



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 20, 2026 – 10:21 AM UTC

PDB ID : 5D8B / pdb_00005d8b
Title : Crystal structure of T. thermophilus ribosome containing a P-site wobble mismatch
Authors : Svidritskiy, E.; Korostelev, A.A.
Deposited on : 2015-08-17
Resolution : 3.63 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
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

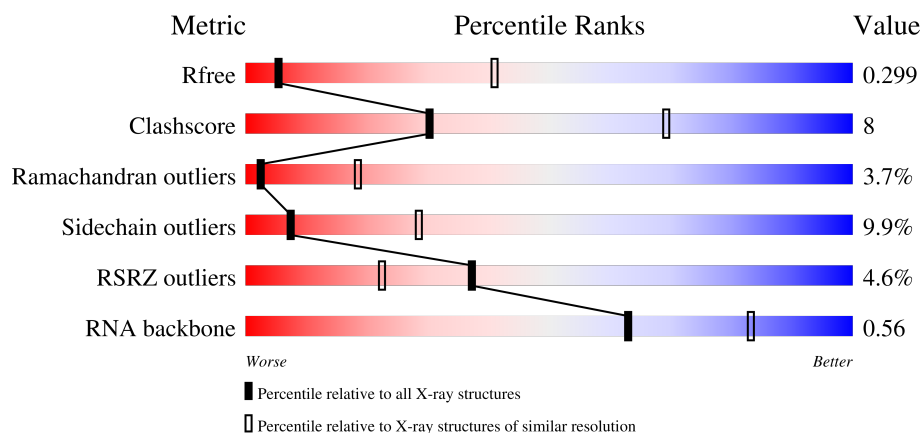
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.63 Å.

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



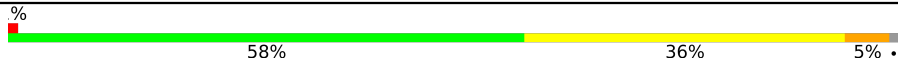
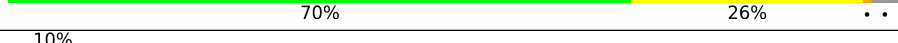
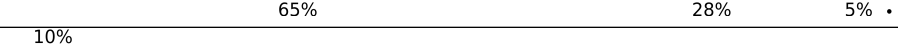
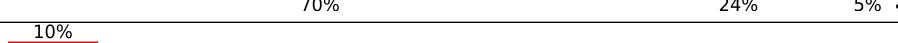
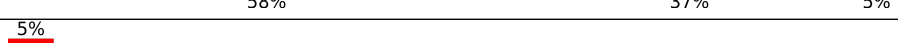
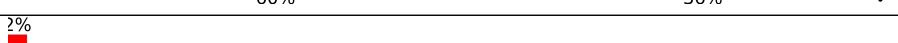
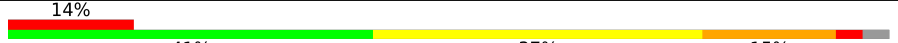
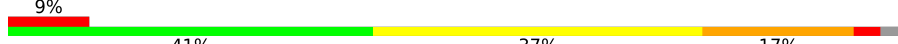
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1132 (3.76-3.52)
Clashscore	190562	1014 (3.74-3.54)
Ramachandran outliers	187476	1123 (3.76-3.52)
Sidechain outliers	187428	1121 (3.76-3.52)
RSRZ outliers	180081	1130 (3.76-3.52)
RNA backbone	3983	1026 (4.22-3.06)

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

Mol	Chain	Length	Quality of chain
1	A	271	5% 63% 31% 6%
1	WA	271	5% 62% 32% 6%
2	B	206	2% 66% 26% 7%
2	XA	206	3% 67% 26% 6%

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Mol	Chain	Length	Quality of chain
3	C	205	
3	YA	205	
4	D	182	
4	ZA	182	
5	AB	180	
5	E	180	
6	BB	148	
6	F	148	
7	CB	147	
7	G	147	
8	DB	140	
8	H	140	
9	EB	122	
9	I	122	
10	FB	150	
10	J	150	
11	GB	141	
11	K	141	
12	HB	118	
12	L	118	
13	IB	112	
13	M	112	
14	JB	146	
14	N	146	
15	KB	118	

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Mol	Chain	Length	Quality of chain
15	O	118	
16	LB	101	
16	P	101	
17	MB	113	
17	Q	113	
18	NB	96	
18	R	96	
19	OB	110	
19	S	110	
20	PB	206	
20	T	206	
21	QB	85	
21	U	85	
22	RB	98	
22	V	98	
23	SB	72	
23	W	72	
24	TB	60	
24	X	60	
25	UB	60	
25	Y	60	
26	VB	54	
26	Z	54	
27	AA	49	
27	WB	49	

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Mol	Chain	Length	Quality of chain
28	BA	65	
28	XB	65	
29	CA	256	
29	YB	256	
30	DA	239	
30	ZB	239	
31	AC	209	
31	EA	209	
32	BC	162	
32	FA	162	
33	CC	101	
33	GA	101	
34	DC	156	
34	HA	156	
35	EC	138	
35	IA	138	
36	FC	128	
36	JA	128	
37	GC	105	
37	KA	105	
38	HC	129	
38	LA	129	
39	IC	132	
39	MA	132	
40	JC	126	

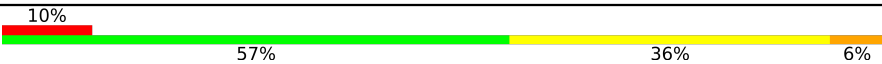
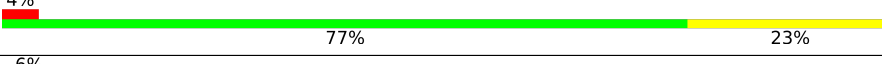
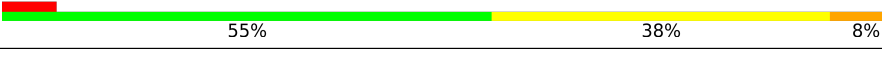
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Mol	Chain	Length	Quality of chain
40	NA	126	
41	KC	61	
41	OA	61	
42	LC	89	
42	PA	89	
43	MC	88	
43	QA	88	
44	NC	105	
44	RA	105	
45	OC	88	
45	SA	88	
46	PC	93	
46	TA	93	
47	QC	106	
47	UA	106	
48	RC	27	
48	VA	27	
49	SC	71	
49	TC	71	
50	UC	1509	
50	YC	1509	
51	VC	2893	
51	ZC	2893	
52	AD	121	
52	WC	121	

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Mol	Chain	Length	Quality of chain
53	BD	77	
53	ED	77	
53	FD	77	
53	XC	77	
54	GD	27	
54	HD	27	

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
55	MG	P	201	-	-	-	X
55	MG	UA	201	-	-	-	X
55	MG	VC	3011	-	-	-	X
55	MG	VC	3031	-	-	-	X
55	MG	VC	3040	-	-	-	X
55	MG	VC	3046	-	-	-	X
55	MG	VC	3083	-	-	-	X
55	MG	VC	3156	-	-	-	X
55	MG	VC	3695	-	-	-	X
55	MG	YC	1607	-	-	-	X
55	MG	YC	1672	-	-	-	X
55	MG	ZC	3025	-	-	-	X
55	MG	ZC	3052	-	-	-	X
55	MG	ZC	3169	-	-	-	X
55	MG	ZC	3238	-	-	-	X
55	MG	ZC	3264	-	-	-	X
55	MG	ZC	3760	-	-	-	X
55	MG	ZC	3769	-	-	-	X

2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 295576 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 protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	271	Total	C	N	O	S	0	0	0
			2105	1329	416	357	3			
1	WA	271	Total	C	N	O	S	0	0	0
			2105	1329	416	357	3			

- Molecule 2 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			
2	XA	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

- Molecule 3 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	202	Total	C	N	O	S	0	0	0
			1586	1011	297	275	3			
3	YA	202	Total	C	N	O	S	0	0	0
			1586	1011	297	275	3			

- Molecule 4 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			
4	ZA	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			

- Molecule 5 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
5	AB	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			

- Molecule 6 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	145	Total	C	N	O	S	0	0	0
			1132	724	200	207	1			
6	BB	145	Total	C	N	O	S	0	0	0
			1132	724	200	207	1			

- Molecule 7 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	147	Total	C	N	O	S	0	0	0
			1088	692	191	199	6			
7	CB	147	Total	C	N	O	S	0	0	0
			1088	692	191	199	6			

- Molecule 8 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	137	Total	C	N	O	S	0	0	0
			1096	707	205	181	3			
8	DB	137	Total	C	N	O	S	0	0	0
			1096	707	205	181	3			

- Molecule 9 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			
9	EB	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			

- Molecule 10 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	FB	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 11 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	134	Total	C	N	O	S	0	0	0
			1064	680	201	178	5			
11	GB	134	Total	C	N	O	S	0	0	0
			1064	680	201	178	5			

- Molecule 12 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	117	Total	C	N	O		0	0	0
			960	599	202	159				
12	HB	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 13 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	M	110	Total	C	N	O		0	0	0
			877	553	175	149				
13	IB	110	Total	C	N	O		0	0	0
			877	553	175	149				

- Molecule 14 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	N	137	Total	C	N	O	S	0	0	0
			1143	713	234	195	1			
14	JB	137	Total	C	N	O	S	0	0	0
			1143	713	234	195	1			

- Molecule 15 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	O	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
15	KB	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 16 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	P	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
16	LB	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 17 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Q	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			
17	MB	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			

- Molecule 18 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	R	92	Total	C	N	O	0	0	0
			725	471	131	123			
18	NB	92	Total	C	N	O	0	0	0
			725	471	131	123			

- Molecule 19 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	S	100	Total	C	N	O	S	0	0	0
			775	500	148	123	4			
19	OB	100	Total	C	N	O	S	0	0	0
			775	500	148	123	4			

- Molecule 20 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	T	187	Total	C	N	O	S	0	0	0
			1482	945	264	271	2			
20	PB	187	Total	C	N	O	S	0	0	0
			1482	945	264	271	2			

- Molecule 21 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	U	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			
21	QB	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			

- Molecule 22 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	V	88	Total	C	N	O	S	0	0	0
			694	435	141	118				
22	RB	88	Total	C	N	O	S	0	0	0
			694	435	141	118				

- Molecule 23 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	W	62	Total	C	N	O	S	0	0	0
			520	325	102	91	2			
23	SB	62	Total	C	N	O	S	0	0	0
			520	325	102	91	2			

- Molecule 24 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	X	59	Total	C	N	O	S	0	0	0
			467	298	90	78	1			
24	TB	59	Total	C	N	O	S	0	0	0
			467	298	90	78	1			

- Molecule 25 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Y	52	Total	C	N	O	S	0	0	0
			404	255	79	65	5			
25	UB	52	Total	C	N	O	S	0	0	0
			404	255	79	65	5			

- Molecule 26 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Z	44	Total	C	N	O	S	0	0	0
			380	235	77	64	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	VB	44	Total	C	N	O	S	0	0	0
			380	235	77	64	4			

- Molecule 27 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	AA	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
27	WB	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 28 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BA	63	Total	C	N	O	S	0	0	0
			507	326	101	78	2			
28	XB	63	Total	C	N	O	S	0	0	0
			507	326	101	78	2			

- Molecule 29 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	CA	234	Total	C	N	O	S	0	0	0
			1900	1213	341	341	5			
29	YB	234	Total	C	N	O	S	0	0	0
			1900	1213	341	341	5			

- Molecule 30 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	DA	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			
30	ZB	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 31 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	EA	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
31	AC	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 32 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	FA	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
32	BC	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 33 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	GA	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
33	CC	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 34 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	HA	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
34	DC	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 35 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	IA	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
35	EC	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 36 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	JA	127	Total	C	N	O	0	0	0
			1011	639	198	174			
36	FC	127	Total	C	N	O	0	0	0
			1011	639	198	174			

- Molecule 37 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	KA	98	Total	C	N	O	S	0	0	0
			794	499	156	138	1			
37	GC	98	Total	C	N	O	S	0	0	0
			794	499	156	138	1			

- Molecule 38 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	LA	114	Total	C	N	O	S	0	0	0
			842	522	159	158	3			
38	HC	114	Total	C	N	O	S	0	0	0
			842	522	159	158	3			

- Molecule 39 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	MA	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			
39	IC	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			

- Molecule 40 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	NA	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			
40	JC	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

- Molecule 41 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	OA	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
41	KC	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 42 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	PA	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	LC	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 43 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	QA	83	Total	C	N	O	S	0	0	0
			700	443	139	117	1			
43	MC	83	Total	C	N	O	S	0	0	0
			700	443	139	117	1			

- Molecule 44 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	RA	99	Total	C	N	O	S	0	0	0
			823	528	152	141	2			
44	NC	99	Total	C	N	O	S	0	0	0
			823	528	152	141	2			

- Molecule 45 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
45	SA	70	Total	C	N	O	0	0	0
			574	367	112	95			
45	OC	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 46 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	TA	78	Total	C	N	O	S	0	0	0
			629	403	114	110	2			
46	PC	78	Total	C	N	O	S	0	0	0
			629	403	114	110	2			

- Molecule 47 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	UA	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			
47	QC	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			

- Molecule 48 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	VA	24	Total	C	N	O	0	0	0
			208	128	50	30			
48	RC	24	Total	C	N	O	0	0	0
			208	128	50	30			

- Molecule 49 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	SC	30	Total	C	N	O	S	0	0	0
			225	142	36	43	4			
49	TC	30	Total	C	N	O	S	0	0	0
			225	142	36	43	4			

- Molecule 50 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	UC	1504	Total	C	N	O	P	0	0	0
			32332	14391	5994	10444	1503			
50	YC	1504	Total	C	N	O	P	0	0	0
			32332	14391	5994	10444	1503			

- Molecule 51 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	VC	2879	Total	C	N	O	P	0	0	0
			62000	27595	11586	19941	2878			
51	ZC	2879	Total	C	N	O	P	0	0	0
			62000	27595	11586	19941	2878			

- Molecule 52 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	WC	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			
52	AD	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

- Molecule 53 is a RNA chain called tRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	XC	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
53	BD	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
53	ED	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
53	FD	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			

- Molecule 54 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	GD	8	Total	C	N	O	P	0	0	0
			170	77	32	53	8			
54	HD	8	Total	C	N	O	P	0	0	0
			170	77	32	53	8			

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	A	5	Total	Mg	0	0
			5	5		
55	B	2	Total	Mg	0	0
			2	2		
55	C	3	Total	Mg	0	0
			3	3		
55	D	3	Total	Mg	0	0
			3	3		
55	H	2	Total	Mg	0	0
			2	2		
55	I	1	Total	Mg	0	0
			1	1		
55	J	3	Total	Mg	0	0
			3	3		
55	L	1	Total	Mg	0	0
			1	1		
55	N	1	Total	Mg	0	0
			1	1		
55	O	2	Total	Mg	0	0
			2	2		
55	P	2	Total	Mg	0	0
			2	2		
55	Q	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	V	1	Total 1	Mg 1	0	0
55	X	1	Total 1	Mg 1	0	0
55	Y	1	Total 1	Mg 1	0	0
55	AA	1	Total 1	Mg 1	0	0
55	BA	2	Total 2	Mg 2	0	0
55	EA	1	Total 1	Mg 1	0	0
55	FA	1	Total 1	Mg 1	0	0
55	HA	2	Total 2	Mg 2	0	0
55	LA	4	Total 4	Mg 4	0	0
55	OA	2	Total 2	Mg 2	0	0
55	PA	2	Total 2	Mg 2	0	0
55	QA	1	Total 1	Mg 1	0	0
55	RA	1	Total 1	Mg 1	0	0
55	UA	2	Total 2	Mg 2	0	0
55	WA	5	Total 5	Mg 5	0	0
55	XA	3	Total 3	Mg 3	0	0
55	YA	8	Total 8	Mg 8	0	0
55	BB	2	Total 2	Mg 2	0	0
55	CB	1	Total 1	Mg 1	0	0
55	DB	1	Total 1	Mg 1	0	0
55	EB	3	Total 3	Mg 3	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	FB	4	Total 4	Mg 4	0	0
55	GB	1	Total 1	Mg 1	0	0
55	HB	2	Total 2	Mg 2	0	0
55	IB	1	Total 1	Mg 1	0	0
55	JB	1	Total 1	Mg 1	0	0
55	MB	1	Total 1	Mg 1	0	0
55	NB	1	Total 1	Mg 1	0	0
55	OB	1	Total 1	Mg 1	0	0
55	QB	2	Total 2	Mg 2	0	0
55	SB	1	Total 1	Mg 1	0	0
55	WB	2	Total 2	Mg 2	0	0
55	AC	1	Total 1	Mg 1	0	0
55	BC	3	Total 3	Mg 3	0	0
55	DC	1	Total 1	Mg 1	0	0
55	FC	1	Total 1	Mg 1	0	0
55	IC	1	Total 1	Mg 1	0	0
55	LC	1	Total 1	Mg 1	0	0
55	RC	1	Total 1	Mg 1	0	0
55	UC	264	Total 264	Mg 264	0	0
55	VC	707	Total 707	Mg 707	0	0
55	WC	29	Total 29	Mg 29	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	XC	5	Total 5	Mg 5	0	0
55	YC	271	Total 271	Mg 271	0	0
55	ZC	774	Total 774	Mg 774	0	0
55	AD	30	Total 30	Mg 30	0	0
55	BD	8	Total 8	Mg 8	0	0
55	ED	16	Total 16	Mg 16	0	0
55	FD	16	Total 16	Mg 16	0	0
55	HD	1	Total 1	Mg 1	0	0

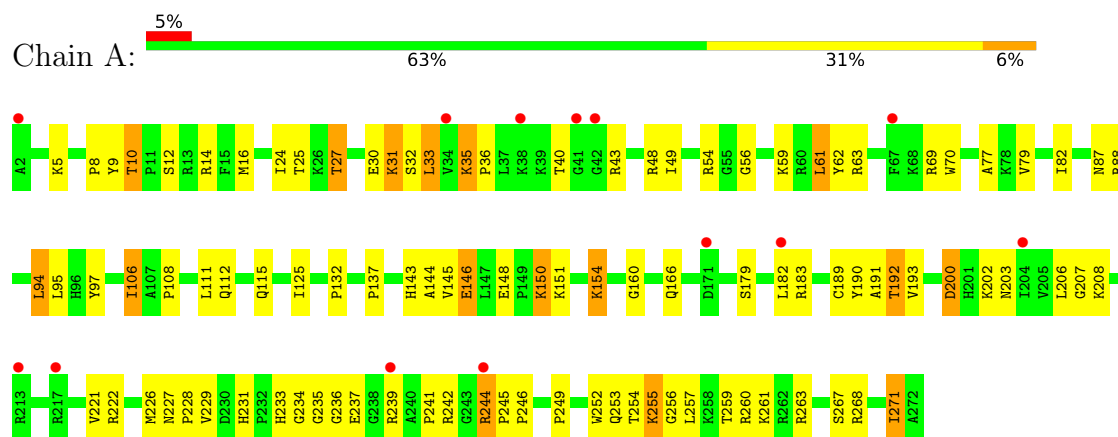
- Molecule 56 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	EA	1	Total 1	Zn 1	0	0
56	OA	1	Total 1	Zn 1	0	0
56	AC	1	Total 1	Zn 1	0	0
56	KC	1	Total 1	Zn 1	0	0

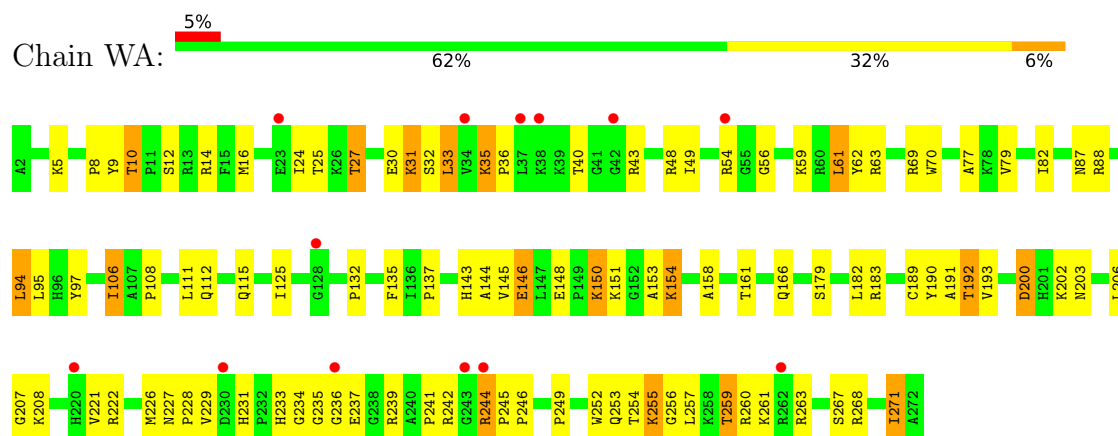
3 Residue-property plots [i](#)

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

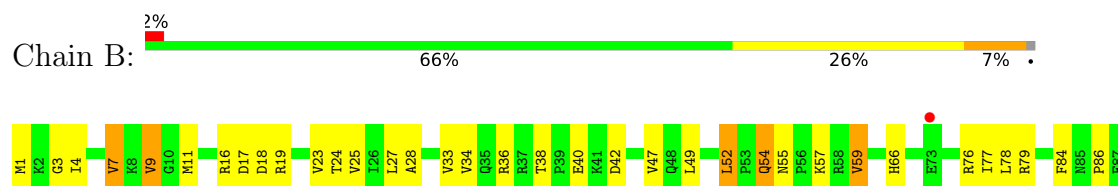
- Molecule 1: 50S ribosomal protein L2



- Molecule 1: 50S ribosomal protein L2

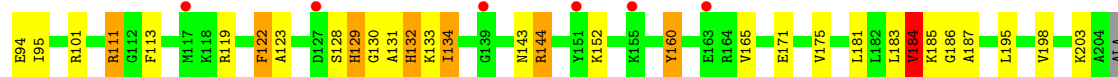
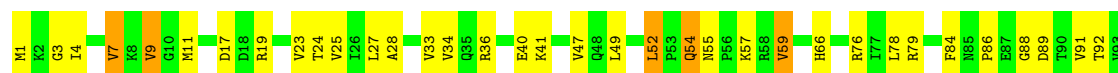


- Molecule 2: 50S ribosomal protein L3





• Molecule 2: 50S ribosomal protein L3



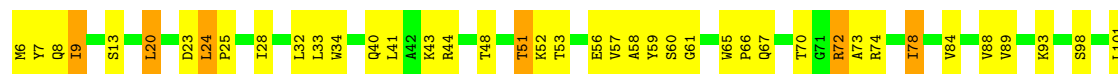
LYS

• Molecule 3: 50S ribosomal protein L4



W199
I206
G207
GLY
GLU
ALA

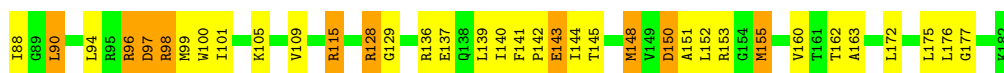
• Molecule 3: 50S ribosomal protein L4



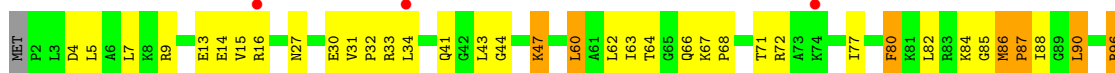
I206
G207
GLY
GLU
ALA

• Molecule 4: 50S ribosomal protein L5

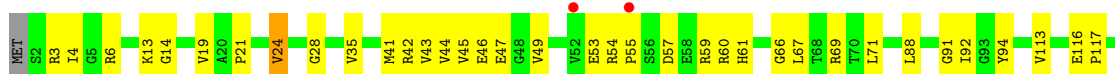




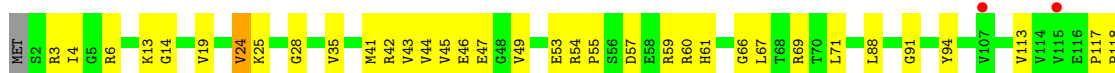
- Molecule 4: 50S ribosomal protein L5



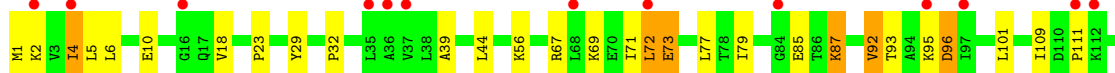
- Molecule 5: 50S ribosomal protein L6



- Molecule 5: 50S ribosomal protein L6

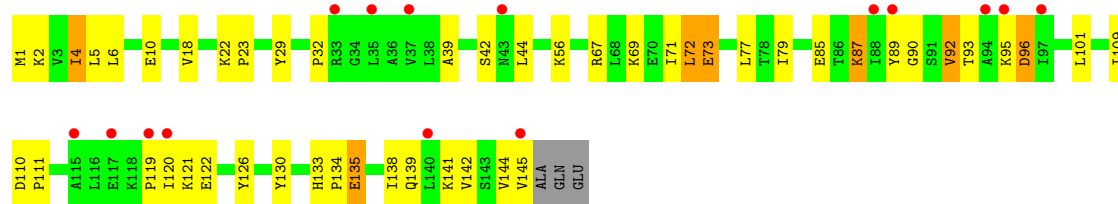


- Molecule 6: 50S ribosomal protein L9

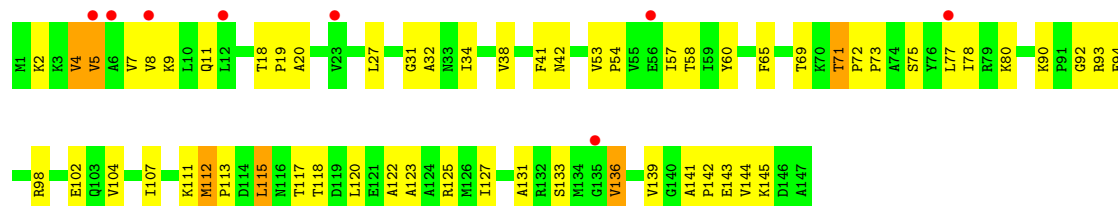


- Molecule 6: 50S ribosomal protein L9

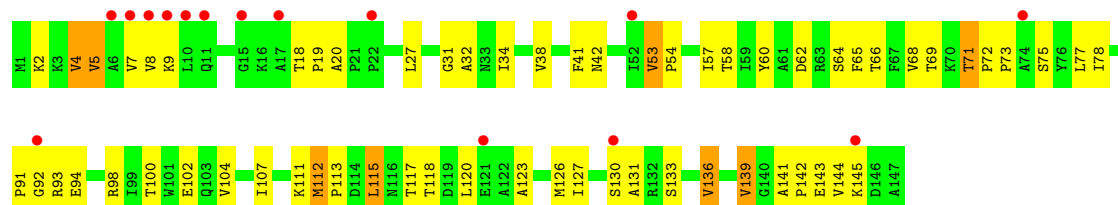




• Molecule 7: 50S ribosomal protein L11



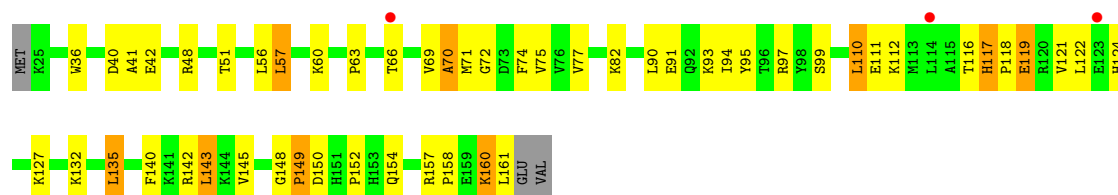
• Molecule 7: 50S ribosomal protein L11



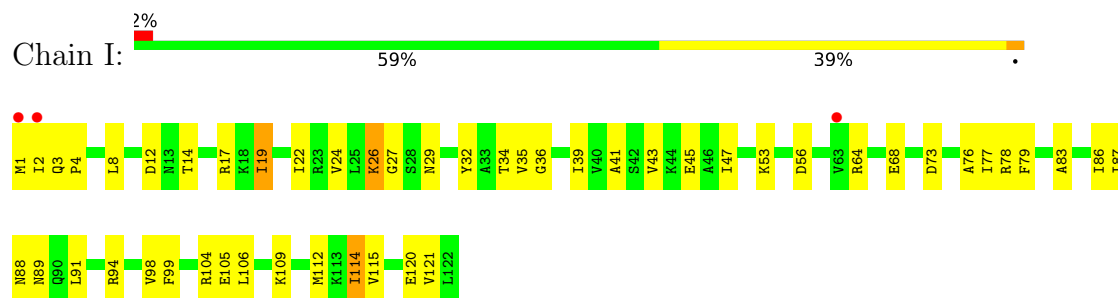
• Molecule 8: 50S ribosomal protein L13



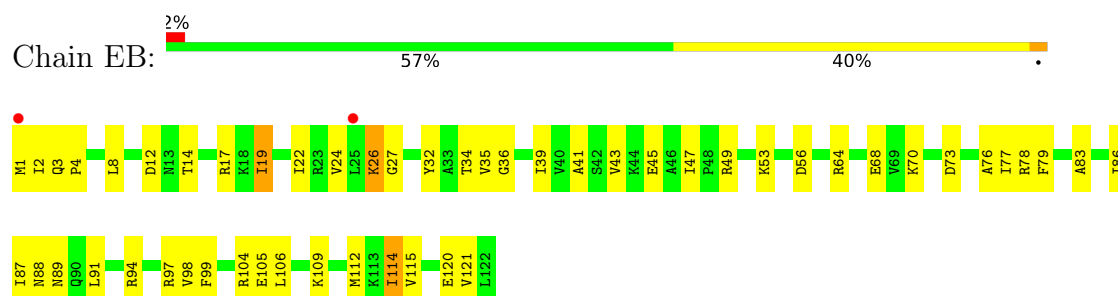
• Molecule 8: 50S ribosomal protein L13



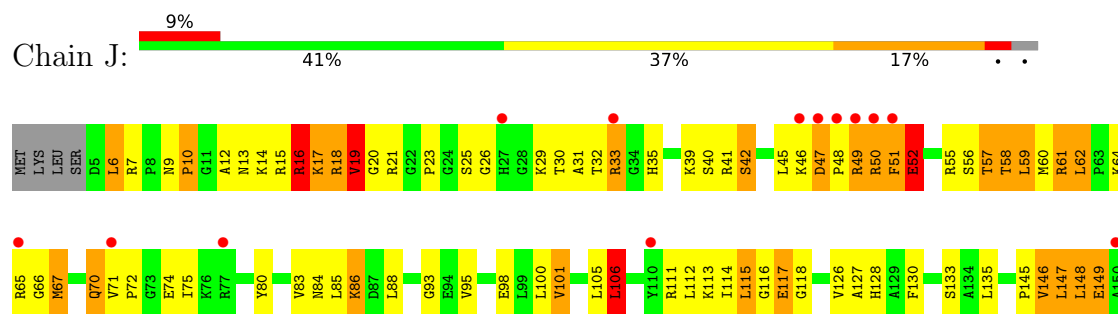
- Molecule 9: 50S ribosomal protein L14



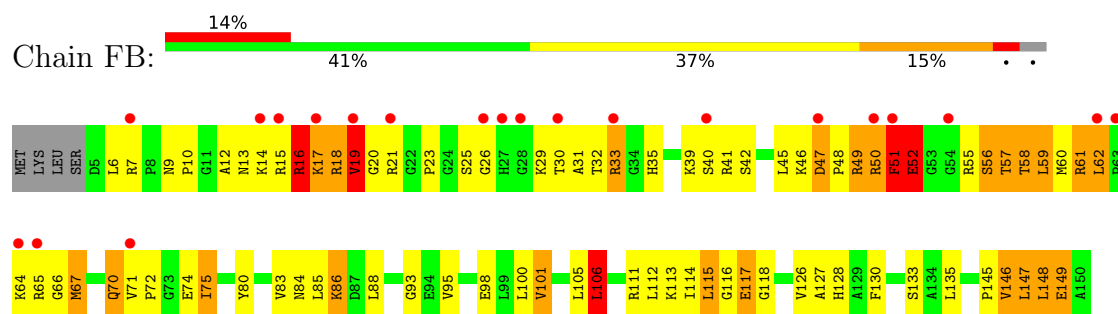
- Molecule 9: 50S ribosomal protein L14



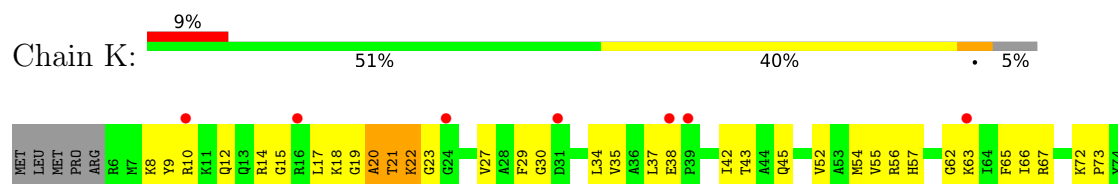
- Molecule 10: 50S ribosomal protein L15

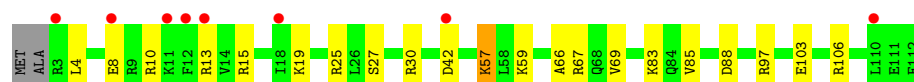


- Molecule 10: 50S ribosomal protein L15

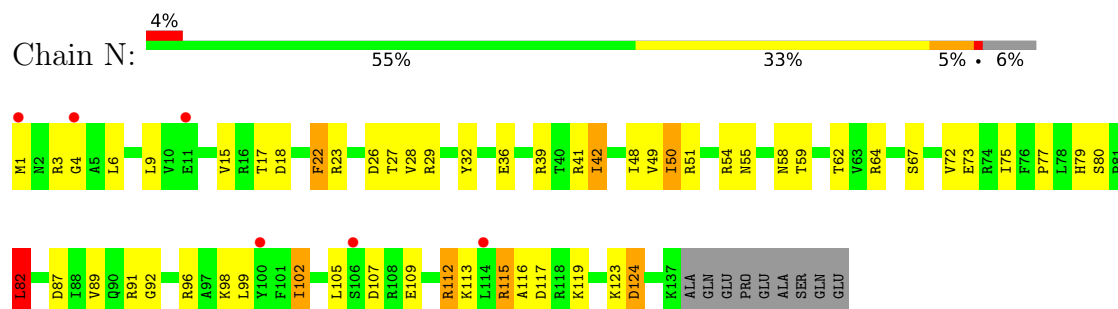


- Molecule 11: 50S ribosomal protein L16

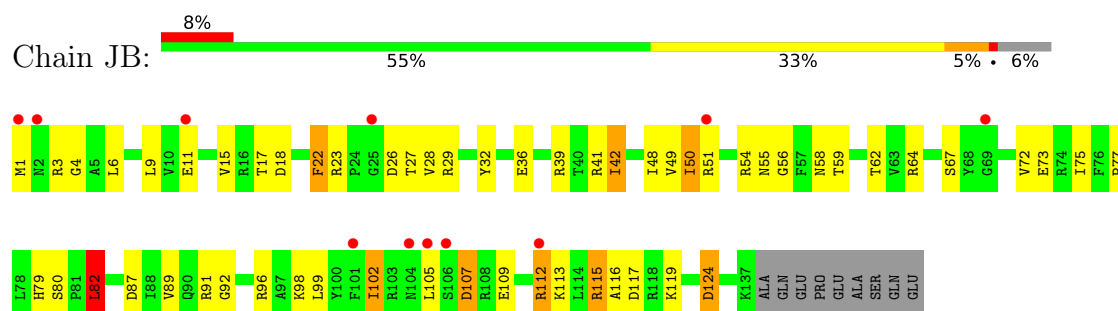




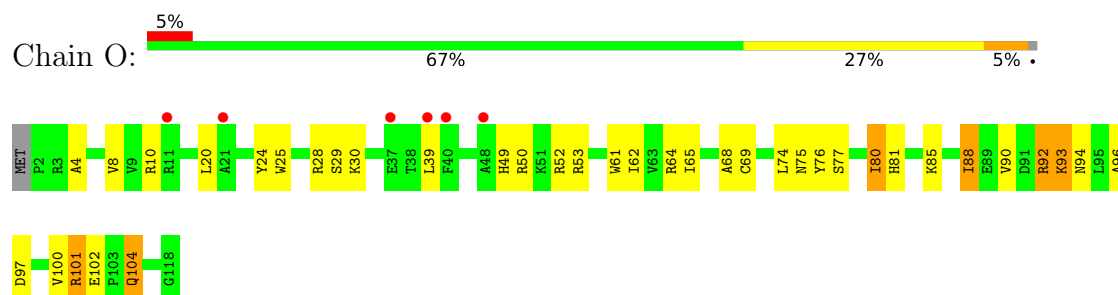
- Molecule 14: 50S ribosomal protein L19



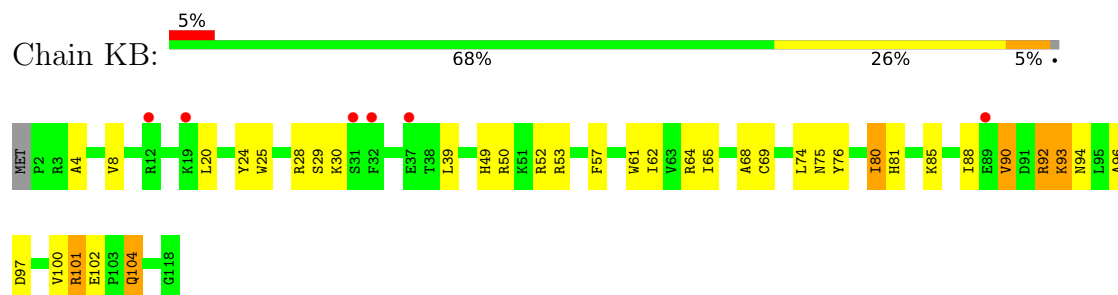
- Molecule 14: 50S ribosomal protein L19



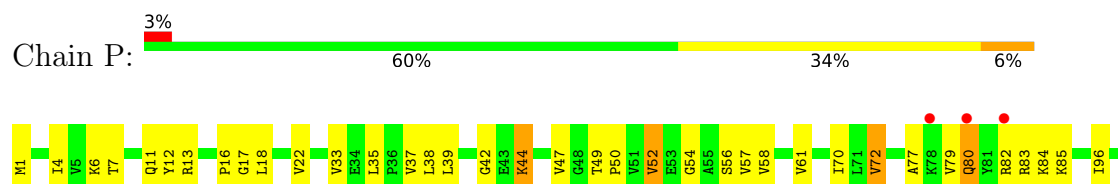
- Molecule 15: 50S ribosomal protein L20



- Molecule 15: 50S ribosomal protein L20

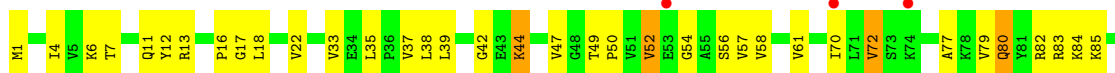


- Molecule 16: 50S ribosomal protein L21

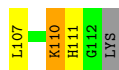




- Molecule 16: 50S ribosomal protein L21



- Molecule 17: 50S ribosomal protein L22



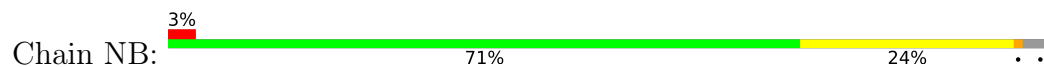
- Molecule 17: 50S ribosomal protein L22



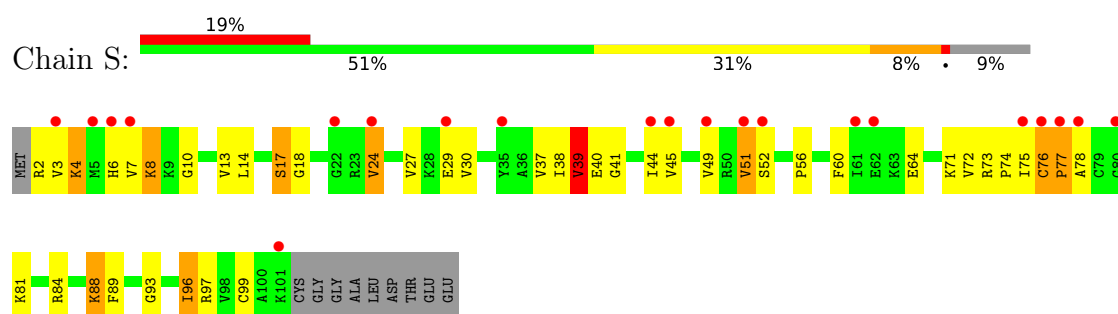
- Molecule 18: 50S ribosomal protein L23



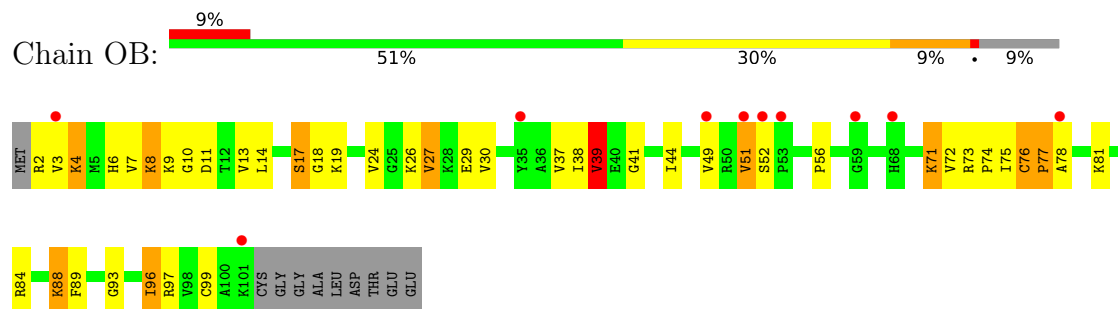
- Molecule 18: 50S ribosomal protein L23



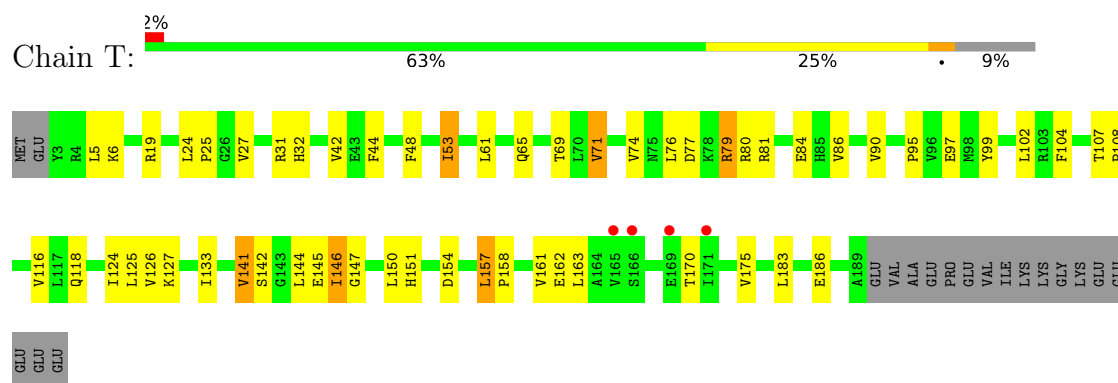
- Molecule 19: 50S ribosomal protein L24



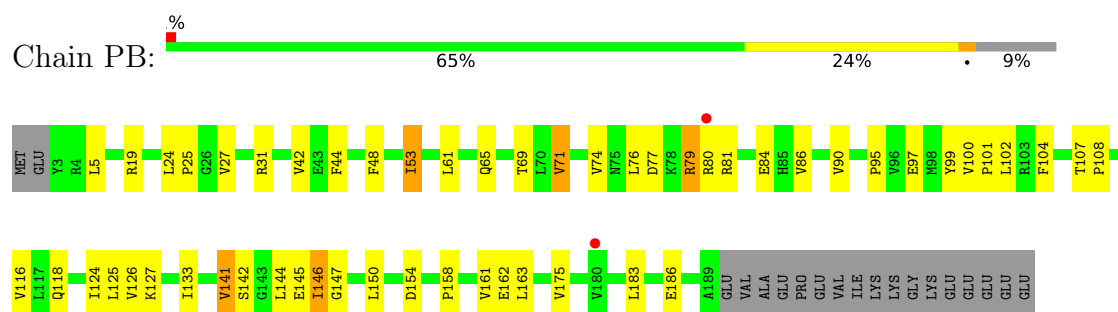
- Molecule 19: 50S ribosomal protein L24



- Molecule 20: 50S ribosomal protein L25

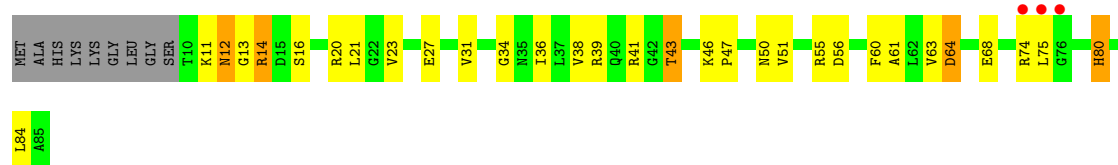


- Molecule 20: 50S ribosomal protein L25

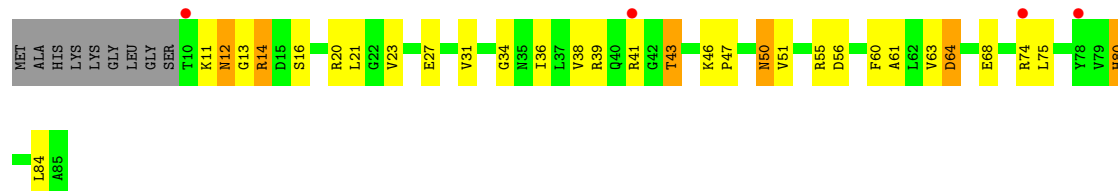


- Molecule 21: 50S ribosomal protein L27

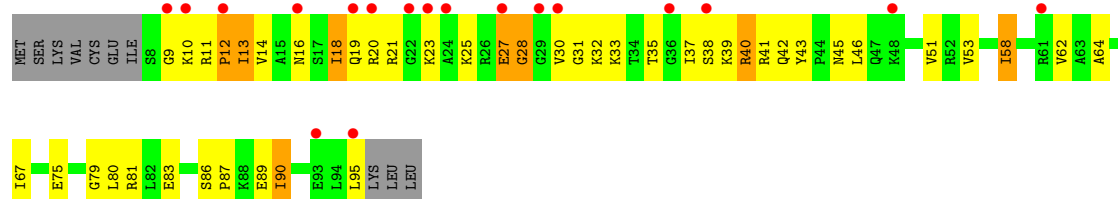
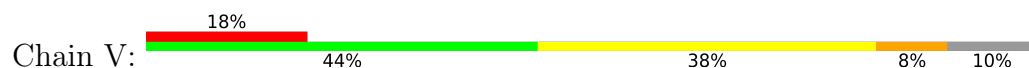




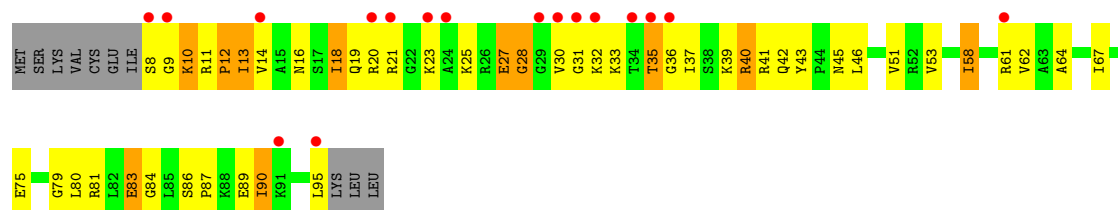
- Molecule 21: 50S ribosomal protein L27



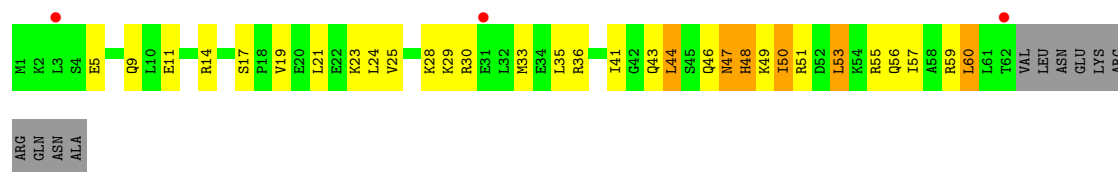
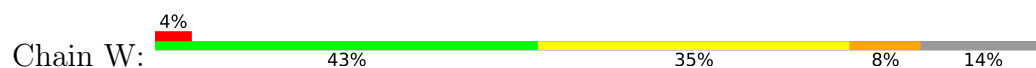
- Molecule 22: 50S ribosomal protein L28



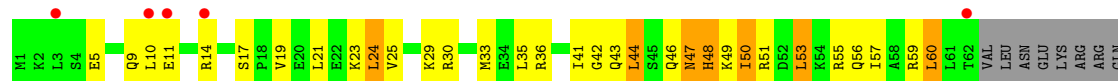
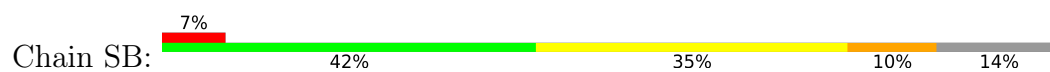
- Molecule 22: 50S ribosomal protein L28



- Molecule 23: 50S ribosomal protein L29

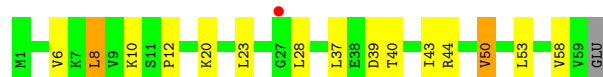
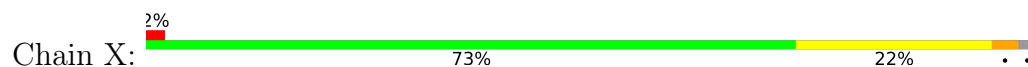


- Molecule 23: 50S ribosomal protein L29

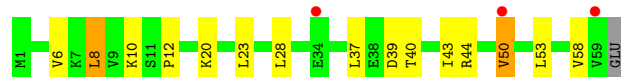
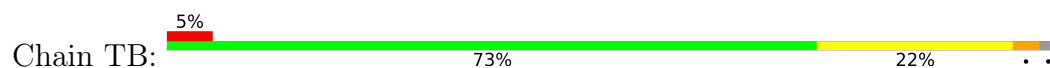


ASN
ALA

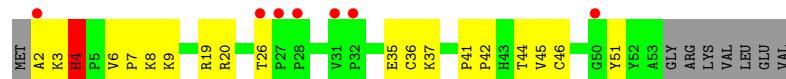
- Molecule 24: 50S ribosomal protein L30



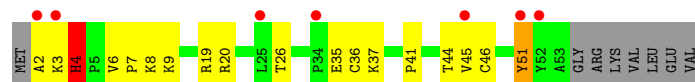
- Molecule 24: 50S ribosomal protein L30



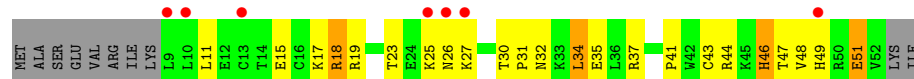
- Molecule 25: 50S ribosomal protein L32



- Molecule 25: 50S ribosomal protein L32

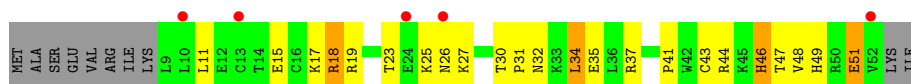


- Molecule 26: 50S ribosomal protein L33



- Molecule 26: 50S ribosomal protein L33





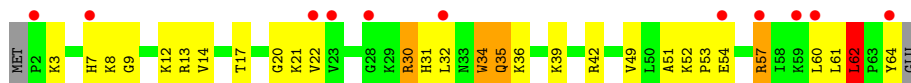
- Molecule 27: 50S ribosomal protein L34



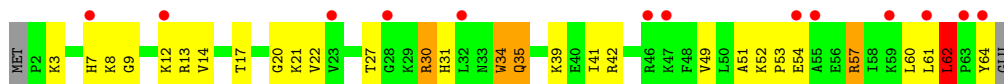
- Molecule 27: 50S ribosomal protein L34



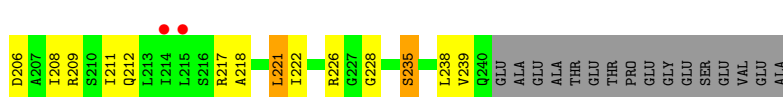
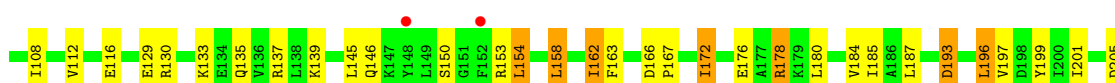
- Molecule 28: 50S ribosomal protein L35



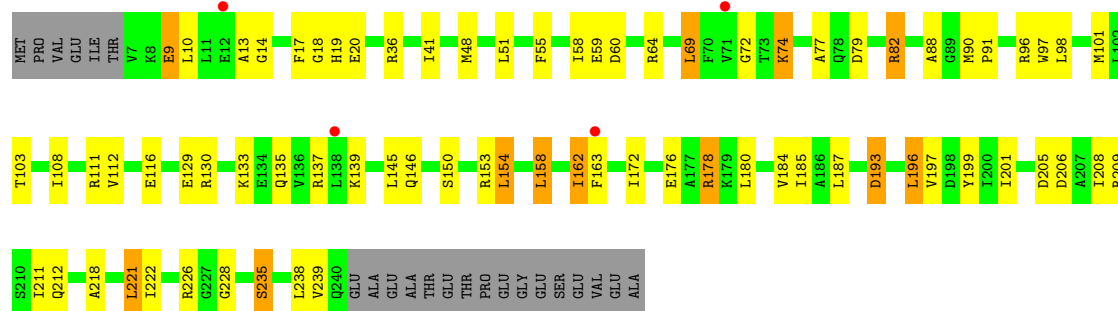
- Molecule 28: 50S ribosomal protein L35



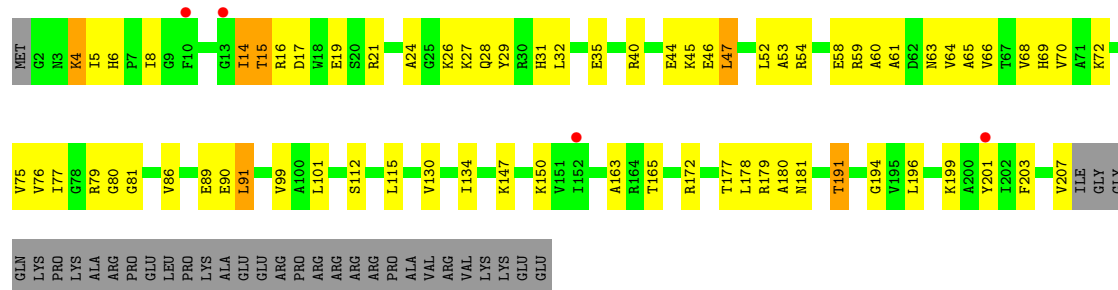
- Molecule 29: 30S ribosomal protein S2



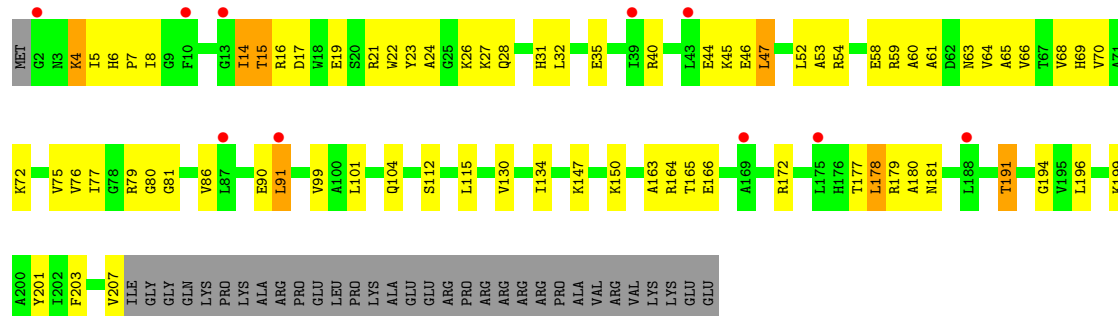
- Molecule 29: 30S ribosomal protein S2



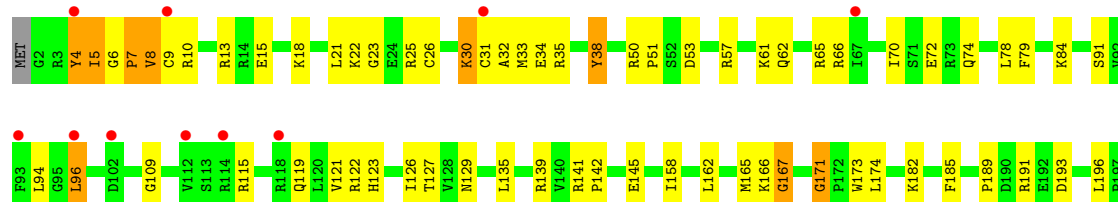
• Molecule 30: 30S ribosomal protein S3

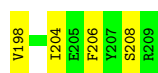


• Molecule 30: 30S ribosomal protein S3

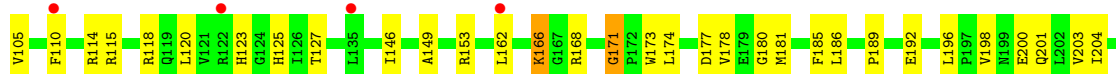
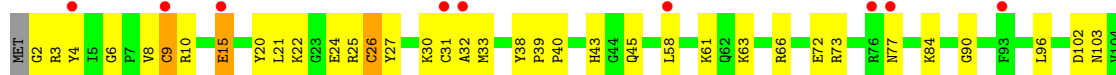


• Molecule 31: 30S ribosomal protein S4

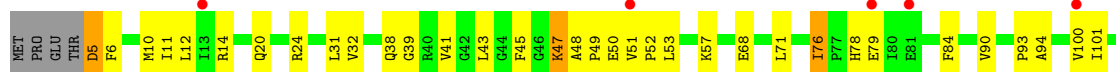




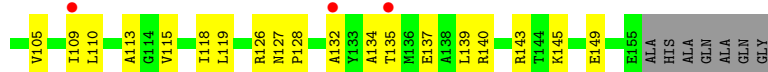
- Molecule 31: 30S ribosomal protein S4



- Molecule 32: 30S ribosomal protein S5



- Molecule 32: 30S ribosomal protein S5



- Molecule 33: 30S ribosomal protein S6

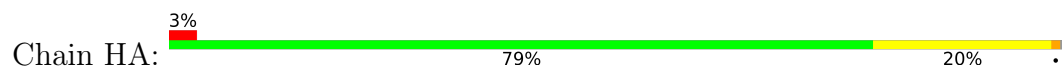


- Molecule 33: 30S ribosomal protein S6

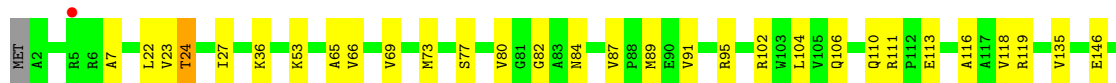
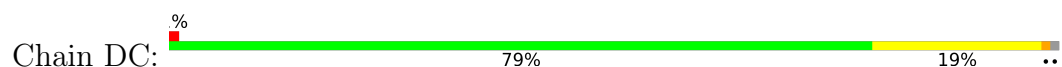




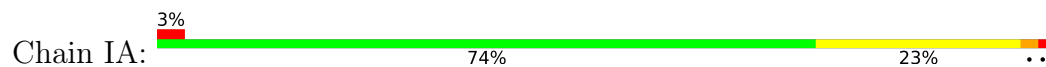
- Molecule 34: 30S ribosomal protein S7



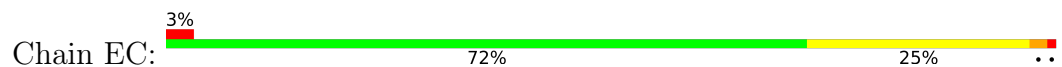
- Molecule 34: 30S ribosomal protein S7



- Molecule 35: 30S ribosomal protein S8

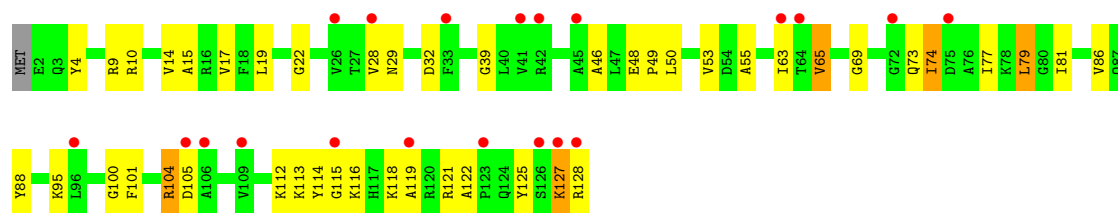


- Molecule 35: 30S ribosomal protein S8

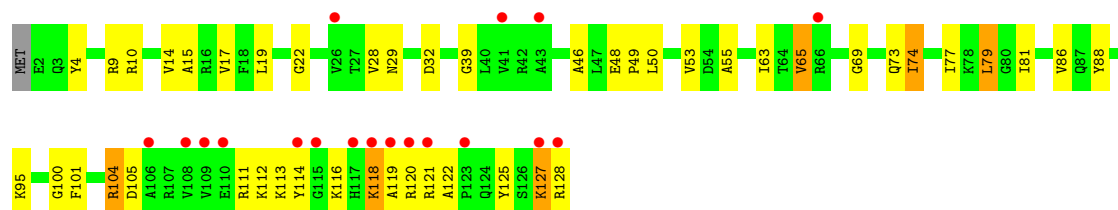


- Molecule 36: 30S ribosomal protein S9

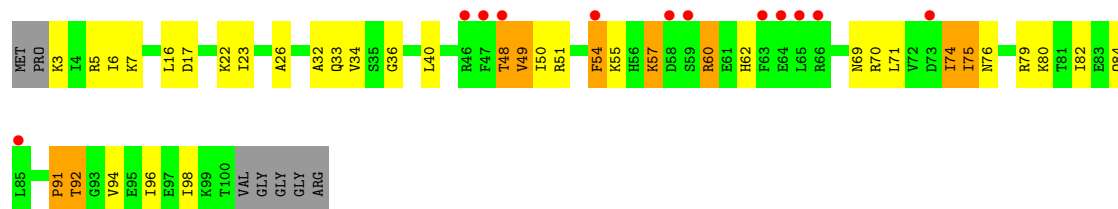




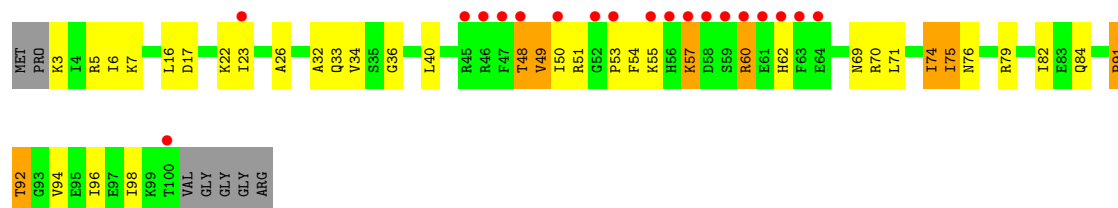
• Molecule 36: 30S ribosomal protein S9



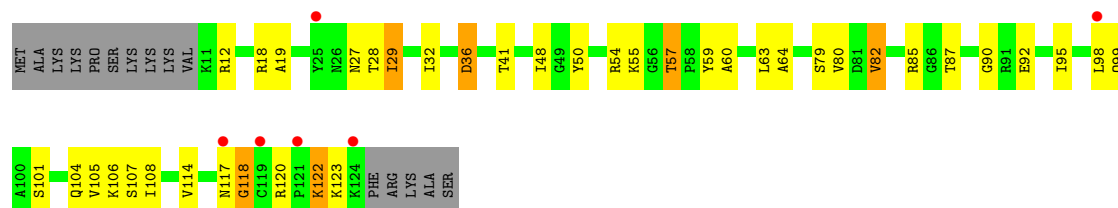
• Molecule 37: 30S ribosomal protein S10



• Molecule 37: 30S ribosomal protein S10

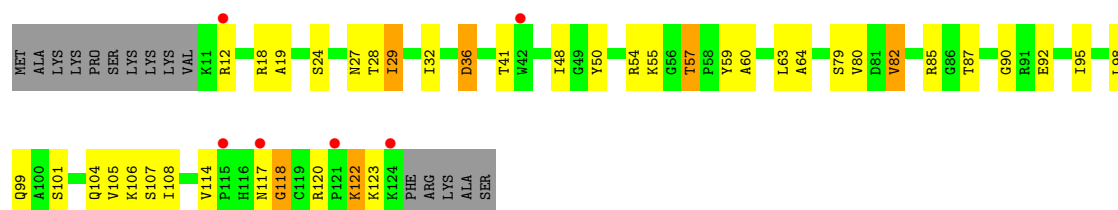


• Molecule 38: 30S ribosomal protein S11



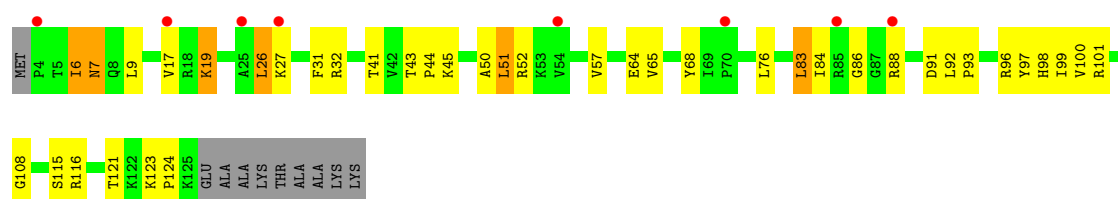
- Molecule 38: 30S ribosomal protein S11

Chain HC: 



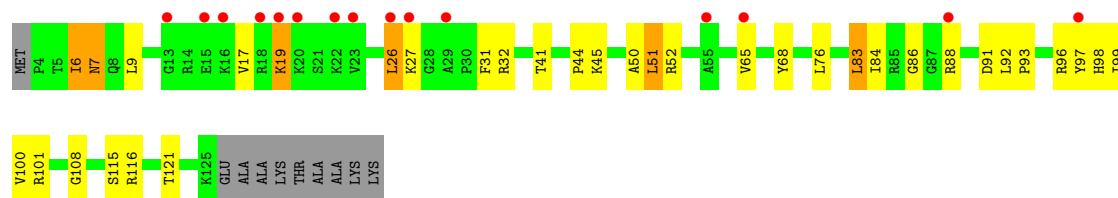
- Molecule 39: 30S ribosomal protein S12

Chain MA: 



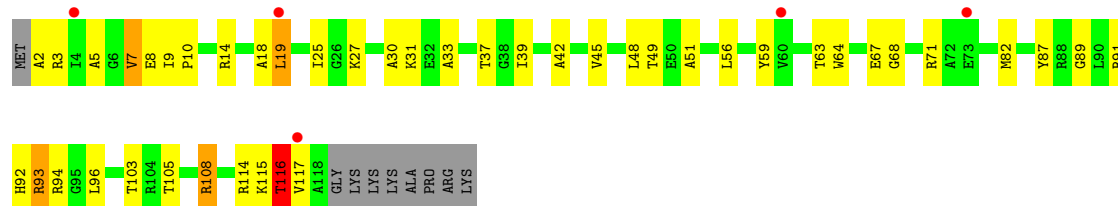
- Molecule 39: 30S ribosomal protein S12

Chain IC: 



- Molecule 40: 30S ribosomal protein S13

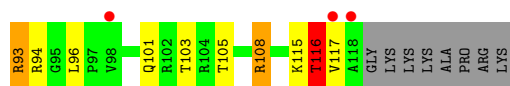
Chain NA: 



- Molecule 40: 30S ribosomal protein S13

Chain JC: 





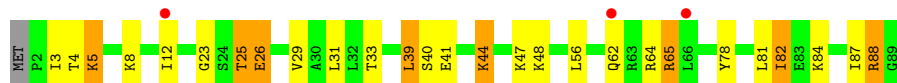
- Molecule 41: 30S ribosomal protein S14



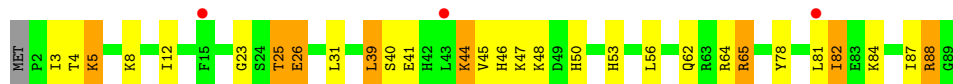
- Molecule 41: 30S ribosomal protein S14



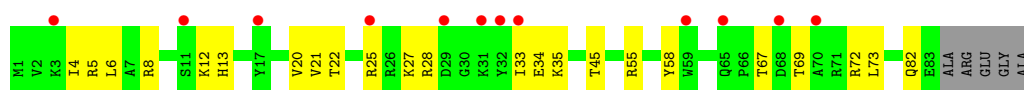
- Molecule 42: 30S ribosomal protein S15



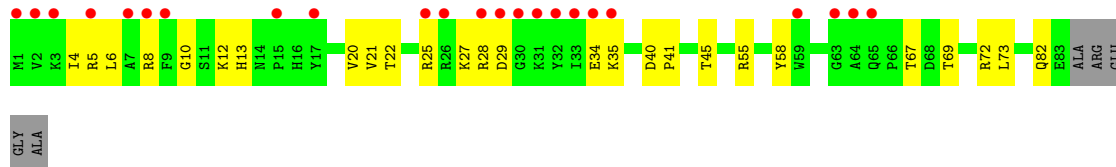
- Molecule 42: 30S ribosomal protein S15



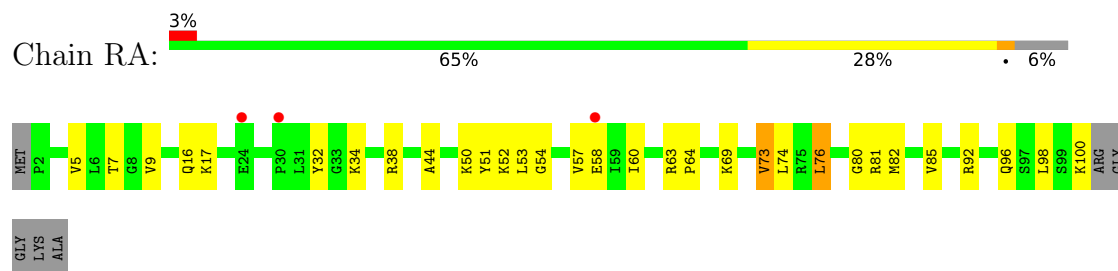
- Molecule 43: 30S ribosomal protein S16



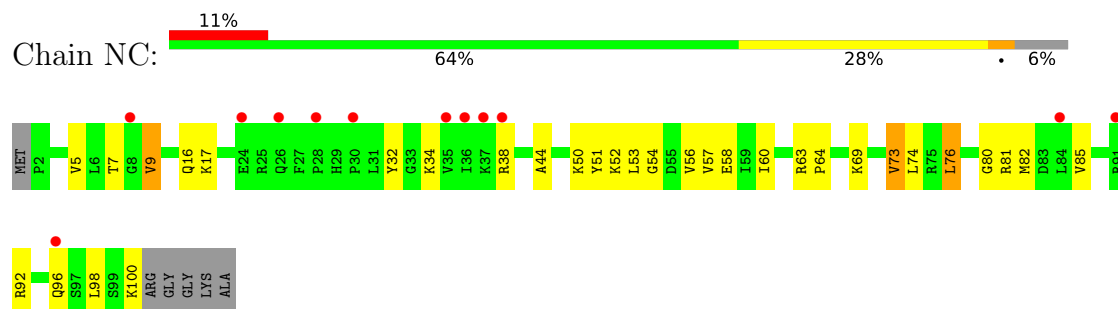
- Molecule 43: 30S ribosomal protein S16



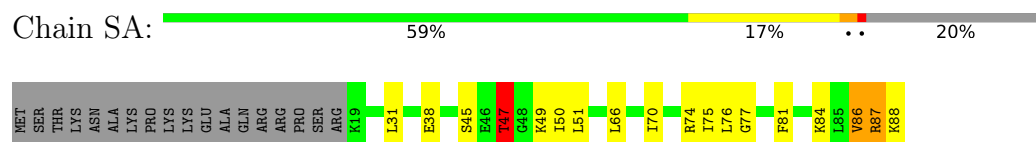
- Molecule 44: 30S ribosomal protein S17



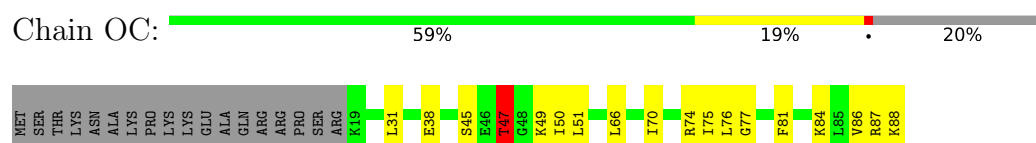
- Molecule 44: 30S ribosomal protein S17



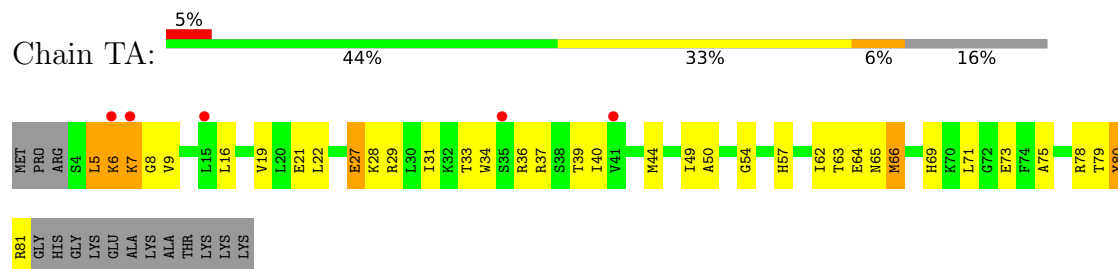
- Molecule 45: 30S ribosomal protein S18



- Molecule 45: 30S ribosomal protein S18

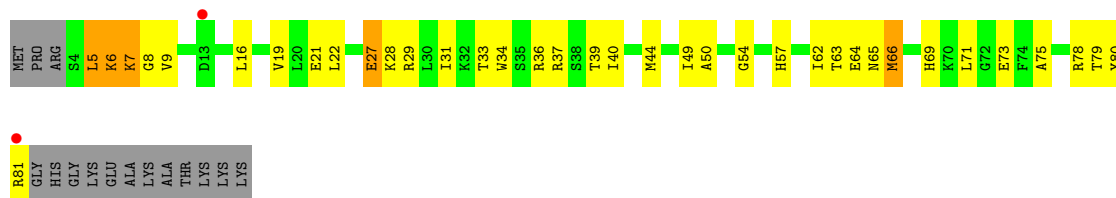


- Molecule 46: 30S ribosomal protein S19



- Molecule 46: 30S ribosomal protein S19

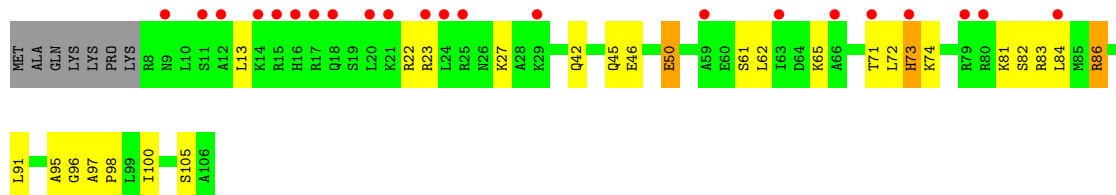




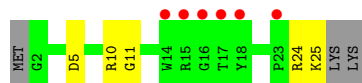
- Molecule 47: 30S ribosomal protein S20



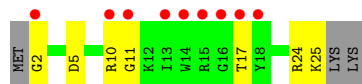
- Molecule 47: 30S ribosomal protein S20



- Molecule 48: 30S ribosomal protein Thx



- Molecule 48: 30S ribosomal protein Thx



- Molecule 49: 50S ribosomal protein L31



ARG

• Molecule 49: 50S ribosomal protein L31

Chain TC:  27% 13% 58%

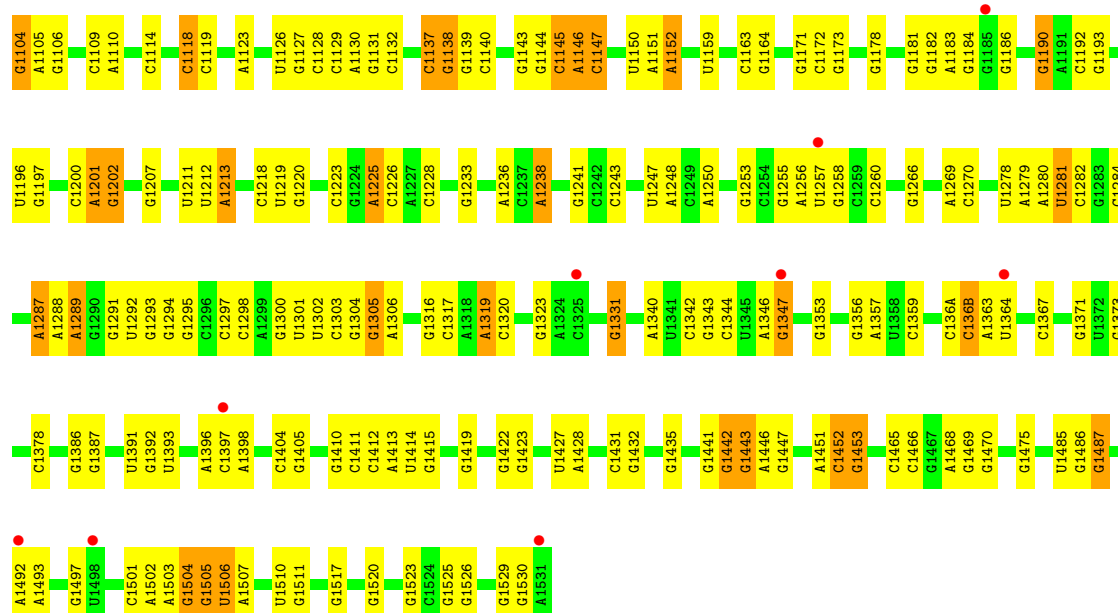
MET LYS GLY ILE HIS PRO LEU V36 R39 I40 V47 I48 S52 T53 K54 P55 E56 I57 Y58 V59 E60 V61 C85 HIS PRO PHE THR GLY GLN ARG PHE VAL ASP THR GLY ARG VAL GLU ARG PHE GLN ARG TYR GLY ASP SER TYR ARG C110 GLY

ARG

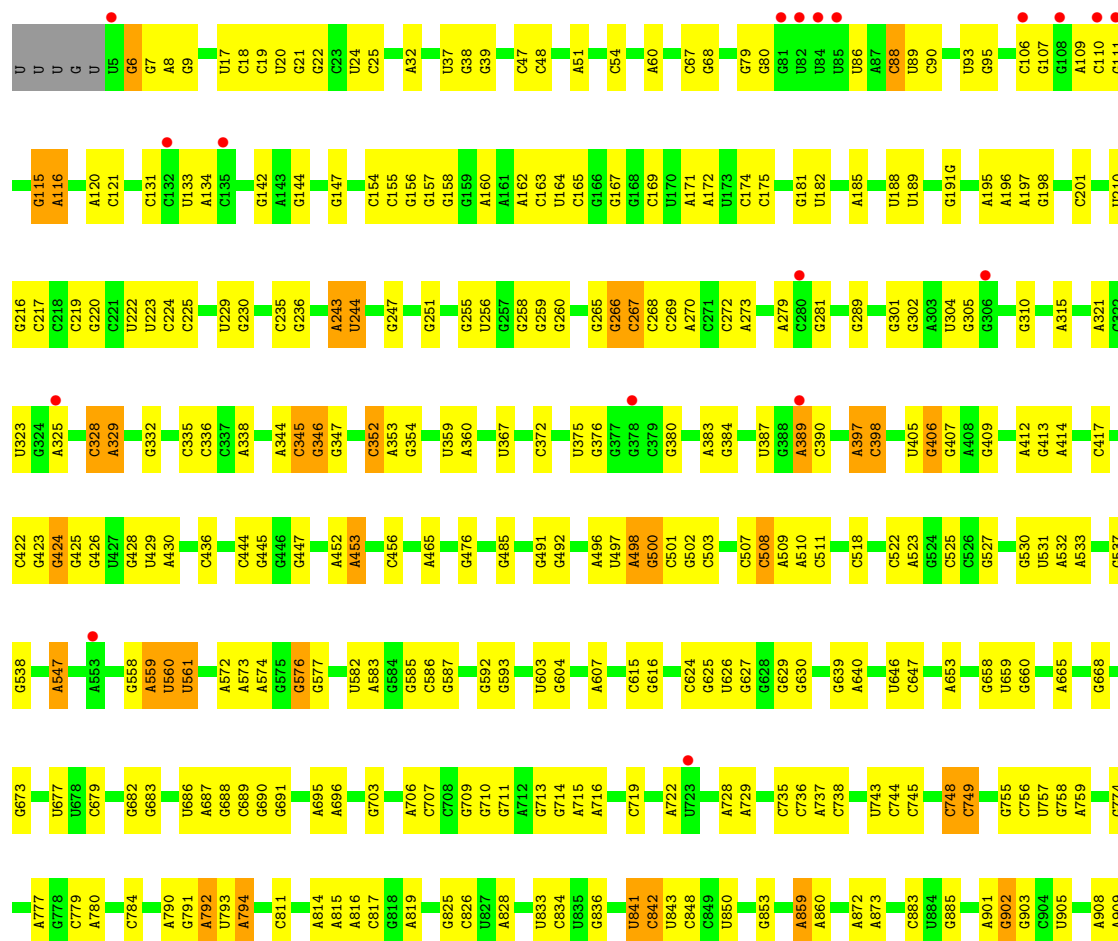
• Molecule 50: 16S ribosomal RNA

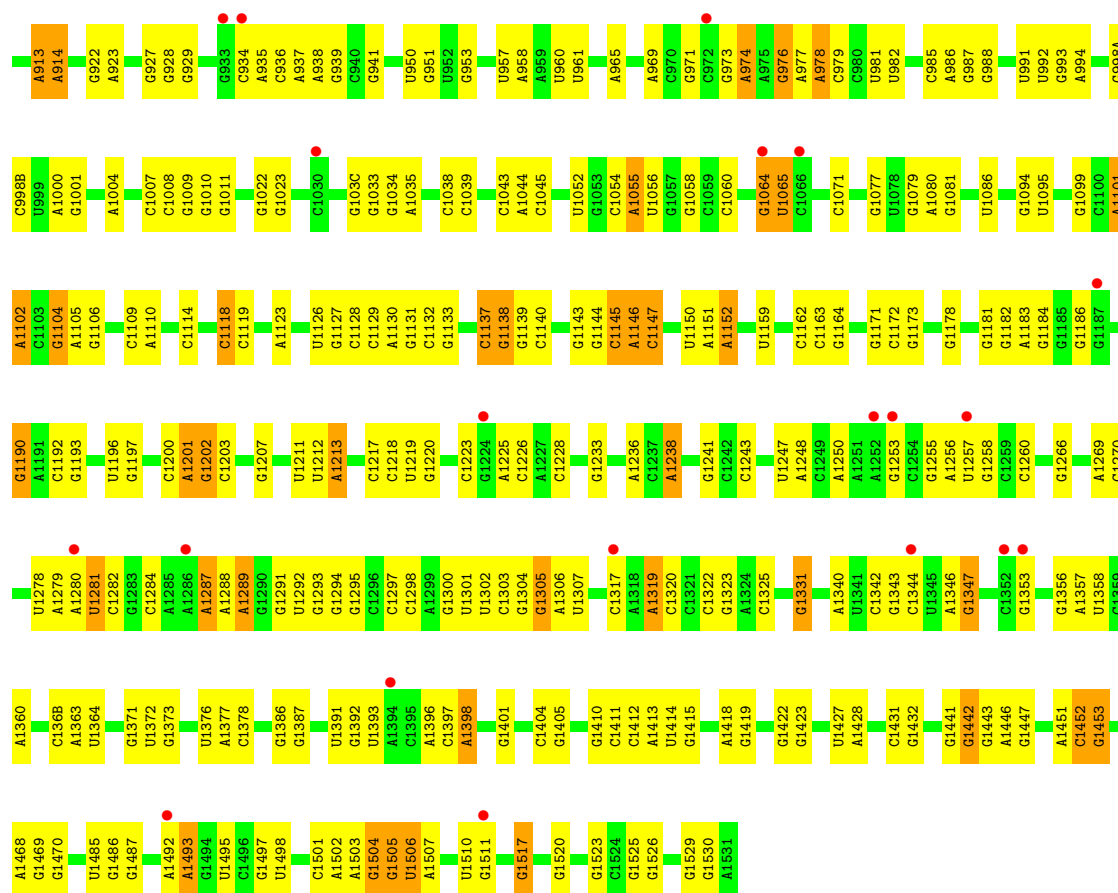
Chain UC:  2% 62% 33% 5%

U U U G U U5 G6 G7 A8 G9 U17 C18 C19 U20 G21 G22 C23 U24 C25 A32 U37 G38 G39 C47 C48 A51 C54 A60 A67 G68 G79 G80 G81 U82 U84 U85 C88 U89 C90 U93 G95 G105 C106 G107 G108 A109 C110 G111 G115 A116 A120 A121 C131 C132 U133 A134 C135 G142 A143 G144 G147 C154 C155 G156 G157 G158 U164 C165 G166 G167 G168 C169 U170 A171 A172 U173 C174 C175 G181 U182 A185 U188 U189 G191G A195 A196 A197 G198 G199 G200 C201 U210 G216 C217 C218 C219 G220 C221 U222 U223 C224 C225 U229 G230 G235 G236 A243 U244 G247 G251 G255 U256 G257 G258 G259 G260 G266 C267 C268 C269 A270 C271 C272 C273 A279 C280 G281 A285 G289 G301 G302 A303 G305 C314 A315 C320 G321 A321 C322 C323 G324 A325 C328 A329 C332 C337 A338 C345 G346 G347 C352 A353 G354 U359 A360 U367 U368 C372 U375 G376 G380 A383 G384 U387 G388 A389 C390 C397 C398 C403 U404 U405 U406 G407 A412 G413 A414 C417 C422 G423 G424 G425 G426 U427 G428 U429 C436 U437 G438 C444 C445 G446 G447 A452 A453 C456 A465 G476 G485 G491 G492 G496 G497 A498 G500 G501 G502 C503 C507 C508 A509 A510 C511 C518 C522 A523 G524 C525 C526 G527 G530 G531 A532 A533 G537 G538 G539 G545 G546 A547 G558 G559 G560 G565 G568 G569 G575 G576 G577 U582 A583 G584 G585 G586 G587 G592 G593 U603 G604 A607 C615 G616 G619 A622 C623 C624 G625 G626 G627 G628 G629 G630 G639 A640 U646 C647 A653 G658 U659 G660 A665 G668 G673 U677 U678 C679 G682 G683 U686 A687 G688 C689 G690 G691 A695 A696 G703 A706 C707 G708 G709 G710 G711 A712 G713 G714 A715 A716 C719 A722 U723 G728 A729 C735 C736 A737 C738 U743 C744 C745 C748 C749 G755 G756 G757 G758 A759 G774 A777 G778 C779 A780 G791 A792 A793 A794 C811 A814 A815 A816 A817 C818 A819 G825 G826 U827 A828 U833 C834 U835 G836 U841 C842 U843 C848 C849 U850 G853 A859 A860 A872 A873 G878 C879 C883 U884 G885 A901 G902 G903 G904 U905 G908 G909 A913 A914 G922 A923 G926 G927 G928 G929 C934 A935 C936 A937 A938 G939 C940 G941 U950 G951 G952 G953 G954 U955 U956 U957 A958 U960 A961 A965 A966 A969 G970 G971 C972 G973 A974 A975 G976 A977 A978 C979 U982 C985 A986 G987 G988 U991 U992 G993 A994 G1000 G1001 G1004 C1007 C1008 G1009 G1010 G1022 A103A G103B G103C G1033 C1038 C1039 C1043 A1044 C1045 U1052 C1053 G1054 A1055 U1056 G1057 C1058 C1059 C1060 G1064 U1065 C1071 G1077 U1078 G1079 A1080 G1081 U1086 G1094 U1095 G1099 G1100 A1101 A1102 C1103

