



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 08:10 PM BST

PDB ID : 4V7P
Title : Recognition of the amber stop codon by release factor RF1.
Authors : Korostelev, A.; Zhu, J.; Asahara, H.; Noller, H.F.
Deposited on : 2010-04-29
Resolution : 3.62 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

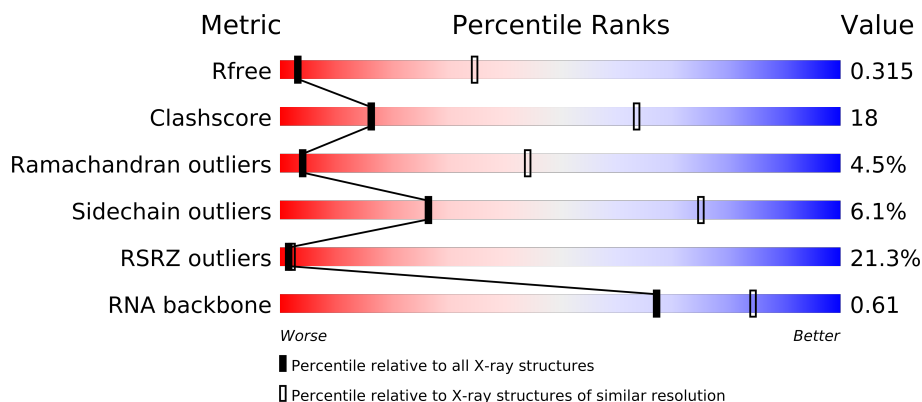
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.16 November 2013
Xtriage (Phenix) : dev-1323
EDS : stable23397
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable23397

1 Overall quality at a glance

The reported resolution of this entry is 3.62 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}	66092	1006 (3.88-3.36)
Clashscore	79885	1171 (3.84-3.40)
Ramachandran outliers	78287	1125 (3.84-3.40)
Sidechain outliers	78261	1124 (3.84-3.40)
RSRZ outliers	66119	1007 (3.88-3.36)
RNA backbone	1838	1000 (4.46-2.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	AA	1504	
1	DA	1504	
2	AB	234	
2	DB	234	
3	AC	206	
3	DC	206	
4	AD	208	
4	DD	208	
5	AE	151	
5	DE	151	
6	AF	101	
6	DF	101	

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Mol	Chain	Length	Quality of chain
7	AG	155	
7	DG	155	
8	AH	138	
8	DH	138	
9	AI	127	
9	DI	127	
10	AJ	98	
10	DJ	98	
11	AK	119	
11	DK	119	
12	AL	124	
12	DL	124	
13	AM	117	
13	DM	117	
14	AN	60	
14	DN	60	
15	AO	88	
15	DO	88	
16	AP	83	
16	DP	83	
17	AQ	99	
17	DQ	99	
18	AR	70	
18	DR	70	
19	AS	78	
19	DS	78	
20	AT	99	
20	DT	99	
21	AU	24	
21	DU	24	
22	AV	354	
22	DV	354	
23	AW	77	
23	DW	77	
24	AX	7	
25	BA	2879	
25	CA	2879	
26	BB	119	
26	CB	119	
27	BC	275	
27	CC	275	
28	BD	206	





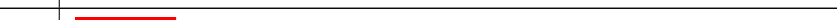









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Mol	Chain	Length	Quality of chain
28	CD	206	
29	BE	205	
29	CE	205	
30	BF	181	
30	CF	181	
31	BG	180	
31	CG	180	
32	BH	148	
32	CH	148	
33	BI	173	
33	CI	173	
34	BJ	139	
34	CJ	139	
35	BK	122	
35	CK	122	
36	BL	150	
36	CL	150	
37	BM	141	
37	CM	141	
38	BN	117	
38	CN	117	
39	BO	111	
39	CO	111	
40	BP	146	
40	CP	146	
41	BQ	116	
41	CQ	116	
42	BR	101	
42	CR	101	
43	BS	112	
43	CS	112	
44	BT	96	
44	CT	96	
45	BU	109	
45	CU	109	
46	BV	206	
46	CV	206	
47	BW	84	
47	CW	84	
48	BX	98	
48	CX	98	
49	BY	72	

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Mol	Chain	Length	Quality of chain
49	CY	72	
50	BZ	59	
50	CZ	59	
51	B1	71	
51	C1	71	
52	B2	59	
52	C2	59	
53	B3	54	
53	C3	54	
54	B4	48	
54	C4	48	
55	B5	64	
55	C5	64	
56	DX	9	

2 Entry composition

There are 58 unique types of molecules in this entry. The entry contains 294174 atoms, of which 0 are hydrogen and 0 are deuterium.

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

- Molecule 1 is a RNA chain called 16S rRNA (1504-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32332	14391	5994	10444	1503			
1	DA	1504	Total	C	N	O	P	0	0	0
			32332	14391	5994	10444	1503			

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	234	Total	C	N	O	S	0	0	0
			1901	1213	341	342	5			
2	DB	234	Total	C	N	O	S	0	0	0
			1901	1213	341	342	5			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1613	1016	314	282	1			
3	DC	206	Total	C	N	O	S	0	0	0
			1613	1016	314	282	1			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
4	DD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	151	Total	C	N	O	S	0	0	0
			1156	729	218	205	4			
5	DE	151	Total	C	N	O	S	0	0	0
			1156	729	218	205	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	DF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	DG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	DH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O		0	0	0
			1011	639	198	174				
9	DI	127	Total	C	N	O		0	0	0
			1011	639	198	174				

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	98	Total	C	N	O	S	0	0	0
			795	499	156	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	DJ	98	Total	C	N	O	S	0	0	0
			795	499	156	139	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	DK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	124	Total	C	N	O	S	0	0	0
			971	611	195	164	1			
12	DL	124	Total	C	N	O	S	0	0	0
			971	611	195	164	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	117	Total	C	N	O	S	0	0	0
			934	577	192	163	2			
13	DM	117	Total	C	N	O	S	0	0	0
			934	577	192	163	2			

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	DN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	DO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	83	Total	C	N	O	S	0	0	0
			701	443	139	118	1			
16	DP	83	Total	C	N	O	S	0	0	0
			701	443	139	118	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	99	Total	C	N	O	S	0	0	0
			824	528	152	142	2			
17	DQ	99	Total	C	N	O	S	0	0	0
			824	528	152	142	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	DR	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	78	Total	C	N	O	S	0	0	0
			630	403	114	111	2			
19	DS	78	Total	C	N	O	S	0	0	0
			630	403	114	111	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			
20	DT	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			

- Molecule 21 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	24	Total	C	N	O	0	0	0
			209	128	50	31			
21	DU	24	Total	C	N	O	0	0	0
			209	128	50	31			

- Molecule 22 is a protein called Peptide chain release factor 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	354	Total	C	N	O	S	0	0	0
			2813	1743	509	549	12			
22	DV	354	Total	C	N	O	S	0	0	0
			2813	1743	509	549	12			

- Molecule 23 is a RNA chain called P-site tRNA-fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
23	DW	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			

- Molecule 24 is a RNA chain called messenger RNA (5'-R(*AP*AP*UP*GP*UP*AP*G)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	7	Total	C	N	O	P	0	0	0
			149	68	29	46	6			

- Molecule 25 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2879	Total	C	N	O	P	0	0	0
			61997	27594	11582	19943	2878			
25	CA	2879	Total	C	N	O	P	0	0	0
			61997	27594	11582	19943	2878			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	1142	U	C	CONFLICT	GB AE017221.1
BA	2825	U	G	CONFLICT	GB AE017221.1
CA	1142	U	C	CONFLICT	GB AE017221.1
CA	2825	U	G	CONFLICT	GB AE017221.1

- Molecule 26 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			
26	CB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

- Molecule 27 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BC	271	Total	C	N	O	S	0	0	0
			2104	1329	416	356	3			
27	CC	271	Total	C	N	O	S	0	0	0
			2104	1329	416	356	3			

- Molecule 28 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BD	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			
28	CD	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

- Molecule 29 is a protein called 50S ribosomal protein L4.

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

- Molecule 30 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BF	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			
30	CF	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			

- Molecule 31 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BG	159	Total	C	N	O	S	0	0	0
			1222	773	228	220	1			
31	CG	159	Total	C	N	O	S	0	0	0
			1222	773	228	220	1			

- Molecule 32 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BH	145	Total	C	N	O	S	0	0	0
			1132	724	200	207	1			
32	CH	145	Total	C	N	O	S	0	0	0
			1132	724	200	207	1			

- Molecule 33 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
33	BI	32	Total	C	N	O	0	0	0
			253	157	49	47			
33	CI	32	Total	C	N	O	0	0	0
			253	157	49	47			

- Molecule 34 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BJ	137	Total	C	N	O	S	0	0	0
			1096	707	205	181	3			
34	CJ	137	Total	C	N	O	S	0	0	0
			1096	707	205	181	3			

- Molecule 35 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BK	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			
35	CK	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BL	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
36	CL	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 37 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BM	136	Total	C	N	O	S	0	0	0
			1079	688	204	182	5			
37	CM	136	Total	C	N	O	S	0	0	0
			1079	688	204	182	5			

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BN	117	Total	C	N	O		0	0	0
			960	599	202	159				
38	CN	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BO	98	Total	C	N	O		0	0	0
			770	486	154	130				
39	CO	98	Total	C	N	O		0	0	0
			770	486	154	130				

- Molecule 40 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BP	137	Total	C	N	O	S	0	0	0
			1143	713	234	195	1			
40	CP	137	Total	C	N	O	S	0	0	0
			1143	713	234	195	1			

- Molecule 41 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BQ	116	Total	C	N	O	S	0	0	0
			953	601	201	150	1			
41	CQ	116	Total	C	N	O	S	0	0	0
			953	601	201	150	1			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BQ	?	-	PHE	DELETION	UNP Q72L76
CQ	?	-	PHE	DELETION	UNP Q72L76

- Molecule 42 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BR	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
42	CR	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 43 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BS	112	Total	C	N	O	S	0	0	0
			891	560	175	154	2			
43	CS	112	Total	C	N	O	S	0	0	0
			891	560	175	154	2			

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BT	92	Total	C	N	O	0	0	0
			725	471	131	123			
44	CT	92	Total	C	N	O	0	0	0
			725	471	131	123			

- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BU	100	Total	C	N	O	S	0	0	0
			775	500	148	123	4			
45	CU	100	Total	C	N	O	S	0	0	0
			775	500	148	123	4			

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BV	188	Total	C	N	O	S	0	0	0
			1491	950	265	274	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	CV	188	Total	C	N	O	S	0	0	0
			1491	950	265	274	2			

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BW	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			
47	CW	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	BX	88	Total	C	N	O	0	0	0
			694	435	141	118			
48	CX	88	Total	C	N	O	0	0	0
			694	435	141	118			

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BY	62	Total	C	N	O	S	0	0	0
			520	325	102	91	2			
49	CY	62	Total	C	N	O	S	0	0	0
			520	325	102	91	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BZ	59	Total	C	N	O	S	0	0	0
			468	298	90	79	1			
50	CZ	59	Total	C	N	O	S	0	0	0
			468	298	90	79	1			

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B1	30	Total	C	N	O	S	0	0	0
			225	142	36	43	4			
51	C1	30	Total	C	N	O	S	0	0	0
			225	142	36	43	4			

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B2	52	Total	C	N	O	S	0	0	0
			404	255	79	65	5			
52	C2	52	Total	C	N	O	S	0	0	0
			404	255	79	65	5			

- Molecule 53 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B3	44	Total	C	N	O	S	0	0	0
			380	235	77	64	4			
53	C3	44	Total	C	N	O	S	0	0	0
			380	235	77	64	4			

- Molecule 54 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B4	48	Total	C	N	O	S	0	0	0
			419	257	104	56	2			
54	C4	48	Total	C	N	O	S	0	0	0
			419	257	104	56	2			

- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B5	63	Total	C	N	O	S	0	0	0
			507	326	101	78	2			
55	C5	63	Total	C	N	O	S	0	0	0
			507	326	101	78	2			

- Molecule 56 is a RNA chain called messenger RNA (5'-R(*AP*AP*UP*GP*UP*AP*G)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	DX	9	Total	C	N	O	P	0	0	0
			193	88	39	58	8			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	CB	2	Total	Mg	0	0
			2	2		

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Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	BB	2	Total 2	Mg 2	0	0
57	BA	176	Total 176	Mg 176	0	0
57	CA	125	Total 125	Mg 125	0	0
57	B2	1	Total 1	Mg 1	0	0
57	BM	1	Total 1	Mg 1	0	0
57	AV	1	Total 1	Mg 1	0	0
57	DA	30	Total 30	Mg 30	0	0
57	AW	3	Total 3	Mg 3	0	0
57	AA	64	Total 64	Mg 64	0	0
57	AT	1	Total 1	Mg 1	0	0
57	BK	1	Total 1	Mg 1	0	0
57	DW	1	Total 1	Mg 1	0	0
57	CY	1	Total 1	Mg 1	0	0
57	CM	1	Total 1	Mg 1	0	0

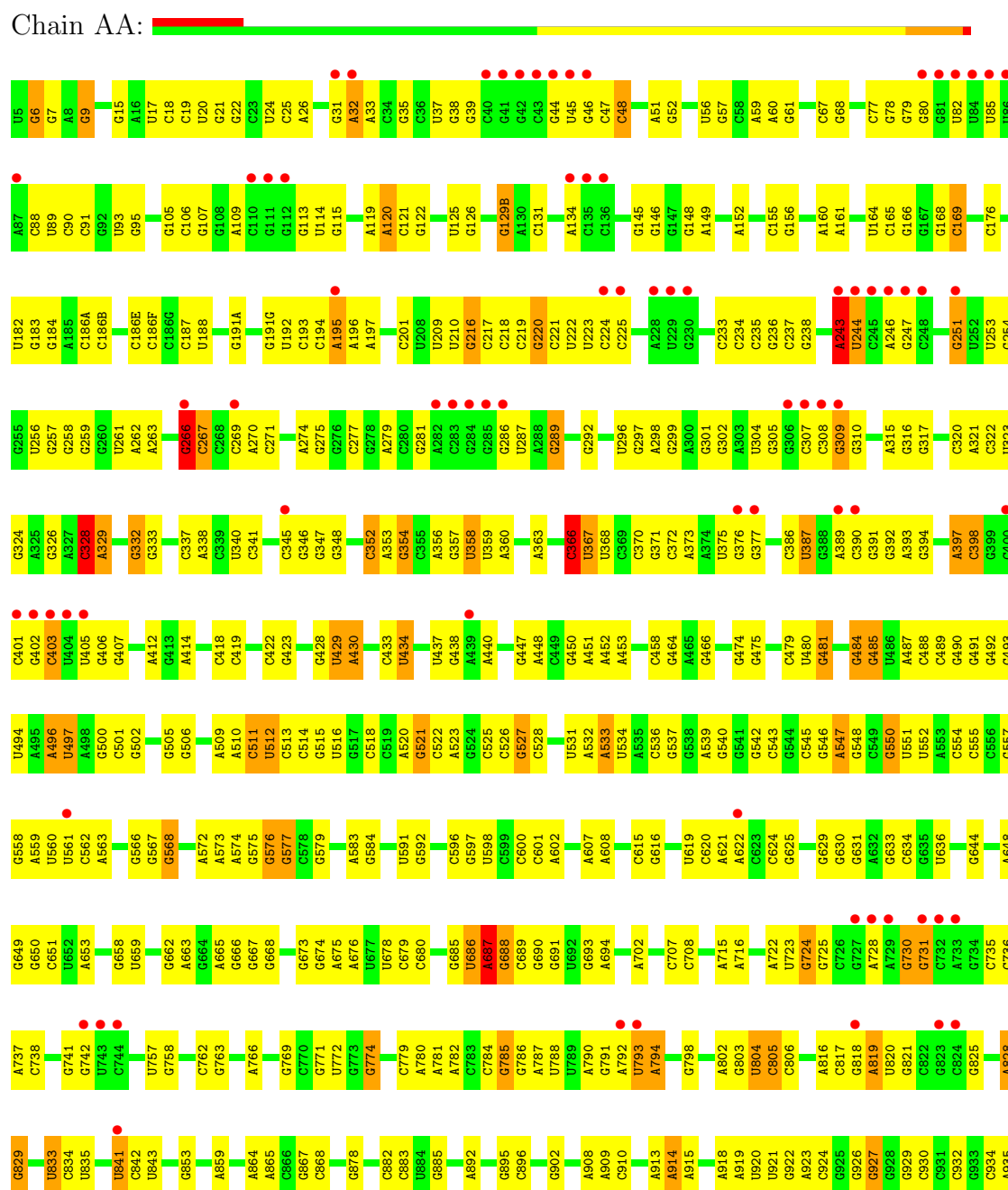
- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

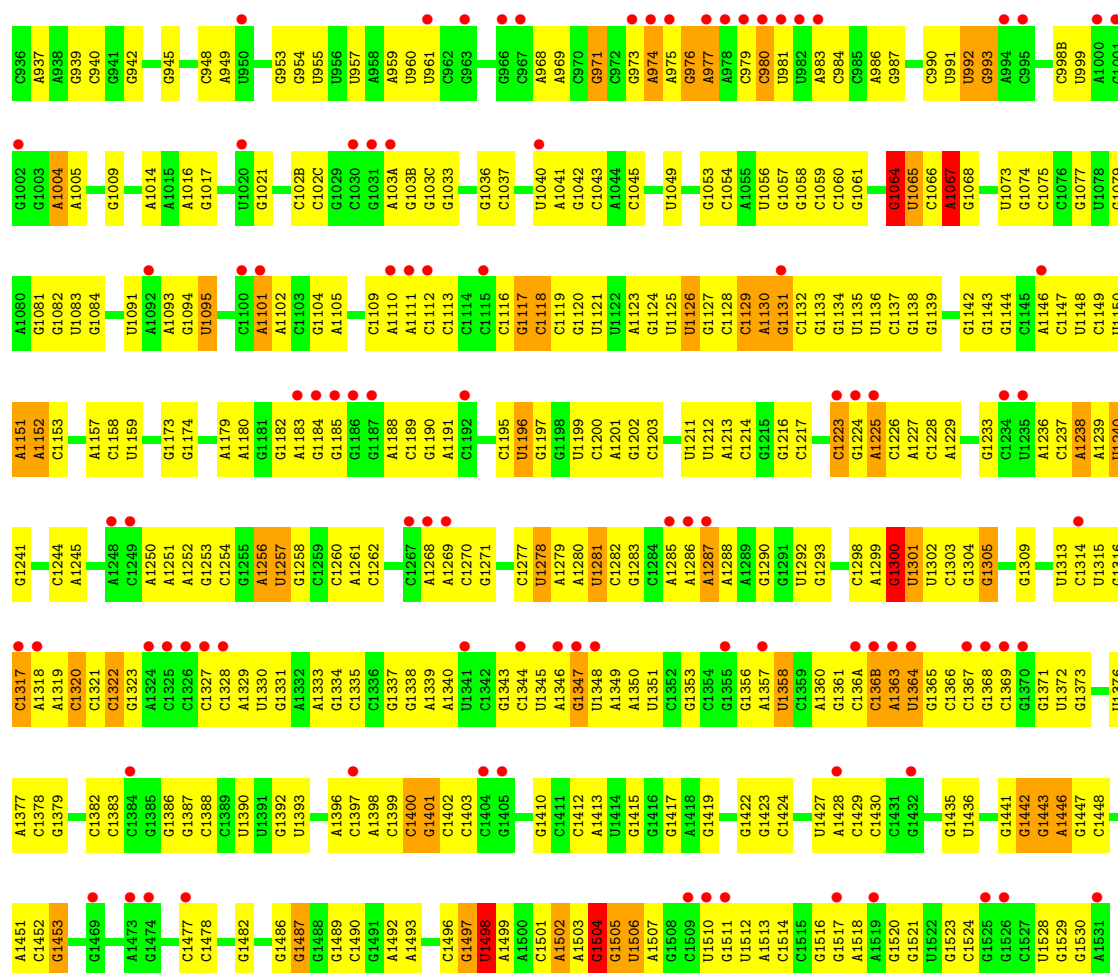
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	DN	1	Total 1	Zn 1	0	0
58	AD	1	Total 1	Zn 1	0	0
58	DD	1	Total 1	Zn 1	0	0
58	AN	1	Total 1	Zn 1	0	0

3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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.

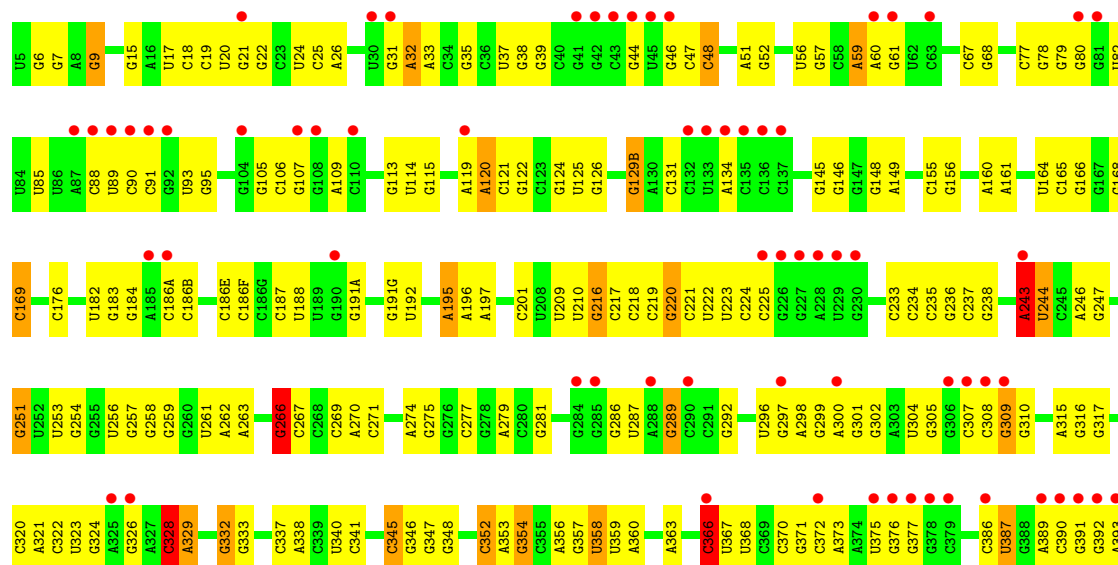
• Molecule 1: 16S rRNA (1504-MER)

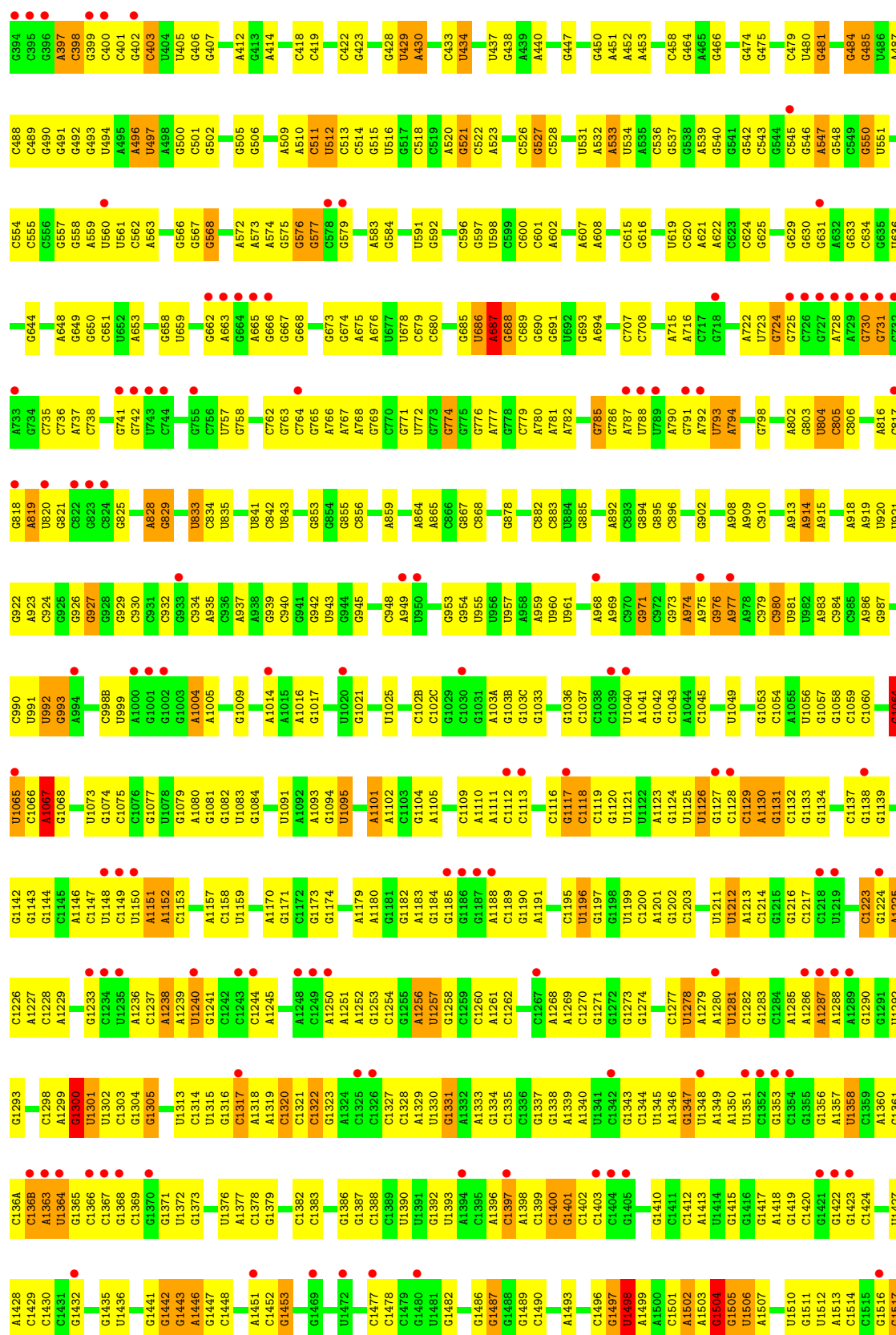


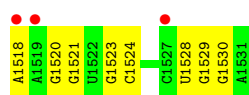


● Molecule 1: 16S rRNA (1504-MER)

Chain DA:

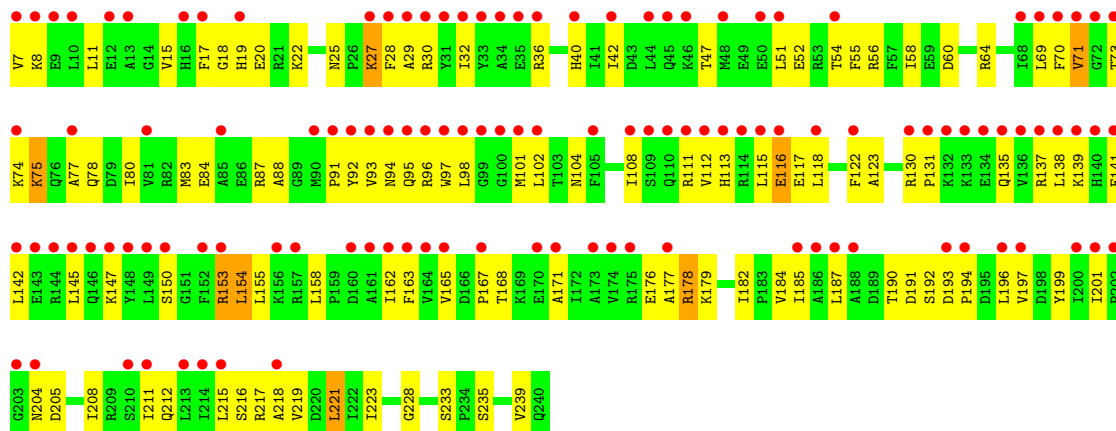






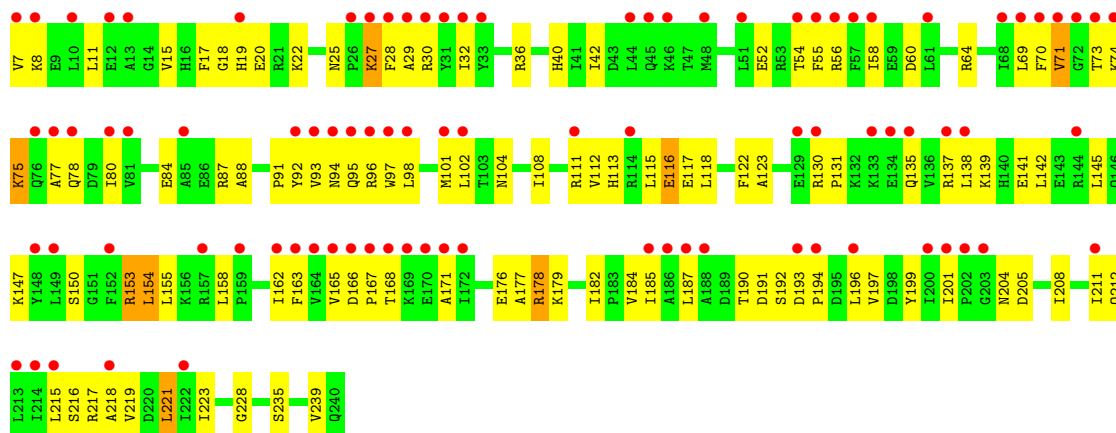
- Molecule 2: 30S ribosomal protein S2

Chain AB:



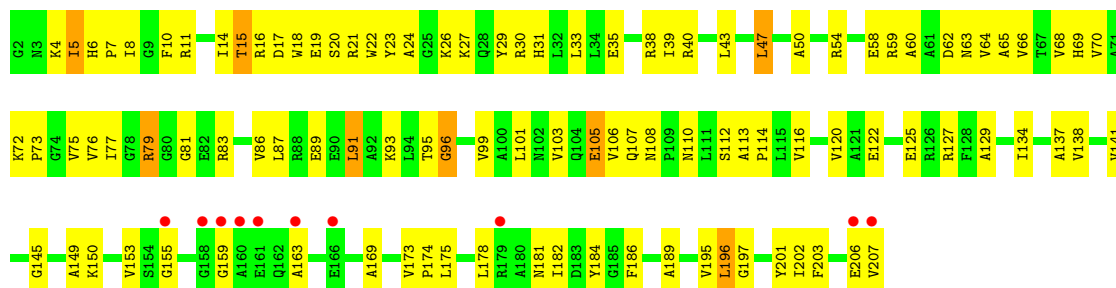
- Molecule 2: 30S ribosomal protein S2

Chain DB:



- Molecule 3: 30S ribosomal protein S3

Chain AC:



- Molecule 3: 30S ribosomal protein S3

Chain DC:



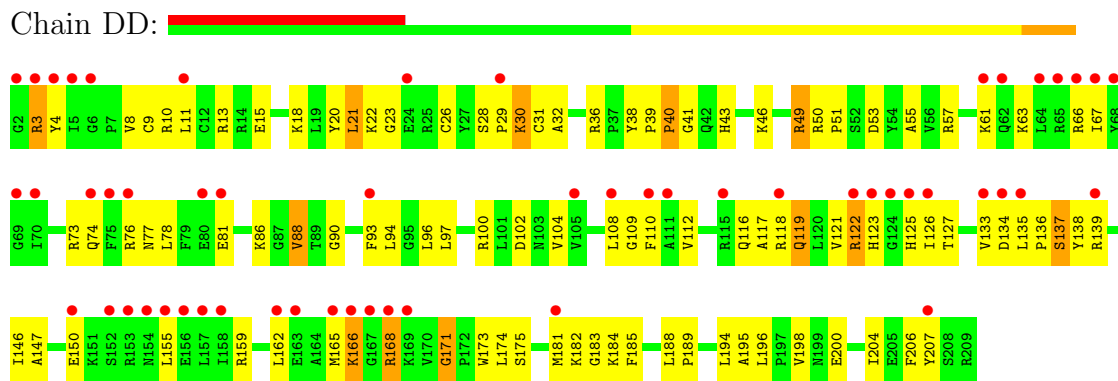
- Molecule 4: 30S ribosomal protein S4

Chain AD:



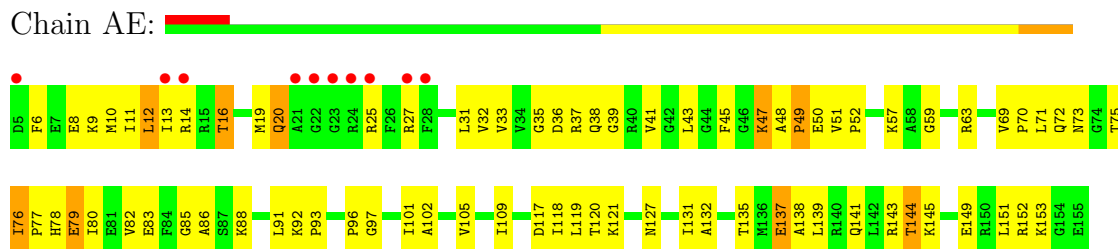
- Molecule 4: 30S ribosomal protein S4

Chain DD:



- Molecule 5: 30S ribosomal protein S5

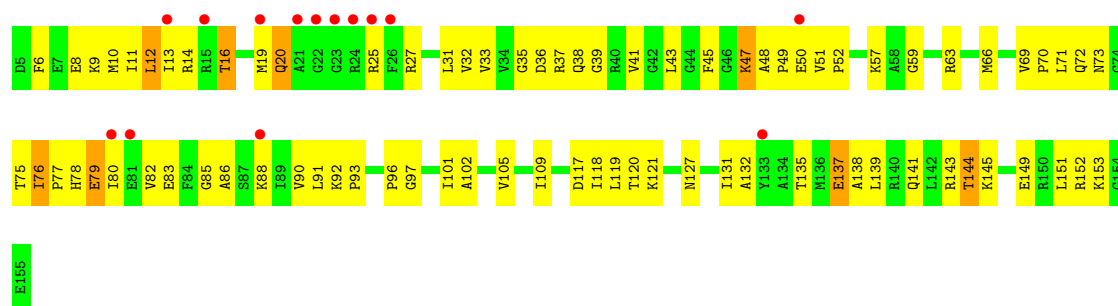
Chain AE:



- Molecule 5: 30S ribosomal protein S5

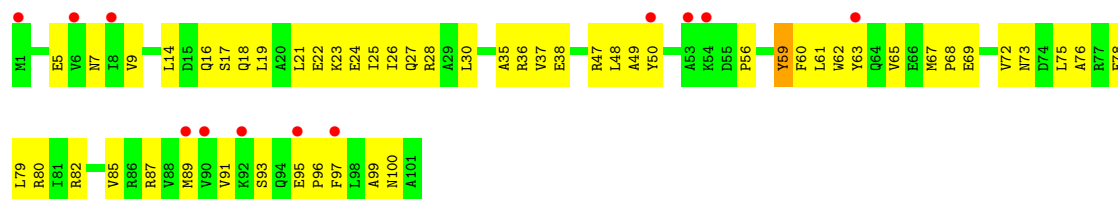
Chain DE:





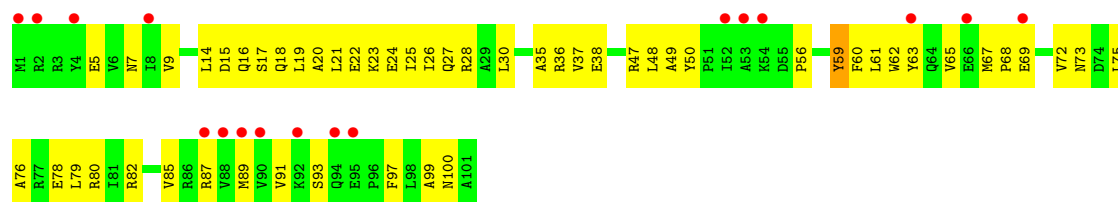
- Molecule 6: 30S ribosomal protein S6

Chain AF:



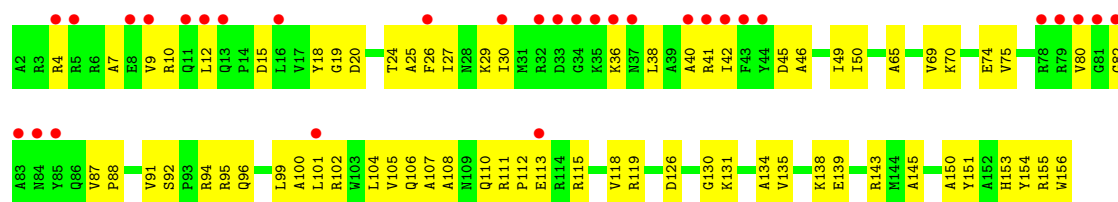
- Molecule 6: 30S ribosomal protein S6

Chain DF:



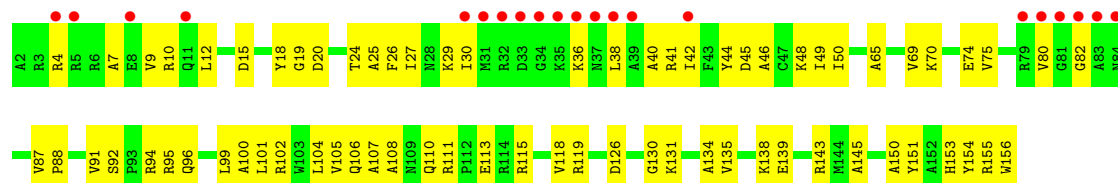
- Molecule 7: 30S ribosomal protein S7

Chain AG:



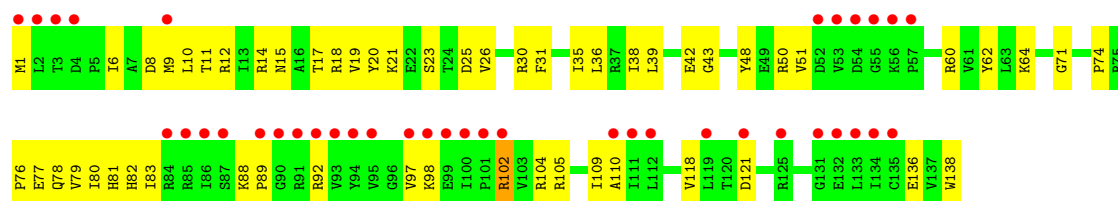
- Molecule 7: 30S ribosomal protein S7

Chain DG:



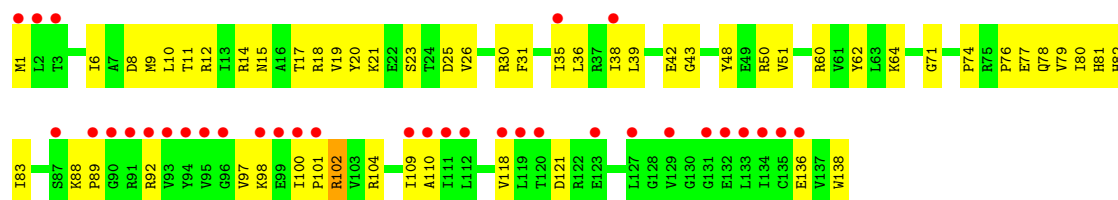
- Molecule 8: 30S ribosomal protein S8

Chain AH: 



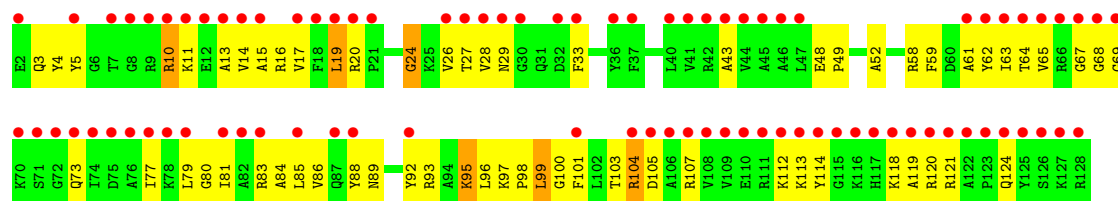
- Molecule 8: 30S ribosomal protein S8

Chain DH: 



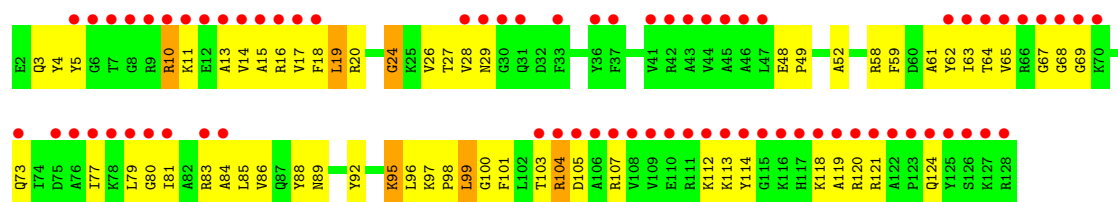
- Molecule 9: 30S ribosomal protein S9

Chain AI: 



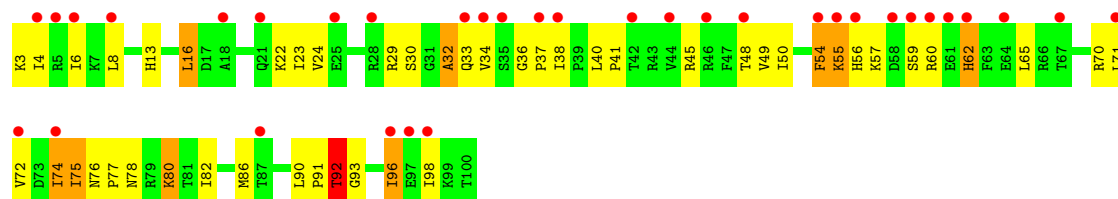
- Molecule 9: 30S ribosomal protein S9

Chain DI: 



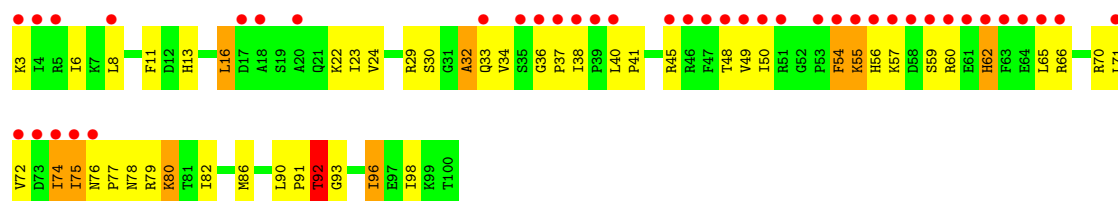
- Molecule 10: 30S ribosomal protein S10

Chain AJ: 



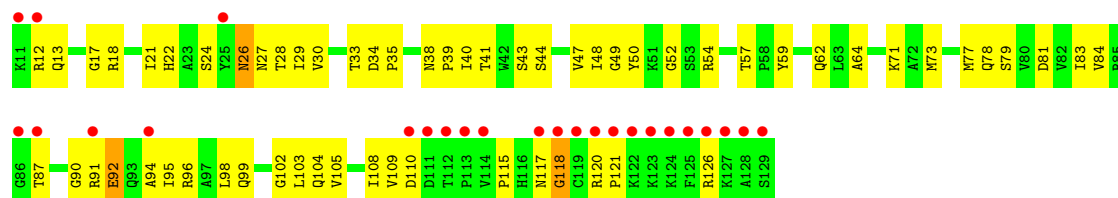
- Molecule 10: 30S ribosomal protein S10

Chain DJ: 



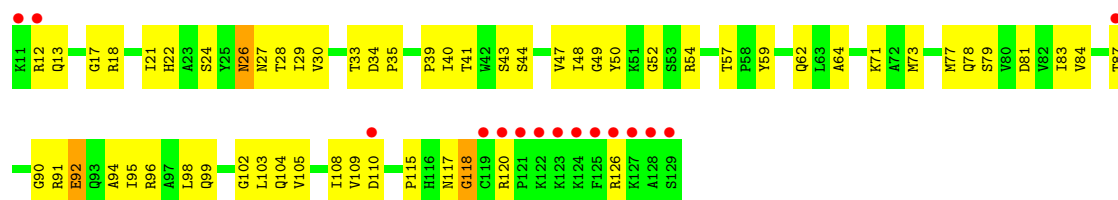
• Molecule 11: 30S ribosomal protein S11

Chain AK:



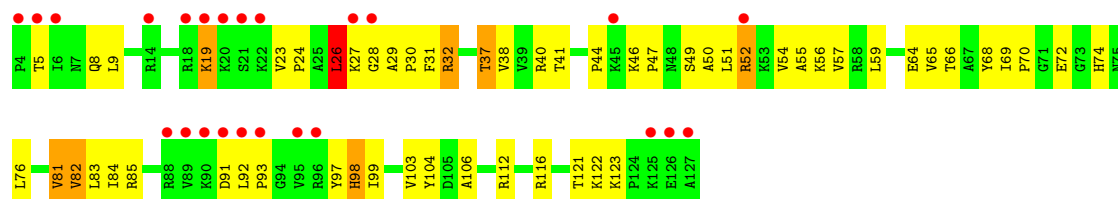
• Molecule 11: 30S ribosomal protein S11

Chain DK:



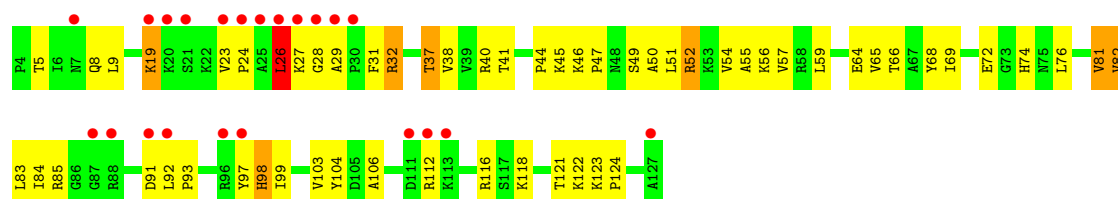
• Molecule 12: 30S ribosomal protein S12

Chain AL:



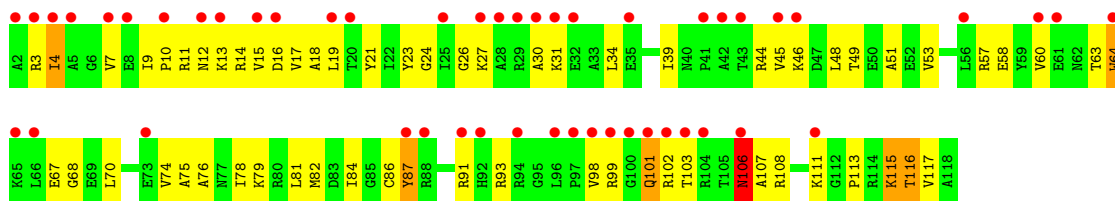
• Molecule 12: 30S ribosomal protein S12

Chain DL:



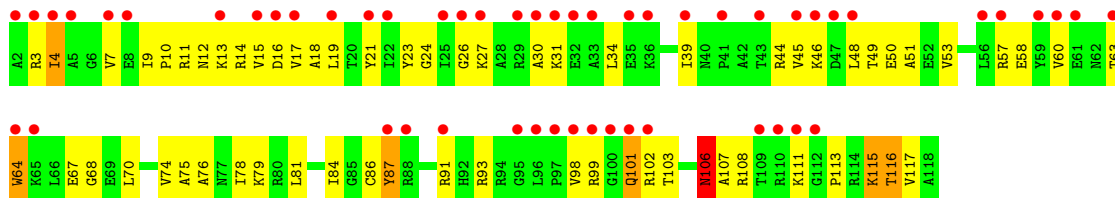
• Molecule 13: 30S ribosomal protein S13

Chain AM:



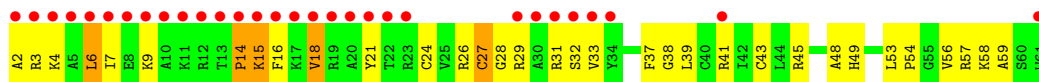
• Molecule 13: 30S ribosomal protein S13

Chain DM:



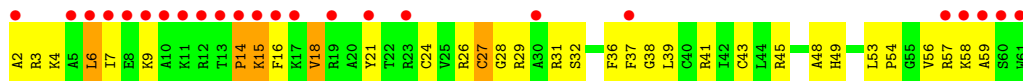
• Molecule 14: 30S ribosomal protein S14

Chain AN:



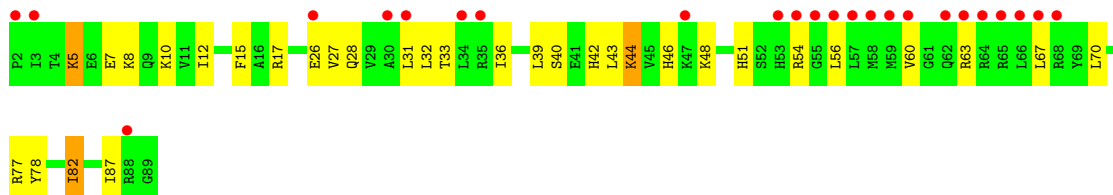
• Molecule 14: 30S ribosomal protein S14

Chain DN:



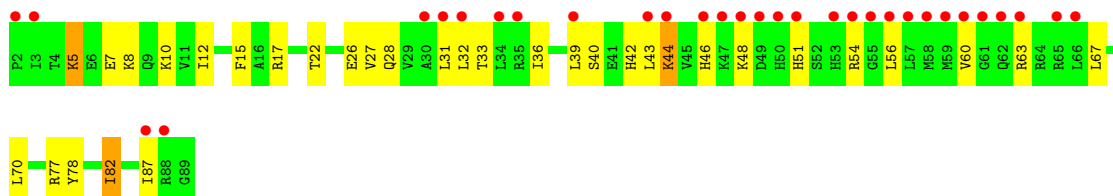
• Molecule 15: 30S ribosomal protein S15

Chain AO:



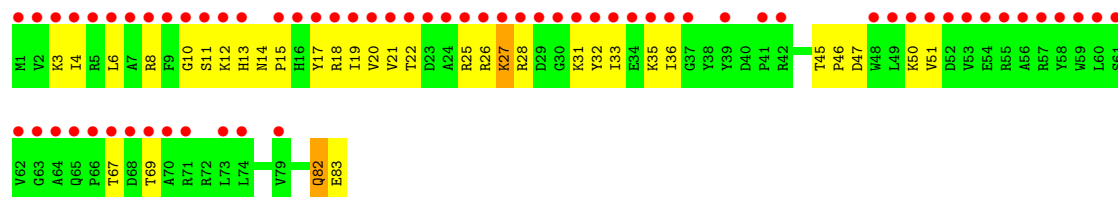
• Molecule 15: 30S ribosomal protein S15

Chain DO:



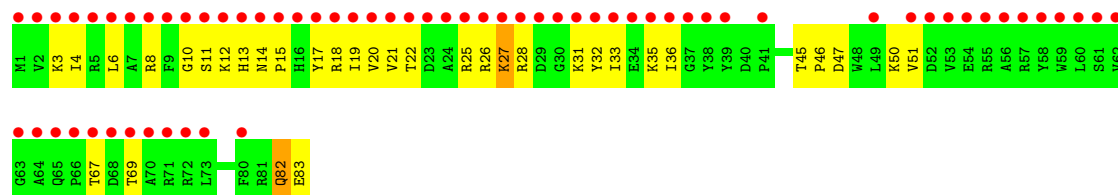
• Molecule 16: 30S ribosomal protein S16

Chain AP:



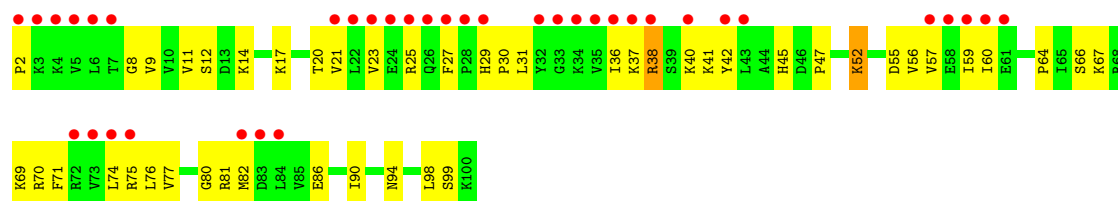
- Molecule 16: 30S ribosomal protein S16

Chain DP:



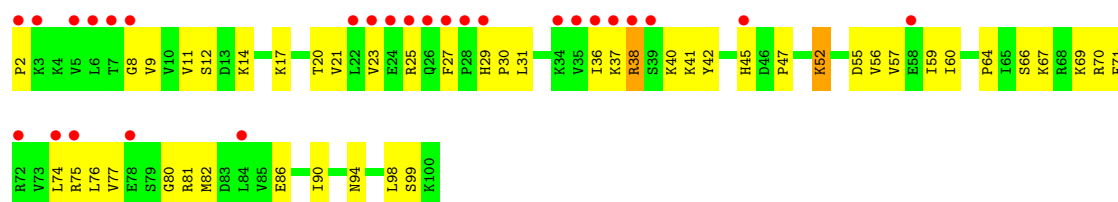
- Molecule 17: 30S ribosomal protein S17

Chain AQ:



- Molecule 17: 30S ribosomal protein S17

Chain DQ:



- Molecule 18: 30S ribosomal protein S18

Chain AR:



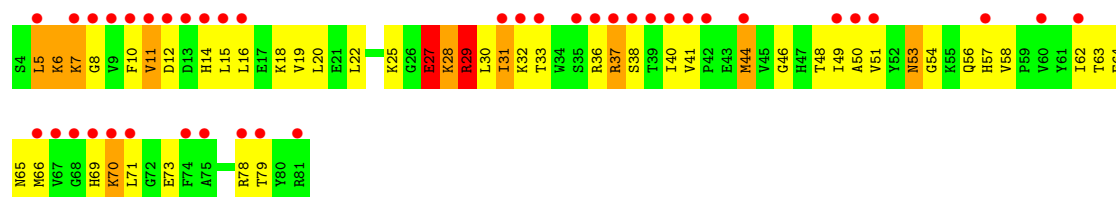
- Molecule 18: 30S ribosomal protein S18

Chain DR:



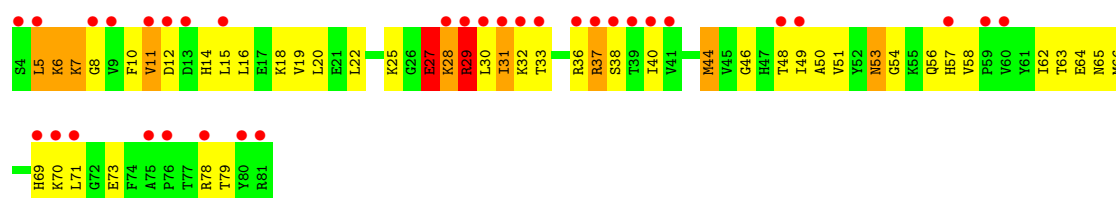
- Molecule 19: 30S ribosomal protein S19

Chain AS:



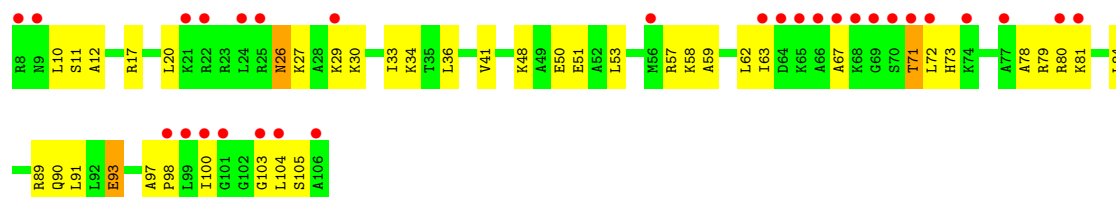
- Molecule 19: 30S ribosomal protein S19

Chain DS:



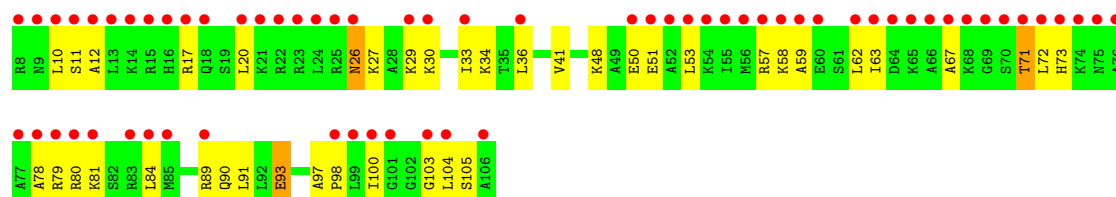
- Molecule 20: 30S ribosomal protein S20

Chain AT:



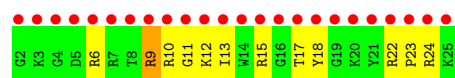
- Molecule 20: 30S ribosomal protein S20

Chain DT:



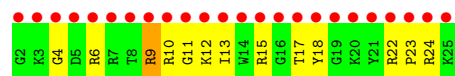
- Molecule 21: 30S ribosomal protein Thx

Chain AU:



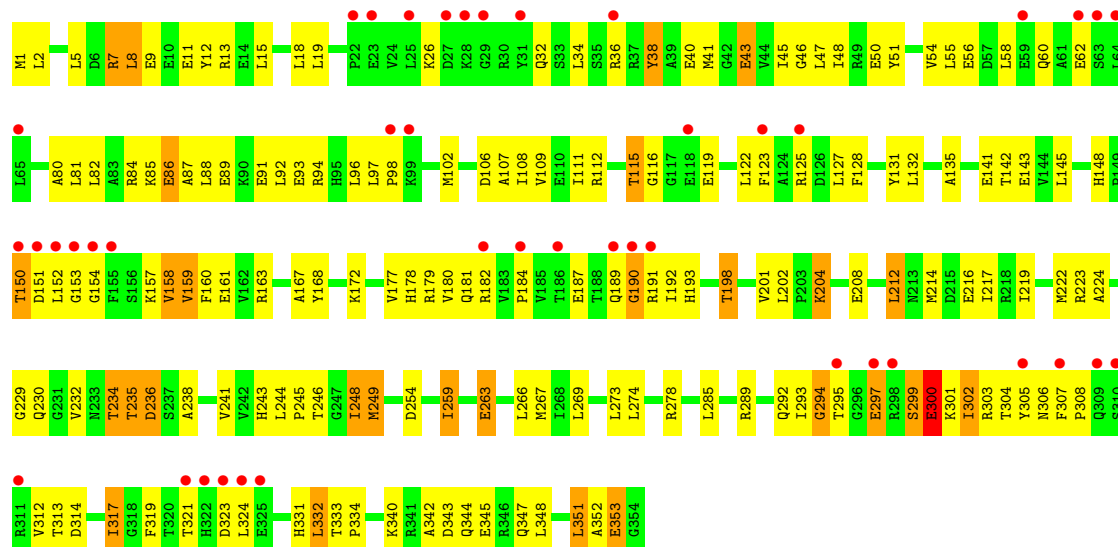
- Molecule 21: 30S ribosomal protein Thx

Chain DU:



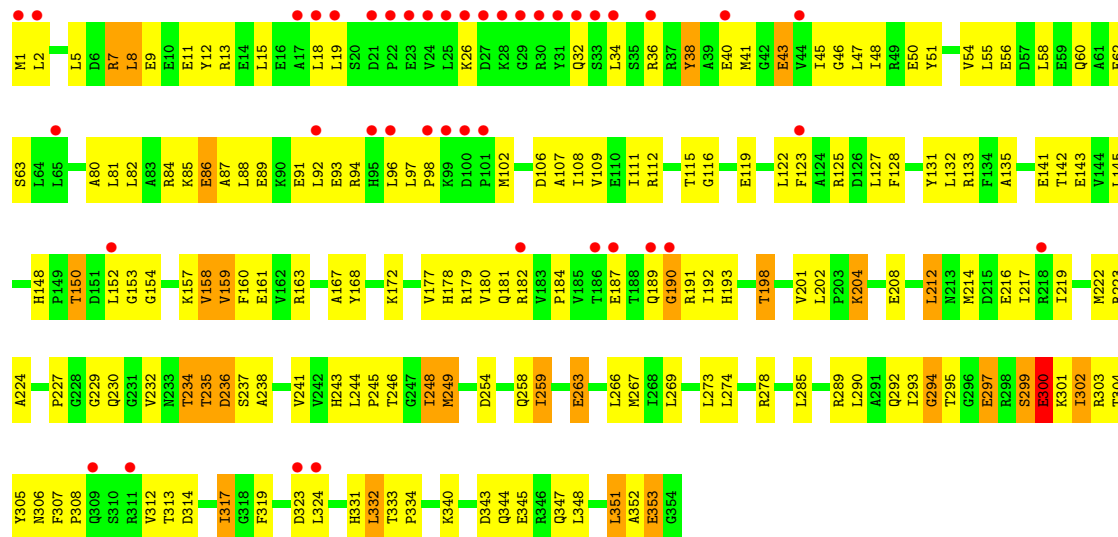
- Molecule 22: Peptide chain release factor 1

Chain AV:



- Molecule 22: Peptide chain release factor 1

Chain DV:



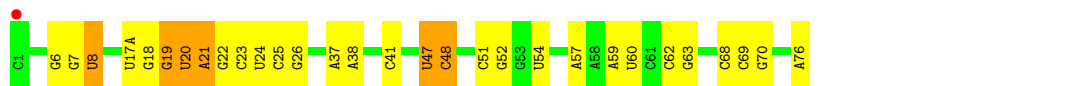
- Molecule 23: P-site tRNA-fMet

Chain AW:



- Molecule 23: P-site tRNA-fMet

Chain DW:



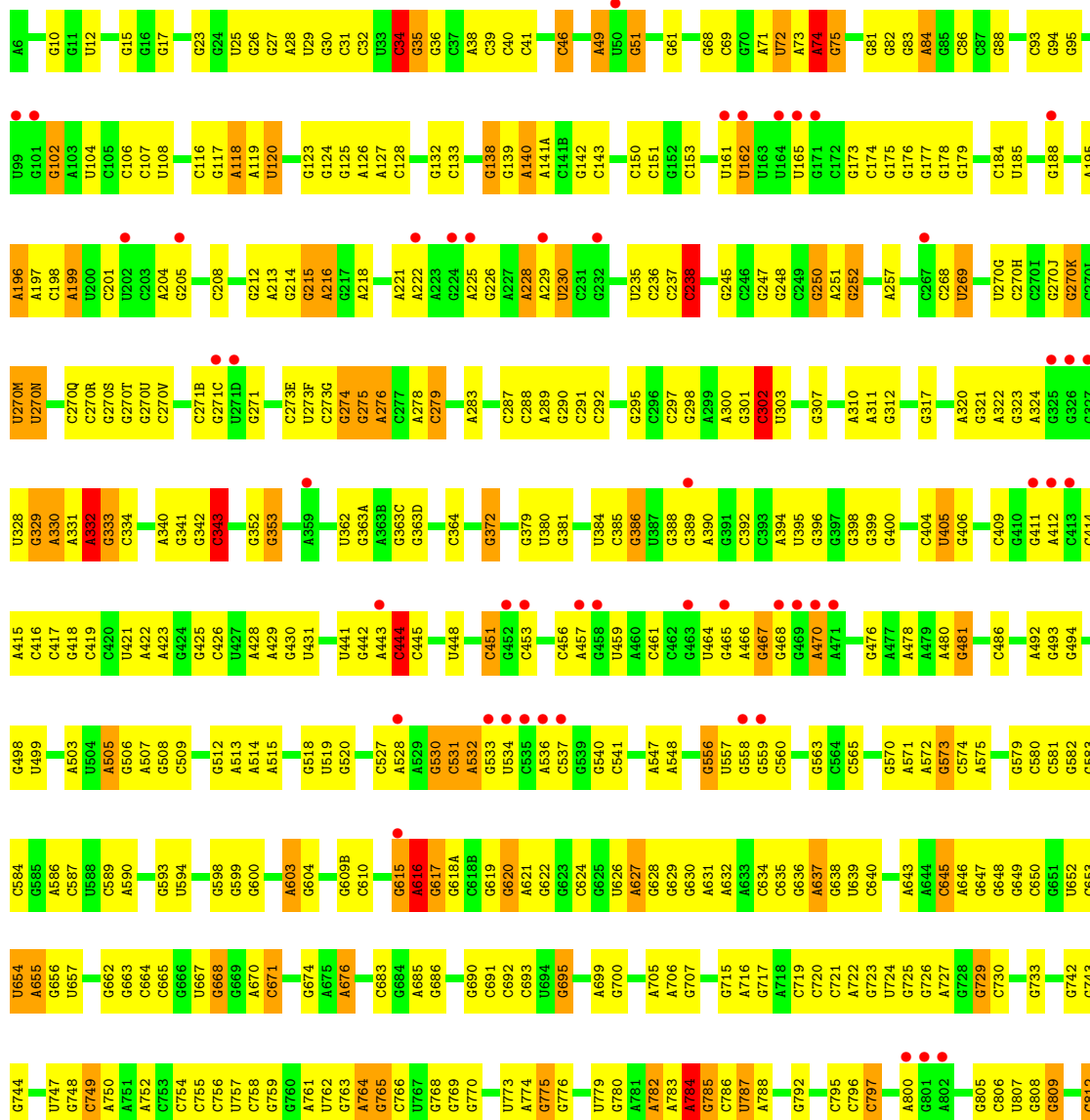
- Molecule 24: messenger RNA (5'-R(*AP*AP*UP*GP*UP*AP*G)-3')

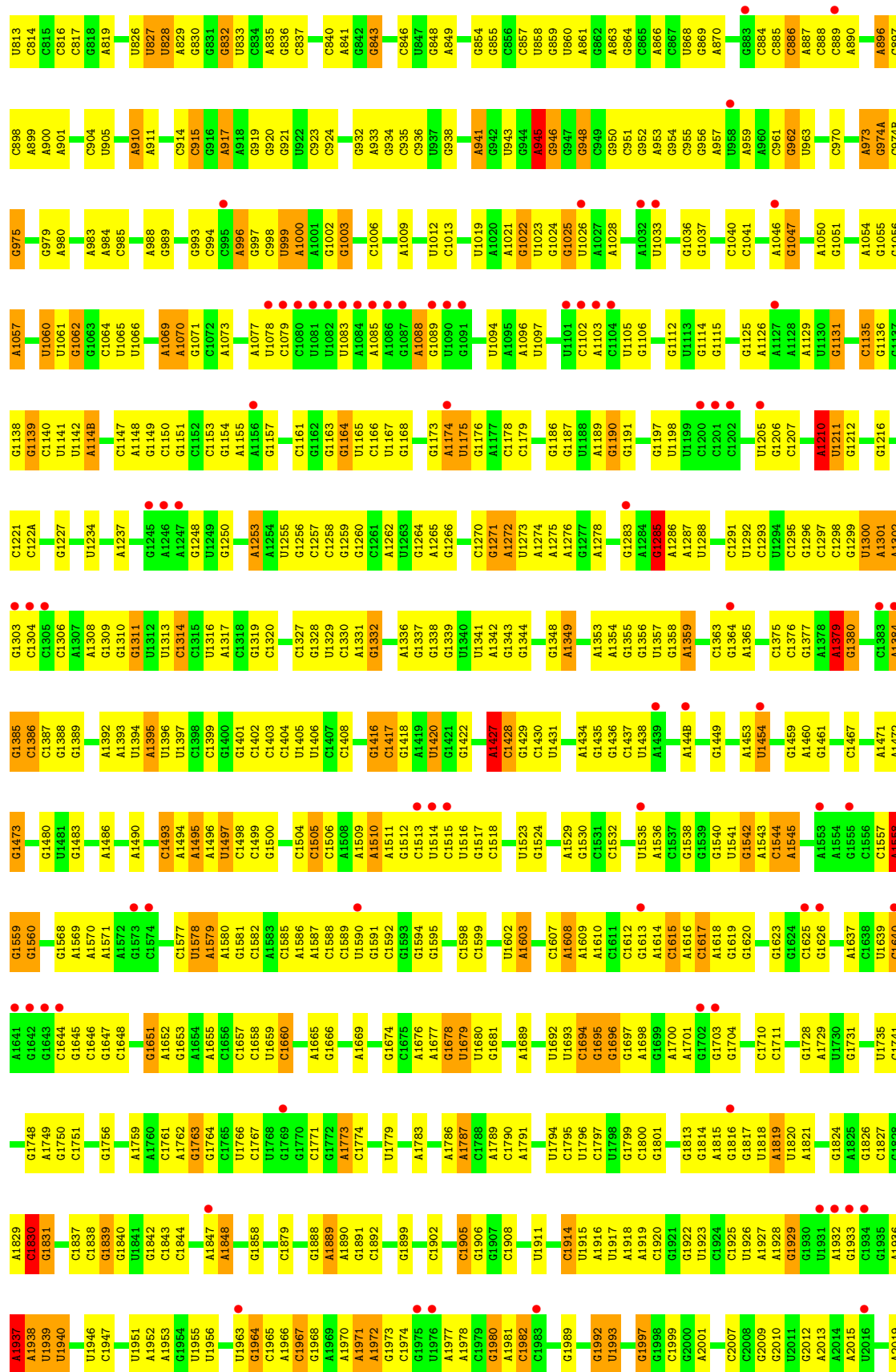
Chain AX:

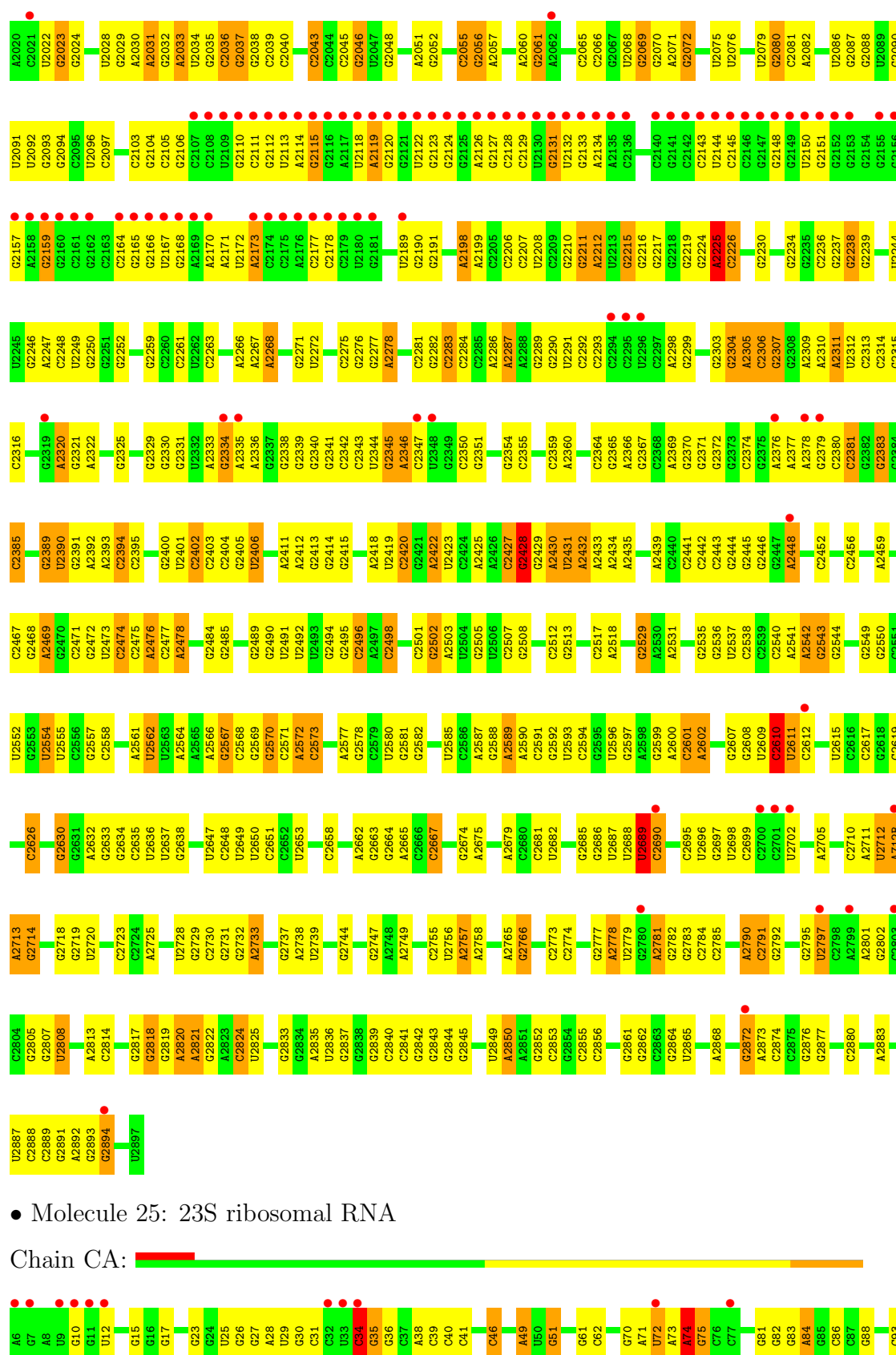


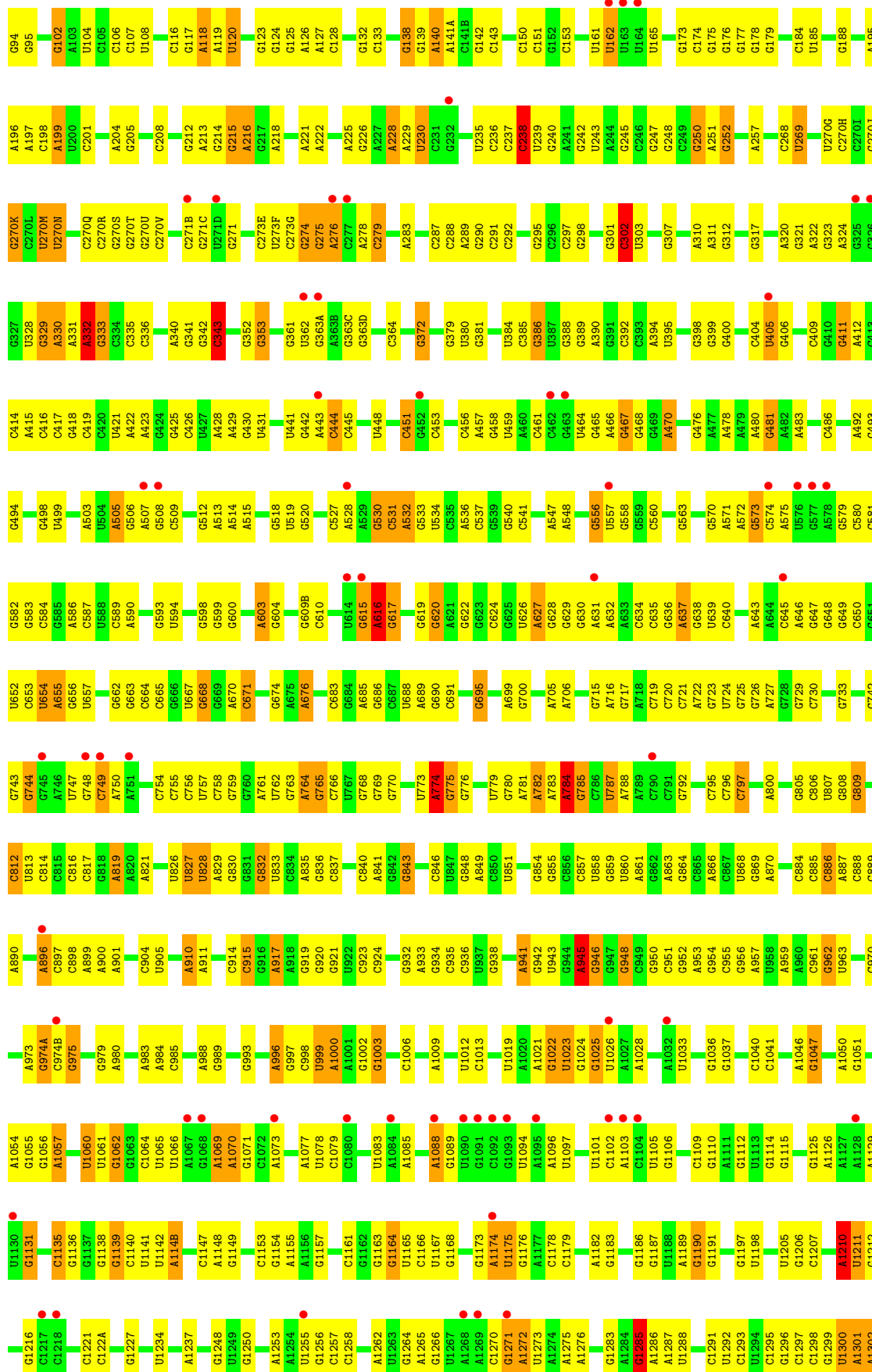
- Molecule 25: 23S ribosomal RNA

Chain BA:

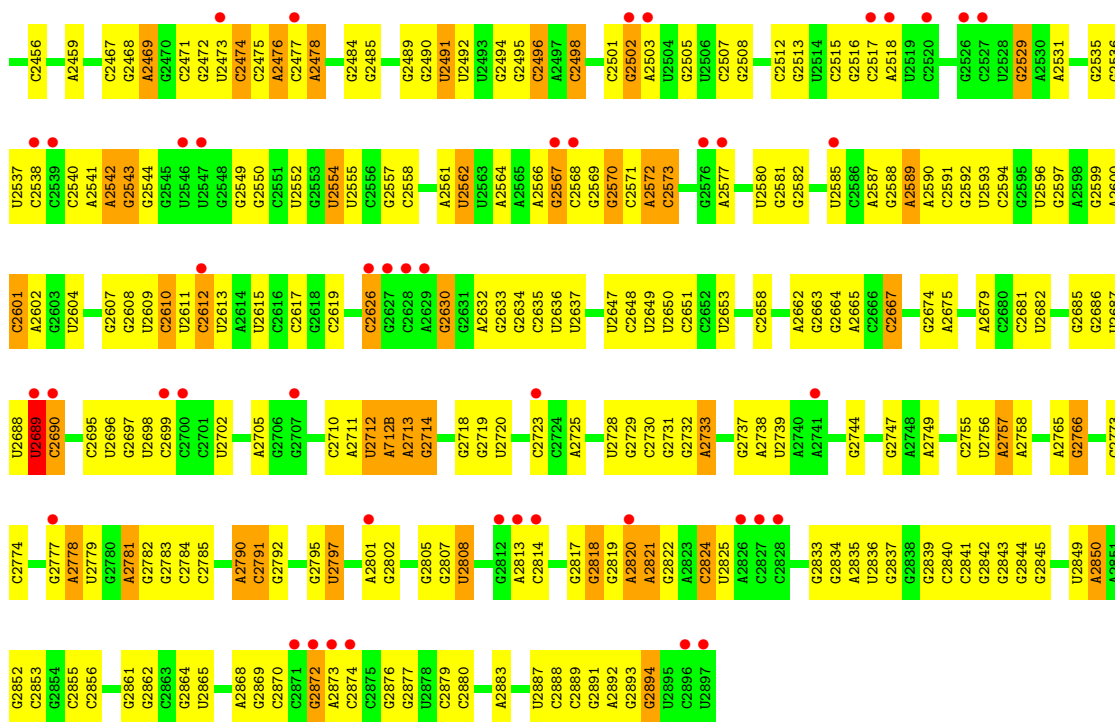






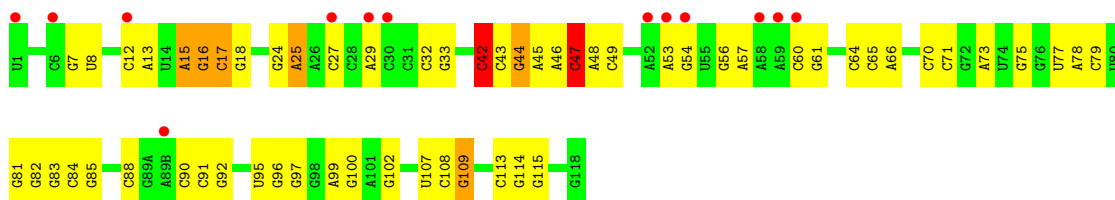


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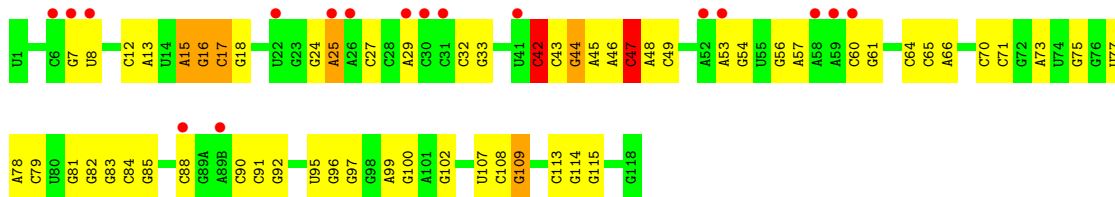
• Molecule 26: 5S ribosomal RNA

Chain BB:



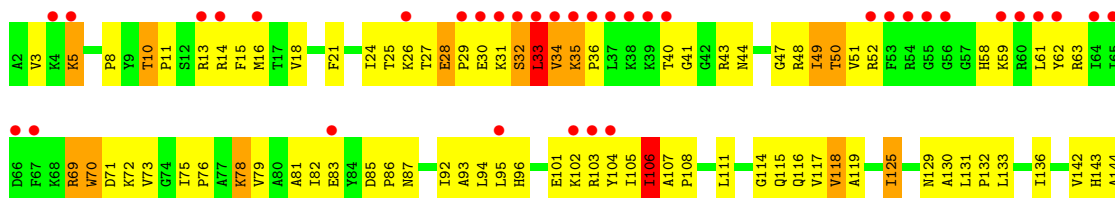
• Molecule 26: 5S ribosomal RNA

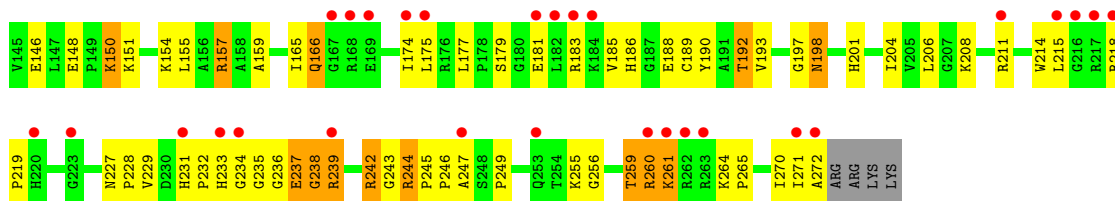
Chain CB:



• Molecule 27: 50S ribosomal protein L2

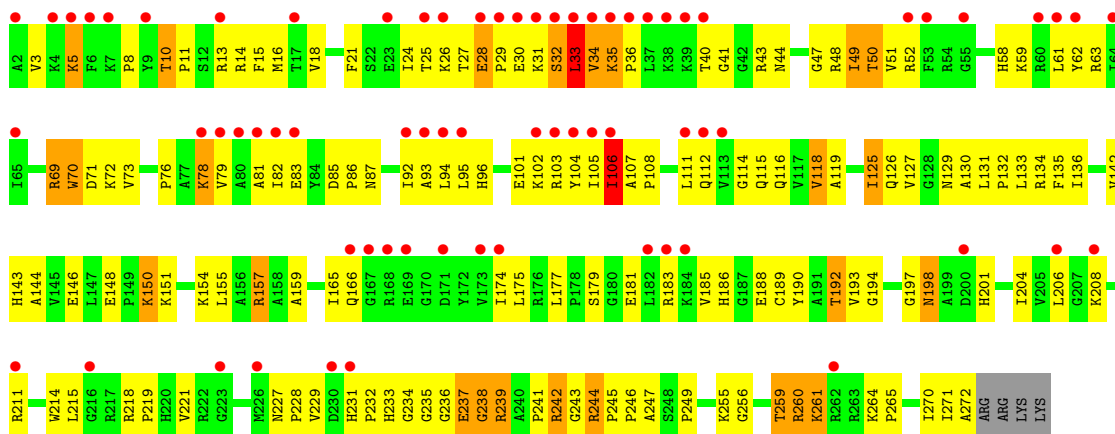
Chain BC:





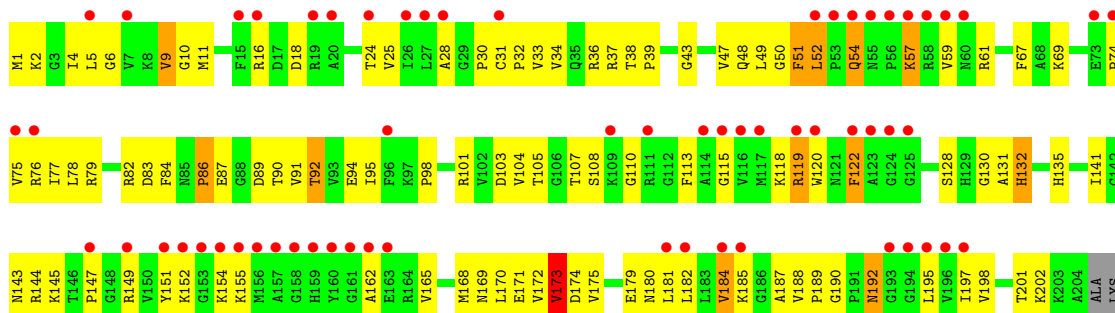
• Molecule 27: 50S ribosomal protein L2

Chain CC:



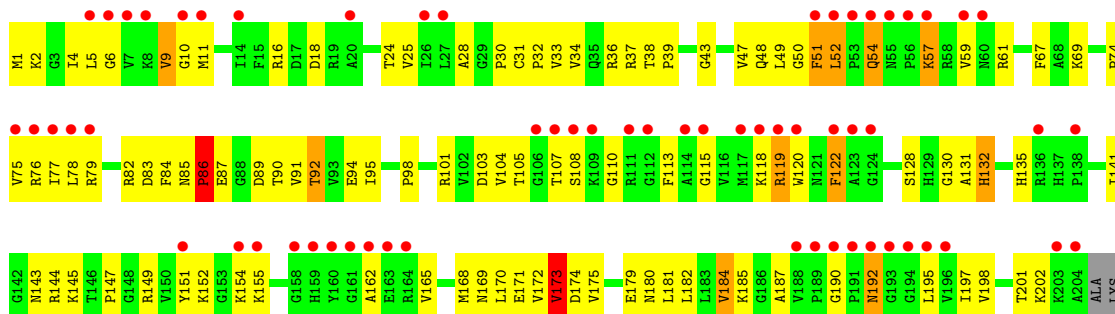
• Molecule 28: 50S ribosomal protein L3

Chain BD:



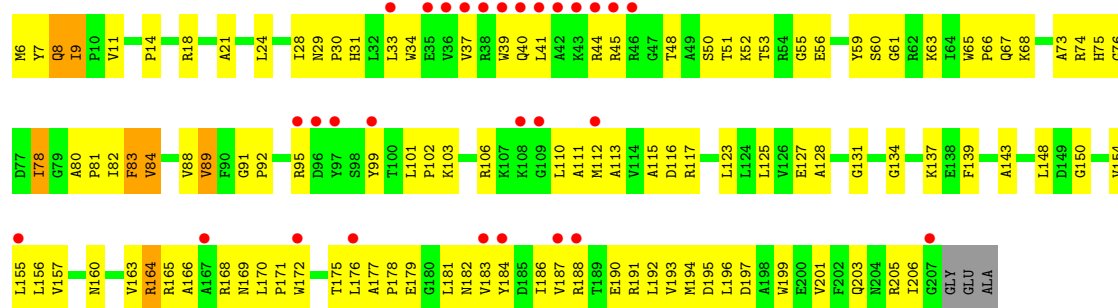
• Molecule 28: 50S ribosomal protein L3

Chain CD:



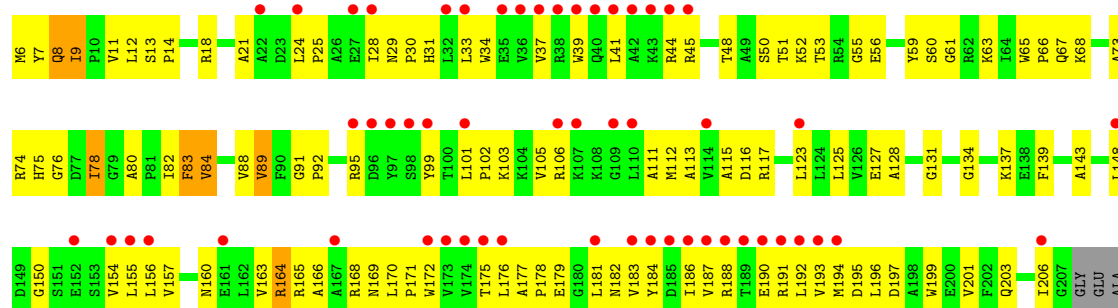
• Molecule 29: 50S ribosomal protein L4

Chain BE:



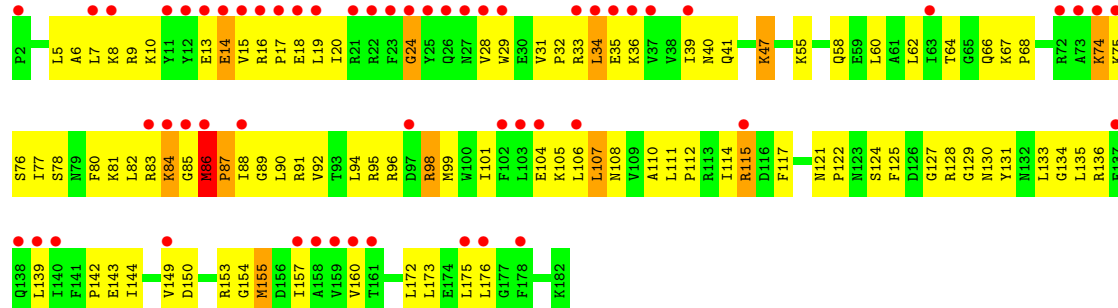
- Molecule 29: 50S ribosomal protein L4

Chain CE:



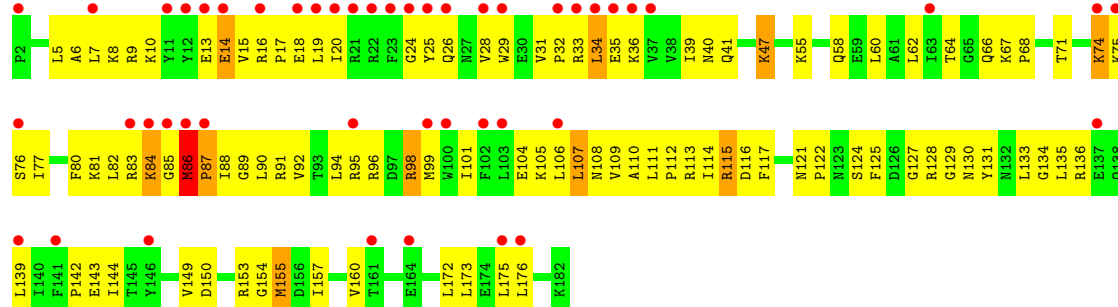
- Molecule 30: 50S ribosomal protein L5

Chain BF: 



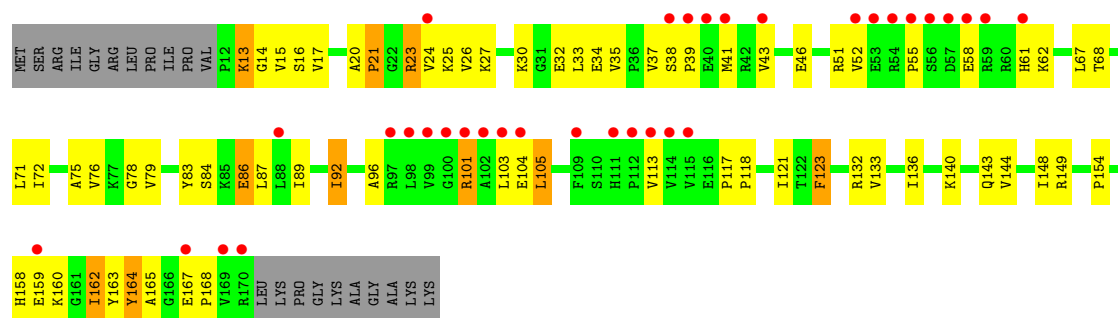
- Molecule 30: 50S ribosomal protein L5

Chain CF: 



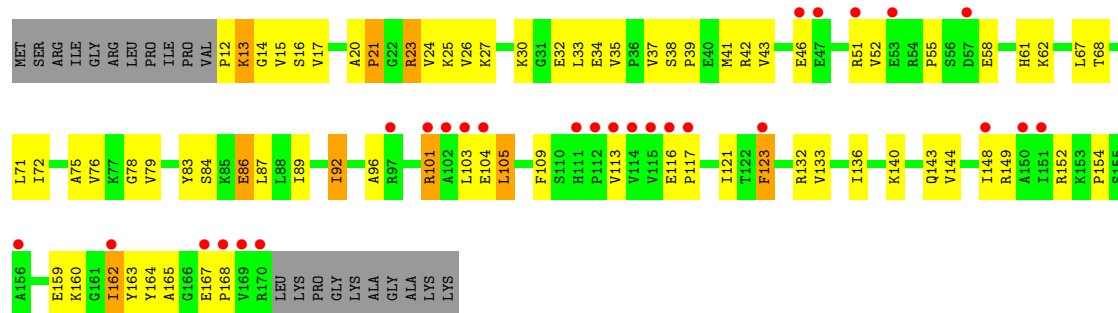
- Molecule 31: 50S ribosomal protein L6

Chain BG:



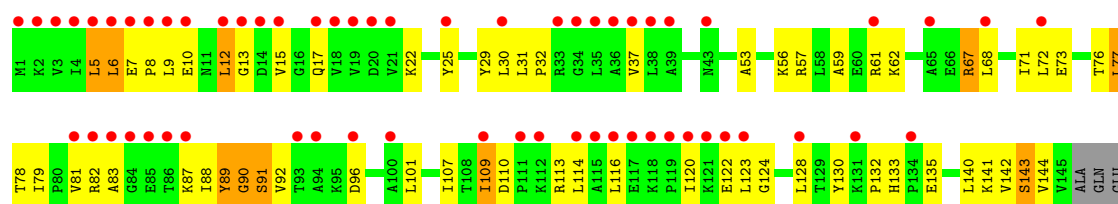
- Molecule 31: 50S ribosomal protein L6

Chain CG:



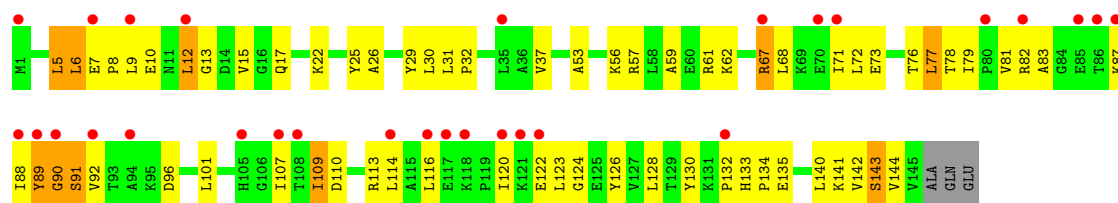
- Molecule 32: 50S ribosomal protein L9

Chain BH:



- Molecule 32: 50S ribosomal protein L9

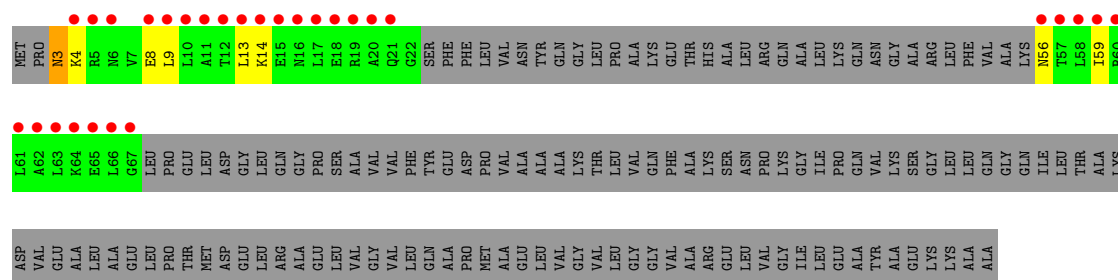
Chain CH:



- Molecule 33: 50S ribosomal protein L10

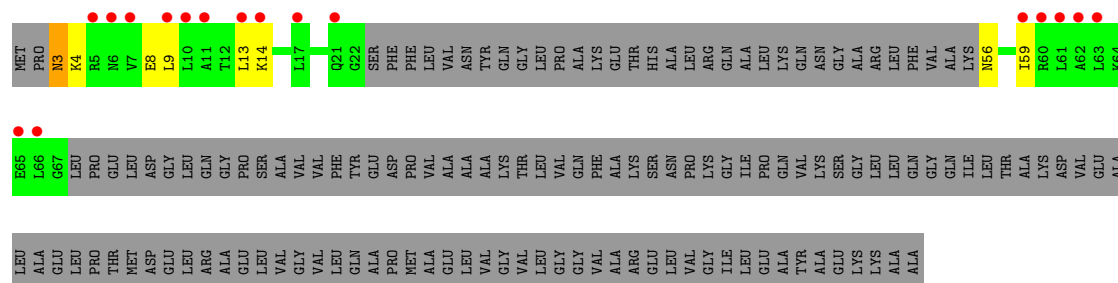
Chain BI:





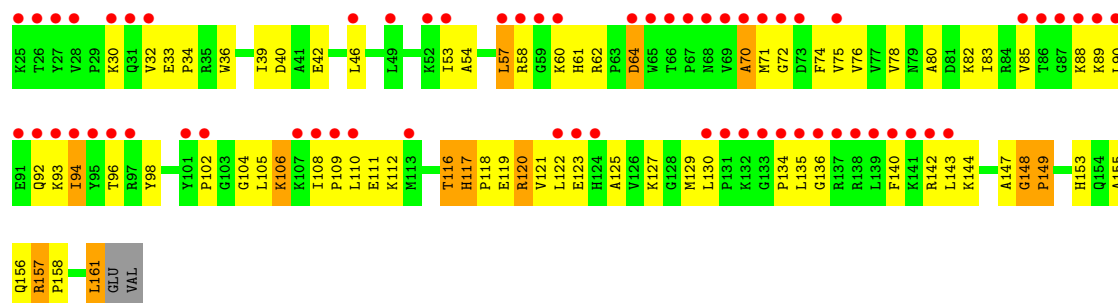
• Molecule 33: 50S ribosomal protein L10

Chain CI:



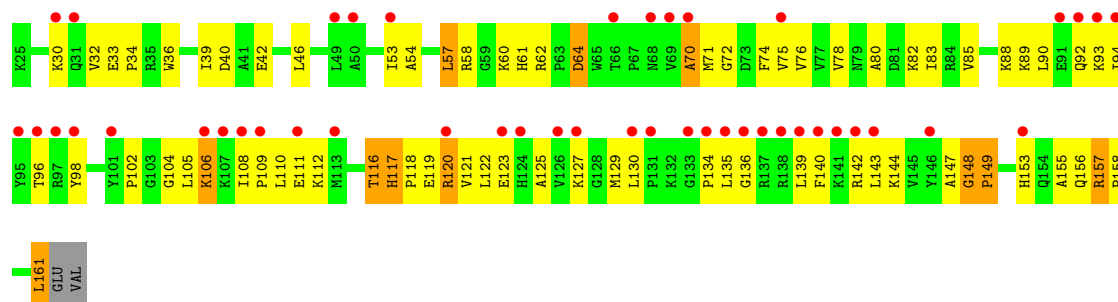
• Molecule 34: 50S ribosomal protein L13

Chain BJ:



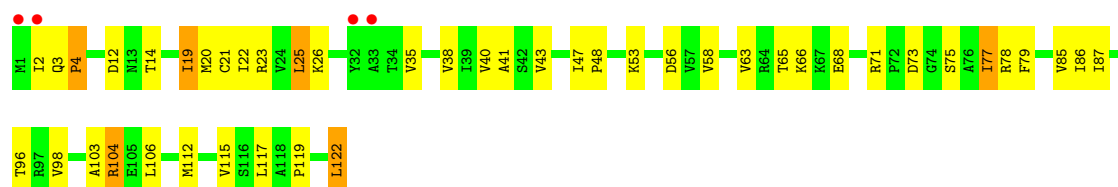
• Molecule 34: 50S ribosomal protein L13

Chain CJ:



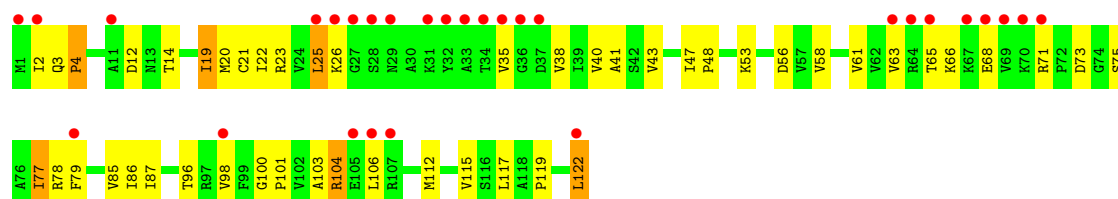
• Molecule 35: 50S ribosomal protein L14

Chain BK:



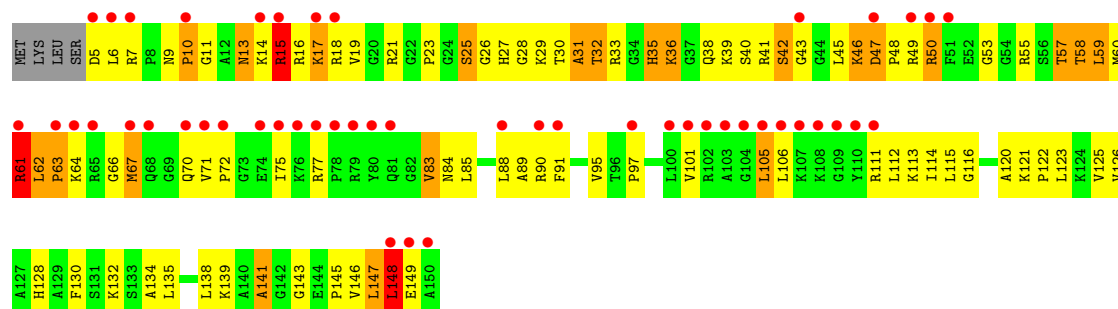
- Molecule 35: 50S ribosomal protein L14

Chain CK:



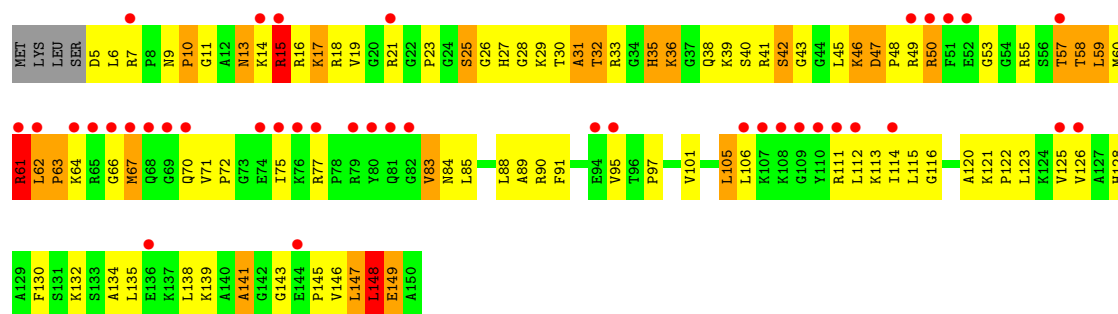
- Molecule 36: 50S ribosomal protein L15

Chain BL:



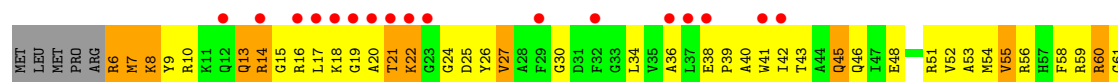
- Molecule 36: 50S ribosomal protein L15

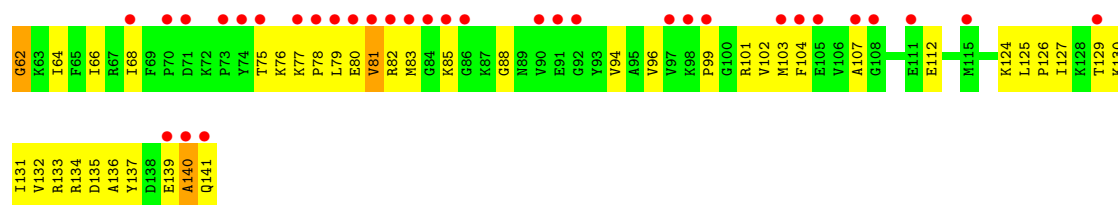
Chain CL:



- Molecule 37: 50S ribosomal protein L16

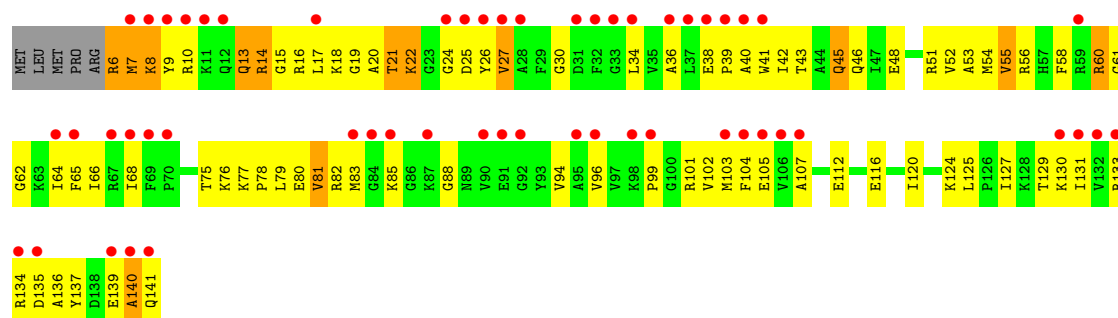
Chain BM:





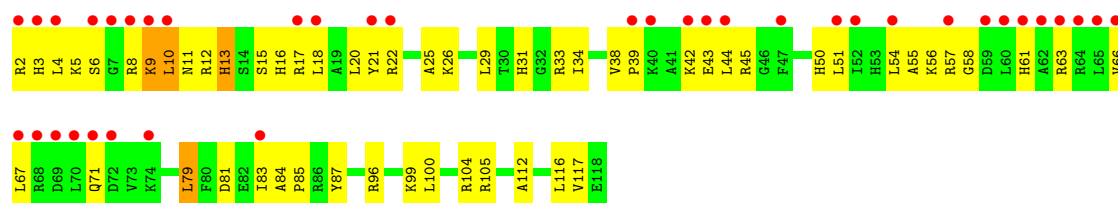
• Molecule 37: 50S ribosomal protein L16

Chain CM:



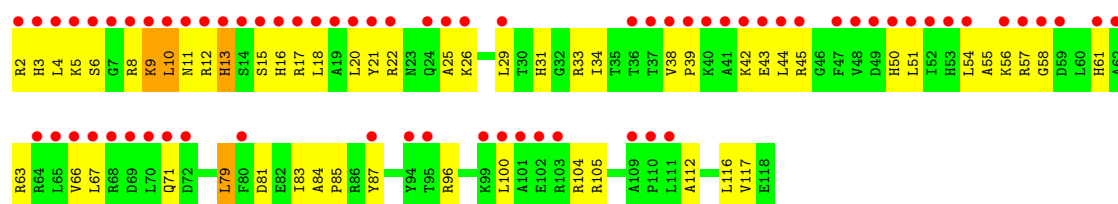
• Molecule 38: 50S ribosomal protein L17

Chain BN:



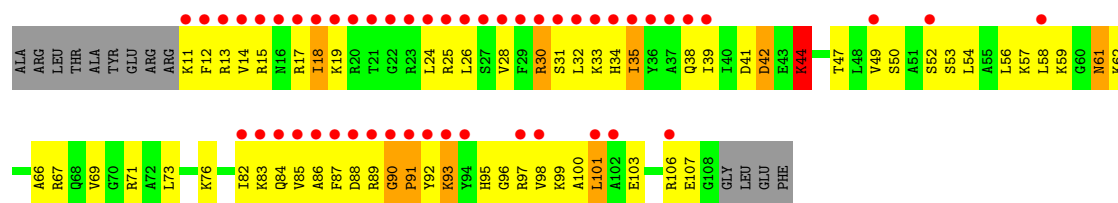
• Molecule 38: 50S ribosomal protein L17

Chain CN:



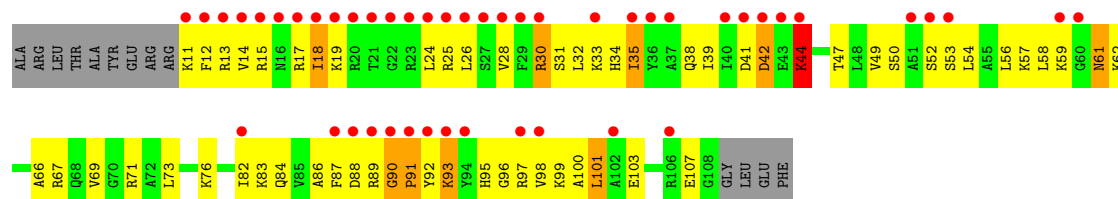
• Molecule 39: 50S ribosomal protein L18

Chain BO:



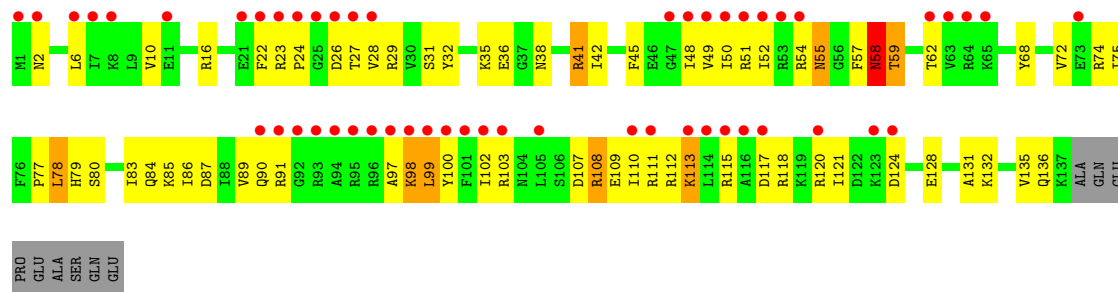
• Molecule 39: 50S ribosomal protein L18

Chain CO:



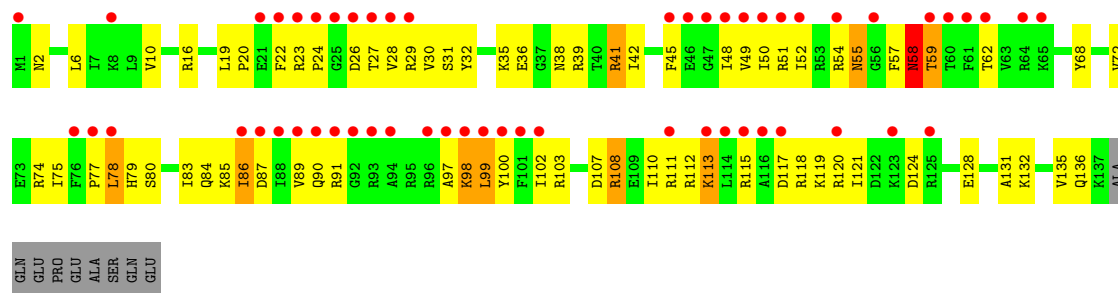
- Molecule 40: 50S ribosomal protein L19

Chain BP:



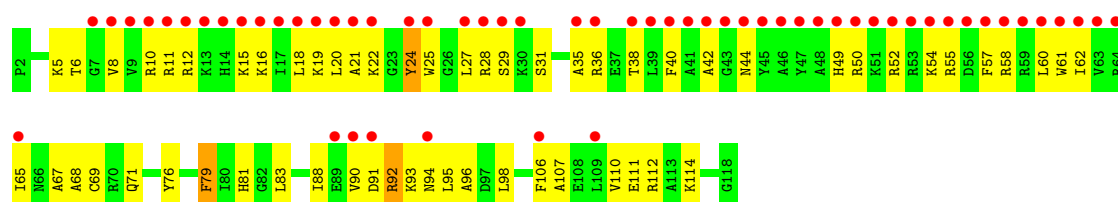
- Molecule 40: 50S ribosomal protein L19

Chain CP:



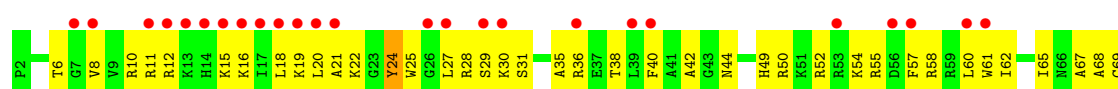
- Molecule 41: 50S ribosomal protein L20

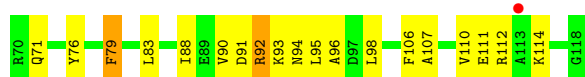
Chain BQ:



- Molecule 41: 50S ribosomal protein L20

Chain CQ:





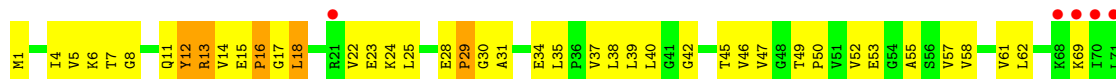
- Molecule 42: 50S ribosomal protein L21

Chain BR:



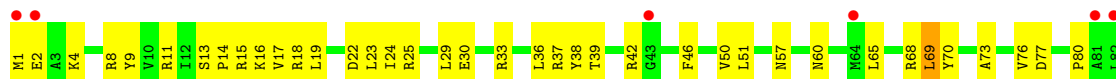
- Molecule 42: 50S ribosomal protein L21

Chain CR:



- Molecule 43: 50S ribosomal protein L22

Chain BS:



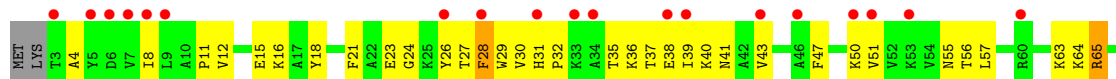
- Molecule 43: 50S ribosomal protein L22

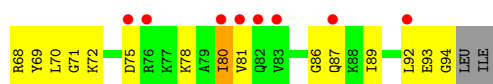
Chain CS:



- Molecule 44: 50S ribosomal protein L23

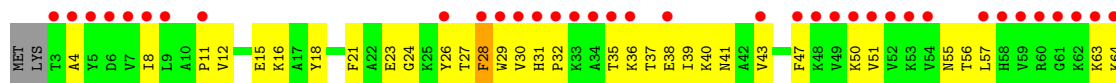
Chain BT:





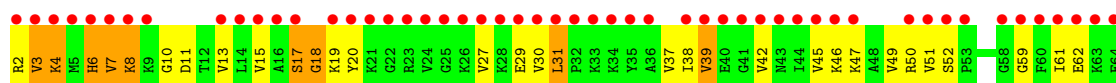
- Molecule 44: 50S ribosomal protein L23

Chain CT:



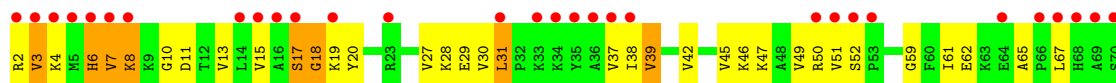
- Molecule 45: 50S ribosomal protein L24

Chain BU:



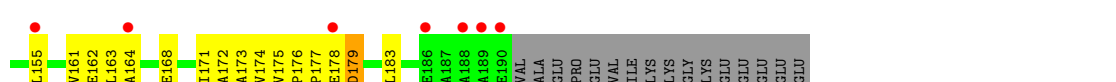
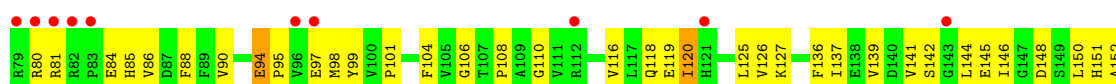
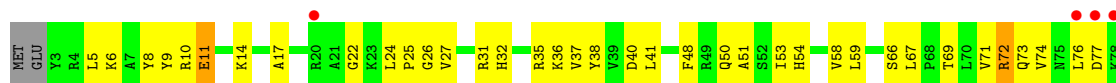
- Molecule 45: 50S ribosomal protein L24

Chain CU:



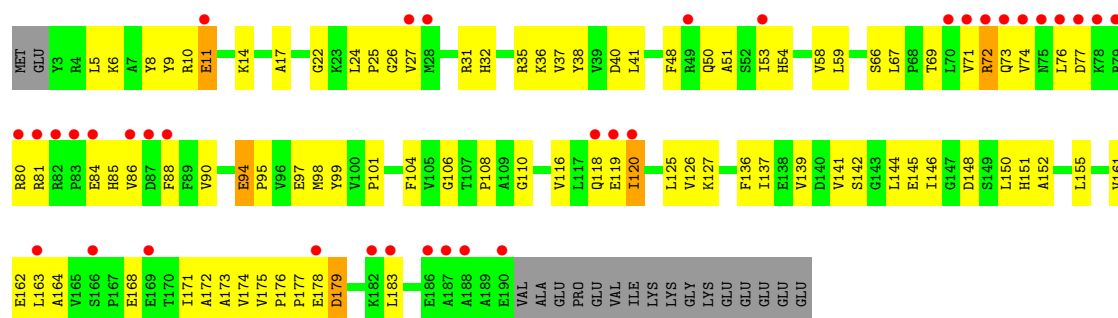
- Molecule 46: 50S ribosomal protein L25

Chain BV:



- Molecule 46: 50S ribosomal protein L25

Chain CV:



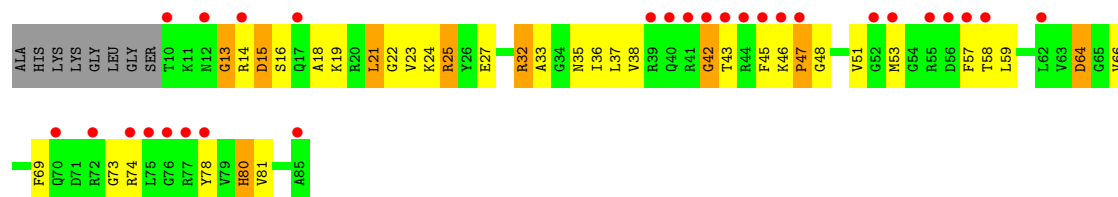
- Molecule 47: 50S ribosomal protein L27

Chain BW:



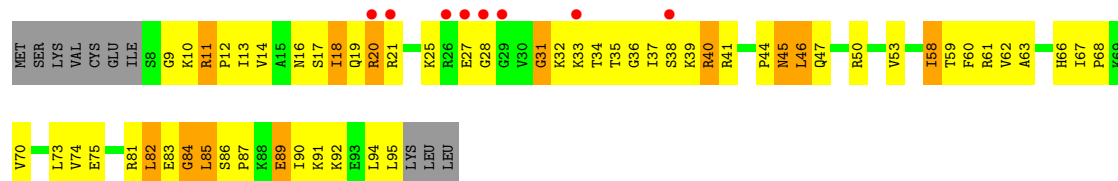
- Molecule 47: 50S ribosomal protein L27

Chain CW:



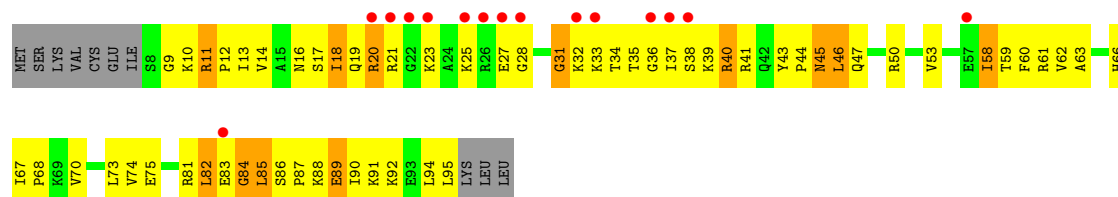
- Molecule 48: 50S ribosomal protein L28

Chain BX:



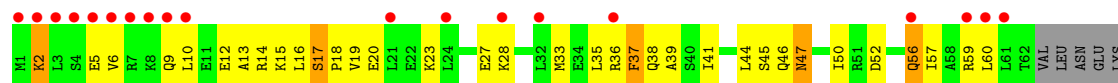
- Molecule 48: 50S ribosomal protein L28

Chain CX:



- Molecule 49: 50S ribosomal protein L29

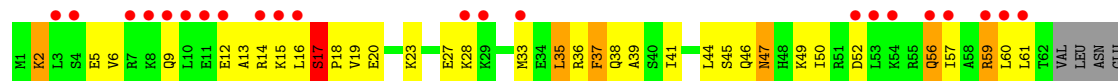
Chain BY:



ARG
ARG
GLN
ASN
ALA

- Molecule 49: 50S ribosomal protein L29

Chain CY:



LYS
ARG
ARG
GLN
ASN
ALA

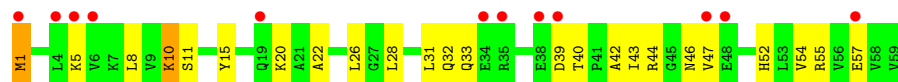
- Molecule 50: 50S ribosomal protein L30

Chain BZ:



- Molecule 50: 50S ribosomal protein L30

Chain CZ:



- Molecule 51: 50S ribosomal protein L31

Chain B1: 



GLY
ASP
SER
TYR
ARG
LYS
GLY
ARG

- Molecule 51: 50S ribosomal protein L31

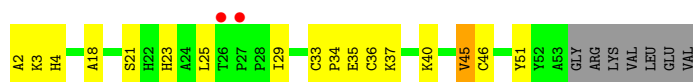
Chain C1: 



SER
TYR
ARG
LYS
GLY
ARG

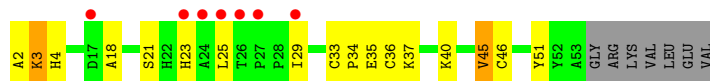
- Molecule 52: 50S ribosomal protein L32

Chain B2:



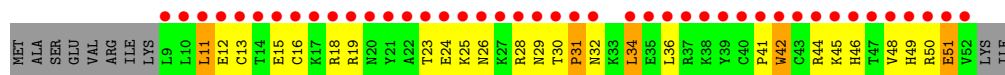
- Molecule 52: 50S ribosomal protein L32

Chain C2:



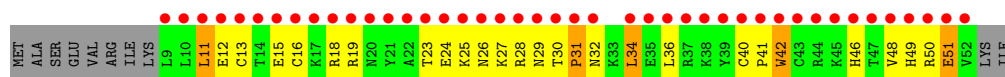
- Molecule 53: 50S ribosomal protein L33

Chain B3:



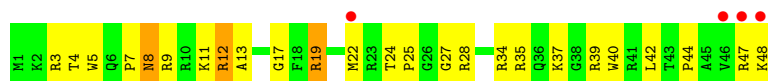
- Molecule 53: 50S ribosomal protein L33

Chain C3:



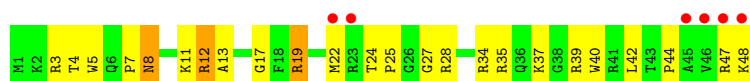
- Molecule 54: 50S ribosomal protein L34

Chain B4:



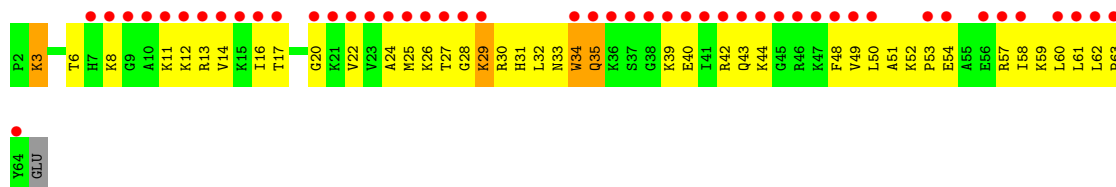
- Molecule 54: 50S ribosomal protein L34

Chain C4:



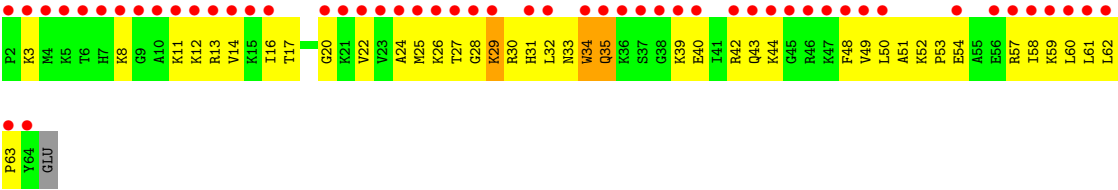
- Molecule 55: 50S ribosomal protein L35

Chain B5:



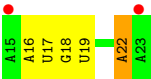
- Molecule 55: 50S ribosomal protein L35

Chain C5:



● Molecule 56: messenger RNA (5'-R(*AP*AP*UP*GP*UP*AP*G)-3')

Chain DX:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.38Å 452.70Å 617.09Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.95 – 3.62 89.69 – 3.51	Depositor EDS
% Data completeness (in resolution range)	100.0 (49.95-3.62) 99.8 (89.69-3.51)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.56 (at 3.49Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.6.289)	Depositor
R, R_{free}	0.260 , 0.291 0.281 , 0.315	Depositor DCC
R_{free} test set	14480 reflections (2.04%)	DCC
Wilson B-factor (Å ²)	130.6	Xtriage
Anisotropy	0.233	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.21 , 70.1	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.31$, $\langle L^2 \rangle = 0.14$	Xtriage
Outliers	0 of 723953 reflections	Xtriage
F_o, F_c correlation	0.85	EDS
Total number of atoms	294174	wwPDB-VP
Average B, all atoms (Å ²)	172.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.50% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality

5.1 Standard geometry

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

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	AA	0.16	0/36194	0.53	20/56493 (0.0%)
1	DA	0.16	0/36194	0.53	20/56493 (0.0%)
2	AB	0.20	0/1936	0.36	0/2609
2	DB	0.20	0/1936	0.36	0/2609
3	AC	0.20	0/1637	0.36	0/2205
3	DC	0.20	0/1637	0.36	0/2205
4	AD	0.20	0/1733	0.36	0/2318
4	DD	0.20	0/1733	0.36	0/2318
5	AE	0.20	0/1172	0.38	0/1576
5	DE	0.20	0/1172	0.38	0/1576
6	AF	0.20	0/856	0.38	0/1154
6	DF	0.21	0/856	0.38	0/1154
7	AG	0.20	0/1276	0.34	0/1709
7	DG	0.20	0/1276	0.34	0/1709
8	AH	0.20	0/1136	0.38	0/1527
8	DH	0.20	0/1136	0.38	0/1527
9	AI	0.21	0/1029	0.35	0/1378
9	DI	0.20	0/1029	0.36	0/1378
10	AJ	0.20	0/808	0.38	0/1085
10	DJ	0.20	0/808	0.38	0/1085
11	AK	0.20	0/900	0.37	0/1213
11	DK	0.20	0/900	0.37	0/1213
12	AL	0.21	0/987	0.41	0/1320
12	DL	0.21	0/987	0.41	0/1320
13	AM	0.19	0/944	0.39	0/1265
13	DM	0.19	0/944	0.39	0/1265
14	AN	0.20	0/501	0.34	0/664
14	DN	0.20	0/501	0.34	0/664
15	AO	0.20	0/745	0.34	0/992
15	DO	0.20	0/745	0.34	0/992
16	AP	0.21	0/717	0.38	0/963
16	DP	0.20	0/717	0.38	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.20	0/837	0.37	0/1117
17	DQ	0.20	0/837	0.37	0/1117
18	AR	0.21	0/579	0.36	0/768
18	DR	0.21	0/579	0.37	0/768
19	AS	0.20	0/643	0.37	0/865
19	DS	0.20	0/643	0.37	0/865
20	AT	0.20	0/764	0.34	0/1006
20	DT	0.20	0/764	0.34	0/1006
21	AU	0.18	0/213	0.35	0/277
21	DU	0.19	0/213	0.35	0/277
22	AV	0.21	0/2850	0.39	0/3829
22	DV	0.21	0/2850	0.39	0/3829
23	AW	0.16	0/1832	0.48	0/2855
23	DW	0.16	0/1832	0.48	0/2855
24	AX	0.17	0/167	0.63	0/259
25	BA	0.19	0/69437	0.57	47/108401 (0.0%)
25	CA	0.19	0/69437	0.58	49/108401 (0.0%)
26	BB	0.15	0/2853	0.53	3/4451 (0.1%)
26	CB	0.15	0/2853	0.53	3/4451 (0.1%)
27	BC	0.22	0/2154	0.42	0/2905
27	CC	0.23	0/2154	0.42	0/2905
28	BD	0.21	0/1596	0.40	0/2153
28	CD	0.21	0/1596	0.40	0/2153
29	BE	0.22	0/1621	0.38	0/2194
29	CE	0.22	0/1621	0.38	0/2194
30	BF	0.21	0/1500	0.39	0/2017
30	CF	0.21	0/1500	0.39	0/2017
31	BG	0.20	0/1245	0.39	0/1682
31	CG	0.20	0/1245	0.39	0/1682
32	BH	0.20	0/1147	0.38	0/1552
32	CH	0.20	0/1147	0.38	0/1552
33	BI	0.20	0/251	0.35	0/333
33	CI	0.20	0/251	0.35	0/333
34	BJ	0.20	0/1123	0.39	0/1515
34	CJ	0.20	0/1123	0.39	0/1515
35	BK	0.22	0/942	0.41	0/1268
35	CK	0.22	0/942	0.40	0/1268
36	BL	0.22	0/1131	0.45	0/1504
36	CL	0.22	0/1131	0.45	0/1504
37	BM	0.21	0/1099	0.40	0/1468
37	CM	0.21	0/1099	0.40	0/1468
38	BN	0.21	0/974	0.38	0/1302
38	CN	0.21	0/974	0.38	0/1302

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	BO	0.21	0/778	0.38	0/1036
39	CO	0.21	0/778	0.38	0/1036
40	BP	0.21	0/1157	0.37	0/1544
40	CP	0.21	0/1157	0.37	0/1544
41	BQ	0.21	0/970	0.36	0/1290
41	CQ	0.21	0/970	0.36	0/1290
42	BR	0.21	0/790	0.38	0/1057
42	CR	0.21	0/790	0.38	0/1057
43	BS	0.21	0/902	0.39	0/1209
43	CS	0.21	0/902	0.38	0/1209
44	BT	0.22	0/739	0.41	0/993
44	CT	0.22	0/739	0.41	0/993
45	BU	0.21	0/788	0.39	0/1051
45	CU	0.21	0/788	0.40	0/1051
46	BV	0.20	0/1523	0.39	0/2068
46	CV	0.20	0/1523	0.39	0/2068
47	BW	0.21	0/613	0.38	0/816
47	CW	0.21	0/613	0.38	0/816
48	BX	0.21	0/701	0.44	0/932
48	CX	0.21	0/701	0.44	0/932
49	BY	0.22	0/522	0.42	0/690
49	CY	0.22	0/522	0.42	0/690
50	BZ	0.19	0/473	0.39	0/634
50	CZ	0.19	0/473	0.39	0/634
51	B1	0.20	0/228	0.39	0/309
51	C1	0.20	0/228	0.39	0/309
52	B2	0.19	0/418	0.41	0/567
52	C2	0.19	0/418	0.41	0/567
53	B3	0.20	0/387	0.39	0/518
53	C3	0.20	0/387	0.39	0/518
54	B4	0.22	0/427	0.41	0/561
54	C4	0.23	0/427	0.42	0/561
55	B5	0.22	0/515	0.39	0/679
55	C5	0.22	0/515	0.39	0/679
56	DX	0.18	0/217	0.57	0/337
All	All	0.19	0/318970	0.51	142/476370 (0.0%)

There are no bond length outliers.

All (142) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1558	A	P-O3'-C3'	10.58	132.39	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	CA	1558	A	P-O3'-C3'	10.39	132.17	119.70
25	CA	1379	A	P-O3'-C3'	9.46	131.06	119.70
25	BA	1379	A	P-O3'-C3'	9.24	130.78	119.70
25	CA	1937	A	P-O3'-C3'	9.03	130.54	119.70
25	BA	1937	A	P-O3'-C3'	8.79	130.25	119.70
1	DA	1300	G	P-O3'-C3'	8.76	130.21	119.70
1	DA	1504	G	P-O3'-C3'	8.69	130.12	119.70
25	CA	1830	C	N1-C1'-C2'	-8.58	102.57	112.00
1	AA	1504	G	P-O3'-C3'	8.55	129.96	119.70
1	AA	1300	G	P-O3'-C3'	8.53	129.94	119.70
25	BA	1830	C	N1-C1'-C2'	-8.39	102.77	112.00
1	DA	328	C	P-O3'-C3'	7.96	129.25	119.70
1	AA	1064	G	P-O3'-C3'	7.94	129.22	119.70
1	DA	1064	G	P-O3'-C3'	7.91	129.19	119.70
1	AA	328	C	P-O3'-C3'	7.85	129.12	119.70
25	CA	34	C	N1-C1'-C2'	-7.83	103.38	112.00
25	CA	2428	G	P-O3'-C3'	-7.82	110.32	119.70
25	BA	34	C	N1-C1'-C2'	-7.75	103.47	112.00
25	CA	616	A	P-O3'-C3'	7.60	128.82	119.70
25	BA	2428	G	P-O3'-C3'	-7.59	110.59	119.70
25	BA	2225	A	P-O3'-C3'	7.52	128.72	119.70
1	AA	687	A	P-O3'-C3'	7.45	128.64	119.70
1	DA	687	A	P-O3'-C3'	7.43	128.62	119.70
25	BA	616	A	P-O3'-C3'	7.40	128.58	119.70
1	DA	1067	A	P-O3'-C3'	7.39	128.57	119.70
1	AA	1498	U	P-O3'-C3'	7.38	128.55	119.70
1	AA	1067	A	P-O3'-C3'	7.37	128.54	119.70
25	BA	332	A	P-O3'-C3'	7.37	128.54	119.70
1	DA	1498	U	P-O3'-C3'	7.34	128.51	119.70
25	CA	332	A	P-O3'-C3'	7.34	128.50	119.70
25	CA	2225	A	P-O3'-C3'	7.33	128.49	119.70
25	BA	2033	A	P-O3'-C3'	7.27	128.43	119.70
25	CA	2601	C	N1-C1'-C2'	-7.26	104.01	112.00
25	BA	2739	U	O4'-C1'-N1	7.25	114.00	108.20
25	BA	2601	C	N1-C1'-C2'	-7.18	104.10	112.00
25	CA	2739	U	O4'-C1'-N1	7.17	113.94	108.20
25	CA	238	C	O4'-C1'-N1	-7.10	102.52	108.20
1	DA	243	A	P-O3'-C3'	7.08	128.19	119.70
25	CA	2033	A	P-O3'-C3'	7.07	128.18	119.70
1	AA	243	A	P-O3'-C3'	7.01	128.11	119.70
1	AA	533	A	P-O3'-C3'	7.00	128.10	119.70
25	CA	343	C	O4'-C1'-N1	-6.99	102.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	DA	533	A	P-O3'-C3'	6.97	128.06	119.70
25	CA	2689	U	P-O3'-C3'	6.90	127.98	119.70
25	BA	74	A	P-O3'-C3'	6.85	127.92	119.70
25	BA	2689	U	P-O3'-C3'	6.79	127.85	119.70
26	CB	42	C	O4'-C1'-N1	6.78	113.62	108.20
25	CA	1210	A	P-O3'-C3'	6.75	127.80	119.70
25	BA	238	C	O4'-C1'-N1	-6.72	102.82	108.20
25	BA	1285	G	P-O3'-C3'	6.72	127.76	119.70
25	CA	74	A	P-O3'-C3'	6.68	127.72	119.70
25	BA	343	C	O4'-C1'-N1	-6.68	102.86	108.20
25	BA	1210	A	P-O3'-C3'	6.68	127.71	119.70
25	CA	1285	G	P-O3'-C3'	6.63	127.66	119.70
1	AA	266	G	O4'-C1'-N9	-6.62	102.91	108.20
26	BB	42	C	O4'-C1'-N1	6.60	113.48	108.20
1	DA	266	G	O4'-C1'-N9	-6.51	102.99	108.20
25	CA	1779	U	O4'-C1'-N1	6.35	113.28	108.20
25	CA	2562	U	O4'-C1'-N1	6.33	113.26	108.20
1	DA	1397	C	O4'-C1'-N1	6.32	113.26	108.20
25	BA	165	U	O4'-C1'-N1	6.31	113.25	108.20
25	BA	2562	U	O4'-C1'-N1	6.30	113.24	108.20
26	BB	84	C	O4'-C1'-N1	6.28	113.23	108.20
25	CA	165	U	O4'-C1'-N1	6.27	113.21	108.20
25	BA	1779	U	O4'-C1'-N1	6.26	113.21	108.20
1	AA	1397	C	O4'-C1'-N1	6.16	113.13	108.20
25	CA	2474	C	O4'-C1'-N1	6.14	113.11	108.20
25	CA	915	C	O4'-C1'-N1	6.11	113.09	108.20
1	DA	366	C	P-O3'-C3'	6.11	127.03	119.70
25	BA	915	C	O4'-C1'-N1	6.11	113.08	108.20
26	CB	84	C	O4'-C1'-N1	6.06	113.05	108.20
25	BA	2474	C	O4'-C1'-N1	6.06	113.05	108.20
25	CA	353	G	P-O5'-C5'	6.02	130.53	120.90
25	BA	353	G	P-O5'-C5'	6.01	130.52	120.90
1	AA	833	U	O4'-C1'-N1	5.94	112.95	108.20
25	BA	945	A	O4'-C1'-N9	5.85	112.88	108.20
1	AA	545	C	O4'-C1'-N1	5.83	112.86	108.20
25	BA	2343	C	O4'-C1'-N1	5.81	112.85	108.20
1	AA	366	C	P-O3'-C3'	5.80	126.66	119.70
26	CB	47	C	O4'-C1'-N1	5.80	112.84	108.20
25	BA	784	A	P-O3'-C3'	5.77	126.62	119.70
25	BA	2610	C	P-O3'-C3'	5.75	126.61	119.70
25	BA	1427	A	P-O3'-C3'	5.75	126.60	119.70
1	DA	833	U	O4'-C1'-N1	5.75	112.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	47	C	O4'-C1'-N1	5.74	112.79	108.20
25	CA	1427	A	P-O3'-C3'	5.74	126.59	119.70
25	BA	748	G	P-O3'-C3'	5.74	126.59	119.70
25	CA	945	A	O4'-C1'-N9	5.68	112.75	108.20
1	AA	1358	U	O4'-C1'-N1	5.68	112.74	108.20
1	DA	545	C	O4'-C1'-N1	5.66	112.72	108.20
1	DA	1358	U	O4'-C1'-N1	5.66	112.72	108.20
25	CA	2610	C	P-O3'-C3'	5.64	126.47	119.70
25	CA	2364	C	O4'-C1'-N1	5.58	112.67	108.20
25	BA	1660	C	O4'-C1'-N1	5.55	112.64	108.20
25	CA	774	A	C3'-C2'-C1'	5.53	105.93	101.50
1	AA	366	C	O4'-C1'-N1	5.52	112.62	108.20
25	CA	2343	C	O4'-C1'-N1	5.52	112.62	108.20
25	CA	744	G	C8-N9-C4	-5.49	104.20	106.40
25	CA	748	G	P-O3'-C3'	5.49	126.28	119.70
25	CA	2501	C	O4'-C1'-N1	5.46	112.57	108.20
25	CA	2311	A	O4'-C1'-N9	5.44	112.55	108.20
25	BA	2428	G	C3'-C2'-C1'	5.41	105.83	101.50
25	BA	2311	A	O4'-C1'-N9	5.40	112.52	108.20
1	DA	366	C	O4'-C1'-N1	5.40	112.52	108.20
25	CA	2491	U	C3'-C2'-C1'	5.38	105.81	101.50
25	BA	1905	C	P-O3'-C3'	5.36	126.13	119.70
25	BA	2364	C	O4'-C1'-N1	5.35	112.48	108.20
25	CA	1660	C	O4'-C1'-N1	5.34	112.47	108.20
25	BA	2036	C	O4'-C1'-N1	-5.32	103.94	108.20
25	CA	784	A	P-O3'-C3'	5.31	126.07	119.70
1	DA	1211	U	O4'-C1'-N1	5.30	112.44	108.20
1	DA	686	U	O4'-C1'-N1	5.29	112.43	108.20
25	CA	781	A	P-O3'-C3'	5.27	126.03	119.70
25	CA	2278	A	O4'-C1'-N9	5.25	112.40	108.20
25	BA	744	G	C8-N9-C4	-5.24	104.30	106.40
25	CA	2428	G	C3'-C2'-C1'	5.22	105.67	101.50
25	BA	302	C	O4'-C1'-N1	5.21	112.37	108.20
25	BA	2501	C	P-O3'-C3'	5.21	125.95	119.70
25	BA	2278	A	O4'-C1'-N9	5.20	112.36	108.20
25	CA	1905	C	P-O3'-C3'	5.18	125.91	119.70
25	BA	451	C	O4'-C1'-N1	5.17	112.34	108.20
1	DA	563	A	P-O3'-C3'	5.16	125.89	119.70
25	BA	2501	C	O4'-C1'-N1	5.15	112.32	108.20
1	AA	1211	U	O4'-C1'-N1	5.14	112.31	108.20
25	BA	1255	U	O4'-C1'-N1	5.14	112.31	108.20
25	CA	302	C	O4'-C1'-N1	5.13	112.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	CA	2501	C	P-O3'-C3'	5.13	125.86	119.70
1	AA	563	A	P-O3'-C3'	5.13	125.85	119.70
25	BA	676	A	O4'-C1'-N9	5.11	112.29	108.20
25	CA	1404	C	O4'-C1'-N1	5.08	112.26	108.20
25	BA	729	G	P-O3'-C3'	5.07	125.78	119.70
25	CA	62	C	O4'-C1'-N1	5.06	112.25	108.20
25	CA	1547	C	O4'-C1'-N1	5.06	112.25	108.20
1	AA	686	U	O4'-C1'-N1	5.06	112.25	108.20
25	CA	451	C	O4'-C1'-N1	5.05	112.24	108.20
25	CA	676	A	O4'-C1'-N9	5.05	112.24	108.20
25	CA	1255	U	O4'-C1'-N1	5.03	112.22	108.20
1	DA	528	C	O4'-C1'-N1	5.02	112.22	108.20
1	AA	528	C	O4'-C1'-N1	5.01	112.21	108.20
25	BA	444	C	O4'-C1'-N1	5.01	112.21	108.20
25	BA	1420	U	N1-C1'-C2'	-5.01	106.49	112.00

There are no chirality outliers.

There are no planarity outliers.

5.2 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 hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32332	0	16318	653	0
1	DA	32332	0	16318	666	0
2	AB	1901	0	1951	88	0
2	DB	1901	0	1951	88	0
3	AC	1613	0	1677	86	0
3	DC	1613	0	1677	86	0
4	AD	1703	0	1765	88	0
4	DD	1703	0	1765	83	0
5	AE	1156	0	1213	58	0
5	DE	1156	0	1213	60	0
6	AF	843	0	857	41	0
6	DF	843	0	857	42	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	AG	1257	0	1296	60	0
7	DG	1257	0	1296	61	0
8	AH	1116	0	1177	48	0
8	DH	1116	0	1177	49	0
9	AI	1011	0	1043	60	0
9	DI	1011	0	1043	63	0
10	AJ	795	0	840	58	0
10	DJ	795	0	840	60	0
11	AK	885	0	904	49	0
11	DK	885	0	904	47	0
12	AL	971	0	1057	61	0
12	DL	971	0	1057	63	0
13	AM	934	0	992	50	0
13	DM	934	0	992	51	0
14	AN	492	0	532	33	0
14	DN	492	0	531	33	0
15	AO	734	0	771	35	0
15	DO	734	0	771	38	0
16	AP	701	0	720	31	0
16	DP	701	0	720	32	0
17	AQ	824	0	893	38	0
17	DQ	824	0	893	39	0
18	AR	574	0	644	30	0
18	DR	574	0	644	28	0
19	AS	630	0	652	59	0
19	DS	630	0	652	57	0
20	AT	762	0	859	30	0
20	DT	762	0	859	31	0
21	AU	209	0	221	9	0
21	DU	209	0	221	10	0
22	AV	2813	0	2823	180	0
22	DV	2813	0	2823	178	0
23	AW	1640	0	837	25	0
23	DW	1640	0	837	20	0
24	AX	149	0	77	6	0
25	BA	61997	0	31250	1317	0
25	CA	61997	0	31250	1301	0
26	BB	2551	0	1295	64	0
26	CB	2551	0	1295	62	0
27	BC	2104	0	2182	162	0
27	CC	2104	0	2182	167	0
28	BD	1563	0	1629	107	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
28	CD	1563	0	1629	105	0
29	BE	1586	0	1632	101	0
29	CE	1586	0	1632	101	0
30	BF	1475	0	1537	100	0
30	CF	1475	0	1537	104	0
31	BG	1222	0	1282	58	0
31	CG	1222	0	1282	61	0
32	BH	1132	0	1220	55	0
32	CH	1132	0	1220	57	0
33	BI	253	0	275	6	0
33	CI	253	0	275	6	0
34	BJ	1096	0	1168	66	0
34	CJ	1096	0	1168	66	0
35	BK	932	0	994	44	0
35	CK	932	0	994	46	0
36	BL	1114	0	1187	142	0
36	CL	1114	0	1187	144	0
37	BM	1079	0	1127	82	0
37	CM	1079	0	1127	80	0
38	BN	960	0	1021	62	0
38	CN	960	0	1021	59	0
39	BO	770	0	832	66	0
39	CO	770	0	832	67	0
40	BP	1143	0	1211	65	0
40	CP	1143	0	1211	70	0
41	BQ	953	0	1013	75	0
41	CQ	953	0	1013	74	0
42	BR	779	0	852	69	0
42	CR	779	0	852	69	0
43	BS	891	0	951	43	0
43	CS	891	0	951	41	0
44	BT	725	0	778	42	0
44	CT	725	0	778	45	0
45	BU	775	0	870	69	0
45	CU	775	0	870	70	0
46	BV	1491	0	1513	75	0
46	CV	1491	0	1513	74	0
47	BW	605	0	628	36	0
47	CW	605	0	628	36	0
48	BX	694	0	764	63	0
48	CX	694	0	764	67	0
49	BY	520	0	575	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
49	CY	520	0	575	37	0
50	BZ	468	0	523	21	0
50	CZ	468	0	523	20	0
51	B1	225	0	225	16	0
51	C1	225	0	225	19	0
52	B2	404	0	420	18	0
52	C2	404	0	420	19	0
53	B3	380	0	391	22	0
53	C3	380	0	391	24	0
54	B4	419	0	467	26	0
54	C4	419	0	467	24	0
55	B5	507	0	576	54	0
55	C5	507	0	576	53	0
56	DX	193	0	99	4	0
57	AA	64	0	0	0	0
57	AT	1	0	0	0	0
57	AV	1	0	0	0	0
57	AW	3	0	0	0	0
57	B2	1	0	0	0	0
57	BA	176	0	0	0	0
57	BB	2	0	0	0	0
57	BK	1	0	0	0	0
57	BM	1	0	0	0	0
57	CA	125	0	0	0	0
57	CB	2	0	0	0	0
57	CM	1	0	0	0	0
57	CY	1	0	0	0	0
57	DA	30	0	0	0	0
57	DW	1	0	0	0	0
58	AD	1	0	0	0	0
58	AN	1	0	0	0	0
58	DD	1	0	0	0	0
58	DN	1	0	0	0	0
All	All	294174	0	201035	9013	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 18.

