2:91:LEU:O	2.13	0.49
29:AB:104:THR:HG21	29:AB:112:ILE:HD11	1.93	0.49
35:AH:38:LEU:H	35:AH:38:LEU:HD12	1.77	0.49
35:AH:98:GLN:O	35:AH:101:VAL:HG12	2.12	0.49
1:AR:308:A:H5'	1:AR:2223:A:O2'	2.13	0.49
1:AR:550:A:H2'	1:AR:551:A:C8	2.48	0.49
1:AR:981:U:H2'	1:AR:982:C:O4'	2.11	0.49
1:AR:1018:G:C2	1:AR:1019:G:H1'	2.48	0.49
1:AR:1029:G:H2'	1:AR:1030:A:H8	1.76	0.49
1:AR:1110:U:O4	82:AR:3489:OHX:N3	2.46	0.49
1:AR:1779:C:N3	82:AR:3504:OHX:N1	2.61	0.49
1:AR:2746:A:H2'	1:AR:2747:A:O4'	2.12	0.49
1:AR:3321:C:H2'	1:AR:3322:A:C8	2.47	0.49
86:AR:4205:X1K:C12	43:DQ:56:PRO:HB2	2.43	0.49
3:AT:10:A:H2'	3:AT:11:C:C6	2.48	0.49
5:CE:261:MET:O	5:CE:264:VAL:HG12	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:46:ILE:HG23	14:CN:49:ARG:NH2	2.27	0.49
14:CN:155:GLU:HB3	29:DC:90:TYR:OH	2.13	0.49
21:CU:73:LYS:HE2	21:CU:75:PHE:HZ	1.78	0.49
22:CV:79:MET:HB2	22:CV:84:TYR:CE1	2.48	0.49
35:DI:80:ARG:HE	35:DI:88:ARG:NH2	2.11	0.49
47:A:916:U:OP2	82:A:2137:OHX:N4	2.45	0.49
47:A:1335:U:H3	47:A:1416:G:H1	1.60	0.49
47:A:1468:U:O2'	47:A:1542:G:OP1	2.22	0.49
47:A:1642:G:H2'	47:A:1643:U:C6	2.48	0.49
49:C:86:LEU:HD23	49:C:98:THR:HG23	1.94	0.49
56:J:54:LYS:HD2	56:J:175:GLN:HB3	1.95	0.49
56:J:156:VAL:HA	56:J:159:GLN:HE21	1.78	0.49
62:P:101:ALA:O	62:P:105:LEU:HG	2.12	0.49
63:Q:44:ARG:CD	63:Q:84:ILE:HD11	2.43	0.49
70:X:66:ASN:OD1	70:X:67:GLY:N	2.38	0.49
47:sR:400:A:C2	56:s8:26:LYS:HE2	2.48	0.49
47:sR:1628:U:H2'	47:sR:1629:G:C8	2.47	0.49
47:sR:1688:U:H2'	47:sR:1689:A:C8	2.48	0.49
50:s2:87:GLN:HA	50:s2:95:ARG:O	2.13	0.49
50:s2:225:LEU:CD2	50:s2:230:TRP:CD1	2.96	0.49
52:s4:21:ASP:OD1	52:s4:24:SER:OG	2.26	0.49
52:s4:175:PHE:HE1	52:s4:198:LYS:HD3	1.78	0.49
55:s7:51:VAL:HG22	55:s7:55:LYS:O	2.13	0.49
66:c8:41:ARG:NH2	67:c9:46:PRO:HG3	2.28	0.49
75:d7:56:CYS:CB	75:d7:59:CYS:HB2	2.36	0.49
1:1:1699:A:H2'	1:1:1700:G:C8	2.46	0.49
3:4:15:G:OP2	82:4:204:OHX:N4	2.45	0.49
10:p:108:ARG:O	10:p:112:GLU:HG2	2.13	0.49
12:r:69:ARG:HG3	12:r:70:ILE:N	2.28	0.49
13:s:106:ILE:CD1	13:s:112:LEU:HD21	2.42	0.49
18:x:60:PHE:CE1	18:x:82:ARG:HB2	2.47	0.49
24:6:89:ASP:OD1	24:6:91:VAL:HG22	2.12	0.49
25:7:45:ASN:HB3	25:7:48:ARG:HG3	1.95	0.49
31:AD:16:LEU:HB3	31:AD:98:SER:OG	2.12	0.49
37:AJ:43:LEU:O	37:AJ:47:ILE:HG13	2.12	0.49
1:AR:1306:G:O2'	1:AR:1307:G:H5"	2.13	0.49
1:AR:1419:A:H5"	6:CF:193:LYS:HZ2	1.77	0.49
1:AR:1603:A:N6	26:CZ:71:THR:HG21	2.16	0.49
1:AR:1661:G:H2'	1:AR:1662:G:C8	2.47	0.49
1:AR:2508:U:H2'	1:AR:2509:U:C6	2.48	0.49
1:AR:2662:G:H2'	1:AR:2663:G:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2821:C:N4	1:AR:2869:U:H3	2.10	0.49
1:AR:3147:G:H4'	5:CE:102:LEU:C	2.38	0.49
2:AS:119:U:H2'	2:AS:120:C:C6	2.48	0.49
6:CF:205:PRO:HD2	6:CF:225:VAL:HG22	1.95	0.49
7:CG:243:ALA:O	7:CG:247:ILE:HG13	2.12	0.49
7:CG:259:LYS:O	7:CG:265:TYR:HE1	1.96	0.49
9:CI:84:VAL:HG12	9:CI:138:TYR:CD1	2.47	0.49
14:CN:8:PRO:HA	19:CS:164:ARG:O	2.13	0.49
17:CQ:18:ARG:O	17:CQ:22:VAL:HG13	2.12	0.49
44:DR:49:ARG:NH1	44:DR:52:ALA:HB2	2.28	0.49
45:sM:74:LYS:HD3	45:sM:75:ASP:N	2.27	0.49
47:A:1610:G:P	64:R:75:VAL:HG11	2.52	0.49
48:B:38:PHE:HB2	48:B:49:ASN:HB2	1.94	0.49
48:B:181:VAL:HG13	48:B:182:LEU:HG	1.94	0.49
49:C:189:ILE:HG13	49:C:190:PRO:CD	2.42	0.49
64:R:37:THR:C	64:R:38:LEU:HD12	2.38	0.49
68:V:33:GLN:O	68:V:37:VAL:HG22	2.13	0.49
70:X:22:LYS:HA	75:c:3:LEU:HA	1.95	0.49
73:a:91:PRO:HB3	73:a:101:TYR:CE2	2.48	0.49
76:d:13:ILE:HG13	76:d:14:LYS:H	1.78	0.49
47:sR:591:A:H2'	47:sR:592:A:C8	2.48	0.49
47:sR:636:A:H5"	70:d2:31:SER:HB2	1.95	0.49
47:sR:1516:A:H8	68:d0:58:LEU:HD23	1.77	0.49
80:Rb:38:ARG:C	80:Rb:40:LYS:H	2.21	0.49
48:s0:15:GLN:HB2	81:c7:100:LEU:HD11	1.95	0.49
48:s0:26:ALA:HB3	48:s0:149:LEU:HB2	1.93	0.49
48:s0:66:ALA:HB2	69:d1:37:ALA:H	1.78	0.49
51:s3:40:ARG:HB3	51:s3:47:GLU:HB2	1.94	0.49
52:s4:106:LYS:O	52:s4:108:ARG:NH1	2.46	0.49
68:d0:36:ASN:OD1	68:d0:37:VAL:N	2.45	0.49
71:d3:23:ARG:HG2	71:d3:29:TYR:CE1	2.48	0.49
1:1:129:U:H2'	1:1:130:A:C8	2.47	0.49
1:1:262:U:H2'	1:1:263:C:O4'	2.13	0.49
1:1:1306:G:O2'	1:1:1307:G:H5"	2.11	0.49
1:1:1336:U:H2'	1:1:1337:A:H8	1.78	0.49
1:1:1803:C:O2'	35:AH:70:LYS:HD2	2.12	0.49
1:1:2658:G:OP2	82:1:3411:OHX:N5	2.45	0.49
1:1:2673:A:H5"	13:s:95:ASN:ND2	2.28	0.49
1:1:3200:G:O6	82:1:4107:OHX:N3	2.46	0.49
3:4:136:G:N7	82:4:228:OHX:N6	2.59	0.49
7:m:146:LEU:HD22	7:m:163:LEU:HD13	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:y:24:VAL:HA	19:y:27:LYS:HE3	1.94	0.49
22:2:39:ILE:HD11	22:2:102:ARG:HD2	1.95	0.49
27:9:112:ASP:H	27:9:115:ARG:HB3	1.78	0.49
45:i:58:GLU:OE2	66:T:120:ARG:NH1	2.45	0.49
1:AR:7:C:H2'	1:AR:8:C:C6	2.48	0.49
1:AR:86:G:C6	14:CN:13:HIS:CD2	3.00	0.49
1:AR:841:A:H4'	20:CT:126:GLU:HA	1.94	0.49
1:AR:1032:C:H2'	1:AR:1033:U:C6	2.47	0.49
1:AR:1277:C:H2'	1:AR:1278:A:C8	2.48	0.49
1:AR:2534:G:HO2'	1:AR:2535:A:H8	1.59	0.49
26:CZ:88:MET:HE3	26:CZ:88:MET:HB3	1.74	0.49
29:DC:60:TYR:CD2	29:DC:63:LYS:HD2	2.47	0.49
32:DF:75:ILE:HG23	32:DF:93:VAL:HG22	1.95	0.49
33:DG:25:TYR:HB2	33:DG:28:VAL:HG23	1.94	0.49
47:A:17:C:O2'	47:A:1137:A:N1	2.34	0.49
47:A:208:U:H4'	56:J:176:SER:HB3	1.94	0.49
47:A:372:G:OP2	82:A:2144:OHX:N2	2.46	0.49
47:A:542:A:N7	47:A:544:A:H5'	2.27	0.49
47:A:835:U:OP1	82:A:1969:OHX:N2	2.45	0.49
47:A:856:A:N6	55:I:96:ARG:HB3	2.28	0.49
47:A:897:C:H42	47:A:914:G:H2'	1.78	0.49
47:A:927:C:H1'	62:P:125:SER:CB	2.42	0.49
47:A:1532:U:O4	73:a:97:LYS:NZ	2.46	0.49
51:E:134:CYS:SG	51:E:135:GLU:N	2.86	0.49
52:F:252:ARG:HA	52:F:255:ARG:HB3	1.95	0.49
54:H:6:SER:HB2	54:H:112:VAL:HG12	1.95	0.49
54:H:32:ILE:HG22	54:H:65:GLN:HG3	1.94	0.49
54:H:199:GLN:HA	54:H:202:ARG:HB3	1.93	0.49
64:R:32:ASN:HA	64:R:68:ARG:HD3	1.94	0.49
71:Y:130:VAL:HG11	71:Y:143:PRO:HD3	1.94	0.49
75:c:10:PRO:HG2	75:c:15:GLU:OE2	2.12	0.49
47:sR:5:U:H2'	47:sR:6:G:H8	1.78	0.49
49:s1:26:ARG:HB2	49:s1:50:LYS:HG2	1.94	0.49
63:c5:22:LEU:HA	63:c5:25:LEU:HD12	1.95	0.49
71:d3:86:PHE:HB2	71:d3:120:VAL:HG11	1.95	0.49
1:1:361:A:O3'	38:AK:45:ARG:NH2	2.43	0.49
1:1:659:G:H4'	6:l:92:ASN:O	2.13	0.49
1:1:668:G:OP1	82:1:3586:OHX:N6	2.46	0.49
1:1:1019:G:N7	82:1:3546:OHX:N4	2.60	0.49
1:1:1128:U:P	12:r:4:ARG:HH12	2.36	0.49
1:1:1144:U:H1'	1:1:1145:G:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1364:C:OP1	9:o:110:ARG:NH2	2.46	0.49
1:1:2622:C:N4	12:r:116:ARG:HH12	2.11	0.49
1:1:3060:C:H2'	1:1:3061:G:H8	1.75	0.49
1:1:3160:U:H2'	1:1:3161:C:C6	2.48	0.49
1:1:3306:U:H2'	1:1:3307:A:H5"	1.94	0.49
1:1:3380:U:H2'	1:1:3381:U:C6	2.47	0.49
15:u:28:SER:HB3	15:u:53:VAL:HG22	1.95	0.49
23:5:17:VAL:HG13	23:5:63:VAL:HB	1.95	0.49
44:AQ:56:THR:HG22	44:AQ:63:THR:HG23	1.95	0.49
1:AR:977:C:OP1	19:CS:141:ARG:NH2	2.37	0.49
1:AR:1334:U:H5"	9:CI:206:LYS:HB3	1.94	0.49
1:AR:1818:U:H2'	1:AR:1819:U:O4'	2.12	0.49
1:AR:1934:G:N7	82:AR:3416:OHX:N4	2.61	0.49
1:AR:2900:A:N3	1:AR:3025:C:O2'	2.41	0.49
5:CE:60:LEU:HD11	5:CE:62:ARG:HB2	1.95	0.49
14:CN:165:SER:C	14:CN:167:PHE:H	2.21	0.49
17:CQ:35:VAL:HG11	17:CQ:80:PHE:CE2	2.48	0.49
24:CX:13:ILE:HD13	24:CX:54:LEU:HB3	1.94	0.49
27:DA:53:ASP:HB2	27:DA:110:HIS:CD2	2.48	0.49
28:DB:46:ILE:HD11	28:DB:48:ARG:C	2.38	0.49
40:DN:21:ARG:CZ	40:DN:24:PRO:HG3	2.43	0.49
45:sM:62:ARG:HB3	45:sM:62:ARG:CZ	2.42	0.49
47:A:102:U:O4	47:A:360:A:H2'	2.13	0.49
47:A:144:U:O2'	47:A:145:A:H8	1.95	0.49
47:A:286:C:H41	54:H:186:ARG:HH12	1.61	0.49
47:A:472:U:H2'	47:A:473:A:C8	2.48	0.49
47:A:647:G:H2'	47:A:648:G:H8	1.78	0.49
47:A:686:C:H2'	47:A:687:G:C8	2.48	0.49
47:A:719:U:OP1	47:A:720:G:N1	2.46	0.49
47:A:1182:U:O2	47:A:1184:A:H8	1.95	0.49
47:A:1191:U:H5'	64:R:143:ARG:NH1	2.28	0.49
47:A:1445:G:C6	79:g:91:ILE:HB	2.48	0.49
47:A:1636:C:O2	47:A:1765:A:N6	2.46	0.49
49:C:126:THR:HA	49:C:135:LEU:O	2.13	0.49
53:G:51:VAL:HG12	53:G:131:GLN:HB2	1.95	0.49
57:K:62:ARG:HD3	57:K:69:ARG:HB2	1.95	0.49
60:N:138:GLU:O	60:N:142:GLN:HB3	2.12	0.49
66:T:32:LEU:HD21	66:T:43:SER:HB2	1.93	0.49
80:h:169:ILE:HG12	80:h:181:TRP:HB2	1.95	0.49
47:sR:4:C:OP1	50:s2:200:SER:OG	2.21	0.49
47:sR:603:U:H2'	47:sR:604:A:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:915:A:OP1	82:sR:1927:OHX:N6	2.46	0.49
47:sR:1305:U:O2	82:sR:1933:OHX:N4	2.46	0.49
80:Rb:20:VAL:HG21	80:Rb:310:ILE:HG12	1.95	0.49
80:Rb:143:THR:CG2	80:Rb:144:LEU:N	2.76	0.49
48:s0:34:GLU:N	48:s0:35:PRO:HD2	2.28	0.49
51:s3:17:PHE:CE2	51:s3:21:LEU:HD11	2.48	0.49
52:s4:185:GLY:HA3	52:s4:224:ASN:CG	2.38	0.49
53:s5:43:PHE:O	53:s5:44:ASN:C	2.55	0.49
53:s5:134:VAL:O	53:s5:138:THR:HG23	2.13	0.49
54:s6:166:GLU:OE1	54:s6:166:GLU:N	2.45	0.49
63:c5:110:GLU:OE1	63:c5:110:GLU:N	2.41	0.49
81:c7:109:LEU:O	81:c7:113:LEU:HG	2.13	0.49
1:1:728:G:H5'	19:y:47:VAL:HG21	1.94	0.48
1:1:1125:U:O2'	1:1:2643:A:N1	2.38	0.48
6:l:98:ARG:HG2	6:l:99:MET:O	2.12	0.48
10:p:45:ASN:HB2	26:8:26:VAL:HG23	1.95	0.48
11:q:137:SER:HB2	11:q:145:VAL:HG23	1.94	0.48
13:s:91:LEU:HD12	13:s:163:PHE:CE2	2.48	0.48
19:y:94:PHE:CE2	29:AB:119:PRO:HD3	2.48	0.48
31:AD:21:GLY:HA3	31:AD:94:GLU:O	2.13	0.48
1:AR:29:C:H4'	1:AR:62:A:H4'	1.94	0.48
1:AR:596:C:N3	1:AR:608:A:O2'	2.42	0.48
1:AR:1336:U:H2'	1:AR:1337:A:C8	2.46	0.48
1:AR:1438:U:OP1	6:CF:76:ARG:NH2	2.46	0.48
1:AR:1485:G:N2	35:DI:4:ARG:HD2	2.28	0.48
1:AR:2943:G:O5'	1:AR:2943:G:H8	1.96	0.48
5:CE:56:ILE:HD11	5:CE:359:ILE:HG12	1.95	0.48
8:CH:56:LYS:HG2	8:CH:57:HIS:N	2.28	0.48
8:CH:142:ASP:O	8:CH:146:ILE:HG13	2.13	0.48
11:CK:21:LYS:O	11:CK:22:SER:C	2.56	0.48
15:CO:27:GLN:CD	15:CO:27:GLN:H	2.21	0.48
18:CR:128:ARG:NH2	18:CR:130:TYR:OH	2.46	0.48
37:DK:76:ARG:NE	37:DK:76:ARG:HA	2.28	0.48
37:DK:80:PHE:O	37:DK:84:LYS:HG3	2.13	0.48
47:A:327:U:O2'	59:M:10:GLU:HG2	2.13	0.48
47:A:448:C:H42	47:A:458:G:H1	1.61	0.48
47:A:521:A:H1'	72:Z:34:ASN:OD1	2.12	0.48
47:A:523:G:H5"	72:Z:59:GLY:O	2.12	0.48
47:A:1611:A:O2'	53:G:95:ASN:O	2.30	0.48
47:A:1701:A:H3'	47:A:1702:A:H5"	1.94	0.48
50:D:207:LEU:HA	50:D:210:THR:CG2	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:E:211:PRO:HG3	65:S:20:TYR:CZ	2.48	0.48
52:F:211:LYS:HD2	52:F:212:ASP:O	2.13	0.48
56:J:70:GLU:OE2	59:M:24:LYS:NZ	2.40	0.48
65:S:31:ASN:ND2	65:S:55:THR:HG22	2.28	0.48
67:U:19:ALA:O	67:U:23:GLN:HB2	2.13	0.48
67:U:135:ILE:O	67:U:139:THR:HG23	2.12	0.48
71:Y:101:GLU:O	71:Y:128:SER:N	2.46	0.48
73:a:66:VAL:HG22	73:a:71:ILE:O	2.12	0.48
80:h:90:ARG:HE	80:h:99:THR:CG2	2.25	0.48
80:h:110:VAL:HA	80:h:126:SER:CB	2.43	0.48
47:sR:329:G:H2'	47:sR:330:G:H8	1.78	0.48
47:sR:1065:A:OP1	82:s1:301:OHX:N6	2.45	0.48
47:sR:1620:C:H2'	47:sR:1621:U:C6	2.48	0.48
49:s1:144:ARG:HB3	49:s1:206:PRO:CB	2.43	0.48
66:c8:52:VAL:HG22	66:c8:61:LEU:HD11	1.94	0.48
68:d0:82:TYR:HB3	77:d9:52:PHE:HB3	1.94	0.48
1:1:625:G:H2'	1:1:626:U:C6	2.48	0.48
1:1:1130:A:N6	12:r:115:MET:HE1	2.24	0.48
1:1:1901:A:O2'	24:6:49:LEU:HD21	2.13	0.48
1:1:2115:G:H4'	20:z:79:GLY:O	2.13	0.48
1:1:2244:A:H5"	4:j:243:THR:OG1	2.12	0.48
1:1:2402:A:OP2	82:1:3567:OHX:N3	2.46	0.48
1:1:2902:A:H2'	1:1:2903:A:O4'	2.12	0.48
1:1:3193:C:H2'	1:1:3194:C:O4'	2.13	0.48
9:o:77:VAL:HG12	21:0:59:VAL:O	2.13	0.48
11:q:16:VAL:HG12	11:q:29:GLY:CA	2.44	0.48
14:t:119:TYR:O	14:t:123:ILE:HG23	2.13	0.48
16:v:99:ARG:HD3	16:v:167:THR:HB	1.95	0.48
16:v:120:TRP:HZ2	16:v:123:GLN:HG2	1.78	0.48
19:y:67:ILE:HD12	19:y:81:VAL:HG21	1.95	0.48
26:8:45:LYS:HG3	36:AI:75:TYR:HD2	1.77	0.48
45:i:172:ALA:HB3	60:N:55:GLY:H	1.78	0.48
1:AR:1682:U:O2	23:CW:82:LYS:HG2	2.14	0.48
1:AR:1746:U:H2'	1:AR:1747:G:O4'	2.13	0.48
1:AR:1794:G:H4'	4:CD:191:LEU:HD13	1.94	0.48
1:AR:3159:C:H4'	1:AR:3395:G:C5	2.48	0.48
1:AR:3316:A:OP1	1:AR:3318:G:N2	2.46	0.48
2:AS:64:A:N1	12:CL:202:LYS:HD2	2.28	0.48
5:CE:219:ALA:HB2	5:CE:336:VAL:HG22	1.96	0.48
5:CE:286:GLY:HA3	5:CE:321:PHE:CZ	2.48	0.48
6:CF:302:ALA:HB2	19:CS:39:ARG:CZ	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:37:VAL:HG13	7:CG:67:SER:OG	2.13	0.48
11:CK:93:VAL:O	11:CK:177:ASP:HA	2.13	0.48
13:CM:62:ASN:O	43:DQ:103:ALA:HB2	2.13	0.48
16:CP:183:THR:OG1	16:CP:183:THR:O	2.30	0.48
22:CV:106:LEU:HA	22:CV:109:VAL:HG12	1.95	0.48
32:DF:15:ASN:O	32:DF:19:ARG:HD2	2.13	0.48
34:DH:48:ARG:HH22	34:DH:86:ARG:NH2	2.10	0.48
39:DM:10:GLN:O	39:DM:13:GLU:HG2	2.13	0.48
43:DQ:104:LEU:H	43:DQ:104:LEU:HD23	1.79	0.48
46:p0:41:VAL:O	46:p0:45:LEU:HB2	2.13	0.48
47:A:236:A:H2'	47:A:237:C:O4'	2.11	0.48
47:A:417:A:H5'	47:A:418:G:C4	2.47	0.48
47:A:834:G:H2'	47:A:835:U:C6	2.48	0.48
47:A:1330:G:H2'	47:A:1331:A:O4'	2.13	0.48
47:A:1488:G:H3'	47:A:1515:A:H61	1.78	0.48
52:F:180:LEU:HD23	52:F:234:PRO:HA	1.95	0.48
58:L:32:HIS:HB3	58:L:35:ILE:HB	1.95	0.48
71:Y:125:VAL:HG23	71:Y:126:LYS:HG3	1.95	0.48
47:sR:12:U:H1'	47:sR:1300:A:N3	2.28	0.48
47:sR:206:A:OP2	82:sR:1985:OHX:N6	2.46	0.48
47:sR:249:U:H3'	47:sR:250:C:H5'	1.95	0.48
47:sR:329:G:H2'	47:sR:330:G:C8	2.48	0.48
47:sR:1534:G:P	73:d5:74:SER:HG	2.35	0.48
50:s2:229:LEU:O	69:d1:16:LYS:NZ	2.34	0.48
51:s3:74:GLN:NE2	51:s3:81:PRO:HD3	2.28	0.48
52:s4:62:LYS:NZ	52:s4:78:THR:O	2.46	0.48
52:s4:182:TYR:HD1	52:s4:183:VAL:H	1.60	0.48
54:s6:98:ARG:HD2	54:s6:99:GLY:H	1.78	0.48
55:s7:64:VAL:HG12	55:s7:65:PRO:HD3	1.95	0.48
59:c1:16:GLN:HB2	59:c1:19:ILE:HG12	1.94	0.48
60:c2:32:LEU:O	60:c2:101:ALA:HA	2.13	0.48
60:c2:48:SER:O	60:c2:52:LEU:HB2	2.13	0.48
64:c6:10:PHE:O	64:c6:87:LYS:HD3	2.13	0.48
67:c9:15:ILE:HD11	67:c9:63:ARG:HH11	1.77	0.48
1:1:83:U:H2'	1:1:84:U:O4'	2.13	0.48
1:1:289:A:H2'	1:1:290:G:H8	1.77	0.48
1:1:2255:A:OP1	82:1:3455:OHX:N3	2.46	0.48
1:1:2862:U:H2'	1:1:2863:G:O4'	2.13	0.48
82:1:4114[A]:OHX:N1	2:3:86:U:O2	2.46	0.48
5:k:123:TYR:CZ	5:k:124:LYS:HG3	2.48	0.48
6:l:361:HIS:O	21:0:28:ARG:NH1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:t:70:ARG:HG2	14:t:71:ALA:N	2.28	0.48
16:v:18:VAL:HG13	16:v:19:LEU:H	1.78	0.48
18:x:111:LYS:O	18:x:153:LYS:N	2.38	0.48
22:2:14:MET:HE1	22:2:55:LYS:CB	2.43	0.48
22:2:106:LEU:O	22:2:109:VAL:HG12	2.13	0.48
38:AK:54:LYS:O	38:AK:58:THR:HG23	2.13	0.48
1:AR:563:U:H2'	1:AR:564:G:C8	2.48	0.48
1:AR:627:U:H4'	1:AR:1399:A:H1'	1.95	0.48
1:AR:791:A:N7	82:AR:3653:OHX:N6	2.60	0.48
1:AR:1940:G:N2	1:AR:3362:A:H8	2.11	0.48
1:AR:3385:U:H2'	1:AR:3386:G:C8	2.48	0.48
4:CD:145:LYS:HA	4:CD:159:SER:HA	1.95	0.48
8:CH:108:LYS:H	8:CH:108:LYS:HD2	1.77	0.48
10:CJ:116:VAL:HA	10:CJ:121:SER:CB	2.43	0.48
10:CJ:203:VAL:HG11	10:CJ:211:LEU:HD21	1.95	0.48
14:CN:145:PHE:HE2	36:DJ:118:ILE:HG21	1.78	0.48
20:CT:184:LEU:HD22	55:s7:7:LYS:NZ	2.28	0.48
22:CV:17:ARG:HB3	22:CV:22:HIS:NE2	2.28	0.48
47:A:1570:A:H2'	47:A:1571:C:O4'	2.13	0.48
48:B:175:TYR:O	48:B:179:ARG:N	2.46	0.48
49:C:82:ARG:HB3	49:C:103:MET:HE3	1.95	0.48
54:H:138:ALA:N	54:H:175:ILE:HD11	2.29	0.48
56:J:38:ILE:HA	56:J:60:ILE:O	2.13	0.48
67:U:35:ASP:OD1	67:U:35:ASP:N	2.46	0.48
68:V:56:VAL:HG11	68:V:90:TYR:CZ	2.47	0.48
72:Z:28:LEU:HD12	72:Z:67:GLY:O	2.14	0.48
79:g:126:CYS:SG	79:g:130:VAL:HG21	2.52	0.48
47:sR:463:U:H2'	47:sR:464:A:C8	2.49	0.48
47:sR:1132:A:OP1	71:d3:30:LYS:NZ	2.43	0.48
47:sR:1230:A:H8	47:sR:1258:U:C6	2.31	0.48
47:sR:1565:C:O2	66:c8:87:ASN:HA	2.14	0.48
53:s5:70:VAL:HG13	64:c6:46:PHE:HB2	1.96	0.48
64:c6:22:VAL:HA	64:c6:64:ASP:O	2.13	0.48
1:1:1210:U:OP1	11:q:62:ARG:NH1	2.46	0.48
1:1:1394:A:N6	1:1:1416:C:O2'	2.41	0.48
1:1:1812:G:O6	28:AA:64:LYS:HE3	2.13	0.48
1:1:2510:U:O2'	1:1:2511:A:H8	1.96	0.48
1:1:2574:G:OP2	28:AA:56:LYS:HE3	2.14	0.48
2:3:94:C:H2'	2:3:95:A:H8	1.77	0.48
9:o:39:GLU:O	9:o:43:ILE:HG13	2.12	0.48
12:r:31:ILE:HB	12:r:66:GLU:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:6:90:GLY:O	25:7:16:GLY:HA2	2.13	0.48
27:9:106:ILE:HG21	27:9:109:LEU:HD23	1.95	0.48
32:AE:20:LEU:HD22	32:AE:67:VAL:HG21	1.95	0.48
35:AH:7:PHE:HD1	35:AH:34:HIS:HE1	1.60	0.48
41:AN:99:CYS:HB3	41:AN:115:CYS:HB3	1.95	0.48
43:AP:11:TYR:N	43:AP:20:HIS:HD2	2.11	0.48
1:AR:59:G:H2'	3:AT:33:A:O2'	2.13	0.48
1:AR:2395:G:N7	89:AR:4323:HOH:O	2.35	0.48
1:AR:2923:U:O4	82:AR:3559:OHX:N4	2.46	0.48
2:AS:23:A:H2'	2:AS:24:A:C8	2.47	0.48
4:CD:41:ILE:HG12	4:CD:63:PHE:HD2	1.79	0.48
10:CJ:160:ILE:O	10:CJ:164:VAL:HG13	2.13	0.48
13:CM:53:THR:HG23	13:CM:59:ILE:O	2.13	0.48
14:CN:45:LYS:O	14:CN:45:LYS:HG2	2.12	0.48
14:CN:55:ARG:NH1	14:CN:73:ARG:O	2.46	0.48
29:DC:43:ILE:O	29:DC:47:LYS:HB3	2.13	0.48
32:DF:13:THR:HG21	32:DF:104:LEU:O	2.14	0.48
44:DR:47:VAL:HA	44:DR:57:CYS:HA	1.95	0.48
47:A:5:U:H2'	47:A:6:G:C8	2.49	0.48
47:A:649:U:O2'	47:A:650:U:O5'	2.30	0.48
47:A:864:U:H5	75:c:22:LYS:HG2	1.79	0.48
47:A:890:C:H2'	47:A:891:A:C8	2.49	0.48
47:A:1140:G:OP2	82:A:2117:OHX:N3	2.46	0.48
47:A:1449:U:H2'	47:A:1450:U:C6	2.48	0.48
55:I:104:ARG:H	55:I:104:ARG:HD2	1.77	0.48
59:M:43:LYS:HG3	59:M:141:LYS:HZ1	1.77	0.48
60:N:32:LEU:HB3	60:N:41:LEU:HD11	1.95	0.48
67:U:37:VAL:HG11	67:U:100:ILE:CD1	2.44	0.48
68:V:39:SER:O	68:V:42:VAL:HG12	2.13	0.48
80:h:131:ILE:HB	80:h:144:LEU:HB2	1.94	0.48
47:sR:121:U:O2'	52:s4:33:ALA:O	2.26	0.48
47:sR:434:G:O6	82:sR:1938:OHX:N2	2.46	0.48
47:sR:603:U:H2'	47:sR:604:A:H8	1.78	0.48
47:sR:866:G:H5"	61:c3:2:GLY:O	2.14	0.48
47:sR:1405:G:H2'	47:sR:1406:A:C8	2.48	0.48
48:s0:169:SER:OG	48:s0:169:SER:O	2.29	0.48
51:s3:64:ARG:HG3	51:s3:65:ARG:H	1.78	0.48
53:s5:72:HIS:HA	53:s5:107:LYS:HE2	1.96	0.48
56:s8:60:ILE:HG21	56:s8:179:CYS:HB2	1.96	0.48
66:c8:28:ILE:O	66:c8:32:LEU:HD12	2.14	0.48
66:c8:87:ASN:OD1	66:c8:88:ARG:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:d4:94:TYR:HB2	72:d4:96:LEU:HG	1.94	0.48
79:e1:140:TYR:HA	79:e1:149:LYS:CE	2.43	0.48
1:1:1063:G:C6	22:2:109:VAL:HG23	2.49	0.48
1:1:2314:U:O2'	1:1:2315:G:OP1	2.32	0.48
1:1:2988:C:O2	5:k:266:ARG:NH1	2.47	0.48
1:1:3031:G:O6	82:1:3557:OHX:N4	2.46	0.48
1:1:3259:U:H6	1:1:3259:U:H5'	1.76	0.48
5:k:256:HIS:HA	5:k:257:PRO:C	2.39	0.48
12:r:61:SER:HB2	12:r:63:GLU:OE1	2.13	0.48
13:s:60:ARG:O	13:s:63:GLU:HB2	2.14	0.48
26:8:115:ARG:HD3	26:8:121:LYS:HE3	1.95	0.48
29:AB:85:ASP:OD1	29:AB:86:LYS:HG3	2.12	0.48
45:i:68:ARG:NH1	47:A:1460:A:OP2	2.47	0.48
1:AR:287:G:H5'	16:CP:179:LYS:O	2.13	0.48
1:AR:937:G:N3	1:AR:963:G:H1'	2.29	0.48
1:AR:1901:A:O3'	1:AR:2918:G:H5'	2.14	0.48
1:AR:2443:A:O2'	1:AR:2444:C:H5'	2.13	0.48
5:CE:380:MET:HE2	5:CE:380:MET:HB3	1.79	0.48
7:CG:120:LYS:O	7:CG:248:ARG:NH2	2.45	0.48
13:CM:133:ARG:HD2	13:CM:152:HIS:O	2.14	0.48
14:CN:49:ARG:HG3	36:DJ:116:TYR:H	1.78	0.48
25:CY:21:PHE:HD2	25:CY:29:PHE:HB2	1.79	0.48
39:DM:28:ASN:N	39:DM:40:GLN:O	2.45	0.48
47:A:482:U:H2'	47:A:483:A:H8	1.78	0.48
47:A:778:G:H3'	47:A:780:A:C2	2.48	0.48
47:A:996:U:H3	47:A:1008:G:H1	1.61	0.48
47:A:1592:A:H2'	47:A:1593:A:C8	2.48	0.48
48:B:34:GLU:OE1	48:B:149:LEU:HA	2.14	0.48
49:C:61:LEU:HA	49:C:64:ARG:HH21	1.78	0.48
49:C:103:MET:HB3	49:C:215:VAL:CG1	2.43	0.48
50:D:59:HIS:HB2	50:D:61:LEU:CD2	2.43	0.48
50:D:128:GLY:HA2	50:D:131:ILE:HD12	1.95	0.48
54:H:135:PRO:HB2	54:H:141:ILE:CG2	2.43	0.48
67:U:73:VAL:HG21	67:U:102:ARG:HG3	1.94	0.48
68:V:17:GLN:H	68:V:97:VAL:CG1	2.26	0.48
75:c:63:LEU:O	75:c:73:LEU:HA	2.14	0.48
47:sR:679:U:H2'	47:sR:680:U:H4'	1.95	0.48
47:sR:1455:G:OP1	63:c5:122:THR:HG21	2.13	0.48
80:Rb:251:TRP:CD1	80:Rb:264:SER:HB2	2.45	0.48
80:Rb:288:HIS:O	80:Rb:306:THR:HG23	2.14	0.48
48:s0:183:ARG:HH11	48:s0:191:ARG:HG3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:c1:75:VAL:HG12	59:c1:121:ASP:O	2.13	0.48
60:c2:81:ASP:O	60:c2:83:GLU:N	2.44	0.48
61:c3:93:LYS:HA	61:c3:150:VAL:HG11	1.94	0.48
63:c5:90:ILE:HD13	63:c5:109:PRO:HA	1.96	0.48
1:1:1097:G:C8	22:2:128:LEU:HD13	2.48	0.48
1:1:1278:A:O2'	1:1:1279:C:H6	1.96	0.48
1:1:1742:U:H2'	1:1:1743:G:H8	1.78	0.48
1:1:2262:A:N1	47:A:1758:U:O2'	2.40	0.48
1:1:3084:C:O2'	1:1:3332:U:OP1	2.30	0.48
1:1:3357:U:H2'	1:1:3358:U:C6	2.49	0.48
82:1:4121:OHX:N1	89:1:4217:HOH:O	2.34	0.48
4:j:50:HIS:HB2	44:AQ:51:ALA:HB1	1.94	0.48
6:l:309:ARG:NH2	6:l:312:VAL:HB	2.29	0.48
13:s:56:THR:HG23	13:s:57:PHE:CD1	2.47	0.48
29:AB:78:LEU:HG	29:AB:78:LEU:O	2.13	0.48
33:AF:79:VAL:O	33:AF:83:GLU:HG3	2.13	0.48
1:AR:289:A:H2'	1:AR:290:G:C8	2.44	0.48
1:AR:1051:U:H4'	22:CV:19:PHE:CE2	2.49	0.48
1:AR:2177:G:OP2	4:CD:128:ARG:NH1	2.46	0.48
1:AR:3005:A:O2'	1:AR:3140:G:N2	2.47	0.48
82:AR:3475:OHX:N1	4:CD:122:ASP:HB2	2.29	0.48
2:AS:3:U:H2'	2:AS:4:U:H6	1.78	0.48
2:AS:120:C:C2	7:CG:265:TYR:CD2	3.02	0.48
3:AT:103:G:H4'	38:DL:21:ARG:HG3	1.94	0.48
11:CK:23:ARG:NH1	11:CK:39:LYS:O	2.46	0.48
11:CK:181:VAL:HB	41:DO:89:TYR:OH	2.14	0.48
26:CZ:96:LYS:O	26:CZ:100:LYS:HB2	2.13	0.48
35:DI:100:ILE:HA	35:DI:103:LYS:HB2	1.95	0.48
47:A:77:U:O3'	82:A:2131:OHX:N5	2.47	0.48
47:A:442:C:H2'	47:A:443:C:H6	1.76	0.48
47:A:1091:A:H5"	47:A:1091:A:N3	2.29	0.48
48:B:31:VAL:HG13	48:B:34:GLU:HG3	1.95	0.48
53:G:51:VAL:HA	53:G:131:GLN:OE1	2.13	0.48
53:G:186:ASN:OD1	53:G:188:LYS:HB2	2.14	0.48
53:G:189:THR:HG21	73:a:98:GLN:OE1	2.13	0.48
62:P:91:THR:C	62:P:92:LYS:HG3	2.38	0.48
63:Q:56:PHE:CZ	63:Q:60:LEU:HD21	2.49	0.48
64:R:38:LEU:HA	64:R:45:ARG:NH1	2.28	0.48
73:a:43:ASP:HB3	73:a:46:LYS:CB	2.44	0.48
80:h:151:VAL:HA	80:h:173:GLY:HA2	1.95	0.48
47:sR:277:U:O2'	47:sR:278:U:OP1	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:729:G:N7	82:sR:1956:OHX:N1	2.62	0.48
47:sR:808:U:H2'	47:sR:809:A:C8	2.49	0.48
47:sR:1078:C:H2'	47:sR:1079:U:C6	2.49	0.48
47:sR:1722:A:O2'	54:s6:67:VAL:HB	2.14	0.48
80:Rb:227:ALA:O	80:Rb:228:LYS:HG2	2.13	0.48
53:s5:44:ASN:O	53:s5:45:LYS:NZ	2.44	0.48
57:s9:41:GLU:OE2	57:s9:126:ARG:NH2	2.46	0.48
59:c1:129:ARG:O	59:c1:130:PRO:C	2.56	0.48
64:c6:31:VAL:HG12	64:c6:67:VAL:HB	1.94	0.48
68:d0:43:LYS:O	68:d0:47:GLN:HB2	2.13	0.48
75:d7:43:ILE:H	75:d7:43:ILE:HD12	1.79	0.48
1:1:279:U:H2'	1:1:280:U:C6	2.49	0.48
1:1:694:C:H4'	6:l:232:SER:O	2.13	0.48
1:1:870:G:N7	82:1:3445:OHX:N6	2.61	0.48
1:1:1578:C:H3'	1:1:1579:C:C6	2.48	0.48
1:1:1584:U:H2'	1:1:1585:C:H6	1.77	0.48
1:1:1656:A:O2'	82:1:3590:OHX:N3	2.47	0.48
1:1:1900:A:O2'	1:1:1906:G:N7	2.42	0.48
1:1:2202:C:H5"	4:j:226:SER:N	2.29	0.48
1:1:2592:G:O6	82:1:3434:OHX:N1	2.46	0.48
5:k:68:HIS:CE1	5:k:69:LYS:HG3	2.48	0.48
6:l:286:VAL:O	6:l:290:ILE:HG13	2.14	0.48
1:AR:343:U:OP2	82:AR:3425:OHX:N2	2.47	0.48
1:AR:911:C:H5"	4:CD:15:ILE:HD13	1.96	0.48
1:AR:1312:C:H2'	1:AR:1313:G:O4'	2.13	0.48
1:AR:1334:U:OP1	9:CI:206:LYS:HE3	2.13	0.48
1:AR:1566:A:H3'	1:AR:1567:U:C5'	2.44	0.48
1:AR:2352:A:H5"	18:CR:83:TRP:O	2.12	0.48
1:AR:3251:U:H2'	1:AR:3252:G:H8	1.79	0.48
3:AT:63:G:OP1	3:AT:90:U:H5"	2.14	0.48
6:CF:44:LYS:HB3	6:CF:47:ARG:CZ	2.42	0.48
8:CH:135:VAL:HG12	8:CH:139:LYS:NZ	2.29	0.48
14:CN:43:ALA:HB2	14:CN:51:LEU:HD11	1.96	0.48
20:CT:134:HIS:ND1	20:CT:136:ARG:HB3	2.28	0.48
47:A:92:A:OP1	47:A:398:G:N2	2.37	0.48
47:A:218:A:O2'	47:A:219:A:OP1	2.27	0.48
47:A:594:A:N3	47:A:595:G:H1'	2.29	0.48
47:A:637:C:O2	55:I:114:ARG:NH2	2.40	0.48
47:A:781:U:HO2'	47:A:782:U:H6	1.61	0.48
47:A:872:G:H2'	47:A:873:U:O4'	2.14	0.48
47:A:1477:G:OP1	67:U:44:GLU:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1669:U:OP2	82:A:2114:OHX:N1	2.46	0.48
47:A:1793:G:O2'	47:A:1795:U:OP2	2.31	0.48
48:B:41:ARG:CZ	48:B:45:VAL:HG12	2.44	0.48
50:D:97:ARG:HB3	50:D:117:THR:OG1	2.13	0.48
50:D:241:ASP:OD2	69:W:35:ASN:ND2	2.47	0.48
53:G:126:ASP:OD1	53:G:126:ASP:N	2.43	0.48
56:J:116:HIS:O	56:J:117:TYR:C	2.57	0.48
66:T:8:GLN:OE1	66:T:8:GLN:N	2.37	0.48
75:c:80:ARG:HH11	75:c:80:ARG:HB2	1.79	0.48
47:sR:152:U:O2'	54:s6:4:ASN:OD1	2.14	0.48
47:sR:471:A:O2'	57:s9:9:SER:O	2.21	0.48
80:Rb:123:ILE:CD1	80:Rb:169:ILE:HD13	2.44	0.48
48:s0:55:GLU:O	48:s0:58:VAL:HG22	2.14	0.48
49:s1:134:VAL:HG22	49:s1:219:LYS:HB3	1.94	0.48
50:s2:180:ALA:HB1	50:s2:184:VAL:HG13	1.96	0.48
51:s3:101:GLN:HE22	51:s3:126:VAL:HB	1.78	0.48
54:s6:10:ASN:HB3	54:s6:128:THR:HA	1.96	0.48
54:s6:20:ASP:O	54:s6:24:ILE:HG13	2.14	0.48
59:c1:67:ARG:NH2	59:c1:129:ARG:H	2.11	0.48
61:c3:29:SER:O	61:c3:32:SER:HB3	2.14	0.48
62:c4:45:GLY:HA2	62:c4:54:GLU:HG2	1.95	0.48
1:1:208:C:OP2	6:l:163:LYS:NZ	2.46	0.48
1:1:1015:U:O2	1:1:1017:C:O2'	2.18	0.48
1:1:1033:U:H2'	1:1:1034:U:C6	2.48	0.48
1:1:1266:G:N2	1:1:1275:C:O2	2.44	0.48
3:4:10:A:H2'	3:4:11:C:C6	2.49	0.48
8:n:2:SER:HA	33:AF:81:ASP:OD2	2.14	0.48
8:n:6:ALA:HA	33:AF:74:PHE:HE1	1.79	0.48
11:q:103:ILE:HG23	11:q:136:PHE:HE2	1.78	0.48
11:q:137:SER:HB3	11:q:143:GLU:HB3	1.96	0.48
12:r:73:ASN:O	12:r:77:THR:HG23	2.14	0.48
14:t:48:PRO:HD2	36:AI:115:LYS:HD2	1.96	0.48
14:t:76:THR:O	14:t:78:ALA:N	2.47	0.48
16:v:162:ARG:HB2	16:v:164:LEU:HD12	1.95	0.48
23:5:10:LYS:HG3	23:5:68:THR:HG22	1.95	0.48
32:AE:55:LEU:HB2	32:AE:95:PRO:HD3	1.94	0.48
32:AE:77:ARG:HD2	32:AE:89:LEU:HD12	1.95	0.48
1:AR:86:G:O2'	1:AR:98:G:O6	2.21	0.48
1:AR:191:U:H2'	1:AR:192:C:C6	2.49	0.48
1:AR:503:C:H4'	8:CH:26:ARG:HH12	1.79	0.48
1:AR:2177:G:O6	82:AR:3475:OHX:N3	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2941:A:H8	1:AR:2941:A:OP2	1.97	0.48
19:CS:44:PHE:HD1	19:CS:139:ILE:HD11	1.79	0.48
28:DB:83:THR:HA	31:DE:58:TYR:HE2	1.78	0.48
31:DE:52:ARG:HA	31:DE:52:ARG:HD2	1.65	0.48
47:A:474:A:P	57:K:44:ARG:HH12	2.37	0.48
47:A:698:U:H2'	47:A:699:U:O4'	2.14	0.48
47:A:1172:G:H21	67:U:88:VAL:CG2	2.26	0.48
47:A:1563:C:H5"	67:U:41:SER:HB3	1.94	0.48
47:A:1794:A:C2	74:b:79:ILE:HB	2.49	0.48
48:B:137:SER:O	69:W:30:ALA:HA	2.13	0.48
50:D:111:VAL:HG13	50:D:191:ALA:HA	1.96	0.48
52:F:45:ILE:HA	52:F:61:VAL:HG11	1.96	0.48
52:F:230:GLU:HB2	52:F:233:LYS:HB3	1.96	0.48
57:K:126:ARG:HD2	78:f:33:ARG:HD3	1.96	0.48
80:h:152:SER:H	80:h:173:GLY:HA2	1.79	0.48
47:sR:78:A:H1'	54:s6:175:ILE:HG12	1.96	0.48
47:sR:872:G:H2'	47:sR:873:U:O4'	2.14	0.48
47:sR:1042:G:H22	47:sR:1076:A:H2	1.62	0.48
47:sR:1079:U:H2'	47:sR:1080:U:O4'	2.14	0.48
47:sR:1623:C:H2'	47:sR:1624:C:C6	2.48	0.48
80:Rb:59:ARG:NH1	80:Rb:95:ALA:HB1	2.29	0.48
80:Rb:171:SER:CB	80:Rb:181:TRP:HE1	2.23	0.48
80:Rb:274:LEU:HD13	80:Rb:311:ARG:NH1	2.29	0.48
51:s3:38:GLU:OE1	51:s3:38:GLU:HA	2.13	0.48
53:s5:164:PRO:HA	53:s5:167:ARG:HD3	1.96	0.48
54:s6:3:LEU:HA	54:s6:109:LEU:O	2.13	0.48
54:s6:139:ASN:HA	54:s6:142:ARG:HB2	1.94	0.48
55:s7:33:GLU:HG2	55:s7:34:LEU:N	2.29	0.48
55:s7:127:GLU:O	55:s7:131:PHE:HA	2.14	0.48
81:c7:27:ASP:HB3	81:c7:30:THR:HG22	1.96	0.48
81:c7:53:TYR:O	81:c7:57:LEU:HG	2.14	0.48
72:d4:41:ARG:HD2	72:d4:56:SER:HA	1.95	0.48
1:1:283:G:OP2	1:1:285:A:H4'	2.13	0.48
1:1:543:C:H3'	1:1:544:C:C6	2.48	0.48
1:1:896:A:H5'	4:j:183:GLY:HA2	1.95	0.48
1:1:1339:C:H2'	1:1:1340:G:O4'	2.14	0.48
1:1:1665:C:H2'	1:1:1666:G:H8	1.79	0.48
1:1:1856:C:H1'	35:AH:7:PHE:CE2	2.48	0.48
1:1:2228:A:H2'	1:1:2229:A:C8	2.49	0.48
1:1:2563:G:H5"	10:p:27:THR:HG23	1.96	0.48
1:1:2767:U:O2'	43:AP:30:ALA:O	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:k:295:ALA:HB2	5:k:301:THR:O	2.14	0.48
6:l:9:HIS:HE1	6:l:147:GLU:OE2	1.96	0.48
9:o:160:ARG:HD2	9:o:203:TRP:NE1	2.29	0.48
11:q:87:LYS:HG3	11:q:145:VAL:HG13	1.96	0.48
13:s:81:GLU:HG2	13:s:167:TYR:HE2	1.79	0.48
31:AD:25:LEU:HD23	31:AD:90:VAL:HG13	1.95	0.48
33:AF:100:ILE:O	33:AF:105:ARG:NH1	2.47	0.48
42:AO:14:LYS:HE2	42:AO:18:ARG:HE	1.79	0.48
1:AR:385:A:H2'	1:AR:386:A:C8	2.49	0.48
1:AR:409:A:H61	3:AT:15:G:H1'	1.79	0.48
1:AR:976:U:H2'	1:AR:977:C:O4'	2.13	0.48
1:AR:1239:C:N4	1:AR:1249:G:H22	2.10	0.48
1:AR:1419:A:H5"	6:CF:193:LYS:NZ	2.28	0.48
1:AR:3377:G:O6	82:AR:3587:OHX:N2	2.47	0.48
3:AT:27:U:H2'	3:AT:28:C:C6	2.49	0.48
3:AT:150:G:OP2	82:AT:209:OHX:N5	2.46	0.48
18:CR:23:ARG:O	18:CR:86:LYS:HE2	2.12	0.48
18:CR:111:LYS:O	18:CR:152:GLU:HA	2.13	0.48
30:DD:28:LYS:HG3	30:DD:29:TYR:H	1.79	0.48
37:DK:53:TYR:HA	37:DK:56:ARG:HG2	1.95	0.48
39:DM:64:LYS:NZ	39:DM:68:SER:HB3	2.29	0.48
45:sM:74:LYS:HD3	45:sM:75:ASP:H	1.78	0.48
47:A:197:A:N6	56:J:141:ARG:HH22	2.12	0.48
47:A:336:G:H5'	59:M:130:PRO:O	2.14	0.48
47:A:1203:A:OP2	82:A:2123:OHX:N5	2.47	0.48
47:A:1472:C:H4'	47:A:1473:U:H5'	1.96	0.48
47:A:1545:A:H2'	47:A:1546:G:H8	1.79	0.48
50:D:39:THR:O	50:D:42:GLY:N	2.29	0.48
55:I:117:THR:HG23	55:I:120:ALA:H	1.79	0.48
58:L:50:THR:HG23	58:L:55:VAL:O	2.13	0.48
68:V:22:ILE:HD13	68:V:117:VAL:O	2.14	0.48
72:Z:27:VAL:HG11	72:Z:35:VAL:HG11	1.96	0.48
80:h:147:HIS:CE1	80:h:173:GLY:HA3	2.49	0.48
47:sR:60:U:H5'	47:sR:455:C:N4	2.28	0.48
47:sR:890:C:H2'	47:sR:891:A:C8	2.49	0.48
47:sR:1489:U:H5'	47:sR:1494:C:H1'	1.95	0.48
80:Rb:81:LEU:HG	80:Rb:91:LEU:HA	1.96	0.48
49:s1:65:VAL:O	62:c4:34:SER:OG	2.24	0.48
51:s3:61:GLU:H	51:s3:61:GLU:CD	2.22	0.48
54:s6:7:TYR:CD2	54:s6:125:THR:HA	2.48	0.48
67:c9:49:ASP:OD2	67:c9:52:GLY:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:c9:65:ILE:HG12	67:c9:71:VAL:HB	1.96	0.48
69:d1:37:ALA:HA	69:d1:50:TYR:HA	1.95	0.48
70:d2:73:GLY:HA3	70:d2:128:PHE:CZ	2.48	0.48
76:d8:9:LEU:CB	76:d8:33:LEU:HD22	2.36	0.48
1:1:381:U:O4	82:1:3549:OHX:N5	2.47	0.48
1:1:847:A:H2'	1:1:848:A:C8	2.49	0.48
1:1:1051:U:H4'	22:2:19:PHE:CE2	2.49	0.48
1:1:1229:G:H2'	1:1:1230:G:C8	2.49	0.48
1:1:3286:G:H5'	1:1:3287:U:OP2	2.13	0.48
5:k:122:TRP:CH2	5:k:127:LYS:HG2	2.49	0.48
5:k:213:GLU:OE2	5:k:214:MET:N	2.45	0.48
7:m:184:ASP:HB3	7:m:187:THR:O	2.14	0.48
9:o:96:PRO:O	9:o:100:ARG:HB2	2.14	0.48
42:AO:9:ARG:HH22	47:A:1643:U:H5'	1.79	0.48
1:AR:507:U:H2'	1:AR:508:U:C6	2.48	0.48
1:AR:651:G:O5'	1:AR:651:G:H8	1.97	0.48
1:AR:1174:G:H1'	1:AR:1181:U:N3	2.29	0.48
1:AR:1949:G:N2	1:AR:2098:C:H1'	2.29	0.48
1:AR:2153:U:OP1	4:CD:246:LEU:HB3	2.14	0.48
1:AR:2407:C:H1'	1:AR:2818:U:N3	2.29	0.48
1:AR:3343:G:H21	1:AR:3362:A:H2	1.60	0.48
1:AR:3379:C:H4'	5:CE:315:GLY:HA2	1.96	0.48
82:AR:3555:OHX:N1	89:AR:4322:HOH:O	2.35	0.48
5:CE:230:THR:HB	5:CE:247:ARG:NH1	2.29	0.48
6:CF:9:HIS:O	6:CF:153:SER:N	2.47	0.48
13:CM:81:GLU:OE2	13:CM:89:TYR:OH	2.18	0.48
17:CQ:108:ILE:HD13	17:CQ:117:ARG:HD3	1.96	0.48
18:CR:126:ARG:NE	18:CR:140:GLU:OE2	2.44	0.48
22:CV:40:VAL:HB	22:CV:96:ILE:HG23	1.95	0.48
23:CW:50:LEU:H	23:CW:50:LEU:HD23	1.79	0.48
28:DB:76:ASN:OD1	28:DB:77:TYR:N	2.47	0.48
35:DI:5:VAL:HG22	35:DI:6:THR:H	1.77	0.48
37:DK:53:TYR:OH	37:DK:86:LYS:HE2	2.14	0.48
46:p0:37:GLN:O	46:p0:41:VAL:HG13	2.14	0.48
47:A:638:U:C2	55:I:114:ARG:NH1	2.79	0.48
47:A:1654:G:H2'	47:A:1745:G:N2	2.28	0.48
48:B:193:GLN:O	48:B:195:TRP:N	2.46	0.48
49:C:29:TRP:NE1	49:C:47:LEU:HD12	2.26	0.48
49:C:125:VAL:O	49:C:136:ARG:HA	2.13	0.48
57:K:140:ILE:HG13	72:Z:65:GLY:HA2	1.94	0.48
65:S:20:TYR:OH	65:S:38:ILE:HD11	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:a:43:ASP:HB3	73:a:46:LYS:HB3	1.95	0.48
78:f:58:PRO:HB2	78:f:61:SER:HB3	1.96	0.48
80:h:72:THR:HG21	80:h:114:ASP:CA	2.43	0.48
47:sR:476:U:H5"	47:sR:477:A:O4'	2.14	0.48
47:sR:1257:U:O2'	47:sR:1258:U:O2	2.17	0.48
47:sR:1379:C:H5'	64:c6:10:PHE:CE1	2.48	0.48
48:s0:29:VAL:HG12	48:s0:149:LEU:HB3	1.95	0.48
51:s3:178:ARG:HA	51:s3:178:ARG:HD3	1.66	0.48
58:c0:11:ILE:HD12	58:c0:42:VAL:HG22	1.96	0.48
62:c4:12:GLN:HE22	62:c4:111:ARG:NH1	2.10	0.48
62:c4:90:ARG:HG2	62:c4:90:ARG:HH11	1.79	0.48
1:1:198:A:N3	1:1:218:G:O2'	2.47	0.47
1:1:883:A:H5'	18:x:133:HIS:HA	1.95	0.47
1:1:915:A:O2'	1:1:917:A:OP1	2.31	0.47
1:1:1231:A:H5"	1:1:1232:C:O4'	2.14	0.47
1:1:1804:A:H5'	35:AH:70:LYS:HE3	1.96	0.47
5:k:261:MET:HG2	17:w:64:PHE:HA	1.96	0.47
7:m:204:VAL:O	7:m:208:MET:HG3	2.13	0.47
13:s:98:ALA:HA	13:s:156:LYS:HB2	1.96	0.47
15:u:21:VAL:HB	15:u:63:VAL:CG1	2.44	0.47
16:v:98:LEU:O	16:v:101:THR:HG22	2.14	0.47
17:w:139:GLY:O	17:w:143:THR:HG23	2.14	0.47
28:AA:33:SER:HB3	28:AA:36:HIS:O	2.14	0.47
38:AK:26:SER:O	38:AK:35:SER:N	2.35	0.47
45:i:61:ILE:HG23	66:T:125:ILE:CD1	2.40	0.47
45:i:61:ILE:HG13	45:i:62:ARG:N	2.29	0.47
1:AR:128:G:H2'	1:AR:129:U:O4'	2.13	0.47
1:AR:174:C:H2'	1:AR:175:C:H6	1.79	0.47
1:AR:283:G:O6	1:AR:304:G:H1'	2.14	0.47
1:AR:1942:U:OP2	20:CT:74:ARG:NH1	2.47	0.47
1:AR:2163:C:O2'	4:CD:8:GLN:O	2.32	0.47
2:AS:28:C:O2'	2:AS:55:A:N1	2.39	0.47
6:CF:216:VAL:HA	6:CF:227:THR:HG21	1.96	0.47
9:CI:77:VAL:CG1	22:CV:139:ARG:HB2	2.43	0.47
12:CL:144:ASN:O	12:CL:148:VAL:HG22	2.14	0.47
14:CN:104:ARG:HA	37:DK:20:MET:O	2.14	0.47
20:CT:93:VAL:O	20:CT:97:ARG:HG3	2.14	0.47
37:DK:98:ARG:NE	37:DK:98:ARG:O	2.47	0.47
45:sM:61:ILE:HG23	45:sM:62:ARG:N	2.29	0.47
47:A:1114:G:O6	82:A:1932:OHX:N6	2.47	0.47
47:A:1619:C:H2'	47:A:1620:C:H6	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B:203:PHE:O	48:B:204:TYR:C	2.57	0.47
52:F:79:ASP:HB3	52:F:82:TYR:HB2	1.96	0.47
52:F:212:ASP:OD1	52:F:216:ASN:HB2	2.14	0.47
68:V:24:ILE:HG23	68:V:91:ILE:HB	1.95	0.47
70:X:35:ILE:HG22	70:X:61:ILE:HD11	1.96	0.47
47:sR:499:U:H2'	47:sR:500:C:C6	2.49	0.47
47:sR:524:U:O2'	47:sR:526:A:N7	2.44	0.47
47:sR:1529:C:H5'	64:c6:42:GLU:HG2	1.95	0.47
47:sR:1742:U:H2'	47:sR:1743:U:H6	1.79	0.47
80:Rb:199:ILE:HD12	80:Rb:199:ILE:O	2.14	0.47
53:s5:63:GLN:OE1	53:s5:65:ARG:N	2.42	0.47
53:s5:191:ALA:HB3	73:d5:98:GLN:OE1	2.14	0.47
55:s7:31:SER:OG	55:s7:35:LYS:HB3	2.13	0.47
60:c2:97:LEU:CB	60:c2:118:ALA:HB3	2.41	0.47
63:c5:108:ARG:H	63:c5:111:MET:CE	2.27	0.47
67:c9:15:ILE:HG21	67:c9:60:SER:HB2	1.95	0.47
74:d6:28:LYS:NZ	74:d6:76:SER:OG	2.47	0.47
1:1:68:C:O3'	16:v:177:GLY:HA2	2.14	0.47
1:1:314:U:H2'	1:1:315:C:C6	2.48	0.47
1:1:497:C:H2'	1:1:498:A:O4'	2.14	0.47
1:1:643:U:O2'	1:1:1153:A:N1	2.39	0.47
1:1:738:A:H2'	1:1:739:G:C8	2.49	0.47
1:1:873:C:H4'	1:1:874:U:OP2	2.14	0.47
1:1:1565:G:H21	1:1:1575:A:N6	2.11	0.47
1:1:1661:G:H2'	1:1:1662:G:C8	2.49	0.47
1:1:2093:A:H3'	1:1:2093:A:N3	2.29	0.47
1:1:2315:G:OP2	82:1:3504:OHX:N6	2.46	0.47
1:1:2736:A:H4'	22:2:71:SER:OG	2.14	0.47
1:1:2838:A:H4'	12:r:74:LYS:HD3	1.96	0.47
8:n:51:ARG:NH1	8:n:163:PHE:HB2	2.28	0.47
10:p:61:GLN:O	10:p:64:ILE:HG13	2.13	0.47
10:p:106:LYS:HA	10:p:109:LEU:HD22	1.97	0.47
11:q:187:ILE:HG22	11:q:188:THR:H	1.79	0.47
20:z:86:GLU:CD	20:z:91:SER:H	2.21	0.47
30:AC:18:ARG:O	82:AC:102:OHX:N2	2.48	0.47
34:AG:29:LEU:HD22	34:AG:75:HIS:CD2	2.48	0.47
44:AQ:47:VAL:HA	44:AQ:56:THR:O	2.14	0.47
1:AR:2660:G:H2'	1:AR:2661:G:C8	2.47	0.47
1:AR:2734:A:OP1	82:AR:3546:OHX:N6	2.47	0.47
1:AR:3272:C:OP2	8:CH:78:ARG:NH1	2.47	0.47
2:AS:33:U:H2'	2:AS:34:C:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:173:GLN:O	5:CE:174:LYS:HB2	2.13	0.47
7:CG:107:ARG:NH2	7:CG:120:LYS:HA	2.28	0.47
11:CK:113:GLU:CD	11:CK:115:ARG:HH21	2.21	0.47
12:CL:171:TRP:O	12:CL:174:THR:HG22	2.14	0.47
17:CQ:48:PHE:O	17:CQ:52:LEU:HG	2.14	0.47
21:CU:9:VAL:HG13	21:CU:58:ILE:HD11	1.95	0.47
22:CV:157:GLU:HB3	22:CV:159:PHE:CD2	2.49	0.47
32:DF:41:LYS:HE2	32:DF:47:ASP:HA	1.96	0.47
43:DQ:100:LYS:CG	43:DQ:101:GLY:H	2.27	0.47
44:DR:56:THR:HG22	44:DR:63:THR:HB	1.94	0.47
47:A:319:U:H5"	47:A:320:U:H5	1.79	0.47
47:A:330:G:H2'	47:A:331:A:C8	2.49	0.47
47:A:348:U:OP1	59:M:85:VAL:HG11	2.13	0.47
47:A:515:A:H2'	47:A:516:G:O4'	2.14	0.47
47:A:542:A:H8	47:A:543:C:H5'	1.79	0.47
47:A:636:A:H1'	70:X:58:SER:HB3	1.96	0.47
47:A:780:A:C8	72:Z:8:ARG:HD2	2.49	0.47
47:A:864:U:C5	75:c:22:LYS:HG2	2.48	0.47
47:A:1132:A:H2'	47:A:1133:A:H8	1.79	0.47
48:B:147:THR:OG1	48:B:151:SER:HB2	2.14	0.47
49:C:90:GLU:HB2	49:C:223:PHE:CZ	2.49	0.47
53:G:203:LYS:HD3	53:G:203:LYS:HA	1.69	0.47
58:L:6:GLU:O	58:L:10:LYS:HG3	2.15	0.47
61:O:69:ASN:HB3	61:O:73:ARG:HB3	1.96	0.47
64:R:8:GLN:HG2	64:R:21:HIS:ND1	2.29	0.47
64:R:75:VAL:HA	64:R:78:VAL:HG12	1.97	0.47
68:V:61:LYS:O	68:V:85:ARG:HA	2.15	0.47
72:Z:122:GLY:O	72:Z:125:LEU:HG	2.13	0.47
75:c:80:ARG:HB2	75:c:80:ARG:NH1	2.28	0.47
47:sR:109:G:O2'	47:sR:796:A:N1	2.46	0.47
47:sR:231:U:H2'	47:sR:232:U:H5"	1.96	0.47
47:sR:845:G:H2'	47:sR:846:G:C8	2.49	0.47
47:sR:1285:U:O2'	47:sR:1286:U:OP1	2.30	0.47
47:sR:1472:C:H5'	47:sR:1474:G:C1'	2.44	0.47
47:sR:1698:G:O2'	47:sR:1699:G:O5'	2.29	0.47
80:Rb:5:GLU:CD	80:Rb:249:ARG:HE	2.22	0.47
48:s0:71:GLU:O	48:s0:96:THR:HG22	2.13	0.47
51:s3:208:ILE:HG21	81:c7:19:ARG:HD2	1.95	0.47
52:s4:181:VAL:HG12	52:s4:227:VAL:HG12	1.96	0.47
53:s5:76:ARG:HD2	64:c6:122:ARG:HD2	1.96	0.47
54:s6:182:GLN:OE1	54:s6:182:GLN:N	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:c6:89:LEU:HD11	64:c6:105:LEU:HD11	1.96	0.47
66:c8:55:HIS:ND1	66:c8:55:HIS:O	2.47	0.47
68:d0:68:ARG:N	77:d9:40:ARG:HH12	2.13	0.47
69:d1:71:ARG:NE	75:d7:4:VAL:HG21	2.25	0.47
1:1:801:A:O2'	82:1:3490:OHX:N2	2.47	0.47
1:1:1109:U:H2'	1:1:1110:U:C6	2.49	0.47
1:1:1294:A:O2'	1:1:1295:G:H5"	2.13	0.47
1:1:1670:C:O2'	1:1:1860:G:OP1	2.32	0.47
1:1:1796:G:N7	82:1:4113:OHX:N3	2.62	0.47
1:1:1844:C:O2	38:AK:9:GLY:HA2	2.14	0.47
1:1:2352:A:H2'	1:1:2353:G:C8	2.49	0.47
1:1:2655:U:O4	43:AP:8:ARG:NH1	2.47	0.47
1:1:2742:C:H1'	43:AP:20:HIS:CE1	2.49	0.47
5:k:283:TYR:CZ	5:k:325:LYS:HB2	2.48	0.47
7:m:152:ARG:HE	7:m:152:ARG:HB3	1.48	0.47
13:s:116:TYR:CE2	13:s:118:PRO:HB3	2.50	0.47
16:v:3:ALA:O	16:v:7:LEU:HD12	2.13	0.47
18:x:42:THR:HA	18:x:45:GLN:NE2	2.29	0.47
18:x:153:LYS:HB2	18:x:153:LYS:HE3	1.56	0.47
21:0:139:TYR:CD1	21:0:140:VAL:HG23	2.50	0.47
28:AA:107:ARG:O	28:AA:111:LYS:HG2	2.15	0.47
36:AI:109:ILE:HG13	36:AI:110:ALA:N	2.29	0.47
1:AR:44:U:O3'	82:DQ:502:OHX:N1	2.47	0.47
1:AR:979:U:H4'	1:AR:980:A:OP1	2.14	0.47
1:AR:1677:G:OP1	23:CW:100:THR:HA	2.14	0.47
1:AR:2955:U:OP2	1:AR:2977:G:N1	2.40	0.47
1:AR:3191:G:H2'	1:AR:3192:U:C6	2.49	0.47
1:AR:3335:A:H2'	1:AR:3336:A:C8	2.50	0.47
3:AT:65:A:O3'	36:DJ:10:ARG:NH2	2.46	0.47
4:CD:20:THR:HA	4:CD:23:ARG:HG3	1.96	0.47
5:CE:41:VAL:HG22	5:CE:186:GLY:H	1.79	0.47
8:CH:69:PHE:HB2	8:CH:138:GLN:NE2	2.29	0.47
14:CN:43:ALA:HA	14:CN:51:LEU:HD21	1.97	0.47
15:CO:20:VAL:HG22	15:CO:68:LEU:HB2	1.95	0.47
19:CS:51:ALA:HA	19:CS:54:LEU:HG	1.97	0.47
25:CY:57:LYS:HD3	25:CY:57:LYS:HA	1.52	0.47
28:DB:115:LYS:NZ	28:DB:119:GLU:OE2	2.47	0.47
47:A:958:U:OP2	75:c:20:LYS:NZ	2.42	0.47
47:A:1097:U:H4'	47:A:1098:U:O5'	2.14	0.47
47:A:1234:A:O2'	79:g:145:HIS:O	2.26	0.47
47:A:1797:A:OP2	74:b:10:ARG:HD2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B:24:LEU:HD21	48:B:27:ARG:HH12	1.79	0.47
48:B:58:VAL:O	48:B:62:ARG:HB2	2.14	0.47
52:F:31:PRO:HG2	52:F:38:LEU:HG	1.97	0.47
53:G:58:LEU:O	53:G:62:VAL:HG23	2.13	0.47
53:G:156:ARG:HA	53:G:157:ARG:HH11	1.79	0.47
63:Q:23:GLU:O	63:Q:24:LYS:HD2	2.15	0.47
66:T:76:PRO:O	66:T:81:ILE:HB	2.14	0.47
70:X:55:ASP:HB2	70:X:57:ARG:HD2	1.95	0.47
47:sR:365:G:N7	82:sR:1988:OHX:N4	2.62	0.47
80:Rb:74:THR:HA	80:Rb:115:ILE:HD11	1.96	0.47
48:s0:83:GLN:O	48:s0:87:LEU:HD12	2.13	0.47
51:s3:6:SER:O	51:s3:9:ARG:N	2.46	0.47
60:c2:89:ILE:HD11	60:c2:91:VAL:HG23	1.96	0.47
81:c7:24:LEU:HB2	81:c7:58:MET:HE2	1.96	0.47
67:c9:10:ALA:HB3	67:c9:13:ASP:OD1	2.15	0.47
67:c9:28:LEU:HA	67:c9:111:ILE:HD11	1.96	0.47
75:d7:40:CYS:SG	75:d7:41:LEU:N	2.87	0.47
1:1:878:G:OP2	82:1:4144:OHX:N3	2.47	0.47
1:1:1345:G:H21	6:l:307:GLN:HE22	1.63	0.47
1:1:1699:A:H2'	1:1:1700:G:H8	1.78	0.47
1:1:1825:G:OP2	39:AL:49:SER:OG	2.26	0.47
1:1:2993:G:H2'	1:1:3142:A:N6	2.29	0.47
7:m:55:PHE:CE2	7:m:158:ARG:HG3	2.49	0.47
7:m:253:PHE:CG	7:m:253:PHE:O	2.66	0.47
9:o:102:VAL:HG13	9:o:126:LEU:HD22	1.96	0.47
13:s:101:ASN:HB3	13:s:130:VAL:HA	1.95	0.47
21:0:24:LEU:HD21	21:0:59:VAL:HG21	1.97	0.47
36:AI:85:THR:O	36:AI:88:LEU:N	2.44	0.47
1:AR:290:G:H4'	16:CP:69:GLY:O	2.14	0.47
1:AR:792:G:N7	82:AR:3653:OHX:N2	2.63	0.47
1:AR:926:A:H2'	1:AR:927:C:O4'	2.15	0.47
1:AR:3102:G:N7	82:AR:3414:OHX:N6	2.63	0.47
5:CE:92:TYR:CE2	5:CE:101:SER:HB3	2.50	0.47
9:CI:80:GLN:HB2	22:CV:135:PRO:HB2	1.96	0.47
9:CI:123:THR:HA	9:CI:126:LEU:HD12	1.97	0.47
11:CK:121:LYS:HA	11:CK:121:LYS:HD3	1.70	0.47
12:CL:206:LEU:O	12:CL:210:ILE:HG13	2.14	0.47
24:CX:71:LYS:O	24:CX:72:LYS:HG3	2.15	0.47
41:DO:93:LYS:HD2	41:DO:102:ARG:HD3	1.97	0.47
43:DQ:74:CYS:O	43:DQ:78:LYS:HA	2.14	0.47
47:A:140:A:H5'	54:H:184:LEU:HD21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:209:U:H5'	56:J:171:SER:HB3	1.96	0.47
47:A:839:U:OP1	59:M:28:SER:N	2.46	0.47
47:A:980:G:H4'	47:A:1776:A:H4'	1.96	0.47
52:F:44:LEU:HG	52:F:82:TYR:HB3	1.97	0.47
52:F:120:SER:O	52:F:164:LEU:HB2	2.14	0.47
54:H:55:GLY:C	54:H:63:MET:HE3	2.39	0.47
55:I:111:LYS:CG	55:I:112:ARG:N	2.77	0.47
57:K:105:LEU:O	57:K:111:THR:HG21	2.15	0.47
60:N:67:THR:O	60:N:71:ILE:HD13	2.15	0.47
61:O:48:SER:O	61:O:52:VAL:HG12	2.14	0.47
47:sR:151:G:N2	47:sR:163:G:N2	2.63	0.47
47:sR:599:A:N3	71:d3:47:SER:HB2	2.30	0.47
47:sR:1552:U:H2'	47:sR:1553:G:O4'	2.15	0.47
47:sR:1595:U:H3	47:sR:1600:A:H2	1.61	0.47
80:Rb:275:ARG:HD3	80:Rb:275:ARG:N	2.29	0.47
52:s4:15:PRO:HA	52:s4:39:ARG:NH2	2.30	0.47
53:s5:146:THR:OG1	53:s5:157:ARG:HB2	2.15	0.47
60:c2:58:LEU:HD13	60:c2:126:TRP:CH2	2.49	0.47
1:1:564:G:H2'	1:1:565:U:C6	2.49	0.47
1:1:685:G:OP1	14:t:35:ARG:NH1	2.47	0.47
1:1:1273:A:HO2'	1:1:1274:A:P	2.37	0.47
1:1:1589:A:OP1	35:AH:11:ASN:HB2	2.13	0.47
1:1:1894:U:O2'	1:1:3054:U:OP1	2.32	0.47
1:1:2225:U:H2'	1:1:2226:U:C6	2.50	0.47
1:1:2667:A:OP1	45:i:31:SER:OG	2.32	0.47
1:1:2729:U:OP1	19:y:159:LYS:NZ	2.48	0.47
5:k:218:ILE:HG12	5:k:276:THR:HG23	1.95	0.47
6:l:91:GLY:HA3	6:l:94:CYS:SG	2.55	0.47
10:p:231:LYS:HA	10:p:231:LYS:HD2	1.62	0.47
11:q:16:VAL:HG12	11:q:29:GLY:HA2	1.96	0.47
16:v:11:GLN:HG2	16:v:44:ARG:NH2	2.28	0.47
18:x:168:LEU:CD1	18:x:173:ARG:HG3	2.45	0.47
25:7:38:SER:O	25:7:42:GLN:HG3	2.15	0.47
26:8:58:ASP:OD2	36:AI:25:LYS:NZ	2.39	0.47
33:AF:82:LEU:HD22	33:AF:108:ILE:HG23	1.96	0.47
36:AI:78:LYS:HG2	36:AI:81:ARG:NH1	2.29	0.47
45:i:74:LYS:HZ2	63:Q:131:ALA:H	1.63	0.47
1:AR:1107:C:H2'	1:AR:1108:U:H6	1.78	0.47
1:AR:1447:G:OP1	18:CR:65:SER:OG	2.29	0.47
1:AR:1565:G:H2'	1:AR:1566:A:C8	2.44	0.47
1:AR:2971:A:H3'	1:AR:2971:A:N3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:3072:C:H2'	1:AR:3073:A:O4'	2.15	0.47
12:CL:51:HIS:HB3	12:CL:134:ILE:HG23	1.95	0.47
12:CL:80:SER:HB2	12:CL:84:ALA:HB3	1.96	0.47
13:CM:34:SER:HB3	13:CM:67:VAL:HG11	1.96	0.47
16:CP:70:ASN:HB3	16:CP:92:LEU:O	2.15	0.47
20:CT:105:LEU:HD13	20:CT:138:LEU:HD22	1.96	0.47
33:DG:104:ASN:O	33:DG:108:ILE:HG12	2.14	0.47
43:DQ:15:LYS:HA	43:DQ:18:ARG:CG	2.44	0.47
44:DR:36:ARG:HH21	44:DR:46:THR:HA	1.79	0.47
47:A:760:A:OP2	82:A:1922:OHX:N6	2.47	0.47
47:A:1219:A:O2'	58:L:48:SER:HA	2.14	0.47
47:A:1354:G:H3'	47:A:1355:C:C6	2.50	0.47
47:A:1525:A:H2'	47:A:1526:A:C8	2.50	0.47
47:A:1682:U:O2'	47:A:1683:C:H5'	2.14	0.47
48:B:25:GLY:CA	48:B:48:ILE:HD11	2.44	0.47
48:B:103:THR:O	48:B:106:SER:OG	2.33	0.47
49:C:120:LEU:HD23	49:C:121:ILE:N	2.30	0.47
49:C:144:ARG:HB3	49:C:206:PRO:HB3	1.97	0.47
51:E:55:THR:O	51:E:59:LEU:HD12	2.14	0.47
53:G:208:SER:OG	53:G:211:ILE:HG12	2.14	0.47
57:K:56:ALA:O	57:K:60:LEU:HD12	2.15	0.47
71:Y:103:LEU:HD13	71:Y:126:LYS:HB2	1.96	0.47
73:a:43:ASP:O	73:a:46:LYS:N	2.39	0.47
76:d:54:LEU:HG	76:d:55:VAL:N	2.29	0.47
78:f:40:TYR:CD1	78:f:44:PHE:HD2	2.33	0.47
80:h:59:ARG:HH21	80:h:97:GLY:HA3	1.80	0.47
47:sR:918:U:H2'	47:sR:919:A:C8	2.49	0.47
47:sR:1175:U:H2'	47:sR:1176:G:C8	2.49	0.47
47:sR:1603:U:H2'	47:sR:1604:U:H6	1.79	0.47
49:s1:30:PHE:CD2	49:s1:94:LYS:HA	2.50	0.47
50:s2:88:LYS:O	50:s2:95:ARG:HB2	2.14	0.47
54:s6:21:GLU:O	54:s6:25:ARG:HG3	2.14	0.47
60:c2:126:TRP:HB3	60:c2:133:LEU:CD1	2.44	0.47
61:c3:55:ARG:NH1	61:c3:56:ASP:OD1	2.43	0.47
64:c6:114:ARG:O	64:c6:115:THR:HG22	2.15	0.47
66:c8:92:ILE:HG12	66:c8:115:ARG:NH1	2.18	0.47
69:d1:41:GLU:CD	69:d1:42:GLU:H	2.22	0.47
75:d7:81:ARG:O	75:d7:82:LYS:HB3	2.14	0.47
1:1:114:A:H2'	1:1:115:A:O4'	2.13	0.47
1:1:256:G:H4'	36:AI:111:PHE:HZ	1.79	0.47
1:1:405:U:H5'	1:1:1417:G:OP1	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1113:G:O2'	1:1:1369:A:N3	2.40	0.47
1:1:1466:G:O6	82:1:4074:OHX:N5	2.47	0.47
1:1:1614:C:H2'	1:1:1615:C:H6	1.80	0.47
1:1:1658:G:N7	82:1:4113:OHX:N3	2.62	0.47
1:1:1863:G:N1	1:1:1866:C:OP2	2.45	0.47
1:1:2878:G:H5"	5:k:5:LYS:HE2	1.95	0.47
5:k:347:SER:C	5:k:349:LYS:H	2.22	0.47
9:o:87:VAL:HG11	9:o:243:MET:HE1	1.97	0.47
14:t:185:LYS:C	14:t:187:ALA:H	2.23	0.47
16:v:75:VAL:O	16:v:76:PRO:C	2.57	0.47
20:z:92:GLN:O	20:z:96:ILE:HG13	2.14	0.47
22:2:136:ARG:HD2	22:2:139:ARG:NH2	2.27	0.47
32:AE:51:LEU:HB3	32:AE:55:LEU:HD23	1.96	0.47
39:AL:10:GLN:HA	39:AL:13:GLU:CD	2.38	0.47
1:AR:67:A:OP1	82:AR:3455:OHX:N6	2.48	0.47
1:AR:291:C:OP2	16:CP:128:LYS:NZ	2.42	0.47
1:AR:715:A:H4'	1:AR:716:A:OP1	2.15	0.47
1:AR:780:A:H5'	19:CS:160:GLY:O	2.14	0.47
1:AR:952:A:N3	1:AR:1114:U:O2'	2.36	0.47
1:AR:1134:G:N7	82:AR:3485:OHX:N3	2.63	0.47
1:AR:2941:A:O5'	1:AR:2943:G:H4'	2.14	0.47
82:AR:3408:OHX:N6	38:DL:46:SER:OG	2.48	0.47
6:CF:74:ILE:CD1	6:CF:88:GLY:HA2	2.45	0.47
9:CI:184:LEU:O	9:CI:188:ILE:HG12	2.15	0.47
10:CJ:203:VAL:HG13	10:CJ:208:GLU:HG3	1.96	0.47
22:CV:39:ILE:HD12	22:CV:102:ARG:HD3	1.97	0.47
35:DI:38:LEU:HD12	35:DI:38:LEU:H	1.79	0.47
46:p0:38:MET:O	46:p0:41:VAL:HG22	2.14	0.47
46:p0:105:VAL:HG23	46:p0:184:GLY:HA3	1.97	0.47
47:A:711:U:H1'	47:A:712:G:C8	2.44	0.47
47:A:790:U:H2'	47:A:791:A:O4'	2.14	0.47
47:A:804:A:N3	70:X:105:THR:HG22	2.30	0.47
47:A:837:G:N7	82:A:1907:OHX:N6	2.62	0.47
47:A:1533:C:H5'	66:T:27:LYS:HE3	1.96	0.47
48:B:142:PRO:HB3	69:W:34:ILE:HD11	1.96	0.47
49:C:113:MET:HG2	49:C:209:ASN:ND2	2.30	0.47
53:G:117:THR:HG22	53:G:191:ALA:O	2.15	0.47
54:H:182:GLN:H	54:H:182:GLN:CD	2.22	0.47
56:J:89:GLU:O	56:J:93:THR:HG22	2.14	0.47
61:O:33:VAL:CG1	61:O:66:ILE:HD13	2.44	0.47
63:Q:95:GLY:C	63:Q:102:PHE:HB3	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:R:73:GLY:H	64:R:76:SER:HB3	1.79	0.47
68:V:74:GLU:CD	68:V:75:GLY:H	2.22	0.47
75:c:15:GLU:OE2	75:c:24:LEU:HB2	2.15	0.47
47:sR:93:A:H1'	52:s4:3:ARG:O	2.14	0.47
47:sR:1680:G:O6	82:sR:2023:OHX:N4	2.47	0.47
51:s3:106:LYS:O	51:s3:110:LEU:HG	2.14	0.47
53:s5:219:ARG:NH1	53:s5:220:VAL:HA	2.29	0.47
66:c8:45:LEU:O	66:c8:49:LYS:HG2	2.15	0.47
78:e0:30:PRO:O	78:e0:35:TYR:HB2	2.15	0.47
1:1:429:U:H5'	34:AG:88:ASN:HB2	1.96	0.47
1:1:643:U:H5"	1:1:953:G:O6	2.14	0.47
1:1:1618:G:H4'	3:4:129:C:C1'	2.44	0.47
1:1:1643:A:O2'	1:1:1644:C:O4'	2.30	0.47
1:1:2407:C:H2'	1:1:2408:U:H6	1.80	0.47
1:1:2746:A:N7	7:m:153:THR:HG21	2.30	0.47
1:1:3229:G:H1'	15:u:133:LYS:HG2	1.95	0.47
1:1:3357:U:H2'	1:1:3358:U:H6	1.79	0.47
2:3:62:U:O4	2:3:63:A:N6	2.47	0.47
3:4:143:U:H2'	3:4:144:G:O4'	2.15	0.47
4:j:130:SER:HB3	4:j:174:ARG:HH21	1.80	0.47
5:k:109:HIS:ND1	5:k:200:GLU:OE1	2.27	0.47
6:l:105:THR:O	14:t:26:PHE:HZ	1.97	0.47
7:m:104:LEU:HD11	7:m:108:ARG:NH2	2.30	0.47
8:n:157:GLN:HA	8:n:160:SER:HB3	1.97	0.47
9:o:52:GLN:O	9:o:56:GLU:HG2	2.15	0.47
11:q:41:ILE:HG23	11:q:43:VAL:HG13	1.97	0.47
12:r:140:THR:HG21	12:r:148:VAL:HG11	1.96	0.47
14:t:63:VAL:HG13	14:t:66:ASN:HD21	1.80	0.47
16:v:190:THR:O	16:v:194:GLN:HG3	2.15	0.47
18:x:48:LEU:O	18:x:51:VAL:HG22	2.15	0.47
20:z:21:LYS:HE3	20:z:55:VAL:HA	1.96	0.47
26:8:92:LYS:HE2	26:8:112:THR:HG23	1.96	0.47
26:8:105:VAL:HA	26:8:130:TYR:CE2	2.49	0.47
27:9:88:GLU:HA	27:9:94:SER:HA	1.97	0.47
34:AG:32:ILE:HG23	34:AG:100:ILE:HD12	1.96	0.47
35:AH:29:ILE:HD11	35:AH:31:ARG:NH2	2.30	0.47
35:AH:41:ARG:HG2	35:AH:56:THR:HG21	1.97	0.47
1:AR:595:G:C8	1:AR:609:G:C6	3.02	0.47
1:AR:980:A:H2'	1:AR:981:U:N1	2.30	0.47
1:AR:1019:G:H1	1:AR:1033:U:H3	1.61	0.47
1:AR:1033:U:H2'	1:AR:1034:U:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1495:U:H4'	1:AR:1514:G:H4'	1.96	0.47
1:AR:1630:U:OP1	28:DB:67:LYS:HD2	2.14	0.47
1:AR:2384:A:N1	17:CQ:96:LYS:HE2	2.30	0.47
1:AR:2502:A:H3'	1:AR:2503:G:C8	2.49	0.47
1:AR:2773:C:H2'	1:AR:2774:C:H6	1.78	0.47
1:AR:3060:C:H1'	1:AR:3332:U:H1'	1.97	0.47
2:AS:12:U:O4'	2:AS:110:G:N2	2.48	0.47
5:CE:86:VAL:HG22	5:CE:162:VAL:HG12	1.96	0.47
9:CI:189:ILE:HG23	9:CI:190:THR:HG23	1.97	0.47
10:CJ:52:TRP:HB3	10:CJ:56:VAL:HG13	1.96	0.47
11:CK:4:ILE:HD11	21:CU:143:PHE:CE2	2.49	0.47
12:CL:46:PHE:HD2	12:CL:139:ARG:HE	1.63	0.47
13:CM:80:LEU:HG	13:CM:84:LEU:HD11	1.95	0.47
24:CX:87:ARG:HH22	24:CX:137:VAL:HB	1.80	0.47
25:CY:4:GLU:HG2	25:CY:30:ARG:CZ	2.45	0.47
27:DA:39:LEU:HD11	27:DA:107:THR:C	2.39	0.47
28:DB:23:VAL:HG13	28:DB:44:ALA:C	2.40	0.47
44:DR:84:ARG:HE	44:DR:85:ARG:NH1	2.12	0.47
46:p0:94:THR:HB	46:p0:98:ASN:ND2	2.30	0.47
45:sM:76:VAL:HG12	47:sR:1460:A:C5	2.49	0.47
47:A:488:G:OP1	47:A:488:G:H4'	2.15	0.47
47:A:530:C:O2	72:Z:61:ARG:NH2	2.45	0.47
47:A:549:G:OP2	82:A:2104:OHX:N6	2.48	0.47
47:A:1615:C:H2'	53:G:81:ARG:HD2	1.96	0.47
47:A:1793:G:N7	74:b:34:LYS:NZ	2.59	0.47
48:B:185:ARG:HB2	69:W:45:ALA:O	2.15	0.47
50:D:88:LYS:HE2	50:D:90:THR:HG22	1.97	0.47
53:G:99:MET:HA	53:G:104:ASN:ND2	2.29	0.47
54:H:180:THR:O	54:H:184:LEU:HD12	2.15	0.47
59:M:53:TYR:CD1	59:M:113:PRO:HG2	2.49	0.47
59:M:78:THR:HA	59:M:84:ILE:HG22	1.95	0.47
60:N:25:GLU:HG3	60:N:25:GLU:O	2.15	0.47
61:O:37:ILE:HG22	61:O:54:LEU:HD12	1.97	0.47
62:P:86:THR:HG23	62:P:87:GLY:H	1.79	0.47
62:P:128:LYS:NZ	74:b:27:SER:OG	2.29	0.47
64:R:58:ASP:O	64:R:60:PHE:CD2	2.67	0.47
66:T:25:ASN:HB3	73:a:40:VAL:CG2	2.45	0.47
69:W:37:ALA:HA	69:W:50:TYR:HD1	1.78	0.47
70:X:7:LEU:HG	70:X:11:LEU:HD12	1.97	0.47
73:a:40:VAL:HA	73:a:72:GLY:H	1.80	0.47
79:g:144:CYS:HB3	79:g:147:VAL:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:h:89:LEU:HB2	80:h:103:PHE:HB2	1.97	0.47
80:h:211:ILE:HD11	80:h:223:TRP:HB2	1.95	0.47
80:h:258:THR:HG23	80:h:259:GLY:N	2.30	0.47
47:sR:647:G:N2	47:sR:688:G:C4	2.82	0.47
47:sR:835:U:H2'	47:sR:836:U:H6	1.79	0.47
47:sR:1064:G:H2'	47:sR:1065:A:C8	2.49	0.47
47:sR:1514:U:H1'	51:s3:6:SER:HA	1.97	0.47
47:sR:1565:C:H2'	47:sR:1566:U:C6	2.50	0.47
47:sR:1610:G:H5"	53:s5:107:LYS:HB2	1.96	0.47
80:Rb:141:LEU:HD23	80:Rb:186:PHE:CZ	2.50	0.47
49:s1:81:PHE:CD1	49:s1:82:ARG:HG3	2.50	0.47
49:s1:81:PHE:HD1	49:s1:82:ARG:HG3	1.79	0.47
50:s2:154:LEU:HD11	50:s2:169:LEU:HB3	1.96	0.47
52:s4:49:ARG:NH1	52:s4:50:ASN:OD1	2.48	0.47
52:s4:92:LEU:HD13	52:s4:99:PHE:HE1	1.79	0.47
54:s6:179:VAL:HG12	54:s6:184:LEU:HD11	1.97	0.47
59:c1:13:PHE:CE2	59:c1:15:LYS:HG3	2.49	0.47
59:c1:57:LYS:HB3	59:c1:131:ILE:HD13	1.95	0.47
61:c3:16:ILE:O	70:d2:57:ARG:NH2	2.39	0.47
68:d0:43:LYS:HD3	68:d0:47:GLN:OE1	2.15	0.47
69:d1:57:GLY:O	69:d1:61:SER:HB2	2.15	0.47
73:d5:41:ILE:HD12	73:d5:42:LEU:H	1.78	0.47
76:d8:12:VAL:HB	76:d8:28:VAL:CG2	2.44	0.47
78:e0:50:VAL:CG1	78:e0:52:GLY:H	2.22	0.47
1:1:677:A:OP1	19:y:89:ASP:HB3	2.14	0.47
1:1:844:G:O6	82:1:3446:OHX:N5	2.48	0.47
1:1:1039:U:H2'	1:1:1040:A:C8	2.50	0.47
1:1:1108:U:H2'	1:1:1109:U:H6	1.79	0.47
1:1:1179:A:H5'	34:AG:75:HIS:NE2	2.30	0.47
1:1:1213:G:H4'	21:0:90:MET:CG	2.45	0.47
1:1:2094:C:H2'	1:1:2095:G:C8	2.49	0.47
2:3:98:C:OP1	21:0:39:SER:OG	2.28	0.47
4:j:30:ARG:NH1	4:j:36:GLU:HG3	2.30	0.47
5:k:112:ASP:HA	5:k:115:LYS:HB2	1.97	0.47
5:k:128:LYS:O	5:k:131:THR:OG1	2.29	0.47
7:m:148:ILE:HD12	7:m:151:GLN:HB3	1.97	0.47
11:q:162:GLN:HG2	11:q:179:ILE:O	2.14	0.47
13:s:82:ARG:HD3	13:s:112:LEU:O	2.14	0.47
13:s:149:GLY:O	13:s:153:LYS:HG3	2.15	0.47
18:x:36:ILE:HD11	18:x:48:LEU:HD11	1.97	0.47
19:y:120:GLU:OE2	19:y:130:ARG:NH2	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:0:137:ARG:HD2	21:0:137:ARG:N	2.30	0.47
35:AH:74:ARG:CZ	35:AH:74:ARG:HB3	2.45	0.47
1:AR:123:A:C6	1:AR:150:A:C5	3.03	0.47
1:AR:249:U:H4'	1:AR:250:U:O5'	2.14	0.47
1:AR:352:A:H61	1:AR:365:A:H5"	1.79	0.47
1:AR:1088:U:H2'	1:AR:1089:G:C8	2.50	0.47
1:AR:1213:G:H4'	21:CU:90:MET:CG	2.45	0.47
1:AR:1394:A:H4'	1:AR:1420:C:H4'	1.96	0.47
1:AR:1615:C:H2'	1:AR:1616:U:H6	1.80	0.47
1:AR:1936:A:H2'	1:AR:1937:U:O4'	2.15	0.47
1:AR:2144:A:H1'	1:AR:2281:A:H61	1.80	0.47
1:AR:2572:C:OP2	82:AR:4152:OHX:N1	2.47	0.47
1:AR:3160:U:H2'	1:AR:3161:C:C6	2.50	0.47
2:AS:120:C:C2	7:CG:265:TYR:HD2	2.33	0.47
3:AT:68:G:OP1	38:DL:86:ALA:N	2.48	0.47
5:CE:107:ALA:HA	5:CE:199:PHE:HD2	1.80	0.47
5:CE:261:MET:HG2	17:CQ:64:PHE:HA	1.96	0.47
10:CJ:165:PHE:HZ	16:CP:3:ALA:HB1	1.80	0.47
13:CM:46:VAL:HG23	45:sM:25:ILE:HG22	1.97	0.47
20:CT:23:TRP:HB2	20:CT:53:LYS:HG2	1.96	0.47
21:CU:63:GLN:NE2	21:CU:65:ASN:OD1	2.45	0.47
21:CU:93:GLU:OE1	21:CU:137:ARG:HB2	2.15	0.47
24:CX:129:VAL:O	24:CX:133:SER:OG	2.18	0.47
26:CZ:121:LYS:HD3	26:CZ:123:TYR:CZ	2.49	0.47
27:DA:100:HIS:ND1	27:DA:102:SER:HB3	2.30	0.47
37:DK:90:MET:HE2	37:DK:90:MET:HB3	1.53	0.47
46:p0:33:VAL:HG13	46:p0:37:GLN:CD	2.39	0.47
47:A:1031:U:H4'	47:A:1032:G:OP2	2.15	0.47
47:A:1066:C:O3'	49:C:149:GLN:HG3	2.15	0.47
47:A:1301:U:H5'	50:D:88:LYS:HD2	1.95	0.47
47:A:1327:C:O2'	51:E:159:HIS:ND1	2.48	0.47
47:A:1584:G:H22	47:A:1611:A:P	2.38	0.47
48:B:175:TYR:HD1	48:B:176:LEU:HD23	1.80	0.47
49:C:135:LEU:HA	49:C:217:LEU:HD11	1.97	0.47
49:C:169:SER:O	49:C:173:THR:HG22	2.15	0.47
50:D:59:HIS:CG	50:D:238:SER:HB3	2.50	0.47
53:G:73:THR:HB	64:R:114:ARG:HD2	1.97	0.47
56:J:163:GLY:O	56:J:164:ARG:HG3	2.15	0.47
63:Q:81:ARG:NH1	63:Q:97:TYR:O	2.46	0.47
64:R:39:VAL:HG22	64:R:45:ARG:NH1	2.30	0.47
66:T:35:ILE:O	66:T:38:VAL:HG22	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:V:57:ARG:HA	68:V:89:ARG:NE	2.30	0.47
80:h:152:SER:HB2	80:h:172:ALA:O	2.14	0.47
47:sR:791:A:H2'	47:sR:792:U:O4'	2.15	0.47
47:sR:1261:G:H2'	47:sR:1262:U:C6	2.50	0.47
47:sR:1554:U:H3'	47:sR:1555:A:H8	1.80	0.47
47:sR:1566:U:H4'	66:c8:37:GLY:O	2.15	0.47
47:sR:1689:A:H2'	47:sR:1690:G:O4'	2.15	0.47
48:s0:48:ILE:HD12	48:s0:149:LEU:HD21	1.95	0.47
49:s1:180:THR:OG1	49:s1:181:LEU:N	2.47	0.47
52:s4:121:TYR:HD2	52:s4:161:LYS:HG3	1.80	0.47
53:s5:112:ARG:HD3	73:d5:95:HIS:CD2	2.50	0.47
55:s7:76:LYS:O	55:s7:80:GLU:HG3	2.14	0.47
56:s8:81:VAL:HA	56:s8:102:VAL:HG12	1.95	0.47
57:s9:140:ILE:HD13	72:d4:65:GLY:HA3	1.96	0.47
60:c2:59:LEU:O	60:c2:122:VAL:HG21	2.15	0.47
63:c5:54:ALA:O	63:c5:58:LYS:HB2	2.14	0.47
1:1:1035:G:H3'	1:1:1036:A:H8	1.80	0.47
1:1:1353:U:O2	8:n:10:TYR:N	2.47	0.47
1:1:2426:U:H2'	1:1:2427:U:C6	2.50	0.47
1:1:2854:U:P	12:r:3:ARG:HH22	2.38	0.47
3:4:142:C:H4'	16:v:60:VAL:HG21	1.97	0.47
6:l:120:TYR:CE2	6:l:277:PRO:HB3	2.50	0.47
6:l:144:LYS:HZ3	6:l:175:HIS:HB3	1.80	0.47
9:o:25:GLN:O	9:o:25:GLN:HG2	2.14	0.47
10:p:72:PRO:HG2	10:p:75:ILE:HD12	1.97	0.47
11:q:25:VAL:O	11:q:35:THR:HA	2.15	0.47
12:r:72:ALA:HB2	12:r:155:ALA:HB2	1.97	0.47
13:s:133:ARG:HB2	13:s:152:HIS:NE2	2.30	0.47
15:u:94:TRP:O	15:u:97:SER:OG	2.33	0.47
20:z:117:LYS:HG3	20:z:118:HIS:N	2.29	0.47
21:0:161:LYS:HD3	21:0:162:THR:HG23	1.97	0.47
24:6:39:VAL:HG21	24:6:51:ALA:C	2.39	0.47
25:7:60:LYS:O	25:7:60:LYS:CD	2.58	0.47
33:AF:86:THR:HG22	33:AF:115:LEU:HD22	1.96	0.47
38:AK:88:ALA:HB3	82:AK:102:OHX:N6	2.30	0.47
43:AP:10:THR:C	43:AP:20:HIS:CD2	2.78	0.47
45:i:81:THR:O	45:i:83:LYS:NZ	2.28	0.47
1:AR:230:U:H2'	1:AR:231:G:O4'	2.15	0.47
1:AR:374:A:N3	1:AR:376:G:H5"	2.30	0.47
1:AR:659:G:H4'	6:CF:92:ASN:O	2.15	0.47
1:AR:1378:U:H2'	1:AR:1379:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1566:A:N6	1:AR:1571:A:N1	2.63	0.47
1:AR:2659:G:H4'	1:AR:2751:G:O2'	2.15	0.47
1:AR:2663:G:O6	82:AR:3401:OHX:N1	2.48	0.47
1:AR:3343:G:N2	1:AR:3361:G:H2'	2.30	0.47
2:AS:13:A:N3	7:CG:24:ARG:NH2	2.61	0.47
4:CD:44:ILE:HD11	4:CD:85:GLY:HA2	1.95	0.47
9:CI:58:ALA:O	9:CI:62:ILE:HG12	2.14	0.47
10:CJ:166:LEU:HD23	10:CJ:166:LEU:HA	1.72	0.47
18:CR:129:THR:HG22	18:CR:137:ASN:O	2.15	0.47
23:CW:93:ILE:HA	23:CW:106:ALA:O	2.15	0.47
26:CZ:56:ARG:O	26:CZ:61:LYS:HD2	2.15	0.47
37:DK:62:ARG:HE	37:DK:94:ILE:HD11	1.80	0.47
47:A:702:G:C6	47:A:737:A:C6	3.03	0.47
47:A:702:G:C6	47:A:737:A:N6	2.83	0.47
47:A:1140:G:OP2	82:A:2117:OHX:N6	2.47	0.47
47:A:1165:G:C6	47:A:1166:A:C6	3.03	0.47
49:C:111:ARG:CG	74:b:68:TYR:HB2	2.45	0.47
49:C:164:ILE:HG22	49:C:168:ILE:CD1	2.44	0.47
56:J:72:ILE:HG13	56:J:73:SER:N	2.29	0.47
62:P:49:LYS:HA	62:P:49:LYS:HD2	1.49	0.47
65:S:79:GLU:HG3	65:S:80:ARG:HH11	1.80	0.47
66:T:11:PHE:CD1	66:T:59:GLY:HA3	2.49	0.47
66:T:49:LYS:HZ3	66:T:81:ILE:HG13	1.80	0.47
66:T:66:LEU:HA	66:T:69:ILE:HB	1.97	0.47
67:U:24:ARG:HG3	67:U:24:ARG:O	2.15	0.47
71:Y:92:CYS:HA	71:Y:95:PHE:CD1	2.50	0.47
47:sR:8:U:O2'	82:sR:1928:OHX:N1	2.48	0.47
47:sR:200:A:H2'	47:sR:201:G:H8	1.79	0.47
47:sR:1071:U:H2'	47:sR:1072:C:C6	2.49	0.47
47:sR:1473:U:O4	53:s5:180:ARG:NH1	2.48	0.47
47:sR:1783:C:H2'	47:sR:1784:C:H6	1.79	0.47
80:Rb:49:GLY:HA2	80:Rb:54:PHE:HE1	1.79	0.47
80:Rb:218:GLY:HA3	80:Rb:238:ASP:O	2.15	0.47
54:s6:62:PRO:HG2	54:s6:83:CYS:SG	2.55	0.47
57:s9:86:LEU:HD12	57:s9:86:LEU:HA	1.74	0.47
66:c8:76:PRO:CB	66:c8:81:ILE:HD11	2.45	0.47
69:d1:41:GLU:O	69:d1:42:GLU:HB2	2.14	0.47
70:d2:37:PHE:O	70:d2:40:VAL:HG22	2.14	0.47
72:d4:21:LYS:HB2	72:d4:75:VAL:HG23	1.96	0.47
1:1:938:C:O2	1:1:2813:A:O2'	2.33	0.47
1:1:1396:C:H2'	1:1:1397:C:H6	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1743:G:H2'	1:1:1744:G:H8	1.80	0.47
1:1:3157:U:H4'	1:1:3158:G:O5'	2.15	0.47
3:4:129:C:H2'	3:4:130:C:H6	1.80	0.47
12:r:100:ASN:HD21	12:r:118:ALA:CB	2.26	0.47
18:x:10:ASN:O	18:x:14:SER:OG	2.24	0.47
20:z:10:LEU:O	20:z:14:VAL:HG12	2.14	0.47
20:z:43:LYS:HE3	20:z:43:LYS:HB3	1.66	0.47
22:2:83:ARG:HE	22:2:85:LEU:HD11	1.80	0.47
24:6:93:LEU:HD23	24:6:93:LEU:H	1.80	0.47
28:AA:104:PRO:HA	28:AA:107:ARG:HB2	1.95	0.47
1:AR:437:G:H8	1:AR:437:G:O5'	1.97	0.47
1:AR:652:G:OP1	1:AR:1436:U:O2'	2.33	0.47
1:AR:1116:G:N2	1:AR:2817:A:O4'	2.48	0.47
1:AR:3043:C:P	24:CX:48:ARG:HH22	2.38	0.47
1:AR:3334:U:H4'	1:AR:3335:A:H5'	1.96	0.47
5:CE:53:MET:HE2	5:CE:77:THR:CG2	2.44	0.47
5:CE:196:ARG:HA	5:CE:199:PHE:CD1	2.50	0.47
5:CE:292:ALA:HA	5:CE:303:LYS:N	2.24	0.47
11:CK:28:VAL:HG12	11:CK:33:THR:HB	1.96	0.47
12:CL:145:LYS:O	12:CL:149:VAL:HG13	2.14	0.47
18:CR:25:SER:O	18:CR:29:THR:HG23	2.15	0.47
22:CV:19:PHE:CZ	22:CV:20:ARG:HG3	2.50	0.47
34:DH:42:GLN:HA	34:DH:45:LEU:HG	1.96	0.47
45:sM:61:ILE:HG23	45:sM:62:ARG:H	1.79	0.47
47:A:609:U:H4'	47:A:610:G:O5'	2.15	0.47
47:A:784:C:N4	72:Z:11:LYS:HG2	2.30	0.47
47:A:848:C:H2'	47:A:849:C:H6	1.80	0.47
47:A:1077:C:OP1	74:b:13:LYS:NZ	2.36	0.47
47:A:1579:U:H2'	47:A:1580:C:C6	2.50	0.47
51:E:26:THR:HG23	51:E:34:TYR:HE2	1.79	0.47
56:J:153:GLU:HB2	56:J:156:VAL:HG12	1.95	0.47
56:J:159:GLN:HB2	56:J:165:LEU:HD22	1.97	0.47
59:M:109:VAL:HG12	59:M:137:PHE:HB2	1.97	0.47
64:R:55:VAL:CG2	64:R:105:LEU:HG	2.44	0.47
64:R:103:ASN:OD1	64:R:106:LYS:HE2	2.15	0.47
64:R:136:SER:C	64:R:137:ARG:HD2	2.40	0.47
69:W:71:ARG:HB2	69:W:83:TRP:CE3	2.50	0.47
80:h:50:ASP:N	80:h:53:LYS:O	2.46	0.47
47:sR:30:G:H2'	47:sR:31:C:C6	2.50	0.47
47:sR:161:U:H2'	47:sR:162:A:C8	2.50	0.47
47:sR:1007:C:H5"	62:c4:135:ARG:HG3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:Rb:256:THR:HG21	80:Rb:261:LYS:CG	2.44	0.47
80:Rb:299:GLN:HA	80:Rb:315:VAL:HG22	1.97	0.47
49:s1:137:ILE:HG23	49:s1:172:LEU:HD23	1.97	0.47
49:s1:149:GLN:NE2	49:s1:151:LYS:HE2	2.29	0.47
53:s5:157:ARG:O	53:s5:224:ASN:HB3	2.14	0.47
54:s6:190:GLN:HA	54:s6:193:LEU:HD12	1.96	0.47
61:c3:13:SER:OG	61:c3:14:SER:N	2.48	0.47
62:c4:50:ALA:HB1	62:c4:52:ARG:HG2	1.96	0.47
81:c7:29:GLN:HA	81:c7:32:LYS:HE3	1.96	0.47
67:c9:37:VAL:HG21	67:c9:100:ILE:HD11	1.97	0.47
79:e1:123:ASN:HB3	79:e1:143:LYS:HZ3	1.80	0.47
79:e1:130:VAL:HG13	79:e1:143:LYS:CD	2.45	0.47
1:1:304:G:H3'	1:1:304:G:OP2	2.16	0.46
1:1:1228:C:H2'	1:1:1229:G:C8	2.50	0.46
1:1:1228:C:H2'	1:1:1229:G:H8	1.80	0.46
1:1:1506:A:H1'	1:1:1848:G:O6	2.15	0.46
1:1:1620:U:H2'	1:1:1621:A:C8	2.50	0.46
1:1:1831:U:O2'	3:4:114:G:OP1	2.16	0.46
1:1:2258:U:OP1	82:1:3455:OHX:N2	2.48	0.46
1:1:2629:U:O4	22:2:2:GLY:N	2.48	0.46
1:1:2710:C:H2'	1:1:2711:C:C6	2.51	0.46
22:2:17:ARG:HB3	22:2:22:HIS:NE2	2.30	0.46
29:AB:24:LYS:H	29:AB:24:LYS:HD2	1.80	0.46
31:AD:28:LYS:O	31:AD:31:VAL:HG22	2.16	0.46
41:AN:120:GLN:O	41:AN:121:LEU:HD23	2.14	0.46
1:AR:289:A:C2	16:CP:93:LYS:HG3	2.50	0.46
1:AR:432:G:H2'	1:AR:433:A:C8	2.50	0.46
1:AR:533:A:OP2	82:AR:3583:OHX:N6	2.48	0.46
1:AR:847:A:H2'	1:AR:848:A:C8	2.49	0.46
1:AR:1369:A:H5"	29:DC:21:ARG:HD2	1.97	0.46
1:AR:1609:C:H2'	1:AR:1610:G:C8	2.50	0.46
1:AR:2259:A:OP2	82:AR:3448:OHX:N1	2.48	0.46
1:AR:2741:C:H4'	43:DQ:19:LYS:HA	1.96	0.46
1:AR:2880:U:OP1	24:CX:47:ASN:ND2	2.48	0.46
1:AR:3218:A:H5"	1:AR:3219:G:C5	2.50	0.46
6:CF:327:LEU:HD21	9:CI:164:SER:O	2.15	0.46
12:CL:149:VAL:O	12:CL:153:ARG:HB2	2.15	0.46
14:CN:62:THR:O	14:CN:64:LYS:N	2.48	0.46
16:CP:48:ALA:C	16:CP:53:TYR:HB3	2.40	0.46
18:CR:25:SER:HB3	18:CR:28:ASN:HB2	1.96	0.46
32:DF:19:ARG:HB3	32:DF:35:GLU:HG2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DH:57:LYS:HE2	34:DH:57:LYS:HB3	1.63	0.46
47:A:707:A:H61	47:A:730:G:H22	1.63	0.46
47:A:1594:G:C6	47:A:1595:U:N3	2.83	0.46
53:G:211:ILE:HG13	53:G:212:LYS:N	2.30	0.46
54:H:21:GLU:O	54:H:24:ILE:HG12	2.16	0.46
56:J:142:LYS:O	56:J:146:ARG:HB2	2.15	0.46
61:O:72:MET:HE2	61:O:82:PRO:HD2	1.96	0.46
63:Q:126:VAL:HG13	63:Q:127:ARG:H	1.80	0.46
64:R:132:LYS:NZ	89:R:201:HOH:O	2.47	0.46
65:S:24:LEU:HA	65:S:31:ASN:OD1	2.16	0.46
74:b:10:ARG:HG3	74:b:34:LYS:HA	1.97	0.46
47:sR:180:A:H2'	47:sR:181:A:O4'	2.15	0.46
47:sR:209:U:H2'	47:sR:210:A:C8	2.50	0.46
47:sR:244:A:C2'	47:sR:245:U:H5'	2.45	0.46
47:sR:454:U:H5"	47:sR:454:U:C6	2.49	0.46
47:sR:1097:U:H4'	47:sR:1098:U:H5'	1.97	0.46
47:sR:1298:U:OP1	82:sR:1907:OHX:N3	2.48	0.46
80:Rb:132:LYS:HB2	80:Rb:140:CYS:SG	2.55	0.46
80:Rb:171:SER:HB3	80:Rb:179:LYS:HB2	1.97	0.46
49:s1:154:SER:O	49:s1:154:SER:OG	2.31	0.46
52:s4:35:PRO:HB3	52:s4:143:ASP:O	2.14	0.46
53:s5:63:GLN:HB3	53:s5:88:PRO:HA	1.97	0.46
53:s5:142:PRO:O	53:s5:162:VAL:HG21	2.15	0.46
55:s7:126:LEU:O	55:s7:130:VAL:HG22	2.14	0.46
64:c6:106:LYS:HD2	64:c6:117:LEU:CD1	2.45	0.46
81:c7:14:LYS:HD2	81:c7:68:GLY:O	2.16	0.46
69:d1:60:ARG:HB3	69:d1:65:SER:HB2	1.96	0.46
74:d6:52:ASP:HA	74:d6:55:GLU:HG3	1.97	0.46
78:e0:48:THR:HB	78:e0:50:VAL:HG23	1.97	0.46
1:1:209:A:H4'	1:1:211:A:C8	2.50	0.46
1:1:499:G:H2'	1:1:500:C:C6	2.50	0.46
1:1:806:A:N3	1:1:2812:C:O2'	2.45	0.46
1:1:1345:G:H21	6:l:307:GLN:NE2	2.13	0.46
1:1:1404:G:N1	1:1:1407:A:OP2	2.45	0.46
1:1:1433:A:N3	33:AF:27:ARG:NH1	2.63	0.46
1:1:1785:U:H2'	1:1:1786:G:C8	2.50	0.46
1:1:1927:G:C8	44:AQ:16:VAL:HG22	2.49	0.46
1:1:2588:U:OP1	10:p:48:ARG:NH2	2.29	0.46
1:1:3145:C:H2'	1:1:3146:G:H8	1.80	0.46
6:l:22:LEU:HD23	6:l:22:LEU:HA	1.80	0.46
7:m:94:ASN:OD1	7:m:97:ALA:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:m:107:ARG:HD3	7:m:169:GLY:O	2.15	0.46
10:p:178:ALA:HB2	10:p:218:ILE:HD12	1.96	0.46
10:p:203:VAL:HG11	10:p:211:LEU:HD13	1.96	0.46
11:q:68:LEU:O	11:q:71:VAL:HG22	2.15	0.46
37:AJ:86:LYS:NZ	37:AJ:89:GLU:OE1	2.47	0.46
44:AQ:46:THR:O	44:AQ:58:SER:N	2.41	0.46
1:AR:728:G:H5"	19:CS:43:PRO:HB2	1.96	0.46
1:AR:1491:A:HO2'	1:AR:1843:C:HO2'	1.60	0.46
4:CD:29:LEU:HA	4:CD:76:PHE:CE1	2.50	0.46
5:CE:21:ARG:HG2	5:CE:269:GLN:HG2	1.98	0.46
6:CF:131:VAL:O	6:CF:135:VAL:HG23	2.16	0.46
7:CG:105:ILE:O	7:CG:109:THR:HG23	2.16	0.46
7:CG:260:PHE:O	7:CG:265:TYR:CD1	2.68	0.46
12:CL:36:LEU:HA	12:CL:36:LEU:HD23	1.53	0.46
22:CV:126:VAL:HG23	22:CV:127:GLN:H	1.80	0.46
27:DA:106:ILE:HG21	27:DA:109:LEU:HD23	1.98	0.46
43:DQ:8:ARG:HG2	43:DQ:10:THR:HB	1.97	0.46
43:DQ:43:TYR:O	43:DQ:47:GLN:HG2	2.15	0.46
47:A:802:G:O6	82:A:1917:OHX:N3	2.48	0.46
47:A:1081:A:HO2'	47:A:1082:C:P	2.36	0.46
47:A:1533:C:H3'	73:a:74:SER:OG	2.15	0.46
47:A:1596:C:P	77:e:19:ARG:HH12	2.35	0.46
49:C:159:SER:HA	49:C:162:ARG:HH11	1.81	0.46
57:K:171:ARG:NE	57:K:171:ARG:HA	2.30	0.46
61:O:33:VAL:HG13	61:O:66:ILE:HD13	1.97	0.46
68:V:24:ILE:HD12	68:V:115:GLU:O	2.14	0.46
70:X:27:ILE:HG12	70:X:61:ILE:HB	1.97	0.46
80:h:167:VAL:HG12	80:h:183:LEU:HD13	1.97	0.46
80:h:316:MET:HG3	80:h:317:THR:O	2.15	0.46
47:sR:567:A:H1'	78:e0:14:VAL:HG13	1.97	0.46
47:sR:605:A:OP2	47:sR:606:A:O2'	2.29	0.46
47:sR:1263:G:C2	47:sR:1264:G:H1'	2.51	0.46
47:sR:1657:U:O2'	47:sR:1658:G:OP2	2.23	0.46
80:Rb:49:GLY:HA2	80:Rb:54:PHE:CE1	2.50	0.46
48:s0:62:ARG:NH2	69:d1:38:LYS:HD2	2.28	0.46
50:s2:152:HIS:ND1	50:s2:174:ARG:HG2	2.30	0.46
55:s7:33:GLU:HG2	55:s7:34:LEU:H	1.80	0.46
61:c3:128:TYR:O	61:c3:132:VAL:HG22	2.15	0.46
63:c5:58:LYS:HD3	63:c5:58:LYS:HA	1.58	0.46
66:c8:14:ILE:H	66:c8:14:ILE:HD12	1.80	0.46
1:1:432:G:H2'	1:1:433:A:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:664:U:H2'	1:1:665:A:C8	2.51	0.46
1:1:665:A:H1'	14:t:14:PHE:CE2	2.51	0.46
1:1:809:G:N1	1:1:932:U:O4	2.48	0.46
1:1:1064:A:H5"	1:1:1066:G:O4'	2.15	0.46
1:1:1313:G:H2'	1:1:1314:C:C6	2.51	0.46
1:1:1497:C:H2'	1:1:1498:A:C8	2.50	0.46
1:1:2514:U:H5'	10:p:68:ARG:HG3	1.97	0.46
1:1:2746:A:H2'	1:1:2747:A:O4'	2.16	0.46
1:1:2748:A:O3'	7:m:48:LYS:NZ	2.40	0.46
1:1:3216:G:OP2	34:AG:2:ALA:N	2.48	0.46
2:3:7:G:OP1	7:m:33:ARG:HD2	2.15	0.46
6:l:169:LEU:O	6:l:172:VAL:HG12	2.16	0.46
6:l:233:LEU:HD23	6:l:233:LEU:HA	1.63	0.46
11:q:26:LYS:HG3	11:q:35:THR:HG22	1.97	0.46
13:s:91:LEU:O	13:s:172:LEU:HG	2.16	0.46
15:u:54:PRO:O	15:u:56:GLN:HG2	2.14	0.46
18:x:74:LYS:HE3	18:x:74:LYS:HB2	1.67	0.46
36:AI:20:GLN:HG2	36:AI:24:LEU:HD11	1.95	0.46
1:AR:251:G:H4'	1:AR:252:U:OP1	2.14	0.46
1:AR:284:A:N6	1:AR:2785:A:O4'	2.49	0.46
1:AR:675:C:O2'	1:AR:679:U:OP1	2.33	0.46
1:AR:1230:G:H4'	46:p0:33:VAL:O	2.14	0.46
1:AR:1239:C:N4	1:AR:1249:G:H1	2.14	0.46
1:AR:1447:G:N7	18:CR:25:SER:OG	2.45	0.46
1:AR:2174:G:OP2	4:CD:18:SER:OG	2.32	0.46
1:AR:2190:U:H2'	1:AR:2191:U:O4'	2.15	0.46
1:AR:2315:G:H2'	1:AR:2316:G:H8	1.80	0.46
1:AR:3333:G:N2	1:AR:3369:G:O2'	2.47	0.46
6:CF:98:ARG:HD2	6:CF:99:MET:O	2.15	0.46
6:CF:139:GLY:O	6:CF:141:ARG:NH1	2.48	0.46
11:CK:19:SER:HA	15:CO:6:ILE:O	2.15	0.46
30:DD:22:LYS:HE2	30:DD:22:LYS:HB3	1.78	0.46
47:A:702:G:O2'	47:A:703:G:O4'	2.32	0.46
47:A:1000:C:C5	47:A:1003:A:H2'	2.50	0.46
47:A:1638:G:H2'	47:A:1639:C:O4'	2.15	0.46
47:A:1681:A:H61	47:A:1720:G:H1'	1.81	0.46
48:B:155:PHE:O	69:W:60:ARG:NH1	2.48	0.46
49:C:129:THR:HA	49:C:177:GLN:H	1.80	0.46
50:D:59:HIS:HA	69:W:15:ARG:HE	1.81	0.46
51:E:14:ASP:HA	51:E:17:PHE:HB3	1.97	0.46
51:E:34:TYR:HA	51:E:52:ALA:HA	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:J:46:VAL:HG22	56:J:54:LYS:O	2.14	0.46
57:K:3:ARG:HG3	57:K:4:ALA:N	2.31	0.46
57:K:135:ALA:HB2	57:K:140:ILE:HD13	1.96	0.46
59:M:57:LYS:HD3	59:M:131:ILE:HG23	1.97	0.46
60:N:81:ASP:OD1	60:N:81:ASP:N	2.46	0.46
65:S:44:LYS:O	65:S:47:ARG:HG3	2.15	0.46
66:T:3:LEU:HG	73:a:82:HIS:ND1	2.31	0.46
71:Y:110:LYS:O	71:Y:112:LYS:HG2	2.16	0.46
80:h:36:ALA:HA	80:h:42:LEU:HG	1.96	0.46
80:h:183:LEU:HD23	80:h:186:PHE:HE1	1.81	0.46
80:h:219:GLU:HA	80:h:235:SER:HA	1.97	0.46
47:sR:492:A:H1'	47:sR:496:G:H1	1.81	0.46
47:sR:1200:G:H4'	47:sR:1201:G:C5'	2.46	0.46
47:sR:1429:G:H2'	47:sR:1430:U:C6	2.50	0.46
80:Rb:74:THR:HG22	80:Rb:115:ILE:HG12	1.97	0.46
51:s3:11:LEU:HD12	51:s3:11:LEU:HA	1.71	0.46
51:s3:211:PRO:CD	81:c7:19:ARG:HB2	2.44	0.46
52:s4:160:VAL:HG12	52:s4:172:PHE:CB	2.46	0.46
54:s6:17:GLU:H	54:s6:17:GLU:CD	2.23	0.46
60:c2:59:LEU:HD12	60:c2:59:LEU:HA	1.64	0.46
60:c2:85:LYS:HG2	60:c2:86:VAL:H	1.80	0.46
64:c6:6:SER:HB2	64:c6:23:LYS:CB	2.45	0.46
64:c6:69:VAL:HG21	64:c6:81:ILE:CG1	2.43	0.46
68:d0:64:LYS:O	77:d9:33:LYS:NZ	2.48	0.46
70:d2:8:ALA:HA	70:d2:74:VAL:HG11	1.97	0.46
70:d2:126:LEU:HD23	70:d2:126:LEU:HA	1.75	0.46
71:d3:37:ALA:O	71:d3:41:SER:HB3	2.15	0.46
79:e1:144:CYS:O	79:e1:146:SER:N	2.49	0.46
1:1:99:A:H1'	1:1:281:G:N7	2.30	0.46
1:1:799:G:O2'	14:t:18:TRP:NE1	2.45	0.46
1:1:1559:A:H4'	1:1:1560:G:OP2	2.15	0.46
1:1:1566:A:H3'	1:1:1567:U:H5"	1.97	0.46
1:1:2555:G:O4'	35:AH:91:ARG:HD2	2.15	0.46
2:3:17:A:OP1	7:m:2:ALA:HB2	2.16	0.46
3:4:67:U:H2'	3:4:68:G:C8	2.50	0.46
4:j:134:VAL:HG12	4:j:151:PRO:HD3	1.97	0.46
7:m:23:ARG:HA	7:m:23:ARG:HD2	1.80	0.46
12:r:129:VAL:HA	12:r:133:GLN:OE1	2.16	0.46
14:t:61:PRO:O	14:t:62:THR:OG1	2.33	0.46
15:u:14:LEU:HD23	21:0:151:PRO:HB3	1.96	0.46
1:AR:22:G:H1'	3:AT:104:A:N3	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1062:A:N3	22:CV:130:ARG:NH2	2.46	0.46
1:AR:1722:U:H2'	1:AR:1723:A:O4'	2.15	0.46
1:AR:2897:A:H2'	1:AR:2899:C:H5"	1.96	0.46
2:AS:112:G:H2'	2:AS:113:C:C6	2.51	0.46
5:CE:252:ILE:HG21	5:CE:266:ARG:HH21	1.80	0.46
5:CE:339:ARG:HG2	5:CE:340:LYS:O	2.16	0.46
10:CJ:64:ILE:O	10:CJ:68:ARG:HG2	2.16	0.46
10:CJ:94:PHE:CZ	10:CJ:152:LEU:HD11	2.51	0.46
17:CQ:35:VAL:HG11	17:CQ:80:PHE:HE2	1.79	0.46
17:CQ:62:THR:HG22	17:CQ:65:ASN:H	1.79	0.46
26:CZ:65:GLN:HG3	26:CZ:85:GLN:HB3	1.97	0.46
28:DB:61:LYS:O	28:DB:64:LYS:HB3	2.15	0.46
33:DG:82:LEU:HD12	33:DG:108:ILE:HG23	1.97	0.46
47:A:110:U:O4	82:A:1935:OHX:N1	2.48	0.46
47:A:142:G:O6	54:H:177:ARG:NH2	2.49	0.46
47:A:156:A:H2'	47:A:157:A:O4'	2.16	0.46
47:A:391:A:OP2	56:J:23:LYS:HD3	2.15	0.46
47:A:1105:C:H2'	47:A:1106:U:C6	2.50	0.46
47:A:1132:A:H2'	47:A:1133:A:C8	2.50	0.46
47:A:1185:U:O2'	47:A:1458:G:N7	2.41	0.46
47:A:1379:C:H1'	64:R:19:VAL:HG11	1.98	0.46
47:A:1477:G:H2'	47:A:1478:G:C8	2.50	0.46
47:A:1498:G:N2	47:A:1510:U:O2	2.48	0.46
47:A:1581:C:O2'	47:A:1582:U:H5'	2.16	0.46
50:D:53:ILE:HD11	50:D:110:HIS:CD2	2.50	0.46
53:G:44:ASN:ND2	53:G:70:VAL:HG22	2.31	0.46
53:G:44:ASN:HD21	53:G:70:VAL:HG22	1.80	0.46
53:G:59:VAL:HG13	53:G:60:ASP:OD2	2.15	0.46
64:R:13:LYS:HA	64:R:13:LYS:HD2	1.58	0.46
67:U:42:GLY:CA	67:U:94:ILE:HD11	2.45	0.46
67:U:98:GLY:O	67:U:102:ARG:HB2	2.16	0.46
68:V:20:ILE:HB	68:V:22:ILE:CG1	2.44	0.46
68:V:68:ARG:CZ	68:V:77:LYS:HA	2.45	0.46
80:h:166:SER:O	80:h:168:THR:HG22	2.16	0.46
47:sR:176:C:H3'	47:sR:177:U:C6	2.49	0.46
47:sR:301:A:OP2	82:sR:1949:OHX:N1	2.49	0.46
47:sR:521:A:H2'	47:sR:522:U:O4'	2.14	0.46
47:sR:988:A:H2	62:c4:126:THR:HG22	1.81	0.46
47:sR:1017:U:H2'	47:sR:1018:U:C6	2.51	0.46
47:sR:1390:U:OP2	81:c7:49:LYS:HG2	2.16	0.46
80:Rb:44:SER:O	80:Rb:58:VAL:HG22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:Rb:122:ILE:O	80:Rb:134:TRP:HB2	2.14	0.46
49:s1:135:LEU:HD22	49:s1:217:LEU:HD12	1.97	0.46
51:s3:141:LYS:HB3	51:s3:145:ALA:HA	1.97	0.46
52:s4:162:ILE:HG12	52:s4:169:ILE:HG22	1.98	0.46
52:s4:191:ARG:CZ	52:s4:245:LYS:HD2	2.45	0.46
53:s5:200:ASN:HB2	53:s5:205:SER:HB3	1.98	0.46
54:s6:215:ARG:HA	54:s6:215:ARG:HD2	1.61	0.46
56:s8:25:ARG:HD3	56:s8:27:PHE:CE2	2.50	0.46