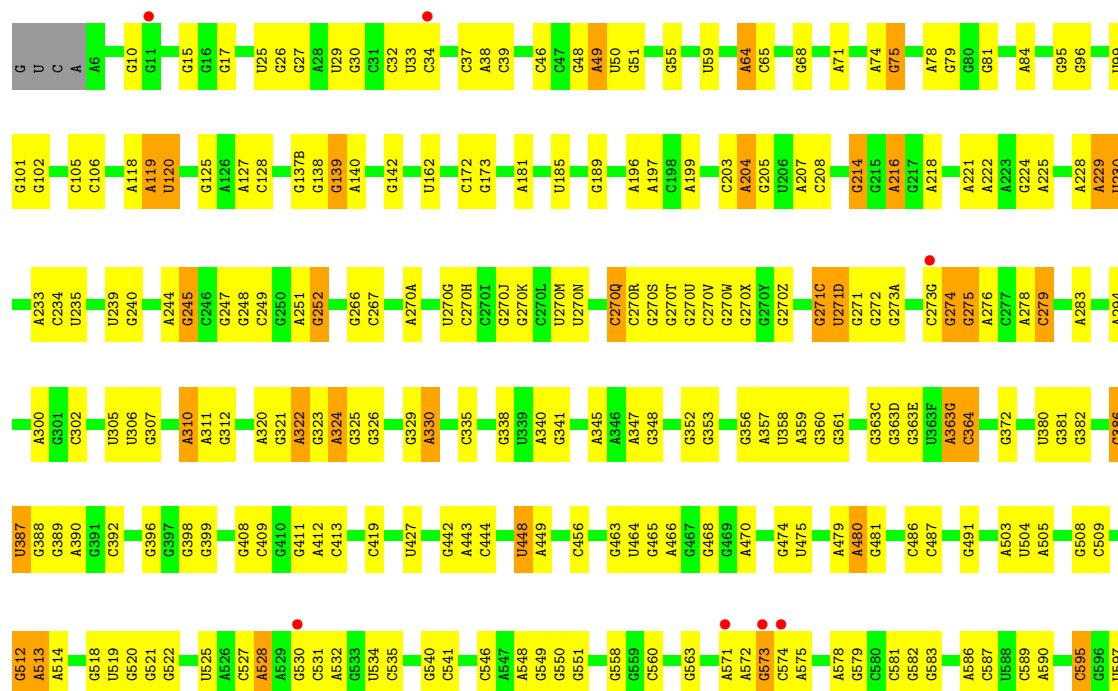


• Molecule 50: 16S ribosomal RNA

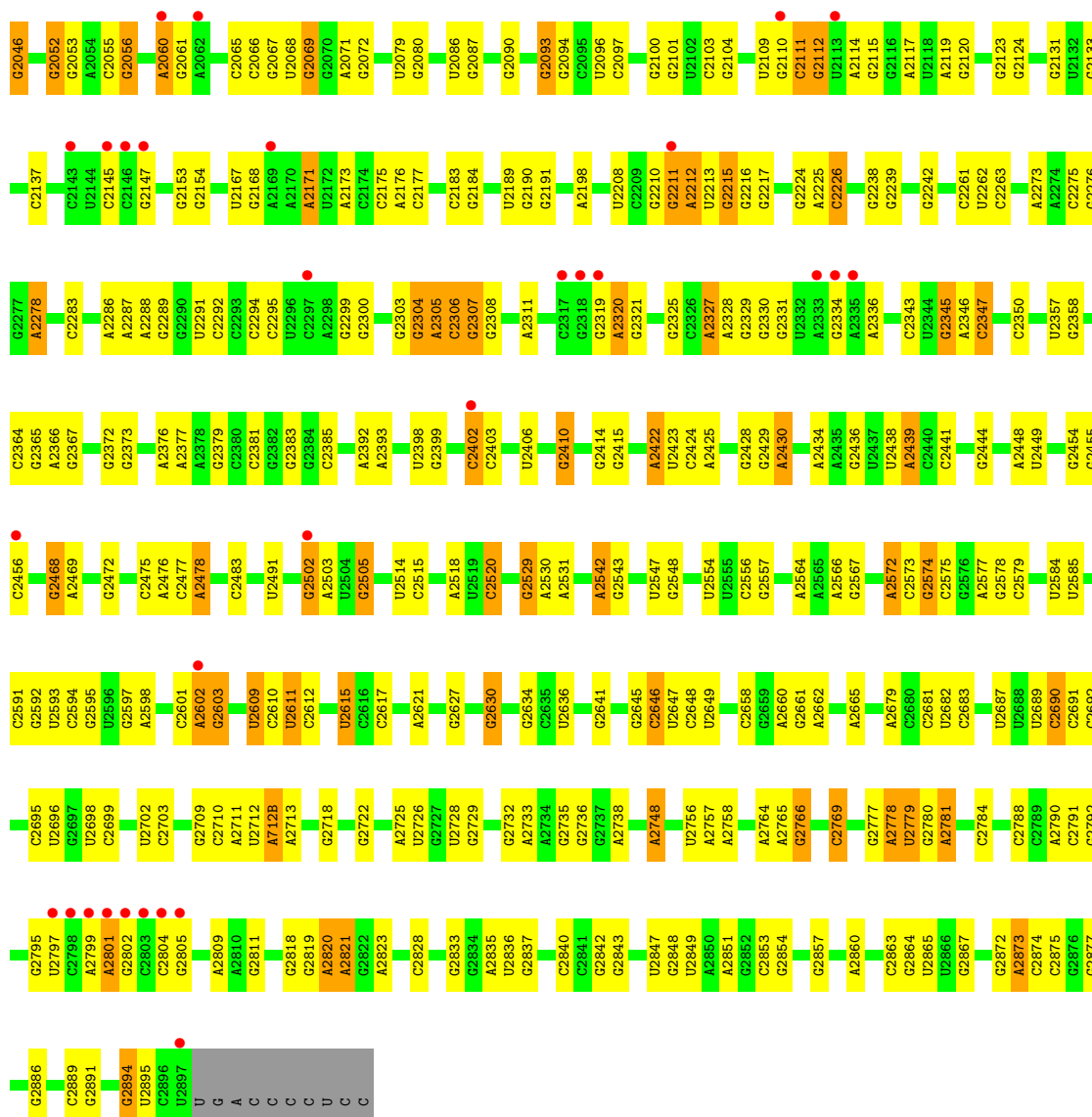




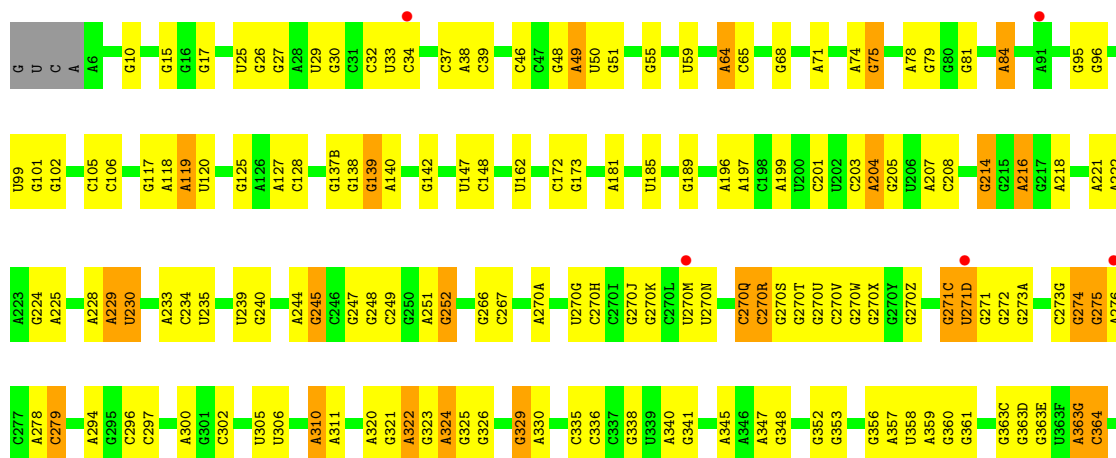
• Molecule 51: 23S ribosomal RNA

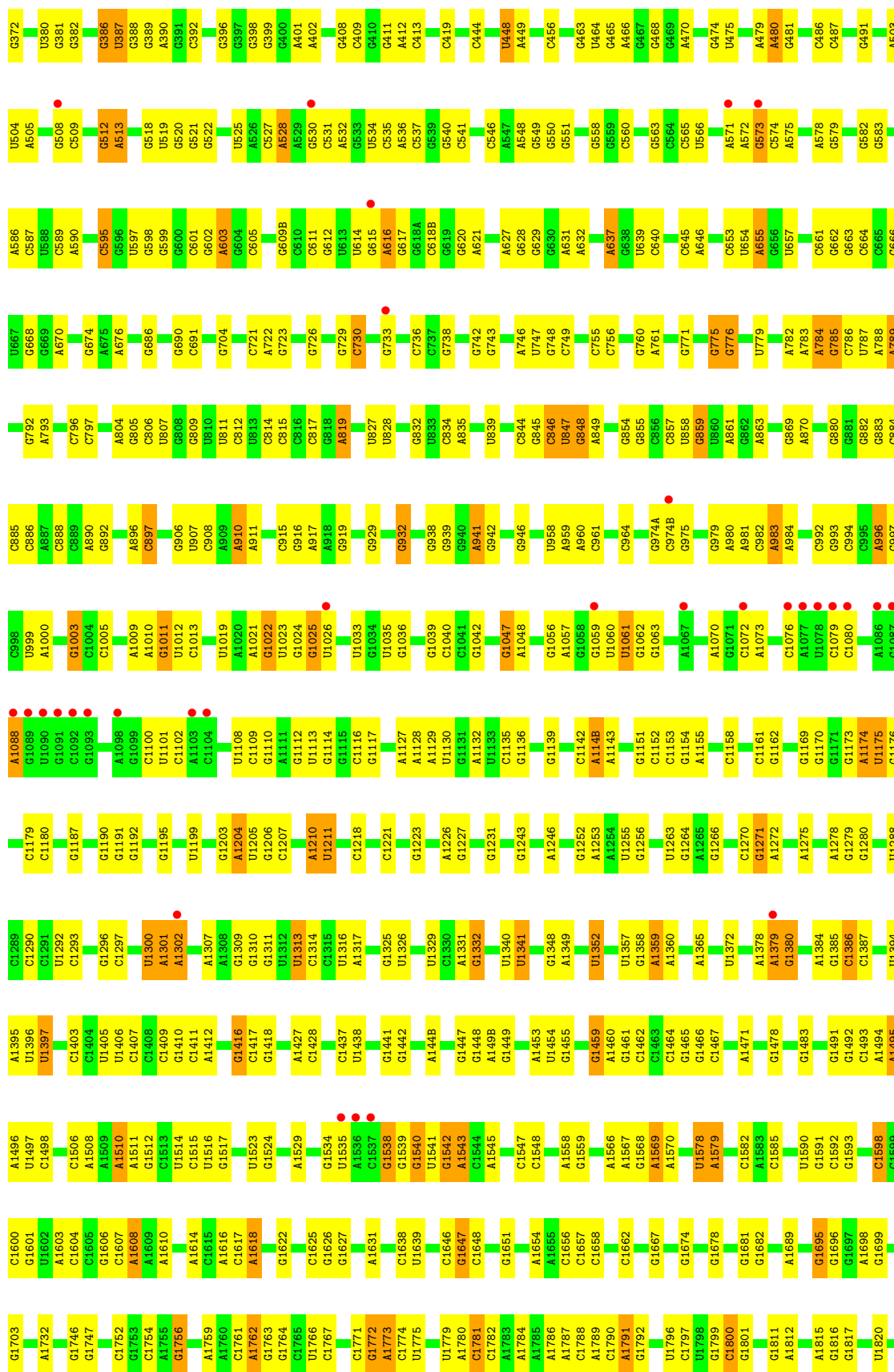


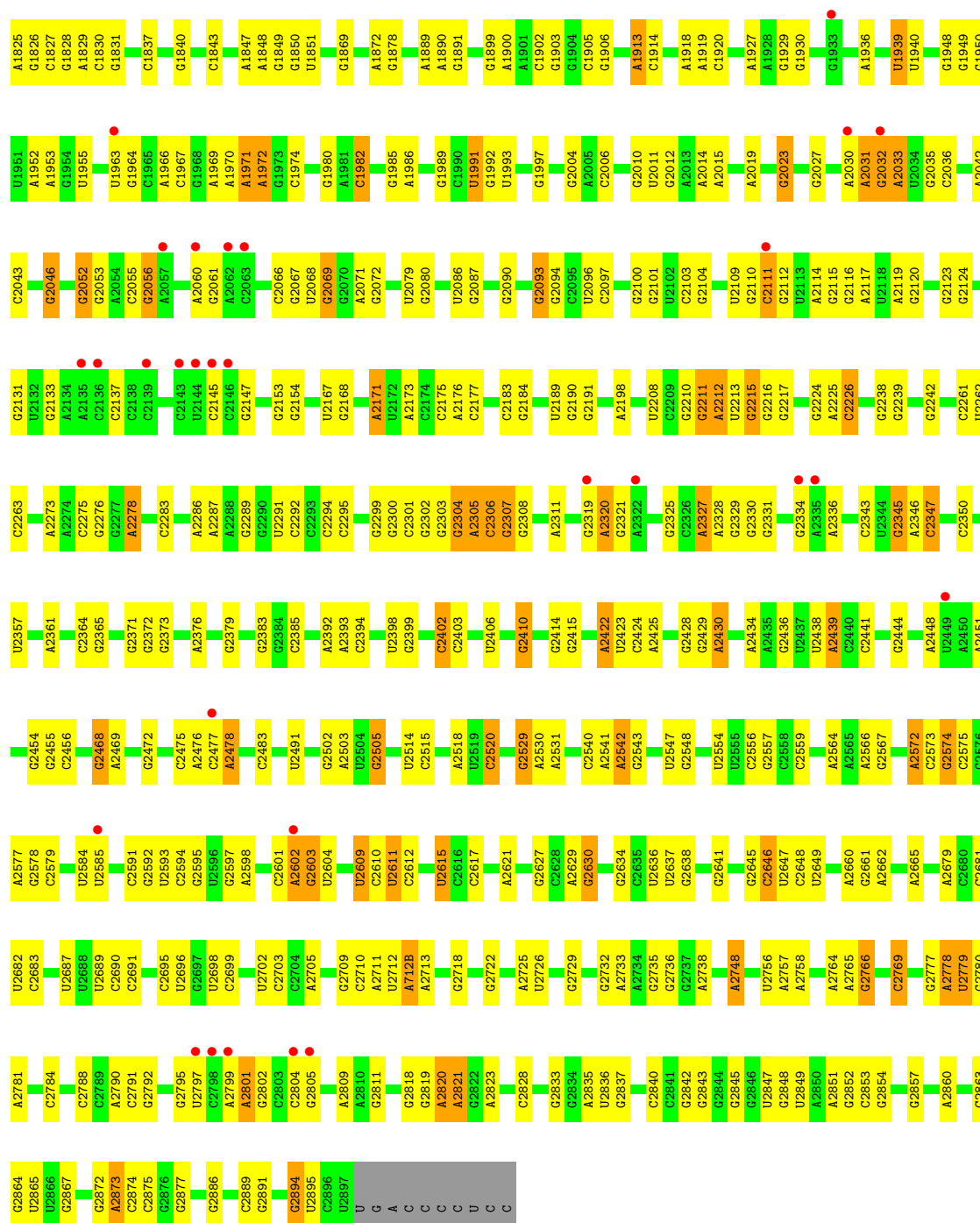
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A1952	U1820	A1698	C1404	C1293	C1180	A1086	C1004	G906	U810	G886	G599
U1955	G1703	C1599	U1406	G1296	G1187	G1087	C1006	U907	U811	G890	G601
U1963	A1826	C1600	C1407	G1296	U1188	A1088	C1006	C908	C812	C891	G602
G1964	G1826	C1506	C1408	U1300	U1189	U1089	A1009	A908	C813	G704	A603
C1965	G1828	A1508	C1409	A1301	G1189	U1090	A1010	A910	C814	G704	G604
A1966	A1829	A1509	C1410	A1302	G1190	U1091	A1011	A911	C815	G704	C805
C1967	G1747	A1510	C1411	A1307	G1191	C1092	G1012	U912	C816	C721	G609B
A1970	G1831	A1511	A1412	A1308	G1192	G1093	C1013	C915	C817	A722	G610
C1971	G1752	C1513	G1416	A1309	G1195	C1100	U1019	C916	A819	G723	C611
A1972	G1753	U1514	C1417	G1310	U1199	U1101	A1020	A917	U827	G726	G612
G1973	C1754	C1515	G1418	G1311	U1199	A1103	A1021	A918	U828	U813	G614
C1974	G1755	U1516	A1419	G1312	G1203	U1105	U1022	G919	G832	G729	U614
A1979	G1756	G1517	G1423	U1313	A1204	U1108	U1023	G929	U833	C730	G615
C1979	A1847	U1523	G1424	C1314	U1205	U1109	G1024	G932	C834	C731	A616
G1979	A1848	G1524	G1425	C1315	A1210	U1110	G1025	G932	C835	C732	G617
G1980	A1849	G1524	G1426	U1316	U1211	C1109	U1026	G938	A835	C733	G618A
A1981	G1850	A1529	G1427	A1317	U1211	G1111	U1026	G939	U839	C736	C618B
C1982	U1851	G1534	C1428	G1325	C1218	U1112	U1033	A940	U839	C736	G619
G1985	G1869	U1535	C1429	U1329	C1221	U1113	U1035	A941	C844	C738	G620
A1986	G1622	U1535	C1437	U1329	C1221	U1114	G1036	G942	G845	C738	A621
G1989	C1625	G1538	U1438	G1332	G1223	U1115	U1039	A945	C846	A746	A627
C1990	G1626	G1539	G1441	U1340	A1226	C1116	G1040	G946	U847	U747	G628
U1991	G1627	U1541	G1442	U1341	G1227	U1117	C1041	G946	U848	G748	G629
G1992	A1631	G1542	A1443	U1342	G1227	U1118	G1042	G949	A849	C749	G630
U1993	C1638	A1543	A1444	G1348	G1231	U1119	G1043	G954	G854	C755	A631
G1997	U1639	G1544	G1447	A1349	G1231	U1120	A1043	G955	G855	C756	A637
A1900	C1646	A1545	G1448	A1350	G1243	U1121	U1056	C856	C856	C756	G638
G2004	A1780	C1547	A149B	U1352	G1243	U1122	A1057	C857	C857	G760	U639
A2005	C1781	C1548	G1449	U1357	A1246	U1123	A1057	C858	U858	A761	C640
C2006	C1648	C1548	G1453	U1357	A1246	U1124	U1060	C859	U859	G775	C640
G1904	G1783	A1558	U1454	A1358	G1252	U1125	U1061	C860	U860	G776	C645
C1905	A1784	G1559	G1455	A1359	A1253	U1126	U1062	G974A	A861	G776	A646
U2011	A1785	A1566	G1456	A1360	A1254	C1142	G1063	C974B	G862	U779	C653
A1913	C1786	A1567	U1459	A1365	U1255	A1148	U1064	G975	A863	U779	U654
C1914	C1788	G1568	G1461	A1372	U1256	U1143	C1065	G979	G869	A782	A655
A2015	C1657	A1569	C1462	U1372	G1264	G1151	C1066	A980	A870	A783	G656
G2019	C1658	A1570	C1463	A1378	A1265	C1152	U1066	A981	G874	A784	U657
A1918	C1790	A1571	G1464	A1379	G1266	C1153	U1067	C982	G875	C786	C661
A1919	A1791	G1572	G1465	A1380	G1266	A1155	C1068	A983	G880	U787	G662
C1920	G1792	C1573	G1466	G1382	G1271	U1161	A1073	C985	G881	A788	G663
A1927	U1796	C1574	C1467	C1383	A1272	C1162	C1074	G989	G882	A789	C664
G1928	U1798	G1574	A1471	A1384	A1275	G1163	G1075	G989	G883	G792	G665
C1929	G1799	A1578	A1478	G1385	A1278	U1169	C1076	C992	G884	A793	U667
G1930	G1800	A1579	G1478	C1387	A1278	G1170	A1077	G993	C885	U787	G668
U1935	C1682	C1582	G1483	C1387	G1279	G1171	U1078	C994	C886	C796	G669
A1936	A1689	C1583	G1483	U1394	G1280	U1172	C1079	C995	A887	C797	A670
U1939	U1693	C1585	G1491	A1395	G1280	G1173	C1080	A996	C888	C889	G674
U1940	C1694	U1590	G1492	A1396	U1288	U1174	U1081	U999	C890	A804	G674
G1949	C1695	G1591	G1493	U1397	C1289	A1175	U1082	U999	A890	G805	A675
C1950	G1696	C1592	A1494	U1397	C1291	G1176	A1084	U1000	G892	C806	A676



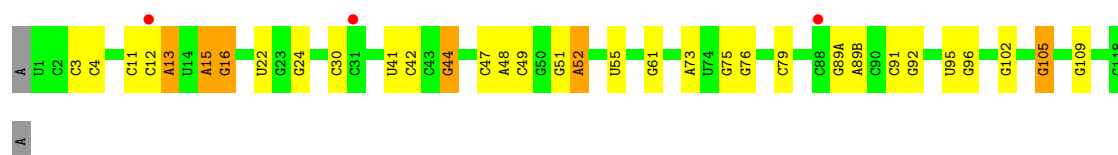
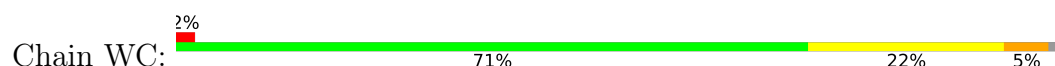
• Molecule 51: 23S ribosomal RNA

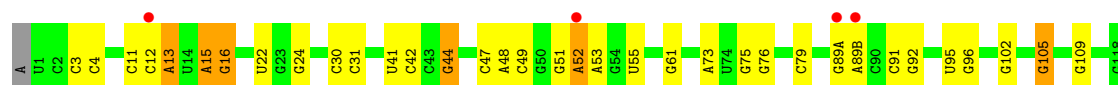
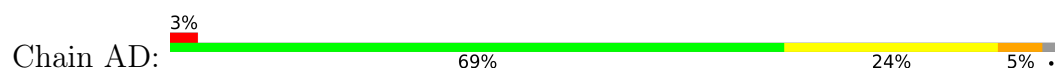






• Molecule 52: 5S ribosomal RNA



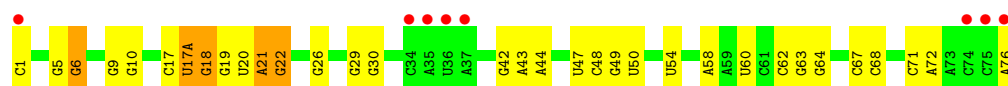


A

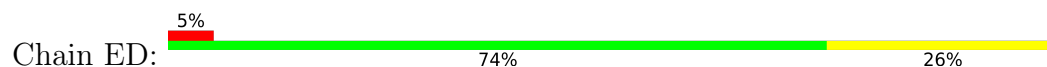
- Molecule 53: tRNA



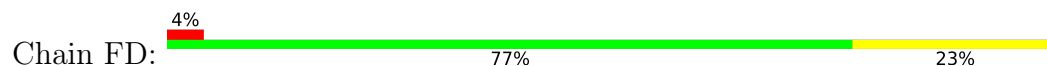
- Molecule 53: tRNA



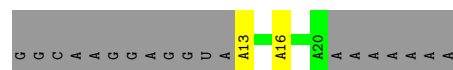
- Molecule 53: tRNA



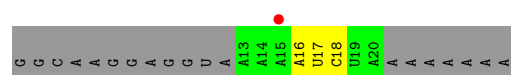
- Molecule 53: tRNA



- Molecule 54: mRNA



- Molecule 54: mRNA



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	211.98Å 453.75Å 620.72Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	60.00 – 3.63 60.00 – 3.63	Depositor EDS
% Data completeness (in resolution range)	99.3 (60.00-3.63) 99.1 (60.00-3.63)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.32 (at 3.67Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.268 , 0.287 0.281 , 0.299	Depositor DCC
R_{free} test set	6615 reflections (1.00%)	wwPDB-VP
Wilson B-factor (Å ²)	115.3	Xtriage
Anisotropy	0.262	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 61.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.41$, $\langle L^2 \rangle = 0.23$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	295576	wwPDB-VP
Average B, all atoms (Å ²)	147.0	wwPDB-VP

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

¹Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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	A	0.34	0/2155	0.75	0/2905
1	WA	0.34	0/2155	0.75	0/2905
2	B	0.32	0/1596	0.78	0/2153
2	XA	0.32	0/1596	0.78	0/2153
3	C	0.31	0/1621	0.78	2/2194 (0.1%)
3	YA	0.33	0/1621	0.79	2/2194 (0.1%)
4	D	0.30	0/1500	0.74	0/2017
4	ZA	0.30	0/1500	0.74	0/2017
5	AB	0.28	0/1356	0.78	2/1834 (0.1%)
5	E	0.28	0/1356	0.78	2/1834 (0.1%)
6	BB	0.30	0/1147	0.72	0/1552
6	F	0.29	0/1147	0.73	0/1552
7	CB	0.35	0/1108	0.84	3/1500 (0.2%)
7	G	0.35	0/1108	0.84	3/1500 (0.2%)
8	DB	0.30	0/1123	0.73	0/1515
8	H	0.29	0/1123	0.74	2/1515 (0.1%)
9	EB	0.32	0/942	0.75	0/1268
9	I	0.31	0/942	0.75	0/1268
10	FB	0.35	0/1131	0.92	2/1504 (0.1%)
10	J	0.34	0/1131	0.92	2/1504 (0.1%)
11	GB	0.29	0/1084	0.73	0/1449
11	K	0.29	0/1084	0.72	0/1449
12	HB	0.32	0/974	0.74	1/1302 (0.1%)
12	L	0.32	0/974	0.74	1/1302 (0.1%)
13	IB	0.27	0/887	0.68	0/1180
13	M	0.26	0/887	0.68	0/1180
14	JB	0.34	0/1157	0.72	0/1544
14	N	0.34	0/1157	0.72	0/1544
15	KB	0.33	0/982	0.74	0/1306
15	O	0.34	0/982	0.74	0/1306
16	LB	0.33	0/790	0.75	2/1057 (0.2%)
16	P	0.31	0/790	0.75	2/1057 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	MB	0.34	0/901	0.78	0/1209
17	Q	0.34	0/901	0.77	0/1209
18	NB	0.32	0/739	0.72	0/993
18	R	0.31	0/739	0.72	0/993
19	OB	0.37	0/788	0.88	2/1051 (0.2%)
19	S	0.36	0/788	0.88	2/1051 (0.2%)
20	PB	0.29	0/1514	0.74	0/2056
20	T	0.29	0/1514	0.74	2/2056 (0.1%)
21	QB	0.31	0/613	0.74	0/816
21	U	0.29	0/613	0.74	0/816
22	RB	0.36	0/701	0.88	2/932 (0.2%)
22	V	0.35	0/701	0.87	2/932 (0.2%)
23	SB	0.35	0/522	0.82	1/690 (0.1%)
23	W	0.34	0/522	0.82	1/690 (0.1%)
24	TB	0.28	0/472	0.81	0/634
24	X	0.28	0/472	0.80	0/634
25	UB	0.36	0/418	0.95	2/567 (0.4%)
25	Y	0.36	0/418	0.95	2/567 (0.4%)
26	VB	0.29	0/387	0.68	0/518
26	Z	0.30	0/387	0.71	0/518
27	AA	0.33	0/426	0.81	2/561 (0.4%)
27	WB	0.36	0/426	0.81	0/561
28	BA	0.33	0/515	0.86	2/679 (0.3%)
28	XB	0.34	0/515	0.85	2/679 (0.3%)
29	CA	0.28	0/1935	0.75	4/2609 (0.2%)
29	YB	0.28	0/1935	0.75	4/2609 (0.2%)
30	DA	0.30	0/1636	0.71	0/2205
30	ZB	0.30	0/1636	0.71	0/2205
31	AC	0.28	0/1733	0.79	5/2318 (0.2%)
31	EA	0.29	0/1733	0.77	3/2318 (0.1%)
32	BC	0.30	0/1171	0.77	0/1576
32	FA	0.31	0/1171	0.78	0/1576
33	CC	0.28	0/856	0.71	0/1154
33	GA	0.28	0/856	0.71	0/1154
34	DC	0.27	0/1276	0.71	0/1709
34	HA	0.28	0/1276	0.71	0/1709
35	EC	0.28	0/1136	0.73	0/1527
35	IA	0.28	0/1136	0.73	0/1527
36	FC	0.30	0/1029	0.71	0/1378
36	JA	0.30	0/1029	0.70	0/1378
37	GC	0.27	0/807	0.73	0/1085
37	KA	0.28	0/807	0.73	0/1085
38	HC	0.29	0/856	0.75	0/1157

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	LA	0.31	0/856	0.74	0/1157
39	IC	0.30	0/972	0.78	0/1301
39	MA	0.30	0/972	0.78	0/1301
40	JC	0.29	0/943	0.76	1/1265 (0.1%)
40	NA	0.29	0/943	0.76	1/1265 (0.1%)
41	KC	0.27	0/501	0.65	0/664
41	OA	0.26	0/501	0.64	0/664
42	LC	0.33	0/745	0.68	0/992
42	PA	0.33	0/745	0.67	0/992
43	MC	0.26	0/716	0.70	0/963
43	QA	0.27	0/716	0.71	0/963
44	NC	0.24	0/836	0.70	0/1117
44	RA	0.24	0/836	0.70	0/1117
45	OC	0.28	0/579	0.69	0/768
45	SA	0.28	0/579	0.70	0/768
46	PC	0.28	0/642	0.72	0/865
46	TA	0.28	0/642	0.73	0/865
47	QC	0.28	0/764	0.73	0/1006
47	UA	0.28	0/764	0.73	0/1006
48	RC	0.25	0/212	0.66	0/277
48	VA	0.25	0/212	0.65	0/277
49	SC	0.33	0/228	0.85	2/309 (0.6%)
49	TC	0.33	0/228	0.85	2/309 (0.6%)
50	UC	0.10	0/36194	0.22	0/56493
50	YC	0.10	0/36194	0.22	0/56493
51	VC	0.13	1/69441 (0.0%)	0.25	0/108408
51	ZC	0.14	1/69441 (0.0%)	0.26	0/108408
52	AD	0.11	0/2853	0.23	0/4451
52	WC	0.10	0/2853	0.22	0/4451
53	BD	0.10	0/1832	0.25	0/2855
53	ED	0.09	0/1832	0.18	0/2855
53	FD	0.09	0/1832	0.18	0/2855
53	XC	0.10	0/1832	0.24	0/2855
54	GD	0.08	0/190	0.13	0/293
54	HD	0.08	0/190	0.13	0/293
All	All	0.20	2/318928 (0.0%)	0.44	70/477172 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
10	FB	0	2
10	J	0	2
All	All	0	4

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	ZC	1142	C	O3'-P	9.63	1.75	1.61
51	VC	1142	C	O3'-P	9.42	1.75	1.61

All (70) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	V	35	THR	N-CA-C	9.04	119.85	108.19
22	RB	35	THR	N-CA-C	9.01	119.81	108.19
28	BA	62	LEU	CA-C-N	-8.89	110.58	119.56
28	BA	62	LEU	C-N-CA	-8.89	110.58	119.56
28	XB	62	LEU	CA-C-N	-8.63	110.84	119.56
28	XB	62	LEU	C-N-CA	-8.63	110.84	119.56
25	Y	4	HIS	CA-C-N	-8.37	111.40	119.85
25	Y	4	HIS	C-N-CA	-8.37	111.40	119.85
25	UB	4	HIS	CA-C-N	-8.30	111.46	119.85
25	UB	4	HIS	C-N-CA	-8.30	111.46	119.85
3	C	65	TRP	CA-C-N	7.05	128.65	119.84
3	C	65	TRP	C-N-CA	7.05	128.65	119.84
3	YA	65	TRP	CA-C-N	7.04	128.64	119.84
3	YA	65	TRP	C-N-CA	7.04	128.64	119.84
19	S	76	CYS	CA-C-N	6.77	128.30	119.84
19	S	76	CYS	C-N-CA	6.77	128.30	119.84
19	OB	76	CYS	CA-C-N	6.69	128.20	119.84
19	OB	76	CYS	C-N-CA	6.69	128.20	119.84
23	W	47	ASN	CB-CA-C	-6.47	108.43	117.23
23	SB	47	ASN	CB-CA-C	-6.30	108.66	117.23
31	AC	38	TYR	CA-C-N	6.21	124.19	119.66
31	AC	38	TYR	C-N-CA	6.21	124.19	119.66
7	G	143	GLU	CB-CA-C	-6.16	109.48	116.63
40	NA	116	THR	CB-CA-C	-6.15	109.49	116.63
7	CB	143	GLU	CB-CA-C	-6.07	109.58	116.63
40	JC	116	THR	CB-CA-C	-6.03	109.64	116.63
29	CA	158	LEU	CA-C-N	6.02	126.04	119.90
29	CA	158	LEU	C-N-CA	6.02	126.04	119.90
31	AC	8	VAL	N-CA-C	6.01	116.37	111.62
31	AC	6	GLY	CA-C-N	6.00	126.00	119.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	AC	6	GLY	C-N-CA	6.00	126.00	119.89
29	YB	158	LEU	CA-C-N	5.96	125.98	119.90
29	YB	158	LEU	C-N-CA	5.96	125.98	119.90
10	J	58	THR	N-CA-C	-5.85	105.91	113.16
8	H	133	GLY	CA-C-N	5.64	125.75	119.32
8	H	133	GLY	C-N-CA	5.64	125.75	119.32
10	FB	58	THR	N-CA-C	-5.62	106.20	113.16
49	TC	54	LYS	CA-C-N	5.48	125.15	119.56
49	TC	54	LYS	C-N-CA	5.48	125.15	119.56
31	EA	38	TYR	CA-C-N	5.43	125.97	120.38
31	EA	38	TYR	C-N-CA	5.43	125.97	120.38
49	SC	54	LYS	CA-C-N	5.38	125.20	119.28
49	SC	54	LYS	C-N-CA	5.38	125.20	119.28
22	RB	27	GLU	N-CA-C	5.37	116.15	108.74
22	V	27	GLU	N-CA-C	5.37	116.15	108.74
31	EA	31	CYS	N-CA-C	-5.35	107.06	113.21
10	FB	51	PHE	N-CA-C	5.30	117.37	110.53
16	LB	49	THR	CA-C-N	5.26	126.42	119.84
16	LB	49	THR	C-N-CA	5.26	126.42	119.84
7	CB	71	THR	CA-C-N	5.21	125.75	120.38
7	CB	71	THR	C-N-CA	5.21	125.75	120.38
7	G	71	THR	CA-C-N	5.21	125.75	120.38
7	G	71	THR	C-N-CA	5.21	125.75	120.38
12	HB	30	THR	N-CA-C	-5.21	108.68	114.62
5	AB	28	GLY	CA-C-N	5.19	125.50	119.47
5	AB	28	GLY	C-N-CA	5.19	125.50	119.47
16	P	49	THR	CA-C-N	5.18	126.32	119.84
16	P	49	THR	C-N-CA	5.18	126.32	119.84
29	YB	193	ASP	CA-C-N	5.16	124.48	118.85
29	YB	193	ASP	C-N-CA	5.16	124.48	118.85
5	E	28	GLY	CA-C-N	5.15	125.45	119.47
5	E	28	GLY	C-N-CA	5.15	125.45	119.47
27	AA	6	GLN	CA-C-N	5.15	125.15	119.90
27	AA	6	GLN	C-N-CA	5.15	125.15	119.90
29	CA	193	ASP	CA-C-N	5.10	124.41	118.85
29	CA	193	ASP	C-N-CA	5.10	124.41	118.85
10	J	10	PRO	N-CA-C	-5.08	107.59	114.80
20	T	157	LEU	CA-C-N	5.01	125.54	120.38
20	T	157	LEU	C-N-CA	5.01	125.54	120.38
12	L	30	THR	N-CA-C	-5.01	108.91	114.62

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
10	FB	51	PHE	Peptide
10	FB	9	ASN	Peptide
10	J	51	PHE	Peptide
10	J	9	ASN	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2105	0	2182	67	0
1	WA	2105	0	2182	68	0
2	B	1563	0	1629	37	0
2	XA	1563	0	1629	35	0
3	C	1586	0	1632	46	0
3	YA	1586	0	1632	43	0
4	D	1475	0	1537	45	0
4	ZA	1475	0	1537	46	0
5	AB	1330	0	1407	22	0
5	E	1330	0	1407	22	1
6	BB	1132	0	1220	28	0
6	F	1132	0	1220	20	0
7	CB	1088	0	1138	37	0
7	G	1088	0	1138	35	0
8	DB	1096	0	1168	30	0
8	H	1096	0	1168	28	0
9	EB	932	0	994	31	0
9	I	932	0	994	28	0
10	FB	1114	0	1187	87	0
10	J	1114	0	1187	84	0
11	GB	1064	0	1114	33	0
11	K	1064	0	1114	32	0
12	HB	960	0	1021	33	0
12	L	960	0	1021	33	0
13	IB	877	0	938	12	0
13	M	877	0	938	13	0
14	JB	1143	0	1211	38	0
14	N	1143	0	1211	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	KB	964	0	1022	36	0
15	O	964	0	1022	39	0
16	LB	779	0	852	22	0
16	P	779	0	852	23	0
17	MB	890	0	951	20	0
17	Q	890	0	951	22	0
18	NB	725	0	778	17	0
18	R	725	0	778	16	0
19	OB	775	0	870	27	0
19	S	775	0	870	24	0
20	PB	1482	0	1507	27	0
20	T	1482	0	1507	29	0
21	QB	605	0	628	21	0
21	U	605	0	628	19	0
22	RB	694	0	764	31	0
22	V	694	0	764	26	0
23	SB	520	0	575	21	0
23	W	520	0	575	20	0
24	TB	467	0	523	6	0
24	X	467	0	523	7	0
25	UB	404	0	420	12	0
25	Y	404	0	420	12	0
26	VB	380	0	391	14	0
26	Z	380	0	391	12	0
27	AA	418	0	467	12	0
27	WB	418	0	467	13	0
28	BA	507	0	576	17	0
28	XB	507	0	576	20	0
29	CA	1900	0	1951	38	0
29	YB	1900	0	1951	36	0
30	DA	1612	0	1677	41	0
30	ZB	1612	0	1677	41	0
31	AC	1703	0	1765	41	0
31	EA	1703	0	1764	40	0
32	BC	1155	0	1213	28	0
32	FA	1155	0	1213	30	0
33	CC	843	0	857	20	0
33	GA	843	0	857	20	0
34	DC	1257	0	1296	17	0
34	HA	1257	0	1296	17	0
35	EC	1116	0	1177	22	0
35	IA	1116	0	1177	23	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
36	FC	1011	0	1043	24	0
36	JA	1011	0	1043	23	0
37	GC	794	0	840	22	0
37	KA	794	0	840	23	0
38	HC	842	0	859	23	0
38	LA	842	0	859	22	0
39	IC	956	0	1046	27	0
39	MA	956	0	1046	30	0
40	JC	933	0	992	29	0
40	NA	933	0	992	26	0
41	KC	492	0	531	17	0
41	OA	492	0	529	14	0
42	LC	734	0	771	18	0
42	PA	734	0	771	17	0
43	MC	700	0	720	17	0
43	QA	700	0	720	14	0
44	NC	823	0	893	20	0
44	RA	823	0	893	19	0
45	OC	574	0	644	12	0
45	SA	574	0	644	14	0
46	PC	629	0	652	26	0
46	TA	629	0	652	25	0
47	QC	762	0	859	13	0
47	UA	762	0	859	14	0
48	RC	208	0	221	5	0
48	VA	208	0	221	3	0
49	SC	225	0	229	6	0
49	TC	225	0	229	9	0
50	UC	32332	0	16315	330	0
50	YC	32332	0	16314	339	1
51	VC	62000	0	31247	661	0
51	ZC	62000	0	31244	664	0
52	AD	2551	0	1295	22	0
52	WC	2551	0	1295	20	0
53	BD	1640	0	837	21	0
53	ED	1640	0	837	9	0
53	FD	1640	0	837	8	0
53	XC	1640	0	837	22	0
54	GD	170	0	87	1	0
54	HD	170	0	87	2	0
55	A	5	0	0	0	0
55	AA	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	AC	1	0	0	0	0
55	AD	30	0	0	0	0
55	B	2	0	0	0	0
55	BA	2	0	0	0	0
55	BB	2	0	0	0	0
55	BC	3	0	0	0	0
55	BD	8	0	0	0	0
55	C	3	0	0	0	0
55	CB	1	0	0	0	0
55	D	3	0	0	0	0
55	DB	1	0	0	0	0
55	DC	1	0	0	0	0
55	EA	1	0	0	0	0
55	EB	3	0	0	0	0
55	ED	16	0	0	0	0
55	FA	1	0	0	0	0
55	FB	4	0	0	0	0
55	FC	1	0	0	0	0
55	FD	16	0	0	0	0
55	GB	1	0	0	0	0
55	H	2	0	0	0	0
55	HA	2	0	0	0	0
55	HB	2	0	0	0	0
55	HD	1	0	0	0	0
55	I	1	0	0	0	0
55	IB	1	0	0	0	0
55	IC	1	0	0	0	0
55	J	3	0	0	0	0
55	JB	1	0	0	0	0
55	L	1	0	0	0	0
55	LA	4	0	0	0	0
55	LC	1	0	0	0	0
55	MB	1	0	0	0	0
55	N	1	0	0	0	0
55	NB	1	0	0	0	0
55	O	2	0	0	0	0
55	OA	2	0	0	0	0
55	OB	1	0	0	0	0
55	P	2	0	0	0	0
55	PA	2	0	0	0	0
55	Q	1	0	0	0	0
55	QA	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	QB	2	0	0	0	0
55	RA	1	0	0	0	0
55	RC	1	0	0	0	0
55	SB	1	0	0	0	0
55	UA	2	0	0	0	0
55	UC	264	0	0	0	0
55	V	1	0	0	0	0
55	VC	707	0	0	0	0
55	WA	5	0	0	0	0
55	WB	2	0	0	0	0
55	WC	29	0	0	0	0
55	X	1	0	0	0	0
55	XA	3	0	0	0	0
55	XC	5	0	0	0	0
55	Y	1	0	0	0	0
55	YA	8	0	0	0	0
55	YC	271	0	0	0	0
55	ZC	774	0	0	0	0
56	AC	1	0	0	0	0
56	EA	1	0	0	0	0
56	KC	1	0	0	0	0
56	OA	1	0	0	0	0
All	All	295576	0	199105	4009	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 8.