All (9013) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:166:LYS:HE2	27:CC:134:ARG:HH21	1.20	1.07
36:CL:128:HIS:HA	36:CL:147:LEU:HB3	1.36	1.07

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BL:128:HIS:HA	36:BL:147:LEU:HB3	1.36	1.07
22:DV:302:ILE:HG22	22:DV:303:ARG:H	1.21	1.03
35:BK:3:GLN:HB2	35:BK:4:PRO:HD2	1.40	1.03
25:CA:1541:U:H3'	25:CA:1542:G:H3'	1.42	1.02
25:BA:1310:G:H2'	25:BA:1311:G:H5''	1.39	1.02
22:AV:302:ILE:HG22	22:AV:303:ARG:H	1.20	1.02
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.42	1.01
25:CA:1310:G:H2'	25:CA:1311:G:H5''	1.40	1.01
7:DG:113:GLU:HB2	7:DG:119:ARG:HG2	1.42	1.01
22:DV:177:VAL:HG12	22:DV:301:LYS:HB2	1.41	0.99
22:AV:177:VAL:HG12	22:AV:301:LYS:HB2	1.41	0.99
25:BA:1541:U:H3'	25:BA:1542:G:H3'	1.42	0.99
35:CK:3:GLN:HB2	35:CK:4:PRO:HD2	1.41	0.99
25:CA:273(G):C:H3'	25:CA:274:G:H5''	1.45	0.98
1:DA:1056:U:H5'	3:DC:163:ALA:HB2	1.46	0.98
25:CA:2015:A:H1'	52:C2:2:ALA:HA	1.46	0.98
25:BA:1830:C:O2'	25:BA:1831:G:H8	1.47	0.96
9:AI:19:LEU:HD21	9:AI:59:PHE:HB3	1.48	0.96
25:BA:1689:A:H62	25:BA:1698:A:H2	1.12	0.96
25:BA:273(G):C:H3'	25:BA:274:G:H5''	1.45	0.96
49:CY:17:SER:HB3	49:CY:18:PRO:HD3	1.45	0.96
25:CA:1830:C:O2'	25:CA:1831:G:H8	1.47	0.95
13:DM:76:ALA:HA	13:DM:79:LYS:HE2	1.48	0.95
41:CQ:92:ARG:HH11	41:CQ:92:ARG:HB2	1.31	0.95
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.47	0.95
25:BA:2015:A:H1'	52:B2:2:ALA:HA	1.47	0.95
1:AA:1056:U:H5'	3:AC:163:ALA:HB2	1.47	0.95
9:DI:19:LEU:HD21	9:DI:59:PHE:HB3	1.47	0.94
25:BA:1163:G:H2'	25:BA:1164:G:H5''	1.50	0.94
2:DB:185:ILE:HG22	2:DB:199:TYR:HB2	1.47	0.94
25:BA:2389:G:H5'	25:BA:2390:U:H5'	1.51	0.93
25:CA:1689:A:H62	25:CA:1698:A:H2	1.12	0.93
1:DA:328:C:H4'	1:DA:329:A:H5'	1.50	0.93
32:CH:92:VAL:HG13	32:CH:120:ILE:HB	1.51	0.93
13:AM:76:ALA:HA	13:AM:79:LYS:HE2	1.48	0.92
49:BY:17:SER:HB3	49:BY:18:PRO:HD3	1.48	0.92
49:CY:39:ALA:HA	49:CY:45:SER:HB3	1.51	0.92
32:BH:92:VAL:HG13	32:BH:120:ILE:HB	1.51	0.92
1:AA:328:C:H4'	1:AA:329:A:H5'	1.49	0.92
5:DE:76:ILE:HG12	5:DE:77:PRO:HD2	1.51	0.91
5:AE:76:ILE:HG12	5:AE:77:PRO:HD2	1.52	0.91
42:CR:4:ILE:HB	42:CR:39:LEU:HB2	1.52	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BY:39:ALA:HA	49:BY:45:SER:HB3	1.52	0.91
41:BQ:92:ARG:HB2	41:BQ:92:ARG:HH11	1.31	0.91
25:CA:2400:G:H4'	53:C3:19:ARG:HD3	1.51	0.91
42:BR:4:ILE:HB	42:BR:39:LEU:HB2	1.52	0.91
3:DC:141:VAL:HG11	3:DC:202:ILE:HD12	1.52	0.91
25:CA:1163:G:H2'	25:CA:1164:G:H5''	1.50	0.91
36:CL:58:THR:HG23	36:CL:61:ARG:HH21	1.35	0.91
27:CC:69:ARG:HH21	27:CC:130:ALA:HB2	1.36	0.91
46:BV:97:GLU:HB3	46:BV:125:LEU:HD21	1.53	0.90
3:AC:141:VAL:HG11	3:AC:202:ILE:HD12	1.53	0.90
25:CA:2389:G:H5'	25:CA:2390:U:H5'	1.50	0.90
25:BA:857:C:H4'	47:BW:23:VAL:HG21	1.52	0.90
45:CU:2:ARG:HG2	45:CU:3:VAL:HG23	1.53	0.90
25:CA:1314:C:H42	25:CA:1338:G:H1	1.17	0.90
19:AS:19:VAL:HG21	19:AS:44:MET:HG3	1.54	0.90
21:AU:22:ARG:HD2	21:AU:23:PRO:HD2	1.52	0.90
36:BL:58:THR:HG23	36:BL:61:ARG:HH21	1.36	0.90
46:CV:97:GLU:HB3	46:CV:125:LEU:HD21	1.53	0.89
27:CC:133:LEU:HD23	27:CC:136:ILE:HD12	1.52	0.89
25:CA:1899:G:H21	25:CA:1902:C:N4	1.70	0.89
27:BC:133:LEU:HD23	27:BC:136:ILE:HD12	1.52	0.89
25:CA:142:G:H4'	44:CT:35:THR:HG21	1.54	0.89
10:AJ:50:ILE:HB	14:AN:41:ARG:HH21	1.37	0.89
25:CA:857:C:H4'	47:CW:23:VAL:HG21	1.52	0.89
45:BU:2:ARG:HG2	45:BU:3:VAL:HG23	1.53	0.89
48:CX:50:ARG:HG2	48:CX:59:THR:HG22	1.55	0.88
25:BA:2400:G:H4'	53:B3:19:ARG:HD3	1.52	0.88
21:DU:22:ARG:HD2	21:DU:23:PRO:HD2	1.52	0.88
19:DS:19:VAL:HG21	19:DS:44:MET:HG3	1.54	0.88
45:CU:7:VAL:HB	45:CU:8:LYS:HZ2	1.37	0.88
25:BA:106:C:H1'	45:BU:2:ARG:HE	1.38	0.88
25:BA:1314:C:H42	25:BA:1338:G:H1	1.19	0.88
37:CM:22:LYS:HE2	37:CM:22:LYS:HA	1.56	0.88
25:BA:1568:G:H5''	27:BC:61:LEU:HD13	1.56	0.88
25:BA:996:A:H4'	41:BQ:92:ARG:NH1	1.89	0.87
10:DJ:50:ILE:HB	14:DN:41:ARG:HH21	1.37	0.87
25:CA:996:A:H4'	41:CQ:92:ARG:NH1	1.89	0.87
25:BA:1899:G:H21	25:BA:1902:C:N4	1.71	0.87
27:BC:69:ARG:HH21	27:BC:130:ALA:HB2	1.36	0.87
25:BA:2068:U:H3	25:BA:2430:A:H2	1.22	0.87
25:CA:106:C:H1'	45:CU:2:ARG:HE	1.37	0.87
15:DO:63:ARG:HH21	15:DO:87:ILE:HG21	1.40	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:142:G:H4'	44:BT:35:THR:HG21	1.54	0.87
25:BA:996:A:H4'	41:BQ:92:ARG:HH12	1.40	0.86
17:AQ:9:VAL:HG12	17:AQ:56:VAL:HG22	1.56	0.86
25:BA:270(M):U:H3'	25:BA:270(N):U:H5''	1.57	0.86
1:DA:1151:A:HO2'	1:DA:1152:A:H8	0.87	0.86
44:CT:11:PRO:HA	44:CT:28:PHE:HB3	1.58	0.86
1:DA:922:G:H4'	5:DE:20:GLN:HA	1.55	0.86
25:CA:237:C:H2'	25:CA:238:C:H5''	1.55	0.86
31:BG:16:SER:HB2	31:BG:27:LYS:HB2	1.57	0.86
45:BU:7:VAL:HB	45:BU:8:LYS:HZ2	1.38	0.86
25:CA:270(M):U:H3'	25:CA:270(N):U:H5''	1.57	0.86
25:BA:237:C:H2'	25:BA:238:C:H5''	1.56	0.86
48:BX:50:ARG:HG2	48:BX:59:THR:HG22	1.55	0.86
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.55	0.86
31:CG:16:SER:HB2	31:CG:27:LYS:HB2	1.57	0.86
44:BT:11:PRO:HA	44:BT:28:PHE:HB3	1.57	0.85
34:BJ:42:GLU:HA	34:BJ:82:LYS:HB3	1.56	0.85
25:BA:1379:A:H1'	25:BA:1380:G:OP1	1.75	0.85
25:CA:2749:A:H4'	31:CG:62:LYS:HB3	1.58	0.85
2:DB:20:GLU:HB2	2:DB:190:THR:HB	1.59	0.85
51:B1:50:THR:HG22	51:B1:51:TYR:H	1.42	0.85
25:BA:2210:G:H21	25:BA:2211:G:H5'	1.42	0.85
1:DA:1117:G:H4'	9:DI:104:ARG:HH21	1.42	0.85
17:DQ:9:VAL:HG12	17:DQ:56:VAL:HG22	1.56	0.85
25:BA:1813:G:H1'	27:BC:50:THR:HG21	1.59	0.85
25:BA:2749:A:H4'	31:BG:62:LYS:HB3	1.58	0.85
25:CA:342:G:H2'	25:CA:343:C:H5''	1.58	0.85
52:B2:40:LYS:HE2	52:B2:46:CYS:HB3	1.59	0.84
37:BM:22:LYS:HA	37:BM:22:LYS:HE2	1.57	0.84
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.60	0.84
15:AO:63:ARG:HH21	15:AO:87:ILE:HG21	1.40	0.84
25:BA:342:G:H2'	25:BA:343:C:H5''	1.59	0.84
34:CJ:42:GLU:HA	34:CJ:82:LYS:HB3	1.57	0.84
25:CA:2068:U:H3	25:CA:2430:A:H2	1.24	0.84
31:CG:162:ILE:HD13	31:CG:162:ILE:H	1.43	0.84
32:CH:5:LEU:HD23	32:CH:5:LEU:H	1.41	0.84
22:DV:112:ARG:HB2	22:DV:198:THR:HG23	1.60	0.84
2:AB:20:GLU:HB2	2:AB:190:THR:HB	1.59	0.84
25:CA:2210:G:H21	25:CA:2211:G:H5'	1.42	0.84
25:CA:2427:C:H5'	25:CA:2428:G:OP1	1.78	0.84
25:CA:1379:A:H1'	25:CA:1380:G:OP1	1.76	0.84
31:BG:101:ARG:H	31:BG:101:ARG:HE	1.24	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:CG:101:ARG:HE	31:CG:101:ARG:H	1.25	0.84
25:BA:2427:C:H5'	25:BA:2428:G:OP1	1.77	0.83
1:AA:1151:A:HO2'	1:AA:1152:A:H8	0.88	0.83
1:DA:38:G:H22	1:DA:397:A:H5'	1.41	0.83
32:BH:5:LEU:HD23	32:BH:5:LEU:H	1.42	0.83
45:CU:96:ILE:HD11	45:CU:99:CYS:HB2	1.60	0.83
5:AE:151:LEU:HD13	8:AH:77:GLU:HG2	1.60	0.83
48:BX:25:LYS:HG2	48:BX:35:THR:HG22	1.60	0.83
31:BG:89:ILE:HG12	31:BG:162:ILE:HG22	1.59	0.83
25:CA:1163:G:C2'	25:CA:1164:G:H5''	2.08	0.83
25:CA:1813:G:H1'	27:CC:50:THR:HG21	1.60	0.83
5:DE:151:LEU:HD13	8:DH:77:GLU:HG2	1.60	0.83
25:CA:1568:G:H5''	27:CC:61:LEU:HD13	1.56	0.83
1:DA:401:C:H2'	1:DA:402:G:H8	1.43	0.83
25:CA:996:A:H4'	41:CQ:92:ARG:HH12	1.41	0.83
1:AA:38:G:H22	1:AA:397:A:H5'	1.42	0.83
1:DA:1151:A:O2'	1:DA:1152:A:H8	1.61	0.83
31:BG:162:ILE:H	31:BG:162:ILE:HD13	1.43	0.83
1:DA:579:G:H4'	15:DO:54:ARG:HH21	1.43	0.83
25:BA:1163:G:C2'	25:BA:1164:G:H5''	2.08	0.83
1:DA:1505:G:H4'	1:DA:1506:U:H5'	1.61	0.83
1:AA:579:G:H4'	15:AO:54:ARG:HH21	1.44	0.82
31:CG:89:ILE:HG12	31:CG:162:ILE:HG22	1.60	0.82
55:B5:26:LYS:HA	55:B5:48:PHE:HE2	1.44	0.82
25:CA:1602:U:H3'	25:CA:1603:A:H5'	1.61	0.82
22:AV:112:ARG:HB2	22:AV:198:THR:HG23	1.60	0.82
51:C1:50:THR:HG22	51:C1:51:TYR:H	1.42	0.82
44:BT:29:TRP:CZ3	44:BT:78:LYS:HG3	2.13	0.82
5:DE:51:VAL:HB	5:DE:52:PRO:HD3	1.62	0.82
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.62	0.82
1:DA:979:C:H3'	1:DA:980:C:H5''	1.60	0.82
22:AV:18:LEU:HB2	22:AV:34:LEU:HD21	1.62	0.81
1:AA:1117:G:H4'	9:AI:104:ARG:HH21	1.42	0.81
39:CO:24:LEU:HD12	39:CO:84:GLN:HB3	1.60	0.81
27:CC:159:ALA:HB1	27:CC:198:ASN:O	1.80	0.81
1:AA:1443:G:H3'	1:AA:1446:A:C5'	2.10	0.81
25:BA:1602:U:H3'	25:BA:1603:A:H5'	1.60	0.81
1:AA:402:G:H2'	1:AA:403:C:H5'	1.62	0.81
1:AA:979:C:H3'	1:AA:980:C:H5''	1.60	0.81
9:DI:103:THR:HG22	9:DI:105:ASP:H	1.45	0.81
39:CO:35:ILE:HG12	39:CO:101:LEU:HD21	1.60	0.81
45:BU:96:ILE:HD11	45:BU:99:CYS:HB2	1.60	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:186(A):C:H5'	20:AT:78:ALA:HB1	1.62	0.81
1:DA:1443:G:H3'	1:DA:1446:A:C5'	2.11	0.81
45:BU:81:LYS:HD3	45:BU:97:ARG:HB3	1.62	0.81
52:C2:40:LYS:HE2	52:C2:46:CYS:HB3	1.60	0.81
1:DA:186(A):C:H5'	20:DT:78:ALA:HB1	1.62	0.81
22:DV:111:ILE:HB	22:DV:158:VAL:HG23	1.62	0.81
25:CA:848:G:H2'	25:CA:849:A:C8	2.15	0.81
36:BL:47:ASP:HB3	36:BL:48:PRO:HA	1.63	0.81
36:CL:47:ASP:HB3	36:CL:48:PRO:HA	1.62	0.81
22:AV:148:HIS:HE1	25:BA:1911:U:H5''	1.45	0.81
1:AA:1505:G:H4'	1:AA:1506:U:H5'	1.61	0.81
39:BO:24:LEU:HD12	39:BO:84:GLN:HB3	1.61	0.81
1:AA:1422:G:H5''	35:BK:48:PRO:HB3	1.63	0.81
30:BF:128:ARG:HH21	30:BF:130:ASN:HD21	1.29	0.81
55:C5:26:LYS:HA	55:C5:48:PHE:HE2	1.45	0.81
29:BE:78:ILE:HD12	29:BE:78:ILE:H	1.46	0.81
22:DV:18:LEU:HB2	22:DV:34:LEU:HD21	1.61	0.81
5:DE:78:HIS:HE1	5:DE:143:ARG:H	1.27	0.81
22:AV:111:ILE:HB	22:AV:158:VAL:HG23	1.62	0.81
48:CX:25:LYS:HG2	48:CX:35:THR:HG22	1.61	0.81
5:DE:6:PHE:HD2	5:DE:36:ASP:HB3	1.46	0.81
43:BS:84:ARG:HB2	43:BS:96:ILE:HG22	1.63	0.80
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.63	0.80
51:B1:59:VAL:HG12	51:B1:60:GLU:H	1.45	0.80
27:BC:118:VAL:HG22	27:BC:119:ALA:H	1.45	0.80
25:CA:342:G:C2'	25:CA:343:C:H5''	2.11	0.80
25:BA:1678:G:N2	25:BA:1989:G:H22	1.79	0.80
50:BZ:8:LEU:HD12	50:BZ:31:LEU:HA	1.63	0.80
30:CF:60:LEU:HD11	30:CF:92:VAL:HG11	1.64	0.80
29:CE:111:ALA:HB2	29:CE:206:ILE:HD12	1.64	0.80
25:BA:1639:U:H2'	25:BA:1640:C:H5''	1.63	0.80
40:BP:26:ASP:CB	40:BP:91:ARG:HA	2.12	0.80
10:AJ:92:THR:HG23	10:AJ:93:GLY:H	1.47	0.80
48:BX:11:ARG:HB3	48:BX:12:PRO:HD2	1.61	0.80
22:AV:332:LEU:HD23	22:AV:332:LEU:H	1.45	0.80
22:DV:112:ARG:HG2	22:DV:157:LYS:HG3	1.63	0.80
25:BA:848:G:H2'	25:BA:849:A:C8	2.16	0.80
11:AK:22:HIS:HB3	11:AK:29:ILE:HG13	1.62	0.80
48:CX:11:ARG:HB3	48:CX:12:PRO:HD2	1.62	0.80
44:CT:29:TRP:CZ3	44:CT:78:LYS:HG3	2.15	0.80
1:AA:401:C:H2'	1:AA:402:G:H8	1.44	0.80
13:DM:60:VAL:HG13	13:DM:64:TRP:HE1	1.46	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:C1:60:GLU:HB2	13:DM:57:ARG:NH1	1.96	0.80
40:CP:27:THR:HG23	40:CP:89:VAL:HG13	1.64	0.80
29:BE:154:VAL:HG22	29:BE:191:ARG:HB2	1.63	0.80
41:BQ:24:TYR:HB2	41:BQ:29:SER:HB3	1.64	0.80
41:CQ:62:ILE:HD11	41:CQ:93:LYS:HD3	1.64	0.80
9:AI:103:THR:HG22	9:AI:105:ASP:H	1.45	0.80
11:DK:22:HIS:HB3	11:DK:29:ILE:HG13	1.63	0.80
25:CA:1678:G:N2	25:CA:1989:G:H22	1.79	0.80
25:BA:1540:G:C2	25:BA:1541:U:H1'	2.18	0.79
52:B2:45:VAL:HG13	52:B2:51:TYR:HB2	1.64	0.79
40:CP:26:ASP:CB	40:CP:91:ARG:HA	2.13	0.79
5:AE:78:HIS:HE1	5:AE:143:ARG:H	1.28	0.79
27:BC:242:ARG:H	27:BC:242:ARG:HD3	1.48	0.79
39:BO:35:ILE:HG12	39:BO:101:LEU:HD21	1.62	0.79
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.65	0.79
25:BA:342:G:C2'	25:BA:343:C:H5''	2.12	0.79
51:C1:59:VAL:HG12	51:C1:60:GLU:H	1.45	0.79
8:AH:9:MET:HG3	8:AH:26:VAL:HG21	1.64	0.79
22:DV:332:LEU:H	22:DV:332:LEU:HD23	1.46	0.79
8:DH:9:MET:HG3	8:DH:26:VAL:HG21	1.63	0.79
25:CA:1639:U:H2'	25:CA:1640:C:H5''	1.63	0.79
22:AV:212:LEU:HD12	22:AV:212:LEU:H	1.47	0.79
25:CA:1310:G:C2'	25:CA:1311:G:H5''	2.12	0.79
45:CU:81:LYS:HD3	45:CU:97:ARG:HB3	1.63	0.79
25:BA:1310:G:C2'	25:BA:1311:G:H5''	2.12	0.79
1:DA:402:G:H2'	1:DA:403:C:H5'	1.62	0.79
27:BC:159:ALA:HB1	27:BC:198:ASN:O	1.82	0.79
5:AE:6:PHE:HD2	5:AE:36:ASP:HB3	1.47	0.79
10:DJ:48:THR:HA	10:DJ:62:HIS:HB3	1.65	0.79
55:B5:22:VAL:HB	55:B5:54:GLU:HG2	1.65	0.79
22:DV:5:LEU:HD22	22:DV:48:ILE:HD12	1.64	0.79
25:BA:670:A:H4'	25:BA:671:C:H5'	1.65	0.79
41:CQ:24:TYR:HB2	41:CQ:29:SER:HB3	1.64	0.79
50:CZ:8:LEU:HD12	50:CZ:31:LEU:HA	1.63	0.79
51:B1:38:ALA:HA	51:B1:55:PRO:HA	1.65	0.79
1:AA:1347:G:N2	1:AA:1373:G:H2'	1.98	0.79
22:AV:112:ARG:HG2	22:AV:157:LYS:HG3	1.64	0.78
37:BM:43:THR:HB	37:BM:45:GLN:HE21	1.47	0.78
10:DJ:75:ILE:HG13	10:DJ:76:ASN:H	1.47	0.78
25:BA:2210:G:N2	25:BA:2211:G:H5'	1.99	0.78
30:BF:60:LEU:HD11	30:BF:92:VAL:HG11	1.64	0.78
25:CA:773:U:C4'	27:CC:47:GLY:HA3	2.14	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:DB:101:MET:HA	2:DB:108:ILE:HG13	1.66	0.78
41:BQ:62:ILE:HD11	41:BQ:93:LYS:HD3	1.64	0.78
40:BP:27:THR:HG23	40:BP:89:VAL:HG13	1.65	0.78
29:CE:154:VAL:HG22	29:CE:191:ARG:HB2	1.63	0.78
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.65	0.78
12:DL:69:ILE:HG13	12:DL:99:ILE:HG21	1.64	0.78
27:BC:206:LEU:O	27:BC:211:ARG:HD3	1.82	0.78
25:CA:95:G:H4'	49:CY:46:GLN:HB3	1.66	0.78
43:CS:84:ARG:HB2	43:CS:96:ILE:HG22	1.63	0.78
2:DB:77:ALA:HB2	2:DB:211:ILE:HD13	1.63	0.78
25:CA:1540:G:C2	25:CA:1541:U:H1'	2.18	0.78
1:DA:1347:G:N2	1:DA:1373:G:H2'	1.97	0.78
3:AC:195:VAL:HG12	3:AC:196:LEU:H	1.49	0.78
22:AV:5:LEU:HD22	22:AV:48:ILE:HD12	1.64	0.78
4:AD:166:LYS:HE2	27:CC:134:ARG:NH2	1.97	0.78
1:DA:793:U:O2	1:DA:1516:G:H4'	1.84	0.78
27:CC:242:ARG:HD3	27:CC:242:ARG:H	1.47	0.78
4:DD:22:LYS:HB2	4:DD:26:CYS:SG	2.24	0.78
30:CF:128:ARG:HH21	30:CF:130:ASN:HD21	1.29	0.78
29:CE:78:ILE:HD12	29:CE:78:ILE:H	1.47	0.78
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.66	0.78
55:C5:22:VAL:HB	55:C5:54:GLU:HG2	1.64	0.78
27:CC:118:VAL:HG22	27:CC:119:ALA:H	1.46	0.78
41:CQ:88:ILE:HB	41:CQ:90:VAL:HG12	1.65	0.78
17:AQ:12:SER:HB3	17:AQ:20:THR:HB	1.66	0.78
25:CA:2287:A:H62	25:CA:2344:U:H3	1.30	0.78
25:BA:270(J):G:HO2'	25:BA:270(K):G:H8	1.32	0.78
8:DH:10:LEU:HD22	8:DH:83:ILE:HD11	1.66	0.78
10:AJ:75:ILE:HG13	10:AJ:76:ASN:H	1.47	0.78
3:DC:105:GLU:HG2	3:DC:106:VAL:H	1.49	0.78
25:BA:2588:G:H2'	25:BA:2589:A:H5'	1.65	0.77
5:DE:82:VAL:HG21	5:DE:138:ALA:HA	1.66	0.77
13:AM:60:VAL:HG13	13:AM:64:TRP:HE1	1.46	0.77
26:CB:43:C:H4'	30:CF:98:ARG:HH12	1.49	0.77
52:C2:45:VAL:HG13	52:C2:51:TYR:HB2	1.64	0.77
12:AL:69:ILE:HG13	12:AL:99:ILE:HG21	1.65	0.77
25:BA:95:G:H4'	49:BY:46:GLN:HB3	1.66	0.77
2:AB:101:MET:HA	2:AB:108:ILE:HG13	1.65	0.77
27:CC:206:LEU:O	27:CC:211:ARG:HD3	1.83	0.77
29:BE:111:ALA:HB2	29:BE:206:ILE:HD12	1.64	0.77
3:AC:105:GLU:HG2	3:AC:106:VAL:H	1.49	0.77
25:BA:2420:C:OP1	55:B5:34:TRP:HA	1.84	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:CQ:90:VAL:HG23	42:CR:39:LEU:HB3	1.67	0.77
17:DQ:12:SER:HB3	17:DQ:20:THR:HB	1.66	0.77
51:C1:38:ALA:HA	51:C1:55:PRO:HA	1.65	0.77
22:DV:212:LEU:HD12	22:DV:212:LEU:H	1.46	0.77
25:CA:2588:G:H2'	25:CA:2589:A:H5'	1.67	0.77
25:BA:2287:A:H62	25:BA:2344:U:H3	1.31	0.77
25:CA:670:A:H4'	25:CA:671:C:H5'	1.66	0.77
14:DN:24:CYS:HB3	14:DN:29:ARG:H	1.50	0.77
25:CA:2377:A:H2'	25:CA:2378:A:C8	2.20	0.77
27:BC:83:GLU:HB2	27:BC:92:ILE:HD11	1.67	0.77
1:AA:328:C:H4'	1:AA:329:A:C5'	2.15	0.77
1:AA:243:A:H4'	1:AA:244:U:H5'	1.66	0.77
25:BA:2377:A:H2'	25:BA:2378:A:C8	2.20	0.77
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.66	0.77
40:BP:41:ARG:HD2	40:BP:42:ILE:H	1.49	0.77
2:DB:84:GLU:HB3	2:DB:219:VAL:HG21	1.65	0.77
45:BU:76:CYS:HB3	45:BU:77:PRO:HD2	1.67	0.77
25:CA:94:G:H21	49:CY:47:ASN:ND2	1.83	0.77
1:DA:243:A:H4'	1:DA:244:U:H5'	1.66	0.77
29:CE:65:TRP:HZ3	29:CE:75:HIS:HD2	1.33	0.76
1:DA:328:C:H4'	1:DA:329:A:C5'	2.15	0.76
14:AN:24:CYS:HB3	14:AN:29:ARG:H	1.50	0.76
45:BU:30:VAL:HG13	45:BU:37:VAL:HG12	1.68	0.76
25:CA:2210:G:N2	25:CA:2211:G:H5'	1.99	0.76
25:CA:2420:C:OP1	55:C5:34:TRP:HA	1.84	0.76
41:BQ:88:ILE:HB	41:BQ:90:VAL:HG12	1.66	0.76
40:CP:41:ARG:HD2	40:CP:42:ILE:H	1.50	0.76
22:AV:340:LYS:O	22:AV:344:GLN:HG2	1.86	0.76
25:CA:676:A:H8	25:CA:2069:G:H21	1.33	0.76
25:BA:773:U:C4'	27:BC:47:GLY:HA3	2.14	0.76
41:BQ:90:VAL:HG23	42:BR:39:LEU:HB3	1.67	0.76
22:DV:293:ILE:HD11	22:DV:297:GLU:HG2	1.68	0.76
1:DA:1223:C:H5''	1:DA:1224:G:H5''	1.67	0.76
10:DJ:92:THR:HG23	10:DJ:93:GLY:H	1.47	0.76
12:AL:82:VAL:HG11	12:AL:99:ILE:HD11	1.68	0.76
4:AD:22:LYS:HB2	4:AD:26:CYS:SG	2.25	0.76
25:CA:2593:U:H2'	25:CA:2594:C:C6	2.20	0.76
13:DM:9:ILE:HG22	13:DM:11:ARG:HG3	1.68	0.76
12:DL:82:VAL:HG11	12:DL:99:ILE:HD11	1.67	0.76
1:AA:793:U:O2	1:AA:1516:G:H4'	1.86	0.76
37:CM:43:THR:HB	37:CM:45:GLN:HE21	1.48	0.76
25:BA:676:A:H8	25:BA:2069:G:H21	1.33	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:DS:50:ALA:HB1	19:DS:57:HIS:HB3	1.68	0.75
1:AA:1223:C:H5''	1:AA:1224:G:H5''	1.67	0.75
25:BA:94:G:H21	49:BY:47:ASN:ND2	1.83	0.75
22:DV:340:LYS:O	22:DV:344:GLN:HG2	1.86	0.75
1:DA:942:G:H21	9:DI:124:GLN:HE22	1.34	0.75
3:DC:195:VAL:HG12	3:DC:196:LEU:H	1.50	0.75
25:CA:2267:A:H5''	25:CA:2268:A:H5''	1.68	0.75
25:CA:2189:U:H2'	25:CA:2190:G:H8	1.52	0.75
43:CS:51:LEU:HD23	43:CS:105:VAL:HG11	1.68	0.75
25:CA:2619:C:H5''	28:CD:152:LYS:HG2	1.68	0.75
45:BU:45:VAL:HG22	45:BU:62:GLU:HB3	1.68	0.75
46:CV:27:VAL:HG22	46:CV:36:LYS:HA	1.69	0.75
37:CM:8:LYS:HG3	37:CM:9:TYR:H	1.51	0.75
1:DA:975:A:H4'	1:DA:976:G:H5''	1.69	0.75
36:CL:148:LEU:H	36:CL:148:LEU:HD13	1.51	0.75
25:BA:2593:U:H2'	25:BA:2594:C:C6	2.21	0.75
25:BA:2189:U:H2'	25:BA:2190:G:H8	1.52	0.75
1:AA:975:A:H4'	1:AA:976:G:H5''	1.68	0.75
45:CU:76:CYS:HB3	45:CU:77:PRO:HD2	1.67	0.75
26:BB:43:C:H4'	30:BF:98:ARG:HH12	1.49	0.75
27:BC:125:ILE:H	27:BC:125:ILE:HD12	1.51	0.75
27:CC:125:ILE:H	27:CC:125:ILE:HD12	1.51	0.75
36:BL:148:LEU:HD13	36:BL:148:LEU:H	1.51	0.75
29:BE:139:PHE:HB2	29:BE:166:ALA:HB1	1.69	0.75
29:CE:139:PHE:HB2	29:CE:166:ALA:HB1	1.69	0.75
27:CC:108:PRO:HB3	27:CC:143:HIS:CE1	2.22	0.75
16:DP:27:LYS:H	16:DP:27:LYS:HD2	1.52	0.75
27:CC:83:GLU:HB2	27:CC:92:ILE:HD11	1.66	0.74
43:BS:51:LEU:HD23	43:BS:105:VAL:HG11	1.69	0.74
8:AH:42:GLU:HG3	8:AH:109:ILE:HD12	1.69	0.74
10:DJ:96:ILE:HD13	10:DJ:96:ILE:H	1.52	0.74
25:CA:330:A:HO2'	25:CA:331:A:H8	1.35	0.74
45:CU:45:VAL:HG22	45:CU:62:GLU:HB3	1.68	0.74
12:DL:37:THR:HG23	12:DL:38:VAL:H	1.52	0.74
10:AJ:96:ILE:H	10:AJ:96:ILE:HD13	1.52	0.74
25:CA:273(G):C:H3'	25:CA:274:G:C5'	2.17	0.74
1:DA:401:C:H2'	1:DA:402:G:C8	2.22	0.74
1:AA:168:G:H2'	1:AA:169:C:H5''	1.69	0.74
1:AA:818:G:H1'	1:AA:820:U:H5	1.51	0.74
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.68	0.74
32:BH:71:ILE:HG23	32:BH:72:LEU:HD22	1.68	0.74
45:BU:27:VAL:HG12	45:BU:39:VAL:HG22	1.69	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1579:A:H2'	25:BA:1580:A:H8	1.53	0.74
25:CA:1830:C:HO2'	25:CA:1831:G:H8	0.76	0.74
25:CA:773:U:H4'	27:CC:47:GLY:HA3	1.69	0.74
27:BC:201:HIS:O	27:BC:204:ILE:HG13	1.86	0.74
1:DA:168:G:H2'	1:DA:169:C:H5''	1.69	0.74
35:CK:47:ILE:HG13	35:CK:48:PRO:HD2	1.69	0.74
39:BO:34:HIS:HA	39:BO:54:LEU:HD23	1.69	0.74
45:CU:30:VAL:HG13	45:CU:37:VAL:HG12	1.68	0.74
29:CE:63:LYS:HZ1	29:CE:67:GLN:HE21	1.35	0.74
25:BA:2619:C:H5''	28:BD:152:LYS:HG2	1.68	0.74
19:AS:6:LYS:HG2	19:AS:7:LYS:HD3	1.70	0.74
50:CZ:5:LYS:HB3	50:CZ:57:GLU:HB2	1.70	0.74
32:CH:71:ILE:HG23	32:CH:72:LEU:HD22	1.68	0.74
8:DH:42:GLU:HG3	8:DH:109:ILE:HD12	1.69	0.74
18:AR:26:LEU:HD13	18:AR:39:VAL:HG13	1.70	0.74
42:CR:5:VAL:HG23	42:CR:37:VAL:HG23	1.70	0.74
25:CA:2393:A:H5''	36:CL:62:LEU:HB3	1.70	0.74
25:BA:46:C:OP2	25:BA:215:G:H5''	1.88	0.74
25:CA:1579:A:H2'	25:CA:1580:A:H8	1.53	0.74
31:CG:35:VAL:HG21	31:CG:75:ALA:HB2	1.70	0.74
50:BZ:5:LYS:HB3	50:BZ:57:GLU:HB2	1.70	0.74
25:BA:1434:A:H61	25:BA:1558:A:H62	1.36	0.74
34:BJ:90:LEU:H	34:BJ:90:LEU:HD12	1.53	0.74
22:DV:87:ALA:O	22:DV:91:GLU:HG2	1.88	0.74
25:BA:1496:A:H1'	25:BA:1577:C:O2'	1.88	0.74
25:CA:1496:A:H1'	25:CA:1577:C:O2'	1.88	0.74
43:CS:13:SER:HB3	43:CS:16:LYS:HD2	1.70	0.73
1:DA:392:G:H2'	1:DA:393:A:H8	1.52	0.73
45:BU:78:ALA:HB3	45:BU:81:LYS:HE3	1.71	0.73
31:BG:35:VAL:HG21	31:BG:75:ALA:HB2	1.70	0.73
1:AA:673:G:H5''	6:AF:87:ARG:NH1	2.03	0.73
5:DE:91:LEU:HA	5:DE:120:THR:HG22	1.70	0.73
25:BA:1060:U:H4'	25:BA:1061:U:H3'	1.68	0.73
25:BA:1899:G:H21	25:BA:1902:C:H42	1.36	0.73
26:CB:15:A:H1'	26:CB:109:G:C4	2.23	0.73
31:BG:17:VAL:HG22	31:BG:26:VAL:HG22	1.70	0.73
2:DB:168:THR:OG1	2:DB:192:SER:HA	1.88	0.73
1:DA:673:G:H5''	6:DF:87:ARG:NH1	2.03	0.73
36:BL:39:LYS:HD2	36:BL:40:SER:H	1.53	0.73
37:BM:8:LYS:HG3	37:BM:9:TYR:H	1.52	0.73
12:AL:37:THR:HG23	12:AL:38:VAL:H	1.52	0.73
27:BC:21:PHE:O	27:BC:24:ILE:HG22	1.89	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:818:G:H1'	1:DA:820:U:H5	1.51	0.73
2:AB:91:PRO:HA	2:AB:154:LEU:HD11	1.70	0.73
34:BJ:70:ALA:HB2	34:BJ:135:LEU:HD12	1.70	0.73
37:BM:55:VAL:HG12	37:BM:64:ILE:HD12	1.71	0.73
42:BR:5:VAL:HG23	42:BR:37:VAL:HG23	1.69	0.73
25:CA:1060:U:H4'	25:CA:1061:U:H3'	1.68	0.73
13:AM:9:ILE:HG22	13:AM:11:ARG:HG3	1.68	0.73
3:DC:95:THR:HG22	3:DC:96:GLY:H	1.54	0.73
53:B3:42:TRP:HA	53:B3:42:TRP:CE3	2.24	0.73
31:CG:17:VAL:HG22	31:CG:26:VAL:HG22	1.70	0.73
37:CM:55:VAL:HG12	37:CM:64:ILE:HD12	1.71	0.73
25:BA:2267:A:H5''	25:BA:2268:A:H5''	1.69	0.73
27:BC:233:HIS:HE1	27:BC:247:ALA:H	1.35	0.73
2:DB:91:PRO:HA	2:DB:154:LEU:HD11	1.70	0.73
6:DF:99:ALA:HB2	18:DR:31:LEU:HD22	1.71	0.73
18:DR:26:LEU:HD13	18:DR:39:VAL:HG13	1.69	0.73
26:BB:15:A:H1'	26:BB:109:G:C4	2.23	0.73
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.71	0.73
25:CA:46:C:OP2	25:CA:215:G:H5''	1.88	0.73
16:AP:27:LYS:H	16:AP:27:LYS:HD2	1.52	0.73
27:CC:21:PHE:O	27:CC:24:ILE:HG22	1.89	0.73
27:CC:233:HIS:HE1	27:CC:247:ALA:H	1.35	0.73
1:DA:1256:A:H5'	1:DA:1257:U:OP1	1.88	0.73
25:BA:273(G):C:H3'	25:BA:274:G:C5'	2.17	0.73
35:BK:47:ILE:HG13	35:BK:48:PRO:HD2	1.69	0.73
19:DS:6:LYS:HG2	19:DS:7:LYS:HD3	1.70	0.73
36:CL:114:ILE:HD11	36:CL:130:PHE:CD1	2.24	0.73
30:BF:74:LYS:HE3	30:BF:74:LYS:HA	1.70	0.73
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.88	0.73
1:AA:939:G:H5''	7:AG:102:ARG:HH12	1.54	0.73
27:BC:108:PRO:HB3	27:BC:143:HIS:CE1	2.23	0.73
45:CU:27:VAL:HG12	45:CU:39:VAL:HG22	1.69	0.73
3:DC:43:LEU:O	3:DC:47:LEU:HB3	1.88	0.73
25:CA:1046:A:H3'	25:CA:1047:G:H5''	1.71	0.73
39:CO:34:HIS:HA	39:CO:54:LEU:HD23	1.69	0.73
29:BE:63:LYS:HZ1	29:BE:67:GLN:HE21	1.37	0.73
25:BA:1830:C:HO2'	25:BA:1831:G:H8	0.75	0.73
18:AR:44:LEU:HD22	18:AR:79:LEU:HD22	1.71	0.73
46:BV:27:VAL:HG22	46:BV:36:LYS:HA	1.69	0.73
44:BT:70:LEU:HD23	44:BT:71:GLY:N	2.04	0.73
44:CT:70:LEU:HD23	44:CT:71:GLY:N	2.04	0.73
46:CV:104:PHE:HA	46:CV:139:VAL:HB	1.71	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1697:G:H3'	25:BA:1698:A:H5''	1.71	0.72
1:AA:392:G:H2'	1:AA:393:A:H8	1.53	0.72
25:BA:2331:G:H4'	47:BW:43:THR:H	1.53	0.72
22:AV:87:ALA:O	22:AV:91:GLU:HG2	1.88	0.72
2:AB:168:THR:OG1	2:AB:192:SER:HA	1.89	0.72
10:DJ:50:ILE:HB	14:DN:41:ARG:NH2	2.03	0.72
27:CC:62:TYR:HA	27:CC:87:ASN:HD21	1.54	0.72
6:DF:37:VAL:HA	6:DF:65:VAL:HG12	1.70	0.72
25:BA:1544:C:H3'	25:BA:1545:A:H5''	1.71	0.72
1:AA:401:C:H2'	1:AA:402:G:C8	2.22	0.72
41:BQ:110:VAL:O	41:BQ:114:LYS:HG2	1.89	0.72
1:AA:942:G:H21	9:AI:124:GLN:HE22	1.35	0.72
29:BE:65:TRP:CZ3	29:BE:75:HIS:HD2	2.08	0.72
6:AF:37:VAL:HA	6:AF:65:VAL:HG12	1.70	0.72
1:AA:1256:A:H5'	1:AA:1257:U:OP1	1.88	0.72
36:BL:114:ILE:HD11	36:BL:130:PHE:CD1	2.23	0.72
34:CJ:70:ALA:HB2	34:CJ:135:LEU:HD12	1.71	0.72
8:DH:102:ARG:H	8:DH:102:ARG:HE	1.36	0.72
27:CC:201:HIS:O	27:CC:204:ILE:HG13	1.88	0.72
25:BA:773:U:H4'	27:BC:47:GLY:HA3	1.70	0.72
43:BS:13:SER:HB3	43:BS:16:LYS:HD2	1.70	0.72
1:DA:986:A:H1'	19:DS:54:GLY:O	1.90	0.72
25:CA:1173:G:H2'	25:CA:1175:U:H5'	1.72	0.72
8:DH:110:ALA:HB3	8:DH:121:ASP:HB3	1.70	0.72
37:BM:17:LEU:HD21	37:BM:41:TRP:HE1	1.55	0.72
25:CA:1540:G:H2'	25:CA:1541:U:O4'	1.89	0.72
1:AA:955:U:H1'	1:AA:1227:A:H61	1.54	0.72
25:BA:1540:G:H2'	25:BA:1541:U:O4'	1.90	0.72
10:AJ:50:ILE:HB	14:AN:41:ARG:NH2	2.03	0.72
36:BL:26:GLY:HA2	36:BL:30:THR:HG23	1.71	0.72
8:DH:102:ARG:N	8:DH:102:ARG:HE	1.88	0.72
46:BV:104:PHE:HA	46:BV:139:VAL:HB	1.71	0.72
25:CA:2331:G:H4'	47:CW:43:THR:H	1.55	0.72
25:CA:2712:U:H1'	25:CA:712(B):A:C8	2.25	0.72
1:DA:939:G:H5''	7:DG:102:ARG:HH12	1.54	0.72
30:CF:7:LEU:HD23	30:CF:10:LYS:HD2	1.71	0.72
48:CX:46:LEU:HB2	48:CX:63:ALA:HA	1.72	0.72
1:DA:955:U:H1'	1:DA:1227:A:H61	1.54	0.72
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.05	0.72
25:CA:1434:A:H61	25:CA:1558:A:H62	1.36	0.72
44:CT:55:ASN:HB2	44:CT:80:ILE:HG23	1.72	0.72
45:BU:88:LYS:HE2	45:BU:93:GLY:HA3	1.72	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:587:C:H42	36:BL:33:ARG:HG2	1.53	0.72
55:C5:54:GLU:HA	55:C5:57:ARG:HH12	1.52	0.72
43:BS:29:LEU:HD22	43:BS:69:LEU:HD11	1.72	0.72
10:AJ:74:ILE:HD13	10:AJ:74:ILE:H	1.54	0.72
36:CL:41:ARG:HH22	36:CL:45:LEU:HB2	1.55	0.72
5:AE:91:LEU:HA	5:AE:120:THR:HG22	1.70	0.72
55:B5:54:GLU:HA	55:B5:57:ARG:HH12	1.54	0.71
22:AV:293:ILE:HD11	22:AV:297:GLU:HG2	1.69	0.71
25:BA:1173:G:H2'	25:BA:1175:U:H5'	1.72	0.71
45:CU:88:LYS:HE2	45:CU:93:GLY:HA3	1.72	0.71
4:DD:108:LEU:HD21	4:DD:183:GLY:HA3	1.72	0.71
18:DR:44:LEU:HD22	18:DR:79:LEU:HD22	1.72	0.71
10:DJ:74:ILE:HD13	10:DJ:74:ILE:H	1.55	0.71
8:AH:102:ARG:H	8:AH:102:ARG:HE	1.36	0.71
34:CJ:90:LEU:H	34:CJ:90:LEU:HD12	1.53	0.71
25:CA:1899:G:H21	25:CA:1902:C:H42	1.36	0.71
29:BE:65:TRP:HZ3	29:BE:75:HIS:HD2	1.34	0.71
16:DP:4:ILE:HG13	16:DP:21:VAL:HG12	1.72	0.71
22:DV:219:ILE:HG12	22:DV:241:VAL:HG12	1.73	0.71
34:BJ:57:LEU:HD21	34:BJ:143:LEU:HB2	1.72	0.71
28:CD:52:LEU:H	28:CD:52:LEU:HD12	1.55	0.71
46:BV:163:LEU:HD23	46:BV:163:LEU:H	1.55	0.71
34:CJ:157:ARG:N	34:CJ:158:PRO:HD3	2.05	0.71
1:AA:648:A:H2'	1:AA:649:G:H8	1.55	0.71
25:CA:2380:C:H2'	25:CA:2381:C:H5'	1.72	0.71
37:CM:17:LEU:HD21	37:CM:41:TRP:HE1	1.55	0.71
36:CL:6:LEU:HD23	36:CL:6:LEU:H	1.55	0.71
45:BU:31:LEU:H	45:BU:31:LEU:HD23	1.55	0.71
6:DF:21:LEU:O	6:DF:25:ILE:HG12	1.91	0.71
48:BX:46:LEU:HB2	48:BX:63:ALA:HA	1.72	0.71
25:BA:2380:C:H2'	25:BA:2381:C:H5'	1.71	0.71
10:DJ:45:ARG:HB2	10:DJ:65:LEU:HB3	1.73	0.71
52:C2:45:VAL:HG12	52:C2:46:CYS:H	1.55	0.71
1:AA:673:G:H2'	1:AA:674:G:C8	2.26	0.71
1:AA:1065:U:H4'	1:AA:1066:C:O5'	1.91	0.71
8:AH:102:ARG:N	8:AH:102:ARG:HE	1.88	0.71
1:AA:986:A:H1'	19:AS:54:GLY:O	1.90	0.71
44:BT:55:ASN:HB2	44:BT:80:ILE:HG23	1.71	0.71
25:BA:829:A:N7	25:BA:2248:C:H5'	2.06	0.71
46:BV:126:VAL:HG12	46:BV:163:LEU:HA	1.73	0.71
1:AA:243:A:H4'	1:AA:244:U:C5'	2.21	0.71
29:CE:65:TRP:CZ3	29:CE:75:HIS:HD2	2.07	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:CF:74:LYS:HA	30:CF:74:LYS:HE3	1.71	0.71
41:CQ:110:VAL:O	41:CQ:114:LYS:HG2	1.90	0.71
2:AB:55:PHE:HE1	2:AB:218:ALA:HA	1.56	0.71
41:BQ:15:LYS:O	41:BQ:19:LYS:HG3	1.91	0.71
1:AA:976:G:H5''	1:AA:1358:U:O2'	1.91	0.71
36:CL:27:HIS:HE1	42:CR:83:ARG:HH12	1.39	0.71
3:AC:95:THR:HG22	3:AC:96:GLY:H	1.54	0.71
30:BF:7:LEU:HD23	30:BF:10:LYS:HD2	1.71	0.71
43:CS:29:LEU:HD22	43:CS:69:LEU:HD11	1.73	0.71
10:AJ:45:ARG:HB2	10:AJ:65:LEU:HB3	1.72	0.71
22:DV:302:ILE:HG22	22:DV:303:ARG:N	2.02	0.71
1:DA:976:G:H5''	1:DA:1358:U:O2'	1.91	0.71
52:B2:45:VAL:HG12	52:B2:46:CYS:H	1.54	0.71
45:CU:78:ALA:HB3	45:CU:81:LYS:HE3	1.71	0.71
34:BJ:57:LEU:O	34:BJ:72:GLY:HA3	1.91	0.71
25:CA:2335:A:H8	39:CO:13:ARG:HH22	1.39	0.71
1:AA:1300:G:H1'	1:AA:1301:U:OP2	1.90	0.71
13:AM:67:GLU:HG3	13:AM:68:GLY:H	1.55	0.71
28:BD:52:LEU:HD12	28:BD:52:LEU:H	1.56	0.71
25:CA:1544:C:H3'	25:CA:1545:A:H5''	1.71	0.71
25:BA:2393:A:H5''	36:BL:62:LEU:HB3	1.71	0.71
25:CA:587:C:H42	36:CL:33:ARG:HG2	1.56	0.71
36:CL:39:LYS:HD2	36:CL:40:SER:H	1.53	0.71
25:BA:536:A:H2'	25:BA:537:C:C6	2.26	0.71
30:BF:66:GLN:HG2	30:BF:67:LYS:H	1.55	0.70
22:AV:219:ILE:HG12	22:AV:241:VAL:HG12	1.72	0.70
30:BF:19:LEU:HD11	30:BF:172:LEU:HD13	1.73	0.70
34:CJ:57:LEU:O	34:CJ:72:GLY:HA3	1.91	0.70
25:CA:1697:G:H3'	25:CA:1698:A:H5''	1.72	0.70
30:CF:66:GLN:HG2	30:CF:67:LYS:H	1.55	0.70
3:DC:17:ASP:HB2	3:DC:21:ARG:HH22	1.57	0.70
34:CJ:57:LEU:HD21	34:CJ:143:LEU:HB2	1.71	0.70
25:CA:536:A:H2'	25:CA:537:C:C6	2.26	0.70
25:BA:2777:G:H5''	25:BA:2778:A:H5'	1.73	0.70
4:AD:108:LEU:HD21	4:AD:183:GLY:HA3	1.72	0.70
45:CU:31:LEU:H	45:CU:31:LEU:HD23	1.55	0.70
41:BQ:25:TRP:O	41:BQ:28:ARG:HB3	1.91	0.70
34:BJ:157:ARG:N	34:BJ:158:PRO:HD3	2.06	0.70
46:CV:126:VAL:HG12	46:CV:163:LEU:HA	1.73	0.70
25:BA:2712:U:H1'	25:BA:712(B):A:C8	2.25	0.70
53:C3:42:TRP:CE3	53:C3:42:TRP:HA	2.24	0.70
6:AF:99:ALA:HB2	18:AR:31:LEU:HD22	1.71	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:302:ILE:HG22	22:AV:303:ARG:N	2.02	0.70
46:CV:163:LEU:HD23	46:CV:163:LEU:H	1.55	0.70
3:AC:17:ASP:HB2	3:AC:21:ARG:HH22	1.57	0.70
36:BL:27:HIS:HE1	42:BR:83:ARG:HH12	1.39	0.70
32:BH:6:LEU:HD23	32:BH:6:LEU:H	1.55	0.70
20:AT:50:GLU:HB3	20:AT:100:ILE:HD13	1.73	0.70
25:CA:2777:G:H5''	25:CA:2778:A:H5'	1.73	0.70
41:CQ:15:LYS:O	41:CQ:19:LYS:HG3	1.91	0.70
25:BA:1348:G:H2'	25:BA:1349:A:H5''	1.72	0.70
25:CA:1314:C:N4	25:CA:1338:G:H1	1.88	0.70
36:BL:41:ARG:HH22	36:BL:45:LEU:HB2	1.55	0.70
25:BA:278:A:H61	25:BA:362:U:H3	1.37	0.70
1:DA:648:A:H2'	1:DA:649:G:H8	1.56	0.70
25:BA:2335:A:H8	39:BO:13:ARG:HH22	1.40	0.70
25:BA:1046:A:H3'	25:BA:1047:G:H5''	1.71	0.70
1:DA:1065:U:H4'	1:DA:1066:C:O5'	1.91	0.70
1:DA:243:A:H4'	1:DA:244:U:C5'	2.21	0.70
36:CL:26:GLY:HA2	36:CL:30:THR:HG23	1.72	0.70
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.73	0.70
40:BP:84:GLN:HG3	40:BP:85:LYS:HG3	1.74	0.70
5:DE:101:ILE:HD11	5:DE:119:LEU:HD23	1.74	0.70
36:BL:6:LEU:H	36:BL:6:LEU:HD23	1.55	0.70
25:CA:829:A:N7	25:CA:2248:C:H5'	2.06	0.70
44:CT:26:TYR:HB3	44:CT:92:LEU:HD13	1.73	0.70
53:C3:42:TRP:HE3	53:C3:42:TRP:HA	1.57	0.70
32:CH:6:LEU:HD23	32:CH:6:LEU:H	1.55	0.70
25:CA:2022:U:O2'	25:CA:2617:C:H5'	1.92	0.70
50:BZ:8:LEU:HA	50:BZ:54:VAL:HG12	1.74	0.70
1:AA:1371:G:OP1	9:AI:11:LYS:HB3	1.92	0.70
1:DA:1371:G:OP1	9:DI:11:LYS:HB3	1.92	0.70
25:CA:2689:U:H4'	25:CA:2690:C:O5'	1.92	0.70
25:CA:1348:G:H2'	25:CA:1349:A:H5''	1.73	0.70
13:DM:67:GLU:HG3	13:DM:68:GLY:H	1.55	0.70
6:AF:21:LEU:O	6:AF:25:ILE:HG12	1.91	0.70
33:CI:14:LYS:HA	33:CI:14:LYS:HE2	1.73	0.70
20:DT:50:GLU:HB3	20:DT:100:ILE:HD13	1.73	0.70
45:BU:15:VAL:HG22	45:BU:72:VAL:HG12	1.74	0.70
5:DE:6:PHE:CD2	5:DE:36:ASP:HB3	2.27	0.70
1:DA:1064:G:N2	1:DA:1190:G:H2'	2.05	0.70
41:CQ:25:TRP:O	41:CQ:28:ARG:HB3	1.91	0.70
25:CA:278:A:H61	25:CA:362:U:H3	1.38	0.70
1:DA:1300:G:H1'	1:DA:1301:U:OP2	1.90	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:CV:48:PHE:HA	46:CV:51:ALA:HB3	1.73	0.70
25:CA:2415:G:H4'	36:CL:66:GLY:HA2	1.73	0.70
27:BC:62:TYR:HA	27:BC:87:ASN:HD21	1.55	0.70
43:BS:80:PRO:O	43:BS:100:THR:HG22	1.92	0.70
34:BJ:53:ILE:HG23	34:BJ:75:VAL:HG11	1.74	0.70
43:CS:103:ILE:HD12	43:CS:103:ILE:H	1.57	0.70
25:BA:2415:G:H4'	36:BL:66:GLY:HA2	1.72	0.70
22:DV:80:ALA:O	22:DV:84:ARG:HB2	1.92	0.69
25:CA:2626:C:H42	25:CA:2777:G:H1	1.40	0.69
27:CC:244:ARG:HG3	27:CC:245:PRO:HD2	1.74	0.69
1:DA:1292:U:H2'	1:DA:1293:G:H8	1.56	0.69
1:DA:1123:A:H4'	10:DJ:36:GLY:HA3	1.74	0.69
46:BV:48:PHE:HA	46:BV:51:ALA:HB3	1.74	0.69
15:DO:36:ILE:HD12	15:DO:63:ARG:HH11	1.56	0.69
44:BT:26:TYR:HB3	44:BT:92:LEU:HD13	1.73	0.69
40:BP:26:ASP:HB3	40:BP:91:ARG:HA	1.74	0.69
1:DA:673:G:H2'	1:DA:674:G:C8	2.26	0.69
27:BC:35:LYS:HZ1	27:BC:104:TYR:H	1.39	0.69
53:B3:42:TRP:HA	53:B3:42:TRP:HE3	1.57	0.69
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.56	0.69
25:CA:270(J):G:HO2'	25:CA:270(K):G:H8	1.39	0.69
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	1.74	0.69
40:CP:84:GLN:HG3	40:CP:85:LYS:HG3	1.74	0.69
2:DB:55:PHE:HE1	2:DB:218:ALA:HA	1.55	0.69
1:AA:716:A:N3	11:AK:118:GLY:HA2	2.07	0.69
15:AO:36:ILE:HD12	15:AO:63:ARG:HH11	1.57	0.69
25:CA:2313:C:H4'	30:CF:91:ARG:HG3	1.74	0.69
40:BP:26:ASP:HB2	40:BP:91:ARG:HA	1.74	0.69
49:CY:46:GLN:O	49:CY:47:ASN:HB2	1.92	0.69
22:AV:80:ALA:O	22:AV:84:ARG:HB2	1.92	0.69
3:DC:150:LYS:HB3	3:DC:201:TYR:HB2	1.74	0.69
25:BA:896:A:O2'	46:BV:176:PRO:HG3	1.92	0.69
36:BL:112:LEU:HD23	36:BL:113:LYS:N	2.08	0.69
54:C4:8:ASN:ND2	54:C4:11:LYS:H	1.90	0.69
11:DK:21:ILE:HG13	11:DK:30:VAL:HG12	1.75	0.69
34:CJ:53:ILE:HG23	34:CJ:75:VAL:HG11	1.75	0.69
16:AP:4:ILE:HG13	16:AP:21:VAL:HG12	1.73	0.69
29:BE:53:THR:HG23	29:BE:55:GLY:H	1.57	0.69
25:CA:2189:U:H2'	25:CA:2190:G:C8	2.28	0.69
25:BA:1021:A:H62	25:BA:1141:U:H3	1.39	0.69
32:CH:76:THR:HG22	32:CH:141:LYS:HD3	1.74	0.69
1:DA:1281:U:H5'	1:DA:1282:C:H5	1.58	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BV:77:ASP:HB2	46:BV:84:GLU:HG3	1.74	0.69
25:BA:2189:U:H2'	25:BA:2190:G:C8	2.28	0.69
32:CH:31:LEU:HD13	32:CH:37:VAL:HA	1.74	0.69
1:DA:716:A:N3	11:DK:118:GLY:HA2	2.08	0.69
32:BH:78:THR:HA	32:BH:143:SER:HB3	1.75	0.69
35:CK:104:ARG:HB3	35:CK:104:ARG:HH11	1.58	0.69
25:BA:1602:U:H3'	25:BA:1603:A:C5'	2.22	0.69
25:CA:95:G:H1'	49:CY:47:ASN:HB3	1.73	0.69
25:BA:2689:U:H4'	25:BA:2690:C:O5'	1.91	0.69
25:BA:2496:C:OP1	37:BM:81:VAL:HG13	1.92	0.69
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	1.75	0.69
25:BA:1375:C:H2'	25:BA:1376:C:H6	1.58	0.69
43:BS:103:ILE:H	43:BS:103:ILE:HD12	1.58	0.69
25:BA:1889:A:H2'	25:BA:1890:A:C8	2.28	0.69
25:CA:896:A:O2'	46:CV:176:PRO:HG3	1.92	0.69
1:AA:505:G:H2'	1:AA:506:G:C8	2.27	0.69
35:CK:86:ILE:HD12	35:CK:86:ILE:H	1.57	0.69
29:CE:53:THR:HG23	29:CE:55:GLY:H	1.57	0.69
22:AV:148:HIS:CE1	25:BA:1911:U:H5''	2.28	0.69
25:BA:2313:C:H4'	30:BF:91:ARG:HG3	1.75	0.69
25:BA:95:G:H1'	49:BY:47:ASN:HB3	1.72	0.69
32:CH:6:LEU:HA	32:CH:15:VAL:HG13	1.75	0.69
1:DA:505:G:H2'	1:DA:506:G:C8	2.28	0.69
2:DB:71:VAL:HG12	2:DB:93:VAL:HB	1.75	0.69
17:DQ:45:HIS:CD2	17:DQ:47:PRO:HD3	2.28	0.69
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	1.75	0.69
40:CP:26:ASP:HB3	40:CP:91:ARG:HA	1.74	0.69
37:CM:75:THR:HA	37:CM:88:GLY:HA2	1.75	0.69
25:CA:628:G:H2'	25:CA:629:G:H8	1.58	0.69
33:BI:14:LYS:HA	33:BI:14:LYS:HE2	1.73	0.69
25:CA:1021:A:H62	25:CA:1141:U:H3	1.39	0.69
36:CL:112:LEU:HD23	36:CL:113:LYS:N	2.08	0.68
4:DD:8:VAL:HB	4:DD:21:LEU:HD22	1.75	0.68
27:BC:244:ARG:HG3	27:BC:245:PRO:HD2	1.75	0.68
32:BH:76:THR:HG22	32:BH:141:LYS:HD3	1.74	0.68
53:C3:15:GLU:OE2	53:C3:18:ARG:HD2	1.93	0.68
2:DB:54:THR:HG21	2:DB:201:ILE:HD11	1.76	0.68
55:C5:14:VAL:HG22	55:C5:24:ALA:HB2	1.74	0.68
15:DO:39:LEU:HD12	15:DO:56:LEU:HD13	1.76	0.68
36:CL:115:LEU:HA	36:CL:134:ALA:HB2	1.76	0.68
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.75	0.68
42:CR:24:LYS:HA	42:CR:92:THR:HG23	1.75	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2580:U:H4'	28:CD:130:GLY:HA2	1.75	0.68
34:BJ:127:LYS:HA	34:BJ:130:LEU:HD12	1.75	0.68
41:CQ:95:LEU:HD13	42:CR:4:ILE:HD12	1.75	0.68
5:AE:6:PHE:CD2	5:AE:36:ASP:HB3	2.27	0.68
1:DA:1281:U:H4'	1:DA:1282:C:OP2	1.94	0.68
29:BE:41:LEU:HA	29:BE:44:ARG:HD3	1.76	0.68
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.58	0.68
22:DV:274:LEU:HD21	22:DV:278:ARG:HE	1.57	0.68
49:BY:46:GLN:O	49:BY:47:ASN:HB2	1.92	0.68
36:CL:45:LEU:HD23	36:CL:46:LYS:N	2.08	0.68
25:BA:628:G:H2'	25:BA:629:G:H8	1.59	0.68
32:CH:78:THR:HA	32:CH:143:SER:HB3	1.74	0.68
15:AO:39:LEU:HD12	15:AO:56:LEU:HD13	1.76	0.68
29:CE:41:LEU:HA	29:CE:44:ARG:HD3	1.75	0.68
17:AQ:45:HIS:CD2	17:AQ:47:PRO:HD3	2.29	0.68
1:AA:402:G:C2'	1:AA:403:C:H5'	2.24	0.68
49:BY:2:LYS:HA	49:BY:5:GLU:CD	2.14	0.68
30:CF:19:LEU:HD11	30:CF:172:LEU:HD13	1.73	0.68
12:DL:74:HIS:HD2	12:DL:76:LEU:H	1.41	0.68
42:BR:24:LYS:HA	42:BR:92:THR:HG23	1.75	0.68
1:DA:1152:A:H2'	1:DA:1153:C:C6	2.29	0.68
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.28	0.68
25:BA:2335:A:H2'	39:BO:13:ARG:HH12	1.58	0.68
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.74	0.68
25:CA:1375:C:H2'	25:CA:1376:C:H6	1.56	0.68
25:CA:914:C:H2'	25:CA:915:C:H5'	1.76	0.68
54:B4:8:ASN:ND2	54:B4:11:LYS:H	1.92	0.68
45:CU:15:VAL:HG22	45:CU:72:VAL:HG12	1.74	0.68
46:CV:77:ASP:HB2	46:CV:84:GLU:HG3	1.74	0.68
53:B3:15:GLU:OE2	53:B3:18:ARG:HD2	1.93	0.68
3:AC:206:GLU:HG2	3:AC:207:VAL:HG23	1.76	0.68
35:BK:86:ILE:H	35:BK:86:ILE:HD12	1.57	0.68
40:BP:113:LYS:HA	40:BP:113:LYS:HE3	1.75	0.68
9:DI:3:GLN:HG2	9:DI:20:ARG:HG2	1.76	0.68
41:BQ:95:LEU:HD13	42:BR:4:ILE:HD12	1.74	0.68
25:CA:2335:A:H2'	39:CO:13:ARG:HH12	1.59	0.68
3:AC:19:GLU:HG2	3:AC:40:ARG:HH22	1.58	0.68
20:DT:26:ASN:HD22	20:DT:27:LYS:N	1.92	0.68
28:CD:33:VAL:HG23	28:CD:47:VAL:HG13	1.74	0.68
4:AD:8:VAL:HB	4:AD:21:LEU:HD22	1.74	0.68
1:AA:1281:U:H4'	1:AA:1282:C:OP2	1.94	0.68
9:DI:26:VAL:HG13	9:DI:61:ALA:HB3	1.75	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1814:G:H4'	27:CC:51:VAL:HG21	1.76	0.68
22:AV:274:LEU:HD21	22:AV:278:ARG:HE	1.58	0.68
25:BA:1814:G:H4'	27:BC:51:VAL:HG21	1.76	0.68
28:BD:33:VAL:HG23	28:BD:47:VAL:HG13	1.75	0.68
12:AL:74:HIS:HD2	12:AL:76:LEU:H	1.41	0.68
17:DQ:14:LYS:H	17:DQ:14:LYS:HD2	1.59	0.68
17:AQ:14:LYS:HD2	17:AQ:14:LYS:H	1.59	0.68
41:BQ:83:LEU:HG	41:BQ:88:ILE:HD11	1.76	0.68
25:CA:1980:G:H3'	25:CA:1981:A:C5'	2.24	0.68
25:BA:2022:U:O2'	25:BA:2617:C:H5'	1.92	0.68
25:CA:1911:U:H5''	22:DV:148:HIS:HE1	1.59	0.68
38:CN:13:HIS:CE1	38:CN:16:HIS:HB2	2.29	0.68
1:AA:235:C:H2'	1:AA:236:G:H8	1.59	0.68
43:CS:80:PRO:O	43:CS:100:THR:HG22	1.93	0.68
25:BA:1314:C:N4	25:BA:1338:G:H1	1.90	0.67
25:CA:2090:G:H21	48:CX:45:ASN:ND2	1.92	0.67
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.76	0.67
35:CK:119:PRO:HB2	40:CP:68:TYR:HE1	1.59	0.67
37:CM:24:GLY:HA2	37:CM:101:ARG:HA	1.75	0.67
39:BO:30:ARG:HB3	39:BO:35:ILE:HD13	1.75	0.67
50:CZ:8:LEU:HA	50:CZ:54:VAL:HG12	1.74	0.67
35:BK:119:PRO:HB2	40:BP:68:TYR:HE1	1.59	0.67
25:CA:2496:C:OP1	37:CM:81:VAL:HG13	1.93	0.67
1:DA:521:G:OP1	12:DL:72:GLU:HA	1.94	0.67
37:BM:75:THR:HA	37:BM:88:GLY:HA2	1.74	0.67
25:BA:2626:C:H42	25:BA:2777:G:H1	1.40	0.67
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.60	0.67
40:CP:39:ARG:NH2	1:DA:345:C:OP2	2.27	0.67
53:C3:36:LEU:HD23	53:C3:36:LEU:H	1.59	0.67
25:CA:1889:A:H2'	25:CA:1890:A:C8	2.29	0.67
32:BH:31:LEU:HD13	32:BH:37:VAL:HA	1.74	0.67
22:AV:223:ARG:HB2	25:BA:2555:U:O2	1.94	0.67
39:BO:24:LEU:HD13	39:BO:82:ILE:HG23	1.76	0.67
40:CP:26:ASP:HB2	40:CP:91:ARG:HA	1.75	0.67
2:AB:71:VAL:HG12	2:AB:93:VAL:HB	1.75	0.67
34:CJ:127:LYS:HA	34:CJ:130:LEU:HD12	1.76	0.67
31:CG:87:LEU:HD13	31:CG:148:ILE:HG21	1.76	0.67
54:B4:24:THR:HG23	54:B4:27:GLY:H	1.59	0.67
36:BL:146:VAL:HG22	36:BL:147:LEU:H	1.59	0.67
27:CC:35:LYS:HZ1	27:CC:104:TYR:H	1.40	0.67
27:CC:81:ALA:HB3	27:CC:94:LEU:HB3	1.77	0.67
20:AT:26:ASN:HD22	20:AT:27:LYS:N	1.92	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B5:14:VAL:HG22	55:B5:24:ALA:HB2	1.76	0.67
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.60	0.67
25:CA:83:G:N2	25:CA:102:G:H2'	2.10	0.67
25:CA:1022:G:H8	34:CJ:92:GLN:NE2	1.93	0.67
31:CG:43:VAL:HA	31:CG:52:VAL:HG22	1.76	0.67
13:AM:16:ASP:HB3	13:AM:34:LEU:HD11	1.77	0.67
37:BM:24:GLY:HA2	37:BM:101:ARG:HA	1.75	0.67
25:BA:573:G:O2'	25:BA:574:C:H3'	1.95	0.67
38:BN:13:HIS:CE1	38:BN:16:HIS:HB2	2.29	0.67
53:B3:36:LEU:HD23	53:B3:36:LEU:H	1.59	0.67
28:BD:201:THR:HG22	28:BD:202:LYS:H	1.60	0.67
25:BA:2090:G:H21	48:BX:45:ASN:ND2	1.91	0.67
9:AI:3:GLN:HG2	9:AI:20:ARG:HG2	1.76	0.67
10:AJ:16:LEU:HD12	10:AJ:70:ARG:HD2	1.77	0.67
25:CA:1602:U:H3'	25:CA:1603:A:C5'	2.24	0.67
43:CS:84:ARG:HB2	43:CS:96:ILE:CG2	2.25	0.67
39:CO:103:GLU:O	39:CO:107:GLU:HG2	1.95	0.67
40:CP:102:ILE:HG22	40:CP:110:ILE:HD11	1.76	0.67
48:BX:27:GLU:HB3	48:BX:33:LYS:HG3	1.77	0.67
2:AB:60:ASP:O	2:AB:64:ARG:HG2	1.95	0.67
25:BA:755:C:H2'	25:BA:756:C:C6	2.30	0.67
1:DA:1376:U:H2'	1:DA:1377:A:H8	1.60	0.67
25:BA:330:A:HO2'	25:BA:331:A:H8	1.42	0.67
49:CY:17:SER:HB3	49:CY:18:PRO:CD	2.22	0.67
1:DA:1356:G:H2'	1:DA:1357:A:C8	2.30	0.67
39:CO:24:LEU:HD13	39:CO:82:ILE:HG23	1.76	0.67
25:BA:1434:A:H61	25:BA:1558:A:N6	1.92	0.67
32:BH:6:LEU:HA	32:BH:15:VAL:HG13	1.75	0.67
1:DA:688:G:H2'	1:DA:689:C:C6	2.30	0.67
5:DE:43:LEU:HD11	5:DE:132:ALA:HB1	1.77	0.67
35:BK:104:ARG:HB3	35:BK:104:ARG:HH11	1.58	0.67
1:DA:1397:C:H41	56:DX:22:A:H5''	1.59	0.67
41:CQ:83:LEU:HG	41:CQ:88:ILE:HD11	1.77	0.67
29:BE:8:GLN:HA	29:BE:21:ALA:HA	1.77	0.67
1:AA:1239:A:H4'	1:AA:1240:U:C5'	2.25	0.67
25:BA:83:G:N2	25:BA:102:G:H2'	2.10	0.67
40:CP:113:LYS:HE3	40:CP:113:LYS:HA	1.75	0.67
2:DB:60:ASP:O	2:DB:64:ARG:HG2	1.95	0.67
30:CF:74:LYS:HE2	30:CF:84:LYS:HE3	1.77	0.67
3:DC:19:GLU:HG2	3:DC:40:ARG:HH22	1.58	0.67
3:DC:30:ARG:HD3	14:DN:38:GLY:HA3	1.76	0.67
25:BA:2282:G:H4'	25:BA:2389:G:O2'	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:CL:64:LYS:HD2	55:C5:25:MET:SD	2.35	0.66
15:DO:33:THR:HG23	15:DO:63:ARG:HH22	1.60	0.66
10:DJ:16:LEU:HD12	10:DJ:70:ARG:HD2	1.77	0.66
15:AO:33:THR:HG23	15:AO:63:ARG:HH22	1.60	0.66
36:BL:115:LEU:HA	36:BL:134:ALA:HB2	1.75	0.66
41:CQ:50:ARG:HH22	42:CR:72:VAL:HG12	1.60	0.66
7:AG:15:ASP:HB3	7:AG:19:GLY:H	1.60	0.66
27:BC:71:ASP:HB3	27:BC:103:ARG:HH22	1.59	0.66
29:CE:195:ASP:OD2	29:CE:197:ASP:HB3	1.95	0.66
10:DJ:32:ALA:H	10:DJ:78:ASN:HD21	1.42	0.66
14:DN:27:CYS:SG	14:DN:43:CYS:HB3	2.36	0.66
1:DA:402:G:C2'	1:DA:403:C:H5'	2.24	0.66
1:AA:1227:A:N3	1:AA:1227:A:H2'	2.09	0.66
25:CA:1434:A:H61	25:CA:1558:A:N6	1.93	0.66
25:CA:2569:G:C2'	25:CA:2570:G:H5''	2.24	0.66
25:CA:755:C:H2'	25:CA:756:C:C6	2.30	0.66
22:DV:259:ILE:H	22:DV:259:ILE:HD13	1.61	0.66
5:AE:43:LEU:HD11	5:AE:132:ALA:HB1	1.77	0.66
36:CL:146:VAL:HG22	36:CL:147:LEU:H	1.59	0.66
5:AE:78:HIS:CE1	5:AE:143:ARG:H	2.12	0.66
25:BA:2593:U:H2'	25:BA:2594:C:H6	1.60	0.66
3:DC:206:GLU:HG2	3:DC:207:VAL:HG23	1.76	0.66
20:AT:29:LYS:O	20:AT:33:ILE:HG12	1.95	0.66
25:BA:2580:U:H4'	28:BD:130:GLY:HA2	1.76	0.66
1:DA:1227:A:N3	1:DA:1227:A:H2'	2.08	0.66
25:CA:2380:C:C2'	25:CA:2381:C:H5'	2.26	0.66
25:BA:2090:G:H21	48:BX:45:ASN:HD21	1.43	0.66
25:BA:755:C:H2'	25:BA:756:C:H6	1.59	0.66
25:BA:2569:G:H2'	25:BA:2570:G:H5''	1.77	0.66
46:CV:76:LEU:H	46:CV:76:LEU:HD12	1.60	0.66
25:CA:2467:C:H2'	25:CA:2468:G:O4'	1.95	0.66
25:CA:2468:G:O2'	25:CA:2469:A:H5''	1.95	0.66
29:CE:8:GLN:HA	29:CE:21:ALA:HA	1.77	0.66
25:BA:1403:C:H5''	25:BA:1471:A:H1'	1.78	0.66
25:BA:914:C:H2'	25:BA:915:C:H5'	1.76	0.66
25:BA:1980:G:H3'	25:BA:1981:A:C5'	2.24	0.66
25:BA:1614:A:N6	43:BS:87:PRO:HA	2.10	0.66
1:DA:1223:C:C5'	1:DA:1224:G:H5''	2.26	0.66
25:BA:1639:U:C2'	25:BA:1640:C:H5''	2.26	0.66
29:CE:67:GLN:HG3	29:CE:67:GLN:O	1.94	0.66
25:BA:1022:G:H8	34:BJ:92:GLN:NE2	1.93	0.66
25:CA:2569:G:H2'	25:CA:2570:G:H5''	1.76	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2569:G:C2'	25:BA:2570:G:H5''	2.25	0.66
25:CA:1187:G:H5''	42:CR:81:TYR:CE2	2.30	0.66
27:CC:227:ASN:HB3	27:CC:228:PRO:HD2	1.78	0.66
1:DA:1228:C:H2'	1:DA:1229:A:C8	2.31	0.66
25:CA:586:A:H5'	29:CE:89:VAL:HG21	1.78	0.66
25:CA:1614:A:N6	43:CS:87:PRO:HA	2.11	0.66
27:CC:71:ASP:HB3	27:CC:103:ARG:HH22	1.60	0.66
42:CR:47:VAL:HG12	42:CR:49:THR:O	1.96	0.66
36:BL:59:LEU:HA	36:BL:61:ARG:CZ	2.26	0.66
1:DA:1443:G:H3'	1:DA:1446:A:H5''	1.77	0.66
27:BC:81:ALA:HB3	27:BC:94:LEU:HB3	1.77	0.66
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.30	0.66
1:DA:1228:C:H2'	1:DA:1229:A:H8	1.60	0.66
41:BQ:50:ARG:HH22	42:BR:72:VAL:HG12	1.61	0.66
20:DT:29:LYS:O	20:DT:33:ILE:HG12	1.95	0.66
1:AA:521:G:OP1	12:AL:72:GLU:HA	1.95	0.66
1:AA:356:A:H1'	1:AA:368:U:O2'	1.96	0.66
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.30	0.66
25:CA:755:C:H2'	25:CA:756:C:H6	1.60	0.66
46:BV:76:LEU:H	46:BV:76:LEU:HD12	1.60	0.66
25:BA:1187:G:H5''	42:BR:81:TYR:CE2	2.30	0.66
1:DA:1239:A:H4'	1:DA:1240:U:C5'	2.25	0.66
25:CA:442:G:H1'	29:CE:48:THR:HG21	1.78	0.66
47:CW:48:GLY:HA3	47:CW:80:HIS:ND1	2.11	0.66
39:BO:103:GLU:O	39:BO:107:GLU:HG2	1.95	0.66
3:DC:14:ILE:HG23	3:DC:15:THR:H	1.61	0.66
25:BA:2467:C:H2'	25:BA:2468:G:O4'	1.95	0.66
36:CL:59:LEU:HA	36:CL:61:ARG:CZ	2.26	0.66
15:DO:33:THR:HA	15:DO:63:ARG:HH12	1.61	0.66
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.31	0.66
1:AA:688:G:H2'	1:AA:689:C:C6	2.30	0.66
29:BE:195:ASP:OD2	29:BE:197:ASP:HB3	1.96	0.66
25:CA:2394:C:OP1	36:CL:63:PRO:HD2	1.96	0.66
43:BS:84:ARG:HB2	43:BS:96:ILE:CG2	2.25	0.66
25:CA:2593:U:H2'	25:CA:2594:C:H6	1.59	0.66
25:CA:1046:A:C3'	25:CA:1047:G:H5''	2.26	0.66
34:CJ:157:ARG:H	34:CJ:158:PRO:HD3	1.61	0.66
25:CA:2090:G:H21	48:CX:45:ASN:HD21	1.44	0.66
29:CE:103:LYS:HA	29:CE:106:ARG:HG3	1.78	0.66
7:DG:15:ASP:HB3	7:DG:19:GLY:H	1.60	0.66
14:AN:27:CYS:SG	14:AN:43:CYS:HB3	2.35	0.66
13:DM:16:ASP:HB3	13:DM:34:LEU:HD11	1.77	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1046:A:C3'	25:BA:1047:G:H5''	2.26	0.66
3:DC:15:THR:HG21	3:DC:181:ASN:HA	1.78	0.66
28:CD:201:THR:HG22	28:CD:202:LYS:H	1.60	0.66
40:BP:102:ILE:HG22	40:BP:110:ILE:HD11	1.76	0.66
30:BF:76:SER:HA	30:BF:83:ARG:HA	1.78	0.66
49:CY:2:LYS:HA	49:CY:5:GLU:CD	2.15	0.66
22:DV:125:ARG:HB3	22:DV:154:GLY:HA2	1.77	0.66
1:DA:356:A:H1'	1:DA:368:U:O2'	1.96	0.66
25:CA:494:G:H21	43:CS:57:ASN:HD21	1.44	0.66
54:C4:24:THR:HG23	54:C4:27:GLY:H	1.59	0.66
25:BA:1543:A:H5'	25:BA:1544:C:OP2	1.96	0.65
42:BR:38:LEU:HD22	42:BR:52:VAL:HG11	1.78	0.65
30:BF:98:ARG:HD2	30:BF:98:ARG:H	1.62	0.65
1:AA:505:G:H2'	1:AA:506:G:H8	1.61	0.65
1:AA:688:G:H2'	1:AA:689:C:H6	1.61	0.65
25:CA:2681:C:H5	25:CA:2725:A:H62	1.44	0.65
1:DA:1427:U:H2'	1:DA:1428:A:C8	2.32	0.65
48:CX:27:GLU:HB3	48:CX:33:LYS:HG3	1.77	0.65
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.31	0.65
36:BL:45:LEU:HD23	36:BL:46:LYS:N	2.11	0.65
25:CA:161:U:H3'	25:CA:162:U:H5''	1.78	0.65
22:AV:259:ILE:H	22:AV:259:ILE:HD13	1.62	0.65
47:BW:48:GLY:HA3	47:BW:80:HIS:ND1	2.11	0.65
29:BE:103:LYS:HA	29:BE:106:ARG:HG3	1.78	0.65
25:CA:1543:A:H5'	25:CA:1544:C:OP2	1.96	0.65
39:CO:30:ARG:HB3	39:CO:35:ILE:HD13	1.76	0.65
25:CA:1639:U:C2'	25:CA:1640:C:H5''	2.26	0.65
22:AV:15:LEU:HD11	22:AV:38:TYR:HA	1.78	0.65
27:BC:25:THR:HG23	27:BC:27:THR:HG22	1.78	0.65
29:BE:67:GLN:O	29:BE:67:GLN:HG3	1.96	0.65
1:DA:1292:U:H2'	1:DA:1293:G:C8	2.30	0.65
37:CM:75:THR:HA	37:CM:88:GLY:CA	2.26	0.65
25:BA:2468:G:O2'	25:BA:2469:A:H5''	1.95	0.65
19:DS:31:ILE:HG23	19:DS:49:ILE:HA	1.76	0.65
25:CA:2282:G:H4'	25:CA:2389:G:O2'	1.96	0.65
25:BA:2394:C:OP1	36:BL:63:PRO:HD2	1.96	0.65
1:AA:1443:G:H3'	1:AA:1446:A:H5''	1.77	0.65
1:AA:1223:C:C5'	1:AA:1224:G:H5''	2.26	0.65
27:CC:25:THR:HG23	27:CC:27:THR:HG22	1.78	0.65
37:BM:75:THR:HA	37:BM:88:GLY:CA	2.25	0.65
9:AI:13:ALA:HB2	9:AI:68:GLY:HA3	1.78	0.65
22:DV:58:LEU:O	22:DV:62:GLU:HG3	1.96	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:164:ARG:HG3	29:BE:175:THR:OG1	1.96	0.65
25:CA:1403:C:H5''	25:CA:1471:A:H1'	1.78	0.65
25:CA:573:G:O2'	25:CA:574:C:H3'	1.97	0.65
22:AV:58:LEU:O	22:AV:62:GLU:HG3	1.96	0.65
8:DH:64:LYS:HG2	8:DH:79:VAL:HG21	1.79	0.65
25:CA:2076:U:H2'	25:CA:2076:U:O2	1.96	0.65
27:BC:227:ASN:HB3	27:BC:228:PRO:HD2	1.77	0.65
30:BF:105:LYS:HE3	51:B1:52:SER:HB2	1.79	0.65
22:DV:305:TYR:HA	22:DV:312:VAL:HG12	1.78	0.65
25:BA:828:U:H2'	25:BA:828:U:O2	1.97	0.65
5:DE:78:HIS:CE1	5:DE:143:ARG:H	2.12	0.65
25:BA:1579:A:H2'	25:BA:1580:A:C8	2.31	0.65
3:AC:14:ILE:HG23	3:AC:15:THR:H	1.61	0.65
1:DA:668:G:H4'	15:DO:48:LYS:HB2	1.78	0.65
6:AF:16:GLN:CD	6:AF:16:GLN:H	2.00	0.65
31:BG:43:VAL:HA	31:BG:52:VAL:HG22	1.78	0.65
14:DN:24:CYS:O	14:DN:28:GLY:HA2	1.96	0.65
25:BA:2588:G:H2'	25:BA:2589:A:C5'	2.26	0.65
30:BF:74:LYS:HE2	30:BF:84:LYS:HE3	1.77	0.65
25:BA:581:C:H2'	25:BA:582:G:H8	1.62	0.65
35:BK:71:ARG:HH21	35:BK:77:ILE:HG21	1.61	0.65
9:AI:113:LYS:H	9:AI:119:ALA:HA	1.61	0.65
25:BA:586:A:H5'	29:BE:89:VAL:HG21	1.79	0.65
11:AK:99:GLN:HE22	11:AK:105:VAL:HG21	1.62	0.65
41:CQ:92:ARG:NH1	41:CQ:92:ARG:HB2	2.08	0.65
25:BA:237:C:C2'	25:BA:238:C:H5''	2.27	0.65
15:AO:33:THR:HA	15:AO:63:ARG:HH12	1.61	0.65
22:DV:295:THR:C	22:DV:297:GLU:H	2.00	0.65
38:CN:96:ARG:HH22	38:CN:117:VAL:HG23	1.62	0.65
7:AG:12:LEU:HD23	7:AG:12:LEU:H	1.61	0.65
41:CQ:58:ARG:O	41:CQ:62:ILE:HG12	1.97	0.65
1:DA:980:C:H5'	1:DA:981:U:C5	2.32	0.65
3:AC:59:ARG:HG2	3:AC:64:VAL:HG22	1.79	0.65
39:BO:66:ALA:HB1	39:BO:101:LEU:HD22	1.79	0.65
41:CQ:36:ARG:HG2	41:CQ:40:PHE:CE1	2.31	0.65
25:BA:1388:G:H2'	25:BA:1389:G:H8	1.61	0.65
53:B3:11:LEU:HD13	53:B3:12:GLU:N	2.12	0.65
3:AC:30:ARG:HD3	14:AN:38:GLY:HA3	1.77	0.65
25:CA:2134:A:N6	25:CA:2157:G:H1'	2.12	0.65
27:CC:33:LEU:HD23	27:CC:33:LEU:H	1.62	0.65
36:BL:14:LYS:O	36:BL:15:ARG:HB2	1.96	0.65
22:AV:125:ARG:HB3	22:AV:154:GLY:HA2	1.77	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:305:TYR:HA	22:AV:312:VAL:HG12	1.78	0.65
42:BR:47:VAL:HG12	42:BR:49:THR:O	1.97	0.65
10:AJ:32:ALA:H	10:AJ:78:ASN:HD21	1.42	0.65
4:AD:49:ARG:NH2	4:AD:50:ARG:HB2	2.12	0.65
29:CE:164:ARG:HG3	29:CE:175:THR:OG1	1.97	0.65
53:C3:11:LEU:HD13	53:C3:12:GLU:N	2.12	0.65
1:AA:980:C:H5'	1:AA:981:U:C5	2.31	0.65
25:CA:1358:G:O2'	25:CA:1359:A:H5''	1.97	0.65
25:BA:2681:C:H5	25:BA:2725:A:H62	1.43	0.65
25:BA:2134:A:H2	25:BA:2159:G:HO2'	1.45	0.65
38:BN:96:ARG:HH22	38:BN:117:VAL:HG23	1.62	0.65
25:CA:1165:U:H2'	25:CA:1166:C:C6	2.32	0.64
25:CA:828:U:H2'	25:CA:828:U:O2	1.97	0.64
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.79	0.64
25:CA:2588:G:H2'	25:CA:2589:A:C5'	2.28	0.64
25:CA:2820:A:O4'	38:CN:5:LYS:HG3	1.97	0.64
38:CN:79:LEU:HD23	38:CN:83:ILE:HB	1.79	0.64
9:DI:13:ALA:HB2	9:DI:68:GLY:HA3	1.78	0.64
31:BG:87:LEU:HD13	31:BG:148:ILE:HG21	1.77	0.64
22:DV:345:GLU:HA	22:DV:348:LEU:HB3	1.79	0.64
1:AA:406:G:H2'	1:AA:407:G:H8	1.61	0.64
25:CA:840:C:H42	25:CA:938:G:H1	1.44	0.64
36:CL:14:LYS:O	36:CL:15:ARG:HB2	1.96	0.64
22:AV:345:GLU:HA	22:AV:348:LEU:HB3	1.79	0.64
25:CA:2286:A:H4'	25:CA:2287:A:O4'	1.97	0.64
25:BA:2380:C:C2'	25:BA:2381:C:H5'	2.26	0.64
34:BJ:157:ARG:H	34:BJ:158:PRO:HD3	1.62	0.64
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.78	0.64
1:DA:688:G:H2'	1:DA:689:C:H6	1.61	0.64
1:DA:406:G:H2'	1:DA:407:G:H8	1.61	0.64
1:DA:235:C:H2'	1:DA:236:G:H8	1.60	0.64
25:BA:637:A:H4'	25:BA:638:G:O5'	1.97	0.64
27:CC:148:GLU:HB2	27:CC:151:LYS:HD2	1.79	0.64
25:CA:2039:C:H2'	25:CA:2040:C:H6	1.63	0.64
25:BA:1771:C:H1'	25:BA:1786:A:C8	2.32	0.64
4:AD:166:LYS:O	4:AD:166:LYS:HD2	1.96	0.64
41:CQ:95:LEU:HD11	42:CR:12:TYR:HA	1.79	0.64
36:BL:64:LYS:HD2	55:B5:25:MET:SD	2.37	0.64
27:BC:69:ARG:NH2	27:BC:130:ALA:HB2	2.11	0.64
22:AV:295:THR:C	22:AV:297:GLU:H	2.00	0.64
30:CF:98:ARG:HD2	30:CF:98:ARG:H	1.62	0.64
25:CA:1579:A:H2'	25:CA:1580:A:C8	2.32	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1358:G:O2'	25:BA:1359:A:H5''	1.97	0.64
25:BA:1006:C:O2	34:BJ:129:MET:HG2	1.97	0.64
4:DD:166:LYS:HD2	4:DD:166:LYS:O	1.96	0.64
25:CA:589:C:H2'	25:CA:590:A:H8	1.62	0.64
38:BN:51:LEU:HD22	38:BN:66:VAL:HG13	1.79	0.64
25:CA:581:C:H2'	25:CA:582:G:H8	1.62	0.64
39:CO:66:ALA:HB1	39:CO:101:LEU:HD22	1.79	0.64
48:BX:11:ARG:HD2	48:BX:60:PHE:HD2	1.63	0.64
25:CA:1558:A:N3	25:CA:1558:A:H5'	2.12	0.64
37:BM:141:GLN:HA	46:BV:71:VAL:O	1.98	0.64
9:DI:113:LYS:H	9:DI:119:ALA:HA	1.62	0.64
25:BA:74:A:H4'	25:BA:75:G:O5'	1.97	0.64
15:AO:5:LYS:N	15:AO:5:LYS:HD3	2.13	0.64
47:CW:25:ARG:NH1	47:CW:35:ASN:HB3	2.12	0.64
35:CK:71:ARG:HH21	35:CK:77:ILE:HG21	1.62	0.64
41:BQ:58:ARG:O	41:BQ:62:ILE:HG12	1.97	0.64
36:CL:62:LEU:HD11	55:C5:27:THR:HA	1.79	0.64
22:AV:112:ARG:NH2	22:AV:289:ARG:HH21	1.96	0.64
48:CX:11:ARG:HD2	48:CX:60:PHE:HD2	1.62	0.64
25:BA:536:A:H2'	25:BA:537:C:H6	1.62	0.64
25:BA:2415:G:H4'	36:BL:66:GLY:CA	2.28	0.64
28:BD:36:ARG:HH12	28:BD:86:PRO:HD2	1.62	0.64
34:CJ:36:TRP:HB2	34:CJ:156:GLN:CB	2.28	0.64
41:BQ:36:ARG:HG2	41:BQ:40:PHE:CE1	2.31	0.64
25:CA:954:G:H5''	37:CM:13:GLN:CG	2.28	0.64
25:BA:2820:A:O4'	38:BN:5:LYS:HG3	1.96	0.64
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.80	0.64
4:DD:49:ARG:NH2	4:DD:50:ARG:HB2	2.12	0.64
42:BR:49:THR:HB	42:BR:50:PRO:HD2	1.80	0.64
2:DB:25:ASN:HB3	2:DB:27:LYS:HE2	1.80	0.64
25:BA:1558:A:N3	25:BA:1558:A:H5'	2.13	0.64
1:DA:601:C:H2'	1:DA:602:A:C8	2.33	0.64
25:BA:466:A:N3	25:BA:683:C:H1'	2.12	0.64
25:BA:1353:A:C8	25:BA:1377:G:N2	2.66	0.64
32:CH:110:ASP:HB2	32:CH:113:ARG:HG2	1.80	0.64
22:DV:234:THR:HG23	22:DV:235:THR:H	1.63	0.64
25:CA:1388:G:H2'	25:CA:1389:G:H8	1.61	0.64
46:BV:24:LEU:HB2	46:BV:41:LEU:HD23	1.79	0.64
25:BA:2076:U:H2'	25:BA:2076:U:O2	1.95	0.64
31:CG:92:ILE:HD12	31:CG:92:ILE:H	1.63	0.64
6:DF:16:GLN:CD	6:DF:16:GLN:H	2.01	0.64
42:CR:38:LEU:HD22	42:CR:52:VAL:HG11	1.78	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:24:CYS:O	14:AN:28:GLY:HA2	1.96	0.64
39:BO:24:LEU:O	39:BO:86:ALA:HB3	1.97	0.64
29:CE:139:PHE:CB	29:CE:166:ALA:HB1	2.28	0.64
25:CA:71:A:H4'	25:CA:72:U:H5''	1.79	0.64
25:CA:2555:U:O2	22:DV:223:ARG:HB2	1.97	0.64
25:CA:637:A:H4'	25:CA:638:G:O5'	1.97	0.64
1:AA:1152:A:H5'	10:AJ:70:ARG:NH2	2.13	0.64
48:CX:11:ARG:HG3	48:CX:62:VAL:HA	1.80	0.64
45:BU:76:CYS:CB	45:BU:77:PRO:HD2	2.27	0.64
25:CA:2570:G:H8	25:CA:2570:G:H5'	1.63	0.64
17:AQ:64:PRO:HA	17:AQ:70:ARG:HG3	1.80	0.64
22:AV:141:GLU:HB3	22:AV:163:ARG:HB3	1.80	0.64
25:CA:2115:G:H21	25:CA:2171:A:H2	1.45	0.64
30:CF:76:SER:HA	30:CF:83:ARG:HA	1.79	0.64
34:CJ:76:VAL:HG22	34:CJ:144:LYS:HB2	1.80	0.64
4:AD:166:LYS:CE	27:CC:134:ARG:HH21	2.04	0.64
39:CO:24:LEU:O	39:CO:86:ALA:HB3	1.97	0.64
25:BA:94:G:H21	49:BY:47:ASN:HD21	1.43	0.64
28:CD:51:PHE:H	28:CD:75:VAL:HB	1.63	0.64
28:BD:51:PHE:H	28:BD:75:VAL:HB	1.63	0.64
19:DS:18:LYS:HG2	19:DS:31:ILE:HD13	1.80	0.64
25:CA:74:A:H4'	25:CA:75:G:O5'	1.98	0.64
12:DL:32:ARG:HA	12:DL:32:ARG:HE	1.62	0.64
1:AA:1109:C:H2'	1:AA:1110:A:O4'	1.97	0.64
32:BH:83:ALA:HB2	32:BH:88:ILE:HD13	1.80	0.64
34:BJ:76:VAL:HG22	34:BJ:144:LYS:HB2	1.79	0.64
46:CV:24:LEU:HB2	46:CV:41:LEU:HD23	1.79	0.64
37:BM:38:GLU:HB2	37:BM:127:ILE:HG23	1.80	0.64
1:DA:1109:C:H2'	1:DA:1110:A:O4'	1.97	0.64
1:DA:1152:A:H5'	10:DJ:70:ARG:NH2	2.13	0.64
25:CA:2570:G:H2'	25:CA:2571:C:O4'	1.98	0.64
6:DF:23:LYS:O	6:DF:27:GLN:HG2	1.98	0.64
5:AE:16:THR:HG23	5:AE:27:ARG:O	1.98	0.64
28:CD:11:MET:HB3	28:CD:24:THR:HA	1.80	0.64
13:DM:44:ARG:HB2	13:DM:46:LYS:HG2	1.79	0.64
42:CR:49:THR:HB	42:CR:50:PRO:HD2	1.80	0.63
13:AM:4:ILE:HA	13:AM:57:ARG:HG3	1.79	0.63
25:CA:94:G:H21	49:CY:47:ASN:HD21	1.43	0.63
25:CA:2415:G:H4'	36:CL:66:GLY:CA	2.28	0.63
38:BN:79:LEU:HD23	38:BN:83:ILE:HB	1.79	0.63
25:CA:322:A:OP2	29:CE:169:ASN:HB2	1.98	0.63
1:AA:452:A:H62	1:AA:480:U:H3	1.45	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:85:LEU:HD11	9:AI:96:LEU:HD22	1.79	0.63
25:BA:674:G:H1'	29:BE:74:ARG:HD3	1.80	0.63
35:BK:35:VAL:HG11	35:BK:103:ALA:HB3	1.80	0.63
27:CC:186:HIS:CD2	27:CC:188:GLU:H	2.15	0.63
7:DG:12:LEU:H	7:DG:12:LEU:HD23	1.61	0.63
1:AA:1427:U:H2'	1:AA:1428:A:C8	2.31	0.63
5:AE:83:GLU:HG2	5:AE:88:LYS:HG3	1.79	0.63
25:BA:161:U:H3'	25:BA:162:U:H5''	1.78	0.63
22:DV:302:ILE:CG2	22:DV:303:ARG:H	2.04	0.63
41:BQ:95:LEU:HD11	42:BR:12:TYR:HA	1.79	0.63
36:CL:47:ASP:HB3	36:CL:48:PRO:CA	2.27	0.63
27:BC:32:SER:HA	27:BC:36:PRO:HG2	1.80	0.63
25:BA:1980:G:H3'	25:BA:1981:A:H5''	1.80	0.63
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.13	0.63
1:AA:601:C:H2'	1:AA:602:A:C8	2.33	0.63
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.79	0.63
30:BF:121:ASN:HD22	30:BF:122:PRO:HD2	1.64	0.63
12:AL:32:ARG:HE	12:AL:32:ARG:HA	1.63	0.63
25:BA:589:C:H2'	25:BA:590:A:H8	1.63	0.63
22:DV:141:GLU:HB3	22:DV:163:ARG:HB3	1.80	0.63
15:DO:5:LYS:N	15:DO:5:LYS:HD3	2.13	0.63
34:BJ:36:TRP:HB2	34:BJ:156:GLN:HB2	1.80	0.63
9:DI:85:LEU:HD11	9:DI:96:LEU:HD22	1.80	0.63
22:DV:112:ARG:NH2	22:DV:289:ARG:HH21	1.97	0.63
36:BL:47:ASP:HB3	36:BL:48:PRO:CA	2.28	0.63
22:DV:15:LEU:HD11	22:DV:38:TYR:HA	1.79	0.63
1:AA:648:A:H2'	1:AA:649:G:C8	2.33	0.63
25:BA:2570:G:H2'	25:BA:2571:C:O4'	1.98	0.63
31:BG:121:ILE:HD11	31:BG:140:LYS:HD3	1.80	0.63
25:CA:581:C:H2'	25:CA:582:G:C8	2.33	0.63
1:DA:134:A:H61	16:DP:25:ARG:NH1	1.96	0.63
25:BA:954:G:H5''	37:BM:13:GLN:CG	2.28	0.63
25:BA:2873:A:C2	38:BN:6:SER:HB2	2.34	0.63
41:BQ:92:ARG:HD3	41:BQ:94:ASN:HB3	1.81	0.63
51:B1:50:THR:HG22	51:B1:51:TYR:N	2.13	0.63
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.80	0.63
28:CD:67:PHE:HE2	28:CD:75:VAL:HG22	1.63	0.63
25:CA:1911:U:H5''	22:DV:148:HIS:CE1	2.34	0.63
25:CA:2873:A:C2	38:CN:6:SER:HB2	2.34	0.63
25:BA:2115:G:H21	25:BA:2171:A:H2	1.46	0.63
25:BA:2039:C:H2'	25:BA:2040:C:H6	1.63	0.63
25:BA:392:C:H5''	25:BA:409:C:H5''	1.80	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:DV:333:THR:N	22:DV:334:PRO:HD2	2.13	0.63
32:CH:83:ALA:HB2	32:CH:88:ILE:HD13	1.80	0.63
25:CA:1006:C:O2	34:CJ:129:MET:HG2	1.97	0.63
22:AV:115:THR:HG22	22:AV:116:GLY:H	1.64	0.63
38:CN:51:LEU:HD22	38:CN:66:VAL:HG13	1.80	0.63
17:DQ:56:VAL:HG23	17:DQ:81:ARG:HG3	1.80	0.63
5:DE:50:GLU:HG3	5:DE:52:PRO:HD2	1.79	0.63
13:DM:4:ILE:HA	13:DM:57:ARG:HG3	1.80	0.63
29:BE:139:PHE:CB	29:BE:166:ALA:HB1	2.28	0.63
28:CD:170:LEU:HB3	28:CD:184:VAL:HG12	1.80	0.63
27:BC:148:GLU:HB2	27:BC:151:LYS:HD2	1.79	0.63
25:BA:2293:C:H4'	39:BO:93:LYS:NZ	2.14	0.63
13:AM:44:ARG:HB2	13:AM:46:LYS:HG2	1.79	0.63
25:CA:2293:C:H4'	39:CO:93:LYS:NZ	2.13	0.63
22:AV:234:THR:HG23	22:AV:235:THR:H	1.62	0.63
27:CC:62:TYR:HA	27:CC:87:ASN:ND2	2.13	0.63
25:BA:2286:A:H4'	25:BA:2287:A:O4'	1.97	0.63
2:DB:88:ALA:HB2	2:DB:219:VAL:HG13	1.80	0.63
25:BA:581:C:H2'	25:BA:582:G:C8	2.33	0.63
1:DA:505:G:H2'	1:DA:506:G:H8	1.62	0.63
25:CA:1980:G:H3'	25:CA:1981:A:H5''	1.80	0.63
6:DF:47:ARG:HH12	6:DF:56:PRO:HB2	1.64	0.63
11:DK:99:GLN:HE22	11:DK:105:VAL:HG21	1.62	0.63
25:BA:647:G:H21	25:BA:2350:C:H4'	1.64	0.63
1:DA:17:U:H2'	1:DA:18:C:C6	2.33	0.63
5:DE:16:THR:HG23	5:DE:27:ARG:O	1.99	0.63
25:CA:647:G:H21	25:CA:2350:C:H4'	1.63	0.63
5:DE:83:GLU:HG2	5:DE:88:LYS:HG3	1.79	0.63
25:CA:1105:U:H2'	25:CA:1106:G:C8	2.34	0.63
25:BA:1607:C:H4'	25:BA:1608:A:H5'	1.80	0.63
1:AA:1224:G:H4'	13:AM:102:ARG:HH22	1.64	0.63
3:DC:59:ARG:HG2	3:DC:64:VAL:HG22	1.79	0.63
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.80	0.63
22:DV:47:LEU:HD22	22:DV:88:LEU:HD22	1.81	0.63
37:CM:75:THR:HG21	37:CM:85:LYS:NZ	2.14	0.63
27:CC:31:LYS:HE3	27:CC:33:LEU:HD21	1.80	0.63
25:BA:2134:A:N6	25:BA:2157:G:H1'	2.12	0.63
25:BA:2637:U:H5''	28:BD:82:ARG:HH21	1.64	0.63
37:CM:38:GLU:HB2	37:CM:127:ILE:HG23	1.81	0.63
1:DA:464:G:O6	1:DA:466:G:H5''	1.99	0.63
25:CA:466:A:H5'	25:CA:467:G:OP2	1.99	0.63
25:BA:2431:U:H2'	25:BA:2432:A:H5''	1.81	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:17:U:H2'	1:AA:18:C:H6	1.63	0.63
21:DU:10:ARG:HA	21:DU:13:ILE:HB	1.80	0.63
36:BL:47:ASP:OD1	36:BL:49:ARG:HG2	1.99	0.63
10:AJ:3:LYS:HD2	10:AJ:77:PRO:HD3	1.80	0.63
16:DP:21:VAL:HG23	16:DP:33:ILE:HB	1.80	0.63
25:CA:536:A:H2'	25:CA:537:C:H6	1.62	0.63
22:AV:333:THR:N	22:AV:334:PRO:HD2	2.13	0.63
1:AA:1157:A:H4'	1:AA:1158:C:O5'	1.99	0.63
1:AA:67:C:H2'	1:AA:68:G:C8	2.34	0.63
11:AK:50:TYR:HB3	11:AK:54:ARG:HB2	1.81	0.63
25:BA:380:U:H2'	25:BA:381:G:C8	2.34	0.63
25:BA:494:G:H21	43:BS:57:ASN:HD21	1.44	0.63
27:BC:186:HIS:CD2	27:BC:188:GLU:H	2.15	0.63
22:AV:179:ARG:HB3	22:AV:304:THR:HA	1.81	0.63
1:AA:668:G:H4'	15:AO:48:LYS:HB2	1.79	0.63
44:BT:35:THR:O	44:BT:39:ILE:HG12	1.98	0.63
17:AQ:56:VAL:HG23	17:AQ:81:ARG:HG3	1.80	0.63
19:DS:32:LYS:HA	19:DS:50:ALA:HB3	1.80	0.63
16:AP:21:VAL:HG23	16:AP:33:ILE:HB	1.80	0.63
1:AA:17:U:H2'	1:AA:18:C:C6	2.34	0.63
50:BZ:1:MET:SD	50:BZ:40:THR:HA	2.39	0.63
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.81	0.63
7:AG:151:TYR:HA	7:AG:153:HIS:CE1	2.34	0.63
25:BA:840:C:H42	25:BA:938:G:H1	1.45	0.63
1:AA:134:A:H61	16:AP:25:ARG:NH1	1.96	0.63
47:CW:19:LYS:HB2	47:CW:21:LEU:HD11	1.81	0.63
27:BC:70:TRP:CZ2	27:BC:150:LYS:HA	2.34	0.63
1:DA:67:C:H2'	1:DA:68:G:C8	2.34	0.63
14:AN:32:SER:HB3	14:AN:41:ARG:HG2	1.81	0.62
2:AB:25:ASN:HB3	2:AB:27:LYS:HE2	1.80	0.62
48:BX:10:LYS:O	48:BX:11:ARG:HG2	1.99	0.62
48:CX:10:LYS:O	48:CX:11:ARG:HG2	1.99	0.62
27:BC:233:HIS:CE1	27:BC:247:ALA:H	2.16	0.62
27:BC:31:LYS:HE3	27:BC:33:LEU:HD21	1.80	0.62
2:DB:187:LEU:HA	2:DB:201:ILE:HB	1.81	0.62
34:CJ:36:TRP:HB2	34:CJ:156:GLN:HB2	1.80	0.62
25:CA:1427:A:H4'	25:CA:1428:C:O5'	1.98	0.62
25:BA:2475:C:H42	25:BA:2529:G:H22	1.45	0.62
37:CM:141:GLN:HA	46:CV:71:VAL:O	1.98	0.62
30:CF:105:LYS:HE3	51:C1:52:SER:HB2	1.78	0.62
25:CA:674:G:H1'	29:CE:74:ARG:HD3	1.80	0.62
28:CD:36:ARG:HH12	28:CD:86:PRO:HD2	1.64	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BJ:62:ARG:NE	34:BJ:64:ASP:HB2	2.14	0.62
25:BA:1645:G:H5''	25:BA:1646:C:H5'	1.80	0.62
6:DF:67:MET:HB2	6:DF:68:PRO:HD2	1.80	0.62
25:BA:1105:U:H2'	25:BA:1106:G:C8	2.34	0.62
25:CA:1771:C:H1'	25:CA:1786:A:C8	2.33	0.62
32:BH:110:ASP:HB2	32:BH:113:ARG:HG2	1.80	0.62
18:DR:74:ARG:HH21	18:DR:81:PHE:HA	1.63	0.62
27:CC:233:HIS:CE1	27:CC:247:ALA:H	2.16	0.62
18:AR:70:ILE:O	18:AR:74:ARG:HG3	1.99	0.62
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.81	0.62
19:AS:18:LYS:HG2	19:AS:31:ILE:HD13	1.80	0.62
6:AF:23:LYS:O	6:AF:27:GLN:HG2	1.99	0.62
27:CC:32:SER:HA	27:CC:36:PRO:HG2	1.80	0.62
25:BA:442:G:H1'	29:BE:48:THR:HG21	1.79	0.62
1:AA:56:U:H2'	1:AA:57:G:H8	1.63	0.62
50:CZ:1:MET:SD	50:CZ:40:THR:HA	2.39	0.62
6:DF:5:GLU:HB3	6:DF:62:TRP:HE1	1.64	0.62
30:CF:121:ASN:HD22	30:CF:122:PRO:HD2	1.63	0.62
25:CA:1645:G:H5''	25:CA:1646:C:H5'	1.80	0.62
28:BD:170:LEU:HB3	28:BD:184:VAL:HG12	1.80	0.62
27:CC:70:TRP:CZ2	27:CC:150:LYS:HA	2.34	0.62
36:BL:62:LEU:HD11	55:B5:27:THR:HA	1.80	0.62
45:CU:76:CYS:CB	45:CU:77:PRO:HD2	2.28	0.62
40:CP:28:VAL:HA	40:CP:89:VAL:HG12	1.81	0.62
39:BO:31:SER:HB3	39:BO:34:HIS:HB2	1.81	0.62
27:BC:31:LYS:O	27:BC:36:PRO:HD3	1.99	0.62
18:AR:74:ARG:HH21	18:AR:81:PHE:HA	1.63	0.62
25:BA:2570:G:H8	25:BA:2570:G:H5'	1.64	0.62
25:CA:1607:C:H4'	25:CA:1608:A:H5'	1.80	0.62
1:AA:464:G:O6	1:AA:466:G:H5''	1.99	0.62
25:BA:2037:G:H2'	25:BA:2038:G:C8	2.35	0.62
9:DI:48:GLU:N	9:DI:49:PRO:HD2	2.13	0.62
34:CJ:62:ARG:NE	34:CJ:64:ASP:HB2	2.15	0.62
8:AH:50:ARG:HD2	8:AH:50:ARG:H	1.63	0.62
44:BT:15:GLU:CD	44:BT:15:GLU:H	2.02	0.62
7:DG:151:TYR:HA	7:DG:153:HIS:CE1	2.33	0.62
1:DA:1224:G:H4'	13:DM:102:ARG:HH22	1.64	0.62
36:CL:47:ASP:OD1	36:CL:49:ARG:HG2	1.99	0.62
48:BX:11:ARG:HG3	48:BX:62:VAL:HA	1.80	0.62
48:BX:11:ARG:HB3	48:BX:12:PRO:CD	2.29	0.62
28:BD:67:PHE:HE2	28:BD:75:VAL:HG22	1.64	0.62
25:CA:628:G:H2'	25:CA:629:G:C8	2.34	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BJ:36:TRP:HB2	34:BJ:156:GLN:CB	2.28	0.62
28:CD:84:PHE:CZ	28:CD:86:PRO:HG3	2.35	0.62
25:BA:27:G:N2	25:BA:512:G:H1'	2.15	0.62
22:DV:179:ARG:HB3	22:DV:304:THR:HA	1.81	0.62
25:BA:528:A:H2	25:BA:2043:C:C5'	2.13	0.62
25:CA:380:U:H2'	25:CA:381:G:C8	2.35	0.62
25:BA:2893:G:H5''	25:BA:2894:G:O5'	1.99	0.62
31:BG:92:ILE:HD12	31:BG:92:ILE:H	1.63	0.62
6:AF:5:GLU:HB3	6:AF:62:TRP:HE1	1.65	0.62
27:CC:69:ARG:NH2	27:CC:130:ALA:HB2	2.11	0.62
25:BA:195:A:OP1	36:BL:46:LYS:HE2	1.99	0.62
18:AR:50:ILE:HD12	18:AR:70:ILE:HG21	1.81	0.62
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HA	1.80	0.62
25:CA:1353:A:C8	25:CA:1377:G:N2	2.67	0.62
28:CD:2:LYS:HD3	28:CD:95:ILE:HG22	1.81	0.62
6:AF:47:ARG:HH12	6:AF:56:PRO:HB2	1.64	0.62
25:CA:392:C:H5''	25:CA:409:C:H5''	1.81	0.62
54:B4:22:MET:HA	54:B4:28:ARG:HG2	1.81	0.62
3:DC:107:GLN:CD	3:DC:107:GLN:H	2.02	0.62
9:AI:27:THR:O	9:AI:62:TYR:HA	1.99	0.62
25:BA:1427:A:H4'	25:BA:1428:C:O5'	1.98	0.62
49:BY:41:ILE:HD11	49:BY:44:LEU:HD12	1.81	0.62
55:C5:50:LEU:HB2	55:C5:54:GLU:HG3	1.80	0.62
40:BP:28:VAL:HA	40:BP:89:VAL:HG12	1.81	0.62
46:CV:10:ARG:HG2	46:CV:11:GLU:H	1.64	0.62
2:DB:168:THR:HG1	2:DB:192:SER:HA	1.64	0.62
1:DA:17:U:H2'	1:DA:18:C:H6	1.63	0.62
46:BV:95:PRO:HB2	46:BV:127:LYS:HE3	1.81	0.62
1:DA:452:A:H62	1:DA:480:U:H3	1.45	0.62
17:DQ:69:LYS:C	17:DQ:70:ARG:HD2	2.20	0.62
40:BP:6:LEU:O	40:BP:10:VAL:HG23	2.00	0.62
25:BA:2342:C:O2	25:BA:2374:C:H4'	1.99	0.62
25:CA:1544:C:H3'	25:CA:1545:A:C5'	2.30	0.62
25:CA:237:C:C2'	25:CA:238:C:H5''	2.26	0.62
31:BG:101:ARG:H	31:BG:101:ARG:NE	1.97	0.62
39:CO:31:SER:HB3	39:CO:34:HIS:HB2	1.81	0.62
35:BK:68:GLU:HB3	35:BK:78:ARG:HB2	1.82	0.62
25:CA:466:A:N3	25:CA:683:C:H1'	2.14	0.62
22:AV:9:GLU:HA	22:AV:12:TYR:HD1	1.65	0.62
1:DA:983:A:H5'	1:DA:984:C:OP2	1.99	0.62
25:BA:1056:G:H5''	25:BA:1057:A:H5'	1.82	0.62
4:DD:173:TRP:NE1	4:DD:189:PRO:HG3	2.15	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:DJ:48:THR:HA	10:DJ:62:HIS:CB	2.30	0.62
1:DA:1148:U:H2'	1:DA:1149:C:O4'	2.00	0.62
27:BC:33:LEU:H	27:BC:33:LEU:HD23	1.63	0.62
31:CG:121:ILE:HD11	31:CG:140:LYS:HD3	1.80	0.62
1:AA:1182:G:H4'	1:AA:1183:A:H5''	1.81	0.62
1:AA:983:A:H5'	1:AA:984:C:OP2	2.00	0.62
35:CK:35:VAL:HG11	35:CK:103:ALA:HB3	1.81	0.62
9:DI:28:VAL:HG22	9:DI:63:ILE:HB	1.81	0.62
46:CV:69:THR:HG22	46:CV:90:VAL:HG22	1.82	0.62
25:CA:2105:C:H2'	25:CA:2106:G:H8	1.65	0.62
22:AV:248:ILE:HG21	22:AV:273:LEU:HD21	1.82	0.62
25:BA:71:A:H4'	25:BA:72:U:H5''	1.80	0.62
25:BA:212:G:O2'	25:BA:213:A:H5'	2.00	0.62
1:AA:615:C:H2'	1:AA:616:G:H8	1.65	0.62
46:BV:69:THR:HG22	46:BV:90:VAL:HG22	1.82	0.62
49:BY:17:SER:HB3	49:BY:18:PRO:CD	2.26	0.62
14:DN:32:SER:HB3	14:DN:41:ARG:HG2	1.82	0.62
22:AV:293:ILE:HG23	22:AV:294:GLY:H	1.65	0.62
22:AV:47:LEU:HD22	22:AV:88:LEU:HD22	1.81	0.62
25:BA:628:G:H2'	25:BA:629:G:C8	2.34	0.62
25:BA:312:G:H5'	25:BA:331:A:O2'	2.00	0.62
5:DE:33:VAL:HG11	5:DE:109:ILE:HD13	1.82	0.62
25:CA:2632:A:H2'	25:CA:2633:G:C8	2.35	0.62
34:BJ:118:PRO:O	34:BJ:121:VAL:HG22	1.99	0.62
22:DV:246:THR:OG1	22:DV:248:ILE:HG22	2.00	0.62
47:BW:25:ARG:NH1	47:BW:35:ASN:HB3	2.13	0.62
3:AC:107:GLN:CD	3:AC:107:GLN:H	2.03	0.62
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.14	0.62
41:BQ:54:LYS:O	41:BQ:58:ARG:HG3	1.99	0.62
46:BV:10:ARG:HG2	46:BV:11:GLU:H	1.64	0.62
22:AV:96:LEU:HD11	22:AV:347:GLN:HB2	1.81	0.62
22:DV:222:MET:O	22:DV:236:ASP:HB2	2.00	0.62
18:DR:50:ILE:HD12	18:DR:70:ILE:HG21	1.82	0.62
25:CA:2637:U:H5''	28:CD:82:ARG:HH21	1.65	0.62
28:BD:2:LYS:HD3	28:BD:95:ILE:HG22	1.82	0.62
28:BD:92:THR:HB	28:BD:94:GLU:HG2	1.82	0.62
1:DA:1144:G:H21	1:DA:1146:A:H62	1.46	0.62
49:BY:56:GLN:O	49:BY:60:LEU:HG	2.00	0.62
25:CA:626:U:H3	36:CL:105:LEU:HB2	1.65	0.62
40:CP:6:LEU:O	40:CP:10:VAL:HG23	2.00	0.62
36:CL:13:ASN:HD22	36:CL:13:ASN:N	1.97	0.62
25:CA:2037:G:H2'	25:CA:2038:G:C8	2.35	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:170:LEU:HD12	29:BE:171:PRO:HD2	1.81	0.62
2:AB:158:LEU:HD12	2:AB:158:LEU:H	1.65	0.62
8:DH:50:ARG:HD2	8:DH:50:ARG:H	1.63	0.62
41:CQ:92:ARG:HD3	41:CQ:94:ASN:HB3	1.81	0.61
44:CT:35:THR:O	44:CT:39:ILE:HG12	1.99	0.61
55:C5:62:LEU:HB2	55:C5:63:PRO:HD3	1.82	0.61
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.00	0.61
10:DJ:3:LYS:HD2	10:DJ:77:PRO:HD3	1.80	0.61
1:DA:648:A:H2'	1:DA:649:G:C8	2.34	0.61
25:BA:674:G:C1'	29:BE:74:ARG:HD3	2.30	0.61
1:DA:1157:A:H4'	1:DA:1158:C:O5'	1.99	0.61
30:CF:77:ILE:HG22	30:CF:80:PHE:H	1.65	0.61
39:CO:49:VAL:HG12	39:CO:73:LEU:HD23	1.82	0.61
1:AA:784:C:H4'	25:BA:1837:C:OP1	2.00	0.61
1:DA:1182:G:H4'	1:DA:1183:A:H5''	1.81	0.61
25:BA:2889:C:H2'	25:BA:2891:G:O4'	2.00	0.61
22:DV:9:GLU:HA	22:DV:12:TYR:HD1	1.64	0.61
34:CJ:118:PRO:O	34:CJ:121:VAL:HG22	1.99	0.61
1:DA:1225:A:H2'	1:DA:1225:A:N3	2.15	0.61
22:DV:300:GLU:OE2	22:DV:301:LYS:HG3	2.00	0.61
25:BA:1544:C:H3'	25:BA:1545:A:C5'	2.30	0.61
55:B5:50:LEU:HB2	55:B5:54:GLU:HG3	1.81	0.61
25:CA:312:G:H5'	25:CA:331:A:O2'	2.00	0.61
25:BA:558:G:OP1	34:BJ:134:PRO:HD2	2.01	0.61
36:CL:36:LYS:HD2	36:CL:41:ARG:O	2.01	0.61
22:AV:222:MET:O	22:AV:236:ASP:HB2	2.00	0.61
1:DA:176:C:H5''	20:DT:29:LYS:NZ	2.16	0.61
18:DR:70:ILE:O	18:DR:74:ARG:HG3	1.99	0.61
25:CA:2342:C:O2	25:CA:2374:C:H4'	1.99	0.61
22:AV:317:ILE:HD11	22:AV:319:PHE:HB3	1.82	0.61
11:AK:83:ILE:HG12	11:AK:109:VAL:HB	1.80	0.61
25:CA:2261:C:C6	47:CW:16:SER:HB3	2.36	0.61
27:BC:62:TYR:HA	27:BC:87:ASN:ND2	2.14	0.61
1:DA:1399:C:H4'	1:DA:1400:C:C5'	2.30	0.61
48:CX:17:SER:HB3	48:CX:44:PRO:HD3	1.82	0.61
25:BA:2531:A:H61	25:BA:2662:A:H61	1.48	0.61
25:CA:212:G:O2'	25:CA:213:A:H5'	2.01	0.61
25:BA:1839:G:H2'	25:BA:1840:G:H8	1.66	0.61
1:AA:1144:G:H21	1:AA:1146:A:H62	1.46	0.61
25:BA:2632:A:H2'	25:BA:2633:G:C8	2.35	0.61
8:AH:19:VAL:HG23	8:AH:21:LYS:HG2	1.82	0.61
22:AV:300:GLU:OE2	22:AV:301:LYS:HG3	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.30	0.61
25:CA:919:G:C5'	26:CB:81:G:H1'	2.30	0.61
25:BA:1842:G:H2'	25:BA:1843:C:C6	2.36	0.61
25:BA:2350:C:H5''	55:B5:42:ARG:HD3	1.82	0.61
25:CA:674:G:C1'	29:CE:74:ARG:HD3	2.30	0.61
37:BM:6:ARG:N	37:BM:6:ARG:HE	1.99	0.61
20:DT:80:ARG:O	20:DT:84:LEU:HB2	2.01	0.61
41:BQ:112:ARG:HH21	42:BR:46:VAL:HG21	1.66	0.61
10:AJ:55:LYS:O	10:AJ:55:LYS:HD2	2.00	0.61
40:BP:132:LYS:O	40:BP:136:GLN:HG3	2.01	0.61
25:CA:1839:G:H2'	25:CA:1840:G:H8	1.65	0.61
3:AC:83:ARG:O	3:AC:87:LEU:HG	2.00	0.61
17:DQ:57:VAL:HG12	17:DQ:76:LEU:HA	1.81	0.61
44:CT:15:GLU:H	44:CT:15:GLU:CD	2.03	0.61
48:BX:17:SER:HB3	48:BX:44:PRO:HD3	1.82	0.61
25:CA:1056:G:H5''	25:CA:1057:A:H5'	1.81	0.61
22:AV:135:ALA:HB3	22:AV:142:THR:HG22	1.81	0.61
31:BG:58:GLU:HB2	31:BG:61:HIS:ND1	2.15	0.61
25:CA:957:A:H5'	37:CM:76:LYS:HD2	1.82	0.61
37:CM:81:VAL:HG12	37:CM:82:ARG:N	2.15	0.61
37:BM:75:THR:HG21	37:BM:85:LYS:NZ	2.14	0.61
28:BD:84:PHE:CZ	28:BD:86:PRO:HG3	2.35	0.61
22:AV:246:THR:OG1	22:AV:248:ILE:HG22	2.00	0.61
11:DK:83:ILE:HG12	11:DK:109:VAL:HB	1.81	0.61
25:BA:2105:C:H2'	25:BA:2106:G:H8	1.65	0.61
25:CA:2475:C:H42	25:CA:2529:G:H22	1.47	0.61
21:AU:10:ARG:HA	21:AU:13:ILE:HB	1.80	0.61
25:BA:322:A:OP2	29:BE:169:ASN:HB2	2.00	0.61
1:AA:973:G:H3'	1:AA:974:A:H5''	1.83	0.61
25:CA:2889:C:H2'	25:CA:2891:G:O4'	2.00	0.61
25:BA:1164:G:H2'	25:BA:1165:U:O4'	2.01	0.61
41:BQ:92:ARG:HB2	41:BQ:92:ARG:NH1	2.08	0.61
25:BA:919:G:C5'	26:BB:81:G:H1'	2.31	0.61
36:BL:30:THR:HG22	36:BL:31:ALA:N	2.15	0.61
40:BP:107:ASP:O	40:BP:110:ILE:HG22	2.00	0.61
35:CK:68:GLU:HB3	35:CK:78:ARG:HB2	1.83	0.61
17:DQ:64:PRO:HA	17:DQ:70:ARG:HG3	1.81	0.61
22:DV:248:ILE:HG21	22:DV:273:LEU:HD21	1.83	0.61
1:DA:1144:G:H21	1:DA:1146:A:N6	1.99	0.61
19:DS:11:VAL:HG23	19:DS:38:SER:HB2	1.83	0.61
25:BA:310:A:OP1	45:BU:18:GLY:HA2	2.01	0.61
46:CV:95:PRO:HB2	46:CV:127:LYS:HE3	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:576:G:H3'	1:AA:577:G:H5''	1.82	0.61
1:DA:576:G:H3'	1:DA:577:G:H5''	1.81	0.61
20:AT:80:ARG:O	20:AT:84:LEU:HB2	2.00	0.61
25:BA:626:U:H3	36:BL:105:LEU:HB2	1.65	0.61
29:CE:170:LEU:HD12	29:CE:171:PRO:HD2	1.82	0.61
25:CA:1164:G:H2'	25:CA:1165:U:O4'	2.01	0.61
22:DV:293:ILE:HG23	22:DV:294:GLY:H	1.65	0.61
27:BC:76:PRO:HB2	27:BC:116:GLN:HE21	1.65	0.61
30:CF:128:ARG:HG2	30:CF:129:GLY:H	1.66	0.61
26:CB:45:A:H2'	26:CB:45:A:N3	2.14	0.61
36:BL:85:LEU:HD23	36:BL:85:LEU:H	1.64	0.61
25:CA:195:A:OP1	36:CL:46:LYS:HE2	1.99	0.61
27:CC:31:LYS:O	27:CC:36:PRO:HD3	2.00	0.61
54:B4:35:ARG:HG3	54:B4:42:LEU:HD11	1.83	0.61
25:BA:466:A:H5'	25:BA:467:G:OP2	2.01	0.61
28:CD:92:THR:HB	28:CD:94:GLU:HG2	1.82	0.61
43:BS:24:ILE:HG21	43:BS:36:LEU:HD21	1.83	0.61
25:BA:547:A:H2'	25:BA:548:A:C8	2.36	0.61
49:CY:56:GLN:O	49:CY:60:LEU:HG	2.01	0.61
1:AA:1399:C:H4'	1:AA:1400:C:C5'	2.30	0.61
25:CA:2531:A:H61	25:CA:2662:A:H61	1.48	0.61
25:CA:2893:G:H5''	25:CA:2894:G:O5'	1.99	0.61
26:BB:45:A:N3	26:BB:45:A:H2'	2.14	0.61
28:BD:11:MET:HB3	28:BD:24:THR:HA	1.81	0.61
43:CS:23:LEU:HD11	52:C2:25:LEU:HB2	1.83	0.61
25:CA:2431:U:H2'	25:CA:2432:A:H5''	1.81	0.61
27:BC:218:ARG:HB3	27:BC:219:PRO:HD2	1.83	0.61
22:AV:198:THR:HB	22:AV:293:ILE:HD13	1.83	0.61
3:AC:195:VAL:HG12	3:AC:196:LEU:N	2.16	0.61
1:AA:392:G:H2'	1:AA:393:A:C8	2.34	0.61
25:BA:957:A:H5'	37:BM:76:LYS:HD2	1.82	0.61
53:C3:11:LEU:HD11	53:C3:51:GLU:HG3	1.82	0.61
22:DV:115:THR:HG22	22:DV:116:GLY:H	1.65	0.61
1:DA:624:C:H2'	1:DA:625:G:H8	1.66	0.61
1:DA:737:A:H2'	1:DA:738:C:C6	2.36	0.61
25:BA:1651:G:H5'	38:BN:39:PRO:HG2	1.83	0.61
9:DI:27:THR:O	9:DI:62:TYR:HA	1.99	0.61
37:CM:6:ARG:HE	37:CM:6:ARG:N	1.98	0.61
54:B4:5:TRP:NE1	54:B4:7:PRO:HG3	2.16	0.61
41:CQ:54:LYS:O	41:CQ:58:ARG:HG3	2.01	0.61
25:BA:587:C:N3	36:BL:33:ARG:HD2	2.16	0.61
27:BC:24:ILE:HG12	27:BC:82:ILE:O	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:63:LYS:NZ	29:BE:67:GLN:HG2	2.16	0.61
25:BA:1174:A:H3'	25:BA:1175:U:H5''	1.83	0.61
17:AQ:69:LYS:C	17:AQ:70:ARG:HD2	2.20	0.61
25:CA:2432:A:C8	48:CX:34:THR:HG21	2.35	0.61
25:BA:1710:C:H2'	25:BA:1711:C:H6	1.66	0.61
1:AA:253:U:H2'	1:AA:254:G:H8	1.66	0.61
25:CA:919:G:H5''	26:CB:81:G:H1'	1.83	0.61
31:CG:58:GLU:HB2	31:CG:61:HIS:ND1	2.16	0.61
25:CA:1174:A:H3'	25:CA:1175:U:H5''	1.83	0.61
25:CA:2023:G:H2'	25:CA:2024:G:H8	1.66	0.61
48:CX:27:GLU:HG3	48:CX:33:LYS:HE3	1.83	0.61
8:AH:20:TYR:CE1	8:AH:76:PRO:HG2	2.36	0.61
1:DA:253:U:H2'	1:DA:254:G:H8	1.66	0.61
7:DG:69:VAL:HG21	7:DG:104:LEU:HD21	1.83	0.61
8:DH:20:TYR:CE1	8:DH:76:PRO:HG2	2.35	0.61
10:DJ:55:LYS:O	10:DJ:55:LYS:HD2	2.00	0.61
36:CL:30:THR:HG22	36:CL:31:ALA:N	2.15	0.60
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.82	0.60
53:B3:11:LEU:HG	53:B3:26:ASN:HB2	1.83	0.60
25:CA:2350:C:H5''	55:C5:42:ARG:HD3	1.82	0.60
25:CA:2303:G:H2'	25:CA:2304:G:O4'	2.01	0.60
10:AJ:54:PHE:CD2	10:AJ:55:LYS:HG3	2.36	0.60
49:CY:41:ILE:HD11	49:CY:44:LEU:HD12	1.81	0.60
8:DH:19:VAL:HG23	8:DH:21:LYS:HG2	1.83	0.60
25:CA:310:A:OP1	45:CU:18:GLY:HA2	2.01	0.60
47:BW:23:VAL:HA	47:BW:38:VAL:HG22	1.83	0.60
31:BG:101:ARG:N	31:BG:101:ARG:HE	1.96	0.60
25:BA:1210:A:H4'	25:BA:1211:U:O5'	2.02	0.60
25:BA:2432:A:C8	48:BX:34:THR:HG21	2.36	0.60
1:AA:1004:A:H1'	1:AA:1036:G:H22	1.66	0.60
3:DC:83:ARG:O	3:DC:87:LEU:HG	2.01	0.60
25:BA:2023:G:H2'	25:BA:2024:G:H8	1.66	0.60
54:C4:22:MET:HA	54:C4:28:ARG:HG2	1.82	0.60
45:BU:7:VAL:HB	45:BU:8:LYS:NZ	2.16	0.60
25:CA:1210:A:H4'	25:CA:1211:U:O5'	2.01	0.60
36:CL:126:VAL:HA	36:CL:145:PRO:HB2	1.84	0.60
3:DC:35:GLU:O	3:DC:39:ILE:HG13	2.01	0.60
25:CA:528:A:H2	25:CA:2043:C:C5'	2.12	0.60
25:CA:1842:G:H1'	27:CC:255:LYS:NZ	2.16	0.60
37:BM:81:VAL:HG12	37:BM:82:ARG:N	2.16	0.60
25:CA:954:G:H5''	37:CM:13:GLN:HG3	1.83	0.60
25:CA:27:G:N2	25:CA:512:G:H1'	2.16	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1283:G:N2	25:BA:1285:G:H3'	2.16	0.60
47:BW:19:LYS:HB2	47:BW:21:LEU:HD11	1.81	0.60
20:DT:36:LEU:HB3	20:DT:59:ALA:HB2	1.83	0.60
4:DD:9:CYS:HB3	4:DD:32:ALA:HB3	1.82	0.60
25:BA:332:A:O2'	25:BA:333:G:H5''	2.01	0.60
7:DG:111:ARG:HB3	7:DG:113:GLU:HG2	1.83	0.60
40:CP:23:ARG:HB3	40:CP:24:PRO:HD2	1.83	0.60
27:CC:24:ILE:HG12	27:CC:82:ILE:O	2.01	0.60
3:DC:31:HIS:O	3:DC:35:GLU:HG2	2.02	0.60
30:BF:173:LEU:HD23	30:BF:176:LEU:HD12	1.83	0.60
25:BA:1842:G:H1'	27:BC:255:LYS:NZ	2.15	0.60
53:C3:11:LEU:HG	53:C3:26:ASN:HB2	1.83	0.60
53:C3:11:LEU:HB2	53:C3:26:ASN:H	1.66	0.60
1:AA:1144:G:H21	1:AA:1146:A:N6	1.99	0.60
12:DL:44:PRO:HG3	12:DL:52:ARG:HD3	1.83	0.60
25:BA:2123:G:H2'	25:BA:2124:G:H8	1.67	0.60
44:CT:64:LYS:HG2	44:CT:65:ARG:H	1.67	0.60
30:CF:139:LEU:HA	30:CF:144:ILE:HG21	1.82	0.60
25:BA:2261:C:C6	47:BW:16:SER:HB3	2.36	0.60
1:AA:1049:U:HO2'	14:AN:2:ALA:N	1.98	0.60
36:BL:36:LYS:HD2	36:BL:41:ARG:O	2.01	0.60
16:DP:20:VAL:HG23	16:DP:35:LYS:HA	1.82	0.60
25:CA:1842:G:H2'	25:CA:1843:C:C6	2.37	0.60
37:BM:40:ALA:HB3	37:BM:127:ILE:HD11	1.83	0.60
25:BA:954:G:H5''	37:BM:13:GLN:HG3	1.83	0.60
54:C4:35:ARG:HG3	54:C4:42:LEU:HD11	1.83	0.60
34:BJ:116:THR:O	34:BJ:118:PRO:HD3	2.01	0.60
38:CN:100:LEU:HD23	38:CN:112:ALA:HA	1.84	0.60
30:BF:107:LEU:HA	30:BF:111:LEU:HD12	1.84	0.60
20:AT:36:LEU:HB3	20:AT:59:ALA:HB2	1.83	0.60
1:AA:224:C:H2'	1:AA:225:C:C6	2.37	0.60
22:DV:135:ALA:HB3	22:DV:142:THR:HG22	1.81	0.60
11:DK:50:TYR:HB3	11:DK:54:ARG:HB2	1.81	0.60
19:AS:11:VAL:HG23	19:AS:38:SER:HB2	1.83	0.60
30:BF:77:ILE:HG22	30:BF:80:PHE:H	1.65	0.60
1:DA:957:U:H4'	19:DS:79:THR:HB	1.83	0.60
3:AC:31:HIS:O	3:AC:35:GLU:HG2	2.02	0.60
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.01	0.60
18:AR:66:LEU:O	18:AR:70:ILE:HG12	2.01	0.60
25:CA:813:U:H2'	25:CA:814:C:C6	2.37	0.60
40:CP:107:ASP:O	40:CP:110:ILE:HG22	2.01	0.60
25:BA:2303:G:H2'	25:BA:2304:G:O4'	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:C4:5:TRP:NE1	54:C4:7:PRO:HG3	2.17	0.60
45:BU:42:VAL:HG12	45:BU:65:ALA:HB3	1.84	0.60
43:BS:1:MET:HE3	43:BS:1:MET:HA	1.83	0.60
43:BS:23:LEU:HD11	52:B2:25:LEU:HB2	1.83	0.60
25:CA:2225:A:H1'	25:CA:2226:C:OP2	2.01	0.60
25:CA:2418:A:H2'	25:CA:2419:U:O4'	2.02	0.60
27:CC:5:LYS:N	27:CC:5:LYS:HD2	2.17	0.60
36:BL:122:PRO:HA	36:BL:141:ALA:O	2.02	0.60
12:AL:65:VAL:HG11	12:AL:97:TYR:CE1	2.36	0.60
18:DR:66:LEU:O	18:DR:70:ILE:HG12	2.01	0.60
38:BN:38:VAL:HB	38:BN:39:PRO:HD3	1.83	0.60
1:DA:1049:U:HO2'	14:DN:2:ALA:N	1.99	0.60
25:CA:1710:C:H2'	25:CA:1711:C:H6	1.66	0.60
2:AB:95:GLN:HG3	2:AB:147:LYS:O	2.02	0.60
32:BH:53:ALA:O	32:BH:57:ARG:HB2	2.02	0.60
4:AD:173:TRP:NE1	4:AD:189:PRO:HG3	2.16	0.60
4:AD:9:CYS:HB3	4:AD:32:ALA:HB3	1.83	0.60
31:BG:154:PRO:HB3	31:BG:163:TYR:CE2	2.37	0.60
47:CW:23:VAL:HA	47:CW:38:VAL:HG22	1.83	0.60
51:C1:50:THR:HG22	51:C1:51:TYR:N	2.13	0.60
30:BF:128:ARG:HG2	30:BF:129:GLY:H	1.66	0.60
16:DP:22:THR:HG22	16:DP:32:TYR:HA	1.84	0.60
28:CD:201:THR:HG22	28:CD:202:LYS:N	2.17	0.60
53:B3:11:LEU:HD11	53:B3:51:GLU:HG3	1.82	0.60
25:BA:443:A:H2'	29:BE:45:ARG:HH12	1.67	0.60
25:CA:518:G:H4'	43:CS:18:ARG:NH1	2.17	0.60
2:DB:95:GLN:HG3	2:DB:147:LYS:O	2.02	0.60
1:AA:1014:A:H5'	19:AS:14:HIS:CD2	2.37	0.60
30:BF:139:LEU:HA	30:BF:144:ILE:HG21	1.82	0.60
25:CA:547:A:H2'	25:CA:548:A:C8	2.36	0.60
22:DV:317:ILE:HD11	22:DV:319:PHE:HB3	1.83	0.60
13:DM:99:ARG:HB2	13:DM:101:GLN:HE21	1.67	0.60
29:CE:155:LEU:HD23	29:CE:186:ILE:HD13	1.84	0.60
40:CP:132:LYS:O	40:CP:136:GLN:HG3	2.01	0.60
1:AA:256:U:H2'	1:AA:257:G:C8	2.37	0.60
1:DA:56:U:H2'	1:DA:57:G:H8	1.64	0.60
1:AA:579:G:H5'	1:AA:728:A:H1'	1.84	0.60
27:CC:76:PRO:HB2	27:CC:116:GLN:HE21	1.65	0.60
25:CA:1558:A:O4'	25:CA:1559:G:H5'	2.02	0.60
1:AA:176:C:H5''	20:AT:29:LYS:NZ	2.16	0.60
53:B3:11:LEU:HB2	53:B3:26:ASN:H	1.65	0.60
28:BD:36:ARG:NH1	28:BD:86:PRO:HD2	2.17	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2306:C:H4'	30:BF:136:ARG:HH22	1.67	0.60
22:AV:150:THR:HG23	22:AV:153:GLY:O	2.02	0.60
25:CA:1523:U:H2'	25:CA:1524:G:H8	1.67	0.60
1:DA:615:C:H2'	1:DA:616:G:H8	1.66	0.60
44:BT:40:LYS:HD2	44:BT:51:VAL:HB	1.83	0.60
25:CA:1283:G:N2	25:CA:1285:G:H3'	2.16	0.60
36:CL:9:ASN:N	36:CL:10:PRO:HD3	2.17	0.60
36:CL:71:VAL:HB	36:CL:72:PRO:HD3	1.82	0.60
1:AA:624:C:H2'	1:AA:625:G:H8	1.65	0.60
12:DL:65:VAL:HG11	12:DL:97:TYR:CE1	2.37	0.60
1:DA:1347:G:H22	1:DA:1373:G:H2'	1.65	0.60
27:CC:244:ARG:HG3	27:CC:245:PRO:CD	2.32	0.60
37:BM:81:VAL:HG12	37:BM:82:ARG:HG2	1.83	0.60
28:BD:201:THR:HG22	28:BD:202:LYS:N	2.17	0.60
25:BA:1331:A:O2'	25:BA:1332:G:H8	1.85	0.60
36:CL:122:PRO:HA	36:CL:141:ALA:O	2.02	0.60
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.17	0.60
36:BL:9:ASN:N	36:BL:10:PRO:HD3	2.17	0.60
1:DA:1014:A:H5'	19:DS:14:HIS:CD2	2.37	0.60
1:AA:1492:A:H2	24:AX:21:G:H5''	1.66	0.60
25:BA:763:G:C2'	25:BA:764:A:H5'	2.32	0.60
25:CA:2766:G:N3	25:CA:2766:G:H2'	2.17	0.60
37:CM:14:ARG:HH11	37:CM:14:ARG:HG2	1.67	0.60
25:BA:1064:C:H2'	25:BA:1065:U:O4'	2.02	0.60
25:CA:1331:A:O2'	25:CA:1332:G:H8	1.84	0.59
10:DJ:54:PHE:CD2	10:DJ:55:LYS:HG3	2.36	0.59
22:DV:143:GLU:HB3	22:DV:161:GLU:HB3	1.84	0.59
25:CA:153:C:OP1	48:CX:92:LYS:HE2	2.02	0.59
1:AA:737:A:H2'	1:AA:738:C:C6	2.36	0.59
1:DA:1053:G:N7	1:DA:1200:C:H5''	2.17	0.59
1:DA:574:A:H1'	1:DA:883:C:H1'	1.84	0.59
7:AG:69:VAL:HG21	7:AG:104:LEU:HD21	1.82	0.59
25:BA:1189:A:H2'	25:BA:1190:G:H5'	1.84	0.59
1:DA:520:A:C2	1:DA:536:C:H1'	2.37	0.59
32:CH:77:LEU:HG	32:CH:101:LEU:HD13	1.84	0.59
1:AA:1127:G:N2	1:AA:1147:C:H42	2.00	0.59
41:CQ:112:ARG:HH21	42:CR:46:VAL:HG21	1.66	0.59
25:BA:860:U:H2'	25:BA:861:A:H8	1.67	0.59
36:BL:13:ASN:N	36:BL:13:ASN:HD22	1.97	0.59
1:DA:292:G:H1	1:DA:308:C:H42	1.50	0.59
36:BL:62:LEU:CD2	55:B5:25:MET:HB2	2.32	0.59
25:CA:1339:G:H21	25:CA:1603:A:H1'	1.67	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BO:25:ARG:HD2	39:BO:88:ASP:OD1	2.02	0.59
1:DA:392:G:H2'	1:DA:393:A:C8	2.34	0.59
45:CU:90:LEU:HG	45:CU:91:GLU:N	2.17	0.59
25:BA:26:G:C6	25:BA:27:G:N1	2.70	0.59
17:DQ:55:ASP:HB3	17:DQ:76:LEU:HD13	1.85	0.59
2:AB:184:VAL:HG12	2:AB:197:VAL:HG13	1.84	0.59
25:CA:2561:A:H4'	35:CK:40:VAL:HG11	1.84	0.59
36:BL:71:VAL:HB	36:BL:72:PRO:HD3	1.83	0.59
25:BA:2418:A:H2'	25:BA:2419:U:O4'	2.02	0.59
43:CS:65:LEU:HB2	43:CS:68:ARG:HG2	1.84	0.59
2:DB:158:LEU:HD12	2:DB:158:LEU:H	1.66	0.59
18:AR:84:LYS:HA	18:AR:84:LYS:NZ	2.17	0.59
27:BC:5:LYS:N	27:BC:5:LYS:HD2	2.17	0.59
4:DD:43:HIS:HA	4:DD:46:LYS:HE3	1.83	0.59
7:AG:111:ARG:HB3	7:AG:113:GLU:HG2	1.83	0.59
36:CL:85:LEU:HD23	36:CL:85:LEU:H	1.65	0.59
27:BC:108:PRO:HB3	27:BC:143:HIS:HE1	1.67	0.59
30:CF:173:LEU:HD23	30:CF:176:LEU:HD12	1.84	0.59
15:AO:5:LYS:HD3	15:AO:5:LYS:H	1.67	0.59
47:BW:32:ARG:C	47:BW:35:ASN:HD21	2.06	0.59
26:BB:24:G:H4'	26:BB:25:A:N7	2.18	0.59
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.82	0.59
48:BX:58:ILE:HD11	48:BX:91:LYS:HG2	1.84	0.59
1:AA:957:U:H4'	19:AS:79:THR:HB	1.83	0.59
25:BA:1542:G:H4'	25:BA:1543:A:O5'	2.02	0.59
55:B5:62:LEU:HB2	55:B5:63:PRO:HD3	1.83	0.59
40:BP:23:ARG:HB3	40:BP:24:PRO:HD2	1.83	0.59
29:CE:63:LYS:NZ	29:CE:67:GLN:HG2	2.17	0.59
28:CD:67:PHE:CE2	28:CD:75:VAL:HG22	2.37	0.59
2:DB:70:PHE:O	2:DB:92:TYR:HA	2.02	0.59
48:BX:27:GLU:HG3	48:BX:33:LYS:HE3	1.84	0.59
22:DV:96:LEU:HD11	22:DV:347:GLN:HB2	1.85	0.59
25:CA:2873:A:N3	38:CN:6:SER:HB2	2.18	0.59
25:CA:988:A:H2'	25:CA:989:G:H5'	1.85	0.59
25:CA:1270:C:H5'	25:CA:1271:G:H5'	1.84	0.59
35:CK:112:MET:HA	35:CK:115:VAL:HG22	1.83	0.59
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.66	0.59
25:BA:988:A:H2'	25:BA:989:G:H5'	1.84	0.59
41:CQ:92:ARG:NH2	42:CR:11:GLN:H	2.00	0.59
2:AB:27:LYS:H	2:AB:27:LYS:HD3	1.68	0.59
12:DL:81:VAL:HG23	12:DL:104:TYR:HB3	1.85	0.59
25:BA:1578:U:H2'	25:BA:1579:A:H5'	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1064:C:H2'	25:CA:1065:U:O4'	2.02	0.59
32:CH:56:LYS:HA	32:CH:59:ALA:HB3	1.85	0.59
43:CS:24:ILE:HG21	43:CS:36:LEU:HD21	1.83	0.59
25:BA:2225:A:H1'	25:BA:2226:C:OP2	2.02	0.59
12:AL:44:PRO:HG3	12:AL:52:ARG:HD3	1.83	0.59
35:BK:112:MET:HA	35:BK:115:VAL:HG22	1.83	0.59
18:DR:84:LYS:HA	18:DR:84:LYS:NZ	2.17	0.59
25:BA:2766:G:N3	25:BA:2766:G:H2'	2.17	0.59
25:CA:1762:A:H8	25:CA:1762:A:O5'	1.86	0.59
23:DW:24:U:H2'	23:DW:25:C:C6	2.38	0.59
38:CN:38:VAL:HB	38:CN:39:PRO:HD3	1.83	0.59
22:DV:198:THR:HB	22:DV:293:ILE:HD13	1.83	0.59
3:DC:195:VAL:HG12	3:DC:196:LEU:N	2.17	0.59
25:CA:1516:U:H1'	25:CA:1558:A:OP2	2.02	0.59
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.18	0.59
2:AB:70:PHE:O	2:AB:71:VAL:HG13	2.03	0.59
1:DA:973:G:H3'	1:DA:974:A:H5''	1.83	0.59
39:BO:49:VAL:HG12	39:BO:73:LEU:HD23	1.83	0.59
25:BA:2019:A:H5''	41:BQ:27:LEU:HD12	1.85	0.59
4:AD:43:HIS:HA	4:AD:46:LYS:HE3	1.84	0.59
1:DA:484:G:H4'	1:DA:485:G:O5'	2.02	0.59
43:BS:65:LEU:HB2	43:BS:68:ARG:HG2	1.84	0.59
25:BA:2561:A:H4'	35:BK:40:VAL:HG11	1.84	0.59
2:DB:184:VAL:HG12	2:DB:197:VAL:HG13	1.83	0.59
31:CG:154:PRO:HB3	31:CG:163:TYR:CE2	2.36	0.59
25:BA:919:G:H5''	26:BB:81:G:H1'	1.84	0.59
25:BA:270(J):G:O2'	25:BA:270(K):G:H8	1.86	0.59
36:CL:95:VAL:HG23	36:CL:125:VAL:HA	1.84	0.59
29:BE:63:LYS:NZ	29:BE:67:GLN:HE21	2.00	0.59
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.37	0.59
2:AB:70:PHE:O	2:AB:92:TYR:HA	2.02	0.59
25:CA:572:A:H5''	25:CA:573:G:OP2	2.02	0.59
25:BA:589:C:H2'	25:BA:590:A:C8	2.38	0.59
28:CD:36:ARG:NH1	28:CD:86:PRO:HD2	2.18	0.59
25:CA:26:G:C6	25:CA:27:G:N1	2.69	0.59
43:CS:14:PRO:O	43:CS:18:ARG:HG3	2.02	0.59
25:CA:603:A:H4'	25:CA:604:G:O5'	2.03	0.59
25:CA:609(B):G:H2'	25:CA:610:C:C6	2.37	0.59
25:BA:1652:A:OP1	38:BN:9:LYS:HE3	2.03	0.59
23:AW:56:C:O2'	30:BF:78:SER:HB3	2.03	0.59
25:BA:1762:A:O5'	25:BA:1762:A:H8	1.85	0.59
1:AA:537:G:H5''	12:AL:112:ARG:NH2	2.18	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1523:U:H2'	25:BA:1524:G:H8	1.67	0.59
25:CA:1541:U:H3'	25:CA:1542:G:C3'	2.24	0.59
1:DA:794:A:H4'	1:DA:1521:G:O2'	2.02	0.59
16:AP:22:THR:HG22	16:AP:32:TYR:HA	1.84	0.59
16:AP:18:ARG:HD3	16:AP:35:LYS:HD2	1.85	0.59
1:DA:1376:U:H2'	1:DA:1377:A:C8	2.37	0.59
35:BK:104:ARG:HB3	35:BK:104:ARG:NH1	2.18	0.59
15:DO:5:LYS:HD3	15:DO:5:LYS:H	1.67	0.59
43:BS:14:PRO:O	43:BS:18:ARG:HG3	2.02	0.59
30:CF:107:LEU:HA	30:CF:111:LEU:HD12	1.84	0.59
29:BE:143:ALA:HB1	29:BE:148:LEU:HB2	1.85	0.59
25:BA:2718:G:H4'	40:BP:98:LYS:HB2	1.84	0.59
1:AA:292:G:H1	1:AA:308:C:H42	1.50	0.59
25:CA:2123:G:H2'	25:CA:2124:G:H8	1.67	0.59
22:DV:150:THR:HG23	22:DV:153:GLY:O	2.02	0.59
12:DL:51:LEU:HD11	22:DV:300:GLU:HG2	1.83	0.59
1:DA:579:G:H5'	1:DA:728:A:H1'	1.83	0.59
35:CK:48:PRO:HB3	1:DA:1422:G:H5''	1.84	0.59
26:BB:75:G:H5''	46:BV:36:LYS:HE2	1.85	0.59
35:CK:104:ARG:NH1	35:CK:104:ARG:HB3	2.18	0.59
37:CM:81:VAL:HG12	37:CM:82:ARG:HG2	1.84	0.59
25:BA:1981:A:H5''	25:BA:1982:C:OP2	2.03	0.59
47:CW:32:ARG:C	47:CW:35:ASN:HD21	2.06	0.59
7:AG:69:VAL:HA	7:AG:138:LYS:HD2	1.85	0.59
26:BB:17:C:H2'	26:BB:18:G:O4'	2.03	0.59
26:CB:17:C:H2'	26:CB:18:G:O4'	2.02	0.59
32:CH:53:ALA:O	32:CH:57:ARG:HB2	2.02	0.59
25:BA:603:A:H4'	25:BA:604:G:O5'	2.03	0.59
35:CK:3:GLN:CB	35:CK:4:PRO:HD2	2.22	0.59
36:CL:62:LEU:CD2	55:C5:25:MET:HB2	2.33	0.59
25:CA:2389:G:C5'	25:CA:2390:U:H5'	2.31	0.59
10:DJ:49:VAL:HG21	14:DN:41:ARG:HB2	1.85	0.59
1:DA:1373:G:H5''	7:DG:36:LYS:HZ3	1.68	0.59
25:CA:1578:U:H2'	25:CA:1579:A:H5'	1.84	0.59
36:BL:126:VAL:HA	36:BL:145:PRO:HB2	1.84	0.59
25:BA:813:U:H2'	25:BA:814:C:C6	2.38	0.59
25:CA:2134:A:H2	25:CA:2159:G:HO2'	1.51	0.59
12:DL:26:LEU:HG	12:DL:32:ARG:NH1	2.17	0.59
34:CJ:116:THR:O	34:CJ:118:PRO:HD3	2.02	0.59
10:AJ:6:ILE:HG12	10:AJ:72:VAL:O	2.03	0.59
1:AA:390:C:H2'	1:AA:391:G:C8	2.38	0.59
22:DV:217:ILE:HD13	22:DV:243:HIS:HA	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:145:G:H2'	1:AA:146:G:H8	1.68	0.59
1:AA:574:A:H1'	1:AA:883:C:H1'	1.84	0.59
37:BM:14:ARG:HH11	37:BM:14:ARG:HG2	1.68	0.59
38:BN:100:LEU:HD23	38:BN:112:ALA:HA	1.84	0.59
7:AG:46:ALA:O	7:AG:50:ILE:HG12	2.03	0.59
28:BD:119:ARG:HD3	28:BD:120:TRP:CE2	2.38	0.59
25:BA:1163:G:H2'	25:BA:1164:G:C5'	2.29	0.58
1:DA:1151:A:P	10:DJ:41:PRO:HA	2.43	0.58
1:AA:1151:A:P	10:AJ:41:PRO:HA	2.43	0.58
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.67	0.58
25:BA:587:C:N4	36:BL:33:ARG:HG2	2.19	0.58
32:CH:72:LEU:HD12	32:CH:140:LEU:HD13	1.85	0.58
3:DC:47:LEU:HD21	3:DC:68:VAL:HG11	1.86	0.58
25:CA:589:C:H2'	25:CA:590:A:C8	2.37	0.58
12:AL:26:LEU:HG	12:AL:32:ARG:NH1	2.18	0.58
32:BH:130:TYR:CD2	32:BH:132:PRO:HG3	2.38	0.58
29:CE:177:ALA:HB1	29:CE:178:PRO:HD2	1.85	0.58
7:AG:126:ASP:HB3	7:AG:131:LYS:O	2.03	0.58
22:DV:306:ASN:OD1	22:DV:308:PRO:HD2	2.03	0.58
22:AV:191:ARG:HD2	22:AV:193:HIS:NE2	2.18	0.58
1:AA:691:G:O6	11:AK:52:GLY:HA2	2.02	0.58
1:DA:878:G:H5'	8:DH:89:PRO:HG2	1.83	0.58
44:BT:64:LYS:HG2	44:BT:65:ARG:H	1.66	0.58
1:DA:1004:A:H1'	1:DA:1036:G:H22	1.67	0.58
28:BD:154:LYS:HA	28:BD:154:LYS:HE3	1.85	0.58
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.03	0.58
1:AA:520:A:C2	1:AA:536:C:H1'	2.37	0.58
2:DB:84:GLU:HG3	2:DB:215:LEU:HB3	1.85	0.58
1:AA:794:A:H4'	1:AA:1521:G:O2'	2.03	0.58
27:CC:108:PRO:HB3	27:CC:143:HIS:HE1	1.65	0.58
19:AS:29:ARG:HD3	19:AS:48:THR:HB	1.85	0.58
1:DA:691:G:O6	11:DK:52:GLY:HA2	2.03	0.58
25:BA:2873:A:N3	38:BN:6:SER:HB2	2.17	0.58
25:CA:2306:C:H4'	30:CF:136:ARG:HH22	1.67	0.58
1:DA:1399:C:H4'	1:DA:1400:C:H5'	1.85	0.58
1:DA:224:C:H2'	1:DA:225:C:C6	2.37	0.58
25:CA:332:A:O2'	25:CA:333:G:H5''	2.02	0.58
25:BA:1270:C:H5'	25:BA:1271:G:H5'	1.84	0.58
7:DG:46:ALA:O	7:DG:50:ILE:HG12	2.02	0.58
26:CB:24:G:H4'	26:CB:25:A:N7	2.18	0.58
23:AW:24:U:H2'	23:AW:25:C:C6	2.37	0.58
4:AD:11:LEU:HD13	4:AD:66:ARG:HD3	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:502:G:H4'	1:AA:550:G:H4'	1.85	0.58
22:AV:306:ASN:OD1	22:AV:308:PRO:HD2	2.03	0.58
28:CD:38:THR:HB	28:CD:39:PRO:HD2	1.85	0.58
25:CA:443:A:H2'	29:CE:45:ARG:HH12	1.68	0.58
25:BA:1992:G:OP1	25:BA:1992:G:H8	1.86	0.58
25:BA:2391:G:OP1	55:B5:32:LEU:HB2	2.04	0.58
29:CE:63:LYS:NZ	29:CE:67:GLN:HE21	1.99	0.58
25:BA:2712:U:O2'	25:BA:2713:A:H5'	2.03	0.58
1:DA:1064:G:H21	1:DA:1190:G:H2'	1.68	0.58
28:BD:11:MET:CB	28:BD:24:THR:HA	2.33	0.58
7:DG:69:VAL:HA	7:DG:138:LYS:HD2	1.86	0.58
4:DD:11:LEU:HD13	4:DD:66:ARG:HD3	1.85	0.58
44:BT:23:GLU:HG3	44:BT:24:GLY:H	1.68	0.58
2:DB:17:PHE:HB2	2:DB:42:ILE:HG22	1.85	0.58
25:BA:2271:G:OP1	47:BW:18:ALA:HB1	2.03	0.58
1:AA:539:A:H2'	1:AA:540:G:C8	2.38	0.58
28:BD:76:ARG:HG2	28:BD:77:ILE:HG13	1.85	0.58
9:DI:97:LYS:HB3	9:DI:98:PRO:HD3	1.85	0.58
42:BR:22:VAL:HG12	42:BR:23:GLU:N	2.19	0.58
12:DL:23:VAL:HG13	12:DL:97:TYR:CE2	2.38	0.58
25:CA:558:G:OP1	34:CJ:134:PRO:HD2	2.02	0.58
25:BA:1349:A:N6	25:BA:1598:C:H42	2.02	0.58
38:CN:12:ARG:HD3	38:CN:16:HIS:ND1	2.18	0.58
19:DS:29:ARG:HD3	19:DS:48:THR:HB	1.85	0.58
25:CA:1607:C:H5''	25:CA:1608:A:H5'	1.85	0.58
25:CA:1161:C:O2'	42:CR:8:GLY:HA2	2.03	0.58
40:CP:50:ILE:HA	40:CP:99:LEU:HD11	1.85	0.58
45:BU:50:ARG:HD3	45:BU:51:VAL:H	1.68	0.58
51:B1:46:ASN:HB2	51:B1:64:LYS:HB2	1.86	0.58
25:BA:1541:U:H3'	25:BA:1542:G:C3'	2.25	0.58
25:CA:2391:G:OP1	55:C5:32:LEU:HB2	2.03	0.58
2:DB:27:LYS:HD3	2:DB:27:LYS:H	1.68	0.58
31:CG:101:ARG:H	31:CG:101:ARG:NE	1.97	0.58
25:BA:1339:G:H21	25:BA:1603:A:H1'	1.67	0.58
36:BL:95:VAL:HG23	36:BL:125:VAL:HA	1.84	0.58
28:BD:67:PHE:CE2	28:BD:75:VAL:HG22	2.38	0.58
22:AV:143:GLU:HB3	22:AV:161:GLU:HB3	1.85	0.58
32:BH:56:LYS:HA	32:BH:59:ALA:HB3	1.85	0.58
4:DD:134:ASP:O	4:DD:136:PRO:HD3	2.03	0.58
25:BA:2329:G:H2'	25:BA:2330:G:C8	2.38	0.58
29:BE:177:ALA:HB1	29:BE:178:PRO:HD2	1.85	0.58
7:DG:126:ASP:HB3	7:DG:131:LYS:O	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:CU:42:VAL:HG12	45:CU:65:ALA:HB3	1.84	0.58
25:CA:2718:G:H2'	25:CA:2719:G:H8	1.69	0.58
25:CA:2718:G:H4'	40:CP:98:LYS:HB2	1.84	0.58
22:DV:191:ARG:HD2	22:DV:193:HIS:NE2	2.18	0.58
41:BQ:92:ARG:NH2	42:BR:11:GLN:H	2.01	0.58
1:DA:1224:G:H4'	13:DM:102:ARG:NH2	2.19	0.58
48:BX:11:ARG:NH1	48:BX:61:ARG:H	2.01	0.58
25:CA:2378:A:H2	39:CO:18:ILE:HD12	1.69	0.58
29:CE:63:LYS:HZ1	29:CE:67:GLN:NE2	2.01	0.58
25:BA:1516:U:H1'	25:BA:1558:A:OP2	2.03	0.58
38:BN:12:ARG:HD3	38:BN:16:HIS:ND1	2.17	0.58
5:AE:33:VAL:HG11	5:AE:109:ILE:HD13	1.84	0.58
22:AV:93:GLU:HG3	22:AV:97:LEU:HG	1.85	0.58
17:DQ:66:SER:OG	17:DQ:69:LYS:HB3	2.03	0.58
1:AA:1399:C:H4'	1:AA:1400:C:H5'	1.85	0.58
25:CA:2329:G:H2'	25:CA:2330:G:C8	2.38	0.58
1:DA:238:G:P	17:DQ:25:ARG:HH22	2.26	0.58
4:DD:126:ILE:HG22	4:DD:127:THR:H	1.68	0.58
1:DA:539:A:H2'	1:DA:540:G:C8	2.37	0.58
1:DA:390:C:H2'	1:DA:391:G:C8	2.38	0.58
35:CK:19:ILE:HG22	35:CK:43:VAL:HA	1.86	0.58
4:AD:63:LYS:O	4:AD:67:ILE:HG13	2.04	0.58
25:CA:1497:U:O2	25:CA:1497:U:H2'	2.04	0.58
25:BA:1558:A:O4'	25:BA:1559:G:H5'	2.03	0.58
25:CA:1349:A:N6	25:CA:1598:C:H42	2.01	0.58
27:BC:244:ARG:HG3	27:BC:245:PRO:CD	2.32	0.58
19:DS:49:ILE:HD12	19:DS:49:ILE:H	1.67	0.58
29:CE:80:ALA:O	29:CE:83:PHE:HB2	2.03	0.58
47:CW:25:ARG:HH12	47:CW:35:ASN:HB3	1.68	0.58
54:B4:37:LYS:HD3	54:B4:39:ARG:HE	1.69	0.58
10:DJ:6:ILE:HG12	10:DJ:72:VAL:O	2.04	0.58
1:DA:256:U:H2'	1:DA:257:G:C8	2.38	0.58
25:CA:270(S):G:H2'	25:CA:270(T):G:H8	1.68	0.58
32:BH:77:LEU:HG	32:BH:101:LEU:HD13	1.85	0.58
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.85	0.58
25:CA:763:G:C2'	25:CA:764:A:H5'	2.33	0.58
35:BK:12:ASP:OD1	35:BK:85:VAL:HG13	2.03	0.58
1:DA:1127:G:N2	1:DA:1147:C:H42	2.01	0.58
19:DS:53:ASN:HD21	19:DS:56:GLN:H	1.52	0.58
25:CA:1542:G:H4'	25:CA:1543:A:O5'	2.03	0.58
42:CR:22:VAL:HG12	42:CR:23:GLU:N	2.18	0.58
10:AJ:49:VAL:O	10:AJ:60:ARG:HB2	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:23:VAL:HG13	12:AL:97:TYR:CE2	2.38	0.58
3:DC:58:GLU:O	3:DC:64:VAL:HA	2.04	0.58
25:CA:587:C:N3	36:CL:33:ARG:HD2	2.18	0.58
20:DT:67:ALA:HA	20:DT:72:LEU:O	2.04	0.58
1:AA:484:G:H4'	1:AA:485:G:O5'	2.02	0.58
1:DA:1073:U:H2'	1:DA:1074:G:H8	1.67	0.58
1:AA:1363:A:H4'	1:AA:1364:U:H5''	1.85	0.58
29:CE:150:GLY:HA2	29:CE:172:TRP:CE3	2.39	0.58
25:CA:655:A:O2'	25:CA:656:G:H5'	2.03	0.58
25:BA:2055:C:H5'	25:BA:2056:G:O5'	2.04	0.58
44:CT:40:LYS:HD2	44:CT:51:VAL:HB	1.84	0.58
26:BB:60:C:H2'	26:BB:61:G:H8	1.69	0.58
9:DI:79:LEU:HD23	9:DI:101:PHE:O	2.03	0.58
4:AD:126:ILE:HG22	4:AD:127:THR:H	1.69	0.58
25:BA:599:G:H2'	25:BA:600:G:H8	1.68	0.58
26:CB:70:C:H2'	26:CB:71:C:H6	1.68	0.58
13:AM:87:TYR:O	13:AM:91:ARG:HG2	2.04	0.58
10:DJ:49:VAL:O	10:DJ:60:ARG:HB2	2.04	0.58
31:CG:101:ARG:HE	31:CG:101:ARG:N	1.96	0.58
25:BA:1678:G:HO2'	25:BA:1679:U:H6	1.51	0.58
29:BE:63:LYS:HZ1	29:BE:67:GLN:HG2	1.68	0.58
2:DB:70:PHE:O	2:DB:71:VAL:HG13	2.03	0.58
25:CA:1981:A:H5''	25:CA:1982:C:OP2	2.03	0.58
37:CM:40:ALA:HB3	37:CM:127:ILE:HD11	1.84	0.58
25:BA:988:A:C2'	25:BA:989:G:H5'	2.34	0.58
25:CA:599:G:H2'	25:CA:600:G:H8	1.67	0.58
26:BB:70:C:H2'	26:BB:71:C:H6	1.68	0.58
25:CA:860:U:H2'	25:CA:861:A:H8	1.67	0.58
26:CB:57:A:C2	30:CF:29:TRP:HB3	2.39	0.58
1:DA:119:A:H4'	1:DA:120:A:O5'	2.03	0.58
25:BA:609(B):G:H2'	25:BA:610:C:C6	2.38	0.58
2:AB:17:PHE:HB2	2:AB:42:ILE:HG22	1.85	0.58
25:CA:2392:A:H1'	36:CL:60:MET:HE3	1.84	0.58
1:DA:979:C:H3'	1:DA:980:C:C5'	2.33	0.58
3:AC:58:GLU:O	3:AC:64:VAL:HA	2.04	0.58
1:AA:1373:G:H5''	7:AG:36:LYS:HZ3	1.69	0.58
12:AL:81:VAL:HG23	12:AL:104:TYR:HB3	1.86	0.58
26:CB:75:G:H5''	46:CV:36:LYS:HE2	1.85	0.58
16:DP:18:ARG:HD3	16:DP:35:LYS:HD2	1.85	0.58
3:DC:6:HIS:ND1	14:DN:49:HIS:HB3	2.18	0.58
28:CD:11:MET:CB	28:CD:24:THR:HA	2.33	0.58
25:CA:1651:G:H5'	38:CN:39:PRO:HG2	1.84	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:CD:119:ARG:HD3	28:CD:120:TRP:CE2	2.39	0.58
4:DD:63:LYS:O	4:DD:67:ILE:HG13	2.04	0.58
25:CA:2744:G:H21	31:CG:143:GLN:HE22	1.51	0.58
43:CS:22:ASP:HA	43:CS:25:ARG:HH12	1.69	0.58
35:CK:12:ASP:OD1	35:CK:85:VAL:HG13	2.04	0.58
29:BE:155:LEU:HD23	29:BE:186:ILE:HD13	1.84	0.58
35:CK:20:MET:HG2	35:CK:21:CYS:O	2.04	0.58
26:BB:57:A:C2	30:BF:29:TRP:HB3	2.39	0.58
25:CA:1344:G:H4'	25:CA:1384:A:N7	2.18	0.58
37:CM:48:GLU:O	37:CM:52:VAL:HG12	2.04	0.58
28:CD:154:LYS:HE3	28:CD:154:LYS:HA	1.85	0.58
25:CA:2071:A:H2'	25:CA:2072:G:H8	1.69	0.58
25:BA:2392:A:H1'	36:BL:60:MET:HE3	1.86	0.57
38:BN:21:TYR:HE2	38:BN:43:GLU:HB3	1.70	0.57
19:DS:18:LYS:O	19:DS:22:LEU:HD23	2.04	0.57
29:CE:83:PHE:O	29:CE:84:VAL:C	2.43	0.57
1:AA:1128:C:H4'	9:AI:16:ARG:HH12	1.69	0.57
25:BA:2893:G:H4'	25:BA:2894:G:H8	1.69	0.57
44:CT:64:LYS:HG2	44:CT:65:ARG:N	2.19	0.57
25:CA:988:A:C2'	25:CA:989:G:H5'	2.34	0.57
3:DC:184:TYR:CE2	3:DC:186:PHE:HB2	2.39	0.57
22:AV:217:ILE:HD13	22:AV:243:HIS:HA	1.84	0.57
1:DA:1104:G:H5'	2:DB:111:ARG:HD2	1.86	0.57
45:CU:95:LYS:HG2	45:CU:100:ALA:HA	1.86	0.57
25:BA:270(S):G:H2'	25:BA:270(T):G:H8	1.68	0.57
1:DA:9:G:OP2	5:DE:121:LYS:HG3	2.04	0.57
1:AA:493:G:H2'	1:AA:494:U:C5	2.39	0.57
44:CT:23:GLU:HG3	44:CT:24:GLY:H	1.68	0.57
27:CC:28:GLU:HB3	27:CC:29:PRO:HD3	1.85	0.57
25:BA:1114:G:H2'	25:BA:1115:G:H8	1.69	0.57
25:BA:1946:U:H2'	25:BA:1947:C:C6	2.38	0.57
41:BQ:8:VAL:HG13	41:BQ:11:ARG:HH21	1.69	0.57
1:AA:160:A:H2'	1:AA:161:A:O4'	2.04	0.57
1:DA:1188:A:H2'	1:DA:1189:C:H5'	1.85	0.57
25:BA:1161:C:O2'	42:BR:8:GLY:HA2	2.04	0.57
30:CF:5:LEU:HD21	51:C1:50:THR:HA	1.86	0.57
2:DB:80:ILE:HD11	2:DB:208:ILE:HG23	1.86	0.57
25:CA:270(J):G:O2'	25:CA:270(K):G:H8	1.86	0.57
32:CH:130:TYR:CD2	32:CH:132:PRO:HG3	2.39	0.57
1:AA:691:G:H3'	11:AK:26:ASN:HD21	1.68	0.57
1:DA:502:G:H4'	1:DA:550:G:H4'	1.86	0.57
1:DA:145:G:H2'	1:DA:146:G:H8	1.69	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:892:A:O2'	1:DA:1415:G:H4'	2.04	0.57
48:BX:86:SER:O	48:BX:90:ILE:HG12	2.03	0.57
25:CA:2019:A:H5''	41:CQ:27:LEU:HD12	1.86	0.57
13:AM:7:VAL:HG21	30:BF:115:ARG:HA	1.85	0.57
1:AA:238:G:P	17:AQ:25:ARG:HH22	2.27	0.57
25:BA:1529:A:H62	25:BA:1542:G:N2	2.02	0.57
25:CA:2393:A:H4'	36:CL:61:ARG:O	2.04	0.57
22:AV:112:ARG:HB2	22:AV:198:THR:CG2	2.32	0.57
40:BP:24:PRO:HA	40:BP:49:VAL:HG13	1.86	0.57
39:CO:25:ARG:HD2	39:CO:88:ASP:OD1	2.04	0.57
32:BH:72:LEU:HD12	32:BH:140:LEU:HD13	1.85	0.57
2:AB:168:THR:HG1	2:AB:192:SER:HA	1.69	0.57
20:DT:26:ASN:HB2	20:DT:71:THR:HG23	1.87	0.57
22:DV:93:GLU:HG3	22:DV:97:LEU:HG	1.86	0.57
25:CA:2039:C:H2'	25:CA:2040:C:C6	2.40	0.57
17:AQ:66:SER:OG	17:AQ:69:LYS:HB3	2.02	0.57
25:CA:2893:G:H4'	25:CA:2894:G:H8	1.69	0.57
49:CY:38:GLN:O	49:CY:41:ILE:HG12	2.04	0.57
42:CR:28:GLU:HB3	42:CR:29:PRO:HD2	1.86	0.57
27:BC:28:GLU:HB3	27:BC:29:PRO:HD3	1.85	0.57
22:AV:107:ALA:HB2	22:AV:168:TYR:HB2	1.87	0.57
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.39	0.57
51:C1:46:ASN:HB2	51:C1:64:LYS:HB2	1.86	0.57
1:DA:1152:A:H2'	1:DA:1153:C:H6	1.67	0.57
2:AB:84:GLU:HG3	2:AB:215:LEU:HB3	1.85	0.57
25:CA:1577:C:H2'	25:CA:1578:U:C6	2.39	0.57
25:CA:528:A:C2	25:CA:2043:C:H4'	2.40	0.57
36:CL:27:HIS:CE1	42:CR:83:ARG:HH12	2.22	0.57
1:DA:358:U:H6	1:DA:358:U:H5'	1.69	0.57
25:BA:1607:C:H5''	25:BA:1608:A:H5'	1.85	0.57
37:CM:6:ARG:O	37:CM:7:MET:HB2	2.04	0.57
1:AA:624:C:H2'	1:AA:625:G:C8	2.40	0.57
32:CH:79:ILE:HB	32:CH:144:VAL:HA	1.87	0.57
1:DA:537:G:H5''	12:DL:112:ARG:NH2	2.19	0.57
14:DN:4:LYS:O	14:DN:7:ILE:HG13	2.05	0.57
3:AC:184:TYR:CE2	3:AC:186:PHE:HB2	2.39	0.57
25:BA:379:G:N2	48:BX:20:ARG:HH12	2.02	0.57
6:DF:60:PHE:C	6:DF:61:LEU:HD12	2.24	0.57
25:CA:1114:G:H2'	25:CA:1115:G:H8	1.69	0.57
25:BA:796:C:H2'	25:BA:797:C:C6	2.39	0.57
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.67	0.57
17:AQ:55:ASP:HB3	17:AQ:76:LEU:HD13	1.85	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BW:25:ARG:HH12	47:BW:35:ASN:HB3	1.69	0.57
37:BM:6:ARG:O	37:BM:7:MET:HB2	2.05	0.57
25:CA:270(S):G:H2'	25:CA:270(T):G:C8	2.39	0.57
38:BN:42:LYS:O	38:BN:45:ARG:HB3	2.04	0.57
9:AI:79:LEU:HD23	9:AI:101:PHE:O	2.03	0.57
25:CA:1189:A:H2'	25:CA:1190:G:H5'	1.85	0.57
29:CE:143:ALA:HB1	29:CE:148:LEU:HB2	1.85	0.57
48:CX:86:SER:O	48:CX:90:ILE:HG12	2.04	0.57
25:CA:1139:G:OP1	34:CJ:125:ALA:HA	2.05	0.57
25:CA:2315:G:H2'	25:CA:2316:C:C6	2.39	0.57
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.04	0.57
37:BM:48:GLU:O	37:BM:52:VAL:HG12	2.03	0.57
25:CA:1964:G:H4'	25:CA:1965:C:OP2	2.04	0.57
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.25	0.57
30:BF:55:LYS:HD2	30:BF:58:GLN:HE21	1.70	0.57
25:BA:1344:G:H4'	25:BA:1384:A:N7	2.19	0.57
30:BF:5:LEU:HD21	51:B1:50:THR:HA	1.86	0.57
25:BA:2210:G:H21	25:BA:2211:G:C5'	2.16	0.57
1:DA:1148:U:H4'	9:DI:14:VAL:HG11	1.86	0.57
25:BA:1497:U:H2'	25:BA:1497:U:O2	2.02	0.57
29:BE:63:LYS:HZ1	29:BE:67:GLN:NE2	2.03	0.57
46:BV:10:ARG:HG2	46:BV:11:GLU:N	2.19	0.57
25:CA:2712:U:O2'	25:CA:2713:A:H5'	2.04	0.57
12:AL:76:LEU:HD11	12:AL:106:ALA:HA	1.87	0.57
44:BT:64:LYS:HG2	44:BT:65:ARG:N	2.19	0.57
25:CA:1511:A:H2'	25:CA:1512:G:O4'	2.04	0.57
25:BA:2744:G:H21	31:BG:143:GLN:HE22	1.51	0.57
22:AV:108:ILE:HA	22:AV:160:PHE:O	2.05	0.57
25:BA:1964:G:H4'	25:BA:1965:C:OP2	2.04	0.57
30:CF:114:ILE:HG23	30:CF:115:ARG:HD2	1.86	0.57
4:AD:28:SER:HB3	4:AD:29:PRO:HD2	1.86	0.57
25:BA:655:A:O2'	25:BA:656:G:H5'	2.04	0.57
28:BD:38:THR:HB	28:BD:39:PRO:HD2	1.85	0.57
25:CA:188:G:H1	25:CA:208:C:H42	1.52	0.57
25:BA:2071:A:H2'	25:BA:2072:G:H8	1.69	0.57
22:AV:82:LEU:O	22:AV:86:GLU:HB2	2.05	0.57
3:DC:76:VAL:HG21	3:DC:103:VAL:HG11	1.87	0.57
25:BA:1697:G:H3'	25:BA:1698:A:C5'	2.33	0.57
36:BL:36:LYS:HD2	36:BL:41:ARG:HB2	1.87	0.57
1:AA:1148:U:H4'	9:AI:14:VAL:HG11	1.86	0.57
19:AS:49:ILE:HD12	19:AS:49:ILE:H	1.67	0.57
25:BA:572:A:H5''	25:BA:573:G:OP2	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:CF:86:MET:H	30:CF:87:PRO:HD2	1.69	0.57
45:CU:42:VAL:HG21	45:CU:67:LEU:HD13	1.87	0.57
42:BR:28:GLU:HB3	42:BR:29:PRO:HD2	1.87	0.57
25:CA:320:A:OP2	29:CE:137:LYS:HE3	2.05	0.57
1:AA:1489:G:H2'	1:AA:1490:C:O4'	2.04	0.57
23:AW:59:A:H2'	23:AW:60:U:H5'	1.87	0.57
25:BA:2315:G:H2'	25:BA:2316:C:C6	2.39	0.57
53:B3:13:CYS:SG	53:B3:24:GLU:HG3	2.45	0.57
30:BF:41:GLN:HG2	30:BF:155:MET:HB3	1.86	0.57
41:CQ:8:VAL:HG13	41:CQ:11:ARG:HH21	1.69	0.57
25:CA:1163:G:H2'	25:CA:1164:G:C5'	2.30	0.57
15:AO:63:ARG:NH2	15:AO:87:ILE:HG21	2.17	0.57
48:CX:11:ARG:NH1	48:CX:61:ARG:H	2.02	0.57
3:DC:22:TRP:CZ3	3:DC:24:ALA:HB2	2.39	0.57
38:CN:87:TYR:HE1	38:CN:117:VAL:HG13	1.70	0.57
54:C4:37:LYS:HD3	54:C4:39:ARG:HE	1.68	0.57
22:DV:9:GLU:HA	22:DV:12:TYR:CD1	2.40	0.57
25:CA:1344:G:H4'	25:CA:1384:A:C5	2.40	0.57
1:AA:1410:G:H1	1:AA:1490:C:H42	1.52	0.57
25:CA:1652:A:OP1	38:CN:9:LYS:HE3	2.04	0.57
46:CV:110:GLY:HA3	46:CV:174:VAL:HG11	1.87	0.57
28:CD:76:ARG:HG2	28:CD:77:ILE:HG13	1.85	0.57
1:AA:9:G:OP2	5:AE:121:LYS:HG3	2.04	0.57
1:AA:1104:G:H5'	2:AB:111:ARG:HD2	1.86	0.57
1:AA:109:A:C6	1:AA:326:G:C6	2.93	0.57
25:CA:2653:U:H3	25:CA:2667:C:H42	1.53	0.57
25:BA:952:G:P	37:BM:16:ARG:HH12	2.27	0.57
29:BE:11:VAL:HG22	29:BE:125:LEU:HB2	1.86	0.57
1:AA:1188:A:H2'	1:AA:1189:C:H5'	1.85	0.57
48:CX:58:ILE:HD11	48:CX:91:LYS:HG2	1.85	0.57
25:CA:1932:A:H2'	25:CA:1933:G:O4'	2.05	0.57
25:BA:1511:A:H2'	25:BA:1512:G:O4'	2.04	0.57
15:DO:8:LYS:O	15:DO:12:ILE:HG13	2.05	0.57
25:BA:153:C:OP1	48:BX:92:LYS:HE2	2.04	0.57
28:CD:107:THR:O	28:CD:190:GLY:HA2	2.04	0.57
25:CA:796:C:H2'	25:CA:797:C:C6	2.39	0.57
25:CA:1697:G:H3'	25:CA:1698:A:C5'	2.34	0.57
48:CX:11:ARG:HB3	48:CX:12:PRO:CD	2.29	0.57
3:AC:47:LEU:HD21	3:AC:68:VAL:HG11	1.86	0.57
45:BU:90:LEU:HG	45:BU:91:GLU:N	2.19	0.57
1:DA:1281:U:H5'	1:DA:1282:C:C5	2.40	0.57
1:DA:691:G:H3'	11:DK:26:ASN:HD21	1.69	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BF:86:MET:H	30:BF:87:PRO:HD2	1.69	0.57
32:BH:113:ARG:HB2	32:BH:130:TYR:CE1	2.40	0.57
26:BB:45:A:H1'	30:BF:95:ARG:NH1	2.20	0.57
1:DA:1363:A:H4'	1:DA:1364:U:H5''	1.85	0.57
13:AM:99:ARG:HB2	13:AM:101:GLN:HE21	1.68	0.57
10:DJ:90:LEU:N	10:DJ:91:PRO:HD3	2.20	0.57
25:CA:2557:G:H2'	25:CA:2558:C:C6	2.40	0.57
13:DM:87:TYR:O	13:DM:91:ARG:HG2	2.04	0.57
22:AV:182:ARG:HB2	22:AV:307:PHE:HD1	1.70	0.57
32:CH:62:LYS:HB2	32:CH:133:HIS:CE1	2.40	0.57
3:AC:66:VAL:HB	3:AC:101:LEU:HD23	1.87	0.57
29:CE:11:VAL:HG22	29:CE:125:LEU:HB2	1.86	0.57
46:CV:58:VAL:HA	46:CV:67:LEU:O	2.05	0.57
1:DA:591:U:H2'	1:DA:592:G:C8	2.40	0.57
49:CY:36:ARG:HA	49:CY:39:ALA:HB3	1.87	0.57
25:CA:295:G:O5'	45:CU:2:ARG:HD3	2.05	0.57
22:DV:285:LEU:HD23	22:DV:289:ARG:HD2	1.87	0.57
1:AA:1224:G:H4'	13:AM:102:ARG:NH2	2.19	0.57
25:BA:2378:A:H2	39:BO:18:ILE:HD12	1.69	0.57
29:BE:83:PHE:O	29:BE:84:VAL:C	2.42	0.57
32:BH:31:LEU:HB3	32:BH:32:PRO:HD3	1.86	0.57
48:CX:27:GLU:CB	48:CX:33:LYS:HG3	2.35	0.57
38:BN:87:TYR:HE1	38:BN:117:VAL:HG13	1.70	0.57
37:BM:38:GLU:O	37:BM:127:ILE:HD13	2.05	0.57
1:DA:1128:C:H4'	9:DI:16:ARG:HH12	1.69	0.57
10:DJ:6:ILE:HD11	10:DJ:72:VAL:HB	1.87	0.57
32:BH:79:ILE:HB	32:BH:144:VAL:HA	1.87	0.57
25:CA:2814:C:O2'	52:C2:29:ILE:HG13	2.05	0.57
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.87	0.57
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.70	0.57
7:AG:115:ARG:O	7:AG:119:ARG:HG3	2.05	0.56
10:AJ:49:VAL:HG21	14:AN:41:ARG:HB2	1.85	0.56
1:DA:1347:G:C8	9:DI:107:ARG:HB3	2.39	0.56
30:CF:34:LEU:HD12	30:CF:99:MET:SD	2.44	0.56
12:AL:24:PRO:HD2	12:AL:97:TYR:OH	2.05	0.56
3:DC:189:ALA:HB3	3:DC:196:LEU:HB3	1.87	0.56
38:BN:87:TYR:OH	38:BN:116:LEU:HB3	2.05	0.56
25:BA:270(S):G:H2'	25:BA:270(T):G:C8	2.40	0.56
4:AD:155:LEU:O	4:AD:159:ARG:HG2	2.05	0.56
25:BA:320:A:OP2	29:BE:137:LYS:HE3	2.05	0.56
1:DA:1513:A:H2'	1:DA:1514:C:C6	2.39	0.56
1:DA:109:A:C6	1:DA:326:G:C6	2.93	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:150:GLY:HA2	29:BE:172:TRP:CE3	2.39	0.56
25:BA:2404:C:H2'	25:BA:2405:G:O4'	2.05	0.56
1:DA:1489:G:H2'	1:DA:1490:C:O4'	2.05	0.56
44:BT:50:LYS:H	44:BT:87:GLN:HE22	1.52	0.56
25:CA:1946:U:H2'	25:CA:1947:C:C6	2.40	0.56
48:CX:18:ILE:HD13	48:CX:18:ILE:H	1.70	0.56
44:BT:41:ASN:N	44:BT:41:ASN:HD22	2.03	0.56
48:BX:18:ILE:H	48:BX:18:ILE:HD13	1.70	0.56
1:DA:1201:A:H4'	1:DA:1202:G:O5'	2.05	0.56
5:AE:72:GLN:O	5:AE:75:THR:HG22	2.05	0.56
41:CQ:55:ARG:HA	41:CQ:58:ARG:HD2	1.87	0.56
42:CR:38:LEU:O	42:CR:39:LEU:HD13	2.04	0.56
42:CR:38:LEU:HD13	42:CR:55:ALA:HB1	1.87	0.56
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.68	0.56
28:CD:51:PHE:HD1	28:CD:52:LEU:HG	1.69	0.56
38:CN:10:LEU:HB2	38:CN:17:ARG:NE	2.20	0.56
32:CH:113:ARG:HB2	32:CH:130:TYR:CE1	2.41	0.56
25:CA:380:U:H2'	25:CA:381:G:H8	1.69	0.56
45:BU:42:VAL:HG21	45:BU:67:LEU:HD13	1.86	0.56
13:DM:98:VAL:HB	13:DM:99:ARG:HH11	1.70	0.56
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.05	0.56
38:CN:42:LYS:O	38:CN:45:ARG:HB3	2.06	0.56
25:BA:2718:G:H2'	25:BA:2719:G:H8	1.68	0.56
1:AA:438:G:O2'	1:AA:494:U:O4	2.19	0.56
43:CS:1:MET:HE2	43:CS:2:GLU:H	1.70	0.56
4:DD:155:LEU:O	4:DD:159:ARG:HG2	2.05	0.56
53:C3:13:CYS:SG	53:C3:24:GLU:HG3	2.45	0.56
28:BD:192:ASN:N	28:BD:192:ASN:HD22	2.03	0.56