56:s8:26:LYS:O	56:s8:29:LEU:HD23	2.15	0.46
60:c2:99:GLU:HA	60:c2:102:GLY:HA2	1.97	0.46
63:c5:36:LEU:HD23	63:c5:36:LEU:H	1.80	0.46
1:1:705:A:H4'	1:1:706:A:OP1	2.16	0.46
1:1:851:C:H2'	1:1:852:U:H6	1.81	0.46
1:1:911:C:H5"	4:j:15:ILE:HD13	1.98	0.46
1:1:1833:G:H5"	40:AM:10:LYS:HD3	1.98	0.46
1:1:2210:G:H2'	1:1:2211:U:C6	2.51	0.46
1:1:2914:G:H5"	5:k:9:PRO:HG3	1.97	0.46
1:1:3111:U:OP2	82:1:3419:OHX:N2	2.49	0.46
1:1:3217:C:C5	1:1:3220:G:H1'	2.51	0.46
4:j:97:ASN:HB2	4:j:100:ASN:ND2	2.31	0.46
4:j:127:ALA:HB2	4:j:134:VAL:HG13	1.98	0.46
6:l:205:PRO:HB3	6:l:247:PHE:CE2	2.50	0.46
9:o:25:GLN:HB2	9:o:29:GLU:H	1.80	0.46
13:s:53:THR:HG23	13:s:59:ILE:O	2.15	0.46
15:u:7:VAL:O	15:u:8:LYS:O	2.34	0.46
22:2:126:VAL:HG13	22:2:127:GLN:H	1.81	0.46
31:AD:17:VAL:HG22	31:AD:98:SER:HB2	1.97	0.46
31:AD:99:ASP:O	31:AD:103:THR:HG23	2.15	0.46
41:AN:98:LYS:HD3	41:AN:118:THR:HG21	1.96	0.46
43:AP:35:LEU:O	43:AP:36:PHE:HB2	2.15	0.46
1:AR:160:G:H1	1:AR:261:U:H3	1.64	0.46
1:AR:286:U:H2'	1:AR:287:G:H8	1.80	0.46
1:AR:824:C:H2'	1:AR:825:U:C6	2.50	0.46
1:AR:1363:A:OP2	82:AR:4161:OHX:N1	2.48	0.46
1:AR:2553:U:O4'	31:DE:50:VAL:HB	2.16	0.46
1:AR:2730:G:H4'	19:CS:184:PHE:CD2	2.50	0.46
2:AS:7:G:OP1	7:CG:33:ARG:HD2	2.16	0.46
5:CE:85:VAL:HG23	5:CE:201:LYS:O	2.16	0.46
7:CG:297:GLN:HA	82:CG:303:OHX:N5	2.31	0.46
9:CI:95:ILE:HG22	9:CI:100:ARG:HB2	1.97	0.46
14:CN:190:LYS:C	14:CN:192:GLU:H	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:158:HIS:H	19:CS:186:VAL:CG1	2.27	0.46
29:DC:122:PRO:HB3	29:DC:142:GLY:O	2.15	0.46
47:A:438:A:H1'	47:A:466:U:O2	2.16	0.46
47:A:864:U:OP2	75:c:26:GLN:NE2	2.48	0.46
47:A:953:G:H5'	61:O:114:ARG:CD	2.44	0.46
47:A:1207:C:N3	47:A:1456:C:H5	2.13	0.46
47:A:1229:G:H1'	47:A:1256:A:H61	1.80	0.46
47:A:1250:U:O2'	47:A:1251:U:OP1	2.32	0.46
47:A:1550:A:OP2	63:Q:42:ARG:NH2	2.48	0.46
48:B:27:ARG:HA	48:B:45:VAL:HA	1.98	0.46
48:B:76:ILE:HG12	48:B:98:ILE:HB	1.98	0.46
48:B:88:LYS:HA	48:B:88:LYS:HD3	1.46	0.46
48:B:158:VAL:HG23	69:W:69:LEU:HD23	1.98	0.46
49:C:137:ILE:HD12	49:C:172:LEU:HG	1.98	0.46
53:G:192:GLU:O	53:G:196:GLU:HG3	2.16	0.46
56:J:102:VAL:HG12	56:J:103:GLN:N	2.31	0.46
65:S:52:GLY:O	65:S:55:THR:OG1	2.33	0.46
47:sR:230:C:N4	47:sR:235:G:H22	2.14	0.46
47:sR:800:U:H2'	47:sR:801:G:C8	2.48	0.46
47:sR:1417:A:O3'	64:c6:128:LYS:HE2	2.15	0.46
47:sR:1733:C:H2'	47:sR:1734:U:H6	1.81	0.46
80:Rb:248:ASN:ND2	80:Rb:297:ASP:O	2.49	0.46
49:s1:109:LYS:O	49:s1:112:SER:OG	2.20	0.46
49:s1:179:SER:OG	49:s1:187:LYS:NZ	2.48	0.46
52:s4:121:TYR:CD2	52:s4:161:LYS:HG3	2.51	0.46
53:s5:200:ASN:HB2	53:s5:205:SER:CB	2.46	0.46
60:c2:60:VAL:HA	60:c2:122:VAL:HB	1.97	0.46
62:c4:70:LYS:O	62:c4:74:VAL:HG12	2.14	0.46
63:c5:96:ILE:HG12	63:c5:116:LEU:HB3	1.98	0.46
69:d1:36:VAL:HG11	69:d1:78:LEU:HD23	1.98	0.46
70:d2:96:ALA:HB3	70:d2:99:PHE:CE1	2.50	0.46
77:d9:46:LYS:O	77:d9:50:ILE:HG13	2.15	0.46
1:1:634:C:H5'	34:AG:21:ARG:O	2.16	0.46
1:1:1028:U:H5"	1:1:1029:G:H5'	1.98	0.46
1:1:1386:A:N7	6:l:183:LYS:HD3	2.30	0.46
1:1:1674:G:N7	82:1:4087:OHX:N6	2.63	0.46
1:1:2097:U:H2'	1:1:2098:C:C6	2.51	0.46
1:1:2586:G:C5	10:p:241:LYS:HB2	2.50	0.46
1:1:2704:A:OP2	82:1:4072:OHX:N5	2.47	0.46
1:1:2855:U:OP2	12:r:6:ALA:HB3	2.15	0.46
1:1:3138:U:OP2	5:k:30:LYS:HD2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:m:108:ARG:CZ	7:m:253:PHE:HB2	2.45	0.46
19:y:96:PHE:CE2	19:y:114:ILE:HA	2.48	0.46
22:2:45:ASN:OD1	22:2:47:SER:OG	2.31	0.46
27:9:112:ASP:O	27:9:116:LYS:HG2	2.15	0.46
37:AJ:54:GLU:O	37:AJ:58:ILE:HG23	2.16	0.46
1:AR:595:G:N1	1:AR:609:G:H5"	2.30	0.46
1:AR:789:A:H2'	1:AR:790:U:C6	2.50	0.46
1:AR:1108:U:H2'	1:AR:1109:U:C6	2.51	0.46
1:AR:1863:G:N1	1:AR:1866:C:OP2	2.36	0.46
3:AT:92:A:H2'	3:AT:93:U:O4'	2.16	0.46
5:CE:105:VAL:HG21	5:CE:148:LEU:HD11	1.97	0.46
5:CE:114:VAL:HG22	5:CE:163:HIS:CG	2.51	0.46
10:CJ:57:ARG:O	10:CJ:61:GLN:HG3	2.16	0.46
13:CM:166:LYS:HG3	13:CM:167:TYR:CD1	2.51	0.46
17:CQ:186:ALA:O	17:CQ:187:GLU:HB3	2.16	0.46
24:CX:77:ILE:HD13	24:CX:126:TRP:CD1	2.50	0.46
30:DD:23:LYS:CD	30:DD:24:PRO:HD2	2.44	0.46
37:DK:93:ILE:O	37:DK:97:SER:HB3	2.16	0.46
47:A:15:U:H2'	47:A:16:G:O4'	2.15	0.46
47:A:226:A:H2'	47:A:227:U:H5'	1.96	0.46
47:A:830:U:O2'	47:A:831:U:H6	1.98	0.46
47:A:1041:G:H2'	47:A:1042:G:C8	2.51	0.46
47:A:1450:U:H2'	47:A:1451:C:H6	1.80	0.46
47:A:1617:U:H1'	76:d:22:ARG:O	2.16	0.46
49:C:57:ALA:O	49:C:58:SER:HB3	2.16	0.46
53:G:161:ASP:O	76:d:44:VAL:HA	2.15	0.46
56:J:106:ALA:HB2	56:J:165:LEU:HG	1.98	0.46
58:L:57:THR:HG22	58:L:66:TYR:HD1	1.80	0.46
62:P:57:PRO:HB3	62:P:100:ALA:CB	2.45	0.46
67:U:29:GLU:OE1	67:U:110:LYS:HD3	2.15	0.46
80:h:33:LEU:O	80:h:44:SER:HA	2.15	0.46
80:h:201:THR:HG21	80:h:243:LEU:HG	1.98	0.46
47:sR:74:U:H3'	47:sR:75:U:H3'	1.98	0.46
47:sR:532:U:H4'	72:d4:66:GLY:HA2	1.98	0.46
47:sR:930:A:OP1	74:d6:70:LYS:NZ	2.49	0.46
80:Rb:216:LYS:HA	80:Rb:239:GLU:HG3	1.97	0.46
80:Rb:240:VAL:HA	80:Rb:255:ALA:O	2.16	0.46
54:s6:147:LEU:HB3	54:s6:151:ASP:CG	2.41	0.46
56:s8:121:LEU:HB3	56:s8:157:GLU:HG3	1.98	0.46
59:c1:45:PRO:HB2	59:c1:47:THR:HG22	1.98	0.46
69:d1:56:SER:O	69:d1:59:VAL:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:d3:43:PHE:C	71:d3:45:GLY:H	2.24	0.46
75:d7:54:VAL:HG22	75:d7:64:CYS:SG	2.56	0.46
1:1:213:A:N6	1:1:227:G:O2'	2.46	0.46
1:1:832:G:OP1	82:1:3482:OHX:N4	2.49	0.46
1:1:929:A:H2'	1:1:930:U:C6	2.51	0.46
1:1:1823:A:H2'	1:1:1824:U:O4'	2.16	0.46
1:1:1864:A:O4'	20:z:83:GLY:HA3	2.16	0.46
1:1:2107:A:H2	1:1:3344:A:C8	2.34	0.46
1:1:3123:A:HO2'	11:q:40:HIS:CE1	2.30	0.46
82:1:4062:OHX:N5	19:y:180:ARG:O	2.49	0.46
82:1:4080:OHX:N1	16:v:33:LYS:O	2.48	0.46
3:4:52:A:N1	40:AM:35:ILE:HD13	2.31	0.46
4:j:3:ARG:HB3	4:j:207:VAL:O	2.15	0.46
6:l:20:LEU:HD21	6:l:252:GLU:HG3	1.97	0.46
9:o:153:PHE:HB3	9:o:160:ARG:HG3	1.98	0.46
10:p:150:LEU:HD12	10:p:215:VAL:HG12	1.97	0.46
14:t:8:PRO:HA	19:y:164:ARG:O	2.15	0.46
15:u:72:LEU:HD12	15:u:73:PRO:HD2	1.97	0.46
15:u:103:ILE:O	15:u:107:GLU:HG3	2.16	0.46
19:y:127:LEU:O	19:y:127:LEU:HD23	2.15	0.46
22:2:17:ARG:HB3	22:2:22:HIS:CE1	2.51	0.46
24:6:28:ASN:ND2	24:6:112:SER:H	2.13	0.46
29:AB:28:HIS:CD2	29:AB:32:ARG:HG2	2.50	0.46
36:AI:102:GLU:HA	36:AI:105:ARG:HG2	1.97	0.46
45:i:84:LYS:HB3	64:R:143:ARG:HH22	1.81	0.46
1:AR:501:A:H2'	1:AR:502:U:C6	2.51	0.46
1:AR:1117:G:OP1	30:DD:4:SER:HB2	2.16	0.46
1:AR:2200:U:H2'	1:AR:2201:G:O4'	2.15	0.46
1:AR:2655:U:H4'	1:AR:2656:A:O4'	2.16	0.46
1:AR:3094:A:H2'	1:AR:3095:U:C6	2.50	0.46
1:AR:3133:C:H2'	1:AR:3134:A:O4'	2.15	0.46
1:AR:3231:U:H2'	1:AR:3232:G:H8	1.79	0.46
1:AR:3277:U:O5'	18:CR:175:ARG:NH2	2.45	0.46
1:AR:3385:U:H2'	1:AR:3386:G:H8	1.81	0.46
4:CD:68:LYS:HD3	4:CD:70:ARG:HH21	1.81	0.46
8:CH:65:ILE:O	8:CH:76:LEU:HA	2.16	0.46
19:CS:89:ASP:HB2	19:CS:109:GLY:C	2.41	0.46
20:CT:173:ARG:HA	20:CT:176:ARG:HD3	1.97	0.46
22:CV:52:MET:HG3	22:CV:95:HIS:CE1	2.51	0.46
33:DG:86:THR:HG22	33:DG:115:LEU:CD2	2.45	0.46
37:DK:79:SER:OG	37:DK:80:PHE:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:p0:188:VAL:HG23	46:p0:189:GLN:N	2.31	0.46
47:A:1062:A:OP2	82:A:1975:OHX:N2	2.49	0.46
48:B:36:TYR:CD2	48:B:161:PRO:HG3	2.50	0.46
48:B:53:THR:O	48:B:56:LYS:HB2	2.15	0.46
49:C:192:VAL:O	49:C:196:GLU:HG3	2.16	0.46
49:C:217:LEU:HA	49:C:217:LEU:HD12	1.32	0.46
50:D:126:ARG:O	50:D:129:ILE:HG22	2.15	0.46
50:D:226:THR:HG23	50:D:228:ASN:OD1	2.15	0.46
54:H:150:GLU:OE1	54:H:150:GLU:N	2.48	0.46
56:J:46:VAL:CG2	56:J:54:LYS:HB3	2.45	0.46
59:M:92:HIS:O	59:M:100:TYR:HA	2.16	0.46
60:N:81:ASP:OD1	60:N:86:VAL:HG12	2.15	0.46
61:O:70:LYS:H	61:O:70:LYS:HD2	1.81	0.46
62:P:114:ARG:HD3	74:b:62:TYR:CE2	2.50	0.46
74:b:7:SER:C	74:b:9:GLY:H	2.24	0.46
80:h:48:THR:OG1	80:h:49:GLY:N	2.46	0.46
47:sR:699:U:O4	82:sR:1930:OHX:N1	2.48	0.46
48:s0:84:ARG:O	48:s0:88:LYS:HG2	2.15	0.46
49:s1:184:LEU:O	49:s1:188:LEU:HD12	2.15	0.46
53:s5:45:LYS:HD3	53:s5:45:LYS:HA	1.51	0.46
54:s6:28:PHE:CZ	54:s6:104:PRO:HB3	2.50	0.46
55:s7:67:LEU:O	55:s7:71:HIS:HB2	2.15	0.46
61:c3:30:SER:O	61:c3:33:VAL:HG22	2.16	0.46
81:c7:107:SER:O	81:c7:111:LYS:HG3	2.16	0.46
68:d0:38:SER:O	68:d0:42:VAL:HG23	2.15	0.46
72:d4:58:PHE:CE1	72:d4:72:PHE:HB3	2.50	0.46
1:1:72:C:H5'	14:t:63:VAL:HG22	1.97	0.46
1:1:112:U:O2'	1:1:113:C:H5"	2.16	0.46
1:1:282:G:O2'	1:1:283:G:OP2	2.28	0.46
1:1:600:G:H5'	1:1:601:U:OP2	2.16	0.46
1:1:608:A:C6	8:n:22:ARG:HD3	2.51	0.46
1:1:913:A:H2	1:1:2134:G:N3	2.14	0.46
1:1:1598:G:P	35:AH:31:ARG:HH21	2.38	0.46
1:1:2291:A:O2'	47:A:1655:A:N1	2.28	0.46
1:1:2438:A:H2'	1:1:2439:A:H8	1.79	0.46
1:1:3187:A:OP1	11:q:22:SER:HB2	2.16	0.46
5:k:139:GLN:O	5:k:140:ASP:C	2.57	0.46
5:k:260:VAL:HG11	5:k:266:ARG:NH1	2.31	0.46
8:n:76:LEU:N	8:n:138:GLN:OE1	2.42	0.46
11:q:161:LEU:O	11:q:164:ILE:HG22	2.16	0.46
19:y:8:LYS:HE3	30:AC:18:ARG:HH22	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:2:19:PHE:CZ	22:2:20:ARG:HG3	2.50	0.46
23:5:35:LYS:HE3	23:5:39:ASP:OD2	2.15	0.46
28:AA:10:VAL:HB	28:AA:83:THR:HG21	1.98	0.46
31:AD:43:ILE:CG2	31:AD:70:PHE:HB2	2.46	0.46
40:AM:21:ARG:HG2	40:AM:22:PRO:O	2.16	0.46
1:AR:61:A:H2'	1:AR:62:A:O4'	2.15	0.46
1:AR:145:G:O6	82:AR:3517:OHX:N5	2.49	0.46
1:AR:277:G:H2'	1:AR:278:U:C6	2.50	0.46
1:AR:649:A:OP2	1:AR:2868:U:O2'	2.33	0.46
1:AR:1494:U:P	40:DN:42:ARG:HH22	2.39	0.46
1:AR:1770:G:H5'	1:AR:1771:C:OP2	2.15	0.46
1:AR:2175:U:H1'	4:CD:26:ALA:H	1.81	0.46
1:AR:2179:C:O2'	4:CD:130:SER:OG	2.29	0.46
1:AR:2774:C:N3	1:AR:2786:G:N1	2.58	0.46
82:AR:4152:OHX:N5	28:DB:57:HIS:O	2.49	0.46
11:CK:180:TYR:HB2	41:DO:85:LEU:HD22	1.98	0.46
14:CN:64:LYS:HE2	14:CN:65:TYR:CZ	2.51	0.46
18:CR:82:ARG:NH2	89:CR:301:HOH:O	2.49	0.46
21:CU:93:GLU:CD	21:CU:135:VAL:HG23	2.41	0.46
28:DB:72:ILE:HD11	28:DB:107:ARG:HB3	1.98	0.46
39:DM:45:VAL:HG13	39:DM:52:TYR:HB2	1.97	0.46
47:A:37:U:H2'	47:A:38:C:O4'	2.16	0.46
47:A:452:A:H3'	47:A:453:U:C5	2.51	0.46
47:A:521:A:H2'	47:A:522:U:O4'	2.15	0.46
47:A:656:G:O6	47:A:678:A:O2'	2.31	0.46
47:A:1483:A:P	47:A:1521:G:H21	2.38	0.46
47:A:1610:G:OP2	64:R:75:VAL:HG11	2.16	0.46
48:B:106:SER:O	48:B:115:PHE:HD1	1.98	0.46
49:C:100:PHE:CD1	49:C:185:THR:HG21	2.51	0.46
49:C:161:ILE:HG13	49:C:162:ARG:N	2.31	0.46
53:G:123:VAL:HG11	73:a:100:ILE:HG21	1.97	0.46
57:K:123:HIS:HE1	78:f:37:ARG:HB2	1.81	0.46
65:S:110:VAL:HG22	65:S:114:GLY:H	1.80	0.46
66:T:41:ARG:HH11	67:U:46:PRO:HD3	1.81	0.46
69:W:3:ASN:ND2	69:W:7:GLN:HB3	2.29	0.46
74:b:41:ILE:HD12	74:b:68:TYR:HD2	1.81	0.46
76:d:58:GLU:HG2	76:d:58:GLU:O	2.16	0.46
78:f:55:ARG:NH2	78:f:61:SER:HB2	2.31	0.46
80:h:72:THR:CG2	80:h:115:ILE:HG13	2.45	0.46
47:sR:544:A:O2'	78:e0:28:LYS:HD2	2.15	0.46
47:sR:1156:C:OP1	82:sR:2010:OHX:N1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1320:U:N3	47:sR:1323:C:OP1	2.42	0.46
47:sR:1639:C:OP1	82:sR:2174:OHX:N1	2.49	0.46
80:Rb:129:LYS:HG2	80:Rb:149:ASP:O	2.16	0.46
53:s5:104:ASN:O	53:s5:106:LYS:HE2	2.16	0.46
55:s7:133:THR:HG21	55:s7:159:VAL:HA	1.98	0.46
57:s9:40:LYS:HA	57:s9:43:TYR:HB2	1.96	0.46
63:c5:127:ARG:HB2	63:c5:130:ARG:NH2	2.31	0.46
71:d3:101:GLU:O	71:d3:128:SER:N	2.43	0.46
74:d6:52:ASP:OD1	74:d6:52:ASP:N	2.49	0.46
1:1:900:G:H2'	1:1:901:G:C8	2.51	0.46
1:1:1145:G:H5'	33:AF:46:PHE:CE1	2.51	0.46
1:1:1231:A:N1	1:1:1279:C:N4	2.63	0.46
1:1:2585:G:H2'	1:1:2585:G:N3	2.31	0.46
1:1:2653:C:P	43:AP:89:LYS:HB2	2.55	0.46
4:j:111:THR:HB	4:j:136:ILE:HD13	1.98	0.46
5:k:139:GLN:C	5:k:141:GLY:N	2.70	0.46
7:m:61:ILE:HG23	7:m:79:TYR:CE1	2.51	0.46
10:p:143:ILE:HD11	10:p:151:VAL:HG11	1.97	0.46
20:z:51:VAL:HG12	20:z:53:LYS:H	1.81	0.46
22:2:107:GLU:O	22:2:110:LYS:HG3	2.16	0.46
26:8:56:ARG:O	26:8:57:LEU:HD12	2.16	0.46
1:AR:94:G:H2'	1:AR:95:A:C8	2.51	0.46
1:AR:503:C:O2	8:CH:23:LYS:NZ	2.34	0.46
1:AR:677:A:OP1	19:CS:89:ASP:HB3	2.16	0.46
1:AR:1232:C:C5	1:AR:1261:G:H2'	2.50	0.46
1:AR:2395:G:H4'	5:CE:258:ALA:HB1	1.98	0.46
1:AR:2763:U:N3	86:AR:4205:X1K:O2	2.49	0.46
1:AR:3273:A:C2'	1:AR:3274:A:H5'	2.46	0.46
9:CI:232:ARG:HG3	9:CI:232:ARG:O	2.15	0.46
10:CJ:120:LYS:O	10:CJ:121:SER:C	2.59	0.46
11:CK:91:ARG:HG2	11:CK:182:SER:CB	2.45	0.46
14:CN:190:LYS:HA	14:CN:190:LYS:HD2	1.64	0.46
15:CO:27:GLN:HG2	15:CO:28:SER:H	1.80	0.46
17:CQ:170:LYS:HD3	17:CQ:170:LYS:HA	1.55	0.46
26:CZ:50:ALA:O	36:DJ:66:VAL:HG11	2.16	0.46
29:DC:147:LEU:HB2	37:DK:7:ILE:HG22	1.98	0.46
46:p0:11:TYR:OH	46:p0:54:GLY:HA3	2.15	0.46
47:A:370:A:H4'	57:K:54:ARG:NH1	2.26	0.46
47:A:372:G:H1'	47:A:612:U:O2	2.16	0.46
47:A:780:A:C8	72:Z:8:ARG:HB3	2.51	0.46
47:A:805:U:O2	70:X:124:LYS:HE3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1062:A:H2'	47:A:1063:U:O4'	2.16	0.46
47:A:1180:C:H2'	47:A:1181:U:H6	1.80	0.46
47:A:1380:U:H2'	47:A:1381:U:O4'	2.16	0.46
47:A:1533:C:OP2	73:a:77:ARG:NH2	2.48	0.46
48:B:175:TYR:CD2	48:B:199:PRO:HA	2.51	0.46
49:C:66:VAL:HG12	62:P:34:SER:HA	1.98	0.46
51:E:44:THR:OG1	68:V:105:GLN:NE2	2.48	0.46
52:F:106:LYS:O	52:F:187:ARG:NH1	2.49	0.46
52:F:175:PHE:HE2	52:F:225:VAL:HG11	1.81	0.46
53:G:37:GLN:HG3	64:R:57:LEU:HD22	1.98	0.46
53:G:200:ASN:HB2	53:G:208:SER:HB3	1.98	0.46
54:H:141:ILE:CD1	54:H:153:VAL:HB	2.46	0.46
54:H:194:LYS:HD2	54:H:194:LYS:HA	1.73	0.46
55:I:46:ILE:HD13	55:I:60:ILE:HA	1.97	0.46
60:N:66:VAL:HG22	60:N:67:THR:H	1.80	0.46
73:a:56:THR:HA	73:a:103:ARG:NH1	2.31	0.46
80:h:13:LEU:HD11	80:h:45:TRP:CE2	2.50	0.46
47:sR:71:A:C2	47:sR:72:A:H1'	2.50	0.46
47:sR:474:A:OP1	57:s9:145:SER:HB3	2.15	0.46
47:sR:560:U:H2'	47:sR:561:G:C8	2.51	0.46
47:sR:843:U:H2'	47:sR:844:A:C8	2.51	0.46
47:sR:934:C:H6	74:d6:11:ASN:HB3	1.81	0.46
80:Rb:23:LEU:HG	80:Rb:291:SER:HB3	1.97	0.46
80:Rb:98:GLU:HG2	80:Rb:99:THR:N	2.31	0.46
50:s2:127:ALA:O	50:s2:131:ILE:HG12	2.16	0.46
55:s7:28:GLU:CD	55:s7:35:LYS:HB2	2.41	0.46
59:c1:111:VAL:HA	59:c1:139:VAL:CG1	2.45	0.46
64:c6:30:LYS:HG2	64:c6:35:PRO:HA	1.98	0.46
66:c8:140:THR:HG23	66:c8:141:THR:HG23	1.97	0.46
70:d2:32:LYS:O	70:d2:35:ILE:HG13	2.16	0.46
77:d9:6:VAL:O	77:d9:7:TRP:CG	2.69	0.46
1:1:547:G:H4'	1:1:548:G:OP1	2.16	0.46
1:1:641:C:H2'	1:1:642:U:O4'	2.15	0.46
1:1:956:U:O2'	1:1:2727:A:N7	2.45	0.46
1:1:1054:A:H5"	1:1:2637:A:H61	1.81	0.46
1:1:1573:G:N2	1:1:1574:C:O2'	2.49	0.46
1:1:1624:G:O2'	1:1:1643:A:N1	2.49	0.46
1:1:2537:U:H4'	1:1:2538:U:OP1	2.16	0.46
1:1:2707:C:H2'	1:1:2708:C:H6	1.80	0.46
1:1:2962:U:O4	4:j:216:HIS:HE1	1.98	0.46
1:1:3192:U:H2'	1:1:3193:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:4:155:A:H5'	10:p:185:ARG:NH1	2.31	0.46
4:j:33:ASP:O	4:j:37:ARG:HG2	2.16	0.46
7:m:3:PHE:HB3	7:m:5:LYS:HE3	1.96	0.46
33:AF:126:LEU:HD23	33:AF:126:LEU:HA	1.84	0.46
34:AG:42:GLN:HA	34:AG:45:LEU:HG	1.97	0.46
37:AJ:55:ARG:O	37:AJ:58:ILE:HG12	2.15	0.46
39:AL:31:LEU:HD22	39:AL:37:PRO:HB3	1.98	0.46
45:i:61:ILE:CG2	66:T:125:ILE:HD13	2.42	0.46
1:AR:170:G:H5"	36:DJ:109:ILE:HG12	1.97	0.46
1:AR:607:A:OP1	8:CH:26:ARG:NH2	2.49	0.46
1:AR:673:U:H2'	1:AR:674:G:H8	1.80	0.46
1:AR:688:G:H1'	1:AR:693:A:N1	2.31	0.46
1:AR:1019:G:OP1	45:sM:48:ARG:HA	2.15	0.46
1:AR:1901:A:O2'	1:AR:2918:G:OP1	2.34	0.46
1:AR:2407:C:H2'	1:AR:2408:U:H6	1.81	0.46
4:CD:102:LEU:HD22	4:CD:107:VAL:HG12	1.98	0.46
6:CF:52:VAL:HG11	6:CF:99:MET:CE	2.46	0.46
10:CJ:55:TYR:HA	10:CJ:58:VAL:HG12	1.98	0.46
14:CN:80:VAL:HG22	14:CN:85:LEU:O	2.16	0.46
17:CQ:9:ILE:HG21	17:CQ:19:LEU:HD11	1.97	0.46
19:CS:62:VAL:O	19:CS:87:VAL:HA	2.16	0.46
29:DC:73:LEU:O	29:DC:112:ILE:HA	2.16	0.46
39:DM:41:THR:HG23	39:DM:56:ILE:HB	1.98	0.46
45:sM:52:PRO:O	45:sM:54:PRO:HD3	2.16	0.46
47:A:340:U:H2'	47:A:341:A:C8	2.50	0.46
47:A:478:A:N6	47:A:539:G:H1	2.14	0.46
47:A:929:A:O5'	47:A:931:C:N4	2.49	0.46
47:A:1537:C:H5'	47:A:1538:U:OP1	2.16	0.46
47:A:1781:A:OP1	82:A:2102:OHX:N5	2.48	0.46
48:B:27:ARG:HD3	48:B:165:ARG:NH2	2.29	0.46
50:D:44:LEU:HD21	50:D:247:ALA:HB2	1.98	0.46
50:D:238:SER:HB2	50:D:239:PRO:HD2	1.98	0.46
52:F:77:ARG:HG3	52:F:82:TYR:CE2	2.51	0.46
63:Q:53:PRO:HB3	63:Q:57:MET:HE3	1.97	0.46
64:R:29:ILE:HG22	64:R:65:ILE:HB	1.98	0.46
70:X:77:PRO:O	70:X:79:PHE:N	2.46	0.46
47:sR:700:C:H2'	47:sR:701:U:C6	2.51	0.46
47:sR:1129:U:OP1	82:sR:1969:OHX:N1	2.49	0.46
47:sR:1346:A:H1'	47:sR:1347:U:H5"	1.97	0.46
47:sR:1607:G:H2'	47:sR:1608:U:H6	1.81	0.46
55:s7:39:ARG:N	55:s7:40:PRO:HD2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:c1:19:ILE:HD13	59:c1:32:LYS:O	2.16	0.46
1:1:98:G:H4'	1:1:281:G:OP1	2.16	0.45
1:1:355:A:H2'	1:1:356:C:O4'	2.16	0.45
1:1:776:U:H5	1:1:2719:U:O2	1.99	0.45
1:1:1369:A:OP1	29:AB:21:ARG:NH1	2.49	0.45
1:1:1730:G:OP1	82:1:4140:OHX:N3	2.49	0.45
1:1:2416:U:H2'	1:1:2417:U:C6	2.51	0.45
1:1:2903:A:H2'	1:1:2904:U:O4'	2.16	0.45
1:1:3375:A:O2'	1:1:3378:C:H5'	2.16	0.45
3:4:29:U:H2'	3:4:30:C:C6	2.51	0.45
5:k:113:GLU:OE1	5:k:167:ARG:HG2	2.17	0.45
5:k:239:PRO:HD2	5:k:242:THR:HG21	1.99	0.45
7:m:29:ASP:OD2	7:m:32:GLN:HG3	2.15	0.45
13:s:89:TYR:HD2	13:s:167:TYR:HB3	1.81	0.45
14:t:106:GLN:HB3	37:AJ:18:THR:OG1	2.16	0.45
19:y:173:GLU:HA	29:AB:51:GLY:O	2.16	0.45
21:0:12:ARG:HD2	21:0:22:PRO:HD2	1.98	0.45
24:6:6:ALA:HB2	24:6:126:TRP:CH2	2.51	0.45
24:6:33:ASN:ND2	24:6:63:LYS:HB2	2.32	0.45
27:9:31:LEU:HB3	27:9:101:PRO:HG3	1.98	0.45
33:AF:79:VAL:HG23	33:AF:111:ARG:HG2	1.98	0.45
35:AH:101:VAL:O	35:AH:105:VAL:HG13	2.16	0.45
41:AN:115:CYS:SG	41:AN:118:THR:HG22	2.56	0.45
1:AR:114:A:N1	1:AR:266:A:O2'	2.37	0.45
1:AR:1618:G:H4'	3:AT:129:C:C1'	2.46	0.45
1:AR:1941:C:O2'	1:AR:3344:A:N6	2.47	0.45
4:CD:93:LYS:HA	4:CD:93:LYS:HD2	1.54	0.45
6:CF:300:ARG:NH2	19:CS:38:ARG:O	2.49	0.45
12:CL:89:VAL:HG22	12:CL:136:PHE:CE1	2.51	0.45
12:CL:200:LEU:HG	12:CL:201:SER:N	2.31	0.45
44:DR:76:ALA:HA	44:DR:79:VAL:HG12	1.97	0.45
47:A:73:U:O2'	47:A:74:U:O4'	2.32	0.45
47:A:276:C:O2'	47:A:277:U:H5"	2.15	0.45
47:A:1146:G:C6	47:A:1147:A:C6	3.04	0.45
47:A:1148:C:H2'	47:A:1149:G:C8	2.51	0.45
47:A:1486:G:H1'	47:A:1592:A:O2'	2.16	0.45
47:A:1657:U:H4'	47:A:1658:G:O5'	2.15	0.45
48:B:157:ASP:O	48:B:158:VAL:C	2.59	0.45
49:C:131:ASP:O	49:C:132:ASP:C	2.57	0.45
50:D:58:LEU:HA	69:W:12:TYR:HE1	1.80	0.45
53:G:37:GLN:CG	64:R:57:LEU:HD22	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:I:129:LEU:HD22	55:I:172:VAL:HG21	1.98	0.45
56:J:112:TRP:O	56:J:116:HIS:HB2	2.16	0.45
57:K:37:LYS:HA	78:f:33:ARG:HA	1.97	0.45
67:U:100:ILE:HD12	67:U:100:ILE:N	2.30	0.45
76:d:56:LEU:HD12	76:d:57:MET:H	1.81	0.45
80:h:172:ALA:HA	80:h:178:VAL:HG12	1.97	0.45
47:sR:823:G:H2'	47:sR:824:G:O4'	2.17	0.45
47:sR:992:A:O2'	47:sR:1785:U:O2	2.30	0.45
47:sR:1297:G:N2	47:sR:1300:A:OP2	2.49	0.45
47:sR:1474:G:N7	73:d5:97:LYS:HE3	2.30	0.45
80:Rb:201:THR:OG1	80:Rb:202:LEU:N	2.49	0.45
80:Rb:269:TYR:CE2	80:Rb:271:VAL:HG22	2.51	0.45
50:s2:225:LEU:HD21	50:s2:230:TRP:CD1	2.50	0.45
53:s5:41:LYS:NZ	64:c6:53:LEU:O	2.48	0.45
53:s5:160:VAL:HG12	53:s5:161:ASP:H	1.80	0.45
54:s6:25:ARG:HA	54:s6:28:PHE:CD2	2.51	0.45
54:s6:142:ARG:HG3	54:s6:153:VAL:HG11	1.98	0.45
55:s7:111:LYS:O	55:s7:112:ARG:C	2.58	0.45
58:c0:3:MET:O	58:c0:4:PRO:C	2.56	0.45
70:d2:15:ASN:ND2	70:d2:71:LYS:HE2	2.31	0.45
1:1:8:C:H2'	1:1:9:U:O4'	2.15	0.45
1:1:945:C:H2'	1:1:946:U:C6	2.51	0.45
1:1:1097:G:H8	22:2:128:LEU:HD13	1.81	0.45
1:1:2593:A:H4'	1:1:2594:C:O5'	2.17	0.45
1:1:2698:G:O2'	22:2:12:ARG:HG3	2.16	0.45
1:1:3024:A:H4'	11:q:97:PHE:CE1	2.50	0.45
3:4:113:U:H5"	40:AM:7:PHE:CB	2.47	0.45
5:k:53:MET:SD	5:k:77:THR:HG22	2.56	0.45
5:k:139:GLN:CD	5:k:141:GLY:HA2	2.41	0.45
6:l:62:ALA:HB3	6:l:90:PHE:CE1	2.47	0.45
14:t:59:ARG:HD2	14:t:59:ARG:HA	1.85	0.45
14:t:77:LEU:HD23	14:t:97:VAL:HG12	1.98	0.45
19:y:37:ALA:CB	19:y:49:LEU:HD12	2.45	0.45
27:9:55:GLU:OE1	27:9:108:LYS:HE3	2.16	0.45
31:AD:46:ALA:HB2	31:AD:72:GLY:H	1.80	0.45
39:AL:10:GLN:HA	39:AL:13:GLU:OE2	2.17	0.45
44:AQ:37:TYR:HB2	44:AQ:47:VAL:HG13	1.98	0.45
1:AR:92:G:OP2	1:AR:93:C:H5"	2.15	0.45
1:AR:736:A:C5	1:AR:737:G:H1'	2.51	0.45
1:AR:929:A:H2'	1:AR:930:U:C6	2.52	0.45
1:AR:1015:U:H3'	1:AR:1016:C:H5"	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1235:U:C4'	1:AR:1236:G:H5'	2.40	0.45
1:AR:2344:U:H2'	1:AR:2345:A:C8	2.51	0.45
1:AR:2656:A:H4'	43:DQ:98:LYS:HD2	1.98	0.45
1:AR:2661:G:H2'	1:AR:2662:G:C8	2.51	0.45
1:AR:2767:U:OP1	43:DQ:34:SER:HB3	2.17	0.45
1:AR:3066:U:O4	82:AR:3604:OHX:N3	2.50	0.45
1:AR:3162:C:H2'	1:AR:3163:A:C8	2.50	0.45
1:AR:3186:A:H3'	11:CK:23:ARG:HH21	1.80	0.45
5:CE:238:LEU:HB2	5:CE:246:LEU:HB2	1.98	0.45
9:CI:151:ARG:NH1	9:CI:244:ASN:OD1	2.38	0.45
17:CQ:39:GLU:OE1	17:CQ:107:GLY:N	2.45	0.45
18:CR:138:LYS:HD2	18:CR:140:GLU:CD	2.41	0.45
19:CS:102:ALA:CB	19:CS:127:LEU:HD12	2.46	0.45
19:CS:185:LYS:HG2	19:CS:186:VAL:HG23	1.98	0.45
36:DJ:28:LEU:O	36:DJ:32:LYS:HG2	2.17	0.45
38:DL:53:ALA:HA	38:DL:56:ARG:NH1	2.30	0.45
46:p0:188:VAL:O	46:p0:189:GLN:HG2	2.16	0.45
47:A:880:C:OP1	61:O:107:LYS:HE3	2.16	0.45
47:A:1000:C:H5	47:A:1003:A:H2'	1.82	0.45
47:A:1537:C:O2'	47:A:1540:G:O6	2.18	0.45
48:B:76:ILE:CG1	48:B:98:ILE:HB	2.47	0.45
51:E:222:VAL:HG13	80:h:229:LYS:HA	1.96	0.45
55:I:27:LEU:O	55:I:30:SER:HB2	2.16	0.45
64:R:37:THR:O	64:R:38:LEU:HD12	2.16	0.45
66:T:96:LYS:HD2	66:T:96:LYS:HA	1.67	0.45
69:W:85:TYR:CD2	75:c:6:ASP:HB2	2.51	0.45
76:d:42:ARG:HG3	76:d:43:ASN:N	2.30	0.45
47:sR:312:A:C2	47:sR:314:C:H2'	2.52	0.45
47:sR:568:G:OP2	71:d3:70:LYS:HD3	2.16	0.45
47:sR:1222:C:N4	47:sR:1261:G:H1	2.08	0.45
47:sR:1756:A:H8	47:sR:1756:A:O5'	1.98	0.45
50:s2:76:LEU:HD21	50:s2:133:LYS:HE2	1.98	0.45
60:c2:88:LEU:HD21	60:c2:139:HIS:CE1	2.52	0.45
64:c6:95:LYS:HD2	64:c6:96:TYR:CE1	2.52	0.45
64:c6:140:LYS:HG3	64:c6:141:SER:H	1.82	0.45
69:d1:17:CYS:O	69:d1:21:ASN:N	2.46	0.45
75:d7:59:CYS:SG	75:d7:61:THR:HB	2.57	0.45
1:1:38:U:O3'	29:AB:32:ARG:HB2	2.16	0.45
1:1:58:G:H4'	16:v:155:VAL:HG22	1.99	0.45
1:1:352:A:H61	1:1:365:A:H5"	1.80	0.45
1:1:1334:U:H5"	9:o:206:LYS:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1513:G:OP1	20:z:5:ARG:NH2	2.49	0.45
1:1:2233:A:OP2	82:1:4102:OHX:N6	2.49	0.45
1:1:2615:G:H2'	1:1:2616:C:C6	2.51	0.45
1:1:2726:C:O2'	1:1:2727:A:H2'	2.15	0.45
1:1:2925:C:H2'	1:1:2926:A:O4'	2.17	0.45
1:1:3146:G:O2'	5:k:100:ARG:NH1	2.48	0.45
1:1:3198:U:O4	11:q:26:LYS:HB2	2.16	0.45
3:4:104:A:C8	3:4:105:A:C8	3.04	0.45
4:j:29:LEU:HB2	4:j:123:ARG:HA	1.98	0.45
13:s:164:LYS:HD2	13:s:171:VAL:HB	1.99	0.45
24:6:40:LYS:HE3	24:6:59:MET:SD	2.56	0.45
30:AC:14:ARG:CZ	30:AC:18:ARG:HD3	2.46	0.45
1:AR:706:A:O2'	1:AR:781:G:H1'	2.16	0.45
1:AR:968:G:H2'	1:AR:969:C:C6	2.51	0.45
1:AR:1018:G:H8	1:AR:1018:G:OP2	2.00	0.45
1:AR:1124:U:O4	82:AR:3635:OHX:N3	2.49	0.45
1:AR:2227:C:H2'	1:AR:2228:A:C8	2.52	0.45
1:AR:2348:A:O2'	1:AR:2391:G:OP1	2.27	0.45
1:AR:2525:G:P	4:CD:37:ARG:HH22	2.39	0.45
1:AR:2652:U:O3'	43:DQ:89:LYS:HG3	2.16	0.45
1:AR:3084:C:H2'	1:AR:3085:G:O4'	2.16	0.45
1:AR:3393:U:H2'	1:AR:3394:U:H6	1.82	0.45
82:AR:3478:OHX:N2	82:AR:4160:OHX:N3	2.64	0.45
5:CE:84:VAL:CG2	5:CE:162:VAL:HB	2.46	0.45
5:CE:147:GLU:OE2	5:CE:150:ARG:NH2	2.49	0.45
5:CE:305:ILE:HD11	5:CE:317:ILE:HG21	1.97	0.45
8:CH:56:LYS:HG2	8:CH:57:HIS:H	1.80	0.45
25:CY:33:ASN:OD1	25:CY:35:LYS:HB3	2.16	0.45
29:DC:103:ASP:HB3	29:DC:106:ALA:HB3	1.99	0.45
37:DK:90:MET:O	37:DK:94:ILE:HG22	2.16	0.45
41:DO:103:LEU:HD13	41:DO:110:CYS:HA	1.98	0.45
42:DP:2:ARG:HB3	42:DP:5:TRP:CD1	2.51	0.45
43:DQ:83:LEU:HA	43:DQ:83:LEU:HD23	1.71	0.45
45:sM:83:LYS:HD2	45:sM:83:LYS:HA	1.48	0.45
47:A:130:C:HO2'	47:A:131:C:P	2.38	0.45
47:A:338:C:H1'	56:J:5:ARG:HB3	1.97	0.45
47:A:444:C:H42	47:A:460:A:H62	1.64	0.45
47:A:545:A:H4'	47:A:546:U:OP1	2.15	0.45
47:A:648:G:C2	47:A:687:G:C2	3.04	0.45
47:A:760:A:H2'	47:A:761:G:O4'	2.16	0.45
47:A:817:A:O4'	55:I:110:GLN:NE2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1349:G:O2'	47:A:1379:C:N3	2.45	0.45
47:A:1785:U:H2'	47:A:1786:G:H8	1.81	0.45
47:A:1798:U:O3'	49:C:116:LYS:NZ	2.46	0.45
48:B:68:PRO:HB2	50:D:244:SER:OG	2.15	0.45
52:F:183:VAL:HB	52:F:189:LEU:HA	1.98	0.45
54:H:12:SER:HB3	54:H:124:LEU:HA	1.98	0.45
61:O:40:TYR:CE2	61:O:54:LEU:HD21	2.50	0.45
68:V:24:ILE:CG2	68:V:91:ILE:HB	2.46	0.45
68:V:90:TYR:O	68:V:91:ILE:HD13	2.15	0.45
72:Z:27:VAL:HG21	72:Z:40:LEU:HD21	1.98	0.45
72:Z:57:VAL:HG23	72:Z:73:GLY:HA3	1.99	0.45
75:c:36:LYS:O	75:c:77:THR:OG1	2.12	0.45
80:h:152:SER:OG	80:h:199:ILE:O	2.23	0.45
80:h:267:PRO:HG2	80:h:269:TYR:CD1	2.51	0.45
47:sR:68:A:H3'	47:sR:68:A:N3	2.31	0.45
47:sR:199:G:HO2'	47:sR:200:A:H8	1.64	0.45
47:sR:264:G:O6	82:sR:1915:OHX:N2	2.49	0.45
47:sR:853:G:H2'	47:sR:854:U:C6	2.52	0.45
47:sR:926:A:H1'	47:sR:988:A:C2	2.51	0.45
47:sR:1520:U:O5'	47:sR:1520:U:H6	1.99	0.45
48:s0:64:ILE:HG23	48:s0:73:VAL:HG11	1.98	0.45
48:s0:126:PRO:HG2	48:s0:152:PRO:HD2	1.98	0.45
54:s6:68:LEU:HB3	54:s6:69:LEU:HD23	1.97	0.45
56:s8:22:ARG:HD2	56:s8:25:ARG:NH1	2.30	0.45
62:c4:86:THR:HB	62:c4:91:THR:HG22	1.99	0.45
63:c5:15:HIS:O	63:c5:22:LEU:HB3	2.17	0.45
63:c5:33:PHE:O	63:c5:36:LEU:HD23	2.17	0.45
81:c7:25:THR:O	81:c7:31:ASN:ND2	2.36	0.45
67:c9:49:ASP:OD2	67:c9:53:TRP:N	2.49	0.45
67:c9:108:LEU:HD23	67:c9:108:LEU:HA	1.78	0.45
78:e0:59:GLY:O	78:e0:60:PRO:C	2.59	0.45
78:e0:62:VAL:O	78:e0:63:GLN:HB2	2.16	0.45
1:1:276:U:O2	16:v:93:LYS:NZ	2.42	0.45
1:1:839:C:H4'	1:1:1724:U:C2'	2.46	0.45
1:1:1286:A:H2'	1:1:1286:A:OP2	2.16	0.45
1:1:1374:G:N7	29:AB:10:LYS:NZ	2.64	0.45
1:1:2138:A:C5	38:AK:3:LYS:HB3	2.50	0.45
1:1:3251:U:H2'	1:1:3252:G:C8	2.51	0.45
2:3:19:C:H2'	2:3:20:A:C8	2.52	0.45
5:k:63:PRO:O	5:k:348:ARG:NH2	2.49	0.45
5:k:183:LEU:O	5:k:191:LYS:NZ	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:o:30:ARG:CZ	9:o:34:LYS:HE3	2.46	0.45
9:o:83:LEU:HD11	9:o:116:PHE:HB3	1.98	0.45
24:6:94:TYR:OH	25:7:41:LYS:NZ	2.49	0.45
28:AA:63:ALA:O	28:AA:67:LYS:HG2	2.16	0.45
29:AB:74:ASN:C	29:AB:76:ASP:N	2.72	0.45
43:AP:12:CYS:HB2	43:AP:23:HIS:NE2	2.32	0.45
45:i:123:ALA:HA	45:i:126:ASP:HB2	1.98	0.45
1:AR:175:C:H2'	1:AR:176:G:H8	1.81	0.45
1:AR:738:A:H2'	1:AR:739:G:C8	2.52	0.45
1:AR:908:G:H4'	1:AR:909:G:O5'	2.17	0.45
1:AR:1073:U:H1'	30:DD:50:THR:OG1	2.15	0.45
1:AR:1222:G:C8	46:p0:57:THR:HB	2.51	0.45
1:AR:1321:G:H4'	21:CU:115:ARG:HG3	1.99	0.45
1:AR:1728:G:H5"	1:AR:1730:G:O4'	2.16	0.45
1:AR:2245:C:H4'	4:CD:221:LYS:O	2.17	0.45
12:CL:101:LYS:HA	12:CL:101:LYS:HD2	1.72	0.45
13:CM:107:ASP:HA	13:CM:124:GLY:HA2	1.98	0.45
20:CT:106:LEU:HB3	20:CT:120:TYR:CE1	2.51	0.45
30:DD:48:HIS:HE1	30:DD:52:LYS:HD3	1.81	0.45
41:DO:94:SER:OG	41:DO:105:PRO:HA	2.16	0.45
44:DR:76:ALA:O	44:DR:79:VAL:HG12	2.17	0.45
47:A:498:G:O2'	47:A:499:U:O5'	2.33	0.45
47:A:591:A:P	78:f:43:ARG:HH22	2.38	0.45
47:A:602:U:H2'	47:A:603:U:C6	2.51	0.45
47:A:812:A:N6	47:A:858:G:H2'	2.32	0.45
48:B:77:SER:HB2	48:B:124:THR:OG1	2.17	0.45
49:C:129:THR:O	49:C:177:GLN:HA	2.15	0.45
56:J:65:PHE:O	56:J:109:PHE:HZ	1.99	0.45
64:R:131:GLY:HA2	64:R:138:PHE:CE1	2.52	0.45
67:U:23:GLN:HG3	67:U:55:TYR:CE1	2.51	0.45
68:V:57:ARG:HG2	68:V:89:ARG:HD3	1.99	0.45
70:X:38:LEU:HD23	70:X:47:ILE:HD13	1.98	0.45
71:Y:43:PHE:C	71:Y:45:GLY:H	2.24	0.45
47:sR:393:C:H41	47:sR:400:A:H1'	1.81	0.45
47:sR:565:C:N3	82:sR:2005:OHX:N3	2.64	0.45
47:sR:678:A:H5"	47:sR:679:U:OP2	2.16	0.45
47:sR:1234:A:H2'	47:sR:1235:C:H5	1.81	0.45
47:sR:1478:G:OP2	67:c9:43:ASN:ND2	2.50	0.45
47:sR:1489:U:OP2	47:sR:1515:A:N6	2.44	0.45
80:Rb:9:LEU:CB	80:Rb:313:TRP:HA	2.46	0.45
80:Rb:129:LYS:HG2	80:Rb:149:ASP:C	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:s3:13:ALA:O	51:s3:16:VAL:HG22	2.17	0.45
52:s4:159:THR:HB	52:s4:227:VAL:HG23	1.98	0.45
55:s7:162:ILE:O	55:s7:166:LEU:HG	2.16	0.45
58:c0:32:HIS:HA	58:c0:39:ASN:HD22	1.81	0.45
60:c2:29:LYS:NZ	60:c2:33:ARG:HB2	2.30	0.45
62:c4:50:ALA:CB	62:c4:52:ARG:HG2	2.46	0.45
67:c9:126:GLU:O	67:c9:130:ARG:HG2	2.16	0.45
68:d0:55:PRO:HA	68:d0:91:ILE:HG12	1.98	0.45
71:d3:29:TYR:CZ	71:d3:33:LEU:HD12	2.50	0.45
76:d8:14:LYS:O	76:d8:28:VAL:HG23	2.16	0.45
79:e1:127:GLY:HA2	79:e1:130:VAL:CG2	2.46	0.45
1:1:979:U:H4'	1:1:980:A:O5'	2.16	0.45
1:1:1210:U:H2'	1:1:1211:U:C6	2.51	0.45
1:1:1331:U:H4'	1:1:1332:A:OP2	2.16	0.45
1:1:1404:G:C6	1:1:1408:G:C6	3.05	0.45
1:1:1753:G:N7	82:1:3539:OHX:N6	2.64	0.45
1:1:2112:U:H4'	1:1:2113:A:H5'	1.97	0.45
1:1:2232:A:H2'	1:1:2233:A:O4'	2.17	0.45
1:1:3218:A:H5"	1:1:3219:G:C5	2.51	0.45
2:3:36:C:O2	2:3:45:A:H1'	2.16	0.45
5:k:141:GLY:C	5:k:143:GLY:H	2.24	0.45
6:l:143:GLU:CD	6:l:143:GLU:H	2.24	0.45
7:m:105:ILE:O	7:m:109:THR:HG23	2.16	0.45
7:m:132:THR:HG21	7:m:170:GLY:HA2	1.98	0.45
11:q:20:ILE:HG22	11:q:21:LYS:O	2.16	0.45
12:r:26:VAL:HG11	12:r:125:LEU:HD21	1.98	0.45
12:r:66:GLU:OE1	12:r:69:ARG:NH1	2.41	0.45
19:y:120:GLU:CD	19:y:130:ARG:HH22	2.21	0.45
20:z:15:VAL:HG13	20:z:17:VAL:HG22	1.98	0.45
20:z:81:ARG:HG2	20:z:88:ARG:CZ	2.47	0.45
22:2:137:GLU:O	22:2:139:ARG:HD3	2.17	0.45
27:9:56:VAL:HG21	27:9:104:LEU:HD13	1.98	0.45
28:AA:87:LEU:HD13	28:AA:127:ASN:CG	2.41	0.45
1:AR:543:C:N4	1:AR:548:G:H1	2.14	0.45
1:AR:2674:A:C6	13:CM:124:GLY:HA3	2.52	0.45
1:AR:2767:U:H2'	1:AR:2768:U:H6	1.81	0.45
1:AR:3159:C:H2'	1:AR:3160:U:C6	2.52	0.45
1:AR:3186:A:O2'	11:CK:42:ASP:HA	2.17	0.45
1:AR:3261:C:H2'	1:AR:3262:U:H6	1.82	0.45
1:AR:3355:U:H3'	1:AR:3356:G:C5'	2.44	0.45
2:AS:107:C:H2'	2:AS:108:A:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AS:114:U:H2'	2:AS:115:G:H8	1.81	0.45
12:CL:4:ARG:NH1	12:CL:99:ILE:HG13	2.32	0.45
15:CO:20:VAL:HG23	15:CO:66:THR:HG23	1.98	0.45
21:CU:139:TYR:CD1	21:CU:140:VAL:HG13	2.52	0.45
36:DJ:70:TYR:CD2	36:DJ:77:PRO:HD3	2.52	0.45
46:p0:189:GLN:OE1	46:p0:196:VAL:HG12	2.16	0.45
47:A:852:C:H2'	47:A:853:G:O4'	2.16	0.45
47:A:1274:C:H4'	47:A:1275:A:O5'	2.17	0.45
47:A:1534:G:OP2	73:a:74:SER:OG	2.15	0.45
54:H:176:GLN:HG3	54:H:177:ARG:H	1.82	0.45
66:T:36:LYS:CB	66:T:102:ALA:HA	2.45	0.45
67:U:4:VAL:HG22	67:U:5:SER:H	1.81	0.45
76:d:64:ARG:CG	76:d:65:ARG:H	2.29	0.45
47:sR:562:G:H1	47:sR:583:C:H42	1.63	0.45
47:sR:647:G:N2	47:sR:688:G:C2	2.84	0.45
47:sR:841:U:H2'	47:sR:842:C:C6	2.51	0.45
47:sR:1555:A:H5"	63:c5:44:ARG:HD2	1.97	0.45
48:s0:56:LYS:HE2	48:s0:158:VAL:HG23	1.99	0.45
53:s5:111:VAL:O	53:s5:114:ILE:HG22	2.16	0.45
58:c0:3:MET:CE	58:c0:7:ASP:HB2	2.47	0.45
60:c2:28:LEU:C	60:c2:30:VAL:H	2.25	0.45
63:c5:134:THR:HG23	63:c5:135:THR:H	1.80	0.45
67:c9:108:LEU:HD22	67:c9:113:ILE:HD12	1.98	0.45
70:d2:104:LEU:HD23	70:d2:125:ILE:HA	1.98	0.45
73:d5:40:VAL:HG12	73:d5:72:GLY:HA3	1.98	0.45
75:d7:19:HIS:HB3	75:d7:22:LYS:HG3	1.98	0.45
75:d7:31:TYR:O	75:d7:48:SER:OG	2.34	0.45
76:d8:14:LYS:C	76:d8:28:VAL:HG23	2.42	0.45
1:1:2249:G:C8	1:1:2272:G:C4	3.05	0.45
1:1:2630:C:H3'	22:2:4:SER:OG	2.17	0.45
1:1:3061:G:OP2	82:1:4125:OHX:N3	2.49	0.45
3:4:130:C:H2'	3:4:131:A:C8	2.52	0.45
11:q:21:LYS:O	11:q:22:SER:C	2.57	0.45
16:v:190:THR:HG23	16:v:193:ARG:HH22	1.82	0.45
17:w:18:ARG:O	17:w:22:VAL:HG12	2.17	0.45
17:w:185:ALA:O	17:w:188:SER:HB3	2.16	0.45
22:2:78:LYS:HD3	22:2:87:LYS:HD2	1.98	0.45
23:5:22:PRO:HA	23:5:107:PHE:CD2	2.51	0.45
45:i:74:LYS:NZ	63:Q:131:ALA:H	2.13	0.45
1:AR:129:U:H2'	1:AR:130:A:C8	2.52	0.45
1:AR:856:G:C6	1:AR:857:G:N1	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1856:C:H2'	1:AR:1857:C:H6	1.82	0.45
1:AR:2103:U:H2'	1:AR:2104:A:H8	1.82	0.45
1:AR:2112:U:H1'	1:AR:2113:A:OP2	2.17	0.45
1:AR:3273:A:OP2	8:CH:77:ARG:NH2	2.49	0.45
3:AT:6:U:H2'	3:AT:7:U:C6	2.52	0.45
5:CE:339:ARG:NH1	5:CE:342:LEU:HD11	2.31	0.45
6:CF:23:PRO:HB3	6:CF:259:ASP:OD2	2.17	0.45
6:CF:352:ALA:HB2	9:CI:71:ALA:O	2.17	0.45
9:CI:96:PRO:HG2	9:CI:99:PRO:CG	2.46	0.45
11:CK:90:MET:HB2	11:CK:144:ILE:CG2	2.47	0.45
12:CL:26:VAL:HG12	12:CL:122:PRO:HB3	1.98	0.45
12:CL:221:ALA:O	82:CL:302:OHX:N1	2.49	0.45
22:CV:56:PHE:CD1	22:CV:56:PHE:C	2.94	0.45
23:CW:89:LEU:HB3	23:CW:93:ILE:HD13	1.99	0.45
32:DF:97:LEU:HD23	32:DF:97:LEU:HA	1.77	0.45
34:DH:9:VAL:CG2	34:DH:100:ILE:HB	2.47	0.45
47:A:486:G:H2'	47:A:487:G:O4'	2.17	0.45
47:A:537:G:O6	57:K:171:ARG:HG3	2.15	0.45
47:A:1335:U:H2'	47:A:1336:A:H8	1.82	0.45
47:A:1353:U:H2'	47:A:1354:G:H8	1.82	0.45
47:A:1410:A:H2'	47:A:1411:A:O4'	2.16	0.45
47:A:1763:A:H5"	47:A:1771:U:H5"	1.99	0.45
51:E:119:ALA:O	51:E:123:VAL:HG23	2.17	0.45
53:G:23:VAL:HG11	64:R:58:ASP:CB	2.47	0.45
53:G:225:ARG:HD3	76:d:61:ARG:NE	2.32	0.45
56:J:153:GLU:C	56:J:155:SER:H	2.24	0.45
65:S:78:ARG:NH1	65:S:79:GLU:HB3	2.31	0.45
74:b:5:ARG:HG3	74:b:8:ASN:HA	1.98	0.45
47:sR:711:U:H3'	47:sR:712:G:C8	2.50	0.45
47:sR:1490:C:H4'	47:sR:1491:U:OP1	2.15	0.45
48:s0:7:PHE:CZ	48:s0:184:LEU:HD11	2.51	0.45
50:s2:78:ASP:HB3	50:s2:104:VAL:HG12	1.98	0.45
52:s4:95:THR:HG23	52:s4:97:GLU:HG2	1.99	0.45
52:s4:99:PHE:CE2	52:s4:113:ARG:HG2	2.52	0.45
57:s9:40:LYS:HA	57:s9:43:TYR:CD2	2.52	0.45
58:c0:29:GLN:HB3	58:c0:39:ASN:HB3	1.99	0.45
62:c4:29:HIS:NE2	62:c4:38:THR:HB	2.32	0.45
64:c6:12:LYS:HG3	64:c6:17:THR:HG22	1.98	0.45
66:c8:20:THR:HG21	66:c8:35:ILE:HG23	1.99	0.45
67:c9:11:ALA:CA	67:c9:63:ARG:HH12	2.30	0.45
78:e0:56:MET:HE2	78:e0:56:MET:HB3	1.72	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:e1:120:GLU:HB2	79:e1:130:VAL:HG21	1.97	0.45
1:1:189:G:OP2	27:9:46:LYS:NZ	2.37	0.45
1:1:1240:A:H3'	1:1:1241:U:C5'	2.47	0.45
1:1:1691:U:H2'	1:1:1692:U:C6	2.51	0.45
1:1:2150:G:O2'	1:1:2189:U:OP1	2.33	0.45
1:1:2299:A:OP2	82:1:3465:OHX:N1	2.50	0.45
1:1:2842:U:OP1	1:1:2844:C:N4	2.49	0.45
1:1:3180:A:O2'	17:w:117:ARG:NH2	2.50	0.45
1:1:3351:U:O2'	1:1:3352:U:OP1	2.30	0.45
6:l:99:MET:HG2	6:l:100:PHE:N	2.31	0.45
6:l:107:ARG:HG2	6:l:108:LYS:N	2.31	0.45
35:AH:42:PRO:HB2	35:AH:51:LEU:HD21	1.98	0.45
1:AR:394:G:N1	1:AR:397:A:OP2	2.48	0.45
1:AR:592:A:H5'	8:CH:17:ALA:O	2.17	0.45
1:AR:1231:A:N7	82:AR:3506:OHX:N4	2.65	0.45
1:AR:1383:G:OP1	6:CF:203:ARG:NH1	2.48	0.45
1:AR:2247:G:OP2	82:AR:3478:OHX:N3	2.50	0.45
1:AR:2341:A:P	5:CE:247:ARG:NH2	2.90	0.45
1:AR:2785:A:H2'	1:AR:2786:G:O4'	2.17	0.45
2:AS:25:G:H2'	2:AS:26:C:O4'	2.17	0.45
3:AT:15:G:C6	3:AT:16:G:N1	2.84	0.45
3:AT:27:U:H2'	3:AT:28:C:H6	1.81	0.45
7:CG:50:ARG:NH1	7:CG:147:ASP:OD2	2.40	0.45
9:CI:190:THR:O	9:CI:191:VAL:C	2.59	0.45
11:CK:22:SER:O	11:CK:23:ARG:HG3	2.16	0.45
12:CL:86:HIS:O	12:CL:138:VAL:HA	2.16	0.45
16:CP:19:LEU:HD23	16:CP:19:LEU:HA	1.70	0.45
18:CR:172:GLN:C	18:CR:174:GLY:N	2.75	0.45
21:CU:79:VAL:O	21:CU:90:MET:N	2.48	0.45
27:DA:37:LYS:H	27:DA:37:LYS:CE	2.29	0.45
47:A:169:A:OP1	54:H:137:ARG:NH1	2.50	0.45
47:A:197:A:H62	56:J:141:ARG:HH12	1.65	0.45
47:A:591:A:H2'	47:A:592:A:H8	1.81	0.45
47:A:654:C:H5'	47:A:655:G:OP2	2.17	0.45
47:A:740:A:H2'	47:A:741:C:H5'	1.98	0.45
47:A:1014:G:OP1	82:A:2103:OHX:N5	2.49	0.45
47:A:1490:C:H4'	47:A:1491:U:OP1	2.15	0.45
51:E:101:GLN:HA	51:E:104:SER:HB3	1.99	0.45
51:E:101:GLN:HG3	51:E:126:VAL:CG2	2.46	0.45
53:G:48:PHE:O	53:G:51:VAL:HG22	2.16	0.45
53:G:110:ALA:O	53:G:114:ILE:HD12	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:L:28:ASN:N	58:L:40:LEU:HD11	2.32	0.45
63:Q:22:LEU:HA	63:Q:25:LEU:HG	1.98	0.45
67:U:109:GLU:HB3	67:U:114:VAL:HG13	1.97	0.45
68:V:43:LYS:C	68:V:45:ALA:H	2.24	0.45
47:sR:120:U:O2'	82:sR:1918:OHX:N6	2.50	0.45
47:sR:814:A:O2'	47:sR:815:G:H3'	2.17	0.45
47:sR:1533:C:H3'	73:d5:74:SER:OG	2.16	0.45
50:s2:144:TRP:CE2	50:s2:173:PRO:HG3	2.51	0.45
51:s3:126:VAL:HG21	51:s3:188:ILE:HD13	1.98	0.45
51:s3:141:LYS:HE3	51:s3:145:ALA:HA	1.99	0.45
55:s7:4:PRO:HB3	55:s7:39:ARG:NH2	2.32	0.45
56:s8:73:SER:O	56:s8:74:LYS:HD2	2.17	0.45
58:c0:40:LEU:HA	58:c0:43:ILE:HD12	1.98	0.45
62:c4:47:LYS:O	62:c4:48:VAL:HG23	2.17	0.45
81:c7:44:LYS:HG3	81:c7:47:ARG:HH21	1.82	0.45
66:c8:57:ARG:HH22	73:d5:75:LEU:CG	2.30	0.45
71:d3:130:VAL:O	71:d3:130:VAL:HG12	2.17	0.45
1:1:7:C:H2'	1:1:8:C:C6	2.51	0.45
1:1:1724:U:H1'	1:1:1725:C:C6	2.51	0.45
1:1:2371:G:O6	82:1:4073:OHX:N4	2.50	0.45
1:1:2775:U:H2'	1:1:2776:C:C6	2.51	0.45
1:1:2992:U:H1'	18:x:69:ARG:NH1	2.31	0.45
89:1:4235:HOH:O	4:j:210:PRO:HA	2.17	0.45
5:k:188:ILE:O	5:k:192:VAL:HG12	2.17	0.45
6:l:320:ASN:OD1	6:l:322:GLN:HB2	2.17	0.45
8:n:172:HIS:CD2	8:n:173:MET:HG2	2.52	0.45
11:q:112:ILE:N	11:q:126:VAL:O	2.43	0.45
11:q:156:GLN:NE2	11:q:160:ASP:OD1	2.48	0.45
13:s:48:SER:HB2	13:s:66:ALA:HB3	1.99	0.45
13:s:51:ARG:O	13:s:61:ARG:HG3	2.17	0.45
13:s:171:VAL:O	13:s:172:LEU:HG	2.17	0.45
15:u:63:VAL:HG12	15:u:64:VAL:N	2.31	0.45
19:y:83:VAL:O	19:y:103:ALA:HA	2.17	0.45
22:2:136:ARG:HB3	22:2:139:ARG:NH1	2.32	0.45
37:AJ:34:SER:O	37:AJ:37:THR:N	2.50	0.45
43:AP:68:VAL:HG23	43:AP:85:LEU:CB	2.44	0.45
44:AQ:47:VAL:HA	44:AQ:57:CYS:HA	1.99	0.45
44:AQ:60:CYS:SG	44:AQ:62:LYS:HG3	2.57	0.45
1:AR:1258:U:O2	1:AR:1260:A:H8	1.99	0.45
1:AR:1492:G:N7	40:DN:2:ALA:N	2.65	0.45
1:AR:1807:G:C6	1:AR:1808:G:N1	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2255:A:N3	47:sR:1758:U:H1'	2.32	0.45
1:AR:2258:U:H2'	1:AR:2259:A:O4'	2.17	0.45
1:AR:2916:U:H5	1:AR:2935:U:HO2'	1.64	0.45
2:AS:46:A:OP1	7:CG:158:ARG:HG2	2.17	0.45
9:CI:156:ILE:HG13	9:CI:172:ASN:ND2	2.32	0.45
11:CK:122:LYS:HG2	11:CK:123:ILE:H	1.80	0.45
12:CL:38:LYS:HG2	12:CL:41:ALA:HB2	1.99	0.45
47:A:116:U:H2'	47:A:117:U:C6	2.52	0.45
47:A:336:G:H2'	47:A:338:C:H5	1.81	0.45
47:A:478:A:C4'	57:K:127:VAL:HG21	2.47	0.45
47:A:1018:U:H2'	47:A:1019:A:C8	2.52	0.45
47:A:1045:C:OP1	49:C:153:HIS:NE2	2.49	0.45
47:A:1141:G:H2'	47:A:1142:A:C8	2.51	0.45
47:A:1445:G:H1	79:g:89:LYS:HA	1.81	0.45
47:A:1458:G:H5"	47:A:1459:C:OP2	2.17	0.45
47:A:1567:U:O4	47:A:1568:C:N4	2.50	0.45
47:A:1568:C:H1'	47:A:1569:A:OP2	2.17	0.45
47:A:1580:C:H4'	64:R:137:ARG:HB2	1.97	0.45
49:C:64:ARG:H	49:C:88:VAL:CG2	2.30	0.45
51:E:132:LYS:HB2	51:E:191:ASP:HA	1.98	0.45
52:F:168:LYS:H	52:F:168:LYS:HG2	1.59	0.45
55:I:153:LEU:HD23	55:I:184:GLU:OE1	2.17	0.45
57:K:123:HIS:O	57:K:127:VAL:HG23	2.16	0.45
63:Q:45:PHE:CE2	63:Q:84:ILE:HD13	2.52	0.45
64:R:52:LEU:HD22	64:R:60:PHE:CZ	2.51	0.45
66:T:7:GLU:H	73:a:42:LEU:HD22	1.81	0.45
66:T:112:ASP:O	66:T:116:LEU:HD12	2.16	0.45
68:V:61:LYS:HB2	68:V:86:ILE:HB	1.99	0.45
47:sR:17:C:O2'	47:sR:1137:A:N1	2.32	0.45
47:sR:154:G:H1	47:sR:160:C:H42	1.65	0.45
47:sR:187:G:H4'	47:sR:188:A:OP1	2.17	0.45
47:sR:512:A:C8	57:s9:172:VAL:HG11	2.52	0.45
47:sR:647:G:O5'	47:sR:647:G:H8	2.00	0.45
47:sR:1080:U:O2'	47:sR:1081:A:H5'	2.16	0.45
47:sR:1698:G:N1	47:sR:1703:C:O2	2.50	0.45
49:s1:184:LEU:HG	49:s1:188:LEU:HD11	1.98	0.45
50:s2:54:GLU:OE2	50:s2:110:HIS:NE2	2.41	0.45
50:s2:59:HIS:NE2	50:s2:238:SER:HA	2.32	0.45
51:s3:63:GLY:O	51:s3:66:ILE:HG13	2.16	0.45
52:s4:46:VAL:O	52:s4:50:ASN:HB2	2.17	0.45
53:s5:146:THR:HG21	53:s5:157:ARG:HH21	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:s6:27:PHE:HB3	54:s6:102:VAL:HG11	1.98	0.45
62:c4:89:THR:O	62:c4:128:LYS:HE3	2.17	0.45
63:c5:56:PHE:CE2	63:c5:83:MET:HE1	2.52	0.45
64:c6:40:GLU:C	64:c6:42:GLU:N	2.75	0.45
64:c6:78:VAL:HA	64:c6:81:ILE:HD12	1.99	0.45
79:e1:130:VAL:HG13	79:e1:143:LYS:HD2	1.99	0.45
1:1:378:A:N7	1:1:391:A:H2	2.14	0.45
1:1:533:A:O2'	1:1:535:G:OP2	2.34	0.45
1:1:1047:A:H2'	1:1:1048:A:C8	2.52	0.45
1:1:1207:G:OP1	41:AN:119:ASN:ND2	2.50	0.45
1:1:1554:U:HO2'	1:1:1582:C:H5	1.61	0.45
1:1:1684:U:H2'	1:1:1685:C:H6	1.82	0.45
1:1:2103:U:H2'	1:1:2104:A:H8	1.82	0.45
1:1:2369:G:H2'	1:1:2370:G:C8	2.52	0.45
2:3:65:G:H4'	12:r:204:GLY:C	2.42	0.45
3:4:45:C:H2'	3:4:46:G:O4'	2.17	0.45
4:j:109:GLU:CD	4:j:138:GLY:HA2	2.42	0.45
6:l:302:ALA:HB2	19:y:39:ARG:NH1	2.32	0.45
7:m:268:GLU:HG3	7:m:268:GLU:O	2.17	0.45
8:n:108:LYS:O	8:n:109:GLU:HG2	2.17	0.45
17:w:25:LYS:HD2	17:w:25:LYS:HA	1.79	0.45
19:y:124:LEU:H	19:y:124:LEU:HD12	1.81	0.45
24:6:40:LYS:HD2	24:6:57:MET:HE3	1.99	0.45
28:AA:26:VAL:HG22	28:AA:42:LEU:O	2.17	0.45
28:AA:83:THR:HG23	28:AA:85:TYR:N	2.21	0.45
42:AO:1:MET:HB3	47:A:1642:G:H5'	1.98	0.45
45:i:39:PRO:HB2	45:i:40:PRO:HD2	1.98	0.45
1:AR:207:U:H2'	1:AR:208:C:C6	2.51	0.45
1:AR:1081:U:H4'	1:AR:1082:U:H5"	1.98	0.45
1:AR:1280:C:H2'	1:AR:1281:G:O4'	2.17	0.45
1:AR:1290:A:H2'	1:AR:1291:A:C8	2.52	0.45
1:AR:2536:A:H4'	49:s1:226:GLY:HA3	1.98	0.45
1:AR:2655:U:H2'	43:DQ:3:ASN:O	2.16	0.45
1:AR:3288:G:HO2'	1:AR:3289:G:P	2.33	0.45
3:AT:135:G:C2	3:AT:136:G:H1'	2.51	0.45
4:CD:29:LEU:O	4:CD:123:ARG:NE	2.43	0.45
6:CF:82:THR:C	6:CF:84:ARG:H	2.24	0.45
6:CF:247:PHE:CZ	6:CF:249:ILE:HD11	2.51	0.45
7:CG:44:TYR:HD1	7:CG:44:TYR:H	1.62	0.45
7:CG:164:LYS:HB2	7:CG:180:PHE:CE1	2.52	0.45
14:CN:64:LYS:HG3	29:DC:69:TRP:CG	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:159:VAL:HG11	29:DC:142:GLY:O	2.17	0.45
17:CQ:56:ASP:O	17:CQ:59:ARG:HG2	2.17	0.45
22:CV:159:PHE:O	22:CV:159:PHE:HD1	1.99	0.45
32:DF:31:ARG:HH11	32:DF:31:ARG:HG3	1.82	0.45
35:DI:46:ASP:HB2	35:DI:84:CYS:CB	2.47	0.45
35:DI:102:LYS:O	35:DI:105:VAL:HG22	2.17	0.45
44:DR:66:GLY:HA3	44:DR:71:VAL:O	2.17	0.45
46:p0:97:LYS:HA	46:p0:100:ILE:HD12	1.99	0.45
47:A:38:C:H2'	47:A:39:A:H5'	1.99	0.45
47:A:275:C:O2	47:A:276:C:N4	2.50	0.45
47:A:442:C:O2'	47:A:525:A:N1	2.44	0.45
47:A:560:U:H2'	47:A:561:G:C8	2.52	0.45
47:A:686:C:H2'	47:A:687:G:H8	1.81	0.45
47:A:1229:G:OP2	79:g:101:ALA:HA	2.16	0.45
47:A:1332:C:H4'	51:E:203:PRO:HG2	1.98	0.45
47:A:1437:U:H5'	51:E:176:LEU:HD23	1.99	0.45
47:A:1511:U:H2'	47:A:1512:G:C8	2.52	0.45
47:A:1542:G:N2	47:A:1568:C:H1'	2.32	0.45
49:C:135:LEU:HD11	49:C:215:VAL:CG2	2.40	0.45
49:C:135:LEU:HA	49:C:217:LEU:CD1	2.46	0.45
50:D:242:ILE:HG23	50:D:243:TYR:CD2	2.52	0.45
53:G:121:ILE:O	53:G:124:LEU:N	2.47	0.45
59:M:93:TYR:O	59:M:95:PRO:HD3	2.17	0.45
60:N:50:LYS:HZ2	60:N:54:ARG:NE	2.14	0.45
60:N:63:VAL:HG22	60:N:91:VAL:C	2.42	0.45
63:Q:24:LYS:HD2	63:Q:24:LYS:HA	1.56	0.45
65:S:20:TYR:CZ	65:S:38:ILE:HD11	2.52	0.45
47:sR:17:C:H2'	47:sR:18:C:C6	2.51	0.45
47:sR:191:C:O2'	47:sR:192:U:O5'	2.30	0.45
47:sR:212:U:H2'	47:sR:213:A:H8	1.82	0.45
47:sR:761:G:H8	47:sR:761:G:O5'	2.00	0.45
47:sR:802:G:C6	47:sR:803:A:C6	3.05	0.45
47:sR:836:U:H2'	47:sR:837:G:H8	1.82	0.45
47:sR:969:C:H4'	47:sR:1104:U:O2'	2.16	0.45
47:sR:1198:G:O4'	68:d0:73:GLY:HA3	2.16	0.45
47:sR:1280:C:H2'	47:sR:1281:G:H8	1.82	0.45
80:Rb:91:LEU:HD22	80:Rb:100:TYR:HB2	1.99	0.45
80:Rb:123:ILE:HA	80:Rb:134:TRP:HD1	1.82	0.45
48:s0:10:THR:HB	48:s0:13:ASP:HB2	1.99	0.45
49:s1:88:VAL:HG12	49:s1:98:THR:HG22	1.99	0.45
49:s1:197:ILE:HG13	49:s1:210:ILE:HG21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:s2:129:ILE:HG13	50:s2:130:ILE:N	2.32	0.45
51:s3:219:ALA:O	51:s3:220:PRO:C	2.59	0.45
60:c2:122:VAL:HG22	60:c2:123:VAL:N	2.32	0.45
61:c3:61:THR:OG1	61:c3:62:GLN:N	2.49	0.45
66:c8:76:PRO:O	66:c8:81:ILE:HG12	2.16	0.45
71:d3:63:GLN:CB	71:d3:64:PRO:HA	2.44	0.45
79:e1:132:LEU:HA	79:e1:141:CYS:SG	2.57	0.45
1:1:263:C:H2'	1:1:264:G:O4'	2.16	0.45
1:1:437:G:H2'	1:1:438:A:O4'	2.17	0.45
1:1:534:U:O4	21:0:144:LEU:HD23	2.17	0.45
1:1:792:G:H2'	1:1:793:C:C6	2.52	0.45
1:1:2913:C:H2'	1:1:2914:G:C8	2.52	0.45
1:1:3028:G:H2'	1:1:3029:A:O4'	2.16	0.45
1:1:3151:U:OP2	5:k:132:LYS:NZ	2.41	0.45
3:4:152:G:H2'	3:4:153:U:O4'	2.17	0.45
6:l:262:TRP:HB3	6:l:276:LEU:HD21	1.99	0.45
14:t:166:ALA:O	14:t:169:THR:HG22	2.16	0.45
17:w:157:GLU:O	17:w:161:LYS:HG3	2.17	0.45
20:z:45:VAL:HG23	20:z:50:ILE:O	2.17	0.45
24:6:17:LEU:HB2	24:6:52:ALA:O	2.16	0.45
36:AI:77:PRO:HB2	36:AI:80:LEU:CD1	2.46	0.45
1:AR:63:A:H8	1:AR:63:A:O5'	2.00	0.45
1:AR:160:G:H2'	1:AR:161:G:O4'	2.17	0.45
1:AR:371:G:OP2	82:AR:4159:OHX:N6	2.50	0.45
1:AR:549:U:H2'	1:AR:550:A:H8	1.78	0.45
1:AR:839:C:H4'	1:AR:1724:U:H2'	1.99	0.45
1:AR:887:G:H2'	1:AR:888:A:C8	2.52	0.45
1:AR:1440:G:H2'	1:AR:1441:G:C8	2.52	0.45
1:AR:2213:A:N1	1:AR:2429:G:H1'	2.32	0.45
1:AR:2248:C:OP2	82:AR:3478:OHX:N6	2.49	0.45
1:AR:2712:U:O2'	1:AR:2743:A:O2'	2.20	0.45
2:AS:36:C:H4'	7:CG:155:THR:HG23	1.99	0.45
2:AS:85:G:O2'	2:AS:87:G:OP1	2.31	0.45
14:CN:161:ASP:HB2	29:DC:144:VAL:HG11	1.99	0.45
16:CP:35:VAL:O	16:CP:64:VAL:HA	2.17	0.45
17:CQ:73:PHE:HB3	17:CQ:78:ARG:HB3	1.99	0.45
21:CU:13:ARG:O	21:CU:22:PRO:HG2	2.17	0.45
35:DI:79:SER:HB3	35:DI:80:ARG:NH1	2.29	0.45
47:A:197:A:H2'	47:A:198:A:H8	1.82	0.45
47:A:215:A:N6	47:A:242:U:H5"	2.32	0.45
47:A:227:U:H3	47:A:834:G:H1	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:278:U:H4'	47:A:279:G:O5'	2.17	0.45
47:A:304:U:H2'	47:A:305:C:C6	2.52	0.45
47:A:332:U:P	56:J:56:ARG:HH22	2.39	0.45
47:A:337:G:H1'	56:J:10:LYS:NZ	2.32	0.45
47:A:756:A:H1'	52:F:12:LEU:O	2.17	0.45
47:A:1530:C:O5'	47:A:1530:C:H6	2.00	0.45
47:A:1561:U:H2'	47:A:1562:G:H8	1.81	0.45
48:B:5:ALA:C	48:B:7:PHE:H	2.24	0.45
49:C:107:THR:O	49:C:111:ARG:HB2	2.16	0.45
49:C:193:ILE:O	49:C:197:ILE:HG12	2.17	0.45
50:D:240:LEU:HD23	50:D:241:ASP:N	2.29	0.45
51:E:105:MET:CE	51:E:136:VAL:HG21	2.47	0.45
52:F:50:ASN:HB3	52:F:51:ARG:NH1	2.32	0.45
53:G:43:PHE:O	53:G:44:ASN:C	2.60	0.45
54:H:7:TYR:HB2	54:H:124:LEU:HD23	1.99	0.45
54:H:70:PRO:CB	54:H:101:ILE:HB	2.36	0.45
55:I:5:GLN:H	55:I:5:GLN:CD	2.24	0.45
57:K:65:LYS:HD3	57:K:65:LYS:HA	1.87	0.45
80:h:16:HIS:NE2	80:h:35:SER:HB2	2.31	0.45
47:sR:23:G:O2'	47:sR:368:U:OP1	2.33	0.45
47:sR:82:U:H2'	47:sR:83:G:O4'	2.16	0.45
47:sR:130:C:O2	82:sR:2179:OHX:N4	2.50	0.45
47:sR:373:G:N2	47:sR:603:U:O3'	2.50	0.45
47:sR:1375:A:H2'	47:sR:1376:C:O4'	2.16	0.45
47:sR:1381:U:H1'	47:sR:1516:A:N6	2.32	0.45
47:sR:1692:G:H2'	47:sR:1693:A:H8	1.82	0.45
47:sR:1697:G:H8	47:sR:1705:C:C2	2.35	0.45
80:Rb:91:LEU:O	80:Rb:100:TYR:N	2.35	0.45
53:s5:63:GLN:NE2	53:s5:66:GLN:HB2	2.31	0.45
55:s7:98:ILE:HG12	55:s7:121:VAL:HG21	1.99	0.45
59:c1:78:THR:HA	59:c1:84:ILE:HG22	1.99	0.45
63:c5:57:MET:HE2	63:c5:57:MET:HB3	1.74	0.45
64:c6:29:ILE:HD13	64:c6:65:ILE:HG12	1.98	0.45
64:c6:99:GLU:OE2	64:c6:102:LYS:HE2	2.16	0.45
66:c8:126:ARG:HG3	66:c8:131:LEU:HB2	1.97	0.45
67:c9:7:ARG:NH1	67:c9:67:MET:HB3	2.32	0.45
1:1:191:U:H2'	1:1:192:C:C6	2.53	0.44
1:1:280:U:O2	1:1:282:G:H3'	2.17	0.44
1:1:534:U:O2	21:0:146:LYS:HA	2.17	0.44
1:1:645:A:N6	1:1:2869:U:OP1	2.50	0.44
1:1:1093:A:O2'	1:1:1094:U:O5'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1567:U:H3'	1:1:1568:U:H5"	1.99	0.44
1:1:2808:A:H5'	1:1:2808:A:C8	2.52	0.44
1:1:2910:A:N1	82:1:3407:OHX:N1	2.65	0.44
1:1:3358:U:H2'	1:1:3359:A:O4'	2.15	0.44
6:l:3:ARG:HH21	6:l:22:LEU:HB3	1.83	0.44
9:o:159:GLN:O	9:o:160:ARG:C	2.58	0.44
12:r:134:ILE:H	12:r:134:ILE:HD12	1.82	0.44
19:y:19:PRO:HD3	19:y:53:PHE:CD1	2.52	0.44
19:y:155:MET:HE2	19:y:163:PRO:HB3	1.98	0.44
43:AP:83:LEU:HA	43:AP:83:LEU:HD12	1.52	0.44
1:AR:284:A:H4'	1:AR:285:A:C2	2.52	0.44
1:AR:910:G:H5'	82:AR:3577:OHX:N2	2.31	0.44
1:AR:1128:U:H2'	1:AR:1129:A:O4'	2.17	0.44
1:AR:1162:U:H4'	33:DG:57:TYR:CD1	2.53	0.44
1:AR:2278:C:H2'	1:AR:2279:A:H5"	1.98	0.44
1:AR:2651:G:H4'	1:AR:2652:U:OP2	2.16	0.44
2:AS:27:A:OP2	7:CG:57:ASN:HB2	2.17	0.44
5:CE:280:HIS:HB3	5:CE:324:VAL:CG1	2.47	0.44
6:CF:99:MET:HG2	6:CF:100:PHE:N	2.31	0.44
12:CL:176:LEU:HG	12:CL:180:GLU:OE2	2.17	0.44
15:CO:37:GLU:HB3	21:CU:72:VAL:HG21	1.98	0.44
18:CR:14:SER:HB2	18:CR:150:VAL:O	2.17	0.44
19:CS:86:THR:HG22	19:CS:105:ARG:HB2	1.99	0.44
19:CS:100:THR:HB	19:CS:120:GLU:HB2	1.98	0.44
30:DD:46:ALA:O	30:DD:50:THR:OG1	2.32	0.44
43:DQ:93:LEU:HD23	43:DQ:93:LEU:H	1.81	0.44
47:A:159:U:H6	72:Z:117:LYS:HD3	1.83	0.44
47:A:325:G:OP1	59:M:134:THR:OG1	2.29	0.44
47:A:499:U:H4'	47:A:500:C:OP1	2.17	0.44
47:A:534:A:H3'	47:A:535:A:H8	1.82	0.44
47:A:553:G:OP2	47:A:554:C:O2'	2.27	0.44
47:A:876:G:H1'	47:A:944:A:O4'	2.17	0.44
47:A:953:G:H2'	47:A:954:G:C8	2.53	0.44
47:A:1064:G:H2'	47:A:1065:A:C8	2.51	0.44
47:A:1067:C:OP1	49:C:150:VAL:HG22	2.17	0.44
47:A:1111:G:C2	47:A:1112:G:H1'	2.52	0.44
47:A:1317:C:H2'	47:A:1318:G:O4'	2.16	0.44
47:A:1353:U:H2'	47:A:1354:G:O4'	2.16	0.44
47:A:1393:C:H2'	47:A:1394:G:O4'	2.16	0.44
48:B:172:LEU:HD21	48:B:173:ILE:HD12	1.99	0.44
52:F:139:VAL:HG23	52:F:147:ILE:HB	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:G:76:ARG:O	53:G:83:ARG:HD2	2.17	0.44
53:G:144:GLU:OE2	76:d:57:MET:HB2	2.17	0.44
55:I:58:LEU:HD21	55:I:88:ARG:HD3	1.99	0.44
56:J:140:GLU:HA	56:J:143:TRP:HB2	1.99	0.44
59:M:80:MET:HG3	59:M:83:THR:O	2.17	0.44
60:N:68:GLU:HG2	60:N:68:GLU:O	2.16	0.44
65:S:97:ASN:O	65:S:98:GLY:C	2.58	0.44
66:T:35:ILE:HG22	66:T:102:ALA:CB	2.46	0.44
67:U:121:GLY:C	67:U:122:ARG:HD3	2.41	0.44
67:U:127:ASN:OD1	67:U:127:ASN:N	2.49	0.44
68:V:83:GLU:OE2	77:e:56:ARG:NH2	2.49	0.44
71:Y:26:GLU:HB2	71:Y:29:TYR:HB3	1.99	0.44
80:h:21:THR:HB	80:h:69:GLN:NE2	2.32	0.44
80:h:116:ASP:CG	80:h:121:MET:H	2.25	0.44
47:sR:517:U:O4	82:sR:1958:OHX:N4	2.50	0.44
47:sR:830:U:C2'	47:sR:831:U:H5'	2.47	0.44
80:Rb:19:TRP:O	80:Rb:37:SER:HA	2.17	0.44
80:Rb:93:ASP:OD2	80:Rb:96:THR:HB	2.17	0.44
80:Rb:270:LEU:HD23	80:Rb:270:LEU:H	1.82	0.44
53:s5:65:ARG:HA	53:s5:65:ARG:HD2	1.81	0.44
70:d2:75:ILE:HG21	70:d2:89:TRP:CH2	2.52	0.44
72:d4:27:VAL:HG21	72:d4:40:LEU:HD21	1.99	0.44
73:d5:60:VAL:HG22	73:d5:80:LEU:HD21	1.99	0.44
76:d8:27:GLN:HB3	76:d8:43:ASN:HD22	1.80	0.44
78:e0:30:PRO:HB2	78:e0:34:ALA:C	2.42	0.44
1:1:597:G:H2'	1:1:598:A:C8	2.52	0.44
1:1:1209:G:H2'	1:1:1210:U:O4'	2.17	0.44
1:1:2281:A:O2'	1:1:2282:U:H5'	2.17	0.44
1:1:2575:G:H2'	1:1:2576:G:H8	1.83	0.44
1:1:3087:A:H2'	1:1:3088:G:O4'	2.18	0.44
9:o:77:VAL:CG2	22:2:139:ARG:HG2	2.48	0.44
13:s:92:ARG:CB	13:s:172:LEU:HD12	2.48	0.44
13:s:141:ARG:O	13:s:145:LYS:HE2	2.17	0.44
28:AA:82:PRO:HB2	31:AD:62:LEU:HD23	1.97	0.44
31:AD:27:TYR:O	31:AD:31:VAL:HG13	2.17	0.44
40:AM:20:ASN:C	40:AM:41:ARG:HH12	2.24	0.44
45:i:172:ALA:HB3	60:N:55:GLY:CA	2.47	0.44
1:AR:1229:G:H2'	1:AR:1230:G:H8	1.82	0.44
1:AR:1249:G:H2'	1:AR:1250:G:H8	1.82	0.44
1:AR:1438:U:H2'	1:AR:1439:U:C6	2.52	0.44
1:AR:1889:G:OP1	5:CE:247:ARG:HB2	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:2353:G:H5"	18:CR:86:LYS:HB2	1.99	0.44
1:AR:3277:U:O2'	1:AR:3278:C:H5'	2.18	0.44
1:AR:3304:U:O2'	5:CE:334:ARG:NH2	2.45	0.44
2:AS:91:G:H2'	2:AS:92:A:C8	2.52	0.44
4:CD:146:THR:N	4:CD:158:ILE:O	2.39	0.44
6:CF:229:ASN:OD1	6:CF:230:VAL:N	2.51	0.44
7:CG:49:TYR:CE1	7:CG:66:SER:HB3	2.52	0.44
18:CR:168:LEU:HG	34:DH:60:ARG:HB3	1.98	0.44
22:CV:115:LYS:HA	22:CV:115:LYS:HD3	1.72	0.44
28:DB:41:ALA:HB2	28:DB:77:TYR:HE1	1.82	0.44
30:DD:17:HIS:C	30:DD:20:GLY:H	2.25	0.44
34:DH:8:TYR:CE2	34:DH:99:ARG:HD3	2.52	0.44
45:sM:84:LYS:HD2	45:sM:85:SER:H	1.81	0.44
47:A:61:A:H8	47:A:269:G:HO2'	1.65	0.44
47:A:560:U:H2'	47:A:561:G:H8	1.82	0.44
47:A:855:A:O2'	47:A:856:A:H3'	2.18	0.44
47:A:1615:C:H3'	53:G:81:ARG:HH11	1.80	0.44
47:A:1718:G:H2'	47:A:1719:A:O4'	2.17	0.44
48:B:53:THR:HA	48:B:56:LYS:HB2	1.98	0.44
51:E:105:MET:HE1	51:E:136:VAL:HG21	1.99	0.44
52:F:71:LYS:HA	52:F:75:LYS:O	2.18	0.44
60:N:30:VAL:HA	60:N:33:ARG:CG	2.47	0.44
67:U:14:PHE:HE2	67:U:63:ARG:HG3	1.83	0.44
67:U:28:LEU:HD22	67:U:55:TYR:CE2	2.51	0.44
67:U:135:ILE:HD12	67:U:136:ALA:N	2.32	0.44
70:X:6:VAL:HG22	70:X:34:ILE:HD11	1.98	0.44
70:X:102:VAL:HG13	70:X:113:HIS:HB3	1.99	0.44
72:Z:112:LYS:O	72:Z:116:LYS:HG3	2.17	0.44
74:b:24:VAL:HG23	74:b:72:HIS:O	2.18	0.44
76:d:56:LEU:HD12	76:d:57:MET:N	2.32	0.44
79:g:85:TYR:CZ	79:g:87:THR:HG21	2.52	0.44
47:sR:140:A:OP2	47:sR:140:A:H4'	2.16	0.44
47:sR:298:C:H5"	52:s4:38:LEU:HB2	1.99	0.44
47:sR:407:A:H2'	47:sR:408:C:C6	2.51	0.44
47:sR:827:C:H2'	47:sR:828:U:C6	2.49	0.44
47:sR:990:C:H2'	47:sR:991:G:O4'	2.17	0.44
47:sR:1086:A:H5'	50:s2:164:SER:HB3	1.97	0.44
47:sR:1410:A:H3'	47:sR:1411:A:C8	2.52	0.44
52:s4:160:VAL:HG12	52:s4:172:PHE:HB2	1.99	0.44
52:s4:185:GLY:HA3	52:s4:224:ASN:OD1	2.17	0.44
53:s5:57:SER:O	53:s5:58:LEU:HD23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:s5:58:LEU:HD21	53:s5:167:ARG:HE	1.82	0.44
58:c0:38:LYS:O	58:c0:42:VAL:HG23	2.18	0.44
60:c2:137:MET:O	60:c2:137:MET:HG2	2.16	0.44
63:c5:48:GLY:C	63:c5:50:THR:N	2.76	0.44
64:c6:73:GLY:H	64:c6:76:SER:HG	1.63	0.44
81:c7:6:THR:O	81:c7:9:VAL:HG22	2.17	0.44
70:d2:25:VAL:O	70:d2:62:VAL:HA	2.17	0.44
76:d8:54:LEU:HD23	76:d8:55:VAL:H	1.83	0.44
1:1:422:A:C2	1:1:2363:A:H4'	2.52	0.44
1:1:608:A:O3'	6:l:326:ARG:NH2	2.49	0.44
1:1:1083:G:H2'	1:1:1084:A:C8	2.53	0.44
1:1:1641:U:O2'	1:1:1642:A:H3'	2.17	0.44
1:1:2312:A:H3'	89:1:4256:HOH:O	2.15	0.44
1:1:2991:A:P	5:k:20:LYS:HB2	2.57	0.44
1:1:3194:C:H2'	1:1:3195:U:H5"	1.99	0.44
5:k:82:PRO:HB3	5:k:319:ASN:ND2	2.32	0.44
5:k:114:VAL:HB	5:k:163:HIS:CD2	2.52	0.44
9:o:189:ILE:HG23	9:o:190:THR:H	1.81	0.44
13:s:92:ARG:HA	13:s:172:LEU:CB	2.47	0.44
23:5:86:LYS:C	23:5:86:LYS:HD3	2.42	0.44
34:AG:49:ILE:HD11	34:AG:71:VAL:CG2	2.47	0.44
41:AN:92:ASP:O	41:AN:105:PRO:HG3	2.16	0.44
44:AQ:87:ARG:O	44:AQ:90:VAL:HG22	2.18	0.44
1:AR:4:U:H2'	1:AR:5:G:C8	2.53	0.44
1:AR:432:G:H2'	1:AR:433:A:H8	1.81	0.44
1:AR:608:A:H5'	6:CF:322:GLN:HB3	1.99	0.44
1:AR:2325:G:H2'	1:AR:2326:A:H8	1.81	0.44
1:AR:2563:G:H2'	1:AR:2564:G:O4'	2.18	0.44
1:AR:2674:A:C5	13:CM:124:GLY:HA3	2.51	0.44
1:AR:2724:U:O4	82:AR:3459:OHX:N3	2.50	0.44
1:AR:3313:U:H4'	5:CE:173:GLN:CG	2.46	0.44
4:CD:96:LEU:HD11	4:CD:108:PRO:CD	2.46	0.44
4:CD:247:ARG:H	4:CD:247:ARG:HG3	1.50	0.44
6:CF:205:PRO:HB3	6:CF:247:PHE:CD2	2.53	0.44
7:CG:282:ARG:O	7:CG:286:VAL:HG13	2.18	0.44
8:CH:8:LYS:H	8:CH:8:LYS:HD3	1.82	0.44
13:CM:87:LYS:HA	13:CM:87:LYS:HD3	1.63	0.44
16:CP:102:ALA:O	16:CP:106:VAL:HG23	2.17	0.44
20:CT:132:PHE:CD2	20:CT:138:LEU:HD12	2.52	0.44
27:DA:63:LYS:HA	27:DA:63:LYS:HD3	1.58	0.44
30:DD:14:ARG:CZ	30:DD:18:ARG:HD3	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DD:14:ARG:NH1	30:DD:18:ARG:HD3	2.31	0.44
46:p0:25:LEU:HD23	46:p0:26:PHE:O	2.18	0.44
47:A:30:G:H2'	47:A:31:C:C6	2.53	0.44
47:A:401:A:O2'	47:A:402:C:H4'	2.18	0.44
47:A:722:G:H3'	47:A:723:G:H5'	2.00	0.44
47:A:993:A:H2'	47:A:994:G:O4'	2.16	0.44
47:A:1340:U:O4	64:R:9:THR:HA	2.18	0.44
47:A:1579:U:H2'	47:A:1580:C:H6	1.83	0.44
48:B:46:HIS:HB2	48:B:149:LEU:CD1	2.47	0.44
48:B:88:LYS:HG3	48:B:201:LEU:HD22	1.99	0.44
49:C:126:THR:HG22	49:C:136:ARG:HB2	2.00	0.44
52:F:126:VAL:HG12	52:F:158:ASP:H	1.82	0.44
53:G:131:GLN:O	53:G:134:VAL:HG22	2.17	0.44
55:I:140:VAL:HB	70:X:52:TYR:HB3	1.98	0.44
63:Q:59:LYS:HA	63:Q:62:ALA:HB3	2.00	0.44
73:a:60:VAL:HG23	73:a:101:TYR:H	1.82	0.44
75:c:8:LEU:O	75:c:10:PRO:HD3	2.17	0.44
47:sR:52:U:H2'	47:sR:53:G:C8	2.52	0.44
47:sR:248:U:H4'	59:c1:36:LYS:HD3	1.98	0.44
47:sR:1049:U:H5"	75:d7:70:LYS:HG3	1.99	0.44
47:sR:1097:U:H1'	47:sR:1098:U:OP2	2.17	0.44
47:sR:1163:A:N3	47:sR:1613:U:O2'	2.43	0.44
47:sR:1173:C:HO2'	47:sR:1174:C:H5'	1.82	0.44
48:s0:89:PHE:HE2	48:s0:177:LEU:HB3	1.82	0.44
63:c5:38:PRO:O	63:c5:42:ARG:HG3	2.16	0.44
63:c5:52:LYS:N	63:c5:53:PRO:HD3	2.33	0.44
66:c8:3:LEU:HD11	66:c8:56:LYS:HD3	1.98	0.44
66:c8:35:ILE:CG2	66:c8:102:ALA:HB2	2.47	0.44
70:d2:102:VAL:HA	70:d2:128:PHE:HA	1.99	0.44
70:d2:113:HIS:HE2	70:d2:117:ARG:NH2	2.16	0.44
71:d3:92:CYS:HA	71:d3:95:PHE:CD2	2.53	0.44
1:1:38:U:H2'	1:1:39:A:O4'	2.17	0.44
1:1:227:G:OP2	82:1:3405:OHX:N4	2.51	0.44
1:1:338:A:N7	6:l:47:ARG:HD3	2.33	0.44
1:1:599:C:OP1	6:l:332:LYS:HE3	2.17	0.44
1:1:662:U:OP1	29:AB:8:THR:HG21	2.17	0.44
1:1:852:U:C5	44:AQ:2:ALA:HA	2.52	0.44
1:1:1010:G:OP1	12:r:39:LYS:NZ	2.50	0.44
1:1:2242:A:OP2	82:1:3472:OHX:N2	2.50	0.44
1:1:2724:U:OP2	22:2:87:LYS:HE2	2.17	0.44
1:1:3135:U:OP1	17:w:148:LYS:HE2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3208:G:H4'	1:1:3209:A:O5'	2.17	0.44
4:j:185:ALA:O	4:j:189:TYR:HD2	2.00	0.44
5:k:163:HIS:HA	5:k:177:HIS:O	2.17	0.44
6:l:3:ARG:O	6:l:5:GLN:HG2	2.16	0.44
6:l:193:LYS:HB3	6:l:193:LYS:HE2	1.71	0.44
7:m:111:GLN:HA	7:m:116:ASP:HB2	1.99	0.44
7:m:155:THR:HG23	7:m:179:ARG:HA	1.99	0.44
10:p:116:VAL:HG21	10:p:121:SER:O	2.17	0.44
12:r:141:LYS:HD2	12:r:142:ASP:H	1.82	0.44
14:t:93:ILE:O	14:t:93:ILE:HG22	2.18	0.44
15:u:109:ARG:HD3	17:w:199:TYR:CZ	2.53	0.44
17:w:143:THR:HG21	17:w:150:GLU:OE1	2.17	0.44
18:x:22:LEU:HB3	18:x:90:PHE:CE2	2.52	0.44
18:x:94:LEU:HD12	18:x:146:ILE:HB	1.98	0.44
23:5:10:LYS:HD3	23:5:11:ILE:N	2.32	0.44
29:AB:130:VAL:HG13	29:AB:134:ALA:HB3	1.99	0.44
32:AE:19:ARG:HD3	32:AE:35:GLU:CG	2.48	0.44
34:AG:29:LEU:HD22	34:AG:75:HIS:CG	2.53	0.44
36:AI:38:ARG:HG2	36:AI:40:SER:O	2.16	0.44
1:AR:398:A:H5"	18:CR:3:ARG:HD3	2.00	0.44
1:AR:562:C:O3'	21:CU:71:LYS:NZ	2.51	0.44
1:AR:1396:C:H2'	1:AR:1397:C:C6	2.52	0.44
1:AR:1506:A:P	1:AR:1507:G:H5"	2.57	0.44
1:AR:1528:G:O2'	1:AR:1588:A:N3	2.32	0.44
1:AR:2525:G:O5'	4:CD:37:ARG:NH2	2.48	0.44
1:AR:3366:G:H2'	1:AR:3367:C:C6	2.52	0.44
4:CD:192:LYS:HB3	4:CD:193:ARG:CZ	2.47	0.44
5:CE:78:VAL:HG11	5:CE:305:ILE:HD12	1.99	0.44
9:CI:63:ILE:O	9:CI:67:ARG:HG3	2.17	0.44
11:CK:122:LYS:HG2	11:CK:123:ILE:N	2.33	0.44
15:CO:38:ILE:HG21	21:CU:150:PHE:HE1	1.83	0.44
19:CS:81:VAL:HG23	19:CS:101:VAL:HG13	2.00	0.44
20:CT:12:ALA:HB1	20:CT:17:VAL:O	2.18	0.44
31:DE:100:ILE:HG13	31:DE:101:LEU:H	1.83	0.44
32:DF:29:ALA:HB3	32:DF:30:PRO:HD3	1.99	0.44
44:DR:7:LYS:O	44:DR:27:LYS:NZ	2.41	0.44
47:A:74:U:O2'	47:A:75:U:H5"	2.17	0.44
47:A:1460:A:C8	63:Q:128:HIS:HB3	2.52	0.44
47:A:1523:G:O6	67:U:68:ARG:HD3	2.18	0.44
47:A:1595:U:H5	47:A:1596:C:C5	2.35	0.44
48:B:24:LEU:O	48:B:24:LEU:HD23	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C:35:PRO:HB3	49:C:231:LEU:HB3	1.99	0.44
51:E:157:LEU:CD1	51:E:189:MET:HB2	2.47	0.44
52:F:187:ARG:HG2	52:F:187:ARG:HH11	1.82	0.44
53:G:42:LEU:HD12	53:G:43:PHE:O	2.17	0.44
56:J:142:LYS:HD2	56:J:146:ARG:CZ	2.47	0.44
61:O:128:TYR:CE1	61:O:132:VAL:HG11	2.53	0.44
63:Q:111:MET:HG2	66:T:119:ILE:HG23	1.99	0.44
64:R:78:VAL:O	64:R:82:ARG:HG2	2.17	0.44
66:T:29:VAL:HG23	66:T:47:CYS:SG	2.57	0.44
73:a:47:TYR:O	73:a:51:LEU:HD23	2.17	0.44
76:d:8:THR:HG21	76:d:59:SER:HB2	2.00	0.44
47:sR:68:A:OP1	54:s6:160:ARG:NH2	2.40	0.44
47:sR:74:U:N3	82:sR:2180:OHX:N6	2.65	0.44
47:sR:79:C:H1'	54:s6:174:LYS:CG	2.47	0.44
47:sR:500:C:H2'	47:sR:501:U:C6	2.53	0.44
47:sR:1735:U:H2'	47:sR:1736:G:O4'	2.17	0.44
48:s0:195:TRP:HD1	48:s0:196:SER:H	1.65	0.44
48:s0:195:TRP:CD1	48:s0:196:SER:H	2.36	0.44
49:s1:131:ASP:OD1	49:s1:131:ASP:N	2.39	0.44
50:s2:83:ILE:O	50:s2:83:ILE:HG13	2.17	0.44
55:s7:86:GLN:CD	55:s7:86:GLN:H	2.25	0.44
55:s7:170:GLN:HG2	55:s7:183:PHE:HE1	1.83	0.44
60:c2:35:ALA:HB1	60:c2:123:VAL:HG21	2.00	0.44
60:c2:46:ARG:NH2	79:e1:103:LEU:H	2.15	0.44
60:c2:136:ILE:N	60:c2:136:ILE:HD12	2.31	0.44
72:d4:23:PHE:HE2	72:d4:75:VAL:HG22	1.82	0.44
74:d6:23:CYS:O	74:d6:27:SER:HA	2.17	0.44
1:1:256:G:H2'	1:1:257:U:C6	2.53	0.44
1:1:386:A:C5	1:1:387:A:H1'	2.52	0.44
1:1:407:A:C2	3:4:17:A:H1'	2.53	0.44
1:1:2679:A:O2'	13:s:52:TYR:OH	2.09	0.44
1:1:3305:A:H1'	1:1:3311:C:O2	2.17	0.44
1:1:3337:G:H2'	1:1:3338:C:C6	2.53	0.44
3:4:87:G:OP2	36:AI:5:LYS:NZ	2.36	0.44
4:j:42:ARG:HD2	4:j:87:PHE:CD1	2.53	0.44
4:j:43:GLY:N	4:j:88:ILE:O	2.47	0.44
7:m:58:LYS:HA	7:m:93:THR:OG1	2.16	0.44
8:n:132:ALA:O	8:n:136:GLU:HG2	2.17	0.44
12:r:140:THR:CG2	12:r:148:VAL:HG11	2.48	0.44
13:s:38:GLU:CD	45:i:22:PRO:HB3	2.42	0.44
16:v:75:VAL:O	16:v:78:GLY:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:i:96:ARG:HG3	47:A:1274:C:H41	1.82	0.44
1:AR:1334:U:H2'	1:AR:1335:C:C6	2.53	0.44
1:AR:1500:G:H2'	1:AR:1501:U:O4'	2.18	0.44
1:AR:1582:C:H5"	1:AR:1583:A:OP1	2.18	0.44
1:AR:1827:C:H2'	1:AR:1828:A:H8	1.80	0.44
1:AR:2424:A:N1	4:CD:230:VAL:HG11	2.32	0.44
1:AR:2787:G:H2'	1:AR:2788:C:H6	1.83	0.44
1:AR:2812:C:H2'	1:AR:2813:A:H8	1.82	0.44
1:AR:3016:A:H2'	1:AR:3017:A:C8	2.52	0.44
1:AR:3295:A:H2'	1:AR:3296:A:C8	2.53	0.44
2:AS:74:C:H1'	2:AS:106:U:O2	2.18	0.44
3:AT:86:U:H5'	3:AT:87:G:OP1	2.17	0.44
5:CE:24:SER:C	5:CE:26:ARG:N	2.74	0.44
7:CG:52:VAL:CG2	7:CG:63:GLN:HB2	2.48	0.44
11:CK:1:MET:HG2	11:CK:3:TYR:CZ	2.53	0.44
11:CK:90:MET:HG2	11:CK:181:VAL:HA	1.99	0.44
14:CN:62:THR:C	14:CN:64:LYS:N	2.75	0.44
17:CQ:42:ASN:OD1	17:CQ:125:ARG:HD3	2.17	0.44
18:CR:50:GLN:OE1	18:CR:56:ARG:NH1	2.50	0.44
20:CT:23:TRP:HB3	20:CT:51:VAL:HG22	2.00	0.44
24:CX:94:TYR:CZ	25:CY:21:PHE:HB2	2.52	0.44
30:DD:28:LYS:HG3	30:DD:29:TYR:N	2.33	0.44
32:DF:26:LYS:HD3	32:DF:64:VAL:HG21	2.00	0.44
32:DF:51:LEU:HB3	32:DF:55:LEU:HD23	1.98	0.44
36:DJ:119:LYS:HD3	36:DJ:119:LYS:HA	1.73	0.44
47:A:187:G:N7	56:J:141:ARG:NH2	2.65	0.44
47:A:274:G:H3'	47:A:275:C:C6	2.53	0.44
47:A:460:A:H5'	47:A:461:G:OP2	2.18	0.44
47:A:796:A:OP2	82:A:1920:OHX:N3	2.51	0.44
47:A:836:U:H2'	47:A:837:G:C8	2.53	0.44
47:A:1039:A:H5"	69:W:62:ARG:NH1	2.32	0.44
47:A:1198:G:O4'	68:V:73:GLY:HA3	2.18	0.44
47:A:1354:G:H3'	47:A:1355:C:H6	1.82	0.44
47:A:1586:A:H2'	47:A:1587:A:O4'	2.16	0.44
48:B:184:LEU:O	48:B:185:ARG:C	2.61	0.44
50:D:35:TRP:CZ2	50:D:67:GLN:HB2	2.52	0.44
50:D:163:GLY:HA3	50:D:209:ASN:ND2	2.32	0.44
50:D:165:VAL:HA	50:D:201:ASN:O	2.18	0.44
54:H:69:LEU:HB3	54:H:71:THR:HG22	1.99	0.44
54:H:120:GLU:OE1	54:H:125:THR:HB	2.16	0.44
56:J:4:SER:HB3	56:J:24:LYS:HD3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:J:138:ASN:O	56:J:141:ARG:HG2	2.17	0.44
62:P:105:LEU:HB3	62:P:110:LEU:HD22	2.00	0.44
65:S:119:LEU:HD23	65:S:119:LEU:H	1.82	0.44
66:T:49:LYS:NZ	66:T:81:ILE:HG13	2.32	0.44
70:X:32:LYS:O	70:X:35:ILE:HG12	2.18	0.44
71:Y:30:LYS:O	71:Y:34:LEU:HG	2.18	0.44
74:b:79:ILE:HG12	74:b:84:VAL:HG21	1.98	0.44
78:f:55:ARG:HE	78:f:58:PRO:HB3	1.83	0.44
80:h:21:THR:C	80:h:291:SER:HB3	2.43	0.44
80:h:224:ASN:ND2	80:h:227:ALA:HB3	2.32	0.44
47:sR:230:C:H42	47:sR:235:G:H1	1.65	0.44
47:sR:1428:G:H3'	47:sR:1428:G:OP2	2.18	0.44
51:s3:58:VAL:C	51:s3:66:ILE:HG23	2.43	0.44
52:s4:126:VAL:HG22	52:s4:158:ASP:O	2.18	0.44
53:s5:102:ARG:H	53:s5:102:ARG:HG2	1.45	0.44
57:s9:54:ARG:HA	57:s9:57:ARG:HG2	2.00	0.44
58:c0:7:ASP:HA	58:c0:10:LYS:HG2	1.99	0.44
60:c2:48:SER:HB3	60:c2:52:LEU:HD13	2.00	0.44
63:c5:89:MET:O	63:c5:92:SER:OG	2.36	0.44
64:c6:4:VAL:HG13	64:c6:5:PRO:HD2	2.00	0.44
67:c9:116:ILE:O	67:c9:116:ILE:HG13	2.18	0.44
72:d4:54:ALA:HB2	72:d4:79:VAL:HA	2.00	0.44
1:1:228:U:H5"	27:9:8:VAL:HG21	2.00	0.44
1:1:261:U:H2'	1:1:262:U:C6	2.52	0.44
1:1:281:G:C6	1:1:282:G:C6	3.06	0.44
1:1:792:G:H5"	29:AB:2:PRO:HD3	1.99	0.44
1:1:1172:G:O6	82:1:4118:OHX:N1	2.51	0.44
1:1:1248:C:OP1	1:1:1249:G:H8	2.00	0.44
1:1:1352:A:H1'	1:1:1353:U:C5	2.53	0.44
1:1:2158:A:H5'	1:1:2160:G:O4'	2.18	0.44
1:1:2236:G:OP1	82:1:3584:OHX:N6	2.51	0.44
1:1:2655:U:C5	43:AP:4:VAL:HG23	2.52	0.44
3:4:151:C:N3	26:8:24:LEU:HD11	2.32	0.44
6:l:152:VAL:HG21	6:l:156:LEU:CD1	2.47	0.44
6:l:311:HIS:CE1	6:l:314:LYS:HA	2.53	0.44
8:n:22:ARG:O	8:n:23:LYS:HG2	2.17	0.44
14:t:31:LYS:HA	14:t:34:SER:OG	2.18	0.44
14:t:116:LEU:O	14:t:120:GLN:HG3	2.18	0.44
17:w:189:ASP:O	17:w:193:GLN:HG3	2.17	0.44
19:y:8:LYS:HD3	19:y:8:LYS:HA	1.46	0.44
20:z:12:ALA:HB1	20:z:17:VAL:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:2:39:ILE:CD1	22:2:102:ARG:HD2	2.48	0.44
26:8:131:ASP:O	26:8:135:ILE:HG12	2.17	0.44
36:AI:53:CYS:O	36:AI:57:VAL:HG12	2.18	0.44
39:AL:77:ARG:O	39:AL:78:LEU:HB2	2.18	0.44
43:AP:14:GLY:O	43:AP:16:THR:N	2.50	0.44
1:AR:196:G:N2	1:AR:198:A:H3'	2.33	0.44
1:AR:571:U:H2'	1:AR:572:A:H8	1.82	0.44
1:AR:938:C:O2	1:AR:2813:A:O2'	2.34	0.44
1:AR:1238:C:N4	1:AR:1251:A:N1	2.65	0.44
1:AR:1719:G:N7	20:CT:121:HIS:HE1	2.16	0.44
1:AR:2202:C:H2'	1:AR:2203:U:O4'	2.18	0.44
1:AR:2340:U:OP2	5:CE:237:LYS:HB2	2.18	0.44
1:AR:3109:G:OP1	41:DO:93:LYS:HE3	2.18	0.44
6:CF:58:HIS:HD2	6:CF:98:ARG:HB2	1.81	0.44
6:CF:123:ALA:HA	6:CF:126:ILE:HD12	2.00	0.44
6:CF:311:HIS:CE1	9:CI:164:SER:HB3	2.52	0.44
6:CF:317:PRO:C	6:CF:319:LYS:H	2.24	0.44
7:CG:104:LEU:HD11	7:CG:108:ARG:NH2	2.32	0.44
10:CJ:118:GLU:OE1	10:CJ:118:GLU:N	2.51	0.44
14:CN:91:ARG:NH2	14:CN:97:VAL:HB	2.33	0.44
18:CR:173:ARG:O	18:CR:177:ALA:HB3	2.17	0.44
19:CS:44:PHE:CD1	19:CS:139:ILE:HD11	2.53	0.44
24:CX:22:ILE:HG22	24:CX:33:ASN:HB2	1.99	0.44
28:DB:85:TYR:OH	35:DI:97:GLU:OE2	2.27	0.44
28:DB:108:GLU:HA	28:DB:111:LYS:HB2	1.98	0.44
32:DF:62:ARG:HB2	32:DF:66:GLY:HA3	2.00	0.44
47:A:97:C:H2'	47:A:98:U:C6	2.52	0.44
47:A:639:U:OP1	55:I:117:THR:OG1	2.26	0.44
47:A:728:U:O2'	47:A:729:G:H5'	2.18	0.44
47:A:947:U:H2'	47:A:948:G:H8	1.82	0.44
47:A:1133:A:N3	47:A:1650:U:O2'	2.44	0.44
47:A:1487:A:OP1	77:e:34:TYR:OH	2.30	0.44
47:A:1516:A:C8	68:V:59:PRO:HD3	2.52	0.44
47:A:1591:C:H2'	47:A:1592:A:H8	1.82	0.44
49:C:127:VAL:HG11	49:C:173:THR:HB	1.97	0.44
50:D:106:ASP:OD2	50:D:110:HIS:ND1	2.47	0.44
52:F:42:LEU:HD12	52:F:109:PHE:HB2	1.98	0.44
54:H:190:GLN:HG2	54:H:190:GLN:H	1.66	0.44
60:N:62:LEU:O	60:N:91:VAL:N	2.47	0.44
61:O:135:LEU:HD23	61:O:135:LEU:HA	1.86	0.44
62:P:20:TYR:HA	62:P:84:ARG:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:V:117:VAL:HG12	68:V:118:VAL:N	2.31	0.44
47:sR:291:G:H2'	47:sR:292:U:C6	2.52	0.44
47:sR:443:C:OP2	72:d4:105:ARG:HB3	2.18	0.44
47:sR:471:A:N7	82:sR:1959:OHX:N2	2.65	0.44
47:sR:545:A:H4'	47:sR:546:U:H5'	1.99	0.44
47:sR:1189:A:N3	47:sR:1194:A:O2'	2.47	0.44
47:sR:1248:C:H2'	47:sR:1249:U:C6	2.53	0.44
50:s2:73:LEU:O	50:s2:76:LEU:HD22	2.17	0.44
53:s5:205:SER:C	53:s5:207:THR:H	2.26	0.44
54:s6:141:ILE:HD13	54:s6:175:ILE:HD12	1.99	0.44
55:s7:75:THR:O	55:s7:79:ARG:HB2	2.18	0.44
58:c0:30:ALA:HA	58:c0:38:LYS:HD3	1.99	0.44
59:c1:55:ASP:OD2	59:c1:58:CYS:HB2	2.17	0.44
59:c1:93:TYR:HB2	59:c1:100:TYR:CE2	2.51	0.44
81:c7:117:LEU:O	81:c7:118:PRO:C	2.58	0.44
68:d0:96:PRO:O	68:d0:100:VAL:HG23	2.17	0.44
79:e1:132:LEU:HD12	79:e1:139:LEU:HD12	2.00	0.44
1:1:645:A:H1'	1:1:647:A:OP2	2.17	0.44
1:1:735:A:H2'	1:1:736:A:C8	2.53	0.44
1:1:1281:G:H2'	1:1:1282:G:C8	2.51	0.44
1:1:1310:G:H2'	1:1:1311:G:H8	1.83	0.44
1:1:1393:A:N3	1:1:1419:A:O2'	2.48	0.44
1:1:2101:C:H5'	20:z:70:LYS:HE3	1.99	0.44
1:1:2129:U:H2'	1:1:2130:G:C8	2.53	0.44
1:1:2541:U:H1'	1:1:2542:U:P	2.58	0.44
3:4:154:C:H2'	3:4:155:A:O4'	2.17	0.44
6:l:151:VAL:HA	6:l:250:TRP:O	2.18	0.44
11:q:124:ARG:HD3	11:q:164:ILE:O	2.18	0.44
19:y:8:LYS:O	19:y:11:LYS:HD2	2.18	0.44
19:y:30:VAL:O	19:y:34:THR:HG23	2.16	0.44
31:AD:15:ALA:O	31:AD:18:ILE:HG13	2.17	0.44
1:AR:674:G:O2'	6:CF:116:ASN:HB3	2.17	0.44
1:AR:1181:U:O4	17:CQ:18:ARG:HA	2.18	0.44
1:AR:1281:G:O2'	46:p0:83:ASN:OD1	2.23	0.44
1:AR:2201:G:H2'	1:AR:2202:C:C6	2.53	0.44
1:AR:2841:G:OP2	82:AR:3629:OHX:N5	2.50	0.44
4:CD:117:GLU:O	4:CD:158:ILE:HD12	2.17	0.44
5:CE:356:LEU:HD23	5:CE:359:ILE:HD11	2.00	0.44
11:CK:61:GLY:O	11:CK:65:VAL:HG23	2.18	0.44
20:CT:53:LYS:HD3	20:CT:53:LYS:HA	1.60	0.44
20:CT:167:ARG:O	20:CT:171:ASP:N	2.23	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:CZ:83:VAL:HG12	26:CZ:123:TYR:HD1	1.82	0.44
29:DC:77:LYS:C	29:DC:79:TRP:H	2.25	0.44
30:DD:52:LYS:HE3	30:DD:52:LYS:HB3	1.65	0.44
36:DJ:5:LYS:HD3	36:DJ:7:TYR:OH	2.18	0.44
38:DL:39:TYR:CD1	38:DL:40:PRO:HA	2.53	0.44
46:p0:95:GLU:HG3	46:p0:95:GLU:O	2.17	0.44
47:A:358:U:OP2	82:A:1942:OHX:N3	2.50	0.44
47:A:811:A:H62	55:I:113:PRO:HD3	1.83	0.44
52:F:51:ARG:NE	52:F:51:ARG:HA	2.33	0.44
53:G:47:SER:O	53:G:130:ILE:HD11	2.17	0.44
56:J:46:VAL:HG22	56:J:54:LYS:HB3	1.99	0.44
58:L:55:VAL:HG21	58:L:66:TYR:HB3	1.98	0.44
62:P:52:ARG:NE	62:P:53:ASP:OD1	2.50	0.44
66:T:36:LYS:HB2	66:T:102:ALA:CA	2.46	0.44
66:T:41:ARG:NH2	66:T:85:PHE:HE1	2.15	0.44
67:U:45:MET:HE2	67:U:45:MET:HB3	1.80	0.44
68:V:45:ALA:O	68:V:50:LEU:HG	2.18	0.44
68:V:50:LEU:O	68:V:52:LYS:HE2	2.18	0.44
71:Y:53:VAL:HG23	71:Y:72:VAL:HB	1.99	0.44
74:b:38:ARG:HE	74:b:83:ILE:HG13	1.81	0.44
80:Rb:143:THR:O	80:Rb:144:LEU:HD22	2.17	0.44
80:Rb:217:ASP:N	80:Rb:217:ASP:OD1	2.51	0.44
49:s1:33:LYS:HE3	49:s1:41:ARG:HH12	1.83	0.44
49:s1:194:ASN:HB3	49:s1:210:ILE:O	2.17	0.44
50:s2:158:THR:HG23	50:s2:217:ALA:HB1	1.99	0.44
52:s4:154:ILE:HG12	52:s4:172:PHE:CD2	2.53	0.44
53:s5:119:ASP:HB3	73:d5:100:ILE:CD1	2.48	0.44
53:s5:192:GLU:OE2	73:d5:98:GLN:NE2	2.51	0.44
56:s8:57:ALA:HB1	56:s8:60:ILE:HG13	1.99	0.44
56:s8:195:ARG:HD2	56:s8:195:ARG:N	2.33	0.44
57:s9:58:ASP:O	57:s9:61:THR:OG1	2.34	0.44
57:s9:65:LYS:HA	57:s9:70:LEU:HD11	1.99	0.44
61:c3:151:ASN:HA	82:c3:202:OHX:N3	2.33	0.44
67:c9:118:PRO:O	67:c9:119:LYS:HB3	2.17	0.44
74:d6:45:VAL:C	74:d6:47:ALA:H	2.26	0.44
1:1:639:G:OP1	33:AF:37:GLY:HA3	2.17	0.44
1:1:816:A:H1'	1:1:819:U:O4	2.18	0.44
1:1:908:G:H4'	1:1:909:G:O5'	2.18	0.44
1:1:1100:U:H2'	1:1:1101:G:O4'	2.18	0.44
1:1:1321:G:O3'	21:0:117:ARG:NH1	2.51	0.44
1:1:1701:C:H2'	1:1:1702:U:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1723:A:N1	1:1:1788:C:O2'	2.50	0.44
1:1:2765:C:O3'	43:AP:39:GLY:HA3	2.17	0.44
1:1:3111:U:O4	1:1:3120:C:H4'	2.18	0.44
1:1:3214:U:N3	15:u:121:MET:HG3	2.33	0.44
2:3:43:U:H4'	13:s:140:ARG:O	2.18	0.44
6:l:144:LYS:NZ	6:l:175:HIS:HB3	2.33	0.44
9:o:25:GLN:HB3	9:o:28:ALA:HB3	1.99	0.44
9:o:92:ILE:HD11	19:y:4:ASP:HB2	2.00	0.44
14:t:74:GLY:HA3	14:t:98:ASP:N	2.33	0.44
14:t:94:GLY:HA3	36:AI:116:TYR:OH	2.17	0.44
14:t:187:ALA:HA	14:t:190:LYS:HE3	2.00	0.44
17:w:35:VAL:HG21	17:w:80:PHE:CE2	2.52	0.44
28:AA:53:VAL:HA	28:AA:57:HIS:ND1	2.32	0.44
31:AD:92:ILE:HD13	31:AD:100:ILE:CD1	2.48	0.44
32:AE:13:THR:CG2	32:AE:72:ARG:HH11	2.28	0.44
43:AP:2:VAL:N	43:AP:90:HIS:O	2.51	0.44
1:AR:47:C:H5"	14:CN:16:LYS:HG2	1.99	0.44
1:AR:167:U:H2'	1:AR:168:U:C6	2.53	0.44
1:AR:658:G:OP1	82:AT:201:OHX:N5	2.51	0.44
1:AR:716:A:C5	29:DC:117:ARG:HG3	2.53	0.44
1:AR:813:G:H5'	38:DL:47:TYR:OH	2.18	0.44
1:AR:921:A:OP1	1:AR:921:A:H3'	2.18	0.44
1:AR:929:A:O2'	38:DL:49:TRP:O	2.35	0.44
1:AR:1260:A:H1'	1:AR:1280:C:H1'	1.99	0.44
1:AR:2299:A:OP2	82:AR:3460:OHX:N1	2.51	0.44
1:AR:2350:C:O3'	18:CR:68:GLY:HA3	2.18	0.44
1:AR:2552:C:H2'	31:DE:50:VAL:HG11	2.00	0.44
10:CJ:161:GLU:CD	16:CP:26:ARG:HH12	2.25	0.44
16:CP:73:ARG:NH1	16:CP:86:ASN:O	2.51	0.44
24:CX:94:TYR:CE1	25:CY:21:PHE:HB2	2.52	0.44
28:DB:46:ILE:HD11	28:DB:48:ARG:O	2.16	0.44
30:DD:14:ARG:NH2	30:DD:18:ARG:HD3	2.33	0.44
42:DP:19:LYS:O	42:DP:19:LYS:HD3	2.18	0.44
47:A:636:A:H5"	70:X:31:SER:HB2	2.00	0.44
47:A:890:C:H2'	47:A:891:A:H8	1.83	0.44
47:A:1049:U:OP1	75:c:70:LYS:HB2	2.17	0.44