All (4009) 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)
30:ZB:6:HIS:HD2	30:ZB:7:PRO:HD2	1.24	1.00
7:CB:75:SER:HB3	51:ZC:1063:G:H5''	1.55	0.89
32:FA:41:VAL:HG21	32:FA:113:ALA:HA	1.55	0.87
35:IA:102:ARG:HE	35:IA:102:ARG:H	1.23	0.86
35:EC:102:ARG:H	35:EC:102:ARG:HE	1.24	0.86
32:BC:41:VAL:HG21	32:BC:113:ALA:HA	1.56	0.86
6:BB:90:GLY:HA2	50:UC:368:U:H5''	1.57	0.84
22:RB:86:SER:HB3	22:RB:89:GLU:HB2	1.60	0.83
11:GB:23:GLY:HA3	11:GB:98:LYS:HB2	1.61	0.83
11:K:23:GLY:HA3	11:K:98:LYS:HB2	1.61	0.82
2:XA:132:HIS:ND1	51:ZC:1658:C:OP1	2.13	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:132:HIS:ND1	51:VC:1658:C:OP1	2.12	0.82
22:V:86:SER:HB3	22:V:89:GLU:HB2	1.59	0.81
10:FB:128:HIS:HA	10:FB:147:LEU:HB3	1.63	0.80
4:ZA:41:GLN:HG2	4:ZA:155:MET:HB3	1.65	0.79
51:ZC:413:C:H42	51:ZC:2410:G:H1	1.31	0.79
10:J:128:HIS:HA	10:J:147:LEU:HB3	1.63	0.78
21:QB:12:ASN:HD21	51:ZC:2278:A:H5''	1.48	0.78
29:YB:77:ALA:HB2	29:YB:211:ILE:HD13	1.66	0.78
51:VC:2068:U:H3	51:VC:2430:A:H2	1.32	0.78
50:UC:978:A:OP2	50:UC:136(B):C:N4	2.18	0.77
51:ZC:229:A:H5'	51:ZC:230:U:H5'	1.67	0.77
29:CA:77:ALA:HB2	29:CA:211:ILE:HD13	1.67	0.77
10:FB:57:THR:HB	10:FB:59:LEU:H	1.48	0.77
4:D:41:GLN:HG2	4:D:155:MET:HB3	1.65	0.77
10:J:57:THR:HB	10:J:59:LEU:H	1.48	0.77
21:U:12:ASN:HD21	51:VC:2278:A:H5''	1.48	0.77
30:ZB:6:HIS:CD2	30:ZB:7:PRO:HD2	2.15	0.76
18:R:63:LYS:HD2	18:R:72:LYS:HA	1.68	0.76
10:FB:23:PRO:HB2	10:FB:33:ARG:HG3	1.68	0.76
18:R:11:PRO:HA	18:R:28:PHE:HB3	1.68	0.76
50:YC:380:G:N2	50:YC:383:A:OP2	2.19	0.76
20:T:31:ARG:HB3	52:WC:105:G:H5'	1.68	0.75
2:XA:128:SER:OG	2:XA:129:HIS:N	2.19	0.75
18:NB:63:LYS:HD2	18:NB:72:LYS:HA	1.68	0.75
51:VC:392:C:H5''	51:VC:409:C:H5''	1.69	0.75
35:IA:91:ARG:HD2	39:MA:6:ILE:HG21	1.67	0.75
18:NB:11:PRO:HA	18:NB:28:PHE:HB3	1.67	0.75
35:EC:91:ARG:HD2	39:IC:6:ILE:HG21	1.67	0.75
37:KA:36:GLY:HA3	50:UC:1123:A:H4'	1.69	0.75
51:VC:229:A:H5'	51:VC:230:U:H5'	1.69	0.75
51:VC:1851:U:H4'	53:XC:71:C:H4'	1.68	0.75
10:J:23:PRO:HB2	10:J:33:ARG:HG3	1.69	0.74
25:UB:19:ARG:HA	51:ZC:2046:G:H5'	1.68	0.74
51:ZC:392:C:H5''	51:ZC:409:C:H5''	1.69	0.74
51:ZC:571:A:O2'	51:ZC:573:G:OP2	2.05	0.74
51:VC:413:C:H42	51:VC:2410:G:H1	1.31	0.74
14:JB:64:ARG:HD3	14:JB:102:ILE:HD11	1.69	0.74
25:Y:19:ARG:HA	51:VC:2046:G:H5'	1.67	0.74
41:KC:35:ARG:NH2	50:YC:1360:A:OP2	2.20	0.74
50:UC:1211:U:H4'	50:UC:1213:A:H1'	1.69	0.74
51:ZC:2068:U:H3	51:ZC:2430:A:H2	1.33	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:21:ARG:HD2	51:VC:663:G:H5''	1.69	0.74
37:GC:36:GLY:HA3	50:YC:1123:A:H4'	1.69	0.73
51:ZC:1840:G:H1	51:ZC:1902:C:H42	1.34	0.73
14:N:64:ARG:HD3	14:N:102:ILE:HD11	1.69	0.73
2:B:128:SER:O	2:B:130:GLY:N	2.22	0.73
51:VC:819:A:OP2	51:VC:1187:G:N2	2.22	0.73
51:VC:1840:G:H1	51:VC:1902:C:H42	1.36	0.73
25:UB:2:ALA:HA	51:ZC:2015:A:H1'	1.71	0.73
38:HC:123:LYS:NZ	50:YC:1523:G:OP1	2.21	0.73
4:D:32:PRO:HB2	4:D:172:LEU:HD13	1.71	0.72
14:N:113:LYS:NZ	51:VC:1754:C:OP2	2.22	0.72
48:RC:2:GLY:N	50:YC:1304:G:OP1	2.22	0.72
51:VC:571:A:O2'	51:VC:573:G:OP2	2.04	0.72
2:B:128:SER:OG	2:B:129:HIS:N	2.19	0.72
51:VC:1024:G:H3'	51:VC:1025:G:H5''	1.72	0.72
2:XA:24:THR:HB	2:XA:186:GLY:HA2	1.71	0.72
10:FB:21:ARG:HD2	51:ZC:663:G:H5''	1.71	0.72
51:ZC:1024:G:H3'	51:ZC:1025:G:H5''	1.71	0.72
2:B:24:THR:HB	2:B:186:GLY:HA2	1.72	0.72
25:Y:2:ALA:HA	51:VC:2015:A:H1'	1.72	0.72
29:YB:176:GLU:OE2	50:YC:1101:A:N6	2.23	0.72
50:YC:147:G:H1	50:YC:175:C:H42	1.36	0.72
50:YC:1211:U:H4'	50:YC:1213:A:H1'	1.70	0.72
16:LB:72:VAL:HG22	16:LB:85:LYS:HB2	1.72	0.72
4:ZA:32:PRO:HB2	4:ZA:172:LEU:HD13	1.71	0.71
2:XA:128:SER:O	2:XA:130:GLY:N	2.22	0.71
51:ZC:819:A:OP2	51:ZC:1187:G:N2	2.22	0.71
16:P:72:VAL:HG22	16:P:85:LYS:HB2	1.73	0.71
46:PC:19:VAL:HG22	46:PC:44:MET:HE2	1.72	0.71
15:KB:92:ARG:HD3	51:ZC:996:A:H4'	1.73	0.71
38:LA:123:LYS:NZ	50:UC:1523:G:OP1	2.24	0.71
15:O:92:ARG:HD3	51:VC:996:A:H4'	1.72	0.70
38:LA:57:THR:HG22	38:LA:60:ALA:H	1.56	0.70
46:TA:19:VAL:HG22	46:TA:44:MET:HE2	1.72	0.70
50:UC:380:G:N2	50:UC:383:A:OP2	2.19	0.70
14:JB:96:ARG:NH1	51:ZC:1754:C:OP1	2.23	0.70
10:J:88:LEU:HD11	10:J:95:VAL:HG11	1.72	0.70
14:N:96:ARG:NH1	51:VC:1754:C:OP1	2.25	0.70
32:FA:50:GLU:HG3	32:FA:52:PRO:HD2	1.73	0.70
14:JB:113:LYS:NZ	51:ZC:1754:C:OP2	2.22	0.70
22:V:79:GLY:HA3	51:VC:270(S):G:H1'	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:PA:39:LEU:HD12	42:PA:56:LEU:HB2	1.74	0.70
10:FB:86:LYS:HB3	10:FB:118:GLY:HA3	1.74	0.70
20:PB:31:ARG:HB3	52:AD:105:G:H5'	1.74	0.70
22:RB:79:GLY:HA3	51:ZC:270(S):G:H1'	1.74	0.70
42:LC:39:LEU:HD12	42:LC:56:LEU:HB2	1.74	0.70
51:VC:2032:G:OP1	51:VC:2454:G:O2'	2.10	0.70
33:CC:47:ARG:HH22	33:CC:56:PRO:HB2	1.56	0.70
10:FB:88:LEU:HD11	10:FB:95:VAL:HG11	1.72	0.69
14:JB:36:GLU:HB3	14:JB:39:ARG:HE	1.58	0.69
4:D:44:GLY:HA3	51:VC:2311:A:H2	1.58	0.69
50:UC:79:G:H1	50:UC:90:C:H42	1.40	0.69
50:UC:147:G:H1	50:UC:175:C:H42	1.37	0.69
34:HA:36:LYS:HE3	50:UC:1373:G:H5''	1.74	0.69
33:GA:47:ARG:HH22	33:GA:56:PRO:HB2	1.56	0.69
34:DC:36:LYS:HE3	50:YC:1373:G:H5''	1.74	0.69
40:JC:10:PRO:HB2	40:JC:18:ALA:HB1	1.75	0.69
50:UC:790:A:OP1	53:ED:38:A:O2'	2.10	0.69
4:ZA:44:GLY:HA3	51:ZC:2311:A:H2	1.58	0.69
32:BC:50:GLU:HG3	32:BC:52:PRO:HD2	1.73	0.69
14:N:36:GLU:HB3	14:N:39:ARG:HE	1.58	0.69
23:W:14:ARG:HA	23:W:17:SER:HB2	1.74	0.69
15:KB:24:TYR:HB2	15:KB:29:SER:HB3	1.75	0.69
17:MB:68:ARG:HB2	17:MB:110:LYS:HB2	1.75	0.69
26:VB:23:THR:HB	28:XB:35:GLN:HA	1.75	0.69
42:PA:5:LYS:HD3	42:PA:5:LYS:H	1.58	0.69
51:VC:2520:C:H41	51:VC:2542:A:H62	1.41	0.69
39:IC:86:GLY:HA2	39:IC:97:TYR:HA	1.76	0.68
20:T:141:VAL:HG23	20:T:144:LEU:HD23	1.75	0.68
26:Z:23:THR:HB	28:BA:35:GLN:HA	1.74	0.68
51:ZC:2032:G:OP1	51:ZC:2454:G:O2'	2.11	0.68
32:FA:49:PRO:HG2	50:UC:1071:C:H5''	1.76	0.68
21:QB:23:VAL:HG21	51:ZC:857:C:H4'	1.76	0.68
51:ZC:2520:C:H41	51:ZC:2542:A:H62	1.41	0.68
10:J:86:LYS:HB3	10:J:118:GLY:HA3	1.73	0.68
17:Q:68:ARG:HB2	17:Q:110:LYS:HB2	1.75	0.68
51:VC:2475:C:H42	51:VC:2529:G:H22	1.42	0.68
9:I:19:ILE:HG22	9:I:43:VAL:HA	1.76	0.68
38:HC:57:THR:HG22	38:HC:60:ALA:H	1.58	0.68
50:UC:677:U:H3	50:UC:713:G:H22	1.42	0.68
51:VC:27:G:N2	51:VC:513:A:OP2	2.27	0.68
39:IC:31:PHE:HB3	39:IC:83:LEU:HD11	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:49:HIS:HA	15:O:52:ARG:HB2	1.75	0.67
10:FB:35:HIS:HB2	51:ZC:942:G:H5'	1.76	0.67
20:PB:141:VAL:HG23	20:PB:144:LEU:HD23	1.75	0.67
26:VB:18:ARG:NH1	26:VB:43:CYS:O	2.27	0.67
42:LC:5:LYS:H	42:LC:5:LYS:HD3	1.57	0.67
50:YC:79:G:H1	50:YC:90:C:H42	1.42	0.67
22:V:11:ARG:HB3	22:V:12:PRO:HD2	1.76	0.67
1:WA:241:PRO:HG3	51:ZC:1971:A:C4	2.30	0.67
39:MA:86:GLY:HA2	39:MA:97:TYR:HA	1.75	0.67
22:RB:11:ARG:HB3	22:RB:12:PRO:HD2	1.75	0.67
39:IC:116:ARG:NH2	50:YC:501:C:OP1	2.23	0.67
46:PC:50:ALA:HB1	46:PC:57:HIS:HB3	1.76	0.67
21:U:23:VAL:HG21	51:VC:857:C:H4'	1.77	0.67
26:Z:18:ARG:NH1	26:Z:43:CYS:O	2.27	0.67
15:O:24:TYR:HB2	15:O:29:SER:HB3	1.75	0.67
23:W:41:ILE:HD11	23:W:44:LEU:HB2	1.76	0.67
40:NA:10:PRO:HB2	40:NA:18:ALA:HB1	1.76	0.67
23:SB:14:ARG:HA	23:SB:17:SER:HB2	1.76	0.67
25:UB:4:HIS:O	51:ZC:2056:G:N2	2.23	0.67
32:FA:5:ASP:OD1	32:FA:5:ASP:N	2.28	0.67
12:HB:72:ASP:HB3	12:HB:75:LEU:HB2	1.77	0.67
47:QC:83:ARG:NH1	50:YC:260:G:OP2	2.27	0.67
50:UC:21:G:H21	50:UC:914:A:H62	1.43	0.67
15:KB:49:HIS:HA	15:KB:52:ARG:HB2	1.76	0.67
39:MA:31:PHE:HB3	39:MA:83:LEU:HD11	1.76	0.67
46:TA:50:ALA:HB1	46:TA:57:HIS:HB3	1.76	0.67
47:UA:83:ARG:NH1	50:UC:260:G:OP2	2.28	0.67
22:RB:86:SER:HB2	22:RB:90:ILE:HG12	1.77	0.67
51:ZC:27:G:N2	51:ZC:513:A:OP2	2.27	0.66
30:DA:45:LYS:HG3	30:DA:46:GLU:HG3	1.77	0.66
22:V:13:ILE:HG22	22:V:62:VAL:HG23	1.77	0.66
21:QB:55:ARG:NH2	51:ZC:2364:C:OP1	2.29	0.66
32:BC:20:GLN:HA	50:YC:922:G:H4'	1.77	0.66
51:VC:586:A:N1	51:VC:809:G:O2'	2.25	0.66
22:V:86:SER:HB2	22:V:90:ILE:HG12	1.77	0.66
27:AA:39:ARG:NH2	51:VC:468:G:N7	2.44	0.66
21:U:55:ARG:NH2	51:VC:2364:C:OP1	2.28	0.66
32:FA:20:GLN:HA	50:UC:922:G:H4'	1.77	0.66
9:EB:19:ILE:HG22	9:EB:43:VAL:HA	1.77	0.66
19:OB:2:ARG:HE	51:ZC:106:C:H1'	1.61	0.66
51:VC:1541:U:H3'	51:VC:1542:G:H3'	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:4:HIS:O	51:VC:2056:G:N2	2.22	0.66
30:DA:14:ILE:O	30:DA:16:ARG:N	2.29	0.66
27:WB:39:ARG:NH2	51:ZC:468:G:N7	2.43	0.66
1:A:241:PRO:HG3	51:VC:1971:A:C4	2.30	0.66
10:J:35:HIS:HB2	51:VC:942:G:H5'	1.77	0.66
36:JA:121:ARG:NH1	36:JA:122:ALA:O	2.29	0.66
22:RB:13:ILE:HG22	22:RB:62:VAL:HG23	1.78	0.66
30:ZB:14:ILE:O	30:ZB:16:ARG:N	2.29	0.66
12:HB:104:ARG:HD3	12:HB:109:ALA:HB3	1.78	0.66
50:UC:417:C:H42	50:UC:426:G:H1	1.42	0.66
7:CB:133:SER:HB3	51:ZC:1062:G:H21	1.61	0.65
51:VC:1459:G:O2'	51:VC:1461:G:OP2	2.14	0.65
50:YC:417:C:H42	50:YC:426:G:H1	1.42	0.65
51:ZC:1541:U:H3'	51:ZC:1542:G:H3'	1.77	0.65
50:YC:677:U:H3	50:YC:713:G:H22	1.42	0.65
30:ZB:45:LYS:HG3	30:ZB:46:GLU:HG3	1.77	0.65
36:FC:121:ARG:NH1	36:FC:122:ALA:O	2.29	0.65
41:KC:23:ARG:NH1	41:KC:28:GLY:O	2.28	0.65
19:S:2:ARG:HE	51:VC:106:C:H1'	1.61	0.65
36:FC:4:TYR:HB2	36:FC:19:LEU:HB2	1.79	0.65
50:UC:559:A:H4'	50:UC:560:U:H3'	1.79	0.65
7:G:112:MET:H	7:G:113:PRO:HD2	1.62	0.65
51:VC:1678:G:H21	51:VC:1989:G:H22	1.45	0.65
10:J:35:HIS:HA	51:VC:1190:G:H5''	1.79	0.65
39:MA:101:ARG:HB3	39:MA:108:GLY:HA2	1.78	0.65
50:UC:1043:C:H2'	50:UC:1044:A:H8	1.61	0.65
51:VC:1510:A:H2'	51:VC:1511:A:C8	2.32	0.65
51:ZC:1341:U:OP2	51:ZC:1394:U:O2'	2.15	0.65
51:ZC:1510:A:H2'	51:ZC:1511:A:C8	2.32	0.65
6:F:92:VAL:HG23	6:F:96:ASP:HB2	1.79	0.65
31:EA:196:LEU:HB2	31:EA:198:VAL:HG22	1.79	0.65
21:QB:64:ASP:OD1	21:QB:64:ASP:N	2.25	0.65
23:SB:41:ILE:HD11	23:SB:44:LEU:HB2	1.77	0.65
26:VB:46:HIS:HD2	51:ZC:2371:G:O2'	1.79	0.65
51:ZC:1678:G:H21	51:ZC:1989:G:H22	1.44	0.65
12:L:72:ASP:HB3	12:L:75:LEU:HB2	1.77	0.65
50:YC:559:A:H4'	50:YC:560:U:H3'	1.79	0.65
17:Q:84:ARG:HB2	17:Q:96:ILE:HG22	1.79	0.65
16:LB:84:LYS:NZ	51:ZC:1226:A:OP1	2.25	0.65
51:ZC:2475:C:H42	51:ZC:2529:G:H22	1.43	0.64
13:IB:30:ARG:HD2	13:IB:97:ARG:HD3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:YC:21:G:H21	50:YC:914:A:H62	1.43	0.64
32:BC:5:ASP:N	32:BC:5:ASP:OD1	2.29	0.64
39:IC:101:ARG:HB3	39:IC:108:GLY:HA2	1.79	0.64
51:VC:880:G:H1	51:VC:897:C:H42	1.45	0.64
50:YC:1043:C:H2'	50:YC:1044:A:H8	1.61	0.64
50:YC:1306:A:H61	50:YC:1331:G:H1'	1.62	0.64
51:ZC:1459:G:O2'	51:ZC:1461:G:OP2	2.14	0.64
29:YB:51:LEU:HD23	29:YB:201:ILE:HD12	1.79	0.64
37:GC:6:ILE:HG22	37:GC:98:ILE:HG12	1.80	0.64
40:NA:5:ALA:HB3	40:NA:8:GLU:HB2	1.78	0.64
6:BB:92:VAL:HG23	6:BB:96:ASP:HB2	1.78	0.64
8:H:93:LYS:HG2	8:H:110:LEU:HD12	1.80	0.64
29:CA:51:LEU:HD23	29:CA:201:ILE:HD12	1.79	0.64
33:GA:3:ARG:HH11	33:GA:64:GLN:HE22	1.46	0.64
30:ZB:19:GLU:HB2	30:ZB:40:ARG:HH22	1.62	0.64
51:ZC:270(K):G:H1	51:ZC:270(Q):C:H42	1.44	0.64
5:E:24:VAL:HG23	5:E:35:VAL:HB	1.79	0.64
4:ZA:77:ILE:HB	4:ZA:82:LEU:HD12	1.80	0.64
21:U:27:GLU:HG3	21:U:68:GLU:HA	1.80	0.64
41:OA:27:CYS:SG	41:OA:28:GLY:N	2.71	0.64
40:JC:5:ALA:HB3	40:JC:8:GLU:HB2	1.78	0.64
51:VC:1060:U:H3	51:VC:1088:A:H8	1.44	0.64
10:J:66:GLY:HA3	51:VC:2415:G:H4'	1.79	0.64
11:GB:42:ILE:HD11	11:GB:127:ILE:HD11	1.80	0.64
23:SB:47:ASN:O	23:SB:49:LYS:N	2.31	0.64
2:XA:36:ARG:HH21	2:XA:88:GLY:HA2	1.63	0.64
25:UB:20:ARG:NH1	51:ZC:1266:G:OP2	2.30	0.64
53:XC:17(A):U:O2'	53:XC:18:G:O5'	2.15	0.64
29:CA:176:GLU:OE2	50:UC:1101:A:N6	2.31	0.63
8:DB:93:LYS:HG2	8:DB:110:LEU:HD12	1.80	0.63
10:FB:35:HIS:HA	51:ZC:1190:G:H5''	1.79	0.63
33:CC:3:ARG:HH11	33:CC:64:GLN:HE22	1.45	0.63
53:XC:54:U:H3	53:XC:58:A:H62	1.46	0.63
51:ZC:2438:U:O2'	51:ZC:2439:A:OP2	2.16	0.63
2:B:36:ARG:HH21	2:B:88:GLY:HA2	1.62	0.63
12:L:104:ARG:HD3	12:L:109:ALA:HB3	1.80	0.63
17:MB:84:ARG:HB2	17:MB:96:ILE:HG22	1.80	0.63
51:ZC:586:A:N1	51:ZC:809:G:O2'	2.28	0.63
1:A:244:ARG:HB2	51:VC:1902:C:O2'	1.99	0.63
14:N:27:THR:HA	14:N:48:ILE:HA	1.80	0.63
30:DA:24:ALA:HB1	30:DA:28:GLN:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:846:C:H4'	51:ZC:847:U:H5'	1.80	0.63
30:DA:19:GLU:HB2	30:DA:40:ARG:HH22	1.62	0.63
36:JA:4:TYR:HB2	36:JA:19:LEU:HB2	1.80	0.63
5:AB:24:VAL:HG23	5:AB:35:VAL:HB	1.80	0.63
7:CB:38:VAL:HA	7:CB:41:PHE:HB3	1.80	0.63
7:CB:112:MET:H	7:CB:113:PRO:HD2	1.62	0.63
10:FB:66:GLY:HA3	51:ZC:2415:G:H4'	1.79	0.63
51:VC:846:C:H4'	51:VC:847:U:H5'	1.80	0.63
51:VC:1341:U:OP2	51:VC:1394:U:O2'	2.16	0.63
4:ZA:15:VAL:HG21	4:ZA:176:LEU:HD23	1.80	0.63
10:FB:50:ARG:HH11	28:XB:7:HIS:HD2	1.47	0.63
30:ZB:24:ALA:HB1	30:ZB:28:GLN:HB2	1.81	0.63
51:VC:1449:G:H1	51:VC:1462:C:H42	1.46	0.63
51:VC:1849:G:H2'	51:VC:1850:G:H8	1.64	0.63
51:ZC:1849:G:H2'	51:ZC:1850:G:H8	1.63	0.63
7:G:7:VAL:HA	7:G:58:THR:HA	1.81	0.63
37:KA:6:ILE:HG22	37:KA:98:ILE:HG12	1.80	0.63
48:VA:10:ARG:NH1	50:UC:1289:A:OP1	2.31	0.63
41:KC:6:LEU:HD11	50:YC:982:U:H5''	1.79	0.63
51:ZC:1449:G:H1	51:ZC:1462:C:H42	1.46	0.63
10:J:50:ARG:HH11	28:BA:7:HIS:HD2	1.45	0.63
14:JB:27:THR:HA	14:JB:48:ILE:HA	1.80	0.63
51:ZC:1060:U:H3	51:ZC:1088:A:H8	1.44	0.63
6:F:77:LEU:HD21	6:F:101:LEU:HD13	1.80	0.63
30:DA:70:VAL:HG21	30:DA:76:VAL:HG11	1.81	0.63
32:FA:14:ARG:NH2	50:UC:1079:G:O3'	2.31	0.63
10:FB:17:LYS:HB3	10:FB:19:VAL:HG22	1.80	0.63
12:HB:103:ARG:NH1	12:HB:108:GLY:O	2.31	0.63
29:YB:185:ILE:HG22	29:YB:199:TYR:HB2	1.79	0.63
31:AC:166:LYS:HA	31:AC:178:VAL:HG21	1.81	0.63
51:ZC:2071:A:H2'	51:ZC:2072:G:H8	1.63	0.63
31:EA:167:GLY:HA3	1:WA:135:PHE:HE2	1.64	0.63
35:IA:89:PRO:HA	35:IA:92:ARG:HH11	1.64	0.63
46:TA:79:THR:HB	50:UC:957:U:H4'	1.81	0.63
1:WA:244:ARG:HB2	51:ZC:1902:C:O2'	1.99	0.63
6:BB:77:LEU:HD21	6:BB:101:LEU:HD13	1.80	0.63
7:CB:7:VAL:HA	7:CB:58:THR:HA	1.81	0.63
51:ZC:880:G:H1	51:ZC:897:C:H42	1.46	0.63
25:Y:20:ARG:NH1	51:VC:1266:G:OP2	2.31	0.62
35:EC:89:PRO:HA	35:EC:92:ARG:HH11	1.64	0.62
50:UC:660:G:H1	50:UC:745:C:H42	1.46	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:2584:U:H2'	51:ZC:2585:U:H2'	1.81	0.62
7:G:38:VAL:HA	7:G:41:PHE:HB3	1.80	0.62
29:CA:185:ILE:HG22	29:CA:199:TYR:HB2	1.79	0.62
7:CB:131:ALA:HB1	7:CB:136:VAL:HG13	1.81	0.62
51:VC:270(K):G:H1	51:VC:270(Q):C:H42	1.45	0.62
53:XC:1:C:H42	53:XC:72:A:H61	1.48	0.62
10:FB:67:MET:HE1	51:ZC:2414:G:H21	1.63	0.62
51:VC:2071:A:H2'	51:VC:2072:G:H8	1.64	0.62
50:YC:902:G:H2'	50:YC:903:G:H8	1.63	0.62
52:AD:89(A):G:H2'	52:AD:89(B):A:C8	2.35	0.62
53:BD:54:U:H3	53:BD:58:A:H62	1.47	0.62
4:D:115:ARG:HH22	4:D:136:ARG:H	1.48	0.62
2:XA:52:LEU:O	2:XA:76:ARG:N	2.27	0.62
21:QB:27:GLU:HG3	21:QB:68:GLU:HA	1.80	0.62
51:VC:2123:G:H2'	51:VC:2124:G:H8	1.65	0.62
51:VC:2584:U:H2'	51:VC:2585:U:H2'	1.82	0.62
30:DA:70:VAL:HG12	30:DA:72:LYS:H	1.63	0.62
10:FB:133:SER:OG	51:ZC:637:A:OP1	2.16	0.62
22:RB:64:ALA:HA	22:RB:67:ILE:HG13	1.82	0.62
51:ZC:2595:G:N2	51:ZC:2598:A:OP2	2.27	0.62
4:D:141:PHE:HE2	4:D:155:MET:HE1	1.63	0.62
53:BD:17(A):U:O2'	53:BD:18:G:O5'	2.16	0.62
2:B:52:LEU:O	2:B:76:ARG:N	2.26	0.62
44:RA:7:THR:HG22	44:RA:58:GLU:HG2	1.81	0.62
20:T:27:VAL:HG21	52:WC:75:G:H1'	1.82	0.62
40:NA:91:ARG:HD2	46:TA:81:ARG:HH22	1.65	0.62
4:D:77:ILE:HB	4:D:82:LEU:HD12	1.80	0.62
13:M:30:ARG:HD2	13:M:97:ARG:HD3	1.80	0.62
1:WA:179:SER:OG	51:ZC:1799:G:N7	2.30	0.62
51:ZC:521:G:H2'	51:ZC:522:G:H8	1.65	0.62
12:L:103:ARG:NH1	12:L:108:GLY:O	2.32	0.62
7:CB:78:ILE:HG21	7:CB:136:VAL:HG11	1.81	0.62
10:FB:146:VAL:HG22	10:FB:147:LEU:H	1.63	0.62
11:GB:14:ARG:NH1	51:ZC:958:U:OP2	2.32	0.62
44:NC:7:THR:HG22	44:NC:58:GLU:HG2	1.81	0.62
50:UC:1306:A:H61	50:UC:1331:G:H1'	1.63	0.62
51:ZC:2123:G:H2'	51:ZC:2124:G:H8	1.65	0.62
52:AD:51:G:N2	52:AD:52:A:N7	2.48	0.62
4:D:15:VAL:HG21	4:D:176:LEU:HD23	1.80	0.61
4:ZA:128:ARG:HE	4:ZA:129:GLY:H	1.47	0.61
12:HB:38:VAL:HG22	12:HB:112:ALA:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:YC:1393:U:O2'	50:YC:1501:C:O2'	2.17	0.61
7:G:131:ALA:HB1	7:G:136:VAL:HG13	1.81	0.61
33:GA:97:PHE:HD2	45:SA:31:LEU:HD21	1.64	0.61
49:SC:40:ILE:HA	49:SC:57:ILE:HB	1.81	0.61
10:J:146:VAL:HG22	10:J:147:LEU:H	1.64	0.61
51:VC:2843:G:H1	51:VC:2874:C:H42	1.47	0.61
51:ZC:994:C:O2'	51:ZC:996:A:OP1	2.15	0.61
7:G:71:THR:HG21	7:G:111:LYS:HA	1.82	0.61
10:J:67:MET:HE1	51:VC:2414:G:H21	1.65	0.61
10:FB:33:ARG:NH1	51:ZC:587:C:OP2	2.33	0.61
46:PC:79:THR:HB	50:YC:957:U:H4'	1.81	0.61
12:L:38:VAL:HG22	12:L:112:ALA:HB2	1.82	0.61
31:EA:5:ILE:HD12	50:UC:406:G:H5''	1.81	0.61
37:KA:48:THR:HA	37:KA:62:HIS:HB3	1.82	0.61
50:YC:1128:C:H42	50:YC:1143:G:H22	1.49	0.61
4:D:128:ARG:HE	4:D:129:GLY:H	1.49	0.61
7:G:78:ILE:HG21	7:G:136:VAL:HG11	1.81	0.61
30:ZB:70:VAL:HG12	30:ZB:72:LYS:H	1.64	0.61
49:TC:40:ILE:HA	49:TC:57:ILE:HB	1.81	0.61
53:XC:26:G:H1	53:XC:44:A:H61	1.47	0.61
11:GB:37:LEU:HD11	11:GB:130:LYS:HG3	1.83	0.61
14:N:119:LYS:NZ	51:VC:2867:G:OP2	2.22	0.61
26:Z:37:ARG:NH2	51:VC:2286:A:O2'	2.34	0.61
31:EA:5:ILE:H	31:EA:115:ARG:HH12	1.48	0.61
18:NB:55:ASN:HB2	18:NB:80:ILE:HG12	1.83	0.61
51:ZC:2843:G:H1	51:ZC:2874:C:H42	1.47	0.61
37:GC:48:THR:HA	37:GC:62:HIS:HB3	1.82	0.61
52:WC:89(A):G:H2'	52:WC:89(B):A:C8	2.35	0.61
51:ZC:2735:G:H1	51:ZC:2769:C:H42	1.49	0.61
53:BD:26:G:H1	53:BD:44:A:H61	1.47	0.61
1:A:246:PRO:HB2	1:A:255:LYS:HE3	1.83	0.61
11:K:42:ILE:HD11	11:K:127:ILE:HD11	1.82	0.61
30:DA:150:LYS:HB3	30:DA:201:TYR:HB2	1.83	0.61
4:ZA:115:ARG:HH22	4:ZA:136:ARG:H	1.49	0.61
20:PB:27:VAL:HG21	52:AD:75:G:H1'	1.82	0.61
34:HA:116:ALA:HA	34:HA:119:ARG:HE	1.65	0.60
51:VC:2735:G:H1	51:VC:2769:C:H42	1.49	0.60
30:ZB:179:ARG:HD2	30:ZB:207:VAL:HG22	1.83	0.60
40:JC:91:ARG:HD2	46:PC:81:ARG:HH22	1.65	0.60
50:UC:902:G:H2'	50:UC:903:G:H8	1.64	0.60
23:W:19:VAL:HG12	23:W:23:LYS:HE3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:39:ASP:OD1	24:X:44:ARG:NH2	2.34	0.60
3:YA:32:LEU:HD11	3:YA:105:VAL:HG13	1.83	0.60
23:SB:46:GLN:HB3	51:ZC:95:G:H4'	1.84	0.60
11:K:14:ARG:NH1	51:VC:958:U:OP2	2.34	0.60
4:ZA:141:PHE:HE2	4:ZA:155:MET:HE1	1.64	0.60
23:SB:48:HIS:O	23:SB:51:ARG:HG2	2.01	0.60
10:J:17:LYS:HB3	10:J:19:VAL:HG22	1.81	0.60
10:J:33:ARG:NH1	51:VC:587:C:OP2	2.32	0.60
46:TA:69:HIS:HB3	46:TA:73:GLU:HG3	1.83	0.60
9:EB:2:ILE:HG21	9:EB:8:LEU:HD21	1.83	0.60
15:KB:62:ILE:HD11	15:KB:93:LYS:HD3	1.83	0.60
33:CC:97:PHE:HD2	45:OC:31:LEU:HD21	1.64	0.60
51:VC:994:C:O2'	51:VC:996:A:OP1	2.17	0.60
51:ZC:224:G:O6	51:ZC:419:C:O2'	2.18	0.60
53:BD:1:C:H42	53:BD:72:A:H61	1.48	0.60
8:H:116:THR:OG1	8:H:117:HIS:N	2.34	0.60
22:V:64:ALA:HA	22:V:67:ILE:HG13	1.83	0.60
23:W:47:ASN:O	23:W:49:LYS:N	2.34	0.60
23:W:48:HIS:O	23:W:51:ARG:HG2	2.01	0.60
18:NB:35:THR:HG21	51:ZC:142:G:H4'	1.84	0.60
41:KC:32:SER:N	50:YC:976:G:OP1	2.32	0.60
16:P:84:LYS:NZ	51:VC:1226:A:OP1	2.25	0.60
30:DA:179:ARG:HD2	30:DA:207:VAL:HG22	1.83	0.60
1:WA:246:PRO:HB2	1:WA:255:LYS:HE3	1.82	0.60
15:KB:90:VAL:HG23	16:LB:39:LEU:HG	1.83	0.60
26:VB:37:ARG:NH2	51:ZC:2286:A:O2'	2.33	0.60
47:QC:82:SER:O	47:QC:86:ARG:HB3	2.02	0.60
4:D:97:ASP:HA	4:D:100:TRP:HD1	1.65	0.60
16:P:6:LYS:HG3	16:P:11:GLN:HG2	1.84	0.60
30:DA:199:LYS:NZ	50:UC:1058:G:OP1	2.35	0.60
4:ZA:5:LEU:HD12	4:ZA:101:ILE:HG22	1.84	0.60
50:UC:624:C:H2'	50:UC:625:G:H8	1.66	0.60
51:VC:573:G:N1	51:VC:2031:A:OP2	2.30	0.60
51:VC:1796:U:H2'	51:VC:1797:C:C6	2.37	0.60
52:WC:51:G:N2	52:WC:52:A:N7	2.49	0.60
50:YC:660:G:H1	50:YC:745:C:H42	1.48	0.60
50:YC:811:C:O2'	50:YC:901:A:N1	2.34	0.60
4:D:5:LEU:HD12	4:D:101:ILE:HG22	1.84	0.60
22:V:40:ARG:HH21	22:V:42:GLN:HG2	1.66	0.60
4:ZA:97:ASP:HA	4:ZA:100:TRP:HD1	1.66	0.60
7:CB:71:THR:HG21	7:CB:111:LYS:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:TB:39:ASP:OD1	24:TB:44:ARG:NH2	2.34	0.60
34:DC:116:ALA:HA	34:DC:119:ARG:HE	1.66	0.60
15:O:62:ILE:HD11	15:O:93:LYS:HD3	1.83	0.60
22:V:20:ARG:HB3	51:VC:380:U:O2'	2.02	0.60
29:CA:187:LEU:HD22	29:CA:205:ASP:HB3	1.83	0.60
3:YA:74:ARG:HD3	51:ZC:674:G:H1'	1.84	0.60
30:ZB:70:VAL:HG21	30:ZB:76:VAL:HG11	1.82	0.60
43:MC:55:ARG:HA	43:MC:58:TYR:HB3	1.83	0.60
44:NC:80:GLY:HA2	44:NC:82:MET:HE2	1.82	0.60
51:VC:2438:U:O2'	51:VC:2439:A:OP2	2.17	0.60
41:OA:6:LEU:HD22	41:OA:23:ARG:HH22	1.66	0.59
44:RA:80:GLY:HA2	44:RA:82:MET:HE2	1.83	0.59
51:VC:521:G:H2'	51:VC:522:G:H8	1.65	0.59
50:YC:1143:G:H2'	50:YC:1144:G:C8	2.37	0.59
3:C:57:VAL:HG13	3:C:59:TYR:H	1.67	0.59
4:D:137:GLU:HG2	4:D:152:LEU:HD13	1.84	0.59
31:EA:122:ARG:NH2	50:UC:403:C:O2'	2.35	0.59
43:QA:55:ARG:HA	43:QA:58:TYR:HB3	1.84	0.59
8:DB:116:THR:OG1	8:DB:117:HIS:N	2.34	0.59
12:HB:53:HIS:HB2	12:HB:94:TYR:HE1	1.67	0.59
16:LB:56:SER:H	16:LB:101:GLY:HA2	1.67	0.59
15:O:53:ARG:NH2	51:VC:994:C:OP1	2.35	0.59
21:U:64:ASP:OD1	21:U:64:ASP:N	2.25	0.59
39:MA:116:ARG:NH2	50:UC:501:C:OP1	2.26	0.59
23:SB:19:VAL:HG12	23:SB:23:LYS:HE3	1.83	0.59
46:PC:69:HIS:HB3	46:PC:73:GLU:HG3	1.84	0.59
51:VC:463:G:N2	51:VC:466:A:OP2	2.28	0.59
51:VC:1358:G:N1	51:VC:1372:U:OP2	2.32	0.59
51:VC:1379:A:H4'	51:VC:1380:G:OP2	2.01	0.59
51:ZC:380:U:H2'	51:ZC:381:G:H8	1.67	0.59
2:B:143:ASN:ND2	51:VC:2574:G:N3	2.51	0.59
35:IA:15:ASN:ND2	50:UC:826:C:O2	2.35	0.59
8:DB:132:LYS:HD3	8:DB:132:LYS:H	1.67	0.59
37:GC:34:VAL:HG22	37:GC:74:ILE:HG22	1.84	0.59
50:UC:811:C:O2'	50:UC:901:A:N1	2.35	0.59
50:YC:624:C:H2'	50:YC:625:G:H8	1.66	0.59
8:H:70:ALA:HB2	8:H:135:LEU:HD12	1.84	0.59
11:K:37:LEU:HD11	11:K:130:LYS:HG3	1.83	0.59
38:LA:118:GLY:HA2	50:UC:716:A:H1'	1.84	0.59
11:GB:99:PRO:HB2	20:PB:79:ARG:HG2	1.85	0.59
48:RC:10:ARG:NH1	50:YC:1289:A:OP1	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:55:ASN:HB2	18:R:80:ILE:HG12	1.82	0.59
47:UA:82:SER:O	47:UA:86:ARG:HB3	2.02	0.59
10:FB:16:ARG:O	51:ZC:661:C:O2'	2.18	0.59
19:OB:37:VAL:HG21	19:OB:72:VAL:HG21	1.84	0.59
39:IC:88:ARG:HA	39:IC:96:ARG:HA	1.84	0.59
51:VC:2811:G:H1	51:VC:2889:C:H42	1.49	0.59
51:ZC:1678:G:N2	51:ZC:1989:G:H22	1.99	0.59
16:P:56:SER:H	16:P:101:GLY:HA2	1.66	0.59
4:ZA:137:GLU:HG2	4:ZA:152:LEU:HD13	1.84	0.59
44:NC:57:VAL:HG12	44:NC:76:LEU:HA	1.85	0.59
51:VC:1300:U:H4'	51:VC:1301:A:O5'	2.02	0.59
51:VC:2712:U:H1'	51:VC:712(B):A:C8	2.37	0.59
51:ZC:1300:U:H4'	51:ZC:1301:A:O5'	2.02	0.59
6:F:133:HIS:O	6:F:135:GLU:N	2.34	0.59
8:H:132:LYS:H	8:H:132:LYS:HD3	1.67	0.59
30:DA:6:HIS:HD2	30:DA:8:ILE:H	1.51	0.59
32:FA:24:ARG:NH2	50:UC:1397:C:OP2	2.36	0.59
29:YB:90:MET:HE3	29:YB:226:ARG:HH22	1.67	0.59
38:HC:118:GLY:HA2	50:YC:716:A:H1'	1.84	0.59
50:UC:501:C:H2'	50:UC:502:G:H8	1.68	0.59
51:VC:1791:A:N6	51:VC:1828:G:O2'	2.35	0.59
51:VC:1899:G:N2	51:VC:1902:C:H41	2.01	0.59
12:L:53:HIS:HB2	12:L:94:TYR:HE1	1.68	0.59
30:DA:172:ARG:HG2	50:UC:1106:G:H5''	1.85	0.59
33:GA:37:VAL:HA	33:GA:65:VAL:HG12	1.85	0.59
2:XA:143:ASN:ND2	51:ZC:2574:G:N3	2.50	0.59
4:ZA:67:LYS:O	52:AD:42:C:O2'	2.20	0.59
16:LB:16:PRO:HB3	16:LB:99:ILE:HD12	1.84	0.59
30:ZB:14:ILE:HG12	30:ZB:15:THR:H	1.68	0.59
30:ZB:199:LYS:NZ	50:YC:1058:G:OP1	2.35	0.59
35:EC:15:ASN:ND2	50:YC:826:C:O2	2.36	0.59
51:VC:1678:G:N2	51:VC:1989:G:H22	2.00	0.59
50:YC:1105:A:H2'	50:YC:1106:G:H8	1.68	0.59
51:ZC:1791:A:N6	51:ZC:1828:G:O2'	2.36	0.59
1:A:148:GLU:HB2	1:A:151:LYS:HD2	1.84	0.58
3:C:32:LEU:HD11	3:C:105:VAL:HG13	1.84	0.58
16:P:16:PRO:HB3	16:P:99:ILE:HD12	1.84	0.58
19:S:37:VAL:HG21	19:S:72:VAL:HG21	1.85	0.58
31:EA:4:TYR:O	31:EA:6:GLY:N	2.35	0.58
43:MC:20:VAL:HG23	43:MC:35:LYS:HA	1.84	0.58
50:UC:259:G:H1	50:UC:267:C:H42	1.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:UC:1143:G:H2'	50:UC:1144:G:C8	2.38	0.58
51:VC:2110:G:H5''	51:VC:2111:C:H5	1.68	0.58
50:YC:950:U:H2'	50:YC:951:G:H8	1.68	0.58
7:G:104:VAL:HG13	7:G:127:ILE:HB	1.85	0.58
8:H:63:PRO:HB3	15:O:68:ALA:HB2	1.85	0.58
9:I:2:ILE:HG21	9:I:8:LEU:HD21	1.84	0.58
23:W:46:GLN:HB3	51:VC:95:G:H4'	1.85	0.58
37:KA:34:VAL:HG22	37:KA:74:ILE:HG22	1.85	0.58
6:BB:133:HIS:O	6:BB:135:GLU:N	2.34	0.58
10:FB:61:ARG:HH11	28:XB:13:ARG:HD2	1.68	0.58
22:RB:20:ARG:HB3	51:ZC:380:U:O2'	2.02	0.58
50:UC:973:G:H3'	50:UC:974:A:H5''	1.84	0.58
20:PB:19:ARG:NH2	52:AD:76:G:O3'	2.36	0.58
51:ZC:527:C:N4	51:ZC:2779:U:OP2	2.36	0.58
51:ZC:1379:A:H4'	51:ZC:1380:G:OP2	2.01	0.58
51:ZC:1796:U:H2'	51:ZC:1797:C:C6	2.37	0.58
32:FA:10:MET:HA	32:FA:32:VAL:HA	1.84	0.58
38:LA:79:SER:HA	38:LA:104:GLN:HB3	1.85	0.58
19:OB:4:LYS:H	19:OB:4:LYS:HD3	1.69	0.58
50:UC:1105:A:H2'	50:UC:1106:G:H8	1.68	0.58
51:VC:224:G:O6	51:VC:419:C:O2'	2.20	0.58
51:VC:1752:C:H42	51:VC:1756:G:H1	1.51	0.58
7:G:90:LYS:HE3	51:VC:1076:C:H5'	1.85	0.58
11:K:99:PRO:HB2	20:T:79:ARG:HG2	1.85	0.58
29:CA:90:MET:HE3	29:CA:226:ARG:HH22	1.68	0.58
15:KB:53:ARG:NH2	51:ZC:994:C:OP1	2.37	0.58
16:LB:6:LYS:HG3	16:LB:11:GLN:HG2	1.85	0.58
30:ZB:172:ARG:HG2	50:YC:1106:G:H5''	1.86	0.58
32:BC:24:ARG:NH2	50:YC:1397:C:OP2	2.36	0.58
32:BC:49:PRO:HG2	50:YC:1071:C:H5''	1.85	0.58
51:ZC:676:A:H8	51:ZC:2069:G:H21	1.51	0.58
51:ZC:2110:G:H5''	51:ZC:2111:C:H5	1.68	0.58
51:ZC:2712:U:H1'	51:ZC:712(B):A:C8	2.38	0.58
44:RA:57:VAL:HG12	44:RA:76:LEU:HA	1.84	0.58
28:XB:22:VAL:HB	28:XB:54:GLU:HG3	1.85	0.58
31:AC:22:LYS:HB2	31:AC:26:CYS:SG	2.44	0.58
50:UC:1128:C:H42	50:UC:1143:G:H22	1.49	0.58
51:ZC:746:A:O2'	51:ZC:2611:U:O2'	2.21	0.58
51:ZC:1358:G:N1	51:ZC:1372:U:OP2	2.31	0.58
16:P:4:ILE:O	16:P:39:LEU:N	2.36	0.58
6:BB:42:SER:HB3	51:ZC:270(R):C:H4'	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:KB:92:ARG:HD2	15:KB:94:ASN:HB3	1.86	0.58
17:MB:42:ARG:HB2	51:ZC:2010:G:H5''	1.84	0.58
22:RB:40:ARG:HH21	22:RB:42:GLN:HG2	1.68	0.58
32:BC:10:MET:HA	32:BC:32:VAL:HA	1.85	0.58
38:HC:79:SER:HA	38:HC:104:GLN:HB3	1.84	0.58
51:VC:2698:U:H2'	51:VC:2699:C:C6	2.39	0.58
50:YC:501:C:H2'	50:YC:502:G:H8	1.69	0.58
50:YC:973:G:H3'	50:YC:974:A:H5''	1.84	0.58
2:B:19:ARG:HA	9:I:73:ASP:HA	1.84	0.58
42:PA:82:ILE:HD11	42:PA:88:ARG:HB2	1.85	0.58
45:SA:31:LEU:HD23	45:SA:31:LEU:H	1.69	0.58
2:XA:19:ARG:HA	9:EB:73:ASP:HA	1.84	0.58
11:GB:30:GLY:HA2	11:GB:107:ALA:HB2	1.85	0.58
15:KB:50:ARG:NH2	51:ZC:993:G:OP1	2.37	0.58
29:YB:187:LEU:HD22	29:YB:205:ASP:HB3	1.84	0.58
45:OC:31:LEU:H	45:OC:31:LEU:HD23	1.68	0.58
50:UC:376:G:N2	50:UC:387:U:O2	2.34	0.58
51:VC:1047:G:H1'	51:VC:1110:G:H1	1.69	0.58
1:A:179:SER:OG	51:VC:1799:G:N7	2.31	0.58
9:I:68:GLU:H	9:I:68:GLU:CD	2.11	0.58
10:J:61:ARG:HH11	28:BA:13:ARG:HD2	1.69	0.58
28:BA:53:PRO:O	28:BA:57:ARG:NH1	2.37	0.58
43:QA:20:VAL:HG23	43:QA:35:LYS:HA	1.84	0.58
50:YC:259:G:H1	50:YC:267:C:H42	1.51	0.58
1:A:63:ARG:NH2	51:VC:1567:A:O2'	2.37	0.58
11:K:30:GLY:HA2	11:K:107:ALA:HB2	1.85	0.58
20:T:19:ARG:NH2	52:WC:76:G:O3'	2.37	0.58
30:DA:14:ILE:HG12	30:DA:15:THR:H	1.68	0.58
39:MA:88:ARG:HA	39:MA:96:ARG:HA	1.85	0.58
25:UB:36:CYS:SG	25:UB:37:LYS:N	2.77	0.58
37:GC:53:PRO:HA	41:KC:42:ILE:HD11	1.86	0.58
42:LC:82:ILE:HD11	42:LC:88:ARG:HB2	1.86	0.58
51:VC:676:A:H8	51:VC:2069:G:H21	1.51	0.58
1:A:242:ARG:HG2	1:A:246:PRO:HG3	1.86	0.57
16:P:58:VAL:HG21	16:P:100:ARG:HE	1.69	0.57
8:DB:70:ALA:HB2	8:DB:135:LEU:HD12	1.85	0.57
16:LB:58:VAL:HG21	16:LB:100:ARG:HE	1.68	0.57
51:ZC:1047:G:H1'	51:ZC:1110:G:H1	1.69	0.57
52:AD:44:G:N3	52:AD:47:C:N4	2.45	0.57
17:Q:42:ARG:HB2	51:VC:2010:G:H5''	1.85	0.57
1:WA:206:LEU:HD12	51:ZC:1791:A:H5''	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:XB:53:PRO:O	28:XB:57:ARG:NH1	2.36	0.57
33:CC:37:VAL:HA	33:CC:65:VAL:HG12	1.85	0.57
51:VC:527:C:N4	51:VC:2779:U:OP2	2.37	0.57
51:VC:746:A:O2'	51:VC:2611:U:O2'	2.22	0.57
51:ZC:1662:C:O2'	51:ZC:2687:U:OP1	2.21	0.57
7:CB:104:VAL:HG13	7:CB:127:ILE:HB	1.85	0.57
15:KB:52:ARG:HH22	51:ZC:560:C:H4'	1.70	0.57
50:UC:950:U:H2'	50:UC:951:G:H8	1.68	0.57
51:VC:380:U:H2'	51:VC:381:G:H8	1.68	0.57
51:ZC:885:C:H1'	51:ZC:892:G:H22	1.69	0.57
5:AB:54:ARG:NH2	5:AB:57:ASP:OD2	2.37	0.57
10:FB:64:LYS:O	10:FB:66:GLY:N	2.37	0.57
51:VC:885:C:H1'	51:VC:892:G:H22	1.69	0.57
50:YC:376:G:N2	50:YC:387:U:O2	2.34	0.57
51:ZC:1019:U:H3	51:ZC:114(B):A:H62	1.52	0.57
51:ZC:1899:G:N2	51:ZC:1902:C:H41	2.03	0.57
1:A:222:ARG:NH2	51:VC:1788:C:OP1	2.37	0.57
1:WA:260:ARG:NH1	1:WA:267:SER:OG	2.35	0.57
11:GB:75:THR:HA	11:GB:88:GLY:HA3	1.87	0.57
30:ZB:47:LEU:HD21	30:ZB:68:VAL:HG11	1.87	0.57
50:UC:537:G:H2'	50:UC:538:G:H8	1.70	0.57
5:E:137:ASP:HB3	5:E:140:LYS:HB3	1.86	0.57
18:R:35:THR:HG21	51:VC:142:G:H4'	1.84	0.57
30:DA:59:ARG:HG2	30:DA:64:VAL:HG22	1.86	0.57
3:YA:57:VAL:HG13	3:YA:59:TYR:H	1.68	0.57
16:LB:4:ILE:O	16:LB:39:LEU:N	2.37	0.57
30:ZB:150:LYS:HB3	30:ZB:201:TYR:HB2	1.85	0.57
50:UC:103(C):G:H2'	50:UC:1033:G:C8	2.40	0.57
51:VC:1310:G:H1	51:VC:1604:C:H42	1.51	0.57
51:ZC:573:G:N1	51:ZC:2031:A:OP2	2.31	0.57
51:ZC:1010:A:H1'	51:ZC:1153:C:H1'	1.87	0.57
51:ZC:2811:G:H1	51:ZC:2889:C:H42	1.51	0.57
15:O:90:VAL:HG23	16:P:39:LEU:HG	1.85	0.57
28:BA:22:VAL:HB	28:BA:54:GLU:HG3	1.85	0.57
39:MA:84:ILE:HD11	39:MA:97:TYR:HB3	1.86	0.57
2:XA:91:VAL:HB	2:XA:95:ILE:HD11	1.85	0.57
8:DB:40:ASP:OD1	8:DB:41:ALA:N	2.36	0.57
9:EB:34:THR:OG1	9:EB:35:VAL:N	2.38	0.57
11:GB:75:THR:HG21	11:GB:85:LYS:HE3	1.87	0.57
31:AC:73:ARG:O	31:AC:77:ASN:ND2	2.37	0.57
42:LC:8:LYS:NZ	50:YC:659:U:OP2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:859:G:O2'	51:VC:916:G:O6	2.21	0.57
50:YC:154:C:H42	50:YC:167:G:H1	1.53	0.57
15:O:92:ARG:HD2	15:O:94:ASN:HB3	1.85	0.57
21:U:39:ARG:NH1	21:U:56:ASP:OD2	2.38	0.57
1:WA:63:ARG:NH2	51:ZC:1567:A:O2'	2.37	0.57
22:RB:25:LYS:NZ	51:ZC:387:U:OP2	2.38	0.57
50:UC:1393:U:O2'	50:UC:1501:C:O2'	2.18	0.57
50:UC:1510:U:H2'	50:UC:1511:G:C8	2.40	0.57
5:E:4:ILE:HD12	51:VC:2748:A:H5'	1.86	0.57
3:YA:117:ARG:NH2	3:YA:189:THR:O	2.37	0.57
5:AB:137:ASP:HB3	5:AB:140:LYS:HB3	1.86	0.57
15:KB:76:TYR:HE2	51:ZC:1153:C:H5'	1.70	0.57
51:VC:964:C:O2'	51:VC:2273:A:N3	2.35	0.57
51:ZC:2698:U:H2'	51:ZC:2699:C:C6	2.39	0.57
4:D:150:ASP:OD1	4:D:150:ASP:N	2.35	0.57
5:E:54:ARG:NH2	5:E:57:ASP:OD2	2.38	0.57
30:DA:47:LEU:HD21	30:DA:68:VAL:HG11	1.87	0.57
35:IA:83:ILE:HG13	35:IA:137:VAL:HG22	1.86	0.57
3:YA:128:ALA:O	3:YA:142:TRP:NE1	2.37	0.57
9:EB:68:GLU:CD	9:EB:68:GLU:H	2.13	0.57
3:C:128:ALA:O	3:C:142:TRP:NE1	2.38	0.56
1:WA:148:GLU:HB2	1:WA:151:LYS:HD2	1.86	0.56
12:HB:28:LEU:HD12	12:HB:48:VAL:HG21	1.86	0.56
30:ZB:6:HIS:HD2	30:ZB:7:PRO:CD	2.08	0.56
51:ZC:1752:C:H42	51:ZC:1756:G:H1	1.53	0.56
34:HA:69:VAL:HG22	34:HA:135:VAL:HG22	1.87	0.56
8:DB:63:PRO:HB3	15:KB:68:ALA:HB2	1.86	0.56
14:JB:92:GLY:HA2	14:JB:117:ASP:H	1.69	0.56
19:OB:76:CYS:HB3	19:OB:96:ILE:HD13	1.87	0.56
34:DC:69:VAL:HG22	34:DC:135:VAL:HG22	1.87	0.56
51:ZC:2889:C:H2'	51:ZC:2891:G:O4'	2.05	0.56
2:B:91:VAL:HB	2:B:95:ILE:HD11	1.86	0.56
4:D:96:ARG:HG3	4:D:98:ARG:HG2	1.88	0.56
10:J:64:LYS:O	10:J:66:GLY:N	2.38	0.56
10:J:80:TYR:HA	10:J:111:ARG:HB2	1.88	0.56
22:V:45:ASN:OD1	51:VC:2090:G:N2	2.35	0.56
30:DA:8:ILE:HG23	30:DA:16:ARG:HG2	1.87	0.56
42:PA:8:LYS:NZ	50:UC:659:U:OP2	2.38	0.56
30:ZB:59:ARG:HG2	30:ZB:64:VAL:HG22	1.87	0.56
39:IC:84:ILE:HD11	39:IC:97:TYR:HB3	1.86	0.56
51:VC:273(G):C:H3'	51:VC:274:G:H5''	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:1010:A:H1'	51:VC:1153:C:H1'	1.87	0.56
51:VC:1019:U:H3	51:VC:114(B):A:H62	1.52	0.56
50:YC:60:A:N6	50:YC:110:C:N3	2.53	0.56
50:YC:537:G:H2'	50:YC:538:G:H8	1.69	0.56
50:YC:1144:G:H21	50:YC:1146:A:H62	1.53	0.56
51:ZC:859:G:O2'	51:ZC:916:G:O6	2.21	0.56
51:ZC:1153:C:H2'	51:ZC:1154:G:O4'	2.06	0.56
51:ZC:2394:C:N3	53:BD:76:A:O2'	2.29	0.56
51:ZC:2681:C:H5	51:ZC:2725:A:H62	1.52	0.56
10:J:16:ARG:O	51:VC:661:C:O2'	2.19	0.56
22:V:25:LYS:NZ	51:VC:387:U:OP2	2.38	0.56
38:LA:82:VAL:HG12	38:LA:108:ILE:HA	1.88	0.56
43:QA:4:ILE:HG12	43:QA:21:VAL:HG12	1.87	0.56
1:WA:222:ARG:NH2	51:ZC:1788:C:OP1	2.39	0.56
7:CB:4:VAL:HA	7:CB:60:TYR:HA	1.87	0.56
17:MB:86:LEU:HD12	17:MB:87:PRO:HD2	1.87	0.56
21:QB:51:VAL:HG21	21:QB:80:HIS:HA	1.88	0.56
35:EC:83:ILE:HG13	35:EC:137:VAL:HG22	1.86	0.56
43:MC:4:ILE:HG12	43:MC:21:VAL:HG12	1.86	0.56
53:XC:35:A:H61	54:GD:13:A:H61	1.52	0.56
1:A:88:ARG:NH2	51:VC:1817:G:OP1	2.39	0.56
19:S:4:LYS:H	19:S:4:LYS:HD3	1.69	0.56
30:DA:29:TYR:OH	41:OA:54:PRO:O	2.19	0.56
38:LA:85:ARG:NH1	50:UC:707:C:OP1	2.39	0.56
30:ZB:17:ASP:HB3	30:ZB:21:ARG:HH21	1.69	0.56
50:UC:60:A:N6	50:UC:110:C:N3	2.53	0.56
51:ZC:1310:G:H1	51:ZC:1604:C:H42	1.51	0.56
1:A:260:ARG:NH1	1:A:267:SER:OG	2.35	0.56
30:DA:17:ASP:HB3	30:DA:21:ARG:HH21	1.70	0.56
38:LA:105:VAL:O	38:LA:107:SER:N	2.38	0.56
5:AB:4:ILE:HD12	51:ZC:2748:A:H5'	1.86	0.56
50:UC:154:C:H42	50:UC:167:G:H1	1.53	0.56
50:UC:269:C:H2'	50:UC:270:A:C8	2.41	0.56
51:VC:2681:C:H5	51:VC:2725:A:H62	1.53	0.56
50:YC:269:C:H2'	50:YC:270:A:C8	2.41	0.56
51:ZC:2052:G:H2'	51:ZC:2053:G:H8	1.71	0.56
7:G:4:VAL:HA	7:G:60:TYR:HA	1.87	0.56
11:K:38:GLU:HB2	11:K:127:ILE:HG23	1.88	0.56
12:L:28:LEU:HD12	12:L:48:VAL:HG21	1.87	0.56
6:BB:90:GLY:HA2	50:UC:368:U:C5'	2.32	0.56
50:UC:1086:U:H3	50:UC:1099:G:H22	1.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:UC:1359:C:H1'	50:UC:136(A):C:H41	1.70	0.56
50:YC:1510:U:H2'	50:YC:1511:G:C8	2.41	0.56
35:IA:19:VAL:HG23	35:IA:21:LYS:HG2	1.88	0.56
14:JB:62:THR:HG22	14:JB:75:ILE:HG13	1.88	0.56
31:AC:24:GLU:HA	31:AC:27:TYR:HD1	1.70	0.56
51:VC:2889:C:H2'	51:VC:2891:G:O4'	2.05	0.56
51:ZC:1218:C:O2	51:ZC:1231:G:N2	2.38	0.56
7:CB:93:ARG:H	7:CB:93:ARG:HD2	1.71	0.56
10:FB:55:ARG:HG3	10:FB:56:SER:H	1.71	0.56
11:GB:52:VAL:O	11:GB:56:ARG:HB2	2.06	0.56
30:ZB:91:LEU:HB3	30:ZB:99:VAL:HG11	1.88	0.56
36:FC:127:LYS:NZ	53:FD:33:U:OP2	2.30	0.56
51:VC:2307:G:N2	51:VC:2311:A:OP2	2.39	0.56
51:ZC:463:G:N2	51:ZC:466:A:OP2	2.29	0.56
3:C:117:ARG:NH2	3:C:189:THR:O	2.38	0.56
10:J:55:ARG:HG3	10:J:56:SER:H	1.70	0.56
11:K:52:VAL:O	11:K:56:ARG:HB2	2.06	0.56
14:N:62:THR:HG22	14:N:75:ILE:HG13	1.88	0.56
19:S:76:CYS:SG	19:S:77:PRO:HD2	2.46	0.56
41:OA:32:SER:N	50:UC:976:G:OP1	2.38	0.56
6:BB:89:TYR:HB3	50:UC:368:U:C4	2.40	0.56
9:EB:98:VAL:HG11	9:EB:114:ILE:HG22	1.88	0.56
17:MB:88:ARG:H	51:ZC:1614:A:H61	1.54	0.56
19:OB:30:VAL:HG22	19:OB:37:VAL:HG12	1.88	0.56
51:VC:1662:C:O2'	51:VC:2687:U:OP1	2.23	0.56
51:VC:2595:G:N2	51:VC:2598:A:OP2	2.28	0.56
1:A:125:ILE:HG12	1:A:137:PRO:HD3	1.88	0.55
1:A:206:LEU:HD12	51:VC:1791:A:H5''	1.87	0.55
9:I:14:THR:HG21	9:I:86:ILE:HD12	1.88	0.55
9:I:98:VAL:HG11	9:I:114:ILE:HG22	1.88	0.55
19:S:30:VAL:HG22	19:S:37:VAL:HG12	1.88	0.55
37:GC:5:ARG:HD3	37:GC:71:LEU:HD11	1.88	0.55
51:VC:839:U:H3	51:VC:939:G:H1	1.54	0.55
51:ZC:2224:G:H4'	51:ZC:2226:C:C2	2.41	0.55
11:K:75:THR:HG21	11:K:85:LYS:HE3	1.87	0.55
30:DA:147:LYS:HB2	30:DA:203:PHE:HD2	1.71	0.55
39:MA:68:TYR:HB3	39:MA:98:HIS:HD2	1.71	0.55
38:HC:105:VAL:O	38:HC:107:SER:N	2.39	0.55
51:VC:1153:C:H2'	51:VC:1154:G:O4'	2.05	0.55
10:J:49:ARG:NH1	51:VC:666:G:H4'	2.20	0.55
10:J:57:THR:HB	10:J:59:LEU:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:47:VAL:HG12	16:P:52:VAL:HB	1.88	0.55
16:P:85:LYS:NZ	51:VC:814:C:O3'	2.33	0.55
25:Y:36:CYS:SG	25:Y:37:LYS:N	2.77	0.55
46:TA:37:ARG:NH2	50:UC:1220:G:OP1	2.40	0.55
46:PC:31:ILE:HG23	46:PC:49:ILE:HG23	1.88	0.55
51:VC:271(C):G:H4'	51:VC:271(D):U:O5'	2.07	0.55
51:VC:1218:C:O2	51:VC:1231:G:N2	2.40	0.55
50:YC:1342:C:H2'	50:YC:1343:G:H8	1.71	0.55
15:O:50:ARG:NH2	51:VC:993:G:OP1	2.39	0.55
19:S:84:ARG:NH2	51:VC:300:A:OP1	2.39	0.55
22:RB:81:ARG:HD2	51:ZC:270(J):G:H4'	1.88	0.55
51:VC:2052:G:H2'	51:VC:2053:G:H8	1.71	0.55
1:A:244:ARG:HD3	51:VC:1902:C:H1'	1.89	0.55
4:D:27:ASN:HB3	4:D:30:GLU:HG3	1.88	0.55
7:G:78:ILE:HG12	7:G:131:ALA:HB2	1.88	0.55
46:TA:31:ILE:HG23	46:TA:49:ILE:HG23	1.88	0.55
31:AC:3:ARG:HE	31:AC:118:ARG:HD3	1.72	0.55
36:FC:29:ASN:ND2	36:FC:65:VAL:O	2.40	0.55
15:O:76:TYR:HE2	51:VC:1153:C:H5'	1.71	0.55
39:MA:52:ARG:HH12	39:MA:91:ASP:HB3	1.72	0.55
10:FB:57:THR:HB	10:FB:59:LEU:HB2	1.88	0.55
39:IC:27:LYS:HB2	39:IC:32:ARG:HH12	1.72	0.55
50:UC:836:G:H1	50:UC:850:U:H3	1.55	0.55
50:YC:537:G:H2'	50:YC:538:G:C8	2.41	0.55
50:YC:1266:G:N2	50:YC:1269:A:OP2	2.40	0.55
3:C:6:MET:HG2	3:C:7:TYR:HD1	1.72	0.55
9:I:104:ARG:HG2	9:I:121:VAL:HG12	1.89	0.55
14:N:92:GLY:HA2	14:N:117:ASP:H	1.72	0.55
31:EA:158:ILE:O	31:EA:162:LEU:HG	2.07	0.55
19:OB:76:CYS:SG	19:OB:77:PRO:HD2	2.47	0.55
20:PB:69:THR:HG22	20:PB:90:VAL:HG22	1.89	0.55
21:QB:39:ARG:NH1	21:QB:56:ASP:OD2	2.39	0.55
30:ZB:147:LYS:HB2	30:ZB:203:PHE:HD2	1.71	0.55
50:UC:1144:G:H21	50:UC:1146:A:H62	1.53	0.55
50:UC:1163:C:H2'	50:UC:1164:G:H8	1.72	0.55
50:YC:987:G:H2'	50:YC:988:G:H8	1.71	0.55
50:YC:1163:C:H2'	50:YC:1164:G:H8	1.72	0.55
50:YC:1342:C:H2'	50:YC:1343:G:C8	2.42	0.55
51:ZC:1411:C:H2'	51:ZC:1412:A:C8	2.42	0.55
11:K:75:THR:HA	11:K:88:GLY:HA3	1.88	0.55
21:U:51:VAL:HG21	21:U:80:HIS:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:JA:39:GLY:HA3	50:UC:1291:G:H4'	1.88	0.55
44:RA:16:GLN:HE21	50:UC:273:A:H1'	1.71	0.55
1:WA:61:LEU:O	1:WA:63:ARG:NH1	2.35	0.55
1:WA:125:ILE:HG12	1:WA:137:PRO:HD3	1.87	0.55
10:FB:49:ARG:NH1	51:ZC:666:G:H4'	2.21	0.55
10:FB:80:TYR:HA	10:FB:111:ARG:HB2	1.88	0.55
27:WB:9:ARG:NH1	51:ZC:1309:G:OP2	2.40	0.55
50:UC:576:G:H22	50:UC:759:A:H5''	1.72	0.55
50:YC:103(C):G:H2'	50:YC:1033:G:H8	1.72	0.55
22:V:81:ARG:HD2	51:VC:270(J):G:H4'	1.88	0.55
33:CC:99:ALA:HB2	45:OC:31:LEU:HD22	1.89	0.55
39:IC:68:TYR:HB3	39:IC:98:HIS:HD2	1.72	0.55
51:ZC:2307:G:N2	51:ZC:2311:A:OP2	2.39	0.55
15:O:52:ARG:HH22	51:VC:560:C:H4'	1.70	0.55
37:KA:5:ARG:HD3	37:KA:71:LEU:HD11	1.88	0.55
39:MA:44:PRO:HG2	39:MA:50:ALA:H	1.71	0.55
19:OB:84:ARG:NH2	51:ZC:300:A:OP1	2.40	0.55
38:HC:82:VAL:HG12	38:HC:108:ILE:HA	1.88	0.55
44:NC:16:GLN:HE21	50:YC:273:A:H1'	1.70	0.55
50:UC:537:G:H2'	50:UC:538:G:C8	2.42	0.55
50:YC:836:G:H1	50:YC:850:U:H3	1.55	0.55
51:ZC:1416:G:N2	51:ZC:1582:C:O2	2.40	0.55
21:U:20:ARG:NH1	51:VC:2357:U:OP1	2.40	0.54
26:Z:25:LYS:HD2	28:BA:34:TRP:CZ3	2.42	0.54
38:LA:36:ASP:OD2	38:LA:36:ASP:N	2.40	0.54
45:SA:47:THR:HB	45:SA:49:LYS:HG2	1.89	0.54
1:WA:242:ARG:HG2	1:WA:246:PRO:HG3	1.88	0.54
3:YA:6:MET:HG2	3:YA:7:TYR:HD1	1.72	0.54
10:FB:23:PRO:HD2	10:FB:33:ARG:HH21	1.72	0.54
16:LB:47:VAL:HG12	16:LB:52:VAL:HB	1.88	0.54
20:PB:53:ILE:HD11	20:PB:99:TYR:HB2	1.89	0.54
38:HC:85:ARG:NH1	50:YC:707:C:OP1	2.39	0.54
50:UC:1452:C:O2'	50:UC:1453:G:N2	2.40	0.54
51:VC:81:G:H1	51:VC:105:C:H42	1.53	0.54
50:YC:922:G:H2'	50:YC:923:A:C8	2.43	0.54
51:ZC:2646:C:OP2	51:ZC:2732:G:O2'	2.22	0.54
3:C:195:ASP:OD1	3:C:196:LEU:N	2.41	0.54
17:Q:4:LYS:HG3	17:Q:106:ILE:HG22	1.89	0.54
23:W:56:GLN:HA	23:W:59:ARG:HE	1.72	0.54
30:DA:91:LEU:HB3	30:DA:99:VAL:HG11	1.88	0.54
3:YA:195:ASP:OD1	3:YA:196:LEU:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:FB:59:LEU:HG	28:XB:13:ARG:HH12	1.71	0.54
22:RB:25:LYS:HD3	22:RB:33:LYS:HE2	1.89	0.54
23:SB:56:GLN:HA	23:SB:59:ARG:HE	1.73	0.54
50:UC:987:G:H2'	50:UC:988:G:H8	1.71	0.54
51:VC:2224:G:H4'	51:VC:2226:C:C2	2.41	0.54
4:D:44:GLY:HA3	51:VC:2311:A:C2	2.42	0.54
9:I:34:THR:OG1	9:I:35:VAL:N	2.38	0.54
44:RA:69:LYS:NZ	50:UC:255:G:OP1	2.41	0.54
3:YA:60:SER:OG	3:YA:61:GLY:N	2.39	0.54
4:ZA:27:ASN:HB3	4:ZA:30:GLU:HG3	1.89	0.54
4:ZA:96:ARG:HG3	4:ZA:98:ARG:HG2	1.88	0.54
26:VB:25:LYS:HD2	28:XB:34:TRP:CZ3	2.42	0.54
30:ZB:8:ILE:HG23	30:ZB:16:ARG:HG2	1.89	0.54
39:IC:19:LYS:HD3	39:IC:19:LYS:H	1.72	0.54
39:IC:44:PRO:HG2	39:IC:50:ALA:H	1.72	0.54
51:VC:579:G:O2'	51:VC:2019:A:OP1	2.24	0.54
51:VC:2068:U:N3	51:VC:2430:A:H2	2.03	0.54
50:YC:950:U:H2'	50:YC:951:G:C8	2.43	0.54
4:D:60:LEU:HD22	4:D:63:ILE:HD11	1.89	0.54
1:WA:88:ARG:NH2	51:ZC:1817:G:OP1	2.40	0.54
1:WA:244:ARG:HD3	51:ZC:1902:C:H1'	1.89	0.54
7:CB:130:SER:HA	51:ZC:1088:A:H62	1.72	0.54
24:TB:12:PRO:HB2	24:TB:20:LYS:HD2	1.89	0.54
31:AC:4:TYR:HE2	31:AC:66:ARG:HE	1.54	0.54
11:K:52:VAL:HA	11:K:55:VAL:HG22	1.89	0.54
50:UC:1266:G:N2	50:UC:1269:A:OP2	2.40	0.54
50:UC:1342:C:H2'	50:UC:1343:G:C8	2.42	0.54
51:ZC:1495:A:O2'	51:ZC:1579:A:H5''	2.08	0.54
51:ZC:1592:C:H2'	51:ZC:1593:G:C8	2.41	0.54
5:E:3:ARG:HG2	5:E:6:ARG:HE	1.73	0.54
6:F:71:ILE:HG13	6:F:72:LEU:HD22	1.89	0.54
20:T:69:THR:HG22	20:T:90:VAL:HG22	1.89	0.54
32:FA:47:LYS:O	32:FA:57:LYS:NZ	2.35	0.54
9:EB:104:ARG:HG2	9:EB:121:VAL:HG12	1.88	0.54
36:FC:39:GLY:HA3	50:YC:1291:G:H4'	1.89	0.54
46:PC:37:ARG:NH2	50:YC:1220:G:OP1	2.40	0.54
50:UC:1342:C:H2'	50:UC:1343:G:H8	1.71	0.54
51:VC:1405:U:H2'	51:VC:1406:U:C6	2.43	0.54
50:YC:626:U:H2'	50:YC:627:G:H8	1.73	0.54
51:ZC:398:G:H2'	51:ZC:399:G:H8	1.73	0.54
1:A:239:ARG:NH2	51:VC:1828:G:OP2	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:98:ARG:HA	7:G:136:VAL:HG23	1.90	0.54
10:J:59:LEU:HG	28:BA:13:ARG:HH12	1.73	0.54
7:CB:130:SER:HA	51:ZC:1088:A:N6	2.23	0.54
37:KA:49:VAL:HG23	41:OA:41:ARG:HB2	1.89	0.54
9:EB:14:THR:HG21	9:EB:86:ILE:HD12	1.89	0.54
30:ZB:177:THR:HB	30:ZB:180:ALA:HB2	1.90	0.54
39:IC:52:ARG:HH12	39:IC:91:ASP:HB3	1.73	0.54
51:VC:251:A:C5	51:VC:252:G:H1'	2.43	0.54
51:ZC:271(C):G:H4'	51:ZC:271(D):U:O5'	2.06	0.54
51:ZC:273(G):C:H3'	51:ZC:274:G:H5''	1.88	0.54
51:ZC:839:U:H3	51:ZC:939:G:H1	1.53	0.54
51:ZC:1779:U:H5''	51:ZC:1780:A:H5''	1.90	0.54
3:C:194:MET:HE3	3:C:199:TRP:HD1	1.73	0.54
4:D:67:LYS:O	52:WC:42:C:O2'	2.21	0.54
13:M:27:SER:HA	13:M:88:ASP:HB3	1.89	0.54
19:S:76:CYS:HB3	19:S:96:ILE:HD13	1.89	0.54
27:AA:9:ARG:NE	27:AA:47:ARG:HB2	2.23	0.54
32:FA:84:PHE:HB2	32:FA:134:ALA:HB2	1.90	0.54
37:KA:51:ARG:HG2	50:UC:1060:C:H5''	1.90	0.54
3:YA:184:TYR:O	3:YA:188:ARG:HG3	2.08	0.54
11:GB:52:VAL:HA	11:GB:55:VAL:HG22	1.89	0.54
28:XB:17:THR:OG1	28:XB:21:LYS:N	2.41	0.54
42:LC:47:LYS:H	42:LC:47:LYS:HD2	1.72	0.54
51:ZC:1600:C:H2'	51:ZC:1601:G:H8	1.73	0.54
3:C:9:ILE:HD11	3:C:20:LEU:HB3	1.90	0.54
10:J:18:ARG:O	10:J:20:GLY:N	2.41	0.54
10:J:70:GLN:HG3	51:VC:389:G:N1	2.22	0.54
17:Q:29:LEU:HD22	17:Q:69:LEU:HD11	1.90	0.54
17:Q:86:LEU:HD12	17:Q:87:PRO:HD2	1.89	0.54
39:MA:27:LYS:HB2	39:MA:32:ARG:HH12	1.72	0.54
7:CB:78:ILE:HG12	7:CB:131:ALA:HB2	1.88	0.54
37:GC:51:ARG:HG2	50:YC:1060:C:H5''	1.90	0.54
38:HC:36:ASP:OD2	38:HC:36:ASP:N	2.40	0.54
50:UC:444:C:H2'	50:UC:445:G:H8	1.73	0.54
50:UC:922:G:H2'	50:UC:923:A:C8	2.43	0.54
50:YC:93:U:H2'	50:YC:95:G:C8	2.43	0.54
50:YC:444:C:H2'	50:YC:445:G:H8	1.73	0.54
50:YC:576:G:H22	50:YC:759:A:H5''	1.73	0.54
50:YC:784:C:H4'	51:ZC:1837:C:OP1	2.08	0.54
51:ZC:595:C:H42	51:ZC:662:G:H1	1.56	0.54
51:ZC:1592:C:H2'	51:ZC:1593:G:H8	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:93:ARG:H	7:G:93:ARG:HD2	1.72	0.53
9:I:120:GLU:OE1	14:N:67:SER:OG	2.26	0.53
14:N:50:ILE:HD11	14:N:102:ILE:HG12	1.90	0.53
19:S:29:GLU:HB3	19:S:38:ILE:HB	1.90	0.53
33:GA:99:ALA:HB2	45:SA:31:LEU:HD22	1.89	0.53
14:JB:50:ILE:HD11	14:JB:102:ILE:HG12	1.90	0.53
19:OB:17:SER:OG	19:OB:18:GLY:N	2.39	0.53
47:QC:72:LEU:HD22	47:QC:73:HIS:H	1.73	0.53
50:UC:626:U:H2'	50:UC:627:G:C8	2.44	0.53
51:VC:1190:G:H2'	51:VC:1191:G:H8	1.73	0.53
50:YC:1452:C:O2'	50:YC:1453:G:N2	2.40	0.53
10:J:23:PRO:HD2	10:J:33:ARG:HH21	1.73	0.53
24:X:12:PRO:HB2	24:X:20:LYS:HD2	1.89	0.53
40:NA:33:ALA:O	40:NA:37:THR:OG1	2.21	0.53
10:FB:70:GLN:HG3	51:ZC:389:G:N1	2.22	0.53
19:OB:29:GLU:HB3	19:OB:38:ILE:HB	1.90	0.53
36:FC:113:LYS:H	36:FC:119:ALA:HA	1.73	0.53
50:YC:626:U:H2'	50:YC:627:G:C8	2.43	0.53
51:ZC:964:C:O2'	51:ZC:2273:A:N3	2.36	0.53
39:MA:19:LYS:H	39:MA:19:LYS:HD3	1.73	0.53
27:WB:10:ARG:NH1	51:ZC:125:G:O6	2.41	0.53
35:EC:19:VAL:HG23	35:EC:21:LYS:HG2	1.89	0.53
45:OC:47:THR:HB	45:OC:49:LYS:HG2	1.90	0.53
51:VC:398:G:H2'	51:VC:399:G:H8	1.73	0.53
7:G:93:ARG:HG2	7:G:94:GLU:HG3	1.90	0.53
15:O:25:TRP:CZ3	51:VC:17:G:H4'	2.43	0.53
20:T:95:PRO:HB2	20:T:127:LYS:HE2	1.91	0.53
34:HA:77:SER:HB3	34:HA:84:ASN:HD21	1.74	0.53
36:JA:29:ASN:ND2	36:JA:65:VAL:O	2.40	0.53
1:WA:227:ASN:HB3	1:WA:228:PRO:HD2	1.90	0.53
3:YA:101:LEU:O	3:YA:106:ARG:NH1	2.40	0.53
3:YA:194:MET:HE3	3:YA:199:TRP:HD1	1.73	0.53
39:IC:52:ARG:NH2	50:YC:522:C:H41	2.06	0.53
51:VC:861:A:N3	52:WC:79:C:O2'	2.41	0.53
51:ZC:1608:A:H1'	51:ZC:1610:A:OP2	2.09	0.53
16:P:4:ILE:HB	16:P:39:LEU:HB2	1.90	0.53
31:EA:74:GLN:O	31:EA:78:LEU:HG	2.09	0.53
7:CB:9:LYS:HB3	51:ZC:1061:U:C4	2.44	0.53
29:YB:196:LEU:HD12	29:YB:197:VAL:HG23	1.91	0.53
39:IC:6:ILE:HA	39:IC:9:LEU:HD12	1.91	0.53
46:PC:6:LYS:HG2	46:PC:7:LYS:HD3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:UC:950:U:H2'	50:UC:951:G:C8	2.43	0.53
51:VC:1592:C:H2'	51:VC:1593:G:C8	2.43	0.53
50:YC:1086:U:H3	50:YC:1099:G:H22	1.55	0.53
51:ZC:251:A:C5	51:ZC:252:G:H1'	2.44	0.53
51:ZC:503:A:H4'	51:ZC:504:U:H5''	1.91	0.53
51:ZC:1405:U:H2'	51:ZC:1406:U:C6	2.43	0.53
51:ZC:2183:C:H2'	51:ZC:2184:G:H8	1.74	0.53
15:O:76:TYR:CZ	15:O:80:ILE:HG12	2.44	0.53
20:T:53:ILE:HD11	20:T:99:TYR:HB2	1.89	0.53
27:AA:10:ARG:NH1	51:VC:125:G:O6	2.41	0.53
30:DA:177:THR:HB	30:DA:180:ALA:HB2	1.91	0.53
40:NA:49:THR:HG22	40:NA:51:ALA:H	1.74	0.53
47:UA:72:LEU:HD22	47:UA:73:HIS:H	1.73	0.53
14:JB:64:ARG:HG3	14:JB:73:GLU:HG2	1.91	0.53
31:AC:105:VAL:HG13	31:AC:110:PHE:HB2	1.89	0.53
32:BC:84:PHE:HB2	32:BC:134:ALA:HB2	1.90	0.53
51:VC:224:G:OP2	51:VC:408:G:N2	2.42	0.53
51:VC:2093:G:H2'	51:VC:2094:G:H8	1.73	0.53
10:J:88:LEU:HD13	10:J:100:LEU:HD11	1.91	0.53
14:N:64:ARG:HG3	14:N:73:GLU:HG2	1.91	0.53
42:PA:47:LYS:H	42:PA:47:LYS:HD2	1.73	0.53
7:CB:98:ARG:HA	7:CB:136:VAL:HG23	1.90	0.53
20:PB:24:LEU:HD12	20:PB:25:PRO:HD2	1.91	0.53
51:VC:2818:G:H1	51:VC:2828:C:H42	1.55	0.53
50:YC:89:U:H2'	50:YC:90:C:C6	2.44	0.53
50:YC:359:U:H2'	50:YC:360:A:C8	2.43	0.53
3:C:101:LEU:O	3:C:106:ARG:NH1	2.41	0.53
8:H:40:ASP:OD1	8:H:41:ALA:N	2.37	0.53
31:EA:79:PHE:HZ	31:EA:204:ILE:HA	1.74	0.53
7:CB:93:ARG:HG2	7:CB:94:GLU:HG3	1.90	0.53
50:UC:603:U:H2'	50:UC:604:G:C8	2.44	0.53
51:VC:1411:C:H2'	51:VC:1412:A:C8	2.44	0.53
32:FA:11:ILE:HG21	32:FA:105:VAL:HG13	1.91	0.53
15:KB:25:TRP:CZ3	51:ZC:17:G:H4'	2.43	0.53
17:MB:4:LYS:HG3	17:MB:106:ILE:HG22	1.91	0.53
43:MC:72:ARG:HB2	50:YC:453:A:H4'	1.91	0.53
50:UC:89:U:H2'	50:UC:90:C:C6	2.44	0.53
50:UC:359:U:H2'	50:UC:360:A:C8	2.43	0.53
50:UC:491:G:H2'	50:UC:492:G:H8	1.74	0.53
50:UC:501:C:H2'	50:UC:502:G:C8	2.44	0.53
51:VC:503:A:H4'	51:VC:504:U:H5''	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:1416:G:N2	51:VC:1582:C:O2	2.42	0.53
3:C:60:SER:OG	3:C:61:GLY:N	2.42	0.53
36:JA:113:LYS:H	36:JA:119:ALA:HA	1.73	0.53
4:ZA:150:ASP:OD1	4:ZA:150:ASP:N	2.35	0.53
10:FB:18:ARG:O	10:FB:20:GLY:N	2.42	0.53
10:FB:21:ARG:NH2	51:ZC:1192:G:OP2	2.42	0.53
11:GB:38:GLU:HB2	11:GB:127:ILE:HG23	1.90	0.53
31:AC:15:GLU:HG2	31:AC:63:LYS:HG3	1.90	0.53
32:BC:11:ILE:HG21	32:BC:105:VAL:HG13	1.92	0.53
36:FC:28:VAL:HG22	36:FC:63:ILE:HB	1.91	0.53
38:HC:55:LYS:NZ	50:YC:691:G:O6	2.42	0.53
40:JC:108:ARG:HH22	50:YC:1228:C:P	2.31	0.53
50:UC:1292:U:H2'	50:UC:1293:G:C8	2.44	0.53
50:YC:629:G:H2'	50:YC:630:G:C8	2.44	0.53
51:ZC:1516:U:H2'	51:ZC:1517:G:H8	1.74	0.53
15:O:80:ILE:HG22	51:VC:1152:C:H5''	1.91	0.52
39:MA:52:ARG:NH2	50:UC:522:C:H41	2.07	0.52
5:AB:91:GLY:HA3	5:AB:94:TYR:CD2	2.44	0.52
13:IB:27:SER:HA	13:IB:88:ASP:HB3	1.91	0.52
50:UC:444:C:H2'	50:UC:445:G:C8	2.44	0.52
51:ZC:270(T):G:H2'	51:ZC:270(U):G:H8	1.74	0.52
51:ZC:2818:G:H1	51:ZC:2828:C:H42	1.55	0.52
10:J:21:ARG:NH2	51:VC:1192:G:OP2	2.42	0.52
22:V:25:LYS:HD3	22:V:33:LYS:HE2	1.90	0.52
30:DA:191:THR:OG1	30:DA:194:GLY:O	2.27	0.52
31:EA:129:ASN:HA	31:EA:145:GLU:HB2	1.91	0.52
43:QA:72:ARG:HB2	50:UC:453:A:H4'	1.90	0.52
6:BB:71:ILE:HG13	6:BB:72:LEU:HD22	1.90	0.52
10:FB:15:ARG:HH12	10:FB:17:LYS:HD2	1.74	0.52
30:ZB:58:GLU:HB2	30:ZB:65:ALA:HB3	1.92	0.52
41:KC:41:ARG:NH1	50:YC:974:A:OP2	2.33	0.52
51:VC:27:G:H22	51:VC:512:G:H1'	1.73	0.52
51:VC:1899:G:H22	51:VC:1902:C:H41	1.57	0.52
50:YC:447:G:H1	50:YC:485:G:HO2'	1.57	0.52
51:ZC:398:G:H2'	51:ZC:399:G:C8	2.44	0.52
19:S:17:SER:OG	19:S:18:GLY:N	2.40	0.52
29:CA:208:ILE:HA	29:CA:211:ILE:HD12	1.91	0.52
36:JA:28:VAL:HG22	36:JA:63:ILE:HB	1.90	0.52
47:UA:45:GLN:HB2	47:UA:91:LEU:HD13	1.91	0.52
4:ZA:60:LEU:HD22	4:ZA:63:ILE:HD11	1.91	0.52
32:BC:101:ILE:HD11	32:BC:119:LEU:HG	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DC:77:SER:HB3	34:DC:84:ASN:HD21	1.73	0.52
51:VC:2183:C:H2'	51:VC:2184:G:H8	1.74	0.52
50:YC:748:C:H4'	50:YC:749:C:O5'	2.09	0.52
51:ZC:81:G:H1	51:ZC:105:C:H42	1.56	0.52
10:J:41:ARG:HH12	10:J:45:LEU:HD22	1.75	0.52
11:K:134:ARG:NH1	11:K:138:ASP:OD1	2.40	0.52
1:WA:8:PRO:HB3	1:WA:14:ARG:HB3	1.92	0.52
1:WA:239:ARG:NH2	51:ZC:1828:G:OP2	2.40	0.52
2:XA:1:MET:O	2:XA:84:PHE:HB2	2.09	0.52
51:VC:324:A:N6	51:VC:338:G:O2'	2.43	0.52
51:VC:398:G:H2'	51:VC:399:G:C8	2.44	0.52
51:ZC:106:C:O2'	51:ZC:294:A:O2'	2.28	0.52
51:ZC:2079:U:O2	51:ZC:2242:G:N2	2.43	0.52
5:E:91:GLY:HA3	5:E:94:TYR:CD2	2.45	0.52
13:M:106:ARG:NH2	51:VC:2376:A:N3	2.54	0.52
17:Q:88:ARG:H	51:VC:1614:A:H61	1.56	0.52
31:EA:30:LYS:C	31:EA:32:ALA:H	2.17	0.52
46:TA:6:LYS:HG2	46:TA:7:LYS:HD3	1.91	0.52
2:XA:78:LEU:O	2:XA:79:ARG:HD2	2.10	0.52
29:YB:162:ILE:HD11	29:YB:184:VAL:HG22	1.91	0.52
50:UC:1391:U:H2'	50:UC:1392:G:C8	2.44	0.52
5:E:154:PRO:HB3	5:E:163:TYR:CZ	2.44	0.52
12:L:56:LYS:HA	12:L:84:ALA:HB1	1.91	0.52
13:M:15:ARG:O	13:M:19:LYS:HG2	2.09	0.52
27:AA:9:ARG:NH1	51:VC:1309:G:OP2	2.42	0.52
29:CA:196:LEU:HD12	29:CA:197:VAL:HG23	1.91	0.52
38:LA:55:LYS:NZ	50:UC:691:G:O6	2.42	0.52
1:WA:43:ARG:HB2	1:WA:48:ARG:O	2.09	0.52
3:YA:9:ILE:HD11	3:YA:20:LEU:HB3	1.90	0.52
5:AB:154:PRO:HB3	5:AB:163:TYR:CZ	2.45	0.52
9:EB:88:ASN:OD1	9:EB:89:ASN:N	2.43	0.52
14:JB:41:ARG:NE	50:YC:345:C:H5'	2.24	0.52
32:BC:43:LEU:HD11	32:BC:132:ALA:HB1	1.92	0.52
50:UC:103(C):G:H2'	50:UC:1033:G:H8	1.74	0.52
51:VC:595:C:H42	51:VC:662:G:H1	1.57	0.52
51:VC:1495:A:O2'	51:VC:1579:A:H5''	2.10	0.52
51:VC:1600:C:H2'	51:VC:1601:G:H8	1.74	0.52
51:VC:1825:A:H2'	51:VC:1826:G:C8	2.45	0.52
51:ZC:579:G:O2'	51:ZC:2019:A:OP1	2.28	0.52
51:ZC:1825:A:H2'	51:ZC:1826:G:C8	2.44	0.52
1:A:43:ARG:HB2	1:A:48:ARG:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CA:162:ILE:HD11	29:CA:184:VAL:HG22	1.91	0.52
32:FA:101:ILE:HD11	32:FA:119:LEU:HG	1.92	0.52
44:RA:53:LEU:HD11	44:RA:85:VAL:HG11	1.92	0.52
36:FC:128:ARG:NH1	53:FD:32:C:OP2	2.43	0.52
37:GC:49:VAL:HG23	41:KC:41:ARG:HB2	1.92	0.52
41:KC:9:LYS:NZ	50:YC:1217:C:OP1	2.42	0.52
51:VC:2189:U:H2'	51:VC:2190:G:C8	2.45	0.52
50:YC:444:C:H2'	50:YC:445:G:C8	2.45	0.52
50:YC:1292:U:H2'	50:YC:1293:G:C8	2.44	0.52
51:ZC:247:G:H4'	51:ZC:386:G:C5	2.45	0.52
51:ZC:2071:A:H2'	51:ZC:2072:G:C8	2.42	0.52
1:A:227:ASN:HB3	1:A:228:PRO:HD2	1.91	0.52
20:T:31:ARG:HG3	20:T:32:HIS:ND1	2.24	0.52
31:EA:91:SER:HB3	31:EA:191:ARG:HD3	1.92	0.52
39:MA:6:ILE:HA	39:MA:9:LEU:HD12	1.90	0.52
4:ZA:44:GLY:HA3	51:ZC:2311:A:C2	2.42	0.52
9:EB:49:ARG:NH2	50:YC:1423:G:OP1	2.42	0.52
12:HB:104:ARG:NH1	12:HB:107:ASP:OD1	2.43	0.52
29:YB:55:PHE:HD1	29:YB:221:LEU:HG	1.74	0.52
44:NC:69:LYS:NZ	50:YC:255:G:OP1	2.39	0.52
50:UC:93:U:H2'	50:UC:95:G:C8	2.44	0.52
50:UC:626:U:H2'	50:UC:627:G:H8	1.74	0.52
51:ZC:1288:U:H1'	51:ZC:1647:G:N2	2.25	0.52
51:ZC:2857:G:N2	51:ZC:2860:A:OP2	2.40	0.52
2:B:1:MET:O	2:B:84:PHE:HB2	2.09	0.52
28:BA:17:THR:OG1	28:BA:21:LYS:N	2.43	0.52
32:FA:43:LEU:HD11	32:FA:132:ALA:HB1	1.92	0.52
10:FB:88:LEU:HD13	10:FB:100:LEU:HD11	1.92	0.52
12:HB:56:LYS:HA	12:HB:84:ALA:HB1	1.91	0.52
21:QB:20:ARG:NH1	51:ZC:2357:U:OP1	2.43	0.52
30:ZB:191:THR:OG1	30:ZB:194:GLY:O	2.27	0.52
43:MC:6:LEU:HD21	43:MC:73:LEU:HD11	1.92	0.52
50:UC:201:C:N3	50:UC:216:G:N2	2.58	0.52
50:UC:953:G:H5'	50:UC:965:A:H61	1.75	0.52
50:UC:1029:G:N1	50:UC:103(B):G:O6	2.43	0.52
51:VC:1779:U:H5''	51:VC:1780:A:H5''	1.92	0.52
50:YC:491:G:H2'	50:YC:492:G:H8	1.74	0.52
50:YC:603:U:H2'	50:YC:604:G:C8	2.44	0.52
51:ZC:27:G:H22	51:ZC:512:G:H1'	1.74	0.52
51:ZC:2364:C:H2'	51:ZC:2365:G:O4'	2.10	0.52
12:L:5:LYS:NZ	51:VC:2821:A:OP2	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:81:LYS:HD3	19:S:97:ARG:HB3	1.92	0.52
31:EA:121:VAL:HG22	31:EA:126:ILE:HG13	1.91	0.52
27:WB:9:ARG:NE	27:WB:47:ARG:HB2	2.24	0.52
50:UC:424:G:H2'	50:UC:425:G:H8	1.75	0.52
50:UC:629:G:H2'	50:UC:630:G:C8	2.44	0.52
50:YC:1504:G:H4'	50:YC:1505:G:O5'	2.10	0.52
51:ZC:1437:C:H2'	51:ZC:1438:U:C6	2.45	0.52
51:ZC:1590:U:H2'	51:ZC:1591:G:C8	2.45	0.52
51:ZC:1607:C:N4	51:ZC:1622:G:OP2	2.42	0.52
51:ZC:2189:U:H2'	51:ZC:2190:G:C8	2.45	0.52
53:BD:50:U:H3	53:BD:64:G:H1	1.58	0.52
7:G:54:PRO:HD3	7:G:72:PRO:HA	1.92	0.51
10:J:15:ARG:HH12	10:J:17:LYS:HD2	1.75	0.51
18:R:53:LYS:HB3	18:R:82:GLN:HB3	1.93	0.51
31:EA:61:LYS:NZ	50:UC:545:C:OP1	2.36	0.51
40:NA:108:ARG:HH22	50:UC:1228:C:P	2.33	0.51
14:JB:36:GLU:HG2	14:JB:39:ARG:HH21	1.75	0.51
31:AC:102:ASP:OD1	31:AC:103:ASN:N	2.44	0.51
33:CC:45:LEU:HD11	33:CC:57:GLN:HB3	1.92	0.51
51:VC:203:C:H3'	51:VC:204:A:H5''	1.92	0.51
51:VC:2071:A:H2'	51:VC:2072:G:C8	2.43	0.51
50:YC:1172:C:H2'	50:YC:1173:G:H8	1.75	0.51
51:ZC:1600:C:H2'	51:ZC:1601:G:C8	2.45	0.51
53:BD:71:C:H2'	53:BD:72:A:C8	2.45	0.51
2:B:78:LEU:O	2:B:79:ARG:HD2	2.10	0.51
3:C:74:ARG:HD3	51:VC:674:G:H1'	1.93	0.51
7:G:75:SER:HB3	51:VC:1063:G:H5''	1.92	0.51
47:QC:45:GLN:HB2	47:QC:91:LEU:HD13	1.90	0.51
50:UC:629:G:H2'	50:UC:630:G:H8	1.74	0.51
50:YC:201:C:N3	50:YC:216:G:N2	2.57	0.51
50:YC:501:C:H2'	50:YC:502:G:C8	2.45	0.51
51:ZC:861:A:N3	52:AD:79:C:O2'	2.42	0.51
51:ZC:2068:U:N3	51:ZC:2430:A:H2	2.04	0.51
10:J:39:LYS:HG3	51:VC:806:C:OP2	2.10	0.51
41:OA:32:SER:H	50:UC:976:G:P	2.33	0.51
29:YB:10:LEU:HA	29:YB:13:ALA:HB3	1.92	0.51
40:JC:3:ARG:HH21	40:JC:7:VAL:HA	1.75	0.51
45:OC:74:ARG:NH2	45:OC:81:PHE:O	2.44	0.51
50:UC:1029:G:N2	50:UC:103(A):A:OP2	2.43	0.51
51:VC:270(T):G:H2'	51:VC:270(U):G:H8	1.75	0.51
51:VC:1288:U:H1'	51:VC:1647:G:N2	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:2137:C:H42	51:VC:2154:G:H1	1.58	0.51
29:CA:55:PHE:HD1	29:CA:221:LEU:HG	1.75	0.51
1:WA:146:GLU:HB2	1:WA:189:CYS:HB3	1.91	0.51
10:FB:41:ARG:HH12	10:FB:45:LEU:HD22	1.76	0.51
13:IB:15:ARG:O	13:IB:19:LYS:HG2	2.10	0.51
13:IB:106:ARG:NH2	51:ZC:2376:A:N3	2.53	0.51
16:LB:4:ILE:HB	16:LB:39:LEU:HB2	1.91	0.51
20:PB:95:PRO:HB2	20:PB:127:LYS:HE2	1.91	0.51
25:UB:7:PRO:HA	51:ZC:2615:U:C2	2.45	0.51
50:UC:1172:C:H2'	50:UC:1173:G:H8	1.75	0.51
51:VC:1516:U:H2'	51:VC:1517:G:H8	1.74	0.51
51:VC:2646:C:OP2	51:VC:2732:G:O2'	2.21	0.51
50:YC:424:G:H2'	50:YC:425:G:H8	1.75	0.51
51:ZC:2093:G:H2'	51:ZC:2094:G:H8	1.74	0.51
14:N:36:GLU:HG2	14:N:39:ARG:HH21	1.75	0.51
10:FB:12:ALA:O	10:FB:14:LYS:N	2.39	0.51
10:FB:39:LYS:HG3	51:ZC:806:C:OP2	2.11	0.51
22:RB:45:ASN:OD1	51:ZC:2090:G:N2	2.33	0.51
40:JC:49:THR:HG22	40:JC:51:ALA:H	1.74	0.51
51:VC:597:U:H2'	51:VC:598:G:C8	2.45	0.51
51:VC:1590:U:H2'	51:VC:1591:G:C8	2.45	0.51
51:VC:1782:C:H1'	51:VC:2609:U:H5''	1.92	0.51
51:ZC:203:C:H3'	51:ZC:204:A:H5''	1.92	0.51
51:ZC:796:C:H2'	51:ZC:797:C:C6	2.46	0.51
11:K:27:VAL:HG23	20:T:81:ARG:HH22	1.76	0.51
19:S:51:VAL:HG13	19:S:52:SER:H	1.75	0.51
33:GA:45:LEU:HD11	33:GA:57:GLN:HB3	1.92	0.51
46:TA:33:THR:OG1	46:TA:34:TRP:N	2.44	0.51
10:FB:16:ARG:C	10:FB:16:ARG:HE	2.18	0.51
10:FB:18:ARG:HE	51:ZC:1246:A:P	2.33	0.51
23:SB:48:HIS:CD2	51:ZC:96:G:H4'	2.46	0.51
31:AC:2:GLY:N	50:YC:547:A:OP2	2.43	0.51
44:NC:53:LEU:HD11	44:NC:85:VAL:HG11	1.91	0.51
52:WC:15:A:H5'	52:WC:16:G:C8	2.46	0.51
17:Q:73:ALA:HB3	17:Q:106:ILE:HG12	1.92	0.51
18:R:41:ASN:ND2	51:VC:137(B):G:N3	2.58	0.51
20:T:24:LEU:HD12	20:T:25:PRO:HD2	1.93	0.51
25:Y:7:PRO:HA	51:VC:2615:U:C2	2.46	0.51
36:JA:127:LYS:NZ	53:ED:33:U:OP2	2.34	0.51
40:NA:3:ARG:HH21	40:NA:7:VAL:HA	1.76	0.51
11:GB:67:ARG:NH2	51:ZC:906:G:O2'	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:OB:51:VAL:HG13	19:OB:52:SER:H	1.75	0.51
50:UC:142:G:O2'	50:UC:196:A:N1	2.43	0.51
51:VC:2115:G:O2'	51:VC:2171:A:N6	2.44	0.51
51:VC:2364:C:H2'	51:VC:2365:G:O4'	2.10	0.51
52:WC:11:C:O2'	52:WC:12:C:O4'	2.28	0.51
50:YC:235:C:H2'	50:YC:236:G:C8	2.45	0.51
51:ZC:224:G:OP2	51:ZC:408:G:N2	2.42	0.51
51:ZC:382:G:H1	51:ZC:392:C:H42	1.59	0.51
12:L:3:HIS:H	51:VC:1654:A:P	2.33	0.51
41:OA:16:PHE:HD2	41:OA:19:ARG:HE	1.59	0.51
45:SA:50:ILE:HG12	50:UC:719:C:O2	2.11	0.51
27:WB:19:ARG:HB2	51:ZC:125:G:H5''	1.93	0.51
51:VC:733:G:O5'	51:VC:733:G:H8	1.93	0.51
51:VC:1682:G:OP2	51:VC:1699:G:N2	2.44	0.51
53:XC:43:A:H2'	53:XC:44:A:C8	2.46	0.51
53:XC:71:C:H2'	53:XC:72:A:C8	2.45	0.51
50:YC:629:G:H2'	50:YC:630:G:H8	1.74	0.51
51:ZC:324:A:N6	51:ZC:338:G:O2'	2.44	0.51
51:ZC:733:G:H8	51:ZC:733:G:O5'	1.93	0.51
51:ZC:883:G:H2'	51:ZC:884:C:C6	2.46	0.51
51:ZC:2630:G:H1'	51:ZC:2894:G:H1'	1.93	0.51
10:J:147:LEU:HD13	10:J:149:GLU:HA	1.93	0.51
3:YA:182:ASN:O	3:YA:186:ILE:HG12	2.11	0.51
11:GB:10:ARG:HD3	51:ZC:2278:A:OP1	2.11	0.51
17:MB:29:LEU:HD22	17:MB:69:LEU:HD11	1.92	0.51
46:PC:33:THR:OG1	46:PC:34:TRP:N	2.44	0.51
51:VC:106:C:O2'	51:VC:294:A:O2'	2.27	0.51
51:VC:2167:U:H2'	51:VC:2168:G:C8	2.46	0.51
53:XC:50:U:H3	53:XC:64:G:H1	1.58	0.51
51:ZC:1657:C:H2'	51:ZC:1658:C:C6	2.46	0.51
2:B:9:VAL:HG22	2:B:25:VAL:HB	1.93	0.51
3:C:184:TYR:O	3:C:188:ARG:HG3	2.10	0.51
9:I:88:ASN:OD1	9:I:89:ASN:N	2.43	0.51
30:DA:163:ALA:HB2	50:UC:1056:U:H5'	1.93	0.51
2:XA:144:ARG:HG2	51:ZC:2575:C:H5'	1.93	0.51
5:AB:3:ARG:HG2	5:AB:6:ARG:HE	1.74	0.51
8:DB:51:THR:HG21	51:ZC:1005:C:O2'	2.10	0.51
15:KB:80:ILE:HG22	51:ZC:1152:C:H5''	1.92	0.51
34:DC:22:LEU:HD21	34:DC:66:VAL:HG11	1.93	0.51
40:JC:103:THR:O	50:YC:1226:C:O2'	2.29	0.51
45:OC:50:ILE:HG12	50:YC:719:C:O2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:UC:22:G:H4'	50:UC:885:G:C8	2.46	0.51
50:UC:1504:G:H4'	50:UC:1505:G:O5'	2.11	0.51
51:VC:2634:G:H1	51:VC:2784:C:H42	1.59	0.51
51:ZC:1796:U:H2'	51:ZC:1797:C:H6	1.76	0.51
52:AD:11:C:O2'	52:AD:12:C:O4'	2.28	0.51
1:A:54:ARG:HH22	51:VC:1815:A:P	2.34	0.50
1:A:146:GLU:HB2	1:A:189:CYS:HB3	1.92	0.50
3:C:157:VAL:HB	3:C:194:MET:HB3	1.93	0.50
10:J:72:PRO:HB2	51:VC:2406:U:C2	2.46	0.50
30:DA:58:GLU:HB2	30:DA:65:ALA:HB3	1.93	0.50
11:GB:27:VAL:HG23	20:PB:81:ARG:HH22	1.76	0.50
50:UC:757:U:H2'	50:UC:758:G:O4'	2.11	0.50
51:VC:247:G:H4'	51:VC:386:G:C5	2.46	0.50
51:VC:883:G:H2'	51:VC:884:C:C6	2.46	0.50
51:ZC:2634:G:H1	51:ZC:2784:C:H42	1.59	0.50
27:AA:9:ARG:HE	27:AA:47:ARG:HB2	1.76	0.50
9:EB:87:ILE:HD12	9:EB:91:LEU:HA	1.93	0.50
17:MB:73:ALA:HB3	17:MB:106:ILE:HG12	1.93	0.50
33:CC:22:GLU:OE1	33:CC:82:ARG:NH2	2.44	0.50
35:EC:10:LEU:HD22	35:EC:83:ILE:HD11	1.93	0.50
46:PC:63:THR:HG23	46:PC:65:ASN:H	1.76	0.50
50:UC:748:C:H4'	50:UC:749:C:O5'	2.09	0.50
51:ZC:1657:C:H2'	51:ZC:1658:C:H6	1.74	0.50
52:AD:15:A:H5'	52:AD:16:G:C8	2.46	0.50
1:A:8:PRO:HB3	1:A:14:ARG:HB3	1.93	0.50
5:E:67:LEU:HD21	51:VC:2758:A:C4	2.46	0.50
11:K:67:ARG:NH2	51:VC:906:G:O2'	2.44	0.50
27:AA:19:ARG:HB2	51:VC:125:G:H5''	1.92	0.50
46:TA:63:THR:HG23	46:TA:65:ASN:H	1.76	0.50
51:ZC:597:U:H2'	51:ZC:598:G:C8	2.46	0.50
51:ZC:1869:G:N2	51:ZC:1872:A:OP2	2.43	0.50
8:H:51:THR:HG21	51:VC:1005:C:O2'	2.11	0.50
29:CA:10:LEU:HA	29:CA:13:ALA:HB3	1.93	0.50
3:YA:157:VAL:HB	3:YA:194:MET:HB3	1.92	0.50
9:EB:120:GLU:OE1	14:JB:67:SER:OG	2.25	0.50
15:KB:92:ARG:O	15:KB:94:ASN:N	2.44	0.50
21:QB:46:LYS:HG2	21:QB:47:PRO:HD2	1.93	0.50
22:RB:19:GLN:NE2	51:ZC:189:G:OP1	2.44	0.50
51:VC:1607:C:N4	51:VC:1622:G:OP2	2.41	0.50
50:YC:1145:C:H4'	50:YC:1146:A:O5'	2.11	0.50
51:ZC:1190:G:H2'	51:ZC:1191:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:63:PRO:O	15:O:64:ARG:HD2	2.11	0.50
23:W:48:HIS:CD2	51:VC:96:G:H4'	2.46	0.50
26:Z:18:ARG:HH21	26:Z:44:ARG:HH11	1.59	0.50
35:IA:114:THR:HG23	35:IA:116:LYS:H	1.76	0.50
39:MA:116:ARG:HB3	39:MA:121:THR:HB	1.93	0.50
45:SA:74:ARG:NH2	45:SA:81:PHE:O	2.44	0.50
2:XA:54:GLN:HE22	2:XA:57:LYS:HE3	1.76	0.50
7:CB:54:PRO:HD3	7:CB:72:PRO:HA	1.92	0.50
14:JB:107:ASP:HB2	50:YC:1432:G:OP1	2.11	0.50
19:OB:81:LYS:HD3	19:OB:97:ARG:HB3	1.92	0.50
33:CC:9:VAL:HB	33:CC:87:ARG:HB2	1.94	0.50
33:CC:70:ASP:N	33:CC:70:ASP:OD1	2.45	0.50
51:VC:172:C:H2'	51:VC:173:G:C8	2.47	0.50
51:VC:1203:G:N2	51:VC:1243:G:O6	2.45	0.50
50:YC:269:C:H2'	50:YC:270:A:H8	1.77	0.50
50:YC:1247:U:H2'	50:YC:1248:A:H8	1.77	0.50
51:ZC:172:C:H2'	51:ZC:173:G:C8	2.46	0.50
51:ZC:721:C:H2'	51:ZC:722:A:C8	2.46	0.50
51:ZC:1101:U:H2'	51:ZC:1102:C:C6	2.46	0.50
51:ZC:1682:G:OP2	51:ZC:1699:G:N2	2.44	0.50
51:ZC:2547:U:H2'	51:ZC:2548:G:C8	2.47	0.50
9:I:87:ILE:HD12	9:I:91:LEU:HA	1.93	0.50
33:GA:22:GLU:OE1	33:GA:82:ARG:NH2	2.44	0.50
34:HA:22:LEU:HD21	34:HA:66:VAL:HG11	1.93	0.50
43:QA:6:LEU:HD21	43:QA:73:LEU:HD11	1.92	0.50
10:FB:147:LEU:HD13	10:FB:149:GLU:HA	1.94	0.50
11:GB:20:ALA:HA	11:GB:98:LYS:HB3	1.93	0.50
12:HB:3:HIS:H	51:ZC:1654:A:P	2.34	0.50
29:YB:208:ILE:HA	29:YB:211:ILE:HD12	1.92	0.50
32:BC:76:ILE:HG22	32:BC:93:PRO:HB3	1.92	0.50
51:VC:207:A:H2'	51:VC:208:C:O4'	2.11	0.50
51:VC:358:U:H2'	51:VC:359:A:H8	1.76	0.50
51:VC:1657:C:H2'	51:VC:1658:C:H6	1.76	0.50
50:YC:953:G:H5'	50:YC:965:A:H61	1.75	0.50
51:ZC:207:A:H2'	51:ZC:208:C:O4'	2.12	0.50
10:J:16:ARG:C	10:J:16:ARG:HE	2.20	0.50
10:J:16:ARG:NH2	10:J:18:ARG:H	2.09	0.50
28:BA:61:LEU:O	28:BA:62:LEU:HB2	2.11	0.50
31:EA:53:ASP:OD1	31:EA:57:ARG:NH1	2.45	0.50
1:WA:54:ARG:HH22	51:ZC:1815:A:P	2.34	0.50
31:AC:25:ARG:NH1	31:AC:30:LYS:O	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:IC:116:ARG:HB3	39:IC:121:THR:HB	1.92	0.50
40:JC:33:ALA:O	40:JC:37:THR:OG1	2.20	0.50
50:UC:235:C:H2'	50:UC:236:G:C8	2.46	0.50
50:UC:1145:C:H4'	50:UC:1146:A:O5'	2.11	0.50
51:VC:1101:U:H2'	51:VC:1102:C:C6	2.47	0.50
51:VC:1592:C:H2'	51:VC:1593:G:H8	1.75	0.50
51:VC:1600:C:H2'	51:VC:1601:G:C8	2.46	0.50
51:VC:1681:G:H8	51:VC:1681:G:OP2	1.94	0.50
51:VC:1918:A:O2'	51:VC:1920:C:N4	2.45	0.50
51:VC:2584:U:H4'	51:VC:2602:A:H61	1.77	0.50
50:YC:417:C:N4	50:YC:426:G:H1	2.09	0.50
50:YC:757:U:H2'	50:YC:758:G:O4'	2.11	0.50
51:ZC:2115:G:O2'	51:ZC:2171:A:N6	2.44	0.50
2:B:52:LEU:HD21	14:N:1:MET:HE3	1.94	0.50
18:R:16:LYS:NZ	51:VC:1340:U:OP1	2.45	0.50
30:DA:112:SER:HB3	30:DA:115:LEU:HD12	1.94	0.50
1:WA:16:MET:HB2	1:WA:207:GLY:HA3	1.94	0.50
8:DB:95:TYR:HE2	8:DB:121:VAL:HG12	1.77	0.50
9:EB:22:ILE:H	9:EB:41:ALA:HA	1.77	0.50
12:HB:11:ASN:OD1	12:HB:12:ARG:N	2.45	0.50
17:MB:39:THR:HG22	17:MB:41:LYS:H	1.77	0.50
35:EC:114:THR:HG23	35:EC:116:LYS:H	1.76	0.50
47:QC:74:LYS:NZ	50:YC:133:U:OP1	2.44	0.50
50:UC:498:A:H4'	50:UC:500:G:OP1	2.12	0.50
50:UC:792:A:O2'	50:UC:794:A:N7	2.45	0.50
51:VC:796:C:H2'	51:VC:797:C:C6	2.46	0.50
51:VC:2183:C:H2'	51:VC:2184:G:C8	2.47	0.50
50:YC:592:G:H2'	50:YC:593:G:H8	1.77	0.50
51:ZC:521:G:H2'	51:ZC:522:G:C8	2.46	0.50
51:ZC:1667:G:O2'	51:ZC:1991:U:O4	2.26	0.50
51:ZC:1840:G:H1	51:ZC:1902:C:N4	2.08	0.50
51:ZC:2030:A:H5''	51:ZC:2031:A:C8	2.47	0.50
51:ZC:2100:G:H2'	51:ZC:2101:G:H8	1.77	0.50
51:ZC:2777:G:H5''	51:ZC:2778:A:H5'	1.94	0.50
53:BD:43:A:H2'	53:BD:44:A:C8	2.46	0.50
2:B:144:ARG:HG2	51:VC:2575:C:H5'	1.93	0.50
3:C:182:ASN:O	3:C:186:ILE:HG12	2.11	0.50
10:J:18:ARG:HE	51:VC:1246:A:P	2.34	0.50
15:O:92:ARG:O	15:O:94:ASN:N	2.45	0.50
29:CA:59:GLU:HB2	29:CA:221:LEU:HD11	1.94	0.50
30:DA:86:VAL:O	30:DA:90:GLU:HG2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:EA:57:ARG:HB3	31:EA:206:PHE:HB2	1.94	0.50
32:FA:76:ILE:HG22	32:FA:93:PRO:HB3	1.93	0.50
8:DB:63:PRO:O	15:KB:64:ARG:HD2	2.11	0.50
8:DB:77:VAL:HB	8:DB:145:VAL:HG13	1.93	0.50
38:HC:122:LYS:HG3	38:HC:123:LYS:H	1.77	0.50
51:VC:1980:G:O2'	51:VC:1982:C:OP2	2.28	0.50
51:VC:2066:C:N4	51:VC:2067:G:O6	2.45	0.50
50:YC:21:G:N2	50:YC:914:A:H62	2.09	0.50
50:YC:1238:A:N3	50:YC:1241:G:O2'	2.45	0.50
51:ZC:1538:G:H2'	51:ZC:1539:G:H8	1.76	0.50
51:ZC:2066:C:N4	51:ZC:2067:G:O6	2.45	0.50
3:C:110:LEU:HD22	3:C:206:ILE:HD11	1.94	0.49
3:C:143:ALA:HB1	3:C:148:LEU:HB2	1.93	0.49
7:G:73:PRO:HA	51:VC:1060:U:OP1	2.12	0.49
18:NB:41:ASN:ND2	51:ZC:137(B):G:N3	2.59	0.49
22:RB:27:GLU:HA	22:RB:33:LYS:HA	1.93	0.49
39:IC:115:SER:OG	50:YC:503:C:OP2	2.24	0.49
50:UC:269:C:H2'	50:UC:270:A:H8	1.76	0.49
51:VC:721:C:H2'	51:VC:722:A:C8	2.46	0.49
51:VC:1437:C:H2'	51:VC:1438:U:C6	2.47	0.49
51:VC:1538:G:H2'	51:VC:1539:G:H8	1.76	0.49
53:XC:42:G:H2'	53:XC:43:A:C8	2.47	0.49
51:ZC:2167:U:H2'	51:ZC:2168:G:C8	2.46	0.49
51:ZC:2593:U:H2'	51:ZC:2594:C:C6	2.47	0.49
10:J:29:LYS:O	10:J:33:ARG:HA	2.13	0.49
10:J:49:ARG:HH11	51:VC:666:G:H4'	1.77	0.49
14:N:3:ARG:HB2	14:N:6:LEU:HB3	1.94	0.49
14:N:109:GLU:HA	14:N:112:ARG:HD2	1.94	0.49
17:Q:39:THR:HG22	17:Q:41:LYS:H	1.77	0.49
22:V:27:GLU:HA	22:V:33:LYS:HA	1.93	0.49
30:DA:66:VAL:HB	30:DA:101:LEU:HD23	1.94	0.49
34:HA:113:GLU:HB2	34:HA:119:ARG:HG2	1.94	0.49
1:WA:182:LEU:HB2	1:WA:271:ILE:HG13	1.94	0.49
10:FB:49:ARG:HH11	51:ZC:666:G:H4'	1.77	0.49
11:GB:65:PHE:HB2	11:GB:105:GLU:HB2	1.94	0.49
14:JB:109:GLU:HA	14:JB:112:ARG:HD2	1.94	0.49
15:KB:76:TYR:CZ	15:KB:80:ILE:HG12	2.46	0.49
24:TB:10:LYS:HB2	24:TB:53:LEU:HA	1.94	0.49
26:VB:18:ARG:HH21	26:VB:44:ARG:HH11	1.59	0.49
31:AC:173:TRP:CE2	31:AC:189:PRO:HB3	2.48	0.49
34:DC:102:ARG:O	34:DC:106:GLN:HG2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:QC:50:GLU:HA	47:QC:100:ILE:HD13	1.93	0.49
47:QC:81:LYS:NZ	50:YC:185:A:N3	2.61	0.49
51:VC:2547:U:H2'	51:VC:2548:G:C8	2.47	0.49
51:ZC:2402:C:H5'	51:ZC:2403:C:OP2	2.11	0.49
7:G:77:LEU:HD23	7:G:107:ILE:HG23	1.94	0.49
21:U:46:LYS:HG2	21:U:47:PRO:HD2	1.94	0.49
38:LA:95:ILE:O	38:LA:99:GLN:HG2	2.12	0.49
38:LA:122:LYS:HG3	38:LA:123:LYS:H	1.77	0.49
10:FB:29:LYS:O	10:FB:33:ARG:HA	2.11	0.49
15:KB:4:ALA:HB2	51:ZC:1199:U:H1'	1.93	0.49
50:UC:1247:U:H2'	50:UC:1248:A:H8	1.77	0.49
51:VC:1608:A:H1'	51:VC:1610:A:OP2	2.12	0.49
51:ZC:2627:G:N2	51:ZC:2777:G:OP2	2.45	0.49
53:BD:42:G:H2'	53:BD:43:A:C8	2.47	0.49
9:I:36:GLY:HA2	9:I:106:LEU:HD23	1.93	0.49
10:J:12:ALA:O	10:J:14:LYS:N	2.38	0.49
16:P:83:ARG:NH1	51:VC:815:C:OP2	2.45	0.49
30:DA:26:LYS:HE2	50:UC:1279:A:H62	1.78	0.49
38:LA:54:ARG:NH2	53:XC:39:C:O2'	2.45	0.49
44:RA:44:ALA:HB1	44:RA:73:VAL:HG22	1.94	0.49
5:AB:67:LEU:HD21	51:ZC:2758:A:C4	2.48	0.49
9:EB:36:GLY:HA2	9:EB:106:LEU:HD23	1.93	0.49
50:UC:1292:U:H2'	50:UC:1293:G:H8	1.77	0.49
51:VC:1406:U:H2'	51:VC:1407:C:C6	2.48	0.49
51:VC:1899:G:O2'	51:VC:1900:A:H5''	2.12	0.49
50:YC:1064:G:H4'	50:YC:1065:U:O5'	2.12	0.49
51:ZC:612:G:O2'	51:ZC:616:A:N1	2.42	0.49
51:ZC:2183:C:H2'	51:ZC:2184:G:C8	2.47	0.49
1:A:61:LEU:O	1:A:63:ARG:NH1	2.35	0.49
9:I:22:ILE:H	9:I:41:ALA:HA	1.77	0.49
40:NA:67:GLU:HG3	40:NA:68:GLY:H	1.76	0.49
40:NA:103:THR:O	50:UC:1226:C:O2'	2.29	0.49
3:YA:43:LYS:HA	3:YA:98:SER:HB3	1.94	0.49
30:ZB:112:SER:HB3	30:ZB:115:LEU:HD12	1.94	0.49
40:JC:14:ARG:HD2	40:JC:42:ALA:HA	1.95	0.49
40:JC:67:GLU:HG3	40:JC:68:GLY:H	1.77	0.49
51:VC:2843:G:H1	51:VC:2874:C:N4	2.11	0.49
51:VC:2857:G:N2	51:VC:2860:A:OP2	2.39	0.49
51:ZC:358:U:H2'	51:ZC:359:A:H8	1.76	0.49
51:ZC:1326:U:HO2'	51:ZC:2010:G:HO2'	1.60	0.49
3:C:136:THR:HG21	51:VC:320:A:H2'	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:77:VAL:HB	8:H:145:VAL:HG13	1.93	0.49
40:NA:87:TYR:N	46:TA:73:GLU:O	2.45	0.49
47:UA:50:GLU:HA	47:UA:100:ILE:HD13	1.94	0.49
2:XA:9:VAL:HG22	2:XA:25:VAL:HB	1.93	0.49
6:BB:39:ALA:HB1	6:BB:44:LEU:HD21	1.94	0.49
7:CB:77:LEU:HD23	7:CB:107:ILE:HG23	1.94	0.49
9:EB:97:ARG:HH12	50:YC:338:A:P	2.36	0.49
12:HB:51:LEU:HD13	12:HB:70:LEU:HD11	1.95	0.49
14:JB:3:ARG:HB2	14:JB:6:LEU:HB3	1.93	0.49
16:LB:83:ARG:NH1	51:ZC:815:C:OP2	2.45	0.49
18:NB:53:LYS:HB3	18:NB:82:GLN:HB3	1.94	0.49
29:YB:59:GLU:HB2	29:YB:221:LEU:HD11	1.94	0.49
30:ZB:163:ALA:HB2	50:YC:1056:U:H5'	1.93	0.49
40:JC:87:TYR:N	46:PC:73:GLU:O	2.45	0.49
51:VC:2630:G:H1'	51:VC:2894:G:H1'	1.93	0.49
53:XC:67:C:H2'	53:XC:68:C:C6	2.48	0.49
50:YC:1427:U:H2'	50:YC:1428:A:C8	2.48	0.49
51:ZC:1918:A:O2'	51:ZC:1920:C:N4	2.46	0.49
6:F:39:ALA:HB1	6:F:44:LEU:HD21	1.95	0.49
11:K:10:ARG:HD3	51:VC:2278:A:OP1	2.12	0.49
14:N:29:ARG:HB3	14:N:87:ASP:HB2	1.95	0.49
18:R:71:GLY:HA3	51:VC:64:A:H4'	1.94	0.49
25:Y:8:LYS:NZ	51:VC:2056:G:O3'	2.45	0.49
6:BB:79:ILE:HB	6:BB:144:VAL:HA	1.93	0.49
10:FB:16:ARG:NH2	10:FB:18:ARG:H	2.10	0.49
14:JB:29:ARG:HB3	14:JB:87:ASP:HB2	1.93	0.49
30:ZB:86:VAL:O	30:ZB:90:GLU:HG2	2.12	0.49
32:BC:126:ARG:NH2	50:YC:559:A:OP2	2.45	0.49
44:NC:44:ALA:HB1	44:NC:73:VAL:HG22	1.94	0.49
50:UC:417:C:N4	50:UC:426:G:H1	2.09	0.49
51:VC:1113:U:H2'	51:VC:1114:G:C8	2.48	0.49
51:VC:2030:A:H5''	51:VC:2031:A:C8	2.48	0.49
50:YC:22:G:H4'	50:YC:885:G:C8	2.47	0.49
50:YC:1178:G:N2	50:YC:1181:G:OP2	2.46	0.49
51:ZC:2137:C:H42	51:ZC:2154:G:H1	1.59	0.49
51:ZC:2584:U:H4'	51:ZC:2602:A:H61	1.77	0.49
1:A:12:SER:HB2	1:A:208:LYS:HB3	1.95	0.49
3:C:43:LYS:HA	3:C:98:SER:HB3	1.95	0.49
4:D:142:PRO:HB2	49:SC:57:ILE:HD12	1.95	0.49
20:T:61:LEU:HD12	20:T:65:GLN:HB2	1.94	0.49
21:U:27:GLU:OE2	51:VC:855:G:O2'	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:NA:14:ARG:HD2	40:NA:42:ALA:HA	1.95	0.49
47:UA:81:LYS:NZ	50:UC:185:A:N3	2.61	0.49
4:ZA:142:PRO:HB2	49:TC:57:ILE:HD12	1.94	0.49
38:HC:95:ILE:O	38:HC:99:GLN:HG2	2.12	0.49
50:UC:592:G:H2'	50:UC:593:G:H8	1.77	0.49
51:VC:27:G:H1'	51:VC:513:A:N6	2.28	0.49
51:VC:270(G):U:H2'	51:VC:270(H):C:C6	2.48	0.49
51:VC:1035:U:H2'	51:VC:1036:G:C8	2.48	0.49
51:VC:1190:G:H2'	51:VC:1191:G:C8	2.47	0.49
51:VC:1657:C:H2'	51:VC:1658:C:C6	2.47	0.49
51:VC:1889:A:H2'	51:VC:1890:A:C8	2.48	0.49
51:VC:2402:C:H5'	51:VC:2403:C:OP2	2.12	0.49
51:ZC:270(G):U:H2'	51:ZC:270(H):C:C6	2.48	0.49
51:ZC:2109:U:H2'	51:ZC:2110:G:C8	2.47	0.49
51:ZC:2137:C:N4	51:ZC:2154:G:H1	2.11	0.49
11:K:20:ALA:HA	11:K:98:LYS:HB3	1.94	0.49
47:UA:74:LYS:NZ	50:UC:133:U:OP1	2.46	0.49
1:WA:12:SER:HB2	1:WA:208:LYS:HB3	1.94	0.49
3:YA:59:TYR:HD2	3:YA:78:ILE:HB	1.78	0.49
10:FB:72:PRO:HB2	51:ZC:2406:U:C2	2.48	0.49
26:VB:30:THR:O	26:VB:32:ASN:N	2.46	0.49
39:IC:32:ARG:O	39:IC:84:ILE:HG22	2.13	0.49
51:VC:1464:C:H2'	51:VC:1465:G:C8	2.47	0.49
51:VC:1539:G:H2'	51:VC:1540:G:H8	1.78	0.49
51:VC:2137:C:N4	51:VC:2154:G:H1	2.10	0.49
51:VC:2291:U:H2'	51:VC:2292:C:C6	2.48	0.49
51:VC:2398:U:H2'	51:VC:2399:G:C8	2.48	0.49
50:YC:714:G:H2'	50:YC:715:A:C8	2.48	0.49
50:YC:987:G:H2'	50:YC:988:G:C8	2.47	0.49
50:YC:1131:G:H2'	50:YC:1132:C:C6	2.48	0.49
51:ZC:1506:C:H2'	51:ZC:1508:A:C8	2.48	0.49
5:E:113:VAL:HG11	5:E:151:ILE:HD13	1.94	0.49
9:I:64:ARG:HB2	9:I:83:ALA:HB3	1.94	0.49
12:L:21:TYR:HB3	12:L:47:PHE:CD2	2.48	0.49
28:BA:12:LYS:NZ	51:VC:249:C:O2	2.41	0.49
33:GA:9:VAL:HB	33:GA:87:ARG:HB2	1.95	0.49
39:MA:115:SER:OG	50:UC:503:C:OP2	2.22	0.49
3:YA:143:ALA:HB1	3:YA:148:LEU:HB2	1.93	0.49
14:JB:27:THR:HG23	14:JB:89:VAL:HG23	1.95	0.49
14:JB:119:LYS:NZ	51:ZC:2867:G:OP2	2.22	0.49
18:NB:71:GLY:HA3	51:ZC:64:A:H4'	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:PB:163:LEU:HD23	20:PB:163:LEU:H	1.78	0.49
51:VC:2100:G:H2'	51:VC:2101:G:H8	1.77	0.49
51:VC:2176:A:H2'	51:VC:2177:C:C6	2.48	0.49
51:ZC:1325:G:OP2	51:ZC:1616:A:H2'	2.13	0.49
51:ZC:1782:C:H1'	51:ZC:2609:U:H5''	1.93	0.49
51:ZC:1980:G:O2'	51:ZC:1982:C:OP2	2.29	0.49
51:ZC:2176:A:H2'	51:ZC:2177:C:C6	2.48	0.49
53:FD:4:G:H2'	53:FD:5:G:H8	1.78	0.49
30:DA:147:LYS:HB2	30:DA:203:PHE:CD2	2.48	0.48
33:GA:70:ASP:N	33:GA:70:ASP:OD1	2.45	0.48
33:GA:87:ARG:CZ	50:UC:673:G:H5''	2.43	0.48
35:IA:10:LEU:HD22	35:IA:83:ILE:HD11	1.94	0.48
26:VB:46:HIS:CD2	51:ZC:2371:G:O2'	2.63	0.48
34:DC:113:GLU:HB2	34:DC:119:ARG:HG2	1.94	0.48
50:UC:1347:G:O2'	50:UC:1373:G:O6	2.27	0.48
50:UC:1427:U:H2'	50:UC:1428:A:C8	2.47	0.48
51:VC:270(A):A:OP2	51:VC:270(Z):G:N2	2.45	0.48
51:VC:2109:U:H2'	51:VC:2110:G:C8	2.47	0.48
51:VC:2627:G:O2'	51:VC:2781:A:N1	2.43	0.48
51:VC:2777:G:H5''	51:VC:2778:A:H5'	1.93	0.48
51:ZC:1539:G:H2'	51:ZC:1540:G:H8	1.78	0.48
2:B:54:GLN:HE22	2:B:57:LYS:HE3	1.78	0.48
4:D:15:VAL:HG13	4:D:175:LEU:HB2	1.96	0.48
6:F:79:ILE:HB	6:F:144:VAL:HA	1.93	0.48
11:K:65:PHE:HB2	11:K:105:GLU:HB2	1.94	0.48
16:LB:17:GLY:HA2	16:LB:96:ILE:O	2.13	0.48
20:PB:61:LEU:HD12	20:PB:65:GLN:HB2	1.94	0.48
30:ZB:147:LYS:HB2	30:ZB:203:PHE:CD2	2.48	0.48
50:UC:1178:G:N2	50:UC:1181:G:OP2	2.46	0.48
50:YC:88:C:H2'	50:YC:89:U:C6	2.48	0.48
51:ZC:1953:A:HO2'	51:ZC:2559:C:HO2'	1.59	0.48
14:N:27:THR:HG23	14:N:89:VAL:HG23	1.95	0.48
6:BB:72:LEU:HD11	6:BB:101:LEU:HD21	1.95	0.48
39:IC:88:ARG:NH1	50:YC:525:C:OP1	2.46	0.48
50:UC:987:G:H2'	50:UC:988:G:C8	2.47	0.48
50:YC:1052:U:O2'	50:YC:1055:A:OP2	2.30	0.48
51:ZC:1203:G:N2	51:ZC:1243:G:O6	2.45	0.48
51:ZC:1681:G:OP2	51:ZC:1681:G:H8	1.95	0.48
51:ZC:1899:G:H22	51:ZC:1902:C:H41	1.59	0.48
6:F:72:LEU:HD11	6:F:101:LEU:HD21	1.95	0.48
16:P:17:GLY:HA2	16:P:96:ILE:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:163:LEU:HD23	20:T:163:LEU:H	1.77	0.48
2:XA:52:LEU:HD21	14:JB:1:MET:HE3	1.95	0.48
17:MB:88:ARG:H	51:ZC:1614:A:N6	2.11	0.48
22:RB:23:LYS:HB3	22:RB:37:ILE:HG13	1.96	0.48
50:UC:198:G:H1	50:UC:219:C:H42	1.60	0.48
50:UC:1052:U:O2	50:UC:1207:G:N2	2.47	0.48
50:UC:1243:C:H42	50:UC:1294:G:H1	1.61	0.48
51:VC:1869:G:N2	51:VC:1872:A:OP2	2.43	0.48
50:YC:790:A:OP1	53:FD:38:A:O2'	2.31	0.48
51:ZC:486:C:H2'	51:ZC:487:C:C6	2.49	0.48
51:ZC:1035:U:H2'	51:ZC:1036:G:C8	2.48	0.48
51:ZC:2398:U:H2'	51:ZC:2399:G:C8	2.48	0.48
51:ZC:2472:G:O2'	51:ZC:2478:A:N6	2.45	0.48
8:H:127:LYS:HB2	8:H:140:PHE:CE1	2.48	0.48
12:L:11:ASN:OD1	12:L:12:ARG:N	2.45	0.48
19:S:2:ARG:C	19:S:4:LYS:H	2.22	0.48
20:T:53:ILE:HA	20:T:71:VAL:HG23	1.96	0.48
21:U:36:ILE:HD11	51:VC:2364:C:H1'	1.95	0.48
26:Z:35:GLU:HB3	26:Z:51:GLU:HB2	1.96	0.48
36:JA:9:ARG:HB2	36:JA:104:ARG:HD3	1.96	0.48
37:KA:26:ALA:HB1	37:KA:84:GLN:HG2	1.96	0.48
47:UA:22:ARG:HB3	50:UC:323:U:H4'	1.96	0.48
1:WA:158:ALA:O	1:WA:161:THR:OG1	2.20	0.48
4:ZA:62:LEU:HD23	4:ZA:144:ILE:HD13	1.95	0.48
10:FB:58:THR:C	10:FB:60:MET:H	2.22	0.48
10:FB:114:ILE:H	10:FB:114:ILE:HD12	1.78	0.48
36:FC:9:ARG:HB2	36:FC:104:ARG:HD3	1.95	0.48
51:VC:1022:G:H22	51:VC:114(B):A:H2	1.62	0.48
51:VC:1416:G:H2'	51:VC:1417:C:C6	2.49	0.48
51:ZC:380:U:H2'	51:ZC:381:G:C8	2.48	0.48
51:ZC:1113:U:H2'	51:ZC:1114:G:C8	2.48	0.48
51:ZC:1792:G:O2'	51:ZC:1830:C:OP1	2.30	0.48
51:ZC:2836:U:H2'	51:ZC:2837:G:C8	2.49	0.48
1:A:182:LEU:HB2	1:A:271:ILE:HG13	1.95	0.48
26:Z:30:THR:O	26:Z:32:ASN:N	2.46	0.48
34:HA:102:ARG:O	34:HA:106:GLN:HG2	2.13	0.48
3:YA:84:VAL:HG21	51:ZC:448:U:H1'	1.96	0.48
5:AB:19:VAL:HA	5:AB:24:VAL:HG12	1.95	0.48
37:GC:26:ALA:HB1	37:GC:84:GLN:HG2	1.95	0.48
40:JC:59:TYR:O	40:JC:63:THR:OG1	2.22	0.48
50:UC:67:C:H2'	50:UC:68:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:2103:C:H2'	51:VC:2104:G:C8	2.48	0.48
51:ZC:1019:U:OP1	51:ZC:1035:U:O2'	2.30	0.48
51:ZC:1889:A:H2'	51:ZC:1890:A:C8	2.49	0.48
4:D:62:LEU:HD23	4:D:144:ILE:HD13	1.95	0.48
4:D:105:LYS:HE2	49:SC:52:SER:HB3	1.95	0.48
10:J:148:LEU:H	10:J:148:LEU:HD22	1.79	0.48
19:S:88:LYS:HE2	19:S:93:GLY:H	1.79	0.48
31:EA:96:LEU:HD12	31:EA:139:ARG:HH12	1.79	0.48
36:JA:128:ARG:NH1	53:ED:32:C:OP2	2.47	0.48
1:WA:25:THR:HG22	1:WA:82:ILE:H	1.79	0.48
1:WA:244:ARG:HA	1:WA:245:PRO:HA	1.72	0.48
7:CB:115:LEU:HG	51:ZC:1059:G:H1'	1.95	0.48
31:AC:9:CYS:HB2	50:YC:430:A:OP1	2.14	0.48
31:AC:61:LYS:HA	31:AC:203:VAL:HG22	1.96	0.48
39:IC:41:THR:OG1	39:IC:51:LEU:HB2	2.14	0.48
50:UC:714:G:H2'	50:UC:715:A:C8	2.49	0.48
51:VC:382:G:H1	51:VC:392:C:H42	1.59	0.48
50:YC:67:C:H2'	50:YC:68:G:C8	2.48	0.48
50:YC:198:G:H1	50:YC:219:C:H42	1.61	0.48
50:YC:1292:U:H2'	50:YC:1293:G:H8	1.77	0.48
51:ZC:185:U:H4'	51:ZC:218:A:H4'	1.96	0.48
51:ZC:783:A:H2'	51:ZC:784:A:H4'	1.96	0.48
51:ZC:1190:G:H2'	51:ZC:1191:G:C8	2.49	0.48
51:ZC:1210:A:H4'	51:ZC:1211:U:O5'	2.13	0.48
51:ZC:1416:G:H2'	51:ZC:1417:C:C6	2.48	0.48
51:ZC:1771:C:O2'	51:ZC:1786:A:O4'	2.30	0.48
51:ZC:1899:G:O2'	51:ZC:1900:A:H5''	2.13	0.48
11:K:22:LYS:O	11:K:22:LYS:HD3	2.14	0.48
15:O:4:ALA:HB2	51:VC:1199:U:H1'	1.95	0.48
10:FB:58:THR:O	10:FB:60:MET:N	2.47	0.48
30:ZB:26:LYS:HE2	50:YC:1279:A:H62	1.79	0.48
44:NC:54:GLY:O	44:NC:81:ARG:HB2	2.13	0.48
50:UC:1064:G:H4'	50:UC:1065:U:O5'	2.13	0.48
50:UC:1071:C:H42	50:UC:1104:G:H1	1.61	0.48
52:WC:44:G:N3	52:WC:47:C:N4	2.46	0.48
51:ZC:275:G:N2	51:ZC:276:A:N1	2.62	0.48
51:ZC:1022:G:H22	51:ZC:114(B):A:H2	1.62	0.48
51:ZC:2212:A:H1'	51:ZC:2215:G:C4	2.49	0.48
51:ZC:2843:G:H1	51:ZC:2874:C:N4	2.11	0.48
12:L:104:ARG:NH1	12:L:107:ASP:OD1	2.46	0.48
31:EA:22:LYS:HB2	31:EA:26:CYS:SG	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BB:87:LYS:HD3	6:BB:121:LYS:HE3	1.95	0.48
10:FB:45:LEU:HD12	10:FB:46:LYS:H	1.79	0.48
12:HB:6:SER:HB2	51:ZC:2873:A:N3	2.29	0.48
12:HB:21:TYR:HB3	12:HB:47:PHE:CD2	2.49	0.48
18:NB:16:LYS:NZ	51:ZC:1340:U:OP1	2.46	0.48
50:UC:1131:G:H2'	50:UC:1132:C:C6	2.48	0.48
51:VC:1491:G:H2'	51:VC:1492:G:H8	1.79	0.48
50:YC:1052:U:O2	50:YC:1207:G:N2	2.47	0.48
51:ZC:204:A:H8	51:ZC:204:A:OP1	1.96	0.48
51:ZC:2103:C:H2'	51:ZC:2104:G:C8	2.48	0.48
6:F:130:TYR:HD2	6:F:138:ILE:HD12	1.79	0.48
3:YA:102:PRO:HB2	3:YA:105:VAL:HG23	1.96	0.48
4:ZA:105:LYS:HE2	49:TC:52:SER:HB3	1.96	0.48
13:IB:30:ARG:NH1	52:AD:49:C:OP2	2.47	0.48
18:NB:62:LYS:O	18:NB:73:ARG:HB2	2.14	0.48
20:PB:53:ILE:HA	20:PB:71:VAL:HG23	1.96	0.48
20:PB:77:ASP:HB2	20:PB:84:GLU:HG3	1.96	0.48
31:AC:200:GLU:O	31:AC:204:ILE:HG13	2.13	0.48
37:GC:40:LEU:HB2	37:GC:69:ASN:HB2	1.96	0.48
50:UC:88:C:H2'	50:UC:89:U:C6	2.49	0.48
50:UC:320:C:HO2'	50:UC:1435:G:HO2'	1.60	0.48
50:UC:406:G:H1	50:UC:436:C:H42	1.62	0.48
50:UC:1150:U:O4	50:UC:1151:A:N6	2.47	0.48
50:UC:1356:G:H2'	50:UC:1357:A:C8	2.49	0.48
50:YC:1150:U:O4	50:YC:1151:A:N6	2.47	0.48
50:YC:1356:G:H2'	50:YC:1357:A:C8	2.49	0.48
3:C:59:TYR:HD2	3:C:78:ILE:HB	1.78	0.47
10:J:58:THR:C	10:J:60:MET:H	2.22	0.47
10:J:114:ILE:H	10:J:114:ILE:HD12	1.78	0.47
17:Q:88:ARG:H	51:VC:1614:A:N6	2.12	0.47
20:T:126:VAL:HG12	20:T:163:LEU:HA	1.96	0.47
31:EA:129:ASN:N	31:EA:145:GLU:O	2.42	0.47
35:IA:42:GLU:HG3	35:IA:109:ILE:HD12	1.96	0.47
3:YA:110:LEU:HD22	3:YA:206:ILE:HD11	1.96	0.47
8:DB:127:LYS:HB2	8:DB:140:PHE:CE1	2.48	0.47
32:BC:100:VAL:HG22	32:BC:118:ILE:HG22	1.96	0.47
35:EC:42:GLU:HG3	35:EC:109:ILE:HD12	1.96	0.47
51:VC:2111:C:O2'	51:VC:2145:C:O2	2.24	0.47
50:YC:1347:G:O2'	50:YC:1373:G:O6	2.26	0.47
51:ZC:1447:G:H2'	51:ZC:1448:G:C8	2.49	0.47
51:ZC:2052:G:H2'	51:ZC:2053:G:C8	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:2451:A:O2'	53:FD:76:A:H2'	2.13	0.47
21:U:23:VAL:HA	21:U:38:VAL:HG22	1.96	0.47
22:V:19:GLN:NE2	51:VC:189:G:OP1	2.47	0.47
39:MA:41:THR:OG1	39:MA:51:LEU:HB2	2.14	0.47
11:GB:22:LYS:O	11:GB:22:LYS:HD3	2.13	0.47
20:PB:126:VAL:HG12	20:PB:163:LEU:HA	1.96	0.47
47:QC:23:ARG:O	47:QC:27:LYS:N	2.45	0.47
50:UC:17:U:H2'	50:UC:18:C:C6	2.49	0.47
50:UC:21:G:N2	50:UC:914:A:H62	2.09	0.47
51:VC:275:G:N2	51:VC:276:A:N1	2.62	0.47
51:VC:521:G:H2'	51:VC:522:G:C8	2.46	0.47
51:VC:2052:G:H2'	51:VC:2053:G:C8	2.49	0.47
51:ZC:1406:U:H2'	51:ZC:1407:C:C6	2.49	0.47
51:ZC:2086:U:H2'	51:ZC:2087:G:C8	2.49	0.47
51:ZC:2863:C:H2'	51:ZC:2864:G:C8	2.50	0.47
2:B:47:VAL:HG21	2:B:86:PRO:HD2	1.95	0.47
24:X:10:LYS:HB2	24:X:53:LEU:HA	1.95	0.47
25:Y:3:LYS:N	25:Y:3:LYS:HD2	2.29	0.47
40:NA:59:TYR:O	40:NA:63:THR:OG1	2.22	0.47
44:RA:54:GLY:O	44:RA:81:ARG:HB2	2.14	0.47
2:XA:47:VAL:HG21	2:XA:86:PRO:HD2	1.95	0.47
2:XA:54:GLN:HG2	2:XA:76:ARG:HG3	1.97	0.47
8:DB:99:SER:HB3	51:ZC:2641:G:H5''	1.96	0.47
10:FB:16:ARG:NH1	10:FB:18:ARG:HG3	2.30	0.47
10:FB:64:LYS:NZ	51:ZC:631:A:OP1	2.41	0.47
19:OB:88:LYS:HE2	19:OB:93:GLY:H	1.79	0.47
27:WB:9:ARG:HE	27:WB:47:ARG:HB2	1.78	0.47
37:GC:91:PRO:HB3	37:GC:94:VAL:HB	1.96	0.47
50:UC:1038:C:H2'	50:UC:1039:C:C6	2.50	0.47
50:UC:1064:G:N2	50:UC:1190:G:H2'	2.29	0.47
51:VC:605:C:H1'	51:VC:657:U:O2'	2.14	0.47
51:VC:1316:U:H2'	51:VC:1317:A:C8	2.50	0.47
51:VC:1506:C:H2'	51:VC:1508:A:C8	2.49	0.47
51:VC:2601:C:O2'	51:VC:2603:G:N7	2.44	0.47
51:VC:2695:C:H2'	51:VC:2696:U:C6	2.49	0.47
50:YC:1305:G:H1'	50:YC:1306:A:N7	2.30	0.47
8:H:99:SER:HB3	51:VC:2641:G:H5''	1.96	0.47
10:J:64:LYS:NZ	51:VC:631:A:OP1	2.44	0.47
16:P:38:LEU:O	16:P:39:LEU:HD13	2.13	0.47
39:MA:32:ARG:O	39:MA:84:ILE:HG22	2.13	0.47
2:XA:122:PHE:HB3	2:XA:123:ALA:H	1.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:ZA:67:LYS:HA	4:ZA:68:PRO:HD3	1.79	0.47
5:AB:113:VAL:HG11	5:AB:151:ILE:HD13	1.95	0.47
9:EB:64:ARG:HB2	9:EB:83:ALA:HB3	1.95	0.47
10:FB:126:VAL:HG22	10:FB:145:PRO:HG2	1.96	0.47
20:PB:102:LEU:HD11	20:PB:124:ILE:HG13	1.95	0.47
31:AC:4:TYR:O	31:AC:115:ARG:NH1	2.48	0.47
40:JC:92:HIS:HB2	40:JC:93:ARG:CZ	2.44	0.47
44:NC:17:LYS:NZ	50:YC:256:U:OP1	2.42	0.47
51:VC:363(C):G:H2'	51:VC:363(D):G:H8	1.79	0.47
51:VC:2212:A:H1'	51:VC:2215:G:C4	2.49	0.47
51:VC:2593:U:H2'	51:VC:2594:C:C6	2.48	0.47
51:ZC:1849:G:H2'	51:ZC:1850:G:C8	2.47	0.47
53:BD:67:C:H2'	53:BD:68:C:C6	2.48	0.47
5:E:19:VAL:HA	5:E:24:VAL:HG12	1.96	0.47
8:H:95:TYR:HE2	8:H:121:VAL:HG12	1.80	0.47
30:DA:6:HIS:CD2	30:DA:8:ILE:H	2.31	0.47
35:IA:82:HIS:N	35:IA:138:TRP:O	2.46	0.47
2:XA:111:ARG:HB2	2:XA:160:TYR:HB3	1.97	0.47
10:FB:35:HIS:CD2	51:ZC:941:A:H4'	2.50	0.47
16:LB:38:LEU:O	16:LB:39:LEU:HD13	2.14	0.47
25:UB:8:LYS:NZ	51:ZC:2056:G:O3'	2.47	0.47
26:VB:35:GLU:HB3	26:VB:51:GLU:HB2	1.96	0.47
30:ZB:66:VAL:HB	30:ZB:101:LEU:HD23	1.95	0.47
31:AC:90:GLY:HA3	31:AC:204:ILE:HD11	1.97	0.47
50:UC:376:G:H1	50:UC:387:U:H3	1.62	0.47
50:UC:1163:C:H2'	50:UC:1164:G:C8	2.49	0.47
51:VC:1792:G:O2'	51:VC:1830:C:OP1	2.28	0.47
51:ZC:270(A):A:OP2	51:ZC:270(Z):G:N2	2.45	0.47
51:ZC:605:C:H1'	51:ZC:657:U:O2'	2.15	0.47
51:ZC:1464:C:H2'	51:ZC:1465:G:C8	2.49	0.47
1:A:16:MET:HB2	1:A:207:GLY:HA3	1.95	0.47
2:B:113:PHE:O	51:VC:1654:A:O2'	2.31	0.47
26:Z:34:LEU:H	26:Z:34:LEU:HD13	1.80	0.47
40:NA:91:ARG:HH11	46:TA:81:ARG:NH1	2.12	0.47
3:YA:186:ILE:HD12	3:YA:192:LEU:HD11	1.97	0.47
12:HB:8:ARG:HG2	12:HB:10:LEU:HD23	1.96	0.47
28:XB:61:LEU:O	28:XB:62:LEU:HB2	2.13	0.47
50:UC:258:G:H1	50:UC:268:C:H42	1.62	0.47
50:UC:491:G:H2'	50:UC:492:G:C8	2.50	0.47
50:UC:939:G:H1	50:UC:1344:C:H42	1.63	0.47
51:VC:1695:G:H2'	51:VC:1695:G:N3	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:XC:62:C:H2'	53:XC:63:G:C8	2.50	0.47
50:YC:1468:A:H2'	50:YC:1469:G:O4'	2.14	0.47
51:ZC:27:G:H1'	51:ZC:513:A:N6	2.29	0.47
51:ZC:2291:U:H2'	51:ZC:2292:C:C6	2.48	0.47
1:A:25:THR:HG22	1:A:82:ILE:H	1.79	0.47
2:B:54:GLN:HG2	2:B:76:ARG:HG3	1.95	0.47
6:F:87:LYS:HD3	6:F:121:LYS:HE3	1.95	0.47
7:G:54:PRO:HD3	7:G:73:PRO:HD3	1.97	0.47
9:I:53:LYS:HD2	9:I:56:ASP:OD1	2.14	0.47
10:J:7:ARG:O	10:J:10:PRO:HD3	2.15	0.47
10:J:23:PRO:HD2	10:J:33:ARG:NH2	2.30	0.47
11:K:43:THR:HA	11:K:94:VAL:HG12	1.96	0.47
12:L:51:LEU:HD13	12:L:70:LEU:HD11	1.96	0.47
15:O:69:CYS:SG	15:O:74:LEU:HG	2.54	0.47
18:R:62:LYS:O	18:R:73:ARG:HB2	2.14	0.47
29:CA:112:VAL:O	29:CA:116:GLU:HG2	2.15	0.47
44:RA:63:ARG:HG2	44:RA:64:PRO:HD2	1.96	0.47
5:AB:159:GLU:HG2	5:AB:169:VAL:HG11	1.97	0.47
10:FB:39:LYS:HG2	51:ZC:807:U:OP2	2.15	0.47
10:FB:127:ALA:O	10:FB:147:LEU:HA	2.14	0.47
29:YB:98:LEU:O	29:YB:101:MET:HG3	2.15	0.47
37:GC:79:ARG:HH11	37:GC:82:ILE:HG13	1.80	0.47
38:HC:29:ILE:HD11	50:YC:706:A:O4'	2.15	0.47
43:MC:34:GLU:OE2	43:MC:55:ARG:HD3	2.15	0.47
50:UC:1468:A:H2'	50:UC:1469:G:O4'	2.14	0.47
51:VC:185:U:H4'	51:VC:218:A:H4'	1.96	0.47
51:VC:1025:G:H8	51:VC:1025:G:OP1	1.98	0.47
51:VC:1307:A:N6	51:VC:1606:G:O2'	2.48	0.47
51:VC:2190:G:H2'	51:VC:2191:G:H8	1.80	0.47
51:VC:2472:G:O2'	51:VC:2478:A:N6	2.45	0.47
50:YC:17:U:H2'	50:YC:18:C:C6	2.50	0.47
50:YC:142:G:O2'	50:YC:196:A:N1	2.43	0.47
50:YC:406:G:H1	50:YC:436:C:H42	1.62	0.47
50:YC:1071:C:H42	50:YC:1104:G:H1	1.61	0.47
50:YC:1151:A:O2'	50:YC:1152:A:O5'	2.32	0.47
50:YC:1243:C:H42	50:YC:1294:G:H1	1.61	0.47
51:ZC:15:G:H1	51:ZC:525:U:H3	1.62	0.47
51:ZC:272:G:H2'	51:ZC:273(A):G:H8	1.79	0.47
51:ZC:736:C:H42	51:ZC:760:G:H1	1.63	0.47
51:ZC:1695:G:H2'	51:ZC:1695:G:N3	2.30	0.47
51:ZC:2190:G:H2'	51:ZC:2191:G:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:AD:31:C:O2	52:AD:53:A:N6	2.47	0.47
53:BD:17(A):U:H1'	53:BD:18:G:OP1	2.15	0.47
2:B:131:ALA:C	2:B:133:LYS:H	2.23	0.47
3:C:48:THR:OG1	51:VC:442:G:N2	2.48	0.47
8:H:117:HIS:HB2	8:H:119:GLU:OE2	2.15	0.47
9:I:105:GLU:OE1	9:I:105:GLU:N	2.48	0.47
12:L:6:SER:HB2	51:VC:2873:A:N3	2.29	0.47
20:T:102:LEU:HD11	20:T:124:ILE:HG13	1.95	0.47
31:EA:8:VAL:HG23	31:EA:22:LYS:HE2	1.97	0.47
9:EB:105:GLU:OE1	9:EB:105:GLU:N	2.48	0.47
10:FB:26:GLY:HA2	10:FB:30:THR:HG23	1.96	0.47
19:OB:19:LYS:H	19:OB:19:LYS:HG2	1.55	0.47
23:SB:53:LEU:O	23:SB:57:ILE:HG13	2.14	0.47
31:AC:39:PRO:HA	31:AC:40:PRO:HD3	1.82	0.47
34:DC:24:THR:HA	34:DC:27:ILE:HG12	1.97	0.47
44:NC:63:ARG:HG2	44:NC:64:PRO:HD2	1.97	0.47
50:UC:328:C:H1'	50:UC:329:A:OP2	2.15	0.47
50:UC:103(C):G:O2'	51:ZC:2116:G:H4'	2.15	0.47
51:VC:27:G:H1'	51:VC:513:A:H62	1.80	0.47
51:VC:662:G:H2'	51:VC:663:G:H8	1.80	0.47
51:VC:1210:A:H4'	51:VC:1211:U:O5'	2.15	0.47
51:VC:1678:G:H8	51:VC:1678:G:O5'	1.98	0.47
51:VC:1773:A:H2'	51:VC:1774:C:O4'	2.15	0.47
51:VC:2079:U:O2	51:VC:2242:G:N2	2.47	0.47
53:XC:21:A:O2'	53:XC:22:G:O5'	2.33	0.47
51:ZC:550:G:H2'	51:ZC:551:G:H8	1.80	0.47
51:ZC:848:G:H2'	51:ZC:849:A:C8	2.50	0.47
51:ZC:1025:G:H8	51:ZC:1025:G:OP1	1.97	0.47
53:BD:62:C:H2'	53:BD:63:G:C8	2.50	0.47
5:E:126:PRO:HB2	5:E:127:GLU:H	1.55	0.47
12:L:8:ARG:HG2	12:L:10:LEU:HD23	1.97	0.47
19:S:81:LYS:HD2	19:S:96:ILE:HD12	1.97	0.47
20:T:77:ASP:HB2	20:T:84:GLU:HG3	1.96	0.47
29:CA:69:LEU:HB3	29:CA:162:ILE:HG22	1.97	0.47
32:FA:100:VAL:HG22	32:FA:118:ILE:HG22	1.97	0.47
39:MA:51:LEU:HD23	39:MA:51:LEU:H	1.79	0.47
1:WA:145:VAL:HG13	1:WA:191:ALA:HB2	1.97	0.47
1:WA:206:LEU:HB2	51:ZC:1791:A:H4'	1.97	0.47
5:AB:13:LYS:HA	5:AB:14:GLY:HA2	1.52	0.47
10:FB:25:SER:HA	51:ZC:811:U:H2'	1.96	0.47
11:GB:43:THR:HA	11:GB:94:VAL:HG12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:QB:23:VAL:HA	21:QB:38:VAL:HG22	1.97	0.47
21:QB:36:ILE:HD11	51:ZC:2364:C:H1'	1.96	0.47
31:AC:177:ASP:OD2	31:AC:180:GLY:N	2.44	0.47
40:JC:91:ARG:HH11	46:PC:81:ARG:NH1	2.13	0.47
50:UC:21:G:H2'	50:UC:22:G:C8	2.50	0.47
51:VC:49:A:H4'	51:VC:50:U:H5''	1.97	0.47
51:VC:2627:G:N2	51:VC:2777:G:OP2	2.47	0.47
51:VC:2842:G:H2'	51:VC:2843:G:C8	2.50	0.47
51:ZC:305:U:H2'	51:ZC:306:U:C6	2.50	0.47
8:H:112:LYS:O	8:H:116:THR:HG22	2.15	0.47
10:J:39:LYS:HD2	10:J:39:LYS:HA	1.71	0.47
40:NA:92:HIS:HB2	40:NA:93:ARG:CZ	2.44	0.47
1:WA:63:ARG:NH2	51:ZC:1568:G:OP2	2.48	0.47
7:CB:54:PRO:HD3	7:CB:73:PRO:HD3	1.96	0.47
9:EB:53:LYS:HD2	9:EB:56:ASP:OD1	2.15	0.47
10:FB:148:LEU:HD22	10:FB:148:LEU:H	1.80	0.47
14:JB:105:LEU:HD22	14:JB:109:GLU:HG3	1.96	0.47
42:LC:78:TYR:O	42:LC:82:ILE:HG22	2.15	0.47
47:QC:22:ARG:HB3	50:YC:323:U:H4'	1.96	0.47
51:VC:59:U:H3	51:VC:68:G:H1	1.63	0.47
51:VC:979:G:H2'	51:VC:982:C:H42	1.79	0.47
51:VC:980:A:N6	51:VC:981:A:N1	2.63	0.47
50:YC:1525:G:H2'	50:YC:1526:G:H8	1.80	0.47
51:ZC:1042:G:H1	51:ZC:1113:U:H3	1.63	0.47
51:ZC:1307:A:N6	51:ZC:1606:G:O2'	2.48	0.47
51:ZC:2863:C:H2'	51:ZC:2864:G:H8	1.79	0.47
53:BD:17(A):U:HO2'	53:BD:18:G:P	2.37	0.47
10:J:45:LEU:HD12	10:J:46:LYS:H	1.80	0.46
20:T:183:LEU:HA	20:T:186:GLU:HB2	1.97	0.46
21:U:60:PHE:CZ	51:VC:2365:G:H4'	2.50	0.46
35:IA:83:ILE:HB	35:IA:137:VAL:HG13	1.97	0.46
43:QA:12:LYS:HE2	43:QA:13:HIS:CD2	2.50	0.46
8:DB:36:TRP:HA	8:DB:74:PHE:HB2	1.97	0.46
15:KB:92:ARG:HG2	16:LB:11:GLN:HB2	1.96	0.46
16:LB:85:LYS:NZ	51:ZC:814:C:O3'	2.35	0.46
19:OB:2:ARG:C	19:OB:4:LYS:H	2.23	0.46
25:UB:3:LYS:HD2	25:UB:3:LYS:N	2.30	0.46
29:YB:69:LEU:HB3	29:YB:162:ILE:HG22	1.97	0.46
35:EC:83:ILE:HB	35:EC:137:VAL:HG13	1.98	0.46
40:JC:57:ARG:HD2	49:TC:61:VAL:HG23	1.97	0.46
42:LC:40:SER:O	42:LC:44:LYS:HD2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:RC:17:THR:HG21	50:YC:1325:C:H4'	1.97	0.46
50:UC:791:G:N2	50:UC:1497:G:O3'	2.46	0.46
50:UC:1151:A:O2'	50:UC:1152:A:O5'	2.33	0.46
51:VC:15:G:H1	51:VC:525:U:H3	1.63	0.46
51:VC:127:A:H5''	51:VC:128:C:C6	2.50	0.46
51:VC:783:A:H2'	51:VC:784:A:H4'	1.97	0.46
51:VC:983:A:H5'	51:VC:984:A:OP2	2.14	0.46
51:VC:1325:G:OP2	51:VC:1616:A:H2'	2.14	0.46
51:VC:1796:U:H2'	51:VC:1797:C:H6	1.77	0.46
50:YC:507:C:H3'	50:YC:508:C:H2'	1.97	0.46
51:ZC:1296:G:OP1	51:ZC:2709:G:O2'	2.26	0.46
51:ZC:2695:C:H2'	51:ZC:2696:U:C6	2.50	0.46
53:ED:4:G:H2'	53:ED:5:G:H8	1.79	0.46
1:A:145:VAL:HG13	1:A:191:ALA:HB2	1.97	0.46
10:J:35:HIS:CD2	51:VC:941:A:H4'	2.50	0.46
11:K:34:LEU:HD11	11:K:129:THR:HB	1.97	0.46
14:N:51:ARG:HG2	14:N:98:LYS:HE3	1.97	0.46
21:U:50:ASN:HB3	21:U:63:VAL:HG22	1.96	0.46
36:JA:112:LYS:HA	36:JA:119:ALA:HB2	1.97	0.46
36:JA:116:LYS:HE3	36:JA:122:ALA:HB2	1.97	0.46
4:ZA:15:VAL:HG13	4:ZA:175:LEU:HB2	1.97	0.46
14:JB:51:ARG:HG2	14:JB:98:LYS:HE3	1.97	0.46
21:QB:50:ASN:HD22	21:QB:63:VAL:CG2	2.28	0.46
33:CC:87:ARG:CZ	50:YC:673:G:H5''	2.45	0.46
39:IC:51:LEU:H	39:IC:51:LEU:HD23	1.79	0.46
41:KC:32:SER:H	50:YC:976:G:P	2.35	0.46
45:OC:66:LEU:O	45:OC:70:ILE:HG12	2.15	0.46
50:UC:1525:G:H2'	50:UC:1526:G:H8	1.79	0.46
51:VC:1447:G:H2'	51:VC:1448:G:C8	2.50	0.46
51:VC:2503:A:O2'	51:VC:2505:G:OP2	2.31	0.46
53:XC:17(A):U:H1'	53:XC:18:G:OP1	2.15	0.46
50:YC:376:G:H1	50:YC:387:U:H3	1.62	0.46
51:ZC:983:A:H5'	51:ZC:984:A:OP2	2.14	0.46
51:ZC:2306:C:H5'	51:ZC:2307:G:C8	2.50	0.46
3:C:34:TRP:HB2	10:J:10:PRO:O	2.15	0.46
9:I:105:GLU:O	9:I:109:LYS:HG2	2.16	0.46
10:J:16:ARG:NH1	10:J:18:ARG:HG3	2.30	0.46
10:J:127:ALA:O	10:J:147:LEU:HA	2.16	0.46
30:DA:29:TYR:CD2	41:OA:36:PHE:HE1	2.33	0.46
37:KA:40:LEU:HB2	37:KA:69:ASN:HB2	1.96	0.46
43:QA:25:ARG:HH12	50:UC:134:A:N6	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WA:112:GLN:O	1:WA:115:GLN:HB2	2.15	0.46
2:XA:131:ALA:C	2:XA:133:LYS:H	2.24	0.46
10:FB:23:PRO:HD2	10:FB:33:ARG:NH2	2.29	0.46
31:AC:3:ARG:NE	31:AC:118:ARG:HD3	2.31	0.46
43:MC:25:ARG:HH12	50:YC:134:A:N6	2.13	0.46
50:UC:1356:G:H2'	50:UC:1357:A:H8	1.80	0.46
51:VC:486:C:H2'	51:VC:487:C:C6	2.51	0.46
51:VC:1266:G:O2'	51:VC:2012:G:O6	2.21	0.46
51:VC:1627:G:H1	51:VC:1639:U:H3	1.64	0.46
50:YC:491:G:H2'	50:YC:492:G:C8	2.50	0.46
50:YC:1105:A:H2'	50:YC:1106:G:C8	2.48	0.46
50:YC:1422:G:H2'	50:YC:1423:G:C8	2.50	0.46
51:ZC:662:G:H2'	51:ZC:663:G:H8	1.81	0.46
51:ZC:2601:C:O2'	51:ZC:2603:G:N7	2.44	0.46
51:ZC:2788:C:O2'	51:ZC:2809:A:N3	2.44	0.46
3:C:57:VAL:HG22	3:C:58:ALA:H	1.80	0.46
6:F:77:LEU:HD11	6:F:101:LEU:HD22	1.98	0.46
10:J:58:THR:O	10:J:60:MET:N	2.47	0.46
12:L:13:HIS:CE1	12:L:15:SER:HB2	2.51	0.46
13:M:30:ARG:NH1	52:WC:49:C:OP2	2.49	0.46
14:N:32:TYR:CZ	14:N:82:LEU:HD22	2.50	0.46
37:KA:80:LYS:NZ	50:YC:1162:C:O2'	2.49	0.46
37:KA:91:PRO:HB3	37:KA:94:VAL:HB	1.96	0.46
46:TA:63:THR:H	46:TA:66:MET:HG3	1.80	0.46
21:QB:43:THR:H	51:ZC:2331:G:H4'	1.81	0.46
22:RB:41:ARG:HH11	22:RB:43:TYR:HE2	1.63	0.46
40:JC:89:GLY:O	40:JC:93:ARG:NH1	2.49	0.46
51:VC:325:G:H2'	51:VC:326:G:H8	1.80	0.46
51:VC:1831:G:H1	51:VC:1974:C:H42	1.63	0.46
51:VC:2006:C:O2'	51:VC:2823:A:N3	2.48	0.46
51:VC:2836:U:H2'	51:VC:2837:G:C8	2.50	0.46
50:YC:258:G:H1	50:YC:268:C:H42	1.63	0.46
50:YC:1294:G:H2'	50:YC:1295:G:C8	2.51	0.46
50:YC:1517:G:N3	51:ZC:1919:A:O2'	2.44	0.46
51:ZC:59:U:H3	51:ZC:68:G:H1	1.64	0.46
51:ZC:1638:C:H5''	51:ZC:2710:C:O2'	2.15	0.46
1:A:63:ARG:NH2	51:VC:1568:G:OP2	2.48	0.46
8:H:36:TRP:HA	8:H:74:PHE:HB2	1.98	0.46
31:EA:65:ARG:HH11	31:EA:72:GLU:HG2	1.81	0.46
42:PA:25:THR:OG1	42:PA:26:GLU:N	2.48	0.46
2:XA:113:PHE:O	51:ZC:1654:A:O2'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:ZA:129:GLY:HA3	4:ZA:163:ALA:HB3	1.98	0.46
9:EB:105:GLU:O	9:EB:109:LYS:HG2	2.16	0.46
21:QB:74:ARG:NH2	52:AD:13:A:O4'	2.48	0.46
26:VB:15:GLU:HG3	26:VB:49:HIS:CE1	2.51	0.46
36:FC:29:ASN:HD21	36:FC:65:VAL:N	2.14	0.46
43:MC:5:ARG:HD2	50:YC:376:G:H5''	1.98	0.46
46:PC:40:ILE:HD13	46:PC:62:ILE:HD11	1.98	0.46
50:UC:1422:G:H2'	50:UC:1423:G:C8	2.50	0.46
51:VC:272:G:H2'	51:VC:273(A):G:H8	1.81	0.46
51:VC:548:A:H2'	51:VC:549:G:O4'	2.16	0.46
51:VC:2564:A:C2	51:VC:2647:U:H4'	2.51	0.46
51:VC:2863:C:H2'	51:VC:2864:G:C8	2.50	0.46
52:WC:95:U:H2'	52:WC:96:G:C8	2.51	0.46
53:XC:42:G:H2'	53:XC:43:A:H8	1.80	0.46
50:YC:1038:C:H2'	50:YC:1039:C:C6	2.50	0.46
50:YC:1412:C:H2'	50:YC:1413:A:C8	2.51	0.46
51:ZC:578:A:OP1	51:ZC:1255:U:O2'	2.29	0.46
51:ZC:2398:U:H2'	51:ZC:2399:G:H8	1.81	0.46
25:Y:41:PRO:HA	25:Y:42:PRO:HD3	1.85	0.46
26:Z:41:PRO:HD2	26:Z:46:HIS:H	1.81	0.46
36:JA:15:ALA:HB2	36:JA:65:VAL:HG23	1.96	0.46
36:JA:17:VAL:HG11	36:JA:81:ILE:HG12	1.98	0.46
42:PA:8:LYS:HE2	42:PA:31:LEU:HD11	1.97	0.46
47:UA:105:SER:HB3	50:UC:191(G):G:C4	2.50	0.46
14:JB:26:ASP:HB2	14:JB:91:ARG:HA	1.98	0.46
14:JB:41:ARG:HH12	14:JB:42:ILE:HD12	1.81	0.46
37:GC:6:ILE:HD12	37:GC:23:ILE:HD13	1.98	0.46
42:LC:25:THR:OG1	42:LC:26:GLU:N	2.48	0.46
44:NC:16:GLN:NE2	50:YC:273:A:H1'	2.31	0.46
50:UC:974:A:H8	50:UC:974:A:OP1	1.99	0.46
51:VC:305:U:H2'	51:VC:306:U:C6	2.51	0.46
51:VC:380:U:H2'	51:VC:381:G:C8	2.49	0.46
51:VC:1161:C:H2'	51:VC:1162:G:C8	2.51	0.46
51:VC:2330:G:H2'	51:VC:2331:G:O4'	2.16	0.46
51:VC:2602:A:P	53:ED:74:C:H5''	2.56	0.46
51:VC:2842:G:H1	51:VC:2875:C:H42	1.63	0.46
50:YC:328:C:H1'	50:YC:329:A:OP2	2.15	0.46
50:YC:498:A:H4'	50:YC:500:G:OP1	2.12	0.46
51:ZC:979:G:H2'	51:ZC:982:C:H42	1.81	0.46
51:ZC:1678:G:H8	51:ZC:1678:G:O5'	1.99	0.46
51:ZC:2343:C:O2'	51:ZC:2373:G:O2'	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:AD:95:U:H2'	52:AD:96:G:C8	2.50	0.46
4:D:96:ARG:HD2	4:D:98:ARG:HD3	1.97	0.46
4:D:109:VAL:HG22	49:SC:59:VAL:HG21	1.98	0.46
14:N:41:ARG:HH12	14:N:42:ILE:HD12	1.80	0.46
21:U:43:THR:H	51:VC:2331:G:H4'	1.81	0.46
29:CA:172:ILE:H	29:CA:172:ILE:HG13	1.54	0.46
32:FA:43:LEU:HD12	32:FA:109:ILE:HD11	1.98	0.46
38:LA:29:ILE:HD11	50:UC:706:A:O4'	2.16	0.46
39:MA:83:LEU:HD12	39:MA:100:VAL:HG21	1.97	0.46
40:NA:89:GLY:O	40:NA:93:ARG:NH1	2.48	0.46
4:ZA:109:VAL:HG22	49:TC:59:VAL:HG21	1.98	0.46
7:CB:27:LEU:HB2	7:CB:32:ALA:HB2	1.98	0.46
10:FB:23:PRO:HB2	10:FB:33:ARG:CG	2.43	0.46
14:JB:32:TYR:CZ	14:JB:82:LEU:HD22	2.51	0.46
15:KB:80:ILE:HD12	15:KB:80:ILE:HA	1.78	0.46
26:VB:34:LEU:HD13	26:VB:34:LEU:H	1.80	0.46
32:BC:43:LEU:HD12	32:BC:109:ILE:HD11	1.97	0.46
36:FC:15:ALA:HB2	36:FC:65:VAL:HG23	1.97	0.46
39:IC:52:ARG:HH22	50:YC:522:C:H41	1.64	0.46
40:JC:2:ALA:C	40:JC:9:ILE:HG23	2.41	0.46
42:LC:8:LYS:HE2	42:LC:31:LEU:HD11	1.98	0.46
45:OC:70:ILE:O	45:OC:74:ARG:HG3	2.15	0.46
46:PC:63:THR:H	46:PC:66:MET:HG3	1.80	0.46
51:VC:1348:G:H1	51:VC:1598:C:H42	1.64	0.46
50:YC:21:G:H2'	50:YC:22:G:C8	2.50	0.46
50:YC:679:C:H42	50:YC:711:G:H1	1.63	0.46
50:YC:728:A:H2'	50:YC:729:A:C8	2.51	0.46
50:YC:859:A:H2'	50:YC:860:A:O4'	2.16	0.46
50:YC:974:A:H8	50:YC:974:A:OP1	1.98	0.46
50:YC:987:G:H1	50:YC:1218:C:H42	1.64	0.46
50:YC:1201:A:H1'	50:YC:1202:G:OP2	2.16	0.46
50:YC:1238:A:C5	50:YC:1303:C:H1'	2.51	0.46
51:ZC:127:A:H5''	51:ZC:128:C:C6	2.50	0.46
51:ZC:1516:U:H2'	51:ZC:1517:G:C8	2.51	0.46
51:ZC:1761:C:H5''	51:ZC:1762:A:C8	2.50	0.46
51:ZC:2564:A:C2	51:ZC:2647:U:H4'	2.51	0.46
1:A:206:LEU:HB2	51:VC:1791:A:H4'	1.97	0.46
1:A:221:VAL:HG13	1:A:226:MET:HE2	1.97	0.46
9:I:22:ILE:HG23	51:VC:1952:A:C2	2.51	0.46
26:Z:15:GLU:HG3	26:Z:49:HIS:CE1	2.51	0.46
30:DA:47:LEU:HB3	30:DA:52:LEU:HD22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:FA:94:ALA:HB2	32:FA:119:LEU:HD12	1.98	0.46
9:EB:76:ALA:HB3	14:JB:75:ILE:HD13	1.98	0.46
19:OB:14:LEU:HD13	19:OB:24:VAL:HG22	1.98	0.46
37:GC:48:THR:O	41:KC:34:TYR:OH	2.34	0.46
43:MC:12:LYS:HE2	43:MC:13:HIS:CD2	2.51	0.46
49:TC:39:ARG:HA	49:TC:39:ARG:HE	1.81	0.46
50:UC:1294:G:H2'	50:UC:1295:G:C8	2.51	0.46
51:VC:804:A:H2'	51:VC:806:C:C4	2.51	0.46
50:YC:1356:G:H2'	50:YC:1357:A:H8	1.80	0.46
50:YC:1401:G:OP1	54:HD:18:C:O2'	2.23	0.46
51:ZC:272:G:H2'	51:ZC:273(A):G:C8	2.51	0.46
51:ZC:340:A:H2'	51:ZC:341:G:O4'	2.16	0.46
51:ZC:582:G:H2'	51:ZC:583:G:C8	2.50	0.46
51:ZC:1161:C:H2'	51:ZC:1162:G:C8	2.51	0.46
51:ZC:1266:G:O2'	51:ZC:2012:G:O6	2.23	0.46
51:ZC:2842:G:H1	51:ZC:2875:C:H42	1.64	0.46
4:D:16:ARG:HD3	4:D:31:VAL:HG21	1.98	0.46
6:F:130:TYR:HB3	6:F:138:ILE:HB	1.97	0.46
29:CA:98:LEU:O	29:CA:101:MET:HG3	2.15	0.46
31:EA:123:HIS:HD1	50:UC:438:G:H4'	1.81	0.46
37:KA:79:ARG:HH11	37:KA:82:ILE:HG13	1.80	0.46
42:PA:40:SER:O	42:PA:44:LYS:HD2	2.15	0.46
1:WA:221:VAL:HG13	1:WA:226:MET:HE2	1.98	0.46
8:DB:112:LYS:O	8:DB:116:THR:HG22	2.15	0.46
8:DB:117:HIS:HB2	8:DB:119:GLU:OE2	2.16	0.46
10:FB:72:PRO:HD3	51:ZC:389:G:H22	1.81	0.46
28:XB:12:LYS:NZ	51:ZC:249:C:O2	2.39	0.46
30:ZB:22:TRP:HB2	30:ZB:23:TYR:H	1.65	0.46
36:FC:116:LYS:HE3	36:FC:122:ALA:HB2	1.97	0.46
40:JC:82:MET:HB2	40:JC:93:ARG:CZ	2.46	0.46
50:UC:375:U:H3	50:UC:389:A:H61	1.64	0.46
50:UC:507:C:H3'	50:UC:508:C:H2'	1.97	0.46
50:UC:560:U:H4'	50:UC:561:U:O5'	2.15	0.46
51:VC:550:G:H2'	51:VC:551:G:H8	1.80	0.46
51:VC:582:G:H2'	51:VC:583:G:C8	2.51	0.46
51:VC:639:U:H2'	51:VC:640:C:C6	2.51	0.46
51:VC:1113:U:H2'	51:VC:1114:G:H8	1.81	0.46
51:VC:1539:G:H2'	51:VC:1540:G:C8	2.51	0.46
51:VC:2086:U:H2'	51:VC:2087:G:C8	2.51	0.46
51:VC:2306:C:H5'	51:VC:2307:G:C8	2.51	0.46
51:VC:2329:G:H2'	51:VC:2330:G:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:2842:G:H2'	51:VC:2843:G:H8	1.80	0.46
51:VC:2853:C:H2'	51:VC:2854:G:H8	1.80	0.46
50:YC:791:G:N2	50:YC:1497:G:O3'	2.46	0.46
50:YC:958:A:N3	50:YC:985:C:O2'	2.47	0.46
50:YC:1163:C:H2'	50:YC:1164:G:C8	2.49	0.46
51:ZC:1523:U:H2'	51:ZC:1524:G:H8	1.81	0.46
51:ZC:1773:A:H2'	51:ZC:1774:C:O4'	2.15	0.46
1:A:183:ARG:NH2	51:VC:1800:C:OP2	2.49	0.46
4:D:96:ARG:HD2	4:D:98:ARG:HH11	1.81	0.46
9:I:76:ALA:HB3	14:N:75:ILE:HD13	1.98	0.46
10:J:72:PRO:HD3	51:VC:389:G:H22	1.81	0.46
10:J:126:VAL:HG22	10:J:145:PRO:HG2	1.97	0.46
20:T:158:PRO:HB2	20:T:161:VAL:HB	1.98	0.46
21:U:74:ARG:NH2	52:WC:13:A:O4'	2.49	0.46
29:CA:217:ARG:HD3	29:CA:217:ARG:HA	1.83	0.46
37:KA:50:ILE:HD11	37:KA:57:LYS:HD3	1.97	0.46
45:SA:66:LEU:O	45:SA:70:ILE:HG12	2.16	0.46
2:XA:165:VAL:HG11	51:ZC:2679:A:H5'	1.98	0.46
3:YA:56:GLU:OE1	3:YA:93:LYS:NZ	2.43	0.46
3:YA:133:ASN:O	3:YA:135:LYS:N	2.49	0.46
12:HB:28:LEU:HD23	12:HB:34:ILE:HG12	1.97	0.46
29:YB:212:GLN:OE1	29:YB:235:SER:OG	2.28	0.46
32:BC:94:ALA:HB2	32:BC:119:LEU:HD12	1.97	0.46
33:CC:69:GLU:HB2	50:YC:738:C:H5''	1.98	0.46
36:FC:17:VAL:HG11	36:FC:81:ILE:HG12	1.98	0.46
36:FC:112:LYS:HA	36:FC:119:ALA:HB2	1.97	0.46
49:SC:39:ARG:HA	49:SC:39:ARG:HE	1.81	0.46
49:SC:60:GLU:H	49:SC:60:GLU:CD	2.24	0.46
50:UC:304:U:H2'	50:UC:305:G:C8	2.51	0.46
50:UC:1105:A:H2'	50:UC:1106:G:C8	2.48	0.46
50:UC:1238:A:C5	50:UC:1303:C:H1'	2.51	0.46
50:UC:1319:A:O2'	50:UC:1323:G:N7	2.34	0.46
50:UC:1469:G:H2'	50:UC:1470:G:C8	2.51	0.46
51:VC:321:G:N3	51:VC:341:G:H4'	2.31	0.46
51:VC:848:G:H2'	51:VC:849:A:C8	2.51	0.46
50:YC:272:C:H2'	50:YC:273:A:H8	1.81	0.46
50:YC:560:U:H4'	50:YC:561:U:O5'	2.15	0.46
50:YC:1064:G:N2	50:YC:1190:G:H2'	2.30	0.46
51:ZC:27:G:H1'	51:ZC:513:A:H62	1.81	0.46
51:ZC:2110:G:H5''	51:ZC:2111:C:C5	2.50	0.46
51:ZC:2123:G:H2'	51:ZC:2124:G:C8	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:111:ARG:HB2	2:B:160:TYR:HB3	1.97	0.45
5:E:13:LYS:HA	5:E:14:GLY:HA2	1.52	0.45
14:N:96:ARG:HH12	51:VC:1754:C:P	2.39	0.45
14:N:105:LEU:HD22	14:N:109:GLU:HG3	1.98	0.45
17:Q:13:SER:HA	17:Q:14:PRO:HD3	1.79	0.45
22:V:41:ARG:HH11	22:V:43:TYR:HE2	1.64	0.45
24:X:8:LEU:HG	24:X:28:LEU:HD23	1.99	0.45
27:AA:5:TRP:NE1	27:AA:7:PRO:HG3	2.31	0.45
36:JA:115:GLY:N	50:UC:1367:C:OP1	2.47	0.45
39:MA:88:ARG:NH1	50:UC:525:C:OP1	2.49	0.45
7:CB:126:MET:HE2	51:ZC:1059:G:C2	2.51	0.45
10:FB:61:ARG:O	51:ZC:2393:A:H4'	2.17	0.45
15:KB:52:ARG:NH2	51:ZC:560:C:H4'	2.30	0.45
19:OB:9:LYS:NZ	51:ZC:84:A:OP2	2.46	0.45
23:SB:33:MET:HA	23:SB:36:ARG:HG2	1.98	0.45
29:YB:112:VAL:O	29:YB:116:GLU:HG2	2.15	0.45
48:RC:5:ASP:O	48:RC:11:GLY:HA3	2.16	0.45
49:TC:60:GLU:H	49:TC:60:GLU:CD	2.23	0.45
50:UC:147:G:H1	50:UC:175:C:N4	2.11	0.45
50:UC:1305:G:H1'	50:UC:1306:A:N7	2.30	0.45
51:VC:704:G:O2'	51:VC:726:G:N2	2.45	0.45
5:E:42:ARG:HB3	5:E:53:GLU:HB2	1.98	0.45
10:J:72:PRO:HB2	51:VC:2406:U:N3	2.30	0.45
12:L:13:HIS:HE1	12:L:15:SER:HB2	1.81	0.45
12:L:70:LEU:H	12:L:70:LEU:HD12	1.80	0.45
14:N:77:PRO:HB2	14:N:80:SER:HB2	1.98	0.45
36:JA:29:ASN:HD21	36:JA:65:VAL:N	2.14	0.45
42:PA:78:TYR:O	42:PA:82:ILE:HG22	2.16	0.45
4:ZA:96:ARG:HD2	4:ZA:98:ARG:HD3	1.97	0.45
6:BB:130:TYR:HD2	6:BB:138:ILE:HD12	1.82	0.45
10:FB:59:LEU:HA	10:FB:61:ARG:CZ	2.47	0.45
14:JB:96:ARG:HH12	51:ZC:1754:C:P	2.37	0.45
31:AC:31:CYS:C	31:AC:33:MET:H	2.24	0.45
37:GC:32:ALA:HB3	37:GC:76:ASN:HB2	1.99	0.45
46:PC:16:LEU:HA	46:PC:19:VAL:HG12	1.98	0.45
50:UC:405:U:H3'	50:UC:406:G:H5'	1.98	0.45
50:UC:1143:G:H2'	50:UC:1144:G:H8	1.81	0.45
51:VC:204:A:H8	51:VC:204:A:OP1	1.99	0.45
51:VC:848:G:O6	51:VC:929:G:H2'	2.17	0.45
51:VC:1411:C:H2'	51:VC:1412:A:H8	1.82	0.45
51:VC:1417:C:H2'	51:VC:1418:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:1689:A:H62	51:VC:1698:A:H2	1.63	0.45
51:VC:2398:U:H2'	51:VC:2399:G:H8	1.81	0.45
51:ZC:78:A:H2'	51:ZC:79:G:H8	1.80	0.45
51:ZC:321:G:N3	51:ZC:341:G:H4'	2.31	0.45
51:ZC:573:G:O2'	51:ZC:574:C:H3'	2.16	0.45
51:ZC:776:G:OP2	51:ZC:776:G:H8	1.99	0.45
51:ZC:1539:G:H2'	51:ZC:1540:G:C8	2.51	0.45
5:E:159:GLU:HG2	5:E:169:VAL:HG11	1.97	0.45
22:V:9:GLY:O	22:V:13:ILE:HG12	2.17	0.45
23:W:53:LEU:O	23:W:57:ILE:HG13	2.15	0.45
28:BA:9:GLY:O	28:BA:13:ARG:HG2	2.15	0.45
31:EA:35:ARG:NH2	50:UC:412:A:N3	2.63	0.45
3:YA:51:THR:HB	3:YA:88:VAL:HG11	1.97	0.45
6:BB:93:THR:HA	6:BB:119:PRO:HB3	1.99	0.45
11:GB:19:GLY:O	11:GB:21:THR:N	2.49	0.45
12:HB:64:ARG:NH2	51:ZC:2851:A:O3'	2.48	0.45
28:XB:27:THR:OG1	51:ZC:2361:A:OP1	2.28	0.45
43:MC:82:GLN:OE1	43:MC:82:GLN:N	2.49	0.45
51:VC:519:U:H2'	51:VC:520:G:C8	2.51	0.45
50:YC:1452:C:HO2'	50:YC:1453:G:N2	2.14	0.45
51:ZC:10:G:N2	51:ZC:2895:U:H1'	2.32	0.45
51:ZC:325:G:H2'	51:ZC:326:G:H8	1.81	0.45
51:ZC:639:U:H2'	51:ZC:640:C:C6	2.51	0.45
51:ZC:854:G:H2'	51:ZC:855:G:H8	1.81	0.45
51:ZC:2023:G:H5'	51:ZC:2617:C:H4'	1.98	0.45
51:ZC:2842:G:H2'	51:ZC:2843:G:C8	2.50	0.45
1:A:208:LYS:HB2	51:VC:729:G:C5	2.51	0.45
2:B:165:VAL:HG11	51:VC:2679:A:H5'	1.98	0.45
11:K:63:LYS:HD2	20:T:175:VAL:HG21	1.99	0.45
1:WA:77:ALA:HB2	1:WA:97:TYR:CD2	2.52	0.45
10:FB:7:ARG:O	10:FB:10:PRO:HD3	2.16	0.45
11:GB:63:LYS:HD2	20:PB:175:VAL:HG21	1.98	0.45
26:VB:41:PRO:HD2	26:VB:46:HIS:H	1.82	0.45
28:XB:9:GLY:O	28:XB:13:ARG:HG2	2.17	0.45
29:YB:91:PRO:HG3	29:YB:154:LEU:HD21	1.98	0.45
30:ZB:47:LEU:HB3	30:ZB:52:LEU:HD22	1.98	0.45
38:HC:122:LYS:HD2	50:YC:779:C:H5''	1.98	0.45
50:UC:639:G:H2'	50:UC:640:A:H8	1.81	0.45
50:UC:695:A:H2'	50:UC:696:A:C8	2.52	0.45
50:UC:1114:C:H42	50:UC:1186:G:H1	1.64	0.45
51:VC:270(W):G:H2'	51:VC:270(X):G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:356:G:H2'	51:VC:357:A:C8	2.51	0.45
51:VC:602:G:N2	51:VC:655:A:N7	2.64	0.45
51:VC:854:G:H2'	51:VC:855:G:H8	1.81	0.45
51:VC:1638:C:H5''	51:VC:2710:C:O2'	2.16	0.45
51:ZC:2842:G:H2'	51:ZC:2843:G:H8	1.81	0.45
53:BD:21:A:HO2'	53:BD:22:G:P	2.39	0.45
4:D:129:GLY:HA3	4:D:163:ALA:HB3	1.98	0.45
10:J:25:SER:HA	51:VC:811:U:H2'	1.97	0.45
12:L:48:VAL:O	12:L:52:ILE:HG12	2.16	0.45
22:V:51:VAL:HG13	22:V:58:ILE:HG23	1.99	0.45
23:W:47:ASN:HB3	23:W:48:HIS:H	1.53	0.45
30:DA:44:GLU:HA	30:DA:52:LEU:HD23	1.98	0.45
43:QA:34:GLU:OE2	43:QA:55:ARG:HD3	2.16	0.45
43:QA:82:GLN:OE1	43:QA:82:GLN:N	2.49	0.45
2:XA:184:VAL:HB	2:XA:185:LYS:H	1.57	0.45
4:ZA:96:ARG:HD2	4:ZA:98:ARG:HH11	1.81	0.45
20:PB:183:LEU:HA	20:PB:186:GLU:HB2	1.98	0.45
21:QB:27:GLU:OE2	51:ZC:855:G:O2'	2.26	0.45
31:AC:196:LEU:HB3	31:AC:198:VAL:HG22	1.98	0.45
43:MC:28:ARG:HH21	50:YC:390:C:H4'	1.81	0.45
50:UC:558:G:C8	50:UC:559:A:H2'	2.51	0.45
50:UC:668:G:H1	50:UC:738:C:H42	1.65	0.45
50:UC:728:A:H2'	50:UC:729:A:C8	2.51	0.45
51:VC:1761:C:H5''	51:VC:1762:A:C8	2.52	0.45
50:YC:359:U:H2'	50:YC:360:A:H8	1.82	0.45
50:YC:1114:C:H42	50:YC:1186:G:H1	1.65	0.45
51:ZC:49:A:H4'	51:ZC:50:U:H5''	1.98	0.45
51:ZC:270(W):G:H2'	51:ZC:270(X):G:H8	1.81	0.45
51:ZC:413:C:N4	51:ZC:2410:G:H1	2.08	0.45
51:ZC:1297:C:O2'	51:ZC:1302:A:N1	2.47	0.45
51:ZC:2853:C:H2'	51:ZC:2854:G:H8	1.80	0.45
3:C:51:THR:HB	3:C:88:VAL:HG11	1.98	0.45
4:D:86:MET:N	4:D:87:PRO:HD3	2.32	0.45
5:E:3:ARG:HH22	5:E:66:GLY:HA3	1.82	0.45
12:L:13:HIS:CE1	12:L:16:HIS:H	2.35	0.45
15:O:102:GLU:HA	15:O:104:GLN:NE2	2.31	0.45
19:S:73:ARG:NE	51:VC:335:C:H4'	2.31	0.45
28:BA:39:LYS:HA	28:BA:42:ARG:HH21	1.82	0.45
31:EA:79:PHE:CZ	31:EA:204:ILE:HA	2.52	0.45
36:JA:4:TYR:CE2	36:JA:88:TYR:HB3	2.51	0.45
40:NA:82:MET:HB2	40:NA:93:ARG:CZ	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:SA:70:ILE:O	45:SA:74:ARG:HG3	2.16	0.45
48:VA:5:ASP:O	48:VA:11:GLY:HA3	2.17	0.45
1:WA:25:THR:O	1:WA:27:THR:HG22	2.16	0.45
7:CB:77:LEU:HD22	7:CB:127:ILE:HD12	1.99	0.45
27:WB:34:ARG:NE	27:WB:39:ARG:HD2	2.31	0.45
33:CC:76:ALA:O	33:CC:80:ARG:HG2	2.17	0.45
39:IC:83:LEU:HD12	39:IC:100:VAL:HG21	1.99	0.45
51:VC:1108:U:H2'	51:VC:1109:C:O4'	2.17	0.45
51:VC:1358:G:O2'	51:VC:1359:A:H5''	2.17	0.45
51:VC:2439:A:H5'	51:VC:2439:A:C8	2.51	0.45
51:VC:2601:C:H4'	51:VC:2602:A:OP2	2.17	0.45
51:VC:2863:C:H2'	51:VC:2864:G:H8	1.80	0.45
50:YC:1043:C:H2'	50:YC:1044:A:C8	2.48	0.45
51:ZC:519:U:H2'	51:ZC:520:G:C8	2.52	0.45
51:ZC:1491:G:H2'	51:ZC:1492:G:H8	1.80	0.45
51:ZC:2330:G:H2'	51:ZC:2331:G:O4'	2.17	0.45
3:C:187:VAL:HG13	10:J:6:LEU:HA	1.97	0.45
6:F:93:THR:HA	6:F:119:PRO:HB3	1.98	0.45
8:H:97:ARG:HH21	51:VC:2641:G:P	2.39	0.45
15:O:52:ARG:NH2	51:VC:560:C:H4'	2.30	0.45
22:V:23:LYS:HB3	22:V:37:ILE:HG13	1.97	0.45
29:CA:69:LEU:HD22	29:CA:91:PRO:HB2	1.98	0.45
32:FA:126:ARG:NH2	50:UC:559:A:OP2	2.44	0.45
38:LA:122:LYS:HD2	50:UC:779:C:H5''	1.98	0.45
39:MA:9:LEU:HB3	44:RA:32:TYR:CE1	2.52	0.45
44:RA:17:LYS:NZ	50:UC:256:U:OP1	2.43	0.45
6:BB:130:TYR:HB3	6:BB:138:ILE:HB	1.99	0.45
11:GB:34:LEU:HD11	11:GB:129:THR:HB	1.98	0.45
12:HB:2:ARG:HE	12:HB:2:ARG:N	2.15	0.45
12:HB:52:ILE:HD13	12:HB:79:LEU:HD21	1.99	0.45
15:KB:69:CYS:SG	15:KB:74:LEU:HG	2.56	0.45
15:KB:102:GLU:HA	15:KB:104:GLN:NE2	2.32	0.45
19:OB:73:ARG:NE	51:ZC:335:C:H4'	2.31	0.45
19:OB:81:LYS:HD2	19:OB:96:ILE:HD12	1.98	0.45
20:PB:74:VAL:HG22	20:PB:86:VAL:HG22	1.99	0.45
22:RB:9:GLY:O	22:RB:13:ILE:HG12	2.17	0.45
27:WB:5:TRP:NE1	27:WB:7:PRO:HG3	2.31	0.45
27:WB:31:LEU:HD13	27:WB:31:LEU:HA	1.79	0.45
40:JC:3:ARG:HB2	49:TC:60:GLU:HG3	1.97	0.45
47:QC:105:SER:HB3	50:YC:191(G):G:C4	2.51	0.45
50:UC:1201:A:H1'	50:UC:1202:G:OP2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:1173:G:H2'	51:VC:1175:U:H5'	1.98	0.45
51:VC:1516:U:H2'	51:VC:1517:G:C8	2.51	0.45
51:VC:2100:G:H2'	51:VC:2101:G:C8	2.52	0.45
50:YC:1498:U:O2'	54:HD:17:U:OP1	2.26	0.45
51:ZC:38:A:H2'	51:ZC:39:C:C6	2.51	0.45
51:ZC:363(C):G:H2'	51:ZC:363(D):G:H8	1.81	0.45
51:ZC:1417:C:H2'	51:ZC:1418:G:O4'	2.16	0.45
51:ZC:2006:C:O2'	51:ZC:2823:A:N3	2.48	0.45
51:ZC:2299:G:H2'	51:ZC:2300:G:H8	1.81	0.45
51:ZC:2329:G:H2'	51:ZC:2330:G:C8	2.52	0.45
1:A:231:HIS:CD2	1:A:249:PRO:HG3	2.51	0.45
3:C:169:ASN:HB2	51:VC:322:A:OP2	2.16	0.45
23:W:33:MET:HA	23:W:36:ARG:HG2	1.99	0.45
23:W:50:ILE:HD12	23:W:51:ARG:H	1.82	0.45
27:AA:31:LEU:HD13	27:AA:31:LEU:HA	1.81	0.45
29:CA:91:PRO:HG3	29:CA:154:LEU:HD21	1.99	0.45
29:CA:178:ARG:HH21	35:IA:74:PRO:HG3	1.82	0.45
29:CA:212:GLN:OE1	29:CA:235:SER:OG	2.28	0.45
37:KA:22:LYS:HE3	37:KA:22:LYS:HB3	1.85	0.45
38:LA:59:TYR:CZ	38:LA:63:LEU:HD11	2.51	0.45
46:TA:40:ILE:HD13	46:TA:62:ILE:HD11	1.98	0.45
1:WA:62:TYR:HA	1:WA:87:ASN:ND2	2.32	0.45
1:WA:144:ALA:HB3	1:WA:192:THR:HG23	1.99	0.45
6:BB:77:LEU:HD11	6:BB:101:LEU:HD22	1.98	0.45
29:YB:178:ARG:HH21	35:EC:74:PRO:HG3	1.81	0.45
47:QC:61:SER:O	47:QC:65:LYS:HG3	2.17	0.45
51:VC:1019:U:OP1	51:VC:1035:U:O2'	2.30	0.45
51:VC:2023:G:H5'	51:VC:2617:C:H4'	1.98	0.45
50:YC:405:U:H3'	50:YC:406:G:H5'	1.98	0.45
50:YC:682:G:H2'	50:YC:683:G:C8	2.51	0.45
51:ZC:804:A:H2'	51:ZC:806:C:C4	2.51	0.45
51:ZC:2439:A:H5'	51:ZC:2439:A:C8	2.52	0.45
2:B:184:VAL:HB	2:B:185:LYS:H	1.58	0.45
11:K:21:THR:HB	51:VC:863:A:OP1	2.17	0.45
12:L:2:ARG:HE	12:L:2:ARG:N	2.15	0.45
14:N:119:LYS:HD2	51:VC:2864:G:OP1	2.16	0.45
27:AA:34:ARG:NE	27:AA:39:ARG:HD2	2.32	0.45
33:GA:69:GLU:HB2	50:UC:738:C:H5''	1.98	0.45
37:KA:32:ALA:HB3	37:KA:76:ASN:HB2	1.99	0.45
39:MA:91:ASP:HB2	50:UC:523:A:N1	2.32	0.45
46:TA:16:LEU:HA	46:TA:19:VAL:HG12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:WA:151:LYS:HE2	51:ZC:2208:U:H1'	1.99	0.45
4:ZA:86:MET:N	4:ZA:87:PRO:HD3	2.32	0.45
11:GB:21:THR:HB	51:ZC:863:A:OP1	2.16	0.45
14:JB:119:LYS:HD2	51:ZC:2864:G:OP1	2.16	0.45
31:AC:103:ASN:OD1	31:AC:114:ARG:NH2	2.30	0.45
35:EC:82:HIS:N	35:EC:138:TRP:O	2.47	0.45
50:UC:272:C:H2'	50:UC:273:A:H8	1.82	0.45
50:UC:1412:C:H2'	50:UC:1413:A:C8	2.51	0.45
51:VC:10:G:N2	51:VC:2895:U:H1'	2.31	0.45
50:YC:304:U:H2'	50:YC:305:G:C8	2.52	0.45
50:YC:375:U:H3	50:YC:389:A:H61	1.65	0.45
50:YC:939:G:H1	50:YC:1344:C:H42	1.63	0.45
50:YC:1250:A:H2	50:YC:1353:G:H21	1.65	0.45
51:ZC:548:A:H2'	51:ZC:549:G:O4'	2.15	0.45
51:ZC:1173:G:H2'	51:ZC:1175:U:H5'	1.99	0.45
51:ZC:1352:U:O2'	51:ZC:1570:A:N3	2.46	0.45
51:ZC:2661:G:H2'	51:ZC:2662:A:C8	2.52	0.45
51:ZC:2718:G:O2'	51:ZC:2847:U:OP1	2.34	0.45
10:J:39:LYS:HG2	51:VC:807:U:OP2	2.17	0.45
11:K:116:GLU:O	11:K:120:ILE:HG12	2.17	0.45
15:O:76:TYR:CE2	51:VC:1153:C:H5'	2.52	0.45
19:S:14:LEU:HD13	19:S:24:VAL:HG22	1.99	0.45
20:T:144:LEU:HD21	20:T:150:LEU:HD21	1.99	0.45
31:EA:142:PRO:HA	31:EA:185:PHE:HD2	1.81	0.45
43:QA:5:ARG:HD2	50:UC:376:G:H5''	1.98	0.45
44:RA:16:GLN:NE2	50:UC:273:A:H1'	2.31	0.45
1:WA:183:ARG:NH2	51:ZC:1800:C:OP2	2.49	0.45
5:AB:25:LYS:HE2	5:AB:25:LYS:HB3	1.78	0.45
5:AB:44:VAL:HG12	5:AB:46:GLU:HG3	1.99	0.45
7:CB:9:LYS:HB3	51:ZC:1061:U:C5	2.52	0.45
8:DB:75:VAL:HB	8:DB:143:LEU:HD23	1.98	0.45
14:JB:77:PRO:HB2	14:JB:80:SER:HB2	1.99	0.45
19:OB:44:ILE:HG21	51:ZC:480:A:H1'	1.99	0.45
21:QB:60:PHE:CZ	51:ZC:2365:G:H4'	2.52	0.45
25:UB:9:LYS:NZ	51:ZC:2019:A:H62	2.15	0.45
28:XB:7:HIS:HB2	28:XB:60:LEU:HD12	1.99	0.45
30:ZB:44:GLU:HA	30:ZB:52:LEU:HD23	1.98	0.45
32:BC:47:LYS:O	32:BC:57:LYS:NZ	2.36	0.45
43:MC:8:ARG:HB3	43:MC:28:ARG:NH1	2.32	0.45
50:UC:913:A:H4'	50:UC:914:A:O5'	2.18	0.45
51:VC:340:A:H2'	51:VC:341:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:690:G:H2'	51:VC:691:C:C6	2.52	0.45
51:VC:1466:G:H2'	51:VC:1547:C:N4	2.32	0.45
53:XC:5:G:O2'	53:XC:6:G:O5'	2.31	0.45
50:YC:558:G:C8	50:YC:559:A:H2'	2.52	0.45
50:YC:639:G:H2'	50:YC:640:A:H8	1.81	0.45
50:YC:668:G:H1	50:YC:738:C:H42	1.65	0.45
50:YC:1218:C:H2'	50:YC:1219:U:C6	2.52	0.45
51:ZC:345:A:N3	51:ZC:347:A:N6	2.65	0.45
51:ZC:1113:U:H2'	51:ZC:1114:G:H8	1.81	0.45
51:ZC:2345:G:H5''	51:ZC:2347:C:O4'	2.17	0.45
1:A:112:GLN:O	1:A:115:GLN:HB2	2.17	0.44
2:B:122:PHE:HB3	2:B:123:ALA:H	1.55	0.44
3:C:133:ASN:O	3:C:135:LYS:N	2.50	0.44
3:C:180:GLY:HA2	51:VC:616:A:C4	2.52	0.44
3:C:186:ILE:HD12	3:C:192:LEU:HD11	1.98	0.44
5:E:88:LEU:HD13	5:E:130:ARG:HG2	2.00	0.44
7:G:27:LEU:HB2	7:G:32:ALA:HB2	1.98	0.44
7:G:77:LEU:HD22	7:G:127:ILE:HD12	1.99	0.44
12:L:28:LEU:HD23	12:L:34:ILE:HG12	1.99	0.44
12:L:52:ILE:HD13	12:L:79:LEU:HD21	1.99	0.44
38:LA:19:ALA:HB3	38:LA:82:VAL:HG23	1.99	0.44
40:NA:116:THR:HA	50:UC:1228:C:H4'	1.99	0.44
45:SA:45:SER:HB3	45:SA:51:LEU:HD21	1.99	0.44
4:ZA:62:LEU:HG	4:ZA:143:GLU:HG3	1.99	0.44
8:DB:148:GLY:HA3	8:DB:149:PRO:O	2.16	0.44
12:HB:48:VAL:O	12:HB:52:ILE:HG12	2.16	0.44
20:PB:144:LEU:HD21	20:PB:150:LEU:HD21	2.00	0.44
22:RB:40:ARG:NH2	22:RB:42:GLN:HG2	2.32	0.44
24:TB:8:LEU:HG	24:TB:28:LEU:HD23	1.98	0.44
33:CC:97:PHE:CD2	45:OC:31:LEU:HD21	2.50	0.44
38:HC:24:SER:OG	38:HC:27:ASN:O	2.27	0.44
51:VC:78:A:H2'	51:VC:79:G:H8	1.81	0.44
51:VC:612:G:O2'	51:VC:616:A:N1	2.42	0.44
51:VC:776:G:H8	51:VC:776:G:OP2	2.01	0.44
51:VC:2804:C:H2'	51:VC:2805:G:C8	2.52	0.44
50:YC:67:C:H2'	50:YC:68:G:H8	1.82	0.44
50:YC:243:A:H4'	50:YC:244:U:O5'	2.17	0.44
50:YC:456:C:H42	50:YC:476:G:H1	1.65	0.44
50:YC:682:G:H2'	50:YC:683:G:H8	1.83	0.44
50:YC:1432:G:O2'	50:YC:1468:A:N6	2.50	0.44
50:YC:1469:G:H2'	50:YC:1470:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:YC:1501:C:OP2	50:YC:1504:G:O2'	2.22	0.44
51:ZC:1578:U:C2'	51:ZC:1579:A:H5'	2.47	0.44
51:ZC:2804:C:H2'	51:ZC:2805:G:C8	2.52	0.44
1:A:62:TYR:HA	1:A:87:ASN:ND2	2.31	0.44
1:A:144:ALA:HB3	1:A:192:THR:HG23	1.99	0.44
5:E:44:VAL:HG12	5:E:46:GLU:HG3	1.99	0.44
7:G:125:ARG:O	51:VC:1079:C:O2'	2.35	0.44
10:J:59:LEU:HA	10:J:61:ARG:CZ	2.47	0.44
12:L:64:ARG:NH2	51:VC:2851:A:O3'	2.48	0.44
14:N:26:ASP:HB2	14:N:91:ARG:HA	1.98	0.44
14:N:92:GLY:HA2	14:N:116:ALA:HA	1.99	0.44
16:P:77:ALA:C	16:P:79:VAL:H	2.25	0.44
31:EA:72:GLU:HG3	50:UC:545:C:H5'	1.98	0.44
33:GA:69:GLU:H	33:GA:69:GLU:CD	2.25	0.44
34:HA:87:VAL:HG22	34:HA:151:TYR:HB3	1.99	0.44
35:IA:102:ARG:H	35:IA:102:ARG:NE	2.04	0.44
37:KA:6:ILE:HD12	37:KA:23:ILE:HD13	1.98	0.44
41:OA:43:CYS:HA	41:OA:46:GLU:HB2	1.99	0.44
1:WA:233:HIS:NE2	1:WA:246:PRO:HA	2.32	0.44
4:ZA:72:ARG:HD3	4:ZA:85:GLY:O	2.17	0.44
7:CB:115:LEU:HD22	7:CB:117:THR:H	1.83	0.44
11:GB:12:GLN:HB3	11:GB:73:PRO:HD2	1.98	0.44
12:HB:70:LEU:HD12	12:HB:70:LEU:H	1.81	0.44
12:HB:99:LYS:HA	12:HB:112:ALA:HA	1.99	0.44
18:NB:23:GLU:C	18:NB:25:LYS:H	2.26	0.44
31:AC:63:LYS:HB2	31:AC:63:LYS:HE3	1.74	0.44
35:EC:91:ARG:NE	44:NC:32:TYR:O	2.51	0.44
50:UC:243:A:H4'	50:UC:244:U:O5'	2.16	0.44
50:UC:1218:C:H2'	50:UC:1219:U:C6	2.53	0.44
51:VC:514:A:N3	51:VC:581:C:O2'	2.46	0.44
51:VC:942:G:O2'	51:VC:1189:A:N3	2.46	0.44
51:VC:2110:G:H5''	51:VC:2111:C:C5	2.50	0.44
50:YC:147:G:H1	50:YC:175:C:N4	2.11	0.44
50:YC:103(C):G:H2'	50:YC:1033:G:C8	2.50	0.44
51:ZC:1316:U:H2'	51:ZC:1317:A:C8	2.51	0.44
1:A:77:ALA:HB2	1:A:97:TYR:CD2	2.51	0.44
3:C:102:PRO:HB2	3:C:105:VAL:HG23	1.99	0.44
8:H:148:GLY:HA3	8:H:149:PRO:O	2.16	0.44
29:CA:135:GLN:O	29:CA:139:LYS:HG2	2.18	0.44
40:NA:39:ILE:HG13	40:NA:56:LEU:HD21	1.99	0.44
44:RA:92:ARG:HD3	44:RA:92:ARG:HA	1.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:SA:86:VAL:HB	45:SA:87:ARG:H	1.62	0.44
3:YA:34:TRP:CE2	10:FB:12:ALA:HB2	2.53	0.44
4:ZA:16:ARG:HD3	4:ZA:31:VAL:HG21	1.98	0.44
8:DB:57:LEU:O	8:DB:72:GLY:HA3	2.17	0.44
9:EB:22:ILE:HG23	51:ZC:1952:A:C2	2.52	0.44
10:FB:101:VAL:HG23	10:FB:106:LEU:HB3	1.99	0.44
17:MB:13:SER:HA	17:MB:14:PRO:HD3	1.79	0.44
29:YB:69:LEU:HD22	29:YB:91:PRO:HB2	1.98	0.44
29:YB:135:GLN:O	29:YB:139:LYS:HG2	2.17	0.44
30:ZB:54:ARG:HB3	30:ZB:69:HIS:ND1	2.32	0.44
44:NC:98:LEU:HD13	50:YC:279:A:C5	2.53	0.44
50:UC:679:C:H42	50:UC:711:G:H1	1.65	0.44
50:UC:1144:G:N2	50:UC:1146:A:H62	2.14	0.44
51:VC:755:C:H2'	51:VC:756:C:C6	2.52	0.44
51:VC:1042:G:H1	51:VC:1113:U:H3	1.64	0.44
51:VC:1332:G:N2	51:VC:1610:A:N7	2.66	0.44
51:VC:1341:U:OP1	51:VC:1397:U:N3	2.45	0.44
51:VC:1409:C:H2'	51:VC:1410:G:C8	2.52	0.44
51:VC:2439:A:H5'	51:VC:2439:A:H8	1.82	0.44
50:YC:792:A:O2'	50:YC:794:A:N7	2.45	0.44
51:ZC:37:C:H2'	51:ZC:38:A:C8	2.52	0.44
51:ZC:356:G:H2'	51:ZC:357:A:C8	2.52	0.44
51:ZC:1441:G:H2'	51:ZC:1442:G:C8	2.53	0.44
51:ZC:1969:A:HO2'	51:ZC:1972:A:HO2'	1.65	0.44
51:ZC:2303:G:H2'	51:ZC:2304:G:O4'	2.18	0.44
51:ZC:2648:C:H2'	51:ZC:2649:U:C6	2.51	0.44
52:AD:75:G:H1	52:AD:102:G:H22	1.66	0.44
53:BD:5:G:O2'	53:BD:6:G:O5'	2.31	0.44
53:BD:21:A:O2'	53:BD:22:G:O5'	2.33	0.44
53:BD:42:G:H2'	53:BD:43:A:H8	1.80	0.44
8:H:57:LEU:HD13	8:H:57:LEU:HA	1.73	0.44
15:O:92:ARG:HG2	16:P:11:GLN:HB2	1.98	0.44
16:P:1:MET:HB3	16:P:42:GLY:HA3	1.99	0.44
19:S:73:ARG:HA	19:S:74:PRO:HD3	1.89	0.44
28:BA:31:HIS:NE2	51:VC:2422:A:N7	2.55	0.44
34:HA:79:ARG:NH2	53:XC:33:U:O3'	2.48	0.44
40:NA:2:ALA:C	40:NA:9:ILE:HG23	2.41	0.44
47:UA:23:ARG:O	47:UA:27:LYS:N	2.45	0.44
8:DB:60:LYS:HB3	8:DB:60:LYS:HE2	1.88	0.44
11:GB:82:ARG:HH22	51:ZC:960:A:H61	1.66	0.44
12:HB:10:LEU:HD13	12:HB:17:ARG:HH21	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:LB:1:MET:HB3	16:LB:42:GLY:HA3	1.99	0.44
16:LB:77:ALA:C	16:LB:79:VAL:H	2.25	0.44
28:XB:39:LYS:HA	28:XB:42:ARG:HH21	1.83	0.44
36:FC:73:GLN:O	36:FC:77:ILE:HG13	2.17	0.44
39:IC:92:LEU:HA	39:IC:93:PRO:HD3	1.84	0.44
40:JC:3:ARG:HD3	49:TC:60:GLU:OE2	2.16	0.44
46:PC:36:ARG:HH12	46:PC:75:ALA:HB3	1.82	0.44
50:UC:456:C:H42	50:UC:476:G:H1	1.66	0.44
50:UC:615:C:H2'	50:UC:616:G:H8	1.83	0.44
50:UC:1452:C:HO2'	50:UC:1453:G:N2	2.16	0.44
51:VC:806:C:O2	51:VC:2444:G:O2'	2.36	0.44
51:VC:2216:G:H2'	51:VC:2217:G:C8	2.53	0.44
52:WC:22:U:H3	52:WC:61:G:H1	1.66	0.44
50:YC:586:C:H2'	50:YC:587:G:H8	1.83	0.44
50:YC:695:A:H2'	50:YC:696:A:C8	2.52	0.44
50:YC:1391:U:H2'	50:YC:1392:G:C8	2.53	0.44
51:ZC:690:G:H2'	51:ZC:691:C:C6	2.52	0.44
51:ZC:730:C:OP1	51:ZC:1775:U:O2'	2.36	0.44
51:ZC:789:A:O3'	51:ZC:1781:C:N4	2.51	0.44
51:ZC:1000:A:H62	51:ZC:1154:G:H2'	1.83	0.44
51:ZC:1223:G:N2	51:ZC:1226:A:OP2	2.34	0.44
51:ZC:1949:G:H2'	51:ZC:1950:G:C8	2.53	0.44
4:D:47:LYS:NZ	4:D:82:LEU:HD23	2.33	0.44
10:J:26:GLY:HA2	10:J:30:THR:HG23	1.98	0.44
14:N:26:ASP:O	14:N:49:VAL:HG12	2.17	0.44
30:DA:54:ARG:HB3	30:DA:69:HIS:ND1	2.32	0.44
46:TA:36:ARG:HH12	46:TA:75:ALA:HB3	1.82	0.44
1:WA:35:LYS:HB2	1:WA:36:PRO:HD3	1.99	0.44
2:XA:34:VAL:HG12	2:XA:66:HIS:HE2	1.83	0.44
5:AB:3:ARG:HH22	5:AB:66:GLY:HA3	1.83	0.44
6:BB:4:ILE:HB	6:BB:18:VAL:HG22	2.00	0.44
8:DB:48:ARG:H	8:DB:48:ARG:HG2	1.57	0.44
24:TB:23:LEU:HG	24:TB:50:VAL:HG11	2.00	0.44
35:EC:24:THR:HG22	35:EC:25:ASP:H	1.83	0.44
36:FC:79:LEU:HD23	36:FC:101:PHE:O	2.17	0.44
37:GC:50:ILE:HD11	37:GC:57:LYS:HD3	1.98	0.44
44:NC:5:VAL:HG22	44:NC:60:ILE:HG13	2.00	0.44
47:QC:42:GLN:O	47:QC:46:GLU:HB2	2.18	0.44
50:UC:1279:A:O2'	50:UC:1281:U:OP2	2.28	0.44
51:VC:279:C:N4	51:VC:361:G:H1	2.16	0.44
51:VC:736:C:H42	51:VC:760:G:H1	1.63	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:1949:G:H2'	51:VC:1950:G:C8	2.53	0.44
51:VC:2211:G:C2'	51:VC:2212:A:H5''	2.48	0.44
51:VC:2327:A:H2'	51:VC:2328:A:C8	2.53	0.44
51:VC:2648:C:H2'	51:VC:2649:U:C6	2.52	0.44
50:YC:1396:A:H4'	50:YC:1397:C:H5''	2.00	0.44
51:ZC:806:C:O2	51:ZC:2444:G:O2'	2.35	0.44
51:ZC:910:A:C6	51:ZC:911:A:C6	3.06	0.44
51:ZC:1332:G:N2	51:ZC:1610:A:C8	2.85	0.44
51:ZC:1403:C:H5''	51:ZC:1471:A:O4'	2.18	0.44
51:ZC:2216:G:H2'	51:ZC:2217:G:C8	2.52	0.44
1:A:70:TRP:CZ2	1:A:150:LYS:HA	2.53	0.44
1:A:108:PRO:HB3	1:A:143:HIS:CE1	2.52	0.44
1:A:233:HIS:NE2	1:A:246:PRO:HA	2.33	0.44
1:A:244:ARG:HA	1:A:245:PRO:HA	1.72	0.44
4:D:62:LEU:HG	4:D:143:GLU:HG3	2.00	0.44
12:L:87:TYR:OH	12:L:117:VAL:O	2.31	0.44
31:EA:7:PRO:O	31:EA:10:ARG:HG2	2.17	0.44
31:EA:13:ARG:HB3	31:EA:38:TYR:O	2.18	0.44
34:HA:24:THR:HA	34:HA:27:ILE:HG12	1.98	0.44
43:QA:8:ARG:HB3	43:QA:28:ARG:NH1	2.32	0.44
46:TA:36:ARG:HD3	50:UC:1220:G:O3'	2.17	0.44
47:UA:61:SER:O	47:UA:65:LYS:HG3	2.18	0.44
4:ZA:96:ARG:O	4:ZA:99:MET:HG2	2.18	0.44
5:AB:88:LEU:HD13	5:AB:130:ARG:HG2	1.99	0.44
8:DB:149:PRO:HB2	8:DB:150:ASP:H	1.60	0.44
10:FB:71:VAL:HG21	51:ZC:390:A:C6	2.53	0.44
10:FB:72:PRO:HB2	51:ZC:2406:U:N3	2.33	0.44
12:HB:13:HIS:CE1	12:HB:16:HIS:H	2.35	0.44
23:SB:47:ASN:HB3	23:SB:48:HIS:H	1.54	0.44
31:AC:162:LEU:HD22	31:AC:178:VAL:HG13	1.98	0.44
38:HC:59:TYR:CZ	38:HC:63:LEU:HD11	2.52	0.44
45:OC:45:SER:HB3	45:OC:51:LEU:HD21	1.99	0.44
50:UC:222:U:H2'	50:UC:223:U:C6	2.53	0.44
50:UC:859:A:H2'	50:UC:860:A:O4'	2.17	0.44
50:UC:1404:C:H2'	50:UC:1405:G:C8	2.53	0.44
51:VC:1174:A:H3'	51:VC:1175:U:H5''	1.99	0.44
51:VC:1523:U:H2'	51:VC:1524:G:H8	1.82	0.44
51:VC:2645:G:H3'	51:VC:2646:C:C5'	2.48	0.44
50:YC:222:U:H2'	50:YC:223:U:C6	2.53	0.44
50:YC:1404:C:H2'	50:YC:1405:G:C8	2.53	0.44
51:ZC:628:G:H2'	51:ZC:629:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:848:G:O6	51:ZC:929:G:H2'	2.17	0.44
51:ZC:980:A:N6	51:ZC:981:A:N1	2.65	0.44
51:ZC:992:C:H2'	51:ZC:993:G:H8	1.83	0.44
51:ZC:2681:C:H6	51:ZC:2683:C:H41	1.65	0.44
11:K:12:GLN:HB3	11:K:73:PRO:HD2	1.99	0.44
33:GA:76:ALA:O	33:GA:80:ARG:HG2	2.17	0.44
41:OA:24:CYS:HB3	41:OA:29:ARG:H	1.83	0.44
42:PA:48:LYS:HB2	50:UC:668:G:H4'	2.00	0.44
43:QA:28:ARG:HH21	50:UC:390:C:H4'	1.82	0.44
47:UA:42:GLN:O	47:UA:46:GLU:HB2	2.17	0.44
1:WA:261:LYS:NZ	1:WA:263:ARG:HG3	2.33	0.44
10:FB:116:GLY:HA2	51:ZC:637:A:O5'	2.18	0.44
11:GB:116:GLU:O	11:GB:120:ILE:HG12	2.17	0.44
16:LB:35:LEU:HB2	16:LB:57:VAL:HG13	2.00	0.44
19:OB:2:ARG:NE	51:ZC:106:C:H1'	2.31	0.44
20:PB:158:PRO:HB2	20:PB:161:VAL:HB	1.99	0.44
22:RB:28:GLY:N	22:RB:32:LYS:O	2.50	0.44
23:SB:50:ILE:HD12	23:SB:51:ARG:H	1.81	0.44
30:ZB:31:HIS:O	30:ZB:35:GLU:HG2	2.17	0.44
32:BC:14:ARG:NH2	50:YC:1080:A:H5'	2.33	0.44
50:UC:825:G:H2'	50:UC:826:C:C6	2.52	0.44
50:UC:1077:G:N2	50:UC:1080:A:OP2	2.40	0.44
51:VC:38:A:H2'	51:VC:39:C:C6	2.52	0.44
51:VC:1116:C:H2'	51:VC:1117:G:H8	1.82	0.44
51:VC:1169:G:H2'	51:VC:1170:G:C8	2.53	0.44
51:VC:1357:U:H2'	51:VC:1358:G:O4'	2.18	0.44
51:VC:2303:G:H2'	51:VC:2304:G:O4'	2.18	0.44
51:VC:2345:G:H5''	51:VC:2347:C:O4'	2.18	0.44
50:YC:743:U:H2'	50:YC:744:C:C6	2.52	0.44
51:ZC:733:G:C6	51:ZC:761:A:N7	2.86	0.44
51:ZC:755:C:H2'	51:ZC:756:C:C6	2.52	0.44
51:ZC:1358:G:O2'	51:ZC:1359:A:H5''	2.18	0.44
51:ZC:1411:C:H2'	51:ZC:1412:A:H8	1.81	0.44
51:ZC:1523:U:H2'	51:ZC:1524:G:C8	2.52	0.44
51:ZC:2211:G:C2'	51:ZC:2212:A:H5''	2.47	0.44
51:ZC:2735:G:H2'	51:ZC:2736:G:H8	1.82	0.44
19:S:88:LYS:HB2	19:S:89:PHE:H	1.49	0.44
29:CA:55:PHE:HA	29:CA:58:ILE:HB	1.99	0.44
32:FA:143:ARG:HD2	35:IA:77:GLU:OE2	2.17	0.44
37:KA:17:ASP:OD2	37:KA:70:ARG:NH2	2.51	0.44
1:WA:70:TRP:CZ2	1:WA:150:LYS:HA	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:YA:182:ASN:ND2	3:YA:185:ASP:OD2	2.46	0.44
20:PB:104:PHE:HB3	20:PB:141:VAL:HG11	2.00	0.44
21:QB:50:ASN:HB3	21:QB:63:VAL:HG22	1.99	0.44
22:RB:27:GLU:HB3	22:RB:33:LYS:HG3	1.99	0.44
23:SB:42:GLY:O	23:SB:44:LEU:N	2.51	0.44
29:YB:9:GLU:HB3	29:YB:10:LEU:H	1.64	0.44
36:FC:46:ALA:HB2	36:FC:74:ILE:HG23	2.00	0.44
39:IC:91:ASP:HB2	50:YC:523:A:N1	2.32	0.44
40:JC:116:THR:HA	50:YC:1228:C:H4'	2.00	0.44
41:KC:12:ARG:HB3	41:KC:14:PRO:HD3	1.99	0.44
44:NC:92:ARG:HD3	44:NC:92:ARG:HA	1.79	0.44
50:UC:164:U:H2'	50:UC:165:C:C6	2.52	0.44
51:VC:1547:C:H2'	51:VC:1548:C:C6	2.52	0.44
51:VC:1811:G:H2'	51:VC:1812:A:C8	2.53	0.44
51:VC:2343:C:O2'	51:VC:2373:G:O2'	2.34	0.44
51:VC:2788:C:O2'	51:VC:2809:A:N3	2.44	0.44
50:YC:157:G:H2'	50:YC:158:G:H8	1.83	0.44
50:YC:1118:C:H2'	50:YC:1119:C:C6	2.53	0.44
50:YC:1495:U:O2'	51:ZC:1919:A:N1	2.48	0.44
51:ZC:1116:C:H2'	51:ZC:1117:G:H8	1.82	0.44
51:ZC:1627:G:H1	51:ZC:1639:U:H3	1.64	0.44
51:ZC:1689:A:H62	51:ZC:1698:A:H2	1.64	0.44
51:ZC:2591:C:H2'	51:ZC:2592:G:C8	2.53	0.44
53:ED:21:A:H61	53:ED:46:G:H2'	1.83	0.44
1:A:31:LYS:HD2	1:A:31:LYS:HA	1.68	0.44
3:C:6:MET:HG2	3:C:7:TYR:CD1	2.53	0.44
9:I:26:LYS:HB3	9:I:27:GLY:H	1.54	0.44
10:J:61:ARG:O	51:VC:2393:A:H4'	2.18	0.44
15:O:20:LEU:HB2	15:O:39:LEU:HD11	1.99	0.44
18:R:57:LEU:HD12	18:R:78:LYS:HB3	2.00	0.44
20:T:104:PHE:HB3	20:T:141:VAL:HG11	2.00	0.44
22:V:40:ARG:NH2	22:V:42:GLN:HG2	2.31	0.44
24:X:40:THR:OG1	24:X:43:ILE:HG12	2.18	0.44
36:JA:73:GLN:O	36:JA:77:ILE:HG13	2.17	0.44
46:TA:36:ARG:HA	46:TA:71:LEU:HB2	2.00	0.44
1:WA:63:ARG:HH22	51:ZC:1568:G:P	2.41	0.44
3:YA:57:VAL:HG22	3:YA:58:ALA:H	1.83	0.44
4:ZA:47:LYS:NZ	4:ZA:82:LEU:HD23	2.33	0.44
4:ZA:101:ILE:O	4:ZA:105:LYS:NZ	2.46	0.44
10:FB:16:ARG:HG2	51:ZC:661:C:H1'	2.00	0.44
10:FB:98:GLU:O	10:FB:101:VAL:HG12	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:JB:92:GLY:HA2	14:JB:116:ALA:HA	1.99	0.44
32:BC:143:ARG:HD2	35:EC:77:GLU:OE2	2.18	0.44
38:HC:19:ALA:HB3	38:HC:82:VAL:HG23	1.99	0.44
39:IC:9:LEU:HB3	44:NC:32:TYR:CE1	2.53	0.44
50:UC:743:U:H2'	50:UC:744:C:C6	2.52	0.44
51:VC:789:A:O3'	51:VC:1781:C:N4	2.51	0.44
51:VC:1403:C:H5''	51:VC:1471:A:O4'	2.18	0.44
51:VC:2403:C:H42	51:VC:2414:G:H1	1.65	0.44
51:VC:2735:G:H2'	51:VC:2736:G:H8	1.83	0.44
50:YC:825:G:H2'	50:YC:826:C:C6	2.53	0.44
50:YC:1410:G:H2'	50:YC:1411:C:C6	2.53	0.44
51:ZC:49:A:H5''	51:ZC:51:G:O4'	2.18	0.44
51:ZC:1357:U:H2'	51:ZC:1358:G:O4'	2.17	0.44
51:ZC:2100:G:H2'	51:ZC:2101:G:C8	2.52	0.44
2:B:4:ILE:HG12	2:B:28:ALA:HB1	2.00	0.43
4:D:33:ARG:CZ	4:D:162:THR:HG21	2.48	0.43
5:E:55:PRO:HG2	5:E:61:HIS:ND1	2.33	0.43
15:O:29:SER:OG	15:O:30:LYS:HE3	2.18	0.43
25:Y:9:LYS:NZ	51:VC:2019:A:H62	2.15	0.43
27:AA:24:THR:HG23	27:AA:27:GLY:H	1.83	0.43
28:BA:8:LYS:HE3	51:VC:245:G:O6	2.18	0.43
30:DA:4:LYS:NZ	50:UC:1192:C:OP2	2.51	0.43
30:DA:24:ALA:HB2	30:DA:32:LEU:HD12	2.00	0.43
30:DA:31:HIS:O	30:DA:35:GLU:HG2	2.18	0.43
31:EA:7:PRO:HB2	31:EA:10:ARG:HD2	2.00	0.43
36:JA:79:LEU:HD23	36:JA:101:PHE:O	2.17	0.43
41:OA:18:VAL:HG13	50:UC:1316:G:H4'	2.00	0.43
1:WA:259:THR:OG1	51:ZC:1797:C:O2'	2.17	0.43
6:BB:1:MET:HG3	6:BB:23:PRO:HA	1.99	0.43
6:BB:56:LYS:HE3	6:BB:56:LYS:HB3	1.81	0.43
9:EB:26:LYS:HB3	9:EB:27:GLY:H	1.53	0.43
12:HB:87:TYR:OH	12:HB:117:VAL:O	2.31	0.43
15:KB:20:LEU:HB2	15:KB:39:LEU:HD11	2.00	0.43
28:XB:8:LYS:HE3	51:ZC:245:G:O6	2.17	0.43
33:CC:50:TYR:CE1	45:OC:77:GLY:HA2	2.53	0.43
36:FC:50:LEU:HA	36:FC:53:VAL:HG22	2.00	0.43
40:JC:39:ILE:HG13	40:JC:56:LEU:HD21	1.99	0.43
42:LC:48:LYS:HB2	50:YC:668:G:H4'	2.00	0.43
50:UC:987:G:H1	50:UC:1218:C:H42	1.65	0.43
50:UC:1127:G:N2	50:UC:1147:C:H42	2.16	0.43
50:UC:1238:A:N3	50:UC:1241:G:O2'	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:UC:1432:G:O2'	50:UC:1468:A:N6	2.50	0.43
51:VC:29:U:H2'	51:VC:30:G:C8	2.53	0.43
51:VC:272:G:H2'	51:VC:273(A):G:C8	2.52	0.43
51:VC:1203:G:O6	51:VC:1204:A:N6	2.51	0.43
51:VC:2262:U:H2'	51:VC:2263:C:C6	2.53	0.43
50:YC:814:A:H2'	50:YC:816:A:H5''	2.00	0.43
50:YC:913:A:H4'	50:YC:914:A:O5'	2.18	0.43
50:YC:1144:G:N2	50:YC:1146:A:H62	2.14	0.43
51:ZC:1614:A:P	51:ZC:1614:A:H8	2.41	0.43
51:ZC:2305:A:H3'	51:ZC:2306:C:H5''	2.00	0.43
53:FD:4:G:H2'	53:FD:5:G:C8	2.53	0.43
1:A:35:LYS:HB2	1:A:36:PRO:HD3	1.99	0.43
3:C:8:GLN:CD	3:C:8:GLN:H	2.26	0.43
6:F:1:MET:HG3	6:F:23:PRO:HA	1.99	0.43
19:S:2:ARG:NE	51:VC:106:C:H1'	2.31	0.43
29:CA:218:ALA:O	29:CA:222:ILE:HG12	2.18	0.43
44:RA:50:LYS:HE2	44:RA:51:TYR:CZ	2.52	0.43
1:WA:231:HIS:CD2	1:WA:249:PRO:HG3	2.53	0.43
3:YA:8:GLN:CD	3:YA:8:GLN:H	2.26	0.43
3:YA:170:LEU:HD12	3:YA:171:PRO:HD2	2.00	0.43
9:EB:12:ASP:OD1	9:EB:14:THR:OG1	2.36	0.43
10:FB:47:ASP:HB3	10:FB:48:PRO:CA	2.49	0.43
12:HB:13:HIS:HE1	12:HB:15:SER:HB2	1.83	0.43
18:NB:57:LEU:HD12	18:NB:78:LYS:HB3	1.99	0.43
31:AC:149:ALA:O	31:AC:153:ARG:HG3	2.18	0.43
32:BC:135:THR:O	32:BC:139:LEU:HG	2.18	0.43
42:LC:50:HIS:O	42:LC:53:HIS:HB3	2.18	0.43
46:PC:27:GLU:OE1	46:PC:27:GLU:N	2.52	0.43
46:PC:36:ARG:HD3	50:YC:1220:G:O3'	2.17	0.43
50:UC:67:C:H2'	50:UC:68:G:H8	1.82	0.43
51:VC:214:G:H1'	51:VC:216:A:O2'	2.18	0.43
51:VC:982:C:H5''	51:VC:983:A:OP2	2.18	0.43
51:VC:1000:A:H62	51:VC:1154:G:H2'	1.83	0.43
51:VC:1578:U:C2'	51:VC:1579:A:H5'	2.47	0.43
51:VC:1840:G:H1	51:VC:1902:C:N4	2.10	0.43
51:VC:2299:G:H2'	51:VC:2300:G:H8	1.83	0.43
51:VC:2591:C:H2'	51:VC:2592:G:C8	2.52	0.43
51:VC:2661:G:H2'	51:VC:2662:A:C8	2.53	0.43
52:WC:75:G:H1	52:WC:102:G:H22	1.66	0.43
51:ZC:1169:G:H2'	51:ZC:1170:G:C8	2.54	0.43
51:ZC:2403:C:H42	51:ZC:2414:G:H1	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:2439:A:H5'	51:ZC:2439:A:H8	1.83	0.43
4:D:72:ARG:HD3	4:D:85:GLY:O	2.17	0.43
7:G:57:ILE:HG23	7:G:65:PHE:HB2	2.00	0.43
8:H:117:HIS:HA	8:H:118:PRO:HD3	1.74	0.43
11:K:20:ALA:HB2	11:K:99:PRO:HD2	2.00	0.43
12:L:10:LEU:HD13	12:L:17:ARG:HH21	1.83	0.43
14:N:15:VAL:HG23	14:N:79:HIS:CE1	2.53	0.43
17:Q:14:PRO:HG3	17:Q:101:SER:HB3	2.00	0.43
20:T:74:VAL:HG22	20:T:86:VAL:HG22	2.01	0.43
29:CA:36:ARG:HB2	29:CA:41:ILE:HD11	1.99	0.43
29:CA:90:MET:HA	29:CA:91:PRO:HD3	1.82	0.43
30:DA:130:VAL:O	30:DA:134:ILE:HG13	2.18	0.43
31:EA:50:ARG:HH11	31:EA:51:PRO:HD2	1.83	0.43
33:GA:50:TYR:CE1	45:SA:77:GLY:HA2	2.53	0.43
35:IA:110:ALA:HA	35:IA:136:GLU:HA	2.00	0.43
37:KA:49:VAL:O	37:KA:60:ARG:HB2	2.17	0.43
44:RA:5:VAL:HG22	44:RA:60:ILE:HG13	1.99	0.43
5:AB:55:PRO:HG2	5:AB:61:HIS:ND1	2.33	0.43
15:KB:104:GLN:CD	15:KB:104:GLN:H	2.25	0.43
22:RB:18:ILE:H	22:RB:18:ILE:HD13	1.84	0.43
29:YB:103:THR:HA	29:YB:180:LEU:HD11	2.00	0.43
33:CC:16:GLN:H	33:CC:16:GLN:CD	2.26	0.43
40:JC:45:VAL:O	40:JC:48:LEU:HD22	2.18	0.43
42:LC:62:GLN:HA	42:LC:65:ARG:NH1	2.33	0.43
50:UC:155:C:H2'	50:UC:156:G:H8	1.83	0.43
50:UC:1118:C:H2'	50:UC:1119:C:C6	2.53	0.43
50:UC:1396:A:H4'	50:UC:1397:C:H5''	1.99	0.43
51:VC:137(B):G:H2'	51:VC:139:G:N7	2.34	0.43
51:VC:733:G:C6	51:VC:761:A:N7	2.86	0.43
51:VC:1614:A:P	51:VC:1614:A:H8	2.41	0.43
50:YC:736:C:H2'	50:YC:737:A:C8	2.53	0.43
50:YC:1414:U:H2'	50:YC:1415:G:C8	2.53	0.43
51:ZC:29:U:H2'	51:ZC:30:G:C8	2.53	0.43
51:ZC:2262:U:H2'	51:ZC:2263:C:C6	2.53	0.43
51:ZC:2327:A:H2'	51:ZC:2328:A:C8	2.52	0.43
51:ZC:2864:G:H2'	51:ZC:2865:U:C6	2.53	0.43
53:ED:4:G:H2'	53:ED:5:G:C8	2.53	0.43
1:A:25:THR:O	1:A:27:THR:HG22	2.18	0.43
10:J:40:SER:C	10:J:41:ARG:HE	2.26	0.43
14:N:112:ARG:H	14:N:112:ARG:HG3	1.55	0.43
36:JA:69:GLY:HA3	50:UC:1371:G:O3'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:MA:52:ARG:HH22	50:UC:522:C:H41	1.65	0.43
40:NA:27:LYS:HG3	40:NA:31:LYS:HE3	2.00	0.43
41:OA:6:LEU:HD11	50:UC:982:U:H5''	2.00	0.43
42:PA:62:GLN:HA	42:PA:65:ARG:NH1	2.33	0.43
42:PA:64:ARG:HH12	50:UC:582:U:H5''	1.84	0.43
1:WA:31:LYS:HA	1:WA:31:LYS:HD2	1.69	0.43
1:WA:208:LYS:HB2	51:ZC:729:G:C5	2.54	0.43
2:XA:4:ILE:HG12	2:XA:28:ALA:HB1	1.99	0.43
5:AB:42:ARG:HB3	5:AB:53:GLU:HB2	1.99	0.43
9:EB:79:PHE:CD2	14:JB:72:VAL:HG22	2.54	0.43
11:GB:134:ARG:NH1	11:GB:138:ASP:OD1	2.40	0.43
12:HB:13:HIS:CE1	12:HB:15:SER:HB2	2.53	0.43
14:JB:26:ASP:O	14:JB:49:VAL:HG12	2.18	0.43
15:KB:29:SER:OG	15:KB:30:LYS:HE3	2.19	0.43
22:RB:21:ARG:HB3	22:RB:39:LYS:HG2	2.00	0.43
29:YB:55:PHE:HA	29:YB:58:ILE:HB	1.99	0.43
29:YB:218:ALA:O	29:YB:222:ILE:HG12	2.18	0.43
50:UC:359:U:H2'	50:UC:360:A:H8	1.82	0.43
51:VC:137(B):G:O6	51:VC:139:G:O2'	2.27	0.43
51:VC:363(D):G:H2'	51:VC:363(E):G:C8	2.53	0.43
51:VC:749:C:O2	51:VC:1618:A:H2'	2.18	0.43
51:VC:869:G:N2	51:VC:908:C:O2	2.52	0.43
51:VC:2681:C:H6	51:VC:2683:C:H41	1.67	0.43
50:YC:928:G:H2'	50:YC:929:G:C8	2.53	0.43
51:ZC:279:C:N4	51:ZC:361:G:H1	2.16	0.43
51:ZC:1547:C:H2'	51:ZC:1548:C:C6	2.53	0.43
8:H:75:VAL:HB	8:H:143:LEU:HD23	2.00	0.43
10:J:23:PRO:HB2	10:J:33:ARG:CG	2.45	0.43
10:J:47:ASP:HB3	10:J:48:PRO:CA	2.48	0.43
15:O:104:GLN:HB2	16:P:44:LYS:NZ	2.34	0.43
22:V:21:ARG:HB3	22:V:39:LYS:HG2	2.00	0.43
22:V:28:GLY:N	22:V:32:LYS:O	2.52	0.43
35:IA:105:ARG:HA	35:IA:105:ARG:HD3	1.77	0.43
1:WA:59:LYS:HB3	51:ZC:1568:G:H4'	2.00	0.43
1:WA:106:ILE:H	1:WA:106:ILE:HG13	1.50	0.43
2:XA:23:VAL:HG21	2:XA:183:LEU:HD23	2.00	0.43
3:YA:24:LEU:HA	3:YA:25:PRO:HD2	1.86	0.43
8:DB:97:ARG:HH21	51:ZC:2641:G:P	2.40	0.43
13:IB:66:ALA:HA	13:IB:69:VAL:HG22	2.00	0.43
22:RB:45:ASN:CG	51:ZC:2090:G:H21	2.25	0.43
22:RB:51:VAL:HG13	22:RB:58:ILE:HG23	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RB:83:GLU:OE1	22:RB:84:GLY:N	2.47	0.43
50:UC:682:G:H2'	50:UC:683:G:C8	2.53	0.43
51:VC:573:G:O2'	51:VC:574:C:H3'	2.18	0.43
51:VC:2819:G:H2'	51:VC:2821:A:N7	2.34	0.43
1:A:59:LYS:HB3	51:VC:1568:G:H4'	2.00	0.43
1:A:132:PRO:HD3	1:A:190:TYR:CE2	2.54	0.43
1:A:200:ASP:OD1	1:A:203:ASN:ND2	2.51	0.43
4:D:9:ARG:O	4:D:13:GLU:HG2	2.19	0.43
4:D:77:ILE:HG22	4:D:80:PHE:H	1.83	0.43
6:F:4:ILE:HB	6:F:18:VAL:HG22	2.00	0.43
10:J:71:VAL:HG21	51:VC:390:A:C6	2.53	0.43
12:L:73:VAL:O	12:L:76:VAL:HG22	2.19	0.43
13:M:10:ARG:HG3	13:M:13:ARG:NH2	2.34	0.43
14:N:123:LYS:NZ	51:VC:2867:G:OP2	2.45	0.43
15:O:74:LEU:HD23	15:O:74:LEU:H	1.84	0.43
17:Q:26:GLY:O	17:Q:27:LYS:HD2	2.18	0.43
17:Q:82:LEU:HD12	17:Q:82:LEU:HA	1.86	0.43
19:S:44:ILE:HG21	51:VC:480:A:H1'	2.01	0.43
22:V:27:GLU:HB3	22:V:33:LYS:HG3	1.99	0.43
46:TA:64:GLU:OE2	46:TA:65:ASN:ND2	2.51	0.43
1:WA:108:PRO:HB3	1:WA:143:HIS:CE1	2.53	0.43
8:DB:57:LEU:HA	8:DB:57:LEU:HD13	1.73	0.43
10:FB:46:LYS:HG2	10:FB:52:GLU:CD	2.43	0.43
18:NB:57:LEU:HD23	51:ZC:1341:U:O4'	2.18	0.43
21:QB:16:SER:HB3	51:ZC:2261:C:C5	2.54	0.43
36:FC:111:ARG:HD2	41:KC:61:TRP:NE1	2.34	0.43
37:GC:17:ASP:OD2	37:GC:70:ARG:NH2	2.52	0.43
42:LC:64:ARG:HH12	50:YC:582:U:H5''	1.83	0.43
46:PC:64:GLU:OE2	46:PC:65:ASN:ND2	2.52	0.43
50:UC:447:G:H1	50:UC:485:G:HO2'	1.61	0.43
50:UC:814:A:H2'	50:UC:816:A:H5''	2.00	0.43
51:VC:37:C:H2'	51:VC:38:A:C8	2.52	0.43
51:VC:320:A:H4'	51:VC:322:A:N7	2.33	0.43
51:VC:578:A:OP1	51:VC:1255:U:O2'	2.28	0.43
51:VC:2123:G:H2'	51:VC:2124:G:C8	2.48	0.43
50:YC:615:C:H2'	50:YC:616:G:H8	1.83	0.43
51:ZC:1056:G:H5''	51:ZC:1057:A:O4'	2.19	0.43
51:ZC:1174:A:H3'	51:ZC:1175:U:H5''	1.99	0.43
51:ZC:2320:A:H2'	51:ZC:2320:A:N3	2.33	0.43
3:C:70:THR:C	3:C:72:ARG:H	2.27	0.43
4:D:115:ARG:HH22	4:D:136:ARG:N	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:79:PHE:CD2	14:N:72:VAL:HG22	2.54	0.43
16:P:39:LEU:HA	16:P:47:VAL:HG11	2.01	0.43
18:R:57:LEU:HD23	51:VC:1341:U:O4'	2.17	0.43
32:FA:45:PHE:CD2	32:FA:47:LYS:HD2	2.54	0.43
33:GA:4:TYR:HD1	33:GA:92:LYS:HA	1.84	0.43
4:ZA:33:ARG:CZ	4:ZA:162:THR:HG21	2.48	0.43
11:GB:20:ALA:HB2	11:GB:99:PRO:HD2	2.01	0.43
11:GB:89:ASN:C	11:GB:92:GLY:H	2.27	0.43
12:HB:111:LEU:HD23	12:HB:111:LEU:HA	1.78	0.43
15:KB:74:LEU:HD23	15:KB:74:LEU:H	1.84	0.43
19:OB:8:LYS:NZ	19:OB:8:LYS:H	2.16	0.43
30:ZB:4:LYS:NZ	50:YC:1192:C:OP2	2.52	0.43
32:BC:14:ARG:NH2	50:YC:1079:G:O3'	2.51	0.43
40:JC:27:LYS:HG3	40:JC:31:LYS:HE3	2.00	0.43
50:UC:1250:A:H2	50:UC:1353:G:H21	1.65	0.43
50:UC:1469:G:H2'	50:UC:1470:G:H8	1.83	0.43
51:VC:239:U:H2'	51:VC:240:G:O4'	2.19	0.43
51:VC:534:U:H2'	51:VC:535:C:C6	2.54	0.43
51:VC:628:G:H2'	51:VC:629:G:H8	1.83	0.43
51:VC:834:C:H2'	51:VC:835:A:H8	1.84	0.43
50:YC:79:G:H2'	50:YC:80:G:O4'	2.19	0.43
50:YC:164:U:H2'	50:YC:165:C:C6	2.53	0.43
50:YC:272:C:H2'	50:YC:273:A:C8	2.54	0.43
50:YC:1077:G:N2	50:YC:1080:A:OP2	2.40	0.43
50:YC:1319:A:O2'	50:YC:1323:G:N7	2.34	0.43
51:ZC:363(D):G:H2'	51:ZC:363(E):G:C8	2.53	0.43
51:ZC:817:C:H4'	51:ZC:932:G:C6	2.54	0.43
51:ZC:2645:G:H3'	51:ZC:2646:C:C5'	2.48	0.43
52:AD:22:U:H3	52:AD:61:G:H1	1.66	0.43
1:A:132:PRO:HD3	1:A:190:TYR:CZ	2.54	0.43
2:B:7:VAL:HG13	2:B:27:LEU:HB3	2.01	0.43
4:D:96:ARG:O	4:D:99:MET:HG2	2.19	0.43
10:J:46:LYS:HG2	10:J:52:GLU:CD	2.44	0.43
11:K:82:ARG:HH22	51:VC:960:A:H61	1.67	0.43
18:R:35:THR:HB	18:R:38:GLU:HG2	1.99	0.43
31:EA:171:GLY:HA3	31:EA:174:LEU:HD12	2.00	0.43
33:GA:97:PHE:CD2	45:SA:31:LEU:HD21	2.50	0.43
36:JA:46:ALA:HB2	36:JA:74:ILE:HG23	2.00	0.43
37:KA:3:LYS:N	37:KA:75:ILE:HA	2.34	0.43
37:KA:75:ILE:H	37:KA:75:ILE:HG13	1.48	0.43
43:QA:27:LYS:HG2	50:UC:111:G:H5''	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:DB:90:LEU:H	8:DB:90:LEU:HD12	1.83	0.43
15:KB:25:TRP:O	15:KB:28:ARG:HB3	2.18	0.43
19:OB:26:LYS:HE3	19:OB:26:LYS:HB2	1.89	0.43
28:XB:31:HIS:NE2	51:ZC:2422:A:N7	2.53	0.43
32:BC:76:ILE:HG23	32:BC:78:HIS:H	1.83	0.43
33:CC:4:TYR:HD1	33:CC:92:LYS:HA	1.84	0.43
35:EC:104:ARG:HD3	35:EC:138:TRP:CD2	2.53	0.43
44:NC:63:ARG:NH2	50:YC:189:U:O2	2.52	0.43
51:VC:1278:A:H2'	51:VC:1279:G:H8	1.84	0.43
51:VC:2718:G:O2'	51:VC:2847:U:OP1	2.34	0.43
52:WC:75:G:H1	52:WC:102:G:N2	2.17	0.43
50:YC:1022:G:H2'	50:YC:1023:G:H8	1.83	0.43
51:ZC:137(B):G:H2'	51:ZC:139:G:N7	2.33	0.43
51:ZC:869:G:H2'	51:ZC:870:A:H8	1.83	0.43
51:ZC:1811:G:H2'	51:ZC:1812:A:C8	2.53	0.43
51:ZC:2601:C:H4'	51:ZC:2602:A:OP2	2.19	0.43
4:D:151:ALA:O	4:D:153:ARG:NH1	2.52	0.43
7:G:120:LEU:HA	7:G:123:ALA:HB3	2.01	0.43
31:EA:109:GLY:HA3	31:EA:165:MET:HG2	2.01	0.43
41:OA:45:ARG:NH2	50:UC:1059:C:O3'	2.52	0.43
2:XA:36:ARG:NH2	2:XA:88:GLY:HA2	2.33	0.43
7:CB:53:VAL:HA	7:CB:54:PRO:HD3	1.82	0.43
7:CB:57:ILE:HD12	7:CB:65:PHE:HD1	1.84	0.43
8:DB:117:HIS:HA	8:DB:118:PRO:HD3	1.74	0.43
10:FB:40:SER:C	10:FB:41:ARG:HE	2.26	0.43
13:IB:10:ARG:HG3	13:IB:13:ARG:NH2	2.34	0.43
15:KB:76:TYR:CE2	51:ZC:1153:C:H5'	2.51	0.43
16:LB:39:LEU:HA	16:LB:47:VAL:HG11	2.00	0.43
23:SB:35:LEU:HD12	23:SB:53:LEU:HD12	2.01	0.43
29:YB:36:ARG:HB2	29:YB:41:ILE:HD11	2.00	0.43
31:AC:123:HIS:HB2	31:AC:125:HIS:CD2	2.54	0.43
33:CC:69:GLU:H	33:CC:69:GLU:CD	2.26	0.43
50:UC:171:A:H2'	50:UC:172:A:C8	2.53	0.43
51:VC:270(S):G:H2'	51:VC:270(T):G:H8	1.84	0.43
51:VC:1514:U:H2'	51:VC:1515:C:C6	2.54	0.43
51:VC:2305:A:H3'	51:VC:2306:C:H5''	2.01	0.43
50:YC:1306:A:N6	50:YC:1331:G:H1'	2.32	0.43
51:ZC:64:A:H2'	51:ZC:65:C:C6	2.54	0.43
51:ZC:1332:G:N2	51:ZC:1610:A:N7	2.66	0.43
1:A:151:LYS:HE2	51:VC:2208:U:H1'	1.99	0.43
2:B:3:GLY:HA2	2:B:198:VAL:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:23:VAL:HG21	2:B:183:LEU:HD23	2.00	0.43
3:C:170:LEU:HD12	3:C:171:PRO:HD2	2.01	0.43
10:J:74:GLU:HB2	51:VC:244:A:H4'	2.01	0.43
10:J:84:ASN:HD21	10:J:117:GLU:HG3	1.84	0.43
18:R:23:GLU:C	18:R:25:LYS:H	2.26	0.43
22:V:18:ILE:HD13	22:V:18:ILE:H	1.83	0.43
28:BA:7:HIS:HB2	28:BA:60:LEU:HD12	2.01	0.43
29:CA:235:SER:HA	29:CA:238:LEU:HG	2.01	0.43
32:FA:71:LEU:HD21	32:FA:115:VAL:HG22	2.01	0.43
32:FA:127:ASN:HA	32:FA:128:PRO:HD3	1.89	0.43
35:IA:31:PHE:O	35:IA:35:ILE:HG12	2.19	0.43
38:LA:123:LYS:HG2	50:UC:780:A:OP1	2.19	0.43
44:RA:98:LEU:HD13	50:UC:279:A:C5	2.54	0.43
3:YA:53:THR:HG23	3:YA:56:GLU:OE1	2.19	0.43
4:ZA:151:ALA:O	4:ZA:153:ARG:NH1	2.52	0.43
10:FB:84:ASN:HD21	10:FB:117:GLU:HG3	1.84	0.43
11:GB:66:ILE:HG22	11:GB:104:PHE:CE2	2.54	0.43
26:VB:26:ASN:OD1	26:VB:27:LYS:N	2.51	0.43
31:AC:146:ILE:H	31:AC:146:ILE:HD12	1.83	0.43
32:BC:71:LEU:HD21	32:BC:115:VAL:HG22	2.01	0.43
36:FC:4:TYR:CE2	36:FC:88:TYR:HB3	2.53	0.43
46:PC:6:LYS:H	46:PC:6:LYS:HD2	1.84	0.43
50:UC:216:G:H2'	50:UC:217:C:C6	2.54	0.43
50:UC:586:C:H2'	50:UC:587:G:H8	1.83	0.43
50:UC:998(A):G:H2'	50:UC:998(B):C:C6	2.54	0.43
51:VC:49:A:H5''	51:VC:51:G:O4'	2.19	0.43
51:VC:1179:C:H2'	51:VC:1180:C:C6	2.54	0.43
51:VC:1523:U:H2'	51:VC:1524:G:C8	2.53	0.43
51:VC:1811:G:H2'	51:VC:1812:A:H8	1.84	0.43
51:VC:2320:A:H2'	51:VC:2320:A:N3	2.34	0.43
50:YC:155:C:H2'	50:YC:156:G:H8	1.83	0.43
51:ZC:611:C:H2'	51:ZC:612:G:O4'	2.19	0.43
51:ZC:869:G:N2	51:ZC:908:C:O2	2.51	0.43
51:ZC:1341:U:OP1	51:ZC:1397:U:N3	2.44	0.43
51:ZC:2529:G:H5''	51:ZC:2530:A:H5''	2.01	0.43
2:B:34:VAL:HG12	2:B:66:HIS:HE2	1.84	0.42
8:H:57:LEU:O	8:H:72:GLY:HA3	2.18	0.42
9:I:3:GLN:HB2	9:I:4:PRO:HD2	2.01	0.42
11:K:66:ILE:HG22	11:K:104:PHE:CE2	2.54	0.42
27:AA:8:ASN:HB3	27:AA:11:LYS:HB3	1.99	0.42
32:FA:48:ALA:HA	32:FA:49:PRO:HD3	1.89	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:OA:31:ARG:HB2	50:UC:976:G:OP1	2.18	0.42
44:RA:63:ARG:NH2	50:UC:189:U:O2	2.52	0.42
2:XA:3:GLY:HA2	2:XA:198:VAL:O	2.19	0.42
3:YA:41:LEU:HA	3:YA:44:ARG:HG2	2.01	0.42
3:YA:52:LYS:HA	3:YA:56:GLU:OE1	2.19	0.42
4:ZA:27:ASN:ND2	52:AD:55:U:O3'	2.52	0.42
8:DB:157:ARG:N	8:DB:158:PRO:HD3	2.33	0.42
9:EB:112:MET:HA	9:EB:115:VAL:HG22	2.01	0.42
11:GB:101:ARG:HH22	51:ZC:907:U:H4'	1.83	0.42
18:NB:36:LYS:NZ	18:NB:55:ASN:HA	2.33	0.42
22:RB:11:ARG:HG2	22:RB:61:ARG:O	2.19	0.42
22:RB:35:THR:HB	22:RB:36:GLY:H	1.50	0.42
40:JC:101:GLN:NE2	50:YC:1307:U:OP1	2.47	0.42
50:UC:585:G:H1	50:UC:756:C:H42	1.67	0.42
50:UC:686:U:O2'	50:UC:703:G:N2	2.52	0.42
51:VC:321:G:C2	51:VC:341:G:H4'	2.54	0.42
51:VC:1280:G:H1	51:VC:1290:C:N4	2.17	0.42
50:YC:1469:G:H2'	50:YC:1470:G:H8	1.84	0.42
51:ZC:320:A:H4'	51:ZC:322:A:N7	2.34	0.42
51:ZC:347:A:H2'	51:ZC:348:G:H8	1.84	0.42
51:ZC:1179:C:H2'	51:ZC:1180:C:C6	2.53	0.42
51:ZC:1278:A:H2'	51:ZC:1279:G:H8	1.84	0.42
51:ZC:1292:U:H2'	51:ZC:1293:C:C6	2.54	0.42
51:ZC:2299:G:H2'	51:ZC:2300:G:C8	2.54	0.42
1:A:222:ARG:HG3	51:VC:1789:A:OP1	2.19	0.42
3:C:45:ARG:HG3	51:VC:443:A:N7	2.35	0.42
5:E:116:GLU:HA	5:E:117:PRO:HD3	1.90	0.42
8:H:149:PRO:HB2	8:H:150:ASP:H	1.61	0.42
8:H:157:ARG:N	8:H:158:PRO:HD3	2.34	0.42
10:J:85:LEU:HA	10:J:88:LEU:HB3	2.02	0.42
11:K:89:ASN:C	11:K:92:GLY:H	2.27	0.42
22:V:13:ILE:HG13	22:V:14:VAL:N	2.31	0.42
22:V:21:ARG:O	51:VC:380:U:H4'	2.19	0.42
27:AA:48:LYS:HE3	51:VC:1311:G:O6	2.19	0.42
40:NA:94:ARG:HD3	40:NA:96:LEU:HD11	2.02	0.42
46:TA:27:GLU:OE1	46:TA:27:GLU:N	2.52	0.42
1:WA:202:LYS:HD2	51:ZC:1820:U:N3	2.34	0.42
6:BB:29:TYR:C	6:BB:32:PRO:HD2	2.44	0.42
13:IB:4:LEU:HD22	13:IB:8:GLU:OE1	2.19	0.42
20:PB:107:THR:HA	20:PB:108:PRO:HD3	1.83	0.42
27:WB:14:LYS:NZ	51:ZC:771:G:OP1	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:WB:48:LYS:HE3	51:ZC:1311:G:O6	2.19	0.42
31:AC:192:GLU:OE2	31:AC:192:GLU:N	2.52	0.42
34:DC:87:VAL:HG22	34:DC:151:TYR:HB3	1.99	0.42
46:PC:36:ARG:HA	46:PC:71:LEU:HB2	2.00	0.42
50:UC:24:U:H2'	50:UC:25:C:C6	2.54	0.42
50:UC:107:G:OP1	50:UC:325:A:N6	2.52	0.42
50:UC:157:G:H2'	50:UC:158:G:H8	1.83	0.42
50:UC:1431:C:H2'	50:UC:1432:G:O4'	2.19	0.42
50:UC:1475:G:H4'	51:VC:1689:A:H4'	2.01	0.42
51:VC:869:G:H2'	51:VC:870:A:H8	1.84	0.42
51:VC:1056:G:H5''	51:VC:1057:A:O4'	2.18	0.42
51:VC:1985:G:H2'	51:VC:1986:A:H8	1.84	0.42
50:YC:216:G:H2'	50:YC:217:C:C6	2.53	0.42
50:YC:406:G:H2'	50:YC:407:G:C8	2.54	0.42
50:YC:841:U:O2'	50:YC:842:C:H5''	2.19	0.42
50:YC:998(A):G:H2'	50:YC:998(B):C:C6	2.54	0.42
50:YC:1127:G:N2	50:YC:1147:C:H42	2.16	0.42
50:YC:1431:C:H2'	50:YC:1432:G:O4'	2.18	0.42
51:ZC:834:C:H2'	51:ZC:835:A:H8	1.84	0.42
51:ZC:982:C:H5''	51:ZC:983:A:OP2	2.18	0.42
51:ZC:1348:G:H1	51:ZC:1598:C:H42	1.65	0.42
51:ZC:1569:A:H2'	51:ZC:1570:A:C8	2.54	0.42
51:ZC:1625:C:H2'	51:ZC:1626:G:O4'	2.20	0.42
51:ZC:1851:U:H4'	53:BD:71:C:H4'	2.01	0.42
52:AD:75:G:H1	52:AD:102:G:N2	2.17	0.42
1:A:233:HIS:O	1:A:235:GLY:N	2.45	0.42
10:J:59:LEU:HD12	10:J:61:ARG:NH1	2.34	0.42
14:N:22:PHE:N	14:N:22:PHE:CD2	2.88	0.42
18:R:36:LYS:NZ	18:R:55:ASN:HA	2.34	0.42
18:R:57:LEU:CD1	18:R:78:LYS:HB3	2.49	0.42
30:DA:76:VAL:HG23	30:DA:77:ILE:HG13	2.01	0.42
38:LA:48:ILE:HD11	38:LA:64:ALA:HA	2.00	0.42
1:WA:132:PRO:HD3	1:WA:190:TYR:CZ	2.54	0.42
1:WA:252:TRP:CD1	1:WA:252:TRP:H	2.36	0.42
2:XA:152:LYS:HE2	2:XA:152:LYS:HB3	1.87	0.42
3:YA:70:THR:C	3:YA:72:ARG:H	2.27	0.42
8:DB:95:TYR:CE2	8:DB:121:VAL:HG12	2.54	0.42
9:EB:3:GLN:HB2	9:EB:4:PRO:HD2	2.01	0.42
15:KB:104:GLN:HB2	16:LB:44:LYS:NZ	2.34	0.42
27:WB:8:ASN:HB3	27:WB:11:LYS:HB3	2.01	0.42
29:YB:235:SER:HA	29:YB:238:LEU:HG	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AC:120:LEU:HD23	31:AC:120:LEU:HA	1.90	0.42
31:AC:174:LEU:HD23	31:AC:185:PHE:HA	2.01	0.42
35:EC:110:ALA:HA	35:EC:136:GLU:HA	2.00	0.42
50:UC:224:C:H2'	50:UC:225:C:C6	2.55	0.42
50:UC:841:U:O2'	50:UC:842:C:H5''	2.19	0.42
51:VC:464:U:H2'	51:VC:465:G:O4'	2.19	0.42
51:VC:910:A:C6	51:VC:911:A:C6	3.08	0.42
51:VC:1759:A:H1'	51:VC:2711:A:C2	2.55	0.42
51:VC:2531:A:H61	51:VC:2662:A:H61	1.67	0.42
51:VC:2864:G:H2'	51:VC:2865:U:C6	2.54	0.42
53:XC:29:G:H2'	53:XC:30:G:H8	1.84	0.42
50:YC:24:U:H2'	50:YC:25:C:C6	2.54	0.42
50:YC:171:A:H2'	50:YC:172:A:C8	2.54	0.42
50:YC:1009:G:H2'	50:YC:1010:G:C8	2.54	0.42
50:YC:1422:G:H2'	50:YC:1423:G:H8	1.84	0.42
51:ZC:775:G:H21	51:ZC:793:A:H1'	1.85	0.42
51:ZC:1263:U:C4	51:ZC:1264:G:C6	3.08	0.42
51:ZC:1759:A:H1'	51:ZC:2711:A:C2	2.53	0.42
51:ZC:2503:A:O2'	51:ZC:2505:G:OP2	2.31	0.42
53:FD:21:A:H61	53:FD:46:G:H2'	1.82	0.42
1:A:16:MET:HE1	1:A:208:LYS:HE2	2.00	0.42
9:I:1:MET:HB2	9:I:32:TYR:HB3	2.00	0.42
10:J:16:ARG:HG2	51:VC:661:C:H1'	2.02	0.42
10:J:57:THR:HG22	10:J:58:THR:H	1.84	0.42
10:J:116:GLY:HA2	51:VC:637:A:O5'	2.19	0.42
15:O:25:TRP:O	15:O:28:ARG:HB3	2.19	0.42
26:Z:26:ASN:OD1	26:Z:27:LYS:N	2.52	0.42
28:BA:39:LYS:HA	28:BA:42:ARG:NH2	2.34	0.42
39:MA:123:LYS:HA	39:MA:124:PRO:HD3	1.86	0.42
46:TA:6:LYS:H	46:TA:6:LYS:HD2	1.84	0.42
10:FB:59:LEU:HD12	10:FB:61:ARG:NH1	2.33	0.42
10:FB:85:LEU:HA	10:FB:88:LEU:HB3	2.01	0.42
18:NB:36:LYS:HZ1	18:NB:55:ASN:HA	1.84	0.42
26:VB:18:ARG:NH2	26:VB:44:ARG:HD3	2.34	0.42
30:ZB:24:ALA:HB2	30:ZB:32:LEU:HD12	2.00	0.42
31:AC:153:ARG:HH11	31:AC:181:MET:HE3	1.84	0.42
34:DC:23:VAL:O	34:DC:27:ILE:HG12	2.20	0.42
34:DC:53:LYS:HA	34:DC:53:LYS:HD3	1.86	0.42
34:DC:111:ARG:HB3	34:DC:113:GLU:HG2	2.02	0.42
38:HC:48:ILE:HD11	38:HC:64:ALA:HA	2.01	0.42
42:LC:31:LEU:HD21	50:YC:658:G:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:UC:37:U:H2'	50:UC:38:G:C8	2.54	0.42
50:UC:79:G:H2'	50:UC:80:G:O4'	2.20	0.42
51:VC:528:A:N1	51:VC:2042:A:H2'	2.34	0.42
51:VC:1292:U:H2'	51:VC:1293:C:C6	2.54	0.42
50:YC:37:U:H2'	50:YC:38:G:C8	2.54	0.42
50:YC:1143:G:H2'	50:YC:1144:G:H8	1.81	0.42
50:YC:1236:A:H4'	50:YC:1304:G:H4'	2.02	0.42
50:YC:1281:U:H5'	50:YC:1282:C:C5	2.54	0.42
51:ZC:528:A:N1	51:ZC:2042:A:H2'	2.35	0.42
51:ZC:603:A:N6	51:ZC:655:A:H1'	2.35	0.42
51:ZC:1409:C:H2'	51:ZC:1410:G:C8	2.54	0.42
53:BD:29:G:H2'	53:BD:30:G:H8	1.84	0.42
1:A:106:ILE:H	1:A:106:ILE:HG13	1.49	0.42
6:F:56:LYS:HE3	6:F:56:LYS:HB3	1.82	0.42
7:G:9:LYS:HB3	51:VC:1061:U:C5	2.54	0.42
9:I:12:ASP:OD1	9:I:14:THR:OG1	2.36	0.42
13:M:25:ARG:NH1	13:M:42:ASP:OD1	2.53	0.42
15:O:104:GLN:CD	15:O:104:GLN:H	2.25	0.42
17:Q:38:TYR:CE1	25:Y:41:PRO:HD3	2.55	0.42
24:X:10:LYS:HB3	24:X:10:LYS:HE2	1.83	0.42
26:Z:18:ARG:NH2	26:Z:44:ARG:HD3	2.34	0.42
35:IA:24:THR:HG22	35:IA:25:ASP:H	1.83	0.42
35:IA:104:ARG:HD3	35:IA:138:TRP:CD2	2.53	0.42
40:NA:45:VAL:O	40:NA:48:LEU:HD22	2.19	0.42
12:HB:73:VAL:O	12:HB:76:VAL:HG22	2.19	0.42
14:JB:22:PHE:CD2	14:JB:22:PHE:N	2.88	0.42
18:NB:57:LEU:CD1	18:NB:78:LYS:HB3	2.49	0.42
23:SB:55:ARG:HE	51:ZC:75:G:H4'	1.84	0.42
29:YB:79:ASP:HA	29:YB:82:ARG:HB2	2.01	0.42
30:ZB:130:VAL:O	30:ZB:134:ILE:HG13	2.19	0.42
31:AC:20:TYR:CD2	31:AC:26:CYS:HB3	2.54	0.42
35:EC:51:VAL:HG21	35:EC:60:ARG:HG2	2.01	0.42
37:GC:49:VAL:O	37:GC:60:ARG:HB2	2.18	0.42
45:OC:75:ILE:HD11	50:YC:735:C:H1'	2.01	0.42
50:UC:736:C:H2'	50:UC:737:A:C8	2.54	0.42
50:UC:908:A:H2'	50:UC:909:A:C8	2.55	0.42
50:UC:1009:G:H2'	50:UC:1010:G:C8	2.54	0.42
51:VC:528:A:C2	51:VC:2042:A:H2'	2.55	0.42
51:VC:817:C:H4'	51:VC:932:G:C6	2.55	0.42
51:VC:2096:U:H2'	51:VC:2097:C:C6	2.55	0.42
51:VC:2112:G:O6	53:XC:19:G:N1	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:2556:C:H2'	51:VC:2557:G:O4'	2.20	0.42
51:VC:2795:G:H1'	51:VC:2802:G:H1	1.84	0.42
51:ZC:528:A:C2	51:ZC:2042:A:H2'	2.55	0.42
51:ZC:1495:A:H3'	51:ZC:1496:A:C2	2.54	0.42
51:ZC:1811:G:H2'	51:ZC:1812:A:H8	1.85	0.42
51:ZC:1939:U:OP1	51:ZC:2604:U:O2'	2.36	0.42
51:ZC:2328:A:H2'	51:ZC:2329:G:C8	2.55	0.42
1:A:63:ARG:HH22	51:VC:1568:G:P	2.42	0.42
1:A:253:GLN:HB2	1:A:257:LEU:HD12	2.02	0.42
3:C:52:LYS:HA	3:C:56:GLU:OE1	2.19	0.42
3:C:56:GLU:OE1	3:C:93:LYS:NZ	2.43	0.42
6:F:95:LYS:HA	6:F:111:PRO:HB3	2.01	0.42
7:G:90:LYS:HE2	7:G:93:ARG:HD3	2.02	0.42
10:J:101:VAL:HG23	10:J:106:LEU:HB3	2.00	0.42
11:K:19:GLY:O	11:K:21:THR:N	2.48	0.42
23:W:46:GLN:H	23:W:49:LYS:HE2	1.83	0.42
32:FA:76:ILE:HG23	32:FA:78:HIS:H	1.84	0.42
32:FA:135:THR:O	32:FA:139:LEU:HG	2.19	0.42
33:GA:16:GLN:H	33:GA:16:GLN:CD	2.27	0.42
35:IA:51:VAL:HG21	35:IA:60:ARG:HG2	2.02	0.42
1:WA:200:ASP:OD1	1:WA:203:ASN:ND2	2.52	0.42
2:XA:7:VAL:HG13	2:XA:27:LEU:HB3	2.01	0.42
6:BB:72:LEU:HD13	6:BB:72:LEU:HA	1.89	0.42
7:CB:72:PRO:O	7:CB:111:LYS:NZ	2.52	0.42
13:IB:25:ARG:NH1	13:IB:42:ASP:OD1	2.52	0.42
13:IB:30:ARG:HH22	52:AD:48:A:P	2.43	0.42
14:JB:15:VAL:HG23	14:JB:79:HIS:CE1	2.54	0.42
17:MB:6:ILE:HG12	17:MB:104:THR:HG23	2.01	0.42
18:NB:35:THR:HB	18:NB:38:GLU:HG2	2.01	0.42
32:BC:127:ASN:HA	32:BC:128:PRO:HD3	1.90	0.42
32:BC:145:LYS:O	32:BC:149:GLU:HG2	2.20	0.42
33:CC:10:LEU:HD13	33:CC:61:LEU:HD13	2.02	0.42
38:HC:123:LYS:HG2	50:YC:780:A:OP1	2.20	0.42
41:KC:21:TYR:HE2	41:KC:23:ARG:HH21	1.68	0.42
43:MC:27:LYS:HG2	50:YC:111:G:H5''	2.01	0.42
50:UC:272:C:H2'	50:UC:273:A:C8	2.54	0.42
50:UC:709:G:H2'	50:UC:710:G:H8	1.85	0.42
51:VC:992:C:H2'	51:VC:993:G:H8	1.84	0.42
51:VC:1542:G:OP2	51:VC:1543:A:H5'	2.20	0.42
50:YC:585:G:H1	50:YC:756:C:H42	1.67	0.42
51:ZC:239:U:H2'	51:ZC:240:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:857:C:N4	51:ZC:858:U:O4	2.53	0.42
51:ZC:2115:G:H1'	51:ZC:2171:A:N1	2.35	0.42
51:ZC:2556:C:H2'	51:ZC:2557:G:O4'	2.19	0.42
12:L:99:LYS:HA	12:L:112:ALA:HA	2.00	0.42
17:Q:13:SER:HB3	17:Q:16:LYS:HD2	2.02	0.42
23:W:50:ILE:H	23:W:50:ILE:HG13	1.53	0.42
29:CA:79:ASP:HA	29:CA:82:ARG:HB2	2.02	0.42
4:ZA:77:ILE:HG22	4:ZA:80:PHE:H	1.84	0.42
5:AB:88:LEU:HD23	5:AB:165:ALA:HA	2.01	0.42
10:FB:115:LEU:HB2	51:ZC:637:A:OP2	2.20	0.42
12:HB:4:LEU:HD22	12:HB:4:LEU:HA	1.90	0.42
17:MB:26:GLY:O	17:MB:27:LYS:HD2	2.20	0.42
17:MB:62:HIS:O	17:MB:64:MET:N	2.53	0.42
20:PB:44:PHE:O	20:PB:48:PHE:HB2	2.20	0.42
24:TB:40:THR:OG1	24:TB:43:ILE:HG12	2.20	0.42
37:GC:3:LYS:N	37:GC:75:ILE:HA	2.34	0.42
50:UC:986:A:H2'	50:UC:987:G:C8	2.55	0.42
50:UC:1410:G:H2'	50:UC:1411:C:C6	2.55	0.42
51:VC:27:G:N2	51:VC:512:G:H1'	2.35	0.42
51:VC:1296:G:OP1	51:VC:2709:G:O2'	2.27	0.42
51:VC:1495:A:H3'	51:VC:1496:A:C2	2.55	0.42
51:VC:1772:G:H5''	51:VC:1773:A:OP2	2.20	0.42
51:VC:1899:G:H22	51:VC:1902:C:N4	2.18	0.42
51:VC:2114:A:H3'	51:VC:2115:G:C8	2.55	0.42
51:VC:2153:G:H2'	51:VC:2154:G:H8	1.85	0.42
50:YC:224:C:H2'	50:YC:225:C:C6	2.55	0.42
51:ZC:270(T):G:H2'	51:ZC:270(U):G:C8	2.54	0.42
51:ZC:938:G:H2'	51:ZC:939:G:H8	1.85	0.42
51:ZC:1003:G:O2'	51:ZC:1010:A:N1	2.47	0.42
51:ZC:1746:G:H2'	51:ZC:1747:G:C8	2.55	0.42
52:AD:3:C:H2'	52:AD:4:C:C6	2.55	0.42
2:B:131:ALA:HB2	51:VC:2579:C:O2'	2.20	0.42
7:G:122:ALA:HB1	51:VC:1081:U:H5'	2.02	0.42
17:Q:25:ARG:NH2	17:Q:74:ALA:O	2.45	0.42
17:Q:62:HIS:O	17:Q:64:MET:N	2.52	0.42
23:W:25:VAL:O	23:W:29:LYS:HG2	2.20	0.42
32:FA:137:GLU:O	32:FA:141:GLN:NE2	2.53	0.42
33:GA:17:SER:O	33:GA:21:LEU:HB2	2.20	0.42
34:HA:23:VAL:O	34:HA:27:ILE:HG12	2.19	0.42
35:IA:33:GLU:OE1	35:IA:50:ARG:NE	2.48	0.42
35:IA:91:ARG:NE	44:RA:32:TYR:O	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:FB:62:LEU:HB3	51:ZC:2393:A:H5''	2.01	0.42
10:FB:74:GLU:HB2	51:ZC:244:A:H4'	2.01	0.42
29:YB:111:ARG:NH1	50:YC:1104:G:H4'	2.35	0.42
30:ZB:76:VAL:HG23	30:ZB:77:ILE:HG13	2.01	0.42
31:AC:171:GLY:HA2	31:AC:173:TRP:CZ3	2.55	0.42
35:EC:33:GLU:OE1	35:EC:50:ARG:NE	2.48	0.42
36:FC:69:GLY:HA3	50:YC:1371:G:O3'	2.19	0.42
40:JC:19:LEU:HB3	40:JC:25:ILE:HG21	2.01	0.42
46:PC:78:ARG:NH1	50:YC:1223:C:OP1	2.52	0.42
50:UC:928:G:H2'	50:UC:929:G:C8	2.54	0.42
50:UC:1022:G:H2'	50:UC:1023:G:H8	1.84	0.42
50:UC:1281:U:H5'	50:UC:1282:C:C5	2.55	0.42
50:UC:1297:C:H1'	50:UC:1298:C:H5	1.85	0.42
51:VC:345:A:N3	51:VC:347:A:N6	2.67	0.42
51:VC:512:G:H4'	51:VC:513:A:O5'	2.20	0.42
51:VC:611:C:H2'	51:VC:612:G:O4'	2.19	0.42
51:VC:662:G:H2'	51:VC:663:G:C8	2.55	0.42
51:VC:854:G:H2'	51:VC:855:G:C8	2.55	0.42
51:VC:1288:U:H1'	51:VC:1647:G:H22	1.85	0.42
51:VC:1386:C:H2'	51:VC:1387:C:C6	2.54	0.42
51:VC:1441:G:H2'	51:VC:1442:G:C8	2.54	0.42
51:VC:1771:C:O2'	51:VC:1786:A:O4'	2.31	0.42
50:YC:54:C:H41	50:YC:352:C:H2'	1.85	0.42
50:YC:686:U:O2'	50:YC:703:G:N2	2.52	0.42
50:YC:1253:G:H1	50:YC:1284:C:H42	1.68	0.42
50:YC:1287:A:H2'	50:YC:1288:A:C8	2.55	0.42
51:ZC:363(G):A:H1'	51:ZC:364:C:OP2	2.20	0.42
51:ZC:747:U:O2	51:ZC:2014:A:H1'	2.20	0.42
51:ZC:1203:G:O6	51:ZC:1204:A:N6	2.53	0.42
51:ZC:1466:G:H2'	51:ZC:1547:C:N4	2.34	0.42
51:ZC:2514:U:H2'	51:ZC:2515:C:C6	2.55	0.42
1:A:261:LYS:NZ	1:A:263:ARG:HG3	2.35	0.42
4:D:101:ILE:O	4:D:105:LYS:NZ	2.46	0.42
6:F:29:TYR:C	6:F:32:PRO:HD2	2.45	0.42
7:G:115:LEU:HD22	7:G:117:THR:H	1.83	0.42
10:J:98:GLU:O	10:J:101:VAL:HG12	2.20	0.42
11:K:101:ARG:HH22	51:VC:907:U:H4'	1.84	0.42
17:Q:18:ARG:NH1	17:Q:76:VAL:O	2.51	0.42
17:Q:51:LEU:HD23	17:Q:105:VAL:HG11	2.02	0.42
20:T:97:GLU:HB3	20:T:125:LEU:HD21	2.01	0.42
23:W:35:LEU:HD12	23:W:53:LEU:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CA:103:THR:HA	29:CA:180:LEU:HD11	2.00	0.42
42:PA:31:LEU:HD21	50:UC:658:G:OP1	2.19	0.42
1:WA:9:TYR:CD2	1:WA:10:THR:HG22	2.55	0.42
1:WA:31:LYS:HD3	1:WA:94:LEU:HD11	2.02	0.42
7:CB:18:THR:C	7:CB:20:ALA:H	2.27	0.42
9:EB:17:ARG:HD3	9:EB:17:ARG:HA	1.78	0.42
12:HB:5:LYS:NZ	51:ZC:2821:A:OP2	2.37	0.42
14:JB:54:ARG:HA	14:JB:59:THR:OG1	2.20	0.42
21:QB:50:ASN:OD1	21:QB:50:ASN:N	2.52	0.42
31:AC:201:GLN:HA	31:AC:204:ILE:HD12	2.01	0.42
32:BC:110:LEU:HD13	32:BC:118:ILE:HG21	2.02	0.42
38:HC:27:ASN:OD1	38:HC:28:THR:N	2.53	0.42
50:UC:1236:A:H4'	50:UC:1304:G:H4'	2.02	0.42
50:YC:922:G:O2'	50:YC:1398:A:N1	2.45	0.42
51:ZC:234:C:H2'	51:ZC:235:U:H6	1.84	0.42
51:ZC:310:A:O2'	51:ZC:311:A:H2'	2.20	0.42
51:ZC:601:C:O2'	51:ZC:605:C:H5''	2.20	0.42
51:ZC:1280:G:H1	51:ZC:1290:C:N4	2.17	0.42
51:ZC:1386:C:H2'	51:ZC:1387:C:C6	2.54	0.42
51:ZC:1831:G:H1	51:ZC:1974:C:H42	1.66	0.42
51:ZC:2096:U:H2'	51:ZC:2097:C:C6	2.55	0.42
51:ZC:2111:C:O2'	51:ZC:2145:C:O2	2.23	0.42
51:ZC:2705:A:O2'	51:ZC:2852:G:OP1	2.30	0.42
51:ZC:2847:U:O4	51:ZC:2848:G:N1	2.53	0.42
2:B:187:ALA:HB2	51:VC:2729:G:H1'	2.01	0.42
15:O:81:HIS:O	15:O:85:LYS:HB2	2.19	0.42
29:CA:133:LYS:O	29:CA:137:ARG:HG2	2.20	0.42
32:FA:145:LYS:O	32:FA:149:GLU:HG2	2.19	0.42
2:XA:187:ALA:HB2	51:ZC:2729:G:H1'	2.02	0.42
6:BB:22:LYS:HA	6:BB:23:PRO:HD3	1.93	0.42
7:CB:57:ILE:HG23	7:CB:65:PHE:HB2	2.01	0.42
9:EB:1:MET:HB2	9:EB:32:TYR:HB3	2.01	0.42
12:HB:90:ARG:O	12:HB:94:TYR:HE2	2.03	0.42
25:UB:41:PRO:HG2	25:UB:44:THR:OG1	2.20	0.42
29:YB:133:LYS:O	29:YB:137:ARG:HG2	2.20	0.42
50:UC:413:G:H21	50:UC:428:G:H1'	1.84	0.42
50:UC:582:U:H2'	50:UC:583:A:C8	2.55	0.42
50:UC:682:G:H2'	50:UC:683:G:H8	1.84	0.42
51:VC:64:A:H2'	51:VC:65:C:C6	2.55	0.42
51:VC:1019:U:H2'	51:VC:1021:A:H2	1.85	0.42
51:VC:1263:U:C4	51:VC:1264:G:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:1511:A:H2'	51:VC:1512:G:O4'	2.20	0.42
51:VC:1837:C:O2'	51:VC:1927:A:N3	2.43	0.42
51:VC:2529:G:H5''	51:VC:2530:A:H5''	2.01	0.42
50:YC:574:A:N3	50:YC:883:C:H1'	2.35	0.42
50:YC:1007:C:H2'	50:YC:1008:C:C6	2.55	0.42
51:ZC:793:A:OP2	51:ZC:2071:A:O2'	2.37	0.42
51:ZC:882:G:H2'	51:ZC:883:G:C8	2.55	0.42
51:ZC:1331:A:H2'	51:ZC:1332:G:H5''	2.02	0.42
51:ZC:1514:U:H2'	51:ZC:1515:C:C6	2.54	0.42
51:ZC:1985:G:H2'	51:ZC:1986:A:H8	1.85	0.42
51:ZC:2211:G:H2'	51:ZC:2212:A:H5''	2.02	0.42
51:ZC:2809:A:OP2	51:ZC:2891:G:N1	2.48	0.42
1:A:252:TRP:CD1	1:A:252:TRP:H	2.37	0.41
6:F:69:LYS:O	6:F:73:GLU:HB2	2.20	0.41
7:G:57:ILE:HD12	7:G:65:PHE:HD1	1.84	0.41
8:H:42:GLU:HG2	8:H:82:LYS:HG3	2.02	0.41
28:BA:32:LEU:HG	28:BA:36:LYS:HD2	2.02	0.41
33:GA:23:LYS:O	33:GA:27:GLN:HG2	2.19	0.41
38:LA:27:ASN:OD1	38:LA:28:THR:N	2.53	0.41
39:MA:92:LEU:HA	39:MA:93:PRO:HD3	1.85	0.41
40:NA:19:LEU:HD23	40:NA:30:ALA:HA	2.02	0.41
46:TA:21:GLU:HG3	46:TA:22:LEU:HD22	2.02	0.41
1:WA:16:MET:HE1	1:WA:208:LYS:HE2	2.02	0.41
4:ZA:60:LEU:HG	4:ZA:90:LEU:HD12	2.02	0.41
7:CB:62:ASP:OD2	7:CB:64:SER:OG	2.33	0.41
10:FB:75:ILE:H	10:FB:75:ILE:HG13	1.55	0.41
22:RB:13:ILE:HG13	22:RB:14:VAL:N	2.31	0.41
31:AC:200:GLU:H	31:AC:200:GLU:CD	2.27	0.41
33:CC:17:SER:O	33:CC:21:LEU:HB2	2.20	0.41
50:UC:406:G:H2'	50:UC:407:G:C8	2.54	0.41
50:UC:1000:A:H2'	50:UC:1001:G:C8	2.55	0.41
50:UC:1255:G:H1	50:UC:1282:C:H42	1.67	0.41
50:UC:1441:G:H5''	50:UC:1442:G:O4'	2.20	0.41
51:VC:817:C:O2'	51:VC:839:U:H5''	2.20	0.41
51:VC:1175:U:H2'	51:VC:1176:G:N7	2.34	0.41
51:VC:2294:C:H2'	51:VC:2295:C:C6	2.55	0.41
51:VC:2595:G:N2	51:VC:2597:G:H3'	2.35	0.41
51:VC:2809:A:OP2	51:VC:2891:G:N1	2.48	0.41
50:YC:1000:A:H2'	50:YC:1001:G:C8	2.55	0.41
50:YC:1255:G:H1	50:YC:1282:C:H42	1.67	0.41
50:YC:1485:U:H2'	50:YC:1486:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:270(S):G:H2'	51:ZC:270(T):G:H8	1.85	0.41
51:ZC:360:G:H2'	51:ZC:361:G:C8	2.55	0.41
51:ZC:464:U:H2'	51:ZC:465:G:O4'	2.20	0.41
51:ZC:631:A:H2'	51:ZC:632:A:O4'	2.20	0.41
51:ZC:1542:G:OP2	51:ZC:1543:A:H5'	2.20	0.41
51:ZC:1790:C:H2'	51:ZC:1791:A:C5	2.55	0.41
1:A:9:TYR:CD2	1:A:10:THR:HG22	2.55	0.41
1:A:202:LYS:HD2	51:VC:1820:U:N3	2.35	0.41
3:C:45:ARG:NH2	51:VC:443:A:H2'	2.34	0.41
7:G:18:THR:C	7:G:20:ALA:H	2.28	0.41
13:M:66:ALA:HA	13:M:69:VAL:HG22	2.00	0.41
17:Q:65:LEU:HD12	17:Q:68:ARG:HE	1.85	0.41
21:U:34:GLY:HA2	21:U:61:ALA:O	2.20	0.41
46:TA:54:GLY:HA2	50:UC:1220:G:H21	1.85	0.41
1:WA:31:LYS:C	1:WA:33:LEU:H	2.28	0.41
1:WA:49:ILE:HG13	51:ZC:779:U:OP1	2.20	0.41
1:WA:132:PRO:HD3	1:WA:190:TYR:CE2	2.55	0.41
19:OB:73:ARG:HA	19:OB:74:PRO:HD3	1.90	0.41
25:UB:51:TYR:HD2	25:UB:51:TYR:HA	1.74	0.41
29:YB:209:ARG:HH11	29:YB:239:VAL:HG11	1.85	0.41
35:EC:31:PHE:O	35:EC:35:ILE:HG12	2.20	0.41
37:GC:22:LYS:HB3	37:GC:22:LYS:HE3	1.86	0.41
38:HC:123:LYS:HE3	38:HC:123:LYS:HB3	1.92	0.41
40:JC:94:ARG:HH22	46:PC:80:TYR:HE2	1.67	0.41
42:LC:45:VAL:HG23	42:LC:46:HIS:ND1	2.35	0.41
46:PC:22:LEU:HD13	46:PC:22:LEU:HA	1.94	0.41
46:PC:54:GLY:HA2	50:YC:1220:G:H21	1.85	0.41
50:UC:54:C:H41	50:UC:352:C:H2'	1.85	0.41
50:UC:106:C:H2'	50:UC:107:G:H8	1.85	0.41
50:UC:958:A:N3	50:UC:985:C:O2'	2.47	0.41
50:UC:1287:A:H2'	50:UC:1288:A:C8	2.55	0.41
51:VC:1774:C:H4'	51:VC:1979:C:O2	2.20	0.41
51:VC:2455:G:H2'	51:VC:2456:C:C6	2.55	0.41
51:VC:2514:U:H2'	51:VC:2515:C:C6	2.56	0.41
50:YC:6:G:O2'	50:YC:7:G:H5''	2.21	0.41
50:YC:908:A:H2'	50:YC:909:A:C8	2.55	0.41
50:YC:1441:G:H5''	50:YC:1442:G:O4'	2.20	0.41
51:ZC:704:G:O2'	51:ZC:726:G:N2	2.47	0.41
51:ZC:1656:C:H42	51:ZC:2004:G:H1	1.68	0.41
51:ZC:2114:A:H3'	51:ZC:2115:G:C8	2.55	0.41
51:ZC:2123:G:N2	51:ZC:2175:C:O2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:2153:G:H2'	51:ZC:2154:G:H8	1.84	0.41
51:ZC:2307:G:O2'	51:ZC:2311:A:N7	2.53	0.41
51:ZC:2595:G:N2	51:ZC:2597:G:H3'	2.35	0.41
51:ZC:2795:G:H1'	51:ZC:2802:G:H1	1.84	0.41
2:B:11:MET:HB2	2:B:23:VAL:O	2.20	0.41
8:H:135:LEU:HD22	51:VC:558:G:H5''	2.03	0.41
10:J:39:LYS:NZ	10:J:42:SER:OG	2.53	0.41
11:K:72:LYS:HA	11:K:73:PRO:HD3	1.92	0.41
15:O:92:ARG:HH11	51:VC:996:A:H4'	1.86	0.41
15:O:92:ARG:HB2	51:VC:996:A:O3'	2.19	0.41
20:T:44:PHE:O	20:T:48:PHE:HB2	2.20	0.41
34:HA:111:ARG:HB3	34:HA:113:GLU:HG2	2.02	0.41
39:MA:43:THR:HA	39:MA:44:PRO:HD3	1.90	0.41
40:NA:19:LEU:HB3	40:NA:25:ILE:HG21	2.01	0.41
42:PA:39:LEU:HD22	42:PA:39:LEU:HA	1.90	0.41
7:CB:120:LEU:HA	7:CB:123:ALA:HB3	2.01	0.41
10:FB:117:GLU:HB2	10:FB:118:GLY:H	1.68	0.41
15:KB:81:HIS:O	15:KB:85:LYS:HB2	2.20	0.41
17:MB:80:PRO:HD3	51:ZC:25:U:H5''	2.00	0.41
23:SB:21:LEU:HD23	23:SB:21:LEU:HA	1.87	0.41
29:YB:60:ASP:O	29:YB:64:ARG:HG2	2.21	0.41
48:RC:24:ARG:HG3	48:RC:25:LYS:H	1.85	0.41
50:UC:19:C:H2'	50:UC:20:U:C6	2.56	0.41
50:UC:1414:U:O2	50:UC:1487:G:N2	2.54	0.41
51:VC:48:G:H2'	51:VC:49:A:H2	1.85	0.41
51:VC:310:A:O2'	51:VC:311:A:H2'	2.20	0.41
51:VC:324:A:H2'	51:VC:325:G:O4'	2.20	0.41
51:VC:360:G:H2'	51:VC:361:G:C8	2.55	0.41
51:VC:589:C:H2'	51:VC:590:A:C8	2.55	0.41
51:VC:775:G:H21	51:VC:793:A:H1'	1.84	0.41
51:VC:2572:A:H5''	51:VC:2574:G:H4'	2.02	0.41
51:VC:2799:A:H2'	51:VC:2801:A:C8	2.55	0.41
52:WC:3:C:H2'	52:WC:4:C:C6	2.55	0.41
50:YC:986:A:H2'	50:YC:987:G:C8	2.55	0.41
50:YC:1109:C:H2'	50:YC:1110:A:O4'	2.20	0.41
51:ZC:214:G:H1'	51:ZC:216:A:O2'	2.19	0.41
51:ZC:321:G:C2	51:ZC:341:G:H4'	2.55	0.41
51:ZC:2211:G:H3'	51:ZC:2211:G:N3	2.35	0.41
51:ZC:2531:A:H61	51:ZC:2662:A:H61	1.68	0.41
52:AD:89(A):G:H2'	52:AD:89(B):A:H8	1.85	0.41
53:BD:29:G:H2'	53:BD:30:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:60:LEU:HG	4:D:90:LEU:HD12	2.02	0.41
5:E:92:ILE:HD12	5:E:92:ILE:H	1.86	0.41
7:G:11:GLN:HG3	51:VC:1061:U:C4	2.55	0.41
29:CA:209:ARG:HH11	29:CA:239:VAL:HG11	1.85	0.41
31:EA:22:LYS:HB3	31:EA:25:ARG:HB3	2.02	0.41
31:EA:173:TRP:CZ3	31:EA:193:ASP:HB3	2.56	0.41
37:KA:33:GLN:H	37:KA:33:GLN:HG3	1.71	0.41
4:ZA:64:THR:HG23	4:ZA:66:GLN:H	1.85	0.41
8:DB:66:THR:HB	8:DB:69:VAL:HG12	2.03	0.41
10:FB:49:ARG:HH21	28:XB:60:LEU:HD13	1.85	0.41
10:FB:50:ARG:HH11	28:XB:7:HIS:CD2	2.33	0.41
10:FB:114:ILE:HD13	10:FB:130:PHE:CE1	2.56	0.41
22:RB:90:ILE:HD13	22:RB:90:ILE:HA	1.87	0.41
28:XB:39:LYS:HA	28:XB:42:ARG:NH2	2.35	0.41
33:CC:23:LYS:O	33:CC:27:GLN:HG2	2.21	0.41
34:DC:65:ALA:O	34:DC:69:VAL:HG23	2.21	0.41
37:GC:7:LYS:HD3	37:GC:71:LEU:HD13	2.03	0.41
51:VC:847:U:O2'	51:VC:848:G:O5'	2.37	0.41
51:VC:1426:G:O2'	51:VC:1572:A:N6	2.54	0.41
51:VC:1569:A:H2'	51:VC:1570:A:C8	2.55	0.41
51:VC:2692:C:O2	51:VC:2847:U:O2'	2.32	0.41
50:YC:19:C:H2'	50:YC:20:U:C6	2.55	0.41
50:YC:107:G:OP1	50:YC:325:A:N6	2.52	0.41
50:YC:229:U:H2'	50:YC:230:G:C8	2.56	0.41
50:YC:1297:C:H1'	50:YC:1298:C:H5	1.85	0.41
51:ZC:270(S):G:H2'	51:ZC:270(T):G:C8	2.56	0.41
51:ZC:997:G:N2	51:ZC:1158:C:O2	2.45	0.41
51:ZC:1270:C:H5''	51:ZC:1271:G:O5'	2.21	0.41
51:ZC:1971:A:H5'	51:ZC:1972:A:H5''	2.02	0.41
53:ED:50:U:H3	53:ED:64:G:H1	1.68	0.41
3:C:111:ALA:HB2	3:C:206:ILE:HD13	2.03	0.41
9:I:112:MET:HA	9:I:115:VAL:HG22	2.01	0.41
10:J:62:LEU:HB3	51:VC:2393:A:H5''	2.02	0.41
13:M:30:ARG:HH22	52:WC:48:A:P	2.43	0.41
14:N:22:PHE:N	14:N:22:PHE:HD2	2.18	0.41
16:P:12:TYR:CE2	16:P:22:VAL:HG13	2.56	0.41
29:CA:46:LYS:HD2	29:CA:46:LYS:HA	1.93	0.41
29:CA:74:LYS:HE2	29:CA:206:ASP:OD1	2.21	0.41
31:EA:53:ASP:OD2	32:FA:107:ARG:HD2	2.21	0.41
31:EA:119:GLN:OE1	50:UC:406:G:O2'	2.20	0.41
36:JA:50:LEU:HA	36:JA:53:VAL:HG22	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:TA:78:ARG:NH1	50:UC:1223:C:OP1	2.52	0.41
48:VA:24:ARG:HG3	48:VA:25:LYS:H	1.84	0.41
1:WA:233:HIS:O	1:WA:235:GLY:N	2.44	0.41
3:YA:6:MET:HG2	3:YA:7:TYR:CD1	2.53	0.41
5:AB:24:VAL:HG11	5:AB:43:VAL:HG11	2.03	0.41
6:BB:69:LYS:O	6:BB:73:GLU:HB2	2.21	0.41
10:FB:112:LEU:HD23	10:FB:113:LYS:N	2.35	0.41
15:KB:65:ILE:HG12	15:KB:96:ALA:HB3	2.02	0.41
15:KB:92:ARG:HB2	51:ZC:996:A:O3'	2.21	0.41
17:MB:14:PRO:HG3	17:MB:101:SER:HB3	2.02	0.41
17:MB:25:ARG:NH2	17:MB:74:ALA:O	2.45	0.41
21:QB:34:GLY:HA2	21:QB:61:ALA:O	2.20	0.41
23:SB:25:VAL:O	23:SB:29:LYS:HG2	2.21	0.41
29:YB:19:HIS:CD2	29:YB:20:GLU:HG2	2.56	0.41
30:ZB:178:LEU:HD13	30:ZB:178:LEU:HA	1.95	0.41
31:AC:173:TRP:CD2	31:AC:189:PRO:HB3	2.56	0.41
32:BC:137:GLU:HG2	32:BC:140:ARG:HH12	1.86	0.41
35:EC:20:TYR:CE1	35:EC:76:PRO:HG2	2.56	0.41
38:HC:50:TYR:HD2	38:HC:54:ARG:HB3	1.85	0.41
41:KC:21:TYR:CE1	50:YC:981:U:H5'	2.55	0.41
42:LC:8:LYS:O	42:LC:12:ILE:HG13	2.20	0.41
42:LC:26:GLU:HB3	42:LC:81:LEU:HD22	2.02	0.41
43:MC:27:LYS:NZ	50:YC:310:G:OP2	2.51	0.41
50:UC:6:G:O2'	50:UC:7:G:H5''	2.21	0.41
50:UC:936:C:H2'	50:UC:937:A:O4'	2.20	0.41
50:UC:1043:C:H2'	50:UC:1044:A:C8	2.48	0.41
51:VC:234:C:H2'	51:VC:235:U:H6	1.85	0.41
51:VC:270(S):G:H2'	51:VC:270(T):G:C8	2.55	0.41
51:VC:844:C:H3'	51:VC:845:G:N2	2.35	0.41
51:VC:938:G:H2'	51:VC:939:G:H8	1.84	0.41
51:VC:1492:G:H1	51:VC:1498:C:H42	1.67	0.41
51:VC:1656:C:H42	51:VC:2004:G:H1	1.68	0.41
51:VC:1851:U:H3	51:VC:1891:G:H1	1.68	0.41
51:VC:2115:G:H1'	51:VC:2171:A:N1	2.35	0.41
51:VC:2376:A:H2'	51:VC:2377:A:O4'	2.21	0.41
51:VC:2531:A:N3	51:VC:2658:C:O2'	2.47	0.41
52:WC:91:C:H2'	52:WC:92:G:H8	1.86	0.41
50:YC:1505:G:H5''	50:YC:1506:U:OP1	2.20	0.41
51:ZC:602:G:N2	51:ZC:655:A:N7	2.67	0.41
51:ZC:817:C:O2'	51:ZC:839:U:H5''	2.20	0.41
51:ZC:1108:U:H2'	51:ZC:1109:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:1175:U:H2'	51:ZC:1176:G:N7	2.35	0.41
51:ZC:2294:C:H2'	51:ZC:2295:C:C6	2.55	0.41
51:ZC:2468:G:H21	51:ZC:2483:C:H41	1.68	0.41
4:D:37:VAL:O	4:D:94:LEU:HD23	2.20	0.41
19:S:27:VAL:HA	19:S:39:VAL:HG13	2.02	0.41
38:LA:120:ARG:NH1	50:UC:779:C:O2'	2.53	0.41
39:MA:7:ASN:OD1	44:RA:34:LYS:HE2	2.20	0.41
42:PA:8:LYS:O	42:PA:12:ILE:HG13	2.21	0.41
2:XA:131:ALA:HB2	51:ZC:2579:C:O2'	2.20	0.41
6:BB:110:ASP:HA	6:BB:111:PRO:HD2	1.95	0.41
10:FB:57:THR:HG22	10:FB:58:THR:H	1.85	0.41
23:SB:10:LEU:HD22	23:SB:21:LEU:HD21	2.03	0.41
40:JC:94:ARG:HD3	40:JC:96:LEU:HD11	2.02	0.41
50:UC:574:A:N3	50:UC:883:C:H1'	2.36	0.41
50:UC:1052:U:O2'	50:UC:1055:A:OP2	2.30	0.41
50:UC:1101:A:H1'	50:UC:1102:A:OP2	2.21	0.41
50:UC:1253:G:H1	50:UC:1284:C:H42	1.68	0.41
50:UC:1414:U:H2'	50:UC:1415:G:C8	2.54	0.41
50:UC:1422:G:H2'	50:UC:1423:G:H8	1.84	0.41
51:VC:722:A:H2'	51:VC:723:G:O4'	2.20	0.41
51:VC:793:A:OP2	51:VC:2071:A:O2'	2.39	0.41
51:VC:857:C:N4	51:VC:858:U:O4	2.53	0.41
51:VC:2328:A:H2'	51:VC:2329:G:C8	2.55	0.41
51:VC:2840:C:H42	51:VC:2877:G:H1	1.69	0.41
50:YC:106:C:H2'	50:YC:107:G:H8	1.86	0.41
50:YC:335:C:H2'	50:YC:336:C:C6	2.56	0.41
50:YC:928:G:H2'	50:YC:929:G:H8	1.86	0.41
51:ZC:147:U:H2'	51:ZC:148:C:C6	2.56	0.41
51:ZC:565:C:H2'	51:ZC:566:U:O4'	2.21	0.41
51:ZC:1529:A:H62	51:ZC:1542:G:N2	2.19	0.41
51:ZC:1578:U:H2'	51:ZC:1579:A:H5'	2.03	0.41
51:ZC:2455:G:H2'	51:ZC:2456:C:C6	2.56	0.41
51:ZC:2660:A:H2'	51:ZC:2661:G:O4'	2.20	0.41
2:B:38:THR:O	2:B:42:ASP:HB2	2.21	0.41
2:B:131:ALA:HB2	51:VC:2579:C:O3'	2.21	0.41
5:E:24:VAL:HG11	5:E:43:VAL:HG11	2.02	0.41
7:G:72:PRO:O	7:G:111:LYS:NZ	2.54	0.41
14:N:28:VAL:HA	14:N:89:VAL:HG22	2.02	0.41
14:N:54:ARG:HA	14:N:59:THR:OG1	2.21	0.41
15:O:77:SER:HA	51:VC:1152:C:H4'	2.02	0.41
16:P:35:LEU:HB2	16:P:57:VAL:HG13	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:9:LEU:O	23:W:36:ARG:HD3	2.21	0.41
30:DA:26:LYS:HE2	50:UC:1279:A:N6	2.36	0.41
38:LA:50:TYR:HD2	38:LA:54:ARG:HB3	1.85	0.41
40:NA:94:ARG:HH22	46:TA:80:TYR:HE2	1.67	0.41
1:WA:222:ARG:HD2	51:ZC:1827:C:OP2	2.21	0.41
1:WA:253:GLN:HB2	1:WA:257:LEU:HD12	2.02	0.41
3:YA:170:LEU:HD12	3:YA:170:LEU:HA	1.90	0.41
7:CB:100:THR:HG22	7:CB:139:VAL:HG23	2.03	0.41
16:LB:99:ILE:O	16:LB:101:GLY:N	2.53	0.41
30:ZB:61:ALA:C	30:ZB:63:ASN:H	2.29	0.41
41:KC:29:ARG:HB3	41:KC:40:CYS:HB3	2.02	0.41
50:UC:229:U:H2'	50:UC:230:G:C8	2.55	0.41
50:UC:1007:C:H2'	50:UC:1008:C:C6	2.55	0.41
50:UC:1022:G:H2'	50:UC:1023:G:C8	2.56	0.41
50:UC:1485:U:H2'	50:UC:1486:G:C8	2.56	0.41
50:UC:1505:G:H5''	50:UC:1506:U:OP1	2.21	0.41
51:VC:32:C:N4	51:VC:33:U:O4	2.54	0.41
51:VC:307:G:H21	51:VC:330:A:H62	1.68	0.41
51:VC:325:G:H2'	51:VC:326:G:C8	2.56	0.41
51:VC:1746:G:H2'	51:VC:1747:G:C8	2.55	0.41
51:VC:1754:C:H2'	51:VC:1755:A:O4'	2.21	0.41
51:VC:2468:G:H21	51:VC:2483:C:H41	1.68	0.41
51:VC:2847:U:O4	51:VC:2848:G:N1	2.54	0.41
50:YC:586:C:H2'	50:YC:587:G:C8	2.55	0.41
50:YC:639:G:H2'	50:YC:640:A:C8	2.56	0.41
50:YC:709:G:H2'	50:YC:710:G:H8	1.85	0.41
50:YC:1101:A:H1'	50:YC:1102:A:OP2	2.20	0.41
51:ZC:1313:U:H4'	51:ZC:1332:G:H4'	2.03	0.41
51:ZC:1331:A:O2'	51:ZC:1332:G:C8	2.72	0.41
51:ZC:2629:A:O2'	51:ZC:2895:U:O4	2.39	0.41
51:ZC:2722:G:H5''	51:ZC:2820:A:C2	2.56	0.41
2:B:94:GLU:H	2:B:94:GLU:HG2	1.65	0.41
3:C:131:GLY:HA2	3:C:138:GLU:HB3	2.03	0.41
7:G:80:LYS:HE2	7:G:80:LYS:HB3	1.93	0.41
9:I:68:GLU:HA	9:I:78:ARG:HB3	2.03	0.41
10:J:71:VAL:HB	10:J:72:PRO:HD3	2.03	0.41
10:J:133:SER:OG	51:VC:637:A:OP1	2.16	0.41
17:Q:80:PRO:HD3	51:VC:25:U:H5''	2.02	0.41
20:T:6:LYS:HA	20:T:6:LYS:HD2	1.94	0.41
24:X:23:LEU:HG	24:X:50:VAL:HG11	2.02	0.41
1:WA:30:GLU:CD	1:WA:63:ARG:HH21	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:XA:11:MET:HB2	2:XA:23:VAL:O	2.21	0.41
6:BB:95:LYS:HA	6:BB:111:PRO:HB3	2.03	0.41
12:HB:96:ARG:NH1	12:HB:115:GLU:OE1	2.54	0.41
13:IB:67:ARG:NH1	13:IB:103:GLU:OE1	2.47	0.41
15:KB:61:TRP:O	15:KB:65:ILE:HG13	2.21	0.41
32:BC:45:PHE:CD2	32:BC:47:LYS:HD2	2.55	0.41
35:EC:56:LYS:HA	35:EC:57:PRO:HD3	1.92	0.41
36:FC:53:VAL:C	36:FC:55:ALA:H	2.29	0.41
38:HC:120:ARG:NH1	50:YC:779:C:O2'	2.52	0.41
43:MC:40:ASP:HA	43:MC:41:PRO:HD2	1.94	0.41
50:UC:926:G:C6	50:UC:1505:G:C6	3.09	0.41
51:VC:347:A:H2'	51:VC:348:G:H8	1.86	0.41
51:VC:601:C:O2'	51:VC:605:C:H5''	2.20	0.41
51:VC:603:A:N6	51:VC:655:A:H1'	2.35	0.41
51:VC:149(B):A:C2	51:VC:1449:G:H1'	2.56	0.41
51:VC:1849:G:H2'	51:VC:1850:G:C8	2.48	0.41
51:VC:2079:U:H2'	51:VC:2080:G:O4'	2.21	0.41
50:YC:424:G:H2'	50:YC:425:G:C8	2.55	0.41
50:YC:978:A:O2'	50:YC:1322:C:N3	2.51	0.41
51:ZC:48:G:H2'	51:ZC:49:A:H2	1.85	0.41
51:ZC:270(V):C:H2'	51:ZC:270(W):G:C8	2.55	0.41
51:ZC:356:G:H2'	51:ZC:357:A:H8	1.85	0.41
51:ZC:536:A:H2'	51:ZC:537:C:C6	2.56	0.41
51:ZC:722:A:H2'	51:ZC:723:G:O4'	2.21	0.41
51:ZC:1039:G:H2'	51:ZC:1040:C:C6	2.56	0.41
51:ZC:1837:C:O2'	51:ZC:1927:A:N3	2.44	0.41
51:ZC:2079:U:H2'	51:ZC:2080:G:O4'	2.21	0.41
51:ZC:2819:G:H2'	51:ZC:2821:A:N7	2.34	0.41
1:A:30:GLU:CD	1:A:63:ARG:HH21	2.27	0.41
1:A:31:LYS:C	1:A:33:LEU:H	2.29	0.41
1:A:49:ILE:HG13	51:VC:779:U:OP1	2.20	0.41
1:A:54:ARG:NH2	51:VC:1814:G:O3'	2.51	0.41
2:B:101:ARG:HA	2:B:171:GLU:HA	2.03	0.41
3:C:84:VAL:HG21	51:VC:448:U:H1'	2.02	0.41
4:D:148:MET:HA	4:D:148:MET:HE3	2.02	0.41
5:E:88:LEU:HD23	5:E:165:ALA:HA	2.02	0.41
7:G:8:VAL:HG13	7:G:57:ILE:HB	2.02	0.41
7:G:133:SER:HB3	51:VC:1062:G:H21	1.86	0.41
8:H:51:THR:HG23	51:VC:1006:C:O4'	2.21	0.41
8:H:90:LEU:HD12	8:H:90:LEU:H	1.85	0.41
10:J:39:LYS:HG3	51:VC:806:C:P	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:117:GLU:HB2	10:J:118:GLY:H	1.68	0.41
12:L:17:ARG:NH1	51:VC:2690:C:OP2	2.54	0.41
13:M:68:GLN:HG2	13:M:71:ARG:HH12	1.86	0.41
15:O:61:TRP:O	15:O:65:ILE:HG13	2.20	0.41
15:O:101:ARG:H	15:O:101:ARG:HG3	1.56	0.41
16:P:99:ILE:O	16:P:101:GLY:N	2.54	0.41
20:T:107:THR:HA	20:T:108:PRO:HD3	1.83	0.41
23:W:28:LYS:HG3	23:W:60:LEU:HD22	2.03	0.41
23:W:55:ARG:HE	51:VC:75:G:H4'	1.84	0.41
29:CA:166:ASP:HA	29:CA:167:PRO:HD2	1.95	0.41
32:FA:122:GLU:C	32:FA:123:LEU:HD12	2.46	0.41
34:HA:5:ARG:HD2	34:HA:5:ARG:HA	1.95	0.41
37:KA:7:LYS:HD3	37:KA:71:LEU:HD13	2.03	0.41
38:LA:98:LEU:HA	38:LA:101:SER:HB3	2.03	0.41
42:PA:29:VAL:O	42:PA:33:THR:OG1	2.36	0.41
45:SA:75:ILE:HD11	50:UC:735:C:H1'	2.02	0.41
1:WA:153:ALA:C	1:WA:154:LYS:HG2	2.46	0.41
1:WA:222:ARG:HG3	51:ZC:1789:A:OP1	2.21	0.41
3:YA:107:LYS:HD3	3:YA:206:ILE:HG23	2.03	0.41
4:ZA:148:MET:HA	4:ZA:148:MET:HE3	2.02	0.41
5:AB:117:PRO:HA	5:AB:118:PRO:HD3	1.91	0.41
6:BB:10:GLU:H	6:BB:10:GLU:CD	2.28	0.41
6:BB:126:TYR:O	6:BB:142:VAL:HG22	2.21	0.41
8:DB:42:GLU:HG2	8:DB:82:LYS:HG3	2.03	0.41
8:DB:160:LYS:HD3	8:DB:161:LEU:H	1.85	0.41
10:FB:39:LYS:HA	10:FB:39:LYS:HD2	1.70	0.41
12:HB:104:ARG:HD2	12:HB:111:LEU:HD21	2.02	0.41
16:LB:12:TYR:CE2	16:LB:22:VAL:HG13	2.56	0.41
17:MB:78:GLU:OE2	17:MB:99:ARG:HD3	2.20	0.41
20:PB:48:PHE:CE2	20:PB:71:VAL:HG11	2.56	0.41
20:PB:97:GLU:HB3	20:PB:125:LEU:HD21	2.01	0.41
22:RB:8:SER:HB2	22:RB:10:LYS:HE2	2.03	0.41
23:SB:24:LEU:HD13	23:SB:60:LEU:HD21	2.02	0.41
31:AC:24:GLU:N	50:YC:409:G:OP1	2.54	0.41
39:IC:27:LYS:HE3	39:IC:27:LYS:HB3	1.91	0.41
40:JC:19:LEU:HD23	40:JC:30:ALA:HA	2.03	0.41
50:UC:646:U:H2'	50:UC:647:C:C6	2.56	0.41
50:UC:1109:C:H2'	50:UC:1110:A:O4'	2.20	0.41
51:VC:247:G:H4'	51:VC:386:G:C6	2.56	0.41
51:VC:363(G):A:H1'	51:VC:364:C:OP2	2.21	0.41
51:VC:540:G:H2'	51:VC:541:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:882:G:H2'	51:VC:883:G:C8	2.56	0.41
51:VC:1223:G:N2	51:VC:1226:A:OP2	2.35	0.41
51:VC:1971:A:H5'	51:VC:1972:A:H5''	2.03	0.41
51:VC:2033:A:H1'	51:VC:2035:G:OP2	2.21	0.41
51:VC:2112:G:H8	51:VC:2112:G:OP2	2.04	0.41
50:YC:413:G:H21	50:YC:428:G:H1'	1.85	0.41
50:YC:646:U:H2'	50:YC:647:C:C6	2.56	0.41
50:YC:1101:A:H4'	50:YC:1102:A:O5'	2.21	0.41
51:ZC:32:C:N4	51:ZC:33:U:O4	2.54	0.41
51:ZC:78:A:H2'	51:ZC:79:G:C8	2.56	0.41
51:ZC:247:G:H4'	51:ZC:386:G:C6	2.56	0.41
51:ZC:388:G:C4	51:ZC:390:A:C6	3.09	0.41
51:ZC:512:G:H4'	51:ZC:513:A:O5'	2.21	0.41
51:ZC:534:U:H2'	51:ZC:535:C:C6	2.55	0.41
51:ZC:628:G:H2'	51:ZC:629:G:C8	2.55	0.41
51:ZC:662:G:H2'	51:ZC:663:G:C8	2.55	0.41
51:ZC:787:U:H5''	51:ZC:788:A:H5'	2.03	0.41
51:ZC:1511:A:H2'	51:ZC:1512:G:O4'	2.21	0.41
51:ZC:1851:U:H3	51:ZC:1891:G:H1	1.68	0.41
51:ZC:1899:G:H22	51:ZC:1902:C:N4	2.19	0.41
51:ZC:2572:A:H5''	51:ZC:2574:G:H4'	2.03	0.41
51:ZC:2738:A:H2	51:ZC:2766:G:H22	1.69	0.41
53:ED:28:C:H2'	53:ED:29:G:H8	1.86	0.41
53:FD:50:U:H3	53:FD:64:G:H1	1.68	0.41
1:A:14:ARG:NH2	51:VC:1693:U:O2'	2.46	0.41
4:D:36:LYS:HB3	4:D:160:VAL:HB	2.03	0.41
8:H:101:TYR:HA	8:H:102:PRO:HD3	1.95	0.41
13:M:67:ARG:NH1	13:M:103:GLU:OE1	2.47	0.41
15:O:65:ILE:HG12	15:O:96:ALA:HB3	2.03	0.41
15:O:75:ASN:ND2	51:VC:1011:G:H4'	2.36	0.41
15:O:88:ILE:C	15:O:90:VAL:H	2.29	0.41
20:T:157:LEU:HA	20:T:158:PRO:HD3	1.80	0.41
21:U:16:SER:HB3	51:VC:2261:C:C5	2.56	0.41
29:CA:146:GLN:O	29:CA:150:SER:OG	2.34	0.41
31:EA:33:MET:HE3	31:EA:33:MET:HB3	1.96	0.41
31:EA:173:TRP:CD2	31:EA:189:PRO:HB3	2.56	0.41
33:GA:46:ARG:HB2	33:GA:60:PHE:CE1	2.56	0.41
34:HA:26:PHE:HB2	34:HA:101:LEU:HD22	2.03	0.41
35:IA:6:ILE:O	35:IA:10:LEU:HG	2.21	0.41
36:JA:48:GLU:N	36:JA:49:PRO:HD2	2.36	0.41
42:PA:26:GLU:HB3	42:PA:81:LEU:HD22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:YA:150:GLY:HA2	3:YA:172:TRP:CD2	2.56	0.41
4:ZA:128:ARG:HE	4:ZA:129:GLY:N	2.15	0.41
4:ZA:140:ILE:H	4:ZA:140:ILE:HG13	1.60	0.41
9:EB:70:LYS:HE3	9:EB:70:LYS:HB3	1.94	0.41
11:GB:71:ASP:OD1	11:GB:71:ASP:N	2.54	0.41
14:JB:41:ARG:NH2	50:YC:346:G:OP1	2.46	0.41
29:YB:48:MET:HA	29:YB:51:LEU:HD12	2.03	0.41
31:AC:43:HIS:C	31:AC:45:GLN:H	2.28	0.41
34:DC:73:MET:HA	34:DC:91:VAL:HG23	2.03	0.41
47:QC:22:ARG:HG2	50:YC:323:U:O3'	2.21	0.41
50:UC:199:G:H2'	50:UC:200:G:C8	2.56	0.41
50:UC:584:G:H2'	50:UC:585:G:C8	2.56	0.41
50:UC:1000:A:H2'	50:UC:1001:G:H8	1.86	0.41
50:UC:1101:A:H4'	50:UC:1102:A:O5'	2.21	0.41
50:UC:1182:G:H4'	50:UC:1183:A:H5''	2.03	0.41
51:VC:270(T):G:H2'	51:VC:270(U):G:C8	2.55	0.41
51:VC:686:G:N2	51:VC:788:A:H61	2.19	0.41
51:VC:721:C:H2'	51:VC:722:A:H8	1.85	0.41
51:VC:1060:U:H4'	51:VC:1061:U:O5'	2.21	0.41
51:VC:1116:C:H2'	51:VC:1117:G:C8	2.56	0.41
51:VC:1423:G:H2'	51:VC:1424:G:H8	1.86	0.41
51:VC:2123:G:N2	51:VC:2175:C:O2	2.54	0.41
51:VC:2722:G:H5''	51:VC:2820:A:C2	2.56	0.41
50:YC:115:G:H4'	50:YC:116:A:O5'	2.21	0.41
50:YC:936:C:H2'	50:YC:937:A:O4'	2.21	0.41
50:YC:1132:C:H2'	50:YC:1133:G:C8	2.56	0.41
50:YC:1386:G:H2'	50:YC:1387:G:H8	1.86	0.41
50:YC:1414:U:H2'	50:YC:1415:G:H8	1.85	0.41
51:ZC:1019:U:H2'	51:ZC:1021:A:H2	1.85	0.41
51:ZC:1116:C:H2'	51:ZC:1117:G:C8	2.56	0.41
51:ZC:1411:C:H42	51:ZC:1591:G:H1	1.69	0.41
51:ZC:149(B):A:C2	51:ZC:1449:G:H1'	2.56	0.41
51:ZC:2033:A:H1'	51:ZC:2035:G:OP2	2.21	0.41
51:ZC:2799:A:H2'	51:ZC:2801:A:C8	2.55	0.41
53:BD:58:A:H1'	53:BD:60:U:C5	2.56	0.41
2:B:77:ILE:HD13	2:B:195:LEU:HD13	2.03	0.40
4:D:27:ASN:ND2	52:WC:55:U:O3'	2.53	0.40
6:F:10:GLU:CD	6:F:10:GLU:H	2.29	0.40
7:G:54:PRO:HG2	51:VC:1060:U:OP2	2.20	0.40
9:I:19:ILE:O	9:I:19:ILE:HG12	2.20	0.40
12:L:4:LEU:HD22	12:L:4:LEU:HA	1.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:21:LEU:HD23	23:W:21:LEU:HA	1.89	0.40
25:Y:41:PRO:HG2	25:Y:44:THR:OG1	2.21	0.40
29:CA:178:ARG:HA	29:CA:178:ARG:HD3	1.82	0.40
30:DA:61:ALA:C	30:DA:63:ASN:H	2.29	0.40
30:DA:86:VAL:HA	30:DA:89:GLU:HB3	2.04	0.40
31:EA:70:ILE:HD12	31:EA:70:ILE:HA	1.96	0.40
32:FA:110:LEU:HD13	32:FA:118:ILE:HG21	2.03	0.40
34:HA:65:ALA:O	34:HA:69:VAL:HG23	2.21	0.40
40:NA:108:ARG:NH2	40:NA:114:ARG:HG2	2.36	0.40
43:QA:33:ILE:HD13	43:QA:33:ILE:HA	1.89	0.40
45:SA:87:ARG:HB3	45:SA:87:ARG:CZ	2.51	0.40
1:WA:253:GLN:OE1	51:ZC:1843:C:H5'	2.22	0.40
6:BB:120:ILE:HG22	6:BB:122:GLU:H	1.86	0.40
10:FB:39:LYS:HG3	51:ZC:806:C:P	2.61	0.40
14:JB:22:PHE:N	14:JB:22:PHE:HD2	2.18	0.40
14:JB:56:GLY:N	51:ZC:2845:G:OP1	2.54	0.40
15:KB:57:PHE:HB3	15:KB:61:TRP:CZ2	2.56	0.40
19:OB:27:VAL:HA	19:OB:39:VAL:HG13	2.03	0.40
21:QB:12:ASN:O	21:QB:14:ARG:N	2.55	0.40
23:SB:46:GLN:H	23:SB:49:LYS:HE2	1.85	0.40
34:DC:77:SER:HB3	34:DC:84:ASN:ND2	2.36	0.40
39:IC:7:ASN:OD1	44:NC:34:LYS:HE2	2.20	0.40
41:KC:3:ARG:HD2	50:YC:1203:C:OP1	2.20	0.40
42:LC:62:GLN:NE2	42:LC:65:ARG:HH12	2.20	0.40
50:UC:792:A:H4'	50:UC:793:U:H5''	2.03	0.40
50:UC:1386:G:H2'	50:UC:1387:G:H8	1.85	0.40
51:VC:27:G:C2	51:VC:512:G:N3	2.89	0.40
51:VC:270(V):C:H2'	51:VC:270(W):G:C8	2.57	0.40
51:VC:388:G:C4	51:VC:390:A:C6	3.09	0.40
51:VC:1039:G:H2'	51:VC:1040:C:C6	2.57	0.40
51:VC:1162:G:H2'	51:VC:1163:G:H8	1.86	0.40
51:VC:1308:A:H2'	51:VC:1309:G:O4'	2.21	0.40
51:VC:1529:A:H62	51:VC:1542:G:N2	2.19	0.40
51:VC:2211:G:H2'	51:VC:2212:A:H5''	2.02	0.40
51:VC:2299:G:H2'	51:VC:2300:G:C8	2.56	0.40
51:VC:2738:A:H2	51:VC:2766:G:H22	1.68	0.40
50:YC:582:U:H2'	50:YC:583:A:C8	2.56	0.40
50:YC:689:C:H2'	50:YC:690:G:O4'	2.21	0.40
51:ZC:296:C:H2'	51:ZC:297:C:H6	1.86	0.40
51:ZC:1206:G:C2	51:ZC:1207:C:C2	3.09	0.40
51:ZC:1495:A:N3	51:ZC:1495:A:H2'	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:ZC:2540:C:H2'	51:ZC:2541:A:O4'	2.21	0.40
51:ZC:2584:U:H4'	51:ZC:2602:A:N6	2.36	0.40
52:AD:91:C:H2'	52:AD:92:G:H8	1.86	0.40
3:C:24:LEU:HA	3:C:25:PRO:HD2	1.85	0.40
3:C:41:LEU:HA	3:C:44:ARG:HG2	2.02	0.40
4:D:16:ARG:O	4:D:20:ILE:HG13	2.20	0.40
4:D:64:THR:HG23	4:D:66:GLN:H	1.86	0.40
4:D:115:ARG:H	4:D:115:ARG:HG3	1.54	0.40
10:J:18:ARG:NH1	10:J:18:ARG:HB3	2.36	0.40
12:L:96:ARG:NH1	12:L:115:GLU:OE1	2.54	0.40
19:S:8:LYS:H	19:S:8:LYS:NZ	2.18	0.40
19:S:40:GLU:HA	19:S:64:GLU:HG2	2.03	0.40
19:S:45:VAL:HG13	19:S:60:PHE:HB3	2.04	0.40
31:EA:62:GLN:O	31:EA:66:ARG:HD3	2.21	0.40
34:HA:73:MET:HA	34:HA:91:VAL:HG23	2.02	0.40
1:WA:30:GLU:O	1:WA:32:SER:N	2.54	0.40
2:XA:101:ARG:HA	2:XA:171:GLU:HA	2.03	0.40
7:CB:8:VAL:HG13	7:CB:57:ILE:HB	2.02	0.40
9:EB:68:GLU:HA	9:EB:78:ARG:HB3	2.02	0.40
10:FB:17:LYS:C	10:FB:19:VAL:H	2.30	0.40
10:FB:18:ARG:HB3	10:FB:18:ARG:NH1	2.36	0.40
29:YB:74:LYS:HE2	29:YB:206:ASP:OD1	2.21	0.40
31:AC:30:LYS:C	31:AC:32:ALA:H	2.28	0.40
36:FC:118:LYS:C	36:FC:120:ARG:H	2.29	0.40
41:KC:24:CYS:HB3	41:KC:29:ARG:N	2.35	0.40
44:NC:50:LYS:HE2	44:NC:51:TYR:CZ	2.54	0.40
46:PC:21:GLU:HG3	46:PC:22:LEU:HD22	2.03	0.40
50:UC:563:A:H61	50:UC:884:U:H3	1.69	0.40
50:UC:586:C:H2'	50:UC:587:G:C8	2.55	0.40
50:UC:833:U:H2'	50:UC:834:C:C6	2.56	0.40
51:VC:78:A:H2'	51:VC:79:G:C8	2.57	0.40
51:VC:356:G:H2'	51:VC:357:A:H8	1.86	0.40
51:VC:628:G:H2'	51:VC:629:G:C8	2.56	0.40
51:VC:1332:G:N2	51:VC:1610:A:C8	2.85	0.40
51:VC:1766:U:H2'	51:VC:1767:C:H6	1.86	0.40
51:VC:2660:A:H2'	51:VC:2661:G:O4'	2.20	0.40
53:XC:29:G:H2'	53:XC:30:G:C8	2.56	0.40
50:YC:265:G:H2'	50:YC:266:G:H5''	2.03	0.40
50:YC:397:A:H5'	50:YC:398:C:OP1	2.22	0.40
50:YC:833:U:H2'	50:YC:834:C:C6	2.56	0.40
50:YC:1010:G:H2'	50:YC:1011:G:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:YC:1137:C:H4'	50:YC:1138:G:C2	2.56	0.40
51:ZC:335:C:H2'	51:ZC:336:C:C6	2.56	0.40
51:ZC:535:C:H42	51:ZC:558:G:H1	1.69	0.40
51:ZC:1772:G:H5''	51:ZC:1773:A:OP2	2.20	0.40
51:ZC:2840:C:H42	51:ZC:2877:G:H1	1.69	0.40
1:A:30:GLU:O	1:A:32:SER:N	2.54	0.40
1:A:31:LYS:HD3	1:A:94:LEU:HD11	2.02	0.40
3:C:107:LYS:HD3	3:C:206:ILE:HG23	2.03	0.40
3:C:150:GLY:HA2	3:C:172:TRP:CD2	2.56	0.40
10:J:114:ILE:HD13	10:J:130:PHE:CE1	2.56	0.40
10:J:115:LEU:HB2	51:VC:637:A:OP2	2.22	0.40
13:M:4:LEU:HD22	13:M:8:GLU:OE1	2.20	0.40
15:O:88:ILE:HG22	16:P:47:VAL:HG23	2.03	0.40
29:CA:19:HIS:CD2	29:CA:20:GLU:HG2	2.57	0.40
39:MA:6:ILE:H	39:MA:6:ILE:HG13	1.52	0.40
39:MA:57:VAL:O	39:MA:64:GLU:HA	2.20	0.40
3:YA:190:GLU:H	3:YA:190:GLU:HG3	1.73	0.40
4:ZA:9:ARG:O	4:ZA:13:GLU:HG2	2.20	0.40
7:CB:66:THR:HG22	7:CB:68:VAL:HG22	2.04	0.40
7:CB:91:PRO:HG2	51:ZC:1076:C:O2'	2.22	0.40
9:EB:19:ILE:O	9:EB:19:ILE:HG12	2.20	0.40
11:GB:62:GLY:HA3	11:GB:107:ALA:O	2.22	0.40
13:IB:57:LYS:HE3	13:IB:57:LYS:HB2	1.86	0.40
15:KB:101:ARG:H	15:KB:101:ARG:HG3	1.54	0.40
19:OB:11:ASP:C	19:OB:26:LYS:HG3	2.46	0.40
19:OB:71:LYS:HE2	51:ZC:329:G:OP2	2.21	0.40
31:AC:10:ARG:HB2	31:AC:40:PRO:HG2	2.03	0.40
34:DC:89:MET:HE3	34:DC:89:MET:HB2	1.96	0.40
38:HC:98:LEU:HA	38:HC:101:SER:HB3	2.03	0.40
43:MC:10:GLY:HA2	50:YC:624:C:H4'	2.04	0.40
50:UC:301:G:H2'	50:UC:302:G:C8	2.56	0.40
50:UC:337:C:H2'	50:UC:338:A:C8	2.56	0.40
50:UC:397:A:H5'	50:UC:398:C:OP1	2.20	0.40
50:UC:955:U:H3	50:UC:1225:A:H61	1.69	0.40
50:UC:1137:C:H4'	50:UC:1138:G:C2	2.56	0.40
50:UC:1359:C:C1'	50:UC:136(A):C:H41	2.33	0.40
51:VC:535:C:H42	51:VC:558:G:H1	1.69	0.40
51:VC:1419:A:H62	51:VC:1578:U:H3	1.70	0.40
51:VC:1625:C:H2'	51:VC:1626:G:O4'	2.21	0.40
51:VC:1790:C:H2'	51:VC:1791:A:C5	2.56	0.40
51:VC:2168:G:N1	51:VC:2171:A:OP2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:2795:G:H1'	51:VC:2802:G:N1	2.36	0.40
53:XC:58:A:H1'	53:XC:60:U:C5	2.56	0.40
50:YC:976:G:H8	50:YC:1358:U:H2'	1.86	0.40
50:YC:1418:A:H2	51:ZC:1948:G:N3	2.19	0.40
51:ZC:27:G:C2	51:ZC:512:G:N3	2.89	0.40
51:ZC:749:C:O2	51:ZC:1618:A:H2'	2.22	0.40
51:ZC:844:C:H3'	51:ZC:845:G:N2	2.36	0.40
51:ZC:854:G:H2'	51:ZC:855:G:C8	2.56	0.40
51:ZC:2168:G:N1	51:ZC:2171:A:OP2	2.55	0.40
51:ZC:2795:G:H1'	51:ZC:2802:G:N1	2.36	0.40
1:A:154:LYS:HE2	1:A:154:LYS:HB3	1.93	0.40
1:A:160:GLY:HA3	51:VC:1820:U:C4	2.56	0.40
3:C:40:GLN:NE2	3:C:182:ASN:HB2	2.36	0.40
3:C:101:LEU:HA	3:C:102:PRO:HD3	1.95	0.40
6:F:120:ILE:HG22	6:F:122:GLU:H	1.87	0.40
15:O:10:ARG:HD2	51:VC:583:G:OP2	2.21	0.40
20:T:151:HIS:HA	20:T:170:THR:HA	2.02	0.40
22:V:37:ILE:HG12	22:V:38:SER:N	2.37	0.40
29:CA:60:ASP:O	29:CA:64:ARG:HG2	2.22	0.40
34:HA:84:ASN:OD1	34:HA:85:TYR:N	2.54	0.40
47:UA:22:ARG:HG2	50:UC:323:U:O3'	2.22	0.40
47:UA:57:ARG:HD2	47:UA:102:GLY:HA2	2.04	0.40
2:XA:41:LYS:O	51:ZC:2784:C:H4'	2.21	0.40
3:YA:40:GLN:HE22	3:YA:182:ASN:HB2	1.87	0.40
3:YA:111:ALA:HB2	3:YA:206:ILE:HD13	2.03	0.40
5:AB:126:PRO:HB2	5:AB:127:GLU:H	1.55	0.40
10:FB:18:ARG:HG2	51:ZC:661:C:H4'	2.04	0.40
15:KB:75:ASN:ND2	51:ZC:1011:G:H4'	2.36	0.40
17:MB:38:TYR:CE1	25:UB:41:PRO:HD3	2.55	0.40
19:OB:88:LYS:HB2	19:OB:89:PHE:H	1.49	0.40
20:PB:100:VAL:HA	20:PB:101:PRO:HD3	1.94	0.40
22:RB:11:ARG:C	22:RB:13:ILE:N	2.80	0.40
28:XB:41:ILE:H	28:XB:41:ILE:HG13	1.74	0.40
29:YB:146:GLN:O	29:YB:150:SER:OG	2.33	0.40
34:DC:95:ARG:HH12	50:YC:938:A:H4'	1.87	0.40
43:MC:28:ARG:NH1	43:MC:29:ASP:OD1	2.54	0.40
50:UC:1465:C:H2'	50:UC:1466:C:O4'	2.22	0.40
51:VC:465:G:H21	51:VC:684:G:H1'	1.87	0.40
51:VC:732:C:H2'	51:VC:733:G:O4'	2.21	0.40
51:VC:787:U:H5''	51:VC:788:A:H5'	2.02	0.40
51:VC:874:G:H2'	51:VC:875:G:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:VC:2060:A:O4'	51:VC:2502:G:H1'	2.22	0.40
51:VC:2065:C:H1'	51:VC:2449:U:O2	2.21	0.40
51:VC:2211:G:H3'	51:VC:2211:G:N3	2.36	0.40
51:VC:2366:A:H2'	51:VC:2367:G:O4'	2.22	0.40
50:YC:301:G:H2'	50:YC:302:G:C8	2.57	0.40
50:YC:1034:G:H2'	50:YC:1035:A:H8	1.86	0.40
50:YC:1372:U:H2'	50:YC:1373:G:O4'	2.21	0.40
50:YC:1493:A:N6	51:ZC:1913:A:H1'	2.36	0.40
51:ZC:360:G:H2'	51:ZC:361:G:H8	1.87	0.40
51:ZC:1766:U:H2'	51:ZC:1767:C:H6	1.87	0.40
51:ZC:2056:G:H2'	51:ZC:2056:G:N3	2.37	0.40
51:ZC:2301:C:H2'	51:ZC:2302:G:H8	1.86	0.40
1:A:8:PRO:O	51:VC:1695:G:H8	2.05	0.40
2:B:16:ARG:O	2:B:18:ASP:N	2.55	0.40
9:I:17:ARG:HA	9:I:17:ARG:HD3	1.79	0.40
10:J:112:LEU:HD23	10:J:113:LYS:N	2.36	0.40
11:K:115:MET:O	11:K:119:ARG:HB2	2.21	0.40
12:L:16:HIS:ND1	51:VC:1275:A:C4	2.90	0.40
12:L:90:ARG:O	12:L:94:TYR:HE2	2.04	0.40
13:M:25:ARG:HG2	13:M:88:ASP:HB2	2.04	0.40
21:U:12:ASN:O	21:U:14:ARG:N	2.54	0.40
36:JA:53:VAL:C	36:JA:55:ALA:H	2.29	0.40
37:KA:54:PHE:HD1	37:KA:54:PHE:HA	1.78	0.40
3:YA:40:GLN:NE2	3:YA:182:ASN:HB2	2.37	0.40
3:YA:131:GLY:HA2	3:YA:138:GLU:HB3	2.02	0.40
4:ZA:47:LYS:HZ3	4:ZA:82:LEU:HD23	1.85	0.40
4:ZA:80:PHE:HD1	4:ZA:80:PHE:HA	1.78	0.40
4:ZA:115:ARG:H	4:ZA:115:ARG:HG3	1.53	0.40
10:FB:106:LEU:HD22	10:FB:106:LEU:HA	1.96	0.40
11:GB:45:GLN:H	11:GB:45:GLN:HG2	1.64	0.40
14:JB:28:VAL:HA	14:JB:89:VAL:HG22	2.02	0.40
17:MB:13:SER:HB3	17:MB:16:LYS:HD2	2.03	0.40
18:NB:9:LEU:O	23:SB:36:ARG:HD3	2.21	0.40
27:WB:24:THR:HG23	27:WB:27:GLY:H	1.85	0.40
29:YB:178:ARG:NH2	29:YB:196:LEU:O	2.53	0.40
30:ZB:164:ARG:NH1	30:ZB:166:GLU:OE1	2.54	0.40
36:FC:48:GLU:N	36:FC:49:PRO:HD2	2.36	0.40
37:GC:33:GLN:H	37:GC:33:GLN:HG3	1.72	0.40
44:NC:9:VAL:HG22	44:NC:56:VAL:HG22	2.04	0.40
50:UC:115:G:H4'	50:UC:116:A:O5'	2.21	0.40
50:UC:689:C:H2'	50:UC:690:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:UC:928:G:H2'	50:UC:929:G:H8	1.86	0.40
50:UC:1128:C:N4	50:UC:1143:G:H22	2.19	0.40
50:UC:1443:G:O6	51:VC:2863:C:H5''	2.21	0.40
51:VC:119:A:H4'	51:VC:120:U:H5'	2.03	0.40
51:VC:283:A:C2	51:VC:427:U:H1'	2.57	0.40
51:VC:310:A:C6	51:VC:312:G:C4	3.09	0.40
51:VC:2345:G:O2'	51:VC:2381:C:O2	2.30	0.40
51:VC:2728:U:H2'	51:VC:2729:G:C8	2.57	0.40
50:YC:160:A:H1'	50:YC:344:A:C5	2.57	0.40
50:YC:162:A:C5	50:YC:163:C:H1'	2.57	0.40
50:YC:1182:G:H4'	50:YC:1183:A:H5''	2.03	0.40
50:YC:1376:U:H2'	50:YC:1377:A:H8	1.86	0.40
51:ZC:117:G:C6	51:ZC:119:A:C6	3.10	0.40
51:ZC:401:A:H2'	51:ZC:402:A:O4'	2.21	0.40
51:ZC:540:G:H2'	51:ZC:541:C:C6	2.56	0.40
51:ZC:589:C:H2'	51:ZC:590:A:C8	2.57	0.40
51:ZC:742:G:H2'	51:ZC:743:G:H8	1.86	0.40
51:ZC:785:G:C6	51:ZC:786:C:C4	3.09	0.40
51:ZC:1127:A:H2'	51:ZC:1128:A:H5''	2.04	0.40
51:ZC:2011:U:H2'	51:ZC:2012:G:O4'	2.22	0.40
51:ZC:2637:U:C4	51:ZC:2638:G:C6	3.09	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:126:PRO:O	50:YC:86:U:O2'[2_455]	2.11	0.09