6:DF:89:MET:SD	6:DF:91:VAL:HG23	2.45	0.56
25:BA:1139:G:OP1	34:BJ:125:ALA:HA	2.05	0.56
25:BA:2557:G:H2'	25:BA:2558:C:C6	2.40	0.56
6:AF:69:GLU:O	6:AF:72:VAL:HG12	2.05	0.56
25:CA:1529:A:H62	25:CA:1542:G:N2	2.02	0.56
25:BA:996:A:C4'	41:BQ:92:ARG:HH12	2.17	0.56
25:BA:295:G:O5'	45:BU:2:ARG:HD3	2.05	0.56
45:CU:76:CYS:HB3	45:CU:77:PRO:CD	2.36	0.56
13:DM:3:ARG:HH21	13:DM:7:VAL:HG13	1.70	0.56
11:DK:29:ILE:HG22	11:DK:44:SER:HB3	1.87	0.56
40:CP:24:PRO:HA	40:CP:49:VAL:HG13	1.86	0.56
9:AI:69:GLY:O	9:AI:73:GLN:HG3	2.05	0.56
12:DL:24:PRO:HD2	12:DL:97:TYR:OH	2.06	0.56
34:BJ:135:LEU:HD23	34:BJ:136:GLY:H	1.70	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:CJ:135:LEU:HD23	34:CJ:136:GLY:H	1.69	0.56
37:CM:75:THR:HG21	37:CM:85:LYS:HZ1	1.70	0.56
38:CN:21:TYR:HE2	38:CN:43:GLU:HB3	1.70	0.56
48:BX:27:GLU:CB	48:BX:33:LYS:HG3	2.34	0.56
1:DA:357:G:OP1	1:DA:366:C:O2'	2.20	0.56
38:CN:87:TYR:OH	38:CN:116:LEU:HB3	2.05	0.56
22:DV:93:GLU:CD	22:DV:96:LEU:HD12	2.26	0.56
25:BA:639:U:H2'	25:BA:640:C:C6	2.39	0.56
25:CA:639:U:H2'	25:CA:640:C:C6	2.40	0.56
30:BF:34:LEU:HD12	30:BF:99:MET:SD	2.45	0.56
10:DJ:54:PHE:HD2	10:DJ:55:LYS:HG3	1.70	0.56
25:BA:518:G:H4'	43:BS:18:ARG:NH1	2.19	0.56
13:AM:98:VAL:HB	13:AM:99:ARG:HH11	1.70	0.56
1:AA:437:U:H2'	1:AA:438:G:O4'	2.05	0.56
30:BF:114:ILE:HG23	30:BF:115:ARG:HD2	1.87	0.56
43:BS:22:ASP:HA	43:BS:25:ARG:HH12	1.70	0.56
26:BB:12:C:O2'	47:BW:74:ARG:HG2	2.05	0.56
35:BK:20:MET:HG2	35:BK:21:CYS:O	2.05	0.56
19:AS:53:ASN:HD21	19:AS:56:GLN:H	1.51	0.56
28:BD:107:THR:O	28:BD:190:GLY:HA2	2.06	0.56
1:DA:160:A:H2'	1:DA:161:A:O4'	2.04	0.56
1:AA:1493:A:H4'	24:AX:19:U:O2	2.05	0.56
26:BB:66:A:H61	26:BB:107:U:H2'	1.70	0.56
25:CA:2271:G:OP1	47:CW:18:ALA:HB1	2.05	0.56
3:AC:50:ALA:HB2	3:AC:75:VAL:HB	1.88	0.56
25:CA:1495:A:N3	25:CA:1495:A:H2'	2.19	0.56
25:BA:2086:U:H2'	25:BA:2087:G:C8	2.40	0.56
25:CA:2055:C:H5'	25:CA:2056:G:O5'	2.05	0.56
6:AF:76:ALA:O	6:AF:80:ARG:HG2	2.06	0.56
26:CB:60:C:H2'	26:CB:61:G:H8	1.69	0.56
1:AA:757:U:H2'	1:AA:758:G:O4'	2.06	0.56
25:CA:1818:U:H2'	27:CC:157:ARG:HG3	1.87	0.56
12:AL:54:VAL:HG12	12:AL:55:ALA:N	2.21	0.56
25:BA:1681:G:OP2	25:BA:1681:G:H8	1.89	0.56
11:DK:57:THR:HG22	11:DK:59:TYR:H	1.69	0.56
25:CA:2086:U:H2'	25:CA:2087:G:C8	2.40	0.56
13:AM:75:ALA:O	13:AM:79:LYS:HG3	2.06	0.56
22:DV:112:ARG:HB2	22:DV:198:THR:CG2	2.33	0.56
30:CF:10:LYS:O	30:CF:14:GLU:HB3	2.05	0.56
25:BA:593:G:O2'	55:B5:62:LEU:HD13	2.05	0.56
3:AC:22:TRP:CZ3	3:AC:24:ALA:HB2	2.40	0.56
25:CA:330:A:H2	25:CA:1210:A:H2'	1.70	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:CH:31:LEU:HB3	32:CH:32:PRO:HD3	1.85	0.56
19:AS:18:LYS:O	19:AS:22:LEU:HD23	2.04	0.56
3:DC:11:ARG:HB3	3:DC:15:THR:HB	1.86	0.56
25:BA:380:U:H2'	25:BA:381:G:H8	1.69	0.56
22:AV:9:GLU:HA	22:AV:12:TYR:CD1	2.40	0.56
25:CA:1523:U:H2'	25:CA:1524:G:C8	2.40	0.56
27:CC:218:ARG:HB3	27:CC:219:PRO:HD2	1.85	0.56
22:DV:107:ALA:HB2	22:DV:168:TYR:HB2	1.86	0.56
1:AA:119:A:H4'	1:AA:120:A:O5'	2.03	0.56
25:CA:952:G:P	37:CM:16:ARG:HH12	2.27	0.56
25:CA:2401:U:H2'	25:CA:2402:C:H5''	1.87	0.56
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.20	0.56
1:DA:493:G:H2'	1:DA:494:U:C5	2.40	0.56
25:BA:2094:G:P	32:BH:22:LYS:HD2	2.45	0.56
26:BB:95:U:H2'	26:BB:96:G:H8	1.70	0.56
44:BT:28:PHE:HE2	44:BT:92:LEU:HD11	1.71	0.56
44:BT:47:PHE:HB3	44:BT:89:ILE:HD12	1.87	0.56
48:BX:11:ARG:CB	48:BX:12:PRO:HD2	2.35	0.56
46:CV:10:ARG:HG2	46:CV:11:GLU:N	2.20	0.56
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.86	0.56
12:DL:76:LEU:HD11	12:DL:106:ALA:HA	1.87	0.56
25:CA:863:A:OP1	37:CM:21:THR:HB	2.06	0.56
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.87	0.56
25:BA:330:A:H2	25:BA:1210:A:H2'	1.69	0.56
6:AF:16:GLN:HA	6:AF:19:LEU:HB3	1.87	0.56
22:AV:93:GLU:CD	22:AV:96:LEU:HD12	2.26	0.56
37:CM:38:GLU:O	37:CM:127:ILE:HD13	2.06	0.56
29:BE:178:PRO:HB2	29:BE:201:VAL:HG11	1.88	0.56
25:CA:150:C:H2'	25:CA:151:C:C6	2.41	0.56
23:DW:20:U:H5'	23:DW:21:A:OP2	2.06	0.56
26:CB:66:A:H61	26:CB:107:U:H2'	1.70	0.56
23:AW:20:U:H5'	23:AW:21:A:OP2	2.06	0.56
54:C4:12:ARG:NH2	54:C4:44:PRO:HB3	2.21	0.56
14:AN:4:LYS:O	14:AN:7:ILE:HG13	2.05	0.56
46:BV:110:GLY:HA3	46:BV:174:VAL:HG11	1.87	0.56
28:CD:105:THR:HB	28:CD:197:ILE:HG12	1.87	0.56
49:CY:12:GLU:C	49:CY:14:ARG:H	2.08	0.56
25:BA:2393:A:H4'	36:BL:61:ARG:O	2.05	0.56
2:AB:80:ILE:HD11	2:AB:208:ILE:HG23	1.86	0.56
25:BA:1577:C:H2'	25:BA:1578:U:C6	2.40	0.56
29:BE:80:ALA:O	29:BE:83:PHE:HB2	2.04	0.56
1:AA:1053:G:O6	1:AA:1199:U:H2'	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:184:TYR:HE2	3:AC:186:PHE:HB2	1.71	0.56
25:BA:2653:U:H3	25:BA:2667:C:H42	1.53	0.56
43:BS:30:GLU:HA	43:BS:33:ARG:HD2	1.88	0.56
32:BH:62:LYS:HB2	32:BH:133:HIS:CE1	2.41	0.56
22:DV:82:LEU:O	22:DV:86:GLU:HB2	2.05	0.56
45:CU:50:ARG:HD3	45:CU:51:VAL:H	1.69	0.56
25:CA:2404:C:H2'	25:CA:2405:G:O4'	2.05	0.56
25:BA:204:A:OP1	25:BA:204:A:H8	1.89	0.56
46:BV:58:VAL:HA	46:BV:67:LEU:O	2.05	0.56
28:CD:1:MET:HB3	28:CD:83:ASP:O	2.06	0.56
37:CM:66:ILE:HG22	37:CM:104:PHE:CD2	2.41	0.56
27:BC:30:GLU:HG3	27:BC:63:ARG:HH21	1.71	0.56
11:AK:29:ILE:HG22	11:AK:44:SER:HB3	1.87	0.56
1:AA:1347:G:C8	9:AI:107:ARG:HB3	2.40	0.56
27:CC:144:ALA:HB3	27:CC:192:THR:HG23	1.88	0.56
25:BA:444:C:O2'	25:BA:445:C:H5'	2.05	0.56
1:AA:56:U:H2'	1:AA:57:G:C8	2.40	0.56
1:DA:56:U:H2'	1:DA:57:G:C8	2.40	0.56
12:AL:54:VAL:HG12	12:AL:55:ALA:H	1.70	0.56
1:DA:492:G:C2	1:DA:493:G:H1'	2.40	0.56
40:BP:50:ILE:HA	40:BP:99:LEU:HD11	1.86	0.56
8:DH:8:ASP:O	8:DH:12:ARG:HG2	2.06	0.56
1:AA:1201:A:H4'	1:AA:1202:G:O5'	2.05	0.56
25:CA:38:A:H2'	25:CA:39:C:C6	2.41	0.56
6:DF:69:GLU:O	6:DF:72:VAL:HG12	2.06	0.56
25:BA:188:G:H1	25:BA:208:C:H42	1.52	0.56
22:DV:108:ILE:HA	22:DV:160:PHE:O	2.05	0.56
29:CE:184:TYR:O	29:CE:188:ARG:HB2	2.06	0.56
3:DC:50:ALA:HB2	3:DC:75:VAL:HB	1.88	0.56
17:AQ:8:GLY:HA3	17:AQ:23:VAL:HG12	1.88	0.56
42:BR:38:LEU:HD13	42:BR:55:ALA:HB1	1.87	0.56
30:BF:86:MET:H	30:BF:87:PRO:CD	2.18	0.56
49:BY:38:GLN:O	49:BY:41:ILE:HG12	2.05	0.56
29:BE:155:LEU:HD11	29:BE:176:LEU:HD22	1.88	0.56
45:BU:95:LYS:HG2	45:BU:100:ALA:HA	1.87	0.56
25:CA:2540:C:H2'	25:CA:2541:A:O4'	2.06	0.56
11:AK:57:THR:HG22	11:AK:59:TYR:H	1.70	0.56
25:CA:1729:A:N6	25:CA:1731:G:C2	2.73	0.56
25:BA:1932:A:H2'	25:BA:1933:G:O4'	2.05	0.56
25:CA:204:A:H8	25:CA:204:A:OP1	1.86	0.56
30:CF:55:LYS:HD2	30:CF:58:GLN:HE21	1.71	0.56
25:CA:1681:G:OP2	25:CA:1681:G:H8	1.89	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:150:C:H2'	25:BA:151:C:C6	2.41	0.56
13:DM:75:ALA:O	13:DM:79:LYS:HG3	2.06	0.56
32:CH:92:VAL:HG23	32:CH:96:ASP:HB2	1.88	0.56
49:BY:36:ARG:HA	49:BY:39:ALA:HB3	1.87	0.56
36:CL:59:LEU:HA	36:CL:61:ARG:NE	2.21	0.56
15:DO:63:ARG:NH2	15:DO:87:ILE:HG21	2.17	0.56
25:BA:1813:G:H4'	27:BC:43:ARG:O	2.05	0.56
22:AV:285:LEU:HD23	22:AV:289:ARG:HD2	1.87	0.56
22:AV:212:LEU:HB2	22:AV:214:MET:CE	2.36	0.56
53:C3:25:LYS:HD3	55:C5:34:TRP:CZ3	2.41	0.56
36:BL:114:ILE:HD11	36:BL:130:PHE:HD1	1.70	0.56
1:DA:624:C:O3'	16:DP:10:GLY:HA2	2.05	0.56
7:DG:100:ALA:O	7:DG:104:LEU:HD23	2.06	0.56
10:AJ:6:ILE:HD11	10:AJ:72:VAL:HB	1.87	0.56
48:CX:19:GLN:HG2	48:CX:41:ARG:HB2	1.87	0.56
26:CB:8:U:H5''	39:CO:15:ARG:NH2	2.21	0.56
13:DM:49:THR:HG22	13:DM:51:ALA:H	1.70	0.56
1:AA:741:G:H2'	1:AA:742:G:C8	2.41	0.56
38:CN:81:ASP:O	38:CN:85:PRO:HG2	2.06	0.56
25:CA:379:G:N2	48:CX:20:ARG:HH12	2.03	0.56
1:DA:908:A:H2'	1:DA:909:A:C8	2.40	0.56
1:AA:591:U:H2'	1:AA:592:G:C8	2.40	0.56
37:BM:66:ILE:HG22	37:BM:104:PHE:CD2	2.41	0.56
25:CA:2695:C:H2'	25:CA:2696:U:C6	2.41	0.56
17:DQ:74:LEU:HD12	17:DQ:75:ARG:HG2	1.87	0.56
25:BA:1495:A:N3	25:BA:1495:A:H2'	2.20	0.56
28:BD:1:MET:HB3	28:BD:83:ASP:O	2.06	0.56
1:AA:804:U:H5''	1:AA:805:C:OP2	2.06	0.56
25:BA:297:C:H5''	45:BU:85:VAL:HG21	1.88	0.56
36:BL:59:LEU:HA	36:BL:61:ARG:NE	2.21	0.56
30:BF:10:LYS:O	30:BF:14:GLU:HB3	2.06	0.56
12:DL:65:VAL:HG12	12:DL:66:THR:H	1.71	0.56
2:DB:205:ASP:O	2:DB:211:ILE:HD11	2.06	0.56
37:CM:45:GLN:H	37:CM:45:GLN:CD	2.09	0.56
27:BC:142:VAL:HG23	27:BC:192:THR:O	2.05	0.56
34:CJ:54:ALA:HA	34:CJ:57:LEU:HB2	1.88	0.56
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.20	0.56
25:BA:389:G:O6	36:BL:71:VAL:HG23	2.06	0.56
26:BB:56:G:H4'	26:BB:57:A:H8	1.70	0.56
30:CF:41:GLN:HG2	30:CF:155:MET:HB3	1.86	0.56
35:BK:19:ILE:HG22	35:BK:43:VAL:HA	1.86	0.56
1:AA:920:U:H2'	1:AA:921:U:C6	2.40	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:7:ARG:HD2	22:AV:353:GLU:HG3	1.86	0.56
5:DE:72:GLN:O	5:DE:75:THR:HG22	2.05	0.56
22:AV:181:GLN:HB3	22:AV:192:ILE:HD11	1.88	0.56
25:CA:774:A:H2	25:CA:787:U:HO2'	1.51	0.56
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.87	0.56
7:AG:26:PHE:O	7:AG:30:ILE:HG12	2.06	0.56
48:BX:19:GLN:HG2	48:BX:41:ARG:HB2	1.87	0.56
22:DV:181:GLN:HB3	22:DV:192:ILE:HD11	1.88	0.56
44:CT:28:PHE:HE2	44:CT:92:LEU:HD11	1.71	0.55
40:CP:27:THR:CG2	40:CP:90:GLN:HB3	2.36	0.55
27:BC:211:ARG:O	27:BC:215:LEU:HG	2.06	0.55
1:DA:1516:G:H2'	1:DA:1518:A:OP2	2.07	0.55
25:CA:330:A:O2'	25:CA:331:A:H8	1.89	0.55
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.71	0.55
36:CL:36:LYS:HD2	36:CL:41:ARG:HB2	1.86	0.55
28:BD:51:PHE:HD1	28:BD:52:LEU:HG	1.69	0.55
39:CO:99:LYS:O	39:CO:103:GLU:HB2	2.06	0.55
1:DA:624:C:H2'	1:DA:625:G:C8	2.40	0.55
25:CA:389:G:O6	36:CL:71:VAL:HG23	2.05	0.55
1:DA:1053:G:O6	1:DA:1199:U:H2'	2.05	0.55
1:AA:492:G:C2	1:AA:493:G:H1'	2.41	0.55
29:CE:125:LEU:HB3	29:CE:196:LEU:CD2	2.36	0.55
1:DA:1410:G:H1	1:DA:1490:C:H42	1.53	0.55
25:BA:2572:A:P	28:BD:144:ARG:HB2	2.46	0.55
25:CA:1992:G:H8	25:CA:1992:G:OP1	1.89	0.55
7:DG:26:PHE:O	7:DG:30:ILE:HG12	2.06	0.55
25:BA:1729:A:N6	25:BA:1731:G:C2	2.74	0.55
26:CB:12:C:O2'	47:CW:74:ARG:HG2	2.05	0.55
6:AF:89:MET:SD	6:AF:91:VAL:HG23	2.46	0.55
40:BP:77:PRO:HB2	40:BP:80:SER:HB2	1.88	0.55
43:CS:30:GLU:HA	43:CS:33:ARG:HD2	1.88	0.55
13:AM:27:LYS:HG3	13:AM:31:LYS:HE3	1.88	0.55
21:DU:6:ARG:NE	21:DU:15:ARG:HH12	2.04	0.55
28:CD:98:PRO:HG3	28:CD:175:VAL:HG12	1.89	0.55
36:CL:58:THR:C	36:CL:60:MET:H	2.09	0.55
40:CP:27:THR:HA	40:CP:48:ILE:HA	1.87	0.55
6:AF:97:PHE:HD2	18:AR:31:LEU:HD21	1.72	0.55
38:BN:10:LEU:HB2	38:BN:17:ARG:NE	2.20	0.55
30:CF:86:MET:H	30:CF:87:PRO:CD	2.18	0.55
25:BA:2872:G:C2	25:BA:2873:A:N6	2.73	0.55
25:CA:2562:U:H1'	35:CK:23:ARG:NH1	2.21	0.55
25:BA:2562:U:H1'	35:BK:23:ARG:NH1	2.21	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:DD:200:GLU:O	4:DD:204:ILE:HG13	2.05	0.55
25:CA:2111:C:H5''	25:CA:2112:G:OP1	2.06	0.55
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.05	0.55
28:CD:192:ASN:N	28:CD:192:ASN:HD22	2.04	0.55
25:BA:2695:C:H2'	25:BA:2696:U:C6	2.42	0.55
47:BW:42:GLY:HA2	47:BW:57:PHE:CD2	2.42	0.55
25:CA:780:G:H21	25:CA:783:A:H62	1.55	0.55
3:AC:22:TRP:HB3	3:AC:59:ARG:H	1.71	0.55
9:DI:69:GLY:O	9:DI:73:GLN:HG3	2.06	0.55
53:B3:25:LYS:HD3	55:B5:34:TRP:CZ3	2.42	0.55
3:DC:22:TRP:HB3	3:DC:59:ARG:H	1.71	0.55
37:CM:17:LEU:HD21	37:CM:41:TRP:NE1	2.20	0.55
25:BA:2335:A:H8	39:BO:13:ARG:NH2	2.04	0.55
25:CA:444:C:O2'	25:CA:445:C:H5'	2.05	0.55
6:DF:16:GLN:HA	6:DF:19:LEU:HB3	1.88	0.55
25:BA:1523:U:H2'	25:BA:1524:G:C8	2.40	0.55
1:DA:1429:C:H2'	1:DA:1430:C:C6	2.42	0.55
38:BN:81:ASP:O	38:BN:85:PRO:HG2	2.07	0.55
3:DC:89:GLU:O	3:DC:93:LYS:HB2	2.06	0.55
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.07	0.55
25:CA:2572:A:P	28:CD:144:ARG:HB2	2.46	0.55
4:DD:28:SER:HB3	4:DD:29:PRO:HD2	1.87	0.55
48:CX:83:GLU:HG2	48:CX:84:GLY:N	2.21	0.55
25:BA:2814:C:O2'	52:B2:29:ILE:HG13	2.05	0.55
2:AB:74:LYS:O	2:AB:78:GLN:HG3	2.07	0.55
20:AT:67:ALA:HA	20:AT:72:LEU:O	2.05	0.55
25:BA:1824:G:OP1	27:BC:52:ARG:HD3	2.06	0.55
1:DA:920:U:H2'	1:DA:921:U:C6	2.40	0.55
12:DL:54:VAL:HG12	12:DL:55:ALA:H	1.70	0.55
44:CT:50:LYS:H	44:CT:87:GLN:HE22	1.52	0.55
44:CT:47:PHE:HB3	44:CT:89:ILE:HD12	1.87	0.55
26:CB:95:U:H2'	26:CB:96:G:H8	1.70	0.55
45:CU:7:VAL:HB	45:CU:8:LYS:NZ	2.16	0.55
25:CA:671:C:H5	36:CL:42:SER:HA	1.72	0.55
27:CC:142:VAL:HG23	27:CC:192:THR:O	2.06	0.55
25:BA:581:C:OP1	41:BQ:31:SER:HB2	2.05	0.55
7:DG:102:ARG:HG2	7:DG:106:GLN:HE21	1.71	0.55
25:BA:1637:A:H4'	25:BA:2711:A:O2'	2.06	0.55
19:DS:29:ARG:HD2	19:DS:30:LEU:N	2.20	0.55
25:CA:2872:G:C2	25:CA:2873:A:N6	2.75	0.55
25:BA:528:A:C2	25:BA:2043:C:H4'	2.40	0.55
26:CB:56:G:H4'	26:CB:57:A:H8	1.71	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:DK:120:ARG:HH21	11:DK:126:ARG:NE	2.04	0.55
23:DW:59:A:H2'	23:DW:60:U:H5'	1.87	0.55
40:BP:62:THR:HG22	40:BP:75:ILE:HG13	1.88	0.55
25:BA:2537:U:H2'	25:BA:2538:C:C6	2.41	0.55
28:BD:98:PRO:HG3	28:BD:175:VAL:HG12	1.89	0.55
17:DQ:8:GLY:HA3	17:DQ:23:VAL:HG12	1.89	0.55
25:BA:1587:A:H2'	25:BA:1588:C:C6	2.41	0.55
37:BM:112:GLU:H	37:BM:112:GLU:CD	2.10	0.55
7:DG:115:ARG:O	7:DG:119:ARG:HG3	2.05	0.55
41:BQ:55:ARG:HA	41:BQ:58:ARG:HD2	1.87	0.55
36:BL:58:THR:C	36:BL:60:MET:H	2.08	0.55
26:CB:45:A:H1'	30:CF:95:ARG:NH1	2.20	0.55
32:BH:116:LEU:HD22	32:BH:128:LEU:HD21	1.88	0.55
25:BA:863:A:OP1	37:BM:21:THR:HB	2.06	0.55
25:CA:581:C:OP1	41:CQ:31:SER:HB2	2.07	0.55
13:AM:3:ARG:HH21	13:AM:7:VAL:HG13	1.70	0.55
25:BA:1344:G:H4'	25:BA:1384:A:C5	2.41	0.55
55:C5:39:LYS:O	55:C5:43:GLN:HG2	2.07	0.55
25:BA:34:C:O2'	25:BA:35:G:H5'	2.07	0.55
19:AS:69:HIS:HB3	19:AS:73:GLU:HG3	1.88	0.55
25:BA:1102:C:H2'	25:BA:1103:A:C8	2.41	0.55
3:DC:66:VAL:HB	3:DC:101:LEU:HD23	1.87	0.55
42:BR:38:LEU:O	42:BR:39:LEU:HD13	2.06	0.55
1:AA:976:G:OP1	14:AN:31:ARG:HB2	2.07	0.55
55:B5:26:LYS:HA	55:B5:48:PHE:CE2	2.34	0.55
27:CC:211:ARG:O	27:CC:215:LEU:HG	2.07	0.55
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.07	0.55
22:DV:54:VAL:O	22:DV:58:LEU:HG	2.07	0.55
29:CE:155:LEU:HD11	29:CE:176:LEU:HD22	1.88	0.55
12:DL:54:VAL:HG12	12:DL:55:ALA:N	2.21	0.55
23:AW:12:G:H4'	25:BA:1908:C:O2	2.07	0.55
13:DM:84:ILE:HG12	19:DS:66:MET:HE2	1.89	0.55
1:AA:332:G:H2'	1:AA:333:G:H8	1.71	0.55
4:AD:200:GLU:O	4:AD:204:ILE:HG13	2.05	0.55
25:CA:1028:A:N6	25:CA:1125:G:H2'	2.21	0.55
25:BA:271(B):C:O2	25:BA:271(B):C:H2'	2.07	0.55
30:CF:143:GLU:H	30:CF:143:GLU:CD	2.10	0.55
34:CJ:80:ALA:O	34:CJ:83:ILE:HG13	2.07	0.55
22:DV:182:ARG:HB2	22:DV:307:PHE:HD1	1.70	0.55
25:CA:2537:U:H2'	25:CA:2538:C:C6	2.42	0.55
49:BY:12:GLU:C	49:BY:14:ARG:H	2.10	0.55
1:DA:1117:G:H4'	9:DI:104:ARG:NH2	2.17	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BP:27:THR:HA	40:BP:48:ILE:HA	1.87	0.55
27:CC:76:PRO:HA	27:CC:118:VAL:HG23	1.88	0.55
54:B4:8:ASN:HD22	54:B4:8:ASN:C	2.10	0.55
38:BN:96:ARG:HH12	38:BN:117:VAL:HA	1.72	0.55
30:CF:86:MET:SD	30:CF:87:PRO:HD3	2.46	0.55
25:CA:1190:G:H2'	25:CA:1191:G:H8	1.71	0.55
25:BA:298:G:P	45:BU:85:VAL:HG22	2.47	0.55
19:DS:62:ILE:HA	19:DS:66:MET:SD	2.47	0.55
1:AA:1184:G:H2'	1:AA:1185:G:H8	1.72	0.55
41:CQ:21:ALA:CB	41:CQ:35:ALA:HB1	2.37	0.55
40:CP:77:PRO:HB2	40:CP:80:SER:HB2	1.89	0.55
1:AA:222:U:H2'	1:AA:223:U:C6	2.41	0.55
11:AK:120:ARG:HH21	11:AK:126:ARG:NE	2.04	0.55
2:AB:96:ARG:N	2:AB:96:ARG:HD2	2.22	0.55
44:CT:41:ASN:HD22	44:CT:41:ASN:N	2.03	0.55
53:C3:16:CYS:SG	53:C3:48:VAL:HG23	2.47	0.55
1:AA:908:A:H2'	1:AA:909:A:C8	2.41	0.55
49:BY:33:MET:O	49:BY:37:PHE:HB2	2.07	0.55
26:CB:46:A:HO2'	26:CB:47:C:H6	1.54	0.55
25:CA:557:U:H2'	25:CA:558:G:C8	2.42	0.55
25:CA:1637:A:H4'	25:CA:2711:A:O2'	2.06	0.55
25:BA:571:A:C8	25:BA:2030:A:N6	2.74	0.55
25:BA:2039:C:H2'	25:BA:2040:C:C6	2.40	0.55
25:CA:1331:A:O2'	25:CA:1332:G:C8	2.60	0.55
25:CA:2305:A:H2'	25:CA:2306:C:H5''	1.89	0.55
10:AJ:54:PHE:HD2	10:AJ:55:LYS:HG3	1.70	0.55
7:AG:100:ALA:O	7:AG:104:LEU:HD23	2.06	0.55
29:CE:178:PRO:HB2	29:CE:201:VAL:HG11	1.88	0.55
42:BR:28:GLU:HB2	42:BR:31:ALA:CB	2.37	0.55
1:AA:115:G:HO2'	1:AA:289:G:H8	1.53	0.55
2:AB:235:SER:O	2:AB:239:VAL:HG23	2.06	0.55
1:DA:804:U:H5''	1:DA:805:C:OP2	2.06	0.55
25:CA:2219:G:H2'	25:CA:2224:G:H5'	1.89	0.55
25:CA:2781:A:C5'	25:CA:2782:G:H5'	2.36	0.55
29:BE:184:TYR:O	29:BE:188:ARG:HB2	2.06	0.55
28:CD:179:GLU:HB3	28:CD:181:LEU:HD23	1.88	0.55
25:CA:1692:U:H2'	25:CA:1694:C:C5	2.42	0.55
29:CE:50:SER:HA	29:CE:92:PRO:O	2.07	0.55
49:CY:33:MET:O	49:CY:37:PHE:HB2	2.07	0.55
2:AB:205:ASP:O	2:AB:211:ILE:HD11	2.06	0.55
25:BA:1678:G:O2'	25:BA:1679:U:C6	2.60	0.55
40:BP:27:THR:CG2	40:BP:90:GLN:HB3	2.36	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:792:A:H1'	1:DA:794:A:N7	2.22	0.55
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.07	0.55
32:CH:116:LEU:HD22	32:CH:128:LEU:HD21	1.89	0.55
12:AL:74:HIS:CD2	12:AL:76:LEU:H	2.22	0.55
28:CD:171:GLU:HG2	28:CD:185:LYS:HG2	1.89	0.55
1:DA:357:G:C2'	1:DA:358:U:H5''	2.37	0.55
22:AV:54:VAL:O	22:AV:58:LEU:HG	2.07	0.55
3:DC:184:TYR:HE2	3:DC:186:PHE:HB2	1.71	0.55
42:CR:28:GLU:HB2	42:CR:31:ALA:CB	2.37	0.55
1:AA:741:G:H2'	1:AA:742:G:H8	1.72	0.55
25:CA:2093:G:H2'	25:CA:2094:G:H8	1.72	0.55
21:AU:6:ARG:NE	21:AU:15:ARG:HH12	2.05	0.55
28:BD:105:THR:HB	28:BD:197:ILE:HG12	1.89	0.55
25:BA:2219:G:H2'	25:BA:2224:G:H5'	1.88	0.55
25:BA:1499:C:H2'	25:BA:1500:G:H8	1.72	0.55
25:CA:1587:A:H2'	25:CA:1588:C:C6	2.41	0.55
8:DH:14:ARG:O	8:DH:18:ARG:HD3	2.07	0.55
46:CV:118:GLN:HB2	46:CV:173:ALA:O	2.06	0.55
37:CM:30:GLY:HA2	37:CM:107:ALA:HB2	1.89	0.55
37:CM:112:GLU:CD	37:CM:112:GLU:H	2.10	0.55
25:CA:271(B):C:O2	25:CA:271(B):C:H2'	2.07	0.55
41:BQ:21:ALA:CB	41:BQ:35:ALA:HB1	2.37	0.55
49:CY:16:LEU:O	49:CY:20:GLU:HB2	2.06	0.55
25:CA:1794:U:H2'	25:CA:1795:C:C6	2.42	0.55
48:CX:11:ARG:CB	48:CX:12:PRO:HD2	2.35	0.55
36:BL:27:HIS:CE1	42:BR:83:ARG:HH12	2.22	0.55
38:CN:17:ARG:O	38:CN:20:LEU:HB3	2.07	0.55
39:BO:99:LYS:O	39:BO:103:GLU:HB2	2.06	0.55
30:BF:86:MET:SD	30:BF:87:PRO:HD3	2.47	0.55
25:BA:528:A:H2	25:BA:2043:C:H4'	1.72	0.55
25:CA:2632:A:H2'	25:CA:2633:G:H8	1.72	0.55
42:CR:28:GLU:HB2	42:CR:31:ALA:HB2	1.89	0.55
1:DA:222:U:H2'	1:DA:223:U:C6	2.41	0.55
39:CO:52:SER:HB2	39:CO:56:LEU:HB2	1.89	0.55
25:BA:459:U:H4'	54:B4:40:TRP:CZ3	2.42	0.55
1:DA:757:U:H2'	1:DA:758:G:O4'	2.06	0.55
25:BA:2781:A:C5'	25:BA:2782:G:H5'	2.37	0.55
1:DA:1184:G:H2'	1:DA:1185:G:H8	1.72	0.55
37:BM:30:GLY:HA2	37:BM:107:ALA:HB2	1.89	0.55
25:CA:1102:C:H2'	25:CA:1103:A:C8	2.41	0.55
17:DQ:86:GLU:O	17:DQ:90:ILE:HG12	2.06	0.55
22:AV:106:ASP:HA	22:AV:167:ALA:HB3	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:779:U:OP1	27:CC:49:ILE:HG13	2.06	0.55
54:B4:12:ARG:NH2	54:B4:44:PRO:HB3	2.22	0.55
36:BL:89:ALA:HB1	36:BL:121:LYS:HD3	1.89	0.55
46:BV:118:GLN:HB2	46:BV:173:ALA:O	2.07	0.55
15:DO:70:LEU:HD11	15:DO:77:ARG:HG3	1.89	0.54
31:CG:27:LYS:HG2	31:CG:32:GLU:HB2	1.89	0.54
15:AO:70:LEU:HD11	15:AO:77:ARG:HG3	1.89	0.54
22:DV:112:ARG:NH1	22:DV:157:LYS:HD2	2.22	0.54
25:CA:768:G:H2'	25:CA:769:G:H8	1.72	0.54
25:CA:593:G:O2'	55:C5:62:LEU:HD13	2.06	0.54
27:BC:76:PRO:HA	27:BC:118:VAL:HG23	1.89	0.54
3:AC:189:ALA:HB3	3:AC:196:LEU:HB3	1.87	0.54
1:AA:792:A:H1'	1:AA:794:A:N7	2.22	0.54
25:BA:557:U:H2'	25:BA:558:G:C8	2.42	0.54
45:BU:90:LEU:HG	45:BU:91:GLU:HG2	1.89	0.54
45:CU:90:LEU:HG	45:CU:91:GLU:HG2	1.88	0.54
19:DS:28:LYS:HB3	19:DS:29:ARG:NH1	2.22	0.54
38:CN:96:ARG:HH12	38:CN:117:VAL:HA	1.71	0.54
28:CD:91:VAL:HB	28:CD:95:ILE:HD11	1.89	0.54
1:DA:447:G:C6	1:DA:485:G:H1'	2.42	0.54
29:CE:125:LEU:HB3	29:CE:196:LEU:HD23	1.89	0.54
36:CL:89:ALA:HB1	36:CL:121:LYS:HD3	1.89	0.54
19:AS:40:ILE:HD13	19:AS:62:ILE:HD11	1.88	0.54
1:DA:103(C):G:H2'	1:DA:1033:G:H8	1.72	0.54
40:CP:16:ARG:H	40:CP:79:HIS:HD2	1.56	0.54
25:CA:34:C:O2'	25:CA:35:G:H5'	2.06	0.54
25:BA:2401:U:H2'	25:BA:2402:C:H5''	1.87	0.54
27:CC:8:PRO:HB3	27:CC:14:ARG:HB3	1.89	0.54
16:DP:8:ARG:HB3	16:DP:28:ARG:NH1	2.22	0.54
6:DF:76:ALA:O	6:DF:80:ARG:HG2	2.06	0.54
31:CG:20:ALA:HB1	31:CG:21:PRO:HD2	1.89	0.54
27:CC:79:VAL:HG11	27:CC:111:LEU:HD11	1.89	0.54
41:CQ:90:VAL:HG13	41:CQ:91:ASP:H	1.72	0.54
36:BL:57:THR:HG23	36:BL:59:LEU:HB3	1.90	0.54
1:AA:979:C:H3'	1:AA:980:C:C5'	2.33	0.54
50:BZ:8:LEU:CD1	50:BZ:31:LEU:HD12	2.37	0.54
8:DH:6:ILE:O	8:DH:10:LEU:HG	2.07	0.54
8:AH:6:ILE:O	8:AH:10:LEU:HG	2.08	0.54
19:AS:6:LYS:HD2	19:AS:6:LYS:H	1.72	0.54
19:DS:6:LYS:H	19:DS:6:LYS:HD2	1.71	0.54
41:CQ:28:ARG:HG3	41:CQ:38:THR:OG1	2.07	0.54
1:DA:1298:C:H4'	1:DA:1299:A:O4'	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:629:G:H2'	25:CA:630:G:C8	2.42	0.54
28:BD:31:CYS:HB3	28:BD:49:LEU:HB3	1.90	0.54
25:CA:571:A:C8	25:CA:2030:A:N6	2.76	0.54
22:AV:96:LEU:HD11	22:AV:347:GLN:CB	2.36	0.54
47:CW:32:ARG:N	47:CW:35:ASN:HD21	2.05	0.54
25:BA:443:A:C4	29:BE:45:ARG:NH1	2.76	0.54
4:DD:63:LYS:HD2	4:DD:198:VAL:HG22	1.89	0.54
49:CY:16:LEU:HB3	49:CY:19:VAL:HB	1.89	0.54
16:DP:12:LYS:HG2	16:DP:13:HIS:CD2	2.42	0.54
2:DB:74:LYS:O	2:DB:78:GLN:HG3	2.07	0.54
3:AC:89:GLU:O	3:AC:93:LYS:HB2	2.06	0.54
1:DA:332:G:H2'	1:DA:333:G:H8	1.71	0.54
40:CP:62:THR:HG22	40:CP:75:ILE:HG13	1.89	0.54
8:AH:8:ASP:O	8:AH:12:ARG:HG2	2.07	0.54
1:DA:741:G:H2'	1:DA:742:G:C8	2.41	0.54
2:DB:96:ARG:N	2:DB:96:ARG:HD2	2.22	0.54
55:B5:39:LYS:O	55:B5:43:GLN:HG2	2.06	0.54
1:DA:771:G:H2'	1:DA:772:U:C6	2.43	0.54
39:BO:52:SER:HB2	39:BO:56:LEU:HB2	1.89	0.54
25:CA:996:A:C4'	41:CQ:92:ARG:HH12	2.17	0.54
41:BQ:90:VAL:HG13	41:BQ:91:ASP:H	1.71	0.54
42:BR:6:LYS:O	42:BR:37:VAL:HG21	2.08	0.54
26:BB:95:U:H2'	26:BB:96:G:C8	2.43	0.54
1:AA:976:G:P	14:AN:32:SER:H	2.30	0.54
12:AL:65:VAL:HG12	12:AL:66:THR:H	1.73	0.54
27:BC:144:ALA:HB3	27:BC:192:THR:HG23	1.87	0.54
25:BA:582:G:H2'	25:BA:583:G:H8	1.72	0.54
16:DP:22:THR:HA	16:DP:33:ILE:HG12	1.89	0.54
9:DI:112:LYS:HA	9:DI:119:ALA:HB2	1.89	0.54
25:BA:2476:A:C6	25:BA:2477:C:H5	2.26	0.54
47:BW:32:ARG:N	47:BW:35:ASN:HD21	2.05	0.54
29:BE:34:TRP:HB2	36:BL:10:PRO:O	2.08	0.54
1:DA:437:U:H2'	1:DA:438:G:O4'	2.06	0.54
25:BA:2818:G:O2'	25:BA:2819:G:H5'	2.07	0.54
25:CA:948:G:H21	25:CA:985:C:P	2.31	0.54
27:BC:155:LEU:HD23	27:BC:177:LEU:HD21	1.89	0.54
29:BE:52:LYS:HB3	29:BE:56:GLU:O	2.07	0.54
25:BA:480:A:H2'	25:BA:480:A:N3	2.23	0.54
4:AD:23:GLY:HA3	4:AD:112:VAL:HG22	1.90	0.54
25:BA:1794:U:H2'	25:BA:1795:C:C6	2.42	0.54
38:CN:31:HIS:HB2	38:CN:34:ILE:HD11	1.90	0.54
13:DM:27:LYS:HG3	13:DM:31:LYS:HE3	1.89	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:780:G:H21	25:BA:783:A:H62	1.54	0.54
25:CA:1499:C:H2'	25:CA:1500:G:H8	1.72	0.54
25:BA:999:U:H2'	25:BA:1000:A:H5'	1.90	0.54
45:CU:13:VAL:HG11	45:CU:72:VAL:HB	1.90	0.54
3:AC:58:GLU:HB2	3:AC:65:ALA:HB3	1.89	0.54
12:DL:81:VAL:O	12:DL:82:VAL:HB	2.08	0.54
45:BU:75:ILE:HG12	45:BU:76:CYS:N	2.23	0.54
6:DF:97:PHE:HD2	18:DR:31:LEU:HD21	1.72	0.54
1:AA:1281:U:H5'	1:AA:1282:C:C5	2.40	0.54
25:CA:1257:C:H4'	29:CE:83:PHE:CE2	2.43	0.54
28:BD:91:VAL:HB	28:BD:95:ILE:HD11	1.88	0.54
8:AH:23:SER:HB3	8:AH:62:TYR:HA	1.90	0.54
30:BF:28:VAL:O	30:BF:31:VAL:HG12	2.07	0.54
25:BA:2852:G:H2'	25:BA:2853:C:C6	2.43	0.54
48:BX:83:GLU:HG2	48:BX:84:GLY:H	1.72	0.54
31:BG:20:ALA:HB1	31:BG:21:PRO:HD2	1.90	0.54
25:BA:2320:A:H2'	25:BA:2320:A:N3	2.22	0.54
49:BY:16:LEU:O	49:BY:20:GLU:HB2	2.07	0.54
25:BA:1028:A:N6	25:BA:1125:G:H2'	2.22	0.54
30:BF:143:GLU:CD	30:BF:143:GLU:H	2.10	0.54
36:BL:64:LYS:HB2	55:B5:25:MET:HG3	1.88	0.54
1:DA:976:G:OP1	14:DN:31:ARG:HB2	2.07	0.54
25:BA:2588:G:C2'	25:BA:2589:A:H5'	2.35	0.54
40:CP:32:TYR:O	40:CP:42:ILE:HA	2.08	0.54
25:CA:587:C:N4	36:CL:33:ARG:HG2	2.21	0.54
28:BD:171:GLU:HG2	28:BD:185:LYS:HG2	1.89	0.54
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.88	0.54
25:CA:582:G:H2'	25:CA:583:G:H8	1.72	0.54
25:BA:2633:G:O2'	28:BD:61:ARG:HD3	2.08	0.54
25:BA:2093:G:H2'	25:BA:2094:G:H8	1.71	0.54
48:BX:83:GLU:HG2	48:BX:84:GLY:N	2.22	0.54
7:DG:45:ASP:O	7:DG:49:ILE:HG12	2.07	0.54
26:BB:32:C:H2'	26:BB:33:G:C8	2.43	0.54
4:DD:96:LEU:HD12	4:DD:139:ARG:HD2	1.90	0.54
25:CA:833:U:H1'	36:CL:55:ARG:NH1	2.21	0.54
25:CA:298:G:P	45:CU:85:VAL:HG22	2.48	0.54
8:AH:14:ARG:O	8:AH:18:ARG:HD3	2.07	0.54
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.08	0.54
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.43	0.54
25:CA:1766:U:H2'	25:CA:1767:C:C6	2.43	0.54
35:CK:53:LYS:HD2	35:CK:53:LYS:N	2.22	0.54
1:AA:619:U:C6	4:AD:135:LEU:HD21	2.42	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:459:U:H4'	54:C4:40:TRP:CZ3	2.42	0.54
36:CL:64:LYS:HB2	55:C5:25:MET:HG3	1.88	0.54
1:AA:976:G:H8	1:AA:1358:U:H2'	1.71	0.54
26:CB:95:U:H2'	26:CB:96:G:C8	2.42	0.54
1:DA:976:G:P	14:DN:32:SER:H	2.30	0.54
36:BL:85:LEU:HA	36:BL:88:LEU:HB3	1.90	0.54
16:DP:20:VAL:HG21	16:DP:32:TYR:CG	2.42	0.54
28:BD:78:LEU:C	28:BD:79:ARG:HD2	2.28	0.54
35:CK:119:PRO:HB2	40:CP:68:TYR:CE1	2.41	0.54
22:AV:224:ALA:HB3	22:AV:232:VAL:HG23	1.90	0.54
25:CA:2569:G:H2'	25:CA:2570:G:C5'	2.37	0.54
25:BA:1331:A:O2'	25:BA:1332:G:C8	2.60	0.54
1:DA:253:U:H2'	1:DA:254:G:C8	2.42	0.54
25:CA:1710:C:H2'	25:CA:1711:C:C6	2.43	0.54
4:AD:63:LYS:HD2	4:AD:198:VAL:HG22	1.89	0.54
47:CW:42:GLY:HA2	47:CW:57:PHE:CD2	2.41	0.54
25:BA:729:G:C5	27:BC:208:LYS:HB2	2.43	0.54
32:BH:9:LEU:HB3	32:BH:12:LEU:HD23	1.90	0.54
25:BA:2111:C:H5"	25:BA:2112:G:OP1	2.07	0.54
28:BD:179:GLU:HB3	28:BD:181:LEU:HD23	1.88	0.54
16:AP:8:ARG:HB3	16:AP:28:ARG:NH1	2.22	0.54
1:AA:1338:G:H21	23:AW:41:C:H1'	1.73	0.54
25:BA:833:U:H1'	36:BL:55:ARG:NH1	2.22	0.54
3:AC:18:TRP:CD1	14:AN:54:PRO:HA	2.42	0.54
19:DS:69:HIS:HB3	19:DS:73:GLU:HG3	1.88	0.54
30:CF:28:VAL:O	30:CF:31:VAL:HG12	2.08	0.54
1:DA:976:G:H8	1:DA:1358:U:H2'	1.71	0.54
3:DC:22:TRP:HZ3	3:DC:24:ALA:HB2	1.72	0.54
29:CE:63:LYS:HZ1	29:CE:67:GLN:HG2	1.71	0.54
27:CC:27:THR:HG23	27:CC:27:THR:O	2.08	0.54
25:CA:2320:A:H2'	25:CA:2320:A:N3	2.22	0.54
25:BA:629:G:H2'	25:BA:630:G:C8	2.42	0.54
38:BN:17:ARG:O	38:BN:20:LEU:HB3	2.07	0.54
19:DS:22:LEU:HD13	19:DS:27:GLU:HB2	1.90	0.54
22:AV:92:LEU:HG	22:AV:348:LEU:HD22	1.90	0.54
25:CA:583:G:H2'	25:CA:584:C:C6	2.43	0.54
25:CA:2476:A:C6	25:CA:2477:C:H5	2.25	0.54
28:BD:120:TRP:CD1	28:BD:155:LYS:HB3	2.43	0.54
42:BR:28:GLU:HB2	42:BR:31:ALA:HB2	1.89	0.54
11:DK:59:TYR:O	11:DK:62:GLN:HB3	2.07	0.54
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.07	0.54
48:CX:83:GLU:HG2	48:CX:84:GLY:H	1.72	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:CP:75:ILE:HD12	40:CP:75:ILE:N	2.22	0.54
1:AA:103(C):G:H2'	1:AA:1033:G:H8	1.72	0.54
8:DH:23:SER:HB3	8:DH:62:TYR:HA	1.89	0.54
34:BJ:80:ALA:O	34:BJ:83:ILE:HG13	2.08	0.54
7:DG:88:PRO:HB3	7:DG:145:ALA:HA	1.89	0.54
25:CA:729:G:C5	27:CC:208:LYS:HB2	2.43	0.54
41:BQ:95:LEU:O	41:BQ:98:LEU:HG	2.08	0.54
36:CL:57:THR:C	36:CL:59:LEU:H	2.10	0.54
30:BF:104:GLU:O	30:BF:108:ASN:HB2	2.08	0.54
52:B2:40:LYS:CE	52:B2:46:CYS:HB3	2.36	0.54
50:CZ:8:LEU:CD1	50:CZ:31:LEU:HD12	2.38	0.54
22:DV:212:LEU:HB2	22:DV:214:MET:CE	2.38	0.54
25:BA:2378:A:H2	39:BO:18:ILE:CD1	2.21	0.54
25:BA:2554:U:H2'	25:BA:2555:U:C6	2.43	0.54
10:DJ:32:ALA:H	10:DJ:78:ASN:ND2	2.04	0.54
1:AA:406:G:H2'	1:AA:407:G:C8	2.43	0.54
25:BA:2115:G:H1'	25:BA:2171:A:H61	1.72	0.54
25:BA:1710:C:H2'	25:BA:1711:C:C6	2.43	0.54
29:CE:34:TRP:HB2	36:CL:10:PRO:O	2.08	0.54
25:BA:1190:G:H2'	25:BA:1191:G:H8	1.72	0.54
25:CA:2401:U:C2'	25:CA:2402:C:H5''	2.38	0.54
1:DA:438:G:O2'	1:DA:494:U:O4	2.19	0.54
16:AP:12:LYS:HG2	16:AP:13:HIS:CD2	2.42	0.54
31:CG:24:VAL:HG23	31:CG:37:VAL:HG21	1.90	0.54
48:BX:67:ILE:N	48:BX:68:PRO:HD2	2.23	0.54
29:BE:14:PRO:HD3	29:BE:128:ALA:HB2	1.90	0.54
25:CA:999:U:H2'	25:CA:1000:A:H5'	1.89	0.54
27:CC:231:HIS:CD2	27:CC:249:PRO:HA	2.43	0.54
8:AH:17:THR:C	8:AH:78:GLN:HE22	2.11	0.54
22:DV:7:ARG:HD2	22:DV:353:GLU:HG3	1.90	0.54
3:DC:18:TRP:CD1	14:DN:54:PRO:HA	2.43	0.54
35:BK:53:LYS:N	35:BK:53:LYS:HD2	2.22	0.54
29:BE:50:SER:HA	29:BE:92:PRO:O	2.07	0.54
25:BA:1692:U:H2'	25:BA:1694:C:C5	2.42	0.54
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.42	0.54
53:B3:16:CYS:SG	53:B3:48:VAL:HG23	2.47	0.54
32:BH:92:VAL:HG23	32:BH:96:ASP:HB2	1.89	0.54
14:DN:29:ARG:HG2	14:DN:31:ARG:O	2.08	0.54
25:CA:1813:G:H4'	27:CC:43:ARG:O	2.07	0.54
27:CC:30:GLU:HG3	27:CC:63:ARG:HH21	1.72	0.54
22:AV:112:ARG:NH1	22:AV:157:LYS:HD2	2.23	0.54
25:BA:2013:A:H4'	43:BS:96:ILE:HD12	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:792:A:C4	1:AA:794:A:C6	2.96	0.54
12:DL:74:HIS:CD2	12:DL:76:LEU:H	2.22	0.54
19:AS:22:LEU:HD13	19:AS:27:GLU:HB2	1.90	0.54
7:AG:15:ASP:HA	7:AG:24:THR:HG23	1.90	0.54
26:BB:46:A:HO2'	26:BB:47:C:H6	1.49	0.54
1:AA:253:U:H2'	1:AA:254:G:C8	2.42	0.54
38:BN:84:ALA:HB3	38:BN:85:PRO:HD3	1.90	0.54
19:DS:40:ILE:HD13	19:DS:62:ILE:HD11	1.89	0.54
25:BA:2401:U:C2'	25:BA:2402:C:H5''	2.38	0.54
49:BY:16:LEU:HB3	49:BY:19:VAL:HB	1.89	0.54
5:DE:96:PRO:HA	5:DE:117:ASP:OD2	2.08	0.54
1:DA:523:A:H61	12:DL:91:ASP:CB	2.20	0.54
25:BA:1394:U:H2'	25:BA:1395:A:O4'	2.08	0.54
1:AA:771:G:H2'	1:AA:772:U:C6	2.43	0.54
25:CA:2849:U:H4'	25:CA:2868:A:C2	2.43	0.54
52:C2:18:ALA:O	52:C2:21:SER:HB2	2.08	0.54
26:BB:8:U:H5''	39:BO:15:ARG:NH2	2.22	0.54
22:DV:106:ASP:HA	22:DV:167:ALA:HB3	1.89	0.54
25:BA:2177:C:H2'	25:BA:2178:C:C6	2.43	0.54
25:BA:2459:A:N3	25:BA:2459:A:H2'	2.23	0.54
51:B1:48:ILE:H	51:B1:48:ILE:HD12	1.73	0.54
4:AD:96:LEU:HD12	4:AD:139:ARG:HD2	1.90	0.54
25:BA:1541:U:C3'	25:BA:1542:G:H3'	2.28	0.54
25:BA:275:G:N2	25:BA:276:A:H61	2.06	0.54
25:BA:2389:G:C5'	25:BA:2390:U:H5'	2.31	0.54
32:CH:92:VAL:HA	32:CH:96:ASP:OD2	2.08	0.54
25:CA:827:U:O5'	25:CA:828:U:C5	2.61	0.54
26:CB:81:G:H5'	26:CB:82:G:OP2	2.08	0.54
30:CF:104:GLU:O	30:CF:108:ASN:HB2	2.08	0.54
25:CA:2378:A:H2	39:CO:18:ILE:CD1	2.20	0.54
45:CU:11:ASP:H	45:CU:27:VAL:CG2	2.21	0.54
25:BA:583:G:H2'	25:BA:584:C:C6	2.43	0.54
34:BJ:54:ALA:HA	34:BJ:57:LEU:HB2	1.89	0.54
1:DA:1254:C:OP1	10:DJ:45:ARG:HD3	2.08	0.54
30:BF:172:LEU:O	30:BF:176:LEU:HG	2.08	0.54
1:AA:715:A:H2'	1:AA:716:A:C8	2.43	0.54
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.43	0.54
1:AA:358:U:H6	1:AA:358:U:H5'	1.73	0.54
48:CX:27:GLU:HB2	48:CX:33:LYS:HA	1.90	0.54
25:BA:2105:C:H2'	25:BA:2106:G:C8	2.43	0.54
25:CA:518:G:H2'	25:CA:519:U:C6	2.43	0.54
25:BA:518:G:H2'	25:BA:519:U:C6	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1114:G:H2'	25:CA:1115:G:C8	2.43	0.54
1:AA:559:A:H4'	1:AA:560:U:H3'	1.90	0.54
7:AG:88:PRO:HB3	7:AG:145:ALA:HA	1.89	0.54
25:CA:2818:G:O2'	25:CA:2819:G:H5'	2.08	0.54
25:BA:1197:G:H2'	25:BA:1198:U:H6	1.72	0.54
25:CA:904:C:H2'	25:CA:905:U:C6	2.43	0.54
36:BL:28:GLY:C	36:BL:29:LYS:HD2	2.28	0.54
32:CH:9:LEU:HB3	32:CH:12:LEU:HD23	1.90	0.54
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.90	0.54
25:BA:2795:G:H3'	25:BA:2797:U:H5''	1.90	0.54
25:BA:779:U:OP1	27:BC:49:ILE:HG13	2.08	0.54
25:CA:1292:U:H2'	25:CA:1293:C:C6	2.43	0.54
3:AC:112:SER:O	3:AC:116:VAL:HG23	2.08	0.54
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.08	0.54
25:CA:733:G:C8	25:CA:761:A:N6	2.76	0.54
25:BA:2688:U:C5	25:BA:2720:U:OP2	2.61	0.54
25:CA:275:G:N2	25:CA:276:A:H61	2.06	0.53
25:CA:2588:G:C2'	25:CA:2589:A:H5'	2.37	0.53
25:BA:557:U:H2'	25:BA:558:G:H8	1.73	0.53
36:CL:135:LEU:O	36:CL:139:LYS:HB2	2.08	0.53
5:DE:101:ILE:HD11	5:DE:119:LEU:CD2	2.38	0.53
25:BA:629:G:H2'	25:BA:630:G:H8	1.73	0.53
28:CD:31:CYS:HB3	28:CD:49:LEU:HB3	1.89	0.53
19:AS:29:ARG:HB2	19:AS:48:THR:H	1.73	0.53
35:BK:119:PRO:HB2	40:BP:68:TYR:CE1	2.41	0.53
25:CA:2554:U:H2'	25:CA:2555:U:C6	2.43	0.53
25:BA:322:A:H3'	29:BE:169:ASN:ND2	2.23	0.53
19:DS:5:LEU:HD12	19:DS:8:GLY:O	2.08	0.53
29:BE:125:LEU:HB3	29:BE:196:LEU:CD2	2.37	0.53
1:DA:741:G:H2'	1:DA:742:G:H8	1.72	0.53
3:DC:112:SER:O	3:DC:116:VAL:HG23	2.07	0.53
25:CA:615:G:O2'	25:CA:616:A:H5'	2.08	0.53
1:DA:1348:U:H4'	9:DI:120:ARG:HD2	1.90	0.53
1:DA:164:U:H2'	1:DA:165:C:C6	2.44	0.53
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.43	0.53
7:AG:45:ASP:O	7:AG:49:ILE:HG12	2.07	0.53
51:C1:48:ILE:HD12	51:C1:48:ILE:H	1.72	0.53
29:CE:39:TRP:HD1	29:CE:99:TYR:CE2	2.27	0.53
22:DV:303:ARG:HB3	22:DV:314:ASP:HA	1.89	0.53
45:BU:71:LYS:NZ	45:BU:71:LYS:HB2	2.23	0.53
50:CZ:8:LEU:HD13	50:CZ:31:LEU:HD12	1.91	0.53
37:BM:45:GLN:H	37:BM:45:GLN:CD	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BP:32:TYR:O	40:BP:42:ILE:HA	2.08	0.53
36:CL:85:LEU:HA	36:CL:88:LEU:HB3	1.90	0.53
25:CA:528:A:H2	25:CA:2043:C:H4'	1.71	0.53
1:AA:1253:G:H2'	1:AA:1254:C:C6	2.44	0.53
25:CA:863:A:H2'	25:CA:864:G:H8	1.72	0.53
25:CA:448:U:H1'	29:CE:84:VAL:HG23	1.91	0.53
25:CA:2637:U:H5''	28:CD:82:ARG:NH2	2.23	0.53
25:CA:2341:G:H2'	25:CA:2342:C:C6	2.44	0.53
1:AA:736:C:H2'	1:AA:737:A:C8	2.43	0.53
4:AD:100:ARG:O	4:AD:104:VAL:HG23	2.08	0.53
43:CS:22:ASP:HA	43:CS:25:ARG:NH1	2.24	0.53
25:CA:251:A:C5	25:CA:252:G:H1'	2.43	0.53
40:BP:16:ARG:H	40:BP:79:HIS:HD2	1.56	0.53
8:AH:82:HIS:HD2	8:AH:138:TRP:NE1	2.06	0.53
25:CA:1773:A:H2'	25:CA:1774:C:O4'	2.08	0.53
25:CA:480:A:H2'	25:CA:480:A:N3	2.22	0.53
1:DA:559:A:H4'	1:DA:560:U:H3'	1.90	0.53
8:DH:17:THR:C	8:DH:78:GLN:HE22	2.11	0.53
1:AA:523:A:H61	12:AL:91:ASP:CB	2.20	0.53
25:BA:2540:C:H2'	25:BA:2541:A:O4'	2.06	0.53
25:CA:2177:C:H2'	25:CA:2178:C:C6	2.43	0.53
41:CQ:16:LYS:O	41:CQ:20:LEU:HD23	2.08	0.53
36:BL:36:LYS:HG3	36:BL:41:ARG:HB2	1.89	0.53
55:C5:52:LYS:N	55:C5:53:PRO:HD2	2.24	0.53
27:CC:211:ARG:HG2	27:CC:214:TRP:CZ3	2.43	0.53
28:CD:78:LEU:C	28:CD:79:ARG:HD2	2.29	0.53
19:DS:29:ARG:HB2	19:DS:48:THR:H	1.73	0.53
1:DA:406:G:H2'	1:DA:407:G:C8	2.42	0.53
25:CA:2115:G:H1'	25:CA:2171:A:H61	1.72	0.53
27:CC:146:GLU:HB3	27:CC:189:CYS:HB3	1.90	0.53
25:BA:2637:U:H5''	28:BD:82:ARG:NH2	2.23	0.53
1:AA:1492:A:C2	24:AX:21:G:H5''	2.43	0.53
40:BP:75:ILE:N	40:BP:75:ILE:HD12	2.23	0.53
19:AS:62:ILE:HA	19:AS:66:MET:SD	2.48	0.53
25:CA:1422:G:H4'	25:CA:1493:C:OP1	2.09	0.53
46:BV:8:TYR:HB2	46:BV:38:TYR:CZ	2.44	0.53
27:BC:8:PRO:HB3	27:BC:14:ARG:HB3	1.89	0.53
2:DB:235:SER:O	2:DB:239:VAL:HG23	2.07	0.53
29:CE:52:LYS:HB3	29:CE:56:GLU:O	2.08	0.53
32:CH:90:GLY:O	32:CH:91:SER:HB2	2.08	0.53
11:DK:18:ARG:HB3	11:DK:33:THR:HG23	1.90	0.53
37:CM:83:MET:O	37:CM:83:MET:HG3	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BD:118:LYS:HE2	38:BN:2:ARG:HH12	1.73	0.53
22:AV:303:ARG:HB3	22:AV:314:ASP:HA	1.89	0.53
26:BB:81:G:H5'	26:BB:82:G:OP2	2.08	0.53
36:BL:57:THR:C	36:BL:59:LEU:H	2.10	0.53
1:DA:1316:G:H2'	1:DA:1317:C:H5''	1.91	0.53
25:BA:671:C:H5	36:BL:42:SER:HA	1.72	0.53
1:DA:792:A:C4	1:DA:794:A:C6	2.96	0.53
45:CU:11:ASP:O	45:CU:27:VAL:HG22	2.08	0.53
37:BM:17:LEU:HD21	37:BM:41:TRP:NE1	2.20	0.53
25:CA:278:A:O2'	25:CA:279:C:O4'	2.27	0.53
54:C4:8:ASN:HD22	54:C4:8:ASN:C	2.12	0.53
40:BP:102:ILE:HG13	40:BP:103:ARG:N	2.23	0.53
22:DV:224:ALA:HB3	22:DV:232:VAL:HG23	1.90	0.53
25:BA:161:U:H3'	25:BA:162:U:C5'	2.39	0.53
1:AA:447:G:C6	1:AA:485:G:H1'	2.43	0.53
25:BA:1114:G:H2'	25:BA:1115:G:C8	2.43	0.53
29:BE:125:LEU:HB3	29:BE:196:LEU:HD23	1.90	0.53
25:CA:2813:A:H2'	25:CA:2814:C:C6	2.44	0.53
28:CD:118:LYS:HE2	38:CN:2:ARG:HH12	1.73	0.53
4:DD:100:ARG:O	4:DD:104:VAL:HG23	2.08	0.53
1:DA:1238:A:C8	1:DA:1303:C:H1'	2.43	0.53
1:DA:1333:A:H2'	1:DA:1334:G:O4'	2.09	0.53
27:CC:155:LEU:HD23	27:CC:177:LEU:HD21	1.90	0.53
26:CB:32:C:H2'	26:CB:33:G:C8	2.43	0.53
25:BA:948:G:H21	25:BA:985:C:P	2.31	0.53
26:CB:49:C:OP1	39:CO:97:ARG:HG3	2.09	0.53
4:DD:3:ARG:HD2	4:DD:3:ARG:N	2.24	0.53
25:CA:225:A:O2'	25:CA:257:A:H4'	2.08	0.53
46:CV:8:TYR:HB2	46:CV:38:TYR:CZ	2.44	0.53
25:BA:251:A:C5	25:BA:252:G:H1'	2.43	0.53
45:CU:75:ILE:HG12	45:CU:76:CYS:N	2.23	0.53
25:CA:2013:A:H4'	43:CS:96:ILE:HD12	1.90	0.53
1:DA:675:A:H2'	1:DA:676:A:H8	1.74	0.53
25:CA:2320:A:C8	25:CA:2333:A:N6	2.77	0.53
20:AT:50:GLU:HG3	20:AT:51:GLU:N	2.23	0.53
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.89	0.53
10:AJ:32:ALA:H	10:AJ:78:ASN:ND2	2.05	0.53
35:CK:77:ILE:HD13	35:CK:78:ARG:N	2.23	0.53
25:BA:2341:G:H2'	25:BA:2342:C:C6	2.44	0.53
7:DG:69:VAL:HG22	7:DG:135:VAL:HG22	1.90	0.53
28:CD:120:TRP:CD1	28:CD:155:LYS:HB3	2.43	0.53
25:CA:2056:G:H22	52:C2:4:HIS:HA	1.74	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BM:104:PHE:HE1	37:BM:125:LEU:HD11	1.74	0.53
25:CA:478:A:C6	25:CA:480:A:C6	2.97	0.53
1:DA:1101:A:H4'	1:DA:1102:A:O5'	2.09	0.53
48:CX:67:ILE:N	48:CX:68:PRO:HD2	2.23	0.53
1:AA:1486:G:C6	1:AA:1487:G:C6	2.96	0.53
22:AV:32:GLN:O	22:AV:36:ARG:HG2	2.09	0.53
8:DH:82:HIS:HD2	8:DH:138:TRP:NE1	2.07	0.53
25:CA:1394:U:H2'	25:CA:1395:A:O4'	2.08	0.53
53:B3:30:THR:HG22	53:B3:31:PRO:HD2	1.90	0.53
1:DA:296:U:H2'	1:DA:297:G:C8	2.44	0.53
1:AA:262:A:C6	1:AA:263:A:C6	2.96	0.53
11:AK:18:ARG:HB3	11:AK:33:THR:HG23	1.91	0.53
41:CQ:95:LEU:O	41:CQ:98:LEU:HG	2.08	0.53
25:BA:827:U:O5'	25:BA:828:U:C5	2.62	0.53
14:AN:29:ARG:HG2	14:AN:31:ARG:O	2.08	0.53
45:CU:71:LYS:NZ	45:CU:71:LYS:HB2	2.24	0.53
1:DA:1253:G:H2'	1:DA:1254:C:C6	2.44	0.53
11:DK:21:ILE:HB	11:DK:84:VAL:HG12	1.91	0.53
1:DA:715:A:H2'	1:DA:716:A:C8	2.43	0.53
25:BA:863:A:H2'	25:BA:864:G:H8	1.72	0.53
7:DG:15:ASP:HA	7:DG:24:THR:HG23	1.90	0.53
1:AA:451:A:H2'	1:AA:481:G:O6	2.09	0.53
25:CA:2105:C:H2'	25:CA:2106:G:C8	2.43	0.53
25:CA:443:A:C4	29:CE:45:ARG:NH1	2.76	0.53
25:CA:297:C:H5''	45:CU:85:VAL:HG21	1.89	0.53
1:DA:1142:G:H2'	1:DA:1143:G:O4'	2.08	0.53
25:BA:225:A:O2'	25:BA:257:A:H4'	2.08	0.53
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.44	0.53
1:DA:1486:G:C6	1:DA:1487:G:C6	2.97	0.53
36:CL:28:GLY:C	36:CL:29:LYS:HD2	2.28	0.53
25:CA:2688:U:C5	25:CA:2720:U:OP2	2.61	0.53
25:CA:2698:U:H2'	25:CA:2699:C:C6	2.43	0.53
25:BA:1773:A:H2'	25:BA:1774:C:O4'	2.07	0.53
37:BM:83:MET:O	37:BM:83:MET:HG3	2.09	0.53
27:BC:261:LYS:HB2	27:BC:261:LYS:NZ	2.24	0.53
55:C5:11:LYS:HB2	55:C5:61:LEU:HD22	1.91	0.53
45:BU:59:GLY:C	45:BU:61:ILE:H	2.11	0.53
12:DL:46:LYS:HG2	12:DL:47:PRO:N	2.24	0.53
1:AA:266:G:O2'	17:AQ:67:LYS:HD2	2.09	0.53
36:BL:135:LEU:O	36:BL:139:LYS:HB2	2.08	0.53
32:BH:92:VAL:HA	32:BH:96:ASP:OD2	2.08	0.53
50:BZ:8:LEU:HD13	50:BZ:31:LEU:HD12	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2777:G:H5''	25:BA:2778:A:C5'	2.37	0.53
19:AS:28:LYS:HB3	19:AS:29:ARG:NH1	2.22	0.53
31:CG:140:LYS:O	31:CG:144:VAL:HG23	2.08	0.53
38:BN:17:ARG:HG3	38:BN:18:LEU:N	2.24	0.53
27:BC:146:GLU:HB3	27:BC:189:CYS:HB3	1.91	0.53
43:BS:15:ARG:O	43:BS:19:LEU:HD13	2.08	0.53
32:CH:101:LEU:HG	32:CH:107:ILE:HG23	1.91	0.53
13:AM:84:ILE:HG12	19:AS:66:MET:HE2	1.90	0.53
25:BA:904:C:H2'	25:BA:905:U:C6	2.43	0.53
25:BA:38:A:H2'	25:BA:39:C:C6	2.43	0.53
4:DD:23:GLY:HA3	4:DD:112:VAL:HG22	1.90	0.53
25:CA:2031:A:C6	25:CA:2498:C:H1'	2.43	0.53
25:BA:1486:A:N6	25:BA:1504:C:H42	2.07	0.53
25:CA:1197:G:H2'	25:CA:1198:U:H6	1.73	0.53
11:DK:24:SER:HB3	11:DK:27:ASN:O	2.09	0.53
26:BB:113:C:H2'	26:BB:114:G:C8	2.43	0.53
45:CU:59:GLY:C	45:CU:61:ILE:H	2.12	0.53
1:AA:1151:A:OP1	10:AJ:41:PRO:HA	2.08	0.53
36:CL:50:ARG:HB2	55:C5:60:LEU:HD11	1.91	0.53
25:CA:1678:G:O2'	25:CA:1679:U:C6	2.60	0.53
27:BC:211:ARG:HG2	27:BC:214:TRP:CZ3	2.44	0.53
8:DH:36:LEU:HA	8:DH:39:LEU:HB3	1.90	0.53
41:BQ:28:ARG:HG3	41:BQ:38:THR:OG1	2.07	0.53
40:CP:102:ILE:HG13	40:CP:103:ARG:N	2.23	0.53
48:BX:27:GLU:HB2	48:BX:32:LYS:O	2.09	0.53
35:BK:77:ILE:HD13	35:BK:78:ARG:N	2.24	0.53
25:CA:2452:C:H4'	22:DV:234:THR:HG21	1.90	0.53
25:CA:461:C:H42	25:CA:468:G:H1	1.57	0.53
4:DD:30:LYS:C	4:DD:32:ALA:H	2.12	0.53
19:AS:5:LEU:HD12	19:AS:8:GLY:O	2.08	0.53
25:CA:1309:G:H4'	54:C4:7:PRO:HB2	1.91	0.53
8:DH:89:PRO:HA	8:DH:92:ARG:HH11	1.74	0.53
37:CM:104:PHE:HE1	37:CM:125:LEU:HD11	1.74	0.53
25:BA:1818:U:H2'	27:BC:157:ARG:HG3	1.88	0.53
25:CA:2473:U:H2'	25:CA:2474:C:H5'	1.91	0.53
25:BA:2031:A:C6	25:BA:2498:C:H1'	2.43	0.53
25:CA:1824:G:OP1	27:CC:52:ARG:HD3	2.07	0.53
1:AA:676:A:H1'	11:AK:115:PRO:HB3	1.91	0.53
25:CA:1657:C:H2'	25:CA:1658:C:H6	1.74	0.53
1:AA:1226:C:H2'	13:AM:103:THR:HB	1.91	0.53
27:CC:261:LYS:HB2	27:CC:261:LYS:NZ	2.24	0.53
4:AD:3:ARG:N	4:AD:3:ARG:HD2	2.24	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:37:LYS:C	17:AQ:38:ARG:HD2	2.30	0.53
37:CM:60:ARG:H	46:CV:179:ASP:HB2	1.73	0.53
22:AV:302:ILE:CG2	22:AV:303:ARG:H	2.03	0.53
36:CL:57:THR:HG23	36:CL:59:LEU:HB3	1.89	0.53
44:CT:21:PHE:CD2	44:CT:26:TYR:HD2	2.27	0.53
25:BA:768:G:H2'	25:BA:769:G:H8	1.73	0.53
25:BA:848:G:N3	25:BA:933:A:H1'	2.24	0.53
9:AI:14:VAL:O	9:AI:65:VAL:HG23	2.09	0.53
10:DJ:33:GLN:O	10:DJ:75:ILE:HG12	2.09	0.53
3:DC:58:GLU:HB2	3:DC:65:ALA:HB3	1.89	0.53
27:BC:27:THR:O	27:BC:27:THR:HG23	2.09	0.53
18:DR:39:VAL:HG12	18:DR:43:PHE:HE1	1.74	0.53
25:CA:557:U:H2'	25:CA:558:G:H8	1.72	0.53
36:CL:36:LYS:HG3	36:CL:41:ARG:HB2	1.90	0.53
25:CA:806:C:OP2	36:CL:39:LYS:HD2	2.09	0.53
25:BA:330:A:O2'	25:BA:331:A:H8	1.91	0.53
25:BA:2569:G:H2'	25:BA:2570:G:C5'	2.37	0.53
47:CW:51:VAL:HG21	47:CW:80:HIS:HA	1.91	0.53
25:CA:582:G:H2'	25:CA:583:G:C8	2.44	0.53
44:CT:37:THR:O	44:CT:40:LYS:HB3	2.09	0.53
25:CA:1693:U:H3'	25:CA:1694:C:H5'	1.90	0.53
25:BA:1197:G:H2'	25:BA:1198:U:C6	2.44	0.53
6:DF:9:VAL:HG13	6:DF:59:TYR:O	2.08	0.53
25:BA:2849:U:H4'	25:BA:2868:A:C2	2.43	0.53
1:DA:619:U:C6	4:DD:135:LEU:HD21	2.43	0.53
25:CA:2852:G:H2'	25:CA:2853:C:C6	2.44	0.53
26:BB:49:C:OP1	39:BO:97:ARG:HG3	2.09	0.53
46:BV:152:ALA:HA	46:BV:155:LEU:HG	1.91	0.53
25:BA:2502:G:H5'	25:BA:2503:A:H5''	1.90	0.53
25:CA:923:C:H2'	25:CA:924:C:H6	1.74	0.53
23:AW:37:A:H2'	23:AW:38:A:O4'	2.09	0.53
25:CA:1748:G:H2'	25:CA:1749:A:H8	1.74	0.53
25:BA:1422:G:H4'	25:BA:1493:C:OP1	2.08	0.53
53:C3:30:THR:HG22	53:C3:31:PRO:HD2	1.90	0.53
30:CF:39:ILE:HG23	30:CF:157:ILE:HG22	1.91	0.53
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.09	0.53
25:CA:2246:G:H2'	25:CA:2247:A:H8	1.73	0.53
25:CA:81:G:H21	45:CU:2:ARG:NH2	2.06	0.53
25:CA:1336:A:H2'	25:CA:1337:G:C8	2.44	0.53
21:DU:18:TYR:CG	21:DU:24:ARG:HD3	2.44	0.53
44:BT:39:ILE:O	44:BT:43:VAL:HG12	2.09	0.53
1:DA:1151:A:OP1	10:DJ:41:PRO:HA	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1117:G:H4'	9:AI:104:ARG:NH2	2.17	0.53
27:BC:242:ARG:H	27:BC:242:ARG:CD	2.20	0.53
10:DJ:75:ILE:HG13	10:DJ:76:ASN:N	2.22	0.53
40:BP:48:ILE:HD12	40:BP:48:ILE:N	2.24	0.53
12:AL:81:VAL:O	12:AL:82:VAL:HB	2.07	0.53
27:CC:144:ALA:HB3	27:CC:192:THR:CG2	2.39	0.53
25:CA:1557:C:H5''	25:CA:1558:A:OP2	2.09	0.53
20:AT:48:LYS:HD3	20:AT:51:GLU:OE2	2.09	0.53
38:CN:17:ARG:HG3	38:CN:18:LEU:N	2.24	0.53
25:CA:161:U:H3'	25:CA:162:U:C5'	2.39	0.53
8:DH:64:LYS:HD2	8:DH:79:VAL:HG11	1.91	0.53
38:CN:5:LYS:N	38:CN:5:LYS:HD2	2.24	0.53
25:BA:1105:U:H2'	25:BA:1106:G:H8	1.74	0.53
25:CA:2633:G:O2'	28:CD:61:ARG:HD3	2.08	0.53
36:CL:13:ASN:HD22	36:CL:13:ASN:H	1.57	0.53
1:DA:949:A:OP1	13:DM:101:GLN:HB3	2.09	0.53
25:CA:1766:U:H2'	25:CA:1767:C:H6	1.73	0.53
7:DG:92:SER:O	7:DG:96:GLN:HG3	2.09	0.53
25:CA:2459:A:H2'	25:CA:2459:A:N3	2.23	0.53
27:BC:79:VAL:HG11	27:BC:111:LEU:HD11	1.90	0.53
1:AA:258:G:H2'	1:AA:259:G:H8	1.74	0.53
22:DV:32:GLN:O	22:DV:36:ARG:HG2	2.09	0.53
46:CV:54:HIS:HB3	46:CV:101:PRO:HD3	1.91	0.53
25:BA:615:G:O2'	25:BA:616:A:H5'	2.08	0.53
25:BA:1167:U:H2'	25:BA:1168:G:C8	2.44	0.53
9:AI:19:LEU:HD23	9:AI:20:ARG:H	1.74	0.52
45:BU:13:VAL:HG11	45:BU:72:VAL:HB	1.91	0.52
1:DA:979:C:H42	14:DN:18:VAL:HG12	1.74	0.52
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	2.09	0.52
1:AA:243:A:H4'	1:AA:244:U:O5'	2.09	0.52
45:BU:11:ASP:O	45:BU:27:VAL:HG22	2.09	0.52
1:AA:939:G:H5''	7:AG:102:ARG:NH1	2.22	0.52
25:BA:1257:C:H4'	29:BE:83:PHE:CE2	2.44	0.52
28:CD:51:PHE:HB3	28:CD:52:LEU:HD12	1.91	0.52
30:BF:15:VAL:HG11	30:BF:172:LEU:HD12	1.91	0.52
20:DT:50:GLU:HG3	20:DT:51:GLU:N	2.23	0.52
11:AK:21:ILE:HB	11:AK:84:VAL:HG12	1.91	0.52
48:CX:27:GLU:CB	48:CX:33:LYS:HA	2.39	0.52
25:CA:322:A:H3'	29:CE:169:ASN:ND2	2.23	0.52
25:BA:2813:A:H2'	25:BA:2814:C:C6	2.43	0.52
19:DS:40:ILE:HG21	19:DS:62:ILE:HD11	1.91	0.52
27:BC:231:HIS:CD2	27:BC:249:PRO:HA	2.43	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:1320:C:H2'	1:DA:1321:C:O4'	2.08	0.52
25:BA:733:G:C8	25:BA:761:A:N6	2.77	0.52
52:B2:18:ALA:O	52:B2:21:SER:HB2	2.09	0.52
25:CA:2502:G:H5'	25:CA:2503:A:H5''	1.90	0.52
1:AA:164:U:H2'	1:AA:165:C:C6	2.43	0.52
25:BA:28:A:H1'	25:BA:513:A:C2	2.44	0.52
22:AV:177:VAL:HG22	22:AV:178:HIS:H	1.75	0.52
9:AI:19:LEU:CD2	9:AI:59:PHE:HB3	2.32	0.52
9:DI:19:LEU:CD2	9:DI:59:PHE:HB3	2.32	0.52
4:DD:74:GLN:HA	4:DD:77:ASN:HD22	1.74	0.52
22:DV:18:LEU:HB2	22:DV:34:LEU:CD2	2.38	0.52
45:BU:75:ILE:HG13	45:BU:80:GLY:H	1.75	0.52
36:CL:114:ILE:HD11	36:CL:130:PHE:HD1	1.70	0.52
20:DT:48:LYS:HD3	20:DT:51:GLU:OE2	2.09	0.52
1:DA:1239:A:H4'	1:DA:1240:U:H5'	1.91	0.52
1:AA:363:A:C8	12:AL:32:ARG:NH2	2.78	0.52
25:BA:2632:A:H2'	25:BA:2633:G:H8	1.72	0.52
25:CA:2431:U:C6	25:CA:2433:A:OP2	2.63	0.52
1:DA:736:C:H2'	1:DA:737:A:C8	2.43	0.52
7:AG:69:VAL:HG22	7:AG:135:VAL:HG22	1.90	0.52
8:AH:89:PRO:HA	8:AH:92:ARG:HH11	1.74	0.52
25:CA:579:G:H2'	25:CA:580:C:C6	2.44	0.52
1:AA:1429:C:H2'	1:AA:1430:C:H6	1.74	0.52
7:AG:92:SER:O	7:AG:96:GLN:HG3	2.10	0.52
25:BA:923:C:H2'	25:BA:924:C:H6	1.74	0.52
3:AC:8:ILE:CD1	3:AC:16:ARG:HH21	2.22	0.52
1:DA:269:C:H2'	1:DA:270:A:C8	2.44	0.52
25:BA:1766:U:H2'	25:BA:1767:C:H6	1.75	0.52
10:DJ:24:VAL:HG21	10:DJ:37:PRO:HD3	1.91	0.52
1:AA:667:G:H4'	15:AO:51:HIS:CE1	2.45	0.52
32:BH:90:GLY:O	32:BH:91:SER:HB2	2.08	0.52
38:BN:31:HIS:HB2	38:BN:34:ILE:HD11	1.90	0.52
25:CA:2795:G:H3'	25:CA:2797:U:H5''	1.90	0.52
22:AV:13:ARG:N	22:AV:13:ARG:HD2	2.25	0.52
42:CR:6:LYS:O	42:CR:37:VAL:HG21	2.08	0.52
25:BA:2246:G:H2'	25:BA:2247:A:H8	1.74	0.52
44:CT:39:ILE:O	44:CT:43:VAL:HG12	2.08	0.52
31:BG:27:LYS:HG2	31:BG:32:GLU:HB2	1.89	0.52
1:DA:1116:C:H2'	1:DA:1117:G:O4'	2.10	0.52
1:AA:979:C:H42	14:AN:18:VAL:HG12	1.74	0.52
48:CX:11:ARG:HG3	48:CX:62:VAL:CA	2.39	0.52
9:DI:14:VAL:O	9:DI:65:VAL:HG23	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1826:G:H4'	27:CC:242:ARG:HE	1.74	0.52
45:BU:76:CYS:HB3	45:BU:77:PRO:CD	2.36	0.52
18:AR:39:VAL:HG12	18:AR:43:PHE:HE1	1.74	0.52
27:CC:34:VAL:O	27:CC:35:LYS:HD3	2.09	0.52
15:DO:48:LYS:HE2	15:DO:48:LYS:HA	1.91	0.52
15:AO:48:LYS:HE2	15:AO:48:LYS:HA	1.91	0.52
25:CA:774:A:HO2'	25:CA:775:G:H8	1.55	0.52
25:CA:2535:G:H2'	25:CA:2536:G:H8	1.74	0.52
25:BA:478:A:C6	25:BA:480:A:C6	2.98	0.52
25:BA:2320:A:C8	25:BA:2333:A:N6	2.77	0.52
25:BA:1693:U:H3'	25:BA:1694:C:H5'	1.90	0.52
1:DA:1226:C:H2'	13:DM:103:THR:HB	1.91	0.52
25:CA:1167:U:H2'	25:CA:1168:G:C8	2.44	0.52
28:BD:104:VAL:HG22	28:BD:198:VAL:HG22	1.92	0.52
25:CA:28:A:H1'	25:CA:513:A:C2	2.44	0.52
1:DA:667:G:H4'	15:DO:51:HIS:ND1	2.24	0.52
1:DA:376:G:OP2	16:DP:67:THR:HG21	2.09	0.52
1:DA:7:G:H5'	1:DA:298:A:O4'	2.09	0.52
5:AE:127:ASN:O	5:AE:131:ILE:HG12	2.09	0.52
25:CA:974(A):G:O2'	25:CA:975:G:N7	2.38	0.52
23:DW:37:A:H2'	23:DW:38:A:O4'	2.09	0.52
9:DI:19:LEU:HD23	9:DI:20:ARG:H	1.74	0.52
25:BA:2282:G:H1	25:BA:2427:C:H42	1.57	0.52
25:CA:2282:G:H1	25:CA:2427:C:H42	1.58	0.52
1:DA:728:A:C6	15:DO:54:ARG:HG3	2.44	0.52
1:AA:1371:G:O3'	9:AI:69:GLY:HA3	2.10	0.52
25:BA:1557:C:H5''	25:BA:1558:A:OP2	2.09	0.52
25:CA:2335:A:H8	39:CO:13:ARG:NH2	2.04	0.52
25:BA:1295:C:H2'	25:BA:1296:G:H8	1.74	0.52
41:BQ:50:ARG:NH2	42:BR:72:VAL:HG12	2.24	0.52
1:AA:357:G:C2'	1:AA:358:U:H5''	2.39	0.52
48:CX:27:GLU:HB2	48:CX:32:LYS:O	2.09	0.52
40:CP:128:GLU:O	40:CP:132:LYS:HG3	2.10	0.52
32:BH:101:LEU:HG	32:BH:107:ILE:HG23	1.90	0.52
1:DA:667:G:H4'	15:DO:51:HIS:CE1	2.44	0.52
1:DA:102(B):C:H2'	1:DA:102(C):C:C6	2.45	0.52
1:AA:296:U:H2'	1:AA:297:G:C8	2.45	0.52
46:CV:136:PHE:C	46:CV:137:ILE:HD12	2.30	0.52
31:BG:24:VAL:HG23	31:BG:37:VAL:HG21	1.91	0.52
37:BM:60:ARG:H	46:BV:179:ASP:HB2	1.74	0.52
1:AA:89:U:H2'	1:AA:90:C:C6	2.44	0.52
25:BA:1665:A:H5''	35:BK:66:LYS:HG3	1.90	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:DR:58:LEU:HB3	18:DR:62:GLU:HB2	1.92	0.52
5:AE:96:PRO:HA	5:AE:117:ASP:OD2	2.09	0.52
42:CR:12:TYR:OH	42:CR:22:VAL:HG13	2.10	0.52
21:AU:18:TYR:CG	21:AU:24:ARG:HD3	2.44	0.52
46:CV:97:GLU:HB3	46:CV:125:LEU:CD2	2.35	0.52
25:BA:1337:G:H2'	25:BA:1338:G:C8	2.45	0.52
22:DV:293:ILE:HD11	22:DV:297:GLU:CG	2.38	0.52
22:AV:289:ARG:HH12	25:BA:1915:U:H4'	1.74	0.52
25:BA:582:G:H2'	25:BA:583:G:C8	2.44	0.52
1:AA:1227:A:OP2	13:AM:111:LYS:HE3	2.09	0.52
1:AA:1239:A:H4'	1:AA:1240:U:H5'	1.91	0.52
1:DA:356:A:H1'	1:DA:368:U:HO2'	1.74	0.52
22:AV:9:GLU:O	22:AV:12:TYR:HB2	2.10	0.52
25:BA:2056:G:H22	52:B2:4:HIS:HA	1.75	0.52
19:AS:40:ILE:HG21	19:AS:62:ILE:HD11	1.91	0.52
8:AH:82:HIS:HD2	8:AH:138:TRP:HE1	1.57	0.52
25:BA:1083:U:H2'	25:BA:1085:A:OP2	2.10	0.52
3:DC:120:VAL:HG21	3:DC:137:ALA:HB2	1.92	0.52
1:DA:262:A:C6	1:DA:263:A:C6	2.97	0.52
25:CA:1486:A:N6	25:CA:1504:C:H42	2.07	0.52
29:BE:39:TRP:HD1	29:BE:99:TYR:CE2	2.28	0.52
42:BR:12:TYR:OH	42:BR:22:VAL:HG13	2.09	0.52
25:CA:1337:G:H2'	25:CA:1338:G:C8	2.45	0.52
22:AV:112:ARG:HH22	22:AV:289:ARG:HH21	1.57	0.52
52:C2:33:CYS:HB2	52:C2:34:PRO:HD2	1.92	0.52
25:CA:848:G:N3	25:CA:933:A:H1'	2.24	0.52
9:AI:10:ARG:HH21	9:AI:107:ARG:HB2	1.74	0.52
45:BU:11:ASP:H	45:BU:27:VAL:CG2	2.22	0.52
25:CA:814:C:H41	36:CL:27:HIS:CD2	2.27	0.52
1:AA:1254:C:OP1	10:AJ:45:ARG:HD3	2.09	0.52
53:B3:11:LEU:HD13	53:B3:12:GLU:H	1.74	0.52
25:BA:2432:A:N3	25:BA:2432:A:H2'	2.25	0.52
29:CE:182:ASN:O	29:CE:186:ILE:HG12	2.10	0.52
37:CM:52:VAL:O	37:CM:56:ARG:HB2	2.10	0.52
25:BA:2535:G:H2'	25:BA:2536:G:H8	1.73	0.52
1:AA:474:G:H2'	1:AA:475:G:H8	1.75	0.52
48:BX:21:ARG:HH21	48:BX:39:LYS:HE3	1.75	0.52
5:AE:47:LYS:N	5:AE:47:LYS:HD3	2.25	0.52
50:BZ:15:TYR:O	50:BZ:20:LYS:HE2	2.08	0.52
22:DV:13:ARG:HD2	22:DV:13:ARG:N	2.25	0.52
1:DA:1496:C:H2'	1:DA:1497:G:O4'	2.10	0.52
1:AA:269:C:H2'	1:AA:270:A:C8	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.10	0.52
36:CL:146:VAL:HG22	36:CL:147:LEU:N	2.24	0.52
42:CR:38:LEU:HD23	42:CR:39:LEU:N	2.25	0.52
17:AQ:80:GLY:O	17:AQ:81:ARG:HG2	2.10	0.52
17:DQ:80:GLY:O	17:DQ:81:ARG:HG2	2.10	0.52
1:AA:1116:C:H2'	1:AA:1117:G:O4'	2.10	0.52
27:BC:129:ASN:O	27:BC:193:VAL:HG12	2.10	0.52
25:BA:814:C:H41	36:BL:27:HIS:CD2	2.26	0.52
25:BA:278:A:O2'	25:BA:279:C:O4'	2.27	0.52
54:C4:8:ASN:HD22	54:C4:11:LYS:H	1.57	0.52
25:CA:2580:U:H5'	28:CD:131:ALA:H	1.74	0.52
1:DA:363:A:C8	12:DL:32:ARG:NH2	2.78	0.52
25:CA:1332:G:H21	25:CA:1610:A:H8	1.54	0.52
1:DA:451:A:H2'	1:DA:481:G:O6	2.09	0.52
30:CF:77:ILE:HB	30:CF:82:LEU:HB2	1.91	0.52
22:DV:9:GLU:O	22:DV:12:TYR:HB2	2.10	0.52
25:CA:25:U:H2'	25:CA:26:G:O4'	2.10	0.52
25:BA:443:A:C6	29:BE:45:ARG:HD2	2.45	0.52
25:CA:2562:U:H1'	35:CK:23:ARG:HH12	1.74	0.52
1:AA:949:A:OP1	13:AM:101:GLN:HB3	2.10	0.52
1:DA:1429:C:H2'	1:DA:1430:C:H6	1.73	0.52
17:AQ:82:MET:O	17:AQ:86:GLU:HG2	2.09	0.52
20:DT:41:VAL:HG13	20:DT:91:LEU:HD11	1.92	0.52
1:AA:662:G:H2'	1:AA:663:A:C8	2.45	0.52
43:BS:4:LYS:HG2	43:BS:106:ILE:HG22	1.92	0.52
30:BF:39:ILE:HG23	30:BF:157:ILE:HG22	1.91	0.52
25:CA:836:G:H2'	25:CA:837:C:C6	2.45	0.52
55:B5:11:LYS:HB2	55:B5:61:LEU:HD22	1.91	0.52
1:DA:927:G:H1	1:DA:1390:U:H3	1.58	0.52
26:CB:113:C:H2'	26:CB:114:G:C8	2.44	0.52
8:AH:80:ILE:HD12	8:AH:80:ILE:N	2.25	0.52
25:CA:1695:G:N2	25:CA:1696:G:C8	2.78	0.52
17:AQ:81:ARG:HA	17:AQ:81:ARG:HE	1.75	0.52
25:CA:2210:G:H21	25:CA:2211:G:C5'	2.17	0.52
5:DE:91:LEU:N	5:DE:91:LEU:HD12	2.25	0.52
25:CA:629:G:H2'	25:CA:630:G:H8	1.74	0.52
54:B4:24:THR:HG23	54:B4:27:GLY:N	2.25	0.52
1:AA:1228:C:H4'	13:AM:116:THR:O	2.10	0.52
35:BK:71:ARG:HH12	40:BP:74:ARG:HH22	1.57	0.52
53:C3:11:LEU:HD13	53:C3:12:GLU:H	1.74	0.52
21:DU:9:ARG:O	21:DU:13:ILE:HD13	2.10	0.52
37:BM:52:VAL:O	37:BM:56:ARG:HB2	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:1510:U:H2'	1:DA:1511:G:C8	2.45	0.52
43:CS:1:MET:HA	43:CS:1:MET:HE3	1.91	0.52
20:AT:72:LEU:HD23	20:AT:73:HIS:N	2.25	0.52
1:DA:1320:C:N4	19:DS:36:ARG:HG3	2.25	0.52
47:CW:53:MET:HA	47:CW:58:THR:O	2.10	0.52
25:BA:725:G:C6	25:BA:726:G:N1	2.77	0.52
19:AS:51:VAL:O	19:AS:58:VAL:HG22	2.10	0.52
20:AT:41:VAL:HG13	20:AT:91:LEU:HD11	1.92	0.52
25:CA:725:G:C6	25:CA:726:G:N1	2.78	0.52
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.10	0.52
25:CA:648:G:C4'	25:CA:2351:G:H5''	2.40	0.52
27:CC:238:GLY:O	27:CC:239:ARG:C	2.47	0.52
4:AD:116:GLN:O	4:AD:119:GLN:HB3	2.09	0.52
25:CA:12:U:H6	25:CA:12:U:O5'	1.93	0.52
17:AQ:21:VAL:HG11	17:AQ:59:ILE:HD11	1.91	0.52
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HD3	1.91	0.52
11:AK:92:GLU:O	11:AK:96:ARG:HG2	2.10	0.52
25:BA:1437:C:H2'	25:BA:1438:U:C6	2.45	0.52
30:BF:7:LEU:HA	30:BF:10:LYS:HD2	1.92	0.52
9:DI:10:ARG:HH21	9:DI:107:ARG:HB2	1.75	0.52
1:DA:1371:G:O3'	9:DI:69:GLY:HA3	2.10	0.52
25:BA:448:U:H1'	29:BE:84:VAL:HG23	1.90	0.52
48:BX:27:GLU:CB	48:BX:33:LYS:HA	2.40	0.52
25:CA:2293:C:H4'	39:CO:93:LYS:HZ2	1.75	0.52
25:BA:2807:G:H3'	25:BA:2808:U:H5''	1.92	0.52
43:CS:15:ARG:O	43:CS:19:LEU:HD13	2.08	0.52
30:BF:77:ILE:HB	30:BF:82:LEU:HB2	1.91	0.52
25:BA:2562:U:H1'	35:BK:23:ARG:HH12	1.75	0.52
43:BS:22:ASP:HA	43:BS:25:ARG:NH1	2.25	0.52
38:CN:84:ALA:HB3	38:CN:85:PRO:HD3	1.91	0.52
19:DS:63:THR:HG22	19:DS:66:MET:HG2	1.91	0.52
17:DQ:82:MET:O	17:DQ:86:GLU:HG2	2.09	0.52
1:AA:675:A:H2'	1:AA:676:A:H8	1.73	0.52
50:CZ:26:LEU:HB2	50:CZ:28:LEU:HD13	1.92	0.52
1:AA:7:G:H5'	1:AA:298:A:O4'	2.10	0.52
29:CE:14:PRO:HD3	29:CE:128:ALA:HB2	1.90	0.52
1:DA:992:U:O2'	1:DA:993:G:H5''	2.10	0.52
6:AF:9:VAL:HG13	6:AF:59:TYR:O	2.10	0.52
25:BA:774:A:H2	25:BA:787:U:HO2'	1.53	0.52
25:BA:2346:A:C2	25:BA:2383:G:C2	2.98	0.52
47:BW:53:MET:HA	47:BW:58:THR:O	2.10	0.52
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.75	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1286:A:H8	21:AU:22:ARG:HH21	1.58	0.52
27:BC:131:LEU:CD1	27:BC:136:ILE:HG12	2.39	0.52
45:CU:8:LYS:H	45:CU:8:LYS:NZ	2.07	0.52
25:BA:1337:G:H2'	25:BA:1338:G:O4'	2.10	0.52
36:CL:50:ARG:CB	55:C5:60:LEU:HD11	2.40	0.52
27:BC:118:VAL:HG22	27:BC:119:ALA:N	2.22	0.52
25:BA:1678:G:O2'	25:BA:1679:U:H6	1.93	0.52
40:CP:48:ILE:N	40:CP:48:ILE:HD12	2.25	0.52
39:CO:26:LEU:HG	39:CO:39:ILE:HD13	1.92	0.52
1:DA:243:A:H4'	1:DA:244:U:O5'	2.10	0.52
45:BU:45:VAL:HA	45:BU:62:GLU:HA	1.92	0.52
1:DA:676:A:H1'	11:DK:115:PRO:HB3	1.91	0.52
36:CL:114:ILE:HD12	36:CL:114:ILE:O	2.10	0.52
25:CA:2777:G:H5''	25:CA:2778:A:C5'	2.37	0.52
30:CF:172:LEU:O	30:CF:176:LEU:HG	2.09	0.52
41:CQ:50:ARG:NH2	42:CR:72:VAL:HG12	2.23	0.52
1:AA:176:C:H5''	20:AT:29:LYS:HZ1	1.73	0.52
38:BN:5:LYS:N	38:BN:5:LYS:HD2	2.25	0.52
17:DQ:76:LEU:HD12	17:DQ:77:VAL:H	1.73	0.52
32:CH:109:ILE:HD13	32:CH:109:ILE:N	2.25	0.52
25:CA:443:A:C6	29:CE:45:ARG:HD2	2.45	0.52
19:AS:63:THR:HG22	19:AS:66:MET:HG2	1.92	0.52
1:AA:376:G:OP2	16:AP:67:THR:HG21	2.10	0.52
27:BC:10:THR:HG23	27:BC:13:ARG:CB	2.40	0.52
25:BA:685:A:H5''	25:BA:788:A:H62	1.75	0.52
22:AV:56:GLU:O	22:AV:60:GLN:HB2	2.10	0.52
17:AQ:40:LYS:HG2	17:AQ:41:LYS:N	2.25	0.52
48:CX:21:ARG:HH21	48:CX:39:LYS:HE3	1.75	0.52
41:CQ:92:ARG:CD	41:CQ:94:ASN:HB3	2.40	0.51
25:CA:1337:G:H2'	25:CA:1338:G:O4'	2.10	0.51
25:BA:81:G:H21	45:BU:2:ARG:NH2	2.08	0.51
25:BA:1337:G:H2'	25:BA:1338:G:H8	1.75	0.51
55:B5:52:LYS:N	55:B5:53:PRO:HD2	2.24	0.51
55:C5:53:PRO:HB2	55:C5:57:ARG:NH2	2.25	0.51
3:AC:22:TRP:HZ3	3:AC:24:ALA:HB2	1.72	0.51
25:CA:1678:G:O2'	25:CA:1679:U:H6	1.93	0.51
27:BC:144:ALA:HB3	27:BC:192:THR:CG2	2.39	0.51
30:CF:15:VAL:HG11	30:CF:172:LEU:HD12	1.92	0.51
48:BX:27:GLU:HB2	48:BX:33:LYS:HA	1.91	0.51
1:DA:1095:U:H5'	1:DA:1109:C:O2	2.11	0.51
25:BA:2431:U:C6	25:BA:2433:A:OP2	2.63	0.51
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.74	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:DD:173:TRP:CD1	4:DD:189:PRO:HG3	2.45	0.51
36:BL:13:ASN:HD22	36:BL:13:ASN:H	1.57	0.51
20:DT:72:LEU:HD23	20:DT:73:HIS:N	2.25	0.51
25:CA:1197:G:H2'	25:CA:1198:U:C6	2.44	0.51
1:AA:667:G:H4'	15:AO:51:HIS:ND1	2.25	0.51
5:DE:47:LYS:HD3	5:DE:47:LYS:N	2.25	0.51
22:DV:56:GLU:O	22:DV:60:GLN:HB2	2.10	0.51
29:BE:51:THR:OG1	29:BE:88:VAL:HG11	2.10	0.51
4:DD:118:ARG:O	4:DD:122:ARG:HB2	2.10	0.51
25:CA:1665:A:H5''	35:CK:66:LYS:HG3	1.90	0.51
25:BA:1655:A:H4'	28:BD:115:GLY:N	2.25	0.51
25:BA:648:G:C4'	25:BA:2351:G:H5''	2.40	0.51
1:AA:1236:A:O2'	1:AA:1304:G:H4'	2.10	0.51
1:AA:542:G:H5'	4:AD:41:GLY:CA	2.40	0.51
5:DE:149:GLU:O	5:DE:153:LYS:HB2	2.10	0.51
25:BA:1404:C:O2'	25:BA:1405:U:H5'	2.10	0.51
8:DH:80:ILE:N	8:DH:80:ILE:HD12	2.24	0.51
18:AR:54:ARG:HD2	18:AR:54:ARG:N	2.26	0.51
48:CX:37:ILE:CG2	48:CX:38:SER:N	2.73	0.51
50:CZ:15:TYR:O	50:CZ:20:LYS:HE2	2.09	0.51
27:CC:131:LEU:CD1	27:CC:136:ILE:HG12	2.40	0.51
44:BT:21:PHE:CD2	44:BT:26:TYR:HD2	2.28	0.51
10:DJ:40:LEU:HB3	10:DJ:41:PRO:HD2	1.92	0.51
1:AA:728:A:C6	15:AO:54:ARG:HG3	2.45	0.51
27:BC:34:VAL:O	27:BC:35:LYS:HD3	2.10	0.51
27:BC:105:ILE:HG12	27:BC:106:ILE:HD12	1.92	0.51
30:CF:116:ASP:OD2	13:DM:68:GLY:HA3	2.11	0.51
40:CP:31:SER:HB2	40:CP:85:LYS:H	1.76	0.51
49:BY:2:LYS:CD	49:BY:2:LYS:H	2.23	0.51
1:DA:687:A:H1'	1:DA:688:G:OP2	2.09	0.51
3:DC:10:PHE:HD2	3:DC:11:ARG:NH1	2.08	0.51
25:BA:1388:G:H2'	25:BA:1389:G:C8	2.44	0.51
22:AV:97:LEU:HD13	22:AV:102:MET:SD	2.50	0.51
25:CA:583:G:OP2	41:CQ:10:ARG:HD2	2.09	0.51
1:AA:601:C:H2'	1:AA:602:A:H8	1.75	0.51
4:AD:30:LYS:C	4:AD:32:ALA:H	2.12	0.51
10:DJ:6:ILE:HG22	10:DJ:98:ILE:HG23	1.92	0.51
41:CQ:8:VAL:HG12	41:CQ:12:ARG:HG3	1.92	0.51
27:CC:231:HIS:CG	27:CC:232:PRO:HD2	2.45	0.51
43:CS:4:LYS:HG2	43:CS:106:ILE:HG22	1.92	0.51
13:DM:23:TYR:HE1	13:DM:70:LEU:HD22	1.75	0.51
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.09	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:CV:152:ALA:HA	46:CV:155:LEU:HG	1.91	0.51
1:AA:867:G:H2'	1:AA:868:C:C6	2.45	0.51
29:BE:9:ILE:H	29:BE:9:ILE:HD13	1.75	0.51
25:CA:1404:C:O2'	25:CA:1405:U:H5'	2.10	0.51
25:CA:1899:G:N2	25:CA:1902:C:N4	2.52	0.51
25:BA:835:A:OP1	55:B5:52:LYS:HG2	2.10	0.51
55:C5:57:ARG:HH11	55:C5:57:ARG:HB2	1.76	0.51
13:AM:34:LEU:HD22	13:AM:39:ILE:HB	1.93	0.51
1:AA:687:A:H1'	1:AA:688:G:OP2	2.10	0.51
49:CY:2:LYS:H	49:CY:2:LYS:CD	2.23	0.51
46:BV:71:VAL:HG22	46:BV:88:PHE:CE2	2.45	0.51
46:CV:71:VAL:HG22	46:CV:88:PHE:CE2	2.46	0.51
40:BP:128:GLU:O	40:BP:132:LYS:HG3	2.10	0.51
12:AL:52:ARG:HD2	12:AL:52:ARG:N	2.26	0.51
45:CU:20:TYR:CE1	45:CU:42:VAL:HA	2.45	0.51
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.93	0.51
25:BA:2473:U:H2'	25:BA:2474:C:H5'	1.91	0.51
2:DB:131:PRO:O	2:DB:135:GLN:HG3	2.10	0.51
1:DA:1338:G:H21	23:DW:41:C:H1'	1.75	0.51
1:AA:102(B):C:H2'	1:AA:102(C):C:C6	2.44	0.51
1:DA:662:G:H2'	1:DA:663:A:C8	2.44	0.51
44:BT:30:VAL:HG12	44:BT:31:HIS:N	2.25	0.51
1:DA:258:G:H2'	1:DA:259:G:H8	1.75	0.51
25:CA:1647:G:H3'	25:CA:1647:G:OP2	2.10	0.51
25:CA:185:U:H4'	25:CA:218:A:H4'	1.92	0.51
1:DA:542:G:H5'	4:DD:41:GLY:CA	2.40	0.51
25:BA:2150:U:H2'	25:BA:2151:G:C8	2.46	0.51
25:BA:12:U:O5'	25:BA:12:U:H6	1.93	0.51
29:CE:9:ILE:H	29:CE:9:ILE:HD13	1.75	0.51
8:AH:36:LEU:HA	8:AH:39:LEU:HB3	1.91	0.51
1:DA:89:U:H2'	1:DA:90:C:C6	2.45	0.51
1:DA:90:C:H2'	1:DA:91:C:C6	2.46	0.51
3:DC:8:ILE:CD1	3:DC:16:ARG:HH21	2.23	0.51
1:DA:1286:A:H8	21:DU:22:ARG:HH21	1.58	0.51
14:DN:24:CYS:HB3	14:DN:29:ARG:N	2.24	0.51
22:AV:285:LEU:CD2	22:AV:289:ARG:HD2	2.41	0.51
22:AV:198:THR:HB	22:AV:293:ILE:CD1	2.40	0.51
22:AV:18:LEU:HB2	22:AV:34:LEU:CD2	2.38	0.51
30:CF:60:LEU:HD11	30:CF:92:VAL:CG1	2.38	0.51
26:CB:46:A:O2'	26:CB:47:C:H6	1.93	0.51
10:DJ:8:LEU:HG	10:DJ:96:ILE:HG22	1.92	0.51
34:BJ:90:LEU:O	34:BJ:111:GLU:HG3	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:939:G:H5''	7:DG:102:ARG:NH1	2.22	0.51
5:AE:101:ILE:HD11	5:AE:119:LEU:CD2	2.38	0.51
25:BA:2580:U:H5'	28:BD:131:ALA:H	1.75	0.51
31:BG:140:LYS:O	31:BG:144:VAL:HG23	2.09	0.51
29:BE:182:ASN:O	29:BE:186:ILE:HG12	2.11	0.51
25:CA:1510:A:H2'	25:CA:1511:A:C8	2.46	0.51
25:CA:1703:G:H2'	25:CA:1704:G:H8	1.75	0.51
11:AK:120:ARG:HH21	11:AK:126:ARG:HE	1.58	0.51
25:BA:1766:U:H2'	25:BA:1767:C:C6	2.43	0.51
25:CA:1405:U:H2'	25:CA:1406:U:H6	1.74	0.51
25:CA:2732:G:H3'	25:CA:2733:A:O4'	2.10	0.51
1:DA:1236:A:O2'	1:DA:1304:G:H4'	2.10	0.51
17:DQ:37:LYS:C	17:DQ:38:ARG:HD2	2.30	0.51
25:BA:2783:G:H2'	25:BA:2784:C:C6	2.46	0.51
2:DB:8:LYS:HA	2:DB:217:ARG:HH12	1.75	0.51
1:DA:370:C:H2'	1:DA:371:G:C8	2.45	0.51
25:BA:2732:G:H3'	25:BA:2733:A:O4'	2.10	0.51
1:DA:867:G:H2'	1:DA:868:C:C6	2.45	0.51
2:DB:113:HIS:O	2:DB:116:GLU:HG2	2.11	0.51
25:BA:142:G:H2'	25:BA:143:C:C6	2.46	0.51
44:CT:26:TYR:O	44:CT:81:VAL:HG22	2.11	0.51
1:DA:1117:G:N2	1:DA:1180:A:H1'	2.26	0.51
30:CF:5:LEU:HD12	30:CF:101:ILE:HG22	1.93	0.51
4:AD:74:GLN:HA	4:AD:77:ASN:HD22	1.74	0.51
51:C1:60:GLU:HB2	13:DM:57:ARG:HH12	1.75	0.51
46:CV:10:ARG:HH21	46:CV:26:GLY:H	1.58	0.51
29:CE:63:LYS:HA	29:CE:76:GLY:O	2.09	0.51
34:BJ:157:ARG:N	34:BJ:158:PRO:CD	2.73	0.51
25:CA:1295:C:H2'	25:CA:1296:G:H8	1.75	0.51
22:AV:224:ALA:HA	22:AV:238:ALA:HB2	1.93	0.51
25:BA:1187:G:O5'	25:BA:1187:G:H8	1.93	0.51
47:BW:51:VAL:HG21	47:BW:80:HIS:HA	1.91	0.51
25:CA:1607:C:C4'	25:CA:1608:A:H5'	2.41	0.51
21:AU:9:ARG:O	21:AU:13:ILE:HD13	2.10	0.51
4:AD:185:PHE:HZ	4:AD:189:PRO:HD3	1.76	0.51
1:DA:1053:G:N7	1:DA:1199:U:H3'	2.26	0.51
25:BA:579:G:H2'	25:BA:580:C:C6	2.46	0.51
10:AJ:38:ILE:HB	10:AJ:71:LEU:HB3	1.92	0.51
1:AA:370:C:H2'	1:AA:371:G:C8	2.45	0.51
12:AL:85:ARG:HH21	12:AL:98:HIS:CG	2.29	0.51
18:AR:58:LEU:HB3	18:AR:62:GLU:HB2	1.91	0.51
25:CA:2150:U:H2'	25:CA:2151:G:C8	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1748:G:H2'	25:BA:1749:A:C8	2.45	0.51
48:BX:37:ILE:CG2	48:BX:38:SER:N	2.73	0.51
1:DA:1453:G:H8	20:DT:58:LYS:HZ3	1.58	0.51
1:DA:554:C:H2'	1:DA:555:C:C6	2.46	0.51
41:BQ:16:LYS:O	41:BQ:20:LEU:HD23	2.09	0.51
43:CS:88:ARG:HB3	43:CS:92:ARG:HB2	1.92	0.51
29:CE:51:THR:OG1	29:CE:88:VAL:HG11	2.09	0.51
9:AI:4:TYR:CE2	9:AI:88:TYR:HB2	2.46	0.51
10:AJ:40:LEU:HB3	10:AJ:41:PRO:HD2	1.92	0.51
46:BV:10:ARG:HH21	46:BV:26:GLY:H	1.59	0.51
1:DA:1227:A:OP2	13:DM:111:LYS:HE3	2.10	0.51
5:AE:91:LEU:N	5:AE:91:LEU:HD12	2.25	0.51
28:CD:49:LEU:O	28:CD:78:LEU:HA	2.10	0.51
25:BA:1615:C:O2'	25:BA:1616:A:H5'	2.11	0.51
25:CA:1187:G:H8	25:CA:1187:G:O5'	1.93	0.51
8:AH:64:LYS:HD2	8:AH:79:VAL:HG11	1.91	0.51
22:DV:331:HIS:O	22:DV:334:PRO:HD2	2.11	0.51
25:CA:1105:U:H2'	25:CA:1106:G:H8	1.74	0.51
4:DD:185:PHE:HZ	4:DD:189:PRO:HD3	1.76	0.51
25:BA:2305:A:H2'	25:BA:2306:C:H5''	1.91	0.51
25:CA:1270:C:H5'	25:CA:1271:G:C5'	2.40	0.51
22:DV:204:LYS:HB2	22:DV:204:LYS:NZ	2.26	0.51
8:DH:82:HIS:HD2	8:DH:138:TRP:HE1	1.57	0.51
25:CA:1748:G:H2'	25:CA:1749:A:C8	2.45	0.51
25:BA:1748:G:H2'	25:BA:1749:A:H8	1.74	0.51
25:BA:1178:C:H2'	25:BA:1179:C:C6	2.46	0.51
4:AD:13:ARG:NH2	4:AD:40:PRO:HA	2.26	0.51
1:AA:658:G:OP1	15:AO:31:LEU:HD21	2.10	0.51
25:CA:1178:C:H2'	25:CA:1179:C:C6	2.46	0.51
12:DL:85:ARG:HH21	12:DL:98:HIS:CG	2.29	0.51
27:CC:10:THR:HG23	27:CC:13:ARG:CB	2.41	0.51
17:DQ:21:VAL:HG11	17:DQ:59:ILE:HD11	1.92	0.51
17:DQ:40:LYS:HG2	17:DQ:41:LYS:N	2.26	0.51
2:AB:8:LYS:HA	2:AB:217:ARG:HH12	1.75	0.51
2:AB:131:PRO:O	2:AB:135:GLN:HG3	2.10	0.51
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.46	0.51
19:DS:51:VAL:O	19:DS:58:VAL:HG22	2.11	0.51
29:BE:29:ASN:H	29:BE:112:MET:CE	2.24	0.51
25:CA:2600:A:O2'	25:CA:2601:C:H5'	2.11	0.51
36:BL:62:LEU:HD13	36:BL:62:LEU:N	2.25	0.51
25:CA:835:A:OP1	55:C5:52:LYS:HG2	2.10	0.51
27:CC:129:ASN:O	27:CC:193:VAL:HG12	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:106:GLN:O	7:AG:110:GLN:HG3	2.10	0.51
25:BA:583:G:OP2	41:BQ:10:ARG:HD2	2.10	0.51
36:BL:114:ILE:HD12	36:BL:114:ILE:O	2.10	0.51
36:BL:91:PHE:CE2	36:BL:95:VAL:HG12	2.46	0.51
34:CJ:157:ARG:N	34:CJ:158:PRO:CD	2.73	0.51
25:CA:1348:G:C2'	25:CA:1349:A:H5''	2.39	0.51
22:DV:97:LEU:HD13	22:DV:102:MET:SD	2.51	0.51
1:AA:451:A:H61	1:AA:481:G:H5'	1.75	0.51
25:CA:2807:G:H3'	25:CA:2808:U:H5''	1.91	0.51
25:BA:989:G:H5''	25:BA:1157:G:H4'	1.92	0.51
27:BC:231:HIS:CG	27:BC:232:PRO:HD2	2.45	0.51
13:DM:23:TYR:CE1	13:DM:70:LEU:HD22	2.46	0.51
11:DK:92:GLU:O	11:DK:96:ARG:HG2	2.10	0.51
5:DE:127:ASN:O	5:DE:131:ILE:HG12	2.10	0.51
4:AD:118:ARG:O	4:AD:122:ARG:HB2	2.10	0.51
25:CA:1591:G:H2'	25:CA:1592:C:C6	2.46	0.51
54:B4:47:ARG:O	54:B4:48:LYS:HB2	2.10	0.51
1:AA:261:U:H5	20:AT:79:ARG:CZ	2.24	0.51
28:CD:104:VAL:HG22	28:CD:198:VAL:HG22	1.93	0.51
54:C4:47:ARG:O	54:C4:48:LYS:HB2	2.10	0.51
9:DI:4:TYR:CE2	9:DI:88:TYR:HB2	2.46	0.51
52:C2:40:LYS:CE	52:C2:46:CYS:HB3	2.37	0.51
25:BA:806:C:OP2	36:BL:39:LYS:HD2	2.09	0.51
26:CB:46:A:O2'	26:CB:47:C:C6	2.61	0.51
29:BE:63:LYS:HA	29:BE:76:GLY:O	2.11	0.51
3:DC:19:GLU:HG3	3:DC:54:ARG:HD2	1.93	0.51
50:BZ:1:MET:HE2	50:BZ:39:ASP:HB3	1.93	0.51
7:DG:65:ALA:O	7:DG:69:VAL:HG23	2.11	0.51
25:CA:388:G:H5'	25:CA:389:G:OP2	2.11	0.51
32:CH:79:ILE:HG22	32:CH:81:VAL:CG2	2.41	0.51
25:BA:1493:C:H2'	25:BA:1493:C:O2	2.10	0.51
27:BC:11:PRO:C	27:BC:13:ARG:H	2.13	0.51
18:AR:59:SER:HB3	18:AR:62:GLU:HG3	1.92	0.51
27:BC:238:GLY:O	27:BC:239:ARG:C	2.49	0.51
25:CA:1328:G:H2'	25:CA:1330:C:C5	2.46	0.51
1:AA:554:C:H2'	1:AA:555:C:C6	2.45	0.51
48:BX:70:VAL:O	48:BX:74:VAL:HG23	2.11	0.51
1:DA:266:G:O2'	17:DQ:67:LYS:HD2	2.09	0.51
39:BO:11:LYS:O	39:BO:91:PRO:HG3	2.11	0.51
25:CA:560:C:H1'	41:CQ:49:HIS:HE1	1.75	0.51
12:AL:46:LYS:HG2	12:AL:47:PRO:N	2.24	0.51
16:DP:6:LEU:HB3	16:DP:17:TYR:HB3	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:384:U:H2'	25:CA:385:C:H6	1.76	0.51
2:DB:97:TRP:HZ2	2:DB:102:LEU:HD13	1.76	0.51
25:CA:2783:G:H2'	25:CA:2784:C:C6	2.46	0.51
1:DA:658:G:OP1	15:DO:31:LEU:HD21	2.11	0.51
25:BA:185:U:H4'	25:BA:218:A:H4'	1.93	0.51
1:AA:1523:G:H2'	1:AA:1524:C:C6	2.45	0.51
44:CT:8:ILE:H	44:CT:8:ILE:HD12	1.75	0.51
1:AA:992:U:O2'	1:AA:993:G:H5''	2.10	0.51
13:AM:113:PRO:O	13:AM:115:LYS:HD3	2.11	0.51
1:AA:515:G:H2'	1:AA:516:U:O4'	2.11	0.51
41:BQ:92:ARG:CD	41:BQ:94:ASN:HB3	2.40	0.51
25:CA:142:G:H2'	25:CA:143:C:C6	2.46	0.51
44:BT:26:TYR:O	44:BT:81:VAL:HG22	2.11	0.51
45:BU:8:LYS:NZ	45:BU:8:LYS:H	2.09	0.51
17:DQ:81:ARG:HA	17:DQ:81:ARG:HE	1.76	0.51
22:DV:198:THR:HB	22:DV:293:ILE:CD1	2.41	0.51
22:DV:285:LEU:CD2	22:DV:289:ARG:HD2	2.41	0.51
30:CF:7:LEU:HA	30:CF:10:LYS:HD2	1.92	0.51
1:AA:1316:G:H2'	1:AA:1317:C:H5''	1.91	0.51
40:CP:117:ASP:O	40:CP:121:ILE:HG13	2.11	0.51
36:CL:91:PHE:CE2	36:CL:95:VAL:HG12	2.46	0.51
25:CA:441:U:H2'	25:CA:442:G:C8	2.46	0.51
22:DV:122:LEU:O	22:DV:125:ARG:HG2	2.11	0.51
25:BA:461:C:H42	25:BA:468:G:H1	1.58	0.51
4:AD:188:LEU:H	4:AD:188:LEU:HD12	1.76	0.51
13:DM:106:ASN:O	13:DM:107:ALA:HB3	2.11	0.51
25:CA:989:G:H5''	25:CA:1157:G:H4'	1.93	0.51
25:CA:764:A:H3'	25:CA:765:G:H5'	1.92	0.51
25:BA:2818:G:H4'	25:BA:2837:G:O4'	2.11	0.51
25:BA:616:A:O2'	25:BA:617:G:C8	2.64	0.51
1:AA:79:G:H1	1:AA:90:C:H42	1.58	0.51
27:CC:11:PRO:C	27:CC:13:ARG:H	2.13	0.51
46:BV:54:HIS:HB3	46:BV:101:PRO:HD3	1.92	0.51
20:DT:90:GLN:O	20:DT:93:GLU:HB3	2.11	0.51
25:CA:1083:U:H2'	25:CA:1085:A:OP2	2.10	0.51
1:AA:678:U:H2'	1:AA:679:C:C6	2.46	0.51
25:CA:2028:U:H2'	25:CA:2029:G:C8	2.45	0.51
25:BA:1647:G:H3'	25:BA:1647:G:OP2	2.11	0.51
2:DB:52:GLU:O	2:DB:56:ARG:HG3	2.11	0.51
25:CA:1541:U:C3'	25:CA:1542:G:H3'	2.28	0.51
25:CA:1543:A:C8	25:CA:1545:A:H5'	2.46	0.51
25:BA:1695:G:N2	25:BA:1696:G:C8	2.79	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:273(G):C:C3'	25:BA:274:G:H5''	2.30	0.51
1:DA:1132:C:H2'	1:DA:1133:G:H8	1.76	0.51
49:CY:39:ALA:HA	49:CY:45:SER:CB	2.33	0.51
48:BX:46:LEU:HD23	48:BX:46:LEU:O	2.10	0.51
39:CO:14:VAL:HG11	39:CO:89:ARG:HD3	1.93	0.51
39:BO:14:VAL:HG11	39:BO:89:ARG:HD3	1.93	0.51
45:BU:11:ASP:H	45:BU:27:VAL:HG23	1.76	0.51
46:BV:108:PRO:HG3	46:BV:141:VAL:HG22	1.93	0.51
3:AC:10:PHE:HD2	3:AC:11:ARG:NH1	2.09	0.51
25:BA:863:A:H2'	25:BA:864:G:C8	2.46	0.51
25:BA:1614:A:H2'	25:BA:1615:C:H5'	1.93	0.51
1:DA:1228:C:H4'	13:DM:116:THR:O	2.11	0.51
22:DV:96:LEU:HD11	22:DV:347:GLN:CB	2.41	0.51
34:BJ:62:ARG:HE	34:BJ:64:ASP:HB2	1.75	0.51
25:BA:441:U:H2'	25:BA:442:G:C8	2.46	0.51
25:BA:25:U:H2'	25:BA:26:G:O4'	2.11	0.51
30:CF:47:LYS:HG3	30:CF:82:LEU:CD2	2.41	0.51
4:AD:173:TRP:CD1	4:AD:189:PRO:HG3	2.46	0.51
25:BA:1270:C:H5'	25:BA:1271:G:C5'	2.40	0.51
32:BH:77:LEU:HD11	32:BH:101:LEU:HB2	1.92	0.51
22:AV:217:ILE:HD11	22:AV:243:HIS:HD2	1.76	0.51
22:AV:204:LYS:NZ	22:AV:204:LYS:HB2	2.26	0.51
1:AA:90:C:H2'	1:AA:91:C:C6	2.46	0.51
4:DD:116:GLN:O	4:DD:119:GLN:HB3	2.10	0.51
2:AB:52:GLU:O	2:AB:56:ARG:HG3	2.10	0.51
25:BA:2679:A:H5'	28:BD:165:VAL:HG11	1.93	0.51
25:BA:836:G:H2'	25:BA:837:C:C6	2.45	0.51
25:CA:2679:A:H5'	28:CD:165:VAL:HG11	1.93	0.51
2:AB:113:HIS:O	2:AB:116:GLU:HG2	2.11	0.51
44:CT:30:VAL:HG12	44:CT:31:HIS:N	2.26	0.51
25:CA:2127:G:H21	25:CA:2173:A:H1'	1.75	0.51
5:DE:137:GLU:O	5:DE:141:GLN:HG3	2.10	0.51
44:BT:8:ILE:H	44:BT:8:ILE:HD12	1.76	0.51
25:CA:2346:A:C2	25:CA:2383:G:C2	2.99	0.51
25:CA:685:A:H5''	25:CA:788:A:H62	1.74	0.51
50:BZ:26:LEU:HB2	50:BZ:28:LEU:HD13	1.92	0.51
2:DB:162:ILE:HD12	2:DB:162:ILE:O	2.10	0.51
25:BA:1703:G:H2'	25:BA:1704:G:H8	1.76	0.51
25:BA:1543:A:H8	25:BA:1543:A:H3'	1.76	0.50
25:BA:2393:A:C5'	36:BL:62:LEU:HD12	2.41	0.50
1:DA:922:G:H2'	1:DA:923:A:C8	2.45	0.50
45:CU:75:ILE:HG13	45:CU:80:GLY:H	1.75	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BX:11:ARG:HG3	48:BX:62:VAL:CA	2.40	0.50
22:AV:1:MET:O	22:AV:5:LEU:HG	2.11	0.50
26:CB:75:G:H21	46:CV:85:HIS:CE1	2.29	0.50
10:AJ:8:LEU:HG	10:AJ:96:ILE:HG22	1.92	0.50
1:AA:673:G:H5''	6:AF:87:ARG:HH12	1.73	0.50
7:DG:106:GLN:O	7:DG:110:GLN:HG3	2.10	0.50
34:BJ:127:LYS:HB2	34:BJ:140:PHE:CE1	2.46	0.50
30:BF:47:LYS:HG3	30:BF:82:LEU:CD2	2.41	0.50
44:BT:37:THR:O	44:BT:40:LYS:HB3	2.10	0.50
1:DA:769:G:H4'	1:DA:1513:A:H4'	1.92	0.50
1:DA:103(A):A:H2'	1:DA:103(B):G:O4'	2.11	0.50
1:AA:103(C):G:H2'	1:AA:1033:G:C8	2.46	0.50
1:AA:1320:C:N4	19:AS:36:ARG:HG3	2.25	0.50
37:CM:60:ARG:HB2	37:CM:60:ARG:HH11	1.76	0.50
1:AA:542:G:H5'	4:AD:41:GLY:HA2	1.93	0.50
25:BA:1657:C:H2'	25:BA:1658:C:H6	1.76	0.50
1:AA:927:G:H1	1:AA:1390:U:H3	1.58	0.50
25:BA:2028:U:H2'	25:BA:2029:G:C8	2.46	0.50
25:CA:2113:U:H2'	25:CA:2114:A:C8	2.46	0.50
1:DA:261:U:H5	20:DT:79:ARG:CZ	2.24	0.50
25:BA:398:G:H2'	25:BA:399:G:C8	2.46	0.50
25:BA:2127:G:H21	25:BA:2173:A:H1'	1.75	0.50
1:AA:723:U:H5''	1:AA:724:G:OP2	2.11	0.50
45:CU:81:LYS:CD	45:CU:97:ARG:HB3	2.40	0.50
40:CP:118:ARG:HD2	1:DA:1443:G:N7	2.26	0.50
11:DK:43:SER:HA	11:DK:47:VAL:HG21	1.93	0.50
37:BM:43:THR:OG1	37:BM:46:GLN:HG3	2.11	0.50
27:CC:118:VAL:HG22	27:CC:119:ALA:N	2.22	0.50
12:AL:103:VAL:HG12	12:AL:104:TYR:CD1	2.47	0.50
22:DV:84:ARG:O	22:DV:88:LEU:HG	2.11	0.50
25:BA:1348:G:C2'	25:BA:1349:A:H5''	2.38	0.50
2:DB:73:THR:HA	2:DB:94:ASN:O	2.11	0.50
2:AB:73:THR:HA	2:AB:94:ASN:O	2.11	0.50
1:AA:356:A:H1'	1:AA:368:U:HO2'	1.75	0.50
46:BV:24:LEU:HD12	46:BV:25:PRO:HD2	1.92	0.50
28:CD:4:ILE:HD13	28:CD:91:VAL:HG23	1.93	0.50
27:CC:5:LYS:H	27:CC:5:LYS:HD2	1.76	0.50
41:BQ:8:VAL:HG12	41:BQ:12:ARG:HG3	1.91	0.50
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.32	0.50
1:AA:103(A):A:H2'	1:AA:103(B):G:O4'	2.11	0.50
25:CA:235:U:H2'	25:CA:236:C:C6	2.46	0.50
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BV:136:PHE:C	46:BV:137:ILE:HD12	2.31	0.50
3:AC:173:VAL:N	3:AC:174:PRO:HD3	2.26	0.50
13:AM:15:VAL:O	13:AM:19:LEU:HD23	2.12	0.50
13:DM:113:PRO:O	13:DM:115:LYS:HD3	2.11	0.50
25:BA:2113:U:H2'	25:BA:2114:A:C8	2.46	0.50
40:BP:117:ASP:O	40:BP:121:ILE:HG13	2.10	0.50
25:CA:2052:G:C8	28:CD:141:ILE:HD11	2.47	0.50
39:CO:11:LYS:O	39:CO:91:PRO:HG3	2.11	0.50
25:BA:118:A:N3	25:BA:178:G:H1'	2.26	0.50
25:CA:398:G:H2'	25:CA:399:G:C8	2.46	0.50
28:BD:54:GLN:HB2	28:BD:74:PRO:O	2.11	0.50
25:CA:1796:U:H2'	25:CA:1797:C:C6	2.46	0.50
1:AA:1453:G:H8	20:AT:58:LYS:HZ3	1.58	0.50
22:DV:177:VAL:HG22	22:DV:178:HIS:H	1.75	0.50
42:BR:38:LEU:HD23	42:BR:39:LEU:N	2.25	0.50
25:CA:2400:G:C4'	53:C3:19:ARG:HD3	2.34	0.50
25:BA:1336:A:H2'	25:BA:1337:G:C8	2.46	0.50
1:AA:922:G:H2'	1:AA:923:A:C8	2.45	0.50
45:BU:96:ILE:HG23	45:BU:101:LYS:O	2.11	0.50
26:BB:75:G:H21	46:BV:85:HIS:CE1	2.29	0.50
28:BD:50:GLY:HA3	28:BD:75:VAL:HG11	1.94	0.50
46:CV:24:LEU:HD12	46:CV:25:PRO:HD2	1.93	0.50
9:DI:85:LEU:HD12	9:DI:86:VAL:N	2.26	0.50
49:BY:52:ASP:O	49:BY:56:GLN:HB2	2.12	0.50
25:CA:2432:A:N3	25:CA:2432:A:H2'	2.25	0.50
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.46	0.50
48:BX:19:GLN:HG2	48:BX:41:ARG:CB	2.41	0.50
25:CA:2795:G:H3'	25:CA:2797:U:C5'	2.42	0.50
5:DE:45:PHE:CE2	5:DE:47:LYS:HD2	2.46	0.50
1:DA:542:G:H5'	4:DD:41:GLY:HA2	1.93	0.50
25:BA:218:A:H2	25:BA:235:U:H4'	1.76	0.50
25:CA:2729:G:H1'	28:CD:187:ALA:HB3	1.94	0.50
11:AK:24:SER:HB3	11:AK:27:ASN:O	2.10	0.50
29:BE:199:TRP:O	29:BE:203:GLN:HG2	2.11	0.50
14:DN:37:PHE:HZ	14:DN:56:VAL:HG21	1.75	0.50
5:AE:149:GLU:O	5:AE:153:LYS:HB2	2.10	0.50
25:CA:620:G:H8	25:CA:622:G:O6	1.95	0.50
25:BA:384:U:H2'	25:BA:385:C:H6	1.76	0.50
1:AA:496:A:H4'	1:AA:497:U:OP1	2.12	0.50
43:BS:88:ARG:HB3	43:BS:92:ARG:HB2	1.93	0.50
25:BA:1591:G:H2'	25:BA:1592:C:C6	2.46	0.50
25:BA:1050:A:H2'	25:BA:1051:G:C8	2.47	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1054:A:H2'	25:BA:1055:G:C8	2.46	0.50
42:BR:47:VAL:HG13	42:BR:52:VAL:N	2.27	0.50
30:BF:5:LEU:HD12	30:BF:101:ILE:HG22	1.93	0.50
55:B5:57:ARG:HB2	55:B5:57:ARG:HH11	1.76	0.50
1:AA:1117:G:N2	1:AA:1180:A:H1'	2.26	0.50
25:BA:2588:G:C2'	25:BA:2589:A:C5'	2.90	0.50
34:CJ:135:LEU:HD23	34:CJ:136:GLY:N	2.26	0.50
3:AC:19:GLU:HG3	3:AC:54:ARG:HD2	1.93	0.50
30:BF:85:GLY:C	30:BF:86:MET:HG3	2.32	0.50
9:AI:83:ARG:HA	9:AI:86:VAL:HG12	1.94	0.50
3:DC:77:ILE:C	3:DC:83:ARG:HB3	2.31	0.50
32:CH:77:LEU:HD11	32:CH:101:LEU:HB2	1.91	0.50
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG23	1.92	0.50
23:AW:24:U:O2'	25:BA:1923:U:H5''	2.10	0.50
1:DA:103(C):G:H2'	1:DA:1033:G:C8	2.46	0.50
26:BB:8:U:H5''	39:BO:15:ARG:HH22	1.77	0.50
18:DR:59:SER:HB3	18:DR:62:GLU:HG3	1.92	0.50
40:CP:108:ARG:HA	40:CP:111:ARG:HG3	1.93	0.50
13:AM:23:TYR:CE1	13:AM:70:LEU:HD22	2.46	0.50
25:BA:531:C:C5	25:BA:2035:G:C2	2.99	0.50
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.77	0.50
25:CA:2773:C:H2'	25:CA:2774:C:H6	1.76	0.50
46:CV:14:LYS:HB2	46:CV:17:ALA:HB3	1.93	0.50
13:DM:15:VAL:O	13:DM:19:LEU:HD23	2.11	0.50
18:DR:54:ARG:HD2	18:DR:54:ARG:N	2.26	0.50
25:CA:132:G:C6	25:CA:133:C:C4	3.00	0.50
29:CE:29:ASN:H	29:CE:112:MET:CE	2.24	0.50
25:CA:1054:A:H2'	25:CA:1055:G:C8	2.47	0.50
36:CL:57:THR:C	36:CL:59:LEU:N	2.65	0.50
46:BV:125:LEU:HD23	46:BV:126:VAL:N	2.26	0.50
46:CV:125:LEU:HD23	46:CV:126:VAL:N	2.27	0.50
44:CT:89:ILE:O	44:CT:93:GLU:HG2	2.12	0.50
55:B5:53:PRO:HB2	55:B5:57:ARG:NH2	2.26	0.50
36:BL:50:ARG:HB2	55:B5:60:LEU:HD11	1.92	0.50
22:AV:111:ILE:HD12	22:AV:111:ILE:N	2.26	0.50
25:BA:1678:G:H21	25:BA:1989:G:H22	1.59	0.50
48:BX:11:ARG:HB2	48:BX:13:ILE:HG22	1.93	0.50
48:CX:11:ARG:HB2	48:CX:13:ILE:HG22	1.94	0.50
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	2.22	0.50
39:CO:26:LEU:HG	39:CO:39:ILE:CD1	2.41	0.50
25:CA:2420:C:P	55:C5:34:TRP:HA	2.52	0.50
39:BO:31:SER:HB3	39:BO:34:HIS:H	1.77	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:CU:11:ASP:H	45:CU:27:VAL:HG23	1.75	0.50
25:CA:712(B):A:H5''	25:CA:2713:A:OP2	2.11	0.50
4:DD:108:LEU:HD23	4:DD:110:PHE:HE2	1.77	0.50
25:BA:1295:C:H2'	25:BA:1296:G:C8	2.47	0.50
22:DV:92:LEU:HG	22:DV:348:LEU:HD22	1.93	0.50
1:DA:405:U:H3'	1:DA:406:G:H5'	1.94	0.50
1:DA:601:C:H2'	1:DA:602:A:H8	1.75	0.50
22:AV:234:THR:HG21	25:BA:2452:C:H5''	1.92	0.50
22:AV:331:HIS:O	22:AV:334:PRO:HD2	2.12	0.50
1:DA:450:G:C8	1:DA:481:G:C6	3.00	0.50
22:DV:217:ILE:HD11	22:DV:243:HIS:HD2	1.77	0.50
46:BV:118:GLN:HG3	46:BV:175:VAL:HG13	1.94	0.50
25:BA:235:U:H2'	25:BA:236:C:C6	2.46	0.50
1:DA:1329:A:H2'	1:DA:1330:U:O4'	2.12	0.50
25:CA:1437:C:H2'	25:CA:1438:U:C6	2.45	0.50
25:CA:2564:A:C2	25:CA:2647:U:H4'	2.47	0.50
7:DG:101:LEU:O	7:DG:105:VAL:HG23	2.11	0.50
29:CE:179:GLU:H	29:CE:179:GLU:CD	2.15	0.50
29:CE:117:ARG:HH22	29:CE:187:VAL:HA	1.76	0.50
25:CA:1532:C:C2	25:CA:1540:G:N2	2.80	0.50
44:BT:11:PRO:HG3	49:BY:37:PHE:CE2	2.46	0.50
52:B2:33:CYS:HB2	52:B2:34:PRO:HD2	1.93	0.50
30:CF:6:ALA:HB1	30:CF:10:LYS:HE3	1.94	0.50
27:BC:118:VAL:HG12	27:BC:129:ASN:ND2	2.27	0.50
27:CC:242:ARG:CD	27:CC:242:ARG:H	2.20	0.50
39:BO:26:LEU:HG	39:BO:39:ILE:HD13	1.92	0.50
25:CA:329:G:H4'	25:CA:330:A:OP2	2.11	0.50
1:DA:673:G:H5''	6:DF:87:ARG:HH12	1.73	0.50
34:BJ:135:LEU:HD23	34:BJ:136:GLY:N	2.26	0.50
28:BD:51:PHE:HB3	28:BD:52:LEU:HD12	1.93	0.50
40:BP:31:SER:HB2	40:BP:85:LYS:H	1.76	0.50
25:CA:647:G:N2	25:CA:2350:C:H4'	2.26	0.50
25:BA:1607:C:C4'	25:BA:1608:A:H5'	2.41	0.50
25:BA:1612:C:H4'	54:B4:5:TRP:O	2.12	0.50
12:DL:52:ARG:HD2	12:DL:52:ARG:N	2.25	0.50
32:BH:109:ILE:HD13	32:BH:109:ILE:N	2.26	0.50
1:DA:1073:U:H2'	1:DA:1074:G:C8	2.46	0.50
29:BE:18:ARG:HG3	29:BE:18:ARG:O	2.12	0.50
25:BA:1510:A:H2'	25:BA:1511:A:C8	2.46	0.50
1:DA:825:G:N2	8:DH:11:THR:HG21	2.27	0.50
1:AA:825:G:N2	8:AH:11:THR:HG21	2.27	0.50
25:BA:774:A:HO2'	25:BA:775:G:H8	1.58	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1405:U:H2'	25:BA:1406:U:H6	1.75	0.50
13:AM:23:TYR:HE1	13:AM:70:LEU:HD22	1.76	0.50
28:CD:54:GLN:HB2	28:CD:74:PRO:O	2.11	0.50
4:AD:167:GLY:HA3	27:CC:135:PHE:HE2	1.77	0.50
2:AB:178:ARG:HE	8:AH:74:PRO:HD3	1.76	0.50
16:DP:19:ILE:HG22	16:DP:36:ILE:HD11	1.94	0.50
25:BA:2128:C:H2'	25:BA:2129:C:C6	2.47	0.50
25:BA:2773:C:H2'	25:BA:2774:C:H6	1.77	0.50
1:DA:724:G:C2	1:DA:725:G:C8	2.99	0.50
1:DA:186(E):C:H2'	1:DA:186(F):C:C6	2.47	0.50
3:AC:120:VAL:HG21	3:AC:137:ALA:HB2	1.92	0.50
14:AN:37:PHE:HZ	14:AN:56:VAL:HG21	1.75	0.50
2:DB:178:ARG:HE	8:DH:74:PRO:HD3	1.77	0.50
1:AA:1350:A:H2'	1:AA:1351:U:O4'	2.11	0.50
16:AP:6:LEU:HB3	16:AP:17:TYR:HB3	1.94	0.50
25:CA:996:A:H2'	25:CA:997:G:C8	2.47	0.50
25:BA:996:A:H2'	25:BA:997:G:C8	2.47	0.50
1:AA:923:A:H2'	1:AA:924:C:C6	2.47	0.50
36:BL:50:ARG:CB	55:B5:60:LEU:HD11	2.41	0.50
25:BA:1826:G:H4'	27:BC:242:ARG:HE	1.75	0.50
25:CA:773:U:C5'	27:CC:47:GLY:HA3	2.42	0.50
25:CA:1826:G:H4'	27:CC:242:ARG:NE	2.27	0.50
22:DV:212:LEU:HB2	22:DV:214:MET:HE3	1.94	0.50
25:BA:558:G:H5''	34:BJ:135:LEU:HD22	1.94	0.50
36:CL:135:LEU:O	36:CL:135:LEU:HD13	2.11	0.50
25:BA:448:U:H1'	29:BE:84:VAL:CG2	2.42	0.50
3:DC:6:HIS:HD2	3:DC:7:PRO:HD2	1.77	0.50
30:CF:85:GLY:C	30:CF:86:MET:HG3	2.32	0.50
25:CA:321:G:C2	25:CA:341:G:H4'	2.47	0.50
25:CA:2306:C:H2'	25:CA:2307:G:H5'	1.93	0.50
3:AC:77:ILE:C	3:AC:83:ARG:HB3	2.31	0.50
49:BY:16:LEU:HB2	49:BY:20:GLU:CG	2.41	0.50
25:CA:761:A:H8	25:CA:761:A:O5'	1.95	0.50
25:CA:1493:C:O2	25:CA:1493:C:H2'	2.10	0.50
25:CA:2061:G:H5''	25:CA:2503:A:C2	2.47	0.50
20:AT:30:LYS:HE3	20:AT:34:LYS:HE3	1.93	0.50
25:BA:636:G:OP1	36:BL:132:LYS:HD3	2.12	0.50
25:CA:715:G:N2	15:DO:40:SER:OG	2.43	0.50
25:BA:132:G:C6	25:BA:133:C:C4	3.00	0.50
31:BG:84:SER:HA	31:BG:133:VAL:O	2.12	0.50
6:DF:82:ARG:HB2	6:DF:85:VAL:HG23	1.93	0.50
29:BE:179:GLU:CD	29:BE:179:GLU:H	2.15	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1543:A:C8	25:BA:1545:A:H5'	2.47	0.50
36:CL:62:LEU:HD13	36:CL:62:LEU:N	2.27	0.50
25:CA:826:U:H5'	25:CA:2428:G:O2'	2.11	0.50
25:CA:1337:G:H2'	25:CA:1338:G:H8	1.76	0.50
40:BP:23:ARG:NH2	40:BP:120:ARG:HD3	2.27	0.50
22:AV:212:LEU:HB2	22:AV:214:MET:HE3	1.92	0.50
22:DV:1:MET:O	22:DV:5:LEU:HG	2.12	0.50
25:BA:911:A:C6	37:BM:9:TYR:HE1	2.30	0.50
46:CV:108:PRO:HG3	46:CV:141:VAL:HG22	1.93	0.50
22:AV:84:ARG:O	22:AV:88:LEU:HG	2.11	0.50
25:CA:2713:A:H3'	25:CA:2714:G:H5''	1.94	0.50
34:CJ:90:LEU:O	34:CJ:111:GLU:HG3	2.11	0.50
25:CA:863:A:H2'	25:CA:864:G:C8	2.45	0.50
38:CN:10:LEU:HB2	38:CN:17:ARG:HE	1.77	0.50
38:BN:18:LEU:HD11	38:BN:22:ARG:CZ	2.42	0.50
3:DC:30:ARG:CD	14:DN:38:GLY:HA3	2.41	0.50
13:DM:34:LEU:HD22	13:DM:39:ILE:HB	1.93	0.50
1:DA:357:G:H2'	1:DA:358:U:H5''	1.93	0.50
22:AV:122:LEU:O	22:AV:125:ARG:HG2	2.12	0.50
47:CW:32:ARG:CA	47:CW:35:ASN:HD21	2.25	0.50
22:DV:224:ALA:HA	22:DV:238:ALA:HB2	1.92	0.50
1:DA:67:C:H2'	1:DA:68:G:H8	1.77	0.50
1:DA:451:A:H61	1:DA:481:G:H5'	1.76	0.50
47:BW:32:ARG:CA	47:BW:35:ASN:HD21	2.25	0.50
30:BF:106:LEU:HB3	30:BF:107:LEU:HD23	1.94	0.50
25:BA:2306:C:H2'	25:BA:2307:G:H5'	1.93	0.50
43:CS:18:ARG:HG2	43:CS:76:VAL:CG1	2.42	0.50
25:BA:388:G:H5'	25:BA:389:G:OP2	2.12	0.50
25:BA:2052:G:H4'	28:BD:143:ASN:O	2.12	0.50
26:BB:70:C:H2'	26:BB:71:C:C6	2.47	0.50
25:CA:1703:G:O2'	1:DA:1429:C:H4'	2.12	0.50
16:DP:13:HIS:C	16:DP:15:PRO:HD3	2.32	0.50
1:DA:79:G:H1	1:DA:90:C:H42	1.58	0.50
25:BA:2636:U:H1'	25:BA:2783:G:N2	2.27	0.50
1:AA:724:G:C2	1:AA:725:G:C8	3.00	0.50
25:CA:422:A:C6	25:CA:423:A:C6	3.00	0.50
1:DA:1523:G:H2'	1:DA:1524:C:C6	2.47	0.50
25:CA:722:A:H2'	25:CA:723:G:C8	2.47	0.50
31:CG:68:THR:O	31:CG:72:ILE:HG12	2.12	0.50
46:BV:14:LYS:HB2	46:BV:17:ALA:HB3	1.93	0.50
8:DH:51:VAL:HG21	8:DH:60:ARG:HG3	1.94	0.50
25:BA:1266:G:H5''	52:B2:23:HIS:NE2	2.27	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2212:A:H1'	25:CA:2215:G:C5	2.47	0.50
25:CA:2128:C:H2'	25:CA:2129:C:C6	2.47	0.50
3:DC:173:VAL:N	3:DC:174:PRO:HD3	2.26	0.50
20:DT:30:LYS:HE3	20:DT:34:LYS:HE3	1.93	0.50
1:DA:1113:C:O5'	1:DA:1113:C:H6	1.95	0.50
37:BM:80:GLU:HA	37:BM:80:GLU:OE2	2.12	0.50
36:BL:146:VAL:HG22	36:BL:147:LEU:N	2.24	0.50
5:AE:76:ILE:HB	5:AE:118:ILE:HD13	1.94	0.50
1:DA:976:G:C8	1:DA:1358:U:H2'	2.46	0.50
25:BA:1899:G:N2	25:BA:1902:C:N4	2.52	0.50
45:CU:96:ILE:HG23	45:CU:101:LYS:O	2.11	0.50
11:AK:43:SER:HA	11:AK:47:VAL:HG21	1.92	0.50
12:DL:103:VAL:HG12	12:DL:104:TYR:CD1	2.47	0.50
39:BO:26:LEU:HG	39:BO:39:ILE:CD1	2.41	0.50
3:AC:39:ILE:O	3:AC:43:LEU:HG	2.12	0.50
43:BS:29:LEU:HD22	43:BS:69:LEU:CD1	2.42	0.50
28:CD:51:PHE:CD1	28:CD:52:LEU:HG	2.47	0.50
54:B4:34:ARG:HD2	54:B4:39:ARG:HG3	1.94	0.50
25:CA:2452:C:H5''	22:DV:234:THR:HG21	1.93	0.50
9:AI:85:LEU:HD12	9:AI:86:VAL:N	2.27	0.50
49:BY:38:GLN:HB3	49:BY:44:LEU:HB3	1.94	0.50
45:BU:20:TYR:CE1	45:BU:42:VAL:HA	2.46	0.50
25:CA:388:G:C4	25:CA:390:A:C6	3.00	0.50
25:BA:1190:G:O3'	36:BL:35:HIS:HB3	2.12	0.50
4:DD:4:TYR:CE1	4:DD:11:LEU:HD11	2.47	0.50
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.12	0.50
25:BA:2577:A:H1'	52:B2:4:HIS:HB3	1.94	0.50
54:C4:12:ARG:CZ	54:C4:44:PRO:HB3	2.42	0.50
25:BA:2572:A:N7	28:BD:145:LYS:HG3	2.27	0.50
25:CA:2818:G:H4'	25:CA:2837:G:O4'	2.11	0.50
32:CH:12:LEU:HD22	32:CH:12:LEU:H	1.77	0.50
25:CA:616:A:O2'	25:CA:617:G:C8	2.64	0.50
25:CA:218:A:H2	25:CA:235:U:H4'	1.76	0.50
25:CA:1655:A:H4'	28:CD:115:GLY:N	2.25	0.50
25:BA:620:G:H8	25:BA:622:G:O6	1.95	0.50
25:BA:534:U:H5'	41:BQ:42:ALA:HB1	1.94	0.50
25:BA:719:C:H2'	25:BA:720:C:H6	1.77	0.50
31:BG:68:THR:O	31:BG:72:ILE:HG12	2.12	0.50
37:CM:130:LYS:HG2	37:CM:131:ILE:N	2.27	0.50
25:BA:2206:C:H2'	25:BA:2207:C:C6	2.47	0.50
25:CA:1266:G:H5''	52:C2:23:HIS:NE2	2.27	0.50
2:AB:162:ILE:O	2:AB:162:ILE:HD12	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:5:THR:O	12:AL:9:LEU:HG	2.11	0.50
2:AB:118:LEU:HD13	2:AB:142:LEU:HA	1.94	0.50
25:CA:1680:U:O2	25:CA:1763:G:H8	1.95	0.50
11:AK:73:MET:HG2	11:AK:103:LEU:HD11	1.94	0.50
25:BA:2600:A:O2'	25:BA:2601:C:H5'	2.12	0.50
37:CM:80:GLU:OE2	37:CM:80:GLU:HA	2.12	0.50
1:AA:945:G:N3	1:AA:945:G:H2'	2.27	0.50
2:AB:75:LYS:C	2:AB:75:LYS:HD3	2.32	0.50
25:BA:886:C:O2'	25:BA:887:A:H4'	2.12	0.50
1:DA:496:A:H4'	1:DA:497:U:OP1	2.12	0.50
25:BA:2564:A:C2	25:BA:2647:U:H4'	2.47	0.50
25:CA:2393:A:C5'	36:CL:62:LEU:HD12	2.42	0.49
22:DV:111:ILE:N	22:DV:111:ILE:HD12	2.26	0.49
1:AA:955:U:H1'	1:AA:1227:A:N6	2.26	0.49
4:AD:108:LEU:HD23	4:AD:110:PHE:HE2	1.77	0.49
3:DC:19:GLU:HA	3:DC:54:ARG:HE	1.77	0.49
25:CA:1615:C:O2'	25:CA:1616:A:H5'	2.11	0.49
25:CA:1388:G:H2'	25:CA:1389:G:C8	2.44	0.49
25:BA:2293:C:H4'	39:BO:93:LYS:HZ1	1.76	0.49
25:BA:647:G:N2	25:BA:2350:C:H4'	2.27	0.49
34:CJ:62:ARG:HE	34:CJ:64:ASP:HB2	1.76	0.49
25:BA:323:G:H2'	29:BE:169:ASN:OD1	2.12	0.49
30:CF:139:LEU:HD23	30:CF:149:VAL:HG21	1.94	0.49
7:AG:65:ALA:O	7:AG:69:VAL:HG23	2.11	0.49
43:BS:17:VAL:HG23	43:BS:76:VAL:HG11	1.94	0.49
10:DJ:38:ILE:HB	10:DJ:71:LEU:HB3	1.92	0.49
22:DV:108:ILE:HG23	22:DV:160:PHE:O	2.12	0.49
55:C5:11:LYS:C	55:C5:11:LYS:HD3	2.32	0.49
36:BL:135:LEU:O	36:BL:135:LEU:HD13	2.12	0.49
25:CA:2636:U:H1'	25:CA:2783:G:N2	2.26	0.49
15:DO:40:SER:O	15:DO:44:LYS:HD2	2.12	0.49
5:AE:135:THR:O	5:AE:139:LEU:HG	2.12	0.49
37:BM:130:LYS:HG2	37:BM:131:ILE:N	2.27	0.49
1:DA:515:G:H2'	1:DA:516:U:O4'	2.12	0.49
1:AA:216:G:H2'	1:AA:217:C:C6	2.47	0.49
13:AM:45:VAL:O	13:AM:48:LEU:HD22	2.13	0.49
25:BA:1319:G:O2'	25:BA:1320:C:H5'	2.12	0.49
25:BA:2791:C:H4'	25:BA:2792:G:O5'	2.12	0.49
25:BA:141(A):A:H8	25:BA:1595:G:H21	1.60	0.49
29:CE:199:TRP:O	29:CE:203:GLN:HG2	2.11	0.49
35:BK:3:GLN:CB	35:BK:4:PRO:HD2	2.21	0.49
7:AG:113:GLU:HB2	7:AG:119:ARG:CG	2.29	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:1502:A:C8	1:DA:1505:G:N2	2.80	0.49
55:C5:54:GLU:HA	55:C5:57:ARG:NH1	2.22	0.49
25:BA:2420:C:P	55:B5:34:TRP:HA	2.52	0.49
25:BA:1558:A:C1'	25:BA:1559:G:H5'	2.42	0.49
25:CA:1558:A:C1'	25:CA:1559:G:H5'	2.42	0.49
25:BA:1173:G:C2'	25:BA:1175:U:H5'	2.41	0.49
7:DG:15:ASP:HB3	7:DG:19:GLY:N	2.27	0.49
25:BA:1006:C:C2	25:BA:1138:G:N2	2.80	0.49
1:AA:450:G:C8	1:AA:481:G:C6	3.00	0.49
28:BD:4:ILE:HD13	28:BD:91:VAL:HG23	1.93	0.49
25:BA:1309:G:H4'	54:B4:7:PRO:HB2	1.92	0.49
27:BC:5:LYS:H	27:BC:5:LYS:HD2	1.76	0.49
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.46	0.49
1:AA:440:A:C6	1:AA:494:U:C2	3.00	0.49
19:AS:53:ASN:ND2	19:AS:56:GLN:H	2.10	0.49
28:BD:30:PRO:HD3	28:BD:180:ASN:ND2	2.27	0.49
25:BA:2795:G:H3'	25:BA:2797:U:C5'	2.42	0.49
25:CA:923:C:H2'	25:CA:924:C:C6	2.48	0.49
40:BP:108:ARG:HA	40:BP:111:ARG:HG3	1.93	0.49
13:AM:17:VAL:HG12	13:AM:21:TYR:HE1	1.78	0.49
1:AA:1329:A:H2'	1:AA:1330:U:O4'	2.12	0.49
1:DA:1382:C:H2'	1:DA:1383:C:C6	2.47	0.49
17:AQ:52:LYS:HD2	17:AQ:52:LYS:H	1.77	0.49
17:DQ:52:LYS:HD2	17:DQ:52:LYS:H	1.78	0.49
1:DA:678:U:H2'	1:DA:679:C:C6	2.47	0.49
12:DL:5:THR:O	12:DL:9:LEU:HG	2.11	0.49
25:BA:1689:A:N6	25:BA:1698:A:H2	1.95	0.49
9:DI:19:LEU:HD23	9:DI:20:ARG:N	2.27	0.49
1:DA:923:A:H2'	1:DA:924:C:C6	2.47	0.49
45:CU:76:CYS:CB	45:CU:77:PRO:CD	2.90	0.49
40:CP:48:ILE:HD12	40:CP:48:ILE:H	1.77	0.49
26:BB:42:C:H4'	30:BF:67:LYS:HB2	1.95	0.49
40:BP:48:ILE:HD12	40:BP:48:ILE:H	1.77	0.49
45:BU:76:CYS:CB	45:BU:77:PRO:CD	2.90	0.49
3:DC:39:ILE:O	3:DC:43:LEU:HG	2.12	0.49
30:CF:15:VAL:HG22	30:CF:175:LEU:HB3	1.95	0.49
17:AQ:14:LYS:HD2	17:AQ:14:LYS:N	2.26	0.49
25:BA:329:G:H4'	25:BA:330:A:OP2	2.11	0.49
1:DA:357:G:H2'	1:DA:358:U:C5'	2.42	0.49
1:DA:359:U:H2'	1:DA:360:A:C8	2.47	0.49
25:CA:637:A:N6	25:CA:652:U:H4'	2.27	0.49
1:AA:1095:U:H5'	1:AA:1109:C:O2	2.11	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:451:A:N6	1:AA:480:U:H2'	2.26	0.49
49:CY:52:ASP:O	49:CY:56:GLN:HB2	2.12	0.49
43:CS:19:LEU:HB3	52:C2:25:LEU:CD1	2.42	0.49
47:BW:21:LEU:H	47:BW:21:LEU:HD12	1.77	0.49
25:BA:2122:U:H2'	25:BA:2123:G:O4'	2.12	0.49
30:BF:139:LEU:HD23	30:BF:149:VAL:HG21	1.94	0.49
4:AD:4:TYR:CE1	4:AD:11:LEU:HD11	2.47	0.49
25:CA:764:A:H3'	25:CA:765:G:C5'	2.42	0.49
25:CA:1190:G:O3'	36:CL:35:HIS:HB3	2.11	0.49
48:CX:19:GLN:HG2	48:CX:41:ARG:CB	2.41	0.49
25:BA:923:C:H2'	25:BA:924:C:C6	2.47	0.49
25:CA:2591:C:OP1	27:CC:239:ARG:HB2	2.12	0.49
25:CA:2052:G:H4'	28:CD:143:ASN:O	2.12	0.49
1:DA:723:U:H5''	1:DA:724:G:OP2	2.11	0.49
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.95	0.49
6:DF:26:ILE:O	6:DF:30:LEU:HG	2.12	0.49
25:CA:534:U:H5'	41:CQ:42:ALA:HB1	1.93	0.49
42:BR:69:LYS:HA	42:BR:88:ARG:HB3	1.95	0.49
33:CI:4:LYS:HG2	33:CI:8:GLU:HG3	1.94	0.49
15:AO:40:SER:O	15:AO:44:LYS:HD2	2.13	0.49
25:BA:2729:G:H1'	28:BD:187:ALA:HB3	1.94	0.49
25:BA:1328:G:H2'	25:BA:1330:C:C5	2.46	0.49
7:AG:101:LEU:O	7:AG:105:VAL:HG23	2.11	0.49
25:CA:1977:A:H2'	25:CA:1978:A:O4'	2.12	0.49
22:DV:177:VAL:O	22:DV:302:ILE:HB	2.12	0.49
36:BL:57:THR:C	36:BL:59:LEU:N	2.65	0.49
44:BT:89:ILE:O	44:BT:93:GLU:HG2	2.12	0.49
44:CT:11:PRO:HG3	49:CY:37:PHE:CE2	2.46	0.49
2:AB:25:ASN:HD22	2:AB:25:ASN:N	2.10	0.49
55:B5:54:GLU:HA	55:B5:57:ARG:NH1	2.24	0.49
25:CA:2588:G:C2'	25:CA:2589:A:C5'	2.90	0.49
27:CC:105:ILE:HG12	27:CC:106:ILE:HD12	1.92	0.49
25:BA:2711:A:H5''	25:BA:2712:U:H5'	1.95	0.49
25:BA:712(B):A:H5''	25:BA:2713:A:OP2	2.11	0.49
25:BA:957:A:H5'	37:BM:76:LYS:CD	2.42	0.49
22:AV:222:MET:O	22:AV:238:ALA:HB3	2.12	0.49
34:CJ:127:LYS:HB2	34:CJ:140:PHE:CE1	2.46	0.49
6:AF:19:LEU:O	6:AF:23:LYS:HG3	2.12	0.49
1:DA:451:A:N6	1:DA:480:U:H2'	2.27	0.49
49:CY:38:GLN:HB3	49:CY:44:LEU:HB3	1.93	0.49
25:CA:1952:A:C6	25:CA:1953:A:N1	2.81	0.49
40:BP:98:LYS:HB3	40:BP:100:TYR:CE1	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2122:U:H2'	25:CA:2123:G:O4'	2.12	0.49
32:BH:79:ILE:HG22	32:BH:81:VAL:CG2	2.42	0.49
30:BF:115:ARG:CD	30:BF:115:ARG:H	2.25	0.49
25:CA:1189:A:C2'	25:CA:1190:G:H5'	2.43	0.49
11:DK:120:ARG:HH21	11:DK:126:ARG:HE	1.59	0.49
32:BH:12:LEU:HD22	32:BH:12:LEU:H	1.76	0.49
4:AD:167:GLY:HA3	27:CC:135:PHE:CE2	2.47	0.49
33:BI:4:LYS:HG2	33:BI:8:GLU:HG3	1.93	0.49
25:CA:2845:G:H5''	40:CP:55:ASN:HA	1.94	0.49
1:DA:1350:A:H2'	1:DA:1351:U:O4'	2.11	0.49
1:DA:187:C:H2'	1:DA:188:U:O4'	2.12	0.49
25:BA:481:G:H4'	25:BA:481:G:OP1	2.11	0.49
6:AF:36:ARG:HH21	6:AF:38:GLU:HG2	1.77	0.49
55:B5:16:ILE:HG12	55:B5:17:THR:O	2.12	0.49
50:BZ:10:LYS:HE2	50:BZ:11:SER:N	2.28	0.49
53:C3:34:LEU:H	53:C3:34:LEU:HD13	1.77	0.49
12:AL:19:LYS:H	12:AL:19:LYS:HD3	1.77	0.49
25:CA:1316:U:H2'	25:CA:1317:A:H8	1.77	0.49
1:DA:490:G:H2'	1:DA:491:G:H8	1.77	0.49
25:CA:1319:G:O2'	25:CA:1320:C:H5'	2.12	0.49
50:CZ:10:LYS:HE2	50:CZ:11:SER:N	2.28	0.49
46:BV:97:GLU:HB3	46:BV:125:LEU:CD2	2.35	0.49
44:CT:12:VAL:HG12	44:CT:27:THR:O	2.12	0.49
1:DA:397:A:O2'	1:DA:398:C:H5''	2.13	0.49
40:CP:119:LYS:HA	1:DA:1443:G:N2	2.28	0.49
55:C5:53:PRO:HB2	55:C5:57:ARG:HH21	1.77	0.49
11:DK:29:ILE:HG22	11:DK:44:SER:CB	2.42	0.49
25:BA:1826:G:H4'	27:BC:242:ARG:NE	2.28	0.49
9:AI:10:ARG:HD3	9:AI:11:LYS:N	2.28	0.49
12:DL:84:ILE:HG23	12:DL:97:TYR:HB3	1.94	0.49
26:CB:44:G:C2	26:CB:48:A:C2	3.01	0.49
25:BA:773:U:C5'	27:BC:47:GLY:HA3	2.43	0.49
45:CU:45:VAL:HA	45:CU:62:GLU:HA	1.92	0.49
28:CD:6:GLY:HA2	28:CD:51:PHE:CZ	2.47	0.49
3:AC:6:HIS:HD2	3:AC:7:PRO:HD2	1.77	0.49
2:AB:92:TYR:HE1	2:AB:94:ASN:HD22	1.60	0.49
38:BN:10:LEU:HB2	38:BN:17:ARG:HE	1.78	0.49
7:AG:15:ASP:HB3	7:AG:19:GLY:N	2.26	0.49
25:CA:1614:A:H2'	25:CA:1615:C:H5'	1.94	0.49
25:CA:448:U:H1'	29:CE:84:VAL:CG2	2.43	0.49
25:CA:323:G:H2'	29:CE:169:ASN:OD1	2.13	0.49
25:BA:321:G:C2	25:BA:341:G:H4'	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:691:G:C8	11:AK:26:ASN:ND2	2.80	0.49
2:AB:17:PHE:HB2	2:AB:42:ILE:CG2	2.43	0.49
25:CA:2577:A:H1'	52:C2:4:HIS:HB3	1.95	0.49
49:CY:16:LEU:HB2	49:CY:20:GLU:CG	2.41	0.49
49:CY:23:LYS:O	49:CY:27:GLU:HG3	2.12	0.49
11:AK:78:GLN:HA	11:AK:103:LEU:HD12	1.95	0.49
25:BA:481:G:C4	25:BA:507:A:C2	3.00	0.49
1:AA:187:C:H2'	1:AA:188:U:O4'	2.13	0.49
25:CA:784:A:HO2'	25:CA:785:G:H8	1.59	0.49
42:BR:35:LEU:HB2	42:BR:57:VAL:HG13	1.95	0.49
25:CA:1669:A:H5''	25:CA:2550:G:OP1	2.12	0.49
1:AA:197:A:C6	1:AA:221:C:H4'	2.47	0.49
1:DA:802:A:H2'	1:DA:803:G:O4'	2.13	0.49
1:AA:490:G:H2'	1:AA:491:G:H8	1.77	0.49
7:AG:27:ILE:HD12	7:AG:40:ALA:HA	1.94	0.49
29:BE:117:ARG:HH22	29:BE:187:VAL:HA	1.77	0.49
26:CB:115:G:H5'	39:CO:50:SER:OG	2.13	0.49
25:CA:118:A:N3	25:CA:178:G:H1'	2.27	0.49
48:CX:40:ARG:HD3	48:CX:40:ARG:C	2.32	0.49
4:DD:13:ARG:NH2	4:DD:40:PRO:HA	2.27	0.49
25:CA:481:G:H4'	25:CA:481:G:OP1	2.11	0.49
25:BA:1532:C:C2	25:BA:1540:G:N2	2.81	0.49
25:CA:1666:G:H1'	35:CK:3:GLN:NE2	2.27	0.49
15:DO:70:LEU:HG	15:DO:78:TYR:HB2	1.95	0.49
22:DV:112:ARG:HH22	22:DV:289:ARG:HH21	1.58	0.49
12:DL:56:LYS:HG2	12:DL:66:THR:HG22	1.94	0.49
12:DL:69:ILE:HD12	12:DL:69:ILE:N	2.28	0.49
12:AL:69:ILE:N	12:AL:69:ILE:HD12	2.27	0.49
12:AL:69:ILE:HA	12:AL:99:ILE:HG22	1.95	0.49
36:BL:88:LEU:HD22	36:BL:114:ILE:HG21	1.95	0.49
20:AT:48:LYS:HD3	20:AT:51:GLU:CD	2.33	0.49
22:DV:96:LEU:HD13	22:DV:96:LEU:O	2.13	0.49
30:CF:86:MET:O	30:CF:87:PRO:O	2.30	0.49
25:CA:1006:C:C2	25:CA:1138:G:N2	2.80	0.49
30:BF:136:ARG:O	30:BF:154:GLY:HA2	2.12	0.49
25:BA:1952:A:C6	25:BA:1953:A:N1	2.80	0.49
30:CF:106:LEU:HB3	30:CF:107:LEU:HD23	1.93	0.49
1:AA:501:C:H2'	1:AA:502:G:H8	1.78	0.49
25:CA:1189:A:C3'	25:CA:1190:G:H5'	2.43	0.49
46:CV:118:GLN:HG3	46:CV:175:VAL:HG13	1.94	0.49
54:B4:12:ARG:CZ	54:B4:44:PRO:HB3	2.42	0.49
49:BY:19:VAL:HG12	49:BY:23:LYS:HE3	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BM:60:ARG:HH11	37:BM:60:ARG:HB2	1.77	0.49
2:DB:69:LEU:HB3	2:DB:162:ILE:HG22	1.95	0.49
6:AF:82:ARG:HA	6:AF:82:ARG:HH11	1.76	0.49
25:CA:481:G:C4	25:CA:507:A:C2	3.01	0.49
1:DA:197:A:C6	1:DA:221:C:H4'	2.47	0.49
25:CA:2841:C:H2'	25:CA:2842:G:H8	1.78	0.49
42:BR:34:GLU:HG3	42:BR:58:VAL:HG22	1.95	0.49
16:DP:45:THR:HB	16:DP:46:PRO:HD2	1.95	0.49
10:DJ:30:SER:HB2	10:DJ:80:LYS:HG3	1.95	0.49
22:DV:26:LYS:N	22:DV:26:LYS:HD2	2.28	0.49
25:BA:1418:G:H8	25:BA:1418:G:O5'	1.96	0.49
48:BX:40:ARG:C	48:BX:40:ARG:HD3	2.32	0.49
25:BA:2573:C:H3'	25:BA:2573:C:OP1	2.13	0.49
8:AH:51:VAL:HG21	8:AH:60:ARG:HG3	1.94	0.49
25:BA:747:U:C4	52:B2:2:ALA:N	2.80	0.49
5:DE:76:ILE:HB	5:DE:118:ILE:HD13	1.94	0.49
26:CB:81:G:C2	26:CB:82:G:N7	2.81	0.49
44:BT:12:VAL:HG12	44:BT:27:THR:O	2.13	0.49
55:C5:57:ARG:HB2	55:C5:57:ARG:NH1	2.28	0.49
12:AL:84:ILE:HG23	12:AL:97:TYR:HB3	1.94	0.49
25:CA:911:A:C6	37:CM:9:TYR:HE1	2.29	0.49
39:CO:31:SER:HB3	39:CO:34:HIS:H	1.77	0.49
28:BD:51:PHE:CD1	28:BD:52:LEU:HG	2.47	0.49
25:BA:2713:A:H3'	25:BA:2714:G:H5''	1.94	0.49
5:DE:92:LYS:HE3	5:DE:119:LEU:HD12	1.94	0.49
28:BD:49:LEU:O	28:BD:78:LEU:HA	2.11	0.49
25:BA:1275:A:N6	25:BA:1296:G:H4'	2.28	0.49
35:CK:71:ARG:HH12	40:CP:74:ARG:HH22	1.59	0.49
30:BF:96:ARG:O	30:BF:99:MET:HB3	2.12	0.49
25:BA:764:A:H3'	25:BA:765:G:C5'	2.42	0.49
29:CE:18:ARG:HG3	29:CE:18:ARG:O	2.11	0.49
1:DA:440:A:C6	1:DA:494:U:C2	3.00	0.49
25:CA:1590:U:H2'	25:CA:1591:G:H8	1.78	0.49
6:DF:82:ARG:HA	6:DF:82:ARG:HH11	1.77	0.49
1:DA:315:A:H5''	1:DA:317:G:OP2	2.13	0.49
10:AJ:30:SER:HB2	10:AJ:80:LYS:CG	2.43	0.49
6:DF:36:ARG:HH21	6:DF:38:GLU:HG2	1.77	0.49
27:BC:78:LYS:HD3	27:BC:114:GLY:HA2	1.95	0.49
48:CX:70:VAL:O	48:CX:74:VAL:HG23	2.11	0.49
25:BA:560:C:H1'	41:BQ:49:HIS:HE1	1.75	0.49
16:DP:50:LYS:HD3	16:DP:50:LYS:C	2.33	0.49
1:DA:1447:G:H2'	1:DA:1448:C:C6	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:464:U:H2'	25:CA:465:G:O4'	2.12	0.49
2:DB:75:LYS:HD3	2:DB:75:LYS:C	2.32	0.49
1:AA:968:A:OP1	1:AA:968:A:H8	1.95	0.49
25:BA:2366:A:H2'	25:BA:2367:G:O4'	2.13	0.49
1:AA:620:C:H2'	1:AA:621:A:O4'	2.13	0.49
1:AA:1447:G:H2'	1:AA:1448:C:C6	2.47	0.49
25:BA:2371:G:H2'	25:BA:2372:G:H8	1.78	0.49
27:BC:93:ALA:HB2	27:BC:107:ALA:HB2	1.94	0.49
25:CA:1543:A:H8	25:CA:1543:A:H3'	1.77	0.49
25:CA:273(G):C:C3'	25:CA:274:G:H5''	2.31	0.49
9:AI:19:LEU:HD23	9:AI:20:ARG:N	2.27	0.49
42:BR:7:THR:HG23	42:BR:22:VAL:HG11	1.95	0.49
10:DJ:49:VAL:HG21	14:DN:41:ARG:CB	2.43	0.49
2:DB:25:ASN:N	2:DB:25:ASN:HD22	2.10	0.49
1:AA:397:A:O2'	1:AA:398:C:H5''	2.12	0.49
55:B5:57:ARG:HB2	55:B5:57:ARG:NH1	2.27	0.49
39:CO:26:LEU:O	39:CO:88:ASP:HB3	2.13	0.49
36:CL:88:LEU:HD22	36:CL:114:ILE:HG21	1.95	0.49
2:DB:92:TYR:HE1	2:DB:94:ASN:HD22	1.61	0.49
1:DA:691:G:C8	11:DK:26:ASN:ND2	2.81	0.49
1:AA:359:U:H2'	1:AA:360:A:C8	2.47	0.49
54:C4:24:THR:HG23	54:C4:27:GLY:N	2.25	0.49
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.26	0.49
25:BA:1189:A:C3'	25:BA:1190:G:H5'	2.43	0.49
1:AA:537:G:H5''	12:AL:112:ARG:HH22	1.77	0.49
43:BS:18:ARG:HG2	43:BS:76:VAL:CG1	2.43	0.49
25:BA:2052:G:C8	28:BD:141:ILE:HD11	2.47	0.49
2:DB:17:PHE:HB2	2:DB:42:ILE:CG2	2.42	0.49
40:CP:98:LYS:HB3	40:CP:100:TYR:CE1	2.47	0.49
30:BF:115:ARG:H	30:BF:115:ARG:HD2	1.77	0.49
53:B3:23:THR:O	53:B3:24:GLU:HG2	2.13	0.49
53:C3:23:THR:O	53:C3:24:GLU:HG2	2.13	0.49
25:CA:2572:A:N7	28:CD:145:LYS:HG3	2.27	0.49
5:AE:45:PHE:CE2	5:AE:47:LYS:HD2	2.47	0.49
10:DJ:30:SER:HB2	10:DJ:80:LYS:CG	2.43	0.49
1:AA:186(E):C:H2'	1:AA:186(F):C:C6	2.47	0.49
25:CA:2366:A:H2'	25:CA:2367:G:O4'	2.13	0.49
47:BW:66:VAL:O	47:BW:81:VAL:HA	2.13	0.49
22:AV:40:GLU:OE2	22:AV:351:LEU:HD12	2.12	0.49
25:BA:40:C:H2'	25:BA:41:C:C6	2.47	0.49
47:CW:66:VAL:O	47:CW:81:VAL:HA	2.13	0.49
25:BA:2212:A:H1'	25:BA:2215:G:C5	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:139:GLU:O	7:AG:143:ARG:HG3	2.13	0.49
1:AA:1009:G:C6	1:AA:1021:G:C6	3.01	0.49
5:AE:10:MET:HA	5:AE:32:VAL:HA	1.95	0.49
25:CA:531:C:C5	25:CA:2035:G:C2	3.00	0.49
28:CD:108:SER:O	28:CD:162:ALA:HA	2.13	0.49
4:AD:123:HIS:HB2	4:AD:125:HIS:CD2	2.47	0.49
25:BA:124:G:C6	54:B4:19:ARG:NH2	2.81	0.49
41:BQ:18:LEU:CD2	41:BQ:22:LYS:HE2	2.42	0.49
25:BA:1977:A:H2'	25:BA:1978:A:O4'	2.13	0.49
1:DA:216:G:H2'	1:DA:217:C:C6	2.48	0.49
2:DB:118:LEU:HD13	2:DB:142:LEU:HA	1.95	0.49
42:CR:47:VAL:HG13	42:CR:52:VAL:N	2.27	0.49
1:AA:429:U:H1'	1:AA:430:A:H5''	1.95	0.49
25:CA:1173:G:C2'	25:CA:1175:U:H5'	2.41	0.49
25:CA:914:C:C2'	25:CA:915:C:H5'	2.43	0.49
37:BM:75:THR:HG21	37:BM:85:LYS:HZ1	1.75	0.49
30:BF:86:MET:O	30:BF:87:PRO:O	2.30	0.49
29:BE:164:ARG:O	29:BE:168:ARG:HB2	2.13	0.49
22:DV:222:MET:O	22:DV:238:ALA:HB3	2.12	0.49
43:CS:19:LEU:O	43:CS:23:LEU:HD13	2.13	0.49
43:BS:19:LEU:O	43:BS:23:LEU:HD13	2.12	0.49
30:CF:115:ARG:HD2	30:CF:115:ARG:H	1.77	0.49
25:BA:2365:G:O6	55:B5:39:LYS:HE3	2.12	0.49
55:B5:11:LYS:HD3	55:B5:11:LYS:C	2.33	0.49
28:BD:132:HIS:CG	28:BD:135:HIS:NE2	2.81	0.49
20:AT:30:LYS:HG3	20:AT:34:LYS:HE3	1.95	0.49
25:CA:1655:A:O2'	28:CD:115:GLY:HA2	2.13	0.49
2:DB:212:GLN:HE22	2:DB:216:SER:HB2	1.78	0.49
3:DC:113:ALA:HB3	3:DC:114:PRO:HD3	1.95	0.49
25:CA:1430:C:H2'	25:CA:1431:U:C6	2.48	0.49
25:BA:2354:G:H21	47:BW:36:ILE:HD12	1.78	0.49
6:AF:26:ILE:O	6:AF:30:LEU:HG	2.12	0.49
1:DA:474:G:H2'	1:DA:475:G:H8	1.75	0.49
25:CA:1914:C:O2	25:CA:1914:C:O4'	2.31	0.49
12:DL:19:LYS:HD3	12:DL:19:LYS:H	1.77	0.49
27:CC:93:ALA:HB2	27:CC:107:ALA:HB2	1.95	0.49
28:BD:108:SER:O	28:BD:162:ALA:HA	2.13	0.49
22:AV:81:LEU:HG	22:AV:85:LYS:HD2	1.95	0.49
12:AL:41:THR:OG1	12:AL:51:LEU:HB3	2.13	0.49
3:AC:110:ASN:O	3:AC:141:VAL:HG22	2.13	0.49
10:AJ:49:VAL:HG21	14:AN:41:ARG:CB	2.43	0.49
44:BT:35:THR:O	44:BT:38:GLU:HG2	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1151:A:O2'	1:AA:1152:A:C8	2.48	0.49
40:CP:23:ARG:NH2	40:CP:120:ARG:HD3	2.28	0.49
25:BA:514:A:H1'	25:BA:581:C:O2'	2.12	0.49
25:CA:558:G:H5''	34:CJ:135:LEU:HD22	1.95	0.49
36:CL:32:THR:OG1	36:CL:33:ARG:N	2.45	0.49
25:BA:1174:A:H3'	25:BA:1175:U:C5'	2.43	0.49
25:CA:1275:A:N6	25:CA:1296:G:H4'	2.27	0.49
46:BV:71:VAL:HG13	46:BV:86:VAL:HG13	1.93	0.49
46:CV:71:VAL:HG13	46:CV:86:VAL:HG13	1.94	0.49
25:BA:2023:G:H2'	25:BA:2024:G:C8	2.47	0.49
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.43	0.49
25:BA:1189:A:C2'	25:BA:1190:G:H5'	2.42	0.49
25:CA:2070:G:H2'	25:CA:2071:A:O4'	2.13	0.49
27:CC:154:LYS:C	27:CC:155:LEU:HD12	2.33	0.49
25:BA:733:G:N7	25:BA:761:A:C6	2.81	0.49
25:BA:1272:A:OP2	25:BA:1647:G:OP1	2.31	0.49
29:BE:194:MET:SD	29:BE:199:TRP:HD1	2.36	0.49
25:BA:2600:A:C6	25:BA:2601:C:N4	2.81	0.49
25:BA:2845:G:H5''	40:BP:55:ASN:HA	1.94	0.49
25:CA:2737:G:H2'	25:CA:2738:A:H8	1.78	0.49
25:BA:2841:C:H2'	25:BA:2842:G:H8	1.78	0.49
4:DD:123:HIS:HB2	4:DD:125:HIS:CD2	2.47	0.49
1:AA:315:A:H5''	1:AA:317:G:OP2	2.13	0.49
42:CR:69:LYS:HA	42:CR:88:ARG:HB3	1.95	0.49
22:DV:244:LEU:HB2	22:DV:245:PRO:HD3	1.95	0.49
26:BB:115:G:H5'	39:BO:50:SER:OG	2.12	0.49
10:AJ:29:ARG:HG2	10:AJ:29:ARG:O	2.13	0.49
49:BY:50:ILE:HD12	49:BY:50:ILE:H	1.78	0.49
7:DG:139:GLU:O	7:DG:143:ARG:HG3	2.13	0.49
16:AP:19:ILE:HG22	16:AP:36:ILE:HD11	1.94	0.49
25:BA:422:A:C6	25:BA:423:A:C6	3.00	0.49
25:CA:141(A):A:H8	25:CA:1595:G:H21	1.60	0.49
5:DE:31:LEU:HD23	5:DE:32:VAL:N	2.28	0.49
41:BQ:83:LEU:HG	41:BQ:88:ILE:CD1	2.43	0.48
30:BF:6:ALA:HB1	30:BF:10:LYS:HE3	1.94	0.48
2:AB:27:LYS:HB2	2:AB:194:PRO:HG2	1.95	0.48
36:BL:32:THR:OG1	36:BL:33:ARG:N	2.46	0.48
36:BL:41:ARG:NH2	36:BL:45:LEU:HB2	2.25	0.48
27:CC:118:VAL:HG12	27:CC:129:ASN:ND2	2.28	0.48
25:CA:46:C:H42	25:CA:179:G:H1	1.61	0.48
25:CA:2711:A:H5''	25:CA:2712:U:H5'	1.95	0.48
28:BD:6:GLY:HA2	28:BD:51:PHE:CZ	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1295:C:H2'	25:CA:1296:G:C8	2.47	0.48
38:CN:10:LEU:HB2	38:CN:17:ARG:NH2	2.28	0.48
22:DV:125:ARG:HH21	22:DV:154:GLY:H	1.61	0.48
29:CE:164:ARG:O	29:CE:168:ARG:HB2	2.13	0.48
22:AV:96:LEU:O	22:AV:96:LEU:HD13	2.13	0.48
54:C4:34:ARG:HD2	54:C4:39:ARG:HG3	1.94	0.48
18:DR:50:ILE:HD11	18:DR:74:ARG:NH1	2.28	0.48
1:AA:35:G:C2	1:AA:550:G:C2	3.01	0.48
1:DA:501:C:H2'	1:DA:502:G:H8	1.78	0.48
25:CA:2314:C:H2'	25:CA:2315:G:H8	1.78	0.48
40:CP:80:SER:HB3	40:CP:83:ILE:HG13	1.95	0.48
27:BC:154:LYS:C	27:BC:155:LEU:HD12	2.33	0.48
28:CD:132:HIS:CG	28:CD:135:HIS:NE2	2.81	0.48
25:BA:2061:G:H5''	25:BA:2503:A:C2	2.48	0.48
29:CE:183:VAL:O	29:CE:187:VAL:HG23	2.12	0.48
5:DE:10:MET:HA	5:DE:32:VAL:HA	1.95	0.48
25:CA:719:C:H2'	25:CA:720:C:H6	1.77	0.48
25:CA:2843:G:H1	25:CA:2874:C:H42	1.60	0.48
25:BA:1680:U:O2	25:BA:1763:G:H8	1.96	0.48
31:BG:15:VAL:HG11	31:BG:76:VAL:HG13	1.95	0.48
1:DA:945:G:H2'	1:DA:945:G:N3	2.27	0.48
4:DD:188:LEU:HD12	4:DD:188:LEU:H	1.76	0.48
34:BJ:161:LEU:HD23	34:BJ:161:LEU:N	2.29	0.48
1:AA:1113:C:H6	1:AA:1113:C:O5'	1.95	0.48
2:DB:58:ILE:HG22	2:DB:221:LEU:HD12	1.95	0.48
55:C5:16:ILE:HG12	55:C5:17:THR:O	2.13	0.48
1:DA:1009:G:C6	1:DA:1021:G:C6	3.01	0.48
1:AA:802:A:H2'	1:AA:803:G:O4'	2.13	0.48
25:CA:2710:C:OP1	38:CN:15:SER:HB2	2.13	0.48
25:BA:1430:C:H2'	25:BA:1431:U:C6	2.48	0.48
25:CA:886:C:O2'	25:CA:887:A:H4'	2.12	0.48
44:CT:35:THR:O	44:CT:38:GLU:HG2	2.13	0.48
25:CA:1568:G:P	27:CC:63:ARG:HH22	2.36	0.48
25:BA:662:G:H5'	36:BL:18:ARG:HA	1.95	0.48
26:CB:42:C:H4'	30:CF:67:LYS:HB2	1.95	0.48
5:AE:82:VAL:HG21	5:AE:138:ALA:CA	2.42	0.48
18:AR:50:ILE:HD11	18:AR:74:ARG:NH1	2.28	0.48
5:AE:92:LYS:HE3	5:AE:119:LEU:HD12	1.95	0.48
3:AC:19:GLU:HA	3:AC:54:ARG:HE	1.78	0.48
38:BN:10:LEU:HB2	38:BN:17:ARG:NH2	2.28	0.48
25:CA:598:G:H5'	36:CL:15:ARG:CG	2.43	0.48
25:CA:514:A:H1'	25:CA:581:C:O2'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BB:46:A:O2'	26:BB:47:C:H6	1.93	0.48
26:BB:46:A:O2'	26:BB:47:C:C6	2.62	0.48
4:AD:174:LEU:HD23	4:AD:185:PHE:HA	1.95	0.48
25:BA:443:A:C2'	29:BE:45:ARG:HH12	2.26	0.48
2:DB:158:LEU:HD12	2:DB:158:LEU:N	2.28	0.48
25:BA:2512:C:H4'	28:BD:122:PHE:CE2	2.48	0.48
19:DS:53:ASN:ND2	19:DS:56:GLN:H	2.10	0.48
25:CA:1190:G:H2'	25:CA:1191:G:C8	2.48	0.48
22:AV:108:ILE:HG23	22:AV:160:PHE:O	2.13	0.48
25:BA:141(A):A:H1'	25:BA:1408:C:O4'	2.13	0.48
25:CA:2549:G:H2'	25:CA:2550:G:H8	1.78	0.48
16:DP:26:ARG:NH2	16:DP:31:LYS:HD3	2.28	0.48
25:BA:722:A:H2'	25:BA:723:G:C8	2.48	0.48
25:CA:173:G:H2'	25:CA:174:C:C6	2.48	0.48
22:DV:81:LEU:HG	22:DV:85:LYS:HD2	1.95	0.48
5:DE:135:THR:O	5:DE:139:LEU:HG	2.13	0.48
25:CA:749:C:H5''	25:CA:750:A:OP2	2.14	0.48
1:DA:375:U:OP1	16:DP:69:THR:HG21	2.12	0.48
25:CA:2791:C:H4'	25:CA:2792:G:O5'	2.12	0.48
25:BA:311:A:C6	25:BA:328:U:C4	3.01	0.48
25:CA:404:C:H4'	25:CA:405:U:H5'	1.95	0.48
16:AP:50:LYS:C	16:AP:50:LYS:HD3	2.34	0.48
20:AT:90:GLN:O	20:AT:93:GLU:HB3	2.12	0.48
13:DM:45:VAL:O	13:DM:48:LEU:HD22	2.12	0.48
41:CQ:18:LEU:CD2	41:CQ:22:LYS:HE2	2.43	0.48
25:BA:1164:G:H5'	25:BA:1164:G:H8	1.79	0.48
26:BB:81:G:C2	26:BB:82:G:N7	2.82	0.48
55:B5:53:PRO:HB2	55:B5:57:ARG:HH21	1.78	0.48
25:CA:372:G:N2	25:CA:400:G:H2'	2.28	0.48
48:CX:46:LEU:O	48:CX:46:LEU:HD23	2.12	0.48
30:CF:96:ARG:O	30:CF:99:MET:HB3	2.13	0.48
25:CA:1843:C:H2'	25:CA:1844:C:C6	2.48	0.48
37:BM:24:GLY:HA2	37:BM:101:ARG:CA	2.42	0.48
25:BA:329:G:H1	45:BU:19:LYS:HE3	1.78	0.48
25:BA:598:G:H5'	36:BL:15:ARG:CG	2.43	0.48
25:BA:1786:A:H1'	25:BA:1938:A:H62	1.78	0.48
34:CJ:32:VAL:HG11	34:CJ:62:ARG:HH12	1.78	0.48
26:BB:44:G:C2	26:BB:48:A:C2	3.01	0.48
25:CA:1612:C:H4'	54:C4:5:TRP:O	2.13	0.48
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.14	0.48
25:BA:2314:C:H2'	25:BA:2315:G:H8	1.79	0.48
25:BA:34:C:O2'	25:BA:35:G:C5'	2.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:733:G:N7	25:CA:761:A:C6	2.81	0.48
25:BA:2591:C:OP1	27:BC:239:ARG:HB2	2.13	0.48
2:AB:118:LEU:O	2:AB:122:PHE:HB2	2.14	0.48
29:BE:183:VAL:O	29:BE:187:VAL:HG23	2.13	0.48
10:AJ:30:SER:HB2	10:AJ:80:LYS:HG3	1.94	0.48
1:AA:1382:C:H2'	1:AA:1383:C:C6	2.48	0.48
7:DG:27:ILE:HD12	7:DG:40:ALA:HA	1.95	0.48
25:CA:705:A:H2'	25:CA:706:A:O4'	2.13	0.48
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	1.95	0.48
16:AP:26:ARG:NH2	16:AP:31:LYS:HD3	2.29	0.48
4:DD:162:LEU:HD13	4:DD:181:MET:HG2	1.95	0.48
2:AB:22:LYS:HZ3	2:AB:22:LYS:H	1.62	0.48
22:AV:26:LYS:HD2	22:AV:26:LYS:N	2.28	0.48
53:B3:34:LEU:H	53:B3:34:LEU:HD13	1.78	0.48