47:A:1181:U:O4	82:A:1960:OHX:N6	2.51	0.44
47:A:1202:A:H1'	47:A:1207:C:N4	2.32	0.44
47:A:1225:U:H2'	47:A:1226:A:O4'	2.17	0.44
47:A:1280:C:O2'	68:V:70:THR:HB	2.18	0.44
47:A:1483:A:C6	47:A:1484:G:C6	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1787:C:OP1	62:P:131:GLY:HA2	2.18	0.44
54:H:41:VAL:HG23	54:H:42:GLY:N	2.33	0.44
60:N:75:VAL:HG23	60:N:76:GLU:N	2.32	0.44
63:Q:90:ILE:HD11	63:Q:112:LEU:HD11	1.99	0.44
71:Y:43:PHE:CE1	71:Y:49:ALA:HB3	2.53	0.44
72:Z:124:ARG:O	72:Z:127:LYS:HB2	2.17	0.44
74:b:96:ALA:C	74:b:98:PRO:HD2	2.43	0.44
79:g:109:ASP:OD2	79:g:112:GLY:HA2	2.17	0.44
79:g:130:VAL:HG11	79:g:143:LYS:HD3	1.99	0.44
80:h:101:GLN:HG2	80:h:137:LYS:C	2.42	0.44
80:h:168:THR:OG1	80:h:181:TRP:O	2.24	0.44
47:sR:66:U:H5'	54:s6:173:PRO:HA	2.00	0.44
47:sR:564:G:O6	82:sR:2003:OHX:N3	2.51	0.44
47:sR:748:U:H2'	47:sR:749:U:H6	1.82	0.44
47:sR:829:A:H1'	47:sR:830:U:H5	1.82	0.44
47:sR:947:U:H2'	47:sR:948:G:H8	1.82	0.44
47:sR:1078:C:H2'	47:sR:1079:U:H6	1.81	0.44
47:sR:1273:G:O5'	47:sR:1274:C:H3'	2.18	0.44
80:Rb:133:VAL:HG21	80:Rb:141:LEU:HB3	1.98	0.44
48:s0:51:GLY:O	48:s0:55:GLU:HG2	2.18	0.44
48:s0:182:LEU:CD1	48:s0:188:LEU:HB2	2.40	0.44
50:s2:153:SER:OG	50:s2:154:LEU:N	2.51	0.44
50:s2:177:GLY:O	50:s2:195:ASP:HA	2.18	0.44
54:s6:70:PRO:O	54:s6:98:ARG:CZ	2.66	0.44
56:s8:25:ARG:O	56:s8:28:GLU:HG2	2.17	0.44
56:s8:40:ALA:O	56:s8:59:ARG:HB2	2.18	0.44
57:s9:57:ARG:O	57:s9:61:THR:HG23	2.18	0.44
62:c4:17:ALA:HB2	62:c4:79:VAL:HG11	2.00	0.44
66:c8:4:VAL:HG21	73:d5:82:HIS:ND1	2.33	0.44
67:c9:105:LEU:HB3	67:c9:122:ARG:NE	2.33	0.44
68:d0:46:GLU:HA	68:d0:49:ASN:HA	2.00	0.44
1:1:229:G:H5"	27:9:4:GLN:HB2	1.99	0.44
1:1:669:U:H2'	1:1:670:C:O4'	2.18	0.44
1:1:824:C:O2'	1:1:1534:A:N3	2.47	0.44
1:1:858:A:O2'	44:AQ:13:LYS:HD3	2.18	0.44
1:1:1299:U:H2'	1:1:1300:G:O4'	2.18	0.44
1:1:1686:U:O2	1:1:1688:U:H1'	2.18	0.44
1:1:1855:U:H2'	1:1:1856:C:H6	1.83	0.44
1:1:2537:U:H1'	1:1:2538:U:O5'	2.18	0.44
1:1:2944:U:H1'	5:k:251:CYS:SG	2.57	0.44
1:1:3279:A:C6	1:1:3280:U:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:k:113:GLU:CD	5:k:167:ARG:HG2	2.43	0.44
9:o:163:LEU:O	9:o:168:ILE:HD12	2.17	0.44
14:t:60:ALA:HA	14:t:61:PRO:HD3	1.76	0.44
23:5:33:TYR:HA	23:5:83:TYR:CZ	2.52	0.44
23:5:99:LYS:HD2	23:5:102:GLU:OE1	2.18	0.44
35:AH:46:ASP:CG	35:AH:80:ARG:HD2	2.43	0.44
38:AK:39:TYR:CD1	38:AK:40:PRO:HA	2.53	0.44
39:AL:33:LYS:H	39:AL:33:LYS:HG2	1.56	0.44
39:AL:46:ARG:NH1	39:AL:51:LEU:HB2	2.32	0.44
1:AR:1144:U:H1'	1:AR:1145:G:C8	2.53	0.44
1:AR:1781:C:H2'	1:AR:1782:U:C6	2.53	0.44
1:AR:2736:A:H4'	22:CV:71:SER:OG	2.18	0.44
1:AR:2946:A:H5"	1:AR:2947:G:H5'	1.99	0.44
4:CD:30:ARG:HG3	4:CD:74:GLU:HG3	2.00	0.44
8:CH:89:THR:HG21	15:CO:115:PHE:CB	2.48	0.44
8:CH:90:LYS:HG2	8:CH:91:VAL:N	2.33	0.44
9:CI:173:LEU:CB	9:CI:178:ILE:HB	2.47	0.44
9:CI:235:PHE:HE1	21:CU:35:VAL:HG23	1.83	0.44
21:CU:135:VAL:HG21	21:CU:140:VAL:HG23	1.99	0.44
28:DB:59:ALA:O	28:DB:61:LYS:N	2.35	0.44
37:DK:57:LEU:HD21	37:DK:73:ALA:HB2	2.00	0.44
41:DO:99:CYS:HB2	41:DO:114:LYS:HD2	1.99	0.44
46:p0:59:VAL:O	46:p0:63:ILE:HD12	2.17	0.44
47:A:495:C:H3'	47:A:496:G:H4'	1.99	0.44
47:A:541:A:O2'	47:A:542:A:H4'	2.17	0.44
47:A:803:A:N3	55:I:104:ARG:NH1	2.66	0.44
47:A:953:G:C5'	61:O:114:ARG:HD3	2.46	0.44
47:A:1106:U:H2'	47:A:1107:G:H8	1.83	0.44
47:A:1228:G:H5"	47:A:1229:G:C8	2.52	0.44
49:C:50:LYS:HE2	49:C:52:THR:HB	2.00	0.44
51:E:23:GLU:CD	58:L:61:TRP:HE1	2.25	0.44
58:L:33:GLU:O	58:L:34:GLU:HB2	2.18	0.44
63:Q:19:GLY:H	66:T:94:ASP:HA	1.83	0.44
80:h:276:PRO:HG3	80:h:305:TYR:CE2	2.53	0.44
47:sR:50:C:N4	47:sR:425:A:OP2	2.46	0.44
47:sR:236:A:H8	47:sR:236:A:O5'	2.00	0.44
47:sR:425:A:H5'	47:sR:425:A:H8	1.83	0.44
47:sR:1173:C:H2'	47:sR:1174:C:H6	1.83	0.44
47:sR:1298:U:H1'	50:s2:162:CYS:O	2.18	0.44
47:sR:1311:U:O3'	81:c7:2:GLY:N	2.51	0.44
47:sR:1459:C:C4'	63:c5:126:VAL:HG21	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1524:A:C6	47:sR:1525:A:C6	3.06	0.44
47:sR:1594:G:H5'	77:d9:33:LYS:HD2	1.99	0.44
47:sR:1767:G:OP1	47:sR:1770:U:H4'	2.17	0.44
82:sR:1953:OHX:N5	63:c5:59:LYS:HE2	2.33	0.44
51:s3:126:VAL:HA	51:s3:129:SER:HB2	1.99	0.44
52:s4:163:ASP:O	52:s4:167:GLY:N	2.51	0.44
55:s7:17:GLU:HG2	55:s7:43:PHE:HE1	1.83	0.44
55:s7:62:VAL:HG22	55:s7:66:SER:OG	2.17	0.44
57:s9:29:LYS:HD3	57:s9:30:LEU:HD12	2.00	0.44
61:c3:120:SER:O	61:c3:124:ARG:HG3	2.18	0.44
62:c4:47:LYS:NZ	62:c4:63:ALA:HA	2.32	0.44
81:c7:71:PHE:CD2	81:c7:73:LEU:HB2	2.53	0.44
67:c9:101:ASN:O	67:c9:104:VAL:HG22	2.18	0.44
67:c9:112:GLY:O	67:c9:125:SER:OG	2.31	0.44
70:d2:106:THR:HG21	70:d2:121:VAL:HG23	2.00	0.44
70:d2:111:MET:HG3	70:d2:112:ASP:O	2.18	0.44
73:d5:54:VAL:HG13	73:d5:55:PRO:HD3	1.99	0.44
76:d8:60:GLU:O	76:d8:61:ARG:HG2	2.18	0.44
78:e0:14:VAL:O	78:e0:18:THR:HG23	2.18	0.44
1:1:408:A:N6	3:4:15:G:H1'	2.32	0.43
1:1:659:G:H8	1:1:659:G:O5'	2.00	0.43
1:1:690:A:H4'	1:1:691:A:OP1	2.18	0.43
1:1:817:A:H8	38:AK:15:SER:HG	1.64	0.43
2:3:3:U:H2'	2:3:4:U:H6	1.81	0.43
2:3:45:A:H4'	7:m:154:THR:OG1	2.18	0.43
5:k:81:THR:OG1	5:k:205:VAL:HG21	2.18	0.43
5:k:160:VAL:HG11	5:k:194:TRP:HZ3	1.83	0.43
5:k:362:ALA:HB2	5:k:371:GLN:NE2	2.32	0.43
7:m:51:LEU:N	7:m:145:PHE:O	2.35	0.43
8:n:89:THR:HG21	15:u:115:PHE:CB	2.48	0.43
12:r:48:LEU:HD13	12:r:142:ASP:HA	1.99	0.43
28:AA:123:GLN:O	28:AA:124:ALA:C	2.61	0.43
1:AR:3028:G:H2'	1:AR:3029:A:C8	2.53	0.43
3:AT:37:A:H5"	3:AT:39:G:O4'	2.18	0.43
5:CE:85:VAL:HA	5:CE:202:THR:HA	1.99	0.43
5:CE:280:HIS:HB3	5:CE:324:VAL:HG13	1.99	0.43
11:CK:181:VAL:O	41:DO:85:LEU:HD21	2.18	0.43
31:DE:95:ALA:HB1	31:DE:98:SER:HB3	2.00	0.43
35:DI:42:PRO:HB2	35:DI:51:LEU:CD2	2.42	0.43
47:A:778:G:H22	72:Z:10:ARG:CZ	2.31	0.43
47:A:1585:U:H4'	64:R:135:ARG:HG3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1691:A:H8	47:A:1691:A:O5'	2.01	0.43
48:B:22:THR:O	48:B:22:THR:OG1	2.29	0.43
48:B:188:LEU:HA	48:B:188:LEU:HD12	1.63	0.43
51:E:37:VAL:HG12	51:E:50:ILE:HA	1.98	0.43
52:F:212:ASP:C	52:F:214:LEU:N	2.72	0.43
52:F:244:ILE:O	52:F:244:ILE:HG22	2.18	0.43
53:G:99:MET:HB2	53:G:180:ARG:HH12	1.82	0.43
56:J:119:GLN:HE21	56:J:150:ALA:CB	2.31	0.43
62:P:108:SER:O	62:P:108:SER:OG	2.34	0.43
63:Q:56:PHE:O	63:Q:60:LEU:HD23	2.18	0.43
70:X:111:MET:SD	70:X:119:LYS:HD3	2.58	0.43
71:Y:112:LYS:O	71:Y:113:ALA:C	2.61	0.43
73:a:84:GLU:HB2	73:a:89:ILE:HD11	2.00	0.43
80:h:150:TRP:O	80:h:174:ASN:HB2	2.18	0.43
47:sR:5:U:H2'	47:sR:6:G:C8	2.53	0.43
47:sR:475:A:OP2	57:s9:126:ARG:NH1	2.44	0.43
47:sR:478:A:H62	47:sR:539:G:H22	1.66	0.43
47:sR:1022:C:H4'	47:sR:1125:A:H61	1.83	0.43
47:sR:1081:A:H5"	69:d1:62:ARG:HH22	1.82	0.43
47:sR:1114:G:O2'	47:sR:1130:G:O6	2.30	0.43
47:sR:1255:G:O2'	47:sR:1256:A:O5'	2.33	0.43
47:sR:1476:C:H5"	67:c9:44:GLU:CD	2.43	0.43
47:sR:1563:C:H2'	47:sR:1564:U:C6	2.53	0.43
47:sR:1566:U:H5"	66:c8:39:GLY:N	2.33	0.43
80:Rb:110:VAL:HA	80:Rb:126:SER:HB2	1.98	0.43
80:Rb:154:VAL:O	80:Rb:155:ARG:HD3	2.18	0.43
80:Rb:201:THR:CB	80:Rb:242:SER:HA	2.48	0.43
49:s1:29:TRP:HA	49:s1:46:THR:O	2.18	0.43
49:s1:71:ALA:HB3	62:c4:114:ARG:NH2	2.32	0.43
49:s1:181:LEU:HD23	49:s1:181:LEU:HA	1.79	0.43
55:s7:28:GLU:OE2	55:s7:35:LYS:HB2	2.18	0.43
59:c1:67:ARG:CZ	59:c1:129:ARG:H	2.30	0.43
67:c9:72:GLY:HA2	67:c9:121:GLY:HA2	2.00	0.43
71:d3:96:VAL:HG12	71:d3:127:VAL:CB	2.48	0.43
74:d6:58:VAL:HG23	74:d6:59:TYR:CD2	2.53	0.43
1:1:239:G:O2'	1:1:240:U:H5'	2.18	0.43
1:1:396:A:O2'	1:1:399:A:OP1	2.21	0.43
1:1:839:C:H4'	1:1:1724:U:H2'	1.99	0.43
1:1:999:G:C6	1:1:1000:C:N4	2.85	0.43
1:1:2093:A:H2'	1:1:2094:C:O4'	2.18	0.43
1:1:2108:C:H1'	1:1:3344:A:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:3112:G:N7	82:1:3419:OHX:N5	2.65	0.43
2:3:85:G:O3'	9:o:218:ARG:NH2	2.51	0.43
6:l:23:PRO:HD2	6:l:26:PHE:CD2	2.53	0.43
7:m:27:LYS:O	7:m:150:LEU:HD11	2.18	0.43
7:m:52:VAL:HA	7:m:147:ASP:HB3	1.99	0.43
7:m:95:TRP:HZ3	7:m:199:ILE:HG12	1.82	0.43
13:s:35:LYS:O	13:s:39:GLN:HG2	2.17	0.43
13:s:89:TYR:CD2	13:s:167:TYR:HB3	2.53	0.43
14:t:85:LEU:HD23	14:t:85:LEU:H	1.83	0.43
18:x:138:LYS:HD2	18:x:140:GLU:CD	2.43	0.43
20:z:133:LYS:O	20:z:133:LYS:HD3	2.18	0.43
20:z:181:ARG:HD3	20:z:181:ARG:HA	1.74	0.43
23:5:49:ASN:O	23:5:50:LEU:C	2.61	0.43
26:8:25:LYS:HA	26:8:25:LYS:HD2	1.76	0.43
38:AK:52:LYS:O	38:AK:56:ARG:HG3	2.18	0.43
42:AO:19:LYS:HB3	42:AO:19:LYS:HE2	1.72	0.43
44:AQ:49:ARG:CZ	44:AQ:52:ALA:HB2	2.48	0.43
45:i:11:ASP:O	45:i:12:VAL:C	2.61	0.43
1:AR:182:U:H2'	1:AR:183:G:C8	2.53	0.43
1:AR:224:C:O2	27:DA:102:SER:OG	2.37	0.43
1:AR:947:G:H5"	33:DG:55:ILE:HB	1.99	0.43
1:AR:1089:G:N7	82:AR:3655:OHX:N3	2.66	0.43
1:AR:1314:C:H5'	17:CQ:17:GLY:HA3	1.99	0.43
1:AR:1364:C:OP1	9:CI:110:ARG:NH1	2.48	0.43
1:AR:1603:A:H61	26:CZ:71:THR:CG2	2.19	0.43
1:AR:2413:A:H2'	1:AR:2414:G:C8	2.52	0.43
3:AT:143:U:H2'	3:AT:144:G:C8	2.53	0.43
5:CE:332:ARG:NH1	5:CE:333:LYS:HE3	2.33	0.43
6:CF:283:THR:HG22	6:CF:289:ILE:HD11	2.01	0.43
9:CI:90:LYS:HG3	9:CI:91:GLY:H	1.83	0.43
16:CP:135:VAL:CG2	16:CP:142:ILE:HG12	2.49	0.43
19:CS:147:ARG:O	19:CS:150:VAL:HG22	2.18	0.43
19:CS:155:MET:HE3	19:CS:156:GLY:H	1.83	0.43
20:CT:98:ARG:O	20:CT:101:VAL:HG22	2.18	0.43
44:DR:59:CYS:C	44:DR:61:LYS:H	2.26	0.43
47:A:116:U:O2'	47:A:333:A:N3	2.50	0.43
47:A:732:G:C6	82:A:2127:OHX:N6	2.86	0.43
47:A:951:A:H1'	61:O:101:HIS:CG	2.53	0.43
47:A:1147:A:H2'	47:A:1148:C:C6	2.53	0.43
47:A:1474:G:O2'	47:A:1475:A:O5'	2.27	0.43
47:A:1670:G:N7	82:A:2114:OHX:N5	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B:24:LEU:HG	48:B:45:VAL:HG21	2.00	0.43
49:C:58:SER:H	49:C:61:LEU:HB2	1.83	0.43
53:G:32:GLU:HA	53:G:35:GLN:NE2	2.33	0.43
53:G:108:LEU:HA	53:G:111:VAL:HG12	1.99	0.43
65:S:71:PHE:CE2	65:S:73:LEU:HB3	2.52	0.43
66:T:49:LYS:NZ	66:T:80:LYS:O	2.49	0.43
80:h:61:PHE:HB3	80:h:92:TRP:CZ3	2.53	0.43
47:sR:82:U:OP2	82:sR:1954:OHX:N2	2.51	0.43
47:sR:401:A:N1	54:s6:88:ARG:NH2	2.66	0.43
47:sR:507:U:H2'	47:sR:508:U:C6	2.53	0.43
47:sR:1272:U:H5"	47:sR:1273:G:OP2	2.18	0.43
47:sR:1515:A:O2'	47:sR:1517:U:OP2	2.32	0.43
80:Rb:144:LEU:HD12	80:Rb:181:TRP:CE3	2.53	0.43
48:s0:56:LYS:HD3	48:s0:159:ALA:O	2.19	0.43
50:s2:139:ILE:CD1	50:s2:191:ALA:HB1	2.47	0.43
51:s3:48:VAL:HG23	51:s3:84:ILE:HD11	1.99	0.43
53:s5:20:PHE:CE1	53:s5:35:GLN:HB2	2.53	0.43
61:c3:48:SER:O	61:c3:52:VAL:HG13	2.18	0.43
64:c6:55:VAL:CG2	64:c6:105:LEU:HB2	2.48	0.43
70:d2:101:TYR:HE2	70:d2:114:GLU:HG2	1.81	0.43
73:d5:52:LYS:N	73:d5:52:LYS:HD2	2.32	0.43
1:1:71:A:C2	1:1:2778:G:H1'	2.54	0.43
1:1:677:A:H2'	1:1:785:G:C6	2.52	0.43
1:1:1245:A:C3'	1:1:1246:G:H5"	2.49	0.43
1:1:1565:G:N3	1:1:1575:A:N6	2.66	0.43
1:1:1643:A:H2'	1:1:1644:C:C2	2.53	0.43
1:1:1782:U:H2'	1:1:1783:U:O4'	2.17	0.43
2:3:92:A:C5	2:3:93:C:H1'	2.53	0.43
4:j:250:GLN:O	4:j:251:LYS:HG3	2.18	0.43
7:m:106:ALA:HA	7:m:171:LEU:HG	2.00	0.43
13:s:54:VAL:HG22	13:s:59:ILE:HD11	2.00	0.43
16:v:73:ARG:NH1	16:v:88:GLY:O	2.49	0.43
19:y:150:VAL:HA	19:y:153:PHE:CD2	2.53	0.43
26:8:63:ILE:HA	26:8:86:VAL:HG12	2.00	0.43
28:AA:35:SER:O	28:AA:37:PRO:HD3	2.18	0.43
34:AG:45:LEU:HA	34:AG:71:VAL:HG12	1.99	0.43
40:AM:41:ARG:HG2	40:AM:41:ARG:NH1	2.31	0.43
41:AN:96:CYS:HB3	41:AN:101:ALA:H	1.82	0.43
44:AQ:59:CYS:C	44:AQ:61:LYS:H	2.26	0.43
1:AR:32:U:H2'	1:AR:33:G:O4'	2.18	0.43
1:AR:343:U:O2	1:AR:1439:U:H1'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:951:A:H5”	1:AR:1143:A:N1	2.34	0.43
1:AR:1073:U:H2’	1:AR:1074:U:C6	2.53	0.43
1:AR:1132:C:H4’	1:AR:2865:U:O2’	2.18	0.43
1:AR:1810:A:H2’	1:AR:1811:G:C8	2.54	0.43
1:AR:2238:G:N7	82:AR:3500:OHX:N3	2.66	0.43
1:AR:2912:G:H1’	1:AR:3131:U:OP1	2.18	0.43
7:CG:178:ASN:HA	7:CG:183:TRP:CD2	2.53	0.43
7:CG:290:ILE:HG22	12:CL:210:ILE:HD11	1.99	0.43
13:CM:93:ASP:H	13:CM:173:ASP:HB2	1.83	0.43
13:CM:107:ASP:OD1	13:CM:107:ASP:N	2.42	0.43
14:CN:91:ARG:CZ	14:CN:97:VAL:HB	2.48	0.43
18:CR:116:HIS:HB3	18:CR:149:VAL:HB	1.99	0.43
23:CW:91:ASP:O	23:CW:92:TRP:HD1	2.01	0.43
24:CX:126:TRP:HB2	24:CX:129:VAL:CG1	2.45	0.43
25:CY:21:PHE:O	25:CY:29:PHE:N	2.46	0.43
25:CY:64:THR:C	25:CY:66:GLU:H	2.25	0.43
36:DJ:31:LEU:CD1	36:DJ:47:VAL:HG11	2.47	0.43
43:DQ:95:GLY:C	43:DQ:96:GLU:HG3	2.43	0.43
47:A:576:G:H4’	47:A:580:A:C5	2.54	0.43
47:A:693:U:H5’	47:A:694:U:H5’	1.99	0.43
47:A:732:G:C6	82:A:2127:OHX:N2	2.85	0.43
47:A:881:A:H2’	47:A:882:U:O4’	2.18	0.43
47:A:1125:A:C5	47:A:1126:G:H1’	2.53	0.43
47:A:1183:A:N6	47:A:1184:A:N1	2.66	0.43
47:A:1451:C:H2’	47:A:1452:U:C6	2.54	0.43
49:C:185:THR:O	49:C:189:ILE:HG12	2.18	0.43
53:G:225:ARG:HH22	74:b:48:ALA:HB1	1.83	0.43
54:H:136:LYS:O	54:H:175:ILE:HD12	2.19	0.43
55:I:26:GLU:HG3	55:I:27:LEU:HD23	2.01	0.43
55:I:80:GLU:O	55:I:83:LYS:HE3	2.18	0.43
64:R:58:ASP:O	64:R:60:PHE:HD2	2.00	0.43
65:S:21:TYR:OH	65:S:62:GLN:OE1	2.34	0.43
70:X:105:THR:HG23	70:X:110:ILE:HG12	2.00	0.43
71:Y:19:ARG:HH11	71:Y:19:ARG:HG3	1.84	0.43
77:e:20:GLN:HG3	77:e:25:SER:O	2.19	0.43
80:h:7:LEU:HB3	80:h:313:TRP:CB	2.48	0.43
80:h:115:ILE:O	80:h:156:VAL:HG11	2.18	0.43
80:h:248:ASN:OD1	80:h:298:GLY:HA3	2.19	0.43
80:h:251:TRP:CD1	80:h:264:SER:HG	2.37	0.43
47:sR:829:A:H1’	47:sR:830:U:C5	2.54	0.43
47:sR:861:U:H5’	47:sR:862:A:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1366:U:OP1	64:c6:30:LYS:HD3	2.19	0.43
80:Rb:73:LEU:HD22	80:Rb:77:GLY:HA2	1.99	0.43
48:s0:24:LEU:HD22	48:s0:45:VAL:HG21	2.01	0.43
56:s8:196:LEU:HD23	56:s8:196:LEU:HA	1.89	0.43
61:c3:17:PRO:HD3	75:d7:28:PRO:HG3	2.00	0.43
61:c3:56:ASP:HB3	75:d7:50:ALA:HB1	2.00	0.43
63:c5:17:TYR:O	66:c8:92:ILE:O	2.37	0.43
64:c6:38:LEU:HD23	64:c6:38:LEU:H	1.82	0.43
64:c6:39:VAL:HG21	64:c6:48:VAL:HG11	1.98	0.43
64:c6:87:LYS:HE3	64:c6:87:LYS:HB2	1.75	0.43
64:c6:140:LYS:HD2	64:c6:140:LYS:HA	1.78	0.43
81:c7:41:ILE:HG22	81:c7:43:SER:H	1.83	0.43
1:1:123:A:C6	1:1:150:A:C5	3.07	0.43
1:1:377:A:H1'	1:1:392:G:N2	2.33	0.43
1:1:715:A:C8	29:AB:115:LYS:HD2	2.54	0.43
1:1:956:U:H2'	1:1:957:C:C6	2.53	0.43
1:1:1096:U:H5	22:2:116:ARG:NH2	2.16	0.43
1:1:1128:U:H2'	1:1:1129:A:O4'	2.18	0.43
1:1:1895:A:O2'	1:1:3053:G:H4'	2.17	0.43
1:1:2128:C:O2'	1:1:2281:A:H5"	2.18	0.43
1:1:2236:G:OP1	82:1:3584:OHX:N3	2.51	0.43
5:k:114:VAL:HB	5:k:163:HIS:CG	2.53	0.43
6:l:5:GLN:HA	6:l:20:LEU:O	2.18	0.43
6:l:203:ARG:NH1	6:l:226:GLU:OE2	2.50	0.43
10:p:136:LEU:HD11	10:p:162:LEU:HB3	1.99	0.43
10:p:220:ALA:HA	10:p:224:ASP:OD2	2.19	0.43
12:r:159:PHE:HB2	12:r:163:GLN:HE22	1.81	0.43
15:u:32:LEU:HD11	15:u:94:TRP:CD1	2.54	0.43
24:6:109:MET:HE2	24:6:109:MET:HB3	1.66	0.43
44:AQ:14:TYR:HB2	44:AQ:23:ARG:HD3	2.00	0.43
45:i:172:ALA:HB3	60:N:55:GLY:N	2.33	0.43
1:AR:244:G:C6	1:AR:245:U:C4	3.06	0.43
1:AR:1027:A:H5"	1:AR:1028:U:OP1	2.18	0.43
1:AR:1243:G:H8	1:AR:1243:G:OP2	2.01	0.43
1:AR:1615:C:H2'	1:AR:1616:U:C6	2.53	0.43
1:AR:1623:G:OP2	82:AR:3550:OHX:N4	2.51	0.43
1:AR:1915:A:H2'	1:AR:1916:U:C6	2.53	0.43
1:AR:1940:G:H2'	1:AR:1941:C:O4'	2.19	0.43
1:AR:2106:A:H2'	1:AR:2107:A:H8	1.83	0.43
1:AR:2991:A:O2'	1:AR:3309:G:N7	2.49	0.43
4:CD:127:ALA:HB2	4:CD:134:VAL:HG13	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:76:ALA:HB3	7:CG:109:THR:HG22	1.99	0.43
7:CG:294:ALA:HB1	12:CL:217:PHE:HB3	2.00	0.43
8:CH:157:GLN:OE1	8:CH:157:GLN:N	2.45	0.43
21:CU:141:LYS:HA	21:CU:144:LEU:HD12	2.00	0.43
21:CU:155:ARG:HB2	21:CU:172:TYR:HB2	2.01	0.43
47:A:398:G:OP1	56:J:50:GLY:N	2.35	0.43
47:A:498:G:N7	47:A:499:U:N3	2.66	0.43
47:A:505:A:H3'	47:A:506:A:C5'	2.48	0.43
47:A:1738:U:H2'	47:A:1739:C:H6	1.84	0.43
49:C:82:ARG:H	49:C:82:ARG:HG3	1.62	0.43
52:F:36:HIS:NE2	52:F:88:ASP:OD2	2.51	0.43
53:G:48:PHE:HE2	53:G:68:ILE:O	2.01	0.43
53:G:194:LEU:HD23	53:G:198:LEU:HD23	2.00	0.43
54:H:20:ASP:HB3	54:H:23:ARG:HG3	2.00	0.43
55:I:111:LYS:HG2	55:I:112:ARG:N	2.33	0.43
63:Q:25:LEU:CD1	63:Q:87:PRO:HB3	2.49	0.43
63:Q:108:ARG:HB3	63:Q:110:GLU:OE1	2.17	0.43
65:S:14:LYS:O	65:S:18:GLU:HB2	2.18	0.43
67:U:37:VAL:HG11	67:U:100:ILE:HG12	1.99	0.43
67:U:42:GLY:HA2	67:U:84:LYS:HB2	1.99	0.43
80:h:209:THR:HG22	80:h:226:ALA:HB2	2.01	0.43
47:sR:512:A:OP2	57:s9:173:ALA:HB2	2.18	0.43
47:sR:735:C:H2'	47:sR:736:C:C6	2.54	0.43
47:sR:1003:A:H4'	47:sR:1004:U:O5'	2.18	0.43
47:sR:1319:A:C2	47:sR:1320:U:H1'	2.54	0.43
80:Rb:201:THR:HG23	80:Rb:214:ALA:HB3	2.00	0.43
48:s0:148:ASP:HB2	48:s0:164:ASN:HB3	1.99	0.43
48:s0:149:LEU:HA	48:s0:149:LEU:HD23	1.81	0.43
49:s1:70:LEU:HB3	49:s1:79:HIS:CB	2.47	0.43
51:s3:140:GLY:O	51:s3:147:ALA:HA	2.18	0.43
54:s6:67:VAL:O	54:s6:68:LEU:HG	2.18	0.43
56:s8:117:TYR:CE2	56:s8:150:ALA:HA	2.53	0.43
57:s9:129:ILE:O	57:s9:142:ASN:HA	2.18	0.43
81:c7:18:GLU:CD	81:c7:19:ARG:HH21	2.27	0.43
72:d4:52:LYS:O	72:d4:55:VAL:HG12	2.18	0.43
72:d4:111:LYS:HE3	72:d4:115:ASP:OD2	2.18	0.43
79:e1:130:VAL:HA	79:e1:143:LYS:HD2	2.01	0.43
1:1:144:A:H2'	1:1:145:G:O4'	2.19	0.43
1:1:997:A:H2'	1:1:998:A:O4'	2.19	0.43
1:1:1220:U:O4	1:1:1286:A:O2'	2.16	0.43
1:1:1347:U:H4'	6:l:305:ALA:HB2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2120:A:OP2	82:1:3510:OHX:N5	2.51	0.43
1:1:2139:A:H62	38:AK:4:GLY:HA3	1.84	0.43
1:1:2148:U:H2'	1:1:2149:A:C4	2.53	0.43
1:1:2229:A:H2'	1:1:2230:C:O4'	2.18	0.43
1:1:2389:C:O2'	1:1:3307:A:N1	2.46	0.43
2:3:4:U:H2'	2:3:5:G:H8	1.82	0.43
5:k:212:ASN:ND2	5:k:353:GLU:HA	2.33	0.43
10:p:200:LEU:HD23	10:p:200:LEU:HA	1.88	0.43
12:r:4:ARG:CZ	12:r:99:ILE:HG13	2.48	0.43
12:r:202:LYS:HB3	12:r:203:LYS:NZ	2.34	0.43
13:s:46:VAL:HG11	45:i:27:LYS:HB2	2.00	0.43
16:v:18:VAL:HG13	16:v:19:LEU:N	2.33	0.43
20:z:44:LEU:O	20:z:49:THR:OG1	2.35	0.43
26:8:34:LEU:HD13	26:8:35:PRO:O	2.19	0.43
1:AR:8:C:H2'	1:AR:9:U:O4'	2.19	0.43
1:AR:765:C:H6	1:AR:765:C:H2'	1.66	0.43
1:AR:1471:U:H2'	1:AR:1472:U:C6	2.53	0.43
1:AR:2261:G:O6	82:AR:3448:OHX:N5	2.52	0.43
1:AR:2724:U:H4'	22:CV:54:HIS:NE2	2.34	0.43
1:AR:2724:U:OP1	22:CV:57:TYR:OH	2.32	0.43
1:AR:3337:G:H8	1:AR:3337:G:O5'	2.02	0.43
2:AS:28:C:H5"	13:CM:137:ARG:HG2	2.01	0.43
3:AT:66:A:H2'	3:AT:67:U:C6	2.53	0.43
4:CD:225:ILE:HG21	4:CD:234:LYS:HA	2.00	0.43
5:CE:50:LYS:HA	5:CE:79:VAL:HG12	2.00	0.43
6:CF:20:LEU:HD11	6:CF:252:GLU:HG3	2.00	0.43
7:CG:55:PHE:CE2	7:CG:158:ARG:HG3	2.53	0.43
7:CG:61:ILE:HG23	7:CG:79:TYR:CE2	2.53	0.43
10:CJ:73:PRO:HD3	10:CJ:233:TRP:CD1	2.53	0.43
15:CO:131:VAL:HG22	17:CQ:185:ALA:CB	2.49	0.43
17:CQ:124:LEU:HD12	17:CQ:124:LEU:HA	1.92	0.43
47:A:98:U:H1'	47:A:425:A:H1'	1.99	0.43
47:A:269:G:C6	47:A:287:G:C6	3.07	0.43
47:A:505:A:N3	47:A:505:A:H2'	2.33	0.43
47:A:799:A:H5"	52:F:201:HIS:CD2	2.53	0.43
47:A:1227:A:OP1	47:A:1228:G:H2'	2.19	0.43
47:A:1248:C:H2'	47:A:1249:U:H6	1.83	0.43
47:A:1291:G:H8	47:A:1291:G:O5'	2.01	0.43
49:C:70:LEU:HB3	49:C:79:HIS:O	2.18	0.43
51:E:7:LYS:HE2	51:E:7:LYS:HB3	1.61	0.43
51:E:29:LEU:HA	51:E:29:LEU:HD23	1.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:E:42:THR:C	51:E:44:THR:H	2.26	0.43
53:G:156:ARG:HA	53:G:157:ARG:NH1	2.33	0.43
55:I:47:ARG:O	55:I:58:LEU:HB2	2.19	0.43
55:I:141:ARG:NH1	55:I:143:LEU:HD11	2.34	0.43
55:I:148:LYS:NZ	55:I:150:GLN:HE21	2.17	0.43
55:I:163:ASP:HA	55:I:166:LEU:HD13	1.99	0.43
62:P:64:ALA:C	62:P:105:LEU:HD21	2.42	0.43
64:R:4:VAL:HB	64:R:5:PRO:HD2	2.00	0.43
65:S:36:ASP:OD1	65:S:47:ARG:NH1	2.52	0.43
66:T:22:VAL:HG23	66:T:31:ALA:HB1	2.00	0.43
47:sR:27:U:H2'	47:sR:28:A:C8	2.53	0.43
47:sR:46:A:N1	47:sR:432:G:O2'	2.48	0.43
47:sR:862:A:H4'	70:d2:57:ARG:HG2	2.01	0.43
47:sR:1330:G:N2	81:c7:8:THR:HG21	2.33	0.43
47:sR:1703:C:H2'	47:sR:1704:U:C6	2.48	0.43
47:sR:1791:A:H3'	74:d6:8:ASN:CB	2.45	0.43
80:Rb:19:TRP:N	80:Rb:38:ARG:HB2	2.33	0.43
80:Rb:59:ARG:HD3	80:Rb:95:ALA:HA	1.98	0.43
48:s0:201:LEU:HD13	81:c7:85:VAL:HG22	2.01	0.43
50:s2:81:MET:HB2	50:s2:101:VAL:HG13	2.01	0.43
51:s3:7:LYS:HA	51:s3:10:LYS:CB	2.48	0.43
53:s5:43:PHE:HD2	53:s5:46:TRP:HD1	1.65	0.43
56:s8:196:LEU:O	56:s8:200:LYS:HB3	2.18	0.43
66:c8:76:PRO:HG2	66:c8:86:LEU:HD21	2.01	0.43
67:c9:4:VAL:HG21	67:c9:137:ALA:HB2	2.01	0.43
68:d0:63:LEU:HB2	68:d0:84:MET:HB3	2.00	0.43
70:d2:32:LYS:HB2	70:d2:32:LYS:HE2	1.69	0.43
73:d5:40:VAL:HG23	73:d5:41:ILE:H	1.82	0.43
73:d5:80:LEU:HD22	73:d5:101:TYR:CD2	2.54	0.43
78:e0:48:THR:CB	78:e0:50:VAL:HG23	2.48	0.43
1:1:16:A:OP1	26:8:42:ARG:HG3	2.18	0.43
1:1:256:G:H2'	1:1:257:U:H6	1.84	0.43
1:1:290:G:H2'	1:1:291:C:C6	2.53	0.43
1:1:984:G:H3'	9:o:101:LYS:HD3	2.01	0.43
1:1:1132:C:H2'	1:1:1133:A:H8	1.83	0.43
1:1:1777:U:H4'	1:1:2099:A:O2'	2.18	0.43
1:1:2256:A:N7	47:A:1757:G:H4'	2.32	0.43
1:1:2267:C:H2'	1:1:2268:U:O4'	2.18	0.43
1:1:2374:C:N4	1:1:2822:U:O2'	2.52	0.43
1:1:2559:U:OP1	1:1:2561:A:H5'	2.19	0.43
1:1:2578:U:H2'	1:1:2579:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2623:G:H2'	1:1:2624:G:H8	1.84	0.43
1:1:2881:C:H2'	1:1:2882:U:C6	2.54	0.43
1:1:2922:G:H1'	1:1:2951:G:N3	2.33	0.43
1:1:3043:C:H5'	5:k:9:PRO:HG2	2.00	0.43
1:1:3288:G:H1'	1:1:3289:G:H5'	1.99	0.43
1:1:3369:G:P	25:7:61:LYS:HE3	2.58	0.43
3:4:43:A:OP1	82:4:213:OHX:N5	2.51	0.43
5:k:29:VAL:HA	5:k:218:ILE:HD13	2.00	0.43
5:k:260:VAL:HG11	5:k:266:ARG:HH11	1.83	0.43
7:m:119:TYR:CE1	7:m:141:PRO:HB3	2.54	0.43
8:n:170:LYS:HA	8:n:170:LYS:HD3	1.87	0.43
9:o:27:ALA:HA	9:o:30:ARG:HB3	1.99	0.43
10:p:134:TYR:CD2	10:p:190:VAL:HG11	2.53	0.43
13:s:172:LEU:HA	13:s:172:LEU:HD23	1.44	0.43
14:t:62:THR:O	14:t:64:LYS:N	2.51	0.43
15:u:21:VAL:CG1	15:u:65:LEU:HD23	2.49	0.43
20:z:115:ILE:HD11	20:z:123:LEU:HD12	1.99	0.43
32:AE:10:ARG:HD3	32:AE:108:VAL:HG22	2.00	0.43
1:AR:352:A:N6	1:AR:365:A:H5"	2.34	0.43
1:AR:762:U:OP2	82:AR:3538:OHX:N6	2.51	0.43
1:AR:804:C:H5'	6:CF:93:MET:HE1	2.01	0.43
1:AR:1431:G:OP2	29:DC:9:ARG:NH2	2.41	0.43
1:AR:1838:G:H4'	1:AR:1839:A:N3	2.33	0.43
1:AR:2165:G:OP1	82:AR:3577:OHX:N3	2.52	0.43
1:AR:2580:A:O2'	82:AR:3622:OHX:N3	2.52	0.43
1:AR:2773:C:H2'	1:AR:2774:C:C6	2.53	0.43
1:AR:3107:U:H2'	1:AR:3108:G:C8	2.53	0.43
1:AR:3210:A:H5"	15:CO:109:ARG:NH1	2.33	0.43
5:CE:49:TYR:OH	5:CE:177:HIS:ND1	2.41	0.43
6:CF:158:SER:HA	6:CF:213:ASN:HB2	1.99	0.43
7:CG:152:ARG:HE	7:CG:152:ARG:HB2	1.68	0.43
10:CJ:34:PHE:CE1	10:CJ:42:PRO:HD3	2.53	0.43
10:CJ:184:ALA:O	10:CJ:188:THR:HG23	2.19	0.43
28:DB:41:ALA:O	28:DB:43:VAL:HG13	2.18	0.43
32:DF:29:ALA:HB2	32:DF:64:VAL:HA	2.00	0.43
46:p0:72:ASP:OD1	46:p0:194:GLY:HA2	2.19	0.43
47:A:127:G:N7	54:H:199:GLN:NE2	2.67	0.43
47:A:523:G:O2'	47:A:529:A:N6	2.52	0.43
47:A:702:G:C2	47:A:703:G:H1'	2.53	0.43
47:A:711:U:H1'	47:A:712:G:H5'	2.00	0.43
47:A:1035:G:OP2	61:O:9:LYS:HD2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1335:U:H2'	47:A:1336:A:C8	2.54	0.43
51:E:105:MET:HB2	51:E:105:MET:HE2	1.82	0.43
52:F:163:ASP:OD2	52:F:165:ALA:HB3	2.18	0.43
53:G:43:PHE:HD2	53:G:46:TRP:CE3	2.36	0.43
54:H:199:GLN:HA	54:H:199:GLN:OE1	2.19	0.43
59:M:59:PRO:HD3	59:M:138:ASN:ND2	2.33	0.43
61:O:40:TYR:O	61:O:43:LYS:HB3	2.18	0.43
62:P:111:ARG:NH2	74:b:58:VAL:HG22	2.33	0.43
64:R:39:VAL:O	64:R:40:GLU:HB2	2.19	0.43
70:X:24:GLN:HB3	70:X:64:GLN:OE1	2.19	0.43
73:a:78:ILE:HD12	73:a:78:ILE:HA	1.89	0.43
80:h:24:ALA:HB1	80:h:73:LEU:HB2	2.01	0.43
47:sR:371:G:H2'	47:sR:372:G:O4'	2.19	0.43
47:sR:1374:C:H2'	47:sR:1375:A:H8	1.82	0.43
47:sR:1477:G:H2'	47:sR:1478:G:H8	1.82	0.43
47:sR:1550:A:H2'	47:sR:1551:U:C6	2.54	0.43
47:sR:1640:C:H1'	47:sR:1763:A:N1	2.33	0.43
48:s0:58:VAL:O	48:s0:62:ARG:HG3	2.18	0.43
48:s0:95:ALA:O	48:s0:96:THR:C	2.61	0.43
54:s6:14:LYS:HG2	54:s6:16:PHE:CE2	2.53	0.43
55:s7:73:VAL:C	55:s7:75:THR:N	2.76	0.43
61:c3:26:PHE:CE2	61:c3:28:LEU:HB3	2.54	0.43
63:c5:106:GLU:OE1	63:c5:108:ARG:HG2	2.18	0.43
1:1:936:A:H5"	1:1:937:G:OP1	2.19	0.43
1:1:1461:A:H2'	1:1:1462:A:C8	2.51	0.43
1:1:1464:G:N7	82:1:3604:OHX:N6	2.66	0.43
1:1:2181:C:H2'	1:1:2182:A:O4'	2.19	0.43
1:1:2796:G:H2'	43:AP:60:LYS:HE3	2.00	0.43
1:1:3186:A:N3	11:q:44:THR:HG23	2.33	0.43
2:3:43:U:OP1	13:s:137:ARG:HG3	2.19	0.43
4:j:51:ASP:HB3	4:j:54:ARG:HB3	2.00	0.43
4:j:52:SER:HB3	4:j:191:LEU:CD2	2.49	0.43
5:k:50:LYS:HD2	5:k:328:ILE:HD11	2.00	0.43
6:l:25:VAL:O	6:l:127:ALA:HB2	2.19	0.43
19:y:165:ILE:HD13	19:y:173:GLU:OE2	2.19	0.43
23:5:13:LYS:HG3	23:5:15:PHE:CZ	2.53	0.43
23:5:22:PRO:HG3	23:5:105:LEU:HB3	1.99	0.43
24:6:40:LYS:HG3	24:6:57:MET:HG2	1.99	0.43
1:AR:39:A:H5"	29:DC:35:ALA:CB	2.46	0.43
1:AR:74:G:N3	14:CN:61:PRO:HB3	2.34	0.43
1:AR:738:A:H2'	1:AR:739:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1229:G:O2'	46:p0:32:ASN:HA	2.19	0.43
1:AR:1481:A:H1'	1:AR:1483:G:C5	2.54	0.43
1:AR:2230:C:H2'	1:AR:2231:C:O4'	2.18	0.43
1:AR:2339:C:P	24:CX:48:ARG:HG3	2.59	0.43
5:CE:252:ILE:HA	5:CE:264:VAL:HG21	2.00	0.43
7:CG:179:ARG:HA	7:CG:179:ARG:HD3	1.81	0.43
10:CJ:162:LEU:HA	16:CP:7:LEU:HD11	2.00	0.43
12:CL:140:THR:CG2	12:CL:148:VAL:HG11	2.49	0.43
12:CL:146:ASP:HA	12:CL:149:VAL:HG22	2.00	0.43
13:CM:23:VAL:HG12	13:CM:65:ILE:O	2.17	0.43
13:CM:94:ARG:O	13:CM:95:ASN:HB2	2.18	0.43
14:CN:80:VAL:HG11	14:CN:87:ALA:HB2	2.01	0.43
14:CN:170:LEU:HD22	37:DK:9:ILE:HG13	2.00	0.43
19:CS:67:ILE:HG23	19:CS:81:VAL:HG21	1.99	0.43
19:CS:85:GLY:N	19:CS:104:LEU:HD12	2.34	0.43
22:CV:75:ILE:HA	22:CV:87:LYS:O	2.18	0.43
27:DA:56:VAL:HG11	27:DA:104:LEU:HD13	2.00	0.43
36:DJ:86:ARG:O	36:DJ:90:ARG:HD2	2.19	0.43
37:DK:50:LEU:HD22	37:DK:54:GLU:HB3	2.01	0.43
47:A:129:U:O2	82:A:2106:OHX:N3	2.52	0.43
47:A:489:C:N4	47:A:496:G:O6	2.52	0.43
47:A:593:U:H3'	57:K:38:ASN:OD1	2.19	0.43
47:A:609:U:H1'	71:Y:19:ARG:NH1	2.33	0.43
47:A:711:U:H5'	47:A:729:G:O6	2.19	0.43
47:A:843:U:H2'	47:A:844:A:C8	2.54	0.43
47:A:1102:G:OP1	70:X:76:SER:HB3	2.18	0.43
53:G:66:GLN:HA	53:G:67:PRO:HD3	1.67	0.43
53:G:156:ARG:HD2	53:G:157:ARG:O	2.18	0.43
54:H:178:LEU:HG	54:H:180:THR:HG23	2.00	0.43
59:M:87:ARG:HG3	59:M:104:HIS:CD2	2.54	0.43
62:P:20:TYR:OH	62:P:86:THR:HA	2.19	0.43
66:T:92:ILE:HG23	66:T:93:THR:HG23	2.01	0.43
67:U:23:GLN:HG3	67:U:55:TYR:CD1	2.53	0.43
68:V:56:VAL:HG21	68:V:90:TYR:CE1	2.54	0.43
68:V:93:LEU:HA	68:V:93:LEU:HD23	1.69	0.43
68:V:99:ILE:HG13	68:V:102:ARG:CB	2.46	0.43
70:X:38:LEU:O	70:X:47:ILE:HD11	2.18	0.43
73:a:93:SER:HB2	73:a:100:ILE:N	2.34	0.43
80:h:176:LYS:C	80:h:177:MET:HG3	2.44	0.43
47:sR:486:G:H4'	47:sR:486:G:OP1	2.18	0.43
47:sR:492:A:O2'	47:sR:496:G:N2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:626:U:H2'	47:sR:627:C:H6	1.84	0.43
47:sR:811:A:C2	47:sR:858:G:H1'	2.54	0.43
47:sR:846:G:H2'	47:sR:847:A:O4'	2.18	0.43
47:sR:1071:U:HO2'	75:d7:19:HIS:HD1	1.65	0.43
47:sR:1274:C:H2'	47:sR:1274:C:O2	2.18	0.43
80:Rb:7:LEU:HD21	80:Rb:315:VAL:HG12	2.01	0.43
80:Rb:307:ASP:O	80:Rb:309:VAL:HG23	2.18	0.43
48:s0:124:THR:HA	48:s0:146:LEU:HD13	2.01	0.43
49:s1:194:ASN:ND2	49:s1:211:HIS:HA	2.33	0.43
49:s1:197:ILE:O	49:s1:201:THR:HG23	2.18	0.43
50:s2:78:ASP:CB	50:s2:104:VAL:HG12	2.49	0.43
52:s4:87:MET:HE3	52:s4:226:PHE:CE1	2.54	0.43
54:s6:3:LEU:O	54:s6:15:THR:HA	2.18	0.43
55:s7:20:VAL:HA	55:s7:23:ALA:CB	2.47	0.43
55:s7:46:ILE:HD11	55:s7:60:ILE:HD12	2.01	0.43
55:s7:55:LYS:H	55:s7:55:LYS:HD2	1.84	0.43
57:s9:37:LYS:HD3	57:s9:38:ASN:ND2	2.34	0.43
57:s9:75:ALA:O	57:s9:79:ARG:HG2	2.18	0.43
61:c3:74:ILE:O	61:c3:78:ASN:ND2	2.48	0.43
63:c5:77:ARG:HB2	63:c5:102:PHE:CD1	2.53	0.43
67:c9:104:VAL:HG23	67:c9:105:LEU:HD12	2.00	0.43
75:d7:80:ARG:HD3	75:d7:82:LYS:HD2	2.01	0.43
77:d9:22:ARG:HD2	77:d9:36:LEU:O	2.18	0.43
1:1:171:G:H2'	1:1:172:G:O4'	2.19	0.43
1:1:592:A:H5'	8:n:17:ALA:O	2.19	0.43
1:1:709:A:H1'	1:1:2787:G:O2'	2.19	0.43
1:1:1467:A:N1	1:1:1511:U:O2'	2.44	0.43
1:1:1595:U:O2'	1:1:1596:C:H5"	2.19	0.43
1:1:1621:A:H2'	1:1:1622:U:C6	2.53	0.43
1:1:1934:G:N7	82:1:4077:OHX:N5	2.66	0.43
1:1:2423:U:H2'	1:1:2424:A:C8	2.53	0.43
1:1:2623:G:H2'	1:1:2624:G:C8	2.53	0.43
1:1:2660:G:O2'	1:1:2744:U:H1'	2.18	0.43
1:1:3115:C:O2'	1:1:3117:C:N4	2.44	0.43
1:1:3243:A:C8	17:w:156:LEU:HD22	2.53	0.43
3:4:130:C:H2'	3:4:131:A:H8	1.83	0.43
6:l:140:HIS:O	6:l:142:VAL:HG22	2.19	0.43
8:n:6:ALA:HA	33:AF:74:PHE:CE1	2.53	0.43
8:n:70:LYS:HD3	8:n:70:LYS:HA	1.71	0.43
10:p:43:LYS:HA	10:p:43:LYS:HE3	2.00	0.43
11:q:4:ILE:H	21:0:142:GLN:NE2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:u:121:MET:O	15:u:125:LYS:HG3	2.18	0.43
17:w:186:ALA:O	17:w:187:GLU:HB2	2.18	0.43
37:AJ:79:SER:HB3	37:AJ:82:ARG:HG3	2.00	0.43
39:AL:5:ILE:HG21	39:AL:10:GLN:HE22	1.84	0.43
1:AR:178:U:H1'	1:AR:241:G:H1	1.83	0.43
1:AR:216:G:H4'	27:DA:19:TYR:CZ	2.53	0.43
1:AR:293:C:H2'	1:AR:294:U:O4'	2.18	0.43
1:AR:987:U:H4'	9:CI:121:LYS:HG2	2.01	0.43
1:AR:1003:A:H1'	7:CG:15:ARG:CZ	2.49	0.43
1:AR:1029:G:H2'	1:AR:1030:A:C8	2.52	0.43
1:AR:1032:C:H2'	1:AR:1033:U:H6	1.84	0.43
1:AR:1570:U:O2	1:AR:1571:A:H1'	2.19	0.43
1:AR:1654:A:O3'	35:DI:40:THR:OG1	2.37	0.43
1:AR:1711:C:H2'	1:AR:1712:G:O4'	2.19	0.43
1:AR:2144:A:C4	1:AR:2281:A:C6	3.07	0.43
1:AR:2147:A:H2'	1:AR:2148:U:O4'	2.18	0.43
1:AR:2229:A:H2'	1:AR:2230:C:O4'	2.18	0.43
1:AR:2242:A:H5"	4:CD:244:GLY:HA3	1.99	0.43
1:AR:2662:G:N7	82:AR:3401:OHX:N3	2.66	0.43
1:AR:3123:A:O2'	11:CK:40:HIS:ND1	2.50	0.43
2:AS:27:A:P	7:CG:57:ASN:H	2.42	0.43
4:CD:109:GLU:OE1	4:CD:109:GLU:N	2.46	0.43
6:CF:30:ILE:HA	6:CF:124:SER:OG	2.18	0.43
6:CF:234:ASN:OD1	6:CF:236:LEU:N	2.48	0.43
19:CS:8:LYS:HE3	19:CS:8:LYS:HB2	1.79	0.43
19:CS:65:SER:HA	19:CS:93:ILE:CD1	2.49	0.43
23:CW:107:PHE:O	23:CW:108:TYR:C	2.62	0.43
24:CX:90:GLY:O	25:CY:16:GLY:HA2	2.18	0.43
28:DB:23:VAL:HG22	28:DB:45:GLY:HA3	2.00	0.43
31:DE:17:VAL:HG22	31:DE:98:SER:HB2	2.00	0.43
46:p0:101:VAL:HG23	46:p0:102:SER:N	2.33	0.43
47:A:25:C:OP2	47:A:26:A:H2'	2.18	0.43
47:A:740:A:N1	47:A:741:C:C4	2.87	0.43
47:A:755:A:HO2'	47:A:756:A:P	2.42	0.43
47:A:795:U:H6	47:A:795:U:H2'	1.67	0.43
47:A:861:U:O2'	70:X:56:HIS:O	2.23	0.43
47:A:1482:C:H3'	47:A:1521:G:N2	2.33	0.43
47:A:1600:A:O2'	47:A:1602:C:N4	2.52	0.43
48:B:31:VAL:CG1	48:B:34:GLU:HG3	2.49	0.43
48:B:57:LEU:HD21	48:B:173:ILE:HG23	2.00	0.43
52:F:212:ASP:OD1	52:F:216:ASN:N	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:G:100:ASN:O	53:G:102:ARG:N	2.44	0.43
54:H:57:ASP:HB3	54:H:106:LEU:HD12	2.00	0.43
55:I:112:ARG:O	55:I:114:ARG:N	2.52	0.43
57:K:96:VAL:O	57:K:99:LEU:HG	2.19	0.43
57:K:160:PRO:O	57:K:167:ALA:HB2	2.18	0.43
73:a:63:SER:O	73:a:67:ASP:HB2	2.19	0.43
80:h:157:VAL:HA	80:h:158:PRO:HD3	1.84	0.43
80:h:205:SER:HB3	80:h:210:LEU:HB2	2.00	0.43
47:sR:151:G:N2	47:sR:164:A:C4	2.87	0.43
47:sR:496:G:O6	47:sR:497:G:N2	2.52	0.43
47:sR:639:U:OP1	55:s7:117:THR:OG1	2.37	0.43
47:sR:1170:G:H21	47:sR:1571:C:H4'	1.84	0.43
47:sR:1211:A:H61	47:sR:1452:U:H3	1.67	0.43
47:sR:1291:G:OP1	50:s2:119:LYS:HE2	2.18	0.43
47:sR:1432:U:H4'	47:sR:1433:G:C5'	2.49	0.43
51:s3:189:MET:HG2	51:s3:190:ARG:O	2.17	0.43
53:s5:120:ILE:O	53:s5:124:LEU:HG	2.18	0.43
57:s9:39:LYS:HA	57:s9:42:ILE:HD12	2.00	0.43
60:c2:68:GLU:HG3	60:c2:70:ASN:CB	2.49	0.43
60:c2:75:VAL:HG23	60:c2:120:VAL:HG21	2.00	0.43
62:c4:117:ASP:OD1	62:c4:119:THR:HG23	2.18	0.43
63:c5:122:THR:HG22	63:c5:123:TYR:HD1	1.84	0.43
81:c7:63:LYS:HD3	81:c7:63:LYS:HA	1.75	0.43
66:c8:107:SER:OG	66:c8:108:LYS:N	2.52	0.43
1:1:590:G:C2	1:1:610:G:H2'	2.54	0.43
1:1:818:C:OP1	38:AK:10:LYS:NZ	2.45	0.43
1:1:1472:U:H2'	1:1:1473:G:H8	1.84	0.43
1:1:1594:A:OP1	35:AH:36:LYS:NZ	2.40	0.43
1:1:1774:C:H2'	1:1:1775:G:O4'	2.19	0.43
1:1:2877:G:O2'	1:1:2923:U:O2'	2.36	0.43
1:1:2897:A:H2'	1:1:2899:C:C5'	2.49	0.43
3:4:11:C:H2'	3:4:12:A:O4'	2.19	0.43
5:k:297:SER:O	54:H:22:HIS:NE2	2.47	0.43
6:l:38:VAL:HG13	6:l:113:VAL:HG11	2.01	0.43
6:l:92:ASN:HD22	6:l:100:PHE:HB2	1.83	0.43
7:m:30:TYR:HA	7:m:33:ARG:HB3	2.01	0.43
8:n:39:VAL:O	8:n:40:LEU:HD23	2.18	0.43
14:t:7:LEU:HB3	14:t:8:PRO:HD2	2.01	0.43
18:x:59:PRO:HB3	18:x:78:VAL:HG11	2.01	0.43
19:y:175:ALA:HB3	29:AB:51:GLY:O	2.19	0.43
19:y:178:ARG:HE	29:AB:50:PRO:HG2	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:8:105:VAL:HG12	26:8:130:TYR:CD2	2.54	0.43
26:8:134:ASP:O	26:8:138:ARG:HB2	2.18	0.43
27:9:36:SER:HA	27:9:105:VAL:HG22	2.00	0.43
37:AJ:34:SER:O	37:AJ:37:THR:OG1	2.35	0.43
44:AQ:59:CYS:O	44:AQ:60:CYS:HB3	2.17	0.43
1:AR:31:C:OP2	16:CP:188:ARG:NH1	2.46	0.43
1:AR:237:G:O6	82:AR:3516:OHX:N1	2.52	0.43
1:AR:668:G:OP1	82:AR:3631:OHX:N1	2.52	0.43
1:AR:848:A:C5	1:AR:849:C:H1'	2.53	0.43
1:AR:962:A:O2'	1:AR:963:G:H5'	2.18	0.43
1:AR:969:C:H5'	30:DD:15:LYS:O	2.18	0.43
1:AR:1109:U:H2'	1:AR:1110:U:O4'	2.18	0.43
1:AR:1641:U:O2'	1:AR:1642:A:H3'	2.18	0.43
1:AR:2147:A:O3'	4:CD:197:PRO:HB2	2.19	0.43
1:AR:2813:A:H2'	1:AR:2814:G:O4'	2.18	0.43
3:AT:28:C:H4'	14:CN:26:PHE:CD2	2.54	0.43
10:CJ:25:PRO:HB2	10:CJ:26:LEU:HD22	2.01	0.43
13:CM:73:GLY:HA3	13:CM:74:PRO:HD3	1.89	0.43
15:CO:21:VAL:HB	15:CO:63:VAL:HG13	1.99	0.43
18:CR:24:VAL:HG12	18:CR:86:LYS:HG2	2.01	0.43
18:CR:132:ALA:O	18:CR:135:ARG:NH1	2.51	0.43
19:CS:170:ARG:O	19:CS:171:LYS:HB2	2.18	0.43
20:CT:166:ASN:OD1	20:CT:170:ARG:NH1	2.52	0.43
21:CU:36:ILE:O	21:CU:40:ARG:HG2	2.18	0.43
22:CV:80:VAL:HG21	22:CV:85:LEU:HD12	2.00	0.43
22:CV:85:LEU:HA	22:CV:85:LEU:HD23	1.81	0.43
31:DE:13:LYS:O	31:DE:17:VAL:HG23	2.19	0.43
43:DQ:32:LYS:HB3	43:DQ:32:LYS:HE2	1.83	0.43
47:A:766:U:H5'	47:A:767:U:H5"	2.01	0.43
47:A:1437:U:H5'	51:E:176:LEU:CD2	2.49	0.43
47:A:1589:C:H2'	47:A:1590:G:C8	2.53	0.43
47:A:1593:A:H2'	47:A:1594:G:C8	2.54	0.43
49:C:65:VAL:HG23	49:C:86:LEU:N	2.34	0.43
49:C:71:ALA:HB3	62:P:114:ARG:NH2	2.32	0.43
49:C:127:VAL:HG11	49:C:173:THR:CB	2.48	0.43
51:E:162:GLN:HG3	51:E:166:ASP:OD2	2.19	0.43
52:F:150:PRO:O	54:H:208:TYR:HE2	2.01	0.43
53:G:173:ALA:O	53:G:177:ILE:HG12	2.18	0.43
62:P:71:CYS:O	62:P:76:ILE:HG22	2.19	0.43
63:Q:85:ILE:HA	63:Q:89:MET:HE2	2.00	0.43
65:S:16:LEU:HD12	65:S:17:ILE:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:T:126:ARG:HG2	66:T:133:VAL:HA	1.99	0.43
74:b:46:GLU:HG3	74:b:47:ALA:H	1.83	0.43
77:e:22:ARG:HB2	77:e:38:ILE:CD1	2.49	0.43
78:f:29:LYS:HA	78:f:29:LYS:HD3	1.75	0.43
47:sR:454:U:H3'	47:sR:455:C:C6	2.54	0.43
47:sR:479:C:O2	47:sR:510:G:N2	2.52	0.43
47:sR:1673:G:H5"	54:s6:76:LEU:HD22	2.00	0.43
48:s0:142:PRO:HB3	69:d1:34:ILE:HG22	2.00	0.43
53:s5:57:SER:HA	76:d8:53:ILE:HD12	2.01	0.43
53:s5:130:ILE:HA	53:s5:133:VAL:HG12	2.00	0.43
54:s6:159:ARG:HB3	54:s6:170:THR:CG2	2.48	0.43
55:s7:143:LEU:HA	70:d2:49:GLU:HG3	2.01	0.43
56:s8:84:HIS:O	59:c1:11:ARG:NH2	2.52	0.43
60:c2:46:ARG:HH11	60:c2:46:ARG:HD2	1.74	0.43
60:c2:103:LEU:O	60:c2:103:LEU:HD23	2.18	0.43
62:c4:50:ALA:C	62:c4:52:ARG:H	2.26	0.43
62:c4:64:ALA:O	62:c4:67:VAL:HG22	2.19	0.43
69:d1:38:LYS:HD2	69:d1:38:LYS:HA	1.84	0.43
73:d5:40:VAL:HG23	73:d5:41:ILE:N	2.34	0.43
73:d5:75:LEU:HB2	73:d5:78:ILE:HG22	2.00	0.43
1:1:384:A:H2'	1:1:385:A:O4'	2.19	0.43
1:1:830:A:H2'	1:1:831:G:O4'	2.18	0.43
1:1:1273:A:O2'	1:1:1274:A:OP1	2.32	0.43
1:1:2342:U:H5"	1:1:3089:C:O2'	2.19	0.43
1:1:3140:G:OP1	5:k:20:LYS:NZ	2.52	0.43
2:3:16:U:H2'	2:3:17:A:C8	2.54	0.43
2:3:19:C:H2'	2:3:20:A:H8	1.84	0.43
11:q:71:VAL:O	11:q:75:VAL:HG12	2.18	0.43
11:q:166:ARG:CZ	11:q:166:ARG:HA	2.49	0.43
12:r:142:ASP:OD2	12:r:178:ARG:NH2	2.48	0.43
13:s:49:LYS:HA	13:s:64:LYS:H	1.84	0.43
17:w:143:THR:CG2	17:w:150:GLU:HB2	2.49	0.43
29:AB:70:LYS:HG3	29:AB:70:LYS:O	2.19	0.43
37:AJ:25:LYS:HB3	37:AJ:25:LYS:HE2	1.77	0.43
39:AL:38:PHE:HE2	39:AL:57:ASN:HD22	1.66	0.43
45:i:74:LYS:HB3	45:i:74:LYS:HE3	1.44	0.43
1:AR:71:A:OP2	29:DC:67:HIS:NE2	2.47	0.43
1:AR:211:A:OP1	6:CF:220:ARG:HD2	2.19	0.43
1:AR:715:A:H2'	1:AR:782:U:O2'	2.19	0.43
1:AR:1008:U:H2'	1:AR:1009:A:O4'	2.19	0.43
1:AR:1616:U:H2'	1:AR:1617:G:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1768:U:H2'	1:AR:1769:G:O4'	2.19	0.43
5:CE:10:ARG:NH1	5:CE:11:HIS:O	2.51	0.43
8:CH:176:PHE:O	15:CO:113:THR:OG1	2.37	0.43
9:CI:176:TYR:HB3	9:CI:194:HIS:ND1	2.34	0.43
11:CK:86:TYR:CG	11:CK:151:VAL:HG22	2.53	0.43
13:CM:57:PHE:N	13:CM:57:PHE:CD1	2.85	0.43
13:CM:116:TYR:CE2	13:CM:118:PRO:HB3	2.54	0.43
17:CQ:78:ARG:HD3	17:CQ:78:ARG:HA	1.84	0.43
23:CW:12:ALA:HB2	23:CW:68:THR:HG22	2.00	0.43
28:DB:55:LYS:HA	28:DB:55:LYS:HD2	1.82	0.43
46:p0:19:LEU:HD22	46:p0:73:PHE:CE2	2.53	0.43
47:A:93:A:H4'	47:A:94:U:OP2	2.19	0.43
47:A:270:C:H2'	47:A:271:A:O4'	2.19	0.43
47:A:981:U:O2'	47:A:1123:C:O2	2.36	0.43
47:A:1281:G:H2'	47:A:1282:U:H6	1.84	0.43
49:C:58:SER:H	49:C:61:LEU:HD22	1.84	0.43
49:C:164:ILE:O	49:C:167:VAL:HG22	2.19	0.43
50:D:40:LYS:O	50:D:41:LEU:C	2.60	0.43
50:D:49:LYS:HD3	50:D:49:LYS:HA	1.52	0.43
50:D:159:THR:HG23	50:D:161:LYS:HE2	2.01	0.43
50:D:215:PHE:O	50:D:218:ILE:HG13	2.19	0.43
51:E:212:LYS:CD	51:E:213:GLU:H	2.24	0.43
52:F:126:VAL:HG12	52:F:158:ASP:O	2.19	0.43
54:H:145:PHE:HB2	54:H:147:LEU:HG	2.00	0.43
55:I:12:ALA:HB3	55:I:13:PRO:HD3	2.01	0.43
55:I:103:SER:O	55:I:106:SER:OG	2.36	0.43
61:O:70:LYS:HD2	61:O:70:LYS:N	2.34	0.43
67:U:52:GLY:HA2	67:U:55:TYR:HD1	1.82	0.43
67:U:52:GLY:C	67:U:54:PHE:H	2.27	0.43
73:a:59:TYR:O	73:a:60:VAL:HG13	2.19	0.43
47:sR:49:C:H2'	47:sR:50:C:O4'	2.18	0.43
47:sR:767:U:H5	57:s9:143:ILE:HD12	1.83	0.43
47:sR:1594:G:H5"	77:d9:33:LYS:HB2	2.01	0.43
47:sR:1742:U:H2'	47:sR:1743:U:C6	2.54	0.43
49:s1:64:ARG:N	49:s1:88:VAL:HG22	2.21	0.43
51:s3:75:LYS:HD3	51:s3:75:LYS:HA	1.51	0.43
52:s4:87:MET:SD	52:s4:123:LEU:HB2	2.59	0.43
52:s4:157:ASN:ND2	52:s4:222:LEU:HD11	2.34	0.43
52:s4:168:LYS:O	52:s4:170:THR:HG23	2.19	0.43
53:s5:161:ASP:HB3	76:d8:54:LEU:HD21	2.01	0.43
54:s6:10:ASN:HA	54:s6:128:THR:HG23	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:s6:69:LEU:HD12	54:s6:71:THR:HG23	2.00	0.43
55:s7:43:PHE:HB2	55:s7:61:PHE:O	2.19	0.43
55:s7:96:ARG:HH12	55:s7:125:ILE:HD13	1.84	0.43
71:d3:131:SER:O	71:d3:134:ALA:N	2.51	0.43
79:e1:138:ARG:HG2	79:e1:139:LEU:H	1.84	0.43
79:e1:139:LEU:HD23	79:e1:150:VAL:O	2.18	0.43
1:1:88:A:H2'	1:1:89:A:O4'	2.19	0.42
1:1:317:A:OP2	37:AJ:30:LYS:NZ	2.52	0.42
1:1:2278:C:OP1	82:1:4116:OHX:N1	2.52	0.42
1:1:2508:U:H2'	1:1:2509:U:C6	2.53	0.42
1:1:2747:A:OP1	7:m:176:SER:OG	2.36	0.42
1:1:3316:A:O2'	1:1:3317:U:O2	2.30	0.42
4:j:19:HIS:CD2	4:j:19:HIS:N	2.85	0.42
5:k:153:LYS:HD3	5:k:154:TYR:CZ	2.54	0.42
5:k:221:THR:O	5:k:334:ARG:NH1	2.52	0.42
6:l:150:LEU:HD23	6:l:249:ILE:HG12	2.00	0.42
11:q:1:MET:HE1	21:0:139:TYR:HA	2.01	0.42
12:r:191:LYS:HZ2	12:r:212:GLU:HB3	1.84	0.42
14:t:60:ALA:HB3	14:t:65:TYR:O	2.19	0.42
14:t:134:GLU:HG3	36:AI:115:LYS:NZ	2.33	0.42
15:u:50:LYS:HE2	15:u:85:TRP:HD1	1.84	0.42
16:v:37:HIS:NE2	16:v:63:ARG:HD2	2.34	0.42
24:6:12:ARG:HH22	24:6:15:LEU:HD12	1.84	0.42
29:AB:77:LYS:C	29:AB:79:TRP:N	2.76	0.42
1:AR:226:C:H4'	27:DA:29:VAL:HG12	2.01	0.42
1:AR:268:A:O4'	1:AR:270:U:H1'	2.19	0.42
1:AR:665:A:H1'	14:CN:14:PHE:CZ	2.54	0.42
1:AR:1184:A:H2'	1:AR:1185:C:C6	2.53	0.42
1:AR:1490:A:H3'	1:AR:1491:A:H8	1.84	0.42
1:AR:1596:C:H2'	1:AR:1597:C:C6	2.54	0.42
1:AR:1719:G:N7	20:CT:121:HIS:CE1	2.87	0.42
1:AR:1742:U:H2'	1:AR:1743:G:H8	1.84	0.42
1:AR:1899:G:H22	1:AR:2335:G:H5'	1.84	0.42
1:AR:2244:A:H5"	4:CD:243:THR:OG1	2.19	0.42
1:AR:2385:G:O6	82:AR:3434:OHX:N3	2.52	0.42
1:AR:2393:G:O2'	1:AR:2394:G:OP2	2.37	0.42
1:AR:2515:A:H5"	16:CP:28:TRP:CD1	2.54	0.42
1:AR:2537:U:C5'	49:s1:226:GLY:HA2	2.49	0.42
1:AR:2745:G:N2	1:AR:2748:A:OP2	2.52	0.42
2:AS:119:U:H2'	2:AS:120:C:H6	1.84	0.42
3:AT:67:U:H2'	3:AT:68:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:84:VAL:HG23	5:CE:163:HIS:O	2.19	0.42
6:CF:71:VAL:HG22	6:CF:72:ALA:H	1.83	0.42
6:CF:174:ALA:HB1	6:CF:178:LEU:HD23	2.01	0.42
6:CF:327:LEU:HD21	9:CI:165:ASP:HA	2.00	0.42
8:CH:40:LEU:HD11	8:CH:54:TYR:HB2	2.01	0.42
8:CH:93:VAL:HG22	8:CH:96:VAL:HG21	2.01	0.42
19:CS:98:LYS:HG2	19:CS:98:LYS:O	2.19	0.42
28:DB:27:LYS:NZ	28:DB:98:THR:H	2.17	0.42
47:A:628:G:N1	47:A:970:A:OP2	2.40	0.42
47:A:633:U:H5'	71:Y:8:GLY:HA3	2.00	0.42
47:A:1160:A:H2'	47:A:1161:C:H6	1.84	0.42
47:A:1369:U:OP1	67:U:69:LYS:HD2	2.18	0.42
47:A:1588:G:OP1	82:A:2132:OHX:N6	2.52	0.42
48:B:113:ARG:HD3	48:B:113:ARG:HA	1.39	0.42
48:B:189:VAL:HB	48:B:193:GLN:CB	2.48	0.42
51:E:157:LEU:HD12	51:E:157:LEU:HA	1.88	0.42
51:E:223:LYS:HA	51:E:223:LYS:HD2	1.70	0.42
52:F:180:LEU:HD22	52:F:230:GLU:O	2.19	0.42
63:Q:90:ILE:HD13	63:Q:109:PRO:HA	2.01	0.42
67:U:114:VAL:N	67:U:125:SER:HB3	2.34	0.42
69:W:72:LEU:HA	69:W:72:LEU:HD23	1.78	0.42
70:X:21:GLY:C	75:c:3:LEU:HG	2.44	0.42
73:a:83:LEU:HD23	73:a:88:ILE:HG21	2.00	0.42
74:b:79:ILE:HA	74:b:84:VAL:CB	2.49	0.42
47:sR:822:U:H2'	47:sR:823:G:H5"	2.01	0.42
47:sR:829:A:H61	47:sR:844:A:N6	2.16	0.42
47:sR:830:U:O2'	47:sR:831:U:H5'	2.17	0.42
47:sR:967:A:O4'	70:d2:2:THR:HG21	2.19	0.42
80:Rb:80:ALA:C	80:Rb:81:LEU:HD12	2.44	0.42
80:Rb:216:LYS:HD2	80:Rb:239:GLU:OE2	2.19	0.42
80:Rb:262:VAL:C	80:Rb:263:PHE:HD1	2.27	0.42
52:s4:133:LYS:O	52:s4:134:LYS:HG3	2.19	0.42
61:c3:101:HIS:NE2	61:c3:108:ASP:OD2	2.48	0.42
70:d2:74:VAL:HG23	70:d2:126:LEU:O	2.18	0.42
1:1:156:G:OP2	37:AJ:25:LYS:HB3	2.19	0.42
1:1:625:G:H2'	1:1:626:U:H6	1.84	0.42
1:1:744:A:H4'	19:y:142:GLY:O	2.18	0.42
1:1:745:C:H5"	19:y:145:ASN:OD1	2.19	0.42
1:1:1486:G:N3	35:AH:6:THR:HG22	2.34	0.42
1:1:1940:G:H2'	1:1:1941:C:O4'	2.19	0.42
1:1:2294:U:O2	1:1:2296:A:H8	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2434:U:OP2	16:v:24:ARG:NH1	2.53	0.42
1:1:2579:G:O6	82:1:3449:OHX:N4	2.52	0.42
1:1:2655:U:H4'	1:1:2656:A:O4'	2.20	0.42
1:1:3166:C:H2'	1:1:3167:A:O4'	2.19	0.42
4:j:40:TYR:HA	4:j:90:ALA:O	2.18	0.42
5:k:113:GLU:HB3	5:k:176:ALA:HB2	2.01	0.42
5:k:147:GLU:O	5:k:151:ILE:HG13	2.19	0.42
6:l:321:LYS:HA	6:l:324:LEU:HB3	2.00	0.42
17:w:46:GLU:HB3	17:w:134:LYS:HE3	2.01	0.42
20:z:90:PRO:HB2	20:z:93:VAL:HG12	2.01	0.42
21:0:13:ARG:HG2	21:0:51:VAL:HG11	2.00	0.42
23:5:17:VAL:CG1	23:5:63:VAL:HB	2.49	0.42
23:5:34:ALA:O	23:5:38:ILE:HG23	2.20	0.42
31:AD:99:ASP:OD1	31:AD:99:ASP:N	2.43	0.42
45:i:57:ASN:OD1	63:Q:120:SER:HA	2.19	0.42
1:AR:437:G:N1	1:AR:621:A:N1	2.58	0.42
1:AR:700:C:OP1	14:CN:65:TYR:OH	2.30	0.42
1:AR:715:A:H3'	29:DC:115:LYS:HA	2.00	0.42
1:AR:1225:A:O2'	1:AR:3116:G:N2	2.53	0.42
1:AR:2294:U:O2	1:AR:2296:A:C8	2.72	0.42
1:AR:2510:U:O2'	1:AR:2511:A:H5"	2.19	0.42
1:AR:2663:G:H2'	1:AR:2664:C:O4'	2.19	0.42
1:AR:2947:G:H2'	1:AR:2948:C:C6	2.53	0.42
1:AR:3298:C:H2'	1:AR:3299:A:O4'	2.18	0.42
11:CK:79:ILE:O	11:CK:82:VAL:HG12	2.19	0.42
12:CL:52:LEU:HB3	12:CL:136:PHE:HB2	2.01	0.42
15:CO:119:GLN:O	15:CO:123:LEU:HD12	2.19	0.42
18:CR:168:LEU:HD23	18:CR:172:GLN:HG3	2.01	0.42
27:DA:59:VAL:HG12	27:DA:103:LYS:O	2.19	0.42
28:DB:51:LEU:HB2	28:DB:65:ARG:HG2	2.01	0.42
28:DB:134:LEU:HD23	28:DB:136:PHE:HD2	1.84	0.42
30:DD:33:LYS:HA	30:DD:33:LYS:HD2	1.54	0.42
47:A:16:G:H2'	47:A:17:C:C6	2.55	0.42
47:A:267:U:H2'	47:A:268:C:C6	2.54	0.42
47:A:563:U:C4	47:A:564:G:C6	3.07	0.42
47:A:1182:U:O2	47:A:1184:A:C8	2.71	0.42
47:A:1496:U:H4'	47:A:1519:U:O2'	2.19	0.42
48:B:90:ALA:HA	48:B:93:THR:OG1	2.19	0.42
48:B:154:GLU:HA	69:W:63:GLY:HA2	2.01	0.42
49:C:48:VAL:HG13	49:C:49:ASN:H	1.84	0.42
50:D:45:VAL:HG13	50:D:50:ILE:HD11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:E:210:GLU:HA	51:E:211:PRO:HD3	1.89	0.42
52:F:155:LYS:H	52:F:174:LYS:NZ	2.17	0.42
55:I:77:LEU:O	55:I:81:LEU:HD12	2.19	0.42
55:I:109:VAL:HG12	55:I:110:GLN:N	2.32	0.42
56:J:141:ARG:HG3	56:J:142:LYS:N	2.34	0.42
58:L:21:VAL:HG11	58:L:46:LEU:HD21	2.01	0.42
60:N:30:VAL:HA	60:N:33:ARG:HG2	2.01	0.42
65:S:110:VAL:O	65:S:114:GLY:N	2.47	0.42
65:S:115:LEU:HD12	65:S:116:LYS:O	2.20	0.42
69:W:17:CYS:SG	69:W:18:SER:N	2.92	0.42
72:Z:29:HIS:CD2	72:Z:35:VAL:HG13	2.54	0.42
47:sR:197:A:H2'	47:sR:198:A:H8	1.84	0.42
47:sR:562:G:H1	47:sR:583:C:N4	2.18	0.42
47:sR:869:A:H2'	47:sR:870:C:O4'	2.20	0.42
47:sR:1081:A:H8	47:sR:1081:A:OP2	2.02	0.42
47:sR:1307:U:O4	47:sR:1319:A:H1'	2.18	0.42
47:sR:1313:A:H62	81:c7:4:VAL:HG23	1.84	0.42
47:sR:1368:G:OP1	67:c9:69:LYS:HG3	2.19	0.42
47:sR:1589:C:OP2	82:sR:2004:OHX:N3	2.52	0.42
80:Rb:313:TRP:N	80:Rb:313:TRP:CD1	2.85	0.42
48:s0:183:ARG:HH12	48:s0:191:ARG:HG3	1.80	0.42
48:s0:200:ASP:HA	48:s0:203:PHE:CE2	2.54	0.42
50:s2:111:VAL:CG1	50:s2:191:ALA:HA	2.48	0.42
50:s2:140:ARG:HH12	50:s2:229:LEU:HG	1.83	0.42
50:s2:214:ALA:O	50:s2:218:ILE:HG12	2.18	0.42
54:s6:51:LYS:HB3	54:s6:112:VAL:HG13	1.99	0.42
54:s6:67:VAL:HG23	54:s6:68:LEU:N	2.28	0.42
54:s6:68:LEU:HD23	54:s6:68:LEU:HA	1.73	0.42
54:s6:70:PRO:HD3	54:s6:101:ILE:HD12	2.01	0.42
54:s6:77:LEU:HD13	54:s6:84:TYR:HB2	2.00	0.42
56:s8:151:LYS:HE2	56:s8:151:LYS:HA	2.01	0.42
57:s9:103:ASP:N	57:s9:103:ASP:OD1	2.51	0.42
61:c3:45:LEU:HB3	61:c3:50:ILE:HG13	2.01	0.42
68:d0:62:VAL:HG22	68:d0:64:LYS:HG3	2.01	0.42
70:d2:55:ASP:CG	70:d2:59:GLY:H	2.26	0.42
1:1:45:A:OP2	16:v:85:THR:HG21	2.19	0.42
1:1:283:G:O2'	29:AB:59:ARG:NH1	2.48	0.42
1:1:351:A:N6	40:AM:35:ILE:HG23	2.34	0.42
1:1:563:U:OP1	21:0:71:LYS:NZ	2.45	0.42
1:1:828:A:H2'	1:1:829:U:C6	2.54	0.42
1:1:1141:C:H2'	1:1:1142:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1336:U:H2'	1:1:1337:A:C8	2.54	0.42
1:1:2680:A:C2	13:s:24:GLY:HA3	2.55	0.42
1:1:2808:A:N7	1:1:2955:U:H4'	2.34	0.42
1:1:3006:A:H2'	1:1:3007:U:O4'	2.19	0.42
1:1:3039:C:OP1	24:6:88:ARG:NH1	2.50	0.42
2:3:49:G:H4'	2:3:50:U:O5'	2.19	0.42
5:k:230:THR:HA	5:k:235:THR:CG2	2.49	0.42
7:m:40:HIS:NE2	22:2:69:LYS:HB2	2.35	0.42
7:m:40:HIS:CD2	22:2:69:LYS:HB2	2.54	0.42
13:s:166:LYS:HD2	13:s:166:LYS:HA	1.72	0.42
20:z:28:GLU:O	20:z:32:ILE:HG13	2.19	0.42
22:2:68:THR:HG22	22:2:71:SER:O	2.20	0.42
29:AB:49:HIS:N	29:AB:50:PRO:CD	2.82	0.42
37:AJ:94:ILE:HG13	37:AJ:95:ALA:H	1.83	0.42
1:AR:945:C:H2'	1:AR:946:U:O4'	2.18	0.42
1:AR:2269:U:O2'	1:AR:2270:A:C8	2.59	0.42
1:AR:2597:U:H2'	1:AR:2598:G:H8	1.84	0.42
1:AR:3004:C:N4	1:AR:3144:G:H1	2.17	0.42
1:AR:3223:A:C5	1:AR:3263:G:C6	3.07	0.42
2:AS:49:G:H4'	2:AS:50:U:O5'	2.19	0.42
4:CD:229:ALA:HB1	4:CD:233:GLN:HB2	2.01	0.42
6:CF:334:PHE:CD2	6:CF:339:LEU:HD12	2.55	0.42
7:CG:38:THR:HG22	22:CV:30:TYR:HB3	2.00	0.42
7:CG:262:LYS:HB2	7:CG:262:LYS:HE2	1.78	0.42
13:CM:15:GLU:HB2	13:CM:132:ASN:CG	2.43	0.42
13:CM:131:MET:HE3	13:CM:131:MET:HB3	1.92	0.42
14:CN:131:LYS:HE2	14:CN:131:LYS:HB2	1.87	0.42
20:CT:176:ARG:HH22	47:sR:852:C:P	2.41	0.42
21:CU:20:PRO:O	21:CU:21:GLU:HB2	2.18	0.42
21:CU:151:PRO:C	21:CU:153:PRO:HD3	2.44	0.42
30:DD:48:HIS:CE1	30:DD:52:LYS:HD3	2.53	0.42
33:DG:3:SER:HB3	33:DG:71:HIS:CE1	2.54	0.42
33:DG:111:ARG:CZ	33:DG:115:LEU:HD11	2.49	0.42
35:DI:44:CYS:N	35:DI:49:SER:O	2.43	0.42
47:A:213:A:H2'	47:A:214:G:O4'	2.19	0.42
47:A:520:A:H2'	47:A:521:A:C8	2.54	0.42
47:A:638:U:H6	55:I:112:ARG:HE	1.66	0.42
47:A:1017:U:H2'	47:A:1018:U:H6	1.82	0.42
49:C:87:ARG:HD3	49:C:89:ASP:OD2	2.18	0.42
49:C:116:LYS:HE3	49:C:117:TRP:CZ3	2.51	0.42
49:C:222:LYS:HD2	49:C:222:LYS:HA	1.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:H:41:VAL:HG23	54:H:42:GLY:H	1.84	0.42
60:N:56:GLU:HG2	60:N:124:LYS:NZ	2.34	0.42
62:P:19:ILE:HG23	62:P:28:VAL:HG22	2.02	0.42
65:S:78:ARG:HH11	65:S:79:GLU:HB3	1.84	0.42
66:T:15:LEU:HD12	66:T:15:LEU:HA	1.78	0.42
71:Y:33:LEU:HD23	71:Y:33:LEU:HA	1.71	0.42
74:b:28:LYS:HD3	74:b:29:SER:O	2.19	0.42
47:sR:16:G:H2'	47:sR:17:C:C6	2.54	0.42
47:sR:109:G:H2'	47:sR:110:U:O4'	2.19	0.42
47:sR:195:G:H2'	47:sR:196:G:H5"	2.00	0.42
47:sR:196:G:N7	56:s8:141:ARG:NH1	2.65	0.42
47:sR:215:A:N6	47:sR:243:G:OP2	2.51	0.42
47:sR:400:A:H4'	47:sR:401:A:H5'	2.01	0.42
47:sR:1062:A:H5"	47:sR:1063:U:H5	1.84	0.42
47:sR:1433:G:H22	77:d9:45:GLU:CD	2.28	0.42
47:sR:1434:U:H4'	77:d9:24:CYS:HB2	2.00	0.42
80:Rb:203:THR:HG23	80:Rb:245:PHE:HD2	1.84	0.42
48:s0:50:VAL:HG22	81:c7:109:LEU:HD21	2.02	0.42
60:c2:50:LYS:HE2	60:c2:50:LYS:HB3	1.88	0.42
63:c5:76:VAL:O	63:c5:94:VAL:HA	2.19	0.42
64:c6:35:PRO:HD2	67:c9:7:ARG:O	2.19	0.42
70:d2:101:TYR:HA	70:d2:113:HIS:CE1	2.54	0.42
1:1:708:G:N2	1:1:711:A:OP2	2.50	0.42
1:1:931:C:OP2	1:1:932:U:O2'	2.29	0.42
1:1:1626:U:H2'	1:1:1627:U:H6	1.84	0.42
1:1:1734:G:H2'	1:1:1735:G:O4'	2.19	0.42
1:1:1740:U:C1'	1:1:1741:A:H2	2.32	0.42
1:1:1807:G:C6	1:1:1808:G:N1	2.87	0.42
1:1:1856:C:H2'	1:1:1857:C:H6	1.83	0.42
1:1:2407:C:H2'	1:1:2408:U:C6	2.54	0.42
1:1:2523:A:H2'	10:p:49:TYR:O	2.19	0.42
1:1:2573:G:H8	1:1:2573:G:OP2	2.03	0.42
1:1:2575:G:H2'	1:1:2576:G:C8	2.54	0.42
1:1:3045:G:O2'	5:k:275:ARG:HD2	2.19	0.42
1:1:3047:U:H1'	5:k:327:CYS:SG	2.59	0.42
2:3:113:C:H2'	2:3:114:U:O4'	2.19	0.42
4:j:96:LEU:O	44:AQ:87:ARG:HD3	2.19	0.42
5:k:5:LYS:O	5:k:5:LYS:HG3	2.20	0.42
5:k:360:ASP:OD1	5:k:364:LYS:NZ	2.53	0.42
6:l:359:LEU:HA	21:0:8:GLN:OE1	2.19	0.42
10:p:140:VAL:HG11	16:v:3:ALA:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:q:90:MET:O	11:q:144:ILE:HG22	2.20	0.42
15:u:21:VAL:HG12	15:u:65:LEU:HD23	2.00	0.42
17:w:15:LEU:HD12	17:w:123:ALA:O	2.19	0.42
17:w:84:LEU:HD13	17:w:102:LEU:CD2	2.49	0.42
20:z:19:LYS:O	20:z:22:VAL:HG22	2.19	0.42
25:7:84:GLY:O	54:H:160:ARG:HG3	2.18	0.42
26:8:72:ALA:HB1	26:8:83:VAL:HG21	2.01	0.42
28:AA:10:VAL:O	28:AA:83:THR:HG22	2.19	0.42
36:AI:83:LYS:O	36:AI:84:LYS:C	2.62	0.42
1:AR:15:C:O3'	26:CZ:42:ARG:HA	2.19	0.42
1:AR:380:U:H2'	1:AR:381:U:C6	2.54	0.42
1:AR:1210:U:H2'	1:AR:1211:U:C6	2.54	0.42
1:AR:1455:U:O2'	1:AR:1456:A:H8	2.02	0.42
1:AR:1691:U:H2'	1:AR:1692:U:C6	2.55	0.42
1:AR:2403:G:C8	1:AR:2870:C:H4'	2.54	0.42
1:AR:3156:U:H4'	1:AR:3157:U:OP2	2.19	0.42
1:AR:3321:C:H2'	1:AR:3322:A:H8	1.84	0.42
3:AT:154:C:O2'	10:CJ:185:ARG:HG3	2.19	0.42
4:CD:10:LYS:HA	4:CD:16:PHE:CD2	2.54	0.42
7:CG:86:TYR:CE2	7:CG:247:ILE:HA	2.55	0.42
10:CJ:111:LYS:HE2	10:CJ:125:ALA:O	2.20	0.42
14:CN:185:LYS:HD3	14:CN:188:ARG:HG2	2.01	0.42
17:CQ:23:VAL:O	17:CQ:27:LEU:HG	2.18	0.42
19:CS:102:ALA:HB3	19:CS:127:LEU:HD12	2.00	0.42
19:CS:120:GLU:CD	19:CS:130:ARG:HH22	2.23	0.42
22:CV:102:ARG:HG3	22:CV:103:GLN:N	2.33	0.42
28:DB:9:LYS:O	28:DB:25:ILE:HD12	2.20	0.42
35:DI:44:CYS:HB2	35:DI:81:CYS:HB3	1.48	0.42
45:sM:23:LYS:HG3	45:sM:24:GLU:H	1.83	0.42
47:A:29:U:H2'	47:A:30:G:H8	1.84	0.42
47:A:813:U:H5'	61:O:76:LYS:HE2	2.02	0.42
47:A:992:A:OP2	47:A:1011:G:N2	2.48	0.42
47:A:1314:U:OP2	82:A:1977:OHX:N2	2.53	0.42
47:A:1563:C:H2'	47:A:1564:U:C6	2.53	0.42
47:A:1579:U:O2'	64:R:139:GLN:HA	2.20	0.42
47:A:1622:G:H2'	47:A:1623:C:C6	2.54	0.42
47:A:1670:G:O6	82:A:2114:OHX:N5	2.51	0.42
48:B:129:ASP:O	48:B:133:ILE:HD12	2.19	0.42
52:F:212:ASP:CG	52:F:216:ASN:HB2	2.45	0.42
53:G:165:LEU:HD21	76:d:47:PRO:O	2.20	0.42
64:R:93:HIS:CA	64:R:97:VAL:HG12	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:U:113:ILE:O	67:U:124:ILE:HD12	2.20	0.42
71:Y:84:THR:HG23	71:Y:120:VAL:HG12	2.01	0.42
74:b:85:ARG:O	74:b:86:VAL:C	2.62	0.42
80:h:177:MET:HB3	80:h:192:PHE:O	2.19	0.42
47:sR:68:A:H5'	54:s6:160:ARG:HH12	1.83	0.42
47:sR:90:C:H2'	47:sR:91:G:H8	1.84	0.42
47:sR:447:U:O2'	52:s4:25:GLY:HA3	2.19	0.42
47:sR:1280:C:H5'	77:d9:44:ARG:HH12	1.83	0.42
47:sR:1580:C:H2'	47:sR:1581:C:O4'	2.19	0.42
47:sR:1695:G:C2	47:sR:1696:G:N2	2.87	0.42
47:sR:1697:G:H8	47:sR:1705:C:N3	2.17	0.42
80:Rb:9:LEU:C	80:Rb:10:ARG:HG3	2.42	0.42
80:Rb:201:THR:HB	80:Rb:242:SER:HA	2.00	0.42
80:Rb:242:SER:O	80:Rb:292:LEU:HB2	2.19	0.42
52:s4:160:VAL:HG23	52:s4:162:ILE:HD11	2.02	0.42
53:s5:143:ARG:NH1	53:s5:218:GLU:OE2	2.52	0.42
56:s8:114:GLU:HA	56:s8:118:GLY:H	1.83	0.42
57:s9:168:ARG:HH22	57:s9:171:ARG:HE	1.66	0.42
58:c0:32:HIS:HB3	58:c0:35:ILE:HB	2.00	0.42
58:c0:46:LEU:HD13	58:c0:66:TYR:CE2	2.54	0.42
60:c2:70:ASN:O	60:c2:74:LEU:HG	2.19	0.42
61:c3:49:GLN:HA	61:c3:52:VAL:HG22	2.01	0.42
61:c3:140:LYS:O	61:c3:141:TYR:C	2.61	0.42
63:c5:85:ILE:HD11	63:c5:116:LEU:HG	2.01	0.42
64:c6:110:THR:HA	64:c6:113:ASP:CB	2.48	0.42
81:c7:108:ASP:HA	81:c7:111:LYS:HE3	2.01	0.42
66:c8:11:PHE:CD2	73:d5:41:ILE:HG12	2.55	0.42
1:1:72:C:C4'	14:t:63:VAL:HG22	2.49	0.42
1:1:953:G:H2'	1:1:1117:G:H5"	2.01	0.42
1:1:1069:C:H2'	1:1:1070:U:C6	2.54	0.42
1:1:1103:A:H4'	1:1:1103:A:OP2	2.19	0.42
1:1:1262:G:H2'	1:1:1264:G:C8	2.54	0.42
1:1:2341:A:O3'	1:1:3090:U:H4'	2.19	0.42
1:1:2612:U:H2'	1:1:2613:U:O4'	2.20	0.42
3:4:9:A:H2'	3:4:10:A:C8	2.54	0.42
4:j:205:ASN:HB3	4:j:206:PRO:HD2	2.02	0.42
5:k:41:VAL:HG21	5:k:194:TRP:HB2	2.01	0.42
5:k:146:ARG:HA	5:k:146:ARG:HD2	1.81	0.42
11:q:105:GLU:HG2	11:q:109:ALA:H	1.85	0.42
12:r:72:ALA:O	12:r:76:MET:HG3	2.20	0.42
12:r:142:ASP:CG	12:r:178:ARG:HH22	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:t:37:ASN:O	14:t:41:THR:HG23	2.18	0.42
16:v:74:PRO:O	16:v:75:VAL:C	2.62	0.42
16:v:135:VAL:HG21	16:v:151:ILE:HG21	2.01	0.42
20:z:151:ARG:O	20:z:155:LEU:HG	2.19	0.42
25:7:13:ILE:HG22	25:7:32:GLN:HB2	2.01	0.42
33:AF:9:ILE:HG23	33:AF:63:THR:HB	2.02	0.42
34:AG:13:HIS:O	34:AG:95:GLY:N	2.44	0.42
35:AH:71:THR:HG22	35:AH:72:VAL:N	2.34	0.42
35:AH:80:ARG:HA	35:AH:80:ARG:HD3	1.84	0.42
1:AR:88:A:H2'	1:AR:89:A:O4'	2.20	0.42
1:AR:243:G:H2'	1:AR:244:G:O4'	2.19	0.42
1:AR:398:A:O2'	1:AR:1416:C:OP1	2.23	0.42
1:AR:603:A:C5	1:AR:604:G:H1'	2.55	0.42
1:AR:964:G:OP1	82:AR:3507:OHX:N1	2.53	0.42
1:AR:1135:A:H5'	30:DD:7:HIS:O	2.19	0.42
1:AR:1240:A:N3	1:AR:1249:G:N2	2.67	0.42
1:AR:1390:A:N3	1:AR:1390:A:H5'	2.34	0.42
1:AR:1494:U:OP1	40:DN:44:TRP:HB3	2.19	0.42
1:AR:1567:U:C2	1:AR:1571:A:N1	2.87	0.42
1:AR:1800:A:H2'	1:AR:1801:U:O4'	2.20	0.42
1:AR:2162:U:H2'	1:AR:2163:C:O4'	2.19	0.42
1:AR:2271:A:N7	1:AR:2272:G:C6	2.87	0.42
1:AR:2677:G:HO2'	1:AR:2679:A:H2	1.65	0.42
1:AR:2943:G:H2'	1:AR:2944:U:O4'	2.20	0.42
1:AR:3094:A:OP1	24:CX:14:SER:OG	2.37	0.42
5:CE:114:VAL:O	5:CE:117:ARG:HB3	2.19	0.42
6:CF:112:LYS:HE2	6:CF:112:LYS:HB2	1.88	0.42
9:CI:156:ILE:HG13	9:CI:172:ASN:HD21	1.83	0.42
10:CJ:78:PHE:O	10:CJ:79:GLN:HB2	2.18	0.42
14:CN:122:LYS:HE3	14:CN:122:LYS:HB3	1.68	0.42
17:CQ:143:THR:HG21	17:CQ:150:GLU:HB2	2.00	0.42
21:CU:5:LYS:HB2	21:CU:7:TYR:CE2	2.54	0.42
27:DA:5:SER:HB3	27:DA:8:VAL:HG12	2.01	0.42
28:DB:120:GLU:H	28:DB:120:GLU:HG2	1.61	0.42
29:DC:71:PRO:HB2	29:DC:109:TYR:HA	2.01	0.42
34:DH:13:HIS:CD2	34:DH:89:LEU:HD12	2.55	0.42
36:DJ:10:ARG:NH1	36:DJ:60:GLU:OE1	2.53	0.42
46:p0:69:ASP:OD1	46:p0:69:ASP:N	2.50	0.42
47:A:66:U:C5'	54:H:173:PRO:HA	2.50	0.42
47:A:131:C:OP1	82:A:2119:OHX:N2	2.53	0.42
47:A:543:C:O2	47:A:543:C:H2'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1292:G:H2'	47:A:1293:U:C6	2.53	0.42
47:A:1354:G:H5'	47:A:1355:C:OP2	2.19	0.42
47:A:1537:C:H4'	47:A:1538:U:O5'	2.19	0.42
47:A:1545:A:OP1	66:T:133:VAL:HG12	2.19	0.42
48:B:38:PHE:O	48:B:39:ASN:C	2.60	0.42
49:C:23:PRO:CA	49:C:26:ARG:HB2	2.48	0.42
49:C:31:ASP:CA	49:C:45:LYS:HG2	2.49	0.42
49:C:116:LYS:O	49:C:117:TRP:HB2	2.20	0.42
51:E:40:ARG:HG2	68:V:110:PRO:HG3	2.00	0.42
51:E:195:SER:O	51:E:196:ARG:HB3	2.19	0.42
53:G:94:THR:OG1	53:G:95:ASN:N	2.52	0.42
54:H:10:ASN:ND2	54:H:128:THR:HG22	2.34	0.42
55:I:40:PRO:C	55:I:41:LEU:HD22	2.44	0.42
55:I:109:VAL:O	55:I:110:GLN:C	2.59	0.42
71:Y:11:SER:O	71:Y:15:LEU:HG	2.20	0.42
79:g:119:ARG:H	79:g:119:ARG:HG3	1.68	0.42
79:g:126:CYS:SG	79:g:143:LYS:HB3	2.59	0.42
47:sR:197:A:H2'	47:sR:198:A:C8	2.55	0.42
47:sR:924:A:H2'	47:sR:925:G:C8	2.54	0.42
47:sR:980:G:H4'	47:sR:1776:A:H4'	2.02	0.42
47:sR:1620:C:HO2'	47:sR:1621:U:P	2.42	0.42
80:Rb:25:THR:HA	80:Rb:73:LEU:HD12	2.01	0.42
80:Rb:59:ARG:HH11	80:Rb:95:ALA:HB1	1.83	0.42
48:s0:28:ASN:HB2	48:s0:150:ASP:OD2	2.20	0.42
52:s4:72:VAL:CG1	52:s4:77:ARG:HG3	2.48	0.42
52:s4:141:THR:OG1	52:s4:145:ARG:HB2	2.19	0.42
53:s5:31:GLU:HA	53:s5:34:GLN:HB3	2.01	0.42
54:s6:78:THR:O	54:s6:81:VAL:HG22	2.19	0.42
54:s6:202:ARG:HA	54:s6:202:ARG:HD3	1.64	0.42
57:s9:105:LEU:HA	57:s9:105:LEU:HD12	1.86	0.42
57:s9:129:ILE:HG22	57:s9:142:ASN:HA	2.02	0.42
59:c1:79:LYS:HA	59:c1:79:LYS:HD2	1.67	0.42
63:c5:51:SER:O	63:c5:52:LYS:C	2.62	0.42
66:c8:47:CYS:HA	66:c8:69:ILE:CD1	2.49	0.42
66:c8:105:VAL:HG13	66:c8:106:GLU:H	1.84	0.42
67:c9:37:VAL:HG11	67:c9:100:ILE:HD11	2.01	0.42
70:d2:11:LEU:HD23	70:d2:11:LEU:HA	1.92	0.42
1:1:848:A:H8	1:1:848:A:O5'	2.02	0.42
1:1:910:G:OP2	4:j:4:VAL:HB	2.19	0.42
1:1:992:A:H5"	22:2:43:LYS:HD3	2.01	0.42
1:1:1821:U:C2	35:AH:67:LYS:HB2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2396:G:OP1	1:1:2397:A:H4'	2.19	0.42
1:1:2830:G:H1'	1:1:2861:U:C2	2.55	0.42
1:1:3082:C:H2'	1:1:3083:G:C8	2.55	0.42
5:k:284:ARG:HD3	5:k:356:LEU:HD13	2.00	0.42
6:l:317:PRO:O	6:l:324:LEU:HB2	2.18	0.42
7:m:43:LYS:HB3	7:m:46:THR:OG1	2.18	0.42
9:o:53:LYS:O	9:o:57:THR:OG1	2.20	0.42
17:w:175:THR:HA	17:w:178:VAL:HG22	2.02	0.42
21:0:139:TYR:HD1	21:0:140:VAL:HG23	1.83	0.42
22:2:57:TYR:CZ	22:2:89:LEU:HD21	2.55	0.42
22:2:82:ASN:OD1	22:2:82:ASN:N	2.51	0.42
26:8:47:ALA:HB3	36:AI:77:PRO:HG3	2.01	0.42
34:AG:41:ALA:HB3	34:AG:74:THR:HG22	2.00	0.42
35:AH:97:GLU:O	35:AH:100:ILE:HG22	2.20	0.42
36:AI:54:VAL:O	36:AI:58:ILE:HG13	2.19	0.42
39:AL:61:LYS:O	39:AL:65:LEU:HB2	2.19	0.42
1:AR:49:A:N7	16:CP:187:ARG:HD2	2.35	0.42
1:AR:299:G:N7	82:AR:3654:OHX:N2	2.68	0.42
1:AR:644:G:H2'	1:AR:2372:A:N7	2.34	0.42
1:AR:1231:A:OP1	46:p0:34:SER:OG	2.37	0.42
1:AR:1438:U:H2'	1:AR:1439:U:H6	1.85	0.42
1:AR:1570:U:H1'	1:AR:1571:A:H1'	2.01	0.42
1:AR:1584:U:H2'	1:AR:1585:C:C6	2.54	0.42
1:AR:1714:A:H2	1:AR:1727:G:N3	2.18	0.42
1:AR:2144:A:H1'	1:AR:2281:A:N6	2.34	0.42
1:AR:2557:A:OP2	4:CD:64:ARG:NH2	2.53	0.42
2:AS:96:U:H4'	21:CU:119:ARG:HB2	2.01	0.42
3:AT:49:G:O3'	36:DJ:35:LYS:NZ	2.53	0.42
4:CD:97:ASN:HB2	4:CD:100:ASN:ND2	2.35	0.42
5:CE:152:LYS:HG2	5:CE:192:VAL:HG11	2.01	0.42
6:CF:192:GLY:HA2	6:CF:195:ARG:HG3	2.01	0.42
7:CG:279:LYS:HD2	7:CG:279:LYS:HA	1.83	0.42
12:CL:47:PRO:HD2	12:CL:141:LYS:HA	2.00	0.42
14:CN:9:ILE:HD11	29:DC:49:HIS:CD2	2.55	0.42
14:CN:60:ALA:HA	14:CN:61:PRO:HD3	1.73	0.42
23:CW:99:LYS:NZ	23:CW:102:GLU:OE1	2.52	0.42
37:DK:15:LYS:HA	37:DK:15:LYS:HD2	1.68	0.42
47:A:139:C:H1'	47:A:140:A:OP2	2.20	0.42
47:A:485:A:H2'	47:A:486:G:H8	1.83	0.42
47:A:1000:C:H3'	47:A:1000:C:O2	2.20	0.42
47:A:1795:U:O2	74:b:10:ARG:HD3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B:84:ARG:H	48:B:84:ARG:HG2	1.59	0.42
50:D:140:ARG:HH12	50:D:229:LEU:HD11	1.84	0.42
50:D:160:GLY:O	50:D:166:THR:HA	2.19	0.42
51:E:32:GLU:O	51:E:52:ALA:HB1	2.20	0.42
51:E:64:ARG:HH12	58:L:70:GLU:CG	2.31	0.42
51:E:135:GLU:HB3	51:E:187:LYS:HB3	2.01	0.42
52:F:246:LEU:HD12	52:F:250:GLU:HB3	2.02	0.42
56:J:159:GLN:NE2	56:J:189:LEU:HD11	2.35	0.42
60:N:75:VAL:HG23	60:N:76:GLU:H	1.82	0.42
62:P:42:VAL:HG23	62:P:42:VAL:O	2.20	0.42
65:S:21:TYR:N	65:S:22:PRO:HD2	2.35	0.42
67:U:6:VAL:HG23	67:U:132:LEU:CD2	2.48	0.42
68:V:46:GLU:HB2	68:V:52:LYS:HZ1	1.84	0.42
47:sR:108:A:OP2	82:sR:1947:OHX:N4	2.53	0.42
47:sR:702:G:O6	82:sR:1955:OHX:N6	2.53	0.42
47:sR:1615:C:P	53:s5:81:ARG:HH21	2.43	0.42
47:sR:1777:G:H2'	47:sR:1778:G:C8	2.55	0.42
80:Rb:18:GLY:HA3	80:Rb:39:ASP:N	2.35	0.42
49:s1:144:ARG:HB3	49:s1:206:PRO:HB2	2.01	0.42
50:s2:40:LYS:CG	50:s2:247:ALA:HB1	2.49	0.42
50:s2:111:VAL:O	50:s2:136:VAL:HA	2.20	0.42
51:s3:138:VAL:HA	51:s3:183:GLY:O	2.20	0.42
53:s5:136:ALA:HA	53:s5:202:ALA:CA	2.46	0.42
56:s8:184:LEU:O	56:s8:189:LEU:HD12	2.20	0.42
57:s9:56:ALA:O	57:s9:60:LEU:HD12	2.19	0.42
57:s9:126:ARG:HG3	78:e0:33:ARG:HD3	2.00	0.42
63:c5:87:PRO:HA	63:c5:90:ILE:HG13	2.01	0.42
64:c6:50:GLU:O	64:c6:54:LEU:HD22	2.19	0.42
74:d6:5:ARG:HB2	74:d6:8:ASN:HA	2.02	0.42
1:1:212:G:OP1	1:1:227:G:N2	2.53	0.42
1:1:539:C:H2'	1:1:540:U:H6	1.85	0.42
1:1:985:U:H2'	1:1:986:U:C6	2.55	0.42
1:1:1483:G:C8	1:1:1485:G:C8	3.08	0.42
1:1:1547:G:H2'	1:1:1548:C:C6	2.55	0.42
1:1:1658:G:H2'	1:1:1659:U:C6	2.55	0.42
1:1:2565:U:H2'	1:1:2566:C:C6	2.54	0.42
1:1:2633:U:H2'	1:1:2634:U:O4'	2.19	0.42
2:3:96:U:H2'	2:3:97:A:C8	2.55	0.42
4:j:206:PRO:HD3	4:j:213:GLY:CA	2.49	0.42
6:l:140:HIS:N	6:l:180:LYS:HE2	2.32	0.42
6:l:162:THR:HA	6:l:218:ALA:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:m:58:LYS:N	7:m:58:LYS:HD3	2.35	0.42
7:m:107:ARG:NH2	7:m:120:LYS:HG2	2.35	0.42
11:q:59:ASN:HD21	15:u:41:GLN:HG3	1.84	0.42
11:q:161:LEU:HD23	11:q:161:LEU:HA	1.88	0.42
20:z:11:ALA:O	20:z:15:VAL:HG12	2.20	0.42
21:0:40:ARG:HA	21:0:40:ARG:HD2	1.82	0.42
22:2:136:ARG:HB3	22:2:139:ARG:HH12	1.83	0.42
23:5:35:LYS:HA	23:5:38:ILE:HG12	2.01	0.42
24:6:120:LYS:HG3	24:6:121:GLU:N	2.34	0.42
26:8:67:ILE:HD13	26:8:115:ARG:NH1	2.35	0.42
1:AR:271:C:H2'	1:AR:272:G:O4'	2.19	0.42
1:AR:406:G:H1'	3:AT:16:G:N2	2.35	0.42
1:AR:879:U:H4'	18:CR:132:ALA:HB3	2.01	0.42
1:AR:1345:G:N7	82:AR:3566:OHX:N1	2.68	0.42
1:AR:1382:G:O6	82:AR:3437:OHX:N6	2.52	0.42
1:AR:1565:G:C4	1:AR:1566:A:C8	3.07	0.42
1:AR:1584:U:H2'	1:AR:1585:C:H6	1.84	0.42
1:AR:1657:C:C5	1:AR:1797:A:H5"	2.55	0.42
1:AR:2524:A:N1	10:CJ:44:ARG:HD2	2.34	0.42
1:AR:2667:A:N6	1:AR:2687:G:H1'	2.33	0.42
1:AR:2947:G:OP2	1:AR:2947:G:H4'	2.18	0.42
1:AR:2991:A:P	5:CE:20:LYS:HB2	2.60	0.42
1:AR:3112:G:O6	1:AR:3120:C:H5"	2.18	0.42
1:AR:3313:U:H4'	5:CE:173:GLN:HG3	2.02	0.42
2:AS:94:C:H2'	2:AS:95:A:C8	2.55	0.42
5:CE:221:THR:O	5:CE:272:TYR:HA	2.19	0.42
8:CH:93:VAL:O	8:CH:96:VAL:HG22	2.20	0.42
10:CJ:251:LYS:HD3	10:CJ:251:LYS:HA	1.73	0.42
13:CM:48:SER:N	13:CM:66:ALA:O	2.38	0.42
14:CN:145:PHE:CE2	36:DJ:118:ILE:HG21	2.54	0.42
15:CO:32:LEU:HB3	15:CO:85:TRP:HH2	1.84	0.42
17:CQ:98:ALA:HA	17:CQ:101:ARG:NH1	2.34	0.42
24:CX:17:LEU:HD23	24:CX:17:LEU:HA	1.88	0.42
30:DD:59:LYS:HA	30:DD:59:LYS:HD2	1.87	0.42
47:A:25:C:O2	82:A:2121:OHX:N5	2.53	0.42
47:A:336:G:N2	56:J:5:ARG:O	2.38	0.42
47:A:386:G:H2'	47:A:387:A:C8	2.54	0.42
47:A:444:C:N4	47:A:460:A:H62	2.17	0.42
47:A:602:U:OP1	71:Y:32:ARG:HD3	2.20	0.42
47:A:765:G:P	57:K:82:ARG:HH22	2.42	0.42
47:A:882:U:H2'	47:A:883:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:1349:G:H2'	47:A:1350:U:C6	2.55	0.42
47:A:1535:U:O2'	47:A:1536:G:H5"	2.20	0.42
47:A:1566:U:O2'	66:T:37:GLY:HA2	2.20	0.42
47:A:1580:C:H2'	47:A:1581:C:O4'	2.19	0.42
47:A:1623:C:H2'	47:A:1624:C:H6	1.85	0.42
51:E:55:THR:O	51:E:58:VAL:N	2.51	0.42
51:E:222:VAL:HB	80:h:192:PHE:HA	2.00	0.42
52:F:105:VAL:HB	52:F:243:GLY:HA2	2.02	0.42
52:F:125:LYS:HE2	52:F:225:VAL:O	2.19	0.42
54:H:179:VAL:HG22	54:H:184:LEU:HD11	2.01	0.42
59:M:99:ARG:HG2	71:Y:9:LEU:HA	2.02	0.42
60:N:58:LEU:HD13	60:N:124:LYS:HA	2.01	0.42
61:O:129:TYR:HA	61:O:132:VAL:HG22	2.02	0.42
72:Z:87:PRO:HD2	72:Z:90:ARG:NH1	2.34	0.42
75:c:11:THR:C	75:c:13:ALA:H	2.27	0.42
80:h:25:THR:HG21	80:h:294:TRP:O	2.19	0.42
47:sR:138:A:H5"	47:sR:138:A:N3	2.35	0.42
47:sR:150:U:H2'	47:sR:151:G:O4'	2.19	0.42
47:sR:1324:G:N7	82:sR:1960:OHX:N4	2.68	0.42
53:s5:46:TRP:CE3	53:s5:129:PRO:HG3	2.55	0.42
54:s6:178:LEU:HD23	54:s6:179:VAL:N	2.35	0.42
59:c1:28:SER:O	59:c1:30:ARG:NH1	2.52	0.42
59:c1:47:THR:HG21	59:c1:114:ALA:O	2.19	0.42
74:d6:87:ARG:NH2	74:d6:91:ASP:O	2.25	0.42
79:e1:147:VAL:HG22	79:e1:148:TYR:N	2.35	0.42
1:1:24:G:H2'	1:1:25:U:O4'	2.20	0.42
1:1:65:A:H3'	1:1:111:C:H41	1.84	0.42
1:1:239:G:H4'	1:1:240:U:OP1	2.20	0.42
1:1:819:U:H2'	1:1:820:A:H8	1.85	0.42
1:1:1158:A:H2'	1:1:1159:A:H4'	2.01	0.42
1:1:1194:G:H2'	1:1:1195:A:C8	2.55	0.42
1:1:2435:G:N7	1:1:2593:A:H2'	2.34	0.42
4:j:57:PRO:HG3	44:AQ:53:GLY:O	2.20	0.42
4:j:142:ASP:C	4:j:144:ASN:H	2.25	0.42
4:j:179:LEU:O	4:j:180:LEU:HB2	2.18	0.42
4:j:227:ARG:HB2	4:j:239:ALA:HB2	2.02	0.42
5:k:77:THR:HG23	5:k:326:GLY:O	2.19	0.42
5:k:128:LYS:HB3	5:k:128:LYS:HE2	1.70	0.42
6:l:126:ILE:HD11	6:l:233:LEU:HD13	2.02	0.42
9:o:92:ILE:HD12	9:o:92:ILE:HA	1.89	0.42
10:p:245:LYS:O	10:p:245:LYS:HG2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:q:79:ILE:O	11:q:82:VAL:HG12	2.20	0.42
14:t:49:ARG:HG2	36:AI:116:TYR:CE1	2.55	0.42
17:w:127:LEU:HD11	21:0:168:PRO:HG3	2.01	0.42
18:x:4:TYR:CE2	18:x:16:SER:HB2	2.55	0.42
18:x:36:ILE:HG23	18:x:114:VAL:HG11	2.01	0.42
20:z:95:TRP:CZ2	20:z:99:LEU:HD22	2.55	0.42
21:0:101:ALA:O	21:0:105:THR:HG23	2.20	0.42
22:2:31:LEU:HD23	22:2:31:LEU:HA	1.69	0.42
24:6:129:VAL:O	24:6:133:SER:OG	2.35	0.42
26:8:82:LEU:HD12	26:8:126:LEU:HD21	2.02	0.42
39:AL:62:ALA:O	39:AL:66:ILE:HG13	2.20	0.42
43:AP:37:ALA:O	43:AP:38:GLN:C	2.61	0.42
43:AP:50:PHE:O	82:AP:502:OHX:N5	2.52	0.42
45:i:77:THR:HG22	45:i:79:SER:HB3	2.02	0.42
1:AR:392:G:O2'	27:DA:90:VAL:HG11	2.18	0.42
1:AR:414:U:H2'	1:AR:415:G:C8	2.55	0.42
1:AR:651:G:C6	1:AR:652:G:C6	3.08	0.42
1:AR:1495:U:H5	1:AR:1835:A:C2	2.38	0.42
1:AR:1543:G:OP1	16:CP:35:VAL:HG23	2.19	0.42
1:AR:2112:U:O2	1:AR:2113:A:N6	2.52	0.42
1:AR:3302:U:C2	1:AR:3313:U:C2	3.08	0.42
3:AT:5:U:H2'	3:AT:6:U:C6	2.55	0.42
5:CE:183:LEU:HD23	5:CE:183:LEU:HA	1.78	0.42
8:CH:173:MET:HB2	8:CH:173:MET:HE2	1.77	0.42
9:CI:228:SER:HA	9:CI:232:ARG:HH21	1.85	0.42
10:CJ:68:ARG:O	10:CJ:236:GLY:HA2	2.19	0.42
13:CM:30:LEU:HD13	13:CM:65:ILE:O	2.18	0.42
18:CR:47:TYR:OH	18:CR:58:ILE:HD13	2.20	0.42
39:DM:44:LYS:HA	39:DM:53:THR:HA	2.01	0.42
42:DP:13:LEU:O	42:DP:17:ARG:HG2	2.19	0.42
47:A:142:G:H2'	47:A:142:G:N3	2.34	0.42
47:A:320:U:H3'	47:A:321:C:C5'	2.48	0.42
47:A:358:U:O2'	47:A:360:A:H5"	2.20	0.42
47:A:584:C:OP2	82:A:2104:OHX:N1	2.53	0.42
47:A:759:U:H2'	47:A:760:A:C8	2.55	0.42
47:A:865:A:OP1	70:X:28:ARG:NH1	2.52	0.42
47:A:892:A:H2'	47:A:893:U:C6	2.55	0.42
47:A:915:A:H2'	47:A:915:A:N3	2.34	0.42
47:A:1196:A:H4'	47:A:1197:C:H5"	2.02	0.42
47:A:1548:G:H5'	66:T:89:GLN:O	2.20	0.42
48:B:13:ASP:CG	48:B:179:ARG:HH22	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B:88:LYS:NZ	65:S:79:GLU:O	2.40	0.42
48:B:179:ARG:HD3	48:B:183:ARG:HD2	2.01	0.42
50:D:137:ILE:HD11	69:W:26:ALA:HB3	2.02	0.42
51:E:103:GLU:OE2	51:E:173:ARG:NE	2.32	0.42
53:G:76:ARG:HB3	53:G:79:ASN:OD1	2.20	0.42
63:Q:64:LYS:HA	63:Q:73:PRO:HB3	2.02	0.42
64:R:131:GLY:HA2	64:R:138:PHE:CD1	2.55	0.42
67:U:118:PRO:HD2	67:U:123:ARG:HH21	1.85	0.42
71:Y:42:PRO:HA	71:Y:81:LYS:HE2	2.02	0.42
72:Z:29:HIS:NE2	72:Z:69:SER:OG	2.52	0.42
77:e:39:CYS:C	77:e:41:GLN:H	2.27	0.42
80:h:73:LEU:HG	80:h:74:THR:H	1.85	0.42
80:h:217:ASP:OD1	80:h:217:ASP:N	2.52	0.42
47:sR:222:A:H2'	47:sR:223:U:O4'	2.19	0.42
47:sR:476:U:H2'	78:e0:31:LYS:HD3	2.00	0.42
47:sR:594:A:N3	47:sR:595:G:H1'	2.34	0.42
47:sR:648:G:C4	47:sR:687:G:N2	2.87	0.42
47:sR:1230:A:H1'	47:sR:1256:A:N1	2.34	0.42
47:sR:1638:G:C2	47:sR:1639:C:H1'	2.54	0.42
80:Rb:74:THR:HA	80:Rb:115:ILE:CD1	2.50	0.42
80:Rb:85:TRP:CH2	81:c7:29:GLN:HB3	2.55	0.42
80:Rb:228:LYS:C	51:s3:222:VAL:HG21	2.45	0.42
49:s1:126:THR:CG2	49:s1:136:ARG:HE	2.33	0.42
50:s2:152:HIS:CD2	50:s2:152:HIS:N	2.84	0.42
53:s5:116:HIS:O	53:s5:120:ILE:HG13	2.20	0.42
55:s7:158:ASP:HB3	55:s7:161:GLN:NE2	2.35	0.42
57:s9:3:ARG:H	57:s9:3:ARG:HG3	1.65	0.42
57:s9:83:VAL:HG23	57:s9:85:VAL:HG13	2.02	0.42
59:c1:133:LYS:O	59:c1:136:ARG:NH1	2.52	0.42
1:1:47:C:H5"	14:t:16:LYS:HG2	2.01	0.42
1:1:181:U:O3'	38:AK:75:LYS:NZ	2.47	0.42
1:1:321:C:H5"	16:v:150:TRP:CE3	2.55	0.42
1:1:609:G:H3'	1:1:609:G:N3	2.35	0.42
1:1:772:U:H2'	1:1:773:G:C8	2.55	0.42
1:1:860:G:N7	4:j:181:LYS:HB2	2.35	0.42
1:1:954:U:O4	1:1:1115:G:H1'	2.19	0.42
1:1:2386:A:OP1	82:1:4100:OHX:N6	2.53	0.42
1:1:2841:G:H2'	1:1:2898:G:N2	2.35	0.42
1:1:3040:A:H5"	24:6:12:ARG:HB2	2.00	0.42
7:m:119:TYR:OH	7:m:134:ALA:HA	2.20	0.42
7:m:234:ASP:N	7:m:234:ASP:OD1	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:o:224:ILE:HG23	21:0:36:ILE:HG12	2.01	0.42
10:p:149:LYS:HD3	10:p:201:THR:O	2.19	0.42
12:r:9:TYR:CG	12:r:97:LEU:HD13	2.55	0.42
13:s:132:ASN:HA	13:s:154:THR:HG21	2.02	0.42
14:t:46:ILE:HG22	14:t:47:ALA:N	2.34	0.42
14:t:52:ASP:OD1	14:t:52:ASP:N	2.53	0.42
18:x:36:ILE:CG2	18:x:114:VAL:HG11	2.49	0.42
21:0:23:LYS:HB3	21:0:25:PHE:CZ	2.54	0.42
29:AB:8:THR:H	29:AB:8:THR:HG23	1.57	0.42
29:AB:60:TYR:CG	29:AB:63:LYS:HB2	2.55	0.42
29:AB:77:LYS:HB3	29:AB:80:THR:HG23	2.01	0.42
39:AL:9:LYS:HB2	39:AL:9:LYS:HE2	1.90	0.42
44:AQ:29:LEU:O	44:AQ:33:GLN:HG2	2.20	0.42
44:AQ:30:GLU:OE1	44:AQ:34:HIS:NE2	2.53	0.42
45:i:117:LEU:HD13	50:D:83:ILE:HD13	2.02	0.42
1:AR:428:A:H2'	1:AR:429:U:C6	2.55	0.42
1:AR:712:G:H2'	1:AR:713:U:C6	2.54	0.42
1:AR:874:U:P	5:CE:241:LYS:HE3	2.59	0.42
1:AR:1369:A:C5'	29:DC:21:ARG:HD2	2.50	0.42
1:AR:1742:U:H2'	1:AR:1743:G:C8	2.54	0.42
1:AR:1880:U:H2'	1:AR:1881:A:O4'	2.20	0.42
1:AR:2193:U:O3'	1:AR:2194:G:H8	2.03	0.42
1:AR:2351:U:H2'	1:AR:2352:A:C8	2.54	0.42
1:AR:2523:A:H2'	10:CJ:49:TYR:O	2.20	0.42
1:AR:2631:U:P	22:CV:6:GLY:HA3	2.60	0.42
1:AR:2896:A:H4'	41:DO:95:VAL:HG11	2.01	0.42
1:AR:3103:A:OP2	82:AR:3642:OHX:N1	2.53	0.42
1:AR:3176:G:N2	1:AR:3213:A:H1'	2.35	0.42
1:AR:3274:A:OP2	18:CR:171:ARG:HG2	2.20	0.42
1:AR:3299:A:N6	1:AR:3315:G:H1	2.17	0.42
3:AT:67:U:H2'	3:AT:68:G:C8	2.55	0.42
9:CI:140:SER:O	9:CI:144:ILE:HG13	2.20	0.42
12:CL:76:MET:HB3	12:CL:76:MET:HE2	1.62	0.42
39:DM:32:ASN:C	39:DM:33:LYS:HG3	2.45	0.42
40:DN:14:ALA:O	40:DN:18:LYS:HG3	2.20	0.42
42:DP:25:LYS:C	42:DP:25:LYS:HD2	2.45	0.42
47:A:163:G:H4'	54:H:53:SER:HB3	2.02	0.42
47:A:702:G:O2'	47:A:703:G:H8	2.03	0.42
47:A:732:G:H2'	47:A:732:G:N3	2.34	0.42
47:A:811:A:C2	47:A:858:G:H1'	2.54	0.42
47:A:864:U:C5	75:c:22:LYS:HA	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:939:A:H2'	47:A:940:A:C8	2.54	0.42
47:A:1069:A:H2'	47:A:1070:C:C6	2.55	0.42
47:A:1200:G:H4'	47:A:1201:G:H5"	2.01	0.42
47:A:1536:G:C6	47:A:1538:U:H1'	2.54	0.42
47:A:1571:C:H3'	47:A:1572:G:H5"	2.02	0.42
47:A:1595:U:N3	47:A:1600:A:H2	2.18	0.42
48:B:4:PRO:HB3	69:W:39:VAL:HG13	2.00	0.42
49:C:30:PHE:HD2	49:C:96:LEU:CD1	2.33	0.42
49:C:165:ARG:O	49:C:169:SER:OG	2.32	0.42
50:D:143:TYR:CE2	50:D:148:LEU:O	2.73	0.42
50:D:160:GLY:HA3	50:D:213:ALA:O	2.20	0.42
51:E:102:ALA:HA	51:E:186:VAL:HG21	2.02	0.42
52:F:45:ILE:HB	52:F:80:THR:HG22	2.01	0.42
57:K:107:ARG:NH2	57:K:148:VAL:HG23	2.35	0.42
58:L:15:LEU:HD12	58:L:15:LEU:HA	1.90	0.42
62:P:78:ALA:HA	62:P:111:ARG:O	2.20	0.42
64:R:39:VAL:HG22	64:R:45:ARG:HH12	1.85	0.42
64:R:98:ASP:C	64:R:98:ASP:OD1	2.62	0.42
80:h:106:HIS:CE1	80:h:132:LYS:HG3	2.54	0.42
80:h:114:ASP:OD2	80:h:156:VAL:HG12	2.20	0.42
80:h:245:PHE:CD1	80:h:252:LEU:HD13	2.55	0.42