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	269/271 (99%)	227 (84%)	31 (12%)	11 (4%)	2	17
1	WA	269/271 (99%)	228 (85%)	30 (11%)	11 (4%)	2	17
2	B	202/206 (98%)	173 (86%)	20 (10%)	9 (4%)	2	15
2	XA	202/206 (98%)	173 (86%)	20 (10%)	9 (4%)	2	15
3	C	200/205 (98%)	174 (87%)	19 (10%)	7 (4%)	3	20
3	YA	200/205 (98%)	174 (87%)	19 (10%)	7 (4%)	3	20
4	D	179/182 (98%)	148 (83%)	26 (14%)	5 (3%)	4	22
4	ZA	179/182 (98%)	148 (83%)	26 (14%)	5 (3%)	4	22
5	AB	172/180 (96%)	161 (94%)	10 (6%)	1 (1%)	21	51
5	E	172/180 (96%)	161 (94%)	9 (5%)	2 (1%)	10	38
6	BB	143/148 (97%)	127 (89%)	14 (10%)	2 (1%)	9	34
6	F	143/148 (97%)	127 (89%)	14 (10%)	2 (1%)	9	34
7	CB	145/147 (99%)	113 (78%)	22 (15%)	10 (7%)	1	9
7	G	145/147 (99%)	113 (78%)	22 (15%)	10 (7%)	1	9
8	DB	135/140 (96%)	112 (83%)	20 (15%)	3 (2%)	5	27
8	H	135/140 (96%)	112 (83%)	20 (15%)	3 (2%)	5	27
9	EB	120/122 (98%)	104 (87%)	14 (12%)	2 (2%)	7	31
9	I	120/122 (98%)	104 (87%)	13 (11%)	3 (2%)	4	24
10	FB	144/150 (96%)	93 (65%)	34 (24%)	17 (12%)	0	3
10	J	144/150 (96%)	94 (65%)	34 (24%)	16 (11%)	0	3
11	GB	132/141 (94%)	99 (75%)	24 (18%)	9 (7%)	1	9
11	K	132/141 (94%)	99 (75%)	23 (17%)	10 (8%)	1	7
12	HB	115/118 (98%)	94 (82%)	17 (15%)	4 (4%)	3	20
12	L	115/118 (98%)	95 (83%)	16 (14%)	4 (4%)	3	20
13	IB	108/112 (96%)	99 (92%)	9 (8%)	0	100	100
13	M	108/112 (96%)	99 (92%)	9 (8%)	0	100	100
14	JB	135/146 (92%)	109 (81%)	20 (15%)	6 (4%)	2	15
14	N	135/146 (92%)	109 (81%)	20 (15%)	6 (4%)	2	15
15	KB	115/118 (98%)	105 (91%)	7 (6%)	3 (3%)	4	23
15	O	115/118 (98%)	105 (91%)	8 (7%)	2 (2%)	7	31
16	LB	99/101 (98%)	76 (77%)	18 (18%)	5 (5%)	1	13
16	P	99/101 (98%)	77 (78%)	17 (17%)	5 (5%)	1	13