11:DK:73:MET:HG2	11:DK:103:LEU:HD11	1.94	0.48
11:DK:78:GLN:HA	11:DK:103:LEU:HD12	1.95	0.48
25:BA:1669:A:H5''	25:BA:2550:G:OP1	2.13	0.48
1:AA:629:G:H2'	1:AA:630:G:C8	2.49	0.48
25:BA:1070:A:H2'	25:BA:1097:U:OP1	2.13	0.48
12:DL:41:THR:OG1	12:DL:51:LEU:HB3	2.12	0.48
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.49	0.48
41:CQ:92:ARG:CZ	42:CR:11:GLN:HG3	2.42	0.48
25:CA:2393:A:H2'	25:CA:2394:C:O4'	2.13	0.48
25:BA:1568:G:P	27:BC:63:ARG:HH22	2.37	0.48
15:DO:36:ILE:HD12	15:DO:63:ARG:NH1	2.27	0.48
55:C5:48:PHE:HE1	55:C5:50:LEU:HD21	1.79	0.48
19:DS:6:LYS:HD3	19:DS:7:LYS:HE2	1.95	0.48
27:BC:106:ILE:HD13	27:BC:143:HIS:CD2	2.48	0.48
36:CL:33:ARG:NE	36:CL:36:LYS:HD3	2.28	0.48
30:BF:15:VAL:HG22	30:BF:175:LEU:HB3	1.94	0.48
25:BA:630:G:N2	25:BA:632:A:H3'	2.28	0.48
25:CA:2250:G:C4	37:CM:82:ARG:HG3	2.48	0.48
37:CM:137:TYR:HB3	46:CV:76:LEU:HD21	1.95	0.48
1:AA:357:G:H2'	1:AA:358:U:C5'	2.42	0.48
28:CD:103:ASP:OD1	28:CD:201:THR:HG23	2.13	0.48
47:CW:21:LEU:HD12	47:CW:21:LEU:H	1.77	0.48
25:BA:2311:A:H5''	25:BA:2312:U:OP2	2.14	0.48
51:B1:64:LYS:HA	51:B1:64:LYS:HE3	1.94	0.48
51:C1:64:LYS:HA	51:C1:64:LYS:HE3	1.95	0.48
26:CB:8:U:H5''	39:CO:15:ARG:HH22	1.77	0.48
48:BX:19:GLN:HE21	48:BX:41:ARG:HB2	1.79	0.48
43:BS:73:ALA:HB3	43:BS:106:ILE:HD11	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:CS:73:ALA:HB3	43:CS:106:ILE:HD11	1.95	0.48
25:BA:218:A:C2	25:BA:235:U:H4'	2.49	0.48
1:AA:375:U:OP1	16:AP:69:THR:HG21	2.12	0.48
25:CA:2369:A:H2'	25:CA:2370:G:C8	2.48	0.48
1:AA:191(G):G:C4	20:AT:105:SER:HB3	2.48	0.48
25:CA:636:G:OP1	36:CL:132:LYS:HD3	2.12	0.48
1:DA:1441:G:H5''	1:DA:1442:G:C5'	2.44	0.48
25:BA:2131:G:OP1	25:BA:2132:U:H3'	2.14	0.48
25:BA:934:G:H2'	25:BA:935:C:C6	2.48	0.48
31:CG:84:SER:HA	31:CG:133:VAL:O	2.12	0.48
33:CI:9:LEU:O	33:CI:13:LEU:HG	2.13	0.48
1:AA:1042:G:H2'	1:AA:1043:C:C6	2.48	0.48
28:CD:30:PRO:HD3	28:CD:180:ASN:ND2	2.28	0.48
25:BA:1316:U:H2'	25:BA:1317:A:H8	1.77	0.48
25:CA:311:A:C6	25:CA:328:U:C4	3.02	0.48
25:CA:1147:C:H2'	25:CA:1148:A:H8	1.79	0.48
7:DG:113:GLU:HB2	7:DG:119:ARG:CG	2.29	0.48
41:CQ:88:ILE:HB	41:CQ:90:VAL:CG1	2.39	0.48
44:CT:93:GLU:O	44:CT:94:GLY:C	2.52	0.48
27:BC:44:ASN:HB3	27:BC:50:THR:HG21	1.95	0.48
1:DA:397:A:H3'	1:DA:397:A:N3	2.29	0.48
27:CC:61:LEU:O	27:CC:63:ARG:NH1	2.46	0.48
36:BL:18:ARG:HB3	36:BL:18:ARG:NH1	2.29	0.48
36:BL:33:ARG:NE	36:BL:36:LYS:HD3	2.28	0.48
11:AK:29:ILE:HG22	11:AK:44:SER:CB	2.42	0.48
36:BL:125:VAL:O	36:BL:145:PRO:HD2	2.13	0.48
54:B4:8:ASN:HD22	54:B4:11:LYS:H	1.60	0.48
38:CN:18:LEU:HD11	38:CN:22:ARG:CZ	2.43	0.48
38:BN:21:TYR:CE2	38:BN:43:GLU:HB3	2.48	0.48
10:DJ:82:ILE:O	10:DJ:86:MET:HB2	2.13	0.48
22:AV:125:ARG:HH21	22:AV:154:GLY:H	1.61	0.48
34:BJ:32:VAL:HG11	34:BJ:62:ARG:HH12	1.78	0.48
25:BA:764:A:H3'	25:BA:765:G:H5'	1.93	0.48
18:AR:84:LYS:HZ3	18:AR:84:LYS:HA	1.77	0.48
1:AA:500:G:H2'	1:AA:501:C:C6	2.49	0.48
3:DC:73:PRO:O	3:DC:76:VAL:HG22	2.13	0.48
49:BY:23:LYS:O	49:BY:27:GLU:HG3	2.13	0.48
1:DA:1346:A:H5'	9:DI:120:ARG:HH12	1.78	0.48
43:BS:106:ILE:HG13	43:BS:106:ILE:O	2.14	0.48
25:BA:1655:A:O2'	28:BD:115:GLY:HA2	2.12	0.48
1:AA:1084:G:H5'	1:AA:1102:A:OP2	2.13	0.48
17:DQ:59:ILE:HG22	17:DQ:60:ILE:N	2.29	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2600:A:C6	25:CA:2601:C:N4	2.81	0.48
2:DB:118:LEU:O	2:DB:122:PHE:HB2	2.14	0.48
40:BP:59:THR:O	40:BP:78:LEU:HB2	2.14	0.48
13:DM:81:LEU:HD22	13:DM:86:CYS:SG	2.54	0.48
5:DE:79:GLU:OE1	8:DH:104:ARG:HG3	2.14	0.48
25:BA:1385:G:H4'	25:BA:1386:C:OP1	2.13	0.48
25:BA:2443:C:H2'	25:BA:2444:G:H8	1.78	0.48
30:CF:88:ILE:HG13	30:CF:89:GLY:N	2.28	0.48
25:CA:124:G:C6	54:C4:19:ARG:NH2	2.81	0.48
25:CA:40:C:H2'	25:CA:41:C:C6	2.47	0.48
25:BA:1939:U:H3'	25:BA:1940:U:C5'	2.43	0.48
25:BA:404:C:H4'	25:BA:405:U:H5'	1.95	0.48
22:AV:244:LEU:HB2	22:AV:245:PRO:HD3	1.96	0.48
34:CJ:161:LEU:N	34:CJ:161:LEU:HD23	2.28	0.48
4:AD:166:LYS:O	4:AD:168:ARG:HG2	2.14	0.48
42:CR:7:THR:HG23	42:CR:22:VAL:HG11	1.95	0.48
25:BA:2247:A:H2'	25:BA:2248:C:H6	1.79	0.48
46:CV:99:TYR:CE2	46:CV:125:LEU:HD12	2.48	0.48
45:BU:78:ALA:CB	45:BU:81:LYS:HE3	2.43	0.48
3:AC:21:ARG:O	3:AC:58:GLU:HA	2.14	0.48
12:AL:56:LYS:HG2	12:AL:66:THR:HG22	1.95	0.48
19:AS:6:LYS:HD3	19:AS:7:LYS:HE2	1.95	0.48
22:DV:88:LEU:HA	22:DV:91:GLU:HG2	1.96	0.48
20:DT:48:LYS:HD3	20:DT:51:GLU:CD	2.33	0.48
25:BA:2250:G:C4	37:BM:82:ARG:HG3	2.48	0.48
9:DI:83:ARG:HA	9:DI:86:VAL:HG12	1.93	0.48
30:CF:136:ARG:O	30:CF:154:GLY:HA2	2.13	0.48
25:CA:2630:G:H1'	25:CA:2894:G:H1'	1.94	0.48
49:CY:19:VAL:HG12	49:CY:23:LYS:HE3	1.95	0.48
40:CP:57:PHE:CG	40:CP:58:ASN:N	2.82	0.48
1:AA:1346:A:H5'	9:AI:120:ARG:HH12	1.79	0.48
1:DA:1084:G:H5'	1:DA:1102:A:OP2	2.13	0.48
17:AQ:59:ILE:HG22	17:AQ:60:ILE:N	2.29	0.48
25:BA:464:U:H2'	25:BA:465:G:O4'	2.12	0.48
4:AD:13:ARG:HB3	4:AD:38:TYR:O	2.13	0.48
5:AE:31:LEU:HD23	5:AE:32:VAL:N	2.29	0.48
1:DA:1042:G:H2'	1:DA:1043:C:C6	2.48	0.48
25:BA:1535:U:H2'	25:BA:1536:A:O4'	2.14	0.48
5:DE:59:GLY:O	5:DE:63:ARG:HG3	2.14	0.48
25:BA:2710:C:OP1	38:BN:15:SER:HB2	2.14	0.48
6:AF:14:LEU:HD21	6:AF:18:GLN:HB2	1.96	0.48
25:BA:2843:G:H1	25:BA:2874:C:H42	1.60	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:DE:70:PRO:HB3	5:DE:144:THR:HG22	1.95	0.48
49:CY:50:ILE:H	49:CY:50:ILE:HD12	1.78	0.48
25:BA:974(A):G:O2'	25:BA:975:G:N7	2.39	0.48
25:BA:1147:C:H2'	25:BA:1148:A:H8	1.78	0.48
1:DA:191(G):G:C4	20:DT:105:SER:HB3	2.49	0.48
1:AA:1441:G:H5''	1:AA:1442:G:C5'	2.44	0.48
25:BA:2369:A:H2'	25:BA:2370:G:C8	2.48	0.48
22:DV:180:VAL:HA	22:DV:305:TYR:O	2.13	0.48
25:BA:1666:G:H1'	35:BK:3:GLN:NE2	2.28	0.48
22:AV:180:VAL:HA	22:AV:305:TYR:O	2.13	0.48
25:CA:273(G):C:H2'	25:CA:274:G:C8	2.49	0.48
25:CA:747:U:C4	52:C2:2:ALA:N	2.81	0.48
25:BA:826:U:H5'	25:BA:2428:G:O2'	2.13	0.48
46:BV:99:TYR:CE2	46:BV:125:LEU:HD12	2.48	0.48
25:BA:2393:A:H2'	25:BA:2394:C:O4'	2.13	0.48
44:CT:12:VAL:HG12	44:CT:28:PHE:HA	1.95	0.48
5:DE:82:VAL:HG21	5:DE:138:ALA:CA	2.41	0.48
46:BV:104:PHE:HD1	46:BV:139:VAL:HG11	1.79	0.48
25:CA:807:U:O2'	25:CA:808:G:H5'	2.14	0.48
34:BJ:39:ILE:HG22	34:BJ:40:ASP:O	2.13	0.48
25:BA:1843:C:H2'	25:BA:1844:C:C6	2.48	0.48
32:CH:142:VAL:HG12	32:CH:143:SER:N	2.29	0.48
38:CN:10:LEU:HD23	38:CN:21:TYR:OH	2.14	0.48
1:DA:176:C:H5''	20:DT:29:LYS:HZ2	1.78	0.48
1:AA:405:U:H3'	1:AA:406:G:H5'	1.94	0.48
25:BA:637:A:N6	25:BA:652:U:H4'	2.28	0.48
6:DF:19:LEU:O	6:DF:23:LYS:HG3	2.12	0.48
25:CA:1786:A:H1'	25:CA:1938:A:H62	1.78	0.48
50:CZ:1:MET:HE2	50:CZ:39:ASP:HB3	1.96	0.48
43:CS:17:VAL:HG23	43:CS:76:VAL:HG11	1.93	0.48
25:CA:2561:A:H2'	25:CA:2562:U:O4'	2.14	0.48
1:AA:251:G:N1	1:AA:266:G:C6	2.81	0.48
46:CV:155:LEU:HD21	46:CV:171:ILE:HG13	1.94	0.48
1:DA:251:G:N1	1:DA:266:G:C6	2.82	0.48
25:BA:1590:U:H2'	25:BA:1591:G:H8	1.78	0.48
25:BA:1594:G:H2'	25:BA:1595:G:O4'	2.13	0.48
4:DD:13:ARG:HB3	4:DD:38:TYR:O	2.14	0.48
5:DE:10:MET:HG3	5:DE:13:ILE:HD11	1.95	0.48
25:CA:2543:G:H2'	25:CA:2544:G:C8	2.48	0.48
25:BA:1472:A:H2'	25:BA:1473:G:O4'	2.14	0.48
36:CL:16:ARG:HE	36:CL:17:LYS:N	2.12	0.48
25:BA:749:C:H5''	25:BA:750:A:OP2	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BW:14:ARG:O	47:BW:15:ASP:HB2	2.14	0.48
25:CA:1939:U:H3'	25:CA:1940:U:C5'	2.43	0.48
1:AA:1270:C:H6	1:AA:1270:C:O5'	1.97	0.48
1:DA:968:A:H8	1:DA:968:A:OP1	1.95	0.48
1:AA:1339:A:H2'	1:AA:1340:A:O4'	2.14	0.48
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.49	0.48
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.48	0.48
25:BA:705:A:H2'	25:BA:706:A:O4'	2.13	0.48
25:CA:2015:A:N3	52:C2:2:ALA:N	2.62	0.48
41:BQ:92:ARG:CZ	42:BR:11:GLN:HG3	2.43	0.48
1:DA:922:G:N3	1:DA:1398:A:H2	2.12	0.48
15:AO:70:LEU:HG	15:AO:78:TYR:HB2	1.95	0.48
36:BL:40:SER:O	36:BL:41:ARG:HD2	2.13	0.48
25:CA:662:G:H5'	36:CL:18:ARG:HA	1.95	0.48
36:CL:50:ARG:HB3	55:C5:60:LEU:HD21	1.95	0.48
25:BA:848:G:H2'	25:BA:849:A:H8	1.77	0.48
25:CA:372:G:H5'	48:CX:66:HIS:CE1	2.49	0.48
11:DK:29:ILE:C	11:DK:29:ILE:HD12	2.34	0.48
30:CF:36:LYS:HB3	30:CF:160:VAL:HB	1.96	0.48
25:CA:2445:G:O2'	25:CA:2446:G:H5'	2.14	0.48
25:CA:2023:G:H2'	25:CA:2024:G:C8	2.47	0.48
25:CA:1842:G:H1'	27:CC:255:LYS:HZ3	1.79	0.48
34:CJ:39:ILE:HG22	34:CJ:40:ASP:O	2.13	0.48
25:BA:530:G:C5	25:BA:2022:U:H5''	2.48	0.48
3:AC:30:ARG:CD	14:AN:38:GLY:HA3	2.42	0.48
25:BA:2872:G:O2'	25:BA:2873:A:H5'	2.14	0.48
9:AI:5:TYR:HA	9:AI:17:VAL:O	2.14	0.48
7:DG:69:VAL:O	7:DG:69:VAL:HG12	2.14	0.48
1:AA:1104:G:H2'	1:AA:1105:A:C8	2.49	0.48
13:AM:27:LYS:HE2	13:AM:31:LYS:HE2	1.95	0.48
11:DK:39:PRO:O	11:DK:40:ILE:HD13	2.13	0.48
25:BA:761:A:H8	25:BA:761:A:O5'	1.96	0.48
11:AK:102:GLY:C	11:AK:103:LEU:HD22	2.34	0.48
25:CA:141(A):A:H1'	25:CA:1408:C:O4'	2.14	0.48
31:CG:103:LEU:HD22	31:CG:123:PHE:CE1	2.48	0.48
1:AA:914:A:O2'	1:AA:915:A:H5'	2.13	0.48
31:BG:103:LEU:HD22	31:BG:123:PHE:CE1	2.48	0.48
1:DA:148:G:H2'	1:DA:149:A:C8	2.49	0.48
43:BS:46:PHE:O	43:BS:50:VAL:HG12	2.14	0.48
25:CA:287:C:H2'	25:CA:288:C:H6	1.79	0.48
25:BA:1505:C:H2'	25:BA:1506:C:C6	2.49	0.48
29:CE:160:ASN:HB3	29:CE:163:VAL:HG23	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:866:A:N3	25:CA:866:A:H2'	2.28	0.48
2:DB:22:LYS:H	2:DB:22:LYS:HZ3	1.60	0.48
16:AP:45:THR:HB	16:AP:46:PRO:HD2	1.94	0.48
1:AA:433:C:HO2'	1:AA:434:U:H6	1.61	0.48
25:BA:699:A:H2'	25:BA:700:G:O4'	2.13	0.48
22:AV:293:ILE:HD11	22:AV:297:GLU:CG	2.40	0.48
22:AV:8:LEU:HD21	22:AV:45:ILE:HG12	1.96	0.48
37:CM:43:THR:OG1	37:CM:46:GLN:HG3	2.13	0.48
37:CM:75:THR:HA	37:CM:88:GLY:HA3	1.95	0.48
38:BN:55:ALA:CB	38:BN:79:LEU:HD22	2.44	0.48
50:CZ:40:THR:O	50:CZ:44:ARG:HG3	2.14	0.48
43:BS:19:LEU:HB3	52:B2:25:LEU:CD1	2.43	0.48
25:BA:388:G:C4	25:BA:390:A:C6	3.02	0.48
1:AA:882:C:O2'	1:AA:883:C:H5'	2.14	0.48
25:BA:2070:G:H2'	25:BA:2071:A:O4'	2.13	0.48
40:BP:80:SER:HB3	40:BP:83:ILE:HG13	1.96	0.48
25:CA:1794:U:H2'	25:CA:1795:C:H6	1.79	0.48
25:CA:34:C:O2'	25:CA:35:G:C5'	2.62	0.48
25:BA:998:C:H2'	25:BA:999:U:O4'	2.14	0.48
46:BV:155:LEU:HD21	46:BV:171:ILE:HG13	1.95	0.48
25:BA:1658:C:OP1	28:BD:132:HIS:ND1	2.47	0.48
40:CP:108:ARG:HA	40:CP:111:ARG:NE	2.29	0.48
1:AA:1329:A:H4'	13:AM:24:GLY:O	2.14	0.48
25:CA:1594:G:H2'	25:CA:1595:G:O4'	2.13	0.48
25:BA:721:C:H2'	25:BA:722:A:H8	1.79	0.48
25:BA:173:G:H2'	25:BA:174:C:C6	2.49	0.48
5:AE:70:PRO:HB3	5:AE:144:THR:HG22	1.95	0.48
25:CA:699:A:H2'	25:CA:700:G:O4'	2.13	0.48
1:AA:46:G:OP1	1:AA:307:C:H4'	2.14	0.48
2:AB:32:ILE:HD11	2:AB:40:HIS:HB3	1.95	0.48
37:CM:26:TYR:HA	46:CV:81:ARG:HH21	1.79	0.48
1:DA:1251:A:H2'	1:DA:1252:A:C8	2.49	0.48
25:CA:950:G:H2'	25:CA:951:C:H6	1.79	0.48
25:CA:492:A:H2'	25:CA:493:G:O4'	2.14	0.48
43:CS:46:PHE:O	43:CS:50:VAL:HG12	2.14	0.48
34:CJ:105:LEU:O	34:CJ:106:LYS:C	2.52	0.48
42:BR:14:VAL:HG13	42:BR:96:ILE:HG13	1.96	0.48
35:CK:14:THR:HG22	35:CK:14:THR:O	2.14	0.48
10:DJ:29:ARG:HG2	10:DJ:29:ARG:O	2.13	0.48
53:C3:41:PRO:HG3	53:C3:49:HIS:HE1	1.79	0.48
25:CA:1505:C:H2'	25:CA:1506:C:C6	2.49	0.48
3:DC:110:ASN:O	3:DC:141:VAL:HG22	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:CL:61:ARG:HH11	55:C5:13:ARG:HD2	1.78	0.48
25:CA:826:U:H2'	25:CA:828:U:H6	1.78	0.48
21:AU:18:TYR:O	21:AU:22:ARG:HB3	2.14	0.48
2:DB:28:PHE:HD2	2:DB:194:PRO:HD3	1.79	0.48
55:C5:59:LYS:HA	55:C5:62:LEU:HD11	1.96	0.48
1:DA:429:U:H1'	1:DA:430:A:H5''	1.95	0.48
25:BA:2378:A:C2	39:BO:18:ILE:HD12	2.48	0.48
39:BO:17:ARG:HG2	39:BO:18:ILE:HD13	1.96	0.48
39:BO:26:LEU:O	39:BO:88:ASP:HB3	2.13	0.48
25:CA:329:G:H1	45:CU:19:LYS:HE3	1.78	0.48
36:CL:41:ARG:NH2	36:CL:45:LEU:HB2	2.24	0.48
25:CA:530:G:C5	25:CA:2022:U:H5''	2.48	0.48
25:CA:957:A:H5'	37:CM:76:LYS:CD	2.44	0.48
1:AA:357:G:OP1	1:AA:366:C:O2'	2.21	0.48
25:BA:2685:G:N2	25:BA:2725:A:C6	2.82	0.48
31:BG:144:VAL:O	31:BG:148:ILE:HG12	2.14	0.48
25:CA:653:C:H5''	25:CA:654:U:O4'	2.14	0.48
4:DD:174:LEU:HD23	4:DD:185:PHE:HA	1.95	0.48
30:BF:111:LEU:HB2	30:BF:112:PRO:HD3	1.96	0.48
35:CK:22:ILE:HB	35:CK:40:VAL:HG12	1.95	0.48
4:DD:43:HIS:HB3	4:DD:46:LYS:HD2	1.96	0.48
26:CB:70:C:H2'	26:CB:71:C:C6	2.47	0.48
25:CA:1817:G:C6	25:CA:1818:U:C4	3.02	0.48
3:AC:73:PRO:O	3:AC:76:VAL:HG22	2.14	0.48
11:AK:39:PRO:O	11:AK:40:ILE:HD13	2.14	0.48
4:DD:135:LEU:H	4:DD:135:LEU:HD22	1.79	0.48
1:AA:298:A:C6	1:AA:299:G:C2	3.01	0.48
5:AE:79:GLU:OE1	8:AH:104:ARG:HG3	2.13	0.48
25:CA:2263:C:H42	25:CA:2278:A:N6	2.12	0.48
25:CA:2091:U:C4	25:CA:2092:U:C4	3.02	0.48
25:BA:2839:G:H2'	25:BA:2840:C:C6	2.48	0.48
1:DA:106:C:O2'	1:DA:107:G:H5'	2.14	0.48
1:AA:386:C:H2'	1:AA:387:U:O4'	2.14	0.48
30:BF:88:ILE:HG13	30:BF:89:GLY:N	2.27	0.48
37:CM:20:ALA:HB1	37:CM:99:PRO:O	2.14	0.48
13:DM:17:VAL:HG12	13:DM:21:TYR:HE1	1.77	0.48
25:CA:2103:C:H2'	25:CA:2104:G:C8	2.49	0.48
1:DA:1339:A:H2'	1:DA:1340:A:O4'	2.13	0.48
1:DA:620:C:H2'	1:DA:621:A:O4'	2.14	0.48
34:BJ:105:LEU:O	34:BJ:106:LYS:C	2.52	0.48
25:CA:812:C:H5'	36:CL:25:SER:O	2.13	0.48
46:BV:31:ARG:HG3	46:BV:32:HIS:CD2	2.49	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:509:A:H5'	4:AD:55:ALA:HB2	1.96	0.48
5:AE:59:GLY:O	5:AE:63:ARG:HG3	2.14	0.48
1:DA:386:C:H2'	1:DA:387:U:O4'	2.14	0.48
22:AV:109:VAL:HG13	22:AV:201:VAL:HG22	1.96	0.48
25:CA:1418:G:H8	25:CA:1418:G:O5'	1.96	0.48
27:CC:174:ILE:HD12	27:CC:174:ILE:N	2.29	0.48
38:BN:50:HIS:O	38:BN:54:LEU:HB2	2.14	0.48
4:DD:195:ALA:C	4:DD:196:LEU:HD12	2.34	0.48
25:BA:2737:G:H2'	25:BA:2738:A:H8	1.79	0.48
27:CC:78:LYS:HD3	27:CC:114:GLY:HA2	1.95	0.48
22:AV:177:VAL:O	22:AV:302:ILE:HB	2.13	0.47
25:BA:273(G):C:H2'	25:BA:274:G:C8	2.49	0.47
36:BL:61:ARG:HH11	55:B5:13:ARG:HD2	1.78	0.47
1:AA:976:G:C8	1:AA:1358:U:H2'	2.46	0.47
25:CA:768:G:H2'	25:CA:769:G:C8	2.48	0.47
25:BA:2445:G:O2'	25:BA:2446:G:H5'	2.14	0.47
25:BA:807:U:O2'	25:BA:808:G:H5'	2.13	0.47
1:AA:1502:A:C8	1:AA:1505:G:N2	2.81	0.47
9:DI:10:ARG:HD3	9:DI:11:LYS:N	2.28	0.47
29:CE:65:TRP:HZ3	29:CE:75:HIS:CD2	2.23	0.47
25:CA:1174:A:H3'	25:CA:1175:U:C5'	2.43	0.47
5:AE:80:ILE:HG13	5:AE:91:LEU:HD13	1.96	0.47
25:BA:956:G:H2'	25:BA:957:A:H2'	1.96	0.47
31:CG:144:VAL:O	31:CG:148:ILE:HG12	2.14	0.47
1:AA:615:C:H2'	1:AA:616:G:C8	2.47	0.47
45:CU:49:VAL:O	45:CU:50:ARG:HB2	2.14	0.47
40:BP:50:ILE:HA	40:BP:99:LEU:CD1	2.44	0.47
28:BD:25:VAL:HG12	28:BD:181:LEU:HD12	1.96	0.47
40:BP:57:PHE:CG	40:BP:58:ASN:N	2.82	0.47
1:AA:297:G:H4'	1:AA:557:G:H4'	1.95	0.47
17:AQ:59:ILE:HD12	17:AQ:59:ILE:N	2.29	0.47
4:DD:122:ARG:HD3	4:DD:122:ARG:O	2.14	0.47
1:DA:1329:A:H4'	13:DM:24:GLY:O	2.14	0.47
25:CA:1437:C:H2'	25:CA:1438:U:H6	1.79	0.47
1:DA:787:A:O2'	1:DA:788:U:H5'	2.14	0.47
25:BA:1094:U:H2'	25:BA:1096:A:OP2	2.14	0.47
25:CA:2839:G:H2'	25:CA:2840:C:C6	2.49	0.47
19:DS:12:ASP:HB2	19:DS:15:LEU:HD23	1.96	0.47
12:AL:57:VAL:O	12:AL:59:LEU:HD22	2.14	0.47
25:CA:1472:A:H2'	25:CA:1473:G:O4'	2.14	0.47
25:CA:1385:G:H4'	25:CA:1386:C:OP1	2.13	0.47
1:DA:914:A:O2'	1:DA:915:A:H5'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:962:G:H2'	25:BA:963:U:O4'	2.14	0.47
25:CA:2573:C:H3'	25:CA:2573:C:OP1	2.14	0.47
50:CZ:55:ARG:HD3	50:CZ:55:ARG:HA	1.68	0.47
25:BA:866:A:N3	25:BA:866:A:H2'	2.28	0.47
25:BA:2079:U:H2'	25:BA:2080:G:O4'	2.14	0.47
31:CG:15:VAL:HG11	31:CG:76:VAL:HG13	1.95	0.47
31:BG:30:LYS:HB2	31:BG:79:VAL:HA	1.96	0.47
27:BC:132:PRO:HD3	27:BC:190:TYR:CE2	2.49	0.47
1:DA:46:G:OP1	1:DA:307:C:H4'	2.14	0.47
25:BA:1543:A:C8	25:BA:1543:A:H3'	2.49	0.47
1:DA:1132:C:H2'	1:DA:1133:G:C8	2.49	0.47
25:CA:1164:G:H5'	25:CA:1164:G:H8	1.79	0.47
25:CA:2247:A:H2'	25:CA:2248:C:H6	1.79	0.47
19:AS:16:LEU:HA	19:AS:19:VAL:HG12	1.96	0.47
55:B5:50:LEU:HD13	55:B5:57:ARG:NH2	2.28	0.47
55:B5:59:LYS:HA	55:B5:62:LEU:HD11	1.95	0.47
36:BL:39:LYS:O	36:BL:41:ARG:HG2	2.14	0.47
25:CA:1678:G:H21	25:CA:1989:G:H22	1.58	0.47
46:BV:27:VAL:HA	46:BV:37:VAL:HG22	1.96	0.47
28:CD:50:GLY:HA3	28:CD:75:VAL:HG11	1.94	0.47
32:BH:142:VAL:HG12	32:BH:143:SER:N	2.29	0.47
48:CX:45:ASN:ND2	48:CX:47:GLN:HE21	2.12	0.47
7:DG:15:ASP:CB	7:DG:20:ASP:H	2.27	0.47
48:CX:31:GLY:O	48:CX:32:LYS:HB2	2.14	0.47
10:AJ:82:ILE:O	10:AJ:86:MET:HB2	2.13	0.47
50:BZ:40:THR:O	50:BZ:44:ARG:HG3	2.14	0.47
25:BA:1190:G:H2'	25:BA:1191:G:C8	2.48	0.47
25:BA:1952:A:C4	35:BK:22:ILE:HD12	2.49	0.47
30:CF:111:LEU:HB2	30:CF:112:PRO:HD3	1.96	0.47
8:DH:89:PRO:HA	8:DH:92:ARG:NH1	2.29	0.47
25:BA:1992:G:OP1	25:BA:1992:G:C8	2.66	0.47
40:CP:50:ILE:HA	40:CP:99:LEU:CD1	2.43	0.47
4:DD:126:ILE:HG22	4:DD:127:THR:N	2.29	0.47
1:DA:35:G:C2	1:DA:550:G:C2	3.02	0.47
1:DA:537:G:H5''	12:DL:112:ARG:HH22	1.78	0.47
25:CA:2354:G:H21	47:CW:36:ILE:HD12	1.78	0.47
25:BA:1437:C:H2'	25:BA:1438:U:H6	1.79	0.47
22:DV:244:LEU:H	22:DV:244:LEU:HD12	1.79	0.47
22:DV:81:LEU:O	22:DV:85:LYS:HG2	2.14	0.47
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.49	0.47
42:CR:34:GLU:HG3	42:CR:58:VAL:HG22	1.95	0.47
30:BF:134:GLY:C	30:BF:135:LEU:HD12	2.35	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:CG:30:LYS:HB2	31:CG:79:VAL:HA	1.95	0.47
42:CR:35:LEU:HB2	42:CR:57:VAL:HG13	1.95	0.47
1:DA:547:A:H4'	1:DA:548:G:O5'	2.14	0.47
2:AB:212:GLN:HE22	2:AB:216:SER:HB2	1.78	0.47
25:BA:2065:C:H5''	25:BA:2252:G:H1'	1.96	0.47
27:BC:174:ILE:N	27:BC:174:ILE:HD12	2.29	0.47
19:DS:64:GLU:HG3	19:DS:65:ASN:OD1	2.14	0.47
1:AA:932:C:H5''	7:AG:4:ARG:HG3	1.95	0.47
25:CA:996:A:H2'	25:CA:997:G:H8	1.80	0.47
25:BA:826:U:H2'	25:BA:828:U:H6	1.79	0.47
27:BC:61:LEU:O	27:BC:63:ARG:NH1	2.47	0.47
51:C1:50:THR:CG2	51:C1:51:TYR:H	2.13	0.47
39:BO:66:ALA:HA	39:BO:69:VAL:HG12	1.95	0.47
30:BF:60:LEU:HD11	30:BF:92:VAL:CG1	2.38	0.47
55:B5:34:TRP:CG	55:B5:35:GLN:N	2.82	0.47
39:BO:34:HIS:ND1	39:BO:54:LEU:HB2	2.29	0.47
45:CU:10:GLY:HA2	45:CU:27:VAL:HG23	1.97	0.47
37:BM:75:THR:HA	37:BM:88:GLY:HA3	1.95	0.47
25:BA:1211:U:H4'	25:BA:1212:G:OP2	2.14	0.47
25:CA:2293:C:H4'	39:CO:93:LYS:HZ1	1.79	0.47
1:AA:67:C:H2'	1:AA:68:G:H8	1.78	0.47
25:CA:1607:C:H4'	25:CA:1608:A:C5'	2.45	0.47
25:BA:2630:G:H1'	25:BA:2894:G:H1'	1.95	0.47
10:DJ:55:LYS:O	10:DJ:56:HIS:CG	2.67	0.47
4:DD:9:CYS:HB3	4:DD:32:ALA:CB	2.43	0.47
36:BL:7:ARG:O	36:BL:10:PRO:HD3	2.14	0.47
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.45	0.47
25:BA:2513:G:N2	28:BD:143:ASN:HD21	2.12	0.47
25:CA:150:C:H2'	25:CA:151:C:H6	1.79	0.47
1:AA:321:A:C2	1:AA:333:G:C2	3.02	0.47
1:DA:321:A:C2	1:DA:333:G:C2	3.03	0.47
13:DM:27:LYS:HE2	13:DM:31:LYS:HE2	1.95	0.47
25:CA:1658:C:OP1	28:CD:132:HIS:ND1	2.48	0.47
40:BP:108:ARG:HA	40:BP:111:ARG:NE	2.29	0.47
3:DC:182:ILE:HG12	3:DC:203:PHE:HA	1.96	0.47
25:BA:287:C:H2'	25:BA:288:C:H6	1.79	0.47
25:BA:1819:A:C4	27:BC:179:SER:OG	2.67	0.47
29:BE:160:ASN:HB3	29:BE:163:VAL:HG23	1.97	0.47
4:AD:147:ALA:HA	4:AD:182:LYS:HA	1.97	0.47
25:CA:2206:C:H2'	25:CA:2207:C:C6	2.48	0.47
4:AD:195:ALA:C	4:AD:196:LEU:HD12	2.34	0.47
1:DA:629:G:H2'	1:DA:630:G:C8	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:DR:38:GLU:HG3	18:DR:42:ARG:HH22	1.79	0.47
25:BA:945:A:O2'	25:BA:946:G:H4'	2.15	0.47
32:CH:123:LEU:HD23	32:CH:124:GLY:N	2.30	0.47
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.95	0.47
47:CW:14:ARG:O	47:CW:15:ASP:HB2	2.14	0.47
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.15	0.47
3:DC:175:LEU:O	3:DC:175:LEU:HD23	2.14	0.47
25:CA:962:G:H2'	25:CA:963:U:O4'	2.14	0.47
25:CA:2443:C:H2'	25:CA:2444:G:H8	1.78	0.47
11:AK:94:ALA:O	11:AK:98:LEU:HG	2.14	0.47
22:DV:123:PHE:CE1	22:DV:180:VAL:HB	2.50	0.47
22:AV:303:ARG:HG3	22:AV:305:TYR:CE2	2.49	0.47
25:BA:996:A:H2'	25:BA:997:G:H8	1.79	0.47
1:AA:1285:A:H4'	1:AA:1286:A:O5'	2.14	0.47
1:DA:1285:A:H4'	1:DA:1286:A:O5'	2.14	0.47
1:AA:922:G:N3	1:AA:1398:A:H2	2.11	0.47
1:AA:397:A:H3'	1:AA:397:A:N3	2.30	0.47
1:AA:1118:C:P	9:AI:104:ARG:HG3	2.55	0.47
39:CO:66:ALA:HA	39:CO:69:VAL:HG12	1.96	0.47
55:C5:40:GLU:O	55:C5:44:LYS:HG2	2.15	0.47
25:BA:372:G:H5'	48:BX:66:HIS:CE1	2.49	0.47
40:CP:27:THR:HG22	40:CP:90:GLN:HB3	1.96	0.47
9:DI:77:ILE:O	9:DI:81:ILE:HG13	2.14	0.47
45:BU:10:GLY:HA2	45:BU:27:VAL:HG23	1.96	0.47
45:BU:88:LYS:C	45:BU:90:LEU:H	2.17	0.47
36:CL:40:SER:O	36:CL:41:ARG:HD2	2.14	0.47
44:BT:55:ASN:HB2	44:BT:80:ILE:CG2	2.43	0.47
25:CA:956:G:H2'	25:CA:957:A:H2'	1.96	0.47
37:CM:24:GLY:HA2	37:CM:101:ARG:CA	2.42	0.47
28:BD:103:ASP:OD1	28:BD:201:THR:HG23	2.13	0.47
4:DD:166:LYS:O	4:DD:168:ARG:HG2	2.13	0.47
22:AV:230:GLN:NE2	25:BA:2452:C:H1'	2.29	0.47
1:DA:500:G:H2'	1:DA:501:C:C6	2.50	0.47
25:CA:1480:G:H1	25:CA:1513:C:H42	1.63	0.47
35:BK:19:ILE:HG12	35:BK:19:ILE:O	2.14	0.47
28:CD:25:VAL:HG12	28:CD:181:LEU:HD12	1.96	0.47
25:CA:2094:G:P	32:CH:22:LYS:HD2	2.54	0.47
25:BA:480:A:OP2	45:BU:46:LYS:HE2	2.14	0.47
25:CA:1499:C:H2'	25:CA:1500:G:C8	2.50	0.47
1:DA:298:A:C6	1:DA:299:G:C2	3.03	0.47
4:AD:122:ARG:O	4:AD:122:ARG:HD3	2.15	0.47
22:AV:81:LEU:O	22:AV:85:LYS:HG2	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2549:G:H2'	25:BA:2550:G:H8	1.78	0.47
37:BM:20:ALA:HB1	37:BM:99:PRO:O	2.13	0.47
40:CP:54:ARG:HA	40:CP:59:THR:OG1	2.14	0.47
25:CA:1094:U:H2'	25:CA:1096:A:OP2	2.14	0.47
32:BH:123:LEU:HD23	32:BH:124:GLY:N	2.29	0.47
25:CA:1819:A:C4	27:CC:179:SER:OG	2.67	0.47
25:BA:492:A:H2'	25:BA:493:G:O4'	2.15	0.47
3:AC:175:LEU:O	3:AC:175:LEU:HD23	2.14	0.47
42:CR:62:LEU:HD22	42:CR:95:LEU:HD12	1.97	0.47
25:CA:2065:C:H5''	25:CA:2252:G:H1'	1.97	0.47
29:BE:101:LEU:HD12	29:BE:102:PRO:HD2	1.96	0.47
33:BI:9:LEU:O	33:BI:13:LEU:HG	2.13	0.47
25:CA:274:G:C6	25:CA:275:G:N2	2.82	0.47
41:CQ:83:LEU:HG	41:CQ:88:ILE:CD1	2.44	0.47
1:DA:1118:C:P	9:DI:104:ARG:HG3	2.54	0.47
27:CC:44:ASN:HB3	27:CC:50:THR:HG21	1.95	0.47
36:CL:18:ARG:HB3	36:CL:18:ARG:NH1	2.29	0.47
30:BF:36:LYS:HB3	30:BF:160:VAL:HB	1.96	0.47
25:BA:372:G:N2	25:BA:400:G:H2'	2.29	0.47
25:BA:46:C:H42	25:BA:179:G:H1	1.61	0.47
25:BA:1060:U:H4'	25:BA:1061:U:C3'	2.43	0.47
19:DS:6:LYS:H	19:DS:6:LYS:CD	2.27	0.47
39:CO:34:HIS:ND1	39:CO:54:LEU:HB2	2.29	0.47
25:CA:1558:A:H1'	25:CA:1559:G:OP2	2.15	0.47
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.97	0.47
25:CA:2685:G:N2	25:CA:2725:A:C6	2.83	0.47
34:BJ:112:LYS:O	34:BJ:116:THR:HG22	2.15	0.47
25:CA:2311:A:H5''	25:CA:2312:U:OP2	2.14	0.47
1:DA:737:A:H2'	1:DA:738:C:H6	1.78	0.47
7:DG:69:VAL:CA	7:DG:138:LYS:HD2	2.44	0.47
4:AD:9:CYS:HB3	4:AD:32:ALA:CB	2.44	0.47
7:AG:69:VAL:CA	7:AG:138:LYS:HD2	2.44	0.47
22:DV:168:TYR:O	22:DV:172:LYS:HB3	2.15	0.47
46:BV:145:GLU:HG3	46:BV:146:ILE:N	2.29	0.47
1:DA:321:A:H2'	1:DA:322:C:C6	2.50	0.47
36:CL:29:LYS:HD2	36:CL:29:LYS:N	2.29	0.47
27:BC:232:PRO:C	27:BC:234:GLY:H	2.18	0.47
1:DA:1402:C:H2'	1:DA:1403:C:O4'	2.15	0.47
29:CE:101:LEU:HD12	29:CE:102:PRO:HD2	1.96	0.47
35:CK:96:THR:O	35:CK:117:LEU:HD13	2.15	0.47
1:DA:1327:C:H2'	1:DA:1328:C:C6	2.50	0.47
1:DA:932:C:H5''	7:DG:4:ARG:HG3	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BL:16:ARG:HE	36:BL:17:LYS:N	2.11	0.47
8:DH:38:ILE:HD12	8:DH:118:VAL:HG12	1.96	0.47
1:AA:600:C:OP1	8:AH:97:VAL:HG12	2.14	0.47
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.14	0.47
25:BA:1914:C:O2	25:BA:1914:C:O4'	2.31	0.47
25:BA:2403:C:H6	25:BA:2403:C:O5'	1.97	0.47
42:CR:14:VAL:HG13	42:CR:96:ILE:HG13	1.96	0.47
25:BA:247:G:H4'	25:BA:386:G:C5	2.50	0.47
37:CM:140:ALA:HB3	46:CV:53:ILE:HD13	1.95	0.47
10:DJ:49:VAL:HG22	10:DJ:50:ILE:H	1.80	0.47
44:BT:12:VAL:HG12	44:BT:28:PHE:HA	1.95	0.47
25:CA:372:G:H22	25:CA:400:G:H2'	1.80	0.47
12:DL:82:VAL:HG22	12:DL:83:LEU:N	2.30	0.47
55:B5:33:ASN:ND2	55:B5:34:TRP:H	2.13	0.47
1:AA:793:U:H3'	1:AA:794:A:C5'	2.44	0.47
27:CC:106:ILE:HD13	27:CC:143:HIS:CD2	2.49	0.47
25:BA:1497:U:H5'	25:BA:1498:C:H5	1.80	0.47
46:CV:104:PHE:HD1	46:CV:139:VAL:HG11	1.79	0.47
2:AB:187:LEU:HD23	2:AB:201:ILE:HG22	1.97	0.47
25:BA:629:G:H1	25:BA:634:C:H42	1.62	0.47
47:BW:51:VAL:CG2	47:BW:80:HIS:HA	2.44	0.47
27:BC:186:HIS:CD2	27:BC:188:GLU:HB2	2.49	0.47
2:AB:158:LEU:HD12	2:AB:158:LEU:N	2.28	0.47
25:BA:2561:A:H2'	25:BA:2562:U:O4'	2.14	0.47
45:BU:49:VAL:O	45:BU:50:ARG:HB2	2.14	0.47
25:BA:782:A:H5'	25:BA:783:A:C2	2.49	0.47
49:BY:16:LEU:HB2	49:BY:20:GLU:HG3	1.97	0.47
25:CA:1272:A:OP2	25:CA:1647:G:OP1	2.32	0.47
25:CA:184:C:H2'	25:CA:185:U:C6	2.50	0.47
50:BZ:28:LEU:HA	50:BZ:33:GLN:OE1	2.15	0.47
22:AV:85:LYS:O	22:AV:89:GLU:HG2	2.15	0.47
40:BP:54:ARG:HA	40:BP:59:THR:OG1	2.14	0.47
1:AA:106:C:O2'	1:AA:107:G:H5'	2.14	0.47
1:DA:1344:C:O2'	1:DA:1345:U:H5'	2.15	0.47
19:AS:64:GLU:HG3	19:AS:65:ASN:OD1	2.14	0.47
25:CA:2131:G:OP1	25:CA:2132:U:H3'	2.13	0.47
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.96	0.47
1:AA:148:G:H2'	1:AA:149:A:C8	2.50	0.47
2:DB:32:ILE:HD11	2:DB:40:HIS:HB3	1.95	0.47
25:CA:2079:U:H2'	25:CA:2080:G:O4'	2.14	0.47
25:BA:1993:U:H4'	28:BD:128:SER:HB3	1.97	0.47
38:CN:50:HIS:O	38:CN:54:LEU:HB2	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:DV:303:ARG:HG3	22:DV:305:TYR:CE2	2.49	0.47
1:AA:1131:G:OP1	9:AI:3:GLN:NE2	2.48	0.47
25:BA:274:G:C6	25:BA:275:G:N2	2.82	0.47
41:BQ:88:ILE:HB	41:BQ:90:VAL:CG1	2.40	0.47
42:BR:4:ILE:HD13	42:BR:13:ARG:HA	1.97	0.47
25:BA:2393:A:H5'	36:BL:62:LEU:HD12	1.96	0.47
21:DU:18:TYR:O	21:DU:22:ARG:HB3	2.15	0.47
19:DS:16:LEU:HA	19:DS:19:VAL:HG12	1.96	0.47
44:BT:93:GLU:O	44:BT:94:GLY:C	2.52	0.47
25:BA:695:G:OP1	25:BA:1380:G:H4'	2.15	0.47
1:DA:1316:G:O2'	14:DN:18:VAL:HG21	2.15	0.47
1:AA:1316:G:O2'	14:AN:18:VAL:HG21	2.15	0.47
45:BU:81:LYS:CD	45:BU:97:ARG:HB3	2.39	0.47
25:BA:808:G:H2'	25:BA:809:G:H8	1.80	0.47
11:AK:29:ILE:C	11:AK:29:ILE:HD12	2.34	0.47
27:BC:242:ARG:HD3	27:BC:242:ARG:N	2.24	0.47
40:BP:27:THR:HG22	40:BP:90:GLN:HB3	1.96	0.47
39:CO:14:VAL:O	39:CO:18:ILE:HG12	2.15	0.47
39:CO:17:ARG:HG2	39:CO:18:ILE:HD13	1.96	0.47
1:AA:791:G:H2'	1:AA:792:A:H5'	1.97	0.47
6:DF:87:ARG:HH11	6:DF:87:ARG:HG2	1.79	0.47
2:AB:154:LEU:HD13	2:AB:155:LEU:N	2.30	0.47
28:CD:33:VAL:HG12	28:CD:89:ASP:O	2.14	0.47
28:CD:78:LEU:O	28:CD:79:ARG:HD2	2.15	0.47
38:BN:10:LEU:HB2	38:BN:17:ARG:CZ	2.44	0.47
38:BN:10:LEU:HD23	38:BN:21:TYR:OH	2.14	0.47
42:BR:81:TYR:C	42:BR:82:ARG:HG3	2.35	0.47
25:BA:1186:G:H8	25:BA:1186:G:O5'	1.98	0.47
38:CN:96:ARG:NH2	38:CN:117:VAL:HG23	2.27	0.47
38:CN:55:ALA:CB	38:CN:79:LEU:HD22	2.44	0.47
32:CH:130:TYR:HD2	32:CH:132:PRO:HG3	1.79	0.47
27:CC:186:HIS:CD2	27:CC:188:GLU:HB2	2.49	0.47
25:BA:2037:G:H2'	25:BA:2038:G:H8	1.80	0.47
10:AJ:55:LYS:O	10:AJ:56:HIS:CG	2.68	0.47
1:DA:615:C:H2'	1:DA:616:G:C8	2.47	0.47
36:CL:7:ARG:O	36:CL:10:PRO:HD3	2.14	0.47
25:CA:1952:A:C4	35:CK:22:ILE:HD12	2.49	0.47
35:BK:22:ILE:HG12	35:BK:41:ALA:HA	1.96	0.47
37:CM:52:VAL:HG23	46:CV:183:LEU:HD13	1.96	0.47
1:DA:1104:G:H2'	1:DA:1105:A:C8	2.49	0.47
30:CF:115:ARG:CD	30:CF:115:ARG:H	2.25	0.47
30:CF:115:ARG:N	30:CF:115:ARG:HD2	2.30	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:CV:145:GLU:HG3	46:CV:146:ILE:N	2.30	0.47
19:DS:40:ILE:HG12	19:DS:71:LEU:HD23	1.96	0.47
1:AA:321:A:H2'	1:AA:322:C:C6	2.50	0.47
55:B5:39:LYS:HE3	55:B5:43:GLN:HE21	1.80	0.47
25:CA:984:A:H5''	25:CA:985:C:H5	1.79	0.47
25:CA:451:C:H4'	29:CE:52:LYS:NZ	2.30	0.47
1:DA:297:G:H4'	1:DA:557:G:H4'	1.95	0.47
27:BC:231:HIS:CD2	27:BC:232:PRO:HD2	2.50	0.47
50:CZ:28:LEU:HA	50:CZ:33:GLN:OE1	2.15	0.47
43:CS:106:ILE:HG13	43:CS:106:ILE:O	2.14	0.47
25:CA:218:A:C2	25:CA:235:U:H4'	2.49	0.47
1:DA:1453:G:H8	20:DT:58:LYS:NZ	2.12	0.47
28:BD:132:HIS:HA	28:BD:135:HIS:NE2	2.29	0.47
25:CA:2512:C:H4'	28:CD:122:PHE:CE2	2.49	0.47
25:BA:2790:A:H2'	25:BA:2791:C:H5''	1.97	0.47
28:BD:110:GLY:CA	28:BD:162:ALA:HB2	2.45	0.47
42:BR:15:GLU:HB2	42:BR:18:LEU:HG	1.96	0.47
42:CR:15:GLU:HB2	42:CR:18:LEU:HG	1.96	0.47
1:DA:509:A:H5'	4:DD:55:ALA:HB2	1.97	0.47
25:CA:1070:A:H2'	25:CA:1097:U:OP1	2.14	0.47
25:CA:1535:U:H2'	25:CA:1536:A:O4'	2.14	0.47
1:AA:1119:C:H2'	1:AA:1120:G:C8	2.49	0.47
25:CA:934:G:H2'	25:CA:935:C:C6	2.49	0.47
25:BA:950:G:H2'	25:BA:951:C:H6	1.79	0.47
55:C5:29:LYS:HB3	55:C5:29:LYS:NZ	2.30	0.47
25:BA:884:C:H2'	25:BA:885:C:O4'	2.15	0.47
1:DA:219:C:H2'	1:DA:220:G:O4'	2.15	0.47
18:AR:38:GLU:HG3	18:AR:42:ARG:HH22	1.80	0.47
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.14	0.47
1:AA:835:U:OP1	18:AR:61:LYS:HB2	2.15	0.47
25:BA:812:C:H5'	36:BL:25:SER:O	2.15	0.47
37:BM:26:TYR:HA	46:BV:81:ARG:HH21	1.80	0.47
32:CH:82:ARG:HB3	32:CH:89:TYR:HB2	1.97	0.47
26:CB:53:A:H2'	26:CB:54:G:H8	1.79	0.47
55:B5:29:LYS:NZ	55:B5:29:LYS:HB3	2.30	0.47
42:CR:99:ILE:HD13	42:CR:99:ILE:N	2.29	0.47
25:BA:1728:G:H8	25:BA:1728:G:O5'	1.97	0.47
2:DB:153:ARG:HB2	2:DB:153:ARG:NH1	2.29	0.47
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.50	0.47
11:AK:17:GLY:HA3	11:AK:77:MET:SD	2.55	0.47
55:B5:48:PHE:HE1	55:B5:50:LEU:HD21	1.79	0.47
36:BL:50:ARG:HB3	55:B5:60:LEU:HD21	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:82:VAL:HG22	12:AL:83:LEU:N	2.29	0.47
39:BO:14:VAL:O	39:BO:18:ILE:HG12	2.15	0.47
40:BP:42:ILE:O	40:BP:42:ILE:HG13	2.15	0.47
55:C5:34:TRP:CG	55:C5:35:GLN:N	2.82	0.47
40:CP:42:ILE:O	40:CP:42:ILE:HG13	2.15	0.47
3:DC:21:ARG:O	3:DC:58:GLU:HA	2.14	0.47
19:AS:6:LYS:CD	19:AS:6:LYS:H	2.27	0.47
6:AF:87:ARG:HG2	6:AF:87:ARG:HH11	1.80	0.47
22:AV:88:LEU:HA	22:AV:91:GLU:HG2	1.96	0.47
25:CA:808:G:H2'	25:CA:809:G:H8	1.79	0.47
3:AC:20:SER:HB2	3:AC:40:ARG:NH1	2.30	0.47
25:CA:1186:G:O5'	25:CA:1186:G:H8	1.98	0.47
47:CW:78:TYR:HB3	47:CW:80:HIS:CE1	2.50	0.47
25:CA:582:G:H1	25:CA:1258:C:H42	1.63	0.47
25:CA:1056:G:H5''	25:CA:1057:A:C5'	2.45	0.47
41:CQ:112:ARG:NH2	42:CR:46:VAL:HG21	2.29	0.47
25:CA:333:G:H2'	25:CA:333:G:N3	2.30	0.47
30:BF:114:ILE:HB	30:BF:117:PHE:HB2	1.97	0.47
1:DA:1201:A:H5'	1:DA:1203:C:OP2	2.15	0.47
25:CA:2365:G:O6	55:C5:39:LYS:HE3	2.14	0.47
19:AS:40:ILE:HG12	19:AS:71:LEU:HD23	1.96	0.47
25:CA:998:C:H2'	25:CA:999:U:O4'	2.14	0.47
8:AH:31:PHE:O	8:AH:35:ILE:HG12	2.15	0.47
1:DA:88:C:H2'	1:DA:89:U:C6	2.50	0.47
1:AA:1453:G:H8	20:AT:58:LYS:NZ	2.11	0.47
25:CA:721:C:H2'	25:CA:722:A:H8	1.79	0.47
5:AE:10:MET:HG3	5:AE:13:ILE:HD11	1.95	0.47
40:CP:59:THR:O	40:CP:78:LEU:HB2	2.14	0.47
23:DW:47:U:H3'	23:DW:48:C:H5'	1.96	0.47
25:CA:2371:G:H2'	25:CA:2372:G:H8	1.78	0.47
35:CK:65:THR:H	35:CK:79:PHE:HD1	1.63	0.47
25:CA:289:A:H2'	25:CA:290:G:O4'	2.15	0.47
27:CC:183:ARG:CB	27:CC:270:ILE:HG22	2.45	0.47
25:BA:414:C:H2'	25:BA:415:A:C8	2.50	0.47
27:CC:40:THR:HG22	27:CC:41:GLY:N	2.29	0.47
35:BK:14:THR:O	35:BK:14:THR:HG22	2.14	0.47
25:CA:2403:C:H6	25:CA:2403:C:O5'	1.98	0.47
25:BA:307:G:H8	25:BA:307:G:O5'	1.97	0.47
25:CA:228:A:C5	25:CA:230:U:C2	3.03	0.47
25:CA:884:C:H2'	25:CA:885:C:O4'	2.15	0.47
22:AV:299:SER:C	22:AV:300:GLU:HG3	2.36	0.47
25:CA:1310:G:C3'	25:CA:1311:G:H5''	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2393:A:H5'	36:CL:62:LEU:HD12	1.96	0.47
37:BM:140:ALA:HB3	46:BV:53:ILE:HD13	1.96	0.47
25:BA:662:G:H2'	25:BA:663:G:H8	1.79	0.47
25:BA:664:C:H2'	25:BA:665:C:H6	1.80	0.47
36:BL:30:THR:HG22	36:BL:31:ALA:H	1.80	0.47
22:DV:41:MET:HE1	22:DV:352:ALA:HB1	1.97	0.47
5:DE:80:ILE:HG13	5:DE:91:LEU:HD13	1.96	0.47
1:AA:1299:A:C5	1:AA:1301:U:C2	3.03	0.47
25:BA:2552:U:C2	25:BA:2554:U:H5'	2.49	0.47
38:BN:96:ARG:NH2	38:BN:117:VAL:HG23	2.27	0.47
25:BA:910:A:N7	37:BM:13:GLN:HB2	2.30	0.47
9:DI:17:VAL:HA	9:DI:63:ILE:HG13	1.97	0.47
25:BA:1065:U:H2'	25:BA:1066:U:O4'	2.15	0.47
26:CB:66:A:N6	26:CB:107:U:H2'	2.30	0.47
25:BA:451:C:H4'	29:BE:52:LYS:NZ	2.30	0.47
36:BL:29:LYS:HD2	36:BL:29:LYS:N	2.30	0.47
29:CE:29:ASN:H	29:CE:112:MET:HE1	1.79	0.47
25:CA:116:C:H2'	25:CA:117:G:O4'	2.15	0.47
25:CA:2790:A:H2'	25:CA:2791:C:H5''	1.97	0.47
1:AA:105:G:C6	1:AA:106:C:C4	3.03	0.47
37:BM:58:PHE:CD1	37:BM:61:GLY:HA3	2.50	0.47
11:DK:94:ALA:O	11:DK:98:LEU:HG	2.14	0.47
7:DG:38:LEU:O	7:DG:42:ILE:HG13	2.15	0.47
1:DA:1270:C:O5'	1:DA:1270:C:H6	1.97	0.47
25:BA:2263:C:H42	25:BA:2278:A:N6	2.11	0.47
25:BA:2091:U:C4	25:BA:2092:U:C4	3.02	0.47
2:DB:27:LYS:HB2	2:DB:194:PRO:HG2	1.96	0.47
2:AB:28:PHE:HD2	2:AB:194:PRO:HD3	1.79	0.47
1:DA:977:A:O2'	1:DA:981:U:N3	2.47	0.47
12:DL:69:ILE:HA	12:DL:99:ILE:HG22	1.96	0.47
5:AE:152:ARG:HD3	8:AH:42:GLU:O	2.15	0.47
25:CA:1497:U:H5'	25:CA:1498:C:H5	1.80	0.47
37:CM:55:VAL:HG12	37:CM:64:ILE:CD1	2.43	0.47
25:CA:2331:G:N2	25:CA:2385:C:C4	2.83	0.47
45:CU:88:LYS:C	45:CU:90:LEU:H	2.17	0.47
22:DV:274:LEU:HD21	22:DV:278:ARG:NE	2.28	0.47
32:CH:114:LEU:HD21	32:CH:128:LEU:HD13	1.97	0.47
54:B4:8:ASN:C	54:B4:8:ASN:ND2	2.69	0.47
48:BX:45:ASN:ND2	48:BX:47:GLN:HE21	2.12	0.47
7:AG:15:ASP:CB	7:AG:20:ASP:H	2.28	0.47
37:BM:137:TYR:HB3	46:BV:76:LEU:HD21	1.96	0.47
25:BA:653:C:H5''	25:BA:654:U:O4'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2552:U:C2	25:CA:2554:U:H5'	2.50	0.47
9:DI:5:TYR:HA	9:DI:17:VAL:O	2.14	0.47
1:DA:1053:G:C3'	1:DA:1054:C:H5'	2.44	0.47
32:CH:107:ILE:HG13	32:CH:109:ILE:HG23	1.96	0.47
25:CA:1065:U:H2'	25:CA:1066:U:O4'	2.15	0.47
35:CK:19:ILE:O	35:CK:19:ILE:HG12	2.14	0.47
25:BA:2744:G:H21	31:BG:143:GLN:NE2	2.13	0.47
25:BA:1480:G:H1	25:BA:1513:C:H42	1.62	0.47
44:BT:50:LYS:H	44:BT:87:GLN:NE2	2.12	0.47
48:CX:19:GLN:HE21	48:CX:41:ARG:HB2	1.79	0.47
13:DM:49:THR:O	13:DM:53:VAL:HG23	2.15	0.47
25:CA:2836:U:H2'	25:CA:2837:G:C8	2.50	0.47
28:CD:132:HIS:HA	28:CD:135:HIS:NE2	2.30	0.47
17:DQ:59:ILE:N	17:DQ:59:ILE:HD12	2.29	0.47
25:BA:184:C:H2'	25:BA:185:U:C6	2.50	0.47
25:BA:2844:G:H2'	25:BA:2845:G:O4'	2.15	0.47
1:DA:513:C:H2'	1:DA:514:C:C6	2.50	0.47
2:AB:193:ASP:OD1	2:AB:196:LEU:HD21	2.14	0.47
1:DA:25:C:H2'	1:DA:26:A:H8	1.80	0.47
33:CI:56:ASN:HA	33:CI:59:ILE:HD12	1.97	0.47
27:BC:40:THR:HG22	27:BC:41:GLY:N	2.30	0.47
25:BA:1019:U:H3	25:BA:114(B):A:H62	1.63	0.47
28:CD:69:LYS:O	28:CD:69:LYS:HD3	2.15	0.47
6:DF:14:LEU:HD21	6:DF:18:GLN:HB2	1.96	0.47
2:DB:193:ASP:OD1	2:DB:196:LEU:HD21	2.15	0.47
37:CM:58:PHE:CD1	37:CM:61:GLY:HA3	2.50	0.47
22:AV:123:PHE:CE1	22:AV:180:VAL:HB	2.51	0.46
41:BQ:92:ARG:HD2	41:BQ:95:LEU:H	1.80	0.46
27:CC:133:LEU:HA	27:CC:136:ILE:HG13	1.97	0.46
25:CA:2749:A:H4'	31:CG:62:LYS:CB	2.39	0.46
1:DA:977:A:C8	1:DA:1223:C:C4	3.04	0.46
25:CA:662:G:H2'	25:CA:663:G:H8	1.80	0.46
55:C5:26:LYS:HA	55:C5:48:PHE:CE2	2.35	0.46
51:B1:57:ILE:HG22	51:B1:59:VAL:CG2	2.46	0.46
25:BA:1558:A:H1'	25:BA:1559:G:OP2	2.15	0.46
10:DJ:34:VAL:HG22	10:DJ:74:ILE:HG22	1.96	0.46
2:DB:187:LEU:HD11	2:DB:204:ASN:O	2.14	0.46
38:CN:10:LEU:HB2	38:CN:17:ARG:CZ	2.45	0.46
3:DC:20:SER:HB2	3:DC:40:ARG:NH1	2.30	0.46
46:BV:76:LEU:N	46:BV:76:LEU:HD12	2.29	0.46
39:BO:100:ALA:HA	39:BO:103:GLU:HB3	1.97	0.46
25:CA:598:G:H5'	36:CL:15:ARG:HG2	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2872:G:O2'	25:CA:2873:A:H5'	2.15	0.46
25:BA:548:A:O5'	25:BA:548:A:H8	1.98	0.46
32:BH:57:ARG:O	32:BH:61:ARG:HG3	2.15	0.46
1:DA:882:C:O2'	1:DA:883:C:H5'	2.14	0.46
32:BH:107:ILE:HG13	32:BH:109:ILE:HG23	1.96	0.46
25:CA:2744:G:H21	31:CG:143:GLN:NE2	2.13	0.46
1:AA:237:C:H5''	17:AQ:25:ARG:CZ	2.45	0.46
30:CF:114:ILE:HB	30:CF:117:PHE:HB2	1.97	0.46
13:AM:49:THR:O	13:AM:53:VAL:HG23	2.15	0.46
25:CA:2844:G:H2'	25:CA:2845:G:O4'	2.15	0.46
1:AA:828:A:H2'	1:AA:829:G:O4'	2.15	0.46
33:BI:56:ASN:HA	33:BI:59:ILE:HD12	1.98	0.46
51:B1:39:ARG:HG2	51:B1:49:GLU:HG3	1.97	0.46
30:CF:134:GLY:C	30:CF:135:LEU:HD12	2.35	0.46
34:CJ:61:HIS:O	41:CQ:67:ALA:HB1	2.15	0.46
2:DB:177:ALA:HB1	2:DB:182:ILE:HB	1.97	0.46
25:BA:2119:A:H61	25:BA:2168:G:H1'	1.81	0.46
25:BA:498:G:N3	45:BU:47:LYS:HE3	2.29	0.46
35:BK:65:THR:H	35:BK:79:PHE:HD1	1.63	0.46
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.50	0.46
25:CA:1206:G:C2	25:CA:1207:C:C2	3.03	0.46
25:CA:945:A:O2'	25:CA:946:G:H4'	2.15	0.46
1:AA:1290:G:H2'	1:AA:1290:G:N3	2.31	0.46
25:CA:1728:G:O5'	25:CA:1728:G:H8	1.98	0.46
3:AC:79:ARG:HD3	3:AC:79:ARG:N	2.31	0.46
17:DQ:94:ASN:O	17:DQ:98:LEU:HG	2.15	0.46
25:CA:414:C:H2'	25:CA:415:A:C8	2.50	0.46
46:CV:31:ARG:HG3	46:CV:32:HIS:CD2	2.49	0.46
22:DV:299:SER:C	22:DV:300:GLU:HG3	2.35	0.46
25:BA:1310:G:C3'	25:BA:1311:G:H5''	2.44	0.46
42:CR:38:LEU:C	42:CR:39:LEU:HD22	2.36	0.46
36:BL:62:LEU:HD21	55:B5:25:MET:HB2	1.97	0.46
1:AA:977:A:O2'	1:AA:981:U:N3	2.47	0.46
25:BA:808:G:H2'	25:BA:809:G:C8	2.50	0.46
55:C5:50:LEU:HD13	55:C5:57:ARG:NH2	2.29	0.46
27:CC:242:ARG:N	27:CC:242:ARG:HD3	2.24	0.46
26:CB:44:G:N3	26:CB:47:C:N4	2.64	0.46
37:BM:51:ARG:O	37:BM:55:VAL:HG13	2.15	0.46
37:CM:51:ARG:O	37:CM:55:VAL:HG13	2.15	0.46
25:BA:2331:G:N2	25:BA:2385:C:C4	2.83	0.46
25:CA:558:G:H5'	34:CJ:135:LEU:HD13	1.96	0.46
16:AP:4:ILE:N	16:AP:4:ILE:HD12	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:CW:51:VAL:CG2	47:CW:80:HIS:HA	2.44	0.46
25:BA:763:G:O2'	25:BA:764:A:H5'	2.15	0.46
1:DA:878:G:C5'	8:DH:89:PRO:HG2	2.45	0.46
51:B1:46:ASN:HB2	51:B1:64:LYS:CB	2.45	0.46
25:BA:298:G:O5'	25:BA:298:G:H8	1.99	0.46
55:C5:39:LYS:HE3	55:C5:43:GLN:HE21	1.80	0.46
25:BA:984:A:H5''	25:BA:985:C:H5	1.80	0.46
25:CA:1680:U:O2	25:CA:1763:G:C8	2.69	0.46
25:BA:2567:G:H2'	25:BA:2568:C:C6	2.50	0.46
15:AO:28:GLN:O	15:AO:32:LEU:HG	2.15	0.46
25:BA:2607:G:O2'	25:BA:2608:G:H5'	2.14	0.46
42:BR:99:ILE:HD13	42:BR:99:ILE:N	2.29	0.46
1:AA:1344:C:O2'	1:AA:1345:U:H5'	2.14	0.46
1:AA:998(B):C:H2'	1:AA:999:U:C6	2.51	0.46
1:DA:1119:C:H2'	1:DA:1120:G:C8	2.49	0.46
1:DA:776:G:HO2'	1:DA:777:A:H8	1.62	0.46
25:CA:1689:A:N6	25:CA:1698:A:H2	1.95	0.46
15:AO:60:VAL:O	15:AO:63:ARG:HB3	2.15	0.46
25:CA:695:G:OP1	25:CA:1380:G:H4'	2.14	0.46
55:B5:49:VAL:HG12	55:B5:50:LEU:N	2.31	0.46
9:AI:77:ILE:O	9:AI:81:ILE:HG13	2.14	0.46
27:CC:143:HIS:CE1	27:CC:192:THR:HG1	2.33	0.46
22:DV:88:LEU:HA	22:DV:91:GLU:CG	2.45	0.46
36:CL:125:VAL:O	36:CL:145:PRO:HD2	2.14	0.46
28:BD:78:LEU:O	28:BD:79:ARG:HD2	2.14	0.46
3:DC:14:ILE:HG23	3:DC:15:THR:N	2.28	0.46
38:CN:5:LYS:CD	38:CN:5:LYS:H	2.29	0.46
26:BB:45:A:H5'	26:BB:46:A:OP2	2.15	0.46
25:CA:548:A:H8	25:CA:548:A:O5'	1.99	0.46
25:BA:2718:G:H2'	25:BA:2719:G:C8	2.49	0.46
25:CA:1191:G:OP1	36:CL:35:HIS:CD2	2.69	0.46
25:CA:782:A:H5'	25:CA:783:A:C2	2.51	0.46
19:AS:46:GLY:H	19:AS:62:ILE:HG23	1.80	0.46
25:CA:298:G:O5'	25:CA:298:G:H8	1.97	0.46
27:CC:232:PRO:C	27:CC:234:GLY:H	2.18	0.46
25:CA:1405:U:H2'	25:CA:1406:U:C6	2.51	0.46
25:BA:235:U:H2'	25:BA:236:C:H6	1.80	0.46
28:CD:110:GLY:HA2	28:CD:162:ALA:HB2	1.97	0.46
22:DV:85:LYS:O	22:DV:89:GLU:HG2	2.15	0.46
25:BA:2369:A:H2'	25:BA:2370:G:H8	1.81	0.46
1:DA:24:U:H2'	1:DA:25:C:H6	1.80	0.46
14:DN:48:ALA:HB2	14:DN:53:LEU:HD12	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2850:A:H2	38:BN:61:HIS:CG	2.34	0.46
25:CA:2298:A:H2'	25:CA:2299:G:O4'	2.14	0.46
42:BR:62:LEU:HD22	42:BR:95:LEU:HD12	1.98	0.46
27:BC:183:ARG:CB	27:BC:270:ILE:HG22	2.45	0.46
26:BB:53:A:H2'	26:BB:54:G:H8	1.80	0.46
25:CA:247:G:H4'	25:CA:386:G:C5	2.50	0.46
25:CA:86:C:H4'	25:CA:104:U:H1'	1.97	0.46
25:CA:1019:U:H3	25:CA:114(B):A:H62	1.64	0.46
27:CC:132:PRO:HD3	27:CC:190:TYR:CE2	2.50	0.46
5:DE:12:LEU:HD22	5:DE:12:LEU:C	2.36	0.46
1:AA:513:C:H2'	1:AA:514:C:C6	2.50	0.46
13:AM:81:LEU:HD22	13:AM:86:CYS:SG	2.54	0.46
1:DA:600:C:OP1	8:DH:97:VAL:HG12	2.15	0.46
1:AA:25:C:H2'	1:AA:26:A:H8	1.79	0.46
9:DI:73:GLN:O	9:DI:77:ILE:HG13	2.16	0.46
22:AV:8:LEU:HG	22:AV:41:MET:SD	2.56	0.46
1:DA:791:G:H2'	1:DA:792:A:H5'	1.96	0.46
8:DH:31:PHE:O	8:DH:35:ILE:HG12	2.16	0.46
47:CW:43:THR:O	47:CW:43:THR:HG22	2.16	0.46
25:CA:832:G:OP1	36:CL:40:SER:HB3	2.16	0.46
25:CA:630:G:N2	25:CA:632:A:H3'	2.31	0.46
28:BD:33:VAL:HG12	28:BD:89:ASP:O	2.15	0.46
38:CN:21:TYR:CE2	38:CN:43:GLU:HB3	2.49	0.46
22:AV:229:GLY:HA3	23:AW:76:A:O3'	2.15	0.46
25:CA:1186:G:H2'	25:CA:1187:G:O4'	2.16	0.46
47:BW:78:TYR:HB3	47:BW:80:HIS:CE1	2.50	0.46
32:BH:130:TYR:HD2	32:BH:132:PRO:HG3	1.79	0.46
36:CL:13:ASN:H	36:CL:13:ASN:ND2	2.13	0.46
41:BQ:112:ARG:NH2	42:BR:46:VAL:HG21	2.29	0.46
32:CH:77:LEU:HD22	32:CH:79:ILE:HD11	1.97	0.46
43:CS:24:ILE:HG21	43:CS:36:LEU:CD2	2.46	0.46
25:CA:2718:G:H2'	25:CA:2719:G:C8	2.49	0.46
29:BE:11:VAL:HB	29:BE:18:ARG:O	2.15	0.46
26:BB:32:C:H2'	26:BB:33:G:H8	1.81	0.46
4:AD:135:LEU:HD22	4:AD:135:LEU:H	1.80	0.46
1:AA:88:C:H2'	1:AA:89:U:C6	2.50	0.46
30:BF:39:ILE:HG22	30:BF:40:ASN:N	2.31	0.46
25:CA:2354:G:H2'	25:CA:2355:C:C6	2.51	0.46
25:BA:2127:G:N2	25:BA:2173:A:H1'	2.29	0.46
1:AA:722:A:N6	1:AA:724:G:C2	2.83	0.46
20:DT:30:LYS:HG3	20:DT:34:LYS:HE3	1.95	0.46
25:CA:950:G:H2'	25:CA:951:C:C6	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:693:G:C6	1:DA:694:A:C6	3.04	0.46
2:AB:177:ALA:HB1	2:AB:182:ILE:HB	1.97	0.46
1:DA:1217:C:H5''	14:DN:9:LYS:NZ	2.31	0.46
22:DV:109:VAL:HG13	22:DV:201:VAL:HG22	1.96	0.46
11:DK:87:THR:HA	11:DK:91:ARG:HH21	1.81	0.46
41:BQ:61:TRP:O	41:BQ:65:ILE:HG13	2.16	0.46
42:BR:1:MET:SD	42:BR:42:GLY:HA3	2.55	0.46
1:AA:219:C:H2'	1:AA:220:G:O4'	2.15	0.46
34:BJ:61:HIS:O	41:BQ:67:ALA:HB1	2.15	0.46
1:DA:1319:A:H61	1:DA:1361:G:H21	1.63	0.46
25:BA:2236:C:H2'	25:BA:2237:G:H5'	1.98	0.46
25:BA:86:C:H4'	25:BA:104:U:H1'	1.97	0.46
28:BD:69:LYS:HD3	28:BD:69:LYS:O	2.15	0.46
2:DB:87:ARG:HD2	2:DB:87:ARG:O	2.15	0.46
2:AB:87:ARG:HD2	2:AB:87:ARG:O	2.15	0.46
22:AV:202:LEU:HD23	22:AV:202:LEU:N	2.30	0.46
4:DD:147:ALA:HA	4:DD:182:LYS:HA	1.96	0.46
12:DL:57:VAL:O	12:DL:59:LEU:HD22	2.14	0.46
31:BG:38:SER:HB2	31:BG:41:MET:CG	2.45	0.46
25:BA:1613:G:C6	25:BA:1619:G:C6	3.03	0.46
12:AL:51:LEU:HD12	12:AL:51:LEU:N	2.30	0.46
25:BA:275:G:N2	25:BA:276:A:N6	2.64	0.46
25:BA:2015:A:N3	52:B2:2:ALA:N	2.63	0.46
25:BA:827:U:H1'	25:BA:2246:G:O2'	2.16	0.46
15:AO:60:VAL:HG11	25:BA:715:G:O4'	2.16	0.46
39:BO:24:LEU:HD13	39:BO:82:ILE:CG2	2.44	0.46
48:BX:11:ARG:HH11	48:BX:61:ARG:H	1.63	0.46
25:CA:2378:A:C2	39:CO:18:ILE:HD12	2.48	0.46
46:CV:27:VAL:HA	46:CV:37:VAL:HG22	1.96	0.46
29:CE:63:LYS:HG3	29:CE:76:GLY:HA2	1.98	0.46
37:BM:54:MET:HG2	37:BM:64:ILE:HD13	1.97	0.46
36:CL:30:THR:HG22	36:CL:31:ALA:H	1.79	0.46
25:BA:814:C:C5	36:BL:27:HIS:NE2	2.84	0.46
36:CL:84:ASN:HA	36:CL:115:LEU:O	2.16	0.46
25:BA:1276:A:O2'	38:BN:16:HIS:HE1	1.98	0.46
1:AA:357:G:H2'	1:AA:358:U:H5''	1.97	0.46
22:DV:125:ARG:O	22:DV:128:PHE:HB3	2.16	0.46
25:CA:571:A:H1'	25:CA:573:G:C8	2.50	0.46
41:CQ:36:ARG:HG2	41:CQ:40:PHE:HE1	1.80	0.46
25:BA:652:U:H2'	25:BA:653:C:O4'	2.16	0.46
35:CK:122:LEU:CD2	40:CP:74:ARG:HE	2.29	0.46
25:BA:1607:C:H4'	25:BA:1608:A:C5'	2.44	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:458:C:N4	1:AA:464:G:C6	2.83	0.46
36:CL:13:ASN:ND2	36:CL:13:ASN:N	2.64	0.46
18:DR:84:LYS:HZ3	18:DR:84:LYS:HA	1.80	0.46
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.29	0.46
30:CF:110:ALA:O	30:CF:114:ILE:HG13	2.15	0.46
1:DA:1512:U:H2'	1:DA:1513:A:C8	2.50	0.46
1:AA:1493:A:H5''	24:AX:19:U:O2'	2.15	0.46
37:BM:34:LEU:HD23	37:BM:104:PHE:HD1	1.81	0.46
44:CT:50:LYS:H	44:CT:87:GLN:NE2	2.12	0.46
19:DS:46:GLY:H	19:DS:62:ILE:HG23	1.80	0.46
16:DP:14:ASN:N	16:DP:15:PRO:HD3	2.31	0.46
25:CA:480:A:OP2	45:CU:46:LYS:HE2	2.14	0.46
30:CF:39:ILE:HG22	30:CF:40:ASN:N	2.31	0.46
1:DA:1321:C:C6	1:DA:1322:C:H2'	2.50	0.46
25:CA:235:U:H2'	25:CA:236:C:H6	1.80	0.46
29:CE:51:THR:OG1	29:CE:91:GLY:HA3	2.16	0.46
1:DA:722:A:N6	1:DA:724:G:C2	2.84	0.46
29:CE:194:MET:SD	29:CE:199:TRP:HD1	2.38	0.46
49:CY:50:ILE:HD12	49:CY:50:ILE:N	2.30	0.46
1:DA:191(G):G:H2'	1:DA:192:U:C6	2.51	0.46
7:DG:41:ARG:NH1	7:DG:41:ARG:HB3	2.30	0.46
11:DK:41:THR:HG21	11:DK:71:LYS:HB2	1.98	0.46
1:AA:337:C:H2'	1:AA:338:A:C8	2.51	0.46
11:DK:17:GLY:HA3	11:DK:77:MET:SD	2.55	0.46
25:BA:2103:C:H2'	25:BA:2104:G:C8	2.49	0.46
25:BA:2861:G:C4	25:BA:2862:G:C8	3.04	0.46
7:AG:155:ARG:O	7:AG:156:TRP:CD1	2.68	0.46
32:BH:82:ARG:HB3	32:BH:89:TYR:HB2	1.97	0.46
35:BK:56:ASP:O	35:BK:58:VAL:HG13	2.14	0.46
4:AD:109:GLY:HA3	4:AD:165:MET:HG2	1.97	0.46
1:AA:323:U:H2'	1:AA:324:G:O4'	2.15	0.46
8:AH:38:ILE:HD12	8:AH:118:VAL:HG12	1.97	0.46
1:AA:607:A:H2'	1:AA:608:A:O4'	2.16	0.46
19:AS:12:ASP:HB2	19:AS:15:LEU:HD23	1.96	0.46
29:CE:123:LEU:HD13	29:CE:192:LEU:HD22	1.97	0.46
4:AD:166:LYS:C	4:AD:166:LYS:HD2	2.36	0.46
25:BA:2392:A:OP1	55:B5:32:LEU:HB3	2.16	0.46
15:AO:36:ILE:HD13	15:AO:60:VAL:HG22	1.97	0.46
22:DV:8:LEU:HD21	22:DV:45:ILE:HG12	1.96	0.46
22:DV:8:LEU:HG	22:DV:41:MET:SD	2.56	0.46
1:DA:1373:G:H5''	7:DG:36:LYS:NZ	2.31	0.46
27:CC:242:ARG:N	27:CC:242:ARG:CD	2.79	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:DE:152:ARG:HD3	8:DH:42:GLU:O	2.15	0.46
27:BC:25:THR:HG21	27:BC:81:ALA:HA	1.98	0.46
37:CM:54:MET:HG2	37:CM:64:ILE:HD13	1.97	0.46
2:DB:154:LEU:HD13	2:DB:155:LEU:N	2.30	0.46
36:CL:135:LEU:HD22	36:CL:138:LEU:HD11	1.96	0.46
25:CA:808:G:H2'	25:CA:809:G:C8	2.50	0.46
3:AC:14:ILE:HG23	3:AC:15:THR:N	2.28	0.46
32:BH:114:LEU:HD21	32:BH:128:LEU:HD13	1.97	0.46
25:BA:1842:G:H1'	27:BC:255:LYS:HZ3	1.78	0.46
42:CR:81:TYR:C	42:CR:82:ARG:HG3	2.35	0.46
3:DC:6:HIS:CD2	3:DC:7:PRO:HD2	2.50	0.46
1:DA:358:U:H2'	1:DA:359:U:C6	2.51	0.46
37:BM:141:GLN:HG2	46:BV:72:ARG:HA	1.97	0.46
25:CA:652:U:H2'	25:CA:653:C:O4'	2.16	0.46
9:DI:16:ARG:O	9:DI:63:ILE:HG23	2.15	0.46
25:BA:333:G:H2'	25:BA:333:G:N3	2.30	0.46
1:AA:691:G:H3'	11:AK:26:ASN:ND2	2.30	0.46
22:AV:168:TYR:O	22:AV:172:LYS:HB3	2.15	0.46
8:AH:81:HIS:HB2	8:AH:138:TRP:OXT	2.15	0.46
25:CA:451:C:C2	25:CA:453:C:C5	3.03	0.46
36:BL:135:LEU:HD22	36:BL:138:LEU:HD11	1.97	0.46
25:CA:2731:G:C6	25:CA:2732:G:O6	2.69	0.46
28:CD:110:GLY:CA	28:CD:162:ALA:HB2	2.45	0.46
7:AG:41:ARG:NH1	7:AG:41:ARG:HB3	2.31	0.46
25:BA:950:G:H2'	25:BA:951:C:C6	2.51	0.46
17:AQ:29:HIS:CG	17:AQ:30:PRO:HD2	2.50	0.46
37:CM:77:LYS:HA	37:CM:78:PRO:HD3	1.74	0.46
1:DA:37:U:OP1	12:DL:122:LYS:HG3	2.16	0.46
38:CN:26:LYS:HE2	38:CN:71:GLN:H	1.80	0.46
11:AK:41:THR:HG21	11:AK:71:LYS:HB2	1.98	0.46
42:CR:1:MET:SD	42:CR:42:GLY:HA3	2.55	0.46
38:BN:25:ALA:O	38:BN:29:LEU:HG	2.15	0.46
25:CA:107:C:H2'	25:CA:108:U:C6	2.50	0.46
1:DA:1387:G:H2'	1:DA:1388:C:C6	2.50	0.46
2:AB:153:ARG:HB2	2:AB:153:ARG:NH1	2.30	0.46
22:DV:202:LEU:HD23	22:DV:202:LEU:N	2.31	0.46
25:BA:228:A:C5	25:BA:230:U:C2	3.03	0.46
25:BA:2456:C:H42	25:BA:2495:G:H1	1.63	0.46
36:CL:112:LEU:O	36:CL:128:HIS:HB2	2.16	0.46
25:CA:828:U:O2	25:CA:829:A:N7	2.48	0.46
25:BA:768:G:H2'	25:BA:769:G:C8	2.49	0.46
31:CG:55:PRO:HG2	31:CG:61:HIS:HD2	1.81	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:832:G:OP1	36:BL:40:SER:HB3	2.15	0.46
9:AI:14:VAL:HG12	9:AI:15:ALA:N	2.31	0.46
9:AI:73:GLN:O	9:AI:77:ILE:HG13	2.16	0.46
25:CA:773:U:H4'	27:CC:47:GLY:CA	2.41	0.46
9:DI:14:VAL:HG12	9:DI:15:ALA:N	2.30	0.46
25:BA:558:G:H5'	34:BJ:135:LEU:HD13	1.97	0.46
25:BA:514:A:H2'	25:BA:515:A:C8	2.51	0.46
10:DJ:34:VAL:CG2	10:DJ:74:ILE:HG22	2.45	0.46
2:DB:187:LEU:HD23	2:DB:201:ILE:HG22	1.96	0.46
25:CA:758:C:O2	25:CA:1981:A:H2	1.98	0.46
1:AA:234:C:H2'	1:AA:235:C:C6	2.50	0.46
48:BX:31:GLY:O	48:BX:32:LYS:HB2	2.14	0.46
35:BK:122:LEU:CD2	40:BP:74:ARG:HE	2.29	0.46
25:CA:2115:G:H8	25:CA:2115:G:O5'	1.98	0.46
37:CM:141:GLN:HG2	46:CV:72:ARG:HA	1.97	0.46
28:CD:84:PHE:CE1	28:CD:86:PRO:HG3	2.51	0.46
35:CK:22:ILE:HG12	35:CK:41:ALA:HA	1.96	0.46
1:AA:501:C:P	12:AL:123:LYS:HD2	2.56	0.46
1:DA:237:C:H5''	17:DQ:25:ARG:CZ	2.45	0.46
34:CJ:122:LEU:O	34:CJ:125:ALA:HB3	2.16	0.46
37:CM:34:LEU:HD23	37:CM:104:PHE:HD1	1.81	0.46
6:DF:72:VAL:HG13	6:DF:73:ASN:N	2.31	0.46
25:BA:2836:U:H2'	25:BA:2837:G:C8	2.50	0.46
27:CC:231:HIS:CD2	27:CC:232:PRO:HD2	2.50	0.46
40:BP:57:PHE:HE2	40:BP:79:HIS:HB2	1.80	0.46
8:DH:81:HIS:HB2	8:DH:138:TRP:OXT	2.15	0.46
25:BA:904:C:H2'	25:BA:905:U:H6	1.81	0.46
25:CA:2590:A:P	27:CC:238:GLY:HA2	2.56	0.46
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.51	0.46
25:CA:2824:C:H2'	25:CA:2825:U:O4'	2.16	0.46
25:CA:1993:U:H4'	28:CD:128:SER:HB3	1.96	0.46
2:DB:137:ARG:O	2:DB:141:GLU:HG2	2.16	0.46
23:DW:6:G:N2	23:DW:68:C:C2	2.84	0.46
25:CA:2567:G:H2'	25:CA:2568:C:C6	2.51	0.46
6:DF:50:TYR:CE1	18:DR:77:GLY:HA2	2.51	0.46
25:BA:107:C:H2'	25:BA:108:U:C6	2.50	0.46
25:CA:843:G:N2	25:CA:936:C:C2	2.84	0.46
29:BE:33:LEU:O	29:BE:37:VAL:HG23	2.16	0.46
36:BL:97:PRO:O	36:BL:101:VAL:HG12	2.15	0.46
1:AA:340:U:H2'	1:AA:341:C:C6	2.51	0.46
32:CH:13:GLY:HA3	32:CH:17:GLN:OE1	2.16	0.46
1:DA:835:U:OP1	18:DR:61:LYS:HB2	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1543:A:C8	25:CA:1543:A:H3'	2.50	0.46
9:AI:4:TYR:HB3	9:AI:84:ALA:O	2.16	0.46
41:CQ:92:ARG:NE	42:CR:11:GLN:HG3	2.31	0.46
2:DB:163:PHE:HD1	2:DB:185:ILE:HG13	1.81	0.46
41:BQ:62:ILE:HD12	41:BQ:76:TYR:CE1	2.51	0.46
42:BR:38:LEU:C	42:BR:39:LEU:HD22	2.37	0.46
25:CA:2392:A:H1'	36:CL:60:MET:CE	2.46	0.46
25:BA:857:C:H2'	25:BA:858:U:C6	2.51	0.46
25:BA:295:G:H4'	45:BU:2:ARG:NH1	2.31	0.46
22:DV:295:THR:C	22:DV:297:GLU:N	2.68	0.46
1:DA:1502:A:H8	1:DA:1505:G:N2	2.14	0.46
25:BA:943:U:OP1	36:BL:38:GLN:HB3	2.16	0.46
25:CA:664:C:H2'	25:CA:665:C:H6	1.81	0.46
25:CA:663:G:H5''	36:CL:21:ARG:HD2	1.98	0.46
25:BA:1676:A:O5'	25:BA:1676:A:H8	1.99	0.46
43:CS:29:LEU:HD22	43:CS:69:LEU:CD1	2.42	0.46
19:AS:49:ILE:N	19:AS:49:ILE:HD12	2.30	0.46
53:C3:36:LEU:HB3	53:C3:50:ARG:NH1	2.30	0.46
25:BA:571:A:H1'	25:BA:573:G:C8	2.51	0.46
28:CD:101:ARG:HG2	28:CD:171:GLU:HA	1.98	0.46
25:CA:514:A:H2'	25:CA:515:A:C8	2.50	0.46
30:CF:86:MET:N	30:CF:87:PRO:CD	2.79	0.46
25:BA:2115:G:H8	25:BA:2115:G:O5'	1.98	0.46
25:BA:2477:C:HO2'	25:BA:2478:A:P	2.38	0.46
25:BA:1191:G:OP1	36:BL:35:HIS:CD2	2.69	0.46
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.29	0.46
32:CH:57:ARG:O	32:CH:61:ARG:HG3	2.15	0.46
1:AA:1201:A:H5'	1:AA:1203:C:OP2	2.16	0.46
25:BA:2537:U:H2'	25:BA:2538:C:H6	1.81	0.46
25:BA:1499:C:H2'	25:BA:1500:G:C8	2.49	0.46
40:CP:57:PHE:HE2	40:CP:79:HIS:HB2	1.81	0.46
25:BA:451:C:C2	25:BA:453:C:C5	3.04	0.46
7:DG:87:VAL:HA	7:DG:88:PRO:HD3	1.81	0.46
4:DD:135:LEU:HD22	4:DD:135:LEU:N	2.31	0.46
1:AA:474:G:H2'	1:AA:475:G:C8	2.50	0.46
25:CA:648:G:H4'	25:CA:2351:G:H5''	1.98	0.46
25:BA:649:G:H2'	25:BA:650:C:C6	2.51	0.46
2:AB:115:LEU:HD12	2:AB:118:LEU:HD12	1.98	0.46
11:DK:102:GLY:C	11:DK:103:LEU:HD22	2.35	0.46
27:CC:114:GLY:O	27:CC:115:GLN:C	2.54	0.46
2:DB:138:LEU:O	2:DB:141:GLU:HB2	2.16	0.46
25:CA:1613:G:C6	25:CA:1619:G:C6	3.03	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1005:A:H5'	1:AA:1037:C:O2	2.16	0.46
22:DV:184:PRO:HG2	22:DV:187:GLU:HG2	1.98	0.46
17:DQ:29:HIS:CG	17:DQ:30:PRO:HD2	2.51	0.46
2:AB:58:ILE:HG22	2:AB:221:LEU:HD12	1.96	0.46
17:AQ:94:ASN:O	17:AQ:98:LEU:HG	2.15	0.46
25:BA:1416:G:H1'	25:BA:1417:C:C6	2.51	0.46
11:DK:34:ASP:HB2	11:DK:35:PRO:HD2	1.98	0.46
25:CA:486:C:H4'	43:CS:60:ASN:HD22	1.81	0.46
2:AB:137:ARG:O	2:AB:141:GLU:HG2	2.16	0.46
35:CK:56:ASP:O	35:CK:58:VAL:HG13	2.16	0.46
39:BO:33:LYS:O	39:BO:33:LYS:HD3	2.16	0.46
27:BC:165:ILE:HD12	27:BC:165:ILE:N	2.31	0.46
23:DW:22:G:H2'	23:DW:23:C:H6	1.80	0.46
1:AA:352:C:H4'	1:AA:354:G:OP1	2.16	0.46
25:CA:1416:G:H1'	25:CA:1417:C:C6	2.51	0.46
38:CN:25:ALA:O	38:CN:29:LEU:HG	2.16	0.46
42:CR:4:ILE:HD13	42:CR:13:ARG:HA	1.96	0.46
45:CU:8:LYS:HE2	45:CU:37:VAL:HG11	1.97	0.46
15:DO:63:ARG:O	15:DO:67:LEU:HG	2.16	0.46
25:BA:372:G:H22	25:BA:400:G:H2'	1.81	0.46
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.98	0.46
30:CF:130:ASN:OD1	30:CF:160:VAL:HA	2.16	0.46
1:DA:243:A:C2	1:DA:246:A:C8	3.03	0.46
25:CA:1211:U:H4'	25:CA:1212:G:OP2	2.15	0.46
12:DL:37:THR:HG23	12:DL:38:VAL:N	2.27	0.46
1:AA:1191:A:H5''	3:AC:4:LYS:NZ	2.30	0.46
25:CA:943:U:OP1	36:CL:38:GLN:HB3	2.15	0.46
2:AB:187:LEU:HD11	2:AB:204:ASN:O	2.15	0.46
17:DQ:14:LYS:N	17:DQ:14:LYS:HD2	2.27	0.46
28:BD:101:ARG:HG2	28:BD:171:GLU:HA	1.97	0.46
15:DO:42:HIS:O	15:DO:46:HIS:HB2	2.15	0.46
25:BA:1786:A:H1'	25:BA:1938:A:N6	2.31	0.46
25:CA:910:A:N7	37:CM:13:GLN:HB2	2.30	0.46
25:BA:1131:G:H21	34:BJ:96:THR:HG21	1.81	0.46
15:AO:42:HIS:O	15:AO:46:HIS:HB2	2.16	0.46
1:DA:1128:C:H4'	9:DI:16:ARG:NH1	2.30	0.46
40:CP:124:ASP:O	40:CP:128:GLU:HG3	2.16	0.46
7:AG:69:VAL:C	7:AG:138:LYS:HD2	2.36	0.46
25:CA:579:G:C2	25:CA:1262:A:C4	3.04	0.46
30:BF:110:ALA:O	30:BF:114:ILE:HG13	2.16	0.46
30:BF:115:ARG:N	30:BF:115:ARG:HD2	2.30	0.46
51:C1:46:ASN:HB2	51:C1:64:LYS:CB	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:1511:G:H2'	1:DA:1512:U:O4'	2.16	0.46
25:BA:1588:C:H2'	25:BA:1589:C:C6	2.51	0.46
25:BA:2818:G:H4'	25:BA:2837:G:C4'	2.46	0.46
25:CA:297:C:H2'	25:CA:298:G:O4'	2.16	0.46
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.15	0.46
3:AC:18:TRP:HE3	3:AC:18:TRP:H	1.62	0.46
1:AA:1321:C:C6	1:AA:1322:C:H2'	2.50	0.46
25:BA:1817:G:C6	25:BA:1818:U:C4	3.03	0.46
1:AA:547:A:H4'	1:AA:548:G:O5'	2.14	0.46
5:DE:48:ALA:HB2	5:DE:57:LYS:HD3	1.98	0.46
25:BA:2010:G:H5''	43:BS:42:ARG:HB2	1.98	0.46
1:DA:895:G:H2'	1:DA:896:C:H6	1.81	0.46
1:DA:340:U:H2'	1:DA:341:C:C6	2.51	0.46
25:CA:2216:G:H2'	25:CA:2217:G:H8	1.81	0.46
1:AA:779:C:H2'	1:AA:780:A:O4'	2.15	0.46
30:BF:16:ARG:N	30:BF:17:PRO:HD2	2.31	0.46
25:CA:1799:G:H8	27:CC:181:GLU:CD	2.19	0.46
1:DA:828:A:H2'	1:DA:829:G:O4'	2.15	0.46
3:DC:79:ARG:N	3:DC:79:ARG:HD3	2.31	0.46
53:B3:41:PRO:HG3	53:B3:49:HIS:HE1	1.79	0.46
7:DG:155:ARG:O	7:DG:156:TRP:CD1	2.69	0.46
9:DI:4:TYR:HB3	9:DI:84:ALA:O	2.16	0.46
25:BA:858:U:O2	25:BA:2268:A:H2'	2.16	0.46
25:CA:81:G:H2'	25:CA:82:G:O4'	2.16	0.46
19:AS:16:LEU:O	19:AS:20:LEU:HG	2.16	0.46
31:BG:149:ARG:HA	31:BG:162:ILE:CG1	2.46	0.46
39:CO:24:LEU:HD13	39:CO:82:ILE:CG2	2.44	0.46
51:C1:57:ILE:HG22	51:C1:59:VAL:CG2	2.46	0.46
1:DA:793:U:H3'	1:DA:794:A:C5'	2.44	0.46
2:DB:88:ALA:HA	2:DB:223:ILE:HD11	1.97	0.46
27:CC:35:LYS:HD2	27:CC:35:LYS:HA	1.68	0.46
25:BA:582:G:H1	25:BA:1258:C:H42	1.64	0.46
36:BL:83:VAL:O	36:BL:114:ILE:HA	2.16	0.46
44:CT:55:ASN:HB2	44:CT:80:ILE:CG2	2.43	0.46
36:CL:26:GLY:HA2	36:CL:30:THR:CG2	2.43	0.46
25:CA:2335:A:OP2	39:CO:13:ARG:HG2	2.17	0.46
11:DK:21:ILE:HD12	11:DK:21:ILE:N	2.31	0.46
11:AK:21:ILE:HD12	11:AK:21:ILE:N	2.31	0.46
39:CO:100:ALA:HA	39:CO:103:GLU:HB3	1.97	0.46
1:AA:358:U:H2'	1:AA:359:U:C6	2.51	0.46
25:BA:1186:G:H2'	25:BA:1187:G:O4'	2.16	0.46
1:DA:52:G:C6	1:DA:360:A:C2	3.04	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:DS:49:ILE:HD12	19:DS:49:ILE:N	2.30	0.46
35:BK:71:ARG:NH1	40:BP:74:ARG:HH22	2.14	0.46
38:CN:5:LYS:H	38:CN:5:LYS:HD2	1.81	0.46
25:BA:1332:G:H21	25:BA:1610:A:H8	1.55	0.46
25:BA:841:A:C2	25:BA:938:G:C2	3.04	0.46
7:DG:69:VAL:C	7:DG:138:LYS:HD2	2.36	0.46
22:DV:143:GLU:HB3	22:DV:161:GLU:O	2.16	0.46
36:BL:13:ASN:ND2	36:BL:13:ASN:H	2.13	0.46
35:BK:22:ILE:HB	35:BK:40:VAL:HG12	1.96	0.46
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.31	0.46
23:DW:59:A:C2'	23:DW:60:U:H5'	2.46	0.46
25:BA:1794:U:H2'	25:BA:1795:C:H6	1.80	0.46
25:CA:2818:G:H4'	25:CA:2837:G:C4'	2.46	0.46
51:C1:48:ILE:HD12	51:C1:48:ILE:N	2.31	0.46
25:CA:649:G:H2'	25:CA:650:C:C6	2.51	0.46
1:DA:78:G:H2'	1:DA:79:G:O4'	2.16	0.46
25:CA:2127:G:N2	25:CA:2173:A:H1'	2.29	0.46
25:BA:1680:U:O2	25:BA:1763:G:C8	2.69	0.46
1:DA:1441:G:H5''	1:DA:1442:G:H5'	1.98	0.46
25:CA:287:C:H2'	25:CA:288:C:C6	2.51	0.46
25:CA:415:A:H2'	25:CA:416:C:C6	2.51	0.46
1:DA:93:U:H2'	1:DA:95:G:H8	1.81	0.46
1:DA:607:A:H2'	1:DA:608:A:O4'	2.16	0.46
25:BA:2216:G:H2'	25:BA:2217:G:H8	1.81	0.46
25:BA:2876:G:H2'	25:BA:2877:G:H8	1.81	0.46
25:CA:1927:A:C6	25:CA:1928:A:C6	3.04	0.46
25:BA:1206:G:C2	25:BA:1207:C:C2	3.04	0.46
23:AW:6:G:N2	23:AW:68:C:C2	2.84	0.46
42:CR:77:ALA:O	42:CR:79:VAL:N	2.49	0.46
44:BT:63:LYS:NZ	44:BT:72:LYS:HB3	2.31	0.46
25:BA:1799:G:H8	27:BC:181:GLU:CD	2.19	0.46
35:BK:96:THR:O	35:BK:117:LEU:HD13	2.16	0.46
1:DA:1005:A:H5'	1:DA:1037:C:O2	2.16	0.46
25:BA:1540:G:N3	25:BA:1541:U:H1'	2.30	0.45
25:CA:275:G:N2	25:CA:276:A:N6	2.63	0.45
2:AB:163:PHE:HD1	2:AB:185:ILE:HG13	1.81	0.45
25:BA:828:U:O2	25:BA:829:A:N7	2.49	0.45
25:CA:2392:A:OP1	55:C5:32:LEU:HB3	2.15	0.45
10:AJ:49:VAL:HG22	10:AJ:50:ILE:H	1.81	0.45
15:DO:60:VAL:O	15:DO:63:ARG:HB3	2.15	0.45
31:CG:55:PRO:HG2	31:CG:61:HIS:CD2	2.51	0.45
2:DB:20:GLU:HA	2:DB:20:GLU:OE1	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:579:G:H4'	15:DO:54:ARG:NH2	2.22	0.45
1:AA:1373:G:H5''	7:AG:36:LYS:NZ	2.31	0.45
30:BF:60:LEU:O	30:BF:64:THR:HG22	2.17	0.45
2:AB:88:ALA:HA	2:AB:223:ILE:HD11	1.97	0.45
27:CC:25:THR:HG21	27:CC:81:ALA:HA	1.98	0.45
47:BW:43:THR:O	47:BW:43:THR:HG22	2.15	0.45
22:AV:88:LEU:HA	22:AV:91:GLU:CG	2.45	0.45
25:BA:2415:G:O2'	36:BL:66:GLY:HA3	2.16	0.45
25:CA:270(J):G:H4'	48:CX:81:ARG:HD2	1.98	0.45
25:BA:1022:G:C6	25:BA:1141:U:C5	3.05	0.45
53:B3:36:LEU:HB3	53:B3:50:ARG:NH1	2.30	0.45
3:DC:54:ARG:O	3:DC:69:HIS:HD2	2.00	0.45
28:CD:169:ASN:ND2	28:CD:201:THR:HG21	2.32	0.45
25:BA:598:G:H5'	36:BL:15:ARG:HG2	1.97	0.45
25:CA:1786:A:H1'	25:CA:1938:A:N6	2.31	0.45
34:CJ:112:LYS:O	34:CJ:116:THR:HG22	2.15	0.45
26:BB:79:C:H42	26:BB:97:G:H1	1.64	0.45
25:BA:579:G:C2	25:BA:1262:A:C4	3.03	0.45
26:CB:24:G:N3	26:CB:27:C:N4	2.64	0.45
1:AA:1512:U:H2'	1:AA:1513:A:C8	2.50	0.45
25:CA:2056:G:N2	52:C2:4:HIS:O	2.50	0.45
6:DF:69:GLU:CD	6:DF:69:GLU:H	2.20	0.45
1:AA:1184:G:H2'	1:AA:1185:G:C8	2.51	0.45
1:DA:222:U:H2'	1:DA:223:U:H6	1.80	0.45
40:BP:57:PHE:CE2	40:BP:79:HIS:HB2	2.52	0.45
25:CA:2513:G:N2	28:CD:143:ASN:HD21	2.14	0.45
27:BC:114:GLY:O	27:BC:115:GLN:C	2.54	0.45
28:BD:110:GLY:HA2	28:BD:162:ALA:HB2	1.97	0.45
23:DW:47:U:H3'	23:DW:48:C:C5'	2.46	0.45
25:BA:107:C:H2'	25:BA:108:U:H6	1.81	0.45
1:AA:37:U:OP1	12:AL:122:LYS:HG3	2.16	0.45
1:AA:1195:C:H5''	1:AA:1196:U:OP2	2.16	0.45
32:BH:7:GLU:OE1	32:BH:8:PRO:HD2	2.16	0.45
1:DA:1435:G:H2'	1:DA:1436:U:C6	2.51	0.45
1:DA:433:C:HO2'	1:DA:434:U:H6	1.57	0.45
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.51	0.45
23:AW:22:G:H2'	23:AW:23:C:H6	1.80	0.45
1:DA:352:C:H4'	1:DA:354:G:OP1	2.16	0.45
54:B4:3:ARG:HD3	54:B4:3:ARG:HA	1.71	0.45
25:CA:2861:G:C4	25:CA:2862:G:C8	3.05	0.45
1:AA:1040:U:H2'	1:AA:1041:A:H8	1.81	0.45
1:DA:731:G:OP1	1:DA:766:A:H1'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1058:G:H2'	1:AA:1059:C:O4'	2.16	0.45
25:CA:498:G:N3	45:CU:47:LYS:HE3	2.30	0.45
25:BA:2321:G:H2'	25:BA:2321:G:N3	2.31	0.45
30:CF:16:ARG:HB3	30:CF:17:PRO:HD3	1.98	0.45
25:CA:2119:A:H61	25:CA:2168:G:H1'	1.81	0.45
25:BA:2648:C:H2'	25:BA:2649:U:C6	2.51	0.45
41:BQ:92:ARG:CD	41:BQ:95:LEU:H	2.30	0.45
25:BA:2400:G:C4'	53:B3:19:ARG:HD3	2.35	0.45
30:CF:6:ALA:O	30:CF:10:LYS:HG3	2.16	0.45
25:BA:663:G:H5''	36:BL:21:ARG:HD2	1.99	0.45
55:C5:49:VAL:HG12	55:C5:50:LEU:N	2.31	0.45
55:C5:51:ALA:O	55:C5:54:GLU:HB2	2.17	0.45
48:CX:46:LEU:CB	48:CX:63:ALA:HA	2.44	0.45
2:DB:77:ALA:HB1	2:DB:165:VAL:HG11	1.98	0.45
1:DA:1149:C:H2'	1:DA:1150:U:C6	2.52	0.45
9:DI:65:VAL:HG21	9:DI:73:GLN:HB3	1.99	0.45
26:CB:45:A:H5'	26:CB:46:A:OP2	2.17	0.45
1:AA:243:A:C2	1:AA:246:A:C8	3.04	0.45
25:BA:773:U:H4'	27:BC:47:GLY:CA	2.41	0.45
1:AA:430:A:OP2	4:AD:8:VAL:HG22	2.17	0.45
25:CA:1497:U:H3	25:CA:1578:U:H5'	1.82	0.45
37:BM:55:VAL:HG12	37:BM:64:ILE:CD1	2.43	0.45
5:DE:92:LYS:HG3	5:DE:93:PRO:HD2	1.99	0.45
1:DA:1299:A:C5	1:DA:1301:U:C2	3.03	0.45
25:CA:629:G:H1	25:CA:634:C:H42	1.62	0.45
42:CR:75:PHE:HD2	42:CR:82:ARG:HG2	1.81	0.45
27:CC:102:LYS:C	27:CC:103:ARG:HG2	2.37	0.45
1:DA:234:C:H2'	1:DA:235:C:C6	2.52	0.45
43:CS:17:VAL:HG21	43:CS:76:VAL:HG21	1.98	0.45
25:BA:1922:G:H2'	25:BA:1923:U:O4'	2.17	0.45
25:BA:2056:G:N2	52:B2:4:HIS:O	2.50	0.45
29:CE:11:VAL:HB	29:CE:18:ARG:O	2.16	0.45
29:CE:11:VAL:HG13	29:CE:125:LEU:O	2.16	0.45
25:BA:297:C:H2'	25:BA:298:G:O4'	2.16	0.45
25:BA:1102:C:H2'	25:BA:1103:A:H8	1.80	0.45
32:CH:12:LEU:N	32:CH:12:LEU:HD22	2.31	0.45
25:CA:36:G:H4'	25:CA:451:C:C2	2.51	0.45
25:BA:1291:C:H2'	25:BA:1292:U:C6	2.51	0.45
1:AA:78:G:H2'	1:AA:79:G:O4'	2.16	0.45
5:DE:145:LYS:O	5:DE:149:GLU:HG2	2.17	0.45
17:DQ:38:ARG:HD2	17:DQ:38:ARG:N	2.31	0.45
22:AV:244:LEU:H	22:AV:244:LEU:HD12	1.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:50:TYR:CZ	18:AR:77:GLY:HA2	2.51	0.45
38:BN:26:LYS:HE2	38:BN:71:GLN:H	1.81	0.45
43:BS:37:ARG:HG2	43:BS:38:TYR:CE2	2.52	0.45
43:CS:37:ARG:HG2	43:CS:38:TYR:CE2	2.51	0.45
25:BA:843:G:N2	25:BA:936:C:C2	2.85	0.45
25:BA:1659:U:H2'	25:BA:1660:C:O4'	2.16	0.45
1:AA:136(A):C:HO2'	1:AA:136(B):C:H6	1.64	0.45
51:C1:39:ARG:HG2	51:C1:49:GLU:HG3	1.98	0.45
35:BK:73:ASP:OD1	35:BK:75:SER:HB3	2.16	0.45
25:CA:1783:A:C2	25:CA:2587:A:C4	3.04	0.45
1:DA:304:U:H2'	1:DA:305:G:C8	2.51	0.45
41:CQ:61:TRP:O	41:CQ:65:ILE:HG13	2.15	0.45
46:BV:98:MET:O	46:BV:125:LEU:HA	2.16	0.45
45:BU:8:LYS:HE2	45:BU:37:VAL:HG11	1.98	0.45
55:B5:51:ALA:O	55:B5:54:GLU:HB2	2.16	0.45
1:AA:977:A:C8	1:AA:1223:C:C4	3.04	0.45
25:CA:848:G:H2'	25:CA:849:A:H8	1.76	0.45
2:AB:77:ALA:HB1	2:AB:165:VAL:HG11	1.98	0.45
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.84	0.45
29:BE:154:VAL:HG22	29:BE:191:ARG:CB	2.40	0.45
8:DH:35:ILE:O	8:DH:39:LEU:HB2	2.17	0.45
2:AB:91:PRO:CA	2:AB:154:LEU:HD11	2.43	0.45
36:CL:88:LEU:HD11	36:CL:95:VAL:HG21	1.99	0.45
29:BE:63:LYS:HG3	29:BE:76:GLY:HA2	1.99	0.45
46:BV:27:VAL:HG13	46:BV:35:ARG:O	2.16	0.45
16:DP:4:ILE:HD12	16:DP:4:ILE:N	2.31	0.45
1:DA:1253:G:H2'	1:DA:1254:C:H6	1.81	0.45
25:BA:530:G:C6	25:BA:2022:U:H5''	2.51	0.45
37:CM:101:ARG:HG3	37:CM:102:VAL:N	2.32	0.45
25:CA:442:G:C2	25:CA:444:C:C4	3.04	0.45
25:BA:2682:U:O4	25:BA:2728:U:H1'	2.16	0.45
25:BA:638:G:H2'	25:BA:639:U:C6	2.51	0.45
1:DA:458:C:N4	1:DA:464:G:C6	2.84	0.45
1:AA:1128:C:H4'	9:AI:16:ARG:NH1	2.31	0.45
25:BA:442:G:C2	25:BA:444:C:C4	3.05	0.45
31:BG:92:ILE:N	31:BG:92:ILE:HD12	2.31	0.45
4:DD:185:PHE:CZ	4:DD:189:PRO:HD3	2.51	0.45
26:BB:44:G:N3	26:BB:47:C:N4	2.64	0.45
32:BH:101:LEU:HG	32:BH:107:ILE:CG2	2.47	0.45
13:AM:106:ASN:HB2	13:AM:107:ALA:H	1.57	0.45
23:AW:59:A:C2'	23:AW:60:U:H5'	2.46	0.45
46:BV:58:VAL:HG11	46:BV:66:SER:HB2	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:CD:9:VAL:HG22	28:CD:25:VAL:HB	1.98	0.45
27:CC:79:VAL:HG11	27:CC:111:LEU:CD1	2.47	0.45
25:CA:297:C:N4	25:CA:298:G:C2	2.85	0.45
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.31	0.45
26:BB:7:G:H2'	26:BB:8:U:O4'	2.16	0.45
25:CA:2600:A:H2'	25:CA:2601:C:C6	2.52	0.45
25:CA:2512:C:H2'	25:CA:2513:G:O4'	2.16	0.45
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.17	0.45
2:AB:138:LEU:O	2:AB:141:GLU:HB2	2.16	0.45
1:DA:1040:U:H2'	1:DA:1041:A:H8	1.81	0.45
4:DD:53:ASP:O	4:DD:57:ARG:HD3	2.17	0.45
1:AA:918:A:H2'	1:AA:919:A:C8	2.52	0.45
1:AA:731:G:OP1	1:AA:766:A:H1'	2.16	0.45
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.16	0.45
25:BA:1040:C:H2'	25:BA:1041:C:C6	2.51	0.45
25:CA:2850:A:H2	38:CN:61:HIS:CG	2.34	0.45
25:CA:1735:U:H2'	25:CA:1741:C:C6	2.51	0.45
25:BA:854:G:H2'	25:BA:855:G:H8	1.81	0.45
34:BJ:119:GLU:O	34:BJ:123:GLU:HG3	2.15	0.45
1:DA:1318:A:H4'	19:DS:37:ARG:NH2	2.32	0.45
32:BH:13:GLY:HA3	32:BH:17:GLN:OE1	2.16	0.45
1:AA:1217:C:H5''	14:AN:9:LYS:NZ	2.31	0.45
1:DA:1290:G:H2'	1:DA:1290:G:N3	2.31	0.45
47:CW:45:PHE:HB2	47:CW:59:LEU:HD11	1.99	0.45
37:BM:77:LYS:HA	37:BM:78:PRO:HD3	1.74	0.45
25:BA:2824:C:H2'	25:BA:2825:U:O4'	2.16	0.45
55:B5:40:GLU:O	55:B5:44:LYS:HG2	2.15	0.45
1:DA:779:C:H2'	1:DA:780:A:O4'	2.15	0.45
22:AV:145:LEU:HB2	22:AV:159:VAL:CG2	2.46	0.45
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.52	0.45
41:CQ:92:ARG:HD2	41:CQ:95:LEU:H	1.80	0.45
1:DA:1131:G:H2'	1:DA:1132:C:C6	2.52	0.45
49:BY:14:ARG:HG2	49:BY:17:SER:OG	2.16	0.45
41:BQ:90:VAL:CG2	42:BR:39:LEU:HB3	2.43	0.45
25:CA:2394:C:H2'	25:CA:2395:C:H6	1.82	0.45
25:CA:827:U:H1'	25:CA:2246:G:O2'	2.16	0.45
15:DO:36:ILE:HD13	15:DO:60:VAL:HG22	1.98	0.45
30:BF:6:ALA:O	30:BF:10:LYS:HG3	2.17	0.45
25:CA:2210:G:N3	25:CA:2210:G:H3'	2.32	0.45
27:BC:242:ARG:CD	27:BC:242:ARG:N	2.79	0.45
25:BA:270(J):G:H4'	48:BX:81:ARG:HD2	1.98	0.45
55:C5:33:ASN:ND2	55:C5:34:TRP:H	2.14	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:814:C:C5	36:CL:27:HIS:NE2	2.84	0.45
1:AA:1253:G:H2'	1:AA:1254:C:H6	1.81	0.45
25:CA:2777:G:C5'	25:CA:2778:A:H5'	2.44	0.45
1:DA:1191:A:H5''	3:DC:4:LYS:NZ	2.30	0.45
25:CA:530:G:C6	25:CA:2022:U:H5''	2.51	0.45
25:CA:2415:G:O2'	36:CL:66:GLY:HA3	2.17	0.45
25:CA:1276:A:O2'	38:CN:16:HIS:HE1	1.98	0.45
28:BD:169:ASN:ND2	28:BD:201:THR:HG21	2.31	0.45
36:BL:115:LEU:HA	36:BL:134:ALA:CB	2.44	0.45
36:BL:84:ASN:HA	36:BL:115:LEU:O	2.16	0.45
22:AV:125:ARG:O	22:AV:128:PHE:HB3	2.15	0.45
53:C3:11:LEU:HD21	53:C3:51:GLU:CD	2.37	0.45
47:CW:32:ARG:HB3	47:CW:33:ALA:H	1.62	0.45
6:AF:35:ALA:HA	6:AF:67:MET:HB3	1.99	0.45
43:BS:1:MET:HE2	43:BS:2:GLU:H	1.81	0.45
4:AD:171:GLY:HA3	4:AD:174:LEU:HD12	1.97	0.45
25:CA:519:U:H2'	25:CA:520:G:C8	2.52	0.45
25:CA:519:U:H2'	25:CA:520:G:H8	1.81	0.45
43:CS:36:LEU:O	43:CS:39:THR:HG22	2.17	0.45
25:CA:443:A:C2'	29:CE:45:ARG:HH12	2.28	0.45
37:BM:52:VAL:HG23	46:BV:183:LEU:HD13	1.97	0.45
46:CV:58:VAL:HG11	46:CV:66:SER:HB2	1.98	0.45
34:BJ:122:LEU:O	34:BJ:125:ALA:HB3	2.16	0.45
25:BA:150:C:H2'	25:BA:151:C:H6	1.80	0.45
30:CF:41:GLN:HG2	30:CF:155:MET:CB	2.47	0.45
19:AS:63:THR:HG22	19:AS:66:MET:HE3	1.99	0.45
1:AA:103(B):G:H2'	1:AA:103(C):G:O4'	2.17	0.45
25:CA:999:U:C2'	25:CA:1000:A:H5'	2.45	0.45
37:CM:60:ARG:NH1	37:CM:60:ARG:HB2	2.31	0.45
25:BA:648:G:H4'	25:BA:2351:G:H5''	1.98	0.45
29:BE:29:ASN:H	29:BE:112:MET:HE3	1.81	0.45
39:BO:90:GLY:O	39:BO:92:TYR:N	2.49	0.45
25:BA:2600:A:H2'	25:BA:2601:C:C6	2.51	0.45
25:BA:2354:G:H2'	25:BA:2355:C:C6	2.52	0.45
1:DA:1327:C:H2'	1:DA:1328:C:H6	1.82	0.45
25:BA:415:A:H2'	25:BA:416:C:C6	2.51	0.45
1:AA:24:U:H2'	1:AA:25:C:H6	1.81	0.45
1:DA:781:A:C8	1:DA:782:A:C8	3.05	0.45
31:CG:38:SER:HB2	31:CG:41:MET:CG	2.46	0.45
36:CL:97:PRO:O	36:CL:101:VAL:HG12	2.16	0.45
4:AD:78:LEU:O	4:AD:81:GLU:HB3	2.17	0.45
1:DA:156:G:C6	1:DA:166:G:N1	2.85	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:7:GLU:HA	15:AO:10:LYS:HB3	1.99	0.45
42:BR:77:ALA:O	42:BR:79:VAL:N	2.50	0.45
1:DA:971:G:H3'	1:DA:971:G:OP1	2.17	0.45
25:CA:2596:U:H2'	25:CA:2597:G:O4'	2.17	0.45
23:AW:47:U:H3'	23:AW:48:C:H5'	1.97	0.45
23:AW:51:C:H2'	23:AW:52:G:H8	1.80	0.45
5:AE:12:LEU:HD22	5:AE:12:LEU:C	2.37	0.45
38:BN:33:ARG:HD2	38:BN:33:ARG:N	2.31	0.45
25:CA:1216:G:N2	25:CA:1234:U:H1'	2.32	0.45
25:CA:889:C:O2	25:CA:889:C:O4'	2.35	0.45
22:AV:127:LEU:HB3	22:AV:131:TYR:HE2	1.82	0.45
41:CQ:92:ARG:HH21	42:CR:11:GLN:H	1.64	0.45
5:DE:76:ILE:HG23	5:DE:78:HIS:H	1.82	0.45
25:CA:2281:C:O2'	25:CA:2282:G:H5'	2.17	0.45
1:AA:44:G:H1	1:AA:398:C:H42	1.65	0.45
25:BA:664:C:H4'	25:BA:941:A:OP1	2.16	0.45
36:BL:26:GLY:HA2	36:BL:30:THR:CG2	2.43	0.45
29:CE:154:VAL:HG22	29:CE:191:ARG:CB	2.40	0.45
2:AB:104:ASN:O	2:AB:108:ILE:HG12	2.16	0.45
27:BC:25:THR:HG22	27:BC:82:ILE:O	2.16	0.45
27:BC:143:HIS:CE1	27:BC:192:THR:HG1	2.34	0.45
22:AV:91:GLU:O	22:AV:94:ARG:HB3	2.16	0.45
34:CJ:157:ARG:O	34:CJ:157:ARG:HG2	2.17	0.45
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.51	0.45
32:BH:142:VAL:HG12	32:BH:143:SER:H	1.81	0.45
25:CA:2276:G:O3'	37:CM:85:LYS:HB2	2.16	0.45
35:BK:86:ILE:HD12	35:BK:86:ILE:N	2.30	0.45
20:AT:26:ASN:HB2	20:AT:71:THR:CG2	2.47	0.45
27:BC:96:HIS:CD2	27:BC:102:LYS:HG2	2.52	0.45
1:AA:52:G:C6	1:AA:360:A:C2	3.04	0.45
25:CA:2682:U:O4	25:CA:2728:U:H1'	2.16	0.45
15:DO:5:LYS:CD	15:DO:5:LYS:H	2.30	0.45
27:BC:186:HIS:HB3	27:BC:189:CYS:SG	2.57	0.45
32:BH:113:ARG:HB2	32:BH:130:TYR:CZ	2.51	0.45
4:DD:171:GLY:HA3	4:DD:174:LEU:HD12	1.98	0.45
28:BD:4:ILE:HG12	28:BD:28:ALA:HB1	1.99	0.45
4:AD:43:HIS:HB3	4:AD:46:LYS:HD2	1.98	0.45
1:AA:321:A:H2'	1:AA:322:C:H6	1.82	0.45
49:CY:16:LEU:HB2	49:CY:20:GLU:HG3	1.97	0.45
25:CA:1102:C:H2'	25:CA:1103:A:H8	1.80	0.45
40:CP:57:PHE:CE2	40:CP:79:HIS:HB2	2.51	0.45
27:BC:155:LEU:HD23	27:BC:177:LEU:CD2	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:523:A:H61	12:AL:91:ASP:HB2	1.82	0.45
1:AA:270:A:H2'	1:AA:271:C:C6	2.52	0.45
25:BA:2783:G:N2	28:BD:37:ARG:HH12	2.15	0.45
25:BA:2731:G:C6	25:BA:2732:G:O6	2.69	0.45
25:BA:2591:C:P	27:BC:239:ARG:HB2	2.57	0.45
22:DV:216:GLU:HB2	22:DV:245:PRO:CD	2.47	0.45
49:BY:50:ILE:HD12	49:BY:50:ILE:N	2.31	0.45
25:CA:2369:A:H2'	25:CA:2370:G:H8	1.81	0.45
30:CF:16:ARG:N	30:CF:17:PRO:HD2	2.31	0.45
26:CB:65:C:H41	26:CB:108:C:H2'	1.82	0.45
25:BA:289:A:H2'	25:BA:290:G:O4'	2.16	0.45
18:AR:71:LYS:O	18:AR:75:ILE:HG13	2.16	0.45
22:AV:184:PRO:HG2	22:AV:187:GLU:HG2	1.98	0.45
20:DT:17:ARG:O	20:DT:20:LEU:HB2	2.17	0.45
25:CA:1925:C:O2'	25:CA:1926:U:H5'	2.16	0.45
41:CQ:68:ALA:O	41:CQ:71:GLN:HB3	2.16	0.45
1:DA:918:A:H2'	1:DA:919:A:C8	2.51	0.45
50:BZ:55:ARG:HD3	50:BZ:55:ARG:HA	1.68	0.45
25:CA:2244:U:H1'	25:CA:2434:A:C5	2.52	0.45
7:AG:108:ALA:O	7:AG:119:ARG:HD2	2.16	0.45
42:BR:40:LEU:HA	42:BR:45:THR:O	2.16	0.45
46:CV:98:MET:O	46:CV:125:LEU:HA	2.17	0.45
25:CA:664:C:H4'	25:CA:941:A:OP1	2.16	0.45
25:CA:1678:G:O2'	25:CA:1679:U:O5'	2.35	0.45
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.52	0.45
4:AD:18:LYS:HE2	4:AD:20:TYR:CE2	2.52	0.45
25:BA:1497:U:H3	25:BA:1578:U:H5'	1.82	0.45
22:DV:91:GLU:O	22:DV:94:ARG:HB3	2.16	0.45
19:DS:6:LYS:HD2	19:DS:6:LYS:N	2.32	0.45
36:CL:85:LEU:HD12	36:CL:120:ALA:HB2	1.99	0.45
36:CL:39:LYS:O	36:CL:41:ARG:HG2	2.15	0.45
25:CA:2379:G:H2'	25:CA:2380:C:C6	2.51	0.45
29:CE:53:THR:HG23	29:CE:55:GLY:N	2.30	0.45
25:CA:1022:G:C6	25:CA:1140:C:C4	3.05	0.45
36:CL:115:LEU:HA	36:CL:134:ALA:CB	2.44	0.45
7:AG:15:ASP:HB2	7:AG:20:ASP:O	2.16	0.45
25:BA:2681:C:H4'	25:BA:2682:U:H5'	1.99	0.45
38:BN:5:LYS:H	38:BN:5:LYS:HD2	1.82	0.45
25:BA:1608:A:H1'	25:BA:1610:A:OP2	2.17	0.45
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.16	0.45
40:BP:124:ASP:O	40:BP:128:GLU:HG3	2.16	0.45
1:DA:576:G:H3'	1:DA:577:G:C5'	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:31:CYS:O	4:AD:32:ALA:HB3	2.17	0.45
26:BB:24:G:N3	26:BB:27:C:N4	2.64	0.45
25:BA:519:U:H2'	25:BA:520:G:H8	1.81	0.45
4:AD:117:ALA:O	4:AD:121:VAL:HG23	2.17	0.45
1:DA:501:C:P	12:DL:123:LYS:HD2	2.56	0.45
1:DA:270:A:H2'	1:DA:271:C:C6	2.52	0.45
1:DA:1337:G:H5''	1:DA:1338:G:OP1	2.16	0.45
1:DA:867:G:H2'	1:DA:868:C:H6	1.81	0.45
41:CQ:49:HIS:HA	41:CQ:52:ARG:HB2	1.99	0.45
39:CO:90:GLY:O	39:CO:92:TYR:N	2.49	0.45
1:AA:1349:A:H2'	1:AA:1350:A:O4'	2.17	0.45
1:DA:474:G:H2'	1:DA:475:G:C8	2.50	0.45
22:AV:244:LEU:N	22:AV:244:LEU:HD12	2.32	0.45
1:DA:105:G:C6	1:DA:106:C:C4	3.04	0.45
1:DA:93:U:H2'	1:DA:95:G:C8	2.52	0.45
1:AA:1060:C:H5'	14:AN:45:ARG:HH22	1.82	0.45
4:DD:109:GLY:HA3	4:DD:165:MET:HG2	1.97	0.45
1:AA:156:G:C6	1:AA:166:G:N1	2.84	0.45
25:BA:2489:G:C6	25:BA:2490:G:N1	2.85	0.45
25:BA:920:G:H2'	25:BA:921:G:C8	2.52	0.45
25:BA:1927:A:C6	25:BA:1928:A:C6	3.04	0.45
25:CA:920:G:H2'	25:CA:921:G:C8	2.52	0.45
1:DA:1091:U:O2	1:DA:1093:A:H8	2.00	0.45
1:AA:787:A:O2'	1:AA:788:U:H5'	2.15	0.45
25:CA:2045:C:H2'	25:CA:2046:G:O4'	2.16	0.45
25:CA:2876:G:H2'	25:CA:2877:G:H8	1.82	0.45
25:BA:302:C:H2'	25:BA:303:U:C6	2.52	0.45
34:CJ:119:GLU:O	34:CJ:123:GLU:HG3	2.16	0.45
18:DR:71:LYS:O	18:DR:75:ILE:HG13	2.16	0.45
30:CF:153:ARG:NH1	30:CF:153:ARG:HB3	2.32	0.45
36:CL:62:LEU:HD21	55:C5:25:MET:HB2	1.98	0.45
25:CA:827:U:C4	25:CA:2430:A:C6	3.05	0.45
30:CF:5:LEU:O	30:CF:8:LYS:HB3	2.17	0.45
3:DC:23:TYR:CG	3:DC:24:ALA:N	2.85	0.45
26:CB:75:G:N1	26:CB:102:G:N2	2.65	0.45
1:AA:168:G:C2'	1:AA:169:C:H5''	2.44	0.45
36:CL:83:VAL:O	36:CL:114:ILE:HA	2.17	0.45
3:DC:35:GLU:HA	3:DC:38:ARG:HG2	1.99	0.45
25:CA:556:G:C5	25:CA:557:U:C4	3.05	0.45
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.46	0.45
32:CH:142:VAL:HG12	32:CH:143:SER:H	1.80	0.45
46:CV:76:LEU:N	46:CV:76:LEU:HD12	2.29	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:864:G:H1'	25:BA:914:C:H42	1.82	0.45
27:CC:96:HIS:CD2	27:CC:102:LYS:HG2	2.52	0.45
28:BD:84:PHE:CE1	28:BD:86:PRO:HG3	2.51	0.45
25:CA:638:G:H2'	25:CA:639:U:C6	2.51	0.45
32:CH:101:LEU:HG	32:CH:107:ILE:CG2	2.47	0.45
30:BF:55:LYS:HG2	30:BF:150:ASP:OD1	2.17	0.45
4:AD:135:LEU:HD22	4:AD:135:LEU:N	2.32	0.45
28:CD:118:LYS:HE2	38:CN:2:ARG:NH1	2.32	0.45
11:AK:38:ASN:HA	11:AK:39:PRO:HD3	1.87	0.45
29:BE:51:THR:OG1	29:BE:91:GLY:HA3	2.16	0.45
25:CA:184:C:H2'	25:CA:185:U:H6	1.81	0.45
44:CT:31:HIS:ND1	44:CT:32:PRO:HD2	2.32	0.45
25:BA:116:C:H2'	25:BA:117:G:O4'	2.16	0.45
41:BQ:49:HIS:HA	41:BQ:52:ARG:HB2	1.98	0.45
25:BA:1062:G:OP2	25:BA:1070:A:H4'	2.17	0.45
25:CA:107:C:H2'	25:CA:108:U:H6	1.81	0.45
1:DA:323:U:H2'	1:DA:324:G:O4'	2.16	0.45
1:DA:418:C:H2'	1:DA:419:C:C6	2.52	0.45
1:AA:895:G:H2'	1:AA:896:C:H6	1.81	0.45
14:AN:48:ALA:HB2	14:AN:53:LEU:HD12	1.99	0.45
1:DA:998(B):C:H2'	1:DA:999:U:C6	2.51	0.45
25:BA:1735:U:H2'	25:BA:1741:C:C6	2.51	0.45
32:CH:7:GLU:OE1	32:CH:8:PRO:HD2	2.16	0.45
25:CA:2010:G:H5''	43:CS:42:ARG:HB2	1.99	0.45
34:BJ:98:TYR:HA	34:BJ:104:GLY:O	2.16	0.45
25:CA:2686:G:C6	25:CA:2687:U:C4	3.05	0.45
1:AA:693:G:C6	1:AA:694:A:C6	3.04	0.45
25:CA:1659:U:H2'	25:CA:1660:C:O4'	2.17	0.45
25:CA:1399:C:H6	25:CA:1399:C:O5'	2.00	0.45
42:CR:89:GLN:HA	42:CR:90:PRO:HD3	1.84	0.45
9:AI:29:ASN:OD1	9:AI:64:THR:HA	2.17	0.45
11:AK:87:THR:HA	11:AK:91:ARG:HH21	1.81	0.45
11:AK:12:ARG:HG2	11:AK:13:GLN:N	2.32	0.45
9:DI:89:ASN:HB3	9:DI:92:TYR:CD1	2.52	0.45
41:CQ:62:ILE:HD12	41:CQ:76:TYR:CE1	2.51	0.45
42:CR:40:LEU:HA	42:CR:45:THR:O	2.17	0.45
25:BA:2266:A:H4'	25:BA:2267:A:N3	2.32	0.45
25:CA:857:C:H2'	25:CA:858:U:C6	2.51	0.45
25:BA:2210:G:N3	25:BA:2210:G:H3'	2.32	0.45
1:DA:38:G:H22	1:DA:397:A:C5'	2.23	0.45
22:AV:295:THR:C	22:AV:297:GLU:N	2.69	0.45
22:AV:332:LEU:H	22:AV:332:LEU:CD2	2.24	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BF:60:LEU:C	30:BF:60:LEU:HD13	2.38	0.45
3:DC:105:GLU:HG2	3:DC:106:VAL:N	2.25	0.45
37:CM:43:THR:OG1	37:CM:45:GLN:HG2	2.17	0.45
27:CC:35:LYS:NZ	27:CC:104:TYR:H	2.13	0.45
25:BA:1140:C:OP1	34:BJ:46:LEU:HB3	2.17	0.45
25:CA:1140:C:OP1	34:CJ:46:LEU:HB3	2.17	0.45
27:BC:102:LYS:C	27:BC:103:ARG:HG2	2.37	0.45
32:CH:113:ARG:HB2	32:CH:130:TYR:CZ	2.52	0.45
35:BK:103:ALA:O	35:BK:106:LEU:HD13	2.17	0.45
50:BZ:43:ILE:O	50:BZ:47:VAL:HG23	2.16	0.45
4:DD:31:CYS:O	4:DD:32:ALA:HB3	2.15	0.45
1:AA:1319:A:H61	1:AA:1361:G:H21	1.63	0.45
1:AA:574:A:H1'	1:AA:883:C:C1'	2.47	0.45
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.17	0.45
48:CX:86:SER:HA	48:CX:89:GLU:HG3	1.99	0.45
26:BB:66:A:N6	26:BB:107:U:H2'	2.30	0.45
6:DF:72:VAL:HG13	6:DF:73:ASN:H	1.81	0.45
26:CB:7:G:H2'	26:CB:8:U:O4'	2.16	0.45
8:DH:11:THR:HG22	8:DH:15:ASN:ND2	2.31	0.45
25:BA:36:G:H4'	25:BA:451:C:C2	2.50	0.45
37:BM:60:ARG:NH1	37:BM:60:ARG:HB2	2.32	0.45
25:CA:1272:A:O2'	25:CA:1273:U:H5'	2.17	0.45
8:AH:35:ILE:O	8:AH:39:LEU:HB2	2.17	0.45
25:BA:2590:A:P	27:BC:238:GLY:HA2	2.56	0.45
25:CA:2783:G:N2	28:CD:37:ARG:HH12	2.15	0.45
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.20	0.45
33:CI:3:ASN:ND2	33:CI:4:LYS:H	2.15	0.45
1:DA:1349:A:H2'	1:DA:1350:A:O4'	2.17	0.45
22:DV:216:GLU:HB2	22:DV:245:PRO:HD3	1.99	0.45
1:AA:191(G):G:H2'	1:AA:192:U:C6	2.52	0.45
47:BW:13:GLY:O	47:BW:14:ARG:HG3	2.17	0.45
25:BA:287:C:H2'	25:BA:288:C:C6	2.52	0.45
29:BE:156:LEU:HD21	29:BE:163:VAL:HG12	1.99	0.45
42:BR:95:LEU:HD22	42:BR:97:LYS:HE2	1.99	0.45
23:AW:47:U:H3'	23:AW:48:C:C5'	2.46	0.45
23:AW:51:C:H2'	23:AW:52:G:C8	2.52	0.45
1:AA:1318:A:H4'	19:AS:37:ARG:NH2	2.31	0.45
1:DA:337:C:H2'	1:DA:338:A:C8	2.51	0.45
1:DA:1060:C:H5'	14:DN:45:ARG:HH22	1.81	0.45
25:CA:302:C:H2'	25:CA:303:U:C6	2.51	0.45
25:BA:2686:G:C6	25:BA:2687:U:C4	3.05	0.45
20:AT:53:LEU:O	20:AT:57:ARG:HD3	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:134:ILE:HD11	3:AC:153:VAL:HG22	1.99	0.45
25:CA:2456:C:H42	25:CA:2495:G:H1	1.63	0.45
11:DK:12:ARG:HG2	11:DK:13:GLN:N	2.32	0.45
1:AA:781:A:C8	1:AA:782:A:C8	3.05	0.45
4:AD:53:ASP:O	4:AD:57:ARG:HD3	2.17	0.45
1:DA:115:G:HO2'	1:DA:289:G:H8	1.64	0.45
25:CA:854:G:H2'	25:CA:855:G:H8	1.82	0.45
38:CN:33:ARG:N	38:CN:33:ARG:HD2	2.31	0.45
25:BA:532:A:N3	25:BA:532:A:H2'	2.32	0.45
25:BA:1126:A:H8	25:BA:1126:A:OP1	2.00	0.45
25:BA:1783:A:C2	25:BA:2587:A:C4	3.04	0.45
11:DK:48:ILE:HD11	11:DK:64:ALA:HA	1.99	0.45
25:BA:2833:G:H21	28:BD:57:LYS:HB2	1.82	0.45
6:AF:75:LEU:O	6:AF:79:LEU:HG	2.17	0.45
5:AE:76:ILE:HG23	5:AE:78:HIS:H	1.82	0.45
19:DS:16:LEU:O	19:DS:20:LEU:HG	2.16	0.45
15:AO:63:ARG:O	15:AO:67:LEU:HG	2.16	0.45
31:CG:149:ARG:HA	31:CG:162:ILE:CG1	2.46	0.45
1:AA:1505:G:H5''	1:AA:1506:U:OP1	2.17	0.45
30:BF:130:ASN:OD1	30:BF:160:VAL:HA	2.17	0.45
46:CV:27:VAL:HG13	46:CV:35:ARG:O	2.16	0.45
7:DG:15:ASP:HB3	7:DG:20:ASP:H	1.82	0.45
7:DG:15:ASP:HB2	7:DG:20:ASP:O	2.16	0.45
53:B3:11:LEU:HD21	53:B3:51:GLU:CD	2.37	0.45
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	2.17	0.45
25:CA:2507:C:H2'	25:CA:2508:G:O4'	2.17	0.45
8:AH:64:LYS:CG	8:AH:79:VAL:HG21	2.47	0.45
50:CZ:43:ILE:O	50:CZ:47:VAL:HG23	2.17	0.45
25:CA:2037:G:H2'	25:CA:2038:G:H8	1.80	0.45
48:BX:86:SER:HA	48:BX:89:GLU:HG3	1.99	0.45
29:BE:11:VAL:HG13	29:BE:125:LEU:O	2.17	0.45
25:BA:999:U:C2'	25:BA:1000:A:H5'	2.46	0.45
25:BA:733:G:N7	25:BA:761:A:N6	2.65	0.45
25:BA:184:C:H2'	25:BA:185:U:H6	1.81	0.45
25:BA:1272:A:O2'	25:BA:1273:U:H5'	2.17	0.45
2:AB:178:ARG:HD2	8:AH:71:GLY:O	2.17	0.45
1:DA:24:U:H2'	1:DA:25:C:C6	2.51	0.45
26:CB:79:C:H42	26:CB:97:G:H1	1.65	0.45
1:DA:1016:A:H2'	1:DA:1017:G:O4'	2.16	0.45
41:BQ:60:LEU:HD23	41:BQ:60:LEU:C	2.37	0.45
1:AA:487:A:H2'	1:AA:488:C:O4'	2.17	0.45
41:BQ:68:ALA:O	41:BQ:71:GLN:HB3	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2045:C:H2'	25:BA:2046:G:O4'	2.17	0.45
41:CQ:107:ALA:O	41:CQ:111:GLU:HG2	2.17	0.45
11:AK:110:ASP:HB3	18:AR:85:LEU:HB3	1.98	0.45
1:DA:487:A:H2'	1:DA:488:C:O4'	2.17	0.45
8:DH:100:ILE:HA	8:DH:101:PRO:HD3	1.83	0.45
22:AV:51:TYR:O	22:AV:55:LEU:HG	2.17	0.45
26:BB:65:C:H41	26:BB:108:C:H2'	1.82	0.45
25:CA:1570:A:C6	25:CA:1571:A:C6	3.05	0.45
1:AA:971:G:H3'	1:AA:971:G:OP1	2.17	0.45
13:DM:10:PRO:HB2	13:DM:18:ALA:HB1	1.99	0.45
25:BA:973:A:OP2	42:BR:78:LYS:NZ	2.46	0.45
1:AA:1498:U:O5'	1:AA:1498:U:H6	2.00	0.45
12:DL:51:LEU:N	12:DL:51:LEU:HD12	2.32	0.45
25:CA:1529:A:C8	25:CA:1530:G:C8	3.05	0.45
25:CA:1540:G:N3	25:CA:1541:U:H1'	2.30	0.45
48:BX:13:ILE:HD13	48:BX:66:HIS:CD2	2.52	0.45
25:CA:1676:A:H8	25:CA:1676:A:O5'	2.00	0.45
12:DL:84:ILE:CG2	12:DL:97:TYR:HB3	2.47	0.45
9:DI:29:ASN:OD1	9:DI:64:THR:HA	2.16	0.45
22:AV:41:MET:HE1	22:AV:352:ALA:HB1	1.98	0.45
26:CB:45:A:H1'	30:CF:95:ARG:CZ	2.47	0.45
39:CO:28:VAL:HG21	39:CO:87:PHE:HE1	1.82	0.45
3:DC:21:ARG:HG3	3:DC:58:GLU:HG2	1.99	0.45
25:CA:556:G:C6	25:CA:557:U:C4	3.05	0.45
1:DA:939:G:H2'	1:DA:940:C:C6	2.52	0.45
30:CF:32:PRO:HB2	30:CF:172:LEU:HD22	1.99	0.45
25:CA:864:G:H1'	25:CA:914:C:H42	1.81	0.45
3:AC:54:ARG:O	3:AC:69:HIS:HD2	1.99	0.45
40:BP:68:TYR:N	40:BP:68:TYR:CD2	2.85	0.45
1:DA:691:G:H3'	11:DK:26:ASN:ND2	2.31	0.45
5:AE:43:LEU:HD12	5:AE:109:ILE:HD11	1.99	0.45
22:AV:143:GLU:HB3	22:AV:161:GLU:O	2.16	0.45
54:C4:25:PRO:HA	54:C4:28:ARG:CZ	2.47	0.45
12:DL:44:PRO:HG3	12:DL:52:ARG:CD	2.47	0.45
1:DA:574:A:H1'	1:DA:883:C:C1'	2.47	0.45
29:BE:31:HIS:HB2	36:BL:13:ASN:HB3	1.99	0.45
25:CA:1952:A:C6	25:CA:1953:A:C6	3.05	0.45
25:BA:519:U:H2'	25:BA:520:G:C8	2.52	0.45
32:BH:77:LEU:HD22	32:BH:79:ILE:HD11	1.97	0.45
30:CF:55:LYS:HG2	30:CF:150:ASP:OD1	2.17	0.45
25:BA:297:C:N4	25:BA:298:G:C2	2.85	0.45
25:CA:774:A:H2	25:CA:787:U:O2'	2.00	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2572:A:OP2	28:CD:144:ARG:HB2	2.17	0.45
46:CV:118:GLN:HB2	46:CV:173:ALA:C	2.38	0.45
28:BD:9:VAL:HG22	28:BD:25:VAL:HB	1.98	0.45
3:DC:18:TRP:HE3	3:DC:18:TRP:H	1.63	0.45
27:CC:155:LEU:HD23	27:CC:177:LEU:CD2	2.47	0.45
17:AQ:38:ARG:N	17:AQ:38:ARG:HD2	2.31	0.45
1:DA:1329:A:H5''	13:DM:26:GLY:N	2.32	0.45
25:CA:705:A:C8	25:CA:727:A:C2	3.05	0.45
25:CA:123:G:H2'	25:CA:124:G:O4'	2.17	0.45
1:AA:1327:C:H2'	1:AA:1328:C:H6	1.82	0.45
1:AA:24:U:H2'	1:AA:25:C:C6	2.52	0.45
6:DF:50:TYR:CZ	18:DR:77:GLY:HA2	2.51	0.45
26:CB:78:A:C2	26:CB:99:A:C4	3.05	0.45
1:DA:1058:G:H2'	1:DA:1059:C:O4'	2.16	0.45
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	2.00	0.45
25:CA:1300:U:C2	25:CA:1626:G:C6	3.05	0.45
4:DD:78:LEU:O	4:DD:81:GLU:HB3	2.17	0.45
18:DR:27:GLY:O	18:DR:29:PHE:HD2	2.00	0.45
5:DE:11:ILE:HG21	5:DE:105:VAL:HG22	1.99	0.45
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.99	0.45
25:CA:1922:G:H2'	25:CA:1923:U:O4'	2.17	0.45
1:DA:1195:C:H5''	1:DA:1196:U:OP2	2.17	0.45
29:BE:157:VAL:HG21	29:BE:181:LEU:HD21	1.99	0.45
34:CJ:58:ARG:C	34:CJ:60:LYS:H	2.20	0.45
48:CX:16:ASN:HD22	48:CX:16:ASN:H	1.64	0.45
25:CA:307:G:O5'	25:CA:307:G:H8	1.99	0.45
40:CP:35:LYS:HG3	40:CP:35:LYS:O	2.17	0.45
25:BA:889:C:O2	25:BA:889:C:O4'	2.35	0.45
1:DA:113:G:H2'	1:DA:114:U:C6	2.52	0.45
44:CT:63:LYS:NZ	44:CT:72:LYS:HB3	2.31	0.45
11:DK:108:ILE:O	18:DR:87:ARG:HA	2.16	0.45
41:BQ:92:ARG:NE	42:BR:11:GLN:HG3	2.32	0.44
25:CA:2247:A:H2'	25:CA:2248:C:C6	2.53	0.44
14:AN:24:CYS:HB3	14:AN:29:ARG:N	2.24	0.44
25:BA:81:G:H2'	25:BA:82:G:O4'	2.16	0.44
1:DA:1505:G:H5''	1:DA:1506:U:OP1	2.17	0.44
48:CX:11:ARG:CD	48:CX:60:PHE:HD2	2.30	0.44
25:CA:1676:A:H2'	25:CA:1677:A:O4'	2.17	0.44
10:DJ:75:ILE:CG1	10:DJ:76:ASN:H	2.22	0.44
2:DB:104:ASN:O	2:DB:108:ILE:HG12	2.16	0.44
12:DL:65:VAL:HG12	12:DL:66:THR:N	2.31	0.44
27:BC:33:LEU:HB2	27:BC:34:VAL:H	1.61	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:939:G:H2'	1:AA:940:C:C6	2.52	0.44
29:BE:65:TRP:HZ3	29:BE:75:HIS:CD2	2.24	0.44
30:CF:74:LYS:O	30:CF:84:LYS:HD2	2.18	0.44
25:BA:1021:A:H8	25:BA:1021:A:H3'	1.82	0.44
25:BA:914:C:C2'	25:BA:915:C:H5'	2.43	0.44
30:BF:86:MET:N	30:BF:87:PRO:CD	2.79	0.44
22:AV:128:PHE:CZ	22:AV:132:LEU:HD11	2.52	0.44
22:AV:96:LEU:HD23	22:AV:348:LEU:HA	2.00	0.44
25:CA:466:A:OP1	54:C4:34:ARG:NH2	2.50	0.44
25:CA:1787:A:N3	25:CA:1787:A:H2'	2.32	0.44
22:AV:142:THR:O	22:AV:143:GLU:HB2	2.17	0.44
8:DH:20:TYR:CZ	8:DH:76:PRO:HG2	2.52	0.44
25:CA:1992:G:C8	25:CA:1992:G:OP1	2.68	0.44
25:CA:1588:C:H2'	25:CA:1589:C:C6	2.51	0.44
3:AC:86:VAL:O	3:AC:89:GLU:HB3	2.17	0.44
25:BA:774:A:C2	25:BA:787:U:O2'	2.69	0.44
2:DB:7:VAL:O	2:DB:11:LEU:HG	2.17	0.44
29:BE:123:LEU:HD13	29:BE:192:LEU:HD22	1.98	0.44
25:BA:123:G:H2'	25:BA:124:G:O4'	2.17	0.44
25:BA:705:A:C8	25:BA:727:A:C2	3.04	0.44
25:CA:1206:G:C6	25:CA:1207:C:C4	3.04	0.44
30:CF:16:ARG:O	30:CF:20:ILE:HG12	2.17	0.44
1:AA:186(B):C:O2'	20:AT:89:ARG:HD2	2.17	0.44
25:CA:2607:G:O2'	25:CA:2608:G:H5'	2.16	0.44
23:DW:51:C:H2'	23:DW:52:G:H8	1.81	0.44
25:BA:30:G:H2'	25:BA:31:C:C6	2.52	0.44
7:AG:74:GLU:HG2	7:AG:91:VAL:HG22	1.99	0.44
1:AA:685:G:C2	1:AA:686:U:C4	3.05	0.44
1:DA:633:G:H2'	1:DA:634:C:C6	2.52	0.44
25:BA:486:C:H4'	43:BS:60:ASN:HD22	1.81	0.44
27:CC:165:ILE:N	27:CC:165:ILE:HD12	2.32	0.44
49:BY:15:LYS:HA	49:BY:15:LYS:HE2	1.98	0.44
39:BO:42:ASP:O	39:BO:44:LYS:HG2	2.17	0.44
36:BL:112:LEU:O	36:BL:128:HIS:HB2	2.16	0.44
22:DV:127:LEU:HB3	22:DV:131:TYR:HE2	1.82	0.44
22:DV:300:GLU:CD	22:DV:301:LYS:HG3	2.38	0.44
25:CA:2393:A:N6	25:CA:2422:A:H61	2.14	0.44
27:BC:133:LEU:HA	27:BC:136:ILE:HG13	1.98	0.44
44:CT:18:TYR:HA	44:CT:21:PHE:CD1	2.52	0.44
1:AA:922:G:C6	1:AA:923:A:C6	3.06	0.44
1:DA:1179:A:H2'	1:DA:1180:A:O4'	2.16	0.44
31:BG:149:ARG:HA	31:BG:162:ILE:HG12	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:593:G:H1	25:CA:664:C:H42	1.65	0.44
30:CF:60:LEU:O	30:CF:64:THR:HG22	2.16	0.44
37:BM:43:THR:OG1	37:BM:45:GLN:HG2	2.17	0.44
30:BF:91:ARG:HG2	30:BF:92:VAL:N	2.32	0.44
12:AL:84:ILE:CG2	12:AL:97:TYR:HB3	2.47	0.44
27:BC:33:LEU:O	27:BC:36:PRO:HD2	2.18	0.44
25:CA:1558:A:N7	25:CA:1560:G:C8	2.85	0.44
45:CU:90:LEU:HG	45:CU:91:GLU:H	1.81	0.44
22:DV:241:VAL:O	22:DV:249:MET:HB2	2.18	0.44
25:BA:2379:G:H2'	25:BA:2380:C:C6	2.53	0.44
25:BA:2335:A:OP2	39:BO:13:ARG:HG2	2.17	0.44
22:AV:274:LEU:HD21	22:AV:278:ARG:NE	2.28	0.44
4:DD:166:LYS:C	4:DD:166:LYS:HD2	2.36	0.44
38:BN:5:LYS:CD	38:BN:5:LYS:H	2.29	0.44
25:BA:467:G:O2'	25:BA:468:G:H5'	2.17	0.44
27:CC:186:HIS:HB3	27:CC:189:CYS:SG	2.57	0.44
25:BA:2293:C:H4'	39:BO:93:LYS:HZ2	1.80	0.44
9:AI:17:VAL:HA	9:AI:63:ILE:HG13	1.98	0.44
25:CA:1608:A:H1'	25:CA:1610:A:OP2	2.17	0.44
1:AA:737:A:H2'	1:AA:738:C:H6	1.79	0.44
25:BA:1952:A:C6	25:BA:1953:A:C6	3.05	0.44
10:DJ:6:ILE:O	10:DJ:71:LEU:HD12	2.17	0.44
6:AF:69:GLU:CD	6:AF:69:GLU:H	2.20	0.44
25:BA:2572:A:OP2	28:BD:144:ARG:HB2	2.17	0.44
32:BH:12:LEU:N	32:BH:12:LEU:HD22	2.31	0.44
1:AA:558:G:H2'	1:AA:559:A:C2	2.53	0.44
13:DM:70:LEU:C	13:DM:70:LEU:HD23	2.38	0.44
25:CA:1287:A:OP1	38:CN:105:ARG:HB3	2.18	0.44
25:BA:118:A:OP2	25:BA:119:A:H5''	2.16	0.44
2:DB:115:LEU:HD12	2:DB:118:LEU:HD12	1.98	0.44
22:DV:244:LEU:N	22:DV:244:LEU:HD12	2.31	0.44
53:B3:34:LEU:N	53:B3:34:LEU:HD13	2.32	0.44
1:DA:192:U:C1'	20:DT:103:GLY:HA2	2.48	0.44
25:BA:1069:A:C6	25:BA:1096:A:H5''	2.53	0.44
4:AD:195:ALA:CB	6:DF:20:ALA:HB2	2.47	0.44
30:BF:16:ARG:HB3	30:BF:17:PRO:HD3	1.98	0.44
25:CA:1927:A:N1	25:CA:1928:A:C6	2.85	0.44
4:AD:61:LYS:HD2	4:AD:206:PHE:CE2	2.52	0.44
22:DV:51:TYR:O	22:DV:55:LEU:HG	2.17	0.44
1:AA:195:A:C6	1:AA:196:A:N1	2.85	0.44
31:CG:46:GLU:HG3	31:CG:51:ARG:CD	2.47	0.44
25:BA:2596:U:H2'	25:BA:2597:G:O4'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2855:C:H2'	25:CA:2856:C:C6	2.53	0.44
25:CA:2489:G:C6	25:CA:2490:G:N1	2.85	0.44
27:CC:58:HIS:HD2	27:CC:59:LYS:O	2.00	0.44
31:CG:86:GLU:H	31:CG:86:GLU:CD	2.21	0.44
25:BA:2244:U:H1'	25:BA:2434:A:C5	2.51	0.44
37:BM:124:LYS:HA	37:BM:124:LYS:HE2	1.98	0.44
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.52	0.44
1:DA:583:A:H2'	1:DA:584:G:O4'	2.18	0.44
11:DK:110:ASP:HB3	18:DR:85:LEU:HB3	1.98	0.44
1:AA:633:G:H2'	1:AA:634:C:C6	2.52	0.44
25:BA:2247:A:H2'	25:BA:2248:C:C6	2.53	0.44
49:BY:39:ALA:HA	49:BY:45:SER:CB	2.34	0.44
46:BV:97:GLU:O	46:BV:98:MET:HB3	2.18	0.44
47:BW:45:PHE:HB2	47:BW:59:LEU:HD11	1.99	0.44
25:BA:2392:A:H1'	36:BL:60:MET:CE	2.46	0.44
25:BA:2393:A:N6	25:BA:2422:A:H61	2.15	0.44
2:AB:20:GLU:HA	2:AB:20:GLU:OE1	2.16	0.44
25:BA:1339:G:N2	25:BA:1603:A:H1'	2.33	0.44
25:BA:2012:G:O2'	43:BS:96:ILE:HD11	2.17	0.44
30:CF:60:LEU:HD13	30:CF:60:LEU:C	2.38	0.44
12:AL:65:VAL:HG12	12:AL:66:THR:N	2.32	0.44
37:CM:43:THR:HA	37:CM:94:VAL:HG12	1.99	0.44
10:AJ:8:LEU:HD21	10:AJ:23:ILE:HD12	1.99	0.44
30:BF:74:LYS:O	30:BF:84:LYS:HD2	2.17	0.44
46:CV:104:PHE:HB3	46:CV:141:VAL:HG11	1.99	0.44
25:BA:17:G:H4'	41:BQ:25:TRP:CH2	2.52	0.44
37:BM:101:ARG:HG3	37:BM:102:VAL:N	2.33	0.44
25:CA:840:C:N4	25:CA:938:G:H1	2.13	0.44
25:CA:1607:C:C5'	25:CA:1608:A:H5'	2.47	0.44
25:CA:2476:A:N3	25:CA:2476:A:H3'	2.33	0.44
22:DV:142:THR:O	22:DV:143:GLU:HB2	2.17	0.44
1:DA:1126:U:H2'	1:DA:1127:G:C8	2.53	0.44
25:CA:1512:G:H2'	25:CA:1513:C:C6	2.53	0.44
25:CA:1291:C:H2'	25:CA:1292:U:C6	2.52	0.44
25:CA:1590:U:H2'	25:CA:1591:G:C8	2.52	0.44
2:DB:178:ARG:HD2	8:DH:71:GLY:O	2.18	0.44
25:CA:719:C:H2'	25:CA:720:C:C6	2.52	0.44
19:AS:64:GLU:HG3	19:AS:65:ASN:N	2.33	0.44
25:CA:2861:G:H2'	25:CA:2862:G:H8	1.82	0.44
4:DD:61:LYS:HD2	4:DD:206:PHE:CE2	2.52	0.44
23:DW:51:C:H2'	23:DW:52:G:C8	2.53	0.44
31:CG:86:GLU:HB3	31:CG:132:ARG:NH1	2.32	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:DF:7:ASN:HD21	18:DR:34:TYR:HE1	1.65	0.44
4:DD:93:PHE:O	4:DD:97:LEU:HG	2.17	0.44
22:DV:145:LEU:HB2	22:DV:159:VAL:CG2	2.47	0.44
25:BA:2507:C:H2'	25:BA:2508:G:O4'	2.17	0.44
1:AA:93:U:H2'	1:AA:95:G:H8	1.81	0.44
1:AA:785:G:N2	1:AA:798:G:C4	2.86	0.44
49:CY:15:LYS:HA	49:CY:15:LYS:HE2	1.98	0.44
39:CO:33:LYS:O	39:CO:33:LYS:HD3	2.16	0.44
46:CV:5:LEU:HD23	46:CV:6:LYS:N	2.32	0.44
34:CJ:98:TYR:HA	34:CJ:104:GLY:O	2.17	0.44
36:CL:75:ILE:HD12	36:CL:75:ILE:O	2.18	0.44
22:AV:177:VAL:HG22	22:AV:178:HIS:N	2.32	0.44
7:DG:113:GLU:HB3	7:DG:118:VAL:HG23	1.99	0.44
25:BA:2281:C:O2'	25:BA:2282:G:H5'	2.18	0.44
25:CA:2393:A:C5'	36:CL:62:LEU:HB3	2.45	0.44
25:CA:2259:G:C2	25:CA:2282:G:C6	3.06	0.44
25:CA:106:C:H1'	45:CU:2:ARG:NE	2.19	0.44
25:BA:2394:C:H2'	25:BA:2395:C:H6	1.82	0.44
25:BA:106:C:H1'	45:BU:2:ARG:NE	2.20	0.44
27:BC:62:TYR:CG	27:BC:63:ARG:N	2.85	0.44
27:BC:43:ARG:HB2	27:BC:48:ARG:O	2.18	0.44
31:BG:55:PRO:HG2	31:BG:61:HIS:HD2	1.82	0.44
15:AO:33:THR:HA	15:AO:63:ARG:NH1	2.30	0.44
55:B5:49:VAL:HG12	55:B5:50:LEU:H	1.82	0.44
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.16	0.44
36:BL:36:LYS:HG3	36:BL:41:ARG:CB	2.47	0.44
1:AA:1502:A:H8	1:AA:1505:G:N2	2.15	0.44
17:DQ:12:SER:HB3	17:DQ:20:THR:CB	2.42	0.44
37:CM:45:GLN:H	37:CM:45:GLN:NE2	2.16	0.44
27:BC:35:LYS:HD2	27:BC:35:LYS:HA	1.68	0.44
26:BB:75:G:N1	26:BB:102:G:N2	2.65	0.44
28:CD:78:LEU:HD23	28:CD:78:LEU:N	2.31	0.44
25:CA:910:A:C8	37:CM:13:GLN:HB2	2.53	0.44
38:BN:4:LEU:C	38:BN:6:SER:H	2.20	0.44
25:CA:467:G:O2'	25:CA:468:G:H5'	2.18	0.44
25:BA:2471:C:H2'	25:BA:2472:G:O4'	2.17	0.44
28:CD:86:PRO:HB2	28:CD:87:GLU:H	1.48	0.44
25:BA:443:A:C5	29:BE:45:ARG:HD2	2.52	0.44
1:AA:522:C:H41	12:AL:52:ARG:HH22	1.65	0.44
43:BS:17:VAL:HG21	43:BS:76:VAL:HG21	1.98	0.44
1:AA:309:G:H2'	1:AA:310:G:H8	1.82	0.44
3:DC:86:VAL:O	3:DC:89:GLU:HB3	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:523:A:H61	12:DL:91:ASP:HB2	1.82	0.44
51:B1:48:ILE:N	51:B1:48:ILE:HD12	2.31	0.44
28:BD:118:LYS:HE2	38:BN:2:ARG:NH1	2.32	0.44
1:AA:277:C:OP1	17:AQ:41:LYS:HE3	2.18	0.44
25:CA:1069:A:C6	25:CA:1096:A:H5''	2.53	0.44
1:AA:1091:U:O2	1:AA:1093:A:H8	2.00	0.44
1:DA:136(A):C:HO2'	1:DA:136(B):C:H6	1.64	0.44
25:BA:1356:G:H2'	25:BA:1357:U:O4'	2.17	0.44
3:DC:70:VAL:HG12	3:DC:72:LYS:H	1.83	0.44
4:DD:175:SER:OG	4:DD:184:LYS:HB2	2.18	0.44
1:DA:1423:G:C6	1:DA:1424:C:C4	3.05	0.44
42:CR:30:GLY:HA2	42:CR:61:VAL:O	2.17	0.44
3:DC:91:LEU:HB3	3:DC:99:VAL:HG11	1.99	0.44
11:AK:108:ILE:O	18:AR:87:ARG:HA	2.17	0.44
3:DC:134:ILE:HD11	3:DC:153:VAL:HG22	2.00	0.44
6:DF:75:LEU:O	6:DF:79:LEU:HG	2.17	0.44
25:BA:2517:C:C6	25:BA:2542:A:C2	3.06	0.44
1:DA:195:A:C6	1:DA:196:A:N1	2.86	0.44
1:AA:1501:C:OP2	1:AA:1504:G:H2'	2.18	0.44
25:CA:1392:A:N6	25:CA:1393:A:N6	2.66	0.44
25:BA:1216:G:N2	25:BA:1234:U:H1'	2.32	0.44
40:BP:35:LYS:O	40:BP:35:LYS:HG3	2.17	0.44
37:CM:124:LYS:HE2	37:CM:124:LYS:HA	1.98	0.44
25:CA:532:A:H2'	25:CA:532:A:N3	2.32	0.44
48:BX:16:ASN:HD22	48:BX:16:ASN:H	1.64	0.44
29:BE:6:MET:HB3	29:BE:7:TYR:H	1.56	0.44
18:AR:27:GLY:O	18:AR:29:PHE:HD2	2.00	0.44
35:CK:73:ASP:OD1	35:CK:75:SER:HB3	2.18	0.44
25:BA:138:G:H2'	25:BA:139:G:H5'	2.00	0.44
20:AT:10:LEU:C	20:AT:12:ALA:H	2.21	0.44
9:DI:52:ALA:C	9:DI:95:LYS:HZ1	2.20	0.44
36:CL:57:THR:HG23	36:CL:59:LEU:CB	2.48	0.44
25:CA:295:G:H4'	45:CU:2:ARG:NH1	2.32	0.44
3:AC:21:ARG:HG3	3:AC:58:GLU:HG2	1.99	0.44
48:CX:11:ARG:HH11	48:CX:61:ARG:H	1.64	0.44
48:CX:13:ILE:HD13	48:CX:66:HIS:CD2	2.52	0.44
51:C1:60:GLU:OE2	13:DM:3:ARG:HD3	2.18	0.44
25:BA:556:G:C5	25:BA:557:U:C4	3.06	0.44
46:CV:106:GLY:O	46:CV:108:PRO:HD3	2.18	0.44
1:DA:955:U:H1'	1:DA:1227:A:N6	2.26	0.44
45:BU:88:LYS:HG2	45:BU:93:GLY:H	1.82	0.44
25:BA:2345:G:N3	25:BA:2381:C:H2'	2.32	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BH:6:LEU:HD23	32:BH:6:LEU:N	2.29	0.44
1:DA:1065:U:C4	1:DA:1190:G:H1'	2.53	0.44
25:CA:1021:A:H8	25:CA:1021:A:H3'	1.82	0.44
37:BM:76:LYS:N	37:BM:88:GLY:HA2	2.33	0.44
22:DV:132:LEU:HA	22:DV:132:LEU:HD23	1.89	0.44
38:CN:56:LYS:O	38:CN:56:LYS:HG3	2.18	0.44
25:CA:1131:G:H21	34:CJ:96:THR:HG21	1.81	0.44
9:DI:113:LYS:HG2	9:DI:119:ALA:HA	2.00	0.44
35:CK:77:ILE:HD11	40:CP:72:VAL:HG13	2.00	0.44
25:BA:466:A:OP1	54:B4:34:ARG:NH2	2.50	0.44
47:CW:21:LEU:HD12	47:CW:21:LEU:N	2.33	0.44
39:CO:49:VAL:HG11	39:CO:73:LEU:HA	1.99	0.44
19:AS:5:LEU:HG	19:AS:10:PHE:HB3	2.00	0.44
36:BL:13:ASN:ND2	36:BL:13:ASN:N	2.64	0.44
1:DA:309:G:H2'	1:DA:310:G:H8	1.82	0.44
25:CA:733:G:N7	25:CA:761:A:N6	2.65	0.44
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.99	0.44
1:DA:277:C:OP1	17:DQ:41:LYS:HE3	2.17	0.44
2:AB:7:VAL:O	2:AB:11:LEU:HG	2.17	0.44
25:CA:117:G:C6	25:CA:119:A:C6	3.06	0.44
1:DA:217:C:H2'	1:DA:218:C:H6	1.83	0.44
1:AA:1441:G:H5''	1:AA:1442:G:H5'	1.98	0.44
25:CA:962:G:O2'	25:CA:963:U:H5'	2.17	0.44
8:DH:97:VAL:HG13	8:DH:98:LYS:N	2.33	0.44
1:DA:1386:G:O2'	1:DA:1387:G:H5'	2.18	0.44
30:BF:16:ARG:O	30:BF:20:ILE:HG12	2.17	0.44
25:CA:898:C:H2'	25:CA:899:A:O4'	2.18	0.44
25:BA:2663:G:C5	25:BA:2664:G:C5	3.06	0.44
25:BA:271(C):G:N7	25:BA:421:U:H2'	2.33	0.44
7:DG:74:GLU:HG2	7:DG:91:VAL:HG22	2.00	0.44
31:BG:86:GLU:HB3	31:BG:132:ARG:NH1	2.32	0.44
32:BH:87:LYS:HA	32:BH:122:GLU:HA	1.99	0.44
27:CC:271:ILE:O	27:CC:272:ALA:HB3	2.17	0.44
25:CA:869:G:H2'	25:CA:870:A:H8	1.83	0.44
1:AA:418:C:H2'	1:AA:419:C:C6	2.52	0.44
5:AE:38:GLN:HA	5:AE:71:LEU:HD11	2.00	0.44
25:CA:1040:C:H2'	25:CA:1041:C:C6	2.52	0.44
7:AG:107:ALA:HB2	7:AG:134:ALA:HB2	2.00	0.44
47:BW:33:ALA:HB2	47:BW:64:ASP:OD1	2.17	0.44
20:AT:17:ARG:O	20:AT:20:LEU:HB2	2.18	0.44
7:DG:108:ALA:O	7:DG:119:ARG:HD2	2.17	0.44
7:DG:115:ARG:O	7:DG:118:VAL:HG22	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:CY:13:ALA:O	49:CY:17:SER:HA	2.17	0.44
25:CA:1696:G:C6	25:CA:1697:G:C4	3.06	0.44
25:CA:2266:A:H4'	25:CA:2267:A:N3	2.32	0.44
25:CA:858:U:O2	25:CA:2268:A:H2'	2.17	0.44
44:BT:18:TYR:HA	44:BT:21:PHE:CD1	2.52	0.44
45:BU:17:SER:CB	45:BU:71:LYS:HD2	2.48	0.44
31:BG:55:PRO:HG2	31:BG:61:HIS:CD2	2.53	0.44
15:AO:67:LEU:HB3	15:AO:78:TYR:HE1	1.83	0.44
25:BA:1676:A:H2'	25:BA:1677:A:O4'	2.17	0.44
40:BP:23:ARG:HB2	40:BP:120:ARG:HH12	1.83	0.44
48:CX:62:VAL:HG22	48:CX:63:ALA:N	2.33	0.44
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.18	0.44
37:BM:45:GLN:H	37:BM:45:GLN:NE2	2.16	0.44
12:AL:82:VAL:HG21	12:AL:99:ILE:HG12	2.00	0.44
28:BD:5:LEU:HB2	28:BD:51:PHE:HD2	1.83	0.44
30:BF:32:PRO:HB2	30:BF:172:LEU:HD22	1.98	0.44
54:C4:8:ASN:C	54:C4:8:ASN:ND2	2.70	0.44
28:BD:78:LEU:N	28:BD:78:LEU:HD23	2.32	0.44
25:BA:2276:G:O3'	37:BM:85:LYS:HB2	2.17	0.44
27:CC:186:HIS:HD2	27:CC:188:GLU:HB2	1.83	0.44
1:AA:1126:U:H2'	1:AA:1127:G:O4'	2.18	0.44
45:BU:50:ARG:HG3	45:BU:52:SER:H	1.83	0.44
1:DA:145:G:H2'	1:DA:146:G:C8	2.52	0.44
25:BA:2087:G:H2'	25:BA:2088:G:H8	1.83	0.44
1:AA:558:G:H2'	1:AA:559:A:H2	1.82	0.44
25:BA:1971:A:H5'	25:BA:1972:A:H5''	2.00	0.44
40:BP:118:ARG:HA	40:BP:121:ILE:HD12	2.00	0.44
47:CW:13:GLY:O	47:CW:14:ARG:HG3	2.17	0.44
1:AA:60:A:H2	1:AA:107:G:N3	2.16	0.44
25:CA:1062:G:OP2	25:CA:1070:A:H4'	2.17	0.44
1:DA:1250:A:H5'	9:DI:67:GLY:HA2	2.00	0.44
9:AI:52:ALA:C	9:AI:95:LYS:HZ1	2.21	0.44
1:AA:953:G:H2'	1:AA:954:G:O4'	2.18	0.44
26:BB:78:A:C2	26:BB:99:A:C4	3.06	0.44
25:CA:2236:C:H2'	25:CA:2237:G:H5'	1.98	0.44
1:AA:526:C:C4	1:AA:527:G:H1'	2.52	0.44
25:BA:428:A:N6	25:BA:429:A:N1	2.66	0.44
25:BA:1529:A:C8	25:BA:1530:G:C8	3.06	0.44
41:BQ:90:VAL:HG13	41:BQ:91:ASP:N	2.33	0.44
25:CA:2422:A:N7	55:C5:31:HIS:CE1	2.86	0.44
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.79	0.44
45:CU:17:SER:CB	45:CU:71:LYS:HD2	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:CO:98:VAL:O	39:CO:101:LEU:HB2	2.18	0.44
40:CP:118:ARG:HA	40:CP:121:ILE:HD12	2.00	0.44
5:DE:36:ASP:O	5:DE:37:ARG:HB2	2.18	0.44
4:DD:18:LYS:HE2	4:DD:20:TYR:CE2	2.53	0.44
22:DV:340:LYS:HB2	22:DV:340:LYS:HE3	1.87	0.44
3:AC:35:GLU:HA	3:AC:38:ARG:HG2	1.99	0.44
46:BV:104:PHE:HB3	46:BV:141:VAL:HG11	1.99	0.44
41:CQ:106:PHE:O	41:CQ:110:VAL:HG23	2.18	0.44
29:BE:53:THR:HG23	29:BE:55:GLY:N	2.29	0.44
20:DT:26:ASN:HB2	20:DT:71:THR:CG2	2.46	0.44
48:BX:27:GLU:HG2	48:BX:28:GLY:N	2.33	0.44
25:BA:2681:C:H5	25:BA:2725:A:N6	2.14	0.44
25:CA:841:A:C2	25:CA:938:G:C2	3.06	0.44
47:CW:33:ALA:HB2	47:CW:64:ASP:OD1	2.17	0.44
38:CN:4:LEU:C	38:CN:6:SER:H	2.20	0.44
25:BA:1056:G:H5'	25:BA:1057:A:C5'	2.45	0.44
34:CJ:116:THR:HG23	34:CJ:117:HIS:N	2.33	0.44
43:BS:24:ILE:HG21	43:BS:36:LEU:CD2	2.46	0.44
25:CA:443:A:C5	29:CE:45:ARG:HD2	2.53	0.44
25:CA:29:U:H1'	41:CQ:11:ARG:HH12	1.83	0.44
1:AA:222:U:H2'	1:AA:223:U:H6	1.80	0.44
1:DA:103(B):G:H2'	1:DA:103(C):G:O4'	2.16	0.44
4:DD:117:ALA:O	4:DD:121:VAL:HG23	2.17	0.44
25:BA:1818:U:C2'	27:BC:157:ARG:HG3	2.48	0.44
1:AA:675:A:C4	1:AA:676:A:C8	3.06	0.44
1:AA:867:G:H2'	1:AA:868:C:H6	1.82	0.44
25:CA:1178:C:H6	25:CA:1178:C:O5'	2.01	0.44
1:AA:129(B):G:C6	1:AA:188:U:H4'	2.53	0.44
1:AA:490:G:H2'	1:AA:491:G:C8	2.53	0.44
25:BA:126:A:OP2	54:B4:19:ARG:HB2	2.18	0.44
1:AA:192:U:C1'	20:AT:103:GLY:HA2	2.48	0.44
1:DA:105:G:C5	1:DA:106:C:C4	3.06	0.44
19:DS:64:GLU:HG3	19:DS:65:ASN:N	2.33	0.44
1:DA:1343:G:H2'	1:DA:1344:C:C6	2.53	0.44
25:BA:499:U:C4'	45:BU:47:LYS:HZ1	2.31	0.44
42:BR:30:GLY:HA2	42:BR:61:VAL:O	2.18	0.44
25:BA:2855:C:H2'	25:BA:2856:C:C6	2.53	0.44
25:CA:2663:G:C5	25:CA:2664:G:C5	3.06	0.44
4:AD:175:SER:OG	4:AD:184:LYS:HB2	2.18	0.44
1:DA:1261:A:H2'	1:DA:1262:C:O4'	2.18	0.44
1:AA:304:U:H2'	1:AA:305:G:C8	2.52	0.44
25:CA:1036:G:H2'	25:CA:1037:G:H8	1.83	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:394:A:C6	25:CA:395:U:C4	3.06	0.44
25:BA:418:G:H2'	25:BA:419:C:C6	2.53	0.44
25:CA:2110:G:H4'	25:CA:2145:C:H42	1.82	0.44
37:BM:59:ARG:H	37:BM:59:ARG:HG2	1.67	0.44
30:BF:153:ARG:HB3	30:BF:153:ARG:NH1	2.32	0.44
1:DA:389:A:N3	1:DA:389:A:H2'	2.33	0.44
20:DT:53:LEU:O	20:DT:57:ARG:HD3	2.17	0.44
1:AA:1077:G:N1	1:AA:1081:G:C6	2.86	0.44
7:AG:113:GLU:HB3	7:AG:118:VAL:HG23	1.99	0.44
1:DA:328:C:C4'	1:DA:329:A:H5'	2.35	0.44
42:BR:13:ARG:HD2	42:BR:13:ARG:C	2.38	0.44
42:BR:49:THR:HB	42:BR:50:PRO:CD	2.46	0.44
44:BT:43:VAL:HG23	44:BT:47:PHE:CD1	2.53	0.44
30:BF:7:LEU:HG	30:BF:104:GLU:OE1	2.18	0.44
31:CG:149:ARG:HA	31:CG:162:ILE:HG12	2.00	0.44
1:DA:430:A:OP2	4:DD:8:VAL:HG22	2.16	0.44
4:AD:20:TYR:HD2	4:AD:26:CYS:HB3	1.83	0.44
25:BA:1558:A:N7	25:BA:1560:G:C8	2.85	0.44
22:AV:43:GLU:O	22:AV:47:LEU:HG	2.18	0.44
46:BV:106:GLY:O	46:BV:108:PRO:HD3	2.17	0.44
46:BV:141:VAL:HA	46:BV:144:LEU:HD23	1.99	0.44
36:CL:30:THR:CG2	36:CL:31:ALA:N	2.81	0.44
28:CD:5:LEU:C	28:CD:51:PHE:HE2	2.21	0.44
25:CA:2345:G:N3	25:CA:2381:C:H2'	2.32	0.44
30:BF:85:GLY:O	30:BF:86:MET:HG3	2.17	0.44
22:DV:128:PHE:O	22:DV:132:LEU:HB2	2.18	0.44
22:DV:128:PHE:CZ	22:DV:132:LEU:HD11	2.52	0.44
22:AV:96:LEU:C	22:AV:98:PRO:HD3	2.38	0.44
25:BA:1771:C:C1'	25:BA:1786:A:H8	2.31	0.44
25:BA:1787:A:H2'	25:BA:1787:A:N3	2.32	0.44
35:CK:103:ALA:O	35:CK:106:LEU:HD13	2.18	0.44
6:AF:72:VAL:HG13	6:AF:73:ASN:H	1.81	0.44
25:CA:2781:A:H5''	25:CA:2782:G:H5'	2.00	0.44
1:DA:1184:G:H2'	1:DA:1185:G:C8	2.51	0.44
1:DA:321:A:H2'	1:DA:322:C:H6	1.82	0.44
32:BH:9:LEU:HB2	32:BH:12:LEU:HB2	1.99	0.44
1:DA:558:G:H2'	1:DA:559:A:H2	1.82	0.44
1:AA:523:A:H61	12:AL:91:ASP:HB3	1.81	0.44
26:CB:32:C:H2'	26:CB:33:G:H8	1.81	0.44
30:CF:133:LEU:HD21	30:CF:157:ILE:HG13	2.00	0.44
27:BC:79:VAL:HG11	27:BC:111:LEU:CD1	2.48	0.44
30:BF:133:LEU:HD21	30:BF:157:ILE:HG13	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2591:C:H2'	25:BA:2592:G:C8	2.53	0.44
39:BO:90:GLY:O	39:BO:92:TYR:CD1	2.71	0.44
25:BA:1054:A:H2'	25:BA:1055:G:H8	1.82	0.44
1:AA:217:C:H2'	1:AA:218:C:H6	1.83	0.44
33:BI:3:ASN:ND2	33:BI:4:LYS:H	2.15	0.44
16:DP:50:LYS:HD3	16:DP:51:VAL:N	2.33	0.44
25:CA:140:A:C8	25:CA:1408:C:O2'	2.69	0.44
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.18	0.44
25:BA:2861:G:H2'	25:BA:2862:G:H8	1.82	0.44
25:BA:2494:G:H2'	25:BA:2495:G:H8	1.83	0.44
1:AA:352:C:H2'	1:AA:352:C:O2	2.17	0.44
25:BA:1206:G:C6	25:BA:1207:C:C4	3.06	0.44
1:DA:352:C:O2	1:DA:352:C:H2'	2.17	0.44
22:AV:145:LEU:HB2	22:AV:159:VAL:HG23	2.00	0.44
25:BA:1925:C:O2'	25:BA:1926:U:H5'	2.17	0.44
25:CA:2648:C:H2'	25:CA:2649:U:C6	2.52	0.44
1:AA:1250:A:H5'	9:AI:67:GLY:HA2	2.00	0.44
41:BQ:79:PHE:C	41:BQ:79:PHE:CD1	2.91	0.44
25:CA:30:G:H2'	25:CA:31:C:C6	2.53	0.44
1:AA:113:G:H2'	1:AA:114:U:C6	2.52	0.44
32:CH:87:LYS:HA	32:CH:122:GLU:HA	1.99	0.44
29:CE:33:LEU:O	29:CE:37:VAL:HG23	2.17	0.44
25:BA:1399:C:O5'	25:BA:1399:C:H6	2.00	0.44
25:CA:2339:G:H2'	25:CA:2340:G:H8	1.83	0.44
7:AG:9:VAL:CG2	7:AG:94:ARG:HH11	2.31	0.44
56:DX:17:U:H2'	56:DX:18:G:H5''	2.00	0.44
12:AL:51:LEU:HD11	22:AV:300:GLU:HG2	1.99	0.44
25:CA:1973:G:H2'	25:CA:1974:C:H6	1.83	0.44
41:CQ:92:ARG:CD	41:CQ:95:LEU:H	2.30	0.44
25:BA:827:U:C4	25:BA:2430:A:C6	3.05	0.44
25:BA:2422:A:N7	55:B5:31:HIS:CE1	2.86	0.44
46:CV:163:LEU:CD2	46:CV:163:LEU:H	2.29	0.44
25:BA:2749:A:H4'	31:BG:62:LYS:CB	2.39	0.44
45:CU:81:LYS:HD2	45:CU:96:ILE:HD12	2.00	0.44
27:CC:30:GLU:CD	27:CC:63:ARG:HE	2.22	0.44
1:DA:402:G:OP1	4:DD:74:GLN:HG2	2.18	0.44
25:BA:587:C:O2'	36:BL:23:PRO:HG2	2.18	0.44
39:BO:35:ILE:O	39:BO:53:SER:HB2	2.18	0.44
27:CC:25:THR:HG22	27:CC:82:ILE:O	2.17	0.44
36:BL:88:LEU:HD11	36:BL:95:VAL:HG21	1.99	0.44
25:CA:2331:G:O3'	47:CW:43:THR:HB	2.18	0.44
25:CA:1349:A:N6	25:CA:1598:C:N4	2.66	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BJ:39:ILE:HD12	34:BJ:75:VAL:HG13	2.00	0.44
35:CK:86:ILE:HD12	35:CK:86:ILE:N	2.30	0.44
2:DB:187:LEU:HA	2:DB:201:ILE:O	2.18	0.44
22:AV:229:GLY:O	22:AV:232:VAL:HG12	2.18	0.44
7:AG:15:ASP:HB3	7:AG:20:ASP:H	1.83	0.44
25:CA:2134:A:H2	25:CA:2159:G:O2'	2.01	0.44
22:DV:96:LEU:C	22:DV:98:PRO:HD3	2.38	0.44
25:BA:910:A:C8	37:BM:13:GLN:HB2	2.52	0.44
25:BA:579:G:O2'	25:BA:2019:A:OP1	2.35	0.44
25:BA:2512:C:H2'	25:BA:2513:G:O4'	2.18	0.44
1:DA:500:G:C5	1:DA:546:G:N2	2.86	0.44
9:AI:99:LEU:HD12	9:AI:101:PHE:HE2	1.82	0.44
42:BR:28:GLU:OE1	42:BR:31:ALA:HB2	2.18	0.44
30:BF:41:GLN:HG2	30:BF:155:MET:CB	2.47	0.44
25:BA:1512:G:H2'	25:BA:1513:C:C6	2.53	0.44
27:CC:14:ARG:HG3	27:CC:15:PHE:CE1	2.53	0.44
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.32	0.44
25:BA:1178:C:H6	25:BA:1178:C:O5'	2.01	0.44
50:BZ:22:ALA:O	50:BZ:26:LEU:HG	2.18	0.44
25:BA:719:C:H2'	25:BA:720:C:C6	2.53	0.44
1:AA:216:G:H2'	1:AA:217:C:H6	1.83	0.44
53:C3:34:LEU:N	53:C3:34:LEU:HD13	2.32	0.44
1:DA:490:G:H2'	1:DA:491:G:C8	2.53	0.44
31:BG:38:SER:HB2	31:BG:41:MET:HG3	1.99	0.44
25:CA:499:U:C4'	45:CU:47:LYS:HZ1	2.31	0.44
31:CG:38:SER:HB2	31:CG:41:MET:HG3	2.00	0.44
4:DD:94:LEU:HA	4:DD:97:LEU:HD12	2.00	0.44
25:BA:2517:C:C2	25:BA:2542:A:N1	2.86	0.44
22:AV:151:ASP:OD1	23:AW:36:U:H4'	2.18	0.44
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.98	0.44
25:CA:1356:G:H2'	25:CA:1357:U:O4'	2.18	0.44
41:BQ:107:ALA:O	41:BQ:111:GLU:HG2	2.18	0.44
1:AA:1057:G:H4'	3:AC:197:GLY:N	2.33	0.44
27:CC:3:VAL:HG13	27:CC:18:VAL:C	2.38	0.44
27:BC:175:LEU:HD12	27:BC:185:VAL:HG21	2.00	0.44
1:DA:1079:G:O3'	5:DE:14:ARG:NH2	2.51	0.44
30:BF:9:ARG:O	30:BF:13:GLU:HG2	2.18	0.44
27:BC:3:VAL:HG13	27:BC:18:VAL:C	2.38	0.44
2:AB:36:ARG:N	2:AB:36:ARG:HD2	2.32	0.44
25:CA:2321:G:H2'	25:CA:2321:G:N3	2.31	0.44
46:BV:120:ILE:HG12	46:BV:172:ALA:HA	1.99	0.44
15:DO:28:GLN:O	15:DO:32:LEU:HG	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:CE:6:MET:HB3	29:CE:7:TYR:H	1.56	0.44
34:CJ:42:GLU:HG3	34:CJ:42:GLU:O	2.18	0.43
22:DV:293:ILE:HG23	22:DV:294:GLY:N	2.33	0.43
39:CO:35:ILE:CG1	39:CO:101:LEU:HD21	2.41	0.43
52:C2:33:CYS:SG	52:C2:40:LYS:HE3	2.57	0.43
55:C5:54:GLU:O	55:C5:58:ILE:HG12	2.18	0.43
39:BO:98:VAL:O	39:BO:101:LEU:HB2	2.18	0.43
19:AS:6:LYS:HD3	19:AS:7:LYS:CE	2.48	0.43
1:DA:675:A:H2'	1:DA:676:A:C8	2.53	0.43
46:BV:10:ARG:HB3	46:BV:36:LYS:HB3	2.00	0.43
25:CA:2517:C:C6	25:CA:2542:A:C2	3.06	0.43
42:BR:75:PHE:HD2	42:BR:82:ARG:HG2	1.82	0.43
30:BF:76:SER:CA	30:BF:83:ARG:HA	2.48	0.43
19:DS:29:ARG:O	19:DS:31:ILE:HG22	2.18	0.43
38:BN:56:LYS:HG3	38:BN:56:LYS:O	2.17	0.43
25:BA:1771:C:H1'	25:BA:1786:A:H8	1.82	0.43
35:CK:71:ARG:NH1	40:CP:74:ARG:HH22	2.15	0.43
27:BC:186:HIS:HD2	27:BC:188:GLU:HB2	1.83	0.43
25:BA:2807:G:N1	25:BA:2893:G:O6	2.50	0.43
43:BS:36:LEU:O	43:BS:39:THR:HG22	2.17	0.43
4:AD:185:PHE:CZ	4:AD:189:PRO:HD3	2.52	0.43
25:BA:29:U:H1'	41:BQ:11:ARG:HH12	1.83	0.43
19:AS:53:ASN:HD22	19:AS:53:ASN:C	2.21	0.43
32:CH:9:LEU:HB2	32:CH:12:LEU:HB2	1.99	0.43
4:DD:100:ARG:HG2	4:DD:102:ASP:OD1	2.18	0.43
18:DR:56:THR:HB	18:DR:58:LEU:HD13	1.99	0.43
29:BE:192:LEU:HD21	29:BE:194:MET:HE3	1.99	0.43
13:AM:70:LEU:C	13:AM:70:LEU:HD23	2.38	0.43
42:CR:95:LEU:HD22	42:CR:97:LYS:HE2	2.00	0.43
1:AA:93:U:H2'	1:AA:95:G:C8	2.53	0.43
1:DA:1501:C:OP2	1:DA:1504:G:H2'	2.17	0.43
25:CA:1700:A:H5'	25:CA:1701:A:OP2	2.18	0.43
25:BA:61:G:H1	25:BA:93:C:H42	1.66	0.43
17:DQ:27:PHE:CZ	17:DQ:36:ILE:HD11	2.53	0.43
1:AA:125:U:H2'	1:AA:126:G:C8	2.53	0.43
25:BA:394:A:C6	25:BA:395:U:C4	3.06	0.43
1:DA:1279:A:H62	3:DC:26:LYS:HE2	1.83	0.43
25:BA:1221:C:H2'	25:BA:122(A):C:C6	2.53	0.43
27:BC:72:LYS:HE3	27:BC:101:GLU:HG2	2.00	0.43
52:C2:36:CYS:SG	52:C2:37:LYS:N	2.91	0.43
39:BO:58:LEU:N	39:BO:58:LEU:HD12	2.33	0.43
25:CA:1420:U:H6	25:CA:1420:U:H2'	1.48	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BK:2:ILE:HD12	35:BK:2:ILE:N	2.33	0.43
2:DB:36:ARG:HD2	2:DB:36:ARG:N	2.33	0.43
36:BL:75:ILE:HD13	36:BL:77:ARG:NE	2.33	0.43
25:CA:1050:A:H2'	25:CA:1051:G:C8	2.53	0.43
49:CY:14:ARG:HG2	49:CY:17:SER:OG	2.17	0.43
2:DB:20:GLU:HG3	2:DB:191:ASP:H	1.83	0.43
25:BA:715:G:C6	25:BA:716:A:C5	3.06	0.43
30:CF:9:ARG:O	30:CF:13:GLU:HG2	2.18	0.43
55:C5:60:LEU:C	55:C5:62:LEU:H	2.22	0.43
13:AM:57:ARG:NH1	51:B1:60:GLU:HB2	2.32	0.43