47:sR:297:U:O2'	52:s4:33:ALA:HA	2.19	0.42
47:sR:331:A:H4'	56:s8:31:ARG:O	2.20	0.42
47:sR:542:A:H1'	47:sR:543:C:OP1	2.20	0.42
47:sR:773:C:OP1	52:s4:21:ASP:HB2	2.20	0.42
47:sR:1327:C:H5"	51:s3:158:ILE:HG22	2.01	0.42
47:sR:1545:A:OP2	66:c8:134:ARG:HD2	2.19	0.42
47:sR:1636:C:C2	47:sR:1638:G:C5	3.08	0.42
80:Rb:7:LEU:HD23	80:Rb:7:LEU:HA	1.79	0.42
80:Rb:124:SER:O	80:Rb:154:VAL:HG21	2.19	0.42
80:Rb:129:LYS:HA	80:Rb:151:VAL:HG23	2.01	0.42
80:Rb:149:ASP:HB2	80:Rb:175:ASP:CB	2.48	0.42
80:Rb:238:ASP:HB3	80:Rb:257:ALA:HB3	2.01	0.42
80:Rb:265:LEU:HA	80:Rb:268:GLN:HA	2.02	0.42
51:s3:138:VAL:HB	51:s3:184:ILE:HG22	2.02	0.42
52:s4:108:ARG:H	52:s4:108:ARG:HG2	1.68	0.42
53:s5:29:ILE:N	53:s5:29:ILE:HD12	2.35	0.42
53:s5:29:ILE:O	53:s5:29:ILE:HG22	2.19	0.42
54:s6:162:VAL:HG21	54:s6:169:TYR:CE1	2.55	0.42
54:s6:167:LYS:HD3	54:s6:167:LYS:HA	1.81	0.42
56:s8:116:HIS:CE1	56:s8:146:ARG:HD3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:s8:189:LEU:O	56:s8:193:LEU:HB2	2.20	0.42
60:c2:123:VAL:HG22	60:c2:125:ASN:H	1.84	0.42
81:c7:5:ARG:O	81:c7:10:LYS:HE2	2.20	0.42
1:1:1079:A:H4'	7:m:140:ARG:O	2.20	0.42
1:1:1238:C:N4	1:1:1245:A:OP2	2.51	0.42
1:1:1447:G:O2'	1:1:2355:G:O6	2.24	0.42
1:1:1500:G:H2'	1:1:1501:U:O4'	2.20	0.42
1:1:1522:U:OP2	26:8:121:LYS:NZ	2.52	0.42
1:1:1556:C:H5"	1:1:2169:G:N2	2.35	0.42
1:1:1654:A:N3	35:AH:59:PRO:HB3	2.35	0.42
1:1:2213:A:N1	1:1:2429:G:H1'	2.34	0.42
1:1:2521:U:H5"	4:j:31:THR:HG21	2.01	0.42
1:1:2861:U:OP1	82:1:3403:OHX:N5	2.53	0.42
1:1:2881:C:H2'	1:1:2882:U:H6	1.85	0.42
1:1:2908:G:N7	82:1:3407:OHX:N3	2.68	0.42
1:1:3333:G:C8	25:7:51:TRP:CD1	3.07	0.42
4:j:179:LEU:HD23	4:j:179:LEU:HA	1.90	0.42
6:l:26:PHE:CD1	6:l:130:ALA:HB2	2.55	0.42
7:m:40:HIS:O	7:m:43:LYS:HB2	2.20	0.42
7:m:49:TYR:CE1	7:m:66:SER:HB3	2.55	0.42
13:s:37:LEU:HD23	13:s:37:LEU:HA	1.83	0.42
22:2:75:ILE:HD11	22:2:86:GLU:CD	2.45	0.42
23:5:15:PHE:N	23:5:65:VAL:O	2.52	0.42
30:AC:7:HIS:CG	30:AC:8:THR:N	2.88	0.42
37:AJ:20:MET:HE2	37:AJ:20:MET:HB3	1.97	0.42
1:AR:171:G:H2'	1:AR:172:G:O4'	2.20	0.42
1:AR:414:U:O4	82:AR:4116:OHX:N6	2.53	0.42
1:AR:609:G:C8	6:CF:310:THR:HG22	2.55	0.42
1:AR:741:U:H2'	1:AR:742:G:O4'	2.19	0.42
1:AR:1348:U:H5"	1:AR:1355:A:N6	2.35	0.42
1:AR:1386:A:N3	6:CF:180:LYS:HA	2.35	0.42
1:AR:1452:A:H1'	1:AR:2347:U:O5'	2.20	0.42
1:AR:1730:G:N7	31:DE:28:LYS:HG3	2.35	0.42
1:AR:2356:A:H5'	18:CR:138:LYS:NZ	2.34	0.42
1:AR:2828:G:P	12:CL:7:ARG:HH12	2.42	0.42
1:AR:2877:G:OP1	82:AR:4137:OHX:N3	2.53	0.42
1:AR:3045:G:OP1	5:CE:19:ARG:NH2	2.52	0.42
1:AR:3280:U:HO2'	1:AR:3281:U:P	2.39	0.42
1:AR:3283:U:H2'	1:AR:3284:G:C8	2.55	0.42
82:AR:3591:OHX:N6	2:AS:87:G:OP2	2.53	0.42
3:AT:11:C:H2'	3:AT:12:A:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:25:ILE:HG23	5:CE:272:TYR:OH	2.19	0.42
5:CE:105:VAL:HG23	5:CE:199:PHE:HZ	1.85	0.42
5:CE:306:THR:HA	5:CE:307:PRO:HD3	1.94	0.42
6:CF:282:SER:OG	6:CF:283:THR:N	2.53	0.42
10:CJ:225:LYS:O	10:CJ:229:VAL:HG13	2.20	0.42
14:CN:76:THR:HG22	14:CN:101:ARG:HG2	2.02	0.42
15:CO:135:LEU:HD23	15:CO:135:LEU:HA	1.87	0.42
16:CP:143:ARG:HE	36:DJ:92:LEU:CD2	2.33	0.42
18:CR:67:ILE:HD12	18:CR:82:ARG:CZ	2.49	0.42
18:CR:67:ILE:HD12	18:CR:82:ARG:NH1	2.35	0.42
19:CS:82:VAL:N	19:CS:138:LEU:O	2.39	0.42
21:CU:83:SER:N	21:CU:86:GLY:O	2.52	0.42
27:DA:85:VAL:HG23	27:DA:85:VAL:O	2.20	0.42
31:DE:38:LYS:HA	31:DE:38:LYS:HD2	1.83	0.42
31:DE:42:ILE:CG1	31:DE:67:VAL:HG12	2.50	0.42
47:A:12:U:H2'	47:A:13:C:C6	2.54	0.42
47:A:1195:C:N4	64:R:143:ARG:HA	2.35	0.42
47:A:1408:G:H2'	47:A:1409:G:O4'	2.19	0.42
47:A:1413:U:H4'	47:A:1414:U:OP2	2.19	0.42
48:B:54:TRP:O	48:B:58:VAL:HG13	2.20	0.42
50:D:56:ILE:HG23	50:D:61:LEU:HB2	2.02	0.42
51:E:62:ASN:O	51:E:62:ASN:ND2	2.52	0.42
53:G:74:ALA:N	64:R:114:ARG:HD3	2.34	0.42
55:I:21:ALA:O	55:I:24:PHE:HB2	2.20	0.42
55:I:142:TYR:O	70:X:49:GLU:HG3	2.20	0.42
60:N:42:ALA:HB3	60:N:122:VAL:CG2	2.49	0.42
66:T:56:LYS:HB3	66:T:60:GLU:CD	2.45	0.42
71:Y:103:LEU:O	71:Y:125:VAL:HG22	2.20	0.42
75:c:23:THR:OG1	75:c:25:VAL:O	2.37	0.42
80:h:38:ARG:HG2	80:h:67:ILE:CG2	2.50	0.42
80:h:123:ILE:HA	80:h:132:LYS:O	2.19	0.42
80:h:164:ASP:CG	80:h:165:ASP:H	2.28	0.42
80:h:249:ARG:HA	80:h:249:ARG:HD3	1.93	0.42
47:sR:1232:U:H2'	47:sR:1233:G:O4'	2.20	0.42
47:sR:1347:U:O2	47:sR:1516:A:H5'	2.20	0.42
47:sR:1381:U:O4	47:sR:1382:A:N6	2.53	0.42
47:sR:1499:G:OP1	67:c9:73:VAL:HG23	2.19	0.42
47:sR:1514:U:H1'	51:s3:6:SER:CA	2.49	0.42
47:sR:1729:C:H2'	47:sR:1730:A:O4'	2.20	0.42
51:s3:6:SER:HB3	51:s3:9:ARG:HG3	2.02	0.42
52:s4:158:ASP:HB3	52:s4:173:ILE:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:s5:92:ARG:HE	53:s5:92:ARG:HB3	1.63	0.42
60:c2:54:ARG:HA	79:e1:128:ALA:CB	2.49	0.42
81:c7:71:PHE:CE1	81:c7:74:GLN:HB3	2.55	0.42
66:c8:61:LEU:CD1	66:c8:65:GLU:HB3	2.50	0.42
71:d3:132:LEU:O	71:d3:133:LEU:C	2.63	0.42
72:d4:78:SER:HG	72:d4:81:GLU:HG3	1.83	0.42
1:1:143:G:H4'	3:4:145:U:OP1	2.20	0.41
1:1:426:G:H5'	33:AF:50:ILE:HG22	2.02	0.41
1:1:549:U:H2'	1:1:550:A:C8	2.55	0.41
1:1:625:G:OP1	82:1:3538:OHX:N1	2.53	0.41
1:1:653:A:O4'	1:1:2360:C:H2'	2.20	0.41
1:1:1063:G:N7	1:1:1097:G:H2'	2.35	0.41
1:1:1096:U:H4'	1:1:1097:G:O5'	2.20	0.41
1:1:1155:C:H2'	1:1:1156:C:C6	2.55	0.41
1:1:1361:U:H2'	1:1:1362:G:C8	2.55	0.41
1:1:1390:A:N6	1:1:1418:A:O2'	2.53	0.41
1:1:1498:A:H2'	1:1:1499:C:C6	2.55	0.41
1:1:2541:U:H1'	1:1:2542:U:C4'	2.48	0.41
1:1:2983:C:O2'	1:1:2984:C:H5'	2.20	0.41
1:1:3106:A:N6	1:1:3128:G:H1'	2.35	0.41
1:1:3384:U:H2'	1:1:3385:U:C6	2.55	0.41
2:3:1:G:N3	7:m:269:SER:OG	2.53	0.41
5:k:119:TYR:CE1	5:k:129:ALA:HB2	2.55	0.41
6:l:206:LEU:HB2	6:l:246:ARG:CZ	2.50	0.41
9:o:169:ILE:H	9:o:169:ILE:HG12	1.67	0.41
11:q:45:PHE:HB3	15:u:7:VAL:HG11	2.02	0.41
14:t:119:TYR:HD1	14:t:145:PHE:CE2	2.38	0.41
15:u:65:LEU:HD11	21:0:152:LEU:HD12	2.02	0.41
17:w:27:LEU:HD11	17:w:102:LEU:HB2	2.01	0.41
17:w:73:PHE:CD2	17:w:78:ARG:HD3	2.55	0.41
18:x:59:PRO:HG3	18:x:76:PHE:CG	2.55	0.41
19:y:98:LYS:C	19:y:98:LYS:HD2	2.45	0.41
44:AQ:73:THR:CG2	44:AQ:76:ALA:H	2.33	0.41
1:AR:65:A:H2'	1:AR:110:G:N7	2.35	0.41
1:AR:502:U:OP1	82:CH:201:OHX:N6	2.53	0.41
1:AR:1077:U:H2'	1:AR:1078:U:C6	2.54	0.41
1:AR:1097:G:C8	22:CV:128:LEU:HD13	2.55	0.41
1:AR:1735:G:O6	82:AR:3469:OHX:N5	2.53	0.41
1:AR:2393:G:H2'	1:AR:2947:G:O5'	2.20	0.41
1:AR:2571:U:H4'	1:AR:2572:C:OP1	2.20	0.41
1:AR:2713:U:H3'	43:DQ:9:LYS:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:3215:A:OP2	15:CO:125:LYS:NZ	2.52	0.41
1:AR:3250:U:H2'	1:AR:3251:U:C6	2.55	0.41
4:CD:52:SER:HB3	4:CD:191:LEU:HD23	2.01	0.41
5:CE:114:VAL:HG12	5:CE:118:PHE:HE1	1.85	0.41
11:CK:92:TYR:CZ	11:CK:101:VAL:HG11	2.55	0.41
12:CL:34:TYR:O	12:CL:88:ARG:HA	2.19	0.41
20:CT:150:GLN:HA	20:CT:153:LYS:HB3	2.02	0.41
32:DF:31:ARG:O	32:DF:35:GLU:HB2	2.20	0.41
32:DF:71:LEU:HD23	32:DF:71:LEU:HA	1.74	0.41
32:DF:96:VAL:HG23	32:DF:98:VAL:HG13	2.01	0.41
34:DH:55:ALA:O	34:DH:63:LYS:HB3	2.20	0.41
35:DI:42:PRO:C	35:DI:43:LYS:HD2	2.45	0.41
47:A:36:C:H2'	47:A:37:U:O4'	2.19	0.41
47:A:47:A:N7	47:A:98:U:O2'	2.49	0.41
47:A:140:A:N6	47:A:281:G:OP1	2.53	0.41
47:A:493:U:H2'	47:A:494:U:C6	2.55	0.41
47:A:688:G:N7	82:A:2135:OHX:N1	2.68	0.41
47:A:766:U:H1'	47:A:771:A:N1	2.35	0.41
47:A:772:G:N2	47:A:774:A:H1'	2.35	0.41
47:A:894:U:H2'	47:A:895:G:H8	1.83	0.41
47:A:1057:U:H4'	47:A:1058:U:H5'	2.01	0.41
47:A:1611:A:H4'	53:G:98:MET:HE3	2.02	0.41
52:F:123:LEU:HB3	52:F:159:THR:HG23	2.01	0.41
56:J:106:ALA:CB	56:J:165:LEU:HG	2.49	0.41
57:K:115:LYS:HD2	57:K:115:LYS:HA	1.68	0.41
66:T:33:THR:HA	66:T:38:VAL:HG23	2.01	0.41
67:U:26:GLY:O	67:U:28:LEU:HG	2.20	0.41
67:U:77:ASN:HB3	67:U:95:ASP:HB3	2.02	0.41
70:X:28:ARG:HA	70:X:29:PRO:HA	1.83	0.41
70:X:104:LEU:HA	70:X:126:LEU:H	1.85	0.41
74:b:30:ILE:HG23	74:b:35:ALA:HB2	2.00	0.41
79:g:117:LEU:HD12	79:g:118:ARG:HB2	2.02	0.41
80:h:81:LEU:HD23	80:h:81:LEU:HA	1.90	0.41
47:sR:700:C:H1'	47:sR:739:G:N2	2.34	0.41
47:sR:885:G:H21	62:c4:123:SER:HB2	1.83	0.41
47:sR:1355:C:H2'	47:sR:1356:U:H6	1.85	0.41
80:Rb:115:ILE:CG2	80:Rb:122:ILE:HD12	2.45	0.41
48:s0:101:ARG:NH1	48:s0:103:THR:HA	2.35	0.41
49:s1:66:VAL:CA	62:c4:34:SER:HB2	2.49	0.41
49:s1:72:ASP:CG	74:d6:59:TYR:HH	2.28	0.41
49:s1:201:THR:HB	49:s1:207:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:s4:85:GLY:O	52:s4:101:LEU:HB2	2.20	0.41
53:s5:20:PHE:CD1	53:s5:35:GLN:HB2	2.55	0.41
53:s5:213:LYS:O	53:s5:217:LEU:HB3	2.20	0.41
58:c0:21:VAL:HG23	58:c0:66:TYR:CD2	2.55	0.41
61:c3:91:LEU:HD23	61:c3:91:LEU:HA	1.77	0.41
66:c8:13:HIS:O	66:c8:15:LEU:HD22	2.20	0.41
66:c8:25:ASN:O	66:c8:57:ARG:HD2	2.20	0.41
73:d5:51:LEU:O	73:d5:51:LEU:HD23	2.20	0.41
1:1:423:A:C6	1:1:424:G:C6	3.08	0.41
1:1:789:A:H2'	1:1:790:U:C6	2.55	0.41
1:1:978:G:H1'	1:1:1104:G:N2	2.35	0.41
1:1:1104:G:H8	1:1:1104:G:O5'	2.03	0.41
1:1:1696:A:OP2	82:1:4151:OHX:N1	2.53	0.41
1:1:2258:U:H2'	1:1:2259:A:O4'	2.20	0.41
1:1:2386:A:N6	1:1:2993:G:O2'	2.47	0.41
1:1:2922:G:N3	1:1:2952:G:H1'	2.36	0.41
1:1:3145:C:H2'	1:1:3146:G:C8	2.55	0.41
2:3:109:G:H5"	7:m:279:LYS:NZ	2.35	0.41
2:3:112:G:H2'	2:3:113:C:H6	1.83	0.41
3:4:118:C:H2'	3:4:119:C:C6	2.55	0.41
6:l:131:VAL:O	6:l:135:VAL:HG23	2.18	0.41
6:l:351:PRO:HB3	9:o:70:LYS:HD2	2.02	0.41
8:n:40:LEU:HB3	8:n:84:VAL:HG13	2.01	0.41
8:n:54:TYR:HA	8:n:65:ILE:HG22	2.02	0.41
10:p:171:LYS:HD3	10:p:226:TYR:HD2	1.85	0.41
10:p:245:LYS:HE3	10:p:245:LYS:HB3	1.73	0.41
11:q:21:LYS:C	15:u:8:LYS:HD3	2.44	0.41
11:q:79:ILE:O	11:q:83:THR:HG23	2.20	0.41
12:r:38:LYS:HD3	12:r:41:ALA:HB2	2.01	0.41
12:r:65:LEU:HD23	12:r:65:LEU:HA	1.90	0.41
13:s:53:THR:OG1	13:s:61:ARG:N	2.53	0.41
13:s:115:LYS:H	13:s:115:LYS:CD	2.25	0.41
14:t:55:ARG:O	14:t:115:ARG:NH2	2.50	0.41
16:v:73:ARG:O	16:v:75:VAL:HG22	2.20	0.41
16:v:146:ALA:HA	16:v:149:ASN:CG	2.44	0.41
17:w:37:ARG:HA	17:w:107:GLY:H	1.85	0.41
17:w:124:LEU:HD12	17:w:124:LEU:HA	1.80	0.41
19:y:8:LYS:HE3	30:AC:18:ARG:NH2	2.35	0.41
23:5:41:ILE:HD12	23:5:71:PHE:HE2	1.84	0.41
29:AB:74:ASN:C	29:AB:76:ASP:H	2.28	0.41
31:AD:58:TYR:OH	35:AH:97:GLU:OE1	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:AH:46:ASP:OD2	35:AH:88:ARG:HD2	2.20	0.41
36:AI:92:LEU:HB3	36:AI:96:GLU:OE1	2.20	0.41
44:AQ:38:ASP:OD1	44:AQ:45:LYS:HB3	2.20	0.41
1:AR:262:U:H2'	1:AR:263:C:O4'	2.20	0.41
1:AR:1056:U:H2'	1:AR:1057:A:O4'	2.19	0.41
1:AR:1108:U:H2'	1:AR:1109:U:H6	1.85	0.41
1:AR:1321:G:N2	21:CU:112:ALA:HB2	2.34	0.41
1:AR:1766:G:N7	20:CT:46:LYS:HE2	2.35	0.41
1:AR:1855:U:H2'	1:AR:1856:C:C6	2.55	0.41
1:AR:2768:U:H2'	1:AR:2769:A:C8	2.56	0.41
1:AR:2915:U:OP1	5:CE:9:PRO:HD3	2.20	0.41
1:AR:2953:U:O4	82:AR:4153:OHX:N2	2.53	0.41
1:AR:3237:U:H2'	1:AR:3238:G:O4'	2.20	0.41
1:AR:3295:A:OP2	5:CE:126:LYS:N	2.49	0.41
2:AS:52:G:HO2'	2:AS:53:U:P	2.41	0.41
5:CE:77:THR:CG2	5:CE:327:CYS:HA	2.50	0.41
6:CF:321:LYS:HA	6:CF:324:LEU:HB3	2.01	0.41
7:CG:95:TRP:CH2	7:CG:161:GLY:HA2	2.55	0.41
7:CG:260:PHE:HB2	7:CG:265:TYR:HE1	1.81	0.41
9:CI:165:ASP:O	9:CI:168:ILE:HG22	2.20	0.41
9:CI:236:ILE:HD12	9:CI:236:ILE:HA	1.92	0.41
14:CN:47:ALA:HB1	14:CN:48:PRO:HD2	2.01	0.41
15:CO:17:VAL:HG11	15:CO:74:ARG:HA	2.01	0.41
17:CQ:124:LEU:HD21	21:CU:168:PRO:HD2	2.03	0.41
24:CX:25:CYS:O	82:CX:201:OHX:N3	2.53	0.41
34:DH:14:LEU:HD11	34:DH:31:LYS:HB2	2.02	0.41
36:DJ:67:ARG:HG3	36:DJ:80:LEU:HD13	2.00	0.41
47:A:150:U:H4'	54:H:132:ARG:NH1	2.35	0.41
47:A:552:G:C6	47:A:553:G:C6	3.08	0.41
47:A:820:U:H3'	47:A:821:U:H5"	2.02	0.41
47:A:1144:U:H2'	47:A:1145:U:O4'	2.20	0.41
47:A:1146:G:N3	47:A:1635:A:H2	2.17	0.41
47:A:1166:A:O2'	47:A:1587:A:H4'	2.20	0.41
47:A:1350:U:H2'	47:A:1351:G:C8	2.55	0.41
49:C:31:ASP:O	49:C:32:ILE:HG13	2.20	0.41
49:C:127:VAL:O	49:C:134:VAL:HA	2.20	0.41
49:C:144:ARG:HB3	49:C:206:PRO:HB2	1.99	0.41
52:F:143:ASP:CG	52:F:145:ARG:HD2	2.45	0.41
53:G:169:ASN:O	53:G:172:ILE:HG13	2.19	0.41
63:Q:14:THR:OG1	63:Q:15:HIS:N	2.53	0.41
67:U:129:GLN:O	67:U:132:LEU:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Z:36:SER:O	72:Z:40:LEU:HD13	2.20	0.41
76:d:33:LEU:HD23	76:d:33:LEU:HA	1.81	0.41
80:h:22:SER:HB2	80:h:70:ASP:HA	2.02	0.41
80:h:47:LEU:HA	80:h:54:PHE:O	2.19	0.41
80:h:218:GLY:O	80:h:236:ALA:N	2.43	0.41
47:sR:94:U:H4'	52:s4:6:LYS:HA	2.01	0.41
47:sR:199:G:O2'	47:sR:200:A:H8	2.02	0.41
47:sR:542:A:OP1	47:sR:542:A:H3'	2.20	0.41
47:sR:1216:C:N3	47:sR:1448:G:N2	2.68	0.41
47:sR:1559:A:H5"	66:c8:135:GLY:HA3	2.01	0.41
47:sR:1799:U:H4'	47:sR:1800:A:H5"	2.02	0.41
48:s0:52:LYS:HG2	69:d1:82:VAL:HA	2.02	0.41
48:s0:195:TRP:CD1	48:s0:196:SER:N	2.88	0.41
50:s2:83:ILE:HA	50:s2:99:LYS:O	2.20	0.41
52:s4:18:TRP:HH2	52:s4:31:PRO:HD3	1.84	0.41
53:s5:142:PRO:CG	53:s5:217:LEU:HD11	2.50	0.41
55:s7:23:ALA:C	55:s7:26:GLU:HG3	2.46	0.41
60:c2:68:GLU:HG3	60:c2:70:ASN:HB3	2.01	0.41
61:c3:26:PHE:CD2	61:c3:66:ILE:HD12	2.55	0.41
72:d4:43:LYS:HA	72:d4:43:LYS:HD3	1.82	0.41
1:1:40:A:N7	29:AB:29:PRO:O	2.53	0.41
1:1:48:A:H5"	14:t:16:LYS:HD3	2.02	0.41
1:1:239:G:O6	82:1:3533:OHX:N1	2.53	0.41
1:1:265:A:H5"	1:1:266:A:OP2	2.20	0.41
1:1:541:U:H2'	1:1:542:G:H8	1.85	0.41
1:1:606:C:O2'	1:1:607:A:N3	2.51	0.41
1:1:920:A:OP1	1:1:923:C:N4	2.49	0.41
1:1:1119:C:H2'	1:1:1120:A:C8	2.54	0.41
1:1:1364:C:H5"	19:y:3:ILE:HD12	2.02	0.41
1:1:1729:A:H5'	31:AD:52:ARG:HH12	1.86	0.41
1:1:2339:C:OP2	24:6:48:ARG:HG3	2.20	0.41
1:1:2689:A:N3	1:1:2689:A:H2'	2.36	0.41
1:1:2707:C:H2'	1:1:2708:C:C6	2.56	0.41
1:1:2713:U:H3'	43:AP:9:LYS:O	2.20	0.41
1:1:3071:U:H2'	1:1:3072:C:O4'	2.20	0.41
2:3:28:C:O3'	13:s:135:GLY:HA2	2.20	0.41
6:l:39:PHE:C	6:l:39:PHE:CD1	2.98	0.41
6:l:136:LEU:HD23	6:l:136:LEU:HA	1.94	0.41
10:p:64:ILE:O	10:p:68:ARG:HG2	2.21	0.41
12:r:65:LEU:HD23	12:r:159:PHE:CE1	2.55	0.41
15:u:102:LYS:N	15:u:102:LYS:HD3	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:w:23:VAL:HB	17:w:84:LEU:HD21	2.01	0.41
17:w:108:ILE:HD13	17:w:117:ARG:HD3	2.02	0.41
17:w:138:LEU:HD12	17:w:138:LEU:HA	1.78	0.41
19:y:50:LYS:HE3	19:y:50:LYS:HB3	1.91	0.41
20:z:159:ALA:HA	20:z:162:ARG:HH11	1.86	0.41
22:2:121:ALA:HB3	22:2:122:GLN:OE1	2.20	0.41
25:7:4:GLU:HG2	25:7:30:ARG:NE	2.36	0.41
45:i:72:ARG:HD2	66:T:146:ALA:HB3	2.01	0.41
45:i:131:ILE:HA	45:i:134:ASP:HB2	2.01	0.41
1:AR:114:A:H2'	1:AR:115:A:O4'	2.21	0.41
1:AR:1348:U:H5"	1:AR:1355:A:H61	1.85	0.41
1:AR:1887:A:H1'	5:CE:226:PHE:HD2	1.84	0.41
1:AR:1888:U:H2'	1:AR:1889:G:O4'	2.20	0.41
1:AR:2252:A:H2'	1:AR:2253:G:O4'	2.19	0.41
1:AR:2592:G:H4'	1:AR:2594:C:C2	2.55	0.41
1:AR:2955:U:OP2	1:AR:2977:G:N2	2.52	0.41
1:AR:3266:G:C6	1:AR:3267:A:C6	3.08	0.41
1:AR:3316:A:N6	5:CE:124:LYS:HA	2.35	0.41
7:CG:211:LEU:HD23	7:CG:211:LEU:HA	1.83	0.41
14:CN:166:ALA:HB1	29:DC:147:LEU:HD21	2.02	0.41
14:CN:179:PHE:O	14:CN:182:ILE:HG22	2.20	0.41
15:CO:99:TRP:O	15:CO:103:ILE:HG13	2.20	0.41
17:CQ:192:LYS:HB3	17:CQ:192:LYS:HE2	1.67	0.41
20:CT:97:ARG:O	20:CT:101:VAL:HG13	2.20	0.41
20:CT:158:GLU:C	20:CT:160:GLU:H	2.28	0.41
22:CV:51:GLY:HA3	22:CV:92:ARG:HG3	2.02	0.41
31:DE:34:LEU:HD23	31:DE:39:SER:HB3	2.01	0.41
31:DE:57:GLU:OE2	31:DE:69:TYR:OH	2.32	0.41
32:DF:16:LEU:N	32:DF:69:TYR:O	2.53	0.41
47:A:591:A:H5"	57:K:24:LEU:HD21	2.02	0.41
47:A:1070:C:H2'	47:A:1071:U:C6	2.55	0.41
47:A:1227:A:N6	47:A:1256:A:O2'	2.53	0.41
47:A:1230:A:H2'	47:A:1258:U:C5	2.56	0.41
47:A:1277:G:O3'	51:E:183:GLY:HA3	2.19	0.41
47:A:1682:U:O4	47:A:1720:G:N2	2.54	0.41
49:C:57:ALA:HB1	49:C:61:LEU:CD2	2.46	0.41
49:C:189:ILE:N	49:C:190:PRO:HD2	2.35	0.41
49:C:209:ASN:OD1	49:C:211:HIS:HE1	2.03	0.41
52:F:11:ARG:HG3	52:F:26:CYS:C	2.45	0.41
53:G:224:ASN:O	53:G:225:ARG:HB2	2.20	0.41
54:H:142:ARG:HG2	54:H:153:VAL:CG1	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:I:154:LEU:HD21	55:I:183:PHE:CD2	2.40	0.41
57:K:136:VAL:HG23	57:K:137:GLY:N	2.34	0.41
62:P:19:ILE:HB	62:P:83:ILE:HG13	2.02	0.41
62:P:55:SER:HB2	62:P:96:PRO:HG2	2.01	0.41
63:Q:12:PHE:O	63:Q:13:LYS:HB2	2.20	0.41
63:Q:110:GLU:CB	66:T:119:ILE:HD11	2.51	0.41
64:R:11:GLY:HA3	64:R:80:ALA:O	2.20	0.41
67:U:4:VAL:O	67:U:133:ASP:OD2	2.38	0.41
68:V:26:LEU:O	68:V:89:ARG:N	2.41	0.41
68:V:114:VAL:C	68:V:115:GLU:HG2	2.44	0.41
74:b:25:ASN:ND2	74:b:77:CYS:SG	2.92	0.41
76:d:64:ARG:HH11	76:d:64:ARG:HG3	1.84	0.41
47:sR:101:U:H2'	47:sR:102:U:O4'	2.20	0.41
47:sR:175:G:H22	47:sR:266:A:P	2.43	0.41
47:sR:370:A:H2'	47:sR:371:G:O4'	2.19	0.41
47:sR:517:U:H2'	47:sR:518:A:O4'	2.19	0.41
47:sR:1697:G:H2'	47:sR:1697:G:N3	2.35	0.41
48:s0:89:PHE:CD2	48:s0:178:ALA:HB2	2.55	0.41
49:s1:91:VAL:HA	49:s1:96:LEU:HA	2.02	0.41
52:s4:21:ASP:OD2	52:s4:24:SER:N	2.52	0.41
55:s7:100:PRO:HG2	55:s7:108:GLN:NE2	2.35	0.41
66:c8:16:ARG:O	66:c8:17:LEU:HD22	2.20	0.41
66:c8:42:TYR:HA	66:c8:85:PHE:HE1	1.86	0.41
67:c9:68:ARG:HG3	67:c9:69:LYS:N	2.30	0.41
70:d2:95:PRO:HD3	70:d2:130:TYR:CD2	2.55	0.41
71:d3:87:VAL:HA	71:d3:88:PRO:HD3	1.90	0.41
71:d3:130:VAL:HB	71:d3:135:LEU:HD11	2.02	0.41
72:d4:52:LYS:C	72:d4:54:ALA:N	2.77	0.41
76:d8:10:ALA:O	76:d8:53:ILE:HA	2.21	0.41
79:e1:135:HIS:NE2	79:e1:138:ARG:HB3	2.34	0.41
1:1:287:G:H2'	1:1:288:C:O4'	2.19	0.41
1:1:544:C:O2'	1:1:548:G:N2	2.53	0.41
1:1:600:G:N2	1:1:603:A:OP2	2.36	0.41
1:1:656:A:H2'	1:1:657:A:C8	2.55	0.41
1:1:1060:U:H2'	1:1:1061:A:H8	1.86	0.41
1:1:1308:A:O2'	1:1:1311:G:OP1	2.24	0.41
1:1:1334:U:HO2'	9:o:151:ARG:NH2	2.18	0.41
1:1:1460:A:H5'	32:AE:51:LEU:O	2.21	0.41
1:1:1696:A:H2'	1:1:1697:A:C8	2.56	0.41
1:1:2379:U:H2'	1:1:2380:U:C6	2.55	0.41
1:1:2522:G:O6	4:j:68:LYS:NZ	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2669:G:N7	82:1:4120:OHX:N3	2.69	0.41
1:1:2947:G:N3	5:k:250:ALA:HB1	2.34	0.41
3:4:94:C:O2'	3:4:95:G:H5"	2.20	0.41
8:n:76:LEU:HD21	8:n:141:VAL:HG21	2.01	0.41
12:r:63:GLU:CD	12:r:63:GLU:H	2.29	0.41
13:s:26:SER:HB3	13:s:63:GLU:O	2.19	0.41
13:s:52:TYR:HA	13:s:61:ARG:HG3	2.03	0.41
20:z:163:ARG:O	20:z:167:ARG:HG3	2.21	0.41
23:5:30:PRO:HA	23:5:33:TYR:HB3	2.01	0.41
23:5:80:THR:HG21	23:5:95:PHE:HD2	1.83	0.41
28:AA:109:GLU:O	28:AA:112:LYS:HB2	2.20	0.41
29:AB:2:PRO:HG2	29:AB:5:PHE:CE2	2.56	0.41
31:AD:27:TYR:OH	31:AD:55:GLU:OE1	2.28	0.41
35:AH:112:ALA:O	35:AH:113:LYS:HE2	2.19	0.41
36:AI:110:ALA:C	36:AI:112:PRO:HD3	2.45	0.41
37:AJ:56:ARG:HH12	37:AJ:76:ARG:HD2	1.84	0.41
1:AR:401:U:H4'	1:AR:403:C:C2	2.56	0.41
1:AR:593:C:C4	1:AR:594:U:C4	3.08	0.41
1:AR:694:C:H4'	6:CF:232:SER:O	2.19	0.41
1:AR:740:G:O6	82:AR:3466:OHX:N6	2.54	0.41
1:AR:1538:G:O2'	1:AR:1583:A:N6	2.52	0.41
1:AR:1624:G:O6	82:AR:3550:OHX:N5	2.53	0.41
1:AR:2357:A:C6	1:AR:2983:C:H5	2.39	0.41
1:AR:2519:A:N6	1:AR:2589:G:C6	2.89	0.41
1:AR:2537:U:HO2'	1:AR:2538:U:C5'	2.32	0.41
1:AR:2761:G:H1'	1:AR:2800:G:H21	1.85	0.41
1:AR:3305:A:H2'	1:AR:3306:U:O4'	2.20	0.41
1:AR:3365:U:H2'	1:AR:3366:G:C8	2.55	0.41
4:CD:140:ASN:O	4:CD:144:ASN:HA	2.20	0.41
5:CE:89:VAL:HG12	5:CE:105:VAL:HG22	2.02	0.41
6:CF:26:PHE:HA	6:CF:127:ALA:HA	2.01	0.41
8:CH:8:LYS:H	8:CH:8:LYS:CD	2.32	0.41
10:CJ:52:TRP:NE1	10:CJ:60:ARG:HH12	2.19	0.41
10:CJ:153:ILE:HD13	10:CJ:166:LEU:HB3	2.02	0.41
11:CK:12:VAL:HG22	11:CK:51:GLN:HA	2.03	0.41
13:CM:75:LYS:HD2	13:CM:75:LYS:HA	1.32	0.41
14:CN:106:GLN:HB3	37:DK:18:THR:OG1	2.21	0.41
14:CN:116:LEU:O	14:CN:120:GLN:HG3	2.21	0.41
16:CP:190:THR:O	16:CP:194:GLN:HG2	2.21	0.41
19:CS:94:PHE:CE2	29:DC:119:PRO:HD3	2.55	0.41
22:CV:86:GLU:OE1	22:CV:88:ARG:NH1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:CZ:57:LEU:HD12	26:CZ:57:LEU:HA	1.62	0.41
29:DC:49:HIS:N	29:DC:50:PRO:CD	2.83	0.41
32:DF:10:ARG:HG3	32:DF:44:MET:HE1	2.01	0.41
47:A:2:A:O2'	50:D:198:THR:O	2.37	0.41
47:A:138:A:H61	47:A:266:A:H61	1.67	0.41
47:A:327:U:H2'	47:A:328:A:H8	1.82	0.41
47:A:679:U:H2'	47:A:680:U:C6	2.56	0.41
47:A:707:A:N6	47:A:730:G:H1	2.19	0.41
47:A:711:U:H4'	47:A:712:G:OP1	2.20	0.41
47:A:1451:C:H2'	47:A:1452:U:H6	1.84	0.41
82:A:2131:OHX:N4	54:H:155:ASP:OD2	2.53	0.41
49:C:22:ASP:N	49:C:23:PRO:HD3	2.35	0.41
51:E:105:MET:HA	51:E:108:LYS:HB2	2.03	0.41
53:G:54:LYS:HD2	53:G:54:LYS:HA	1.76	0.41
54:H:9:VAL:HG23	54:H:10:ASN:OD1	2.21	0.41
54:H:63:MET:HE2	54:H:63:MET:HB3	1.87	0.41
55:I:11:GLN:HG2	55:I:13:PRO:HD2	2.01	0.41
56:J:116:HIS:HA	56:J:146:ARG:NH1	2.35	0.41
56:J:142:LYS:O	56:J:142:LYS:HD3	2.21	0.41
57:K:135:ALA:CB	57:K:140:ILE:HA	2.49	0.41
58:L:27:PHE:O	58:L:28:ASN:HB2	2.20	0.41
64:R:95:LYS:HA	80:h:59:ARG:HH12	1.85	0.41
68:V:34:LEU:O	68:V:38:SER:HB3	2.20	0.41
69:W:78:LEU:O	69:W:79:LEU:HD23	2.21	0.41
72:Z:9:THR:O	72:Z:9:THR:OG1	2.38	0.41
74:b:59:TYR:O	74:b:61:GLU:N	2.54	0.41
79:g:110:ALA:HB3	79:g:113:LYS:HE2	2.01	0.41
47:sR:25:C:H4'	47:sR:26:A:O5'	2.19	0.41
47:sR:341:A:H2'	47:sR:342:C:C6	2.55	0.41
47:sR:500:C:O2'	47:sR:501:U:O4'	2.32	0.41
47:sR:845:G:O6	82:sR:1922:OHX:N1	2.53	0.41
47:sR:1068:C:H2'	47:sR:1069:A:H8	1.86	0.41
47:sR:1222:C:H2'	47:sR:1223:A:O4'	2.20	0.41
47:sR:1252:C:C5'	79:e1:103:LEU:HD21	2.51	0.41
47:sR:1333:C:H4'	51:s3:162:GLN:OE1	2.21	0.41
47:sR:1366:U:H5'	64:c6:30:LYS:NZ	2.35	0.41
47:sR:1498:G:O6	82:sR:1911:OHX:N6	2.54	0.41
47:sR:1654:G:C6	47:sR:1745:G:C6	3.08	0.41
47:sR:1699:G:H2'	47:sR:1700:C:H5'	2.01	0.41
47:sR:1776:A:H2'	47:sR:1777:G:C8	2.54	0.41
49:s1:111:ARG:NH2	62:c4:121:VAL:HG11	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:s4:153:ASN:HB2	52:s4:172:PHE:CZ	2.54	0.41
52:s4:166:SER:O	52:s4:166:SER:OG	2.33	0.41
61:c3:29:SER:O	61:c3:30:SER:C	2.62	0.41
68:d0:50:LEU:O	68:d0:51:VAL:HG13	2.20	0.41
69:d1:17:CYS:HB2	69:d1:56:SER:HB3	2.02	0.41
69:d1:30:ALA:O	69:d1:60:ARG:HD3	2.20	0.41
72:d4:76:TYR:HB2	72:d4:82:ALA:HB2	2.01	0.41
1:1:120:G:N7	10:p:128:LYS:HG3	2.36	0.41
1:1:274:G:H2'	1:1:275:U:O4'	2.20	0.41
1:1:839:C:H2'	1:1:840:C:H6	1.85	0.41
1:1:916:G:H5'	1:1:917:A:OP1	2.20	0.41
1:1:945:C:H2'	1:1:946:U:H6	1.85	0.41
1:1:1460:A:H2'	1:1:1461:A:C8	2.55	0.41
1:1:1470:U:H2'	1:1:1471:U:C6	2.55	0.41
1:1:1845:G:H3'	1:1:1846:C:H5'	2.03	0.41
1:1:1856:C:H2'	1:1:1857:C:C6	2.56	0.41
1:1:1902:G:C6	1:1:1903:U:C2	3.09	0.41
1:1:2789:U:H2'	1:1:2790:A:C8	2.56	0.41
82:1:4089:OHX:N6	29:AB:23:GLY:HA3	2.36	0.41
3:4:129:C:H2'	3:4:130:C:C6	2.56	0.41
6:l:302:ALA:HB2	19:y:39:ARG:CZ	2.49	0.41
6:l:329:PRO:HB3	9:o:41:ARG:NH2	2.36	0.41
7:m:111:GLN:NE2	7:m:252:ALA:HA	2.36	0.41
7:m:215:ASP:OD2	7:m:218:ARG:HB2	2.20	0.41
7:m:258:LYS:HE2	7:m:258:LYS:HB3	1.67	0.41
7:m:295:GLY:C	7:m:296:GLN:HG2	2.45	0.41
8:n:136:GLU:O	8:n:140:VAL:HG23	2.21	0.41
10:p:61:GLN:HB3	16:v:28:TRP:CH2	2.55	0.41
10:p:78:PHE:C	10:p:80:TYR:N	2.75	0.41
11:q:74:LEU:HD23	11:q:74:LEU:HA	1.83	0.41
19:y:162:ALA:HA	19:y:163:PRO:HD2	1.93	0.41
21:0:158:LYS:HA	21:0:158:LYS:HD2	1.75	0.41
24:6:32:ARG:HD3	24:6:32:ARG:HA	1.84	0.41
27:9:48:LEU:HD11	27:9:119:ILE:HG12	2.01	0.41
30:AC:19:ASN:O	30:AC:22:LYS:HE2	2.20	0.41
41:AN:127:LEU:HD12	41:AN:128:LYS:H	1.86	0.41
1:AR:361:A:O3'	38:DL:45:ARG:NH2	2.54	0.41
1:AR:377:A:H1'	1:AR:392:G:N2	2.35	0.41
1:AR:409:A:N1	1:AR:1441:G:O2'	2.44	0.41
1:AR:619:A:H4'	1:AR:620:U:H5'	2.03	0.41
1:AR:810:A:H2'	1:AR:811:U:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:938:C:C5	29:DC:26:ARG:HD2	2.55	0.41
1:AR:999:G:C6	1:AR:1000:C:N4	2.88	0.41
1:AR:1155:C:O2'	1:AR:1197:A:N1	2.43	0.41
1:AR:1388:U:OP2	82:AR:3510:OHX:N1	2.54	0.41
1:AR:1700:G:H2'	1:AR:1701:C:C6	2.56	0.41
1:AR:2364:G:H22	1:AR:2396:G:H1'	1.85	0.41
1:AR:2434:U:H4'	1:AR:2435:G:O5'	2.21	0.41
1:AR:2571:U:C1'	1:AR:2572:C:H5'	2.50	0.41
1:AR:3052:G:H2'	1:AR:3053:G:H8	1.84	0.41
2:AS:2:G:O2'	2:AS:23:A:N1	2.44	0.41
2:AS:42:A:H2'	2:AS:43:U:H6	1.85	0.41
2:AS:52:G:O2'	2:AS:53:U:OP1	2.30	0.41
2:AS:75:G:OP1	82:AS:201:OHX:N5	2.53	0.41
2:AS:112:G:OP2	82:AS:205:OHX:N2	2.53	0.41
5:CE:169:THR:O	82:CE:401:OHX:N1	2.54	0.41
6:CF:219:LEU:HD23	6:CF:219:LEU:HA	1.85	0.41
12:CL:86:HIS:HB3	12:CL:139:ARG:CG	2.50	0.41
14:CN:122:LYS:HA	36:DJ:120:ALA:HA	2.03	0.41
15:CO:19:ARG:HG2	15:CO:65:LEU:HD22	2.02	0.41
15:CO:76:ALA:HB1	15:CO:80:THR:OG1	2.19	0.41
17:CQ:65:ASN:HB3	17:CQ:68:ARG:HD3	2.03	0.41
20:CT:77:GLY:O	20:CT:81:ARG:NE	2.54	0.41
22:CV:14:MET:HE3	22:CV:55:LYS:HB2	2.03	0.41
24:CX:10:LYS:HG2	24:CX:11:PHE:O	2.19	0.41
24:CX:109:MET:HB3	24:CX:109:MET:HE2	1.69	0.41
26:CZ:42:ARG:C	26:CZ:44:PRO:HD3	2.46	0.41
32:DF:78:LYS:O	32:DF:89:LEU:HB3	2.21	0.41
33:DG:59:SER:HB2	33:DG:64:LYS:HG3	2.03	0.41
35:DI:82:ALA:HA	35:DI:85:VAL:HG22	2.03	0.41
47:A:112:A:H5"	59:M:68:GLY:HA2	2.03	0.41
47:A:693:U:C5'	47:A:694:U:H5'	2.50	0.41
47:A:747:C:H4'	70:X:80:ASN:CG	2.45	0.41
47:A:794:U:O2'	47:A:795:U:O2	2.37	0.41
47:A:1026:A:O5'	82:A:2140:OHX:N2	2.53	0.41
47:A:1305:U:H6	82:A:1911:OHX:N1	2.18	0.41
47:A:1474:G:H5'	53:G:102:ARG:HH21	1.85	0.41
47:A:1489:U:H6	47:A:1492:A:H2	1.69	0.41
52:F:185:GLY:N	52:F:189:LEU:HD12	2.35	0.41
54:H:32:ILE:CG2	54:H:65:GLN:HG3	2.49	0.41
64:R:35:PRO:HG3	67:U:8:ASP:HA	2.03	0.41
80:h:31:ASN:O	80:h:46:LYS:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:h:169:ILE:O	80:h:181:TRP:N	2.53	0.41
47:sR:12:U:H2'	47:sR:13:C:C6	2.55	0.41
47:sR:1769:U:O2'	47:sR:1770:U:H5'	2.21	0.41
80:Rb:43:ILE:HD13	80:Rb:60:SER:HA	2.01	0.41
49:s1:68:VAL:HG21	49:s1:73:LEU:HD21	2.01	0.41
49:s1:176:VAL:HA	49:s1:179:SER:HB2	2.02	0.41
56:s8:82:VAL:HG22	56:s8:196:LEU:HD21	2.01	0.41
63:c5:105:VAL:HG12	63:c5:106:GLU:O	2.20	0.41
66:c8:36:LYS:O	66:c8:102:ALA:HA	2.20	0.41
70:d2:113:HIS:O	70:d2:117:ARG:HG3	2.20	0.41
72:d4:37:LYS:HA	72:d4:40:LEU:HD12	2.02	0.41
72:d4:132:ARG:HG3	72:d4:132:ARG:O	2.21	0.41
1:1:567:G:O6	82:1:3505:OHX:N4	2.54	0.41
1:1:959:C:H5'	1:1:960:U:O5'	2.21	0.41
1:1:996:A:H2'	1:1:997:A:O4'	2.20	0.41
1:1:1019:G:C2	1:1:1020:G:H1'	2.55	0.41
1:1:1054:A:OP1	82:1:3596:OHX:N5	2.52	0.41
1:1:1090:G:H2'	1:1:1091:A:C8	2.54	0.41
1:1:1430:U:H2'	29:AB:9:ARG:NH2	2.34	0.41
1:1:1614:C:H2'	1:1:1615:C:C6	2.55	0.41
1:1:1615:C:H2'	1:1:1616:U:C6	2.56	0.41
1:1:1761:C:H1'	1:1:1762:C:H5"	2.02	0.41
1:1:1806:A:H2'	1:1:1807:G:O4'	2.20	0.41
1:1:1870:C:H4'	1:1:3076:C:O2	2.20	0.41
1:1:2563:G:H5"	10:p:27:THR:CG2	2.50	0.41
1:1:3067:C:H3'	20:z:62:ARG:HH22	1.85	0.41
1:1:3308:C:C4	1:1:3309:G:C5	3.09	0.41
2:3:7:G:OP2	7:m:28:THR:HG22	2.21	0.41
2:3:11:A:N6	7:m:13:SER:O	2.54	0.41
3:4:125:U:H3'	3:4:126:A:C8	2.56	0.41
5:k:169:THR:HG23	5:k:170:PRO:HD2	2.03	0.41
6:l:148:ILE:HA	6:l:149:PRO:C	2.45	0.41
11:q:112:ILE:O	11:q:125:ASN:HA	2.20	0.41
17:w:159:LYS:O	17:w:162:VAL:HG22	2.20	0.41
18:x:102:ALA:HA	18:x:107:LEU:HD12	2.03	0.41
18:x:172:GLN:HE21	34:AG:61:GLY:HA3	1.85	0.41
23:5:42:LYS:HG3	23:5:75:TYR:OH	2.21	0.41
24:6:120:LYS:H	24:6:137:VAL:HG23	1.86	0.41
28:AA:54:THR:HG22	28:AA:57:HIS:CD2	2.55	0.41
36:AI:31:LEU:HD11	36:AI:47:VAL:HG21	2.02	0.41
38:AK:27:PHE:HA	38:AK:34:CYS:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AL:64:LYS:HA	39:AL:64:LYS:HD2	1.74	0.41
1:AR:316:U:H4'	1:AR:317:A:H5'	2.03	0.41
1:AR:589:A:H1'	1:AR:1337:A:H5"	2.01	0.41
1:AR:794:U:H2'	1:AR:795:G:C8	2.55	0.41
1:AR:1214:U:H2'	1:AR:1215:U:C6	2.55	0.41
1:AR:1295:G:OP1	21:CU:84:ARG:HG3	2.20	0.41
1:AR:2115:G:H4'	20:CT:79:GLY:O	2.20	0.41
1:AR:2268:U:H2'	1:AR:2269:U:C6	2.54	0.41
1:AR:2277:C:H5'	1:AR:2317:A:H4'	2.01	0.41
1:AR:2714:G:H2'	1:AR:2751:G:H21	1.85	0.41
1:AR:2908:G:N7	82:AR:3404:OHX:N6	2.69	0.41
1:AR:2960:C:H2'	1:AR:2961:G:C8	2.56	0.41
1:AR:3138:U:OP2	5:CE:30:LYS:HE2	2.20	0.41
2:AS:106:U:H2'	2:AS:107:C:O4'	2.20	0.41
4:CD:67:TYR:HB2	4:CD:68:LYS:HD2	2.02	0.41
4:CD:179:LEU:O	4:CD:180:LEU:HB2	2.20	0.41
6:CF:26:PHE:HE1	6:CF:258:LEU:HD23	1.86	0.41
7:CG:260:PHE:HA	7:CG:264:GLN:OE1	2.20	0.41
9:CI:112:ASN:HD22	9:CI:112:ASN:HA	1.70	0.41
9:CI:118:LYS:HE2	9:CI:118:LYS:HB3	1.89	0.41
11:CK:27:VAL:HG12	11:CK:82:VAL:HG11	2.03	0.41
11:CK:41:ILE:HD12	11:CK:41:ILE:HA	1.93	0.41
11:CK:161:LEU:O	11:CK:164:ILE:HG22	2.20	0.41
15:CO:24:LYS:HA	15:CO:24:LYS:HD3	1.73	0.41
17:CQ:58:LEU:HA	17:CQ:72:HIS:CD2	2.55	0.41
19:CS:67:ILE:CG2	19:CS:81:VAL:HG21	2.50	0.41
23:CW:11:ILE:HG13	23:CW:12:ALA:N	2.35	0.41
29:DC:45:MET:O	29:DC:49:HIS:HB2	2.20	0.41
43:DQ:6:LYS:O	43:DQ:25:VAL:N	2.51	0.41
46:p0:280:ALA:C	46:p0:282:SER:H	2.29	0.41
47:A:188:A:N7	47:A:197:A:H2	2.17	0.41
47:A:423:G:OP1	82:A:1910:OHX:N1	2.53	0.41
47:A:607:G:OP2	47:A:613:G:N1	2.52	0.41
47:A:682:C:H2'	47:A:683:C:C6	2.55	0.41
47:A:874:C:H2'	47:A:875:G:C8	2.55	0.41
51:E:35:SER:N	51:E:51:ARG:O	2.41	0.41
52:F:246:LEU:HD11	52:F:254:ARG:HH21	1.86	0.41
56:J:76:THR:HB	56:J:105:ASP:CB	2.50	0.41
57:K:54:ARG:HA	57:K:57:ARG:HB3	2.02	0.41
57:K:132:ARG:HG3	57:K:132:ARG:O	2.20	0.41
61:O:12:SER:O	61:O:12:SER:OG	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:V:55:PRO:HA	68:V:91:ILE:CD1	2.50	0.41
80:h:269:TYR:HD1	80:h:269:TYR:H	1.69	0.41
80:h:307:ASP:OD1	80:h:309:VAL:HG22	2.21	0.41
47:sR:332:U:OP2	56:s8:175:GLN:NE2	2.52	0.41
47:sR:765:G:N1	57:s9:146:PHE:HZ	2.18	0.41
47:sR:856:A:N7	55:s7:97:ARG:HB3	2.36	0.41
47:sR:971:A:H3'	47:sR:972:G:H8	1.84	0.41
47:sR:1643:U:H2'	47:sR:1644:C:O4'	2.19	0.41
47:sR:1793:G:H1'	47:sR:1794:A:H2'	2.02	0.41
80:Rb:68:VAL:HA	80:Rb:84:SER:CA	2.50	0.41
53:s5:53:VAL:HG21	53:s5:59:VAL:HG22	2.02	0.41
55:s7:72:LYS:HA	55:s7:72:LYS:HD2	1.73	0.41
55:s7:91:ILE:HD12	55:s7:92:PHE:H	1.86	0.41
57:s9:93:LEU:O	57:s9:96:VAL:HG22	2.20	0.41
57:s9:124:HIS:CE1	57:s9:128:LEU:HD11	2.55	0.41
61:c3:26:PHE:CE2	61:c3:66:ILE:HD12	2.56	0.41
62:c4:124:ASP:OD2	74:d6:19:LYS:NZ	2.53	0.41
63:c5:134:THR:HG23	63:c5:135:THR:N	2.35	0.41
70:d2:111:MET:HB2	70:d2:115:GLU:OE1	2.20	0.41
1:1:95:A:C5	1:1:96:G:H1'	2.55	0.41
1:1:196:G:N7	82:1:3431:OHX:N4	2.69	0.41
1:1:244:G:OP1	14:t:132:ALA:HB3	2.20	0.41
1:1:345:G:O2'	3:4:25:G:N3	2.54	0.41
1:1:429:U:H2'	1:1:430:U:H6	1.86	0.41
1:1:594:U:H2'	1:1:609:G:O6	2.21	0.41
1:1:912:G:H8	1:1:912:G:O5'	2.03	0.41
1:1:1145:G:O6	1:1:1158:A:H2	2.03	0.41
1:1:1455:U:O2'	1:1:1456:A:H8	2.03	0.41
1:1:1683:A:H2'	1:1:1684:U:O4'	2.21	0.41
1:1:1815:U:O3'	1:1:1816:A:H4'	2.20	0.41
1:1:2240:G:H2'	1:1:2241:U:O4'	2.21	0.41
1:1:3301:U:O4	82:1:3423:OHX:N2	2.54	0.41
82:1:3501:OHX:N4	28:AA:56:LYS:HA	2.34	0.41
2:3:47:C:H2'	2:3:48:U:C6	2.56	0.41
5:k:49:TYR:C	5:k:79:VAL:HG23	2.46	0.41
5:k:312:VAL:O	5:k:332:ARG:NH1	2.53	0.41
11:q:132:VAL:HG12	11:q:154:VAL:HG23	2.03	0.41
16:v:199:LEU:HB3	16:v:203:ARG:HE	1.85	0.41
18:x:16:SER:CB	18:x:149:VAL:HG12	2.49	0.41
19:y:98:LYS:O	19:y:98:LYS:HD2	2.20	0.41
26:8:45:LYS:HD2	26:8:45:LYS:HA	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AB:63:LYS:HE2	29:AB:68:PHE:CE1	2.55	0.41
34:AG:60:ARG:O	34:AG:60:ARG:HG3	2.20	0.41
34:AG:69:GLY:CA	34:AG:85:PHE:HA	2.51	0.41
35:AH:106:LYS:O	35:AH:109:THR:HG22	2.20	0.41
36:AI:64:GLU:HA	36:AI:67:ARG:HB3	2.02	0.41
38:AK:18:LEU:HD13	40:AM:12:LYS:HD2	2.02	0.41
40:AM:43:ASN:HB3	40:AM:46:ARG:HD2	2.02	0.41
45:i:83:LYS:HA	45:i:83:LYS:HD3	1.88	0.41
1:AR:216:G:H4'	27:DA:19:TYR:CE1	2.55	0.41
1:AR:1234:G:P	1:AR:1235:U:H3'	2.60	0.41
1:AR:1447:G:H3'	18:CR:67:ILE:CD1	2.50	0.41
1:AR:1696:A:H2'	1:AR:1697:A:C8	2.56	0.41
1:AR:2746:A:N7	7:CG:153:THR:HG21	2.35	0.41
4:CD:90:ALA:CB	4:CD:101:VAL:HG22	2.50	0.41
5:CE:32:PHE:CD2	5:CE:182:GLN:HB2	2.56	0.41
6:CF:325:LEU:HD23	6:CF:325:LEU:HA	1.78	0.41
7:CG:50:ARG:NH2	7:CG:72:ASP:OD2	2.53	0.41
11:CK:101:VAL:HG22	11:CK:136:PHE:HZ	1.86	0.41
14:CN:2:ALA:N	29:DC:31:GLY:O	2.53	0.41
14:CN:116:LEU:HD23	14:CN:116:LEU:HA	1.77	0.41
16:CP:47:LYS:HE3	16:CP:51:LEU:HD11	2.02	0.41
20:CT:133:LYS:HB2	20:CT:134:HIS:CD2	2.56	0.41
22:CV:100:LYS:HD3	22:CV:100:LYS:O	2.21	0.41
27:DA:71:SER:N	27:DA:81:GLN:O	2.50	0.41
28:DB:4:PHE:CD1	28:DB:4:PHE:C	2.99	0.41
28:DB:21:LYS:HD3	28:DB:46:ILE:O	2.21	0.41
28:DB:98:THR:HG23	28:DB:99:GLU:H	1.85	0.41
29:DC:13:GLY:O	33:DG:36:LYS:HD2	2.21	0.41
39:DM:28:ASN:HB2	39:DM:40:GLN:HB3	2.01	0.41
47:A:488:G:H3'	47:A:489:C:C6	2.55	0.41
47:A:629:U:C2	47:A:971:A:C6	3.08	0.41
47:A:728:U:O2	47:A:728:U:H2'	2.20	0.41
47:A:793:A:H5"	47:A:794:U:H5'	2.03	0.41
47:A:887:A:O2'	62:P:122:PRO:HB3	2.21	0.41
47:A:1248:C:H2'	47:A:1249:U:C6	2.55	0.41
47:A:1264:G:H2'	47:A:1265:G:O4'	2.21	0.41
47:A:1330:G:H1	51:E:204:ASP:CG	2.29	0.41
47:A:1529:C:OP1	53:G:112:ARG:NE	2.53	0.41
48:B:170:ILE:O	48:B:174:TRP:CD1	2.74	0.41
49:C:183:GLN:HA	49:C:186:SER:OG	2.21	0.41
50:D:113:LEU:HD21	50:D:115:ILE:HD11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:F:36:HIS:CG	52:F:85:GLY:HA3	2.56	0.41
52:F:232:GLY:O	52:F:234:PRO:HD3	2.20	0.41
53:G:45:LYS:HG2	53:G:45:LYS:O	2.20	0.41
53:G:69:PHE:N	53:G:69:PHE:CD1	2.89	0.41
54:H:23:ARG:CZ	54:H:42:GLY:HA2	2.50	0.41
54:H:44:GLU:H	54:H:44:GLU:CD	2.24	0.41
62:P:114:ARG:HA	74:b:62:TYR:OH	2.20	0.41
64:R:46:PHE:HA	64:R:49:TYR:HB2	2.01	0.41
66:T:66:LEU:HD23	66:T:69:ILE:HD12	2.01	0.41
66:T:92:ILE:HD12	66:T:92:ILE:HA	1.93	0.41
67:U:58:ALA:HA	67:U:61:VAL:CG1	2.51	0.41
67:U:113:ILE:O	67:U:113:ILE:HG22	2.20	0.41
68:V:20:ILE:HG13	68:V:21:LYS:H	1.86	0.41
70:X:24:GLN:HE22	75:c:3:LEU:C	2.29	0.41
80:h:122:ILE:O	80:h:133:VAL:HA	2.20	0.41
47:sR:212:U:H2'	47:sR:213:A:C8	2.56	0.41
47:sR:381:C:H2'	47:sR:382:C:C6	2.56	0.41
47:sR:898:A:N1	47:sR:911:U:O2'	2.51	0.41
47:sR:1085:G:OP1	50:s2:161:LYS:NZ	2.54	0.41
47:sR:1119:G:N7	82:sR:2015:OHX:N2	2.68	0.41
47:sR:1287:A:H4'	47:sR:1288:G:OP1	2.21	0.41
47:sR:1489:U:H6	47:sR:1492:A:C2	2.38	0.41
47:sR:1591:C:H2'	47:sR:1592:A:C8	2.55	0.41
80:Rb:106:HIS:HD1	80:Rb:110:VAL:HG12	1.86	0.41
80:Rb:147:HIS:CD2	80:Rb:173:GLY:HA3	2.55	0.41
48:s0:122:ILE:HA	48:s0:144:ILE:O	2.20	0.41
49:s1:126:THR:HG22	49:s1:136:ARG:HE	1.86	0.41
49:s1:134:VAL:O	49:s1:135:LEU:HD23	2.20	0.41
51:s3:201:ALA:HB1	51:s3:205:ALA:HB3	2.02	0.41
52:s4:212:ASP:OD1	52:s4:216:ASN:N	2.48	0.41
55:s7:71:HIS:CD2	55:s7:74:GLN:OE1	2.73	0.41
60:c2:126:TRP:HB3	60:c2:133:LEU:HD12	2.03	0.41
67:c9:22:LEU:HD13	67:c9:28:LEU:HD22	2.02	0.41
68:d0:44:ASN:O	68:d0:48:HIS:CD2	2.72	0.41
68:d0:69:LYS:O	77:d9:44:ARG:NH1	2.54	0.41
73:d5:88:ILE:HD12	73:d5:88:ILE:HA	1.91	0.41
1:1:54:C:H5"	1:1:1548:C:H1'	2.03	0.41
1:1:208:C:H2'	1:1:209:A:O4'	2.20	0.41
1:1:796:U:H2'	1:1:797:U:C6	2.56	0.41
1:1:1022:U:H2'	1:1:1023:C:H6	1.85	0.41
1:1:1708:C:H2'	1:1:1709:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:2203:U:H4'	4:j:241:ARG:HA	2.03	0.41
1:1:2578:U:OP1	82:1:3593:OHX:N2	2.54	0.41
1:1:2585:G:N7	10:p:47:SER:OG	2.40	0.41
1:1:2764:C:H2'	1:1:2765:C:O4'	2.21	0.41
1:1:3018:C:H2'	1:1:3019:U:O4'	2.21	0.41
1:1:3047:U:O2'	1:1:3048:A:H5'	2.20	0.41
1:1:3197:G:H2'	1:1:3198:U:H3'	2.03	0.41
2:3:58:C:H2'	2:3:59:U:H6	1.85	0.41
6:l:29:PRO:HG3	6:l:279:HIS:CD2	2.56	0.41
6:l:258:LEU:HD12	6:l:258:LEU:HA	1.83	0.41
18:x:127:ARG:HG3	18:x:139:TYR:O	2.20	0.41
19:y:96:PHE:CD1	19:y:97:PRO:HD2	2.56	0.41
21:0:132:THR:C	21:0:134:ASP:H	2.28	0.41
24:6:13:ILE:HD13	24:6:54:LEU:HB2	2.02	0.41
24:6:54:LEU:C	24:6:56:ASP:H	2.29	0.41
32:AE:41:LYS:HA	32:AE:44:MET:O	2.20	0.41
1:AR:860:G:C5	4:CD:181:LYS:HB2	2.56	0.41
1:AR:955:U:H2'	1:AR:956:U:C6	2.55	0.41
1:AR:1169:A:N6	1:AR:1170:A:N1	2.69	0.41
1:AR:1491:A:H2'	1:AR:1492:G:O4'	2.21	0.41
1:AR:1783:U:H2'	1:AR:1784:G:C8	2.55	0.41
1:AR:2268:U:C3'	1:AR:2269:U:H5"	2.47	0.41
2:AS:97:A:H2'	2:AS:98:C:C6	2.56	0.41
5:CE:50:LYS:HG2	5:CE:332:ARG:HA	2.03	0.41
7:CG:88:ILE:HG12	7:CG:240:TYR:CE1	2.54	0.41
7:CG:294:ALA:HB1	12:CL:217:PHE:O	2.20	0.41
19:CS:58:ASN:C	19:CS:60:PRO:HD3	2.46	0.41
29:DC:88:ASP:HA	29:DC:91:LEU:HB2	2.02	0.41
32:DF:8:VAL:HG12	32:DF:9:THR:H	1.86	0.41
43:DQ:78:LYS:HE2	43:DQ:80:ARG:CZ	2.50	0.41
46:p0:101:VAL:HG23	46:p0:102:SER:H	1.86	0.41
47:A:7:G:H4'	47:A:573:C:H4'	2.02	0.41
47:A:341:A:H2'	47:A:342:C:C6	2.55	0.41
47:A:735:C:H2'	47:A:735:C:OP2	2.21	0.41
47:A:867:G:H21	61:O:87:ASP:HB3	1.85	0.41
47:A:1288:G:N7	47:A:1314:U:H2'	2.36	0.41
47:A:1364:G:H22	67:U:3:GLY:HA3	1.82	0.41
47:A:1484:G:H21	47:A:1606:C:H1'	1.85	0.41
47:A:1524:A:H2'	47:A:1525:A:C8	2.55	0.41
48:B:158:VAL:HG23	69:W:69:LEU:CD2	2.51	0.41
48:B:167:LYS:HB2	48:B:168:HIS:CE1	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:C:168:ILE:HG22	49:C:172:LEU:HD22	2.02	0.41
52:F:22:LYS:H	52:F:22:LYS:HG2	1.73	0.41
53:G:104:ASN:HD22	53:G:104:ASN:HA	1.66	0.41
53:G:225:ARG:HD3	76:d:61:ARG:HG3	2.03	0.41
56:J:101:ILE:HD11	56:J:192:TYR:CZ	2.56	0.41
59:M:87:ARG:HG3	59:M:104:HIS:HD2	1.86	0.41
62:P:89:THR:O	62:P:89:THR:OG1	2.35	0.41
64:R:51:PRO:HB2	64:R:85:ILE:HD11	2.01	0.41
66:T:16:ARG:HG3	66:T:20:THR:O	2.20	0.41
66:T:63:GLN:H	66:T:63:GLN:HG2	1.51	0.41
66:T:63:GLN:O	66:T:64:GLU:C	2.63	0.41
69:W:38:LYS:HD3	69:W:49:GLU:HB3	2.02	0.41
70:X:6:VAL:CG2	70:X:29:PRO:HD2	2.40	0.41
74:b:84:VAL:CG1	74:b:85:ARG:H	2.25	0.41
74:b:87:ARG:NH2	74:b:92:ARG:O	2.54	0.41
78:f:10:ARG:O	78:f:13:LYS:HB2	2.21	0.41
80:h:16:HIS:NE2	80:h:35:SER:CB	2.84	0.41
80:h:170:ILE:HD12	80:h:202:LEU:HD13	2.02	0.41
47:sR:2:A:O2'	50:s2:198:THR:O	2.38	0.41
47:sR:93:A:N6	47:sR:396:G:H1'	2.36	0.41
47:sR:384:G:O6	82:sR:2171:OHX:N4	2.53	0.41
47:sR:514:G:O2'	47:sR:515:A:H5"	2.20	0.41
47:sR:542:A:H1'	47:sR:543:C:P	2.61	0.41
47:sR:763:G:H2'	47:sR:764:U:C6	2.56	0.41
47:sR:1120:U:H2'	47:sR:1121:C:C6	2.55	0.41
47:sR:1166:A:H2'	47:sR:1167:G:O4'	2.21	0.41
47:sR:1332:C:OP2	81:c7:45:ARG:HD3	2.21	0.41
47:sR:1364:G:H21	67:c9:3:GLY:HA3	1.85	0.41
47:sR:1453:G:H2'	47:sR:1454:G:C8	2.54	0.41
47:sR:1795:U:O2'	74:d6:10:ARG:NH2	2.54	0.41
80:Rb:134:TRP:CE3	80:Rb:140:CYS:HB2	2.56	0.41
48:s0:17:LEU:HB3	48:s0:22:THR:CG2	2.51	0.41
48:s0:54:TRP:O	48:s0:58:VAL:HG13	2.21	0.41
49:s1:157:GLN:HB2	49:s1:160:HIS:CE1	2.54	0.41
55:s7:26:GLU:OE2	55:s7:27:LEU:HD22	2.21	0.41
56:s8:101:ILE:HD12	56:s8:184:LEU:HD11	2.03	0.41
57:s9:78:ARG:HH22	57:s9:82:ARG:HH11	1.67	0.41
61:c3:98:VAL:HG13	61:c3:115:LEU:HD13	2.02	0.41
63:c5:13:LYS:HB3	63:c5:22:LEU:HD11	2.02	0.41
68:d0:58:LEU:HD13	68:d0:88:LYS:HE3	2.02	0.41
68:d0:62:VAL:HG21	68:d0:64:LYS:HE3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:d2:25:VAL:CG2	70:d2:65:LEU:HD11	2.43	0.41
72:d4:9:THR:HA	72:d4:24:VAL:O	2.20	0.41
1:1:15:C:H3'	1:1:15:C:OP1	2.20	0.41
1:1:76:G:HO2'	14:t:100:ARG:NH1	2.15	0.41
1:1:182:U:H2'	1:1:183:G:H8	1.86	0.41
1:1:562:C:H2'	1:1:563:U:H6	1.85	0.41
1:1:608:A:N6	8:n:22:ARG:HD3	2.36	0.41
1:1:673:U:OP1	19:y:21:SER:OG	2.25	0.41
1:1:689:U:N3	6:l:227:THR:OG1	2.54	0.41
1:1:785:G:O4'	19:y:92:ARG:NH2	2.54	0.41
1:1:1020:G:N3	1:1:1020:G:H2'	2.36	0.41
1:1:1170:A:H2'	1:1:1171:G:O4'	2.21	0.41
1:1:1259:A:N3	1:1:1280:C:O2'	2.42	0.41
1:1:1574:C:H2'	1:1:1575:A:H5"	2.02	0.41
1:1:1637:A:H5"	28:AA:15:ARG:O	2.21	0.41
1:1:1717:U:H2'	1:1:1718:G:C8	2.56	0.41
1:1:1872:C:H5'	20:z:58:HIS:HB2	2.03	0.41
1:1:2202:C:O2'	4:j:240:ALA:O	2.27	0.41
1:1:2433:U:H1'	16:v:125:SER:CB	2.47	0.41
1:1:3095:U:H2'	1:1:3096:C:C6	2.56	0.41
1:1:3210:A:H2'	1:1:3211:C:O4'	2.21	0.41
3:4:27:U:O2'	6:l:49:ALA:O	2.31	0.41
3:4:76:C:H2'	3:4:77:A:C8	2.56	0.41
3:4:86:U:O2	38:AK:85:LYS:NZ	2.53	0.41
3:4:94:C:H5"	38:AK:76:ASN:HD21	1.86	0.41
5:k:10:ARG:NH1	5:k:263:SER:O	2.45	0.41
5:k:62:ARG:O	5:k:68:HIS:HB2	2.21	0.41
5:k:293:ASN:HB2	5:k:304:THR:HA	2.03	0.41
6:l:182:LEU:HD21	6:l:223:PRO:HG2	2.02	0.41
7:m:85:ARG:NH1	7:m:254:LYS:H	2.19	0.41
7:m:156:GLY:HA2	7:m:181:PRO:HD3	2.02	0.41
7:m:178:ASN:HA	7:m:183:TRP:CG	2.55	0.41
8:n:175:LYS:O	15:u:117:ARG:NH2	2.50	0.41
9:o:24:GLU:HB3	9:o:25:GLN:OE1	2.20	0.41
9:o:189:ILE:HG23	9:o:190:THR:N	2.36	0.41
10:p:105:LYS:HA	10:p:108:ARG:HB3	2.03	0.41
10:p:157:VAL:HG21	10:p:163:VAL:HG11	2.03	0.41
13:s:9:MET:O	13:s:9:MET:HG3	2.21	0.41
13:s:81:GLU:HA	13:s:84:LEU:HB2	2.03	0.41
13:s:133:ARG:NH2	13:s:158:ASP:OD1	2.54	0.41
14:t:64:LYS:HE2	14:t:65:TYR:CZ	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:t:75:PHE:C	14:t:76:THR:HG1	2.26	0.41
14:t:79:GLU:HG3	14:t:109:PHE:CE2	2.55	0.41
16:v:143:ARG:HG2	36:AI:92:LEU:CD2	2.50	0.41
17:w:76:PRO:HD3	17:w:147:TRP:CD2	2.56	0.41
18:x:179:GLN:HA	18:x:182:ILE:HB	2.02	0.41
19:y:44:PHE:CD2	19:y:134:GLY:HA3	2.56	0.41
20:z:8:LYS:HG3	20:z:22:VAL:HG21	2.02	0.41
24:6:49:LEU:HA	24:6:49:LEU:HD23	1.88	0.41
25:7:4:GLU:N	25:7:4:GLU:OE1	2.53	0.41
30:AC:17:HIS:C	30:AC:20:GLY:H	2.29	0.41
31:AD:41:LEU:HB3	31:AD:92:ILE:CD1	2.47	0.41
34:AG:53:TYR:CZ	34:AG:65:ARG:HB2	2.56	0.41
42:AO:14:LYS:HE2	42:AO:18:ARG:NE	2.36	0.41
44:AQ:83:ILE:HD13	44:AQ:83:ILE:HA	1.97	0.41
45:i:99:LYS:HD3	47:A:577:G:C4	2.56	0.41
45:i:110:TRP:CZ2	51:E:148:LYS:HB2	2.56	0.41
1:AR:265:A:H5"	1:AR:266:A:OP2	2.20	0.41
1:AR:291:C:H2'	1:AR:292:U:C6	2.56	0.41
1:AR:419:G:N7	82:AR:3406:OHX:N3	2.69	0.41
1:AR:660:A:H5"	6:CF:100:PHE:CD2	2.56	0.41
1:AR:799:G:O2'	14:CN:18:TRP:NE1	2.54	0.41
1:AR:871:U:H2'	1:AR:872:U:C6	2.55	0.41
1:AR:929:A:H1'	38:DL:49:TRP:CE3	2.56	0.41
1:AR:1164:G:H2'	1:AR:1165:A:H8	1.86	0.41
1:AR:1667:A:H2'	1:AR:1668:G:C8	2.56	0.41
1:AR:1730:G:C6	31:DE:26:GLY:HA3	2.56	0.41
1:AR:1902:G:C6	1:AR:1903:U:C2	3.08	0.41
1:AR:2186:U:OP2	4:CD:200:ARG:HD2	2.20	0.41
1:AR:2214:A:N1	1:AR:2429:G:O2'	2.52	0.41
1:AR:2537:U:H4'	49:s1:229:MET:HB3	2.03	0.41
1:AR:2553:U:O2'	35:DI:91:ARG:NH1	2.49	0.41
1:AR:2728:G:O6	22:CV:78:LYS:NZ	2.45	0.41
1:AR:2877:G:O3'	1:AR:2924:U:H5'	2.20	0.41
1:AR:2947:G:H2'	1:AR:2948:C:H6	1.86	0.41
1:AR:3020:U:H2'	1:AR:3033:A:N6	2.35	0.41
1:AR:3050:U:O2'	25:CY:16:GLY:O	2.38	0.41
1:AR:3057:U:O2	1:AR:3057:U:H2'	2.20	0.41
1:AR:3344:A:N6	1:AR:3361:G:O2'	2.45	0.41
3:AT:18:U:OP1	82:AT:201:OHX:N2	2.54	0.41
3:AT:143:U:H2'	3:AT:144:G:H8	1.85	0.41
4:CD:5:ILE:HG21	4:CD:210:PRO:HD3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:116:VAL:HG12	4:CD:164:GLY:HA3	2.01	0.41
4:CD:143:GLU:O	4:CD:145:LYS:N	2.51	0.41
4:CD:144:ASN:CG	4:CD:144:ASN:O	2.64	0.41
4:CD:186:PHE:HB2	4:CD:196:TRP:CZ3	2.56	0.41
5:CE:233:TRP:CG	5:CE:265:ALA:HB1	2.56	0.41
6:CF:135:VAL:HA	6:CF:245:GLY:O	2.21	0.41
6:CF:187:LEU:HD12	6:CF:198:ARG:O	2.20	0.41
7:CG:160:PHE:HA	7:CG:163:LEU:HB3	2.03	0.41
7:CG:290:ILE:HG13	7:CG:291:ALA:H	1.85	0.41
10:CJ:161:GLU:OE2	16:CP:26:ARG:NH1	2.54	0.41
11:CK:13:PRO:HD2	11:CK:79:ILE:HG21	2.03	0.41
11:CK:25:VAL:O	11:CK:35:THR:HA	2.21	0.41
11:CK:34:LEU:HD21	11:CK:149:ASN:HB2	2.02	0.41
11:CK:90:MET:HE3	11:CK:181:VAL:HG23	2.02	0.41
14:CN:49:ARG:HG2	36:DJ:116:TYR:CE1	2.56	0.41
15:CO:121:MET:O	15:CO:125:LYS:HG3	2.21	0.41
16:CP:21:PHE:O	16:CP:25:VAL:HG23	2.20	0.41
18:CR:67:ILE:HG23	18:CR:82:ARG:CZ	2.51	0.41
20:CT:44:LEU:HA	20:CT:47:ASN:HD21	1.85	0.41
20:CT:185:LEU:O	20:CT:189:ALA:HB2	2.20	0.41
21:CU:7:TYR:CE1	21:CU:34:GLU:HG2	2.56	0.41
26:CZ:76:VAL:HG12	26:CZ:81:ILE:O	2.21	0.41
28:DB:53:VAL:HA	28:DB:57:HIS:CE1	2.55	0.41
32:DF:16:LEU:HA	32:DF:16:LEU:HD23	1.80	0.41
37:DK:13:LYS:HE3	37:DK:13:LYS:HB2	1.97	0.41
44:DR:39:CYS:HB2	44:DR:57:CYS:SG	2.61	0.41
47:A:29:U:H2'	47:A:30:G:C8	2.56	0.41
47:A:151:G:H2'	47:A:152:U:C6	2.56	0.41
47:A:234:G:H3'	47:A:235:G:C4'	2.51	0.41
47:A:329:G:H5"	56:J:98:LYS:HB3	2.02	0.41
47:A:726:C:H2'	47:A:727:U:C5	2.56	0.41
47:A:777:C:H41	72:Z:10:ARG:HB3	1.86	0.41
47:A:777:C:H5	72:Z:10:ARG:HH21	1.67	0.41
47:A:1097:U:H1'	50:D:168:ARG:NE	2.35	0.41
47:A:1114:G:O2'	47:A:1115:U:OP2	2.39	0.41
47:A:1233:G:OP2	82:A:2130:OHX:N6	2.54	0.41
47:A:1294:G:H4'	48:B:109:ASN:N	2.35	0.41
47:A:1327:C:H4'	51:E:157:LEU:O	2.20	0.41
47:A:1373:C:H2'	47:A:1374:C:C6	2.56	0.41
47:A:1388:A:H4'	47:A:1389:C:O5'	2.21	0.41
48:B:200:ASP:HA	48:B:203:PHE:CD1	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D:218:ILE:O	50:D:221:THR:OG1	2.22	0.41
51:E:7:LYS:H	51:E:7:LYS:HG2	1.68	0.41
51:E:172:THR:HA	51:E:184:ILE:O	2.20	0.41
52:F:143:ASP:OD2	52:F:145:ARG:HD2	2.21	0.41
55:I:38:LEU:HA	55:I:41:LEU:HD23	2.02	0.41
56:J:104:ILE:O	56:J:164:ARG:HA	2.20	0.41
56:J:152:ILE:O	56:J:153:GLU:HG3	2.21	0.41
56:J:200:LYS:HA	56:J:200:LYS:HD2	1.80	0.41
59:M:22:ASN:HB3	59:M:25:VAL:HG22	2.03	0.41
61:O:41:ALA:HB2	61:O:75:LEU:HD22	2.02	0.41
61:O:89:TYR:HE1	61:O:150:VAL:HA	1.86	0.41
63:Q:15:HIS:ND1	63:Q:109:PRO:HB2	2.36	0.41
63:Q:25:LEU:HD13	63:Q:87:PRO:HB3	2.03	0.41
64:R:6:SER:OG	64:R:23:LYS:HA	2.21	0.41
67:U:66:TYR:CZ	67:U:132:LEU:HD11	2.56	0.41
71:Y:48:HIS:HB3	71:Y:104:LEU:O	2.21	0.41
71:Y:79:ASN:HD21	71:Y:81:LYS:CE	2.32	0.41
75:c:37:CYS:O	75:c:39:GLY:N	2.50	0.41
76:d:35:ASP:O	76:d:38:ARG:HG2	2.21	0.41
76:d:38:ARG:NH1	76:d:39:THR:OG1	2.53	0.41
80:h:89:LEU:HD11	80:h:124:SER:CB	2.48	0.41
47:sR:90:C:H2'	47:sR:91:G:C8	2.56	0.41
47:sR:219:A:H4'	47:sR:219:A:OP1	2.21	0.41
47:sR:224:C:H2'	47:sR:225:A:C8	2.56	0.41
47:sR:477:A:N6	47:sR:539:G:C2	2.89	0.41
47:sR:563:U:H4'	78:e0:17:GLN:OE1	2.21	0.41
47:sR:733:A:H2'	47:sR:734:A:O4'	2.21	0.41
47:sR:753:A:OP1	52:s4:186:GLY:HA3	2.21	0.41
47:sR:1079:U:H2'	47:sR:1080:U:C6	2.56	0.41
47:sR:1531:G:H5'	73:d5:81:ARG:NH2	2.36	0.41
47:sR:1624:C:H2'	47:sR:1625:C:C6	2.55	0.41
47:sR:1708:U:H2'	47:sR:1709:C:C6	2.56	0.41
47:sR:1784:C:H2'	47:sR:1785:U:C6	2.56	0.41
80:Rb:146:GLY:HA3	80:Rb:181:TRP:HH2	1.85	0.41
80:Rb:150:TRP:HB2	80:Rb:174:ASN:HB2	2.03	0.41
80:Rb:300:THR:HA	80:Rb:314:GLN:CB	2.45	0.41
48:s0:12:GLU:HA	48:s0:15:GLN:OE1	2.21	0.41
48:s0:42:PRO:C	48:s0:44:GLY:H	2.28	0.41
49:s1:26:ARG:HD2	49:s1:49:ASN:ND2	2.36	0.41
49:s1:201:THR:CB	49:s1:207:LEU:HD12	2.51	0.41
51:s3:168:ILE:HD11	51:s3:189:MET:HE3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:s3:200:LYS:HE2	51:s3:200:LYS:HB3	1.89	0.41
55:s7:20:VAL:O	55:s7:24:PHE:HD1	2.03	0.41
55:s7:33:GLU:CG	55:s7:34:LEU:HD12	2.50	0.41
57:s9:32:GLY:HA3	78:e0:40:TYR:CG	2.56	0.41
57:s9:108:ARG:HB2	57:s9:111:THR:HG23	2.01	0.41
57:s9:169:PRO:O	57:s9:170:GLY:C	2.64	0.41
58:c0:25:LYS:HB2	58:c0:64:TYR:HE2	1.84	0.41
58:c0:38:LYS:HB2	58:c0:41:TYR:CD2	2.55	0.41
59:c1:27:THR:OG1	59:c1:30:ARG:HA	2.21	0.41
62:c4:34:SER:OG	62:c4:34:SER:O	2.38	0.41
63:c5:45:PHE:HA	63:c5:48:GLY:HA3	2.03	0.41
64:c6:31:VAL:HA	64:c6:67:VAL:HB	2.02	0.41
64:c6:136:SER:C	64:c6:137:ARG:HD2	2.46	0.41
72:d4:41:ARG:HG2	72:d4:55:VAL:HG13	2.03	0.41
72:d4:59:GLY:O	72:d4:71:GLY:HA2	2.20	0.41
73:d5:51:LEU:O	73:d5:54:VAL:HG12	2.21	0.41
74:d6:51:ARG:HD3	76:d8:60:GLU:OE1	2.21	0.41
75:d7:31:TYR:CB	75:d7:81:ARG:HE	2.34	0.41
77:d9:33:LYS:HE2	77:d9:34:TYR:CZ	2.56	0.41
1:1:113:C:P	16:v:147:ARG:HE	2.44	0.41
1:1:546:C:H5'	1:1:547:G:O4'	2.21	0.41
1:1:1100:U:O2'	9:o:105:LEU:O	2.39	0.41
1:1:1314:C:O3'	17:w:18:ARG:NH2	2.53	0.41
1:1:1682:U:O2	23:5:82:LYS:NZ	2.36	0.41
1:1:1781:C:H2'	1:1:1782:U:C6	2.56	0.41
1:1:2355:G:H4'	18:x:139:TYR:CE1	2.55	0.41
1:1:2789:U:H2'	1:1:2790:A:H8	1.86	0.41
1:1:2897:A:H2'	1:1:2899:C:H5"	2.02	0.41
1:1:3350:C:HO2'	1:1:3351:U:P	2.44	0.41
82:1:4080:OHX:N4	10:p:54:GLU:OE1	2.54	0.41
3:4:19:C:H2'	3:4:20:U:O4'	2.21	0.41
9:o:178:ILE:HG23	9:o:183:ASP:HB3	2.03	0.41
13:s:21:ILE:HD11	13:s:125:MET:SD	2.61	0.41
13:s:30:LEU:HD13	13:s:64:LYS:O	2.21	0.41
20:z:173:ARG:HA	20:z:176:ARG:CG	2.50	0.41
28:AA:46:ILE:HG21	28:AA:49:TYR:HA	2.03	0.41
1:AR:7:C:H2'	1:AR:8:C:H6	1.86	0.41
1:AR:223:U:OP1	1:AR:225:C:N4	2.49	0.41
1:AR:550:A:C6	1:AR:551:A:N6	2.89	0.41
1:AR:594:U:H2'	1:AR:609:G:O6	2.21	0.41
1:AR:1015:U:O2'	1:AR:1017:C:H2'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1162:U:H4'	33:DG:57:TYR:CE1	2.56	0.41
1:AR:1226:G:H2'	1:AR:1227:C:C6	2.56	0.41
1:AR:1481:A:H2'	1:AR:1481:A:N3	2.36	0.41
1:AR:2761:G:N1	1:AR:2795:U:H3'	2.36	0.41
3:AT:4:C:H2'	3:AT:5:U:H6	1.86	0.41
4:CD:114:SER:O	4:CD:165:VAL:HG12	2.21	0.41
9:CI:170:GLU:HB2	9:CI:179:LEU:HB2	2.03	0.41
11:CK:173:ARG:NH2	41:DO:127:LEU:HD13	2.36	0.41
12:CL:42:THR:HG22	12:CL:44:ASP:H	1.85	0.41
15:CO:113:THR:HG23	15:CO:116:GLU:H	1.85	0.41
17:CQ:54:TYR:CE1	17:CQ:58:LEU:HD13	2.56	0.41
20:CT:169:ALA:HB2	47:sR:851:U:OP1	2.21	0.41
28:DB:24:VAL:HG21	28:DB:87:LEU:HD23	2.03	0.41
34:DH:48:ARG:HA	34:DH:48:ARG:HD2	1.91	0.41
38:DL:21:ARG:NH2	38:DL:44:THR:HA	2.36	0.41
43:DQ:34:SER:OG	43:DQ:34:SER:O	2.37	0.41
43:DQ:37:ALA:O	43:DQ:38:GLN:C	2.62	0.41
45:sM:58:GLU:OE1	66:c8:120:ARG:NE	2.43	0.41
45:sM:64:LYS:O	45:sM:65:THR:OG1	2.36	0.41
47:A:38:C:H42	47:A:39:A:N6	2.19	0.41
47:A:130:C:H2'	47:A:131:C:C6	2.56	0.41
47:A:149:C:H5"	72:Z:121:THR:HG21	2.03	0.41
47:A:276:C:H2'	47:A:278:U:C4	2.56	0.41
47:A:351:C:O2	59:M:104:HIS:HB3	2.20	0.41
47:A:486:G:N3	47:A:487:G:H1'	2.36	0.41
47:A:498:G:C8	47:A:499:U:N3	2.89	0.41
47:A:996:U:O2	47:A:1008:G:N2	2.44	0.41
47:A:1133:A:H2'	47:A:1134:C:O4'	2.21	0.41
47:A:1483:A:C2	47:A:1607:G:H1'	2.56	0.41
47:A:1777:G:H2'	47:A:1778:G:C8	2.56	0.41
50:D:156:THR:HG21	50:D:224:PHE:CD2	2.56	0.41
52:F:125:LYS:NZ	52:F:157:ASN:HA	2.36	0.41
53:G:121:ILE:HG21	53:G:199:ILE:HG23	2.03	0.41
53:G:123:VAL:HG21	73:a:59:TYR:CD1	2.55	0.41
66:T:22:VAL:CG2	66:T:31:ALA:HB1	2.51	0.41
66:T:71:GLN:OE1	66:T:79:TYR:CE2	2.74	0.41
67:U:116:ILE:HG23	67:U:122:ARG:HD2	2.02	0.41
72:Z:116:LYS:HE2	72:Z:116:LYS:HB2	1.79	0.41
74:b:79:ILE:HG23	74:b:84:VAL:HG21	2.03	0.41
80:h:202:LEU:HD23	80:h:202:LEU:HA	1.89	0.41
47:sR:121:U:H1'	52:s4:33:ALA:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1111:G:H2'	47:sR:1112:G:O4'	2.21	0.41
47:sR:1278:G:H2'	47:sR:1279:C:O4'	2.20	0.41
47:sR:1525:A:C6	47:sR:1526:A:C6	3.09	0.41
47:sR:1793:G:H22	74:d6:76:SER:HB3	1.86	0.41
80:Rb:85:TRP:CD1	80:Rb:109:ASP:HB3	2.56	0.41
80:Rb:192:PHE:N	80:Rb:192:PHE:CD1	2.87	0.41
48:s0:31:VAL:HA	48:s0:34:GLU:OE2	2.20	0.41
48:s0:177:LEU:O	48:s0:181:VAL:HG23	2.21	0.41
49:s1:119:THR:HG21	49:s1:156:ALA:H	1.84	0.41
53:s5:211:ILE:O	53:s5:215:ASP:HB2	2.21	0.41
68:d0:14:GLN:HG2	68:d0:15:GLN:N	2.36	0.41
72:d4:49:LYS:HA	72:d4:49:LYS:HD3	1.83	0.41
74:d6:37:LYS:HA	74:d6:71:LEU:O	2.21	0.41
1:1:80:G:H2'	1:1:81:C:H6	1.86	0.40
1:1:174:C:H2'	1:1:175:C:C6	2.55	0.40
1:1:357:A:H2'	1:1:358:G:O4'	2.21	0.40
1:1:947:G:H2'	1:1:948:C:C6	2.56	0.40
1:1:1069:C:H2'	1:1:1070:U:H6	1.86	0.40
1:1:1430:U:O4	29:AB:3:SER:OG	2.38	0.40
1:1:1464:G:O2'	82:1:4074:OHX:N6	2.54	0.40
1:1:1681:U:C4	1:1:1682:U:C4	3.09	0.40
1:1:2166:A:H2'	1:1:2167:A:C8	2.57	0.40
1:1:3123:A:O2'	11:q:40:HIS:ND1	2.39	0.40
1:1:3186:A:O2'	11:q:42:ASP:HA	2.21	0.40
1:1:3213:A:OP1	15:u:128:ARG:HD3	2.21	0.40
3:4:127:U:C2'	3:4:128:U:H5'	2.51	0.40
6:l:141:ARG:NH1	6:l:180:LYS:HD3	2.36	0.40
7:m:231:ILE:HG23	7:m:235:SER:OG	2.20	0.40
8:n:41:ILE:HB	8:n:85:ILE:HB	2.04	0.40
10:p:97:TYR:O	10:p:132:VAL:HG12	2.21	0.40
11:q:2:LYS:HB3	11:q:2:LYS:HE3	1.87	0.40
11:q:90:MET:HB2	11:q:144:ILE:HG22	2.02	0.40
13:s:166:LYS:NZ	13:s:167:TYR:H	2.18	0.40
14:t:79:GLU:OE2	14:t:109:PHE:HA	2.21	0.40
19:y:140:LEU:HD23	19:y:140:LEU:HA	1.92	0.40
20:z:40:ALA:O	20:z:44:LEU:HD23	2.22	0.40
22:2:126:VAL:CG2	22:2:128:LEU:HG	2.50	0.40
27:9:58:VAL:HG12	27:9:104:LEU:HD23	2.01	0.40
29:AB:132:LYS:HG3	29:AB:133:LEU:N	2.37	0.40
33:AF:75:LEU:HD12	33:AF:95:GLU:O	2.20	0.40
35:AH:106:LYS:HE2	35:AH:106:LYS:HB3	1.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:AH:113:LYS:HD3	35:AH:113:LYS:HA	1.97	0.40
36:AI:31:LEU:CD1	36:AI:47:VAL:HG21	2.51	0.40
45:i:107:ASN:CG	45:i:112:ASP:HB3	2.46	0.40
1:AR:216:G:N2	27:DA:102:SER:OG	2.54	0.40
1:AR:1098:A:H4'	22:CV:130:ARG:O	2.21	0.40
1:AR:2100:A:N7	1:AR:2101:C:N4	2.69	0.40
1:AR:2157:G:N1	1:AR:2178:A:OP2	2.45	0.40
1:AR:3164:C:O2'	1:AR:3165:A:P	2.80	0.40
1:AR:3393:U:H2'	1:AR:3394:U:C6	2.56	0.40
3:AT:4:C:H2'	3:AT:5:U:C6	2.56	0.40
4:CD:133:TYR:HE1	4:CD:135:ILE:HD11	1.86	0.40
5:CE:124:LYS:HB3	5:CE:124:LYS:HE3	1.90	0.40
7:CG:155:THR:HA	7:CG:179:ARG:HA	2.03	0.40
8:CH:135:VAL:HG12	8:CH:139:LYS:HZ1	1.85	0.40
10:CJ:110:THR:O	10:CJ:114:ALA:HB3	2.21	0.40
13:CM:12:LEU:HD21	13:CM:158:ASP:HB3	2.02	0.40
13:CM:26:SER:OG	13:CM:27:GLY:N	2.52	0.40
14:CN:132:ALA:C	14:CN:134:GLU:N	2.79	0.40
21:CU:9:VAL:O	21:CU:26:ARG:HA	2.20	0.40
23:CW:20:SER:O	23:CW:23:THR:OG1	2.36	0.40
23:CW:75:TYR:CE1	23:CW:79:LEU:HD11	2.56	0.40
35:DI:20:ILE:H	35:DI:20:ILE:HG13	1.76	0.40
35:DI:42:PRO:HG2	35:DI:54:ILE:HG21	2.03	0.40
47:A:79:C:O2'	54:H:174:LYS:HB2	2.20	0.40
47:A:140:A:OP2	54:H:187:LYS:NZ	2.39	0.40
47:A:263:C:H2'	47:A:264:G:O4'	2.21	0.40
47:A:756:A:H5'	52:F:16:HIS:HB2	2.02	0.40
47:A:809:A:N6	47:A:810:G:O6	2.54	0.40
47:A:1105:C:H2'	47:A:1106:U:H6	1.84	0.40
47:A:1244:A:O2'	47:A:1245:G:OP1	2.37	0.40
47:A:1350:U:H2'	47:A:1351:G:H8	1.86	0.40
47:A:1427:A:O2'	47:A:1428:G:OP1	2.28	0.40
47:A:1552:U:H2'	47:A:1553:G:O4'	2.20	0.40
49:C:87:ARG:N	49:C:101:HIS:HB2	2.37	0.40
50:D:69:ILE:HD13	50:D:133:LYS:O	2.21	0.40
52:F:131:LEU:HA	52:F:137:PRO:HA	2.04	0.40
54:H:30:LYS:HD2	54:H:30:LYS:HA	1.76	0.40
56:J:8:ARG:CD	56:J:20:GLN:HA	2.50	0.40
56:J:196:LEU:HD23	56:J:196:LEU:HA	1.94	0.40
57:K:44:ARG:O	57:K:47:PHE:HB3	2.21	0.40
57:K:113:VAL:CG1	57:K:125:ALA:HB1	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:L:76:LEU:HD23	58:L:76:LEU:H	1.86	0.40
60:N:131:ASP:N	60:N:131:ASP:OD1	2.52	0.40
65:S:69:ILE:HG13	65:S:74:GLN:NE2	2.33	0.40
68:V:45:ALA:HB1	68:V:50:LEU:HD12	2.03	0.40
71:Y:13:ARG:O	71:Y:17:VAL:HG22	2.20	0.40
71:Y:109:ARG:CD	71:Y:114:LYS:HA	2.50	0.40
77:e:43:PHE:CD1	77:e:43:PHE:C	2.98	0.40
80:h:117:LYS:H	80:h:117:LYS:HG2	1.69	0.40
47:sR:1031:U:H4'	47:sR:1032:G:OP2	2.21	0.40
47:sR:1192:C:OP1	47:sR:1194:A:H5"	2.21	0.40
47:sR:1241:G:H1'	63:c5:79:HIS:HB2	2.03	0.40
47:sR:1258:U:H5	47:sR:1259:U:C2	2.39	0.40
48:s0:173:ILE:HA	48:s0:176:LEU:HD12	2.02	0.40
51:s3:55:THR:CG2	51:s3:88:ALA:HB1	2.50	0.40
55:s7:114:ARG:HG3	55:s7:114:ARG:NH1	2.34	0.40
56:s8:83:TYR:HB3	56:s8:101:ILE:HB	2.03	0.40
62:c4:31:THR:HA	62:c4:38:THR:HA	2.01	0.40
62:c4:47:LYS:HZ1	62:c4:63:ALA:HA	1.85	0.40
1:1:187:A:N3	1:1:208:C:O2'	2.50	0.40
1:1:196:G:N2	1:1:198:A:H3'	2.35	0.40
1:1:198:A:C6	1:1:219:A:C6	3.09	0.40
1:1:641:C:H42	1:1:645:A:H8	1.68	0.40
1:1:728:G:H2'	1:1:729:C:O4'	2.22	0.40
1:1:900:G:H2'	1:1:901:G:H8	1.86	0.40
1:1:1097:G:H1'	1:1:1098:A:OP2	2.21	0.40
1:1:1233:G:N1	1:1:1234:G:O6	2.54	0.40
1:1:1636:U:H4'	28:AA:74:VAL:O	2.22	0.40
1:1:2419:A:H1'	1:1:2804:A:O4'	2.22	0.40
1:1:2622:C:H2'	1:1:2623:G:O4'	2.21	0.40
1:1:2729:U:H4'	19:y:157:PRO:CB	2.51	0.40
1:1:2761:G:N1	1:1:2795:U:H3'	2.36	0.40
1:1:3369:G:OP1	25:7:61:LYS:HE3	2.21	0.40
2:3:73:C:N4	21:0:19:VAL:HG21	2.36	0.40
6:l:141:ARG:CZ	6:l:180:LYS:HD3	2.50	0.40
8:n:31:ARG:HH21	34:AG:107:ILE:C	2.28	0.40
9:o:190:THR:O	9:o:191:VAL:C	2.64	0.40
12:r:76:MET:HE1	12:r:138:VAL:HG21	2.04	0.40
16:v:102:ALA:O	16:v:106:VAL:HG12	2.21	0.40
20:z:39:ASN:HA	20:z:42:ARG:HE	1.86	0.40
20:z:134:HIS:CE1	20:z:137:ALA:HB2	2.56	0.40
22:2:52:MET:HE3	22:2:52:MET:HB2	1.81	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:6:20:GLY:HA2	24:6:35:TYR:CE1	2.56	0.40
36:AI:83:LYS:O	36:AI:83:LYS:HD2	2.21	0.40
44:AQ:27:LYS:O	44:AQ:31:ILE:HG12	2.22	0.40
1:AR:111:C:H5	1:AR:156:G:O6	2.03	0.40
1:AR:224:C:H2'	1:AR:225:C:H6	1.86	0.40
1:AR:1027:A:H2'	1:AR:1029:G:O4'	2.21	0.40
1:AR:1145:G:H5'	33:DG:46:PHE:CE1	2.55	0.40
1:AR:1255:C:H2'	1:AR:1256:G:C8	2.56	0.40
1:AR:1614:C:H2'	1:AR:1615:C:H6	1.86	0.40
1:AR:2166:A:O4'	16:CP:74:PRO:HA	2.21	0.40
1:AR:2552:C:H5	31:DE:53:LYS:HE2	1.87	0.40
2:AS:42:A:H2'	2:AS:43:U:C6	2.56	0.40
4:CD:136:ILE:HA	4:CD:148:VAL:HG12	2.03	0.40
5:CE:169:THR:OG1	5:CE:171:LEU:HB2	2.21	0.40
6:CF:191:LYS:HB2	6:CF:194:TYR:CZ	2.56	0.40
7:CG:78:ALA:HB3	7:CG:105:ILE:HB	2.03	0.40
25:CY:25:ASP:OD1	25:CY:25:ASP:N	2.54	0.40
28:DB:3:LYS:O	28:DB:4:PHE:CG	2.74	0.40
47:A:69:G:N2	47:A:82:U:O2	2.55	0.40
47:A:1013:A:H2'	47:A:1014:G:O4'	2.21	0.40
47:A:1487:A:H2'	47:A:1488:G:O4'	2.20	0.40
47:A:1524:A:C6	47:A:1525:A:C6	3.09	0.40
47:A:1580:C:O3'	64:R:137:ARG:HG2	2.21	0.40
47:A:1735:U:H2'	47:A:1736:G:O4'	2.21	0.40
48:B:131:GLN:CD	48:B:131:GLN:H	2.29	0.40
51:E:109:LEU:HD21	51:E:115:ILE:HA	2.03	0.40
55:I:46:ILE:HD11	55:I:60:ILE:HG23	2.02	0.40
59:M:7:VAL:HG13	59:M:8:GLN:H	1.86	0.40
62:P:26:THR:HG21	62:P:97:GLY:CA	2.50	0.40
64:R:113:ASP:HA	64:R:116:LEU:HD12	2.03	0.40
67:U:84:LYS:HB2	67:U:84:LYS:HE2	1.69	0.40
71:Y:126:LYS:HG2	71:Y:131:SER:HA	2.03	0.40
72:Z:20:ARG:HB3	72:Z:76:TYR:CD1	2.56	0.40
80:h:127:ARG:HG2	80:h:150:TRP:CE2	2.55	0.40
80:h:203:THR:HG21	80:h:245:PHE:H	1.85	0.40
47:sR:304:U:H2'	47:sR:305:C:C6	2.56	0.40
47:sR:340:U:H2'	47:sR:341:A:H8	1.85	0.40
47:sR:381:C:H5"	52:s4:10:LYS:HD3	2.03	0.40
47:sR:585:A:H2'	47:sR:586:G:C8	2.56	0.40
47:sR:903:U:H2'	47:sR:904:G:H3'	2.03	0.40
47:sR:1429:G:H21	68:d0:72:ASN:ND2	2.19	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:sR:1499:G:H1	47:sR:1508:U:H3	1.69	0.40
47:sR:1649:G:H2'	47:sR:1650:U:C6	2.56	0.40
47:sR:1702:A:H5'	47:sR:1703:C:H5	1.86	0.40
80:Rb:84:SER:O	80:Rb:110:VAL:HG22	2.22	0.40
80:Rb:172:ALA:HB2	80:Rb:202:LEU:HD13	2.03	0.40
48:s0:10:THR:O	48:s0:13:ASP:N	2.43	0.40
50:s2:39:THR:HG22	50:s2:65:GLU:OE1	2.20	0.40
50:s2:181:SER:HB2	50:s2:184:VAL:HG12	2.03	0.40
51:s3:212:LYS:NZ	51:s3:213:GLU:H	2.19	0.40
52:s4:184:THR:HA	52:s4:189:LEU:HG	2.03	0.40
54:s6:162:VAL:HG21	54:s6:169:TYR:CD1	2.55	0.40
57:s9:113:VAL:HG21	57:s9:134:ILE:HG12	2.03	0.40
60:c2:97:LEU:H	60:c2:97:LEU:HG	1.68	0.40
60:c2:128:ALA:HB3	60:c2:133:LEU:CD2	2.49	0.40
64:c6:53:LEU:HD23	64:c6:53:LEU:H	1.86	0.40
66:c8:100:THR:CG2	66:c8:105:VAL:HA	2.51	0.40
67:c9:136:ALA:O	67:c9:140:LEU:HB2	2.21	0.40
71:d3:131:SER:O	71:d3:132:LEU:C	2.64	0.40
74:d6:10:ARG:CG	74:d6:34:LYS:HA	2.51	0.40
75:d7:36:LYS:CE	75:d7:43:ILE:HG13	2.51	0.40
76:d8:33:LEU:C	76:d8:33:LEU:HD12	2.46	0.40
1:1:359:U:H4'	1:1:817:A:N6	2.37	0.40
1:1:412:G:H5'	18:x:26:PHE:HZ	1.84	0.40
1:1:429:U:H2'	1:1:430:U:C6	2.56	0.40
1:1:1105:A:H2'	1:1:1106:G:O4'	2.21	0.40
1:1:1908:A:H2'	1:1:1909:A:O4'	2.21	0.40
1:1:1936:A:H2'	1:1:1937:U:O4'	2.21	0.40
1:1:3186:A:H1'	11:q:44:THR:HG23	2.03	0.40
1:1:3318:G:OP2	1:1:3318:G:H2'	2.21	0.40
3:4:37:A:H5"	3:4:39:G:O4'	2.21	0.40
3:4:58:G:O6	38:AK:63:ARG:NH1	2.45	0.40
7:m:207:TYR:CD2	7:m:223:PHE:HZ	2.39	0.40
7:m:227:LEU:HD23	7:m:227:LEU:HA	1.96	0.40
9:o:170:GLU:HB2	9:o:179:LEU:HB2	2.03	0.40
10:p:116:VAL:HB	10:p:121:SER:CB	2.51	0.40
12:r:207:GLU:HG3	12:r:208:ASN:H	1.85	0.40
19:y:54:LEU:HD22	19:y:58:ASN:HB3	2.02	0.40
28:AA:57:HIS:HB3	28:AA:62:VAL:HG22	2.03	0.40
29:AB:97:GLU:O	29:AB:98:THR:HG23	2.21	0.40
36:AI:21:LEU:O	36:AI:25:LYS:HG3	2.22	0.40
45:i:75:ASP:OD1	45:i:75:ASP:N	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:293:C:H4'	37:DK:76:ARG:NH2	2.36	0.40
1:AR:728:G:H2'	1:AR:729:C:O4'	2.21	0.40
1:AR:1257:C:O2'	46:p0:39:HIS:ND1	2.55	0.40
1:AR:1263:A:N3	1:AR:1263:A:H2'	2.36	0.40
1:AR:2115:G:H22	1:AR:2120:A:H1'	1.86	0.40
1:AR:2441:A:N6	1:AR:2506:U:O4	2.55	0.40
1:AR:2745:G:O6	82:AR:4146:OHX:N5	2.55	0.40
1:AR:2763:U:H5'	19:CS:176:ARG:HG3	2.04	0.40
1:AR:2991:A:O2'	1:AR:3308:C:N4	2.54	0.40
1:AR:3278:C:H2'	1:AR:3278:C:OP2	2.21	0.40
1:AR:3308:C:C4	1:AR:3309:G:C5	3.10	0.40
4:CD:42:ARG:O	4:CD:42:ARG:HG2	2.21	0.40
7:CG:279:LYS:O	7:CG:279:LYS:NZ	2.47	0.40
8:CH:34:LEU:HA	8:CH:34:LEU:HD23	1.80	0.40
12:CL:182:LEU:HD23	12:CL:182:LEU:HA	1.79	0.40
13:CM:15:GLU:HG2	13:CM:16:LYS:HG2	2.04	0.40
14:CN:170:LEU:HD13	29:DC:129:PHE:HD1	1.86	0.40
15:CO:131:VAL:HG22	17:CQ:185:ALA:HB2	2.04	0.40
19:CS:99:THR:H	19:CS:99:THR:HG23	1.60	0.40
26:CZ:42:ARG:O	26:CZ:44:PRO:HD3	2.20	0.40
31:DE:42:ILE:HG12	31:DE:67:VAL:HG12	2.04	0.40
31:DE:100:ILE:HG13	31:DE:101:LEU:N	2.36	0.40
40:DN:42:ARG:HG2	40:DN:43:ASN:N	2.35	0.40
47:A:66:U:O2	54:H:160:ARG:HB2	2.21	0.40
47:A:206:A:OP2	82:A:1952:OHX:N5	2.55	0.40
47:A:481:A:H2'	47:A:482:U:O4'	2.22	0.40
47:A:489:C:H42	47:A:497:G:N2	2.19	0.40
47:A:541:A:N3	47:A:541:A:H2'	2.37	0.40
47:A:707:A:C2	47:A:731:C:H2'	2.57	0.40
47:A:737:A:C5	47:A:738:G:C5	3.10	0.40
47:A:784:C:H2'	47:A:785:U:O4'	2.22	0.40
47:A:984:G:H2'	47:A:985:G:O4'	2.22	0.40
49:C:24:PHE:HD1	62:P:74:VAL:HA	1.86	0.40
51:E:29:LEU:HD12	51:E:69:LEU:HD21	2.03	0.40
52:F:11:ARG:C	52:F:12:LEU:HD12	2.47	0.40
52:F:122:LYS:CB	52:F:164:LEU:HD11	2.44	0.40
52:F:155:LYS:N	52:F:155:LYS:HD2	2.35	0.40
53:G:195:ALA:O	53:G:198:LEU:HG	2.21	0.40
54:H:135:PRO:HB2	54:H:141:ILE:HG22	2.03	0.40
56:J:113:PHE:CD2	56:J:121:LEU:HD22	2.57	0.40
58:L:22:VAL:HA	58:L:64:TYR:O	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:P:13:VAL:HG11	62:P:77:THR:H	1.85	0.40
62:P:81:VAL:HG22	62:P:115:ILE:CG2	2.51	0.40
66:T:36:LYS:H	66:T:102:ALA:HB2	1.86	0.40
68:V:17:GLN:HA	68:V:97:VAL:H	1.86	0.40
68:V:95:ALA:HB1	68:V:99:ILE:CG2	2.52	0.40
75:c:75:GLU:O	75:c:76:GLY:C	2.64	0.40
79:g:133:ALA:HB1	79:g:135:HIS:CE1	2.56	0.40
80:h:164:ASP:OD1	80:h:164:ASP:N	2.55	0.40
47:sR:37:U:O2'	47:sR:770:A:N1	2.37	0.40
47:sR:190:C:O2'	47:sR:191:C:O5'	2.30	0.40
47:sR:208:U:O4'	56:s8:178:ARG:HG3	2.20	0.40
47:sR:398:G:OP2	56:s8:47:ARG:NH2	2.51	0.40
47:sR:753:A:C5'	52:s4:221:ARG:HG3	2.50	0.40
47:sR:809:A:N6	47:sR:810:G:O6	2.54	0.40
47:sR:967:A:H2'	47:sR:968:U:O4'	2.21	0.40
47:sR:990:C:H5"	62:c4:129:LYS:HB2	2.03	0.40
47:sR:1495:C:OP1	82:sR:1967:OHX:N6	2.54	0.40
47:sR:1650:U:H2'	47:sR:1651:A:C8	2.57	0.40
80:Rb:81:LEU:CD2	80:Rb:122:ILE:HD13	2.45	0.40
80:Rb:195:HIS:CD2	80:Rb:221:MET:HG3	2.56	0.40
48:s0:184:LEU:O	48:s0:185:ARG:HB3	2.21	0.40
53:s5:43:PHE:HD2	53:s5:46:TRP:CD1	2.38	0.40
55:s7:84:LYS:HE3	55:s7:85:PHE:HB2	2.03	0.40
60:c2:60:VAL:HG22	60:c2:120:VAL:HG23	2.03	0.40
69:d1:13:VAL:HA	69:d1:14:PRO:HD3	1.91	0.40
69:d1:22:ARG:HD2	69:d1:22:ARG:HA	1.68	0.40
75:d7:23:THR:O	75:d7:24:LEU:C	2.64	0.40
76:d8:30:VAL:O	76:d8:39:THR:HA	2.21	0.40
76:d8:38:ARG:NE	76:d8:38:ARG:HA	2.36	0.40
76:d8:61:ARG:O	76:d8:62:GLU:C	2.64	0.40
1:1:210:U:C2	1:1:230:U:H4'	2.56	0.40
1:1:651:G:C6	1:1:652:G:C6	3.10	0.40
1:1:1155:C:H2'	1:1:1156:C:H6	1.85	0.40
1:1:1222:G:O2'	1:1:1285:G:N2	2.51	0.40
1:1:1729:A:N6	44:AQ:42:CYS:HA	2.37	0.40
1:1:2418:G:H4'	1:1:2419:A:OP1	2.18	0.40
1:1:2785:A:H2'	1:1:2786:G:O4'	2.22	0.40
1:1:3192:U:O4	82:1:4107:OHX:N6	2.54	0.40
1:1:3378:C:O2'	5:k:312:VAL:HA	2.22	0.40
3:4:15:G:C6	3:4:16:G:N1	2.90	0.40
3:4:85:G:H4'	3:4:86:U:OP1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:p:173:MET:HE3	37:AJ:39:PHE:HZ	1.84	0.40
15:u:39:ILE:HB	15:u:43:LYS:O	2.21	0.40
19:y:71:LEU:HD13	19:y:99:THR:HG21	2.04	0.40
20:z:147:ALA:O	20:z:151:ARG:HD3	2.21	0.40
29:AB:60:TYR:CD1	29:AB:63:LYS:HB2	2.57	0.40
32:AE:75:ILE:HD13	32:AE:93:VAL:HG22	2.03	0.40
35:AH:74:ARG:HG2	35:AH:75:ALA:H	1.86	0.40
39:AL:42:LYS:HD3	39:AL:53:THR:HG21	2.02	0.40
1:AR:3:U:N3	3:AT:157:U:O2	2.55	0.40
1:AR:38:U:H5"	29:DC:32:ARG:HD2	2.03	0.40
1:AR:143:G:H4'	3:AT:145:U:OP1	2.22	0.40
1:AR:715:A:C5	1:AR:782:U:H4'	2.56	0.40
1:AR:896:A:H5'	4:CD:183:GLY:HA2	2.04	0.40
1:AR:1000:C:P	82:AR:3525:OHX:N6	2.94	0.40
1:AR:1025:A:H8	1:AR:1025:A:P	2.45	0.40
1:AR:1134:G:O2'	1:AR:2642:A:N3	2.52	0.40
1:AR:1213:G:N7	82:AR:3548:OHX:N6	2.69	0.40
1:AR:1322:U:OP2	82:AR:3591:OHX:N5	2.55	0.40
1:AR:1518:U:H2'	1:AR:1519:G:O4'	2.21	0.40
1:AR:1622:U:H2'	1:AR:1623:G:O4'	2.22	0.40
1:AR:1668:G:H2'	1:AR:1669:C:O4'	2.21	0.40
1:AR:2730:G:OP2	82:AR:3459:OHX:N4	2.54	0.40
1:AR:3084:C:OP2	82:AR:3407:OHX:N3	2.54	0.40
6:CF:285:ASP:O	6:CF:289:ILE:HG13	2.21	0.40
12:CL:164:LYS:HG3	12:CL:165:ILE:N	2.36	0.40
16:CP:154:PRO:HB3	16:CP:157:LYS:HE3	2.03	0.40
18:CR:96:GLN:HG3	18:CR:97:ASN:N	2.37	0.40
19:CS:120:GLU:OE2	19:CS:130:ARG:NH2	2.34	0.40
23:CW:34:ALA:O	23:CW:38:ILE:HG23	2.21	0.40
26:CZ:25:LYS:HB2	26:CZ:25:LYS:HE2	1.84	0.40
28:DB:60:LYS:HG2	28:DB:63:ALA:HB3	2.03	0.40
29:DC:88:ASP:OD1	29:DC:88:ASP:N	2.53	0.40
30:DD:30:PRO:O	30:DD:32:LEU:HD12	2.21	0.40
33:DG:32:TRP:CZ2	33:DG:53:PRO:HD2	2.57	0.40
36:DJ:104:GLN:O	36:DJ:108:GLN:HG3	2.21	0.40
39:DM:41:THR:HG21	39:DM:62:ALA:HB2	2.03	0.40
42:DP:8:LYS:HA	42:DP:11:ARG:HE	1.87	0.40
43:DQ:100:LYS:CD	43:DQ:101:GLY:H	2.34	0.40
45:sM:76:VAL:HG12	47:sR:1460:A:C4	2.56	0.40
47:A:57:G:O6	82:A:1912:OHX:N1	2.54	0.40
47:A:106:U:H2'	47:A:107:C:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:625:C:H2'	47:A:626:U:C6	2.56	0.40
47:A:1414:U:H4'	47:A:1415:U:OP2	2.21	0.40
47:A:1473:U:OP2	53:G:190:ILE:N	2.47	0.40
47:A:1663:G:H2'	47:A:1664:C:O4'	2.21	0.40
48:B:69:ASN:HD21	50:D:244:SER:C	2.29	0.40
54:H:44:GLU:OE1	54:H:44:GLU:N	2.37	0.40
54:H:138:ALA:HA	54:H:175:ILE:HD11	2.02	0.40
57:K:140:ILE:CD1	57:K:159:ALA:HB1	2.52	0.40
61:O:37:ILE:HG22	61:O:54:LEU:CD1	2.51	0.40
64:R:97:VAL:HG22	64:R:98:ASP:H	1.86	0.40
65:S:81:LYS:HD3	65:S:81:LYS:O	2.22	0.40
66:T:65:GLU:O	66:T:69:ILE:HG13	2.21	0.40
67:U:117:SER:HB2	67:U:123:ARG:CB	2.48	0.40
68:V:21:LYS:HE2	68:V:21:LYS:HB3	1.91	0.40
72:Z:55:VAL:HG13	72:Z:75:VAL:HG12	2.03	0.40
80:h:302:PHE:CD1	80:h:312:VAL:HG11	2.49	0.40
47:sR:739:G:H2'	47:sR:740:A:O4'	2.21	0.40
47:sR:901:G:N2	62:c4:54:GLU:OE1	2.55	0.40
47:sR:1400:A:H4'	81:c7:60:ARG:HH12	1.87	0.40
47:sR:1451:C:H2'	47:sR:1452:U:C6	2.57	0.40
47:sR:1528:U:OP1	53:s5:109:LYS:HB2	2.21	0.40
80:Rb:78:ALA:C	80:Rb:94:VAL:HG23	2.47	0.40
80:Rb:208:GLY:O	80:Rb:225:LEU:HD21	2.20	0.40
80:Rb:311:ARG:NH2	80:Rb:313:TRP:HB2	2.37	0.40
48:s0:90:ALA:HB2	48:s0:97:PRO:HB3	2.02	0.40
52:s4:181:VAL:CG1	52:s4:227:VAL:HG12	2.51	0.40
53:s5:31:GLU:C	53:s5:33:VAL:H	2.28	0.40
60:c2:136:ILE:HG22	60:c2:136:ILE:O	2.22	0.40
63:c5:87:PRO:HA	63:c5:90:ILE:CD1	2.52	0.40
81:c7:26:LEU:H	81:c7:26:LEU:HD12	1.87	0.40
69:d1:79:LEU:HA	69:d1:79:LEU:HD12	1.83	0.40
71:d3:53:VAL:HG13	71:d3:72:VAL:HB	2.04	0.40
72:d4:29:HIS:HB2	72:d4:32:ARG:HB3	2.03	0.40
72:d4:127:LYS:HD2	72:d4:127:LYS:HA	1.44	0.40
74:d6:44:ILE:HD11	74:d6:65:PRO:HB2	2.04	0.40
1:1:38:U:H4'	29:AB:32:ARG:HD2	2.03	0.40
1:1:216:G:H4'	27:9:19:TYR:CE2	2.56	0.40
1:1:439:C:H3'	1:1:440:A:N7	2.37	0.40
1:1:816:A:H5"	1:1:920:A:H62	1.86	0.40
1:1:890:C:O2'	1:1:2324:A:N3	2.46	0.40
1:1:1162:U:H4'	33:AF:57:TYR:CE1	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:1306:G:C6	17:w:62:THR:HA	2.57	0.40
1:1:2191:U:H2'	1:1:2192:C:C6	2.55	0.40
1:1:3159:C:H4'	1:1:3395:G:C5	2.56	0.40
1:1:3219:G:H4'	1:1:3220:G:H5'	2.03	0.40
3:4:113:U:H5"	40:AM:7:PHE:HB3	2.04	0.40
4:j:82:VAL:HA	4:j:86:GLN:OE1	2.21	0.40
11:q:4:ILE:HB	21:0:142:GLN:OE1	2.22	0.40
16:v:5:LYS:HE3	37:AJ:37:THR:HG22	2.03	0.40
17:w:155:LYS:HE3	17:w:155:LYS:HB3	1.83	0.40
18:x:89:LYS:HA	18:x:92:GLN:HG2	2.04	0.40
20:z:15:VAL:CG1	20:z:17:VAL:HG22	2.52	0.40
24:6:23:MET:HB2	24:6:98:ASN:O	2.22	0.40
35:AH:16:ARG:NH1	35:AH:37:LYS:HD2	2.37	0.40
39:AL:69:LEU:HD23	39:AL:69:LEU:O	2.21	0.40
1:AR:73:C:H5'	37:DK:4:LYS:HZ2	1.86	0.40
1:AR:266:A:OP1	16:CP:5:LYS:NZ	2.44	0.40
1:AR:407:A:C2	3:AT:17:A:H1'	2.55	0.40
1:AR:1386:A:H5"	6:CF:141:ARG:NH2	2.36	0.40
1:AR:1614:C:H2'	1:AR:1615:C:C6	2.56	0.40
1:AR:1783:U:H2'	1:AR:1784:G:H8	1.87	0.40
1:AR:2244:A:O2'	4:CD:223:SER:HB3	2.21	0.40
1:AR:2249:G:C8	1:AR:2272:G:C8	3.09	0.40
1:AR:2559:U:OP1	1:AR:2561:A:H5'	2.22	0.40
1:AR:2644:C:C2	12:CL:116:ARG:HD3	2.57	0.40
1:AR:2794:G:H5'	86:AR:4205:X1K:C	2.52	0.40
1:AR:3016:A:H2'	1:AR:3017:A:H8	1.85	0.40
1:AR:3018:C:C4	1:AR:3019:U:C4	3.09	0.40
1:AR:3180:A:C4	17:CQ:114:LYS:HA	2.56	0.40
1:AR:3230:G:H4'	15:CO:132:LYS:CD	2.52	0.40
2:AS:113:C:H2'	2:AS:114:U:O4'	2.21	0.40
6:CF:22:LEU:HD23	6:CF:22:LEU:HA	1.83	0.40
12:CL:87:LEU:HA	12:CL:138:VAL:HG12	2.02	0.40
18:CR:128:ARG:HG2	18:CR:136:ILE:HG21	2.03	0.40
19:CS:26:LEU:HA	19:CS:29:LEU:HD12	2.03	0.40
19:CS:85:GLY:O	19:CS:104:LEU:HB2	2.21	0.40
27:DA:56:VAL:HG13	27:DA:105:VAL:C	2.47	0.40
28:DB:4:PHE:HE2	31:DE:63:SER:HB3	1.86	0.40
30:DD:23:LYS:HD2	30:DD:24:PRO:HD2	2.03	0.40
37:DK:43:LEU:HD22	37:DK:47:ILE:HD11	2.03	0.40
47:A:23:G:O2'	47:A:368:U:H5"	2.20	0.40
47:A:208:U:H2'	47:A:209:U:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:A:298:C:H5”	52:F:38:LEU:HB2	2.02	0.40
47:A:477:A:OP1	78:f:31:LYS:HG2	2.21	0.40
47:A:525:A:C6	47:A:526:A:C6	3.10	0.40
47:A:542:A:H3’	47:A:543:C:C5’	2.51	0.40
47:A:601:A:H2’	47:A:602:U:O4’	2.22	0.40
47:A:895:G:H2’	47:A:896:U:C6	2.56	0.40
47:A:1371:A:O2’	47:A:1373:C:OP2	2.38	0.40
47:A:1388:A:C5	47:A:1411:A:C6	3.10	0.40
47:A:1511:U:H2’	47:A:1512:G:H8	1.85	0.40
48:B:177:LEU:HD23	48:B:177:LEU:HA	1.97	0.40
48:B:200:ASP:HA	48:B:203:PHE:CE1	2.57	0.40
49:C:65:VAL:HA	49:C:86:LEU:O	2.22	0.40
49:C:149:GLN:HE21	49:C:151:LYS:HG3	1.86	0.40
51:E:46:THR:OG1	51:E:84:ILE:HB	2.21	0.40
52:F:173:ILE:H	52:F:173:ILE:HD12	1.86	0.40
53:G:37:GLN:HG2	53:G:38:THR:N	2.37	0.40
53:G:128:ASN:N	53:G:128:ASN:OD1	2.53	0.40
53:G:163:SER:HB3	76:d:46:GLY:HA3	2.03	0.40
54:H:164:LYS:HG2	54:H:169:TYR:HE2	1.85	0.40
61:O:18:TYR:O	70:X:56:HIS:CE1	2.74	0.40
67:U:31:PRO:HB3	67:U:103:LYS:HE2	2.02	0.40
67:U:38:LYS:H	67:U:38:LYS:HD3	1.85	0.40
70:X:65:LEU:HD23	70:X:65:LEU:N	2.33	0.40
71:Y:53:VAL:HG13	71:Y:99:ASN:N	2.33	0.40
47:sR:217:A:C8	47:sR:218:A:C8	3.10	0.40
47:sR:282:C:H2’	47:sR:283:U:O4’	2.21	0.40
47:sR:403:G:P	47:sR:403:G:H8	2.44	0.40
47:sR:887:A:N3	62:c4:125:SER:HB2	2.37	0.40
47:sR:938:G:OP2	82:sR:1962:OHX:N1	2.55	0.40
47:sR:1039:A:O2’	47:sR:1040:G:OP2	2.32	0.40
47:sR:1103:U:OP2	71:d3:7:ARG:N	2.41	0.40
47:sR:1330:G:H21	81:c7:8:THR:HG21	1.87	0.40
47:sR:1432:U:H4’	47:sR:1433:G:H5”	2.03	0.40
47:sR:1528:U:H2’	47:sR:1529:C:C6	2.56	0.40
80:Rb:85:TRP:C	80:Rb:87:LYS:H	2.29	0.40
48:s0:48:ILE:HG12	48:s0:161:PRO:HB2	2.02	0.40
48:s0:115:PHE:CD1	48:s0:116:LYS:N	2.90	0.40
49:s1:67:GLU:HG3	49:s1:85:LYS:CG	2.51	0.40
49:s1:138:PHE:CD1	49:s1:138:PHE:N	2.90	0.40
51:s3:173:ARG:HA	51:s3:173:ARG:HD3	1.78	0.40
51:s3:176:LEU:HD22	51:s3:177:MET:H	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:s5:25:LEU:CD2	53:s5:25:LEU:H	2.34	0.40
53:s5:63:GLN:CD	53:s5:66:GLN:HB2	2.47	0.40
54:s6:98:ARG:NH1	54:s6:99:GLY:O	2.55	0.40
66:c8:129:TRP:HB3	66:c8:131:LEU:HD13	2.03	0.40
67:c9:34:VAL:HG13	67:c9:53:TRP:CZ2	2.56	0.40
67:c9:66:TYR:HA	67:c9:124:ILE:HG21	2.03	0.40
67:c9:110:LYS:HE2	67:c9:110:LYS:HB2	1.77	0.40
68:d0:58:LEU:CD1	68:d0:88:LYS:HB3	2.51	0.40