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	MB	110/113 (97%)	100 (91%)	8 (7%)	2 (2%)	6	30
17	Q	110/113 (97%)	100 (91%)	9 (8%)	1 (1%)	14	43
18	NB	90/96 (94%)	82 (91%)	8 (9%)	0	100	100
18	R	90/96 (94%)	82 (91%)	8 (9%)	0	100	100
19	OB	98/110 (89%)	69 (70%)	17 (17%)	12 (12%)	0	3
19	S	98/110 (89%)	69 (70%)	17 (17%)	12 (12%)	0	3
20	PB	185/206 (90%)	159 (86%)	21 (11%)	5 (3%)	4	23
20	T	185/206 (90%)	159 (86%)	21 (11%)	5 (3%)	4	23
21	QB	74/85 (87%)	63 (85%)	8 (11%)	3 (4%)	2	17
21	U	74/85 (87%)	63 (85%)	8 (11%)	3 (4%)	2	17
22	RB	86/98 (88%)	62 (72%)	16 (19%)	8 (9%)	0	5
22	V	86/98 (88%)	63 (73%)	15 (17%)	8 (9%)	0	5
23	SB	60/72 (83%)	50 (83%)	7 (12%)	3 (5%)	1	14
23	W	60/72 (83%)	50 (83%)	7 (12%)	3 (5%)	1	14
24	TB	57/60 (95%)	54 (95%)	2 (4%)	1 (2%)	6	30
24	X	57/60 (95%)	54 (95%)	2 (4%)	1 (2%)	6	30
25	UB	50/60 (83%)	45 (90%)	3 (6%)	2 (4%)	2	17
25	Y	50/60 (83%)	45 (90%)	3 (6%)	2 (4%)	2	17
26	VB	42/54 (78%)	31 (74%)	7 (17%)	4 (10%)	0	5
26	Z	42/54 (78%)	31 (74%)	7 (17%)	4 (10%)	0	5
27	AA	46/49 (94%)	42 (91%)	4 (9%)	0	100	100
27	WB	46/49 (94%)	42 (91%)	4 (9%)	0	100	100
28	BA	61/65 (94%)	47 (77%)	6 (10%)	8 (13%)	0	2
28	XB	61/65 (94%)	47 (77%)	6 (10%)	8 (13%)	0	2
29	CA	232/256 (91%)	195 (84%)	27 (12%)	10 (4%)	2	15
29	YB	232/256 (91%)	195 (84%)	27 (12%)	10 (4%)	2	15
30	DA	204/239 (85%)	172 (84%)	21 (10%)	11 (5%)	1	13
30	ZB	204/239 (85%)	171 (84%)	22 (11%)	11 (5%)	1	13
31	AC	206/209 (99%)	185 (90%)	17 (8%)	4 (2%)	6	29
31	EA	206/209 (99%)	182 (88%)	17 (8%)	7 (3%)	3	20
32	BC	149/162 (92%)	130 (87%)	16 (11%)	3 (2%)	6	28

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
32	FA	149/162 (92%)	130 (87%)	16 (11%)	3 (2%)	6	28
33	CC	99/101 (98%)	88 (89%)	9 (9%)	2 (2%)	6	28
33	GA	99/101 (98%)	88 (89%)	9 (9%)	2 (2%)	6	28
34	DC	153/156 (98%)	142 (93%)	9 (6%)	2 (1%)	9	36
34	HA	153/156 (98%)	142 (93%)	10 (6%)	1 (1%)	18	48
35	EC	136/138 (99%)	121 (89%)	13 (10%)	2 (2%)	8	33
35	IA	136/138 (99%)	122 (90%)	12 (9%)	2 (2%)	8	33
36	FC	125/128 (98%)	102 (82%)	20 (16%)	3 (2%)	4	25
36	JA	125/128 (98%)	102 (82%)	20 (16%)	3 (2%)	4	25
37	GC	96/105 (91%)	78 (81%)	15 (16%)	3 (3%)	3	21
37	KA	96/105 (91%)	78 (81%)	15 (16%)	3 (3%)	3	21
38	HC	112/129 (87%)	98 (88%)	8 (7%)	6 (5%)	1	13
38	LA	112/129 (87%)	98 (88%)	8 (7%)	6 (5%)	1	13
39	IC	120/132 (91%)	106 (88%)	12 (10%)	2 (2%)	7	31
39	MA	120/132 (91%)	106 (88%)	12 (10%)	2 (2%)	7	31
40	JC	115/126 (91%)	105 (91%)	9 (8%)	1 (1%)	14	43
40	NA	115/126 (91%)	105 (91%)	9 (8%)	1 (1%)	14	43
41	KC	58/61 (95%)	46 (79%)	12 (21%)	0	100	100
41	OA	58/61 (95%)	49 (84%)	4 (7%)	5 (9%)	0	6
42	LC	86/89 (97%)	80 (93%)	4 (5%)	2 (2%)	5	26
42	PA	86/89 (97%)	80 (93%)	4 (5%)	2 (2%)	5	26
43	MC	81/88 (92%)	75 (93%)	6 (7%)	0	100	100
43	QA	81/88 (92%)	75 (93%)	6 (7%)	0	100	100
44	NC	97/105 (92%)	84 (87%)	13 (13%)	0	100	100
44	RA	97/105 (92%)	84 (87%)	13 (13%)	0	100	100
45	OC	68/88 (77%)	58 (85%)	8 (12%)	2 (3%)	3	22
45	SA	68/88 (77%)	59 (87%)	7 (10%)	2 (3%)	3	22
46	PC	76/93 (82%)	58 (76%)	14 (18%)	4 (5%)	1	13
46	TA	76/93 (82%)	58 (76%)	13 (17%)	5 (7%)	1	10
47	QC	97/106 (92%)	82 (84%)	10 (10%)	5 (5%)	1	13
47	UA	97/106 (92%)	82 (84%)	8 (8%)	7 (7%)	1	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
48	RC	22/27 (82%)	17 (77%)	5 (23%)	0	100	100
48	VA	22/27 (82%)	17 (77%)	5 (23%)	0	100	100
49	SC	28/71 (39%)	20 (71%)	4 (14%)	4 (14%)	0	2
49	TC	28/71 (39%)	20 (71%)	4 (14%)	4 (14%)	0	2
All	All	11464/12328 (93%)	9726 (85%)	1312 (11%)	426 (4%)	2	18

All (426) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	17	ASP
2	B	129	HIS
3	C	73	ALA
4	D	84	LYS
8	H	149	PRO
9	I	26	LYS
10	J	19	VAL
10	J	65	ARG
12	L	57	ARG
17	Q	63	ASP
19	S	3	VAL
19	S	77	PRO
22	V	16	ASN
22	V	83	GLU
22	V	87	PRO
23	W	48	HIS
25	Y	4	HIS
28	BA	62	LEU
30	DA	14	ILE
30	DA	15	THR
46	TA	27	GLU
47	UA	71	THR
2	XA	17	ASP
2	XA	129	HIS
3	YA	73	ALA
4	ZA	84	LYS
8	DB	149	PRO
9	EB	26	LYS
10	FB	19	VAL
10	FB	65	ARG
12	HB	57	ARG
17	MB	63	ASP

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Mol	Chain	Res	Type
19	OB	3	VAL
19	OB	77	PRO
22	RB	16	ASN
22	RB	83	GLU
22	RB	87	PRO
23	SB	48	HIS
25	UB	4	HIS
28	XB	62	LEU
30	ZB	14	ILE
30	ZB	15	THR
46	PC	27	GLU
47	QC	71	THR
1	A	56	GLY
2	B	122	PHE
2	B	144	ARG
3	C	23	ASP
5	E	126	PRO
7	G	118	THR
7	G	142	PRO
8	H	70	ALA
10	J	16	ARG
10	J	31	ALA
10	J	49	ARG
10	J	52	GLU
10	J	59	LEU
10	J	106	LEU
10	J	117	GLU
10	J	149	GLU
14	N	4	GLY
14	N	107	ASP
14	N	115	ARG
15	O	93	LYS
15	O	100	VAL
16	P	80	GLN
16	P	100	ARG
19	S	56	PRO
19	S	88	LYS
21	U	13	GLY
23	W	44	LEU
25	Y	35	GLU
26	Z	31	PRO
26	Z	46	HIS

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Mol	Chain	Res	Type
31	EA	171	GLY
38	LA	106	LYS
38	LA	118	GLY
38	LA	122	LYS
40	NA	117	VAL
45	SA	86	VAL
1	WA	56	GLY
2	XA	122	PHE
2	XA	144	ARG
3	YA	23	ASP
5	AB	126	PRO
7	CB	118	THR
7	CB	142	PRO
8	DB	70	ALA
10	FB	13	ASN
10	FB	16	ARG
10	FB	31	ALA
10	FB	49	ARG
10	FB	52	GLU
10	FB	59	LEU
10	FB	106	LEU
10	FB	117	GLU
10	FB	149	GLU
14	JB	4	GLY
14	JB	107	ASP
14	JB	115	ARG
15	KB	93	LYS
15	KB	100	VAL
16	LB	80	GLN
16	LB	100	ARG
19	OB	56	PRO
19	OB	88	LYS
21	QB	13	GLY
23	SB	44	LEU
25	UB	35	GLU
26	VB	31	PRO
26	VB	46	HIS
31	AC	186	LEU
38	HC	106	LYS
38	HC	118	GLY
38	HC	122	LYS
40	JC	117	VAL

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Mol	Chain	Res	Type
45	OC	86	VAL
1	A	33	LEU
1	A	35	LYS
1	A	69	ARG
1	A	146	GLU
1	A	236	GLY
1	A	256	GLY
2	B	52	LEU
2	B	89	ASP
3	C	48	THR
3	C	134	GLY
6	F	134	PRO
6	F	135	GLU
7	G	34	ILE
10	J	13	ASN
10	J	17	LYS
10	J	33	ARG
10	J	47	ASP
11	K	8	LYS
11	K	18	LYS
11	K	62	GLY
11	K	136	ALA
12	L	107	ASP
14	N	82	LEU
16	P	44	LYS
19	S	17	SER
19	S	39	VAL
19	S	78	ALA
20	T	80	ARG
20	T	142	SER
21	U	41	ARG
23	W	43	GLN
28	BA	3	LYS
28	BA	30	ARG
28	BA	35	GLN
28	BA	51	ALA
29	CA	9	GLU
29	CA	14	GLY
29	CA	88	ALA
29	CA	129	GLU
30	DA	4	LYS
30	DA	47	LEU

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Mol	Chain	Res	Type
30	DA	181	ASN
31	EA	208	SER
32	FA	6	PHE
34	HA	7	ALA
36	JA	100	GLY
37	KA	91	PRO
37	KA	92	THR
38	LA	117	ASN
42	PA	23	GLY
42	PA	88	ARG
46	TA	5	LEU
46	TA	28	LYS
47	UA	96	GLY
47	UA	97	ALA
1	WA	33	LEU
1	WA	35	LYS
1	WA	69	ARG
1	WA	146	GLU
1	WA	236	GLY
1	WA	256	GLY
2	XA	52	LEU
2	XA	89	ASP
3	YA	48	THR
3	YA	134	GLY
6	BB	134	PRO
6	BB	135	GLU
7	CB	34	ILE
10	FB	17	LYS
10	FB	33	ARG
10	FB	47	ASP
11	GB	8	LYS
11	GB	18	LYS
11	GB	62	GLY
11	GB	136	ALA
12	HB	107	ASP
14	JB	82	LEU
16	LB	44	LYS
19	OB	17	SER
19	OB	39	VAL
19	OB	78	ALA
20	PB	80	ARG
20	PB	142	SER

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Mol	Chain	Res	Type
21	QB	41	ARG
23	SB	43	GLN
28	XB	30	ARG
28	XB	35	GLN
28	XB	51	ALA
29	YB	9	GLU
29	YB	14	GLY
29	YB	88	ALA
29	YB	129	GLU
30	ZB	4	LYS
30	ZB	47	LEU
30	ZB	181	ASN
32	BC	6	PHE
34	DC	7	ALA
36	FC	100	GLY
37	GC	91	PRO
37	GC	92	THR
38	HC	117	ASN
42	LC	23	GLY
42	LC	88	ARG
46	PC	5	LEU
46	PC	28	LYS
47	QC	96	GLY
47	QC	97	ALA
1	A	31	LYS
1	A	244	ARG
4	D	14	GLU
4	D	177	GLY
7	G	112	MET
7	G	141	ALA
7	G	145	LYS
8	H	152	PRO
11	K	133	ARG
19	S	10	GLY
20	T	79	ARG
20	T	146	ILE
21	U	12	ASN
22	V	12	PRO
22	V	28	GLY
22	V	31	GLY
26	Z	51	GLU
28	BA	20	GLY

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Mol	Chain	Res	Type
30	DA	27	LYS
32	FA	38	GLN
33	GA	39	LYS
36	JA	127	LYS
37	KA	60	ARG
38	LA	90	GLY
41	OA	3	ARG
41	OA	26	ARG
41	OA	27	CYS
46	TA	8	GLY
47	UA	95	ALA
1	WA	31	LYS
1	WA	244	ARG
3	YA	72	ARG
4	ZA	14	GLU
4	ZA	177	GLY
7	CB	112	MET
7	CB	141	ALA
7	CB	145	LYS
8	DB	152	PRO
11	GB	133	ARG
19	OB	10	GLY
20	PB	79	ARG
20	PB	146	ILE
21	QB	12	ASN
22	RB	12	PRO
22	RB	31	GLY
26	VB	51	GLU
28	XB	3	LYS
28	XB	20	GLY
30	ZB	27	LYS
31	AC	168	ARG
31	AC	208	SER
32	BC	38	GLN
33	CC	39	LYS
36	FC	127	LYS
38	HC	90	GLY
46	PC	8	GLY
47	QC	95	ALA
49	SC	54	LYS
49	SC	56	GLU
49	TC	54	LYS

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Mol	Chain	Res	Type
49	TC	56	GLU
2	B	134	ILE
3	C	72	ARG
4	D	87	PRO
4	D	96	ARG
7	G	92	GLY
9	I	29	ASN
9	I	94	ARG
11	K	20	ALA
11	K	81	VAL
12	L	6	SER
14	N	55	ASN
16	P	54	GLY
22	V	10	LYS
22	V	53	VAL
26	Z	18	ARG
28	BA	34	TRP
29	CA	82	ARG
30	DA	53	ALA
30	DA	60	ALA
30	DA	79	ARG
31	EA	18	LYS
32	FA	39	GLY
38	LA	12	ARG
39	MA	45	LYS
41	OA	9	LYS
45	SA	47	THR
47	UA	98	PRO
2	XA	134	ILE
3	YA	66	PRO
4	ZA	87	PRO
4	ZA	96	ARG
7	CB	92	GLY
9	EB	94	ARG
11	GB	20	ALA
11	GB	81	VAL
12	HB	6	SER
14	JB	55	ASN
14	JB	124	ASP
16	LB	54	GLY
17	MB	11	ARG
22	RB	10	LYS

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Mol	Chain	Res	Type
22	RB	28	GLY
22	RB	53	VAL
26	VB	18	ARG
28	XB	34	TRP
29	YB	82	ARG
29	YB	235	SER
30	ZB	60	ALA
30	ZB	79	ARG
32	BC	39	GLY
37	GC	60	ARG
38	HC	12	ARG
39	IC	45	LYS
45	OC	47	THR
49	SC	61	VAL
49	TC	61	VAL
2	B	59	VAL
3	C	66	PRO
11	K	21	THR
11	K	57	HIS
14	N	124	ASP
19	S	96	ILE
19	S	99	CYS
29	CA	228	GLY
29	CA	235	SER
31	EA	23	GLY
35	IA	51	VAL
35	IA	73	ASP
39	MA	26	LEU
46	TA	80	TYR
47	UA	50	GLU
10	FB	56	SER
11	GB	21	THR
19	OB	96	ILE
19	OB	99	CYS
29	YB	228	GLY
30	ZB	53	ALA
30	ZB	81	GLY
35	EC	73	ASP
39	IC	26	LEU
47	QC	98	PRO
1	A	234	GLY
7	G	31	GLY