10:AJ:92:THR:HG23	10:AJ:93:GLY:N	2.25	0.43
19:AS:6:LYS:HD2	19:AS:6:LYS:N	2.33	0.43
36:CL:143:GLY:C	36:CL:145:PRO:HD3	2.38	0.43
46:CV:141:VAL:HA	46:CV:144:LEU:HD23	1.99	0.43
3:AC:7:PRO:O	3:AC:11:ARG:HG2	2.18	0.43
25:CA:17:G:H4'	41:CQ:25:TRP:CH2	2.53	0.43
25:CA:1022:G:C6	25:CA:1141:U:C5	3.06	0.43
5:AE:92:LYS:HG3	5:AE:93:PRO:HD2	1.99	0.43
25:BA:758:C:O2	25:BA:1981:A:H2	2.01	0.43
1:DA:668:G:H1'	15:DO:46:HIS:HD2	1.83	0.43
30:CF:85:GLY:O	30:CF:86:MET:HG3	2.18	0.43
50:BZ:1:MET:CE	50:BZ:1:MET:HA	2.48	0.43
25:BA:2476:A:N3	25:BA:2476:A:H3'	2.32	0.43
25:BA:2037:G:C6	25:BA:2038:G:C6	3.06	0.43
25:BA:2893:G:H5''	25:BA:2894:G:C5'	2.48	0.43
29:CE:31:HIS:HB2	36:CL:13:ASN:HB3	1.99	0.43
22:DV:143:GLU:CG	22:DV:161:GLU:HB3	2.48	0.43
1:DA:1053:G:C6	1:DA:1199:U:H2'	2.53	0.43
1:AA:690:G:C6	1:AA:691:G:C6	3.06	0.43
25:CA:763:G:O2'	25:CA:764:A:H5'	2.17	0.43
25:CA:904:C:H2'	25:CA:905:U:H6	1.80	0.43
27:CC:13:ARG:HD2	27:CC:16:MET:SD	2.58	0.43
1:AA:679:C:H2'	1:AA:680:C:C6	2.53	0.43
25:BA:1287:A:OP1	38:BN:105:ARG:HB3	2.18	0.43
25:BA:2601:C:O2'	25:BA:2602:A:OP2	2.21	0.43
1:AA:1329:A:H5''	13:AM:26:GLY:N	2.33	0.43
25:CA:119:A:H4'	25:CA:120:U:H5'	2.00	0.43
1:DA:216:G:H2'	1:DA:217:C:H6	1.83	0.43
29:CE:156:LEU:HD21	29:CE:163:VAL:HG12	1.99	0.43
1:DA:60:A:H2	1:DA:107:G:N3	2.15	0.43
1:AA:105:G:C5	1:AA:106:C:C4	3.05	0.43
27:CC:183:ARG:HB2	27:CC:270:ILE:HG22	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BG:86:GLU:CD	31:BG:86:GLU:H	2.21	0.43
46:BV:5:LEU:HD23	46:BV:6:LYS:N	2.33	0.43
1:AA:1261:A:H2'	1:AA:1262:C:O4'	2.18	0.43
1:DA:1057:G:H4'	3:DC:197:GLY:N	2.33	0.43
25:CA:1999:C:H5''	25:CA:2723:C:O2'	2.18	0.43
1:DA:526:C:C4	1:DA:527:G:H1'	2.54	0.43
25:CA:1950:G:OP1	1:DA:1420:C:H4'	2.18	0.43
25:BA:1002:G:H2'	25:BA:1003:G:O4'	2.18	0.43
25:CA:271(C):G:N7	25:CA:421:U:H2'	2.33	0.43
40:CP:131:ALA:O	40:CP:135:VAL:HG23	2.18	0.43
25:BA:1300:U:C2	25:BA:1626:G:C6	3.06	0.43
25:BA:127:A:H5''	25:BA:128:C:O4'	2.18	0.43
25:BA:898:C:H2'	25:BA:899:A:O4'	2.18	0.43
22:DV:177:VAL:HG22	22:DV:178:HIS:N	2.33	0.43
42:CR:13:ARG:HD2	42:CR:13:ARG:C	2.39	0.43
42:CR:49:THR:HB	42:CR:50:PRO:CD	2.47	0.43
1:DA:1131:G:OP1	9:DI:3:GLN:NE2	2.48	0.43
25:CA:2392:A:C8	36:CL:60:MET:HG2	2.53	0.43
1:AA:975:A:C8	1:AA:1357:A:H2	2.37	0.43
1:DA:44:G:H1	1:DA:398:C:H42	1.64	0.43
25:BA:807:U:O4'	25:BA:2445:G:H5''	2.18	0.43
25:BA:593:G:H1	25:BA:664:C:H42	1.66	0.43
12:DL:82:VAL:HG21	12:DL:99:ILE:HG12	2.00	0.43
4:AD:21:LEU:HD12	4:AD:22:LYS:H	1.84	0.43
10:DJ:8:LEU:HD21	10:DJ:23:ILE:HD12	1.99	0.43
27:BC:204:ILE:O	27:BC:204:ILE:HD12	2.18	0.43
1:AA:939:G:H5''	7:AG:102:ARG:HH22	1.84	0.43
25:BA:2331:G:O3'	47:BW:43:THR:HB	2.18	0.43
45:CU:90:LEU:HD23	45:CU:90:LEU:N	2.33	0.43
45:CU:88:LYS:HG2	45:CU:93:GLY:H	1.82	0.43
16:AP:4:ILE:HD12	16:AP:4:ILE:H	1.84	0.43
25:BA:1022:G:C6	25:BA:1140:C:C4	3.06	0.43
2:AB:187:LEU:HA	2:AB:201:ILE:O	2.18	0.43
5:DE:43:LEU:HD12	5:DE:109:ILE:HD11	1.99	0.43
7:AG:15:ASP:OD1	7:AG:18:TYR:HB2	2.19	0.43
10:DJ:78:ASN:O	10:DJ:82:ILE:HG12	2.17	0.43
25:CA:2517:C:C2	25:CA:2542:A:N1	2.86	0.43
25:CA:2681:C:H4'	25:CA:2682:U:H5'	1.99	0.43
48:CX:27:GLU:HG2	48:CX:28:GLY:N	2.33	0.43
22:AV:128:PHE:O	22:AV:132:LEU:HB2	2.19	0.43
46:BV:71:VAL:HG11	46:BV:74:VAL:CG2	2.49	0.43
1:AA:452:A:H2'	1:AA:453:A:C8	2.54	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1331:A:C2'	25:CA:1332:G:H5''	2.48	0.43
22:AV:248:ILE:CG2	22:AV:273:LEU:HD21	2.47	0.43
34:BJ:116:THR:HG23	34:BJ:117:HIS:N	2.33	0.43
8:DH:50:ARG:N	8:DH:50:ARG:HD2	2.32	0.43
22:AV:143:GLU:CG	22:AV:161:GLU:HB3	2.48	0.43
19:DS:5:LEU:HG	19:DS:10:PHE:HB3	2.00	0.43
1:AA:957:U:O2	1:AA:959:A:H8	2.01	0.43
25:BA:1952:A:C2	35:BK:22:ILE:HG23	2.54	0.43
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	2.18	0.43
29:BE:150:GLY:HA2	29:BE:172:TRP:CD2	2.53	0.43
37:BM:125:LEU:HA	37:BM:126:PRO:HD3	1.88	0.43
1:AA:320:C:H2'	1:AA:321:A:C8	2.52	0.43
46:BV:118:GLN:HB2	46:BV:173:ALA:C	2.39	0.43
1:DA:320:C:H2'	1:DA:321:A:C8	2.52	0.43
25:BA:1971:A:N3	27:BC:239:ARG:O	2.51	0.43
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.33	0.43
36:BL:75:ILE:O	36:BL:75:ILE:HD12	2.18	0.43
38:CN:63:ARG:O	38:CN:67:LEU:HD23	2.18	0.43
25:CA:2833:G:H21	28:CD:57:LYS:HB2	1.82	0.43
15:DO:7:GLU:HA	15:DO:10:LYS:HB3	1.99	0.43
1:DA:19:C:H5''	5:DE:86:ALA:HB1	2.01	0.43
41:CQ:60:LEU:HD23	41:CQ:60:LEU:C	2.38	0.43
25:BA:291:C:H2'	25:BA:292:C:C6	2.53	0.43
9:AI:89:ASN:HB3	9:AI:92:TYR:CD1	2.53	0.43
25:BA:830:G:O4'	25:BA:2448:A:C2	2.72	0.43
1:DA:1396:A:C2	5:DE:19:MET:HG3	2.54	0.43
25:CA:742:G:H2'	25:CA:743:G:H8	1.83	0.43
1:DA:685:G:C2	1:DA:686:U:C4	3.06	0.43
7:AG:115:ARG:O	7:AG:118:VAL:HG22	2.18	0.43
26:BB:81:G:C6	26:BB:96:G:C2	3.07	0.43
25:BA:2392:A:C8	36:BL:60:MET:HG2	2.54	0.43
44:CT:43:VAL:HG23	44:CT:47:PHE:CD1	2.54	0.43
30:BF:5:LEU:O	30:BF:8:LYS:HB3	2.17	0.43
45:CU:78:ALA:CB	45:CU:81:LYS:HE3	2.43	0.43
27:CC:43:ARG:HB2	27:CC:48:ARG:O	2.18	0.43
25:CA:663:G:C6	25:CA:664:C:C4	3.06	0.43
22:DV:11:GLU:O	22:DV:15:LEU:HB2	2.19	0.43
22:DV:2:LEU:HD23	22:DV:5:LEU:HD12	2.00	0.43
25:BA:556:G:C6	25:BA:557:U:C4	3.06	0.43
41:BQ:106:PHE:O	41:BQ:110:VAL:HG23	2.18	0.43
25:CA:587:C:O2'	36:CL:23:PRO:HG2	2.19	0.43
34:BJ:157:ARG:O	34:BJ:157:ARG:HG2	2.16	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:CM:76:LYS:N	37:CM:88:GLY:HA2	2.33	0.43
38:CN:10:LEU:N	38:CN:10:LEU:HD12	2.33	0.43
54:C4:34:ARG:HB3	54:C4:42:LEU:HD22	2.00	0.43
50:CZ:1:MET:CE	50:CZ:1:MET:HA	2.49	0.43
28:CD:4:ILE:HG12	28:CD:28:ALA:HB1	1.99	0.43
54:B4:25:PRO:HA	54:B4:28:ARG:CZ	2.48	0.43
25:CA:2306:C:C4	25:CA:2311:A:N6	2.86	0.43
25:CA:2471:C:H2'	25:CA:2472:G:O4'	2.17	0.43
25:CA:2472:G:C4	25:CA:2475:C:N4	2.86	0.43
25:CA:2807:G:N1	25:CA:2893:G:O6	2.51	0.43
25:BA:2304:G:H1	25:BA:2312:U:H3	1.66	0.43
25:BA:2311:A:N3	30:BF:82:LEU:HD12	2.34	0.43
25:BA:1951:U:H2'	25:BA:1953:A:OP2	2.19	0.43
1:DA:1126:U:H2'	1:DA:1127:G:O4'	2.18	0.43
1:DA:501:C:P	12:DL:116:ARG:HH21	2.42	0.43
52:C2:3:LYS:HB3	52:C2:4:HIS:H	1.67	0.43
40:CP:51:ARG:HD2	40:CP:62:THR:HG23	2.00	0.43
1:DA:523:A:H61	12:DL:91:ASP:HB3	1.81	0.43
25:BA:774:A:H2	25:BA:787:U:O2'	2.02	0.43
2:DB:97:TRP:HH2	2:DB:176:GLU:CD	2.20	0.43
1:AA:209:U:H4'	1:AA:216:G:C4	2.54	0.43
22:AV:216:GLU:HB2	22:AV:245:PRO:CD	2.47	0.43
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.34	0.43
27:BC:183:ARG:HB2	27:BC:270:ILE:HG22	1.99	0.43
37:CM:78:PRO:O	37:CM:79:LEU:HB2	2.18	0.43
31:CG:46:GLU:HG3	31:CG:51:ARG:HD2	2.01	0.43
9:DI:114:TYR:HE1	10:DJ:59:SER:HA	1.83	0.43
37:CM:36:ALA:HA	37:CM:129:THR:HG22	2.01	0.43
25:BA:2110:G:H4'	25:BA:2145:C:H42	1.83	0.43
34:BJ:93:LYS:HB3	34:BJ:110:LEU:HB2	2.00	0.43
34:BJ:58:ARG:C	34:BJ:60:LYS:H	2.21	0.43
35:CK:25:LEU:HB3	35:CK:38:VAL:HG23	1.99	0.43
1:DA:186(B):C:O2'	20:DT:89:ARG:HD2	2.17	0.43
52:B2:36:CYS:SG	52:B2:37:LYS:N	2.91	0.43
5:AE:48:ALA:HB2	5:AE:57:LYS:HD3	1.98	0.43
7:AG:25:ALA:O	7:AG:29:LYS:HG2	2.18	0.43
31:CG:23:ARG:N	31:CG:23:ARG:HD3	2.34	0.43
35:CK:2:ILE:N	35:CK:2:ILE:HD12	2.33	0.43
25:CA:2658:C:H5'	31:CG:160:LYS:HZ3	1.83	0.43
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.99	0.43
1:AA:1079:G:O3'	5:AE:14:ARG:NH2	2.52	0.43
25:BA:979:G:H3'	25:BA:980:A:H5''	1.99	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:7:ASN:HD21	18:AR:34:TYR:HE1	1.65	0.43
22:DV:189:GLN:O	22:DV:190:GLY:C	2.56	0.43
27:CC:72:LYS:HE3	27:CC:101:GLU:HG2	2.00	0.43
1:DA:1133:G:H2'	1:DA:1134:G:C8	2.54	0.43
26:BB:83:G:H4'	50:BZ:52:HIS:CG	2.53	0.43
45:CU:71:LYS:HB2	45:CU:71:LYS:HZ2	1.82	0.43
1:DA:922:G:C6	1:DA:923:A:C6	3.06	0.43
26:CB:42:C:H5'	30:CF:68:PRO:O	2.19	0.43
30:BF:66:GLN:NE2	30:BF:94:LEU:HB3	2.34	0.43
9:DI:14:VAL:HG12	9:DI:15:ALA:H	1.83	0.43
1:DA:675:A:C4	1:DA:676:A:C8	3.06	0.43
36:BL:85:LEU:HD12	36:BL:120:ALA:HB2	2.00	0.43
27:CC:204:ILE:HD12	27:CC:204:ILE:O	2.19	0.43
25:CA:807:U:O4'	25:CA:2445:G:H5''	2.18	0.43
6:AF:97:PHE:O	18:AR:31:LEU:HD23	2.19	0.43
39:CO:96:GLY:O	39:CO:99:LYS:HB3	2.19	0.43
25:CA:754:C:H2'	25:CA:755:C:C6	2.54	0.43
25:BA:494:G:N2	43:BS:57:ASN:HD21	2.14	0.43
26:BB:45:A:H1'	30:BF:95:ARG:CZ	2.47	0.43
1:AA:1126:U:H2'	1:AA:1127:G:C8	2.53	0.43
25:CA:1951:U:H2'	25:CA:1953:A:OP2	2.18	0.43
1:AA:292:G:C2	1:AA:309:G:C2	3.06	0.43
4:AD:100:ARG:HG2	4:AD:102:ASP:OD1	2.18	0.43
29:CE:150:GLY:HA2	29:CE:172:TRP:CD2	2.53	0.43
25:CA:1510:A:H2'	25:CA:1511:A:O4'	2.18	0.43
25:BA:2071:A:H2'	25:BA:2072:G:C8	2.52	0.43
25:BA:1510:A:H2'	25:BA:1511:A:O4'	2.18	0.43
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.83	0.43
19:AS:62:ILE:HD12	19:AS:66:MET:HG3	2.01	0.43
11:DK:18:ARG:HA	11:DK:81:ASP:H	1.83	0.43
1:AA:266:G:O2'	1:AA:267:C:OP2	2.35	0.43
25:BA:1815:A:C5	25:BA:1817:G:C6	3.07	0.43
44:BT:31:HIS:ND1	44:BT:32:PRO:HD2	2.34	0.43
1:AA:1401:G:H2'	1:AA:1402:C:O4'	2.19	0.43
25:BA:2119:A:C5	25:BA:2170:A:C6	3.07	0.43
25:BA:2876:G:H2'	25:BA:2877:G:C8	2.54	0.43
1:DA:730:G:N3	1:DA:730:G:H2'	2.34	0.43
25:CA:2686:G:C5	25:CA:2687:U:C4	3.06	0.43
13:AM:82:MET:SD	25:BA:888:C:H4'	2.58	0.43
41:BQ:79:PHE:C	41:BQ:79:PHE:HD1	2.21	0.43
25:CA:2339:G:H2'	25:CA:2340:G:C8	2.54	0.43
1:AA:1261:A:H5'	1:AA:1283:G:O3'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2756:U:H4'	25:CA:2757:A:OP1	2.19	0.43
25:CA:363(C):G:H2'	25:CA:363(D):G:H8	1.84	0.43
46:BV:161:VAL:HG12	46:BV:162:GLU:N	2.34	0.43
1:AA:510:A:N3	1:AA:543:C:H1'	2.34	0.43
1:DA:510:A:N3	1:DA:543:C:H1'	2.34	0.43
25:CA:1002:G:H2'	25:CA:1003:G:O4'	2.19	0.43
44:CT:56:THR:C	44:CT:57:LEU:HD12	2.38	0.43
49:CY:61:LEU:HD12	49:CY:61:LEU:HA	1.83	0.43
25:BA:1517:G:C5	25:BA:1518:C:C4	3.06	0.43
22:AV:300:GLU:CD	22:AV:301:LYS:HG3	2.39	0.43
25:BA:994:C:OP2	41:BQ:54:LYS:NZ	2.50	0.43
25:CA:2275:C:H2'	25:CA:2275:C:H6	1.65	0.43
1:AA:1367:C:H5'	10:AJ:60:ARG:NH1	2.34	0.43
15:DO:67:LEU:HB3	15:DO:78:TYR:HE1	1.83	0.43
25:BA:1813:G:N3	27:BC:50:THR:OG1	2.50	0.43
37:BM:43:THR:HA	37:BM:94:VAL:HG12	2.00	0.43
22:AV:2:LEU:HD23	22:AV:5:LEU:HD12	2.00	0.43
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	2.33	0.43
27:CC:31:LYS:HD2	27:CC:31:LYS:HA	1.71	0.43
25:BA:1607:C:C5'	25:BA:1608:A:H5'	2.47	0.43
34:CJ:62:ARG:CZ	34:CJ:64:ASP:HB2	2.49	0.43
1:DA:624:C:H4'	16:DP:11:SER:N	2.34	0.43
47:BW:21:LEU:HD12	47:BW:21:LEU:N	2.33	0.43
25:CA:609(B):G:H2'	25:CA:610:C:H6	1.83	0.43
4:AD:100:ARG:NH1	4:AD:137:SER:HA	2.33	0.43
19:DS:63:THR:HG22	19:DS:66:MET:HE3	2.00	0.43
21:AU:11:GLY:O	21:AU:15:ARG:HG3	2.19	0.43
16:DP:8:ARG:HB3	16:DP:28:ARG:HH11	1.83	0.43
4:DD:100:ARG:NH1	4:DD:137:SER:HA	2.34	0.43
25:BA:1590:U:H2'	25:BA:1591:G:C8	2.52	0.43
25:BA:2790:A:H2'	25:BA:2791:C:C5'	2.48	0.43
25:BA:140:A:C8	25:BA:1408:C:O2'	2.68	0.43
1:DA:679:C:H2'	1:DA:680:C:C6	2.53	0.43
25:CA:2790:A:H2'	25:CA:2791:C:C5'	2.49	0.43
25:BA:962:G:O2'	25:BA:963:U:H5'	2.18	0.43
25:CA:2208:U:O2	25:CA:2217:G:C2	2.72	0.43
1:DA:1261:A:H5'	1:DA:1283:G:O3'	2.19	0.43
27:BC:72:LYS:HE3	27:BC:101:GLU:HB3	2.01	0.43
25:CA:979:G:H3'	25:CA:980:A:H5''	2.00	0.43
47:CW:27:GLU:HB2	47:CW:69:PHE:CD1	2.54	0.43
25:CA:1077:A:H2'	25:CA:1078:U:H5'	2.00	0.43
1:AA:650:G:O2'	1:AA:651:C:H5'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:263:GLU:O	22:AV:267:MET:HG2	2.19	0.43
1:AA:583:A:H2'	1:AA:584:G:O4'	2.19	0.43
20:DT:10:LEU:C	20:DT:12:ALA:H	2.21	0.43
44:BT:56:THR:C	44:BT:57:LEU:HD12	2.39	0.43
25:BA:1036:G:H2'	25:BA:1037:G:H8	1.83	0.43
25:CA:1126:A:H8	25:CA:1126:A:OP1	2.01	0.43
1:DA:1498:U:O5'	1:DA:1498:U:H6	2.01	0.43
50:BZ:46:ASN:HD22	50:BZ:46:ASN:HA	1.65	0.43
25:BA:1299:G:O5'	25:BA:1299:G:H8	2.02	0.43
34:BJ:78:VAL:HB	34:BJ:149:PRO:HB3	2.00	0.43
1:AA:1173:G:H2'	1:AA:1174:G:C8	2.54	0.43
1:DA:953:G:H2'	1:DA:954:G:O4'	2.18	0.43
25:CA:476:G:O4'	25:CA:505:A:H2	2.01	0.43
1:DA:774:G:C2	1:DA:806:C:C2	3.07	0.43
31:BG:46:GLU:HG3	31:BG:51:ARG:CD	2.48	0.43
22:AV:177:VAL:HG12	22:AV:301:LYS:CB	2.30	0.43
41:CQ:90:VAL:HG13	41:CQ:91:ASP:N	2.33	0.43
25:CA:997:G:OP1	41:CQ:93:LYS:HB2	2.19	0.43
42:CR:38:LEU:O	42:CR:52:VAL:HG12	2.19	0.43
34:BJ:42:GLU:O	34:BJ:42:GLU:HG3	2.18	0.43
52:B2:33:CYS:SG	52:B2:40:LYS:HE3	2.59	0.43
15:AO:36:ILE:HD12	15:AO:63:ARG:NH1	2.29	0.43
1:AA:402:G:OP1	4:AD:74:GLN:HG2	2.18	0.43
30:CF:91:ARG:HG2	30:CF:92:VAL:N	2.32	0.43
10:DJ:3:LYS:N	10:DJ:75:ILE:HA	2.34	0.43
26:BB:42:C:C4	30:BF:91:ARG:NH2	2.85	0.43
25:CA:2012:G:O2'	43:CS:96:ILE:HD11	2.18	0.43
22:AV:340:LYS:HE3	22:AV:340:LYS:HB2	1.88	0.43
3:DC:24:ALA:HB3	3:DC:29:TYR:CD2	2.53	0.43
37:CM:42:ILE:O	37:CM:94:VAL:HA	2.19	0.43
6:DF:97:PHE:O	18:DR:31:LEU:HD23	2.19	0.43
19:DS:6:LYS:HD3	19:DS:7:LYS:CE	2.48	0.43
44:CT:70:LEU:HD23	44:CT:71:GLY:H	1.83	0.43
36:CL:36:LYS:HG3	36:CL:41:ARG:CB	2.48	0.43
28:CD:5:LEU:HB2	28:CD:51:PHE:HD2	1.83	0.43
30:BF:83:ARG:HG3	30:BF:86:MET:SD	2.58	0.43
25:BA:1786:A:H4'	25:BA:1787:A:OP2	2.18	0.43
1:DA:451:A:H4'	1:DA:452:A:O4'	2.19	0.43
8:AH:20:TYR:CZ	8:AH:76:PRO:HG2	2.53	0.43
25:CA:1952:A:C2	35:CK:22:ILE:HG23	2.53	0.43
39:BO:49:VAL:HG11	39:BO:73:LEU:HA	2.00	0.43
19:DS:53:ASN:HD22	19:DS:53:ASN:C	2.20	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1509:A:H4'	25:CA:1510:A:C1'	2.49	0.43
25:CA:2271:G:C5	25:CA:2272:U:C4	3.07	0.43
4:AD:133:VAL:HG13	4:AD:135:LEU:HD23	1.99	0.43
25:CA:2591:C:P	27:CC:239:ARG:HB2	2.58	0.43
27:BC:10:THR:HG23	27:BC:13:ARG:HB2	2.01	0.43
48:CX:21:ARG:NH2	48:CX:39:LYS:HE3	2.34	0.43
1:DA:129(B):G:C6	1:DA:188:U:H4'	2.53	0.43
29:BE:117:ARG:HD2	29:BE:190:GLU:O	2.18	0.43
10:AJ:80:LYS:NZ	10:AJ:80:LYS:HB2	2.34	0.43
41:CQ:18:LEU:HD23	41:CQ:22:LYS:HE2	2.01	0.43
36:CL:75:ILE:HD13	36:CL:77:ARG:NE	2.33	0.43
56:DX:17:U:C2'	56:DX:18:G:H5''	2.48	0.43
34:BJ:148:GLY:HA3	34:BJ:149:PRO:O	2.18	0.43
39:CO:42:ASP:O	39:CO:44:LYS:HG2	2.17	0.43
25:CA:2359:C:H2'	25:CA:2360:A:C8	2.53	0.43
7:DG:25:ALA:O	7:DG:29:LYS:HG2	2.18	0.43
35:BK:25:LEU:HB3	35:BK:38:VAL:HG23	2.00	0.43
31:CG:105:LEU:HD22	31:CG:113:VAL:HB	2.01	0.43
25:CA:2758:A:C4	31:CG:67:LEU:HD21	2.54	0.43
7:DG:9:VAL:CG2	7:DG:94:ARG:HH11	2.31	0.43
27:BC:271:ILE:O	27:BC:272:ALA:HB3	2.19	0.43
41:CQ:79:PHE:CD1	41:CQ:79:PHE:C	2.91	0.43
41:CQ:79:PHE:HD1	41:CQ:79:PHE:C	2.21	0.43
27:CC:264:LYS:HG3	27:CC:265:PRO:HD2	2.00	0.43
14:DN:14:PRO:HG2	14:DN:15:LYS:H	1.83	0.43
28:BD:34:VAL:HB	28:BD:48:GLN:HB3	2.01	0.43
29:CE:24:LEU:HA	29:CE:25:PRO:HD3	1.87	0.43
25:CA:1221:C:H2'	25:CA:122(A):C:C6	2.53	0.43
1:AA:774:G:C2	1:AA:806:C:C2	3.07	0.43
4:AD:93:PHE:O	4:AD:97:LEU:HG	2.18	0.43
47:BW:27:GLU:HB2	47:BW:69:PHE:CD1	2.53	0.43
22:AV:123:PHE:O	22:AV:127:LEU:HG	2.19	0.43
25:CA:1899:G:N2	25:CA:1902:C:H42	2.09	0.43
26:CB:82:G:H2'	26:CB:83:G:H8	1.84	0.43
15:DO:26:GLU:OE2	15:DO:77:ARG:HD2	2.19	0.43
31:CG:58:GLU:O	31:CG:62:LYS:HG3	2.19	0.43
15:AO:26:GLU:OE2	15:AO:77:ARG:HD2	2.18	0.43
40:CP:23:ARG:HB2	40:CP:120:ARG:HH12	1.83	0.43
12:DL:83:LEU:C	12:DL:84:ILE:HD12	2.39	0.43
10:AJ:3:LYS:N	10:AJ:75:ILE:HA	2.34	0.43
12:AL:82:VAL:HG22	12:AL:83:LEU:H	1.84	0.43
27:CC:83:GLU:HB2	27:CC:92:ILE:CD1	2.44	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BO:34:HIS:CG	39:BO:54:LEU:HB2	2.54	0.43
22:DV:43:GLU:O	22:DV:47:LEU:HG	2.18	0.43
25:CA:1060:U:H4'	25:CA:1061:U:C3'	2.43	0.43
27:BC:142:VAL:HG23	27:BC:192:THR:C	2.39	0.43
25:CA:2001:A:C5'	25:CA:2689:U:O2'	2.67	0.43
25:CA:1517:G:C5	25:CA:1518:C:C4	3.07	0.43
16:DP:4:ILE:HD12	16:DP:4:ILE:H	1.84	0.43
28:BD:5:LEU:C	28:BD:51:PHE:HE2	2.22	0.43
25:BA:2335:A:H2'	39:BO:13:ARG:HH22	1.84	0.43
25:CA:993:G:OP1	41:CQ:50:ARG:HD2	2.19	0.43
25:CA:570:G:C5	25:CA:2030:A:C2	3.07	0.43
25:BA:1331:A:C2'	25:BA:1332:G:H5''	2.49	0.43
6:DF:35:ALA:HA	6:DF:67:MET:HB3	2.00	0.43
25:BA:27:G:C4	25:BA:512:G:N2	2.86	0.43
48:BX:90:ILE:HA	48:BX:90:ILE:HD13	1.92	0.43
42:CR:28:GLU:OE1	42:CR:31:ALA:HB2	2.19	0.43
25:CA:2836:U:C4	25:CA:2883:A:N6	2.87	0.43
1:DA:558:G:H2'	1:DA:559:A:C2	2.53	0.43
11:AK:18:ARG:HA	11:AK:81:ASP:H	1.83	0.43
50:CZ:22:ALA:O	50:CZ:26:LEU:HG	2.19	0.43
2:DB:112:VAL:O	2:DB:115:LEU:HB3	2.19	0.43
25:BA:1070:A:O2'	25:BA:1097:U:H5'	2.19	0.43
25:CA:2119:A:C5	25:CA:2170:A:C6	3.07	0.43
25:BA:2686:G:C5	25:BA:2687:U:C4	3.07	0.43
1:AA:1501:C:N4	1:AA:1504:G:C2	2.87	0.43
25:BA:2291:U:H2'	25:BA:2292:C:C6	2.54	0.43
25:BA:1459:G:C6	25:BA:1461:G:C5	3.07	0.43
25:BA:456:C:C4	44:BT:69:TYR:CE2	3.06	0.43
25:BA:363(C):G:H2'	25:BA:363(D):G:H8	1.84	0.43
1:AA:1396:A:C2	5:AE:19:MET:HG3	2.53	0.43
40:BP:131:ALA:O	40:BP:135:VAL:HG23	2.18	0.43
24:AX:17:U:C2'	24:AX:18:G:H5''	2.49	0.43
7:DG:107:ALA:HB2	7:DG:134:ALA:HB2	2.00	0.43
25:BA:1392:A:N6	25:BA:1393:A:N6	2.66	0.43
27:CC:175:LEU:HD12	27:CC:185:VAL:HG21	1.99	0.43
3:AC:91:LEU:HB3	3:AC:99:VAL:HG11	2.00	0.43
34:CJ:85:VAL:HG22	34:CJ:89:LYS:HG3	1.99	0.43
41:CQ:90:VAL:CG2	42:CR:39:LEU:HB3	2.43	0.43
25:BA:2259:G:C2	25:BA:2282:G:C6	3.05	0.43
1:DA:1367:C:H5'	10:DJ:60:ARG:NH1	2.34	0.43
2:AB:20:GLU:HG3	2:AB:191:ASP:H	1.84	0.43
27:CC:62:TYR:CG	27:CC:63:ARG:N	2.86	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:979:C:H6	1:AA:979:C:O5'	2.02	0.43
25:BA:1678:G:O2'	25:BA:1679:U:O5'	2.37	0.43
22:DV:5:LEU:HD22	22:DV:48:ILE:CD1	2.42	0.43
26:BB:42:C:H5'	30:BF:68:PRO:O	2.18	0.43
12:DL:83:LEU:HG	12:DL:104:TYR:HE1	1.84	0.43
12:AL:83:LEU:HG	12:AL:104:TYR:HE1	1.84	0.43
1:DA:942:G:N2	9:DI:124:GLN:HE22	2.10	0.43
25:CA:807:U:H2'	25:CA:808:G:H8	1.84	0.43
36:CL:38:GLN:HG3	36:CL:39:LYS:N	2.34	0.43
22:AV:241:VAL:HG11	22:AV:266:LEU:CD2	2.49	0.43
37:CM:81:VAL:CG1	37:CM:82:ARG:HG2	2.49	0.43
27:CC:33:LEU:O	27:CC:36:PRO:HD2	2.18	0.43
25:BA:2134:A:H2	25:BA:2159:G:O2'	2.01	0.43
25:BA:1771:C:C1'	25:BA:1786:A:C8	3.00	0.43
9:DI:118:LYS:O	9:DI:119:ALA:HB3	2.18	0.43
30:CF:83:ARG:HG3	30:CF:86:MET:SD	2.58	0.43
13:DM:14:ARG:HG2	13:DM:44:ARG:NH1	2.34	0.43
25:BA:1131:G:O6	25:BA:2040:C:H1'	2.19	0.43
25:CA:1786:A:H4'	25:CA:1787:A:OP2	2.19	0.43
1:DA:949:A:C2	1:DA:1233:G:N3	2.87	0.43
23:DW:25:C:H2'	23:DW:26:G:O4'	2.19	0.43
1:AA:691:G:C6	11:AK:52:GLY:HA2	2.54	0.43
1:AA:500:G:C5	1:AA:546:G:N2	2.87	0.43
48:BX:19:GLN:HG2	48:BX:41:ARG:HA	2.01	0.43
25:CA:2591:C:H2'	25:CA:2592:G:C8	2.54	0.43
27:BC:13:ARG:HD2	27:BC:16:MET:SD	2.59	0.43
25:CA:1287:A:C6	25:CA:1288:U:C4	3.07	0.43
1:AA:551:U:O2'	12:AL:85:ARG:HD2	2.19	0.43
39:CO:90:GLY:O	39:CO:92:TYR:CD1	2.72	0.43
25:BA:117:G:C6	25:BA:119:A:C6	3.07	0.43
25:CA:723:G:H2'	25:CA:724:U:O4'	2.18	0.43
8:AH:51:VAL:HG21	8:AH:60:ARG:CG	2.49	0.43
25:BA:1147:C:H2'	25:BA:1148:A:C8	2.54	0.43
37:CM:27:VAL:H	46:CV:81:ARG:HH22	1.67	0.43
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.53	0.43
25:CA:1613:G:H3'	25:CA:1617:C:N4	2.34	0.43
1:DA:895:G:H2'	1:DA:896:C:C6	2.53	0.43
26:BB:99:A:C6	26:BB:100:G:C5	3.07	0.43
39:CO:38:GLN:HB3	39:CO:47:THR:HG23	2.01	0.43
1:DA:785:G:N2	1:DA:798:G:C4	2.87	0.43
1:AA:31:G:N1	1:AA:48:C:H5''	2.34	0.43
31:BG:96:ALA:HA	31:BG:105:LEU:HB3	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2291:U:H2'	25:CA:2292:C:C6	2.54	0.43
25:CA:301:G:C6	25:CA:317:G:C6	3.07	0.43
22:DV:263:GLU:O	22:DV:267:MET:HG2	2.19	0.43
1:AA:1112:C:N3	3:AC:178:LEU:HD23	2.34	0.43
25:CA:2674:G:H2'	25:CA:2675:A:C8	2.54	0.43
43:BS:110:LYS:HG3	43:BS:111:HIS:ND1	2.34	0.43
25:BA:2339:G:H2'	25:BA:2340:G:H8	1.84	0.43
46:CV:120:ILE:HG12	46:CV:172:ALA:HA	2.00	0.43
31:BG:159:GLU:O	31:BG:160:LYS:HG3	2.19	0.43
25:CA:2051:A:H8	25:CA:2051:A:OP2	2.02	0.43
37:BM:36:ALA:HA	37:BM:129:THR:HG22	2.01	0.43
34:CJ:148:GLY:HA3	34:CJ:149:PRO:O	2.19	0.43
25:BA:919:G:N2	25:BA:2268:A:C8	2.87	0.43
46:CV:97:GLU:O	46:CV:98:MET:HB3	2.18	0.43
1:AA:1152:A:H5''	10:AJ:13:HIS:CD2	2.54	0.43
45:BU:96:ILE:CD1	45:BU:99:CYS:HB2	2.40	0.43
55:B5:60:LEU:C	55:B5:62:LEU:H	2.21	0.43
25:BA:663:G:C6	25:BA:664:C:C4	3.06	0.43
25:BA:807:U:H2'	25:BA:808:G:H8	1.83	0.43
36:BL:39:LYS:CD	36:BL:40:SER:H	2.28	0.43
26:CB:42:C:C4	30:CF:91:ARG:NH2	2.86	0.43
30:CF:66:GLN:NE2	30:CF:94:LEU:HB3	2.34	0.43
48:BX:62:VAL:HG22	48:BX:63:ALA:N	2.33	0.43
4:DD:21:LEU:HD12	4:DD:22:LYS:H	1.83	0.43
39:BO:28:VAL:HG21	39:BO:87:PHE:HE1	1.83	0.43
26:CB:15:A:H1'	26:CB:109:G:N9	2.34	0.43
46:CV:144:LEU:N	46:CV:144:LEU:HD22	2.34	0.43
1:AA:1065:U:C4	1:AA:1190:G:H1'	2.54	0.43
36:CL:30:THR:O	36:CL:32:THR:N	2.52	0.43
1:AA:986:A:H2'	1:AA:987:G:C8	2.54	0.43
25:BA:1349:A:N6	25:BA:1598:C:N4	2.67	0.43
19:AS:29:ARG:O	19:AS:31:ILE:HG22	2.18	0.43
40:CP:107:ASP:HB2	1:DA:1432:G:OP1	2.19	0.43
19:DS:29:ARG:HB2	19:DS:48:THR:N	2.33	0.43
8:DH:64:LYS:CG	8:DH:79:VAL:HG21	2.47	0.43
4:DD:50:ARG:HA	4:DD:51:PRO:HD3	1.88	0.43
25:CA:2115:G:N1	25:CA:2118:U:OP2	2.50	0.43
1:AA:668:G:H1'	15:AO:46:HIS:HD2	1.84	0.43
25:CA:1771:C:C1'	25:CA:1786:A:H8	2.32	0.43
25:CA:2893:G:H5''	25:CA:2894:G:C5'	2.48	0.43
25:CA:27:G:C4	25:CA:512:G:N2	2.86	0.43
1:DA:522:C:H41	12:DL:52:ARG:HH22	1.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.84	0.43
1:AA:1188:A:C2'	1:AA:1189:C:H5'	2.49	0.43
25:CA:2696:U:H2'	25:CA:2697:G:C8	2.54	0.43
40:BP:51:ARG:HG2	40:BP:52:ILE:N	2.32	0.43
25:CA:2536:G:C6	25:CA:2537:U:C4	3.07	0.43
16:DP:8:ARG:HH21	16:DP:15:PRO:HG3	1.83	0.43
4:DD:133:VAL:HG13	4:DD:135:LEU:HD23	1.99	0.43
48:BX:21:ARG:NH2	48:BX:39:LYS:HE3	2.33	0.43
19:AS:33:THR:HG22	19:AS:51:VAL:HA	2.01	0.43
48:CX:37:ILE:HG22	48:CX:38:SER:N	2.34	0.43
25:CA:685:A:H5''	25:CA:788:A:N6	2.33	0.43
25:CA:118:A:OP2	25:CA:119:A:H5''	2.18	0.43
25:BA:1967:C:H2'	25:BA:1968:G:O4'	2.18	0.43
25:CA:1939:U:O2	25:CA:1967:C:H4'	2.19	0.43
25:CA:1967:C:H2'	25:CA:1968:G:O4'	2.18	0.43
1:DA:1401:G:H2'	1:DA:1402:C:O4'	2.19	0.43
40:CP:35:LYS:HE3	40:CP:35:LYS:HB2	1.88	0.43
22:DV:145:LEU:HB2	22:DV:159:VAL:HG23	2.00	0.43
25:CA:425:G:N2	25:CA:426:C:C2	2.87	0.43
9:AI:114:TYR:HE1	10:AJ:59:SER:HA	1.83	0.43
25:CA:456:C:C4	44:CT:69:TYR:CE2	3.07	0.43
1:AA:762:C:H2'	1:AA:763:G:C8	2.54	0.43
25:BA:667:U:H2'	25:BA:668:G:O4'	2.19	0.43
22:AV:189:GLN:O	22:AV:190:GLY:C	2.56	0.43
25:CA:458:G:N2	25:CA:470:A:OP2	2.50	0.43
43:CS:110:LYS:HG3	43:CS:111:HIS:ND1	2.33	0.43
39:CO:58:LEU:N	39:CO:58:LEU:HD12	2.33	0.43
31:CG:167:GLU:HB3	31:CG:168:PRO:HD2	2.01	0.43
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.54	0.43
22:AV:123:PHE:HZ	22:AV:305:TYR:CD2	2.37	0.42
36:BL:57:THR:HG23	36:BL:59:LEU:CB	2.48	0.42
55:B5:54:GLU:O	55:B5:58:ILE:HG12	2.19	0.42
1:DA:1315:U:H2'	1:DA:1316:G:O4'	2.19	0.42
36:BL:30:THR:O	36:BL:32:THR:N	2.52	0.42
4:DD:20:TYR:HD2	4:DD:26:CYS:HB3	1.83	0.42
25:BA:2190:G:O2'	25:BA:2191:G:H5'	2.19	0.42
25:BA:1258:C:O4'	29:BE:84:VAL:HG11	2.19	0.42
36:BL:143:GLY:C	36:BL:145:PRO:HD3	2.39	0.42
22:DV:274:LEU:O	22:DV:278:ARG:HG3	2.19	0.42
1:DA:690:G:C6	1:DA:691:G:C6	3.07	0.42
22:DV:96:LEU:HD23	22:DV:348:LEU:HA	2.01	0.42
25:BA:2472:G:C4	25:BA:2475:C:N4	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:292:G:C2	1:DA:309:G:C2	3.07	0.42
25:BA:795:C:O2'	25:BA:796:C:H5'	2.19	0.42
25:BA:2696:U:H2'	25:BA:2697:G:C8	2.54	0.42
40:CP:51:ARG:HG2	40:CP:52:ILE:N	2.32	0.42
22:DV:106:ASP:O	22:DV:204:LYS:HG2	2.18	0.42
27:BC:14:ARG:HG3	27:BC:15:PHE:CE1	2.54	0.42
25:BA:2150:U:H2'	25:BA:2151:G:H8	1.84	0.42
12:AL:5:THR:OG1	12:AL:8:GLN:HG3	2.18	0.42
25:BA:723:G:H2'	25:BA:724:U:O4'	2.18	0.42
1:AA:630:G:O2'	1:AA:631:G:H5'	2.18	0.42
25:BA:934:G:H2'	25:BA:935:C:H6	1.84	0.42
25:CA:1147:C:H2'	25:CA:1148:A:C8	2.53	0.42
22:AV:216:GLU:HB2	22:AV:245:PRO:HD3	2.00	0.42
34:CJ:161:LEU:H	34:CJ:161:LEU:HD23	1.84	0.42
25:BA:2737:G:H2'	25:BA:2738:A:C8	2.53	0.42
1:AA:60:A:H4'	1:AA:61:G:O5'	2.19	0.42
1:AA:895:G:H2'	1:AA:896:C:C6	2.54	0.42
25:CA:2494:G:H2'	25:CA:2495:G:H8	1.83	0.42
1:DA:115:G:O2'	1:DA:289:G:H8	2.02	0.42
20:DT:89:ARG:HH21	20:DT:104:LEU:HD22	1.84	0.42
31:CG:96:ALA:HA	31:CG:105:LEU:HB3	2.01	0.42
25:BA:2339:G:H2'	25:BA:2340:G:C8	2.54	0.42
25:BA:273(E):C:H2'	25:BA:273(F):U:H6	1.84	0.42
23:DW:62:C:H2'	23:DW:63:G:H8	1.84	0.42
27:BC:264:LYS:HG3	27:BC:265:PRO:HD2	2.00	0.42
25:CA:2484:G:H2'	25:CA:2485:G:H8	1.84	0.42
37:BM:68:ILE:HG23	37:BM:103:MET:HA	2.01	0.42
1:DA:1077:G:N1	1:DA:1081:G:C6	2.87	0.42
25:CA:1820:U:H4'	25:CA:1821:A:OP2	2.19	0.42
1:DA:1173:G:H2'	1:DA:1174:G:C8	2.53	0.42
23:AW:62:C:H2'	23:AW:63:G:H8	1.84	0.42
22:AV:46:GLY:O	22:AV:50:GLU:HG2	2.19	0.42
1:DA:1075:C:H5''	2:DB:179:LYS:NZ	2.34	0.42
29:CE:157:VAL:HG21	29:CE:181:LEU:HD21	2.01	0.42
25:CA:61:G:H1	25:CA:93:C:H42	1.66	0.42
31:BG:167:GLU:HB3	31:BG:168:PRO:HD2	2.01	0.42
34:CJ:93:LYS:HB3	34:CJ:110:LEU:HB2	2.00	0.42
39:BO:38:GLN:HB3	39:BO:47:THR:HG23	2.01	0.42
35:CK:100:GLY:HA2	35:CK:101:PRO:HD3	1.90	0.42
25:CA:418:G:H2'	25:CA:419:C:C6	2.54	0.42
1:AA:636:U:H5'	17:AQ:2:PRO:HD3	2.01	0.42
7:AG:111:ARG:HA	7:AG:112:PRO:HD3	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BY:13:ALA:O	49:BY:17:SER:HA	2.18	0.42
41:BQ:96:ALA:C	41:BQ:98:LEU:H	2.23	0.42
47:BW:22:GLY:O	47:BW:38:VAL:HG13	2.19	0.42
26:CB:83:G:H4'	50:CZ:52:HIS:CG	2.54	0.42
39:CO:35:ILE:O	39:CO:53:SER:HB2	2.19	0.42
30:BF:128:ARG:HH21	30:BF:130:ASN:ND2	2.07	0.42
40:CP:26:ASP:O	40:CP:49:VAL:HG12	2.18	0.42
25:CA:528:A:H2	25:CA:2043:C:C4'	2.32	0.42
1:DA:939:G:H5''	7:DG:102:ARG:HH22	1.83	0.42
45:BU:90:LEU:N	45:BU:90:LEU:HD23	2.34	0.42
39:BO:96:GLY:O	39:BO:99:LYS:HB3	2.19	0.42
7:DG:15:ASP:OD1	7:DG:18:TYR:HB2	2.19	0.42
35:BK:77:ILE:HD11	40:BP:72:VAL:HG13	2.00	0.42
13:AM:14:ARG:HG2	13:AM:44:ARG:NH1	2.34	0.42
27:BC:70:TRP:O	27:BC:73:VAL:HG23	2.19	0.42
25:CA:2477:C:HO2'	25:CA:2478:A:P	2.41	0.42
1:DA:735:C:H2'	1:DA:736:C:C6	2.55	0.42
23:AW:25:C:H2'	23:AW:26:G:O4'	2.19	0.42
25:BA:2271:G:C5	25:BA:2272:U:C4	3.07	0.42
9:DI:99:LEU:HD12	9:DI:101:PHE:HE2	1.83	0.42
25:CA:1509:A:H4'	25:CA:1510:A:O4'	2.19	0.42
39:CO:15:ARG:O	39:CO:19:LYS:HG3	2.20	0.42
21:DU:11:GLY:O	21:DU:15:ARG:HG3	2.19	0.42
25:BA:2536:G:C6	25:BA:2537:U:C4	3.08	0.42
25:CA:2537:U:H2'	25:CA:2538:C:H6	1.81	0.42
8:DH:11:THR:HG22	8:DH:15:ASN:HD21	1.84	0.42
25:BA:2781:A:H5''	25:BA:2782:G:H5'	2.00	0.42
38:CN:2:ARG:HB3	38:CN:3:HIS:CE1	2.55	0.42
30:BF:39:ILE:HG22	30:BF:40:ASN:H	1.84	0.42
25:BA:649:G:C5	25:BA:650:C:C4	3.07	0.42
25:CA:1054:A:H2'	25:CA:1055:G:H8	1.82	0.42
41:BQ:18:LEU:HD23	41:BQ:22:LYS:HE2	2.00	0.42
2:AB:29:ALA:O	2:AB:32:ILE:HG22	2.20	0.42
25:CA:2277:G:C6	25:CA:2278:A:N7	2.87	0.42
1:DA:913:A:H4'	1:DA:914:A:O5'	2.19	0.42
31:CG:12:PRO:O	31:CG:15:VAL:HG22	2.19	0.42
33:BI:9:LEU:O	33:BI:9:LEU:HD23	2.19	0.42
4:AD:94:LEU:HA	4:AD:97:LEU:HD12	2.00	0.42
25:BA:2484:G:H2'	25:BA:2485:G:H8	1.84	0.42
25:CA:2747:G:O6	25:CA:2755:C:H5''	2.20	0.42
25:BA:2674:G:H2'	25:BA:2675:A:C8	2.54	0.42
25:BA:2730:C:H4'	28:BD:168:MET:O	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:DE:38:GLN:HA	5:DE:71:LEU:HD11	2.00	0.42
34:BJ:108:ILE:HG22	34:BJ:109:PRO:O	2.19	0.42
1:AA:864:A:H2'	1:AA:865:A:C8	2.55	0.42
1:AA:597:G:C6	1:AA:644:G:C6	3.07	0.42
55:B5:8:LYS:HB3	55:B5:12:LYS:HE2	2.01	0.42
31:BG:13:LYS:HE2	31:BG:14:GLY:H	1.83	0.42
38:BN:44:LEU:O	38:BN:44:LEU:HD13	2.19	0.42
31:BG:23:ARG:N	31:BG:23:ARG:HD3	2.33	0.42
46:CV:119:GLU:HG3	46:CV:119:GLU:O	2.19	0.42
25:BA:1088:A:N3	25:BA:1088:A:H2'	2.35	0.42
40:BP:29:ARG:HA	40:BP:45:PHE:O	2.20	0.42
22:DV:123:PHE:HZ	22:DV:305:TYR:CD2	2.37	0.42
25:BA:1696:G:C6	25:BA:1697:G:C4	3.07	0.42
25:CA:1973:G:H2'	25:CA:1974:C:C6	2.55	0.42
25:BA:2248:C:H3'	25:BA:2249:U:H6	1.84	0.42
25:CA:1695:G:H3'	25:CA:1695:G:N3	2.35	0.42
42:BR:38:LEU:O	42:BR:52:VAL:HG12	2.19	0.42
26:BB:82:G:H2'	26:BB:83:G:H8	1.84	0.42
45:CU:8:LYS:HE3	45:CU:72:VAL:HG23	2.01	0.42
1:DA:975:A:C8	1:DA:1357:A:H2	2.37	0.42
1:DA:1152:A:H5'	10:DJ:70:ARG:HH22	1.84	0.42
45:BU:8:LYS:HE3	45:BU:72:VAL:HG23	2.01	0.42
36:BL:38:GLN:CG	36:BL:39:LYS:H	2.32	0.42
3:AC:24:ALA:HB3	3:AC:29:TYR:CD2	2.54	0.42
13:DM:3:ARG:NH2	13:DM:7:VAL:HG13	2.33	0.42
9:DI:15:ALA:HA	9:DI:65:VAL:HA	2.01	0.42
39:BO:28:VAL:HG21	39:BO:87:PHE:CE1	2.55	0.42
25:CA:2190:G:O2'	25:CA:2191:G:H5'	2.19	0.42
27:BC:94:LEU:HD23	27:BC:104:TYR:CE1	2.54	0.42
39:CO:34:HIS:CG	39:CO:54:LEU:HB2	2.54	0.42
25:BA:2711:A:OP1	25:BA:712(B):A:P	2.77	0.42
19:AS:29:ARG:HB2	19:AS:48:THR:N	2.33	0.42
25:BA:754:C:H2'	25:BA:755:C:C6	2.54	0.42
25:CA:1258:C:O4'	29:CE:84:VAL:HG11	2.19	0.42
31:CG:92:ILE:HD12	31:CG:92:ILE:N	2.30	0.42
39:BO:93:LYS:HE3	39:BO:93:LYS:HA	2.01	0.42
9:AI:17:VAL:HG21	9:AI:80:GLY:C	2.40	0.42
25:CA:2037:G:C6	25:CA:2038:G:C6	3.07	0.42
39:CO:49:VAL:HG13	39:CO:76:LYS:HB2	2.01	0.42
25:BA:2306:C:C4	25:BA:2311:A:N6	2.86	0.42
25:BA:518:G:H2'	25:BA:519:U:H6	1.84	0.42
12:DL:116:ARG:HB3	12:DL:121:THR:O	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1818:U:C2'	27:CC:157:ARG:HG3	2.48	0.42
40:BP:51:ARG:HD2	40:BP:62:THR:HG23	2.00	0.42
1:AA:115:G:O2'	1:AA:289:G:H8	2.03	0.42
22:AV:106:ASP:O	22:AV:204:LYS:HG2	2.19	0.42
25:BA:2836:U:C4	25:BA:2883:A:N6	2.87	0.42
7:AG:87:VAL:HG11	7:AG:154:TYR:O	2.19	0.42
1:AA:251:G:C2	1:AA:266:G:C6	3.07	0.42
30:CF:39:ILE:HG22	30:CF:40:ASN:H	1.84	0.42
25:CA:1971:A:N3	27:CC:239:ARG:O	2.53	0.42
25:CA:1288:U:H1'	25:CA:1647:G:N2	2.35	0.42
29:CE:117:ARG:HD2	29:CE:190:GLU:O	2.18	0.42
33:CI:9:LEU:HD23	33:CI:9:LEU:O	2.19	0.42
25:CA:126:A:OP2	54:C4:19:ARG:HB2	2.19	0.42
25:CA:2206:C:H2'	25:CA:2207:C:H6	1.84	0.42
37:BM:78:PRO:O	37:BM:79:LEU:HB2	2.19	0.42
25:BA:1927:A:N1	25:BA:1928:A:C6	2.87	0.42
25:BA:429:A:C6	25:BA:430:G:N1	2.87	0.42
25:CA:1454:U:H5'	38:CN:63:ARG:NE	2.34	0.42
25:CA:470:A:OP1	29:CE:59:TYR:HE2	2.02	0.42
25:CA:428:A:N6	25:CA:429:A:N1	2.66	0.42
1:DA:1212:U:O4	22:DV:63:SER:HA	2.20	0.42
25:CA:273(E):C:H2'	25:CA:273(F):U:H6	1.85	0.42
14:AN:6:LEU:HD22	14:AN:21:TYR:OH	2.20	0.42
25:BA:1570:A:C6	25:BA:1571:A:C6	3.06	0.42
1:DA:31:G:N1	1:DA:48:C:H5''	2.34	0.42
27:BC:58:HIS:HD2	27:BC:59:LYS:O	2.01	0.42
34:BJ:85:VAL:HG22	34:BJ:89:LYS:HG3	2.00	0.42
46:BV:119:GLU:HG3	46:BV:119:GLU:O	2.19	0.42
54:C4:3:ARG:HA	54:C4:3:ARG:HD3	1.71	0.42
1:DA:762:C:H2'	1:DA:763:G:C8	2.54	0.42
1:AA:1423:G:C6	1:AA:1424:C:C4	3.06	0.42
25:CA:138:G:H2'	25:CA:139:G:H5'	2.01	0.42
25:CA:1789:A:H2'	25:CA:1790:C:O4'	2.19	0.42
1:DA:864:A:H2'	1:DA:865:A:C8	2.54	0.42
40:CP:29:ARG:HA	40:CP:45:PHE:O	2.19	0.42
22:DV:46:GLY:O	22:DV:50:GLU:HG2	2.19	0.42
2:AB:27:LYS:O	2:AB:30:ARG:HG2	2.19	0.42
45:BU:81:LYS:HD2	45:BU:96:ILE:HD12	2.01	0.42
22:DV:111:ILE:H	22:DV:111:ILE:HD12	1.84	0.42
40:BP:26:ASP:O	40:BP:49:VAL:HG12	2.18	0.42
6:DF:87:ARG:HG2	6:DF:87:ARG:NH1	2.35	0.42
25:BA:2331:G:H4'	47:BW:43:THR:N	2.29	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:986:A:H2'	1:DA:987:G:C8	2.54	0.42
25:BA:2001:A:C5'	25:BA:2689:U:O2'	2.67	0.42
34:CJ:39:ILE:HD12	34:CJ:75:VAL:HG13	2.01	0.42
40:CP:68:TYR:N	40:CP:68:TYR:CD2	2.85	0.42
25:CA:83:G:H21	25:CA:84:A:N6	2.17	0.42
13:AM:30:ALA:O	13:AM:34:LEU:HG	2.19	0.42
3:DC:7:PRO:O	3:DC:11:ARG:HG2	2.19	0.42
13:DM:30:ALA:O	13:DM:34:LEU:HG	2.19	0.42
15:DO:42:HIS:CD2	15:DO:43:LEU:HD23	2.54	0.42
31:BG:121:ILE:N	31:BG:121:ILE:HD12	2.35	0.42
28:CD:85:ASN:HA	28:CD:86:PRO:HD3	1.88	0.42
25:CA:1771:C:C1'	25:CA:1786:A:C8	3.01	0.42
27:CC:70:TRP:O	27:CC:73:VAL:HG23	2.19	0.42
30:CF:81:LYS:O	30:CF:82:LEU:HD23	2.20	0.42
25:CA:1612:C:C2	25:CA:1620:G:C2	3.07	0.42
1:AA:949:A:C2	1:AA:1233:G:N3	2.87	0.42
48:BX:90:ILE:O	48:BX:94:LEU:HB2	2.19	0.42
25:CA:579:G:O2'	25:CA:2019:A:OP1	2.37	0.42
3:AC:72:LYS:HA	3:AC:73:PRO:HD2	1.93	0.42
49:CY:16:LEU:HD22	49:CY:16:LEU:N	2.35	0.42
1:DA:77:C:H2'	1:DA:78:G:C8	2.54	0.42
2:AB:8:LYS:HG2	2:AB:217:ARG:NH1	2.34	0.42
2:AB:112:VAL:O	2:AB:115:LEU:HB3	2.19	0.42
6:DF:22:GLU:O	6:DF:26:ILE:HG13	2.20	0.42
1:AA:913:A:H4'	1:AA:914:A:O5'	2.19	0.42
2:DB:141:GLU:O	2:DB:145:LEU:HD23	2.20	0.42
2:AB:141:GLU:O	2:AB:145:LEU:HD23	2.19	0.42
1:DA:1501:C:N4	1:DA:1504:G:C2	2.87	0.42
27:CC:72:LYS:HE3	27:CC:101:GLU:HB3	2.01	0.42
4:AD:93:PHE:CE1	4:AD:97:LEU:HD11	2.54	0.42
11:DK:79:SER:HA	11:DK:104:GLN:O	2.19	0.42
25:CA:1153:C:N4	25:CA:1154:G:N1	2.68	0.42
25:BA:1341:U:O4	44:BT:16:LYS:HE2	2.20	0.42
47:BW:46:LYS:HB3	47:BW:47:PRO:HD2	2.02	0.42
7:DG:95:ARG:O	7:DG:99:LEU:HG	2.18	0.42
30:CF:124:SER:HB2	30:CF:131:TYR:CE1	2.54	0.42
25:BA:2412:A:H2'	25:BA:2413:G:O4'	2.20	0.42
5:AE:39:GLY:HA2	5:AE:69:VAL:HB	2.01	0.42
3:DC:138:VAL:HG13	3:DC:149:ALA:HB3	2.02	0.42
25:BA:301:G:C6	25:BA:317:G:C6	3.07	0.42
25:BA:869:G:H2'	25:BA:870:A:H8	1.83	0.42
1:DA:650:G:O2'	1:DA:651:C:H5'	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2164:C:H2'	25:BA:2165:G:H8	1.84	0.42
38:CN:44:LEU:O	38:CN:44:LEU:HD13	2.19	0.42
25:CA:1088:A:H2'	25:CA:1088:A:N3	2.35	0.42
1:AA:347:G:H2'	1:AA:348:G:O4'	2.19	0.42
25:BA:1153:C:N4	25:BA:1154:G:N1	2.67	0.42
1:DA:125:U:H2'	1:DA:126:G:C8	2.54	0.42
25:BA:1789:A:H2'	25:BA:1790:C:O4'	2.19	0.42
41:CQ:96:ALA:C	41:CQ:98:LEU:H	2.23	0.42
9:DI:4:TYR:HB2	9:DI:19:LEU:HB3	2.01	0.42
41:BQ:92:ARG:HH21	42:BR:11:GLN:H	1.65	0.42
47:CW:24:LYS:H	47:CW:38:VAL:HG22	1.85	0.42
31:BG:58:GLU:O	31:BG:62:LYS:HG3	2.19	0.42
25:CA:695:G:C6	25:CA:768:G:C6	3.07	0.42
30:CF:104:GLU:HG2	51:C1:50:THR:HG23	2.02	0.42
25:BA:593:G:C6	25:BA:594:U:C4	3.07	0.42
36:BL:36:LYS:CG	36:BL:41:ARG:HB2	2.49	0.42
36:BL:38:GLN:HG3	36:BL:39:LYS:N	2.35	0.42
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.55	0.42
39:CO:25:ARG:O	39:CO:39:ILE:HA	2.20	0.42
25:CA:1558:A:C4'	25:CA:1559:G:H5'	2.50	0.42
6:DF:17:SER:O	6:DF:21:LEU:HD23	2.20	0.42
25:CA:2335:A:H2'	39:CO:13:ARG:HH22	1.84	0.42
17:DQ:17:LYS:HE3	17:DQ:47:PRO:HA	2.02	0.42
48:BX:27:GLU:HG3	48:BX:33:LYS:CE	2.50	0.42
25:BA:757:U:O2'	25:BA:758:C:H5'	2.19	0.42
41:CQ:44:ASN:ND2	42:CR:75:PHE:HB3	2.34	0.42
9:AI:118:LYS:O	9:AI:119:ALA:HB3	2.18	0.42
25:CA:1131:G:O6	25:CA:2040:C:H1'	2.19	0.42
46:BV:73:GLN:HG2	46:BV:74:VAL:N	2.35	0.42
28:BD:86:PRO:HB2	28:BD:87:GLU:H	1.47	0.42
34:BJ:32:VAL:HG11	34:BJ:62:ARG:NH1	2.34	0.42
28:CD:91:VAL:HB	28:CD:95:ILE:CD1	2.49	0.42
1:DA:957:U:O2	1:DA:959:A:H8	2.02	0.42
1:AA:624:C:H4'	16:AP:11:SER:N	2.34	0.42
1:DA:1188:A:C2'	1:DA:1189:C:H5'	2.49	0.42
1:DA:1189:C:OP1	3:DC:5:ILE:HG21	2.19	0.42
40:BP:50:ILE:HD12	40:BP:50:ILE:N	2.35	0.42
25:CA:2781:A:H5'	25:CA:2782:G:H5'	2.01	0.42
40:CP:58:ASN:C	40:CP:58:ASN:HD22	2.23	0.42
7:DG:75:VAL:HA	7:DG:88:PRO:HA	2.02	0.42
7:AG:87:VAL:HA	7:AG:88:PRO:HD3	1.81	0.42
1:AA:675:A:H2'	1:AA:676:A:C8	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1971:A:H5'	25:CA:1972:A:H5''	2.01	0.42
2:DB:11:LEU:HD12	2:DB:217:ARG:NH2	2.34	0.42
1:DA:251:G:C2	1:DA:266:G:C6	3.07	0.42
25:CA:715:G:C6	25:CA:716:A:C5	3.07	0.42
1:DA:209:U:H4'	1:DA:216:G:C4	2.54	0.42
25:CA:1430:C:H2'	25:CA:1431:U:H6	1.85	0.42
25:CA:2737:G:H2'	25:CA:2738:A:C8	2.53	0.42
25:BA:1939:U:O2	25:BA:1967:C:H4'	2.18	0.42
1:DA:786:G:H2'	1:DA:787:A:O4'	2.19	0.42
25:BA:2277:G:C6	25:BA:2278:A:N7	2.87	0.42
1:DA:304:U:H2'	1:DA:305:G:H8	1.83	0.42
1:AA:730:G:H2'	1:AA:730:G:N3	2.33	0.42
47:BW:27:GLU:HB2	47:BW:69:PHE:HD1	1.85	0.42
26:CB:91:C:OP1	37:CM:19:GLY:HA2	2.20	0.42
25:BA:1306:C:C2	25:BA:1623:G:C2	3.08	0.42
22:DV:40:GLU:OE2	22:DV:351:LEU:HD12	2.19	0.42
1:DA:1268:A:H2'	1:DA:1269:A:C8	2.55	0.42
1:DA:20:U:H2'	1:DA:21:G:O4'	2.20	0.42
25:CA:127:A:H5''	25:CA:128:C:O4'	2.19	0.42
46:BV:94:GLU:CD	46:BV:94:GLU:H	2.23	0.42
25:CA:2164:C:H2'	25:CA:2165:G:H8	1.84	0.42
25:CA:2077:A:H2'	25:CA:2078:C:H6	1.85	0.42
25:CA:830:G:O4'	25:CA:2448:A:C2	2.72	0.42
22:DV:299:SER:O	22:DV:300:GLU:HG3	2.19	0.42
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.54	0.42
25:CA:1830:C:O2'	25:CA:1831:G:O5'	2.37	0.42
45:CU:3:VAL:HG12	45:CU:3:VAL:O	2.19	0.42
36:BL:57:THR:O	36:BL:59:LEU:N	2.53	0.42
44:CT:21:PHE:CD2	44:CT:26:TYR:CD2	3.08	0.42
30:BF:104:GLU:HG2	51:B1:50:THR:HG23	2.02	0.42
22:AV:295:THR:HA	22:AV:297:GLU:HG3	2.02	0.42
48:BX:11:ARG:CD	48:BX:60:PHE:HD2	2.30	0.42
9:AI:15:ALA:HA	9:AI:65:VAL:HA	2.01	0.42
37:BM:42:ILE:O	37:BM:94:VAL:HA	2.19	0.42
26:CB:44:G:H2'	30:CF:96:ARG:NH2	2.35	0.42
25:BA:1060:U:C4'	25:BA:1061:U:H3'	2.46	0.42
26:BB:15:A:H1'	26:BB:109:G:N9	2.33	0.42
36:CL:36:LYS:CG	36:CL:41:ARG:HB2	2.49	0.42
28:CD:52:LEU:O	28:CD:75:VAL:HA	2.19	0.42
22:AV:241:VAL:O	22:AV:249:MET:HB2	2.19	0.42
9:AI:24:GLY:O	9:AI:26:VAL:HG23	2.20	0.42
28:CD:47:VAL:HG12	28:CD:49:LEU:HD22	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BN:10:LEU:HD12	38:BN:10:LEU:N	2.33	0.42
1:DA:1228:C:P	13:DM:108:ARG:HH22	2.42	0.42
9:AI:113:LYS:HG2	9:AI:119:ALA:HA	2.00	0.42
29:CE:80:ALA:HB3	29:CE:83:PHE:HD1	1.84	0.42
25:CA:70:G:H21	25:CA:71:A:H62	1.67	0.42
22:DV:229:GLY:O	22:DV:232:VAL:HG12	2.19	0.42
22:AV:333:THR:N	22:AV:334:PRO:CD	2.81	0.42
15:AO:42:HIS:CD2	15:AO:43:LEU:HD23	2.54	0.42
9:DI:48:GLU:N	9:DI:49:PRO:CD	2.81	0.42
25:BA:527:C:H4'	25:BA:528:A:O5'	2.20	0.42
19:DS:10:PHE:O	19:DS:11:VAL:HB	2.19	0.42
25:BA:1612:C:C2	25:BA:1620:G:C2	3.08	0.42
7:DG:70:LYS:O	7:DG:138:LYS:HE3	2.18	0.42
1:AA:224:C:H2'	1:AA:225:C:H6	1.84	0.42
19:AS:10:PHE:O	19:AS:11:VAL:HB	2.19	0.42
12:AL:116:ARG:HB3	12:AL:121:THR:O	2.19	0.42
1:AA:501:C:P	12:AL:116:ARG:HH21	2.42	0.42
25:CA:656:G:H2'	25:CA:657:U:O4'	2.20	0.42
48:CX:90:ILE:O	48:CX:94:LEU:HB2	2.20	0.42
32:CH:133:HIS:HA	32:CH:134:PRO:HD3	1.92	0.42
25:CA:1817:G:C5	25:CA:1818:U:C5	3.08	0.42
34:CJ:80:ALA:HB3	34:CJ:147:ALA:HB2	2.02	0.42
46:CV:116:VAL:HB	46:CV:175:VAL:HG23	2.01	0.42
25:BA:2818:G:H5'	25:BA:2837:G:O2'	2.20	0.42
1:DA:559:A:H4'	1:DA:560:U:H5''	2.01	0.42
38:BN:2:ARG:HB3	38:BN:3:HIS:CE1	2.54	0.42
1:DA:1237:C:OP1	1:DA:1238:A:H1'	2.19	0.42
25:BA:948:G:C2	25:BA:970:C:O2	2.72	0.42
25:CA:649:G:C5	25:CA:650:C:C4	3.07	0.42
1:AA:376:G:O2'	1:AA:377:G:H5'	2.20	0.42
2:DB:8:LYS:HG2	2:DB:217:ARG:NH1	2.34	0.42
1:DA:551:U:O2'	12:DL:85:ARG:HD2	2.19	0.42
2:AB:11:LEU:HD12	2:AB:217:ARG:NH2	2.34	0.42
8:DH:51:VAL:HG21	8:DH:60:ARG:CG	2.49	0.42
25:BA:2206:C:H2'	25:BA:2207:C:H6	1.83	0.42
25:CA:226:G:H21	25:CA:228:A:H62	1.67	0.42
25:BA:1613:G:N1	25:BA:1619:G:C5	2.88	0.42
17:DQ:29:HIS:C	17:DQ:31:LEU:H	2.23	0.42
23:DW:22:G:H2'	23:DW:23:C:C6	2.55	0.42
25:CA:1416:G:H1'	25:CA:1417:C:C5	2.55	0.42
26:BB:64:C:H2'	26:BB:65:C:C6	2.55	0.42
26:CB:99:A:C6	26:CB:100:G:C5	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BG:104:GLU:HA	31:BG:113:VAL:O	2.20	0.42
1:AA:1368:G:O2'	1:AA:1369:C:H5'	2.19	0.42
25:CA:2634:G:H2'	25:CA:2635:C:C6	2.55	0.42
1:AA:1279:A:H62	3:AC:26:LYS:HE2	1.83	0.42
20:DT:63:ILE:HG21	20:DT:81:LYS:HG3	2.02	0.42
25:BA:1454:U:H5'	38:BN:63:ARG:NE	2.34	0.42
7:AG:95:ARG:O	7:AG:99:LEU:HG	2.19	0.42
25:CA:1341:U:O4	44:CT:16:LYS:HE2	2.20	0.42
29:CE:134:GLY:HA2	29:CE:165:ARG:HB2	2.01	0.42
25:BA:742:G:H2'	25:BA:743:G:H8	1.84	0.42
25:BA:476:G:O4'	25:BA:505:A:H2	2.02	0.42
25:BA:2406:U:O4	36:BL:70:GLN:HB3	2.19	0.42
1:DA:636:U:H5'	17:DQ:2:PRO:HD3	2.01	0.42
29:BE:28:ILE:O	29:BE:30:PRO:HD3	2.18	0.42
1:DA:567:G:H2'	1:DA:568:G:O4'	2.20	0.42
1:DA:1477:C:H2'	1:DA:1478:C:C6	2.55	0.42
22:DV:19:LEU:HD23	22:DV:19:LEU:O	2.19	0.42
25:BA:1313:U:O2	25:BA:1313:U:H3'	2.19	0.42
34:BJ:34:PRO:HB3	34:BJ:74:PHE:CE1	2.55	0.42
25:BA:1999:C:H5''	25:BA:2723:C:O2'	2.18	0.42
1:DA:1493:A:H4'	56:DX:19:U:O2	2.20	0.42
25:BA:2198:A:HO2'	25:BA:2199:A:H8	1.66	0.42
25:BA:1830:C:O2'	25:BA:1831:G:O5'	2.38	0.42
25:BA:2068:U:N3	25:BA:2430:A:H2	2.03	0.42
46:CV:126:VAL:HA	46:CV:164:ALA:H	1.84	0.42
26:CB:81:G:C6	26:CB:96:G:C2	3.07	0.42
1:DA:1356:G:H2'	1:DA:1357:A:H8	1.79	0.42
15:DO:33:THR:HA	15:DO:63:ARG:NH1	2.30	0.42
45:CU:76:CYS:O	45:CU:77:PRO:C	2.58	0.42
30:CF:7:LEU:HG	30:CF:104:GLU:OE1	2.19	0.42
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.19	0.42
55:C5:49:VAL:HG12	55:C5:50:LEU:H	1.84	0.42
11:DK:44:SER:OG	11:DK:47:VAL:HG23	2.19	0.42
9:AI:14:VAL:HG12	9:AI:15:ALA:H	1.83	0.42
30:CF:128:ARG:HH21	30:CF:130:ASN:ND2	2.07	0.42
28:CD:152:LYS:HB3	28:CD:152:LYS:HE2	1.92	0.42
45:BU:90:LEU:HG	45:BU:91:GLU:H	1.83	0.42
22:DV:241:VAL:HG11	22:DV:266:LEU:CD2	2.48	0.42
36:CL:27:HIS:HE1	42:CR:83:ARG:NH1	2.14	0.42
25:BA:634:C:H2'	25:BA:635:C:C6	2.55	0.42
19:AS:27:GLU:HB3	19:AS:28:LYS:H	1.69	0.42
25:CA:2821:A:OP2	25:CA:2822:G:OP2	2.38	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:DF:5:GLU:HG3	6:DF:93:SER:OG	2.20	0.42
1:DA:452:A:H2'	1:DA:453:A:C8	2.54	0.42
25:BA:214:G:H21	25:BA:216:A:H1'	1.85	0.42
48:CX:43:TYR:HA	48:CX:44:PRO:HD3	1.93	0.42
1:DA:948:C:H2'	1:DA:949:A:C8	2.55	0.42
26:CB:16:G:C2'	26:CB:17:C:H5'	2.50	0.42
1:AA:948:C:H2'	1:AA:949:A:C8	2.54	0.42
1:AA:437:U:H3'	1:AA:438:G:C8	2.54	0.42
12:DL:123:LYS:HA	12:DL:124:PRO:HD3	1.83	0.42
25:BA:1509:A:H4'	25:BA:1510:A:C1'	2.49	0.42
25:BA:1509:A:H4'	25:BA:1510:A:O4'	2.19	0.42
19:DS:62:ILE:HD12	19:DS:66:MET:HG3	2.00	0.42
46:BV:116:VAL:HB	46:BV:175:VAL:HG23	2.01	0.42
8:AH:11:THR:HG22	8:AH:15:ASN:HD21	1.85	0.42
16:AP:8:ARG:HB3	16:AP:28:ARG:HH11	1.83	0.42
7:DG:87:VAL:HG11	7:DG:154:TYR:O	2.19	0.42
4:DD:3:ARG:HD2	4:DD:3:ARG:H	1.85	0.42
1:AA:269:C:H2'	1:AA:270:A:H8	1.84	0.42
25:BA:685:A:H5''	25:BA:788:A:N6	2.34	0.42
48:BX:37:ILE:HG22	48:BX:38:SER:N	2.34	0.42
12:DL:5:THR:OG1	12:DL:8:GLN:HG3	2.18	0.42
1:AA:512:U:H2'	1:AA:513:C:C6	2.54	0.42
29:CE:192:LEU:HD23	29:CE:193:VAL:N	2.35	0.42
25:CA:1613:G:N1	25:CA:1619:G:C5	2.87	0.42
1:AA:786:G:H2'	1:AA:787:A:O4'	2.19	0.42
1:AA:1261:A:H4'	1:AA:1283:G:H5''	2.02	0.42
31:CG:159:GLU:O	31:CG:160:LYS:HG3	2.20	0.42
34:CJ:78:VAL:HB	34:CJ:149:PRO:HB3	2.00	0.42
38:BN:63:ARG:O	38:BN:67:LEU:HD23	2.19	0.42
25:BA:268:C:H2'	25:BA:269:U:O4'	2.20	0.42
1:DA:707:C:O2'	1:DA:708:C:H5'	2.20	0.42
14:AN:14:PRO:HG2	14:AN:15:LYS:H	1.84	0.42
25:CA:540:G:H2'	25:CA:541:C:C6	2.55	0.42
25:BA:565:C:H4'	25:BA:1253:A:C6	2.55	0.42
25:CA:1459:G:C6	25:CA:1461:G:C5	3.07	0.42
28:BD:173:VAL:HG12	28:BD:174:ASP:H	1.84	0.42
1:DA:1271:G:H5'	1:DA:1314:C:H5''	2.02	0.42
1:DA:1368:G:O2'	1:DA:1369:C:H5'	2.19	0.42
25:BA:2359:C:H2'	25:BA:2360:A:C8	2.54	0.42
1:DA:286:G:C6	1:DA:287:U:C4	3.07	0.42
25:BA:2081:C:H2'	25:BA:2082:A:H8	1.85	0.42
1:DA:834:C:C2	1:DA:853:G:C2	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1024:G:H3'	25:CA:1025:G:H5''	2.02	0.42
29:CE:28:ILE:O	29:CE:30:PRO:HD3	2.19	0.42
25:BA:431:U:H6	25:BA:431:U:O5'	2.03	0.42
1:AA:910:C:H6	1:AA:910:C:O5'	2.03	0.42
1:AA:389:A:N3	1:AA:389:A:H2'	2.33	0.42
1:DA:910:C:H6	1:DA:910:C:O5'	2.02	0.42
1:DA:1112:C:N3	3:DC:178:LEU:HD23	2.33	0.42
14:DN:6:LEU:HD22	14:DN:21:TYR:OH	2.20	0.42
26:CB:85:G:C6	26:CB:92:G:C6	3.08	0.42
25:CA:2406:U:O4	36:CL:70:GLN:HB3	2.19	0.42
22:AV:127:LEU:O	22:AV:131:TYR:HD2	2.03	0.42
42:CR:39:LEU:N	42:CR:39:LEU:HD22	2.35	0.42
25:CA:2246:G:H2'	25:CA:2247:A:C8	2.54	0.42
37:CM:140:ALA:HB1	46:CV:99:TYR:HB2	2.02	0.42
1:DA:1151:A:O2'	1:DA:1152:A:C8	2.49	0.42
48:BX:35:THR:HB	48:BX:36:GLY:H	1.74	0.42
1:DA:979:C:O5'	1:DA:979:C:H6	2.02	0.42
36:BL:33:ARG:HE	36:BL:36:LYS:HD3	1.85	0.42
36:CL:49:ARG:CG	36:CL:50:ARG:N	2.83	0.42
22:AV:11:GLU:O	22:AV:15:LEU:HB2	2.19	0.42
12:AL:83:LEU:C	12:AL:84:ILE:HD12	2.40	0.42
32:CH:68:LEU:O	32:CH:72:LEU:HB2	2.20	0.42
25:BA:1558:A:C4'	25:BA:1559:G:H5'	2.50	0.42
1:DA:1256:A:N6	1:DA:1278:U:H5'	2.34	0.42
29:BE:80:ALA:HB3	29:BE:83:PHE:HD1	1.85	0.42
36:BL:114:ILE:H	36:BL:114:ILE:HG13	1.72	0.42
25:CA:195:A:H61	25:CA:198:C:H3'	1.85	0.42
25:CA:198:C:O2'	25:CA:199:A:H5'	2.20	0.42
27:CC:243:GLY:O	27:CC:244:ARG:HB2	2.19	0.42
28:BD:47:VAL:HG12	28:BD:49:LEU:HD22	2.01	0.42
38:CN:13:HIS:O	38:CN:17:ARG:HG2	2.19	0.42
37:BM:75:THR:HG21	37:BM:85:LYS:HZ2	1.83	0.42
14:DN:39:LEU:HB3	14:DN:43:CYS:SG	2.60	0.42
3:DC:10:PHE:HD2	3:DC:11:ARG:HH11	1.67	0.42
30:CF:76:SER:CA	30:CF:83:ARG:HA	2.48	0.42
12:DL:26:LEU:HB3	12:DL:27:LYS:H	1.64	0.42
25:CA:322:A:H5'	25:CA:340:A:H1'	2.02	0.42
34:BJ:62:ARG:CZ	34:BJ:64:ASP:HB2	2.49	0.42
25:CA:2311:A:N3	30:CF:82:LEU:HD12	2.34	0.42
36:CL:9:ASN:N	36:CL:10:PRO:CD	2.82	0.42
7:AG:70:LYS:O	7:AG:138:LYS:HE3	2.18	0.42
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BO:49:VAL:HG13	39:BO:76:LYS:HB2	2.01	0.42
4:AD:102:ASP:HA	4:AD:121:VAL:HG21	2.02	0.42
25:CA:860:U:C5	25:CA:917:A:N7	2.88	0.42
25:BA:1161:C:H1'	42:BR:8:GLY:O	2.20	0.42
13:AM:3:ARG:NH2	13:AM:7:VAL:HG13	2.33	0.42
25:BA:2405:G:H2'	25:BA:2411:A:N6	2.35	0.42
25:CA:2087:G:H2'	25:CA:2088:G:H8	1.83	0.42
27:CC:14:ARG:HG3	27:CC:15:PHE:CD1	2.55	0.42
1:AA:1237:C:OP1	1:AA:1238:A:H1'	2.19	0.42
16:AP:8:ARG:HH21	16:AP:15:PRO:HG3	1.84	0.42
25:CA:1657:C:H2'	25:CA:1658:C:C6	2.54	0.42
1:AA:77:C:H2'	1:AA:78:G:C8	2.55	0.42
30:BF:133:LEU:N	30:BF:133:LEU:HD23	2.35	0.42
27:CC:11:PRO:C	27:CC:13:ARG:N	2.73	0.42
29:BE:192:LEU:HD23	29:BE:193:VAL:N	2.35	0.42
8:AH:48:TYR:HA	8:AH:60:ARG:O	2.19	0.42
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.20	0.42
25:CA:1937:A:C4	25:CA:1939:U:C5	3.07	0.42
1:DA:630:G:O2'	1:DA:631:G:H5'	2.18	0.42
25:CA:934:G:H2'	25:CA:935:C:H6	1.84	0.42
1:AA:511:C:HO2'	1:AA:512:U:H6	1.66	0.42
32:BH:82:ARG:HD2	32:BH:89:TYR:CD2	2.55	0.42
20:AT:89:ARG:HH21	20:AT:104:LEU:HD22	1.84	0.42
25:CA:869:G:H2'	25:CA:870:A:C8	2.55	0.42
1:AA:304:U:H2'	1:AA:305:G:H8	1.85	0.42
5:AE:48:ALA:HA	5:AE:49:PRO:HD3	1.86	0.42
31:BG:105:LEU:HD22	31:BG:113:VAL:HB	2.01	0.42
25:BA:868:U:C4	25:BA:869:G:N7	2.88	0.42
1:AA:286:G:C6	1:AA:287:U:C4	3.08	0.42
3:DC:122:GLU:HA	3:DC:125:GLU:OE1	2.20	0.42
1:AA:834:C:C2	1:AA:853:G:C2	3.08	0.42
25:BA:470:A:OP1	29:BE:59:TYR:HE2	2.03	0.42
20:AT:63:ILE:HG21	20:AT:81:LYS:HG3	2.01	0.42
25:CA:291:C:H2'	25:CA:292:C:C6	2.54	0.42
28:CD:173:VAL:HG12	28:CD:174:ASP:H	1.84	0.42
34:CJ:108:ILE:HG22	34:CJ:109:PRO:O	2.19	0.42
2:AB:83:MET:HE1	2:AB:233:SER:HB2	2.01	0.42
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.54	0.42
25:CA:2412:A:H2'	25:CA:2413:G:O4'	2.19	0.42
25:CA:2143:C:H2'	25:CA:2144:U:O4'	2.20	0.42
25:CA:503:A:C5	25:CA:506:G:C6	3.08	0.42
22:DV:123:PHE:O	22:DV:127:LEU:HG	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:747:U:C4	25:CA:2613:U:C5	3.08	0.42
9:AI:4:TYR:HB2	9:AI:19:LEU:HB3	2.01	0.42
45:BU:3:VAL:HG12	45:BU:3:VAL:O	2.19	0.42
45:CU:15:VAL:HG12	45:CU:17:SER:H	1.85	0.42
27:BC:30:GLU:CD	27:BC:63:ARG:HE	2.22	0.42
2:AB:28:PHE:CD1	2:AB:190:THR:HA	2.55	0.42
22:DV:15:LEU:HD22	22:DV:38:TYR:CD1	2.55	0.42
22:AV:45:ILE:O	22:AV:48:ILE:HG12	2.20	0.42
30:CF:96:ARG:HG3	30:CF:98:ARG:HD2	2.02	0.42
3:DC:23:TYR:HB2	10:DJ:93:GLY:O	2.20	0.42
46:CV:10:ARG:HB3	46:CV:36:LYS:HB3	2.01	0.42
36:CL:148:LEU:HB2	36:CL:149:GLU:H	1.64	0.42
32:BH:67:ARG:O	32:BH:71:ILE:HG22	2.20	0.42
1:DA:168:G:C2'	1:DA:169:C:H5''	2.44	0.42
18:AR:67:ALA:HA	18:AR:70:ILE:HB	2.02	0.42
10:AJ:74:ILE:HG12	10:AJ:74:ILE:O	2.20	0.42
25:BA:993:G:OP1	41:BQ:50:ARG:HD2	2.20	0.42
7:DG:15:ASP:HA	7:DG:24:THR:CG2	2.50	0.42
1:AA:1110:A:H3'	1:AA:1111:A:C8	2.54	0.42
1:AA:1110:A:H3'	1:AA:1111:A:H8	1.85	0.42
26:BB:44:G:H2'	30:BF:96:ARG:NH2	2.35	0.42
41:CQ:8:VAL:HG22	41:CQ:11:ARG:NH2	2.35	0.42
1:AA:1104:G:H2'	1:AA:1105:A:H8	1.85	0.42
1:DA:437:U:H3'	1:DA:438:G:C8	2.54	0.42
4:DD:90:GLY:HA3	4:DD:204:ILE:HD11	2.02	0.42
1:AA:559:A:H4'	1:AA:560:U:H5''	2.01	0.42
31:BG:68:THR:HA	31:BG:71:LEU:HB3	2.02	0.42
1:AA:1042:G:C6	1:AA:1043:C:N4	2.88	0.42
1:DA:512:U:H2'	1:DA:513:C:C6	2.55	0.42
17:AQ:29:HIS:C	17:AQ:31:LEU:H	2.23	0.42
41:BQ:69:CYS:HB3	41:BQ:79:PHE:CD2	2.55	0.42
46:BV:5:LEU:HB3	46:BV:59:LEU:HD23	2.02	0.42
1:AA:1271:G:H5'	1:AA:1314:C:H5''	2.01	0.42
21:AU:12:LYS:HB3	21:AU:17:THR:O	2.20	0.42
1:DA:1412:C:H2'	1:DA:1413:A:C8	2.55	0.42
25:BA:1820:U:H4'	25:BA:1821:A:OP2	2.19	0.42
46:BV:150:LEU:HD23	46:BV:151:HIS:N	2.34	0.42
25:CA:268:C:H2'	25:CA:269:U:O4'	2.20	0.42
25:BA:49:A:H5''	25:BA:51:G:O4'	2.20	0.42
25:BA:2075:U:C4	25:BA:2238:G:C6	3.08	0.42
28:CD:34:VAL:HB	28:CD:48:GLN:HB3	2.01	0.42
49:BY:6:VAL:O	49:BY:10:LEU:HG	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BX:82:LEU:HD12	48:BX:82:LEU:N	2.35	0.42
25:CA:643:A:H2'	25:CA:643:A:N3	2.35	0.42
42:CR:4:ILE:HG22	42:CR:5:VAL:N	2.35	0.42
25:BA:2283:C:C2	25:BA:2389:G:C2	3.08	0.42
46:BV:126:VAL:HA	46:BV:164:ALA:H	1.84	0.42
2:DB:27:LYS:O	2:DB:30:ARG:HG2	2.19	0.42
22:DV:295:THR:HA	22:DV:297:GLU:HG3	2.02	0.42
1:DA:1223:C:P	19:DS:78:ARG:HH21	2.43	0.42
2:AB:80:ILE:HD12	2:AB:211:ILE:HB	2.01	0.42
22:DV:45:ILE:O	22:DV:48:ILE:HG12	2.19	0.42
2:DB:98:LEU:O	2:DB:101:MET:HG3	2.20	0.42
12:DL:82:VAL:HG22	12:DL:83:LEU:H	1.85	0.42
2:DB:80:ILE:HD12	2:DB:211:ILE:HB	2.01	0.42
4:DD:8:VAL:C	4:DD:10:ARG:N	2.73	0.42
27:CC:76:PRO:HB2	27:CC:116:GLN:NE2	2.33	0.42
39:CO:26:LEU:HD22	39:CO:28:VAL:CG2	2.50	0.42
1:AA:1313:U:P	19:AS:6:LYS:HG3	2.60	0.42
32:CH:67:ARG:O	32:CH:71:ILE:HG22	2.20	0.42
1:AA:1256:A:N6	1:AA:1278:U:H5'	2.35	0.42
5:AE:102:ALA:HB2	5:AE:120:THR:OG1	2.20	0.42
16:DP:20:VAL:HG22	16:DP:21:VAL:N	2.35	0.42
28:BD:52:LEU:O	28:BD:75:VAL:HA	2.19	0.42
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.34	0.42
7:AG:15:ASP:HA	7:AG:24:THR:CG2	2.50	0.42
19:DS:25:LYS:HB3	19:DS:27:GLU:OE1	2.20	0.42
54:B4:34:ARG:HB3	54:B4:42:LEU:HD22	2.01	0.42
1:DA:1110:A:H3'	1:DA:1111:A:C8	2.55	0.42
1:AA:451:A:H4'	1:AA:452:A:O4'	2.20	0.42
46:CV:71:VAL:HG11	46:CV:74:VAL:CG2	2.48	0.42
28:BD:91:VAL:HB	28:BD:95:ILE:CD1	2.49	0.42
25:CA:2475:C:H2'	25:CA:2477:C:OP1	2.20	0.42
1:AA:575:G:H4'	1:AA:576:G:H5''	2.02	0.42
25:BA:1651:G:N2	25:BA:2007:C:C2	2.88	0.42
1:AA:1053:G:C6	1:AA:1199:U:H2'	2.54	0.42
8:DH:88:LYS:HB3	8:DH:89:PRO:HD2	2.02	0.42
1:DA:390:C:H2'	1:DA:391:G:H8	1.85	0.42
26:BB:13:A:N7	26:BB:70:C:H4'	2.35	0.42
48:CX:90:ILE:HA	48:CX:90:ILE:HD13	1.92	0.42
37:BM:52:VAL:HG13	37:BM:53:ALA:N	2.35	0.42
25:CA:795:C:O2'	25:CA:796:C:H5'	2.20	0.42
32:CH:133:HIS:HD2	32:CH:135:GLU:HG2	1.85	0.42
45:CU:50:ARG:HG3	45:CU:52:SER:H	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:666:G:C6	1:DA:741:G:C6	3.08	0.42
1:AA:6:G:H4'	1:AA:298:A:H4'	2.02	0.42
25:BA:2784:C:H2'	25:BA:2785:C:C6	2.55	0.42
44:CT:30:VAL:CG1	44:CT:31:HIS:N	2.83	0.42
25:BA:559:G:H2'	25:BA:560:C:H6	1.85	0.42
1:AA:621:A:C6	1:AA:622:A:C6	3.08	0.42
25:BA:2549:G:C2	25:BA:2550:G:N7	2.88	0.42
25:BA:1937:A:C4	25:BA:1939:U:C5	3.07	0.42
25:BA:1148:A:O2'	25:BA:1149:G:H5'	2.20	0.42
2:DB:29:ALA:O	2:DB:32:ILE:HG22	2.20	0.42
4:DD:57:ARG:HB3	4:DD:206:PHE:HB2	2.02	0.42
22:AV:119:GLU:OE1	22:AV:184:PRO:HB3	2.20	0.42
4:AD:57:ARG:HB3	4:AD:206:PHE:HB2	2.02	0.42
41:BQ:57:PHE:HA	41:BQ:60:LEU:HB3	2.02	0.42
46:CV:5:LEU:HB3	46:CV:59:LEU:HD23	2.02	0.42
25:BA:2658:C:H5'	31:BG:160:LYS:HZ3	1.85	0.42
25:CA:429:A:C6	25:CA:430:G:N1	2.88	0.42
25:BA:869:G:H2'	25:BA:870:A:C8	2.55	0.42
29:CE:66:PRO:HB2	29:CE:68:LYS:HG2	2.01	0.42
25:CA:2730:C:H4'	28:CD:168:MET:O	2.19	0.42
25:BA:2756:U:H4'	25:BA:2757:A:OP1	2.19	0.42
25:CA:1354:A:C8	25:CA:1355:G:C8	3.08	0.42
1:AA:929:G:H2'	1:AA:930:C:C6	2.55	0.42
1:AA:367:U:C6	1:AA:394:G:N2	2.88	0.42
3:AC:138:VAL:HG13	3:AC:149:ALA:HB3	2.01	0.42
45:CU:29:GLU:HB3	45:CU:38:ILE:HD12	2.01	0.42
1:DA:32:A:H2'	1:DA:33:A:C8	2.55	0.42
21:DU:12:LYS:HB3	21:DU:17:THR:O	2.20	0.42
28:CD:32:PRO:HA	28:CD:90:THR:HG22	2.02	0.42
25:BA:2634:G:H2'	25:BA:2635:C:C6	2.55	0.42
1:DA:597:G:C6	1:DA:644:G:C6	3.07	0.42
5:DE:39:GLY:HA2	5:DE:69:VAL:HB	2.01	0.42
25:BA:1695:G:H3'	25:BA:1695:G:N3	2.35	0.41
41:CQ:91:ASP:OD2	41:CQ:96:ALA:HB2	2.20	0.41
42:BR:40:LEU:HD23	42:BR:47:VAL:HG23	2.02	0.41
25:CA:2248:C:H3'	25:CA:2249:U:H6	1.84	0.41
36:BL:30:THR:CG2	36:BL:31:ALA:N	2.81	0.41
12:DL:68:TYR:O	12:DL:99:ILE:HG22	2.20	0.41
4:AD:8:VAL:C	4:AD:10:ARG:N	2.73	0.41
25:CA:214:G:H21	25:CA:216:A:H1'	1.85	0.41
27:CC:94:LEU:HD23	27:CC:104:TYR:CE1	2.55	0.41
46:BV:144:LEU:HD22	46:BV:144:LEU:N	2.35	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:955:U:OP1	22:DV:133:ARG:NH2	2.53	0.41
34:CJ:90:LEU:H	34:CJ:90:LEU:CD1	2.29	0.41
27:CC:246:PRO:HD2	27:CC:255:LYS:HD3	2.01	0.41
27:BC:243:GLY:O	27:BC:244:ARG:HB2	2.19	0.41
28:CD:31:CYS:O	28:CD:49:LEU:HD12	2.20	0.41
28:BD:31:CYS:O	28:BD:49:LEU:HD12	2.20	0.41
25:BA:83:G:H21	25:BA:84:A:N6	2.17	0.41
14:AN:39:LEU:HB3	14:AN:43:CYS:SG	2.60	0.41
40:BP:110:ILE:HA	40:BP:110:ILE:HD12	1.95	0.41
1:DA:1110:A:H3'	1:DA:1111:A:H8	1.85	0.41
34:CJ:32:VAL:HG11	34:CJ:62:ARG:NH1	2.34	0.41
22:DV:317:ILE:H	22:DV:317:ILE:HD13	1.85	0.41
25:BA:860:U:O4'	25:BA:860:U:O2	2.38	0.41
26:CB:13:A:N7	26:CB:70:C:H4'	2.35	0.41
13:AM:84:ILE:CG1	19:AS:66:MET:HE2	2.50	0.41
25:BA:833:U:O2	36:BL:55:ARG:NH1	2.53	0.41
25:CA:250:G:C6	25:CA:251:A:C6	3.08	0.41
25:CA:1658:C:H42	25:CA:2002:G:H1	1.68	0.41
19:AS:58:VAL:O	19:AS:58:VAL:HG23	2.20	0.41
25:BA:774:A:O2'	25:BA:775:G:H8	2.02	0.41
27:BC:11:PRO:C	27:BC:13:ARG:N	2.73	0.41
17:AQ:40:LYS:HD2	17:AQ:42:TYR:CZ	2.55	0.41
1:AA:621:A:N6	1:AA:622:A:C6	2.88	0.41
1:DA:1042:G:C6	1:DA:1043:C:N4	2.88	0.41
42:CR:18:LEU:H	42:CR:96:ILE:HB	1.85	0.41
25:CA:1070:A:O2'	25:CA:1097:U:H5'	2.19	0.41
37:BM:27:VAL:H	46:BV:81:ARG:HH22	1.68	0.41
1:DA:1040:U:H2'	1:DA:1041:A:C8	2.55	0.41
3:AC:33:LEU:HD21	14:AN:53:LEU:CD2	2.50	0.41
25:CA:1625:C:H2'	25:CA:1626:G:O4'	2.20	0.41
31:BG:46:GLU:HG3	31:BG:51:ARG:NE	2.35	0.41
7:DG:9:VAL:HG12	7:DG:10:ARG:N	2.34	0.41
1:DA:597:G:H2'	1:DA:598:U:H5'	2.02	0.41
34:CJ:34:PRO:HB3	34:CJ:74:PHE:CE1	2.55	0.41
25:BA:2758:A:C4	31:BG:67:LEU:HD21	2.54	0.41
23:DW:7:G:H3'	23:DW:8:U:C5'	2.49	0.41
25:CA:1303:G:C6	25:CA:1304:C:C4	3.08	0.41
25:CA:900:A:H2'	25:CA:901:A:O4'	2.20	0.41
28:CD:147:PRO:HB2	28:CD:149:ARG:HG2	2.02	0.41
1:DA:990:C:H2'	1:DA:991:U:O4'	2.20	0.41
11:AK:79:SER:HA	11:AK:104:GLN:O	2.20	0.41
25:CA:2864:G:C6	25:CA:2865:U:N3	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:183:G:H2'	1:DA:184:G:C8	2.55	0.41
25:CA:1297:C:H2'	25:CA:1298:C:C6	2.55	0.41
25:CA:1858:G:HO2'	25:CA:1859:A:H8	1.61	0.41
23:AW:7:G:H3'	23:AW:8:U:C5'	2.49	0.41
25:CA:1313:U:O2	25:CA:1313:U:H3'	2.19	0.41
50:BZ:30:ARG:HG2	50:BZ:30:ARG:H	1.68	0.41
22:AV:19:LEU:O	22:AV:19:LEU:HD23	2.19	0.41
26:BB:91:C:OP1	37:BM:19:GLY:HA2	2.20	0.41
25:BA:1077:A:H2'	25:BA:1078:U:H5'	2.00	0.41
22:DV:177:VAL:HG12	22:DV:301:LYS:CB	2.30	0.41
22:AV:178:HIS:HB3	22:AV:305:TYR:CE2	2.55	0.41
25:BA:275:G:O6	25:BA:363(A):G:C2	2.73	0.41
25:BA:997:G:OP1	41:BQ:93:LYS:HB2	2.20	0.41
41:BQ:91:ASP:OD2	41:BQ:96:ALA:HB2	2.20	0.41
36:CL:58:THR:C	36:CL:60:MET:N	2.74	0.41
47:BW:24:LYS:H	47:BW:38:VAL:HG22	1.85	0.41
1:DA:1152:A:H5''	10:DJ:13:HIS:CD2	2.55	0.41
25:BA:769:G:O2'	25:BA:770:G:H5'	2.20	0.41
1:AA:1152:A:H5'	10:AJ:70:ARG:HH22	1.85	0.41
9:DI:29:ASN:ND2	9:DI:65:VAL:O	2.47	0.41
22:AV:5:LEU:HD22	22:AV:48:ILE:CD1	2.42	0.41
25:BA:2376:A:H2'	25:BA:2377:A:O4'	2.20	0.41
27:CC:142:VAL:HG23	27:CC:192:THR:C	2.40	0.41
25:CA:527:C:H4'	25:CA:528:A:O5'	2.20	0.41
36:CL:33:ARG:HE	36:CL:36:LYS:HD3	1.84	0.41
34:CJ:57:LEU:HD11	34:CJ:139:LEU:O	2.21	0.41
25:CA:955:C:H2'	25:CA:956:G:H5'	2.01	0.41
1:DA:689:C:H2'	1:DA:690:G:O4'	2.21	0.41
25:CA:2822:G:O6	38:CN:4:LEU:HD23	2.20	0.41
9:DI:17:VAL:HG21	9:DI:80:GLY:C	2.40	0.41
1:AA:576:G:H3'	1:AA:577:G:C5'	2.46	0.41
25:BA:626:U:H3	36:BL:105:LEU:CB	2.31	0.41
1:DA:1216:G:OP1	14:DN:2:ALA:HA	2.20	0.41
4:AD:188:LEU:N	4:AD:188:LEU:HD12	2.36	0.41
36:BL:9:ASN:N	36:BL:10:PRO:CD	2.82	0.41
1:AA:735:C:H2'	1:AA:736:C:C6	2.54	0.41
37:CM:52:VAL:HG13	37:CM:53:ALA:N	2.35	0.41
6:DF:61:LEU:HB3	6:DF:63:TYR:HE2	1.84	0.41
25:BA:1024:G:H3'	25:BA:1025:G:H5''	2.02	0.41
25:CA:1815:A:C5	25:CA:1817:G:C6	3.07	0.41
28:CD:144:ARG:HB3	28:CD:145:LYS:H	1.67	0.41
1:DA:771:G:H2'	1:DA:772:U:H6	1.84	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:948:G:C2	25:CA:970:C:O2	2.73	0.41
49:BY:16:LEU:N	49:BY:16:LEU:HD22	2.35	0.41
40:BP:58:ASN:HD22	40:BP:58:ASN:C	2.23	0.41
11:DK:33:THR:HA	11:DK:40:ILE:HG12	2.01	0.41
11:AK:33:THR:HA	11:AK:40:ILE:HG12	2.01	0.41
25:CA:1288:U:C2	25:CA:1327:C:O2	2.74	0.41
8:DH:48:TYR:HA	8:DH:60:ARG:O	2.20	0.41
1:DA:1382:C:H2'	1:DA:1383:C:H6	1.83	0.41
10:DJ:80:LYS:HB2	10:DJ:80:LYS:NZ	2.34	0.41
1:AA:1120:G:H2'	1:AA:1121:U:C6	2.55	0.41
25:CA:2876:G:H2'	25:CA:2877:G:C8	2.54	0.41
25:BA:888:C:C2'	25:BA:889:C:H5'	2.50	0.41
25:CA:868:U:C4	25:CA:869:G:N7	2.88	0.41
7:AG:9:VAL:HG12	7:AG:10:ARG:N	2.35	0.41
25:BA:979:G:H3'	25:BA:980:A:C5'	2.50	0.41
44:BT:57:LEU:HD12	44:BT:57:LEU:N	2.36	0.41
25:CA:2166:G:N7	25:CA:2167:U:C4	2.88	0.41
1:AA:183:G:H2'	1:AA:184:G:C8	2.55	0.41
1:AA:1075:C:H5''	2:AB:179:LYS:NZ	2.35	0.41
25:BA:2864:G:C6	25:BA:2865:U:N3	2.88	0.41
25:CA:270(U):G:C6	25:CA:270(V):C:C4	3.08	0.41
25:CA:1919:A:H2'	25:CA:1919:A:N3	2.35	0.41
1:AA:301:G:H2'	1:AA:302:G:C8	2.55	0.41
25:BA:2887:U:H2'	25:BA:2888:C:C6	2.55	0.41
25:CA:49:A:H5''	25:CA:51:G:O4'	2.20	0.41
28:CD:151:TYR:HB3	34:CJ:102:PRO:HG3	2.02	0.41
25:CA:2887:U:H2'	25:CA:2888:C:C6	2.55	0.41
45:BU:98:VAL:HG22	45:BU:98:VAL:O	2.20	0.41
25:CA:431:U:O5'	25:CA:431:U:H6	2.03	0.41
23:DW:54:U:O5'	23:DW:54:U:H6	2.04	0.41
46:CV:94:GLU:CD	46:CV:94:GLU:H	2.23	0.41
25:CA:1299:G:H8	25:CA:1299:G:O5'	2.03	0.41
55:C5:8:LYS:HB3	55:C5:12:LYS:HE2	2.01	0.41
25:BA:425:G:N2	25:BA:426:C:C2	2.89	0.41
1:AA:1082:G:H2'	1:AA:1083:U:O4'	2.20	0.41
25:BA:1700:A:H5'	25:BA:1701:A:OP2	2.19	0.41
49:CY:28:LYS:HB2	49:CY:57:ILE:HD11	2.02	0.41
25:CA:275:G:O6	25:CA:363(A):G:C2	2.74	0.41
45:BU:15:VAL:HG12	45:BU:17:SER:H	1.86	0.41
39:CO:82:ILE:HG22	39:CO:83:LYS:N	2.36	0.41
25:BA:195:A:H5''	25:BA:196:A:OP2	2.20	0.41
25:CA:593:G:C6	25:CA:594:U:C4	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:CF:66:GLN:HG2	30:CF:67:LYS:N	2.30	0.41
1:DA:1372:U:C5	1:DA:1373:G:C5	3.08	0.41
3:AC:155:GLY:HA3	3:AC:196:LEU:HD22	2.02	0.41
39:BO:26:LEU:HD22	39:BO:28:VAL:CG2	2.50	0.41
26:CB:75:G:H1	26:CB:102:G:N2	2.18	0.41
25:CA:1759:A:H1'	25:CA:2711:A:C2	2.55	0.41
25:CA:1516:U:H2'	25:CA:1517:G:H8	1.85	0.41
10:DJ:74:ILE:O	10:DJ:74:ILE:HG12	2.20	0.41
25:BA:1759:A:H1'	25:BA:2711:A:C2	2.56	0.41
27:BC:246:PRO:HD2	27:BC:255:LYS:HD3	2.02	0.41
38:CN:11:ASN:O	38:CN:12:ARG:HB2	2.20	0.41
31:CG:121:ILE:HD12	31:CG:121:ILE:N	2.35	0.41
38:BN:11:ASN:OD1	38:BN:12:ARG:N	2.48	0.41
28:BD:169:ASN:CG	28:BD:201:THR:HG21	2.41	0.41
1:DA:691:G:C6	11:DK:52:GLY:HA2	2.54	0.41
25:CA:755:C:C2	25:CA:756:C:C5	3.09	0.41
41:BQ:44:ASN:ND2	42:BR:75:PHE:HB3	2.34	0.41
46:CV:40:ASP:OD1	46:CV:41:LEU:N	2.54	0.41
46:CV:73:GLN:HG2	46:CV:74:VAL:N	2.34	0.41
1:AA:1216:G:OP1	14:AN:2:ALA:HA	2.21	0.41
25:BA:2311:A:H3'	25:BA:2312:U:C6	2.56	0.41
30:BF:81:LYS:O	30:BF:82:LEU:HD23	2.20	0.41
12:AL:44:PRO:HG3	12:AL:52:ARG:CD	2.47	0.41
23:DW:19:G:H4'	23:DW:20:U:OP2	2.20	0.41
23:AW:19:G:C2	23:AW:57:A:N3	2.88	0.41
25:CA:2405:G:H2'	25:CA:2411:A:N6	2.35	0.41
25:CA:833:U:O2	36:CL:55:ARG:NH1	2.54	0.41
23:AW:40:C:H2'	23:AW:41:C:H6	1.85	0.41
25:BA:1394:U:C4	25:BA:1395:A:C6	3.09	0.41
39:BO:15:ARG:O	39:BO:19:LYS:HG3	2.19	0.41
19:DS:33:THR:HG22	19:DS:51:VAL:HA	2.01	0.41
25:CA:2784:C:H2'	25:CA:2785:C:C6	2.55	0.41
1:DA:658:G:H2'	1:DA:659:U:C6	2.55	0.41
25:BA:2172:U:H5'	25:BA:2173:A:OP1	2.21	0.41
25:BA:119:A:H4'	25:BA:120:U:H5'	2.01	0.41
11:AK:27:ASN:CG	11:AK:28:THR:H	2.23	0.41
11:AK:27:ASN:CG	11:AK:28:THR:N	2.73	0.41
42:BR:15:GLU:HB3	42:BR:16:PRO:HD2	2.02	0.41
1:DA:1120:G:H2'	1:DA:1121:U:C6	2.55	0.41
3:DC:33:LEU:HD21	14:DN:53:LEU:CD2	2.50	0.41
1:AA:25:C:H2'	1:AA:26:A:C8	2.55	0.41
25:BA:2216:G:H2'	25:BA:2217:G:C8	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.55	0.41
47:CW:27:GLU:HB2	47:CW:69:PHE:HD1	1.85	0.41
24:AX:17:U:H2'	24:AX:18:G:H5''	2.01	0.41
25:CA:503:A:C5	25:CA:506:G:C5	3.08	0.41
34:CJ:74:PHE:CE1	34:CJ:142:ARG:HD2	2.55	0.41
25:BA:2801:A:H2'	25:BA:2802:G:O5'	2.20	0.41
25:BA:540:G:H2'	25:BA:541:C:C6	2.54	0.41
14:DN:57:ARG:HG2	14:DN:58:LYS:N	2.35	0.41
12:AL:29:ALA:HB1	12:AL:31:PHE:O	2.20	0.41
27:CC:235:GLY:C	27:CC:237:GLU:H	2.23	0.41
1:DA:1244:C:H2'	1:DA:1245:A:C8	2.54	0.41
25:BA:2581:G:H2'	25:BA:2581:G:N3	2.36	0.41
25:CA:176:G:O2'	25:CA:177:G:H5'	2.20	0.41
15:AO:15:PHE:O	15:AO:27:VAL:HG22	2.20	0.41
29:BE:134:GLY:HA2	29:BE:165:ARG:HB2	2.01	0.41
46:CV:161:VAL:HG12	46:CV:162:GLU:N	2.34	0.41
25:BA:2143:C:H2'	25:BA:2144:U:O4'	2.20	0.41
5:AE:35:GLY:HA3	5:AE:41:VAL:HG12	2.02	0.41
3:AC:122:GLU:HA	3:AC:125:GLU:OE1	2.20	0.41
25:CA:1581:G:C6	25:CA:1582:C:N3	2.88	0.41
1:AA:707:C:O2'	1:AA:708:C:H5'	2.20	0.41
26:BB:85:G:C6	26:BB:92:G:C6	3.08	0.41
25:BA:690:G:H2'	25:BA:691:C:C6	2.55	0.41
40:CP:19:LEU:HA	40:CP:20:PRO:HD3	1.82	0.41
22:AV:299:SER:O	22:AV:300:GLU:HG3	2.20	0.41
25:BA:1973:G:H2'	25:BA:1974:C:H6	1.84	0.41
25:BA:2248:C:C2'	25:BA:2249:U:H5'	2.51	0.41
36:CL:57:THR:O	36:CL:59:LEU:N	2.53	0.41
47:BW:38:VAL:HB	47:BW:59:LEU:HD12	2.03	0.41
25:CA:919:G:H5'	26:CB:81:G:H1'	2.02	0.41
47:CW:22:GLY:O	47:CW:38:VAL:HG13	2.20	0.41
45:CU:6:HIS:HE1	45:CU:30:VAL:HG11	1.85	0.41
25:BA:198:C:O2'	25:BA:199:A:H5'	2.19	0.41
27:BC:76:PRO:HB2	27:BC:116:GLN:NE2	2.33	0.41
30:CF:113:ARG:HD2	13:DM:3:ARG:NH1	2.35	0.41
25:CA:1677:A:C6	25:CA:1678:G:C6	3.08	0.41
39:BO:35:ILE:HG23	39:BO:53:SER:HB2	2.01	0.41
22:AV:15:LEU:HD22	22:AV:38:TYR:CD1	2.55	0.41
5:DE:102:ALA:HB2	5:DE:120:THR:OG1	2.20	0.41
2:DB:91:PRO:CA	2:DB:154:LEU:HD11	2.43	0.41
36:CL:85:LEU:HD21	36:CL:116:GLY:O	2.20	0.41
46:BV:104:PHE:CD1	46:BV:139:VAL:HG11	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2689:U:H5'	25:CA:2713:A:H2	1.86	0.41
25:CA:2711:A:OP1	25:CA:712(B):A:P	2.78	0.41
27:CC:244:ARG:HG3	27:CC:245:PRO:N	2.35	0.41
25:BA:627:A:H4'	25:BA:628:G:H5'	2.01	0.41
22:AV:274:LEU:O	22:AV:278:ARG:HG3	2.20	0.41
1:AA:1228:C:P	13:AM:108:ARG:HH22	2.43	0.41
28:CD:101:ARG:HD3	28:CD:169:ASN:HD22	1.85	0.41
28:CD:169:ASN:CG	28:CD:201:THR:HG21	2.41	0.41
38:CN:56:LYS:HE2	38:CN:87:TYR:O	2.21	0.41
25:CA:1257:C:H6	25:CA:1257:C:O5'	2.03	0.41
34:CJ:36:TRP:HB2	34:CJ:156:GLN:HB3	1.99	0.41
9:AI:86:VAL:CG2	9:AI:93:ARG:HB2	2.51	0.41
12:AL:26:LEU:HB3	12:AL:27:LYS:H	1.64	0.41
25:BA:2118:U:H3	25:BA:2148:G:H4'	1.86	0.41
34:CJ:30:LYS:O	34:CJ:32:VAL:HG23	2.20	0.41
32:CH:109:ILE:H	32:CH:109:ILE:HD13	1.85	0.41
1:AA:539:A:H2'	1:AA:540:G:H8	1.83	0.41
48:CX:84:GLY:O	48:CX:85:LEU:C	2.59	0.41
25:CA:904:C:O2'	25:CA:905:U:H5'	2.20	0.41
46:BV:9:TYR:O	46:BV:38:TYR:HE2	2.03	0.41
25:CA:2688:U:H5	25:CA:2720:U:OP2	2.03	0.41
11:DK:27:ASN:CG	11:DK:28:THR:H	2.23	0.41
1:DA:370:C:H2'	1:DA:371:G:H8	1.86	0.41
17:DQ:59:ILE:CG2	17:DQ:71:PHE:HB3	2.51	0.41
25:BA:1288:U:H1'	25:BA:1647:G:N2	2.35	0.41
25:CA:2212:A:H1'	25:CA:2215:G:C4	2.56	0.41
1:DA:60:A:H4'	1:DA:61:G:O5'	2.19	0.41
1:DA:971:G:H1'	1:DA:1365:G:O2'	2.20	0.41
4:DD:93:PHE:CE1	4:DD:97:LEU:HD11	2.54	0.41
44:CT:57:LEU:N	44:CT:57:LEU:HD12	2.35	0.41
25:BA:2166:G:N7	25:BA:2167:U:C4	2.89	0.41
1:DA:1244:C:H2'	1:DA:1245:A:H8	1.85	0.41
25:BA:2581:G:H4'	25:BA:2582:G:C8	2.55	0.41
25:CA:335:C:H2'	25:CA:336:C:H6	1.85	0.41
25:BA:900:A:H2'	25:BA:901:A:O4'	2.20	0.41
32:CH:25:TYR:CE1	32:CH:30:LEU:HD11	2.55	0.41
25:CA:1071:G:H1'	25:CA:1089:G:O2'	2.20	0.41
1:AA:1477:C:H2'	1:AA:1478:C:C6	2.55	0.41
39:CO:67:ARG:O	39:CO:71:ARG:HG3	2.21	0.41
4:DD:76:ARG:HD3	4:DD:207:TYR:CE2	2.55	0.41
30:BF:124:SER:HB2	30:BF:131:TYR:CE1	2.55	0.41
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:DJ:11:PHE:HD2	10:DJ:66:ARG:O	2.03	0.41
31:CG:116:GLU:HA	31:CG:117:PRO:HD3	1.92	0.41
25:BA:1297:C:H2'	25:BA:1298:C:C6	2.55	0.41
25:BA:1750:G:H2'	25:BA:1751:C:C6	2.55	0.41
25:BA:2414:G:H21	36:BL:67:MET:CE	2.33	0.41
25:BA:2051:A:H8	25:BA:2051:A:OP2	2.02	0.41
25:CA:851:U:O2'	50:CZ:42:ALA:O	2.38	0.41
48:CX:23:LYS:HB3	48:CX:23:LYS:HE2	1.88	0.41
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.41	0.41
27:CC:95:LEU:O	27:CC:95:LEU:HD12	2.20	0.41
31:CG:13:LYS:HE2	31:CG:14:GLY:H	1.84	0.41
25:CA:2801:A:H2'	25:CA:2802:G:O5'	2.20	0.41
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.55	0.41
37:CM:68:ILE:HG23	37:CM:103:MET:HA	2.01	0.41
32:BH:25:TYR:CE1	32:BH:30:LEU:HD11	2.55	0.41
22:DV:178:HIS:HB3	22:DV:305:TYR:CE2	2.55	0.41
25:BA:1973:G:H2'	25:BA:1974:C:C6	2.56	0.41
42:BR:39:LEU:N	42:BR:39:LEU:HD22	2.35	0.41
47:BW:24:LYS:HB2	47:BW:37:LEU:O	2.21	0.41
25:BA:662:G:H2'	25:BA:663:G:C8	2.56	0.41
22:AV:111:ILE:H	22:AV:111:ILE:HD12	1.85	0.41
3:AC:23:TYR:HB2	10:AJ:93:GLY:O	2.20	0.41
22:DV:11:GLU:HB3	22:DV:41:MET:HG3	2.02	0.41
25:BA:2313:C:H4'	30:BF:91:ARG:CG	2.48	0.41
3:DC:155:GLY:HA3	3:DC:196:LEU:HD22	2.03	0.41
6:AF:87:ARG:HG2	6:AF:87:ARG:NH1	2.35	0.41
2:DB:154:LEU:HD22	2:DB:154:LEU:C	2.41	0.41
26:BB:75:G:H1	26:BB:102:G:N2	2.18	0.41
25:BA:1257:C:H6	25:BA:1257:C:O5'	2.03	0.41
25:BA:2689:U:H5'	25:BA:2713:A:H2	1.85	0.41
25:CA:1021:A:C8	25:CA:1021:A:H3'	2.55	0.41
9:DI:24:GLY:O	9:DI:26:VAL:HG23	2.20	0.41
25:CA:757:U:O2'	25:CA:758:C:H5'	2.20	0.41
25:BA:570:G:C5	25:BA:2030:A:C2	3.08	0.41
25:BA:1275:A:C4	38:BN:16:HIS:CD2	3.08	0.41
1:DA:176:C:H5''	20:DT:29:LYS:HZ1	1.82	0.41
1:DA:356:A:H2'	1:DA:357:G:O4'	2.21	0.41
25:CA:570:G:C6	25:CA:2030:A:C2	3.08	0.41
53:C3:11:LEU:HA	53:C3:11:LEU:HD22	1.95	0.41
25:CA:1388:G:O2'	25:CA:1389:G:H5'	2.20	0.41
25:CA:1956:U:H1'	25:CA:2552:U:OP1	2.20	0.41
25:CA:2118:U:H3	25:CA:2148:G:H4'	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2822:G:O6	38:BN:4:LEU:HD23	2.20	0.41
38:CN:4:LEU:O	38:CN:4:LEU:HG	2.21	0.41
25:BA:2115:G:N1	25:BA:2118:U:OP2	2.50	0.41
37:CM:39:PRO:O	37:CM:40:ALA:HB2	2.21	0.41
25:CA:626:U:H3	36:CL:105:LEU:CB	2.31	0.41
34:CJ:117:HIS:CE1	34:CJ:120:ARG:HE	2.38	0.41
1:AA:1129:C:O2'	1:AA:1130:A:P	2.79	0.41
25:BA:389:G:H1	36:BL:71:VAL:HB	1.86	0.41
41:BQ:8:VAL:HG22	41:BQ:11:ARG:NH2	2.36	0.41
28:BD:10:GLY:HA2	28:BD:192:ASN:OD1	2.21	0.41
25:CA:1394:U:C4	25:CA:1395:A:C6	3.08	0.41
1:DA:1320:C:H42	19:DS:36:ARG:HG3	1.85	0.41
25:BA:1278:A:O3'	38:BN:34:ILE:HG23	2.19	0.41
25:BA:1287:A:C6	25:BA:1288:U:C4	3.08	0.41
25:BA:2212:A:H1'	25:BA:2215:G:C4	2.56	0.41
25:BA:1613:G:H3'	25:BA:1617:C:N4	2.34	0.41
39:BO:41:ASP:OD2	39:BO:44:LYS:HD3	2.20	0.41
25:CA:2338:G:C2	25:CA:2339:G:C8	3.09	0.41
41:CQ:57:PHE:HA	41:CQ:60:LEU:HB3	2.02	0.41
41:CQ:69:CYS:HB3	41:CQ:79:PHE:CD2	2.55	0.41
1:DA:762:C:H2'	1:DA:763:G:H8	1.86	0.41
34:CJ:33:GLU:CD	34:CJ:34:PRO:HD2	2.41	0.41
25:CA:175:G:O2'	25:CA:176:G:H5'	2.21	0.41
27:CC:126:GLN:HG2	27:CC:127:VAL:H	1.86	0.41
13:AM:74:VAL:O	13:AM:78:ILE:HG13	2.21	0.41
1:DA:347:G:H2'	1:DA:348:G:O4'	2.19	0.41
25:BA:1599:C:OP2	44:BT:36:LYS:HD3	2.20	0.41
26:CB:29:A:P	39:CO:32:LEU:HG	2.61	0.41
1:DA:1287:A:H2'	1:DA:1288:A:C8	2.55	0.41
25:BA:2610:C:C4'	25:BA:2611:U:OP2	2.69	0.41
25:BA:412:A:N3	25:BA:412:A:H2'	2.35	0.41
48:BX:75:GLU:OE1	48:BX:75:GLU:HA	2.21	0.41
23:AW:54:U:O5'	23:AW:54:U:H6	2.03	0.41
25:BA:2096:U:H2'	25:BA:2097:C:C6	2.55	0.41
15:DO:15:PHE:O	15:DO:27:VAL:HG22	2.21	0.41
47:CW:46:LYS:HB3	47:CW:47:PRO:HD2	2.02	0.41
25:BA:692:C:O2'	25:BA:693:C:H5'	2.21	0.41
42:BR:20:LEU:HD12	42:BR:21:ARG:H	1.85	0.41
42:CR:22:VAL:CG1	42:CR:23:GLU:N	2.83	0.41
3:AC:108:ASN:OD1	3:AC:110:ASN:HB2	2.21	0.41
25:CA:2283:C:C2	25:CA:2389:G:C2	3.09	0.41
36:BL:58:THR:C	36:BL:60:MET:N	2.73	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:63:ARG:NH1	27:BC:86:PRO:HD2	2.35	0.41
2:DB:28:PHE:CD1	2:DB:190:THR:HA	2.55	0.41
39:BO:82:ILE:HG22	39:BO:83:LYS:N	2.36	0.41
12:AL:68:TYR:O	12:AL:99:ILE:HG22	2.21	0.41
3:AC:105:GLU:HG2	3:AC:106:VAL:N	2.25	0.41
25:CA:2376:A:H2'	25:CA:2377:A:O4'	2.20	0.41
45:BU:75:ILE:HG12	45:BU:76:CYS:H	1.85	0.41
1:AA:790:A:C6	1:AA:791:G:N1	2.89	0.41
25:CA:1557:C:H2'	25:CA:1558:A:C2	2.56	0.41
28:BD:51:PHE:HB3	28:BD:52:LEU:H	1.67	0.41
25:BA:1889:A:H2'	25:BA:1890:A:H8	1.83	0.41
27:BC:244:ARG:HG3	27:BC:245:PRO:N	2.36	0.41
17:AQ:17:LYS:HE3	17:AQ:47:PRO:HA	2.02	0.41
4:AD:50:ARG:HH21	5:AE:9:LYS:HE3	1.85	0.41
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.81	0.41
25:BA:2821:A:OP2	25:BA:2822:G:OP2	2.38	0.41
22:AV:234:THR:HG21	25:BA:2452:C:H4'	2.02	0.41
25:CA:1771:C:H1'	25:CA:1786:A:H8	1.83	0.41
25:CA:1308:A:H2'	25:CA:1309:G:O4'	2.21	0.41
4:AD:142:PRO:HA	4:AD:185:PHE:HD2	1.86	0.41
37:CM:14:ARG:NH1	37:CM:14:ARG:HG2	2.35	0.41
25:BA:860:U:C5	25:BA:917:A:N7	2.89	0.41
38:CN:38:VAL:HG12	38:CN:42:LYS:HE3	2.03	0.41
26:BB:16:G:C2'	26:BB:17:C:H5'	2.50	0.41
29:BE:113:ALA:HB1	29:BE:186:ILE:HG21	2.02	0.41
30:BF:58:GLN:O	30:BF:62:LEU:HD13	2.20	0.41
25:BA:250:G:C6	25:BA:251:A:C6	3.09	0.41
11:DK:27:ASN:CG	11:DK:28:THR:N	2.73	0.41
44:BT:30:VAL:CG1	44:BT:31:HIS:N	2.83	0.41
1:AA:658:G:H2'	1:AA:659:U:C6	2.55	0.41
19:DS:58:VAL:O	19:DS:58:VAL:HG23	2.21	0.41
25:BA:398:G:H2'	25:BA:399:G:H8	1.85	0.41
4:DD:36:ARG:HG2	4:DD:38:TYR:OH	2.21	0.41
1:AA:1382:C:H2'	1:AA:1383:C:H6	1.84	0.41
1:DA:621:A:C6	1:DA:622:A:C6	3.09	0.41
11:DK:91:ARG:O	11:DK:95:ILE:HG13	2.21	0.41
25:CA:2216:G:H2'	25:CA:2217:G:C8	2.55	0.41
25:BA:2208:U:O2	25:BA:2217:G:C2	2.73	0.41
1:DA:155:C:H2'	1:DA:156:G:H8	1.86	0.41
26:CB:64:C:H2'	26:CB:65:C:C6	2.55	0.41
1:DA:15:G:H1'	5:DE:19:MET:SD	2.61	0.41
1:AA:1244:C:H2'	1:AA:1245:A:H8	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:235:GLY:C	27:BC:237:GLU:H	2.23	0.41
25:BA:2747:G:O6	25:BA:2755:C:H5'	2.20	0.41
25:CA:242:G:HO2'	25:CA:243:U:P	2.43	0.41
6:AF:95:GLU:HA	6:AF:96:PRO:HD3	1.95	0.41
25:BA:270(G):U:H2'	25:BA:270(H):C:C6	2.56	0.41
5:DE:41:VAL:O	5:DE:66:MET:HG2	2.21	0.41
25:CA:2581:G:N3	25:CA:2581:G:H2'	2.35	0.41
43:BS:8:ARG:HA	43:BS:102:HIS:CD2	2.56	0.41
1:DA:1082:G:H2'	1:DA:1083:U:O4'	2.20	0.41
28:BD:172:VAL:HG13	28:BD:182:LEU:HD11	2.02	0.41
25:CA:1918:A:O2'	25:CA:1920:C:N4	2.53	0.41
25:CA:2869:G:H2'	25:CA:2870:C:O4'	2.21	0.41
6:AF:24:GLU:O	6:AF:28:ARG:HG3	2.20	0.41
2:DB:166:ASP:HA	2:DB:167:PRO:HD2	1.92	0.41
43:CS:8:ARG:HA	43:CS:102:HIS:CD2	2.55	0.41
25:CA:2834:G:C5	25:CA:2879:C:C4	3.09	0.41
25:CA:1750:G:H2'	25:CA:1751:C:C6	2.56	0.41
25:BA:1303:G:C6	25:BA:1304:C:C4	3.08	0.41
1:DA:1067:A:H8	1:DA:1067:A:O5'	2.04	0.41
49:CY:59:ARG:H	49:CY:59:ARG:HG2	1.63	0.41
25:BA:643:A:N3	25:BA:643:A:H2'	2.36	0.41
7:DG:48:LYS:HA	7:DG:48:LYS:HD3	1.93	0.41
48:CX:82:LEU:N	48:CX:82:LEU:HD12	2.34	0.41
25:CA:1831:G:H1	25:CA:1974:C:H42	1.68	0.41
37:BM:140:ALA:HB1	46:BV:99:TYR:HB2	2.02	0.41
27:CC:131:LEU:HD11	27:CC:136:ILE:HG12	2.03	0.41
25:BA:695:G:C6	25:BA:768:G:C6	3.08	0.41
39:CO:35:ILE:HG13	39:CO:35:ILE:O	2.21	0.41
30:CF:91:ARG:HB3	30:CF:91:ARG:CZ	2.51	0.41
3:AC:59:ARG:HA	3:AC:63:ASN:O	2.21	0.41
8:DH:31:PHE:CE2	8:DH:35:ILE:HD11	2.56	0.41
8:DH:6:ILE:HD11	8:DH:31:PHE:HD2	1.86	0.41
39:CO:28:VAL:HG21	39:CO:87:PHE:CE1	2.55	0.41
39:BO:25:ARG:O	39:BO:39:ILE:HA	2.20	0.41
45:BU:76:CYS:O	45:BU:77:PRO:C	2.58	0.41
1:DA:246:A:N1	1:DA:279:A:C2	2.89	0.41
27:BC:34:VAL:HG13	27:BC:34:VAL:O	2.21	0.41
10:DJ:74:ILE:HD13	10:DJ:74:ILE:N	2.30	0.41
3:AC:10:PHE:HD2	3:AC:11:ARG:HH11	1.67	0.41
25:BA:1021:A:H3'	25:BA:1021:A:C8	2.55	0.41
34:BJ:92:GLN:O	34:BJ:94:ILE:HG13	2.21	0.41
25:BA:955:C:H2'	25:BA:956:G:H5'	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BV:40:ASP:OD1	46:BV:41:LEU:N	2.54	0.41
37:BM:39:PRO:O	37:BM:40:ALA:HB2	2.20	0.41
38:BN:4:LEU:C	38:BN:6:SER:N	2.74	0.41
34:BJ:117:HIS:CE1	34:BJ:120:ARG:HE	2.38	0.41
1:AA:1399:C:H4'	1:AA:1400:C:H5''	2.03	0.41
1:AA:1319:A:OP2	19:AS:5:LEU:HD23	2.20	0.41
4:AD:188:LEU:HA	4:AD:189:PRO:HD3	1.87	0.41
29:CE:113:ALA:HB1	29:CE:186:ILE:HG21	2.02	0.41
25:CA:1651:G:N2	25:CA:2007:C:C2	2.89	0.41
35:CK:12:ASP:HA	35:CK:98:VAL:HA	2.02	0.41
44:CT:23:GLU:HG3	44:CT:24:GLY:N	2.35	0.41
25:BA:656:G:H2'	25:BA:657:U:O4'	2.20	0.41
25:BA:2314:C:H2'	25:BA:2315:G:C8	2.56	0.41
48:CX:19:GLN:HG2	48:CX:41:ARG:HA	2.02	0.41
13:DM:84:ILE:CG1	19:DS:66:MET:HE2	2.49	0.41
4:DD:96:LEU:HD12	4:DD:139:ARG:CD	2.51	0.41
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.36	0.41
46:CV:9:TYR:O	46:CV:38:TYR:HE2	2.03	0.41
1:AA:298:A:H2'	1:AA:299:G:O4'	2.21	0.41
25:CA:1148:A:O2'	25:CA:1149:G:H5'	2.21	0.41
25:BA:706:A:H2'	25:BA:707:G:O4'	2.20	0.41
42:CR:15:GLU:HB3	42:CR:16:PRO:HD2	2.02	0.41
37:BM:132:VAL:HG11	46:BV:81:ARG:HD2	2.03	0.41
37:CM:58:PHE:CD1	37:CM:58:PHE:O	2.74	0.41
25:CA:821:A:H2'	25:CA:946:G:H5''	2.02	0.41
1:DA:1360:A:H2'	1:DA:1361:G:O4'	2.21	0.41
1:AA:37:U:P	12:AL:122:LYS:HG3	2.60	0.41
1:AA:730:G:H3'	1:AA:731:G:O4'	2.21	0.41
25:CA:888:C:C2'	25:CA:889:C:H5'	2.50	0.41
1:AA:1060:C:H2'	1:AA:1061:G:H8	1.86	0.41
27:CC:72:LYS:HE3	27:CC:101:GLU:CB	2.51	0.41
39:CO:41:ASP:OD2	39:CO:44:LYS:HD3	2.20	0.41
1:AA:15:G:H1'	5:AE:19:MET:SD	2.60	0.41
26:CB:85:G:C2	26:CB:92:G:C2	3.09	0.41
55:C5:8:LYS:O	55:C5:12:LYS:HG3	2.21	0.41
25:CA:2581:G:H4'	25:CA:2582:G:C8	2.56	0.41
25:BA:1354:A:C8	25:BA:1355:G:C8	3.08	0.41
29:CE:116:ASP:OD2	36:CL:5:ASP:HB2	2.20	0.41
7:AG:80:VAL:C	7:AG:82:GLY:H	2.24	0.41
31:BG:117:PRO:HA	31:BG:118:PRO:HD2	1.96	0.41
25:CA:1306:C:C2	25:CA:1623:G:C2	3.08	0.41
26:BB:29:A:P	39:BO:32:LEU:HG	2.61	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:259:THR:O	27:BC:260:ARG:HB2	2.20	0.41
28:BD:151:TYR:HB3	34:BJ:102:PRO:HG3	2.03	0.41
25:CA:816:C:H2'	25:CA:817:C:C6	2.56	0.41
31:BG:78:GLY:HA2	31:BG:83:TYR:CE1	2.56	0.41
43:CS:40:ASN:O	43:CS:41:LYS:HG2	2.21	0.41
25:BA:1581:G:C6	25:BA:1582:C:N3	2.88	0.41
28:CD:172:VAL:HG13	28:CD:182:LEU:HD11	2.02	0.41
12:DL:45:LYS:HE2	12:DL:45:LYS:HB3	1.89	0.41
10:DJ:79:ARG:HA	10:DJ:79:ARG:HD3	1.90	0.41
45:CU:28:LYS:HE3	45:CU:28:LYS:HB2	1.89	0.41
25:BA:2705:A:OP2	25:BA:2705:A:H8	2.04	0.41
53:B3:44:ARG:HB3	53:B3:45:LYS:H	1.71	0.41
25:BA:1435:G:C6	25:BA:1436:G:C6	3.09	0.41
25:CA:1530:G:N1	25:CA:1542:G:N2	2.69	0.41
25:BA:2246:G:H2'	25:BA:2247:A:C8	2.54	0.41
25:CA:2248:C:C2'	25:CA:2249:U:H5'	2.50	0.41
27:BC:63:ARG:HD2	27:BC:85:ASP:OD2	2.21	0.41
55:C5:26:LYS:HB2	55:C5:44:LYS:O	2.21	0.41
25:BA:1677:A:C5	25:BA:1678:G:C5	3.09	0.41
50:BZ:31:LEU:HG	50:BZ:32:GLN:N	2.36	0.41
48:BX:13:ILE:HG23	48:BX:14:VAL:H	1.86	0.41
25:CA:1677:A:C5	25:CA:1678:G:C5	3.08	0.41
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.36	0.41
1:AA:792:A:N3	1:AA:794:A:C5	2.89	0.41
1:AA:818:G:H3'	1:AA:819:A:H5''	2.02	0.41
30:BF:84:LYS:HD2	30:BF:84:LYS:HA	1.91	0.41
36:BL:85:LEU:HD21	36:BL:116:GLY:O	2.21	0.41
1:DA:1190:G:OP1	3:DC:4:LYS:HA	2.21	0.41
25:BA:1022:G:H8	34:BJ:92:GLN:HE21	1.66	0.41
25:BA:1375:C:H2'	25:BA:1376:C:C6	2.46	0.41
25:CA:627:A:H4'	25:CA:628:G:H5'	2.02	0.41
41:CQ:6:THR:HG21	41:CQ:10:ARG:HH21	1.86	0.41
15:AO:5:LYS:CD	15:AO:5:LYS:H	2.30	0.41
35:BK:63:VAL:HG12	35:BK:106:LEU:HD21	2.03	0.41
38:CN:4:LEU:C	38:CN:6:SER:N	2.73	0.41
22:AV:115:THR:HG22	22:AV:116:GLY:N	2.35	0.41
39:CO:93:LYS:HE3	39:CO:93:LYS:HA	2.01	0.41
35:CK:106:LEU:H	35:CK:106:LEU:HD12	1.85	0.41
22:DV:248:ILE:CG2	22:DV:273:LEU:HD21	2.48	0.41
10:DJ:54:PHE:HB3	10:DJ:55:LYS:H	1.66	0.41
1:DA:948:C:OP1	13:DM:107:ALA:HA	2.21	0.41
25:CA:411:G:O2'	36:CL:72:PRO:HG3	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:1161:C:H1'	42:CR:8:GLY:O	2.20	0.41
25:BA:379:G:N2	48:BX:20:ARG:NH1	2.68	0.41
1:AA:1189:C:OP1	3:AC:5:ILE:HG21	2.20	0.41
25:BA:1025:G:C4	25:BA:1135:C:H1'	2.56	0.41
34:BJ:80:ALA:HB3	34:BJ:147:ALA:HB2	2.02	0.41
1:AA:560:U:H5'	1:AA:566:G:N2	2.36	0.41
1:DA:560:U:H5'	1:DA:566:G:N2	2.36	0.41
25:BA:904:C:O2'	25:BA:905:U:H5'	2.21	0.41
25:CA:744:G:OP1	28:CD:132:HIS:HB2	2.20	0.41
1:DA:377:G:OP1	16:DP:3:LYS:HD2	2.21	0.41
1:DA:262:A:N6	1:DA:263:A:N6	2.69	0.41
25:CA:648:G:H2'	25:CA:649:G:H8	1.86	0.41
53:C3:40:CYS:HA	53:C3:41:PRO:HD3	1.90	0.41
31:CG:46:GLU:HG3	31:CG:51:ARG:NE	2.35	0.41
25:CA:742:G:H2'	25:CA:743:G:C8	2.56	0.41
25:CA:979:G:H3'	25:CA:980:A:C5'	2.50	0.41
31:CG:104:GLU:HA	31:CG:113:VAL:O	2.20	0.41
34:CJ:110:LEU:O	34:CJ:110:LEU:HD23	2.21	0.41
1:AA:597:G:H2'	1:AA:598:U:H5'	2.02	0.41
25:CA:1025:G:C4	25:CA:1135:C:H1'	2.56	0.41
25:CA:2582:G:H2'	25:CA:2582:G:N3	2.36	0.41
9:AI:33:PHE:HZ	9:AI:43:ALA:O	2.04	0.41
1:DA:1129:C:O2'	1:DA:1130:A:P	2.79	0.41
31:CG:25:LYS:HE2	31:CG:34:GLU:OE2	2.21	0.41
25:CA:239:U:H2'	25:CA:240:G:O4'	2.21	0.41
25:BA:176:G:O2'	25:BA:177:G:H5'	2.21	0.41
1:AA:567:G:H2'	1:AA:568:G:O4'	2.20	0.41
25:CA:1301:A:H4'	25:CA:1302:A:OP1	2.21	0.41
23:DW:69:C:H2'	23:DW:70:G:H8	1.86	0.41
45:BU:29:GLU:HB3	45:BU:38:ILE:HD12	2.02	0.41
25:BA:503:A:C5	25:BA:506:G:C5	3.09	0.41
28:BD:188:VAL:HG23	28:BD:189:PRO:HD2	2.02	0.41
25:CA:1109:C:H2'	25:CA:1110:G:O4'	2.21	0.41
25:BA:300:A:H2'	25:BA:334:C:O2'	2.21	0.41
25:CA:412:A:N3	25:CA:412:A:H2'	2.35	0.41
30:CF:71:THR:HG23	30:CF:71:THR:O	2.21	0.41
15:DO:82:ILE:C	15:DO:82:ILE:HD13	2.41	0.41
12:AL:92:LEU:HA	12:AL:93:PRO:HD3	1.95	0.41
1:AA:19:C:H5''	5:AE:86:ALA:HB1	2.01	0.41
31:BG:25:LYS:HE2	31:BG:34:GLU:OE2	2.21	0.41
29:BE:66:PRO:HB2	29:BE:68:LYS:HG2	2.02	0.41
25:CA:2081:C:H2'	25:CA:2082:A:C8	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:24:LEU:HB3	29:BE:115:ALA:HB2	2.03	0.41
12:DL:51:LEU:HD11	22:DV:300:GLU:CG	2.50	0.41
1:AA:1133:G:H2'	1:AA:1134:G:H8	1.86	0.41
41:CQ:88:ILE:HG22	42:CR:47:VAL:O	2.21	0.41
42:CR:40:LEU:HD23	42:CR:47:VAL:HG23	2.02	0.41
25:BA:829:A:C8	25:BA:2248:C:H5'	2.56	0.41
25:BA:2283:C:H2'	25:BA:2284:C:O4'	2.21	0.41
41:BQ:88:ILE:HG22	42:BR:47:VAL:O	2.21	0.41
25:BA:2393:A:H5''	36:BL:62:LEU:HD12	2.03	0.41
1:DA:1367:C:O2'	10:DJ:48:THR:HG21	2.20	0.41
44:BT:89:ILE:HG13	44:BT:92:LEU:HD12	2.03	0.41
25:CA:769:G:O2'	25:CA:770:G:H5'	2.20	0.41
25:CA:1813:G:N3	27:CC:50:THR:OG1	2.50	0.41
25:CA:1429:G:N3	25:CA:1568:G:C2	2.89	0.41
27:CC:63:ARG:NH1	27:CC:86:PRO:HD2	2.36	0.41
1:DA:980:C:H3'	1:DA:981:U:C6	2.56	0.41
25:BA:195:A:H61	25:BA:198:C:H3'	1.85	0.41
25:BA:807:U:OP2	36:BL:39:LYS:HG3	2.20	0.41
36:BL:49:ARG:CG	36:BL:50:ARG:N	2.84	0.41
1:AA:1505:G:C4'	1:AA:1506:U:H5'	2.42	0.41
29:BE:78:ILE:CD1	29:BE:78:ILE:H	2.18	0.41
40:BP:23:ARG:HB2	40:BP:120:ARG:NH1	2.36	0.41
48:CX:13:ILE:HG23	48:CX:14:VAL:H	1.86	0.41
30:CF:109:VAL:HG13	51:C1:59:VAL:HG11	2.03	0.41
41:CQ:29:SER:O	41:CQ:30:LYS:HD3	2.21	0.41
25:CA:2286:A:OP2	53:C3:27:LYS:HG3	2.20	0.41
25:CA:2287:A:N6	25:CA:2344:U:H3	2.09	0.41
12:AL:84:ILE:HD12	12:AL:84:ILE:N	2.36	0.41
1:AA:246:A:N1	1:AA:279:A:C2	2.89	0.41
4:AD:8:VAL:C	4:AD:10:ARG:H	2.24	0.41
27:CC:143:HIS:O	27:CC:144:ALA:C	2.59	0.41
32:BH:68:LEU:O	32:BH:72:LEU:HB2	2.21	0.41
25:CA:215:G:H4'	25:CA:216:A:O5'	2.20	0.41
27:BC:143:HIS:O	27:BC:144:ALA:C	2.59	0.41
1:DA:1313:U:P	19:DS:6:LYS:HG3	2.60	0.41
36:CL:114:ILE:H	36:CL:114:ILE:HG13	1.73	0.41
18:AR:74:ARG:HA	18:AR:79:LEU:O	2.21	0.41
1:AA:1190:G:OP1	3:AC:4:LYS:HA	2.21	0.41
36:CL:38:GLN:CG	36:CL:39:LYS:H	2.32	0.41
36:CL:36:LYS:CD	36:CL:41:ARG:HB2	2.50	0.41
25:CA:807:U:OP2	36:CL:39:LYS:HG3	2.21	0.41
28:CD:5:LEU:HB2	28:CD:51:PHE:CD2	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CA:2333:A:H1'	25:CA:2335:A:C6	2.56	0.41
25:CA:2334:G:H4'	25:CA:2335:A:OP2	2.21	0.41
28:BD:5:LEU:HB2	28:BD:51:PHE:CD2	2.56	0.41
13:DM:67:GLU:CG	13:DM:68:GLY:H	2.31	0.41
37:BM:81:VAL:CG1	37:BM:82:ARG:HG2	2.50	0.41
32:CH:128:LEU:HG	32:CH:142:VAL:CG2	2.51	0.41
25:CA:1275:A:C4	38:CN:16:HIS:CD2	3.08	0.41
25:CA:2230:G:H1'	48:CX:45:ASN:HB2	2.03	0.41
25:BA:1956:U:H1'	25:BA:2552:U:OP1	2.21	0.41
31:CG:42:ARG:O	31:CG:52:VAL:HA	2.21	0.41
38:BN:11:ASN:O	38:BN:12:ARG:HB2	2.20	0.41
28:BD:101:ARG:HD3	28:BD:169:ASN:HD22	1.85	0.41
25:CA:2516:G:C6	25:CA:2517:C:N4	2.89	0.41
1:AA:356:A:H2'	1:AA:357:G:O4'	2.21	0.41
11:AK:105:VAL:O	11:AK:105:VAL:HG23	2.21	0.41
25:BA:1388:G:O2'	25:BA:1389:G:H5'	2.21	0.41
1:DA:236:G:H5''	17:DQ:42:TYR:OH	2.21	0.41
22:DV:230:GLN:O	22:DV:234:THR:HG22	2.21	0.41
22:DV:223:ARG:HA	22:DV:236:ASP:HA	2.03	0.41
25:BA:2638:G:P	28:BD:82:ARG:HH22	2.44	0.41
34:BJ:116:THR:OG1	34:BJ:117:HIS:N	2.54	0.41
25:CA:2304:G:H1	25:CA:2312:U:H3	1.66	0.41
22:AV:317:ILE:HD13	22:AV:317:ILE:H	1.85	0.41
1:DA:575:G:H4'	1:DA:576:G:H5''	2.02	0.41
25:BA:1308:A:H2'	25:BA:1309:G:O4'	2.20	0.41
4:AD:189:PRO:CB	4:AD:194:LEU:HD21	2.51	0.41
1:DA:949:A:H1'	1:DA:1364:U:N3	2.35	0.41
25:BA:860:U:H2'	25:BA:861:A:C8	2.52	0.41
25:BA:389:G:H22	36:BL:72:PRO:HD3	1.86	0.41
1:AA:145:G:H2'	1:AA:146:G:C8	2.52	0.41
25:BA:1992:G:C2	25:BA:1997:G:C5	3.09	0.41
40:CP:50:ILE:HD12	40:CP:50:ILE:N	2.35	0.41
35:BK:12:ASP:HA	35:BK:98:VAL:HA	2.02	0.41
26:BB:60:C:C2	26:BB:61:G:C8	3.09	0.41
1:DA:1104:G:H2'	1:DA:1105:A:H8	1.85	0.41
34:BJ:122:LEU:O	34:BJ:122:LEU:HD13	2.21	0.41
25:BA:2093:G:H2'	25:BA:2094:G:C8	2.53	0.41
23:AW:19:G:H4'	23:AW:20:U:OP2	2.21	0.41
23:DW:19:G:C2	23:DW:57:A:N3	2.88	0.41
46:BV:110:GLY:HA2	46:BV:146:ILE:HG23	2.03	0.41
25:CA:483:A:H4'	45:CU:49:VAL:HG23	2.03	0.41
25:BA:188:G:H1	25:BA:208:C:N4	2.18	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:CF:58:GLN:O	30:CF:62:LEU:HD13	2.21	0.41
40:CP:57:PHE:O	40:CP:58:ASN:ND2	2.54	0.41
16:DP:8:ARG:NH2	16:DP:15:PRO:HG3	2.36	0.41
7:AG:75:VAL:HA	7:AG:88:PRO:HA	2.02	0.41
4:DD:102:ASP:HA	4:DD:121:VAL:HG21	2.02	0.41
1:AA:262:A:N6	1:AA:263:A:N6	2.69	0.41
1:DA:376:G:P	16:DP:67:THR:HG21	2.61	0.41
47:CW:36:ILE:HG23	47:CW:58:THR:HG23	2.03	0.41
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.51	0.41
25:BA:786:C:O2'	25:BA:787:U:H5'	2.21	0.41
25:BA:648:G:H2'	25:BA:649:G:H8	1.86	0.41
1:DA:79:G:H2'	1:DA:80:G:C8	2.56	0.41
27:CC:10:THR:HG23	27:CC:13:ARG:HB2	2.02	0.41
39:CO:90:GLY:O	39:CO:91:PRO:C	2.59	0.41
31:CG:68:THR:HA	31:CG:71:LEU:HB3	2.02	0.41
25:BA:886:C:H3'	25:BA:886:C:H6	1.86	0.41
25:CA:784:A:C5	27:CC:229:VAL:HG21	2.56	0.41
4:DD:39:PRO:HA	4:DD:40:PRO:HD3	1.93	0.41
16:DP:45:THR:C	16:DP:47:ASP:H	2.24	0.41
42:CR:88:ARG:HD2	42:CR:88:ARG:O	2.21	0.41
34:BJ:161:LEU:H	34:BJ:161:LEU:HD23	1.84	0.41
4:DD:188:LEU:N	4:DD:188:LEU:HD12	2.36	0.41
42:BR:18:LEU:H	42:BR:96:ILE:HB	1.85	0.41
1:DA:621:A:N6	1:DA:622:A:C6	2.89	0.41
42:CR:18:LEU:HD22	42:CR:18:LEU:C	2.41	0.41
2:DB:32:ILE:HD12	2:DB:32:ILE:HA	1.95	0.41
32:CH:82:ARG:HD2	32:CH:89:TYR:CD2	2.54	0.41
25:BA:416:C:H2'	25:BA:417:C:C6	2.55	0.41
1:AA:316:G:C2	1:AA:338:A:C2	3.09	0.41
22:DV:119:GLU:OE1	22:DV:184:PRO:HB3	2.21	0.41
1:DA:730:G:H3'	1:DA:731:G:O4'	2.21	0.41
1:DA:59:A:C2	1:DA:354:G:C4	3.09	0.41
25:BA:752:A:OP1	54:B4:3:ARG:NH2	2.51	0.41
1:DA:488:C:H2'	1:DA:489:C:C6	2.56	0.41
1:AA:971:G:H1'	1:AA:1365:G:O2'	2.20	0.41
25:BA:31:C:O2'	25:BA:32:C:H5'	2.21	0.41
25:BA:418:G:H2'	25:BA:419:C:H6	1.86	0.41
1:DA:1261:A:H4'	1:DA:1283:G:H5''	2.02	0.41
25:CA:1036:G:H2'	25:CA:1037:G:C8	2.56	0.41
31:BG:46:GLU:HG3	31:BG:51:ARG:HD2	2.01	0.41
29:CE:24:LEU:HB3	29:CE:115:ALA:HB2	2.02	0.41
25:BA:2338:G:C2	25:BA:2339:G:C8	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B5:8:LYS:O	55:B5:12:LYS:HG3	2.21	0.41
1:DA:124:G:C6	1:DA:125:U:C4	3.09	0.41
3:DC:149:ALA:O	3:DC:169:ALA:HB1	2.21	0.41
34:BJ:33:GLU:CD	34:BJ:34:PRO:HD2	2.41	0.41
5:DE:35:GLY:HA3	5:DE:41:VAL:HG12	2.03	0.41
43:BS:8:ARG:HB3	43:BS:9:TYR:HD2	1.86	0.41
25:BA:503:A:C5	25:BA:506:G:C6	3.08	0.41
2:AB:167:PRO:O	2:AB:171:ALA:HB2	2.20	0.41
25:CA:1896:G:H2'	25:CA:1897:G:H8	1.86	0.41
1:AA:552:U:O2	12:AL:30:PRO:HB3	2.21	0.41
49:CY:6:VAL:O	49:CY:9:GLN:HB2	2.21	0.41
25:BA:1918:A:O2'	25:BA:1920:C:N4	2.53	0.41
40:CP:30:VAL:HG12	40:CP:86:ILE:CG1	2.51	0.41
31:CG:33:LEU:HD11	31:CG:136:ILE:HB	2.03	0.41
25:BA:1301:A:H4'	25:BA:1302:A:OP1	2.21	0.41
25:CA:667:U:H2'	25:CA:668:G:O4'	2.20	0.41
25:CA:2414:G:H21	36:CL:67:MET:CE	2.34	0.41
14:AN:57:ARG:HG2	14:AN:58:LYS:N	2.35	0.41
12:DL:118:LYS:HB3	12:DL:118:LYS:HE2	1.92	0.41
45:CU:98:VAL:HG22	45:CU:98:VAL:O	2.21	0.41
5:AE:25:ARG:HD2	5:AE:25:ARG:N	2.36	0.41
19:AS:70:LYS:N	19:AS:70:LYS:HE3	2.36	0.41
1:AA:1305:G:OP2	1:AA:1305:G:C8	2.74	0.41
31:BG:33:LEU:HD11	31:BG:136:ILE:HB	2.03	0.41
1:DA:1305:G:H5'	21:DU:4:GLY:HA3	2.03	0.41
25:BA:784:A:C5	27:BC:229:VAL:HG21	2.56	0.41
1:AA:20:U:H2'	1:AA:21:G:O4'	2.20	0.41
25:BA:1071:G:H1'	25:BA:1089:G:O2'	2.20	0.41
25:CA:2604:U:OP2	22:DV:227:PRO:HD3	2.21	0.41
49:CY:35:LEU:HD11	49:CY:49:LYS:HB3	2.03	0.41
25:BA:1916:A:H2'	25:BA:1917:U:O4'	2.21	0.41
4:DD:88:VAL:HG13	5:DE:97:GLY:HA3	2.03	0.41
1:DA:1392:G:O2'	1:DA:1393:U:H5'	2.21	0.41
12:DL:29:ALA:HB1	12:DL:31:PHE:O	2.21	0.41
1:AA:525:C:H6	1:AA:525:C:O5'	2.04	0.41
25:CA:688:U:H2'	25:CA:689:A:C8	2.56	0.41
27:BC:166:GLN:HE21	27:BC:166:GLN:CA	2.33	0.41
25:BA:1919:A:H2'	25:BA:1919:A:N3	2.35	0.41
1:AA:990:C:H2'	1:AA:991:U:O4'	2.21	0.41
25:BA:2048:G:H21	28:BD:113:PHE:HE1	1.69	0.41
54:C4:13:ALA:O	54:C4:17:GLY:HA3	2.21	0.41
25:BA:1891:G:C6	25:BA:1892:C:C4	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:116:ASP:OD2	36:BL:5:ASP:HB2	2.21	0.41
42:CR:22:VAL:HG12	42:CR:23:GLU:H	1.85	0.41
42:BR:4:ILE:HG22	42:BR:5:VAL:N	2.35	0.41
25:CA:1336:A:H2'	25:CA:1337:G:H8	1.86	0.41
1:AA:1367:C:O2'	10:AJ:48:THR:HG21	2.20	0.41
47:CW:24:LYS:HB2	47:CW:37:LEU:O	2.20	0.41
15:DO:33:THR:CG2	15:DO:63:ARG:HH22	2.30	0.41
39:CO:35:ILE:HG23	39:CO:53:SER:HB2	2.02	0.41
48:CX:35:THR:HB	48:CX:36:GLY:H	1.74	0.41
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.21	0.41
1:DA:790:A:C6	1:DA:791:G:N1	2.89	0.41
17:AQ:12:SER:HB3	17:AQ:20:THR:CB	2.41	0.41
2:AB:98:LEU:O	2:AB:101:MET:HG3	2.20	0.41
39:CO:87:PHE:CE2	39:CO:89:ARG:HA	2.56	0.41
1:AA:152:A:H62	1:AA:169:C:N4	2.19	0.41
1:AA:152:A:H62	1:AA:169:C:H42	1.69	0.41
2:AB:154:LEU:HD22	2:AB:154:LEU:C	2.41	0.41
18:AR:74:ARG:O	18:AR:81:PHE:HE1	2.04	0.41
10:AJ:74:ILE:HD13	10:AJ:74:ILE:N	2.29	0.41
22:AV:223:ARG:HA	22:AV:236:ASP:HA	2.03	0.41
25:CA:2516:G:C2	25:CA:2569:G:N3	2.89	0.41
42:BR:72:VAL:HG22	42:BR:85:LYS:O	2.21	0.41
38:BN:116:LEU:HA	38:BN:116:LEU:HD23	1.97	0.41
4:DD:50:ARG:HH21	5:DE:9:LYS:HE3	1.85	0.41
35:BK:106:LEU:HD12	35:BK:106:LEU:H	1.86	0.41
1:DA:1080:A:H5''	5:DE:16:THR:HG21	2.03	0.41
25:BA:2475:C:H2'	25:BA:2477:C:OP1	2.21	0.41
50:CZ:40:THR:OG1	50:CZ:43:ILE:HG12	2.20	0.41
6:AF:5:GLU:HG3	6:AF:93:SER:OG	2.20	0.41
25:BA:579:G:C2	25:BA:1262:A:C5	3.09	0.41
1:DA:539:A:H2'	1:DA:540:G:H8	1.83	0.41
25:CA:624:C:O2	25:CA:657:U:H4'	2.21	0.41
25:CA:2314:C:H2'	25:CA:2315:G:C8	2.55	0.41
7:DG:150:ALA:HA	11:DK:59:TYR:CD2	2.56	0.41
32:BH:133:HIS:HD2	32:BH:135:GLU:HG2	1.85	0.41
48:BX:19:GLN:HA	48:BX:41:ARG:HA	2.03	0.41
25:BA:2817:G:H2'	25:BA:2818:G:O4'	2.21	0.41
48:BX:84:GLY:O	48:BX:85:LEU:C	2.58	0.41
25:CA:2817:G:H2'	25:CA:2818:G:O4'	2.21	0.41
14:DN:36:PHE:HD1	14:DN:37:PHE:CD2	2.39	0.41
25:CA:722:A:H2'	25:CA:723:G:H8	1.86	0.41
1:AA:1309:G:C6	1:AA:1329:A:C2	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:38:LEU:HD12	7:AG:41:ARG:HH12	1.86	0.41
6:DF:14:LEU:HD23	6:DF:15:ASP:N	2.36	0.41
30:BF:20:ILE:O	30:BF:24:GLY:HA2	2.21	0.41
25:CA:888:C:H2'	25:CA:889:C:H5'	2.03	0.41
1:AA:155:C:H2'	1:AA:156:G:H8	1.85	0.41
25:BA:888:C:H2'	25:BA:889:C:H5'	2.03	0.41
25:BA:1625:C:H2'	25:BA:1626:G:O4'	2.21	0.41
25:BA:1517:G:C6	25:BA:1518:C:N3	2.89	0.41
31:BG:158:HIS:CD2	31:BG:160:LYS:HE2	2.55	0.41
25:BA:2165:G:H2'	25:BA:2166:G:H5'	2.03	0.41
49:BY:6:VAL:O	49:BY:9:GLN:HB2	2.21	0.41
25:BA:2051:A:H5'	25:BA:2578:G:O4'	2.21	0.41
25:CA:1425:G:N1	25:CA:1426:G:C2	2.89	0.41
25:CA:2096:U:H2'	25:CA:2097:C:C6	2.56	0.41
39:BO:67:ARG:O	39:BO:71:ARG:HG3	2.21	0.41
25:BA:816:C:H2'	25:BA:817:C:C6	2.56	0.41
25:BA:270(U):G:C6	25:BA:270(V):C:C4	3.09	0.41
13:DM:74:VAL:O	13:DM:78:ILE:HG13	2.20	0.41
49:BY:28:LYS:HB2	49:BY:57:ILE:HD11	2.02	0.41
1:DA:929:G:H2'	1:DA:930:C:C6	2.56	0.41
41:BQ:5:LYS:HB3	41:BQ:5:LYS:HE3	1.87	0.41
3:DC:44:GLU:OE1	3:DC:52:LEU:HD21	2.21	0.41
42:BR:40:LEU:C	42:BR:45:THR:HB	2.42	0.40
3:DC:108:ASN:OD1	3:DC:110:ASN:HB2	2.21	0.40
1:AA:976:G:N7	1:AA:1358:U:C2	2.90	0.40
45:BU:2:ARG:C	45:BU:4:LYS:H	2.25	0.40
45:BU:71:LYS:HZ2	45:BU:71:LYS:HB2	1.85	0.40
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.43	0.40
55:B5:6:THR:HG22	55:B5:63:PRO:HD2	2.03	0.40
1:AA:1372:U:C5	1:AA:1373:G:C5	3.08	0.40
12:DL:84:ILE:HD12	12:DL:84:ILE:N	2.36	0.40
22:AV:11:GLU:HB3	22:AV:41:MET:HG3	2.02	0.40
27:CC:118:VAL:CG2	27:CC:119:ALA:H	2.27	0.40
13:AM:60:VAL:HG13	13:AM:64:TRP:NE1	2.26	0.40
12:AL:69:ILE:HA	12:AL:70:PRO:HD3	1.86	0.40
3:DC:59:ARG:HA	3:DC:63:ASN:O	2.21	0.40
7:DG:102:ARG:HG2	7:DG:106:GLN:NE2	2.33	0.40
28:BD:6:GLY:HA2	28:BD:51:PHE:CE2	2.56	0.40
3:AC:7:PRO:HG3	3:AC:201:TYR:HE2	1.87	0.40
27:BC:245:PRO:O	27:BC:246:PRO:C	2.59	0.40
19:AS:25:LYS:HB3	19:AS:27:GLU:OE1	2.21	0.40
25:BA:570:G:C6	25:BA:2030:A:C2	3.08	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:755:C:C2	25:BA:756:C:C5	3.08	0.40
42:CR:72:VAL:HG22	42:CR:85:LYS:O	2.21	0.40
25:CA:2515:C:H1'	25:CA:2570:G:N2	2.36	0.40
22:DV:93:GLU:HA	22:DV:96:LEU:HB3	2.03	0.40
41:BQ:36:ARG:HG2	41:BQ:40:PHE:HE1	1.81	0.40
25:CA:2508:G:P	22:DV:223:ARG:HH12	2.44	0.40
1:DA:1111:A:H2	3:DC:177:THR:HG23	1.86	0.40
4:DD:189:PRO:CB	4:DD:194:LEU:HD21	2.51	0.40
35:CK:63:VAL:HG12	35:CK:106:LEU:HD21	2.02	0.40
25:BA:213:A:O2'	25:BA:214:G:H5'	2.22	0.40
22:AV:317:ILE:HG21	22:AV:342:ALA:CB	2.51	0.40
22:DV:317:ILE:HD11	22:DV:319:PHE:CB	2.50	0.40
25:BA:765:G:H2'	25:BA:766:C:C6	2.56	0.40
25:BA:1652:A:N6	25:BA:1653:G:N1	2.69	0.40
32:BH:77:LEU:HD22	32:BH:79:ILE:CD1	2.52	0.40
25:CA:765:G:H2'	25:CA:766:C:C6	2.56	0.40
1:AA:948:C:OP1	13:AM:107:ALA:HA	2.22	0.40
25:BA:2056:G:H2'	25:BA:2056:G:N3	2.36	0.40
25:BA:952:G:C6	25:BA:953:A:N7	2.89	0.40
25:BA:2781:A:H5'	25:BA:2782:G:H5'	2.02	0.40
27:CC:79:VAL:HG21	27:CC:111:LEU:HD11	2.03	0.40
30:CF:133:LEU:HD23	30:CF:133:LEU:N	2.35	0.40
1:AA:376:G:P	16:AP:67:THR:HG21	2.61	0.40
25:CA:2172:U:H5'	25:CA:2173:A:OP1	2.20	0.40
25:CA:2173:A:H2'	25:CA:2174:C:O4'	2.21	0.40
7:DG:40:ALA:O	7:DG:44:TYR:CD1	2.74	0.40
25:BA:1386:C:H2'	25:BA:1387:C:C6	2.56	0.40
25:BA:1149:G:H2'	25:BA:1150:C:C6	2.56	0.40
16:AP:45:THR:C	16:AP:47:ASP:H	2.24	0.40
25:CA:1386:C:H2'	25:CA:1387:C:C6	2.56	0.40
25:BA:2290:G:H2'	25:BA:2291:U:O4'	2.21	0.40
25:CA:1789:A:OP1	27:CC:221:VAL:HA	2.21	0.40
34:BJ:74:PHE:CE1	34:BJ:142:ARG:HD2	2.56	0.40
26:BB:85:G:C2	26:BB:92:G:C2	3.09	0.40
25:CA:2081:C:H2'	25:CA:2082:A:H8	1.85	0.40
25:BA:1274:A:C6	25:BA:1302:A:C2	3.09	0.40
25:CA:2048:G:H21	28:CD:113:PHE:HE1	1.68	0.40
28:BD:147:PRO:HB2	28:BD:149:ARG:HG2	2.03	0.40
13:AM:12:ASN:O	13:AM:13:LYS:HB2	2.21	0.40
46:CV:150:LEU:HD23	46:CV:151:HIS:N	2.35	0.40
22:DV:237:SER:HA	22:DV:258:GLN:HB2	2.03	0.40
25:CA:1682:G:C6	25:CA:1683:C:C4	3.09	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:937:A:C2	1:DA:1379:G:C6	3.09	0.40
1:AA:1417:G:H2'	1:AA:1482:G:N2	2.36	0.40
25:BA:1401:G:C6	25:BA:1402:C:C4	3.10	0.40
1:AA:1067:A:H8	1:AA:1067:A:O5'	2.03	0.40
5:DE:25:ARG:N	5:DE:25:ARG:HD2	2.36	0.40
25:BA:1342:A:C5	25:BA:1397:U:C6	3.09	0.40
1:DA:82:U:O2'	1:DA:85:U:H5	2.04	0.40
39:BO:85:VAL:HG11	39:BO:106:ARG:HD2	2.03	0.40
25:CA:2612:C:H2'	25:CA:2613:U:H5'	2.03	0.40
25:BA:1831:G:H1	25:BA:1974:C:H42	1.69	0.40
41:CQ:62:ILE:HD13	41:CQ:65:ILE:HD12	2.03	0.40
27:BC:131:LEU:HD11	27:BC:136:ILE:HG12	2.02	0.40
10:AJ:62:HIS:O	14:AN:59:ALA:HB3	2.21	0.40
27:BC:69:ARG:HH12	27:BC:117:VAL:HG21	1.87	0.40
44:BT:21:PHE:CD2	44:BT:26:TYR:CD2	3.08	0.40
25:BA:1813:G:H1'	27:BC:50:THR:CG2	2.41	0.40
45:CU:75:ILE:HG12	45:CU:76:CYS:H	1.85	0.40
27:CC:63:ARG:HD2	27:CC:85:ASP:OD2	2.21	0.40
1:AA:980:C:H3'	1:AA:981:U:C6	2.56	0.40
25:CA:941:A:H2'	25:CA:942:G:O4'	2.21	0.40
27:BC:75:ILE:HA	27:BC:76:PRO:HD3	1.82	0.40
25:BA:1677:A:C6	25:BA:1678:G:C6	3.09	0.40
22:AV:5:LEU:HA	22:AV:8:LEU:HB3	2.03	0.40
1:DA:793:U:H3'	1:DA:794:A:H5''	2.04	0.40
27:BC:83:GLU:HB2	27:BC:92:ILE:CD1	2.45	0.40
39:BO:87:PHE:CE2	39:BO:89:ARG:HA	2.56	0.40
1:AA:818:G:C3'	1:AA:819:A:H5''	2.51	0.40
27:BC:35:LYS:NZ	27:BC:104:TYR:H	2.13	0.40
1:DA:1256:A:H2	1:DA:1277:C:C4	2.39	0.40
46:CV:104:PHE:CD1	46:CV:139:VAL:HG11	2.56	0.40
29:BE:80:ALA:HA	29:BE:81:PRO:HD3	1.93	0.40
1:AA:1256:A:H2	1:AA:1277:C:C4	2.40	0.40
28:CD:6:GLY:HA2	28:CD:51:PHE:CE2	2.56	0.40
25:BA:2334:G:H4'	25:BA:2335:A:OP2	2.21	0.40
27:CC:245:PRO:O	27:CC:246:PRO:C	2.58	0.40
25:BA:1889:A:N1	25:BA:2234:G:H1'	2.36	0.40
25:CA:1021:A:C2	25:CA:1023:U:C2	3.09	0.40
49:BY:2:LYS:CD	49:BY:2:LYS:N	2.84	0.40
25:CA:2230:G:H1'	48:CX:45:ASN:CB	2.51	0.40
25:CA:819:A:OP2	25:CA:1187:G:N2	2.53	0.40
42:BR:72:VAL:CG2	42:BR:85:LYS:HB3	2.52	0.40
28:CD:184:VAL:HG12	28:CD:185:LYS:H	1.87	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2134:A:H62	25:BA:2157:G:H1'	1.83	0.40
38:BN:56:LYS:HE2	38:BN:87:TYR:O	2.21	0.40
22:AV:93:GLU:HA	22:AV:96:LEU:HB3	2.02	0.40
25:CA:322:A:P	29:CE:169:ASN:HB2	2.61	0.40
38:BN:4:LEU:O	38:BN:4:LEU:HG	2.21	0.40
22:AV:230:GLN:O	22:AV:234:THR:HG22	2.21	0.40
27:BC:186:HIS:HD2	27:BC:188:GLU:H	1.65	0.40
50:BZ:40:THR:OG1	50:BZ:43:ILE:HG12	2.20	0.40
34:CJ:64:ASP:OD1	34:CJ:64:ASP:N	2.55	0.40
8:AH:50:ARG:N	8:AH:50:ARG:HD2	2.32	0.40
9:DI:17:VAL:HG22	9:DI:63:ILE:HG13	2.03	0.40
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.21	0.40
1:AA:949:A:H1'	1:AA:1364:U:N3	2.35	0.40
29:CE:150:GLY:HA2	29:CE:172:TRP:CZ3	2.56	0.40
26:BB:56:G:H4'	26:BB:57:A:C8	2.54	0.40
14:DN:3:ARG:O	14:DN:7:ILE:HG23	2.21	0.40
46:CV:110:GLY:HA2	46:CV:146:ILE:HG23	2.03	0.40
25:CA:952:G:C6	25:CA:953:A:N7	2.89	0.40
7:AG:150:ALA:HA	11:AK:59:TYR:CD2	2.55	0.40
48:CX:19:GLN:HA	48:CX:41:ARG:HA	2.03	0.40
25:CA:1992:G:C2	25:CA:1997:G:C5	3.09	0.40
11:AK:120:ARG:HA	11:AK:121:PRO:HD3	1.93	0.40
8:DH:11:THR:HA	8:DH:14:ARG:NH1	2.36	0.40
25:CA:1101:U:H2'	25:CA:1102:C:C6	2.57	0.40
22:AV:13:ARG:CD	22:AV:13:ARG:N	2.85	0.40
1:AA:79:G:H2'	1:AA:80:G:C8	2.55	0.40
25:CA:1971:A:C4	27:CC:241:PRO:HG3	2.56	0.40
25:CA:1288:U:H1'	25:CA:1647:G:H21	1.86	0.40
8:AH:31:PHE:CE2	8:AH:35:ILE:HD11	2.56	0.40
25:CA:2549:G:C2	25:CA:2550:G:N7	2.89	0.40
29:CE:102:PRO:HB2	29:CE:105:VAL:HG23	2.03	0.40
1:DA:511:C:HO2'	1:DA:512:U:H6	1.65	0.40
1:DA:693:G:H2'	1:DA:694:A:C8	2.56	0.40
1:DA:894:G:H2'	1:DA:895:G:C8	2.57	0.40
25:BA:1926:U:H2'	25:BA:1928:A:OP2	2.21	0.40
29:BE:110:LEU:HD11	29:BE:181:LEU:HB3	2.03	0.40
25:BA:2081:C:H2'	25:BA:2082:A:C8	2.56	0.40
25:CA:1919:A:O3'	1:DA:1517:G:H1'	2.20	0.40
25:CA:335:C:H2'	25:CA:336:C:C6	2.56	0.40
1:AA:32:A:H2'	1:AA:33:A:C8	2.56	0.40
1:DA:1417:G:H2'	1:DA:1482:G:N2	2.37	0.40
1:AA:193:C:O2'	1:AA:194:C:H5'	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:76:ARG:HD3	4:AD:207:TYR:CE2	2.56	0.40
25:CA:1444:G:N2	25:CA:1548:C:C2	2.90	0.40
25:CA:270(G):U:H2'	25:CA:270(H):C:C6	2.56	0.40
27:CC:259:THR:O	27:CC:260:ARG:HB2	2.21	0.40
1:DA:1170:A:H2'	1:DA:1171:G:O4'	2.22	0.40
25:CA:1599:C:OP2	44:CT:36:LYS:HD3	2.21	0.40
29:CE:12:LEU:HD12	29:CE:13:SER:H	1.86	0.40
7:DG:80:VAL:C	7:DG:82:GLY:H	2.25	0.40
48:CX:75:GLU:OE1	48:CX:75:GLU:HA	2.22	0.40
48:CX:88:LYS:HB3	48:CX:88:LYS:HE2	1.92	0.40
1:DA:764:C:H2'	1:DA:765:G:H8	1.86	0.40
1:DA:767:A:H2'	1:DA:768:A:C8	2.57	0.40
25:CA:2075:U:C4	25:CA:2238:G:C6	3.09	0.40
23:AW:69:C:H2'	23:AW:70:G:H8	1.86	0.40
25:CA:690:G:H2'	25:CA:691:C:C6	2.57	0.40
37:CM:65:PHE:HB2	37:CM:105:GLU:HG3	2.04	0.40
25:BA:1310:G:OP2	54:B4:9:ARG:CZ	2.69	0.40
36:CL:64:LYS:HD2	55:C5:25:MET:CE	2.52	0.40
25:CA:2428:G:O5'	25:CA:2428:G:H8	2.05	0.40
25:CA:919:G:N2	25:CA:2268:A:C8	2.89	0.40
25:BA:1429:G:N3	25:BA:1568:G:C2	2.90	0.40
1:DA:1366:C:H2'	1:DA:1367:C:C6	2.57	0.40
45:CU:76:CYS:CB	45:CU:96:ILE:HD13	2.51	0.40
31:BG:149:ARG:HD2	31:BG:164:TYR:HE1	1.86	0.40
36:BL:21:ARG:O	36:BL:23:PRO:HD3	2.21	0.40
22:DV:5:LEU:HA	22:DV:8:LEU:HB3	2.03	0.40
50:CZ:31:LEU:HG	50:CZ:32:GLN:N	2.36	0.40
3:AC:195:VAL:CG1	3:AC:196:LEU:H	2.28	0.40
22:AV:45:ILE:HA	22:AV:48:ILE:HG12	2.03	0.40
29:CE:78:ILE:CD1	29:CE:78:ILE:H	2.18	0.40
55:B5:33:ASN:ND2	55:B5:34:TRP:N	2.69	0.40
25:CA:2377:A:C6	25:CA:2378:A:C6	3.10	0.40
1:DA:674:G:H2'	1:DA:675:A:H8	1.86	0.40
1:DA:818:G:H3'	1:DA:819:A:H5''	2.02	0.40
25:CA:528:A:OP2	34:CJ:134:PRO:HB3	2.21	0.40
1:AA:1300:G:C1'	1:AA:1301:U:OP2	2.65	0.40
42:BR:73:SER:HA	42:BR:83:ARG:O	2.22	0.40
25:CA:2023:G:H5'	25:CA:2617:C:H4'	2.03	0.40
6:AF:17:SER:O	6:AF:21:LEU:HD23	2.20	0.40
25:CA:361:G:O2'	25:CA:362:U:H5'	2.21	0.40
40:CP:110:ILE:HD12	40:CP:110:ILE:HA	1.94	0.40
40:BP:107:ASP:OD2	40:BP:109:GLU:HB2	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:DK:105:VAL:O	11:DK:105:VAL:HG23	2.21	0.40
18:DR:67:ALA:HA	18:DR:70:ILE:HB	2.03	0.40
1:AA:1130:A:C2	1:AA:1146:A:C4	3.10	0.40
25:BA:322:A:H5'	25:BA:340:A:H1'	2.03	0.40
25:BA:340:A:H2'	25:BA:341:G:O4'	2.21	0.40
25:BA:1308:A:N6	25:BA:1309:G:C2	2.90	0.40
36:CL:122:PRO:O	36:CL:123:LEU:HB3	2.22	0.40
26:BB:16:G:H2'	26:BB:17:C:H5'	2.04	0.40
28:BD:120:TRP:HB2	28:BD:122:PHE:CD1	2.57	0.40
1:DA:1004:A:N6	1:DA:1025:U:H4'	2.36	0.40
1:AA:448:A:P	1:AA:485:G:H22	2.44	0.40
1:DA:500:G:C6	1:DA:546:G:C2	3.09	0.40
25:CA:1945:G:C6	25:CA:1946:U:C4	3.09	0.40
25:CA:2056:G:H2'	25:CA:2056:G:N3	2.36	0.40
25:BA:1681:G:OP2	25:BA:1681:G:C8	2.73	0.40
14:AN:3:ARG:O	14:AN:7:ILE:HG23	2.22	0.40
1:AA:666:G:C6	1:AA:741:G:C6	3.09	0.40
28:CD:10:GLY:HA2	28:CD:192:ASN:OD1	2.21	0.40
19:DS:40:ILE:HD13	19:DS:62:ILE:CD1	2.50	0.40
37:BM:62:GLY:HA2	46:BV:116:VAL:HG22	2.04	0.40
4:AD:96:LEU:HD12	4:AD:139:ARG:CD	2.51	0.40
1:DA:298:A:H2'	1:DA:299:G:O4'	2.21	0.40
1:DA:299:G:C6	1:DA:300:A:C6	3.09	0.40
1:AA:377:G:OP1	16:AP:3:LYS:HD2	2.21	0.40
4:AD:36:ARG:HG2	4:AD:38:TYR:OH	2.21	0.40
25:BA:1288:U:H1'	25:BA:1647:G:H21	1.86	0.40
25:BA:621:A:H5'	25:BA:622:G:OP2	2.21	0.40
17:DQ:52:LYS:HB3	17:DQ:52:LYS:HE3	1.92	0.40
34:BJ:105:LEU:HD12	34:BJ:105:LEU:C	2.42	0.40
1:AA:1403:C:O5'	1:AA:1403:C:H6	2.04	0.40
25:BA:414:C:H4'	25:BA:1879:C:O2	2.22	0.40
37:BM:58:PHE:CD1	37:BM:58:PHE:O	2.74	0.40
25:CA:414:C:H4'	25:CA:1879:C:O2	2.22	0.40
25:BA:226:G:H21	25:BA:228:A:H62	1.67	0.40
1:DA:316:G:C2	1:DA:338:A:C2	3.10	0.40
25:CA:2494:G:O2'	25:CA:2495:G:H5'	2.22	0.40
34:BJ:110:LEU:HD23	34:BJ:110:LEU:O	2.22	0.40
35:CK:38:VAL:HG12	35:CK:61:VAL:HB	2.04	0.40
25:CA:2165:G:H2'	25:CA:2166:G:H5'	2.02	0.40
27:BC:235:GLY:O	27:BC:237:GLU:N	2.54	0.40
25:BA:784:A:HO2'	25:BA:785:G:H8	1.68	0.40
25:CA:1891:G:C6	25:CA:1892:C:C4	3.09	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BF:125:PHE:C	30:BF:127:GLY:H	2.24	0.40
12:DL:92:LEU:HA	12:DL:93:PRO:HD3	1.95	0.40
2:AB:47:THR:O	2:AB:51:LEU:HG	2.21	0.40
25:BA:1905:C:O2'	25:BA:1929:G:H1'	2.21	0.40
25:CA:1182:A:H2'	25:CA:1183:G:C8	2.56	0.40
25:CA:1959:G:H1'	1:DA:1418:A:N3	2.36	0.40
25:BA:68:G:H2'	25:BA:69:C:C6	2.57	0.40
1:DA:1273:G:H2'	1:DA:1274:G:C8	2.57	0.40
1:AA:1135:U:HO2'	1:AA:1136:U:H5	1.67	0.40
54:B4:13:ALA:O	54:B4:17:GLY:HA3	2.21	0.40
13:DM:12:ASN:O	13:DM:13:LYS:HB2	2.21	0.40
1:AA:702:A:C6	25:BA:1848:A:C6	3.10	0.40
25:CA:2705:A:H8	25:CA:2705:A:OP2	2.04	0.40
1:AA:841:U:O2	1:AA:841:U:H3'	2.22	0.40
1:DA:301:G:H2'	1:DA:302:G:C8	2.56	0.40
25:BA:618(A):G:H5'	29:BE:205:ARG:NH2	2.36	0.40
6:DF:24:GLU:O	6:DF:28:ARG:HG3	2.21	0.40
25:BA:1259:G:O2'	25:BA:1260:G:H5'	2.22	0.40
25:CA:829:A:C8	25:CA:2248:C:H5'	2.55	0.40
25:CA:2249:U:H4'	25:CA:2275:C:H5	1.87	0.40
19:AS:41:VAL:O	19:AS:44:MET:HB2	2.22	0.40
14:AN:24:CYS:HB2	14:AN:33:VAL:HG22	2.04	0.40
10:DJ:62:HIS:O	14:DN:59:ALA:HB3	2.22	0.40
1:DA:1118:C:O5'	9:DI:104:ARG:HG3	2.21	0.40
22:AV:293:ILE:HG23	22:AV:294:GLY:N	2.33	0.40
30:CF:13:GLU:O	30:CF:14:GLU:HB2	2.21	0.40
40:BP:23:ARG:HH21	40:BP:120:ARG:HD3	1.86	0.40
25:BA:2377:A:C6	25:BA:2378:A:C6	3.10	0.40
1:DA:942:G:H2'	1:DA:943:U:C6	2.57	0.40
27:CC:34:VAL:O	27:CC:34:VAL:HG13	2.21	0.40
36:CL:125:VAL:HG11	36:CL:138:LEU:HD22	2.04	0.40
41:BQ:6:THR:HG21	41:BQ:10:ARG:HH21	1.86	0.40
1:DA:1300:G:C1'	1:DA:1301:U:OP2	2.65	0.40
32:BH:128:LEU:HG	32:BH:142:VAL:CG2	2.51	0.40
25:CA:634:C:H2'	25:CA:635:C:C6	2.55	0.40
32:CH:116:LEU:HD22	32:CH:128:LEU:CD2	2.52	0.40
38:BN:13:HIS:O	38:BN:17:ARG:HG2	2.21	0.40
25:BA:2230:G:H1'	48:BX:45:ASN:CB	2.51	0.40
42:CR:72:VAL:CG2	42:CR:85:LYS:HB3	2.51	0.40
29:CE:106:ARG:H	29:CE:106:ARG:HG2	1.72	0.40
34:BJ:30:LYS:O	34:BJ:32:VAL:HG23	2.21	0.40
25:BA:528:A:H2	25:BA:2043:C:C4'	2.33	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:CD:92:THR:O	28:CD:95:ILE:HG13	2.21	0.40
36:BL:122:PRO:O	36:BL:123:LEU:HB3	2.22	0.40
25:BA:861:A:N3	26:BB:79:C:O2'	2.50	0.40
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.21	0.40
32:BH:109:ILE:HD13	32:BH:109:ILE:H	1.86	0.40
25:BA:2056:G:N2	25:BA:2057:A:C1'	2.85	0.40
25:CA:860:U:O4'	25:CA:860:U:O2	2.39	0.40
25:CA:579:G:C2	25:CA:1262:A:C5	3.10	0.40
27:BC:28:GLU:N	27:BC:29:PRO:CD	2.84	0.40
25:BA:624:C:O2	25:BA:657:U:H4'	2.22	0.40
25:BA:2070:G:C2	25:BA:2442:C:C2	3.09	0.40
1:DA:492:G:H2'	1:DA:493:G:O4'	2.21	0.40
25:BA:1499:C:C2	25:BA:1500:G:C8	3.10	0.40
31:CG:20:ALA:HB1	31:CG:21:PRO:CD	2.52	0.40
25:BA:780:G:N2	25:BA:783:A:H62	2.18	0.40
28:BD:9:VAL:HG22	28:BD:25:VAL:O	2.21	0.40
25:BA:1817:G:C5	25:BA:1818:U:C5	3.09	0.40
22:DV:13:ARG:CD	22:DV:13:ARG:N	2.85	0.40
25:BA:464:U:C2	25:BA:788:A:C6	3.09	0.40
2:DB:135:GLN:O	2:DB:139:LYS:HG2	2.21	0.40
2:AB:135:GLN:O	2:AB:139:LYS:HG2	2.22	0.40
25:BA:1827:C:H5''	27:BC:239:ARG:HH22	1.87	0.40
39:BO:90:GLY:O	39:BO:91:PRO:C	2.59	0.40
13:AM:115:LYS:HB2	13:AM:115:LYS:HE3	1.96	0.40
25:CA:2368:C:H2'	25:CA:2369:A:C8	2.56	0.40
25:BA:1993:U:H4'	28:BD:128:SER:CB	2.52	0.40
25:CA:416:C:H2'	25:CA:417:C:C6	2.57	0.40
1:AA:1005:A:H4'	1:AA:1037:C:H1'	2.04	0.40
25:BA:1416:G:H1'	25:BA:1417:C:C5	2.55	0.40
25:BA:2009:G:C6	25:BA:2010:G:N7	2.90	0.40
11:AK:91:ARG:O	11:AK:95:ILE:HG13	2.22	0.40
3:AC:149:ALA:O	3:AC:169:ALA:HB1	2.22	0.40
32:CH:26:ALA:HA	32:CH:30:LEU:HB2	2.04	0.40
42:BR:20:LEU:HG	42:BR:21:ARG:N	2.36	0.40
2:DB:167:PRO:O	2:DB:171:ALA:HB2	2.20	0.40
25:BA:175:G:O2'	25:BA:176:G:H5'	2.21	0.40
1:AA:274:A:H4'	1:AA:275:G:OP1	2.21	0.40
37:CM:116:GLU:O	37:CM:120:ILE:HG12	2.22	0.40
28:BD:32:PRO:HA	28:BD:90:THR:HG22	2.02	0.40
1:AA:937:A:C2	1:AA:1379:G:C6	3.09	0.40
25:CA:1905:C:O2'	25:CA:1929:G:H1'	2.20	0.40
51:B1:40:ILE:O	51:B1:47:VAL:HA	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:DA:399:G:H2'	1:DA:400:C:C6	2.57	0.40
44:CT:66:LEU:C	44:CT:66:LEU:HD23	2.42	0.40
27:CC:112:GLN:N	27:CC:112:GLN:OE1	2.55	0.40
25:BA:645:C:H3'	25:BA:645:C:O2	2.21	0.40
30:CF:25:TYR:HB3	30:CF:26:GLN:H	1.76	0.40
1:DA:855:G:C6	1:DA:856:C:C4	3.09	0.40
25:BA:1151:G:H4'	41:BQ:81:HIS:ND1	2.36	0.40
42:BR:22:VAL:CG1	42:BR:23:GLU:N	2.83	0.40
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.57	0.40
45:BU:6:HIS:HE1	45:BU:30:VAL:HG11	1.87	0.40
22:AV:289:ARG:NH2	25:BA:1915:U:H5'	2.36	0.40
27:BC:233:HIS:HD2	27:BC:242:ARG:HG3	1.87	0.40
4:DD:21:LEU:H	4:DD:21:LEU:HG	1.62	0.40
27:CC:193:VAL:HG22	27:CC:194:GLY:N	2.37	0.40
5:DE:90:VAL:O	5:DE:120:THR:HA	2.22	0.40
25:BA:1257:C:H5'	29:BE:75:HIS:CE1	2.57	0.40
10:AJ:4:ILE:HB	10:AJ:74:ILE:HG12	2.04	0.40
43:BS:103:ILE:HD12	43:BS:103:ILE:N	2.33	0.40
32:CH:126:TYR:H	32:CH:142:VAL:HB	1.87	0.40
3:DC:19:GLU:CG	3:DC:40:ARG:HH22	2.32	0.40
48:CX:27:GLU:HG3	48:CX:33:LYS:CE	2.49	0.40
25:CA:583:G:H2'	25:CA:584:C:H6	1.86	0.40
25:CA:340:A:H2'	25:CA:341:G:O4'	2.20	0.40
28:BD:92:THR:O	28:BD:95:ILE:HG13	2.22	0.40
9:DI:18:PHE:HB2	9:DI:62:TYR:HD2	1.86	0.40
29:BE:40:GLN:NE2	29:BE:182:ASN:HB2	2.36	0.40
27:CC:28:GLU:N	27:CC:29:PRO:CD	2.85	0.40
25:BA:379:G:N2	25:BA:396:G:C4	2.90	0.40
6:DF:91:VAL:HG11	18:DR:72:ARG:HH12	1.86	0.40
26:CB:60:C:C2	26:CB:61:G:C8	3.09	0.40
6:AF:91:VAL:HG11	18:AR:72:ARG:HH12	1.86	0.40
44:CT:41:ASN:ND2	44:CT:41:ASN:N	2.69	0.40
28:BD:179:GLU:O	28:BD:180:ASN:HB2	2.22	0.40
25:CA:2818:G:H5'	25:CA:2837:G:O2'	2.20	0.40
27:BC:79:VAL:HG21	27:BC:111:LEU:HD11	2.03	0.40
1:DA:376:G:O2'	1:DA:377:G:H5'	2.20	0.40
1:DA:658:G:H1'	15:DO:22:THR:HB	2.04	0.40
25:BA:1288:U:C2	25:BA:1327:C:C2	3.10	0.40
1:DA:1330:U:O4	1:DA:1331:G:N1	2.55	0.40
25:BA:1062:G:H2'	25:BA:1062:G:N3	2.36	0.40
31:CG:123:PHE:HA	31:CG:133:VAL:HA	2.04	0.40
1:AA:45:U:H2'	1:AA:46:G:C8	2.57	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:DG:38:LEU:HD12	7:DG:41:ARG:HH12	1.86	0.40
1:AA:488:C:H2'	1:AA:489:C:C6	2.56	0.40
27:BC:72:LYS:HE3	27:BC:101:GLU:CB	2.51	0.40
25:BA:1036:G:H2'	25:BA:1037:G:C8	2.57	0.40
25:BA:2582:G:N3	25:BA:2582:G:H2'	2.37	0.40
1:DA:1305:G:C8	1:DA:1305:G:OP2	2.74	0.40
31:CG:109:PHE:CE1	31:CG:152:ARG:HD3	2.57	0.40
25:CA:1514:U:H2'	25:CA:1515:C:C6	2.56	0.40
25:BA:2650:U:H2'	25:BA:2651:C:C6	2.57	0.40
25:BA:1363:C:O2'	25:BA:1364:G:H5'	2.22	0.40
25:CA:2650:U:H2'	25:CA:2651:C:C6	2.57	0.40
30:CF:125:PHE:C	30:CF:127:GLY:H	2.24	0.40
31:CG:78:GLY:HA2	31:CG:83:TYR:CE1	2.56	0.40
1:DA:274:A:H4'	1:DA:275:G:OP1	2.21	0.40
1:AA:82:U:O2'	1:AA:85:U:H5	2.05	0.40
25:CA:1342:A:C5	25:CA:1397:U:C6	3.09	0.40
22:DV:290:LEU:HD23	22:DV:290:LEU:O	2.22	0.40
55:B5:3:LYS:HB3	55:B5:3:LYS:HE2	1.94	0.40
13:DM:50:GLU:H	13:DM:50:GLU:CD	2.25	0.40
8:AH:105:ARG:HD3	8:AH:105:ARG:HA	1.95	0.40
38:BN:99:LYS:HB3	38:BN:99:LYS:HE3	1.90	0.40
4:AD:88:VAL:HG13	5:AE:97:GLY:HA3	2.04	0.40
25:BA:1514:U:H2'	25:BA:1515:C:C6	2.56	0.40