All (5) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:1269:U:OP2	82:CG:304:OHX:N4[2_746]	2.03	0.17
18:CR:181:ARG:NH1	47:A:1358:G:OP1[2_645]	2.12	0.08
2:AS:52:G:OP1	82:AR:3440:OHX:N2[2_756]	2.14	0.06
10:CJ:119:GLY:O	47:sR:851:U:O2'[2_656]	2.14	0.06
46:p0:48:ARG:NH1	47:sR:1700:C:OP2[2_756]	2.16	0.04

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	CD	250/254 (98%)	248 (99%)	2 (1%)	0	100	100
4	j	250/254 (98%)	250 (100%)	0	0	100	100
5	CE	384/387 (99%)	382 (100%)	2 (0%)	0	100	100
5	k	384/387 (99%)	374 (97%)	10 (3%)	0	100	100
6	CF	359/362 (99%)	353 (98%)	6 (2%)	0	100	100
6	l	359/362 (99%)	350 (98%)	9 (2%)	0	100	100
7	CG	294/297 (99%)	289 (98%)	5 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	m	294/297 (99%)	287 (98%)	7 (2%)	0	100	100
8	CH	152/176 (86%)	150 (99%)	2 (1%)	0	100	100
8	n	152/176 (86%)	152 (100%)	0	0	100	100
9	CI	220/244 (90%)	217 (99%)	3 (1%)	0	100	100
9	o	220/244 (90%)	210 (96%)	10 (4%)	0	100	100
10	CJ	231/256 (90%)	221 (96%)	10 (4%)	0	100	100
10	p	231/256 (90%)	226 (98%)	5 (2%)	0	100	100
11	CK	189/191 (99%)	185 (98%)	4 (2%)	0	100	100
11	q	189/191 (99%)	185 (98%)	4 (2%)	0	100	100
12	CL	207/221 (94%)	205 (99%)	2 (1%)	0	100	100
12	r	207/221 (94%)	205 (99%)	2 (1%)	0	100	100
13	CM	167/174 (96%)	162 (97%)	5 (3%)	0	100	100
13	s	167/174 (96%)	160 (96%)	7 (4%)	0	100	100
14	CN	191/199 (96%)	179 (94%)	11 (6%)	1 (0%)	24	55
14	t	191/199 (96%)	180 (94%)	9 (5%)	2 (1%)	12	41
15	CO	134/138 (97%)	134 (100%)	0	0	100	100
15	u	134/138 (97%)	131 (98%)	2 (2%)	1 (1%)	18	49
16	CP	201/204 (98%)	201 (100%)	0	0	100	100
16	v	201/204 (98%)	196 (98%)	5 (2%)	0	100	100
17	CQ	195/199 (98%)	195 (100%)	0	0	100	100
17	w	195/199 (98%)	195 (100%)	0	0	100	100
18	CR	181/184 (98%)	181 (100%)	0	0	100	100
18	x	181/184 (98%)	180 (99%)	1 (1%)	0	100	100
19	CS	183/186 (98%)	181 (99%)	2 (1%)	0	100	100
19	y	183/186 (98%)	180 (98%)	3 (2%)	0	100	100
20	CT	186/189 (98%)	182 (98%)	4 (2%)	0	100	100
20	z	186/189 (98%)	183 (98%)	3 (2%)	0	100	100
21	0	170/172 (99%)	166 (98%)	4 (2%)	0	100	100
21	CU	170/172 (99%)	168 (99%)	2 (1%)	0	100	100
22	2	157/160 (98%)	155 (99%)	2 (1%)	0	100	100
22	CV	157/160 (98%)	153 (98%)	4 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	5	98/121 (81%)	98 (100%)	0	0	100	100
23	CW	98/121 (81%)	96 (98%)	2 (2%)	0	100	100
24	6	134/137 (98%)	131 (98%)	3 (2%)	0	100	100
24	CX	134/137 (98%)	134 (100%)	0	0	100	100
25	7	96/155 (62%)	94 (98%)	2 (2%)	0	100	100
25	CY	122/155 (79%)	118 (97%)	4 (3%)	0	100	100
26	8	119/142 (84%)	119 (100%)	0	0	100	100
26	CZ	119/142 (84%)	118 (99%)	1 (1%)	0	100	100
27	9	124/127 (98%)	124 (100%)	0	0	100	100
27	DA	122/127 (96%)	122 (100%)	0	0	100	100
28	AA	133/136 (98%)	127 (96%)	6 (4%)	0	100	100
28	DB	133/136 (98%)	129 (97%)	4 (3%)	0	100	100
29	AB	146/149 (98%)	139 (95%)	7 (5%)	0	100	100
29	DC	146/149 (98%)	142 (97%)	4 (3%)	0	100	100
30	AC	56/59 (95%)	55 (98%)	1 (2%)	0	100	100
30	DD	56/59 (95%)	54 (96%)	2 (4%)	0	100	100
31	AD	95/105 (90%)	95 (100%)	0	0	100	100
31	DE	95/105 (90%)	95 (100%)	0	0	100	100
32	AE	107/113 (95%)	101 (94%)	6 (6%)	0	100	100
32	DF	107/113 (95%)	104 (97%)	3 (3%)	0	100	100
33	AF	125/130 (96%)	123 (98%)	2 (2%)	0	100	100
33	DG	125/130 (96%)	124 (99%)	1 (1%)	0	100	100
34	AG	104/107 (97%)	102 (98%)	2 (2%)	0	100	100
34	DH	104/107 (97%)	102 (98%)	2 (2%)	0	100	100
35	AH	110/121 (91%)	110 (100%)	0	0	100	100
35	DI	110/121 (91%)	109 (99%)	1 (1%)	0	100	100
36	AI	117/120 (98%)	110 (94%)	7 (6%)	0	100	100
36	DJ	117/120 (98%)	116 (99%)	1 (1%)	0	100	100
37	AJ	97/100 (97%)	95 (98%)	2 (2%)	0	100	100
37	DK	97/100 (97%)	95 (98%)	2 (2%)	0	100	100
38	AK	85/88 (97%)	85 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
38	DL	85/88 (97%)	85 (100%)	0	0	100	100
39	AL	75/78 (96%)	75 (100%)	0	0	100	100
39	DM	75/78 (96%)	72 (96%)	3 (4%)	0	100	100
40	AM	48/51 (94%)	48 (100%)	0	0	100	100
40	DN	48/51 (94%)	48 (100%)	0	0	100	100
41	AN	50/128 (39%)	50 (100%)	0	0	100	100
41	DO	50/128 (39%)	48 (96%)	2 (4%)	0	100	100
42	AO	23/25 (92%)	23 (100%)	0	0	100	100
42	DP	23/25 (92%)	23 (100%)	0	0	100	100
43	AP	103/106 (97%)	94 (91%)	8 (8%)	1 (1%)	12	41
43	DQ	103/106 (97%)	98 (95%)	5 (5%)	0	100	100
44	AQ	89/92 (97%)	85 (96%)	4 (4%)	0	100	100
44	DR	89/92 (97%)	85 (96%)	4 (4%)	0	100	100
45	i	155/273 (57%)	147 (95%)	8 (5%)	0	100	100
45	sM	61/273 (22%)	57 (93%)	4 (7%)	0	100	100
46	p0	139/311 (45%)	139 (100%)	0	0	100	100
48	B	204/252 (81%)	185 (91%)	19 (9%)	0	100	100
48	s0	204/252 (81%)	194 (95%)	10 (5%)	0	100	100
49	C	212/255 (83%)	200 (94%)	12 (6%)	0	100	100
49	s1	214/255 (84%)	213 (100%)	1 (0%)	0	100	100
50	D	215/254 (85%)	207 (96%)	7 (3%)	1 (0%)	24	55
50	s2	215/254 (85%)	210 (98%)	5 (2%)	0	100	100
51	E	221/240 (92%)	215 (97%)	6 (3%)	0	100	100
51	s3	221/240 (92%)	208 (94%)	13 (6%)	0	100	100
52	F	258/261 (99%)	253 (98%)	5 (2%)	0	100	100
52	s4	258/261 (99%)	253 (98%)	5 (2%)	0	100	100
53	G	204/225 (91%)	198 (97%)	6 (3%)	0	100	100
53	s5	204/225 (91%)	195 (96%)	9 (4%)	0	100	100
54	H	224/236 (95%)	216 (96%)	8 (4%)	0	100	100
54	s6	216/236 (92%)	209 (97%)	7 (3%)	0	100	100
55	I	182/190 (96%)	175 (96%)	7 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
55	s7	184/190 (97%)	173 (94%)	9 (5%)	2 (1%)	11 39
56	J	184/200 (92%)	170 (92%)	14 (8%)	0	100 100
56	s8	184/200 (92%)	184 (100%)	0	0	100 100
57	K	183/197 (93%)	174 (95%)	9 (5%)	0	100 100
57	s9	183/197 (93%)	178 (97%)	5 (3%)	0	100 100
58	L	94/105 (90%)	86 (92%)	8 (8%)	0	100 100
58	c0	92/105 (88%)	80 (87%)	12 (13%)	0	100 100
59	M	153/156 (98%)	150 (98%)	3 (2%)	0	100 100
59	c1	144/156 (92%)	139 (96%)	5 (4%)	0	100 100
60	N	122/143 (85%)	111 (91%)	11 (9%)	0	100 100
60	c2	122/143 (85%)	109 (89%)	12 (10%)	1 (1%)	16 46
61	O	148/151 (98%)	147 (99%)	1 (1%)	0	100 100
61	c3	148/151 (98%)	145 (98%)	3 (2%)	0	100 100
62	P	125/138 (91%)	116 (93%)	7 (6%)	2 (2%)	7 32
62	c4	126/138 (91%)	119 (94%)	7 (6%)	0	100 100
63	Q	122/142 (86%)	111 (91%)	11 (9%)	0	100 100
63	c5	133/142 (94%)	123 (92%)	10 (8%)	0	100 100
64	R	139/143 (97%)	133 (96%)	4 (3%)	2 (1%)	9 34
64	c6	140/143 (98%)	136 (97%)	3 (2%)	1 (1%)	18 49
65	S	116/136 (85%)	110 (95%)	6 (5%)	0	100 100
66	T	143/146 (98%)	132 (92%)	10 (7%)	1 (1%)	18 49
66	c8	143/146 (98%)	126 (88%)	17 (12%)	0	100 100
67	U	141/144 (98%)	137 (97%)	4 (3%)	0	100 100
67	c9	141/144 (98%)	139 (99%)	2 (1%)	0	100 100
68	V	105/121 (87%)	96 (91%)	9 (9%)	0	100 100
68	d0	108/121 (89%)	102 (94%)	6 (6%)	0	100 100
69	W	85/87 (98%)	80 (94%)	5 (6%)	0	100 100
69	d1	85/87 (98%)	82 (96%)	3 (4%)	0	100 100
70	X	127/130 (98%)	125 (98%)	2 (2%)	0	100 100
70	d2	127/130 (98%)	125 (98%)	2 (2%)	0	100 100
71	Y	142/145 (98%)	128 (90%)	14 (10%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
71	d3	142/145 (98%)	134 (94%)	8 (6%)	0	100 100
72	Z	132/135 (98%)	132 (100%)	0	0	100 100
72	d4	132/135 (98%)	126 (96%)	6 (4%)	0	100 100
73	a	68/108 (63%)	62 (91%)	6 (9%)	0	100 100
73	d5	67/108 (62%)	67 (100%)	0	0	100 100
74	b	95/119 (80%)	86 (90%)	9 (10%)	0	100 100
74	d6	95/119 (80%)	89 (94%)	6 (6%)	0	100 100
75	c	79/82 (96%)	74 (94%)	5 (6%)	0	100 100
75	d7	79/82 (96%)	73 (92%)	6 (8%)	0	100 100
76	d	61/67 (91%)	58 (95%)	3 (5%)	0	100 100
76	d8	61/67 (91%)	56 (92%)	5 (8%)	0	100 100
77	d9	51/56 (91%)	50 (98%)	1 (2%)	0	100 100
77	e	51/56 (91%)	50 (98%)	0	1 (2%)	6 27
78	e0	60/63 (95%)	58 (97%)	1 (2%)	1 (2%)	7 30
78	f	58/63 (92%)	58 (100%)	0	0	100 100
79	e1	49/152 (32%)	42 (86%)	5 (10%)	2 (4%)	2 14
79	g	69/152 (45%)	57 (83%)	12 (17%)	0	100 100
80	Rb	316/319 (99%)	307 (97%)	9 (3%)	0	100 100
80	h	316/319 (99%)	304 (96%)	12 (4%)	0	100 100
81	c7	113/136 (83%)	110 (97%)	3 (3%)	0	100 100
All	All	22284/24619 (90%)	21584 (97%)	681 (3%)	19 (0%)	48 76