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Mol	Chain	Res	Type
11	K	15	GLY
19	S	41	GLY
30	DA	81	GLY
1	WA	234	GLY
2	XA	59	VAL
7	CB	31	GLY
11	GB	15	GLY
31	AC	171	GLY
35	EC	51	VAL
2	B	184	VAL
16	P	50	PRO
28	BA	49	VAL
29	CA	130	ARG
31	EA	7	PRO
41	OA	28	GLY
2	XA	184	VAL
16	LB	50	PRO
19	OB	41	GLY
28	XB	49	VAL
29	YB	130	ARG
3	C	24	LEU
7	G	19	PRO
10	J	146	VAL
19	S	49	VAL
30	DA	80	GLY
31	EA	167	GLY
33	GA	96	PRO
47	UA	101	GLY
7	CB	19	PRO
19	OB	49	VAL
30	ZB	80	GLY
33	CC	96	PRO
1	A	79	VAL
10	J	93	GLY
20	T	147	GLY
29	CA	18	GLY
29	CA	72	GLY
31	EA	5	ILE
3	YA	24	LEU
10	FB	93	GLY
10	FB	146	VAL
12	HB	58	GLY

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Mol	Chain	Res	Type
20	PB	147	GLY
24	TB	50	VAL
29	YB	18	GLY
29	YB	72	GLY
49	SC	47	VAL
49	TC	47	VAL
5	E	21	PRO
7	G	5	VAL
12	L	58	GLY
24	X	50	VAL
36	JA	22	GLY
1	WA	79	VAL
7	CB	5	VAL
15	KB	90	VAL
34	DC	82	GLY
36	FC	22	GLY

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	213/213 (100%)	190 (89%)	23 (11%)	6	25
1	WA	213/213 (100%)	190 (89%)	23 (11%)	6	25
2	B	165/166 (99%)	145 (88%)	20 (12%)	5	21
2	XA	165/166 (99%)	145 (88%)	20 (12%)	5	21
3	C	161/162 (99%)	143 (89%)	18 (11%)	6	24
3	YA	161/162 (99%)	143 (89%)	18 (11%)	6	24
4	D	155/156 (99%)	133 (86%)	22 (14%)	3	16
4	ZA	155/156 (99%)	133 (86%)	22 (14%)	3	16
5	AB	144/148 (97%)	134 (93%)	10 (7%)	14	39
5	E	144/148 (97%)	134 (93%)	10 (7%)	14	39
6	BB	122/124 (98%)	107 (88%)	15 (12%)	4	20

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	F	122/124 (98%)	107 (88%)	15 (12%)	4	20
7	CB	111/111 (100%)	100 (90%)	11 (10%)	7	28
7	G	111/111 (100%)	100 (90%)	11 (10%)	7	28
8	DB	116/119 (98%)	100 (86%)	16 (14%)	3	17
8	H	116/119 (98%)	100 (86%)	16 (14%)	3	17
9	EB	100/100 (100%)	92 (92%)	8 (8%)	11	34
9	I	100/100 (100%)	92 (92%)	8 (8%)	11	34
10	FB	112/116 (97%)	88 (79%)	24 (21%)	1	7
10	J	112/116 (97%)	88 (79%)	24 (21%)	1	7
11	GB	105/111 (95%)	93 (89%)	12 (11%)	5	23
11	K	105/111 (95%)	93 (89%)	12 (11%)	5	23
12	HB	100/101 (99%)	90 (90%)	10 (10%)	7	28
12	L	100/101 (99%)	90 (90%)	10 (10%)	7	28
13	IB	87/88 (99%)	83 (95%)	4 (5%)	24	47
13	M	87/88 (99%)	83 (95%)	4 (5%)	24	47
14	JB	121/128 (94%)	106 (88%)	15 (12%)	4	20
14	N	121/128 (94%)	107 (88%)	14 (12%)	5	22
15	KB	93/94 (99%)	86 (92%)	7 (8%)	12	36
15	O	93/94 (99%)	86 (92%)	7 (8%)	12	36
16	LB	82/82 (100%)	70 (85%)	12 (15%)	3	15
16	P	82/82 (100%)	70 (85%)	12 (15%)	3	15
17	MB	91/92 (99%)	82 (90%)	9 (10%)	7	28
17	Q	91/92 (99%)	82 (90%)	9 (10%)	7	28
18	NB	74/78 (95%)	70 (95%)	4 (5%)	20	44
18	R	74/78 (95%)	70 (95%)	4 (5%)	20	44
19	OB	84/91 (92%)	74 (88%)	10 (12%)	5	21
19	S	84/91 (92%)	74 (88%)	10 (12%)	5	21
20	PB	162/179 (90%)	149 (92%)	13 (8%)	11	34
20	T	162/179 (90%)	149 (92%)	13 (8%)	11	34
21	QB	61/67 (91%)	51 (84%)	10 (16%)	2	13
21	U	61/67 (91%)	52 (85%)	9 (15%)	3	15

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
22	RB	73/83 (88%)	63 (86%)	10 (14%)	3	17
22	V	73/83 (88%)	63 (86%)	10 (14%)	3	17
23	SB	58/67 (87%)	50 (86%)	8 (14%)	3	17
23	W	58/67 (87%)	50 (86%)	8 (14%)	3	17
24	TB	51/52 (98%)	47 (92%)	4 (8%)	11	35
24	X	51/52 (98%)	47 (92%)	4 (8%)	11	35
25	UB	45/52 (86%)	40 (89%)	5 (11%)	6	24
25	Y	45/52 (86%)	40 (89%)	5 (11%)	6	24
26	VB	43/52 (83%)	37 (86%)	6 (14%)	3	17
26	Z	43/52 (83%)	37 (86%)	6 (14%)	3	17
27	AA	41/42 (98%)	38 (93%)	3 (7%)	13	37
27	WB	41/42 (98%)	38 (93%)	3 (7%)	13	37
28	BA	53/55 (96%)	48 (91%)	5 (9%)	8	30
28	XB	53/55 (96%)	48 (91%)	5 (9%)	8	30
29	CA	202/220 (92%)	185 (92%)	17 (8%)	10	32
29	YB	202/220 (92%)	185 (92%)	17 (8%)	10	32
30	DA	160/188 (85%)	153 (96%)	7 (4%)	25	48
30	ZB	160/188 (85%)	152 (95%)	8 (5%)	22	46
31	AC	180/181 (99%)	170 (94%)	10 (6%)	19	43
31	EA	180/181 (99%)	165 (92%)	15 (8%)	10	33
32	BC	116/123 (94%)	106 (91%)	10 (9%)	10	32
32	FA	116/123 (94%)	106 (91%)	10 (9%)	10	32
33	CC	90/90 (100%)	85 (94%)	5 (6%)	19	43
33	GA	90/90 (100%)	85 (94%)	5 (6%)	19	43
34	DC	126/127 (99%)	120 (95%)	6 (5%)	23	46
34	HA	126/127 (99%)	120 (95%)	6 (5%)	23	46
35	EC	119/119 (100%)	111 (93%)	8 (7%)	15	40
35	IA	119/119 (100%)	111 (93%)	8 (7%)	15	40
36	FC	98/99 (99%)	85 (87%)	13 (13%)	4	18
36	JA	98/99 (99%)	85 (87%)	13 (13%)	4	18
37	GC	88/92 (96%)	78 (89%)	10 (11%)	5	23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	KA	88/92 (96%)	78 (89%)	10 (11%)	5	23
38	HC	86/99 (87%)	75 (87%)	11 (13%)	4	19
38	LA	86/99 (87%)	75 (87%)	11 (13%)	4	19
39	IC	103/109 (94%)	93 (90%)	10 (10%)	8	29
39	MA	103/109 (94%)	93 (90%)	10 (10%)	8	29
40	JC	94/101 (93%)	85 (90%)	9 (10%)	8	29
40	NA	94/101 (93%)	85 (90%)	9 (10%)	8	29
41	KC	49/50 (98%)	48 (98%)	1 (2%)	48	63
41	OA	49/50 (98%)	46 (94%)	3 (6%)	17	41
42	LC	79/80 (99%)	67 (85%)	12 (15%)	3	14
42	PA	79/80 (99%)	67 (85%)	12 (15%)	3	14
43	MC	72/74 (97%)	68 (94%)	4 (6%)	19	43
43	QA	72/74 (97%)	68 (94%)	4 (6%)	19	43
44	NC	94/97 (97%)	86 (92%)	8 (8%)	10	32
44	RA	94/97 (97%)	86 (92%)	8 (8%)	10	32
45	OC	61/77 (79%)	55 (90%)	6 (10%)	7	29
45	SA	61/77 (79%)	55 (90%)	6 (10%)	7	29
46	PC	69/80 (86%)	62 (90%)	7 (10%)	7	27
46	TA	69/80 (86%)	62 (90%)	7 (10%)	7	27
47	QC	76/82 (93%)	70 (92%)	6 (8%)	11	35
47	UA	76/82 (93%)	70 (92%)	6 (8%)	11	35
48	RC	19/22 (86%)	19 (100%)	0	100	100
48	VA	19/22 (86%)	19 (100%)	0	100	100
49	SC	27/63 (43%)	26 (96%)	1 (4%)	30	52
49	TC	27/63 (43%)	26 (96%)	1 (4%)	30	52
All	All	9662/10204 (95%)	8706 (90%)	956 (10%)	7	28

All (956) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	5	LYS
1	A	10	THR
1	A	24	ILE

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Mol	Chain	Res	Type
1	A	27	THR
1	A	40	THR
1	A	61	LEU
1	A	94	LEU
1	A	95	LEU
1	A	106	ILE
1	A	111	LEU
1	A	150	LYS
1	A	154	LYS
1	A	166	GLN
1	A	192	THR
1	A	193	VAL
1	A	200	ASP
1	A	229	VAL
1	A	237	GLU
1	A	254	THR
1	A	255	LYS
1	A	259	THR
1	A	268	ARG
1	A	271	ILE
2	B	7	VAL
2	B	9	VAL
2	B	33	VAL
2	B	40	GLU
2	B	49	LEU
2	B	54	GLN
2	B	55	ASN
2	B	59	VAL
2	B	92	THR
2	B	94	GLU
2	B	111	ARG
2	B	119	ARG
2	B	132	HIS
2	B	134	ILE
2	B	160	TYR
2	B	175	VAL
2	B	181	LEU
2	B	184	VAL
2	B	195	LEU
2	B	203	LYS
3	C	9	ILE
3	C	13	SER

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Mol	Chain	Res	Type
3	C	20	LEU
3	C	28	ILE
3	C	33	LEU
3	C	51	THR
3	C	67	GLN
3	C	78	ILE
3	C	89	VAL
3	C	104	LYS
3	C	132	VAL
3	C	136	THR
3	C	145	GLU
3	C	169	ASN
3	C	174	VAL
3	C	175	THR
3	C	181	LEU
3	C	206	ILE
4	D	4	ASP
4	D	7	LEU
4	D	34	LEU
4	D	43	LEU
4	D	47	LYS
4	D	60	LEU
4	D	71	THR
4	D	80	PHE
4	D	86	MET
4	D	88	ILE
4	D	90	LEU
4	D	97	ASP
4	D	98	ARG
4	D	115	ARG
4	D	128	ARG
4	D	139	LEU
4	D	140	ILE
4	D	143	GLU
4	D	145	THR
4	D	148	MET
4	D	150	ASP
4	D	155	MET
5	E	24	VAL
5	E	41	MET
5	E	45	VAL
5	E	47	GLU

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Mol	Chain	Res	Type
5	E	49	VAL
5	E	59	ARG
5	E	60	ARG
5	E	69	ARG
5	E	71	LEU
5	E	139	GLN
6	F	2	LYS
6	F	4	ILE
6	F	5	LEU
6	F	6	LEU
6	F	67	ARG
6	F	72	LEU
6	F	73	GLU
6	F	85	GLU
6	F	87	LYS
6	F	92	VAL
6	F	96	ASP
6	F	109	ILE
6	F	139	GLN
6	F	141	LYS
6	F	145	VAL
7	G	2	LYS
7	G	4	VAL
7	G	5	VAL
7	G	42	ASN
7	G	53	VAL
7	G	69	THR
7	G	102	GLU
7	G	115	LEU
7	G	136	VAL
7	G	139	VAL
7	G	144	VAL
8	H	56	LEU
8	H	57	LEU
8	H	71	MET
8	H	91	GLU
8	H	94	ILE
8	H	110	LEU
8	H	111	GLU
8	H	117	HIS
8	H	119	GLU
8	H	122	LEU

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Mol	Chain	Res	Type
8	H	124	HIS
8	H	135	LEU
8	H	142	ARG
8	H	143	LEU
8	H	154	GLN
8	H	160	LYS
9	I	19	ILE
9	I	24	VAL
9	I	39	ILE
9	I	45	GLU
9	I	47	ILE
9	I	77	ILE
9	I	99	PHE
9	I	114	ILE
10	J	6	LEU
10	J	16	ARG
10	J	18	ARG
10	J	19	VAL
10	J	32	THR
10	J	42	SER
10	J	50	ARG
10	J	51	PHE
10	J	52	GLU
10	J	57	THR
10	J	61	ARG
10	J	62	LEU
10	J	67	MET
10	J	70	GLN
10	J	75	ILE
10	J	83	VAL
10	J	86	LYS
10	J	101	VAL
10	J	105	LEU
10	J	106	LEU
10	J	115	LEU
10	J	135	LEU
10	J	147	LEU
10	J	148	LEU
11	K	9	TYR
11	K	17	LEU
11	K	22	LYS
11	K	29	PHE

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Mol	Chain	Res	Type
11	K	35	VAL
11	K	45	GLN
11	K	54	MET
11	K	81	VAL
11	K	96	VAL
11	K	130	LYS
11	K	131	ILE
11	K	133	ARG
12	L	2	ARG
12	L	4	LEU
12	L	12	ARG
12	L	18	LEU
12	L	28	LEU
12	L	60	LEU
12	L	67	LEU
12	L	75	LEU
12	L	79	LEU
12	L	99	LYS
13	M	57	LYS
13	M	59	LYS
13	M	83	LYS
13	M	85	VAL
14	N	9	LEU
14	N	17	THR
14	N	18	ASP
14	N	22	PHE
14	N	23	ARG
14	N	42	ILE
14	N	50	ILE
14	N	58	ASN
14	N	82	LEU
14	N	99	LEU
14	N	102	ILE
14	N	112	ARG
14	N	115	ARG
14	N	124	ASP
15	O	8	VAL
15	O	80	ILE
15	O	88	ILE
15	O	92	ARG
15	O	97	ASP
15	O	101	ARG

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Mol	Chain	Res	Type
15	O	104	GLN
16	P	7	THR
16	P	13	ARG
16	P	18	LEU
16	P	33	VAL
16	P	37	VAL
16	P	52	VAL
16	P	61	VAL
16	P	70	ILE
16	P	72	VAL
16	P	80	GLN
16	P	82	ARG
16	P	99	ILE
17	Q	11	ARG
17	Q	17	VAL
17	Q	52	GLU
17	Q	76	VAL
17	Q	82	LEU
17	Q	100	THR
17	Q	107	LEU
17	Q	110	LYS
17	Q	111	HIS
18	R	28	PHE
18	R	65	ARG
18	R	66	LEU
18	R	68	ARG
19	S	4	LYS
19	S	6	HIS
19	S	7	VAL
19	S	8	LYS
19	S	13	VAL
19	S	24	VAL
19	S	39	VAL
19	S	51	VAL
19	S	71	LYS
19	S	75	ILE
20	T	5	LEU
20	T	42	VAL
20	T	53	ILE
20	T	71	VAL
20	T	76	LEU
20	T	116	VAL

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Mol	Chain	Res	Type
20	T	118	GLN
20	T	133	ILE
20	T	141	VAL
20	T	145	GLU
20	T	146	ILE
20	T	154	ASP
20	T	162	GLU
21	U	11	LYS
21	U	14	ARG
21	U	21	LEU
21	U	31	VAL
21	U	43	THR
21	U	64	ASP
21	U	75	LEU
21	U	80	HIS
21	U	84	LEU
22	V	13	ILE
22	V	18	ILE
22	V	30	VAL
22	V	40	ARG
22	V	46	LEU
22	V	58	ILE
22	V	75	GLU
22	V	80	LEU
22	V	90	ILE
22	V	95	LEU
23	W	5	GLU
23	W	9	GLN
23	W	11	GLU
23	W	24	LEU
23	W	30	ARG
23	W	50	ILE
23	W	53	LEU
23	W	60	LEU
24	X	6	VAL
24	X	8	LEU
24	X	37	LEU
24	X	58	VAL
25	Y	6	VAL
25	Y	26	THR
25	Y	45	VAL
25	Y	46	CYS

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Mol	Chain	Res	Type
25	Y	51	TYR
26	Z	11	LEU
26	Z	17	LYS
26	Z	19	ARG
26	Z	34	LEU
26	Z	47	THR
26	Z	48	VAL
27	AA	4	THR
27	AA	31	LEU
27	AA	46	VAL
28	BA	14	VAL
28	BA	30	ARG
28	BA	52	LYS
28	BA	57	ARG
28	BA	64	TYR
29	CA	17	PHE
29	CA	69	LEU
29	CA	74	LYS
29	CA	96	ARG
29	CA	97	TRP
29	CA	108	ILE
29	CA	145	LEU
29	CA	153	ARG
29	CA	154	LEU
29	CA	158	LEU
29	CA	162	ILE
29	CA	163	PHE
29	CA	172	ILE
29	CA	178	ARG
29	CA	193	ASP
29	CA	196	LEU
29	CA	221	LEU
30	DA	5	ILE
30	DA	75	VAL
30	DA	91	LEU
30	DA	165	THR
30	DA	178	LEU
30	DA	191	THR
30	DA	196	LEU
31	EA	4	TYR
31	EA	8	VAL
31	EA	9	CYS

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Mol	Chain	Res	Type
31	EA	15	GLU
31	EA	21	LEU
31	EA	30	LYS
31	EA	34	GLU
31	EA	84	LYS
31	EA	94	LEU
31	EA	96	LEU
31	EA	127	THR
31	EA	135	LEU
31	EA	141	ARG
31	EA	166	LYS
31	EA	182	LYS
32	FA	5	ASP
32	FA	12	LEU
32	FA	31	LEU
32	FA	47	LYS
32	FA	51	VAL
32	FA	53	LEU
32	FA	68	GLU
32	FA	76	ILE
32	FA	79	GLU
32	FA	90	VAL
33	GA	14	LEU
33	GA	21	LEU
33	GA	37	VAL
33	GA	70	ASP
33	GA	92	LYS
34	HA	24	THR
34	HA	80	VAL
34	HA	104	LEU
34	HA	110	GLN
34	HA	118	VAL
34	HA	146	GLU
35	IA	1	MET
35	IA	24	THR
35	IA	26	VAL
35	IA	51	VAL
35	IA	102	ARG
35	IA	103	VAL
35	IA	119	LEU
35	IA	136	GLU
36	JA	10	ARG

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Mol	Chain	Res	Type
36	JA	14	VAL
36	JA	32	ASP
36	JA	65	VAL
36	JA	74	ILE
36	JA	79	LEU
36	JA	86	VAL
36	JA	95	LYS
36	JA	104	ARG
36	JA	105	ASP
36	JA	114	TYR
36	JA	118	LYS
36	JA	125	TYR
37	KA	16	LEU
37	KA	48	THR
37	KA	49	VAL
37	KA	54	PHE
37	KA	55	LYS
37	KA	57	LYS
37	KA	74	ILE
37	KA	75	ILE
37	KA	92	THR
37	KA	96	ILE
38	LA	18	ARG
38	LA	29	ILE
38	LA	32	ILE
38	LA	36	ASP
38	LA	41	THR
38	LA	57	THR
38	LA	80	VAL
38	LA	82	VAL
38	LA	87	THR
38	LA	92	GLU
38	LA	114	VAL
39	MA	6	ILE
39	MA	7	ASN
39	MA	17	VAL
39	MA	19	LYS
39	MA	26	LEU
39	MA	51	LEU
39	MA	65	VAL
39	MA	76	LEU
39	MA	83	LEU

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Mol	Chain	Res	Type
39	MA	99	ILE
40	NA	7	VAL
40	NA	19	LEU
40	NA	64	TRP
40	NA	71	ARG
40	NA	93	ARG
40	NA	105	THR
40	NA	108	ARG
40	NA	115	LYS
40	NA	116	THR
41	OA	6	LEU
41	OA	8	GLU
41	OA	18	VAL
42	PA	3	ILE
42	PA	4	THR
42	PA	5	LYS
42	PA	25	THR
42	PA	26	GLU
42	PA	39	LEU
42	PA	41	GLU
42	PA	44	LYS
42	PA	65	ARG
42	PA	82	ILE
42	PA	84	LYS
42	PA	87	ILE
43	QA	22	THR
43	QA	45	THR
43	QA	67	THR
43	QA	69	THR
44	RA	9	VAL
44	RA	38	ARG
44	RA	52	LYS
44	RA	73	VAL
44	RA	74	LEU
44	RA	76	LEU
44	RA	96	GLN
44	RA	100	LYS
45	SA	38	GLU
45	SA	47	THR
45	SA	76	LEU
45	SA	84	LYS
45	SA	87	ARG

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Mol	Chain	Res	Type
45	SA	88	LYS
46	TA	5	LEU
46	TA	6	LYS
46	TA	7	LYS
46	TA	9	VAL
46	TA	29	ARG
46	TA	39	THR
46	TA	66	MET
47	UA	13	LEU
47	UA	50	GLU
47	UA	62	LEU
47	UA	73	HIS
47	UA	84	LEU
47	UA	86	ARG
1	WA	5	LYS
1	WA	10	THR
1	WA	24	ILE
1	WA	27	THR
1	WA	40	THR
1	WA	61	LEU
1	WA	94	LEU
1	WA	95	LEU
1	WA	106	ILE
1	WA	111	LEU
1	WA	150	LYS
1	WA	154	LYS
1	WA	166	GLN
1	WA	192	THR
1	WA	193	VAL
1	WA	200	ASP
1	WA	229	VAL
1	WA	237	GLU
1	WA	254	THR
1	WA	255	LYS
1	WA	259	THR
1	WA	268	ARG
1	WA	271	ILE
2	XA	7	VAL
2	XA	9	VAL
2	XA	33	VAL
2	XA	40	GLU
2	XA	49	LEU

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Mol	Chain	Res	Type
2	XA	54	GLN
2	XA	55	ASN
2	XA	59	VAL
2	XA	92	THR
2	XA	94	GLU
2	XA	111	ARG
2	XA	119	ARG
2	XA	132	HIS
2	XA	134	ILE
2	XA	160	TYR
2	XA	175	VAL
2	XA	181	LEU
2	XA	184	VAL
2	XA	195	LEU
2	XA	203	LYS
3	YA	9	ILE
3	YA	13	SER
3	YA	20	LEU
3	YA	28	ILE
3	YA	33	LEU
3	YA	51	THR
3	YA	67	GLN
3	YA	78	ILE
3	YA	89	VAL
3	YA	104	LYS
3	YA	132	VAL
3	YA	136	THR
3	YA	145	GLU
3	YA	169	ASN
3	YA	174	VAL
3	YA	175	THR
3	YA	181	LEU
3	YA	206	ILE
4	ZA	4	ASP
4	ZA	7	LEU
4	ZA	34	LEU
4	ZA	43	LEU
4	ZA	47	LYS
4	ZA	60	LEU
4	ZA	71	THR
4	ZA	80	PHE
4	ZA	86	MET

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Mol	Chain	Res	Type
4	ZA	88	ILE
4	ZA	90	LEU
4	ZA	97	ASP
4	ZA	98	ARG
4	ZA	115	ARG
4	ZA	128	ARG
4	ZA	139	LEU
4	ZA	140	ILE
4	ZA	143	GLU
4	ZA	145	THR
4	ZA	148	MET
4	ZA	150	ASP
4	ZA	155	MET
5	AB	24	VAL
5	AB	41	MET
5	AB	45	VAL
5	AB	47	GLU
5	AB	49	VAL
5	AB	59	ARG
5	AB	60	ARG
5	AB	69	ARG
5	AB	71	LEU
5	AB	139	GLN
6	BB	2	LYS
6	BB	4	ILE
6	BB	5	LEU
6	BB	6	LEU
6	BB	67	ARG
6	BB	72	LEU
6	BB	73	GLU
6	BB	85	GLU
6	BB	87	LYS
6	BB	92	VAL
6	BB	96	ASP
6	BB	109	ILE
6	BB	139	GLN
6	BB	141	LYS
6	BB	145	VAL
7	CB	2	LYS
7	CB	4	VAL
7	CB	5	VAL
7	CB	42	ASN

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Mol	Chain	Res	Type
7	CB	53	VAL
7	CB	69	THR
7	CB	102	GLU
7	CB	115	LEU
7	CB	136	VAL
7	CB	139	VAL
7	CB	144	VAL
8	DB	56	LEU
8	DB	57	LEU
8	DB	71	MET
8	DB	91	GLU
8	DB	94	ILE
8	DB	110	LEU
8	DB	111	GLU
8	DB	117	HIS
8	DB	119	GLU
8	DB	122	LEU
8	DB	124	HIS
8	DB	135	LEU
8	DB	142	ARG
8	DB	143	LEU
8	DB	154	GLN
8	DB	160	LYS
9	EB	19	ILE
9	EB	24	VAL
9	EB	39	ILE
9	EB	45	GLU
9	EB	47	ILE
9	EB	77	ILE
9	EB	99	PHE
9	EB	114	ILE
10	FB	6	LEU
10	FB	16	ARG
10	FB	18	ARG
10	FB	19	VAL
10	FB	32	THR
10	FB	42	SER
10	FB	50	ARG
10	FB	51	PHE
10	FB	52	GLU
10	FB	57	THR
10	FB	61	ARG

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Mol	Chain	Res	Type
10	FB	62	LEU
10	FB	67	MET
10	FB	70	GLN
10	FB	75	ILE
10	FB	83	VAL
10	FB	86	LYS
10	FB	101	VAL
10	FB	105	LEU
10	FB	106	LEU
10	FB	115	LEU
10	FB	135	LEU
10	FB	147	LEU
10	FB	148	LEU
11	GB	9	TYR
11	GB	17	LEU
11	GB	22	LYS
11	GB	29	PHE
11	GB	35	VAL
11	GB	45	GLN
11	GB	54	MET
11	GB	81	VAL
11	GB	96	VAL
11	GB	130	LYS
11	GB	131	ILE
11	GB	133	ARG
12	HB	2	ARG
12	HB	4	LEU
12	HB	12	ARG
12	HB	18	LEU
12	HB	28	LEU
12	HB	60	LEU
12	HB	67	LEU
12	HB	75	LEU
12	HB	79	LEU
12	HB	99	LYS
13	IB	57	LYS
13	IB	59	LYS
13	IB	83	LYS
13	IB	85	VAL
14	JB	9	LEU
14	JB	11	GLU
14	JB	17	THR

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Mol	Chain	Res	Type
14	JB	18	ASP
14	JB	22	PHE
14	JB	23	ARG
14	JB	42	ILE
14	JB	50	ILE
14	JB	58	ASN
14	JB	82	LEU
14	JB	99	LEU
14	JB	102	ILE
14	JB	112	ARG
14	JB	115	ARG
14	JB	124	ASP
15	KB	8	VAL
15	KB	80	ILE
15	KB	88	ILE
15	KB	92	ARG
15	KB	97	ASP
15	KB	101	ARG
15	KB	104	GLN
16	LB	7	THR
16	LB	13	ARG
16	LB	18	LEU
16	LB	33	VAL
16	LB	37	VAL
16	LB	52	VAL
16	LB	61	VAL
16	LB	70	ILE
16	LB	72	VAL
16	LB	80	GLN
16	LB	82	ARG
16	LB	99	ILE
17	MB	11	ARG
17	MB	17	VAL
17	MB	52	GLU
17	MB	76	VAL
17	MB	82	LEU
17	MB	100	THR
17	MB	107	LEU
17	MB	110	LYS
17	MB	111	HIS
18	NB	28	PHE
18	NB	65	ARG

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Mol	Chain	Res	Type
18	NB	66	LEU
18	NB	68	ARG
19	OB	4	LYS
19	OB	6	HIS
19	OB	7	VAL
19	OB	8	LYS
19	OB	13	VAL
19	OB	27	VAL
19	OB	39	VAL
19	OB	51	VAL
19	OB	71	LYS
19	OB	75	ILE
20	PB	5	LEU
20	PB	42	VAL
20	PB	53	ILE
20	PB	71	VAL
20	PB	76	LEU
20	PB	116	VAL
20	PB	118	GLN
20	PB	133	ILE
20	PB	141	VAL
20	PB	145	GLU
20	PB	146	ILE
20	PB	154	ASP
20	PB	162	GLU
21	QB	11	LYS
21	QB	14	ARG
21	QB	21	LEU
21	QB	31	VAL
21	QB	43	THR
21	QB	50	ASN
21	QB	64	ASP
21	QB	75	LEU
21	QB	80	HIS
21	QB	84	LEU
22	RB	13	ILE
22	RB	18	ILE
22	RB	30	VAL
22	RB	40	ARG
22	RB	46	LEU
22	RB	58	ILE
22	RB	75	GLU

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Mol	Chain	Res	Type
22	RB	80	LEU
22	RB	90	ILE
22	RB	95	LEU
23	SB	5	GLU
23	SB	9	GLN
23	SB	11	GLU
23	SB	24	LEU
23	SB	30	ARG
23	SB	50	ILE
23	SB	53	LEU
23	SB	60	LEU
24	TB	6	VAL
24	TB	8	LEU
24	TB	37	LEU
24	TB	58	VAL
25	UB	6	VAL
25	UB	26	THR
25	UB	45	VAL
25	UB	46	CYS
25	UB	51	TYR
26	VB	11	LEU
26	VB	17	LYS
26	VB	19	ARG
26	VB	34	LEU
26	VB	47	THR
26	VB	48	VAL
27	WB	4	THR
27	WB	31	LEU
27	WB	46	VAL
28	XB	14	VAL
28	XB	30	ARG
28	XB	52	LYS
28	XB	57	ARG
28	XB	64	TYR
29	YB	17	PHE
29	YB	69	LEU
29	YB	74	LYS
29	YB	96	ARG
29	YB	97	TRP
29	YB	108	ILE
29	YB	145	LEU
29	YB	153	ARG

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Mol	Chain	Res	Type
29	YB	154	LEU
29	YB	158	LEU
29	YB	162	ILE
29	YB	163	PHE
29	YB	172	ILE
29	YB	178	ARG
29	YB	193	ASP
29	YB	196	LEU
29	YB	221	LEU
30	ZB	5	ILE
30	ZB	75	VAL
30	ZB	91	LEU
30	ZB	104	GLN
30	ZB	165	THR
30	ZB	178	LEU
30	ZB	191	THR
30	ZB	196	LEU
31	AC	9	CYS
31	AC	15	GLU
31	AC	21	LEU
31	AC	26	CYS
31	AC	58	LEU
31	AC	72	GLU
31	AC	84	LYS
31	AC	96	LEU
31	AC	127	THR
31	AC	166	LYS
32	BC	5	ASP
32	BC	12	LEU
32	BC	31	LEU
32	BC	47	LYS
32	BC	51	VAL
32	BC	53	LEU
32	BC	68	GLU
32	BC	76	ILE
32	BC	79	GLU
32	BC	90	VAL
33	CC	14	LEU
33	CC	21	LEU
33	CC	37	VAL
33	CC	70	ASP
33	CC	92	LYS

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Mol	Chain	Res	Type
34	DC	24	THR
34	DC	80	VAL
34	DC	104	LEU
34	DC	110	GLN
34	DC	118	VAL
34	DC	146	GLU
35	EC	1	MET
35	EC	24	THR
35	EC	26	VAL
35	EC	51	VAL
35	EC	102	ARG
35	EC	103	VAL
35	EC	119	LEU
35	EC	136	GLU
36	FC	10	ARG
36	FC	14	VAL
36	FC	32	ASP
36	FC	65	VAL
36	FC	74	ILE
36	FC	79	LEU
36	FC	86	VAL
36	FC	95	LYS
36	FC	104	ARG
36	FC	105	ASP
36	FC	114	TYR
36	FC	118	LYS
36	FC	125	TYR
37	GC	16	LEU
37	GC	48	THR
37	GC	49	VAL
37	GC	54	PHE
37	GC	55	LYS
37	GC	57	LYS
37	GC	74	ILE
37	GC	75	ILE
37	GC	92	THR
37	GC	96	ILE
38	HC	18	ARG
38	HC	29	ILE
38	HC	32	ILE
38	HC	36	ASP
38	HC	41	THR

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Mol	Chain	Res	Type
38	HC	57	THR
38	HC	80	VAL
38	HC	82	VAL
38	HC	87	THR
38	HC	92	GLU
38	HC	114	VAL
39	IC	6	ILE
39	IC	7	ASN
39	IC	17	VAL
39	IC	19	LYS
39	IC	26	LEU
39	IC	51	LEU
39	IC	65	VAL
39	IC	76	LEU
39	IC	83	LEU
39	IC	99	ILE
40	JC	7	VAL
40	JC	19	LEU
40	JC	64	TRP
40	JC	71	ARG
40	JC	93	ARG
40	JC	105	THR
40	JC	108	ARG
40	JC	115	LYS
40	JC	116	THR
41	KC	6	LEU
42	LC	3	ILE
42	LC	4	THR
42	LC	5	LYS
42	LC	25	THR
42	LC	26	GLU
42	LC	39	LEU
42	LC	41	GLU
42	LC	44	LYS
42	LC	65	ARG
42	LC	82	ILE
42	LC	84	LYS
42	LC	87	ILE
43	MC	22	THR
43	MC	45	THR
43	MC	67	THR
43	MC	69	THR

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Mol	Chain	Res	Type
44	NC	9	VAL
44	NC	38	ARG
44	NC	52	LYS
44	NC	73	VAL
44	NC	74	LEU
44	NC	76	LEU
44	NC	96	GLN
44	NC	100	LYS
45	OC	38	GLU
45	OC	47	THR
45	OC	76	LEU
45	OC	84	LYS
45	OC	87	ARG
45	OC	88	LYS
46	PC	5	LEU
46	PC	6	LYS
46	PC	7	LYS
46	PC	9	VAL
46	PC	29	ARG
46	PC	39	THR
46	PC	66	MET
47	QC	13	LEU
47	QC	50	GLU
47	QC	62	LEU
47	QC	73	HIS
47	QC	84	LEU
47	QC	86	ARG
49	SC	48	ILE
49	TC	48	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (76) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	112	GLN
1	A	115	GLN
1	A	166	GLN
1	A	227	ASN
2	B	54	GLN
2	B	60	ASN
2	B	137	HIS
4	D	40	ASN
9	I	3	GLN

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Mol	Chain	Res	Type
9	I	90	GLN
10	J	27	HIS
11	K	89	ASN
12	L	13	HIS
12	L	50	HIS
13	M	95	HIS
14	N	43	GLN
14	N	79	HIS
14	N	90	GLN
15	O	94	ASN
21	U	12	ASN
22	V	19	GLN
23	W	38	GLN
26	Z	46	HIS
30	DA	6	HIS
31	EA	74	GLN
31	EA	161	ASN
31	EA	201	GLN
32	FA	127	ASN
32	FA	141	GLN
34	HA	37	ASN
36	JA	29	ASN
36	JA	89	ASN
39	MA	98	HIS
42	PA	62	GLN
46	TA	47	HIS
47	UA	73	HIS
47	UA	75	ASN
1	WA	112	GLN
1	WA	115	GLN
1	WA	166	GLN
2	XA	137	HIS
4	ZA	40	ASN
9	EB	3	GLN
9	EB	90	GLN
10	FB	27	HIS
11	GB	89	ASN
12	HB	13	HIS
12	HB	50	HIS
13	IB	95	HIS
14	JB	43	GLN
14	JB	79	HIS

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Mol	Chain	Res	Type
14	JB	90	GLN
15	KB	94	ASN
18	NB	87	GLN
20	PB	34	ASN
21	QB	12	ASN
22	RB	19	GLN
26	VB	46	HIS
30	ZB	3	ASN
30	ZB	6	HIS
31	AC	62	GLN
31	AC	77	ASN
31	AC	123	HIS
32	BC	73	ASN
32	BC	127	ASN
32	BC	141	GLN
34	DC	37	ASN
34	DC	97	GLN
36	FC	29	ASN
37	GC	68	HIS
39	IC	98	HIS
42	LC	53	HIS
42	LC	62	GLN
47	QC	26	ASN
47	QC	73	HIS
47	QC	75	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
50	UC	1503/1509 (99%)	205 (13%)	15 (0%)
50	YC	1503/1509 (99%)	205 (13%)	15 (0%)
51	VC	2878/2893 (99%)	449 (15%)	18 (0%)
51	ZC	2878/2893 (99%)	448 (15%)	17 (0%)
52	AD	118/121 (97%)	11 (9%)	0
52	WC	118/121 (97%)	11 (9%)	0
53	BD	76/77 (98%)	12 (15%)	3 (3%)
53	ED	76/77 (98%)	8 (10%)	0
53	FD	76/77 (98%)	8 (10%)	0
53	XC	76/77 (98%)	12 (15%)	3 (3%)
54	GD	7/27 (25%)	1 (14%)	0
54	HD	7/27 (25%)	1 (14%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
All	All	9316/9408 (99%)	1371 (14%)	71 (0%)

All (1371) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
50	UC	6	G
50	UC	8	A
50	UC	9	G
50	UC	32	A
50	UC	39	G
50	UC	47	C
50	UC	48	C
50	UC	51	A
50	UC	88	C
50	UC	109	A
50	UC	116	A
50	UC	120	A
50	UC	121	C
50	UC	131	C
50	UC	144	G
50	UC	169	C
50	UC	174	C
50	UC	181	G
50	UC	182	U
50	UC	188	U
50	UC	195	A
50	UC	197	A
50	UC	210	U
50	UC	220	G
50	UC	244	U
50	UC	247	G
50	UC	251	G
50	UC	267	C
50	UC	281	G
50	UC	289	G
50	UC	315	A
50	UC	321	A
50	UC	328	C
50	UC	329	A
50	UC	332	G
50	UC	345	C
50	UC	346	G

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Mol	Chain	Res	Type
50	UC	347	G
50	UC	352	C
50	UC	353	A
50	UC	354	G
50	UC	367	U
50	UC	372	C
50	UC	384	G
50	UC	389	A
50	UC	397	A
50	UC	398	C
50	UC	406	G
50	UC	412	A
50	UC	414	A
50	UC	422	C
50	UC	423	G
50	UC	424	G
50	UC	429	U
50	UC	452	A
50	UC	453	A
50	UC	465	A
50	UC	496	A
50	UC	497	U
50	UC	500	G
50	UC	508	C
50	UC	509	A
50	UC	510	A
50	UC	511	C
50	UC	518	C
50	UC	527	G
50	UC	530	G
50	UC	531	U
50	UC	532	A
50	UC	533	A
50	UC	547	A
50	UC	559	A
50	UC	561	U
50	UC	572	A
50	UC	573	A
50	UC	576	G
50	UC	577	G
50	UC	607	A
50	UC	653	A

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Mol	Chain	Res	Type
50	UC	665	A
50	UC	688	G
50	UC	722	A
50	UC	749	C
50	UC	755	G
50	UC	774	G
50	UC	777	A
50	UC	792	A
50	UC	793	U
50	UC	794	A
50	UC	815	A
50	UC	817	C
50	UC	819	A
50	UC	828	A
50	UC	841	U
50	UC	842	C
50	UC	843	U
50	UC	848	C
50	UC	853	G
50	UC	859	A
50	UC	872	A
50	UC	873	A
50	UC	902	G
50	UC	905	U
50	UC	914	A
50	UC	927	G
50	UC	934	C
50	UC	935	A
50	UC	941	G
50	UC	960	U
50	UC	961	U
50	UC	969	A
50	UC	971	G
50	UC	974	A
50	UC	976	G
50	UC	977	A
50	UC	978	A
50	UC	979	C
50	UC	991	U
50	UC	992	U
50	UC	993	G
50	UC	994	A

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Mol	Chain	Res	Type
50	UC	1004	A
50	UC	1045	C
50	UC	1054	C
50	UC	1055	A
50	UC	1065	U
50	UC	1081	G
50	UC	1094	G
50	UC	1095	U
50	UC	1101	A
50	UC	1102	A
50	UC	1104	G
50	UC	1118	C
50	UC	1126	U
50	UC	1129	C
50	UC	1130	A
50	UC	1137	C
50	UC	1138	G
50	UC	1139	G
50	UC	1140	C
50	UC	1146	A
50	UC	1147	C
50	UC	1152	A
50	UC	1159	U
50	UC	1171	G
50	UC	1184	G
50	UC	1190	G
50	UC	1193	G
50	UC	1196	U
50	UC	1197	G
50	UC	1200	C
50	UC	1201	A
50	UC	1202	G
50	UC	1212	U
50	UC	1213	A
50	UC	1225	A
50	UC	1233	G
50	UC	1238	A
50	UC	1256	A
50	UC	1257	U
50	UC	1258	G
50	UC	1260	C
50	UC	1270	C

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Mol	Chain	Res	Type
50	UC	1278	U
50	UC	1280	A
50	UC	1281	U
50	UC	1287	A
50	UC	1289	A
50	UC	1300	G
50	UC	1301	U
50	UC	1302	U
50	UC	1305	G
50	UC	1317	C
50	UC	1319	A
50	UC	1320	C
50	UC	1331	G
50	UC	1340	A
50	UC	1346	A
50	UC	1347	G
50	UC	136(B)	C
50	UC	1363	A
50	UC	1364	U
50	UC	1378	C
50	UC	1398	A
50	UC	1419	G
50	UC	1442	G
50	UC	1443	G
50	UC	1446	A
50	UC	1447	G
50	UC	1451	A
50	UC	1452	C
50	UC	1453	G
50	UC	1487	G
50	UC	1492	A
50	UC	1493	A
50	UC	1502	A
50	UC	1503	A
50	UC	1504	G
50	UC	1505	G
50	UC	1506	U
50	UC	1507	A
50	UC	1517	G
50	UC	1520	G
50	UC	1529	G
50	UC	1530	G

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Mol	Chain	Res	Type
51	VC	26	G
51	VC	34	C
51	VC	46	C
51	VC	49	A
51	VC	55	G
51	VC	64	A
51	VC	71	A
51	VC	74	A
51	VC	75	G
51	VC	84	A
51	VC	99	U
51	VC	101	G
51	VC	102	G
51	VC	118	A
51	VC	119	A
51	VC	120	U
51	VC	138	G
51	VC	139	G
51	VC	140	A
51	VC	162	U
51	VC	181	A
51	VC	196	A
51	VC	197	A
51	VC	199	A
51	VC	204	A
51	VC	205	G
51	VC	214	G
51	VC	216	A
51	VC	221	A
51	VC	222	A
51	VC	225	A
51	VC	228	A
51	VC	229	A
51	VC	230	U
51	VC	233	A
51	VC	245	G
51	VC	248	G
51	VC	252	G
51	VC	266	G
51	VC	267	C
51	VC	270(M)	U
51	VC	270(N)	U

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Mol	Chain	Res	Type
51	VC	270(Q)	C
51	VC	270(R)	C
51	VC	271(C)	G
51	VC	271(D)	U
51	VC	271	G
51	VC	274	G
51	VC	275	G
51	VC	278	A
51	VC	279	C
51	VC	302	C
51	VC	310	A
51	VC	322	A
51	VC	323	G
51	VC	324	A
51	VC	329	G
51	VC	330	A
51	VC	352	G
51	VC	353	G
51	VC	364	C
51	VC	372	G
51	VC	386	G
51	VC	387	U
51	VC	396	G
51	VC	411	G
51	VC	412	A
51	VC	444	C
51	VC	448	U
51	VC	449	A
51	VC	456	C
51	VC	470	A
51	VC	475	U
51	VC	480	A
51	VC	481	G
51	VC	491	G
51	VC	505	A
51	VC	508	G
51	VC	509	C
51	VC	513	A
51	VC	518	G
51	VC	528	A
51	VC	530	G
51	VC	531	C

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Mol	Chain	Res	Type
51	VC	532	A
51	VC	546	C
51	VC	563	G
51	VC	572	A
51	VC	573	G
51	VC	575	A
51	VC	595	C
51	VC	599	G
51	VC	603	A
51	VC	609(B)	G
51	VC	614	U
51	VC	615	G
51	VC	616	A
51	VC	617	G
51	VC	618(B)	C
51	VC	620	G
51	VC	621	A
51	VC	627	A
51	VC	637	A
51	VC	645	C
51	VC	646	A
51	VC	653	C
51	VC	654	U
51	VC	655	A
51	VC	664	C
51	VC	668	G
51	VC	670	A
51	VC	686	G
51	VC	730	C
51	VC	738	G
51	VC	748	G
51	VC	776	G
51	VC	782	A
51	VC	784	A
51	VC	785	G
51	VC	789	A
51	VC	792	G
51	VC	805	G
51	VC	812	C
51	VC	819	A
51	VC	827	U
51	VC	828	U

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Mol	Chain	Res	Type
51	VC	832	G
51	VC	846	C
51	VC	847	U
51	VC	848	G
51	VC	859	G
51	VC	886	C
51	VC	888	C
51	VC	890	A
51	VC	896	A
51	VC	897	C
51	VC	910	A
51	VC	915	C
51	VC	917	A
51	VC	919	G
51	VC	932	G
51	VC	941	A
51	VC	946	G
51	VC	959	A
51	VC	961	C
51	VC	974(A)	G
51	VC	974(B)	C
51	VC	975	G
51	VC	983	A
51	VC	996	A
51	VC	999	U
51	VC	1003	G
51	VC	1009	A
51	VC	1011	G
51	VC	1012	U
51	VC	1013	C
51	VC	1022	G
51	VC	1023	U
51	VC	1025	G
51	VC	1026	U
51	VC	1033	U
51	VC	1047	G
51	VC	1048	A
51	VC	1061	U
51	VC	1070	A
51	VC	1072	C
51	VC	1073	A
51	VC	1079	C

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Mol	Chain	Res	Type
51	VC	1080	C
51	VC	1088	A
51	VC	1100	C
51	VC	1112	G
51	VC	1129	A
51	VC	1130	U
51	VC	1132	A
51	VC	1135	C
51	VC	1136	G
51	VC	1139	G
51	VC	114(B)	A
51	VC	1143	A
51	VC	1151	G
51	VC	1155	A
51	VC	1174	A
51	VC	1175	U
51	VC	1195	G
51	VC	1204	A
51	VC	1205	U
51	VC	1210	A
51	VC	1211	U
51	VC	1221	C
51	VC	1227	G
51	VC	1252	G
51	VC	1253	A
51	VC	1256	G
51	VC	1271	G
51	VC	1272	A
51	VC	1275	A
51	VC	1300	U
51	VC	1301	A
51	VC	1302	A
51	VC	1313	U
51	VC	1314	C
51	VC	1329	U
51	VC	1332	G
51	VC	1341	U
51	VC	1349	A
51	VC	1352	U
51	VC	1359	A
51	VC	1360	A
51	VC	1365	A

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Mol	Chain	Res	Type
51	VC	1378	A
51	VC	1380	G
51	VC	1384	A
51	VC	1385	G
51	VC	1386	C
51	VC	1395	A
51	VC	1396	U
51	VC	1397	U
51	VC	1416	G
51	VC	1427	A
51	VC	1428	C
51	VC	144(B)	A
51	VC	1453	A
51	VC	1454	U
51	VC	1455	G
51	VC	1459	G
51	VC	1460	A
51	VC	1467	C
51	VC	1478	G
51	VC	1483	G
51	VC	1493	C
51	VC	1494	A
51	VC	1495	A
51	VC	1497	U
51	VC	1498	C
51	VC	1510	A
51	VC	1534	G
51	VC	1535	U
51	VC	1538	G
51	VC	1540	G
51	VC	1542	G
51	VC	1543	A
51	VC	1545	A
51	VC	1558	A
51	VC	1559	G
51	VC	1566	A
51	VC	1569	A
51	VC	1578	U
51	VC	1579	A
51	VC	1585	C
51	VC	1598	C
51	VC	1603	A

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Mol	Chain	Res	Type
51	VC	1608	A
51	VC	1617	C
51	VC	1618	A
51	VC	1631	A
51	VC	1646	C
51	VC	1647	G
51	VC	1648	C
51	VC	1651	G
51	VC	1674	G
51	VC	1695	G
51	VC	1696	G
51	VC	1703	G
51	VC	1732	A
51	VC	1756	G
51	VC	1762	A
51	VC	1763	G
51	VC	1764	G
51	VC	1772	G
51	VC	1773	A
51	VC	1781	C
51	VC	1784	A
51	VC	1787	A
51	VC	1791	A
51	VC	1800	C
51	VC	1801	G
51	VC	1816	G
51	VC	1829	A
51	VC	1847	A
51	VC	1848	A
51	VC	1878	G
51	VC	1903	G
51	VC	1905	C
51	VC	1906	G
51	VC	1913	A
51	VC	1914	C
51	VC	1929	G
51	VC	1930	G
51	VC	1936	A
51	VC	1939	U
51	VC	1940	U
51	VC	1955	U
51	VC	1963	U

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Mol	Chain	Res	Type
51	VC	1964	G
51	VC	1966	A
51	VC	1967	C
51	VC	1970	A
51	VC	1971	A
51	VC	1972	A
51	VC	1982	C
51	VC	1991	U
51	VC	1992	G
51	VC	1993	U
51	VC	1997	G
51	VC	2023	G
51	VC	2027	G
51	VC	2031	A
51	VC	2032	G
51	VC	2033	A
51	VC	2036	C
51	VC	2043	C
51	VC	2046	G
51	VC	2052	G
51	VC	2055	C
51	VC	2056	G
51	VC	2060	A
51	VC	2061	G
51	VC	2069	G
51	VC	2093	G
51	VC	2111	C
51	VC	2112	G
51	VC	2117	A
51	VC	2119	A
51	VC	2120	G
51	VC	2131	G
51	VC	2133	G
51	VC	2147	G
51	VC	2171	A
51	VC	2173	A
51	VC	2198	A
51	VC	2210	G
51	VC	2211	G
51	VC	2212	A
51	VC	2213	U
51	VC	2215	G

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Mol	Chain	Res	Type
51	VC	2226	C
51	VC	2238	G
51	VC	2239	G
51	VC	2275	C
51	VC	2276	G
51	VC	2278	A
51	VC	2283	C
51	VC	2287	A
51	VC	2288	A
51	VC	2289	G
51	VC	2304	G
51	VC	2305	A
51	VC	2306	C
51	VC	2307	G
51	VC	2308	G
51	VC	2319	G
51	VC	2320	A
51	VC	2321	G
51	VC	2325	G
51	VC	2327	A
51	VC	2334	G
51	VC	2336	A
51	VC	2345	G
51	VC	2346	A
51	VC	2347	C
51	VC	2350	C
51	VC	2358	G
51	VC	2372	G
51	VC	2379	G
51	VC	2383	G
51	VC	2385	C
51	VC	2392	A
51	VC	2402	C
51	VC	2410	G
51	VC	2422	A
51	VC	2423	U
51	VC	2424	C
51	VC	2425	A
51	VC	2428	G
51	VC	2429	G
51	VC	2430	A
51	VC	2434	A

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Mol	Chain	Res	Type
51	VC	2436	G
51	VC	2439	A
51	VC	2441	C
51	VC	2448	A
51	VC	2468	G
51	VC	2469	A
51	VC	2476	A
51	VC	2477	C
51	VC	2478	A
51	VC	2491	U
51	VC	2502	G
51	VC	2505	G
51	VC	2518	A
51	VC	2520	C
51	VC	2529	G
51	VC	2542	A
51	VC	2543	G
51	VC	2554	U
51	VC	2566	A
51	VC	2567	G
51	VC	2572	A
51	VC	2573	C
51	VC	2574	G
51	VC	2577	A
51	VC	2578	G
51	VC	2602	A
51	VC	2603	G
51	VC	2609	U
51	VC	2610	C
51	VC	2611	U
51	VC	2612	C
51	VC	2615	U
51	VC	2621	A
51	VC	2630	G
51	VC	2636	U
51	VC	2646	C
51	VC	2665	A
51	VC	2682	U
51	VC	2689	U
51	VC	2690	C
51	VC	2691	C
51	VC	2702	U

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Mol	Chain	Res	Type
51	VC	2703	C
51	VC	712(B)	A
51	VC	2713	A
51	VC	2726	U
51	VC	2733	A
51	VC	2748	A
51	VC	2757	A
51	VC	2764	A
51	VC	2765	A
51	VC	2766	G
51	VC	2769	C
51	VC	2778	A
51	VC	2779	U
51	VC	2780	G
51	VC	2781	A
51	VC	2790	A
51	VC	2791	C
51	VC	2792	G
51	VC	2797	U
51	VC	2801	A
51	VC	2820	A
51	VC	2821	A
51	VC	2833	G
51	VC	2835	A
51	VC	2849	U
51	VC	2872	G
51	VC	2873	A
51	VC	2886	G
51	VC	2894	G
52	WC	13	A
52	WC	15	A
52	WC	16	G
52	WC	24	G
52	WC	30	C
52	WC	41	U
52	WC	44	G
52	WC	52	A
52	WC	73	A
52	WC	105	G
52	WC	109	G
53	XC	6	G
53	XC	9	G

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Mol	Chain	Res	Type
53	XC	10	G
53	XC	17	C
53	XC	17(A)	U
53	XC	18	G
53	XC	19	G
53	XC	20	U
53	XC	22	G
53	XC	47	U
53	XC	48	C
53	XC	49	G
50	YC	6	G
50	YC	8	A
50	YC	9	G
50	YC	32	A
50	YC	39	G
50	YC	47	C
50	YC	48	C
50	YC	51	A
50	YC	88	C
50	YC	109	A
50	YC	116	A
50	YC	120	A
50	YC	121	C
50	YC	131	C
50	YC	144	G
50	YC	169	C
50	YC	174	C
50	YC	181	G
50	YC	182	U
50	YC	188	U
50	YC	195	A
50	YC	197	A
50	YC	210	U
50	YC	220	G
50	YC	244	U
50	YC	247	G
50	YC	251	G
50	YC	267	C
50	YC	281	G
50	YC	289	G
50	YC	315	A
50	YC	321	A

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Mol	Chain	Res	Type
50	YC	328	C
50	YC	329	A
50	YC	332	G
50	YC	345	C
50	YC	346	G
50	YC	347	G
50	YC	352	C
50	YC	353	A
50	YC	354	G
50	YC	367	U
50	YC	372	C
50	YC	384	G
50	YC	389	A
50	YC	397	A
50	YC	398	C
50	YC	406	G
50	YC	412	A
50	YC	414	A
50	YC	422	C
50	YC	423	G
50	YC	424	G
50	YC	429	U
50	YC	452	A
50	YC	453	A
50	YC	465	A
50	YC	496	A
50	YC	497	U
50	YC	500	G
50	YC	508	C
50	YC	509	A
50	YC	510	A
50	YC	511	C
50	YC	518	C
50	YC	527	G
50	YC	530	G
50	YC	531	U
50	YC	532	A
50	YC	533	A
50	YC	547	A
50	YC	559	A
50	YC	561	U
50	YC	572	A

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Mol	Chain	Res	Type
50	YC	573	A
50	YC	576	G
50	YC	577	G
50	YC	607	A
50	YC	653	A
50	YC	665	A
50	YC	688	G
50	YC	722	A
50	YC	749	C
50	YC	755	G
50	YC	774	G
50	YC	777	A
50	YC	792	A
50	YC	793	U
50	YC	794	A
50	YC	815	A
50	YC	817	C
50	YC	819	A
50	YC	828	A
50	YC	841	U
50	YC	842	C
50	YC	843	U
50	YC	848	C
50	YC	853	G
50	YC	859	A
50	YC	872	A
50	YC	873	A
50	YC	902	G
50	YC	905	U
50	YC	914	A
50	YC	927	G
50	YC	934	C
50	YC	935	A
50	YC	941	G
50	YC	960	U
50	YC	961	U
50	YC	969	A
50	YC	971	G
50	YC	974	A
50	YC	976	G
50	YC	977	A
50	YC	978	A

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Mol	Chain	Res	Type
50	YC	979	C
50	YC	991	U
50	YC	992	U
50	YC	993	G
50	YC	994	A
50	YC	1004	A
50	YC	1045	C
50	YC	1054	C
50	YC	1055	A
50	YC	1065	U
50	YC	1081	G
50	YC	1094	G
50	YC	1095	U
50	YC	1101	A
50	YC	1102	A
50	YC	1104	G
50	YC	1118	C
50	YC	1126	U
50	YC	1129	C
50	YC	1130	A
50	YC	1137	C
50	YC	1138	G
50	YC	1139	G
50	YC	1140	C
50	YC	1146	A
50	YC	1147	C
50	YC	1152	A
50	YC	1159	U
50	YC	1171	G
50	YC	1184	G
50	YC	1190	G
50	YC	1193	G
50	YC	1196	U
50	YC	1197	G
50	YC	1200	C
50	YC	1201	A
50	YC	1202	G
50	YC	1212	U
50	YC	1213	A
50	YC	1225	A
50	YC	1233	G
50	YC	1238	A

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Mol	Chain	Res	Type
50	YC	1256	A
50	YC	1257	U
50	YC	1258	G
50	YC	1260	C
50	YC	1270	C
50	YC	1278	U
50	YC	1280	A
50	YC	1281	U
50	YC	1287	A
50	YC	1289	A
50	YC	1300	G
50	YC	1301	U
50	YC	1302	U
50	YC	1305	G
50	YC	1317	C
50	YC	1319	A
50	YC	1320	C
50	YC	1331	G
50	YC	1340	A
50	YC	1346	A
50	YC	1347	G
50	YC	136(B)	C
50	YC	1363	A
50	YC	1364	U
50	YC	1378	C
50	YC	1398	A
50	YC	1419	G
50	YC	1442	G
50	YC	1443	G
50	YC	1446	A
50	YC	1447	G
50	YC	1451	A
50	YC	1452	C
50	YC	1453	G
50	YC	1487	G
50	YC	1492	A
50	YC	1493	A
50	YC	1502	A
50	YC	1503	A
50	YC	1504	G
50	YC	1505	G
50	YC	1506	U

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Mol	Chain	Res	Type
50	YC	1507	A
50	YC	1517	G
50	YC	1520	G
50	YC	1529	G
50	YC	1530	G
51	ZC	26	G
51	ZC	34	C
51	ZC	46	C
51	ZC	49	A
51	ZC	55	G
51	ZC	64	A
51	ZC	71	A
51	ZC	74	A
51	ZC	75	G
51	ZC	84	A
51	ZC	99	U
51	ZC	101	G
51	ZC	102	G
51	ZC	118	A
51	ZC	119	A
51	ZC	120	U
51	ZC	138	G
51	ZC	139	G
51	ZC	140	A
51	ZC	162	U
51	ZC	181	A
51	ZC	196	A
51	ZC	197	A
51	ZC	199	A
51	ZC	201	C
51	ZC	204	A
51	ZC	205	G
51	ZC	214	G
51	ZC	216	A
51	ZC	221	A
51	ZC	222	A
51	ZC	225	A
51	ZC	228	A
51	ZC	229	A
51	ZC	230	U
51	ZC	233	A
51	ZC	245	G

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Mol	Chain	Res	Type
51	ZC	248	G
51	ZC	252	G
51	ZC	266	G
51	ZC	267	C
51	ZC	270(M)	U
51	ZC	270(N)	U
51	ZC	270(Q)	C
51	ZC	270(R)	C
51	ZC	271(C)	G
51	ZC	271(D)	U
51	ZC	271	G
51	ZC	274	G
51	ZC	275	G
51	ZC	278	A
51	ZC	279	C
51	ZC	302	C
51	ZC	310	A
51	ZC	322	A
51	ZC	323	G
51	ZC	324	A
51	ZC	329	G
51	ZC	330	A
51	ZC	352	G
51	ZC	353	G
51	ZC	364	C
51	ZC	372	G
51	ZC	386	G
51	ZC	387	U
51	ZC	396	G
51	ZC	411	G
51	ZC	412	A
51	ZC	444	C
51	ZC	448	U
51	ZC	449	A
51	ZC	456	C
51	ZC	470	A
51	ZC	475	U
51	ZC	480	A
51	ZC	481	G
51	ZC	491	G
51	ZC	505	A
51	ZC	508	G

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Mol	Chain	Res	Type
51	ZC	509	C
51	ZC	513	A
51	ZC	518	G
51	ZC	528	A
51	ZC	530	G
51	ZC	531	C
51	ZC	532	A
51	ZC	546	C
51	ZC	563	G
51	ZC	572	A
51	ZC	573	G
51	ZC	575	A
51	ZC	595	C
51	ZC	599	G
51	ZC	603	A
51	ZC	609(B)	G
51	ZC	614	U
51	ZC	615	G
51	ZC	616	A
51	ZC	617	G
51	ZC	618(B)	C
51	ZC	620	G
51	ZC	621	A
51	ZC	627	A
51	ZC	637	A
51	ZC	645	C
51	ZC	646	A
51	ZC	653	C
51	ZC	654	U
51	ZC	655	A
51	ZC	664	C
51	ZC	668	G
51	ZC	670	A
51	ZC	686	G
51	ZC	730	C
51	ZC	738	G
51	ZC	748	G
51	ZC	776	G
51	ZC	782	A
51	ZC	784	A
51	ZC	785	G
51	ZC	789	A

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Mol	Chain	Res	Type
51	ZC	792	G
51	ZC	805	G
51	ZC	812	C
51	ZC	819	A
51	ZC	827	U
51	ZC	828	U
51	ZC	832	G
51	ZC	846	C
51	ZC	847	U
51	ZC	848	G
51	ZC	859	G
51	ZC	886	C
51	ZC	888	C
51	ZC	890	A
51	ZC	896	A
51	ZC	897	C
51	ZC	910	A
51	ZC	915	C
51	ZC	917	A
51	ZC	919	G
51	ZC	932	G
51	ZC	941	A
51	ZC	946	G
51	ZC	959	A
51	ZC	961	C
51	ZC	974(A)	G
51	ZC	974(B)	C
51	ZC	975	G
51	ZC	983	A
51	ZC	996	A
51	ZC	999	U
51	ZC	1003	G
51	ZC	1009	A
51	ZC	1011	G
51	ZC	1012	U
51	ZC	1013	C
51	ZC	1022	G
51	ZC	1023	U
51	ZC	1025	G
51	ZC	1026	U
51	ZC	1033	U
51	ZC	1047	G

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Mol	Chain	Res	Type
51	ZC	1048	A
51	ZC	1061	U
51	ZC	1070	A
51	ZC	1072	C
51	ZC	1073	A
51	ZC	1079	C
51	ZC	1080	C
51	ZC	1088	A
51	ZC	1100	C
51	ZC	1112	G
51	ZC	1129	A
51	ZC	1130	U
51	ZC	1132	A
51	ZC	1135	C
51	ZC	1136	G
51	ZC	1139	G
51	ZC	114(B)	A
51	ZC	1143	A
51	ZC	1151	G
51	ZC	1155	A
51	ZC	1174	A
51	ZC	1175	U
51	ZC	1195	G
51	ZC	1204	A
51	ZC	1205	U
51	ZC	1210	A
51	ZC	1211	U
51	ZC	1221	C
51	ZC	1227	G
51	ZC	1252	G
51	ZC	1253	A
51	ZC	1256	G
51	ZC	1271	G
51	ZC	1272	A
51	ZC	1275	A
51	ZC	1300	U
51	ZC	1301	A
51	ZC	1302	A
51	ZC	1313	U
51	ZC	1314	C
51	ZC	1329	U
51	ZC	1332	G

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Mol	Chain	Res	Type
51	ZC	1341	U
51	ZC	1349	A
51	ZC	1352	U
51	ZC	1359	A
51	ZC	1360	A
51	ZC	1365	A
51	ZC	1378	A
51	ZC	1380	G
51	ZC	1384	A
51	ZC	1385	G
51	ZC	1386	C
51	ZC	1395	A
51	ZC	1396	U
51	ZC	1397	U
51	ZC	1416	G
51	ZC	1427	A
51	ZC	1428	C
51	ZC	144(B)	A
51	ZC	1453	A
51	ZC	1454	U
51	ZC	1455	G
51	ZC	1459	G
51	ZC	1460	A
51	ZC	1467	C
51	ZC	1478	G
51	ZC	1483	G
51	ZC	1493	C
51	ZC	1494	A
51	ZC	1495	A
51	ZC	1497	U
51	ZC	1498	C
51	ZC	1510	A
51	ZC	1534	G
51	ZC	1535	U
51	ZC	1538	G
51	ZC	1540	G
51	ZC	1542	G
51	ZC	1543	A
51	ZC	1545	A
51	ZC	1558	A
51	ZC	1559	G
51	ZC	1566	A

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Mol	Chain	Res	Type
51	ZC	1569	A
51	ZC	1578	U
51	ZC	1579	A
51	ZC	1585	C
51	ZC	1598	C
51	ZC	1603	A
51	ZC	1608	A
51	ZC	1617	C
51	ZC	1618	A
51	ZC	1631	A
51	ZC	1646	C
51	ZC	1647	G
51	ZC	1648	C
51	ZC	1651	G
51	ZC	1674	G
51	ZC	1695	G
51	ZC	1696	G
51	ZC	1703	G
51	ZC	1732	A
51	ZC	1756	G
51	ZC	1762	A
51	ZC	1763	G
51	ZC	1764	G
51	ZC	1772	G
51	ZC	1773	A
51	ZC	1781	C
51	ZC	1784	A
51	ZC	1787	A
51	ZC	1791	A
51	ZC	1800	C
51	ZC	1801	G
51	ZC	1816	G
51	ZC	1829	A
51	ZC	1847	A
51	ZC	1848	A
51	ZC	1878	G
51	ZC	1903	G
51	ZC	1905	C
51	ZC	1906	G
51	ZC	1913	A
51	ZC	1914	C
51	ZC	1929	G

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Mol	Chain	Res	Type
51	ZC	1930	G
51	ZC	1936	A
51	ZC	1939	U
51	ZC	1940	U
51	ZC	1955	U
51	ZC	1963	U
51	ZC	1964	G
51	ZC	1966	A
51	ZC	1967	C
51	ZC	1970	A
51	ZC	1971	A
51	ZC	1972	A
51	ZC	1982	C
51	ZC	1991	U
51	ZC	1992	G
51	ZC	1993	U
51	ZC	1997	G
51	ZC	2023	G
51	ZC	2027	G
51	ZC	2031	A
51	ZC	2032	G
51	ZC	2033	A
51	ZC	2036	C
51	ZC	2043	C
51	ZC	2046	G
51	ZC	2052	G
51	ZC	2055	C
51	ZC	2056	G
51	ZC	2060	A
51	ZC	2061	G
51	ZC	2069	G
51	ZC	2093	G
51	ZC	2111	C
51	ZC	2112	G
51	ZC	2117	A
51	ZC	2119	A
51	ZC	2120	G
51	ZC	2131	G
51	ZC	2133	G
51	ZC	2147	G
51	ZC	2171	A
51	ZC	2173	A

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Mol	Chain	Res	Type
51	ZC	2198	A
51	ZC	2210	G
51	ZC	2211	G
51	ZC	2212	A
51	ZC	2213	U
51	ZC	2215	G
51	ZC	2226	C
51	ZC	2238	G
51	ZC	2239	G
51	ZC	2275	C
51	ZC	2276	G
51	ZC	2278	A
51	ZC	2283	C
51	ZC	2287	A
51	ZC	2289	G
51	ZC	2304	G
51	ZC	2305	A
51	ZC	2306	C
51	ZC	2307	G
51	ZC	2308	G
51	ZC	2319	G
51	ZC	2320	A
51	ZC	2321	G
51	ZC	2325	G
51	ZC	2327	A
51	ZC	2334	G
51	ZC	2336	A
51	ZC	2345	G
51	ZC	2346	A
51	ZC	2347	C
51	ZC	2350	C
51	ZC	2372	G
51	ZC	2379	G
51	ZC	2383	G
51	ZC	2385	C
51	ZC	2392	A
51	ZC	2402	C
51	ZC	2410	G
51	ZC	2422	A
51	ZC	2423	U
51	ZC	2424	C
51	ZC	2425	A

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Mol	Chain	Res	Type
51	ZC	2428	G
51	ZC	2429	G
51	ZC	2430	A
51	ZC	2434	A
51	ZC	2436	G
51	ZC	2439	A
51	ZC	2441	C
51	ZC	2448	A
51	ZC	2468	G
51	ZC	2469	A
51	ZC	2476	A
51	ZC	2477	C
51	ZC	2478	A
51	ZC	2491	U
51	ZC	2502	G
51	ZC	2505	G
51	ZC	2518	A
51	ZC	2520	C
51	ZC	2529	G
51	ZC	2542	A
51	ZC	2543	G
51	ZC	2554	U
51	ZC	2566	A
51	ZC	2567	G
51	ZC	2572	A
51	ZC	2573	C
51	ZC	2574	G
51	ZC	2577	A
51	ZC	2578	G
51	ZC	2602	A
51	ZC	2603	G
51	ZC	2609	U
51	ZC	2610	C
51	ZC	2611	U
51	ZC	2612	C
51	ZC	2615	U
51	ZC	2621	A
51	ZC	2630	G
51	ZC	2636	U
51	ZC	2646	C
51	ZC	2665	A
51	ZC	2682	U

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Mol	Chain	Res	Type
51	ZC	2689	U
51	ZC	2690	C
51	ZC	2691	C
51	ZC	2702	U
51	ZC	2703	C
51	ZC	712(B)	A
51	ZC	2713	A
51	ZC	2726	U
51	ZC	2733	A
51	ZC	2748	A
51	ZC	2757	A
51	ZC	2764	A
51	ZC	2765	A
51	ZC	2766	G
51	ZC	2769	C
51	ZC	2778	A
51	ZC	2779	U
51	ZC	2780	G
51	ZC	2781	A
51	ZC	2790	A
51	ZC	2791	C
51	ZC	2792	G
51	ZC	2797	U
51	ZC	2801	A
51	ZC	2820	A
51	ZC	2821	A
51	ZC	2833	G
51	ZC	2835	A
51	ZC	2849	U
51	ZC	2872	G
51	ZC	2873	A
51	ZC	2886	G
51	ZC	2894	G
52	AD	13	A
52	AD	15	A
52	AD	16	G
52	AD	24	G
52	AD	30	C
52	AD	41	U
52	AD	44	G
52	AD	52	A
52	AD	73	A

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Mol	Chain	Res	Type
52	AD	105	G
52	AD	109	G
53	BD	6	G
53	BD	9	G
53	BD	10	G
53	BD	17	C
53	BD	17(A)	U
53	BD	18	G
53	BD	19	G
53	BD	20	U
53	BD	22	G
53	BD	47	U
53	BD	48	C
53	BD	49	G
53	ED	8	U
53	ED	9	G
53	ED	18	G
53	ED	19	G
53	ED	20	U
53	ED	31	G
53	ED	47	U
53	ED	48	C
53	FD	8	U
53	FD	9	G
53	FD	18	G
53	FD	19	G
53	FD	20	U
53	FD	31	G
53	FD	47	U
53	FD	48	C
54	GD	16	A
54	HD	16	A

All (71) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
50	UC	115	G
50	UC	243	A
50	UC	266	G
50	UC	328	C
50	UC	498	A
50	UC	509	A

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Mol	Chain	Res	Type
50	UC	560	U
50	UC	687	A
50	UC	748	C
50	UC	913	A
50	UC	1064	G
50	UC	1101	A
50	UC	1145	C
50	UC	1201	A
50	UC	1504	G
51	VC	271(C)	G
51	VC	278	A
51	VC	363(G)	A
51	VC	474	G
51	VC	479	A
51	VC	512	G
51	VC	775	G
51	VC	784	A
51	VC	1022	G
51	VC	1210	A
51	VC	1300	U
51	VC	1379	A
51	VC	1558	A
51	VC	1695	G
51	VC	1935	G
51	VC	2225	A
51	VC	2756	U
51	VC	2791	C
53	XC	17(A)	U
53	XC	21	A
53	XC	48	C
50	YC	115	G
50	YC	243	A
50	YC	266	G
50	YC	328	C
50	YC	498	A
50	YC	509	A
50	YC	560	U
50	YC	687	A
50	YC	748	C
50	YC	913	A
50	YC	1064	G
50	YC	1101	A

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Mol	Chain	Res	Type
50	YC	1145	C
50	YC	1201	A
50	YC	1504	G
51	ZC	271(C)	G
51	ZC	278	A
51	ZC	363(G)	A
51	ZC	474	G
51	ZC	479	A
51	ZC	512	G
51	ZC	775	G
51	ZC	784	A
51	ZC	1022	G
51	ZC	1210	A
51	ZC	1300	U
51	ZC	1379	A
51	ZC	1558	A
51	ZC	1695	G
51	ZC	2225	A
51	ZC	2756	U
51	ZC	2791	C
53	BD	17(A)	U
53	BD	21	A
53	BD	48	C

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 2222 ligands modelled in this entry, 2222 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
51	ZC	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	ZC	1142:C	O3'	114(B):A	P	1.75

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
1	A	271/271 (100%)	0.45	13 (4%)	35	22	77, 103, 124, 137	0
1	WA	271/271 (100%)	0.44	13 (4%)	35	22	65, 91, 109, 116	0
2	B	204/206 (99%)	0.31	5 (2%)	58	35	89, 129, 158, 168	0
2	XA	204/206 (99%)	0.35	6 (2%)	53	31	78, 109, 136, 144	0
3	C	202/205 (98%)	0.15	2 (0%)	79	54	80, 116, 144, 151	0
3	YA	202/205 (98%)	0.07	0	100	100	66, 100, 127, 140	0
4	D	181/182 (99%)	0.34	6 (3%)	49	29	174, 191, 207, 214	0
4	ZA	181/182 (99%)	0.15	4 (2%)	62	37	144, 163, 186, 199	0
5	AB	174/180 (96%)	0.15	3 (1%)	69	42	113, 134, 153, 164	0
5	E	174/180 (96%)	0.33	9 (5%)	33	20	198, 228, 258, 267	0
6	BB	145/148 (97%)	0.52	15 (10%)	12	11	101, 174, 197, 202	0
6	F	145/148 (97%)	0.73	15 (10%)	12	11	128, 191, 205, 209	0
7	CB	147/147 (100%)	0.89	15 (10%)	12	11	303, 345, 363, 370	0
7	G	147/147 (100%)	0.59	8 (5%)	31	19	327, 363, 391, 395	0
8	DB	137/140 (97%)	0.38	3 (2%)	62	37	89, 108, 131, 136	0
8	H	137/140 (97%)	0.44	4 (2%)	53	31	111, 132, 150, 154	0
9	EB	122/122 (100%)	0.41	2 (1%)	70	44	86, 105, 120, 131	0
9	I	122/122 (100%)	0.33	3 (2%)	58	35	97, 117, 131, 135	0
10	FB	146/150 (97%)	0.88	21 (14%)	6	6	72, 119, 149, 159	0
10	J	146/150 (97%)	0.69	13 (8%)	15	12	92, 141, 171, 179	0
11	GB	134/141 (95%)	1.09	21 (15%)	5	5	126, 143, 167, 205	0
11	K	134/141 (95%)	0.67	12 (8%)	15	11	134, 163, 188, 227	0
12	HB	117/118 (99%)	0.53	5 (4%)	40	23	81, 100, 124, 130	0
12	L	117/118 (99%)	0.66	6 (5%)	33	21	96, 115, 132, 140	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å ²)	Q<0.9
13	IB	110/112 (98%)	0.58	8 (7%)	21 15	135, 150, 160, 170	0
13	M	110/112 (98%)	0.40	6 (5%)	30 19	157, 177, 190, 195	0
14	JB	137/146 (93%)	0.42	11 (8%)	18 13	104, 124, 183, 205	0
14	N	137/146 (93%)	0.29	6 (4%)	39 23	118, 134, 176, 189	0
15	KB	117/118 (99%)	0.44	6 (5%)	33 21	75, 95, 118, 126	0
15	O	117/118 (99%)	0.41	6 (5%)	33 21	94, 121, 150, 164	0
16	LB	101/101 (100%)	0.37	3 (2%)	52 31	79, 119, 140, 154	0
16	P	101/101 (100%)	0.03	3 (2%)	52 31	96, 137, 157, 170	0
17	MB	112/113 (99%)	0.23	1 (0%)	81 57	72, 87, 126, 157	0
17	Q	112/113 (99%)	0.24	2 (1%)	67 41	85, 98, 133, 160	0
18	NB	92/96 (95%)	0.27	3 (3%)	49 29	78, 91, 116, 126	0
18	R	92/96 (95%)	0.44	4 (4%)	40 23	107, 118, 137, 142	0
19	OB	100/110 (90%)	0.77	10 (10%)	12 11	94, 108, 172, 189	0
19	S	100/110 (90%)	1.23	21 (21%)	2 3	109, 127, 180, 189	0
20	PB	187/206 (90%)	0.14	2 (1%)	78 53	133, 167, 208, 246	0
20	T	187/206 (90%)	0.08	4 (2%)	63 38	157, 196, 230, 264	0
21	QB	76/85 (89%)	0.75	4 (5%)	32 20	100, 108, 134, 147	0
21	U	76/85 (89%)	0.48	3 (3%)	43 26	122, 135, 155, 182	0
22	RB	88/98 (89%)	1.10	17 (19%)	3 3	80, 103, 135, 148	0
22	V	88/98 (89%)	1.12	18 (20%)	2 3	93, 116, 154, 164	0
23	SB	62/72 (86%)	0.42	5 (8%)	18 13	87, 107, 126, 135	0
23	W	62/72 (86%)	0.55	3 (4%)	35 22	120, 138, 156, 172	0
24	TB	59/60 (98%)	0.56	3 (5%)	33 21	90, 108, 140, 148	0
24	X	59/60 (98%)	0.52	1 (1%)	69 42	106, 123, 144, 154	0
25	UB	52/60 (86%)	0.68	7 (13%)	7 7	77, 98, 141, 152	0
25	Y	52/60 (86%)	0.72	7 (13%)	7 7	91, 117, 148, 156	0
26	VB	44/54 (81%)	0.76	5 (11%)	10 9	245, 251, 259, 267	0
26	Z	44/54 (81%)	1.08	7 (15%)	5 5	238, 256, 273, 278	0
27	AA	48/49 (97%)	0.64	3 (6%)	26 17	80, 86, 105, 120	0
27	WB	48/49 (97%)	0.61	4 (8%)	17 12	68, 72, 91, 103	0
28	BA	63/65 (96%)	1.29	11 (17%)	4 4	102, 115, 155, 169	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å ²)	Q<0.9
28	XB	63/65 (96%)	1.21	13 (20%)	2 3	92, 102, 143, 159	0
29	CA	234/256 (91%)	0.18	5 (2%)	63 38	163, 189, 211, 222	0
29	YB	234/256 (91%)	0.14	4 (1%)	69 42	186, 215, 233, 245	0
30	DA	206/239 (86%)	0.13	4 (1%)	66 40	162, 177, 204, 208	0
30	ZB	206/239 (86%)	0.24	10 (4%)	35 21	174, 199, 226, 235	0
31	AC	208/209 (99%)	0.63	13 (6%)	26 17	165, 187, 203, 211	0
31	EA	208/209 (99%)	0.44	10 (4%)	35 22	130, 146, 157, 167	0
32	BC	151/162 (93%)	0.44	7 (4%)	37 22	151, 172, 185, 197	0
32	FA	151/162 (93%)	0.27	5 (3%)	49 29	127, 144, 158, 185	0
33	CC	101/101 (100%)	0.12	0	100 100	141, 153, 167, 190	0
33	GA	101/101 (100%)	0.03	1 (0%)	79 54	144, 159, 172, 186	0
34	DC	155/156 (99%)	0.15	1 (0%)	85 65	174, 190, 201, 204	0
34	HA	155/156 (99%)	0.15	5 (3%)	50 30	167, 180, 192, 199	0
35	EC	138/138 (100%)	0.40	4 (2%)	53 31	149, 174, 191, 195	0
35	IA	138/138 (100%)	0.25	4 (2%)	53 31	126, 150, 168, 172	0
36	FC	127/128 (99%)	0.79	18 (14%)	6 6	167, 221, 232, 239	0
36	JA	127/128 (99%)	0.88	20 (15%)	5 5	165, 212, 230, 235	0
37	GC	98/105 (93%)	0.98	19 (19%)	3 3	184, 239, 262, 265	0
37	KA	98/105 (93%)	0.86	12 (12%)	8 8	178, 206, 216, 220	0
38	HC	114/129 (88%)	0.38	6 (5%)	32 20	127, 148, 161, 168	0
38	LA	114/129 (88%)	0.38	6 (5%)	32 20	124, 146, 157, 168	0
39	IC	122/132 (92%)	0.94	15 (12%)	8 8	134, 150, 167, 178	0
39	MA	122/132 (92%)	0.42	8 (6%)	24 16	119, 133, 142, 165	0
40	JC	117/126 (92%)	0.39	6 (5%)	33 21	163, 202, 219, 224	0
40	NA	117/126 (92%)	0.50	5 (4%)	40 23	175, 213, 231, 234	0
41	KC	60/61 (98%)	0.90	6 (10%)	12 11	182, 196, 206, 211	0
41	OA	60/61 (98%)	0.92	5 (8%)	17 12	173, 184, 204, 207	0
42	LC	88/89 (98%)	0.48	3 (3%)	48 28	124, 150, 169, 176	0
42	PA	88/89 (98%)	0.44	3 (3%)	48 28	125, 143, 159, 165	0
43	MC	83/88 (94%)	1.52	23 (27%)	1 1	174, 199, 220, 244	0
43	QA	83/88 (94%)	0.99	12 (14%)	6 6	128, 136, 157, 186	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	NC	99/105 (94%)	0.82	12 (12%) 8 8	124, 150, 162, 168	0
44	RA	99/105 (94%)	0.26	3 (3%) 52 31	115, 130, 137, 143	0
45	OC	70/88 (79%)	-0.06	0 100 100	146, 161, 181, 183	0
45	SA	70/88 (79%)	0.16	0 100 100	142, 159, 180, 183	0
46	PC	78/93 (83%)	0.26	2 (2%) 57 34	188, 203, 212, 213	0
46	TA	78/93 (83%)	0.38	5 (6%) 25 17	197, 218, 226, 228	0
47	QC	99/106 (93%)	1.16	22 (22%) 2 2	167, 185, 204, 207	0
47	UA	99/106 (93%)	0.75	14 (14%) 6 6	128, 144, 164, 166	0
48	RC	24/27 (88%)	1.52	9 (37%) 1 1	191, 201, 218, 233	0
48	VA	24/27 (88%)	1.30	6 (25%) 2 2	191, 197, 210, 222	0
49	SC	30/71 (42%)	-0.05	0 100 100	228, 232, 244, 245	0
49	TC	30/71 (42%)	-0.03	0 100 100	260, 274, 286, 287	0
50	UC	1504/1509 (99%)	0.09	31 (2%) 63 38	95, 145, 230, 315	0
50	YC	1504/1509 (99%)	0.24	38 (2%) 58 35	101, 175, 259, 344	0
51	VC	2879/2893 (99%)	0.01	74 (2%) 57 34	76, 116, 271, 416	0
51	ZC	2879/2893 (99%)	-0.05	66 (2%) 61 37	57, 98, 250, 374	0
52	AD	119/121 (98%)	-0.03	4 (3%) 48 28	111, 143, 163, 192	0
52	WC	119/121 (98%)	0.16	3 (2%) 58 35	124, 181, 214, 219	0
53	BD	77/77 (100%)	0.28	8 (10%) 11 11	232, 277, 322, 329	0
53	ED	77/77 (100%)	-0.03	4 (5%) 33 20	147, 184, 203, 257	0
53	FD	77/77 (100%)	0.03	3 (3%) 43 26	143, 173, 192, 240	0
53	XC	77/77 (100%)	0.25	5 (6%) 25 16	207, 268, 290, 301	0
54	GD	8/27 (29%)	1.01	0 100 100	138, 198, 252, 253	0
54	HD	8/27 (29%)	0.92	1 (12%) 8 8	144, 202, 243, 244	0
All	All	20988/21736 (96%)	0.28	961 (4%) 37 22	57, 140, 248, 416	0

All (961) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
44	NC	37	LYS	12.1
4	D	74	LYS	8.7
11	GB	10	ARG	8.1
51	ZC	1077	A	7.9
10	J	50	ARG	7.6

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Mol	Chain	Res	Type	RSRZ
22	V	19	GLN	6.7
43	MC	30	GLY	6.6
13	M	13	ARG	6.6
4	D	84	LYS	6.5
19	OB	51	VAL	6.5
43	MC	29	ASP	6.1
21	U	74	ARG	6.0
51	ZC	2449	U	6.0
50	UC	84	U	6.0
51	ZC	1090	U	6.0
53	XC	75	C	5.9
10	FB	51	PHE	5.9
44	NC	35	VAL	5.8
47	QC	18	GLN	5.7
44	NC	24	GLU	5.7
51	ZC	1087	G	5.6
39	IC	27	LYS	5.6
47	QC	9	ASN	5.5
51	ZC	1091	G	5.5
13	M	9	ARG	5.5
40	JC	4	ILE	5.5
10	J	51	PHE	5.4
51	ZC	2145	C	5.4
43	MC	31	LYS	5.4
36	JA	115	GLY	5.4
19	S	62	GLU	5.4
43	MC	33	ILE	5.4
19	S	51	VAL	5.3
43	QA	29	ASP	5.3
25	Y	2	ALA	5.2
51	VC	1080	C	5.2
36	FC	106	ALA	5.2
51	ZC	1078	U	5.1
1	A	34	VAL	5.0
51	VC	2334	G	5.0
12	L	8	ARG	5.0
35	IA	1	MET	5.0
50	UC	81	G	5.0
51	VC	1087	G	5.0
7	CB	7	VAL	4.9
53	XC	34	C	4.9
53	BD	34	C	4.9

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Mol	Chain	Res	Type	RSRZ
43	MC	34	GLU	4.9
23	W	3	LEU	4.9
10	FB	15	ARG	4.8
28	BA	57	ARG	4.8
51	VC	2798	C	4.8
28	BA	54	GLU	4.8
51	ZC	1088	A	4.7
10	FB	33	ARG	4.7
6	F	16	GLY	4.7
47	UA	69	GLY	4.7
28	BA	60	LEU	4.7
43	MC	1	MET	4.7
53	XC	74	C	4.7
10	J	33	ARG	4.6
47	QC	80	ARG	4.6
11	K	39	PRO	4.6
51	VC	2602	A	4.6
39	IC	29	ALA	4.6
22	RB	95	LEU	4.6
1	WA	34	VAL	4.6
38	LA	119	CYS	4.6
51	VC	1086	A	4.6
22	RB	30	VAL	4.5
28	XB	54	GLU	4.5
22	V	30	VAL	4.5
41	OA	14	PRO	4.5
50	UC	82	U	4.5
12	HB	8	ARG	4.5
9	I	1	MET	4.4
40	NA	60	VAL	4.4
14	JB	106	SER	4.4
50	YC	1253	G	4.4
37	GC	58	ASP	4.4
6	F	37	VAL	4.4
37	KA	58	ASP	4.4
22	V	36	GLY	4.4
36	FC	117	HIS	4.3
47	QC	20	LEU	4.3
31	AC	31	CYS	4.3
2	XA	151	TYR	4.3
11	GB	9	TYR	4.3
28	XB	64	TYR	4.3

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Mol	Chain	Res	Type	RSRZ
13	M	8	GLU	4.3
41	KC	25	VAL	4.3
6	F	95	LYS	4.3
41	OA	15	LYS	4.3
47	QC	16	HIS	4.3
5	E	159	GLU	4.3
51	VC	1396	U	4.2
6	BB	94	ALA	4.2
40	NA	4	ILE	4.2
51	VC	2318	G	4.2
51	VC	1081	U	4.2
11	K	90	VAL	4.2
51	VC	2805	G	4.2
51	ZC	1092	C	4.2
22	V	95	LEU	4.2
15	KB	19	LYS	4.1
51	ZC	508	G	4.1
11	GB	89	ASN	4.1
15	KB	37	GLU	4.1
22	RB	36	GLY	4.1
53	BD	35	A	4.1
27	WB	48	LYS	4.1
16	P	82	ARG	4.1
5	E	169	VAL	4.0
28	BA	64	TYR	4.0
29	CA	214	ILE	4.0
23	SB	62	THR	4.0
51	VC	2169	A	4.0
40	JC	118	ALA	4.0
48	RC	16	GLY	4.0
47	QC	24	LEU	4.0
14	JB	104	ASN	4.0
38	HC	117	ASN	4.0
12	HB	2	ARG	4.0
51	ZC	2057	A	3.9
53	FD	76	A	3.9
50	UC	879	C	3.9
36	JA	63	ILE	3.9
19	S	29	GLU	3.9
51	VC	2799	A	3.9
18	R	68	ARG	3.9
32	FA	13	ILE	3.9

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Mol	Chain	Res	Type	RSRZ
34	HA	10	ARG	3.9
14	JB	11	GLU	3.8
22	V	10	LYS	3.8
26	Z	10	LEU	3.8
50	YC	1352	C	3.8
51	VC	985	C	3.8
7	CB	8	VAL	3.8
36	JA	106	ALA	3.8
10	J	110	TYR	3.8
50	UC	1531	A	3.8
14	JB	1	MET	3.8
13	M	7	TYR	3.8
50	UC	85	U	3.7
10	J	65	ARG	3.7
32	BC	132	ALA	3.7
2	XA	155	LYS	3.7
10	J	47	ASP	3.7
11	GB	81	VAL	3.7
42	PA	62	GLN	3.7
10	FB	21	ARG	3.7
23	SB	14	ARG	3.7
39	IC	18	ARG	3.7
41	KC	35	ARG	3.7
1	WA	244	ARG	3.7
51	VC	34	C	3.7
7	CB	92	GLY	3.7
10	FB	7	ARG	3.7
47	QC	23	ARG	3.7
44	NC	26	GLN	3.7
28	XB	59	LYS	3.6
51	ZC	1089	G	3.6
25	UB	2	ALA	3.6
11	GB	90	VAL	3.6
50	UC	723	U	3.6
51	VC	1079	C	3.6
51	ZC	1104	C	3.6
50	UC	1492	A	3.6
51	VC	2146	C	3.6
51	VC	2804	C	3.6
10	FB	50	ARG	3.6
11	GB	96	VAL	3.6
20	T	169	GLU	3.6

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Mol	Chain	Res	Type	RSRZ
28	BA	23	VAL	3.6
6	F	2	LYS	3.5
2	XA	127	ASP	3.5
11	GB	12	GLN	3.5
43	MC	26	ARG	3.5
51	VC	1088	A	3.5
22	RB	9	GLY	3.5
10	FB	28	GLY	3.5
37	GC	56	HIS	3.5
36	JA	75	ASP	3.5
1	A	38	LYS	3.5
39	IC	23	VAL	3.5
47	UA	21	LYS	3.5
37	GC	62	HIS	3.5
12	L	9	LYS	3.4
18	R	33	LYS	3.4
27	WB	46	VAL	3.4
51	VC	2319	G	3.4
36	JA	127	LYS	3.4
37	GC	57	LYS	3.4
47	UA	65	LYS	3.4
43	MC	64	ALA	3.4
9	EB	1	MET	3.4
19	S	52	SER	3.4
38	HC	121	PRO	3.4
1	WA	230	ASP	3.4
37	KA	59	SER	3.4
10	J	49	ARG	3.4
21	U	75	LEU	3.4
31	EA	96	LEU	3.4
10	J	150	ALA	3.4
50	YC	84	U	3.4
27	AA	48	LYS	3.4
27	WB	47	ARG	3.4
51	VC	1075	C	3.4
51	ZC	2798	C	3.4
14	JB	51	ARG	3.4
1	A	42	GLY	3.3
22	V	23	LYS	3.4
22	V	61	ARG	3.4
48	VA	17	THR	3.3
47	QC	15	ARG	3.3

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Mol	Chain	Res	Type	RSRZ
51	VC	530	G	3.3
51	ZC	1093	G	3.3
11	K	38	GLU	3.3
32	BC	81	GLU	3.3
50	YC	82	U	3.3
51	VC	1090	U	3.3
51	ZC	1026	U	3.3
53	BD	75	C	3.3
36	FC	118	LYS	3.3
37	KA	63	PHE	3.3
38	HC	124	LYS	3.3
5	E	170	ARG	3.3
43	QA	11	SER	3.3
11	GB	38	GLU	3.3
4	D	2	PRO	3.3
6	F	111	PRO	3.3
36	FC	123	PRO	3.3
47	QC	29	LYS	3.3
48	VA	15	ARG	3.3
51	VC	2317	C	3.3
36	JA	42	ARG	3.3
31	EA	9	CYS	3.3
50	YC	1257	U	3.3
51	ZC	1080	C	3.3
13	IB	42	ASP	3.3
39	MA	70	PRO	3.2
51	VC	1104	C	3.2
51	ZC	1079	C	3.2
8	H	90	LEU	3.2
31	EA	112	VAL	3.2
4	ZA	34	LEU	3.2
8	DB	114	LEU	3.2
6	BB	120	ILE	3.2
36	JA	45	ALA	3.2
36	FC	108	VAL	3.2
51	VC	1072	C	3.2
51	ZC	34	C	3.2
50	YC	933	G	3.2
43	QA	17	TYR	3.2
31	AC	76	ARG	3.2
44	NC	38	ARG	3.2
25	UB	3	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
43	MC	35	LYS	3.2
10	FB	65	ARG	3.2
43	MC	28	ARG	3.2
5	AB	156	ALA	3.2
30	ZB	87	LEU	3.2
51	ZC	2334	G	3.2
51	ZC	2805	G	3.2
20	T	171	ILE	3.2
14	N	100	TYR	3.2
30	ZB	169	ALA	3.2
37	GC	59	SER	3.2
53	BD	36	U	3.2
13	IB	13	ARG	3.1
46	TA	6	LYS	3.1
48	RC	18	TYR	3.1
50	UC	973	G	3.1
39	IC	88	ARG	3.1
31	EA	31	CYS	3.1
1	A	171	ASP	3.1
44	NC	28	PRO	3.1
19	S	22	GLY	3.1
48	VA	16	GLY	3.1
6	F	72	LEU	3.1
15	O	37	GLU	3.1
51	VC	2113	U	3.1
51	ZC	1302	A	3.1
7	G	5	VAL	3.1
36	JA	26	VAL	3.1
36	JA	28	VAL	3.1
36	FC	109	VAL	3.1
50	YC	1317	C	3.1
23	W	31	GLU	3.1
10	J	46	LYS	3.1
51	ZC	573	G	3.1
22	RB	61	ARG	3.1
38	HC	115	PRO	3.1
51	VC	571	A	3.1
51	VC	949	C	3.1
51	VC	1383	C	3.1
31	EA	67	ILE	3.0
7	G	6	ALA	3.0
7	CB	17	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
39	IC	22	LYS	3.0
37	KA	46	ARG	3.0
2	XA	139	GLY	3.0
51	VC	2211	G	3.0
51	ZC	530	G	3.0
37	GC	23	ILE	3.0
7	CB	130	SER	3.0
51	VC	1085	A	3.0
36	FC	110	GLU	3.0
51	ZC	1076	C	3.0
41	OA	17	LYS	3.0
51	VC	1065	U	3.0
43	QA	25	ARG	3.0
51	VC	1091	G	3.0
51	VC	2147	G	3.0
11	GB	92	GLY	3.0
8	H	77	VAL	3.0
34	HA	83	ALA	3.0
42	LC	43	LEU	3.0
50	UC	1364	U	3.0
51	VC	2801	A	3.0
51	ZC	1103	A	3.0
22	V	27	GLU	3.0
50	UC	132	C	3.0
14	N	1	MET	3.0
36	JA	64	THR	3.0
48	RC	17	THR	3.0
31	AC	32	ALA	3.0
7	CB	10	LEU	2.9
25	UB	25	LEU	2.9
35	EC	133	LEU	2.9
10	FB	26	GLY	2.9
34	DC	5	ARG	2.9
43	MC	32	TYR	2.9
51	ZC	1537	C	2.9
11	GB	32	PHE	2.9
47	QC	84	LEU	2.9
11	K	24	GLY	2.9
39	IC	13	GLY	2.9
28	BA	59	LYS	2.9
34	HA	16	LEU	2.9
6	F	134	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
31	AC	110	PHE	2.9
50	YC	1492	A	2.9
51	ZC	2322	A	2.9
51	VC	1089	G	2.9
31	AC	9	CYS	2.9
51	VC	574	C	2.9
53	FD	1	C	2.9
51	ZC	2585	U	2.9
23	SB	3	LEU	2.9
29	CA	12	GLU	2.9
36	FC	66	ARG	2.9
2	B	186	GLY	2.9
5	AB	115	VAL	2.9
7	G	8	VAL	2.9
19	S	45	VAL	2.9
51	VC	2335	A	2.9
1	WA	262	ARG	2.9
31	EA	102	ASP	2.9
43	MC	25	ARG	2.9
50	UC	619	U	2.9
52	WC	12	C	2.9
52	AD	89(A)	G	2.9
25	Y	32	PRO	2.9
10	FB	27	HIS	2.8
19	S	101	LYS	2.9
32	FA	79	GLU	2.9
44	RA	24	GLU	2.9
14	N	106	SER	2.8
51	ZC	276	A	2.8
11	GB	24	GLY	2.8
32	BC	109	ILE	2.8
47	UA	12	ALA	2.8
50	UC	314	C	2.8
51	VC	615	G	2.8
43	MC	2	VAL	2.8
28	XB	28	GLY	2.8
6	F	36	ALA	2.8
51	VC	1067	A	2.8
10	J	48	PRO	2.8
28	BA	2	PRO	2.8
39	IC	97	TYR	2.8
43	MC	17	TYR	2.8