There are no symmetry-related clashes.

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	
2	AB	232/234 (99%)	197 (85%)	28 (12%)	7 (3%)	7	57
2	DB	232/234 (99%)	197 (85%)	28 (12%)	7 (3%)	7	57
3	AC	204/206 (99%)	158 (78%)	36 (18%)	10 (5%)	3	41

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	DC	204/206 (99%)	158 (78%)	36 (18%)	10 (5%)	3	41
4	AD	206/208 (99%)	168 (82%)	29 (14%)	9 (4%)	4	45
4	DD	206/208 (99%)	168 (82%)	29 (14%)	9 (4%)	4	45
5	AE	149/151 (99%)	129 (87%)	18 (12%)	2 (1%)	18	75
5	DE	149/151 (99%)	129 (87%)	18 (12%)	2 (1%)	18	75
6	AF	99/101 (98%)	87 (88%)	11 (11%)	1 (1%)	22	80
6	DF	99/101 (98%)	87 (88%)	11 (11%)	1 (1%)	22	80
7	AG	153/155 (99%)	132 (86%)	19 (12%)	2 (1%)	18	75
7	DG	153/155 (99%)	132 (86%)	19 (12%)	2 (1%)	18	75
8	AH	136/138 (99%)	120 (88%)	15 (11%)	1 (1%)	30	84
8	DH	136/138 (99%)	120 (88%)	15 (11%)	1 (1%)	30	84
9	AI	125/127 (98%)	101 (81%)	21 (17%)	3 (2%)	9	62
9	DI	125/127 (98%)	101 (81%)	21 (17%)	3 (2%)	9	62
10	AJ	96/98 (98%)	78 (81%)	13 (14%)	5 (5%)	3	39
10	DJ	96/98 (98%)	79 (82%)	12 (12%)	5 (5%)	3	39
11	AK	117/119 (98%)	94 (80%)	20 (17%)	3 (3%)	8	60
11	DK	117/119 (98%)	95 (81%)	19 (16%)	3 (3%)	8	60
12	AL	122/124 (98%)	92 (75%)	25 (20%)	5 (4%)	4	48
12	DL	122/124 (98%)	92 (75%)	25 (20%)	5 (4%)	4	48
13	AM	115/117 (98%)	94 (82%)	15 (13%)	6 (5%)	3	39
13	DM	115/117 (98%)	94 (82%)	15 (13%)	6 (5%)	3	39
14	AN	58/60 (97%)	49 (84%)	5 (9%)	4 (7%)	2	30
14	DN	58/60 (97%)	49 (84%)	5 (9%)	4 (7%)	2	30
15	AO	86/88 (98%)	77 (90%)	9 (10%)	0	100	100
15	DO	86/88 (98%)	77 (90%)	9 (10%)	0	100	100
16	AP	81/83 (98%)	66 (82%)	14 (17%)	1 (1%)	19	77
16	DP	81/83 (98%)	66 (82%)	14 (17%)	1 (1%)	19	77
17	AQ	97/99 (98%)	83 (86%)	12 (12%)	2 (2%)	11	65
17	DQ	97/99 (98%)	83 (86%)	12 (12%)	2 (2%)	11	65
18	AR	68/70 (97%)	57 (84%)	10 (15%)	1 (2%)	15	72
18	DR	68/70 (97%)	57 (84%)	10 (15%)	1 (2%)	15	72