All (19) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
15	u	8	LYS
50	D	107	SER
62	P	37	GLU
64	R	40	GLU
64	R	59	LYS
55	s7	64	VAL
79	e1	132	LEU
77	e	25	SER
60	c2	106	ILE
43	AP	15	LYS

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Mol	Chain	Res	Type
64	c6	14	LYS
78	e0	47	VAL
79	e1	145	HIS
14	t	77	LEU
66	T	91	ASP
55	s7	14	THR
14	CN	63	VAL
14	t	63	VAL
62	P	39	ILE

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	CD	193/196 (98%)	193 (100%)	0	100	100
4	j	193/196 (98%)	193 (100%)	0	100	100
5	CE	319/323 (99%)	318 (100%)	1 (0%)	86	85
5	k	320/323 (99%)	318 (99%)	2 (1%)	78	81
6	CF	288/289 (100%)	288 (100%)	0	100	100
6	l	288/289 (100%)	288 (100%)	0	100	100
7	CG	244/245 (100%)	244 (100%)	0	100	100
7	m	244/245 (100%)	244 (100%)	0	100	100
8	CH	134/153 (88%)	134 (100%)	0	100	100
8	n	134/153 (88%)	134 (100%)	0	100	100
9	CI	186/205 (91%)	186 (100%)	0	100	100
9	o	186/205 (91%)	186 (100%)	0	100	100
10	CJ	187/208 (90%)	187 (100%)	0	100	100
10	p	187/208 (90%)	187 (100%)	0	100	100
11	CK	171/171 (100%)	171 (100%)	0	100	100
11	q	171/171 (100%)	171 (100%)	0	100	100
12	CL	177/187 (95%)	176 (99%)	1 (1%)	78	81