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Mol	Chain	Res	Type	RSRZ
13	M	4	LEU	2.8
16	LB	53	GLU	2.8
37	KA	64	GLU	2.8
42	PA	12	ILE	2.8
20	PB	80	ARG	2.8
37	GC	46	ARG	2.8
9	EB	25	LEU	2.8
28	XB	61	LEU	2.8
9	I	63	VAL	2.8
40	JC	117	VAL	2.8
37	GC	47	PHE	2.8
50	UC	974	A	2.8
50	YC	1252	A	2.8
32	BC	91	LEU	2.8
30	DA	152	ILE	2.8
5	AB	107	VAL	2.8
51	VC	1102	C	2.8
51	ZC	2804	C	2.8
40	NA	73	GLU	2.8
26	Z	13	CYS	2.8
19	S	44	ILE	2.8
10	FB	64	LYS	2.8
39	MA	85	ARG	2.7
6	BB	140	LEU	2.7
42	LC	15	PHE	2.7
36	FC	115	GLY	2.7
51	VC	1093	G	2.7
23	SB	10	LEU	2.7
39	MA	88	ARG	2.7
43	MC	8	ARG	2.7
47	QC	79	ARG	2.7
51	ZC	2135	A	2.7
10	FB	63	PRO	2.7
19	S	77	PRO	2.7
44	NC	30	PRO	2.7
1	A	239	ARG	2.7
6	F	35	LEU	2.7
26	VB	26	ASN	2.7
36	JA	128	ARG	2.7
51	VC	2143	C	2.7
12	HB	5	LYS	2.7
28	XB	23	VAL	2.7

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Mol	Chain	Res	Type	RSRZ
44	RA	30	PRO	2.7
22	RB	29	GLY	2.7
26	Z	9	LEU	2.7
43	MC	65	GLN	2.7
51	VC	2062	A	2.7
51	ZC	2602	A	2.7
22	V	16	ASN	2.7
32	BC	76	ILE	2.7
37	GC	50	ILE	2.7
47	QC	71	THR	2.7
4	ZA	74	LYS	2.7
6	BB	95	LYS	2.7
22	RB	23	LYS	2.7
41	OA	11	LYS	2.7
22	RB	14	VAL	2.7
43	MC	9	PHE	2.7
46	TA	41	VAL	2.7
11	K	10	ARG	2.7
47	QC	63	ILE	2.7
11	K	91	GLU	2.7
51	ZC	1379	A	2.7
35	IA	2	LEU	2.7
50	UC	108	G	2.7
50	UC	1347	G	2.7
36	FC	120	ARG	2.7
43	QA	65	GLN	2.7
47	UA	64	ASP	2.7
47	QC	17	ARG	2.7
22	V	24	ALA	2.7
16	LB	74	LYS	2.7
31	AC	77	ASN	2.7
51	VC	2803	C	2.7
39	MA	54	VAL	2.6
15	O	21	ALA	2.6
24	X	27	GLY	2.6
25	UB	52	TYR	2.6
43	QA	31	LYS	2.6
47	UA	68	LYS	2.6
37	GC	64	GLU	2.6
51	ZC	2144	U	2.6
39	IC	26	LEU	2.6
13	IB	3	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
19	S	6	HIS	2.6
46	PC	81	ARG	2.6
1	WA	38	LYS	2.6
39	IC	20	LYS	2.6
19	S	5	MET	2.6
50	YC	934	C	2.6
52	WC	88	C	2.6
29	YB	71	VAL	2.6
38	HC	12	ARG	2.6
53	ED	73	A	2.6
19	OB	68	HIS	2.6
7	CB	74	ALA	2.6
30	ZB	2	GLY	2.6
28	XB	32	LEU	2.6
50	YC	108	G	2.6
6	BB	88	ILE	2.6
11	GB	131	ILE	2.6
19	S	24	VAL	2.6
21	QB	41	ARG	2.6
43	MC	3	LYS	2.6
43	MC	15	PRO	2.6
36	FC	119	ALA	2.6
6	F	68	LEU	2.6
42	PA	66	LEU	2.6
14	JB	101	PHE	2.6
48	VA	14	TRP	2.6
15	KB	89	GLU	2.6
39	IC	15	GLU	2.6
51	VC	2797	U	2.6
11	GB	132	VAL	2.6
13	M	3	ARG	2.6
22	V	20	ARG	2.6
39	MA	17	VAL	2.6
40	NA	117	VAL	2.6
38	LA	124	LYS	2.6
36	JA	123	PRO	2.6
14	JB	69	GLY	2.6
28	BA	28	GLY	2.6
51	VC	1573	G	2.6
51	VC	2502	G	2.6
17	Q	2	GLU	2.6
22	RB	8	SER	2.6

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Mol	Chain	Res	Type	RSRZ
19	S	3	VAL	2.6
28	XB	46	ARG	2.6
51	ZC	2136	C	2.6
51	ZC	1086	A	2.6
51	ZC	1536	A	2.6
51	ZC	2060	A	2.6
51	ZC	2799	A	2.6
7	G	135	GLY	2.6
21	U	76	GLY	2.6
51	VC	1066	U	2.6
1	A	217	ARG	2.5
19	OB	101	LYS	2.5
37	GC	60	ARG	2.5
47	QC	11	SER	2.5
6	BB	145	VAL	2.5
28	BA	22	VAL	2.5
36	JA	109	VAL	2.5
14	JB	2	ASN	2.5
43	MC	7	ALA	2.5
47	QC	59	ALA	2.5
47	QC	66	ALA	2.5
50	YC	81	G	2.5
50	YC	306	G	2.5
51	VC	573	G	2.5
51	VC	989	G	2.5
50	YC	280	C	2.5
10	FB	14	LYS	2.5
11	GB	41	TRP	2.5
22	V	93	GLU	2.5
26	VB	10	LEU	2.5
30	ZB	43	LEU	2.5
50	UC	1498	U	2.5
51	ZC	1535	U	2.5
51	ZC	2335	A	2.5
11	K	31	ASP	2.5
36	JA	33	PHE	2.5
6	BB	97	ILE	2.5
21	QB	10	THR	2.5
10	J	27	HIS	2.5
44	NC	91	ARG	2.5
5	E	171	LEU	2.5
8	DB	123	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
28	BA	32	LEU	2.5
29	YB	12	GLU	2.5
44	NC	84	LEU	2.5
51	VC	273(G)	C	2.5
15	O	48	ALA	2.5
33	GA	99	ALA	2.5
6	BB	119	PRO	2.5
28	XB	63	PRO	2.5
30	ZB	39	ILE	2.5
50	UC	133	U	2.5
51	ZC	571	A	2.5
30	ZB	10	PHE	2.5
14	JB	112	ARG	2.5
43	MC	5	ARG	2.5
22	RB	34	THR	2.5
19	OB	3	VAL	2.5
19	OB	35	TYR	2.5
51	VC	2145	C	2.5
51	ZC	2146	C	2.5
51	VC	1082	U	2.5
16	P	78	LYS	2.5
51	ZC	2030	A	2.5
52	AD	52	A	2.5
53	XC	73	A	2.5
54	HD	15	A	2.5
6	F	97	ILE	2.5
19	S	75	ILE	2.5
1	WA	54	ARG	2.5
22	V	9	GLY	2.5
48	RC	15	ARG	2.5
28	XB	7	HIS	2.4
13	IB	8	GLU	2.4
37	KA	54	PHE	2.4
47	QC	14	LYS	2.4
9	I	2	ILE	2.4
22	RB	24	ALA	2.4
5	E	168	PRO	2.4
25	Y	28	PRO	2.4
31	AC	58	LEU	2.4
40	NA	19	LEU	2.4
40	JC	19	LEU	2.4
1	WA	42	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
17	MB	22	ASP	2.4
53	BD	1	C	2.4
51	VC	1406	U	2.4
13	IB	12	PHE	2.4
37	KA	65	LEU	2.4
48	RC	14	TRP	2.4
7	CB	6	ALA	2.4
18	NB	68	ARG	2.4
19	OB	53	PRO	2.4
12	L	6	SER	2.4
18	R	56	THR	2.4
22	RB	32	LYS	2.4
25	Y	31	VAL	2.4
36	FC	114	TYR	2.4
44	RA	58	GLU	2.4
11	GB	82	ARG	2.4
15	O	11	ARG	2.4
50	UC	1397	C	2.4
51	VC	2297	C	2.4
51	VC	2456	C	2.4
51	ZC	270(M)	U	2.4
52	WC	31	C	2.4
38	LA	117	ASN	2.4
4	D	87	PRO	2.4
50	UC	622	A	2.4
51	VC	2333	A	2.4
52	AD	89(B)	A	2.4
43	MC	63	GLY	2.4
17	Q	72	LYS	2.4
23	W	62	THR	2.4
26	Z	25	LYS	2.4
37	GC	55	LYS	2.4
38	LA	98	LEU	2.4
43	MC	59	TRP	2.4
5	E	173	PRO	2.4
7	CB	15	GLY	2.4
22	V	22	GLY	2.4
22	RB	91	LYS	2.4
26	Z	27	LYS	2.4
39	IC	19	LYS	2.4
15	O	40	PHE	2.4
50	YC	85	U	2.4

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Mol	Chain	Res	Type	RSRZ
30	ZB	91	LEU	2.4
51	VC	1574	C	2.4
53	ED	75	C	2.4
50	YC	389	A	2.4
2	B	159	HIS	2.4
26	Z	49	HIS	2.4
43	QA	70	ALA	2.4
47	UA	29	LYS	2.4
47	UA	74	LYS	2.4
47	QC	21	LYS	2.4
50	YC	378	G	2.4
51	VC	1074	G	2.4
51	ZC	615	G	2.4
51	ZC	2032	G	2.4
36	JA	72	GLY	2.4
44	NC	8	GLY	2.4
31	EA	93	PHE	2.4
36	JA	126	SER	2.4
48	RC	13	ILE	2.4
6	F	117	GLU	2.4
51	VC	1105	U	2.3
51	VC	2897	U	2.3
1	WA	243	GLY	2.3
41	KC	14	PRO	2.3
48	VA	23	PRO	2.3
48	RC	2	GLY	2.3
48	RC	11	GLY	2.3
12	L	4	LEU	2.3
50	YC	325	A	2.3
50	YC	1394	A	2.3
51	VC	1084	A	2.3
20	T	165	VAL	2.3
47	UA	25	ARG	2.3
47	QC	25	ARG	2.3
31	AC	4	TYR	2.3
14	N	11	GLU	2.3
16	P	80	GLN	2.3
35	IA	99	GLU	2.3
47	QC	12	ALA	2.3
6	F	4	ILE	2.3
22	V	12	PRO	2.3
42	LC	81	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
50	YC	723	U	2.3
11	K	115	MET	2.3
53	BD	76	A	2.3
7	G	56	GLU	2.3
7	CB	121	GLU	2.3
53	FD	75	C	2.3
19	S	61	ILE	2.3
31	AC	135	LEU	2.3
35	EC	2	LEU	2.3
36	JA	96	LEU	2.3
43	QA	33	ILE	2.3
1	WA	128	GLY	2.3
5	E	55	PRO	2.3
12	L	3	HIS	2.3
25	Y	27	PRO	2.3
40	JC	60	VAL	2.3
22	RB	35	THR	2.3
43	QA	59	TRP	2.3
1	A	244	ARG	2.3
28	XB	47	LYS	2.3
39	IC	16	LYS	2.3
36	JA	119	ALA	2.3
46	TA	15	LEU	2.3
1	A	204	ILE	2.3
7	CB	52	ILE	2.3
11	GB	71	ASP	2.3
23	SB	11	GLU	2.3
31	AC	15	GLU	2.3
15	KB	31	SER	2.3
19	S	80	GLY	2.3
3	C	88	VAL	2.3
26	VB	52	VAL	2.3
27	WB	2	LYS	2.3
36	FC	121	ARG	2.3
50	UC	756	C	2.3
51	ZC	974(B)	C	2.3
27	AA	45	ALA	2.3
44	NC	36	ILE	2.3
2	B	73	GLU	2.3
32	FA	81	GLU	2.3
37	KA	73	ASP	2.3
43	QA	68	ASP	2.3

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Mol	Chain	Res	Type	RSRZ
6	F	112	LYS	2.3
8	DB	66	THR	2.3
37	KA	66	ARG	2.3
50	YC	1353	G	2.3
51	VC	2110	G	2.3
51	VC	2802	G	2.3
14	JB	105	LEU	2.3
51	VC	1078	U	2.3
12	HB	21	TYR	2.3
21	QB	78	TYR	2.3
30	DA	201	TYR	2.3
37	GC	61	GLU	2.3
51	VC	2060	A	2.3
4	ZA	160	VAL	2.3
20	PB	180	VAL	2.3
46	TA	7	LYS	2.3
50	YC	1030	C	2.3
50	YC	1066	C	2.3
51	VC	1625	C	2.3
53	ED	1	C	2.3
6	BB	33	ARG	2.3
36	FC	128	ARG	2.3
29	YB	138	LEU	2.2
32	BC	13	ILE	2.2
36	FC	127	LYS	2.2
1	WA	23	GLU	2.2
6	F	84	GLY	2.2
7	CB	22	PRO	2.2
10	FB	71	VAL	2.2
24	TB	50	VAL	2.2
36	JA	41	VAL	2.2
37	GC	53	PRO	2.2
50	UC	1185	G	2.2
50	YC	1511	G	2.2
51	ZC	733	G	2.2
15	O	39	LEU	2.2
30	ZB	175	LEU	2.2
35	IA	25	ASP	2.2
53	XC	76	A	2.2
50	UC	403	C	2.2
10	FB	40	SER	2.2
47	UA	11	SER	2.2

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Mol	Chain	Res	Type	RSRZ
19	S	49	VAL	2.2
22	V	29	GLY	2.2
24	TB	59	VAL	2.2
19	S	76	CYS	2.2
37	GC	48	THR	2.2
37	GC	63	PHE	2.2
13	IB	11	LYS	2.2
19	OB	78	ALA	2.2
36	FC	43	ALA	2.2
51	ZC	1963	U	2.2
2	B	138	PRO	2.2
37	GC	52	GLY	2.2
38	LA	121	PRO	2.2
29	CA	152	PHE	2.2
6	BB	43	ASN	2.2
46	PC	13	ASP	2.2
47	UA	9	ASN	2.2
51	VC	1411	C	2.2
52	AD	12	C	2.2
1	WA	220	HIS	2.2
4	ZA	16	ARG	2.2
22	RB	20	ARG	2.2
29	CA	215	LEU	2.2
47	UA	13	LEU	2.2
40	JC	98	VAL	2.2
10	FB	54	GLY	2.2
14	JB	25	GLY	2.2
24	TB	34	GLU	2.2
50	UC	1257	U	2.2
50	UC	105	G	2.2
50	YC	1064	G	2.2
50	YC	1224	G	2.2
51	ZC	1067	A	2.2
15	KB	12	ARG	2.2
11	K	106	VAL	2.2
16	LB	70	ILE	2.2
22	RB	31	GLY	2.2
30	DA	13	GLY	2.2
30	ZB	13	GLY	2.2
1	A	67	PHE	2.2
2	XA	163	GLU	2.2
50	UC	1325	C	2.2

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Mol	Chain	Res	Type	RSRZ
37	KA	47	PHE	2.2
25	Y	26	THR	2.2
32	BC	135	THR	2.2
43	QA	3	LYS	2.2
1	WA	37	LEU	2.2
13	IB	110	LEU	2.2
18	R	34	ALA	2.1
19	S	78	ALA	2.1
7	CB	11	GLN	2.1
50	UC	5	U	2.1
6	BB	89	TYR	2.1
7	G	23	VAL	2.1
48	VA	18	TYR	2.1
29	YB	163	PHE	2.1
22	V	48	LYS	2.1
25	UB	34	PRO	2.1
41	KC	37	PHE	2.1
39	MA	27	LYS	2.1
37	KA	48	THR	2.1
51	VC	945	A	2.1
51	ZC	91	A	2.1
51	ZC	1098	A	2.1
7	G	77	LEU	2.1
30	ZB	188	LEU	2.1
50	YC	111	G	2.1
51	VC	11	G	2.1
5	E	150	ALA	2.1
39	IC	55	ALA	2.1
12	L	2	ARG	2.1
46	TA	35	SER	2.1
47	UA	70	SER	2.1
28	BA	7	HIS	2.1
50	YC	110	C	2.1
50	YC	132	C	2.1
50	YC	1344	C	2.1
51	ZC	2111	C	2.1
51	ZC	2477	C	2.1
53	BD	74	C	2.1
38	HC	42	TRP	2.1
7	CB	145	LYS	2.1
1	A	41	GLY	2.1
12	HB	23	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
21	QB	74	ARG	2.1
22	RB	21	ARG	2.1
31	EA	114	ARG	2.1
2	B	132	HIS	2.1
5	E	52	VAL	2.1
6	BB	37	VAL	2.1
50	UC	134	A	2.1
50	UC	975	A	2.1
53	BD	37	A	2.1
43	QA	32	TYR	2.1
3	C	87	GLY	2.1
19	OB	59	GLY	2.1
39	MA	4	PRO	2.1
10	FB	30	THR	2.1
11	GB	21	THR	2.1
50	YC	972	C	2.1
51	VC	974(B)	C	2.1
51	VC	2402	C	2.1
51	ZC	2139	C	2.1
27	AA	23	ARG	2.1
28	XB	55	ALA	2.1
11	K	63	LYS	2.1
10	J	71	VAL	2.1
30	DA	10	PHE	2.1
32	FA	51	VAL	2.1
41	KC	16	PHE	2.1
8	H	56	LEU	2.1
10	FB	62	LEU	2.1
25	UB	51	TYR	2.1
11	GB	39	PRO	2.1
35	EC	1	MET	2.1
26	VB	13	CYS	2.1
4	D	72	ARG	2.1
11	GB	40	ALA	2.1
13	IB	18	ILE	2.1
39	MA	25	ALA	2.1
51	ZC	2062	A	2.1
4	D	76	SER	2.1
15	KB	32	PHE	2.1
11	K	97	VAL	2.1
19	OB	49	VAL	2.1
39	IC	65	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
6	BB	35	LEU	2.1
31	AC	162	LEU	2.1
2	XA	117	MET	2.1
11	GB	100	GLY	2.1
14	N	4	GLY	2.1
50	YC	106	C	2.1
50	YC	135	C	2.1
51	ZC	2063	C	2.1
36	JA	105	ASP	2.1
50	YC	1187	G	2.1
51	VC	1382	G	2.1
51	ZC	1059	G	2.1
51	ZC	1933	G	2.1
35	EC	101	PRO	2.1
1	A	213	ARG	2.1
18	NB	60	ARG	2.1
10	FB	17	LYS	2.1
18	NB	33	LYS	2.1
19	OB	52	SER	2.1
1	A	182	LEU	2.1
7	G	12	LEU	2.1
25	UB	45	VAL	2.1
36	FC	41	VAL	2.1
1	WA	236	GLY	2.0
19	S	35	TYR	2.0
41	OA	34	TYR	2.0
50	YC	1286	A	2.0
53	ED	76	A	2.0
48	RC	10	ARG	2.0
34	HA	29	LYS	2.0
1	A	2	ALA	2.0
31	AC	93	PHE	2.0
8	H	122	LEU	2.0
37	KA	85	LEU	2.0
19	S	7	VAL	2.0
36	FC	26	VAL	2.0
44	NC	96	GLN	2.0
51	ZC	1072	C	2.0
26	Z	26	ASN	2.0
50	UC	878	G	2.0
51	ZC	2319	G	2.0
51	ZC	2797	U	2.0

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Mol	Chain	Res	Type	RSRZ
25	Y	50	GLY	2.0
29	CA	148	TYR	2.0
31	EA	4	TYR	2.0
11	GB	8	LYS	2.0
28	XB	12	LYS	2.0
31	AC	122	ARG	2.0
37	GC	45	ARG	2.0
47	QC	73	HIS	2.0
37	GC	100	THR	2.0
6	BB	117	GLU	2.0
10	FB	47	ASP	2.0
26	VB	24	GLU	2.0
6	BB	115	ALA	2.0
14	N	114	LEU	2.0
22	V	38	SER	2.0
47	UA	20	LEU	2.0
32	FA	100	VAL	2.0
34	HA	11	GLN	2.0
50	YC	553	A	2.0
50	YC	1280	A	2.0
7	CB	9	LYS	2.0
10	J	77	ARG	2.0
11	K	16	ARG	2.0
31	EA	118	ARG	2.0
38	LA	25	TYR	2.0
41	KC	13	THR	2.0
50	UC	135	C	2.0
51	ZC	2143	C	2.0
20	T	166	SER	2.0
50	YC	5	U	2.0
51	ZC	271(D)	U	2.0
10	FB	19	VAL	2.0