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	AS	76/78 (97%)	58 (76%)	13 (17%)	5 (7%)	2	32
19	DS	76/78 (97%)	58 (76%)	13 (17%)	5 (7%)	2	32
20	AT	97/99 (98%)	82 (84%)	11 (11%)	4 (4%)	4	48
20	DT	97/99 (98%)	82 (84%)	11 (11%)	4 (4%)	4	48
21	AU	22/24 (92%)	17 (77%)	4 (18%)	1 (4%)	4	44
21	DU	22/24 (92%)	17 (77%)	4 (18%)	1 (4%)	4	44
22	AV	352/354 (99%)	290 (82%)	50 (14%)	12 (3%)	6	54
22	DV	352/354 (99%)	289 (82%)	52 (15%)	11 (3%)	7	57
27	BC	269/275 (98%)	216 (80%)	37 (14%)	16 (6%)	2	36
27	CC	269/275 (98%)	216 (80%)	37 (14%)	16 (6%)	2	36
28	BD	202/206 (98%)	168 (83%)	26 (13%)	8 (4%)	5	48
28	CD	202/206 (98%)	168 (83%)	26 (13%)	8 (4%)	5	48
29	BE	200/205 (98%)	163 (82%)	29 (14%)	8 (4%)	5	48
29	CE	200/205 (98%)	163 (82%)	29 (14%)	8 (4%)	5	48
30	BF	179/181 (99%)	133 (74%)	38 (21%)	8 (4%)	4	44
30	CF	179/181 (99%)	133 (74%)	38 (21%)	8 (4%)	4	44
31	BG	157/180 (87%)	129 (82%)	23 (15%)	5 (3%)	6	55
31	CG	157/180 (87%)	129 (82%)	23 (15%)	5 (3%)	6	55
32	BH	143/148 (97%)	115 (80%)	21 (15%)	7 (5%)	3	41
32	CH	143/148 (97%)	115 (80%)	21 (15%)	7 (5%)	3	41
33	BI	28/173 (16%)	27 (96%)	1 (4%)	0	100	100
33	CI	28/173 (16%)	27 (96%)	1 (4%)	0	100	100
34	BJ	135/139 (97%)	110 (82%)	16 (12%)	9 (7%)	2	32
34	CJ	135/139 (97%)	109 (81%)	17 (13%)	9 (7%)	2	32
35	BK	120/122 (98%)	105 (88%)	13 (11%)	2 (2%)	14	70
35	CK	120/122 (98%)	105 (88%)	13 (11%)	2 (2%)	14	70
36	BL	144/150 (96%)	97 (67%)	25 (17%)	22 (15%)	0	7
36	CL	144/150 (96%)	97 (67%)	25 (17%)	22 (15%)	0	7
37	BM	134/141 (95%)	95 (71%)	23 (17%)	16 (12%)	1	13
37	CM	134/141 (95%)	95 (71%)	23 (17%)	16 (12%)	1	13
38	BN	115/117 (98%)	100 (87%)	11 (10%)	4 (4%)	6	53

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
38	CN	115/117 (98%)	101 (88%)	10 (9%)	4 (4%)	6	53
39	BO	96/111 (86%)	65 (68%)	20 (21%)	11 (12%)	1	13
39	CO	96/111 (86%)	64 (67%)	21 (22%)	11 (12%)	1	13
40	BP	135/146 (92%)	106 (78%)	21 (16%)	8 (6%)	2	36
40	CP	135/146 (92%)	107 (79%)	20 (15%)	8 (6%)	2	36
41	BQ	114/116 (98%)	103 (90%)	10 (9%)	1 (1%)	25	82
41	CQ	114/116 (98%)	104 (91%)	9 (8%)	1 (1%)	25	82
42	BR	99/101 (98%)	75 (76%)	18 (18%)	6 (6%)	2	34
42	CR	99/101 (98%)	75 (76%)	18 (18%)	6 (6%)	2	34
43	BS	110/112 (98%)	92 (84%)	17 (16%)	1 (1%)	25	82
43	CS	110/112 (98%)	92 (84%)	17 (16%)	1 (1%)	25	82
44	BT	90/96 (94%)	81 (90%)	7 (8%)	2 (2%)	10	64
44	CT	90/96 (94%)	81 (90%)	7 (8%)	2 (2%)	10	64
45	BU	98/109 (90%)	62 (63%)	26 (26%)	10 (10%)	1	17
45	CU	98/109 (90%)	63 (64%)	25 (26%)	10 (10%)	1	17
46	BV	186/206 (90%)	143 (77%)	34 (18%)	9 (5%)	4	42
46	CV	186/206 (90%)	143 (77%)	34 (18%)	9 (5%)	4	42
47	BW	74/84 (88%)	56 (76%)	12 (16%)	6 (8%)	1	25
47	CW	74/84 (88%)	57 (77%)	11 (15%)	6 (8%)	1	25
48	BX	86/98 (88%)	59 (69%)	19 (22%)	8 (9%)	1	21
48	CX	86/98 (88%)	59 (69%)	19 (22%)	8 (9%)	1	21
49	BY	60/72 (83%)	47 (78%)	11 (18%)	2 (3%)	6	55
49	CY	60/72 (83%)	47 (78%)	11 (18%)	2 (3%)	6	55
50	BZ	57/59 (97%)	51 (90%)	6 (10%)	0	100	100
50	CZ	57/59 (97%)	51 (90%)	6 (10%)	0	100	100
51	B1	28/71 (39%)	17 (61%)	8 (29%)	3 (11%)	1	15
51	C1	28/71 (39%)	17 (61%)	8 (29%)	3 (11%)	1	15
52	B2	50/59 (85%)	40 (80%)	8 (16%)	2 (4%)	5	48
52	C2	50/59 (85%)	40 (80%)	8 (16%)	2 (4%)	5	48
53	B3	42/54 (78%)	33 (79%)	4 (10%)	5 (12%)	1	13
53	C3	42/54 (78%)	33 (79%)	4 (10%)	5 (12%)	1	13

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
54	B4	46/48 (96%)	44 (96%)	2 (4%)	0	100	100
54	C4	46/48 (96%)	44 (96%)	2 (4%)	0	100	100
55	B5	61/64 (95%)	44 (72%)	11 (18%)	6 (10%)	1	18
55	C5	61/64 (95%)	44 (72%)	11 (18%)	6 (10%)	1	18
All	All	11898/12752 (93%)	9614 (81%)	1747 (15%)	537 (4%)	4	44

All (537) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AC	15	THR
4	AD	137	SER
13	AM	106	ASN
14	AN	26	ARG
19	AS	28	LYS
20	AT	71	THR
22	AV	302	ILE
27	BC	33	LEU
27	BC	35	LYS
27	BC	198	ASN
28	BD	16	ARG
29	BE	60	SER
29	BE	73	ALA
29	BE	84	VAL
30	BF	84	LYS
30	BF	87	PRO
34	BJ	116	THR
34	BJ	149	PRO
36	BL	15	ARG
36	BL	17	LYS
36	BL	36	LYS
36	BL	46	LYS
37	BM	10	ARG
37	BM	21	THR
37	BM	133	ARG
38	BN	57	ARG
39	BO	59	LYS
39	BO	91	PRO
42	BR	53	GLU
45	BU	3	VAL
45	BU	7	VAL
45	BU	17	SER

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Mol	Chain	Res	Type
46	BV	178	GLU
47	BW	47	PRO
49	BY	47	ASN
52	B2	35	GLU
53	B3	28	ARG
27	CC	33	LEU
27	CC	35	LYS
27	CC	198	ASN
28	CD	16	ARG
29	CE	60	SER
29	CE	73	ALA
29	CE	84	VAL
30	CF	84	LYS
30	CF	87	PRO
34	CJ	116	THR
34	CJ	149	PRO
36	CL	15	ARG
36	CL	17	LYS
36	CL	36	LYS
36	CL	46	LYS
37	CM	10	ARG
37	CM	21	THR
37	CM	133	ARG
38	CN	57	ARG
39	CO	59	LYS
39	CO	91	PRO
42	CR	53	GLU
45	CU	3	VAL
45	CU	7	VAL
45	CU	17	SER
46	CV	178	GLU
47	CW	47	PRO
49	CY	47	ASN
52	C2	35	GLU
53	C3	28	ARG
3	DC	15	THR
4	DD	137	SER
13	DM	106	ASN
14	DN	26	ARG
19	DS	28	LYS
20	DT	71	THR
22	DV	302	ILE

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Mol	Chain	Res	Type
2	AB	18	GLY
3	AC	47	LEU
4	AD	138	TYR
4	AD	168	ARG
6	AF	49	ALA
10	AJ	75	ILE
10	AJ	92	THR
12	AL	26	LEU
12	AL	82	VAL
13	AM	4	ILE
13	AM	63	THR
13	AM	116	THR
13	AM	117	VAL
19	AS	29	ARG
19	AS	31	ILE
22	AV	190	GLY
22	AV	294	GLY
22	AV	300	GLU
22	AV	323	ASP
27	BC	69	ARG
27	BC	70	TRP
27	BC	238	GLY
27	BC	260	ARG
28	BD	18	ASP
28	BD	86	PRO
28	BD	122	PHE
30	BF	14	GLU
30	BF	75	LYS
31	BG	92	ILE
31	BG	165	ALA
32	BH	10	GLU
32	BH	90	GLY
32	BH	91	SER
34	BJ	148	GLY
34	BJ	153	HIS
35	BK	26	LYS
36	BL	11	GLY
36	BL	31	ALA
36	BL	42	SER
36	BL	43	GLY
36	BL	59	LEU
36	BL	149	GLU

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Mol	Chain	Res	Type
37	BM	8	LYS
37	BM	18	LYS
38	BN	8	ARG
38	BN	13	HIS
39	BO	12	PHE
39	BO	44	LYS
39	BO	62	LYS
39	BO	90	GLY
40	BP	97	ALA
40	BP	115	ARG
41	BQ	24	TYR
42	BR	17	GLY
43	BS	110	LYS
45	BU	80	GLY
45	BU	96	ILE
46	BV	120	ILE
46	BV	168	GLU
46	BV	179	ASP
47	BW	13	GLY
48	BX	85	LEU
55	B5	35	GLN
27	CC	69	ARG
27	CC	70	TRP
27	CC	238	GLY
27	CC	260	ARG
28	CD	18	ASP
28	CD	86	PRO
28	CD	122	PHE
30	CF	14	GLU
30	CF	75	LYS
31	CG	92	ILE
31	CG	165	ALA
32	CH	10	GLU
32	CH	90	GLY
32	CH	91	SER
34	CJ	153	HIS
35	CK	26	LYS
36	CL	31	ALA
36	CL	42	SER
36	CL	43	GLY
36	CL	59	LEU
36	CL	148	LEU

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Mol	Chain	Res	Type
36	CL	149	GLU
37	CM	8	LYS
37	CM	18	LYS
38	CN	13	HIS
39	CO	12	PHE
39	CO	44	LYS
39	CO	62	LYS
39	CO	90	GLY
40	CP	97	ALA
40	CP	115	ARG
41	CQ	24	TYR
42	CR	17	GLY
42	CR	78	LYS
43	CS	110	LYS
45	CU	80	GLY
45	CU	96	ILE
46	CV	120	ILE
46	CV	168	GLU
46	CV	179	ASP
47	CW	13	GLY
48	CX	85	LEU
55	C5	35	GLN
2	DB	18	GLY
3	DC	47	LEU
4	DD	138	TYR
4	DD	168	ARG
6	DF	49	ALA
10	DJ	75	ILE
10	DJ	92	THR
12	DL	26	LEU
12	DL	82	VAL
13	DM	4	ILE
13	DM	63	THR
13	DM	116	THR
13	DM	117	VAL
19	DS	29	ARG
19	DS	31	ILE
22	DV	190	GLY
22	DV	294	GLY
22	DV	300	GLU
22	DV	323	ASP
2	AB	19	HIS

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Mol	Chain	Res	Type
2	AB	150	SER
4	AD	86	LYS
9	AI	24	GLY
10	AJ	32	ALA
12	AL	28	GLY
13	AM	101	GLN
17	AQ	11	VAL
18	AR	78	LEU
19	AS	27	GLU
20	AT	97	ALA
21	AU	9	ARG
22	AV	235	THR
22	AV	236	ASP
22	AV	292	GLN
22	AV	299	SER
27	BC	236	GLY
27	BC	239	ARG
28	BD	43	GLY
28	BD	173	VAL
30	BF	35	GLU
30	BF	86	MET
31	BG	21	PRO
32	BH	89	TYR
34	BJ	70	ALA
34	BJ	106	LYS
36	BL	10	PRO
36	BL	141	ALA
36	BL	148	LEU
37	BM	7	MET
37	BM	27	VAL
37	BM	81	VAL
37	BM	139	GLU
39	BO	35	ILE
39	BO	57	LYS
39	BO	95	HIS
40	BP	36	GLU
40	BP	38	ASN
40	BP	55	ASN
42	BR	78	LYS
42	BR	80	GLN
44	BT	4	ALA
45	BU	39	VAL

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Mol	Chain	Res	Type
46	BV	177	PRO
47	BW	32	ARG
48	BX	31	GLY
48	BX	87	PRO
51	B1	44	CYS
51	B1	54	LYS
53	B3	31	PRO
53	B3	46	HIS
53	B3	51	GLU
55	B5	3	LYS
55	B5	28	GLY
55	B5	29	LYS
55	B5	34	TRP
27	CC	236	GLY
27	CC	239	ARG
28	CD	43	GLY
28	CD	173	VAL
30	CF	35	GLU
30	CF	86	MET
31	CG	21	PRO
32	CH	89	TYR
34	CJ	70	ALA
34	CJ	148	GLY
36	CL	10	PRO
36	CL	11	GLY
36	CL	141	ALA
37	CM	7	MET
37	CM	27	VAL
37	CM	81	VAL
37	CM	139	GLU
38	CN	8	ARG
39	CO	35	ILE
39	CO	57	LYS
39	CO	95	HIS
40	CP	36	GLU
40	CP	38	ASN
40	CP	55	ASN
42	CR	80	GLN
44	CT	4	ALA
45	CU	39	VAL
46	CV	177	PRO
47	CW	32	ARG

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Mol	Chain	Res	Type
48	CX	31	GLY
48	CX	87	PRO
51	C1	44	CYS
51	C1	54	LYS
53	C3	31	PRO
53	C3	46	HIS
53	C3	51	GLU
55	C5	3	LYS
55	C5	28	GLY
55	C5	29	LYS
55	C5	34	TRP
2	DB	19	HIS
2	DB	150	SER
4	DD	86	LYS
9	DI	24	GLY
10	DJ	32	ALA
12	DL	28	GLY
13	DM	101	GLN
17	DQ	11	VAL
18	DR	78	LEU
19	DS	27	GLU
20	DT	97	ALA
21	DU	9	ARG
22	DV	235	THR
22	DV	236	ASP
22	DV	292	GLN
22	DV	299	SER
2	AB	15	VAL
2	AB	130	ARG
3	AC	127	ARG
4	AD	30	LYS
4	AD	40	PRO
7	AG	7	ALA
9	AI	58	ARG
10	AJ	54	PHE
10	AJ	57	LYS
11	AK	49	GLY
12	AL	49	SER
12	AL	50	ALA
14	AN	14	PRO
17	AQ	99	SER
27	BC	26	LYS

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Mol	Chain	Res	Type
27	BC	106	ILE
27	BC	197	GLY
29	BE	127	GLU
30	BF	142	PRO
32	BH	29	TYR
32	BH	143	SER
36	BL	25	SER
36	BL	58	THR
37	BM	136	ALA
39	BO	101	LEU
45	BU	90	LEU
45	BU	98	VAL
46	BV	80	ARG
46	BV	142	SER
47	BW	15	ASP
48	BX	9	GLY
48	BX	53	VAL
52	B2	45	VAL
53	B3	32	ASN
55	B5	20	GLY
27	CC	26	LYS
27	CC	197	GLY
29	CE	127	GLU
30	CF	142	PRO
32	CH	29	TYR
32	CH	143	SER
34	CJ	106	LYS
36	CL	25	SER
36	CL	58	THR
36	CL	61	ARG
37	CM	136	ALA
39	CO	101	LEU
45	CU	90	LEU
45	CU	98	VAL
46	CV	80	ARG
46	CV	142	SER
47	CW	15	ASP
47	CW	73	GLY
48	CX	9	GLY
48	CX	53	VAL
52	C2	45	VAL
53	C3	32	ASN

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Mol	Chain	Res	Type
55	C5	20	GLY
2	DB	15	VAL
2	DB	130	ARG
3	DC	127	ARG
4	DD	30	LYS
4	DD	40	PRO
7	DG	7	ALA
9	DI	58	ARG
10	DJ	54	PHE
10	DJ	57	LYS
11	DK	49	GLY
12	DL	49	SER
12	DL	50	ALA
14	DN	14	PRO
3	AC	60	ALA
3	AC	105	GLU
3	AC	129	ALA
3	AC	145	GLY
11	AK	90	GLY
14	AN	15	LYS
14	AN	18	VAL
16	AP	82	GLN
19	AS	11	VAL
20	AT	11	SER
27	BC	118	VAL
28	BD	51	PHE
31	BG	164	TYR
32	BH	12	LEU
34	BJ	88	LYS
34	BJ	155	ALA
34	BJ	157	ARG
35	BK	4	PRO
36	BL	32	THR
36	BL	90	ARG
37	BM	62	GLY
37	BM	134	ARG
37	BM	140	ALA
39	BO	61	ASN
40	BP	58	ASN
47	BW	73	GLY
48	BX	11	ARG
48	BX	84	GLY

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Mol	Chain	Res	Type
49	BY	17	SER
27	CC	106	ILE
27	CC	118	VAL
28	CD	51	PHE
31	CG	164	TYR
32	CH	12	LEU
34	CJ	88	LYS
34	CJ	155	ALA
34	CJ	157	ARG
36	CL	32	THR
36	CL	90	ARG
37	CM	62	GLY
37	CM	134	ARG
37	CM	140	ALA
39	CO	61	ASN
40	CP	2	ASN
48	CX	11	ARG
48	CX	84	GLY
49	CY	17	SER
3	DC	60	ALA
3	DC	105	GLU
3	DC	129	ALA
3	DC	145	GLY
11	DK	90	GLY
14	DN	15	LYS
14	DN	18	VAL
16	DP	82	GLN
17	DQ	99	SER
19	DS	11	VAL
20	DT	11	SER
2	AB	123	ALA
2	AB	228	GLY
3	AC	81	GLY
4	AD	171	GLY
5	AE	85	GLY
7	AG	130	GLY
8	AH	43	GLY
9	AI	100	GLY
20	AT	98	PRO
22	AV	115	THR
22	AV	208	GLU
22	AV	353	GLU

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Mol	Chain	Res	Type
27	BC	256	GLY
29	BE	61	GLY
36	BL	61	ARG
37	BM	25	ASP
40	BP	2	ASN
40	BP	22	PHE
42	BR	29	PRO
45	BU	18	GLY
46	BV	11	GLU
51	B1	50	THR
27	CC	256	GLY
29	CE	61	GLY
35	CK	4	PRO
37	CM	25	ASP
40	CP	22	PHE
40	CP	58	ASN
42	CR	29	PRO
45	CU	18	GLY
46	CV	11	GLU
51	C1	50	THR
2	DB	123	ALA
2	DB	228	GLY
3	DC	81	GLY
5	DE	85	GLY
7	DG	130	GLY
8	DH	43	GLY
9	DI	100	GLY
20	DT	98	PRO
22	DV	208	GLU
22	DV	353	GLU
5	AE	49	PRO
11	AK	118	GLY
27	BC	34	VAL
29	BE	89	VAL
30	BF	24	GLY
36	BL	47	ASP
36	BL	53	GLY
38	BN	58	GLY
46	BV	22	GLY
27	CC	34	VAL
27	CC	125	ILE
29	CE	131	GLY

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Mol	Chain	Res	Type
30	CF	24	GLY
31	CG	39	PRO
36	CL	47	ASP
36	CL	53	GLY
38	CN	58	GLY
4	DD	88	VAL
4	DD	171	GLY
5	DE	49	PRO
11	DK	118	GLY
3	AC	96	GLY
4	AD	88	VAL
27	BC	125	ILE
29	BE	131	GLY
31	BG	39	PRO
36	BL	19	VAL
29	CE	89	VAL
46	CV	22	GLY
3	DC	96	GLY
4	AD	146	ILE
37	BM	96	VAL
44	BT	86	GLY
36	CL	19	VAL
37	CM	96	VAL
44	CT	86	GLY
4	DD	146	ILE
3	AC	159	GLY
45	BU	82	PRO
47	BW	42	GLY
48	BX	58	ILE
29	CE	82	ILE
45	CU	82	PRO
47	CW	42	GLY
48	CX	58	ILE
3	DC	159	GLY
28	BD	59	VAL
29	BE	82	ILE
36	BL	63	PRO
37	BM	15	GLY
42	BR	16	PRO
28	CD	59	VAL
36	CL	63	PRO
37	CM	15	GLY

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Mol	Chain	Res	Type
42	CR	16	PRO

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	
2	AB	202/202 (100%)	193 (96%)	9 (4%)	38	83
2	DB	202/202 (100%)	193 (96%)	9 (4%)	38	83
3	AC	160/160 (100%)	154 (96%)	6 (4%)	44	86
3	DC	160/160 (100%)	154 (96%)	6 (4%)	44	86
4	AD	180/180 (100%)	171 (95%)	9 (5%)	34	80
4	DD	180/180 (100%)	171 (95%)	9 (5%)	34	80
5	AE	116/116 (100%)	106 (91%)	10 (9%)	15	60
5	DE	116/116 (100%)	106 (91%)	10 (9%)	15	60
6	AF	90/90 (100%)	86 (96%)	4 (4%)	39	84
6	DF	90/90 (100%)	86 (96%)	4 (4%)	39	84
7	AG	126/126 (100%)	126 (100%)	0	100	100
7	DG	126/126 (100%)	126 (100%)	0	100	100
8	AH	119/119 (100%)	114 (96%)	5 (4%)	40	84
8	DH	119/119 (100%)	114 (96%)	5 (4%)	40	84
9	AI	98/98 (100%)	92 (94%)	6 (6%)	26	75
9	DI	98/98 (100%)	92 (94%)	6 (6%)	26	75
10	AJ	88/88 (100%)	80 (91%)	8 (9%)	14	56
10	DJ	88/88 (100%)	80 (91%)	8 (9%)	14	56
11	AK	90/90 (100%)	87 (97%)	3 (3%)	50	89
11	DK	90/90 (100%)	87 (97%)	3 (3%)	50	89
12	AL	104/104 (100%)	95 (91%)	9 (9%)	15	59
12	DL	104/104 (100%)	95 (91%)	9 (9%)	15	59
13	AM	94/94 (100%)	88 (94%)	6 (6%)	25	73
13	DM	94/94 (100%)	88 (94%)	6 (6%)	25	73

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	AN	49/49 (100%)	46 (94%)	3 (6%)	26	75
14	DN	49/49 (100%)	46 (94%)	3 (6%)	26	75
15	AO	79/79 (100%)	75 (95%)	4 (5%)	33	80
15	DO	79/79 (100%)	75 (95%)	4 (5%)	33	80
16	AP	72/72 (100%)	69 (96%)	3 (4%)	40	84
16	DP	72/72 (100%)	69 (96%)	3 (4%)	40	84
17	AQ	94/94 (100%)	92 (98%)	2 (2%)	66	93
17	DQ	94/94 (100%)	92 (98%)	2 (2%)	66	93
18	AR	61/61 (100%)	59 (97%)	2 (3%)	50	89
18	DR	61/61 (100%)	59 (97%)	2 (3%)	50	89
19	AS	69/69 (100%)	60 (87%)	9 (13%)	6	35
19	DS	69/69 (100%)	60 (87%)	9 (13%)	6	35
20	AT	76/76 (100%)	73 (96%)	3 (4%)	43	85
20	DT	76/76 (100%)	73 (96%)	3 (4%)	43	85
21	AU	19/19 (100%)	19 (100%)	0	100	100
21	DU	19/19 (100%)	19 (100%)	0	100	100
22	AV	299/299 (100%)	271 (91%)	28 (9%)	13	53
22	DV	299/299 (100%)	272 (91%)	27 (9%)	14	57
27	BC	213/217 (98%)	194 (91%)	19 (9%)	14	58
27	CC	213/217 (98%)	195 (92%)	18 (8%)	15	60
28	BD	165/166 (99%)	154 (93%)	11 (7%)	23	72
28	CD	165/166 (99%)	153 (93%)	12 (7%)	20	68
29	BE	161/162 (99%)	155 (96%)	6 (4%)	45	86
29	CE	161/162 (99%)	155 (96%)	6 (4%)	45	86
30	BF	155/155 (100%)	144 (93%)	11 (7%)	21	69
30	CF	155/155 (100%)	144 (93%)	11 (7%)	21	69
31	BG	132/148 (89%)	125 (95%)	7 (5%)	32	79
31	CG	132/148 (89%)	125 (95%)	7 (5%)	32	79
32	BH	122/124 (98%)	116 (95%)	6 (5%)	35	81
32	CH	122/124 (98%)	116 (95%)	6 (5%)	35	81
33	BI	27/135 (20%)	26 (96%)	1 (4%)	45	86

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
33	CI	27/135 (20%)	26 (96%)	1 (4%)	45	86
34	BJ	116/118 (98%)	109 (94%)	7 (6%)	27	75
34	CJ	116/118 (98%)	109 (94%)	7 (6%)	27	75
35	BK	100/100 (100%)	94 (94%)	6 (6%)	27	75
35	CK	100/100 (100%)	94 (94%)	6 (6%)	27	75
36	BL	112/116 (97%)	98 (88%)	14 (12%)	7	37
36	CL	112/116 (97%)	98 (88%)	14 (12%)	7	37
37	BM	106/111 (96%)	98 (92%)	8 (8%)	19	67
37	CM	106/111 (96%)	98 (92%)	8 (8%)	19	67
38	BN	100/100 (100%)	96 (96%)	4 (4%)	42	85
38	CN	100/100 (100%)	96 (96%)	4 (4%)	42	85
39	BO	77/87 (88%)	71 (92%)	6 (8%)	18	65
39	CO	77/87 (88%)	71 (92%)	6 (8%)	18	65
40	BP	121/128 (94%)	110 (91%)	11 (9%)	14	56
40	CP	121/128 (94%)	110 (91%)	11 (9%)	14	56
41	BQ	92/92 (100%)	90 (98%)	2 (2%)	64	92
41	CQ	92/92 (100%)	90 (98%)	2 (2%)	64	92
42	BR	82/82 (100%)	76 (93%)	6 (7%)	20	68
42	CR	82/82 (100%)	76 (93%)	6 (7%)	20	68
43	BS	91/91 (100%)	87 (96%)	4 (4%)	39	84
43	CS	91/91 (100%)	87 (96%)	4 (4%)	39	84
44	BT	74/78 (95%)	69 (93%)	5 (7%)	22	71
44	CT	74/78 (95%)	69 (93%)	5 (7%)	22	71
45	BU	84/90 (93%)	78 (93%)	6 (7%)	21	69
45	CU	84/90 (93%)	78 (93%)	6 (7%)	21	69
46	BV	163/179 (91%)	159 (98%)	4 (2%)	60	91
46	CV	163/179 (91%)	159 (98%)	4 (2%)	60	91
47	BW	61/66 (92%)	57 (93%)	4 (7%)	24	73
47	CW	61/66 (92%)	57 (93%)	4 (7%)	24	73
48	BX	73/83 (88%)	64 (88%)	9 (12%)	7	38
48	CX	73/83 (88%)	64 (88%)	9 (12%)	7	38

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	BY	58/67 (87%)	53 (91%)	5 (9%)	15	60
49	CY	58/67 (87%)	52 (90%)	6 (10%)	10	48
50	BZ	51/51 (100%)	48 (94%)	3 (6%)	28	76
50	CZ	51/51 (100%)	48 (94%)	3 (6%)	28	76
51	B1	27/63 (43%)	25 (93%)	2 (7%)	20	67
51	C1	27/63 (43%)	25 (93%)	2 (7%)	20	67
52	B2	45/51 (88%)	44 (98%)	1 (2%)	64	92
52	C2	45/51 (88%)	44 (98%)	1 (2%)	64	92
53	B3	43/52 (83%)	39 (91%)	4 (9%)	13	54
53	C3	43/52 (83%)	39 (91%)	4 (9%)	13	54
54	B4	41/41 (100%)	37 (90%)	4 (10%)	12	51
54	C4	41/41 (100%)	37 (90%)	4 (10%)	12	51
55	B5	53/54 (98%)	52 (98%)	1 (2%)	69	94
55	C5	53/54 (98%)	52 (98%)	1 (2%)	69	94
All	All	10060/10584 (95%)	9448 (94%)	612 (6%)	26	75

All (612) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	27	LYS
2	AB	71	VAL
2	AB	75	LYS
2	AB	116	GLU
2	AB	117	GLU
2	AB	153	ARG
2	AB	154	LEU
2	AB	178	ARG
2	AB	221	LEU
3	AC	5	ILE
3	AC	27	LYS
3	AC	62	ASP
3	AC	79	ARG
3	AC	91	LEU
3	AC	196	LEU
4	AD	3	ARG
4	AD	15	GLU
4	AD	21	LEU

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Mol	Chain	Res	Type
4	AD	49	ARG
4	AD	73	ARG
4	AD	119	GLN
4	AD	122	ARG
4	AD	150	GLU
4	AD	166	LYS
5	AE	8	GLU
5	AE	12	LEU
5	AE	16	THR
5	AE	20	GLN
5	AE	47	LYS
5	AE	73	ASN
5	AE	76	ILE
5	AE	79	GLU
5	AE	137	GLU
5	AE	144	THR
6	AF	48	LEU
6	AF	59	TYR
6	AF	78	GLU
6	AF	100	ASN
8	AH	1	MET
8	AH	25	ASP
8	AH	30	ARG
8	AH	102	ARG
8	AH	136	GLU
9	AI	10	ARG
9	AI	19	LEU
9	AI	95	LYS
9	AI	99	LEU
9	AI	104	ARG
9	AI	121	ARG
10	AJ	16	LEU
10	AJ	22	LYS
10	AJ	55	LYS
10	AJ	62	HIS
10	AJ	74	ILE
10	AJ	80	LYS
10	AJ	92	THR
10	AJ	96	ILE
11	AK	26	ASN
11	AK	92	GLU
11	AK	117	ASN

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Mol	Chain	Res	Type
12	AL	19	LYS
12	AL	26	LEU
12	AL	32	ARG
12	AL	37	THR
12	AL	40	ARG
12	AL	52	ARG
12	AL	64	GLU
12	AL	81	VAL
12	AL	98	HIS
13	AM	58	GLU
13	AM	64	TRP
13	AM	87	TYR
13	AM	93	ARG
13	AM	106	ASN
13	AM	115	LYS
14	AN	6	LEU
14	AN	16	PHE
14	AN	27	CYS
15	AO	5	LYS
15	AO	17	ARG
15	AO	44	LYS
15	AO	82	ILE
16	AP	27	LYS
16	AP	82	GLN
16	AP	83	GLU
17	AQ	38	ARG
17	AQ	52	LYS
18	AR	42	ARG
18	AR	84	LYS
19	AS	5	LEU
19	AS	6	LYS
19	AS	7	LYS
19	AS	27	GLU
19	AS	29	ARG
19	AS	37	ARG
19	AS	44	MET
19	AS	53	ASN
19	AS	70	LYS
20	AT	26	ASN
20	AT	62	LEU
20	AT	93	GLU
22	AV	7	ARG

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Mol	Chain	Res	Type
22	AV	8	LEU
22	AV	38	TYR
22	AV	43	GLU
22	AV	86	GLU
22	AV	150	THR
22	AV	152	LEU
22	AV	158	VAL
22	AV	159	VAL
22	AV	198	THR
22	AV	204	LYS
22	AV	212	LEU
22	AV	234	THR
22	AV	248	ILE
22	AV	249	MET
22	AV	254	ASP
22	AV	259	ILE
22	AV	263	GLU
22	AV	269	LEU
22	AV	297	GLU
22	AV	300	GLU
22	AV	313	THR
22	AV	317	ILE
22	AV	321	THR
22	AV	324	LEU
22	AV	332	LEU
22	AV	343	ASP
22	AV	351	LEU
27	BC	5	LYS
27	BC	10	THR
27	BC	28	GLU
27	BC	32	SER
27	BC	33	LEU
27	BC	49	ILE
27	BC	50	THR
27	BC	78	LYS
27	BC	95	LEU
27	BC	106	ILE
27	BC	150	LYS
27	BC	157	ARG
27	BC	166	GLN
27	BC	192	THR
27	BC	237	GLU

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Mol	Chain	Res	Type
27	BC	242	ARG
27	BC	244	ARG
27	BC	259	THR
27	BC	261	LYS
28	BD	9	VAL
28	BD	52	LEU
28	BD	54	GLN
28	BD	57	LYS
28	BD	92	THR
28	BD	119	ARG
28	BD	132	HIS
28	BD	173	VAL
28	BD	184	VAL
28	BD	192	ASN
28	BD	195	LEU
29	BE	8	GLN
29	BE	9	ILE
29	BE	78	ILE
29	BE	83	PHE
29	BE	95	ARG
29	BE	164	ARG
30	BF	18	GLU
30	BF	33	ARG
30	BF	34	LEU
30	BF	47	LYS
30	BF	74	LYS
30	BF	86	MET
30	BF	90	LEU
30	BF	98	ARG
30	BF	107	LEU
30	BF	115	ARG
30	BF	155	MET
31	BG	13	LYS
31	BG	23	ARG
31	BG	86	GLU
31	BG	101	ARG
31	BG	105	LEU
31	BG	123	PHE
31	BG	162	ILE
32	BH	5	LEU
32	BH	6	LEU
32	BH	67	ARG

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Mol	Chain	Res	Type
32	BH	73	GLU
32	BH	77	LEU
32	BH	109	ILE
33	BI	3	ASN
34	BJ	57	LEU
34	BJ	64	ASP
34	BJ	71	MET
34	BJ	94	ILE
34	BJ	117	HIS
34	BJ	120	ARG
34	BJ	161	LEU
35	BK	19	ILE
35	BK	25	LEU
35	BK	77	ILE
35	BK	87	ILE
35	BK	104	ARG
35	BK	122	LEU
36	BL	13	ASN
36	BL	15	ARG
36	BL	35	HIS
36	BL	50	ARG
36	BL	57	THR
36	BL	61	ARG
36	BL	62	LEU
36	BL	67	MET
36	BL	83	VAL
36	BL	105	LEU
36	BL	106	LEU
36	BL	111	ARG
36	BL	147	LEU
36	BL	148	LEU
37	BM	6	ARG
37	BM	13	GLN
37	BM	14	ARG
37	BM	22	LYS
37	BM	45	GLN
37	BM	55	VAL
37	BM	60	ARG
37	BM	135	ASP
38	BN	9	LYS
38	BN	10	LEU
38	BN	79	LEU

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Mol	Chain	Res	Type
38	BN	104	ARG
39	BO	18	ILE
39	BO	30	ARG
39	BO	42	ASP
39	BO	44	LYS
39	BO	61	ASN
39	BO	93	LYS
40	BP	41	ARG
40	BP	58	ASN
40	BP	59	THR
40	BP	78	LEU
40	BP	86	ILE
40	BP	87	ASP
40	BP	98	LYS
40	BP	99	LEU
40	BP	108	ARG
40	BP	112	ARG
40	BP	113	LYS
41	BQ	79	PHE
41	BQ	92	ARG
42	BR	12	TYR
42	BR	13	ARG
42	BR	18	LEU
42	BR	25	LEU
42	BR	80	GLN
42	BR	99	ILE
43	BS	11	ARG
43	BS	69	LEU
43	BS	70	TYR
43	BS	77	ASP
44	BT	28	PHE
44	BT	65	ARG
44	BT	68	ARG
44	BT	75	ASP
44	BT	80	ILE
45	BU	4	LYS
45	BU	6	HIS
45	BU	8	LYS
45	BU	31	LEU
45	BU	76	CYS
45	BU	97	ARG
46	BV	50	GLN

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Mol	Chain	Res	Type
46	BV	72	ARG
46	BV	94	GLU
46	BV	148	ASP
47	BW	21	LEU
47	BW	25	ARG
47	BW	64	ASP
47	BW	80	HIS
48	BX	18	ILE
48	BX	20	ARG
48	BX	40	ARG
48	BX	45	ASN
48	BX	46	LEU
48	BX	73	LEU
48	BX	82	LEU
48	BX	89	GLU
48	BX	95	LEU
49	BY	2	LYS
49	BY	35	LEU
49	BY	37	PHE
49	BY	56	GLN
49	BY	59	ARG
50	BZ	1	MET
50	BZ	10	LYS
50	BZ	46	ASN
51	B1	46	ASN
51	B1	49	GLU
52	B2	3	LYS
53	B3	11	LEU
53	B3	29	ASN
53	B3	34	LEU
53	B3	42	TRP
54	B4	4	THR
54	B4	8	ASN
54	B4	12	ARG
54	B4	19	ARG
55	B5	30	ARG
27	CC	5	LYS
27	CC	10	THR
27	CC	28	GLU
27	CC	32	SER
27	CC	33	LEU
27	CC	49	ILE

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Mol	Chain	Res	Type
27	CC	50	THR
27	CC	78	LYS
27	CC	106	ILE
27	CC	150	LYS
27	CC	157	ARG
27	CC	166	GLN
27	CC	192	THR
27	CC	237	GLU
27	CC	242	ARG
27	CC	244	ARG
27	CC	259	THR
27	CC	261	LYS
28	CD	9	VAL
28	CD	52	LEU
28	CD	54	GLN
28	CD	57	LYS
28	CD	86	PRO
28	CD	92	THR
28	CD	119	ARG
28	CD	132	HIS
28	CD	173	VAL
28	CD	184	VAL
28	CD	192	ASN
28	CD	195	LEU
29	CE	8	GLN
29	CE	9	ILE
29	CE	78	ILE
29	CE	83	PHE
29	CE	95	ARG
29	CE	164	ARG
30	CF	18	GLU
30	CF	33	ARG
30	CF	34	LEU
30	CF	47	LYS
30	CF	74	LYS
30	CF	86	MET
30	CF	90	LEU
30	CF	98	ARG
30	CF	107	LEU
30	CF	115	ARG
30	CF	155	MET
31	CG	13	LYS

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Mol	Chain	Res	Type
31	CG	23	ARG
31	CG	86	GLU
31	CG	101	ARG
31	CG	105	LEU
31	CG	123	PHE
31	CG	162	ILE
32	CH	5	LEU
32	CH	6	LEU
32	CH	67	ARG
32	CH	73	GLU
32	CH	77	LEU
32	CH	109	ILE
33	CI	3	ASN
34	CJ	57	LEU
34	CJ	64	ASP
34	CJ	71	MET
34	CJ	94	ILE
34	CJ	117	HIS
34	CJ	120	ARG
34	CJ	161	LEU
35	CK	19	ILE
35	CK	25	LEU
35	CK	77	ILE
35	CK	87	ILE
35	CK	104	ARG
35	CK	122	LEU
36	CL	13	ASN
36	CL	15	ARG
36	CL	35	HIS
36	CL	50	ARG
36	CL	57	THR
36	CL	61	ARG
36	CL	62	LEU
36	CL	67	MET
36	CL	83	VAL
36	CL	105	LEU
36	CL	106	LEU
36	CL	111	ARG
36	CL	147	LEU
36	CL	148	LEU
37	CM	6	ARG
37	CM	13	GLN

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Mol	Chain	Res	Type
37	CM	14	ARG
37	CM	22	LYS
37	CM	45	GLN
37	CM	55	VAL
37	CM	60	ARG
37	CM	135	ASP
38	CN	9	LYS
38	CN	10	LEU
38	CN	79	LEU
38	CN	104	ARG
39	CO	18	ILE
39	CO	30	ARG
39	CO	42	ASP
39	CO	44	LYS
39	CO	61	ASN
39	CO	93	LYS
40	CP	41	ARG
40	CP	58	ASN
40	CP	59	THR
40	CP	78	LEU
40	CP	86	ILE
40	CP	87	ASP
40	CP	98	LYS
40	CP	99	LEU
40	CP	108	ARG
40	CP	112	ARG
40	CP	113	LYS
41	CQ	79	PHE
41	CQ	92	ARG
42	CR	12	TYR
42	CR	13	ARG
42	CR	18	LEU
42	CR	25	LEU
42	CR	80	GLN
42	CR	99	ILE
43	CS	11	ARG
43	CS	69	LEU
43	CS	70	TYR
43	CS	77	ASP
44	CT	28	PHE
44	CT	65	ARG
44	CT	68	ARG

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Mol	Chain	Res	Type
44	CT	75	ASP
44	CT	80	ILE
45	CU	4	LYS
45	CU	6	HIS
45	CU	8	LYS
45	CU	31	LEU
45	CU	76	CYS
45	CU	97	ARG
46	CV	50	GLN
46	CV	72	ARG
46	CV	94	GLU
46	CV	148	ASP
47	CW	21	LEU
47	CW	25	ARG
47	CW	64	ASP
47	CW	80	HIS
48	CX	18	ILE
48	CX	20	ARG
48	CX	40	ARG
48	CX	45	ASN
48	CX	46	LEU
48	CX	73	LEU
48	CX	82	LEU
48	CX	89	GLU
48	CX	95	LEU
49	CY	2	LYS
49	CY	17	SER
49	CY	35	LEU
49	CY	37	PHE
49	CY	56	GLN
49	CY	59	ARG
50	CZ	1	MET
50	CZ	10	LYS
50	CZ	46	ASN
51	C1	46	ASN
51	C1	49	GLU
52	C2	3	LYS
53	C3	11	LEU
53	C3	29	ASN
53	C3	34	LEU
53	C3	42	TRP
54	C4	4	THR

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Mol	Chain	Res	Type
54	C4	8	ASN
54	C4	12	ARG
54	C4	19	ARG
55	C5	30	ARG
2	DB	27	LYS
2	DB	71	VAL
2	DB	75	LYS
2	DB	116	GLU
2	DB	117	GLU
2	DB	153	ARG
2	DB	154	LEU
2	DB	178	ARG
2	DB	221	LEU
3	DC	5	ILE
3	DC	27	LYS
3	DC	62	ASP
3	DC	79	ARG
3	DC	91	LEU
3	DC	196	LEU
4	DD	3	ARG
4	DD	15	GLU
4	DD	21	LEU
4	DD	49	ARG
4	DD	73	ARG
4	DD	119	GLN
4	DD	122	ARG
4	DD	150	GLU
4	DD	166	LYS
5	DE	8	GLU
5	DE	12	LEU
5	DE	16	THR
5	DE	20	GLN
5	DE	47	LYS
5	DE	73	ASN
5	DE	76	ILE
5	DE	79	GLU
5	DE	137	GLU
5	DE	144	THR
6	DF	48	LEU
6	DF	59	TYR
6	DF	78	GLU
6	DF	100	ASN

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Mol	Chain	Res	Type
8	DH	1	MET
8	DH	25	ASP
8	DH	30	ARG
8	DH	102	ARG
8	DH	136	GLU
9	DI	10	ARG
9	DI	19	LEU
9	DI	95	LYS
9	DI	99	LEU
9	DI	104	ARG
9	DI	121	ARG
10	DJ	16	LEU
10	DJ	22	LYS
10	DJ	55	LYS
10	DJ	62	HIS
10	DJ	74	ILE
10	DJ	80	LYS
10	DJ	92	THR
10	DJ	96	ILE
11	DK	26	ASN
11	DK	92	GLU
11	DK	117	ASN
12	DL	19	LYS
12	DL	26	LEU
12	DL	32	ARG
12	DL	37	THR
12	DL	40	ARG
12	DL	52	ARG
12	DL	64	GLU
12	DL	81	VAL
12	DL	98	HIS
13	DM	58	GLU
13	DM	64	TRP
13	DM	87	TYR
13	DM	93	ARG
13	DM	106	ASN
13	DM	115	LYS
14	DN	6	LEU
14	DN	16	PHE
14	DN	27	CYS
15	DO	5	LYS
15	DO	17	ARG

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Mol	Chain	Res	Type
15	DO	44	LYS
15	DO	82	ILE
16	DP	27	LYS
16	DP	82	GLN
16	DP	83	GLU
17	DQ	38	ARG
17	DQ	52	LYS
18	DR	42	ARG
18	DR	84	LYS
19	DS	5	LEU
19	DS	6	LYS
19	DS	7	LYS
19	DS	27	GLU
19	DS	29	ARG
19	DS	37	ARG
19	DS	44	MET
19	DS	53	ASN
19	DS	70	LYS
20	DT	26	ASN
20	DT	62	LEU
20	DT	93	GLU
22	DV	7	ARG
22	DV	8	LEU
22	DV	38	TYR
22	DV	43	GLU
22	DV	86	GLU
22	DV	150	THR
22	DV	152	LEU
22	DV	158	VAL
22	DV	159	VAL
22	DV	198	THR
22	DV	204	LYS
22	DV	212	LEU
22	DV	234	THR
22	DV	248	ILE
22	DV	249	MET
22	DV	254	ASP
22	DV	259	ILE
22	DV	263	GLU
22	DV	269	LEU
22	DV	297	GLU
22	DV	300	GLU

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Mol	Chain	Res	Type
22	DV	313	THR
22	DV	317	ILE
22	DV	324	LEU
22	DV	332	LEU
22	DV	343	ASP
22	DV	351	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (247) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	16	HIS
2	AB	25	ASN
2	AB	37	ASN
2	AB	146	GLN
2	AB	212	GLN
3	AC	28	GLN
3	AC	69	HIS
3	AC	139	GLN
3	AC	170	GLN
4	AD	77	ASN
4	AD	116	GLN
5	AE	20	GLN
5	AE	73	ASN
5	AE	78	HIS
6	AF	27	GLN
6	AF	32	ASN
6	AF	100	ASN
7	AG	13	GLN
7	AG	28	ASN
7	AG	106	GLN
7	AG	153	HIS
8	AH	82	HIS
9	AI	23	ASN
9	AI	124	GLN
10	AJ	13	HIS
10	AJ	78	ASN
10	AJ	84	GLN
11	AK	38	ASN
11	AK	117	ASN
12	AL	7	ASN
12	AL	48	ASN
12	AL	74	HIS

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Mol	Chain	Res	Type
13	AM	101	GLN
15	AO	37	ASN
15	AO	46	HIS
16	AP	82	GLN
17	AQ	16	GLN
19	AS	14	HIS
19	AS	47	HIS
19	AS	53	ASN
19	AS	57	HIS
20	AT	26	ASN
22	AV	148	HIS
22	AV	315	HIS
27	BC	58	HIS
27	BC	87	ASN
27	BC	116	GLN
27	BC	126	GLN
27	BC	143	HIS
27	BC	166	GLN
27	BC	186	HIS
27	BC	227	ASN
27	BC	231	HIS
27	BC	233	HIS
28	BD	60	ASN
28	BD	66	HIS
28	BD	143	ASN
28	BD	169	ASN
28	BD	192	ASN
29	BE	31	HIS
29	BE	67	GLN
29	BE	69	HIS
29	BE	75	HIS
29	BE	160	ASN
30	BF	40	ASN
30	BF	58	GLN
30	BF	108	ASN
30	BF	121	ASN
31	BG	147	ASN
31	BG	158	HIS
32	BH	133	HIS
33	BI	3	ASN
33	BI	6	ASN
34	BJ	79	ASN

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Mol	Chain	Res	Type
34	BJ	154	GLN
35	BK	3	GLN
36	BL	13	ASN
36	BL	27	HIS
36	BL	35	HIS
36	BL	81	GLN
37	BM	12	GLN
37	BM	13	GLN
37	BM	45	GLN
38	BN	13	HIS
38	BN	16	HIS
38	BN	53	HIS
38	BN	61	HIS
38	BN	71	GLN
38	BN	91	GLN
39	BO	61	ASN
40	BP	58	ASN
40	BP	79	HIS
40	BP	84	GLN
40	BP	90	GLN
41	BQ	49	HIS
42	BR	80	GLN
43	BS	34	ASN
43	BS	57	ASN
43	BS	102	HIS
44	BT	31	HIS
44	BT	41	ASN
44	BT	55	ASN
44	BT	87	GLN
45	BU	6	HIS
46	BV	118	GLN
47	BW	35	ASN
47	BW	70	GLN
48	BX	16	ASN
48	BX	19	GLN
48	BX	45	ASN
48	BX	56	GLN
48	BX	66	HIS
49	BY	47	ASN
49	BY	56	GLN
50	BZ	19	GLN
50	BZ	46	ASN

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Mol	Chain	Res	Type
51	B1	46	ASN
52	B2	43	HIS
53	B3	29	ASN
54	B4	8	ASN
55	B5	31	HIS
55	B5	33	ASN
27	CC	58	HIS
27	CC	87	ASN
27	CC	116	GLN
27	CC	126	GLN
27	CC	143	HIS
27	CC	166	GLN
27	CC	186	HIS
27	CC	198	ASN
27	CC	227	ASN
27	CC	231	HIS
27	CC	233	HIS
28	CD	60	ASN
28	CD	66	HIS
28	CD	143	ASN
28	CD	169	ASN
28	CD	192	ASN
29	CE	31	HIS
29	CE	67	GLN
29	CE	69	HIS
29	CE	75	HIS
29	CE	160	ASN
30	CF	40	ASN
30	CF	58	GLN
30	CF	108	ASN
30	CF	121	ASN
31	CG	147	ASN
31	CG	158	HIS
32	CH	133	HIS
33	CI	3	ASN
33	CI	6	ASN
34	CJ	79	ASN
34	CJ	154	GLN
35	CK	3	GLN
36	CL	13	ASN
36	CL	27	HIS
36	CL	35	HIS

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Mol	Chain	Res	Type
36	CL	81	GLN
37	CM	12	GLN
37	CM	13	GLN
37	CM	45	GLN
38	CN	13	HIS
38	CN	16	HIS
38	CN	53	HIS
38	CN	61	HIS
38	CN	71	GLN
38	CN	91	GLN
39	CO	61	ASN
40	CP	58	ASN
40	CP	79	HIS
40	CP	84	GLN
40	CP	90	GLN
41	CQ	49	HIS
42	CR	80	GLN
43	CS	34	ASN
43	CS	57	ASN
43	CS	102	HIS
44	CT	31	HIS
44	CT	41	ASN
44	CT	55	ASN
44	CT	87	GLN
45	CU	6	HIS
46	CV	118	GLN
47	CW	35	ASN
47	CW	70	GLN
48	CX	16	ASN
48	CX	19	GLN
48	CX	45	ASN
48	CX	56	GLN
48	CX	66	HIS
49	CY	47	ASN
49	CY	56	GLN
50	CZ	19	GLN
50	CZ	46	ASN
51	C1	46	ASN
52	C2	43	HIS
53	C3	29	ASN
54	C4	8	ASN
55	C5	31	HIS

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Mol	Chain	Res	Type
55	C5	33	ASN
2	DB	16	HIS
2	DB	25	ASN
2	DB	37	ASN
2	DB	146	GLN
2	DB	212	GLN
3	DC	28	GLN
3	DC	69	HIS
3	DC	139	GLN
3	DC	170	GLN
4	DD	77	ASN
4	DD	116	GLN
5	DE	20	GLN
5	DE	73	ASN
5	DE	78	HIS
6	DF	27	GLN
6	DF	32	ASN
6	DF	100	ASN
7	DG	13	GLN
7	DG	28	ASN
7	DG	106	GLN
7	DG	153	HIS
8	DH	82	HIS
9	DI	23	ASN
9	DI	117	HIS
9	DI	124	GLN
10	DJ	13	HIS
10	DJ	78	ASN
10	DJ	84	GLN
11	DK	38	ASN
11	DK	117	ASN
12	DL	7	ASN
12	DL	48	ASN
12	DL	74	HIS
13	DM	101	GLN
15	DO	37	ASN
15	DO	46	HIS
16	DP	82	GLN
17	DQ	16	GLN
19	DS	14	HIS
19	DS	47	HIS
19	DS	53	ASN

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Mol	Chain	Res	Type
19	DS	57	HIS
20	DT	26	ASN
22	DV	148	HIS
22	DV	189	GLN
22	DV	315	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1504 (99%)	198 (13%)	14 (0%)
1	DA	1503/1504 (99%)	198 (13%)	14 (0%)
23	AW	76/77 (98%)	9 (11%)	0
23	DW	76/77 (98%)	9 (11%)	0
24	AX	6/7 (85%)	1 (16%)	0
25	BA	2878/2879 (99%)	429 (14%)	18 (0%)
25	CA	2878/2879 (99%)	430 (14%)	19 (0%)
26	BB	118/119 (99%)	12 (10%)	0
26	CB	118/119 (99%)	12 (10%)	0
56	DX	8/9 (88%)	2 (25%)	0
All	All	9164/9174 (99%)	1300 (14%)	65 (0%)

All (1300) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	9	G
1	AA	22	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	59	A
1	AA	120	A
1	AA	121	C
1	AA	122	G
1	AA	129(B)	G
1	AA	131	C
1	AA	169	C
1	AA	182	U
1	AA	191(A)	G

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Mol	Chain	Res	Type
1	AA	195	A
1	AA	201	C
1	AA	210	U
1	AA	216	G
1	AA	220	G
1	AA	233	C
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	281	G
1	AA	289	G
1	AA	309	G
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	345	C
1	AA	346	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	358	U
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	387	U
1	AA	397	A
1	AA	398	C
1	AA	403	C
1	AA	412	A
1	AA	414	A
1	AA	422	C
1	AA	423	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	434	U
1	AA	479	C
1	AA	481	G
1	AA	485	G
1	AA	496	A

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Mol	Chain	Res	Type
1	AA	497	U
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	521	G
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	547	A
1	AA	550	G
1	AA	561	U
1	AA	562	C
1	AA	568	G
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	596	C
1	AA	653	A
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	724	G
1	AA	730	G
1	AA	731	G
1	AA	774	G
1	AA	785	G
1	AA	793	U
1	AA	794	A
1	AA	804	U
1	AA	805	C
1	AA	816	A
1	AA	817	C
1	AA	819	A
1	AA	821	G
1	AA	828	A
1	AA	829	G
1	AA	833	U
1	AA	841	U
1	AA	842	C

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Mol	Chain	Res	Type
1	AA	843	U
1	AA	859	A
1	AA	885	G
1	AA	902	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	976	G
1	AA	977	A
1	AA	980	C
1	AA	992	U
1	AA	993	G
1	AA	1004	A
1	AA	1045	C
1	AA	1065	U
1	AA	1068	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1117	G
1	AA	1118	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1151	A
1	AA	1152	A
1	AA	1159	U
1	AA	1196	U
1	AA	1197	G

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Mol	Chain	Res	Type
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1223	C
1	AA	1225	A
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1260	C
1	AA	1278	U
1	AA	1280	A
1	AA	1281	U
1	AA	1287	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1335	C
1	AA	1347	G
1	AA	1353	G
1	AA	136(B)	C
1	AA	1363	A
1	AA	1364	U
1	AA	1378	C
1	AA	1400	C
1	AA	1401	G
1	AA	1419	G
1	AA	1442	G
1	AA	1443	G
1	AA	1446	A
1	AA	1451	A
1	AA	1452	C
1	AA	1453	G
1	AA	1487	G

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Mol	Chain	Res	Type
1	AA	1497	G
1	AA	1499	A
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1520	G
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
23	AW	8	U
23	AW	17(A)	U
23	AW	18	G
23	AW	19	G
23	AW	20	U
23	AW	21	A
23	AW	47	U
23	AW	48	C
23	AW	76	A
24	AX	16	A
25	BA	10	G
25	BA	15	G
25	BA	23	G
25	BA	34	C
25	BA	35	G
25	BA	46	C
25	BA	49	A
25	BA	51	G
25	BA	72	U
25	BA	73	A
25	BA	74	A
25	BA	75	G
25	BA	84	A
25	BA	88	G
25	BA	102	G
25	BA	118	A
25	BA	120	U
25	BA	125	G
25	BA	138	G

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Mol	Chain	Res	Type
25	BA	140	A
25	BA	162	U
25	BA	196	A
25	BA	197	A
25	BA	199	A
25	BA	201	C
25	BA	205	G
25	BA	215	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	228	A
25	BA	229	A
25	BA	230	U
25	BA	238	C
25	BA	245	G
25	BA	248	G
25	BA	250	G
25	BA	252	G
25	BA	269	U
25	BA	270(K)	G
25	BA	270(M)	U
25	BA	270(N)	U
25	BA	270(Q)	C
25	BA	270(R)	C
25	BA	271	G
25	BA	274	G
25	BA	275	G
25	BA	276	A
25	BA	279	C
25	BA	283	A
25	BA	302	C
25	BA	324	A
25	BA	329	G
25	BA	330	A
25	BA	332	A
25	BA	333	G
25	BA	343	C
25	BA	352	G
25	BA	353	G
25	BA	364	C
25	BA	372	G

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Mol	Chain	Res	Type
25	BA	386	G
25	BA	405	U
25	BA	406	G
25	BA	411	G
25	BA	444	C
25	BA	457	A
25	BA	467	G
25	BA	470	A
25	BA	481	G
25	BA	505	A
25	BA	508	G
25	BA	509	C
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	556	G
25	BA	563	G
25	BA	573	G
25	BA	575	A
25	BA	603	A
25	BA	615	G
25	BA	616	A
25	BA	617	G
25	BA	619	G
25	BA	620	G
25	BA	627	A
25	BA	631	A
25	BA	637	A
25	BA	645	C
25	BA	646	A
25	BA	654	U
25	BA	655	A
25	BA	668	G
25	BA	671	C
25	BA	686	G
25	BA	695	G
25	BA	717	G
25	BA	730	C
25	BA	749	C
25	BA	759	G
25	BA	762	U

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Mol	Chain	Res	Type
25	BA	764	A
25	BA	765	G
25	BA	775	G
25	BA	776	G
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	787	U
25	BA	792	G
25	BA	797	C
25	BA	800	A
25	BA	805	G
25	BA	809	G
25	BA	812	C
25	BA	819	A
25	BA	827	U
25	BA	828	U
25	BA	832	G
25	BA	843	G
25	BA	846	C
25	BA	859	G
25	BA	886	C
25	BA	890	A
25	BA	896	A
25	BA	897	C
25	BA	910	A
25	BA	917	A
25	BA	932	G
25	BA	941	A
25	BA	945	A
25	BA	946	G
25	BA	948	G
25	BA	959	A
25	BA	961	C
25	BA	962	G
25	BA	973	A
25	BA	974(A)	G
25	BA	974(B)	C
25	BA	975	G
25	BA	983	A
25	BA	996	A
25	BA	999	U

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Mol	Chain	Res	Type
25	BA	1000	A
25	BA	1003	G
25	BA	1009	A
25	BA	1012	U
25	BA	1013	C
25	BA	1022	G
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1033	U
25	BA	1047	G
25	BA	1057	A
25	BA	1060	U
25	BA	1062	G
25	BA	1069	A
25	BA	1070	A
25	BA	1073	A
25	BA	1079	C
25	BA	1088	A
25	BA	1112	G
25	BA	1129	A
25	BA	1131	G
25	BA	1135	C
25	BA	1136	G
25	BA	1139	G
25	BA	1142	U
25	BA	114(B)	A
25	BA	1155	A
25	BA	1164	G
25	BA	1174	A
25	BA	1175	U
25	BA	1176	G
25	BA	1190	G
25	BA	1205	U
25	BA	1210	A
25	BA	1211	U
25	BA	1227	G
25	BA	1237	A
25	BA	1248	G
25	BA	1250	G
25	BA	1253	A
25	BA	1256	G

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Mol	Chain	Res	Type
25	BA	1264	G
25	BA	1265	A
25	BA	1271	G
25	BA	1272	A
25	BA	1286	A
25	BA	1300	U
25	BA	1301	A
25	BA	1302	A
25	BA	1314	C
25	BA	1329	U
25	BA	1332	G
25	BA	1343	G
25	BA	1349	A
25	BA	1359	A
25	BA	1365	A
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1386	C
25	BA	1395	A
25	BA	1396	U
25	BA	1416	G
25	BA	1417	C
25	BA	1420	U
25	BA	1428	C
25	BA	144(B)	A
25	BA	1449	G
25	BA	1453	A
25	BA	1454	U
25	BA	1460	A
25	BA	1467	C
25	BA	1473	G
25	BA	1483	G
25	BA	1490	A
25	BA	1493	C
25	BA	1494	A
25	BA	1495	A
25	BA	1497	U
25	BA	1505	C
25	BA	1510	A
25	BA	1538	G
25	BA	1542	G

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Mol	Chain	Res	Type
25	BA	1544	C
25	BA	1545	A
25	BA	1558	A
25	BA	1559	G
25	BA	1560	G
25	BA	1569	A
25	BA	1578	U
25	BA	1579	A
25	BA	1585	C
25	BA	1586	A
25	BA	1603	A
25	BA	1608	A
25	BA	1609	A
25	BA	1615	C
25	BA	1617	C
25	BA	1618	A
25	BA	1640	C
25	BA	1644	C
25	BA	1648	C
25	BA	1651	G
25	BA	1674	G
25	BA	1679	U
25	BA	1694	C
25	BA	1695	G
25	BA	1696	G
25	BA	1756	G
25	BA	1761	C
25	BA	1763	G
25	BA	1764	G
25	BA	1773	A
25	BA	1787	A
25	BA	1791	A
25	BA	1800	C
25	BA	1801	G
25	BA	1816	G
25	BA	1819	A
25	BA	1829	A
25	BA	1831	G
25	BA	1838	C
25	BA	1839	G
25	BA	1847	A
25	BA	1848	A

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Mol	Chain	Res	Type
25	BA	1858	G
25	BA	1888	G
25	BA	1889	A
25	BA	1906	G
25	BA	1914	C
25	BA	1929	G
25	BA	1936	A
25	BA	1937	A
25	BA	1938	A
25	BA	1939	U
25	BA	1940	U
25	BA	1955	U
25	BA	1963	U
25	BA	1964	G
25	BA	1966	A
25	BA	1967	C
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1980	G
25	BA	1982	C
25	BA	1992	G
25	BA	1993	U
25	BA	1997	G
25	BA	2023	G
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2034	U
25	BA	2036	C
25	BA	2037	G
25	BA	2043	C
25	BA	2046	G
25	BA	2055	C
25	BA	2056	G
25	BA	2060	A
25	BA	2061	G
25	BA	2066	C
25	BA	2069	G
25	BA	2072	G
25	BA	2080	G
25	BA	2115	G

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Mol	Chain	Res	Type
25	BA	2119	A
25	BA	2120	G
25	BA	2126	A
25	BA	2131	G
25	BA	2133	G
25	BA	2159	G
25	BA	2173	A
25	BA	2198	A
25	BA	2211	G
25	BA	2212	A
25	BA	2215	G
25	BA	2225	A
25	BA	2226	C
25	BA	2238	G
25	BA	2239	G
25	BA	2268	A
25	BA	2275	C
25	BA	2283	C
25	BA	2287	A
25	BA	2289	G
25	BA	2304	G
25	BA	2305	A
25	BA	2306	C
25	BA	2307	G
25	BA	2309	A
25	BA	2310	A
25	BA	2320	A
25	BA	2322	A
25	BA	2325	G
25	BA	2334	G
25	BA	2336	A
25	BA	2345	G
25	BA	2346	A
25	BA	2347	C
25	BA	2381	C
25	BA	2383	G
25	BA	2385	C
25	BA	2389	G
25	BA	2390	U
25	BA	2394	C
25	BA	2402	C
25	BA	2406	U

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Mol	Chain	Res	Type
25	BA	2420	C
25	BA	2422	A
25	BA	2423	U
25	BA	2425	A
25	BA	2427	C
25	BA	2428	G
25	BA	2429	G
25	BA	2430	A
25	BA	2431	U
25	BA	2432	A
25	BA	2435	A
25	BA	2439	A
25	BA	2441	C
25	BA	2448	A
25	BA	2469	A
25	BA	2476	A
25	BA	2478	A
25	BA	2491	U
25	BA	2492	U
25	BA	2496	C
25	BA	2498	C
25	BA	2502	G
25	BA	2505	G
25	BA	2518	A
25	BA	2529	G
25	BA	2542	A
25	BA	2543	G
25	BA	2554	U
25	BA	2566	A
25	BA	2567	G
25	BA	2570	G
25	BA	2572	A
25	BA	2573	C
25	BA	2585	U
25	BA	2589	A
25	BA	2599	G
25	BA	2602	A
25	BA	2609	U
25	BA	2611	U
25	BA	2612	C
25	BA	2615	U
25	BA	2626	C

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Mol	Chain	Res	Type
25	BA	2630	G
25	BA	2665	A
25	BA	2667	C
25	BA	2689	U
25	BA	2690	C
25	BA	2702	U
25	BA	2712	U
25	BA	712(B)	A
25	BA	2713	A
25	BA	2714	G
25	BA	2733	A
25	BA	2757	A
25	BA	2765	A
25	BA	2766	G
25	BA	2778	A
25	BA	2779	U
25	BA	2781	A
25	BA	2790	A
25	BA	2791	C
25	BA	2797	U
25	BA	2805	G
25	BA	2808	U
25	BA	2818	G
25	BA	2820	A
25	BA	2821	A
25	BA	2824	C
25	BA	2835	A
25	BA	2850	A
25	BA	2872	G
25	BA	2880	C
25	BA	2892	A
25	BA	2894	G
26	BB	15	A
26	BB	16	G
26	BB	17	C
26	BB	25	A
26	BB	42	C
26	BB	44	G
26	BB	47	C
26	BB	73	A
26	BB	77	U
26	BB	88	C

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Mol	Chain	Res	Type
26	BB	90	C
26	BB	109	G
25	CA	10	G
25	CA	15	G
25	CA	23	G
25	CA	34	C
25	CA	35	G
25	CA	46	C
25	CA	49	A
25	CA	51	G
25	CA	72	U
25	CA	73	A
25	CA	74	A
25	CA	75	G
25	CA	84	A
25	CA	88	G
25	CA	102	G
25	CA	118	A
25	CA	120	U
25	CA	125	G
25	CA	138	G
25	CA	140	A
25	CA	162	U
25	CA	196	A
25	CA	197	A
25	CA	199	A
25	CA	201	C
25	CA	205	G
25	CA	215	G
25	CA	216	A
25	CA	221	A
25	CA	222	A
25	CA	228	A
25	CA	229	A
25	CA	230	U
25	CA	238	C
25	CA	245	G
25	CA	248	G
25	CA	250	G
25	CA	252	G
25	CA	269	U
25	CA	270(K)	G

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Mol	Chain	Res	Type
25	CA	270(M)	U
25	CA	270(N)	U
25	CA	270(Q)	C
25	CA	270(R)	C
25	CA	271	G
25	CA	274	G
25	CA	275	G
25	CA	276	A
25	CA	279	C
25	CA	283	A
25	CA	302	C
25	CA	324	A
25	CA	329	G
25	CA	330	A
25	CA	332	A
25	CA	333	G
25	CA	343	C
25	CA	352	G
25	CA	353	G
25	CA	364	C
25	CA	372	G
25	CA	386	G
25	CA	405	U
25	CA	406	G
25	CA	411	G
25	CA	444	C
25	CA	457	A
25	CA	467	G
25	CA	470	A
25	CA	481	G
25	CA	505	A
25	CA	508	G
25	CA	509	C
25	CA	530	G
25	CA	531	C
25	CA	532	A
25	CA	533	G
25	CA	556	G
25	CA	563	G
25	CA	573	G
25	CA	575	A
25	CA	603	A

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Mol	Chain	Res	Type
25	CA	615	G
25	CA	616	A
25	CA	617	G
25	CA	619	G
25	CA	620	G
25	CA	627	A
25	CA	631	A
25	CA	637	A
25	CA	645	C
25	CA	646	A
25	CA	654	U
25	CA	655	A
25	CA	668	G
25	CA	671	C
25	CA	686	G
25	CA	695	G
25	CA	717	G
25	CA	730	C
25	CA	749	C
25	CA	759	G
25	CA	762	U
25	CA	764	A
25	CA	765	G
25	CA	774	A
25	CA	775	G
25	CA	776	G
25	CA	782	A
25	CA	784	A
25	CA	785	G
25	CA	787	U
25	CA	792	G
25	CA	797	C
25	CA	800	A
25	CA	805	G
25	CA	809	G
25	CA	812	C
25	CA	819	A
25	CA	827	U
25	CA	828	U
25	CA	832	G
25	CA	843	G
25	CA	846	C

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Mol	Chain	Res	Type
25	CA	859	G
25	CA	886	C
25	CA	890	A
25	CA	896	A
25	CA	897	C
25	CA	910	A
25	CA	917	A
25	CA	932	G
25	CA	941	A
25	CA	945	A
25	CA	946	G
25	CA	948	G
25	CA	959	A
25	CA	961	C
25	CA	962	G
25	CA	973	A
25	CA	974(A)	G
25	CA	974(B)	C
25	CA	975	G
25	CA	983	A
25	CA	996	A
25	CA	999	U
25	CA	1000	A
25	CA	1003	G
25	CA	1009	A
25	CA	1012	U
25	CA	1013	C
25	CA	1022	G
25	CA	1023	U
25	CA	1025	G
25	CA	1026	U
25	CA	1033	U
25	CA	1047	G
25	CA	1057	A
25	CA	1060	U
25	CA	1062	G
25	CA	1069	A
25	CA	1070	A
25	CA	1073	A
25	CA	1079	C
25	CA	1088	A
25	CA	1112	G

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Mol	Chain	Res	Type
25	CA	1129	A
25	CA	1131	G
25	CA	1135	C
25	CA	1136	G
25	CA	1139	G
25	CA	1142	U
25	CA	114(B)	A
25	CA	1155	A
25	CA	1164	G
25	CA	1174	A
25	CA	1175	U
25	CA	1176	G
25	CA	1190	G
25	CA	1205	U
25	CA	1210	A
25	CA	1211	U
25	CA	1227	G
25	CA	1237	A
25	CA	1248	G
25	CA	1250	G
25	CA	1253	A
25	CA	1256	G
25	CA	1264	G
25	CA	1265	A
25	CA	1271	G
25	CA	1272	A
25	CA	1286	A
25	CA	1300	U
25	CA	1301	A
25	CA	1302	A
25	CA	1314	C
25	CA	1329	U
25	CA	1332	G
25	CA	1343	G
25	CA	1349	A
25	CA	1359	A
25	CA	1365	A
25	CA	1380	G
25	CA	1384	A
25	CA	1385	G
25	CA	1386	C
25	CA	1395	A

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Mol	Chain	Res	Type
25	CA	1396	U
25	CA	1416	G
25	CA	1417	C
25	CA	1420	U
25	CA	1428	C
25	CA	144(B)	A
25	CA	1449	G
25	CA	1453	A
25	CA	1454	U
25	CA	1460	A
25	CA	1467	C
25	CA	1473	G
25	CA	1483	G
25	CA	1490	A
25	CA	1493	C
25	CA	1494	A
25	CA	1495	A
25	CA	1497	U
25	CA	1505	C
25	CA	1510	A
25	CA	1538	G
25	CA	1542	G
25	CA	1544	C
25	CA	1545	A
25	CA	1558	A
25	CA	1559	G
25	CA	1560	G
25	CA	1569	A
25	CA	1578	U
25	CA	1579	A
25	CA	1585	C
25	CA	1586	A
25	CA	1603	A
25	CA	1608	A
25	CA	1609	A
25	CA	1615	C
25	CA	1617	C
25	CA	1618	A
25	CA	1640	C
25	CA	1644	C
25	CA	1648	C
25	CA	1651	G

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Mol	Chain	Res	Type
25	CA	1674	G
25	CA	1679	U
25	CA	1694	C
25	CA	1695	G
25	CA	1696	G
25	CA	1756	G
25	CA	1761	C
25	CA	1763	G
25	CA	1764	G
25	CA	1773	A
25	CA	1787	A
25	CA	1791	A
25	CA	1800	C
25	CA	1801	G
25	CA	1816	G
25	CA	1819	A
25	CA	1829	A
25	CA	1831	G
25	CA	1838	C
25	CA	1839	G
25	CA	1847	A
25	CA	1848	A
25	CA	1858	G
25	CA	1888	G
25	CA	1889	A
25	CA	1906	G
25	CA	1914	C
25	CA	1929	G
25	CA	1936	A
25	CA	1937	A
25	CA	1938	A
25	CA	1939	U
25	CA	1940	U
25	CA	1955	U
25	CA	1963	U
25	CA	1964	G
25	CA	1966	A
25	CA	1967	C
25	CA	1970	A
25	CA	1971	A
25	CA	1972	A
25	CA	1980	G

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Mol	Chain	Res	Type
25	CA	1982	C
25	CA	1992	G
25	CA	1993	U
25	CA	1997	G
25	CA	2023	G
25	CA	2031	A
25	CA	2032	G
25	CA	2033	A
25	CA	2034	U
25	CA	2036	C
25	CA	2037	G
25	CA	2043	C
25	CA	2046	G
25	CA	2055	C
25	CA	2056	G
25	CA	2060	A
25	CA	2061	G
25	CA	2066	C
25	CA	2069	G
25	CA	2072	G
25	CA	2080	G
25	CA	2115	G
25	CA	2119	A
25	CA	2120	G
25	CA	2126	A
25	CA	2131	G
25	CA	2133	G
25	CA	2159	G
25	CA	2173	A
25	CA	2198	A
25	CA	2211	G
25	CA	2212	A
25	CA	2215	G
25	CA	2225	A
25	CA	2226	C
25	CA	2238	G
25	CA	2239	G
25	CA	2268	A
25	CA	2275	C
25	CA	2283	C
25	CA	2287	A
25	CA	2289	G

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Mol	Chain	Res	Type
25	CA	2304	G
25	CA	2305	A
25	CA	2306	C
25	CA	2307	G
25	CA	2309	A
25	CA	2310	A
25	CA	2320	A
25	CA	2322	A
25	CA	2325	G
25	CA	2334	G
25	CA	2336	A
25	CA	2345	G
25	CA	2346	A
25	CA	2347	C
25	CA	2381	C
25	CA	2383	G
25	CA	2385	C
25	CA	2389	G
25	CA	2390	U
25	CA	2394	C
25	CA	2402	C
25	CA	2406	U
25	CA	2420	C
25	CA	2422	A
25	CA	2423	U
25	CA	2425	A
25	CA	2427	C
25	CA	2428	G
25	CA	2429	G
25	CA	2430	A
25	CA	2431	U
25	CA	2432	A
25	CA	2435	A
25	CA	2439	A
25	CA	2441	C
25	CA	2448	A
25	CA	2469	A
25	CA	2476	A
25	CA	2478	A
25	CA	2491	U
25	CA	2492	U
25	CA	2496	C

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Mol	Chain	Res	Type
25	CA	2498	C
25	CA	2502	G
25	CA	2505	G
25	CA	2518	A
25	CA	2529	G
25	CA	2542	A
25	CA	2543	G
25	CA	2554	U
25	CA	2566	A
25	CA	2567	G
25	CA	2570	G
25	CA	2572	A
25	CA	2573	C
25	CA	2585	U
25	CA	2589	A
25	CA	2599	G
25	CA	2602	A
25	CA	2609	U
25	CA	2611	U
25	CA	2612	C
25	CA	2615	U
25	CA	2626	C
25	CA	2630	G
25	CA	2665	A
25	CA	2667	C
25	CA	2689	U
25	CA	2690	C
25	CA	2702	U
25	CA	2712	U
25	CA	712(B)	A
25	CA	2713	A
25	CA	2714	G
25	CA	2733	A
25	CA	2757	A
25	CA	2765	A
25	CA	2766	G
25	CA	2778	A
25	CA	2779	U
25	CA	2781	A
25	CA	2790	A
25	CA	2791	C
25	CA	2797	U

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Mol	Chain	Res	Type
25	CA	2805	G
25	CA	2808	U
25	CA	2818	G
25	CA	2820	A
25	CA	2821	A
25	CA	2824	C
25	CA	2835	A
25	CA	2850	A
25	CA	2872	G
25	CA	2880	C
25	CA	2892	A
25	CA	2894	G
26	CB	15	A
26	CB	16	G
26	CB	17	C
26	CB	25	A
26	CB	42	C
26	CB	44	G
26	CB	47	C
26	CB	73	A
26	CB	77	U
26	CB	88	C
26	CB	90	C
26	CB	109	G
1	DA	6	G
1	DA	9	G
1	DA	22	G
1	DA	32	A
1	DA	39	G
1	DA	47	C
1	DA	48	C
1	DA	51	A
1	DA	59	A
1	DA	120	A
1	DA	121	C
1	DA	122	G
1	DA	129(B)	G
1	DA	131	C
1	DA	169	C
1	DA	182	U
1	DA	191(A)	G
1	DA	195	A

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Mol	Chain	Res	Type
1	DA	201	C
1	DA	210	U
1	DA	216	G
1	DA	220	G
1	DA	233	C
1	DA	244	U
1	DA	247	G
1	DA	251	G
1	DA	266	G
1	DA	267	C
1	DA	281	G
1	DA	289	G
1	DA	309	G
1	DA	328	C
1	DA	329	A
1	DA	332	G
1	DA	345	C
1	DA	346	G
1	DA	352	C
1	DA	353	A
1	DA	354	G
1	DA	358	U
1	DA	367	U
1	DA	372	C
1	DA	373	A
1	DA	387	U
1	DA	397	A
1	DA	398	C
1	DA	403	C
1	DA	412	A
1	DA	414	A
1	DA	422	C
1	DA	423	G
1	DA	428	G
1	DA	429	U
1	DA	430	A
1	DA	434	U
1	DA	479	C
1	DA	481	G
1	DA	485	G
1	DA	496	A
1	DA	497	U

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Mol	Chain	Res	Type
1	DA	511	C
1	DA	512	U
1	DA	518	C
1	DA	521	G
1	DA	527	G
1	DA	531	U
1	DA	532	A
1	DA	533	A
1	DA	534	U
1	DA	547	A
1	DA	550	G
1	DA	561	U
1	DA	562	C
1	DA	568	G
1	DA	572	A
1	DA	573	A
1	DA	576	G
1	DA	577	G
1	DA	596	C
1	DA	653	A
1	DA	665	A
1	DA	687	A
1	DA	688	G
1	DA	724	G
1	DA	730	G
1	DA	731	G
1	DA	774	G
1	DA	785	G
1	DA	793	U
1	DA	794	A
1	DA	804	U
1	DA	805	C
1	DA	816	A
1	DA	817	C
1	DA	819	A
1	DA	821	G
1	DA	828	A
1	DA	829	G
1	DA	833	U
1	DA	841	U
1	DA	842	C
1	DA	843	U

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Mol	Chain	Res	Type
1	DA	859	A
1	DA	885	G
1	DA	902	G
1	DA	914	A
1	DA	926	G
1	DA	927	G
1	DA	934	C
1	DA	935	A
1	DA	960	U
1	DA	961	U
1	DA	969	A
1	DA	971	G
1	DA	974	A
1	DA	976	G
1	DA	977	A
1	DA	980	C
1	DA	992	U
1	DA	993	G
1	DA	1004	A
1	DA	1045	C
1	DA	1065	U
1	DA	1068	G
1	DA	1094	G
1	DA	1095	U
1	DA	1101	A
1	DA	1117	G
1	DA	1118	C
1	DA	1124	G
1	DA	1125	U
1	DA	1126	U
1	DA	1129	C
1	DA	1130	A
1	DA	1131	G
1	DA	1137	C
1	DA	1138	G
1	DA	1139	G
1	DA	1151	A
1	DA	1152	A
1	DA	1159	U
1	DA	1196	U
1	DA	1197	G
1	DA	1212	U

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Mol	Chain	Res	Type
1	DA	1213	A
1	DA	1214	C
1	DA	1223	C
1	DA	1225	A
1	DA	1238	A
1	DA	1240	U
1	DA	1241	G
1	DA	1256	A
1	DA	1257	U
1	DA	1258	G
1	DA	1260	C
1	DA	1278	U
1	DA	1280	A
1	DA	1281	U
1	DA	1287	A
1	DA	1300	G
1	DA	1301	U
1	DA	1302	U
1	DA	1305	G
1	DA	1317	C
1	DA	1320	C
1	DA	1322	C
1	DA	1323	G
1	DA	1331	G
1	DA	1335	C
1	DA	1347	G
1	DA	1353	G
1	DA	136(B)	C
1	DA	1363	A
1	DA	1364	U
1	DA	1378	C
1	DA	1400	C
1	DA	1401	G
1	DA	1419	G
1	DA	1442	G
1	DA	1443	G
1	DA	1446	A
1	DA	1451	A
1	DA	1452	C
1	DA	1453	G
1	DA	1487	G
1	DA	1497	G

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Mol	Chain	Res	Type
1	DA	1499	A
1	DA	1502	A
1	DA	1503	A
1	DA	1504	G
1	DA	1505	G
1	DA	1506	U
1	DA	1507	A
1	DA	1517	G
1	DA	1520	G
1	DA	1528	U
1	DA	1529	G
1	DA	1530	G
23	DW	8	U
23	DW	17(A)	U
23	DW	18	G
23	DW	19	G
23	DW	20	U
23	DW	21	A
23	DW	47	U
23	DW	48	C
23	DW	76	A
56	DX	16	A
56	DX	22	A

All (65) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	243	A
1	AA	266	G
1	AA	328	C
1	AA	366	C
1	AA	428	G
1	AA	429	U
1	AA	484	G
1	AA	533	A
1	AA	687	A
1	AA	1064	G
1	AA	1067	A
1	AA	1300	G
1	AA	1498	U
1	AA	1504	G
25	BA	74	A

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Mol	Chain	Res	Type
25	BA	332	A
25	BA	616	A
25	BA	1210	A
25	BA	1285	G
25	BA	1311	G
25	BA	1379	A
25	BA	1427	A
25	BA	1558	A
25	BA	1678	G
25	BA	1830	C
25	BA	1937	A
25	BA	2033	A
25	BA	2225	A
25	BA	2428	G
25	BA	2491	U
25	BA	2610	C
25	BA	2689	U
25	CA	74	A
25	CA	332	A
25	CA	616	A
25	CA	774	A
25	CA	1210	A
25	CA	1285	G
25	CA	1311	G
25	CA	1379	A
25	CA	1427	A
25	CA	1558	A
25	CA	1678	G
25	CA	1830	C
25	CA	1937	A
25	CA	2033	A
25	CA	2225	A
25	CA	2428	G
25	CA	2491	U
25	CA	2610	C
25	CA	2689	U
1	DA	243	A
1	DA	266	G
1	DA	328	C
1	DA	366	C
1	DA	428	G
1	DA	429	U

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Mol	Chain	Res	Type
1	DA	484	G
1	DA	533	A
1	DA	687	A
1	DA	1064	G
1	DA	1067	A
1	DA	1300	G
1	DA	1498	U
1	DA	1504	G

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 414 ligands modelled in this entry, 414 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.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	AA	1504/1504 (100%)	0.48	169 (11%) 6 5	99, 172, 294, 492	0
1	DA	1504/1504 (100%)	0.46	190 (12%) 4 4	92, 174, 297, 495	0
2	AB	234/234 (100%)	2.53	120 (51%) 0 1	141, 239, 344, 376	0
2	DB	234/234 (100%)	1.95	90 (38%) 1 1	122, 210, 294, 383	0
3	AC	206/206 (100%)	0.32	10 (4%) 28 15	116, 224, 305, 369	0
3	DC	206/206 (100%)	0.31	15 (7%) 15 9	104, 199, 279, 314	0
4	AD	208/208 (100%)	1.62	68 (32%) 1 1	103, 180, 260, 329	0
4	DD	208/208 (100%)	1.20	55 (26%) 1 2	100, 192, 286, 330	0
5	AE	151/151 (100%)	0.27	10 (6%) 18 10	115, 194, 274, 320	0
5	DE	151/151 (100%)	0.34	14 (9%) 9 7	112, 173, 263, 312	0
6	AF	101/101 (100%)	0.49	12 (11%) 5 5	121, 210, 285, 343	0
6	DF	101/101 (100%)	0.79	17 (16%) 2 3	99, 169, 251, 279	0
7	AG	155/155 (100%)	0.79	31 (20%) 2 2	115, 218, 295, 339	0
7	DG	155/155 (100%)	0.41	21 (13%) 4 4	123, 203, 287, 375	0
8	AH	138/138 (100%)	1.24	39 (28%) 1 1	97, 193, 268, 342	0
8	DH	138/138 (100%)	1.13	34 (24%) 1 2	110, 185, 269, 354	0
9	AI	127/127 (100%)	3.56	85 (66%) 0 1	114, 236, 311, 356	0
9	DI	127/127 (100%)	2.88	73 (57%) 0 1	112, 221, 309, 373	0
10	AJ	98/98 (100%)	1.47	34 (34%) 1 1	149, 231, 311, 408	0
10	DJ	98/98 (100%)	1.83	41 (41%) 1 1	135, 215, 306, 339	0
11	AK	119/119 (100%)	0.79	25 (21%) 1 2	92, 173, 278, 341	0
11	DK	119/119 (100%)	0.37	15 (12%) 4 4	107, 164, 241, 317	0
12	AL	124/124 (100%)	0.82	24 (19%) 2 2	94, 147, 231, 327	0
12	DL	124/124 (100%)	0.81	22 (17%) 2 2	77, 151, 233, 395	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å²)	Q<0.9
13	AM	117/117 (100%)	2.07	49 (41%)	1	1	142, 235, 332, 396	0
13	DM	117/117 (100%)	2.05	53 (45%)	1	1	121, 218, 300, 332	0
14	AN	60/60 (100%)	2.82	30 (50%)	0	1	135, 207, 347, 354	0
14	DN	60/60 (100%)	2.63	24 (40%)	1	1	112, 186, 256, 288	0
15	AO	88/88 (100%)	1.34	24 (27%)	1	2	113, 177, 253, 318	0
15	DO	88/88 (100%)	1.46	31 (35%)	1	1	76, 170, 222, 312	0
16	AP	83/83 (100%)	3.85	66 (79%)	0	1	96, 168, 232, 363	0
16	DP	83/83 (100%)	4.53	65 (78%)	0	1	119, 196, 272, 331	0
17	AQ	99/99 (100%)	1.58	37 (37%)	1	1	114, 162, 240, 267	0
17	DQ	99/99 (100%)	1.19	27 (27%)	1	2	111, 176, 266, 362	0
18	AR	70/70 (100%)	1.45	25 (35%)	1	1	122, 206, 275, 318	0
18	DR	70/70 (100%)	0.80	11 (15%)	3	3	96, 176, 241, 287	0
19	AS	78/78 (100%)	2.42	40 (51%)	0	1	132, 234, 327, 378	0
19	DS	78/78 (100%)	1.63	33 (42%)	1	1	143, 217, 319, 367	0
20	AT	99/99 (100%)	1.13	29 (29%)	1	1	103, 160, 245, 342	0
20	DT	99/99 (100%)	3.35	64 (64%)	0	1	125, 200, 284, 326	0
21	AU	24/24 (100%)	10.70	24 (100%)	0	0	148, 244, 303, 312	0
21	DU	24/24 (100%)	8.04	24 (100%)	0	0	131, 228, 310, 325	0
22	AV	354/354 (100%)	0.54	43 (12%)	5	5	75, 180, 316, 397	0
22	DV	354/354 (100%)	0.66	42 (11%)	5	5	60, 172, 340, 419	0
23	AW	77/77 (100%)	-0.31	2 (2%)	53	30	117, 172, 228, 282	0
23	DW	77/77 (100%)	-0.15	1 (1%)	74	47	114, 152, 205, 327	0
24	AX	7/7 (100%)	1.36	2 (28%)	1	1	131, 140, 172, 230	0
25	BA	2879/2879 (100%)	0.21	221 (7%)	13	8	66, 133, 337, 509	0
25	CA	2879/2879 (100%)	0.32	243 (8%)	11	8	63, 130, 320, 567	0
26	BB	119/119 (100%)	0.25	13 (10%)	6	6	132, 211, 322, 386	0
26	CB	119/119 (100%)	0.35	17 (14%)	3	3	139, 208, 302, 358	0
27	BC	271/275 (98%)	1.14	64 (23%)	1	2	52, 127, 184, 306	0
27	CC	271/275 (98%)	1.20	70 (25%)	1	2	44, 112, 187, 280	0
28	BD	204/206 (99%)	1.17	61 (29%)	1	1	75, 135, 219, 307	0
28	CD	204/206 (99%)	1.32	62 (30%)	1	1	77, 158, 268, 353	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
29	BE	202/205 (98%)	0.62	29 (14%)	3	3	73, 148, 237, 316	0
29	CE	202/205 (98%)	1.21	55 (27%)	1	2	54, 127, 207, 321	0
30	BF	181/181 (100%)	1.49	56 (30%)	1	1	116, 229, 328, 395	0
30	CF	181/181 (100%)	1.15	47 (25%)	1	2	132, 225, 320, 387	0
31	BG	159/180 (88%)	0.91	34 (21%)	1	2	110, 232, 345, 379	0
31	CG	159/180 (88%)	0.79	27 (16%)	2	2	103, 186, 271, 358	0
32	BH	145/148 (97%)	1.94	60 (41%)	1	1	105, 224, 381, 471	0
32	CH	145/148 (97%)	0.96	29 (20%)	2	2	119, 232, 379, 479	0
33	BI	32/173 (18%)	4.09	29 (90%)	0	1	161, 262, 354, 447	0
33	CI	32/173 (18%)	2.46	17 (53%)	0	1	151, 286, 381, 418	0
34	BJ	137/139 (98%)	2.03	63 (45%)	1	1	100, 160, 238, 322	0
34	CJ	137/139 (98%)	1.44	45 (32%)	1	1	76, 163, 235, 340	0
35	BK	122/122 (100%)	0.32	4 (3%)	44	25	64, 129, 174, 262	0
35	CK	122/122 (100%)	1.21	29 (23%)	1	2	75, 147, 215, 267	0
36	BL	146/150 (97%)	1.76	49 (33%)	1	1	68, 167, 254, 359	0
36	CL	146/150 (97%)	1.35	40 (27%)	1	2	43, 165, 270, 378	0
37	BM	136/141 (96%)	1.77	50 (36%)	1	1	80, 165, 256, 385	0
37	CM	136/141 (96%)	1.79	54 (39%)	1	1	60, 157, 256, 354	0
38	BN	117/117 (100%)	1.47	38 (32%)	1	1	79, 132, 239, 320	0
38	CN	117/117 (100%)	2.58	70 (59%)	0	1	82, 150, 252, 325	0
39	BO	98/111 (88%)	2.84	50 (51%)	0	1	106, 207, 288, 378	0
39	CO	98/111 (88%)	2.38	47 (47%)	1	1	115, 197, 296, 380	0
40	BP	137/146 (93%)	1.78	52 (37%)	1	1	67, 151, 253, 327	0
40	CP	137/146 (93%)	1.97	55 (40%)	1	1	93, 164, 281, 335	0
41	BQ	116/116 (100%)	2.18	58 (50%)	0	1	77, 154, 235, 363	0
41	CQ	116/116 (100%)	1.08	26 (22%)	1	2	66, 147, 252, 322	0
42	BR	101/101 (100%)	0.82	22 (21%)	1	2	94, 183, 280, 337	0
42	CR	101/101 (100%)	0.50	14 (13%)	4	3	51, 163, 271, 316	0
43	BS	112/112 (100%)	0.54	8 (7%)	16	9	71, 120, 201, 275	0
43	CS	112/112 (100%)	0.99	30 (26%)	1	2	63, 131, 191, 266	0
44	BT	92/96 (95%)	1.47	27 (29%)	1	1	68, 140, 191, 272	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	CT	92/96 (95%)	2.40	51 (55%) 0 1	64, 132, 204, 258	0
45	BU	100/109 (91%)	3.18	74 (74%) 0 1	91, 177, 297, 414	0
45	CU	100/109 (91%)	1.93	42 (42%) 1 1	76, 157, 321, 358	0
46	BV	188/206 (91%)	0.64	21 (11%) 6 5	118, 210, 291, 347	0
46	CV	188/206 (91%)	0.99	36 (19%) 2 2	89, 206, 296, 359	0
47	BW	76/84 (90%)	1.55	25 (32%) 1 1	94, 154, 226, 291	0
47	CW	76/84 (90%)	1.64	28 (36%) 1 1	86, 147, 208, 248	0
48	BX	88/98 (89%)	0.58	8 (9%) 9 7	64, 141, 224, 317	0
48	CX	88/98 (89%)	0.67	15 (17%) 2 2	64, 139, 229, 290	0
49	BY	62/72 (86%)	1.61	19 (30%) 1 1	97, 176, 273, 392	0
49	CY	62/72 (86%)	1.74	22 (35%) 1 1	81, 148, 293, 400	0
50	BZ	59/59 (100%)	2.70	37 (62%) 0 1	102, 179, 276, 480	0
50	CZ	59/59 (100%)	1.35	12 (20%) 1 2	82, 158, 257, 334	0
51	B1	30/71 (42%)	1.41	8 (26%) 1 2	182, 257, 349, 389	0
51	C1	30/71 (42%)	1.13	5 (16%) 2 3	183, 270, 342, 359	0
52	B2	52/59 (88%)	0.34	2 (3%) 38 22	78, 155, 263, 316	0
52	C2	52/59 (88%)	0.54	7 (13%) 4 4	80, 150, 280, 315	0
53	B3	44/54 (81%)	13.36	43 (97%) 0 0	180, 285, 354, 375	0
53	C3	44/54 (81%)	10.00	43 (97%) 0 0	158, 285, 358, 393	0
54	B4	48/48 (100%)	0.65	4 (8%) 11 8	62, 103, 179, 239	0
54	C4	48/48 (100%)	0.67	6 (12%) 5 4	65, 95, 156, 236	0
55	B5	63/64 (98%)	3.27	48 (76%) 0 1	72, 135, 204, 249	0
55	C5	63/64 (98%)	3.67	53 (84%) 0 1	81, 138, 215, 262	0
56	DX	9/9 (100%)	0.92	2 (22%) 1 2	125, 132, 226, 255	0
All	All	21276/21926 (97%)	0.99	4536 (21%) 1 2	43, 165, 303, 567	0

All (4536) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
53	B3	13	CYS	37.2
53	B3	22	ALA	29.5
53	B3	40	CYS	28.8
1	AA	86	U	27.1
1	AA	85	U	23.6

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Mol	Chain	Res	Type	RSRZ
1	AA	84	U	22.8
53	B3	51	GLU	21.3
53	C3	50	ARG	21.3
53	B3	43	CYS	21.3
53	C3	49	HIS	20.1
32	BH	85	GLU	19.6
53	C3	18	ARG	19.4
53	B3	16	CYS	19.3
53	B3	44	ARG	19.3
25	CA	2132	U	19.2
53	B3	21	TYR	19.2
53	B3	49	HIS	19.2
21	AU	18	TYR	18.7
53	C3	13	CYS	18.4
25	CA	2120	G	18.0
53	B3	50	ARG	17.8
25	CA	2151	G	17.4
37	CM	140	ALA	17.3
53	B3	24	GLU	17.2
21	AU	12	LYS	17.1
53	C3	43	CYS	16.9
53	B3	12	GLU	16.8
53	C3	40	CYS	16.4
22	DV	30	ARG	16.4
53	B3	18	ARG	16.3
53	B3	20	ASN	16.0
25	CA	2179	C	15.4
53	B3	15	GLU	15.4
1	AA	1286	A	15.3
53	B3	35	GLU	15.2
53	C3	25	LYS	15.2
53	C3	19	ARG	15.2
21	DU	18	TYR	15.1
22	DV	31	TYR	15.0
53	B3	39	TYR	15.0
53	B3	14	THR	14.9
53	B3	41	PRO	14.9
53	B3	23	THR	14.9
53	C3	21	TYR	14.9
53	C3	35	GLU	14.8
53	C3	24	GLU	14.7
21	AU	17	THR	14.7

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Mol	Chain	Res	Type	RSRZ
53	B3	19	ARG	14.6
21	AU	5	ASP	14.5
21	AU	11	GLY	14.4
21	AU	21	TYR	14.4
30	CF	25	TYR	14.0
21	DU	17	THR	13.6
25	BA	2146	C	13.5
53	C3	11	LEU	13.1
9	DI	15	ALA	13.1
25	CA	2180	U	13.1
53	C3	51	GLU	13.0
25	CA	615	G	12.8
21	DU	24	ARG	12.8
53	C3	41	PRO	12.7
53	B3	26	ASN	12.7
53	B3	25	LYS	12.6
21	AU	25	LYS	12.6
25	BA	2147	G	12.6
25	CA	2112	G	12.6
53	C3	36	LEU	12.5
53	C3	37	ARG	12.4
25	BA	1084	A	12.4
53	B3	38	LYS	12.4
25	BA	2120	G	12.3
16	AP	1	MET	12.3
21	AU	7	ARG	12.2
25	CA	2136	C	12.2
9	AI	13	ALA	12.1
25	BA	2132	U	12.1
16	DP	8	ARG	12.1
53	B3	37	ARG	12.0
25	CA	2121	G	12.0
9	AI	65	VAL	11.9
53	C3	16	CYS	11.9
16	DP	1	MET	11.9
37	BM	140	ALA	11.8
25	CA	2131	G	11.8
39	BO	94	TYR	11.8
1	AA	82	U	11.7
53	B3	42	TRP	11.6
21	AU	22	ARG	11.6
32	BH	84	GLY	11.5

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Mol	Chain	Res	Type	RSRZ
53	B3	46	HIS	11.4
25	BA	2118	U	11.4
53	C3	15	GLU	11.4
21	AU	8	THR	11.3
25	CA	2116	G	11.3
25	CA	2188	C	11.3
14	DN	15	LYS	11.1
53	B3	17	LYS	11.0
25	BA	1087	G	10.9
25	BA	2175	C	10.9
25	CA	2189	U	10.9
31	BG	41	MET	10.8
25	CA	2160	G	10.8
2	DB	73	THR	10.8
25	CA	2175	C	10.7
53	C3	52	VAL	10.7
25	CA	2152	G	10.7
9	DI	9	ARG	10.6
21	DU	12	LYS	10.6
53	C3	9	LEU	10.6
9	AI	10	ARG	10.6
1	AA	1001	G	10.5
25	CA	2133	G	10.5
21	AU	9	ARG	10.4
25	CA	362	U	10.4
14	DN	12	ARG	10.3
22	DV	27	ASP	10.3
21	AU	13	ILE	10.2
2	DB	96	ARG	10.2
32	CH	90	GLY	10.1
53	C3	14	THR	10.1
25	CA	1091	G	10.1
1	DA	1001	G	10.0
53	C3	12	GLU	9.9
53	C3	42	TRP	9.9
25	BA	1090	U	9.8
25	BA	2334	G	9.8
1	AA	81	G	9.8
1	DA	727	G	9.8
16	DP	34	GLU	9.7
25	CA	1092	C	9.7
16	DP	17	TYR	9.7

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Mol	Chain	Res	Type	RSRZ
53	C3	20	ASN	9.7
30	BF	26	GLN	9.7
53	B3	52	VAL	9.7
25	CA	2178	C	9.7
21	DU	15	ARG	9.6
21	AU	16	GLY	9.6
14	AN	8	GLU	9.6
9	AI	66	ARG	9.5
16	DP	7	ALA	9.5
53	B3	47	THR	9.5
1	DA	743	U	9.5
33	BI	60	ARG	9.5
22	DV	29	GLY	9.5
25	CA	271(D)	U	9.4
53	B3	11	LEU	9.4
9	AI	120	ARG	9.4
30	BF	25	TYR	9.3
9	DI	104	ARG	9.3
39	BO	87	PHE	9.3
25	CA	2122	U	9.3
21	AU	23	PRO	9.3
9	DI	7	THR	9.2
39	BO	92	TYR	9.2
1	DA	1286	A	9.2
53	B3	9	LEU	9.2
2	AB	101	MET	9.2
20	DT	106	ALA	9.2
1	AA	1224	G	9.1
4	AD	68	TYR	9.1
25	CA	508	G	9.1
45	BU	6	HIS	9.1
16	DP	65	GLN	9.1
1	AA	1285	A	9.1
16	DP	32	TYR	9.0
21	DU	8	THR	9.0
4	AD	3	ARG	9.0
20	DT	100	ILE	9.0
25	BA	2165	G	9.0
21	AU	2	GLY	8.9
11	AK	126	ARG	8.9
32	BH	13	GLY	8.9
25	CA	2118	U	8.9

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Mol	Chain	Res	Type	RSRZ
4	AD	4	TYR	8.9
20	DT	68	LYS	8.9
1	DA	43	C	8.9
14	DN	9	LYS	8.9
39	CO	30	ARG	8.9
33	CI	63	LEU	8.8
40	CP	23	ARG	8.8
16	DP	64	ALA	8.8
16	DP	28	ARG	8.8
25	BA	2109	U	8.8
19	AS	37	ARG	8.8
32	BH	1	MET	8.7
49	BY	1	MET	8.7
14	AN	12	ARG	8.7
16	DP	22	THR	8.7
1	DA	44	G	8.7
16	DP	9	PHE	8.7
21	DU	9	ARG	8.6
14	AN	13	THR	8.6
38	BN	9	LYS	8.6
53	B3	10	LEU	8.6
37	CM	141	GLN	8.6
53	C3	22	ALA	8.6
16	DP	3	LYS	8.5
16	DP	5	ARG	8.5
25	CA	2334	G	8.5
25	BA	1103	A	8.5
53	B3	36	LEU	8.5
1	DA	135	C	8.5
45	BU	23	ARG	8.5
45	BU	4	LYS	8.5
2	DB	95	GLN	8.4
21	AU	15	ARG	8.4
33	BI	61	LEU	8.4
21	DU	23	PRO	8.4
16	AP	8	ARG	8.4
21	AU	20	LYS	8.4
21	DU	21	TYR	8.4
22	DV	28	LYS	8.4
2	AB	12	GLU	8.4
32	BH	86	THR	8.4
9	AI	8	GLY	8.4

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Mol	Chain	Res	Type	RSRZ
2	AB	9	GLU	8.3
14	AN	2	ALA	8.3
16	DP	4	ILE	8.3
32	CH	88	ILE	8.3
16	DP	18	ARG	8.3
1	AA	1325	C	8.3
13	AM	102	ARG	8.3
36	BL	110	TYR	8.3
16	DP	35	LYS	8.3
14	AN	14	PRO	8.3
14	DN	14	PRO	8.3
21	AU	10	ARG	8.3
14	DN	16	PHE	8.2
2	AB	111	ARG	8.2
4	AD	66	ARG	8.2
1	DA	134	A	8.2
38	CN	7	GLY	8.2
37	BM	20	ALA	8.2
25	CA	2161	C	8.2
25	BA	1033	U	8.2
39	CO	19	LYS	8.2
25	CA	2141	G	8.2
16	DP	29	ASP	8.2
39	CO	43	GLU	8.2
8	DH	132	GLU	8.2
30	BF	13	GLU	8.1
21	AU	19	GLY	8.1
1	AA	728	A	8.1
9	DI	43	ALA	8.1
19	AS	39	THR	8.1
39	BO	22	GLY	8.1
25	BA	615	G	8.1
25	CA	2110	G	8.1
36	CL	67	MET	8.1
2	AB	70	PHE	8.1
8	AH	132	GLU	8.1
1	DA	1352	C	8.0
21	DU	7	ARG	8.0
39	CO	15	ARG	8.0
9	DI	105	ASP	8.0
16	AP	7	ALA	8.0
21	AU	4	GLY	8.0

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Mol	Chain	Res	Type	RSRZ
14	AN	15	LYS	8.0
9	AI	117	HIS	8.0
41	BQ	53	ARG	8.0
3	AC	206	GLU	8.0
9	DI	14	VAL	7.9
1	AA	136(B)	C	7.9
25	CA	2117	A	7.9
1	DA	728	A	7.9
55	C5	25	MET	7.9
17	DQ	26	GLN	7.9
9	AI	14	VAL	7.9
14	AN	16	PHE	7.9
36	BL	77	ARG	7.9
45	BU	79	CYS	7.8
9	AI	11	LYS	7.8
16	AP	65	GLN	7.8
39	CO	21	THR	7.8
2	DB	101	MET	7.8
25	BA	1083	U	7.8
49	BY	3	LEU	7.8
39	CO	89	ARG	7.8
25	CA	2174	C	7.8
9	AI	107	ARG	7.8
13	AM	29	ARG	7.8
25	CA	2165	G	7.8
25	CA	1090	U	7.8
2	AB	97	TRP	7.8
38	CN	9	LYS	7.8
1	DA	742	G	7.8
3	AC	207	VAL	7.8
7	AG	5	ARG	7.7
9	DI	119	ALA	7.7
2	AB	96	ARG	7.7
19	AS	81	ARG	7.7
11	DK	128	ALA	7.7
16	DP	2	VAL	7.7
25	BA	2152	G	7.7
16	DP	6	LEU	7.6
25	BA	2145	C	7.6
9	AI	113	LYS	7.6
25	BA	2117	A	7.6
14	DN	13	THR	7.6

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Mol	Chain	Res	Type	RSRZ
49	BY	4	SER	7.6
2	AB	187	LEU	7.6
25	CA	2135	A	7.6
39	CO	22	GLY	7.6
16	AP	66	PRO	7.6
25	BA	2116	G	7.6
25	BA	2148	G	7.6
25	BA	2161	C	7.6
10	DJ	60	ARG	7.6
25	BA	2129	C	7.5
2	DB	72	GLY	7.5
45	BU	62	GLU	7.5
20	DT	69	GLY	7.5
9	DI	66	ARG	7.5
16	AP	3	LYS	7.5
21	DU	25	LYS	7.5
45	BU	5	MET	7.5
4	DD	3	ARG	7.5
25	CA	12	U	7.5
55	C5	13	ARG	7.5
11	AK	124	LYS	7.5
2	AB	165	VAL	7.5
9	AI	106	ALA	7.5
31	CG	170	ARG	7.4
53	B3	45	LYS	7.4
10	DJ	61	GLU	7.4
33	BI	67	GLY	7.4
27	BC	35	LYS	7.4
30	BF	22	ARG	7.4
25	BA	2174	C	7.4
45	BU	52	SER	7.4
9	DI	120	ARG	7.4
16	DP	55	ARG	7.4
41	BQ	49	HIS	7.4
21	DU	22	ARG	7.4
1	DA	136(B)	C	7.4
40	CP	116	ALA	7.4
20	DT	65	LYS	7.3
22	DV	99	LYS	7.3
53	C3	26	ASN	7.3
2	DB	170	GLU	7.3
25	CA	276	A	7.3

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Mol	Chain	Res	Type	RSRZ
9	AI	12	GLU	7.3
9	AI	105	ASP	7.2
16	DP	21	VAL	7.2
19	AS	12	ASP	7.2
46	CV	81	ARG	7.2
2	AB	142	LEU	7.2
25	CA	2169	A	7.2
9	AI	29	ASN	7.2
25	CA	2130	U	7.2
53	C3	23	THR	7.2
13	AM	32	GLU	7.2
9	DI	111	ARG	7.2
25	BA	1078	U	7.2
9	DI	8	GLY	7.2
25	CA	2159	G	7.2
21	DU	11	GLY	7.2
37	CM	139	GLU	7.2
14	AN	17	LYS	7.2
25	CA	2168	G	7.2
31	BG	40	GLU	7.2
53	C3	10	LEU	7.2
21	AU	3	LYS	7.2
1	AA	80	G	7.1
40	CP	92	GLY	7.1
16	AP	18	ARG	7.1
41	BQ	55	ARG	7.1
9	DI	124	GLN	7.1
33	CI	62	ALA	7.1
39	BO	27	SER	7.1
4	DD	4	TYR	7.1
16	AP	17	TYR	7.1
53	C3	39	TYR	7.1
25	BA	2149	G	7.1
31	CG	116	GLU	7.1
55	B5	46	ARG	7.0
21	DU	14	TRP	7.0
38	CN	68	ARG	7.0
27	CC	93	ALA	7.0
9	DI	114	TYR	7.0
2	AB	134	GLU	7.0
25	CA	2129	C	7.0
25	BA	2110	G	7.0

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Mol	Chain	Res	Type	RSRZ
25	BA	2121	G	7.0
39	BO	29	PHE	7.0
55	B5	35	GLN	6.9
25	BA	2179	C	6.9
14	AN	18	VAL	6.9
53	C3	34	LEU	6.9
34	BJ	71	MET	6.9
9	DI	10	ARG	6.9
39	BO	93	LYS	6.9
2	AB	7	VAL	6.9
53	C3	48	VAL	6.9
25	BA	2159	G	6.9
13	AM	101	GLN	6.9
4	AD	2	GLY	6.9
28	CD	194	GLY	6.9
13	AM	97	PRO	6.9
13	DM	110	ARG	6.9
15	AO	59	MET	6.9
39	CO	36	TYR	6.9
55	C5	43	GLN	6.8
39	BO	21	THR	6.8
1	DA	1000	A	6.8
16	DP	66	PRO	6.8
25	BA	101	G	6.8
25	BA	2112	G	6.8
45	BU	40	GLU	6.8
13	DM	100	GLY	6.8
2	AB	71	VAL	6.8
13	DM	97	PRO	6.8
9	AI	111	ARG	6.8
20	DT	59	ALA	6.8
38	CN	44	LEU	6.8
32	BH	119	PRO	6.8
8	AH	1	MET	6.8
45	CU	2	ARG	6.8
39	BO	26	LEU	6.8
36	CL	65	ARG	6.7
47	BW	75	LEU	6.7
27	CC	35	LYS	6.7
55	C5	21	LYS	6.7
1	DA	1367	C	6.7
50	BZ	1	MET	6.7

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Mol	Chain	Res	Type	RSRZ
55	C5	26	LYS	6.7
36	BL	105	LEU	6.7
39	BO	89	ARG	6.7
48	CX	27	GLU	6.7
9	AI	7	THR	6.7
34	BJ	89	LYS	6.7
11	AK	128	ALA	6.7
50	BZ	16	PRO	6.7
40	CP	87	ASP	6.7
30	BF	21	ARG	6.7
16	DP	20	VAL	6.7
2	AB	99	GLY	6.7
32	BH	111	PRO	6.7
16	DP	30	GLY	6.6
39	BO	32	LEU	6.6
21	DU	3	LYS	6.6
25	BA	2180	U	6.6
20	DT	8	ARG	6.6
1	DA	1353	G	6.6
16	AP	32	TYR	6.6
28	CD	193	GLY	6.6
43	BS	1	MET	6.6
9	AI	64	THR	6.6
9	DI	113	LYS	6.6
21	DU	6	ARG	6.6
20	DT	72	LEU	6.6
45	BU	35	TYR	6.6
47	BW	74	ARG	6.6
44	CT	31	HIS	6.6
4	AD	70	ILE	6.6
37	CM	10	ARG	6.6
29	CE	44	ARG	6.5
20	DT	73	HIS	6.5
9	DI	29	ASN	6.5
34	BJ	68	ASN	6.5
2	AB	146	GLN	6.5
15	DO	54	ARG	6.5
22	DV	1	MET	6.5
36	CL	68	GLN	6.5
2	DB	134	GLU	6.5
1	DA	664	G	6.5
21	DU	5	ASP	6.5

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Mol	Chain	Res	Type	RSRZ
19	AS	71	LEU	6.5
21	AU	6	ARG	6.5
20	DT	67	ALA	6.5
45	CU	35	TYR	6.5
36	BL	75	ILE	6.5
9	AI	119	ALA	6.5
38	CN	43	GLU	6.5
8	AH	85	ARG	6.5
14	DN	10	ALA	6.5
39	BO	91	PRO	6.5
41	BQ	57	PHE	6.5
36	BL	107	LYS	6.5
9	DI	106	ALA	6.5
25	BA	2131	G	6.5
9	DI	65	VAL	6.5
22	DV	26	LYS	6.4
9	AI	9	ARG	6.4
21	AU	24	ARG	6.4
2	AB	132	LYS	6.4
16	DP	31	LYS	6.4
2	DB	215	LEU	6.4
9	AI	42	ARG	6.4
9	AI	118	LYS	6.4
13	DM	99	ARG	6.4
16	AP	22	THR	6.4
20	DT	9	ASN	6.4
14	AN	9	LYS	6.4
2	DB	167	PRO	6.4
20	DT	101	GLY	6.4
1	AA	977	A	6.4
53	C3	44	ARG	6.4
16	AP	34	GLU	6.4
25	CA	2177	C	6.4
1	AA	743	U	6.4
40	CP	22	PHE	6.4
45	CU	51	VAL	6.4
16	AP	64	ALA	6.4
39	BO	12	PHE	6.4
9	AI	114	TYR	6.4
40	CP	91	ARG	6.4
21	DU	13	ILE	6.3
14	DN	8	GLU	6.3

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Mol	Chain	Res	Type	RSRZ
39	BO	30	ARG	6.3
45	CU	50	ARG	6.3
25	BA	2128	C	6.3
9	AI	112	LYS	6.3
40	BP	91	ARG	6.3
14	DN	59	ALA	6.3
25	BA	271(D)	U	6.3
41	BQ	50	ARG	6.3
9	DI	122	ALA	6.3
35	BK	1	MET	6.3
16	AP	9	PHE	6.3
47	BW	42	GLY	6.3
33	BI	64	LYS	6.3
19	AS	11	VAL	6.3
2	AB	163	PHE	6.3
55	C5	46	ARG	6.3
36	BL	149	GLU	6.2
28	CD	195	LEU	6.2
55	C5	64	TYR	6.2
19	AS	35	SER	6.2
1	DA	729	A	6.2
55	C5	15	LYS	6.2
30	CF	26	GLN	6.2
39	BO	86	ALA	6.2
35	CK	1	MET	6.2
36	CL	110	TYR	6.2
31	CG	169	VAL	6.2
9	AI	67	GLY	6.2
47	BW	76	GLY	6.2
1	AA	982	U	6.2
25	BA	2169	A	6.2
25	CA	2820	A	6.2
11	DK	127	LYS	6.2
4	AD	74	GLN	6.2
4	AD	67	ILE	6.2
34	BJ	95	TYR	6.2
6	AF	89	MET	6.2
45	BU	20	TYR	6.2
55	B5	25	MET	6.2
16	DP	59	TRP	6.2
21	DU	2	GLY	6.2
4	AD	69	GLY	6.2

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Mol	Chain	Res	Type	RSRZ
19	AS	9	VAL	6.2
40	CP	21	GLU	6.2
1	DA	1149	C	6.1
12	AL	126	GLU	6.1
13	AM	100	GLY	6.1
9	DI	36	TYR	6.1
1	AA	1363	A	6.1
41	BQ	47	TYR	6.1
20	DT	15	ARG	6.1
25	BA	2133	G	6.1
41	BQ	56	ASP	6.1
16	AP	29	ASP	6.1
16	DP	12	LYS	6.1
9	AI	87	GLN	6.1
27	BC	33	LEU	6.1
9	AI	127	LYS	6.1
20	DT	64	ASP	6.1
39	BO	11	LYS	6.1
25	CA	2109	U	6.1
4	AD	65	ARG	6.0
1	DA	1186	G	6.0
22	DV	25	LEU	6.0
10	DJ	5	ARG	6.0
2	AB	33	TYR	6.0
4	AD	15	GLU	6.0
28	CD	76	ARG	6.0
9	DI	112	LYS	6.0
36	BL	101	VAL	6.0
1	DA	1002	G	6.0
2	DB	148	TYR	6.0
55	C5	44	LYS	6.0
10	DJ	64	GLU	6.0
21	DU	4	GLY	6.0
25	BA	1082	U	6.0
25	CA	2176	A	6.0
13	DM	65	LYS	6.0
55	B5	15	LYS	6.0
30	CF	34	LEU	6.0
33	BI	63	LEU	6.0
45	BU	53	PRO	6.0
2	AB	133	LYS	6.0
25	BA	2158	A	6.0

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Mol	Chain	Res	Type	RSRZ
53	C3	27	LYS	6.0
9	AI	110	GLU	6.0
25	BA	1641	A	6.0
41	BQ	45	TYR	6.0
2	AB	214	ILE	6.0
25	BA	2130	U	6.0
4	AD	6	GLY	6.0
34	CJ	138	ARG	6.0
41	BQ	54	LYS	6.0
13	DM	98	VAL	6.0
37	BM	19	GLY	5.9
27	CC	104	TYR	5.9
1	AA	1111	A	5.9
7	DG	32	ARG	5.9
9	DI	117	HIS	5.9
2	AB	92	TYR	5.9
20	DT	10	LEU	5.9
1	AA	308	C	5.9
40	BP	93	ARG	5.9
45	BU	59	GLY	5.9
13	AM	30	ALA	5.9
25	BA	2143	C	5.9
30	CF	33	ARG	5.9
25	BA	229	A	5.9
30	CF	35	GLU	5.9
37	BM	91	GLU	5.9
16	DP	10	GLY	5.9
16	AP	25	ARG	5.9
40	CP	93	ARG	5.9
55	B5	43	GLN	5.9
25	CA	2170	A	5.9
45	BU	3	VAL	5.9
4	AD	5	ILE	5.9
25	CA	2690	C	5.9
50	CZ	1	MET	5.9
36	CL	108	LYS	5.9
13	DM	101	GLN	5.9
45	CU	69	ALA	5.9
2	AB	90	MET	5.9
2	AB	167	PRO	5.9
20	DT	18	GLN	5.8
36	BL	76	LYS	5.8

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Mol	Chain	Res	Type	RSRZ
14	AN	21	TYR	5.8
17	AQ	25	ARG	5.8
40	BP	25	GLY	5.8
11	AK	125	PHE	5.8
28	CD	160	TYR	5.8
16	AP	28	ARG	5.8
11	AK	127	LYS	5.8
22	AV	65	LEU	5.8
40	BP	98	LYS	5.8
46	CV	70	LEU	5.8
38	BN	43	GLU	5.8
15	DO	63	ARG	5.8
25	CA	2158	A	5.8
34	BJ	67	PRO	5.8
21	DU	16	GLY	5.8
41	BQ	59	ARG	5.8
1	DA	1249	C	5.8
16	AP	2	VAL	5.8
9	DI	118	LYS	5.8
38	CN	21	TYR	5.8
9	AI	73	GLN	5.8
1	AA	43	C	5.8
9	DI	110	GLU	5.8
2	AB	44	LEU	5.8
44	CT	77	LYS	5.8
9	AI	36	TYR	5.8
44	CT	3	THR	5.8
1	DA	136	C	5.8
1	DA	307	C	5.8
13	AM	28	ALA	5.8
9	AI	33	PHE	5.8
38	BN	10	LEU	5.7
40	BP	92	GLY	5.7
41	BQ	46	ALA	5.7
25	BA	2124	G	5.7
40	CP	46	GLU	5.7
9	AI	124	GLN	5.7
1	AA	1112	C	5.7
1	AA	727	G	5.7
25	CA	2123	G	5.7
21	DU	10	ARG	5.7
13	DM	27	LYS	5.7

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Mol	Chain	Res	Type	RSRZ
9	DI	64	THR	5.7
16	DP	39	TYR	5.7
25	CA	2108	C	5.7
37	CM	91	GLU	5.7
4	AD	135	LEU	5.7
38	CN	69	ASP	5.7
36	CL	64	LYS	5.7
47	BW	53	MET	5.7
36	BL	106	LEU	5.7
22	AV	322	HIS	5.7
13	DM	96	LEU	5.7
16	AP	35	LYS	5.7
19	DS	40	ILE	5.7
37	CM	133	ARG	5.7
40	BP	97	ALA	5.7
31	BG	57	ASP	5.7
9	AI	37	PHE	5.7
53	B3	27	LYS	5.7
31	CG	104	GLU	5.7
8	DH	1	MET	5.7
14	DN	19	ARG	5.7
28	BD	57	LYS	5.7
27	CC	33	LEU	5.7
55	C5	10	ALA	5.7
1	AA	1327	C	5.7
25	BA	1174	A	5.7
39	BO	28	VAL	5.7
8	DH	135	CYS	5.7
48	BX	27	GLU	5.7
25	BA	2144	U	5.6
2	AB	93	VAL	5.6
13	DM	4	ILE	5.6
38	CN	54	LEU	5.6
16	AP	26	ARG	5.6
40	BP	23	ARG	5.6
1	AA	1326	C	5.6
25	CA	2111	C	5.6
40	CP	88	ILE	5.6
55	C5	23	VAL	5.6
1	AA	1324	A	5.6
55	C5	54	GLU	5.6
1	DA	226	G	5.6

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Mol	Chain	Res	Type	RSRZ
10	DJ	73	ASP	5.6
13	AM	4	ILE	5.6
25	CA	2150	U	5.6
44	CT	6	ASP	5.6
1	AA	983	A	5.6
45	CU	91	GLU	5.6
44	CT	84	ALA	5.6
20	DT	66	ALA	5.6
39	BO	13	ARG	5.6
55	C5	47	LYS	5.6
25	CA	2124	G	5.6
28	CD	8	LYS	5.6
2	AB	68	ILE	5.6
17	AQ	3	LYS	5.6
13	AM	43	THR	5.6
53	B3	31	PRO	5.6
9	DI	42	ARG	5.6
11	AK	119	CYS	5.6
55	C5	22	VAL	5.6
1	DA	229	U	5.6
37	CM	105	GLU	5.6
13	AM	31	LYS	5.6
40	CP	1	MET	5.6
1	AA	1249	C	5.5
19	AS	40	ILE	5.5
33	BI	66	LEU	5.5
14	DN	11	LYS	5.5
55	B5	12	LYS	5.5
45	BU	34	LYS	5.5
46	CV	80	ARG	5.5
1	DA	1351	U	5.5
36	BL	74	GLU	5.5
49	CY	15	LYS	5.5
9	AI	121	ARG	5.5
25	CA	6	A	5.5
40	BP	26	ASP	5.5
38	CN	10	LEU	5.5
30	BF	29	TRP	5.5
1	DA	732	C	5.5
39	CO	20	ARG	5.5
25	BA	1046	A	5.5
8	AH	2	LEU	5.5

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Mol	Chain	Res	Type	RSRZ
38	CN	45	ARG	5.5
16	DP	33	ILE	5.5
9	AI	70	LYS	5.5
4	AD	118	ARG	5.5
40	CP	26	ASP	5.5
1	AA	975	A	5.5
2	AB	112	VAL	5.5
20	DT	16	HIS	5.5
20	DT	17	ARG	5.5
31	CG	47	GLU	5.5
2	DB	188	ALA	5.5
16	AP	55	ARG	5.5
37	BM	92	GLY	5.5
14	DN	60	SER	5.5
19	DS	71	LEU	5.5
53	B3	29	ASN	5.5
20	DT	71	THR	5.5
24	AX	15	A	5.5
16	AP	52	ASP	5.5
30	BF	34	LEU	5.5
34	BJ	93	LYS	5.5
25	CA	2181	G	5.5
42	BR	70	ILE	5.5
2	AB	114	ARG	5.5
9	AI	125	TYR	5.5
50	BZ	15	TYR	5.5
53	C3	47	THR	5.5
8	DH	92	ARG	5.4
38	CN	17	ARG	5.4
22	DV	32	GLN	5.4
42	BR	71	LEU	5.4
45	BU	45	VAL	5.4
9	DI	79	LEU	5.4
13	DM	32	GLU	5.4
27	CC	31	LYS	5.4
40	BP	24	PRO	5.4
1	AA	974	A	5.4
2	DB	31	TYR	5.4
55	B5	64	TYR	5.4
11	AK	122	LYS	5.4
39	BO	19	LYS	5.4
13	AM	10	PRO	5.4

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Mol	Chain	Res	Type	RSRZ
2	AB	164	VAL	5.4
13	AM	99	ARG	5.4
20	DT	56	MET	5.4
25	CA	2827	C	5.4
47	CW	40	GLN	5.4
40	BP	115	ARG	5.4
15	DO	59	MET	5.4
47	CW	53	MET	5.4
55	B5	13	ARG	5.4
3	DC	207	VAL	5.4
9	AI	28	VAL	5.4
32	BH	5	LEU	5.4
2	AB	201	ILE	5.4
8	AH	100	ILE	5.4
40	CP	24	PRO	5.4
1	AA	1115	C	5.4
1	AA	1092	A	5.4
8	AH	111	ILE	5.4
13	AM	87	TYR	5.4
19	DS	75	ALA	5.4
44	CT	76	ARG	5.4
25	CA	2128	C	5.4
33	BI	62	ALA	5.4
28	CD	111	ARG	5.4
53	C3	28	ARG	5.4
1	DA	390	C	5.4
10	DJ	58	ASP	5.4
32	BH	4	ILE	5.4
1	DA	45	U	5.4
14	AN	23	ARG	5.4
15	AO	54	ARG	5.4
16	AP	33	ILE	5.4
30	BF	33	ARG	5.4
16	DP	13	HIS	5.4
39	BO	88	ASP	5.4
20	DT	80	ARG	5.4
12	AL	127	ALA	5.4
25	BA	535	C	5.4
29	BE	184	TYR	5.4
55	B5	54	GLU	5.4
20	AT	65	LYS	5.3
32	BH	14	ASP	5.3

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Mol	Chain	Res	Type	RSRZ
1	AA	1347	G	5.3
25	CA	2134	A	5.3
34	BJ	138	ARG	5.3
47	BW	46	LYS	5.3
1	AA	136	C	5.3
25	BA	1091	G	5.3
2	AB	95	GLN	5.3
28	CD	191	PRO	5.3
55	C5	35	GLN	5.3
9	AI	122	ALA	5.3
36	CL	76	LYS	5.3
55	C5	12	LYS	5.3
47	CW	78	TYR	5.3
53	C3	17	LYS	5.3
20	DT	70	SER	5.3
17	DQ	37	LYS	5.3
34	BJ	70	ALA	5.3
39	CO	12	PHE	5.3
53	B3	48	VAL	5.3
9	AI	63	ILE	5.3
14	DN	61	TRP	5.3
40	CP	47	GLY	5.3
8	DH	119	LEU	5.3
16	AP	6	LEU	5.3
39	CO	92	TYR	5.3
45	CU	71	LYS	5.3
2	AB	102	LEU	5.3
34	CJ	133	GLY	5.3
1	AA	87	A	5.3
31	CG	114	VAL	5.3
45	BU	2	ARG	5.3
1	AA	1186	G	5.3
49	CY	60	LEU	5.3
2	AB	200	ILE	5.3
1	DA	1317	C	5.3
13	AM	88	ARG	5.3
36	BL	102	ARG	5.3
38	CN	40	LYS	5.3
8	AH	131	GLY	5.3
46	CV	79	ARG	5.3
53	C3	45	LYS	5.3
27	CC	92	ILE	5.2

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Mol	Chain	Res	Type	RSRZ
49	CY	12	GLU	5.2
25	BA	2115	G	5.2
10	DJ	59	SER	5.2
16	AP	59	TRP	5.2
19	AS	38	SER	5.2
16	AP	4	ILE	5.2
20	DT	81	LYS	5.2
21	AU	14	TRP	5.2
37	BM	108	GLY	5.2
21	DU	20	LYS	5.2
45	CU	5	MET	5.2
47	BW	72	ARG	5.2
12	DL	28	GLY	5.2
39	BO	24	LEU	5.2
14	AN	5	ALA	5.2
34	BJ	30	LYS	5.2
46	CV	76	LEU	5.2
50	BZ	26	LEU	5.2
39	CO	91	PRO	5.2
45	BU	33	LYS	5.2
33	CI	59	ILE	5.2
1	AA	994	A	5.2
16	DP	15	PRO	5.2
16	DP	67	THR	5.2
39	CO	28	VAL	5.2
49	CY	7	ARG	5.2
1	AA	1346	A	5.2
1	DA	325	A	5.2
16	AP	21	VAL	5.2
40	BP	116	ALA	5.2
46	CV	178	GLU	5.2
33	BI	59	ILE	5.2
39	CO	93	LYS	5.2
14	AN	6	LEU	5.2
36	BL	65	ARG	5.2
33	BI	65	GLU	5.2
11	DK	126	ARG	5.2
16	DP	23	ASP	5.2
16	AP	27	LYS	5.2
16	DP	36	ILE	5.2
27	BC	55	GLY	5.2
47	CW	46	LYS	5.2

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Mol	Chain	Res	Type	RSRZ
47	CW	75	LEU	5.2
34	BJ	69	VAL	5.2
47	BW	40	GLN	5.2
14	AN	3	ARG	5.2
10	AJ	61	GLU	5.2
55	C5	11	LYS	5.2
25	CA	2119	A	5.2
20	DT	77	ALA	5.1
29	CE	155	LEU	5.1
38	CN	4	LEU	5.1
7	AG	37	ASN	5.1
39	CO	11	LYS	5.1
1	DA	662	G	5.1
55	B5	11	LYS	5.1
14	AN	19	ARG	5.1
16	AP	57	ARG	5.1
16	DP	71	ARG	5.1
8	AH	133	LEU	5.1
35	CK	34	THR	5.1
22	DV	24	VAL	5.1
25	BA	1081	U	5.1
49	BY	5	GLU	5.1
11	AK	129	SER	5.1
39	CO	23	ARG	5.1
15	AO	66	LEU	5.1
38	BN	67	LEU	5.1
40	CP	51	ARG	5.1
11	AK	123	LYS	5.1
27	CC	34	VAL	5.1
27	BC	103	ARG	5.1
2	AB	170	GLU	5.1
11	AK	121	PRO	5.1
40	CP	115	ARG	5.1
1	DA	230	G	5.1
1	DA	1040	U	5.1
25	BA	412	A	5.1
2	DB	30	ARG	5.1
27	CC	103	ARG	5.1
39	BO	37	ALA	5.1
2	DB	187	LEU	5.1
16	DP	58	TYR	5.1
2	AB	98	LEU	5.1

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Mol	Chain	Res	Type	RSRZ
50	BZ	28	LEU	5.1
36	CL	106	LEU	5.1
46	CV	73	GLN	5.1
26	BB	54	G	5.1
1	AA	1348	U	5.0
32	CH	70	GLU	5.0
45	BU	16	ALA	5.0
40	BP	1	MET	5.0
8	AH	101	PRO	5.0
2	AB	48	MET	5.0
13	AM	19	LEU	5.0
38	CN	3	HIS	5.0
28	CD	57	LYS	5.0
41	BQ	61	TRP	5.0
34	BJ	142	ARG	5.0
36	BL	79	ARG	5.0
13	DM	8	GLU	5.0
39	CO	53	SER	5.0
6	DF	1	MET	5.0
10	DJ	3	LYS	5.0
34	BJ	136	GLY	5.0
20	AT	66	ALA	5.0
34	BJ	25	LYS	5.0
40	BP	21	GLU	5.0
10	DJ	74	ILE	5.0
25	CA	2127	G	5.0
25	CA	2148	G	5.0
19	AS	78	ARG	5.0
20	DT	58	LYS	5.0
15	DO	58	MET	5.0
38	CN	49	ASP	5.0
44	CT	5	TYR	5.0
38	CN	8	ARG	5.0
39	BO	15	ARG	5.0
7	DG	37	ASN	5.0
29	CE	97	TYR	5.0
42	BR	74	LYS	5.0
1	DA	91	C	5.0
44	CT	78	LYS	5.0
25	CA	2162	G	5.0
30	CF	75	LYS	5.0
32	BH	2	LYS	5.0

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Mol	Chain	Res	Type	RSRZ
28	BD	73	GLU	5.0
19	AS	49	ILE	5.0
20	DT	63	ILE	5.0
25	BA	2141	G	5.0
25	CA	2699	C	5.0
1	AA	403	C	4.9
25	BA	2160	G	4.9
16	DP	63	GLY	4.9
2	AB	137	ARG	4.9
20	DT	74	LYS	4.9
55	B5	57	ARG	4.9
19	DS	81	ARG	4.9
16	AP	71	ARG	4.9
49	BY	2	LYS	4.9
45	BU	41	GLY	4.9
55	C5	24	ALA	4.9
55	B5	44	LYS	4.9
2	DB	218	ALA	4.9
25	CA	2173	A	4.9
15	AO	58	MET	4.9
27	BC	233	HIS	4.9
9	AI	68	GLY	4.9
29	BE	45	ARG	4.9
33	BI	8	GLU	4.9
25	BA	1642	G	4.9
9	DI	107	ARG	4.9
44	CT	53	LYS	4.9
18	AR	48	GLY	4.9
10	DJ	56	HIS	4.9
20	AT	68	LYS	4.9
25	BA	2176	A	4.9
2	AB	31	TYR	4.9
30	BF	28	VAL	4.9
39	BO	98	VAL	4.9
36	BL	108	LYS	4.9
40	CP	99	LEU	4.9
20	DT	14	LYS	4.9
38	CN	22	ARG	4.9
45	BU	8	LYS	4.9
25	CA	1629	U	4.9
34	BJ	31	GLN	4.9
22	AV	154	GLY	4.9

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Mol	Chain	Res	Type	RSRZ
45	BU	31	LEU	4.9
4	DD	68	TYR	4.9
36	BL	111	ARG	4.9
29	CE	188	ARG	4.9
50	BZ	29	ARG	4.9
25	CA	2568	C	4.9
27	BC	102	LYS	4.8
33	BI	12	THR	4.9
4	AD	76	ARG	4.8
25	BA	326	G	4.8
8	AH	99	GLU	4.8
17	AQ	73	VAL	4.8
39	CO	42	ASP	4.8
42	BR	87	HIS	4.8
4	DD	5	ILE	4.8
2	DB	165	VAL	4.8
36	BL	7	ARG	4.8
1	AA	1317	C	4.8
2	AB	188	ALA	4.8
27	BC	31	LYS	4.8
37	BM	141	GLN	4.8
13	AM	5	ALA	4.8
27	CC	83	GLU	4.8
34	BJ	66	THR	4.8
39	BO	14	VAL	4.8
15	DO	2	PRO	4.8
44	CT	8	ILE	4.8
32	BH	122	GLU	4.8
2	AB	186	ALA	4.8
17	AQ	26	GLN	4.8
22	AV	99	LYS	4.8
9	AI	27	THR	4.8
29	BE	44	ARG	4.8
14	DN	2	ALA	4.8
13	DM	111	LYS	4.8
25	BA	1102	C	4.8
2	AB	153	ARG	4.8
9	AI	75	ASP	4.8
36	CL	109	GLY	4.8
45	CU	53	PRO	4.8
55	B5	40	GLU	4.8
1	AA	46	G	4.8

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Mol	Chain	Res	Type	RSRZ
1	DA	818	G	4.8
28	CD	7	VAL	4.8
41	BQ	58	ARG	4.8
13	DM	64	TRP	4.8
13	DM	16	ASP	4.8
16	DP	19	ILE	4.8
29	CE	43	LYS	4.8
42	BR	72	VAL	4.8
9	DI	123	PRO	4.8
1	DA	378	G	4.8
31	CG	151	ILE	4.8
2	AB	19	HIS	4.8
20	DT	79	ARG	4.8
25	CA	1032	A	4.8
41	CQ	15	LYS	4.8
3	AC	179	ARG	4.8
9	DI	121	ARG	4.8
39	CO	60	GLY	4.8
32	BH	117	GLU	4.8
33	CI	14	LYS	4.8
27	BC	36	PRO	4.8
38	CN	50	HIS	4.8
8	AH	98	LYS	4.8
16	AP	56	ALA	4.8
31	CG	103	LEU	4.7
28	BD	195	LEU	4.7
11	DK	122	LYS	4.7
16	AP	31	LYS	4.7
9	DI	83	ARG	4.7
13	DM	30	ALA	4.7
16	AP	23	ASP	4.7
33	CI	60	ARG	4.7
42	BR	83	ARG	4.7
9	DI	125	TYR	4.7
19	DS	32	LYS	4.7
1	AA	1369	C	4.7
40	BP	99	LEU	4.7
44	CT	9	LEU	4.7
2	DB	133	LYS	4.7
28	CD	10	GLY	4.7
39	BO	36	TYR	4.7
13	DM	48	LEU	4.7

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Mol	Chain	Res	Type	RSRZ
39	BO	102	ALA	4.7
34	BJ	92	GLN	4.7
4	DD	135	LEU	4.7
50	BZ	19	GLN	4.7
9	DI	70	LYS	4.7
1	AA	31	G	4.7
25	BA	2127	G	4.7
55	B5	26	LYS	4.7
8	AH	86	ILE	4.7
45	BU	32	PRO	4.7
4	AD	122	ARG	4.7
4	DD	153	ARG	4.7
31	BG	170	ARG	4.7
4	DD	110	PHE	4.7
32	BH	20	ASP	4.7
4	DD	70	ILE	4.7
4	AD	114	ARG	4.7
28	CD	192	ASN	4.7
2	DB	97	TRP	4.7
41	BQ	19	LYS	4.7
25	BA	2347	C	4.7
41	BQ	60	LEU	4.7
2	DB	164	VAL	4.7
29	CE	27	GLU	4.7
1	DA	744	C	4.7
7	AG	16	LEU	4.7
8	DH	134	ILE	4.7
45	BU	22	GLY	4.7
34	CJ	142	ARG	4.7
9	AI	108	VAL	4.7
15	DO	62	GLN	4.7
38	CN	71	GLN	4.7
26	BB	59	A	4.7
1	DA	726	C	4.7
2	DB	26	PRO	4.7
29	CE	156	LEU	4.7
49	CY	10	LEU	4.7
1	DA	731	G	4.7
25	CA	2872	G	4.7
28	CD	109	LYS	4.7
4	AD	134	ASP	4.7
21	DU	19	GLY	4.7

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Mol	Chain	Res	Type	RSRZ
45	BU	71	LYS	4.7
14	DN	57	ARG	4.6
17	DQ	25	ARG	4.6
2	AB	116	GLU	4.6
16	AP	58	TYR	4.6
50	BZ	34	GLU	4.6
2	DB	214	ILE	4.6
55	C5	36	LYS	4.6
1	AA	229	U	4.6
25	BA	1104	C	4.6
44	BT	76	ARG	4.6
32	BH	35	LEU	4.6
14	AN	10	ALA	4.6
2	DB	163	PHE	4.6
25	BA	1085	A	4.6
25	CA	1641	A	4.6
26	CB	52	A	4.6
16	AP	12	LYS	4.6
39	CO	13	ARG	4.6
22	AV	155	PHE	4.6
22	AV	324	LEU	4.6
33	BI	15	GLU	4.6
11	AK	87	THR	4.6
29	CE	40	GLN	4.6
55	B5	36	LYS	4.6
38	BN	21	TYR	4.6
2	AB	130	ARG	4.6
16	AP	24	ALA	4.6
50	BZ	35	ARG	4.6
10	DJ	72	VAL	4.6
36	CL	79	ARG	4.6
45	CU	72	VAL	4.6
38	CN	65	LEU	4.6
48	BX	28	GLY	4.6
25	CA	2143	C	4.6
28	CD	162	ALA	4.6
40	CP	29	ARG	4.6
44	CT	50	LYS	4.6
4	AD	7	PRO	4.6
9	DI	33	PHE	4.6
9	DI	5	TYR	4.6
19	DS	37	ARG	4.6