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	r	177/187 (95%)	177 (100%)	0	100	100
13	CM	147/151 (97%)	147 (100%)	0	100	100
13	s	147/151 (97%)	147 (100%)	0	100	100
14	CN	154/159 (97%)	154 (100%)	0	100	100
14	t	154/159 (97%)	154 (100%)	0	100	100
15	CO	107/109 (98%)	107 (100%)	0	100	100
15	u	107/109 (98%)	107 (100%)	0	100	100
16	CP	175/176 (99%)	175 (100%)	0	100	100
16	v	175/176 (99%)	175 (100%)	0	100	100
17	CQ	160/162 (99%)	160 (100%)	0	100	100
17	w	160/162 (99%)	160 (100%)	0	100	100
18	CR	140/146 (96%)	140 (100%)	0	100	100
18	x	140/146 (96%)	140 (100%)	0	100	100
19	CS	150/151 (99%)	150 (100%)	0	100	100
19	y	150/151 (99%)	150 (100%)	0	100	100
20	CT	153/154 (99%)	153 (100%)	0	100	100
20	z	153/154 (99%)	153 (100%)	0	100	100
21	0	156/156 (100%)	156 (100%)	0	100	100
21	CU	156/156 (100%)	156 (100%)	0	100	100
22	2	136/137 (99%)	136 (100%)	0	100	100
22	CV	136/137 (99%)	136 (100%)	0	100	100
23	5	87/107 (81%)	87 (100%)	0	100	100
23	CW	87/107 (81%)	87 (100%)	0	100	100
24	6	104/105 (99%)	104 (100%)	0	100	100
24	CX	104/105 (99%)	104 (100%)	0	100	100
25	7	57/129 (44%)	57 (100%)	0	100	100
25	CY	58/129 (45%)	58 (100%)	0	100	100
26	8	104/118 (88%)	104 (100%)	0	100	100
26	CZ	104/118 (88%)	104 (100%)	0	100	100
27	9	109/110 (99%)	109 (100%)	0	100	100
27	DA	107/110 (97%)	107 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
28	AA	115/116 (99%)	115 (100%)	0	100	100
28	DB	114/116 (98%)	114 (100%)	0	100	100
29	AB	118/119 (99%)	118 (100%)	0	100	100
29	DC	118/119 (99%)	118 (100%)	0	100	100
30	AC	46/47 (98%)	46 (100%)	0	100	100
30	DD	46/47 (98%)	46 (100%)	0	100	100
31	AD	81/88 (92%)	81 (100%)	0	100	100
31	DE	81/88 (92%)	81 (100%)	0	100	100
32	AE	92/97 (95%)	92 (100%)	0	100	100
32	DF	92/97 (95%)	92 (100%)	0	100	100
33	AF	109/111 (98%)	109 (100%)	0	100	100
33	DG	109/111 (98%)	109 (100%)	0	100	100
34	AG	90/91 (99%)	90 (100%)	0	100	100
34	DH	90/91 (99%)	90 (100%)	0	100	100
35	AH	95/103 (92%)	94 (99%)	1 (1%)	65	75
35	DI	95/103 (92%)	95 (100%)	0	100	100
36	AI	104/105 (99%)	104 (100%)	0	100	100
36	DJ	104/105 (99%)	104 (100%)	0	100	100
37	AJ	81/82 (99%)	81 (100%)	0	100	100
37	DK	81/82 (99%)	81 (100%)	0	100	100
38	AK	70/71 (99%)	70 (100%)	0	100	100
38	DL	70/71 (99%)	70 (100%)	0	100	100
39	AL	68/69 (99%)	68 (100%)	0	100	100
39	DM	68/69 (99%)	68 (100%)	0	100	100
40	AM	45/46 (98%)	45 (100%)	0	100	100
40	DN	45/46 (98%)	45 (100%)	0	100	100
41	AN	47/116 (40%)	47 (100%)	0	100	100
41	DO	47/116 (40%)	47 (100%)	0	100	100
42	AO	23/23 (100%)	23 (100%)	0	100	100
42	DP	23/23 (100%)	23 (100%)	0	100	100
43	AP	90/91 (99%)	90 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
43	DQ	90/91 (99%)	90 (100%)	0	100	100
44	AQ	71/72 (99%)	71 (100%)	0	100	100
44	DR	71/72 (99%)	71 (100%)	0	100	100
45	i	97/228 (42%)	97 (100%)	0	100	100
45	sM	54/228 (24%)	54 (100%)	0	100	100
46	p0	105/248 (42%)	105 (100%)	0	100	100
48	B	164/210 (78%)	164 (100%)	0	100	100
48	s0	165/210 (79%)	165 (100%)	0	100	100
49	C	191/224 (85%)	191 (100%)	0	100	100
49	s1	192/224 (86%)	192 (100%)	0	100	100
50	D	176/205 (86%)	176 (100%)	0	100	100
50	s2	176/205 (86%)	176 (100%)	0	100	100
51	E	182/195 (93%)	182 (100%)	0	100	100
51	s3	182/195 (93%)	182 (100%)	0	100	100
52	F	221/222 (100%)	221 (100%)	0	100	100
52	s4	221/222 (100%)	221 (100%)	0	100	100
53	G	173/191 (91%)	173 (100%)	0	100	100
53	s5	173/191 (91%)	173 (100%)	0	100	100
54	H	188/201 (94%)	188 (100%)	0	100	100
54	s6	187/201 (93%)	187 (100%)	0	100	100
55	I	165/170 (97%)	165 (100%)	0	100	100
55	s7	165/170 (97%)	165 (100%)	0	100	100
56	J	150/161 (93%)	150 (100%)	0	100	100
56	s8	150/161 (93%)	150 (100%)	0	100	100
57	K	158/166 (95%)	158 (100%)	0	100	100
57	s9	158/166 (95%)	158 (100%)	0	100	100
58	L	77/98 (79%)	77 (100%)	0	100	100
58	c0	73/98 (74%)	73 (100%)	0	100	100
59	M	129/137 (94%)	129 (100%)	0	100	100
59	c1	129/137 (94%)	129 (100%)	0	100	100
60	N	88/119 (74%)	88 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
60	c2	88/119 (74%)	88 (100%)	0	100	100
61	O	127/128 (99%)	127 (100%)	0	100	100
61	c3	127/128 (99%)	127 (100%)	0	100	100
62	P	79/105 (75%)	79 (100%)	0	100	100
62	c4	97/105 (92%)	97 (100%)	0	100	100
63	Q	101/118 (86%)	101 (100%)	0	100	100
63	c5	103/118 (87%)	103 (100%)	0	100	100
64	R	117/119 (98%)	117 (100%)	0	100	100
64	c6	118/119 (99%)	118 (100%)	0	100	100
65	S	94/124 (76%)	94 (100%)	0	100	100
66	T	128/129 (99%)	128 (100%)	0	100	100
66	c8	128/129 (99%)	128 (100%)	0	100	100
67	U	115/116 (99%)	115 (100%)	0	100	100
67	c9	115/116 (99%)	115 (100%)	0	100	100
68	V	100/114 (88%)	100 (100%)	0	100	100
68	d0	103/114 (90%)	103 (100%)	0	100	100
69	W	74/74 (100%)	74 (100%)	0	100	100
69	d1	74/74 (100%)	74 (100%)	0	100	100
70	X	110/111 (99%)	110 (100%)	0	100	100
70	d2	110/111 (99%)	110 (100%)	0	100	100
71	Y	119/120 (99%)	119 (100%)	0	100	100
71	d3	119/120 (99%)	119 (100%)	0	100	100
72	Z	112/113 (99%)	112 (100%)	0	100	100
72	d4	112/113 (99%)	112 (100%)	0	100	100
73	a	61/89 (68%)	61 (100%)	0	100	100
73	d5	61/89 (68%)	61 (100%)	0	100	100
74	b	83/100 (83%)	83 (100%)	0	100	100
74	d6	83/100 (83%)	83 (100%)	0	100	100
75	c	70/71 (99%)	70 (100%)	0	100	100
75	d7	70/71 (99%)	70 (100%)	0	100	100
76	d	56/60 (93%)	56 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
76	d8	56/60 (93%)	56 (100%)	0	100	100
77	d9	47/49 (96%)	47 (100%)	0	100	100
77	e	47/49 (96%)	47 (100%)	0	100	100
78	e0	53/54 (98%)	53 (100%)	0	100	100
78	f	51/54 (94%)	51 (100%)	0	100	100
79	e1	43/135 (32%)	43 (100%)	0	100	100
79	g	62/135 (46%)	61 (98%)	1 (2%)	55	71
80	Rb	260/262 (99%)	260 (100%)	0	100	100
80	h	259/262 (99%)	259 (100%)	0	100	100
81	c7	92/124 (74%)	92 (100%)	0	100	100
All	All	18678/20672 (90%)	18672 (100%)	6 (0%)	100	100

All (6) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	k	90	VAL
5	k	104	THR
35	AH	47	CYS
5	CE	104	THR
12	CL	185	ARG
79	g	140	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (186) such sidechains are listed below:

Mol	Chain	Res	Type
5	k	68	HIS
5	k	121	ASN
5	k	377	HIS
6	l	114	ASN
6	l	237	GLN
6	l	311	HIS
7	m	111	GLN
8	n	97	ASN
9	o	166	ASN
9	o	186	HIS
11	q	8	GLN
11	q	96	HIS

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Mol	Chain	Res	Type
12	r	73	ASN
12	r	92	HIS
12	r	100	ASN
13	s	62	ASN
13	s	95	ASN
13	s	150	ASN
14	t	103	ASN
15	u	56	GLN
15	u	62	GLN
16	v	86	ASN
16	v	138	GLN
17	w	31	GLN
18	x	45	GLN
18	x	96	GLN
18	x	133	HIS
20	z	66	HIS
20	z	130	ASN
21	0	3	HIS
21	0	65	ASN
21	0	108	GLN
21	0	142	GLN
22	2	26	HIS
24	6	24	ASN
24	6	47	ASN
26	8	80	ASN
26	8	85	GLN
27	9	81	GLN
27	9	98	ASN
28	AA	122	HIS
28	AA	127	ASN
29	AB	40	HIS
29	AB	120	ASN
33	AF	35	GLN
33	AF	49	ASN
33	AF	71	HIS
36	AI	104	GLN
37	AJ	91	ASN
37	AJ	92	ASN
38	AK	57	HIS
38	AK	69	HIS
39	AL	32	ASN
40	AM	19	GLN

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Mol	Chain	Res	Type
40	AM	20	ASN
41	AN	109	ASN
43	AP	3	ASN
43	AP	20	HIS
45	i	86	ASN
45	i	124	GLN
4	CD	205	ASN
7	CG	4	GLN
7	CG	57	ASN
8	CH	97	ASN
9	CI	157	ASN
9	CI	209	ASN
10	CJ	24	ASN
10	CJ	85	ASN
11	CK	139	ASN
11	CK	163	GLN
12	CL	59	GLN
13	CM	43	GLN
15	CO	11	ASN
15	CO	126	GLN
16	CP	23	GLN
16	CP	86	ASN
16	CP	138	GLN
18	CR	120	ASN
18	CR	137	ASN
19	CS	58	ASN
21	CU	68	HIS
21	CU	138	GLN
22	CV	58	GLN
22	CV	149	GLN
28	DB	122	HIS
29	DC	64	GLN
29	DC	89	GLN
30	DD	6	ASN
30	DD	19	ASN
30	DD	48	HIS
31	DE	11	ASN
33	DG	21	HIS
33	DG	52	GLN
34	DH	87	ASN
35	DI	52	GLN
38	DL	69	HIS

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Mol	Chain	Res	Type
40	DN	32	ASN
43	DQ	47	GLN
43	DQ	59	HIS
43	DQ	102	GLN
46	p0	98	ASN
45	sM	71	ASN
48	B	92	HIS
48	B	140	ASN
49	C	42	ASN
49	C	124	ASN
49	C	160	HIS
49	C	211	HIS
50	D	201	ASN
51	E	74	GLN
51	E	165	ASN
52	F	67	GLN
52	F	69	HIS
52	F	209	HIS
53	G	44	ASN
53	G	66	GLN
53	G	104	ASN
53	G	122	ASN
54	H	65	GLN
54	H	139	ASN
55	I	108	GLN
55	I	150	GLN
56	J	94	ASN
56	J	119	GLN
56	J	159	GLN
59	M	21	ASN
60	N	139	HIS
61	O	105	ASN
62	P	80	HIS
64	R	21	HIS
66	T	13	HIS
66	T	25	ASN
66	T	75	ASN
67	U	106	GLN
67	U	138	GLN
68	V	16	GLN
68	V	17	GLN
71	Y	79	ASN

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Mol	Chain	Res	Type
72	Z	63	GLN
74	b	69	ASN
76	d	27	GLN
78	f	17	GLN
79	g	135	HIS
80	h	4	ASN
80	h	101	GLN
80	h	185	GLN
80	Rb	31	ASN
80	Rb	101	GLN
48	s0	33	GLN
49	s1	146	GLN
49	s1	148	ASN
49	s1	149	GLN
50	s2	152	HIS
50	s2	233	GLN
52	s4	67	GLN
52	s4	157	ASN
52	s4	216	ASN
53	s5	158	GLN
54	s6	34	GLN
54	s6	65	GLN
54	s6	189	HIS
54	s6	197	ASN
54	s6	199	GLN
55	s7	71	HIS
55	s7	108	GLN
55	s7	147	ASN
56	s8	35	ASN
57	s9	124	HIS
58	c0	39	ASN
58	c0	58	GLN
58	c0	62	GLN
59	c1	106	ASN
61	c3	105	ASN
63	c5	103	ASN
81	c7	29	GLN
67	c9	25	GLN
67	c9	70	GLN
67	c9	77	ASN
69	d1	21	ASN
69	d1	29	HIS

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Mol	Chain	Res	Type
69	d1	33	GLN
70	d2	39	GLN
77	d9	27	HIS
77	d9	48	ASN
79	e1	123	ASN
79	e1	151	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1	3145/3396 (92%)	623 (19%)	49 (1%)
1	AR	3143/3396 (92%)	638 (20%)	46 (1%)
2	3	120/121 (99%)	17 (14%)	1 (0%)
2	AS	120/121 (99%)	20 (16%)	1 (0%)
3	4	157/158 (99%)	34 (21%)	2 (1%)
3	AT	157/158 (99%)	31 (19%)	1 (0%)
47	A	1778/1800 (98%)	490 (27%)	42 (2%)
47	sR	1780/1800 (98%)	453 (25%)	0
All	All	10400/10950 (94%)	2306 (22%)	142 (1%)

All (2306) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1	16	A
1	1	26	A
1	1	40	A
1	1	48	A
1	1	49	A
1	1	59	G
1	1	60	A
1	1	65	A
1	1	66	A
1	1	73	C
1	1	74	G
1	1	76	G
1	1	85	A
1	1	92	G
1	1	99	A
1	1	102	C
1	1	109	A
1	1	110	G

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Mol	Chain	Res	Type
1	1	113	C
1	1	116	A
1	1	117	U
1	1	121	A
1	1	122	A
1	1	133	U
1	1	135	C
1	1	136	G
1	1	147	U
1	1	148	G
1	1	156	G
1	1	157	A
1	1	161	G
1	1	165	A
1	1	166	C
1	1	170	G
1	1	187	A
1	1	190	U
1	1	191	U
1	1	210	U
1	1	211	A
1	1	213	A
1	1	218	G
1	1	219	A
1	1	220	G
1	1	237	G
1	1	240	U
1	1	241	G
1	1	243	G
1	1	245	U
1	1	246	U
1	1	249	U
1	1	250	U
1	1	251	G
1	1	252	U
1	1	256	G
1	1	269	G
1	1	282	G
1	1	283	G
1	1	286	U
1	1	295	A
1	1	298	U

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Mol	Chain	Res	Type
1	1	299	G
1	1	305	U
1	1	315	C
1	1	323	A
1	1	329	U
1	1	339	C
1	1	349	A
1	1	350	C
1	1	368	G
1	1	374	A
1	1	376	G
1	1	390	G
1	1	398	A
1	1	399	A
1	1	401	U
1	1	402	A
1	1	403	C
1	1	404	G
1	1	414	U
1	1	421	G
1	1	422	A
1	1	438	A
1	1	440	A
1	1	520	U
1	1	521	A
1	1	535	G
1	1	544	C
1	1	546	C
1	1	547	G
1	1	548	G
1	1	549	U
1	1	551	A
1	1	552	G
1	1	553	U
1	1	555	U
1	1	557	A
1	1	558	U
1	1	559	A
1	1	578	A
1	1	579	G
1	1	591	G
1	1	592	A

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Mol	Chain	Res	Type
1	1	601	U
1	1	604	G
1	1	609	G
1	1	611	A
1	1	620	U
1	1	621	A
1	1	636	C
1	1	637	C
1	1	638	C
1	1	647	A
1	1	649	A
1	1	660	A
1	1	662	U
1	1	668	G
1	1	677	A
1	1	681	U
1	1	705	A
1	1	712	G
1	1	715	A
1	1	716	A
1	1	719	U
1	1	763	G
1	1	764	U
1	1	766	U
1	1	767	U
1	1	771	A
1	1	776	U
1	1	777	U
1	1	780	A
1	1	781	G
1	1	785	G
1	1	787	G
1	1	806	A
1	1	816	A
1	1	817	A
1	1	818	C
1	1	830	A
1	1	837	A
1	1	843	A
1	1	861	C
1	1	874	U
1	1	879	U

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Mol	Chain	Res	Type
1	1	890	C
1	1	896	A
1	1	907	G
1	1	908	G
1	1	914	A
1	1	916	G
1	1	917	A
1	1	921	A
1	1	923	C
1	1	924	G
1	1	937	G
1	1	944	C
1	1	953	G
1	1	959	C
1	1	960	U
1	1	974	G
1	1	979	U
1	1	980	A
1	1	981	U
1	1	982	C
1	1	994	G
1	1	1000	C
1	1	1001	G
1	1	1002	A
1	1	1004	U
1	1	1006	A
1	1	1010	G
1	1	1014	U
1	1	1015	U
1	1	1017	C
1	1	1018	G
1	1	1020	G
1	1	1021	G
1	1	1024	G
1	1	1025	A
1	1	1032	C
1	1	1036	A
1	1	1037	C
1	1	1041	U
1	1	1047	A
1	1	1049	C
1	1	1063	G

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Mol	Chain	Res	Type
1	1	1064	A
1	1	1066	G
1	1	1071	U
1	1	1072	G
1	1	1081	U
1	1	1082	U
1	1	1093	A
1	1	1094	U
1	1	1095	U
1	1	1097	G
1	1	1098	A
1	1	1103	A
1	1	1104	G
1	1	1117	G
1	1	1131	G
1	1	1153	A
1	1	1159	A
1	1	1177	G
1	1	1178	G
1	1	1179	A
1	1	1180	A
1	1	1181	U
1	1	1182	A
1	1	1186	G
1	1	1191	U
1	1	1192	C
1	1	1196	C
1	1	1197	A
1	1	1201	C
1	1	1209	G
1	1	1217	A
1	1	1221	A
1	1	1222	G
1	1	1226	G
1	1	1227	C
1	1	1232	C
1	1	1236	G
1	1	1237	G
1	1	1241	U
1	1	1243	G
1	1	1244	A
1	1	1245	A

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Mol	Chain	Res	Type
1	1	1246	G
1	1	1248	C
1	1	1249	G
1	1	1253	U
1	1	1254	C
1	1	1258	U
1	1	1262	G
1	1	1263	A
1	1	1264	G
1	1	1265	U
1	1	1267	U
1	1	1269	U
1	1	1270	A
1	1	1271	A
1	1	1272	C
1	1	1273	A
1	1	1274	A
1	1	1278	A
1	1	1279	C
1	1	1285	G
1	1	1286	A
1	1	1287	A
1	1	1292	C
1	1	1303	A
1	1	1307	G
1	1	1308	A
1	1	1309	U
1	1	1313	G
1	1	1318	A
1	1	1330	A
1	1	1348	U
1	1	1349	G
1	1	1350	A
1	1	1352	A
1	1	1353	U
1	1	1354	G
1	1	1355	A
1	1	1356	U
1	1	1357	G
1	1	1386	A
1	1	1392	G
1	1	1398	U

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Mol	Chain	Res	Type
1	1	1399	A
1	1	1400	G
1	1	1417	G
1	1	1419	A
1	1	1434	G
1	1	1435	A
1	1	1437	C
1	1	1446	A
1	1	1450	G
1	1	1477	A
1	1	1481	A
1	1	1482	A
1	1	1485	G
1	1	1488	G
1	1	1495	U
1	1	1496	C
1	1	1508	C
1	1	1519	G
1	1	1521	G
1	1	1522	U
1	1	1527	C
1	1	1535	A
1	1	1536	G
1	1	1539	A
1	1	1555	U
1	1	1556	C
1	1	1560	G
1	1	1562	C
1	1	1563	C
1	1	1564	U
1	1	1567	U
1	1	1568	U
1	1	1569	U
1	1	1570	U
1	1	1572	U
1	1	1575	A
1	1	1576	G
1	1	1578	C
1	1	1579	C
1	1	1580	A
1	1	1581	C
1	1	1582	C

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Mol	Chain	Res	Type
1	1	1583	A
1	1	1589	A
1	1	1596	C
1	1	1613	A
1	1	1620	U
1	1	1629	U
1	1	1630	U
1	1	1633	C
1	1	1639	C
1	1	1643	A
1	1	1657	C
1	1	1683	A
1	1	1713	G
1	1	1714	A
1	1	1715	A
1	1	1716	U
1	1	1717	U
1	1	1724	U
1	1	1725	C
1	1	1729	A
1	1	1736	G
1	1	1742	U
1	1	1745	C
1	1	1750	A
1	1	1751	G
1	1	1760	A
1	1	1761	C
1	1	1762	C
1	1	1763	U
1	1	1764	U
1	1	1765	U
1	1	1766	G
1	1	1767	C
1	1	1769	G
1	1	1770	G
1	1	1775	G
1	1	1779	C
1	1	1780	G
1	1	1797	A
1	1	1809	A
1	1	1810	A
1	1	1814	A

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Mol	Chain	Res	Type
1	1	1815	U
1	1	1816	A
1	1	1819	U
1	1	1820	U
1	1	1821	U
1	1	1828	A
1	1	1839	A
1	1	1842	A
1	1	1845	G
1	1	1846	C
1	1	1847	A
1	1	1850	A
1	1	1858	A
1	1	1866	C
1	1	1878	G
1	1	1879	A
1	1	1880	U
1	1	1906	G
1	1	1921	A
1	1	1935	G
1	1	1948	G
1	1	1951	C
1	1	1953	G
1	1	1954	G
1	1	2094	C
1	1	2097	U
1	1	2101	C
1	1	2102	U
1	1	2111	G
1	1	2113	A
1	1	2115	G
1	1	2120	A
1	1	2121	G
1	1	2122	G
1	1	2126	A
1	1	2131	A
1	1	2140	U
1	1	2149	A
1	1	2158	A
1	1	2169	G
1	1	2188	A
1	1	2193	U

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Mol	Chain	Res	Type
1	1	2205	U
1	1	2208	A
1	1	2210	G
1	1	2223	A
1	1	2228	A
1	1	2229	A
1	1	2249	G
1	1	2250	G
1	1	2255	A
1	1	2256	A
1	1	2272	G
1	1	2273	G
1	1	2281	A
1	1	2282	U
1	1	2307	G
1	1	2310	U
1	1	2313	A
1	1	2314	U
1	1	2315	G
1	1	2330	C
1	1	2334	U
1	1	2336	U
1	1	2348	A
1	1	2361	A
1	1	2372	A
1	1	2373	A
1	1	2374	C
1	1	2375	G
1	1	2382	G
1	1	2383	C
1	1	2385	G
1	1	2386	A
1	1	2393	G
1	1	2397	A
1	1	2402	A
1	1	2403	G
1	1	2404	A
1	1	2411	U
1	1	2418	G
1	1	2419	A
1	1	2435	G
1	1	2441	A

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Mol	Chain	Res	Type
1	1	2443	A
1	1	2444	C
1	1	2445	A
1	1	2502	A
1	1	2503	G
1	1	2507	C
1	1	2514	U
1	1	2515	A
1	1	2522	G
1	1	2523	A
1	1	2532	U
1	1	2533	G
1	1	2534	G
1	1	2537	U
1	1	2538	U
1	1	2539	C
1	1	2540	A
1	1	2541	U
1	1	2542	U
1	1	2543	U
1	1	2544	U
1	1	2549	G
1	1	2552	C
1	1	2555	G
1	1	2561	A
1	1	2569	A
1	1	2570	U
1	1	2571	U
1	1	2572	C
1	1	2573	G
1	1	2585	G
1	1	2593	A
1	1	2594	C
1	1	2606	G
1	1	2607	G
1	1	2614	G
1	1	2637	A
1	1	2647	A
1	1	2652	U
1	1	2656	A
1	1	2657	A
1	1	2674	A

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Mol	Chain	Res	Type
1	1	2677	G
1	1	2689	A
1	1	2691	A
1	1	2694	A
1	1	2696	A
1	1	2706	G
1	1	2714	G
1	1	2719	U
1	1	2728	G
1	1	2729	U
1	1	2737	C
1	1	2740	A
1	1	2752	U
1	1	2753	G
1	1	2755	C
1	1	2766	U
1	1	2772	C
1	1	2777	G
1	1	2778	G
1	1	2787	G
1	1	2796	G
1	1	2799	A
1	1	2800	G
1	1	2801	A
1	1	2802	A
1	1	2808	A
1	1	2810	C
1	1	2814	G
1	1	2815	G
1	1	2816	G
1	1	2817	A
1	1	2818	U
1	1	2829	U
1	1	2842	U
1	1	2845	A
1	1	2853	A
1	1	2860	U
1	1	2867	C
1	1	2871	G
1	1	2875	U
1	1	2876	C
1	1	2887	A

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Mol	Chain	Res	Type
1	1	2898	G
1	1	2899	C
1	1	2923	U
1	1	2928	C
1	1	2935	U
1	1	2936	A
1	1	2938	G
1	1	2942	C
1	1	2947	G
1	1	2951	G
1	1	2954	U
1	1	2968	G
1	1	2971	A
1	1	2972	G
1	1	2979	U
1	1	2983	C
1	1	2990	G
1	1	2997	G
1	1	3012	A
1	1	3030	G
1	1	3056	U
1	1	3059	G
1	1	3078	U
1	1	3079	U
1	1	3080	G
1	1	3086	A
1	1	3092	C
1	1	3122	A
1	1	3130	A
1	1	3131	U
1	1	3142	A
1	1	3143	C
1	1	3151	U
1	1	3153	U
1	1	3154	C
1	1	3155	U
1	1	3156	U
1	1	3157	U
1	1	3164	C
1	1	3165	A
1	1	3170	A
1	1	3173	G

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Mol	Chain	Res	Type
1	1	3174	A
1	1	3176	G
1	1	3179	U
1	1	3181	C
1	1	3187	A
1	1	3195	U
1	1	3196	U
1	1	3197	G
1	1	3207	U
1	1	3209	A
1	1	3210	A
1	1	3217	C
1	1	3218	A
1	1	3219	G
1	1	3228	C
1	1	3229	G
1	1	3233	C
1	1	3244	A
1	1	3245	A
1	1	3246	G
1	1	3247	G
1	1	3259	U
1	1	3269	U
1	1	3270	U
1	1	3273	A
1	1	3276	G
1	1	3281	U
1	1	3286	G
1	1	3287	U
1	1	3289	G
1	1	3294	A
1	1	3295	A
1	1	3303	G
1	1	3304	U
1	1	3309	G
1	1	3313	U
1	1	3316	A
1	1	3318	G
1	1	3319	U
1	1	3320	A
1	1	3341	U
1	1	3342	A

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Mol	Chain	Res	Type
1	1	3345	G
1	1	3347	A
1	1	3351	U
1	1	3352	U
1	1	3354	U
1	1	3355	U
1	1	3356	G
1	1	3360	C
1	1	3368	U
1	1	3369	G
1	1	3375	A
1	1	3378	C
1	1	3382	U
1	1	3383	G
1	1	3389	U
1	1	3390	G
1	1	3396	U
2	3	7	G
2	3	11	A
2	3	22	A
2	3	41	G
2	3	49	G
2	3	50	U
2	3	53	U
2	3	54	U
2	3	55	A
2	3	65	G
2	3	74	C
2	3	76	A
2	3	91	G
2	3	93	C
2	3	102	A
2	3	112	G
2	3	121	U
3	4	23	U
3	4	26	U
3	4	34	U
3	4	35	C
3	4	39	G
3	4	48	A
3	4	52	A
3	4	59	A

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Mol	Chain	Res	Type
3	4	62	C
3	4	63	G
3	4	75	G
3	4	80	A
3	4	81	U
3	4	82	U
3	4	84	C
3	4	85	G
3	4	86	U
3	4	87	G
3	4	90	U
3	4	95	G
3	4	102	U
3	4	104	A
3	4	105	A
3	4	106	C
3	4	111	A
3	4	113	U
3	4	125	U
3	4	126	A
3	4	128	U
3	4	138	A
3	4	148	G
3	4	152	G
3	4	155	A
3	4	158	U
1	AR	16	A
1	AR	26	A
1	AR	40	A
1	AR	43	A
1	AR	49	A
1	AR	57	A
1	AR	59	G
1	AR	60	A
1	AR	65	A
1	AR	66	A
1	AR	73	C
1	AR	74	G
1	AR	92	G
1	AR	99	A
1	AR	109	A
1	AR	110	G

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Mol	Chain	Res	Type
1	AR	111	C
1	AR	116	A
1	AR	120	G
1	AR	121	A
1	AR	122	A
1	AR	133	U
1	AR	135	C
1	AR	136	G
1	AR	156	G
1	AR	157	A
1	AR	165	A
1	AR	166	C
1	AR	171	G
1	AR	172	G
1	AR	173	G
1	AR	176	G
1	AR	179	C
1	AR	182	U
1	AR	187	A
1	AR	190	U
1	AR	191	U
1	AR	200	C
1	AR	210	U
1	AR	218	G
1	AR	219	A
1	AR	231	G
1	AR	234	G
1	AR	240	U
1	AR	241	G
1	AR	243	G
1	AR	245	U
1	AR	247	C
1	AR	248	U
1	AR	249	U
1	AR	250	U
1	AR	251	G
1	AR	252	U
1	AR	253	A
1	AR	269	G
1	AR	286	U
1	AR	295	A
1	AR	298	U

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Mol	Chain	Res	Type
1	AR	299	G
1	AR	305	U
1	AR	316	U
1	AR	321	C
1	AR	323	A
1	AR	329	U
1	AR	343	U
1	AR	349	A
1	AR	350	C
1	AR	375	A
1	AR	376	G
1	AR	380	U
1	AR	395	A
1	AR	398	A
1	AR	399	A
1	AR	401	U
1	AR	402	A
1	AR	403	C
1	AR	404	G
1	AR	421	G
1	AR	422	A
1	AR	436	A
1	AR	438	A
1	AR	520	U
1	AR	521	A
1	AR	543	C
1	AR	544	C
1	AR	546	C
1	AR	550	A
1	AR	551	A
1	AR	552	G
1	AR	555	U
1	AR	557	A
1	AR	559	A
1	AR	578	A
1	AR	579	G
1	AR	588	G
1	AR	589	A
1	AR	592	A
1	AR	600	G
1	AR	604	G
1	AR	609	G

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Mol	Chain	Res	Type
1	AR	611	A
1	AR	619	A
1	AR	620	U
1	AR	621	A
1	AR	622	A
1	AR	624	G
1	AR	636	C
1	AR	649	A
1	AR	660	A
1	AR	668	G
1	AR	677	A
1	AR	681	U
1	AR	683	U
1	AR	691	A
1	AR	705	A
1	AR	712	G
1	AR	715	A
1	AR	716	A
1	AR	737	G
1	AR	758	C
1	AR	763	G
1	AR	764	U
1	AR	765	C
1	AR	766	U
1	AR	767	U
1	AR	776	U
1	AR	777	U
1	AR	780	A
1	AR	781	G
1	AR	783	A
1	AR	784	A
1	AR	785	G
1	AR	786	A
1	AR	806	A
1	AR	813	G
1	AR	816	A
1	AR	817	A
1	AR	826	G
1	AR	830	A
1	AR	849	C
1	AR	861	C
1	AR	874	U

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Mol	Chain	Res	Type
1	AR	875	G
1	AR	876	A
1	AR	879	U
1	AR	896	A
1	AR	907	G
1	AR	908	G
1	AR	913	A
1	AR	914	A
1	AR	916	G
1	AR	917	A
1	AR	921	A
1	AR	923	C
1	AR	924	G
1	AR	931	C
1	AR	932	U
1	AR	937	G
1	AR	944	C
1	AR	959	C
1	AR	960	U
1	AR	961	C
1	AR	974	G
1	AR	979	U
1	AR	980	A
1	AR	981	U
1	AR	982	C
1	AR	994	G
1	AR	1001	G
1	AR	1002	A
1	AR	1010	G
1	AR	1015	U
1	AR	1017	C
1	AR	1018	G
1	AR	1019	G
1	AR	1020	G
1	AR	1021	G
1	AR	1024	G
1	AR	1025	A
1	AR	1026	A
1	AR	1029	G
1	AR	1032	C
1	AR	1037	C
1	AR	1047	A

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Mol	Chain	Res	Type
1	AR	1049	C
1	AR	1056	U
1	AR	1064	A
1	AR	1065	A
1	AR	1072	G
1	AR	1081	U
1	AR	1082	U
1	AR	1083	G
1	AR	1093	A
1	AR	1094	U
1	AR	1095	U
1	AR	1096	U
1	AR	1097	G
1	AR	1098	A
1	AR	1103	A
1	AR	1104	G
1	AR	1117	G
1	AR	1131	G
1	AR	1140	G
1	AR	1143	A
1	AR	1144	U
1	AR	1150	A
1	AR	1153	A
1	AR	1159	A
1	AR	1160	C
1	AR	1177	G
1	AR	1178	G
1	AR	1180	A
1	AR	1181	U
1	AR	1186	G
1	AR	1191	U
1	AR	1192	C
1	AR	1201	C
1	AR	1202	A
1	AR	1209	G
1	AR	1221	A
1	AR	1222	G
1	AR	1235	U
1	AR	1236	G
1	AR	1237	G
1	AR	1239	C
1	AR	1241	U

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Mol	Chain	Res	Type
1	AR	1242	G
1	AR	1244	A
1	AR	1245	A
1	AR	1246	G
1	AR	1248	C
1	AR	1258	U
1	AR	1262	G
1	AR	1263	A
1	AR	1265	U
1	AR	1266	G
1	AR	1285	G
1	AR	1292	C
1	AR	1307	G
1	AR	1309	U
1	AR	1313	G
1	AR	1330	A
1	AR	1331	U
1	AR	1345	G
1	AR	1348	U
1	AR	1349	G
1	AR	1350	A
1	AR	1351	U
1	AR	1352	A
1	AR	1353	U
1	AR	1355	A
1	AR	1356	U
1	AR	1357	G
1	AR	1385	C
1	AR	1386	A
1	AR	1387	G
1	AR	1391	C
1	AR	1392	G
1	AR	1399	A
1	AR	1400	G
1	AR	1408	G
1	AR	1418	A
1	AR	1419	A
1	AR	1434	G
1	AR	1435	A
1	AR	1437	C
1	AR	1446	A
1	AR	1450	G

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Mol	Chain	Res	Type
1	AR	1481	A
1	AR	1482	A
1	AR	1484	U
1	AR	1490	A
1	AR	1496	C
1	AR	1505	C
1	AR	1508	C
1	AR	1528	G
1	AR	1536	G
1	AR	1539	A
1	AR	1555	U
1	AR	1556	C
1	AR	1560	G
1	AR	1562	C
1	AR	1563	C
1	AR	1565	G
1	AR	1567	U
1	AR	1568	U
1	AR	1569	U
1	AR	1570	U
1	AR	1572	U
1	AR	1575	A
1	AR	1576	G
1	AR	1577	G
1	AR	1580	A
1	AR	1581	C
1	AR	1582	C
1	AR	1583	A
1	AR	1589	A
1	AR	1593	A
1	AR	1605	A
1	AR	1620	U
1	AR	1629	U
1	AR	1630	U
1	AR	1632	A
1	AR	1639	C
1	AR	1641	U
1	AR	1643	A
1	AR	1645	U
1	AR	1683	A
1	AR	1687	U
1	AR	1694	U

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Mol	Chain	Res	Type
1	AR	1705	U
1	AR	1716	U
1	AR	1717	U
1	AR	1724	U
1	AR	1725	C
1	AR	1741	A
1	AR	1742	U
1	AR	1750	A
1	AR	1751	G
1	AR	1760	A
1	AR	1761	C
1	AR	1762	C
1	AR	1765	U
1	AR	1766	G
1	AR	1767	C
1	AR	1769	G
1	AR	1770	G
1	AR	1775	G
1	AR	1778	G
1	AR	1780	G
1	AR	1793	C
1	AR	1797	A
1	AR	1810	A
1	AR	1814	A
1	AR	1815	U
1	AR	1816	A
1	AR	1817	G
1	AR	1819	U
1	AR	1820	U
1	AR	1821	U
1	AR	1839	A
1	AR	1842	A
1	AR	1849	C
1	AR	1878	G
1	AR	1880	U
1	AR	1894	U
1	AR	1901	A
1	AR	1906	G
1	AR	1918	C
1	AR	1948	G
1	AR	1953	G
1	AR	1954	G

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Mol	Chain	Res	Type
1	AR	2094	C
1	AR	2101	C
1	AR	2102	U
1	AR	2112	U
1	AR	2113	A
1	AR	2114	C
1	AR	2121	G
1	AR	2122	G
1	AR	2126	A
1	AR	2131	A
1	AR	2149	A
1	AR	2158	A
1	AR	2169	G
1	AR	2177	G
1	AR	2184	U
1	AR	2187	G
1	AR	2188	A
1	AR	2192	C
1	AR	2198	A
1	AR	2205	U
1	AR	2209	U
1	AR	2210	G
1	AR	2223	A
1	AR	2225	U
1	AR	2244	A
1	AR	2252	A
1	AR	2253	G
1	AR	2254	U
1	AR	2255	A
1	AR	2256	A
1	AR	2264	U
1	AR	2269	U
1	AR	2270	A
1	AR	2273	G
1	AR	2276	G
1	AR	2280	A
1	AR	2281	A
1	AR	2282	U
1	AR	2283	G
1	AR	2287	C
1	AR	2288	G
1	AR	2307	G

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Mol	Chain	Res	Type
1	AR	2308	C
1	AR	2309	A
1	AR	2310	U
1	AR	2313	A
1	AR	2314	U
1	AR	2315	G
1	AR	2334	U
1	AR	2335	G
1	AR	2336	U
1	AR	2372	A
1	AR	2373	A
1	AR	2374	C
1	AR	2375	G
1	AR	2385	G
1	AR	2393	G
1	AR	2397	A
1	AR	2401	A
1	AR	2402	A
1	AR	2403	G
1	AR	2404	A
1	AR	2410	U
1	AR	2411	U
1	AR	2418	G
1	AR	2425	G
1	AR	2435	G
1	AR	2438	A
1	AR	2443	A
1	AR	2444	C
1	AR	2445	A
1	AR	2502	A
1	AR	2503	G
1	AR	2504	U
1	AR	2505	U
1	AR	2507	C
1	AR	2508	U
1	AR	2511	A
1	AR	2514	U
1	AR	2515	A
1	AR	2519	A
1	AR	2520	A
1	AR	2521	U
1	AR	2522	G

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Mol	Chain	Res	Type
1	AR	2523	A
1	AR	2530	G
1	AR	2533	G
1	AR	2534	G
1	AR	2536	A
1	AR	2538	U
1	AR	2539	C
1	AR	2540	A
1	AR	2541	U
1	AR	2542	U
1	AR	2544	U
1	AR	2549	G
1	AR	2551	U
1	AR	2552	C
1	AR	2555	G
1	AR	2560	C
1	AR	2561	A
1	AR	2566	C
1	AR	2567	C
1	AR	2569	A
1	AR	2570	U
1	AR	2571	U
1	AR	2572	C
1	AR	2573	G
1	AR	2577	C
1	AR	2582	C
1	AR	2585	G
1	AR	2587	U
1	AR	2593	A
1	AR	2595	A
1	AR	2606	G
1	AR	2607	G
1	AR	2614	G
1	AR	2618	G
1	AR	2637	A
1	AR	2652	U
1	AR	2656	A
1	AR	2674	A
1	AR	2677	G
1	AR	2689	A
1	AR	2691	A
1	AR	2694	A

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Mol	Chain	Res	Type
1	AR	2696	A
1	AR	2705	A
1	AR	2714	G
1	AR	2727	A
1	AR	2728	G
1	AR	2729	U
1	AR	2737	C
1	AR	2752	U
1	AR	2753	G
1	AR	2755	C
1	AR	2762	A
1	AR	2772	C
1	AR	2777	G
1	AR	2778	G
1	AR	2780	A
1	AR	2781	U
1	AR	2796	G
1	AR	2799	A
1	AR	2800	G
1	AR	2801	A
1	AR	2802	A
1	AR	2810	C
1	AR	2814	G
1	AR	2816	G
1	AR	2817	A
1	AR	2818	U
1	AR	2819	A
1	AR	2839	G
1	AR	2840	C
1	AR	2842	U
1	AR	2843	U
1	AR	2845	A
1	AR	2847	A
1	AR	2853	A
1	AR	2860	U
1	AR	2863	G
1	AR	2867	C
1	AR	2871	G
1	AR	2872	A
1	AR	2873	U
1	AR	2875	U
1	AR	2876	C

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Mol	Chain	Res	Type
1	AR	2886	U
1	AR	2887	A
1	AR	2899	C
1	AR	2923	U
1	AR	2935	U
1	AR	2936	A
1	AR	2942	C
1	AR	2943	G
1	AR	2947	G
1	AR	2968	G
1	AR	2971	A
1	AR	2983	C
1	AR	2990	G
1	AR	2996	U
1	AR	2997	G
1	AR	3012	A
1	AR	3013	U
1	AR	3030	G
1	AR	3056	U
1	AR	3057	U
1	AR	3059	G
1	AR	3074	G
1	AR	3078	U
1	AR	3079	U
1	AR	3086	A
1	AR	3092	C
1	AR	3122	A
1	AR	3123	A
1	AR	3130	A
1	AR	3131	U
1	AR	3142	A
1	AR	3143	C
1	AR	3149	G
1	AR	3151	U
1	AR	3153	U
1	AR	3155	U
1	AR	3156	U
1	AR	3157	U
1	AR	3158	G
1	AR	3164	C
1	AR	3165	A
1	AR	3167	A

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Mol	Chain	Res	Type
1	AR	3168	A
1	AR	3172	A
1	AR	3173	G
1	AR	3174	A
1	AR	3176	G
1	AR	3179	U
1	AR	3180	A
1	AR	3181	C
1	AR	3187	A
1	AR	3195	U
1	AR	3196	U
1	AR	3198	U
1	AR	3206	C
1	AR	3207	U
1	AR	3217	C
1	AR	3218	A
1	AR	3219	G
1	AR	3223	A
1	AR	3224	G
1	AR	3228	C
1	AR	3229	G
1	AR	3235	C
1	AR	3244	A
1	AR	3245	A
1	AR	3246	G
1	AR	3247	G
1	AR	3253	G
1	AR	3259	U
1	AR	3265	C
1	AR	3266	G
1	AR	3269	U
1	AR	3270	U
1	AR	3273	A
1	AR	3274	A
1	AR	3275	U
1	AR	3276	G
1	AR	3277	U
1	AR	3278	C
1	AR	3281	U
1	AR	3285	C
1	AR	3286	G
1	AR	3287	U

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Mol	Chain	Res	Type
1	AR	3288	G
1	AR	3289	G
1	AR	3294	A
1	AR	3295	A
1	AR	3304	U
1	AR	3313	U
1	AR	3316	A
1	AR	3317	U
1	AR	3318	G
1	AR	3319	U
1	AR	3320	A
1	AR	3341	U
1	AR	3342	A
1	AR	3344	A
1	AR	3345	G
1	AR	3346	U
1	AR	3347	A
1	AR	3351	U
1	AR	3352	U
1	AR	3353	G
1	AR	3354	U
1	AR	3355	U
1	AR	3356	G
1	AR	3359	A
1	AR	3361	G
1	AR	3369	G
1	AR	3375	A
1	AR	3376	A
1	AR	3378	C
1	AR	3382	U
1	AR	3383	G
1	AR	3389	U
1	AR	3390	G
1	AR	3396	U
2	AS	7	G
2	AS	17	A
2	AS	22	A
2	AS	23	A
2	AS	33	U
2	AS	38	U
2	AS	41	G
2	AS	52	G

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Mol	Chain	Res	Type
2	AS	53	U
2	AS	54	U
2	AS	60	G
2	AS	65	G
2	AS	73	C
2	AS	74	C
2	AS	76	A
2	AS	99	G
2	AS	101	G
2	AS	102	A
2	AS	112	G
2	AS	121	U
3	AT	2	A
3	AT	21	C
3	AT	34	U
3	AT	35	C
3	AT	39	G
3	AT	48	A
3	AT	51	G
3	AT	59	A
3	AT	62	C
3	AT	63	G
3	AT	79	A
3	AT	80	A
3	AT	81	U
3	AT	82	U
3	AT	83	C
3	AT	84	C
3	AT	85	G
3	AT	86	U
3	AT	87	G
3	AT	90	U
3	AT	95	G
3	AT	97	A
3	AT	104	A
3	AT	106	C
3	AT	111	A
3	AT	113	U
3	AT	114	G
3	AT	116	G
3	AT	125	U
3	AT	157	U

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Mol	Chain	Res	Type
3	AT	158	U
47	A	2	A
47	A	4	C
47	A	8	U
47	A	17	C
47	A	25	C
47	A	26	A
47	A	27	U
47	A	34	G
47	A	39	A
47	A	42	G
47	A	47	A
47	A	57	G
47	A	60	U
47	A	67	A
47	A	68	A
47	A	69	G
47	A	72	A
47	A	73	U
47	A	74	U
47	A	77	U
47	A	81	G
47	A	97	C
47	A	104	A
47	A	114	C
47	A	115	G
47	A	127	G
47	A	128	U
47	A	130	C
47	A	131	C
47	A	132	U
47	A	133	U
47	A	134	U
47	A	135	A
47	A	136	C
47	A	137	U
47	A	140	A
47	A	141	U
47	A	144	U
47	A	145	A
47	A	146	U
47	A	158	U

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Mol	Chain	Res	Type
47	A	159	U
47	A	161	U
47	A	169	A
47	A	178	U
47	A	179	A
47	A	181	A
47	A	185	U
47	A	186	C
47	A	188	A
47	A	190	C
47	A	191	C
47	A	192	U
47	A	193	U
47	A	195	G
47	A	197	A
47	A	198	A
47	A	200	A
47	A	215	A
47	A	218	A
47	A	219	A
47	A	226	A
47	A	227	U
47	A	229	U
47	A	233	C
47	A	235	G
47	A	236	A
47	A	238	U
47	A	239	C
47	A	240	U
47	A	241	U
47	A	242	U
47	A	246	G
47	A	249	U
47	A	250	C
47	A	260	U
47	A	261	U
47	A	265	A
47	A	266	A
47	A	271	A
47	A	272	U
47	A	274	G
47	A	275	C

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Mol	Chain	Res	Type
47	A	276	C
47	A	277	U
47	A	278	U
47	A	279	G
47	A	280	U
47	A	281	G
47	A	284	G
47	A	288	A
47	A	290	G
47	A	292	U
47	A	299	A
47	A	302	U
47	A	308	C
47	A	314	C
47	A	316	A
47	A	319	U
47	A	321	C
47	A	322	G
47	A	333	A
47	A	337	G
47	A	338	C
47	A	350	U
47	A	352	A
47	A	359	A
47	A	360	A
47	A	361	C
47	A	378	A
47	A	380	U
47	A	381	C
47	A	390	G
47	A	397	A
47	A	400	A
47	A	401	A
47	A	402	C
47	A	403	G
47	A	404	G
47	A	418	G
47	A	419	G
47	A	424	C
47	A	425	A
47	A	426	G
47	A	428	A

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Mol	Chain	Res	Type
47	A	434	G
47	A	437	A
47	A	439	U
47	A	444	C
47	A	448	C
47	A	452	A
47	A	454	U
47	A	468	A
47	A	477	A
47	A	479	C
47	A	480	G
47	A	483	A
47	A	484	C
47	A	485	A
47	A	488	G
47	A	493	U
47	A	495	C
47	A	496	G
47	A	497	G
47	A	498	G
47	A	499	U
47	A	500	C
47	A	502	U
47	A	503	G
47	A	504	U
47	A	505	A
47	A	506	A
47	A	507	U
47	A	509	G
47	A	510	G
47	A	511	A
47	A	512	A
47	A	513	U
47	A	514	G
47	A	515	A
47	A	516	G
47	A	522	U
47	A	527	A
47	A	532	U
47	A	536	C
47	A	537	G
47	A	538	A

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Mol	Chain	Res	Type
47	A	539	G
47	A	540	G
47	A	541	A
47	A	542	A
47	A	543	C
47	A	544	A
47	A	545	A
47	A	548	G
47	A	555	A
47	A	556	A
47	A	557	G
47	A	558	U
47	A	559	C
47	A	563	U
47	A	565	C
47	A	568	G
47	A	579	A
47	A	580	A
47	A	581	U
47	A	585	A
47	A	594	A
47	A	595	G
47	A	606	A
47	A	608	U
47	A	611	U
47	A	619	A
47	A	620	A
47	A	622	A
47	A	623	A
47	A	624	G
47	A	639	U
47	A	640	U
47	A	650	U
47	A	654	C
47	A	655	G
47	A	656	G
47	A	658	C
47	A	677	G
47	A	678	A
47	A	679	U
47	A	680	U
47	A	682	C

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Mol	Chain	Res	Type
47	A	684	A
47	A	686	C
47	A	692	C
47	A	694	U
47	A	696	C
47	A	697	C
47	A	700	C
47	A	702	G
47	A	703	G
47	A	704	C
47	A	705	U
47	A	706	A
47	A	707	A
47	A	709	C
47	A	710	U
47	A	711	U
47	A	712	G
47	A	714	G
47	A	716	C
47	A	717	C
47	A	718	U
47	A	719	U
47	A	720	G
47	A	721	U
47	A	722	G
47	A	723	G
47	A	725	U
47	A	727	U
47	A	731	C
47	A	732	G
47	A	733	A
47	A	734	A
47	A	735	C
47	A	737	A
47	A	738	G
47	A	741	C
47	A	742	U
47	A	743	U
47	A	745	U
47	A	752	A
47	A	754	A
47	A	755	A

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Mol	Chain	Res	Type
47	A	756	A
47	A	765	G
47	A	766	U
47	A	774	A
47	A	775	G
47	A	777	C
47	A	778	G
47	A	781	U
47	A	782	U
47	A	783	G
47	A	784	C
47	A	787	G
47	A	789	A
47	A	793	A
47	A	794	U
47	A	807	A
47	A	812	A
47	A	814	A
47	A	815	G
47	A	816	G
47	A	818	C
47	A	819	G
47	A	820	U
47	A	821	U
47	A	823	G
47	A	824	G
47	A	830	U
47	A	831	U
47	A	832	U
47	A	833	U
47	A	834	G
47	A	841	U
47	A	846	G
47	A	856	A
47	A	863	A
47	A	864	U
47	A	876	G
47	A	886	U
47	A	892	A
47	A	898	A
47	A	912	U
47	A	913	G

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Mol	Chain	Res	Type
47	A	914	G
47	A	916	U
47	A	933	A
47	A	934	C
47	A	935	U
47	A	942	G
47	A	951	A
47	A	960	U
47	A	966	A
47	A	989	U
47	A	992	A
47	A	993	A
47	A	997	G
47	A	1002	G
47	A	1003	A
47	A	1004	U
47	A	1005	A
47	A	1026	A
47	A	1028	C
47	A	1029	U
47	A	1039	A
47	A	1040	G
47	A	1052	U
47	A	1053	G
47	A	1057	U
47	A	1058	U
47	A	1060	U
47	A	1062	A
47	A	1074	G
47	A	1080	U
47	A	1082	C
47	A	1086	A
47	A	1091	A
47	A	1092	A
47	A	1096	C
47	A	1097	U
47	A	1098	U
47	A	1100	G
47	A	1111	G
47	A	1138	A
47	A	1140	G
47	A	1145	U

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Mol	Chain	Res	Type
47	A	1146	G
47	A	1150	G
47	A	1151	A
47	A	1157	A
47	A	1158	C
47	A	1160	A
47	A	1163	A
47	A	1167	G
47	A	1168	U
47	A	1185	U
47	A	1191	U
47	A	1194	A
47	A	1196	A
47	A	1199	G
47	A	1200	G
47	A	1202	A
47	A	1203	A
47	A	1207	C
47	A	1217	A
47	A	1218	G
47	A	1227	A
47	A	1229	G
47	A	1241	G
47	A	1243	G
47	A	1244	A
47	A	1245	G
47	A	1246	C
47	A	1251	U
47	A	1256	A
47	A	1257	U
47	A	1284	C
47	A	1285	U
47	A	1286	U
47	A	1307	U
47	A	1314	U
47	A	1315	U
47	A	1319	A
47	A	1321	A
47	A	1324	G
47	A	1329	A
47	A	1339	C
47	A	1340	U

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Mol	Chain	Res	Type
47	A	1341	A
47	A	1344	A
47	A	1345	A
47	A	1346	A
47	A	1354	G
47	A	1358	G
47	A	1360	A
47	A	1362	U
47	A	1363	U
47	A	1364	G
47	A	1370	U
47	A	1371	A
47	A	1372	U
47	A	1386	G
47	A	1388	A
47	A	1390	U
47	A	1398	U
47	A	1399	C
47	A	1413	U
47	A	1414	U
47	A	1415	U
47	A	1418	G
47	A	1424	A
47	A	1427	A
47	A	1428	G
47	A	1432	U
47	A	1433	G
47	A	1446	A
47	A	1447	C
47	A	1459	C
47	A	1460	A
47	A	1461	C
47	A	1471	A
47	A	1473	U
47	A	1474	G
47	A	1475	A
47	A	1482	C
47	A	1486	G
47	A	1487	A
47	A	1489	U
47	A	1490	C
47	A	1491	U

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Mol	Chain	Res	Type
47	A	1492	A
47	A	1499	G
47	A	1506	G
47	A	1515	A
47	A	1516	A
47	A	1517	U
47	A	1521	G
47	A	1523	G
47	A	1524	A
47	A	1526	A
47	A	1533	C
47	A	1534	G
47	A	1535	U
47	A	1536	G
47	A	1537	C
47	A	1538	U
47	A	1542	G
47	A	1557	U
47	A	1559	A
47	A	1569	A
47	A	1572	G
47	A	1574	G
47	A	1576	A
47	A	1584	G
47	A	1600	A
47	A	1601	G
47	A	1614	A
47	A	1615	C
47	A	1616	G
47	A	1625	C
47	A	1631	A
47	A	1634	C
47	A	1657	U
47	A	1658	G
47	A	1663	G
47	A	1664	C
47	A	1680	G
47	A	1681	A
47	A	1682	U
47	A	1683	C
47	A	1684	U
47	A	1689	A

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Mol	Chain	Res	Type
47	A	1698	G
47	A	1699	G
47	A	1700	C
47	A	1702	A
47	A	1703	C
47	A	1707	A
47	A	1710	U
47	A	1711	C
47	A	1712	A
47	A	1713	G
47	A	1715	G
47	A	1731	A
47	A	1750	A
47	A	1755	A
47	A	1760	G
47	A	1761	U
47	A	1762	A
47	A	1766	A
47	A	1767	G
47	A	1769	U
47	A	1772	C
47	A	1780	G
47	A	1782	A
47	A	1783	C
47	A	1792	G
47	A	1793	G
47	A	1794	A
47	A	1795	U
47	A	1796	C
47	sR	2	A
47	sR	17	C
47	sR	25	C
47	sR	26	A
47	sR	27	U
47	sR	34	G
47	sR	46	A
47	sR	47	A
47	sR	50	C
47	sR	57	G
47	sR	60	U
47	sR	61	A
47	sR	63	G

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Mol	Chain	Res	Type
47	sR	65	A
47	sR	68	A
47	sR	69	G
47	sR	72	A
47	sR	73	U
47	sR	75	U
47	sR	76	A
47	sR	77	U
47	sR	78	A
47	sR	80	A
47	sR	104	A
47	sR	114	C
47	sR	115	G
47	sR	128	U
47	sR	132	U
47	sR	137	U
47	sR	138	A
47	sR	140	A
47	sR	141	U
47	sR	142	G
47	sR	143	G
47	sR	144	U
47	sR	145	A
47	sR	146	U
47	sR	153	G
47	sR	159	U
47	sR	161	U
47	sR	166	C
47	sR	177	U
47	sR	178	U
47	sR	185	U
47	sR	188	A
47	sR	191	C
47	sR	192	U
47	sR	193	U
47	sR	194	U
47	sR	195	G
47	sR	196	G
47	sR	197	A
47	sR	199	G
47	sR	200	A
47	sR	216	U

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Mol	Chain	Res	Type
47	sR	218	A
47	sR	219	A
47	sR	220	A
47	sR	221	A
47	sR	224	C
47	sR	227	U
47	sR	228	G
47	sR	230	C
47	sR	232	U
47	sR	233	C
47	sR	235	G
47	sR	238	U
47	sR	240	U
47	sR	241	U
47	sR	242	U
47	sR	245	U
47	sR	249	U
47	sR	250	C
47	sR	260	U
47	sR	265	A
47	sR	266	A
47	sR	267	U
47	sR	271	A
47	sR	272	U
47	sR	273	G
47	sR	275	C
47	sR	277	U
47	sR	278	U
47	sR	280	U
47	sR	281	G
47	sR	291	G
47	sR	299	A
47	sR	314	C
47	sR	316	A
47	sR	319	U
47	sR	321	C
47	sR	322	G
47	sR	333	A
47	sR	335	U
47	sR	337	G
47	sR	338	C
47	sR	345	U

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Mol	Chain	Res	Type
47	sR	359	A
47	sR	360	A
47	sR	361	C
47	sR	379	U
47	sR	380	U
47	sR	400	A
47	sR	401	A
47	sR	402	C
47	sR	404	G
47	sR	416	A
47	sR	418	G
47	sR	424	C
47	sR	425	A
47	sR	426	G
47	sR	434	G
47	sR	437	A
47	sR	439	U
47	sR	444	C
47	sR	448	C
47	sR	452	A
47	sR	454	U
47	sR	455	C
47	sR	468	A
47	sR	475	A
47	sR	480	G
47	sR	484	C
47	sR	486	G
47	sR	487	G
47	sR	488	G
47	sR	489	C
47	sR	490	C
47	sR	492	A
47	sR	493	U
47	sR	494	U
47	sR	495	C
47	sR	496	G
47	sR	497	G
47	sR	500	C
47	sR	501	U
47	sR	502	U
47	sR	505	A
47	sR	506	A

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Mol	Chain	Res	Type
47	sR	507	U
47	sR	508	U
47	sR	510	G
47	sR	511	A
47	sR	512	A
47	sR	513	U
47	sR	514	G
47	sR	516	G
47	sR	519	C
47	sR	525	A
47	sR	534	A
47	sR	538	A
47	sR	539	G
47	sR	540	G
47	sR	542	A
47	sR	543	C
47	sR	544	A
47	sR	548	G
47	sR	551	G
47	sR	556	A
47	sR	557	G
47	sR	558	U
47	sR	559	C
47	sR	565	C
47	sR	566	C
47	sR	568	G
47	sR	570	A
47	sR	574	G
47	sR	578	U
47	sR	579	A
47	sR	580	A
47	sR	582	U
47	sR	588	U
47	sR	594	A
47	sR	595	G
47	sR	610	G
47	sR	611	U
47	sR	619	A
47	sR	620	A
47	sR	622	A
47	sR	623	A
47	sR	624	G

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Mol	Chain	Res	Type
47	sR	634	G
47	sR	635	A
47	sR	637	C
47	sR	639	U
47	sR	648	G
47	sR	650	U
47	sR	651	G
47	sR	652	G
47	sR	653	C
47	sR	654	C
47	sR	658	C
47	sR	679	U
47	sR	680	U
47	sR	681	U
47	sR	682	C
47	sR	683	C
47	sR	684	A
47	sR	685	A
47	sR	690	G
47	sR	691	C
47	sR	696	C
47	sR	705	U
47	sR	709	C
47	sR	710	U
47	sR	711	U
47	sR	715	U
47	sR	718	U
47	sR	719	U
47	sR	720	G
47	sR	721	U
47	sR	722	G
47	sR	730	G
47	sR	739	G
47	sR	743	U
47	sR	745	U
47	sR	753	A
47	sR	754	A
47	sR	755	A
47	sR	756	A
47	sR	765	G
47	sR	771	A
47	sR	774	A

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Mol	Chain	Res	Type
47	sR	775	G
47	sR	780	A
47	sR	781	U
47	sR	782	U
47	sR	783	G
47	sR	789	A
47	sR	792	U
47	sR	793	A
47	sR	794	U
47	sR	811	A
47	sR	812	A
47	sR	814	A
47	sR	815	G
47	sR	816	G
47	sR	821	U
47	sR	823	G
47	sR	824	G
47	sR	825	U
47	sR	826	U
47	sR	829	A
47	sR	830	U
47	sR	831	U
47	sR	832	U
47	sR	834	G
47	sR	835	U
47	sR	846	G
47	sR	847	A
47	sR	856	A
47	sR	862	A
47	sR	863	A
47	sR	898	A
47	sR	906	A
47	sR	910	C
47	sR	911	U
47	sR	912	U
47	sR	913	G
47	sR	914	G
47	sR	916	U
47	sR	933	A
47	sR	935	U
47	sR	942	G
47	sR	959	U

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Mol	Chain	Res	Type
47	sR	960	U
47	sR	966	A
47	sR	968	U
47	sR	970	A
47	sR	971	A
47	sR	983	A
47	sR	992	A
47	sR	1004	U
47	sR	1005	A
47	sR	1021	C
47	sR	1026	A
47	sR	1028	C
47	sR	1036	A
47	sR	1039	A
47	sR	1040	G
47	sR	1043	A
47	sR	1048	G
47	sR	1052	U
47	sR	1053	G
47	sR	1057	U
47	sR	1058	U
47	sR	1059	U
47	sR	1060	U
47	sR	1061	A
47	sR	1062	A
47	sR	1071	U
47	sR	1073	G
47	sR	1081	A
47	sR	1082	C
47	sR	1086	A
47	sR	1092	A
47	sR	1096	C
47	sR	1097	U
47	sR	1098	U
47	sR	1099	U
47	sR	1100	G
47	sR	1111	G
47	sR	1138	A
47	sR	1139	A
47	sR	1150	G
47	sR	1155	G
47	sR	1157	A

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Mol	Chain	Res	Type
47	sR	1158	C
47	sR	1159	C
47	sR	1160	A
47	sR	1161	C
47	sR	1167	G
47	sR	1185	U
47	sR	1186	U
47	sR	1193	A
47	sR	1194	A
47	sR	1196	A
47	sR	1199	G
47	sR	1200	G
47	sR	1202	A
47	sR	1207	C
47	sR	1208	A
47	sR	1216	C
47	sR	1217	A
47	sR	1218	G
47	sR	1219	A
47	sR	1220	C
47	sR	1225	U
47	sR	1227	A
47	sR	1228	G
47	sR	1229	G
47	sR	1230	A
47	sR	1231	U
47	sR	1241	G
47	sR	1243	G
47	sR	1244	A
47	sR	1245	G
47	sR	1246	C
47	sR	1255	G
47	sR	1256	A
47	sR	1257	U
47	sR	1258	U
47	sR	1272	U
47	sR	1286	U
47	sR	1307	U
47	sR	1311	U
47	sR	1314	U
47	sR	1315	U
47	sR	1316	G

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Mol	Chain	Res	Type
47	sR	1321	A
47	sR	1344	A
47	sR	1345	A
47	sR	1346	A
47	sR	1347	U
47	sR	1354	G
47	sR	1355	C
47	sR	1361	U
47	sR	1362	U
47	sR	1363	U
47	sR	1364	G
47	sR	1367	G
47	sR	1370	U
47	sR	1371	A
47	sR	1388	A
47	sR	1390	U
47	sR	1398	U
47	sR	1399	C
47	sR	1400	A
47	sR	1402	G
47	sR	1410	A
47	sR	1412	G
47	sR	1413	U
47	sR	1414	U
47	sR	1415	U
47	sR	1427	A
47	sR	1428	G
47	sR	1433	G
47	sR	1445	G
47	sR	1446	A
47	sR	1448	G
47	sR	1459	C
47	sR	1460	A
47	sR	1466	G
47	sR	1469	A
47	sR	1471	A
47	sR	1473	U
47	sR	1474	G
47	sR	1481	C
47	sR	1482	C
47	sR	1489	U
47	sR	1490	C

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Mol	Chain	Res	Type
47	sR	1491	U
47	sR	1492	A
47	sR	1506	G
47	sR	1514	U
47	sR	1516	A
47	sR	1517	U
47	sR	1518	C
47	sR	1520	U
47	sR	1523	G
47	sR	1524	A
47	sR	1535	U
47	sR	1537	C
47	sR	1538	U
47	sR	1540	G
47	sR	1542	G
47	sR	1554	U
47	sR	1555	A
47	sR	1557	U
47	sR	1559	A
47	sR	1571	C
47	sR	1573	A
47	sR	1574	G
47	sR	1575	G
47	sR	1582	U
47	sR	1584	G
47	sR	1590	G
47	sR	1601	G
47	sR	1621	U
47	sR	1634	C
47	sR	1638	G
47	sR	1657	U
47	sR	1658	G
47	sR	1681	A
47	sR	1682	U
47	sR	1695	G
47	sR	1696	G
47	sR	1697	G
47	sR	1698	G
47	sR	1699	G
47	sR	1700	C
47	sR	1702	A
47	sR	1703	C

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Mol	Chain	Res	Type
47	sR	1712	A
47	sR	1713	G
47	sR	1716	C
47	sR	1717	G
47	sR	1727	G
47	sR	1731	A
47	sR	1755	A
47	sR	1760	G
47	sR	1766	A
47	sR	1767	G
47	sR	1769	U
47	sR	1780	G
47	sR	1782	A
47	sR	1783	C
47	sR	1792	G
47	sR	1793	G
47	sR	1794	A
47	sR	1796	C
47	sR	1799	U
47	sR	1800	A

All (142) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1	65	A
1	1	239	G
1	1	282	G
1	1	588	G
1	1	763	G
1	1	873	C
1	1	916	G
1	1	979	U
1	1	981	U
1	1	993	G
1	1	1094	U
1	1	1097	G
1	1	1103	A
1	1	1192	C
1	1	1196	C
1	1	1264	G
1	1	1273	A
1	1	1329	U

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Mol	Chain	Res	Type
1	1	1355	A
1	1	1562	C
1	1	1589	A
1	1	1716	U
1	1	1724	U
1	1	1820	U
1	1	2101	C
1	1	2112	U
1	1	2209	U
1	1	2227	C
1	1	2249	G
1	1	2418	G
1	1	2522	G
1	1	2537	U
1	1	2539	C
1	1	2541	U
1	1	2570	U
1	1	2593	A
1	1	2818	U
1	1	2859	U
1	1	2874	G
1	1	3078	U
1	1	3121	U
1	1	3196	U
1	1	3218	A
1	1	3228	C
1	1	3269	U
1	1	3303	G
1	1	3350	C
1	1	3351	U
1	1	3353	G
2	3	49	G
3	4	85	G
3	4	125	U
1	AR	65	A
1	AR	588	G
1	AR	594	U
1	AR	715	A
1	AR	873	C
1	AR	896	A
1	AR	916	G
1	AR	979	U

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Mol	Chain	Res	Type
1	AR	981	U
1	AR	993	G
1	AR	1064	A
1	AR	1094	U
1	AR	1097	G
1	AR	1238	C
1	AR	1241	U
1	AR	1284	C
1	AR	1329	U
1	AR	1352	A
1	AR	1355	A
1	AR	1562	C
1	AR	1716	U
1	AR	1815	U
1	AR	1820	U
1	AR	2101	C
1	AR	2112	U
1	AR	2252	A
1	AR	2255	A
1	AR	2269	U
1	AR	2400	G
1	AR	2537	U
1	AR	2541	U
1	AR	2586	G
1	AR	2728	G
1	AR	2801	A
1	AR	2818	U
1	AR	2859	U
1	AR	2871	G
1	AR	3121	U
1	AR	3157	U
1	AR	3218	A
1	AR	3228	C
1	AR	3269	U
1	AR	3276	G
1	AR	3303	G
1	AR	3350	C
1	AR	3375	A
2	AS	52	G
3	AT	85	G
47	A	25	C
47	A	66	U

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Mol	Chain	Res	Type
47	A	73	U
47	A	113	U
47	A	130	C
47	A	139	C
47	A	158	U
47	A	187	G
47	A	218	A
47	A	278	U
47	A	417	A
47	A	499	U
47	A	501	U
47	A	503	G
47	A	512	A
47	A	555	A
47	A	580	A
47	A	685	A
47	A	704	C
47	A	720	G
47	A	721	U
47	A	732	G
47	A	755	A
47	A	781	U
47	A	815	G
47	A	1051	G
47	A	1081	A
47	A	1150	G
47	A	1157	A
47	A	1244	A
47	A	1250	U
47	A	1370	U
47	A	1474	G
47	A	1481	C
47	A	1489	U
47	A	1537	C
47	A	1568	C
47	A	1573	A
47	A	1600	A
47	A	1657	U
47	A	1698	G
47	A	1761	U