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

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

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	UC	1731	1/1	-0.59	0.30	200,200,200,200	0
55	MG	VC	3096	1/1	-0.53	0.27	207,207,207,207	0
55	MG	YC	1652	1/1	-0.50	0.22	196,196,196,196	0
55	MG	YC	1646	1/1	-0.44	0.18	177,177,177,177	0
55	MG	WC	205	1/1	-0.44	0.21	185,185,185,185	0
55	MG	VC	3376	1/1	-0.41	0.11	200,200,200,200	0
55	MG	BD	103	1/1	-0.37	0.10	218,218,218,218	0
55	MG	UC	1695	1/1	-0.26	0.20	197,197,197,197	0
55	MG	CB	201	1/1	-0.23	0.13	222,222,222,222	0
55	MG	UC	1760	1/1	-0.23	0.35	146,146,146,146	0
55	MG	YC	1741	1/1	-0.23	0.16	219,219,219,219	0
55	MG	UC	1783	1/1	-0.23	0.15	242,242,242,242	0
55	MG	YC	1773	1/1	-0.22	0.17	232,232,232,232	0
55	MG	ZC	3224	1/1	-0.22	0.19	222,222,222,222	0
55	MG	ZC	3349	1/1	-0.22	0.16	270,270,270,270	0
55	MG	UC	1754	1/1	-0.22	0.14	275,275,275,275	0
55	MG	BD	105	1/1	-0.21	0.17	223,223,223,223	0
55	MG	YC	1617	1/1	-0.18	0.33	175,175,175,175	0
55	MG	YC	1625	1/1	-0.16	0.39	121,121,121,121	0
55	MG	FD	102	1/1	-0.14	0.30	169,169,169,169	0
55	MG	ZC	3384	1/1	-0.13	0.22	136,136,136,136	0
55	MG	UC	1712	1/1	-0.12	0.17	212,212,212,212	0
55	MG	VC	3132	1/1	-0.11	0.13	181,181,181,181	0
55	MG	YC	1640	1/1	-0.09	0.25	155,155,155,155	0
55	MG	YC	1692	1/1	-0.08	0.26	178,178,178,178	0
55	MG	YC	1620	1/1	-0.07	0.21	153,153,153,153	0
55	MG	VC	3489	1/1	-0.06	0.15	238,238,238,238	0
55	MG	ZC	3680	1/1	-0.05	0.23	123,123,123,123	0
55	MG	UC	1773	1/1	-0.05	0.40	158,158,158,158	0
55	MG	BD	104	1/1	-0.04	0.12	253,253,253,253	0
55	MG	UC	1696	1/1	-0.04	0.28	159,159,159,159	0
55	MG	OA	103	1/1	-0.04	0.37	169,169,169,169	0
55	MG	VC	3440	1/1	-0.03	0.18	287,287,287,287	0
55	MG	UC	1643	1/1	-0.03	0.21	170,170,170,170	0
55	MG	UC	1737	1/1	-0.02	0.12	211,211,211,211	0
55	MG	ZC	3360	1/1	-0.02	0.25	193,193,193,193	0
55	MG	D	201	1/1	-0.01	0.17	178,178,178,178	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	BD	101	1/1	-0.01	0.18	244,244,244,244	0
55	MG	UC	1676	1/1	-0.01	0.27	128,128,128,128	0
55	MG	YC	1659	1/1	0.00	0.19	194,194,194,194	0
55	MG	UC	1846	1/1	0.00	0.07	227,227,227,227	0
55	MG	YC	1738	1/1	-0.00	0.15	144,144,144,144	0
55	MG	VC	3480	1/1	0.01	0.21	151,151,151,151	0
55	MG	VC	3190	1/1	0.01	0.18	159,159,159,159	0
55	MG	YC	1769	1/1	0.03	0.23	159,159,159,159	0
55	MG	XC	104	1/1	0.03	0.16	251,251,251,251	0
55	MG	ZC	3761	1/1	0.05	0.10	197,197,197,197	0
55	MG	VC	3231	1/1	0.05	0.29	119,119,119,119	0
55	MG	UC	1604	1/1	0.05	0.34	151,151,151,151	0
55	MG	VC	3381	1/1	0.06	0.08	130,130,130,130	0
55	MG	YC	1762	1/1	0.07	0.18	192,192,192,192	0
55	MG	ED	109	1/1	0.07	0.13	177,177,177,177	0
55	MG	UC	1697	1/1	0.07	0.28	136,136,136,136	0
55	MG	FD	108	1/1	0.07	0.19	153,153,153,153	0
55	MG	ZC	3737	1/1	0.08	0.13	204,204,204,204	0
55	MG	YC	1680	1/1	0.08	0.25	148,148,148,148	0
55	MG	YC	1657	1/1	0.08	0.13	179,179,179,179	0
55	MG	ZC	3218	1/1	0.09	0.23	136,136,136,136	0
55	MG	YC	1737	1/1	0.09	0.20	180,180,180,180	0
55	MG	VC	3606	1/1	0.09	0.08	243,243,243,243	0
55	MG	ED	116	1/1	0.10	0.13	167,167,167,167	0
55	MG	UC	1785	1/1	0.10	0.16	190,190,190,190	0
55	MG	BD	102	1/1	0.10	0.14	270,270,270,270	0
55	MG	UC	1779	1/1	0.11	0.29	161,161,161,161	0
55	MG	BD	106	1/1	0.11	0.15	192,192,192,192	0
55	MG	ED	101	1/1	0.11	0.16	182,182,182,182	0
55	MG	ED	104	1/1	0.11	0.18	159,159,159,159	0
55	MG	UC	1699	1/1	0.12	0.11	197,197,197,197	0
55	MG	YC	1721	1/1	0.12	0.21	145,145,145,145	0
55	MG	UC	1609	1/1	0.12	0.17	144,144,144,144	0
55	MG	VC	3066	1/1	0.12	0.35	102,102,102,102	0
55	MG	UC	1669	1/1	0.12	0.17	189,189,189,189	0
55	MG	ZC	3341	1/1	0.12	0.23	110,110,110,110	0
55	MG	UC	1807	1/1	0.13	0.24	113,113,113,113	0
55	MG	WC	218	1/1	0.14	0.21	136,136,136,136	0
55	MG	YC	1664	1/1	0.14	0.11	199,199,199,199	0
55	MG	UC	1651	1/1	0.14	0.23	147,147,147,147	0
55	MG	ZC	3197	1/1	0.14	0.31	152,152,152,152	0
55	MG	VC	3595	1/1	0.14	0.09	301,301,301,301	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	XC	103	1/1	0.15	0.14	217,217,217,217	0
55	MG	ZC	3310	1/1	0.15	0.22	124,124,124,124	0
55	MG	ZC	3061	1/1	0.15	0.25	103,103,103,103	0
55	MG	ZC	3502	1/1	0.16	0.25	171,171,171,171	0
55	MG	YC	1691	1/1	0.16	0.19	193,193,193,193	0
55	MG	UC	1657	1/1	0.17	0.17	175,175,175,175	0
55	MG	VC	3441	1/1	0.17	0.11	201,201,201,201	0
55	MG	YC	1789	1/1	0.18	0.14	279,279,279,279	0
55	MG	YC	1843	1/1	0.18	0.34	138,138,138,138	0
55	MG	ZC	3657	1/1	0.18	0.14	108,108,108,108	0
55	MG	ZC	3133	1/1	0.19	0.22	124,124,124,124	0
55	MG	UC	1710	1/1	0.19	0.21	142,142,142,142	0
55	MG	VC	3289	1/1	0.19	0.14	224,224,224,224	0
55	MG	ZC	3344	1/1	0.19	0.17	124,124,124,124	0
55	MG	VC	3102	1/1	0.20	0.32	124,124,124,124	0
55	MG	UC	1647	1/1	0.20	0.28	143,143,143,143	0
55	MG	YC	1700	1/1	0.20	0.17	208,208,208,208	0
55	MG	WC	209	1/1	0.20	0.20	182,182,182,182	0
55	MG	UC	1667	1/1	0.20	0.13	145,145,145,145	0
55	MG	YC	1720	1/1	0.21	0.24	165,165,165,165	0
55	MG	YC	1609	1/1	0.21	0.28	193,193,193,193	0
55	MG	VC	3114	1/1	0.22	0.23	134,134,134,134	0
55	MG	WC	210	1/1	0.22	0.24	169,169,169,169	0
55	MG	UC	1815	1/1	0.22	0.24	134,134,134,134	0
55	MG	ZC	3289	1/1	0.23	0.19	130,130,130,130	0
55	MG	BC	201	1/1	0.23	0.28	128,128,128,128	0
55	MG	YC	1730	1/1	0.23	0.15	225,225,225,225	0
55	MG	VC	3498	1/1	0.23	0.39	95,95,95,95	0
55	MG	YC	1668	1/1	0.23	0.15	143,143,143,143	0
55	MG	UC	1646	1/1	0.23	0.14	184,184,184,184	0
55	MG	VC	3122	1/1	0.24	0.35	82,82,82,82	0
55	MG	WC	207	1/1	0.24	0.19	164,164,164,164	0
55	MG	ED	114	1/1	0.24	0.17	158,158,158,158	0
55	MG	VC	3145	1/1	0.24	0.29	123,123,123,123	0
55	MG	YC	1627	1/1	0.24	0.35	157,157,157,157	0
55	MG	VC	3157	1/1	0.24	0.22	125,125,125,125	0
55	MG	UC	1654	1/1	0.25	0.25	117,117,117,117	0
55	MG	YC	1619	1/1	0.25	0.19	186,186,186,186	0
55	MG	ZC	3262	1/1	0.25	0.34	115,115,115,115	0
55	MG	YC	1676	1/1	0.25	0.13	147,147,147,147	0
55	MG	OA	102	1/1	0.26	0.16	180,180,180,180	0
55	MG	ZC	3388	1/1	0.26	0.32	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	D	203	1/1	0.26	0.16	188,188,188,188	0
55	MG	P	202	1/1	0.26	0.10	131,131,131,131	0
55	MG	VC	3487	1/1	0.26	0.19	126,126,126,126	0
55	MG	UC	1763	1/1	0.27	0.26	159,159,159,159	0
55	MG	YC	1675	1/1	0.27	0.12	232,232,232,232	0
55	MG	YC	1679	1/1	0.28	0.17	281,281,281,281	0
55	MG	YC	1757	1/1	0.28	0.12	171,171,171,171	0
55	MG	UC	1732	1/1	0.28	0.21	148,148,148,148	0
55	MG	VC	3368	1/1	0.29	0.12	160,160,160,160	0
55	MG	ZC	3635	1/1	0.29	0.11	216,216,216,216	0
55	MG	ED	105	1/1	0.29	0.21	153,153,153,153	0
55	MG	YC	1749	1/1	0.29	0.22	164,164,164,164	0
55	MG	YC	1651	1/1	0.30	0.12	197,197,197,197	0
55	MG	UC	1709	1/1	0.30	0.35	109,109,109,109	0
55	MG	UC	1653	1/1	0.30	0.22	204,204,204,204	0
55	MG	VC	3023	1/1	0.30	0.34	118,118,118,118	0
55	MG	ED	106	1/1	0.30	0.16	148,148,148,148	0
55	MG	WC	220	1/1	0.30	0.10	205,205,205,205	0
55	MG	YC	1641	1/1	0.30	0.29	118,118,118,118	0
55	MG	YC	1717	1/1	0.30	0.22	210,210,210,210	0
55	MG	YC	1670	1/1	0.30	0.39	132,132,132,132	0
55	MG	XC	101	1/1	0.30	0.13	190,190,190,190	0
55	MG	VC	3194	1/1	0.31	0.20	101,101,101,101	0
55	MG	YC	1710	1/1	0.31	0.14	185,185,185,185	0
55	MG	ZC	3724	1/1	0.31	0.23	165,165,165,165	0
55	MG	YC	1677	1/1	0.31	0.19	136,136,136,136	0
55	MG	YC	1615	1/1	0.31	0.37	150,150,150,150	0
55	MG	JB	201	1/1	0.32	0.10	145,145,145,145	0
55	MG	VC	3514	1/1	0.32	0.18	138,138,138,138	0
55	MG	UC	1718	1/1	0.32	0.20	120,120,120,120	0
55	MG	VC	3447	1/1	0.32	0.09	121,121,121,121	0
55	MG	BB	202	1/1	0.32	0.11	153,153,153,153	0
55	MG	UC	1854	1/1	0.32	0.24	146,146,146,146	0
55	MG	ZC	3457	1/1	0.32	0.20	97,97,97,97	0
55	MG	ZC	3500	1/1	0.32	0.24	115,115,115,115	0
55	MG	YC	1633	1/1	0.32	0.20	141,141,141,141	0
55	MG	VC	3420	1/1	0.32	0.12	192,192,192,192	0
55	MG	ZC	3163	1/1	0.33	0.33	130,130,130,130	0
55	MG	VC	3164	1/1	0.33	0.20	134,134,134,134	0
55	MG	VC	3184	1/1	0.33	0.25	109,109,109,109	0
55	MG	UC	1774	1/1	0.33	0.19	149,149,149,149	0
55	MG	UC	1617	1/1	0.33	0.11	151,151,151,151	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3718	1/1	0.33	0.14	124,124,124,124	0
55	MG	VC	3150	1/1	0.33	0.11	139,139,139,139	0
55	MG	VC	3006	1/1	0.33	0.17	147,147,147,147	0
55	MG	VC	3472	1/1	0.34	0.22	154,154,154,154	0
55	MG	YC	1743	1/1	0.34	0.14	224,224,224,224	0
55	MG	YC	1690	1/1	0.34	0.19	215,215,215,215	0
55	MG	UC	1622	1/1	0.34	0.18	121,121,121,121	0
55	MG	LA	201	1/1	0.34	0.22	142,142,142,142	0
55	MG	VC	3168	1/1	0.34	0.27	108,108,108,108	0
55	MG	YC	1630	1/1	0.34	0.21	136,136,136,136	0
55	MG	VC	3608	1/1	0.35	0.12	219,219,219,219	0
55	MG	VC	3666	1/1	0.35	0.24	131,131,131,131	0
55	MG	AD	216	1/1	0.35	0.24	134,134,134,134	0
55	MG	VC	3682	1/1	0.35	0.17	123,123,123,123	0
55	MG	ZC	3247	1/1	0.35	0.24	136,136,136,136	0
55	MG	ED	113	1/1	0.35	0.31	170,170,170,170	0
55	MG	WC	204	1/1	0.35	0.20	153,153,153,153	0
55	MG	ZC	3706	1/1	0.35	0.14	95,95,95,95	0
55	MG	D	202	1/1	0.35	0.22	152,152,152,152	0
55	MG	VC	3276	1/1	0.35	0.07	138,138,138,138	0
55	MG	EB	201	1/1	0.36	0.15	128,128,128,128	0
55	MG	ZC	3331	1/1	0.36	0.10	71,71,71,71	0
55	MG	VC	3410	1/1	0.36	0.16	117,117,117,117	0
55	MG	UC	1803	1/1	0.37	0.21	147,147,147,147	0
55	MG	UC	1603	1/1	0.37	0.28	106,106,106,106	0
55	MG	HA	202	1/1	0.37	0.33	171,171,171,171	0
55	MG	VC	3098	1/1	0.37	0.27	114,114,114,114	0
55	MG	YC	1682	1/1	0.37	0.23	121,121,121,121	0
55	MG	YC	1711	1/1	0.37	0.17	174,174,174,174	0
55	MG	WC	212	1/1	0.38	0.27	118,118,118,118	0
55	MG	YC	1689	1/1	0.38	0.27	117,117,117,117	0
55	MG	UC	1607	1/1	0.38	0.29	112,112,112,112	0
55	MG	UC	1829	1/1	0.38	0.12	145,145,145,145	0
55	MG	UC	1746	1/1	0.38	0.21	155,155,155,155	0
55	MG	YC	1726	1/1	0.38	0.38	162,162,162,162	0
55	MG	UC	1724	1/1	0.38	0.30	150,150,150,150	0
55	MG	VC	3596	1/1	0.39	0.09	173,173,173,173	0
55	MG	VC	3216	1/1	0.39	0.13	200,200,200,200	0
55	MG	VC	3109	1/1	0.39	0.37	92,92,92,92	0
55	MG	AD	227	1/1	0.39	0.17	136,136,136,136	0
55	MG	YC	1653	1/1	0.39	0.27	140,140,140,140	0
55	MG	WC	214	1/1	0.39	0.20	166,166,166,166	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	YC	1739	1/1	0.39	0.13	206,206,206,206	0
55	MG	VC	3322	1/1	0.39	0.32	114,114,114,114	0
55	MG	YC	1790	1/1	0.39	0.17	209,209,209,209	0
55	MG	YC	1805	1/1	0.39	0.21	115,115,115,115	0
55	MG	YC	1821	1/1	0.40	0.17	204,204,204,204	0
55	MG	UC	1658	1/1	0.40	0.26	169,169,169,169	0
55	MG	YC	1858	1/1	0.40	0.20	132,132,132,132	0
55	MG	VC	3437	1/1	0.40	0.15	199,199,199,199	0
55	MG	VC	3188	1/1	0.40	0.19	152,152,152,152	0
55	MG	VC	3044	1/1	0.40	0.16	243,243,243,243	0
55	MG	GB	201	1/1	0.40	0.29	126,126,126,126	0
55	MG	AD	215	1/1	0.40	0.16	120,120,120,120	0
55	MG	VC	3215	1/1	0.40	0.08	168,168,168,168	0
55	MG	UC	1626	1/1	0.40	0.18	129,129,129,129	0
55	MG	FB	202	1/1	0.40	0.14	118,118,118,118	0
55	MG	YC	1808	1/1	0.40	0.21	167,167,167,167	0
55	MG	YC	1814	1/1	0.40	0.13	224,224,224,224	0
55	MG	VC	3692	1/1	0.41	0.23	119,119,119,119	0
55	MG	YC	1622	1/1	0.41	0.08	159,159,159,159	0
55	MG	VC	3479	1/1	0.41	0.19	133,133,133,133	0
55	MG	BC	202	1/1	0.41	0.27	127,127,127,127	0
55	MG	XC	102	1/1	0.41	0.09	217,217,217,217	0
55	MG	YC	1632	1/1	0.41	0.25	112,112,112,112	0
55	MG	ZC	3119	1/1	0.41	0.15	182,182,182,182	0
55	MG	ED	115	1/1	0.41	0.13	171,171,171,171	0
55	MG	UC	1629	1/1	0.41	0.18	134,134,134,134	0
55	MG	ZC	3319	1/1	0.41	0.11	117,117,117,117	0
55	MG	BD	108	1/1	0.41	0.20	109,109,109,109	0
55	MG	UC	1819	1/1	0.42	0.12	142,142,142,142	0
55	MG	VC	3548	1/1	0.42	0.12	135,135,135,135	0
55	MG	YC	1794	1/1	0.42	0.10	192,192,192,192	0
55	MG	WC	202	1/1	0.42	0.26	129,129,129,129	0
55	MG	VC	3603	1/1	0.42	0.15	166,166,166,166	0
55	MG	XC	105	1/1	0.42	0.17	164,164,164,164	0
55	MG	UC	1744	1/1	0.43	0.25	130,130,130,130	0
55	MG	ZC	3392	1/1	0.43	0.28	137,137,137,137	0
55	MG	ZC	3094	1/1	0.43	0.33	62,62,62,62	0
55	MG	ZC	3498	1/1	0.43	0.18	109,109,109,109	0
55	MG	VC	3380	1/1	0.43	0.18	82,82,82,82	0
55	MG	YA	303	1/1	0.43	0.33	67,67,67,67	0
55	MG	ZC	3159	1/1	0.43	0.32	103,103,103,103	0
55	MG	UC	1642	1/1	0.44	0.22	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3086	1/1	0.44	0.29	124,124,124,124	0
55	MG	UC	1790	1/1	0.44	0.18	144,144,144,144	0
55	MG	UC	1674	1/1	0.44	0.30	110,110,110,110	0
55	MG	LC	101	1/1	0.44	0.10	135,135,135,135	0
55	MG	VC	3248	1/1	0.44	0.15	128,128,128,128	0
55	MG	YC	1854	1/1	0.44	0.09	166,166,166,166	0
55	MG	UC	1849	1/1	0.44	0.09	149,149,149,149	0
55	MG	VC	3421	1/1	0.45	0.15	145,145,145,145	0
55	MG	BB	201	1/1	0.45	0.29	143,143,143,143	0
55	MG	VC	3247	1/1	0.45	0.14	140,140,140,140	0
55	MG	VC	3163	1/1	0.45	0.14	99,99,99,99	0
55	MG	YC	1656	1/1	0.45	0.15	206,206,206,206	0
55	MG	VC	3446	1/1	0.45	0.10	109,109,109,109	0
55	MG	YC	1764	1/1	0.45	0.14	146,146,146,146	0
55	MG	IC	201	1/1	0.45	0.16	155,155,155,155	0
55	MG	YC	1771	1/1	0.45	0.15	229,229,229,229	0
55	MG	VC	3076	1/1	0.45	0.20	103,103,103,103	0
55	MG	UC	1689	1/1	0.45	0.10	153,153,153,153	0
55	MG	ZC	3098	1/1	0.45	0.24	87,87,87,87	0
55	MG	WC	221	1/1	0.45	0.11	179,179,179,179	0
55	MG	VC	3196	1/1	0.46	0.27	87,87,87,87	0
55	MG	ZC	3110	1/1	0.46	0.29	99,99,99,99	0
55	MG	VC	3630	1/1	0.46	0.15	126,126,126,126	0
55	MG	YC	1639	1/1	0.46	0.11	176,176,176,176	0
55	MG	VC	3511	1/1	0.46	0.12	182,182,182,182	0
55	MG	YC	1815	1/1	0.46	0.14	155,155,155,155	0
55	MG	VC	3208	1/1	0.46	0.13	137,137,137,137	0
55	MG	WC	208	1/1	0.46	0.25	133,133,133,133	0
55	MG	AD	208	1/1	0.46	0.19	135,135,135,135	0
55	MG	YC	1607	1/1	0.46	0.42	101,101,101,101	0
55	MG	ZC	3418	1/1	0.46	0.17	115,115,115,115	0
55	MG	YC	1696	1/1	0.46	0.22	135,135,135,135	0
55	MG	UC	1634	1/1	0.46	0.28	142,142,142,142	0
55	MG	YC	1613	1/1	0.46	0.15	145,145,145,145	0
55	MG	YC	1793	1/1	0.46	0.17	141,141,141,141	0
55	MG	VC	3040	1/1	0.47	0.41	99,99,99,99	0
55	MG	YC	1864	1/1	0.47	0.13	105,105,105,105	0
55	MG	ZC	3288	1/1	0.47	0.32	95,95,95,95	0
55	MG	ZC	3055	1/1	0.47	0.20	89,89,89,89	0
55	MG	YC	1732	1/1	0.47	0.24	137,137,137,137	0
55	MG	UC	1625	1/1	0.47	0.26	109,109,109,109	0
55	MG	VC	3285	1/1	0.47	0.13	135,135,135,135	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	UC	1766	1/1	0.47	0.21	130,130,130,130	0
55	MG	UC	1782	1/1	0.47	0.18	116,116,116,116	0
55	MG	VC	3095	1/1	0.47	0.21	105,105,105,105	0
55	MG	ZC	3741	1/1	0.47	0.16	203,203,203,203	0
55	MG	VC	3226	1/1	0.47	0.17	133,133,133,133	0
55	MG	VC	3011	1/1	0.47	0.43	88,88,88,88	0
55	MG	WC	216	1/1	0.47	0.12	160,160,160,160	0
55	MG	YC	1686	1/1	0.47	0.28	136,136,136,136	0
55	MG	YC	1766	1/1	0.47	0.38	130,130,130,130	0
55	MG	UC	1708	1/1	0.47	0.18	146,146,146,146	0
55	MG	VC	3228	1/1	0.48	0.09	120,120,120,120	0
55	MG	VC	3173	1/1	0.48	0.24	93,93,93,93	0
55	MG	ZC	3519	1/1	0.48	0.15	114,114,114,114	0
55	MG	ZC	3527	1/1	0.48	0.17	92,92,92,92	0
55	MG	YC	1650	1/1	0.48	0.17	99,99,99,99	0
55	MG	YC	1838	1/1	0.48	0.19	154,154,154,154	0
55	MG	ZC	3142	1/1	0.48	0.30	70,70,70,70	0
55	MG	YC	1693	1/1	0.48	0.20	148,148,148,148	0
55	MG	YC	1604	1/1	0.48	0.12	136,136,136,136	0
55	MG	VC	3347	1/1	0.48	0.13	99,99,99,99	0
55	MG	UC	1792	1/1	0.48	0.17	151,151,151,151	0
55	MG	WC	224	1/1	0.48	0.14	161,161,161,161	0
55	MG	ZC	3233	1/1	0.48	0.16	141,141,141,141	0
55	MG	VC	3138	1/1	0.48	0.23	162,162,162,162	0
55	MG	AD	209	1/1	0.48	0.16	115,115,115,115	0
55	MG	UC	1802	1/1	0.48	0.27	110,110,110,110	0
55	MG	ZC	3470	1/1	0.48	0.09	89,89,89,89	0
55	MG	UC	1649	1/1	0.48	0.13	261,261,261,261	0
55	MG	UC	1817	1/1	0.49	0.15	156,156,156,156	0
55	MG	UC	1778	1/1	0.49	0.14	153,153,153,153	0
55	MG	VC	3038	1/1	0.49	0.24	115,115,115,115	0
55	MG	UC	1847	1/1	0.49	0.20	157,157,157,157	0
55	MG	ED	110	1/1	0.49	0.21	139,139,139,139	0
55	MG	ZC	3558	1/1	0.49	0.17	168,168,168,168	0
55	MG	ZC	3571	1/1	0.49	0.10	131,131,131,131	0
55	MG	ZC	3626	1/1	0.49	0.14	110,110,110,110	0
55	MG	YC	1841	1/1	0.49	0.23	185,185,185,185	0
55	MG	ZC	3651	1/1	0.49	0.15	104,104,104,104	0
55	MG	YC	1685	1/1	0.49	0.13	113,113,113,113	0
55	MG	FD	111	1/1	0.49	0.19	130,130,130,130	0
55	MG	YC	1837	1/1	0.50	0.21	145,145,145,145	0
55	MG	ZC	3758	1/1	0.50	0.28	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	WC	201	1/1	0.50	0.15	178,178,178,178	0
55	MG	AD	201	1/1	0.50	0.20	105,105,105,105	0
55	MG	AD	206	1/1	0.50	0.23	128,128,128,128	0
55	MG	YC	1665	1/1	0.50	0.31	115,115,115,115	0
55	MG	VC	3317	1/1	0.50	0.10	122,122,122,122	0
55	MG	ZC	3275	1/1	0.50	0.20	98,98,98,98	0
55	MG	ZC	3132	1/1	0.50	0.19	107,107,107,107	0
55	MG	VC	3010	1/1	0.50	0.23	121,121,121,121	0
55	MG	UC	1612	1/1	0.50	0.22	114,114,114,114	0
55	MG	YC	1602	1/1	0.50	0.14	157,157,157,157	0
55	MG	YC	1697	1/1	0.50	0.15	143,143,143,143	0
55	MG	YC	1746	1/1	0.50	0.18	106,106,106,106	0
55	MG	YC	1775	1/1	0.50	0.12	132,132,132,132	0
55	MG	FD	116	1/1	0.50	0.15	136,136,136,136	0
55	MG	UC	1828	1/1	0.51	0.16	199,199,199,199	0
55	MG	YC	1851	1/1	0.51	0.12	183,183,183,183	0
55	MG	VC	3144	1/1	0.51	0.20	124,124,124,124	0
55	MG	AD	226	1/1	0.51	0.12	157,157,157,157	0
55	MG	ZC	3162	1/1	0.51	0.24	89,89,89,89	0
55	MG	ZC	3728	1/1	0.51	0.08	94,94,94,94	0
55	MG	VC	3261	1/1	0.51	0.18	102,102,102,102	0
55	MG	YC	1631	1/1	0.51	0.24	96,96,96,96	0
55	MG	ZC	3593	1/1	0.51	0.19	97,97,97,97	0
55	MG	ZC	3314	1/1	0.51	0.12	97,97,97,97	0
55	MG	ZC	3021	1/1	0.51	0.18	88,88,88,88	0
55	MG	ZC	3036	1/1	0.51	0.31	95,95,95,95	0
55	MG	ZC	3038	1/1	0.51	0.14	110,110,110,110	0
55	MG	UC	1825	1/1	0.52	0.16	104,104,104,104	0
55	MG	VC	3358	1/1	0.52	0.20	120,120,120,120	0
55	MG	VC	3524	1/1	0.52	0.23	187,187,187,187	0
55	MG	YC	1802	1/1	0.52	0.10	134,134,134,134	0
55	MG	J	202	1/1	0.52	0.18	88,88,88,88	0
55	MG	ZC	3366	1/1	0.52	0.29	83,83,83,83	0
55	MG	ZC	3383	1/1	0.52	0.14	110,110,110,110	0
55	MG	UC	1638	1/1	0.52	0.23	109,109,109,109	0
55	MG	C	303	1/1	0.52	0.36	68,68,68,68	0
55	MG	VC	3345	1/1	0.52	0.15	111,111,111,111	0
55	MG	ZC	3630	1/1	0.52	0.09	99,99,99,99	0
55	MG	ZC	3317	1/1	0.52	0.25	126,126,126,126	0
55	MG	VC	3392	1/1	0.52	0.22	85,85,85,85	0
55	MG	VC	3198	1/1	0.53	0.33	88,88,88,88	0
55	MG	UC	1786	1/1	0.53	0.37	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	YC	1809	1/1	0.53	0.11	174,174,174,174	0
55	MG	ZC	3485	1/1	0.53	0.20	101,101,101,101	0
55	MG	VC	3013	1/1	0.53	0.32	86,86,86,86	0
55	MG	BD	107	1/1	0.53	0.13	249,249,249,249	0
55	MG	ZC	3330	1/1	0.53	0.25	93,93,93,93	0
55	MG	ZC	3739	1/1	0.53	0.10	115,115,115,115	0
55	MG	YC	1683	1/1	0.53	0.27	155,155,155,155	0
55	MG	YC	1704	1/1	0.53	0.26	85,85,85,85	0
55	MG	YC	1667	1/1	0.53	0.11	149,149,149,149	0
55	MG	ZC	3347	1/1	0.53	0.29	92,92,92,92	0
55	MG	YC	1785	1/1	0.53	0.31	106,106,106,106	0
55	MG	UC	1688	1/1	0.53	0.11	202,202,202,202	0
55	MG	ZC	3610	1/1	0.53	0.31	96,96,96,96	0
55	MG	VC	3156	1/1	0.53	0.41	94,94,94,94	0
55	MG	VC	3031	1/1	0.53	0.44	79,79,79,79	0
55	MG	AD	225	1/1	0.53	0.23	133,133,133,133	0
55	MG	UC	1640	1/1	0.53	0.11	136,136,136,136	0
55	MG	UC	1811	1/1	0.53	0.11	131,131,131,131	0
55	MG	FD	114	1/1	0.53	0.15	132,132,132,132	0
55	MG	ZC	3304	1/1	0.53	0.24	100,100,100,100	0
55	MG	UC	1698	1/1	0.54	0.16	114,114,114,114	0
55	MG	UC	1693	1/1	0.54	0.16	141,141,141,141	0
55	MG	ZC	3506	1/1	0.54	0.14	77,77,77,77	0
55	MG	ZC	3146	1/1	0.54	0.18	125,125,125,125	0
55	MG	ZC	3300	1/1	0.54	0.32	83,83,83,83	0
55	MG	UC	1605	1/1	0.54	0.26	132,132,132,132	0
55	MG	UC	1624	1/1	0.54	0.21	119,119,119,119	0
55	MG	WC	203	1/1	0.54	0.21	162,162,162,162	0
55	MG	YC	1842	1/1	0.54	0.12	140,140,140,140	0
55	MG	UC	1665	1/1	0.54	0.13	142,142,142,142	0
55	MG	YC	1624	1/1	0.54	0.15	138,138,138,138	0
55	MG	VC	3318	1/1	0.54	0.15	130,130,130,130	0
55	MG	VC	3201	1/1	0.54	0.09	139,139,139,139	0
55	MG	UC	1826	1/1	0.54	0.14	163,163,163,163	0
55	MG	YC	1681	1/1	0.55	0.15	193,193,193,193	0
55	MG	ZC	3082	1/1	0.55	0.26	105,105,105,105	0
55	MG	AD	203	1/1	0.55	0.13	137,137,137,137	0
55	MG	ED	103	1/1	0.55	0.09	183,183,183,183	0
55	MG	ZC	3180	1/1	0.55	0.36	86,86,86,86	0
55	MG	VC	3051	1/1	0.55	0.20	117,117,117,117	0
55	MG	ZC	3199	1/1	0.55	0.24	103,103,103,103	0
55	MG	VC	3459	1/1	0.55	0.18	146,146,146,146	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3664	1/1	0.55	0.19	142,142,142,142	0
55	MG	VC	3287	1/1	0.55	0.12	125,125,125,125	0
55	MG	UC	1608	1/1	0.55	0.18	127,127,127,127	0
55	MG	VC	3210	1/1	0.55	0.08	111,111,111,111	0
55	MG	ZC	3260	1/1	0.55	0.25	87,87,87,87	0
55	MG	VC	3578	1/1	0.55	0.28	72,72,72,72	0
55	MG	YC	1784	1/1	0.55	0.23	139,139,139,139	0
55	MG	YA	305	1/1	0.55	0.20	88,88,88,88	0
55	MG	VC	3419	1/1	0.55	0.14	146,146,146,146	0
55	MG	YC	1642	1/1	0.55	0.14	150,150,150,150	0
55	MG	VC	3046	1/1	0.56	0.48	101,101,101,101	0
55	MG	ZC	3551	1/1	0.56	0.12	83,83,83,83	0
55	MG	YC	1723	1/1	0.56	0.15	188,188,188,188	0
55	MG	VC	3219	1/1	0.56	0.17	128,128,128,128	0
55	MG	VC	3700	1/1	0.56	0.14	91,91,91,91	0
55	MG	YC	1806	1/1	0.56	0.07	145,145,145,145	0
55	MG	ZC	3460	1/1	0.56	0.13	117,117,117,117	0
55	MG	ZC	3343	1/1	0.56	0.21	111,111,111,111	0
55	MG	YC	1845	1/1	0.56	0.20	127,127,127,127	0
55	MG	YC	1781	1/1	0.56	0.10	146,146,146,146	0
55	MG	VC	3075	1/1	0.56	0.12	149,149,149,149	0
55	MG	YC	1672	1/1	0.56	0.45	137,137,137,137	0
55	MG	VC	3331	1/1	0.56	0.12	134,134,134,134	0
55	MG	VC	3131	1/1	0.56	0.20	142,142,142,142	0
55	MG	YC	1849	1/1	0.57	0.28	154,154,154,154	0
55	MG	AD	207	1/1	0.57	0.16	109,109,109,109	0
55	MG	YC	1616	1/1	0.57	0.27	93,93,93,93	0
55	MG	UC	1759	1/1	0.57	0.15	162,162,162,162	0
55	MG	WC	215	1/1	0.57	0.11	180,180,180,180	0
55	MG	VC	3386	1/1	0.57	0.20	134,134,134,134	0
55	MG	VC	3187	1/1	0.57	0.13	152,152,152,152	0
55	MG	YC	1635	1/1	0.57	0.26	150,150,150,150	0
55	MG	VC	3560	1/1	0.57	0.09	144,144,144,144	0
55	MG	VC	3008	1/1	0.57	0.27	92,92,92,92	0
55	MG	ZC	3134	1/1	0.57	0.29	74,74,74,74	0
55	MG	FC	201	1/1	0.58	0.32	181,181,181,181	0
55	MG	ZC	3521	1/1	0.58	0.25	109,109,109,109	0
55	MG	VC	3360	1/1	0.58	0.19	153,153,153,153	0
55	MG	YC	1643	1/1	0.58	0.19	112,112,112,112	0
55	MG	VC	3366	1/1	0.58	0.17	111,111,111,111	0
55	MG	ZC	3282	1/1	0.58	0.10	82,82,82,82	0
55	MG	ZC	3284	1/1	0.58	0.15	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
55	MG	YC	1647	1/1	0.58	0.23	161,161,161,161	0
55	MG	UC	1808	1/1	0.58	0.16	126,126,126,126	0
55	MG	VC	3492	1/1	0.58	0.12	113,113,113,113	0
55	MG	UC	1787	1/1	0.58	0.09	150,150,150,150	0
55	MG	VC	3609	1/1	0.58	0.07	134,134,134,134	0
55	MG	UC	1672	1/1	0.58	0.27	108,108,108,108	0
55	MG	ZC	3659	1/1	0.58	0.21	99,99,99,99	0
55	MG	VC	3651	1/1	0.58	0.26	94,94,94,94	0
55	MG	UC	1749	1/1	0.58	0.22	134,134,134,134	0
55	MG	VC	3332	1/1	0.58	0.12	121,121,121,121	0
55	MG	UC	1684	1/1	0.58	0.16	110,110,110,110	0
55	MG	VC	3559	1/1	0.58	0.18	97,97,97,97	0
55	MG	UC	1673	1/1	0.58	0.27	114,114,114,114	0
55	MG	ZC	3270	1/1	0.59	0.21	87,87,87,87	0
55	MG	ZC	3648	1/1	0.59	0.07	116,116,116,116	0
55	MG	ZC	3100	1/1	0.59	0.25	105,105,105,105	0
55	MG	VC	3099	1/1	0.59	0.16	171,171,171,171	0
55	MG	VC	3644	1/1	0.59	0.12	167,167,167,167	0
55	MG	ZC	3428	1/1	0.59	0.26	91,91,91,91	0
55	MG	BA	101	1/1	0.59	0.17	130,130,130,130	0
55	MG	VC	3396	1/1	0.59	0.24	112,112,112,112	0
55	MG	YC	1648	1/1	0.59	0.09	112,112,112,112	0
55	MG	VC	3677	1/1	0.59	0.20	111,111,111,111	0
55	MG	YC	1601	1/1	0.59	0.09	209,209,209,209	0
55	MG	VC	3678	1/1	0.59	0.14	76,76,76,76	0
55	MG	VC	3580	1/1	0.59	0.13	113,113,113,113	0
55	MG	YC	1758	1/1	0.59	0.15	127,127,127,127	0
55	MG	YC	1759	1/1	0.59	0.24	141,141,141,141	0
55	MG	VC	3402	1/1	0.59	0.29	100,100,100,100	0
55	MG	ZC	3052	1/1	0.59	0.48	89,89,89,89	0
55	MG	AD	202	1/1	0.59	0.26	125,125,125,125	0
55	MG	ZC	3204	1/1	0.59	0.21	115,115,115,115	0
55	MG	VC	3093	1/1	0.59	0.16	152,152,152,152	0
55	MG	VC	3451	1/1	0.59	0.31	90,90,90,90	0
55	MG	VC	3055	1/1	0.59	0.11	103,103,103,103	0
55	MG	FD	101	1/1	0.59	0.17	132,132,132,132	0
55	MG	VC	3012	1/1	0.59	0.35	107,107,107,107	0
55	MG	FD	104	1/1	0.59	0.09	167,167,167,167	0
55	MG	YC	1772	1/1	0.59	0.11	131,131,131,131	0
55	MG	UC	1758	1/1	0.59	0.10	120,120,120,120	0
55	MG	AD	217	1/1	0.59	0.12	106,106,106,106	0
55	MG	AD	223	1/1	0.59	0.13	151,151,151,151	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	UC	1611	1/1	0.60	0.20	113,113,113,113	0
55	MG	ZC	3708	1/1	0.60	0.19	74,74,74,74	0
55	MG	VC	3344	1/1	0.60	0.19	101,101,101,101	0
55	MG	VC	3171	1/1	0.60	0.13	115,115,115,115	0
55	MG	UC	1725	1/1	0.60	0.19	145,145,145,145	0
55	MG	YC	1791	1/1	0.60	0.08	170,170,170,170	0
55	MG	ZC	3490	1/1	0.60	0.15	100,100,100,100	0
55	MG	YC	1792	1/1	0.60	0.19	124,124,124,124	0
55	MG	VC	3238	1/1	0.60	0.26	92,92,92,92	0
55	MG	UC	1736	1/1	0.60	0.19	139,139,139,139	0
55	MG	ZC	3774	1/1	0.60	0.11	132,132,132,132	0
55	MG	UC	1838	1/1	0.60	0.11	150,150,150,150	0
55	MG	VC	3255	1/1	0.60	0.18	107,107,107,107	0
55	MG	VC	3199	1/1	0.60	0.13	103,103,103,103	0
55	MG	VC	3535	1/1	0.60	0.23	114,114,114,114	0
55	MG	ZC	3669	1/1	0.60	0.12	126,126,126,126	0
55	MG	ZC	3545	1/1	0.60	0.18	140,140,140,140	0
55	MG	UC	1728	1/1	0.61	0.15	119,119,119,119	0
55	MG	UC	1797	1/1	0.61	0.10	130,130,130,130	0
55	MG	VC	3125	1/1	0.61	0.23	122,122,122,122	0
55	MG	UC	1836	1/1	0.61	0.14	138,138,138,138	0
55	MG	YC	1829	1/1	0.61	0.12	146,146,146,146	0
55	MG	VC	3246	1/1	0.61	0.23	106,106,106,106	0
55	MG	YC	1716	1/1	0.61	0.12	249,249,249,249	0
55	MG	YC	1645	1/1	0.61	0.10	184,184,184,184	0
55	MG	VC	3382	1/1	0.61	0.15	104,104,104,104	0
55	MG	VC	3564	1/1	0.61	0.07	151,151,151,151	0
55	MG	ZC	3152	1/1	0.61	0.32	83,83,83,83	0
55	MG	YC	1844	1/1	0.61	0.19	133,133,133,133	0
55	MG	UC	1863	1/1	0.61	0.15	106,106,106,106	0
55	MG	VC	3705	1/1	0.61	0.18	100,100,100,100	0
55	MG	VC	3387	1/1	0.61	0.13	119,119,119,119	0
55	MG	DC	201	1/1	0.61	0.13	175,175,175,175	0
55	MG	ZC	3371	1/1	0.61	0.15	91,91,91,91	0
55	MG	ZC	3375	1/1	0.61	0.10	101,101,101,101	0
55	MG	YC	1735	1/1	0.61	0.18	159,159,159,159	0
55	MG	YC	1862	1/1	0.61	0.10	169,169,169,169	0
55	MG	VC	3336	1/1	0.61	0.14	119,119,119,119	0
55	MG	YC	1688	1/1	0.61	0.17	189,189,189,189	0
55	MG	ZC	3399	1/1	0.61	0.15	101,101,101,101	0
55	MG	YC	1629	1/1	0.61	0.17	152,152,152,152	0
55	MG	ZC	3239	1/1	0.61	0.22	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3037	1/1	0.61	0.25	59,59,59,59	0
55	MG	VC	3026	1/1	0.61	0.20	97,97,97,97	0
55	MG	VC	3256	1/1	0.61	0.16	101,101,101,101	0
55	MG	ZC	3269	1/1	0.61	0.13	112,112,112,112	0
55	MG	VC	3061	1/1	0.61	0.16	101,101,101,101	0
55	MG	FD	103	1/1	0.61	0.12	155,155,155,155	0
55	MG	VC	3062	1/1	0.61	0.24	91,91,91,91	0
55	MG	ZC	3070	1/1	0.61	0.25	91,91,91,91	0
55	MG	YC	1752	1/1	0.61	0.24	129,129,129,129	0
55	MG	YA	308	1/1	0.61	0.34	59,59,59,59	0
55	MG	ZC	3507	1/1	0.61	0.15	99,99,99,99	0
55	MG	ZC	3699	1/1	0.62	0.09	124,124,124,124	0
55	MG	ZC	3497	1/1	0.62	0.20	102,102,102,102	0
55	MG	VC	3423	1/1	0.62	0.17	136,136,136,136	0
55	MG	ZC	3050	1/1	0.62	0.28	82,82,82,82	0
55	MG	YC	1824	1/1	0.62	0.11	138,138,138,138	0
55	MG	ZC	3201	1/1	0.62	0.10	88,88,88,88	0
55	MG	ZC	3732	1/1	0.62	0.26	91,91,91,91	0
55	MG	UC	1714	1/1	0.62	0.22	154,154,154,154	0
55	MG	YC	1831	1/1	0.62	0.14	208,208,208,208	0
55	MG	UC	1627	1/1	0.62	0.10	149,149,149,149	0
55	MG	ZC	3076	1/1	0.62	0.24	105,105,105,105	0
55	MG	VC	3165	1/1	0.62	0.29	87,87,87,87	0
55	MG	YC	1706	1/1	0.62	0.15	122,122,122,122	0
55	MG	VC	3043	1/1	0.62	0.20	118,118,118,118	0
55	MG	YC	1747	1/1	0.62	0.16	319,319,319,319	0
55	MG	UC	1730	1/1	0.62	0.11	198,198,198,198	0
55	MG	UC	1663	1/1	0.62	0.15	140,140,140,140	0
55	MG	YC	1846	1/1	0.62	0.10	100,100,100,100	0
55	MG	YC	1660	1/1	0.62	0.15	171,171,171,171	0
55	MG	VC	3407	1/1	0.62	0.11	97,97,97,97	0
55	MG	VC	3149	1/1	0.62	0.17	115,115,115,115	0
55	MG	VC	3081	1/1	0.62	0.31	93,93,93,93	0
55	MG	VC	3662	1/1	0.62	0.26	85,85,85,85	0
55	MG	YC	1728	1/1	0.62	0.12	179,179,179,179	0
55	MG	VC	3009	1/1	0.62	0.28	70,70,70,70	0
55	MG	UC	1831	1/1	0.62	0.14	113,113,113,113	0
55	MG	VC	3579	1/1	0.62	0.16	105,105,105,105	0
55	MG	ZC	3467	1/1	0.63	0.14	114,114,114,114	0
55	MG	VC	3549	1/1	0.63	0.11	90,90,90,90	0
55	MG	YC	1699	1/1	0.63	0.18	97,97,97,97	0
55	MG	ZC	3184	1/1	0.63	0.21	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	UC	1816	1/1	0.63	0.17	126,126,126,126	0
55	MG	ZC	3069	1/1	0.63	0.27	85,85,85,85	0
55	MG	VC	3321	1/1	0.63	0.13	124,124,124,124	0
55	MG	VC	3039	1/1	0.63	0.17	135,135,135,135	0
55	MG	ZC	3217	1/1	0.63	0.27	86,86,86,86	0
55	MG	VC	3577	1/1	0.63	0.12	135,135,135,135	0
55	MG	PA	102	1/1	0.63	0.24	118,118,118,118	0
55	MG	UC	1705	1/1	0.63	0.14	110,110,110,110	0
55	MG	YC	1634	1/1	0.63	0.16	132,132,132,132	0
55	MG	ZC	3352	1/1	0.63	0.20	84,84,84,84	0
55	MG	UC	1747	1/1	0.63	0.20	95,95,95,95	0
55	MG	VC	3342	1/1	0.63	0.26	109,109,109,109	0
55	MG	YC	1687	1/1	0.63	0.14	113,113,113,113	0
55	MG	UC	1727	1/1	0.63	0.16	164,164,164,164	0
55	MG	ZC	3596	1/1	0.63	0.24	102,102,102,102	0
55	MG	YC	1863	1/1	0.63	0.11	128,128,128,128	0
55	MG	ZC	3271	1/1	0.63	0.19	99,99,99,99	0
55	MG	VC	3239	1/1	0.63	0.08	171,171,171,171	0
55	MG	VC	3048	1/1	0.63	0.33	89,89,89,89	0
55	MG	VC	3311	1/1	0.63	0.10	119,119,119,119	0
55	MG	YC	1669	1/1	0.63	0.36	154,154,154,154	0
55	MG	VC	3540	1/1	0.63	0.17	139,139,139,139	0
55	MG	VC	3139	1/1	0.63	0.31	96,96,96,96	0
55	MG	ZC	3303	1/1	0.63	0.26	101,101,101,101	0
55	MG	YC	1855	1/1	0.64	0.24	124,124,124,124	0
55	MG	UC	1861	1/1	0.64	0.26	113,113,113,113	0
55	MG	ZC	3705	1/1	0.64	0.19	225,225,225,225	0
55	MG	YC	1811	1/1	0.64	0.13	167,167,167,167	0
55	MG	VC	3092	1/1	0.64	0.20	123,123,123,123	0
55	MG	VC	3325	1/1	0.64	0.12	82,82,82,82	0
55	MG	YC	1871	1/1	0.64	0.09	153,153,153,153	0
55	MG	YC	1776	1/1	0.64	0.28	110,110,110,110	0
55	MG	YC	1778	1/1	0.64	0.10	238,238,238,238	0
55	MG	UC	1835	1/1	0.64	0.12	137,137,137,137	0
55	MG	VC	3004	1/1	0.64	0.12	101,101,101,101	0
55	MG	A	303	1/1	0.64	0.08	101,101,101,101	0
55	MG	UC	1685	1/1	0.64	0.15	103,103,103,103	0
55	MG	YC	1754	1/1	0.64	0.20	112,112,112,112	0
55	MG	VC	3575	1/1	0.64	0.24	94,94,94,94	0
55	MG	VC	3436	1/1	0.64	0.13	111,111,111,111	0
55	MG	ZC	3412	1/1	0.64	0.25	83,83,83,83	0
55	MG	ZC	3415	1/1	0.64	0.06	157,157,157,157	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3616	1/1	0.64	0.10	90,90,90,90	0
55	MG	ZC	3416	1/1	0.64	0.12	87,87,87,87	0
55	MG	QB	101	1/1	0.64	0.32	83,83,83,83	0
55	MG	UC	1798	1/1	0.64	0.18	168,168,168,168	0
55	MG	PA	101	1/1	0.64	0.16	120,120,120,120	0
55	MG	VC	3591	1/1	0.64	0.11	114,114,114,114	0
55	MG	VC	3444	1/1	0.64	0.17	113,113,113,113	0
55	MG	C	301	1/1	0.64	0.13	118,118,118,118	0
55	MG	ZC	3226	1/1	0.64	0.15	114,114,114,114	0
55	MG	ZC	3489	1/1	0.64	0.17	119,119,119,119	0
55	MG	VC	3639	1/1	0.65	0.24	116,116,116,116	0
55	MG	ZC	3575	1/1	0.65	0.08	105,105,105,105	0
55	MG	HA	201	1/1	0.65	0.09	147,147,147,147	0
55	MG	ZC	3117	1/1	0.65	0.18	87,87,87,87	0
55	MG	UC	1827	1/1	0.65	0.14	93,93,93,93	0
55	MG	ZC	3615	1/1	0.65	0.17	176,176,176,176	0
55	MG	VC	3658	1/1	0.65	0.13	138,138,138,138	0
55	MG	VC	3290	1/1	0.65	0.19	107,107,107,107	0
55	MG	ZC	3627	1/1	0.65	0.17	92,92,92,92	0
55	MG	YC	1859	1/1	0.65	0.16	125,125,125,125	0
55	MG	UC	1635	1/1	0.65	0.25	93,93,93,93	0
55	MG	VC	3398	1/1	0.65	0.11	128,128,128,128	0
55	MG	VC	3455	1/1	0.65	0.21	93,93,93,93	0
55	MG	VC	3315	1/1	0.65	0.16	119,119,119,119	0
55	MG	VC	3352	1/1	0.65	0.16	122,122,122,122	0
55	MG	VC	3153	1/1	0.65	0.12	106,106,106,106	0
55	MG	UC	1837	1/1	0.65	0.21	115,115,115,115	0
55	MG	ZC	3472	1/1	0.65	0.13	98,98,98,98	0
55	MG	ZC	3475	1/1	0.65	0.14	96,96,96,96	0
55	MG	VC	3707	1/1	0.65	0.21	106,106,106,106	0
55	MG	ZC	3187	1/1	0.65	0.20	103,103,103,103	0
55	MG	VC	3482	1/1	0.65	0.09	148,148,148,148	0
55	MG	VC	3067	1/1	0.65	0.15	135,135,135,135	0
55	MG	VC	3585	1/1	0.65	0.09	121,121,121,121	0
55	MG	ZC	3726	1/1	0.65	0.24	115,115,115,115	0
55	MG	VC	3160	1/1	0.65	0.20	108,108,108,108	0
55	MG	ZC	3210	1/1	0.65	0.23	108,108,108,108	0
55	MG	VC	3422	1/1	0.65	0.11	112,112,112,112	0
55	MG	VC	3497	1/1	0.65	0.36	95,95,95,95	0
55	MG	VC	3281	1/1	0.65	0.17	126,126,126,126	0
55	MG	VC	3326	1/1	0.65	0.19	152,152,152,152	0
55	MG	VC	3283	1/1	0.65	0.21	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3528	1/1	0.65	0.12	97,97,97,97	0
55	MG	UC	1670	1/1	0.65	0.22	115,115,115,115	0
55	MG	VC	3533	1/1	0.65	0.22	106,106,106,106	0
55	MG	ZC	3554	1/1	0.65	0.12	122,122,122,122	0
55	MG	FD	115	1/1	0.65	0.10	150,150,150,150	0
55	MG	ZC	3248	1/1	0.65	0.24	94,94,94,94	0
55	MG	VC	3557	1/1	0.66	0.07	155,155,155,155	0
55	MG	VC	3687	1/1	0.66	0.28	88,88,88,88	0
55	MG	UC	1610	1/1	0.66	0.27	110,110,110,110	0
55	MG	YC	1801	1/1	0.66	0.11	148,148,148,148	0
55	MG	ZC	3054	1/1	0.66	0.19	103,103,103,103	0
55	MG	UC	1733	1/1	0.66	0.15	129,129,129,129	0
55	MG	VC	3330	1/1	0.66	0.18	105,105,105,105	0
55	MG	VC	3024	1/1	0.66	0.35	91,91,91,91	0
55	MG	ZC	3487	1/1	0.66	0.16	83,83,83,83	0
55	MG	VC	3460	1/1	0.66	0.33	97,97,97,97	0
55	MG	ZC	3749	1/1	0.66	0.32	110,110,110,110	0
55	MG	ZC	3277	1/1	0.66	0.31	86,86,86,86	0
55	MG	VC	3364	1/1	0.66	0.07	124,124,124,124	0
55	MG	ZC	3629	1/1	0.66	0.19	91,91,91,91	0
55	MG	YC	1663	1/1	0.66	0.20	118,118,118,118	0
55	MG	VC	3193	1/1	0.66	0.27	80,80,80,80	0
55	MG	ZC	3646	1/1	0.66	0.14	127,127,127,127	0
55	MG	UC	1644	1/1	0.66	0.10	112,112,112,112	0
55	MG	ZC	3649	1/1	0.66	0.29	90,90,90,90	0
55	MG	YC	1783	1/1	0.66	0.22	102,102,102,102	0
55	MG	ZC	3656	1/1	0.66	0.12	105,105,105,105	0
55	MG	VC	3161	1/1	0.66	0.19	122,122,122,122	0
55	MG	WC	206	1/1	0.66	0.16	120,120,120,120	0
55	MG	VC	3543	1/1	0.66	0.07	107,107,107,107	0
55	MG	UC	1800	1/1	0.66	0.17	126,126,126,126	0
55	MG	ZC	3029	1/1	0.66	0.35	66,66,66,66	0
55	MG	ZC	3538	1/1	0.66	0.15	121,121,121,121	0
55	MG	VC	3221	1/1	0.66	0.15	94,94,94,94	0
55	MG	ZC	3505	1/1	0.67	0.32	68,68,68,68	0
55	MG	ZC	3279	1/1	0.67	0.15	121,121,121,121	0
55	MG	YC	1765	1/1	0.67	0.12	108,108,108,108	0
55	MG	VC	3626	1/1	0.67	0.16	110,110,110,110	0
55	MG	VC	3517	1/1	0.67	0.13	75,75,75,75	0
55	MG	ZC	3389	1/1	0.67	0.20	86,86,86,86	0
55	MG	UC	1613	1/1	0.67	0.40	115,115,115,115	0
55	MG	ZC	3529	1/1	0.67	0.06	124,124,124,124	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	VC	3035	1/1	0.67	0.29	76,76,76,76	0
55	MG	UC	1615	1/1	0.67	0.21	139,139,139,139	0
55	MG	YC	1740	1/1	0.67	0.18	146,146,146,146	0
55	MG	ZC	3307	1/1	0.67	0.22	117,117,117,117	0
55	MG	UC	1833	1/1	0.67	0.22	117,117,117,117	0
55	MG	YC	1777	1/1	0.67	0.22	97,97,97,97	0
55	MG	ZC	3439	1/1	0.67	0.18	91,91,91,91	0
55	MG	ZC	3577	1/1	0.67	0.10	126,126,126,126	0
55	MG	ZC	3115	1/1	0.67	0.27	98,98,98,98	0
55	MG	UC	1768	1/1	0.67	0.16	116,116,116,116	0
55	MG	VC	3586	1/1	0.67	0.14	99,99,99,99	0
55	MG	VC	3263	1/1	0.67	0.11	125,125,125,125	0
55	MG	ZC	3760	1/1	0.67	0.60	117,117,117,117	0
55	MG	VC	3271	1/1	0.67	0.23	101,101,101,101	0
55	MG	VC	3428	1/1	0.67	0.29	93,93,93,93	0
55	MG	VC	3501	1/1	0.67	0.07	122,122,122,122	0
55	MG	YC	1840	1/1	0.67	0.31	145,145,145,145	0
55	MG	VC	3401	1/1	0.67	0.16	114,114,114,114	0
55	MG	VC	3607	1/1	0.67	0.15	137,137,137,137	0
55	MG	ZC	3636	1/1	0.67	0.20	132,132,132,132	0
55	MG	ZC	3356	1/1	0.67	0.31	50,50,50,50	0
55	MG	VC	3562	1/1	0.67	0.09	110,110,110,110	0
55	MG	AD	214	1/1	0.67	0.18	103,103,103,103	0
55	MG	VC	3292	1/1	0.67	0.33	93,93,93,93	0
55	MG	VC	3612	1/1	0.67	0.18	90,90,90,90	0
55	MG	FA	201	1/1	0.68	0.28	98,98,98,98	0
55	MG	VC	3632	1/1	0.68	0.10	121,121,121,121	0
55	MG	AD	210	1/1	0.68	0.10	112,112,112,112	0
55	MG	VC	3633	1/1	0.68	0.08	115,115,115,115	0
55	MG	UC	1679	1/1	0.68	0.14	131,131,131,131	0
55	MG	ZC	3071	1/1	0.68	0.21	96,96,96,96	0
55	MG	ZC	3213	1/1	0.68	0.10	92,92,92,92	0
55	MG	AD	222	1/1	0.68	0.27	115,115,115,115	0
55	MG	ZC	3486	1/1	0.68	0.09	83,83,83,83	0
55	MG	VC	3483	1/1	0.68	0.13	181,181,181,181	0
55	MG	UC	1682	1/1	0.68	0.10	145,145,145,145	0
55	MG	UC	1703	1/1	0.68	0.10	136,136,136,136	0
55	MG	VC	3435	1/1	0.68	0.17	105,105,105,105	0
55	MG	UC	1856	1/1	0.68	0.09	102,102,102,102	0
55	MG	VC	3667	1/1	0.68	0.11	96,96,96,96	0
55	MG	EB	203	1/1	0.68	0.11	106,106,106,106	0
55	MG	UA	201	1/1	0.68	0.53	124,124,124,124	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3363	1/1	0.68	0.16	74,74,74,74	0
55	MG	WC	228	1/1	0.68	0.09	178,178,178,178	0
55	MG	VC	3505	1/1	0.68	0.09	116,116,116,116	0
55	MG	ZC	3128	1/1	0.68	0.23	87,87,87,87	0
55	MG	ZC	3382	1/1	0.68	0.09	80,80,80,80	0
55	MG	VC	3107	1/1	0.68	0.17	118,118,118,118	0
55	MG	UC	1639	1/1	0.68	0.22	128,128,128,128	0
55	MG	ZC	3536	1/1	0.68	0.08	116,116,116,116	0
55	MG	LA	203	1/1	0.68	0.11	99,99,99,99	0
55	MG	LA	204	1/1	0.68	0.24	123,123,123,123	0
55	MG	VC	3450	1/1	0.68	0.13	116,116,116,116	0
55	MG	ZC	3151	1/1	0.68	0.14	80,80,80,80	0
55	MG	ZC	3403	1/1	0.68	0.26	76,76,76,76	0
55	MG	ZC	3565	1/1	0.68	0.06	102,102,102,102	0
55	MG	ZC	3408	1/1	0.68	0.17	123,123,123,123	0
55	MG	UC	1630	1/1	0.68	0.13	146,146,146,146	0
55	MG	VC	3355	1/1	0.68	0.16	131,131,131,131	0
55	MG	UC	1633	1/1	0.68	0.17	125,125,125,125	0
55	MG	VC	3091	1/1	0.68	0.14	107,107,107,107	0
55	MG	VC	3362	1/1	0.68	0.23	88,88,88,88	0
55	MG	YC	1834	1/1	0.68	0.14	160,160,160,160	0
55	MG	VC	3166	1/1	0.68	0.20	80,80,80,80	0
55	MG	ZC	3620	1/1	0.68	0.11	86,86,86,86	0
55	MG	BC	203	1/1	0.69	0.20	115,115,115,115	0
55	MG	VC	3527	1/1	0.69	0.12	96,96,96,96	0
55	MG	ZC	3123	1/1	0.69	0.27	93,93,93,93	0
55	MG	VC	3180	1/1	0.69	0.10	126,126,126,126	0
55	MG	UC	1864	1/1	0.69	0.12	138,138,138,138	0
55	MG	ZC	3365	1/1	0.69	0.19	104,104,104,104	0
55	MG	ZC	3268	1/1	0.69	0.12	104,104,104,104	0
55	MG	ZC	3654	1/1	0.69	0.12	115,115,115,115	0
55	MG	UC	1734	1/1	0.69	0.14	153,153,153,153	0
55	MG	VC	3158	1/1	0.69	0.14	132,132,132,132	0
55	MG	UC	1645	1/1	0.69	0.23	116,116,116,116	0
55	MG	AD	229	1/1	0.69	0.16	106,106,106,106	0
55	MG	YC	1678	1/1	0.69	0.12	146,146,146,146	0
55	MG	VC	3369	1/1	0.69	0.15	81,81,81,81	0
55	MG	ZC	3385	1/1	0.69	0.10	103,103,103,103	0
55	MG	VC	3551	1/1	0.69	0.12	109,109,109,109	0
55	MG	ZC	3153	1/1	0.69	0.22	74,74,74,74	0
55	MG	VC	3097	1/1	0.69	0.30	79,79,79,79	0
55	MG	ZC	3393	1/1	0.69	0.20	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	UC	1720	1/1	0.69	0.10	125,125,125,125	0
55	MG	ZC	3400	1/1	0.69	0.08	106,106,106,106	0
55	MG	VC	3431	1/1	0.69	0.12	97,97,97,97	0
55	MG	ZC	3407	1/1	0.69	0.22	92,92,92,92	0
55	MG	VC	3488	1/1	0.69	0.07	92,92,92,92	0
55	MG	VC	3288	1/1	0.69	0.18	107,107,107,107	0
55	MG	UC	1738	1/1	0.69	0.33	118,118,118,118	0
55	MG	VC	3101	1/1	0.69	0.19	86,86,86,86	0
55	MG	UC	1704	1/1	0.69	0.10	128,128,128,128	0
55	MG	ZC	3750	1/1	0.69	0.13	89,89,89,89	0
55	MG	VC	3390	1/1	0.69	0.21	116,116,116,116	0
55	MG	ZC	3759	1/1	0.69	0.13	140,140,140,140	0
55	MG	ZC	3078	1/1	0.69	0.23	99,99,99,99	0
55	MG	ZC	3598	1/1	0.69	0.12	99,99,99,99	0
55	MG	YC	1623	1/1	0.69	0.18	104,104,104,104	0
55	MG	VC	3082	1/1	0.69	0.20	96,96,96,96	0
55	MG	VC	3170	1/1	0.69	0.27	89,89,89,89	0
55	MG	FD	110	1/1	0.69	0.20	148,148,148,148	0
55	MG	WA	301	1/1	0.69	0.34	78,78,78,78	0
55	MG	VC	3357	1/1	0.69	0.16	118,118,118,118	0
55	MG	WC	222	1/1	0.69	0.13	157,157,157,157	0
55	MG	VC	3685	1/1	0.69	0.33	81,81,81,81	0
55	MG	HD	101	1/1	0.69	0.19	156,156,156,156	0
55	MG	ZC	3764	1/1	0.70	0.07	105,105,105,105	0
55	MG	UC	1830	1/1	0.70	0.07	118,118,118,118	0
55	MG	WC	226	1/1	0.70	0.08	175,175,175,175	0
55	MG	UC	1767	1/1	0.70	0.11	134,134,134,134	0
55	MG	VC	3506	1/1	0.70	0.17	136,136,136,136	0
55	MG	ZC	3068	1/1	0.70	0.31	61,61,61,61	0
55	MG	VC	3604	1/1	0.70	0.11	125,125,125,125	0
55	MG	UC	1706	1/1	0.70	0.15	98,98,98,98	0
55	MG	YC	1774	1/1	0.70	0.19	143,143,143,143	0
55	MG	VC	3018	1/1	0.70	0.25	116,116,116,116	0
55	MG	ZC	3410	1/1	0.70	0.10	134,134,134,134	0
55	MG	ZC	3504	1/1	0.70	0.14	99,99,99,99	0
55	MG	VC	3047	1/1	0.70	0.26	78,78,78,78	0
55	MG	ZC	3362	1/1	0.70	0.15	88,88,88,88	0
55	MG	VC	3556	1/1	0.70	0.13	129,129,129,129	0
55	MG	ZC	3508	1/1	0.70	0.18	190,190,190,190	0
55	MG	VC	3137	1/1	0.70	0.17	127,127,127,127	0
55	MG	VC	3614	1/1	0.70	0.15	99,99,99,99	0
55	MG	VC	3021	1/1	0.70	0.29	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3456	1/1	0.70	0.14	77,77,77,77	0
55	MG	ZC	3240	1/1	0.70	0.19	63,63,63,63	0
55	MG	YC	1666	1/1	0.70	0.14	134,134,134,134	0
55	MG	UC	1750	1/1	0.70	0.20	100,100,100,100	0
55	MG	ZC	3176	1/1	0.70	0.26	77,77,77,77	0
55	MG	ZC	3112	1/1	0.70	0.26	87,87,87,87	0
55	MG	ZC	3537	1/1	0.71	0.10	105,105,105,105	0
55	MG	VC	3116	1/1	0.71	0.30	92,92,92,92	0
55	MG	VC	3641	1/1	0.71	0.08	114,114,114,114	0
55	MG	UC	1675	1/1	0.71	0.37	103,103,103,103	0
55	MG	VC	3412	1/1	0.71	0.19	98,98,98,98	0
55	MG	ZC	3555	1/1	0.71	0.08	131,131,131,131	0
55	MG	ZC	3396	1/1	0.71	0.13	114,114,114,114	0
55	MG	YC	1787	1/1	0.71	0.27	198,198,198,198	0
55	MG	UC	1691	1/1	0.71	0.10	103,103,103,103	0
55	MG	VC	3224	1/1	0.71	0.09	129,129,129,129	0
55	MG	YC	1638	1/1	0.71	0.21	135,135,135,135	0
55	MG	VC	3568	1/1	0.71	0.19	102,102,102,102	0
55	MG	ZC	3287	1/1	0.71	0.13	85,85,85,85	0
55	MG	AD	213	1/1	0.71	0.14	121,121,121,121	0
55	MG	UC	1692	1/1	0.71	0.32	94,94,94,94	0
55	MG	ZC	3602	1/1	0.71	0.13	95,95,95,95	0
55	MG	YC	1867	1/1	0.71	0.10	198,198,198,198	0
55	MG	ZC	3291	1/1	0.71	0.14	167,167,167,167	0
55	MG	VC	3669	1/1	0.71	0.13	133,133,133,133	0
55	MG	ZC	3427	1/1	0.71	0.11	95,95,95,95	0
55	MG	VC	3671	1/1	0.71	0.33	92,92,92,92	0
55	MG	ZC	3161	1/1	0.71	0.14	96,96,96,96	0
55	MG	VC	3085	1/1	0.71	0.17	77,77,77,77	0
55	MG	UC	1614	1/1	0.71	0.19	130,130,130,130	0
55	MG	AD	230	1/1	0.71	0.17	104,104,104,104	0
55	MG	ZC	3171	1/1	0.71	0.20	82,82,82,82	0
55	MG	ZC	3463	1/1	0.71	0.14	103,103,103,103	0
55	MG	UC	1606	1/1	0.71	0.30	104,104,104,104	0
55	MG	UC	1729	1/1	0.71	0.26	92,92,92,92	0
55	MG	UC	1844	1/1	0.71	0.12	117,117,117,117	0
55	MG	VC	3374	1/1	0.71	0.22	96,96,96,96	0
55	MG	ZC	3652	1/1	0.71	0.33	86,86,86,86	0
55	MG	ZC	3482	1/1	0.71	0.18	100,100,100,100	0
55	MG	VC	3510	1/1	0.71	0.13	77,77,77,77	0
55	MG	ZC	3342	1/1	0.71	0.30	78,78,78,78	0
55	MG	UC	1824	1/1	0.71	0.15	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	AC	302	1/1	0.71	0.22	164,164,164,164	0
55	MG	EB	202	1/1	0.71	0.25	89,89,89,89	0
55	MG	ZC	3674	1/1	0.71	0.09	74,74,74,74	0
55	MG	YC	1828	1/1	0.71	0.14	186,186,186,186	0
55	MG	UC	1852	1/1	0.71	0.17	207,207,207,207	0
55	MG	UC	1664	1/1	0.71	0.08	183,183,183,183	0
55	MG	UC	1601	1/1	0.71	0.24	163,163,163,163	0
55	MG	ZC	3220	1/1	0.71	0.13	73,73,73,73	0
55	MG	YC	1836	1/1	0.71	0.10	106,106,106,106	0
55	MG	VC	3389	1/1	0.71	0.15	83,83,83,83	0
55	MG	VC	3334	1/1	0.71	0.26	91,91,91,91	0
55	MG	VC	3103	1/1	0.71	0.24	85,85,85,85	0
55	MG	ZC	3510	1/1	0.71	0.14	84,84,84,84	0
55	MG	ZC	3372	1/1	0.71	0.12	132,132,132,132	0
55	MG	UC	1806	1/1	0.71	0.07	102,102,102,102	0
55	MG	VC	3027	1/1	0.71	0.26	82,82,82,82	0
55	MG	VC	3112	1/1	0.71	0.27	81,81,81,81	0
55	MG	VC	3555	1/1	0.71	0.24	82,82,82,82	0
55	MG	UC	1702	1/1	0.71	0.17	151,151,151,151	0
55	MG	ZC	3334	1/1	0.72	0.21	68,68,68,68	0
55	MG	VC	3373	1/1	0.72	0.08	101,101,101,101	0
55	MG	VC	3185	1/1	0.72	0.22	97,97,97,97	0
55	MG	ZC	3125	1/1	0.72	0.18	89,89,89,89	0
55	MG	YC	1722	1/1	0.72	0.24	131,131,131,131	0
55	MG	AD	228	1/1	0.72	0.07	91,91,91,91	0
55	MG	ZC	3002	1/1	0.72	0.21	82,82,82,82	0
55	MG	UC	1680	1/1	0.72	0.27	107,107,107,107	0
55	MG	WC	219	1/1	0.72	0.20	131,131,131,131	0
55	MG	VC	3304	1/1	0.72	0.20	91,91,91,91	0
55	MG	VC	3146	1/1	0.72	0.19	79,79,79,79	0
55	MG	VC	3561	1/1	0.72	0.19	92,92,92,92	0
55	MG	FB	203	1/1	0.72	0.14	99,99,99,99	0
55	MG	Y	101	1/1	0.72	0.20	124,124,124,124	0
55	MG	ZC	3154	1/1	0.72	0.28	95,95,95,95	0
55	MG	ZC	3273	1/1	0.72	0.14	72,72,72,72	0
55	MG	UC	1661	1/1	0.72	0.07	127,127,127,127	0
55	MG	VC	3274	1/1	0.72	0.16	100,100,100,100	0
55	MG	VC	3526	1/1	0.72	0.19	97,97,97,97	0
55	MG	UC	1784	1/1	0.72	0.09	138,138,138,138	0
55	MG	UC	1770	1/1	0.72	0.09	130,130,130,130	0
55	MG	VC	3485	1/1	0.72	0.09	107,107,107,107	0
55	MG	VC	3537	1/1	0.72	0.13	119,119,119,119	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3182	1/1	0.72	0.20	72,72,72,72	0
55	MG	ZC	3632	1/1	0.72	0.10	97,97,97,97	0
55	MG	YC	1748	1/1	0.72	0.12	160,160,160,160	0
55	MG	VC	3654	1/1	0.72	0.24	98,98,98,98	0
55	MG	VC	3232	1/1	0.72	0.12	164,164,164,164	0
55	MG	ZC	3398	1/1	0.72	0.25	93,93,93,93	0
55	MG	VC	3172	1/1	0.72	0.14	81,81,81,81	0
55	MG	YC	1674	1/1	0.72	0.09	138,138,138,138	0
55	MG	VC	3664	1/1	0.72	0.09	180,180,180,180	0
55	MG	AD	212	1/1	0.72	0.14	118,118,118,118	0
55	MG	UC	1602	1/1	0.72	0.11	124,124,124,124	0
55	MG	YC	1712	1/1	0.72	0.08	153,153,153,153	0
55	MG	YC	1861	1/1	0.72	0.16	136,136,136,136	0
55	MG	UC	1821	1/1	0.72	0.10	103,103,103,103	0
55	MG	HB	202	1/1	0.72	0.10	82,82,82,82	0
55	MG	ZC	3395	1/1	0.73	0.14	105,105,105,105	0
55	MG	UC	1795	1/1	0.73	0.12	97,97,97,97	0
55	MG	UC	1678	1/1	0.73	0.25	106,106,106,106	0
55	MG	H	201	1/1	0.73	0.22	117,117,117,117	0
55	MG	ZC	3099	1/1	0.73	0.25	72,72,72,72	0
55	MG	ZC	3512	1/1	0.73	0.18	84,84,84,84	0
55	MG	VC	3474	1/1	0.73	0.16	100,100,100,100	0
55	MG	VC	3478	1/1	0.73	0.10	94,94,94,94	0
55	MG	ZC	3524	1/1	0.73	0.15	94,94,94,94	0
55	MG	VC	3359	1/1	0.73	0.21	102,102,102,102	0
55	MG	YC	1761	1/1	0.73	0.11	163,163,163,163	0
55	MG	UC	1715	1/1	0.73	0.28	120,120,120,120	0
55	MG	VC	3433	1/1	0.73	0.15	114,114,114,114	0
55	MG	VC	3017	1/1	0.73	0.31	97,97,97,97	0
55	MG	UC	1762	1/1	0.73	0.19	105,105,105,105	0
55	MG	ZC	3541	1/1	0.73	0.07	249,249,249,249	0
55	MG	YC	1813	1/1	0.73	0.17	231,231,231,231	0
55	MG	YC	1767	1/1	0.73	0.16	116,116,116,116	0
55	MG	ZC	3552	1/1	0.73	0.12	190,190,190,190	0
55	MG	ZC	3245	1/1	0.73	0.16	71,71,71,71	0
55	MG	ZC	3440	1/1	0.73	0.23	95,95,95,95	0
55	MG	ZC	3007	1/1	0.73	0.13	72,72,72,72	0
55	MG	YC	1768	1/1	0.73	0.12	168,168,168,168	0
55	MG	VC	3539	1/1	0.73	0.13	109,109,109,109	0
55	MG	VC	3333	1/1	0.73	0.27	105,105,105,105	0
55	MG	ZC	3147	1/1	0.73	0.31	85,85,85,85	0
55	MG	YC	1661	1/1	0.73	0.12	142,142,142,142	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	YC	1731	1/1	0.73	0.08	170,170,170,170	0
55	MG	ZC	3473	1/1	0.73	0.17	87,87,87,87	0
55	MG	YC	1662	1/1	0.73	0.17	118,118,118,118	0
55	MG	UC	1751	1/1	0.73	0.16	129,129,129,129	0
55	MG	YC	1736	1/1	0.73	0.17	137,137,137,137	0
55	MG	ZC	3769	1/1	0.73	0.47	115,115,115,115	0
55	MG	VC	3592	1/1	0.73	0.07	95,95,95,95	0
55	MG	VC	3307	1/1	0.73	0.21	98,98,98,98	0
55	MG	VC	3404	1/1	0.73	0.09	161,161,161,161	0
55	MG	VC	3068	1/1	0.73	0.17	128,128,128,128	0
55	MG	AD	205	1/1	0.73	0.29	117,117,117,117	0
55	MG	UC	1753	1/1	0.73	0.08	94,94,94,94	0
55	MG	UC	1832	1/1	0.73	0.06	108,108,108,108	0
55	MG	UC	1652	1/1	0.73	0.08	140,140,140,140	0
55	MG	VC	3133	1/1	0.73	0.33	86,86,86,86	0
55	MG	YC	1673	1/1	0.73	0.10	119,119,119,119	0
55	MG	AD	211	1/1	0.73	0.17	105,105,105,105	0
55	MG	VC	3094	1/1	0.74	0.12	130,130,130,130	0
55	MG	VC	3270	1/1	0.74	0.07	81,81,81,81	0
55	MG	YC	1763	1/1	0.74	0.23	161,161,161,161	0
55	MG	VC	3425	1/1	0.74	0.14	95,95,95,95	0
55	MG	YC	1725	1/1	0.74	0.24	126,126,126,126	0
55	MG	ZC	3113	1/1	0.74	0.16	93,93,93,93	0
55	MG	UC	1794	1/1	0.74	0.07	105,105,105,105	0
55	MG	ZC	3325	1/1	0.74	0.26	93,93,93,93	0
55	MG	P	201	1/1	0.74	0.43	96,96,96,96	0
55	MG	YC	1868	1/1	0.74	0.11	179,179,179,179	0
55	MG	VC	3147	1/1	0.74	0.12	129,129,129,129	0
55	MG	ZC	3679	1/1	0.74	0.12	84,84,84,84	0
55	MG	ZC	3426	1/1	0.74	0.11	85,85,85,85	0
55	MG	UC	1761	1/1	0.74	0.17	113,113,113,113	0
55	MG	ZC	3237	1/1	0.74	0.11	104,104,104,104	0
55	MG	VC	3528	1/1	0.74	0.11	121,121,121,121	0
55	MG	YC	1733	1/1	0.74	0.12	69,69,69,69	0
55	MG	ZC	3446	1/1	0.74	0.15	121,121,121,121	0
55	MG	UC	1857	1/1	0.74	0.09	107,107,107,107	0
55	MG	VC	3029	1/1	0.74	0.16	93,93,93,93	0
55	MG	VC	3241	1/1	0.74	0.07	124,124,124,124	0
55	MG	ZC	3257	1/1	0.74	0.13	104,104,104,104	0
55	MG	VC	3638	1/1	0.74	0.21	112,112,112,112	0
55	MG	UC	1842	1/1	0.74	0.15	103,103,103,103	0
55	MG	VC	3583	1/1	0.74	0.17	130,130,130,130	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	UC	1660	1/1	0.74	0.24	76,76,76,76	0
55	MG	UC	1623	1/1	0.74	0.32	119,119,119,119	0
55	MG	ZC	3059	1/1	0.74	0.33	79,79,79,79	0
55	MG	ZC	3483	1/1	0.74	0.10	96,96,96,96	0
55	MG	VC	3653	1/1	0.74	0.10	116,116,116,116	0
55	MG	VC	3590	1/1	0.74	0.12	140,140,140,140	0
55	MG	VC	3291	1/1	0.74	0.16	102,102,102,102	0
55	MG	ZC	3766	1/1	0.74	0.12	82,82,82,82	0
55	MG	UC	1801	1/1	0.74	0.23	107,107,107,107	0
55	MG	ZC	3773	1/1	0.74	0.08	112,112,112,112	0
55	MG	ZC	3625	1/1	0.74	0.13	117,117,117,117	0
55	MG	YC	1611	1/1	0.74	0.19	110,110,110,110	0
55	MG	ZC	3072	1/1	0.74	0.27	91,91,91,91	0
55	MG	YC	1753	1/1	0.74	0.32	169,169,169,169	0
55	MG	UC	1719	1/1	0.74	0.17	89,89,89,89	0
55	MG	VC	3142	1/1	0.74	0.25	84,84,84,84	0
55	MG	ZC	3634	1/1	0.74	0.15	95,95,95,95	0
55	MG	WC	213	1/1	0.74	0.17	110,110,110,110	0
55	MG	ZC	3297	1/1	0.74	0.11	100,100,100,100	0
55	MG	VC	3309	1/1	0.74	0.20	94,94,94,94	0
55	MG	ZC	3120	1/1	0.75	0.25	78,78,78,78	0
55	MG	VC	3015	1/1	0.75	0.14	81,81,81,81	0
55	MG	UC	1745	1/1	0.75	0.23	106,106,106,106	0
55	MG	VC	3647	1/1	0.75	0.32	87,87,87,87	0
55	MG	YC	1707	1/1	0.75	0.14	131,131,131,131	0
55	MG	UC	1713	1/1	0.75	0.19	109,109,109,109	0
55	MG	ZC	3520	1/1	0.75	0.17	82,82,82,82	0
55	MG	VC	3104	1/1	0.75	0.09	142,142,142,142	0
55	MG	ZC	3242	1/1	0.75	0.18	90,90,90,90	0
55	MG	ZC	3417	1/1	0.75	0.11	86,86,86,86	0
55	MG	ZC	3660	1/1	0.75	0.16	111,111,111,111	0
55	MG	ZC	3662	1/1	0.75	0.13	103,103,103,103	0
55	MG	UC	1641	1/1	0.75	0.17	98,98,98,98	0
55	MG	UC	1853	1/1	0.75	0.17	108,108,108,108	0
55	MG	VC	3141	1/1	0.75	0.17	92,92,92,92	0
55	MG	ZC	3251	1/1	0.75	0.13	85,85,85,85	0
55	MG	ZC	3431	1/1	0.75	0.33	130,130,130,130	0
55	MG	ZC	3694	1/1	0.75	0.11	120,120,120,120	0
55	MG	ZC	3436	1/1	0.75	0.19	109,109,109,109	0
55	MG	UC	1755	1/1	0.75	0.14	129,129,129,129	0
55	MG	YC	1649	1/1	0.75	0.12	116,116,116,116	0
55	MG	ZC	3445	1/1	0.75	0.14	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3355	1/1	0.75	0.09	78,78,78,78	0
55	MG	VC	3257	1/1	0.75	0.12	101,101,101,101	0
55	MG	VC	3298	1/1	0.75	0.28	60,60,60,60	0
55	MG	ZC	3564	1/1	0.75	0.10	105,105,105,105	0
55	MG	ZC	3155	1/1	0.75	0.22	69,69,69,69	0
55	MG	YC	1853	1/1	0.75	0.16	137,137,137,137	0
55	MG	VC	3340	1/1	0.75	0.11	128,128,128,128	0
55	MG	ZC	3075	1/1	0.75	0.29	94,94,94,94	0
55	MG	ZC	3582	1/1	0.75	0.10	95,95,95,95	0
55	MG	UC	1764	1/1	0.75	0.09	151,151,151,151	0
55	MG	UC	1765	1/1	0.75	0.23	107,107,107,107	0
55	MG	ZC	3373	1/1	0.75	0.16	72,72,72,72	0
55	MG	VC	3471	1/1	0.75	0.10	142,142,142,142	0
55	MG	VC	3515	1/1	0.75	0.10	134,134,134,134	0
55	MG	VC	3563	1/1	0.75	0.19	89,89,89,89	0
55	MG	O	202	1/1	0.75	0.25	113,113,113,113	0
55	MG	UC	1662	1/1	0.75	0.16	92,92,92,92	0
55	MG	VC	3128	1/1	0.75	0.29	71,71,71,71	0
55	MG	ZC	3107	1/1	0.75	0.27	65,65,65,65	0
55	MG	VC	3576	1/1	0.75	0.09	122,122,122,122	0
55	MG	VC	3429	1/1	0.75	0.11	117,117,117,117	0
55	MG	VC	3634	1/1	0.75	0.12	115,115,115,115	0
55	MG	AD	204	1/1	0.75	0.25	110,110,110,110	0
55	MG	VC	3233	1/1	0.75	0.11	165,165,165,165	0
55	MG	ZC	3020	1/1	0.75	0.10	71,71,71,71	0
55	MG	VC	3277	1/1	0.75	0.21	75,75,75,75	0
55	MG	ZC	3263	1/1	0.76	0.18	76,76,76,76	0
55	MG	ZC	3264	1/1	0.76	0.63	121,121,121,121	0
55	MG	ZC	3141	1/1	0.76	0.19	100,100,100,100	0
55	MG	ZC	3380	1/1	0.76	0.13	108,108,108,108	0
55	MG	VC	3262	1/1	0.76	0.20	82,82,82,82	0
55	MG	ZC	3041	1/1	0.76	0.21	99,99,99,99	0
55	MG	VC	3635	1/1	0.76	0.14	108,108,108,108	0
55	MG	YC	1770	1/1	0.76	0.05	149,149,149,149	0
55	MG	VC	3148	1/1	0.76	0.07	137,137,137,137	0
55	MG	YC	1605	1/1	0.76	0.13	114,114,114,114	0
55	MG	YC	1606	1/1	0.76	0.19	131,131,131,131	0
55	MG	VC	3365	1/1	0.76	0.19	101,101,101,101	0
55	MG	VC	3400	1/1	0.76	0.15	120,120,120,120	0
55	MG	YC	1734	1/1	0.76	0.12	170,170,170,170	0
55	MG	VC	3438	1/1	0.76	0.24	112,112,112,112	0
55	MG	BA	102	1/1	0.76	0.21	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3513	1/1	0.76	0.10	86,86,86,86	0
55	MG	VC	3587	1/1	0.76	0.15	92,92,92,92	0
55	MG	UC	1843	1/1	0.76	0.12	156,156,156,156	0
55	MG	VC	3237	1/1	0.76	0.20	109,109,109,109	0
55	MG	ZC	3302	1/1	0.76	0.24	69,69,69,69	0
55	MG	YC	1618	1/1	0.76	0.06	132,132,132,132	0
55	MG	VC	3372	1/1	0.76	0.18	107,107,107,107	0
55	MG	ZC	3084	1/1	0.76	0.23	81,81,81,81	0
55	MG	UC	1772	1/1	0.76	0.12	85,85,85,85	0
55	MG	ZC	3090	1/1	0.76	0.20	70,70,70,70	0
55	MG	VC	3105	1/1	0.76	0.26	102,102,102,102	0
55	MG	ZC	3096	1/1	0.76	0.17	93,93,93,93	0
55	MG	VC	3598	1/1	0.76	0.17	84,84,84,84	0
55	MG	ZC	3547	1/1	0.76	0.09	126,126,126,126	0
55	MG	ZC	3715	1/1	0.76	0.13	112,112,112,112	0
55	MG	VC	3375	1/1	0.76	0.06	125,125,125,125	0
55	MG	YA	302	1/1	0.76	0.23	91,91,91,91	0
55	MG	ZC	3433	1/1	0.76	0.10	93,93,93,93	0
55	MG	ZC	3104	1/1	0.76	0.20	67,67,67,67	0
55	MG	VC	3458	1/1	0.76	0.15	80,80,80,80	0
55	MG	ZC	3561	1/1	0.76	0.07	103,103,103,103	0
55	MG	YC	1797	1/1	0.76	0.19	130,130,130,130	0
55	MG	UC	1628	1/1	0.76	0.12	107,107,107,107	0
55	MG	ZC	3746	1/1	0.76	0.15	81,81,81,81	0
55	MG	J	201	1/1	0.76	0.24	117,117,117,117	0
55	MG	VC	3470	1/1	0.76	0.29	83,83,83,83	0
55	MG	VC	3022	1/1	0.76	0.15	91,91,91,91	0
55	MG	WC	227	1/1	0.76	0.10	89,89,89,89	0
55	MG	ZC	3584	1/1	0.76	0.17	115,115,115,115	0
55	MG	FB	204	1/1	0.76	0.16	56,56,56,56	0
55	MG	VC	3569	1/1	0.76	0.14	116,116,116,116	0
55	MG	FD	109	1/1	0.76	0.12	145,145,145,145	0
55	MG	ZC	3124	1/1	0.76	0.28	77,77,77,77	0
55	MG	YC	1718	1/1	0.76	0.10	156,156,156,156	0
55	MG	RA	201	1/1	0.76	0.16	105,105,105,105	0
55	MG	VC	3631	1/1	0.76	0.19	82,82,82,82	0
55	MG	UC	1701	1/1	0.76	0.17	99,99,99,99	0
55	MG	V	101	1/1	0.76	0.35	90,90,90,90	0
55	MG	UC	1810	1/1	0.77	0.11	104,104,104,104	0
55	MG	ZC	3522	1/1	0.77	0.16	78,78,78,78	0
55	MG	ZC	3073	1/1	0.77	0.32	52,52,52,52	0
55	MG	YC	1796	1/1	0.77	0.20	166,166,166,166	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	WA	302	1/1	0.77	0.11	83,83,83,83	0
55	MG	UC	1789	1/1	0.77	0.11	88,88,88,88	0
55	MG	ZC	3358	1/1	0.77	0.17	91,91,91,91	0
55	MG	VC	3542	1/1	0.77	0.14	171,171,171,171	0
55	MG	VC	3424	1/1	0.77	0.22	95,95,95,95	0
55	MG	ZC	3443	1/1	0.77	0.19	76,76,76,76	0
55	MG	ZC	3543	1/1	0.77	0.08	80,80,80,80	0
55	MG	ZC	3085	1/1	0.77	0.19	112,112,112,112	0
55	MG	VC	3258	1/1	0.77	0.31	102,102,102,102	0
55	MG	AD	220	1/1	0.77	0.18	121,121,121,121	0
55	MG	ZC	3448	1/1	0.77	0.09	98,98,98,98	0
55	MG	VC	3115	1/1	0.77	0.29	91,91,91,91	0
55	MG	ZC	3681	1/1	0.77	0.13	89,89,89,89	0
55	MG	VC	3395	1/1	0.77	0.15	101,101,101,101	0
55	MG	YC	1810	1/1	0.77	0.13	126,126,126,126	0
55	MG	ZC	3701	1/1	0.77	0.11	90,90,90,90	0
55	MG	ZC	3556	1/1	0.77	0.13	89,89,89,89	0
55	MG	VC	3553	1/1	0.77	0.13	88,88,88,88	0
55	MG	YC	1694	1/1	0.77	0.08	179,179,179,179	0
55	MG	VC	3509	1/1	0.77	0.16	118,118,118,118	0
55	MG	ZC	3717	1/1	0.77	0.05	91,91,91,91	0
55	MG	VC	3078	1/1	0.77	0.14	141,141,141,141	0
55	MG	ZC	3198	1/1	0.77	0.12	116,116,116,116	0
55	MG	YC	1816	1/1	0.77	0.13	106,106,106,106	0
55	MG	VC	3118	1/1	0.77	0.23	78,78,78,78	0
55	MG	ZC	3386	1/1	0.77	0.06	79,79,79,79	0
55	MG	VC	3079	1/1	0.77	0.21	78,78,78,78	0
55	MG	VC	3652	1/1	0.77	0.13	125,125,125,125	0
55	MG	ZC	3212	1/1	0.77	0.24	77,77,77,77	0
55	MG	VC	3054	1/1	0.77	0.17	83,83,83,83	0
55	MG	ZC	3748	1/1	0.77	0.06	117,117,117,117	0
55	MG	YC	1830	1/1	0.77	0.12	105,105,105,105	0
55	MG	VC	3599	1/1	0.77	0.27	84,84,84,84	0
55	MG	YC	1833	1/1	0.77	0.12	97,97,97,97	0
55	MG	WA	305	1/1	0.77	0.08	86,86,86,86	0
55	MG	VC	3519	1/1	0.77	0.10	72,72,72,72	0
55	MG	VC	3042	1/1	0.77	0.32	74,74,74,74	0
55	MG	ZC	3762	1/1	0.77	0.17	85,85,85,85	0
55	MG	VC	3090	1/1	0.77	0.18	121,121,121,121	0
55	MG	ZC	3765	1/1	0.77	0.30	74,74,74,74	0
55	MG	YC	1786	1/1	0.77	0.20	85,85,85,85	0
55	MG	ZC	3767	1/1	0.77	0.12	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	VC	3242	1/1	0.77	0.23	94,94,94,94	0
55	MG	EA	302	1/1	0.77	0.09	134,134,134,134	0
55	MG	RC	101	1/1	0.77	0.25	162,162,162,162	0
55	MG	VC	3676	1/1	0.77	0.14	127,127,127,127	0
55	MG	VC	3033	1/1	0.77	0.28	78,78,78,78	0
55	MG	VC	3620	1/1	0.77	0.17	103,103,103,103	0
55	MG	ZC	3420	1/1	0.77	0.14	83,83,83,83	0
55	MG	UC	1620	1/1	0.78	0.16	158,158,158,158	0
55	MG	ZC	3106	1/1	0.78	0.22	77,77,77,77	0
55	MG	YC	1742	1/1	0.78	0.29	106,106,106,106	0
55	MG	VC	3053	1/1	0.78	0.27	79,79,79,79	0
55	MG	ZC	3553	1/1	0.78	0.15	151,151,151,151	0
55	MG	VC	3594	1/1	0.78	0.11	85,85,85,85	0
55	MG	ZC	3683	1/1	0.78	0.09	87,87,87,87	0
55	MG	ZC	3684	1/1	0.78	0.17	79,79,79,79	0
55	MG	ZC	3690	1/1	0.78	0.14	98,98,98,98	0
55	MG	AD	219	1/1	0.78	0.13	106,106,106,106	0
55	MG	ZC	3378	1/1	0.78	0.29	82,82,82,82	0
55	MG	VC	3439	1/1	0.78	0.15	77,77,77,77	0
55	MG	UC	1632	1/1	0.78	0.20	118,118,118,118	0
55	MG	VC	3297	1/1	0.78	0.15	117,117,117,117	0
55	MG	ZC	3290	1/1	0.78	0.21	102,102,102,102	0
55	MG	UC	1659	1/1	0.78	0.13	106,106,106,106	0
55	MG	VC	3060	1/1	0.78	0.27	71,71,71,71	0
55	MG	VC	3279	1/1	0.78	0.11	115,115,115,115	0
55	MG	C	302	1/1	0.78	0.08	108,108,108,108	0
55	MG	UC	1780	1/1	0.78	0.15	112,112,112,112	0
55	MG	VC	3572	1/1	0.78	0.09	131,131,131,131	0
55	MG	ZC	3305	1/1	0.78	0.23	71,71,71,71	0
55	MG	VC	3494	1/1	0.78	0.13	89,89,89,89	0
55	MG	VC	3339	1/1	0.78	0.12	102,102,102,102	0
55	MG	ZC	3599	1/1	0.78	0.22	71,71,71,71	0
55	MG	ZC	3313	1/1	0.78	0.09	128,128,128,128	0
55	MG	YC	1800	1/1	0.78	0.18	173,173,173,173	0
55	MG	VC	3119	1/1	0.78	0.22	92,92,92,92	0
55	MG	VC	3616	1/1	0.78	0.32	92,92,92,92	0
55	MG	VC	3673	1/1	0.78	0.17	82,82,82,82	0
55	MG	WC	217	1/1	0.78	0.10	155,155,155,155	0
55	MG	ZC	3148	1/1	0.78	0.38	56,56,56,56	0
55	MG	ZC	3246	1/1	0.78	0.14	105,105,105,105	0
55	MG	ZC	3340	1/1	0.78	0.15	91,91,91,91	0
55	MG	ED	111	1/1	0.78	0.11	170,170,170,170	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	VC	3152	1/1	0.78	0.17	132,132,132,132	0
55	MG	ZC	3514	1/1	0.78	0.23	106,106,106,106	0
55	MG	VC	3504	1/1	0.78	0.10	202,202,202,202	0
55	MG	YC	1860	1/1	0.78	0.14	104,104,104,104	0
55	MG	VC	3430	1/1	0.78	0.10	96,96,96,96	0
55	MG	VC	3189	1/1	0.78	0.11	60,60,60,60	0
55	MG	VC	3683	1/1	0.78	0.08	84,84,84,84	0
55	MG	VC	3550	1/1	0.78	0.16	127,127,127,127	0
55	MG	FD	107	1/1	0.78	0.11	123,123,123,123	0
55	MG	VC	3320	1/1	0.78	0.09	113,113,113,113	0
55	MG	ZC	3265	1/1	0.78	0.18	78,78,78,78	0
55	MG	ZC	3530	1/1	0.78	0.10	87,87,87,87	0
55	MG	UC	1619	1/1	0.78	0.09	127,127,127,127	0
55	MG	ZC	3169	1/1	0.78	0.41	78,78,78,78	0
55	MG	VC	3695	1/1	0.78	0.41	83,83,83,83	0
55	MG	VC	3351	1/1	0.78	0.16	84,84,84,84	0
55	MG	YC	1698	1/1	0.78	0.09	140,140,140,140	0
55	MG	VC	3260	1/1	0.79	0.21	77,77,77,77	0
55	MG	ZC	3222	1/1	0.79	0.10	69,69,69,69	0
55	MG	VC	3605	1/1	0.79	0.15	112,112,112,112	0
55	MG	VC	3028	1/1	0.79	0.23	76,76,76,76	0
55	MG	ZC	3228	1/1	0.79	0.12	89,89,89,89	0
55	MG	ZC	3116	1/1	0.79	0.18	80,80,80,80	0
55	MG	ZC	3608	1/1	0.79	0.08	134,134,134,134	0
55	MG	ZC	3354	1/1	0.79	0.08	109,109,109,109	0
55	MG	ZC	3612	1/1	0.79	0.08	85,85,85,85	0
55	MG	YC	1719	1/1	0.79	0.15	118,118,118,118	0
55	MG	UC	1851	1/1	0.79	0.16	113,113,113,113	0
55	MG	ZC	3478	1/1	0.79	0.12	88,88,88,88	0
55	MG	ZC	3016	1/1	0.79	0.29	71,71,71,71	0
55	MG	ZC	3121	1/1	0.79	0.22	89,89,89,89	0
55	MG	VC	3566	1/1	0.79	0.08	96,96,96,96	0
55	MG	VC	3175	1/1	0.79	0.23	81,81,81,81	0
55	MG	VC	3294	1/1	0.79	0.30	73,73,73,73	0
55	MG	ZC	3127	1/1	0.79	0.21	73,73,73,73	0
55	MG	VC	3570	1/1	0.79	0.08	105,105,105,105	0
55	MG	VC	3399	1/1	0.79	0.11	109,109,109,109	0
55	MG	VC	3573	1/1	0.79	0.09	143,143,143,143	0
55	MG	VC	3624	1/1	0.79	0.07	104,104,104,104	0
55	MG	ZC	3135	1/1	0.79	0.12	77,77,77,77	0
55	MG	VC	3204	1/1	0.79	0.22	80,80,80,80	0
55	MG	ZC	3051	1/1	0.79	0.11	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	UC	1711	1/1	0.79	0.11	150,150,150,150	0
55	MG	VC	3300	1/1	0.79	0.29	83,83,83,83	0
55	MG	VC	3338	1/1	0.79	0.17	80,80,80,80	0
55	MG	ZC	3150	1/1	0.79	0.17	81,81,81,81	0
55	MG	UC	1814	1/1	0.79	0.08	107,107,107,107	0
55	MG	OB	201	1/1	0.79	0.09	94,94,94,94	0
55	MG	ZC	3390	1/1	0.79	0.09	105,105,105,105	0
55	MG	YC	1780	1/1	0.79	0.12	142,142,142,142	0
55	MG	VC	3581	1/1	0.79	0.21	90,90,90,90	0
55	MG	UC	1855	1/1	0.79	0.13	121,121,121,121	0
55	MG	ZC	3157	1/1	0.79	0.30	51,51,51,51	0
55	MG	VC	3343	1/1	0.79	0.08	115,115,115,115	0
55	MG	VC	3496	1/1	0.79	0.13	140,140,140,140	0
55	MG	YC	1614	1/1	0.79	0.28	90,90,90,90	0
55	MG	VC	3448	1/1	0.79	0.28	100,100,100,100	0
55	MG	ZC	3685	1/1	0.79	0.08	94,94,94,94	0
55	MG	VC	3278	1/1	0.79	0.12	117,117,117,117	0
55	MG	ZC	3292	1/1	0.79	0.13	64,64,64,64	0
55	MG	ZC	3696	1/1	0.79	0.10	145,145,145,145	0
55	MG	YC	1847	1/1	0.79	0.20	122,122,122,122	0
55	MG	YC	1848	1/1	0.79	0.10	153,153,153,153	0
55	MG	YC	1744	1/1	0.79	0.15	121,121,121,121	0
55	MG	UC	1650	1/1	0.79	0.17	111,111,111,111	0
55	MG	VC	3452	1/1	0.79	0.21	83,83,83,83	0
55	MG	ZC	3711	1/1	0.79	0.12	309,309,309,309	0
55	MG	ED	108	1/1	0.79	0.08	161,161,161,161	0
55	MG	ZC	3713	1/1	0.79	0.08	94,94,94,94	0
55	MG	ZC	3087	1/1	0.79	0.22	83,83,83,83	0
55	MG	ZC	3189	1/1	0.79	0.18	58,58,58,58	0
55	MG	UC	1637	1/1	0.79	0.20	99,99,99,99	0
55	MG	ZC	3723	1/1	0.79	0.11	85,85,85,85	0
55	MG	VC	3110	1/1	0.79	0.34	80,80,80,80	0
55	MG	YC	1857	1/1	0.79	0.18	111,111,111,111	0
55	MG	YC	1750	1/1	0.79	0.20	138,138,138,138	0
55	MG	UC	1621	1/1	0.79	0.13	120,120,120,120	0
55	MG	VC	3113	1/1	0.79	0.17	100,100,100,100	0
55	MG	ZC	3211	1/1	0.79	0.34	75,75,75,75	0
55	MG	VC	3663	1/1	0.79	0.10	124,124,124,124	0
55	MG	ZC	3744	1/1	0.79	0.08	99,99,99,99	0
55	MG	VC	3465	1/1	0.79	0.12	95,95,95,95	0
55	MG	ZC	3747	1/1	0.79	0.22	101,101,101,101	0
55	MG	ZC	3568	1/1	0.79	0.21	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3339	1/1	0.79	0.12	90,90,90,90	0
55	MG	VC	3602	1/1	0.79	0.16	113,113,113,113	0
55	MG	UC	1820	1/1	0.79	0.09	114,114,114,114	0
55	MG	ZC	3449	1/1	0.79	0.05	92,92,92,92	0
55	MG	YC	1626	1/1	0.80	0.23	103,103,103,103	0
55	MG	UC	1781	1/1	0.80	0.16	116,116,116,116	0
55	MG	VC	3367	1/1	0.80	0.09	125,125,125,125	0
55	MG	ZC	3655	1/1	0.80	0.18	70,70,70,70	0
55	MG	ZC	3249	1/1	0.80	0.11	105,105,105,105	0
55	MG	ZC	3532	1/1	0.80	0.10	106,106,106,106	0
55	MG	VC	3162	1/1	0.80	0.21	97,97,97,97	0
55	MG	WC	223	1/1	0.80	0.06	172,172,172,172	0
55	MG	UC	1793	1/1	0.80	0.25	129,129,129,129	0
55	MG	UC	1671	1/1	0.80	0.11	138,138,138,138	0
55	MG	VC	3295	1/1	0.80	0.16	104,104,104,104	0
55	MG	VC	3191	1/1	0.80	0.26	107,107,107,107	0
55	MG	VC	3622	1/1	0.80	0.16	102,102,102,102	0
55	MG	ZC	3548	1/1	0.80	0.09	86,86,86,86	0
55	MG	ZC	3267	1/1	0.80	0.10	71,71,71,71	0
55	MG	UC	1707	1/1	0.80	0.28	116,116,116,116	0
55	MG	ZC	3451	1/1	0.80	0.11	85,85,85,85	0
55	MG	ZC	3165	1/1	0.80	0.26	85,85,85,85	0
55	MG	VC	3268	1/1	0.80	0.23	96,96,96,96	0
55	MG	ZC	3692	1/1	0.80	0.06	106,106,106,106	0
55	MG	ZC	3458	1/1	0.80	0.07	98,98,98,98	0
55	MG	VC	3379	1/1	0.80	0.18	88,88,88,88	0
55	MG	ZC	3697	1/1	0.80	0.06	71,71,71,71	0
55	MG	ZC	3559	1/1	0.80	0.17	111,111,111,111	0
55	MG	YA	301	1/1	0.80	0.30	64,64,64,64	0
55	MG	ZC	3001	1/1	0.80	0.38	64,64,64,64	0
55	MG	YC	1817	1/1	0.80	0.15	143,143,143,143	0
55	MG	VC	3235	1/1	0.80	0.24	109,109,109,109	0
55	MG	VC	3308	1/1	0.80	0.26	64,64,64,64	0
55	MG	ZC	3574	1/1	0.80	0.34	61,61,61,61	0
55	MG	VC	3167	1/1	0.80	0.08	126,126,126,126	0
55	MG	ZC	3190	1/1	0.80	0.27	62,62,62,62	0
55	MG	VC	3432	1/1	0.80	0.13	112,112,112,112	0
55	MG	ZC	3025	1/1	0.80	0.50	95,95,95,95	0
55	MG	VC	3083	1/1	0.80	0.40	65,65,65,65	0
55	MG	VC	3016	1/1	0.80	0.33	95,95,95,95	0
55	MG	UC	1813	1/1	0.80	0.07	186,186,186,186	0
55	MG	UC	1686	1/1	0.80	0.10	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3601	1/1	0.80	0.07	104,104,104,104	0
55	MG	VC	3394	1/1	0.80	0.34	92,92,92,92	0
55	MG	ZC	3044	1/1	0.80	0.17	70,70,70,70	0
55	MG	VC	3356	1/1	0.80	0.10	102,102,102,102	0
55	MG	VC	3493	1/1	0.80	0.20	84,84,84,84	0
55	MG	H	202	1/1	0.80	0.13	89,89,89,89	0
55	MG	VC	3495	1/1	0.80	0.20	106,106,106,106	0
55	MG	UC	1636	1/1	0.80	0.21	111,111,111,111	0
55	MG	VC	3442	1/1	0.80	0.15	105,105,105,105	0
55	MG	ZC	3755	1/1	0.80	0.09	91,91,91,91	0
55	MG	UC	1723	1/1	0.80	0.08	101,101,101,101	0
55	MG	ZC	3316	1/1	0.80	0.31	68,68,68,68	0
55	MG	VC	3323	1/1	0.80	0.12	79,79,79,79	0
55	MG	ZC	3137	1/1	0.80	0.23	83,83,83,83	0
55	MG	YC	1701	1/1	0.80	0.07	137,137,137,137	0
55	MG	ZC	3238	1/1	0.80	0.49	74,74,74,74	0
55	MG	YC	1702	1/1	0.80	0.13	164,164,164,164	0
55	MG	VC	3251	1/1	0.80	0.19	72,72,72,72	0
55	MG	UC	1818	1/1	0.80	0.17	111,111,111,111	0
55	MG	FD	112	1/1	0.80	0.07	170,170,170,170	0
55	MG	FD	113	1/1	0.80	0.13	145,145,145,145	0
55	MG	ZC	3647	1/1	0.80	0.10	93,93,93,93	0
55	MG	ZC	3772	1/1	0.80	0.10	96,96,96,96	0
55	MG	IB	201	1/1	0.80	0.39	140,140,140,140	0
55	MG	ZC	3423	1/1	0.80	0.17	95,95,95,95	0
55	MG	VC	3155	1/1	0.81	0.21	102,102,102,102	0
55	MG	ZC	3254	1/1	0.81	0.20	76,76,76,76	0
55	MG	YC	1788	1/1	0.81	0.14	126,126,126,126	0
55	MG	ZC	3186	1/1	0.81	0.26	90,90,90,90	0
55	MG	ZC	3461	1/1	0.81	0.19	111,111,111,111	0
55	MG	ZC	3391	1/1	0.81	0.07	105,105,105,105	0
55	MG	VC	3378	1/1	0.81	0.10	125,125,125,125	0
55	MG	ZC	3733	1/1	0.81	0.10	127,127,127,127	0
55	MG	ZC	3544	1/1	0.81	0.37	76,76,76,76	0
55	MG	ZC	3130	1/1	0.81	0.20	84,84,84,84	0
55	MG	VC	3182	1/1	0.81	0.26	73,73,73,73	0
55	MG	ZC	3742	1/1	0.81	0.17	72,72,72,72	0
55	MG	ZC	3337	1/1	0.81	0.14	78,78,78,78	0
55	MG	YC	1603	1/1	0.81	0.08	126,126,126,126	0
55	MG	VC	3405	1/1	0.81	0.18	94,94,94,94	0
55	MG	VC	3406	1/1	0.81	0.13	115,115,115,115	0
55	MG	VC	3502	1/1	0.81	0.15	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3405	1/1	0.81	0.38	81,81,81,81	0
55	MG	UC	1700	1/1	0.81	0.17	114,114,114,114	0
55	MG	VC	3070	1/1	0.81	0.26	68,68,68,68	0
55	MG	VC	3211	1/1	0.81	0.12	92,92,92,92	0
55	MG	YC	1612	1/1	0.81	0.22	110,110,110,110	0
55	MG	VC	3341	1/1	0.81	0.07	131,131,131,131	0
55	MG	VC	3195	1/1	0.81	0.23	94,94,94,94	0
55	MG	VC	3249	1/1	0.81	0.27	87,87,87,87	0
55	MG	ED	107	1/1	0.81	0.13	128,128,128,128	0
55	MG	ZC	3671	1/1	0.81	0.08	155,155,155,155	0
55	MG	ZC	3501	1/1	0.81	0.15	86,86,86,86	0
55	MG	YC	1705	1/1	0.81	0.21	99,99,99,99	0
55	MG	VC	3696	1/1	0.81	0.10	126,126,126,126	0
55	MG	ZC	3771	1/1	0.81	0.42	119,119,119,119	0
55	MG	UC	1656	1/1	0.81	0.15	90,90,90,90	0
55	MG	YC	1852	1/1	0.81	0.15	111,111,111,111	0
55	MG	VC	3252	1/1	0.81	0.19	88,88,88,88	0
55	MG	ZC	3586	1/1	0.81	0.19	67,67,67,67	0
55	MG	ZC	3232	1/1	0.81	0.36	73,73,73,73	0
55	MG	UC	1687	1/1	0.81	0.24	107,107,107,107	0
55	MG	VC	3348	1/1	0.81	0.16	107,107,107,107	0
55	MG	YC	1621	1/1	0.81	0.13	178,178,178,178	0
55	MG	ZC	3438	1/1	0.81	0.09	85,85,85,85	0
55	MG	VC	3310	1/1	0.81	0.10	132,132,132,132	0
55	MG	ZC	3700	1/1	0.81	0.06	179,179,179,179	0
55	MG	VC	3618	1/1	0.81	0.15	136,136,136,136	0
55	MG	UC	1742	1/1	0.81	0.11	92,92,92,92	0
55	MG	ZC	3170	1/1	0.81	0.16	82,82,82,82	0
55	MG	VC	3621	1/1	0.81	0.17	101,101,101,101	0
55	MG	VC	3353	1/1	0.81	0.10	72,72,72,72	0
55	MG	ZC	3178	1/1	0.81	0.14	103,103,103,103	0
55	MG	VC	3314	1/1	0.81	0.16	93,93,93,93	0
55	MG	VC	3074	1/1	0.82	0.13	104,104,104,104	0
55	MG	ZC	3164	1/1	0.82	0.18	73,73,73,73	0
55	MG	UC	1839	1/1	0.82	0.14	130,130,130,130	0
55	MG	VC	3385	1/1	0.82	0.12	113,113,113,113	0
55	MG	VC	3084	1/1	0.82	0.26	90,90,90,90	0
55	MG	VC	3030	1/1	0.82	0.20	90,90,90,90	0
55	MG	ZC	3308	1/1	0.82	0.17	78,78,78,78	0
55	MG	ZC	3172	1/1	0.82	0.18	68,68,68,68	0
55	MG	ZC	3312	1/1	0.82	0.15	64,64,64,64	0
55	MG	AD	224	1/1	0.82	0.07	155,155,155,155	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3725	1/1	0.82	0.10	88,88,88,88	0
55	MG	VC	3301	1/1	0.82	0.16	134,134,134,134	0
55	MG	VC	3691	1/1	0.82	0.24	95,95,95,95	0
55	MG	VC	3346	1/1	0.82	0.17	94,94,94,94	0
55	MG	VC	3650	1/1	0.82	0.13	112,112,112,112	0
55	MG	ZC	3734	1/1	0.82	0.11	135,135,135,135	0
55	MG	ZC	3468	1/1	0.82	0.08	74,74,74,74	0
55	MG	VC	3206	1/1	0.82	0.14	65,65,65,65	0
55	MG	ZC	3322	1/1	0.82	0.20	94,94,94,94	0
55	MG	VC	3284	1/1	0.82	0.27	113,113,113,113	0
55	MG	VC	3371	1/1	0.82	0.22	93,93,93,93	0
55	MG	YC	1798	1/1	0.82	0.13	134,134,134,134	0
55	MG	VC	3484	1/1	0.82	0.11	136,136,136,136	0
55	MG	ZC	3335	1/1	0.82	0.17	87,87,87,87	0
55	MG	ZC	3008	1/1	0.82	0.04	104,104,104,104	0
55	MG	ZC	3009	1/1	0.82	0.17	72,72,72,72	0
55	MG	VC	3177	1/1	0.82	0.20	94,94,94,94	0
55	MG	VC	3661	1/1	0.82	0.20	73,73,73,73	0
55	MG	YC	1803	1/1	0.82	0.12	137,137,137,137	0
55	MG	ZC	3661	1/1	0.82	0.14	80,80,80,80	0
55	MG	ZC	3143	1/1	0.82	0.20	84,84,84,84	0
55	MG	ZC	3091	1/1	0.82	0.20	81,81,81,81	0
55	MG	ZC	3567	1/1	0.82	0.14	86,86,86,86	0
55	MG	ZC	3093	1/1	0.82	0.25	76,76,76,76	0
55	MG	ED	112	1/1	0.82	0.11	156,156,156,156	0
55	MG	ZC	3673	1/1	0.82	0.15	95,95,95,95	0
55	MG	VC	3449	1/1	0.82	0.15	90,90,90,90	0
55	MG	VC	3086	1/1	0.82	0.07	116,116,116,116	0
55	MG	UC	1823	1/1	0.82	0.10	162,162,162,162	0
55	MG	VC	3665	1/1	0.82	0.10	78,78,78,78	0
55	MG	ZC	3580	1/1	0.82	0.09	143,143,143,143	0
55	MG	UC	1791	1/1	0.82	0.07	119,119,119,119	0
55	MG	VC	3453	1/1	0.82	0.23	77,77,77,77	0
55	MG	ZC	3688	1/1	0.82	0.10	90,90,90,90	0
55	MG	VC	3236	1/1	0.82	0.11	93,93,93,93	0
55	MG	ZC	3591	1/1	0.82	0.12	71,71,71,71	0
55	MG	ZC	3049	1/1	0.82	0.12	102,102,102,102	0
55	MG	VC	3253	1/1	0.82	0.13	117,117,117,117	0
55	MG	VC	3275	1/1	0.82	0.16	91,91,91,91	0
55	MG	ZC	3296	1/1	0.82	0.20	95,95,95,95	0
55	MG	ZC	3518	1/1	0.82	0.07	96,96,96,96	0
55	MG	UC	1822	1/1	0.82	0.13	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3703	1/1	0.82	0.19	90,90,90,90	0
55	MG	ZC	3299	1/1	0.82	0.19	90,90,90,90	0
55	MG	VC	3213	1/1	0.83	0.14	79,79,79,79	0
55	MG	ZC	3645	1/1	0.83	0.07	98,98,98,98	0
55	MG	VC	3675	1/1	0.83	0.23	110,110,110,110	0
55	MG	VC	3259	1/1	0.83	0.13	113,113,113,113	0
55	MG	ZC	3730	1/1	0.83	0.25	71,71,71,71	0
55	MG	ZC	3731	1/1	0.83	0.17	90,90,90,90	0
55	MG	VC	3154	1/1	0.83	0.19	81,81,81,81	0
55	MG	ZC	3010	1/1	0.83	0.20	59,59,59,59	0
55	MG	UC	1804	1/1	0.83	0.20	93,93,93,93	0
55	MG	VC	3681	1/1	0.83	0.33	89,89,89,89	0
55	MG	VC	3637	1/1	0.83	0.20	105,105,105,105	0
55	MG	VC	3217	1/1	0.83	0.18	99,99,99,99	0
55	MG	HB	201	1/1	0.83	0.17	65,65,65,65	0
55	MG	VC	3461	1/1	0.83	0.18	93,93,93,93	0
55	MG	VC	3045	1/1	0.83	0.17	94,94,94,94	0
55	MG	VC	3466	1/1	0.83	0.15	104,104,104,104	0
55	MG	VC	3649	1/1	0.83	0.11	96,96,96,96	0
55	MG	ZC	3221	1/1	0.83	0.17	78,78,78,78	0
55	MG	ZC	3351	1/1	0.83	0.09	90,90,90,90	0
55	MG	ZC	3665	1/1	0.83	0.10	70,70,70,70	0
55	MG	UC	1777	1/1	0.83	0.07	107,107,107,107	0
55	MG	VC	3361	1/1	0.83	0.20	84,84,84,84	0
55	MG	VC	3383	1/1	0.83	0.09	80,80,80,80	0
55	MG	VC	3611	1/1	0.83	0.12	111,111,111,111	0
55	MG	ZC	3229	1/1	0.83	0.10	70,70,70,70	0
55	MG	VC	3200	1/1	0.83	0.27	70,70,70,70	0
55	MG	UC	1860	1/1	0.83	0.17	97,97,97,97	0
55	MG	ZC	3235	1/1	0.83	0.17	72,72,72,72	0
55	MG	VC	3230	1/1	0.83	0.08	134,134,134,134	0
55	MG	VC	3584	1/1	0.83	0.24	82,82,82,82	0
55	MG	ZC	3301	1/1	0.83	0.18	89,89,89,89	0
55	MG	ZC	3118	1/1	0.83	0.14	66,66,66,66	0
55	MG	ZC	3442	1/1	0.83	0.19	75,75,75,75	0
55	MG	UC	1757	1/1	0.83	0.15	127,127,127,127	0
55	MG	ZC	3374	1/1	0.83	0.29	88,88,88,88	0
55	MG	VC	3140	1/1	0.83	0.20	98,98,98,98	0
55	MG	A	304	1/1	0.83	0.14	87,87,87,87	0
55	MG	ZC	3613	1/1	0.83	0.39	90,90,90,90	0
55	MG	VC	3192	1/1	0.83	0.21	114,114,114,114	0
55	MG	VC	3329	1/1	0.83	0.17	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3454	1/1	0.83	0.12	83,83,83,83	0
55	MG	VC	3427	1/1	0.83	0.30	75,75,75,75	0
55	MG	YC	1608	1/1	0.83	0.11	148,148,148,148	0
55	MG	WC	211	1/1	0.83	0.16	110,110,110,110	0
55	MG	YC	1751	1/1	0.83	0.10	92,92,92,92	0
55	MG	ZC	3714	1/1	0.83	0.17	83,83,83,83	0
55	MG	ZC	3255	1/1	0.83	0.26	77,77,77,77	0
55	MG	ZC	3131	1/1	0.83	0.18	93,93,93,93	0
55	MG	UC	1690	1/1	0.83	0.09	133,133,133,133	0
55	MG	ZC	3321	1/1	0.83	0.18	67,67,67,67	0
55	MG	YC	1832	1/1	0.84	0.14	135,135,135,135	0
55	MG	ZC	3691	1/1	0.84	0.09	65,65,65,65	0
55	MG	VC	3354	1/1	0.84	0.13	105,105,105,105	0
55	MG	ZC	3324	1/1	0.84	0.20	58,58,58,58	0
55	MG	ZC	3585	1/1	0.84	0.07	116,116,116,116	0
55	MG	VC	3019	1/1	0.84	0.19	91,91,91,91	0
55	MG	VC	3020	1/1	0.84	0.26	77,77,77,77	0
55	MG	ZC	3032	1/1	0.84	0.14	91,91,91,91	0
55	MG	ZC	3594	1/1	0.84	0.28	94,94,94,94	0
55	MG	VC	3473	1/1	0.84	0.11	125,125,125,125	0
55	MG	ZC	3411	1/1	0.84	0.12	95,95,95,95	0
55	MG	AD	218	1/1	0.84	0.17	96,96,96,96	0
55	MG	VC	3613	1/1	0.84	0.07	158,158,158,158	0
55	MG	ZC	3414	1/1	0.84	0.11	65,65,65,65	0
55	MG	VC	3002	1/1	0.84	0.15	132,132,132,132	0
55	MG	VC	3069	1/1	0.84	0.19	86,86,86,86	0
55	MG	ZC	3511	1/1	0.84	0.18	78,78,78,78	0
55	MG	UC	1616	1/1	0.84	0.26	87,87,87,87	0
55	MG	LA	202	1/1	0.84	0.15	130,130,130,130	0
55	MG	UC	1631	1/1	0.84	0.12	105,105,105,105	0
55	MG	VC	3025	1/1	0.84	0.29	69,69,69,69	0
55	MG	VC	3135	1/1	0.84	0.08	113,113,113,113	0
55	MG	ZC	3623	1/1	0.84	0.12	77,77,77,77	0
55	MG	UC	1769	1/1	0.84	0.09	119,119,119,119	0
55	MG	VC	3229	1/1	0.84	0.25	55,55,55,55	0
55	MG	ZC	3274	1/1	0.84	0.17	94,94,94,94	0
55	MG	VC	3335	1/1	0.84	0.26	115,115,115,115	0
55	MG	B	302	1/1	0.84	0.10	132,132,132,132	0
55	MG	VC	3547	1/1	0.84	0.16	89,89,89,89	0
55	MG	ZC	3280	1/1	0.84	0.14	60,60,60,60	0
55	MG	VC	3049	1/1	0.84	0.23	90,90,90,90	0
55	MG	ZC	3531	1/1	0.84	0.10	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	UC	1655	1/1	0.84	0.25	113,113,113,113	0
55	MG	VC	3267	1/1	0.84	0.24	84,84,84,84	0
55	MG	X	101	1/1	0.84	0.23	91,91,91,91	0
55	MG	ZC	3136	1/1	0.84	0.10	88,88,88,88	0
55	MG	VC	3411	1/1	0.84	0.42	77,77,77,77	0
55	MG	ZC	3138	1/1	0.84	0.18	73,73,73,73	0
55	MG	VC	3269	1/1	0.84	0.33	81,81,81,81	0
55	MG	ZC	3293	1/1	0.84	0.15	92,92,92,92	0
55	MG	VC	3643	1/1	0.84	0.17	109,109,109,109	0
55	MG	VC	3108	1/1	0.84	0.10	125,125,125,125	0
55	MG	ZC	3081	1/1	0.84	0.23	143,143,143,143	0
55	MG	ZC	3379	1/1	0.84	0.15	96,96,96,96	0
55	MG	VC	3645	1/1	0.84	0.16	104,104,104,104	0
55	MG	VC	3646	1/1	0.84	0.06	122,122,122,122	0
55	MG	UC	1859	1/1	0.84	0.13	156,156,156,156	0
55	MG	YC	1866	1/1	0.84	0.12	112,112,112,112	0
55	MG	YA	307	1/1	0.84	0.10	98,98,98,98	0
55	MG	UC	1775	1/1	0.84	0.14	88,88,88,88	0
55	MG	ZC	3670	1/1	0.84	0.09	83,83,83,83	0
55	MG	YC	1820	1/1	0.84	0.11	152,152,152,152	0
55	MG	VC	3089	1/1	0.84	0.20	97,97,97,97	0
55	MG	YC	1822	1/1	0.84	0.08	145,145,145,145	0
55	MG	UA	202	1/1	0.84	0.13	132,132,132,132	0
55	MG	ZC	3244	1/1	0.84	0.14	74,74,74,74	0
55	MG	YC	1610	1/1	0.84	0.13	112,112,112,112	0
55	MG	UC	1834	1/1	0.84	0.10	222,222,222,222	0
55	MG	VC	3209	1/1	0.84	0.26	79,79,79,79	0
55	MG	VC	3063	1/1	0.84	0.08	98,98,98,98	0
55	MG	ZC	3578	1/1	0.84	0.17	78,78,78,78	0
55	MG	YC	1869	1/1	0.85	0.19	157,157,157,157	0
55	MG	VC	3303	1/1	0.85	0.15	120,120,120,120	0
55	MG	ZC	3668	1/1	0.85	0.07	86,86,86,86	0
55	MG	ZC	3592	1/1	0.85	0.10	71,71,71,71	0
55	MG	ZC	3236	1/1	0.85	0.13	71,71,71,71	0
55	MG	AA	101	1/1	0.85	0.21	60,60,60,60	0
55	MG	YC	1636	1/1	0.85	0.17	174,174,174,174	0
55	MG	VC	3306	1/1	0.85	0.28	67,67,67,67	0
55	MG	YC	1703	1/1	0.85	0.17	136,136,136,136	0
55	MG	ZC	3241	1/1	0.85	0.17	89,89,89,89	0
55	MG	ZC	3067	1/1	0.85	0.22	67,67,67,67	0
55	MG	ZC	3402	1/1	0.85	0.10	113,113,113,113	0
55	MG	ZC	3140	1/1	0.85	0.28	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3105	1/1	0.85	0.28	55,55,55,55	0
55	MG	VC	3080	1/1	0.85	0.17	64,64,64,64	0
55	MG	UC	1716	1/1	0.85	0.21	106,106,106,106	0
55	MG	ZC	3477	1/1	0.85	0.11	85,85,85,85	0
55	MG	ZC	3144	1/1	0.85	0.09	92,92,92,92	0
55	MG	ZC	3108	1/1	0.85	0.14	65,65,65,65	0
55	MG	UC	1726	1/1	0.85	0.21	111,111,111,111	0
55	MG	VC	3202	1/1	0.85	0.19	80,80,80,80	0
55	MG	UC	1694	1/1	0.85	0.15	104,104,104,104	0
55	MG	ZC	3206	1/1	0.85	0.07	74,74,74,74	0
55	MG	ZC	3306	1/1	0.85	0.16	73,73,73,73	0
55	MG	ZC	3258	1/1	0.85	0.24	76,76,76,76	0
55	MG	ZC	3493	1/1	0.85	0.09	87,87,87,87	0
55	MG	VC	3220	1/1	0.85	0.24	108,108,108,108	0
55	MG	ZC	3707	1/1	0.85	0.12	63,63,63,63	0
55	MG	ZC	3074	1/1	0.85	0.28	76,76,76,76	0
55	MG	ZC	3642	1/1	0.85	0.05	105,105,105,105	0
55	MG	VC	3183	1/1	0.85	0.11	93,93,93,93	0
55	MG	VC	3513	1/1	0.85	0.11	98,98,98,98	0
55	MG	ZC	3215	1/1	0.85	0.10	117,117,117,117	0
55	MG	ZC	3376	1/1	0.85	0.09	101,101,101,101	0
55	MG	UC	1841	1/1	0.85	0.13	129,129,129,129	0
55	MG	VC	3134	1/1	0.85	0.34	76,76,76,76	0
55	MG	VC	3443	1/1	0.85	0.16	116,116,116,116	0
55	MG	VC	3468	1/1	0.85	0.10	131,131,131,131	0
55	MG	ZC	3042	1/1	0.85	0.18	58,58,58,58	0
55	MG	ZC	3043	1/1	0.85	0.42	102,102,102,102	0
55	MG	VC	3403	1/1	0.85	0.11	97,97,97,97	0
55	MG	VC	3319	1/1	0.85	0.29	72,72,72,72	0
55	MG	ZC	3387	1/1	0.85	0.11	89,89,89,89	0
55	MG	VC	3005	1/1	0.85	0.23	79,79,79,79	0
55	MG	ZC	3092	1/1	0.85	0.12	64,64,64,64	0
55	MG	ZC	3735	1/1	0.85	0.10	85,85,85,85	0
55	MG	ZC	3409	1/1	0.86	0.09	66,66,66,66	0
55	MG	VC	3197	1/1	0.86	0.14	144,144,144,144	0
55	MG	VC	3525	1/1	0.86	0.18	79,79,79,79	0
55	MG	YC	1819	1/1	0.86	0.28	160,160,160,160	0
55	MG	ZC	3689	1/1	0.86	0.15	94,94,94,94	0
55	MG	VC	3266	1/1	0.86	0.14	89,89,89,89	0
55	MG	ZC	3203	1/1	0.86	0.07	84,84,84,84	0
55	MG	VC	3058	1/1	0.86	0.16	105,105,105,105	0
55	MG	VC	3218	1/1	0.86	0.17	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3595	1/1	0.86	0.09	75,75,75,75	0
55	MG	VC	3151	1/1	0.86	0.12	98,98,98,98	0
55	MG	YC	1870	1/1	0.86	0.12	164,164,164,164	0
55	MG	VC	3036	1/1	0.86	0.38	72,72,72,72	0
55	MG	VC	3120	1/1	0.86	0.16	98,98,98,98	0
55	MG	ZC	3702	1/1	0.86	0.25	92,92,92,92	0
55	MG	VC	3538	1/1	0.86	0.10	82,82,82,82	0
55	MG	ZC	3704	1/1	0.86	0.05	102,102,102,102	0
55	MG	VC	3690	1/1	0.86	0.18	77,77,77,77	0
55	MG	WC	225	1/1	0.86	0.16	180,180,180,180	0
55	MG	VC	3464	1/1	0.86	0.24	79,79,79,79	0
55	MG	VC	3003	1/1	0.86	0.28	96,96,96,96	0
55	MG	ZC	3088	1/1	0.86	0.23	71,71,71,71	0
55	MG	ZC	3012	1/1	0.86	0.27	53,53,53,53	0
55	MG	YC	1628	1/1	0.86	0.17	97,97,97,97	0
55	MG	ZC	3622	1/1	0.86	0.19	105,105,105,105	0
55	MG	VC	3694	1/1	0.86	0.07	105,105,105,105	0
55	MG	VC	3328	1/1	0.86	0.17	81,81,81,81	0
55	MG	VC	3250	1/1	0.86	0.17	77,77,77,77	0
55	MG	UC	1681	1/1	0.86	0.10	254,254,254,254	0
55	MG	VC	3205	1/1	0.86	0.18	87,87,87,87	0
55	MG	ZC	3034	1/1	0.86	0.17	75,75,75,75	0
55	MG	ZC	3631	1/1	0.86	0.08	80,80,80,80	0
55	MG	VC	3087	1/1	0.86	0.07	87,87,87,87	0
55	MG	VC	3207	1/1	0.86	0.14	140,140,140,140	0
55	MG	VC	3129	1/1	0.86	0.17	79,79,79,79	0
55	MG	YC	1799	1/1	0.86	0.07	182,182,182,182	0
55	MG	ZC	3542	1/1	0.86	0.23	114,114,114,114	0
55	MG	VC	3657	1/1	0.86	0.12	85,85,85,85	0
55	MG	VC	3619	1/1	0.86	0.10	119,119,119,119	0
55	MG	A	302	1/1	0.86	0.19	81,81,81,81	0
55	MG	ZC	3311	1/1	0.86	0.20	100,100,100,100	0
55	MG	ZC	3465	1/1	0.86	0.05	80,80,80,80	0
55	MG	ZC	3549	1/1	0.86	0.14	98,98,98,98	0
55	MG	ZC	3466	1/1	0.86	0.16	70,70,70,70	0
55	MG	UC	1809	1/1	0.86	0.08	106,106,106,106	0
55	MG	VC	3032	1/1	0.86	0.14	90,90,90,90	0
55	MG	ZC	3114	1/1	0.86	0.06	113,113,113,113	0
55	MG	VC	3589	1/1	0.86	0.17	97,97,97,97	0
55	MG	ZC	3658	1/1	0.86	0.09	87,87,87,87	0
55	MG	YC	1644	1/1	0.86	0.21	103,103,103,103	0
55	MG	ZC	3053	1/1	0.86	0.11	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3177	1/1	0.86	0.11	95,95,95,95	0
55	MG	VC	3625	1/1	0.86	0.20	105,105,105,105	0
55	MG	VC	3212	1/1	0.86	0.35	85,85,85,85	0
55	MG	VC	3627	1/1	0.86	0.11	114,114,114,114	0
55	MG	ZC	3060	1/1	0.86	0.17	65,65,65,65	0
55	MG	ZC	3185	1/1	0.86	0.20	70,70,70,70	0
55	MG	ZC	3122	1/1	0.86	0.27	49,49,49,49	0
55	MG	ZC	3404	1/1	0.86	0.12	118,118,118,118	0
55	MG	VC	3007	1/1	0.86	0.11	102,102,102,102	0
55	MG	ZC	3491	1/1	0.86	0.11	90,90,90,90	0
55	MG	ZC	3676	1/1	0.86	0.21	114,114,114,114	0
55	MG	VC	3316	1/1	0.86	0.12	73,73,73,73	0
55	MG	QB	102	1/1	0.86	0.17	92,92,92,92	0
55	MG	ZC	3581	1/1	0.86	0.36	75,75,75,75	0
55	MG	ZC	3517	1/1	0.87	0.07	120,120,120,120	0
55	MG	VC	3672	1/1	0.87	0.14	111,111,111,111	0
55	MG	ZC	3430	1/1	0.87	0.18	66,66,66,66	0
55	MG	YC	1760	1/1	0.87	0.20	111,111,111,111	0
55	MG	ZC	3359	1/1	0.87	0.09	103,103,103,103	0
55	MG	VC	3462	1/1	0.87	0.12	89,89,89,89	0
55	MG	SB	101	1/1	0.87	0.15	60,60,60,60	0
55	MG	VC	3179	1/1	0.87	0.24	106,106,106,106	0
55	MG	FB	201	1/1	0.87	0.57	64,64,64,64	0
55	MG	VC	3159	1/1	0.87	0.09	136,136,136,136	0
55	MG	VC	3416	1/1	0.87	0.16	107,107,107,107	0
55	MG	VC	3642	1/1	0.87	0.07	101,101,101,101	0
55	MG	ZC	3046	1/1	0.87	0.12	97,97,97,97	0
55	MG	ZC	3298	1/1	0.87	0.15	89,89,89,89	0
55	MG	AD	221	1/1	0.87	0.11	140,140,140,140	0
55	MG	ZC	3047	1/1	0.87	0.14	69,69,69,69	0
55	MG	UC	1862	1/1	0.87	0.06	143,143,143,143	0
55	MG	VC	3072	1/1	0.87	0.20	82,82,82,82	0
55	MG	VC	3123	1/1	0.87	0.17	76,76,76,76	0
55	MG	VC	3056	1/1	0.87	0.18	89,89,89,89	0
55	MG	VC	3106	1/1	0.87	0.19	77,77,77,77	0
55	MG	ZC	3166	1/1	0.87	0.16	60,60,60,60	0
55	MG	VC	3254	1/1	0.87	0.20	63,63,63,63	0
55	MG	ZC	3729	1/1	0.87	0.12	92,92,92,92	0
55	MG	UC	1722	1/1	0.87	0.14	107,107,107,107	0
55	MG	VC	3512	1/1	0.87	0.08	73,73,73,73	0
55	MG	VC	3350	1/1	0.87	0.18	104,104,104,104	0
55	MG	YC	1818	1/1	0.87	0.15	122,122,122,122	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3065	1/1	0.87	0.32	58,58,58,58	0
55	MG	ZC	3653	1/1	0.87	0.08	84,84,84,84	0
55	MG	VC	3059	1/1	0.87	0.15	98,98,98,98	0
55	MG	VC	3702	1/1	0.87	0.30	95,95,95,95	0
55	MG	ZC	3315	1/1	0.87	0.29	80,80,80,80	0
55	MG	ZC	3250	1/1	0.87	0.10	105,105,105,105	0
55	MG	YC	1779	1/1	0.87	0.11	180,180,180,180	0
55	MG	ZC	3183	1/1	0.87	0.56	68,68,68,68	0
55	MG	A	301	1/1	0.87	0.09	70,70,70,70	0
55	MG	UC	1845	1/1	0.87	0.10	124,124,124,124	0
55	MG	YC	1826	1/1	0.87	0.14	146,146,146,146	0
55	MG	VC	3623	1/1	0.87	0.14	87,87,87,87	0
55	MG	ZC	3752	1/1	0.87	0.09	167,167,167,167	0
55	MG	ZC	3329	1/1	0.87	0.14	90,90,90,90	0
55	MG	ZC	3261	1/1	0.87	0.19	80,80,80,80	0
55	MG	YC	1745	1/1	0.87	0.10	144,144,144,144	0
55	MG	ZC	3406	1/1	0.87	0.09	70,70,70,70	0
55	MG	VC	3486	1/1	0.87	0.16	117,117,117,117	0
55	MG	ZC	3495	1/1	0.87	0.11	95,95,95,95	0
55	MG	ZC	3194	1/1	0.87	0.10	68,68,68,68	0
55	MG	ZC	3006	1/1	0.87	0.15	76,76,76,76	0
55	MG	UC	1618	1/1	0.87	0.12	102,102,102,102	0
55	MG	ZC	3080	1/1	0.87	0.21	148,148,148,148	0
55	MG	YC	1671	1/1	0.87	0.11	99,99,99,99	0
55	MG	QA	101	1/1	0.87	0.08	104,104,104,104	0
55	MG	VC	3065	1/1	0.87	0.21	67,67,67,67	0
55	MG	ZC	3205	1/1	0.87	0.09	107,107,107,107	0
55	MG	VC	3628	1/1	0.87	0.17	63,63,63,63	0
55	MG	UC	1858	1/1	0.87	0.14	149,149,149,149	0
55	MG	UC	1666	1/1	0.87	0.14	149,149,149,149	0
55	MG	VC	3668	1/1	0.87	0.09	109,109,109,109	0
55	MG	ZC	3424	1/1	0.87	0.24	69,69,69,69	0
55	MG	VC	3530	1/1	0.87	0.09	96,96,96,96	0
55	MG	VC	3601	1/1	0.87	0.17	66,66,66,66	0
55	MG	UC	1756	1/1	0.88	0.12	112,112,112,112	0
55	MG	VC	3546	1/1	0.88	0.18	112,112,112,112	0
55	MG	VC	3434	1/1	0.88	0.05	79,79,79,79	0
55	MG	YC	1812	1/1	0.88	0.25	179,179,179,179	0
55	MG	ZC	3318	1/1	0.88	0.05	126,126,126,126	0
55	MG	VC	3574	1/1	0.88	0.18	126,126,126,126	0
55	MG	VC	3684	1/1	0.88	0.37	80,80,80,80	0
55	MG	VC	3600	1/1	0.88	0.18	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3095	1/1	0.88	0.24	52,52,52,52	0
55	MG	ZC	3569	1/1	0.88	0.11	106,106,106,106	0
55	MG	ZC	3145	1/1	0.88	0.21	73,73,73,73	0
55	MG	ZC	3572	1/1	0.88	0.12	73,73,73,73	0
55	MG	ZC	3327	1/1	0.88	0.14	50,50,50,50	0
55	MG	ZC	3328	1/1	0.88	0.10	117,117,117,117	0
55	MG	WB	101	1/1	0.88	0.19	62,62,62,62	0
55	MG	ZC	3687	1/1	0.88	0.11	87,87,87,87	0
55	MG	ZC	3488	1/1	0.88	0.09	126,126,126,126	0
55	MG	VC	3111	1/1	0.88	0.15	60,60,60,60	0
55	MG	YC	1708	1/1	0.88	0.07	110,110,110,110	0
55	MG	ZC	3332	1/1	0.88	0.12	95,95,95,95	0
55	MG	VC	3521	1/1	0.88	0.12	78,78,78,78	0
55	MG	YC	1782	1/1	0.88	0.13	130,130,130,130	0
55	MG	VC	3660	1/1	0.88	0.11	95,95,95,95	0
55	MG	ZC	3589	1/1	0.88	0.13	66,66,66,66	0
55	MG	ZC	3338	1/1	0.88	0.15	85,85,85,85	0
55	MG	ZC	3216	1/1	0.88	0.09	77,77,77,77	0
55	MG	XA	301	1/1	0.88	0.19	115,115,115,115	0
55	MG	YC	1715	1/1	0.88	0.11	107,107,107,107	0
55	MG	ZC	3413	1/1	0.88	0.11	89,89,89,89	0
55	MG	ZC	3276	1/1	0.88	0.19	78,78,78,78	0
55	MG	VC	3477	1/1	0.88	0.18	93,93,93,93	0
55	MG	ZC	3056	1/1	0.88	0.11	104,104,104,104	0
55	MG	ZC	3346	1/1	0.88	0.20	77,77,77,77	0
55	MG	VC	3454	1/1	0.88	0.06	96,96,96,96	0
55	MG	ZC	3710	1/1	0.88	0.19	119,119,119,119	0
55	MG	ZC	3223	1/1	0.88	0.12	82,82,82,82	0
55	MG	ZC	3421	1/1	0.88	0.19	76,76,76,76	0
55	MG	ZC	3611	1/1	0.88	0.10	88,88,88,88	0
55	MG	ZC	3283	1/1	0.88	0.30	61,61,61,61	0
55	MG	VC	3699	1/1	0.88	0.27	107,107,107,107	0
55	MG	ZC	3425	1/1	0.88	0.15	71,71,71,71	0
55	MG	ZC	3721	1/1	0.88	0.07	114,114,114,114	0
55	MG	ZC	3353	1/1	0.88	0.24	62,62,62,62	0
55	MG	ZC	3225	1/1	0.88	0.38	79,79,79,79	0
55	MG	VC	3293	1/1	0.88	0.14	79,79,79,79	0
55	MG	ZC	3062	1/1	0.88	0.12	67,67,67,67	0
55	MG	YC	1755	1/1	0.88	0.13	113,113,113,113	0
55	MG	VC	3701	1/1	0.88	0.22	102,102,102,102	0
55	MG	ZC	3525	1/1	0.88	0.22	85,85,85,85	0
55	MG	VC	3169	1/1	0.88	0.10	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3234	1/1	0.88	0.14	89,89,89,89	0
55	MG	ZC	3167	1/1	0.88	0.17	72,72,72,72	0
55	MG	ZC	3004	1/1	0.88	0.12	95,95,95,95	0
55	MG	VC	3704	1/1	0.88	0.08	100,100,100,100	0
55	MG	ZC	3367	1/1	0.88	0.18	85,85,85,85	0
55	MG	ZC	3534	1/1	0.88	0.13	82,82,82,82	0
55	MG	ZC	3535	1/1	0.88	0.14	90,90,90,90	0
55	MG	YC	1655	1/1	0.88	0.09	106,106,106,106	0
55	MG	VC	3223	1/1	0.88	0.13	130,130,130,130	0
55	MG	VC	3531	1/1	0.88	0.17	84,84,84,84	0
55	MG	ZC	3540	1/1	0.88	0.07	93,93,93,93	0
55	MG	UC	1771	1/1	0.88	0.07	75,75,75,75	0
55	MG	UC	1683	1/1	0.88	0.11	121,121,121,121	0
55	MG	FD	106	1/1	0.88	0.10	155,155,155,155	0
55	MG	VC	3670	1/1	0.88	0.13	89,89,89,89	0
55	MG	VC	3588	1/1	0.88	0.15	119,119,119,119	0
55	MG	VC	3227	1/1	0.88	0.07	80,80,80,80	0
55	MG	ZC	3546	1/1	0.88	0.09	95,95,95,95	0
55	MG	B	301	1/1	0.88	0.15	96,96,96,96	0
55	MG	ZC	3459	1/1	0.88	0.17	83,83,83,83	0
55	MG	ZC	3026	1/1	0.88	0.09	98,98,98,98	0
55	MG	UC	1743	1/1	0.88	0.30	129,129,129,129	0
55	MG	VC	3244	1/1	0.88	0.15	91,91,91,91	0
55	MG	VC	3415	1/1	0.88	0.14	82,82,82,82	0
55	MG	ZC	3252	1/1	0.88	0.18	69,69,69,69	0
55	MG	VC	3571	1/1	0.89	0.17	85,85,85,85	0
55	MG	ZC	3231	1/1	0.89	0.07	99,99,99,99	0
55	MG	VC	3136	1/1	0.89	0.15	76,76,76,76	0
55	MG	ZC	3727	1/1	0.89	0.13	81,81,81,81	0
55	MG	ZC	3587	1/1	0.89	0.21	80,80,80,80	0
55	MG	ZC	3022	1/1	0.89	0.22	82,82,82,82	0
55	MG	ZC	3024	1/1	0.89	0.06	59,59,59,59	0
55	MG	ZC	3533	1/1	0.89	0.09	102,102,102,102	0
55	MG	ZC	3320	1/1	0.89	0.17	84,84,84,84	0
55	MG	VC	3014	1/1	0.89	0.12	96,96,96,96	0
55	MG	ZC	3667	1/1	0.89	0.07	81,81,81,81	0
55	MG	N	201	1/1	0.89	0.09	132,132,132,132	0
55	MG	ZC	3736	1/1	0.89	0.22	82,82,82,82	0
55	MG	VC	3052	1/1	0.89	0.17	83,83,83,83	0
55	MG	VC	3273	1/1	0.89	0.07	80,80,80,80	0
55	MG	ZC	3422	1/1	0.89	0.08	80,80,80,80	0
55	MG	VC	3457	1/1	0.89	0.07	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3743	1/1	0.89	0.09	92,92,92,92	0
55	MG	VC	3127	1/1	0.89	0.17	88,88,88,88	0
55	MG	ZC	3605	1/1	0.89	0.23	82,82,82,82	0
55	MG	YC	1724	1/1	0.89	0.26	161,161,161,161	0
55	MG	ZC	3149	1/1	0.89	0.20	70,70,70,70	0
55	MG	VC	3181	1/1	0.89	0.32	75,75,75,75	0
55	MG	UC	1735	1/1	0.89	0.34	116,116,116,116	0
55	MG	ZC	3333	1/1	0.89	0.23	79,79,79,79	0
55	MG	ED	102	1/1	0.89	0.08	50,50,50,50	0
55	MG	YC	1807	1/1	0.89	0.16	122,122,122,122	0
55	MG	VC	3532	1/1	0.89	0.21	66,66,66,66	0
55	MG	MB	201	1/1	0.89	0.20	84,84,84,84	0
55	MG	ZC	3295	1/1	0.89	0.12	124,124,124,124	0
55	MG	VC	3117	1/1	0.89	0.27	102,102,102,102	0
55	MG	ZC	3624	1/1	0.89	0.09	96,96,96,96	0
55	MG	VC	3001	1/1	0.89	0.10	133,133,133,133	0
55	MG	VC	3214	1/1	0.89	0.24	76,76,76,76	0
55	MG	VC	3034	1/1	0.89	0.41	79,79,79,79	0
55	MG	ZC	3628	1/1	0.89	0.15	93,93,93,93	0
55	MG	ZC	3768	1/1	0.89	0.16	107,107,107,107	0
55	MG	VC	3659	1/1	0.89	0.12	138,138,138,138	0
55	MG	ZC	3089	1/1	0.89	0.18	71,71,71,71	0
55	MG	VC	3057	1/1	0.89	0.34	73,73,73,73	0
55	MG	VC	3491	1/1	0.89	0.14	90,90,90,90	0
55	MG	ZC	3129	1/1	0.89	0.13	43,43,43,43	0
55	MG	ZC	3566	1/1	0.89	0.17	75,75,75,75	0
55	MG	ZC	3452	1/1	0.89	0.10	76,76,76,76	0
55	MG	FD	105	1/1	0.89	0.13	161,161,161,161	0
55	MG	ZC	3638	1/1	0.89	0.14	288,288,288,288	0
55	MG	WC	229	1/1	0.89	0.05	115,115,115,115	0
55	MG	ZC	3168	1/1	0.89	0.06	101,101,101,101	0
55	MG	VC	3121	1/1	0.89	0.10	106,106,106,106	0
55	MG	YC	1713	1/1	0.89	0.06	150,150,150,150	0
55	MG	YC	1714	1/1	0.89	0.11	221,221,221,221	0
55	MG	VC	3393	1/1	0.89	0.07	82,82,82,82	0
55	MG	ZC	3357	1/1	0.89	0.10	86,86,86,86	0
55	MG	ZC	3462	1/1	0.89	0.15	88,88,88,88	0
55	MG	ZC	3175	1/1	0.89	0.25	74,74,74,74	0
55	MG	ZC	3097	1/1	0.89	0.21	78,78,78,78	0
55	MG	ZC	3019	1/1	0.89	0.13	57,57,57,57	0
55	MG	ZC	3716	1/1	0.90	0.15	90,90,90,90	0
55	MG	VC	3413	1/1	0.90	0.08	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	VC	3414	1/1	0.90	0.09	105,105,105,105	0
55	MG	ZC	3719	1/1	0.90	0.09	96,96,96,96	0
55	MG	ZC	3720	1/1	0.90	0.07	90,90,90,90	0
55	MG	ZC	3401	1/1	0.90	0.10	78,78,78,78	0
55	MG	ZC	3523	1/1	0.90	0.12	58,58,58,58	0
55	MG	ZC	3259	1/1	0.90	0.07	98,98,98,98	0
55	MG	YA	306	1/1	0.90	0.25	94,94,94,94	0
55	MG	VC	3693	1/1	0.90	0.28	96,96,96,96	0
55	MG	VC	3234	1/1	0.90	0.26	63,63,63,63	0
55	MG	ZC	3064	1/1	0.90	0.35	81,81,81,81	0
55	MG	ZC	3309	1/1	0.90	0.13	74,74,74,74	0
55	MG	VC	3418	1/1	0.90	0.08	91,91,91,91	0
55	MG	ZC	3139	1/1	0.90	0.21	69,69,69,69	0
55	MG	VC	3130	1/1	0.90	0.21	76,76,76,76	0
55	MG	ZC	3179	1/1	0.90	0.14	69,69,69,69	0
55	MG	ZC	3361	1/1	0.90	0.21	78,78,78,78	0
55	MG	VC	3286	1/1	0.90	0.25	105,105,105,105	0
55	MG	YC	1827	1/1	0.90	0.08	103,103,103,103	0
55	MG	VC	3222	1/1	0.90	0.09	94,94,94,94	0
55	MG	ZC	3030	1/1	0.90	0.11	78,78,78,78	0
55	MG	ZC	3603	1/1	0.90	0.15	75,75,75,75	0
55	MG	ZC	3031	1/1	0.90	0.26	47,47,47,47	0
55	MG	ZC	3675	1/1	0.90	0.17	96,96,96,96	0
55	MG	ZC	3368	1/1	0.90	0.23	76,76,76,76	0
55	MG	ZC	3677	1/1	0.90	0.16	66,66,66,66	0
55	MG	ZC	3678	1/1	0.90	0.06	89,89,89,89	0
55	MG	VC	3037	1/1	0.90	0.25	74,74,74,74	0
55	MG	A	305	1/1	0.90	0.08	115,115,115,115	0
55	MG	VC	3225	1/1	0.90	0.10	78,78,78,78	0
55	MG	ZC	3751	1/1	0.90	0.27	78,78,78,78	0
55	MG	VC	3529	1/1	0.90	0.16	79,79,79,79	0
55	MG	UC	1721	1/1	0.90	0.14	155,155,155,155	0
55	MG	ZC	3281	1/1	0.90	0.13	71,71,71,71	0
55	MG	ZC	3617	1/1	0.90	0.21	81,81,81,81	0
55	MG	ZC	3079	1/1	0.90	0.27	89,89,89,89	0
55	MG	YC	1804	1/1	0.90	0.09	177,177,177,177	0
55	MG	VC	3500	1/1	0.90	0.10	134,134,134,134	0
55	MG	ZC	3286	1/1	0.90	0.11	87,87,87,87	0
55	MG	ZC	3243	1/1	0.90	0.15	68,68,68,68	0
55	MG	VC	3203	1/1	0.90	0.15	76,76,76,76	0
55	MG	ZC	3434	1/1	0.90	0.12	70,70,70,70	0
55	MG	VC	3363	1/1	0.90	0.13	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3698	1/1	0.90	0.14	76,76,76,76	0
55	MG	VC	3503	1/1	0.90	0.11	94,94,94,94	0
55	MG	VC	3071	1/1	0.90	0.26	68,68,68,68	0
55	MG	YC	1729	1/1	0.90	0.07	169,169,169,169	0
55	MG	UC	1788	1/1	0.90	0.14	148,148,148,148	0
55	MG	VC	3349	1/1	0.90	0.08	77,77,77,77	0
55	MG	WA	303	1/1	0.90	0.23	80,80,80,80	0
55	MG	VC	3388	1/1	0.90	0.16	78,78,78,78	0
55	MG	ZC	3447	1/1	0.90	0.17	87,87,87,87	0
55	MG	ZC	3640	1/1	0.90	0.10	83,83,83,83	0
55	MG	ZC	3570	1/1	0.90	0.29	78,78,78,78	0
55	MG	ZC	3253	1/1	0.90	0.22	52,52,52,52	0
55	MG	ZC	3394	1/1	0.90	0.07	92,92,92,92	0
55	MG	VC	3186	1/1	0.90	0.20	69,69,69,69	0
55	MG	UC	1741	1/1	0.90	0.16	71,71,71,71	0
55	MG	ZC	3256	1/1	0.90	0.14	78,78,78,78	0
55	MG	ZC	3693	1/1	0.91	0.09	80,80,80,80	0
55	MG	VC	3302	1/1	0.91	0.09	82,82,82,82	0
55	MG	VC	3088	1/1	0.91	0.21	79,79,79,79	0
55	MG	ZC	3494	1/1	0.91	0.11	65,65,65,65	0
55	MG	NB	101	1/1	0.91	0.18	76,76,76,76	0
55	MG	VC	3617	1/1	0.91	0.09	115,115,115,115	0
55	MG	ZC	3077	1/1	0.91	0.07	68,68,68,68	0
55	MG	ZC	3499	1/1	0.91	0.12	76,76,76,76	0
55	MG	VC	3516	1/1	0.91	0.09	92,92,92,92	0
55	MG	ZC	3757	1/1	0.91	0.16	81,81,81,81	0
55	MG	ZC	3109	1/1	0.91	0.33	61,61,61,61	0
55	MG	YC	1856	1/1	0.91	0.13	170,170,170,170	0
55	MG	ZC	3600	1/1	0.91	0.09	121,121,121,121	0
55	MG	VC	3176	1/1	0.91	0.09	83,83,83,83	0
55	MG	VC	3143	1/1	0.91	0.14	98,98,98,98	0
55	MG	ZC	3763	1/1	0.91	0.18	82,82,82,82	0
55	MG	YC	1695	1/1	0.91	0.20	94,94,94,94	0
55	MG	ZC	3709	1/1	0.91	0.19	69,69,69,69	0
55	MG	ZC	3174	1/1	0.91	0.26	75,75,75,75	0
55	MG	ZC	3606	1/1	0.91	0.24	63,63,63,63	0
55	MG	VC	3041	1/1	0.91	0.11	86,86,86,86	0
55	MG	ZC	3345	1/1	0.91	0.10	71,71,71,71	0
55	MG	ZC	3770	1/1	0.91	0.34	92,92,92,92	0
55	MG	VC	3686	1/1	0.91	0.14	90,90,90,90	0
55	MG	UC	1812	1/1	0.91	0.08	114,114,114,114	0
55	MG	YC	1654	1/1	0.91	0.11	157,157,157,157	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	VC	3064	1/1	0.91	0.12	79,79,79,79	0
55	MG	ZC	3515	1/1	0.91	0.07	111,111,111,111	0
55	MG	ZC	3285	1/1	0.91	0.10	80,80,80,80	0
55	MG	ZC	3672	1/1	0.91	0.09	80,80,80,80	0
55	MG	VC	3567	1/1	0.91	0.09	152,152,152,152	0
55	MG	VC	3124	1/1	0.91	0.21	91,91,91,91	0
55	MG	ZC	3063	1/1	0.91	0.27	36,36,36,36	0
55	MG	VC	3426	1/1	0.91	0.05	104,104,104,104	0
55	MG	ZC	3429	1/1	0.91	0.11	80,80,80,80	0
55	MG	ZC	3476	1/1	0.91	0.08	74,74,74,74	0
55	MG	VC	3648	1/1	0.91	0.14	116,116,116,116	0
55	MG	VC	3507	1/1	0.91	0.09	99,99,99,99	0
55	MG	ZC	3479	1/1	0.91	0.27	87,87,87,87	0
55	MG	VC	3397	1/1	0.91	0.13	107,107,107,107	0
55	MG	ZC	3188	1/1	0.91	0.17	63,63,63,63	0
55	MG	ZC	3484	1/1	0.91	0.25	81,81,81,81	0
55	MG	ZC	3686	1/1	0.91	0.06	76,76,76,76	0
55	MG	ZC	3326	1/1	0.91	0.13	71,71,71,71	0
55	MG	VC	3384	1/1	0.91	0.14	79,79,79,79	0
55	MG	VC	3312	1/1	0.91	0.12	105,105,105,105	0
55	MG	ZC	3364	1/1	0.91	0.18	86,86,86,86	0
55	MG	ZC	3003	1/1	0.91	0.14	74,74,74,74	0
55	MG	UC	1848	1/1	0.91	0.18	111,111,111,111	0
55	MG	YC	1727	1/1	0.92	0.14	71,71,71,71	0
55	MG	VC	3610	1/1	0.92	0.13	104,104,104,104	0
55	MG	YC	1637	1/1	0.92	0.27	75,75,75,75	0
55	MG	ZC	3083	1/1	0.92	0.45	58,58,58,58	0
55	MG	ZC	3419	1/1	0.92	0.07	71,71,71,71	0
55	MG	VC	3305	1/1	0.92	0.14	88,88,88,88	0
55	MG	ZC	3381	1/1	0.92	0.54	83,83,83,83	0
55	MG	VC	3240	1/1	0.92	0.29	78,78,78,78	0
55	MG	VC	3391	1/1	0.92	0.17	88,88,88,88	0
55	MG	ZC	3474	1/1	0.92	0.07	112,112,112,112	0
55	MG	UC	1850	1/1	0.92	0.08	156,156,156,156	0
55	MG	ZC	3576	1/1	0.92	0.13	84,84,84,84	0
55	MG	VC	3073	1/1	0.92	0.25	81,81,81,81	0
55	MG	VC	3698	1/1	0.92	0.14	81,81,81,81	0
55	MG	ZC	3637	1/1	0.92	0.17	93,93,93,93	0
55	MG	VC	3674	1/1	0.92	0.15	78,78,78,78	0
55	MG	UC	1748	1/1	0.92	0.06	162,162,162,162	0
55	MG	YC	1835	1/1	0.92	0.15	116,116,116,116	0
55	MG	ZC	3643	1/1	0.92	0.09	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3350	1/1	0.92	0.07	70,70,70,70	0
55	MG	VC	3544	1/1	0.92	0.14	81,81,81,81	0
55	MG	ZC	3028	1/1	0.92	0.10	60,60,60,60	0
55	MG	VC	3490	1/1	0.92	0.08	101,101,101,101	0
55	MG	ZC	3588	1/1	0.92	0.08	89,89,89,89	0
55	MG	ZC	3435	1/1	0.92	0.19	71,71,71,71	0
55	MG	ZC	3590	1/1	0.92	0.21	63,63,63,63	0
55	MG	VC	3296	1/1	0.92	0.12	84,84,84,84	0
55	MG	VC	3640	1/1	0.92	0.10	141,141,141,141	0
55	MG	ZC	3207	1/1	0.92	0.24	71,71,71,71	0
55	MG	ZC	3209	1/1	0.92	0.17	67,67,67,67	0
55	MG	VC	3706	1/1	0.92	0.14	112,112,112,112	0
55	MG	VC	3272	1/1	0.92	0.20	78,78,78,78	0
55	MG	ZC	3597	1/1	0.92	0.26	77,77,77,77	0
55	MG	ZC	3035	1/1	0.92	0.13	85,85,85,85	0
55	MG	ZC	3103	1/1	0.92	0.17	87,87,87,87	0
55	MG	ZC	3214	1/1	0.92	0.07	77,77,77,77	0
55	MG	ZC	3663	1/1	0.92	0.12	81,81,81,81	0
55	MG	VC	3100	1/1	0.92	0.25	71,71,71,71	0
55	MG	UC	1776	1/1	0.92	0.10	117,117,117,117	0
55	MG	VC	3264	1/1	0.92	0.12	76,76,76,76	0
55	MG	VC	3265	1/1	0.92	0.32	84,84,84,84	0
55	MG	YC	1795	1/1	0.92	0.25	172,172,172,172	0
55	MG	ZC	3455	1/1	0.92	0.11	80,80,80,80	0
55	MG	ZC	3294	1/1	0.92	0.08	66,66,66,66	0
55	MG	ZC	3370	1/1	0.92	0.06	64,64,64,64	0
55	MG	UC	1840	1/1	0.92	0.15	134,134,134,134	0
55	MG	ZC	3509	1/1	0.92	0.07	77,77,77,77	0
55	MG	ZC	3557	1/1	0.92	0.12	98,98,98,98	0
55	MG	ZC	3005	1/1	0.92	0.14	110,110,110,110	0
55	MG	ZC	3045	1/1	0.92	0.20	60,60,60,60	0
55	MG	DB	201	1/1	0.92	0.08	105,105,105,105	0
55	MG	ZC	3621	1/1	0.92	0.25	80,80,80,80	0
55	MG	ZC	3191	1/1	0.93	0.11	53,53,53,53	0
55	MG	ZC	3023	1/1	0.93	0.08	71,71,71,71	0
55	MG	ZC	3480	1/1	0.93	0.08	64,64,64,64	0
55	MG	ZC	3579	1/1	0.93	0.17	61,61,61,61	0
55	MG	ZC	3481	1/1	0.93	0.16	67,67,67,67	0
55	MG	ZC	3432	1/1	0.93	0.05	68,68,68,68	0
55	MG	ZC	3272	1/1	0.93	0.17	66,66,66,66	0
55	MG	ZC	3196	1/1	0.93	0.27	69,69,69,69	0
55	MG	VC	3545	1/1	0.93	0.22	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3641	1/1	0.93	0.12	69,69,69,69	0
55	MG	ZC	3126	1/1	0.93	0.10	66,66,66,66	0
55	MG	ZC	3754	1/1	0.93	0.10	54,54,54,54	0
55	MG	VC	3370	1/1	0.93	0.11	75,75,75,75	0
55	MG	ZC	3200	1/1	0.93	0.19	92,92,92,92	0
55	MG	ZC	3278	1/1	0.93	0.12	160,160,160,160	0
55	MG	J	203	1/1	0.93	0.21	83,83,83,83	0
55	MG	WA	304	1/1	0.93	0.07	77,77,77,77	0
55	MG	ZC	3492	1/1	0.93	0.06	68,68,68,68	0
55	MG	VC	3126	1/1	0.93	0.15	51,51,51,51	0
55	MG	VC	3593	1/1	0.93	0.08	109,109,109,109	0
55	MG	YC	1865	1/1	0.93	0.17	115,115,115,115	0
55	MG	VC	3688	1/1	0.93	0.16	97,97,97,97	0
55	MG	UC	1717	1/1	0.93	0.19	110,110,110,110	0
55	MG	ZC	3450	1/1	0.93	0.10	87,87,87,87	0
55	MG	YC	1839	1/1	0.93	0.08	173,173,173,173	0
55	MG	VC	3077	1/1	0.93	0.12	75,75,75,75	0
55	MG	ZC	3550	1/1	0.93	0.04	86,86,86,86	0
55	MG	VC	3552	1/1	0.93	0.21	139,139,139,139	0
55	MG	VC	3050	1/1	0.93	0.06	101,101,101,101	0
55	MG	UC	1677	1/1	0.93	0.22	113,113,113,113	0
55	MG	VC	3280	1/1	0.93	0.21	88,88,88,88	0
55	MG	VC	3476	1/1	0.93	0.17	75,75,75,75	0
55	MG	YC	1658	1/1	0.93	0.10	87,87,87,87	0
55	MG	VC	3456	1/1	0.93	0.12	76,76,76,76	0
55	MG	VC	3409	1/1	0.93	0.12	103,103,103,103	0
55	MG	VC	3243	1/1	0.93	0.18	75,75,75,75	0
55	MG	YC	1850	1/1	0.93	0.12	179,179,179,179	0
55	MG	UC	1752	1/1	0.93	0.10	116,116,116,116	0
55	MG	UC	1739	1/1	0.93	0.04	111,111,111,111	0
55	MG	ZC	3618	1/1	0.93	0.20	65,65,65,65	0
55	MG	ZC	3619	1/1	0.93	0.07	70,70,70,70	0
55	MG	UC	1805	1/1	0.93	0.06	122,122,122,122	0
55	MG	VC	3565	1/1	0.93	0.14	76,76,76,76	0
55	MG	ZC	3227	1/1	0.93	0.12	80,80,80,80	0
55	MG	XA	302	1/1	0.93	0.11	79,79,79,79	0
55	MG	VC	3655	1/1	0.93	0.15	84,84,84,84	0
55	MG	ZC	3230	1/1	0.93	0.09	57,57,57,57	0
55	MG	VC	3679	1/1	0.93	0.12	73,73,73,73	0
55	MG	ZC	3573	1/1	0.93	0.08	85,85,85,85	0
55	MG	VC	3656	1/1	0.93	0.08	95,95,95,95	0
55	MG	ZC	3348	1/1	0.93	0.21	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	ZC	3560	1/1	0.94	0.08	71,71,71,71	0
55	MG	ZC	3607	1/1	0.94	0.11	94,94,94,94	0
55	MG	VC	3469	1/1	0.94	0.14	84,84,84,84	0
55	MG	ZC	3192	1/1	0.94	0.13	92,92,92,92	0
55	MG	ZC	3017	1/1	0.94	0.08	68,68,68,68	0
55	MG	ZC	3195	1/1	0.94	0.15	89,89,89,89	0
55	MG	ZC	3437	1/1	0.94	0.06	99,99,99,99	0
55	MG	ZC	3018	1/1	0.94	0.09	86,86,86,86	0
55	MG	L	201	1/1	0.94	0.09	81,81,81,81	0
55	MG	ZC	3712	1/1	0.94	0.23	81,81,81,81	0
55	MG	VC	3417	1/1	0.94	0.05	101,101,101,101	0
55	MG	ZC	3441	1/1	0.94	0.07	94,94,94,94	0
55	MG	VC	3680	1/1	0.94	0.15	90,90,90,90	0
55	MG	VC	3299	1/1	0.94	0.08	88,88,88,88	0
55	MG	ZC	3444	1/1	0.94	0.06	102,102,102,102	0
55	MG	ZC	3336	1/1	0.94	0.18	73,73,73,73	0
55	MG	YC	1756	1/1	0.94	0.11	98,98,98,98	0
55	MG	ZC	3202	1/1	0.94	0.08	64,64,64,64	0
55	MG	VC	3629	1/1	0.94	0.04	95,95,95,95	0
55	MG	I	201	1/1	0.94	0.25	80,80,80,80	0
55	MG	VC	3178	1/1	0.94	0.14	91,91,91,91	0
55	MG	ZC	3377	1/1	0.94	0.16	58,58,58,58	0
55	MG	YC	1823	1/1	0.94	0.14	102,102,102,102	0
55	MG	ZC	3583	1/1	0.94	0.07	92,92,92,92	0
55	MG	ZC	3173	1/1	0.94	0.24	75,75,75,75	0
55	MG	ZC	3208	1/1	0.94	0.18	68,68,68,68	0
55	MG	VC	3534	1/1	0.94	0.12	110,110,110,110	0
55	MG	YC	1825	1/1	0.94	0.06	116,116,116,116	0
55	MG	VC	3582	1/1	0.94	0.09	75,75,75,75	0
55	MG	VC	3475	1/1	0.94	0.07	117,117,117,117	0
55	MG	XA	303	1/1	0.94	0.15	78,78,78,78	0
55	MG	ZC	3503	1/1	0.94	0.12	83,83,83,83	0
55	MG	VC	3689	1/1	0.94	0.23	130,130,130,130	0
55	MG	VC	3463	1/1	0.94	0.08	94,94,94,94	0
55	MG	VC	3554	1/1	0.94	0.05	151,151,151,151	0
55	MG	ZC	3740	1/1	0.94	0.14	63,63,63,63	0
55	MG	ZC	3464	1/1	0.94	0.19	102,102,102,102	0
55	MG	UC	1740	1/1	0.94	0.07	105,105,105,105	0
55	MG	ZC	3039	1/1	0.94	0.10	73,73,73,73	0
55	MG	VC	3327	1/1	0.94	0.10	93,93,93,93	0
55	MG	VC	3377	1/1	0.94	0.09	76,76,76,76	0
55	MG	YC	1709	1/1	0.94	0.07	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	O	201	1/1	0.94	0.24	67,67,67,67	0
55	MG	ZC	3101	1/1	0.94	0.25	58,58,58,58	0
55	MG	ZC	3160	1/1	0.94	0.14	75,75,75,75	0
55	MG	ZC	3516	1/1	0.94	0.08	85,85,85,85	0
55	MG	UC	1648	1/1	0.95	0.13	97,97,97,97	0
55	MG	ZC	3753	1/1	0.95	0.10	88,88,88,88	0
55	MG	VC	3508	1/1	0.95	0.16	97,97,97,97	0
55	MG	VC	3467	1/1	0.95	0.09	100,100,100,100	0
55	MG	ZC	3397	1/1	0.95	0.17	73,73,73,73	0
55	MG	VC	3518	1/1	0.95	0.10	69,69,69,69	0
55	MG	ZC	3469	1/1	0.95	0.14	67,67,67,67	0
55	MG	ZC	3219	1/1	0.95	0.08	69,69,69,69	0
55	MG	ZC	3471	1/1	0.95	0.11	92,92,92,92	0
55	MG	ZC	3040	1/1	0.95	0.44	61,61,61,61	0
55	MG	VC	3324	1/1	0.95	0.11	98,98,98,98	0
55	MG	ZC	3156	1/1	0.95	0.09	63,63,63,63	0
55	MG	ZC	3639	1/1	0.95	0.06	86,86,86,86	0
55	MG	ZC	3609	1/1	0.95	0.11	78,78,78,78	0
55	MG	ZC	3526	1/1	0.95	0.12	53,53,53,53	0
55	MG	VC	3520	1/1	0.95	0.12	126,126,126,126	0
55	MG	ZC	3158	1/1	0.95	0.07	68,68,68,68	0
55	MG	VC	3481	1/1	0.95	0.08	87,87,87,87	0
55	MG	ZC	3738	1/1	0.95	0.22	82,82,82,82	0
55	MG	VC	3522	1/1	0.95	0.08	94,94,94,94	0
55	MG	VC	3523	1/1	0.95	0.08	99,99,99,99	0
55	MG	ZC	3102	1/1	0.95	0.14	75,75,75,75	0
55	MG	ZC	3066	1/1	0.95	0.22	48,48,48,48	0
55	MG	VC	3697	1/1	0.95	0.46	137,137,137,137	0
55	MG	ZC	3563	1/1	0.95	0.09	98,98,98,98	0
55	MG	VC	3536	1/1	0.95	0.34	97,97,97,97	0
55	MG	ZC	3011	1/1	0.95	0.05	94,94,94,94	0
55	MG	VC	3174	1/1	0.95	0.26	77,77,77,77	0
55	MG	ZC	3015	1/1	0.95	0.09	77,77,77,77	0
55	MG	VC	3282	1/1	0.95	0.12	81,81,81,81	0
55	MG	VC	3445	1/1	0.95	0.09	92,92,92,92	0
56	ZN	AC	301	1/1	0.95	0.30	151,151,151,151	0
55	MG	UC	1668	1/1	0.96	0.14	94,94,94,94	0
55	MG	YA	304	1/1	0.96	0.10	53,53,53,53	0
55	MG	VC	3703	1/1	0.96	0.10	87,87,87,87	0
55	MG	UC	1796	1/1	0.96	0.09	109,109,109,109	0
55	MG	ZC	3756	1/1	0.96	0.14	88,88,88,88	0
55	MG	ZC	3266	1/1	0.96	0.09	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	YC	1684	1/1	0.96	0.08	127,127,127,127	0
55	MG	ZC	3644	1/1	0.96	0.05	76,76,76,76	0
55	MG	ZC	3033	1/1	0.96	0.11	80,80,80,80	0
55	MG	VC	3597	1/1	0.96	0.10	74,74,74,74	0
55	MG	VC	3313	1/1	0.96	0.08	97,97,97,97	0
55	MG	ZC	3614	1/1	0.96	0.08	88,88,88,88	0
55	MG	ZC	3057	1/1	0.96	0.09	115,115,115,115	0
55	MG	ZC	3058	1/1	0.96	0.23	37,37,37,37	0
55	MG	ZC	3633	1/1	0.96	0.07	92,92,92,92	0
55	MG	VC	3636	1/1	0.96	0.04	97,97,97,97	0
55	MG	ZC	3181	1/1	0.96	0.20	61,61,61,61	0
55	MG	VC	3558	1/1	0.96	0.04	104,104,104,104	0
55	MG	ZC	3604	1/1	0.96	0.15	82,82,82,82	0
55	MG	ZC	3722	1/1	0.97	0.09	82,82,82,82	0
55	MG	VC	3541	1/1	0.97	0.24	95,95,95,95	0
55	MG	VC	3337	1/1	0.97	0.06	77,77,77,77	0
55	MG	ZC	3048	1/1	0.97	0.07	69,69,69,69	0
55	MG	ZC	3496	1/1	0.97	0.09	93,93,93,93	0
55	MG	VC	3245	1/1	0.97	0.10	94,94,94,94	0
55	MG	ZC	3745	1/1	0.97	0.05	74,74,74,74	0
55	MG	ZC	3695	1/1	0.97	0.08	70,70,70,70	0
55	MG	ZC	3650	1/1	0.97	0.05	96,96,96,96	0
55	MG	ZC	3453	1/1	0.97	0.05	91,91,91,91	0
55	MG	ZC	3666	1/1	0.97	0.04	94,94,94,94	0
55	MG	VC	3499	1/1	0.97	0.17	111,111,111,111	0
55	MG	ZC	3323	1/1	0.97	0.11	64,64,64,64	0
55	MG	ZC	3562	1/1	0.97	0.05	116,116,116,116	0
55	MG	VC	3615	1/1	0.97	0.10	88,88,88,88	0
55	MG	ZC	3027	1/1	0.97	0.05	94,94,94,94	0
55	MG	WB	102	1/1	0.97	0.08	59,59,59,59	0
55	MG	ZC	3013	1/1	0.97	0.11	70,70,70,70	0
56	ZN	KC	101	1/1	0.97	0.06	189,189,189,189	0
55	MG	ZC	3111	1/1	0.98	0.12	72,72,72,72	0
55	MG	VC	3408	1/1	0.98	0.05	85,85,85,85	0
55	MG	ZC	3193	1/1	0.98	0.12	95,95,95,95	0
55	MG	Q	201	1/1	0.98	0.10	88,88,88,88	0
55	MG	ZC	3369	1/1	0.98	0.07	100,100,100,100	0
55	MG	ZC	3682	1/1	0.98	0.12	76,76,76,76	0
55	MG	UC	1799	1/1	0.98	0.05	101,101,101,101	0
56	ZN	EA	301	1/1	0.98	0.23	97,97,97,97	0
55	MG	ZC	3539	1/1	0.98	0.07	64,64,64,64	0
55	MG	ZC	3014	1/1	0.98	0.05	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	ZN	OA	101	1/1	0.99	0.11	157,157,157,157	0

6.5 Other polymers [i](#)

There are no such residues in this entry.