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Mol	Chain	Res	Type	RSRZ
20	DT	83	ARG	4.6
1	DA	1148	U	4.6
25	BA	2135	A	4.6
10	DJ	71	LEU	4.6
37	BM	139	GLU	4.6
22	AV	189	GLN	4.6
25	BA	2113	U	4.6
29	BE	97	TYR	4.6
31	CG	115	VAL	4.6
9	DI	63	ILE	4.6
1	DA	1113	C	4.6
4	AD	115	ARG	4.6
9	AI	44	VAL	4.6
8	DH	112	LEU	4.6
16	DP	25	ARG	4.6
18	AR	32	ARG	4.6
36	BL	64	LYS	4.6
45	CU	3	VAL	4.6
40	CP	65	LYS	4.6
9	DI	30	GLY	4.6
27	BC	30	GLU	4.6
55	B5	24	ALA	4.6
4	DD	134	ASP	4.5
25	CA	2826	A	4.6
2	DB	12	GLU	4.5
40	CP	98	LYS	4.5
30	CF	13	GLU	4.5
34	BJ	131	PRO	4.5
40	CP	52	ILE	4.5
4	AD	72	GLU	4.5
2	DB	169	LYS	4.5
8	AH	134	ILE	4.5
55	B5	16	ILE	4.5
31	BG	55	PRO	4.5
13	AM	65	LYS	4.5
13	DM	57	ARG	4.5
41	BQ	8	VAL	4.5
45	BU	50	ARG	4.5
55	C5	57	ARG	4.5
55	B5	45	GLY	4.5
41	BQ	52	ARG	4.5
1	DA	663	A	4.5

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Mol	Chain	Res	Type	RSRZ
15	DO	3	ILE	4.5
27	BC	39	LYS	4.5
40	CP	48	ILE	4.5
45	BU	28	LYS	4.5
31	CG	167	GLU	4.5
7	AG	85	TYR	4.5
16	AP	19	ILE	4.5
16	AP	36	ILE	4.5
37	CM	9	TYR	4.5
14	DN	23	ARG	4.5
7	AG	8	GLU	4.5
43	CS	81	ALA	4.5
2	AB	149	LEU	4.5
41	BQ	12	ARG	4.5
39	CO	14	VAL	4.5
27	CC	111	LEU	4.5
7	AG	4	ARG	4.5
17	DQ	36	ILE	4.5
40	CP	27	THR	4.5
49	CY	53	LEU	4.5
34	CJ	95	TYR	4.5
9	AI	123	PRO	4.5
25	CA	2125	G	4.5
44	CT	85	PRO	4.5
9	DI	31	GLN	4.5
32	BH	38	LEU	4.5
20	DT	55	ILE	4.5
20	DT	60	GLU	4.5
10	DJ	57	LYS	4.5
37	BM	103	MET	4.5
39	BO	84	GLN	4.5
1	DA	132	C	4.5
1	DA	1244	C	4.5
4	AD	75	PHE	4.5
2	DB	201	ILE	4.5
9	DI	115	GLY	4.5
22	DV	95	HIS	4.5
45	CU	6	HIS	4.5
2	DB	27	LYS	4.5
9	AI	45	ALA	4.5
32	BH	118	LYS	4.5
34	BJ	91	GLU	4.5

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Mol	Chain	Res	Type	RSRZ
38	CN	67	LEU	4.5
2	DB	202	PRO	4.5
17	DQ	2	PRO	4.5
33	BI	5	ARG	4.5
33	CI	6	ASN	4.5
47	BW	73	GLY	4.5
25	BA	1026	U	4.5
27	CC	36	PRO	4.5
38	BN	68	ARG	4.5
44	CT	11	PRO	4.5
47	BW	45	PHE	4.5
11	AK	11	LYS	4.5
41	BQ	21	ALA	4.5
11	DK	11	LYS	4.4
34	CJ	91	GLU	4.4
41	CQ	11	ARG	4.4
39	BO	20	ARG	4.4
2	AB	143	GLU	4.4
16	DP	24	ALA	4.4
32	BH	121	LYS	4.4
42	BR	81	TYR	4.4
36	CL	77	ARG	4.4
40	CP	64	ARG	4.4
55	C5	14	VAL	4.4
17	DQ	7	THR	4.4
25	BA	995	C	4.4
18	DR	31	LEU	4.4
1	DA	42	G	4.4
2	DB	13	ALA	4.4
8	AH	56	LYS	4.4
15	DO	49	ASP	4.4
10	DJ	62	HIS	4.4
41	CQ	14	HIS	4.4
16	DP	27	LYS	4.4
19	AS	13	ASP	4.4
32	CH	121	LYS	4.4
38	CN	70	LEU	4.4
45	BU	58	GLY	4.4
1	AA	995	C	4.4
34	BJ	137	ARG	4.4
8	AH	54	ASP	4.4
38	CN	51	LEU	4.4

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Mol	Chain	Res	Type	RSRZ
41	BQ	15	LYS	4.4
15	DO	50	HIS	4.4
31	BG	103	LEU	4.4
19	AS	32	LYS	4.4
10	AJ	60	ARG	4.4
19	DS	15	LEU	4.4
25	BA	1383	C	4.4
25	BA	2107	C	4.4
7	AG	36	LYS	4.4
27	BC	34	VAL	4.4
25	BA	1573	G	4.4
6	DF	95	GLU	4.4
30	BF	14	GLU	4.4
47	BW	77	ARG	4.4
16	DP	56	ALA	4.4
30	BF	85	GLY	4.4
7	DG	34	GLY	4.4
28	CD	107	THR	4.4
30	CF	12	TYR	4.4
4	AD	133	VAL	4.4
19	AS	41	VAL	4.4
39	BO	17	ARG	4.4
38	CN	102	GLU	4.4
40	BP	100	TYR	4.4
30	BF	74	LYS	4.4
20	DT	22	ARG	4.4
20	DT	21	LYS	4.4
28	BD	56	PRO	4.4
2	DB	102	LEU	4.4
7	DG	82	GLY	4.4
22	DV	18	LEU	4.4
45	BU	39	VAL	4.4
10	DJ	4	ILE	4.4
40	CP	78	LEU	4.4
41	BQ	91	ASP	4.4
55	B5	47	LYS	4.4
15	AO	62	GLN	4.4
25	BA	443	A	4.4
13	DM	19	LEU	4.4
15	DO	35	ARG	4.4
48	CX	26	ARG	4.4
1	DA	88	C	4.4

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Mol	Chain	Res	Type	RSRZ
46	CV	84	GLU	4.3
13	AM	98	VAL	4.3
25	CA	614	U	4.3
25	CA	1093	G	4.3
38	CN	61	HIS	4.3
37	BM	32	PHE	4.3
14	DN	6	LEU	4.3
45	CU	86	ARG	4.3
25	BA	2295	C	4.3
41	CQ	16	LYS	4.3
13	AM	8	GLU	4.3
40	BP	22	PHE	4.3
12	DL	112	ARG	4.3
8	DH	101	PRO	4.3
28	CD	53	PRO	4.3
14	AN	7	ILE	4.3
19	AS	36	ARG	4.3
7	DG	31	MET	4.3
36	BL	80	TYR	4.3
26	CB	8	U	4.3
47	BW	55	ARG	4.3
11	DK	129	SER	4.3
25	CA	2828	C	4.3
27	BC	66	ASP	4.3
2	DB	203	GLY	4.3
52	C2	25	LEU	4.3
15	AO	64	ARG	4.3
7	DG	33	ASP	4.3
25	CA	363(A)	G	4.3
27	BC	169	GLU	4.3
32	BH	36	ALA	4.3
39	CO	16	ASN	4.3
8	DH	111	ILE	4.3
19	DS	5	LEU	4.3
20	DT	62	LEU	4.3
39	CO	35	ILE	4.3
11	AK	120	ARG	4.3
32	BH	37	VAL	4.3
51	C1	58	TYR	4.3
45	BU	9	LYS	4.3
55	B5	38	GLY	4.3
44	CT	52	VAL	4.3

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Mol	Chain	Res	Type	RSRZ
30	BF	138	GLN	4.3
45	BU	21	LYS	4.3
1	DA	225	C	4.3
38	BN	69	ASP	4.3
41	BQ	14	HIS	4.3
44	CT	75	ASP	4.3
1	AA	973	G	4.3
18	AR	31	LEU	4.3
30	CF	11	TYR	4.3
55	B5	21	LYS	4.3
1	AA	135	C	4.3
30	CF	24	GLY	4.3
27	BC	104	TYR	4.3
36	BL	50	ARG	4.3
40	CP	90	GLN	4.3
1	AA	1000	A	4.3
1	AA	1110	A	4.3
1	AA	1184	G	4.3
20	DT	75	ASN	4.3
1	DA	1235	U	4.3
25	BA	2111	C	4.3
40	BP	64	ARG	4.3
29	BE	40	GLN	4.3
2	DB	69	LEU	4.3
16	AP	60	LEU	4.3
25	BA	2700	C	4.3
16	AP	5	ARG	4.3
2	AB	145	LEU	4.3
22	AV	298	ARG	4.2
49	CY	11	GLU	4.2
49	BY	9	GLN	4.2
28	CD	77	ILE	4.2
4	DD	115	ARG	4.2
50	BZ	30	ARG	4.2
2	DB	93	VAL	4.2
40	BP	49	VAL	4.2
1	AA	733	A	4.2
25	CA	2873	A	4.2
32	CH	120	ILE	4.2
38	CN	47	PHE	4.2
44	CT	51	VAL	4.2
44	CT	34	ALA	4.2

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Mol	Chain	Res	Type	RSRZ
10	DJ	38	ILE	4.2
25	CA	1640	C	4.2
36	CL	107	LYS	4.2
40	BP	51	ARG	4.2
9	DI	37	PHE	4.2
25	CA	2113	U	4.2
35	CK	64	ARG	4.2
40	BP	50	ILE	4.2
9	AI	46	ALA	4.2
26	CB	25	A	4.2
28	BD	76	ARG	4.2
28	BD	156	MET	4.2
42	BR	73	SER	4.2
38	BN	8	ARG	4.2
38	BN	63	ARG	4.2
2	AB	140	HIS	4.2
40	BP	117	ASP	4.2
49	CY	8	LYS	4.2
16	AP	73	LEU	4.2
29	CE	184	TYR	4.2
36	BL	78	PRO	4.2
17	DQ	3	LYS	4.2
4	AD	207	TYR	4.2
4	DD	69	GLY	4.2
17	AQ	2	PRO	4.2
19	AS	15	LEU	4.2
25	BA	2151	G	4.2
45	BU	24	VAL	4.2
2	DB	94	ASN	4.2
40	BP	48	ILE	4.2
15	DO	31	LEU	4.2
39	CO	29	PHE	4.2
1	AA	136(A)	C	4.2
40	BP	114	LEU	4.2
49	CY	9	GLN	4.2
41	BQ	48	ALA	4.2
13	DM	35	GLU	4.2
30	BF	35	GLU	4.2
4	AD	62	GLN	4.2
4	AD	73	ARG	4.2
1	DA	391	G	4.2
25	BA	1079	C	4.2

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Mol	Chain	Res	Type	RSRZ
25	BA	1202	C	4.2
25	CA	277	C	4.2
2	AB	105	PHE	4.1
44	BT	82	GLN	4.1
25	CA	2612	C	4.1
45	CU	4	LYS	4.1
28	CD	163	GLU	4.1
28	CD	161	GLY	4.1
55	B5	42	ARG	4.1
2	AB	113	HIS	4.1
50	BZ	21	ALA	4.1
15	AO	63	ARG	4.1
16	DP	54	GLU	4.1
30	CF	86	MET	4.1
4	DD	111	ALA	4.1
4	DD	207	TYR	4.1
9	AI	116	LYS	4.1
44	BT	26	TYR	4.1
30	CF	76	SER	4.1
46	CV	74	VAL	4.1
55	C5	16	ILE	4.1
25	BA	2122	U	4.1
2	AB	193	ASP	4.1
30	BF	16	ARG	4.1
13	AM	15	VAL	4.1
14	DN	5	ALA	4.1
30	BF	12	TYR	4.1
53	B3	28	ARG	4.1
1	DA	366	C	4.1
38	BN	61	HIS	4.1
47	CW	14	ARG	4.1
4	AD	71	SER	4.1
41	BQ	20	LEU	4.1
53	C3	46	HIS	4.1
56	DX	23	A	4.1
13	DM	31	LYS	4.1
25	BA	2136	C	4.1
42	BR	68	LYS	4.1
39	CO	18	ILE	4.1
28	CD	6	GLY	4.1
36	BL	67	MET	4.1
10	DJ	75	ILE	4.1

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Mol	Chain	Res	Type	RSRZ
17	AQ	4	LYS	4.1
35	CK	33	ALA	4.1
37	CM	106	VAL	4.1
8	DH	133	LEU	4.1
29	BE	41	LEU	4.1
25	BA	2173	A	4.1
26	BB	29	A	4.1
20	DT	25	ARG	4.1
45	CU	16	ALA	4.1
2	AB	69	LEU	4.1
8	AH	87	SER	4.1
53	C3	38	LYS	4.1
25	BA	325	G	4.1
9	AI	62	TYR	4.1
13	DM	87	TYR	4.1
28	BD	115	GLY	4.1
9	DI	12	GLU	4.1
30	BF	84	LYS	4.1
38	BN	70	LEU	4.1
12	DL	127	ALA	4.1
29	CE	45	ARG	4.1
17	AQ	37	LYS	4.1
19	AS	69	HIS	4.1
44	BT	51	VAL	4.1
1	AA	44	G	4.1
25	CA	405	U	4.1
40	CP	50	ILE	4.1
17	DQ	34	LYS	4.1
38	CN	72	ASP	4.1
13	AM	27	LYS	4.0
1	DA	110	C	4.0
1	DA	400	C	4.0
25	BA	2690	C	4.0
32	CH	80	PRO	4.0
3	DC	11	ARG	4.0
38	CN	2	ARG	4.0
44	CT	82	GLN	4.0
40	BP	27	THR	4.0
25	CA	2319	G	4.0
28	CD	60	ASN	4.0
27	CC	94	LEU	4.0
2	AB	194	PRO	4.0

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Mol	Chain	Res	Type	RSRZ
4	AD	102	ASP	4.0
40	BP	11	GLU	4.0
30	CF	22	ARG	4.0
18	AR	61	LYS	4.0
1	DA	1325	C	4.0
35	CK	37	ASP	4.0
1	AA	306	G	4.0
9	AI	115	GLY	4.0
25	BA	232	G	4.0
14	DN	58	LYS	4.0
15	AO	57	LEU	4.0
32	BH	112	LYS	4.0
1	DA	1248	A	4.0
25	BA	536	A	4.0
18	AR	72	ARG	4.0
39	BO	39	ILE	4.0
41	BQ	42	ALA	4.0
55	B5	23	VAL	4.0
9	DI	62	TYR	4.0
45	CU	17	SER	4.0
1	DA	741	G	4.0
4	DD	122	ARG	4.0
5	DE	24	ARG	4.0
39	BO	97	ARG	4.0
2	AB	10	LEU	4.0
13	DM	45	VAL	4.0
28	BD	154	LYS	4.0
37	CM	95	ALA	4.0
40	CP	94	ALA	4.0
16	AP	53	VAL	4.0
9	DI	46	ALA	4.0
27	BC	272	ALA	4.0
52	C2	24	ALA	4.0
2	AB	36	ARG	4.0
25	BA	1933	G	4.0
41	BQ	16	LYS	4.0
19	AS	66	MET	4.0
32	CH	1	MET	4.0
35	CK	35	VAL	4.0
49	CY	14	ARG	4.0
2	AB	197	VAL	4.0
45	CU	88	LYS	4.0

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Mol	Chain	Res	Type	RSRZ
34	BJ	94	ILE	4.0
16	DP	16	HIS	4.0
17	AQ	59	ILE	4.0
29	CE	96	ASP	4.0
44	CT	83	VAL	4.0
1	DA	994	A	4.0
22	AV	64	LEU	4.0
25	BA	2114	A	4.0
47	CW	41	ARG	4.0
40	CP	25	GLY	4.0
10	DJ	45	ARG	4.0
18	DR	32	ARG	4.0
4	DD	156	GLU	4.0
9	DI	108	VAL	4.0
25	CA	2812	G	3.9
34	BJ	65	TRP	4.0
7	AG	40	ALA	3.9
41	BQ	18	LEU	3.9
13	AM	103	THR	3.9
29	CE	194	MET	3.9
9	AI	126	SER	3.9
1	DA	1403	C	3.9
17	AQ	27	PHE	3.9
1	AA	729	A	3.9
22	DV	65	LEU	3.9
55	C5	63	PRO	3.9
1	DA	90	C	3.9
8	DH	2	LEU	3.9
29	BE	38	ARG	3.9
30	BF	23	PHE	3.9
2	AB	202	PRO	3.9
3	DC	206	GLU	3.9
37	BM	80	GLU	3.9
25	BA	1246	A	3.9
33	BI	58	LEU	3.9
42	BR	89	GLN	3.9
49	CY	3	LEU	3.9
41	CQ	19	LYS	3.9
1	DA	46	G	3.9
42	BR	85	LYS	3.9
47	BW	78	TYR	3.9
4	AD	23	GLY	3.9

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Mol	Chain	Res	Type	RSRZ
4	DD	155	LEU	3.9
16	AP	50	LYS	3.9
27	CC	112	GLN	3.9
30	BF	11	TYR	3.9
16	AP	51	VAL	3.9
17	AQ	28	PRO	3.9
17	AQ	6	LEU	3.9
40	CP	28	VAL	3.9
14	AN	31	ARG	3.9
42	BR	84	LYS	3.9
39	BO	85	VAL	3.9
30	BF	27	ASN	3.9
11	AK	117	ASN	3.9
18	DR	81	PHE	3.9
30	BF	17	PRO	3.9
9	DI	116	LYS	3.9
10	AJ	98	ILE	3.9
20	AT	103	GLY	3.9
39	BO	16	ASN	3.9
19	AS	50	ALA	3.9
34	CJ	109	PRO	3.9
2	AB	28	PHE	3.9
13	DM	102	ARG	3.9
38	CN	57	ARG	3.9
55	B5	41	ILE	3.9
44	BT	92	LEU	3.9
44	BT	3	THR	3.9
16	AP	54	GLU	3.9
27	BC	183	ARG	3.9
2	DB	28	PHE	3.9
16	DP	68	ASP	3.9
19	AS	51	VAL	3.9
45	BU	29	GLU	3.9
7	DG	38	LEU	3.9
8	AH	90	GLY	3.9
12	DL	26	LEU	3.9
34	BJ	139	LEU	3.9
40	CP	100	TYR	3.9
44	CT	92	LEU	3.9
1	DA	399	G	3.9
9	DI	80	GLY	3.9
38	BN	3	HIS	3.9

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Mol	Chain	Res	Type	RSRZ
4	AD	98	GLU	3.8
22	AV	297	GLU	3.8
15	DO	32	LEU	3.8
16	AP	30	GLY	3.8
30	BF	19	LEU	3.8
31	CG	168	PRO	3.8
19	DS	49	ILE	3.8
17	DQ	24	GLU	3.8
10	AJ	72	VAL	3.8
25	BA	327	G	3.8
32	CH	92	VAL	3.8
28	CD	122	PHE	3.8
37	CM	8	LYS	3.8
18	AR	64	ARG	3.8
41	BQ	64	ARG	3.8
41	CQ	12	ARG	3.8
46	BV	79	ARG	3.8
47	CW	62	LEU	3.8
22	DV	36	ARG	3.8
1	AA	1187	G	3.8
1	AA	1368	G	3.8
12	AL	92	LEU	3.8
44	CT	32	PRO	3.8
13	AM	60	VAL	3.8
50	BZ	10	LYS	3.8
41	CQ	18	LEU	3.8
32	CH	89	TYR	3.8
16	DP	70	ALA	3.8
1	DA	1368	G	3.8
25	BA	2123	G	3.8
38	CN	39	PRO	3.8
40	CP	49	VAL	3.8
55	C5	20	GLY	3.8
39	CO	17	ARG	3.8
39	BO	18	ILE	3.8
7	DG	35	LYS	3.8
20	DT	57	ARG	3.8
11	DK	125	PHE	3.8
10	AJ	59	SER	3.8
1	DA	1342	C	3.8
13	DM	7	VAL	3.8
2	AB	152	PHE	3.8

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Mol	Chain	Res	Type	RSRZ
9	AI	74	ILE	3.8
27	CC	37	LEU	3.8
19	AS	60	VAL	3.8
39	BO	38	GLN	3.8
36	CL	66	GLY	3.8
45	BU	65	ALA	3.8
22	DV	23	GLU	3.8
34	CJ	93	LYS	3.8
40	BP	2	ASN	3.8
20	AT	25	ARG	3.8
28	CD	112	GLY	3.8
25	BA	2701	C	3.8
37	CM	132	VAL	3.8
44	CT	7	VAL	3.8
9	AI	109	VAL	3.8
29	CE	110	LEU	3.8
31	BG	112	PRO	3.8
37	BM	21	THR	3.8
45	BU	42	VAL	3.8
1	AA	981	U	3.8
1	AA	1185	G	3.8
25	CA	2115	G	3.8
7	AG	11	GLN	3.8
34	CJ	130	LEU	3.8
36	BL	88	LEU	3.8
45	BU	14	LEU	3.8
47	CW	56	ASP	3.8
11	DK	124	LYS	3.8
2	AB	115	LEU	3.8
11	AK	110	ASP	3.8
28	CD	190	GLY	3.8
1	AA	1370	G	3.8
1	DA	1187	G	3.8
17	AQ	24	GLU	3.8
1	DA	1039	C	3.8
32	BH	93	THR	3.8
55	C5	4	MET	3.8
1	AA	978	A	3.8
2	AB	162	ILE	3.8
32	BH	61	ARG	3.8
34	BJ	73	ASP	3.8
30	CF	23	PHE	3.8

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Mol	Chain	Res	Type	RSRZ
2	DB	68	ILE	3.8
34	CJ	92	GLN	3.8
30	BF	75	LYS	3.8
1	DA	1287	A	3.8
3	DC	159	GLY	3.8
7	AG	41	ARG	3.8
42	BR	90	PRO	3.8
20	DT	11	SER	3.7
27	BC	60	ARG	3.7
28	BD	58	ARG	3.7
12	DL	97	TYR	3.7
29	BE	43	LYS	3.7
16	DP	26	ARG	3.7
39	BO	23	ARG	3.7
2	DB	7	VAL	3.7
38	CN	48	VAL	3.7
2	AB	109	SER	3.7
27	CC	26	LYS	3.7
41	CQ	57	PHE	3.7
26	CB	59	A	3.7
27	BC	37	LEU	3.7
35	CK	71	ARG	3.7
38	CN	19	ALA	3.7
11	DK	87	THR	3.7
43	CS	9	TYR	3.7
25	BA	1305	C	3.7
27	BC	216	GLY	3.7
31	CG	51	ARG	3.7
38	CN	12	ARG	3.7
40	BP	120	ARG	3.7
1	DA	133	U	3.7
13	AM	96	LEU	3.7
29	BE	207	GLY	3.7
29	CE	192	LEU	3.7
46	CV	78	LYS	3.7
5	DE	22	GLY	3.7
34	BJ	135	LEU	3.7
45	CU	68	HIS	3.7
19	DS	13	ASP	3.7
29	CE	152	GLU	3.7
34	CJ	137	ARG	3.7
34	CJ	31	GLN	3.7

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Mol	Chain	Res	Type	RSRZ
40	BP	94	ALA	3.7
50	BZ	17	LYS	3.7
51	B1	61	VAL	3.7
1	DA	89	U	3.7
16	AP	61	SER	3.7
49	CY	16	LEU	3.7
26	BB	52	A	3.7
19	AS	10	PHE	3.7
27	CC	39	LYS	3.7
46	CV	88	PHE	3.7
1	DA	791	G	3.7
25	CA	1628	G	3.7
40	CP	120	ARG	3.7
19	DS	12	ASP	3.7
2	AB	203	GLY	3.7
55	B5	17	THR	3.7
19	AS	79	THR	3.7
53	B3	30	THR	3.7
4	DD	157	LEU	3.7
8	AH	93	VAL	3.7
28	BD	27	LEU	3.7
22	AV	184	PRO	3.7
27	CC	64	ILE	3.7
30	BF	39	ILE	3.7
46	BV	81	ARG	3.7
48	CX	22	GLY	3.7
4	DD	154	ASN	3.7
29	CE	35	GLU	3.7
2	AB	135	GLN	3.7
22	DV	21	ASP	3.7
30	CF	19	LEU	3.7
40	CP	117	ASP	3.7
32	BH	8	PRO	3.7
20	AT	8	ARG	3.7
1	DA	108	G	3.7
1	DA	1366	C	3.7
29	BE	39	TRP	3.7
45	BU	68	HIS	3.7
8	AH	112	LEU	3.7
11	DK	121	PRO	3.7
4	AD	79	PHE	3.7
7	DG	5	ARG	3.7

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Mol	Chain	Res	Type	RSRZ
9	AI	15	ALA	3.7
16	DP	57	ARG	3.7
19	AS	75	ALA	3.7
27	CC	262	ARG	3.7
28	CD	79	ARG	3.7
30	BF	83	ARG	3.7
10	AJ	56	HIS	3.7
34	CJ	139	LEU	3.7
37	CM	12	GLN	3.7
41	BQ	44	ASN	3.7
37	BM	14	ARG	3.7
11	AK	118	GLY	3.7
25	BA	2319	G	3.7
25	CA	2153	G	3.7
25	CA	2723	C	3.7
25	CA	2897	U	3.7
14	DN	7	ILE	3.7
22	AV	190	GLY	3.7
45	CU	33	LYS	3.7
18	AR	66	LEU	3.7
32	BH	94	ALA	3.7
1	AA	307	C	3.7
11	DK	123	LYS	3.7
8	DH	94	TYR	3.6
13	AM	64	TRP	3.6
20	DT	13	LEU	3.7
25	BA	2181	G	3.7
26	CB	60	C	3.7
46	BV	97	GLU	3.6
32	BH	134	PRO	3.6
36	BL	68	GLN	3.6
1	DA	1280	A	3.6
38	BN	57	ARG	3.6
55	B5	37	SER	3.6
55	C5	40	GLU	3.6
10	AJ	34	VAL	3.6
1	AA	1404	C	3.6
1	DA	1020	U	3.6
2	AB	144	ARG	3.6
38	BN	47	PHE	3.6
4	AD	63	LYS	3.6
25	BA	1514	U	3.6

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Mol	Chain	Res	Type	RSRZ
1	DA	1224	G	3.6
20	DT	104	LEU	3.6
2	AB	141	GLU	3.6
12	DL	87	GLY	3.6
33	BI	57	THR	3.6
39	BO	58	LEU	3.6
2	DB	29	ALA	3.6
2	DB	186	ALA	3.6
13	DM	26	GLY	3.6
22	AV	118	GLU	3.6
4	DD	166	LYS	3.6
25	CA	2137	C	3.6
27	BC	182	LEU	3.6
34	BJ	88	LYS	3.6
1	DA	1394	A	3.6
14	AN	11	LYS	3.6
28	CD	119	ARG	3.6
34	BJ	60	LYS	3.6
36	BL	18	ARG	3.6
39	CO	24	LEU	3.6
44	CT	33	LYS	3.6
37	BM	74	TYR	3.6
2	DB	149	LEU	3.6
17	AQ	5	VAL	3.6
27	CC	5	LYS	3.6
27	CC	55	GLY	3.6
17	AQ	7	THR	3.6
3	DC	179	ARG	3.6
8	AH	135	CYS	3.6
9	AI	78	LYS	3.6
36	BL	81	GLN	3.6
28	CD	117	MET	3.6
37	BM	36	ALA	3.6
31	CG	113	VAL	3.6
40	BP	90	GLN	3.6
55	C5	29	LYS	3.6
1	DA	1397	C	3.6
12	AL	91	ASP	3.6
1	AA	731	G	3.6
25	BA	2166	G	3.6
39	CO	90	GLY	3.6
8	AH	91	ARG	3.6

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Mol	Chain	Res	Type	RSRZ
26	CB	26	A	3.6
50	BZ	48	GLU	3.6
20	AT	67	ALA	3.6
4	AD	136	PRO	3.6
9	AI	77	ILE	3.6
51	C1	54	LYS	3.6
1	AA	824	C	3.6
1	AA	1030	C	3.6
1	AA	1357	A	3.6
2	DB	193	ASP	3.6
15	DO	66	LEU	3.6
17	AQ	36	ILE	3.6
22	AV	305	TYR	3.6
35	CK	122	LEU	3.6
47	BW	52	GLY	3.6
1	DA	950	U	3.6
25	CA	1535	U	3.6
55	C5	48	PHE	3.6
17	AQ	61	GLU	3.6
44	BT	6	ASP	3.6
50	BZ	20	LYS	3.6
17	AQ	42	TYR	3.6
1	DA	823	G	3.6
9	DI	126	SER	3.6
25	CA	2502	G	3.6
44	BT	81	VAL	3.6
15	DO	65	ARG	3.6
29	CE	106	ARG	3.6
30	BF	103	LEU	3.6
40	BP	103	ARG	3.6
41	BQ	43	GLY	3.6
49	BY	7	ARG	3.6
2	DB	200	ILE	3.6
30	CF	74	LYS	3.6
46	CV	190	GLU	3.6
50	BZ	25	ALA	3.6
1	AA	1328	C	3.6
1	DA	824	C	3.6
1	DA	579	G	3.6
4	DD	169	LYS	3.6
18	AR	88	LYS	3.6
1	AA	1364	U	3.6

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Mol	Chain	Res	Type	RSRZ
25	CA	1026	U	3.6
13	DM	3	ARG	3.6
30	CF	164	GLU	3.6
37	BM	70	PRO	3.6
37	CM	103	MET	3.6
39	CO	52	SER	3.6
25	BA	2376	A	3.6
55	B5	29	LYS	3.6
55	B5	61	LEU	3.6
45	BU	30	VAL	3.6
14	AN	4	LYS	3.5
17	DQ	38	ARG	3.5
4	DD	167	GLY	3.5
28	CD	11	MET	3.5
1	DA	87	A	3.5
1	DA	377	G	3.5
19	AS	68	GLY	3.5
19	DS	78	ARG	3.5
25	CA	1095	A	3.5
45	BU	43	ASN	3.5
46	BV	80	ARG	3.5
1	AA	45	U	3.5
1	AA	950	U	3.5
8	AH	95	VAL	3.5
4	DD	66	ARG	3.5
9	DI	69	GLY	3.5
29	CE	185	ASP	3.5
32	BH	83	ALA	3.5
53	C3	31	PRO	3.5
33	BI	16	ASN	3.5
2	AB	174	VAL	3.5
16	DP	52	ASP	3.5
45	CU	87	LYS	3.5
50	BZ	8	LEU	3.5
7	AG	84	ASN	3.5
25	CA	2145	C	3.5
45	CU	64	GLU	3.5
40	BP	47	GLY	3.5
30	BF	36	LYS	3.5
39	CO	59	LYS	3.5
49	BY	60	LEU	3.5
1	DA	376	G	3.5

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Mol	Chain	Res	Type	RSRZ
9	DI	6	GLY	3.5
44	CT	57	LEU	3.5
2	DB	157	ARG	3.5
37	CM	83	MET	3.5
1	DA	1404	C	3.5
9	AI	72	GLY	3.5
25	BA	1080	C	3.5
30	BF	140	ILE	3.5
29	CE	33	LEU	3.5
46	CV	187	ALA	3.5
22	AV	125	ARG	3.5
38	CN	110	PRO	3.5
55	C5	37	SER	3.5
37	CM	38	GLU	3.5
46	BV	190	GLU	3.5
45	CU	83	THR	3.5
28	CD	158	GLY	3.5
9	AI	76	ALA	3.5
46	CV	77	ASP	3.5
2	AB	30	ARG	3.5
6	DF	94	GLN	3.5
45	CU	34	LYS	3.5
4	AD	126	ILE	3.5
14	DN	21	TYR	3.5
29	CE	99	TYR	3.5
42	BR	82	ARG	3.5
1	AA	1002	G	3.5
1	DA	309	G	3.5
20	DT	98	PRO	3.5
38	CN	41	ALA	3.5
38	CN	109	ALA	3.5
39	CO	51	ALA	3.5
36	CL	7	ARG	3.5
33	BI	6	ASN	3.5
29	BE	42	ALA	3.5
37	BM	17	LEU	3.5
11	DK	12	ARG	3.5
37	CM	67	ARG	3.5
55	C5	42	ARG	3.5
43	CS	82	LEU	3.5
30	CF	84	LYS	3.5
34	BJ	141	LYS	3.5

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Mol	Chain	Res	Type	RSRZ
52	C2	26	THR	3.5
43	BS	84	ARG	3.5
1	DA	1112	C	3.5
13	AM	45	VAL	3.5
27	CC	78	LYS	3.5
32	BH	7	GLU	3.5
27	BC	211	ARG	3.5
36	CL	75	ILE	3.5
5	AE	22	GLY	3.5
33	CI	17	LEU	3.5
28	CD	75	VAL	3.5
38	CN	42	LYS	3.5
44	CT	64	LYS	3.5
50	BZ	54	VAL	3.5
49	CY	59	ARG	3.5
55	C5	7	HIS	3.5
1	DA	1243	C	3.5
18	AR	44	LEU	3.5
20	DT	20	LEU	3.5
55	C5	62	LEU	3.5
25	CA	2213	U	3.5
37	BM	71	ASP	3.5
37	CM	11	LYS	3.5
27	BC	52	ARG	3.5
50	BZ	33	GLN	3.5
10	AJ	35	SER	3.5
20	DT	24	LEU	3.5
25	CA	463	G	3.5
44	BT	50	LYS	3.5
39	BO	90	GLY	3.5
39	CO	25	ARG	3.5
4	DD	108	LEU	3.5
13	AM	66	LEU	3.5
27	CC	81	ALA	3.5
25	BA	2189	U	3.5
25	BA	2348	U	3.5
28	CD	14	ILE	3.5
10	DJ	46	ARG	3.5
11	AK	113	PRO	3.4
25	CA	1174	A	3.5
50	CZ	47	VAL	3.5
2	DB	168	THR	3.4

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Mol	Chain	Res	Type	RSRZ
27	CC	226	MET	3.4
38	BN	71	GLN	3.4
44	CT	79	ALA	3.4
45	CU	36	ALA	3.4
15	DO	51	HIS	3.4
25	BA	2156	G	3.4
35	CK	32	TYR	3.4
30	CF	102	PHE	3.4
1	AA	404	U	3.4
9	AI	69	GLY	3.4
25	CA	576	U	3.4
1	DA	60	A	3.4
25	CA	1103	A	3.4
13	AM	16	ASP	3.4
16	AP	49	LEU	3.4
32	CH	114	LEU	3.4
2	AB	27	LYS	3.4
2	AB	81	VAL	3.4
28	BD	160	TYR	3.4
33	BI	56	ASN	3.4
41	BQ	13	LYS	3.4
45	BU	7	VAL	3.4
13	DM	41	PRO	3.4
17	DQ	28	PRO	3.4
34	CJ	97	ARG	3.4
9	DI	73	GLN	3.4
29	CE	175	THR	3.4
45	CU	52	SER	3.4
44	BT	5	TYR	3.4
2	DB	98	LEU	3.4
9	DI	28	VAL	3.4
31	BG	100	GLY	3.4
31	CG	112	PRO	3.4
22	AV	63	SER	3.4
1	DA	1127	G	3.4
3	AC	163	ALA	3.4
8	DH	118	VAL	3.4
11	DK	120	ARG	3.4
27	BC	32	SER	3.4
36	BL	43	GLY	3.4
36	BL	97	PRO	3.4
43	CS	11	ARG	3.4

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Mol	Chain	Res	Type	RSRZ
4	AD	64	LEU	3.4
25	CA	9	U	3.4
25	CA	2102	U	3.4
9	DI	127	LYS	3.4
23	AW	34	C	3.4
25	BA	1644	C	3.4
4	DD	133	VAL	3.4
30	BF	86	MET	3.4
1	DA	975	A	3.4
2	DB	137	ARG	3.4
26	CB	53	A	3.4
43	CS	80	PRO	3.4
52	C2	23	HIS	3.4
20	DT	85	MET	3.4
41	BQ	40	PHE	3.4
1	DA	375	U	3.4
25	CA	2142	C	3.4
2	AB	138	LEU	3.4
15	AO	31	LEU	3.4
19	DS	57	HIS	3.4
33	CI	7	VAL	3.4
37	CM	68	ILE	3.4
36	BL	47	ASP	3.4
39	CO	87	PHE	3.4
28	CD	52	LEU	3.4
33	BI	9	LEU	3.4
34	BJ	109	PRO	3.4
55	B5	22	VAL	3.4
43	BS	2	GLU	3.4
26	BB	27	C	3.4
44	BT	33	LYS	3.4
42	CR	70	ILE	3.4
50	BZ	23	LEU	3.4
27	CC	169	GLU	3.4
2	DB	78	GLN	3.4
10	DJ	20	ALA	3.4
40	CP	97	ALA	3.4
1	AA	1526	G	3.4
6	DF	2	ARG	3.4
25	CA	325	G	3.4
44	CT	61	GLY	3.4
46	CV	163	LEU	3.4

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Mol	Chain	Res	Type	RSRZ
8	AH	94	TYR	3.4
1	DA	137	C	3.4
3	DC	166	GLU	3.4
34	CJ	107	LYS	3.4
2	DB	211	ILE	3.4
20	DT	33	ILE	3.4
28	CD	27	LEU	3.4
45	BU	61	ILE	3.4
27	BC	167	GLY	3.4
28	CD	204	ALA	3.4
15	AO	65	ARG	3.4
41	BQ	109	LEU	3.4
44	CT	60	ARG	3.4
28	CD	118	LYS	3.4
34	BJ	133	GLY	3.4
19	AS	44	MET	3.4
1	DA	41	G	3.4
25	CA	326	G	3.4
42	CR	71	LEU	3.4
5	AE	21	ALA	3.4
7	DG	84	ASN	3.4
18	AR	49	LYS	3.4
44	CT	36	LYS	3.4
55	C5	5	LYS	3.4
32	BH	19	VAL	3.4
10	DJ	63	PHE	3.4
16	DP	73	LEU	3.4
17	AQ	38	ARG	3.4
20	AT	72	LEU	3.4
44	CT	29	TRP	3.4
51	B1	55	PRO	3.4
25	CA	2801	A	3.4
2	DB	71	VAL	3.4
15	DO	48	LYS	3.4
16	DP	62	VAL	3.4
19	DS	41	VAL	3.4
38	CN	6	SER	3.4
40	CP	61	PHE	3.4
4	DD	65	ARG	3.4
38	BN	17	ARG	3.4
41	BQ	39	LEU	3.4
43	CS	23	LEU	3.4

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Mol	Chain	Res	Type	RSRZ
47	CW	74	ARG	3.4
1	DA	730	G	3.4
2	AB	139	LYS	3.4
13	DM	60	VAL	3.4
25	CA	1591	G	3.4
29	CE	28	ILE	3.3
34	BJ	26	THR	3.3
44	CT	4	ALA	3.3
29	CE	173	VAL	3.3
7	DG	8	GLU	3.3
32	BH	123	LEU	3.3
28	BD	19	ARG	3.3
30	CF	85	GLY	3.3
32	CH	122	GLU	3.3
41	BQ	24	TYR	3.3
53	B3	32	ASN	3.3
1	AA	1248	A	3.3
15	DO	88	ARG	3.3
16	AP	16	HIS	3.3
25	CA	2167	U	3.3
37	CM	37	LEU	3.3
8	DH	91	ARG	3.3
1	DA	666	G	3.3
7	DG	36	LYS	3.3
25	BA	389	G	3.3
34	CJ	70	ALA	3.3
42	BR	69	LYS	3.3
54	C4	48	LYS	3.3
55	B5	14	VAL	3.3
13	DM	56	LEU	3.3
15	AO	56	LEU	3.3
25	CA	2700	C	3.3
40	BP	96	ARG	3.3
32	BH	34	GLY	3.3
34	BJ	59	GLY	3.3
56	DX	15	A	3.3
2	AB	108	ILE	3.3
38	BN	42	LYS	3.3
25	BA	2150	U	3.3
37	CM	65	PHE	3.3
4	AD	111	ALA	3.3
7	DG	30	ILE	3.3

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Mol	Chain	Res	Type	RSRZ
41	BQ	17	ILE	3.3
45	BU	51	VAL	3.3
3	AC	159	GLY	3.3
16	AP	37	GLY	3.3
36	CL	50	ARG	3.3
43	CS	76	VAL	3.3
4	DD	74	GLN	3.3
41	BQ	51	LYS	3.3
2	AB	51	LEU	3.3
9	DI	16	ARG	3.3
45	BU	26	LYS	3.3
1	AA	112	G	3.3
2	AB	118	LEU	3.3
25	BA	1574	C	3.3
27	BC	67	PHE	3.3
31	BG	111	HIS	3.3
36	CL	69	GLY	3.3
27	CC	62	TYR	3.3
30	CF	14	GLU	3.3
41	BQ	36	ARG	3.3
20	DT	29	LYS	3.3
44	BT	43	VAL	3.3
2	AB	218	ALA	3.3
31	BG	58	GLU	3.3
47	CW	39	ARG	3.3
32	BH	3	VAL	3.3
1	DA	372	C	3.3
2	DB	194	PRO	3.3
4	AD	97	LEU	3.3
3	AC	160	ALA	3.3
13	DM	5	ALA	3.3
15	AO	53	HIS	3.3
15	DO	30	ALA	3.3
28	CD	159	HIS	3.3
25	CA	2546	U	3.3
36	BL	104	GLY	3.3
1	AA	225	C	3.3
10	AJ	6	ILE	3.3
17	DQ	35	VAL	3.3
25	CA	1574	C	3.3
25	CA	2321	G	3.3
25	CA	2707	G	3.3

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Mol	Chain	Res	Type	RSRZ
2	AB	72	GLY	3.3
16	DP	61	SER	3.3
35	CK	26	LYS	3.3
11	AK	25	TYR	3.3
7	AG	80	VAL	3.3
15	DO	57	LEU	3.3
46	BV	76	LEU	3.3
40	BP	52	ILE	3.3
45	BU	44	ILE	3.3
46	CV	71	VAL	3.3
2	AB	8	LYS	3.3
7	DG	79	ARG	3.3
29	CE	22	ALA	3.3
10	DJ	40	LEU	3.3
16	AP	62	VAL	3.3
28	CD	54	GLN	3.3
31	BG	115	VAL	3.3
39	BO	101	LEU	3.3
1	AA	1367	C	3.3
2	DB	77	ALA	3.3
25	CA	1068	G	3.3
25	CA	2164	C	3.3
26	CB	31	C	3.3
4	DD	168	ARG	3.3
45	BU	19	LYS	3.3
34	CJ	135	LEU	3.3
4	DD	181	MET	3.3
8	DH	100	ILE	3.3
47	BW	70	GLN	3.3
37	CM	104	PHE	3.3
36	BL	109	GLY	3.3
40	CP	114	LEU	3.3
1	AA	309	G	3.3
25	CA	1550	C	3.3
25	CA	2477	C	3.3
13	DM	91	ARG	3.3
25	CA	2114	A	3.3
28	BD	109	LYS	3.3
42	CR	83	ARG	3.3
47	BW	71	ASP	3.3
48	CX	25	LYS	3.3
10	AJ	74	ILE	3.3

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Mol	Chain	Res	Type	RSRZ
31	CG	46	GLU	3.3
46	BV	121	HIS	3.3
55	C5	58	ILE	3.3
34	BJ	108	ILE	3.2
10	DJ	18	ALA	3.2
27	BC	62	TYR	3.2
27	CC	80	ALA	3.2
37	BM	41	TRP	3.2
51	B1	54	LYS	3.2
55	C5	3	LYS	3.2
44	CT	30	VAL	3.2
6	AF	50	TYR	3.2
39	BO	33	LYS	3.2
31	BG	113	VAL	3.2
28	BD	24	THR	3.2
55	C5	27	THR	3.2
22	DV	189	GLN	3.2
25	CA	1933	G	3.2
26	CB	30	C	3.2
29	CE	154	VAL	3.2
29	CE	181	LEU	3.2
35	CK	28	SER	3.2
55	B5	62	LEU	3.2
28	BD	53	PRO	3.2
27	BC	223	GLY	3.2
14	DN	17	LYS	3.2
40	CP	45	PHE	3.2
15	DO	39	LEU	3.2
30	CF	176	LEU	3.2
13	DM	33	ALA	3.2
1	DA	1354	C	3.2
2	AB	136	VAL	3.2
40	BP	101	PHE	3.2
15	DO	53	HIS	3.2
27	CC	102	LYS	3.2
4	DD	158	ILE	3.2
2	AB	91	PRO	3.2
8	AH	3	THR	3.2
8	DH	95	VAL	3.2
29	CE	183	VAL	3.2
18	AR	46	GLU	3.2
6	AF	8	ILE	3.2

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Mol	Chain	Res	Type	RSRZ
10	AJ	5	ARG	3.2
28	BD	153	GLY	3.2
32	BH	81	VAL	3.2
33	BI	13	LEU	3.2
7	AG	33	ASP	3.2
1	AA	744	C	3.2
25	CA	1441	G	3.2
25	CA	2166	G	3.2
45	BU	47	LYS	3.2
19	DS	33	THR	3.2
15	DO	47	LYS	3.2
17	DQ	58	GLU	3.2
45	BU	64	GLU	3.2
51	B1	49	GLU	3.2
36	CL	80	TYR	3.2
38	BN	62	ALA	3.2
2	DB	32	ILE	3.2
4	AD	137	SER	3.2
34	CJ	108	ILE	3.2
26	BB	53	A	3.2
9	AI	61	ALA	3.2
12	DL	30	PRO	3.2
15	AO	2	PRO	3.2
9	AI	19	LEU	3.2
1	DA	1150	U	3.2
36	BL	150	ALA	3.2
47	CW	10	THR	3.2
34	BJ	87	GLY	3.2
2	AB	147	LYS	3.2
25	CA	2140	C	3.2
1	DA	733	A	3.2
25	CA	2212	A	3.2
29	BE	95	ARG	3.2
30	CF	83	ARG	3.2
40	CP	54	ARG	3.2
31	BG	24	VAL	3.2
55	B5	10	ALA	3.2
5	DE	23	GLY	3.2
37	CM	131	ILE	3.2
55	C5	61	LEU	3.2
38	CN	16	HIS	3.2
20	AT	21	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
22	AV	151	ASP	3.2
1	AA	228	A	3.2
22	AV	191	ARG	3.2
39	BO	25	ARG	3.2
1	DA	80	G	3.2
1	DA	1233	G	3.2
25	BA	2125	G	3.2
25	CA	1442	G	3.2
27	CC	113	VAL	3.2
31	CG	162	ILE	3.2
38	BN	72	ASP	3.2
44	CT	28	PHE	3.2
1	AA	1510	U	3.2
13	AM	104	ARG	3.2
32	BH	12	LEU	3.2
25	BA	2296	U	3.2
34	BJ	58	ARG	3.2
47	CW	58	THR	3.2
10	AJ	58	ASP	3.2
19	DS	31	ILE	3.2
12	AL	19	LYS	3.2
29	CE	172	TRP	3.2
30	BF	18	GLU	3.2
34	BJ	90	LEU	3.2
55	B5	8	LYS	3.2
46	CV	82	ARG	3.2
47	CW	44	ARG	3.2
25	CA	577	G	3.2
19	AS	62	ILE	3.2
40	CP	102	ILE	3.2
45	BU	36	ALA	3.2
17	DQ	27	PHE	3.2
46	BV	178	GLU	3.2
2	AB	148	TYR	3.2
1	AA	245	C	3.2
25	BA	537	C	3.2
25	BA	1515	C	3.2
27	BC	231	HIS	3.2
25	CA	2126	A	3.1
28	CD	114	ALA	3.2
38	BN	65	LEU	3.2
20	DT	51	GLU	3.1

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Mol	Chain	Res	Type	RSRZ
46	BV	96	VAL	3.1
1	AA	286	G	3.1
9	DI	17	VAL	3.1
30	BF	176	LEU	3.1
37	BM	81	VAL	3.1
37	CM	7	MET	3.1
49	CY	61	LEU	3.1
37	CM	33	GLY	3.1
50	BZ	18	ASP	3.1
2	AB	73	THR	3.1
22	AV	152	LEU	3.1
28	BD	155	LYS	3.1
34	BJ	140	PHE	3.1
1	DA	185	A	3.1
1	DA	792	A	3.1
8	AH	52	ASP	3.1
12	AL	93	PRO	3.1
13	AM	61	GLU	3.1
20	AT	64	ASP	3.1
27	BC	262	ARG	3.1
30	BF	63	ILE	3.1
15	AO	34	LEU	3.1
27	CC	38	LYS	3.1
22	DV	100	ASP	3.1
41	BQ	28	ARG	3.1
39	BO	35	ILE	3.1
40	CP	86	ILE	3.1
55	C5	2	PRO	3.1
14	AN	22	THR	3.1
18	DR	34	TYR	3.1
20	DT	76	ALA	3.1
37	BM	85	LYS	3.1
25	BA	1304	C	3.1
25	BA	2108	C	3.1
1	DA	389	A	3.1
25	CA	1847	A	3.1
29	BE	46	ARG	3.1
10	AJ	97	GLU	3.1
35	CK	68	GLU	3.1
19	DS	28	LYS	3.1
40	BP	65	LYS	3.1
20	DT	23	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
34	CJ	113	MET	3.1
55	B5	56	GLU	3.1
6	AF	6	VAL	3.1
46	BV	164	ALA	3.1
2	DB	222	ILE	3.1
22	DV	98	PRO	3.1
31	CG	101	ARG	3.1
39	BO	106	ARG	3.1
1	AA	230	G	3.1
1	DA	1219	U	3.1
1	DA	1422	G	3.1
4	DD	2	GLY	3.1
30	BF	137	GLU	3.1
25	BA	2894	G	3.1
41	CQ	20	LEU	3.1
45	CU	92	ASN	3.1
50	CZ	39	ASP	3.1
34	BJ	101	TYR	3.1
22	DV	34	LEU	3.1
35	CK	11	ALA	3.1
44	BT	53	LYS	3.1
44	CT	81	VAL	3.1
18	AR	76	LEU	3.1
20	DT	30	LYS	3.1
37	BM	77	LYS	3.1
30	BF	15	VAL	3.1
31	CG	117	PRO	3.1
42	BR	75	PHE	3.1
16	AP	68	ASP	3.1
22	AV	323	ASP	3.1
46	BV	155	LEU	3.1
55	C5	49	VAL	3.1
20	AT	9	ASN	3.1
42	CR	81	TYR	3.1
12	AL	5	THR	3.1
14	AN	20	ALA	3.1
46	BV	77	ASP	3.1
30	CF	36	LYS	3.1
2	DB	185	ILE	3.1
25	CA	1653	G	3.1
13	AM	42	ALA	3.1
4	AD	146	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
8	DH	93	VAL	3.1
19	DS	9	VAL	3.1
27	BC	181	GLU	3.1
50	CZ	34	GLU	3.1
1	AA	1318	A	3.1
7	AG	78	ARG	3.1
36	CL	81	GLN	3.1
9	AI	47	LEU	3.1
30	CF	28	VAL	3.1
39	CO	102	ALA	3.1
27	BC	271	ILE	3.1
36	CL	52	GLU	3.1
27	BC	16	MET	3.1
36	CL	111	ARG	3.1
28	BD	194	GLY	3.1
41	BQ	22	LYS	3.1
41	BQ	29	SER	3.1
49	BY	8	LYS	3.1
37	BM	105	GLU	3.1
12	AL	88	ARG	3.1
12	DL	88	ARG	3.1
55	B5	63	PRO	3.1
6	DF	54	LYS	3.1
31	CG	102	ALA	3.1
55	B5	20	GLY	3.1
27	CC	105	ILE	3.1
15	AO	68	ARG	3.1
37	BM	97	VAL	3.1
38	BN	22	ARG	3.1
36	CL	112	LEU	3.1
40	CP	62	THR	3.1
2	DB	55	PHE	3.1
37	CM	130	LYS	3.1
27	CC	30	GLU	3.1
30	BF	37	VAL	3.1
33	BI	18	GLU	3.1
49	BY	6	VAL	3.1
5	AE	14	ARG	3.1
8	AH	84	ARG	3.1
16	DP	69	THR	3.1
25	BA	222	A	3.1
25	BA	2294	C	3.1

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Mol	Chain	Res	Type	RSRZ
38	CN	100	LEU	3.1
46	BV	189	ALA	3.1
30	CF	146	TYR	3.1
55	C5	8	LYS	3.1
55	C5	34	TRP	3.1
1	DA	755	G	3.1
28	BD	125	GLY	3.1
10	DJ	54	PHE	3.1
22	DV	19	LEU	3.0
32	BH	120	ILE	3.0
38	BN	4	LEU	3.0
39	CO	37	ALA	3.1
1	AA	401	C	3.0
1	DA	788	U	3.0
2	DB	130	ARG	3.0
47	CW	45	PHE	3.0
6	AF	90	VAL	3.0
55	C5	6	THR	3.0
28	BD	5	LEU	3.0
28	CD	108	SER	3.0
25	BA	1702	G	3.0
25	BA	2162	G	3.0
28	BD	74	PRO	3.0
29	BE	33	LEU	3.0
29	CE	41	LEU	3.0
38	BN	18	LEU	3.0
22	AV	153	GLY	3.0
54	B4	48	LYS	3.0
27	CC	40	THR	3.0
30	CF	87	PRO	3.0
46	BV	83	PRO	3.0
14	AN	30	ALA	3.0
1	AA	742	G	3.0
1	DA	1370	G	3.0
6	AF	95	GLU	3.0
8	AH	125	ARG	3.0
10	DJ	36	GLY	3.0
30	CF	100	TRP	3.0
33	BI	4	LYS	3.0
43	CS	19	LEU	3.0
9	DI	109	VAL	3.0
2	DB	33	TYR	3.0

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Mol	Chain	Res	Type	RSRZ
1	AA	389	A	3.0
3	DC	167	TRP	3.0
4	DD	165	MET	3.0
25	BA	2140	C	3.0
55	C5	28	GLY	3.0
28	BD	54	GLN	3.0
42	CR	84	LYS	3.0
2	DB	114	ARG	3.0
5	DE	25	ARG	3.0
44	CT	58	HIS	3.0
28	BD	163	GLU	3.0
46	CV	28	MET	3.0
25	CA	7	G	3.0
47	BW	23	VAL	3.0
55	B5	39	LYS	3.0
1	AA	405	U	3.0
13	AM	3	ARG	3.0
1	AA	1183	A	3.0
25	CA	2896	C	3.0
6	DF	92	LYS	3.0
38	CN	99	LYS	3.0
40	CP	8	LYS	3.0
2	DB	54	THR	3.0
31	BG	169	VAL	3.0
37	CM	28	ALA	3.0
17	AQ	32	TYR	3.0
22	AV	59	GLU	3.0
45	BU	67	LEU	3.0
32	BH	17	GLN	3.0
32	CH	118	LYS	3.0
35	CK	36	GLY	3.0
39	BO	49	VAL	3.0
2	AB	185	ILE	3.0
44	BT	34	ALA	3.0
26	CB	88	C	3.0
32	BH	72	LEU	3.0
54	C4	47	ARG	3.0
37	BM	98	LYS	3.0
50	BZ	38	GLU	3.0
15	AO	60	VAL	3.0
41	BQ	9	VAL	3.0
41	BQ	41	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
2	AB	157	ARG	3.0
9	AI	83	ARG	3.0
13	AM	94	ARG	3.0
20	DT	84	LEU	3.0
38	BN	60	LEU	3.0
49	CY	56	GLN	3.0
27	BC	61	LEU	3.0
38	BN	44	LEU	3.0
44	BT	83	VAL	3.0
45	CU	67	LEU	3.0
45	BU	38	ILE	3.0
2	DB	196	LEU	3.0
8	AH	92	ARG	3.0
20	DT	26	ASN	3.0
27	BC	217	ARG	3.0
27	BC	239	ARG	3.0
31	BG	98	LEU	3.0
33	BI	14	LYS	3.0
1	DA	1516	G	3.0
25	CA	2567	G	3.0
10	DJ	50	ILE	3.0
26	CB	22	U	3.0
55	B5	58	ILE	3.0
13	DM	112	GLY	3.0
19	AS	16	LEU	3.0
25	BA	2177	C	3.0
27	BC	247	ALA	3.0
31	BG	99	VAL	3.0
44	CT	26	TYR	3.0
45	BU	69	ALA	3.0
6	AF	1	MET	3.0
18	AR	81	PHE	3.0
34	BJ	97	ARG	3.0
1	AA	1020	U	3.0
34	BJ	96	THR	3.0
38	CN	38	VAL	3.0
45	BU	91	GLU	3.0
4	DD	124	GLY	3.0
19	AS	14	HIS	3.0
19	AS	57	HIS	3.0
44	BT	31	HIS	3.0
55	B5	50	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
1	DA	1030	C	3.0
6	DF	90	VAL	3.0
25	BA	1201	C	3.0
8	DH	99	GLU	3.0
20	DT	12	ALA	3.0
38	BN	7	GLY	3.0
1	AA	377	G	3.0
22	DV	22	PRO	3.0
25	BA	2157	G	3.0
44	BT	38	GLU	3.0
7	AG	32	ARG	3.0
10	DJ	51	ARG	3.0
28	BD	119	ARG	3.0
32	BH	9	LEU	3.0
1	DA	1267	C	3.0
22	AV	150	THR	3.0
27	BC	56	GLY	3.0
39	BO	83	LYS	3.0
16	AP	74	LEU	2.9
32	CH	116	LEU	2.9
50	CZ	6	VAL	2.9
29	BE	172	TRP	2.9
32	BH	87	LYS	2.9
43	CS	98	LYS	2.9
1	AA	818	G	2.9
1	AA	1525	G	2.9
25	CA	2215	G	2.9
28	CD	188	VAL	2.9
41	BQ	94	ASN	2.9
50	CZ	38	GLU	2.9
1	AA	248	C	2.9
11	DK	119	CYS	2.9
2	AB	85	ALA	2.9
2	DB	81	VAL	2.9
32	CH	86	THR	2.9
38	BN	6	SER	2.9
12	DL	7	ASN	2.9
31	BG	159	GLU	2.9
8	DH	110	ALA	2.9
37	BM	75	THR	2.9
28	BD	117	MET	2.9
1	AA	1031	G	2.9

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Mol	Chain	Res	Type	RSRZ
27	CC	28	GLU	2.9
30	BF	139	LEU	2.9
46	CV	183	LEU	2.9
10	DJ	49	VAL	2.9
29	CE	38	ARG	2.9
34	BJ	75	VAL	2.9
40	BP	53	ARG	2.9
25	BA	144(B)	A	2.9
49	BY	28	LYS	2.9
27	CC	2	ALA	2.9
2	DB	51	LEU	2.9
34	BJ	122	LEU	2.9
38	CN	58	GLY	2.9
6	DF	69	GLU	2.9
55	C5	50	LEU	2.9
1	DA	1240	U	2.9
7	AG	44	TYR	2.9
29	CE	189	THR	2.9
45	CU	8	LYS	2.9
20	DT	50	GLU	2.9
38	CN	66	VAL	2.9
22	AV	311	ARG	2.9
28	BD	26	ILE	2.9
43	CS	8	ARG	2.9
28	CD	123	ALA	2.9
32	BH	39	ALA	2.9
17	DQ	74	LEU	2.9
31	BG	56	SER	2.9
2	DB	162	ILE	2.9
25	BA	534	U	2.9
20	DT	78	ALA	2.9
47	CW	52	GLY	2.9
17	AQ	74	LEU	2.9
29	CE	101	LEU	2.9
37	BM	78	PRO	2.9
40	CP	101	PHE	2.9
49	BY	21	LEU	2.9
1	AA	1432	G	2.9
6	AF	92	LYS	2.9
25	BA	1643	G	2.9
7	AG	9	VAL	2.9
10	AJ	28	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
12	AL	21	SER	2.9
29	BE	37	VAL	2.9
29	BE	109	GLY	2.9
40	BP	62	THR	2.9
13	DM	15	VAL	2.9
25	BA	2170	A	2.9
27	BC	215	LEU	2.9
4	DD	139	ARG	2.9
15	DO	60	VAL	2.9
25	CA	163	U	2.9
30	BF	104	GLU	2.9
31	BG	114	VAL	2.9
50	CZ	35	ARG	2.9
4	AD	21	LEU	2.9
43	BS	82	LEU	2.9
12	AL	18	ARG	2.9
17	AQ	58	GLU	2.9
25	CA	2187	G	2.9
42	CR	69	LYS	2.9
51	B1	50	THR	2.9
1	AA	40	C	2.9
1	DA	63	C	2.9
1	DA	1188	A	2.9
25	CA	2107	C	2.9
30	BF	106	LEU	2.9
38	CN	18	LEU	2.9
45	BU	15	VAL	2.9
45	BU	66	PRO	2.9
22	AV	36	ARG	2.9
10	DJ	37	PRO	2.9
49	BY	61	LEU	2.9
1	AA	285	G	2.9
8	AH	102	ARG	2.9
27	CC	183	ARG	2.9
34	BJ	52	LYS	2.9
34	CJ	106	LYS	2.9
40	BP	95	ARG	2.9
41	BQ	11	ARG	2.9
46	BV	112	ARG	2.9
47	CW	55	ARG	2.9
55	C5	39	LYS	2.9
14	AN	34	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
25	BA	2178	C	2.9
43	CS	43	GLY	2.9
3	DC	14	ILE	2.9
8	AH	121	ASP	2.9
9	DI	18	PHE	2.9
25	BA	1205	U	2.9
17	AQ	23	VAL	2.9
17	DQ	23	VAL	2.9
28	BD	111	ARG	2.9
39	CO	97	ARG	2.9
8	DH	38	ILE	2.9
22	AV	309	GLN	2.9
29	CE	98	SER	2.9
48	BX	29	GLY	2.9
34	BJ	27	TYR	2.9
50	CZ	4	LEU	2.9
12	AL	125	LYS	2.9
27	BC	5	LYS	2.9
37	CM	27	VAL	2.9
15	AO	67	LEU	2.9
25	CA	2814	C	2.9
28	CD	51	PHE	2.9
25	BA	202	U	2.9
30	CF	37	VAL	2.9
34	BJ	86	THR	2.9
5	AE	23	GLY	2.9
19	DS	8	GLY	2.9
38	CN	103	ARG	2.9
8	DH	89	PRO	2.9
32	BH	68	LEU	2.9
29	CE	193	VAL	2.9
15	AO	88	ARG	2.9
1	DA	228	A	2.9
1	DA	306	G	2.9
13	AM	35	GLU	2.9
25	BA	2164	C	2.9
25	CA	1217	C	2.9
25	CA	1269	A	2.9
25	CA	2101	G	2.9
33	CI	61	LEU	2.9
45	CU	15	VAL	2.9
46	CV	83	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
19	AS	33	THR	2.9
7	AG	43	PHE	2.9
28	CD	155	LYS	2.9
4	DD	123	HIS	2.9
37	BM	68	ILE	2.9
33	BI	11	ALA	2.9
1	AA	823	G	2.8
1	AA	1287	A	2.8
25	CA	34	C	2.8
25	CA	1590	U	2.8
27	BC	65	ILE	2.8
29	CE	206	ILE	2.8
30	CF	7	LEU	2.8
30	CF	63	ILE	2.8
32	BH	6	LEU	2.8
27	CC	17	THR	2.8
37	CM	107	ALA	2.8
19	DS	36	ARG	2.8
29	CE	36	VAL	2.8
27	BC	175	LEU	2.8
2	AB	46	LYS	2.8
37	CM	26	TYR	2.8
46	CV	86	VAL	2.8
4	AD	131	ARG	2.8
5	AE	27	ARG	2.8
9	AI	104	ARG	2.8
12	AL	96	ARG	2.8
1	AA	1235	U	2.8
1	DA	949	A	2.8
1	DA	1518	A	2.8
28	BD	124	GLY	2.8
29	CE	37	VAL	2.8
27	BC	64	ILE	2.8
14	AN	32	SER	2.8
30	CF	18	GLU	2.8
36	CL	74	GLU	2.8
2	AB	160	ASP	2.8
4	AD	158	ILE	2.8
14	AN	41	ARG	2.8
25	CA	2813	A	2.8
28	BD	55	ASN	2.8
50	BZ	55	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
25	BA	164	U	2.8
1	DA	1138	G	2.8
25	CA	578	A	2.8
25	CA	749	C	2.8
25	CA	1102	C	2.8
47	BW	43	THR	2.8
28	BD	114	ALA	2.8
35	CK	27	GLY	2.8
9	AI	128	ARG	2.8
16	AP	69	THR	2.8
19	DS	30	LEU	2.8
41	BQ	90	VAL	2.8
37	BM	129	THR	2.8
40	CP	60	THR	2.8
22	DV	40	GLU	2.8
4	AD	110	PHE	2.8
11	AK	112	THR	2.8
27	CC	206	LEU	2.8
34	CJ	134	PRO	2.8
4	DD	24	GLU	2.8
25	CA	2627	G	2.8
33	BI	21	GLN	2.8
34	BJ	132	LYS	2.8
44	CT	38	GLU	2.8
2	AB	45	GLN	2.8
15	DO	56	LEU	2.8
22	DV	152	LEU	2.8
47	BW	44	ARG	2.8
54	B4	47	ARG	2.8
48	CX	28	GLY	2.8
34	BJ	123	GLU	2.8
39	CO	40	ILE	2.8
25	BA	2702	U	2.8
28	BD	120	TRP	2.8
29	CE	95	ARG	2.8
32	CH	82	ARG	2.8
1	AA	103(A)	A	2.8
20	DT	103	GLY	2.8
25	BA	1847	A	2.8
43	CS	10	VAL	2.8
44	CT	54	VAL	2.8
55	C5	38	GLY	2.8

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Mol	Chain	Res	Type	RSRZ
1	DA	402	G	2.8
1	DA	578	C	2.8
25	CA	2628	C	2.8
41	CQ	13	LYS	2.8
2	DB	213	LEU	2.8
31	BG	59	ARG	2.8
49	BY	36	ARG	2.8
31	CG	150	ALA	2.8
55	B5	49	VAL	2.8
37	CM	69	PHE	2.8
2	DB	172	ILE	2.8
37	BM	111	GLU	2.8
42	CR	68	LYS	2.8
19	DS	48	THR	2.8
25	CA	1420	U	2.8
27	CC	32	SER	2.8
28	BD	161	GLY	2.8
30	BF	102	PHE	2.8
37	BM	115	MET	2.8
45	CU	23	ARG	2.8
8	AH	110	ALA	2.8
12	DL	25	ALA	2.8
25	BA	1200	C	2.8
25	CA	2626	C	2.8
50	BZ	22	ALA	2.8
25	BA	558	G	2.8
27	CC	82	ILE	2.8
27	CC	184	LYS	2.8
35	CK	2	ILE	2.8
36	CL	94	GLU	2.8
46	CV	53	ILE	2.8
2	DB	76	GLN	2.8
30	BF	2	PRO	2.8
38	BN	59	ASP	2.8
2	AB	40	HIS	2.8
31	BG	43	VAL	2.8
53	C3	32	ASN	2.8
2	AB	77	ALA	2.8
31	BG	54	ARG	2.8
31	BG	101	ARG	2.8
1	AA	390	C	2.8
2	DB	48	MET	2.8

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Mol	Chain	Res	Type	RSRZ
2	DB	92	TYR	2.8
22	DV	44	VAL	2.8
25	CA	2417	C	2.8
25	BA	2168	G	2.8
12	DL	21	SER	2.8
30	CF	175	LEU	2.8
34	CJ	96	THR	2.8
9	DI	13	ALA	2.8
11	AK	94	ALA	2.8
38	CN	101	ALA	2.8
1	AA	961	U	2.8
1	DA	1472	U	2.8
5	DE	81	GLU	2.8
13	DM	63	THR	2.8
29	BE	188	ARG	2.8
36	BL	100	LEU	2.8
1	DA	393	A	2.8
1	DA	977	A	2.8
2	DB	159	PRO	2.8
50	BZ	12	PRO	2.8
40	BP	110	ILE	2.8
2	AB	54	THR	2.8
22	AV	321	THR	2.8
25	BA	559	G	2.8
36	BL	14	LYS	2.8
36	BL	17	LYS	2.8
4	DD	118	ARG	2.8
33	CI	10	LEU	2.8
36	BL	49	ARG	2.8
38	BN	54	LEU	2.8
17	DQ	8	GLY	2.8
36	BL	103	ALA	2.8
38	CN	5	LYS	2.8
27	BC	234	GLY	2.8
37	BM	82	ARG	2.8
42	BR	66	ARG	2.8
32	BH	109	ILE	2.8
20	AT	29	LYS	2.8
41	CQ	30	LYS	2.8
1	AA	1405	G	2.8
4	AD	120	LEU	2.8
20	AT	69	GLY	2.8

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Mol	Chain	Res	Type	RSRZ
20	AT	104	LEU	2.8
38	CN	64	ARG	2.8
42	BR	86	GLY	2.8
55	B5	7	HIS	2.8
2	AB	131	PRO	2.8
12	AL	4	PRO	2.8
44	BT	8	ILE	2.8
13	AM	13	LYS	2.7
18	AR	68	LYS	2.7
37	CM	31	ASP	2.7
37	CM	24	GLY	2.7
19	AS	31	ILE	2.7
41	CQ	17	ILE	2.7
45	BU	74	PRO	2.7
25	CA	2629	A	2.7
1	DA	308	C	2.7
13	DM	13	LYS	2.7
26	BB	60	C	2.7
55	B5	48	PHE	2.7
1	DA	227	G	2.7
5	DE	15	ARG	2.7
9	DI	76	ALA	2.7
29	CE	109	GLY	2.7
32	CH	35	LEU	2.7
38	CN	62	ALA	2.7
41	BQ	65	ILE	2.7
25	CA	1084	A	2.7
46	CV	87	ASP	2.7
25	CA	1104	C	2.7
44	CT	63	LYS	2.7
50	BZ	53	LEU	2.7
1	AA	247	G	2.7
25	CA	1443	G	2.7
25	CA	1613	G	2.7
27	CC	174	ILE	2.7
43	CS	42	ARG	2.7
45	BU	86	ARG	2.7
27	BC	184	LYS	2.7
45	BU	27	VAL	2.7
13	AM	2	ALA	2.7
38	CN	14	SER	2.7
49	BY	24	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
13	DM	21	TYR	2.7
27	CC	167	GLY	2.7
25	BA	1932	A	2.7
42	BR	94	LEU	2.7
30	BF	115	ARG	2.7
9	AI	18	PHE	2.7
36	CL	14	LYS	2.7
13	DM	95	GLY	2.7
41	CQ	21	ALA	2.7
4	AD	14	ARG	2.7
27	CC	9	TYR	2.7
35	CK	63	VAL	2.7
40	BP	54	ARG	2.7
4	DD	150	GLU	2.7
20	DT	99	LEU	2.7
32	CH	87	LYS	2.7
40	BP	123	LYS	2.7
50	BZ	52	HIS	2.7
18	AR	65	ILE	2.7
37	CM	92	GLY	2.7
20	DT	89	ARG	2.7
36	BL	10	PRO	2.7
45	BU	89	PHE	2.7
23	AW	33	U	2.7
28	BD	157	ALA	2.7
41	BQ	35	ALA	2.7
11	AK	91	ARG	2.7
32	CH	132	PRO	2.7
1	AA	1314	C	2.7
10	AJ	96	ILE	2.7
31	CG	148	ILE	2.7
37	CM	36	ALA	2.7
25	CA	164	U	2.7
25	CA	748	G	2.7
32	CH	9	LEU	2.7
38	CN	20	LEU	2.7
38	CN	56	LYS	2.7
49	BY	10	LEU	2.7
19	DS	29	ARG	2.7
36	BL	61	ARG	2.7
44	BT	7	VAL	2.7
55	B5	28	GLY	2.7

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Mol	Chain	Res	Type	RSRZ
2	AB	35	GLU	2.7
4	AD	11	LEU	2.7
7	DG	42	ILE	2.7
1	AA	1341	U	2.7
27	BC	253	GLN	2.7
8	DH	90	GLY	2.7
32	BH	15	VAL	2.7
39	CO	98	VAL	2.7
44	CT	59	VAL	2.7
44	CT	86	GLY	2.7
55	C5	9	GLY	2.7
1	AA	266	G	2.7
17	AQ	34	LYS	2.7
27	BC	261	LYS	2.7
46	BV	186	GLU	2.7
9	AI	71	SER	2.7
9	DI	41	VAL	2.7
5	AE	25	ARG	2.7
16	AP	13	HIS	2.7
20	AT	22	ARG	2.7
27	BC	40	THR	2.7
29	CE	39	TRP	2.7
34	CJ	136	GLY	2.7
37	BM	86	GLY	2.7
45	BU	83	THR	2.7
54	B4	22	MET	2.7
14	DN	30	ALA	2.7
45	BU	92	ASN	2.7
54	C4	46	VAL	2.7
10	DJ	53	PRO	2.7
1	AA	284	G	2.7
15	AO	3	ILE	2.7
15	DO	55	GLY	2.7
20	AT	101	GLY	2.7
47	CW	57	PHE	2.7
14	AN	61	TRP	2.7
32	BH	10	GLU	2.7
34	BJ	64	ASP	2.7
38	CN	53	HIS	2.7
43	CS	84	ARG	2.7
2	AB	13	ALA	2.7
17	DQ	6	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
32	BH	21	VAL	2.7
37	BM	104	PHE	2.7
44	BT	28	PHE	2.7
45	BU	87	LYS	2.7
45	CU	37	VAL	2.7
25	BA	2797	U	2.7
31	CG	57	ASP	2.7
43	CS	78	GLU	2.7
2	AB	110	GLN	2.7
13	DM	29	ARG	2.7
31	CG	123	PHE	2.7
1	DA	31	G	2.7
25	CA	2190	G	2.7
41	BQ	30	LYS	2.7
49	CY	57	ILE	2.7
28	BD	151	TYR	2.7
37	CM	32	PHE	2.7
41	CQ	8	VAL	2.7
45	CU	66	PRO	2.7
1	AA	1531	A	2.7
13	AM	46	LYS	2.7
13	DM	46	LYS	2.7
30	BF	158	ALA	2.7
48	BX	33	LYS	2.7
50	BZ	49	LYS	2.7
1	DA	1218	C	2.6
25	CA	2172	U	2.6
25	CA	2527	C	2.6
55	B5	34	TRP	2.7
16	DP	41	PRO	2.6
36	CL	136	GLU	2.6
47	CW	47	PRO	2.6
5	DE	80	ILE	2.6
38	CN	52	ILE	2.6
41	BQ	27	LEU	2.6
1	AA	251	G	2.6
7	AG	26	PHE	2.6
29	BE	35	GLU	2.6
31	BG	167	GLU	2.6
36	CL	57	THR	2.6
4	AD	61	LYS	2.6
4	AD	117	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
37	CM	59	ARG	2.6
16	AP	20	VAL	2.6
25	CA	1067	A	2.6
26	CB	58	A	2.6
27	CC	95	LEU	2.6
29	CE	24	LEU	2.6
39	CO	88	ASP	2.6
45	CU	70	SER	2.6
8	AH	55	GLY	2.6
4	AD	132	ARG	2.6
17	AQ	82	MET	2.6
20	AT	63	ILE	2.6
41	CQ	60	LEU	2.6
46	CV	27	VAL	2.6
53	B3	34	LEU	2.6
34	CJ	124	HIS	2.6
8	AH	97	VAL	2.6
10	AJ	38	ILE	2.6
22	DV	311	ARG	2.6
1	DA	665	A	2.6
19	AS	70	LYS	2.6
25	BA	802	A	2.6
25	CA	557	U	2.6
25	CA	645	C	2.6
45	CU	74	PRO	2.6
17	AQ	21	VAL	2.6
34	CJ	53	ILE	2.6
20	DT	36	LEU	2.6
38	BN	64	ARG	2.6
50	BZ	44	ARG	2.6
36	BL	70	GLN	2.6
49	BY	56	GLN	2.6
2	DB	152	PHE	2.6
25	BA	224	G	2.6
34	BJ	124	HIS	2.6
34	CJ	131	PRO	2.6
2	DB	111	ARG	2.6
33	CI	66	LEU	2.6
37	BM	79	LEU	2.6
5	DE	26	PHE	2.6
25	BA	958	U	2.6
25	BA	1590	U	2.6

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Mol	Chain	Res	Type	RSRZ
25	BA	2134	A	2.6
22	AV	295	THR	2.6
28	CD	120	TRP	2.6
10	DJ	35	SER	2.6
27	CC	231	HIS	2.6
34	CJ	153	HIS	2.6
28	BD	193	GLY	2.6
28	CD	5	LEU	2.6
42	CR	73	SER	2.6
34	BJ	107	LYS	2.6
37	BM	18	LYS	2.6
40	CP	123	LYS	2.6
48	CX	23	LYS	2.6
50	CZ	5	LYS	2.6
1	AA	1469	G	2.6
1	DA	21	G	2.6
9	AI	81	ILE	2.6
49	CY	4	SER	2.6
16	AP	42	ARG	2.6
31	BG	97	ARG	2.6
19	AS	67	VAL	2.6
28	BD	116	VAL	2.6
30	BF	159	VAL	2.6
33	CI	13	LEU	2.6
42	CR	74	LYS	2.6
22	DV	33	SER	2.6
25	CA	2538	C	2.6
15	AO	55	GLY	2.6
27	CC	216	GLY	2.6
40	CP	76	PHE	2.6
44	BT	9	LEU	2.6
45	CU	14	LEU	2.6
13	DM	43	THR	2.6
1	DA	81	G	2.6
25	CA	1703	G	2.6
34	BJ	134	PRO	2.6
40	BP	28	VAL	2.6
10	AJ	33	GLN	2.6
10	AJ	44	VAL	2.6
15	DO	61	GLY	2.6
36	CL	95	VAL	2.6
40	CP	89	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
48	CX	36	GLY	2.6
4	AD	100	ARG	2.6
4	AD	161	ASN	2.6
10	DJ	55	LYS	2.6
22	DV	190	GLY	2.6
30	BF	160	VAL	2.6
38	CN	59	ASP	2.6
39	BO	82	ILE	2.6
43	CS	75	TYR	2.6
36	BL	72	PRO	2.6
1	AA	1131	G	2.6
1	DA	285	G	2.6
1	AA	793	U	2.6
12	AL	52	ARG	2.6
25	BA	171	G	2.6
25	CA	1702	G	2.6
31	CG	97	ARG	2.6
34	BJ	143	LEU	2.6
41	CQ	39	LEU	2.6
43	BS	64	MET	2.6
10	DJ	17	ASP	2.6
25	BA	471	A	2.6
25	BA	1156	A	2.6
25	CA	2518	A	2.6
41	BQ	7	GLY	2.6
1	DA	817	C	2.6
16	DP	11	SER	2.6
22	AV	182	ARG	2.6
28	BD	185	LYS	2.6
46	CV	182	LYS	2.6
18	AR	62	GLU	2.6
16	AP	11	SER	2.6
46	CV	120	ILE	2.6
1	AA	41	G	2.6
1	AA	134	A	2.6
13	DM	47	ASP	2.6
34	CJ	123	GLU	2.6
46	CV	119	GLU	2.6
1	DA	186(A)	C	2.6
1	DA	1477	C	2.6
25	CA	2520	C	2.6
27	CC	166	GLN	2.6

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Mol	Chain	Res	Type	RSRZ
29	CE	123	LEU	2.6
32	BH	30	LEU	2.6
34	CJ	68	ASN	2.6
43	CS	83	LYS	2.6
13	DM	25	ILE	2.6
15	AO	26	GLU	2.6
2	AB	210	SER	2.6
12	AL	95	VAL	2.6
13	AM	41	PRO	2.6
15	DO	46	HIS	2.6
20	DT	53	LEU	2.6
22	DV	324	LEU	2.6
25	BA	1963	U	2.6
28	BD	149	ARG	2.6
48	BX	26	ARG	2.6
13	AM	25	ILE	2.6
18	AR	83	GLU	2.6
25	BA	1247	A	2.6
25	BA	2378	A	2.6
25	CA	896	A	2.6
39	CO	82	ILE	2.6
37	BM	73	PRO	2.6
16	DP	60	LEU	2.6
25	CA	271(B)	C	2.6
25	CA	1781	C	2.6
29	BE	99	TYR	2.6
34	CJ	98	TYR	2.6
2	DB	74	LYS	2.6
4	AD	121	VAL	2.6
10	AJ	48	THR	2.6
32	CH	67	ARG	2.6
39	CO	106	ARG	2.6
40	BP	113	LYS	2.6
16	AP	63	GLY	2.6
27	CC	23	GLU	2.6
29	CE	167	ALA	2.6
10	DJ	33	GLN	2.6
34	CJ	146	TYR	2.6
39	CO	94	TYR	2.6
1	AA	966	G	2.5
1	DA	107	G	2.5
6	DF	88	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
16	DP	53	VAL	2.5
20	AT	100	ILE	2.5
20	DT	52	ALA	2.5
25	BA	1439	A	2.5
1	AA	980	C	2.5
1	DA	1326	C	2.5
36	CL	125	VAL	2.5
37	CM	90	VAL	2.5
47	CW	77	ARG	2.5
7	DG	81	GLY	2.5
28	BD	162	ALA	2.5
32	CH	94	ALA	2.5
50	BZ	51	ALA	2.5
1	AA	841	U	2.5
25	BA	50	U	2.5
55	B5	60	LEU	2.5
1	DA	933	G	2.5
25	BA	1555	G	2.5
25	CA	2056	G	2.5
28	BD	159	HIS	2.5
31	BG	61	HIS	2.5
44	BT	80	ILE	2.5
38	CN	15	SER	2.5
4	DD	93	PHE	2.5
44	CT	47	PHE	2.5
2	DB	129	GLU	2.5
6	DF	89	MET	2.5
22	AV	62	GLU	2.5
25	BA	1934	C	2.5
27	BC	83	GLU	2.5
33	CI	9	LEU	2.5
28	CD	154	LYS	2.5
36	CL	70	GLN	2.5
37	CM	84	GLY	2.5
2	AB	177	ALA	2.5
9	AI	82	ALA	2.5
18	AR	43	PHE	2.5
1	DA	789	U	2.5
1	DA	1348	U	2.5
11	DK	110	ASP	2.5
16	AP	15	PRO	2.5
37	BM	16	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
1	DA	631	G	2.5
1	DA	1405	G	2.5
25	BA	271(C)	G	2.5
25	BA	528	A	2.5
43	CS	102	HIS	2.5
31	BG	39	PRO	2.5
10	DJ	8	LEU	2.5
9	DI	11	LYS	2.5
16	DP	14	ASN	2.5
25	BA	2142	C	2.5
27	CC	61	LEU	2.5
38	BN	52	ILE	2.5
50	BZ	27	GLY	2.5
47	BW	39	ARG	2.5
48	CX	21	ARG	2.5
5	DE	21	ALA	2.5
32	BH	65	ALA	2.5
4	DD	126	ILE	2.5
6	AF	54	LYS	2.5
13	DM	61	GLU	2.5
35	CK	29	ASN	2.5
17	AQ	40	LYS	2.5
36	CL	61	ARG	2.5
38	BN	66	VAL	2.5
1	DA	392	G	2.5
25	BA	463	G	2.5
25	BA	1089	G	2.5
25	BA	1384	A	2.5
2	DB	61	LEU	2.5
1	AA	400	C	2.5
25	CA	1549	C	2.5
27	BC	4	LYS	2.5
30	BF	161	THR	2.5
15	AO	35	ARG	2.5
35	CK	67	LYS	2.5
12	DL	91	ASP	2.5
35	CK	79	PHE	2.5
37	BM	99	PRO	2.5
35	CK	106	LEU	2.5
43	CS	20	VAL	2.5
2	DB	46	LYS	2.5
22	AV	23	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
2	AB	94	ASN	2.5
2	AB	122	PHE	2.5
9	AI	32	ASP	2.5
10	AJ	46	ARG	2.5
38	BN	74	LYS	2.5
38	CN	25	ALA	2.5
1	DA	1363	A	2.5
22	AV	22	PRO	2.5
22	AV	31	TYR	2.5
25	BA	2379	G	2.5
34	BJ	110	LEU	2.5
34	CJ	69	VAL	2.5
43	CS	103	ILE	2.5
1	AA	1509	C	2.5
22	DV	218	ARG	2.5
25	BA	2803	C	2.5
45	CU	19	LYS	2.5
36	CL	21	ARG	2.5
1	DA	1364	U	2.5
13	DM	109	THR	2.5
17	DQ	22	LEU	2.5
25	CA	2547	U	2.5
27	CC	65	ILE	2.5
34	CJ	94	ILE	2.5
48	CX	37	ILE	2.5
45	CU	89	PHE	2.5
55	B5	27	THR	2.5
10	AJ	25	GLU	2.5
31	BG	52	VAL	2.5
33	CI	5	ARG	2.5
1	AA	376	G	2.5
5	DE	19	MET	2.5
18	DR	65	ILE	2.5
25	BA	1703	G	2.5
25	CA	1128	A	2.5
26	BB	58	A	2.5
30	BF	175	LEU	2.5
50	BZ	46	ASN	2.5
9	AI	20	ARG	2.5
16	DP	72	ARG	2.5
29	CE	190	GLU	2.5
32	CH	85	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
2	AB	215	LEU	2.5
5	AE	28	PHE	2.5
25	BA	1101	U	2.5
25	CA	2144	U	2.5
37	CM	70	PRO	2.5
17	AQ	57	VAL	2.5
22	AV	28	LYS	2.5
2	AB	50	GLU	2.5
6	DF	66	GLU	2.5
12	AL	14	ARG	2.5
25	BA	225	A	2.5
25	BA	1086	A	2.5
25	BA	2335	A	2.5
12	DL	19	LYS	2.5
45	BU	63	LYS	2.5
22	AV	123	PHE	2.5
39	BO	34	HIS	2.5
4	AD	17	VAL	2.5
7	AG	81	GLY	2.5
9	AI	41	VAL	2.5
30	CF	20	ILE	2.5
10	AJ	42	THR	2.5
30	CF	139	LEU	2.5
45	BU	13	VAL	2.5
2	DB	56	ARG	2.5
20	AT	106	ALA	2.5
20	DT	54	LYS	2.5
4	DD	81	GLU	2.5
10	AJ	62	HIS	2.5
40	CP	111	ARG	2.5
1	AA	622	A	2.5
32	CH	71	ILE	2.5
1	DA	92	G	2.5
1	DA	394	G	2.5
25	BA	469	G	2.5
25	CA	2576	G	2.5
1	DA	30	U	2.5
34	CJ	143	LEU	2.5
36	CL	62	LEU	2.5
43	CS	12	ILE	2.5
4	DD	62	GLN	2.5
19	DS	70	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
7	AG	34	GLY	2.5
9	AI	26	VAL	2.5
38	CN	26	LYS	2.5
17	AQ	60	ILE	2.5
41	BQ	10	ARG	2.5
46	BV	82	ARG	2.5
1	DA	1289	A	2.5
1	DA	1519	A	2.5
2	DB	10	LEU	2.5
22	DV	323	ASP	2.5
30	CF	106	LEU	2.5
36	CL	51	PHE	2.5
38	CN	111	LEU	2.5
25	CA	2149	G	2.5
38	CN	24	GLN	2.5
1	AA	283	C	2.5
1	AA	1397	C	2.5
1	DA	764	C	2.5
9	AI	92	TYR	2.5
29	CE	42	ALA	2.5
44	CT	62	LYS	2.5
46	BV	188	ALA	2.5
25	CA	974(B)	C	2.5
25	CA	1644	C	2.5
49	BY	59	ARG	2.5
16	AP	10	GLY	2.4
5	AE	5	ASP	2.4
9	DI	77	ILE	2.4
30	BF	97	ASP	2.4
34	CJ	140	PHE	2.4
1	AA	1519	A	2.4
1	DA	288	A	2.4
10	DJ	48	THR	2.4
18	DR	79	LEU	2.4
32	CH	7	GLU	2.4
2	AB	29	ALA	2.4
1	DA	395	C	2.4
1	DA	1234	C	2.4
25	BA	1454	U	2.4
25	BA	1983	C	2.4
25	BA	2780	G	2.4
28	BD	20	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
44	CT	48	LYS	2.4
45	BU	94	LYS	2.4
42	CR	82	ARG	2.4
50	BZ	6	VAL	2.4
7	AG	82	GLY	2.4
12	DL	29	ALA	2.4
4	AD	153	ARG	2.4
9	AI	17	VAL	2.4
19	DS	38	SER	2.4
19	DS	80	TYR	2.4
36	BL	5	ASP	2.4
1	DA	300	A	2.4
16	AP	70	ALA	2.4
25	CA	1088	A	2.4
36	CL	144	GLU	2.4
43	BS	43	GLY	2.4
18	DR	19	LYS	2.4
1	AA	732	C	2.4
9	DI	75	ASP	2.4
25	BA	1513	C	2.4
25	BA	2155	G	2.4
25	CA	2526	G	2.4
25	CA	2874	C	2.4
9	DI	103	THR	2.4
10	AJ	71	LEU	2.4
16	AP	41	PRO	2.4
30	CF	103	LEU	2.4
45	BU	73	ARG	2.4
3	AC	166	GLU	2.4
9	DI	84	ALA	2.4
34	CJ	126	VAL	2.4
32	CH	107	ILE	2.4
40	BP	8	LYS	2.4
4	DD	76	ARG	2.4
16	DP	49	LEU	2.4
30	CF	95	ARG	2.4
34	BJ	46	LEU	2.4
36	CL	82	GLY	2.4
41	CQ	53	ARG	2.4
1	DA	1250	A	2.4
25	BA	457	A	2.4
7	AG	35	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
12	DL	20	LYS	2.4
1	AA	1511	G	2.4
3	DC	15	THR	2.4
25	CA	10	G	2.4
25	CA	1255	U	2.4
46	CV	75	ASN	2.4
25	CA	1383	C	2.4
27	CC	182	LEU	2.4
41	CQ	27	LEU	2.4
46	CV	188	ALA	2.4
47	CW	85	ALA	2.4
7	DG	11	GLN	2.4
28	CD	26	ILE	2.4
8	DH	120	THR	2.4
8	DH	127	LEU	2.4
22	DV	92	LEU	2.4
22	DV	101	PRO	2.4
28	BD	59	VAL	2.4
12	AL	28	GLY	2.4
13	DM	36	LYS	2.4
25	CA	2577	A	2.4
27	CC	4	LYS	2.4
30	BF	178	PHE	2.4
25	BA	453	C	2.4
25	BA	468	G	2.4
26	BB	30	C	2.4
27	CC	79	VAL	2.4
6	DF	4	TYR	2.4
13	DM	39	ILE	2.4
40	BP	102	ILE	2.4
34	BJ	32	VAL	2.4
10	AJ	8	LEU	2.4
10	DJ	47	PHE	2.4
27	BC	263	ARG	2.4
27	CC	168	ARG	2.4
55	B5	53	PRO	2.4
25	CA	443	A	2.4
34	BJ	72	GLY	2.4
1	DA	297	G	2.4
1	DA	1421	G	2.4
5	AE	24	ARG	2.4
25	BA	1640	C	2.4

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Mol	Chain	Res	Type	RSRZ
25	CA	2777	G	2.4
29	CE	176	LEU	2.4
33	BI	19	ARG	2.4
22	AV	29	GLY	2.4
31	CG	111	HIS	2.4
36	BL	63	PRO	2.4
2	DB	58	ILE	2.4
12	AL	45	LYS	2.4
34	CJ	141	LYS	2.4
41	BQ	63	VAL	2.4
4	DD	152	SER	2.4
19	AS	8	GLY	2.4
20	AT	77	ALA	2.4
43	CS	44	ALA	2.4
54	C4	45	ALA	2.4
1	AA	1225	A	2.4
24	AX	16	A	2.4
25	BA	470	A	2.4
25	BA	1127	A	2.4
25	CA	72	U	2.4
1	AA	979	C	2.4
3	DC	178	LEU	2.4
13	AM	91	ARG	2.4
18	AR	85	LEU	2.4
27	BC	218	ARG	2.4
28	BD	7	VAL	2.4
50	BZ	50	VAL	2.4
6	DF	8	ILE	2.4
8	DH	98	LYS	2.4
12	AL	90	LYS	2.4
38	BN	83	ILE	2.4
34	CJ	49	LEU	2.4
34	CJ	66	THR	2.4
2	DB	135	GLN	2.4
7	DG	4	ARG	2.4
27	BC	54	ARG	2.4
28	CD	56	PRO	2.4
40	BP	124	ASP	2.4
4	AD	93	PHE	2.4
1	AA	1428	A	2.4
25	CA	2473	U	2.4
25	CA	2503	A	2.4

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Mol	Chain	Res	Type	RSRZ
41	BQ	62	ILE	2.4
2	AB	16	HIS	2.4
9	AI	88	TYR	2.4
12	DL	113	LYS	2.4
1	AA	224	C	2.4
8	AH	119	LEU	2.4
40	CP	96	ARG	2.4
45	BU	17	SER	2.4
47	BW	41	ARG	2.4
2	AB	156	LYS	2.4
18	DR	69	THR	2.4
43	CS	21	VAL	2.4
2	AB	175	ARG	2.4
20	AT	99	LEU	2.4
8	DH	109	ILE	2.4
10	DJ	66	ARG	2.4
28	BD	123	ALA	2.4
44	CT	91	ALA	2.4
1	AA	1473	A	2.4
20	AT	71	THR	2.4
25	CA	1268	A	2.4
28	CD	106	GLY	2.4
18	AR	34	TYR	2.4
39	CO	41	ASP	2.4
41	BQ	106	PHE	2.4
1	AA	1477	C	2.4
26	CB	6	C	2.4
31	BG	102	ALA	2.4
48	BX	20	ARG	2.4
48	CX	83	GLU	2.4
1	DA	1469	G	2.4
25	BA	458	G	2.4
25	BA	465	G	2.4
4	DD	162	LEU	2.4
30	BF	7	LEU	2.4
34	BJ	49	LEU	2.4
1	AA	244	U	2.4
29	CE	114	VAL	2.4
32	BH	131	LYS	2.4
48	CX	33	LYS	2.4
19	DS	69	HIS	2.3
1	DA	1128	C	2.3

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Mol	Chain	Res	Type	RSRZ
3	AC	161	GLU	2.3
10	AJ	64	GLU	2.3
25	CA	2326	C	2.3
32	BH	33	ARG	2.3
33	BI	20	ALA	2.3
36	BL	51	PHE	2.3
45	BU	25	GLY	2.3
11	AK	111	ASP	2.3
25	BA	1303	G	2.3
14	AN	33	VAL	2.3
32	CH	12	LEU	2.3
38	CN	29	LEU	2.3
55	C5	60	LEU	2.3
6	DF	52	ILE	2.3
17	DQ	72	ARG	2.3
31	BG	53	GLU	2.3
8	AH	4	ASP	2.3
25	CA	1652	A	2.3
27	BC	38	LYS	2.3
50	CZ	19	GLN	2.3
27	CC	29	PRO	2.3
52	C2	29	ILE	2.3
1	DA	386	C	2.3
1	DA	545	C	2.3
25	BA	2612	C	2.3
7	DG	80	VAL	2.3
17	DQ	5	VAL	2.3
25	BA	1613	G	2.3
25	CA	1763	G	2.3
27	CC	25	THR	2.3
50	BZ	47	VAL	2.3
2	AB	32	ILE	2.3
33	BI	10	LEU	2.3
44	CT	80	ILE	2.3
55	C5	32	LEU	2.3
8	AH	89	PRO	2.3
12	DL	23	VAL	2.3
25	CA	2689	U	2.3
29	BE	96	ASP	2.3
31	CG	53	GLU	2.3
37	CM	25	ASP	2.3
1	DA	787	A	2.3

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Mol	Chain	Res	Type	RSRZ
1	DA	1288	A	2.3
4	AD	101	LEU	2.3
16	DP	37	GLY	2.3
25	BA	359	A	2.3
30	BF	157	ILE	2.3
32	BH	115	ALA	2.3
38	BN	51	LEU	2.3
50	BZ	14	GLY	2.3
27	CC	211	ARG	2.3
30	CF	16	ARG	2.3
36	CL	15	ARG	2.3
9	AI	2	GLU	2.3
1	AA	963	G	2.3
1	DA	104	G	2.3
1	DA	326	G	2.3
2	AB	204	ASN	2.3
17	AQ	75	ARG	2.3
17	DQ	75	ARG	2.3
19	AS	42	PRO	2.3
25	BA	2167	U	2.3
47	BW	47	PRO	2.3
2	DB	19	HIS	2.3
17	AQ	29	HIS	2.3
34	CJ	111	GLU	2.3
17	AQ	84	LEU	2.3
20	AT	70	SER	2.3
37	BM	22	LYS	2.3
28	CD	189	PRO	2.3
30	CF	32	PRO	2.3
1	AA	345	C	2.3
30	BF	72	ARG	2.3
32	BH	82	ARG	2.3
36	BL	15	ARG	2.3
47	CW	72	ARG	2.3
17	DQ	29	HIS	2.3
25	BA	1975	G	2.3
25	BA	2872	G	2.3
30	BF	149	VAL	2.3
10	DJ	39	PRO	2.3
27	CC	230	ASP	2.3
8	DH	3	THR	2.3
13	AM	7	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
13	AM	106	ASN	2.3
18	AR	82	THR	2.3
1	AA	1269	A	2.3
4	DD	163	GLU	2.3
8	DH	136	GLU	2.3
9	DI	44	VAL	2.3
37	CM	96	VAL	2.3
46	BV	78	LYS	2.3
7	AG	12	LEU	2.3
22	AV	307	PHE	2.3
37	CM	64	ILE	2.3
4	AD	16	GLY	2.3
47	CW	42	GLY	2.3
51	B1	44	CYS	2.3
55	B5	9	GLY	2.3
19	AS	7	LYS	2.3
20	AT	74	LYS	2.3
25	CA	1467	C	2.3
28	BD	75	VAL	2.3
51	B1	39	ARG	2.3
4	DD	125	HIS	2.3
12	DL	92	LEU	2.3
18	DR	78	LEU	2.3
46	CV	169	GLU	2.3
19	DS	76	PRO	2.3
45	BU	80	GLY	2.3
48	CX	20	ARG	2.3
27	CC	208	LYS	2.3
43	CS	97	LYS	2.3
1	DA	968	A	2.3
3	AC	158	GLY	2.3
9	AI	30	GLY	2.3
25	CA	631	A	2.3
31	BG	104	GLU	2.3
32	BH	96	ASP	2.3
33	CI	65	GLU	2.3
50	CZ	57	GLU	2.3
8	AH	53	VAL	2.3
17	DQ	39	SER	2.3
44	CT	49	VAL	2.3
1	AA	1384	C	2.3
12	AL	20	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
25	BA	1625	C	2.3
25	CA	1463	C	2.3
2	AB	34	ALA	2.3
4	AD	128	VAL	2.3
7	AG	83	ALA	2.3
8	DH	96	GLY	2.3
10	AJ	21	GLN	2.3
25	CA	162	U	2.3
29	BE	187	VAL	2.3
32	BH	114	LEU	2.3
53	C3	29	ASN	2.3
18	DR	72	ARG	2.3
8	AH	9	MET	2.3
17	AQ	22	LEU	2.3
19	DS	60	VAL	2.3
28	CD	124	GLY	2.3
25	CA	1932	A	2.3
45	BU	90	LEU	2.3
51	B1	38	ALA	2.3
9	DI	67	GLY	2.3
25	CA	2517	C	2.3
26	BB	12	C	2.3
36	CL	49	ARG	2.3
4	AD	77	ASN	2.3
16	AP	79	VAL	2.3
40	CP	113	LYS	2.3
1	DA	1185	G	2.3
25	CA	232	G	2.3
25	CA	2157	G	2.3
28	CD	59	VAL	2.3
44	CT	43	VAL	2.3
9	AI	79	LEU	2.3
22	DV	2	LEU	2.3
7	AG	113	GLU	2.3
25	BA	2062	A	2.3
43	BS	81	ALA	2.3
47	BW	21	LEU	2.3
10	AJ	37	PRO	2.3
20	AT	98	PRO	2.3
37	BM	83	MET	2.3
44	CT	74	PRO	2.3
36	CL	126	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
38	CN	11	ASN	2.3
43	CS	17	VAL	2.3
5	DE	13	ILE	2.3
14	DN	37	PHE	2.3
15	DO	87	ILE	2.3
29	BE	108	LYS	2.3
1	DA	190	G	2.3
4	AD	112	VAL	2.3
28	CD	138	PRO	2.3
34	CJ	101	TYR	2.3
38	CN	94	TYR	2.3
45	CU	7	VAL	2.3
27	CC	60	ARG	2.3
49	CY	52	ASP	2.3
10	DJ	65	LEU	2.3
28	BD	152	LYS	2.3
8	AH	57	PRO	2.3
9	AI	21	PRO	2.3
34	BJ	85	VAL	2.3
37	BM	90	VAL	2.3
27	BC	53	PHE	2.3
33	CI	21	GLN	2.3
40	CP	125	ARG	2.3
2	AB	161	ALA	2.3
2	AB	213	LEU	2.3
6	DF	53	ALA	2.3
9	AI	85	LEU	2.3
12	AL	89	VAL	2.3
48	BX	38	SER	2.3
29	CE	161	GLU	2.3
47	CW	43	THR	2.3
51	C1	60	GLU	2.3
7	AG	13	GLN	2.2
10	AJ	4	ILE	2.2
11	AK	12	ARG	2.2
25	BA	533	G	2.2
29	CE	186	ILE	2.2
34	CJ	120	ARG	2.2
31	BG	38	SER	2.2
39	CO	44	LYS	2.2
25	CA	2062	A	2.2
10	AJ	87	THR	2.2

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Mol	Chain	Res	Type	RSRZ
19	DS	39	THR	2.2
8	DH	129	VAL	2.2
13	DM	59	TYR	2.2
30	BF	88	ILE	2.2
1	AA	1192	C	2.2
20	AT	81	LYS	2.2
25	BA	162	U	2.2
25	BA	1535	U	2.2
28	BD	122	PHE	2.2
45	BU	93	GLY	2.2
2	DB	80	ILE	2.2
8	DH	35	ILE	2.2
13	DM	22	ILE	2.2
25	BA	205	G	2.2
35	CK	98	VAL	2.2
34	BJ	57	LEU	2.2
34	CJ	30	LYS	2.2
18	AR	69	THR	2.2
40	CP	77	PRO	2.2
52	C2	17	ASP	2.2
28	BD	184	VAL	2.2
4	AD	80	GLU	2.2
27	BC	59	LYS	2.2
28	BD	158	GLY	2.2
48	CX	57	GLU	2.2
51	C1	57	ILE	2.2
1	DA	1065	U	2.2
12	AL	22	LYS	2.2
25	CA	2016	U	2.2
27	BC	95	LEU	2.2
27	BC	168	ARG	2.2
27	BC	220	HIS	2.2
37	BM	23	GLY	2.2
37	BM	42	ILE	2.2
52	B2	27	PRO	2.2
15	DO	34	LEU	2.2
18	AR	40	LEU	2.2
25	BA	2153	G	2.2
43	CS	25	ARG	2.2
50	CZ	48	GLU	2.2
17	AQ	35	VAL	2.2
27	CC	173	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
25	BA	800	A	2.2
7	AG	79	ARG	2.2
10	AJ	55	LYS	2.2
1	DA	822	C	2.2
2	DB	57	PHE	2.2
17	DQ	84	LEU	2.2
28	BD	16	ARG	2.2
28	CD	136	ARG	2.2
46	CV	118	GLN	2.2
36	CL	114	ILE	2.2
52	C2	27	PRO	2.2
1	DA	284	G	2.2
1	DA	1117	G	2.2
1	DA	1480	G	2.2
4	DD	80	GLU	2.2
22	AV	25	LEU	2.2
37	CM	34	LEU	2.2
40	BP	63	VAL	2.2
42	CR	85	LYS	2.2
19	DS	59	PRO	2.2
27	BC	29	PRO	2.2
28	BD	28	ALA	2.2
42	CR	72	VAL	2.2
12	DL	111	ASP	2.2
35	CK	70	LYS	2.2
46	CV	166	SER	2.2
1	DA	1527	C	2.2
4	AD	138	TYR	2.2
25	BA	2021	C	2.2
25	CA	77	C	2.2
25	CA	1218	C	2.2
28	CD	115	GLY	2.2
10	AJ	54	PHE	2.2
16	DP	51	VAL	2.2
30	CF	2	PRO	2.2
2	DB	144	ARG	2.2
27	CC	200	ASP	2.2
30	CF	137	GLU	2.2
3	DC	151	VAL	2.2
4	DD	29	PRO	2.2
22	AV	98	PRO	2.2
2	AB	173	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
4	DD	11	LEU	2.2
5	DE	50	GLU	2.2
13	AM	92	HIS	2.2
29	CE	32	LEU	2.2
35	CK	31	LYS	2.2
40	CP	56	GLY	2.2
42	BR	88	ARG	2.2
45	BU	46	LYS	2.2
45	BU	88	LYS	2.2
49	CY	54	LYS	2.2
32	CH	117	GLU	2.2
12	DL	24	PRO	2.2
16	AP	39	TYR	2.2
10	DJ	76	ASN	2.2
28	BD	60	ASN	2.2
4	AD	94	LEU	2.2
9	DI	47	LEU	2.2
19	DS	11	VAL	2.2
1	DA	1423	G	2.2
22	DV	309	GLN	2.2
25	BA	452	G	2.2
25	BA	801	G	2.2
26	CB	7	G	2.2
1	AA	561	U	2.2
2	AB	100	GLY	2.2
2	AB	150	SER	2.2
2	DB	70	PHE	2.2
13	DM	88	ARG	2.2
27	BC	26	LYS	2.2
30	CF	99	MET	2.2
35	CK	25	LEU	2.2
35	CK	65	THR	2.2
48	BX	21	ARG	2.2
1	AA	1267	C	2.2
43	CS	24	ILE	2.2
45	CU	38	ILE	2.2
2	DB	166	ASP	2.2
29	BE	36	VAL	2.2
31	CG	156	ALA	2.2
35	BK	33	ALA	2.2
44	BT	75	ASP	2.2
54	B4	46	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
12	AL	6	ILE	2.2
22	AV	186	THR	2.2
1	AA	195	A	2.2
1	AA	1146	A	2.2
25	BA	1364	G	2.2
25	CA	2100	G	2.2
27	CC	106	ILE	2.2
1	DA	820	U	2.2
12	DL	27	LYS	2.2
27	BC	260	ARG	2.2
36	BL	148	LEU	2.2
32	BH	43	ASN	2.2
43	CS	18	ARG	2.2
8	DH	131	GLY	2.2
16	AP	48	TRP	2.2
37	CM	41	TRP	2.2
19	AS	5	LEU	2.2
5	AE	13	ILE	2.2
22	DV	186	THR	2.2
22	AV	310	SER	2.2
1	DA	61	G	2.2
9	AI	101	PHE	2.2
1	DA	119	A	2.2
1	DA	718	G	2.2
25	CA	1073	A	2.2
26	CB	89(B)	A	2.2
33	CI	11	ALA	2.2
37	CM	39	PRO	2.2
28	CD	151	TYR	2.2
37	BM	12	GLN	2.2
31	BG	88	LEU	2.2
16	DP	80	PHE	2.2
30	CF	21	ARG	2.2
44	BT	39	ILE	2.2
9	AI	43	ALA	2.2
22	DV	187	GLU	2.2
25	CA	2871	C	2.2
2	DB	8	LYS	2.2
13	AM	12	ASN	2.2
32	BH	128	LEU	2.2
4	DD	67	ILE	2.2
34	CJ	127	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
1	AA	439	A	2.2
25	BA	1816	G	2.2
25	CA	2308	G	2.2
25	CA	2741	A	2.2
44	BT	46	ALA	2.2
3	AC	155	GLY	2.2
5	DE	133	TYR	2.2
7	AG	101	LEU	2.2
15	AO	47	LYS	2.2
28	BD	52	LEU	2.2
29	CE	174	VAL	2.2
27	BC	13	ARG	2.2
29	CE	191	ARG	2.2
1	DA	290	C	2.1
25	BA	889	C	2.1
27	CC	53	PHE	2.1
46	CV	11	GLU	2.1
2	AB	196	LEU	2.1
4	DD	61	LYS	2.1
39	BO	52	SER	2.1
39	CO	27	SER	2.1
49	CY	29	LYS	2.1
17	AQ	72	ARG	2.1
1	AA	282	A	2.1
2	AB	17	PHE	2.1
25	BA	2119	A	2.1
2	DB	45	GLN	2.1
13	AM	111	LYS	2.1
22	AV	27	ASP	2.1
22	DV	96	LEU	2.1
34	BJ	130	LEU	2.1
41	CQ	29	SER	2.1
55	C5	56	GLU	2.1
37	CM	135	ASP	2.1
13	DM	17	VAL	2.1
14	AN	29	ARG	2.1
18	AR	80	PRO	2.1
29	BE	167	ALA	2.1
37	BM	29	PHE	2.1
32	BH	116	LEU	2.1
37	CM	17	LEU	2.1
38	BN	40	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
47	BW	10	THR	2.1
48	CX	32	LYS	2.1
9	AI	5	TYR	2.1
32	BH	25	TYR	2.1
26	BB	1	U	2.1
2	DB	44	LEU	2.1
25	BA	1283	G	2.1
26	BB	89(B)	A	2.1
28	BD	181	LEU	2.1
29	CE	148	LEU	2.1
41	BQ	89	GLU	2.1
4	AD	8	VAL	2.1
28	CD	196	VAL	2.1
29	BE	183	VAL	2.1
29	BE	112	MET	2.1
42	CR	21	ARG	2.1
1	DA	379	C	2.1
2	DB	171	ALA	2.1
37	BM	107	ALA	2.1
47	CW	76	GLY	2.1
25	CA	32	C	2.1
25	CA	790	C	2.1
4	AD	152	SER	2.1
13	AM	56	LEU	2.1
36	BL	91	PHE	2.1
37	CM	98	LYS	2.1
38	CN	37	THR	2.1
40	BP	73	GLU	2.1
47	BW	54	GLY	2.1
6	AF	63	TYR	2.1
30	CF	29	TRP	2.1
45	CU	82	PRO	2.1
15	DO	43	LEU	2.1
25	BA	1553	A	2.1
25	CA	751	A	2.1
25	BA	883	G	2.1
25	CA	1573	G	2.1
28	BD	197	ILE	2.1
39	CO	33	LYS	2.1
52	B2	26	THR	2.1
7	DG	83	ALA	2.1
28	BD	147	PRO	2.1

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Mol	Chain	Res	Type	RSRZ
34	CJ	50	ALA	2.1
41	CQ	113	ALA	2.1
1	AA	110	C	2.1
1	AA	1234	C	2.1
9	DI	81	ILE	2.1
17	AQ	83	ASP	2.1
45	BU	60	PHE	2.1
29	BE	155	LEU	2.1
41	CQ	26	GLY	2.1
43	CS	100	THR	2.1
2	DB	85	ALA	2.1
22	DV	123	PHE	2.1
25	BA	161	U	2.1
35	CK	107	ARG	2.1
36	BL	90	ARG	2.1
7	AG	30	ILE	2.1
18	AR	47	THR	2.1
25	BA	2126	A	2.1
25	CA	2309	A	2.1
26	CB	29	A	2.1
34	BJ	53	ILE	2.1
36	BL	6	LEU	2.1
42	BR	20	LEU	2.1
1	AA	42	G	2.1
1	DA	725	G	2.1
8	DH	123	GLU	2.1
25	CA	11	G	2.1
25	CA	745	G	2.1
25	CA	1642	G	2.1
25	CA	2280	G	2.1
41	BQ	25	TRP	2.1
46	CV	186	GLU	2.1
10	AJ	18	ALA	2.1
12	DL	96	ARG	2.1
20	AT	80	ARG	2.1
28	CD	55	ASN	2.1
28	CD	164	ARG	2.1
1	AA	1223	C	2.1
16	AP	67	THR	2.1
20	AT	56	MET	2.1
25	BA	267	C	2.1
25	BA	413	C	2.1

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Mol	Chain	Res	Type	RSRZ
40	CP	59	THR	2.1
42	CR	94	LEU	2.1
1	DA	560	U	2.1
13	DM	2	ALA	2.1
25	CA	2034	U	2.1
27	CC	52	ARG	2.1
1	AA	246	A	2.1
1	DA	243	A	2.1
4	DD	64	LEU	2.1
6	AF	97	PHE	2.1
18	DR	40	LEU	2.1
39	CO	26	LEU	2.1
40	BP	7	ILE	2.1
43	CS	45	TYR	2.1
1	AA	111	G	2.1
1	AA	1474	G	2.1
25	CA	1271	G	2.1
37	CM	40	ALA	2.1
1	AA	1100	C	2.1
2	DB	138	LEU	2.1
8	DH	87	SER	2.1
28	BD	15	PHE	2.1
37	BM	37	LEU	2.1
49	CY	28	LYS	2.1
9	DI	68	GLY	2.1
25	BA	165	U	2.1
25	BA	1931	U	2.1
27	CC	223	GLY	2.1
37	BM	38	GLU	2.1
46	CV	72	ARG	2.1
4	AD	78	LEU	2.1
4	DD	105	VAL	2.1
30	BF	8	LYS	2.1
35	BK	32	TYR	2.1
3	DC	169	ALA	2.1
9	DI	45	ALA	2.1
25	BA	1769	G	2.1
27	BC	14	ARG	2.1
28	BD	96	PHE	2.1
31	BG	109	PHE	2.1
27	BC	174	ILE	2.1
36	BL	71	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
1	AA	967	C	2.1
38	CN	87	TYR	2.1
39	BO	31	SER	2.1
41	CQ	56	ASP	2.1
45	CU	95	LYS	2.1
25	CA	33	U	2.1
25	CA	1130	U	2.1
27	CC	13	ARG	2.1
46	CV	49	ARG	2.1
49	CY	33	MET	2.1
1	AA	32	A	2.1
25	CA	507	A	2.1
48	CX	38	SER	2.1
45	BU	72	VAL	2.1
45	BU	81	LYS	2.1
1	AA	402	G	2.1
6	AF	53	ALA	2.1
7	DG	39	ALA	2.1
15	AO	30	ALA	2.1
25	BA	188	G	2.1
25	CA	2053	G	2.1
25	CA	2307	G	2.1
54	C4	23	ARG	2.1
1	AA	269	C	2.1
3	DC	196	LEU	2.1
23	DW	1	C	2.1
25	CA	462	C	2.1
25	CA	2539	C	2.1
25	BA	1976	U	2.1
35	CK	69	VAL	2.1
17	DQ	45	HIS	2.1
19	DS	4	SER	2.1
32	CH	105	HIS	2.1
34	BJ	102	PRO	2.1
17	AQ	33	GLY	2.1
27	CC	6	PHE	2.1
27	CC	171	ASP	2.1
28	BD	196	VAL	2.1
28	CD	78	LEU	2.1
29	CE	187	VAL	2.1
54	C4	22	MET	2.1
1	DA	1451	A	2.1

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Mol	Chain	Res	Type	RSRZ
25	BA	2448	A	2.1
1	AA	1355	G	2.1
1	DA	396	G	2.1
6	DF	87	ARG	2.1
38	BN	2	ARG	2.1
44	BT	60	ARG	2.1
17	AQ	43	LEU	2.1
51	C1	56	GLU	2.1
1	AA	1040	U	2.1
27	CC	7	LYS	2.1
55	C5	59	LYS	2.1
37	CM	134	ARG	2.1
4	AD	157	LEU	2.1
2	AB	74	LYS	2.0
15	DO	44	LYS	2.0
25	BA	1032	A	2.0
25	CA	2060	A	2.0
34	BJ	113	MET	2.0
37	CM	87	LYS	2.0
16	DP	38	TYR	2.0
33	BI	17	LEU	2.0
38	BN	39	PRO	2.0
55	C5	45	GLY	2.0
25	BA	411	G	2.0
25	BA	1626	G	2.0
49	BY	32	LEU	2.0
25	BA	99	U	2.0
25	BA	2016	U	2.0
25	CA	1592	C	2.0
25	CA	1617	C	2.0
26	CB	41	U	2.0
37	CM	85	LYS	2.0
11	AK	86	GLY	2.0
44	CT	35	THR	2.0
1	AA	792	A	2.0
1	DA	1014	A	2.0
7	AG	42	ILE	2.0
25	BA	2799	A	2.0
28	BD	31	CYS	2.0
28	CD	203	LYS	2.0
38	CN	13	HIS	2.0
55	C5	31	HIS	2.0

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Mol	Chain	Res	Type	RSRZ
37	BM	84	GLY	2.0
28	BD	182	LEU	2.0
29	BE	176	LEU	2.0
30	CF	161	THR	2.0
32	CH	108	THR	2.0
1	AA	1517	G	2.0
25	BA	1245	G	2.0
25	CA	452	G	2.0
40	BP	105	LEU	2.0
34	CJ	75	VAL	2.0
2	AB	211	ILE	2.0
9	DI	78	LYS	2.0
17	DQ	78	GLU	2.0
25	CA	528	A	2.0
28	CD	20	ALA	2.0
43	BS	83	LYS	2.0
46	BV	143	GLY	2.0
10	AJ	67	THR	2.0
19	AS	74	PHE	2.0
30	CF	141	PHE	2.0
37	CM	99	PRO	2.0
40	BP	6	LEU	2.0
2	AB	171	ALA	2.0
5	DE	88	LYS	2.0
13	AM	73	GLU	2.0
22	AV	325	GLU	2.0
25	CA	1630	G	2.0
41	CQ	7	GLY	2.0
25	CA	574	C	2.0
26	BB	6	C	2.0
38	CN	80	PHE	2.0
47	CW	12	ASN	2.0
32	BH	18	VAL	2.0
34	BJ	28	VAL	2.0
38	CN	95	THR	2.0
40	BP	111	ARG	2.0
41	CQ	61	TRP	2.0
1	AA	1101	A	2.0
1	AA	1268	A	2.0
2	AB	42	ILE	2.0
4	DD	75	PHE	2.0
29	CE	107	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
35	BK	2	ILE	2.0
44	BT	87	GLN	2.0
47	CW	17	GLN	2.0
53	C3	30	THR	2.0
30	BF	24	GLY	2.0
41	CQ	36	ARG	2.0
1	AA	1344	C	2.0
1	DA	1432	G	2.0
3	DC	153	VAL	2.0
6	DF	63	TYR	2.0
11	AK	114	VAL	2.0
22	DV	17	ALA	2.0
25	CA	1080	C	2.0
25	CA	2035	G	2.0
25	CA	2585	U	2.0
25	CA	2036	C	2.0
30	BF	73	ALA	2.0
32	BH	100	ALA	2.0
35	CK	105	GLU	2.0
42	BR	76	LYS	2.0
50	BZ	9	VAL	2.0
4	DD	6	GLY	2.0
13	AM	20	THR	2.0
38	CN	36	THR	2.0
9	AI	40	LEU	2.0
22	DV	182	ARG	2.0
41	CQ	40	PHE	2.0
45	CU	31	LEU	2.0
3	DC	160	ALA	2.0
12	AL	27	LYS	2.0
1	AA	243	A	2.0
25	BA	712(B)	A	2.0
41	BQ	38	THR	2.0
9	DI	128	ARG	2.0
20	AT	24	LEU	2.0
47	CW	70	GLN	2.0
46	BV	20	ARG	2.0

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

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

6.3 Carbohydrates

There are no carbohydrates 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	RSR	LLDF	B-factors(Å ²)	Q<0.9
58	ZN	DD	301	1/1	0.26	-	99,99,99,99	0
57	MG	B2	101	1/1	0.15	-	96,96,96,96	0
57	MG	DA	1612	1/1	0.42	-	107,107,107,107	0
57	MG	CA	2956	1/1	0.86	-	107,107,107,107	0
57	MG	BA	2903	1/1	0.87	-	44,44,44,44	0
57	MG	BA	2932	1/1	0.45	-	68,68,68,68	0
57	MG	CY	101	1/1	0.23	-	61,61,61,61	0
57	MG	BA	3048	1/1	0.46	-	98,98,98,98	0
57	MG	AA	1655	1/1	0.63	-	102,102,102,102	0
57	MG	CA	2953	1/1	0.37	-	135,135,135,135	0
57	MG	CA	3012	1/1	0.17	-	57,57,57,57	0
57	MG	CA	3005	1/1	0.27	-	67,67,67,67	0
57	MG	BA	2987	1/1	1.64	-	125,125,125,125	0
57	MG	CA	2984	1/1	0.20	-	78,78,78,78	0
57	MG	BA	2912	1/1	0.63	-	57,57,57,57	0
57	MG	CA	2996	1/1	0.39	-	84,84,84,84	0
57	MG	BA	2974	1/1	0.14	-	27,27,27,27	0
57	MG	AA	1619	1/1	0.32	-	160,160,160,160	0
57	MG	BA	2940	1/1	0.41	-	104,104,104,104	0
57	MG	AA	1614	1/1	0.33	-	68,68,68,68	0
57	MG	DA	1624	1/1	0.47	-	97,97,97,97	0
57	MG	BA	2978	1/1	0.41	-	87,87,87,87	0
57	MG	BA	2977	1/1	0.06	-	79,79,79,79	0
57	MG	AA	1639	1/1	0.21	-	104,104,104,104	0
57	MG	BA	2928	1/1	0.97	-	67,67,67,67	0
57	MG	AA	1627	1/1	0.30	-	109,109,109,109	0
57	MG	CA	2991	1/1	0.24	-	72,72,72,72	0
57	MG	BA	3045	1/1	0.18	-	76,76,76,76	0
57	MG	AA	1651	1/1	0.50	-	68,68,68,68	0
57	MG	CA	3024	1/1	0.05	-	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	CA	2987	1/1	1.45	-	64,64,64,64	0
57	MG	BA	2965	1/1	2.13	-	97,97,97,97	0
57	MG	BA	2999	1/1	0.91	-	84,84,84,84	0
57	MG	CA	2980	1/1	0.14	-	57,57,57,57	0
57	MG	DA	1617	1/1	0.54	-	139,139,139,139	0
57	MG	BA	2981	1/1	0.41	-	72,72,72,72	0
57	MG	BA	2998	1/1	0.45	-	90,90,90,90	0
57	MG	BA	2924	1/1	0.96	-	60,60,60,60	0
57	MG	CA	3014	1/1	0.74	-	104,104,104,104	0
57	MG	DA	1608	1/1	0.69	-	90,90,90,90	0
57	MG	DA	1606	1/1	0.36	-	62,62,62,62	0
57	MG	CA	3003	1/1	0.21	-	111,111,111,111	0
57	MG	BA	3052	1/1	0.64	-	74,74,74,74	0
57	MG	BA	2969	1/1	0.34	-	41,41,41,41	0
57	MG	BA	2962	1/1	0.42	-	50,50,50,50	0
57	MG	BA	2913	1/1	1.28	-	88,88,88,88	0
57	MG	BA	3072	1/1	0.19	-	83,83,83,83	0
57	MG	AA	1612	1/1	1.02	-	126,126,126,126	0
57	MG	AA	1609	1/1	0.74	-	86,86,86,86	0
57	MG	BA	3027	1/1	0.09	-	69,69,69,69	0
57	MG	AA	1633	1/1	0.08	-	76,76,76,76	0
57	MG	BA	2943	1/1	0.39	-	85,85,85,85	0
57	MG	CA	2914	1/1	0.71	-	48,48,48,48	0
57	MG	AA	1601	1/1	0.18	-	57,57,57,57	0
57	MG	AA	1644	1/1	0.33	-	73,73,73,73	0
57	MG	BA	3051	1/1	0.81	-	120,120,120,120	0
57	MG	CA	3009	1/1	0.36	-	60,60,60,60	0
57	MG	DW	101	1/1	0.42	-	83,83,83,83	0
57	MG	DA	1619	1/1	0.47	-	89,89,89,89	0
57	MG	DA	1603	1/1	0.31	-	85,85,85,85	0
57	MG	CA	2949	1/1	1.28	-	57,57,57,57	0
57	MG	BA	2950	1/1	0.88	-	89,89,89,89	0
57	MG	BA	3035	1/1	0.61	-	77,77,77,77	0
57	MG	CA	2994	1/1	0.21	-	60,60,60,60	0
57	MG	BA	2906	1/1	0.69	-	54,54,54,54	0
57	MG	BA	2910	1/1	0.57	-	56,56,56,56	0
57	MG	CA	2916	1/1	0.39	-	92,92,92,92	0
57	MG	CA	2927	1/1	0.95	-	60,60,60,60	0
57	MG	CB	202	1/1	0.45	-	79,79,79,79	0
57	MG	BA	3023	1/1	0.32	-	71,71,71,71	0
57	MG	BA	2931	1/1	1.00	-	99,99,99,99	0
57	MG	BA	2946	1/1	0.78	-	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	BA	3047	1/1	0.11	-	41,41,41,41	0
57	MG	BA	3036	1/1	0.72	-	114,114,114,114	0
57	MG	CA	2981	1/1	0.33	-	74,74,74,74	0
57	MG	CA	2931	1/1	0.34	-	71,71,71,71	0
57	MG	BA	2983	1/1	0.69	-	77,77,77,77	0
57	MG	BA	3022	1/1	0.44	-	95,95,95,95	0
57	MG	AA	1635	1/1	0.14	-	85,85,85,85	0
57	MG	AA	1629	1/1	0.43	-	71,71,71,71	0
57	MG	CA	2944	1/1	0.57	-	55,55,55,55	0
57	MG	BA	2949	1/1	2.17	-	89,89,89,89	0
57	MG	BA	2955	1/1	0.52	-	63,63,63,63	0
57	MG	CA	2932	1/1	0.66	-	81,81,81,81	0
57	MG	BA	2986	1/1	0.46	-	114,114,114,114	0
57	MG	BA	2968	1/1	1.64	-	106,106,106,106	0
57	MG	BA	2957	1/1	0.50	-	81,81,81,81	0
57	MG	CA	2982	1/1	0.69	-	77,77,77,77	0
57	MG	DA	1605	1/1	0.31	-	75,75,75,75	0
57	MG	BA	3041	1/1	0.36	-	65,65,65,65	0
57	MG	CA	2974	1/1	0.75	-	80,80,80,80	0
57	MG	CA	3016	1/1	0.11	-	99,99,99,99	0
57	MG	CA	2977	1/1	0.28	-	82,82,82,82	0
57	MG	BA	3069	1/1	0.11	-	60,60,60,60	0
57	MG	CA	2999	1/1	0.26	-	58,58,58,58	0
57	MG	CA	2909	1/1	0.81	-	81,81,81,81	0
57	MG	BA	3046	1/1	0.65	-	71,71,71,71	0
57	MG	BA	3033	1/1	0.33	-	92,92,92,92	0
57	MG	CA	2922	1/1	0.48	-	43,43,43,43	0
57	MG	BA	3071	1/1	0.25	-	107,107,107,107	0
57	MG	AA	1621	1/1	0.25	-	67,67,67,67	0
57	MG	BA	3011	1/1	0.55	-	97,97,97,97	0
57	MG	BA	2941	1/1	0.53	-	63,63,63,63	0
57	MG	DA	1630	1/1	0.51	-	87,87,87,87	0
57	MG	BA	2984	1/1	0.69	-	45,45,45,45	0
57	MG	BA	2901	1/1	0.77	-	57,57,57,57	0
57	MG	CA	3006	1/1	0.88	-	74,74,74,74	0
57	MG	BA	2927	1/1	0.92	-	53,53,53,53	0
57	MG	DA	1611	1/1	0.44	-	89,89,89,89	0
57	MG	DA	1604	1/1	0.90	-	96,96,96,96	0
57	MG	AA	1613	1/1	0.41	-	105,105,105,105	0
57	MG	BA	3064	1/1	0.22	-	56,56,56,56	0
57	MG	CA	2934	1/1	0.54	-	57,57,57,57	0
57	MG	CA	2920	1/1	0.92	-	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	CA	2919	1/1	1.95	-	72,72,72,72	0
57	MG	DA	1616	1/1	1.06	-	93,93,93,93	0
57	MG	CA	2962	1/1	0.53	-	68,68,68,68	0
57	MG	BA	3029	1/1	0.22	-	83,83,83,83	0
57	MG	BA	2990	1/1	1.18	-	120,120,120,120	0
57	MG	AA	1646	1/1	0.57	-	82,82,82,82	0
57	MG	AA	1658	1/1	0.17	-	58,58,58,58	0
57	MG	AA	1662	1/1	0.10	-	110,110,110,110	0
57	MG	CA	2995	1/1	0.27	-	69,69,69,69	0
57	MG	CA	2945	1/1	0.49	-	84,84,84,84	0
57	MG	BA	3020	1/1	0.60	-	85,85,85,85	0
57	MG	CA	2998	1/1	0.89	-	73,73,73,73	0
57	MG	BA	3010	1/1	0.18	-	80,80,80,80	0
57	MG	DA	1628	1/1	0.87	-	103,103,103,103	0
57	MG	AA	1607	1/1	0.47	-	128,128,128,128	0
57	MG	AA	1647	1/1	0.20	-	92,92,92,92	0
57	MG	CA	3019	1/1	0.35	-	71,71,71,71	0
57	MG	BA	3039	1/1	0.21	-	90,90,90,90	0
57	MG	CA	2908	1/1	1.01	-	81,81,81,81	0
57	MG	BA	2967	1/1	0.21	-	111,111,111,111	0
57	MG	BA	2919	1/1	0.40	-	61,61,61,61	0
57	MG	BA	3066	1/1	0.15	-	98,98,98,98	0
58	ZN	DN	101	1/1	0.09	-	162,162,162,162	0
57	MG	CA	2959	1/1	0.12	-	51,51,51,51	0
57	MG	CA	2966	1/1	0.27	-	79,79,79,79	0
57	MG	BA	3002	1/1	1.39	-	78,78,78,78	0
57	MG	CA	2960	1/1	0.16	-	63,63,63,63	0
57	MG	AT	201	1/1	0.29	-	98,98,98,98	0
57	MG	BA	2959	1/1	0.22	-	43,43,43,43	0
57	MG	AA	1654	1/1	1.03	-	130,130,130,130	0
57	MG	BA	3061	1/1	0.49	-	77,77,77,77	0
57	MG	BA	3050	1/1	0.10	-	114,114,114,114	0
57	MG	DA	1623	1/1	0.48	-	151,151,151,151	0
57	MG	AA	1649	1/1	0.43	-	106,106,106,106	0
57	MG	CA	2926	1/1	0.49	-	70,70,70,70	0
57	MG	CA	2979	1/1	0.36	-	79,79,79,79	0
57	MG	AA	1637	1/1	0.68	-	65,65,65,65	0
57	MG	BA	3019	1/1	0.49	-	94,94,94,94	0
57	MG	BA	3076	1/1	0.34	-	100,100,100,100	0
57	MG	CA	2921	1/1	1.12	-	62,62,62,62	0
57	MG	AA	1604	1/1	0.40	-	78,78,78,78	0
57	MG	AA	1631	1/1	0.10	-	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	BA	2936	1/1	0.85	-	106,106,106,106	0
57	MG	BA	2992	1/1	0.45	-	80,80,80,80	0
57	MG	CA	2939	1/1	0.51	-	40,40,40,40	0
57	MG	CA	2928	1/1	0.35	-	66,66,66,66	0
57	MG	BA	2933	1/1	0.63	-	83,83,83,83	0
57	MG	CA	3013	1/1	0.36	-	88,88,88,88	0
57	MG	BK	201	1/1	0.48	-	102,102,102,102	0
57	MG	BA	3060	1/1	0.41	-	57,57,57,57	0
57	MG	CA	2997	1/1	0.62	-	78,78,78,78	0
57	MG	CA	2933	1/1	0.39	-	64,64,64,64	0
57	MG	BA	2966	1/1	0.33	-	51,51,51,51	0
57	MG	BA	3007	1/1	0.25	-	55,55,55,55	0
57	MG	BA	2973	1/1	0.25	-	63,63,63,63	0
57	MG	BA	2980	1/1	0.57	-	70,70,70,70	0
57	MG	BA	2995	1/1	0.33	-	87,87,87,87	0
57	MG	CA	3001	1/1	0.80	-	40,40,40,40	0
57	MG	BA	3024	1/1	0.31	-	88,88,88,88	0
57	MG	CA	2972	1/1	0.47	-	75,75,75,75	0
57	MG	BA	3055	1/1	0.93	-	80,80,80,80	0
57	MG	BA	3065	1/1	0.62	-	114,114,114,114	0
57	MG	AA	1616	1/1	0.66	-	84,84,84,84	0
57	MG	CA	2951	1/1	0.56	-	81,81,81,81	0
57	MG	AA	1661	1/1	0.50	-	105,105,105,105	0
57	MG	BA	3017	1/1	0.43	-	94,94,94,94	0
57	MG	AA	1626	1/1	0.28	-	108,108,108,108	0
57	MG	BA	3067	1/1	0.42	-	126,126,126,126	0
57	MG	CA	3023	1/1	0.19	-	142,142,142,142	0
57	MG	DA	1614	1/1	0.92	-	74,74,74,74	0
57	MG	CA	2903	1/1	0.57	-	69,69,69,69	0
57	MG	BA	2954	1/1	0.41	-	77,77,77,77	0
57	MG	CA	2989	1/1	0.54	-	81,81,81,81	0
57	MG	CA	2942	1/1	0.74	-	66,66,66,66	0
57	MG	BA	2971	1/1	0.29	-	123,123,123,123	0
57	MG	CA	3015	1/1	0.27	-	98,98,98,98	0
57	MG	DA	1607	1/1	0.35	-	110,110,110,110	0
57	MG	CA	2943	1/1	0.47	-	55,55,55,55	0
57	MG	BA	2917	1/1	0.38	-	54,54,54,54	0
57	MG	CA	3020	1/1	0.57	-	89,89,89,89	0
57	MG	CA	2910	1/1	0.46	-	65,65,65,65	0
57	MG	BA	3054	1/1	0.28	-	106,106,106,106	0
57	MG	AA	1605	1/1	0.79	-	61,61,61,61	0
57	MG	AW	102	1/1	0.19	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	AA	1630	1/1	0.43	-	96,96,96,96	0
57	MG	BA	3012	1/1	0.10	-	54,54,54,54	0
57	MG	AA	1606	1/1	1.02	-	112,112,112,112	0
57	MG	AA	1659	1/1	0.75	-	81,81,81,81	0
57	MG	BA	2923	1/1	0.35	-	42,42,42,42	0
57	MG	DA	1625	1/1	0.85	-	104,104,104,104	0
57	MG	BA	3015	1/1	0.13	-	107,107,107,107	0
57	MG	BA	2960	1/1	0.37	-	56,56,56,56	0
57	MG	BA	3074	1/1	0.74	-	64,64,64,64	0
57	MG	BA	2925	1/1	0.45	-	39,39,39,39	0
57	MG	AA	1640	1/1	0.31	-	142,142,142,142	0
57	MG	CA	2915	1/1	1.10	-	73,73,73,73	0
57	MG	BA	3001	1/1	0.30	-	54,54,54,54	0
57	MG	CA	2948	1/1	0.41	-	107,107,107,107	0
57	MG	DA	1601	1/1	0.17	-	62,62,62,62	0
57	MG	CA	2967	1/1	0.72	-	94,94,94,94	0
57	MG	BA	3025	1/1	0.42	-	115,115,115,115	0
57	MG	AA	1645	1/1	0.11	-	98,98,98,98	0
57	MG	AA	1611	1/1	0.55	-	62,62,62,62	0
57	MG	AA	1656	1/1	0.92	-	88,88,88,88	0
57	MG	BA	3042	1/1	0.19	-	80,80,80,80	0
57	MG	CA	2929	1/1	0.98	-	102,102,102,102	0
57	MG	AA	1642	1/1	0.25	-	67,67,67,67	0
57	MG	DA	1621	1/1	0.86	-	96,96,96,96	0
57	MG	BA	2935	1/1	0.38	-	80,80,80,80	0
57	MG	AA	1628	1/1	0.33	-	65,65,65,65	0
57	MG	DA	1626	1/1	0.19	-	119,119,119,119	0
57	MG	CA	2930	1/1	0.35	-	53,53,53,53	0
57	MG	DA	1615	1/1	0.49	-	84,84,84,84	0
57	MG	BA	3063	1/1	0.14	-	69,69,69,69	0
57	MG	BA	2911	1/1	0.69	-	62,62,62,62	0
57	MG	CB	201	1/1	0.43	-	82,82,82,82	0
57	MG	BA	2997	1/1	0.61	-	87,87,87,87	0
57	MG	AA	1653	1/1	0.14	-	89,89,89,89	0
57	MG	AV	401	1/1	0.49	-	91,91,91,91	0
57	MG	CA	2957	1/1	0.56	-	63,63,63,63	0
57	MG	CA	3021	1/1	0.76	-	85,85,85,85	0
57	MG	CA	2917	1/1	0.28	-	74,74,74,74	0
57	MG	BA	3043	1/1	0.43	-	60,60,60,60	0
57	MG	BA	3005	1/1	0.64	-	54,54,54,54	0
57	MG	DA	1618	1/1	0.30	-	112,112,112,112	0
57	MG	CA	2970	1/1	0.63	-	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	AA	1650	1/1	0.19	-	124,124,124,124	0
57	MG	CA	2905	1/1	0.46	-	50,50,50,50	0
57	MG	BA	2958	1/1	0.32	-	77,77,77,77	0
57	MG	AW	101	1/1	0.46	-	77,77,77,77	0
57	MG	BA	3062	1/1	0.27	-	89,89,89,89	0
57	MG	AA	1610	1/1	0.11	-	67,67,67,67	0
57	MG	CA	3004	1/1	0.13	-	57,57,57,57	0
57	MG	CA	2904	1/1	0.41	-	27,27,27,27	0
57	MG	CA	2954	1/1	1.17	-	72,72,72,72	0
57	MG	DA	1629	1/1	0.42	-	85,85,85,85	0
57	MG	BA	2976	1/1	0.65	-	84,84,84,84	0
57	MG	CA	3017	1/1	0.60	-	76,76,76,76	0
57	MG	BA	2922	1/1	0.50	-	76,76,76,76	0
57	MG	BA	3059	1/1	0.18	-	82,82,82,82	0
57	MG	CA	3011	1/1	0.11	-	40,40,40,40	0
57	MG	CA	2978	1/1	0.63	-	90,90,90,90	0
57	MG	DA	1602	1/1	0.78	-	84,84,84,84	0
57	MG	AA	1660	1/1	0.49	-	143,143,143,143	0
57	MG	CA	2925	1/1	0.41	-	100,100,100,100	0
57	MG	CA	2965	1/1	0.92	-	89,89,89,89	0
57	MG	BA	3003	1/1	0.37	-	63,63,63,63	0
57	MG	BA	2972	1/1	0.11	-	87,87,87,87	0
57	MG	BA	3038	1/1	0.92	-	97,97,97,97	0
57	MG	AA	1643	1/1	0.09	-	85,85,85,85	0
57	MG	AA	1603	1/1	0.74	-	85,85,85,85	0
57	MG	BA	3004	1/1	0.35	-	92,92,92,92	0
57	MG	BA	3044	1/1	0.43	-	87,87,87,87	0
57	MG	BA	2914	1/1	0.38	-	57,57,57,57	0
57	MG	BA	2952	1/1	0.38	-	51,51,51,51	0
57	MG	DA	1609	1/1	0.44	-	95,95,95,95	0
58	ZN	AN	101	1/1	0.08	-	163,163,163,163	0
57	MG	CA	3022	1/1	0.75	-	59,59,59,59	0
57	MG	CA	2992	1/1	1.09	-	106,106,106,106	0
57	MG	BA	2930	1/1	0.30	-	94,94,94,94	0
57	MG	CA	2907	1/1	0.83	-	65,65,65,65	0
57	MG	CA	3000	1/1	0.62	-	82,82,82,82	0
57	MG	CA	2952	1/1	0.82	-	88,88,88,88	0
57	MG	BA	2908	1/1	0.41	-	48,48,48,48	0
57	MG	BA	2918	1/1	0.31	-	111,111,111,111	0
57	MG	CA	2950	1/1	0.17	-	61,61,61,61	0
57	MG	CA	2924	1/1	0.86	-	57,57,57,57	0
57	MG	BA	3053	1/1	0.24	-	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	CA	2940	1/1	0.72	-	44,44,44,44	0
57	MG	CA	2911	1/1	0.74	-	77,77,77,77	0
57	MG	BA	2964	1/1	0.29	-	69,69,69,69	0
57	MG	BA	3034	1/1	0.08	-	72,72,72,72	0
57	MG	AA	1624	1/1	0.25	-	74,74,74,74	0
57	MG	BA	2915	1/1	0.45	-	62,62,62,62	0
57	MG	BA	3009	1/1	0.38	-	103,103,103,103	0
57	MG	CA	2936	1/1	0.61	-	64,64,64,64	0
57	MG	DA	1613	1/1	0.24	-	72,72,72,72	0
57	MG	BA	3006	1/1	0.19	-	70,70,70,70	0
57	MG	AA	1602	1/1	1.30	-	91,91,91,91	0
57	MG	CM	201	1/1	0.22	-	96,96,96,96	0
57	MG	DA	1627	1/1	0.36	-	77,77,77,77	0
57	MG	CA	3010	1/1	0.20	-	70,70,70,70	0
57	MG	BA	3075	1/1	0.24	-	72,72,72,72	0
57	MG	AW	103	1/1	0.42	-	93,93,93,93	0
57	MG	BA	3026	1/1	0.32	-	84,84,84,84	0
57	MG	AA	1638	1/1	0.40	-	68,68,68,68	0
57	MG	AA	1648	1/1	0.60	-	62,62,62,62	0
57	MG	BA	2905	1/1	0.54	-	43,43,43,43	0
57	MG	BA	3031	1/1	0.22	-	101,101,101,101	0
58	ZN	AD	301	1/1	0.25	-	92,92,92,92	0
57	MG	CA	2976	1/1	0.14	-	119,119,119,119	0
57	MG	AA	1663	1/1	0.41	-	86,86,86,86	0
57	MG	BA	2907	1/1	0.19	-	50,50,50,50	0
57	MG	CA	2969	1/1	0.53	-	48,48,48,48	0
57	MG	CA	2947	1/1	0.41	-	81,81,81,81	0
57	MG	BA	2937	1/1	0.56	-	83,83,83,83	0
57	MG	AA	1657	1/1	0.33	-	99,99,99,99	0
57	MG	CA	2963	1/1	1.75	-	132,132,132,132	0
57	MG	AA	1608	1/1	0.60	-	126,126,126,126	0
57	MG	BA	2916	1/1	0.46	-	88,88,88,88	0
57	MG	CA	3002	1/1	0.11	-	71,71,71,71	0
57	MG	BA	3008	1/1	0.89	-	79,79,79,79	0
57	MG	AA	1632	1/1	0.31	-	55,55,55,55	0
57	MG	DA	1620	1/1	0.23	-	68,68,68,68	0
57	MG	BA	2956	1/1	0.20	-	77,77,77,77	0
57	MG	DA	1622	1/1	0.28	-	67,67,67,67	0
57	MG	BA	3070	1/1	0.25	-	108,108,108,108	0
57	MG	BA	2909	1/1	1.25	-	82,82,82,82	0
57	MG	BA	3058	1/1	0.32	-	60,60,60,60	0
57	MG	BA	2988	1/1	0.36	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	BA	2947	1/1	0.71	-	77,77,77,77	0
57	MG	CA	2955	1/1	0.64	-	88,88,88,88	0
57	MG	CA	2993	1/1	1.11	-	92,92,92,92	0
57	MG	BA	2970	1/1	0.35	-	101,101,101,101	0
57	MG	BA	2963	1/1	0.57	-	75,75,75,75	0
57	MG	CA	2923	1/1	0.47	-	56,56,56,56	0
57	MG	BA	3056	1/1	0.23	-	81,81,81,81	0
57	MG	BA	3013	1/1	0.29	-	78,78,78,78	0
57	MG	BA	2985	1/1	0.23	-	82,82,82,82	0
57	MG	BA	3021	1/1	1.20	-	88,88,88,88	0
57	MG	BA	2904	1/1	0.39	-	35,35,35,35	0
57	MG	CA	2968	1/1	0.62	-	77,77,77,77	0
57	MG	BA	2961	1/1	1.01	-	83,83,83,83	0
57	MG	BA	2993	1/1	0.25	-	57,57,57,57	0
57	MG	CA	2901	1/1	0.58	-	39,39,39,39	0
57	MG	BA	2994	1/1	1.11	-	82,82,82,82	0
57	MG	CA	2902	1/1	0.81	-	61,61,61,61	0
57	MG	BA	2944	1/1	0.36	-	78,78,78,78	0
57	MG	CA	2941	1/1	0.42	-	36,36,36,36	0
57	MG	AA	1625	1/1	0.18	-	77,77,77,77	0
57	MG	AA	1622	1/1	0.31	-	65,65,65,65	0
57	MG	BA	2921	1/1	0.60	-	65,65,65,65	0
57	MG	BA	3018	1/1	0.16	-	103,103,103,103	0
57	MG	CA	2975	1/1	0.52	-	81,81,81,81	0
57	MG	CA	2935	1/1	0.76	-	90,90,90,90	0
57	MG	BA	3037	1/1	0.36	-	67,67,67,67	0
57	MG	AA	1634	1/1	0.18	-	75,75,75,75	0
57	MG	BA	2975	1/1	0.67	-	48,48,48,48	0
57	MG	CA	2961	1/1	0.25	-	47,47,47,47	0
57	MG	AA	1664	1/1	0.27	-	87,87,87,87	0
57	MG	CA	2973	1/1	0.51	-	95,95,95,95	0
57	MG	BA	2979	1/1	0.68	-	71,71,71,71	0
57	MG	BA	2991	1/1	0.11	-	48,48,48,48	0
57	MG	DA	1610	1/1	0.90	-	77,77,77,77	0
57	MG	BB	201	1/1	0.46	-	102,102,102,102	0
57	MG	CA	2937	1/1	0.21	-	124,124,124,124	0
57	MG	BA	3030	1/1	0.16	-	80,80,80,80	0
57	MG	CA	2971	1/1	0.19	-	48,48,48,48	0
57	MG	BA	3040	1/1	0.13	-	118,118,118,118	0
57	MG	BA	2945	1/1	0.84	-	100,100,100,100	0
57	MG	BA	2902	1/1	0.91	-	71,71,71,71	0
57	MG	BM	201	1/1	0.30	-	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	AA	1641	1/1	0.41	-	82,82,82,82	0
57	MG	BA	2948	1/1	0.40	-	44,44,44,44	0
57	MG	BA	3000	1/1	0.34	-	54,54,54,54	0
57	MG	BA	2934	1/1	0.65	-	70,70,70,70	0
57	MG	CA	2918	1/1	0.38	-	51,51,51,51	0
57	MG	CA	2985	1/1	0.46	-	49,49,49,49	0
57	MG	CA	3008	1/1	0.15	-	74,74,74,74	0
57	MG	BA	3068	1/1	0.28	-	88,88,88,88	0
57	MG	CA	2906	1/1	0.78	-	72,72,72,72	0
57	MG	BA	3014	1/1	0.45	-	110,110,110,110	0
57	MG	CA	3007	1/1	0.62	-	84,84,84,84	0
57	MG	BA	2939	1/1	1.07	-	86,86,86,86	0
57	MG	AA	1652	1/1	0.35	-	79,79,79,79	0
57	MG	BA	2926	1/1	0.48	-	56,56,56,56	0
57	MG	BA	3057	1/1	1.05	-	88,88,88,88	0
57	MG	CA	2912	1/1	0.50	-	38,38,38,38	0
57	MG	CA	2988	1/1	1.59	-	72,72,72,72	0
57	MG	BA	3028	1/1	0.35	-	95,95,95,95	0
57	MG	BA	2989	1/1	0.53	-	84,84,84,84	0
57	MG	AA	1618	1/1	0.09	-	87,87,87,87	0
57	MG	BA	3073	1/1	0.44	-	71,71,71,71	0
57	MG	CA	3025	1/1	0.23	-	97,97,97,97	0
57	MG	CA	2958	1/1	0.44	-	56,56,56,56	0
57	MG	AA	1623	1/1	0.32	-	88,88,88,88	0
57	MG	BA	3049	1/1	1.02	-	100,100,100,100	0
57	MG	CA	2986	1/1	0.18	-	96,96,96,96	0
57	MG	CA	2946	1/1	0.80	-	80,80,80,80	0
57	MG	BA	2929	1/1	0.35	-	34,34,34,34	0
57	MG	BA	2938	1/1	0.21	-	78,78,78,78	0
57	MG	BA	2953	1/1	0.63	-	66,66,66,66	0
57	MG	BA	2982	1/1	0.60	-	43,43,43,43	0
57	MG	BA	2996	1/1	0.20	-	58,58,58,58	0
57	MG	CA	2983	1/1	0.56	-	55,55,55,55	0
57	MG	BA	2942	1/1	0.60	-	50,50,50,50	0
57	MG	BB	202	1/1	0.15	-	81,81,81,81	0
57	MG	CA	2990	1/1	0.28	-	68,68,68,68	0
57	MG	BA	3032	1/1	0.27	-	62,62,62,62	0
57	MG	BA	2920	1/1	0.36	-	23,23,23,23	0
57	MG	AA	1620	1/1	0.43	-	60,60,60,60	0
57	MG	CA	2913	1/1	0.54	-	78,78,78,78	0
57	MG	AA	1636	1/1	0.32	-	76,76,76,76	0
57	MG	CA	3018	1/1	0.03	-	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	CA	2938	1/1	0.63	-	60,60,60,60	0
57	MG	AA	1615	1/1	0.77	-	94,94,94,94	0
57	MG	BA	2951	1/1	0.39	-	71,71,71,71	0
57	MG	AA	1617	1/1	0.37	-	61,61,61,61	0
57	MG	BA	3016	1/1	0.39	-	89,89,89,89	0
57	MG	CA	2964	1/1	0.22	-	65,65,65,65	0

6.5 Other polymers ⓘ

There are no such residues in this entry.