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2462 ligands modelled in this entry, 1 is modelled with single atom and 1500 are monoatomic - leaving 961 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	AR	3470	-	0,6,6	-	-	-		
82	OHX	AR	3510	-	0,6,6	-	-	-		
82	OHX	AR	3641	-	0,6,6	-	-	-		
82	OHX	CL	302	-	0,6,6	-	-	-		
82	OHX	sR	1901	-	0,6,6	-	-	-		
82	OHX	1	4106	-	0,6,6	-	-	-		
82	OHX	A	2145	-	0,6,6	-	-	-		
82	OHX	AR	3513	-	0,6,6	-	-	-		
82	OHX	A	1907	-	0,6,6	-	-	-		
82	OHX	1	3533	-	0,6,6	-	-	-		
82	OHX	1	4050	-	0,6,6	-	-	-		
82	OHX	AR	3413	-	0,6,6	-	-	-		
82	OHX	1	3502	-	0,6,6	-	-	-		
82	OHX	AR	3558	-	0,6,6	-	-	-		
82	OHX	AR	3473	-	0,6,6	-	-	-		
82	OHX	AR	3608	-	0,6,6	-	-	-		
82	OHX	AR	3534	-	0,6,6	-	-	-		
82	OHX	AR	3580	-	0,6,6	-	-	-		
82	OHX	AR	3407	-	0,6,6	-	-	-		
82	OHX	A	2105	-	0,6,6	-	-	-		
82	OHX	sR	2016	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	1	3539	-	0,6,6	-	-	-		
82	OHX	1	4088	-	0,6,6	-	-	-		
82	OHX	AR	4139	-	0,6,6	-	-	-		
82	OHX	1	4152	-	0,6,6	-	-	-		
82	OHX	1	3420	-	0,6,6	-	-	-		
82	OHX	1	3551	-	0,6,6	-	-	-		
82	OHX	AR	3486	-	0,6,6	-	-	-		
82	OHX	AR	3596	-	0,6,6	-	-	-		
82	OHX	AR	3437	-	0,6,6	-	-	-		
82	OHX	AR	3647	-	0,6,6	-	-	-		
82	OHX	AT	212	-	0,6,6	-	-	-		
82	OHX	CG	304	-	0,6,6	-	-	-		
82	OHX	A	1977	-	0,6,6	-	-	-		
82	OHX	1	3589	-	0,6,6	-	-	-		
82	OHX	AR	3560	-	0,6,6	-	-	-		
82	OHX	AR	3628	-	0,6,6	-	-	-		
82	OHX	AT	211	-	0,6,6	-	-	-		
82	OHX	3	221	-	0,6,6	-	-	-		
82	OHX	AR	3427	-	0,6,6	-	-	-		
82	OHX	1	4115	-	0,6,6	-	-	-		
82	OHX	AR	3562	-	0,6,6	-	-	-		
82	OHX	AR	3625	-	0,6,6	-	-	-		
82	OHX	A	1918	-	0,6,6	-	-	-		
82	OHX	AR	3526	-	0,6,6	-	-	-		
82	OHX	sR	1928	-	0,6,6	-	-	-		
82	OHX	AR	3425	-	0,6,6	-	-	-		
82	OHX	sR	1980	-	0,6,6	-	-	-		
82	OHX	1	3404	-	0,6,6	-	-	-		
82	OHX	AR	3402	-	0,6,6	-	-	-		
82	OHX	A	1940[A]	-	0,6,6	-	-	-		
82	OHX	1	4081	-	0,6,6	-	-	-		
82	OHX	A	1930	-	0,6,6	-	-	-		
82	OHX	A	2137	-	0,6,6	-	-	-		
82	OHX	O	201	-	0,6,6	-	-	-		
82	OHX	1	3442	-	0,6,6	-	-	-		
82	OHX	sR	1957	-	0,6,6	-	-	-		
82	OHX	sR	1958	-	0,6,6	-	-	-		
82	OHX	4	208	-	0,6,6	-	-	-		
82	OHX	sR	1941	-	0,6,6	-	-	-		
82	OHX	AT	214	-	0,6,6	-	-	-		
82	OHX	AR	3496	-	0,6,6	-	-	-		
82	OHX	AR	3448	-	0,6,6	-	-	-		
82	OHX	A	2123	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	AR	3483	-	0,6,6	-	-	-		
82	OHX	AK	103	-	0,6,6	-	-	-		
82	OHX	1	4109	-	0,6,6	-	-	-		
82	OHX	AR	3642	-	0,6,6	-	-	-		
82	OHX	AT	206	-	0,6,6	-	-	-		
82	OHX	AR	3547	-	0,6,6	-	-	-		
82	OHX	AS	203	-	0,6,6	-	-	-		
82	OHX	1	3552	-	0,6,6	-	-	-		
82	OHX	AR	3531	-	0,6,6	-	-	-		
82	OHX	1	3503	-	0,6,6	-	-	-		
82	OHX	4	212	-	0,6,6	-	-	-		
82	OHX	AR	3587	-	0,6,6	-	-	-		
82	OHX	AR	4144	-	0,6,6	-	-	-		
82	OHX	AR	3490	-	0,6,6	-	-	-		
82	OHX	sR	1968	-	0,6,6	-	-	-		
82	OHX	A	2104	-	0,6,6	-	-	-		
82	OHX	U	201	-	0,6,6	-	-	-		
82	OHX	AR	3557	-	0,6,6	-	-	-		
82	OHX	AR	3595	-	0,6,6	-	-	-		
82	OHX	sR	2017	-	0,6,6	-	-	-		
82	OHX	sR	1951	-	0,6,6	-	-	-		
82	OHX	1	3411	-	0,6,6	-	-	-		
82	OHX	sR	1932	-	0,6,6	-	-	-		
82	OHX	1	4146	-	0,6,6	-	-	-		
82	OHX	1	3412	-	0,6,6	-	-	-		
82	OHX	AR	4126	-	0,6,6	-	-	-		
82	OHX	1	3500	-	0,6,6	-	-	-		
82	OHX	AR	3571	-	0,6,6	-	-	-		
82	OHX	3	205	-	0,6,6	-	-	-		
82	OHX	1	4105	-	0,6,6	-	-	-		
82	OHX	AR	3423	-	0,6,6	-	-	-		
82	OHX	1	4140	-	0,6,6	-	-	-		
82	OHX	A	1904	-	0,6,6	-	-	-		
82	OHX	1	3570	-	0,6,6	-	-	-		
82	OHX	1	3548	-	0,6,6	-	-	-		
82	OHX	AR	3506	-	0,6,6	-	-	-		
82	OHX	CG	303	-	0,6,6	-	-	-		
82	OHX	1	3476	-	0,6,6	-	-	-		
82	OHX	sR	1964	-	0,6,6	-	-	-		
82	OHX	1	3580	-	0,6,6	-	-	-		
82	OHX	AR	3430	-	0,6,6	-	-	-		
82	OHX	A	2117	-	0,6,6	-	-	-		
82	OHX	sR	1990	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	1	3600	-	0,6,6	-	-	-		
82	OHX	A	2109	-	0,6,6	-	-	-		
82	OHX	1	3409	-	0,6,6	-	-	-		
82	OHX	sR	1965	-	0,6,6	-	-	-		
82	OHX	sR	1995	-	0,6,6	-	-	-		
82	OHX	A	2130	-	0,6,6	-	-	-		
82	OHX	1	3484	-	0,6,6	-	-	-		
82	OHX	AR	3410	-	0,6,6	-	-	-		
82	OHX	AR	3414	-	0,6,6	-	-	-		
82	OHX	1	4134	-	0,6,6	-	-	-		
82	OHX	A	1949	-	0,6,6	-	-	-		
82	OHX	J	301	-	0,6,6	-	-	-		
82	OHX	1	3592	-	0,6,6	-	-	-		
82	OHX	AR	3478	-	0,6,6	-	-	-		
82	OHX	AR	3507	-	0,6,6	-	-	-		
82	OHX	1	3532	-	0,6,6	-	-	-		
82	OHX	AR	3543	-	0,6,6	-	-	-		
82	OHX	sR	2003	-	0,6,6	-	-	-		
82	OHX	A	1968	-	0,6,6	-	-	-		
82	OHX	A	2120	-	0,6,6	-	-	-		
82	OHX	1	4091	-	0,6,6	-	-	-		
82	OHX	1	3598	-	0,6,6	-	-	-		
82	OHX	AR	3434	-	0,6,6	-	-	-		
82	OHX	AR	3671	-	0,6,6	-	-	-		
82	OHX	AR	4148	-	0,6,6	-	-	-		
82	OHX	1	3436	-	0,6,6	-	-	-		
82	OHX	sR	1919	-	0,6,6	-	-	-		
82	OHX	A	1922	-	0,6,6	-	-	-		
82	OHX	sR	1993	-	0,6,6	-	-	-		
82	OHX	AR	3622	-	0,6,6	-	-	-		
82	OHX	1	3602	-	0,6,6	-	-	-		
82	OHX	AR	3533	-	0,6,6	-	-	-		
82	OHX	AR	4161	-	0,6,6	-	-	-		
82	OHX	1	3507	-	0,6,6	-	-	-		
82	OHX	A	1959	-	0,6,6	-	-	-		
82	OHX	sR	2175	-	0,6,6	-	-	-		
82	OHX	1	3448	-	0,6,6	-	-	-		
82	OHX	DQ	502	-	0,6,6	-	-	-		
82	OHX	AR	3415	-	0,6,6	-	-	-		
82	OHX	1	4077	-	0,6,6	-	-	-		
82	OHX	AR	4156	-	0,6,6	-	-	-		
82	OHX	1	3424	-	0,6,6	-	-	-		
82	OHX	AR	4150	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	1	4098	-	0,6,6	-	-	-		
82	OHX	AR	3576	-	0,6,6	-	-	-		
82	OHX	A	1934	-	0,6,6	-	-	-		
82	OHX	AS	207	-	0,6,6	-	-	-		
82	OHX	A	2141	-	0,6,6	-	-	-		
82	OHX	1	3567	-	0,6,6	-	-	-		
82	OHX	sR	2026	-	0,6,6	-	-	-		
82	OHX	A	1960	-	0,6,6	-	-	-		
82	OHX	AT	216	-	0,6,6	-	-	-		
82	OHX	AR	3472	-	0,6,6	-	-	-		
82	OHX	sR	1933	-	0,6,6	-	-	-		
82	OHX	1	3561	-	0,6,6	-	-	-		
82	OHX	1	3438	-	0,6,6	-	-	-		
82	OHX	AR	3515	-	0,6,6	-	-	-		
82	OHX	1	3582	-	0,6,6	-	-	-		
82	OHX	sR	1915	-	0,6,6	-	-	-		
82	OHX	sR	1908	-	0,6,6	-	-	-		
82	OHX	AR	3528	-	0,6,6	-	-	-		
82	OHX	1	3456	-	0,6,6	-	-	-		
82	OHX	AR	3636	-	0,6,6	-	-	-		
82	OHX	A	1941	-	0,6,6	-	-	-		
82	OHX	AS	201	-	0,6,6	-	-	-		
82	OHX	sR	1937	-	0,6,6	-	-	-		
82	OHX	DH	202	-	0,6,6	-	-	-		
82	OHX	AR	3447	-	0,6,6	-	-	-		
82	OHX	A	2144	-	0,6,6	-	-	-		
82	OHX	CE	402	-	0,6,6	-	-	-		
82	OHX	1	3437	-	0,6,6	-	-	-		
82	OHX	A	1973	-	0,6,6	-	-	-		
82	OHX	1	3581	-	0,6,6	-	-	-		
82	OHX	A	2138	-	0,6,6	-	-	-		
82	OHX	1	3485	-	0,6,6	-	-	-		
82	OHX	AR	3668	-	0,6,6	-	-	-		
82	OHX	4	204	-	0,6,6	-	-	-		
82	OHX	AR	3419	-	0,6,6	-	-	-		
82	OHX	A	2121	-	0,6,6	-	-	-		
82	OHX	A	2127	-	0,6,6	-	-	-		
82	OHX	sR	1975	-	0,6,6	-	-	-		
82	OHX	sR	2176	-	0,6,6	-	-	-		
82	OHX	sR	1986	-	0,6,6	-	-	-		
82	OHX	1	4119	-	0,6,6	-	-	-		
82	OHX	1	3593	-	0,6,6	-	-	-		
82	OHX	1	4148	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	AR	3572	-	0,6,6	-	-	-		
82	OHX	AR	3535	-	0,6,6	-	-	-		
82	OHX	sR	1903	-	0,6,6	-	-	-		
82	OHX	AR	3603	-	0,6,6	-	-	-		
82	OHX	1	4149	-	0,6,6	-	-	-		
82	OHX	A	1964	-	0,6,6	-	-	-		
82	OHX	AR	3548	-	0,6,6	-	-	-		
82	OHX	A	2143	-	0,6,6	-	-	-		
82	OHX	1	3547	-	0,6,6	-	-	-		
82	OHX	AR	3428	-	0,6,6	-	-	-		
82	OHX	A	2136	-	0,6,6	-	-	-		
82	OHX	AR	3563	-	0,6,6	-	-	-		
82	OHX	sR	1988	-	0,6,6	-	-	-		
82	OHX	sR	1931	-	0,6,6	-	-	-		
82	OHX	AR	3590	-	0,6,6	-	-	-		
82	OHX	AR	3453	-	0,6,6	-	-	-		
82	OHX	1	3599	-	0,6,6	-	-	-		
82	OHX	AR	4154	-	0,6,6	-	-	-		
82	OHX	A	2140	-	0,6,6	-	-	-		
82	OHX	1	3446	-	0,6,6	-	-	-		
82	OHX	AR	3420	-	0,6,6	-	-	-		
82	OHX	1	4103	-	0,6,6	-	-	-		
82	OHX	1	3521	-	0,6,6	-	-	-		
82	OHX	A	1926	-	0,6,6	-	-	-		
82	OHX	1	3524	-	0,6,6	-	-	-		
82	OHX	1	4139	-	0,6,6	-	-	-		
82	OHX	A	2132	-	0,6,6	-	-	-		
82	OHX	1	3406	-	0,6,6	-	-	-		
82	OHX	AR	3634	-	0,6,6	-	-	-		
82	OHX	AR	4138	-	0,6,6	-	-	-		
82	OHX	sR	1927	-	0,6,6	-	-	-		
82	OHX	AR	3421	-	0,6,6	-	-	-		
82	OHX	AR	4120	-	0,6,6	-	-	-		
82	OHX	AR	4160	-	0,6,6	-	-	-		
82	OHX	A	2108	-	0,6,6	-	-	-		
82	OHX	sR	2000	-	0,6,6	-	-	-		
82	OHX	A	1921	-	0,6,6	-	-	-		
82	OHX	1	4133	-	0,6,6	-	-	-		
82	OHX	4	210	-	0,6,6	-	-	-		
82	OHX	AR	3444	-	0,6,6	-	-	-		
82	OHX	1	3525	-	0,6,6	-	-	-		
82	OHX	AR	4116	-	0,6,6	-	-	-		
82	OHX	A	2118	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	AR	3643	-	0,6,6	-	-	-		
82	OHX	1	3418	-	0,6,6	-	-	-		
82	OHX	AR	3602	-	0,6,6	-	-	-		
82	OHX	A	2114	-	0,6,6	-	-	-		
82	OHX	AR	3662	-	0,6,6	-	-	-		
82	OHX	1	4092	-	0,6,6	-	-	-		
82	OHX	1	3495	-	0,6,6	-	-	-		
82	OHX	1	4147	-	0,6,6	-	-	-		
82	OHX	AR	3450	-	0,6,6	-	-	-		
82	OHX	1	3457	-	0,6,6	-	-	-		
82	OHX	AR	3585	-	0,6,6	-	-	-		
82	OHX	1	3497	-	0,6,6	-	-	-		
82	OHX	AR	3629	-	0,6,6	-	-	-		
82	OHX	AR	3441	-	0,6,6	-	-	-		
82	OHX	1	3482	-	0,6,6	-	-	-		
82	OHX	AS	205	-	0,6,6	-	-	-		
82	OHX	1	3441	-	0,6,6	-	-	-		
82	OHX	1	3579	-	0,6,6	-	-	-		
82	OHX	sR	1940	-	0,6,6	-	-	-		
82	OHX	sR	1992	-	0,6,6	-	-	-		
82	OHX	A	1901	-	0,6,6	-	-	-		
82	OHX	1	4155	-	0,6,6	-	-	-		
82	OHX	1	3445	-	0,6,6	-	-	-		
82	OHX	AR	3609	-	0,6,6	-	-	-		
82	OHX	AR	3644	-	0,6,6	-	-	-		
82	OHX	AR	3648	-	0,6,6	-	-	-		
82	OHX	AR	3604	-	0,6,6	-	-	-		
82	OHX	1	3518	-	0,6,6	-	-	-		
82	OHX	AR	4136	-	0,6,6	-	-	-		
82	OHX	AR	3464	-	0,6,6	-	-	-		
82	OHX	AR	3655	-	0,6,6	-	-	-		
82	OHX	AR	3459	-	0,6,6	-	-	-		
82	OHX	AR	3656	-	0,6,6	-	-	-		
82	OHX	sR	2181	-	0,6,6	-	-	-		
82	OHX	A	1970	-	0,6,6	-	-	-		
82	OHX	1	3566	-	0,6,6	-	-	-		
82	OHX	A	1974	-	0,6,6	-	-	-		
82	OHX	1	3585	-	0,6,6	-	-	-		
82	OHX	1	3577	-	0,6,6	-	-	-		
82	OHX	1	3583	-	0,6,6	-	-	-		
82	OHX	sR	1952	-	0,6,6	-	-	-		
82	OHX	AR	3479	-	0,6,6	-	-	-		
82	OHX	CS	201	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	1	3435	-	0,6,6	-	-	-		
82	OHX	1	4058	-	0,6,6	-	-	-		
82	OHX	AR	4143	-	0,6,6	-	-	-		
82	OHX	A	2116	-	0,6,6	-	-	-		
82	OHX	AR	3618	-	0,6,6	-	-	-		
82	OHX	AR	3651	-	0,6,6	-	-	-		
82	OHX	4	228	-	0,6,6	-	-	-		
82	OHX	AR	3480	-	0,6,6	-	-	-		
82	OHX	1	4121	-	0,6,6	-	-	-		
82	OHX	1	4129	-	0,6,6	-	-	-		
82	OHX	k	404	-	0,6,6	-	-	-		
82	OHX	AR	3638	-	0,6,6	-	-	-		
82	OHX	c3	202	-	0,6,6	-	-	-		
82	OHX	sR	2169	-	0,6,6	-	-	-		
82	OHX	AR	3551	-	0,6,6	-	-	-		
82	OHX	AR	3659	-	0,6,6	-	-	-		
82	OHX	1	3421	-	0,6,6	-	-	-		
82	OHX	1	4120	-	0,6,6	-	-	-		
82	OHX	AR	3598	-	0,6,6	-	-	-		
82	OHX	sR	1972	-	0,6,6	-	-	-		
82	OHX	sR	2005	-	0,6,6	-	-	-		
82	OHX	1	4151	-	0,6,6	-	-	-		
82	OHX	1	4097	-	0,6,6	-	-	-		
82	OHX	1	3527	-	0,6,6	-	-	-		
82	OHX	AR	4149	-	0,6,6	-	-	-		
82	OHX	sR	2002	-	0,6,6	-	-	-		
82	OHX	1	3401	-	0,6,6	-	-	-		
82	OHX	1	3468	-	0,6,6	-	-	-		
82	OHX	1	3540	-	0,6,6	-	-	-		
82	OHX	sR	2172	-	0,6,6	-	-	-		
82	OHX	1	3433	-	0,6,6	-	-	-		
82	OHX	1	3471	-	0,6,6	-	-	-		
82	OHX	1	3494	-	0,6,6	-	-	-		
82	OHX	1	3597	-	0,6,6	-	-	-		
82	OHX	AT	209	-	0,6,6	-	-	-		
82	OHX	1	3449	-	0,6,6	-	-	-		
82	OHX	AR	3501	-	0,6,6	-	-	-		
82	OHX	AR	3567	-	0,6,6	-	-	-		
82	OHX	1	3467	-	0,6,6	-	-	-		
82	OHX	AR	3458	-	0,6,6	-	-	-		
82	OHX	sR	2021	-	0,6,6	-	-	-		
82	OHX	AR	3503	-	0,6,6	-	-	-		
82	OHX	AR	3530	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	1	3465	-	0,6,6	-	-	-		
82	OHX	AR	3620	-	0,6,6	-	-	-		
82	OHX	A	2119	-	0,6,6	-	-	-		
82	OHX	1	4101	-	0,6,6	-	-	-		
82	OHX	1	4114[B]	-	0,6,6	-	-	-		
82	OHX	AR	3615	-	0,6,6	-	-	-		
82	OHX	sR	2014	-	0,6,6	-	-	-		
82	OHX	A	1946	-	0,6,6	-	-	-		
82	OHX	3	220	-	0,6,6	-	-	-		
82	OHX	sR	2015	-	0,6,6	-	-	-		
82	OHX	AT	208	-	0,6,6	-	-	-		
82	OHX	A	1962	-	0,6,6	-	-	-		
82	OHX	1	4094	-	0,6,6	-	-	-		
82	OHX	AR	3555	-	0,6,6	-	-	-		
82	OHX	AR	3568	-	0,6,6	-	-	-		
82	OHX	A	1954	-	0,5,6	-	-	-		
82	OHX	AR	3469	-	0,6,6	-	-	-		
82	OHX	1	3488	-	0,6,6	-	-	-		
82	OHX	1	3425	-	0,6,6	-	-	-		
82	OHX	A	1971	-	0,6,6	-	-	-		
82	OHX	A	1920	-	0,6,6	-	-	-		
82	OHX	sR	1936	-	0,6,6	-	-	-		
82	OHX	sR	2025	-	0,6,6	-	-	-		
82	OHX	4	202	-	0,6,6	-	-	-		
82	OHX	1	4123	-	0,6,6	-	-	-		
82	OHX	AR	3409	-	0,6,6	-	-	-		
82	OHX	1	3487	-	0,6,6	-	-	-		
82	OHX	AR	3485	-	0,6,6	-	-	-		
82	OHX	A	1948	-	0,6,6	-	-	-		
82	OHX	AR	3623	-	0,6,6	-	-	-		
82	OHX	1	4111	-	0,6,6	-	-	-		
82	OHX	sR	2024	-	0,6,6	-	-	-		
82	OHX	d4	201	-	0,6,6	-	-	-		
82	OHX	AR	3617	-	0,6,6	-	-	-		
82	OHX	v	301	-	0,6,6	-	-	-		
82	OHX	AR	3520	-	0,6,6	-	-	-		
82	OHX	AR	3635	-	0,6,6	-	-	-		
82	OHX	1	3550	-	0,6,6	-	-	-		
82	OHX	AR	3508	-	0,6,6	-	-	-		
82	OHX	sR	1921	-	0,6,6	-	-	-		
82	OHX	AR	3462	-	0,6,6	-	-	-		
82	OHX	4	211	-	0,6,6	-	-	-		
82	OHX	1	4051	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	4	205	-	0,6,6	-	-	-		
82	OHX	sR	1922	-	0,6,6	-	-	-		
82	OHX	A	1938	-	0,6,6	-	-	-		
82	OHX	sR	1999	-	0,6,6	-	-	-		
82	OHX	sR	2170	-	0,6,6	-	-	-		
82	OHX	1	4132	-	0,6,6	-	-	-		
82	OHX	sR	1914	-	0,6,6	-	-	-		
82	OHX	1	3461	-	0,6,6	-	-	-		
82	OHX	1	3545	-	0,6,6	-	-	-		
82	OHX	AR	3583	-	0,6,6	-	-	-		
82	OHX	AR	3653	-	0,6,6	-	-	-		
82	OHX	1	4078	-	0,6,6	-	-	-		
82	OHX	AR	3522	-	0,6,6	-	-	-		
82	OHX	AR	4146	-	0,6,6	-	-	-		
82	OHX	AR	3509	-	0,6,6	-	-	-		
82	OHX	AR	3500	-	0,6,6	-	-	-		
82	OHX	1	3520	-	0,6,6	-	-	-		
82	OHX	3	206	-	0,6,6	-	-	-		
82	OHX	1	3477	-	0,6,6	-	-	-		
82	OHX	AR	3504	-	0,6,6	-	-	-		
82	OHX	AR	3552	-	0,6,6	-	-	-		
82	OHX	AR	3574	-	0,6,6	-	-	-		
82	OHX	A	1942	-	0,6,6	-	-	-		
82	OHX	c5	201	-	0,6,6	-	-	-		
82	OHX	AR	3664	-	0,6,6	-	-	-		
82	OHX	1	4125	-	0,6,6	-	-	-		
82	OHX	1	3557	-	0,6,6	-	-	-		
82	OHX	sR	1943	-	0,6,6	-	-	-		
82	OHX	A	1909	-	0,6,6	-	-	-		
82	OHX	AR	3416	-	0,6,6	-	-	-		
82	OHX	AT	213	-	0,6,6	-	-	-		
82	OHX	1	4100	-	0,6,6	-	-	-		
82	OHX	sR	1950	-	0,6,6	-	-	-		
82	OHX	A	1940[B]	-	0,6,6	-	-	-		
82	OHX	s4	301	-	0,6,6	-	-	-		
82	OHX	AR	4152	-	0,6,6	-	-	-		
82	OHX	A	2125	-	0,6,6	-	-	-		
82	OHX	1	3571	-	0,6,6	-	-	-		
82	OHX	1	4131	-	0,6,6	-	-	-		
82	OHX	AR	3553	-	0,6,6	-	-	-		
82	OHX	sR	2178	-	0,6,6	-	-	-		
82	OHX	AR	3554	-	0,6,6	-	-	-		
82	OHX	AR	4140	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	A	1937	-	0,6,6	-	-	-		
82	OHX	1	3555	-	0,6,6	-	-	-		
82	OHX	1	4060	-	0,6,6	-	-	-		
82	OHX	1	4107	-	0,6,6	-	-	-		
82	OHX	1	4075	-	0,6,6	-	-	-		
82	OHX	AR	3616	-	0,6,6	-	-	-		
82	OHX	AR	4147	-	0,6,6	-	-	-		
82	OHX	AR	3404	-	0,6,6	-	-	-		
82	OHX	1	3480	-	0,6,6	-	-	-		
82	OHX	sR	1994	-	0,6,6	-	-	-		
82	OHX	AR	3442	-	0,6,6	-	-	-		
82	OHX	AR	3482	-	0,6,6	-	-	-		
82	OHX	A	2107	-	0,6,6	-	-	-		
82	OHX	sR	1926	-	0,6,6	-	-	-		
82	OHX	1	4090	-	0,6,6	-	-	-		
82	OHX	sR	1929	-	0,6,6	-	-	-		
82	OHX	sR	1984	-	0,6,6	-	-	-		
82	OHX	4	229	-	0,6,6	-	-	-		
82	OHX	1	3463	-	0,6,6	-	-	-		
82	OHX	1	3499	-	0,6,6	-	-	-		
82	OHX	1	3554	-	0,6,6	-	-	-		
82	OHX	sR	1944	-	0,6,6	-	-	-		
82	OHX	1	3546	-	0,6,6	-	-	-		
82	OHX	CP	302	-	0,6,6	-	-	-		
82	OHX	AR	3612	-	0,6,6	-	-	-		
82	OHX	A	2113	-	0,6,6	-	-	-		
82	OHX	AG	202	-	0,6,6	-	-	-		
82	OHX	A	1951	-	0,6,6	-	-	-		
82	OHX	1	3462	-	0,6,6	-	-	-		
82	OHX	AC	102	-	0,6,6	-	-	-		
82	OHX	AR	3627	-	0,6,6	-	-	-		
82	OHX	AR	4141	-	0,6,6	-	-	-		
82	OHX	1	3452	-	0,6,6	-	-	-		
82	OHX	1	3511	-	0,6,6	-	-	-		
82	OHX	1	3517	-	0,6,6	-	-	-		
82	OHX	A	1906	-	0,6,6	-	-	-		
82	OHX	A	2106	-	0,6,6	-	-	-		
82	OHX	1	3475	-	0,6,6	-	-	-		
82	OHX	CG	302	-	0,6,6	-	-	-		
82	OHX	1	3594	-	0,6,6	-	-	-		
82	OHX	1	3534	-	0,6,6	-	-	-		
82	OHX	z	202	-	0,6,6	-	-	-		
82	OHX	AR	3412	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	A	1957	-	0,6,6	-	-	-		
82	OHX	A	2122	-	0,6,6	-	-	-		
82	OHX	AR	3426	-	0,6,6	-	-	-		
82	OHX	A	1924	-	0,6,6	-	-	-		
82	OHX	AR	3666	-	0,6,6	-	-	-		
82	OHX	1	4150	-	0,6,6	-	-	-		
82	OHX	1	3460	-	0,6,6	-	-	-		
82	OHX	AR	3631	-	0,6,6	-	-	-		
82	OHX	sR	1924	-	0,6,6	-	-	-		
82	OHX	1	4062	-	0,6,6	-	-	-		
82	OHX	AR	3476	-	0,6,6	-	-	-		
82	OHX	AR	3607	-	0,6,6	-	-	-		
82	OHX	sR	1981	-	0,6,6	-	-	-		
82	OHX	l	405	-	0,6,6	-	-	-		
82	OHX	1	3416	-	0,6,6	-	-	-		
82	OHX	1	3474	-	0,6,6	-	-	-		
82	OHX	1	4072	-	0,6,6	-	-	-		
82	OHX	AR	3600	-	0,6,6	-	-	-		
82	OHX	A	1908	-	0,6,6	-	-	-		
82	OHX	1	4141	-	0,6,6	-	-	-		
82	OHX	1	4084	-	0,6,6	-	-	-		
82	OHX	1	4085	-	0,6,6	-	-	-		
82	OHX	A	1910	-	0,6,6	-	-	-		
86	X1K	AR	4205	-	27,27,27	0.71	2 (7%)	37,43,43	1.90	8 (21%)
82	OHX	AR	3633	-	0,6,6	-	-	-		
82	OHX	AR	3497	-	0,6,6	-	-	-		
82	OHX	sR	2006	-	0,6,6	-	-	-		
82	OHX	sR	1955	-	0,6,6	-	-	-		
82	OHX	AR	3650	-	0,6,6	-	-	-		
82	OHX	AR	3438	-	0,6,6	-	-	-		
82	OHX	sR	1949	-	0,6,6	-	-	-		
82	OHX	AR	3581	-	0,6,6	-	-	-		
82	OHX	Q	201	-	0,6,6	-	-	-		
82	OHX	AR	3578	-	0,6,6	-	-	-		
82	OHX	AR	3451	-	0,6,6	-	-	-		
82	OHX	sR	1997	-	0,6,6	-	-	-		
82	OHX	A	1932	-	0,6,6	-	-	-		
82	OHX	AR	3481	-	0,6,6	-	-	-		
82	OHX	sR	2022	-	0,6,6	-	-	-		
82	OHX	AR	3593	-	0,6,6	-	-	-		
82	OHX	AR	3456	-	0,6,6	-	-	-		
82	OHX	A	1975	-	0,6,6	-	-	-		
82	OHX	1	3544	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	1	3447	-	0,6,6	-	-	-		
82	OHX	1	3516	-	0,6,6	-	-	-		
82	OHX	1	3417	-	0,6,6	-	-	-		
82	OHX	1	4079	-	0,6,6	-	-	-		
82	OHX	AR	3465	-	0,6,6	-	-	-		
82	OHX	1	3529	-	0,6,6	-	-	-		
82	OHX	AR	3518	-	0,6,6	-	-	-		
82	OHX	AR	3539	-	0,6,6	-	-	-		
82	OHX	AR	3637	-	0,6,6	-	-	-		
82	OHX	A	1966	-	0,6,6	-	-	-		
82	OHX	sR	1961	-	0,6,6	-	-	-		
82	OHX	AR	3640	-	0,6,6	-	-	-		
82	OHX	AR	3646	-	0,6,6	-	-	-		
82	OHX	1	3541	-	0,6,6	-	-	-		
82	OHX	1	3513	-	0,6,6	-	-	-		
82	OHX	AR	3670	-	0,6,6	-	-	-		
82	OHX	A	2111	-	0,6,6	-	-	-		
82	OHX	sR	1996	-	0,6,6	-	-	-		
82	OHX	AR	4157	-	0,6,6	-	-	-		
82	OHX	sR	2011	-	0,6,6	-	-	-		
82	OHX	AR	3457	-	0,6,6	-	-	-		
82	OHX	A	1912	-	0,6,6	-	-	-		
82	OHX	sR	1966	-	0,6,6	-	-	-		
82	OHX	sR	1953	-	0,6,6	-	-	-		
82	OHX	A	1943	-	0,6,6	-	-	-		
82	OHX	AR	3660	-	0,6,6	-	-	-		
82	OHX	sR	1911	-	0,6,6	-	-	-		
85	SPD	AR	4204	-	9,9,9	0.33	0	8,8,8	0.88	0
82	OHX	1	3489	-	0,6,6	-	-	-		
82	OHX	sR	1998	-	0,6,6	-	-	-		
82	OHX	AR	3579	-	0,6,6	-	-	-		
82	OHX	AT	201	-	0,6,6	-	-	-		
82	OHX	k	403	-	0,6,6	-	-	-		
82	OHX	AR	3429	-	0,6,6	-	-	-		
82	OHX	1	3535[A]	-	0,6,6	-	-	-		
82	OHX	1	3586	-	0,6,6	-	-	-		
82	OHX	1	4126	-	0,6,6	-	-	-		
82	OHX	AR	3556	-	0,6,6	-	-	-		
82	OHX	1	3572	-	0,6,6	-	-	-		
82	OHX	3	222	-	0,6,6	-	-	-		
82	OHX	AR	3424	-	0,6,6	-	-	-		
82	OHX	1	4142	-	0,6,6	-	-	-		
82	OHX	sR	2171	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	AR	3566	-	0,6,6	-	-	-		
82	OHX	A	1919	-	0,6,6	-	-	-		
82	OHX	1	4086	-	0,6,6	-	-	-		
82	OHX	3	204	-	0,6,6	-	-	-		
82	OHX	sR	1989	-	0,6,6	-	-	-		
82	OHX	1	3426	-	0,6,6	-	-	-		
82	OHX	1	3537	-	0,6,6	-	-	-		
82	OHX	A	1913	-	0,6,6	-	-	-		
82	OHX	AR	3454	-	0,6,6	-	-	-		
82	OHX	1	3472	-	0,6,6	-	-	-		
82	OHX	AR	3468	-	0,6,6	-	-	-		
82	OHX	1	3565	-	0,6,6	-	-	-		
82	OHX	AR	3525	-	0,6,6	-	-	-		
82	OHX	1	3410	-	0,6,6	-	-	-		
82	OHX	A	1902	-	0,6,6	-	-	-		
82	OHX	AR	3575	-	0,5,6	-	-	-		
82	OHX	A	1929	-	0,6,6	-	-	-		
82	OHX	sR	1913	-	0,6,6	-	-	-		
82	OHX	sR	1942	-	0,6,6	-	-	-		
82	OHX	sR	1947	-	0,6,6	-	-	-		
82	OHX	AR	3406	-	0,6,6	-	-	-		
82	OHX	AR	3439	-	0,6,6	-	-	-		
82	OHX	A	1944	-	0,6,6	-	-	-		
82	OHX	3	203	-	0,6,6	-	-	-		
82	OHX	CL	303	-	0,6,6	-	-	-		
82	OHX	1	3403	-	0,6,6	-	-	-		
82	OHX	AR	4158	-	0,6,6	-	-	-		
82	OHX	sR	1905	-	0,6,6	-	-	-		
82	OHX	AR	3452	-	0,6,6	-	-	-		
82	OHX	sR	1904	-	0,6,6	-	-	-		
82	OHX	AR	3527	-	0,6,6	-	-	-		
82	OHX	1	3454	-	0,6,6	-	-	-		
82	OHX	1	3523	-	0,6,6	-	-	-		
82	OHX	AR	3422	-	0,6,6	-	-	-		
82	OHX	AR	3495	-	0,6,6	-	-	-		
82	OHX	AR	4162	-	0,6,6	-	-	-		
82	OHX	sR	2012	-	0,6,6	-	-	-		
82	OHX	AR	3540	-	0,6,6	-	-	-		
82	OHX	1	3408	-	0,6,6	-	-	-		
82	OHX	1	3535[B]	-	0,6,6	-	-	-		
82	OHX	AR	3433	-	0,6,6	-	-	-		
82	OHX	AR	3588	-	0,6,6	-	-	-		
82	OHX	sR	1970	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	AR	3432	-	0,6,6	-	-	-		
82	OHX	s8	301	-	0,6,6	-	-	-		
82	OHX	AR	3584	-	0,6,6	-	-	-		
82	OHX	AR	3467	-	0,6,6	-	-	-		
82	OHX	1	3514	-	0,6,6	-	-	-		
82	OHX	sR	1956	-	0,6,6	-	-	-		
82	OHX	CH	201	-	0,6,6	-	-	-		
82	OHX	sR	1985	-	0,6,6	-	-	-		
82	OHX	sR	2180	-	0,6,6	-	-	-		
82	OHX	A	2126[A]	-	0,6,6	-	-	-		
82	OHX	1	3505	-	0,6,6	-	-	-		
82	OHX	4	209	-	0,6,6	-	-	-		
82	OHX	AR	3564	-	0,6,6	-	-	-		
82	OHX	sR	2010	-	0,6,6	-	-	-		
82	OHX	1	3413	-	0,6,6	-	-	-		
82	OHX	AR	3512	-	0,6,6	-	-	-		
82	OHX	1	3519	-	0,6,6	-	-	-		
82	OHX	1	3573	-	0,6,6	-	-	-		
82	OHX	1	3407	-	0,6,6	-	-	-		
82	OHX	sR	1974	-	0,6,6	-	-	-		
82	OHX	1	3590	-	0,6,6	-	-	-		
82	OHX	1	4073	-	0,6,6	-	-	-		
82	OHX	sR	1978	-	0,6,6	-	-	-		
82	OHX	1	3479	-	0,6,6	-	-	-		
82	OHX	AR	3577	-	0,6,6	-	-	-		
82	OHX	AR	3544	-	0,6,6	-	-	-		
82	OHX	AR	3516	-	0,6,6	-	-	-		
82	OHX	AR	3435	-	0,6,6	-	-	-		
82	OHX	1	3493	-	0,6,6	-	-	-		
82	OHX	CK	201	-	0,6,6	-	-	-		
82	OHX	AT	234	-	0,6,6	-	-	-		
82	OHX	AR	3569	-	0,6,6	-	-	-		
85	SPD	1	4180	-	9,9,9	0.32	0	8,8,8	0.92	0
82	OHX	A	2135	-	0,6,6	-	-	-		
82	OHX	A	1953	-	0,6,6	-	-	-		
82	OHX	AR	3665	-	0,6,6	-	-	-		
82	OHX	1	4087	-	0,6,6	-	-	-		
82	OHX	AR	3538	-	0,6,6	-	-	-		
82	OHX	AR	3645	-	0,6,6	-	-	-		
82	OHX	1	4110	-	0,6,6	-	-	-		
82	OHX	1	3564	-	0,6,6	-	-	-		
82	OHX	AR	3632	-	0,6,6	-	-	-		
82	OHX	AR	3401	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	sR	1973	-	0,6,6	-	-	-		
82	OHX	1	3469	-	0,6,6	-	-	-		
82	OHX	1	3578	-	0,6,6	-	-	-		
82	OHX	AR	3455	-	0,6,6	-	-	-		
82	OHX	AR	3586	-	0,6,6	-	-	-		
82	OHX	1	3440	-	0,6,6	-	-	-		
82	OHX	AR	3542	-	0,6,6	-	-	-		
82	OHX	A	1923	-	0,6,6	-	-	-		
82	OHX	1	3559	-	0,6,6	-	-	-		
82	OHX	AS	206	-	0,6,6	-	-	-		
82	OHX	1	4096	-	0,6,6	-	-	-		
82	OHX	1	3509	-	0,6,6	-	-	-		
82	OHX	AR	3449	-	0,6,6	-	-	-		
82	OHX	r	303	-	0,6,6	-	-	-		
82	OHX	AR	3475	-	0,6,6	-	-	-		
82	OHX	1	3496	-	0,6,6	-	-	-		
82	OHX	AR	4155	-	0,6,6	-	-	-		
82	OHX	AR	3445	-	0,6,6	-	-	-		
82	OHX	A	2142	-	0,6,6	-	-	-		
82	OHX	A	2112	-	0,6,6	-	-	-		
82	OHX	AR	3466	-	0,6,6	-	-	-		
82	OHX	AR	4142	-	0,6,6	-	-	-		
82	OHX	AR	3491	-	0,6,6	-	-	-		
86	X1K	1	4181	-	27,27,27	0.50	1 (3%)	37,43,43	2.31	8 (21%)
82	OHX	1	4117	-	0,6,6	-	-	-		
82	OHX	AR	3471	-	0,6,6	-	-	-		
82	OHX	1	4116	-	0,6,6	-	-	-		
82	OHX	A	2126[B]	-	0,6,6	-	-	-		
82	OHX	1	3530	-	0,6,6	-	-	-		
82	OHX	sR	2167	-	0,6,6	-	-	-		
82	OHX	A	1917	-	0,6,6	-	-	-		
82	OHX	1	4122	-	0,6,6	-	-	-		
82	OHX	A	1933	-	0,6,6	-	-	-		
82	OHX	1	3510	-	0,6,6	-	-	-		
82	OHX	sR	2009	-	0,6,6	-	-	-		
82	OHX	1	3596	-	0,6,6	-	-	-		
82	OHX	AT	202	-	0,6,6	-	-	-		
82	OHX	AR	3550	-	0,6,6	-	-	-		
82	OHX	1	3427	-	0,6,6	-	-	-		
82	OHX	1	3512	-	0,6,6	-	-	-		
82	OHX	1	4130	-	0,6,6	-	-	-		
82	OHX	AR	3614	-	0,6,6	-	-	-		
82	OHX	AR	3405	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	A	2110	-	0,6,6	-	-	-		
82	OHX	AR	3488	-	0,6,6	-	-	-		
82	OHX	A	2124	-	0,6,6	-	-	-		
82	OHX	AR	3613	-	0,6,6	-	-	-		
82	OHX	AT	210	-	0,6,6	-	-	-		
82	OHX	1	3605	-	0,6,6	-	-	-		
82	OHX	AR	4159	-	0,6,6	-	-	-		
82	OHX	A	1903	-	0,6,6	-	-	-		
82	OHX	AR	3667	-	0,6,6	-	-	-		
82	OHX	1	3431	-	0,6,6	-	-	-		
82	OHX	A	1931	-	0,6,6	-	-	-		
82	OHX	sR	1979	-	0,6,6	-	-	-		
82	OHX	sR	2004	-	0,6,6	-	-	-		
82	OHX	A	1928	-	0,6,6	-	-	-		
82	OHX	AT	233	-	0,6,6	-	-	-		
82	OHX	sR	1963	-	0,6,6	-	-	-		
82	OHX	sR	1910	-	0,6,6	-	-	-		
82	OHX	AR	4153	-	0,6,6	-	-	-		
82	OHX	sR	1960	-	0,6,6	-	-	-		
82	OHX	4	206	-	0,6,6	-	-	-		
82	OHX	sR	1945	-	0,6,6	-	-	-		
82	OHX	sR	1977	-	0,6,6	-	-	-		
82	OHX	1	3508	-	0,6,6	-	-	-		
82	OHX	sR	2007	-	0,6,6	-	-	-		
82	OHX	DL	103	-	0,6,6	-	-	-		
82	OHX	AR	3630	-	0,6,6	-	-	-		
82	OHX	AR	3461	-	0,6,6	-	-	-		
82	OHX	1	3587	-	0,6,6	-	-	-		
82	OHX	1	4135	-	0,6,6	-	-	-		
82	OHX	1	4144	1	0,5,6	-	-	-		
82	OHX	AR	3597	-	0,6,6	-	-	-		
82	OHX	1	4118	-	0,6,6	-	-	-		
82	OHX	AS	204	-	0,6,6	-	-	-		
82	OHX	3	201	-	0,6,6	-	-	-		
82	OHX	AR	3505	-	0,6,6	-	-	-		
82	OHX	1	3429	-	0,6,6	-	-	-		
82	OHX	1	3422	-	0,6,6	-	-	-		
82	OHX	1	3595	-	0,6,6	-	-	-		
82	OHX	AR	4137	-	0,6,6	-	-	-		
82	OHX	AR	3411	-	0,6,6	-	-	-		
82	OHX	1	4080	-	0,6,6	-	-	-		
82	OHX	CE	401	-	0,6,6	-	-	-		
82	OHX	3	202	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	AR	3663	-	0,6,6	-	-	-		
82	OHX	AR	3517	-	0,6,6	-	-	-		
82	OHX	A	1925	-	0,6,6	-	-	-		
82	OHX	1	4074	-	0,6,6	-	-	-		
82	OHX	sR	1946	-	0,6,6	-	-	-		
82	OHX	A	1965	-	0,6,6	-	-	-		
82	OHX	1	3490	-	0,6,6	-	-	-		
82	OHX	AR	3545	-	0,6,6	-	-	-		
82	OHX	AR	3536	-	0,6,6	-	-	-		
82	OHX	AR	3657	-	0,6,6	-	-	-		
82	OHX	A	2134	-	0,6,6	-	-	-		
82	OHX	A	2102	-	0,6,6	-	-	-		
82	OHX	1	3504	-	0,6,6	-	-	-		
82	OHX	AR	3477	-	0,6,6	-	-	-		
82	OHX	sR	1907	-	0,6,6	-	-	-		
82	OHX	sR	1916[A]	-	0,6,6	-	-	-		
82	OHX	sR	1959	-	0,6,6	-	-	-		
82	OHX	1	3423	-	0,6,6	-	-	-		
82	OHX	AR	3521	-	0,6,6	-	-	-		
82	OHX	1	4089	-	0,6,6	-	-	-		
82	OHX	AR	3524	-	0,6,6	-	-	-		
82	OHX	AR	3484	-	0,6,6	-	-	-		
82	OHX	AR	3487	-	0,6,6	-	-	-		
82	OHX	1	3562	-	0,6,6	-	-	-		
82	OHX	1	3430	-	0,6,6	-	-	-		
82	OHX	1	3528	-	0,6,6	-	-	-		
82	OHX	1	3526	-	0,6,6	-	-	-		
82	OHX	AR	3592	-	0,6,6	-	-	-		
82	OHX	AR	3611	-	0,6,6	-	-	-		
82	OHX	sR	1906	-	0,6,6	-	-	-		
82	OHX	AR	3601	-	0,6,6	-	-	-		
82	OHX	1	3405	-	0,6,6	-	-	-		
82	OHX	Rb	401	-	0,6,6	-	-	-		
82	OHX	4	213	-	0,6,6	-	-	-		
82	OHX	1	3473	-	0,6,6	-	-	-		
82	OHX	1	3455	-	0,6,6	-	-	-		
82	OHX	AR	3436	-	0,6,6	-	-	-		
82	OHX	sR	1918	-	0,6,6	-	-	-		
82	OHX	AR	3594	-	0,6,6	-	-	-		
82	OHX	AP	502	-	0,6,6	-	-	-		
82	OHX	1	3543	-	0,6,6	-	-	-		
82	OHX	AR	3443	-	0,6,6	-	-	-		
82	OHX	A	1911	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	AR	3639	-	0,6,6	-	-	-		
82	OHX	AR	3658	-	0,6,6	-	-	-		
82	OHX	sR	1920	-	0,6,6	-	-	-		
82	OHX	sR	1939	-	0,6,6	-	-	-		
82	OHX	AR	3549	-	0,6,6	-	-	-		
82	OHX	1	3434	-	0,6,6	-	-	-		
82	OHX	1	3451	-	0,6,6	-	-	-		
82	OHX	1	4153	-	0,6,6	-	-	-		
82	OHX	AR	3621	-	0,6,6	-	-	-		
82	OHX	sR	1982	-	0,6,6	-	-	-		
82	OHX	1	3542	-	0,6,6	-	-	-		
82	OHX	1	3588	-	0,6,6	-	-	-		
82	OHX	sR	1969	-	0,6,6	-	-	-		
82	OHX	AR	3499	-	0,6,6	-	-	-		
82	OHX	AR	4163	-	0,6,6	-	-	-		
82	OHX	AR	3546	-	0,6,6	-	-	-		
82	OHX	1	3576	-	0,6,6	-	-	-		
82	OHX	1	4143	-	0,6,6	-	-	-		
82	OHX	1	4108	-	0,6,6	-	-	-		
82	OHX	sR	2023	-	0,6,6	-	-	-		
82	OHX	AT	215	-	0,6,6	-	-	-		
82	OHX	1	4082	-	0,6,6	-	-	-		
82	OHX	AR	3591	-	0,6,6	-	-	-		
82	OHX	1	3491	-	0,6,6	-	-	-		
82	OHX	1	4127	-	0,6,6	-	-	-		
82	OHX	AR	3573	-	0,6,6	-	-	-		
82	OHX	c7	201	-	0,6,6	-	-	-		
82	OHX	sR	2001	-	0,6,6	-	-	-		
82	OHX	1	3492	-	0,6,6	-	-	-		
82	OHX	AR	3494	-	0,6,6	-	-	-		
82	OHX	AR	3561	-	0,6,6	-	-	-		
82	OHX	sR	1916[B]	-	0,6,6	-	-	-		
82	OHX	sR	2018	-	0,6,6	-	-	-		
82	OHX	sR	2179	-	0,6,6	-	-	-		
82	OHX	AR	3582	-	0,6,6	-	-	-		
82	OHX	AR	3652	-	0,6,6	-	-	-		
82	OHX	A	2146	-	0,6,6	-	-	-		
82	OHX	A	1936	-	0,6,6	-	-	-		
82	OHX	A	1976	-	0,6,6	-	-	-		
82	OHX	1	4128	-	0,6,6	-	-	-		
82	OHX	A	1958	-	0,6,6	-	-	-		
82	OHX	AR	3610	-	0,6,6	-	-	-		
82	OHX	A	1914	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	AR	3460	-	0,6,6	-	-	-		
82	OHX	A	2129	-	0,6,6	-	-	-		
82	OHX	CV	201	-	0,6,6	-	-	-		
82	OHX	sR	2177	-	0,6,6	-	-	-		
82	OHX	AR	3619	-	0,6,6	-	-	-		
82	OHX	1	3569	-	0,6,6	-	-	-		
82	OHX	sR	2013	-	0,6,6	-	-	-		
82	OHX	A	2147	-	0,6,6	-	-	-		
82	OHX	A	1939	-	0,6,6	-	-	-		
82	OHX	sR	1917	-	0,6,6	-	-	-		
82	OHX	AR	4145	-	0,6,6	-	-	-		
82	OHX	1	3553	-	0,6,6	-	-	-		
82	OHX	1	3591	-	0,6,6	-	-	-		
82	OHX	AR	3417	-	0,6,6	-	-	-		
82	OHX	AR	3492	-	0,6,6	-	-	-		
82	OHX	sR	1925	-	0,6,6	-	-	-		
82	OHX	1	3486	-	0,6,6	-	-	-		
82	OHX	AR	3624	-	0,6,6	-	-	-		
82	OHX	A	1961	-	0,6,6	-	-	-		
82	OHX	A	1969	-	0,6,6	-	-	-		
82	OHX	h	401	-	0,6,6	-	-	-		
82	OHX	1	3558	-	0,6,6	-	-	-		
82	OHX	A	1950	-	0,6,6	-	-	-		
82	OHX	AR	3463	-	0,6,6	-	-	-		
82	OHX	sR	1987	-	0,6,6	-	-	-		
82	OHX	sR	2174	-	0,6,6	-	-	-		
82	OHX	AR	3626	-	0,6,6	-	-	-		
82	OHX	A	2115	-	0,6,6	-	-	-		
82	OHX	AR	3529	-	0,6,6	-	-	-		
82	OHX	1	4104	-	0,6,6	-	-	-		
82	OHX	DD	102	-	0,6,6	-	-	-		
82	OHX	AR	3523	-	0,6,6	-	-	-		
82	OHX	AS	208	-	0,6,6	-	-	-		
82	OHX	AT	235	-	0,6,6	-	-	-		
82	OHX	1	3483	-	0,6,6	-	-	-		
82	OHX	1	3560	-	0,6,6	-	-	-		
82	OHX	AR	3519	-	0,6,6	-	-	-		
82	OHX	sR	1971	-	0,6,6	-	-	-		
82	OHX	1	3415	-	0,6,6	-	-	-		
82	OHX	1	3549	-	0,6,6	-	-	-		
82	OHX	1	3428	-	0,6,6	-	-	-		
82	OHX	1	3563	-	0,6,6	-	-	-		
82	OHX	A	1927	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	1	3453	-	0,6,6	-	-	-		
82	OHX	1	4136	-	0,6,6	-	-	-		
82	OHX	AR	3489	-	0,6,6	-	-	-		
82	OHX	1	3603	-	0,6,6	-	-	-		
82	OHX	AR	3446	-	0,6,6	-	-	-		
82	OHX	1	4056	-	0,6,6	-	-	-		
82	OHX	AR	3493	-	0,6,6	-	-	-		
82	OHX	AR	3654	-	0,5,6	-	-	-		
82	OHX	1	3531	-	0,6,6	-	-	-		
82	OHX	sR	1912	-	0,6,6	-	-	-		
82	OHX	sR	1923	-	0,6,6	-	-	-		
82	OHX	1	3470	-	0,6,6	-	-	-		
82	OHX	AR	3514	-	0,6,6	-	-	-		
82	OHX	1	4138	-	0,6,6	-	-	-		
82	OHX	sR	1934	-	0,6,6	-	-	-		
82	OHX	A	2103	-	0,6,6	-	-	-		
82	OHX	AR	3502	-	0,6,6	-	-	-		
82	OHX	AR	3570	-	0,6,6	-	-	-		
82	OHX	AR	3474	-	0,6,6	-	-	-		
82	OHX	AR	3589	-	0,6,6	-	-	-		
82	OHX	CX	201	-	0,6,6	-	-	-		
82	OHX	c8	201	-	0,6,6	-	-	-		
82	OHX	sR	2008	-	0,6,6	-	-	-		
82	OHX	A	1947	-	0,6,6	-	-	-		
82	OHX	AR	3649	-	0,6,6	-	-	-		
82	OHX	AR	3498	-	0,6,6	-	-	-		
82	OHX	AS	209	-	0,6,6	-	-	-		
82	OHX	sR	1938	-	0,6,6	-	-	-		
82	OHX	1	4095	-	0,6,6	-	-	-		
82	OHX	AR	3418	-	0,6,6	-	-	-		
82	OHX	A	1905	-	0,6,6	-	-	-		
82	OHX	A	1916	-	0,6,6	-	-	-		
82	OHX	1	3575	-	0,6,6	-	-	-		
82	OHX	1	3419	-	0,6,6	-	-	-		
82	OHX	1	3450	-	0,6,6	-	-	-		
82	OHX	1	3439	-	0,6,6	-	-	-		
82	OHX	AS	202	-	0,6,6	-	-	-		
82	OHX	1	3601	-	0,6,6	-	-	-		
82	OHX	1	3522	-	0,6,6	-	-	-		
82	OHX	AR	3541	-	0,6,6	-	-	-		
82	OHX	1	3481	-	0,6,6	-	-	-		
82	OHX	A	2139	-	0,6,6	-	-	-		
82	OHX	1	3574	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
82	OHX	T	201	-	0,6,6	-	-	-		
82	OHX	A	1956	-	0,6,6	-	-	-		
82	OHX	AT	207	-	0,6,6	-	-	-		
82	OHX	sR	1983	-	0,6,6	-	-	-		
82	OHX	1	3402	-	0,6,6	-	-	-		
82	OHX	A	2133	-	0,6,6	-	-	-		
82	OHX	AR	3599	-	0,6,6	-	-	-		
82	OHX	1	3464	-	0,6,6	-	-	-		
82	OHX	2	201	-	0,6,6	-	-	-		
82	OHX	A	1955	-	0,6,6	-	-	-		
82	OHX	1	3459	-	0,6,6	-	-	-		
82	OHX	1	3443	-	0,6,6	-	-	-		
82	OHX	sR	1954	-	0,6,6	-	-	-		
82	OHX	1	4102	-	0,6,6	-	-	-		
82	OHX	A	1952	-	0,6,6	-	-	-		
82	OHX	sR	1930	-	0,6,6	-	-	-		
82	OHX	1	4113	-	0,6,6	-	-	-		
82	OHX	1	4137	-	0,6,6	-	-	-		
82	OHX	A	2128	-	0,6,6	-	-	-		
82	OHX	A	1915	-	0,6,6	-	-	-		
82	OHX	sR	2019	-	0,6,6	-	-	-		
82	OHX	1	3478	-	0,6,6	-	-	-		
82	OHX	sR	1948	-	0,6,6	-	-	-		
82	OHX	A	2131	-	0,6,6	-	-	-		
82	OHX	1	4099	-	0,5,6	-	-	-		
82	OHX	3	219	-	0,6,6	-	-	-		
82	OHX	AR	3669	-	0,5,6	-	-	-		
82	OHX	1	4154	-	0,6,6	-	-	-		
82	OHX	1	3432	-	0,6,6	-	-	-		
82	OHX	1	3536	-	0,6,6	-	-	-		
82	OHX	1	3584	-	0,6,6	-	-	-		
82	OHX	1	3556	-	0,6,6	-	-	-		
82	OHX	1	3466	-	0,6,6	-	-	-		
82	OHX	A	1972	-	0,6,6	-	-	-		
82	OHX	AR	3537	-	0,6,6	-	-	-		
82	OHX	1	4083	-	0,6,6	-	-	-		
82	OHX	AR	3605	-	0,6,6	-	-	-		
82	OHX	AK	102	-	0,6,6	-	-	-		
82	OHX	A	1935	-	0,6,6	-	-	-		
82	OHX	AR	3511	-	0,6,6	-	-	-		
82	OHX	4	201	-	0,6,6	-	-	-		
82	OHX	sR	1909	-	0,6,6	-	-	-		
82	OHX	1	4124	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
82	OHX	sR	2020	-	0,6,6	-	-	-		
82	OHX	1	3515	-	0,6,6	-	-	-		
82	OHX	1	3568	-	0,6,6	-	-	-		
82	OHX	4	207	-	0,6,6	-	-	-		
82	OHX	AR	3565	-	0,6,6	-	-	-		
82	OHX	A	1967	-	0,6,6	-	-	-		
82	OHX	sR	1935	-	0,6,6	-	-	-		
82	OHX	AR	3532	-	0,6,6	-	-	-		
82	OHX	1	4114[A]	-	0,6,6	-	-	-		
82	OHX	AR	4151	-	0,6,6	-	-	-		
82	OHX	1	3498	-	0,6,6	-	-	-		
82	OHX	AR	3403	-	0,6,6	-	-	-		
82	OHX	1	3506	-	0,6,6	-	-	-		
82	OHX	s1	301	-	0,6,6	-	-	-		
82	OHX	sR	1967	-	0,6,6	-	-	-		
82	OHX	sR	1991	-	0,6,6	-	-	-		
82	OHX	A	1963	-	0,6,6	-	-	-		
82	OHX	AR	3440	-	0,6,6	-	-	-		
82	OHX	A	1945	-	0,6,6	-	-	-		
82	OHX	sR	1962	-	0,6,6	-	-	-		
82	OHX	1	3538	-	0,6,6	-	-	-		
82	OHX	1	4112	-	0,6,6	-	-	-		
82	OHX	1	4145	-	0,6,6	-	-	-		
82	OHX	AR	3431	-	0,6,6	-	-	-		
82	OHX	1	4076	-	0,6,6	-	-	-		
82	OHX	AR	3606	-	0,6,6	-	-	-		
82	OHX	1	3414	-	0,6,6	-	-	-		
82	OHX	AR	3408	-	0,6,6	-	-	-		
82	OHX	1	3444	-	0,6,6	-	-	-		
82	OHX	1	3501	-	0,6,6	-	-	-		
82	OHX	sR	1976	-	0,6,6	-	-	-		
82	OHX	AR	3661	-	0,6,6	-	-	-		
82	OHX	1	3458	-	0,6,6	-	-	-		
82	OHX	1	3604	-	0,6,6	-	-	-		
82	OHX	sR	2173	-	0,6,6	-	-	-		
82	OHX	AR	3559	-	0,6,6	-	-	-		
82	OHX	1	4093	-	0,6,6	-	-	-		

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
86	X1K	1	4181	-	-	2/8/58/58	0/3/3/3
85	SPD	1	4180	-	-	2/7/7/7	-
85	SPD	AR	4204	-	-	2/7/7/7	-
86	X1K	AR	4205	-	-	0/8/58/58	0/3/3/3

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	AR	4205	X1K	C1-C10	-2.61	1.52	1.56
86	AR	4205	X1K	C5-C10	2.19	1.59	1.56
86	1	4181	X1K	C5-C10	2.12	1.59	1.56

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	1	4181	X1K	C1-C10-C5	-8.36	107.86	116.76
86	1	4181	X1K	C20-C1-C2	-5.75	97.05	109.01
86	AR	4205	X1K	C1-C10-C5	-5.56	110.83	116.76
86	1	4181	X1K	C20-C1-C	-4.56	101.24	107.87
86	AR	4205	X1K	C20-C1-C	-4.26	101.68	107.87
86	1	4181	X1K	C2-C1-C10	3.95	113.89	108.43
86	AR	4205	X1K	C20-C1-C2	-3.93	100.83	109.01
86	AR	4205	X1K	C20-C1-C10	-3.86	99.95	111.53
86	1	4181	X1K	C20-C1-C10	-3.59	100.77	111.53
86	1	4181	X1K	C-C1-C10	3.39	121.69	111.53
86	AR	4205	X1K	C-C1-C10	3.37	121.63	111.53
86	1	4181	X1K	C-C1-C2	3.34	115.94	109.01
86	AR	4205	X1K	C-C1-C2	3.15	115.56	109.01
86	AR	4205	X1K	C2-C1-C10	2.89	112.43	108.43
86	AR	4205	X1K	O-C8-C7	2.23	115.72	110.22
86	1	4181	X1K	C9-C8-C7	2.10	113.95	110.97

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
86	1	4181	X1K	C13-C14-C15-C16
85	AR	4204	SPD	C3-C4-C5-N6
85	1	4180	SPD	C3-C4-C5-N6
86	1	4181	X1K	C6-C13-C14-C15
85	AR	4204	SPD	N1-C2-C3-C4
85	1	4180	SPD	C2-C3-C4-C5

There are no ring outliers.

516 monomers are involved in 741 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3510	OHX	1	0
82	CL	302	OHX	2	0
82	sR	1901	OHX	2	0
82	A	1907	OHX	2	0
82	1	3533	OHX	1	0
82	AR	3413	OHX	2	0
82	1	3502	OHX	1	0
82	AR	3407	OHX	2	0
82	A	2105	OHX	1	0
82	1	3539	OHX	1	0
82	1	4088	OHX	1	0
82	AR	4139	OHX	1	0
82	1	4152	OHX	2	0
82	1	3420	OHX	2	0
82	AR	3437	OHX	1	0
82	CG	304	OHX	0	1
82	A	1977	OHX	2	0
82	AT	211	OHX	1	0
82	AR	3427	OHX	1	0
82	1	4115	OHX	1	0
82	A	1918	OHX	2	0
82	sR	1928	OHX	2	0
82	AR	3425	OHX	3	0
82	1	3404	OHX	3	0
82	A	1940[A]	OHX	1	0
82	1	4081	OHX	2	0
82	A	2137	OHX	2	0
82	sR	1957	OHX	2	0
82	sR	1958	OHX	2	0
82	sR	1941	OHX	1	0
82	AT	214	OHX	1	0
82	AR	3448	OHX	2	0
82	A	2123	OHX	3	0
82	1	4109	OHX	1	0
82	AR	3642	OHX	4	0
82	AT	206	OHX	1	0
82	AS	203	OHX	1	0
82	1	3552	OHX	1	0
82	4	212	OHX	1	0
82	AR	3587	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	4144	OHX	1	0
82	AR	3490	OHX	1	0
82	A	2104	OHX	3	0
82	sR	2017	OHX	1	0
82	1	3411	OHX	2	0
82	1	3500	OHX	1	0
82	AR	3571	OHX	1	0
82	1	4105	OHX	2	0
82	AR	3423	OHX	1	0
82	1	4140	OHX	1	0
82	AR	3506	OHX	1	0
82	CG	303	OHX	1	0
82	1	3476	OHX	1	0
82	sR	1964	OHX	2	0
82	A	2117	OHX	3	0
82	sR	1990	OHX	4	0
82	1	3600	OHX	1	0
82	sR	1965	OHX	1	0
82	sR	1995	OHX	2	0
82	A	2130	OHX	2	0
82	AR	3410	OHX	1	0
82	AR	3414	OHX	1	0
82	J	301	OHX	1	0
82	1	3592	OHX	2	0
82	AR	3478	OHX	3	0
82	AR	3507	OHX	1	0
82	sR	2003	OHX	2	0
82	A	2120	OHX	3	0
82	1	4091	OHX	1	0
82	AR	3434	OHX	1	0
82	AR	3671	OHX	1	0
82	AR	4148	OHX	2	0
82	A	1922	OHX	2	0
82	AR	3622	OHX	1	0
82	AR	4161	OHX	1	0
82	sR	2175	OHX	1	0
82	DQ	502	OHX	3	0
82	1	4077	OHX	3	0
82	AR	4156	OHX	1	0
82	AR	4150	OHX	2	0
82	1	4098	OHX	2	0
82	A	1934	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	A	2141	OHX	1	0
82	1	3567	OHX	2	0
82	A	1960	OHX	1	0
82	AR	3472	OHX	2	0
82	sR	1933	OHX	1	0
82	AR	3515	OHX	1	0
82	sR	1915	OHX	1	0
82	sR	1908	OHX	1	0
82	AR	3528	OHX	1	0
82	AS	201	OHX	1	0
82	DH	202	OHX	1	0
82	A	2144	OHX	1	0
82	A	1973	OHX	1	0
82	1	3581	OHX	1	0
82	4	204	OHX	1	0
82	AR	3419	OHX	2	0
82	A	2121	OHX	4	0
82	A	2127	OHX	4	0
82	sR	1975	OHX	1	0
82	sR	2176	OHX	1	0
82	1	3593	OHX	1	0
82	AR	3572	OHX	1	0
82	AR	3535	OHX	1	0
82	sR	1903	OHX	1	0
82	1	4149	OHX	1	0
82	AR	3548	OHX	1	0
82	A	2143	OHX	1	0
82	AR	3428	OHX	1	0
82	A	2136	OHX	1	0
82	sR	1988	OHX	2	0
82	sR	1931	OHX	1	0
82	AR	3453	OHX	2	0
82	A	2140	OHX	1	0
82	1	3446	OHX	1	0
82	AR	3420	OHX	1	0
82	1	4103	OHX	2	0
82	1	3521	OHX	1	0
82	A	1926	OHX	2	0
82	1	4139	OHX	1	0
82	A	2132	OHX	1	0
82	1	3406	OHX	1	0
82	sR	1927	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3421	OHX	1	0
82	AR	4160	OHX	4	0
82	A	2108	OHX	2	0
82	sR	2000	OHX	2	0
82	4	210	OHX	1	0
82	AR	3444	OHX	1	0
82	AR	4116	OHX	1	0
82	A	2118	OHX	1	0
82	1	3418	OHX	1	0
82	AR	3602	OHX	1	0
82	A	2114	OHX	3	0
82	1	4092	OHX	1	0
82	1	4147	OHX	1	0
82	AR	3450	OHX	1	0
82	1	3457	OHX	2	0
82	1	3497	OHX	1	0
82	AR	3629	OHX	2	0
82	AR	3441	OHX	1	0
82	1	3482	OHX	1	0
82	AS	205	OHX	1	0
82	sR	1940	OHX	1	0
82	A	1901	OHX	1	0
82	1	3445	OHX	1	0
82	AR	3604	OHX	4	0
82	AR	4136	OHX	1	0
82	AR	3464	OHX	1	0
82	AR	3655	OHX	1	0
82	AR	3459	OHX	2	0
82	AR	3656	OHX	1	0
82	sR	2181	OHX	1	0
82	1	3566	OHX	3	0
82	sR	1952	OHX	1	0
82	1	3435	OHX	1	0
82	1	4058	OHX	1	0
82	AR	4143	OHX	1	0
82	A	2116	OHX	1	0
82	AR	3618	OHX	1	0
82	AR	3651	OHX	2	0
82	4	228	OHX	2	0
82	1	4121	OHX	1	0
82	k	404	OHX	2	0
82	c3	202	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	1	4120	OHX	1	0
82	sR	2005	OHX	2	0
82	1	4151	OHX	3	0
82	1	4097	OHX	1	0
82	1	3527	OHX	1	0
82	1	3540	OHX	1	0
82	sR	2172	OHX	1	0
82	AT	209	OHX	1	0
82	1	3449	OHX	1	0
82	AR	3501	OHX	2	0
82	AR	3567	OHX	1	0
82	1	3465	OHX	2	0
82	A	2119	OHX	1	0
82	1	4101	OHX	2	0
82	3	220	OHX	1	0
82	sR	2015	OHX	1	0
82	1	4094	OHX	1	0
82	AR	3555	OHX	1	0
82	AR	3568	OHX	2	0
82	AR	3469	OHX	2	0
82	A	1971	OHX	2	0
82	A	1920	OHX	1	0
82	sR	2025	OHX	1	0
82	AR	3409	OHX	1	0
82	1	3487	OHX	2	0
82	AR	3485	OHX	1	0
82	A	1948	OHX	2	0
82	AR	3635	OHX	1	0
82	AR	3462	OHX	3	0
82	4	205	OHX	2	0
82	sR	1922	OHX	3	0
82	A	1938	OHX	1	0
82	sR	2170	OHX	1	0
82	sR	1914	OHX	2	0
82	AR	3583	OHX	2	0
82	AR	3653	OHX	2	0
82	1	4078	OHX	1	0
82	AR	4146	OHX	1	0
82	AR	3500	OHX	1	0
82	1	3520	OHX	1	0
82	1	3477	OHX	1	0
82	AR	3504	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	A	1942	OHX	2	0
82	c5	201	OHX	2	0
82	AR	3664	OHX	1	0
82	1	4125	OHX	3	0
82	1	3557	OHX	1	0
82	sR	1943	OHX	1	0
82	AR	3416	OHX	1	0
82	AT	213	OHX	1	0
82	1	4100	OHX	1	0
82	sR	1950	OHX	1	0
82	A	1940[B]	OHX	1	0
82	AR	4152	OHX	2	0
82	A	2125	OHX	2	0
82	1	4131	OHX	2	0
82	AR	3553	OHX	1	0
82	A	1937	OHX	1	0
82	1	4060	OHX	1	0
82	1	4107	OHX	3	0
82	1	4075	OHX	3	0
82	AR	3404	OHX	1	0
82	1	3480	OHX	1	0
82	sR	1994	OHX	1	0
82	AR	3442	OHX	2	0
82	A	2107	OHX	2	0
82	sR	1929	OHX	2	0
82	sR	1984	OHX	2	0
82	1	3546	OHX	1	0
82	A	2113	OHX	2	0
82	AG	202	OHX	1	0
82	1	3462	OHX	1	0
82	AC	102	OHX	2	0
82	AR	4141	OHX	1	0
82	1	3452	OHX	1	0
82	A	1906	OHX	2	0
82	A	2106	OHX	2	0
82	1	3594	OHX	1	0
82	z	202	OHX	2	0
82	AR	3412	OHX	1	0
82	AR	3666	OHX	1	0
82	AR	3631	OHX	1	0
82	1	4062	OHX	1	0
82	AR	3607	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	sR	1981	OHX	1	0
82	l	405	OHX	1	0
82	1	3474	OHX	1	0
82	1	4072	OHX	2	0
82	AR	3600	OHX	1	0
82	A	1908	OHX	3	0
82	1	4084	OHX	2	0
82	1	4085	OHX	1	0
82	A	1910	OHX	1	0
86	AR	4205	X1K	4	0
82	AR	3633	OHX	1	0
82	AR	3497	OHX	1	0
82	sR	2006	OHX	1	0
82	sR	1955	OHX	1	0
82	AR	3650	OHX	1	0
82	AR	3438	OHX	1	0
82	sR	1949	OHX	1	0
82	AR	3581	OHX	1	0
82	Q	201	OHX	1	0
82	AR	3451	OHX	1	0
82	A	1932	OHX	2	0
82	A	1975	OHX	1	0
82	1	3417	OHX	1	0
82	1	4079	OHX	1	0
82	AR	3465	OHX	1	0
82	AR	3637	OHX	1	0
82	A	2111	OHX	2	0
82	sR	1996	OHX	1	0
82	AR	3457	OHX	1	0
82	A	1912	OHX	2	0
82	sR	1953	OHX	1	0
82	sR	1911	OHX	1	0
82	AT	201	OHX	2	0
82	k	403	OHX	1	0
82	1	3535[A]	OHX	1	0
82	1	3586	OHX	1	0
82	1	4126	OHX	1	0
82	3	222	OHX	1	0
82	sR	2171	OHX	1	0
82	AR	3566	OHX	1	0
82	A	1919	OHX	1	0
82	1	4086	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	3	204	OHX	1	0
82	sR	1989	OHX	1	0
82	1	3426	OHX	1	0
82	1	3537	OHX	2	0
82	AR	3454	OHX	2	0
82	1	3472	OHX	1	0
82	AR	3525	OHX	1	0
82	A	1929	OHX	1	0
82	sR	1913	OHX	2	0
82	sR	1947	OHX	1	0
82	AR	3406	OHX	1	0
82	A	1944	OHX	1	0
82	1	3403	OHX	1	0
82	AR	3452	OHX	1	0
82	sR	1904	OHX	2	0
82	AR	3422	OHX	2	0
82	AR	4162	OHX	1	0
82	1	3408	OHX	1	0
82	1	3535[B]	OHX	1	0
82	AR	3433	OHX	1	0
82	AR	3588	OHX	1	0
82	sR	1970	OHX	1	0
82	AR	3467	OHX	1	0
82	sR	1956	OHX	1	0
82	CH	201	OHX	3	0
82	sR	1985	OHX	1	0
82	sR	2180	OHX	3	0
82	A	2126[A]	OHX	1	0
82	1	3505	OHX	2	0
82	sR	2010	OHX	1	0
82	1	3413	OHX	2	0
82	AR	3512	OHX	1	0
82	1	3407	OHX	2	0
82	1	3590	OHX	1	0
82	1	4073	OHX	1	0
82	1	3479	OHX	1	0
82	AR	3577	OHX	3	0
82	AR	3544	OHX	1	0
82	AR	3516	OHX	1	0
82	1	3493	OHX	1	0
82	AT	234	OHX	1	0
82	A	2135	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	1	4087	OHX	1	0
82	AR	3538	OHX	1	0
82	AR	3401	OHX	4	0
82	AR	3455	OHX	1	0
82	1	4096	OHX	1	0
82	1	3509	OHX	1	0
82	AR	3449	OHX	1	0
82	r	303	OHX	1	0
82	AR	3475	OHX	2	0
82	AR	4155	OHX	2	0
82	AR	3445	OHX	1	0
82	A	2142	OHX	1	0
82	A	2112	OHX	1	0
82	AR	3466	OHX	1	0
86	1	4181	X1K	1	0
82	1	4117	OHX	2	0
82	AR	3471	OHX	1	0
82	1	4116	OHX	1	0
82	A	1917	OHX	1	0
82	1	3510	OHX	1	0
82	1	3596	OHX	1	0
82	AT	202	OHX	1	0
82	AR	3550	OHX	2	0
82	1	3427	OHX	1	0
82	1	3512	OHX	1	0
82	A	2110	OHX	1	0
82	AR	3488	OHX	1	0
82	A	2124	OHX	1	0
82	AR	4159	OHX	1	0
82	AR	3667	OHX	1	0
82	1	3431	OHX	1	0
82	sR	2004	OHX	1	0
82	sR	1910	OHX	1	0
82	AR	4153	OHX	1	0
82	sR	1960	OHX	2	0
82	4	206	OHX	1	0
82	1	3508	OHX	1	0
82	1	4144	OHX	1	0
82	1	4118	OHX	3	0
82	AR	3505	OHX	1	0
82	AR	4137	OHX	1	0
82	AR	3411	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	1	4080	OHX	6	0
82	CE	401	OHX	1	0
82	AR	3517	OHX	2	0
82	A	1925	OHX	1	0
82	1	4074	OHX	3	0
82	1	3490	OHX	1	0
82	AR	3545	OHX	1	0
82	A	2102	OHX	1	0
82	1	3504	OHX	3	0
82	sR	1907	OHX	2	0
82	sR	1916[A]	OHX	1	0
82	sR	1959	OHX	3	0
82	1	3423	OHX	1	0
82	1	4089	OHX	1	0
82	AR	3524	OHX	2	0
82	AR	3484	OHX	1	0
82	1	3430	OHX	1	0
82	1	3526	OHX	2	0
82	AR	3592	OHX	1	0
82	sR	1906	OHX	1	0
82	1	3405	OHX	2	0
82	Rb	401	OHX	1	0
82	4	213	OHX	2	0
82	1	3455	OHX	4	0
82	sR	1918	OHX	3	0
82	AP	502	OHX	3	0
82	A	1911	OHX	1	0
82	sR	1920	OHX	1	0
82	AR	3549	OHX	1	0
82	1	3434	OHX	2	0
82	1	3451	OHX	1	0
82	sR	1969	OHX	3	0
82	AR	4163	OHX	1	0
82	AR	3546	OHX	2	0
82	1	4143	OHX	1	0
82	1	4108	OHX	2	0
82	sR	2023	OHX	2	0
82	1	4082	OHX	1	0
82	AR	3591	OHX	2	0
82	1	4127	OHX	2	0
82	AR	3573	OHX	1	0
82	c7	201	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3494	OHX	1	0
82	sR	1916[B]	OHX	1	0
82	sR	2179	OHX	1	0
82	1	4128	OHX	1	0
82	A	1958	OHX	1	0
82	AR	3460	OHX	1	0
82	CV	201	OHX	1	0
82	sR	2177	OHX	1	0
82	sR	2013	OHX	1	0
82	AR	4145	OHX	1	0
82	AR	3417	OHX	2	0
82	sR	1925	OHX	1	0
82	AR	3624	OHX	1	0
82	A	1969	OHX	1	0
82	1	3558	OHX	1	0
82	A	1950	OHX	1	0
82	AR	3463	OHX	1	0
82	sR	2174	OHX	1	0
82	AR	3529	OHX	1	0
82	1	4104	OHX	1	0
82	DD	102	OHX	1	0
82	AR	3523	OHX	1	0
82	AT	235	OHX	1	0
82	AR	3519	OHX	1	0
82	1	3415	OHX	1	0
82	1	3549	OHX	1	0
82	1	3453	OHX	1	0
82	1	4136	OHX	2	0
82	AR	3489	OHX	1	0
82	AR	3654	OHX	1	0
82	sR	1912	OHX	1	0
82	sR	1923	OHX	3	0
82	1	3470	OHX	2	0
82	AR	3514	OHX	1	0
82	1	4138	OHX	1	0
82	sR	1934	OHX	1	0
82	A	2103	OHX	1	0
82	CX	201	OHX	1	0
82	c8	201	OHX	1	0
82	AR	3498	OHX	1	0
82	sR	1938	OHX	1	0
82	AR	3418	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	A	1916	OHX	1	0
82	1	3419	OHX	3	0
82	1	3450	OHX	2	0
82	AS	202	OHX	1	0
82	1	3601	OHX	1	0
82	1	3522	OHX	1	0
82	AR	3541	OHX	1	0
82	1	3481	OHX	1	0
82	A	2139	OHX	1	0
82	T	201	OHX	2	0
82	AT	207	OHX	1	0
82	sR	1983	OHX	1	0
82	2	201	OHX	1	0
82	sR	1954	OHX	1	0
82	1	4102	OHX	3	0
82	A	1952	OHX	2	0
82	sR	1930	OHX	2	0
82	1	4113	OHX	2	0
82	1	4137	OHX	1	0
82	1	3478	OHX	1	0
82	A	2131	OHX	3	0
82	1	4099	OHX	1	0
82	3	219	OHX	1	0
82	1	4154	OHX	2	0
82	1	3584	OHX	2	0
82	A	1972	OHX	1	0
82	1	4083	OHX	1	0
82	AK	102	OHX	6	0
82	A	1935	OHX	1	0
82	AR	3511	OHX	1	0
82	1	4124	OHX	1	0
82	sR	2020	OHX	1	0
82	1	3515	OHX	1	0
82	4	207	OHX	1	0
82	AR	3565	OHX	2	0
82	A	1967	OHX	1	0
82	AR	3532	OHX	1	0
82	1	4114[A]	OHX	1	0
82	AR	3403	OHX	1	0
82	1	3506	OHX	1	0
82	s1	301	OHX	3	0
82	sR	1967	OHX	1	0

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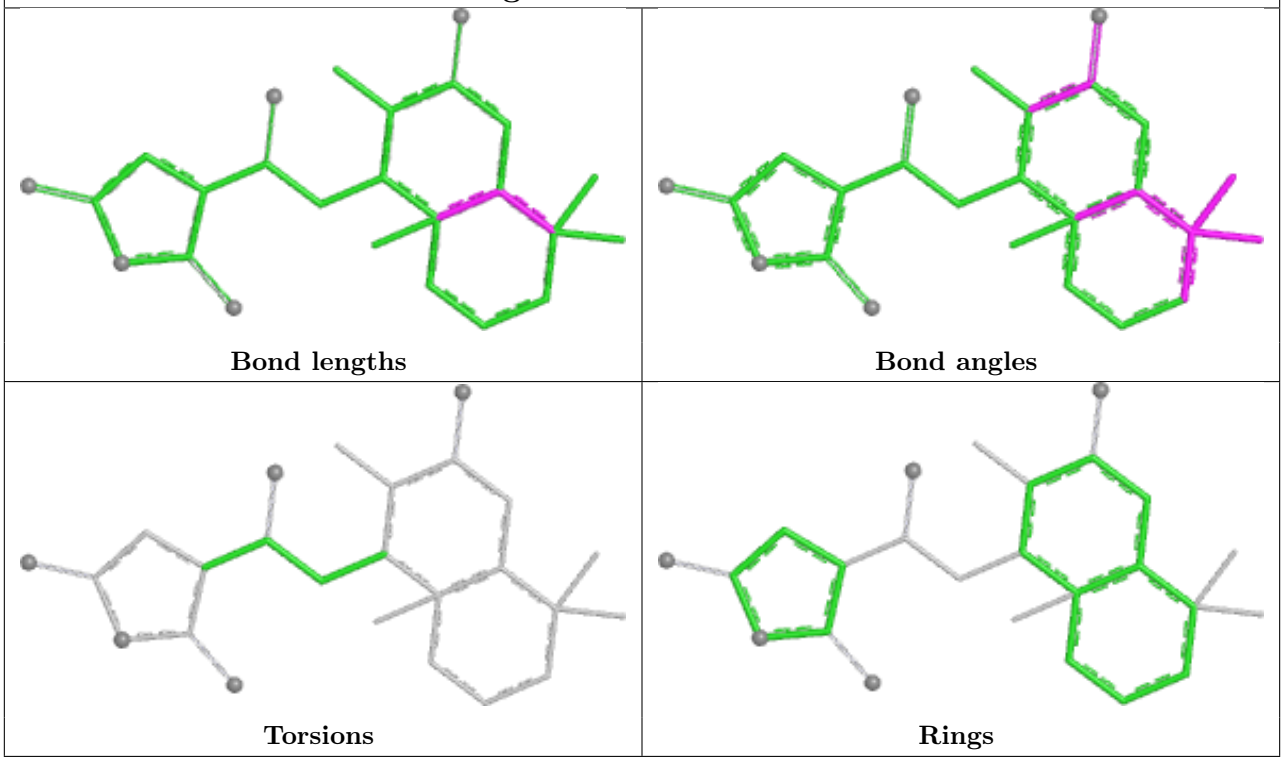
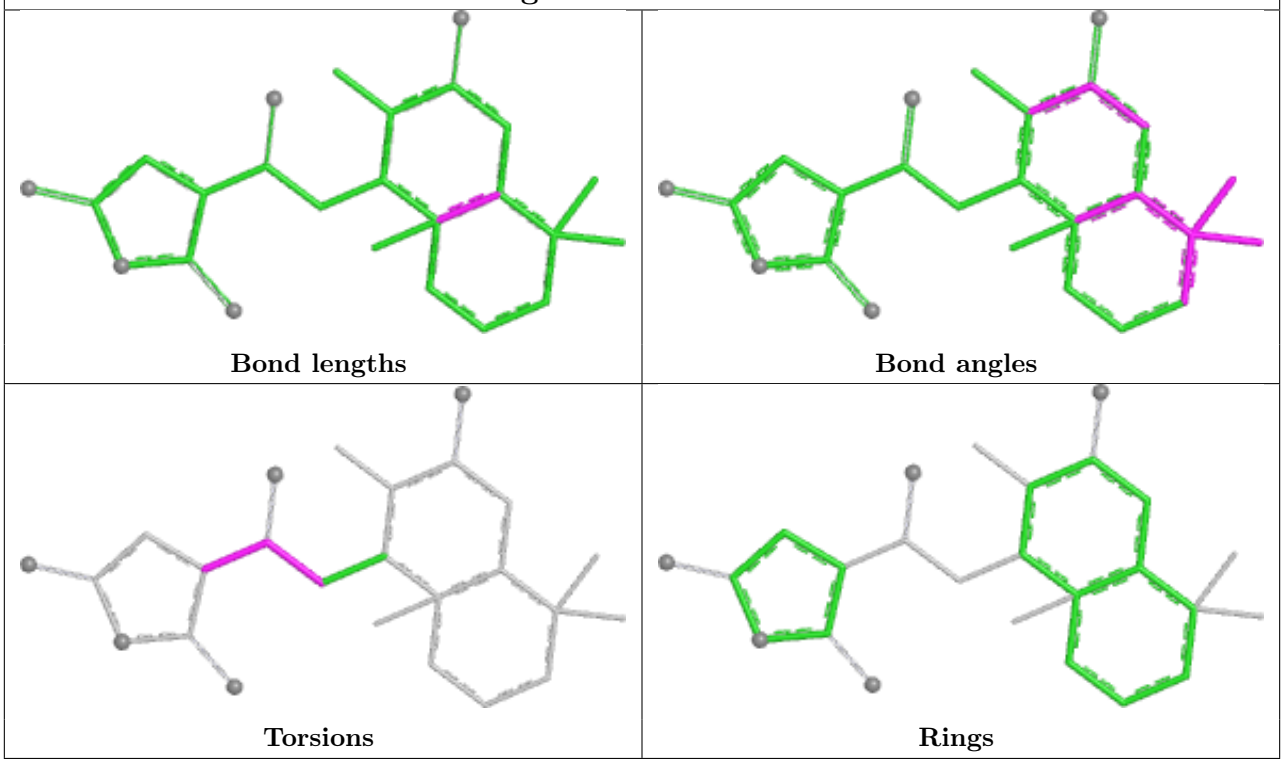
Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	AR	3440	OHX	1	1
82	sR	1962	OHX	1	0
82	1	3538	OHX	1	0
82	1	4145	OHX	1	0
82	1	4076	OHX	2	0
82	AR	3408	OHX	3	0
82	1	3501	OHX	2	0
82	sR	1976	OHX	2	0
82	AR	3661	OHX	1	0
82	1	3458	OHX	1	0
82	1	3604	OHX	1	0
82	sR	2173	OHX	1	0
82	AR	3559	OHX	1	0
82	1	4093	OHX	2	0

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

Ligand X1K AR 4205



Ligand X1K 1 4181



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
58	c0	1
47	A	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	c0	84:GLU	C	87:HIS	N	9.31
1	A	1716:C	O3'	1717:G	P	4.49

6 Fit of model and data

6.1 Protein, DNA and RNA chains

EDS failed to run properly - this section is therefore empty.

6.2 Non-standard residues in protein, DNA, RNA chains

EDS failed to run properly - this section is therefore empty.

6.3 Carbohydrates

EDS failed to run properly - this section is therefore empty.

6.4 Ligands

EDS failed to run properly - this section is therefore empty.

6.5 Other polymers

EDS failed to run properly - this section is therefore empty.